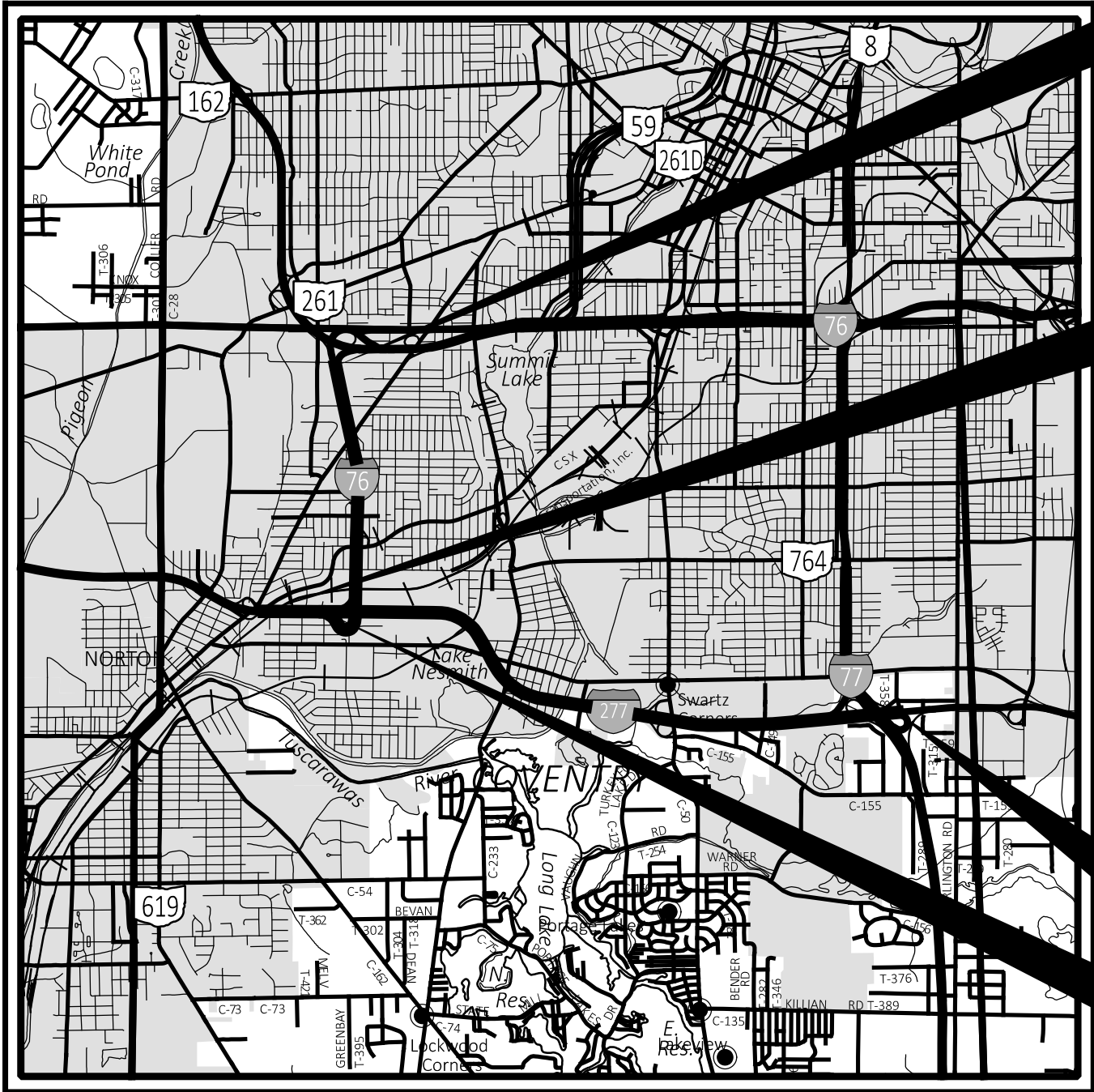


SUM-76/277-5.90/0.00

MODEL: Sheet_SurvFl PAPER SIZE: 34x22 (in.) DATE: 6/11/2024 TIME: 8:05:12 AM USER: cgalan
pwc:\ohio\dot-pw-bentley.com\ohio\dot-pw-02\Documents\01 Active Projects\District 04\Summit\113086\400-Engineering\Roadway\Sheets\113086_GT001.dgn



LOCATION MAP

LATITUDE: N41°01'30" LONGITUDE: W81°31'50"

PORTION TO BE IMPROVED	=====
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	=====
STATE ROUTES	=====
COUNTY & TOWNSHIP ROADS	=====
OTHER ROADS	=====

DESIGN DESIGNATION

	IR 76	IR 277
CURRENT ADT (2022)	54,755	70,836
DESIGN YEAR ADT (2022)	54,755	70,836
DESIGN HOURLY VOLUME (2022)	9,967	5,738
DIRECTIONAL DISTRIBUTION	50.0%	58.0%
TRUCKS (24 HOUR B&C)	11.0%	10.0%
DESIGN SPEED	55	45
LEGAL SPEED	55	45
DESIGN FUNCTIONAL CLASSIFICATION:	CURRENT TDMS DATA FOR INFORMATION ONLY	
01 PRINCIPAL ARTERIAL INTERSTATE (URBAN)		
NHS PROJECT	YES	

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig


Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
ODOT DISTRICT 4 CAPITAL PLANNING
2088 S. ARLINGTON ROAD
AKRON, OH 44306

END PROJECT
SUM IR 76 SLM: 8.24

BEGIN PROJECT
SUM IR 76 SLM: 5.90

END WORK
SUM IR 277 SLM: 3.91

BEGIN WORK
SUM IR 277 SLM 0.00

INDEX OF SHEETS:

TITLE SHEET	P.1
TYPICAL SECTIONS	P.2-P.3
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MAINTENANCE OF TRAFFIC	P.7-P.37
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PAVEMENT CALCULATIONS	P.40-P.43
SUBSUMMARIES	P.44-P.47
STRUCTURES	P.48-P.62

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-2.1	1/21/22	PCB-91	7/17/20	MT-101.70	4/21/23	TC-52.20	1/15/21	800-2023	1/19/24	996	7/21/23	
BP-2.2	1/15/21	VPF-1-90	7/21/23	MT-101.75	7/21/23	TC-65.10	1/17/14	807	1/21/22			
BP-2.5	1/21/22			MT-101.90	7/17/20	TC-65.11	1/19/24	808	1/18/19			
BP-3.1	1/19/24	MT-95.30	7/19/19	MT-102.10	7/21/23	TC-71.10	4/21/23	821	4/20/12			
BP-3.2	1/18/19	MT-95.40	7/21/23	MT-102.20	4/19/19	TC-72.20	7/21/23	829	1/20/17			
BP-9.1	1/18/19	MT-95.41	7/21/23	MT-102.30	10/16/15	TC-73.20	7/21/23	832	7/21/23			
		MT-95.50	7/21/17	MT-104.10	1/19/24	TC-82.10	7/19/19	843	1/19/24			
DM-4.3	1/15/16	MT-98.10	1/17/20	MT-105.10	1/17/20			844	4/20/18			
DM-4.4	1/15/16	MT-98.11	1/17/20					846	4/17/15			
		MT-98.20	4/19/19	TC-41.10	7/19/13			850	7/21/23			
MGS-3.1	1/19/18	MT-98.22	1/17/20	TC-41.20	10/18/13			856	7/21/23			
		MT-98.28	1/17/20	TC-41.30	4/21/23			896	7/21/17			
AS-1-15	1/20/23	MT-98.29	1/17/20	TC-41.40	10/18/13			905	4/17/20			
AS-2-15	7/21/23	MT-98.30	7/16/21	TC-42.10	10/18/13			908	10/20/17			
BR-1-13	1/17/14	MT-99.20	4/19/19	TC-42.20	10/18/13			921	4/20/12			
EXJ-4-87	1/19/24	MT-101.60	4/21/23	TC-52.10	10/18/13			929	7/21/23			

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

SUM-76/277-5.90/0.00

CITY OF AKRON
COVENTRY TOWNSHIP
SUMMIT COUNTY

FEDERAL PROJECT NUMBER

E240(456)

RAILROAD INVOLVEMENT

AKRON BARBERTON CLUSTER RR, CSXT

PROJECT DESCRIPTION

RESURFACING SUM IR 76 AND SUM IR 277 INCLUDING
MINOR WORK TO 18 BRIDGES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	2.47 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EDA:	N/A (MAINTENANCE PROJECT)

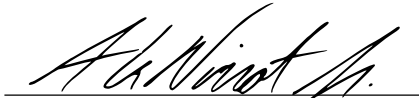
LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND
HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION
OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION
5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF
TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN
THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL
SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN
THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS
IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY
AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS P.12-P.34.


Arthur G. Noirot Jr., P.E.
District 04 Deputy Director


Jack Marchbanks, PhD
Director, Department of Transportation

ENGINEER'S SEAL

ROADWAY AND BRIDGE


m.alip
Digitally signed by mandrasik
Date: 2024.06.11
08:49:10-04'00'

TITLE SHEET

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

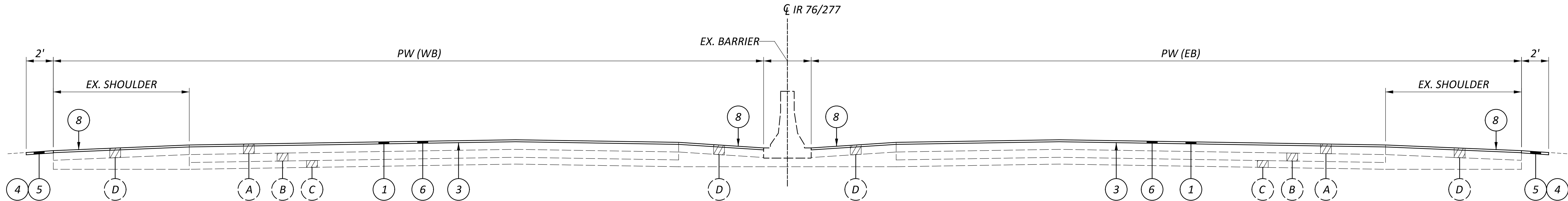
SHEET

P.1

TOTAL

62

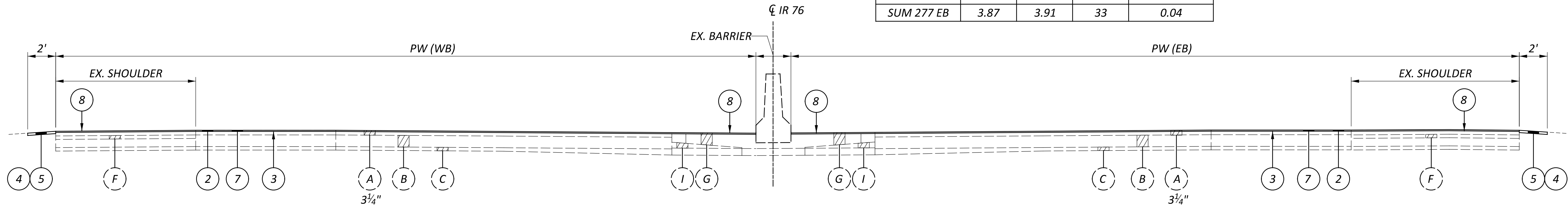
- LEGEND:
- (A) EXISTING ASPHALT PAVEMENT (4"±)
 - (B) EXISTING REINFORCED CONCRETE (10"±)
 - (C) EXISTING SUBBASE (6"±)
 - (D) EXISTING ASPHALT SHOULDER
 - (E) EXISTING CONCRETE MEDIAN
 - (F) EXISTING ASPHALT BASE (3"±)
 - (G) EXISTING PLAIN CONCRETE (9"-13"±)
 - (I) EXISTING AGGREGATE BASE
 - (1) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T=1.75")
 - (2) ITEM 897, PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")
 - (3) ITEM 407, NON-TRACKING TACK COAT (0.09 GAL/SY)
 - (4) ITEM 408, PRIME COAT, AS PER PLAN (0.40 GAL/SY)
 - (5) ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T=2")
 - (6) ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (T=1.5")
 - (7) ITEM 424, FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448) (T=1")
 - (8) ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)



(TYPICAL SECTION 1) IR 76/277 WB:				
ROUTE	SLM		PW (FEET)	LENGTH (MILES)
	FROM	TO		
SUM 76 WB	5.90	5.92	40	0.02
SUM 76 WB	6.00	6.31	55	0.31
SUM 76 WB	6.61	6.72	34	0.11
SUM 277 WB	0.00	0.31	40	0.31
SUM 277 WB	0.31	0.89	53	0.58
SUM 277 WB	0.93	1.13	53	0.22
SUM 277 WB	1.17	1.31	53	0.14
SUM 277 WB	1.37	1.75	53	0.38
SUM 277 WB	1.79	3.04	53	1.25
SUM 277 WB	3.06	3.74	53	0.68
SUM 277 WB	3.87	3.91	44	0.04

TYPICAL SECTION 1

(TYPICAL SECTION 1) IR 76/277 EB:				
ROUTE	SLM		PW (FEET)	LENGTH (MILES)
	FROM	TO		
SUM 76 EB	5.90	5.92	40	0.02
SUM 76 EB	5.98	6.31	55	0.33
SUM 76 EB	6.31	6.58	40	0.27
SUM 76 EB	6.61	6.66	41	0.05
SUM 76 EB	6.66	6.72	30	0.06
SUM 277 EB	0.00	0.12	40	0.12
SUM 277 EB	0.12	0.89	53	0.77
SUM 277 EB	0.93	1.13	53	0.20
SUM 277 EB	1.17	1.31	53	0.14
SUM 277 EB	1.37	1.75	53	0.38
SUM 277 EB	1.79	3.04	53	1.25
SUM 277 EB	3.06	3.41	53	0.35
SUM 277 EB	3.41	3.62	41	0.21
SUM 277 EB	3.62	3.74	53	0.12
SUM 277 EB	3.87	3.91	33	0.04

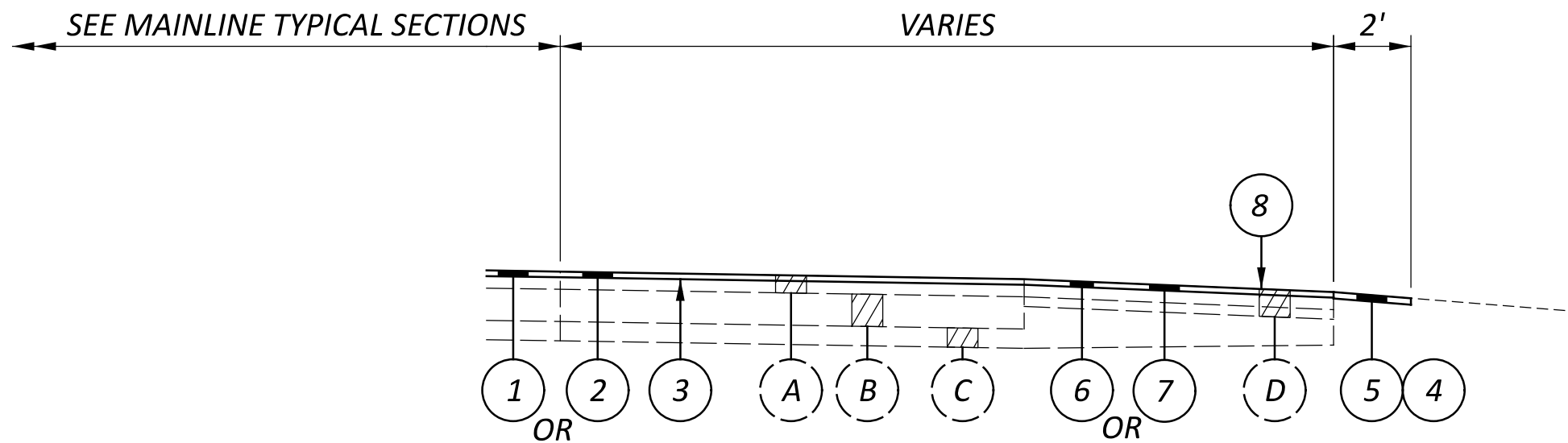


(TYPICAL SECTION 2) IR 76 WB:				
ROUTE	SLM		PW (FEET)	LENGTH (MILES)
	FROM	TO		
SUM 76 WB	6.76	6.84	43	0.08
SUM 76 WB	6.88	6.99	41	0.11
SUM 76 WB	7.02	7.14	51	0.12
SUM 76 WB	7.14	7.26	41	0.12
SUM 76 WB	7.26	7.36	40	0.10
SUM 76 WB	7.39	7.50	40	0.11
SUM 76 WB	7.50	7.65	44	0.15
SUM 76 WB	7.65	8.06	40	0.41
SUM 76 WB	8.06	8.24	47	0.18

TYPICAL SECTION 2

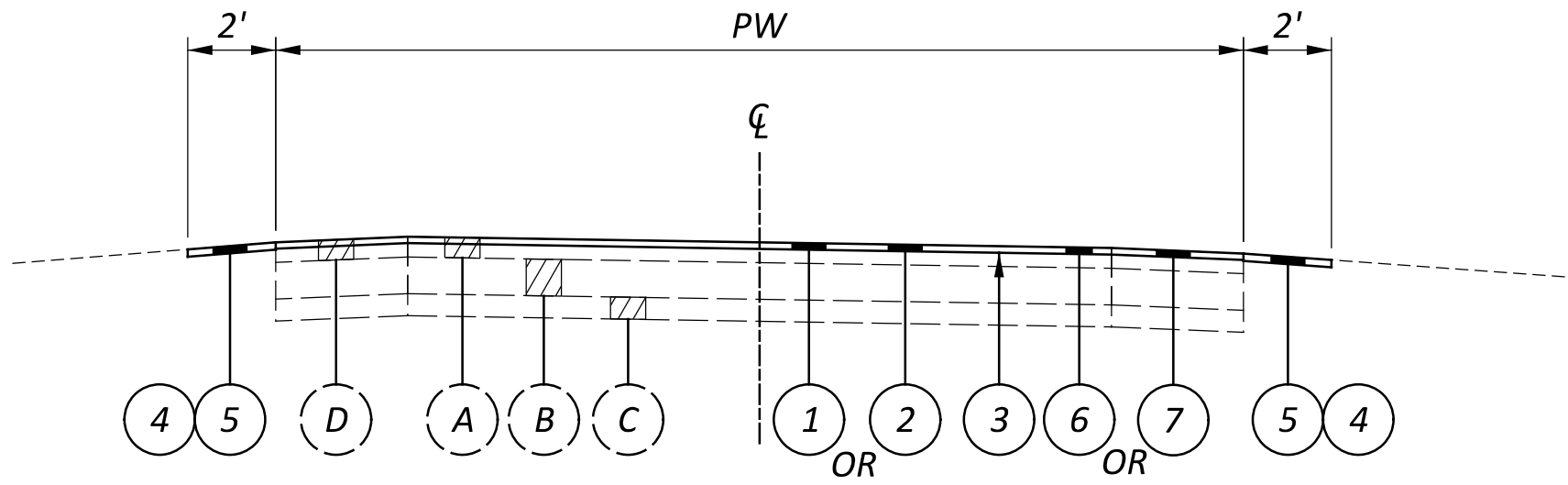
(TYPICAL SECTION 2) IR 76 EB:				
ROUTE	SLM		PW (FEET)	LENGTH (MILES)
	FROM	TO		
SUM 76 EB	6.76	6.84	52	0.08
SUM 76 EB	6.88	6.99	52	0.11
SUM 76 EB	7.02	7.07	30	0.05
SUM 76 EB	7.07	7.19	54	0.12
SUM 76 EB	7.19	7.36	42	0.17
SUM 76 EB	7.39	7.94	42	0.55
SUM 76 EB	7.94	8.24	45	0.30





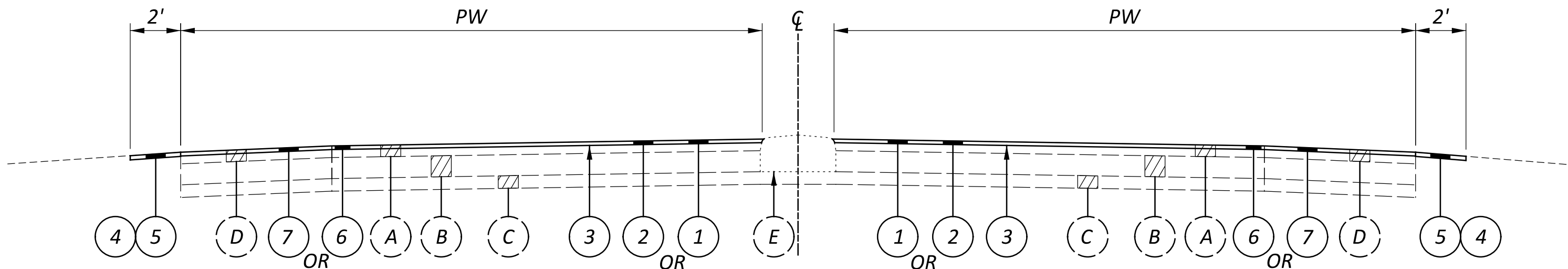
ACCEL/DECEL LANE

NORMAL RAMPS					
COUNTY	INTERCHANGE	RAMP	PAVEMENT TREATMENT	PW (FEET)	LENGTH (FEET)
SUM	IR-76 WB TO IR-76 WB	C	1 AND 6	39	1,130
SUM	IR-277 WB TO IR-76 EB	D	1 AND 6	34	1,010
SUM	22ND ST. TO IR-76 WB	E	2 AND 7	24	505
SUM	IR-76 WB TO 22ND ST.	F	2 AND 7	22	900
SUM	IR-76 EB TO IR-76/IR-77 EB	U	2 AND 7	39	215
SUM	IR-277 EB TO WATERLOO RD.	I	1 AND 6	30	1,035
SUM	WATERLOO RD. TO IR-277 WB	J	1 AND 6	35	1,100
SUM	IR-277 WB TO MANCHESTER RD.	K	1 AND 6	34	1,085
SUM	MANCHESTER RD. TO IR-277 EB	L	1 AND 6	28	1,260

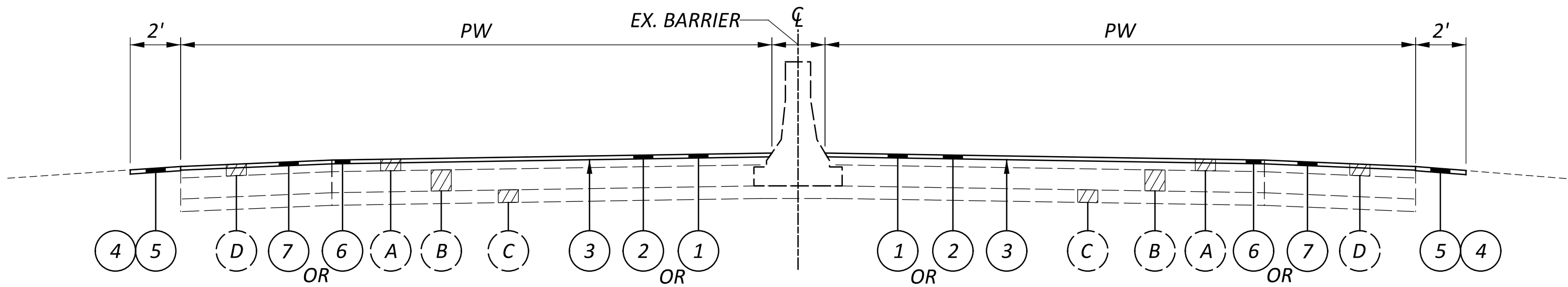


NORMAL RAMP

BI-DIRECTIONAL RAMPS					
COUNTY	INTERCHANGE	RAMP	PAVEMENT TREATMENT	PW (FEET)	LENGTH (FEET)
SUM	IR-76 EB TO IR-76 EB	A	1 AND 6	39	1,625
SUM	IR-76/IR-277 WB TO IR-76 EB	B	1 AND 6	40	1,510
SUM	IR-76 EB TO KENMORE BLVD.	G	2 AND 7	24	770
SUM	KENMORE BLVD. TO IR-76 EB	H	2 AND 7	24	1,210
SUM	MAIN ST. TO IR-277 WB	M-1	1 AND 6	26	1,390
SUM	IR-277 WB TO MAIN ST.	M-2	1 AND 6	28	1,095
SUM	MAIN ST. TO IR-277 EB	N-1	1 AND 6	26	1,510
SUM	IR-277 EB TO MAIN ST.	N-2	1 AND 6	29	1,480



BI-DIRECTIONAL RAMP (CURB MEDIAN)



BI-DIRECTIONAL RAMP (CONCRETE BARRIER)

LEGEND:
SEE TYPICAL SHEET P.2 FOR LEGEND



UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

City of Akron Utility Coordinator Joseph Kunzler, PE AWR Program/AEB Utilities 166 South High Street Akron, OH 44308 330-375-2217 330-690-0133 (cell) joseph.kunzler@akronohio.gov	Akron Water - City of ATTN: Bob Geiser, P.E. 1460 Triplett Blvd Akron, OH 44306 330-375-2791 bgeiser@akronohio.gov
Akron Sewer - City of ATTN: Jason Kline 2460 Akron Peninsula Road Akron, OH 44310 330-375-2028 JKline@akronohio.gov	Akron Traffic - City of ATTN: Chris Slabaugh 2460 Akron Peninsula Road Akron, OH 44310 CSlabaugh@akronohio.gov
AT&T The Ohio Bell Telephone Company ATTN: Chris Emrich 50 W. Bowery St., 6th Floor Akron, OH 44308 330 319-5239 cell ce3141@att.com	Ohio Edison ATTN: David Miller 1910 W. Market Street Building #1 Akron, OH 44313 330-436-4055 330-715-4340 Cell millerdl@firstenergycorp.com
Dominion Energy Kyle J. McCall Supervisor Gas Operations Distribution Design 320 Springside Drive Akron, OH 44333 330-801-8299 Cell Kyle.J.Mccall@dominionenergy.com	330-715-4340 Cell millerdl@firstenergycorp.com

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS:

ROUTE	S.L.M.	TO S.L.M.	LANE WIDTH
IR-76	5.90	TO 6.76	12'
IR-76	6.76	TO 8.24	11'
IR-277	0.00	TO 3.91	12'

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS HAVE BEEN SUPPLIED AS REFERENCE DOCUMENTS FOR THIS PROJECT AND ARE AVAILABLE ON THE ODOT FTP SITE AT <https://ftp.dot.state.oh.us/pub/contracts/Attach/> FOR THIS PROJECT. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED BEFORE THE MAINLINE PAVEMENT PLANING OPERATIONS. SEVENTY-FIVE PERCENT (75%) OF EASTBOUND SUM-277 PARTIAL DEPTH PAVEMENT REPAIRS CAN BE COMPLETED IN 2024. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

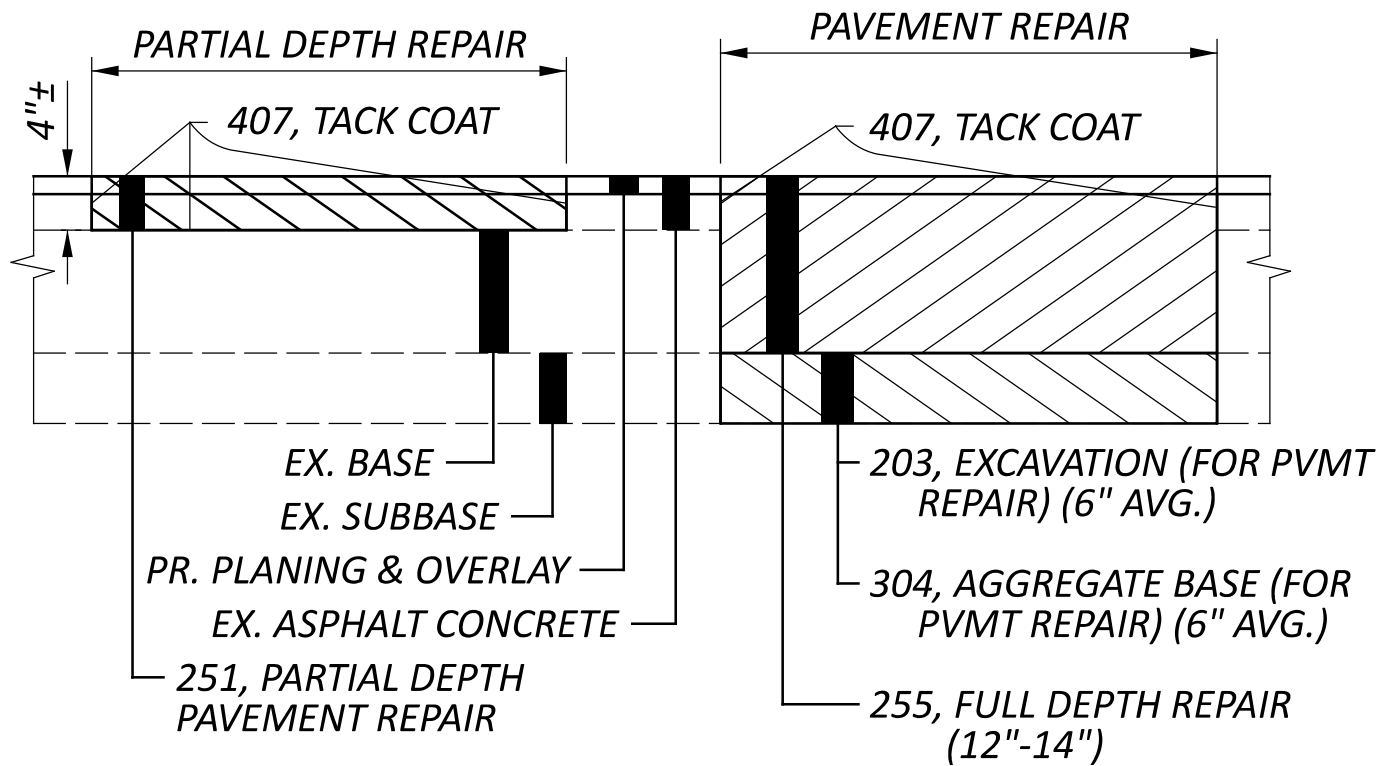
IR-76 SLM 5.90 TO SLM 6.72, IR-277 SLM 0.00 TO SLM 3.91 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 2,500 SQ. YD.

ITEM 255 - FULL DEPTH REMOVAL AND RIGID REPLACEMENT, CLASS RRCM OR QC3, AS PER PLAN

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"-14" CLASS RRCM CONCRETE OR QC3, AS PER PLAN. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. REPAIRS SHALL BE MADE PRIOR TO MILLING OPERATIONS. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE REPAIR LOCATIONS MUST BE DOCUMENTED FOR FUTURE REFERENCE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

IR-76 SLM 5.90 TO SLM 6.72, IR-277 SLM 0.00 TO SLM 3.91 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, MISC.: CLASS RRCM OR QC3, AS PER PLAN, 800 SQ YD 255, FULL DEPTH PAVEMENT SAWING, 4,800 FT



CONCRETE, CLASS RRCM OR QC3, AS PER PLAN (FOR FULL DEPTH REPAIRS)

THE MATERIAL REQUIREMENTS OF CMS 255.02 MAY BE MODIFIED AS FOLLOWS:

PROVIDE A RRCM MIXTURE MEETING THE REQUIREMENTS OF CMS 255.02 OR AN ALTERNATE RRCM MIXTURE CONFORMING THE FOLLOWING REQUIREMENTS:

PORTLAND CEMENT CONCRETE 499.03, CLASS QC3, W/MACRO-FIBERS

PROVIDE A MIXTURE MEETING THE REQUIREMENTS OF WELL GRADED IN ITEM 499.

AIR CONTENT: 4 TO 8 PERCENT

FLEXURAL STRENGTH: DEVELOP A RRCM CONCRETE MIX THAT WILL ACHIEVE A FLEXURAL STRENGTH OF 300 PSI (2.8 MPA) IN NOT LESS THAN 4 HOURS AND NOT MORE THAN 6 HOURS USING 6" X 6" (150 MM X 150 MM) BEAM SAMPLES CONFORMING TO ASTM C293.

PERMEABILITY: 2,000 COULOMBS

COARSE AGGREGATE (NO. 57 & NO. 8)	703.02 & 703.13
FINE AGGREGATE (NATURAL SAND)	703.02
PORTLAND CEMENT, TYPE 1*	701.04
FLY ASH OR NATURAL POZZOLAN	701.13
SLAG CEMENT	701.11
WATER	499.02
CHEMICAL ADMIXTURE**	705.12
AIR-ENTRAINING ADMIXTURE	705.10
MACRO-FIBERS FOR CONCRETE***	705.29
LIQUID MEMBRANE-FORMING COMPOUNDS FOR CONCRETE CURING	705.07

* PROVIDE A MIXTURE WITH A PORTLAND CEMENT CONTENT OF 660 LB OR LESS AND A TOTAL CEMENTITIOUS CONTENT OF 850 LB OR LESS.

** MAXIMUM OF 0.5% CALCIUM CHLORIDE BY MASS OF CEMENTITIOUS CONTENT OR A LIQUID NON-CHLROIDE ACCELERATING ADMIXTURE MAY BE USED TO GENERATE EARLY STRENGTH DEVELOPMENT. SPECIALTY TYPE 'S' ADMIXTURE ALSO PERMITTED (SUBMITTAL OF MANUFACTURER'S DATA SHEET REQUIRED).

*** USE A MINIMUM DOSAGE RATE OF FIBERS OF 4.0 LB/CY OF CONCRETE. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. A DEMONSTRATION OF THE MIX PRODUCTION, OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

SUBMIT LAB TESTING RESULTS OF THE ALTERNATE RRCM MIXTURE USING THE ACTUAL MATERIALS THAT WILL BE USED ON THE PROJECT. MAKE AT LEAST FIVE BEAM SPECIMENS AND TEST THEM AT 3, 4, 5, 6, & 8 HOURS AGE. ALTERNATELY, THE CONTRACTOR MAY DEVELOP THE MIX'S MATURITY CURVE ACCORDING TO SUPPLEMENT 1098.

DO NOT OPEN THE RIGID REPLACEMENT TO TRAFFIC UNTIL THE RRCM ATTAINS A MODULUS OF RUPTURE OF 300 POUNDS PER SQUARE INCH (2.8 MPA) BASED ON MATURITY TESTING OR BEAM TESTING ON THE PROJECT.

THE JMF WILL NOT BE APPROVED FOR USE ON THE ENTIRE PROJECT UNTIL A SUCCESSFUL FIELD PLACEMENT IS PERFORMED ON THE PROJECT WITH THE MIX DESIGN. THIS PLACEMENT MUST DEMONSTRATE THE MIXTURE IS CAPABLE OF MEETING THE PRESCRIBED FLEXURAL STRENGTH AND TIME REQUIREMENTS.

ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY: 203, EXCAVATION (FOR PAVEMENT REPAIR) 45 CU YD

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY: 304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 45 CU YD

ITEM 254 - PATCHING PLANED SURFACE

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

IR-76 SLM 6.72 TO SLM 8.24 254, PATCHING PLANED SURFACE, 1,500 SQ. YD.

BARRIER REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS.

202, REMOVAL MISC.: BARRIER REFLECTOR, 232 EACH 626, BARRIER REFLECTOR, TYPE 1, 1WAY, 135 EACH 626, BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL, 327 EACH 626, BARRIER REFLECTOR, TYPE 2, 1WAY, 463 EACH

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

DESIGN AGENCY



DESIGNER	SJD
REVIEWER	MJA
PROJECT ID	03-05-24
SHEET	113086
P.4	TOTAL 62

PROTECTION OF TRAFFIC MONITORING EQUIPMENT

PRIOR TO BEGINNING ANY PAVEMENT ACTIVITIES OR ANY EXCAVATION ACTIVITIES AT I-277 SLM 1.97 THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE FROM THE OWNER WILL COORDINATE A TIME FOR THE OWNER/MAINTAINING AGENCY TO DISCONNECT THE EQUIPMENT. FOLLOWING THE DISCONNECTION BY THE OWNER, THE CONTRACTOR WILL BE ALLOWED TO PERFORM THEIR PAVEMENT ACTIVITIES, INCLUDING PAVEMENT REMOVAL. THE REMOVED LOOPS AND SENSORS BECOME THE PROPERTY OF THE CONTRACTOR.

FOR MORE INFORMATION PLEASE CONTACT:
DARREN GERSTENSLAGER (DISTRICT 4/11) (614-273-4783)
ANTHONY STEVENS (FIELD OPERATIONS) (614-752-6955)
(614-301-9461) CELL

ITEM SPECIAL - VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:

SFN: 7705611 (SUM-76-6.474R)
SFN: 7705824 (SUM-76-7.721)
SFN: 7709730 (SUM-277-2.341)

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
SPECIAL - VERTICAL CLEARANCE, 3 EACH

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION PLANS. THE FORMAL AS-BUILT CONSTRUCTION PLANS SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION PLANS SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION PLANS.

THE CONTRACTORS VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL AS-BUILT CONSTRUCTION PLANS. THE CONTRACTORS VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTORS PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION PLANS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE AS-BUILT CONSTRUCTION PLANS IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION PLANS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION PLANS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

ITEM 611 – MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 623 – MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, 623.05 FOR MONUMENT ASSEMBLY, OR 638.18 FOR VALVE BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (48" DIAMETER FOR STORM AND SANITARY MANHOLE CASTINGS, 24"-28" FOR VALVE BOXES AND MONUMENT ASSEMBLIES, AND 2’ IN DIAMETER LARGER THAN THE CASTING DIAMETER FOR ANY CASTINGS THAT ARE LARGER THAN STANDARD MANHOLES) AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

ITEM 611 – MANHOLE ADJUSTED TO GRADE, AS PER PLAN 1 EACH
ITEM 623 – MONUMENT ASSEMBLY ADJUSTED TO GRADE AS PER PLAN, 18 EACH

CATCH BASIN ADJUSTED TO GRADE

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ADJUSTING CATCH BASINS TO GRADE.

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT IS THE CONTRACTOR’S RESPONSIBILITY TO PROVIDE THE CASTINGS OF REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE, 1 EACH
ITEM SPECIAL – MISCELLANEOUS METAL, 450 LB

LINEAR GRADING

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
209, LINEAR GRADING, 583 STA.
659, SEEDING AND MULCHING, 16,198 SQ YD
659, COMMERCIAL FERTILIZER, 2.18 TON
659, LIME, 3.35 ACRES
659, WATER, 88 M. GAL.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 25 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
OBSTRUCTION EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORT WORTH, TX 76177
FAX: (817) 222-5920
HTTP://CEAAA.FAA.GOV

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
OHIO.AIRPORT.PROTECTION@DOT.OHIO.GOV

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

SHEET

P.5

TOTAL

62

CSXT COORDINATION

REFER TO THE CSX TRANSPORTATION PUBLIC PROJECT INFORMATION MANUAL FOR ADDITIONAL REQUIREMENTS NEEDED FOR WORKING ON/ABOVE/ADJACENT TO CSXT. SPECIFIC SECTIONS THAT PERTAIN TO THIS PROJECT ARE SPECIAL PROVISIONS FOR CONSTRUCTION NEAR CSXT PROPERTY, OVERHEAD BRIDGE CRITERIA, CONSTRUCTION SUBMISSION CRITERIA, AND INSURANCE REQUIREMENTS FOR PUBLIC PROJECTS.

CONTRACTOR ACCESS WILL BE LIMITED TO THE IMMEDIATE PROJECT AREA ONLY. THE CSXT RIGHT-OF-WAY OUTSIDE THE PROJECT AREA MAY NOT BE USED FOR CONTRACTOR ACCESS TO THE PROJECT SITE AND NO TEMPORARY AT-GRADE CROSSINGS WILL BE ALLOWED.

THE CONTRACTOR WILL BE REQUIRED TO ABIDE BY THE PROVISIONS OF THE AGENCY/CSXT CONSTRUCTION AGREEMENT. PERIODICALLY, THROUGHOUT THE PROJECT DURATION, THE CONTRACTOR MAY BE REQUIRED TO MEET, DISCUSS AND, IF NECESSARY, TAKE IMMEDIATE ACTION AT THE DISCRETION OF CSXT PERSONNEL AND/OR THEIR AUTHORIZED REPRESENTATIVE, TO COMPLY WITH PROVISIONS OF THAT AGREEMENT AND THESE SPECIFICATIONS.

IT IS THE RESPONSIBILITY OF THE INDIVIDUAL OWNERS OF WIRELINES, PIPELINES, UTILITIES, ETC. TO COORDINATE DIRECTLY WITH CSXT REAL ESTATE AND FACILITIES MANAGEMENT (REFM) GROUP. THIS INCLUDES ALL NEW INSTALLATIONS AND THE ADJUSTMENT, MODIFICATION, REMOVAL OR RETIREMENT IN PLACE OF ALL EXISTING FACILITIES.

THE CONTRACTOR MAY NOT USE CSXT RIGHT-OF-WAY FOR STORAGE OF MATERIALS OR EQUIPMENT DURING CONSTRUCTION WITHOUT PRIOR CSXT APPROVAL. THE CSXT RIGHT-OF-WAY MUST ALWAYS REMAIN CLEAR FOR RAILROAD USE. EQUIPMENT MAY NOT BE POSITIONED TO BLOCK THE RAILROAD ACCESS ROAD, TRACK AREA OR ANY PART OF THE CSXT RIGHT-OF-WAY WITHOUT PRIOR CSXT APPROVAL. ALL MOVEMENTS OF EQUIPMENT WITHIN RAILROAD RIGHT-OF-WAY MUST BE COORDINATED WITH THE RAILROAD FLAGGER.

THE ROADWAY AUTHORITY, OR DESIGNATED CONTRACTOR, SHALL COORDINATE WITH THE RAILROAD WHENEVER THE CONTRACTOR'S WORK ACTIVITIES ARE LOCATED OVER, UNDER OR WITHIN THE RAILROAD'S RIGHT-OF-WAY.

ANY DAMAGE CAUSED BY THE PROJECT WORK TO THE TRACK OR RAILROAD PROPERTY WILL REQUIRE REPAIR IMMEDIATELY UPON NOTIFICATION FROM THE RAILROAD OR THEIR DESIGNATED REPRESENTATIVE. IF THE DAMAGE AFFECTS THE TRACK, TRACK STRUCTURE, RAILROAD FACILITIES, OR TRAIN OPERATIONS AS DETERMINED BY THE RAILROAD, THE REPAIRS WILL BE PERFORMED BY THE RAILROAD AT THE CONTRACTOR'S EXPENSE INCLUDING ALL ASSOCIATED COSTS OF DELAYS TO THE RAILROAD.

DURING TRAIN MOVEMENTS THROUGH THE PROJECT LOCATION, VEHICLES, EQUIPMENT, AND PERSONNEL WILL NOT BE ALLOWED TO OPERATE WITHIN TWENTY-FIVE (25) FEET OF THE TRACK.

CSXT SHALL BE NOTIFIED AT LEAST FIVE (5) DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING.

THE CONTRACTOR SHALL COORDINATE ALL WORK ON, OVER OR ADJACENT TO THE RAILROADS WITHIN THE PROJECT'S LIMITS. THE CONTRACTOR SHALL CONTACT CSX RAILROAD AT LEAST THIRTY (30) DAYS IN ADVANCE IN ORDER TO COORDINATE THE NECESSARY WORK. UNDER NO CIRCUMSTANCES SHALL THERE BE ANY WORK WITHIN THE RAILROAD RIGHT-OF-WAY WITHOUT THE PROPER AUTHORIZATION AND/OR FLAG PROTECTION FROM THE RAILROAD.

THE USE OF ACETYLENE GAS IS PROHIBITED FOR USE ON OR OVER CSX PROPERTY. TORCH CUTTING SHALL BE PERFORMED UTILIZING OTHER MATERIALS SUCH AS PROPANE.

CSXT REQUIRES THAT THE CONTRACTOR SUBMIT AND RECEIVE ACCEPTANCE OF A COMPREHENSIVE MEANS & METHODS SUBMITTAL (CSXT CONSTRUCTION SUBMISSION CRITERIA, ISSUED MAY 2023) DETAILING SCOPE WORK WITHIN CSXT TRACKS OR RIGHT-OF-WAY, OR OTHER WORK WHICH PRESENTS THE POTENTIAL TO AFFECT CSXT PROPERTY OR OPERATIONS TO UNDERTAKING THE WORK.

A BALLAST PROTECTION SYSTEM CONSISTING OF GEOFABRIC OR CANVAS SHALL BE PLACED WITHIN THE TRACK STRUCTURE TO KEEP IT FREE FROM FINES. THE SYSTEM SHALL EXTEND ALONG THE TRACK STRUCTURE FOR A MINIMUM OF 25'-0" BEYOND THE LIMITS OF THE DEMOLITION WORK, OR FARTHER IF REQUIRED BY CSXT'S CONSTRUCTION ENGINEERING DESIGNATE.

ALL LIFTING EQUIPMENT AND CONNECTION DEVICES SHALL HAVE A CAPACITY FOR 150% OF THE ACTUAL LIFTING LOAD. THE FACTOR OF SAFETY PROVIDED BY THE MANUFACTURER IN THE LIFTING CAPACITY DATA SHALL NOT BE CONSIDERED IN THE 150% REQUIREMENT.

