

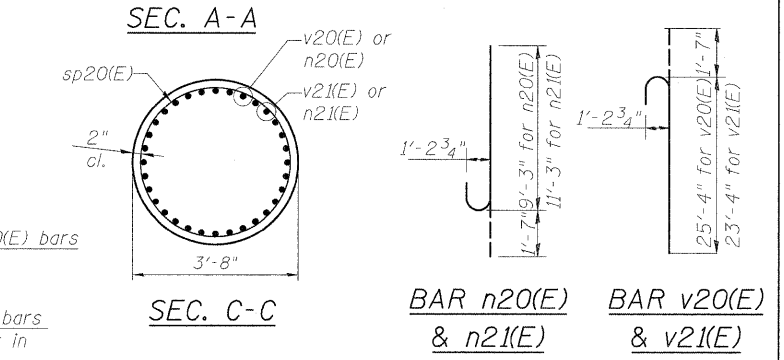
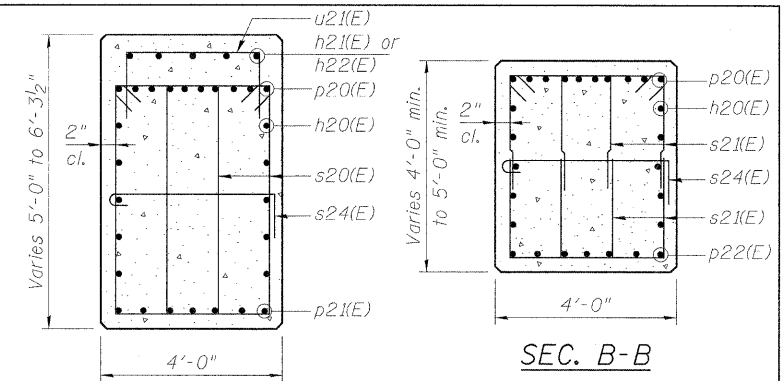
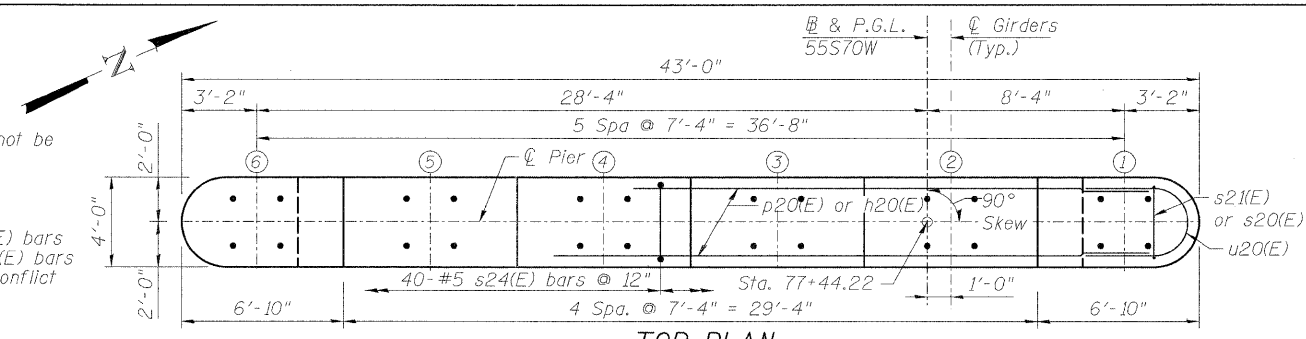
NOTES:

- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- For details of piles, see sheet S-122.
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
- #5 sp20(E) spiral, each column

1) Provide 1/2 extra turns, shop welded together per AWS D1.4 top and bottom. Extend spiral 2" into pier cap & footing. Provide 4-#4 spacers or equivalent.

2) When splicing spiral reinforcement is necessary, the spiral shall be provided with 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.

