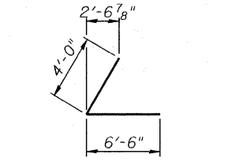
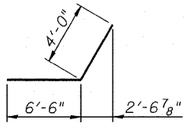
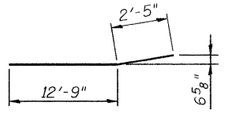


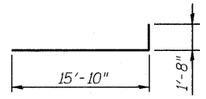

BAR $h_1(E)$



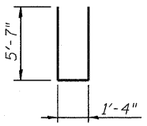

BAR $h_2(E)$



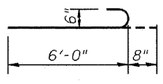

BAR $h_4(E)$



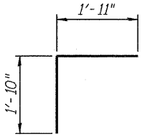

BAR $p_1(E)$



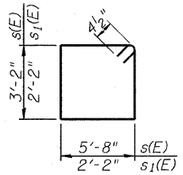

BAR $n(E)$



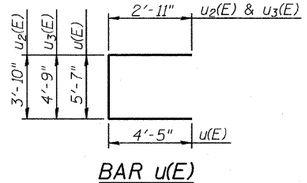

BAR $n_1(E)$



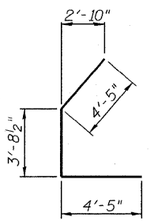

BAR $v(E)$



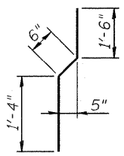

BARS $s(E)$ & $s_1(E)$