TEMPORARY CONSTRUCTION CLEARANCES (HORIZONTAL & VERTICAL) PROPOSED - FOR EXISTING OR LESS THAN STANDARD CONDITIONS - SHALL BE SUBJECT TO APPROVAL BY CSXT. TYPICALLY REDUCTION IN CONSTRUCTION CLEARANCES ARE NOT PERMITTED.

PER CSXT SOIL AND WATER MANAGEMENT POLICY, CSXT REQUIRES ALL SPOILS GENERATED AND NOT REUSED FROM WITHIN THE PROPERTY TO BE PROPERLY DISPOSED IN A RAILROAD APPROVED DISPOSAL FACILITY. THE MANAGEMENT OF SOILS GENERATED FROM CSXT PROPERTY SHOULD BE PLANNED FOR AND PROPERLY PERMITTED (IF APPLICABLE) PRIOR TO INITIATING ANY WORK ON RAILROAD'S PROPERTY. CSXT ENVIRONMENTAL DEPARTMENT WILL HANDLE WASTE CHARACTERIZATION AND PROFILING FOR DELIVERY TO AN APPROVED FACILITY.

DURING AND AFTER COMPLETION OF CONSTRUCTION, THE OUTSIDE PARTY OR ITS CONTRACTOR SHALL CLEAR CSXT'S DRAINAGE DITCHES OF ALL DEBRIS TO THE SATISFACTION OF CSXT'S CONSTRUCTION MONITORING REPRESENTATIVE.

A WORK SITE SAFETY PLAN THAT INCLUDES A RECOGNITION TO KEEP ALL PERSONNEL FROM FOULING CSXT RAIL OPERATIONS, A FALL PROTECTION PLAN DESCRIBING THE MEASURES TO BE TAKEN WHEN REQUIRED, AND A FIRE PROTECTION PLAN SHALL BE PRESENTED AND ACCEPTED BY CSXT FOR WORK ON, OVER OR ADJACENT CSXT PROPERTY.

ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING AND/OR PAINTING OPERATIONS, SHALL BE THE RESPONSIBILITY OF THE AGENCY OR ITS CONTRACTOR, AND SHALL BE CONTAINED, COLLECTED AND PROPERLY DISPOSED OF BY THE STATE OR ITS CONTRACTOR. THE STATE AND ITS CONTRACTOR AGREE TO FULLY COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS, REGULATIONS, STATUTES AND ORDINANCES AT ALL TIMES.

CSXT MAY REQUIRE FULL TIME RAILROAD FLAGGING FOR ANY PROJECT TASKS THAT MAY HAVE THE POTENTIAL TO FOUL THE TRACK OR CAUSE A HAZARD TO TRAIN MOVEMENTS.

CSXT HAS SOLE AUTHORITY TO DETERMINE THE NEED FOR TRACK PROTECTION REQUIRED TO PROTECT ITS OPERATIONS AND PROPERTY. IN GENERAL, TRACK PROTECTION WILL BE REQUIRED WHENEVER CONTRACTOR OR EQUIPMENT ARE, OR ARE LIKELY TO BE, WORKING WITHIN FIFTY (50) FEET OF TRACK OR OTHER TRACK CLEARANCES AS SPECIFIED BY CSXT.

UPON COMPLETION OF THE WORK ON CSXT PROPERTY, THE CONTRACTOR SHALL REQUEST THE OWNER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH THE RAILROAD'S PROJECT ENGINEER OR THEIR AUTHORIZED REPRESENTATIVE.

FOR CSXT LOCATION AND NOTIFICATION PURPOSES, BRIDGE SUM-76-5.910 IS LOCATED AT CSX MILEPOST BG-134.72 (DOT# 503537D).

ITEM 632 - DETECTOR LOOP, AS PER PLAN

THE CONTRACTOR SHALL CONTACT SCOTT ELEKES (330) 819-3803 AND RICK DAVIS (330) 606-9797 THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE INTERSECTION OF I-277 AND WATERLOO RD. LOOP DETECTORS DISTURBED BY PAVEMENT PLANING OR TRENCHING SHALL BE ABANDONED IN PLACE. THE LOOP DETECTOR WIRE WILL BE CUT INTO THE PAVEMENT AFTER THE PROPOSED SURFACE COURSE HAS BEEN PLACED. ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS SPECIFIED BELOW. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT. ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10 AND THE LOOP SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING LOOPS.

THE QUANTITIES LISTED BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE NEW LOOP DETECTOR WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX OR THE EXISTING PULLBOX. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT (CONFORMING TO 725.15E) THAT MUST BE USED IN MAKING THESE CONNECTIONS. ALL NECESSARY MATERIAL, LABOR, SPLICE KITS AND EQUIPMENT SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

632 DETECTOR LOOP, AS PER PLAN, 1 EACH
(1 EACH, 12'-5" X 18' A.D.D.)

GENERAL NOTES

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

SHEET

P.6

TOTAL

62

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

4. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

5. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.

6. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

7. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

8. A QUANTITY OF 10 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

10. THE CONTRACTOR SHALL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE WORK ZONE MARKING SIGNS AND THEIR SUPPORTS WITHIN THE WORK LIMITS. THESE SIGNS INCLUDE "NO EDGE LINES", "DO NOT PASS" AND "PASS WITH CARE". ALL OTHER SIGNS WILL BE INCIDENTAL TO THE LUMP SUM PAY ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS AS PER CMS 614.04.

11. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC (CONT...)

12. TO ENSURE THAT WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND AND MOVING TRAFFIC, ALL WEIGHTED CHANNELIZERS UTILIZED ON INTERSTATES AND FREEWAYS SHALL BE FROM MANUFACTURERS ON THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF MATERIAL MANAGEMENT’S QUALIFIED PRODUCTS LIST (QPL) WHICH UTILIZE A MINIMUM OF A 30 POUND BALLAST.

13. DRUMS UTILIZED ON THE HIGH SIDE OF A SUPERELEVATED INTERSTATE OR FREEWAYS SHALL BE FROM MANUFACTURERS ON THE OFFICE OF MATERIAL MANAGEMENT’S QUALIFIED PRODUCTS LIST (QPL) WITH A MINIMUM BALLAST WEIGHT OF 30 POUNDS. ALL BALLASTS USED SHALL BE IN ACCORDANCE WITH THE MANUFACTURER’S SPECIFICATIONS.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

PLANNED SURFACE:

614, WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT, 22.61 MILE

614, WORK ZONE STOP LINE, CLASS I, 642 PAINT, 128 FT

614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT, 14,580 FT

614, WORK ZONE MARKING SIGN,(ALL PHASES) 25 EACH

SURFACE COURSE:

614, WORK ZONE LANE LINE, CLASS III, 642 PAINT, 6", 22.61 MILE

614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 128 FT

614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT, 12", 14,580 FT

TO BE USED AS DIRECTED BY THE ENGINEER

614, WORK ZONE EDGE LINE, CLASS III, 31.16 MILE

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD & RAMP CLOSURES	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERNS CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ASPHALT PAVING LIMITATION

THE CONTRACTOR SHALL NOT ANTICIPATE OR SCHEDULE PLACING ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE, ETC.) BETWEEN NOVEMBER 1 AND APRIL 1 WHEN SUBMITTING THEIR INITIAL BAR CHART PROGRESS SCHEDULE TO THE DISTRICT CONSTRUCTION ENGINEER (DCE) AS SPECIFIED IN CMS SECTION 108.02A. THIS LIMITATION SHALL ALSO INCLUDE INITIAL BASE LINE SCHEDULES AND ALL UPDATES IF A CPM SCHEDULE IS REQUIRED.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

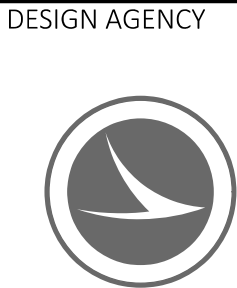
THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD & RAMP CLOSURES	>= 2WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$3,000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.



DESIGN AGENCY	
SJ	
REVIEWER	
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PROJECT ID	
113086	
SHEET	TOTAL
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ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

IN GENERAL LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONT...)

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 300 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONT...)

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 60 SIGN MONTH ASSUMING 5 PCMS SIGNS FOR 12 MONTHS

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

NEW YEAR'S (OBSERVED)	GENERAL/REGULAR ELECTION DAY (NOV)
THANKSGIVING	
MEMORIAL DAY	CHRISTMAS (OBSERVED)
FOURTH OF JULY (OBSERVED)	AKRON MARATHON
LABOR DAY	BRIDGESTONE INVITATIONAL (AKRON)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY TIME ALL LANES
OR SPECIAL EVENT MUST BE OPEN TO TRAFFIC

SUNDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY 12:00N FRIDAY THROUGH 6:00 AM TUESDAY
MONDAY (TOTAL SOLAR ECLIPSE)
12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)
5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY 12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY 12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)
6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY 12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRAIN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LANE VALUE CONTRACT			
DESCRIPTION OF CRITICAL LANE/ RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME PERIOD
IR-76	AS PER MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS) NOTE ABOVE	PER LANE/ PER MINUTE	\$300
IR-277	AS PER MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS) NOTE ABOVE	PER LANE/ PER MINUTE	\$310



RAMP CLOSURES

TRAFFIC ON ALL RAMPS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD AS SPECIFIED IN THE RAMP CLOSURE CHART INCLUDED IN THESE PLANS.

WHEN CLOSING A RAMP FOR PAVING AND REPAIR, DETOUR TRAFFIC AS INDICATED IN THE RAMP CLOSURE CHART. RAMPS SHALL NOT BE CLOSED CONCURRENTLY UNLESS APPROVED BY THE PROJECT ENGINEER.

A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$3,000 PER HOUR, OR PORTION THEREOF, THAT ANY RAMP REMAINS CLOSED BEYOND THE SPECIFIED CLOSURE PERIOD AND DURATION AS INDICATED IN THE RAMP CLOSURE CHART.

* STATE STREET TO I-76 EB RAMP CLOSURE

A DETOUR WILL BE IMPLEMENTED FOR THE CLOSURE OF THE STATE STREET TO I-76 EB RAMP, FOR THE DURATION OF NO MORE THAN 3 WEEKS. THIS CLOSURE WILL ALSO INCLUDE THE CLOSURE OF THE FAR RIGHT ACCELERATION LANE ALONG I-76 EB IN ORDER TO SAFELY PERFORM THE RIGHT-SIDE PARAPET REPAIRS FOR STRUCTURE SUM-76-5.910 (SEE STRUCTURE SHEETS FOR EXACT LOCATION). THIS CLOSURE WILL BE AS PER SCD MT-95.40 – CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER. THE STATE STREET RAMP CLOSURE AND PARAPET REPAIRS MAY BE PERFORMED CONCURRENTLY WITH THE EB CLOSURE OF I-277 THAT ALSO REQUIRES THE CLOSURE OF STATE STREET TO I-76 EB RAMP.

THE FOLLOWING QUANTITIES SHALL BE USED AS PART OF THIS CLOSURE OR AS DIRECTED BY THE PROJECT ENGINEER:

ITEM 622, PORTABLE BARRIER, UNANCHORED, 640 FEET

ITEM 614, OBJECT MARKER, ONE-WAY, 14 EACH

ITEM 614, BARRIER REFLECTOR, 14 EACH

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), 1 EACH

** RAMP E AND RAMP H DETOURS

SEE SHEET P.26 FOR RAMP DETOUR SIGNAGE.

DROPOFFS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE MILLED SURFACES, AND ASPHALT SURFACE COURSE AND SIDE STREET APPROACHES GREATER THAN 1.25 INCH. THE CONTRACTOR SHALL PLACE A 12:1 ASPHALT WEDGE FOR ALL RESULTING ELEVATION DIFFERENCES GREATER THAN 1.25 INCH PRIOR TO OPENING TO TRAFFIC. THE PAVING OF INTERSECTION APPROACHES SHALL BE PERFORMED WITHIN 7 DAYS OF MAINLINE SURFACE COURSE BEING APPLIED AND A DROPOFF BEING CREATED BETWEEN THE NEW SURFACE COURSE AND THE MILLED/EXISTING SIDE ROAD OR RAMP END. THE CONTRACTOR MAY ELECT TO PLACE A 12:1 ASPHALT WEDGE IN LIEU OF COMPLETING THE PAVING, HOWEVER THE ASPHALT CONCRETE USED FOR THE WEDGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 – MAINTAINING TRAFFIC AND SHALL INCLUDE THE REMOVAL OF THE WEDGE BEFORE THE INTERSECTION/RAMP END IS PAVED.

IR-76 AND IR-277 INTERCHANGE RAMP CLOSURES						
RAMP	PROPOSED WORK	PERMITTED CLOSURE TIME	DURATION	DETOUR ROUTE	APPROX. NUMBER OF PCMS	
RAMP D (IR-277 WB TO IR-76 EB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	IR-277 WB TO IR-76 WB TO W. STATE ST. EXIT, USE IR-76 EB TO IR-76 EB RAMP	3	
** RAMP E (22ND ST. TO IR-76 WB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	22ND ST. TO KENMORE BLVD. TO EAST AVE, USE IR-76 WB RAMP	3	
** RAMP H (KENMORE BLVD. TO IR-76 EB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	KENMORE BLVD. TO 4TH ST., USE MANCHESTER RD. BYPASS EXIT TO WATERLOO RD., USE IR-277 WB RAMP TO IR-76 EB RAMP	3	
RAMP I (IR-277 EB TO WATERLOO RD.)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	IR-277 EB TO S. MAIN ST. EXIT, USE S. MAIN STREET TO WATERLOO RD.	3	
RAMP J (WATERLOO RD. TO IR-277 WB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	WATERLOO RD. TO S. MAIN ST. USE IR-277 WB RAMP	3	
RAMP K (IR-277 WB TO MANCHESTER RD.)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	IR-277 WB TO IR-76 WB TO W. STATE ST. EXIT, USE W. STATE ST. TO WOOSTER ROAD NORTH TO WATERLOO RD. TO MANCHESTER RD.	3	
RAMP L (MANCHESTER RD. TO IR-277 EB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	MANCHESTER RD. TO WATERLOO RD. TO WOOSTER ROAD NORTH TO W. STATE ST., USE IR-76 EB RAMP TO IR-277 EB	3	
RAMP M-1 (S. MAIN ST. TO IR-277 WB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	S. MAIN ST. TO WATERLOO RD., USE IR-277 WB RAMP	3	
RAMP M-2 (IR-277 WB TO S. MAIN ST.)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	IR-277 WB TO MANCHESTER RD. EXIT, USE MANCHESTER RD. TO WATERLOO RD. TO S. MAIN ST.	3	
RAMP N-1 (S. MAIN ST. TO IR-277 EB)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	S. MAIN ST. TO WATERLOO RD. TO MANCHESTER RD., USE IR-277 EB RAMP	3	
RAMP N-2 (IR-277 EB TO S. MAIN ST.)	RAMP PAVING	7:00 PM TO 6:00 AM WEEKLY	3 NIGHTS	IR-277 WB TO IR-77 NB EXIT, USE E. WILBETH RD. EXIT TO S. MAIN ST.	3	
RAMP 77032 (STATE ST. TO IR-76 EB)	BRIDGE WORK	7:00 PM TO 6:00 AM WEEKLY	3 WEEKS	STATE ST. TO ROMIG RD., USE IR-77 SB RAMP TO IR-76 EB, USE IR-76 EB RAMP TO IR-76	3	
* RAMP B (IR-227 WB TO IR-76 EB)	277 EB FULL CLOSURE	DAILY	10 DAYS	IR-76 EB (RAMP A) TO IR-77 SB	2	
RAMP L (MANCHESTER RD. TO IR-277 EB)	277 EB FULL CLOSURE	DAILY	10 DAYS	SR-764 EB TO IR-77 SB OR SR-619 EB TO IR-77 NB	2	
RAMP N-1 (S. MAIN ST. TO IR-277 EB)	277 EB FULL CLOSURE	DAILY	10 DAYS	SR-764 EB TO IR-77 SB OR SR-619 EB TO IR-77 NB	2	
RAMP M-1 (S. MAIN ST. TO IR-277 WB)	277 WB FULL CLOSURE	DAILY	10 DAYS	SR-619 WB TO STATE ST TO IR-76 WB	2	
RAMP J (WATERLOO RD. TO IR-277 WB)	277 WB FULL CLOSURE	DAILY	10 DAYS	SR-619 WB TO STATE ST TO IR-76 WB	2	
RAMP Y-1 (IR-77 SB TO IR-277 WB)	277 WB FULL CLOSURE	DAILY	10 DAYS	IR-76 WB TO IR-277 WB	2	
RAMP Y-2 (US-224 TO IR-277 WB)	277 WB FULL CLOSURE	DAILY	10 DAYS	IR-77 NB TO IR-76 WB TO IR-277 WB	2	

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

SHEET

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TOTAL

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APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S)

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTIONS INCLUDE:

- CLOSING SUM-76 EB FROM SLM 6.29 TO SLM 8.24 FOR 30 CONSECUTIVE CALENDAR DAYS. THIS CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF I-277 WB.
- CLOSING SUM-76 WB FROM SLM 6.33 TO SLM 8.30 FOR 30 CONSECUTIVE CALENDAR DAYS. THIS CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF I-277 EB.
- CLOSING SUM-277 EB FROM SLM 0.00 TO SLM 4.00 FOR 10 CONSECUTIVE CALENDAR DAYS. THIS CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF I-76 WB.
- CLOSING SUM-277 WB FROM SLM 0.00 TO SLM 4.00 FOR 10 CONSECUTIVE CALENDAR DAYS. THIS CLOSURE SHALL NOT BE CONCURRENT WITH THE CLOSURE OF I-76 EB.

-FOR ALL CLOSURES ADD QUEUE DETECTION TO MONITOR THE QUEUES.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS), AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTORS SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM, AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE “EXCEPTION REQUEST APPROVAL DATE 3/15/2024 FOR PID 113086”IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

DETOUR NOTIFICATION [ODOT/CITY OF AKRON]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) AND THE CITY OF AKRON (330-375-2355) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE AT: [HTTPS://WWW.TRANSPORTATION.OHIO.GOV/WPS/PORTAL/GOV/ODOT/WORKING/DATA-TOOLS/RESOURCES/PERMITTED-LANE-CLOSURE](https://www.transportation.ohio.gov/wps/portal/gov/odot/working/data-tools/resources/permited-lane-closure)

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020. IF THIS WAS A THREE-YEAR PROJECT, YEAR THREE WOULD STILL BE USING THE DECEMBER 2019 TO NOVEMBER 2020 MONTHLY SCHEDULES. IF THE PROJECT DESIRED TO CLOSE TWO LANES IN JUNE 2021, REFERENCE WOULD BE MADE TO THE JUNE 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S). IF THE SAME TWO LANES WERE DESIRED TO BE CLOSED AGAIN IN JULY 2021, REFERENCE WOULD BE MADE TO THE JULY 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S).)

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY. [EXISTING MOT EXCEPTIONS THAT HAVE ALREADY BEEN APPROVED IN ACCORDANCE TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY AND STANDARD PROCEDURE ARE DETAILED IN THE APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) PLAN NOTE.]

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

ITS MESSAGE BOARDS

ITS MESSAGE BOARDS THE EXISTING ITS MESSAGE BOARDS IN THE VICINITY OF THE PROJECT WILL BE UTILIZED TO PROVIDE SUPPLEMENTAL INFORMATION TO THE TRAVELING PUBLIC. THE CONTRACTOR WILL NOTIFY THE PROJECT ENGINEER ONE [1] WEEK IN ADVANCE OF ANY PHASE CHANGE. THE PROJECT ENGINEER WILL COORDINATE WITH THE DISTRICT 4 PUBLIC INFORMATION OFFICER AT 330-786-2208 FOR ITS MESSAGE BOARD ADJUSTMENTS.

MAINTENANCE OF TRAFFIC RESTRICTIONS AND COMPLETION DATES

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-76 EB SLM 6.29 to SLM 8.24)

DURING A PERIOD BETWEEN 8/01/24 AND 10/15/2024, THE CONTRACTOR IS PERMITTED TO CLOSE THE HIGHWAY FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 12. THE HIGHWAY SHALL BE OPEN TO TRAFFIC BETWEEN 12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY OF LABOR DAY WEEKEND. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$25,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS WORK SHALL BE COMPLETED NO LATER THAN 10/15/2024. SUM-76 EB WORK AND SUM-277 WB WORK SHALL NOT BE PERFORMED CONCURRENTLY. THE CONTRACTOR SHALL PLAN TO COMPLETE ALL PAVEMENT AND BRIDGE WORK DURING THIS CLOSURE.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-277 WB SLM 0.00 to SLM 4.00)

DURING A PERIOD BETWEEN 8/01/24 AND 10/15/2024, THE CONTRACTOR IS PERMITTED TO CLOSE THE HIGHWAY FOR A PERIOD NOT TO EXCEED 10 CONSECUTIVE CALENDAR DAYS WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 15. THE HIGHWAY SHALL BE OPEN TO TRAFFIC BETWEEN 12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY OF LABOR DAY WEEKEND. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$25,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS WORK SHALL BE COMPLETED NO LATER THAN 10/15/2024. SUM-76 EB WORK AND SUM-277 WB WORK SHALL NOT BE PERFORMED CONCURRENTLY. THE CONTRACTOR SHALL PLAN TO COMPLETE (AT A MINIMUM) ALL PAVEMENT REPAIRS AND ALL BRIDGE DECK PATCHING AND BRIDGE DECK SEALING DURING THIS CLOSURE.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-76 WB SLM 6.33 to SLM 8.30)

DURING A PERIOD BETWEEN 4/01/2025 AND 7/19/2025, THE CONTRACTOR IS PERMITTED TO CLOSE THE HIGHWAY FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 13. THE HIGHWAY SHALL BE OPEN TO TRAFFIC BETWEEN 12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY OF MEMORIAL DAY WEEKEND AND 12:00NOON THURSDAY THROUGH 6:00 AM MONDAY OF THE FOURTH OF JULY WEEKEND. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$25,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS WORK SHALL BE COMPLETED NO LATER THAN 7/19/2025. SUM-76 WB WORK AND SUM-277 EB WORK SHALL NOT BE PERFORMED CONCURRENTLY. THE CONTRACTOR SHALL PLAN TO COMPLETE ALL PAVEMENT AND BRIDGE WORK DURING THIS CLOSURE.

MAINTENANCE OF TRAFFIC RESTRICTIONS AND COMPLETION DATES (CONT...)

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-277 EB SLM 0.00 to SLM 4.00)

DURING A PERIOD BETWEEN 4/01/2025 AND 7/19/2025, THE CONTRACTOR IS PERMITTED TO CLOSE THE HIGHWAY FOR A PERIOD NOT TO EXCEED 10 CONSECUTIVE CALENDAR DAYS WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 14. THE HIGHWAY SHALL BE OPEN TO TRAFFIC BETWEEN 12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY OF MEMORIAL DAY WEEKEND AND 12:00 NOON THURSDAY THROUGH 6:00 AM MONDAY OF THE FOURTH OF JULY WEEKEND. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$25,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THIS WORK SHALL BE COMPLETED NO LATER THAN 7/19/2025. NOTE THAT THE WORK FOR THE I-277 BRIDGE OVER I-77 SHALL BE COMPLETED IN 2024 AS INDICATED IN THE NOTE BELOW. THE CONTRACTOR SHALL PLAN TO COMPLETE (AT A MINIMUM) ALL PAVEMENT REPAIRS AND ALL BRIDGE DECK PATCHING AND BRIDGE DECK SEALING DURING THIS CLOSURE.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-277-3.734 (I-277 OVER I-77))

ALL WORK ASSOCIATED WITH THE EASTBOUND AND WESTBOUND I-277 STRUCTURES OVER I-77 SHALL BE COMPLETED NO LATER THAN 10/15/2024. LANE CLOSURES FOR THIS WORK SHALL BE RESTRICTED TO BETWEEN THE HOURS OF 8:00PM THROUGH 5:00AM. ALL LANES SHALL BE REOPENED TO TRAFFIC NO LATER THAN 5:00AM. WHEN PERFORMING THIS WORK, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE TEN-FOOT LANE IN EACH DIRECTION. SUM-76 AND SUM-277 WORK SHALL NOT BE PERFORMED CONCURRENTLY.

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

SHEET

P.10

TOTAL

62

WORK ZONE QUEUE DETECTION WARNING SYSTEM

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZQDWS) AS PER SUPPLEMENTAL SPECIFICATION 896.

THE PROBABLE INITIAL LOCATIONS OF THE WZQDWS DEVICES ARE SHOWN ON SHEET P.27 OF THE PLAN. IT IS EXPECTED. THAT THESE LOCATIONS WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED:

GREATER THAN OR EQUAL TO 50 MPH - USE FOUR CORNER FLASHING CAUTION MODE BETWEEN 50 MPH AND 25 MPH - TRAFFIC AHEAD XX MPH / SLOW DOWN BELOW OR EQUAL TO 25 MPH - TRAFFIC AHEAD XX MPH / PREPARE TO STOP

FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).

XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 896, PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS 1
ASSUMING 8 SENSORS FOR 1 MONTH
8 SIGN MONTH

ITEM 896, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
ASSUMING 6 PCMS SIGNS FOR 1 MONTH
6 SIGN MONTH

RUMBLE STRIPS

THE RUMBLE STRIPS WILL BE PLACED AS SHOWN ON THIS SHEET OR AS DIRECTED BY THE ENGINEER. RUMBLE STRIPS WILL BE INSTALLED EITHER ON TOP OF THE PAVEMENT USING HEAT-FUSED PREFORMED PLASTIC MATERIAL OR MILLED INTO THE PAVEMENT.

HEAT-FUSED PREFORMED PLASTIC RUMBLE STRIPS WILL BE FOUR [4] INCHES WIDE AND ONE HALF [0.5] INCH THICK IN PLACE. MILLED RUMBLE STRIPS WILL BE FOUR [4] INCHES WIDE AND ONE HALF [0.5] INCH INTO THE PAVEMENT. THE RUMBLE STRIPS WILL TRAVERSE THE TOTAL LANE WIDTH. THERE WILL BE TWO SECTIONS OF RUMBLE STRIPS. THE RUMBLE STRIPS WILL CROSS TWO LANES OF TRAFFIC.

THE FIRST RUMBLE STRIP SECTION SHOULD BE PLACED BEFORE THE ADVANCE WARNING DEVICES, THERE WILL BE TEN [10] [10] TRANSVERSE STRIPS SIX [6] FEET APART. THE SECOND SECTION SHOULD BE PLACED A MINIMUM OF 250 FEET IN ADVANCE OF THE TRAFFIC CONDITION, THERE WILL BE TEN [10] TRANSVERSE STRIPS FIVE [5] FEET APART.

MATERIAL USED FOR THE RUMBLE STRIPS WILL BE 740.08 HEAT-FUSED PREFORMED PLASTIC MATERIAL, 125 MILS MINIMUM THICKNESS, ON THE ODOT APPROVED LIST. THE MANUFACTURERS RECOMMENDATIONS MUST BE FOLLOWED FOR INSTALLATION.

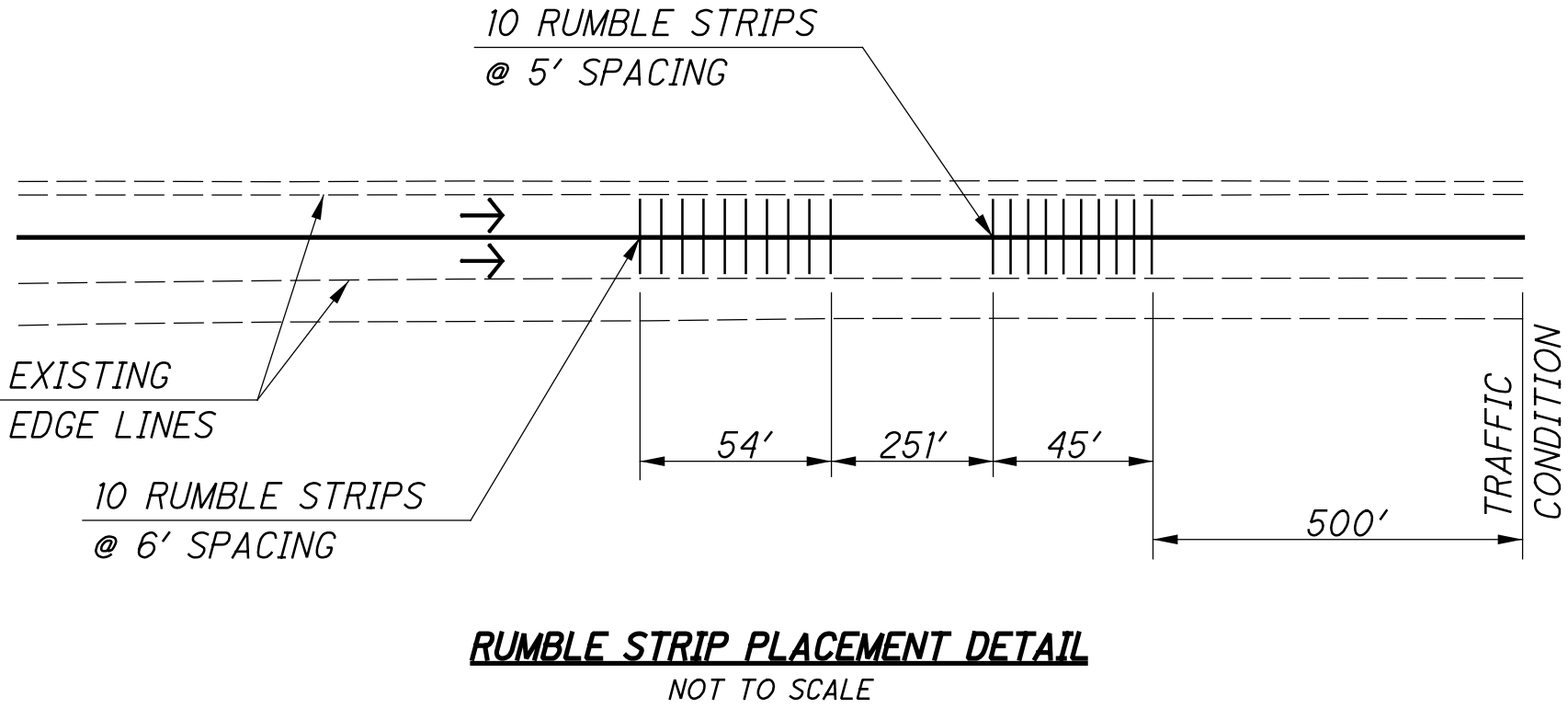
MILLED RUMBLE STRIPS, ALTHOUGH SELF-CLEANING TO A LIMITED EXTENT, SHOULD BE INSPECTED PERIODICALLY TO DETERMINE IF DEBRIS NEEDS TO BE REMOVED OR IF THEY NEED TO BE RE-MILLED.

RUMBLE STRIPS WILL BE REMOVED WHEN THEY ARE NO LONGER NEEDED AS DETERMINED BY THE ENGINEER. WHEN THE MILLED RUMBLE STRIPS ARE NO LONGER NEEDED, THE ENTIRE WIDTH OF THE LANE CONTAINING THE STRIPS WILL BE MILLED TO A DEPTH OF 1 1/4" AND RESURFACED WITH ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)

W8-15a-48 [RUMBLE STRIPS] SIGNS SHALL BE DUAL-MOUNTED APPROXIMATELY 1,000 FEET IN ADVANCE OF THE RUMBLE STRIP INSTALLATION. THE PROVISION, ERECTION, MAINTENANCE AND REMOVAL OF THE SIGNS AND SUPPORTS WILL BE INCLUDED IN THE COST OF THE RUMBLE STRIPS.

THIS ITEM WILL BE PAID FOR BY EACH AT ONE HALF [0.5] INCH THICKNESS FOR 740.08 HEAT-FUSED PREFORMED PLASTIC OR ONE HALF [0.5] INCHES OF MILLED THICKNESS. THIS WILL INCLUDE ALL LABOR MATERIALS AND EQUIPMENT FOR THE INSTALLATION, MAINTENANCE AND REMOVAL OF THE RUMBLE STRIPS.

RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE) , 97 EACH



DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

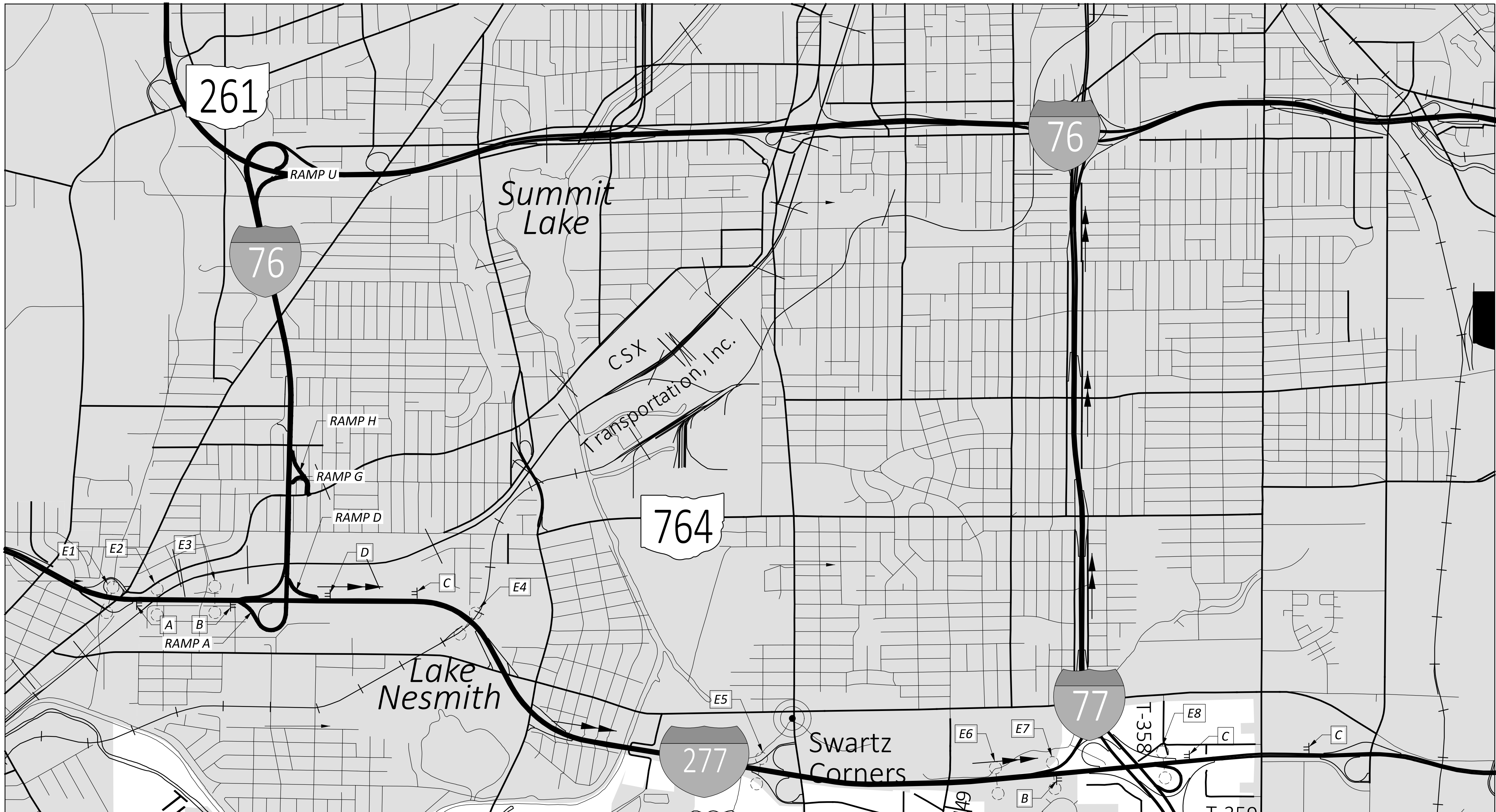
113086

SHEET

P.11

TOTAL

62



DETOUR PLAN FOR I-76 EB (I-277 EAST TO I-77 NORTH)

- CLOSE RAMPS "A", "D" AND "H" AS PER MT-98.29
- ➔ OFFICAL DETOUR ROUTE FOR I-76 EASTBOUND TRAFFIC: I-277 EASTBOUND / I-77 NORTHBOUND
- FOR "DETOUR" SIGNS, SEE SHEETS P.13-P.14.

NOTE:

THE EASTBOUND RAMP TO I-76 EASTBOUND, EAST OF THE STATE STREET RAMP, IS CLOSED DUE TO AN ADJACENT PROJECT AND WILL REMAIN CLOSED FOR WORK PERFORMED TO EASTBOUND I-76. CLOSE THE STATE STREET RAMP TO EASTBOUND I-76IN ACCORDANCE WITH MT-95.30. DETOUR STATE STREET TRAFFIC. CLOSE THE WESTBOUND I-277 RAMP TO I-76 EASTBOUND IN ACCORDANCE WITH SCD MT-95.30 AND MT-98.29. PROVIDE A WORKZONE QUEUE DETECTION WARNING SYSTEM WITH THE CLOSURE. QUANTITY OF WORK ZONE PAVEMENT MARKING ITEMS HAVE BEEN PROVIDED FOR THIS WORK TO BE USED AS APPROVED BY THE ENGINEER.

A PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

- 76 EAST CLOSED AHEAD
- USE 77 NORTH TO 76

B PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

- 76 EAST CLOSED AHEAD
- USE 77 NORTH

C PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

- RAMP TO 76 EAST CLOSED
- USE 76 W TO SR 21 N

WORK ZONE QUEUE DETECTION WARNING SYSTEM (I-277 WB RAMP CLOSURE)

A WORK ZONE QUEUE DETECTION WARNING SYSTEM SHALL BE UTILIZED WITH THE CLOSURE OF I-277WB RAMP. QUANTITIES FOR THIS WORK HAS BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL NOTES ON SHEET P.11.

