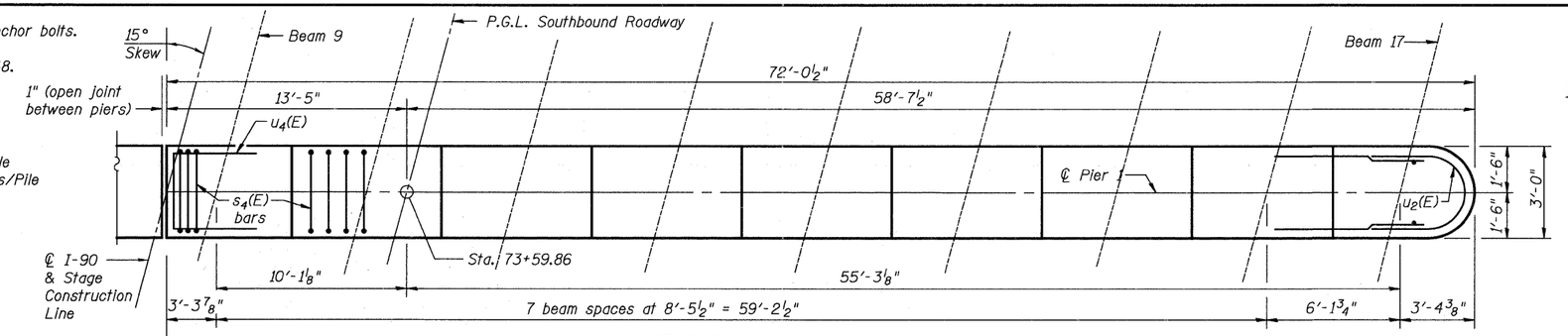
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 41 of 48.

## PILE DATA

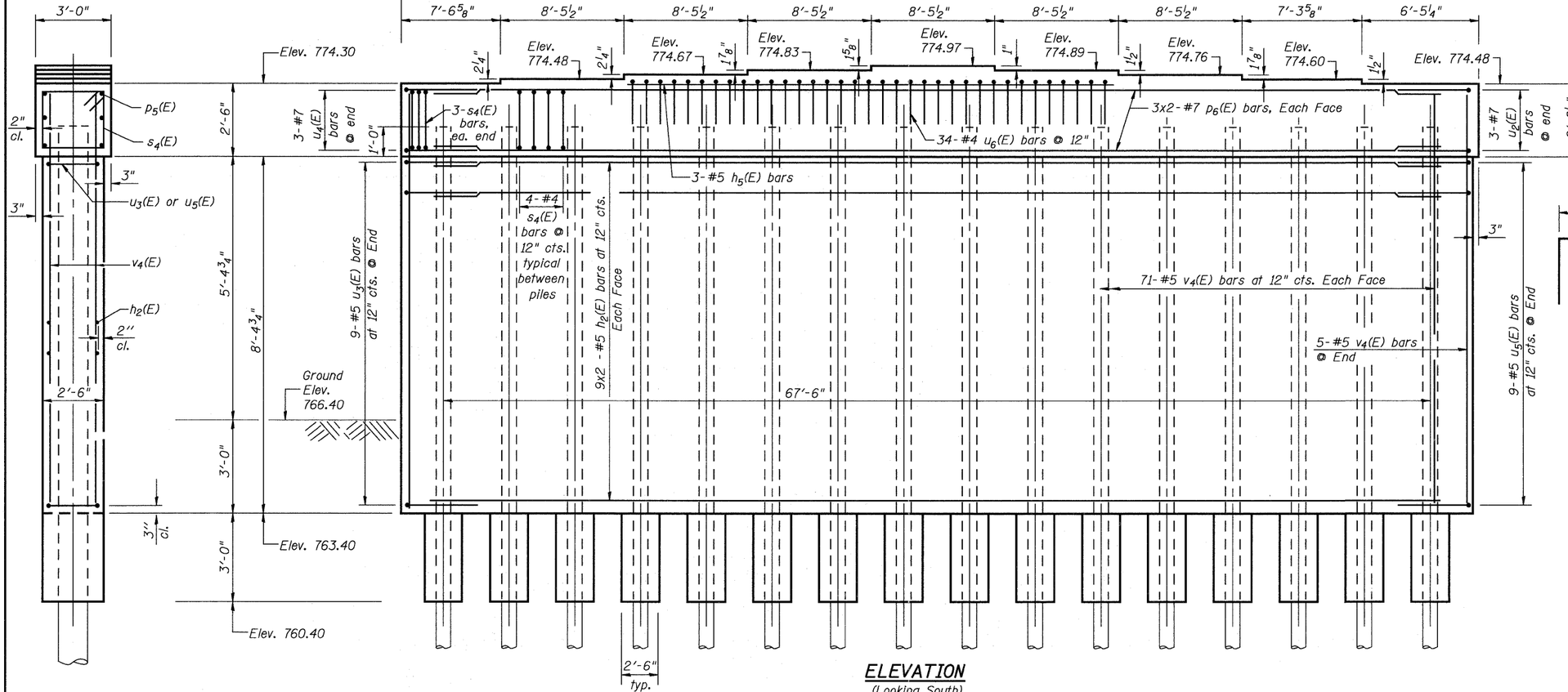
Type: 14"ϕ Metal Shell w/0.25" walls
Nominal Required Bearing: 416 Kips/Pile
Factored Resistance Available: 191 Kips/Pile
Est. Length: 82 Feet
No. Production Piles: 16
No. Test Piles: 0

