

Figure 10 is a plan view of a rectangular pier. The overall dimensions are 25'-0" wide by 9'-0" high. The pier is symmetrical about its centerline (C PIER). The reinforcement details are as follows:

- Top reinforcement: 29 SP. #10 = 24'-2"
- Bottom reinforcement: 24 SP. #10 = 24'-0"
- Left side reinforcement: 8 SP. #10 = 8'-0"
- Right side reinforcement: 9 SP. #11 = 8'-3"

The pier is divided into sections by reinforcement bars. The central area is labeled "BOTT. FTG. REINF." and "TOP FTG. REINF.". The dimensions of the sections are:

- Top section: 3'-8" (left), 3'-8" (middle), 3'-8" (right), 1'-6" (corner)
- Bottom section: 3'-8" (left), 3'-8" (middle), 3'-8" (right), 1'-6" (corner)
- Left section: 6g1 (left), 8g2 (middle), 5f1 (right)
- Right section: 5f2 (left), 5f1 (middle), 5f2 (right)

Notes:

- SYMM. ABOUT C PIER
- OMIT ON 18C, 20C
- 45° TYP.

Figure 10 is a plan view of a rectangular pier. The overall dimensions are 27'-0" wide and 11'-0" high. The pier is symmetrical about its centerline. The reinforcement details include:

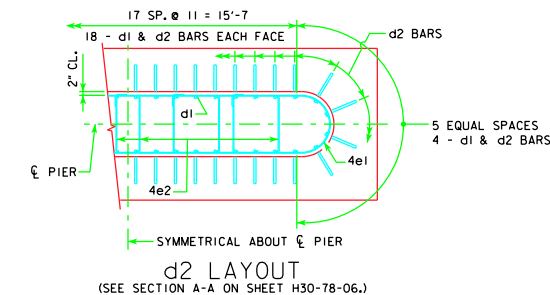
- Top longitudinal bars: 8g1 (top left), 9g2 (top right), 5f1 (bottom left), 5f2 (bottom right).
- Vertical bars: 12-9g2 (left side), 26 SP, 11-10'-0" (bottom).
- Horizontal bars: 4'-0" (top), 4'-0" (middle), 4'-0" (bottom), 1'-6" (right side).
- Notes: "BOTT. FTG. REINF." (Bottom Footing Reinforcement), "TOP FTG. REINF." (Top Footing Reinforcement), "OMIT ON 18E, 20E" (Omit on 18E, 20E), "OMIT ON 18E, 19E" (Omit on 18E, 19E).
- A 45° angle is indicated at the bottom right corner.

Figure 10: Reinforcement details for a 24" x 48" pier. The diagram shows a rectangular pier with various reinforcement bars and dimensions. Key dimensions include: overall width 25'-0", overall height 11'-0", and pier width 24". Reinforcement includes 27 SP. #10 bars (23'-7 1/2" long), 12 SP. #10 bars (10'-6" long), 24 SP. #1 bars (24'-0" long), and 5f1, 5f2 bars. It also shows 8g1, 7g2, and 8g2 bars. Notes include "BOTT. FTG. REINF.", "TOP FTG. REINF.", "OMIT ON 18D, 20D", "OMIT ON 18D, 19D", and "45° TYP."

Figure 10.10 is a detailed reinforcement drawing of a rectangular column. The drawing shows the column's cross-section with various dimensions and reinforcement specifications. The overall width is 27'-0" and the overall height is 13'-0". The column is symmetric about the centerline of the pier. The reinforcement includes 30 SP. #10 2' = 26'-3" for the bottom flange (BOTT. FTG. REINF.) and 26 SP. #10 1'-0" = 26'-0" for the top flange (TOP FTG. REINF.). The column is also symmetric about the centerline of the pier. The reinforcement is shown in blue, and the column is shown in red. The column is labeled "OMIT ON 19F" and "OMIT ON 20F". The column is also labeled "45° TYP.".

H IN. FT.	℄ - ℄ ABUT. BRG.	PILING (HP10X57)			FOOTING SIZE
		NO. & LAYOUT	1 DES. BRG. (TONS)	2 LRFD DES. BRG. (KIPS)	
21	201'-4	18C	49	140	4' x 9' x 25'
25	213'-10	18C	50	145	
29	226'-4	19C	50	146	
33	243'-0	20C	50	145	4' x 9' x 25'
37	201'-4	18C	50	144	
41	213'-10	19C	50	143	
45	226'-4	20C	50	143	4' x 9' x 25'
49	243'-0	21A	50	144	
53	201'-4	18D	50	145	
57	213'-10	19D	50	145	4' x 11' x 25'
61	226'-4	20D	50	144	
65	243'-0	21B	50	144	
69	201'-4	18E	50	147	4' x 11' x 27'
73	213'-10	19E	50	146	
77	226'-4	20E	50	145	
81	243'-0	21C	50	145	4' x 13' x 27'
85	201'-4	19F	49	140	
89	213'-10	19F	50	145	
93	226'-4	20F	49	141	4' x 13' x 27'
97	243'-0	21D	49	142	

FOOTING SIZE	BAR	REINFORCING STEEL (ONE FOOTING)			TOTAL WEIGHT (L.B.)	STRUCTURAL CONCRETE (CY)
		NO., SIZE & SPACING	LENGTH	WEIGHT (L.B.)		
4' x 9' x 25'	d2	44 - #10 AS SHOWN	10'-6"	1988	3496	33.3
	f1	25 - #5 @ 1'-0"	8'-8"	226		
	f2	9 - #5 @ 1'-0"	24'-8"	232		
	g1	30 - #6 @ 0'-10"	8'-8"	391		
	g2	10 - #8 @ 0'-11"	24'-8"	659		
4' x 11' x 25'	d2	44 - #10 AS SHOWN	10'-6"	1988	4001	40.7
	f1	25 - #5 @ 1'-0"	10'-8"	278		
	f2	11 - #5 @ 1'-0"	24'-8"	283		
	g1	28 - #8 @ 0'-10 1/2"	10'-8"	797		
	g2	13 - #7 @ 0'-10 1/2"	24'-8"	655		
4' x 11' x 27'	d2	44 - #10 AS SHOWN	10'-6"	1988	4508	44.0
	f1	27 - #5 @ 1'-0"	10'-8"	300		
	f2	11 - #5 @ 1'-0"	26'-8"	306		
	g1	29 - #8 @ 0'-11"	10'-8"	826		
	g2	12 - #9 @ 0'-11"	26'-8"	1088		
4' x 13' x 27'	d2	44 - #10 AS SHOWN	10'-6"	1988	5493	52.0
	f1	27 - #5 @ 1'-0"	12'-8"	357		
	f2	13 - #5 @ 1'-0"	26'-8"	362		
	g1	31 - #9 @ 0'-10 1/2"	12'-8"	1335		
	g2	16 - #9 @ 0'-10"	26'-8"	1451		



07-10 LATEST REVISION DATE <i>Norman E. McQuinn</i> APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
	STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES DECEMBER, 2006	
	TEE PIER - 50 TON STEEL PILE FOOTINGS 45° SKEW - H=25' to 40'	H30-80-06