

### BILL OF REINFORCING STEEL - ONE ABUTMENT - 0° SKEW

BRIDGE LENGTH		QUANTITY													
MARK	LOCATION	SHAPE	LENGTH	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	NO.	WEIGHT	
8r1	ABUTMENT FOOTING LONGITUDINAL		32'-10"	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
6+1	FOOTING TO SLAB DOWELS		5'-0"	36	270	36	270	36	270	36	270	36	270	36	270
6+2	FOOTING TO SLAB DOWELS		5'-7"	36	302	36	302	36	302	36	302	36	302	36	302
#2	PILE SPIRAL		38'-6"	5	32	5	32	5	32	5	32	6	39	7	45
	SPIRAL SPACERS - L X X X X 0.70		1'-10"	15	19	15	19	15	19	15	19	18	23	18	23
REINFORCING STEEL - TOTAL (LBS.)				1558	1558	1558	1558	1558	1581	1581	1579	1579			

### BILL OF REINFORCING STEEL - ONE ABUTMENT - 15° SKEW

BRIDGE LENGTH		QUANTITY													
MARK	LOCATION	SHAPE	LENGTH	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	NO.	WEIGHT	
8r2	ABUTMENT FOOTING LONGITUDINAL		33'-11"	7	634	7	634	7	634	7	634	7	634	7	634
5s1	ABUTMENT FOOTING HOOPS		11'-0"	24	275	24	275	24	275	25	287	24	275	24	275
5s2	ABUTMENT FOOTING HOOPS		11'-3"	4	47	4	47	4	47	4	47	4	47	4	47
6+1	FOOTING TO SLAB DOWELS		5'-0"	36	270	36	270	36	270	36	270	36	270	36	270
6+2	FOOTING TO SLAB DOWELS		5'-7"	36	302	36	302	36	302	36	302	36	302	36	302
#2	PILE SPIRAL		38'-6"	5	32	5	32	5	32	5	32	6	39	7	45
	SPIRAL SPACERS - L X X X X 0.70		1'-10"	15	19	15	19	15	19	15	19	18	23	18	23
REINFORCING STEEL - TOTAL (LBS.)				1579	1579	1579	1579	1579	1602	1602	1600	1600			

### BILL OF REINFORCING STEEL - ONE ABUTMENT - 30° SKEW

BRIDGE LENGTH		QUANTITY													
MARK	LOCATION	SHAPE	LENGTH	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	NO.	WEIGHT	
8r2	ABUTMENT FOOTING LONGITUDINAL		37'-6"	7	701	7	701	7	701	7	701	7	701	7	701
5s1	ABUTMENT FOOTING HOOPS		11'-0"	30	344	30	344	30	344	30	344	30	344	30	344
5s2	ABUTMENT FOOTING HOOPS		11'-11"	4	50	4	50	4	50	4	50	4	50	4	50
6+1	FOOTING TO SLAB DOWELS		5'-0"	36	270	36	270	36	270	36	270	36	270	36	270
6+2	FOOTING TO SLAB DOWELS		5'-7"	36	302	36	302	36	302	36	302	36	302	36	302
#2	PILE SPIRAL		38'-6"	6	39	6	39	6	39	6	39	7	45	7	45
	SPIRAL SPACERS - L X X X X 0.70		1'-10"	18	23	18	23	18	23	18	23	21	27	21	27
REINFORCING STEEL - TOTAL (LBS.)				1729	1729	1729	1729	1729	1729	1729	1739	1739			

### BILL OF REINFORCING STEEL - ONE ABUTMENT - 45° SKEW

BRIDGE LENGTH		QUANTITY													
MARK	LOCATION	SHAPE	LENGTH	70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	NO.	WEIGHT	
8r2	ABUTMENT FOOTING LONGITUDINAL		45'-3"	7	846	7	846	7	846	7	846	7	846	7	846
5s1	ABUTMENT FOOTING HOOPS		11'-0"	42	482	42	482	42	482	42	482	42	482	42	482
5s2	ABUTMENT FOOTING HOOPS		13'-6"	4	56	4	56	4	56	4	56	4	56	4	56
6+1	FOOTING TO SLAB DOWELS		5'-0"	36	270	36	270	36	270	36	270	36	270	36	270
6+2	FOOTING TO SLAB DOWELS		5'-7"	36	302	36	302	36	302	36	302	36	302	36	302
#2	PILE SPIRAL		38'-6"	7	45	7	45	7	45	7	45	7	45	8	51
	SPIRAL SPACERS - L X X X X 0.70		1'-10"	21	27	21	27	21	27	21	27	21	27	24	31
REINFORCING STEEL - TOTAL (LBS.)				2028	2028	2028	2028	2028	2028	2028	2028	2038			

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.	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	
REINFORCING STEEL	LBS.	1558	1558	1558	1558	1558	1581	1581	1579	1579	
STEEL PILING HP 10x42	NO.	5	5	5	5	5	6	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.	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	
REINFORCING STEEL	LBS.	1579	1579	1579	1579	1579	1602	1602	1600	1600	
STEEL PILING HP 10x42	NO.	5	5	5	5	5	6	6	7	7	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70	

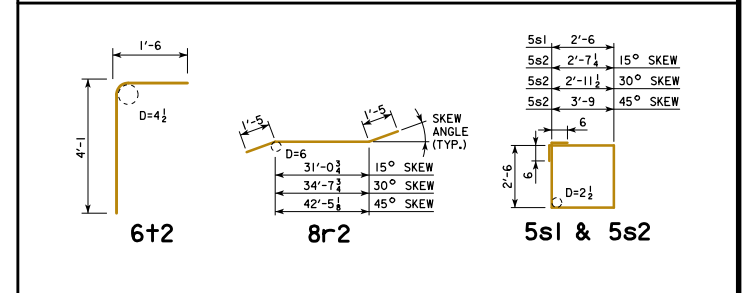
### ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

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.	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	
REINFORCING STEEL	LBS.	1729	1729	1729	1729	1729	1729	1729	1739	1739	
STEEL PILING HP 10x42	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.	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	
REINFORCING STEEL	LBS.	2028	2028	2028	2028	2028	2028	2028	2038	2038	
STEEL PILING HP 10x42	NO.	7	7	7	7	7	7	7	8	8	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	80	

### BENT BAR DETAILS



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

REVISED 07-2009; CONCRETE QUANTITIES CHANGED.  
REVISED 09-2020; UPDATED BRIDGE ENGINEER SIGNATURE.

09-2020 LATEST REVISION DATE   APPROVED BY BRIDGE ENGINEER	 STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES <b>CONTINUOUS CONCRETE SLAB BRIDGES</b> NOVEMBER, 2006
	<b>ABUTMENT DETAILS STEEL PILING</b>
	<b>J30-39-06</b>