

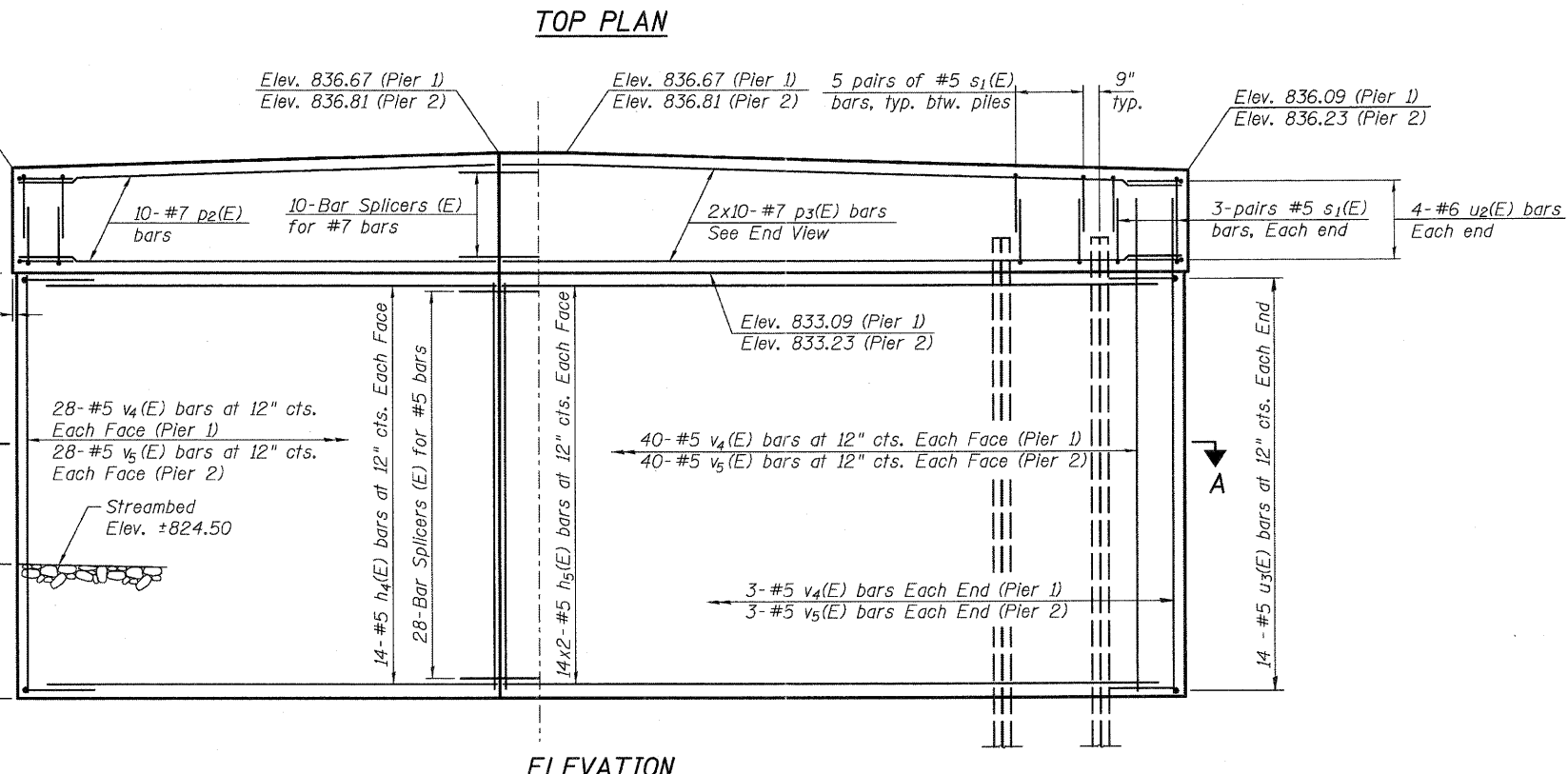
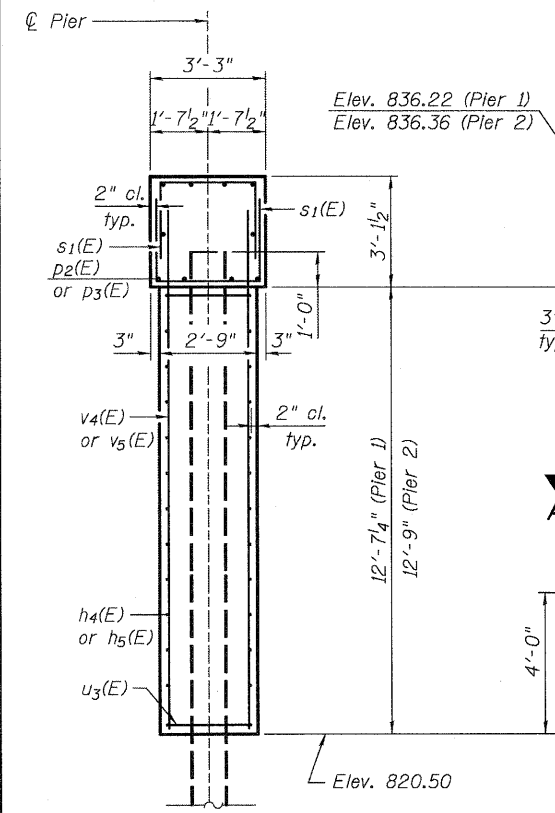
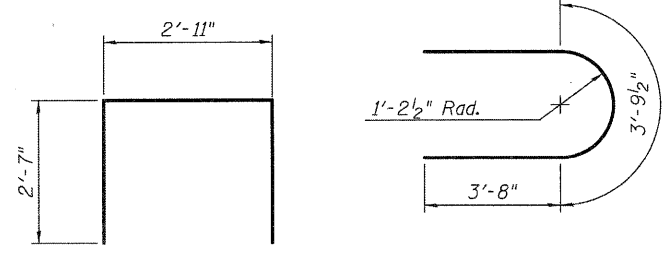
**PIER 1**

