

BILL OF REINFORCING STEEL - ONE ABUTMENT - 0° SKEW

BRIDGE LENGTH		70'-0" 80'-0" 90'-0" 100'-0" 110'-0" 120'-0" 130'-0" 140'-0" 150'-0"																		
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	
8r1	ABUTMENT FOOTING LONGITUDINAL	U	28'-4"	7	530	7	530	7	530	7	530	7	530	7	530	7	530	7	530	
8r2	ABUTMENT FOOTING LONGITUDINAL	U	23'-4"	7	436	7	436	7	436	7	436	7	436	7	436	7	436	7	436	
5s1	ABUTMENT FOOTING HOOPS	U	11'-0"	46	528	46	528	46	528	46	528	46	528	46	528	44	505	44	505	
6+1	FOOTING TO SLAB DOWELS	U	5'-0"	50	376	50	376	50	376	50	376	50	376	50	376	50	376	50	376	
6+2	FOOTING TO SLAB DOWELS	U	5'-7"	50	419	50	419	50	419	50	419	50	419	50	419	50	419	50	419	
#2	PILE SPIRAL	U	38'-6"	7	45	7	45	7	45	7	45	7	45	7	45	8	51	9	58	
	SPIRAL SPACERS, L _{1/2} "x _{1/2} "x 0.70	U	1'-10"	21	27	21	27	21	27	21	27	21	27	21	27	24	31	37	35	
REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)					2361	2361	2361	2361	2361	2361	2361	2371	2359	2359						

BILL OF REINFORCING STEEL - ONE ABUTMENT - 15° SKEW

BRIDGE LENGTH		70'-0" 80'-0" 90'-0" 100'-0" 110'-0" 120'-0" 130'-0" 140'-0" 150'-0"																		
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	
8r1	ABUTMENT FOOTING LONGITUDINAL	U	29'-2"	7	545	7	545	7	545	7	545	7	545	7	545	7	545	7	545	
8r2	ABUTMENT FOOTING LONGITUDINAL	U	24'-1"	7	450	7	450	7	450	7	450	7	450	7	450	7	450	7	450	
5s1	ABUTMENT FOOTING HOOPS	U	11'-0"	42	482	42	482	42	482	42	482	42	482	42	482	40	459	40	459	
5s2	ABUTMENT FOOTING HOOPS	U	11'-3"	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	
6+1	FOOTING TO SLAB DOWELS	U	5'-0"	50	376	50	376	50	376	50	376	50	376	50	376	50	376	50	376	
6+2	FOOTING TO SLAB DOWELS	U	5'-7"	50	419	50	419	50	419	50	419	50	419	50	419	50	419	50	419	
#2	PILE SPIRAL	U	38'-6"	7	45	7	45	7	45	7	45	8	51	8	51	9	58	9	58	
	SPIRAL SPACERS, L _{1/2} "x _{1/2} "x 0.70	U	1'-10"	21	27	21	27	21	27	21	27	21	27	24	31	24	31	27	35	
REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)					2391	2391	2391	2391	2391	2391	2401	2401	2389	2389						

BILL OF REINFORCING STEEL - ONE ABUTMENT - 30° SKEW

BRIDGE LENGTH		70'-0" 80'-0" 90'-0" 100'-0" 110'-0" 120'-0" 130'-0" 140'-0" 150'-0"																		
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	
8r1	ABUTMENT FOOTING LONGITUDINAL	U	31'-9"	7	593	7	593	7	593	7	593	7	593	7	593	7	593	7	593	
8r2	ABUTMENT FOOTING LONGITUDINAL	U	26'-9"	7	500	7	500	7	500	7	500	7	500	7	500	7	500	7	500	
5s1	ABUTMENT FOOTING HOOPS	U	11'-0"	49	562	49	562	49	562	49	562	49	562	49	562	48	551	45	516	
5s2	ABUTMENT FOOTING HOOPS	U	11'-11"	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	
6+1	FOOTING TO SLAB DOWELS	U	5'-0"	50	376	50	376	50	376	50	376	50	376	50	376	50	376	50	376	
6+2	FOOTING TO SLAB DOWELS	U	5'-7"	50	419	50	419	50	419	50	419	50	419	50	419	50	419	50	419	
#2	PILE SPIRAL	U	38'-6"	8	51	8	51	8	51	8	51	8	51	8	51	9	58	10	64	
	SPIRAL SPACERS, L _{1/2} "x _{1/2} "x 0.70	U	1'-10"	24	31	24	31	24	31	24	31	24	31	24	31	27	35	30	39	
REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)					2582	2582	2582	2582	2582	2582	2582	2582	2582	2582	2582	2582	2557			

BILL OF REINFORCING STEEL - ONE ABUTMENT - 45° SKEW

BRIDGE LENGTH		70'-0" 80'-0" 90'-0" 100'-0" 110'-0" 120'-0" 130'-0" 140'-0" 150'-0"																		
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	
8r1	ABUTMENT FOOTING LONGITUDINAL	U	37'-6"	7	701	7	701	7	701	7	701	7	701	7	701	7	701	7	701	
8r2	ABUTMENT FOOTING LONGITUDINAL	U	32'-5"	7	606	7	606	7	606	7	606	7	606	7	606	7	606	7	606	
5s1	ABUTMENT FOOTING HOOPS	U	11'-0"	56	642	56	642	56	642	56	642	56	642	56	642	54	620	54	620	
5s2	ABUTMENT FOOTING HOOPS	U	13'-6"	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	
6+1	FOOTING TO SLAB DOWELS	U	5'-0"	50	376	50	376	50	376	50	376	50	376	50	376	50	376	50	376	
6+2	FOOTING TO SLAB DOWELS	U	5'-7"	50	419	50	419	50	419	50	419	50	419	50	419	50	419	50	419	
#2	PILE SPIRAL	U	38'-6"	9	58	9	58	9	58	9	58	9	58	9	58	10	64	10	64	
	SPIRAL SPACERS, L _{1/2} "x _{1/2} "x 0.70	U	1'-10"	27	35	27	35	27	35	27	35	27	35	27	35	30	39	30	39	
REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)					2893	2893	2893	2893	2893	2893	2893	2893	2893	2881	2881					

NOTE: THE PILE SPIRALS AND SPIRAL SPACERS ARE TO BE NON-COATED REINFORCING BUT MAY BE EPOXY COATED AT THE CONTRACTORS OPTION AND EXPENSE.

ESTIMATED QUANTITIES - ONE ABUT. - 0° SKEW

LOCATION	UNIT	QUANTITY									
BRIDGE LENGTH		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	
REINFORCING STEEL EPOXY COATED	LBS.	2361	2361	2361	2361	2361	2361	2371	2359	2359	
STEEL PILING HP 10x42	NO.	7	7	7	7	7	7	8	9	9	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	90	90	

ESTIMATED QUANTITIES - ONE ABUT. - 15° SKEW

LOCATION	UNIT	QUANTITY									
BRIDGE LENGTH		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	
REINFORCING STEEL EPOXY COATED	LBS.	2391	2391	2391	2391	2391	2391	2401	2389	2389	
STEEL PILING HP 10x42	NO.	7	7	7	7	7	7	8	9	9	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	90	90	

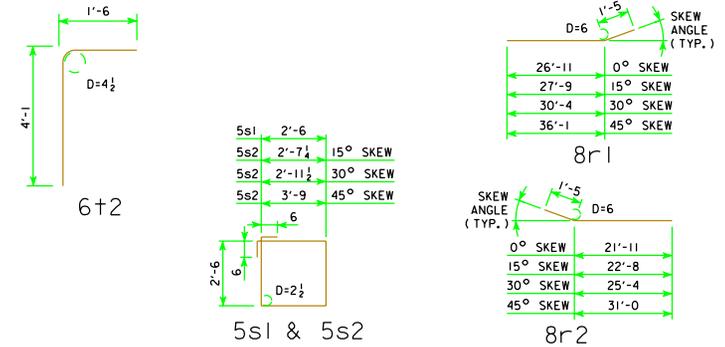
ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

LOCATION	UNIT	QUANTITY									
BRIDGE LENGTH		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	
REINFORCING STEEL EPOXY COATED	LBS.	2582	2582	2582	2582	2582	2582	2582	2582	2557	
STEEL PILING HP 10x42	NO.	8	8	8	8	8	8	8	9	10	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	90	100	

ESTIMATED QUANTITIES - ONE ABUT. - 45° SKEW

LOCATION	UNIT	QUANTITY									
BRIDGE LENGTH		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	
REINFORCING STEEL EPOXY COATED	LBS.	2893	2893	2893	2893	2893	2893	2893	2881	2881	
STEEL PILING HP 10x42	NO.	9	9	9	9	9	9	9	10	10	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	100	100	

BENT BAR DETAILS



LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Thomas C. McQuinn</i>	<p>Iowa Department of Transportation Highway Division</p>
		STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006
		ABUTMENT DETAILS STEEL PILING
		J44-44-06

REVISED 07-09 - CONCRETE QUANTITIES CHANGED.