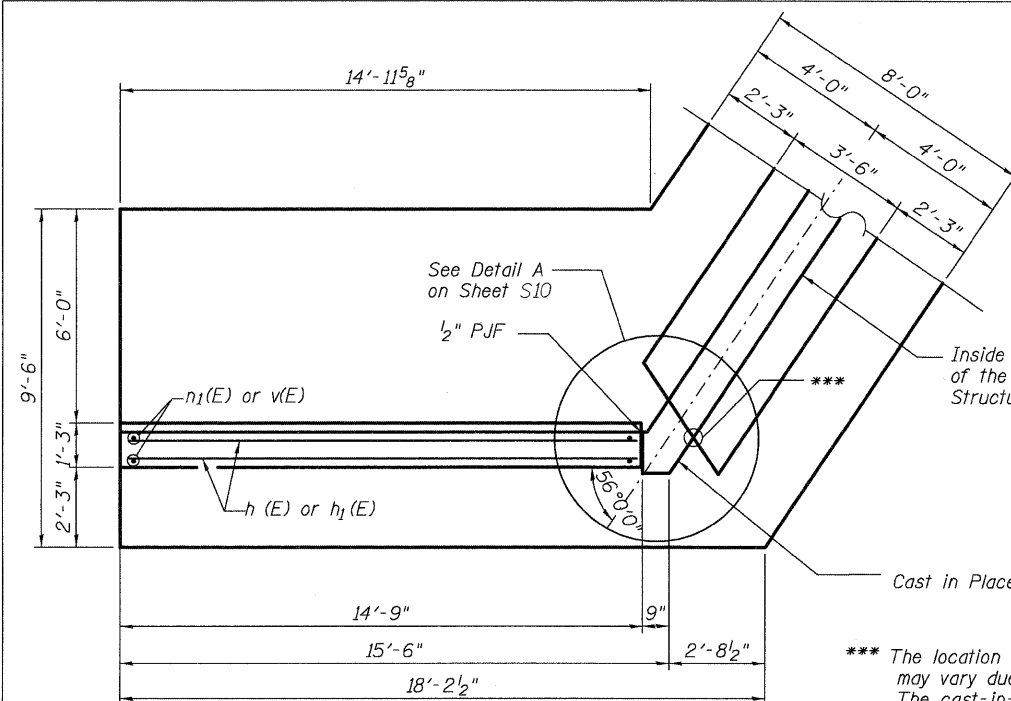


**BILL OF MATERIAL**  
**WINGWALLS ONLY**  
(Excluding Footings)

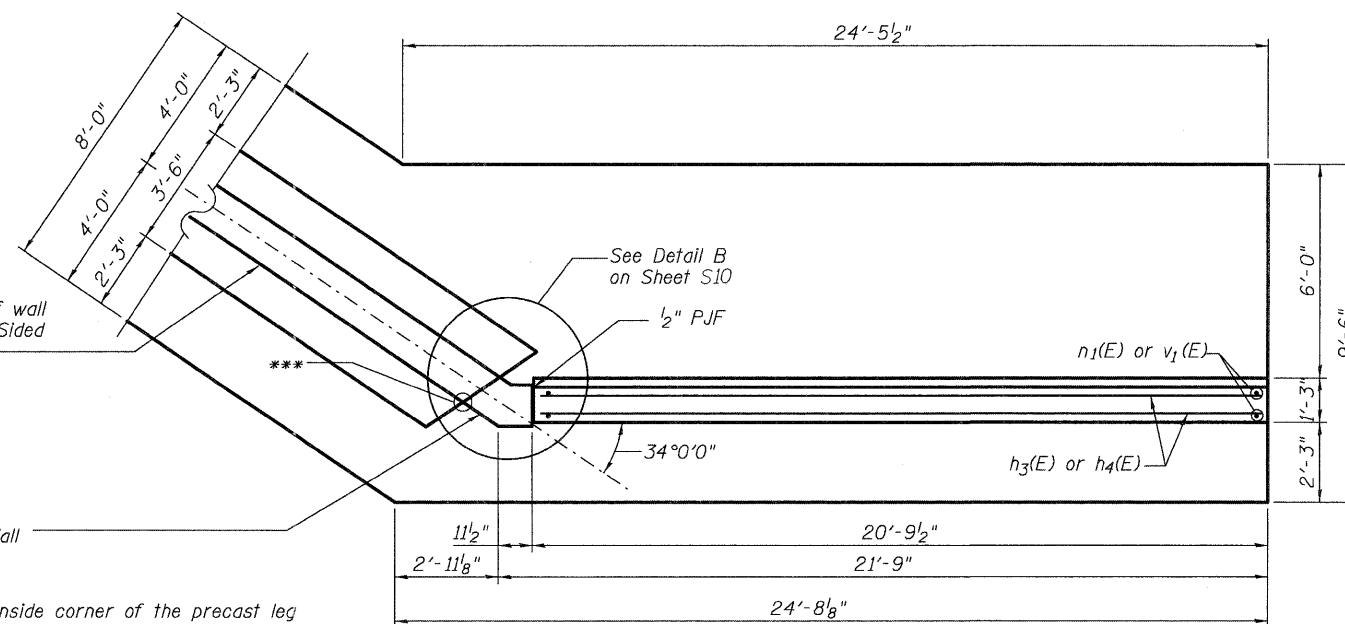
Bar	No.	Size	Length	Shape
$h_1(E)$	40	#5	14'-5"	---
$h_2(E)$	10	#5	14'-10"	---
$h_3(E)$	4	#5	15'-8"	---
$h_4(E)$	40	#5	20'-6"	---
$h_5(E)$	10	#5	21'-3"	---
$h_5(E)$	4	#5	21'-4"	---
$n_1(E)$	168	#8	8'-8"	U
$v(E)$	30	#6	18'-5"	---
$v_1(E)$	42	#6	18'-1"	---
$v_2(E)$	24	#6	15'-1"	---
Concrete Structures			Cu. Yd	41.0
Reinforcement Bars, Epoxy Coated			Pound	8,390

Note: See Sheet S10 of S12 for Details A and B



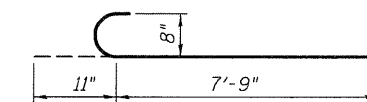
**NW & SE WINGWALL PLAN**

Note: See Foundation Plan on Sheet No. S8 for reinforcement not shown.



