

**ITEM 614, MAINTAINING TRAFFIC**

S.R. 47

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 6. STATE ROUTE 47 MAY NOT BE CLOSED UNTIL MONDAY JULY 15TH, 2024. NO WORK CAN COMMENCE UNTIL AFTER COUNTRY CONCERT. (JULY 11-13) A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$3000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. CLEARING AND GRUBBING NEEDS TO BE COMPLETED PRIOR TO JULY 15TH TO COMPLY WITH ENVIRONMENTAL NOTES.

BRIDGE PAINTING MAY OCCUR OUTSIDE OF THE DETOUR, BUT MUST MAINTAIN ONE LANE EACH DIRECTION. PAINTING EQUIPMENT MAY OPTIONALLY BE STORED IN THE NORTHWEST QUADRANT BEHIND EXISTING GUARDRAIL.

S.R. 66

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT AND TEMPORARY SURFACES.

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.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

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

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

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

WILL BE  
CLOSED XXX/XX  
FOR 90 DAYS  
INFO: 1-888-200-9919

W20-H13-60

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

AT INTERSECTION OF SR 66 AND 47 (EAST OF INTERSECTION): PLACE SIGN SUCH THAT NO VEHICLES WILL TURN ONTO SR 47 DURING CLOSURE.

WEST OF INTERSECTION OF SR 47 AND RANGELINE ROAD: PLACE SIGN SUCH THAT NO VEHICLES WILL DRIVE ON SR 47 PAST RANGELINE ROAD.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS DETAILED ON SHEET 6 AND 7.

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.

**DETOUR SIGNING**

THE CONTRACTOR SHALL PROVIDE THE DETOUR SIGNING AS SHOWN ON P.06. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT FOR ITEM 614 DETOUR SIGNING.

**DESIGNATED LOCAL DETOUR ROUTE**

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE". THIS ROUTE INCLUDES THE FOLLOWING CONNECTING ROAD:

RANGELINE ROAD

DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER AS DIRECTED BY THE ENGINEER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE WILL BE EVALUATED BY THE ENGINEER TO DETERMINE IF ADDITIONAL RESTORATION IS NECESSARY.

**COORDINATION OF WORK:**

PID 108099, D07-BH-FY23(A), SALE 6/22/23, COMPLETION DATE 9/1/24.  
 PID 110169, SHE-CULVERT-FY23, COMPLETION DATE 4/30/24  
 PID 114979, D07-BH-FY25 (D), SALE 10/01/24, COMPLETION DATE 9/30/25

THE CONTRACTOR IS ADVISED THAT ADJACENT CONSTRUCTION PROJECTS WITHIN OR NEAR THE WORK LIMITS OF THIS PLAN MAY IMPACT THE PROJECT SCHEDULE, SEQUENCE OF CONSTRUCTION AND/OR TRAFFIC CONTROL BETWEEN ADJACENT ZONES. THE CONTRACTOR IS REQUIRED TO COORDINATE ALL MAINTENANCE OF TRAFFIC OPERATIONS WITH ADJACENT CONSTRUCTION PROJECTS. COOPERATION WITH THE ENGINEER, INSPECTORS AND ALL OTHER CONTRACTORS ON OR ADJACENT TO THE PROJECT IS REQUIRED PER CMS 105.08.

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

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

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

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO D7 PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HRS & < 2 WKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HRS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES AND RESTRICTIONS	>= 2 WKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

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

**INTERIM COMPLETION DATE**

THE INTERIM COMPLETION DATE FOR DECK REPLACEMENT AND ROADWAY WORK AT SHE-47-0397 SHALL BE 10/18/24. BRIDGE PAINTING MAY OPTIONALLY OCCUR APRIL 1ST 2025 TO MAY 30TH 2025.

ALL EXISTING LANES SHALL BE OPEN AND AVAILABLE TO TRAFFIC BY THE INTERIM COMPLETION DATE. SHOULD THE CONTRACTOR FAIL TO MEET THE INTERIM COMPLETION DATE, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES OF \$3,000 PER EACH CALENDAR DAY.

DESIGN AGENCY



DESIGNER  
LCG

REVIEWER  
NKH 04/19/23

PROJECT ID  
99862

SHEET TOTAL  
P.05 | 26

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	5	9							01/STR/10	EXT	TOTAL				
<b>ROADWAY</b>																
LS										LS	201	11000	LS		CLEARING AND GRUBBING	
			166							166	202	23000	166	SY	PAVEMENT REMOVED	
			134							134	202	23500	134	SY	WEARING COURSE REMOVED	
			325							325	202	38000	325	FT	GUARDRAIL REMOVED	
			1							1	202	98100	1	EACH	REMOVAL MISC.: REMOVAL OF BRIDGE ID SIGN AND REERECTION	3
			280							280	204	10000	280	SY	SUBGRADE COMPACTION	
			150							150	606	15050	150	FT	GUARDRAIL, TYPE MGS	
			2							2	606	26050	2	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
			4							4	606	34600	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2	
<b>EROSION CONTROL</b>																
	680									680	659	10000	680	SY	SEEDING AND MULCHING	
	34									34	659	14000	34	SY	REPAIR SEEDING AND MULCHING	
	34									34	659	15000	34	SY	INTER-SEEDING	
	0.1									0.1	659	20000	0.1	TON	COMMERCIAL FERTILIZER	
	4									4	659	35000	4	MGAL	WATER	
										7,200	832	30000	7,200	EACH	EROSION CONTROL	
<b>PAVEMENT</b>																
			561							561	254	01000	561	SY	PAVEMENT PLANING, ASPHALT CONCRETE 2" DEPTH	
			8							8	302	56000	8	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
			50							50	304	20000	50	CY	AGGREGATE BASE	
			127							127	407	10000	127	GAL	TACK COAT	
			32							32	441	50300	32	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
			47							47	443	12000	47	CY	STONE MATRIX ASPHALT CONCRETE, 12.5 MM, PG76-22M, (446)	
			9							9	617	10100	9	CY	COMPACTED AGGREGATE	
<b>LIGHTING</b>																
										2	625	33000	2	EACH	STRUCTURE GROUNDING SYSTEM	
<b>TRAFFIC CONTROL</b>																
11			9							9	621	00100	9	EACH	RPM	3
			8							8	626	00110	8	EACH	BARRIER REFLECTOR, TYPE 2, (BI-DIRECTIONAL)	
			1							1	630	80101	1	SF	SIGN, FLAT SHEET, AS PER PLAN	3
			12							12	644	00500	12	FT	STOP LINE	
			0.18							0.18	646	10010	0.18	MILE	EDGE LINE, 6"	
			0.09							0.09	646	10200	0.09	MILE	CENTER LINE	
<b>STRUCTURE REPAIRS</b>																
															FOR SHE-47-0397 ESTIMATED QUANTITIES	14
<b>MAINTENANCE OF TRAFFIC</b>																
		LS								LS	614	12420	LS		DETOUR SIGNING	
<b>INCIDENTALS</b>																
										LS	614	11000	LS		MAINTAINING TRAFFIC	
										4	619	16010	4	MNTH	FIELD OFFICE, TYPE B	
										LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DISTRICT 7  
ENGINEERING