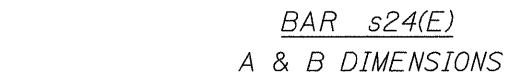
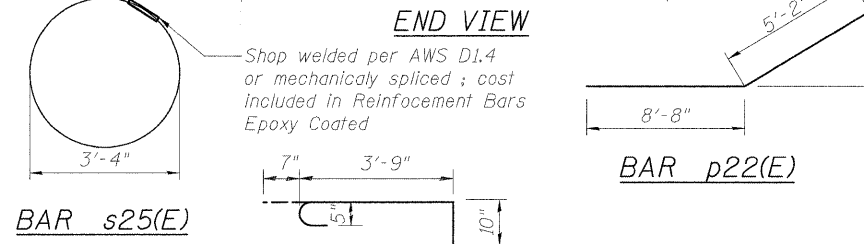
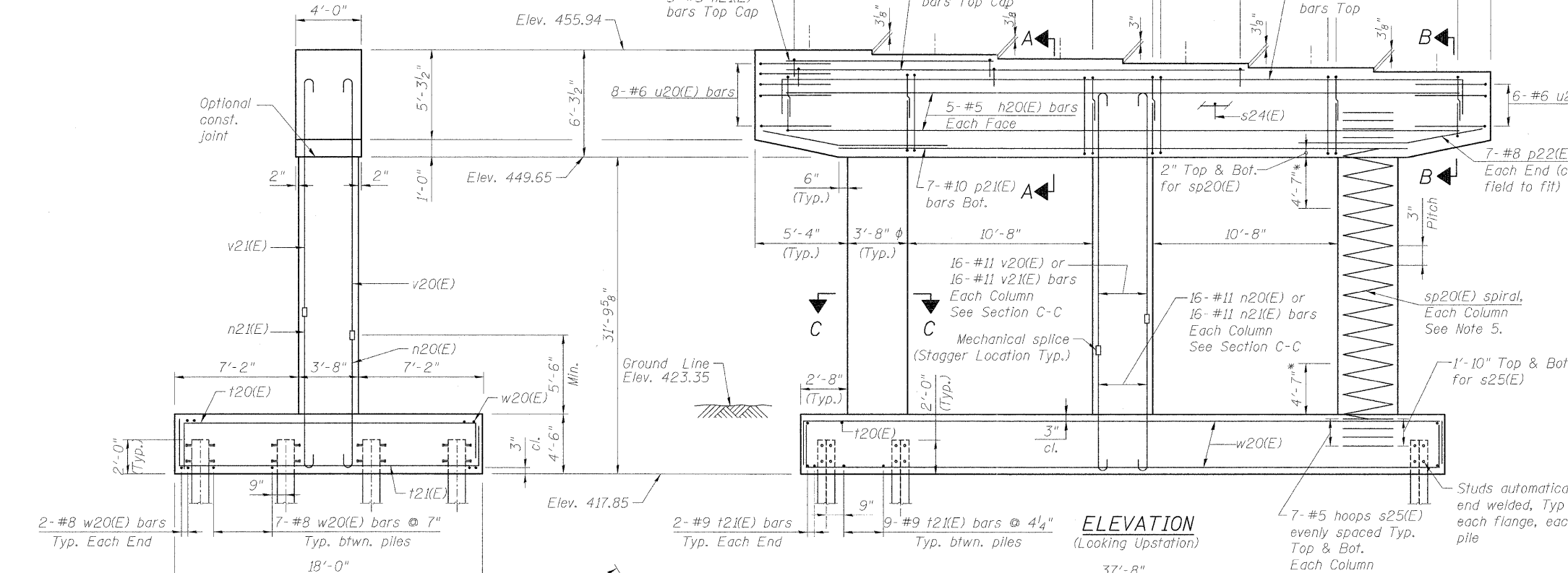
- For anchor bolt details, see Sheets S-83 thru S-92.
- * Splicing of reinforcement will not be allowed in this region.
- ** Length is height of spiral.
- *** 13-u21(E) bars match w/ h21(E) bars
27-u21(E) bars match w/ h22(E) bars
Adjust bars in field to avoid conflict with stirrups.



BAR n20(E) & n21(E)
BAR v20(E) & v21(E)

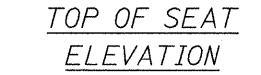
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	10	#5	38'-8"	—
h21(E)	5	#5	12'-0"	—
h22(E)	5	#5	26'-8"	—
n20(E)	48	#11	10'-10"	C
n21(E)	48	#11	12'-10"	C
p20(E)	10	#11	43'-0"	—
p21(E)	7	#10	33'-0"	—
p22(E)	14	#8	13'-10"	—
s20(E)	120	#5	15'-7"	—
s21(E)	236	#5	10'-0"	—
s24(E)	40	#5	5'-2"	—
s25(E)	42	#5	10'-5 5/8"	—
sp20(E)	3	#5	27'-8"	—
t20(E)	38	#7	25'-4"	—
t21(E)	76	#9	25'-4"	—
u20(E)	14	#6	11'-8"	—
u21(E)	40	#5	5'-8"	—
v20(E)	48	#11	26'-11"	—
v21(E)	48	#11	24'-11"	—
w20(E)	47	#8	45'-4"	—

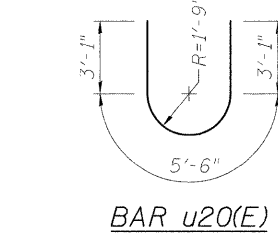
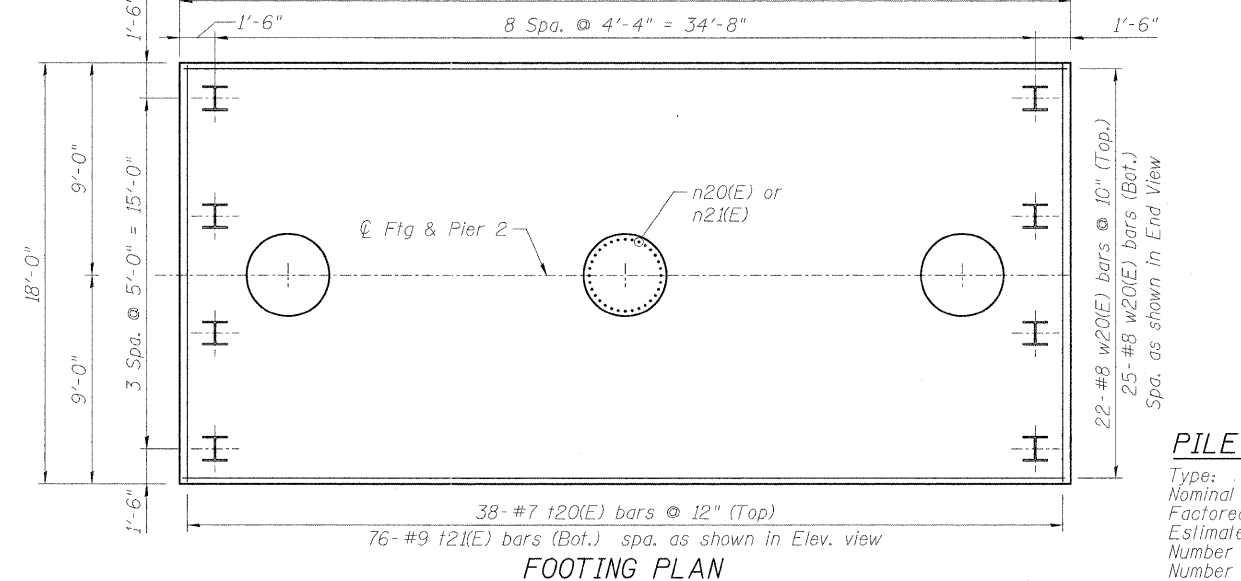


Bar	A	B
p20(E)	39'-0"	2'-0"
s21(E)	2'-8"	3'-8"
u21(E)	3'-8"	1'-0"
w20(E)	37'-4"	4'-0"
t20(E)	17'-8"	3'-10"
t21(E)	17'-8"	3'-10"

BARS p20(E), s21(E), u21(E), w20(E), t20(E), t21(E)



Beam No.	Seat Elev.
1	454.65
2	454.91
3	455.17
4	455.42
5	455.68
6	455.94



PILE DATA

Type: HP14x89
Nominal Required Bearing: 500 kips
Factored Resistance Available: 250 kips
Estimated Length: 110 ft.
Number of Production Piles: 35
Number of Test Piles: 1



USER NAME = BhattA	DESIGNED - EJO	REVISED -
PLOT SCALE = 1/8" = 1'-0"	DRAWN - JHR	REVISED -
PLOT DATE = 05-02-11	CHECKED - DB	REVISED -
	DATE - 05-02-11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 - S.N. 082-0323
I-70W OVER I-55, CSX & KCS RAILROADS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-1-B-1	ST. CLAIR	319	218

S.N. 082-0323 & S.N. 082-0325 CONTRACT NO. 76C75
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT