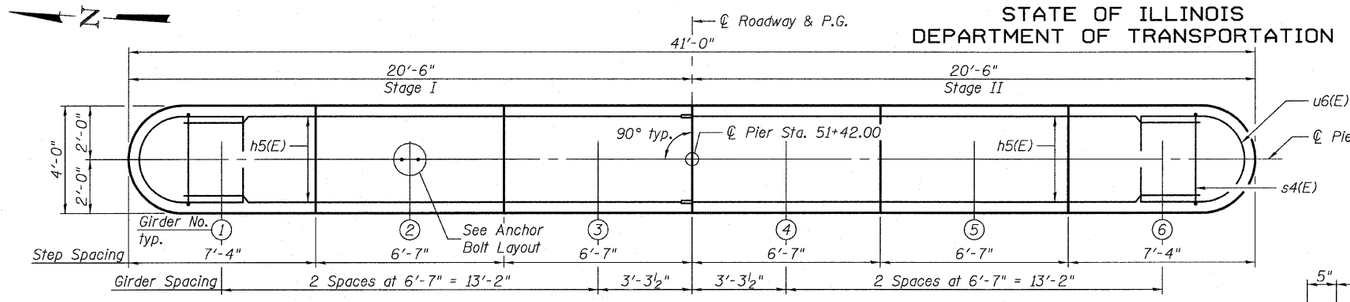
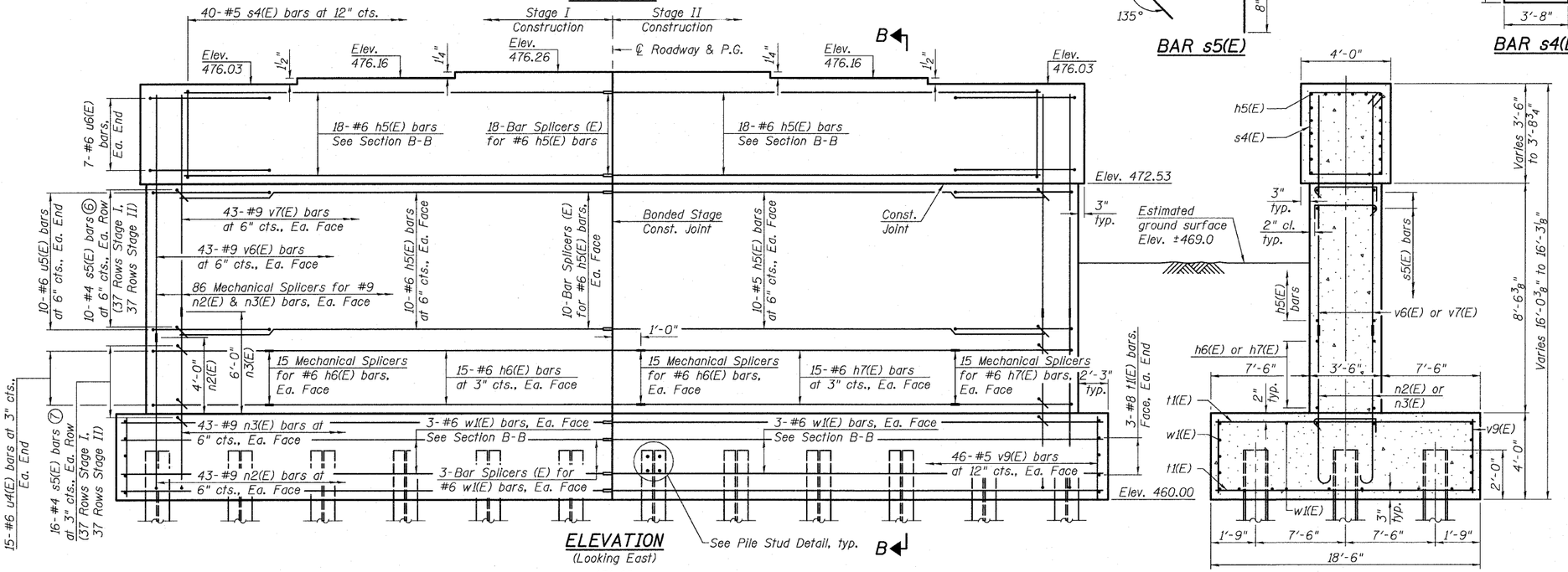
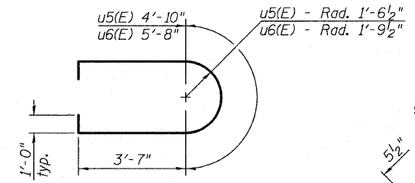
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



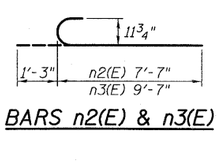
TOP PLAN



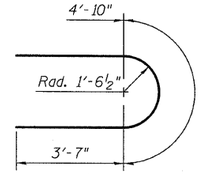
ELEVATION
(Looking East)



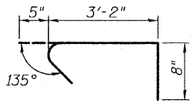
BARS u5(E) & u6(E)



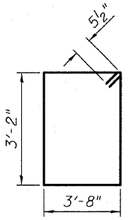
BARS n2(E) & n3(E)



BAR u4(E)



BAR s5(E)

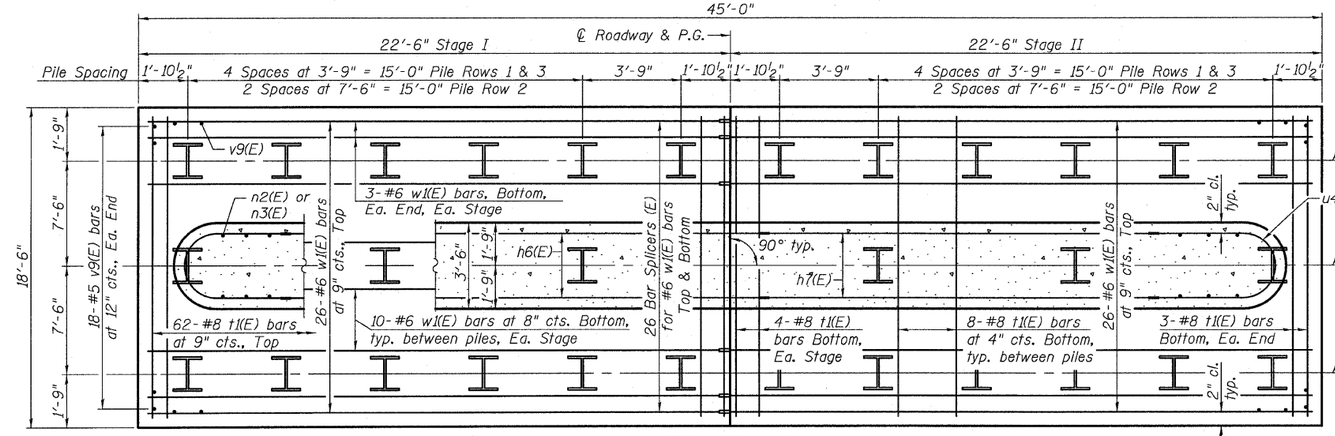


BAR s4(E)

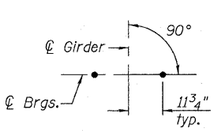
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	76	#6	18'-4"	
h6(E)	30	#6	15'-11"	
h7(E)	30	#6	13'-11"	
n2(E)	86	#9	8'-10"	
n3(E)	86	#9	10'-10"	
s4(E)	40	#5	14'-7"	
s5(E)	1924	#4	4'-3"	
t1(E)	162	#8	18'-2"	
u4(E)	30	#6	12'-0"	
u5(E)	20	#6	14'-0"	
u6(E)	14	#6	14'-10"	
v6(E)	86	#9	7'-10"	
v7(E)	86	#9	5'-10"	
v9(E)	128	#5	3'-7"	
w1(E)	116	#6	22'-2"	
Structure Excavation		Cu. Yd.	368	
Concrete Structures		Cu. Yd.	191.4	
Reinforcement Bars, Epoxy Coated		Pound	32,730	
Furnishing Steel Piles, HP14x89		Foot	2,146	
Driving Piles		Foot	2,146	
Test Pile Steel HP14x89		Each	1	
Mechanical Splicers		Each	262	

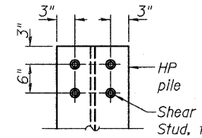
SECTION B-B



FOOTING PLAN



ANCHOR BOLT LAYOUT ⑤



PILE STUD DETAIL ⑧

PILE DATA

Type: HP14x89
Nominal Required Bearing: 705 Kip
Factored Resistance Available: 353 Kip
Est. Length: 74'
No. Production Piles: 29
No. Test Piles: 1

Notes:
① Pour steps monolithically with cap.
② For details of Bar Splicers, see sheet 30 of 38.
③ For details of piles, see sheet 29 of 38.
④ All edges shall have standard ¾" chamfer.
⑤ Space reinforcement in cap to miss anchor bolts.
⑥ Space s5(E) bars horizontally with each v6(E) & v7(E) bar and vertically with h5(E) bars outside of the plastic hinge region. Alternate s5(E) bars end for end as shown in Section B-B.
⑦ Space s5(E) bars horizontally with each n2(E) & n3(E) bar and vertically with h6(E) & h7(E) bars inside of the plastic hinge region. Alternate s5(E) bars end for end as shown in Section B-B. Total includes one row of bars in top of footing.
⑧ Provide 4 - ¾" ϕ x 4" granular or solid flux filled headed studs conforming to Article 1006.32 of the Standard Specifications automatically end welded to piling, each flange, each pile. Cost included with Furnishing Steel Piles, HP14x89.

PIER 2 DETAILS
STRUCTURE NO. 026-0105

SHEET NO. 27	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38 SHEETS	752	(U-2BR1)B-1	FAYETTE	71	49
			CONTRACT NO. 74235		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

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DESIGNED JAD
CHECKED NEL
DRAWN MAG
CHECKED NEL