DESIGNER  
LCG

REVIEWER  
DHG 05/09/23

PROJECT ID  
99862

SHEET TOTAL  
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REF NO.	SHEET NO.	STATION TO STATION					202	202	202	202	204	254	302	304	407	441	443	606	606	606	617	621	626	630	644	646	646
							PAVEMENT REMOVED	WEARING COURSE REMOVED	GUARDRAIL REMOVED	REMOVAL MISC.: REMOVAL OF BRIDGE ID SIGN AND REERECTION	SUBGRADE COMPACTION	PAVEMENT PLANING, ASPHALT CONCRETE 2" DEPTH	ASPHALT CONCRETE BASE, PG64-22, (449)	AGGREGATE BASE	TACK COAT (0.085 GAL/SY)	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	STONE MATRIX ASPHALT CONCRETE, 12.5 MM, PG76-22M, (446)	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE B	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2	COMPACTED AGGREGATE	RPM	BARRIER REFLECTOR, TYPE 2, (BI-DIRECTIONAL), WHITE	SIGN, FLAT SHEET, AS PER PLAN	STOP LINE	EDGE LINE, 6"	CENTER LINE, (SOLID-SOLID)
						SY	SY	FT	EACH	SY	SY	CY	CY	GAL	CY	CY	FT	EACH	EACH	CY	EACH	EACH	SF	FT	MILE	MILE	
GR-1	10	208+25.60	L	TO	209+30.32	L			100								37.5	1	1			2					
GR-2	10	208+25.10	R	TO	209+04.83	R			75								12.5	1	1			2					
GR-3	10	210+94.48	R	TO	211+43.98	R			75								50		1			2					
GR-4	10	211+19.64	L	TO	211+69.17	L			75								50		1			2					
EL-1	10	208+19.15	L	TO	212+19.15	L																			0.09		
EL-2	10	208+19.15	R	TO	212+19.15	R																			0.09		
CL-1	10	208+36.67		TO	212+19.15																					0.09	
PV-1	10	208+19.15		TO	209+19.15		83	67		140	260	4	25	57	16	22				4	5						
PV-2	10	211+04.85		TO	212+19.15		83	67		140	301	4	25	70	16	25				5	4						
SB-1	10	208+35.92	L																					12			
S-1	10	209+11.00	R						1														1				
S-2	10	211+12.00	L																								
TOTALS CARRIED TO GENERAL SUMMARY							166	134	325	1	280	561	8	50	127	32	47	150	2	4	9	9	8	1	12	0.18	0.09

PAVEMENT AND TRAFFIC SUBSUMMARY

DESIGN AGENCY



DISTRICT 7 ENGINEERING

DESIGNER

LCG

REVIEWER

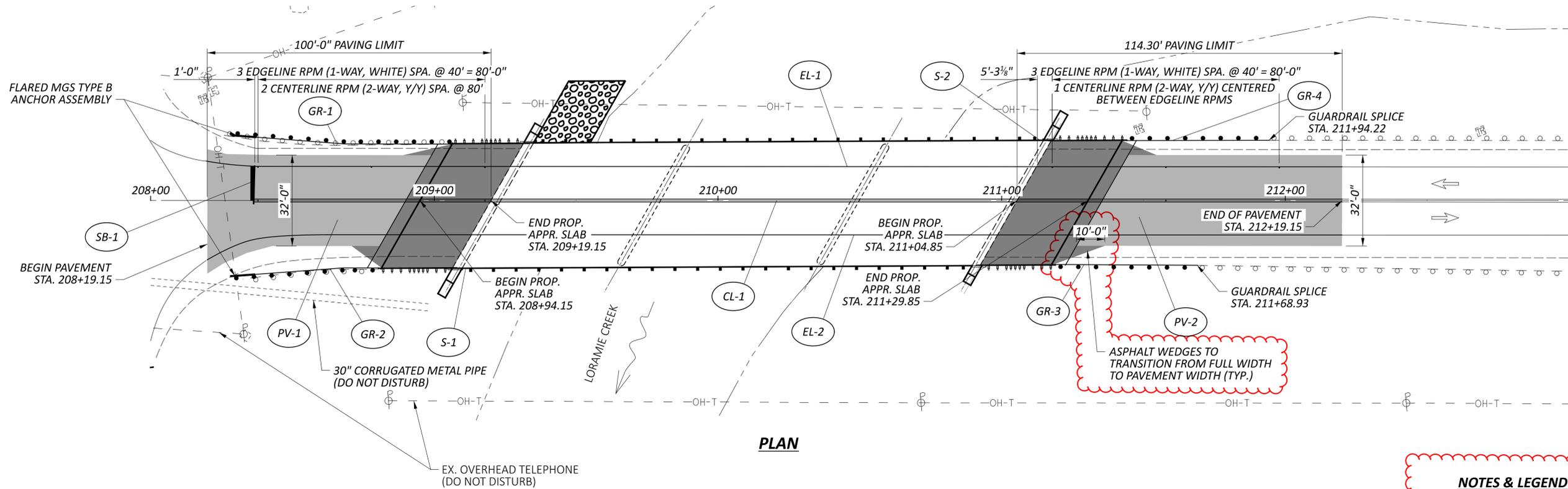
DHG 05/09/23

PROJECT ID

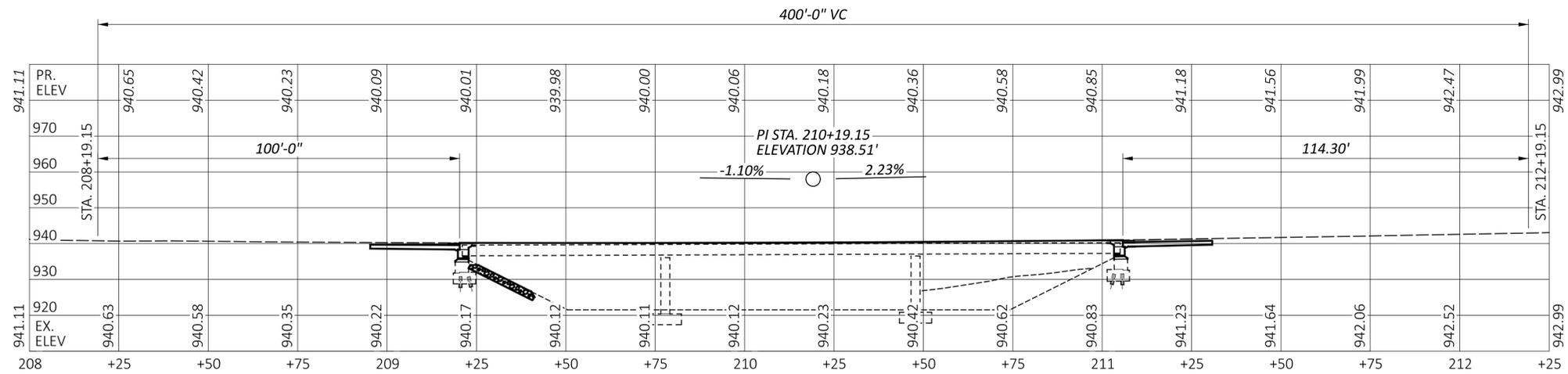
99862

SHEET TOTAL

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PLAN

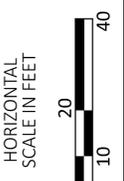


PROFILE

**NOTES & LEGEND**

- NO RPMS ARE TO BE INSTALLED ON THE BRIDGE DECK
- PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT PAST APPROACH SLAB AND 5' FULL DEPTH SECTION
- APHALT WEDGES ARE TO HAVE SAME FULL DEPTH BUILD UP AS 5' REPLACEMENT SECTION

ASPHALT PAVING OVER - APPROACH SLABS AND FULL DEPTH SECTION  
 - PAVEMENT PLANING AND RESURFACE



**PAVEMENT AND TRAFFIC PLAN & PROFILE**  
**SHE-47-0397**

DESIGN AGENCY	
DISTRICT 7 ENGINEERING	
DESIGNER	
LCG	
REVIEWER	
DHG 05/09/23	
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99862	
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**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

- AS-1-15 DATED 1/20/23
- AS-2-15 (REVISED) 1/20/23
- DS-1-92 (REVISED) 7/15/22
- SICD-1-21 (REVISED) 1/21/22
- SICD-2-14 (REVISED) 1/15/21
- TST-2-21 DATED 7/16/21

**DESIGN SPECIFICATIONS**

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

**DESIGN LOADING**

DESIGN LOADING INCLUDES:  
VEHICULAR LIVE LOAD: HL-93

**OPERATIONAL IMPORTANCE**

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

**DESIGN DATA**

CONCRETE CLASS QC2  
-COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1  
-COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT  
-UNCOATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI, APPROACH SLABS, ABUTMENT  
-GALVANIZED STEEL REINFORCEMENT – MINIMUM YIELD STRENGTH 60-KSI, BRIDGE DECK, DIAPHRAGMS

EXISTING STRUCTURAL STEEL - MIN. YIELD STRESS 36 KSI  
STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

**DECK PROTECTION METHOD**

GALVANIZED REINFORCING STEEL  
2½" CONCRETE COVER  
STEEL DRIP STRIP

**MONOLITHIC WEARING SURFACE**

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

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD. PLANS OF THE EXISTING STRUCTURES MAY BE EXAMINED AT THE DISTRICT SEVEN OFFICE IN SIDNEY, OHIO OR THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO.

**ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN**

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING METAL RAILINGS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, CROSS-FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS:

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

REMOVAL METHODS:

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

EXISTING WELDED ATTACHMENTS:

REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING CONCRETE REINFORCEMENT, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING STEEL REINFORCEMENT DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL:

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE DEPARTMENT WILL NOT PERMIT HYDRAULIC HOE/RAM TYPE HAMMERS. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18-IN LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT:

THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

**PILES TO BEDROCK**

DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED WHEN THE PILE PENETRATION IS AN INCH OR LESS AFTER RECEIVING AT LEAST 20 BLOWS FROM THE PILE HAMMER. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE TOTAL FACTORED LOAD IS 62 KIPS PER PILE FOR THE ABUTMENT PILES.

ABUTMENT PILES:  
8 HP 10X42 PILES @ 25 FEET LONG, 200 FT ORDER LENGTH

USE STEEL PILE POINTS TO PROTECT THE TIPS OF THE PROPOSED STEEL H-PILES AT THE REAR AND FORWARD ABUTMENTS.

**PILE SPLICES**

IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN C&MS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION  
8 WOOD HOLLOW RD. PLAZA 1  
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED

**ITEM 514 – FIELD PAINTING, MISC. COATING OF BEAM ENDS**

PRIOR TO ENCASING THE BEAM ENDS, PREPARE THE ENDS PER SSPC SP10 OR SSPC SP11 TO BARE METAL ACHIEVING A 1.5 TO 3.5 MIL PROFILE. PAINT THE BEAM ENDS WITH ORGANIC ZINC PRIME COAT PER C&MS 514. PROVIDE THE PRIME COAT THICKNESS AS PER C&MS 514.20. EXTEND THE LIMITS OF THE BEAM PREPARATION AND PAINTING 1-FT BEYOND THE LIMITS OF THE END DIAPHRAGM CONCRETE.

AFTER THE DIAPHRAGM CONCRETE IS SET, SEAL THE INTERFACE BETWEEN THE BEAM AND CONCRETE WITH CAULK.

THE DEPARTMENT WILL PAY FOR ALL ABOVE LABOR AND AT THE CONTRACT BID PRICE FOR ITEM 514 – FIELD PAINTING, MISC. COATING OF BEAM ENDS.

**ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT**

PAINT COLOR SHALL BE GRAY, 16515

**ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN**

A 2" DEEP X 1" WIDE STRIP SHALL BE SAWCUT OUT OF THE ASPHALT ABUTTING CONCRETE AS DETAILED IN THE PLANS. IN LIEU OF SAWCUTTING AFTER CONSTRUCTION, THIS JOINT MAY BE FORMED DURING CONSTRUCTION. JOINT SEALER AS PER 705.04 SHALL BE USED TO SEAL THE JOINT CREATED.

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

**ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T= 15"), AS PER PLAN**

ALL APPROACH SLAB CONCRETE SHALL BE PLACED SEPARATELY FROM THE SUPERSTRUCTURE CONCRETE.

ALL REINFORCING STEEL IS TO BE PAID SEPARATELY UNDER ITEM 509 - UNCOATED STEEL REINFORCEMENT.

STRUCTURE NOTES (1 OF 2)  
BRIDGE NO.: SHE-47-0397  
S.R. 47 OVER LORAMIE CREEK

SFN  
7500424

DESIGN AGENCY



DISTRICT 7  
ENGINEERING

DESIGNER LCG  
CHECKER DHG

REVIEWER

MRB 05/10/23

PROJECT ID  
99862

SUBSET TOTAL  
2 16

SHEET TOTAL  
P.12 26