BRIDGE QUANTITY CALCULATIONS

PID No. 115826

BRIDGE NO. CUY-00480-06.120
West 220TH ST. over I-480

SFN 1814168

Prepared for:
ODOT District 12
5500 Transportation Blvd.
Garfield Heights, OH 44125

Prepared by:
MS Consultants, Inc.
333 E. Federal Street
Youngstown, Ohio 44503

November 10, 2026

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	202E11203
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	1

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN PAY UNIT LS

DESCRIPTION	SUB TOTAL	TOTAL
LUMP SUM ITEM		
TOTAL	-	**LS**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	202E22900
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME APPROACH SLAB REMOVED PAY UNIT SY

DESCRIPTION						SUB TOTAL	TOTAL
Location	**Length**	**Width**	**Area (SF)**	**Area (SY)**			
Rear Abutment			1353.7	150.0			
			(Area by CADD)				
Fwd Abutment	20.0	53.0	1060.0	118.0			
			Total	268.00		268	
					TOTAL	268	**268**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	202E75264
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	3

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME VANDAL PROTECTION FENCE REMOVED FOR STORAGE PAY UNIT FT

DESCRIPTION			SUB TOTAL	TOTAL
Location	**Length**			
Left Parapet	289.4			
Right Parapet	284.6			
Total	574.00		574.00	
		TOTAL	574	**574**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	503E11101
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN PAY UNIT LS

DESCRIPTION	SUB TOTAL	TOTAL
LUMP SUM ITEM		
-Required at approach slabs for part-width construction.		
TOTAL	-	**LS**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/9/25	ITEM NUMBER:	503E21300
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME UNCLASSIFIED EXCAVATION PAY UNIT LS

DESCRIPTION	SUB TOTAL	TOTAL
LUMP SUM ITEM		
TOTAL	-	**LS**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	509E10000
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME EPOXY COATED STEEL REINFORCEMENT PAY UNIT LB

DESCRIPTION			SUB TOTAL	TOTAL
From Reinforcing Schedules				
	LB			
Abutments	3,967			
Pier Cap	2,181			
Superstructure	157,686	(Included Diaphragm)		
Railings	11,596			
TOTAL	175,430		175,430	
		TOTAL	175,430	**175,430**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	510E10001
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN PAY UNIT EACH

DESCRIPTION			SUB TOTAL	TOTAL
Rear Abutment				
No. of dowels (each)		Total No. of Dowels		
146.00		146	146.0	
Piers				
No. of dowels per pier (each)	No. of piers (each)	Total No. of Dowels		
76.00	3.0	228	228.0	
Forward Abutment				
No. of dowels (each)		Total No. of Dowels		
130.00		130	130.0	
Rear Abutment SE Wingwall				
No. of dowels (each)		Total No. of Dowels		
45.00		45	45.0	
		TOTAL	549	**549**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E33500
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	8

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SEMI-INTEGRAL DIAPHRAGM GUIDE PAY UNIT EACH

DESCRIPTION		SUB TOTAL	TOTAL
Rear Abutment			
Number			
2.00		2	
Piers			
Number			
0.00		0	
Forward Abutment			
Number			
2.00		2	
TOTAL		4	**4**

QUANTITY CALCULATIONS	MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E34447
	CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	9

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN PAY UNIT CY

Deck

Area F/F abut. (ft^2)	Thickness (ft)	Volume (ft^3)	Volume (CY)	SUB TOTAL	TOTAL
16839	0.708	11927.6	442.0	442.0	

Typical Haunch

Girder #	Flange Width (in)	Fillet Width (in)	Avg. Height (in)	Area (sq in)	Length (ft)	Volume (ft^3)	Volume (CY)	SUB TOTAL	TOTAL
1	12.1	0.0	2.37	28.7	252.0	50.2	2		
2	12.1	0.0	2.37	28.7	252.0	50.2	2		
3	12.1	0.0	2.37	28.7	252.0	50.2	2		
4	12.1	0.0	2.37	28.7	252.0	50.2	2		
5	12.1	0.0	2.37	28.7	252.0	50.2	2		
6	12.1	0.0	2.37	28.7	252.0	50.2	2		
7	12.1	0.0	2.37	28.7	252.0	50.2	2		
8	12.1	0.0	2.37	28.7	252.0	50.2	2		
					Total =	401.5	16	16.0	

