

BILL OF REINFORCING STEEL - ONE ABUTMENT - 0° SKEW

BRIDGE LENGTH		QUANTITY																	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
				70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"							
8r1	ABUTMENT FOOTING LONGITUDINAL	—	26'-10"	7	502	7	502	7	502	7	502	7	502	7	502	7	502	7	502
5s1	ABUTMENT FOOTING HOOPS	□	11'-0"	25	287	25	287	25	287	24	275	24	275	24	275	24	275	24	275
6t1	FOOTING TO SLAB DOWELS	—	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225
6t2	FOOTING TO SLAB DOWELS	—	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252
#2	PILE SPIRAL	⊘	38'-6"	4	26	4	26	4	26	5	32	5	32	5	32	6	39	6	39
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x 0.70	—	1'-10"	12	15	12	15	12	15	15	19	15	19	15	19	18	23	18	23
REINFORCING STEEL - TOTAL (LBS.)					1307	1307	1307	1305	1305	1305	1305	1316	1316						

BILL OF REINFORCING STEEL - ONE ABUTMENT - 15° SKEW

BRIDGE LENGTH		QUANTITY																	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
				70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"							
8r2	ABUTMENT FOOTING LONGITUDINAL	—	27'-8"	7	517	7	517	7	517	7	517	7	517	7	517	7	517	7	517
5s1	ABUTMENT FOOTING HOOPS	□	11'-0"	24	275	24	275	24	275	24	275	24	275	20	229	20	229	20	229
5s2	ABUTMENT FOOTING HOOPS	□	11'-3"	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47
6t1	FOOTING TO SLAB DOWELS	—	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225
6t2	FOOTING TO SLAB DOWELS	—	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252
#2	PILE SPIRAL	⊘	38'-6"	5	32	5	32	5	32	5	32	5	32	5	32	6	39	6	39
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x 0.70	—	1'-10"	15	19	15	19	15	19	15	19	15	19	15	19	18	23	18	23
REINFORCING STEEL - TOTAL (LBS.)					1367	1367	1367	1367	1367	1367	1367	1332	1332						

BILL OF REINFORCING STEEL - ONE ABUTMENT - 30° SKEW

BRIDGE LENGTH		QUANTITY																	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
				70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"							
8r2	ABUTMENT FOOTING LONGITUDINAL	—	30'-7"	7	572	7	572	7	572	7	572	7	572	7	572	7	572	7	572
5s1	ABUTMENT FOOTING HOOPS	□	11'-0"	24	275	24	275	24	275	24	275	24	275	25	287	25	287	25	287
5s2	ABUTMENT FOOTING HOOPS	□	11'-11"	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50
6t1	FOOTING TO SLAB DOWELS	—	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225
6t2	FOOTING TO SLAB DOWELS	—	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252
#2	PILE SPIRAL	⊘	38'-6"	5	32	5	32	5	32	5	32	5	32	5	32	6	39	6	39
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x 0.70	—	1'-10"	15	19	15	19	15	19	15	19	15	19	15	19	18	23	18	23
REINFORCING STEEL - TOTAL (LBS.)					1425	1425	1425	1425	1425	1425	1425	1448	1448						

BILL OF REINFORCING STEEL - ONE ABUTMENT - 45° SKEW

BRIDGE LENGTH		QUANTITY																		
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	
				70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"								
8r2	ABUTMENT FOOTING LONGITUDINAL	—	36'-9"	7	687	7	687	7	687	7	687	7	687	7	687	7	687	7	687	
5s1	ABUTMENT FOOTING HOOPS	□	11'-0"	30	344	30	344	30	344	30	344	30	344	30	344	30	344	30	344	
5s2	ABUTMENT FOOTING HOOPS	□	13'-6"	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	
6t1	FOOTING TO SLAB DOWELS	—	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	
6t2	FOOTING TO SLAB DOWELS	—	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	
#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 L _{1/2} x 0.70	—	1'-10"	18	23	18	23	18	23	18	23	18	23	18	23	21	27	21	27	
REINFORCING STEEL - TOTAL (LBS.)					1626	1626	1626	1626	1626	1626	1626	1626	1636	1636						

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.	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	
REINFORCING STEEL	LBS.	1307	1307	1307	1305	1305	1305	1305	1316	1316	
STEEL PILING HP 10X42	NO.	4	4	4	5	5	5	5	6	6	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	60	

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.	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	
REINFORCING STEEL	LBS.	1367	1367	1367	1367	1367	1367	1367	1332	1332	
STEEL PILING HP 10X42	NO.	5	5	5	5	5	5	5	6	6	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	60	

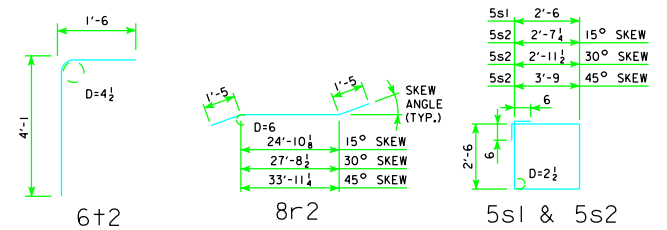
ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

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.	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	
REINFORCING STEEL	LBS.	1425	1425	1425	1425	1425	1425	1425	1448	1448	
STEEL PILING HP 10X42	NO.	5	5	5	5	5	5	5	6	6	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	60	

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.	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	
REINFORCING STEEL	LBS.	1626	1626	1626	1626	1626	1626	1626	1626	1636	
STEEL PILING HP 10X42	NO.	6	6	6	6	6	6	6	7	7	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	70	

BENT BAR DETAILS



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

07-09 LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Thomas C. McQuinn</i>	<p>Iowa Department of Transportation Highway Division</p>
		<p>STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES</p> <p>CONTINUOUS CONCRETE SLAB BRIDGES</p> <p>NOVEMBER, 2006</p>
<p>ABUTMENT DETAILS STEEL PILING</p>		<p>J24-39-06</p>

REVISED 07-09 - CONCRETE QUANTITIES CHANGED.