

170074 Conformed Set
Dist 8

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LOCATION MAP (SEE SCHEMATIC SHEETS FOR PROJECT LIMITS)

LATITUDE: 39°48'23" N LONGITUDE: 83°51'49" W

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

DESIGN DESIGNATION	SR-123	9.45-14.81	14.81-17.23	20.36-23.64	24.28-27.23	30.94-33.61
CURRENT ADT (2017)	3400	9100	6400	8300	10000	
DESIGN YEAR ADT (2029)	4300	11000	7300	9800	11000	
DESIGN HOURLY VOLUME (2029)	520	990	730	880	1100	
DIRECTIONAL DISTRIBUTION	0.61	0.57	0.51	0.55	0.62	
TRUCKS (24 HOUR B&C)	0.03	0.06	0.04	0.04	0.04	
DESIGN SPEED	60	60	60	60	60	
LEGAL SPEED	55	55	55	55	55	

05 MAJOR COLLECTOR ROAD (RURAL) _____
 NHS PROJECT _____ NO

DESIGN EXCEPTIONS _____ NO

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

Call Before You Dig
1-800-362-2764

(Non-members must be called directly)

OIL & GAS PRODUCERS
UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:
 THE OHIO DEPARTMENT OF TRANSPORTATION
 DISTRICT 8 ENGINEERING
 505 S. SR 741
 LEBANON, OHIO 45036

ENGINEERS SEAL:

SIGNED: _____
 DATE: 11/3/16

INDEX OF SHEETS:

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STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	7/18/14	MT-95.30	7/15/16	800	10/21/16		
BP-4.1	7/19/13	MT-95.60	7/19/13	821	4/20/12		
BP-7.1	7/18/14	MT-97.10	7/18/14	832	1/17/14		
		MT-97.12	7/18/14	846	4/17/15		
MGS-1.1	7/19/13	MT-99.20	7/19/13	921	4/20/14		
MGS-2.1	7/19/13	MT-101.90	7/17/15				
MGS-2.3	7/18/14	MT-105.10	7/19/13				
MGS-4.2	7/19/13	MT-110.10	7/19/13				
MGS-4.3	1/18/13						
MGS-5.3	7/15/16	TC-61.30	7/18/14				
		TC-64.10	7/17/15				
		TC-65.10	1/17/14				
		TC-65.11	7/15/16				
		TC-71.10	7/15/16				
		TC-82.10	7/17/15				

PROJECT DESCRIPTION

PLANE 1.50" AND PAVE 1.50" OF SURFACE COURSE, SAFETY EDGE, PAVEMENT REPAIR, STRIPING ROADWAY INSTALL RAISED PAVEMENT MARKINGS, GUARDRAIL.

PROJECT EDA: N/A (MAINTENANCE PROJECT)
 ESTIMATED CONTRACTOR EDA: N/A (MAINTENANCE PROJECT)
 NOTICE OF INTENT EDA: N/A (MAINTENANCE PROJECT)

2016 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 HEARBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY WILL BE AS SET FORTH ON THE PLANS AND ESTIMATE.

APPROVED: Tammy K Campbell
 DATE: 11/3/2016 DISTRICT DEPUTY DIRECTOR

APPROVED: _____
 DATE: _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.
NON-FEDERAL

PID NO.
87096

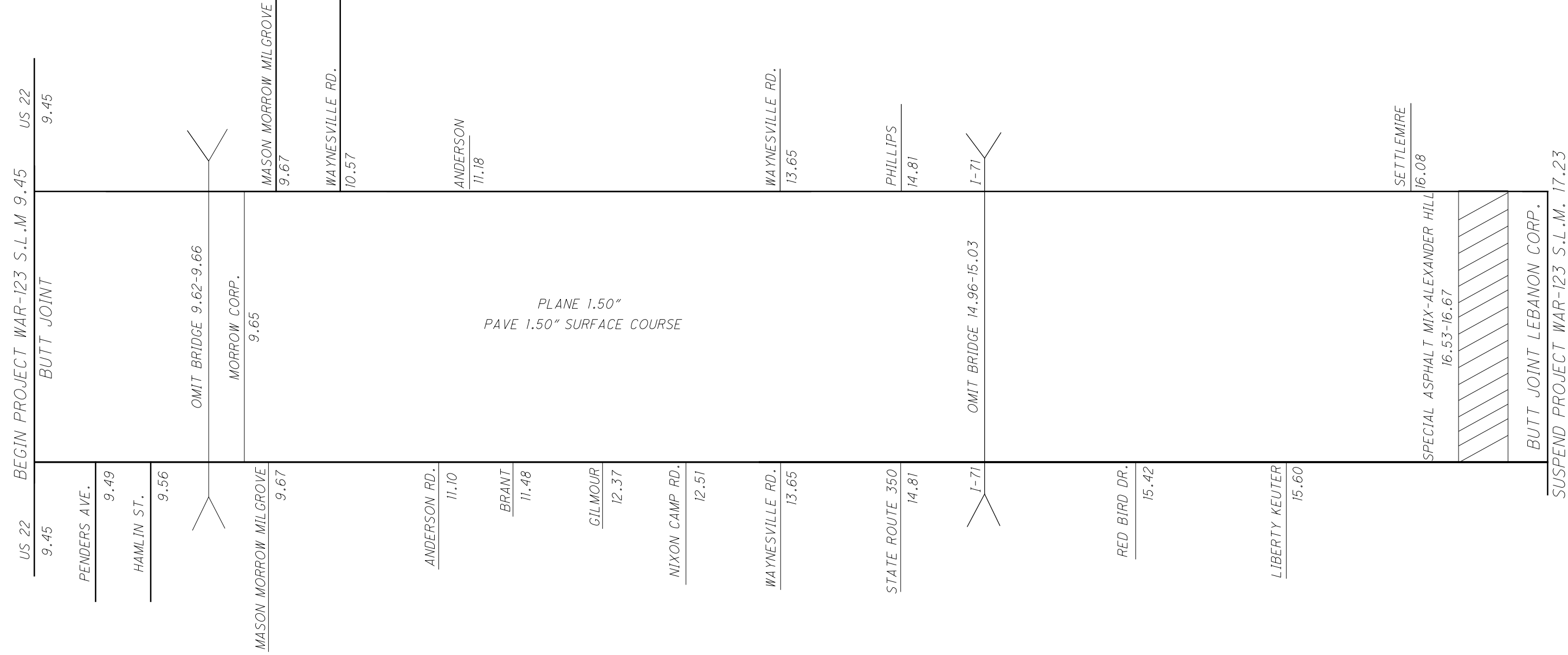
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
CSX/NORFOLK SOUTHERN

WAR-123-9.45

SCHEMATIC WAR-123-9.45

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SCHEMATIC WAR-123-9.45

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RESUME PROJECT WAR-123 S.L.M. 20.63
BUTT JOINT LEBANON CORP.

GREEN TREE RD.
20.96

COLUMBINE
22.45

KIRBY RD.
22.99

LOEB RD.
23.25
BUTT JOINT @ LOEB RD.
SUSPEND PROJECT WAR-123 S.L.M. 23.25

SCHEMATIC WAR-123-9.45

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RESUME PROJECT WAR-123 S.L.M. 24.48

BUTT JOINT

PEKIN RD.
25.59

DEARTH
25.94

DEARTH
25.96

MCCLEAN
26.84

ROBINSON VAIL
26.84

BACK
27.25

ROUTT
27.35

BUTT JOINT FRANKLIN CORP.

SUSPEND PROJECT WAR-123 S.L.M. 27.54

RESUME PROJECT WAR-123 S.L.M. 31.25

FRANKLIN CORP.