Additional Haunch Overhang

Girder #	Width (in)	Height (in)	Area (ft^2)	Length (ft)	Volume (ft^3)	Volume (CY)	SUB TOTAL	TOTAL
1	35.69	3.63	0.90	252.0	226.6	9		
8	31.69	3.63	0.80	237.0	189.2	8		
9		3.15	43.87		11.5	1		
Lt. Pilaster		14.6	5.1		6.2	0.23		
Lt. Pilaster		14.6	5.1		6.2	0.23		
Rt. Pilaster		14.6	5.1		6.2	0.23		
Rt. Pilaster		14.6	5.1		6.2	0.23		
				Total =	452.1	18.9	18.9	

Semi-Integral Abutment Diaphragm

Abut.	Width (ft)	Height (ft)	Deduct Appr Slab Seat (ft^2)	Area (ft^2)	Length (ft)	Volume (ft^3)	Volume (CY)	SUB TOTAL	TOTAL
Rear	3.75	4.62	0.54	16.78	73	1224.73	45.4		
Forward	3.75	4.62	0.54	16.78	63.82	1070.71	39.7		
					Total =	2295.4	85.0	85.0	

TOTAL	562	**562**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E34450
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET) PAY UNIT CY

Railing

	Width (ft)	Height (ft)	Length (ft)	Volume (ft^3)	Volume (CY)	SUB TOTAL	TOTAL
left	1.33	3.00	298.5	1194.0	44.22		
right	1.17	3.00	253.8	888.3	32.90		
right radius	1.17	3.00	34.8	121.8	4.51		
				Total	82.00	82	

Light Pole Pilasters

	Area (SF)	Height (ft)	Volume (ft^3)	Volume (CY)	SUB TOTAL	TOTAL
1	4.62	3.00	13.85	0.51		
2	4.62	3.00	13.85	0.51		
3	4.62	3.00	13.85	0.51		
4	4.62	3.00	13.85	0.51		
			Total	3.00	3	

TOTAL	85	85

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E42510
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CLASS QC1 CONCRETE, PIER CAP PAY UNIT CY

Pier Cap Adding cap depth to raise profile

Pier	Length	Width	Height	Vol (CF)	Vol (CY)
1	56.00	3.00	0.89	149.5	5.54
2	56.00	3.00	1.27	213.4	7.90
3	56.00	3.00	1.35	226.8	8.40
			Total	22.0	

DESCRIPTION	SUB TOTAL	TOTAL
	22.0	
TOTAL	22	**22**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E45710
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CLASS QC1 CONCRETE, ABUTMENT PAY UNIT CY

DESCRIPTION							SUB TOTAL	TOTAL
Abutment	Height	Width	Length	Vol (CF)	Vol (CY)			
Rear	1.00	73.00	3.75	273.8	10.14			
Fwd	1.50	63.80	3.75	358.9	13.29			
			Total	632.6	23.4		23.4	
Semi-Integral Blockouts								
	Height	Width	Length	Quantity (each)	Vol (CF)	Vol (CY)		
Rear	1.25	3.00	3.75	2.00	28.1	1.04		
Fwd	0.75	3.00	3.75	2.00	16.9	0.63		
				Total	45.0	1.7	1.7	
Wingwall		Plan Area	Height	Vol (CF)	Vol (CY)			
RA Rt wall a		18.67	5.00	93.4	3.46			
RA Rt slab area		32.14	0.98	31.4	1.16			
			Total	124.8	4.6		4.6	
						TOTAL	30	**30**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E51512
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK PAY UNIT CY

DESCRIPTION								SUB TOTAL	TOTAL
Sidewalk									
Side	Length (ft)	Width (ft)	Area (sq. ft.)	Ave. Thick. (ft)	Volume (ft^3)	Volume (CY)			
Left	298.51	7.3	2188.1	0.779	1704.9	64.0			
Right	280.09	9.0	2520.8	0.806	2031.5	76.0			
				Total =	3736.4	140		140.0	
length includes sidewalk on approach slabs									
							TOTAL	140	**140**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E53012
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CLASS QC2 CONCRETE, MISC.: SLEEPER SLAB SUPPORT CONCRETE PAY UNIT CY

DESCRIPTION									SUB TOTAL	TOTAL
Rear Approach Slab										
Length (ft.)	Width (ft.)	Depth ft.)	Quantity (each)	Total (CF)	Total (CY)					
6.00	1.33	1.33	6.00	64.00	2.37				2.37	
Forward Approach Slab										
Length (ft.)	Width (ft.)	Depth ft.)	Quantity (each)	Total (CF)	Total (CY)					
6.00	1.33	1.33	6.00	64.00	2.37				2.37	
								TOTAL	5	**5**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	511E81200
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME CONCRETE, MISC.: PARAPET LETTERING PAY UNIT LS

DESCRIPTION	SUB TOTAL	TOTAL
LUMP SUM ITEM		
TOTAL	-	**LS**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	512E10050
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SEALING OF CONCRETE SURFACES (NON-EPOXY) PAY UNIT SY

DESCRIPTION						SUB TOTAL	TOTAL
Superstructure							
Left Sidewalk							
Location	Perim. (ft)	Length (ft) (along edge of deck)	Area (ft^2)	Area (yd^2)			
Sidewalk	6.67	298.511	1990.07	221.12		221.1	
Right Sidewalk							
Location	Perim. (ft)	Length (ft) (along edge of deck)	Area (ft^2)	Area (yd^2)			
Sidewalk	8.50	286.87	2438.40	270.93		270.9	
				Total Superstructure Sealing =		492.05	
					TOTAL	492	**492**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	512E10100
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) PAY UNIT SY

DESCRIPTION								SUB TOTAL	TOTAL
Piers									
	Pier 1 Cap Areas (areas from ORD measure tool)								
	Front (ft^2)	Back (ft^2)	Left End (ft^2)	Right End (ft^2)	Underside (ft^2)	Pier 1 Total (SF)	Pier 1 Total (SY)		
	255.79	255.79	23.76	23.70	131.59	690.62	125.05	125.05	
	Pier 1 Columns								
	Avg. Height (ft)	Perimeter (ft)	No. of Columns	Area (ft^2)	Area (SY)				
	16.25	9.42	4.00	612.54	68.06			68.06	
	Pier 2 Cap Areas (areas from ORD measure tool)								
	Front (ft^2)	Back (ft^2)	Left End (ft^2)	Right End (ft^2)	Underside (ft^2)	Pier 2 Total (SF)	Pier 2 Total (SY)		
	277.35	277.35	20.07	20.01	131.59	726.36	130.60	130.60	
	Pier 2 Columns								
	Height (ft)	Perimeter (ft)	No. of Columns	Area (ft^2)	Area (SY)				
	8.95	9.42	4.00	337.26	37.47			37.47	
	Pier 3 Cap Areas (areas from ORD measure tool)								
	Front (ft^2)	Back (ft^2)	Left End (ft^2)	Right End (ft^2)	Underside (ft^2)	Pier 3 Total (SF)	Pier 3 Total (SY)		
	281.63	281.63	17.28	17.22	131.59	729.35	130.79	130.79	
	Pier 3 Columns								
	Avg. Height (ft)	Perimeter (ft)	No. of Columns	Area (ft^2)	Area (SY)				
	12.80	9.42	4.00	482.40	53.60			53.60	
							Total Pier Sealing =	545.57	
							TOTAL		

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	512E10100
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) PAY UNIT SY

DESCRIPTION		SUB TOTAL	TOTAL
Rear Abutment			
Front Face Area			
Area (by CADD)(sq. ft.)	Area (SY)		
332.45	36.94	36.94	
SW Wingwall area			
Area (by CADD)(sq. ft.)	Area (SY)		
16.46	1.83	1.83	
SE Wingwall Area			
Area (by CADD)(sq. ft.)	Area (SY)		
47.76	5.31	5.31	
Forward Abutment			
Front Face Area			
Area (by CADD)(sq. ft.)	Area (SY)		
325.95	36.22	36.22	
NW Wingwall area			
Area (by CADD)(sq. ft.)	Area (SY)		
21.27	2.36	2.36	
NE Wingwall Area			
Area (by CADD)(sq. ft.)	Area (SY)		
20.99	2.33	2.33	
	Total Abutment Sealing =		84.99
	TOTAL		

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	512E10100
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PID NO. 105792 PROJECT CUY-090-13.45 STRUCTURE CUY-090-1345

ITEM NAME SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) PAY UNIT SY

DESCRIPTION						SUB TOTAL	TOTAL
Superstructure							
	Left Edge of Deck						
	Location	Perim. (ft)	Length (ft) (along edge of deck)	Area (ft^2)	Area (yd^2)		
	Edge of Deck and Parapet Perimeter	9.82	298.511	2930.23	325.58	325.6	
	Right Edge of Deck						
	Location	Perim. (ft)	Length (ft) (along edge of deck)	Area (ft^2)	Area (yd^2)		
	Edge of Deck and Parapet Perimeter	9.88	286.87	2833.11	314.79	314.8	
				Total Superstructure Sealing =		640.37	
					TOTAL	1,271	**1271**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	512E33000
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME TYPE 2 WATERPROOFING PAY UNIT SY

