

**STRUCTURAL QUANTITY SURVEY AND MARGINAL ESTIMATE**

DS-D 0019 (REV. 02/11/08)

RECEIVED IN ESTIMATE SECTION BY	DATE
R. Ordonez	5/31/2023
CHECKED BY	DATE
J. Mosquera/ A. Carmazzi	5/31/2023
REVISED BY	DATE
APPROVED BY	DATE

CHARGE	EXPENDITURE AUTHORIZATION	BRIDGE NUMBER	LENGTH				
		56-C0083	503.43				
BRIDGE			WIDTH	LONG SPAN	SPANS		
Monroe St Bridge over CVSC			140.83	175	3		
DISTRICT	COUNTY	ROUTE	PM	TYPE	DEPTH	SKEW	DESIGN SECTION
8	Riverside	I-10	54.7		7	0	

CODE	CONTRACT ITEMS	UNIT	SUPERSTRUCTURE			SUBSTRUCTURE			OTHER ELEMENTS-DESCRIBE			TOTALS	PRICE	AMOUNT
			QUANTITY	CHECK	* USE	QUANTITY	CHECK	* USE	QUANTITY	CHECK	* USE	* USE		
192003	STRUCTURE EXCAVATION (BRIDGE)	CY				2486	2401	2444				2444	\$110.00	\$268,840
193003	STRUCTURE BACKFILL (BRIDGE)	CY				981	1024	1003				1003	\$100.00	\$100,300
490508	FURNISH STEEL PILING (HP 10 x 57)	LF				9097	9100	9099				9099	\$55.00	\$500,445
490509	DRIVE STEEL PILE (HP 10 x 57)	EA				178	178	178				178	\$1,700.00	\$302,600
490618	96" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF				1302	1302	1302				1302	\$1,750.00	\$2,278,500
500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	283528 LB	283528 LB	1							1	\$640,000.00	\$640,000
510051	STRUCTURAL CONCRETE (BRIDGE FOOTING)	CY				447	447	448				448	\$550.00	\$246,400
510053	STRUCTURAL CONCRETE (BRIDGE)	CY	3072	3105	3089	1206	1206	1207				4296	\$1,400.00	\$6,014,400
510054	STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	2090	2087	2089							2089	\$1,200.00	\$2,506,800
510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	CY							395	390	393	393	\$1,000.00	\$393,000
511106	DRILL AND BOND DOWEL	LF							736	736	736	736	\$85.00	\$62,560
519093	JOINT SEAL ASSEMBLY (MR=3)	LF							282	282	282	282	\$375.00	\$105,750
520102	BAR REINFORCING STEEL (BRIDGE)	LB	1612870	1615765	1614318	1410501	1413066	1411784				3026102	\$1.40	\$4,236,543
520110	BAR REINFORCING STEEL (EPOXY COATED)	LB				14258	14258	14258				14258	\$4.00	\$57,032
520115	BAR REINFORCING STEEL (GALVANIZED)	LB				594	586	590				590	\$2.00	\$1,180
520120	HEADED BAR REINFORCEMENT	EA				48	48	48				48	\$40.00	\$1,920
600097	BRIDGE REMOVAL	LS	23493 SF	23014 SF	1							1	\$490,000.00	\$490,000
703450A	18" WELDED STEEL PIPE CASING (BRIDGE)	LF							78	78	78	78	\$300.00	\$23,400
703462A	14" WELDED STEEL PIPE CASING (BRIDGE)	LF							80	80	80	80	\$200.00	\$16,000
703533	12" WELDED STEEL PIPE (.250" THICK)	LF							560	560	560	560	\$250.00	\$140,000
731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY							47	47	47	47	\$450.00	\$21,150
750501	MISCELLANEOUS METAL (BRIDGE)	LB							1754	1732	1743	1743	\$12.00	\$20,916
833088	TUBULAR HANDRAILING	LF							1090	1090	1090	1090	\$130.00	\$141,700
839719	CONCRETE BARRIER (TYPE 732SW)	LF							1090	1090	1090	1090	\$550.00	\$599,500

QUANTITY PER GIRDER	LENGTH OF PC PS GIRDER					<b>* ESTIMATING BRANCH TO INPUT</b>	MOBILIZATION 10%	\$2,129,882
	CUBIC YARDS PCC						SUB TOTAL-CONTRACT ITEMS	\$21,298,818
	POUNDS BAR REINFORCING						CONTINGENCIES 5%	\$1,064,941
	POUNDS PRESTRESS STEEL						SUPPLEMENTAL WORK	
	NUMBER OF GIRDERS						TOTAL	\$22,363,758
							<b>FOR BUDGET PURPOSES-SAY</b>	<b>\$22,400,000</b>

**SUMMARY-STRUCTURE EXCAVATION AND STRUCTURE BACKFILL**

DS-D-0022 (REV. 02/11/08)

<i>Estimating Section to forward to RE Pending File</i>						
STRUCTURE				BRIDGE NUMBER	DATE	CALCULATED BY
Monroe St Bridge over CVSC				56-C0083	5/31/2023	R. Ordonez
DISTRICT	COUNTY	ROUTE	EA NUMBER			CHECKED BY
8	Riverside	I-10				J. Mosquera/ A. Carmazzi
LOCATION	STRUCTURE EXCAVATION		STRUCTURE BACKFILL		PERVIOUS BACKFILL MATERIAL	
	ESTIMATE	CHECK	ESTIMATE	CHECK	ESTIMATE	CHECK
Abutment 1	1374	1326	680	576		
Abutment 4	1113	1075	301	448		
<b>TOTAL CY</b>	<b>2486.44429</b>	<b>2401.101798</b>	<b>980.8253086</b>	<b>1023.68</b>	<b>0</b>	<b>0</b>

