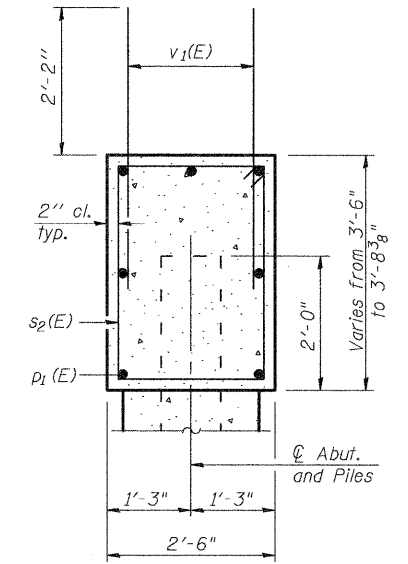
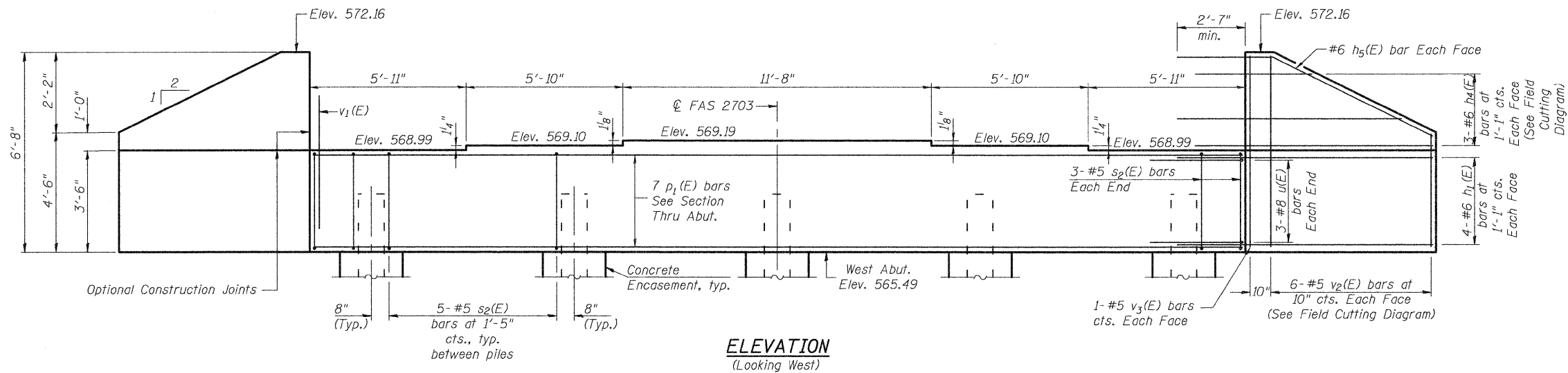


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



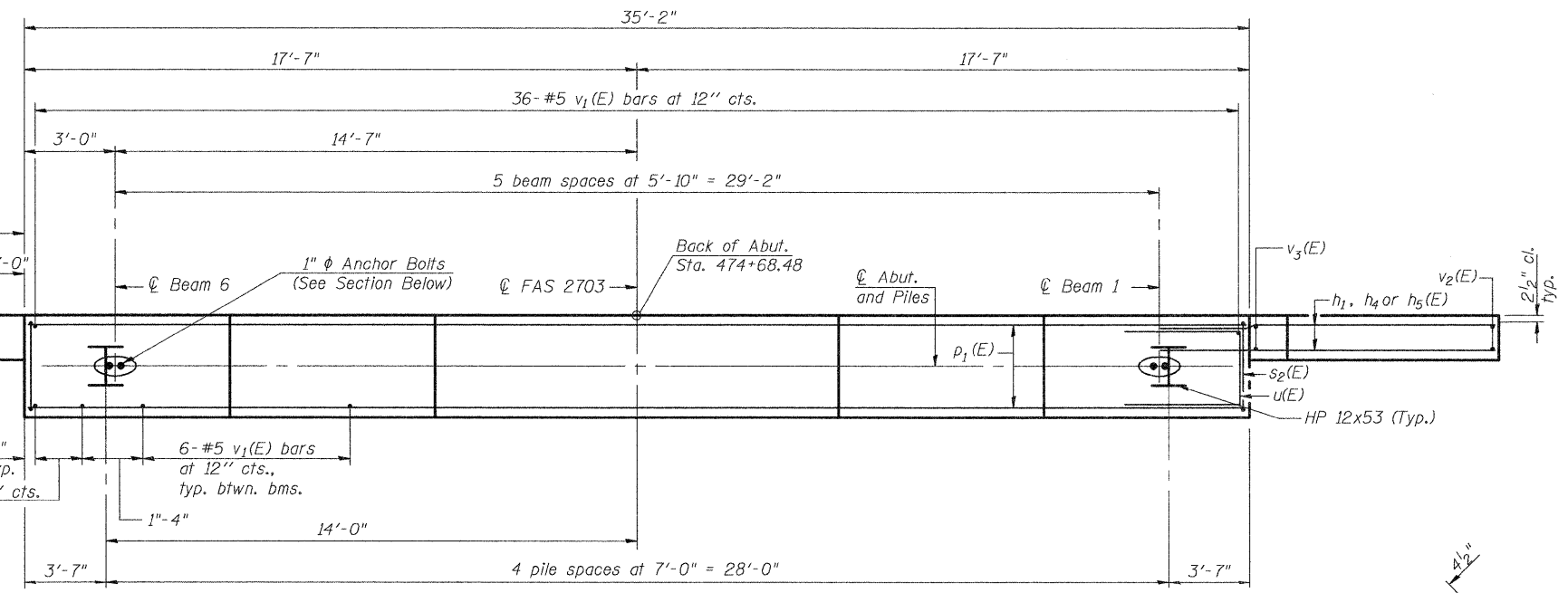
SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
$h_1(E)$	16	#6	8'-5"	—	
$h_4(E)$	6	#6	12'-7"	—	
$h_5(E)$	4	#6	8'-3"	—	
$p_1(E)$	7	#8	34'-10"	—	
$s_2(E)$	26	#5	11'-5"	□	
$u(E)$	6	#8	8'-10"	□	
$v_1(E)$	72	#6	4'-4"	—	
$v_2(E)$	12	#5	10'-6"	—	
$v_3(E)$	4	#5	6'-4"	—	
Structure Excavation				Cu. Yd.	101.5
Concrete Structures				Cu. Yd.	14.0
Reinforcement Bars, Epoxy Coated				Pound	2100
Furnishing - Steel Piles, HP 12x53				Foot	168
Driving Piles				Foot	168
Test Pile, HP 12x53				Each	1
Concrete Encasement				Cu. Yd.	1.7
Pile Shoes				Each	5

