UNDERGROUND UTILITIES CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS
MUST BE CALLED DIRECTLY OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988 PLAN PREPARED BY:

AKRON, OHIO 44306

1-800-362-2764 (TOLL FREE) ODOT - DISTRICT 4 PLANNING & ENGINEERING 2088 SOUTH ARLINGTON RD.

LOCATION MAP

SCALE IN MILES

INTERSTATE HIGHWAY. _ _ _ _ _ _ _ _ _ _ _ _

FEDERAL ROUTES _ _ _ _ _ _ _ _ _ _ _ _ _ _

LATITUDE: N41°01'32"

STATE ROUTES __

NHS PROJECT _

NONE

PORTION TO BE IMPROVED _

DESIGN DESIGNATION

DESIGN EXCEPTIONS

DESIGN FUNCTIONAL CLASSIFICATION:

URBAN FREEWAYS AND EXPRESSWAYS

LONGITUDE: W81°31'48"

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

SUM-76/77/277/224-VAR.

PART

CITY OF AKRON COVENTRY TOWNSHIP SUMMIT COUNTY FOR PART 2, SEE SUM-277-1.61 FOR PART 3, SEE SUM-76-6.72

INDEX OF SHEETS:

END PROJECT

SLM: 11.22

TITLE SHEET SCHEMATIC PLAN TYPICAL SECTIONS GENERAL NOTES MAINTENANCE OF TRAFFIC GENERAL SUMMARY SUB-SUMMARIES DRAINAGE DETAILS TRAFFIC CONTROL STRUCTURES

7-36, **10A, 10B** 37-38 39-41 42-43 44-46 46A-46J. 47-55

PROJECT DESCRIPTION

MINOR REHABILITATION RESURFACING WITH GUARDRAIL REPLACEMENT, MISCELLANEOUS BRIDGE WORK AND DRAINAGE IMPROVEMENTS.

DSR	FEDERAL PROJECT NO.	LOCATION
	E050259 .	SUM-76/77/277/224-VAR.
SUM-002	E050259	SUM-277-3.31
SUM-003	E111021	SUM-277-3.18/3.28

PROJECT EARTH DISTURBED AREA: 3.72 ACRES ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.00 ACRES N/A (MAINTENANCE PROJECT) NOTICE OF INTENT EDA:

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.

2010 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN 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 DE-TOURS WILL BE PROVIDED AS INDICATED ON SHEETS 7-36.

				STANDAR	D CONSTR	UCTION DE	RAWINGS		SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
	BP-3.1	10/19/07 0	GR-5.1	4/16/10	MT-101.70	4/15/11			800-2010 10/21/11	
	BP-9.1	4/15/05 0		4/16/10	MT-105.10	1/16/09		•	802 4/15/11	· · · · · · · · · · · · · · · · · · ·
			GR-5.3	4/16/10				* * 	832 5/5/09	
	HW-2.1	7/30/07 (GR-6.1	4/16/10	TC-41.20	1/19/01			843 4/18/03	
ENGINEERS SEAL:	1-1.2	7/15/0			TC-42.20	1/21/11			847 4/15/11	
-4111217)	DM-1.1	1/21/11 8	XJ-2-81	7/19/02	TC-52.10	1/19/07			848 4/15/11	
THURSTE OF ONLY	DM-1.2	10/21/05	XJ-4-87	7/19/02	TC-52.20	1/19/07			902 7/16/10	
THOMAS	DM-1.4	7/15/11	GSD-1-96	7/19/02	TC-65.10	1/21/05		·		
POWELL	DM-4.3	4/17/09	VPF-1-90	4/15/11	TC-65.11	1/21/05	· · · · · · · · · · · · · · · · · · ·			
E-care ForE	DM-4.4	4/17/09				`	ر در			•
CAST COLOT ENGINEERS		1	MT-35.10	4/20/01				 ·		
THE STORES ENGINE	GR-1.1	7/16/04	MT-95.30	7/17/09						
Contraction of the last of the	GR-2.1	1/16/04 !	MT-98.29	7/17/09	·					
The David	GR-3.1	10/16/09 1	MT-99.20	1/16/09						
SIGNED: Shy kull	_ GR-3.2	10/16/09	MT-99.50	1/16/06						· ·
DATE: 09-01-11	_ GR-4.2	1/19/07	MT-101.60	4/17/09						

DISTRICT DEPUTY DIRECTOR

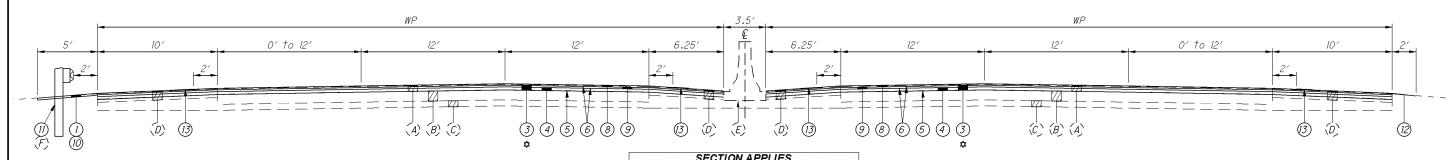
APPROVED Jerry What Ke MRECTOR, DEPARTMENT OF TRANSPORTATION

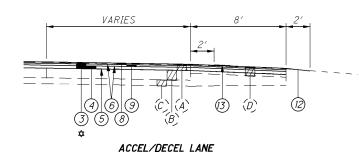


224 ns

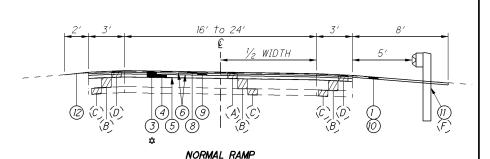
HORIZONTAL CALE IN MILES







DO.	UTE	SL	M	WP	LENGTH
RU	UIE	FROM	то	(FEET)	(MILES)
I.R. 76	EB	5.99	6.16	40.00	0.17
I.R. 76	EB	6.16	6.31	40.00	0.15
I.R. 277	' SB	0.00	0.12	40.00	0.12
I.R. 277	' SB	0.12	0.89	52.25	0.77
I.R. 277	' SB	0.92	1.13	52.25	0.21
I.R. 277	' SB	1.18	1.33	52.25	0.15
I.R. 277	' SB	1.38	1.75	52.25	0.37
I.R. 277	' SB	1.79	3.04	52.25	1.25
I.R. 277	' SB	3.07	3.41	52.25	0.34
I.R. 277	' SB	3.41	3.62	40.25	0.21
I.R. 277	' SB	3.62	3.69	52.25	0.07
I.R. 277	' SB	3.80	3.91	52.25	0.11
U.S. 22	4 EB	10.22	10.61	40.25	0.39
U.S. 22	4 EB	10.64	11.24	40.25	0.60
I.R. 76	WB	5.99	6.16	40.00	0.17
I.R. 76	WB	6.16	6.31	40.00	0.15
I.R. 277	' NB	0.00	0.31	40.00	0.31
I.R. 277	' NB	0.31	0.89	52.25	0.58
I.R. 277	' NB	0.92	1.13	52.25	0.21
I.R. 277	' NB	1.18	1.33	52.25	0.15
I.R. 277	NB	1.38	1.75	52.25	0.37
I.R. 277	NB	1.79	3.04	52.25	1.25
I.R. 277	' NB	3.07	3.69	52.25	0.62
I.R. 277	' NB	3.80	3.91	52.25	0.11
U.S. 22	4 WB	10.22	10.61	52.25	0.39
U.S. 22	4 WB	10.64	10.91	52.25	0.27
U.S. 22	4 WB	10.91	11.24	40.25	0.33
				TOTAL	9,82



5'	6'	17′	3'	17′	6'	2'
21			[
					1///	
<u> </u>						i
$\emptyset \sqcup \emptyset$	(b) (c)	(A)(C) $9(6(4)$	(6)		(c)	12
(F) (10)	$\langle B \rangle$	(B) (8) (5) (3)	l	(3) (5) (8)	(B)	
		\$		\$		

BI-DIRECTIONAL RAMP

LEGEND

- (1) 209, LINEAR GRADING, AS PER PLAN
- (2) 254, PAVEMENT PLANING ASPHALT CONCRETE, AS PER PLAN (T=3¾ "±)
- 3 254, PAVEMENT PLANING ASPHALT CONCRETE, AS PER PLAN (T=51/2"±) \$\pi\$
- (4) 301, ASPHALT CONCRETE BASE, PG64-22 (T=3") ❖
- (5) 407, TACK COAT, 702.13
- 6 407, TACK COAT FOR INTERMEDIATE COURSE
- (8) 442, ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (446) (T=11/2")
- 9 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (446) (T=13/4")
- 10 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN
- (11) 606, GUARDRAIL, TYPE 5
- (12) 617, COMPACTED AGGREGATE, AS PER PLAN (2" AVG.)
- (13) 618, RUMBLE STRIPS, (ASPHALT CONCRETE)
- (A) EXISTING ASPHALT PAVEMENT
- (B) EXISTING REINFORCED CONCRETE PAVEMENT
- (C) EXISTING SUBBASE
- (D) EXISTING ASPHALT SHOULDER
- (E) EXISTING CONCRETE BARRIER
- (F) EXISTING GUARDRAIL
- (G) EXISTING CONCRETE MEDIAN

US 224 SLM 10.22 TO 10.61, US 224 SLM 10.64 TO 11.24 AND KELLY AVE. RAMPS: USE (2), OMIT (3) AND (4).



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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, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS). THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY) OGPUPS 1-800-925-0988 ODOT 330-786-3145 KEN GREENE

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.

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.

WORK LIMITS

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

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE LANE WIDTH IR 76 12' IR 277 12' US 224 12'

TRAFFIC COUNTERS

THE CONTRACTOR WILL CONTACT THE TRAFFIC MONITORING SECTION, FIELD MANAGER AT 614 -275-1382, FOURTEEN (14) CALENDAR DAYS PRIOR TO WORK INVOLVING THE TRAFFIC DATA COLLECTION SITE AT SUM-277-1.70.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201. CLEARING AND GRUBBING.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING I", 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 GRAD-ATION, 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 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 254 IN THE CMS EXCEPT THE DEPTH SHALL VARY FROM 3\\ " OR 5\\ 2" (AS SHOWN ON TYPICAL SECTIONS) TO THE TOP OF THE CONCRETE WHICHEVER IS FIRST. THIS WORK SHALL BE PERFORMED SO THAT THE CONCRETE BASE IS NOT DISTURBED. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

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PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING AS PER PLAN, SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING **METHODS:**

METHOD A:

- 1. SET GUARDRAIL POSTS
- 2. PLACE ITEM 448

METHOD B:

- 1. PLACE ITEM 448
- 2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
- 3. SET GUARDRAIL POSTS
- 4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COM-PACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 448 SHALL NOT BE PLACED WHERE PROPOSED GUARDRAIL IS LOCATED AT A CURB SECTION.

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS AT GRADED CURB SECTIONS:

659. SEEDING AND MULCHING	1364 SQ. YD.
659. REPAIR SEEDING AND MULC	
•	
659, COMMERCIAL FERTILIZER	0.18 TON
659, LIME	0.28 ACRES
659, WATER	7 M. GAL.

ITEM SPECIAL - MISC .: 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 LECENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:

SUM-76-0615 SUM-76-0657 SUM-277-0246 SUM-224-1105 SUM-76-1075

LOCATION

GENERAL SUMMARY:

202 CURB REMOVED

609, CURB, TYPE 6

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL

SPECIAL - MISC .: VERTICAL CLEARANCE

5 FACH

420 FT

382 SQ YD

21 EACH

420 FT

TODIENCE

INLET RECONSTRUCTION (I.R. 76 AKRON WEST LEG)

THIS ITEM OF WORK SHALL CONSIST OF REMOVAL AND DISPOSAL OF EXISTING CONCRETE TOP AND METAL CASTINGS OF THE PAVEMENT INLET AND PLACEMENT OF NEW CONCRETE TOP AND CASTINGS.

THE INLET WINDOW OPENING SHALL BE RE-ESTABLISHED. THE TOP ELEVATION OF THE INLET SHALL BE RAISED 3"± (REQUIRING 10'± OF CURB REMOVAL AND REPLACEMENT ON EACH SIDE OF THE INLET AND VARIABLE DEPTH MILLING AND PAVING OF THE SHOULDER AT EACH LOCATION).

ALL INLET AND OUTLET PIPES SHALL BE RE-GROUTED INTO PLACE AND THE BOTTOM OF THE INLET IS TO BE SHAPED TO DRAIN USING GROUT.

	WEST BOUND (I.R. 76)	
1	$0.004 \pm 0.004 \pm 0.00$	
	EAST OF GRANT DECEL	155*
2	G-RAIL END EAST OF PED BRIDGE	159"
3	G-RAIL END WEST OF PED BRIDGE	162"
4	G-RAIL END @ GRANT BRIDGE	137°
5	EAST OF GRANT ENTRANCE 25'±	105"
6	EAST OF WOLF LEDGES ENTRANCE 25'±	113"
7	WEST OF WOLF LEDGES M.P. 22.5±	152"
8	ACCEL RAMP BROADWAY	112"
9	EAST OF M.P. 22.0 BEFORE MERGE SIGN	152"
10	WEST OF M.P. 22.0 AFTER MERGE SIGN	188"
11	EAST OF M.P. 21.8 BEFORE ZOO SIGN	162"
12	EAST OF SUM-76-9.94 50'±	139"
12B	EAST OF CANTILEVER 25'±	188*
13	G-RAIL END @ EXIT 21C	182"
	EAST BOUND (I.R. 76)	
14	EAST AVE. ENTRANCE RAMP	114"
15	WEST OF PRINCETON M.P. 21.7±	183*
16	EAST OF SUM-76-9.94 WEST OF M.P. 21.8	163"
17	WEST OF EXIT 22A M.P. 21.9±	198*
18	EAST OF GRANT MIDDLE OF RAMP	141"
19	GRANT ACCEL WEST OF YIELD SIGN	132*
20	WEST OF PED BRIDGE 50'±	172"

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE

448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 32 CU YD

254, PAVEMENT PLANING, ASPHALT CONCRETE

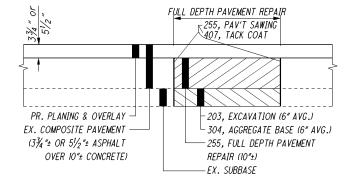
604, INLET RECONSTRUCTED TO GRADE, AS PER PLAN

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS

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"± CONCRETE, CLASS MS. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO. THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED.

PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY: 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT,

13860 SO YD CLASS MS 255, FULL DEPTH PAVEMENT SAWING 41580 FT



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: 2310 CU YD 203, EXCAVATION (FOR PAVEMENT REPAIR)

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

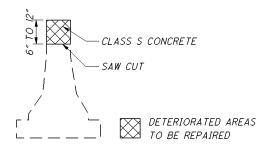
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY: 304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 2310 CU YD

ITEM 511 - CONCRETE MISC .: BARRIER WALL REPAIR

THIS ITEM WILL BE USED TO REPAIR DAMAGED BARRIER WALL WITHIN THE LIMITS OF THIS PROJECT.

SAWCUT AND REMOVE DAMAGED/SPALLED AREAS OF THE EXISTING BARRIER WALL TO A MINIMUM DEPTH OF 6" AND A MAXIMUM DEPTH OF 12" OR AS DIRECTED BY THE ENGINEER. CLASS S CONCRETE WILL BE USED TO REPAIR THE DAMAGED BARRIER WALL. THE REMOVAL OF CONCRETE, PREPARATION OF THE SURFACES. FORMS, AND CLASS S CONCRETE WILL BE INCIDENTAL TO THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER FOOT FOR ITEM 511, CONCRETE MISC.: BARRIER WALL REPAIR.

511, CONCRETE MISC.: BARRIER WALL REPAIR 50 FT



RESET UNDERDRAIN OUTLET (SLM 1.13 RT)

THIS ITEM WILL BE USED TO RESET THE UNDERDRAIN OUTLET AT I.R. 277 SLM 1.13 RIGHT AND PROVIDE EROSION PROTECTION DOWN THE EMBANKMENT COMPRISED OF ROCK CHANNEL PROTECTION IN A 100'x5'x24" STRIP ALONG THE EXISTING SCOUR.

601, ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER, AS PER PLAN 37 CU YD

ITEM 630 - SIGN, FLAT SHEET

THE CONTRACTOR WILL INSTALL THE FOLLOWING PERMANENT OVERLAYS:

48" X 18" BLANK OVERLAY-RIVET OVERLAY OVER WORD "ONLY" ON FB IR-76 OVERHEAD SIGN AT SIM 5.99. 36" X 36" IR-76 SHIELD-RIVET OVERLAY OVER EXISTING IR-76 DECAL ON EB IR-76 OVERHEAD SIGN AT SLM 8.18.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

630, SIGN, FLAT SHEET

15 SQ FT

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ITEM 606 - ANCHOR ASSEMBLY, TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROAD-WAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27.75 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EOUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27.75 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EOUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

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SUM-76/77/277/224-VA

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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. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2211, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
- 2. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.
- 3. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.
- 4. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
- 5. A QUANTITY OF 100 CU. YDS. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
- 6. 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.
- 7. 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.

LANE CLOSURES

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMIT-TED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT: http://plcm.dot.state.oh.us

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIRE-MENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$5,000.00 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

DETOUR DURATION

IR-277 EASTBOUND CLOSURE:

ALL LANES AND ASSOCIATED RAMPS [INCLUDING RAMPS B, D, E, T, F, L, W-2, AND THE ON-RAMPS TO THE IR-277 EASTBOUND MAINLINE (RAMPS B AND D-1/D-3)] OF THE IR-277 EASTBOUND MAINLINE SHALL BE CLOSED CONCURRENTLY FOR A MAXIMUM OF TWENTY-EIGHT (28) CONSECUTIVE CALENDAR DAYS. SEE THE NEXT SHEET FOR A SUMMARY CHART OF RAMP CLOSINGS. ALL WORK FOR THE IR-277 EASTBOUND MAINLINE AND RAMPS WILL BE COMPLETED DURING THE CLOSURE INCLUDING ALL PAVEMENT PLANING, ALL JOINT REPAIRS, ALL PAVING AND FINAL STRIPING. ADDITIONALLY, ALL BRIDGE WORK EFFECTING IR-277 EASTBOUND MAINLINE TRAFFIC WILL BE COMPLETED DURING THE CLOSURE. THE BRIDGE WORK ON THE RIGHT HALF OF SUM-224-1061 WILL ALSO BE COMPLETED DURING THE IR-277 EASTBOUND CLOSURE BUT THE DURATION WILL BE A MAXIMUM OF TEN DAYS.

RAMP L SHALL BE CLOSED A MAXIMUM OF THIRTY-TWO (32) CONSECUTIVE CALENDAR DAYS [TWO (2) DAYS PRIOR TO THE CLOSING OF THE IR-277 EASTBOUND MAINLINE TO RE-STRIPE RAMP U FROM ONE LANE TO TWO LANES AND TWO (2) DAYS AFTER THE OPENING OF THE IR-277 EASTBOUND MAINLINE TO RESTORE THE ORIGINAL ONE LANE PAVEMENT MARKINGS

THE INTERIM COMPLETION DATE FOR ALL IR-277 EASTBOUND MAINLINE PAVEMENT, BRIDGE AND RAMP WORK IS JULY 15, 2012.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$5,000.00 PER DAY OR PORTION THEREOF THAT THE ROAD OR RAMPS REMAIN CLOSED BEYOND THE SPECIFIED LIMIT.

IR-277 WESTBOUND CLOSURE:

ALL LANES AND ASSOCIATED RAMPS [INCLUDING RAMPS B, B-2, P. T. AND THE ON-RAMPS TO THE IR-277 WESTBOUND MAINLINE (RAMPS B AND C-1)] OF THE IR-277 WESTBOUND MAINLINE SHALL BE CLOSED CONCURRENTLY FOR A MAXIMUM OF TWENTY-EIGHT (28) CONSECUTIVE CALENDAR DAYS. SEE THE NEXT SHEET FOR A SUMMARY CHART OF RAMP CLOSINGS. ALL WORK FOR THE IR-277 WESTBOUND MAINLINE AND RAMPS WILL BE COMPLETED DURING THE CLOSURE INCLUDING ALL PAVEMENT PLANING, ALL JOINT REPAIRS, ALL PAVING AND FINAL STRIPING. ADDITIONALLY, ALL BRIDGE WORK EFFECTING IR-277 WESTBOUND MAINLINE TRAFFIC WILL BE COMPLETED DURING THE CLOSURE. THE BRIDGE WORK ON THE LEFT HALF OF SUM-224-1061 WILL ALSO BE COMPLETED DURING THE IR-277 WESTBOUND CLOSURE BUT THE DURATION WILL BE TWO WEEKENDS (SEE SHEETS 10A & 10B).

RAMPS P AND T SHALL BE CLOSED A MAXIMUM OF THIRTY-TWO (32) CONSECUTIVE CALENDAR DAYS [TWO (2) DAYS PRIOR TO THE CLOSING OF THE IR-277 WESTBOUND MAINLINE TO RE-STRIPE RAMPS O AND V RESPECTIVELY FROM ONE LANE TO TWO LANES AND TWO (2) DAYS AFTER THE OPENING OF THE IR-277 WESTBOUND MAINLINE TO RESTORE THE ORIGINAL ONE LANE PAVEMENT MARKINGS ON RAMPS O AND VJ.

THE INTERIM COMPLETION DATE FOR ALL IR-277 WESTBOUND MAINLINE PAVEMENT. BRIDGE AND RAMP WORK IS JUNE 30. 2013.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$5,000.00 PER DAY OR PORTION THEREOF THAT THE ROAD OR RAMPS REMAIN CLOSED BEYOND THE SPECIFIED LIMIT.

DETOUR NOTIFICATION

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.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. 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 THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANY-WHERE 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.

> WILL BE CLOSED FOR DAYS OHIO DEPT. OF TRANSPORTATION

W20-H14-60

WINTER TRAFFIC LIMITATIONS

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND DISINCENTIVES OF \$5,000.00 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT, THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL I WITH WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.

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 EVENTS:

CHRISTMAS FOURTH OF JULY NEW YEARS LABOR DAY MEMORIAL DAY THANKSGIVING ALL AMERICAN SOAP BOX DERBY, JULY 21, 2012 WORLD GOLF CHAMPIONSHIPS - BRIDGESTONE INVITATIONAL, AUGUST 4-5, 2012 AKRON MARATHON, SEPTEMBER 29, 2012

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

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

 $SLIND\Delta Y$ 12:00N FRIDAY THROUGH 6:00 AM MONDAY MONDAY 12:00N FRIDAY THROUGH 6:00 AM TUESDAY TUESDAY 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY WEDNESDAY 12:00N TUESDAY THROUGH 6:00 AM THURSDAY THURSDAY 12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY THURSDAY (THANKSGIVING ONLY)

12:00N WEDNESDAY THROUGH 6:00 AM MONDAY FRIDAY 12:00N THURSDAY THROUGH 6:00 AM MONDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY SATURDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE RE-QUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DIS-INCENTIVE IN THE AMOUNT OF \$4.500.00 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

EXCEPTIONS TO THE ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS) NOTE

WORK MAY BE PERFORMED AND LANES MAY BE CLOSED TO TRAFFIC DURING THE FOLLOWING HOLIDAYS:

> FOURTH OF JULY, 2012 MEMORIAL DAY, 2013

INCENTIVE/DISINCE	ENTIVE CONTRACT TABL	E TO BE USE TIME	DISINCENTIVE \$ PER		TE 121 MAXIMUM
DESCRIPTION OF CRITICAL WORK	COMPLETION DATE	PERIOD	TIME PERIOD	TIME PERIOD	INCENTIVE
ALL LANES AND RAMPS OF IR-277					
ASTBOUND AND ALL LANES AND					
RAMPS OF IR-76 (PART 3)	SEPTEMBER 20, 2012	DAY	\$5,000.00	\$3,000.00	\$90,000.00
ALL LANES AND RAMPS OF IR-277					
VESTBOUND	JUNE 30, 2013	DAY	\$5,000.00	\$2,000.00	\$60,000.00

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			RAMP SUMMARY FOR TH	E IR-277 EASTBOUND CLOSURE		
RAMP DESIGNATION	RAMP DESCRIPTION	DISPOSITION	MAXIMUM DURATION	DETOUR ROUTE	SHEET NO. REFERENCE	ADDITIONAL INFORMATION
RAMP B	IR-76 WEST TO IR-277 EAST	CLOSED	28 DAYS	IR-76 WEST TO SR-21 NORTH	11	
RAMP D	IR-277 WEST TO IR-76 EAST	CLOSED	28 DAYS	IR-76 WEST TO SR-21 NORTH	11	
RAMP E	ON-RAMP FROM 22ND STREET TO IR-76 WEST	CLOSED	28 DAYS	NONE	11	
RAMP T	IR-77 SOUTH TO IR-76 WEST	CLOSED	28 DAYS	IR-76 EAST TO IR-77 SOUTH	11	
RAMP A	IR-76 EAST (BOTTOM OF KENMORE LEG)	OPEN AT ALL TIMES	28 DAYS IN 2 LANE CONFIGURATION	N/A	9, 11	RE-STRIPE RAMP FROM ONE LANE TO TWO LANES; INSTALL RUMBLE STRIPS AND TWO R4-5-48 SIGNS
RAMP U	IR-76 EAST (TOP OF KENMORE LEG)	OPEN AT ALL TIMES	28 DAYS IN 2 LANE CONFIGURATION	N/A	9, 11	RE-STRIPE RAMP FROM ONE LANE TO TWO LANES
RAMP F	ON-RAMP FROM SR-619 TO IR-76 EAST	CLOSED	28 DAYS	KENMORE BLVD. EAST	19	
RAMP L	ON-RAMP FROM EAST AVE. TO IR- 76 EAST	CLOSED	32 DAYS	MORSE RD. WEST TO HAWKINS AVE. NORTH TO SR-261 WEST	23	
RAMP W-2	ON-RAMP FROM GRANT STREET TO IR-76 EAST	CLOSED	28 DAYS	GRANT ST. NORTH TO THORNTON ST. WEST TO MAIN ST. SOUTH	19	
RAMP B	ON-RAMP FROM SR-93 TO IR-277 EAST	CLOSED	28 DAYS	WATERLOO ROAD EAST	20	
RAMPS D-1 & D-3	ON-RAMP FROM SOUTH MAIN STREET TO IR-277 EAST	CLOSED	28 DAYS	WATERLOO ROAD EAST	20	

		F	RAMP SUMMARY FOR TH	E IR-277 WESTBOUND CLOSURE		
RAMP DESIGNATION	RAMP DESCRIPTION	DISPOSITION	MAXIMUM DURATION	DETOUR ROUTE	SHEET NO. REFERENCE	ADDITIONAL INFORMATION
RAMP B	IR-77 SOUTH TO IR-277 WEST	CLOSED	28 DAYS	IR-76 WEST	24	ALT. ROUTE: IR-77 SOUTH TO ARLINGTON ST. NORTH TO WATERLOO RD. WEST TO SR-619 NORTH
RAMP B-2	IR-77 NORTH TO IR-277 WEST	CLOSED	28 DAYS	IR-77 NORTH TO IR-76 WEST	2, 24, 47	COMPLETE ALL WORK TO STRUCTURE SUM-77-0958L DURING THE CLOSURE
RAMP P	SR-8 SOUTH TO IR-76 WEST	CLOSED	32 DAYS	SR-8 SOUTH TO SR-59 WEST	24	ALT. ROUTE: IR-77 SOUTH TO WATERLOO RD. WEST TO SR-619 NORTH
RAMP T	IR-77 SOUTH TO IR-76 WEST	CLOSED	32 DAYS	IR-76 EAST TO IR-77 SOUTH TO WATERLOO ROAD WEST TO SR-619 NORTH	24	
RAMP C	IR-76 WEST (BOTTOM OF KENMORE LEG)	OPEN AT ALL TIMES	28 DAYS IN 2 LANE CONFIGURATION	N/A	9, 24	RE-STRIPE RAMP FROM ONE LANE TO TWO LANES
RAMP O	IR-77 NORTH (AT CENTRAL INTERCHANGE)	OPEN AT ALL TIMES	28 DAYS IN 2 LANE CONFIGURATION	N/A	9, 24	RE-STRIPE RAMP FROM ONE LANE TO TWO LANES
RAMP V	IR-76 WEST (TOP OF KENMORE LEG)	OPEN AT ALL TIMES	28 DAYS IN 2 LANE CONFIGURATION	N/A	9, 24	RE-STRIPE RAMP FROM ONE LANE TO TWO LANES
RAMP B	ON-RAMP FROM WATERLOO ROAD TO IR-277 WEST	CLOSED	28 DAYS	WATERLOO ROAD WEST TO SR-619 NORTH	34	
RAMP C-1	ON-RAMP FROM SOUTH MAIN STREET TO IR-277 WEST	CLOSED	28 DAYS	WATERLOO ROAD WEST TO SR-619 NORTH	34	
ALL OTHER RAM	PS WILL REMAIN OPEN AT ALL TIMES.					

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

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. THE APPROVED LIST IS AVAILABLE AT THE "ROADWAY STANDARDS: PROPRIETARY ROADSIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

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

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

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

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

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

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

FOR ADDITIONAL RAMP DETOURS, SEE SHEET 10A.

EB277 Closure

From SLM To SLM

6.34

8.15

line type

6.34 WZ Channelizing Line

WZ Lane Line

8.23 WZ Channelizing Line

8.4 WZ Yellow Edge Line

8.53 WZ Channelizing Line

8.95 WZ White Edge Line

8.95 WZ Lane Line

WZ Channelizing Line

WZ Channelizing Line

line type

line type

EB76

6.25

6.29

7.98

8.53

8.18

8.23

8.4

8.37

NB77

From SIM

11.7

11.81

11.88

11.91

11.88

WB76

From SLM

8.71

8.53

8.04

8.73

7.91

8.53

8.16

6.26

6.15

Ramp O

Ramp V

Ramp C

WB277 Closure

To SIM

11.88

To SLM

6.55

6.67

11.81 WZ Lane Line

11.91 WZ Channelizing Line

12.17 WZ Channelizing Line

12.17 WZ Yellow Edge Line

8.73 WZ Channelizing Line

8.71 WZ White Edge Line

8.53 WZ White Edge Line

8.1 WZ Lane Line

8.74 WZ Channelizing Line

8.57 WZ Channelizing Line

8.53 WZ Yellow Edge Line

6.6 WZ Channelizing Line

6.58 WZ White Edge Line

6.26 WZ Channelizing Line

6.26 WZ White Edge Line

WZ Channelizing Line

WZ Channelizing Line

12.17 WZ White Edge Line

Ramp A

Ramp U

comment

Start at I-277 channelizing line and end matching to yellow edge line while maintaining a 12' inside

Match existing lane line to start, maintain 12' outside lane width. Remove existing channel/transverse

Match existing lane line on both ends while maintaining a 12' outside lane width

between 2 EB76 lanes> maintain 12' outside lane width

<between 2 EB76 lanes> maintain 12' outside lane width

Match existing lane line to start. Match existing Channelizing line to end

Maintain 12' outside lane width. Match at end with existing white edge line

Maintain 11' outside lane, match existing white edge line at west end

Maintain 12' outside lane, match existing white edge line at south end

Meet west end at channelizing line along NB77, maintain 12' inside lane

Maintain 12' inside lane, match at south end with existing lane line

Match existing channelizing line to north, maintain 12' inside lane

Match existing channelizing line to north, maintain 12' outside lane

temove existing Channelizing line along EB76 ramp. Remove existing transverse lines

Match at start with existing channelizing line, maintain 12' inside lane width, match at end with

Match at start with existing edge line, maintain 3' inside shoulder width, match at end with existing

comment

Match existing channelizing line along exit to EB277 on north end and match with yellow edge line on

Reduce from existing 12' lane to 11' lane, match at east end to existing channelizing line

Match to Channelizing line along EB76 ramp. Maintain 12' lane outside lane width

Maintain 12' inside lane, match existing Lane Line

Maintain 12' inside lane

Maintain 12' inside lane

Maintain 1' outside shoulder

Maintain 11' outside lane

Maintain 12' inside lane

Match existing lane line at north end

Shift traffic to existing lanes

Shift traffic to existing lanes

614

hannelizin Line, Class

FT

475.2

264

264

686.4

EB totals 3696 0.59

158.4

1531.2

105.6

3325.4

211.2

1795.2

580.8

WB totals 7973 0.37

TOTALS CARRIED TO THE GENERAL SUMMARY 11669 0.96

614

Zone L , Class

MILE

0.42

0.11

0.19

0.07

614 614

White

MILE

0.58

0.58

0.26

0.18

0.49

0.32

0.11

1.25

Yellow

MILE

0.17

0.17

0.29

0.37

0.66

1.91

2.66

0.75

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/ SUPERVISOR HAS BEEN GRANTED.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

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 REP-RESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISS-ING 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.

OVERLAYING OF SIGNS

WHERE THE PLANS CALL FOR A PERMANENT SIGN TO BE OVER-LAYED, THE CONTRACTOR SHALL DO SO IN SUCH A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE OVERLAY IS REMOVED. THE OVERLAY SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED. THE OVERLAYS MAY BE RIVETED TO THE PERMANENT SIGN. THE CONTRACTOR SHALL PROVIDE ALL OF THE PLAQUES, SIGNS AND SIGN PANELS NECESSARY.

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ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE. WHEN NO LONGER NEEDED. PORTABLE CHANGEABLE MESSAGE SIGNS [PCMS], ON SITE, FOR THE DURATION OF TIME SPECIFIED IN THIS NOTE, EACH SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. THIS LIST IS AVAILABLE ON THE ODOT WEBSITE AT

http://www.dot.state.oh.us/divisions/constructionmqt/ materials/pages/portable-changeable.aspx THE CLASS A UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 650 FEET.

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. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETRO-REFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

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 PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHOULD BE LOCATED BEHIND GUARDRAIL WHEREVER POSSIBLE. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLEC- TIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

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

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PRO-VIDED BY THE CONTRACTOR. A LIST OF ALL PROPOSED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE TWO DIFFERENT MEMORIES [PROM AND RAM] AND CAPABILITY TO STORE UP TO 99 MESSAGES IN EACH MEMORY. 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. IN ORDER TO CONVEY A MAXIMUM OF INFORMATION AT A SINGLE GLANCE, ONLY THREE LINE PRESENTATION FORMATS WITH A MAXIMUM OF SIX MESSAGE PHASES WILL BE PERMITTED. NORMALLY, ONLY A MAXIMUM OF THREE MESSAGE PHASES SHOULD BE EMPLOYED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAM-MING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WFFK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614. 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 AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID FOR EACH DAY OF ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN, 320 DAY

IR-277 CLOSURES AS PER MT-99.50

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY IN ORDER TO CLOSE IR-277 AS PER MT-99.50:

IR-277 EASTBOUND CLOSURE: ITEM 614 WORK ZONE EDGE LINE, CLASS I. 0.24 MILF ITEM 614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL), 1 EACH ITEM 622 PORTABLE CONCRETE BARRIER, 32", 900 FT

IR-277 WESTBOUND CLOSURE: ITEM 614 WORK ZONE EDGE LINE, CLASS I, 0.52 MILE ITEM 614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL), 1 EACH ITEM 622 PORTABLE CONCRETE BARRIER, 32", 800 FT

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EX- CEPT THAT THE SPACING SHALL BE 50 FEET. AN ESTIMATED QUANTITY OF 34 EACH OF ITEM 614 BARRIER REFLECTOR, TYPE B AND 34 EACH OF ITEM 614 OBJECT MARKER. 1-WAY HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

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 PER-MITTED 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 ENFORCE-MENT 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.

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

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 COM-MUNICATING 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 RE-TURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINT-ENANCE 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) IN-CURRED 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 SPECIAL - RUMBLE STRIPS

THE RUMBLE STRIPS WILL BE PLACED AS SHOWN IN THE PLAN 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 MAY HAVE TO GO ACROSS TWO OR THREE LANES OF TRAFFIC.

THE FIRST RUMBLE STRIP SECTION SHOULD BE PLACED BEFORE THE ADVANCE WARNING DEVICES, THERE WILL BE TEN [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.

A W8-H16-48 SIGN [RUMBLE STRIPS] WILL BE DUAL MOUNTED APPROXIMATELY 500 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 THE FOOT 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 WILL BE INSTALLED FOR THE IR-277 EASTBOUND CLOSURE ON IR-76 EASTBOUND AT SLM'S 6.00 AND 6.20, PRIOR TO RAMP A. A QUANTITY OF 680 FEET OF ITEM SPECIAL, RUMBLE STRIPS HAS BEEN CARRIED TO THE GENERAL SUMMARY.

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RAMP DESIGNATION	RAMP DESCRIPTION	PERMITTED CLOSURE TIMES	DURATION			SHEET NO. REFERENCE	ADDITIONAL RESTRICTIONS
RAMP W-6/6A	SOUTH ST/BROADWAY TO IR-76 EAST	ANYTIME	7 DAYS	BROADWAY NORTH TO THORNTON EAST TO GRANT ST SOUTH TO RAMP W-2	3	FOR RAMP	COMPLETE ALL WORK TO STRUCTURE SUM-76-1043S EXCEPT FOR PAINTING
RAMP A	KELLY AVE TO US-224 WEST	7:00PM FRIDAY TO 6:00AM MONDAY	2 WEEKENDS	WATERLOO RD WEST TO MAIN ST SOUTH	3	2, 10B	COMPLETE ALL WORK TO LEFT HALF OF STRUCTURE SUM-224-1061
RAMP C-2	IR-77 SOUTH TO US-224 EAST	7:00PM FRIDAY TO 6:00AM MONDAY	1 WEEKEND	IR-77 SOUTH TO ARLINGTON RD EXIT TO IR- 77 NORTH	4	2, 10B	COMPLETE ALL WORK TO STRUCTURE SUM-77-0927R

SEE "DETOUR NOTIFICATION" NOTE ON SHEET 7.

INTERIM COMPLETION DATE FOR STRUCTURE SUM-76-1043S

ALL WORK (EXCEPT PAINTING) FOR STRUCTURE SUM-76-1043S WILL BE COMPLETED BY MARCH 30, 2012. THE "WINTER TRAFFIC LIMITATIONS" NOTE ON SHEET 7 WILL NOT APPLY. MARCH 30, 2012 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND DISINCENTIVES OF \$1000.00 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. UNDER NO CIRCUMSTANCES SHALL THIS WORK BE PERFORMED CONCURRENTLY WITH THE IR-277 EASTBOUND CLOSURE.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) FOR THE RAMP DETOURS LISTED IN THE ABOVE CHART

A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON THE RAMP, EXCEPT FOR A PERIOD NOT TO EXCEED THE DURATION LISTED IN THE RAMP DETOUR CHART ABOVE, WHEN THROUGH TRAFFIC MAY BE DETOURED. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$1000.00 FOR EACH CALENDAR DAY THE RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

PHAS

-WEIGHTED CHANNELIZER OR DRUM WEIGHTED CHANNELIZER OR DRUM -WORK AREA WORK AREA 4.0' 12.0' 4.0' 26.0' 26.0' 24.67' CONCRETE OVERLAY 24.67' CONCRETE OVERLAY 10.25' 12.00' 12.00' 12.00' 8.00' 8.00' 12.00' 12.00' 12.00' 10.25' 52.92' 52.92'

PHASE 1

CLOSE LEFT TWO LANES ACCORDING TO OMUTCD FIGURE 6H-37; USE A 60MPH DESIGN SPEED.

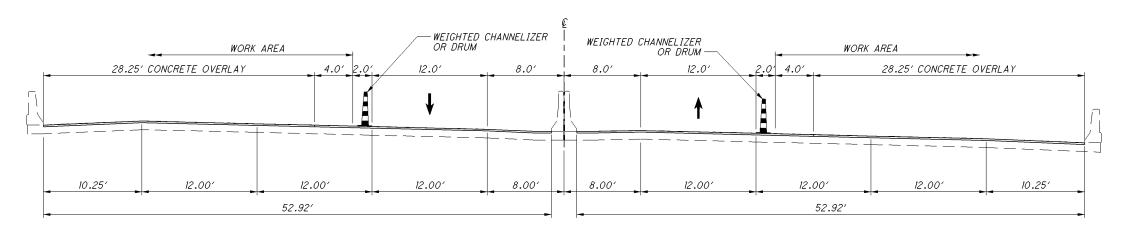
CLOSE RAMP A FROM KELLY AVE.

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CONSTRUCT DURING IR-277 EASTBOUND CLOSURE.

MAINTAIN RAMP C TRAFFIC FROM IR-77 NORTHBOUND AND RAMP C-2 TRAFFIC FROM IR-77 SOUTHBOUND; POST ROAD WORK AHEAD SIGNS (W20-1-48) ON RAMPS.



PHASE 2

CLOSE RIGHT LANE EAST OF RAMP A ACCORDING TO MT-95.30; USE A 50MPH DESIGN SPEED.

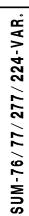
CLOSE RAMP A FROM KELLY AVE AND RAMP LANE.

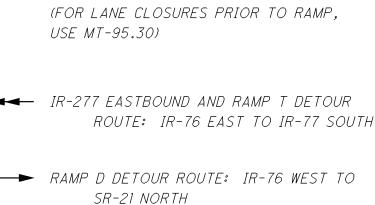
CONSTRUCT DURING IR-277 EASTBOUND CLOSURE.

MAINTAIN RAMP C TRAFFIC FROM IR-77 NORTHBOUND; POST 25MPH ADVISORY SPEED SIGNS (W13-1-24) WITH ROAD WORK AHEAD SIGNS (W20-1-48) ON RAMP.

CLOSE RAMP C-2 TRAFFIC FROM IR-77 SOUTHBOUND ACCORDING TO MT-98.29 [ADD "EXIT 1224" (E1-H5-48) SIGNS TO ADVANCED WARNING SIGNS] AND CONSTRUCT BRIDGE NO. SUM-77-0927R.







····· CLOSE RAMP AS PER STD. DWG. MT-98.29

PORTABLE CHANGEABLE MESSAGE SIGN
-PLACE FOR 10 DAYS PRIOR TO CLOSURE
AT 3 LOCATIONS

MESSAGE: 1) 277 EAST 224 EAST CLOSED

2) (DATES)

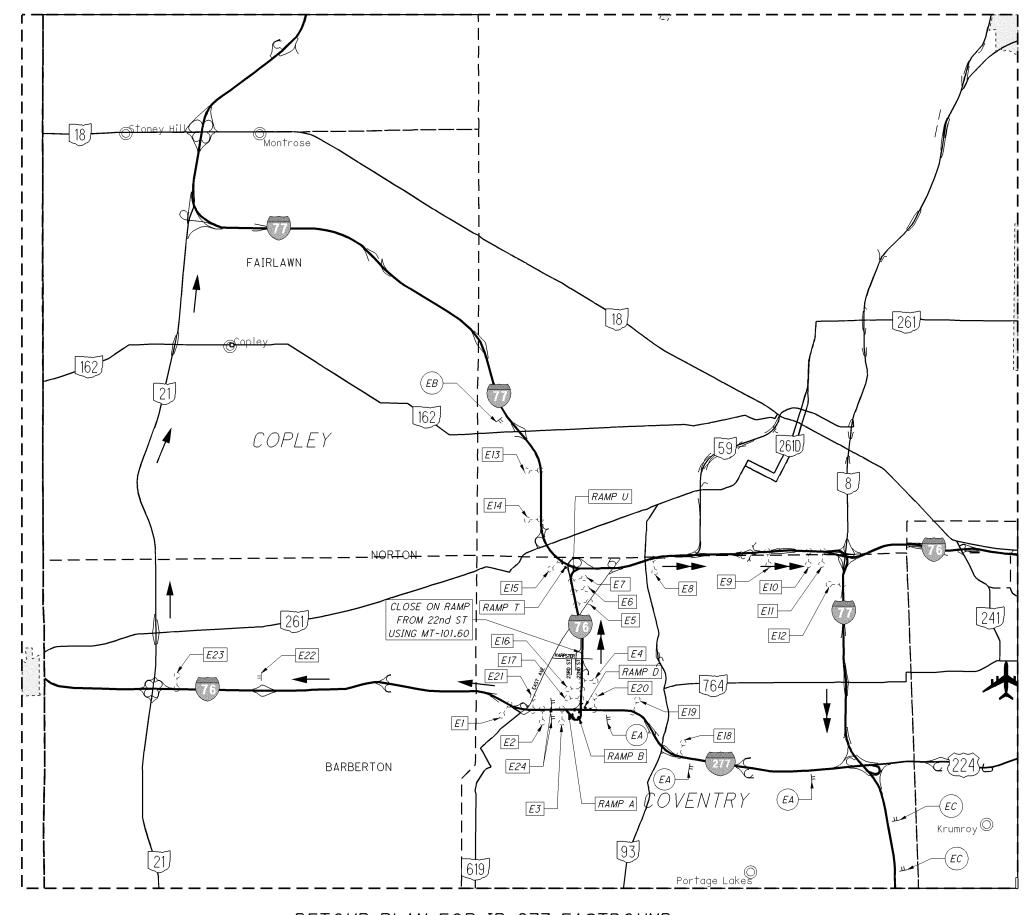
PORTABLE CHANGEABLE MESSAGE SIGN

(EB) MESSAGE: 1) TO 1-277
FOLLOW
77 SOUTH

PORTABLE CHANGEABLE MESSAGE SIGN

MESSAGE: 1) 77 NORTH THRU TRAFFIC

> 2) REMAIN ON 77 NORTH



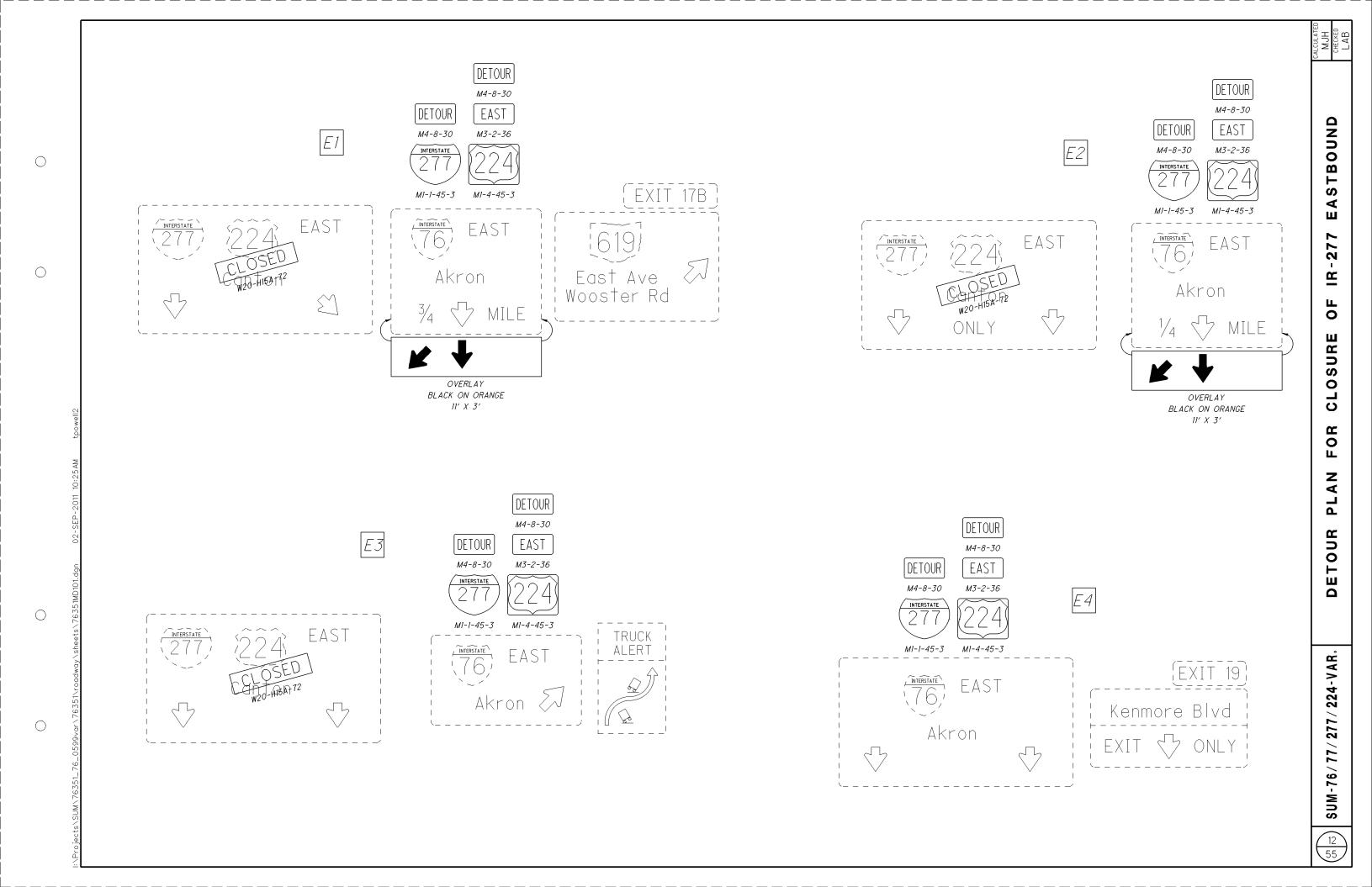
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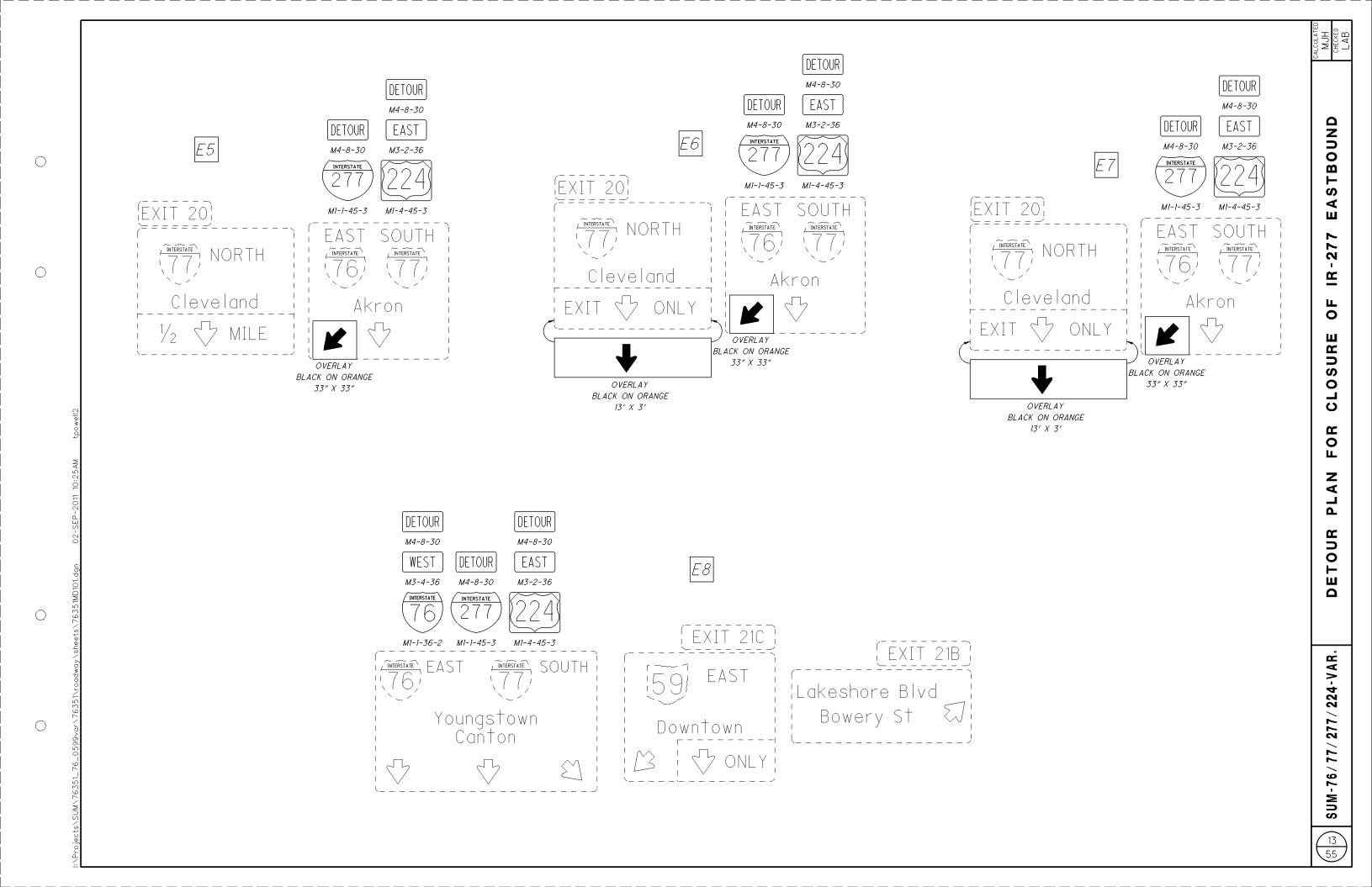
DETOUR PLAN FOR IR-277 EASTBOUND

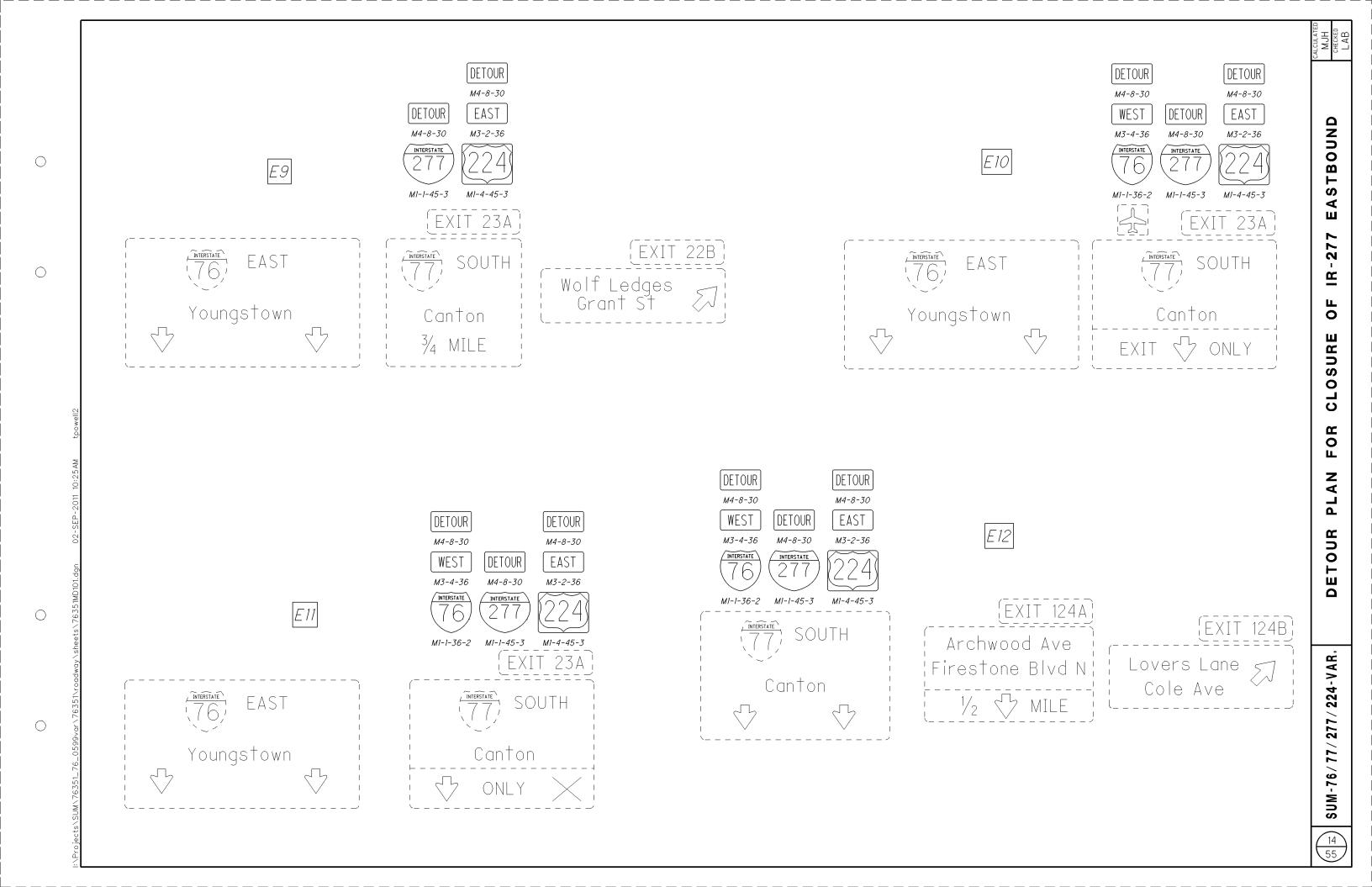
CLOSE IR-277 EASTBOUND ACCORDING TO STD. DWG. MT-99.50 USING PORTABLE CONCRETE BARRIER, SEE SHEET 10



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SUM-76/77/277/224-VAR.