OMIT BRIDGE
AND
APPROACH SLABS

BUTT JOINT CARLISLE CORP.

SUSPEND PROJECT WAR-123 S.L.M. 31.41

RESUME PROJECT WAR-123 S.L.M. 32.21

SOUTH OF RrR

OMIT @ BUTT JOINTS

(AAR #524665U- N/S) ———
INDUSTRY 32.28
LINCOLN 32.35
LINDEN 32.42

X X X X X X X

(AAR #152440K- CSX) ———
RrR 32.44-32.46

OMIT @ BUTT JOINTS

X X X X X X X

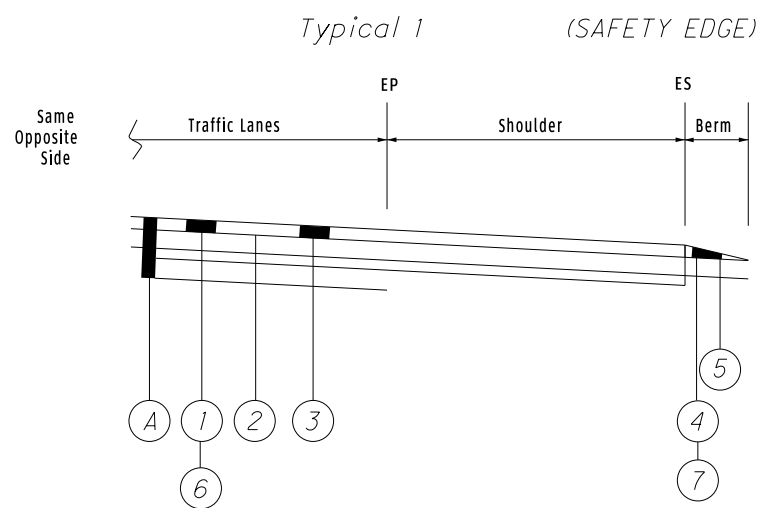
RrR 33.25-33.36

OMIT @ BUTT JOINTS

X X X X X X X

MONTGOMERY CO. LINE

END PROJECT WAR-123 S.L.M. 33.61



- (A) Existing Pavement
- (1) Item 441 - 1.50" Asphalt Concrete Surface Course, Type 1 (448), PG 64-22
- (2) Item 407 - Tack Coat
- (3) Item 254 - 1.50" Pavement Planing, Asphalt Concrete
- (4) Item 441 - Asphalt Concrete Surface Course, Type 1, PG 64-22, (Safety Edge)
- (5) Item 617 - Compacted Aggregate Type A 2.50" Minimum Depth
- (6) Item 441 - 1.50" Asphalt Concrete Surface Course, Type 1 (448), PG 70-22M, APP
- (7) Item 441 - Asphalt Concrete Surface Course, Type 1 (448), PG 70-22M, APP (Safety Edge)

ROUTE	LOG POINT (MILE)		LENGTH		TYPICAL	PAVEMENT AREA (MicroStation Generated Area)	PAVEMENT AREA	209				254			407		441		441		441		441		617		NOTES
	FROM	TO	MILES	FT				PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	DEPTH	PAVEMENT PLANING ASPHALT CONCRETE	PATCHING PLANED SURFACE	TACK COAT @ 0.09 GAL/SQ YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64-22		SAFETY EDGE		ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG70-22M, AS PER PLAN		SAFETY EDGE		COMPACTED AGGREGATE TYPE A, 2.5" MIN. DEPTH		WATER @ 20 GAL/CU YD				
									INCHES	SQ YD	SQ YD	GAL	THICKNESS	CU YD	REQ'D?	CU YD	THICKNESS	CU YD	REQ'D?	CU YD	REQ'D?	CU YD	REQ'D?	CU YD	MGAL	MGAL	
WAR-123	9.45	9.61	0.16	845	1	21400	2378	0.32	1.50	2378	24	214	1.50	100	Yes	3			No		Yes	10	0.20			STOP AT BRIDGE	
WAR-123	9.65	14.96	5.31	28037	1	826828	91870	10.62	1.50	91870	919	8269	1.50	3828	Yes	79			No		Yes	354	7.07			START/STOP AT BRIDGE	
WAR-123	15.03	16.08	1.05	5544	1	190629	21181	2.10	1.50	21181	212	1907	1.50	883	Yes	16			No		Yes	70	1.39			START AT BRIDGE	
WAR-123	16.08	16.53	0.45	2376	1	79254	8806	0.90	1.50	8806	89	793	1.50	367	Yes	7			No		Yes	30	0.59				
WAR-123	16.53	16.67	0.14	739	1	18664	2074	0.28	1.50	2074	21	187			No		1.50	87	Yes	3	Yes	8	0.17			SPECIAL ASPHALT MIX -S CURVE	
WAR-123	16.67	17.23	0.56	2957	1	79870	8874	1.12	1.50	8875	89	799	1.50	370	Yes	9			No		Yes	37	0.73			STOP AT JOINT, LEBANON	
WAR-123	20.67	20.84	0.17	898	1	32682	3631	0.34	1.50	3632	37	327	1.50	152	Yes	3			No		Yes	11	0.22			START AT JOINT, LEBANON	
WAR-123	20.84	22.45	1.61	8501	1	217406	24156	3.22	1.50	24157	242	2175	1.50	1007	Yes	24			No		Yes	107	2.14				
WAR-123	22.45	23.25	0.80	4224	1	102971	11441	1.60	1.50	11442	115	1030	1.50	477	Yes	12			No		Yes	53	1.06			STOP AT JOINT AT LOEB RD	
WAR-123	24.48	27.54	3.06	16157	1	443969	49330	6.12	1.50	49330	494	4440	1.50	2056	Yes	45			No		Yes	204	4.09			START AT JOINT, FRANKLIN	
WAR-123	31.25	31.41	0.16	845	1	13587	1510		1.50	1510	16	136	1.50	63	No				No		No					FRANKLIN TO CARLISLE CORP. @ JOINT, OMIT BRIDGE	
WAR-123	32.21	32.44	0.23	1214	1	49369	5485		1.50	5486	55	494	1.50	229	No				No		No					S. OF R&R ,INCLUDE BRIDGE	
WAR-123	32.46	33.25	0.79	4171	1	135660	15073		1.50	15074	151	1357	1.50	629	No				No		No					STOP @ JOINT BEFORE R&R SYMBOL	
WAR-123	33.36	33.61	0.25	1320	1	37617	4180	0.50	1.50	4180	42	377	1.50	175	Yes	4			No		Yes	16	0.33			STOP AT COUNTY LINE	
TOTALS CARRIED TO GENERAL SUMMARY								28		249995	2506	22505		10538				90			900	18.00					

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CONTINGENCY QUANTITIES.

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER UNLESS AUTHORIZED BY THE ENGINEER". THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DIRECTION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

PERMANENT PAVEMENT MARKINGS

THE CONTRACTOR SHALL REFERENCE ALL PAVEMENT MARKINGS INCLUDING AUXILIARY PAVEMENT MARKINGS BEFORE THE START OF THE RESURFACING OPERATION. THIS WILL BE NECESSARY TO ASSURE THE CORRECT PLACEMENT OF MARKINGS IN ORIGINAL LOCATIONS. FOR CENTER LINE MARKINGS, THE CONTRACTOR SHALL INSTALL THE PASSING/NO PASSING ZONE MARKINGS ACCORDING TO THE CURRENT CENTER LINE LOGS AVAILABLE AT THE TIME OF INSTALLATION. THE ENGINEER WILL PROVIDE THE CENTER LINE LOGS AT THE PRECONSTRUCTION MEETING. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED WITH EACH RESPECTIVE PAVEMENT MARKING ITEM.

ITEM 623- CONSTRUCTION LAYOUT STAKES, AS PER PLAN

PRIOR TO THE START OF ROADWAY OPERATION, THE CONTRACTOR SHALL REFERENCE THE LENGTH OF THE PROJECT ON BOTH SIDES OF THE ROADWAY, IN A MANNER SATISFACTORY TO THE ENGINEER. THE PAVEMENT SHALL BE REFERENCED IN 1000' FEET INCREMENTS, OR IN INCREMENTS ACCEPTABLE TO THE ENGINEER, IN A SEMIPERMANENT CONDITION.

ITEM 407- TACK COAT

THE RATE OF APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

0.09 GALLONS PER SQUARE YARD OF TACK COAT.

ITEM 254- PAVEMENT PLANING, ASPHALT CONCRETE

THE PLANING SHALL BE SCHEDULED SO AS TO BE COVERED BY THE SURFACE COURSE PRIOR TO REOPENING THE LANE TO TRAFFIC. THE COST OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RESPECTIVE ITEM. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS SHALL RESULT IN LIQUIDATED DAMAGES AS PER 108.07 OF THE SPECIFICATIONS.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF: TWENTY ONE (21) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES AND/OR ROAD CLOSURES. FOURTEEN (14) DAYS PRIOR TO LANE CLOSURES AND/OR SHIFTS IN TRAFFIC PATTERNS.

THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING: DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (513) 933-9472 OR EMAIL AT D08.PIO@dot.ohio.gov DISTRICT PERMIT SECTION BY FAX AT (513) 933-9472 OR EMAIL AT tom.makris@dot.ohio.gov CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT hauling.permits@dot.ohio.gov

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

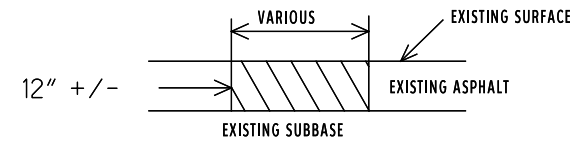
ITEM 608 - DETECTABLE WARNING:

THERE IS QUANTITY OF 8 SQ FT DETECTABLE WARNING TO BE INSTALLED AT THE FOLLOWING LOCATION:

SR 123
SW CORNER OF DAYTON-OXFORD & SR 123 8 SQ FT
THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:
ITEM 608 - DETECTABLE WARNING 8 SQ FT

ITEM 253- PAVEMENT REPAIR

AN ESTIMATED QUANTITY OF 480 CU YDS OF ITEM 253- PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE PAVEMENT PLANING OF ROADWAY.



EXISTING DETERIORATED ASPHALT SHALL BE REMOVED TO A MAXIMUM DEPTH OF 12" INCHES OR AS DIRECTED BY THE ENGINEER AND REPLACED WITH ITEM 301, ASPHALT CONCRETE BASE. THE 301 SHALL BE COMPACTED AS PER 401.15 AND IN APPROXIMATELY EQUAL LAYERS. THE LOCATIONS AND SIZE OF THE REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

THE QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 253 TOTAL- 480 CU YD

SAFETY EDGE

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETYTSLOPE OR SIMILAR APPROVED- EQUAL DEVISE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC.
1594 STATE STREET
SCHENECTADY, NY 12304
1-800-724-6306
www.transtechsys.com

CARLSON SAFETY EDGE END GATE
18425 50TH AVENUE EAST
TACOMA, WA 98446
253-875-8000

ADVANT- EDGEPAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
www.advantaedgeping.com

TROXLER ELECTRONIC LABORATORIES, INC.
3008 E. CORNWALLIA RD.
RESEARCH TRIANGLE PARK, NC 27709
1-877-TROXLER
www.troxlerlabs.com

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES (200 TO 300 mm) AWAY FROM THE TAPERED EDGE. DO NOT ROLL THE TAPER.

SAFETY EDGE LOCATION/QUANTITIES ARE PROVIDED ON THE PAVEMENT CALCULATION SHEET.

ITEM 209- PREPARING SUBGRADE FOR SHOULDER PAVING, APP

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA OF 10' TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER.

PREPARING SUBGRADE FOR SHOULDER PAVING, APP LOCATION/QUANTITIES ARE PROVIDED ON THE PAVEMENT CALCULATION SHEET.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (44B), PG. 70-22M, AS PER PLAN

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

ITEM 632- DETECTOR LOOP, AS PER PLAN

PRIOR TO THE PLANING OPERATION, THE LOCATION OF THE EXISTING LOOP DETECTORS SHALL BE REFERENCED SO THAT THE REPLACEMENT LOOPS CAN BE REINSTALLED AT THE PROPER LOCATIONS. THE NEW LOOP DETECTORS SHALL BE CONNECTED TO THE LEAD-IN CABLE WITH PROPER CONNECTION KITS AND TESTED TO MAKE CERTIAN THAT THEY ARE OPERATIONAL.

ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHOWN IN THE PLANS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS DIRECTED BY THE PROJECT ENGINEER. THE STOP LINE DETECTOR LOOPS SHALL NOT BE WIRED TO ANY OTHER LOOPS AND SHALL HAVE ITS OWN DETECTOR CHANNEL. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT.

ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10.

SYSTEM LOOPS SHALL BE AS DEPICTED IN THE PLANS.

ALL STOP LINE DETECTOR ZONES SHALL BE TESTED FOR A BICYCLE TARGET AND ALL DILEMMA DETECTION ZONE SHALL BE TESTED FOR A MOTORCYCLE TARGET.

THE CONTRACTOR SHALL NOTIFY THE ODOT DISTRICT 8 TRAFFIC DEPARTMENT A MINIMUM OF 3 DAYS IN ADVANCE OF ANY LOOP DETECTOR INSTALLATIONS TO PERMIT TIME FOR LOOP LOCATION ADJUSTMENTS AND SPECIFY THE LENGTH OF THE LOOPS IF NEEDED.

ITEM 632- LOOP DETECTOR, AS PER PLAN

THE FOLLOWING ITEMS SHALL BE USED AT 123/22 IF NEEDED, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 632- DETECTOR LOOP, AS PER PLAN 1 EA.
ITEM 632- LOOP DETECTOR TIE IN, AS PER PLAN 1 EA.

THE LOOP AT THIS LOCATION IS MAINTAINED BY THE VILLAGE OF MORROW. THEY CAN BE CONTACTED AT 513-899-2821.