DESCRIPTION						SUB TOTAL	TOTAL
Waterproofing at Abutment							
Location	Height (ft)	Width (ft)	Area (ft^2)	Area (yd^2)			
R.A. Left Corner	5.50	3.00	16.50	1.83		1.83	
F.A. Left Corner	6.00	3.00	18.00	2.00		2.00	
F.A. Right Corner	6.00	3.00	18.00	2.00		2.00	
R.A. Phase C.J.	6.00	3.00	18.00	2.00		2.00	
F.A. Phase C.J.	6.00	3.00	18.00	2.00		2.00	
NOTE: 3'-0" strip of waterproofing applied in wingwall outside corner from top of wingwall to 1'-6" below adjacent existing beam seat							
					TOTAL	10	**10**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	513E20000
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME WELDED STUD SHEAR CONNECTORS PAY UNIT EACH

5" X 7/8" dia studs on Girders, 3 per row:

	Spaces	Number	SUB TOTAL	TOTAL
Beam 1	273	822		
Beam 2	273	822		
Beam 3	273	822		
Beam 4	273	822		
Beam 5	273	822		
Beam 6	273	822		
Beam 7	273	822		
Beam 8	273	822		
Beam 9	13	42		
Total		**6618**	6,618	
			TOTAL	6,618	**6618**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/9/26	ITEM NUMBER:	513E90000
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME STRUCTURAL STEEL, MISC.: ANGLES, CHANNELS, & PLATES PAY UNIT LB

									SUB TOTAL	TOTAL
Center bay of cross frames getting replaced										
	Replacement Crossframe Members									
	3x3x5/16 ANGLE									
	Length (ft)	Weight (lb)					Locations (each)	Weight (lbs)		
DIAGONAL	8.63	6.10					21	1,106.05		
DIAGONAL	8.63	6.10					21	1,106.05		
BOTTOM	8.23	6.10					21	1,053.73		
3/8" CONNECTION PLATE										
		Deduct								
Width (in.)	Avg. Height (in.)	Corner Clips (in.^{2})	Thickness (in.)	Volume (ft^3)	Weight/ft^3 (lb/ft^3)		Locations (each)	Weight (lbs)		
6.00	33.97	2.50	0.375	0.044	490.00		42	899.21		
	3/8" FILL PLATE									
	Width (in.)	Length (in.)	Thickness (in.)	Volume (ft^3)	Weight/ft^3 (lb/ft^3)		Locations (each)	Weight (lbs)		
	4.00	18.00	0.375	0.016	490.00		21	160.78		
				Total Weight per frame			4,325.82	lb		
				Number of bays			1			
				Sub-total Replacement Crossframes Weight =			4,325.82	lb		
	5% contingency for welds, bolts and other minor steel parts =						216.29	lb		
				Total Replacement Crossframes Weight =			4,542.11	lb	4,543	
Supports of Enbridge Gas Utility lines										
	ASSUME MC6x18									
	Length (ft)	Weight (lb/ft)					Locations (each)	Weight (lbs)		
SUPPORT	8.23	18.00		BAY 5			20	2,961.30		
SUPPORT	8.23	18.00		BAY 2			20	2,961.30		
1/2" CONNECTION PLATE										
		Deduct								
Width (in.)	Height (in.)	Corner Clips (in.^{2})	Thickness (in.)	Volume (ft^3)	Weight/ft^3 (lb/ft^3)		Locations (each)	Weight (lbs)		
5.00	6.50	1.88	0.500	0.009	490.00		80	347.37		
				Sub-total Utility Supports Weight =				6,269.97	lb	
		5% contingency for welds, bolts and other minor steel parts =						313.50	lb	
				Total Utility Supports Weight =				6,583.47	lb	6,584
								TOTAL	11,127	**11127**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00051
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN PAY UNIT SF

DESCRIPTION							SUB TOTAL	TOTAL
Existing Beams								
Rear Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
9	10.0	9.0	90.0					
		Total =	810.0				810.0	
Forward Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
		Total =	720.0				720.0	
Existing Intermediate Crossframes (Bays 1 thru 3 and Bays 5 thru 7)								
			Shape =	L 3 x 3 x 5/16				
		Perimeter =		12.00	in.			
	Bottom Member Length =			8.24	ft			
	Diagonal Member Length =			8.66	ft			
		No. of Locations =		12.00	each			
			Total =	306.81	SF		306.81	
						TOTAL	1,837	