EASTBOUND

IR-277

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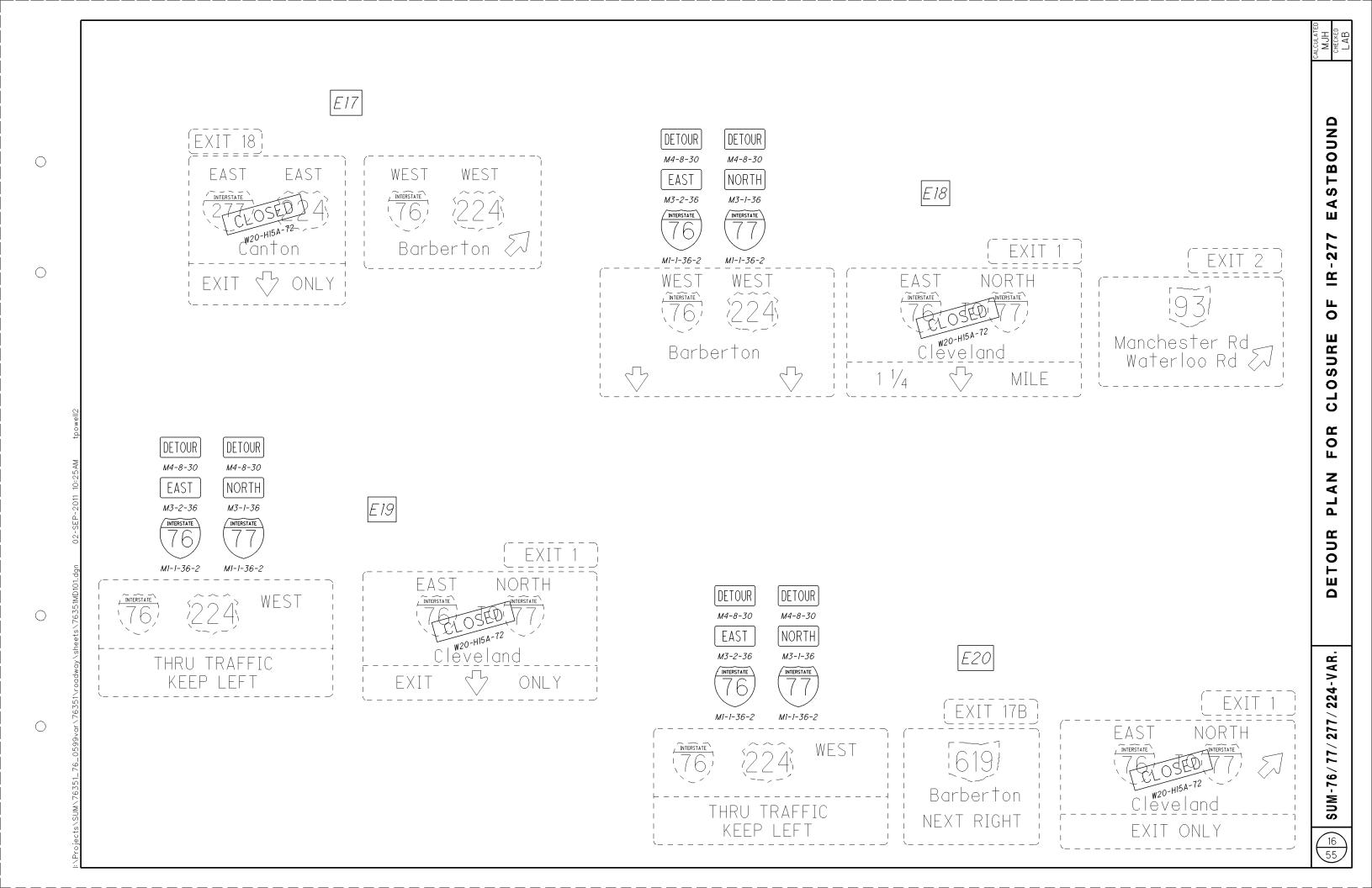
CLOSURE

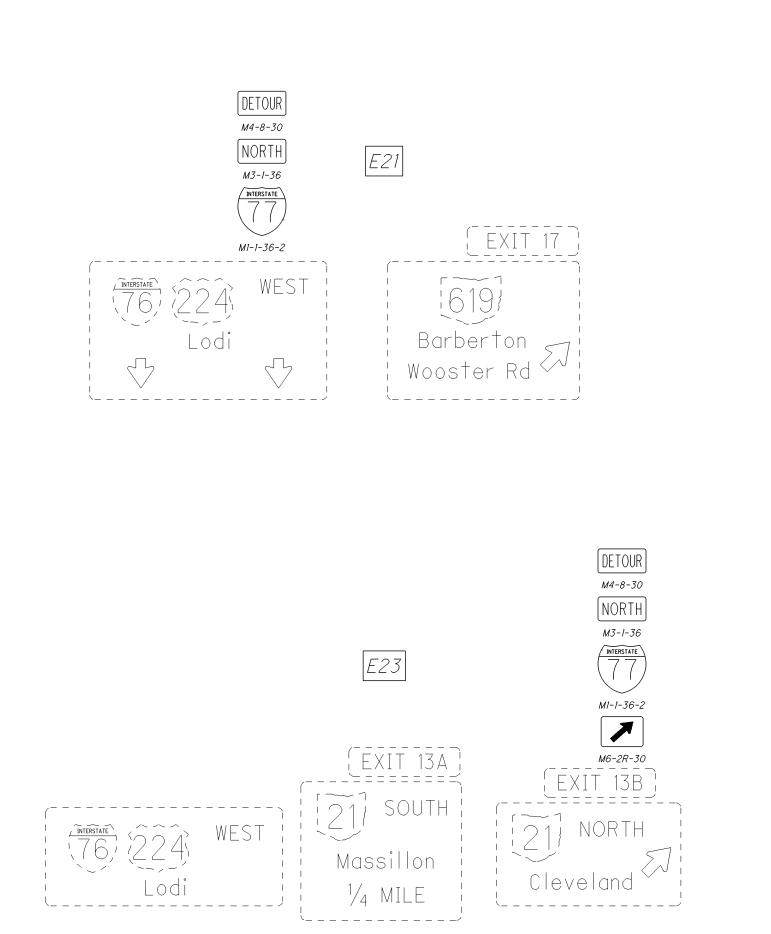
FOR

PLAN

DETOUR

2-WNS (15)

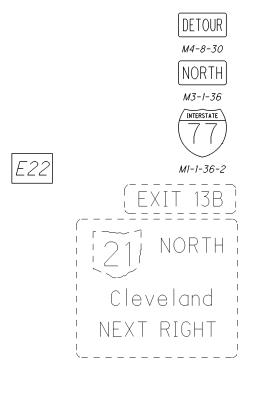




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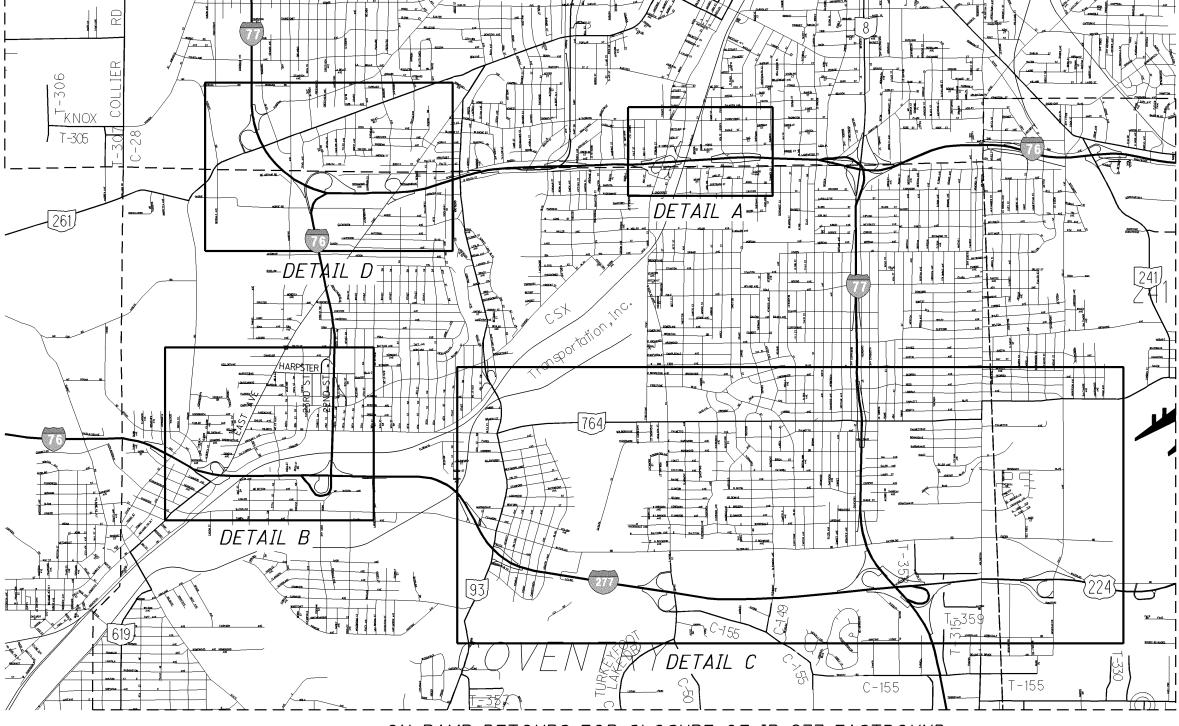
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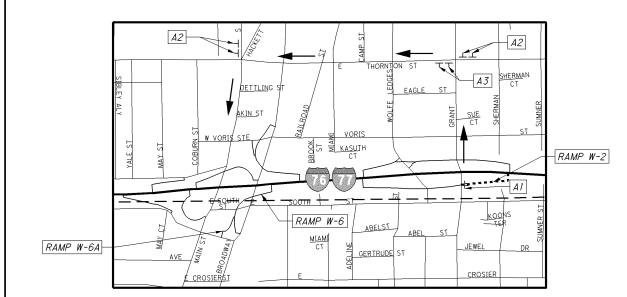




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ON-RAMP DETOURS FOR CLOSURE OF IR-277 EASTBOUND

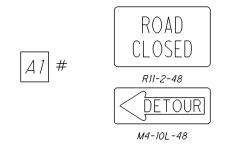




DETAIL A

····· CLOSED RAMP

→ DETOUR ROUTE: GRANT / THORNTON / MAIN



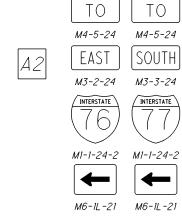
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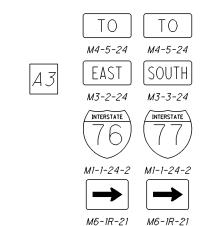
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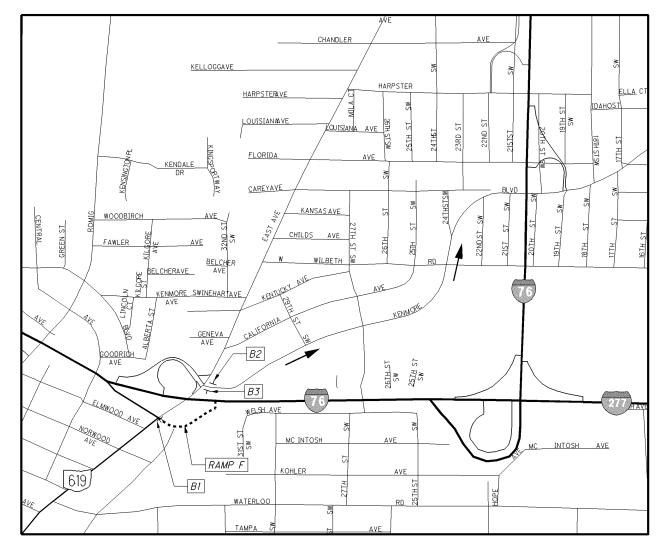
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ON TYPE III BARRICADE



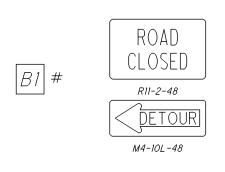




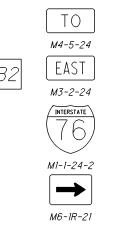
DETAIL B

····· CLOSED RAMP

→ DETOUR ROUTE: KENMORE BLVD



ON TYPE III BARRICADE







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PLANS

ETOUR

ON-RAMP

EASTBOUND

IR-277

SUM-76/77/277/224-VAR.

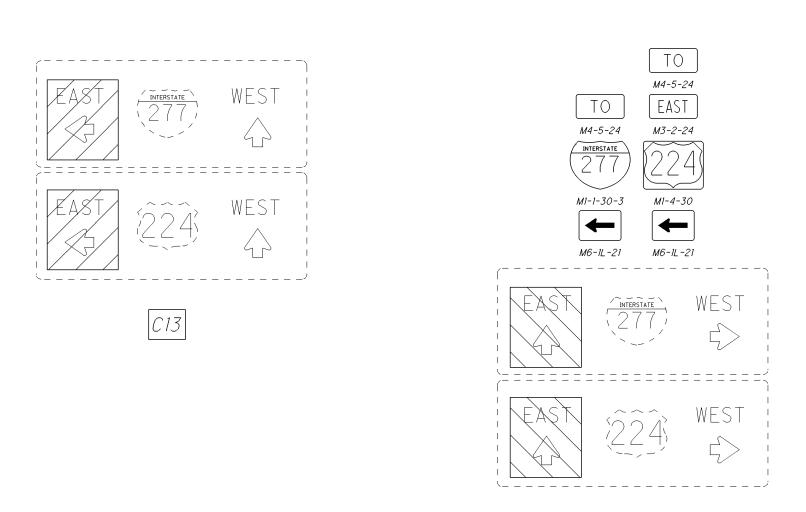
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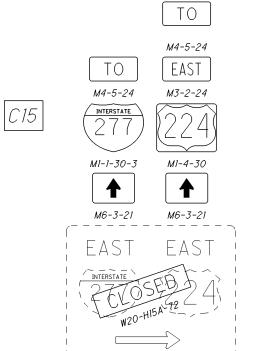
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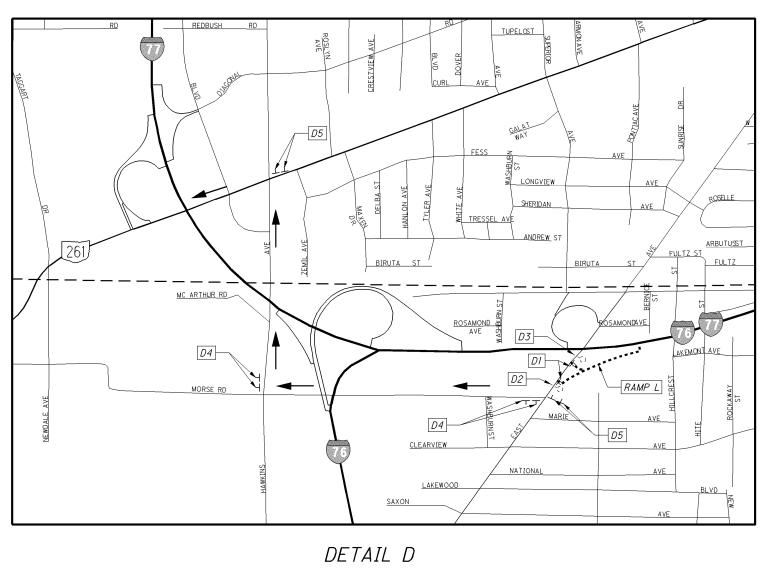
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----- CLOSED RAMP

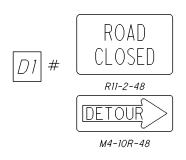
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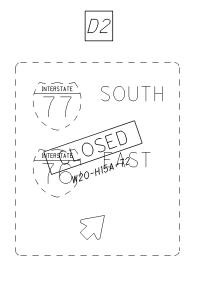
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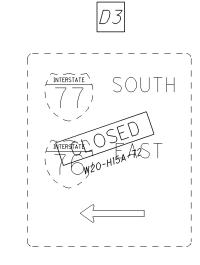
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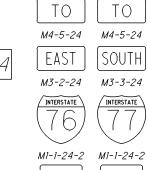
→ DETOUR ROUTE: MORSE / HAWKINS / SR-261

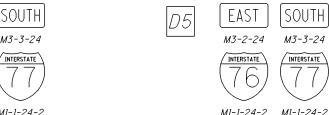


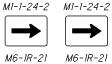
ON TYPE III BARRICADE

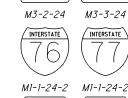












TO

M4-5-24



TO

M4-5-24



M6-1L-21 M6-1L-21

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----- CLOSE RAMPS B, B-2, P, AND T AS PER STD. DWG. MT-98.29 (FOR LANE CLOSURES PRIOR TO RAMP, USE MT-95.30)

◄ IR-277 WESTBOUND AND RAMP B-2 DETOUR ROUTE: IR-77 NORTH TO IR-76 WEST

RAMP T DETOUR ROUTE: IR-76 EAST TO IR-77 SOUTH TO WATERLOO RD WEST TO SR-619 NORTH

RAMP P DETOUR ROUTE: SR-8 SOUTH TO SR-59 WEST ALTERNATE ROUTE: IR-77 SOUTH TO WATERLOO RD WEST TO SR-619 NORTH

→ RAMP B DETOUR ROUTE: IR-76 WEST ALTERNATE ROUTE: IR-77 SOUTH TO ARLINGTON ST NORTH TO WATERLOO RD WEST TO SR-619 NORTH

> PORTABLE CHANGEABLE MESSAGE SIGN -PLACE FOR 10 DAYS PRIOR TO CLOSURE AT 3 LOCATIONS

> > MESSAGE: 1) 277 WEST 224 WEST CLOSED

> > > 2) (DATES)

PORTABLE CHANGEABLE MESSAGE SIGN

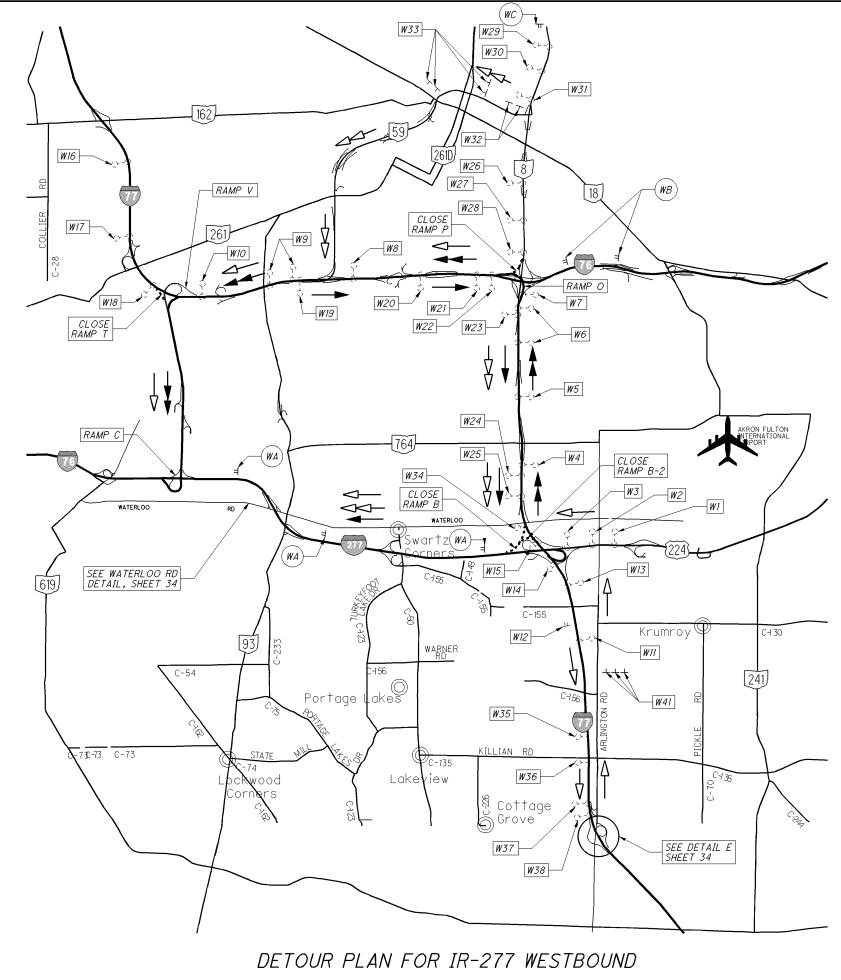
(WB) MESSAGE: 1) 277 WEST CLOSED

> REMAIN ON 76 WEST

PORTABLE CHANGEABLE MESSAGE SIGN

MESSAGE: 1) 76 WEST 77 NORTH CLOSED

> USE 59 WEST



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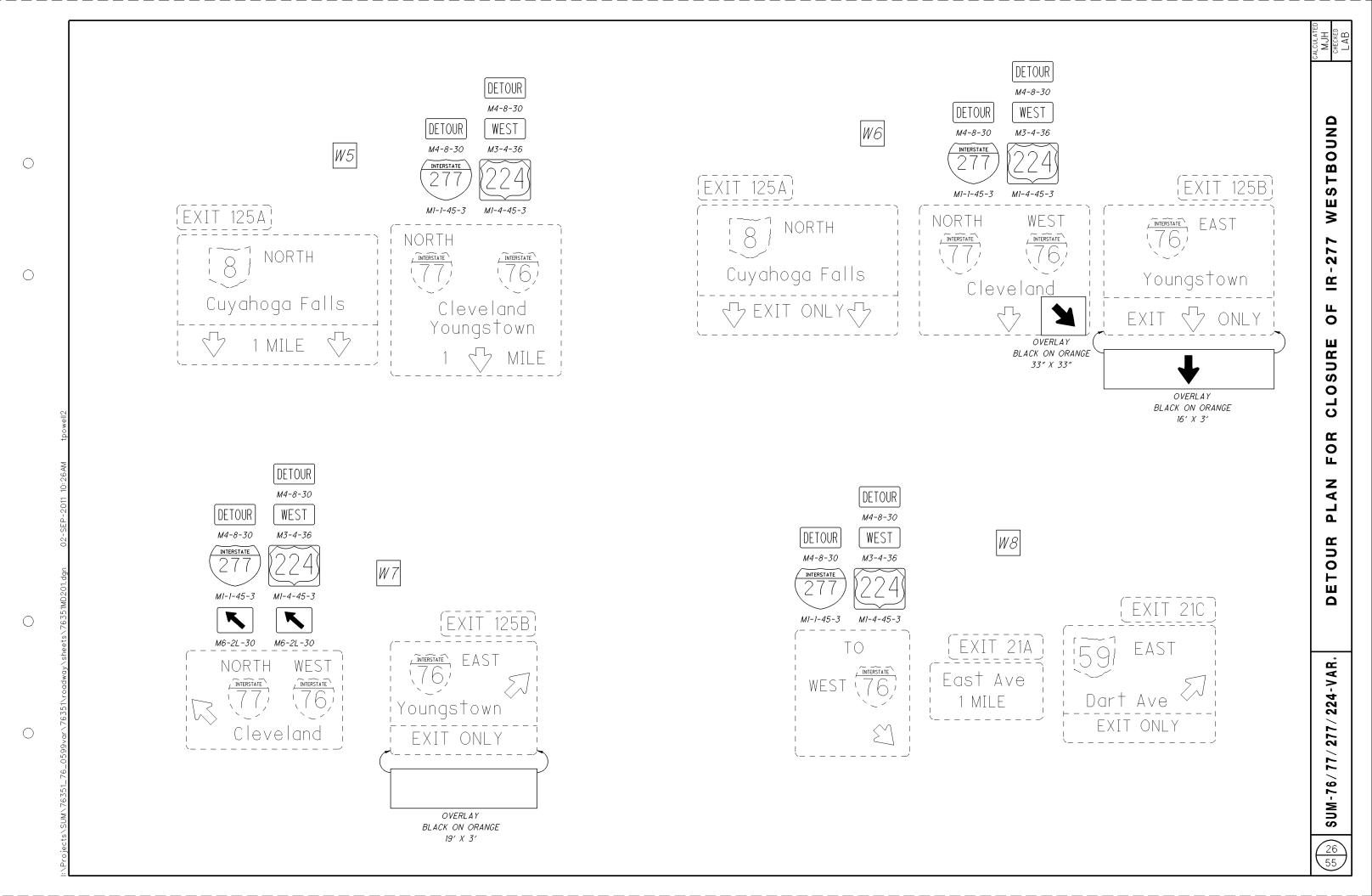
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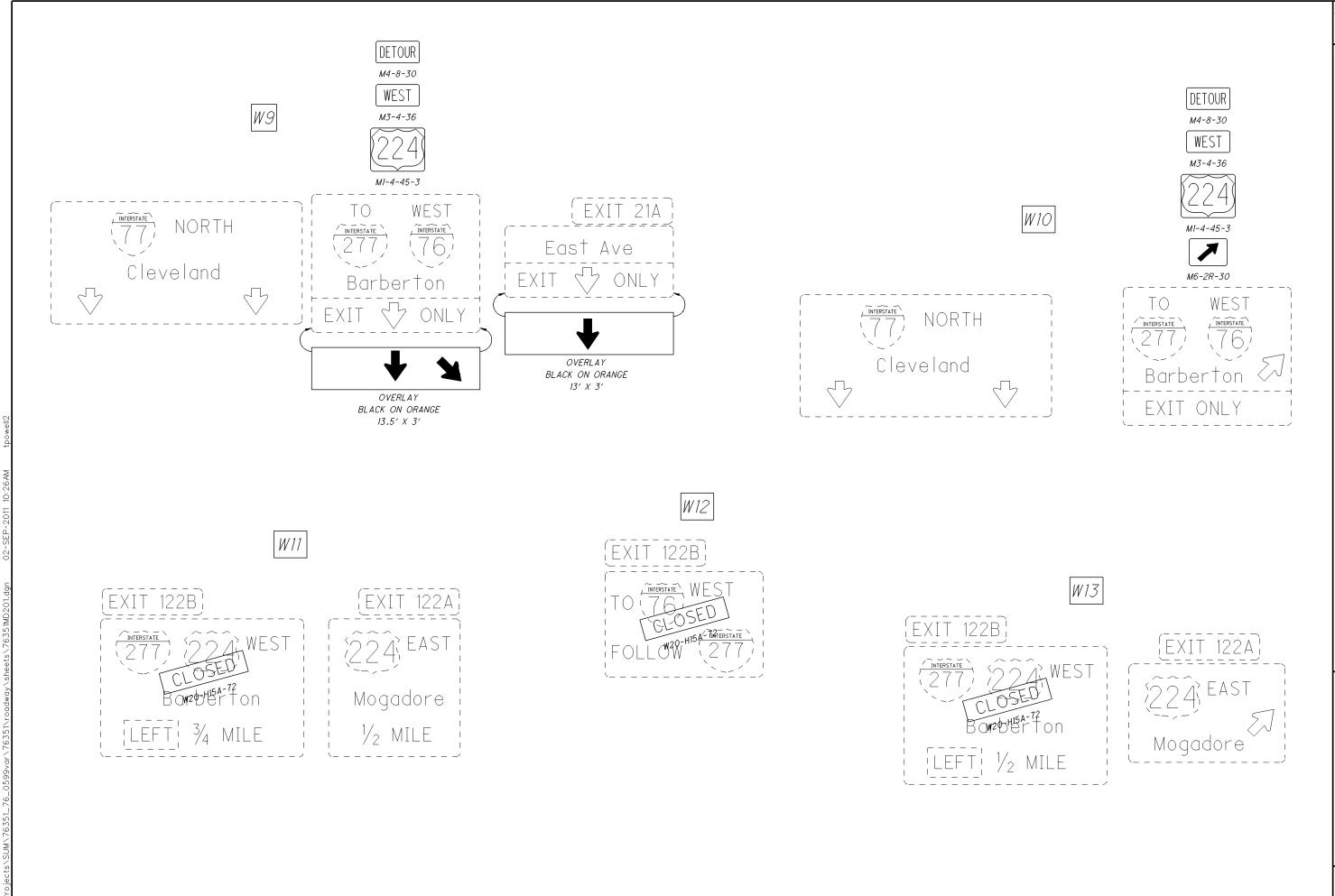
CLOSE IR-277 WESTBOUND ACCORDING TO STD. DWG. MT-99.50 USING PORTABLE CONCRETE BARRIER, SEE SHEET 10

NOT TO SCALE

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WESTBOUND

IR-277

OF

CLOSURE

FOR

PLAN

DETOUR

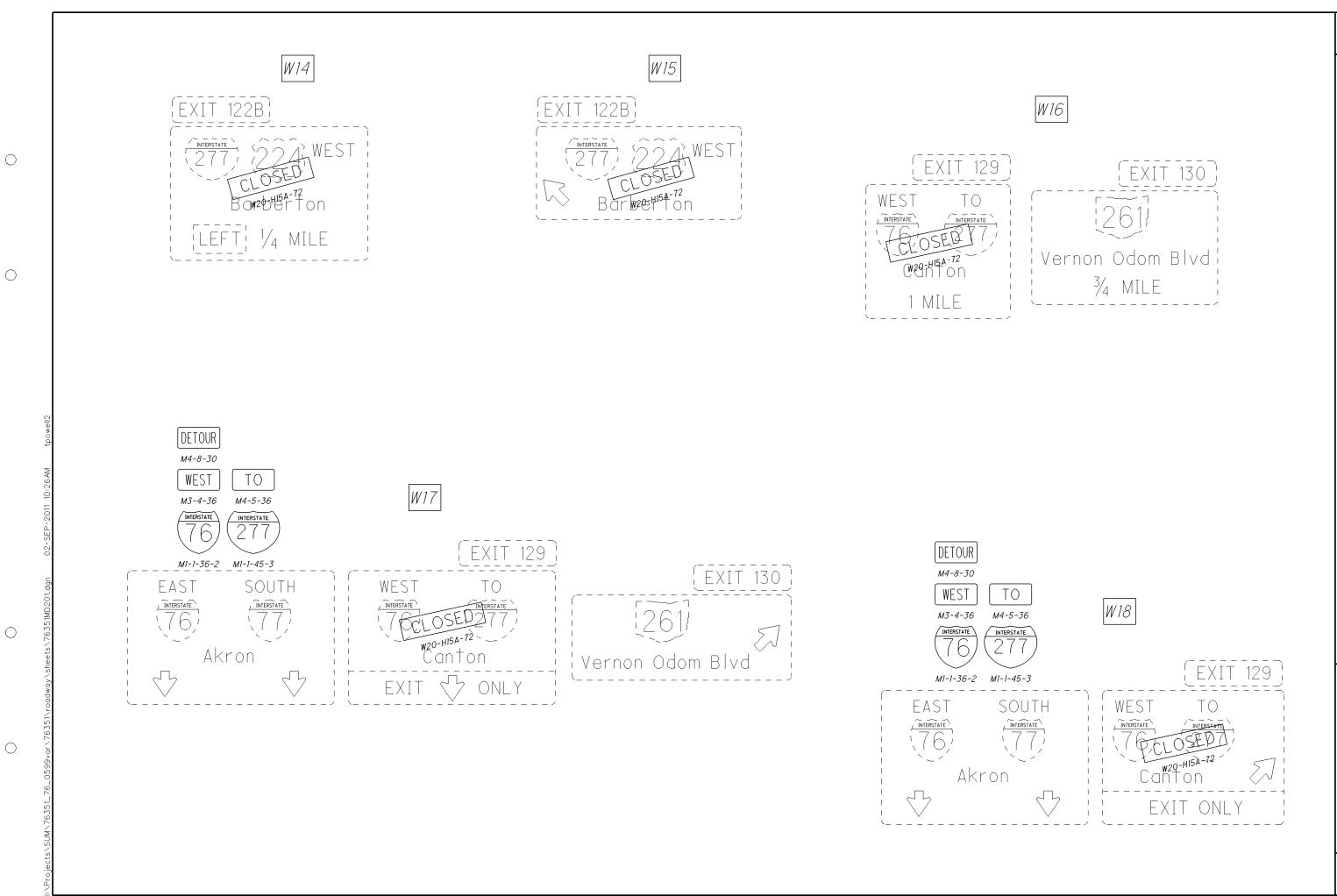
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SUM-76/77/277/224-VAR.