PAVING AT RAILROAD CROSSING

WORK THE CROWN OUT OF THE PROPOSED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE NEW PAVEMENT TO MEET THE PLATFORM ELEVATION.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 202 - ANCHOR ASSEMBLY REMOVED, TYPE A

WHERE DESIGNATED, EXISTING ANCHOR ASSEMBLIES INCLUDING ALL POST AND HARDWARE SHALL BE REMOVED. THIS ITEM SHALL ALSO INCLUDE THE REMOVAL OF THE ENTIRE CONCRETE ANCHOR AND CONCRETE ENCASEMENT. ALL HOLES LEFT AFTER REMOVAL OF ASSEMBLIES AND POSTS SHALL BE FILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER. PAYMENT SHALL INCLUDE ALL NECESSARY LABOR AND EQUIPMENT REQUIRED TO PERFORM THE INDICATED ABOVE.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL THE NEW GUARDRAIL/BARRIER IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL/BARRIER SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL/BARRIER SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL 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 31 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, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT 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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GENERAL NOTES

WAR-123-9.45

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SCENIC RIVER MAINTENANCE PLAN NOTE

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO THE LITTLE MIAMI SCENIC RIVER OR ANY OF ITS TRIBUTARIES. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALTIC OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL BE REMOVED IMMEDIATELY FROM WITHIN 1000 FEET OF THE SCENIC RIVER AND DISPOSED OF AT AN APPROPRIATE FACILITY ABOVE THE FEMA 100 YEAR FLOOD ELEVATION AND NOT WITHIN 1000 FEET OF THE SCENIC RIVER. IF PAINTING, WELDING, SAND AND/OR WATER BLASTING (CLEANING) IS INCORPORATED AS PART OF THE PROJECT AT OR OVER A SCENIC RIVER, THEN APPROPRIATE APRONS SHALL BE UTILIZED TO PROVIDE FOR COMPLETE CONTAINMENT OF ALL PAINT, WELDING SLAG AND/OR SEALANT OVER SPRAY AND OTHER DEBRIS. APRONS SHALL BE UTILIZED ON ALL DECK REPLACEMENT PROJECTS WHEN USING HYDRO-DEMOLITION TECHNIQUES. ALL DEBRIS COLLECTED SHALL BE DISPOSED OF AT AN APPROPRIATE FACILITY ABOVE THE FEMA 100 YEAR FLOOD PLAIN AND NOT WITH 1000 FEET OF THE SCENIC RIVER.

15 CALENDAR DAYS PRIOR TO THE COMMENCEMENT OF WORK ON THE PROPOSED PROJECT, THE CONTRACTOR SHALL NOTIFY MELISSA CLARK, SW OHIO ASST. REGIONAL SCENIC RIVER MANAGER, 513-934-0751, AND ANDREW FLUEGEMANN, P.E., ODOT DISTRICT 8 DEC, 513-933-6597.

UTILITIES

THIS PROJECT REQUIRES THE INSTALLATION OF NEW GUARDRAIL POSTS. SURVEY WORK HAS NOT BEEN PERFORMED ON THIS PROJECT, NOR HAVE THE UTILITY LOCATIONS BEEN CONFIRMED IN THE FIELD. IN ADDITION TO CMS 105.07, IF, DURING THE COURSE OF INSTALLING ANY NEW GUARDRAIL COMPONENT, IT IS DETERMINED THAT A UTILITY CONFLICT MAY RESULT, THE CONTRACTOR IS TO NOTIFY THE PROJECT ENGINEER IMMEDIATELY. UTILITIES ARE NOT BE RELOCATED AS A RESULT OF THIS OPERATION. ADJUSTMENTS TO THE PROPOSED GUARDRAIL WILL ACCOMMODATE THE EXISTING UTILITY. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE GUARDRAIL VIA MEANS THAT WOULD BE COMPLIANT WITH THE IMPACTED UTILITY S SAFETY GUIDELINES AS WELL AS STILL MEETING ODOT S DESIGN CRITERIA. ANY MINOR ADJUSTMENTS MADE TO THE PROPOSED GUARDRAIL INSTALLATIONS SHALL BE INCIDENTAL TO PAY ITEM 606.

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

CONSTRUCTION BEGIN DATE

WORK FOR THIS PROJECT SHALL NOT BEGIN UNTIL JUNE 12, 2017 IN ORDER TO AVOID CONFLICTS WITH AN ADJACENT PROJECT, UNLESS APPROVAL IS OBTAINED FROM THE PROJECT ENGINEER.

ITEM 846-POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THE REPLACEMENT POLYMER MODIFIED ASPHALT (PMA) EXPANSION JOINT SHALL EXTEND 0.25" MINIMUM DEEPER IN DEPTH THAN THE EXISTING PMA JOINT.

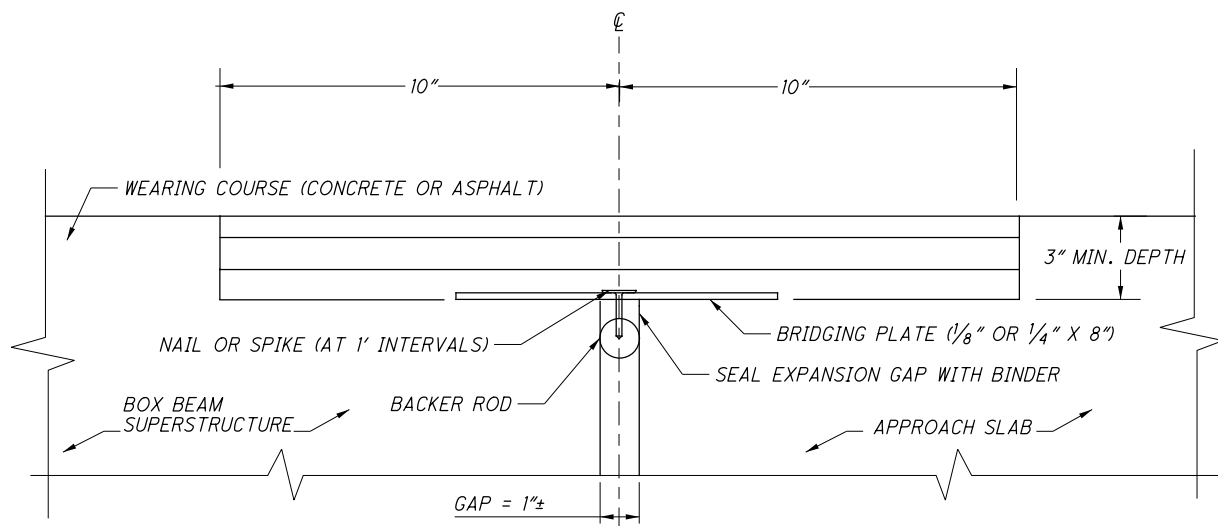
THE DETAIL BELOW WAS USED AS A BASIS TO ESTIMATE A QUANTITY FOR ITEM 846.

WIDTH = 1.67 FT
DEPTH = 0.25 FT
LENGTH = SEE TABLE BELOW

VOLUME = (WIDTH)*(DEPTH)*(LENGTH)

* FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY

ITEM 846 POLYMER MODIFIED ASPHALT (PMA) EXPANSION JOINT			
BRIDGE LOCATION	# OF JOINTS	PMA EXPANSION JOINT LENGTHS (FT)	VOLUME (CU FT)
WAR-123-3238	2	42.00	17.5
		42.00	17.5
TOTAL			* 35 CU FT



TYPICAL POLYMER MODIFIED ASPHALT EXPANSION JOINT

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05 AND 105.02.

STRUCTURE WAR-123-31.32 PROPOSED WORK
(STRUCTURAL FILE NUMBER: SFN (8304785))

ITEM 512.05-SEALING OF CONCRETE BRIDGE DECK WITH SRS

SEAL THE CONCRETE BRIDGE DECK (EDGE TO EDGE OF DECK) AND APPROACH SLABS WITH SOLUBLE REACTIVE SILICATE (SRS) ON STRUCTURE WAR-123-31.32 PER 512.05 SPECIFICATIONS. THIS STRUCTURE IS OVER THE GREAT MIAMI RIVER (IN FRANKLIN) WHICH IS CONSIDERED A SCENIC RIVER. FOLLOW ALL REQUIREMENTS IN THE SCENIC RIVER MAINTENANCE PLAN NOTE IN THE GENERAL NOTES.

THE FOLLOWING IS AN ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR THE ABOVE WORK: THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 512-SEALING OF CONCRETE BRIDGE DECK WITH SRS 3961 S.Y.

