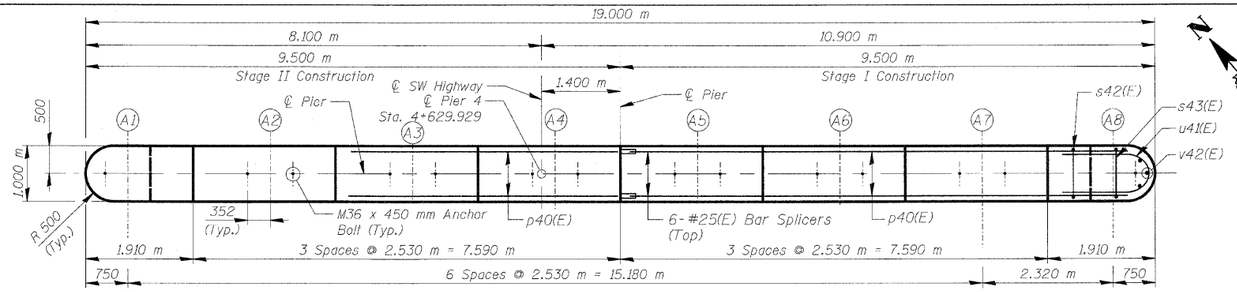
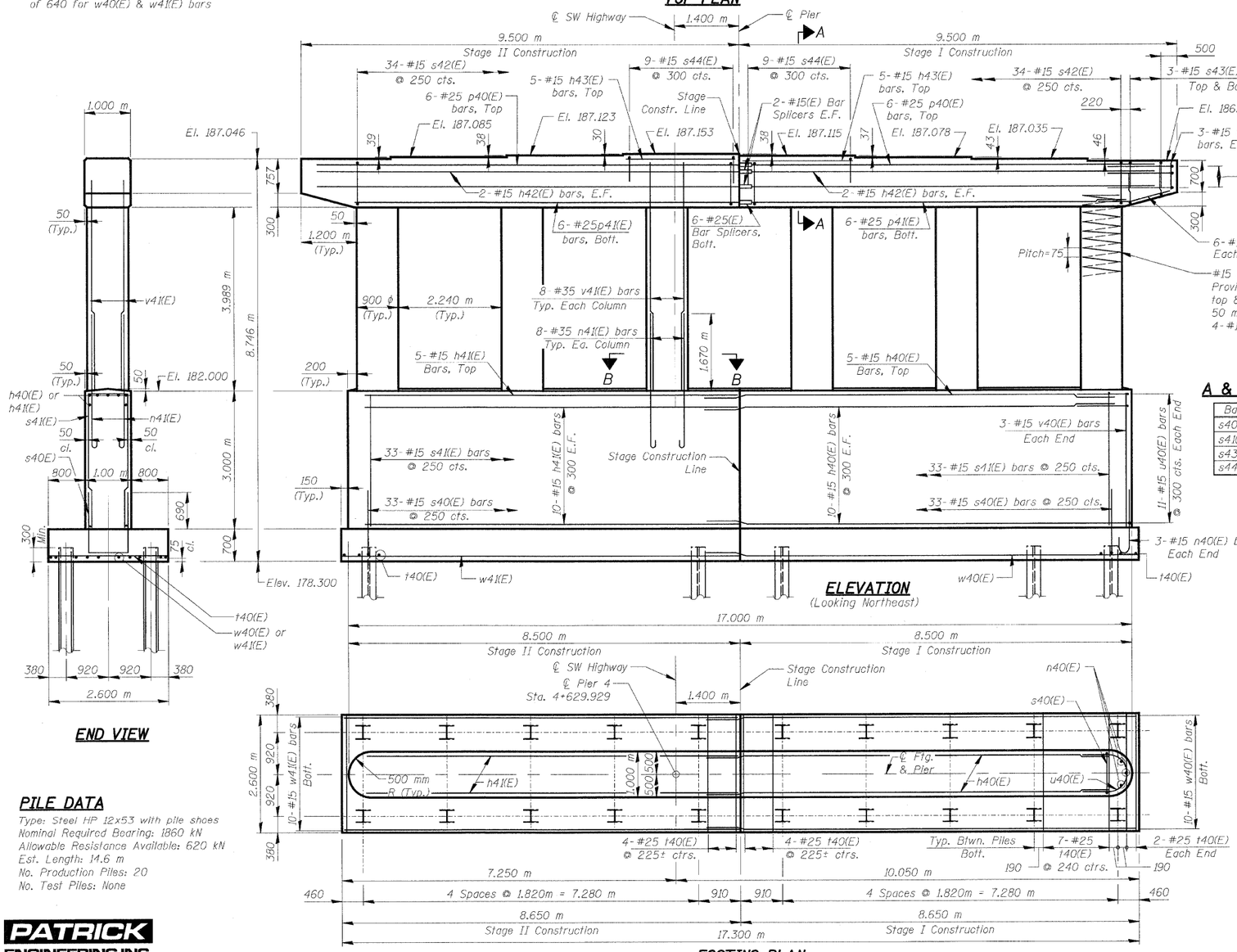
NOTES:
Space Reinforcement in cap to miss anchor bolts.
All edges shall have standard 20 mm chamfer except as noted.
Pour steps monolithically with cap.

TYP. LAP SPLICE	
BAR SIZE	MIN. LAP
#15	890 mm
#20	1.110 m
#25	1.850 m

NOTE: Use a min. lap splice of 640 for w40(E) & w41(E) bars

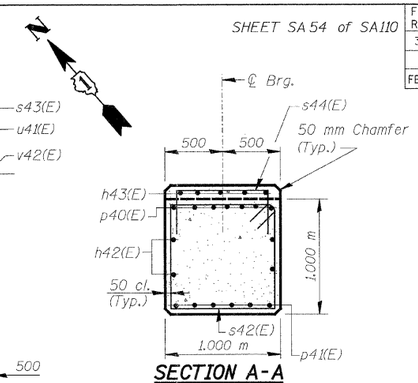


TOP PLAN

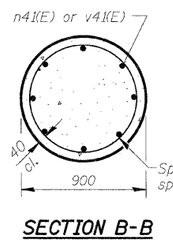


ELEVATION
(Looking Northeast)

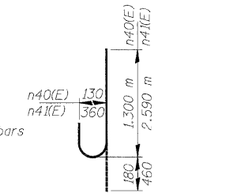
END VIEW



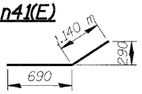
SECTION A-A



SECTION B-B



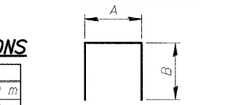
BARS n40(E) & n41(E)



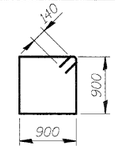
BAR p42(E)

A & B DIMENSIONS

Bar	A	B
s40(E)	900	1.300 m
s41(E)	900	2.950 m
s43(E)	900	750
s44(E)	900	450



BARS s40(E), s41(E) s43(E) & s44(E)



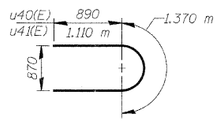
BAR s42(E)

BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h40(E)	25	# 15	8.940	—
h41(E)	25	# 15	7.950	—
h42(E)	8	# 15	8.950	—
h43(E)	10	# 15	2.430	—
n40(E)	6	# 15	1.480	⊃
n41(E)	48	# 35	3.050	⊃
p40(E)	12	# 25	8.950	—
p41(E)	12	# 25	8.300	—
p42(E)	12	# 15	1.830	⌐
s40(E)	66	# 15	3.500	⊓
s41(E)	66	# 15	6.800	⊓
s42(E)	68	# 15	3.880	⊓
s43(E)	12	# 15	2.400	⊓
s44(E)	18	# 15	1.800	⊓
sp40(E)	6	# 15	*4.040	∿∿
t40(E)	68	# 25	2.500	—
u40(E)	22	# 15	3.150	⊃⊃
u41(E)	6	# 20	3.590	⊃⊃
v40(E)	6	# 15	2.950	—
v41(E)	48	# 35	4.790	—
v42(E)	6	# 15	0.600	—
w40(E)	10	# 15	9.290	—
w41(E)	10	# 15	8.550	—

Structure Excavation	m³	98
Concrete Structures	m³	118.0
Reinforcement Bars, Epoxy Coated	kg	8,850
Bar Splicers	Each	16
Furnishing Steel Piles HP310x79	m	292.0
Driving Piles	m	292.0
Pile Shoes	Each	20

* Height of spiral



BARS u40(E) & u41(E)

NOTES:

1. Reinforcement bars designated (E) shall be Epoxy Coated.
2. Bars indicated thus 20 x 3 - #15 etc. indicates 20 lines of bars with 3 lengths per line.
3. All dimensions are in millimeters (mm) except as noted.
4. Minimum lap for spirals 770 mm.

FOOTING PLAN

PILE DATA
Type: Steel HP 12x53 with pile shoes
Nominal Required Bearing: 1860 kN
Allowable Resistance Available: 620 kN
Est. Length: 14.6 m
No. Production Piles: 20
No. Test Piles: None

PATRICK ENGINEERING INC.
LISLE, ILLINOIS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER 4
SOUTHWEST HIGHWAY OVER B&O RAILROAD AND STONY CREEK
FAU 3578 **SECTION** 15V B-1-R-1
STRUCTURE NUMBER 016-2771
COOK COUNTY **STATION** 4+716.497
SCALE: NONE DRAWN BY: **E. Mroozek**
DATE: 6/17/09 CHECKED BY: **G. Hatlestad**

SHEET SA 54 of SA110

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3578	15V B-1-R-1	COOK	243	149
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62388

tkoeppen\Rdwy_Lisle\ 6/26/2009 8:44:28 AM
Q:\IDOT\9556_A01\Drawings\STRUCT\S4 Pier 4.dgn