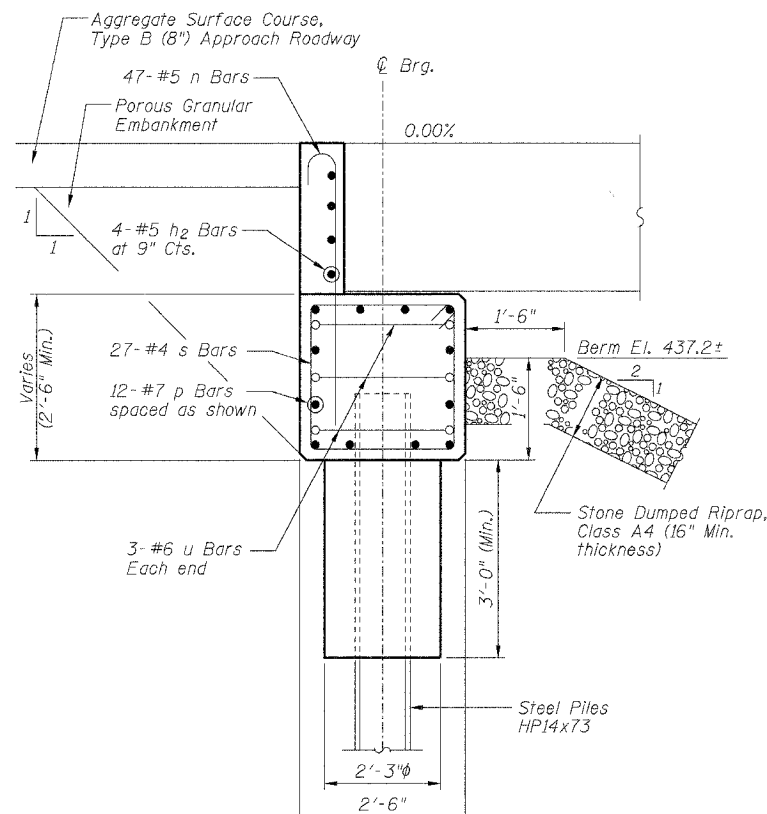
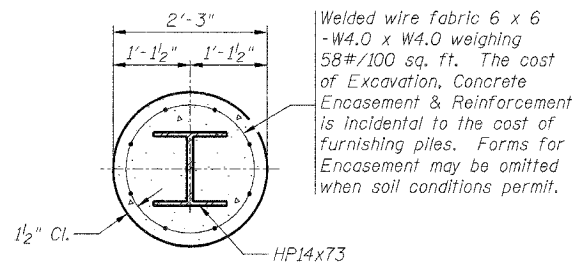


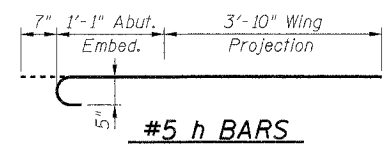
|                       |                |                  |              |           |
|-----------------------|----------------|------------------|--------------|-----------|
| ROUTE                 | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| TR 179                | 85-09110-01-BR | CLAY             | 9            | 9         |
| FED. ROAD DIST. NO. 7 | ILLINOIS       | FED. AID PROJECT |              |           |
| CONTRACT NO. 95450    |                |                  |              |           |



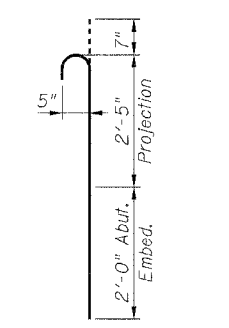
**SECTION THRU ABUTMENT**  
Normal to Abutment



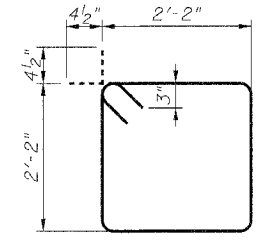
**SECTION A-A**  
**PILE ENCASEMENT DETAIL**



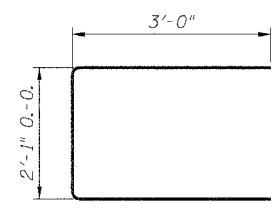
**#5 h BARS**



**#5 n BARS**



**#4 s BARS**



**#6 u BARS**

**PILE DATA**

Type:

|               |         |
|---------------|---------|
| West Abutment | HP14x73 |
| East Abutment | HP14x73 |

Required Capacity: (Includes 150% of maximum calculated pile load for H-pile in friction)

|               |          |
|---------------|----------|
| West Abutment | 101 tons |
| East Abutment | 101 tons |

Estimated Length:

|               |         |
|---------------|---------|
| West Abutment | 22 foot |
| East Abutment | 28 foot |

Number Required:

|               |               |
|---------------|---------------|
| West Abutment | 3+1 Test pile |
| East Abutment | 3+1 Test pile |

Total Estimated Length: (Does not include Test Piles)

|         |          |
|---------|----------|
| HP14x73 | 150 foot |
|---------|----------|

**BILL OF MATERIALS**  
**ONE ABUTMENT w/ WINGWALLS**

| Bar                 | No. | Size | Length  | Shape        |
|---------------------|-----|------|---------|--------------|
| h                   | 20  | #5   | 5'-6"   |              |
| h1                  | 12  | #5   | 4'-6"   |              |
| h2                  | 4   | #5   | 23'-8"  |              |
| n                   | 47  | #5   | 5'-0"   |              |
| p                   | 12  | #7   | 24'-8"  |              |
| s                   | 27  | #4   | 9'-5"   |              |
| u                   | 6   | #6   | 8'-1"   |              |
| v                   | 24  | #5   | 5'-0"   | CUT IN FIELD |
| Concrete Structures |     |      | Cu. Yd. | 9.1          |
| Reinforcement Bars  |     |      | Pound   | 1490         |

**GENERAL NOTES**

All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.

All clearances between reinforcement bars and form surface shall be 2", unless otherwise noted.

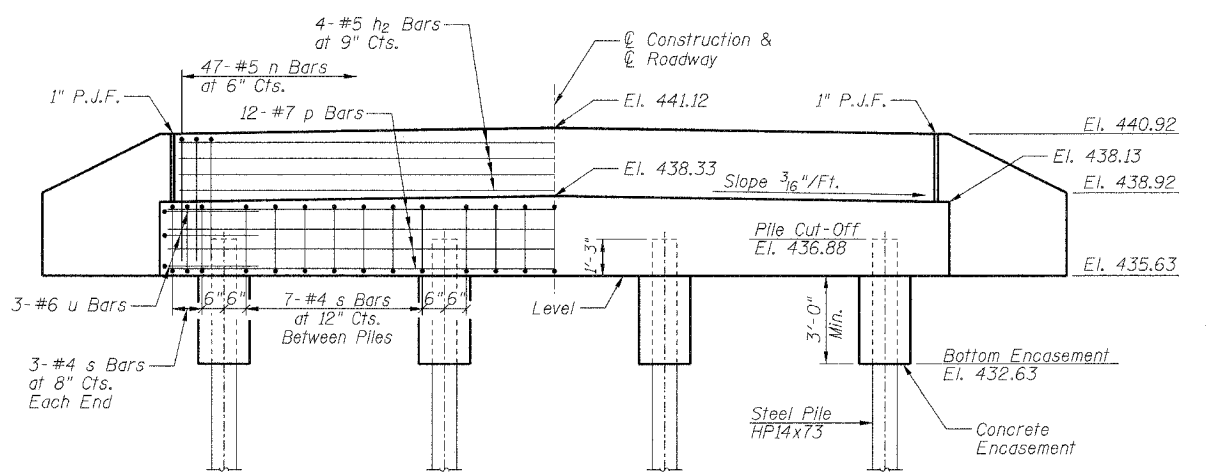
Space reinforcement in abutment cap to miss PPCDB dowel bars.

The Contractor shall drive one (1) Steel HP14x73 Test Pile in a permanent location at both the East and West abutments as directed by the Engineer before ordering the remainder of the piles.