STRUCTURE WAR-123-0962 PROPOSED WORK
(STRUCTURAL FILE NUMBER: SFN (8304254))

ITEM 512.04 SEALING OF CONCRETE BRIDGE DECKS WITH HMWM RESIN

SEALING SHOULD NOT BE PERFORMED FROM NOVEMBER 1 THROUGH MARCH 31. INSURE THAT DECK AREA TO BE TREATED IS FREE OF DIRT AND DEBRIS AND IS VISIBLY DRY PRIOR TO APPLICATION. INSURE THAT THE SURFACE TEMPERATURES MEET THOSE REQUIRED FOR APPLICATION OF HMWM RESIN AS STATED IN ITEM 512.04 AND THAT THE PROPER APPLICATION RATE IS USED. FOR AT LEAST FOUR (4) HOURS AFTER PLACEMENT, THE TREATMENT SHOULD BE PROTECTED FROM MOISTURE, TRAFFIC AND EQUIPMENT SHOULD NOT BE PERMITTED ON THE DECK UNTIL IT IS TACK FREE AND A MINIMUM OF SIX (6) HOURS HAS ELAPSED SINCE TREATMENT. THE SAND COVER SHOULD ADHERE TO THE SURFACE SUFFICIENTLY TO RESIST BRUSHING BY HAND. THIS STRUCTURE IS OVER THE LITTLE MIAMI RIVER WHICH IS CONSIDERED A SCENIC RIVER. FOLLOW ALL REQUIREMENTS IN THE SCENIC RIVER MAINTENANCE PLAN NOTE IN THE GENERAL NOTES.

THE FOLLOWING IS AN ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR THE ABOVE WORK: THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 512-SEALING OF CONCRETE BRIDGE DECK WITH HMWM RESIN 1277 S.Y.

STRUCTURE WAR-123-3228 PROPOSED WORK
(STRUCTURAL FILE NUMBER: SFN (8304815))

-REPLACE TWO ITEM-846 POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEMS AS SHOWN ON ITEM DETAIL
-REPLACE SURFACE COURSE BY MILL/FILLING 1.50" AS INCLUDED ON PAVEMENT CALCULATIONS SHEET

ITEM 614- MAINTAINING TRAFFIC

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPT. OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THESE PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

ALL LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE, BY USE OF THE EXISTING PAVEMENT AND COMPLETED PAVEMENT.

SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS BEING CONTINUOUSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. PERMITTED LANE CLOSURES SHALL ONLY BE ALLOWED DURING THE TIMES SPECIFIED IN THE LANE VALUE CONTRACT TABLE. NO LANE OR SHOULDER CLOSURE SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED.

TRAFFIC SHALL BE MAINTAINED AT ALL INTERSECTIONS AND DRIVES AT ALL TIMES AND SHALL BE CONTROLLED WITH FLAGGERS AND TRAFFIC CONTROL DEVICES AS REQUIRED AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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

TEMPORARY PAVEMENT WEDGE

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO PAVEMENT SURFACE OF A DIFFERENT ELEVATION. THE MINIMUM SLOPE OF THE TEMPORARY PAVEMENT WEDGE SHALL BE 3:1 ALONG THE LONGITUDINAL JOINTS AND 120:1 AT TRANSVERSE JOINT. THESE WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSE. PAYMENT FOR ALL WORK, MATERIALS, ECT., ASSOCIATED WITH THIS ITEM SHALL BE PAID UNDER MAINTAINING TRAFFIC AS PER PLAN.

ITEM 614- WORK ZONE MARKINGS AND SIGNS

THE CONTRACTOR SHALL PLACE THE ASPHALT SURFACE COURSE AND WORK ZONE PAVEMENT MARKINGS UPON COMPLETION OF THE PAVEMENT PLANING PRIOR TO OPENING THE ROADWAY TO TRAFFIC. THE CONTRACTOR SHALL PLACE WORK ZONE PAVEMENT MARKINGS OR PERMANENT MARKINGS UPON COMPLETION OF THE ASPHALT SURFACE COURSE PRIOR TO OPENING THE ROADWAY TO TRAFFIC.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LAOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614-WORK ZONE LANE LINE, CLASS III, 642 PAINT- 0.18 MILES

ITEM 614-WORK ZONE CENTER LINE, CLASS III, 642 PAINT-25.23 MILES

ITEM 614-WORK ZONE STOP LINE, CLASS III, 642 PAINT - 607 FEET

ITEM 614 WORK ZONE ARROW, CLASS III, 642 PAINT - 41 EA.

ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT-2,347 FEET.

ITEM 614-WORK ZONE MARKING SIGN W8-HI3(NO EDGE LINE)- 16 EA.

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

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

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

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED. DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

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

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

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 30 HOURS

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

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

LANE VALUE CONTRACT TABLE

Description of Critical Lane/Ramp to be maintained	Restricted Time Period	Time Unit	Disincentive \$ per time unit per lane
WAR-123-9.45 to 14.81 WAR-123-20.36 to 23.64 WAR-123-24.14 to 27.23 WAR-123-33.2 to 33.3	No Restriction	N/A	N/A
WAR-123-14.81 to 17.23 All lanes open to traffic	6AM to 9AM And 3PM to 7PM	15 minute period	\$750

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MAINTENANCE OF TRAFFIC

WAR-123-9.45

PART	COUNTY	ROUTE	LOG POINT (MILE)		TOTAL	642		644		REMARKS	
						CENTER LINE		CENTER LINE			
						DASHED	SOLID	DASHED	SOLID		
						MILE	MILE	MILE	MILE		
FROM	TO	MILE									
3	WAR	123	9.45	9.62	0.17				0.17		
1	WAR		9.62	9.65	0.03		0.03				
1	WAR		9.65	16.08	6.43			0.03	6.41		
3	WAR		16.08	17.23	1.15				1.15		
3	WAR		20.67	20.84	0.17				0.17		
1	WAR		20.84	22.45	1.61			0.04	1.58		
2	WAR		22.45	23.25	0.80				0.80		
TOTALS CARRIED TO GENERAL SUMMARY							0.03		10.33		CENTER LINE CONTINUED ON NEXT SHEET

PART	COUNTY	ROUTE	LOG POINT (MILE)		TOTAL	642		644			REMARKS	
						EDGE LINE 6"		EDGE LINE 4"		EDGE LINE 6"		
						WHITE		WHITE		WHITE		
						MILE		MILE		MILE		
FROM	TO	MILE		MILE		MILE						
3	WAR	123	9.45	9.62	0.34			0.34				
1	WAR		9.62	9.65	0.06	0.06						
1	WAR		9.65	16.08	12.86				12.86			
3	WAR		16.08	17.23	2.30			2.3				
3	WAR		20.67	20.84	0.34			0.34				
1	WAR		20.84	22.45	3.22				3.22			
2	WAR		22.45	23.25	1.60			1.6				
TOTALS CARRIED TO GENERAL SUMMARY							0.06		4.58		16.08	EDGE LINE CONTINUED ON NEXT SHEET

PART	COUNTY	ROUTE	LOG POINT (MILE)		TOTAL	642		644		REMARKS
						LANE LINE		LANE LINE		
						DASHED	SOLID	DASHED	SOLID	
						MILE	MILE	MILE	MILE	
FROM	TO	MILE								
TOTALS CARRIED TO GENERAL SUMMARY										

PART	COUNTY	ROUTE	LOG POINT (MILE)		642		644						REMARKS		
					8" CHANNELIZING LINE	LANE ARROWS		* STOP LINE	24" TRANSVERSE LINES	R x R	LANE ARROWS			ISLAND MARKING	8" CHANNELIZING LINE
						TURN					TURN				
						WHITE	LEFT				RIGHT	WHITE			
FT	EACH	EACH	FT	EA	EACH	EACH	SQ FT	FT							
FROM	TO														
3	WAR	123	9.45	9.62			12								
1	WAR		9.62	9.65											
1	WAR		9.65	16.08			304			10		1168	880		
3	WAR		16.08	17.23				78		2	3	80	699		
3	WAR		20.67	20.84			38			2			155		
1	WAR		20.84	22.45			16								
2	WAR		22.45	22.25											
TOTALS CARRIED TO GENERAL SUMMARY							370	78		17		1248	1734		

* STOP LINE IF NEEDED-DIRECTED BY ENGINEER ONLY

PART	COUNTY	ROUTE	LOG POINT (MILE)		TOTAL	642		644		REMARKS
						CENTER LINE		CENTER LINE		
						DASHED	SOLID	DASHED	SOLID	
FROM	TO	MILE	MILE	MILE	MILE					
2	WAR	123	24.48	27.54	3.06				3.06	
2	WAR		31.25	31.41	0.16		0.12		0.04	
2	WAR		32.21	33.25	1.04				1.04	
2	WAR		33.36	33.61	0.25				0.25	
TOTALS CARRIED TO GENERAL SUMMARY							0.12		4.39	

PART	COUNTY	ROUTE	LOG POINT (MILE)		TOTAL	644		REMARKS
						EDGE LINE 4"		
						WHITE		
FROM	TO	MILE	MILE					
2	WAR	123	24.48	27.54	6.12		6.12	
2	WAR		31.25	31.41	0.32			
2	WAR		32.21	33.25	2.08		0.1	NO EDGE LINE-CURB
2	WAR		33.36	33.61	0.5		0.5	BRIDGE/BARRIER WALL ONLY - NO EDGE LINE-CURB
TOTALS CARRIED TO GENERAL SUMMARY							6.72	

PART	COUNTY	ROUTE	LOG POINT (MILE)		TOTAL	642		644		REMARKS
						LANE LINE		LANE LINE		
						DASHED		DASHED		
FROM	TO	MILE	MILE	MILE	MILE					
2	WAR	123	31.25	31.41	0.32	0.12		0.06		TRANSITIONS TO ONE LANE AT BRIDGE
TOTALS CARRIED TO GENERAL SUMMARY						0.12		0.06		

PART	COUNTY	ROUTE	LOG POINT (MILE)		642		644						REMARKS		
					8" CHANNELIZING LINE	LANE ARROWS		* STOP LINE	CROSSWALK	RxR	LANE ARROWS			ISLAND MARKING	8" CHANNELIZING LINE
						TURN					TURN				
						WHITE	LEFT				RIGHT	LEFT			
FT	EACH	EACH	FT	EA	EACH	EACH	SQ FT	FT							
2	WAR	123	24.48	27.54			48								
2	WAR		31.25	31.41	100	1	96			1		10	PAINT TO BE USED ON SEALED BRIDGE		
2	WAR		32.21	33.25			93	248	3	22		503			
2	WAR		33.36	33.61					1						
TOTALS CARRIED TO GENERAL SUMMARY					100	1	237	248	4	23		513			

* STOP LINE IF NEEDED-DIRECTED BY ENGINEER ONLY

PAVEMENT MARKING

WAR-123-9.45

WAR-123 LOG POINTS		SIDE	ITEM 202				ITEM 606						ITEM 626	NOTES
			GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	ANCHOR ASSEMBLY REMOVED, TYPE E	ANCHOR ASSEMBLY REMOVED, TYPE T	GUARDRAIL, TYPE MGS	GUARDRAIL, TYPE MGS WITH LONG POSTS	GUARDRAIL, TYPE MGS, LONG SPAN	ANCHOR ASSEMBLY, MGS TYPE E	ANCHOR ASSEMBLY, MGS TYPE T	GUARDRAIL, TYPE MGS HALF POST SPACING WITH LONG POSTS	BARRIER REFLECTOR (TYPE A)	
FROM	TO		FT	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	FT	EACH	
10.610	10.620	LT	87.5			1	50			1			2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 50'.
13.121	13.111	LT	75.0	1				50.0		1			2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 50'.
14.827	14.860	RT	150.0	1		1		75.0		1	1	25	3	REPLACE ENTIRE RUN. START HALF POST SPACING AT SIGN SUPPORT THEN END 25' UPSTREAM.
14.910	14.950	RT	225.0			1		212.5			1	12.5	3	END GUARDRAIL REPLACEMENT AT THE EXISTING RAIL SPLICE APPROXIMATELY 69' FROM BRIDGE. START HALF POST SPACING AT SIGN SUPPORT THEN END 12.5' UPSTREAM.
15.028	15.078	RT	200.0					200.0					3	REPLACE GUARDRAIL BETWEEN THE EXISTING RAIL SPLICE APPROXIMATELY 77' FROM BRIDGE TO JUST BEFORE THE RADIUS AT THE RAMP.
15.028	15.078	LT	300.0			1		287.5			1	12.5	4	END GUARDRAIL REPLACEMENT AT THE EXISTING RAIL SPLICE APPROXIMATELY 55' FROM BRIDGE. START HALF POST SPACING AT SIGN SUPPORT THEN END 12.5' UPSTREAM.
15.168	15.201	LT	125.0	2				50.0		2		25	3	REPLACE ENTIRE RUN. START HALF POST SPACING AT SIGN SUPPORT THEN END 25' UPSTREAM.
16.591	16.726	LT	425.0	3	1			625		2			12	CLOSE THE GAP BETWEEN THE 2 EXISTING GUARDRAIL RUNS.
20.851	20.869	LT	75.0	1				50.0		1			2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 50'.
21.021	21.047	RT	112.5	1				75.0		1	1		2	REPLACE ENTIRE RUN. INSTALL RADIUS AT DRIVE.
21.026	21.031	LT	75.0	2				75.0		1	1		2	REPLACE END ANCHORS. INSTALL RADIUS AT DRIVE WITH TYPE T ANCHOR SO FOOTPRINT WILL INCREASE. AT OTHER END, TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 50'.
21.457	21.476	LT	75	1		1		50.0		1	1		2	REPLACE ENTIRE RUN. INSTALL RADIUS AT DRIVE.
22.518	22.537	LT	75.0	1				50.0		1			2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 50'.
22.528	22.573	RT	100.0	1	1			162.5	37.5	1	1		4	REPLACE THE UPSTREAM END TYPE E WITH A TYPE T AND RADIUS AT DRIVE. DOWNSREAM END FOOTPRINT WILL INCREASE 62.5' DUE TO LONG SPAN GUARDRAIL.
25.743	25.838	LT	450	2				400.0		2			6	REPLACE ENTIRE RUN.
31.234	31.253	RT	75.0	1				50.0		1			2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 50'.
31.259	31.273	LT	12.5	1				25.0			1		2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 25'.
31.399	31.399	RT	12.5	1				25.0			1		2	REPLACE END ANCHOR. TRANSITION FROM MGS HEIGHT TO EXISTING GUARDRAIL HEIGHT OVER 25'.
31.399	31.399	LT		1						1			2	REPLACE THE ANCHOR. THE GUARDRAIL FOOTPRINT WILL INCREASE BY 25'.
TOTALS CARRIED TO GENERAL SUMMARY			2650.0	20.0	2.0	5.0	50.0	2462.5	37.5	17.0	9.0	75.0	60.0	