WESTBOUND

IR-277

OF

CLOSURE

FOR

PLAN

DETOUR

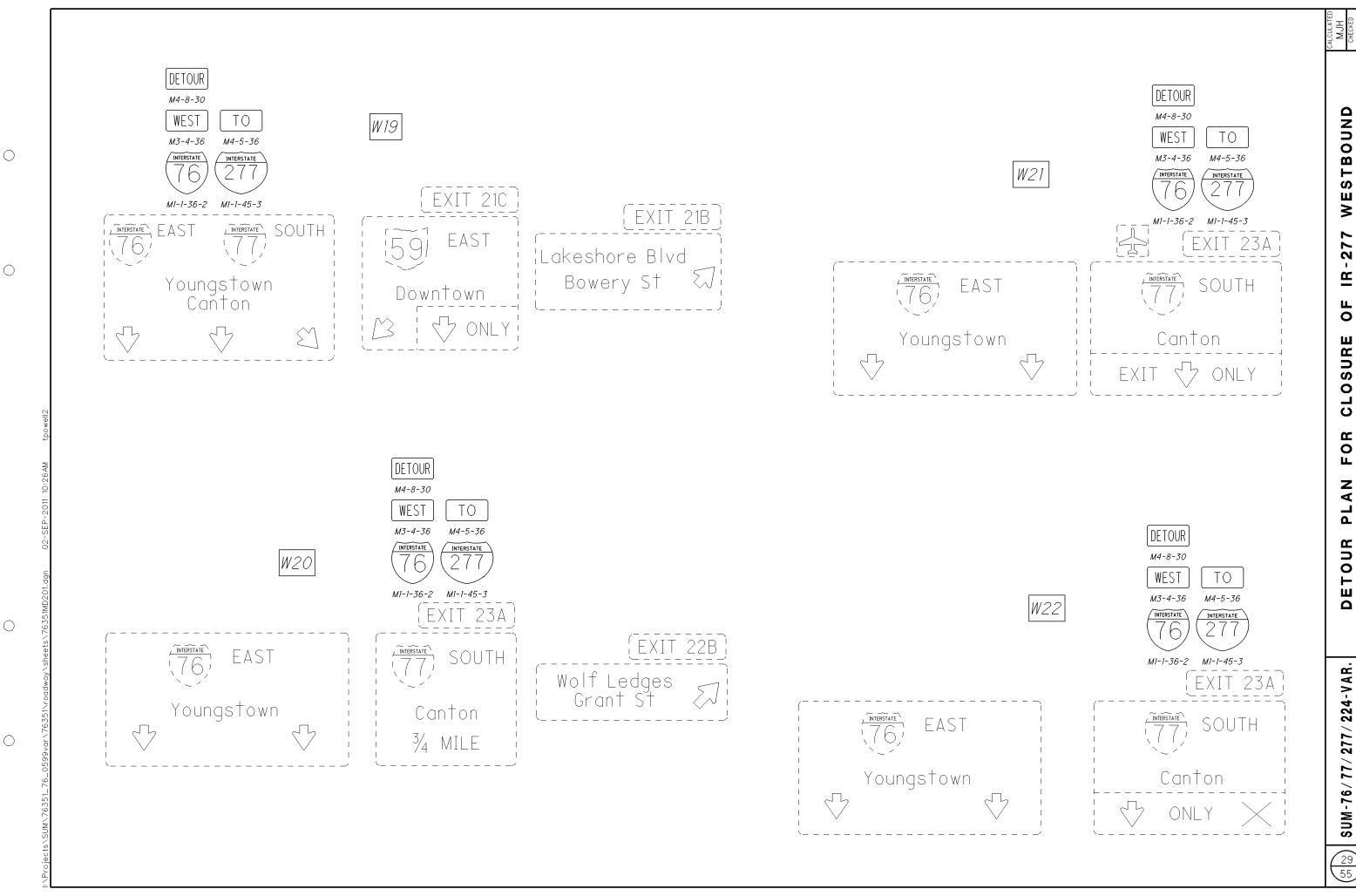
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SUM-76/77/277/224-VAR.

28 55



WESTBOUND

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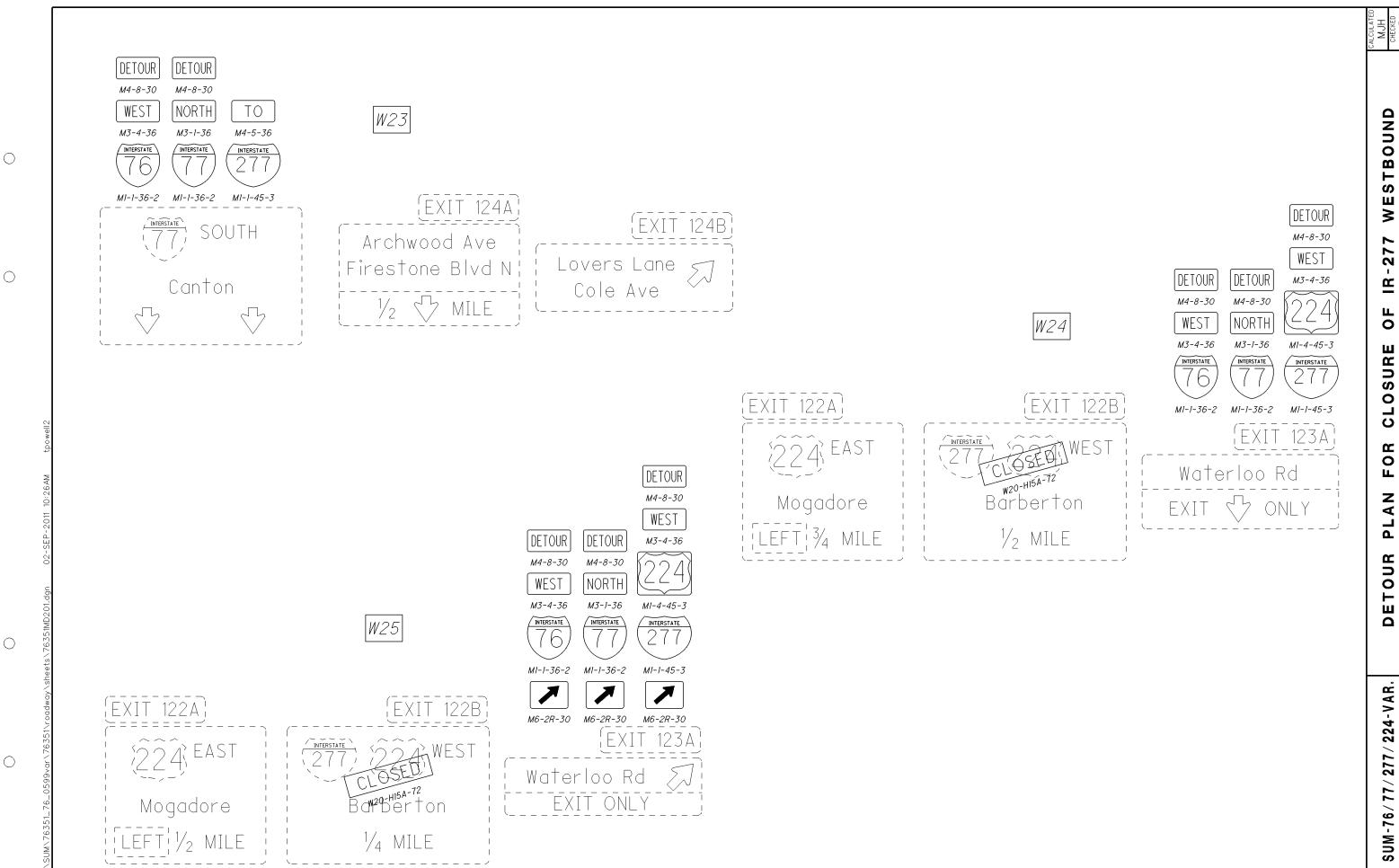
FOR

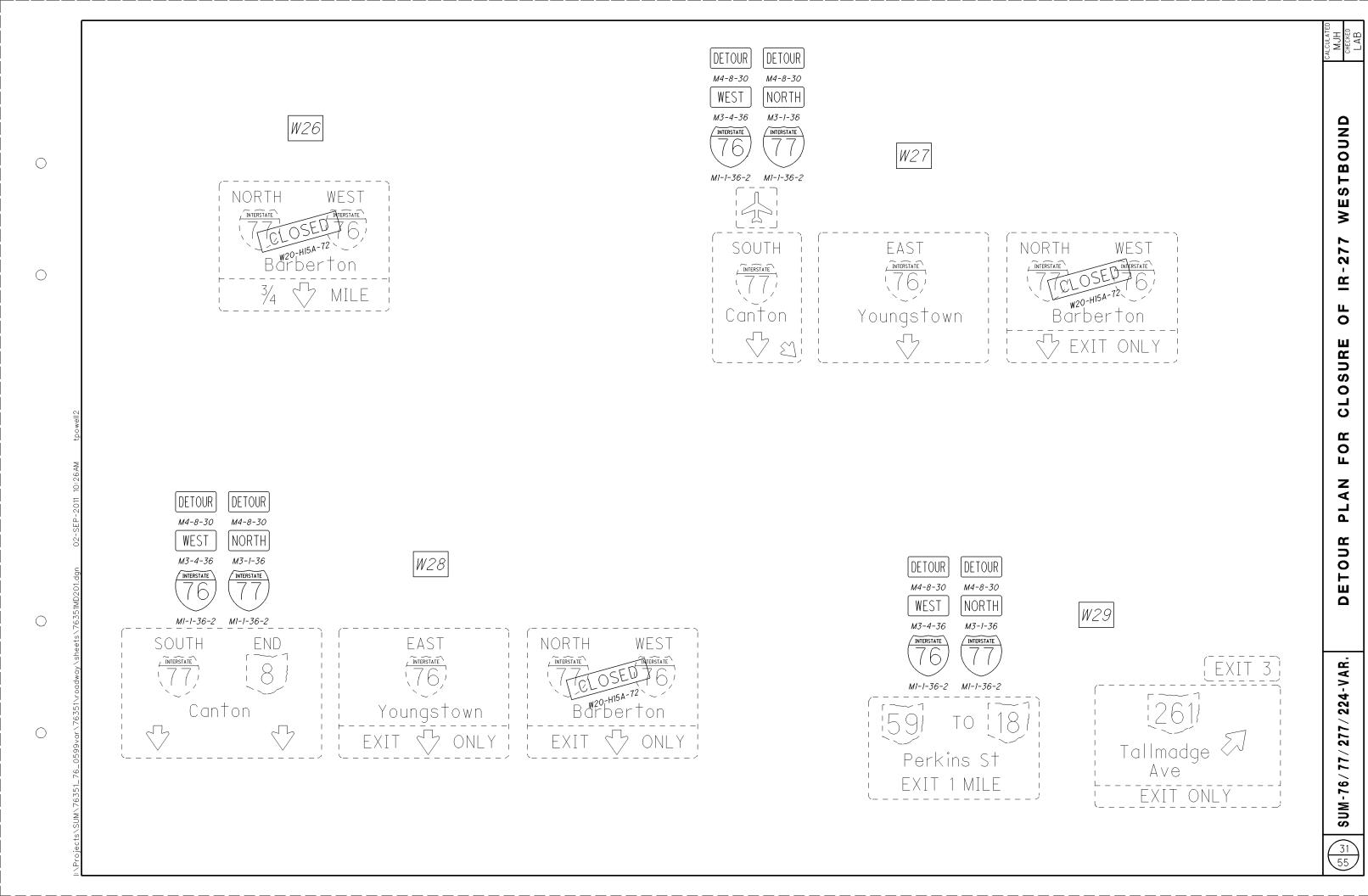
PLAN

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SUM-76/77/277/224-VAR.





SUM-76/77/277/224-VAR.

DETOUR DETOUR M4-8-30 M4-8-30 WEST NORTH M3-4-36 M3-1-36 INTERSTATE INTERSTATE

MI-1-36-2 MI-1-36-2

W31

JUNCTION

Buchtel Ave : Carroll St Exchange St 1 ½ MILES ; EXIT ½ MILE;

W34





DETOUR

M4-8-30

M3-4-36

W30

DETOUR

M4-8-30

NORTH

M3-1-36

INTERSTATE 7

EXIT 1B

M1-1-36-2 M1-1-36-2

Perkins St

NEXT RIGHT

W32

DETOUR DETOUR

M4-8-24 M4-8-24 NORTH WEST

M3-4-24 M3-1-24 INTERSTATE INTERSTATE

M1-1-24-2 M1-1-24-2



M5-IR-21 M5-IR-21

W33

DETOUR DETOUR

M4-8-24 M4-8-24 NORTH

M3-4-24 M3-1-24 INTERSTATE INTERSTATE

M1-1-24-2 M1-1-24-2



1 M6-3-21 M6-3-21

M3-4-36 M4-5-36 M3-4-36 INTERSTATE

DETOUR

M4-8-30

WEST

Arlington Rd 1 MILE

W35

TO

TO

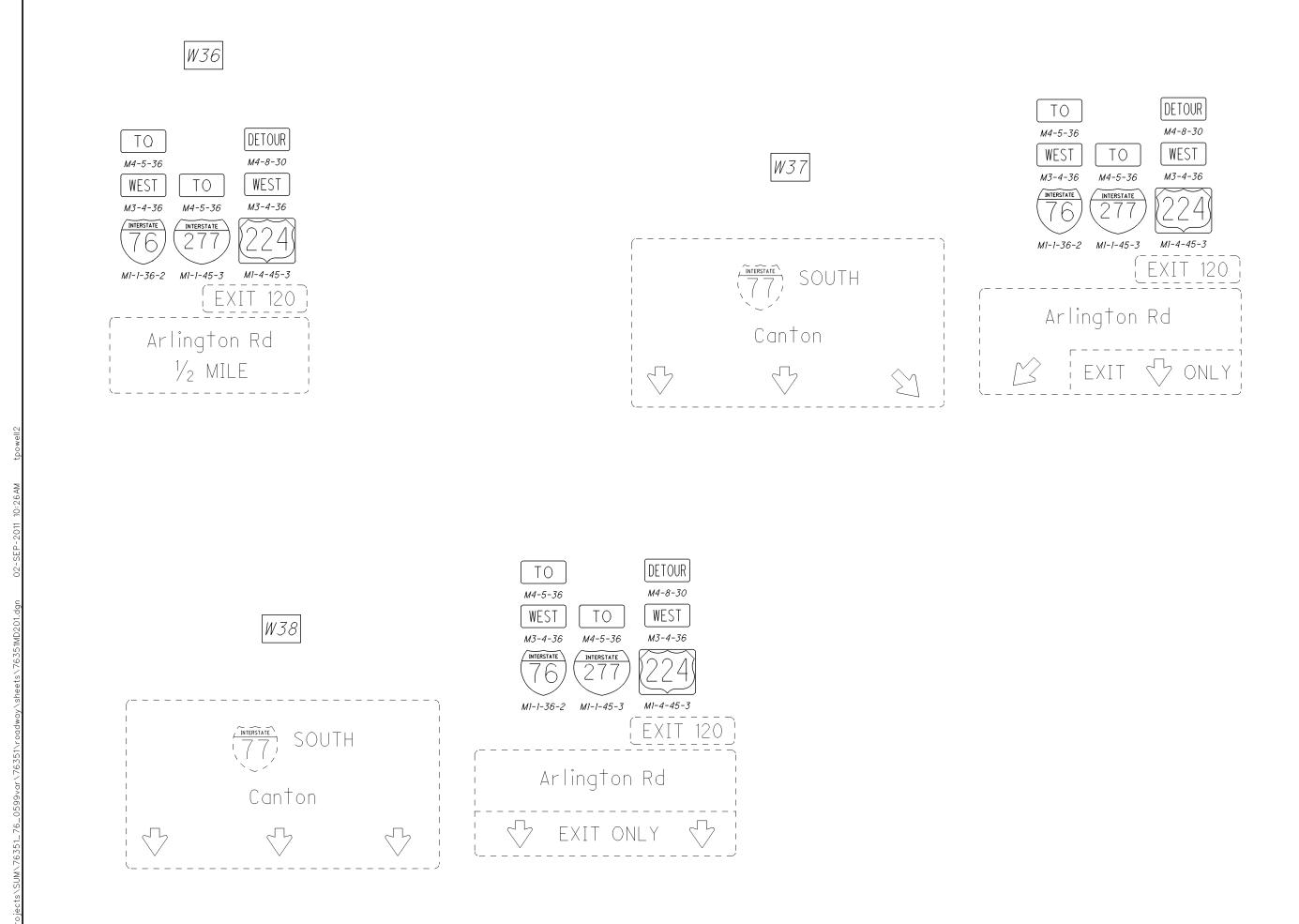
M4-5-36

WEST

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WESTBOUND CALCU

IR-277

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CLOSURE

FOR

PLAN

DETOUR

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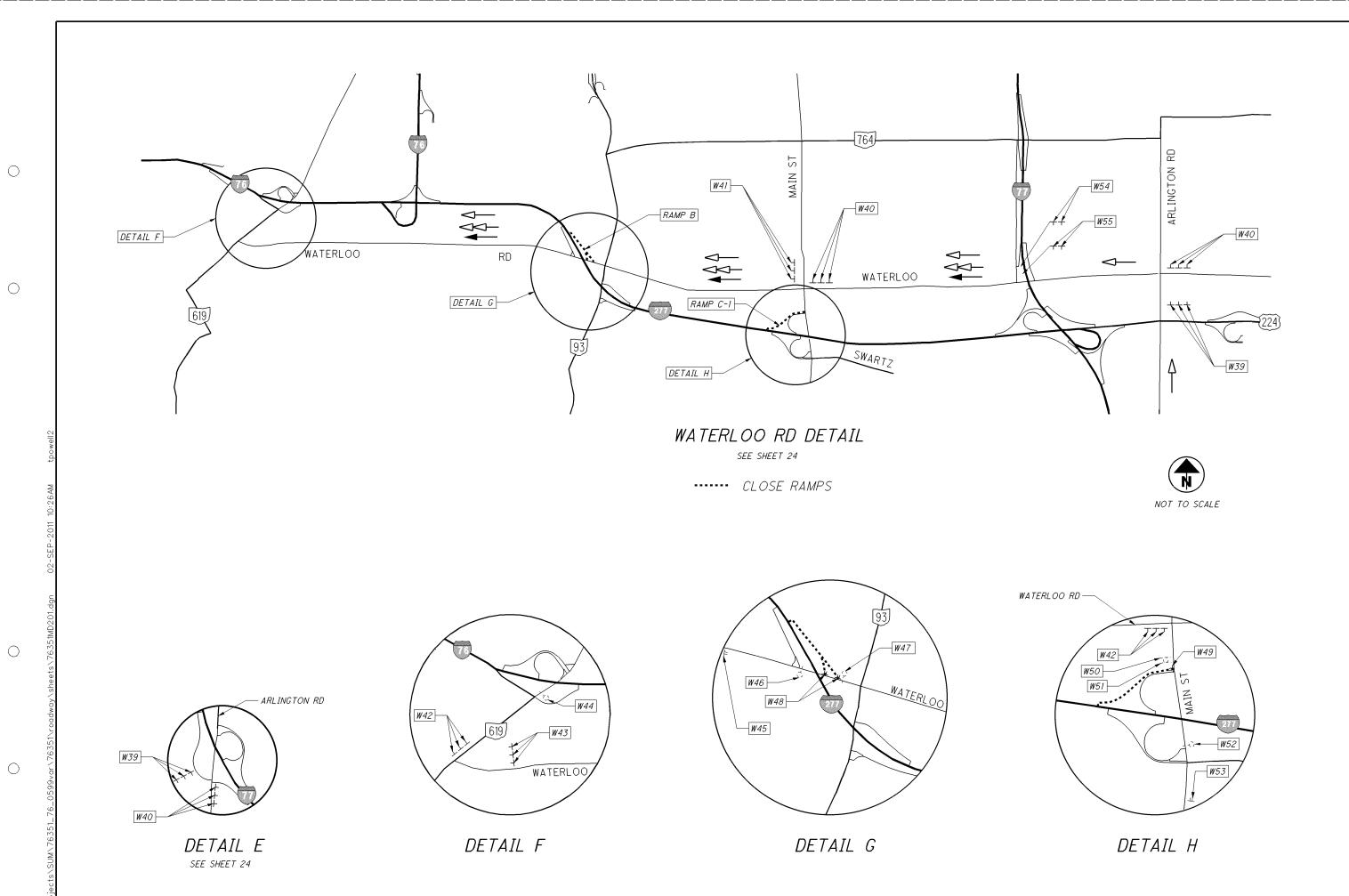
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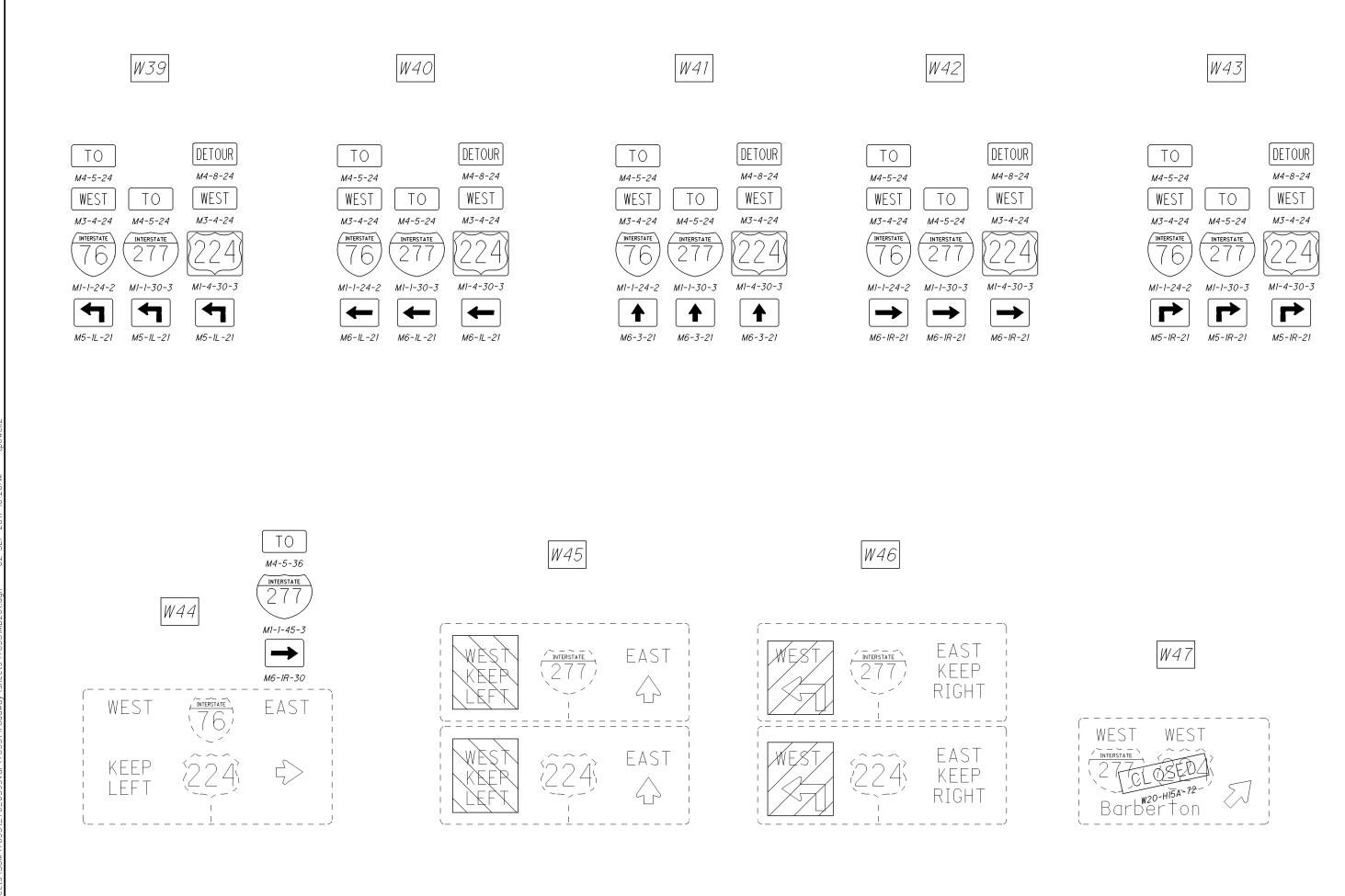
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SUM-76/77/277/224-VAR.