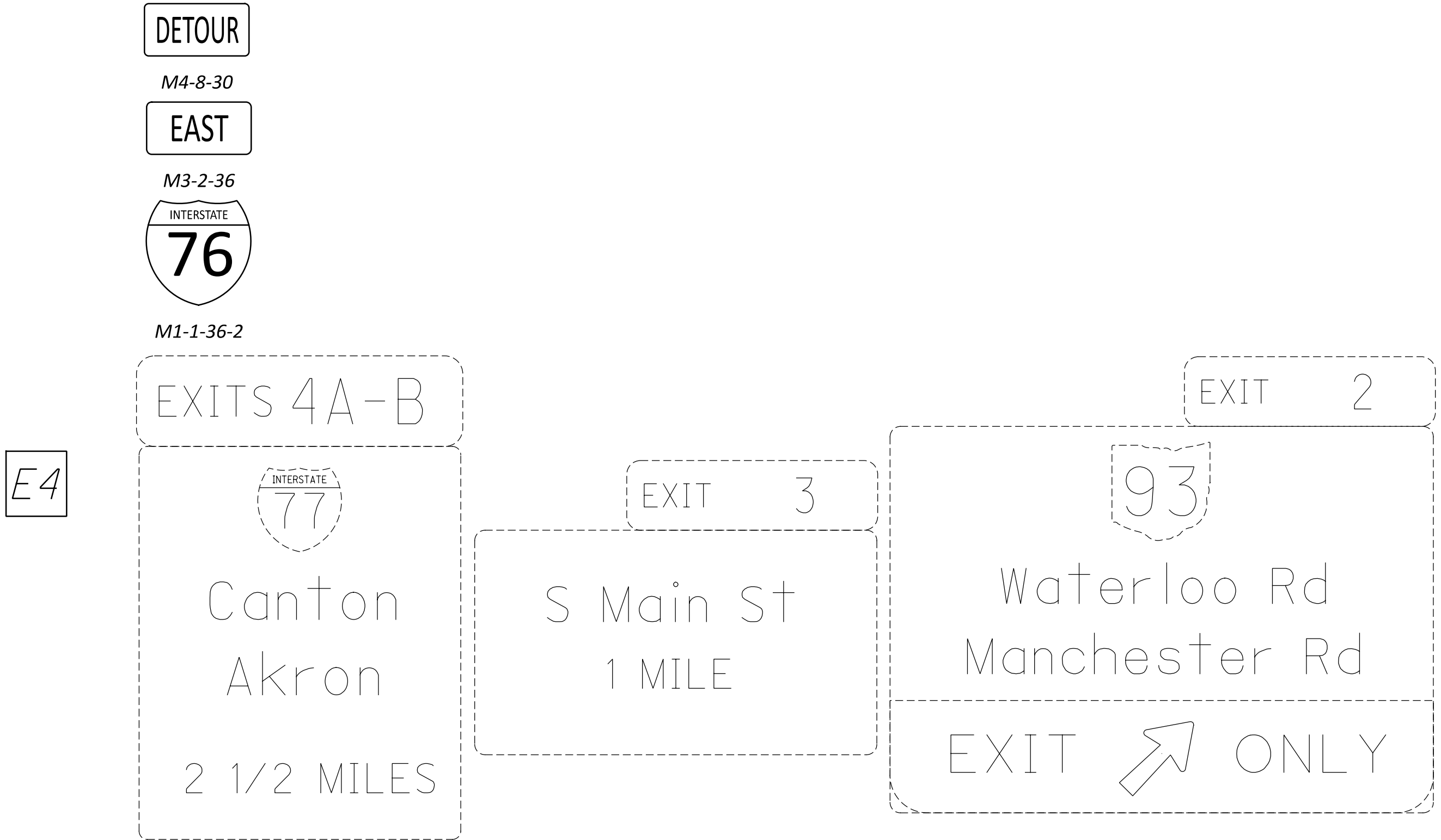
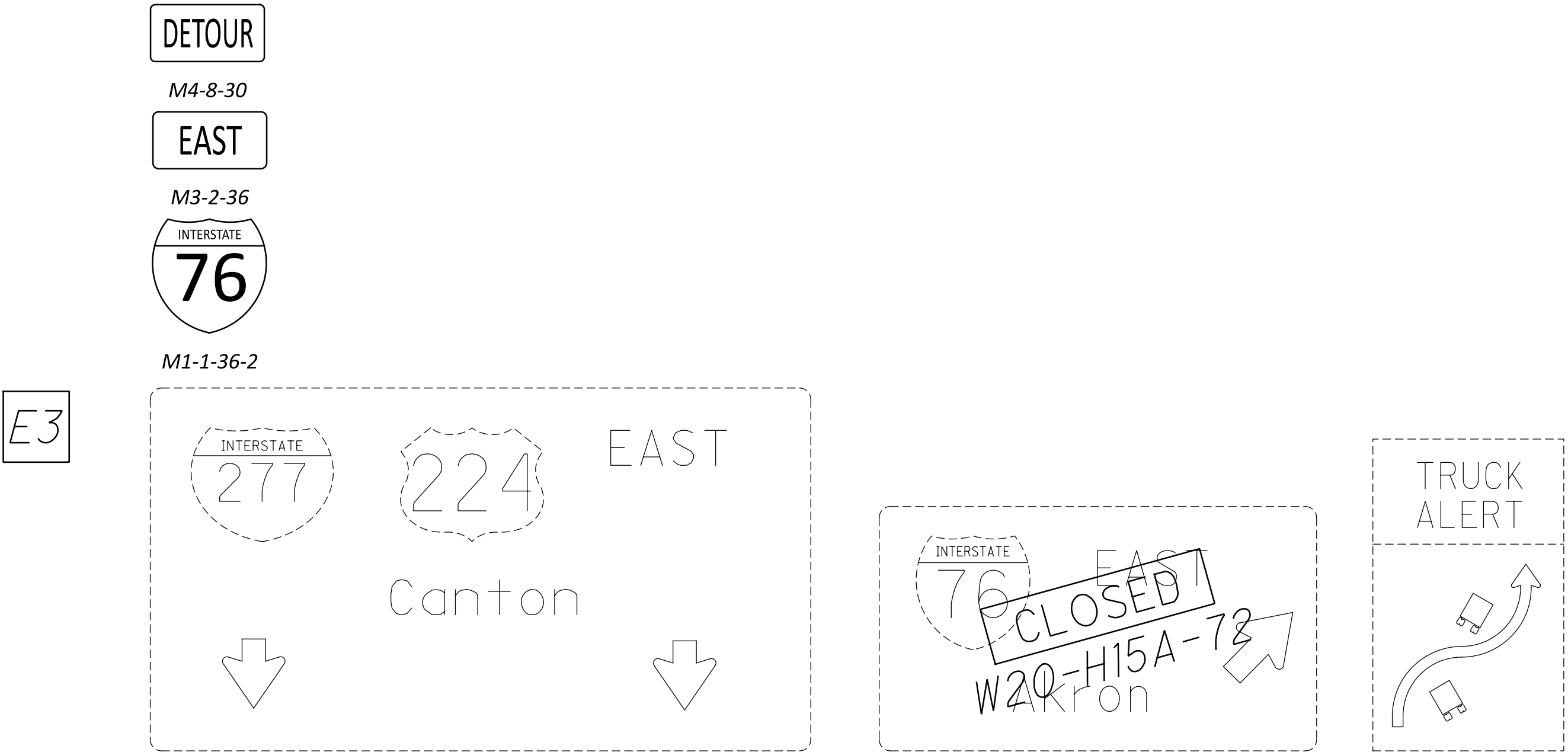
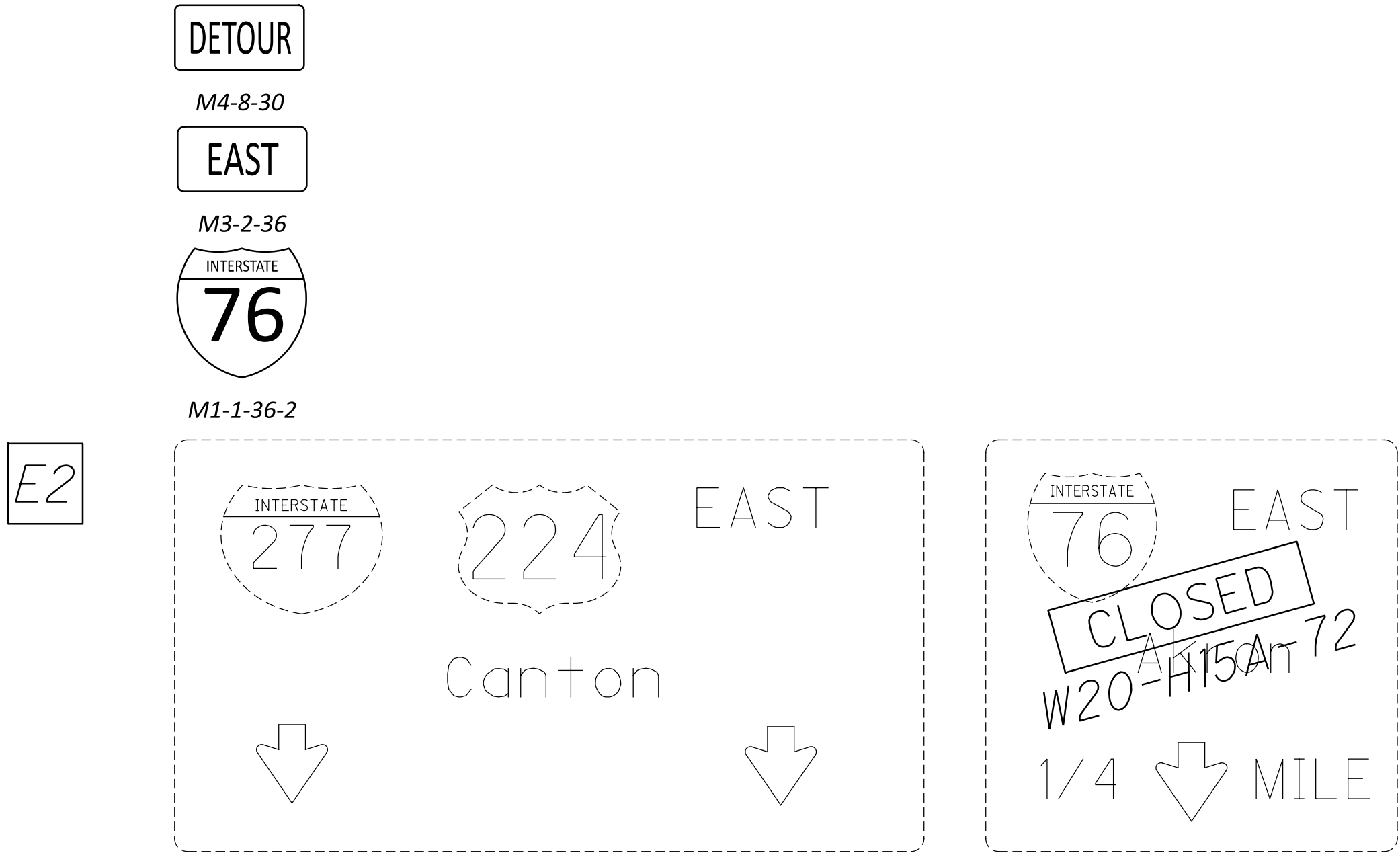
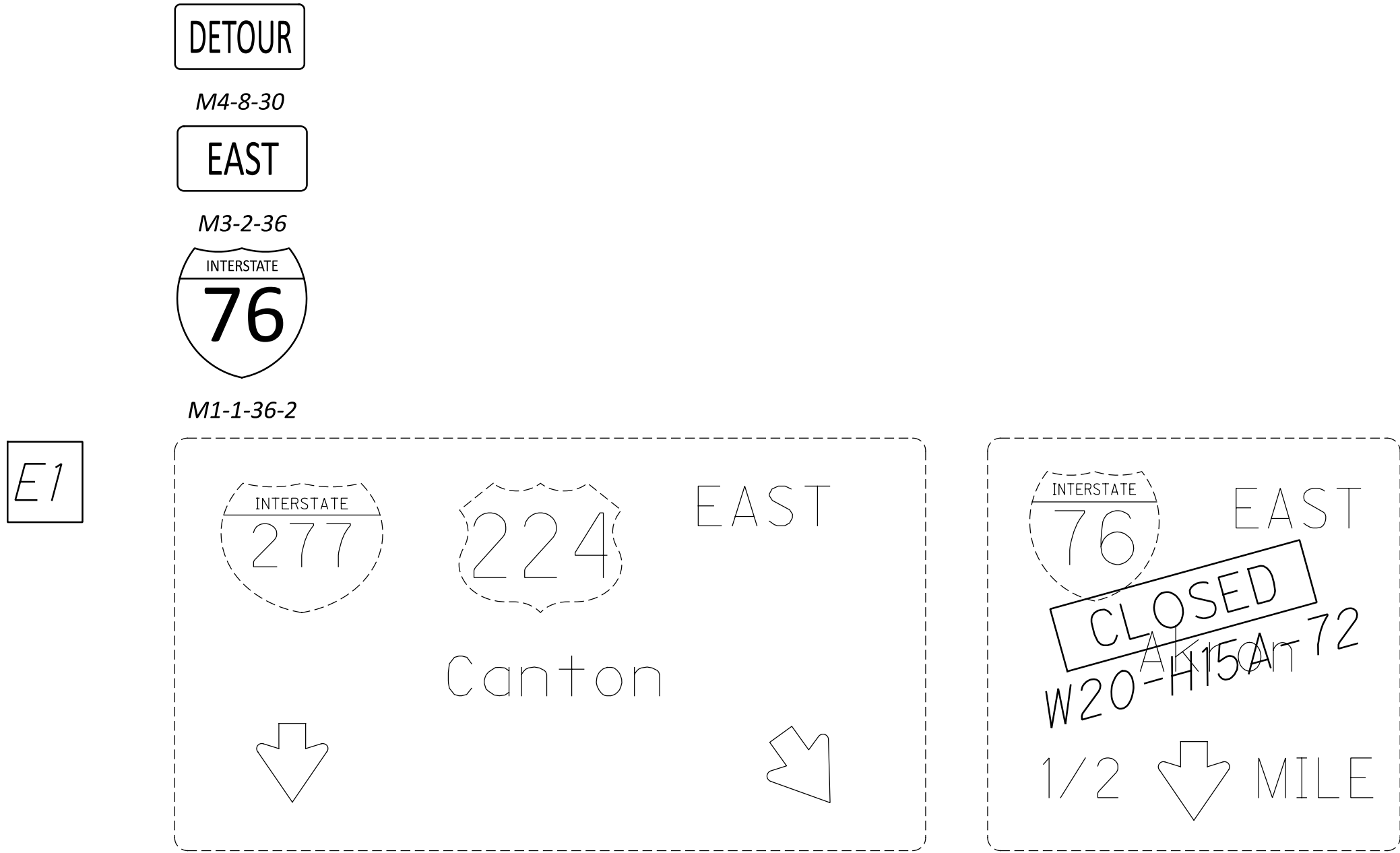
PORTABLE NON-INTRUSIVE TRAFFIC SENSORS, CLASS I, SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

- TRAFFIC SENSOR #1: AT THE BEGINNING OF THE I-277 WB RIGHT-LANE CLOSURE TAPER
- TRAFFIC SENSOR #2: APPROX. 0.5 MILES WEST OF THE I-277 WB RIGHT-LANE CLOSURE TAPER
- TRAFFIC SENSOR #3: APPROX. 1.0 MILES WEST OF THE I-277 WB RIGHT-LANE CLOSURE TAPER
- TRAFFIC SENSOR #4: APPROX. 2.0 MILES WEST OF THE I-277 WB RIGHT-LANE CLOSURE TAPER

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

- PCMS #1: APPROX. 1.0 MILES WEST OF THE I-277 WB RIGHT-LANE CLOSURE TAPER
- PCMS #2: APPROX. 2.0 MILES WEST OF THE I-277 WB RIGHT-LANE CLOSURE TAPER
- PCMS #3: APPROX. 3.0 MILES WEST OF THE I-277 WB RIGHT-LANE CLOSURE TAPER





E5

DETOUR

M4-8-30

EAST

M3-2-36

INTERSTATE

76

M1-1-36-2

EXIT 4B

INTERSTATE

77

NORTH

Akron

1 1/2 MILES

INTERSTATE

77

SOUTH

Canton

1 1/4 MILES

EXIT

DOWN

ONLY

EXIT 3

S Main St

UP

DETOUR

M4-8-30

EAST

M3-2-36

INTERSTATE

76

M1-1-36-2

EXIT 4B

INTERSTATE

77

NORTH

Akron

1/4 MILE

EXIT 4A

INTERSTATE

77

SOUTH

Canton

UP

EXIT ONLY

UP

E6

DETOUR

M4-8-30

EAST

M3-2-36

INTERSTATE

76

M1-1-36-2

EXIT 4B

INTERSTATE

77

NORTH

Akron

1/2 MILE

INTERSTATE

77

SOUTH

Canton

DOWN

EXIT

DOWN

ONLY

E8

224

EAST

Mogadore

DOWN

DOWN

EXIT 4B

INTERSTATE

77

NORTH

Akron

UP

E7

224

EAST

Mogadore

LEFT 2 LANES

EXIT 4B

INTERSTATE

77

NORTH

Akron

1/4 MILE

EXIT 4A

INTERSTATE

77

SOUTH

Canton

UP

EXIT ONLY

UP

DETOUR

M4-8-30

EAST

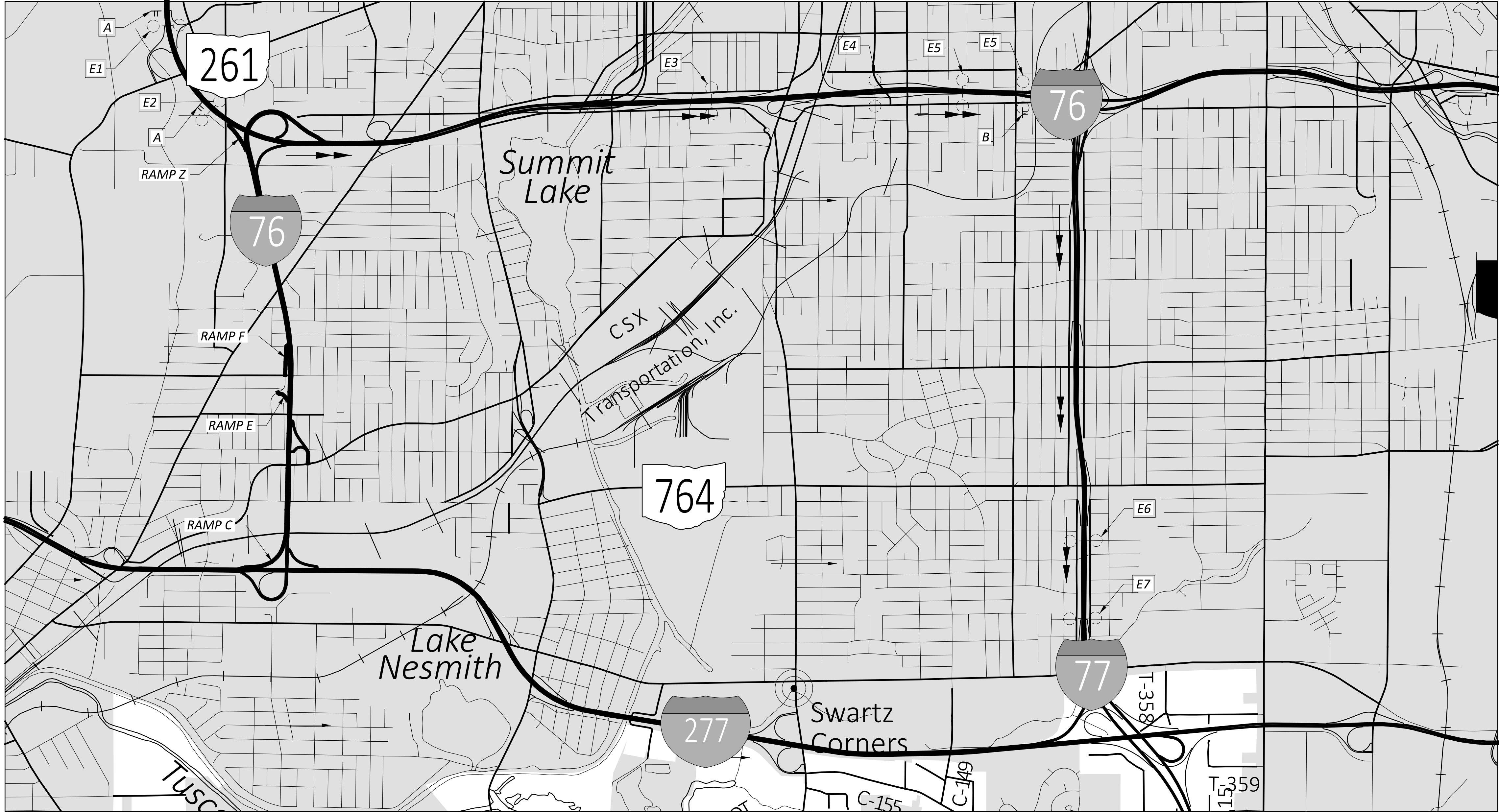
M3-2-36

INTERSTATE

76

M1-1-36-2





DETOUR PLAN FOR I-76 WB (I-76 EAST TO I-77 SOUTH)

- CLOSE RAMPS "E", "F" AND "Z" AS PER MT-98.29
- OFFICAL DETOUR ROUTE FOR I-76 WESTBOUND TRAFFIC: I-76 EASTBOUND / I-77 SOUTHBOUND

FOR "DETOUR" SIGNS, SEE SHEETS P.16-P.17.

NOTE:

THE RAMP CLOSURE FROM I-77 SOUTHBOUND TO I-76 WESTBOUND SHALL BE IN ACCORDANCE WITH MT-98.29. MAINTAIN TWO LANES OF I-77 SOUTHBOUND BETWEEN THE V. ODOM BLVD EXIT AND ENTRANCE RAMPS BY CLOSING THE INSIDE LANE OF I-77 SOUTHBOUND IN ACCORDANCE WITH MT-95.30. MAINTAIN ACCESS FROM V. ODOM BLVD TO I-77 SOUTHBOUND IN ACCORDANCE WITH MT-98.10. PROVIDE A WORKZONE QUEUE DETECTION WARNING SYSTEM WITH THE LANE CLOSURE. CLOSE THE RAMP FROM I-77 NORTHBOUND TO I-76 WESTBOUND IN ACCORDANCE WITH MT-98.29 APPLYING LANE CLOSURES AS NECESSARY IN ADVANCE OF THE CLOSURE IN ACCORDANCE WITH MT-95.30. MAINTAIN ACCESS TO EAST AVENUE IN ACCORDANCE WITH MT-98.20. PROVIDE A WORKZONE QUEUE DETECTION WARNING SYSTEM WITH THE LANE CLOSURE. A QUANTITY OF WORK ZONE PAVEMENT MARKING ITEMS HAVE BEEN PROVIDED FOR THIS WORK TO BE USED AS APPROVED BY THE ENGINEER.

- A** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 76 WEST CLOSED AHEAD
 - USE 77 SOUTH TO 277 W

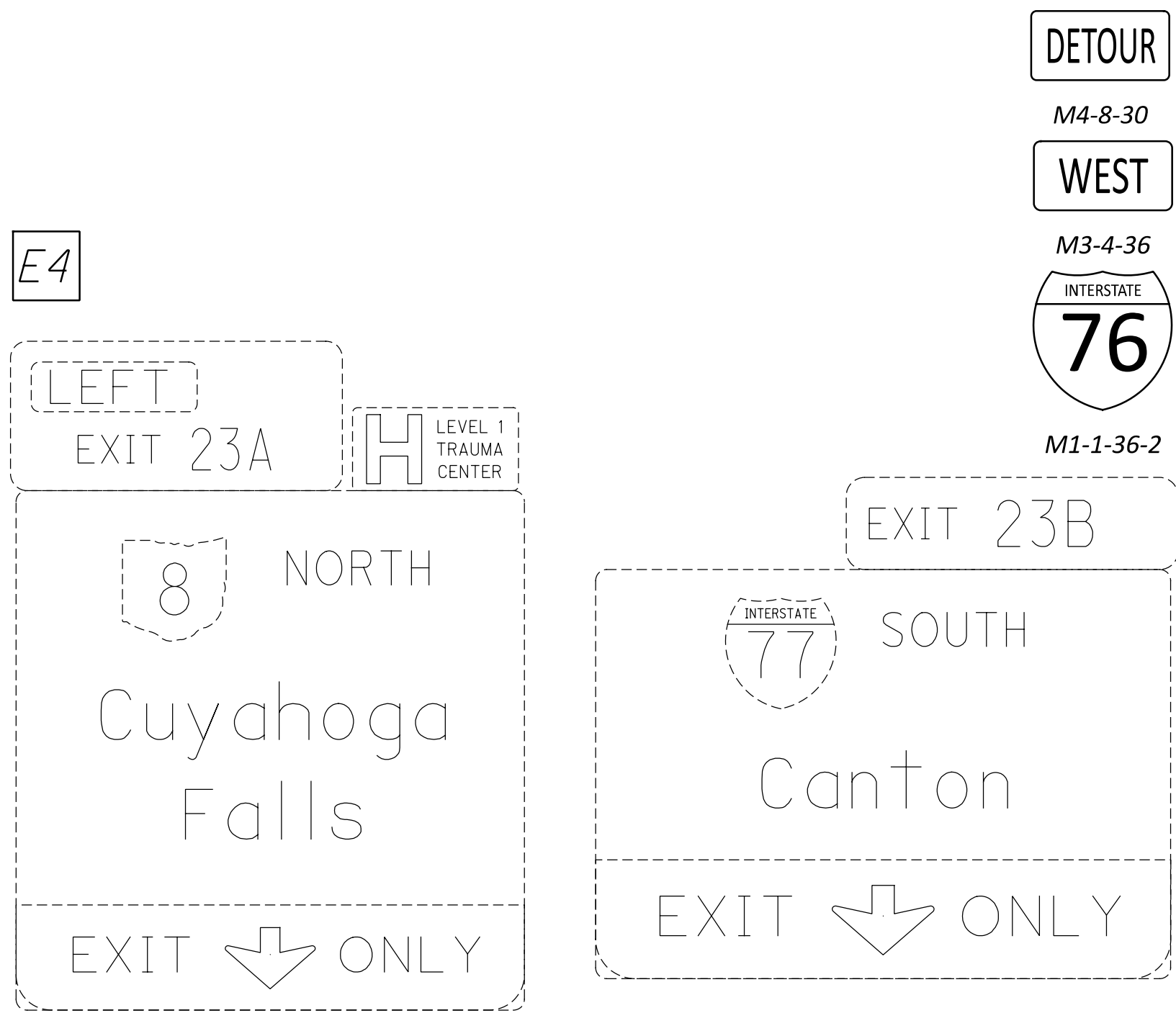
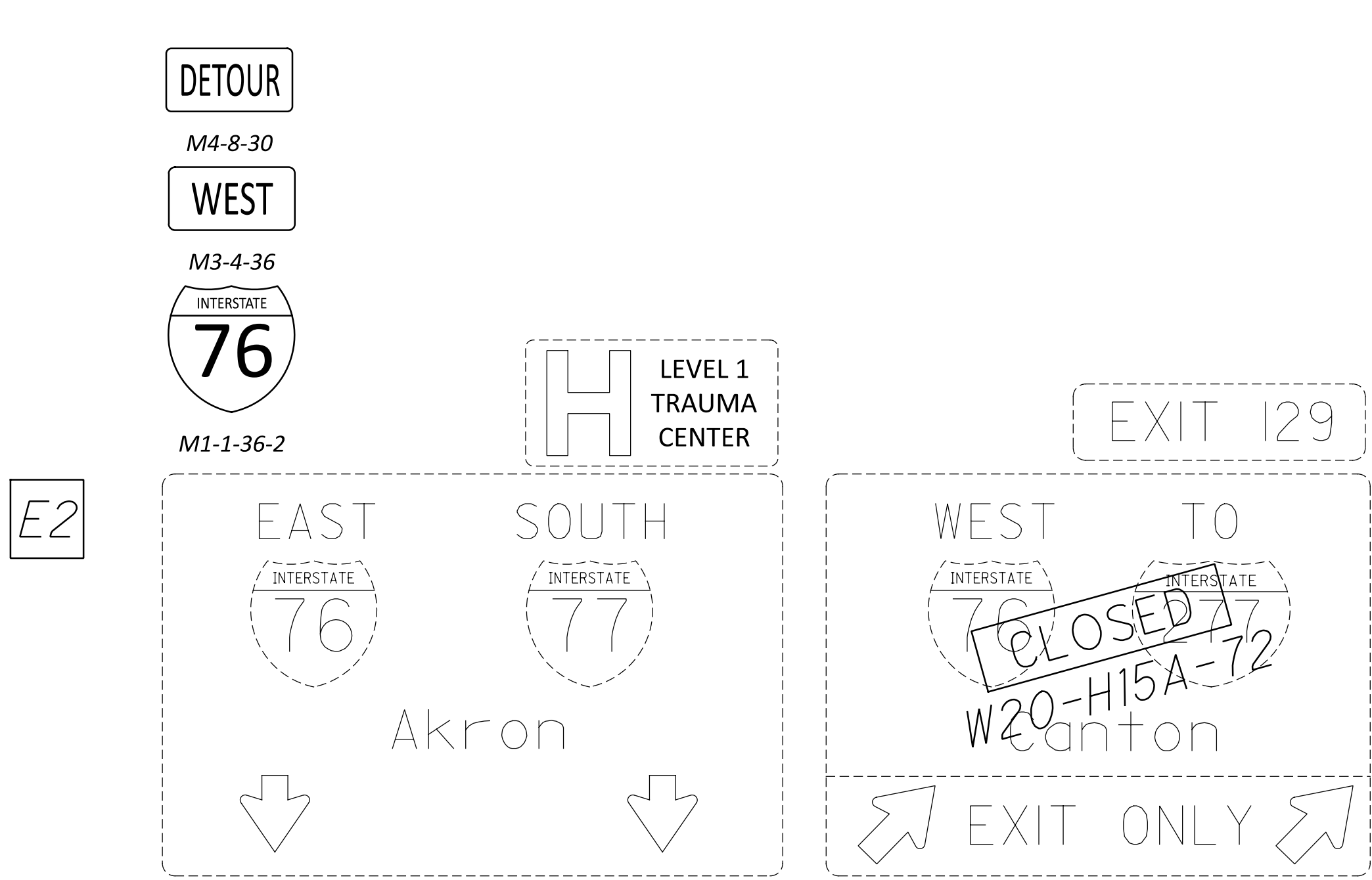
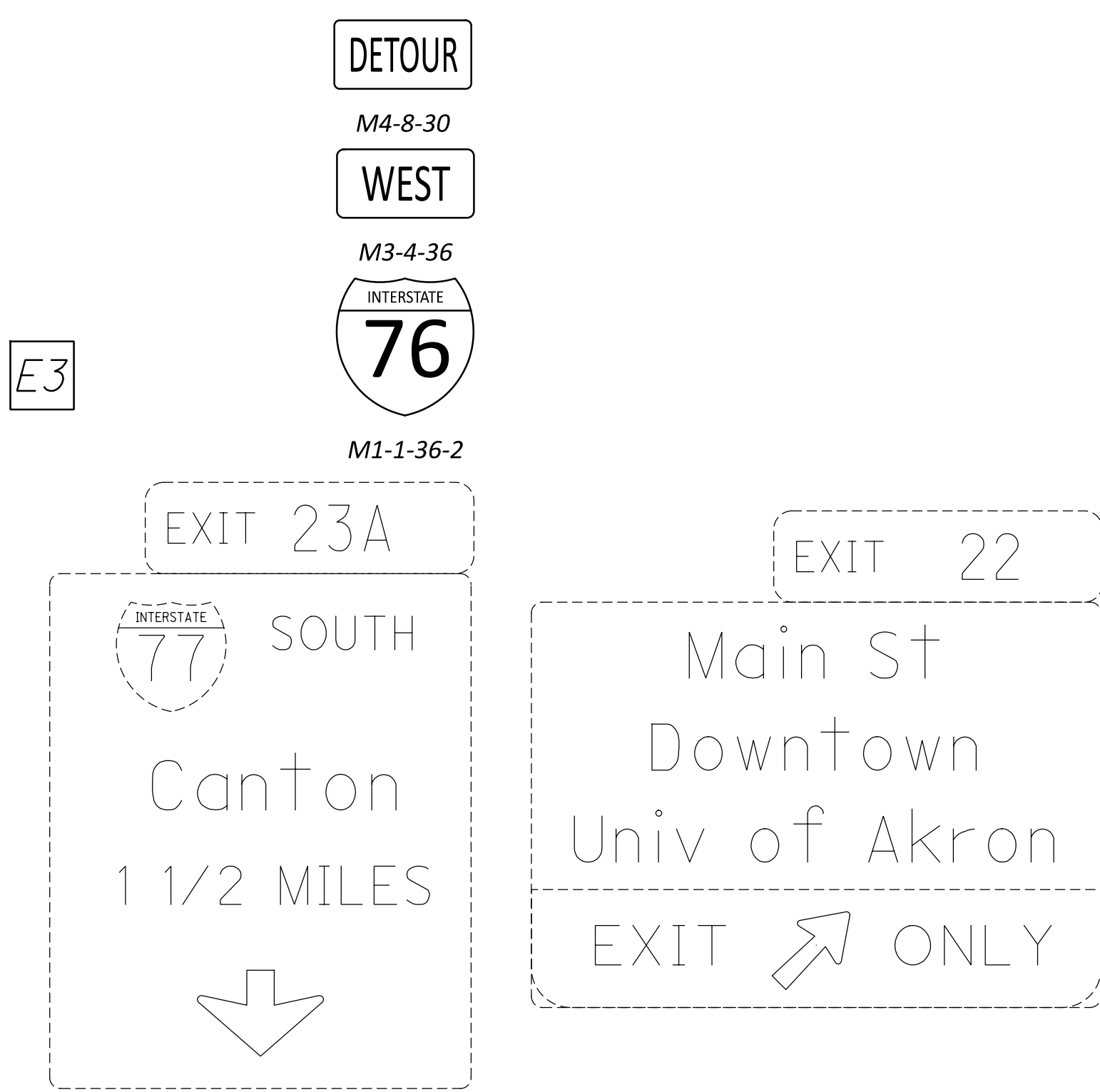
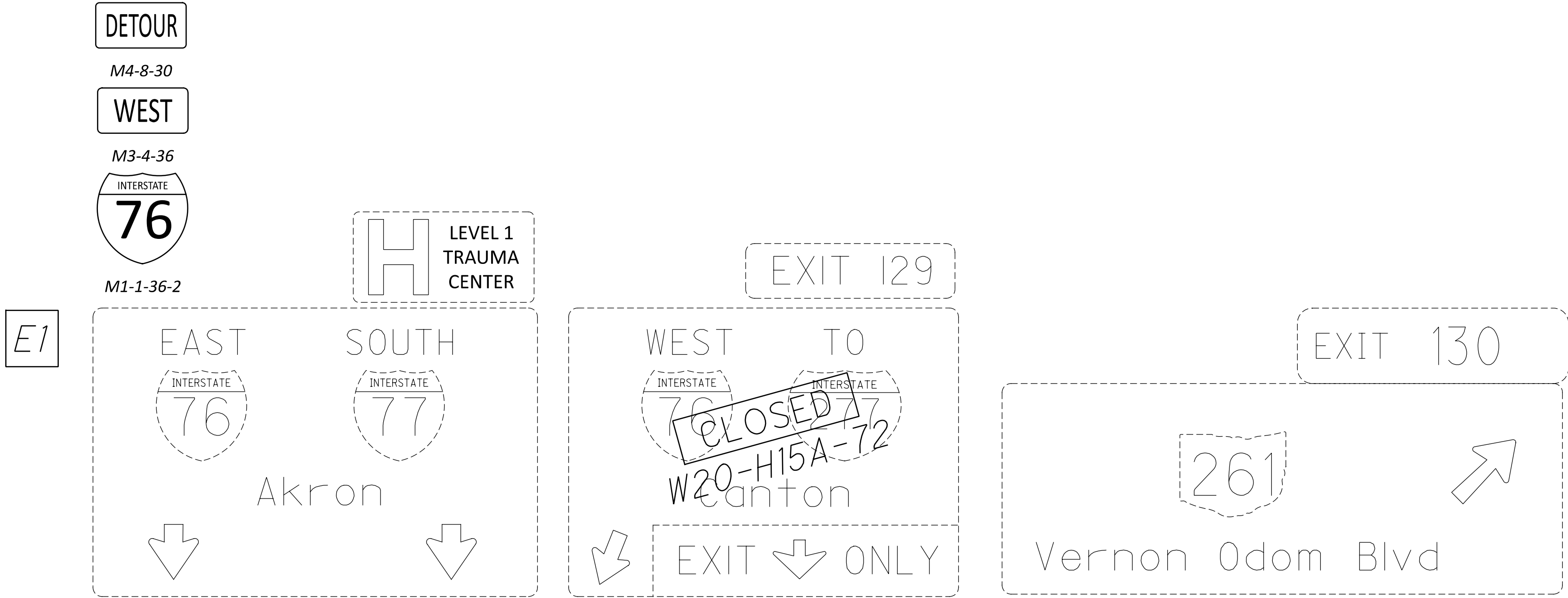
WORK ZONE QUEUE DETECTION WARNING SYSTEM (I-77 TO I-76 WB)
A WORK ZONE QUEUE DETECTION WARNING SYSTEM SHALL BE UTILIZED WITH THE LANE CLOSURES ASSOCIATED WITH THIS WORK. QUANTITIES FOR THIS WORK HAS BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL NOTES ON SHEET P.11.

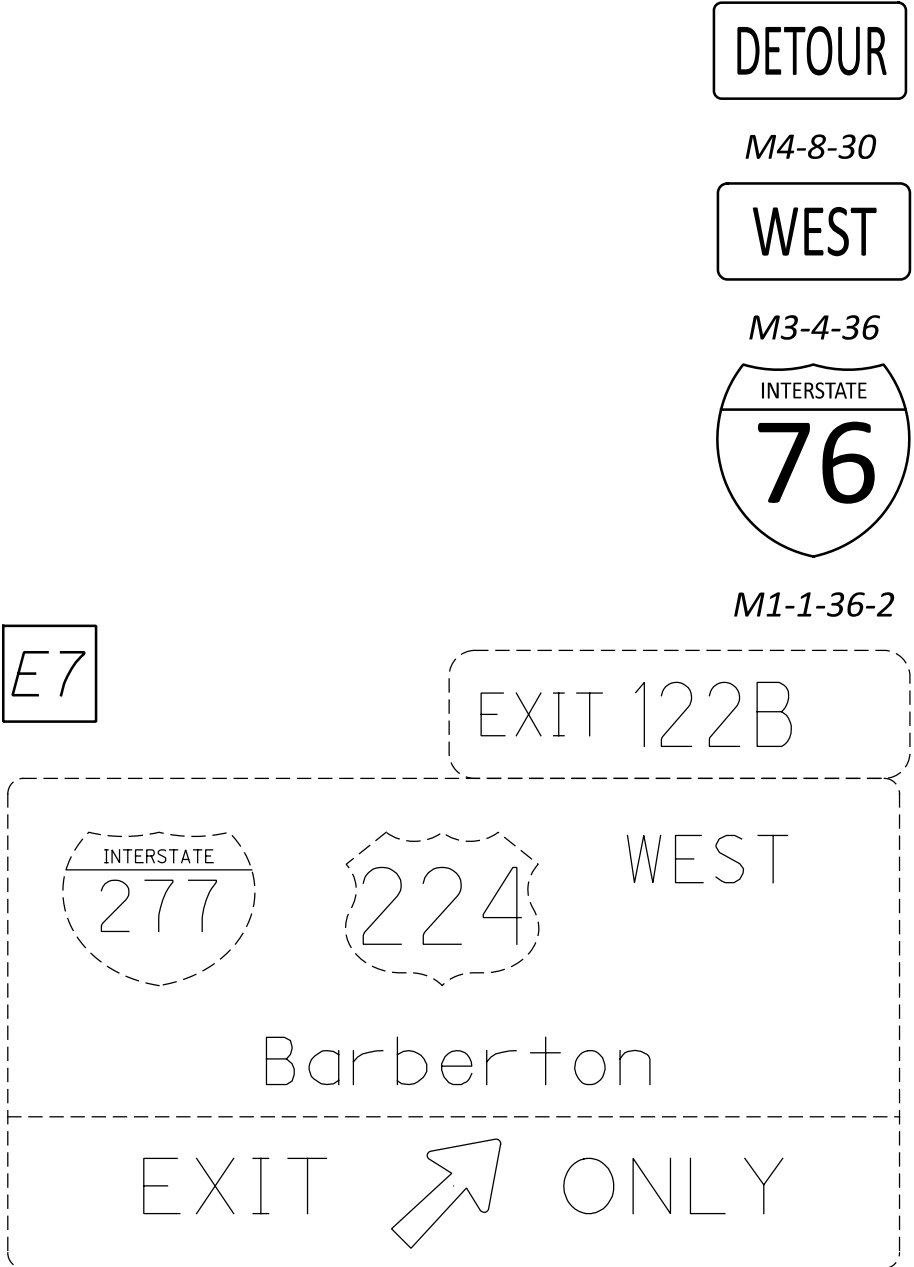
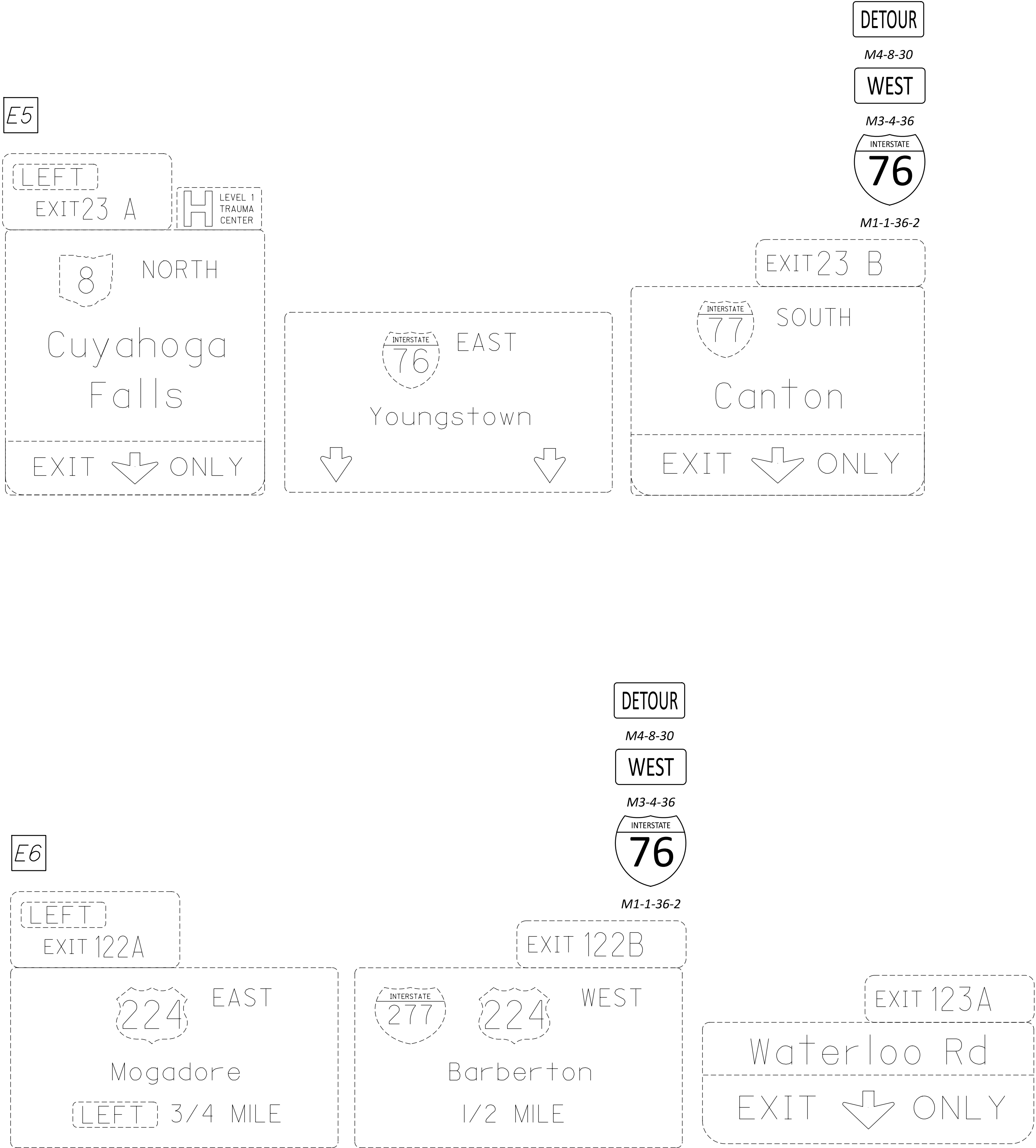
PORTABLE NON-INTRUSIVE TRAFFIC SENSORS, CLASS I, SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

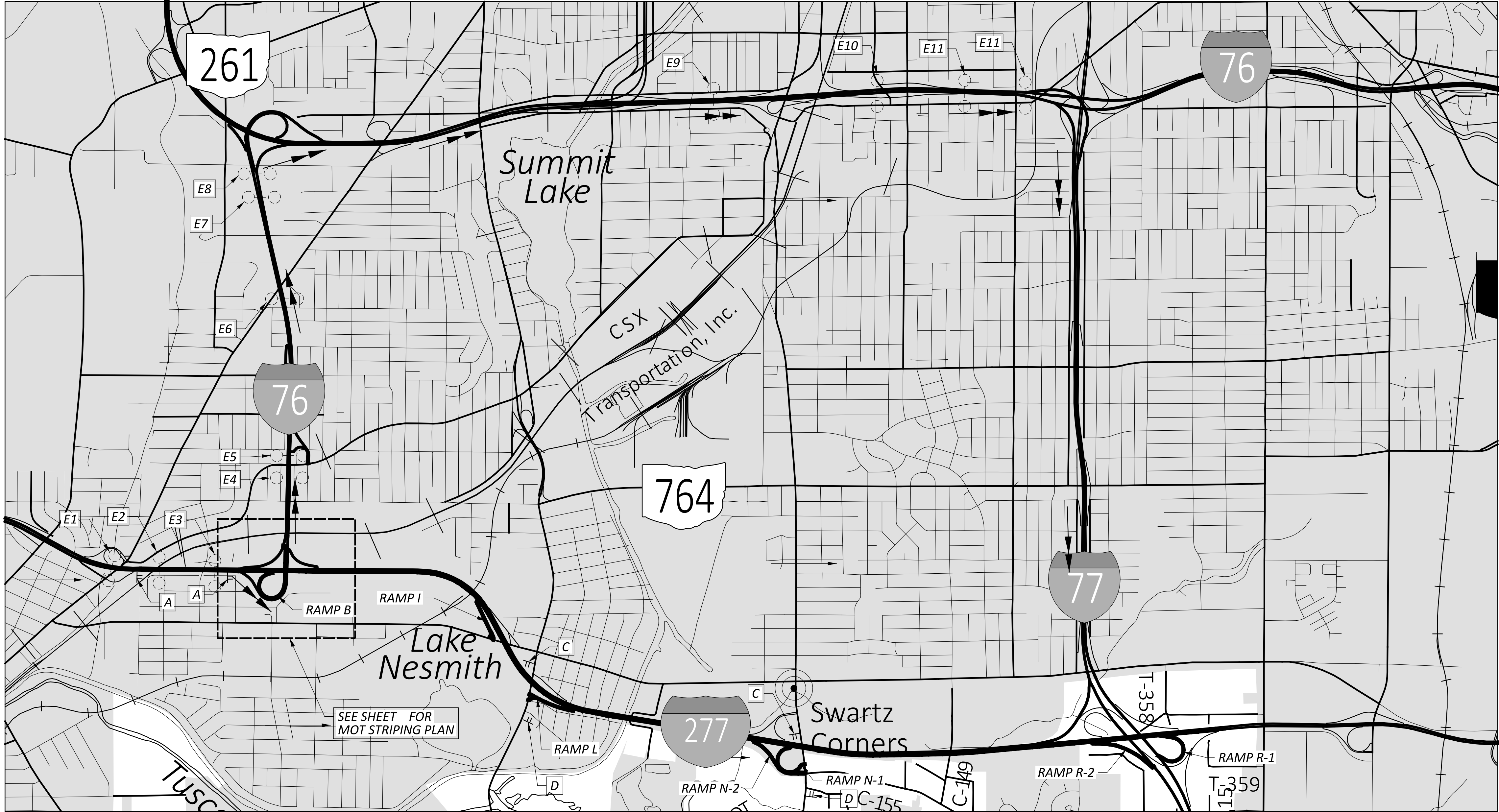
TRAFFIC SENSOR #1:	AT THE BEGINNING OF THE LANE CLOSURE TAPER
TRAFFIC SENSOR #2:	APPROX. 0.5 MILES WEST OF THE LANE CLOSURE TAPER
TRAFFIC SENSOR #3:	APPROX. 1.0 MILES WEST OF THE LANE CLOSURE TAPER
TRAFFIC SENSOR #4:	APPROX. 2.0 MILES WEST OF THE LANE CLOSURE TAPER

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

PCMS #1:	APPROX. 1.0 MILES WEST OF THE LANE CLOSURE TAPER
PCMS #2:	APPROX. 2.0 MILES WEST OF THE LANE CLOSURE TAPER
PCMS #3:	APPROX. 3.0 MILES WEST OF THE LANE CLOSURE TAPER







DETOUR PLAN FOR I-277 EB (I-76 EAST TO I-77 SOUTH)

— CLOSE RAMP "B", "L" AND "N-1" AS PER MT-98.29

— OFFICAL DETOUR ROUTE FOR I-277 EASTBOUND TRAFFIC: I-76 EASTBOUND / I-77 SOUTHBOUND

FOR "DETOUR" SIGNS, SEE SHEETS P.19-P.21.

