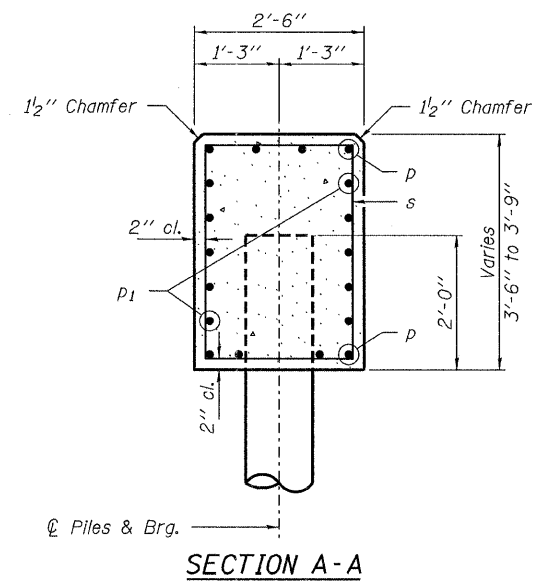
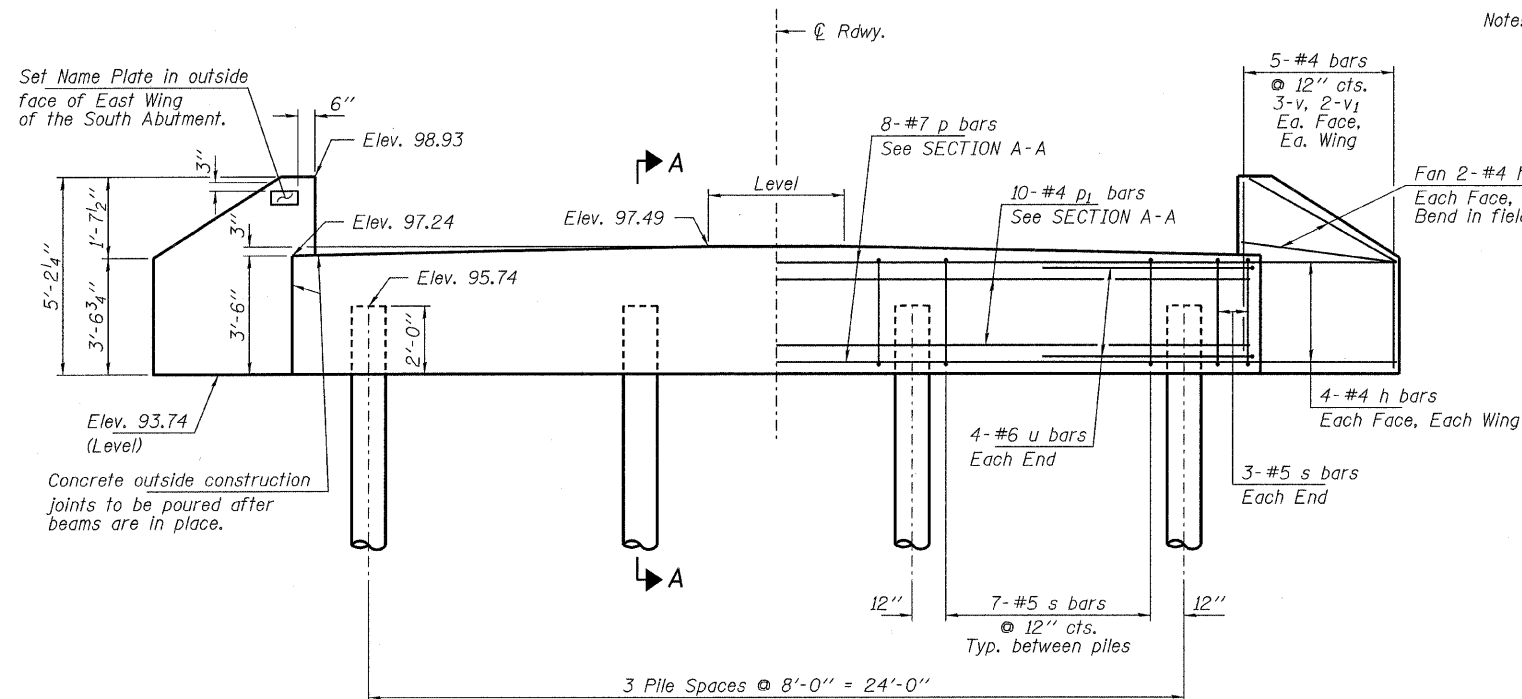
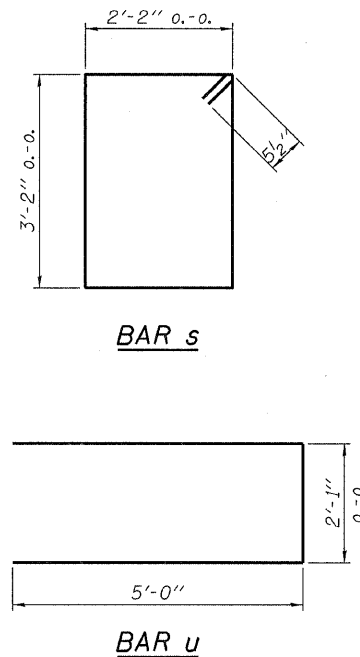


PLAN



SECTION A-A



ELEVATION

Note: Extend h bars into abutment cap.

BILL OF MATERIAL - 2 ABUTS.

| BAR | NO. | SIZE | LENGTH | SHAPE |
|------------------------|-----|------|---------|-------|
| h | 32 | #4 | 5'-6" | — |
| h ₁ | 16 | #4 | 4'-0" | — |
| p | 16 | #7 | 28'-2" | — |
| p ₁ | 20 | #4 | 28'-2" | — |
| s | 54 | #5 | 11'-7" | □ |
| u | 16 | #6 | 12'-1" | — |
| v | 24 | #4 | 4'-3" | — |
| v ₁ | 16 | #4 | 3'-3" | — |
| Concrete Structures | | | Cu. Yd. | 21.4 |
| Reinforcement Bars | | | Pound | 2,500 |
| Metal Pile Shells 12" | | | Foot | 260 |
| Test Pile Metal Shells | | | Each | 1 |
| Name Plates | | | Each | 1 |

PILE DATA

Type: Metal Shell, 12", dia. x 0.25 in. walls
 No. Req'd. (2 Abuts.): 8
 Factored Resistance Available (R_f): 137 Kips/Pile
 Nominal Required Bearing (R_n): 274 Kips/Pile
 Est. Length: 40 Ft/Pile (S. Abut.)
 35 Ft/Pile (N. Abut.)

Notes: * Includes one test pile to be driven in permanent locations at the South Abutment.

The Metal Shell Piles shall be according to ASTM A 252 Grade 3.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

| |
|-------------------|
| DESIGNED - A.S.L. |
| CHECKED - M.G.B. |
| DRAWN - D.T.M. |
| CHECKED - D.A.B. |

ABUTMENTS
 STRUCTURE NO. 027-3438

| | | | | | |
|--|--------|----------------|----------------|--------------|-----------|
| HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 | F.A.S. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 340 | 09-00106-00-BR | FORD | 32 | 19 |
| PROJECT NUMBER: 07.0432.130 | | | DATE: 03/31/09 | | |
| CONTRACT NO. 87411 | | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |