



BILL OF MATERIAL FOR ONE ABUTMENT

| Bar | No. | Size | Length | Shape |
|--------------------------|-----|------|---------|--------------|
| h | 24 | #6 | 8'-0" | — |
| h ₁ | 16 | #6 | 4'-9" | — |
| h ₂ | 4 | #5 | 23'-8" | — |
| p | 12 | #7 | 24'-8" | — |
| s | 27 | #4 | 9'-5" | □ |
| u | 8 | #6 | 8'-3" | — |
| v | 48 | #5 | 4'-3" | — |
| v ₁ | 24 | #5 | 4'-6" | — |
| | | | | CUT IN FIELD |
| Concrete Structures | | | Cu. Yd. | 9.0 |
| Reinforcement Bars | | | Pound | 1700 |
| Furnishing Steel | | | Foot | S. Abut. 117 |
| Piles, HP12x53 | | | Foot | N. Abut. 156 |
| Driving Piles | | | Foot | S. Abut. 117 |
| Test Pile, Steel HP12x53 | | | Each | S. Abut. 1 |
| Concrete Encasement | | | Cu Yd | 1.4 |

For details of piles and Concrete Encasement, see Sheet 9 of 11.

EXTRA BARS FOR TEST SAMPLES

| Bar | No. | Size | Length | Shape |
|--------------------|-----|------|--------|-------|
| s | 1 | #4 | 9'-5" | □ |
| v | 1 | #5 | 4'-3" | — |
| h ₁ | 1 | #6 | 4'-9" | — |
| p | 1 | #7 | 24'-8" | — |
| Reinforcement Bars | | | Pound | 70 |

These bars shall be identical to and delivered with the bars of the same mark listed on the bridge sheets. One bar of each of these marks will be selected by the Engineer to be used as a test sample. This chart assumes that all bars of the same size on the job will have the same heat numbers. If bars of the same size on the job have different heat numbers, then the Contractor shall supply additional bars from other heat numbers for sampling by the Engineer at no additional cost.

The weight of these extra bars has been included in the Summary of Quantities for the project.

PILE DATA SOUTH ABUTMENT

Type: Steel HP12x53
 Nominal Required Bearing: 418 kips
 Allowable Resistance Available: 224 kips
 Estimated Length: 39'/pile
 No. Production Piles: 3
 No. Test Piles: 1

PILE DATA NORTH ABUTMENT

Type: Steel HP12x53
 Nominal Required Bearing: 418 kips
 Allowable Resistance Available: 184 kips
 Estimated Length: 39'/pile
 No. Production Piles: 4
 No. Test Piles: 0

GENERAL NOTES

- All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.
- Reinforcement bars shall conform to ASTM A 706 (IL Modified), Grade 60.
- All clearances between rebar and form surface shall be 2", unless otherwise noted.
- Space reinforcement in cap to miss PPCDB dowel rods.
- The Steel H-piles shall be according to AASHTO M270 Grade 50.
- The Contractor shall drive one (1) Steel HP12x53 Test Pile in a production location at the South abutment as directed by the Engineer before ordering the remainder of the piles.
- The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

02/10/2012 RAAI #51509

RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS • LAND SURVEYORS
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
 ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

| | |
|-------------------|-----------|
| DESIGNED - GLH | REVISED - |
| DRAWN - JN | REVISED - |
| CHECKED - GLH | REVISED - |
| DATE - 02/10/2012 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS
 STRUCTURE NO. 061-3314**

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| TR 304A | 09-07116-00-BR | MARION | 11 | 8 |
| CONTRACT NO. 97491 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |