

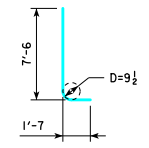
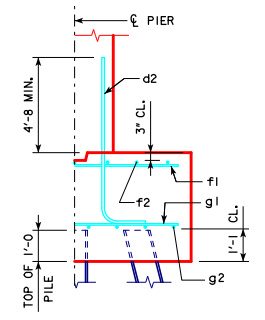
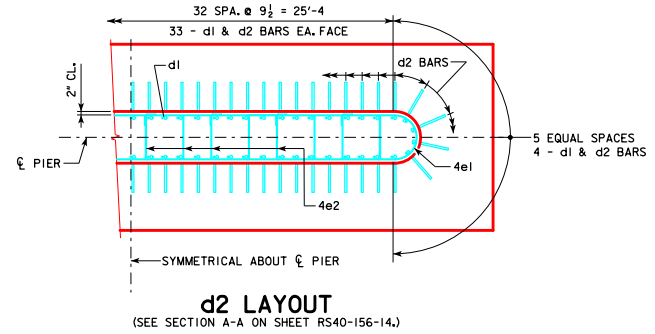
REVISED 02-2017 - CHANGED VERTICAL CLEARANCE OF REBAR "f2" TO TOP OF PIER FOOTING TO 3" WAS 2".

H IN FT.	C - C ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE	
		NO. & LAYOUT	① LRFD P <sub>u</sub> , STRENGTH I, DES. LOAD (KIPS)		
16 TO 18	160'-0	17A	140	4' x 8' x 32'	
	180'-0	18A	140		
	200'-0	19A	143		
	220'-0	20A	145		
	240'-0	21B	144		
	260'-0	22B	145		
	280'-0	24A	145		
	300'-0	26A	146		
19 TO 21	320'-0	27A	144	4' x 11' x 32'	
	340'-0	28A	145		
	160'-0	17A	145		4' x 14' x 32'
	180'-0	18A	145		
200'-0	20A	138			
220'-0	21A	144			
240'-0	22B	140			
260'-0	23A	145			
280'-0	25A	145			
22 TO 24	300'-0	26B	143	4' x 14' x 32'	
	320'-0	28A	142		
	340'-0	29A	145		
	160'-0	18A	140		4' x 8' x 32'
	180'-0	19A	144		
	200'-0	20B	141		
220'-0	22A	142			
240'-0	22B	143			
260'-0	24A	143			
280'-0	26A	145			
25 TO 27	300'-0	26B	146	4' x 11' x 32'	
	320'-0	28A	145		
	340'-0	30A	144		
	160'-0	18A	145		4' x 14' x 32'
	180'-0	20A	139		
	200'-0	21A	141		
	220'-0	22B	137		
	240'-0	22B	147		
260'-0	24A	146			
280'-0	26B	141			
28 TO 30	300'-0	27A	145	4' x 14' x 32'	
	320'-0	29A	144		
	340'-0	30A	147		
	160'-0	19A	143		4' x 8' x 32'
	180'-0	20A	143		
	200'-0	21A	144		
220'-0	22B	140			
240'-0	23A	146			
260'-0	25A	145			
31 TO 33	280'-0	26B	146	4' x 11' x 32'	
	300'-0	28A	145		
	320'-0	30A	145		
	340'-0	31A	146		
	160'-0	20A	138		4' x 14' x 32'
	180'-0	20B	144		
	200'-0	22A	142		
	220'-0	22B	143		
240'-0	24A	143			
260'-0	26A	145			
280'-0	26B	146			
300'-0	28A	145			
34 TO 36	320'-0	30A	145	4' x 14' x 32'	
	340'-0	32B	143		
	160'-0	20A	143		4' x 14' x 36'
	180'-0	21A	144		
	200'-0	22B	137		
	220'-0	22B	146		
240'-0	24A	146			
260'-0	26B	140			
280'-0	27A	145			
300'-0	29A	144			
320'-0	31A	145			
340'-0	32B	145			

H IN FT.	C - C ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE	
		NO. & LAYOUT	① LRFD P <sub>u</sub> , STRENGTH I, DES. LOAD (KIPS)		
37 TO 40	160'-0	20B	145	4' x 9' x 32'	
	180'-0	22A	144		
	200'-0	22B	141		
	220'-0	23A	146		
37 TO 40	240'-0	25A	146	4' x 11' x 32'	
	260'-0	26B	143		
	280'-0	28A	143		
	300'-0	30A	144		
37 TO 40	320'-0	32A	145	4' x 14' x 32'	
	340'-0	32C	146		
	300'-0	30A	144		4' x 15' x 38'
	320'-0	32A	145		
340'-0	32C	146			

FOOTING SIZE	REINFORCING STEEL (ONE FOOTING)			TOTAL WEIGHT (L.B.)	STRUCTURAL CONCRETE (CY)	
	BAR NO., SIZE & SPACING	LENGTH	WEIGHT (L.B.)			
4' x 8' x 32'	d2	74 - #9 AS SHOWN	9'-1	2285	3601	37.9
	f1	32 - #5 @ 1'-0	7'-8	256		
	f2	8 - #5 @ 1'-0	31'-8	264		
	g1	32 - #6 @ 1'-0	7'-8	368		
	g2	9 - #6 @ 0'-11	31'-8	428		
4' x 9' x 32'	d2	74 - #9 AS SHOWN	9'-1	2285	3820	42.7
	f1	32 - #5 @ 1'-0	8'-8	289		
	f2	9 - #5 @ 1'-0	31'-8	297		
	g1	40 - #6 @ 0'-9 1/2	8'-8	521		
	g2	9 - #6 @ 1'-0	31'-8	428		
4' x 11' x 32'	d2	74 - #9 AS SHOWN	9'-1	2285	4600	52.1
	f1	32 - #5 @ 1'-0	10'-8	356		
	f2	11 - #5 @ 1'-0	31'-8	363		
	g1	36 - #8 @ 0'-10 1/2	10'-8	1025		
	g2	12 - #6 @ 0'-11	31'-8	571		
4' x 14' x 32'	d2	74 - #9 AS SHOWN	9'-1	2285	5681	66.4
	f1	32 - #5 @ 1'-0	13'-8	456		
	f2	14 - #5 @ 1'-0	31'-8	462		
	g1	39 - #9 @ 0'-9 1/2	13'-8	1812		
	g2	14 - #6 @ 1'-0	31'-8	666		
4' x 14' x 34'	d2	74 - #9 AS SHOWN	9'-1	2285	6337	70.5
	f1	34 - #5 @ 1'-0	13'-8	485		
	f2	14 - #5 @ 1'-0	33'-8	492		
	g1	41 - #9 @ 0'-10	13'-8	1905		
	g2	17 - #7 @ 0'-10	33'-8	1170		
4' x 14' x 36'	d2	74 - #9 AS SHOWN	9'-1	2285	7136	74.7
	f1	36 - #5 @ 1'-0	13'-8	513		
	f2	14 - #5 @ 1'-0	35'-8	521		
	g1	43 - #9 @ 0'-10	13'-8	1998		
	g2	15 - #9 @ 0'-11 1/2	35'-8	1819		
4' x 15' x 38'	d2	74 - #9 AS SHOWN	9'-1	2285	8182	84.4
	f1	38 - #5 @ 1'-0	14'-8	581		
	f2	15 - #5 @ 1'-0	37'-8	589		
	g1	46 - #9 @ 0'-10	14'-8	2294		
	g2	19 - #9 @ 0'-9 1/2	37'-8	2433		

① NOTE: P<sub>u</sub> STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



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

NOTE: THE REINFORCING STEEL QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.  
NOTE: THE CONCRETE QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.  
NOTE: THE PILE TYPE IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

**FOOTING NOTES:**

THESE FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET RS40-156-14.  
BATTER PILES IN EXTERIOR ROWS 1-4 IN THE DIRECTION SHOWN.  
STEEL PILING USED AS POINT BEARING SHALL HAVE A MINIMUM DISTANCE OF APPROXIMATELY 10 FEET FROM BOTTOM OF FOOTING TO TOP OF BEARING ROCK. THE PILE LAYOUTS ARE SUCH THAT THE DISTANCE CENTER TO CENTER OF ADJACENT PILING SHALL NOT EXCEED 8'-0.  
PIER PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

LATEST REVISION DATE 02-2017	APPROVED BY BRIDGE ENGINEER <i>Thomas E. McQuinn</i>	<b>IOWADOT</b> Highway Division
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES <b>ROLLED STEEL BEAM BRIDGES</b> OCTOBER, 2014
<b>TEE PIER-HP10x57 SRL-1 STEEL PILE FOOTINGS</b>		<b>RS40-158-14</b>
		45° SKEW - SHEET 1