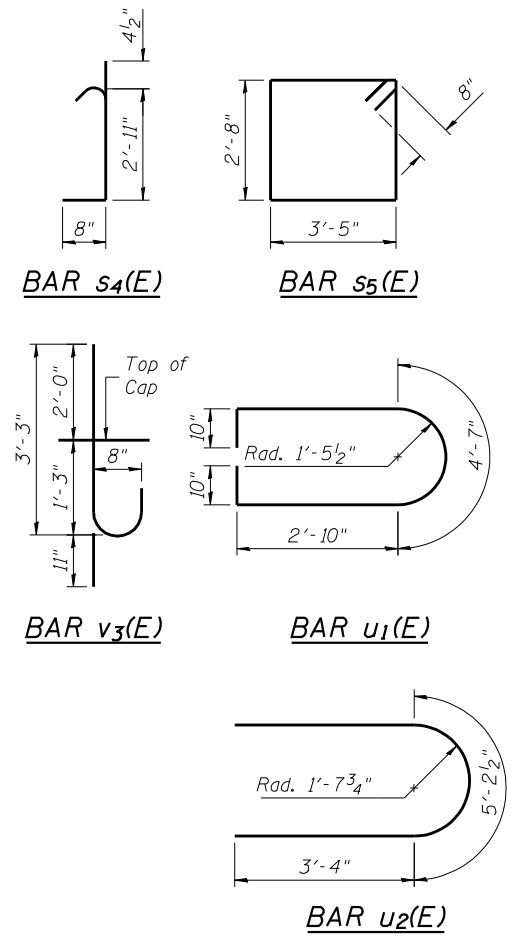
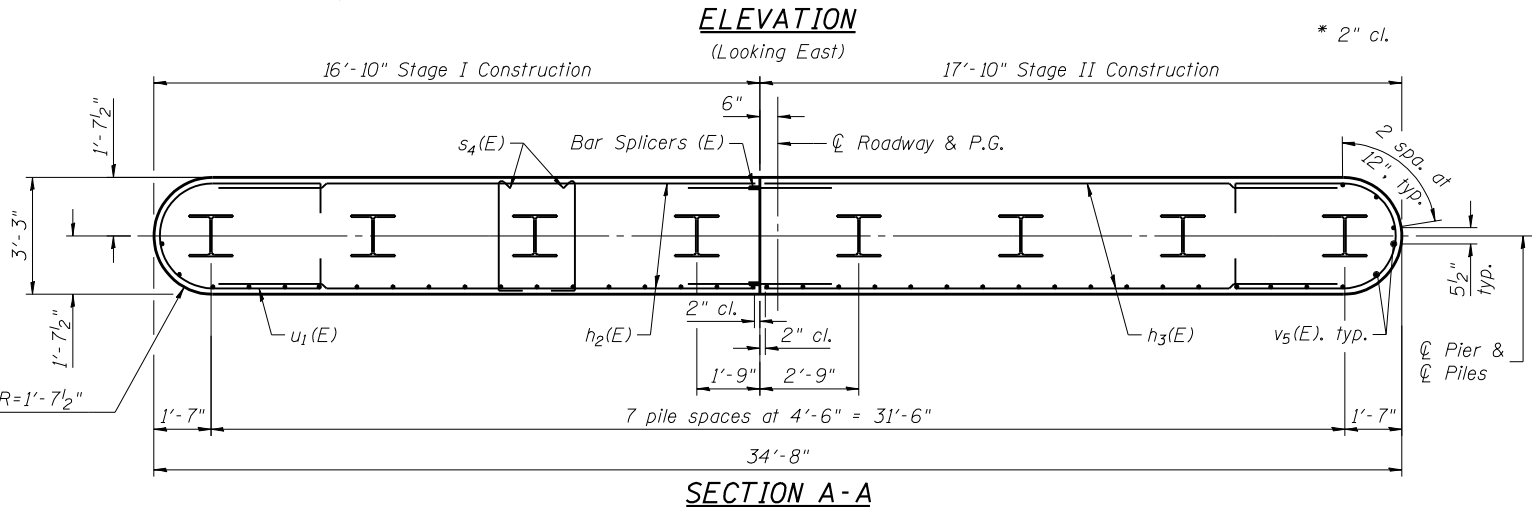
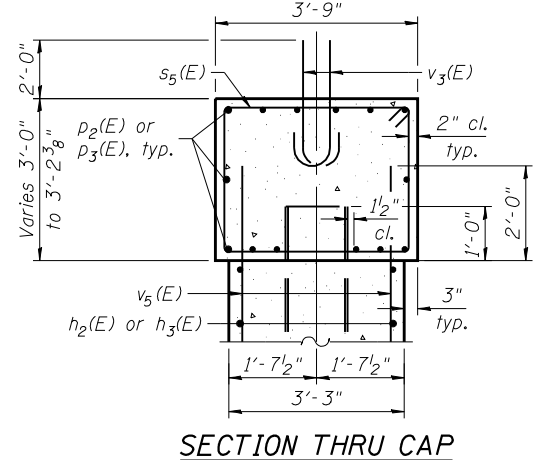
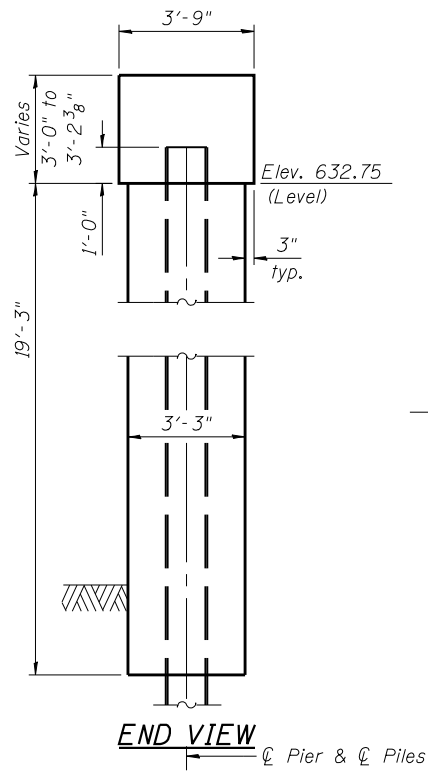
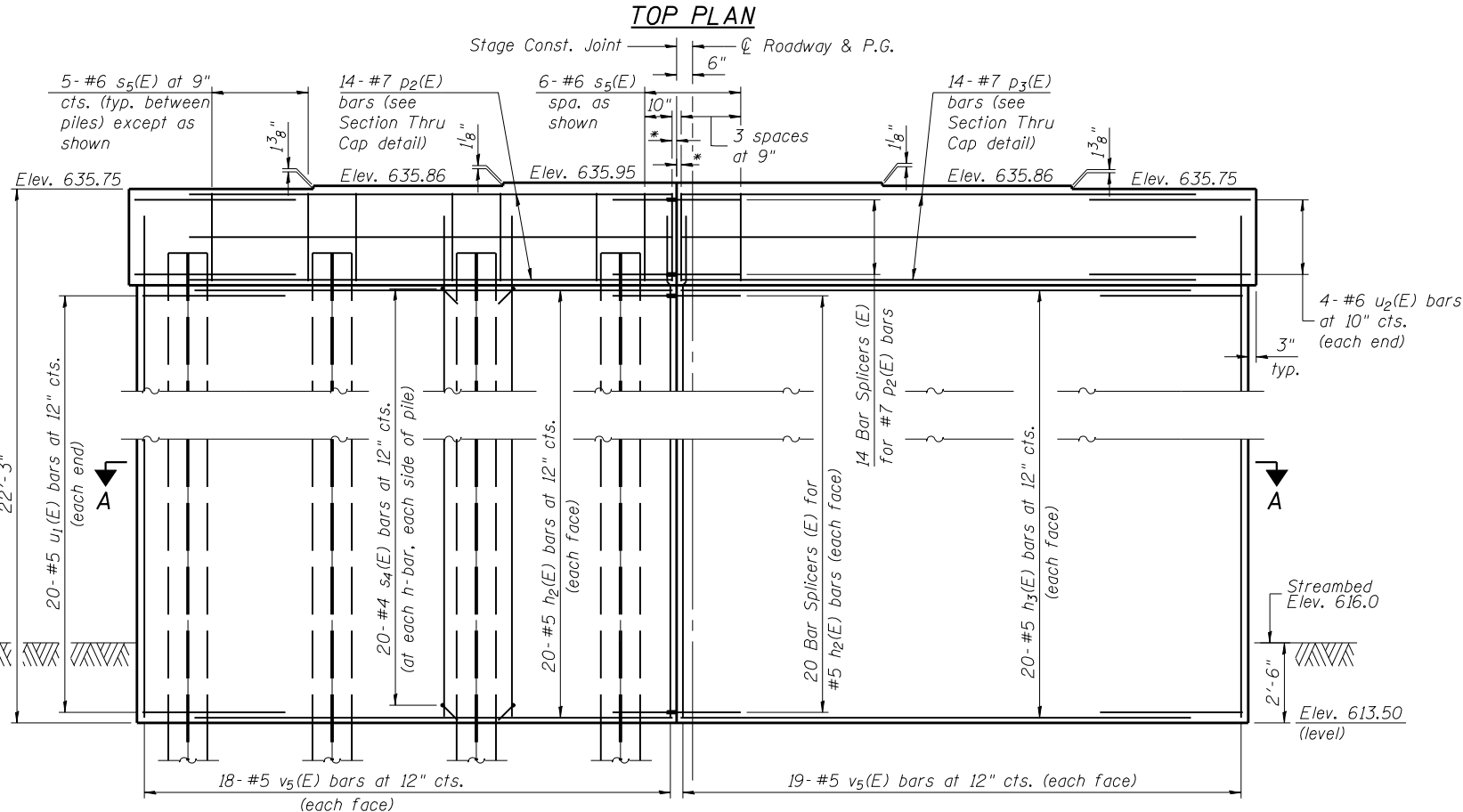
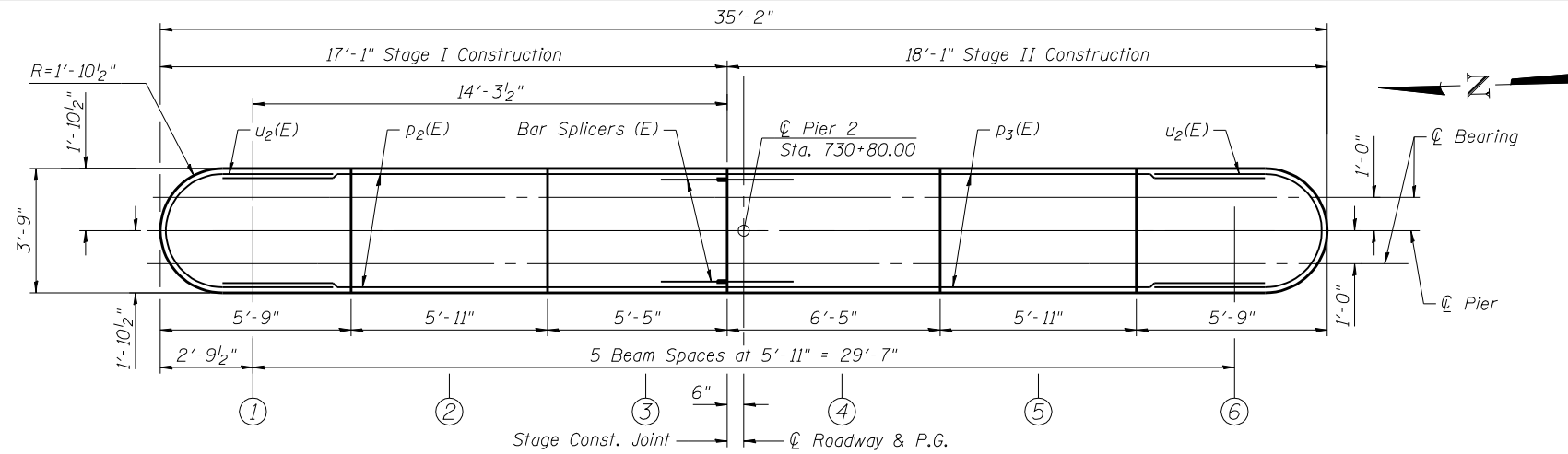


Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 29 of 33.
 For spacing of $v_3(E)$ bars, see sheet 15 of 33.
 For section thru cofferdam, see sheet 4 of 33.
 For anchor bolt location, see sheet 15 of 33.

PILE DATA

Type: HP14x89
 Nominal Required Bearing: 518 kips
 Factored Resistance Available: 272 kips
 Est. Length: 71 feet
 No. Production Piles: 7
 No. Test Piles: 1



BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-----------------------------------|-----|---------|---------|-------|
| $h_2(E)$ | 40 | #5 | 15'-1" | — |
| $h_3(E)$ | 40 | #5 | 16'-1" | — |
| $p_2(E)$ | 14 | #7 | 15'-1" | — |
| $p_3(E)$ | 14 | #7 | 16'-1" | — |
| $s_4(E)$ | 320 | #4 | 4'-0" | U |
| $s_5(E)$ | 36 | #6 | 13'-6" | □ |
| $u_1(E)$ | 40 | #5 | 11'-11" | U |
| $u_2(E)$ | 8 | #6 | 11'-10" | U |
| $v_3(E)$ | 32 | #8 | 4'-2" | U |
| $v_5(E)$ | 74 | #5 | 21'-1" | — |
| Cofferdam Excavation | | Cu. Yd. | 89 | |
| Cofferdam (Type 2) (Location - 1) | | Each | 1 | |
| Concrete Structures | | Cu. Yd. | 93.6 | |
| Seal Coat Concrete | | Cu. Yd. | 31.1 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 6400 | |
| Furnishing Steel Piles, HP14x89 | | Foot | 497 | |
| Driving Piles | | Foot | 497 | |
| Test Pile, Steel HP14x89 | | Each | 1 | |

EFK Moen, LLC
 Civil Engineering Design
 331 Salem Place, Suite 225
 Fairview Heights, IL 62208
 Phone 618-206-4250

| | | |
|------------------------------|------------------|-----------|
| USER NAME = cdl | DESIGNED - CTW | REVISED - |
| PLOT SCALE = 0/2" = 1' / IN. | CHECKED - CDL | REVISED - |
| PLOT DATE = 3/24/2014 | DRAWN - CTW | REVISED - |
| | DATE - 3/24/2014 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS
STRUCTURE NO. 092-0207

SHEET NO. 27 OF 33 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 711 | 116BR-1 | VERMILION | 84 | 57 |
| CONTRACT NO. 70614 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

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