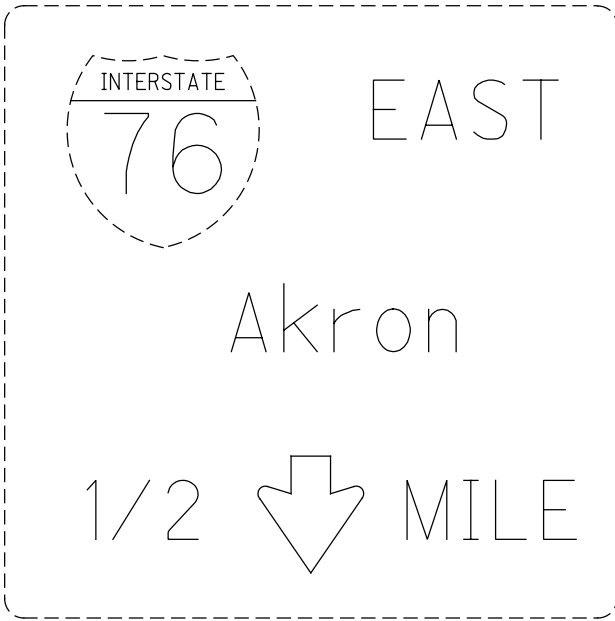
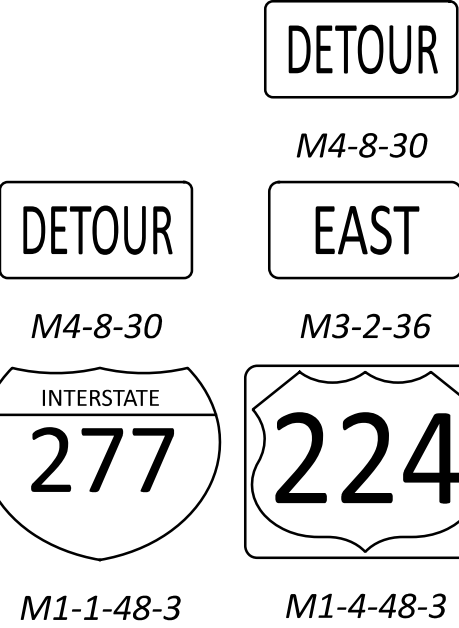
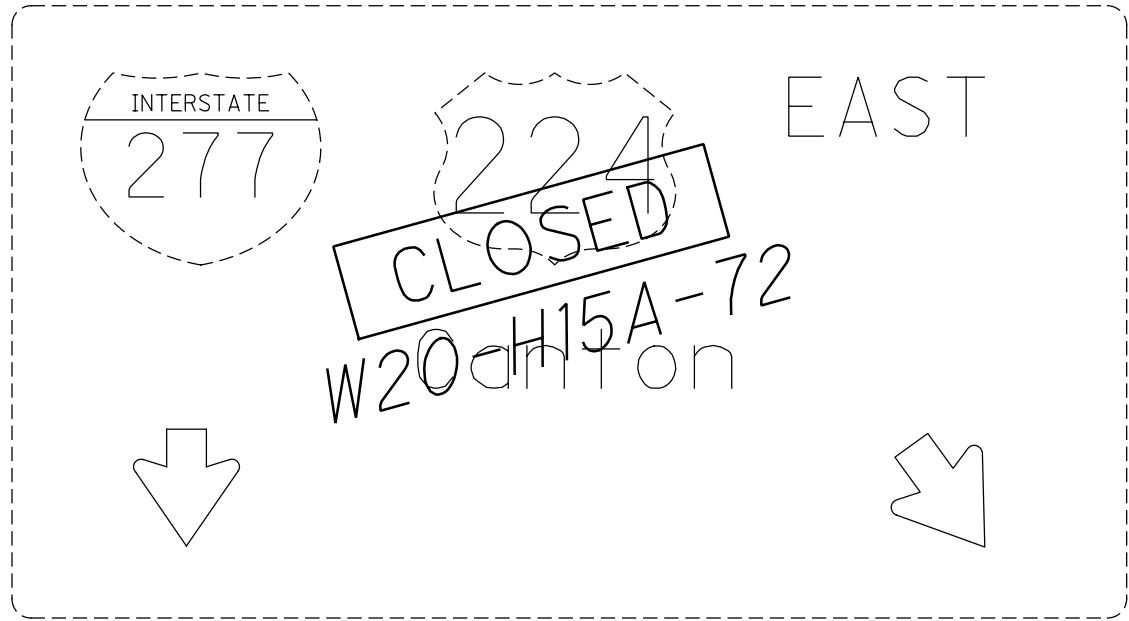
- A** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 EAST CLOSED AHEAD
 - USE 76 EAST TO 77 S

- C** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 EAST CLOSED AHEAD
 - USE 619 EAST TO 77 N

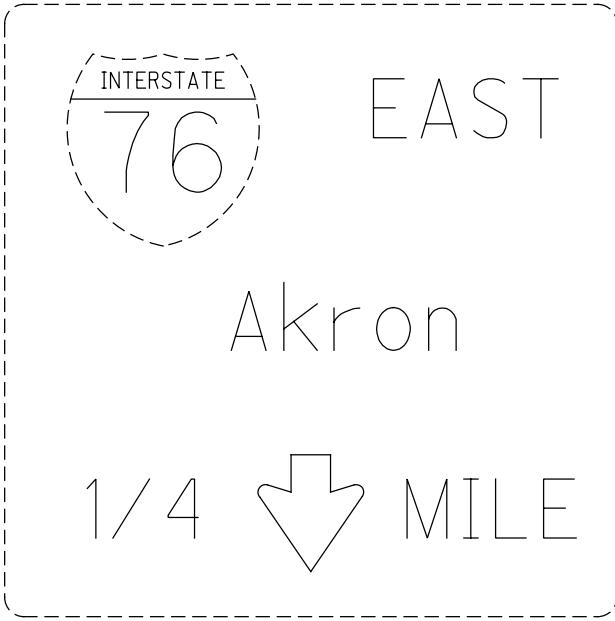
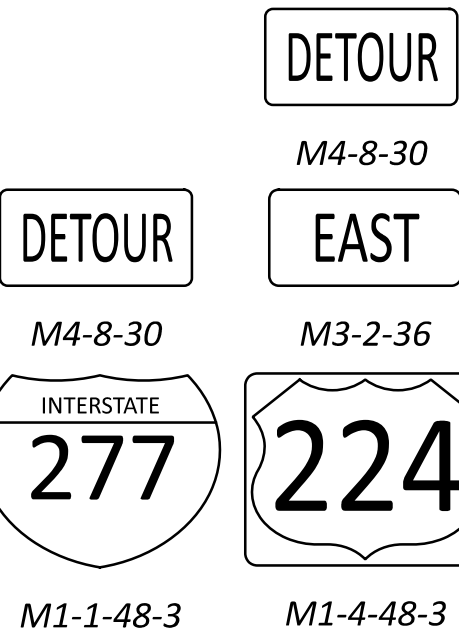
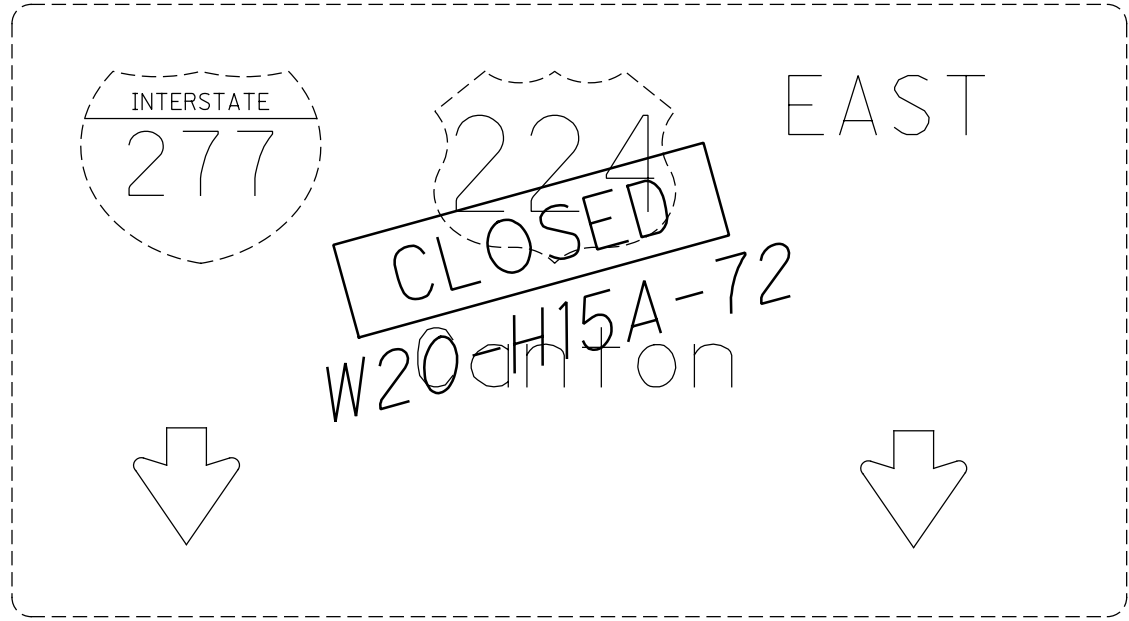
- D** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 EAST CLOSED AHEAD
 - USE WATERLOO TO KELLY



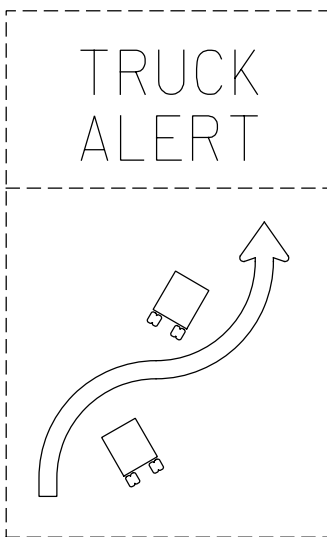
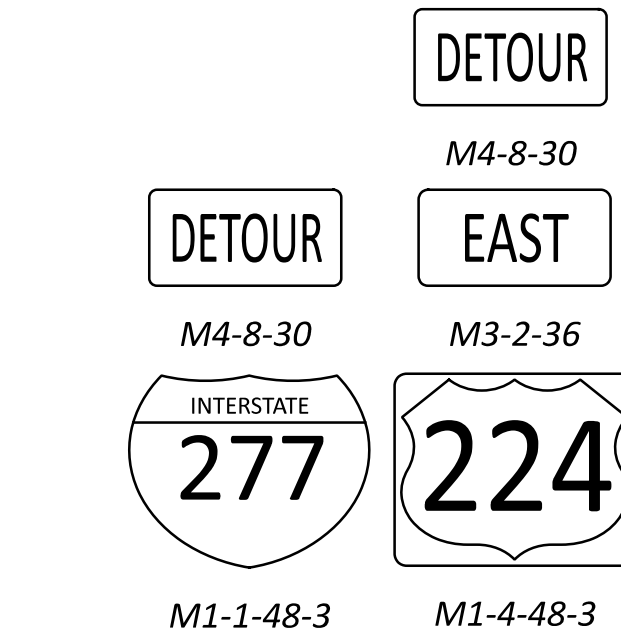
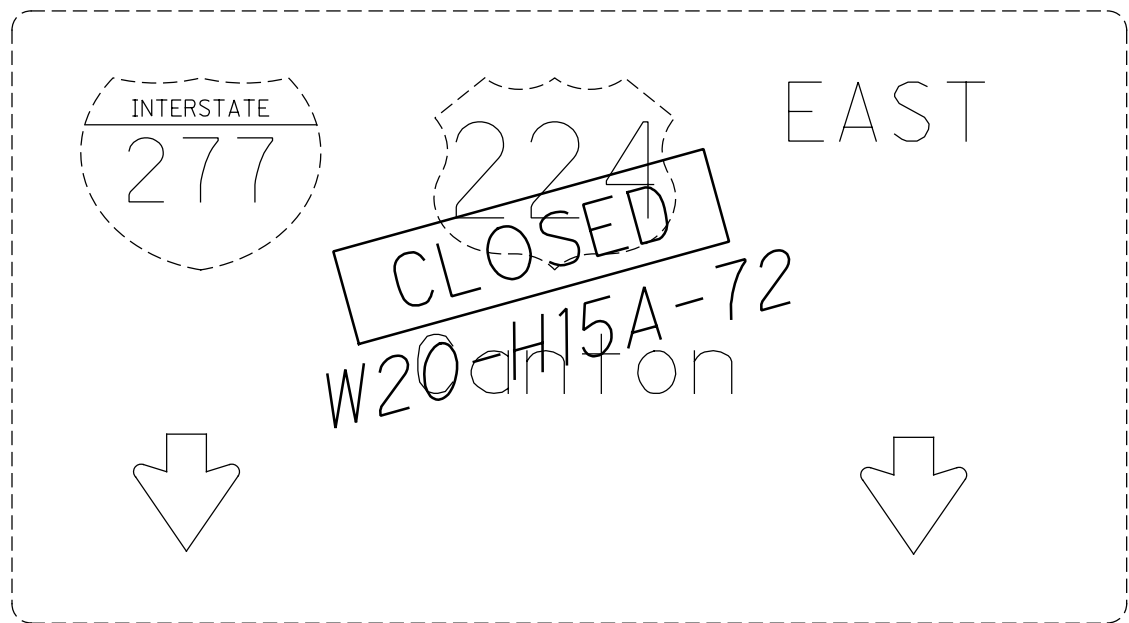
E1



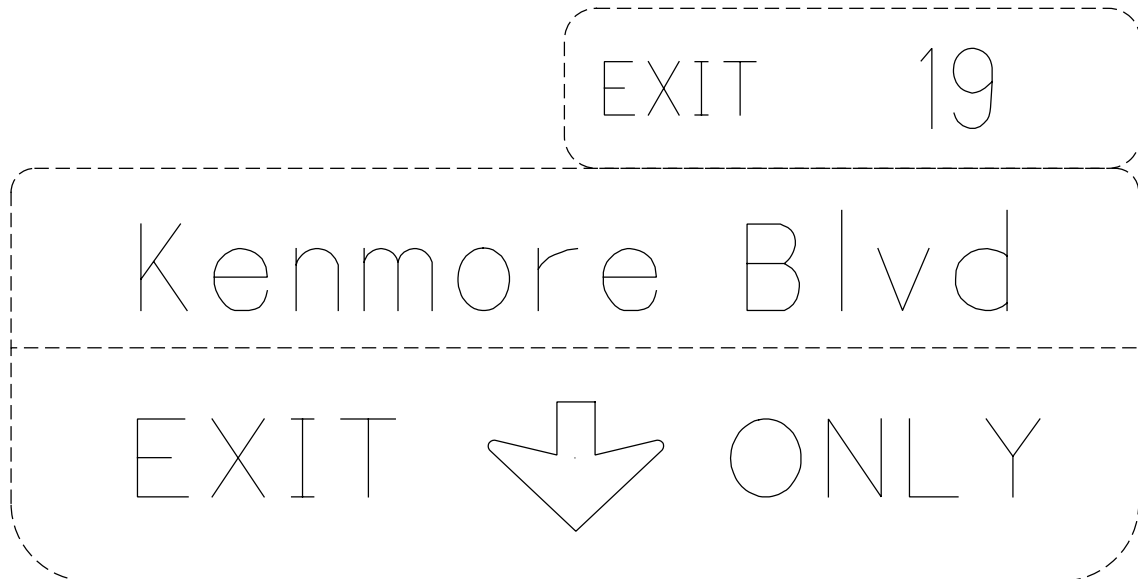
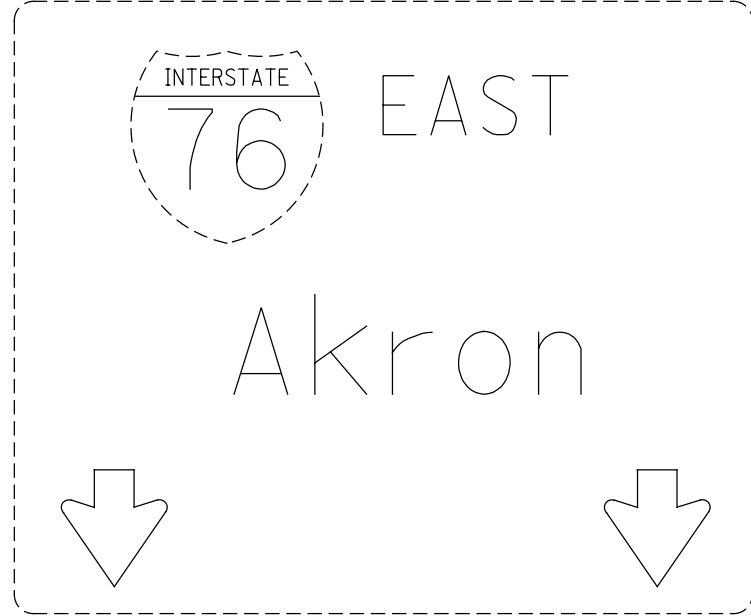
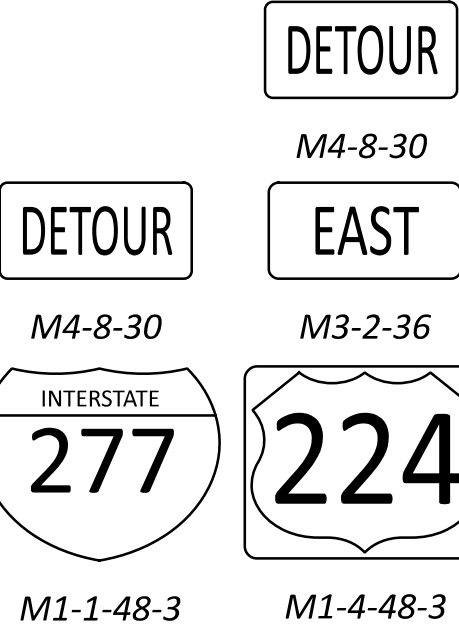
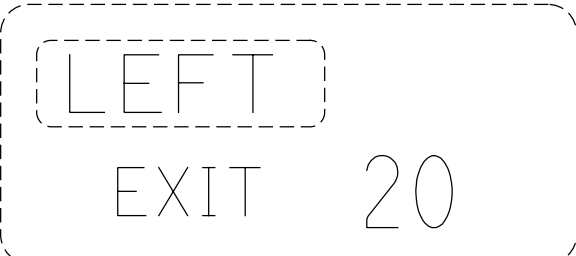
E2



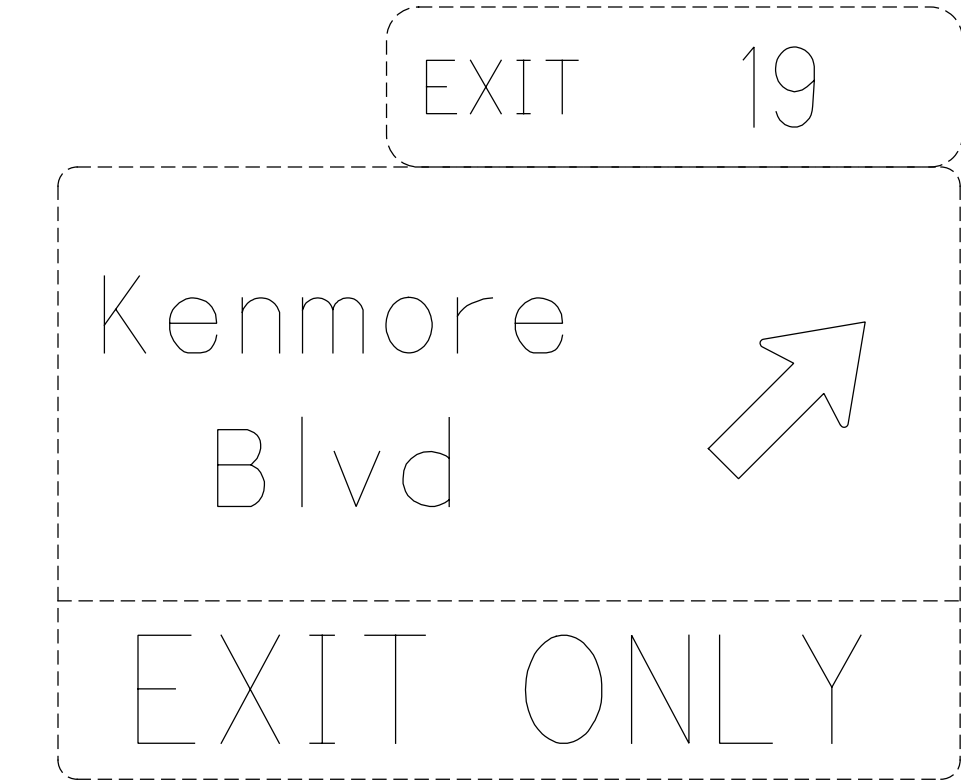
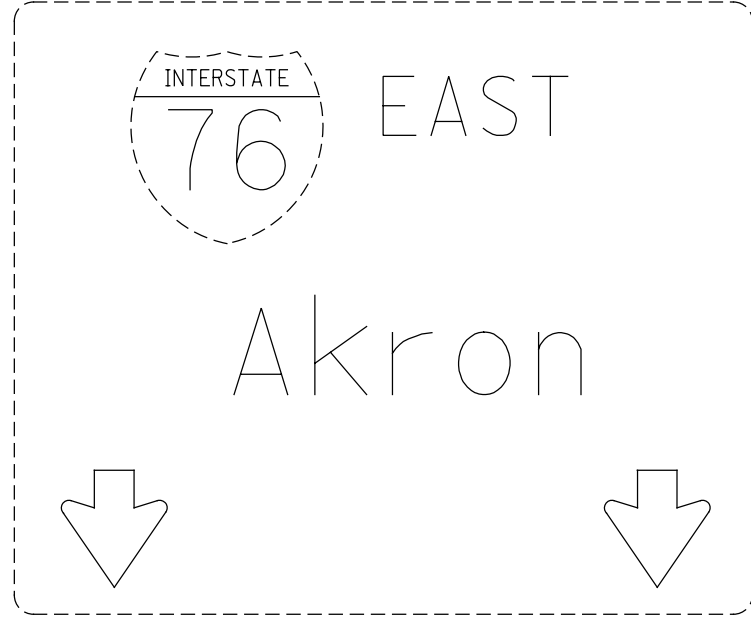
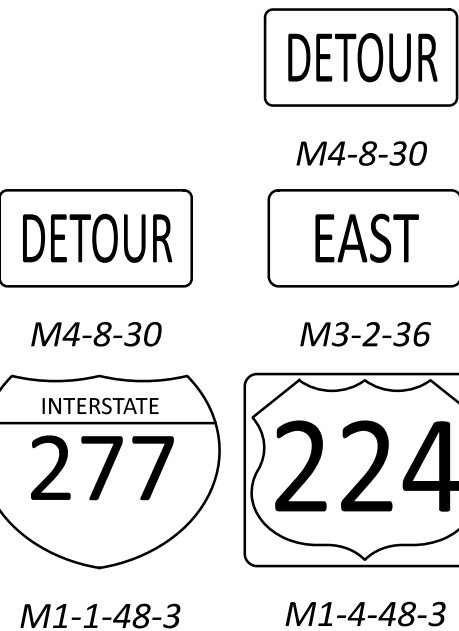
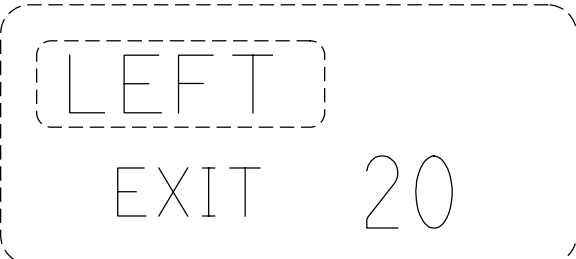
E3



E4



E5



E6

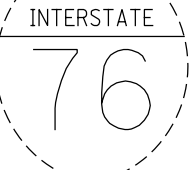
LEFT
EXIT 20

TO  NORTH
Cleveland
↓ ↓

DETOUR
M4-8-30
 M1-1-48-3

DETOUR
M3-2-36
 M1-4-48-3

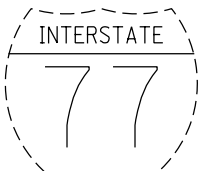
DETOUR
EAST

 EAST
Akron
↓ ↓

LEVEL 1
TRAUMA
CENTER

E7

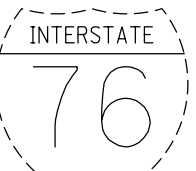
LEFT
EXIT 20

TO  NORTH
Cleveland
↓ EXIT ONLY ↓

DETOUR
M4-8-30
 M1-1-48-3

DETOUR
M3-2-36
 M1-4-48-3

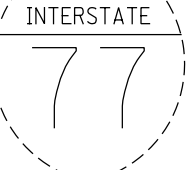
DETOUR
EAST

 EAST
Akron
↓ ↓

LEVEL 1
TRAUMA
CENTER

E8

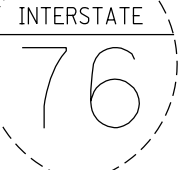
LEFT
EXIT 20

TO  NORTH
Cleveland
↓ EXIT ONLY ↓

DETOUR
M4-8-30
 M1-1-48-3

DETOUR
M3-2-36
 M1-4-48-3

DETOUR
EAST

 EAST
Akron
↓ ↓

LEVEL 1
TRAUMA
CENTER

E9

EXIT 23A

 SOUTH
Canton
1 1/2 MILES
↓

DETOUR
M4-8-30
 M1-1-48-3

DETOUR
M3-2-36
 M1-4-48-3

DETOUR
EAST

EXIT 22

Main St
Downtown
Univ of Akron
EXIT ↗ ONLY

MAINTENANCE OF TRAFFIC DETOUR PLAN
SUM-277 EB 10-DAY CLOSURE

DESIGN AGENCY

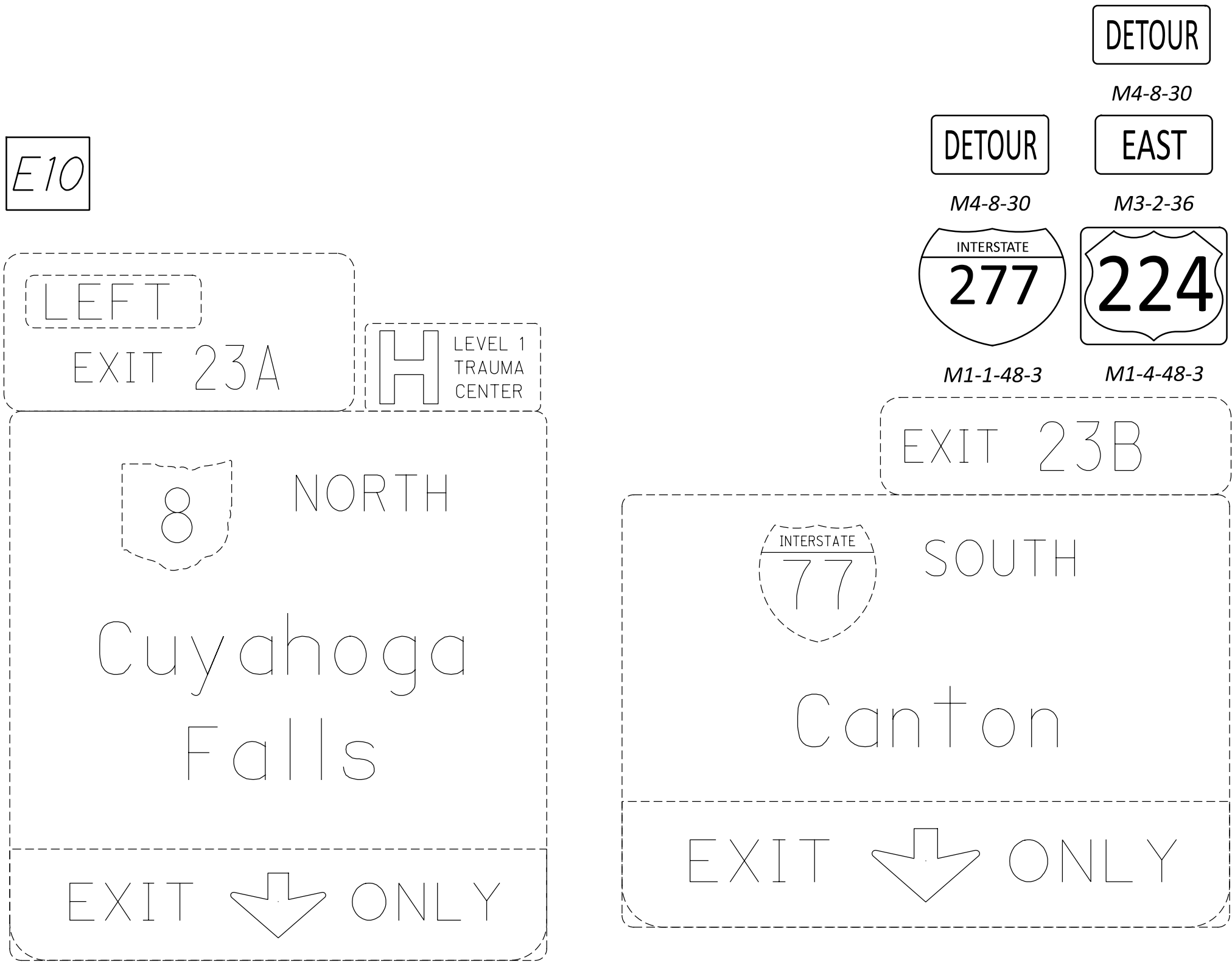
DESIGNER
SJD

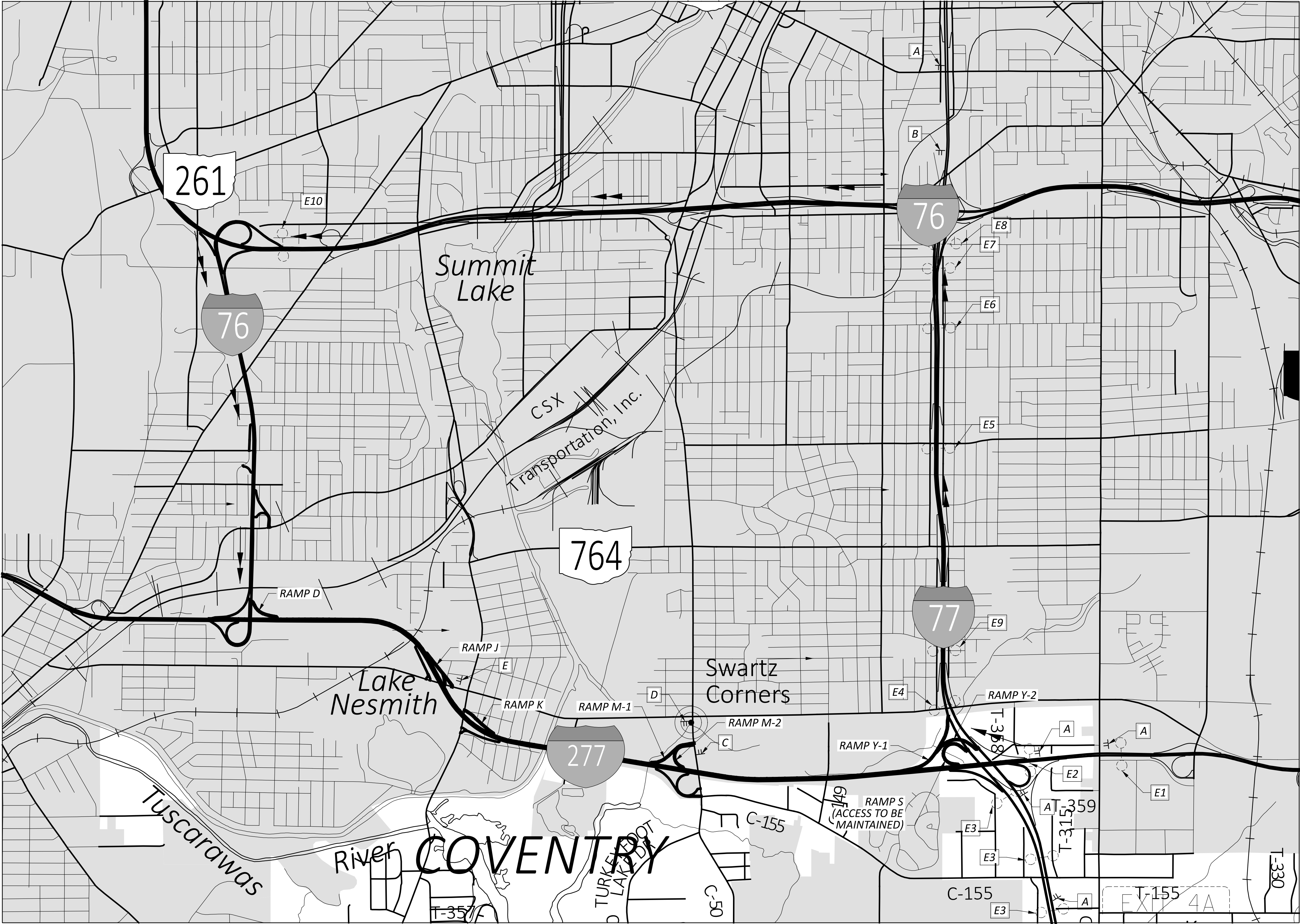
REVIEWER

MJA 03-27-24

PROJECT ID
113086

SHEET TOTAL
P.20 62





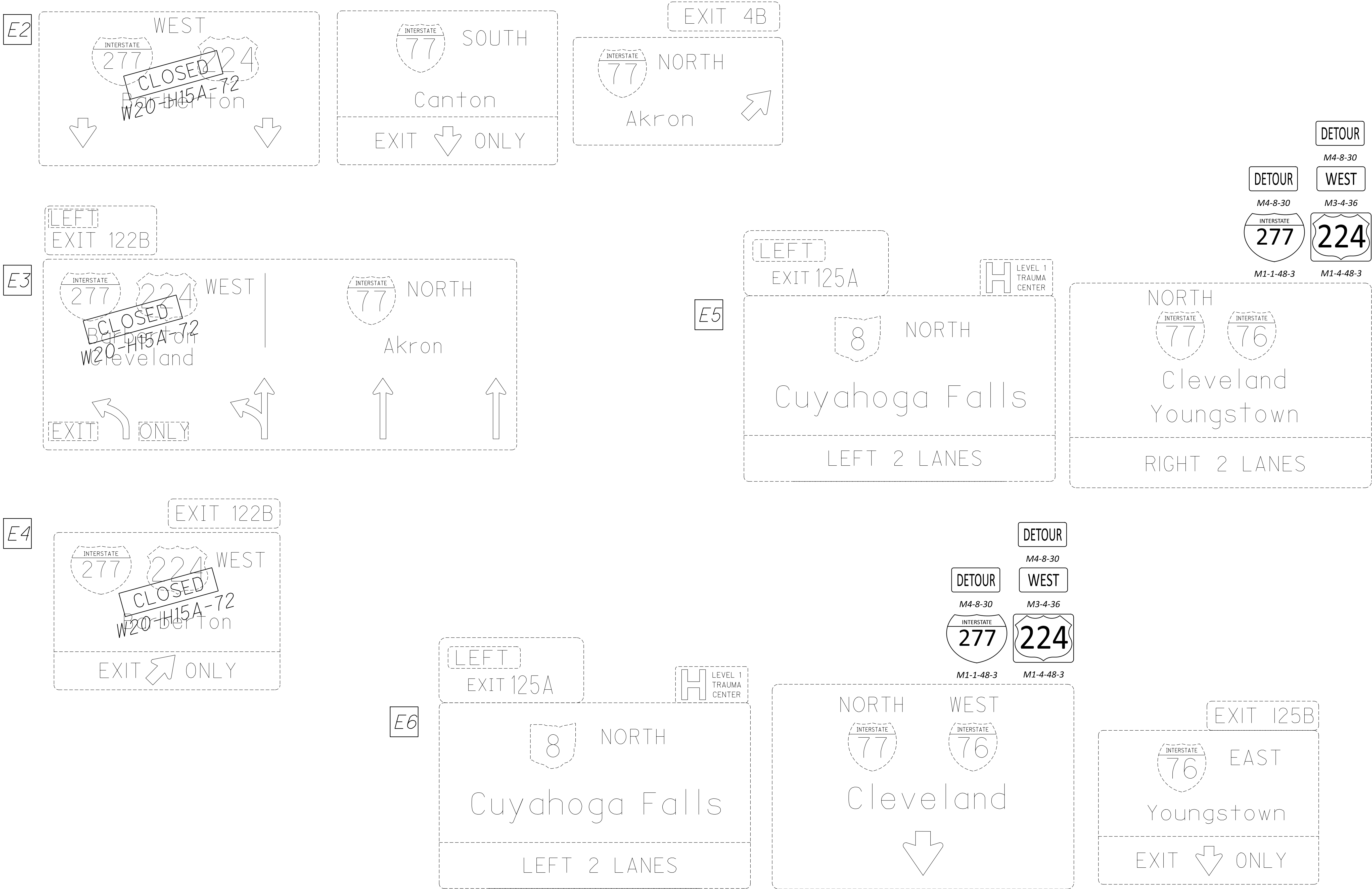
DETOUR PLAN FOR I-277 WB (I-77 NORTH TO I-76 WEST)

- CLOSE RAMP "Y-1", "Y-2", "M-1" AND "J" AS PER MT-98.29
- OFFICAL DETOUR ROUTE FOR I-277 WESTBOUND TRAFFIC: I-77 NORTHBOUND / I-76 WESTBOUND

FOR "DETOUR" SIGNS, SEE SHEETS P.23-P.25.

- A** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 WEST CLOSED AHEAD
 - USE 77 NORTH TO 76 W
- C** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 WEST CLOSED AHEAD
 - USE 76 WEST
- D** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 WEST CLOSED AHEAD
 - USE 619 WEST TO STATE ST
- E** PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:
- 277 WEST CLOSED AHEAD
 - USE WATERLOO TO 619

NOTE:
ACCESS FROM I-277 WESTBOUND TO THE I-77 SOUTHBOUND RAMP AND THE I-77 NORTHBOUND RAMP SHALL BE MAINTAINED AT ALL TIMES. MAINTAIN I-277 ACCESS TO I-77 WHILE PERFORMING THE WORK IN ACCORDANCE WITH MT-95.30 AND MT-102.10. THE SOUTHBOUND RAMP FROM I-77 SOUTHBOUND TO I-277 WESTBOUND IS CLOSED DUE TO AN ADJACENT PROJECT AND WILL REMAIN CLOSED FOR WORK PERFORMED TO I-277 WESTBOUND. CLOSURE OF THE I-77 NORTHBOUND TO WB-277 RAMP SHALL BE AS PER STANDARD CONSTRUCTION DRAWING MT-98.29. A QUANTITY OF WORK ZONE PAVEMENT MARKING ITEMS HAVE BEEN PROVIDED FOR THIS WORK TO BE USED AS APPROVED BY THE ENGINEER.



E7

LEFT

EXIT 125A

H

LEVEL 1 TRAUMA CENTER

8

NORTH

Cuyahoga Falls

LEFT 2 LANES

DETOUR

M4-8-30

DETOUR

WEST

M4-8-30

M3-4-36

INTERSTATE 277

INTERSTATE 224

M1-1-48-3

M1-4-48-3

NORTH

INTERSTATE 77

WEST

INTERSTATE 76

Cleveland

↓

EXIT 125B

INTERSTATE 76

EAST

Youngstown

↓ EXIT ONLY

E8

DETOUR

M4-8-30

DETOUR

WEST

M4-8-30

M3-4-36

INTERSTATE 277

INTERSTATE 224

M1-1-48-3

M1-4-48-3

NORTH

INTERSTATE 77

WEST

INTERSTATE 76

Cleveland

↖

EXIT 125B

INTERSTATE 76

EAST

Youngstown

EXIT ↗ ONLY

E9

LEFT

EXIT 122A

224

EAST

Mogadore

LEFT 3/4 MILE

EXIT 122B

INTERSTATE 277

224

WEST

Closed

Barbours Ave

W20-H15A-72

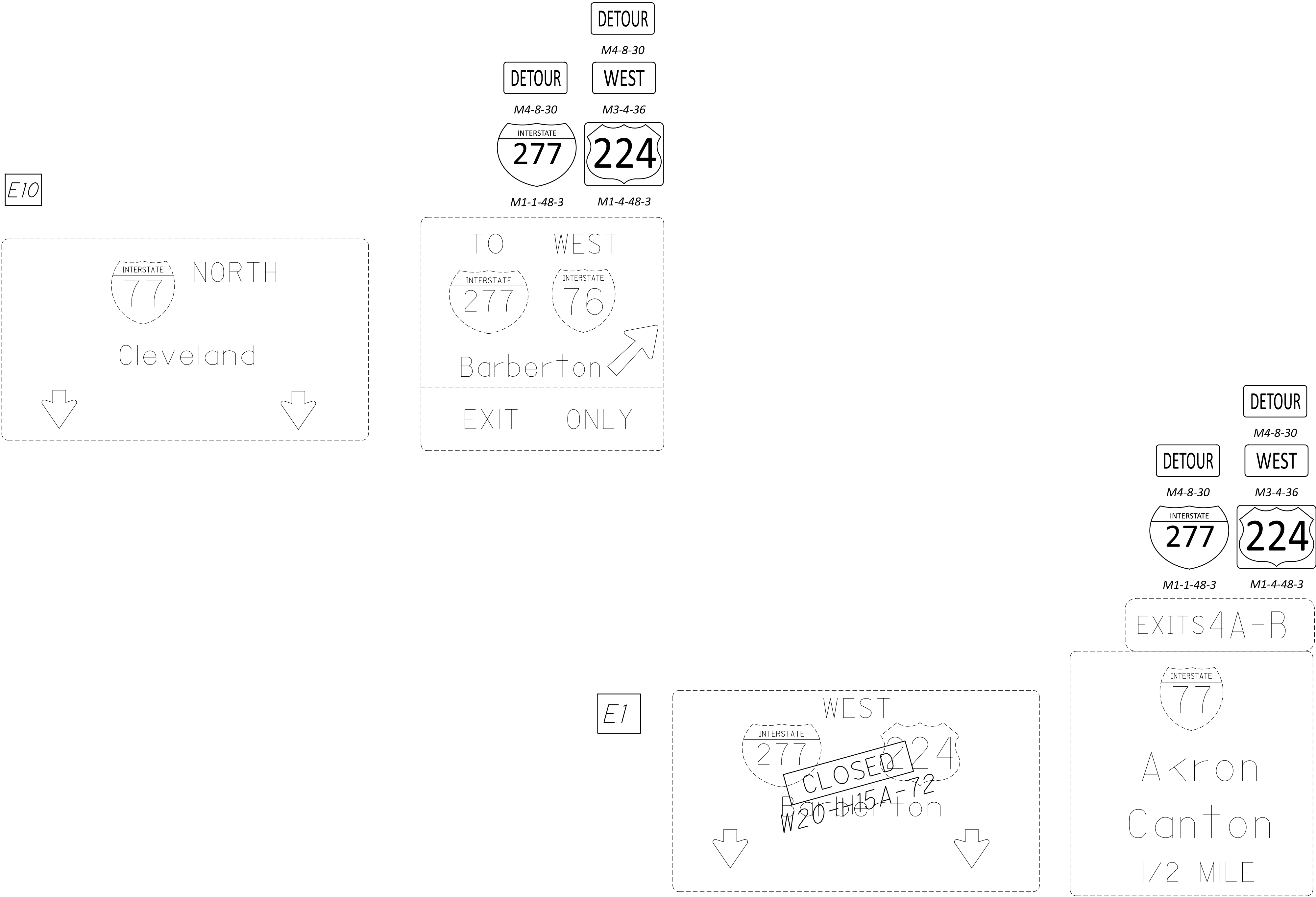
1/2 MILE

EXIT 123A

Waterloo Rd

EXIT ↓ ONLY





MAINTENANCE OF TRAFFIC DETOUR PLAN
SUM-277 WB 10-DAY CLOSURE

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-27-24

PROJECT ID

113086

SHEET

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TOTAL

62



DETOUR PLAN FOR RAMP E AND RAMP H

- CLOSE RAMPS E AND H AS PER MT-98.29
- OFFICAL DETOUR ROUTE FOR RAMP E: 22ND ST. / KENMORE BLVD. / EAST AVE.
- OFFICAL DETOUR ROUTE FOR RAMP H: KENMORE BLVD. / 4TH ST. / MANCHESTER RD. / WATERLOO RD. / IR-277 WB

A

DETOUR

M4-8-30

EAST

M3-2-36

INTERSTATE

76

M1-1-36-2

INTERSTATE

77

M1-1-36-2

B

DETOUR

M4-8-30

WEST

M3-4-36

INTERSTATE

76

M1-1-36-2

INTERSTATE

77

M1-1-36-2

C

DETOUR

M4-8-30

EAST

M3-2-36

M6-1-30

INTERSTATE

76

M1-1-36-2

INTERSTATE

77

M1-1-36-2

D

DETOUR

M4-8-30

WEST

M3-4-36

M6-1-30

INTERSTATE

76

M1-1-36-2

INTERSTATE

77

M1-1-36-2

E

DETOUR

M4-8-30

EAST

M3-2-36

M5-2-30

INTERSTATE

76

M1-1-36-2

INTERSTATE

77

M1-1-36-2

F

DETOUR

M4-8-30

EAST

M3-2-36

M5-2-30

INTERSTATE

76

M1-1-36-2

INTERSTATE

77

M1-1-36-2



TEMPORARY PAVEMENT MARKINGS (DURING IR-277 CLOSURE PHASES)

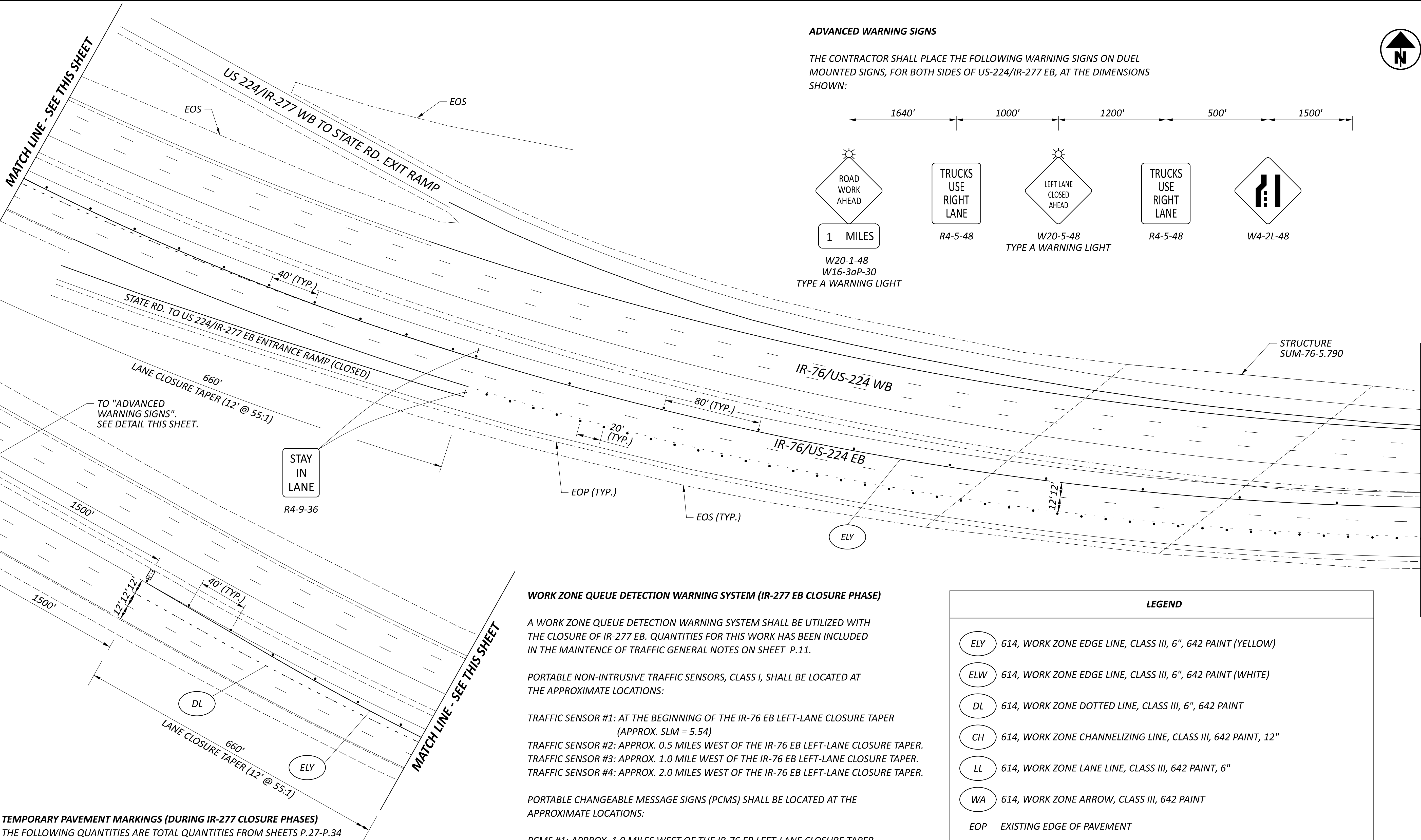
THE FOLLOWING QUANTITIES ARE TOTAL QUANTITIES FROM SHEETS P.27-P.34 AND SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC DURING THE IR-277 EB AND IR-277 WB CLOSURE PHASES AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY. ALL WORK SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

IR-277 EB CLOSURE PHASE:

614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT, 1.60 MILE
614, WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT, 1,267 FEET
614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT, 12", 2,683 FEET
614, WORK ZONE LANE LINE, CLASS III, 642 PAINT, 6", 0.52 MILE

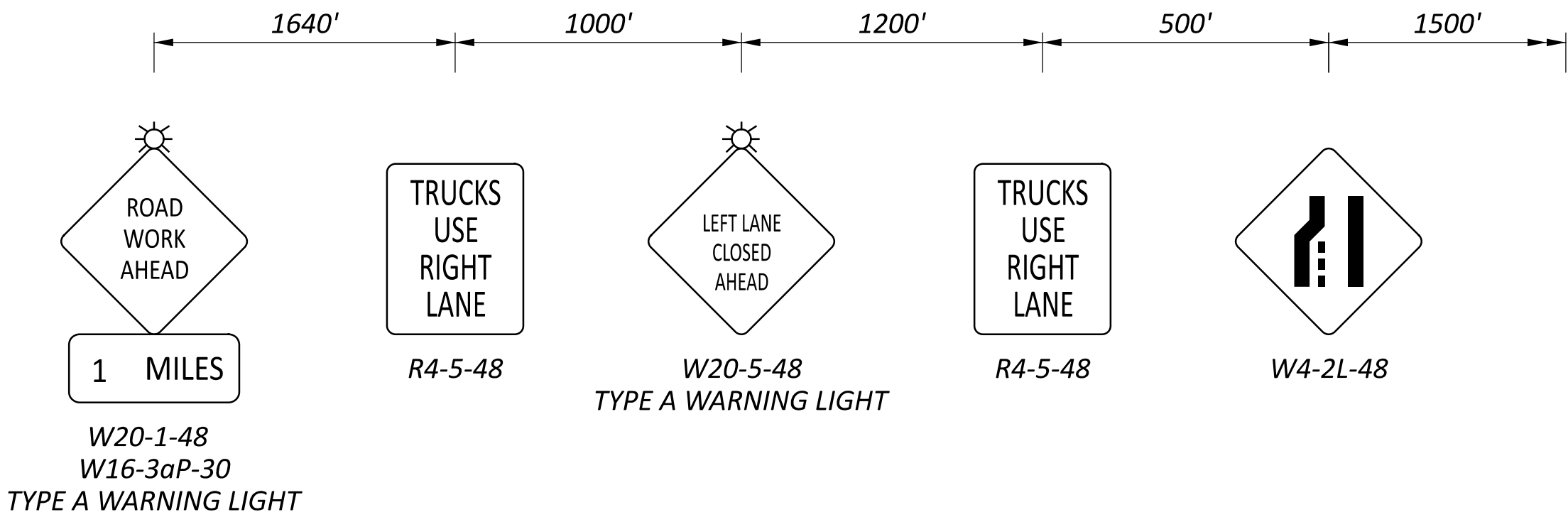
IR-277 WB CLOSURE PHASE:

614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT, 0.22 MILE
614, WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT, 661 FEET



ADVANCED WARNING SIGNS

THE CONTRACTOR SHALL PLACE THE FOLLOWING WARNING SIGNS ON DUEL MOUNTED SIGNS, FOR BOTH SIDES OF US-224/IR-277 EB, AT THE DIMENSIONS SHOWN:



WORK ZONE QUEUE DETECTION WARNING SYSTEM (IR-277 EB CLOSURE PHASE)

A WORK ZONE QUEUE DETECTION WARNING SYSTEM SHALL BE UTILIZED WITH THE CLOSURE OF IR-277 EB. QUANTITIES FOR THIS WORK HAS BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL NOTES ON SHEET P.11.

PORTABLE NON-INTRUSIVE TRAFFIC SENSORS, CLASS I, SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

TRAFFIC SENSOR #1: AT THE BEGINNING OF THE IR-76 EB LEFT-LANE CLOSURE TAPER (APPROX. SLM = 5.54)

TRAFFIC SENSOR #2: APPROX. 0.5 MILES WEST OF THE IR-76 EB LEFT-LANE CLOSURE TAPER.
TRAFFIC SENSOR #3: APPROX. 1.0 MILE WEST OF THE IR-76 EB LEFT-LANE CLOSURE TAPER.
TRAFFIC SENSOR #4: APPROX. 2.0 MILES WEST OF THE IR-76 EB LEFT-LANE CLOSURE TAPER.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

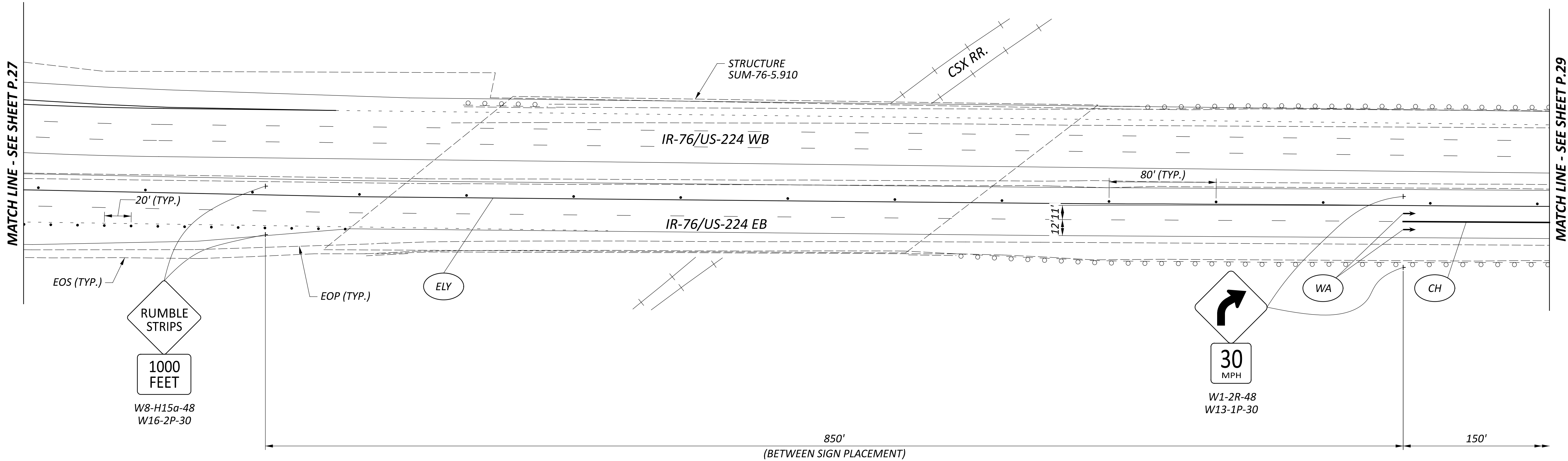
PCMS #1: APPROX. 1.0 MILES WEST OF THE IR-76 EB LEFT-LANE CLOSURE TAPER.
PCMS #2: APPROX. 2.0 MILES WEST OF THE IR-76 EB LEFT-LANE CLOSURE TAPER.
PCMS #3: APPROX. 3.0 MILES WEST OF THE IR-76 EB LEFT-LANE CLOSURE TAPER.

TEMPORARY RAMP PAVEMENT MARKINGS (DURING IR-277 CLOSURE PHASES)

THE STRIPING FOR RAMP A AND RAMP D SHALL BE RECONFIGURED AS PER THESE PLANS. ONCE THE RESPECTIVE MOT PHASES AND SURFACE COURSE ASPHALT PLACEMENT HAVE BEEN COMPLETED, THE WORK ZONE STRIPING AND PERMANENT STRIPING SHALL BE PLACED AT THE LOCATIONS PRIOR TO THE BEGINNING OF THE PROJECT.

LEGEND

- ELY 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT (YELLOW)
- ELW 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT (WHITE)
- DL 614, WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT
- CH 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT, 12"
- LL 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT, 6"
- WA 614, WORK ZONE ARROW, CLASS III, 642 PAINT
- EOP EXISTING EDGE OF PAVEMENT
- EOS EXISTING EDGE OF SHOULDER
- ┤ SINGLE POST SIGN
- ═ DUEL POST SIGN
- ▣ FLASHING ARROW PANE
- ▤ TYPE 3 BARRICADE
- CONSTRUCTION DRUM
- ▤▤▤ TEMPORARY PORTABLE RUMBLE STRIP AS PER SCD MT-97.20



MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



DESIGNER

CLG

REVIEWER

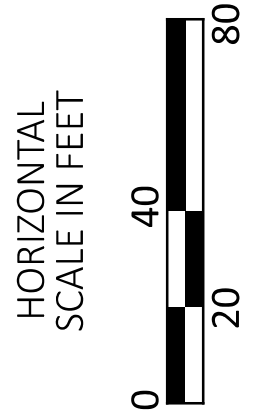
MJA 03-28-24

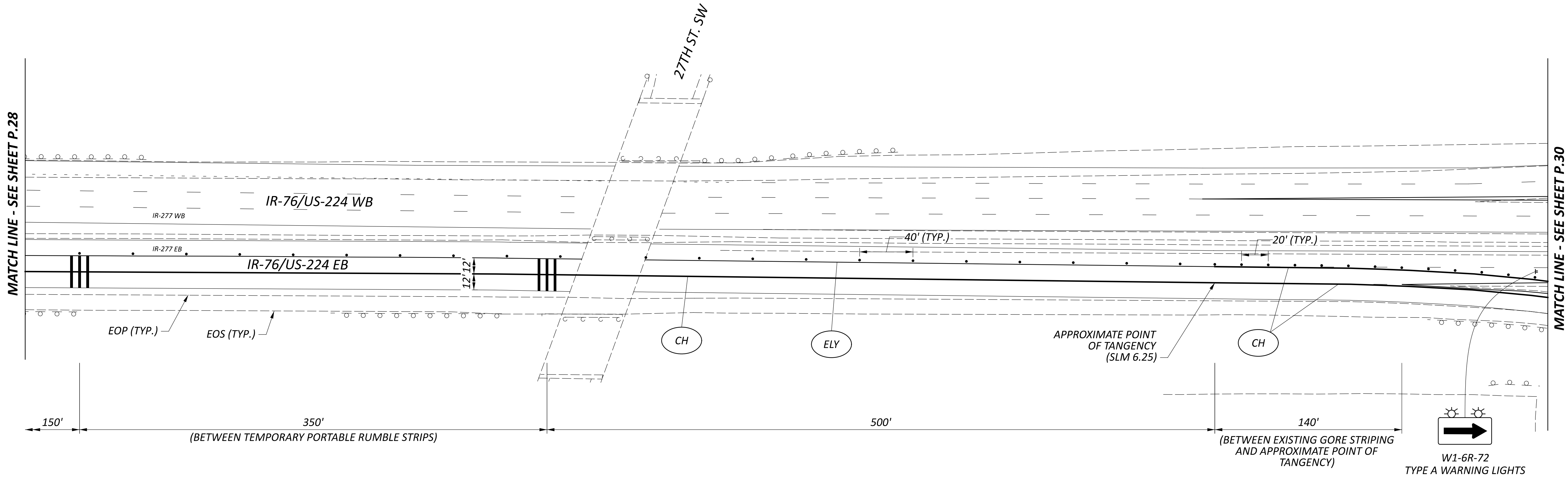
PROJECT ID

113086

SHEET TOTAL

P.28 62





MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



DESIGNER

CLG

REVIEWER

MJA 03-28-24

PROJECT ID

113086

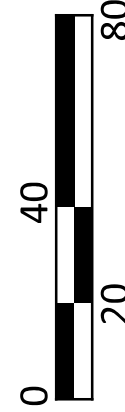
SHEET

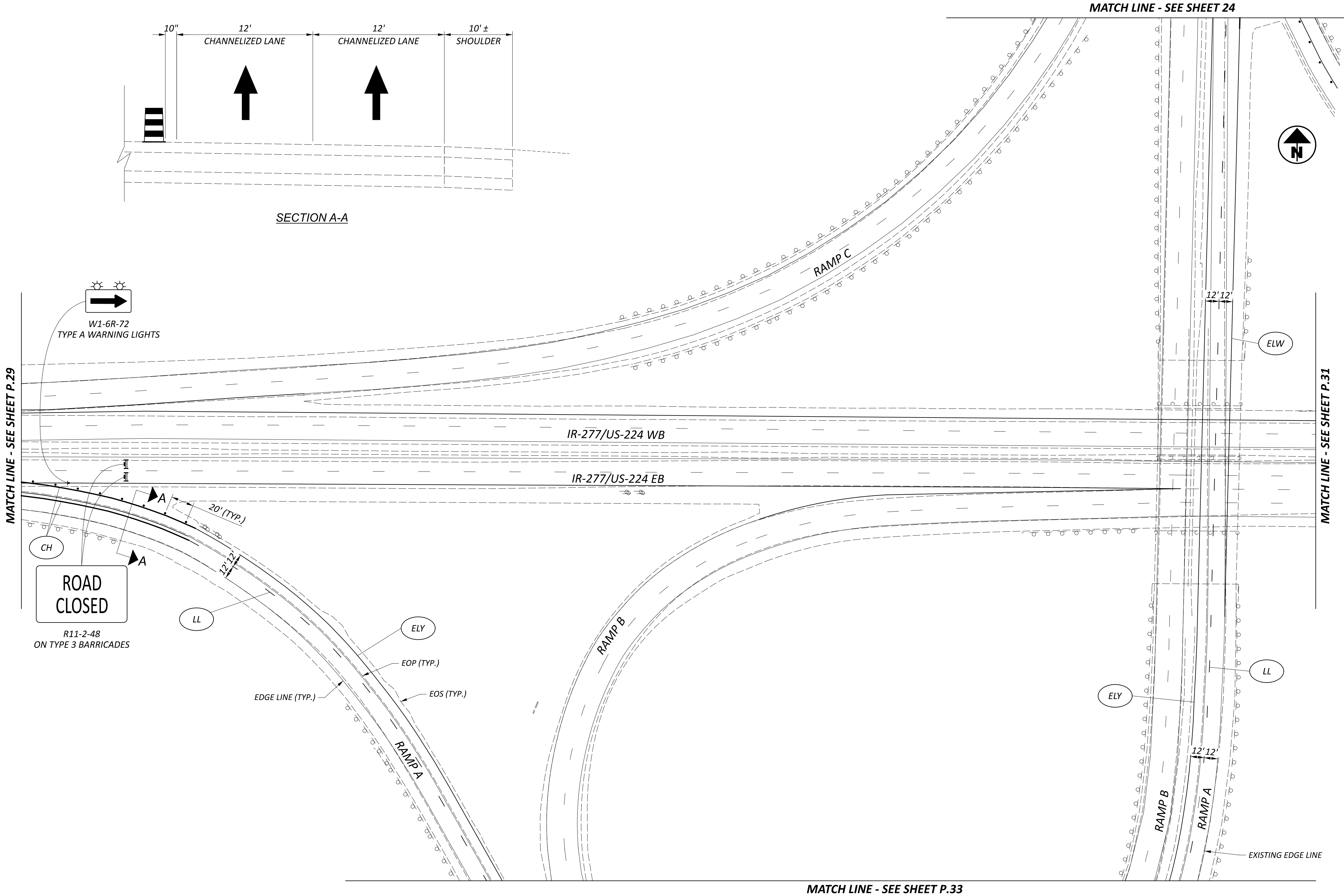
P.29

TOTAL

62

HORIZONTAL
SCALE IN FEET





MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



DESIGNER

CLG

REVIEWER

MJA 03-28-24

PROJECT ID

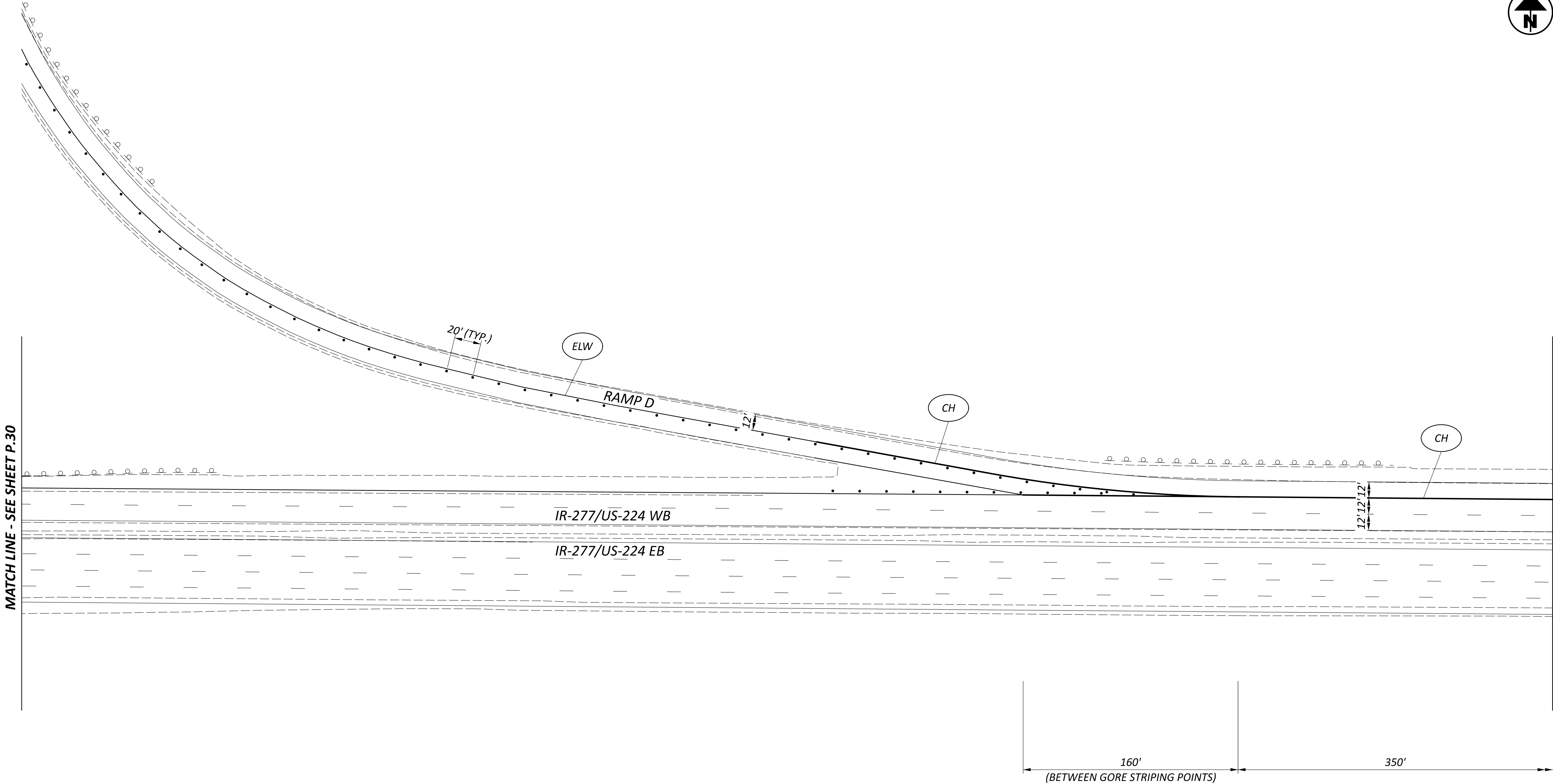
113086

SHEET

P.30

TOTAL

62



MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



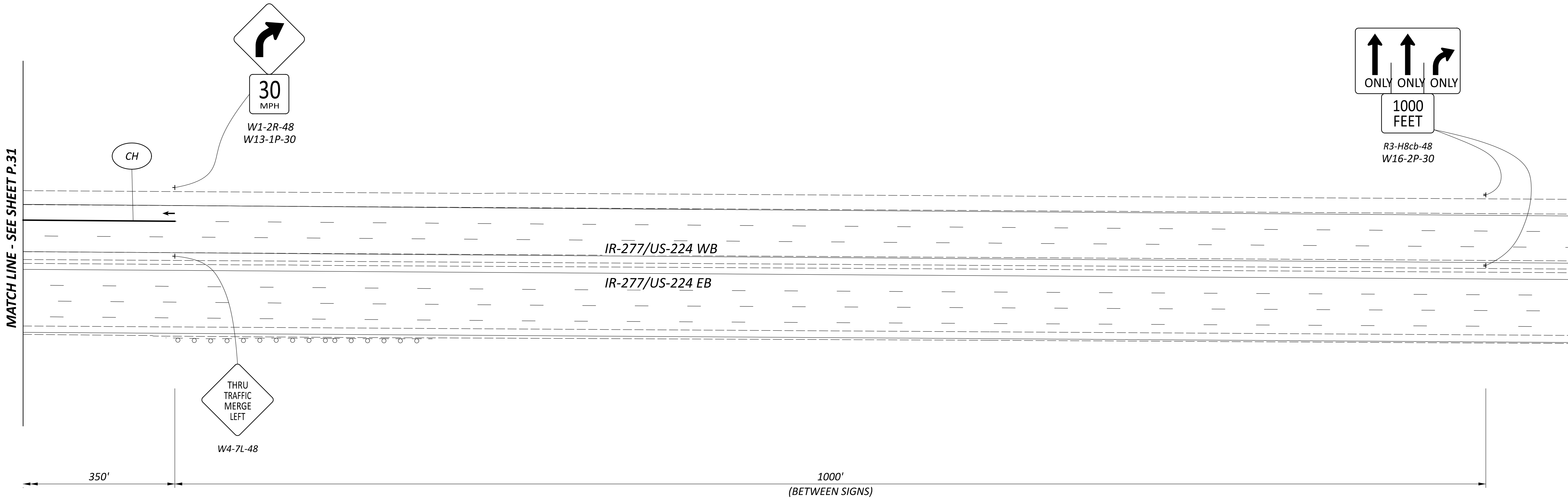
DESIGNER
CLG

REVIEWER
MJA 03-28-24

PROJECT ID
113086

SHEET
P.31

TOTAL
62



MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



DESIGNER
CLG

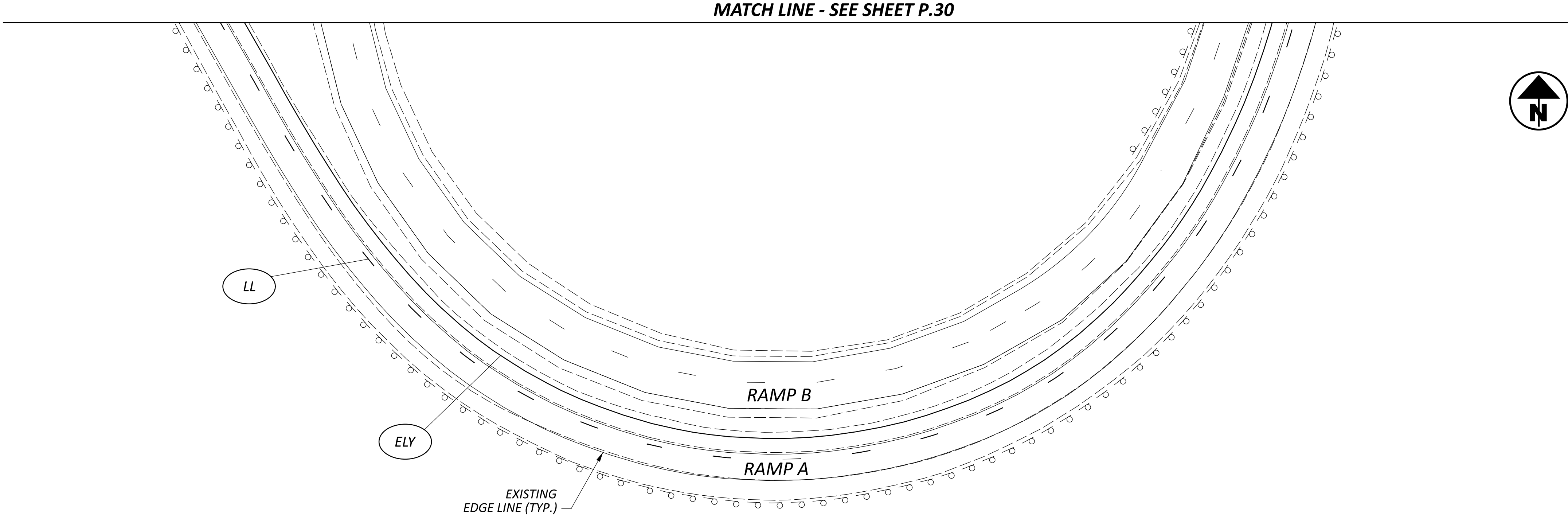
REVIEWER
MJA 03-28-24

PROJECT ID
113086

SHEET
P.32

TOTAL
62





MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY

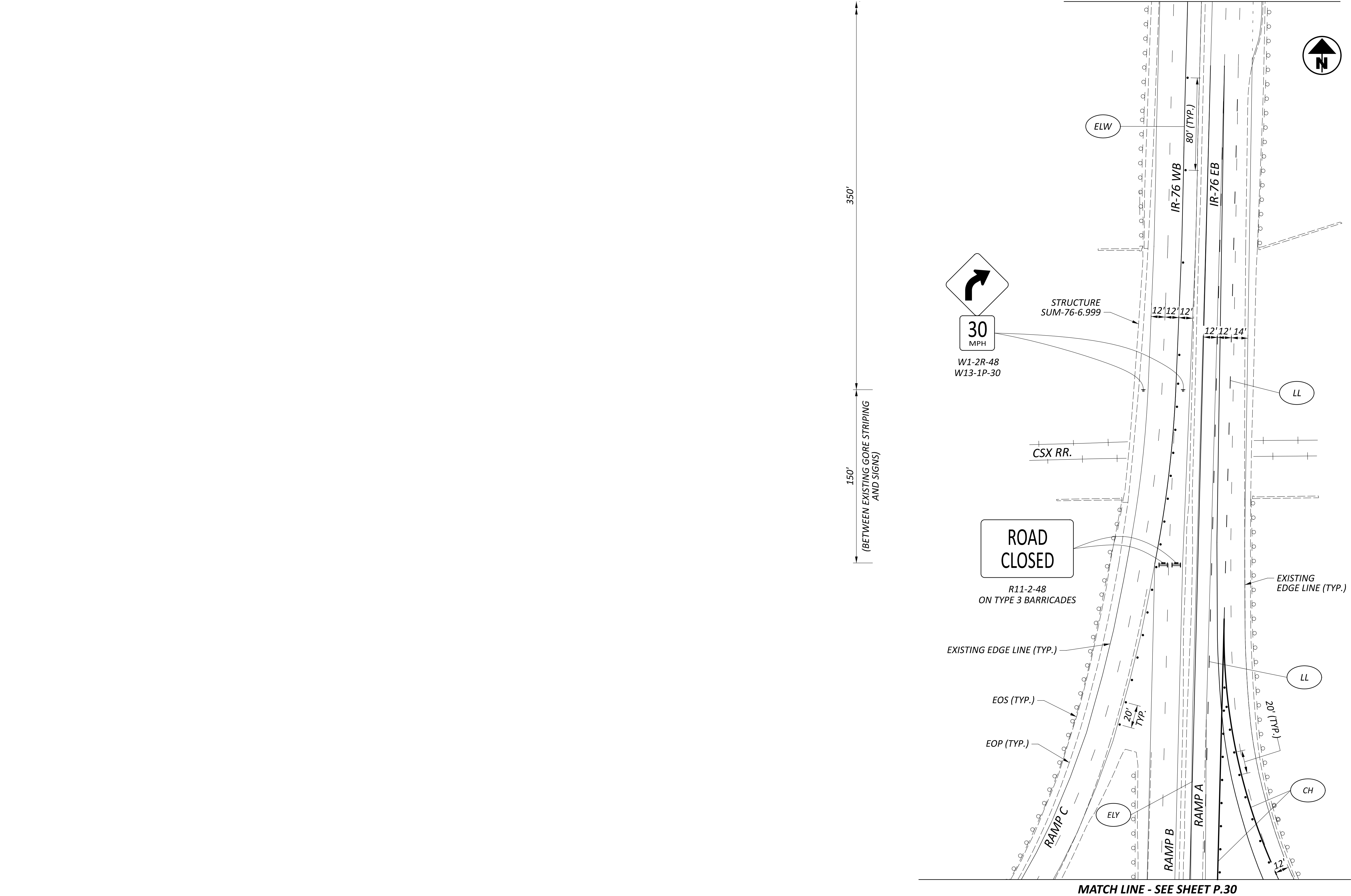


DESIGNER
CLG

REVIEWER
MJA 03-28-24

PROJECT ID
113086

SHEET	TOTAL
P.33	62



MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



DESIGNER

CLG

REVIEWER

MJA 03-28-24

PROJECT ID

113086

SHEET

P.34

TOTAL

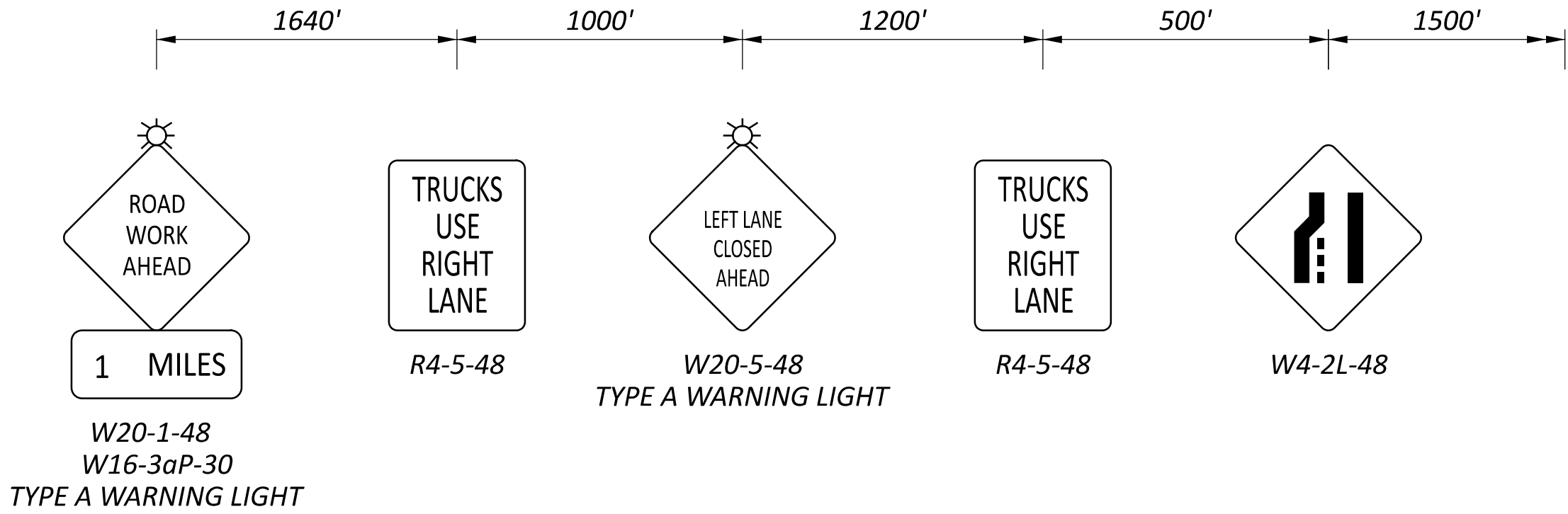
62

HORIZONTAL
SCALE IN FEET

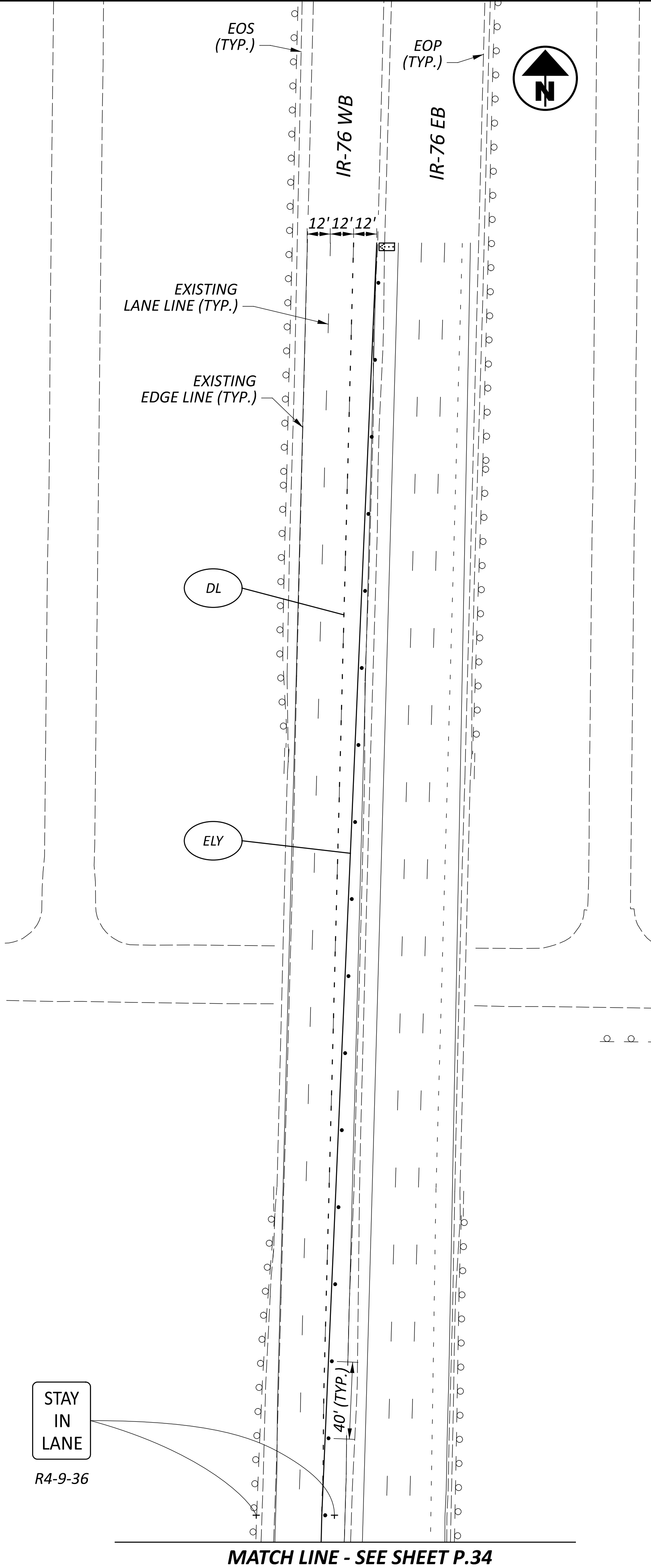
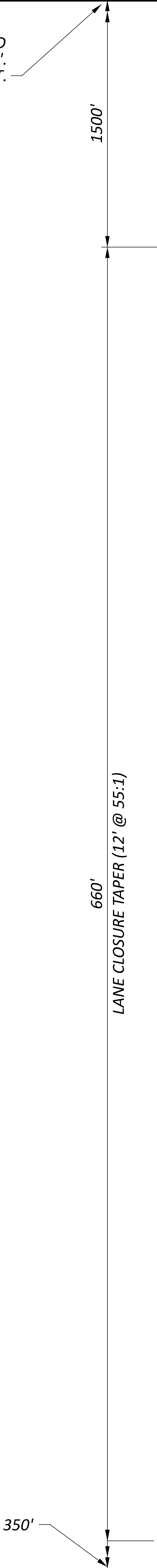


ADVANCED WARNING SIGNS

THE CONTRACTOR SHALL PLACE THE FOLLOWING WARNING SIGNS ON DUEL MOUNTED SIGNS, FOR BOTH SIDES OF IR-76 WB, AT THE DIMENSIONS SHOWN:



TO "ADVANCED WARNING SIGNS".
SEE DETAIL THIS SHEET.



MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 EB CLOSURE PHASE

DESIGN AGENCY



DESIGNER

CLG

REVIEWER

MJA 03-28-24

PROJECT ID

113086

SHEET TOTAL

P.35 62

WORK ZONE QUEUE DETECTION WARNING SYSTEM (IR-277 WB CLOSURE PHASE)

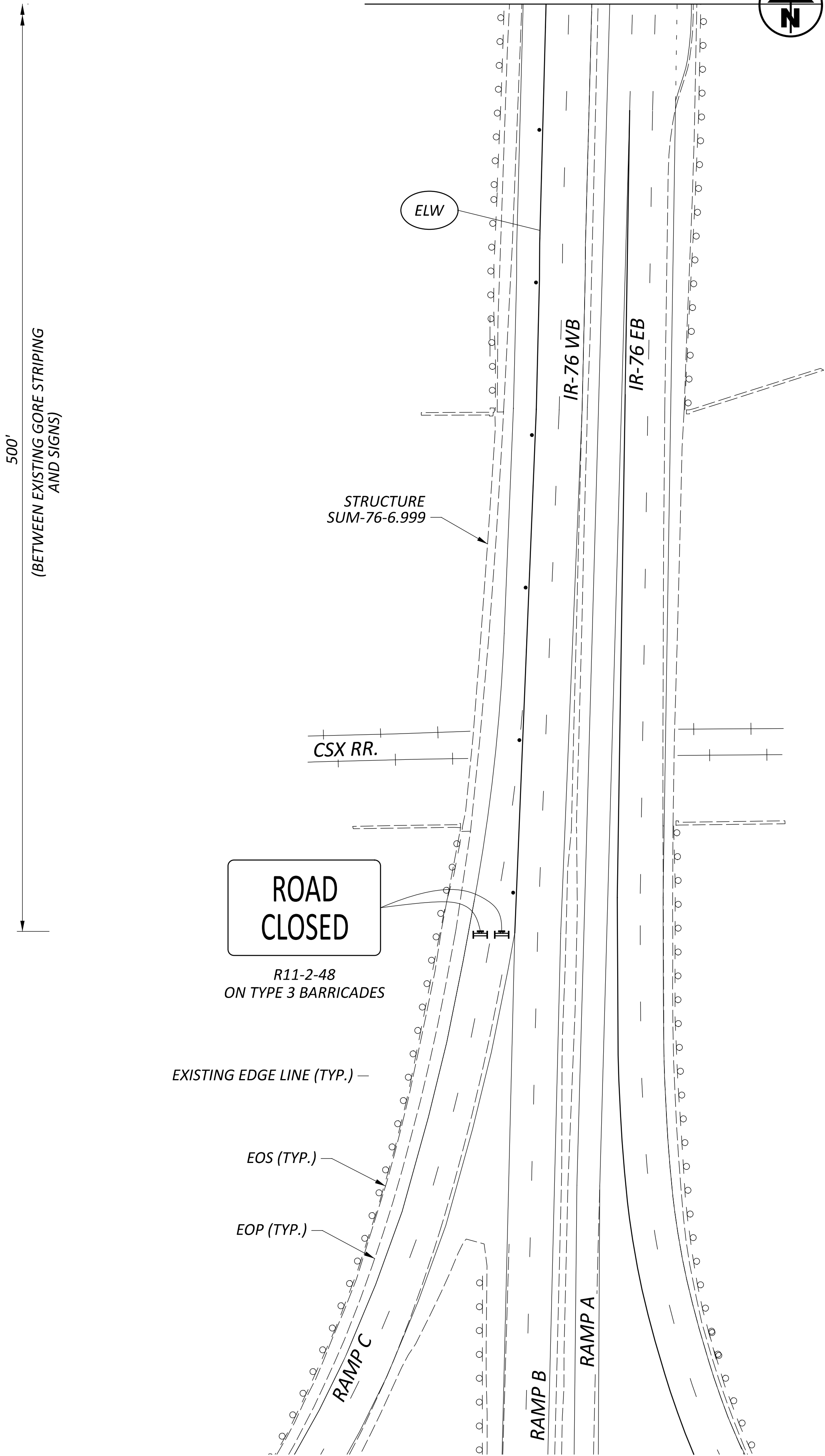
A WORK ZONE QUEUE DETECTION WARNING SYSTEM SHALL BE UTILIZED WITH THE CLOSURE OF IR-277 WB. QUANTITIES FOR THIS WORK HAS BEEN INCLUDED IN THE MAINTENCE OF TRAFFIC GENERAL NOTES ON SHEET P.11.

PORTABLE NON-INTRUSIVE TRAFFIC SENSORS, CLASS I, SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

TRAFFIC SENSOR #1: AT THE BEGINNING OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER
TRAFFIC SENSOR #2: APPROX. 0.5 MILES WEST OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER.
TRAFFIC SENSOR #3: APPROX. 1.0 MILE WEST OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER.
TRAFFIC SENSOR #4: APPROX. 2.0 MILES WEST OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER.

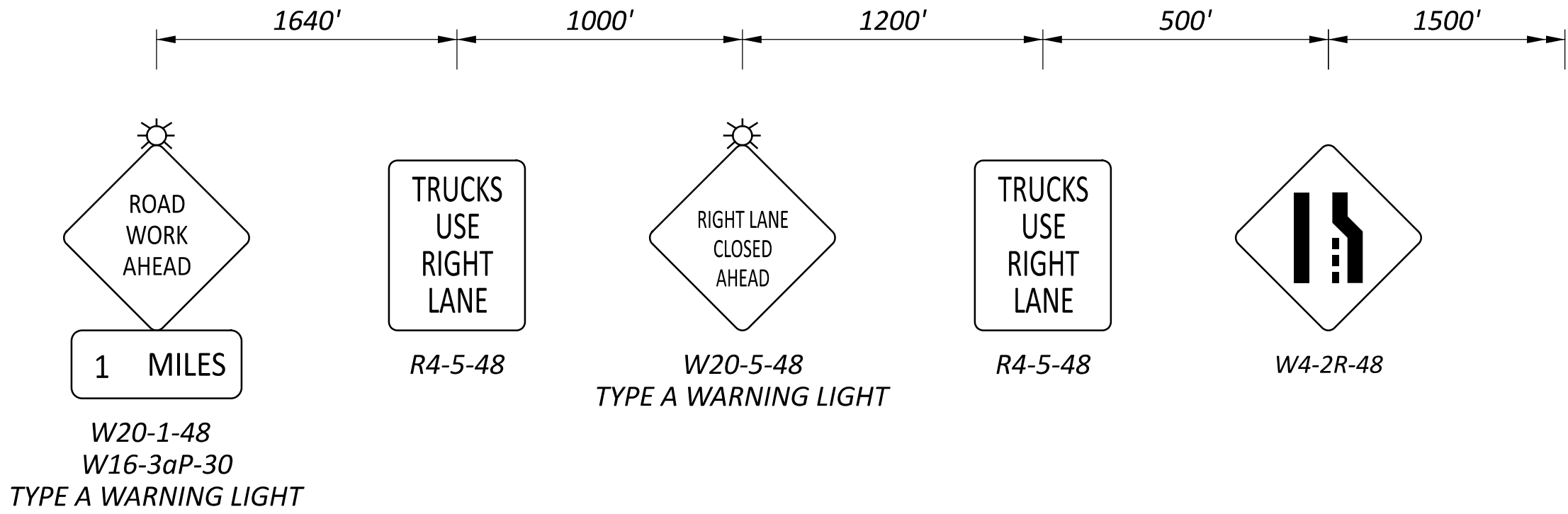
PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE LOCATED AT THE APPROXIMATE LOCATIONS:

PCMS #1: APPROX. 1.0 MILES WEST OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER .
PCMS #2: APPROX. 2.0 MILES WEST OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER .
PCMS #3: APPROX. 3.0 MILES WEST OF THE IR-76 WB RIGHT-LANE CLOSURE TAPER .

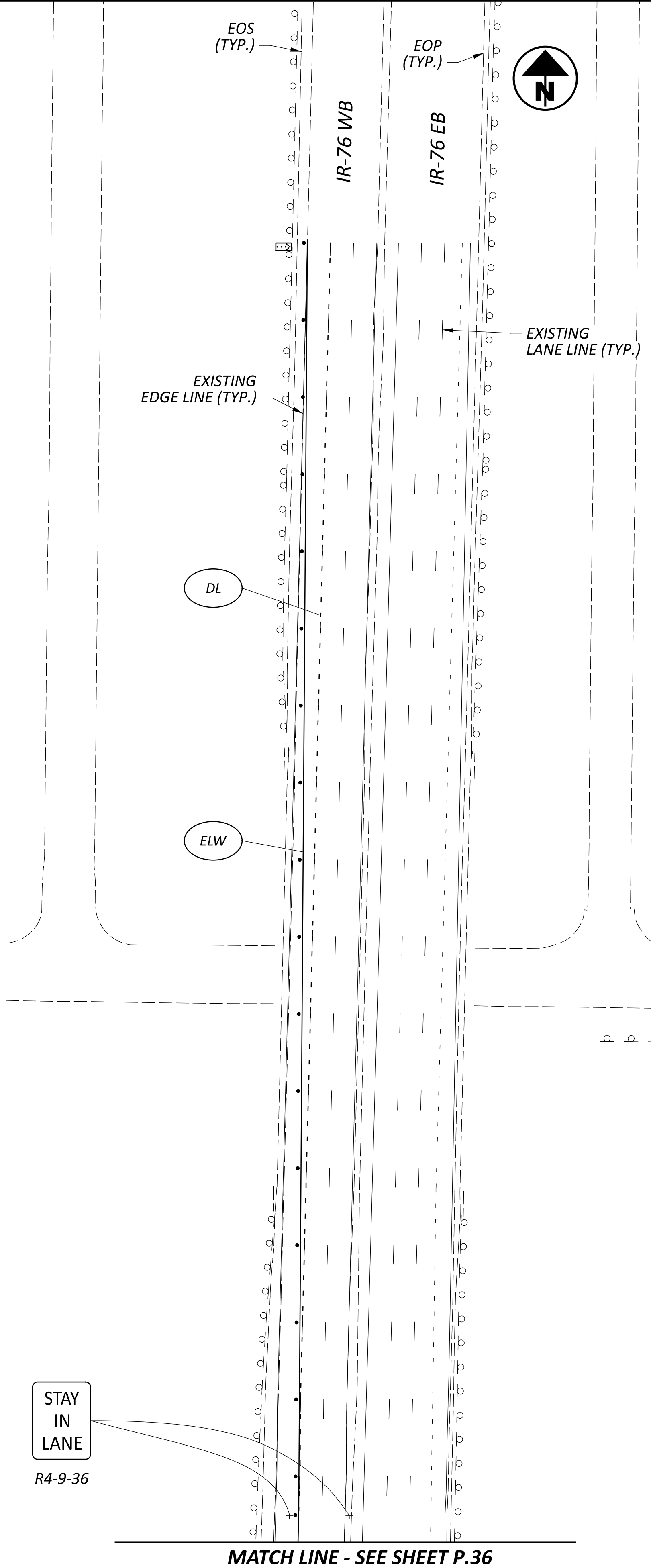
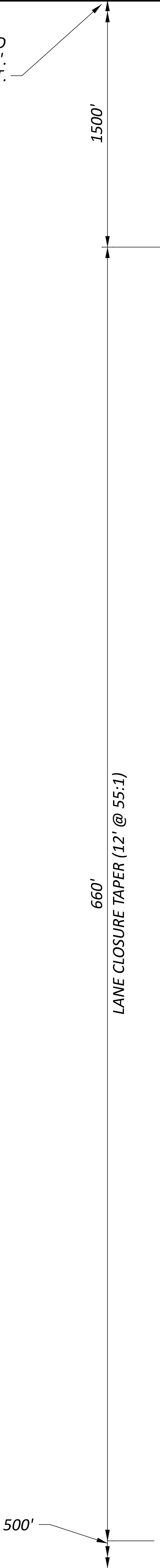


ADVANCED WARNING SIGNS

THE CONTRACTOR SHALL PLACE THE FOLLOWING WARNING SIGNS ON DUEL MOUNTED SIGNS, FOR BOTH SIDES OF IR-76 WB, AT THE DIMENSIONS SHOWN:



TO "ADVANCED WARNING SIGNS".
SEE DETAIL THIS SHEET.



MAINTENANCE OF TRAFFIC PLAN
IR-277/US-224 WB CLOSURE PHASE

DESIGN AGENCY



DESIGNER

CLG

REVIEWER

MJA 03-28-24

PROJECT ID

113086

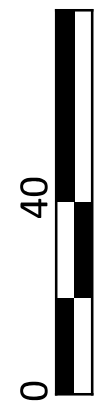
SHEET

P.37

TOTAL

62

HORIZONTAL
SCALE IN FEET



SUM-76/277-5.90/0.00

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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.4	P.5	P.11	P.40	P.41	P.42	P.43	P.44	P.45	P.46	P.47	01/IMS/05	02/IMS/47	03/IMS/04						
																		ROADWAY	
232											232			202	98100	232	EACH	REMOVAL MISC.: BARRIER REFLECTOR	P.4
45											45			203	10000	45	CY	EXCAVATION (FOR PAVEMENT REPAIR)	
	583										583			209	60200	583	STA	LINEAR GRADING	
	18										18			623	39501	18	EACH	MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN	P.5
	LS										LS			SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	P.5
	3										3			SPECIAL	69098000	3	EACH	VERTICAL CLEARANCE	P.5
																		EROSION CONTROL	
	16,198										16,198			659	10000	16,198	SY	SEEDING AND MULCHING	
	2.18										2.18			659	20000	2.18	TON	COMMERCIAL FERTILIZER	
	3.35										3.35			659	31000	3.35	ACRE	LIME	
	88										88			659	35000	88	MGAL	WATER	
											3,000			832	30000	3,000	EACH	EROSION CONTROL	
																		DRAINAGE	
	1										1			611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
	1										1			611	99655	1	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	P.5
	450										450			SPECIAL	61199820	450	LB	MISCELLANEOUS METAL	P.5
																		PAVEMENT	
2,500											2,500			251	01000	2,500	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
			141,117	108,452		65,762					315,331			254	01000	315,331	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.75")	
1,500											1,500			254	01600	1,500	SY	PATCHING PLANED SURFACE	
800											800			255	10200	800	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, MISC.: CLASS RRCM OR QC3, AS PER PLAN	P.4
4,800											4,800			255	20000	4,800	FT	FULL DEPTH PAVEMENT SAWING	
45											45			304	20000	45	CY	AGGREGATE BASE (FOR PAVEMENT REPAIR)	
			12,701	9,761	6,360	6,843					35,665			407	20000	35,665	GAL	NON-TRACKING TACK COAT	
			1,116	572	167	2,076					3,931			408	10001	3,931	GAL	PRIME COAT, AS PER PLAN	P.4
					1,963	286					2,249			424	14000	2,249	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448)	
			3,823	3,330		1,264					8,417			442	00100	8,417	CY	ANTI-SEGREGATION EQUIPMENT (T=1.5")	
			5,880	4,519		2,741					13,140			442	10300	13,140	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
			78	40	12	145					275			617	10101	275	CY	COMPACTED AGGREGATE, AS PER PLAN (T=1")	P.5
			10	8	6						24			618	40600	24	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
		8									8			896	00010	8	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	
		6									6			896	00021	6	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.11
					70,665	10,265					80,930			897	01010	80,930	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	
																		TRAFFIC CONTROL	
							1,665				1,665			621	00100	1,665	EACH	RPM	
							1,340				1,340			621	54000	1,340	EACH	RAISED PAVEMENT MARKER REMOVED	
135											135			626	00102	135	EACH	BARRIER REFLECTOR, TYPE 1, 1WAY	
327											327			626	00102	327	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
463											463			626	00110	463	EACH	BARRIER REFLECTOR, TYPE 2, 1WAY	
									317	207	524			630	02100	524	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
								66	42	108				630	80100	108	SF	SIGN, FLAT SHEET	
								21	13	34				630	80100	34	SF	SIGN, FLAT SHEET, 730.20	
								15	9	24				630	84900	24	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								16	9	25				630	86002	25	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								1,285			1,285			646	10310	1,285	FT	CHANNELIZING LINE, 12"	
								128			128			646	10400	128	FT	STOP LINE	
								50			50			646	10520	50	FT	CROSSWALK LINE, 24"	
								960			960			646	10600	960	FT	TRANSVERSE/DIAGONAL LINE	
								1,180			1,180			646	10620	1,180	FT	CHEVRON MARKING	
								27			27			646	20300	27	EACH	LANE ARROW	
								9			9			646	20320	9	EACH	WRONG WAY ARROW	
								31.16			31.16			807	12010	31.16	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
								22.61			22.61			807	12110	22.61	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
								14,580			14,580			807	12310	14,580	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
								8,400			8,400			807	12410	8,400	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	
								53.77			53.77			850	10010	53.77	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
								8,400			8,400			850	10110	8,400	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

CLG 03-05-24

PROJECT ID

113086

SHEET

P.38

TOTAL

62

SUM-76/277-5.90/0.00

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SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.6	P.7	P.8	P.9	P.11	P.27	P.45					01/IMS/05	02/IMS/47	03/IMS/04						
						14,580					14,580			850	10130	14,580	FT	TRAFFIC CONTROL GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
1											1			632	26501	1	EACH	TRAFFIC SIGNALS DETECTOR LOOP, AS PER PLAN	P.6
																		STRUCTURE REPAIRS	
																		FOR SUM-277-0.898 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-1.129 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-1.315 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-1.687 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-2.147 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-2.341 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-3.040 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-3.672 ESTIMATED QUANTITIES	P.52
																		FOR SUM-277-3.734 ESTIMATED QUANTITIES	P.53
																		FOR SUM-76-5.790 ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-5.910 ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-6.474R ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-6.843 ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-6.999 ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-7.366 ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-8.237L ESTIMATED QUANTITIES	P.51
																		FOR SUM-76-8.240UR ESTIMATED QUANTITIES	P.53
																		FOR SUM-77-9.580L ESTIMATED QUANTITIES	P.51
		300									300			614	11110	300	hour	MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			1								1			614	12380	1	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
											LS			614	12420	LS		DETOUR SIGNING	
	25										25			614	12460	25	EACH	WORK ZONE MARKING SIGN	
	10										10			614	13000	10	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				16							16			614	13310	16	EACH	BARRIER REFLECTOR, TYPE 1, 1WAY	
			16								16			614	13350	16	EACH	OBJECT MARKER, ONE WAY	
		60									60			614	18601	60	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.7
	22.61										22.61			614	20110	22.61	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
	22.61				0.52						23.13			614	20560	23.13	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
	31.16				1.82						32.98			614	22360	32.98	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
	14,580										14,580			614	23210	14,580	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
	14,580				2,683						17,263			614	23690	17,263	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
					1,928						1,928			614	24612	1,928	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
	128										128			614	26200	128	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
	128										128			614	26610	128	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
				97							97			618	39000	97	EACH	RUMBLE STRIPS, TRANSVERSE (ASPHALT CONCRETE)	
			640								640			622	41100	640	FT	PORTABLE BARRIER, UNANCHORED	
											LS			614	11000	LS		INCIDENTALS MAINTAINING TRAFFIC	
											12			619	16010	12	MNTH	FIELD OFFICE, TYPE B	
											LS			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LS			624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

CLG 03-05-24

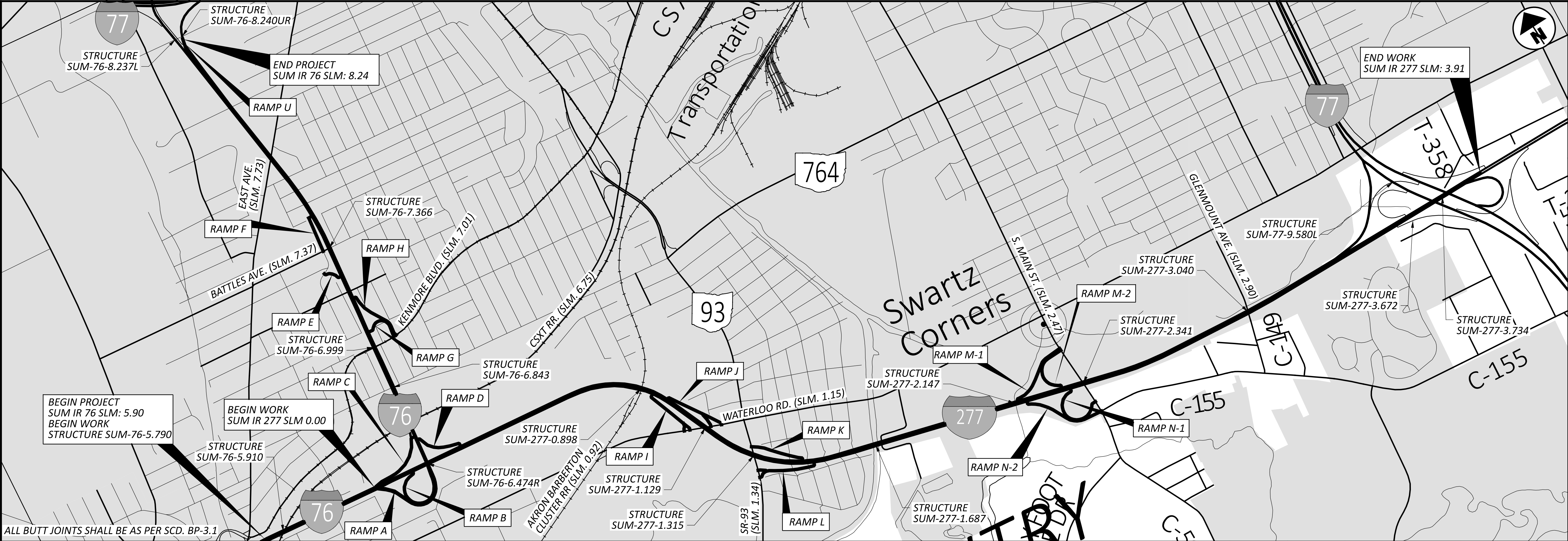
PROJECT ID

113086

SHEET	TOTAL
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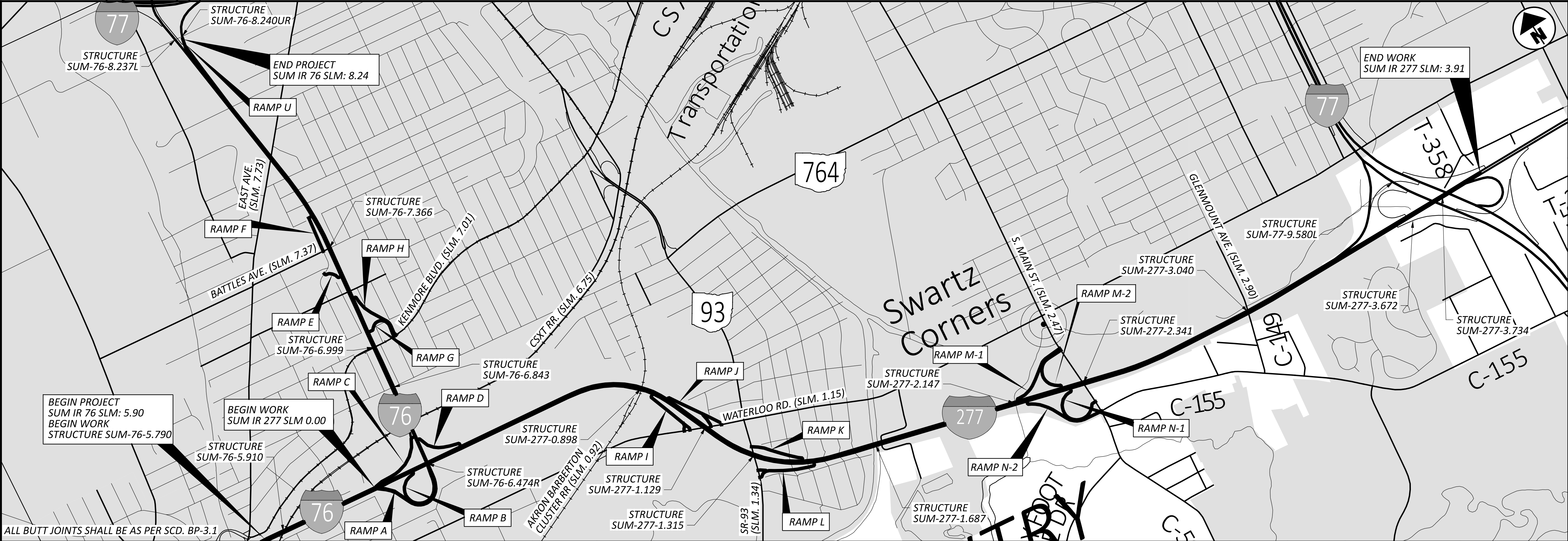
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SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA														
					FT	FT	SQ YD		254 PAVEMENT PLANING, ASPHALT CONCRETE (T=1.75")	897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	407 NON-TRACKING TACK COAT@ 0.09 GAL/SY	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (T=1.5")	442 ANTI-SEGREGATION EQUIPMENT (T=1.5")	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448) (T=1")	408 PRIME COAT, AS PER PLAN @ 0.4 GAL/SY	617 COMPACTED AGGREGATE, AS PER PLAN (T=1")	618 RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)					
IR-76 WB																						
5.90	TO	5.92	1	LT/RT	105.60	40.00	469.33		469.33		42.24	19.56	17.60		18.77	1.30	0.04					
6.00	TO	6.31	1	LT/RT	1636.80	55.00	10002.67		10002.67		900.24	416.78	272.80		290.99	20.21	0.62					
6.61	TO	6.72	1	LT/RT	580.80	34.00	2194.13		2194.13		197.47	91.42	64.53		103.25	7.17	0.22					
IR-76 EB																						
5.90	TO	5.92	1	LT/RT	105.60	40.00	469.33		469.33		42.24	19.56	17.60		18.77	1.30	0.04					
5.98	TO	6.31	1	LT/RT	1742.40	55.00	10648.00		10648.00		958.32	443.67	290.40		309.76	21.51	0.66					
6.31	TO	6.58	1	LT/RT	1425.60	40.00	6336.00		6336.00		570.24	264.00	79.20		253.44	17.60	0.54					
6.61	TO	6.66	1	LT/RT	264.00	41.00	1202.67		1202.67		108.24	50.11	14.67		46.93	3.26	0.10					
6.66	TO	6.72	1	LT/RT	316.80	30.00	1056.00		1056.00		95.04	44.00	17.60		56.32	3.91	0.12					
IR-277 WB																						
0.00	TO	0.31	1	LT/RT	1636.80	40.00	7274.67		7274.67		654.72	303.11	181.87		290.99	20.21	0.62					
0.31	TO	0.89	1	LT/RT	3062.40	53.00	18034.13		18034.13		1623.07	751.42	510.40		544.43	37.81	1.16					
0.93	TO	1.13	1	LT/RT	1056.00	53.00	6218.67		6218.67		559.68	259.11	176.00		187.73	13.04	0.40					
1.17	TO	1.31	1	LT/RT	739.20	53.00	4353.07		4353.07		391.78	181.38	123.20		131.41	9.13	0.28					
1.37	TO	1.75	1	LT/RT	2006.40	53.00	11815.47		11815.47		1063.39	492.31	334.40		356.69	24.77	0.76					
1.79	TO	3.04	1	LT/RT	6600.00	53.00	38866.67		38866.67		3498.00	1619.44	1100.00		1173.33	81.48	2.50					
3.06	TO	3.74	1	LT/RT	3590.40	53.00	21143.47		21143.47		1902.91	880.98	598.40		638.29	44.33	1.36					
3.87	TO	3.91	1	LT/RT	211.20	44.00	1032.53		1032.53		92.93	43.02	23.47		37.55	2.61	0.08					
(DEDUCT FOR MEDIAN AND SIDE BARRIER SECTIONS)					37610.00										-3343.11	-232.16						
SUBTOTALS									141116.80		12700.51	5879.87	3822.13		1115.56	77.47	9.50					
TOTALS CARRIED TO GENERAL SUMMARY									141117		12701	5880	3823		1116	78	10					

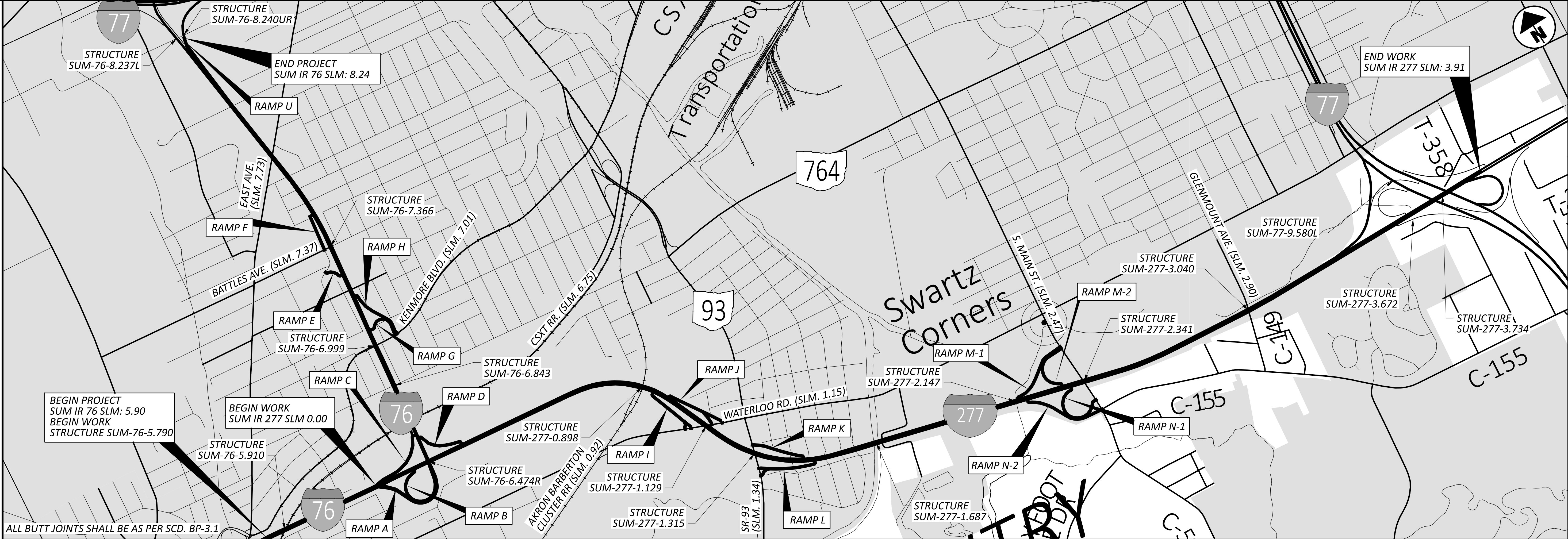




SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA														
					FT	FT	SQ YD		PAVEMENT PLANING, ASPHALT CONCRETE (T=1.75")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	NON-TRACKING TACK COAT @ 0.09 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (T=1.5")	ANTI-SEGREGATION EQUIPMENT (T=1.5")	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448) (T=1")	PRIME COAT, AS PER PLAN @ 0.4 GAL/SY	COMPACTED AGGREGATE, AS PER PLAN (T=1")	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)					
IR-277 EB																						
0.00	TO	0.12	1	LT/RT	633.60	40.00	2816.00		2816.00		253.44	117.33	70.40		112.64	7.82	0.24					
0.12	TO	0.89	1	LT/RT	4065.60	53.00	23941.87		23941.87		2154.77	997.58	903.47		722.77	50.19	1.54					
0.93	TO	1.13	1	LT/RT	1056.00	53.00	6218.67		6218.67		559.68	259.11	176.00		187.73	13.04	0.40					
1.17	TO	1.31	1	LT/RT	739.20	53.00	4353.07		4353.07		391.78	181.38	123.20		131.41	9.13	0.28					
1.37	TO	1.75	1	LT/RT	2006.40	53.00	11815.47		11815.47		1063.39	492.31	334.40		356.69	24.77	0.76					
1.79	TO	3.04	1	LT/RT	6600.00	53.00	38866.67		38866.67		3498.00	1619.44	1100.00		1173.33	81.48	2.50					
3.06	TO	3.41	1	LT/RT	1848.00	53.00	10882.67		10882.67		979.44	453.44	308.00		328.53	22.81	0.70					
3.41	TO	3.62	1	LT/RT	1108.80	41.00	5051.20		5051.20		454.61	210.47	184.80		197.12	13.69	0.42					
3.62	TO	3.74	1	LT/RT	633.60	53.00	3731.20		3731.20		335.81	155.47	105.60		112.64	7.82	0.24					
3.87	TO	3.91	1	LT/RT	211.20	33.00	774.40		774.40		69.70	32.27	23.47		37.55	2.61	0.08					
(DEDUCT FOR MEDIAN AND SIDE BARRIER SECTIONS)					31380.00										-2789.33	-193.70						
SUBTOTALS									108451.20		9760.61	4518.80	3329.33		571.09	39.66	7.16					
TOTALS CARRIED TO GENERAL SUMMARY									108452		9761	4519	3330		572	40	8					



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SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	254	897	407	442	424	408	617	618										
									PAVEMENT PLANING, ASPHALT CONCRETE (T=1.75")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	NON-TRACKING TACK COAT @ 0.09 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (T=1.5")	ANTI-SEGREGATION EQUIPMENT (T=1")	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448) (T=1")	PRIME COAT, AS PER PLAN @ 0.4 GAL/SY	COMPACTED AGGREGATE, AS PER PLAN (T=1")	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)									
									SY	SY	GAL	CY	CY	CY	GAL	CY	MILE									
IR-76 WB																										
6.76	TO	6.84	2	LT/RT	422.40	43.00	2018.13			2018.13	181.63			56.06	75.09	5.21	0.16									
6.88	TO	6.99	2	LT/RT	580.80	41.00	2645.87			2645.87	238.13			73.50	103.25	7.17	0.22									
7.02	TO	7.14	2	LT/RT	633.60	51.00	3590.40			3590.40	323.14			99.73	112.64	7.82	0.24									
7.14	TO	7.26	2	LT/RT	633.60	41.00	2886.40			2886.40	259.78			80.18	112.64	7.82	0.24									
7.26	TO	7.36	2	LT/RT	528.00	40.00	2346.67			2346.67	211.20			65.19	93.87	6.52	0.20									
7.39	TO	7.50	2	LT/RT	580.80	40.00	2581.33			2581.33	232.32			71.70	103.25	7.17	0.22									
7.50	TO	7.65	2	LT/RT	792.00	44.00	3872.00			3872.00	348.48			107.56	140.80	9.78	0.30									
7.65	TO	8.06	2	LT/RT	2164.80	40.00	9621.33			9621.33	865.92			267.26	384.85	26.73	0.82									
8.06	TO	8.24	2	LT/RT	950.4	47.00	4963.20			4963.20	446.69			137.87	168.96	11.73	0.36									
IR-76 EB																										
6.76	TO	6.84	2	LT/RT	422.40	52.00	2440.53			2440.53	219.65			67.79	75.09	5.21	0.16									
6.88	TO	6.99	2	LT/RT	580.80	52.00	3355.73			3355.73	302.02			93.21	103.25	7.17	0.22									
7.02	TO	7.07	2	LT/RT	264.00	30.00	880.00			880.00	79.20			24.44	46.93	3.26	0.10									
7.07	TO	7.19	2	LT/RT	633.60	54.00	3801.60			3801.60	342.14			105.60	112.64	7.82	0.24									
7.19	TO	7.36	2	LT/RT	897.60	42.00	4188.80			4188.80	376.99			116.36	159.57	11.08	0.34									
7.39	TO	7.94	2	LT/RT	2904.00	42.00	13552.00			13552.00	1219.68			376.44	516.27	35.85	1.10									
7.94	TO	8.24	2	LT/RT	1584.00	45.00	7920.00			7920.00	712.80			220.00	281.60	19.56	0.60									
(DEDUCT FOR MEDIAN AND SIDE BARRIER SECTIONS)					27271.00									-2424.09	-168.34											
SUBTOTALS										70664.00	6359.76		1962.89	166.63	11.57	5.52										
TOTALS CARRIED TO GENERAL SUMMARY										70665	6360		1963	167	12	6										

DESIGN AGENCY	
	
DESIGNER	
SID	
REVIEWER	
MJA 03-05-24	
PROJECT ID	
113086	
SHEET	TOTAL
P.42	62

MODEL: Sheet_SurVf1.4 PAPER SIZE: 34x22 (in.) DATE: 6/11/2024 TIME: 7:54:57 AM USER: cgalan
 www:\bhi0dot-pw_bentley.com\bhi0dot-pw-02\Documents\01 Active Projects\District 04\Summit\113086\400-Engineering\Roadway\Sheets\113086 GC001.dgn



DESIGN AGENCY	
	
DESIGNER	
SID	
REVIEWER	
MJA 03-05-24	
PROJECT ID	
113086	
SHEET	TOTAL
P.43	62

SUM-76/277-5.90/0.00

MODEL: Steel_SurvFl PAPER SIZE: 34x22 (in.) DATE: 6/11/2024 TIME: 7:55:17 AM USER: cgalan
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LOCATION														
COUNTY	ROUTE	SECTION (S.L.M.)						621	621	621	621		621	REMARKS
		RPM (YELLOW/YELLOW)	RPM (WHITE/RED)					RPM (WHITE)	RPM (YELLOW/RED)	RAISED PAVEMENT MARKER REMOVED				
		FROM	TO					EACH	EACH	EACH	EACH		EACH	
SUM	76 EB	5.90	8.24							147			118	LANE LINES AT 120' SPACING
SUM	76 WB	5.90	8.24							175			140	LANE LINES AT 120' SPACING
SUM	277 EB	0.00	3.91							355			284	LANE LINES AT 120' SPACING
SUM	277 WB	0.00	3.91							320			256	LANE LINES AT 120' SPACING
SUM	RAMP A	IR 76/US 224 EB	IR 76 EB						10		21		25	
SUM	RAMP B	IR 76 WB	IR 277/US 224 EB						20		19		32	
SUM	RAMP C	IR 76 WB	IR 76/US 224 WB						50		14		52	
SUM	RAMP D	IR 277 WB	IR 76 EB						73		13		69	
SUM	RAMP E	22ND ST	IR 76 WB						13		7		16	
SUM	RAMP F	IR 76 WB	BATTLES AVE						10		18		23	
SUM	RAMP G	IR 76 EB	KENMORE BLVD						15		16		25	
SUM	RAMP H	KENMORE BLVD	IR 76 EB						18		16		28	
SUM	RAMP U	IR 76 EB	IR 76/IR 77 EB						38		3		33	
SUM	RAMP I	IR 277 EB	WATERLOO RD						36		19		44	
SUM	RAMP J	WATERLOO RD	IR 277 WB						10		14		20	
SUM	RAMP K	IR 277 WB	SR 93						21		20		33	
SUM	RAMP L	SR 93	IR 277 EB						17		16		27	
SUM	RAMP M-1	MAIN ST	IR 277 WB						18		18		29	
SUM	RAMP M-2	IR 277 WB	MAIN ST						9		20		24	
SUM	RAMP N-1	MAIN ST	IR 277 EB						18		19		30	
SUM	RAMP N-2	IR 277 EB	MAIN ST						14		25		32	

SUM-76-277-5.90/0.00

MODEL: Sheet_SurvFl PAPER:SIZE: 34x22 (in.) DATE: 6/11/2024 TIME: 7:55:34 AM USER: cgatian
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EDGE LINE												GENERAL SPEC: 640														
												MATERIAL TYPE: 646 / 807														
CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE, 6"			YELLOW EDGE LINE, 6"			COMMENTS														
						TOTAL	HIGHWAY	RAMP	TOTAL	HIGHWAY	RAMP															
SUM	76 EB	5.90	STRUCTURE: SUM-76-5.91	8.24	STRUCTURE: SUM-76-8.24L	3.07	2.34	0.73	3.07	2.34	0.73	807 - WET REFLECTIVE EPOXY PAVEMENT MARKING														
SUM	76 WB	5.90	STRUCTURE: SUM-76-5.91	8.24	STRUCTURE: SUM-76-8.24L	2.61	2.34	0.27	2.61	2.34	0.27	807 - WET REFLECTIVE EPOXY PAVEMENT MARKING														
SUM	277 EB	0.00	STRUCTURE: SUM-76-6.72	3.91	STRUCTURE: SUM-277-3.73	4.91	3.91	1.00	4.91	3.91	1.00	807 - WET REFLECTIVE EPOXY PAVEMENT MARKING														
SUM	277 WB	0.00	STRUCTURE: SUM-76-6.72	3.91	STRUCTURE: SUM-277-3.73	4.99	3.91	1.08	4.99	3.91	1.08	807 - WET REFLECTIVE EPOXY PAVEMENT MARKING														
TOTAL						15.58	12.50	3.08	15.58	12.50	3.08															
LANE LINE																										
CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	6" LANE LINE		COMMENTS																	
							DASHED	SOLID																		
SUM	76 EB	5.90	STRUCTURE: SUM-76-5.91	8.24	STRUCTURE: SUM-76-8.24L	3.32	3.32		807 - WET REFLECTIVE EPOXY PAVEMENT MARKING																	
SUM	76 WB	5.90	STRUCTURE: SUM-76-5.91	8.24	STRUCTURE: SUM-76-8.24L	3.97	3.97		807 - WET REFLECTIVE EPOXY PAVEMENT MARKING																	
SUM	277 EB	0.00	STRUCTURE: SUM-76-6.72	3.91	STRUCTURE: SUM-277-3.73	8.05	8.05		807 - WET REFLECTIVE EPOXY PAVEMENT MARKING																	
SUM	277 WB	0.00	STRUCTURE: SUM-76-6.72	3.91	STRUCTURE: SUM-277-3.73	7.27	7.27		807 - WET REFLECTIVE EPOXY PAVEMENT MARKING																	
TOTAL						22.61	22.61																			
CENTER LINE																										
CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS																		
TOTAL																										
AUXILIARY																										
CTY	ROUTE LOCATION	SLM	646	807	STOP LINE	CROSS WALK LINES	CHEVRON MARKING		SYMBOL MARKINGS			LANE ARROWS				WRONG WAY ARROWS	TRANSVERSE DIAGONAL LINES		DOTTED LINES, 6"	GROOVING RECESSED PAVEMENT MARKINGS						
			CHANNEL LINE, 12"	CHANNEL LINE, 12"					RxR	SCHOOL		TURN LEFT	TURN RIGHT	THRU	COMB.		WHITE	YELLOW		FEET	6" ASPHALT	6" ASPHALT	12" ASPHALT	6" CONCRETE	6" CONCRETE	12" CONCRETE
			FT	FT			FT	FT		FT	FT															
			SUM	IR 76 EB (SLM 5.90 TO 8.24)																				9.46		
SUM	IR 76 WB (SLM 5.90 TO 8.24)																		9.19							
SUM	IR 277 EB (SLM 0.00 TO 3.91)																		17.87							
SUM	IR 277 WB (SLM 0.00 TO 3.91)																		17.25							
SUM	RAMP A (IR 76/US 224 EB TO IR 76 EB)	6.31		400				200													400					
SUM	RAMP C (IR 76/US 224 WB FROM IR 76 WB)	6.31		1600																	1600					
SUM	RAMP D (IR 76 EB FROM IR 277 WB)	6.89		700																	700					
SUM	RAMP C (IR 76 WB TO IR 76/US 224 WB)	6.89		400				200													400					
SUM	RAMP G (IR 76 EB TO KENMORE BLVD)	7.01		590									3		3	1			1200		1200	590				
SUM	RAMP H (KENMORE BLVD TO IR 76 EB)	7.30		700															850		850	700				
SUM	RAMP E (22ND ST TO IR 76 WB)	7.30		500															850		850	500				
SUM	RAMP F (IR 76 WB TO BATTLES AVE)	7.40	210	400	28	50					3					1			650		650	400				
SUM	RAMP U (IR 76 EB TO IR 76/IR 77 EB)	8.22		1500				400													1500					
SUM	RAMP D (IR 277 WB TO IR 76 EB)	0.11		2210				380									960				2210					
SUM	RAMP B (IR 277/US 224 EB FROM IR 76 WB)	0.11		800																	800					
SUM	RAMP I (IR 277 EB TO WATERLOO RD)	1.15	360	1050	44							4				1					1050					
SUM	RAMP J (WATERLOO RD TO IR 277 WB)	1.15		370														900		900	370					
SUM	RAMP K (IR 277 WB TO SR 93)	1.34	325	520	32							4			4	2			550		550	520				
SUM	RAMP L (SR 93 TO IR 277 EB)	1.34		680															750		750	680				
SUM	RAMP M-1 (MAIN ST TO IR 277 WB)	2.27		720															750		750	720				
SUM	RAMP N-2 (IR 277 EB TO MAIN ST)	2.27	200	360	24								3			2			650		650	360				
SUM	RAMP M-2 (IR 277 WB TO MAIN ST)	2.40	190	360									3			2			650		650	360				
SUM	RAMP N-1 (MAIN ST TO IR 277 EB)	2.40		720															600		600	720				
TOTAL			1285	14580	128	50	1180					11	9		7	9	960		8400	53.77	8400	14580				

PAVEMENT MARKINGS

DESIGN AGENCY



DESIGNER

JRF

REVIEWER

CLG 03-05-24

PROJECT ID

113086

SHEET

P.45

TOTAL

62

STRUCTURE FILE NO. (SFN)	EXPRESSWAY / FREEWAY STRUCTURE ID INFO	INTERSECTING ROADWAY STRUCTURE ID INFO	APPROACH DIRECTION (NB, SB, EB, WB)	SIDE OF ROADWAY (LT, RT)	GENERAL		MAINLINE FREEWAY/EXPRESSWAY				ROADWAY OVER EXPRESSWAY/FREEWAY					ROADWAY UNDER EXPRESSWAY/FREEWAY			
					630	630	630	630	630	630	630	630	630	630	630	630	630	630	
					REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 2 POST
					EACH	EACH	SF	SF	SF	FT	SF	SF	SF	SF	FT	SF	SF	SF	FT
7705557	SUM-76-5.910	CSX RAILROAD	WB	RT	1	1	1		3	11									
7705557	SUM-76-5.910	CSX RAILROAD	WB	LT	1	1		3		11									
7705557	SUM-76-5.910	CSX RAILROAD	EB	RT			1		3	11									
7705557	SUM-76-5.910	CSX RAILROAD	EB	LT	1	1		3		11									
7705883	SUM-76-8.240UR	SUM-MR1172-0.733	EB	RT	2	2	1		3	11					1				7.5
7705883	SUM-76-8.240UR	SUM-MR1172-0.733	EB	LT	1	2		3		11									
7705883	SUM-76-8.240UR	SUM-MR1172-0.733	WB	RT											1				7.5
7709579	SUM-277-0.898	ABC RAILROAD	WB	RT	1	1	1		3	11									
7709579	SUM-277-0.898	ABC RAILROAD	WB	LT				3		11									
7709579	SUM-277-0.898	ABC RAILROAD	EB	RT			1		3	11									
7709579	SUM-277-0.898	ABC RAILROAD	EB	LT				3		11									
7709609	SUM-277-1.129	SUM-CR672-1.814	WB	RT	1	1	1		3	11					1				7.5
7709609	SUM-277-1.129	SUM-CR672-1.814	WB	LT				3		11									
7709609	SUM-277-1.129	SUM-CR672-1.814	EB	RT	1	1	1		3	11					1				7.5
7709609	SUM-277-1.129	SUM-CR672-1.814	EB	LT				3		11									
7709633	SUM-277-1.315	SUM-93-8.383	WB	RT	1	1	1		3	11									
7709633	SUM-277-1.315	SUM-93-8.383	WB	LT				3		11									
7709633	SUM-277-1.315	SUM-93-8.383	EB	RT	1	1	1		3	11									
7709633	SUM-277-1.315	SUM-93-8.383	EB	LT				3		11									
7709633	SUM-277-1.315	SUM-93-8.383	NB	RT											1				7.5
7709633	SUM-277-1.315	SUM-93-8.383	SB	RT											1				7.5
7709692	SUM-277-1.687	SUM-TR1355-0.217	WB	RT	1	1	1		3	11									
7709692	SUM-277-1.687	SUM-TR1355-0.217	WB	LT				3		11									
7709692	SUM-277-1.687	SUM-TR1355-0.217	EB	RT	1	1	1		3	11									
7709692	SUM-277-1.687	SUM-TR1355-0.217	EB	LT				3		11									
7709692	SUM-277-1.687	SUM-TR1355-0.217	NB	RT											1				7.5
7709692	SUM-277-1.687	SUM-TR1355-0.217	SB	RT											1				7.5
7709714	SUM-277-2.147	COVE CREEK	WB	RT	1	1	1			7.5									
7709714	SUM-277-2.147	COVE CREEK	EB	RT	1	1	1			7.5									
TOTALS CARRIED TO GENERAL SUMMARY					15	16	13	33	33	257						8			60
							NOTE 1	NOTE 2	NOTE 3		NOTE 1	NOTE 4	NOTE 2	NOTE 3		NOTE 1	NOTE 2	NOTE 3	

NOTE 1	I-h25b, MOUNTED UNDER OM-3R IF SPECIFIED, USE EXPRESSWAY / FREEWAY STRUCTURE INFO
NOTE 2	OM-3L
NOTE 3	OM-3R
NOTE 4	I-h25b, MOUNTED UNDER MAINLINE STRUCTURE ID SIGN, USE INTERSECTING ROADWAY STRUCTURE INFO

STRUCTURE SIGNS SUBSUMMARY

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

SHEET

P.46

TOTAL

62

STRUCTURE FILE NO. (SFN)	EXPRESSWAY / FREEWAY STRUCTURE ID INFO	INTERSECTING ROADWAY STRUCTURE ID INFO	APPROACH DIRECTION (NB, SB, EB, WB)	SIDE OF ROADWAY (LT, RT)	GENERAL		MAINLINE FREEWAY/EXPRESSWAY				ROADWAY OVER EXPRESSWAY/FREEWAY					ROADWAY UNDER EXPRESSWAY/FREEWAY				
					630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630
					REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	SIGN, FLAT SHEET, 730.20	SIGN, FLAT SHEET	SIGN, FLAT SHEET	GROUND MOUNTED SUPPORT, NO. 2 POST	
EACH	EACH	SF	SF	SF	FT	SF	SF	SF	SF	FT	SF	SF	SF	FT	SF	SF	SF	FT		
7709730	SUM-277-2.341	SUM-CR50-8.280	WB	RT	1	1	1			7.5										
7709730	SUM-277-2.341	SUM-CR50-8.280	EB	RT	1	1	1			7.5										
7709730	SUM-277-2.341	SUM-CR50-8.280	NB	RT	1	1					1	1		3	18.5					
7709730	SUM-277-2.341	SUM-CR50-8.280	SB	RT	1	1					1	1		3	18.5					
7709757	SUM-277-2.890	SUM-CR149-0.202	WB	RT	1	1	1		3	11										
7709757	SUM-277-2.890	SUM-CR149-0.202	WB	LT				3		11										
7709757	SUM-277-2.890	SUM-CR149-0.202	EB	RT	1	1	1		3	11										
7709757	SUM-277-2.890	SUM-CR149-0.202	EB	LT				3		11										
7709757	SUM-277-2.890	SUM-CR149-0.202	NB	RT												1			7.5	
7709757	SUM-277-2.890	SUM-CR149-0.202	SB	RT												1			7.5	
7709781	SUM-277-3.672	BR. BREWSTER RUN	SB	RT	1	1	1			7.5										
7709811	SUM-277-3.734	SUM-77-9.412	WB	RT	1	1	1		3	11										
7709811	SUM-277-3.734	SUM-77-9.412	WB	LT				3		11										
7709811	SUM-277-3.734	SUM-77-9.412	EB	RT	1	1	1		3	11										
7709811	SUM-277-3.734	SUM-77-9.412	EB	LT				3		11										
7709811	SUM-277-3.734	SUM-77-9.412	NB	RT												1		3	11	
7709811	SUM-277-3.734	SUM-77-9.412	NB	LT													3		11	
7709811	SUM-277-3.734	SUM-77-9.412	SB	RT												1		3	11	
7709811	SUM-277-3.734	SUM-77-9.412	SB	LT													3		11	
TOTALS CARRIED TO GENERAL SUMMARY					9	9	7	12	12	111	2			6	37	4	6	6	59	
							NOTE 1	NOTE 2	NOTE 3		NOTE 1	NOTE 4	NOTE 2	NOTE 3		NOTE 1	NOTE 2	NOTE 3		

NOTE 1	I-h25b, MOUNTED UNDER OM-3R IF SPECIFIED, USE EXPRESSWAY / FREEWAY STRUCTURE INFO
NOTE 2	OM-3L
NOTE 3	OM-3R
NOTE 4	I-h25b, MOUNTED UNDER MAINLINE STRUCTURE ID SIGN, USE INTERSECTING ROADWAY STRUCTURE INFO

STRUCTURE SIGNS SUBSUMMARY

DESIGN AGENCY



DESIGNER

SJD

REVIEWER

MJA 03-05-24

PROJECT ID

113086

SHEET

P.47

TOTAL

62

PROPOSED WORK TABLE

BRIDGE	SFN	FEATURE INTERSECTED	DECK PATCHING	DECK SEALING	REPLACE ASPHALT WEARING SURFACE	ASPHALT OVERLAY	BACKWALL REPAIR	CONCRETE PATCHING	SPALL REMOVAL	INSTALL POLYMER MODIFIED EXPANSION JOINT	REPLACE POLYMER MODIFIED EXPANSION JOINT	CLEARING & GRUBBING AS PER PLAN	OTHER
SUM-76-5.790	7705493	OVER WOOSTER-EAST AVE	X					X					X
SUM-76-5.910	7705557	OVER CSX RAILROAD	X	X				X				X	X
SUM-76-6.474R	7705611	OVER I-277-0.17			X		X	X				X	X
SUM-76-6.843	7705670	OVER WILBETH RD.				X	X		X	X		X	
SUM-76-6.999	7705700	OVER KENMORE BLVD. (CR-670)				X	X		X	X		X	
SUM-76-7.366	7705735	UNDER BATLES AVE.				X	X			X		X	
SUM-76-8.237L	7705859	OVER MORSE ST.			X		X					X	
SUM-77-9.580L	7702671	OVER SUM-77		X								X	X
SUM-277-0.898	7709579	OVER ABC RAILROAD	X	X				X				X	
SUM-277-1.129	7709609	OVER WATERLOO RD. (CR-672)			X			X	X		X	X	X
SUM-277-1.315	7709633	OVER SR-93 (MANCHESTER RD.)			X						X	X	
SUM-277-1.687	7709692	OVER OHIO CANAL & LEY DR. (TR-1355)	X	X								X	X
SUM-277-2.147	7709714	OVER RELOCATED BREWSTER RUN										X	X
SUM-277-2.341	7709730	OVER I-277		X				X				X	X
SUM-277-3.040	7709757	OVER GLENMOUNT AVE. (CR-14)			X			X	X		X	X	
SUM-277-3.672	7709781	OVER BRANCH OF BREWSTER RUN										X	X
SUM-277-3.734	7709811	OVER I-77			X				X		X	X	
SUM-76-8.240UR	7705883	RAMP U (I-76 EB) OVER MORSE ST.			X							X	

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-15 DATED (REVISED) 1/20/23
- AS-2-15 DATED (REVISED) 7/21/23
- EXJ-4-87 DATED (REVISED) 1/19/24
- VPF-1-90 DATED (REVISED) 7/21/23
- BR-1-13 DATED (REVISED) 1/17/14

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS AND SUPPLEMENT:

- 843 DATED 1/19/24
- 844 DATED 4/20/18
- 846 DATED 4/17/15
- 856 DATED 7/21/23
- 1083 DATED 1/20/17

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.

PROPOSED WORK DESCRIPTION

DECK SEALING
SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN.

DECK PATCHING
REPAIR UNSOUND AREAS OF THE EXISTING DECK AND APPROACH SLABS.

REPLACE ASPHALT WEARING SURFACE
REMOVE AND REPLACE ASPHALT WEARING SURFACE AS SHOWN ON SHEETS 7-9/13.

ASPHALT OVERLAY
INSTALL NEW ASPHALT OVERLAY AS SHOWN ON SHEETS 7-9/13.

BACKWALL REPAIR
SPOT REPAIR THE TOP PORTION OF THE FORWARD AND REAR BACKWALLS.

CONCRETE PATCHING
PATCH ALL UNSOUND AREAS SHOWN IN THE SUBSEQUENT PLAN NOTES AND SEAL WITH EPOXY-URETHANE SEALANT.

INSTALL POLYMER MODIFIED EXPANSION JOINT
INSTALL NEW POLYMER MODIFIED EXPANSION JOINT AT FORWARD AND REAR ENDS OF THE BRIDGE.

REPLACE POLYMER MODIFIED EXPANSION JOINT
REPLACE EXISTING POLYMER MODIFIED EXPANSION JOINT AT FORWARD AND REAR ENDS OF THE BRIDGE.

CLEARING AND GRUBBING
REMOVE ALL VEGETATION WITHIN 15 FEET OF THE STRUCTURE. AND REAR ENDS OF THE BRIDGE.

PROPOSED WORK DESCRIPTION (CONTINUED)

- OTHER
- SUM-76-5.790
 - PERFORM A FULL DEPTH REPAIR OF THE TYPE C SLEEPER SLAB AT THE FORWARD APPROACH SLAB.
 - REPLACE PORTIONS OF THE VANDAL FENCE.
 - PATCH PORTIONS OF THE RIGHT PARAPETS WITH TROWELBLE MORTAR.
- SUM-76-5.910
 - REFURBISH AND RESET THE ABUTMENT BEARINGS.
 - RECONSTRUCT PORTIONS OF THE RIGHT CONCRETE PARAPET.
 - REMOVE AND REPLACE CONCRETE SEALANT ON THE PARAPETS WITH EPOXY-URETHANE SEALANT.
 - REMOVE AND REPLACE THE ELASTOMERIC STRIP SEAL GLAND IN THE EXPANSION JOINTS.
- SUM-76-6.474R
 - REFURBISH AND RESET THE ABUTMENT BEARINGS AT THE REAR ABUTMENT.
- SUM-77-9.580L
 - SEAL THE TOP AND INSIDE OF THE PARAPETS WITH EPOXY-URETHANE SEALANT.
- SUM-277-1.129
 - SCUPPER CLEANOUT.
- SUM-277-1.687
 - REPAIR EROSION AT FORWARD LEFT CORNER.
 - SEAL THE ABUTMENTS AND PIERS WITH ANTI-GRAFFITI SEALANT.
 - REMOVE AND REPLACE THE ELASTOMERIC STRIP SEAL GLAND IN THE EXPANSION JOINTS.
- SUM-277-2.147
 - CHANNEL CLEANOUT.
- SUM-277-2.341
 - PERFORM 4" PARTIAL DEPTH REPAIRS AT FORWARD AND REAR TERMINATION JOINTS.
- SUM-277-3.672
 - CHANNEL CLEANOUT.

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

STRUCTURE GENERAL NOTES
SUM-76 STRUCTURES
SUM-277 STRUCTURES

SFN

VARIOUS

DESIGN AGENCY



DESIGNER	CHECKER
CLG	MJA

REVIEWER

TJP 03-05-24

PROJECT ID

113086

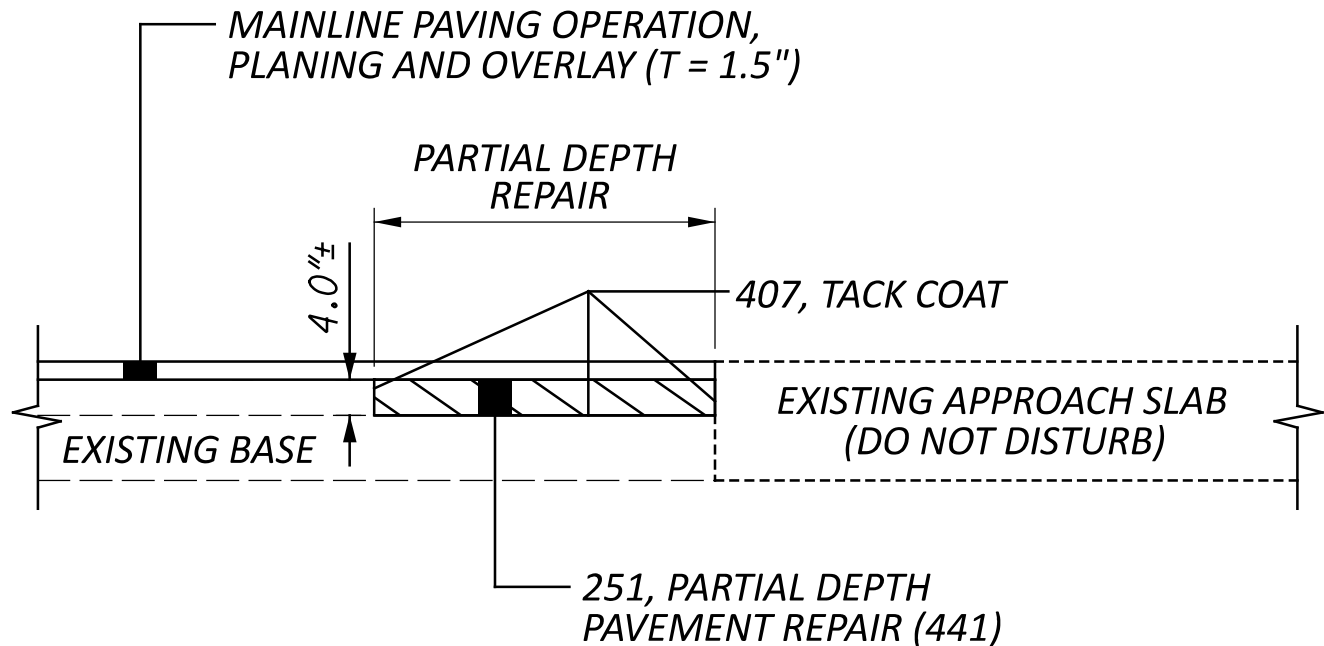
SUBSET	TOTAL
1	15

SHEET	TOTAL
P.48	62

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)
(SUM-277-2.341)

THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR REPAIRS AT THE FORWARD AND REAR TERMINATION JOINTS OR AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES:
251, PARTIAL DEPTH PAVEMENT REPAIR (441), 60 SQ. YD.



SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL
(SUM-76-6.843, SUM-76-6.999)

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE UNDERSIDE OF THE DECK WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

THE DEPARTMENT WILL MEASURE SPALL REMOVAL AS THE ACTUAL AREA IN SQUARE YARDS OF CONCRETE SPALLS REMOVED. CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR SPECIAL – STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

THE DEPARTMENT WILL MEASURE SEALING CONCRETE SURFACES (EPOXY-URETHANE) AS THE ACTUAL AREA IN SQUARE YARDS THE SEALER IS APPLIED. SEALING CONCRETE SURFACES WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 512 – SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED (SUM-277-1.129, SUM-277-3.040, SUM-277-3.734)

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE UNDERSIDE OF THE DECK WITHOUT SOUNDING.

AFTER SPALLED CONCRETE IS REMOVED THE EXISTING EXPOSED REINFORCING STEEL SHALL BE BLAST CLEANED. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVES WITH CONTAINMENT, OR VACUUM BLASTING. APPLY A ZINC RICH PRIMER, PER CMS 708.02.B, OVER ALL EXPOSED STEEL SURFACES. THE APPLICATION OF THE PRIMER SHALL FOLLOW CMS 514 AND ALL MANUFACTURER REQUIREMENTS.

THE DEPARTMENT WILL MEASURE THIS WORK AS THE ACTUAL AREA IN SQUARE YARDS OF CONCRETE SPALLS REMOVED.

CONCRETE SPALL REMOVAL WILL BE PAID AT THE UNIT BID PRICE FOR SPECIAL – STRUCTURE MISC.: CONCRETE SPALL REMOVAL WITH ZINC RICH PRIMER APPLIED. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR (SUM-76-5.790, SUM-76-5.910, SUM-277-1.129 SUM-277-3.040)

THIS WORK WILL CONSIST OF REMOVING ALL LOOSE AND DISENTEGRATED CONCRETE, PREPARATION OF THE SURFACE, AND THE MIXING, PLACING, FINISHING AND CURING OF THE PATCHES IN THE AREAS DESCRIBED BELOW AND NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SUM-76-5.790 (SFN 7705493):
RIGHT PARAPET AS NOTED ON SHEET 11/15.

SUM-76-5.910 (SFN 7705557):
MEDIAN PARAPET AS NOTED ON SHEET 12/15.

SUM-277-1.129 (SFN 7709609):
DECK EDGE AND UNDERSIDE

SUM-277-3.040 (SFN 7709757):
DECK EDGE AND UNDERSIDE.

SPECIAL - COMPOSITE FIBER WRAP SYSTEM

THIS ITEM WILL BE USED TO CONFINE THE CONCRETE PATCHING OF THE DECK UNDERSIDE, THAT IS DIRECTLY OVER TRAFFIC FOR THE STRUCTURES SUM-277-1.129 AND SUM-277-3.040.

STRUCTURE PAINTING/CONCRETE SEALING OPERATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

ITEM 844, CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION

THIS WORK CONSISTS OF CONCRETE PATCHING AT THE SUBSTRUCTURE PER SUPPLEMENTAL SPECIFICATION 844. USE THE FOLLOWING ANODE SPACING FOR EACH LOCATION DETAILED BELOW OR AS DIRECTED BY THE ENGINEER.

SUM-76-6.474R, SUM-277-0.898, SUM-277-1.129, SUM-277-2.341, & SUM-277-2.890 MAX ANODE SPACING:
ABUTMENT WALLS - 30 IN. MAX C/C
BACKWALLS - 30 IN. MAX C/C
PIERS - 28 IN. MAX C/C
RAILING - 30 IN. MAX C/C

THE FOLLOWING QUANTITES HAVE BEEN PROVIDED FOR EACH STRUCTURE.

SUM-76-6.474R (SFN 7705611):
PIERS AND BACKWALLS
ITEM 844, CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, 175 SQ FT

SUM-277-0.898 (SFN 7709579):
ABUTMENT AND RAILING
ITEM 844, CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, 300 SQ FT

SUM-277-1.129 (SFN 7709609):
RAILING AND PIER CAPS
ITEM 844, CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, 250 SQ FT

SUM-277-2.341 (SFN 7709730):
PIERS
ITEM 844, CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, 250 SQ FT

SUM-277-2.890 (SFN 7709757):
ABUTMENTS
ITEM 844, CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, 30 SQ FT

ITEM 518 - SCUPPER MISC.: CLEANOUT (SUM-277-1.129)

THIS WORK WILL CONSIST OF REMOVING ALL DEBRIS FROM ON TOP AND INSIDE OF THE SCUPPERS. SCUPPER CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 518, SCUPPER MISC.: CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITY PROTECTION)

THIS ITEM WILL BE USED TO COVER THE ABUTMENT BACKWALLS AND PIERS THAT ARE IN VIEW OF THE TOWPATH BIKE TRAIL FOR THE STRUCTURE SUM-277-1.687.

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO S1083 THAT IS COMPATABLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

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 A 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 BRIDIGE BEARINGS SHALL BE FULLY SEATED 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 516 - REFURBISH BEARING DEVICE, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS, AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (C&MS 711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES FARENHEIT, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATIFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN.

ITEM 516 - BEARING DEVICE, MISC.: BEARING PLATE (SUM-76-5.910)

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO REPLACE THE SIDE KEEPER PLATE ON BEARING 7 AT THE REAR ABUTMENT. PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 516 - BEARING DEVICE, MISC.: BEARING PLATE.



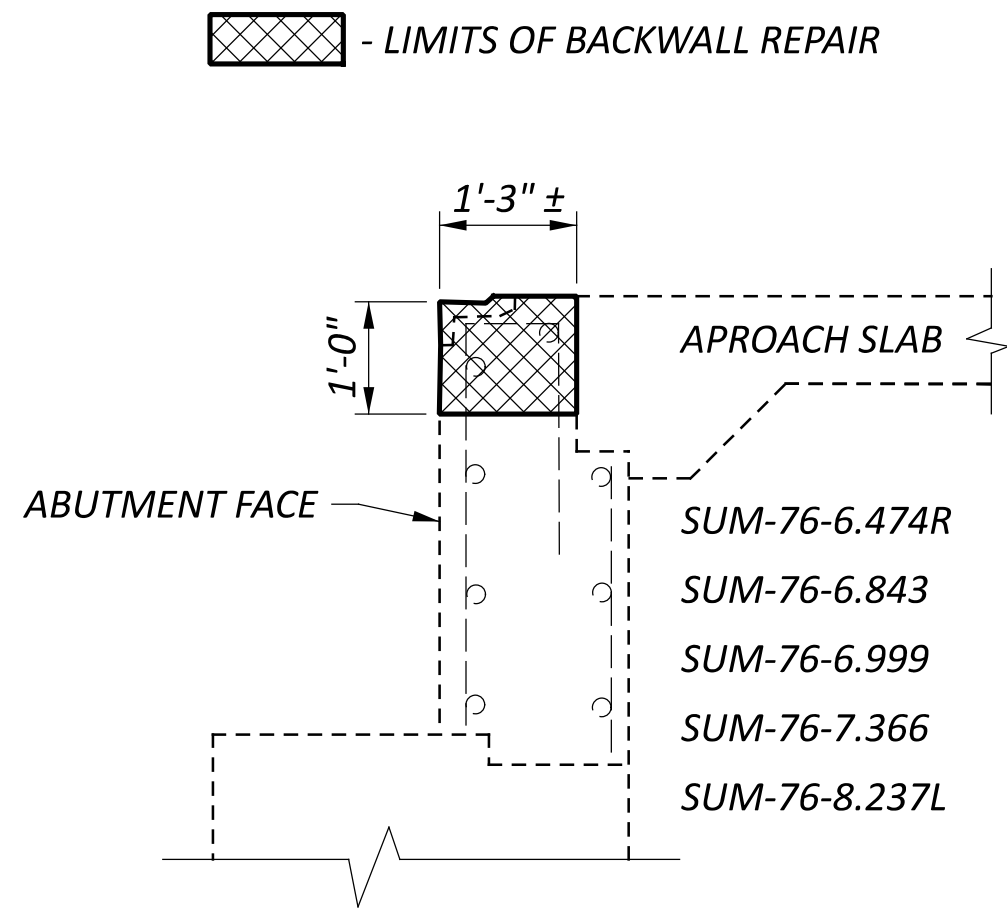
ITEM 511 - CONCRETE, MISC.: BACKWALL REPAIR

THIS ITEM OF WORK CONSISTS OF THE REMOVAL OF ALL UNSOUND CONCRETE AT THE BACKWALLS OF STRUCTURES SUM-76-6.474R, SUM-76-6.843, SUM-76-6.999, SUM-76-7.366, AND SUM-76-8.237L TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. IT IS NOT THE INTENT TO REPLACE THE TOP 12" OF BACKWALL CONCRETE FOR THE ENTIRE LENGTH OF EACH BACKWALL BUT IS TO BE USED AS DIRECTED BY THE ENGINEER.

TEMPORARY SUPPORTS OF THE EXPANSION JOINT WILL BE USED TO MAINTAIN THE PROPER ALIGNMENT AND GRADE OF THE JOINT DURING REMOVAL AND REPLACEMENT OF BACKWALL CONCRETE. THE COST OF THIS TEMPORARY SUPPORT WILL BE INCIDENTAL TO THIS ITEM.

SEAL CONCRETE ALONG THE THE FACE OF THE ABUTMENT REPAIRED AREAS USING ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER CU. YD. FOR ITEM 511 - CONCRETE, MISC.: BACKWALL REPAIR WHICH WILL INCLUDE ALL MATERIALS AND LABOR INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE REQUIRED TO MAKE THIS WORK COMPLETE, PREPERATION OF THE SURFACE, FORMS, TEMPORARY SUPPORTS OF THE EXPANSION JOINT, PROVIDING AND PLACING OF CLASS QC2 CONCRETE, AND REPLACING ANY DAMAGED OR DETERIATED REBAR AS DIRECTED BY THE PROJECT ENGINEER.

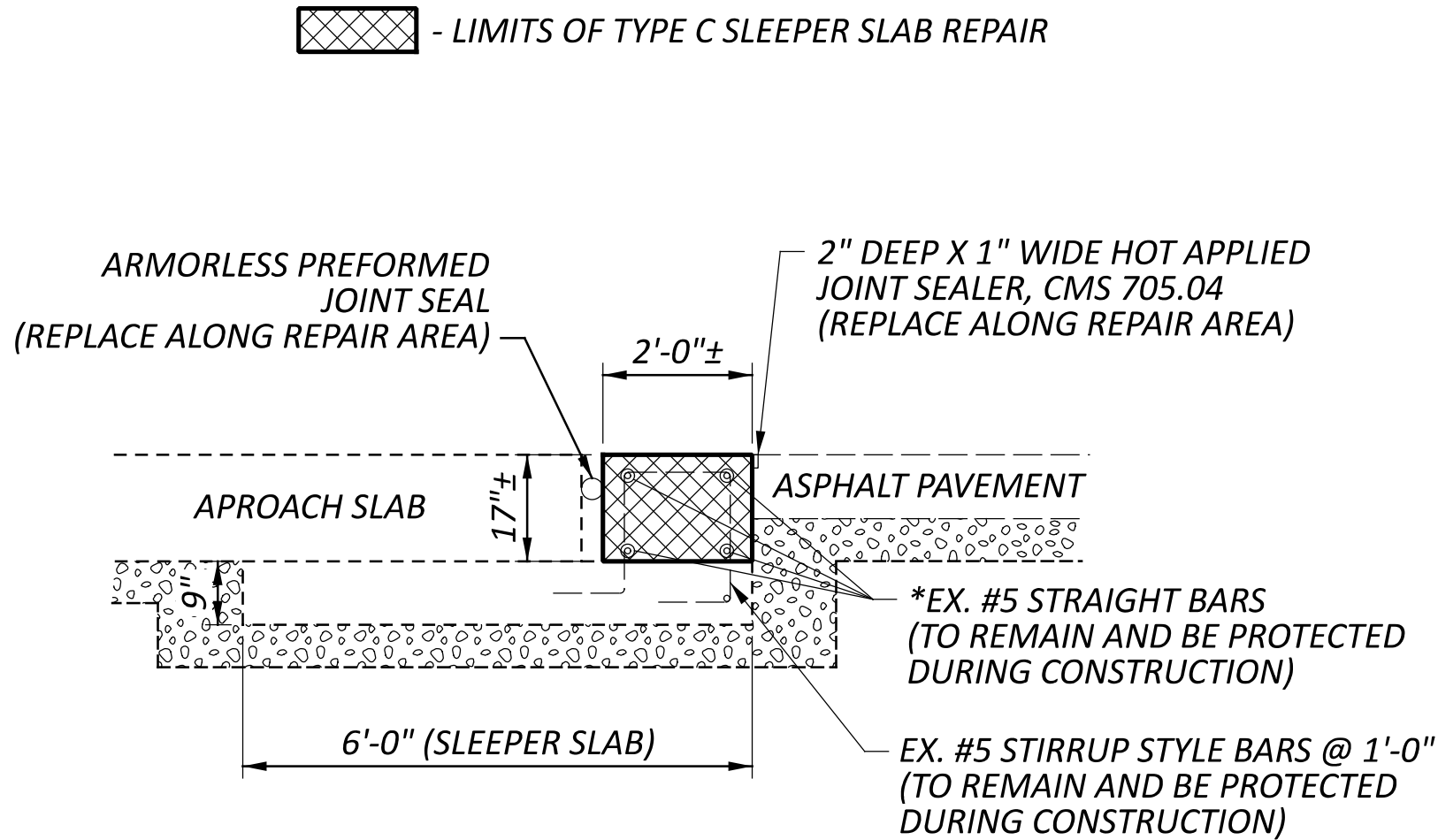


ITEM 526 - APPROACH SLABS, MISC.: TYPE C SLEEPER SLAB REPAIR

THIS ITEM WILL BE USED TO REPAIR THE DAMAGED TYPE C SLEEPER SLAB AT THE FORWARD APPROACH SLAB FOR STRUCTURE SUM-76-5.790.

SAWCUT, REMOVE AND REPLACE AREAS OF THE EXISTING TYPE C SLEEPER SLAB TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. CARE SHALL BE TAKEN WHEN SAWCUTTING AND REMOVING CONCRETE TO SALVAGE EXISTING REBAR WITHIN THE REPAIR AREA. CLASS QC MS CONCRETE WILL BE USED TO REPAIR THE DAMAGED TYPE C SLEEPER SLAB.

THE REMOVAL OF CONCRETE, PREPARATION OF SURFACES, FORMS, AND CLASS QC2 CONCRETE, REPLACEMENT OF 2" DEEP JOINT SEALER, AND REPLACEMENT OF ARMORLESS PREFORMED JOINT SEAL WILL BE INCIDENTAL TO THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER FOOT FOR ITEM 511 - CONCRETE, MISC.: TYPE C SLEEPER SLAB REPAIR.



* A QUANTITY HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES TO ACCOUNT FOR ANY REBAR THAT NEEDS REPLACED DUE TO DETERIATION AND DAMAGE OR AS PER THE PROJECT ENGINEER. THIS WORK WILL BE PAID FOR BY ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT.

ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCING, AS PER PLAN (SUM-76-5.790 AND SUM-76-5.910)

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. 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 CONCRETE REMOVAL OPERATIONS WITH NEW REINFORCING STEEL OF THE SAME SIZE AND COATING AT NO COST TO THE DEPARTMENT.

ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

PAVEMENT JOINTS SHALL BE INSTALLED AT THE ENDS OF THE STRUCTURE SUM-76-6.474R, SUM-76-8.237L, AND SUM-76-0.824UR AS PER DETAIL A OF SCD AS-1-15. ALL LABOR, MATERIALS, AND INCIDENTALS FOR THIS WORK SHALL BE INCLUDED IN THE PAYMENT OF ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS.

ITEM 516 - ARMORLESS PREFORMED STEEL JOINT SEAL (SUM-76-5.910, SUM-277-1.687)

THIS ITEM OF WORK SHALL INCLUDE THE REMOVAL OF THE EXISTING STRIP SEAL GLAND AND STEEL RETAINERS AND REPLACING THEM WITH ARMORLESS PREFORMED JOINT SEALS. REFER TO DETAILS IN SCD EXJ-4-87 AND AS-2-15 (TYPE C INSTALLATION).



ESTIMATED QUANTITIES												
BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
SUM-76-5.790 7705493 02/IMS/47	SUM-76-5.910 7705557 02/IMS/47	SUM-76-6.474R 7705611 02/IMS/47	SUM-76-6.843 7705670 02/IMS/47	SUM-76-6.999 7705700 02/IMS/47	SUM-76-7.366 7705735 02/IMS/47	SUM-76-8.237L 7705859 02/IMS/47	SUM-77-9.580L 7702671 02/IMS/47					
	LS	LS	LS	LS	LS	LS	LS	201	11001	LS	CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS	1 / 15
200								202	38000	FT	GUARDRAIL REMOVED	
57								202	75000	FT	FENCE REMOVED	
		412						254	01000	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 1.5")	
						167		897	01010	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 0.75")	
		38	173	162	124	16		407	20000	GAL	NON-TRACKING TACK COAT	
			179	138	94			407	13900	GAL	TACK COAT, 702.13	
		148				65		409	30000	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
			89	72	55	5		424	14100	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (449) (T = 1")	
		18						442	22100	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449) (T = 1.5")	
25	787							509	20001	LB	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN	3 / 15
		7	8	8	4	5		511	71100	CY	CONCRETE, MISC.; BACKWALL REPAIR	
	11							511	71100	CY	CONCRETE, MISC.; PARAPET REPAIR	
	5016						1043	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
2	1131	37	18	19	8	12	224	512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	754						224	512	74000	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
	1516						654	512	74500	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
	342							516	10010	FT	ARMORLESS PREFORMED JOINT SEAL	
	28	9						516	45305	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	2 / 15
	1							516	46900	EACH	BEARING DEVICE, MISC.:BEARING PLATE	
			16	15	14			516	13600	SF	1" PREFORMED EXPANSION JOINT FILLER	
	LS	LS						516	47001	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	2 / 15
30	50							519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
4								526	98200	FT	APPROACH SLABS, MISC.; TYPE C SLEEPER SLAB REPAIR	
			10	10				SPECIAL	53000800	SY	STRUCTURES: CONCRETE SPALL REMOVAL	2 / 15
200								606	15050	FT	GUARDRAIL, TYPE MGS	
1								606	35000	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
1								606	35100	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
57								607	39900	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	
10								843	50000	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
	1020	175						844	10000	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION	
			78	72	68			846	00110	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
			94	72	49			856	10000	CY	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE	

CALC:	CLG	DATE:	2/13/2024
CHECKED:	MJA	DATE:	3/6/2024

STRUCTURE ESTIMATED QUANTITIES
SUM-76 STRUCTURES
SUM-277 STRUCTURES

SFN
VARIOUS
DESIGN AGENCY

DESIGNER	CHECKER
CLG	MJA
REVIEWER	
TJP 03-05-24	
PROJECT ID	
113086	
SUBSET	TOTAL
4	15
SHEET	TOTAL
P.51	62

SUM-76/277-5.90/0.00

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STRUCTURE ESTIMATED QUANTITIES
SUM-76 STRUCTURES
SUM-277 STRUCTURES

SFN	
VARIOUS	
DESIGN AGENCY	
	
DESIGNER	CHECKER
CLG	MJA
REVIEWER	
TJP 03-05-24	
PROJECT ID	
113086	
SUBSET	TOTAL
5	15
SHEET	
TOTAL	
P.52	62

SUM-76/277-5.90/0.00

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CALC:	CLG	DATE:	2/13/2024
CHECKED:	MJA	DATE:	3/6/2024

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STRUCTURE ESTIMATED QUANTITIES

SFN
VARIOUS

DESIGN AGENCY



DESIGNER	CHECKER
CLG	MJA

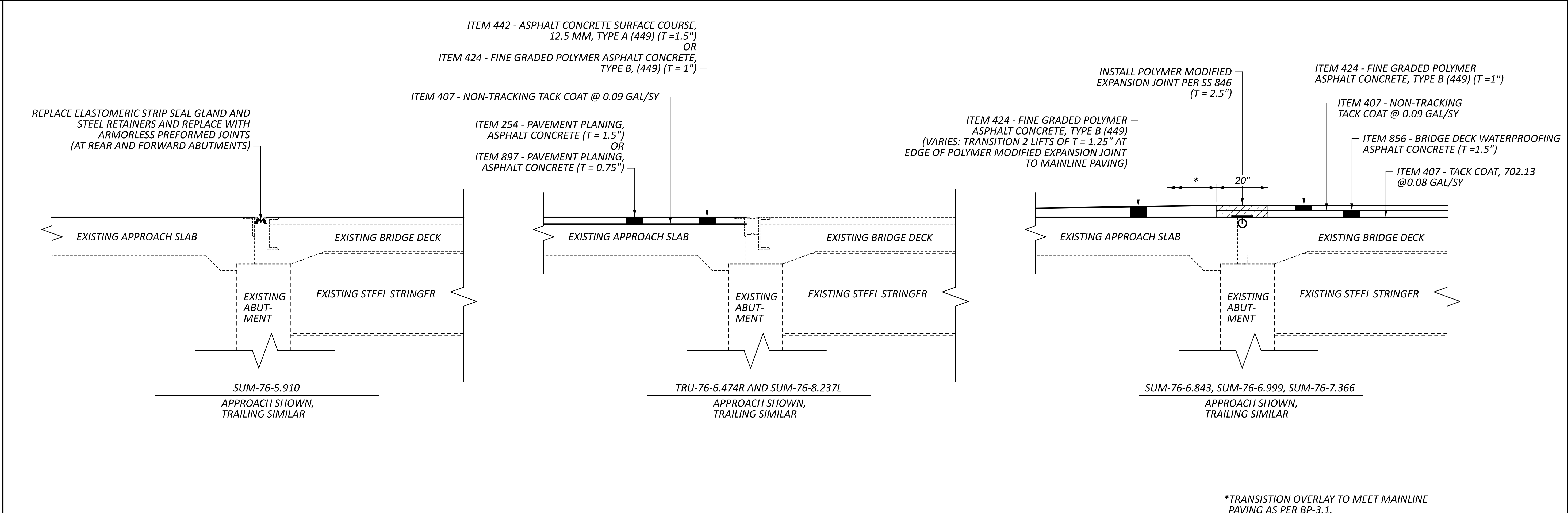
REVIEWER
TJP 03-05-24

PROJECT ID
113086

SUBSET	TOTAL
6	15

SHEET	TOTAL
P.53	62

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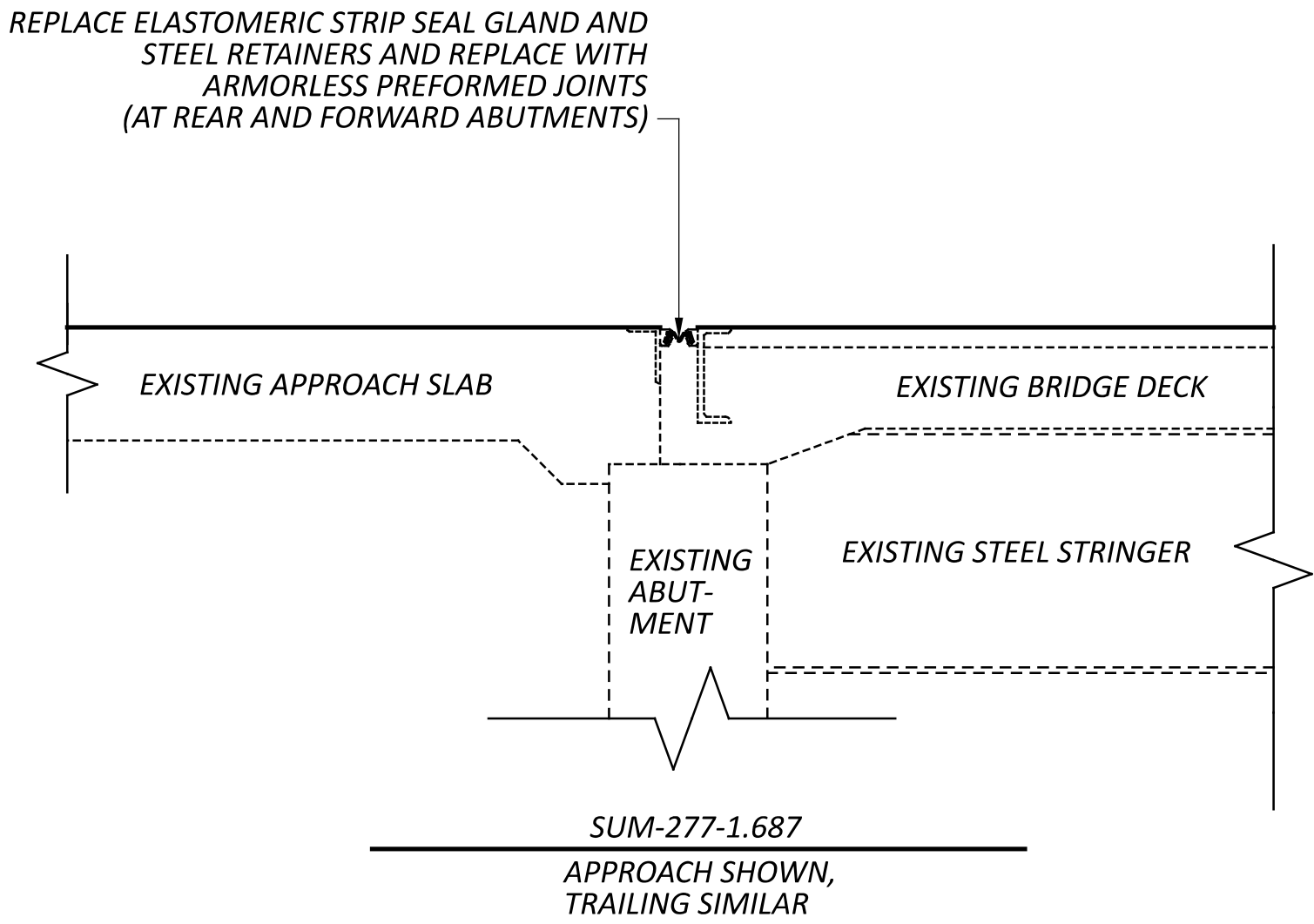
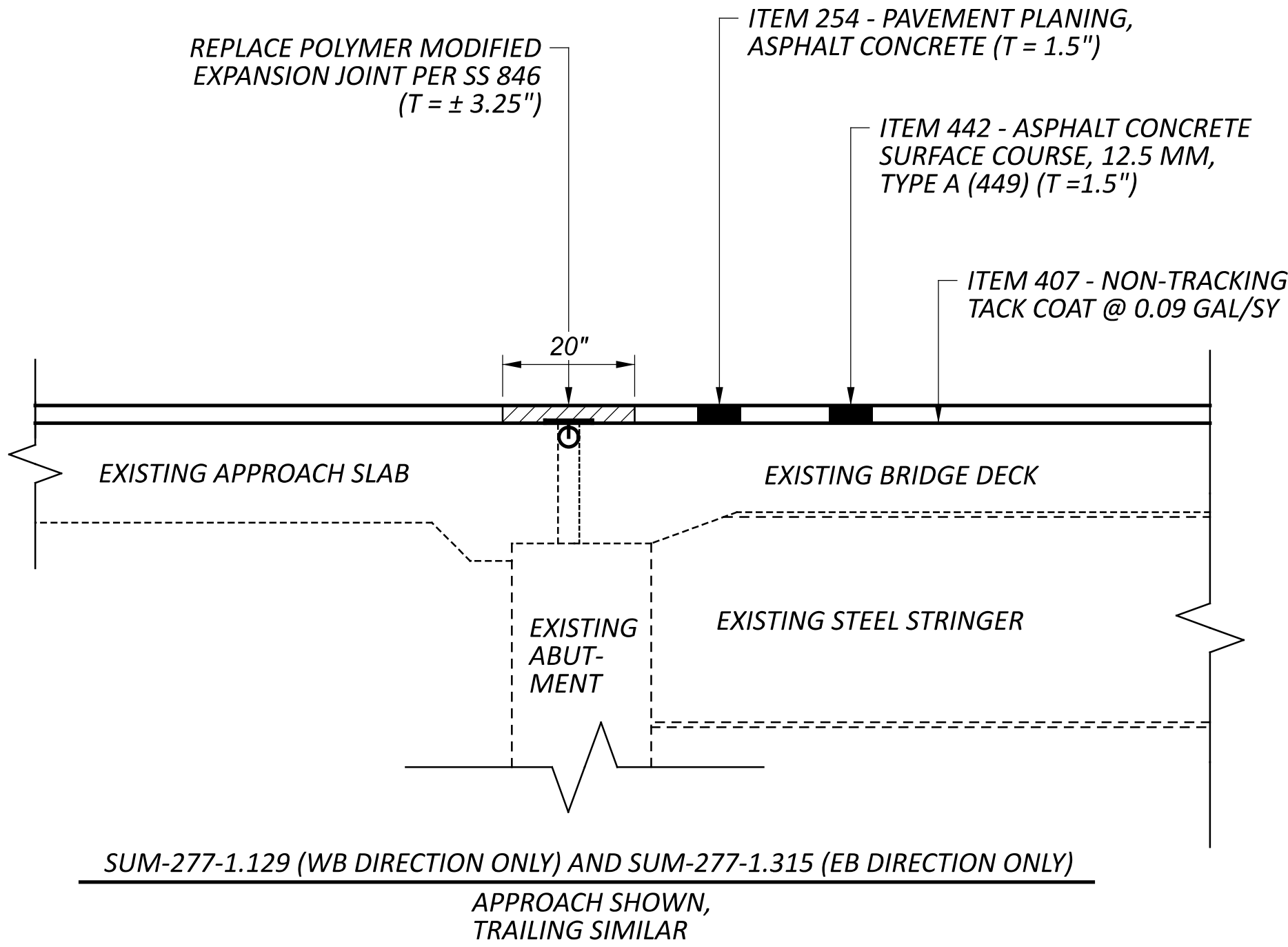
BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS												
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	254	897	407	407	424	442	512	519	856	LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	254	897	407	424	442	512	519	516	846
				PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	NON-TRACKING TACK COAT @ 0.06 GAL/SY	TACK COAT, 702.13 @ 0.08 GAL/SY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (449) (T=1")	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449) (T=1.5")	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	PATCHING CONCRETE BRIDGE DECK - TYPE C	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE (T=1.5")					PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	NON-TRACKING TACK COAT @ 0.09 GAL/SY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (449) (T=VARIES)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449) (T=1.5")	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	PATCHING CONCRETE BRIDGE DECK - TYPE C	ARMORLESS PREFORMED JOINT SEAL	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
SUM-76-5.790 EB	130.34	73.00	1057.20								20.00		30.00	100.00	333.33	REAR									
													30.00	100.00	333.33	FWD						10.00			
SUM-76-5.910	379.04	105.17	4429.12							4430.00	30.00		25.00	105.17	292.14	REAR					293.00	10.00	171.00		
													25.00	105.17	292.14	FWD					293.00	10.00	171.00		
SUM-76-6.474R	203.75	74.00	1675.28										25.00	74.00	205.56	REAR	206.00		19.00		9.00				
													25.00	74.00	205.56	FWD	206.00		19.00		9.00				
SUM-76-6.843	217.50	92.42	2233.48			135.00	179.00	63.00				94.00	25.00	92.42	256.72	REAR			32.00	13.00				39.00	
													25.00	92.42	256.72	FWD			32.00	13.00				39.00	
SUM-76-6.999	183.00	84.50	1718.17			104.00	138.00	48.00				72.00	25.00	84.50	234.72	REAR			29.00	12.00				36.00	
													25.00	84.50	234.72	FWD			29.00	12.00				36.00	
SUM-76-7.366	131.50	79.68	1164.14			70.00	94.00	33.00				49.00	25.00	79.68	221.33	REAR			27.00	11.00				34.00	
													25.00	79.68	221.33	FWD			27.00	11.00				34.00	
SUM-76-8.237L	151.62	60.00	1010.80										25.00	60.00	166.67	REAR		167.00	16.00	5.00					
													25.00	65.00	180.56	FWD									