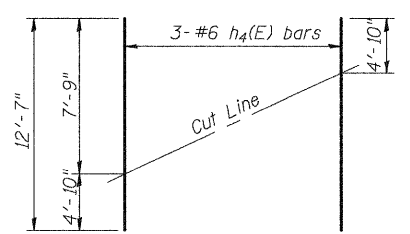
Notes:  
Pour steps monolithically with cap.  
See Sheet 2 of 22 for section thru Integral Abutment showing drainage details.  
For details of piles and Concrete Encasement See Sheet 19 of 22.  
Space reinforcement in cap to miss anchor bolts.

WEST ABUTMENT  
KINMUNDY/LOUISVILLE ROAD  
OVER ILLINOIS CENTRAL RR  
STA. 475+50.44

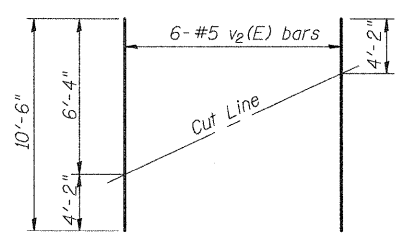


PLAN

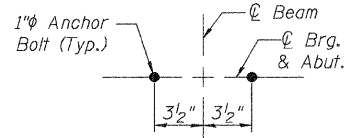
**PILE DATA**  
Type: HP 12x53 with Pile Shoes  
Nominal Required Bearing: 419 k  
Factored Resistance Available: 210 k  
Est. Length: 42'-0"  
No. Production Piles: 4  
No. Test Piles: 1



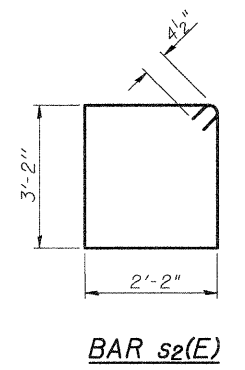
**h4 FIELD CUTTING DIAGRAM**  
Order  $h_4(E)$  full length. Cut as shown and use remainder of bars in opposite face.



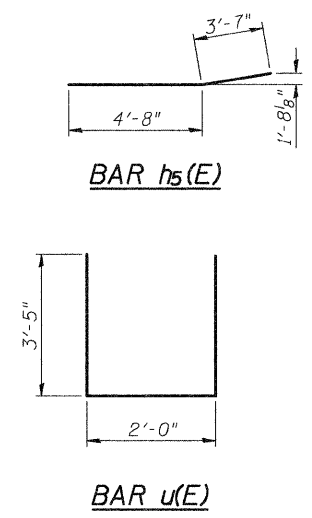
**v2 FIELD CUTTING DIAGRAM**  
Order  $v_2(E)$  full length. Cut as shown and use remainder of bars in opposite face.



ANCHOR BOLT DETAIL



BAR  $s_2(E)$



BAR  $u(E)$

DESIGNED	B.B.
CHECKED	C.J.F.
DRAWN	J.G.
CHECKED	C.J.F. & B.B.

**BERNARDIN LOCHMUELLER & ASSOCIATES, INC.**  
3 Oak Drive  
Maryville, IL 62062-6635  
Local (618) 288-4665  
Fax 618-288-4666

SHEET NO. 12 22 SHEETS	F.A.S. RTE. 2703	SECTION (9-VBR)B	COUNTY CLAY	TOTAL SHEETS 65	SHEET NO. 34
	SN 013-0044		CONTRACT NO. 74136		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT			

2/16/28 PM 10/3/2008 \_SVP/ops/03/0044/4/36.dgn