

Install new anchor bolt 1"  $\phi$  x 1'-0" with 2 1/4" x 2 1/4" x 5/16"  $\mathbb{R}$  washer under nut for exist. beam bearing on Pier 3, E.B. Cost Included with Anchor Bolts on Sheet 18 of 34.

**TOP PLAN**  
(E.B. shown, W.B. similar)

Elev. 600.30 Pier 1  
600.09 Pier 2  
599.23 Pier 3  
598.02 Pier 4

**BARS  $s_{10}(E)$**   
 $s_{11}(E), s_{12}(E), u_2(E)$   
**A & B DIMENSIONS**

Bar	A	B
$s_{10}(E)$	6'-3"	2'-2"
$s_{11}(E)$	1'-10"	2'-4"
$s_{12}(E)$	1'-11"	11"
$u_2(E)$	2'-0 3/4"	2'-9"

**BILL OF MATERIAL**  
(One Pier)

Bar	No.	Size	Length	Shape
$d_3(E)$	54	#8	2'-0"	—
$h_{11}(E)$	6	#7	5'-11"	—
$h_{12}(E)$	16	#5	5'-9"	—
$h_{13}(E)$	5	#5	3'-11"	—
$h_{14}(E)$	8	#5	12'-10"	—
$p_1(E)$	8	#8	5'-11"	—
$s_9(E)$	6	#5	11'-7"	□
$s_{10}(E)$	12	#5	10'-7"	□
$s_{11}(E)$	4	#5	6'-6"	□
$s_{12}(E)$	26	#5	3'-9"	□
$u_2(E)$	5	#7	7'-7"	□
$u_3(E)$	8	#7	7'-4"	□
$v_2(E)$	3	#5	6'-3"	—
Concrete Structures		Cu. Yd.	9.2	
Reinforcement Bars, Epoxy Coated		Pound	1270	
Structure Excavation		Cu. Yd.	2	
Concrete Removal		Cu. Yd.	0.1	
Furnishing Metal Shell Piles 14"x0.25"		Foot	55.0	
Driving Piles		Foot	55.0	
Concrete Encasement		Cu. Yd.	2.3	
**Epoxy Crack Injection		Foot	3	

\*\*At Pier 1 WB only

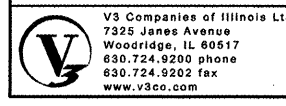
**PILE DATA**

Type: Metal Shell Piles - 14"  $\phi$  x .25" walls  
Nominal Required Bearing: 340 kips  
Factored Resistance Available: 170 kips  
Est. Length: 55'-0"  
No. Required: 4, one at each pier

**ELEVATION**

**NOTES**

Use bonded construction joint at the interface of new and existing concrete.  
The Cost of drilling and grouting  $d_3(E)$  bars is included with Reinforcement Bars, Epoxy Coated. Installation as per Sec. 584 of the Standard Specifications. Minimum depth of embedment = 9", unless noted otherwise.  
Hatched area indicates concrete removal.



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DESIGNED: B. Vegrzyn  
CHECKED: Coombe-Bloxdorf  
PLOT SCALE: 1:1  
PLOT DATE: July 1, 2011

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER WIDENING**  
**STRUCTURE NO. 072-0001 & 072-0002**

SHEET NO. 25 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	72-6VB	PEORIA	133	68

CONTRACT NO. 68874  
ILLINOIS FED. AID PROJECT