**PILE QUANTITY CALCULATIONS**

DS-D-0100 (REV. 02/11/08)

Sheet \_\_\_\_\_ of \_\_\_\_\_

STRUCTURE			BRIDGE NUMBER		CALCULATED BY:		DATE
Monroe St Bridge over CVSC			56-C0083		R. Ordonez		5/31/2023
DISTRICT	COUNTY	ROUTE	POST MILE		CHECKED BY:		PILES
8	Riverside	I-10	54.7		J. Mosquera/ A. Carmazzi		190
<i>For Piles battered 1:3, use 1.054 factor x vertical length=Battered Length</i>							
LOCATION	TOP ELEVATION	TIP ELEVATION	VERTICAL LENGTH	NUMBER	BATTER FACTOR	TOTAL LENGTH	
Abutment 1	497.92	448	49.92	88	1	4392.96	
Abutment 1	497.92	448	49.92	18	1.054	947.08224	
Pier 2	468.2	360	108.2	6	1	649.2	
Pier 3	472.73	364	108.73	6	1	652.38	
Abutment 4	516.67	465	51.67	59	1	3048.53	
Abutment 4	516.67	465	51.67	13	1.054	707.98234	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
			0			0	
<b>SHEET TOTALS</b>				190		10398.13458	

**CONCRETE SUMMARY**

DS-D-0050 (REV. 02/11/08)

*Estimating Section to Forward to RE Pending File*

STRUCTURE		BRIDGE NUMBER	EA	DISTRICT	COUNTY	ROUTE	CALCULATED BY	CHECKED BY	
Monroe St Bridge over CVSC		56-C0083		8	Riverside	I-10	R. Ordonez	J. Mosquera/ A. Carmazzi	
SUPERSTRUCTURE	ESTIMATE	CHECK	SUBSTRUCTURE		ESTIMATE	CHECK	RETAINING WALLS	ESTIMATE	CHECK
Top Slab		1720	Abutments		509	509			
Overhang		274							
Closure Pour		92							
TOTAL (poly/deck)	2090	2087							
Bottom Slab Flares		44	Wingwalls		69	69	<b>TOTAL CY (RW)</b>	0	0
Girders - Vertical		906							
Girders - Sloped		195					<b>OTHER</b>	ESTIMATE	CHECK
Girder Flares		9					Approach Slab (Type N)	395	390
Fillets							Slope Paving		
Bottom Slab		1336	Columns - Piers		628	628			
End Diaphragms		205							
Caps		410							
TOTAL (stem&soffit)	3072	3105							
			<b>TOTAL CY (SUB)</b>		1206	1206	<b>TOTAL CY (OTHER)</b>	395	390
			Footings		447	447	<b>BREAKDOWN BY CONCRETE TYPES</b>		
Hinges								ESTIMATE	CHECK
							Struct Conc. Bridge Footing	447	447
							Struct Concrete Bridge	6368	6397
							Struct Conc. Retaining Wall		
							Struct Conc., Other	395	390
<b>TOTAL CY (SUPER)</b>	5162	5191	<b>FOOTING TOTAL CY</b>		447	447	<b>TOTAL CY</b>	7210	7235



**BAR REINFORCING SUMMARY**

DS-D-0067 (REV.02/11/08)

*Estimating Section to Forward to RE Pending File*

STRUCTURE Monroe St Bridge over CVSC	BRIDGE NUMBER 56-C0083	EA	DISTRICT 8	COUNTY Riverside	ROUTE I-10	CALCULATED BY R. Ordonez	CHECKED BY J. Mosquera/ A. Carmazzi	
BAR SIZE	SUPERSTRUCTURE		SUBSTRUCTURE		OTHER			
	ESTIMATE	CHECK	ESTIMATE	CHECK	ESTIMATE	CHECK	ESTIMATE	CHECK
3	0	0	0	0	0			
4	16407	16407	487	487	0			
5	377190	384432	26047	26462	0			
6	734211	729149	23024	23611	0			
7	116928	116059	13343	12961	0			
8	90146	91833	338279	340229	0			
9	0	0	17114	16902	0			
10	149145	149170	242031	242154	0			
11	97217	97033	8915	8948	0			
14	0	0	713605	713605	0			
18	0	0	0	0	0			
<b>SUBTOTAL</b>	1581245	1584083	1382844	1385359	0	0	0	0
2% SPLICES	31625	31682	27657	27707	0	0	0	0
<b>TOTAL</b>	1612870	1615765	1410501	1413066	0	0	0	0
NOTES								

**SUMMARY**

**MISCELLANEOUS METAL-BRIDGE  
MISCELLANEOUS METAL-RESTRAINER**

*ESTIMATING SECTION TO  
FORWARD TO RE PENDING FILE*

DS-D0154 (REV. 02/11/08)

STRUCTURE			BRIDGE NUMBER	CALCULATED BY:
Monroe St Bridge over CVSC			56-C0083	R. Ordonez
DIST	CO	RTE	EA NUMBER	CHECKED BY:
8	Riverside	I-10		J. Mosquera/ A. Carmazzi
<b>MISCELLANEOUS METAL-BRIDGE</b>				
ITEM			ESTIMATE	CHECK
JOINT ARMOR			653	655
WATER LINE CLAMPS & GALVANIZED ANCHOR BOLTS			804	783
SOFFIT OPENING GRATES			296	294
TOTAL LBS			1754	1732
<b>MISCELLANEOUS METAL-RESTRAINER</b>				
ITEM			ESTIMATE	CHECK
TOTAL LBS			0	0