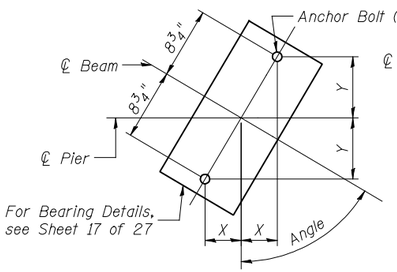
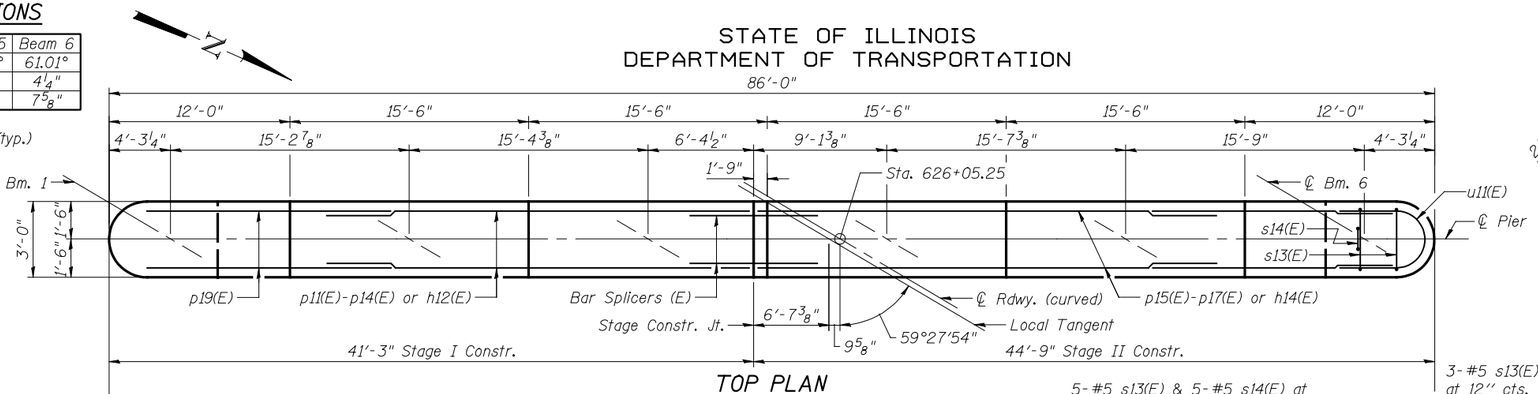
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ANCHOR BOLT LAYOUT DIMENSIONS

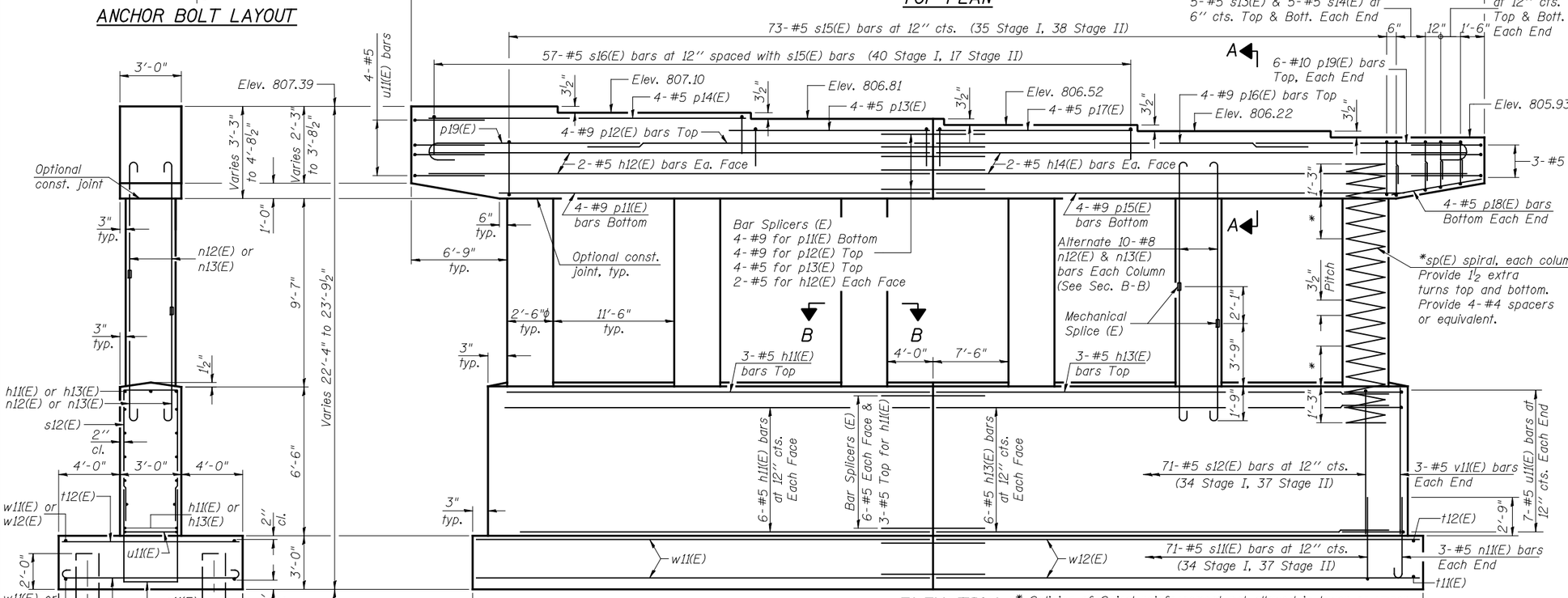
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Angle	59.67°	59.93°	60.19°	60.46°	60.74°	61.01°
X	4 3/8"	4 3/8"	4 3/8"	4 3/8"	4 1/4"	4 1/4"
Y	7 1/2"	7 5/8"	7 5/8"	7 5/8"	7 5/8"	7 5/8"



ANCHOR BOLT LAYOUT



TOP PLAN



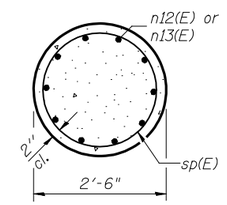
ELEVATION
(Looking South)

* Splicing of Spiral reinforcement not allowed in lower or upper 2'-6" of column. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

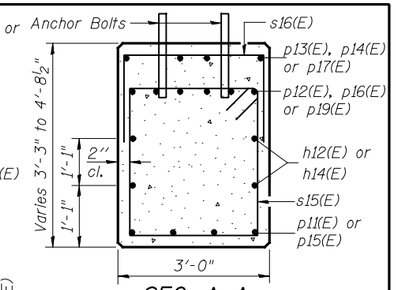
FOOTING PLAN

This pile shall be driven in Stage I (to avoid conflict with new deck)

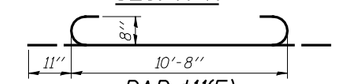
Note: See sheet 2 of 27 for Foundation Layout showing relative position of existing and proposed piles.



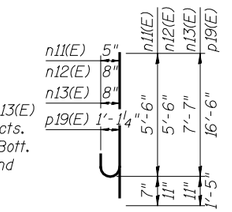
SEC. B-B



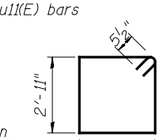
SEC. A-A



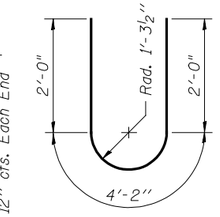
BAR t11(E)



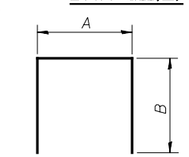
BARS n11(E)-n13(E) & p19(E)



BAR s15(E)



BAR u11(E)



BARS s11(E)-s14(E) & s16(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11(E)	15	#5	33'-1"	
h12(E)	4	#5	39'-7"	
h13(E)	15	#5	36'-7"	
h14(E)	4	#5	43'-1"	
n11(E)	6	#5	6'-1"	
n12(E)	60	#8	6'-5"	
n13(E)	60	#8	8'-6"	
p11(E)	4	#9	34'-10"	
p12(E)	4	#9	29'-1"	
p13(E)	4	#5	16'-3"	
p14(E)	4	#5	25'-10"	
p15(E)	4	#9	38'-4"	
p16(E)	4	#9	32'-7"	
p17(E)	4	#5	16'-9"	
p18(E)	8	#5	6'-8"	
p19(E)	12	#10	17'-11"	
s11(E)	71	#5	13'-8"	
s12(E)	71	#5	15'-2"	
s13(E)	32	#5	6'-10"	
s14(E)	20	#5	5'-2"	
s15(E)	73	#5	12'-1"	
s16(E)	57	#5	7'-0"	
** sp(E)	6	#4	12'-1"	
t11(E)	76	#8	12'-6"	
t12(E)	74	#5	10'-8"	
u11(E)	21	#5	8'-2"	
v11(E)	6	#5	6'-3"	
w11(E)	22	#5	34'-8"	
w12(E)	22	#5	38'-2"	
Braced Excavation			Cu. Yd.	114
Concrete Structures			Cu. Yd.	189.5
Reinforcement Bars, Epoxy Coated			Pound	17210
Furnishing Steel Piles, HP12x53			Foot	630
Driving Piles			Foot	630
Test Pile, HP12x53			Each	1
Concrete Sealer			Sq Ft	2388

A & B DIMENSIONS

Bar	A	B
s11(E)	2'-8"	5'-6"
s12(E)	2'-8"	6'-3"
s13(E)	2'-8"	2'-1"
s14(E)	1'-0"	2'-1"
s16(E)	2'-8"	2'-2"

Notes:
** Length is height of spiral.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 24 of 27.
For details of Bar Splicers and Mechanical Splice, see sheet 25 of 27.

END VIEW

MINIMUM BAR LAP
#9 bar = 5'-11"

PILE DATA

Type: Steel-HP12x53
Nominal Required Bearing: 418 kips
Factored Resistance Available: 230 kips
Est. Length: 30'
No. Production Piles: 21
No. Test Piles: 1

Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED:	DCD	DRAWN:	P. Ray
CHECKED:	CMV	CHECKED:	CMV/DCD

P-26 11-1-09 (Modified)

PIER 1
STRUCTURE NO. 057-0250

SHEET 22 OF 27	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(57-7HB-1)BR	MCLEAN	153	72
	STA. 626+53.70		CONTRACT NO. 70520		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PRINT DATE: 08/06/2010 20:57:03 SAVE DATE: 8/6/2010 USER: DCD FILE: J:\JDQ\110169 IL-05 I-55NB McLean\I-55NB-I74EB\0570250-70520-022-piers.dgn