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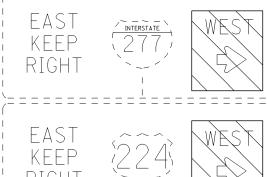
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WESTBOUND IR-277

W51



W50



ON TYPE III BARRICADE

W52

ROAD

CLOSED

R11-2-48

M4-10L-48

DETOUR

| W48 | #

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ROAD

CLOSED

R11-2-48

M4-10R-48

ETOUR

W49 #

W53



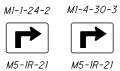












W54

TO

M4-5-24

WEST

M3-4-24

DETOUR

M4-8-24

WEST

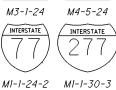
M3-4-24

TO M4-5-24 NORTH

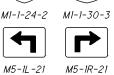




W55









-				SHEET I	NUMBEF	R				PATION	<i>l</i>	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET	T
	5	39	40	41	42	43		SUM- 002	SUM- 003	IM	NHS		EXT	TOTAL	<i>0</i> ,,,,	BESCHITTON	NO.	
																ROADWAY		
										LUMP		201	11000	LUMP		CLEARING AND GRUBBING (SUM-76/77/277/224-VAR.)		
								LUMP				201	11000	LUMP	A CONTRACTOR OF THE PROPERTY O	CLEARING AND GRUBBING (SUM-277-(3.18)(3.28)		
									LUMP			201	11000	LUMP		CLEARING AND GRUBBING (SUM-277-3.31)		
		937	1505							904	1538	202	23500	2442		WEARING COURSE REMOVED		
					56				56			202	23900	56	SQ YD	CONCRETE BASE REMOVED		
	420									420		202	32000	420	FT	CURB REMOVED		
					220	37		37	220			202	35100	257	FT	PIPE REMOVED, 24" AND UNDER		
				32300						29850	2450	202	38000	32300	FT	GUARDRAIL REMOVED		
					90	20		20	90			203	10000	110	CU YD	EXCAVATION		
	2310									1848	462	203	10000	2310	CU YD	EXCAVATION (FOR PAVEMENT REPAIR)		
					90	20		20	90			203	20000	110	CU YD	EMBANKMENT		_
				324						300	24	209	60201	324		LINEAR GRADING, AS PER PLAN	5	-
				30112.5						28087.5	2025	606	13000	30112.5	the state of the s	GUARDRAIL, TYPE 5	,	-
				4						1	3	606	26000	4		ANCHOR ASSEMBLY, TYPE B		
-				36						31		606	26100	36	and the file of the second	ANCHOR ASSEMBLY, TYPE B		
				30						3/	5	000	20100	36	EACH	ANCHOR ASSEMBLT, TIPE E		
				00						- 10	4	606	00500	- 00	EAO''	ANOHOD ACCEMBLY, TVDE T		
-				23						19	4	606	26500	23		ANCHOR ASSEMBLY, TYPE T		
				33						26		606	35000	33		BRIDGE TERMINAL ASSEMBLY, TYPE 1		
				16						14	2	606	35100	16		BRIDGE TERMINAL ASSEMBLY, TYPE 2		
	5									4	1	SPEC	69098000	5	EACH	MISC.: VERTICAL CLEARANCE	5	
																EROSION CONTROL		<u> </u>
						7		7				601	21050	7	SQ YD	TIED CONCRETE BLOCK MAT, TYPE 1		
	37									37		601	32201	37		ROCK CHANNEL PROTECTION, TYPE C WITH FILTER, AS PER PLAN	5	
					3				3			601	32204	3	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER		
	1364									1091.2	272.8	659	10000	1364	SQ YD	SEEDING AND MULCHING		
	68									54.4	13.6	659	14000	68	SQ YD	REPAIR SEEDING AND MULCHING		
	0.18									0.144	0.036	659	20000	0.18	TON	COMMERCIAL FERTILIZER		
	0.28									0.224	0.056	659	31000	0.28	ACRE	LIME		
	7									5.6	1.4	659	35000	7	M GAL	WATER		
																		- 1
										12000	3000	832	30000	15000	EACH	EROSION CONTROL		. 7
																DRAINAGE		
					0.6				0.6			602	20000	0.6	CU YD	CONCRETE MASONRY		77
						25		25				603	00510	25	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		77
					128				128			603	05900	128	the second secon	15" CONDUIT, TYPE B		
					92				92			603	06700	92		15" CONDUIT, TYPE F		
					, , , , , , , , , , , , , , , , , , ,							300	33,33	Ĭ				-
	21									21		604	20801	21	EACH	INLET RECONSTRUCTED TO GRADE, AS PER PLAN	5	
	-					1		1				604	36600	1		PRECAST REINFORCED CONCRETE OUTLET		-
						12		12				605	11100	12		6" SHALLOW PIPE UNDERDRAINS		-
						12		12				003	11100	12	* * *	O SHALLOW FIFE UNDERDIVATED		_
+																PAVEMENT		+
+	382									382		254	01000	382	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE		
	302	66404	10000								64707						4	<u> - 11 </u>
+		66124	16936							18333	64727	254	01001	83060		PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=3 3/4")		
		216432	44345							260777	0770	254	01001	260777		PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=5 1/2")	4	
	13860									11088	2772	255	10150	13860		FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS		
+	41580									33264	8316	255	20000	41580	FT	FULL DEPTH PAVEMENT SAWING		
		JAR							<u> </u>	6			12.2	2.2.2				
_ _	00.45	18036	3696		5	3		3	5	21732		301	46000	21740		ASPHALT CONCRETE BASE, PG64-22		
	2310									1848	462	304	20000	2310	<u> </u>	AGGREGATE BASE	75.5	
- 1					15	3		3	15			304	20001	18		AGGREGATE BASE, AS PER PLAN	42,43	3
		42384	9193							41868	9709	407	13900	51577		TACK COAT, 702.13		<u>- 11</u>
		19960	4795							21695	3060	407	14000	24755	GALLON	TACK COAT FOR INTERMEDIATE COURSE		<u> </u>
		11774	3147							11734	3187	442	10050	14921	the state of the s	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (446)		<u> </u>
		13736	3671							13688	3719	442	10150	17407		ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (446)		
				923						882	41	448	46061	923		ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN	5	
										32		448	47020	32	and the second of the second of the second	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22		
	32			1	56				56			451	15000	56	SQ YD	10" REINFORCED CONCRETE PAVEMENT		
	32				- 00													_
	32																	<u>- 1</u>
	32 420									420		609	26000	420		CURB, TYPE 6		
		260	185							420 315	130	609 617	26000 10101	420 445	CU YD	CURB, TYPE 6 COMPACTED AGGREGATE, AS PER PLAN RUMBLE STRIPS, (ASPHALT CONCRETE)	4	

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				oncel l	N <i>UMBER</i> T				SUM-	PAF SUM-			ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SHEET NO.
	5	7	9	10	41	44	45	46	002	003	IM	NHS		EXT	TOTAL			W.
						66					50	16	621	10010	66	EACH	TRAFFIC CONTROL RPM, LOW PROFILE, WHITE	
						1000					820	180	621	10070	1000		RPM, LOW PROFILE WHITE/RED	
												58						
						178					120		621	10030	178	EACH	RPM, LOW PROFILE YELLOW/RED	
					396	1208					961	247	621	54000	1208 396	EACH	RAISED PAVEMENT MARKER REMOVED BARRIER REFLECTOR	
					396						360	36	626	00100	396	EACH	BARRIER REFLECTOR	
														10000				
							44.1				38.53	5.57	646	10000	44.1	MILE	EDGE LINE	
							22.04				19.03	3.01	646	10100	22.04	MILE	LANE LINE	
							11060	13953			21443	3570	646	10300	25013	FT	CHANNELIZING LINE	
							76	76			76	76	646	10400	152	FT	STOP LINE	
							385	3283			3528	140	646	10600	3668	FT	TRANSVERSE/DIAGONAL LINE	
							2					2	646	20300	2	EACH	LANE ARROW	
																	STRUCTURES	
	50										40	10	511	81100	50	FT	CONCRETE, MISC.: BARRIER WALL REPAIR	5
																	FOR STRUCTURE ESTIMATED QUANTITIES	46C, 50
																	MAINTENANCE OF TRAFFIC	
				300							240	60	614	11110	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				2							2		614	12336	2	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	
											LUMP		614	12420	LUMP		DETOUR SIGNING	
		100									80	20	614	13000	100	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				34							34		614	13300	34	EACH	BARRIER REFLECTOR, TYPE B	
				34							34		614	13350	34	EACH	OBJECT MARKER, ONE WAY	
				320							256	64	614	18401	320	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	
			0.96								0.768	0.192	614	20000	0.96	MILE	WORK ZONE LANE LINE, CLASS I	
			2.66	0.76							2.736	0.684	614	22000	3.42		WORK ZONE EDGE LINE, CLASS I	
			11669								9335.2		614	23000	11669		WORK ZONE CHANNELIZING LINE, CLASS I	
			7,7000								0000.2	2000.0		20000	17.000			
				1700							1700		622	40020	1700	FT	PORTABLE CONCRETE BARRIER, 32"	
5 - 1 - 1			tur taraktari. Saliya turujulak	680							680		SPEC	69013000	680	FT	RUMBLE STRIPS	
				000							000		5, L0	00010000	000			
																	에서는 사람들이 되었다. 그는 사람들이 되었다. 	
																	를 보고 있는 것도 하는 것이 되었다. 그는 것은 것은 것은 것은 것이 되었다. 그는 것은 것은 것은 것은 것은 것이 되었다. 그는 것은 것은 - 1908년 1일 등 1908년 1일	
																	parangangan dia angangangan dia angangan dia ngibengan dia ngibengan dia ngibengan dia ngibengan dia ngibe Ing mpangangan dia pangangan dia pangangan dia nasangan dia pangangan dia angan angan dia pangan dia manangan	
- -																		
- -																		
+																		
100																		
													C4.4	44000	LUMP		MAINTAINING TRAFFIC	
													614	11000	LUIVIF		IMAINTAINING TRAFFIC	
											18		619	11000 16020	18	MONTH		
											18		and the second second			MONTH	FIELD OFFICE, TYPE C CONSTRUCTION LAYOUT STAKES	

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								202	254	254	301	407	407	442	442	617	618					
SLM f	RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA (A)	ARING COUR W(35x)	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=3 3/4") A	PAVEMENT PLANING, PHALT CONCRETE, AS PER PLAN (T=5 1/2") A	ASPHALT CONCRETE BASE, PG64-22 (T=3") (3xA)/36	TACK COAT, 702.13 0.15xA	TACK COAT FOR INTERMEDIATE COURSE 0.04xAx #layers	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (446) (T=1 1/2") (1.5xA)/36	ASPHALT CONCRETE NTERMEDIATE COURSE, MM, TYPE B (446) (T=1 3/4") (1.75xA)/36	COMPACTED AGGREGATE, AS PER PLAN (#sides x2x2xDJ/(12x27)	RUMBLE STRIPS, (ASPHALT CONCRETE) (#sides xD)/5280					
								WE	ASF	ASK	AS			วร	191	Ö	æ					
R. 76				FT	FT	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	CU YD	GALLON	GALLON	CU YD	CU YD	CU YD	MILE					
	TO 6.16	76	EB	897.60	40.00	3989.33		233.33	3989.33			598.40	159.57	166.22	193.93	11.08	0.17					
6.16	6.31	76	EB	792.00	40.00	3520.00				3520.00	293.33	528.00	281.60	146.67	171.11	9.78	0.15					
277																						
0.00	0.12	277	SB	633.60	40.00	2816.00				2816.00	234.67	422.40	225.28	117.33	136.89	7.82	0.12					
0.12 0.92	0.89 1.13	277 277	SB SB	4065.60 1108.80	52.25 52.25	23603.07 6437.20				23603.07 6437.20	1966.92 536.43	3540.46 965.58	1888.25 514.98	983.46 268.22	1147.37 312.92	50.19 13.69	0.77 0.21					
1.18	1.73	277	SB	792.00	52.25	4598.00				4598.00	383.17	689.70	367.84	191.58	223.51	9.78	0.15					
1.38	1.75	277	SB	1953.60	52.25	11341.73				11341.73	945.14	1701.26	907.34	472.57	551.33	24.12	0.37					
1.79	3.04	277	SB	6600.00	52.25	38316.67				38316.67	3193.06	5747.50	3065,33	1596.53	1862.62	81.48	1.25					
3.07	3.41	277	SB	1795.20	52.25	10422.13				10422.13	868.51	1563.32	833.77	434.26	506.63	22.16	0.34					
3.41	3.62	277	SB	1108.80	40.25	4958.80				4958.80	413.23	743.82	396.70	206.62	241.05	13.69	0.21					
3.62 3.80	3.69 3.91	277 277	SB SB	369.60 580.80	52.25 52.25	2145.73 3371.87			3371.87	2145.73	178.81	321.86 505.78	171.66 134.87	89.41 140.49	104.31 163.91	4.56 7.17	0.07 0.11					
224	3.91	211	SD	360.60	32.23	33/1.0/			33/1.6/			303.76	134.67	140.49	103.91	1.11	0.11					
10.22	10.61	224	EB	2059.20	40.25	9209.20			9209.20			1381.38	368.37	383.72	447.67	25.42	0.39					
10.64	11.24	224	EB	3168.00	40.25	14168.00		234.79	14168.00			2125.20	566.72	590.33	688.72	39.11	0.60					
76																						
5.99	6.16	76	WB	897.60	40.00	3989.33		233.33	3989.33	0500.00	000.00	598.40	159,57	166.22	193.93	11.08	0.17					
6.16 277	6.31	76	WB	792.00	40.00	3520.00				3520.00	293.33	528.00	281.60	146.67	171.11	9.78	0.15					
0.00	0.31	277	NB	1636.80	40.00	7274.67				7274.67	606.22	1091.20	581.97	303.11	353.63	20.21	0.31					
0.31	0.89	277	NB	3062.40	52.25	17778.93				17778.93	1481.58	2666.84	1422.31	740.79	864.25	37.81	0.58					
0.92	1.13	277	NB	1108.80	52.25	6437.20				6437.20	536.43	965.58	514.98	268.22	312.92	13.69	0.21					
1.18	1.33	277	NB	792.00	52.25	4598.00				4598.00	383.17	689.70	367.84	191.58	223.51	9.78	0.15					
1.38	1,75	277	NB	1953.60	52.25	11341.73				11341.73	945.14	1701.26	907.34	472.57	551.33	24.12	0.37					
1.79	3.04	277	NB	6600.00	52.25	38316.67				38316.67	3193.06		3065.33	1596.53	1862.62	81.48	1.25					
3.07 3.80	3.69 3.91	277 277	NB NB	3273.60 580.80	52.25 52.25	19005.07 3371.87			3371.87	19005.07	1583.76	2850.76 505.78	1520.41 134.87	791.88 140.49	923.86 163.91	40.41 7.17	0.62 0.11					
. 224		211	IVD	360.60	32.23	337 1.07			3371.67			303.76	134.61	140.43	103.91	1.11	0.11					
10.22	10.61	224	WB	2059.20	52.25	11954.80			11954.80			1793.22	478.19	498.12	581.14	25.42	0.39					
10.64	10.91	224	WB	1425.60	52.25	8276.40			8276.40			1241.46		344.85		17.60	0.27					
10.91	11.24	224	WB	1742.40	40.25	7792.40		234,79	7792.40			1168.86	311.70	324.68	378.80	21.51	0.33					
JUCT FOR GUA	ARDRAIL SECTIONS			30837.00												-380.70						
	na in 1980 de la Baración de Silva. De la Taglia de La Calabración de Silva.																					
production of the state of the																						
	nes - 1 1 1 2 2 2 1 1 2 2 3 3 1 1 1 2 3 3 3 3																					
		4																				
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																			
									 And the second of the second of	1.0		A1 (4.5) 11 (4.5) 18.5									1	
																				The first of the second		

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LOCATION 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	LOCATION Column	1. LOCATION 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							202	254	254	301	407	407	408	442	442	617									
DOCATION 0	COCHON	COLTION Coltion Colti	20			E	5	AREA		VG, 4S PER	PER	BASE,	8)	SSE	ĽAN	TE 2.5MM, /2")	E, 3/4")	AS									CALCULAT
For For Start	## ## ## ## ## ## ## ## ## ## ## ## ##	## 100 CO			<u>ال</u>	MID	ARE		REI	ANII TE, , 3/4")	ANIII TE, ,	= 7E = 3")	702.	FOF COU yers	PER 2xD)	8,7	20C (8	REG, N V(12									
For For Start	## ## ## ## ## ## ## ## ## ## ## ## ##	## 100 CO			NA7	35	\$ H & 8	8 8 E	RSE	可能品		1CRE 2 (T)		DAT ITE	AS es)	JRS, (1)	NO H 4 4	BLA PLA 2xD,									
For For Start	## ## ## ## ## ## ## ## ## ## ## ## ##	## 100 CO	3		SIG	RAG	RFA -	ENE	700	MEN ONG IN (1	NON (54-2 (3x/	0.1	X CC	AT, #sid	1200 4 X	LT (2)	ER X2X									
For For Start	## ## ## ## ## ## ## ## ## ## ## ## ##	## 100 CO	2			4VE	1 2	0 0	် စွ်	A PLA	A C C C C C C C C C C C C C C C C C C C	17.1 PG	Š	RME 0.0	0 4 0 4	CE B	PHA RME TYT	CTE P des									
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Description Security Securi	### ATTENIOD RECELT ***(XCADD GOME)** ***STEPPINAPP*** ***NE PRODUCT OF THE PROD	ATTENDO DECEL "MICADO GOND! S8 578.00 12.00 770.67 147.58 91.22 770.05 138.83 72.80 90.01 45.34																									1
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NIN CT (RAMP)	MAIN **CET**CIT**GORE**) MAIN **CET**CIT**GORE**) S8	MAIN CT (PANIP) MB 616.00 22.00 1505.78 MIN COCK (CT (R) GORE) MB 1000.00 1505 2166.72 MAIN CCZ (PANIP) MB 1510.00 22.00 1200.1200 1606.22 MAIN CZ (PANIP) MB 1510.00 22.00 1200 1200 1200 1200 1200 120	MAIN "C"(RAMP)	N.	405.0	0 46.0	00 2070.0	0 390.00			2460.00	205.00	369.00	196.80	0.00	102.50	119.58	5.00									∤ ⊢.
No.	MAIN TC2 (PARAMP) NB 5180 22.00 1266.22 1266.2	MAIN TOZ (PARAP) NB 516.00 22.00 1266.02 236.39 1266.02 236.39 1266.02 236.39 1266.02 236.39 1266.02 236.39 1266.03 194.46 103.71 54.02 63.02 14.00 106.00 236.39 1266.03 194.46 103.71 54.02 63.02 14.00 106.00 236.39 126.03 194.46 103.71 54.02 63.02 14.00 106.00 236.39 126.03 194.46 103.71 54.02 63.02 14.00 106.00 236.39 126.00 1260	MAIN "C1"(RAMP)				00 1505.7	8																			₹
NB 518.00 22.00 1268.22 1268.22 108.52 189.93 107.30 0.00 52.76 61.55 6.40	MAIN DECEL**C2**(8 CADD GORE) MB 75500 12.00 16000 236.39 1266.27 105.52 189.93 107.30 1.00 52.76 155.5 6.40 MAIN**D**(FAMP)	MAIN DECEL "C2" (CADD GORE) NB 785.00									The second second second] 主
AIN 'D' (RAMP) SB 591,00 46,00 302,067 346,67 3367,33 280,61 505,10 268,39 0.00 140,31 163,69 7.30	MAIN TO (RAMP) SB	MAIN 'D'(RAMP) SB 591.00 46.00 320.67 346.67 13367.33 280.61 505.10 299.39 0.00 140.31 163.69 7.30 MAIN 'D'(RAMP) SB 890.00 22.00 1210.00 1210.00 109.83 1815.0 96.80 0.00 50.42 588.82 6.11 MAIN 'DCCEL' 'D'('8 GORE) SB 90.00 20.50 2050.00 2050.00 170.83 307.50 164.00 85.42 99.65 MAIN 'DCCEL' 'D'('8 CADD GORE) SB 775.00 12.00 1033.33 125.00 1589.11 140.76 253.37 135.13 0.00 70.38 82.11 8.53 MAIN 'DCCEL' 'D'('8 CADD GORE) SB 775.00 12.00 1033.33 125.00 1158.33 96.53 1737.75 92.67 48.20 56.31 MAIN 'DS'('RAMP) SB 303.00 22.00 740.67 740.67 61.72 111.10 59.25 0.00 30.88 30.00 3.74 85.31 MAIN 'DS'('RAMP) SB 303.00 22.00 740.67 740.67 61.72 111.10 59.25 0.00 30.88 30.00 3.74 77.67 (GORE) WB													0.00			6.40									
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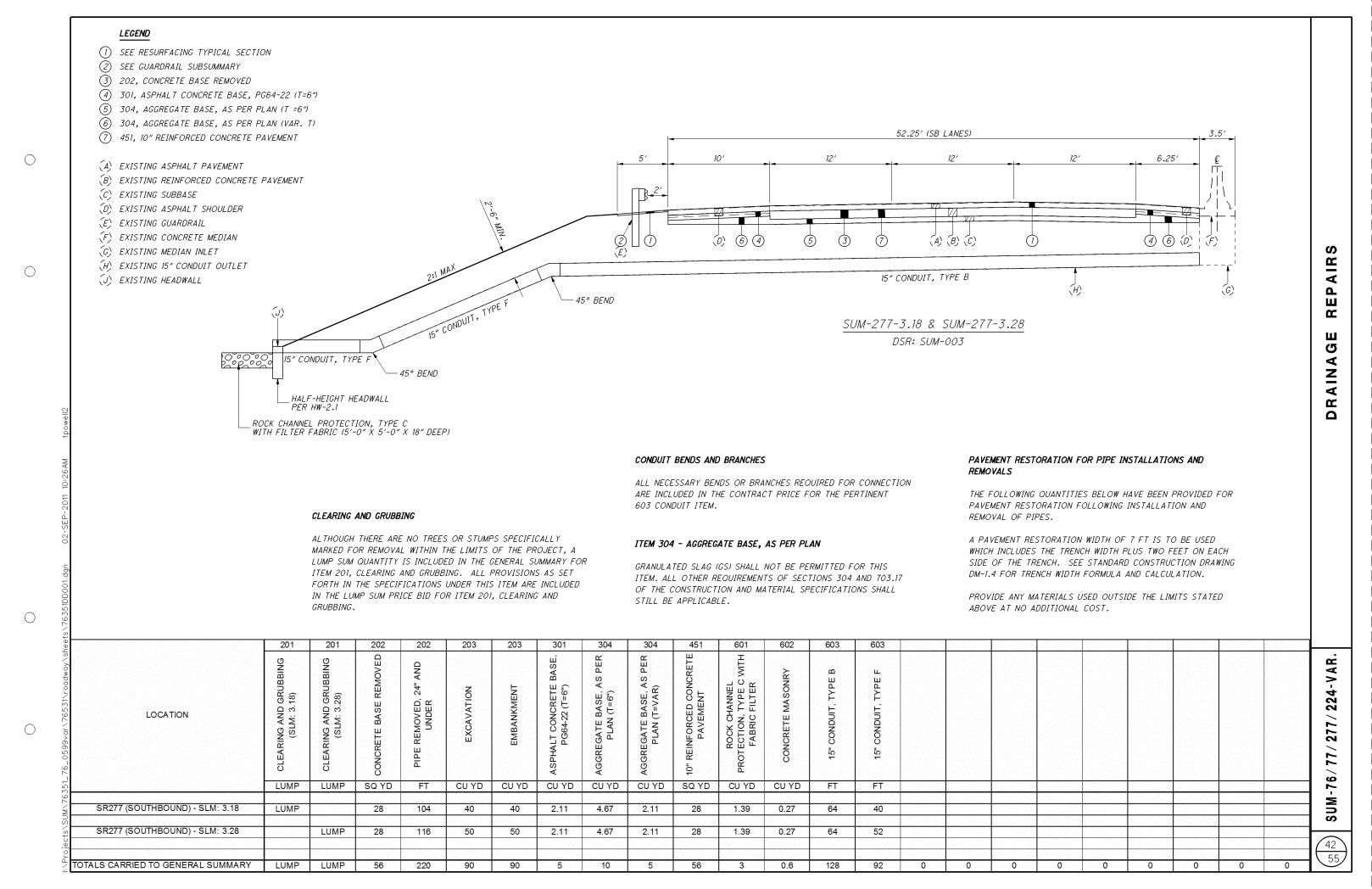
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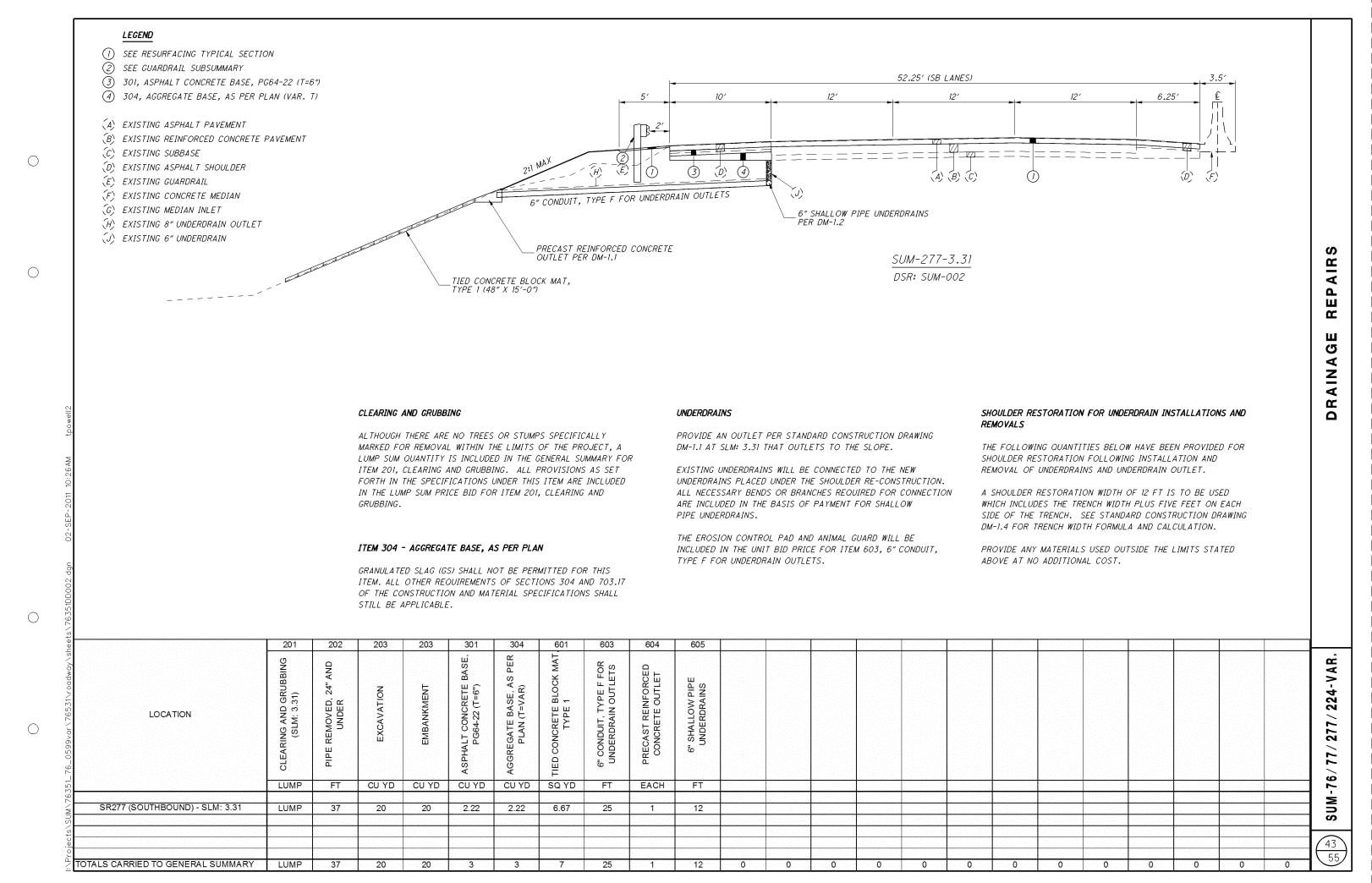
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FROM TO 5.98 6.07 RT	FT	FT CU YD	STATION		FT 462.5	FT	FT	EA	EA	EA	EΑ	EA EA	EACH		FT EA		EA	EA	EA	# 448 NOT USED IN CURB SECTIONS	Maraine Ma Maraine Maraine Maraine Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma
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6.26 6.30 RT		175	1.75	5.4	112.5				1	1								3			
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0.74 0.89 RT		775	7.75	23.92	725				1		1							9			∃ ≰∶
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1.80 RAMP D RT 1.80 RAMPC LT		3712.5 3462.5	37.13 34.63	114.58 106.87	3700 3412.5				1	1	1	1						39 36		MAIN MAIN	– ▼
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RAMP D3 RAMP D1 RT		1525 375	15.25 3.75	42.81 11.57	1525 312.5				1	1	2							17		# MAIN (STR. SUM-277-0246[SW]) MAIN	
PRAMP C RT		162.5	7.13	16.98	662.5				1		1							8		# COMBINE	1 9
MAIN NW NE		487.5 487.5	4.88		437.5				1		1							5		MAIN (STR. SUM-277-0246[NW]) MAIN (STR. SUM-277-0246[NE])	-
ப் MAIN SE		75	0.75	#	37.5			1			1							1		MAIN (STR. SUM-277-0246[SE])	
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© RAMP B1 3.73 LT		337.5	3.38	10.42	337.5							1						5		IR 77	1
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<u>DESIGN DATA</u>

STRUCTURAL STEEL: ASTM A709 GRADE 50 - YIELD STRENGTH 50,000 PSI BOLTS: ASTM A325 TYPE ONE GALVANIZED HIGH STRENGTH BOLTS

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 CMS 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

PROPOSED WORK - SUM-76-1043S (ON RAMP OVER BROADWAY TO 76)

- REFURBISH AND/OR RESET EXISTING INTERMEDIATE EXPANSION JOINT BEARINGS - REPAIR STEEL BEAM DEFICIENCIES AND LOSS OF SECTION AT THE
- INTERMEDIATE EXPANSION JOINT - PAINT AREAS OF STEEL BEAM REPAIRS AT THE INTERMEDIATE EXPANSION JOINT

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES TO BE REMOVED TAKING CARE NOT TO DAMAGE THE GIRDER WEBS.

EXISTING GIRDER COMPONENT REMOVAL: FLAME CUT GIRDER STIFFENERS AND FLANGES ACCORDING TO REMOVAL LIMITS PER PLANS. GRIND WELDS AND REMAINING EDGES SMOOTH.

CROSSFRAME REMOVAL:

REMOVE THE TRANSVERSE LINE OF CROSSFRAMES AS INDICATED ON THE PLANS, GRIND REMAINING CONNECTION WELDS, AND REPLACE AS SHOWN IN PLANS. FLAME CUTTING OF THE CROSS FRAMES IS PERMITTED.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIAL, AND LABOR NECESSARY TO PERFORM THIS TASK AND SHALL BE PAID FOR USING THE FOLLOWING CONTRACT ITEM (PAY ITEM):

ITEM 202

LUMP

DESCRIPTION

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 3

THE WORK INCLUDES FURNISHING ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO ERECT STRUCTURAL STEEL AS SHOWN IN THE PLANS COMPLETE AND IN PLACE AND SHALL CONFORM TO THE REQUIREMENTS OF CMS 513. THIS ITEM ALSO INCLUDES FIELD DRILLING BOLT HOLES INTO THE EXISTING STEEL AS SHOWN IN THE PLANS AND AS DESCRIBED UNDER 513.01.

STEEL MEMBERS DESIGNATED AS "CVN" IN THE PLANS SHALL FOLLOW THE TOUGHNESS REQUIREMENTS IN CMS SECTION 711.01.