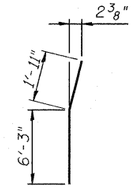

BAR $u(E)$
BAR $u_2(E)$
BAR $u_3(E)$



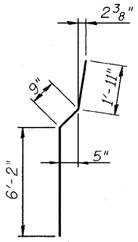

BAR $u_1(E)$




BAR $v_1(E)$




BAR $v_3(E)$

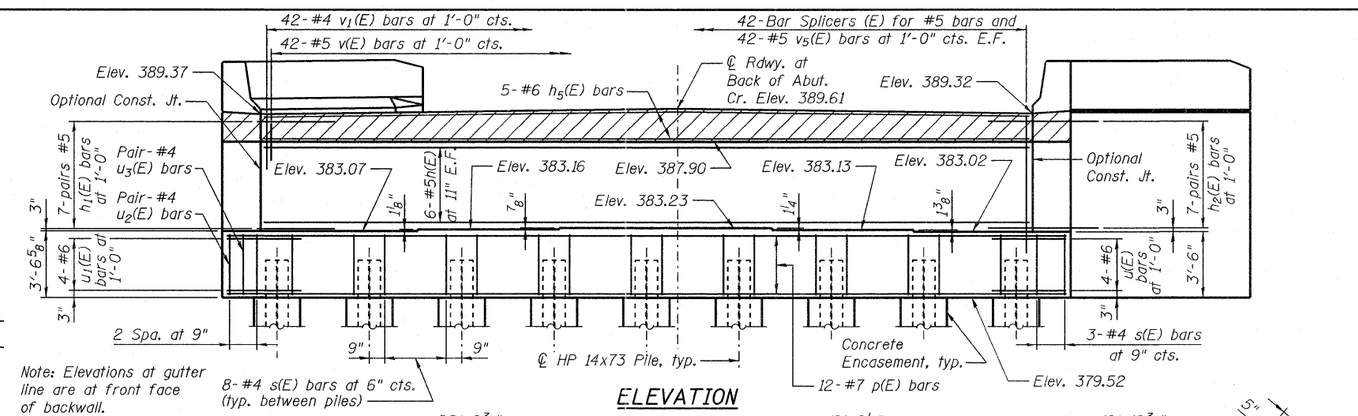



BAR $v_4(E)$

## PILE DATA

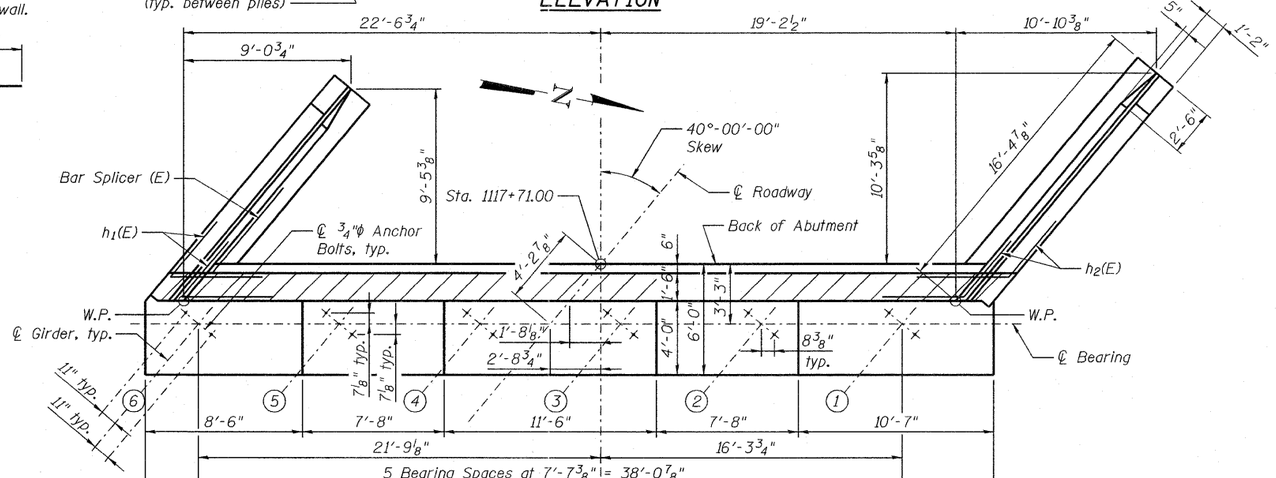
Type: HP14x73
Nominal Required Bearing: 285 kips
Factored Resistance Available: 157 kips
Est. Length: 40 ft.
No. Production Piles: 10
No. Test Piles: 1

Note: Bend bottom $p_1(E)$ as required to clr. abut. pile.

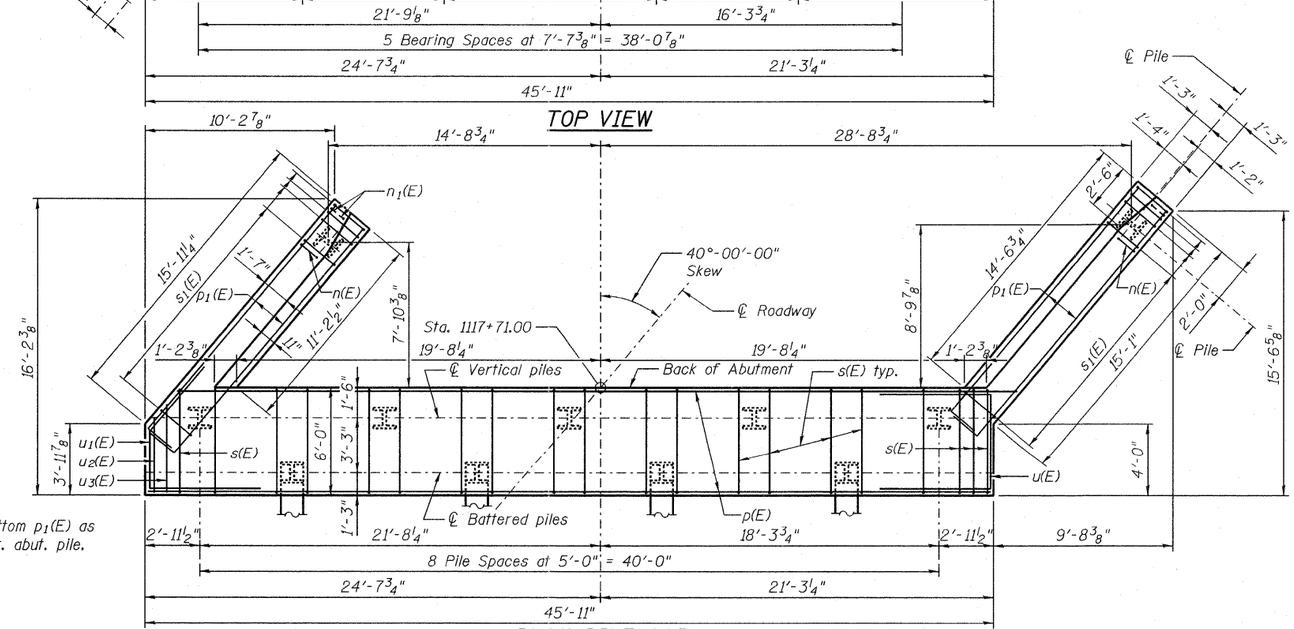



Note: Elevations at gutter line are at front face of backwall.

