

BRIDGE NO: BEL-70-2134
 SFN: 0702870
 BRIDGE DESCRIPTION: I-70 OVER I-470



CALCULATED BY: AMR
 CHECKED BY: JZ

DATE: 05/19/26
 DATE: 05/19/26

ESTIMATED QUANTITIES

ITEM	ITEM EXT.	DESCRIPTION		
ITEM 201	11001	CLEARING AND GRUBBING, AS PER PLAN		
Total Quantity = LS				
ITEM 202	11203	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN		
Plan Area Removed = 1438.95 sq ft				
Total Quantity = LS				
ITEM 202	22900	APPROACH SLAB REMOVED		
Rear Area = 2051.10 sq ft				
Forward Area = 2031.26 sq ft				
Total Quantity = 454 sq yd				
ITEM 202	23500	WEARING COURSE REMOVED		
Rear Approach Slab Area = 2051 sq yd				
Forward Approach Slab Area = 2031 sq yd				
Total Quantity = 454 sq yd				
ITEM 509	10000	EPOXY COATED STEEL REINFORCEMENT		
Abutments = 1540 lb				
Superstructure = 854 lb				
Total Quantity = 2394 lb				
ITEM 509	20001	CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN		
Rear Abutment				
	#5 Bar	Length	Number	Total Weight
		5.00 ft	12 each	62.58 LB
	#6 Bar	3.42 ft	157 each	805.78 LB
	#8 Bar	2.25 ft	105 each	628.79 LB
	Railing #5 Bar	2.67 ft	11 each	30.59 LB
Forward Abutment				
	#6 Bar	Length	Number	Total Weight
		3.42 ft	157 each	805.78 LB
	#8 Bar	2.25 ft	105 each	628.79 LB
	Railing #5 Bar	2.67 ft	22 each	61.17 LB
Abutment Total = 1466 LB				
Superstructure				
	#4 Bar	Length	Number	Total Weight
		3.08 ft	316 each	650.78 LB
	#5 Bar	3.08 ft	258 each	1193.55 LB
	Railing #5 Bar	4.50 ft	88 each	594.79 LB
	#6 Bar	3.08 ft	402 each	1859.72 LB
Superstructure Total = 2149 LB				
Total Quantity = 3615 LB				

ITEM 510	10000	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		
Rear Abutment = 17 each				
Forward Abutment = 15 each				
Total Quantity = 32 each				
ITEM 511	34446	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK		
Rear Plan Area = 439.34 sq ft				
Forward Plan Area = 461.11 sq ft				
Thickness = 0.94 ft				
Total Quantity = 32 cu yd				
ITEM 511	34450	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)		
Parapet Area = 3.93 ft				
Parapet Length WW1 & Deck = 6.73 ft				
Parapet Length WW2 & Deck = 7.00 ft				
Parapet Length WW3 & Deck = 6.88 ft				
Parapet Length WW4 & Deck = 7.04 ft				
Median Parapet Area = 2.48 ft				
Rear Median Parapet Length = 17.76 ft				
Forward Median Parapet Length = 18.69 ft				
Total Quantity = 8 cu yd				
ITEM 511	45710	CLASS QC1 CONCRETE, ABUTMENT		

ITEM 512	10100	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
Superstructure				
		Perimeter	Length	Area
	WB Exterior Parapet	7.46 ft	230.54 ft	1719.60 sq ft
	EB Exterior Parapet	7.46 ft	235.97 ft	1760.10 sq ft
	Median Parapet	8.17 ft	234.32 ft	1913.93 sq ft
	WB Left Overhang	2.12 ft	230.54 ft	489.23 sq ft
	WB Right Overhang	2.08 ft	234.32 ft	486.21 sq ft
	EB Left Overhang	1.21 ft	234.32 ft	282.94 sq ft
	EB Right Overhang	2.08 ft	235.97 ft	490.52 sq ft
Superstructure Total = 794 sq yd				
Pier 1 EB				
	Cap	Sides 291.72 ft^2	Bottom 100.98 ft	
Pier 2 EB				
	Cap	Sides 419.04 ft	Bottom 143.94 ft	
Pier 1 WB				
	Cap	Sides 493.72 ft^2	Bottom 173.88 ft	
Pier 2 WB				
	Cap	Sides 513.70 ft	Bottom 178.38 ft	
Pier Total = 257 sq yd				
Abutments				
	Face and Seat	Perimeter 4.56 ft	Length 233.78 ft	Area 1066.60 sq ft
	Wingwall and Parapet	10.46 ft	55.56 ft	581.10 sq ft
Abutment Total = 183 sq yd				
Total Quantity = 1234 sq yd				

ITEM 512	10300	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN		
Deck				
	Width 99.67 ft	Average Length 233.79 ft		
Total Quantity = 2589 sq yd				

ITEM 512	71500	SPECIAL - URETHANE TOP COAT SEALER		
Pier 1 EB				
	Columns	Perimeter 9.42 sq ft	Average Height 15.745	Area 593.57 sq ft
	Caps	Perimeter 10.67 ft	Length 32.67 ft	Area 348.43 sq ft
Pier 2 EB				
	Columns	Perimeter 9.42 sq ft	Average Height 15.745	Area 593.57 sq ft
	Caps	Perimeter 10.67 ft	Length 21.00 ft	Area 223.99 sq ft
Pier 1 WB				
	Columns	Perimeter 9.42 sq ft	Average Height 15.745	Area 741.97 sq ft
	Caps	Perimeter 10.67 ft	Length 16.00 ft	Area 170.66 sq ft
Pier 2 WB				
	Columns	Perimeter 9.42 sq ft	Average Height 15.745	Area 741.97 sq ft
	Caps	Perimeter 10.67 ft	Length 16.00 ft	Area 170.66 sq ft
Total Quantity = 399 sq yd				

ITEM 512	74000	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES			
Parapets = 599 sq yd					
Total Quantity = 599 sq yd					
ITEM 513	10201	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			
Length					
WT18X115.5		7.00 ft	Number	Weight	
			1 each	808.50 LB	
WT18x75		7.00 ft	2 each	1050.00 LB	
Total Quantity = 1859 LB					
ITEM 513	21500	REPLACEMENT OF DETERIORATED END CROSSFRAMES			
Length of L4x4x1/2 per Bay = 24.47 ft					
Connection Plate Volume = 0.05 cu ft					
Number of Locations = 13 each					
Total Quantity = 2957 lb					
ITEM 514	00050	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			
Perimeter					
WF36x230		10.31 ft	Length	Number	Total Area
			168.60 ft	15	26069.78 sq ft
WF36x150		8.98 ft	61.40 ft	15	8273.65 sq ft
L3x3x5/16		1.00 ft	23.42 ft	234	5480.28 sq ft
L4x4x1/2		1.33 ft	24.47 ft	26	847.45 sq ft
Total Quantity = 40671 sq ft					
ITEM 514	00056	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			
Total Quantity = 40671 sq ft					
ITEM 514	00060	FIELD PAINTING EXISTING STRUCTURAL STEEL, INTERMEDIATE COAT			
Total Quantity = 40671 sq ft					
ITEM 514	00066	FIELD PAINTING EXISTING STRUCTURAL STEEL, FINISH COAT			
Total Quantity = 40671 sq ft					
ITEM 514	00504	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			
Total Quantity = 58 mnhr					
ITEM 514	10000	FINAL INSPECTION REPAIR			
Total Quantity = 17 each					
ITEM 516	11210	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			
Length					
Rear Westbound		83.26 ft			
Forward Westbound		86.91 ft			
Rear Eastbound		72.26 ft			
Forward Eastbound		75.56 ft			
Total Quantity = 318 ft					

ITEM 516	13600	1" PREFORMED EXPANSION JOINT FILLER			
			Length	Height	Area
		Rear Abutment	1.77 ft	1.56 ft	2.76 sq ft
		Forward Abutment	1.85 ft	1.56 ft	2.89 sq ft
		Abutment Quantity = 5.65 sq ft			
			Rear	Forward	
		Westbound	22.55 ft	22.59 ft	
		Eastbound	35.70 ft	36.94 ft	
		Thickness =	1.08 ft		
		Approach Slab Quantity = 127.59 sq ft			
		Total Quantity = 134 sq ft			
ITEM 516	46200	BEARING DEVICE, ROCKER			
		Total Quantity = 30 each			
ITEM 516	47001	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			
		Total Quantity = LS			
ITEM 519	00100	SPECIAL - COMPOSITE FIBER WRAP SYSTEM			
			Perimeter	Average Height	Number
		Pier 1 Columns	9.42 ft	15.75 ft	9
		Pier 2 Columns	9.42 ft	15.75 ft	9
			Perimeter	Length	Area
		Caps	13.50 ft	85.67 ft	1156.55 sq ft
		Total Quantity = 3828 sq ft			
ITEM 519	10000	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE			
		Eastbound Area = 132 sq yd			
		Westbound Area = 207 sq yd			
		Total Quantity = 339 sq yd			
ITEM 519	11101	PATCHING CONCRETE STRUCTURE, AS PER PLAN			
		Measured Area = 9.89 sq ft			
		Total Quantity = 15 sq ft			
ITEM 526	15010	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T = 13")			
			Area		
		Rear WB	1069.16 sq ft		
		Rear EB	918.04 sq ft		
		Forward WB	1065.56 sq ft		
		Forward EB	914.36 sq ft		
		Total Quantity = 441 sq yd			
ITEM 526	90010	TYPE A INSTALLATION			
			Length		
		Rear	149.68 ft		
		Forward	157.79 ft		
		Total Quantity = 308 ft			