Type: Steel HP 14x73  
 Nominal Required Bearing: 403 kips  
 Factored Resistance Available: 208 kips  
 Est. Length: 56'  
 No. Production Piles: 11  
 No. Test Piles: 1

**PILE DATA**

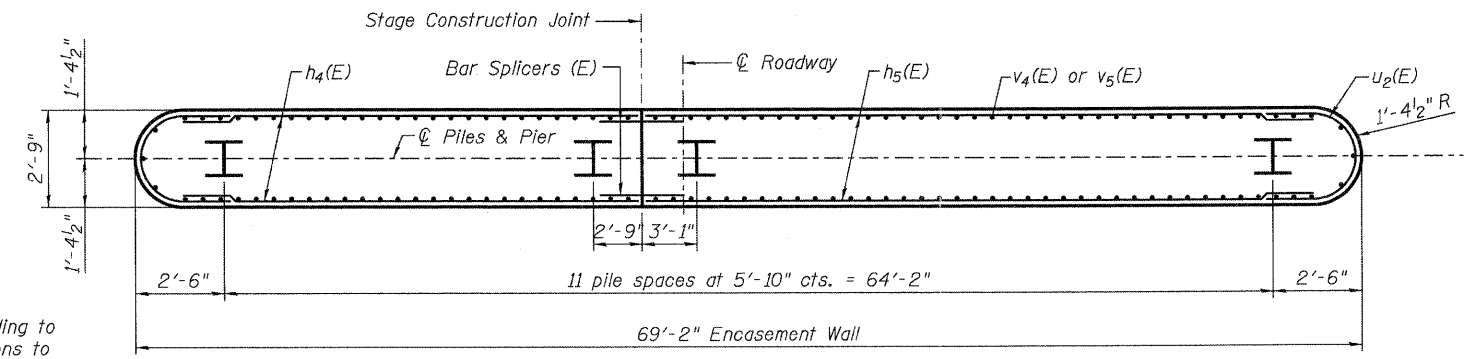
**PIER 2**

Type: Steel HP 14x73  
 Nominal Required Bearing: 403 kips  
 Factored Resistance Available: 208 kips  
 Est. Length: 56'  
 No. Production Piles: 11  
 No. Test Piles: 1



**MINIMUM BAR LAP**

#5 Bar = 3'-3"  
 #7 Bar = 5'-10"



Note:  
 If a portion of the pier wall is underwater, reinforcement may be placed underwater into forms. Concrete shall be tirmed according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

**TWO PIERS  
 BILL OF MATERIAL**

| Bar                              | No.     | Size | Length  | Shape |
|----------------------------------|---------|------|---------|-------|
| h4(E)                            | 56      | #5   | 27'-1"  | —     |
| h5(E)                            | 112     | #5   | 21'-2"  | —     |
| p2(E)                            | 20      | #7   | 28'-6"  | —     |
| p3(E)                            | 40      | #7   | 23'-2"  | —     |
| s1(E)                            | 244     | #5   | 8'-1"   | ⌊     |
| u2(E)                            | 16      | #6   | 11'-5"  | ⌊     |
| u3(E)                            | 56      | #5   | 11'-2"  | ⌊     |
| v4(E)                            | 142     | #5   | 14'-9"  | —     |
| v5(E)                            | 142     | #5   | 14'-11" | —     |
| Structure Excavation             | Cu. Yd. |      | 183     |       |
| Concrete Structures              | Cu. Yd. |      | 233.0   |       |
| Reinforcement Bars, Epoxy Coated | Pound   |      | 14,490  |       |
| Furnishing Steel Piles HP14x73   | Foot    |      | 1,232   |       |
| Driving Piles                    | Foot    |      | 1,232   |       |
| Test Pile Steel HP14x73          | Each    |      | 2       |       |

Bars indicated thus 14x2-#5 etc. indicates 14 lines of bars with 2 lengths per line.

Space reinforcement in pier cap to miss anchor dowels. For details of piles see sheet 20 of 24.

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**WILLS BURKE KELSEY ASSOCIATES LTD.**  
 116 West Main Street, Suite 201  
 St. Charles, Illinois 60174  
 (630) 443-7755

|                      |                |             |
|----------------------|----------------|-------------|
| USER NAME = #USER#   | DESIGNED - AEU | REVISIONS - |
| PLOT SCALE =         | CHECKED - MLH  | REVISIONS - |
| PLOT DATE = 7/6/2011 | DRAWN - MLH    | REVISIONS - |
|                      | CHECKED - AEU  | REVISIONS - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PIERS 1 & 2  
 STRUCTURE NO. 019-6107**  
 SHEET NO. 18 OF 24 SHEETS

|   |                |        |              |           |
|---|----------------|--------|--------------|-----------|
| F.A.U. RTE.                                   | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 5355  | 04-00167-00-BR | DEKALB | 88           | 64        |
| CONTRACT NO. 87491                            |                |        |              |           |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                |        |              |           |