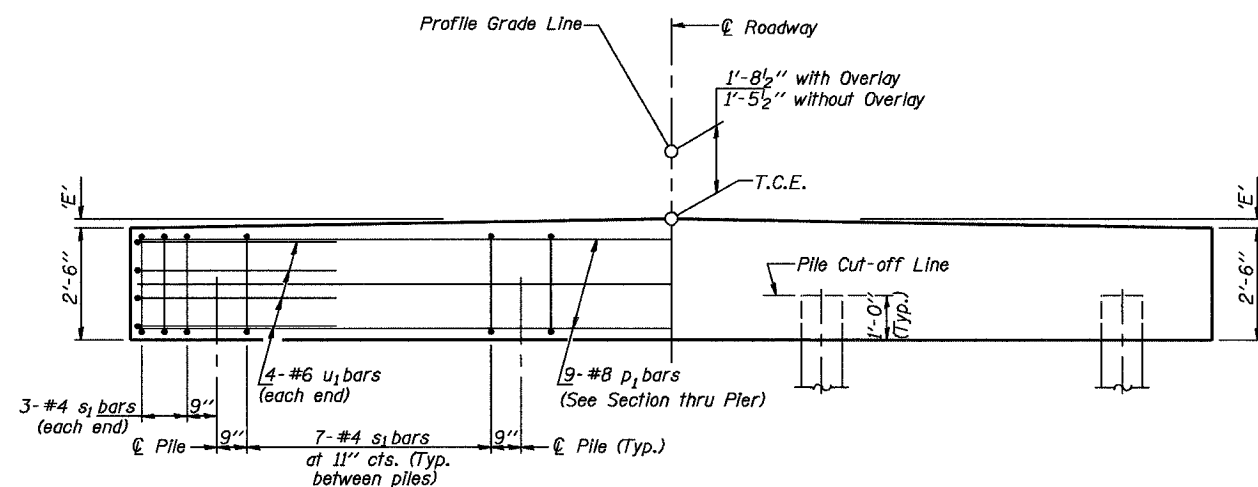


PLAN
(*D*' = Designated Skew Angle)



ELEVATION

DIMENSION 'E'

GRADE	<i>D</i> '=0°		<i>D</i> '=5°		<i>D</i> '=10°	
	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END
0%	2 ³ / ₈ "	2 ³ / ₈ "	2 ³ / ₈ "	2 ³ / ₈ "	2 ³ / ₈ "	2 ³ / ₈ "
Over 0% to 1%	2 ³ / ₈ "	2 ³ / ₈ "	2 ¹ / ₄ "	2 ³ / ₈ "	2 ³ / ₈ "	2 ¹ / ₂ "
Over 1% to 2%	2 ³ / ₈ "	2 ³ / ₈ "	2 ¹ / ₈ "	2 ¹ / ₂ "	1 ⁷ / ₈ "	2 ³ / ₄ "
Over 2% to 3%	2 ³ / ₈ "	2 ³ / ₈ "	2"	2 ⁵ / ₈ "	1 ⁵ / ₈ "	3"
Over 3% to 4%	2 ³ / ₈ "	2 ³ / ₈ "	1 ⁷ / ₈ "	2 ³ / ₄ "	1 ³ / ₈ "	3 ¹ / ₄ "

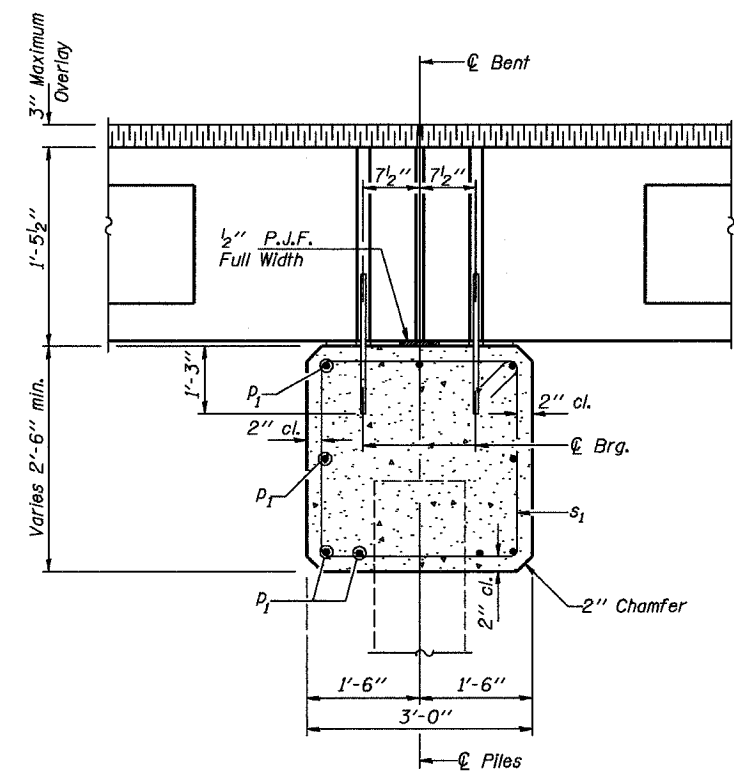
MAXIMUM PILE LOADS

SPAN	TONS
25'	34
30'	38
35'	42
40'	45

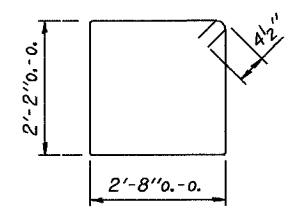
Longer of Either Span Supported by Pier.

DESIGN STRESSES

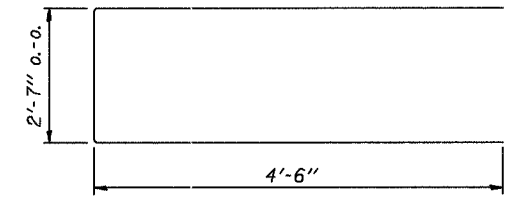
f'_c = 3,500 psi
*f*_y = 60,000 psi



SECTION THRU PIER
(At Right Angles)



BAR s₁



BAR u₁

BILL OF MATERIAL FOR ONE PIER

Bar	No.	Size	Length	Shape
<i>p</i> ₁	9	#8	25'-2"	—
<i>s</i> ₁	27	#4	10'-5"	□
<i>u</i> ₁	8	#6	11'-7"	▭
Concrete Structures			7.4	Cu. Yds.
Reinforcement Bars			930	Lb.

NOTE

Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-322, Grade 60.

P.P.C. DECK BEAMS PILE BENT PIER		
24' RDWY.	17" BMS.	<i>D</i> '=0°, 5° OR 10°
STANDARD CP-2417-10		

Illinois Department of Transportation
 PASSED APRIL 4, 2005
 Thana S. Ramagala
 Engineer of Bridge Design
 APPROVED APRIL 4, 2005
 Ralph E. Anderson
 Engineer of Bridges and Structures
 1986-1-1 CBR/SEI