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00051
CHECKED BY:	SJR	DATE:	11/2/26	PAGE NUMBER:	24

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN PAY UNIT SF

DESCRIPTION			SUB TOTAL	TOTAL
Existing Additional Support Angles (Bay 6)				
Shape =	L 3 1/2x3 1/2x5/16			
Perimeter =	14.00	in.		
Member Length =	8.24	ft		
No. of Locations =	2.00	each		
Total =	19.23	SF	19.23	
Existing Intermediate Crossframe (Bay 8)				
Shape =	L 3 x 3 x 5/16			
Perimeter =	12.00	in.		
1st X-frame Bott. Member Length =	6.13	ft		
1st X-frame Diagonal Member Length =	6.68	ft		
Total =	19.49	SF	19.49	
TOTAL			39	**1876**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00057
CHECKED BY:	SJR	DATE:	11/2/26	PAGE NUMBER:	25

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN PAY UNIT SF

DESCRIPTION							SUB TOTAL	TOTAL
Existing Beams								
Rear Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
9	10.0	9.0	90.0					
		Total =	810.0				810.0	
Forward Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
		Total =	720.0				720.0	
Existing Intermediate Crossframes (Bays 1 thru 3 and Bays 5 thru 7)								
			Shape =	L 3 x 3 x 5/16				
		Perimeter =		12.00	in.			
	Bottom Member Length =			8.24	ft			
	Diagonal Member Length =			8.66	ft			
		No. of Locations =		12.00	each			
			Total =	306.81	SF		306.81	
						TOTAL	1,837	

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00057
CHECKED BY:	SJR	DATE:	11/2/26	PAGE NUMBER:	26

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN PAY UNIT SF

DESCRIPTION			SUB TOTAL	TOTAL
Existing Additional Support Angles (Bay 6)				
Shape =	L 3 1/2x3 1/2x5/16			
Perimeter =	14.00	in.		
Member Length =	8.24	ft		
No. of Locations =	2.00	each		
Total =	19.23	SF	19.23	
Existing Intermediate Crossframe (Bay 8)				
Shape =	L 3 x 3 x 5/16			
Perimeter =	12.00	in.		
1st X-frame Bott. Member Length =	6.13	ft		
1st X-frame Diagonal Member Length =	6.68	ft		
Total =	19.49	SF	19.49	
TOTAL			39	**1876**

QUANTITY CALCULATIONS	MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00061
	CHECKED BY:	SJR	DATE:	11/2/26	PAGE NUMBER:	27

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN PAY UNIT SF

DESCRIPTION							SUB TOTAL	TOTAL
Existing Beams								
Rear Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
9	10.0	9.0	90.0					
		Total =	810.0				810.0	
Forward Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
		Total =	720.0				720.0	
Existing Intermediate Crossframes (Bays 1 thru 3 and Bays 5 thru 7)								
			Shape =	L 3 x 3 x 5/16				
		Perimeter =		12.00	in.			
	Bottom Member Length =			8.24	ft			
	Diagonal Member Length =			8.66	ft			
		No. of Locations =		12.00	each			
			Total =	306.81	SF		306.81	
						TOTAL	1,837	

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00051
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN PAY UNIT SF

DESCRIPTION			SUB TOTAL	TOTAL
Existing Additional Support Angles (Bay 6)				
Shape =	L 3 1/2x3 1/2x5/16			
Perimeter =	14.00	in.		
Member Length =	8.24	ft		
No. of Locations =	2.00	each		
Total =	19.23	SF	19.23	
Existing Intermediate Crossframe (Bay 8)				
Shape =	L 3 x 3 x 5/16			
Perimeter =	12.00	in.		
1st X-frame Bott. Member Length =	6.13	ft		
1st X-frame Diagonal Member Length =	6.68	ft		
Total =	19.49	SF	19.49	
Proposed Intermediate Crossframes (Bay 4)				
Shape =	L 3 x 3 x 5/16			
Perimeter =	12.00	in.		
Bottom Member Length =	8.08	ft		
Diagonal Member Length =	8.34	ft		
Connection Plate Area =	1.40	sf		
No. of Locations =	2.00	each		
Total =	60.71	SF	60.71	
TOTAL			99	**1937**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00067
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN PAY UNIT SF