CALCULATED
 CHECKED
GUARDRAIL SHEET
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LOCATION SUB-SUMMARY

DETAIL	TC-65.10
1	MAINLINE UNDIVIDED TYPICAL SPACING
2	LANE LINE TYPICAL SPACING
2A	CHANNELIZING TYPICAL

DETAIL	TC-65.11
3	ACCELERATION LANE
4	DECELERATION LANE
5	MULTILANE DIVIDED- CONTROL ACCESS
6	4 LANE DIVIDED TO 2 LANE TRANSITION
7	4 LANE UNDIVIDED TO 2 LANE TRANSITION

DETAIL	TC-65.11
8	ONE LANE BRIDGE
9	STOP APPROACH
10	TWO WAY LEFT TURN
11	HORIZONTAL CURVE
12	APPROACH W/ LEFT TURN LANE

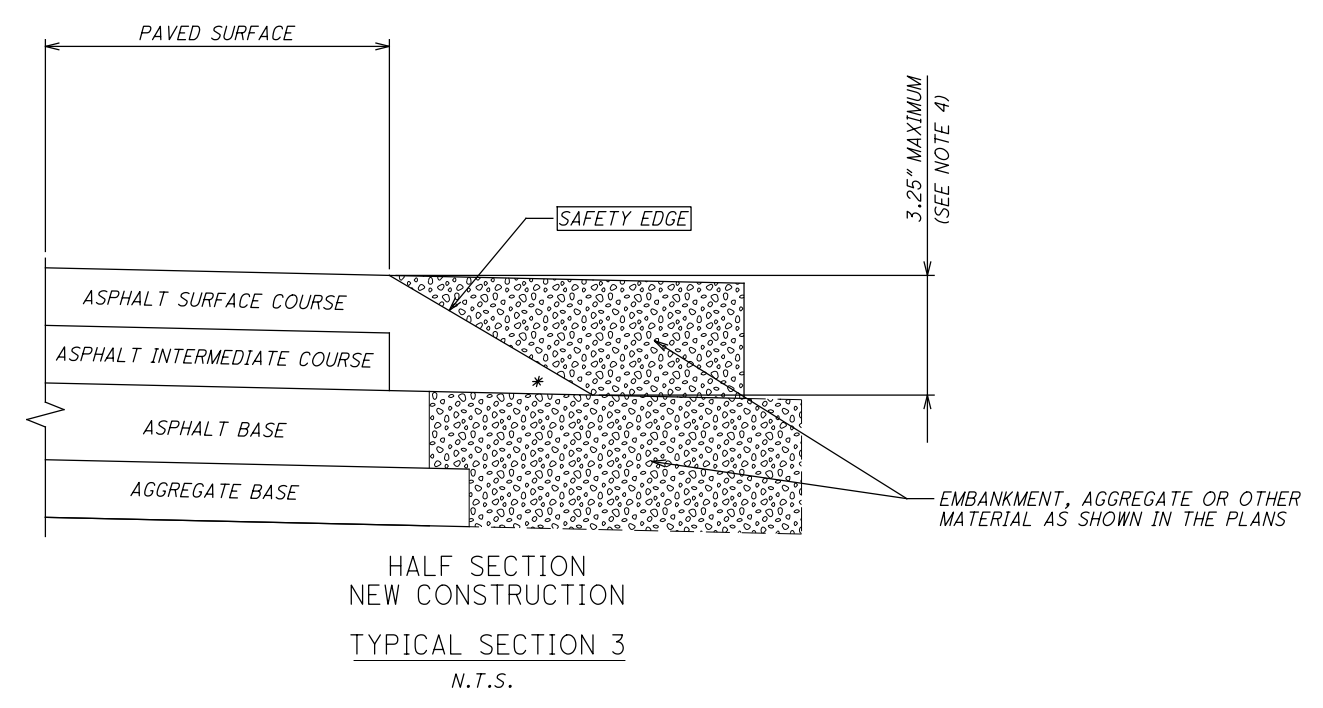
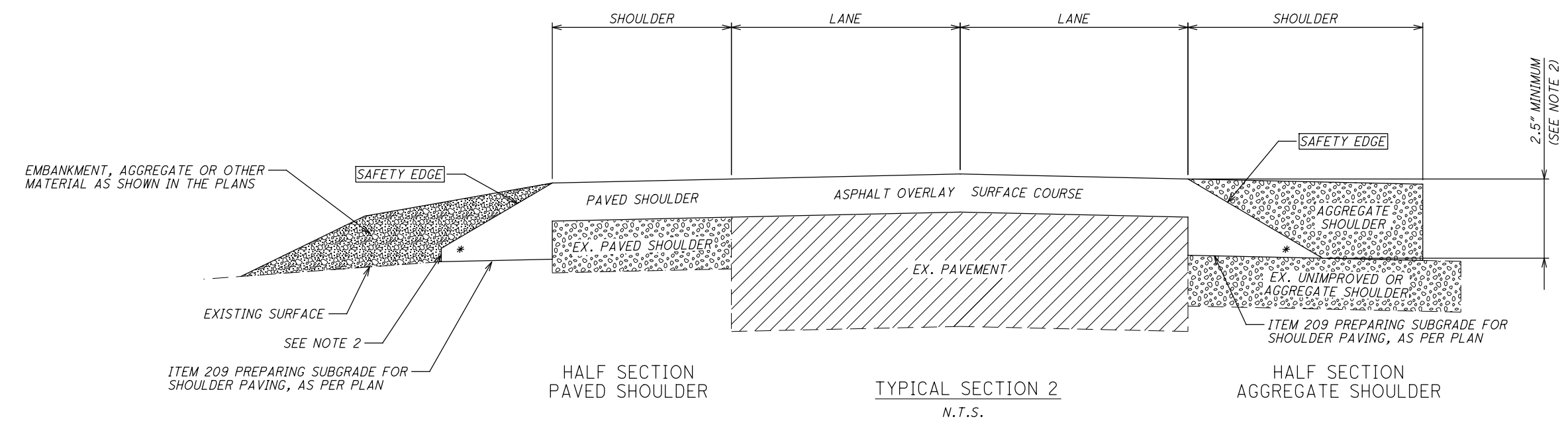
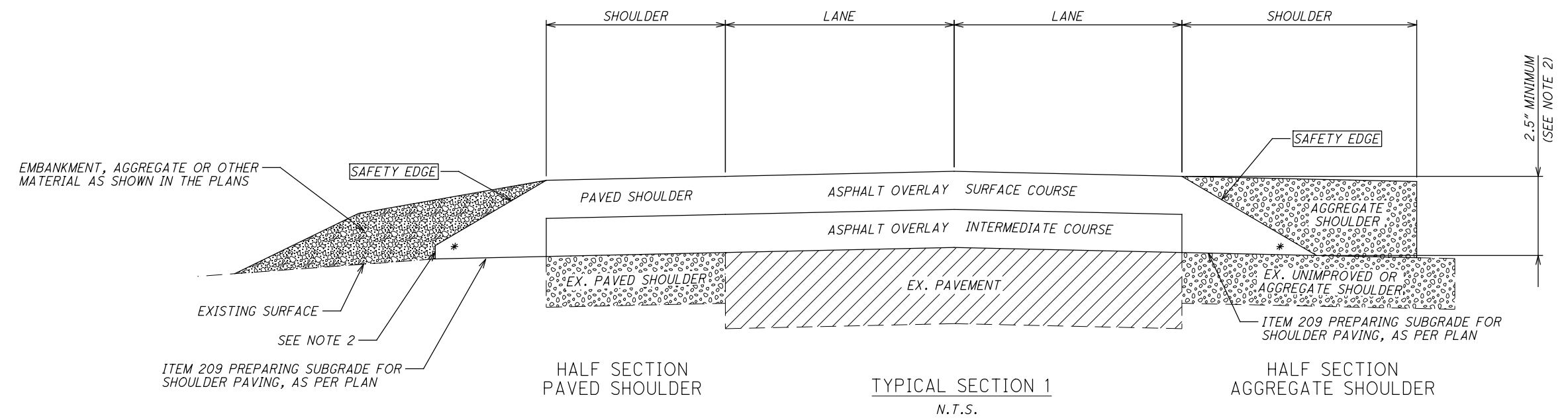
QUANTITIES CARRIED TO THE GENERAL SUMMARY

