2LMN

Calculated:	BIM/JAH	Date:	3/21/2023	Stage Review Submission:	STAGE 3
Checked:	RTF/JAH	Date:	3/21/2023	PID/Job No.:	76779
Concurred:	BIM	Date:	3/24/2023	Bridge No.:	CUY-00090-10.89
Back Checked:	RTF/JAH	Date:	4/6/2023	SFN:	1808273
Released:	RTF/JAH	Date:	8/5/2023		
Project:	CUY-90-6.83 - Part 1				
Subject:	**ESTIMATED QUANTITIES - CROSSFRAMES**				

END CROSS FRAME	

BEAM		
9.05	FT	BEAM SPACING
36.5	IN	WEB DEPTH
1.57	IN	FLANGE THICKNESS
0.885	IN	WEB THICKNESS
2.780	FT	HEIGHT (H)

ANGLE		
4X4X5/16		
4		
4		
0.3125		
8.2	LBS/FT	DIANGONAL ANGLE WEIGHT
8.2	LBS/FT	HORIZONTAL ANGLE WEIGHT

STIFFNER PLATE		
12	IN	PLATE HEIGHT
15	IN	PLATE LENGTH
0.375	IN	PLATE THICKNESS
19.14	LBS/PLATE	
3	PLATES/BEAM SPACE	

SECTION D-D
SPECIAL END CROSSFRAME
FOR DETAILS NOT SHOWN SEE
STD. DRAWING SD-1-69 SHT. Nº 1

2.583
2.583
2.833
3.583

9.05	C		3.832182436	LENGTH OF DIAGANAL FROM BEAM		
3.016667	C/3		2.803642967	LENGTH OF DIAGANOL FROM CENTER		
2.363333	H-ANGLE DEPTH-1"					

226.6043	LB	SECTION D-D

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BEAM		
9.05	FT	BEAM SPACING
36.5	IN	WEB DEPTH
1.57	IN	FLANGE THICKNESS
0.885	IN	WEB THICKNESS
2.780	FT	HEIGHT (H)

ANGLE		
4X4X5/16		
4		
4		
0.3125		
8.2	LBS/FT	DIANGONAL ANGLE WEIGHT
8.2	LBS/FT	HORIZONTAL ANGLE WEIGHT

STIFFNER PLATE		
8	IN	PLATE HEIGHT
9	IN	PLATE LENGTH
0.375	IN	PLATE THICKNESS
7.66	LBS/PLATE	
2	PLATES/BEAM SPACE	

10	
50	LBS/FT

542.0225	LB	SECTION A-A

ANGLE		
4X4X3/8		
4		
4		
0.375		
9.8	LBS/FT	DIANGONAL ANGLE WEIGHT

	P1	P2	P3	P4	P5	
L	12	15	24	15	12	in
W	12	12	12	12	12	in
t	0.375	0.375	0.375	0.375	0.375	in
lbs/plate	15.31	19.14	30.63	19.14	15.31	cu-in
PLATES/BEAM SPA	2	2	2	2	2	

2.25 length of angles

464.1525	LB	SECTION B-B

WEIGHT PER BEAM SPACING		
	LB	
249.2647	LB	ACCOUNTING FOR 10% INCREASE FROM CALCULATED VALUE
2		NUMBER OF SPACES ON ONE END OF BRIDGE
1459.384	LB	TOTAL LB FOR **ONE** END OF BRIDGE

2LMN

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Project:	CUY-90-6.83 - Part 1				
Subject:	**ESTIMATED QUANTITIES - CROSSFRAMES**				

INTERMEDIATE CROSS FRAME

BEAM			ANGLE (DIAG.)			ANGLE (HORIZ.)		
9	FT	BEAM SPACING	3X3X5/16			3 1/2 x 3 1/2 5/16		
36.5	IN	WEB DEPTH	3			3.5		
1.57	IN	FLANGE THICKNESS	3			3.5		
0.885	IN	WEB THICKNESS	0.3125			0.3125		
2.78	FT	HEIGHT (H)	6.1	LBS/FT	DIANGONAL ANGLE WEIGHT	7.2	LBS/FT	HORIZONTAL ANGLE WEIGHT

a	9	BEAM SPACING		
b	2.41	H-ANGLE HEIGHT-1"		
c	9.32	DIAGONAL LENGTH		

WEIGHT PER BEAM SPACING		
178.5	LB	
44.61317	LB	ASSUME 25% NEEDS REPAIRED
4		NUMBER OF SPACES BEING REPLACED
714	LB	TOTAL LB