

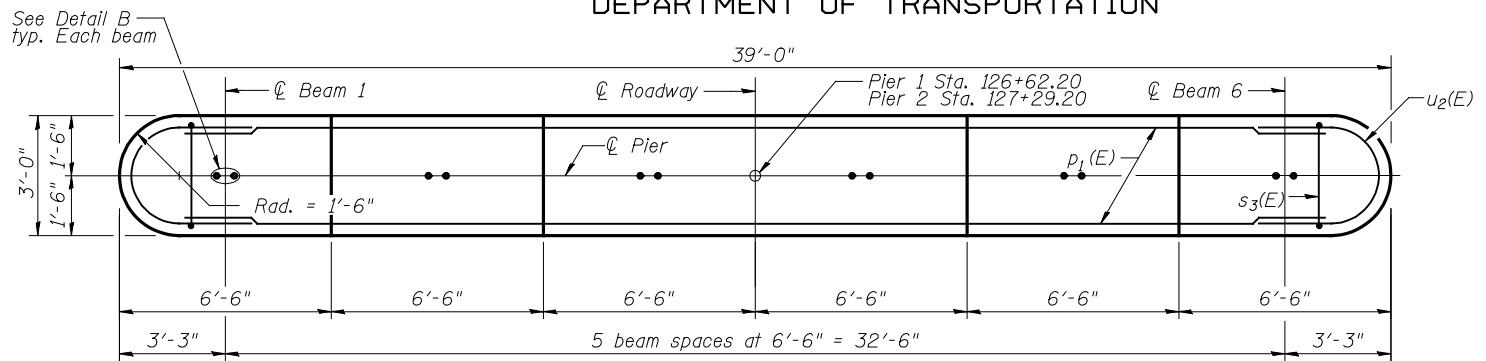
FILE: F:\Projects\DOT PROJECTS\05-044-6\Drawings\0570245-70524.dgn  
 USER: RNH  
 DATE: 09/30/2009 14:48

**Notes:**  
 Space reinforcement in cap to miss anchor bolts.  
 Four steps monolithically with cap.  
 For details of piles and Concrete Encasement, see sheet 14 of 17.  
 The Test Pile(s) shall be driven to 110 percent of the Nominal Required Bearing indicated on the pile data information.  
 Drive one (1) Test Pile in a production location at Pier 2.  
 If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

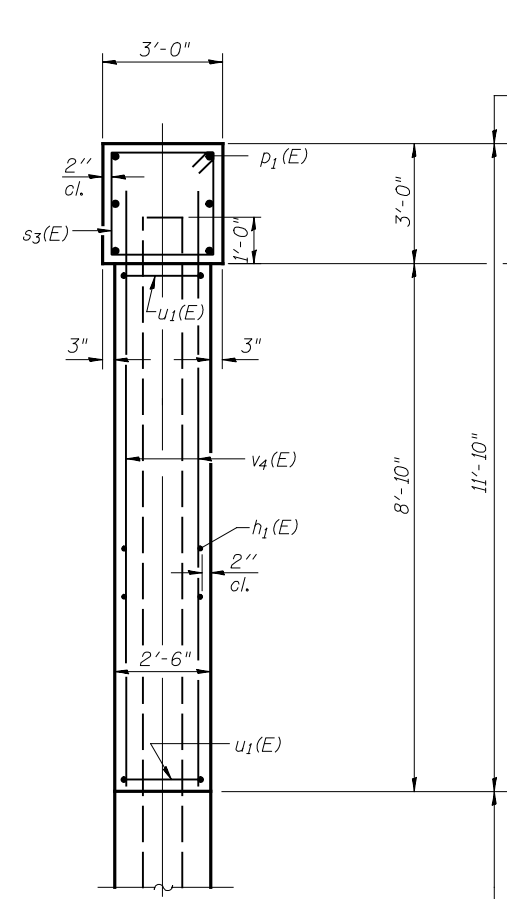
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**PILE DATA**