LOCATION					DETAIL	621			PRISMATIC RETRO-REFLECTOR COLORS					REMARKS	
PART	COUNTY	ROUTE	S.L.M. SECTION			RPM	EACH	EACH	EACH	ONE-WAY		TWO-WAY			
			FROM	TO		EACH				WHITE	YELLOW	YELLOW/ WHITE	YELLOW/ YELLOW		WHITE/ RED
3	WAR	123	9.45	9.62	1/9	28			16			12			
1			9.62	16.08	1/2A/11/12	600						578	22		
3			16.08	17.23	1/2A/11/12	158						140	18		
3			20.67	20.84	1/2A	23						19	4		
1			20.84	22.45	1	107						107			
2			22.45	23.25	1/11	63						63			
2			24.48	27.54	1	202						202			
2			31.25	31.41	1/2/2A	30						18	12		
2			32.21	32.44	1/2A	27						15	12		
2			32.46	33.25	1/2A/10/12	138						126	12		
2			33.36	33.61	1	16						16			
PAGE TOTALS						1392			16			1296	80		

ITEM 621- RAISED PAVEMENT MARKERS REMOVED
AN ESTIMATED QUANTITY OF 1392 EA. ITEM 621 RAISED PAVEMENT MARKERS REMOVED HAS BEEN PROVIDED.

RAISED PAVEMENT MARKERS

WAR-123-9.45



NOTES:

- 1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).
 - 2.) CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" (63MM) WHICHEVER IS GREATER, NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6" (150MM). CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE FOR THICKNESS GREATER THAN 6" (150 MM).
 - 3.) BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE SAFETY EDGE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.
 - 4.) FOR NEW PAVEMENT CONSTRUCT THE SAFETY EDGE THE FULL THICKNESS OF THE SURFACE AND INTERMEDIATE COURSES, NOT TO EXCEED 3.25" (82 MM).
- * 40° MAX

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SHEET NUM.										PART.				ALT (X)	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	8	9	10	11	12	13		01/STR/P V	02/S<2/P V	03/S>2/P V	04/S<2/B R							
																		ROADWAY		
							2650			1500	725	425			202	38000	2,650	FT	GUARDRAIL REMOVED	
							20			5	8	7			202	42000	20	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
							2				1	1			202	42010	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
							5			5					202	42040	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
							50			50					606	15050	50	FT	GUARDRAIL, TYPE MGS	
							2462.5			1125	712.5	625			606	15100	2,462.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
							75			75					606	15200	75	FT	GUARDRAIL, TYPE MGS HALF POST SPACING WITH LONG POSTS	
							37.5				37.5				606	17360	37.5	FT	GUARDRAIL, TYPE MGS, LONG-SPAN	
							17			9	6	2			606	26150	17	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
							9			6	3				606	26550	9	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
	8										8				608	53020	8	SF	DETECTABLE WARNING	
							60			28	20	12			626	00100	60	EACH	BARRIER REFLECTOR	
																			PAVEMENT	
28										15.94	9.1	2.96			209	72051	28	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	6
	480									160	160	160			253	02000	480	CY	PAVEMENT REPAIR	
249,995										137208	86590	25765	432		254	01000	249,995	SY	PAVEMENT PLANING, ASPHALT CONCRETE 1.5 INCHES	
2,506										1373	829	260	44		254	01600	2,506	SY	PATCHING PLANED SURFACE	
22505										12351	7795	2320	39		407	10000	22,505	GAL	TACK COAT	
10538										5837	3678	1011	12		441	50000	10,538	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
90												90			441	50101	90	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN 1.5 INCH	6
900										530	274	96			617	10100	900	CY	COMPACTED AGGREGATE	
18										10.61	5.48	1.91			617	25000	18	MGAL	WATER	
																			STRUCTURE REPAIR (WAR-123-0962)	
			1,277										1277		512	10300	1,277	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
																			STRUCTURE REPAIR (WAR-123-3132)	
			3961										3961		512	10400	3,961	SY	TREATING OF CONCRETE BRIDGE DECK WITH SRS	
																			STRUCTURE REPAIR (WAR-123-3228)	
			35										35		846	00110	35	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
																			TRAFFIC CONTROL	
							1392			707	474	209	2		621	00100	1,392	EACH	RPM	
							1392			707	474	209	2		621	54000	1,392	EACH	RAISED PAVEMENT MARKER REMOVED	
					0.06					0.06					642	00094	0.06	MILE	EDGE LINE, 6"	
					0.12						0.12				642	00190	0.12	MILE	LANE LINE, 4"	
					0.03					0.03	0.12				642	00290	0.15	MILE	CENTER LINE	
						100					100				642	00390	100	FT	CHANNELIZING LINE, 8"	
						1					1				642	01290	1	EACH	LANE ARROW	
					4.58	6.72					8.22	2.98	0.1		644	00100	11.3	MILE	EDGE LINE, 4"	
					16.08					16.08					644	00104	16.08	MILE	EDGE LINE, 6"	
						0.06					0.06				644	00200	0.06	MILE	LANE LINE, 4"	
							10.33	4.39		8.04	5.19	1.49			644	00300	14.72	MILE	CENTER LINE	
							1734	513		880	513	854			644	00400	2,247	FT	CHANNELIZING LINE, 8"	
							370	237		320	237	50			644	00500	607	FT	STOP LINE	
								248			248				644	00600	248	FT	CROSSWALK LINE	
							78					78			644	00700	78	FT	TRANSVERSE/DIAGONAL LINE	
							1248			1168	80				644	00900	1,248	SF	ISLAND MARKING	
								4			4				644	01000	4	EACH	RAILROAD SYMBOL MARKING	
							17	23		10	23	7			644	01300	40	EACH	LANE ARROW	
																			TRAFFIC SIGNALS	
	1											1			632	26501	1	EACH	DETECTOR LOOP, AS PER PLAN	6
	1											1			632	27201	1	EACH	LOOP DETECTOR TIE IN, AS PER PLAN	6

CALCULATED CHECKED
GENERAL SUMMARY
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SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	8	9	10	11	12	13		01/STR/P V	02/S<2/P V	03/S>2/P V	04/S<2/B R						
MAINTENANCE OF TRAFFIC																			
				30						10	10	10		614	11110	30	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
				16						6	4	6		614	12460	16	EACH	WORK ZONE MARKING SIGNNO EDGE LINE	
				0.18							0.18			614	20550	0.18	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
				25.23						16.14	6.11	2.98		614	21550	25.23	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
				2,347						880	613	854		614	23680	2,347	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
				607						320	237	50		614	26610	607	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
				41						10	24	7		614	30650	41	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
INCIDENTALS																			
										LUMP	LUMP	LUMP	LUMP	614	11000	LS		MAINTAINING TRAFFIC	
										LUMP	LUMP	LUMP	LUMP	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	
										LUMP	LUMP	LUMP	LUMP	624	10000	LS		MOBILIZATION	
GENERAL SUMMARY																			
WAR-123-9.45																			

CALCULATED

CHECKED