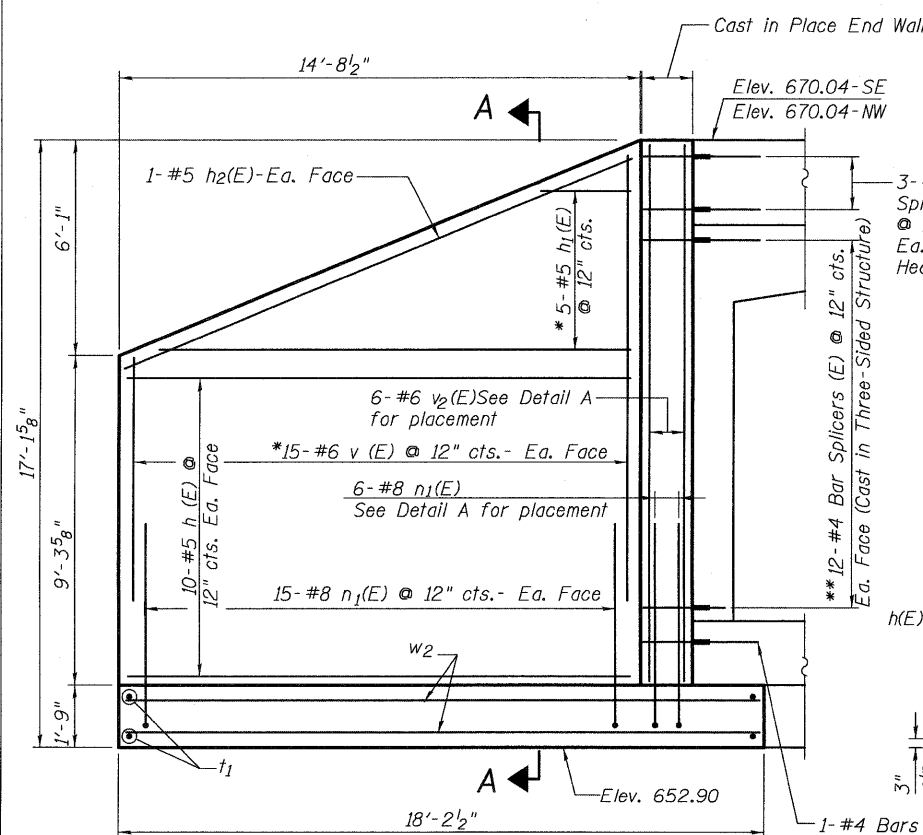
**NE & SW WINGWALL PLAN**

Note: See Foundation Plan on Sheet No. S8 for reinforcement not shown.



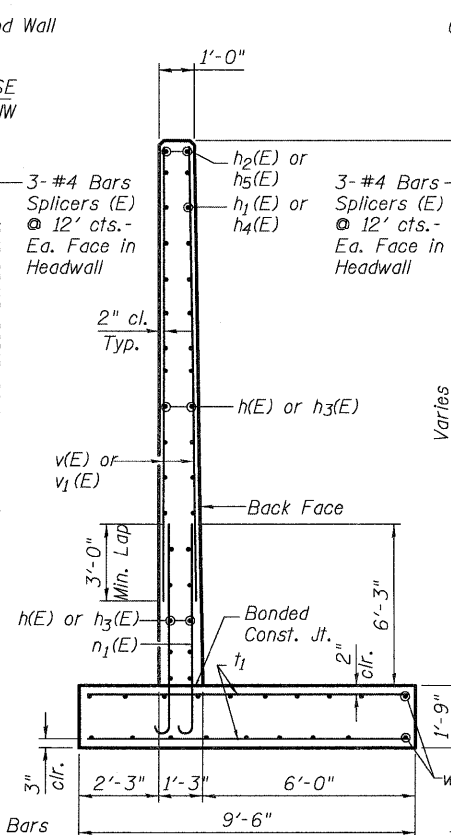
**MIN. BAR LAP**

#5 = 2'-6"  
#6 = 3'-0"  
#8 = 5'-2"



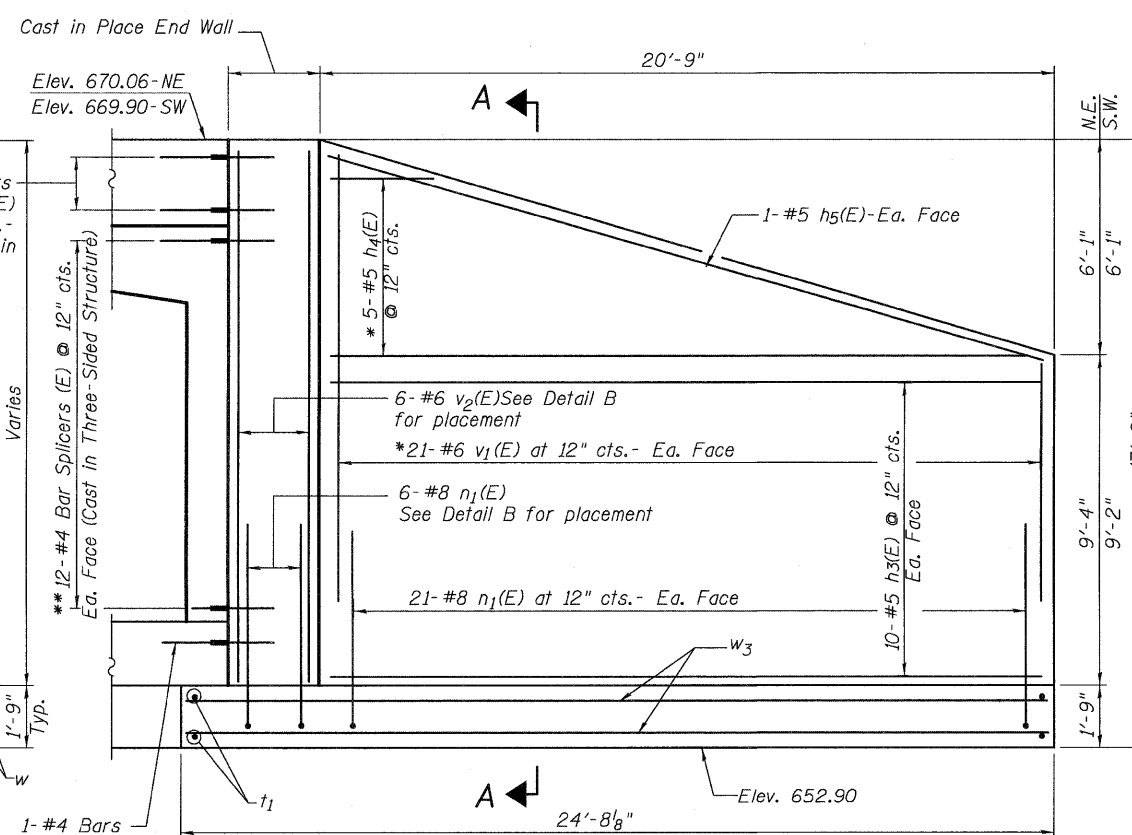
**NW & SE WINGWALL FRONT FACE ELEVATION**

