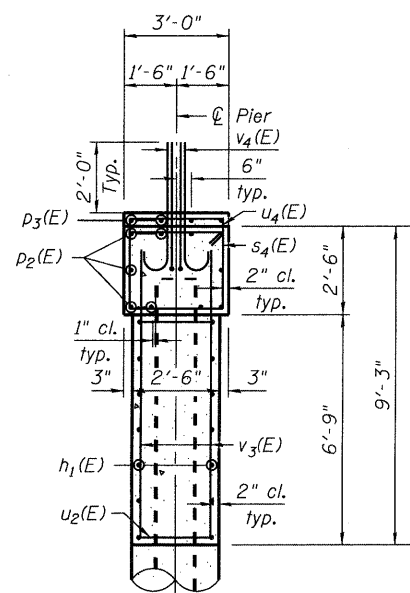


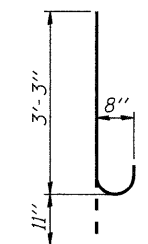
**TOP PLAN**

**MIN. BAR LAP**

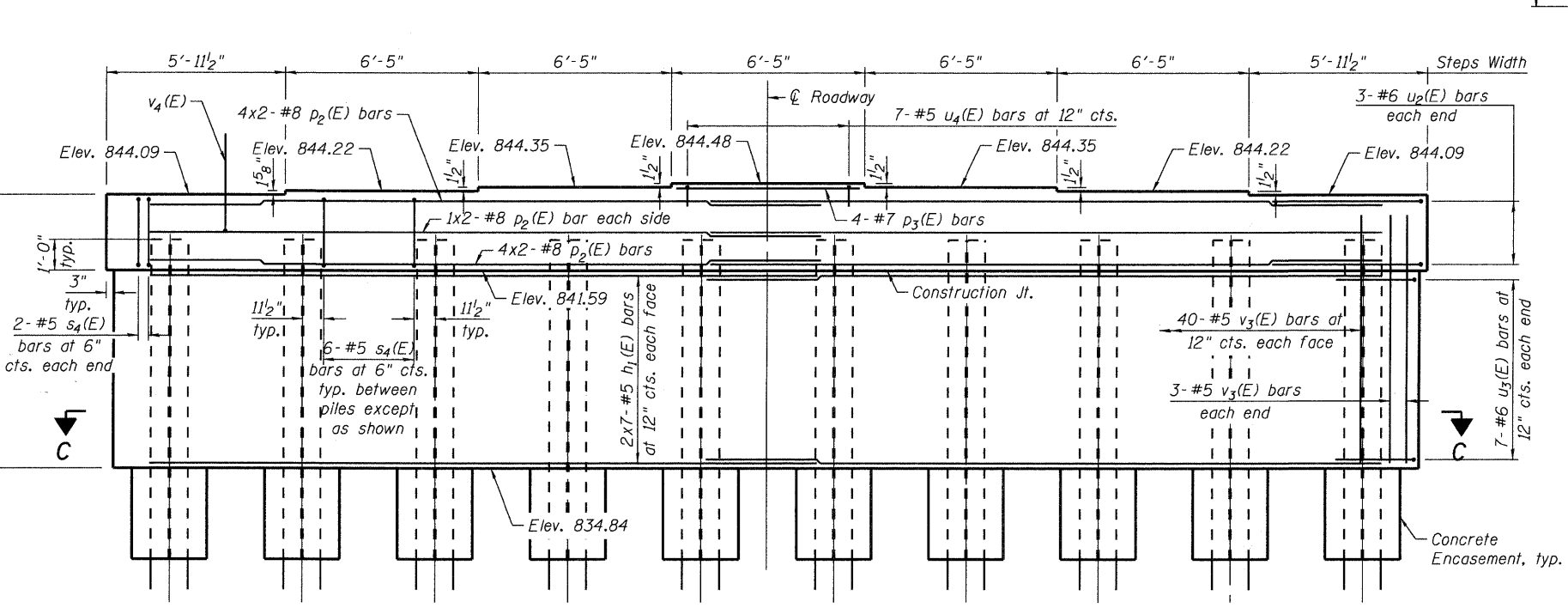
#5 bar = 2'-2"  
#8 bar = 4'-6"



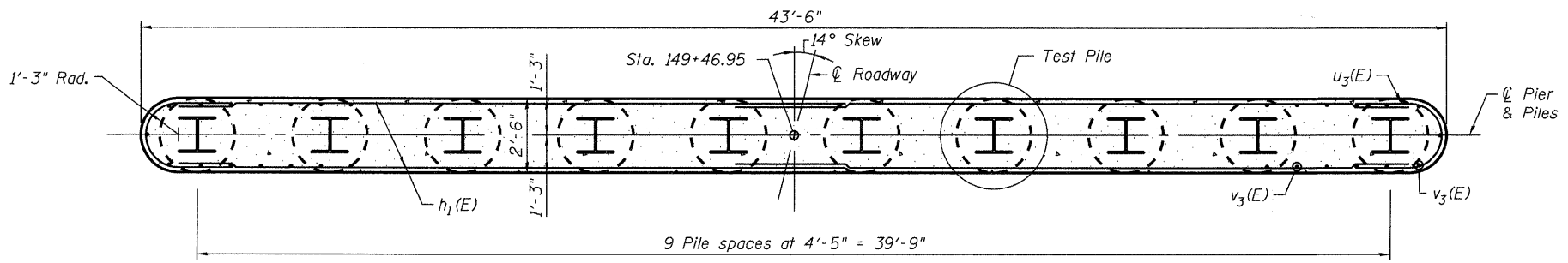
**END VIEW**



**BAR v4(E)**



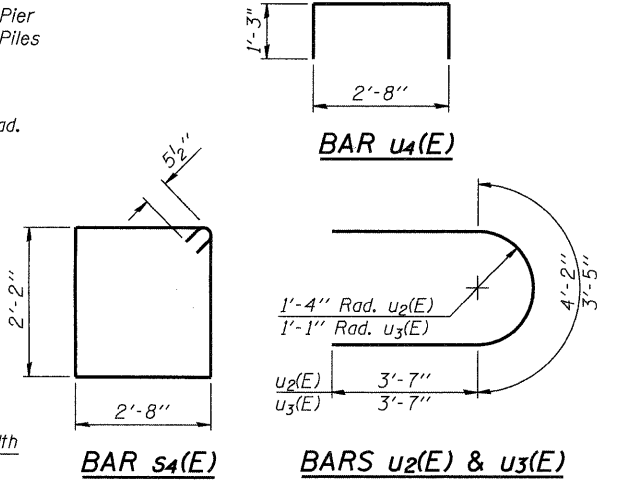
**ELEVATION**  
(Looking East)



**SECTION C-C**

**PILE DATA**

Type:	HP 14 x 89 w/ Pile Shoes
Nominal Required Bearing:	704 kips
Factored Resistance Available:	296 kips
Estimated Length:	61 ft.
Number of Production Piles:	9
Number of Test Piles:	1



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	28	#5	21'-7"	—
p2(E)	20	#8	22'-3"	—
p3(E)	4	#7	6'-1"	—
s4(E)	58	#5	10'-7"	□
u2(E)	6	#6	11'-4"	U
u3(E)	14	#6	10'-7"	U
u4(E)	7	#5	5'-2"	U
v3(E)	86	#5	8'-7"	—
v4(E)	36	#8	4'-2"	—
Structure Excavation		Cu. Yd.	11.1	
Concrete Structures		Cu. Yd.	39.7	
Concrete Encasement		Cu. Yd.	5.5	
Reinforcement Bars, Epoxy Coated		Pound	4,050	
Furnishing Steel Piles, HP 14x89		Foot	619	
Driving Piles		Foot	619	
Pile Shoes		Each	10	
Test Piles		Each	1	
Steel HP 14x89		Each	1	
Underwater Structure Excavation Protection - Location 1		Each	1	

**NOTES:**

Pour steps monolithically with cap.  
Space reinforcement in cap to miss anchor bolts.  
For details of piles and Concrete Encasement, see sheet S-20.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

Sheet No. S-19 of 23

FILE NAME: \\nunch\p207\p60095873\p60095873\_980\_cad\981\_drawing\sheet\structure\056-3177\_60095873\_S19\_Pier.dwg

<b>AECOM</b>	USER NAME = debeziod	DESIGNED - DD	REVISED -	<b>MCHENRY COUNTY</b> <b>DIVISION OF TRANSPORTATION</b>	<b>PIER</b> <b>STRUCTURE NO. 056-3177</b>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 0:1' / IN.	DRAWN - DD	REVISED -			0031	06-00323-00-BR	MCHENRY	53	38	
	PLOT DATE = 5/28/2009	CHECKED - ATB	REVISED -			CONTRACT NO. 63218					
		DATE - 3/18/2009	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
				SCALE:	SHEET NO. OF SHEETS	STA. TO STA.					