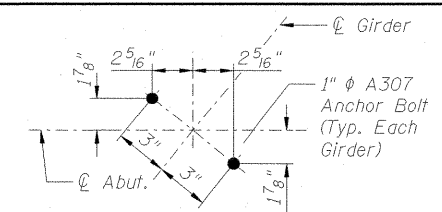


**ANCHOR BOLT INSTALLATION DETAIL**

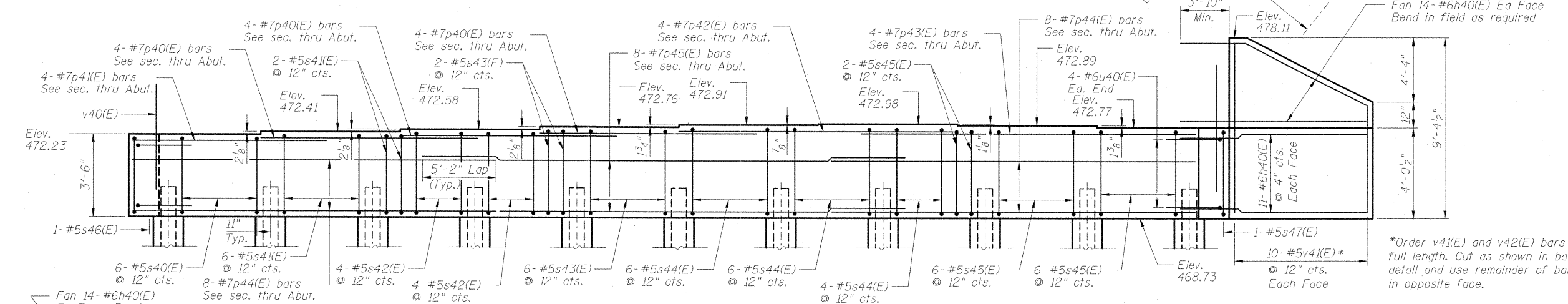


**PLAN**  
(E. Abut. Shown, W. Abut. Opp. Hand)

**BILL OF MATERIAL**  
(East Abutment)

Bar	No.	Size	Length	Shape
h40(E)	50	#6	14'-5"	
p40(E)	12	#7	14'-6"	
p41(E)	4	#7	13'-0"	
p42(E)	4	#7	18'-4"	
p43(E)	4	#7	22'-4"	
p44(E)	16	#7	24'-7"	
p45(E)	8	#7	32'-6"	
s40(E)	6	#5	11'-7"	
s41(E)	8	#5	11'-11"	
s42(E)	8	#5	12'-3"	
s43(E)	8	#5	12'-7"	
s44(E)	16	#5	12'-11"	
s45(E)	14	#5	12'-9"	
s46(E)	1	#5	12'-10"	
s47(E)	1	#5	14'-0"	
u40(E)	8	#6	7'-10"	
v40(E)	106	#5	4'-4"	
v41(E)	10	#5	13'-9"	

Concrete Structures	Cu. Yd.	29.0
Reinforcement Bars, Epoxy Coated	Pound	4,740
Furnishing Steel Piles HP12X53	Foot	580
Driving Piles	Foot	580
Test Pile Steel HP12X53	Each	1
Pile Shoes	Each	11



**ELEVATION - E. ABUTMENT**  
(Looking East)

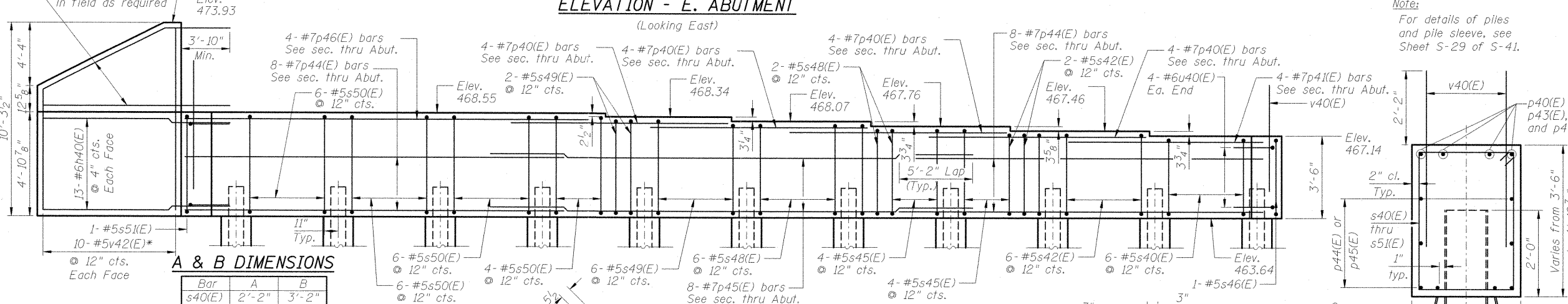
**BILL OF MATERIAL**  
(West Abutment)