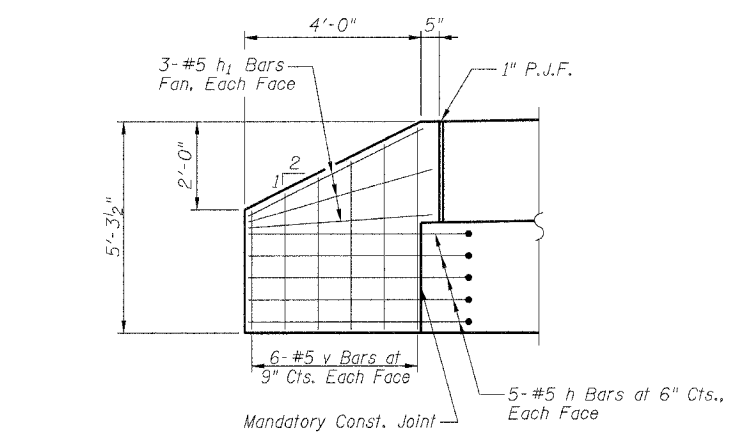
The Contractor is hereby advised that very stiff soils will be encountered prior to the location of anticipated refusal. See the Soil Borings for further information.

In addition to all other requirements of Section 512 of the Standard Specifications, splices for Steel H-piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

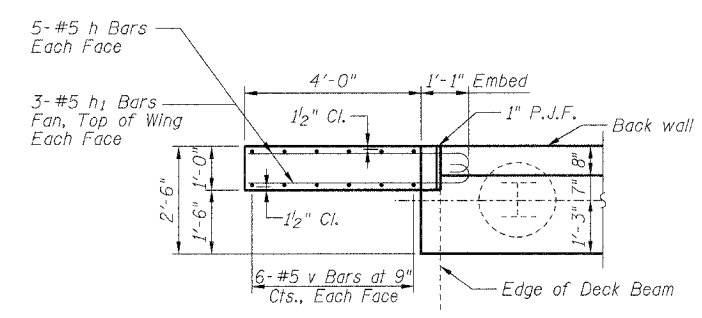
**ABUTMENT DETAILS**  
**PROPOSED BRIDGE OVER**  
**WET WEATHER CREEK**  
**TR 179**  
**SECTION 85-09110-01-BR**  
**CLAY COUNTY, ILLINOIS**



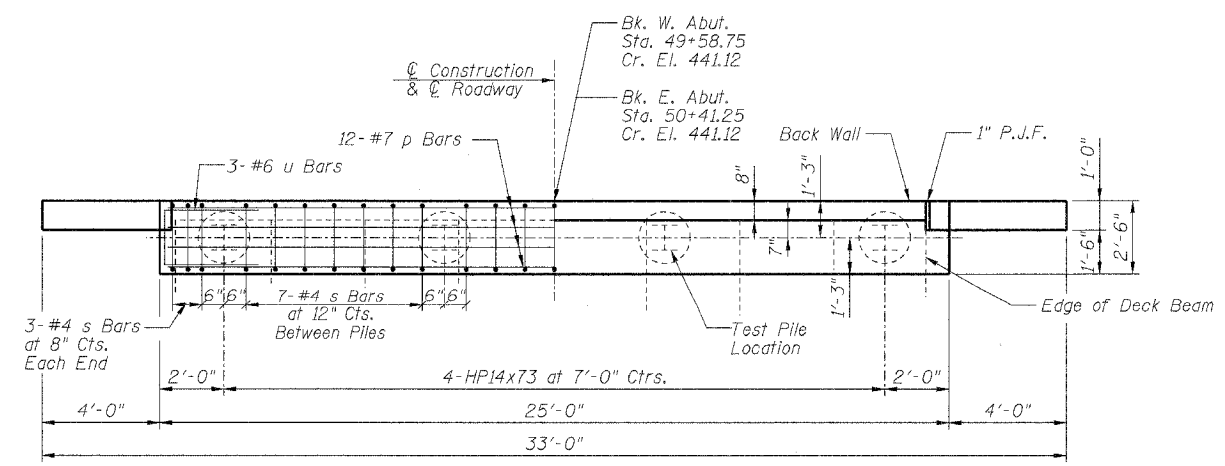
**ELEVATION**



**ELEVATION OF WINGWALL**



**WINGWALL CONNECTION DETAIL**



**PLAN**

10/17/2005