					SHEET NU	<u></u> JM.				PART.		ITEM	GRAND			655 61:5	
						2	3		4	1/S>2/47	ITEM	EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
																	<b>-</b>
						7					202	98100	7	EACH	ROADWAY REMOVAL MISC.: BARRIER REFLECTOR	2	
						LS					SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	2	
															EROSION CONTROL		
							30 250				659 659	00300 10000	30 250	CY SY	TOPSOIL SEEDING AND MULCHING		
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							10				411	10000	10	СҮ	STABILIZED CRUSHED AGGREGATE		
															TRAFFIC CONTROL		
						22					626	00102	22	1	BARRIER REFLECTOR, TYPE 1 TWO-WAY		
						21					626 630	00110 02100	21		BARRIER REFLECTOR, TYPE 2 TWO-WAY GROUND MOUNTED SUPPORT, NO. 2 POST		
						12					630	80100	12	SF	SIGN, FLAT SHEET		1
						2					630	80100	2	SF	SIGN, FLAT SHEET, 730.20		
						3					630	84900	3		REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		≿
						2					630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		₹ A
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									200		614	11110	200	HOUR	MAINTENANCE OF TRAFFIC  LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
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							20		6		614	18601	6		PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	3	GENERAI
															INCIDENTALS		<del> </del> 35
											614	11000	LS		MAINTAINING TRAFFIC		
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1.dgn											624	10000	LS	<b>Y</b>	MOBILIZATION		
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## ITEM SPECIAL - STRUCTURES: INSPECTION ACCESS

IN ADDITION TO THE REQUIREMENTS OF 105.10, FURNISH, ERECT, AND MOVE SCAFFOLDING AND OTHER APPROPRIATE EQUIPMENT TO ALLOW THE INSPECTOR AND THE ENGINEER THE OPPORTUNITY TO CLOSELY OBSERVE ALL AFFECTED SURFACES DURING ALL PHASES OF THE WORK AND FOR AT LEAST 10 WORKDAYS AFTER COMPLETELY REPAIRING THE STRUCTURE TO ALLOW FOR THE FINAL INSPECTION. SUBMIT FULLY DETAILED ENGINEERED DRAWINGS OF THE SCAFFOLDING OR WORK PLATFORMS USED FOR INSPECTION ACCESS TO THE ENGINEER AT LEAST 14 DAYS BEFORE INSTALLATION. ALL DETAILS OF THE INSPECTION ACCESS SHALL COMPLY WITH THE APPLICABLE SAFETY REQUIREMENTS OF THE OHIO INDUSTRIAL COMMISSION AND OSHA. PROVIDE DETAILS AND LOCATIONS OF ALL CONNECTIONS TO THE PERMANENT STRUCTURE USED FOR REPAIRING AND INSPECTION OF THE STRUCTURE WITH THE ENGINEERED DRAWINGS. DAMAGE TO THE PERMANENT STRUCTURE SHALL BE AVOIDED. DO NOT DRILL INTO THE BOTTOM OF THE DECK OR UNDER BEARING LOCATIONS OR SIMILAR AREAS OF CONCERN FOR THE STRUCTURE. THE DETAILS SHALL BE REVIEWED, SIGNED, STAMPED AND DATED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER CERTIFYING THAT THEY MEET THESE REQUIREMENTS. THE ENGINEER WILL PROVIDE A WRITTEN RESPONSE TO THE SUBMITTAL IN ACCORDANCE WITH 105.02. DO NOT BEGIN WORK UNTIL THE ENGINEER'S ACCEPTANCE HAS BEEN RECEIVED. PERFORM ALL WORK IN ACCORDANCE WITH THE ACCEPTED ENGINEERING DRAWINGS. IMMEDIATELY CEASE ALL OPERATIONS THAT DEVIATE FROM THE ACCEPTED ENGINEERED DRAWINGS. IF A DEVIATION IS NECESSARY, PREPARE REVISED ENGINEERING DRAWINGS AS NOTED ABOVE AND FURNISH THE ENGINEER A COPY OF REVISED ENGINEERING DRAWINGS. DO NOT BEGIN WORK UNTIL THE REVISED DRAWINGS ARE ACCEPTED BY THE ENGINEER. MAINTAIN THE IN-PLACE INSPECTION ACCESS EQUIPMENT EMPLOYED DURING ORIGINAL BRIDGE REPAIR ACTIVITIES OR PROVIDE ALTERNATE INSPECTION EQUIPMENT SUCH AS PLATFORM LIFTS, BUCKET TRUCKS, SNOOPER TRUCKS, OR EQUIVALENT AS APPROVED BY THE ENGINEER. IF SCAFFOLDING, OR ANY HANGER ATTACHED TO THE SCAFFOLDING, IS SUPPORTED BY HORIZONTAL WIRE ROPES, OR IF SCAFFOLDING IS DIRECTLY UNDER THE SURFACE TO BE REPAIRED, COMPLY WITH THE FOLLOWING REQUIREMENTS:

A. IF SCAFFOLDING IS SUSPENDED 43 INCHES (1092 MM) OR MORE BELOW THE SURFACE TO BE REPAIRED, PLACE TWO GUARDRAILS ON ALL SIDES OF THE SCAFFOLDING. PLACE ONE GUARDRAIL AT 42 INCHES (1067 MM) ABOVE THE SCAFFOLDING AND THE OTHER GUARDRAIL AT 20 INCHES (508 MM) ABOVE THE SCAFFOLDING.

B. IF SCAFFOLDING IS SUSPENDED AT LEAST 21 INCHES (533 MM) BUT LESS THAN 43 INCHES (1092 MM) BELOW THE SURFACE TO BE REPAIRED, PLACE ONE GUARDRAIL ON ALL SIDES OF THE SCAFFOLDING AT 20 INCHES (508 MM) ABOVE THE SCAFFOLDING.

C. IF A AND B DO NOT APPLY, PLACE TWO GUARDRAILS ON ALL SIDES OF SCAFFOLDING. PLACE ONE GUARDRAIL AT 42 INCHES (1067 MM) ABOVE THE SCAFFOLDING AND THE OTHER GUARDRAIL AT 20 INCHES (508 MM) ABOVE SCAFFOLDING.

D. PROVIDE SCAFFOLDING AT LEAST 24 INCHES (610 MM) WIDE IF GUARDRAIL IS USED AND 28 INCHES (711 MM) WIDE IF GUARDRAIL IS NOT USED AND SCAFFOLDING IS SUSPENDED LESS THAN 21 INCHES (533 MM) BELOW THE SURFACE TO BE REPAIRED. IF USING TWO OR MORE PARALLEL SCAFFOLDING TO ACHIEVE THE PROPER WIDTH, RIGIDLY ATTACH THE SCAFFOLDING TOGETHER TO PREVENT DIFFERENTIAL MOVEMENT.

E. CONSTRUCT GUARDRAIL AS A SUBSTANTIAL BARRIER, SECURELY FASTENED IN PLACE AND FREE FROM PROTRUDING OBJECTS SUCH AS NAILS, SCREWS, AND BOLTS. PROVIDE A PROPERLY LOCATED OPENING IN THE GUARDRAIL TO ALLOW THE ENGINEER AND INSPECTOR ACCESS ONTO THE SCAFFOLDING.

F. CONSTRUCT GUARDRAILS AND UPRIGHTS OF METAL PIPE, STEEL ANGLES, OR WOOD. IF USING PIPE RAILING, PROVIDE PIPE WITH A NOMINAL DIAMETER OF AT LEAST 1 1/2 INCHES (38 MM). IF USING STEEL ANGLE RAILING, PROVIDE 2 X 2 X 3/8-INCH (50 X 50 X 9 MM) STEEL ANGLES OR OTHER METAL SHAPES OF EQUAL OR GREATER STRENGTH. IF USING WOOD RAILING, PROVIDE 2 X 4 INCH (50 X 100 MM) NOMINAL STOCK. SPACE UPRIGHTS NO MORE THAN 8 FEET (2.4 M) ON CENTER. IF USING WOOD UPRIGHTS, PROVIDE 2 X 4 INCH (50 🛮 100 MM) NOMINAL STOCK.

G. IF THE SURFACE TO BE INSPECTED IS MORE THAN 15 FEET (4.57 M) ABOVE THE GROUND OR WATER, AND THE SCAFFOLDING IS SUPPORTED FROM THE STRUCTURE BEING REPAIRED, PROVIDE A SAFETY HARNESS (NOT A SAFETY BELT) AND LIFELINE FOR THE ENGINEER AND INSPECTOR. THE LIFELINE SHALL NOT ALLOW A FALL GREATER THAN 6 FEET (1.8 M). PROVIDE A METHOD TO ATTACH THE LIFELINE TO THE STRUCTURE THAT IS INDEPENDENT OF THE SCAFFOLDING, CABLES, AND BRACKETS SUPPORTING THE SCAFFOLDING.

H. IF SCAFFOLDING IS MORE THAN 2.5 FEET (762 MM) ABOVE THE GROUND, PROVIDE AN ACCESS LADDER AND EQUIPMENT TO ATTACH THE LADDER ONTO THE SCAFFOLDING CAPABLE OF SUPPORTING 250 POUNDS (113 KG) WITH A SAFETY FACTOR OF AT LEAST FOUR. UNIFORMLY SPACE RUNGS, STEPS, CLEATS, AND TREADS NO MORE THAN 12 INCHES (305 MM) ON CENTER. EXTEND AT LEAST ONE SIDE RAIL AT LEAST 36 INCHES (914 MM) ABOVE THE LANDING NEAR THE TOP OF THE LADDER.

I. IF THE DISTANCE FROM THE LADDER TO THE ACCESS POINT ON THE SCAFFOLDING EXCEEDS 12 INCHES (305 MM), PROVIDE AN ADDITIONAL LANDING THAT IS CAPABLE OF SUPPORTING A MINIMUM OF 1000 POUNDS (454 KG) AND AT LEAST 24 INCHES (610 MM) WIDE AND 24 INCHES (610 MM) LONG. SIZE AND SHAPE THE LANDING SO THAT THE DISTANCE FROM THE LANDING TO THE POINT WHERE THE SCAFFOLDING IS ACCESSED DOES NOT EXCEED 12 INCHES (305 MM). FIRMLY ATTACH THE LANDING TO THE LADDER; HOWEVER, DO NOT USE THE LADDER TO SUPPORT THE LANDING.

J. IN ADDITION TO THE SCAFFOLDING REQUIREMENTS ABOVE, COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, REGULATIONS, ORDERS, AND DECREES.

K. FURNISH ALL NECESSARY TRAFFIC CONTROL TO ALLOW INSPECTION DURING AND AFTER ALL PHASES OF THE PROJECT.

ALL LABOR, MATERIALS, AND INCIDENTALS INVOLVED WITH THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM SPECIAL -STRUCTURES: INSPECTION ACCESS.

## VANDAL FENCING

THE CONTRACTOR IS PERMITTED TO REMOVE A MAXIMUM OF 100 FEET OF THE EXISTING VANDAL FENCING (ALONG THE SUM-82-0000 BRIDGE DECK) AT A TIME DURING THE BRIDGE REPAIR OPERATIONS. WHEN THE CONTRACTOR IS NOT PRESENT, ALL FENCING IS TO BE REINSTALLED AS PER ITS PREVIOUS CONDITIONS PRIOR TO THE BEGINNING OF THE PROJECT. THIS WORK SHALL BE INCIDENTAL TO ITEM SPECIAL -STRUCTURES: INSPECTION ACCESS.

## COLUMN REPAIRS

NO TWO VERTICAL COLUMNS WITHIN 50 FEET OF EACH OTHER CAN BE REPAIRED AT THE SAME TIME WITHOUT WRITTEN CONSENT FROM THE PROJECT ENGINEER.

Add plan page

ESIGN AGENCY MJA TJP REVIEWER TJP 5/17/24 ROJECT ID

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RAILROAD

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**GENERAL** 

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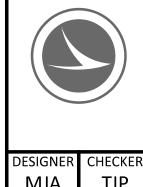
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SHEET	TOTAL	
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				ESTIMATEDQUANTITIES (01/S>2/47)					
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
201	11001	LS	LS	CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS					1/28
509	20001	2000	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				2000	1/28
512	10100	1000	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)				1000	
512	10600	440	FT	CONCRETE REPAIR BY EPOXY INJECTION			440	1000	
512	10900	320	FT	ELASTOMERIC COMPRESSION SEAL			320		
518	12500	10	EACH				10		1/28
210	12500	10	ЕАСП	SCUPPER, MISC.: CLEANOUT			10		1/28
SPECIAL	51900100	8500	SF	COMPOSITE FIBER WRAP SYSTEM				8500	
519	11101	500	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN				500	1/28
519	12304	50	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C			50		
520	10001	8000	SF	PNEUMATICALLY PLACED CONCRETE SHOTCRETE, AS PER PLAN (OPTION A)				8000	1/28
844	10001	8000	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN (OPTION B)				8000	1/28
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SPECIAL	53000200	LS	LS	STRUCTURES: INSPECTION ACCESS					1A/28
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