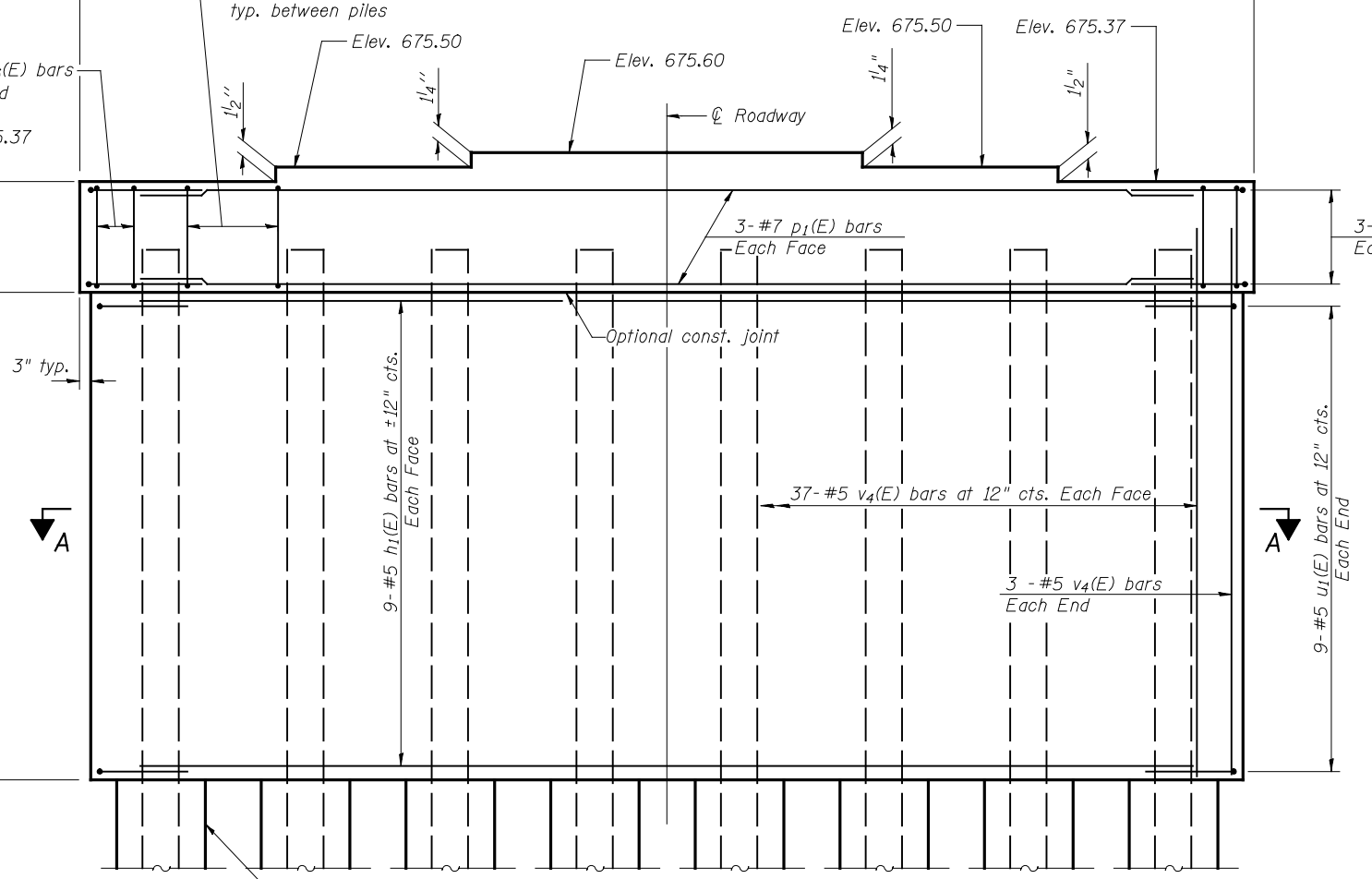
Type: Metal Shell 14"φ x 0.312" walls with Pile Shoes  
 Nominal Required Bearing: Pier 1: 390 kips Pier 2: 410 kips  
 Factored Resistance Available: 175 kips  
 Est. Length: Pier 1: 39' Pier 2: 41'  
 No. Production Piles: 15  
 No. Test Piles: 1