\* Order  $h_1(E)$  and  $v(E)$  bars in full length. Cut bars in field and use the remainder in the other face.



**SECTION A-A**

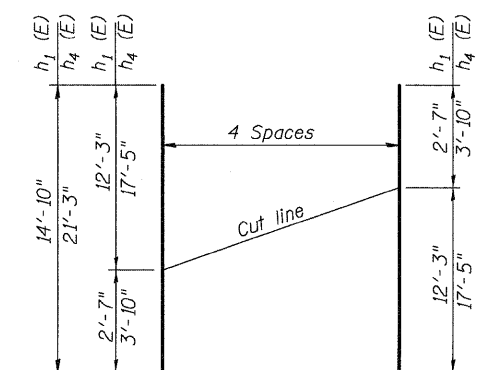
\*\* Cost of Bar Splicers is included in the cost of the Three-Sided Structure.



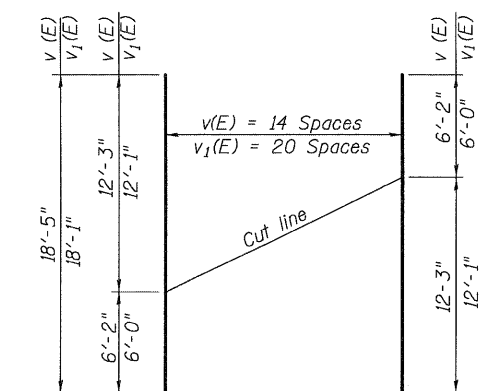
**NE & SW WINGWALL FRONT FACE ELEVATION**

\* Order  $h_4(E)$  and  $v_1(E)$  bars in full length. Cut bars in field and use the remainder in the other face.

**BAR  $n_1(E)$**



**FIELD CUTTING DIAGRAM**  
Bars  $h_1(E)$  &  $h_4(E)$



**FIELD CUTTING DIAGRAM**  
Bars  $v(E)$  &  $v_1(E)$



USER NAME =	DESIGNED - JPM	REVISED -
PLOT SCALE =	CHECKED - JXH	REVISED -
PLOT DATE =	DRAWN - MPS	REVISED -
	CHECKED - JPM/JXH/TPG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WINGWALL PLAN AND DETAILS  
STRUCTURE NO. 022-3054 STA. 100 + 00.15

SHEET NO. S9 OF S12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534R-B	DUPAGE	51	37
CONTRACT NO. 60M83				
DATE: OCTOBER 4, 2011 ILLINOIS FED. AID PROJECT				