

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		32'-10"	7	614	7	614	7	614	7	614	7	614	7	614	7	614	7	614
5s1	ABUTMENT FOOTING, HOOPS		11'-0"	28	321	28	321	28	321	28	321	28	321	29	333	28	321	28	321
5p2	PAVING SUPPORT, TRANSV.		9'-4"	15	146	15	146	15	146	15	146	15	146	15	146	15	146	15	146
4p5	PAVING SUPPORT, TRANSV.		1'-11"	15	19	15	19	15	19	15	19	15	19	15	19	15	19	15	19
5p6	PAVING SUPPORT, LONGIT.		30'-2"	2	63	2	63	2	63	2	63	2	63	2	63	2	63	2	63
6+1	FOOTING TO SLAB DOWELS		3'-11"	72	424	72	424	72	424	72	424	72	424	72	424	72	424	72	424
*5u1	WING, LONGITUDINAL		6'-8"	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
#2	PILE SPIRAL		38'-6"	5	32	5	32	5	32	5	32	5	32	6	39	7	45	7	45
	SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70		1'-10"	10	13	10	13	10	13	10	13	10	13	12	15	14	18	14	18
REINFORCING STEEL - TOTAL (LBS.)					1715		1715		1715		1715		1715		1736		1733		1733

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
8r2	ABUTMENT FOOTING, LONGITUDINAL		33'-11"	7	634	7	634	7	634	7	634	7	634	7	634	7	634	7	634
5s1	ABUTMENT FOOTING, HOOPS		11'-0"	24	275	24	275	24	275	24	275	25	287	25	287	24	275	24	275
5s2	ABUTMENT FOOTING, HOOPS AT ENDS		11'-3"	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47
5p2	PAVING SUPPORT, TRANSV.		9'-4"	16	156	16	156	16	156	16	156	16	156	16	156	16	156	16	156
4p5	PAVING SUPPORT, TRANSV.		1'-11"	16	20	16	20	16	20	16	20	16	20	16	20	16	20	16	20
5p6	PAVING SUPPORT, LONGITUDINAL		31'-3"	2	65	2	65	2	65	2	65	2	65	2	65	2	65	2	65
6+1	FOOTING TO SLAB DOWELS		3'-11"	72	424	72	424	72	424	72	424	72	424	72	424	72	424	72	424
*5u1	WING, LONGITUDINAL		6'-8"	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
#2	PILE SPIRAL		38'-6"	5	32	5	32	5	32	5	32	6	39	6	39	7	45	7	45
	SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70		1'-10"	10	13	10	13	10	13	10	13	12	15	12	15	14	18	14	18
REINFORCING STEEL - TOTAL (LBS.)					1749		1749		1749		1749		1770		1770		1767		1767

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
8r2	ABUTMENT FOOTING, LONGITUDINAL		37'-6"	7	701	7	701	7	701	7	701	7	701	7	701	7	701	7	701
5s1	ABUTMENT FOOTING, HOOPS		11'-0"	25	287	25	287	25	287	25	287	25	287	25	287	24	275	24	275
5s2	ABUTMENT FOOTING, HOOPS AT ENDS		11'-11"	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50
5p2	PAVING SUPPORT, TRANSV.		9'-4"	17	165	17	165	17	165	17	165	17	165	17	165	17	165	17	165
4p5	PAVING SUPPORT, TRANSV.		1'-11"	17	22	17	22	17	22	17	22	17	22	17	22	17	22	17	22
5p6	PAVING SUPPORT, LONGITUDINAL		34'-10"	2	73	2	73	2	73	2	73	2	73	2	73	2	73	2	73
6+1	FOOTING TO SLAB DOWELS		3'-11"	72	424	72	424	72	424	72	424	72	424	72	424	72	424	72	424
*5u1	WING, LONGITUDINAL		6'-8"	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
#2	PILE SPIRAL		38'-6"	6	39	6	39	6	39	6	39	6	39	6	39	7	45	7	45
	SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70		1'-10"	12	15	12	15	12	15	12	15	12	15	12	15	14	18	14	18
REINFORCING STEEL - TOTAL (LBS.)					1859		1859		1859		1859		1859		1859		1856		1856

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
8r2	ABUTMENT FOOTING, LONGITUDINAL		45'-3"	7	846	7	846	7	846	7	846	7	846	7	846	7	846	7	846
5s1	ABUTMENT FOOTING, HOOPS		11'-0"	30	344	30	344	35	402	35	402	32	367	32	367	36	413	30	344
5s2	ABUTMENT FOOTING, HOOPS AT ENDS		13'-6"	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56
5p2	PAVING SUPPORT, TRANSV.		9'-4"	21	204	21	204	21	204	21	204	21	204	21	204	21	204	21	204
4p5	PAVING SUPPORT, TRANSV.		1'-11"	21	27	21	27	21	27	21	27	21	27	21	27	21	27	21	27
5p6	PAVING SUPPORT, LONGITUDINAL		42'-7"	2	89	2	89	2	89	2	89	2	89	2	89	2	89	2	89
6+1	FOOTING TO SLAB DOWELS		3'-11"	72	424	72	424	72	424	72	424	72	424	72	424	72	424	72	424
*5u1	WING, LONGITUDINAL		6'-8"	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
#2	PILE SPIRAL		38'-6"	7	45	7	45	8	51	8	51	9	58	9	58	10	64	11	71
	SPIRAL SPACERS - L 1/2" X 1/2" X 1/2" X 0.70		1'-10"	14	18	14	18	16	21	16	21	18	23	18	23	20	26	22	28
REINFORCING STEEL - TOTAL (LBS.)					2136		2136		2203		2203		2203		2177		2177		2232

* SEE SHEET J30-20-06 FOR SPACING

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		QUANTITY									
BRIDGE LENGTH	UNIT	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
REINFORCING STEEL	LBS.	1715	1715	1715	1715	1715	1715	1733	1733	1733	1733
STEEL PILING HP 10 X 42	NO.	5	5	5	5	5	5	6	7	7	7
PREFORE HOLES	FT.	-	-	-	-	-	-	-	70	70	70

ESTIMATED QUANTITIES - ONE ABUT. - 15° SKEW

LOCATION		QUANTITY									
BRIDGE LENGTH	UNIT	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
REINFORCING STEEL	LBS.	1749	1749	1749	1749	1749	1770	1770	1767	1767	1767
STEEL PILING HP 10 X 42	NO.	5	5	5	5	5	6	6	7	7	7
PREFORE HOLES	FT.	-	-	-	-	-	-	-	70	70	70

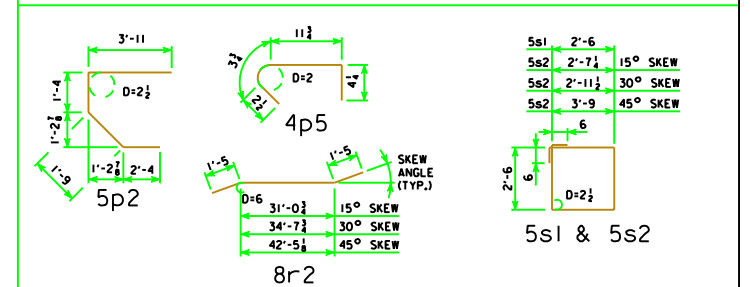
ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

LOCATION		QUANTITY									
BRIDGE LENGTH	UNIT	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
REINFORCING STEEL	LBS.	1859	1859	1859	1859	1859	1859	1859	1856	1856	1856
STEEL PILING HP 10 X 42	NO.	6	6	6	6	6	6	6	7	7	7
PREFORE HOLES	FT.	-	-	-	-	-	-	-	70	70	70

ESTIMATED QUANTITIES - ONE ABUT. - 45° SKEW

LOCATION		QUANTITY									
BRIDGE LENGTH	UNIT	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
REINFORCING STEEL	LBS.	2136	2136	2203	2203	2203	2177	2177	2232	2172	2172
STEEL PILING HP 10 X 42	NO.	7	7	8	8	8	9	9	10	11	11
PREFORE HOLES	FT.	-	-	-	-	-	-	-	100	110	110

BENT BAR DETAILS



LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER



Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE
SLAB BRIDGES

NOVEMBER, 2006

ABUTMENT DETAILS
STEEL PILING