## MINIMUM BAR LAP

#5 bar = 2'-7"
#7 bar = 4'-2"

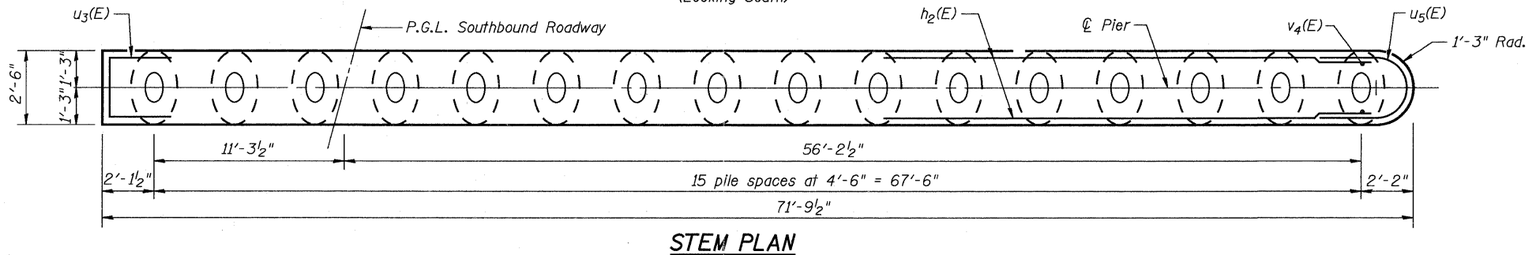



## TOP PLAN

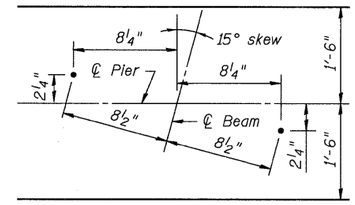



## ELEVATION
(Looking South)

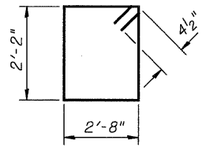
## END VIEW



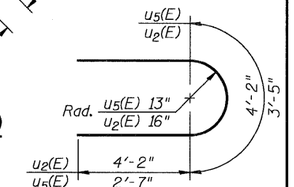

## STEM PLAN



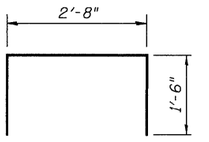

## TYPICAL ANCHOR BOLT LOCATION



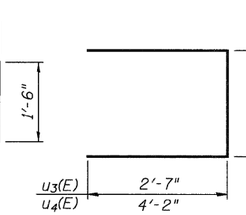

## BAR $s_4(E)$




## BAR $u_5(E)$ & $u_2(E)$




## BAR $u_6(E)$




## BAR $u_3(E)$ & $u_4(E)$

## BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| $h_2(E)$ | 36 | #5 | 36'-6" | |
| $h_5(E)$ | 3 | #5 | 33'-6" | |
| $p_6(E)$ | 12 | #7 | 37'-4" | |
| $s_4(E)$ | 66 | #4 | 10'-5" | |
| $u_2(E)$ | 3 | #7 | 12'-6" | |
| $u_3(E)$ | 9 | #5 | 7'-4" | |
| $u_4(E)$ | 3 | #7 | 11'-0" | |
| $u_5(E)$ | 9 | #5 | 8'-7" | |
| $u_6(E)$ | 34 | #4 | 5'-8" | |
| $v_4(E)$ | 147 | #5 | 10'-6" | |
| Structure Excavation | | | Cu. Yd. | 54.8 |
| Concrete Structures | | | Cu. Yd. | 72.6 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 4,882 |
| Furnishing Metal Shell Piles, 14"ϕ x 0.250" | | | Foot | 1310 |
| Driving Piles | | | Foot | 1310 |
| Concrete Encasement | | | Cu. Yd. | 6.8 |

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.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| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - JTT | REVISED - | |
| | CHECKED - VAC | REVISED - | |
| PLOT SCALE = | DRAWN - JBB | REVISED - | |
| PLOT DATE = | CHECKED - JTT | REVISED - | |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**PIER 2 SOUTHBOUND DETAILS**
**STRUCTURE NO. 101-0193**
BRIDGE SHEET NO. 40 OF 48 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 90 | (X2-1)R | WINNEBAGO | 510 | 385 |
| | | CONTRACT NO. 64C29 | | |
| | ILLINOIS FED. AID PROJECT | | | |