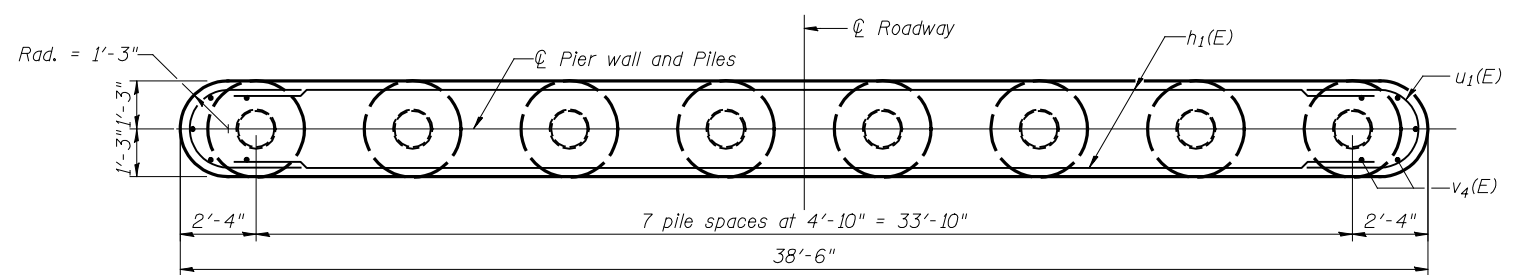
**TOP PLAN**



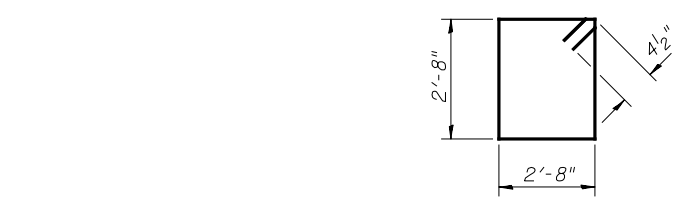
**END VIEW**



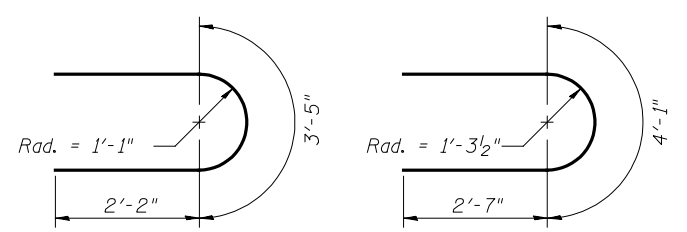
**ELEVATION**  
 (Looking East)



**SECTION A-A**



**BAR s3(E)**

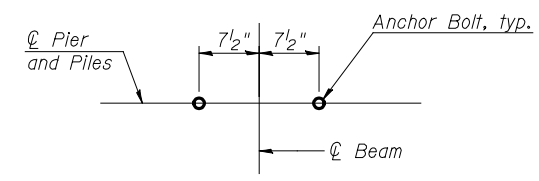


**BAR u1(E)**

**BAR u2(E)**

**TWO PIERS  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape		
h1(E)	36	#5	36'-0"	—		
p1(E)	12	#7	36'-0"	—		
s3(E)	78	#4	11'-5"	□		
u1(E)	36	#5	7'-9"	U		
u2(E)	12	#6	9'-3"	U		
v4(E)	160	#5	10'-2"	—		
					Pier 1	Pier 2
Concrete Structures			Cu. Yd.		41.2	41.2
Reinforcement Bars, Epoxy Coated			Pound		2,490	2,490
Furnishing Metal Shell Piles, 14" x 0.312"			Foot		312	287
Driving Piles			Foot		312	287
Test Pile, Metal Shells			Each		0	1
Pile Shoes			Each		8	8
Concrete Encasement			Cu. Yd.		3.4	3.4
Underwater Structure Excavation Protection-Location 1			Each		1	0
Underwater Structure Excavation Protection-Location 2			Each		0	1



**DETAIL B**

McDonough-Whitlow, P.C.  
 Consulting Engineers & Land Surveyors  
 138 East Wood Street  
 Hillboro, IL 62049  
 Phone: 217.332.9233  
 Fax: 217.332.6300  
 PROFESSIONAL DESIGN NO. 184-002754

DESIGNED: CMF	DRAWN: RNH
CHECKED: TMM	CHECKED: TMM

**PIERS  
 U.S. 136 OVER  
 PRAIRIE CREEK  
 STRUCTURE NO. 057-0245**

SHEET 13 OF 17	F.A.P. RTE. 315	SECTION 120BR-1	COUNTY MCLAN	TOTAL SHEETS 49	SHEET NO. 24
	STA. 126+95.70		CONTRACT NO. 70524		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			