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	NO.	WEIGHT
8r1	ABUTMENT FOOTING, LONGITUDINAL		32'-10	7	614	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	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	15	146
4p5	PAVING SUPPORT, TRANSV.		1'-11	15	19	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	2	63
6t1	FOOTING TO SLAB DOWELS		3'-11	72	424	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	12	83
*2	PILE SPIRAL		38'-6	5	32	5	32	5	32	5	32	5	32	5	32	6	39	7	45	7	45
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	10	13	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		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	NO.	WEIGHT
8r2	ABUTMENT FOOTING, LONGITUDINAL		33'-11	7	634	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	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	4	47
5p2	PAVING SUPPORT, TRANSV.		9'-4	16	156	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	16	20
5p6	PAVING SUPPORT, LONGITUDINAL		31'-3	2	65	2	65	2	65	2	65	2	65	2	65	2	65	2	65	2	65
6t1	FOOTING TO SLAB DOWELS		3'-11	72	424	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	12	83
*2	PILE SPIRAL		38'-6	5	32	5	32	5	32	5	32	5	32	6	39	6	39	7	45	7	45
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	10	13	10	13	10	13	10	13	10	13	12	15	12	15	14	18	14	18
	REINFORCING STEEL - TOTAL (LBS.)				1749		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	NO.	WEIGHT
8r2	ABUTMENT FOOTING, LONGITUDINAL		37'-6	7	701	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	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	4	50
5p2	PAVING SUPPORT, TRANSV.		9'-4	17	165	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	17	22
5p6	PAVING SUPPORT, LONGITUDINAL		34'-10	2	73	2	73	2	73	2	73	2	73	2	73	2	73	2	73	2	73
6t1	FOOTING TO SLAB DOWELS		3'-11	72	424	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	12	83
*2	PILE SPIRAL		38'-6	6	39	6	39	6	39	6	39	6	39	6	39	6	39	7	45	7	45
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	12	15	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		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	NO.	WEIGHT
8r2	ABUTMENT FOOTING, LONGITUDINAL		45'-3	7	846	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	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	4	56
5p2	PAVING SUPPORT, TRANSV.		9'-4	21	204	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	21	27
5p6	PAVING SUPPORT, LONGITUDINAL		42'-7	2	89	2	89	2	89	2	89	2	89	2	89	2	89	2	89	2	89
6t1	FOOTING TO SLAB DOWELS		3'-11	72	424	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	12	83
*2	PILE SPIRAL		38'-6	7	45	7	45	8	51	8	51	8	51	9	58	9	58	10	64	11	71
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	14	18	14	18	16	21	16	21	16	21	18	23	18	23	20	26	22	28
	REINFORCING STEEL - TOTAL (LBS.)				2136		2136		2203		2203		2203		2177		2177		2232		2172

* 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	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.	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	1736	1733	1733
STEEL PILING HP 10 X 42	NO.	5	5	5	5	5	5	6	7	7
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70

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.	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
STEEL PILING HP 10 X 42	NO.	5	5	5	5	5	6	6	7	7
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70

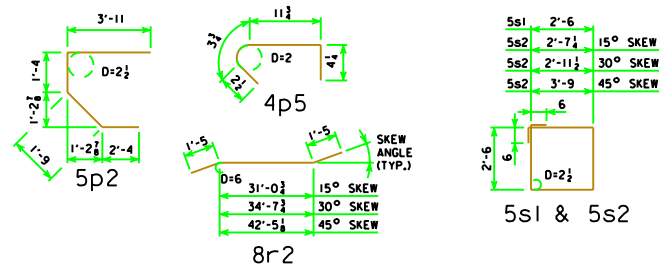
ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

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.	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
STEEL PILING HP 10 X 42	NO.	6	6	6	6	6	6	6	7	7
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70

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.	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
STEEL PILING HP 10 X 42	NO.	7	7	8	8	8	9	9	10	11
PREBORE HOLES	FT.	-	-	-	-	-	-	-	100	110

BENT BAR DETAILS



NOTE: DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER.

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

J30-39-06