DESCRIPTION							SUB TOTAL	TOTAL
Existing Beams								
Rear Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
9	10.0	9.0	90.0					
		Total =	810.0				810.0	
Forward Abutment								
Beam no.	Length (ft)	Perimeter (ft)	Area (ft^2)					
1	10.0	9.0	90.0					
2	10.0	9.0	90.0					
3	10.0	9.0	90.0					
4	10.0	9.0	90.0					
5	10.0	9.0	90.0					
6	10.0	9.0	90.0					
7	10.0	9.0	90.0					
8	10.0	9.0	90.0					
		Total =	720.0				720.0	
Existing Intermediate Crossframes (Bays 1 thru 3 and Bays 5 thru 7)								
			Shape =	L 3 x 3 x 5/16				
			Perimeter =	12.00	in.			
		Bottom Member Length =		8.24	ft			
		Diagonal Member Length =		8.66	ft			
		No. of Intermediate X-frames =		12.00	each			
			Total =	306.81	SF		306.81	
						TOTAL	1,837	

QUANTITY CALCULATIONS	MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00051
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN PAY UNIT SF

DESCRIPTION			SUB TOTAL	TOTAL
Existing Additional Support Angles (Bay 6)				
Shape =	L 3 1/2x3 1/2x5/16			
Perimeter =	14.00	in.		
Member Length =	8.24	ft		
No. of Support Angles =	2.00	each		
Total =	19.23	SF	19.23	
Existing Intermediate Crossframe (Bay 8)				
Shape =	L 3 x 3 x 5/16			
Perimeter =	12.00	in.		
1st X-frame Bott. Member Length =	6.13	ft		
1st X-frame Diagonal Member Length =	6.68	ft		
Total =	19.49	SF	19.49	
Proposed Intermediate Crossframes (Bay 4)				
Shape =	L 3 x 3 x 5/16			
Perimeter =	12.00	in.		
Bottom Member Length =	8.08	ft		
Diagonal Member Length =	8.34	ft		
Connection Plate Area =	1.40	sf		
No. of Locations =	2.00	each		
Total =	60.71	SF	60.71	
TOTAL			99	**1937**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E00504
CHECKED BY:	SJR	DATE:	11/2/26	PAGE NUMBER:	31

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL PAY UNIT MNHR

DESCRIPTION					SUB TOTAL	TOTAL
PER BDM, PROVIDE 1 MINUTE FOR EACH LINEAR FOOT OF BEAM LENGTH COATED.						
Existing Beams						
Rear Abutment						
TOTAL LENGTH OF PAINTING =	90.00	FT.				
TOTAL =	1.50	MNHR			1.50	
Forward Abutment						
TOTAL LENGTH OF PAINTING =	80.00	FT.				
TOTAL =	1.33	MNHR			1.33	
				TOTAL	3	**3**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	11/2/26	ITEM NUMBER:	514E10000
CHECKED BY:	SJR	DATE:	11/2/26	PAGE NUMBER:	32

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME FINAL INSPECTION REPAIR PAY UNIT EACH

DESCRIPTION				SUB TOTAL	TOTAL
PER CMS, REMOVE ONE LOCATION PER 300 LINEAR FEET OF BEAM LENGTH AND 2.5% OF CROSSFRAME AND SECONDARY MEMBERS.					
Existing Beams					
Rear Abutment					
TOTAL LENGTH OF PAINTING =	90.00	FT.			
TOTAL =	0.30	EACH		0.30	
Forward Abutment					
TOTAL LENGTH OF PAINTING =	80.00	FT.			
TOTAL =	0.27	EACH		0.27	
Existing Intermediate Crossframes (Bays 1 thru 3 and Bays 5 thru 7)					
TOTAL NO. OF CROSSFRAMES =	12.00	EACH			
2.5% CROSSFRAME LOCATIONS =	0.30	EACH		0.30	
Existing Additional Support Angles (Bay 6)					
TOTAL NO. OF CROSSFRAMES =	2.00	EACH			
2.5% CROSSFRAME LOCATIONS =	0.05	EACH		0.05	
Existing Intermediate Crossframes (Bay 8)					
TOTAL NO. OF CROSSFRAMES =	1.00	EACH			
2.5% CROSSFRAME LOCATIONS =	0.03	EACH		0.03	
			TOTAL	1	**1**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E10011
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	33

ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME ARMORLESS PREFORMED JOINT SEAL, AS PER PLAN PAY UNIT FT

DESCRIPTION										SUB TOTAL	TOTAL
			Location		**Length**						
			Rear		73.7						
			Forward		64.8						
				Total	138.50					138.50	
									TOTAL	139	**139**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E12310
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	34

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SIDEWALK COVER PLATE PAY UNIT LB

Forward Abutment

Location	Length	Width	Thickness	Vol (CF)	Weight (lb/ft^3)	Total Weight (lb)
Lt. Sidewalk	5.33	1.50	0.03	0.3	490.00	122.79
Rt. Sidewalk	7.17	1.50	0.03	0.3	490.00	165.00
					Total	288.0

DESCRIPTION	SUB TOTAL	TOTAL
	288.0	
TOTAL	288	**288**

QUANTITY CALCULATIONS	MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E13600
	CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	35

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME 1" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

DESCRIPTION					SUB TOTAL	TOTAL
Rear Abutment						
End of Parapet at Approach Slab	Width =	1.33	ft.			
(Left Side)	Height =	3	ft.			
	Total =	4	SF		4.0	
End of Sidewalk at Approach Slab	Width =	7.35	ft.			
(Left Side)	Average Height =	0.771	ft.			
	Total =	5.66	SF		5.7	
End of Sidewalk at Approach Slab	Width =	5.50	ft.			
(Right Side)	Height =	1	ft.			
	Total =	5.50	SF		5.5	
Forward Abutment						
End of Parapet at Approach Slab	Width =	1.17	ft.			
(Left and Right)	Height =	3	ft.			
	Total =	7.00	SF		7.0	
End of Sidewalk at Approach Slab	Width =	9.02	ft.			
(Left and Right)	Average Height =	0.784	ft.			
	Total =	14.15	SF		14.1	
				TOTAL	36	**36**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E13900
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ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME 2" PREFORMED EXPANSION JOINT FILLER PAY UNIT SF

DESCRIPTION				SUB TOTAL	TOTAL
Rear Abutment					
End of Diaphragm	Width =	3.75	ft.		
(Right Side)	Height =	4.00	ft.		
	Total =	15.00	SF	15.0	
			TOTAL	15	**15**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E14020
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ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL PAY UNIT FT

DESCRIPTION			SUB TOTAL	TOTAL
Location		**Length**		
Rear Abutment		78.6		
Forward Abutment		67.8		
	Total	146.44	146.44	
		TOTAL	146	**146**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E14600
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME STRUCTURAL JOINT OR JOINT SEALER, MISC.: COMPRESSED FOAM EXPANSION JOINT SEAL PAY UNIT FT

DESCRIPTION										SUB TOTAL	TOTAL
Rear Abutment											
	SE Wingwall										
			Height =	4.0	FT.						
			Total =	4.0	FT.					4.0	
Forward Abutment											
	NW Wingwall										
			Height =	4.0	FT.						
	NE Wingwall										
			Height =	4.0	FT.						
			Total =	8.0	FT.					8.0	

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E44100
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	39

ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME ELASTOMERIC BEARING (14" X 18" X 2.668") WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15" X 19" X 2.0") PAY UNIT EACH

DESCRIPTION					SUB TOTAL	TOTAL
Pier 1 & 3						
No. of Beams	Bearings per Beam	No. of Piers	Total			
8.0	1.0	2.0	16.0		16.00	
				TOTAL	16	**16**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E44100
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	40

ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME ELASTOMERIC BEARING (16" X 18" X 2.668") WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (17" X 19" X 2.0") PAY UNIT EACH

DESCRIPTION					SUB TOTAL	TOTAL
Pier 2						
No. of Beams	Bearings per Beam	No. of Piers	Total			
8.0	1.0	1.0	8.0		8.00	
				TOTAL	8	**8**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E44200
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	41

ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME ELASTOMERIC BEARING (12" X 16" X 3.273") WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (13" X 17" X 1.5") PAY UNIT EACH

DESCRIPTION			SUB TOTAL	TOTAL
Rear Abutment				
No. of Beams	Bearings per Beam	Total		
9.0	1.0	9.0	9.00	
Forward Abutment				
No. of Beams	Bearings per Beam	Total		
8.0	1.0	8.0	8.00	
		TOTAL	17	**17**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	516E47001
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ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN PAY UNIT LS

DESCRIPTION	SUB TOTAL	TOTAL
LUMP SUM ITEM		
TOTAL	-	**LS**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	518E12201
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	43

ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN PAY UNIT EACH

DESCRIPTION										SUB TOTAL	TOTAL
Deck -Left Side only											
Span 1	4.0									4.00	
Span 4	3.0									3.00	
									TOTAL	7	**7**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	518E21200
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ms consultants, inc. engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME POROUS BACKFILL WITH GEOTEXTILE FABRIC PAY UNIT CY

Rear Abutment

Avg. Height (ft)	Width (ft)	Length (ft)	Volume (ft^3)	Volume (yd^3)
7.0	2.0	80.1	1114.50	42.00

Forward Abutment

Height (ft)	Width (ft)	Length (ft)	Volume (ft^3)	Volume (yd^3)
7.7	2.0	60.8	940.14	35.00

DESCRIPTION	SUB TOTAL	TOTAL
Rear Abutment	42.00	
Forward Abutment	35.00	
TOTAL	77	**77**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	518E40000
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	45

ms consultants, inc.
engineers, architects, planners

PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME 6" PERFORATED CORRUGATED PLASTIC PIPE PAY UNIT FT

DESCRIPTION										SUB TOTAL	TOTAL
Rear Abutment											
Length =	75.7	FT.								75.7	
Forward Abutment											
Length =	55.2	FT.								55.2	
										TOTAL	131	**131**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	518E40011
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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN PAY UNIT FT

DESCRIPTION										SUB TOTAL	TOTAL
Rear Abutment											
Length =	40.0	FT.								40.0	
Forward Abutment											
Length =	40.0	FT.								40.0	
									TOTAL	80	**80**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	519E11101
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	47

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME PATCHING CONCRETE STRUCTURE, AS PER PLAN PAY UNIT SF

DESCRIPTION			SUB TOTAL	TOTAL
Abutment Contingency	50	SF	50	
Pier Contingency	50	SF	50	
TOTAL			100	**100**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	526E15011
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	48

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN PAY UNIT SY

DESCRIPTION				SUB TOTAL	TOTAL
Rear Approach Slab					
Length (ft.)	Width (ft.)	Area (yd^2)			
20.0	73.500	163.33		163.33	
Forward Approach Slab					
Length (ft.)	Width (ft.)	Area (yd^2)			
20.0	64.667	143.70		143.70	
			TOTAL	308	**308**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	526E90030
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	49

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME TYPE C INSTALLATION PAY UNIT FT

DESCRIPTION	SUB TOTAL	TOTAL
Rear Approach Slab		
Length (ft.)		
73.676	73.68	
Forward Approach Slab		
Length (ft.)		
64.821	64.82	
TOTAL	139	**139**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	530E00400
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	50

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SPECIAL - STRUCTURES: GROUT AND SEAL TEMPORARY VANDAL PROTECTION FENCE ANCHOR HOLES PAY UNIT EACH

DESCRIPTION				SUB TOTAL	TOTAL
Post Spacing	Length Required	No. of Dowels per Base Plate BP-1 *	Total No. of Dowel		
5	300	4	240	240	
* As per BP-1 of SCD VPF-1-90					
			TOTAL	240	**240**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	530E00600
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	51

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SPECIAL - STRUCTURES: TEMPORARY FALSE DECKING FOR ENBRIDGE GAS LINES PAY UNIT SF

DESCRIPTION					SUB TOTAL	TOTAL
Spans 1 and 4						
Length (ft.)	Width (ft.)	Area (ft^2)				
101.5	8.292	841.60		Bay 5	841.60	
101.5	8.292	841.60		Bay 2	841.60	
				TOTAL	1,684	**1684**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	530E13000
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	52

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SPECIAL - FORM LINER PAY UNIT SF

DESCRIPTION				SUB TOTAL	TOTAL
Left Parapet on Approach Slabs and Deck					
	Length (ft.)	Height (ft.)			
	298.51	2.17		646.77	
Right Parapet on Approach Slabs and Deck					
	Length (ft.)	Height (ft.)			
	266.07	2.17		576.48	
			TOTAL	1,224	**1224**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	607E39901
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	53

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN PAY UNIT FT

DESCRIPTION	SUB TOTAL	TOTAL
Left Parapet		
Length (ft.)		
294.5	294.50	
Right Parapet		
Length (ft.)		
287.0	287.00	
TOTAL	582	**582**

QUANTITY CALCULATIONS

MADE BY:	JSE	DATE:	8/26/25	ITEM NUMBER:	690E98400
CHECKED BY:	SJR	DATE:	8/26/25	PAGE NUMBER:	54

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PID NO. 1814168 PROJECT CUY-00480-06.120 STRUCTURE WEST 220TH OVER CUY-480

ITEM NAME SPECIAL - ENBRIDGE GAS LINE ROLLER GUIDE/SUPPORT PAY UNIT LS

DESCRIPTION	SUB TOTAL	TOTAL
LUMP SUM ITEM		
TOTAL	-	**LS**