STRUCTURE DETAILS
SUM-76 STRUCTURES
SUM-277 STRUCTURES

SFN
VARIOUS
DESIGN AGENCY

DESIGNER: CLG
CHECKER: MJA
REVIEWER: TJP
PROJECT ID: 113086
SUBSET: 7
TOTAL: 15
SHEET: P.54
TOTAL: 62

03-05-24

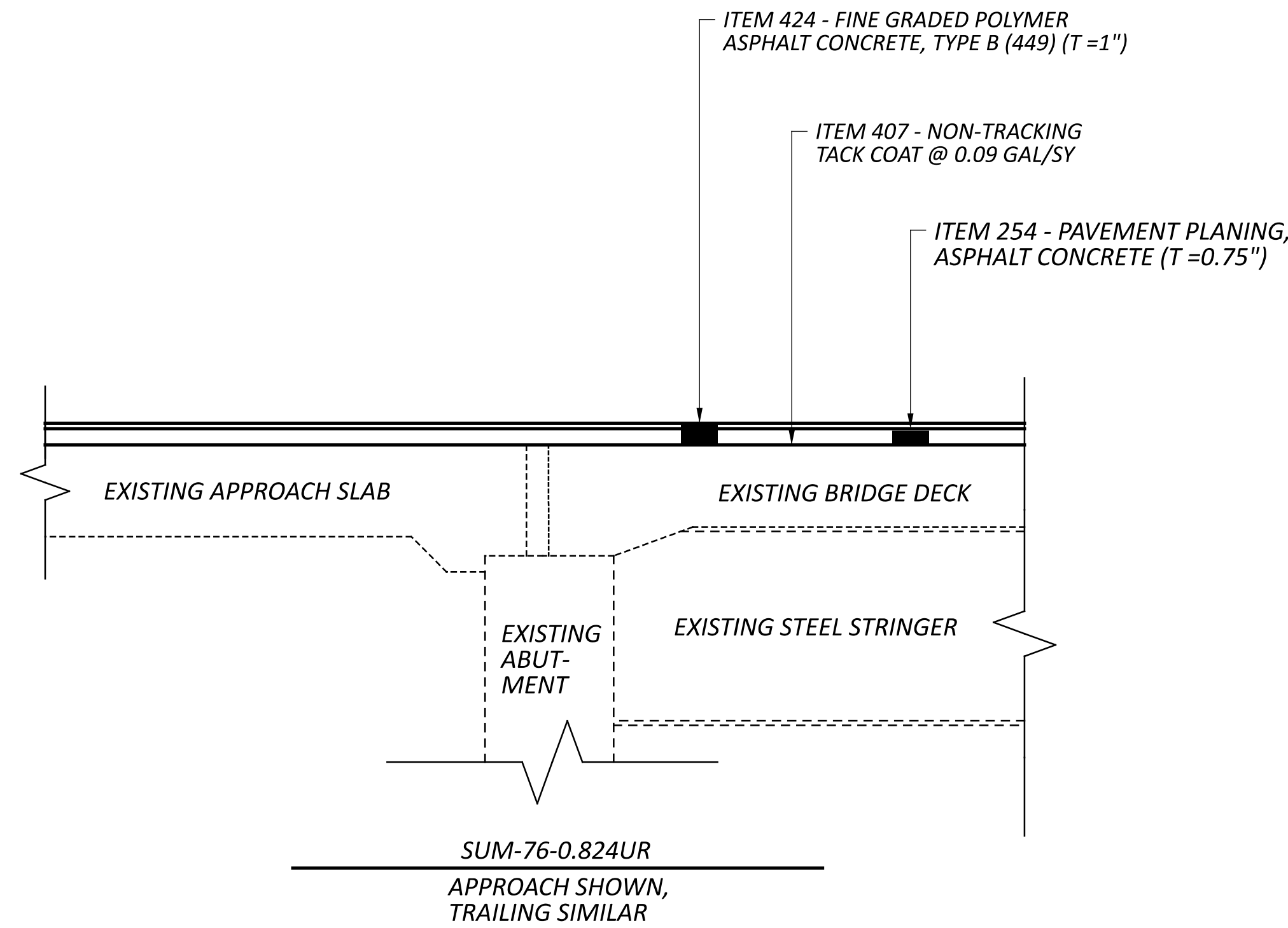
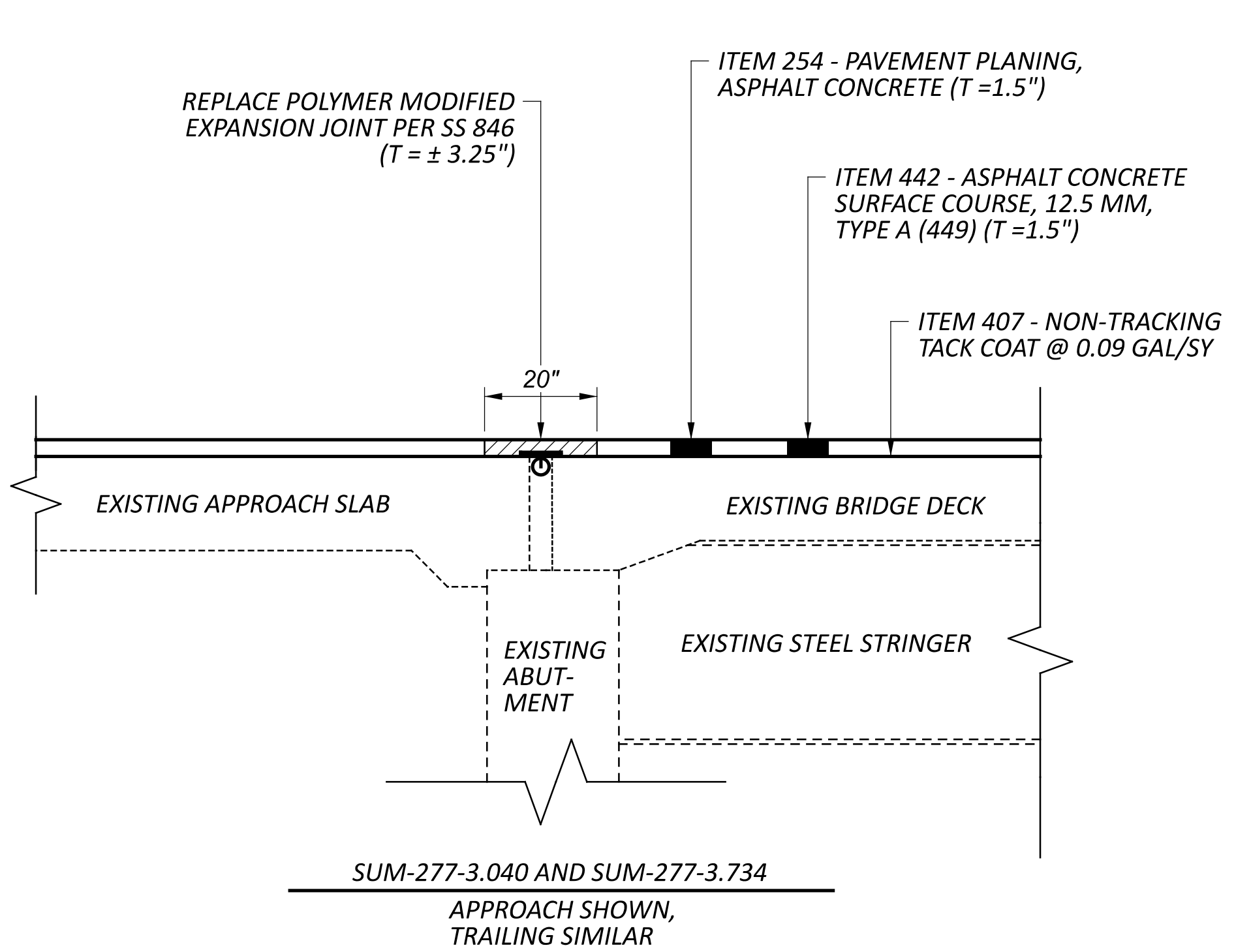


BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS												
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	254	897	407		424	442	512	519		LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	AREA APPROACH SLAB	APPROACH (FORWARD / REAR)	254	897	407	424	442	512	519	516	846
				PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	NON-TRACKING TACK COAT @ 0.09 GAL/SY		FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (449) (T=1")	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449) (T=1.5")	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	PATCHING CONCRETE BRIDGE DECK - TYPE C						PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=0.75")	NON-TRACKING TACK COAT @ 0.09 GAL/SY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (449) (T=1")	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449) (T=1.5")	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	PATCHING CONCRETE BRIDGE DECK - TYPE C	ARMORLESS PREFORMED JOINT SEAL	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
				SY	SY	GAL		CY	CY	SY	SY						SY	SY	GAL	CY	CY	SY	SY	FT	CF
SUM-77-9.580L	217.70	35.00	846.61							847.00			25.00	35.00	97.22	REAR						98.00			
													25.00	35.00	97.22	FWD						98.00			
SUM-277-0.898	131.54	126.75	1852.52							1853.00	19.00		25.00	130.58	362.72	REAR						363.00	4.00		
													25.00	122.92	341.44	FWD						342.00	4.00		
SUM-277-1.129 WB	220.34	52.50	1285.32	1286.00		116.00			54.00				25.00	52.50	145.83	REAR	146.00		14.00		7.00				31.00
													25.00	52.50	145.83	FWD	146.00		14.00		7.00				31.00
SUM-277-1.315 EB	217.26	52.50	1267.35	1268.00		115.00			53.00				25.00	52.50	145.83	REAR	146.00		14.00		7.00				27.00
													25.00	52.50	145.83	FWD	146.00		14.00		7.00				27.00
SUM-277-1.687	198.10	104.87	2308.31							2309.00	24.00		25.00	102.69	285.25	REAR						143.00	3.00	105.00	
													25.00	107.05	297.36	FWD						149.00	3.00	110.00	
SUM-277-2.341	261.51	67.00	1946.80							1947.00			25.00	67.00	186.11	REAR						187.00			
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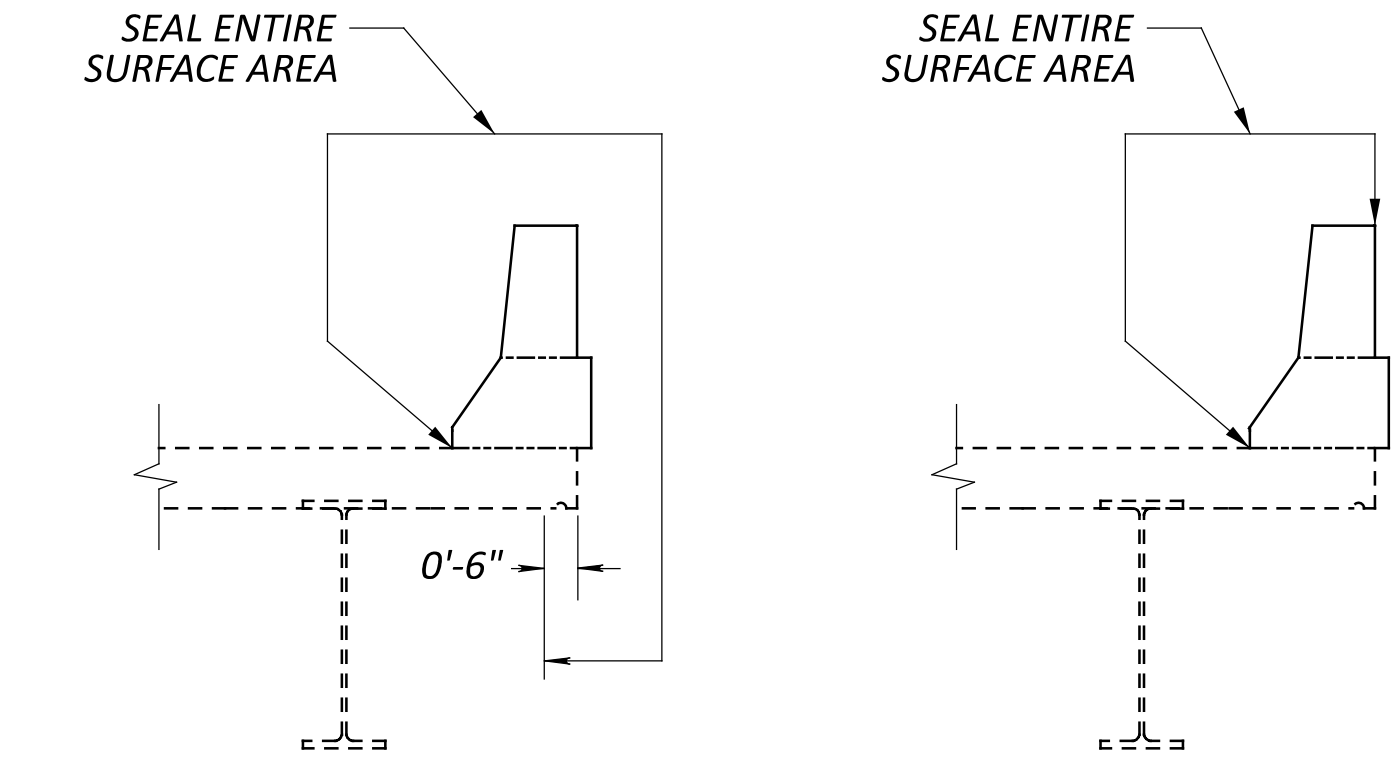
STRUCTURE DETAILS
SUM-76 STRUCTURES
SUM-277 STRUCTURES

SUM-76/277-5.90/0.00

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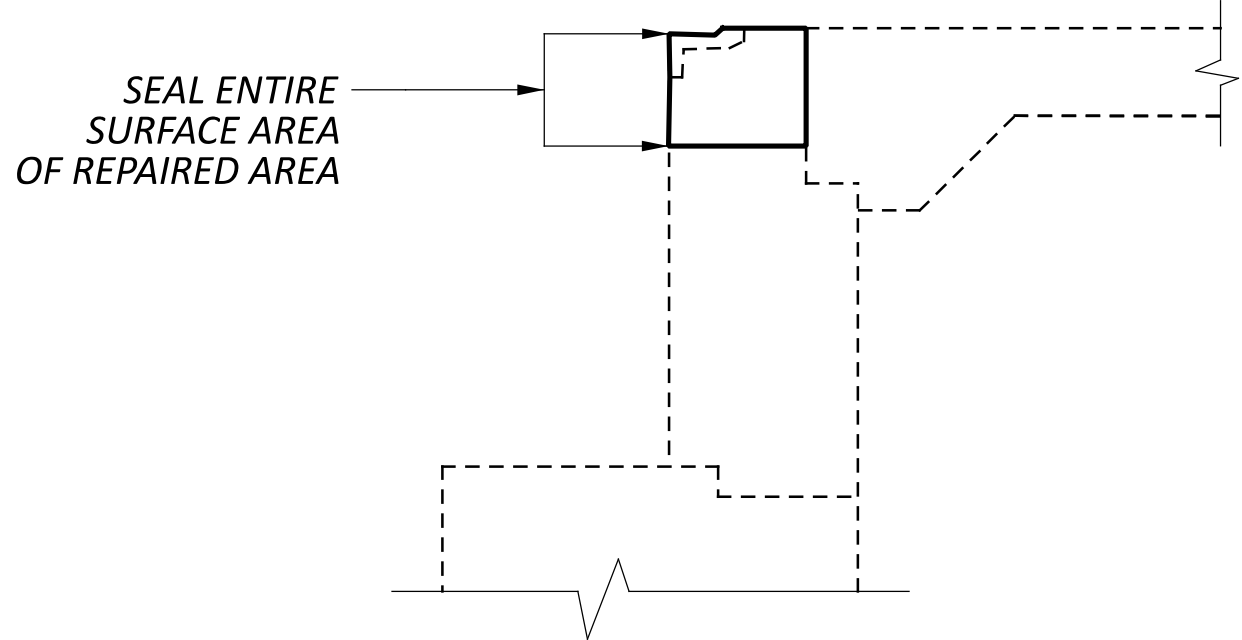
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STRUCTURE DETAILS
SUM-76 STRUCTURES
SUM-277 STRUCTURES



DETAIL A
CONCRETE DECK WITH
DEFLECTOR PARAPET

DETAIL B
CONCRETE DECK WITH
DEFLECTOR PARAPET



DETAIL C
ABUTMENT BACKWALL REPAIR AREA

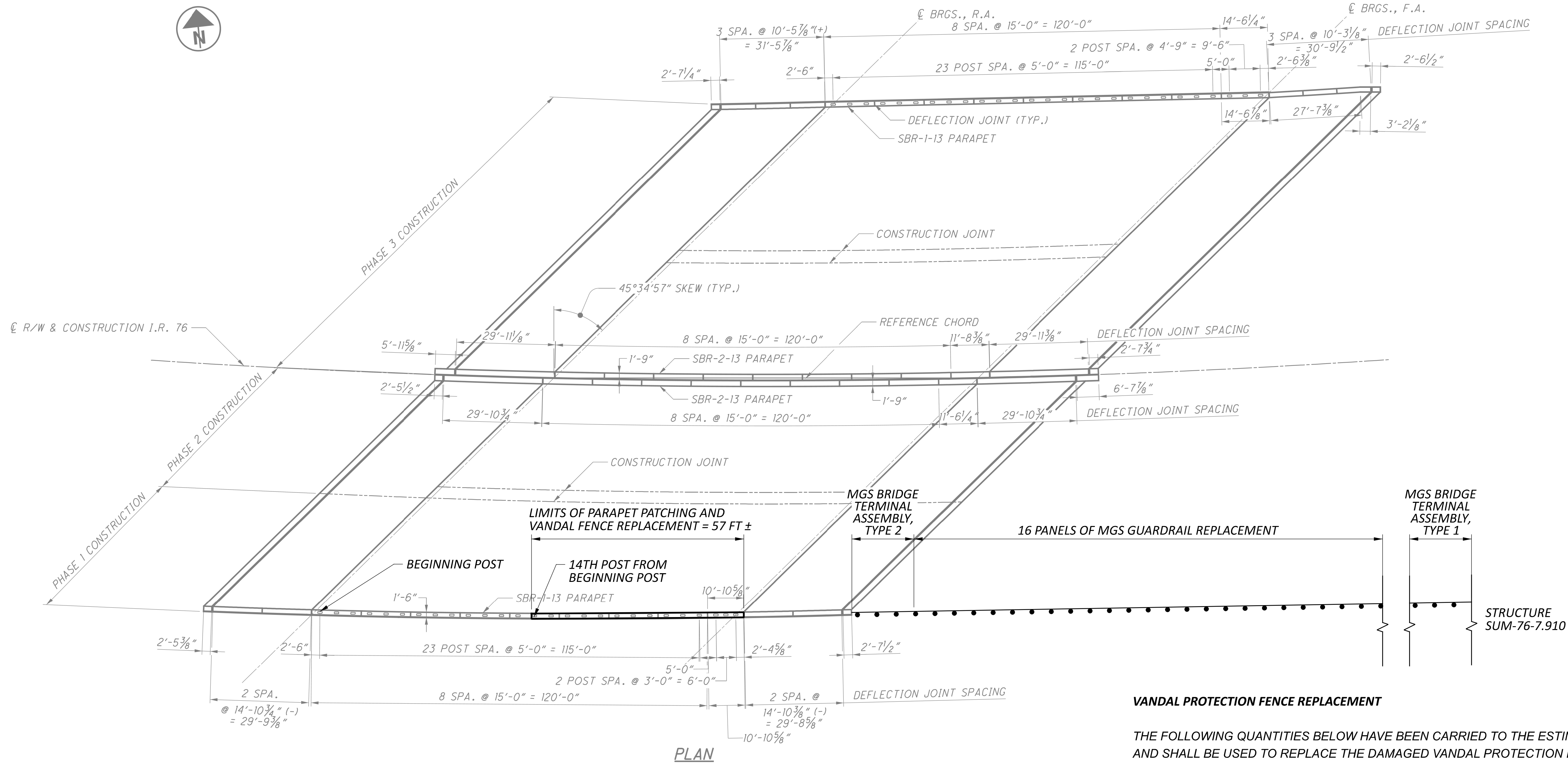
					ESTIMATED QUANTITIES				
BRIDGE NUMBER	SEALING PAY ITEM	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
SUM-76-5.790	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL PATCHED CONCRETE ON THE PARAPETS.	MATCH EXISTING				2	2
SUM-76-5.910	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL OF THE CONCRETE PARAPETS. (SEE DETAIL A)	MATCH EXISTING				1131	1131
SUM-76-6.474R	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL BACKWALL REPAIRED AREAS AND PATCHED CONCRETE ON THE PIERS.	MATCH EXISTING	17	20			37
SUM-76-6.843	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL BACKWALL REPAIRED AREAS AND ALL CONCRETE SPALL REMOVAL AREAS.	MATCH EXISTING	18				18
SUM-76-6.999	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL BACKWALL REPAIRED AREAS AND ALL CONCRETE SPALL REMOVAL AREAS.	MATCH EXISTING	19				19
SUM-76-7.366	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL BACKWALL REPAIRED AREAS. (SEE DETAIL C)	MATCH EXISTING	8				8
SUM-76-8.237L	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL BACKWALL REPAIRED AREAS. (SEE DETAIL C)	MATCH EXISTING	12				12
SUM-77-9.580L	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL THE TOP AND INSIDE SURFACES OF THE CONCRETE PARAPETS. (SEE DETAIL B)	MATCH EXISTING				224	224
SUM-277-0.898	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL PATCHED CONCRETE ON THE CONCRETE RAILING AND ABUTMENTS.	MATCH EXISTING				34	34
SUM-277-1.129	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL PATCHED CONCRETE ON THE CONCRETE RAILINGS, PIER CAPS, AND DECK UNDERSIDE.	MATCH EXISTING		28		4	32
SUM-277-1.687	ITEM 512 SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITY PROTECTION)	STEEL CONTINUOUS MULTI-BEAM	SEAL ABUTMENTS AND PIERS.	MATCH EXISTING	65	126			191
SUM-277-2.341	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL ALL PATCHED CONCRETE ON THE PIERS.	MATCH EXISTING		28			28
SUM-277-3.040	ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	STEEL CONTINUOUS MULTI-BEAM	SEAL PATCHED CONCRETE ON THE ABUTMENTS.	MATCH EXISTING	30				30

CONCRETE SEALING DETAILS
SUM-76 STRUCTURES
SUM-277 STRUCTURES

SFN
VARIOUS
DESIGN AGENCY



DESIGNER	CHECKER
CLG	MJA
REVIEWER	
TJP	03-05-24
PROJECT ID	
113086	
SUBSET	TOTAL
10	15
SHEET	TOTAL
P.57	62

**PARAPET PATCHING**

PATCH THE FACE OF THE RIGHT PARAPET USING ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR. A QUANTITY HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES.

PARAPET REPAIR LOCATION PLAN
(STRUCTURE SUM-76-5.790)**VANDAL PROTECTION FENCE REPLACEMENT**

THE FOLLOWING QUANTITIES BELOW HAVE BEEN CARRIED TO THE ESTIMATED QUANTITIES AND SHALL BE USED TO REPLACE THE DAMAGED VANDAL PROTECTION FENCE AT THE LOCATIONS SPECIFIED ON THIS PLAN OR AS DIRECTED BY THE PROJECT ENGINEER. THE PROPOSED VANDAL PROTECTION FENCE SHALL USE BP-5 BASE PLATES TO MATCH EXISTING AND THE POST SPACING SHALL MATCH EXISTING CONDITIONS, WHICH IS ALSO REPRESENTED ON THIS PLAN. REFER TO STANDARD BRIDGE DRAWING VPF-1-90 FOR ADDITIONAL NOTES AND DETAILS.

202, FENCE REMOVED, 57 FT
607, VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, 57 FEET

GUARDRAIL REPLACEMENT

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE ESTIMATED QUANTITIES AND SHALL BE USED TO REPLACE THE DAMAGED GUARDRAIL AND TERMINAL ASSEMBLIES AT THE LOCATIONS SPECIFIED ON THIS PLAN OR AS DIRECTED BY THE PROJECT ENGINEER.

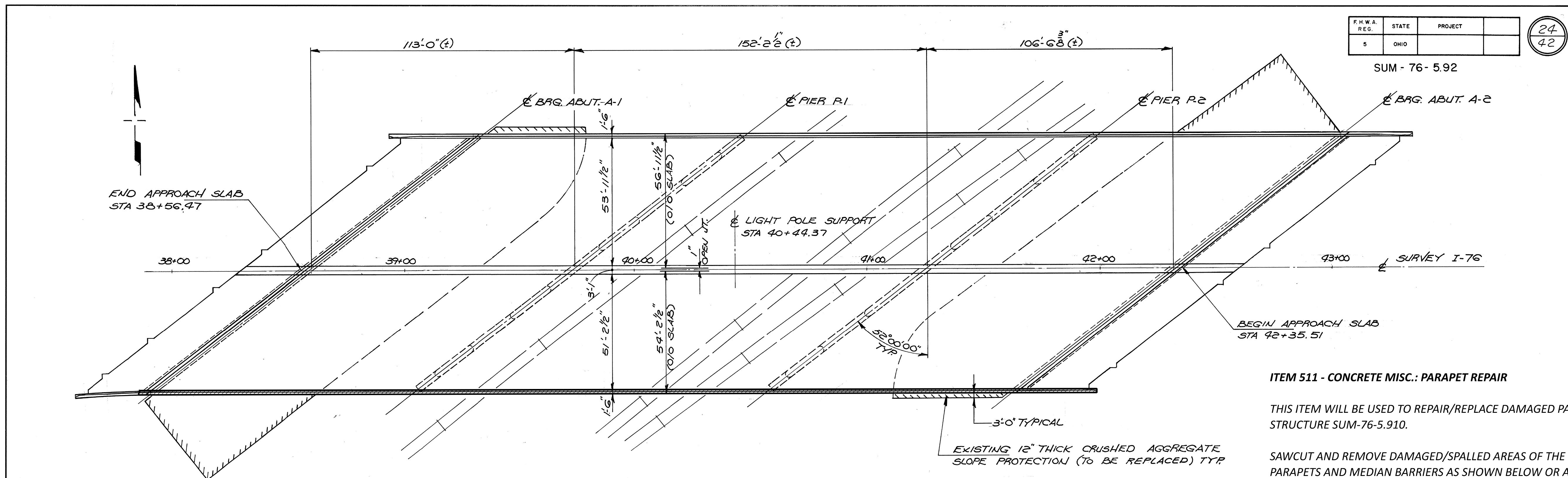
202, GUARDRAIL REMOVED, 200 FT
606, GUARDRAIL, TYPE MGS, 200 FT
606, BRIDGE TERMINAL ASSEMBLY, TYPE 1, 1 EACH
606, BRIDGE TERMINAL ASSEMBLY, TYPE 2, 1 EACH

PARAPET REPAIR DETAILS
BRIDGE NO. SUM-76-5.790
OVER WOOSTER-EAST AVE

SFN
7705493
DESIGN AGENCY



DESIGNER	CHECKER
CLG	MJA
REVIEWER	
TJP 03-06-24	
PROJECT ID	
113086	
SUBSET	TOTAL
11	15
SHEET	TOTAL
P.58	62



F.H.W.A. REG.	STATE	PROJECT
5	OHIO	

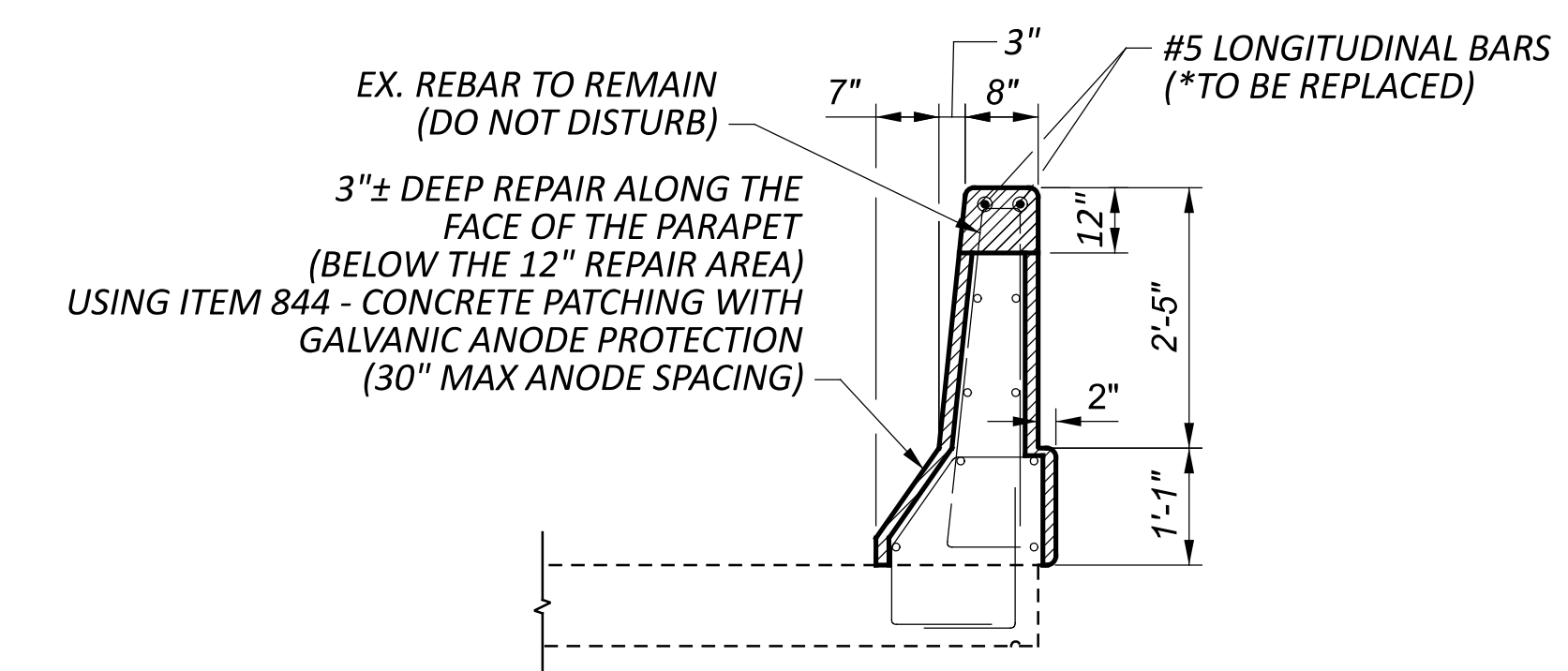
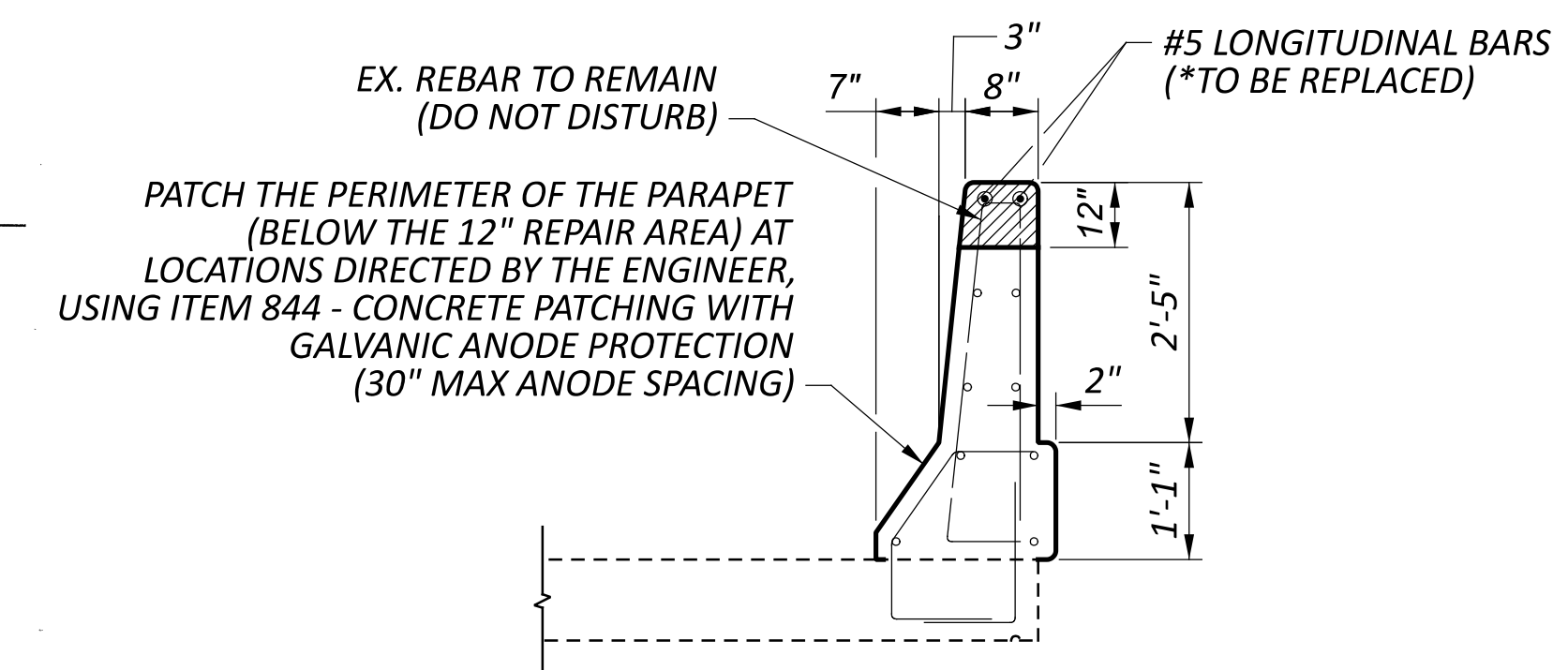
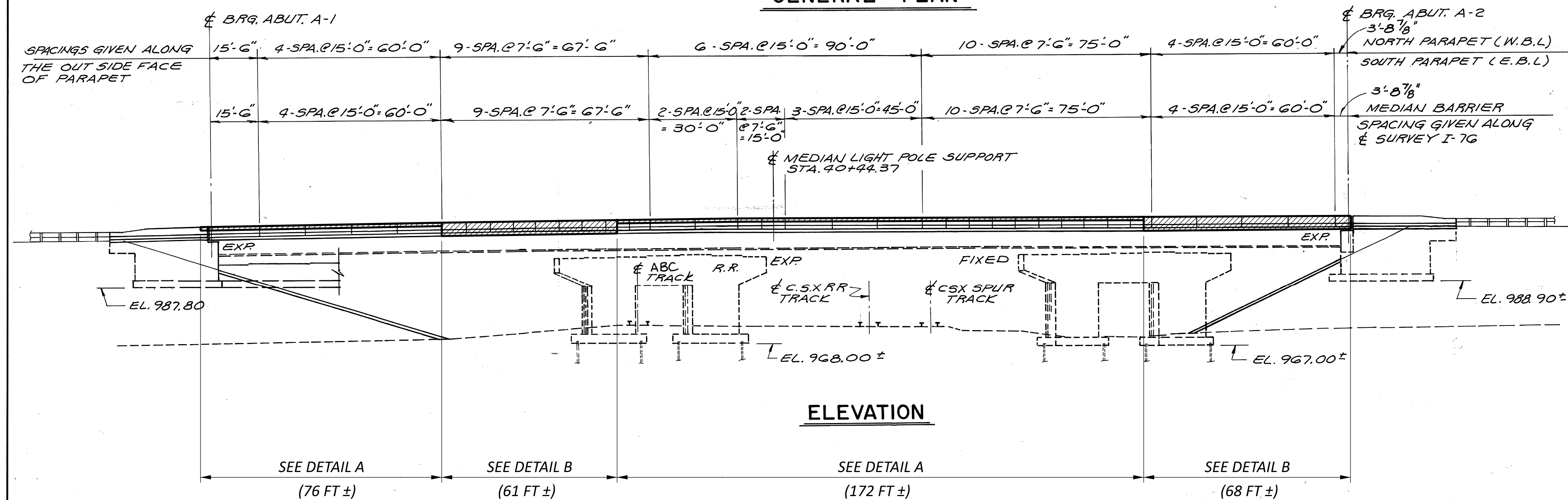
24
42

SUM - 76 - 5.92

ITEM 511 - CONCRETE MISC.: PARAPET REPAIR

THIS ITEM WILL BE USED TO REPAIR/REPLACE DAMAGED PARAPETS FOR STRUCTURE SUM-76-5.910.

SAWCUT AND REMOVE DAMAGED/SPALLED AREAS OF THE EXISTING PARAPETS AND MEDIAN BARRIERS AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. CARE SHALL BE TAKEN WHEN REMOVING SPALLED CONCRETE TO SALVAGE EXISTING REBAR. CLASS QC2 CONCRETE WILL BE USED TO REPAIR THE DAMAGED PARAPETS AND MEDIAN BARRIERS. THE REMOVAL OF CONCRETE, PREPARATION OF THE SURFACES, FORMS, AND CLASS QC2 CONCRETE WILL BE INCIDENTAL TO THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER CUBIC YARD FOR ITEM 511, CONCRETE MISC.: PARAPET REPAIR.

**LEGEND**

- LIMITS OF PARAPET REPAIR

PARAPET REPAIR LOCATION PLAN
(STRUCTURE SUM-76-5.910)

* PAID FOR BY ITEM 509 - CONCRETE REINFORCEMENT,
REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT

PARAPET REPAIR DETAILS
BRIDGE NO. SUM-76-5.910
OVER CSXT RAILROAD

SFN
7705557

DESIGN AGENCY



DESIGNER
CLG

CHECKER
MJA

REVIEWER
TJP

PROJECT ID
113086

SUBSET
12

TOTAL
15

SHEET
P.59

TOTAL
62

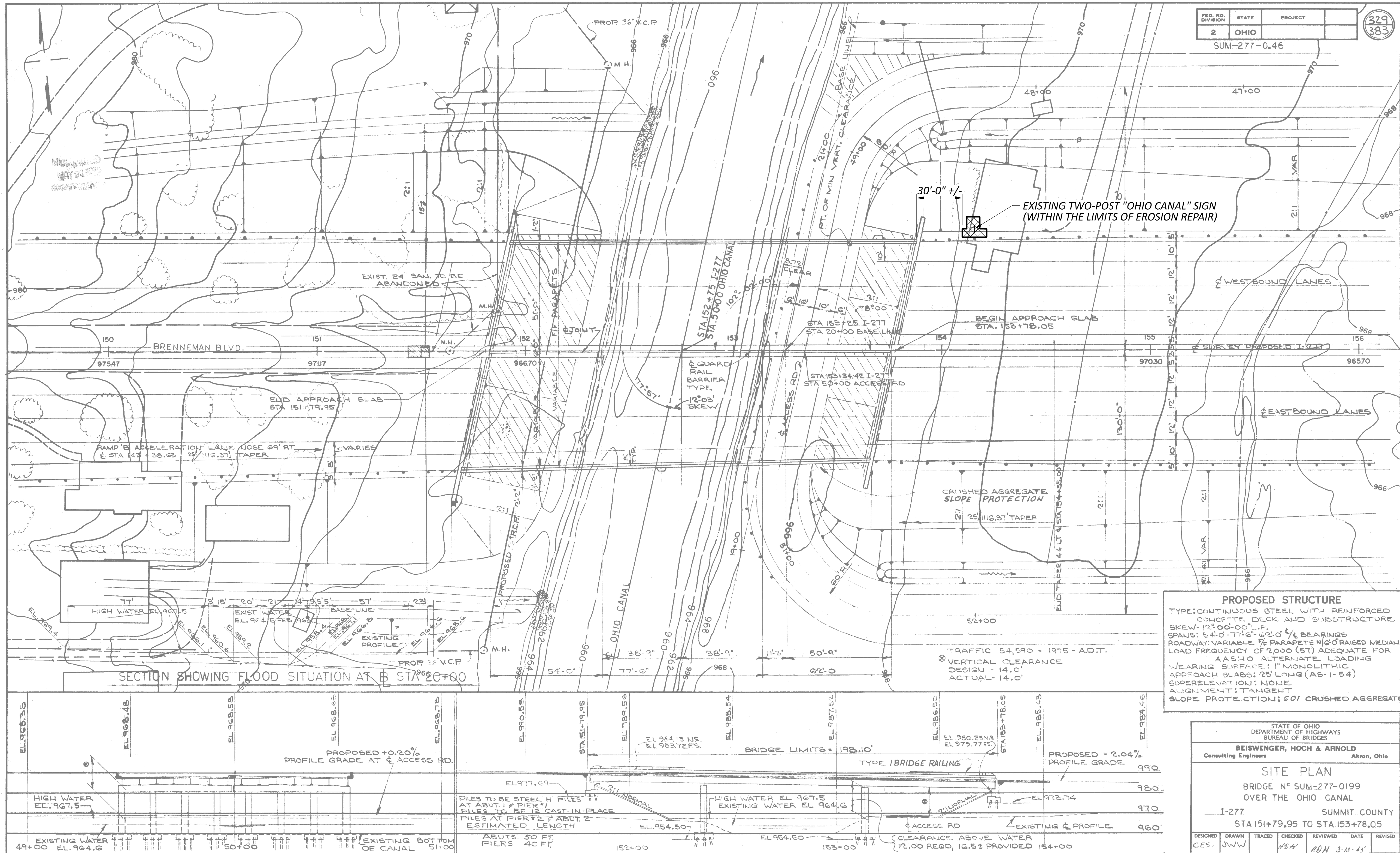
LEGEND

 - LIMITS OF EROSION REPAIR

EROSION REPAIR LOCATION PLAN
(STRUCTURE SUM-277-1.687)

EROSION REPAIR (SUM-277-1.687)

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE ESTIMATED
QUANTITIES AND SHALL BE USED FOR EROSION REPAIR AT THE LOCATION
SPECIFIED ON THIS PLAN OR AS DIRECTED BY THE PROJECT ENGINEER:
STRUCTURE SUM-277-1.687 (FORWARD ABUTMENT, LEFT CORNER)
ITEM 203, EMBANKMENT, 5 CU YD
ITEM 601, DUMPED ROCK FILL, TYPE C, 5 CU YD



PROPOSED STRUCTURE
TYPE: CONTINUOUS STEEL WITH REINFORCED
CONCRETE DECK AND SUBSTRUCTURE
SKEW: 12° 00' 00" L.F.
SPANS: 54'-0" - 77'-6" - 62'-0" & 1/2 BEARINGS
ROADWAY: VARIABLE 1/2 PARAPET W/ 2' RAISED MEDIAN
LOAD FREQUENCY: CF 2000 (S1) ADEQUATE FOR
AASHTO ALTERNATE LOADING
WEARING SURFACE: 1" MONOLITHIC
APPROACH SLABS: 25' LONG (AS-1-54)
SUPERELEVATION: NONE
ALIGNMENT: TANGENT
SLOPE PROTECTION: 60% CRUSHED AGGREGATE

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES	
BEISWENGER, HOCH & ARNOLD Consulting Engineers	Akron, Ohio
SITE PLAN	
BRIDGE NO. SUM-277-0199 OVER THE OHIO CANAL	
I-277 SUMMIT COUNTY STA 151+79.95 TO STA 153+78.05	
DESIGNED CES	DRAWN JWW
TRACED CES	CHECKED JWW
REVIEWED RDH	DATE 3-11-65
REVISED	

EROSION REPAIR DETAILS
BRIDGE NO. SUM-277-1.687
OVER OHIO CANAL & LEY DR. (TR-1355)

SFN
7709692
DESIGN AGENCY



DESIGNER CLG	CHECKER MJA
REVIEWER TJP	
PROJECT ID 113086	
SUBSET 13	TOTAL 15
SHEET P.60	TOTAL 62

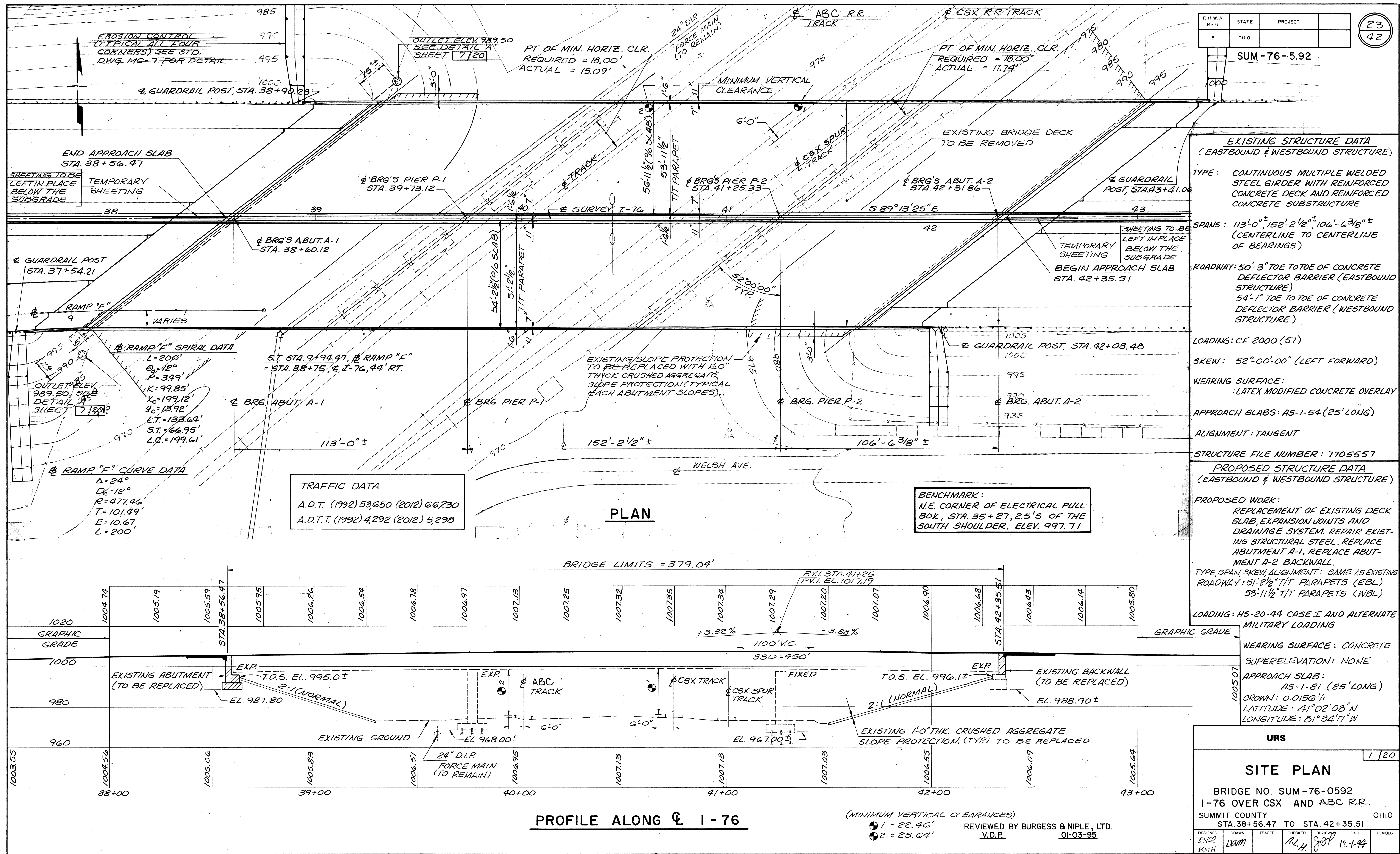
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 - APPROXIMATE LIMITS OF CHANNEL CLEANOUT

SHEET	TOTAL
P.61	62

FOR REFERENCE ONLY



STRUCTURE DETAIL
BRIDGE NO. SUM-76-5.910
OVER CSXT RAILROAD

SFN
7705557
DESIGN AGENCY

DESIGNER JF
CHECKER MJA
REVIEWER MJA
PROJECT ID 113086
SUBSET 15
SHEET P.62

TOTAL 15
TOTAL 62