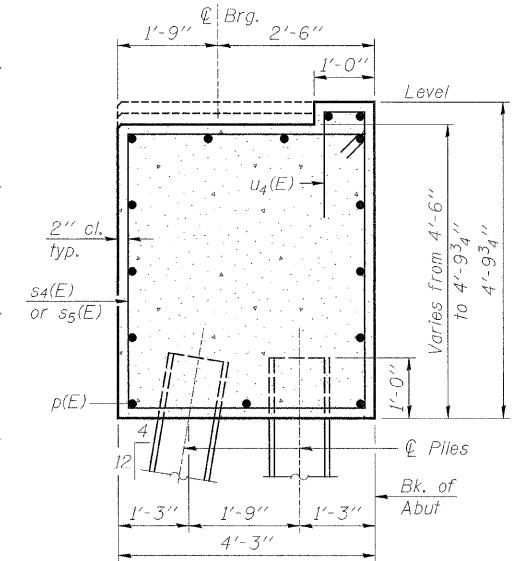
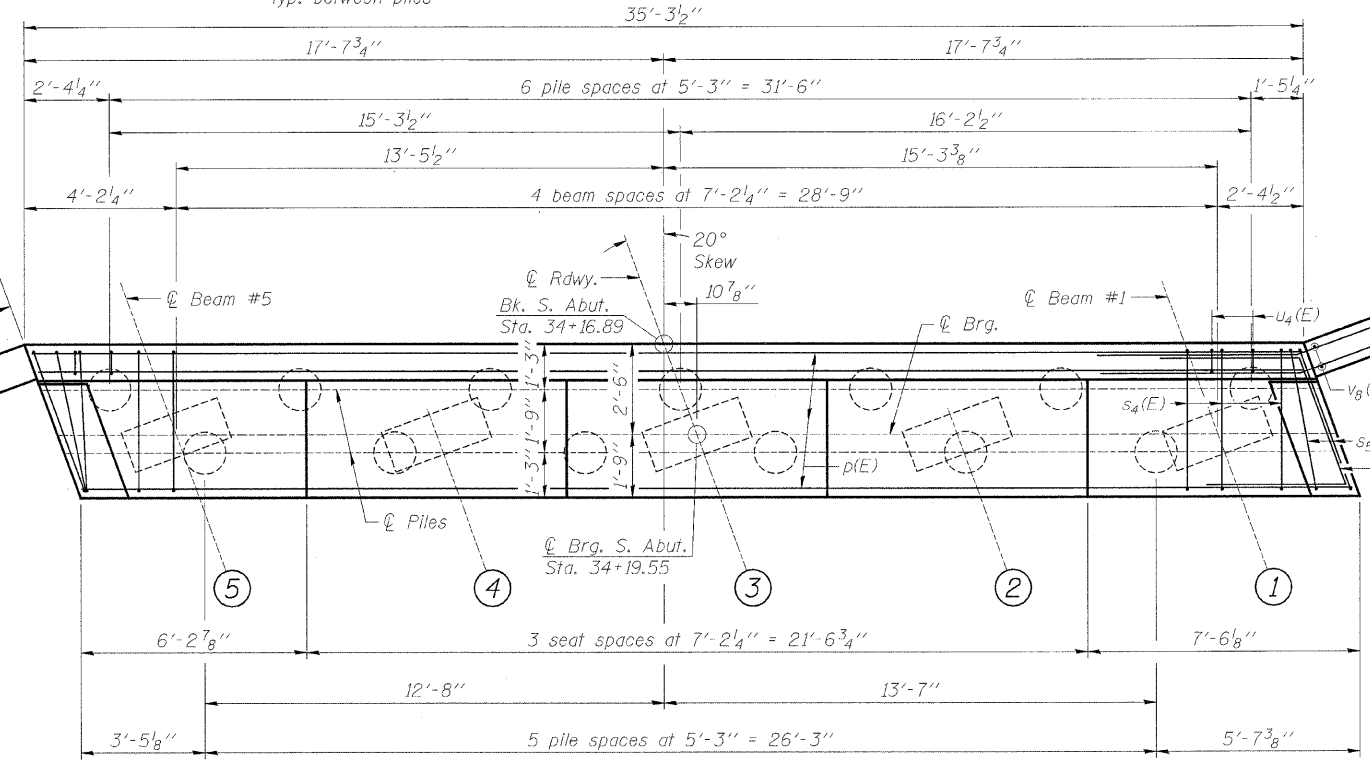


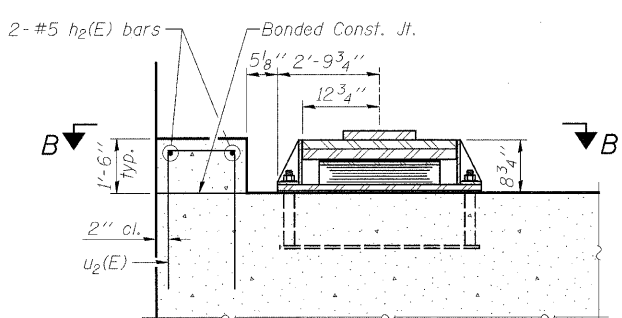
**ELEVATION**  
(Looking South)



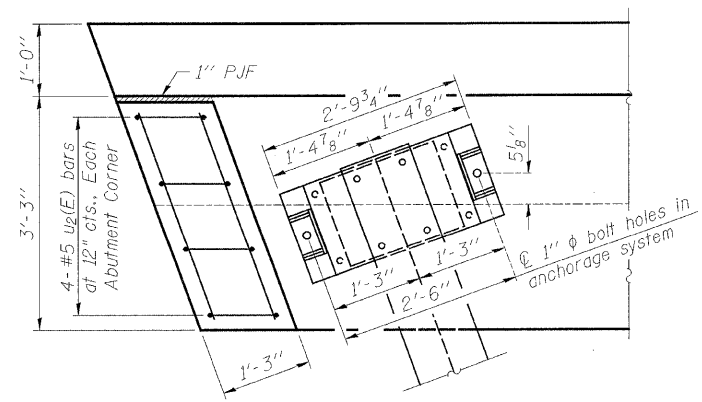
**SEC. THRU ABUT.**



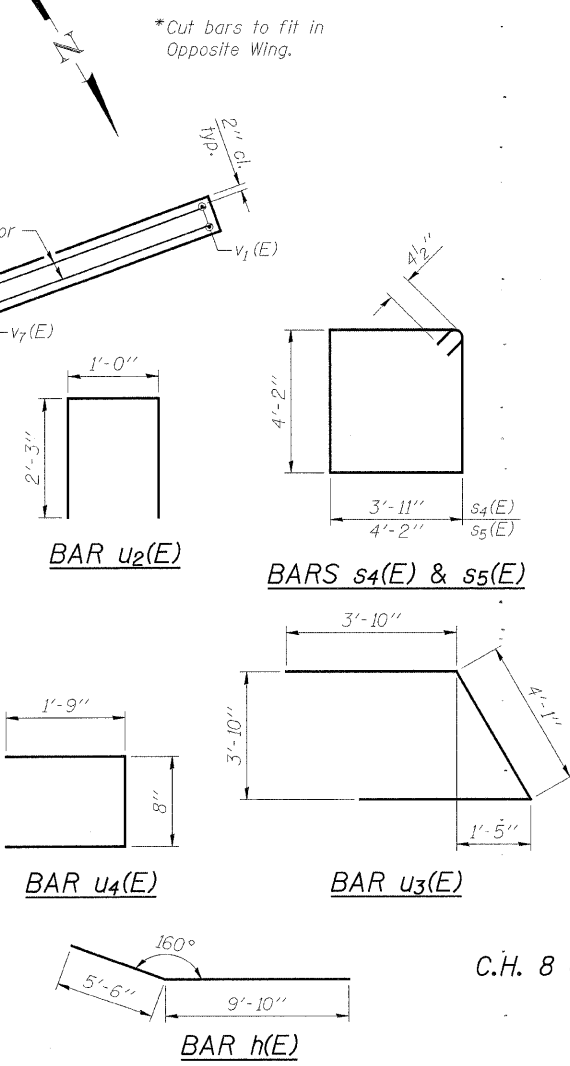
**PLAN**



**ELEVATION**



**SECTION B-B**



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	40	#8	15'-4"	
h1(E)	28	#4	10'-6"	
h2(E)	4	#5	3'-0"	
p(E)	15	#7	34'-11"	
s4(E)	26	#4	16'-11"	
s5(E)	4	#4	17'-5"	
u2(E)	8	#5	5'-6"	
u3(E)	10	#6	11'-9"	
u4(E)	36	#4	4'-2"	
v1(E)	4	#4	6'-7"	
v2(E)	4	#4	7'-1"	
v3(E)	4	#4	7'-7"	
v4(E)	4	#4	8'-1"	
v5(E)	4	#4	8'-7"	
v6(E)	4	#4	9'-1"	
v7(E)	4	#4	9'-7"	
v8(E)	16	#4	10'-0"	
Porous Granular Embankment		Ton	209	
Concrete Structures		Cu. Yd.	32.2	
Reinforcement Bars, Epoxy Coated		Pound	3,840	
Furnishing Metal Shell Piles 14" x 0.312"		Foot	756	
Driving Piles		Foot	756	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		Sq. Yd.	53	
Pipe Underdrains for Structures 4"		Foot	101	

**NOTES:**

For pile details, see Structural sheet 28B of 33B.  
Pour steps monolithically with cap.

**SOUTH ABUTMENT DETAILS**  
**C.H. 8 OVER IOWA INTERSTATE RAILROAD**  
**& THE HENNEPIN CANAL**  
**STATION 36+00**  
**S.N. 006-3247**  
**WHA #1066D05**

**PILE DATA**

Type: Metal Shell - 14 in. dia. x 0.312 in. walls  
Nominal Required Bearing: 455 k  
Factored Resistance Available: 250 k  
Est. Length: 63'  
No. Production Piles: 12  
No. Test Piles: 1

**CONCRETE SIDE RETAINER DETAILS**

STRUCTURAL SHEET NO. 23B OF 33B SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	188	05-00195-00-BR	BUREAU	127	89
	CONTRACT NO. 87380				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0188(118)					

FILE NAME = s:\Struct\1066D05\Bureau\Drawings\1066D05\Sub\Abutment.dgn