MEASUREMENT AND PAYMENT

THE ACCEPTED QUANTITIES FOR THE COMPLETED WORK AS DESCRIBED WILL BE MEASURED AND PAID FOR USING THE FOLLOWING CONTRACT ITEM (PAY ITEM):

POUND

DESCRIPTION STRUCTURAL STEEL MEMBERS, LEVEL 3 <u>ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL.</u> <u>AS PER PLAN</u>

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN

<u>ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE</u> COAT, AS PER PLAN

<u> ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, </u> <u>AS PER PLAN</u>

A THREE COAT PAINT SYSTEM CONSISTING OF A PRIME COAT (INORGANIC ZINC FOR NEW STEEL AND ORGANIC ZINC FOR EXISTING STEEL), AN EPOXY INTERMEDIATE COAT, AND A URETHANE FINISH COAT SHALL BE APPLIED TO THE STEEL IN THE FIELD AS PER THE CMS SPECIFICATIONS SECTIONS 513 AND 514. THE FINAL COAT COLOR SHALL BE DETERMINED TO MATCH THE EXISTING PAINT COLOR.

THE LIMITS OF ITEM 514 SHALL EXTEND TEN (10) FEET ON EITHER SIDE OF THE INTERMEDIATE EXPANSION ROLLER CENTERLINE FOR A TOTAL OF TWENTY (20) LONGITUDINAL FEET, THAT INCLUDES THE GIRDER STEEL, HINGE SYSTEM, NEW CROSS FRAME STEEL AND NEW LATERAL BRACE STEEL AND THEIR CONNECTIONS. EXISTING CROSS FRAMES, LATERAL BRACES AND OTHER EXISTING SECONDARY MEMBERS TO REMAIN SHALL NOT BE PAINTED. IF THE EXISTING PAINT SYSTEM ON THESE MEMBERS IS DAMAGED BY THE CONTRACTOR DURING THIS PROJECT, THEN THE CONTRACTOR SHALL REPAIR THE DAMAGED COATING AT THE CONTRACTOR'S EXPENSE.

THE REQUIREMENTS OF CMS 514 SHALL APPLY WITH THE FOLLOWING ADDITIONS/MODIFICATIONS:

514.19 CAULKING (QCP #9)

AFTER THE INTERMEDIATE COAT HAS BEEN APPLIED, THE CONTRACTOR SHALL CAULK ALL GAPS OR CREVICES GREATER THAN 1/2". THE INTERMEDIATE COAT SHALL BE FREE OF CONTAMINANTS WHEN THE CAULKING IS APPLIED.

THE CAULK SHALL BE APPLIED EVENLY TO THE JOINTS AND GAPS. VOIDS SHALL BE COMPLETELY FILLED WITH CAULKING GUN AND SHALL BE SPREAD SMOOTHLY USING HEAVY PRESSURE TO DISPLACE AIR BUBBLES. EXCESS MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF THE MANUFACTURER'S WRITTEN SPECIFICATIONS AND TO THE SATISFACTION OF THE ENGINEER.

514.24 MEASUREMENT AND PAYMENT

THE ACCEPTED QUANTITIES FOR THE COMPLETED WORK AS DESCRIBED WILL BE MEASURED AND PAID FOR USING THE FOLLOWING CONTACT ITEM (PAY ITEM):

DESCRIPTION SQ FT SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN FIELD PAINTING OF EXISTING STRUCTURAL STEEL,

SQ FT PRIME COAT, AS PER PLAN FIELD PAINTING STRUCTURAL STEEL,

INTERMEDIATE COAT, AS PER PLAN FIELD PAINTING STRUCTURAL STEEL, SQ FT FINISH COAT, AS PER PLAN

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS AND CALCULATIONS TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SÚPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

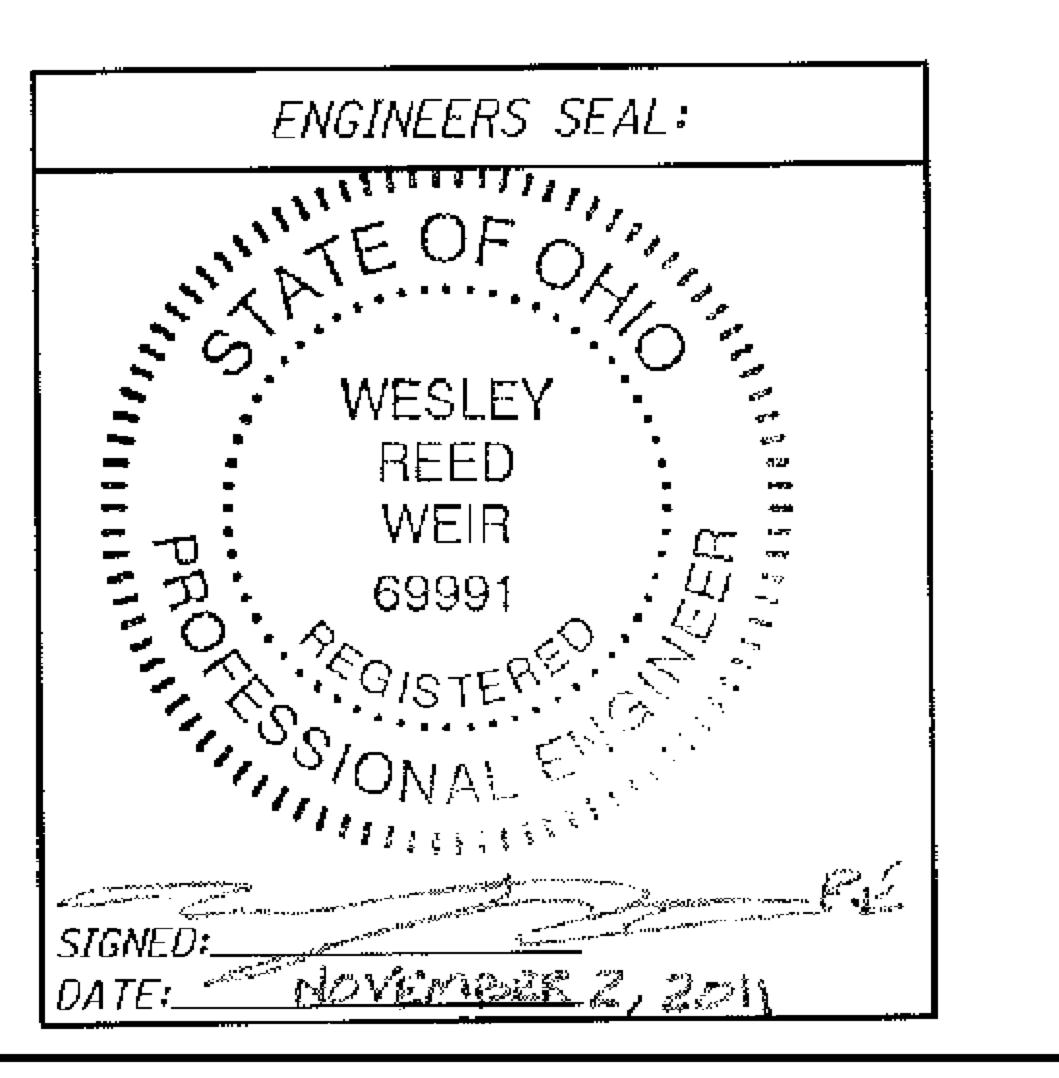
THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

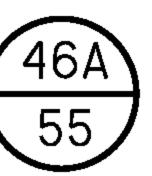
<u> ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN</u>

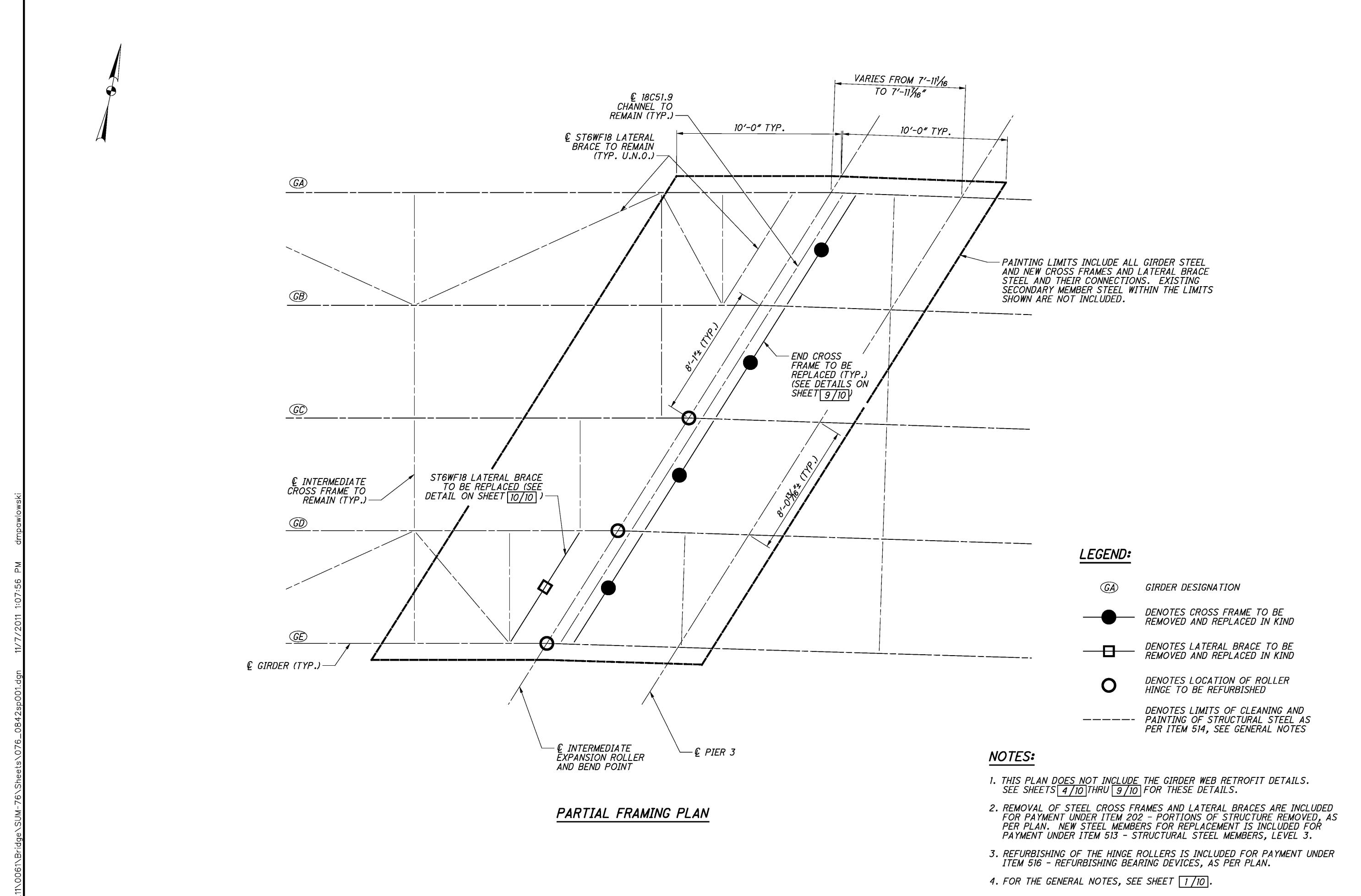
THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE 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 F, 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 SATISFACTION 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 DEVICES, AS PER PLAN.

CONSTRUCTION SEQUENCE

- 1. CLOSE RAMP TO VEHICULAR TRAFFIC.
- 2. FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO FIELD FABRICATION OF PLATES AND ANGLES.
- 3. REMOVE LOWER BEARING STIFFENERS AND LOWER CROSS FRAME CONNECTIONS THAT CONFLICT WITH WEB PLATES.
- 4. CUT/BEND PROPOSED STEEL PLATES AND FLANGE ANGLES TO VERIFIED DIMENSIONS. MARK SIMILAR PROPOSED WEB PLATES TO FIELD DRILL BOLT HOLE PATTERN. AFTER HOLES HAVE BEEN DRILLED IN PROPOSED WEB PLATES, USE NEW PLATES AS TEMPLATE TO CENTER PUNCH HOLE LOCATIONS ON EXISTING STEEL. SNUG TIGHT BOLTS IN PROPOSED PLATES INTO PLACE.
- 5. FIELD DRILL BOTTOM FLANGE HOLES ON BENT PLATE AND BOTTOM FLANGE COVER PLATE AS PER PLAN. CENTER PUNCH HOLE LOCATIONS IN EXISTING BOTTOM FLANGE, SNUG TIGHT BOLTS IN PROPOSED PLATES INTO PLACE.
- 6. SNUG TIGHT BOLTED LOWER BEARING STIFFENER ANGLE INTO PLACE.
- 7. REPEAT PROCESS FOR UPPER GIRDER WHERE APPLICABLE. NOTE THAT THE UPPER CHANNEL SECTION WILL REMAIN. THE CURRENT CONNECTION MUST BE GRINDED OFF AND BE BOLTED TO PROPOSED WEB PLATES.
- 8. INSTALL PROPOSED CROSS FRAME CONNECTIONS.
- 9. PERFORM FINAL BOLT UP AS PER CMS.
- 10. INSTALL CROSS FRAMES AND LATERAL BRACE.
- 11. JACK GIRDERS AS PER PLAN (SEE SHEET 2/10) FOR THE REFURBISHMENT OF THE BEARINGS WITH THE APPROVAL OF THE ENGINEER AND IN ACCORDANCE WITH CMS 501.05.
- 12. REFURBISH BEARING DEVICES AS PER CMS. REMOVE TEMPORARY SUPPORT SYSTEM.
- 13. OPEN RAMP TO TRAFFIC.
- 14. PROVIDE CAULKING BETWEEN BOTTOM FLANGE, BENT PLATE AND BOTTOM FLANGE COVER PLATE.
- 15. PAINT PROPOSED STEEL AND BOLTS IN ACCORDANCE WITH EXISTING CONTRACT SPECIFICATIONS.







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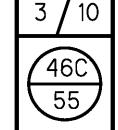
				ESTIMATED QUANTITIES					
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11201	LUMP		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN			LUMP		
<i>513</i>	10260	6,297	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			<i>6,297</i>		
514	00051	893	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			893		
514	00056	893	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			893		
514	00061	893	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			893		
514	00067	893	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			893		
<i>516</i>	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LUMP		
<i>516</i>	45305	3	EA	REFURBISH BEARING DEVICE, AS PER PLAN			3		

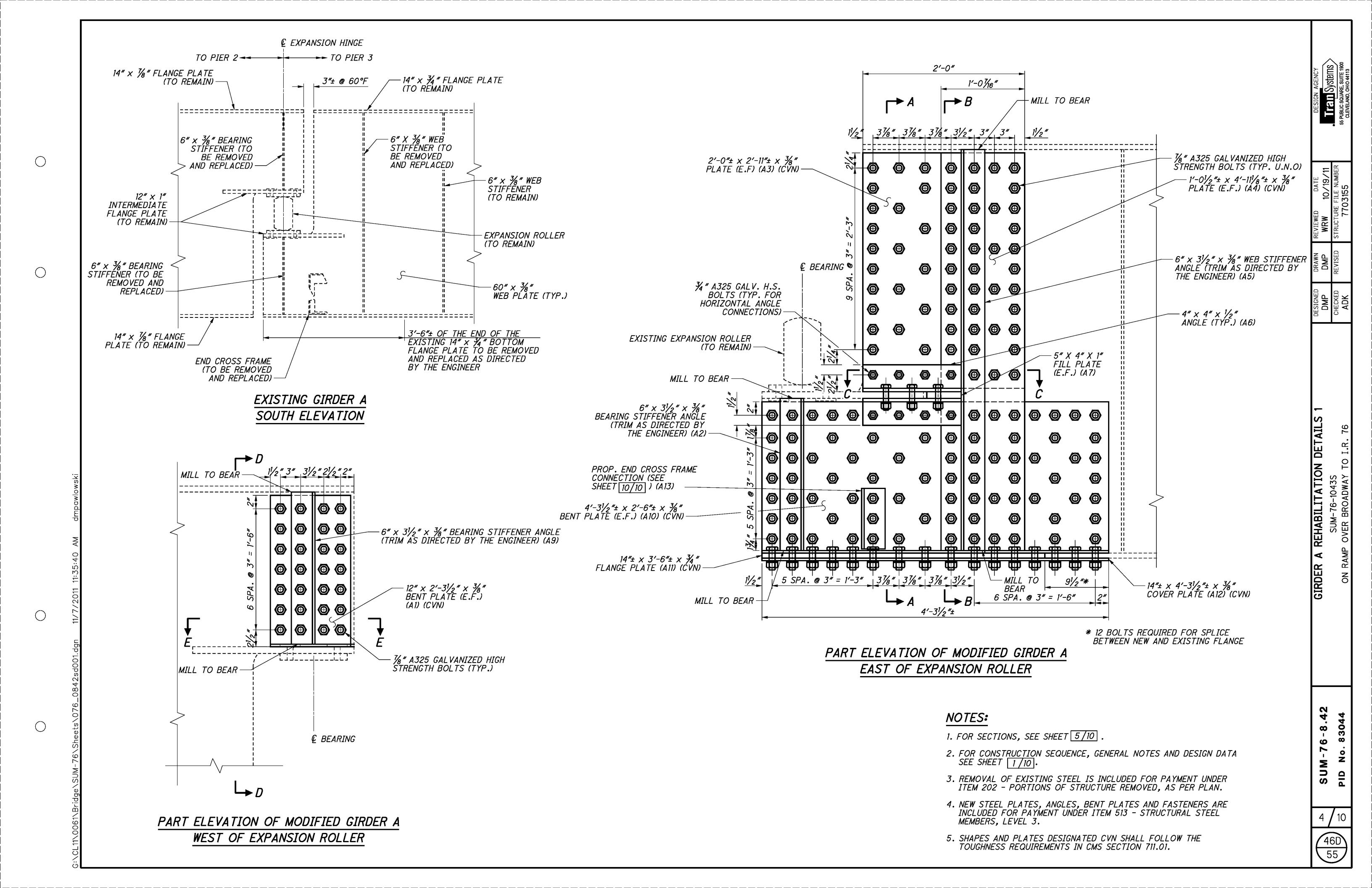
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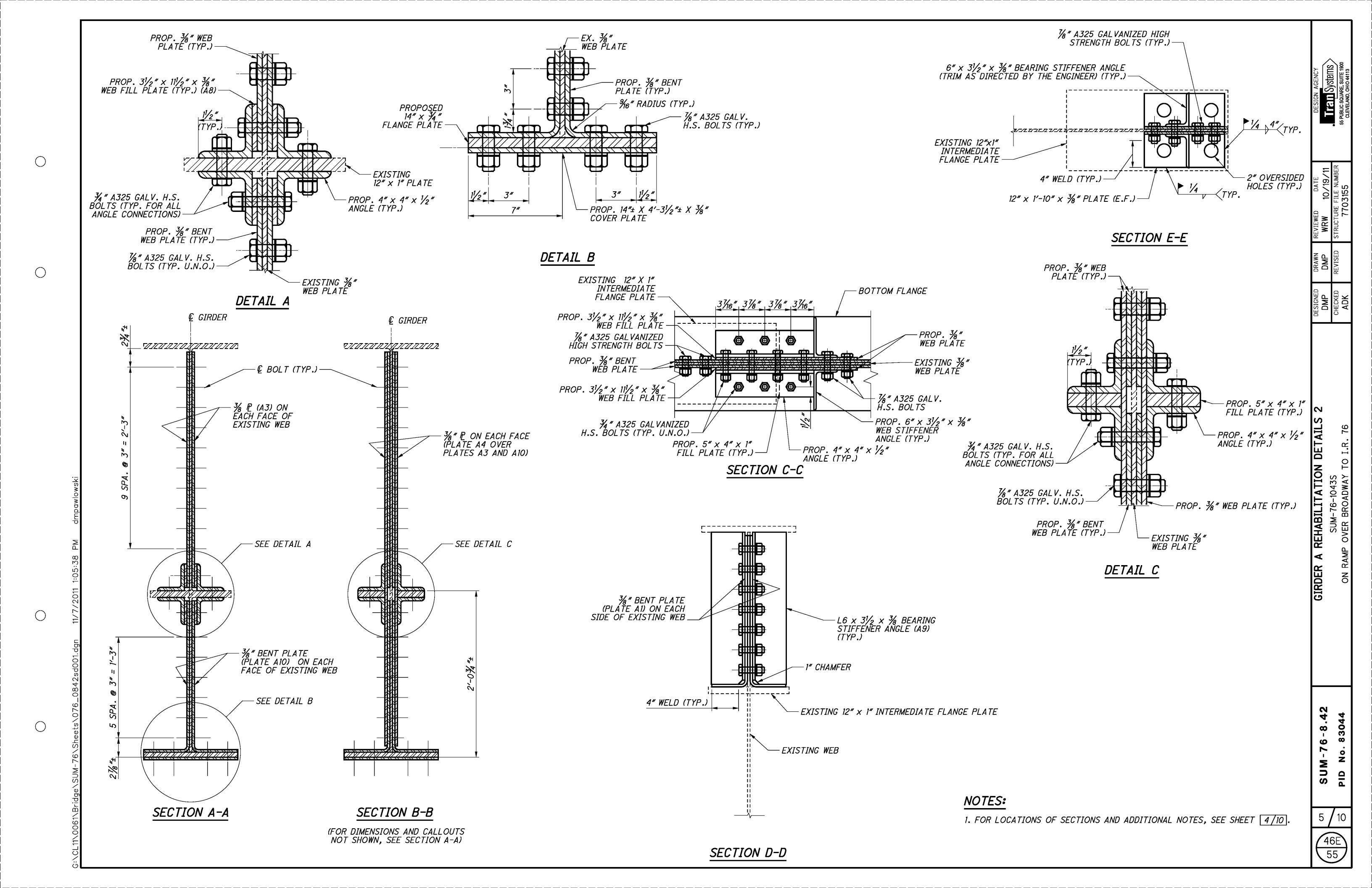
SUM-76-8.42 PID

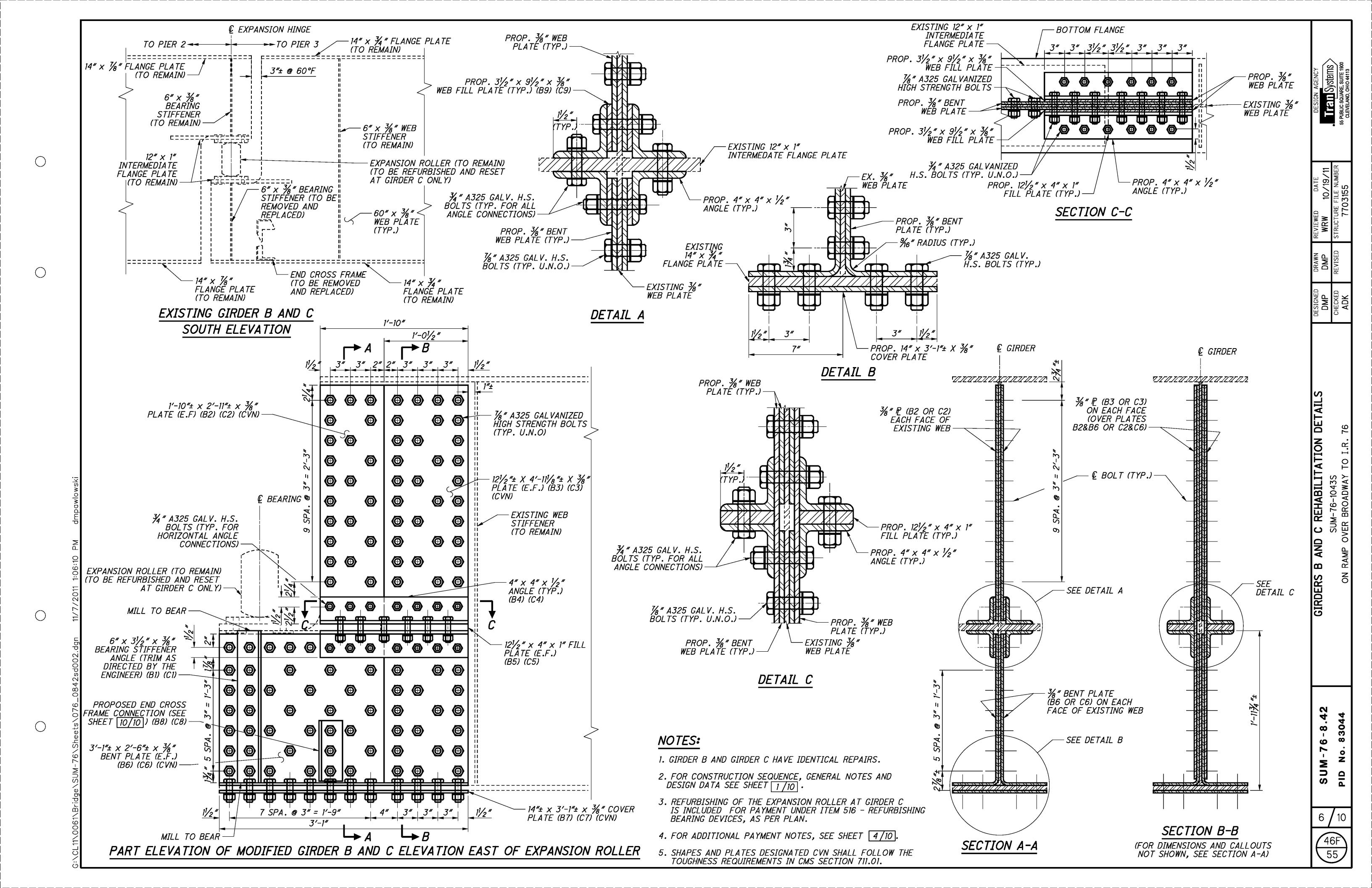
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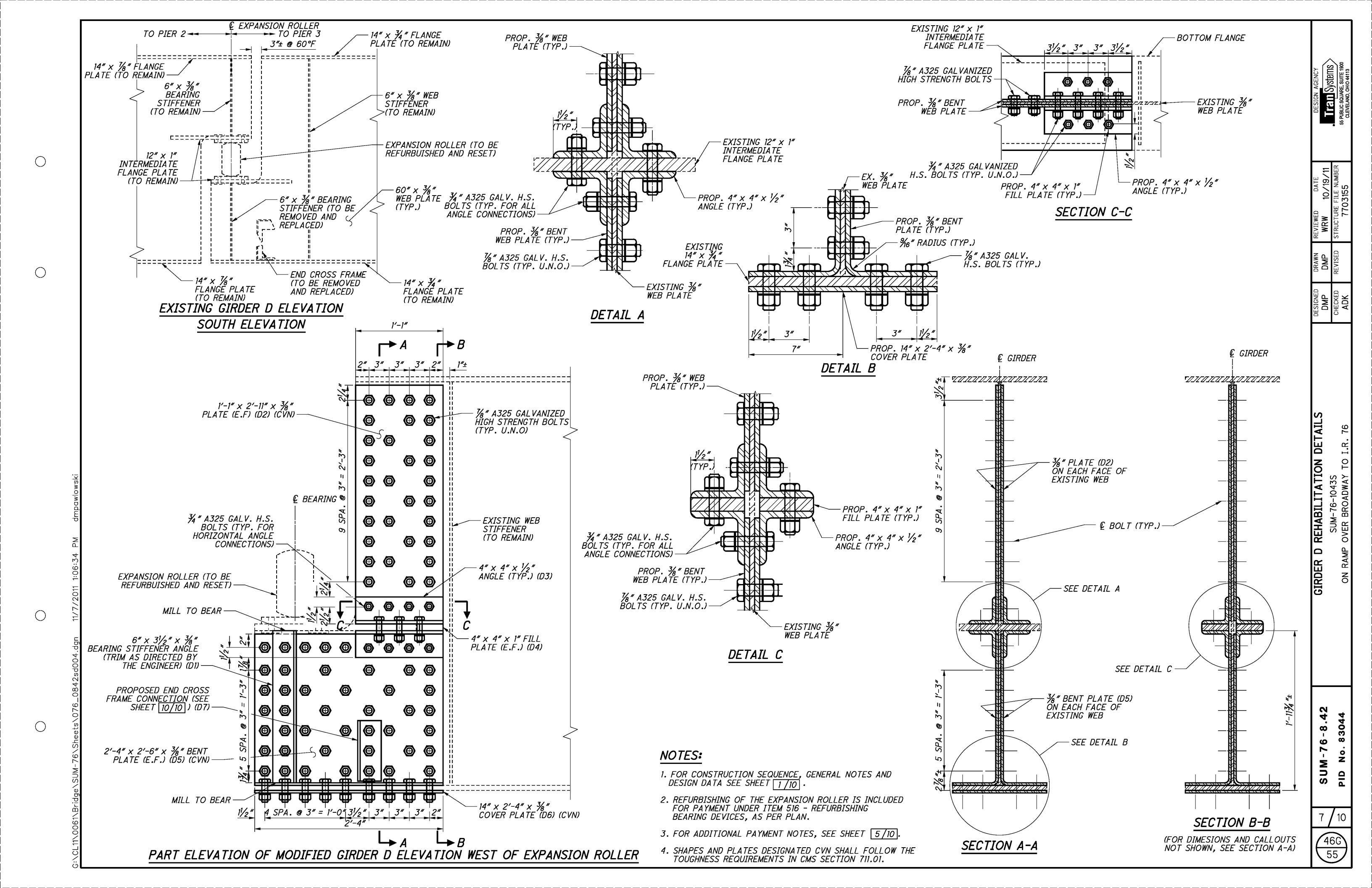
ESTIMATED QUANTITIES
SUM-76-1043S
N RAMP OVER BROADWAY TO I.R.

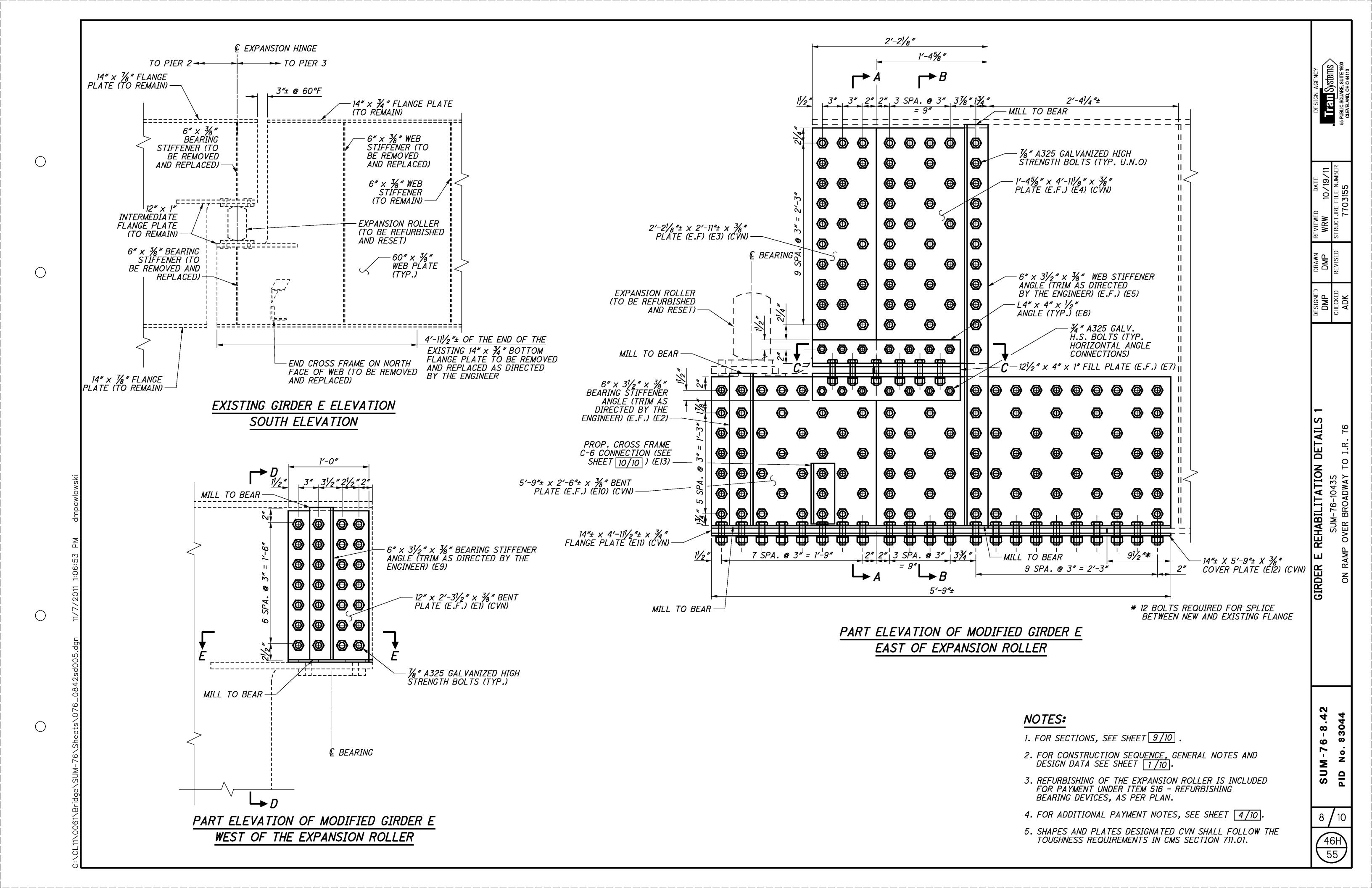


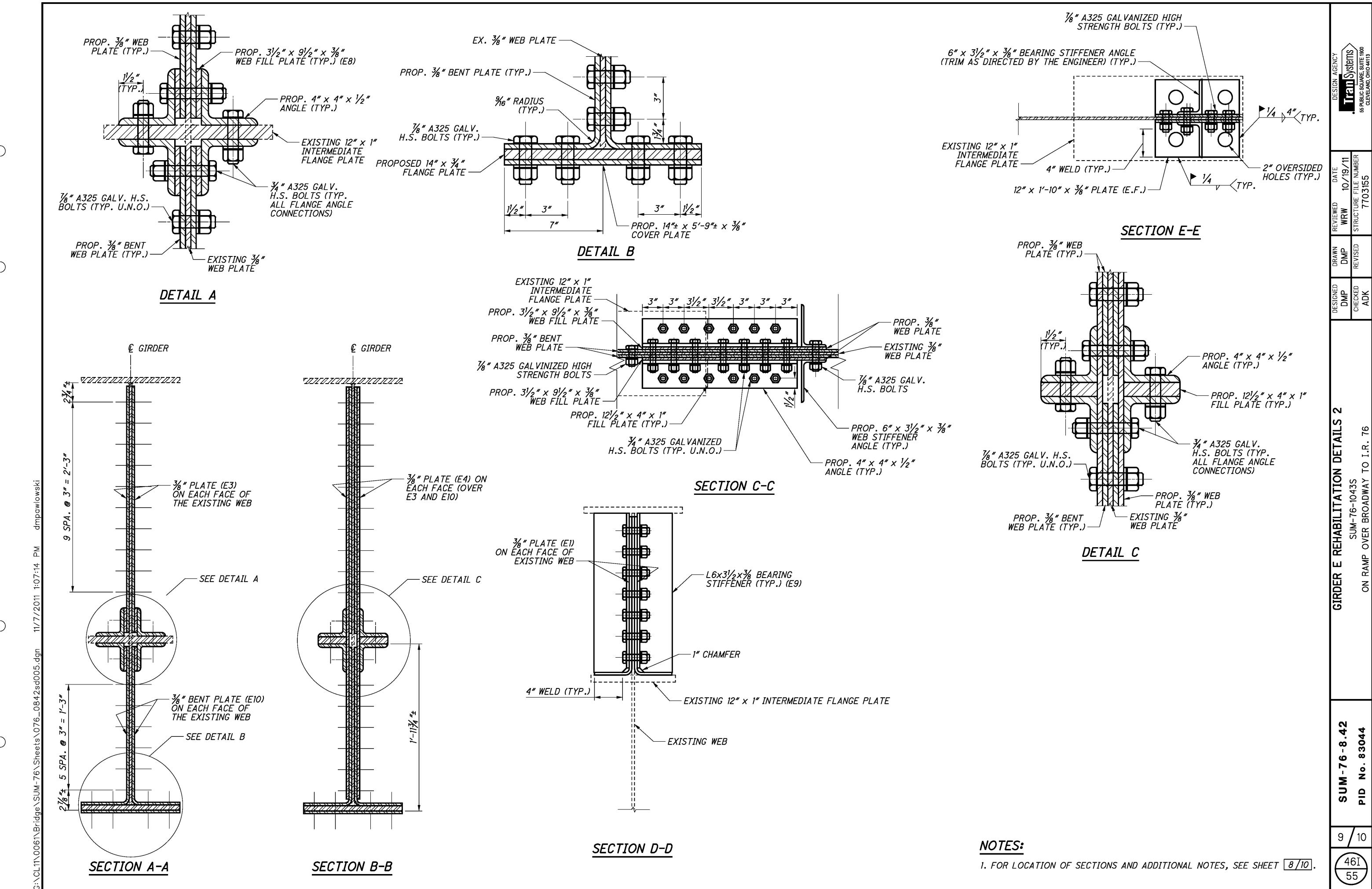




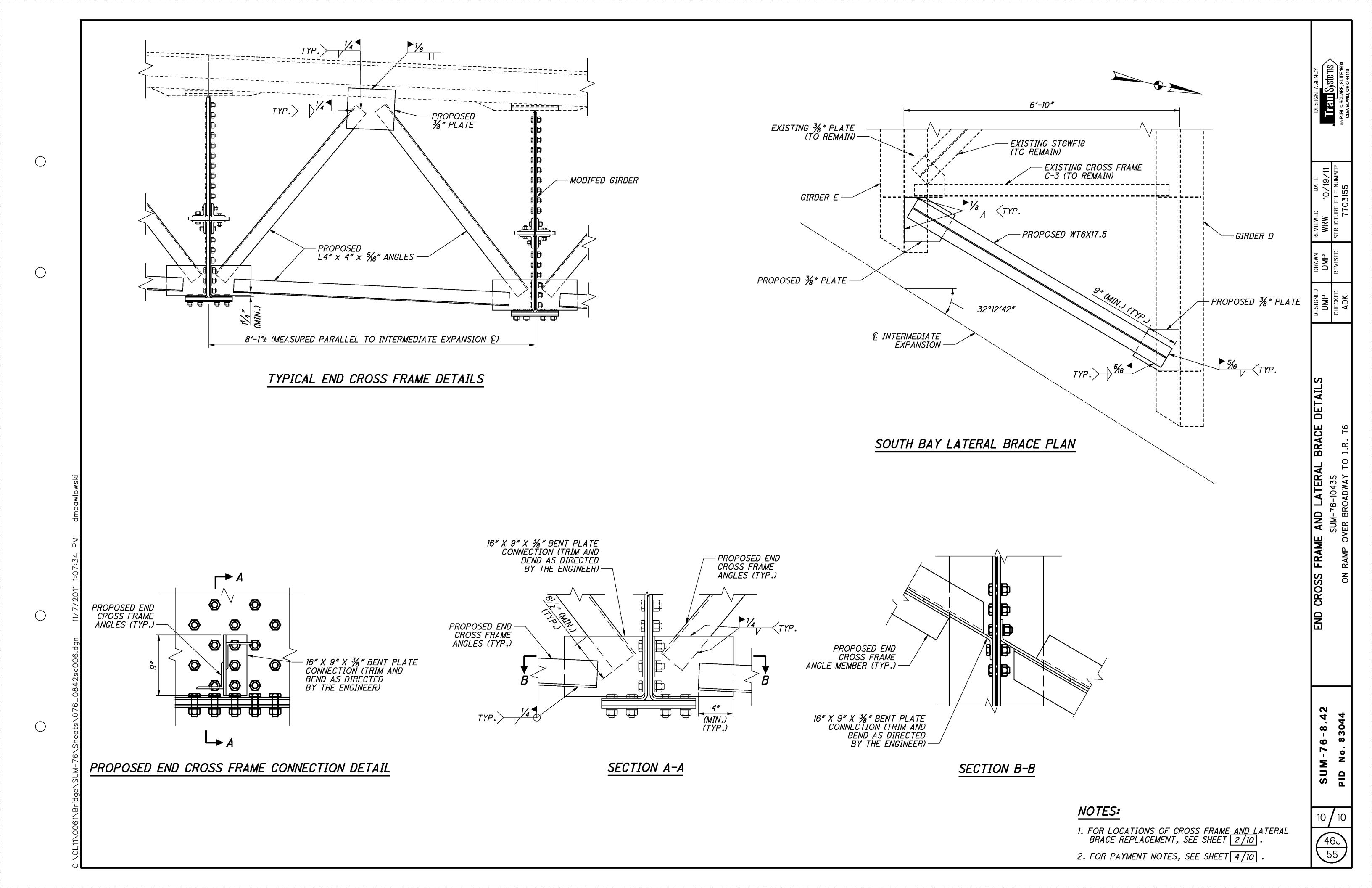








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DESIGN SPECIFICATIONS

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THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

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 CMS SECTIONS 102.05, 105.02 AND 513.04.

IN THE FIELD.

PROPOSED WORK

SUM-277-0089 (IR277 OVER ABANDONED RAILROAD) -PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK AND APPROACH SLABS

-SEAL PATCHED CONCRETE DECK AND APPROACH SLABS WITH SRS CONCRETE TREATMENT

-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN -REPAIR OUTSIDE PARAPETS

-REPAIR THE SLOPE PROTECTION AT THE FORWARD AND REAR ABUTMENTS WHERE THE FOOTER IS EXPOSED

-REPAIR EROSION AT THE FORWARD RIGHT CORNER ALONG THE APPROACH SLAB

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0113 (IR277 OVER WATERLOO RD)

-REMOVE ALL ASPHALT ON APPROACH SLABS

-PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK AND APPROACH SLABS

-PLACE AN ASPHALT CONCRETE OVERLAY WITH WATERPROOFING ON THE PATCHED CONCRETE DECK AND APPROACH SLABS

-PLACE A POLYMER MODIFIED ASPHLALT JOINT

-RAISE EXISTING SCUPPERS TO PROPOSED OVERLAY ELEVATION -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN -REPAIR OUTSIDE PARAPETS

-REMOVE ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE

-REPAIR THE CONCRETE SLOPE PROTECTION AT THE FORWARD LEFT AND REAR MIDDLE ABUTMENTS

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0133 (IR277 OVER SR93 MANCHESTER RD)

-REMOVE ALL ASPHALT ON APPROACH SLABS

-PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK AND

-PLACE AN ASPHALT CONCRETE OVERLAY WITH WATERPROOFING ON THE PATCHED CONCRETE DECK AND APPROACH SLABS -PLACE A POLYMER MODIFIED ASPHLALT JOINT

-RAISE EXISTING SCUPPERS TO PROPOSED OVERLAY ELEVATION -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN -REPAIR OUTSIDE PARAPETS

-REPAIR TOP OF BACKWALL AT THE FORWARD RIGHT ABUTMENT NEAR THE MEDIAN WALL

-REMOVE ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE

-TRIM END OF BEAMS AT THE FORWARD ABUTMENT -REFURBISH EXISTING FORWARD ABUTMENT BEARINGS

-REPAIR CONCRETE SLOPE PROTECTION AT THE FORWARD LEFT -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS,

MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0175 (IR277 OVER OHIO CANAL & LEY DR) -SEAL CONCRETE DECK AND APPROACH SLABS WITH SRS

-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN -REPAIR OUTSIDE PARAPETS

CONCRETE TREATMENT

-REFURBISH EXISTING ABUTMENT BEARINGS

-REPAIR SLOPE PROTECTION AT THE REAR MIDDLE ABUTMENT -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS.

MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR

SEALING OPERATIONS -NEW STRUCTURE IDENDIFICATION SIGNS SUM-277-0227 (IR277 OVER BREWSTER RUN)

-PATCH ALL UNSOUND AREAS ON THE INSIDE OF THE CULVERTS

-REPAIR THE SCOUR AT THE INLET END

-PIPE CLEANOUT

-CHANNEL CLEANOUT 20' OUT FROM THE INLET AND OUTLET -REPAIR EROSION BEHIND THE INLET HEADWALL

-CLEARING AND GRUBBING 20' AROUND THE INLET AND OUTLET

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0246 (SOUTH MAIN ST OVER IR277)

-SEAL CONCRETE DECK AND APPROACH SLABS WITH SRS CONCRETE TREATMENT

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE

-CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0304 (IR277 OVER GLENMOUNT AVE)

-PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK AND APPROACH SLARS

-PLACE AN ASPHALT CONCRETE OVERLAY WITH WATERPROOFING ON THE PATCHED CONCRETE DECK AND APPROACH SLABS

-PLACE A POLYMER MODIFIED ASPHLALT JOINT

-RAISE EXISTING SCUPPERS TO PROPOSED OVERLAY ELEVATION -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN -REPAIR OUTSIDE PARAPETS

-REMOVE ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0367 (IR277 OVER BRANCH BREWSTER RUN)

-CHANNEL CLEANOUT 15' OUT FROM THE INLET AND OUTLET END -REPAIR EROSION ALONG THE OUTSIDE OF THE CONCRETE GUTTER AT THE REAR RIGHT CORNER OF CULVERT

-CLEARING AND GRUBBING 15' AROUND THE INLET AND OUTLET -NEW STRUCTURE IDENDIFICATION SIGNS

SUM-277-0369 (IR277 OVER IR77)

-PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK AND APPROACH SLABS

-PLACE AN ASPHALT CONCRETE OVERLAY WITH WATERPROOFING ON THE PATCHED CONCRETE DECK AND APPROACH SLABS

-PLACE A POLYMER MODIFIED ASPHLALT JOINT -RAISE EXISTING SCUPPERS TO PROPOSED OVERLAY ELEVATION

-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN -REPAIR OUTSIDE PARAPETS

-REMOVE ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE

-TRIM END OF BEAMS AT THE REAR ABUTMENT

-REPAIR PAINT EXISTING OZEU PAINT SYSTEM -REFURBISH EXISTING ABUTMENT BEARINGS

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE

-CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-224-1061 (US224 OVER SOUTH ARLINGTON ST)

-REMOVE AND REPLACE THE EXISTING CONCRETE OVERLAY ON THE DECK

-REMOVE EXISTING ASPHALT CONCRETE OVERLAY AND PLACE A CONCRETE OVERLAY ON THE APPROACH SLABS

-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND MEDIAN

-REPAIR OUTSIDE PARAPETS -REMOVE ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR

AND SEAL WITH EPOXY-URETHANE -REPAIR CONCRETE SLOPE PROTECTION AT THE FORWARD MIDDLE

AND REAR MIDDLE -REPAIR EROSION AT THE FORWARD AND REAR RIGHT WINGWALLS WHERE THE FOOTER IS EXPOSED

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, MEDIAN, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-224-1105 (KELLY AVE OVER US224)

-SEAL CONCRETE DECK AND APPROACH SLABS WITH SRS CONCRETE TREATMENT

-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND **PARAPETS**

-REPLACE EXISTING EXPANSION JOINT SEALS

-REFURBISH EXISTING FORWARD ABUTMENT BEARINGS

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE

-CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-77-0927R (IR77 SB OFF RAMP TO US224 EB)

-PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK, TOP OF BACKWALLS, AND APPROACH SLABS

-PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE -REPAIR OUTSIDE PARAPETS

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, AND PIERS WITH EPOXY-URETHANE

-CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR SEALING OPERATIONS

-NEW STRUCTURE IDENDIFICATION SIGNS

SUM-77-0958L (IR77 NB OFF RAMP TO IR277 WB) -PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK

-REPAIR DAMAGED EXPANSION JOINT AT REAR ABUTMENT -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE

-REPAIR OUTSIDE PARAPETS

-REMOVE ALL SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE

ABUTMENTS, AND PIERS WITH EPOXY-URETHANE

SEALING OPERATIONS

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

-SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, SUM 367 -CLEARING AND GRUBBING 10' AROUND THE STRUCTURE FOR -NEW STRUCTURE IDENDIFICATION SIGNS ဟ

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GENERAL

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

EXJ-4-87 DATED/REVISED 7-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

4-18-03 843 DATFD

DATED 4-15-11

EXISTING STRUCTURE VERIFICATION

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAM-INATION OF THE EXISTING STRUCTURE. HOWEVER, THE DE-PARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED

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CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

ITEM 202, REMOVAL MISC .: CHANNEL CLEANOUT

THIS WORK SHALL CONSIST OF RE-ESTABLISHING THE ORIGINAL CHANNEL PROFILE BY REMOVING SEDIMENT BUILDUP, VEGETATION, AND DEBRIS FROM THE EXISTING CHANNEL WITHIN STATE RIGHT-OF-WAY LIMITS AS SPECIFIED IN THE PLANS FOR STRUCTURES SUM-277-0227 AND SUM-277-0367. ANY TREES LOCATED WITHIN CHANNEL OR BANK LIMITS SHALL BE INCLUDED UNDER ITEM 201, CLEARING AND GRUBBING. ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17 OF THE CMS WITH THE APPROVAL OF THE ENGINEER. NO AREAS OF EXISTING CHANNEL PROTECTION SHALL BE REMOVED IN ORDER TO RESTORE THE ORIGINAL CHANNEL PROFILE. AFFECTED CHANNEL AREAS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CHANNEL CLEANOUT SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202 REMOVAL MISC .: CHANNEL CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR LABOR, EQUIPEMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CHANNEL CLEANOUT.

ITEM 203, BORROW

THIS WORK WILL CONSIST OF REPAIRING THE EROSION ALONG THE FORWARD RIGHT APPROACH SLAB OF STRUCTURE SUM-277-0089. EROSION REPAIR WILL BE PAID FOR AT THE CU YD BID FOR ITEM 203, BORROW. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTIALS REQUIRED TO COMPLETE THIS WORK.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

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 RE-MOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

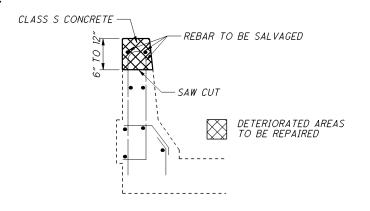
ITEM 512, TYPE 3 WATERPROOFING, AS PER PLAN

APPLY THE PRIMER COAT AT A RATE OF 0.10 TO 0.20 GALLONS (0.50 TO 0.70 LITERS) OF ASPHALT MATERIAL PER SQUARE YARDS (SQUARE METERS), OR AS PER THE MANUFACTURER'S WRITTEN SPECIFICATIONS.

ITEM 511 - CONCRETE MISC .: PARAPET REPAIR

THIS ITEM WILL BE USED TO REPAIR DAMAGED PARAPETS OF STRUCTURES SUM-277-0089, SUM-277-0113, SUM-277-0133, SUM-277-0175, SUM-277-0304, SUM-277-0369, SUM-224-1061, SUM-77-0927R, AND SUM-77-0958L.

SAWCUT AND REMOVE DAMAGED/SPALLED AREAS OF THE EXISTING PARAPETS TO A MINIMUM DEPTH OF 6" AND A MAXIMUM DEPTH OF 12" OR AS DIRECTED BY THE ENGINEER. CARE SHALL BE TAKEN WHEN REMOVING SPALLED CONCRETE TO SALVAGE EXISTING REBAR. CLASS S CONCRETE WILL BE USED TO REPAIR THE DAMAGED PARAPETS. THE REMOVAL OF CONCRETE, PREPARATION OF THE SURFACES, FORMS, AND CLASS S CONCRETE WILL BE INCIDENTAL TO THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER FOOT FOR ITEM 511, CONCRETE MISC .: PARAPET REPAIR.

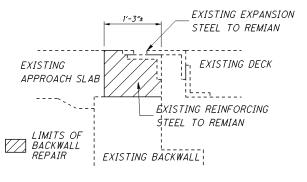


ITEM 511, CONCRETE MISC .: BACKWALL REPAIR

THIS ITEM CONSISTS OF THE REMOVAL OF ALL UNSOUND CONCRETE AT OF THE BACKWALLS OF STRUCTURE SUM-277-0133 TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER, THE PREPARATION OF THE SURFACE, FORMS, TEMPORARY SUPPORTS OF THE EXPANSION JOINT, AND PROVIDING AND PLACING OF CLASS S CONCRETE.

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

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 ITEM COMPLETE.



ITEM 513, STRUCTURAL STEEL MISC .: REPLACEMENT OF PORTION OF DAMAGED RISER BAR

AFTER EXISTING AREA OF CONCRETE DECK PATCH AREA HAS BEEN REMOVED AND PRIOR TO CONCRETE PATCH MATERIAL PLACEMENT OF STRUCTURE SUM-77-0958L, INSPECT THE RISER BAR AT THE REAR ABUTMENT FOR DAMAGED AREAS. REMOVE DAMAGED RISER BAR AND PREPARE THE EXISTING STEEL FOR WELDING A NEW STEEL RISER BAR. PERFORM A 5/6 INCH FILLET WELDS ACCORDING TO .THE ITEM 513 USING APPROVED ELECTRODES, PROCEDURES, AND WELDERS TO ATTACH THE NEW STEEL BAR. THE NEW RISER BAR WILL BE FIELD VERIFIED FOR SIZE PRIOR TO ORDERING ANY MATERIAL. THE DEPARTMENT WILL INCLUDE ALL MATERIALS, LABOR, AND ALL INCIDENTALS EXCEPT PATCHING OPERATIONS NECESSARY TO COMPLETE THE ABOVE WORK FOR PAYMENT WITH ITEM 513 - STRUCTURAL STEEL MISC.: REPLACEMENT OF PORTION OF DAMAGED RISER BAR.

ITEM 514 - FIELD PAINTING, MISC.; REPAIR PAINTING

PAINTED AREAS THAT ARE DAMAGED OR RUSTED WILL BE DESIGNATED BY THE PROJECT ENGINEER. THE CMS 514.22 PROCESS WILL BE USED TO REPAIR THESE AREAS.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL NECESSARY EQUIPMENT TO INSPECT THIS WORK.

THE MAJORITY OF THE AREAS TO BE REPAIR PAINTED ARE: SUM-277-0369: OVER TRAFFIC ON IR77

AREAS TO BE REPAIR PAINTED ARE NOT LIMITED TO THESE AREAS. THE AREAS DESIGNATED BY THE PROJECT ENGINEER WILL BE PAINTED.

ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN

THIS ITEM WILL INCLUDE THE REMOVAL AND REPLACEMENT OF THE EXISTING STRIP SEAL GLANDS FROM EDGE TO EDGE OF STRUCTURE SUM-224-1105 DECK. UPON REMOVAL OF THE SEAL, THE CONTRACTOR WILL ATTEMPT TO MATCH THE REPLACEMENT SEAL AS CLOSELY AS POSSIBLE WITH THE EXISTING SEAL SO AS TO PROVIDE A SNUG, WATERTIGHT SEAL. THE EXISTING STRIP SEAL WILL BE FIELD MEASURE PRIOR TO ORDERING MATERIAL. THE STRIP SEAL AND INSTALLATION WILL MEET THE REQUIREMENTS OF STANDARD DRAWING EXJ-4-87.

THIS WORK WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 516, ELASTOMERIC STRIP SEAL WITH STEEL EXTRUSION, AS PER PLAN. THIS PRICE WILL INCLUDE THE REMOVAL OF THE EXISTING STRIP SEAL, LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS REQUIRED TO REPLACE THE STRIP SEAL.

REQUIRED JOINT OPENING (DIM. "A") - 3" STRIP SEAL

REAR ABUTMENT	FORWARD ABUTMENT
(DIM. "A")	(DIM. "A")
1.82"	1.77"
1.75″	1.72"
1.68″	1.67"
1.61″	1.62"
1.54"	1.57"
1.47"	1.52"
1.40"	1.47"
	(DIM. "A") 1.82" 1.75" 1.68" 1.61" 1.54"

ITEM 516 - REFURBISHING BEARING DEVICES, 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 (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 F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEAR-ING 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 SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DE-SCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CON-TRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES, AS PER PLAN.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPER-STRUCTURE, 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 CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CON-CRETE 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 SATIS-FACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUB-MIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CON-TACT 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

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516. JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURES. AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

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CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE LUMP SUM BID FOR SPECIAL - STRUCTURE MISC .: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

CONCRETE SLOPE PROTECTION REPAIR

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THIS WORK WILL CONSIST OF REMOVING AND REPLACING SLABS OF THE CONCRETE SLOPE PROTECTION UNDER STRUCTURES SUM-277-0113, SUM-277-0133, AND SUM-224-1061 WITH ITEM 613, LOW STRENGTH MORTAR BACKFILL AND ITEM 601, CONCRETE SLOPE PROTECTION.

PLACE THE LOW STRENGTH MORTAR BACKFILL TO FILL ALL EROSION UNDER THE OLD CONCRETE SLOPE PROTECTION AND THEN PLACE NEW CONCRETE SLOPE PROTECTION SLABS PER CMS 601.07 AS DIRECTED BY THE PROJECT ENGINEER. REMOVAL OF EXISTING CONCRETE SLOPE PROTECTION SLABS AND MATERIAL WILL BE INCIDENTIAL TO ITEM 601, CONCRETE SLOPE PROTECTION.

CONCRETE SLOPE PROTECTION REPLACEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 601, CONCRETE SLOPE PROTECTION AND ITEM 613, LOW STRENGTH MORTAR BACKFILL. REMOVAL OF EXISTING CONCRETE SLOPE PROTECTION WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202, CONCRETE SLOPE PROTECTION REMOVED. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 601, DUMP ROCK FILL, TYPE D

THIS WORK WILL CONSIST OF REPAIRING THE SLOPE PROTECTION AT THE FORWARD AND REAR ABUTMENT WHERE THE FOOTER IS EXPOSED OF STRUCTURE SUM-277-0089.

THIS WORK WILL CONSIST OF REPAIRING THE SLOPE PROTECTION IN THE MIDDLE OF THE REAR ABUTMENT SLOPE OF STRUCTURE SUM-277-0175.

THIS WORK WILL CONSIST OF REPAIRING THE EROSION BEHIND THE INLET HEADWALL OF STRUCTURE SUM-277-0227.

THIS WORK WILL CONSIST OF REPAIRING THE EROSION BEHIND THE CONCRETE GUTTER AT THE REAR RIGHT CORNER OF STRUCTURE SUM-277-0367.

ALL REPAIRS WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 601, DUMP ROCK FILL, TYPE D. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTIALS REQUIRED TO COMPLETE THIS WORK.

ITEM 601, ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER

THIS WORK WILL CONSIST OF REPAIRING THE SCOUR THAT HAS FORMED AT THE INLET OF STRUCTURE SUM-277-0227. SCOUR REPAIR WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 601, ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTIALS REQUIRED TO COMPLETE THIS WORK

ITEM 601, DUMP ROCK FILL, TYPE C

THIS WORK WILL CONSIST OF REPAIRING THE EROSION BEHIND THE FORWARD RIGHT AND REAR RIGHT WINGWALLS WHERE THE FOOTERS ARE EXPOSED OF STRUCTURE SUM-224-1061.