Bar	No.	Size	Length	Shape
h40(E)	54	#6	14'-5"	
p40(E)	16	#7	14'-6"	
p41(E)	4	#7	13'-0"	
p44(E)	16	#7	24'-7"	
p45(E)	8	#7	32'-6"	
p46(E)	4	#7	25'-2"	
s40(E)	6	#5	11'-7"	
s42(E)	8	#5	12'-3"	
s45(E)	8	#5	12'-9"	
s46(E)	1	#5	12'-10"	
s48(E)	8	#5	13'-5"	
s49(E)	8	#5	14'-0"	
s50(E)	22	#5	14'-5"	
s51(E)	1	#5	15'-8"	
u40(E)	8	#6	7'-10"	
v40(E)	106	#5	4'-4"	
v42(E)	10	#5	15'-7"	

Concrete Structures	Cu. Yd.	32.3
Reinforcement Bars, Epoxy Coated	Pound	4,900
Furnishing Steel Piles HP12X53	Foot	550
Driving Piles	Foot	550
Test Pile Steel HP12X53	Each	1
Pile Shoes	Each	11

\*Order v41(E) and v42(E) bars full length. Cut as shown in bar detail and use remainder of bars in opposite face.

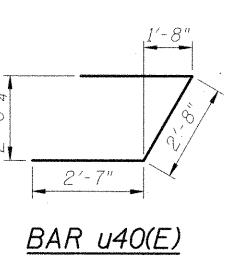
Note:  
For details of piles and pile sleeve, see Sheet S-29 of S-41.



**ELEVATION - W. ABUTMENT**  
(Looking West)

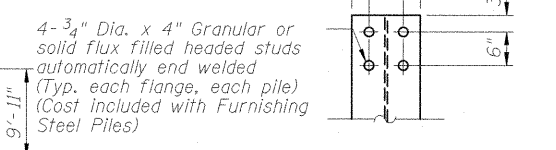
**A & B DIMENSIONS**

Bar	A	B
s40(E)	2'-2"	3'-2"
s41(E)	2'-2"	3'-2"
s42(E)	2'-2"	3'-6"
s43(E)	2'-2"	3'-8"
s44(E)	2'-2"	3'-10"
s45(E)	2'-2"	3'-9"
s46(E)	2'-9 1/2"	3'-2"
s47(E)	2'-9 1/2"	3'-9"
s48(E)	2'-2"	4'-1"
s49(E)	2'-2"	4'-4 1/2"
s50(E)	2'-2"	4'-7"
s51(E)	2'-9 1/2"	4'-7"



**BARS s40(E) thru s51(E)**  
**BAR u40(E)**  
**BAR v41(E)**  
**BAR v42(E)**

**SEISMIC PILE DETAIL**



**SECTION THRU ABUT.**

\*\*Cost included in the unit cost of Furnishing Steel Piles HP12X53

**PILE DATA**

Type: HP 12x53  
Nominal Required Bearing: 418 k  
Factored Resistance Available: 230 k  
Est. Length: 58 ft (E. Abut.), 55 ft (W. Abut.)  
No. Production Piles: 11 Incl. 1 Test Pile (E. Abut.)  
11 Incl. 1 Test Pile (W. Abut.)

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

USER NAME = Gary Davis	DESIGNED - MCC	REVISED -
PLOT SCALE =	CHECKED - ATI	REVISED -
PLOT DATE = 1/10/2012	DRAWN - GLD	REVISED -
	CHECKED - ATI	REVISED -

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

**ABUTMENT DETAILS**  
**STRUCTURE NO. 100-0093 (W.B.)**  
SHEET NO. S-27OF S-41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(1X-1)VB-1	WILLIAMSON	367	193
				CONTRACT NO. 98859
ILLINOIS FED. AID PROJECT				

FILE NAME = I:\v\d\A\98859\03\Drawings\Structural\Plans\Abutment Details.WB.dwg