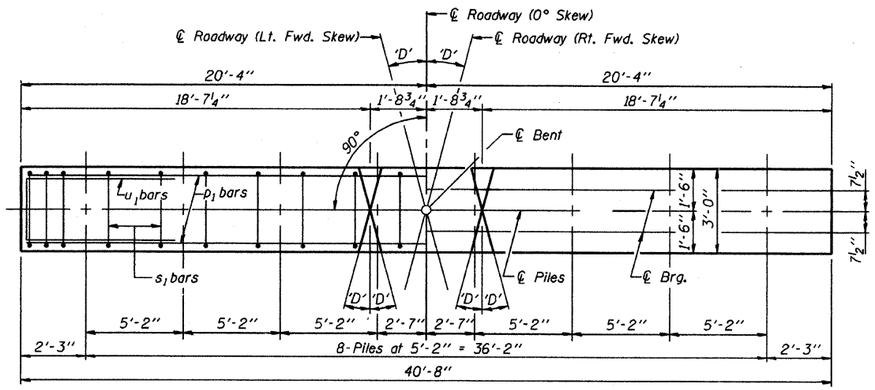
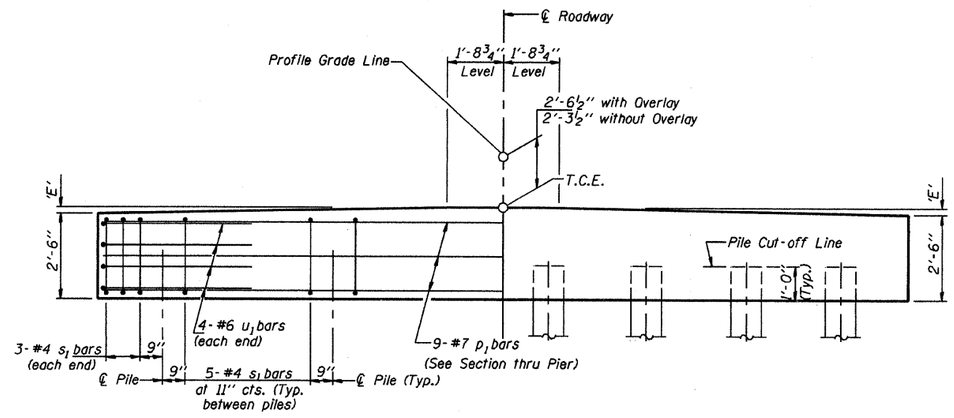
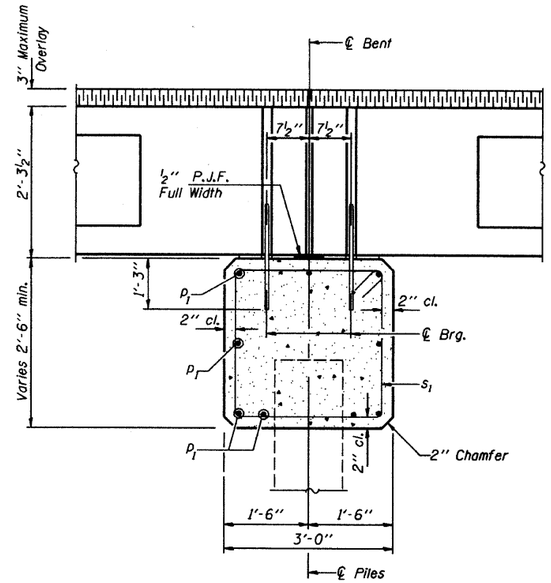



## PLAN

('D'= Designated Skew Angle)




## ELEVATION




## SECTION THRU PIER

(At Right Angles)

## DIMENSION 'E'

| GRADE | 'D'=25° | | 'D'=30° | |
|---|---|---|---|---|
| | UPGRADE END | DOWNGRADE END | UPGRADE END | DOWNGRADE END |
| 0% | 3⅛" | 3⅛" | 3" | 3" |
| Over 0% to 1% | 2⅝" | 3½" | 2⅜" | 3½" |
| Over 1% to 2% | 1¾" | 4½" | 1⅜" | 4⅝" |
| Over 2% to 3% | ¾" | 5⅜" | ¼" | 5⅝" |
| Over 3% to 4% | 0" | 6¼" | — | — |

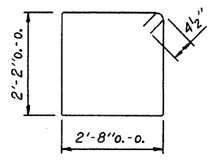
## MAXIMUM PILE LOADS

| SPAN | TONS |
|---|---|
| 40' | 31 |
| 50' | 36 |
| 60' | 42 |

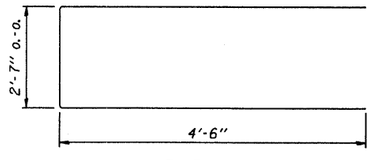
Longer of Either Span
Supported by Pier.

## DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi




BAR $s_1$




BAR $u_1$

## NOTE

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

## BILL OF MATERIAL FOR ONE PIER

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| | | | | |
| $p_1$ | 9 | #7 | 40'-4" | —— |
| $s_1$ | 41 | #4 | 10'-5" | □ |
| $u_1$ | 8 | #6 | 11'-7" | ⊏⊐ |
| Concrete Structures | | | 11.9 | Cu. Yds. |
| Reinforcement Bars | | | 1170 | Lb. |

Illinois Department of Transportation

PASSED APRIL 4, 2005
Thomas J. Domagalski
Engineer of Bridge Design
APPROVED APRIL 4, 2005
Ralph E. Anderson
Engineer of Bridges and Structures

ISSUED 4-4-2005

P.P.C. DECK BEAMS
PILE BENT PIER

| 33' RDWY. | 27" BMS. | 'D'=25° OR 30° |
|---|---|---|

STANDARD CP-3327-30