REPAIRS WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 601, DUMP ROCK FILL, TYPE C. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTIALS REQUIRED TO COMPLETE THIS WORK.

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE SUM-277-0089 (SFN:7709579) THE EXISTING SIGN SHOWS SUM-77-0927R (I APPROACH ABOVE ON IR77 RAMP) 0.92. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0089.

STRUCTURE SUM-277-0113 (SFN:7709609) THE EXISTING SIGN SHOWS 1.15. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0113.

STRUCTURE SUM-277-0133 (SFN:7709633) THE EXISTING SIGN SHOWS 1.34. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0133.

STRUCTURE SUM-277-0227 (SFN:7709714) THE EXISTING SIGN SHOWS 2.32. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0227.

STRUCTURE SUM-277-0246 (SFN:7709730) THE EXISTING SIGN SHOWS 2.47. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0246.

STRUCTURE SUM-277-0304 (SFN:7709757) THE EXISTING SIGN SHOWS 3.05. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0304.

STRUCTURE SUM-277-0369 (SFN:7709811) THE EXISTING SIGN SHOWS SUM-277-3.74 ABOVE ALONG IR277. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS SUM-277-0369. THE EXISTING SIGN SHOWS SUM-77-9.43 BELOW ALONG IR77. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS SUM-77-0942.

STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES: SUM-277-0089 (2 APPROACHES), SUM-277-0113 (2 APPROACHES), SUM-277-0133 (2 APPROACHES), SUM-277-0175 (2 APPROACHES), SUM-277-0227 (2 APPROACHES), SUM-277-0246 (2 APPROACHES), SUM-277-0304 (2 APPROACHES), SUM-277-0367 (2 APPROACHES), SUM-224-1061 (2 APPROACHES), & SUM-224-1105 (2 APPROACHES)

THE FOLLOWING OUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT

ITEM 630 - GROUND MOUNTED SUPPORT. NO. 2 POST. 7.5 FT ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL.

1 EACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

OBJECT MARKERS AND STRUCTURE IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES: SUM-277-0369 (2 APPROACHES ABOVE ALONG IR277) SUM-77-0942 (2 APPROACHES BELOW ALONG IR77: ID SIGNS ONLY)

SUM-77-0927 (1 APPROACH BELOW ALONG IR77 NB: ID SIGN ONLY)

SUM-77-0958L (1 APPROACH ABOVE ON IR77 RAMP) SUM-77-0958 (1 APPROACH BELOW ALONG IR77 SB: ID SIGN ONLY)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT

ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 3 FACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 EACH

ITEM 847 - MICRO-SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN

ITEM 847 - MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN ITEM 847 - FULL DEPTH REPAIR, AS PER PLAN

ITEM 847 - WEARING COURSE REMOVED, ASPHALT, AS PER PLAN ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING SCARIFICATION AND CHIPPING" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED, AND PROPOSED OVERLAY SHALL BE AS SPECIFIED IN THE PLANS. CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 847.11) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

CONCRETE TABLE QUANTITIES PER CUBIC YARD AGGREGATES (SSD)

AGG TYPE	FINE AGG (LB)	#8 COARSE AGG (LB)	AGG TOTAL (LB)	CEMENT CONTENT (LB)	MICRO SILICA (LB)	WATER TO CEMENT- ITIOUS RATIO	AIR CONTENT +/- 2%	FIBER (1 1/4" POLYPROPY LENE) (LB)
GRAVEL	1410	1430	2840	600	50	0.4	8	1
LIME- STONE	1410	1450	2860	600	50	0.4	8	1
SLAG	1300	1350	2650	600	50	0.4	8	1

^{*} ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62. LIMESTONE SAND 2.68. LIMESTONE 2.65. SLAG 2.30, MICRO-SILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED, FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C127

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

(SEE 847.18) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 847.19) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 847.25) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 847.25) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PST (4.2 Mpa).

(SEE 847.26) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 11:00 AM.

(SEE 847.27) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

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FORM AND SHALL BE 1 1/2" IN LENGTH

CALC: CHECKED: LMP TJP DATE: 5/9/2011 DATE: 7/13/2011

		IES	QUANTIT	IMATED	EST					UDE EL E	TOTOLIOT.	DOE NO	200				
SEI SHE	DESCRIPTION	UNIT	EXTENSION	ITEM	SUM-77-0958L SFN 7702671	SUM-77-0927R SFN 7702647	SUM-224-1105 SFN 7707797	SUM-224-1061 SFN 7707789	SUM-277-0369 SFN 7709811	SEN 7709781	SUM-277-0304 L1S	SUM-277-0246 BB SEN 7709730 Z	SUM-277-0227 SFN 7709714	SUM-277-0175 SFN 7709692	SUM-277-0133 SFN 7709633	SUM-277-0113 SFN 7709609	SUM-277-0089 SFN 7709579
	CLEARING AND GRUBBING		11000	201	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP
	WEARING COURSE REMOVED	SQ YD	23500	202				188	558		573				577	579	
	CONCRETE SLOPE PROTECTION REMOVED	SQ YD	32800	202				30							30	40	
2/9	PIPE CLEANOUT	FT	20270100	SPEC									428				
2/9	REMOVAL MISC.: CHANNEL CLEANOUT	FT	98200	202						30			40				
	BORROW	CU YD	40000	203													8
	TACK COAT, TRACKLESS TACK, INTERMEDIATE COURSE	GALLON	20000	407				29	1022		290				463	470	0
	TACK COAT, TRACKLESS TACK, SURFACE COURSE	GALLON	20100	407				8	273		78				125	126	
	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (446)	CU YD	10050	442				8	284		81				129	131	
	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (446)	CU YD	10150	442				10	347		110				166	169	
2/9	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN CONCRETE, MISC.: BACKWALL REPAIR	POUND	20001	509 511	100	100		50	50		50			100	50	50	50
2/9	CONCRETE, MISC.: BACKWALL REPAIR CONCRETE, MISC.: PARAPET REPAIR	CU YD FT	71100 81100	511	300	300		40	50		45			400	1 50	50	80
2/3	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		10100	512	885	895	1169	1573	4625		942	1435		1777	1865	1940	2084
	TREATING OF CONCRETE BRIDGE DECK WITH SRS	SQYD	10400	512	665	000	1103	1373	7025		342	2320		2891	1000	13-10	2557
2/9	TYPE 3 WATERPROOFING, AS PER PLAN	SQ YD	33011	512					6257		1358				2507	2551	
	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	SQ YD	74000	512	835	895	1169	1523	4525		892	1435		1121	1765	1840	844
	TRIMMING OF BEAM END	EACH	21000	513					14						14		
2/9	STRUCTURAL STEEL, MISC.: REPLACEMENT OF PORTION OF DAMAGED RISER BAR	FT	95000	513	5				000								
2/9	FIELD PAINTING, MISC.: REPAIR PAINTING	SQ FT	27700	514					200								
2/9	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	FT	01301	516			90										
7/9	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM		51631300	SPEC					254		212				254	294	
2/9	REFURBISH BEARING DEVICE, AS PER PLAN	EACH	45305	516			7		28					29	14		
2/9	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN		47001	516			LUMP		LUMP					LUMP	LUMP		
8/9	SCUPPER, VERTICAL EXTENSION, AS PER PLAN	EACH	12701	518					50		32				20	20	
2/6	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE PATCHING CONCRETE STRUCTURE. AS PER PLAN		51910000	SPEC	10	10	150	175	137		39		200	150	62	63	52
2/9	PATCHING CONCRETE STRUCTURE, AS PER PLAIN PATCHING CONCRETE BRIDGE DECK - TYPE C	the second second	11101 51912304	519 SPEC	150	250	150	175	250 35		300		200	150	200	200	225
	TATOLING GOLONETE BRIBGE BEOK THEE	04.0	01012004	0, 20					- 55								
3/9	STRUCTURE, MISC.: CONCRETE SPALL REMOVAL		53000200	SPEC	LUMP			LUMP	LUMP		LUMP				LUMP	LUMP	
	CONCRETE SLOPE PROTECTION	SQ YD	21000	601				30							30	40	
	DUMPED ROCK FILL, TYPE C		27000	601				20									
	DUMPED ROCK FILL, TYPE D		28000	601						5			10	10			50
	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER	CU YD	32110	601									25				
	LOW STRENGTH MORTAR BACKFILL	CU YD	41200	613				1							1	1	
	GROUND MOUNTED SUPPORT, NO. 2 POST		02100	630	28.5	28.5	15	15	57	15	15	15	15	15	15	15	15
	SIGN, FLAT SHEET, 730.20	SQ FT	80100	630	2	2	2	2	4	2	2	2	2	2	2	2	2
	SIGN, FLAT SHEET		80100	630	6	6			12								
	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	EACH	84900	630	3	3		2	7	2	2	1	1	2	2	2	2
	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	EACH	86002	630		3		3		2		4	4			- ,	2
	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	and the second	50000	843	100	3 150	100	2 125	5 175		2 150		125	100	2 150	2 150	2 150
3/9	MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T = 3")		10001	847	100	,50	100	2123	17.5		130		,23	100	100	130	130
3/9	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	CUYD	20001	847				14									
	TEST SLAB		30000	847				LUMP									
	FULL DEPTH REPAIR, AS PER PLAN		30201	847				1									
3/9			00001	0.47	r and the state of		1.000	400	1	To 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				I			
3/9	WEARING COURSE REMOVED, ASPHALT, AS PER PLAN		30301	847													
	WEARING COURSE REMOVED, ASPHALT, AS PER PLAN EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T = 3") EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T = 1 1/2")		30301 30401 30401	847 847 847				1723 400									

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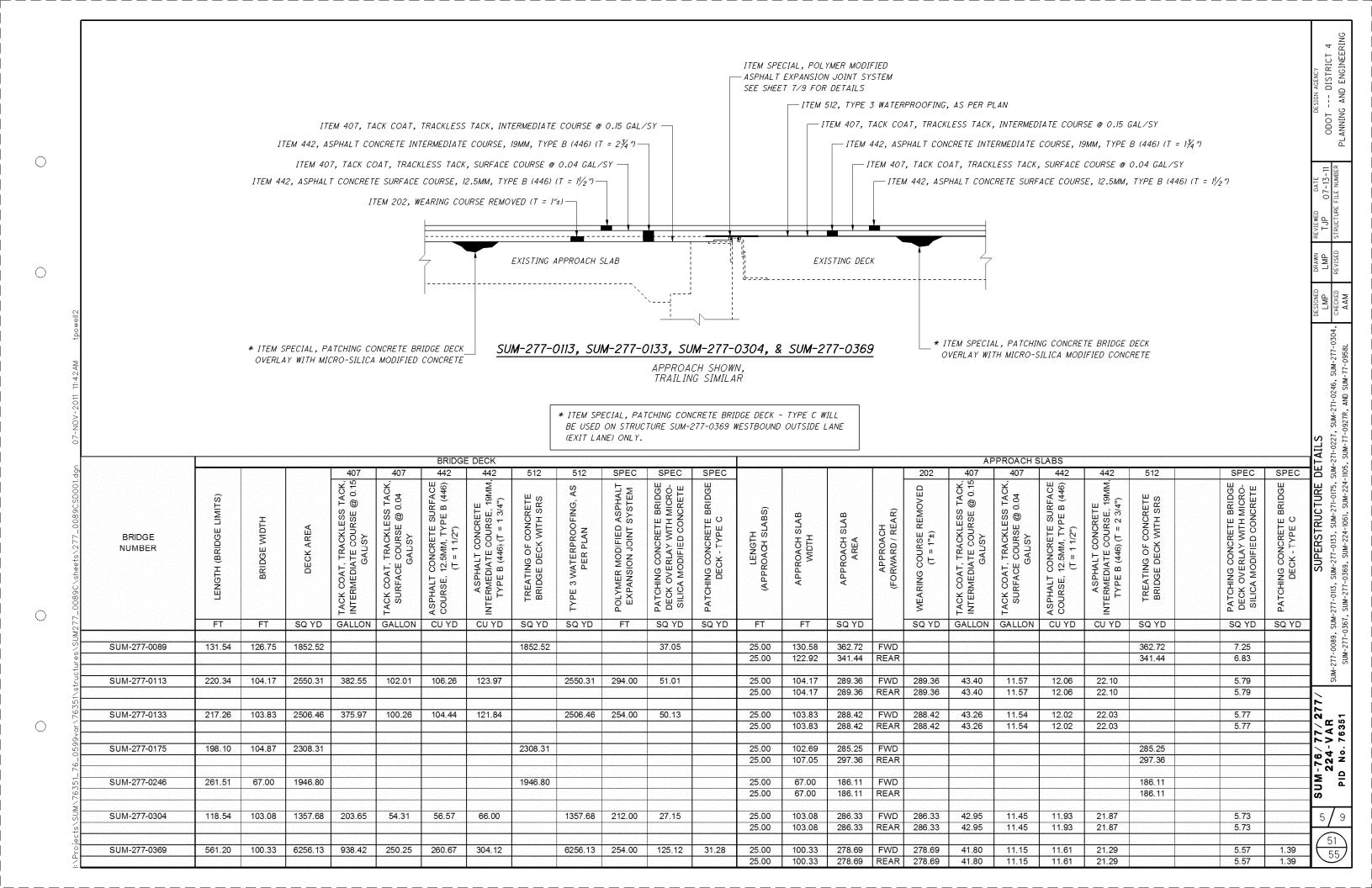
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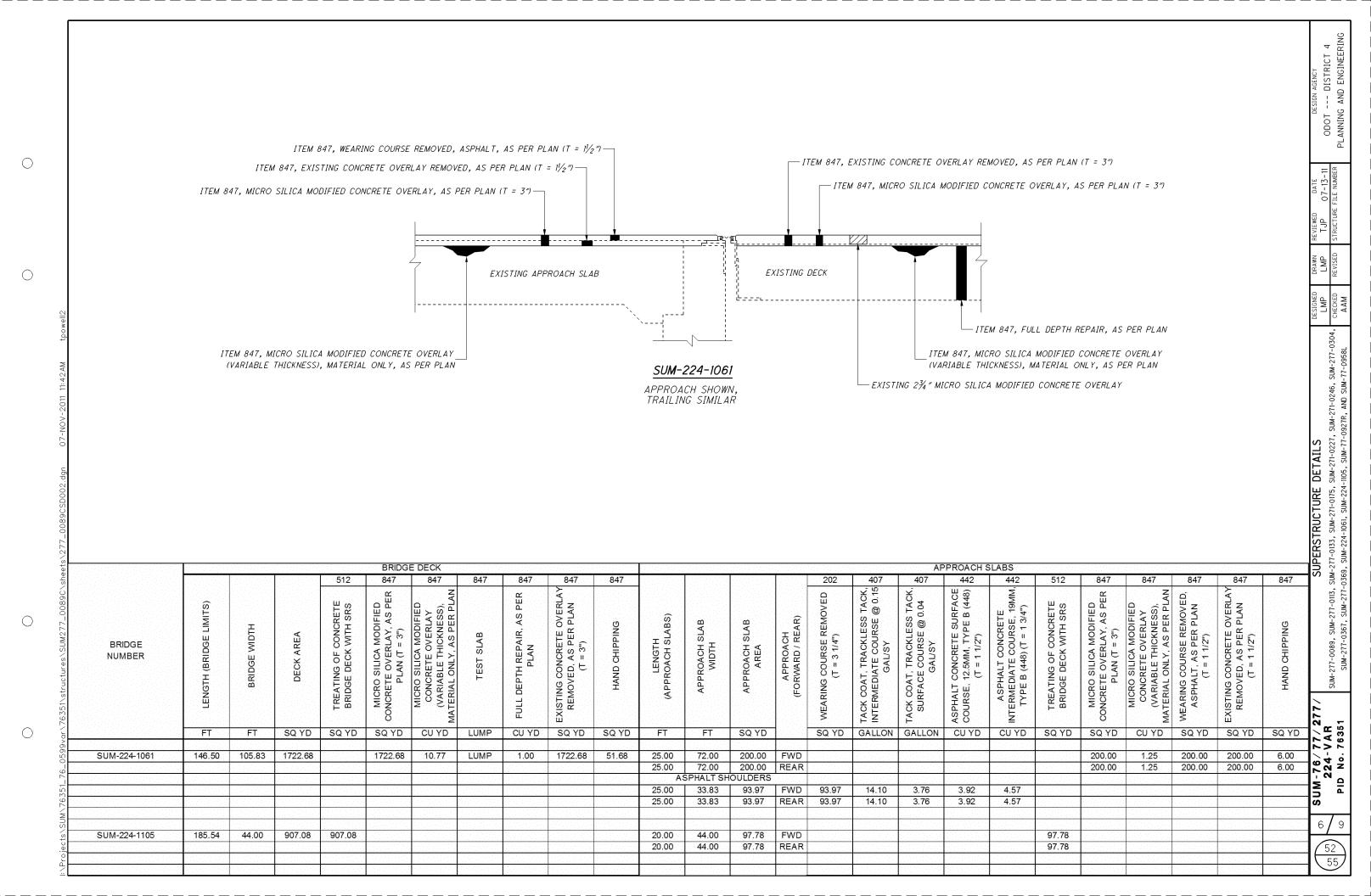
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DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

STRUCTURE ESTIMATED QUANTITIES
SUM-277-0089, SUM-277-0113, SUM-271-0133, SUM-271-0175, SUM-271-0227, SUM-271-0246, SUM-277-0304,
SUM-277-0367, SUM-277-0369, SUM-224-1061, SUM-224-1105, SUM-77-0927R, AND SUM-77-0958L

SUM-76/77/277/ 224-VAR PID No. 76351





ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PRODUCT NAME	SUPPLIER	<i>ADDRESS</i>	PHONE NO.
THORMA-JOINT	DYNAMIC SURFACE APPLICATIONS, LTD	373 VILLAGE RD. PENNSDALE, PA 17756	(570)546-6041
MATRIX 502	CRAFCO INC.	420 N. ROOSEVELT AVE. CHANDLER, AZ 85226	(800)528-8242
EXPANDEX JOINT SYSTEM	WATSON-BOWMAN ACME	95 PINEVIEW DR. AMHERST, NY 14228	(716)691-7566
APJ ASPHALTIC PLUG EXPANSION JOINT	WYOMING EQUIPMENT SALES	281 SIXTH STREET P.O. BOX 287 WEST WYOMING, PA 18644	(570)693-2810

MATERIALS:

BRIDGING PLATE:

MILD STEEL 1/8" OR 1/4" THICK PLATE, 8" WIDE OR 18 GAUGE ALUMINUM. 8" WIDE.

BINDER:

POLYMER MODIFIED ASPHALT 180 DEGREES F. MIN. SOFTENING POINT: FLOW: 3 mm. MAX. AT 140 DEGREES F. 9 mm. MAX. AT 77 DEGREES F. PENETRATION: 1 mm. MIN AT O DEGREES F. ASTM D 3407 DUCTILITY: 40 cm. MIN. ASTM D 113 60% MIN. AT 77 DEGREES F. RESILIENCE: TENSILE ADHESION: 700% MIN. SPECIFIC GRAVITY: 1.10 * 0.05 POURING TEMP: 350 - 390 DEGREES F.

AGGREGATE:

TYPE:

CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT

GRADATION:

THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING HOT BINDER INTO THE GAP. GAPS OF 1/8 " OR MORE WILL FIRST BE FILLED WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE INSTALLED SO THAT IT IS BETWEEN 1/8 " AND 11/8 " BELOW THE TOP OF THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOIN AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO ACCOMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE DRILLED AT I FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES. SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SETUP BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED, ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER. POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE A MINIMUM OF 1/32 "THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES FOR MORE THAN I HOUR. A DOUBLE JACKETED OIL MELTER WILL BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE. TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES
DIFFERENTLY, NOT LESS THAN 3/4 OF AN INCH NOR EXCEEDING 2-1/2 INCHES.
THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO
ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE
IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF
BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX

THE TOP LAYER THICKNESS WILL VARY BETWEEN ½ INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE. THE JOINT WILL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE I JOINT WILL

BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE

JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO

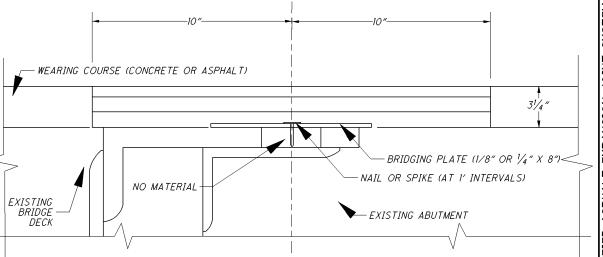
THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T OFFICE OF MATERIALS MANAGEMENT.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

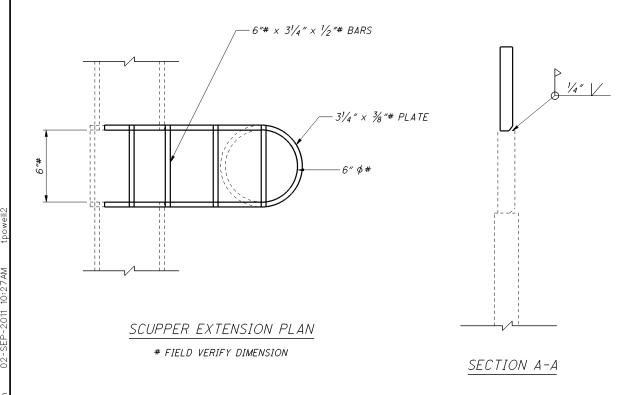
THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF FEET AND WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL, FEET, POLYMER MODIFIED ASPHALT EXPANSION JONT SYSTEM.

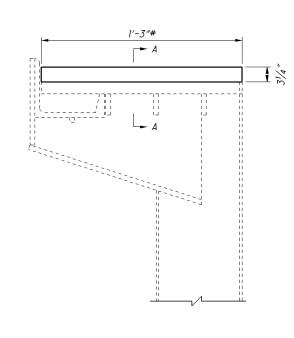


TYPICAL STEEL BEAM EXPANSION JOINT

UM-76/ 224-

SCUPPER VERTICAL EXTENSION DETAIL





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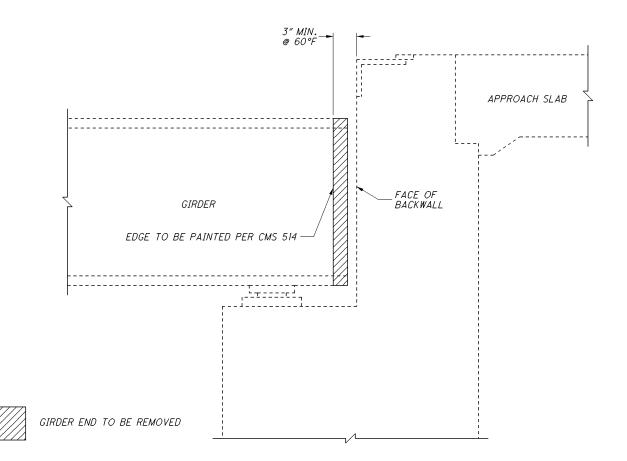
SCUPPER EXTENSION ELEVATION

FIELD VERIFY DIMENSION

NOTES:

- 1. EXISTING SCUPPERS FOR STRUCTURES SUM-277-0113, SUM-277-0133, SUM-277-0304, AND SUM-277-0369 WILL BE RAISED TO MEET THE PROPOSED ASPHALT CONCRETE OVERLAY ELEVATION.
- 2. FOR ADDITIONAL INFORMATION SEE STANDARD CONSTRUCTION DRAWING GSD-1-96.
- 3. ALL MATERIAL, LABOR, EQUIPMENT, AND ANY INCIDENTIAL REQUIRED TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 518, SCUPPER, VERTICAL EXTENSION, AS PER PLAN.

TRIMMING OF BEAM END DETAIL (SUM-277-0133 & SUM-277-0369)

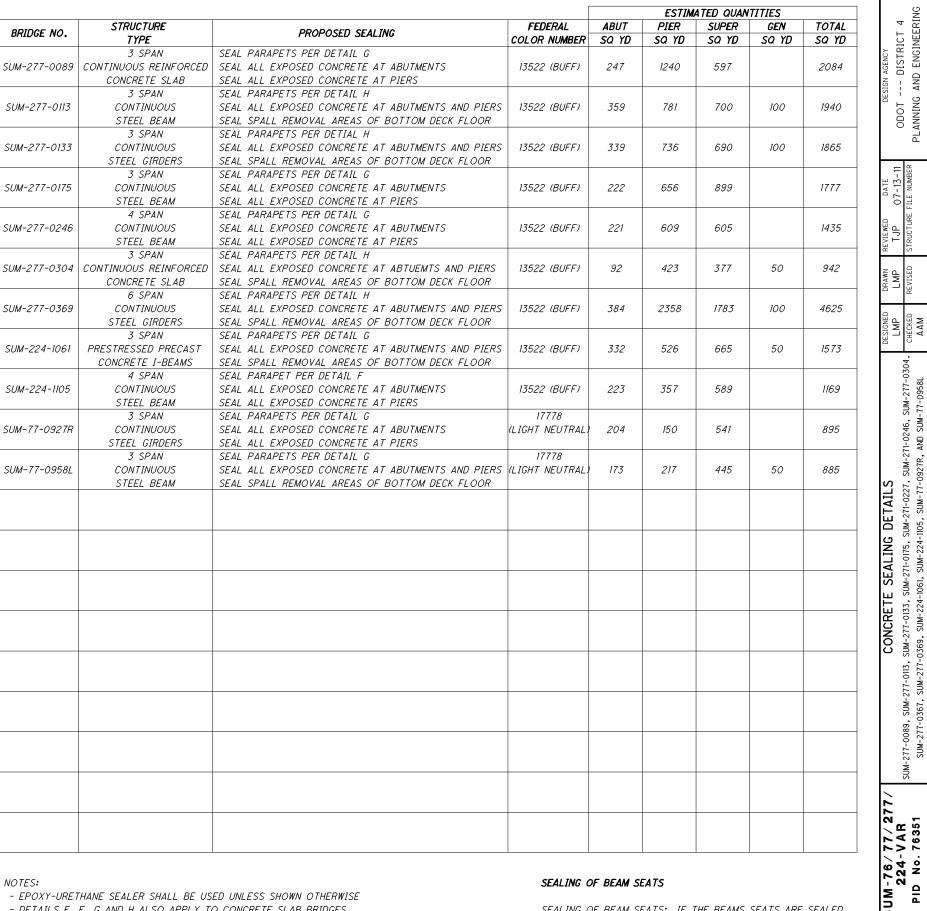


NOTES:

- 1. THE ENDS OF THE EXISTING GIRDERS AT THE FORWARD ABUTMENT OF STRUCTURE SUM-277-0133 AND THE EXISTING GIRDERS AT THE REAR ABUTMENT OF STRUCTURE SUM-277-0369 WILL BE TRIMMED ON A VERTICAL LINE AS REQUIRED TO OBTAIN A 3" MINIMUM CLEARANCE AT 60°F BETWEEN THE END OF THE GIRDER AND THE FACE OF THE BACKWALL.
- 2. ALL TRIMMING OF BEAM ENDS AND REFURBISHING OF BEARINGS OF STRUCTURE SUM-277-0133 SHALL BE PREFORMED AFTER BACKWALL REPAIRS AT THE FORWARD
- 3. ALL WORK LISTED AND SHOWN ABOVE INCLUDING THE PAINTING OF THE BEAM END TRIM AREA ACCORDING TO ITEM 514 WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 513, TRIMMING OF BEAM END. THIS PRICE WILL INCLUDE THE COST OF LABOR, MATERIALS, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE WITH WORK.



- ABUTMENT.



SEAL ENTIRE SURACE AREA	SEAL ENTIRE
0'-9"	0'-9"
<u>DETAIL A</u> CONCRETE DECKS WITH OVER THE SIDE DRAINAGE	<u>DETAIL B</u> CONCRETE DECKS WITH CURBS, SIDEWALKS AND PARAPET
SEAL ENTIRE SURFACE AREA 0'-9"	SEAL ENTIRE SURFACE AREA 0'-9"
<u>DETAIL C</u> CONCRETE DECK WITH DEFLECTOR PARAPET	<u>DETAIL D</u> PRESTRESSED BOX BEAM DECK WITH DEFLECTOR PARAPET
SEAL ENTIRESURACE AREA	SEAL ENTIRE SURACE AREA
DETAIL E CONCRETE DECKS WITH OVER THE SIDE DRAINAGE	DETAIL F CONCRETE DECKS WITH CURBS, SIDEWALKS AND PARAPET

SEAL ENTIRE

SURACE AREA

0'-6"

<u>DETAIL H</u> ASPHALT DECK WITH

DEFLECTOR PARAPET

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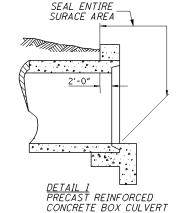
SEAL ENTIRE

SURACE AREA

0'-6"_

<u>DETAIL G</u> CONCRETE DECK WITH

DEFLECTOR PARAPET



- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE

- DETAILS E, F, G AND H ALSO APPLY TO CONCRETE SLAB BRIDGES

SEALING OF BEAM SEATS

SEALING OF BEAM SEATS: IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.

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