ELEVATION



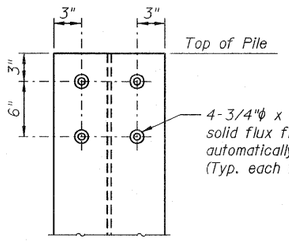

TOP VIEW




PLAN-PILE CAP

## WEST ABUTMENT BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| h(E) | 12 | #5 | 41'-7" | |
| $h_1(E)$ | 14 | #5 | 10'-6" | |
| $h_2(E)$ | 14 | #5 | 10'-6" | |
| $h_3(E)$ | 26 | #4 | 15'-3" | |
| $h_4(E)$ | 18 | #4 | 15'-2" | |
| $h_5(E)$ | 5 | #6 | 41'-7" | |
| | | | | |
| n(E) | 26 | #6 | 12'-6" | |
| $n_1(E)$ | 12 | #6 | 6'-8" | |
| | | | | |
| p(E) | 12 | #7 | 45'-7" | |
| $p_1(E)$ | 12 | #7 | 17'-6" | |
| | | | | |
| s(E) | 68 | #4 | 18'-5" | |
| $s_1(E)$ | 32 | #4 | 9'-5" | |
| | | | | |
| u(E) | 4 | #6 | 14'-5" | |
| $u_1(E)$ | 4 | #6 | 12'-7" | |
| $u_2(E)$ | 2 | #4 | 9'-8" | |
| $u_3(E)$ | 2 | #4 | 10'-7" | |
| | | | | |
| v(E) | 42 | #5 | 3'-9" | |
| $v_1(E)$ | 42 | #4 | 3'-4" | |
| $v_2(E)$ | 32 | #6 | 8'-10" | |
| $v_3(E)$ | 6 | #6 | 8'-2" | |
| $v_4(E)$ | 26 | #6 | 8'-10" | |
| $v_5(E)$ | 84 | #5 | 7'-3" | |
| | | | | |
| Structure Excavation | | Cu. Yd. | 186 | |
| Concrete Structures | | Cu. Yd. | 70.3 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 6,710 | |
| Furnishing - Piles, HP14x73 | | Foot | 400 | |
| Driving Piles | | Foot | 400 | |
| Test Pile, HP14x73 | | Each | 1 | |
| Concrete Encasement | | Cu. Yd. | 6.0 | |
| Concrete Sealer | | Sq. Ft. | 640 | |




## SEISMIC PILE DETAILS

Cost of 3/4"ϕ Studs shall be included in item "Furnishing Steel Piles, HP14x73."

## NOTES

Top of backwall shall conform to longitudinal grade and cross slope of roadway.

Pour steps monolithically with cap.

Space reinforcement in cap to miss anchor bolts.

Concrete Sealer should be applied to the designated areas of the abutment shown on sheet 23 of 35.

All edges shall have a standard 3/4" chamfer except as noted.

For details of Bar Splicers, see sheet 29 of 35.

For details of piles and Concrete Encasement, see sheet 30 of 35.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| JACOBS | USER NAME = | DESIGNED - B. ERSCHEN | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | WEST ABUTMENT STRUCTURE NO. 039-0074 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | CHECKED - N. KHATRI | REVISED - | | | 686 | 114B-1 | JACKSON | 101 | 114 |
| | PLOT DATE = 19-OCT-2011 | DRAWN - C. SALLADE | REVISED - | | | | | CONTRACT NO. 78049 | | |
| FILE NAME=039-0074978049-West Abutment.dgn | | CHECKED - F. CAMBA | REVISED - | | SHEET NO. 22 OF 35 SHEETS | | | ILLINOIS FED. AID PROJECT | | |

19-OCT-2011 P:\CIV\26703\700cadd\709str-\039-0074978049-West Abutment.dgn 15:47