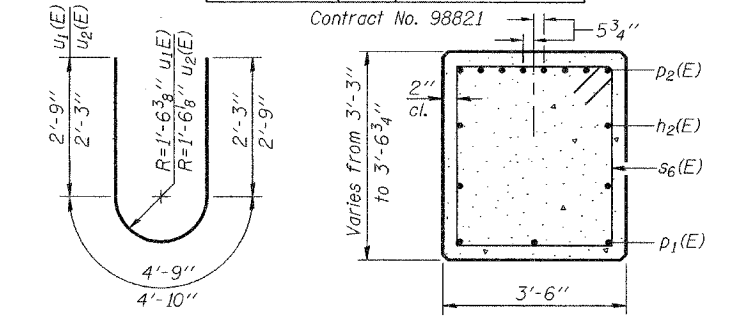
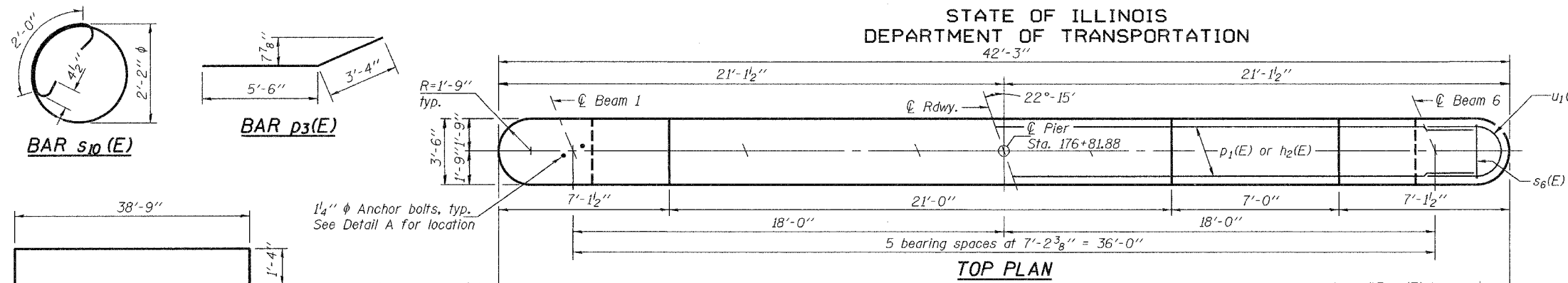


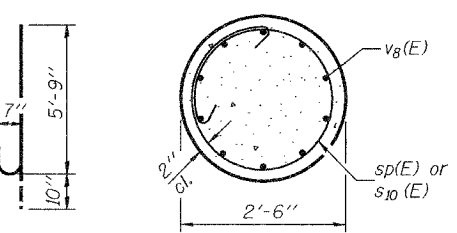
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
42'-3"

|                       |            |                  |            |           |              |
|-----------------------|------------|------------------|------------|-----------|--------------|
| ROUTE NO.             | SECTION    | COUNTY           | POST MILES | SHEET NO. | SHEET NO. 15 |
| FAP 869               | (10VB) B-1 | FRANKLIN         | 48         | 44        | 18 SHEETS    |
| FED. ROAD DIST. NO. 7 | ILLINOIS   | FED. AID PROJECT |            |           |              |

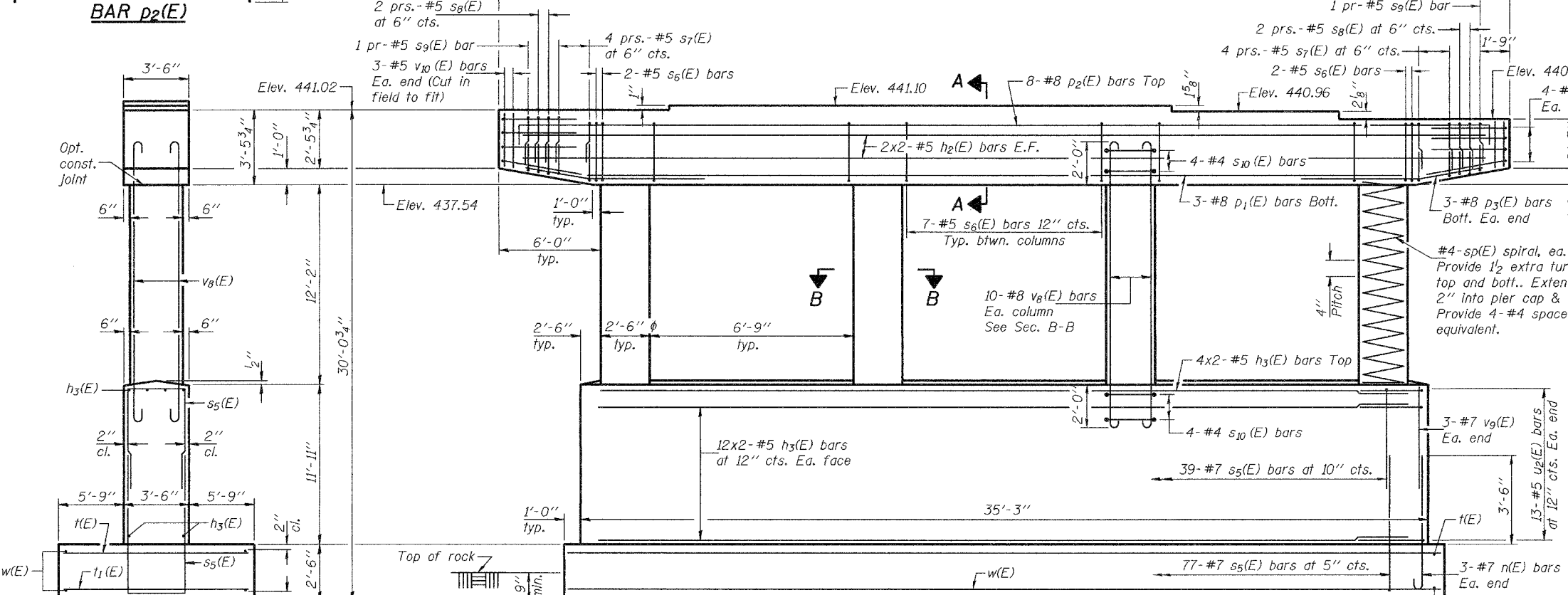
Contract No. 98821



**SEC. A-A**



**BAR n(E)**



**Notes:** Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. The bottom of the proposed footing elevation shall be adjusted to ensure a minimum embedment of 9 inches into competent rock. The rock excavation shall be made with near-vertical sides at the plan footing dimensions to allow the sides of the embedded portion of the footing to be cast against undisturbed rock surfaces. The footing excavation shall be undercut by 6 inches and immediately filled with 6 inch thick concrete seal to prevent degradation of the exposed foundation material surface. Cost of 6 inch thick concrete seal is included with Rock Excavation for Structures.

|          |                  |
|----------|------------------|
| DESIGNED | Dewey H. Coultas |
| CHECKED  | Ray Ahanchi      |
| DRAWN    | h.t. duong       |
| CHECKED  | DHC/GRA          |

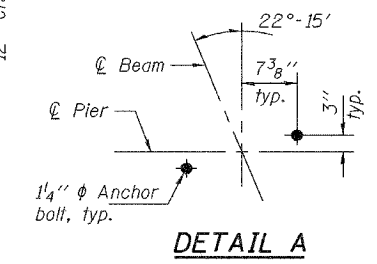
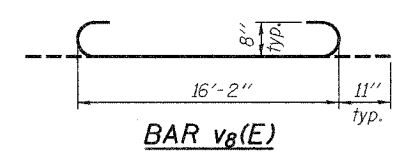
|          |                    |               |
|----------|--------------------|---------------|
| EXAMINED | Thomas J. Damagala | Nov. 30, 2007 |
| PASSED   | Ralph E. Anderson  |               |

**MIN. BAR LAPS**

|        |         |
|--------|---------|
| #4 bar | = 1'-8" |
| #5 bar | = 2'-2" |
| #6 bar | = 2'-7" |
| #7 bar | = 3'-5" |
| #8 bar | = 4'-6" |

**FOOTING PLAN**

Maximum Applied Service = 9.53 Kips/ft<sup>2</sup>  
Bearing Pressure (Q max)



**BARS  $s_5(E)$ ,  $s_7(E)$ ,  $s_8(E)$  &  $s_9(E)$**

**A & B DIMENSIONS**

| Bar      | A     | B     |
|----------|-------|-------|
| $s_5(E)$ | 3'-2" | 8'-9" |
| $s_7(E)$ | 3'-2" | 2'-6" |
| $s_8(E)$ | 3'-2" | 2'-4" |
| $s_9(E)$ | 3'-2" | 2'-3" |

**BILL OF MATERIAL**

| Bar No.                          | Size    | Length | Shape |
|----------------------------------|---------|--------|-------|
| $h_2(E)$                         | 8 #5    | 20'-6" | —     |
| $h_3(E)$                         | 56 #5   | 17'-0" | —     |
| $n(E)$                           | 6 #7    | 6'-7"  | U     |
| $p_1(E)$                         | 3 #8    | 30'-3" | —     |
| $p_2(E)$                         | 8 #8    | 41'-5" | □     |
| $p_3(E)$                         | 6 #8    | 8'-10" | —     |
| $s_5(E)$                         | 116 #7  | 20'-8" | □     |
| $s_6(E)$                         | 25 #5   | 13'-1" | □     |
| $s_7(E)$                         | 16 #5   | 8'-2"  | □     |
| $s_8(E)$                         | 8 #5    | 7'-10" | □     |
| $s_9(E)$                         | 4 #5    | 7'-8"  | □     |
| $s_{10}(E)$                      | 32 #4   | 9'-10" | ○     |
| * $sp(E)$                        | 4 #4    | 12'-6" | W     |
| $t(E)$                           | 45 #5   | 14'-8" | —     |
| $t_1(E)$                         | 75 #8   | 14'-6" | —     |
| $u_1(E)$                         | 8 #6    | 10'-4" | —     |
| $u_2(E)$                         | 26 #5   | 9'-3"  | —     |
| $v_8(E)$                         | 40 #8   | 18'-0" | —     |
| $v_9(E)$                         | 6 #7    | 11'-8" | —     |
| $v_{10}(E)$                      | 6 #5    | 2'-4"  | —     |
| $w(E)$                           | 32 #5   | 36'-9" | —     |
| Structure Excavation             | Cu. Yd. | 304    |       |
| Concrete Structures              | Cu. Yd. | 132.1  |       |
| Reinforcement Bars, Epoxy Coated | Pound   | 16360  |       |
| Rock Excavation for Structures   | Cu. Yd. | 26     |       |
| Anchor Bolts, 1/4"               | Each    | 12     |       |

\*Length is height of spiral.

**PIER 1**  
F.A.P. RTE. 869 - SEC. (10VB)B-1  
FRANKLIN COUNTY  
STATION 177+17.38  
STRUCTURE NO. 028-0077