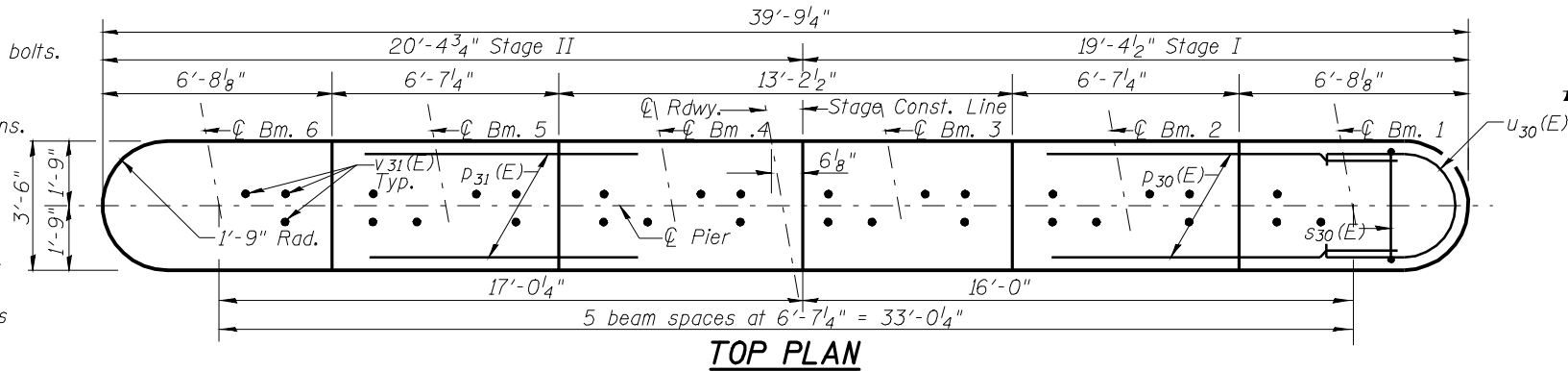


Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 25 of 27.
 See Sheet 15 of 27 for anchor bolt locations.

PILE DATA

Type: Metal Shell 14 in. dia x 0.25 in. walls
 Pier 1: Nominal Required Bearing: 416 kips
 Pier 1: Factored Resistance Available: 166 kips
 Pier 2: Nominal Required Bearing: 362 kips
 Pier 2: Factored Resistance Available: 166 kips
 Est. Length: 43 ft. Pier 1, 35 ft. Pier 2
 No. Production Piles: 18
 No. Test Piles: 2, 1 at each pier



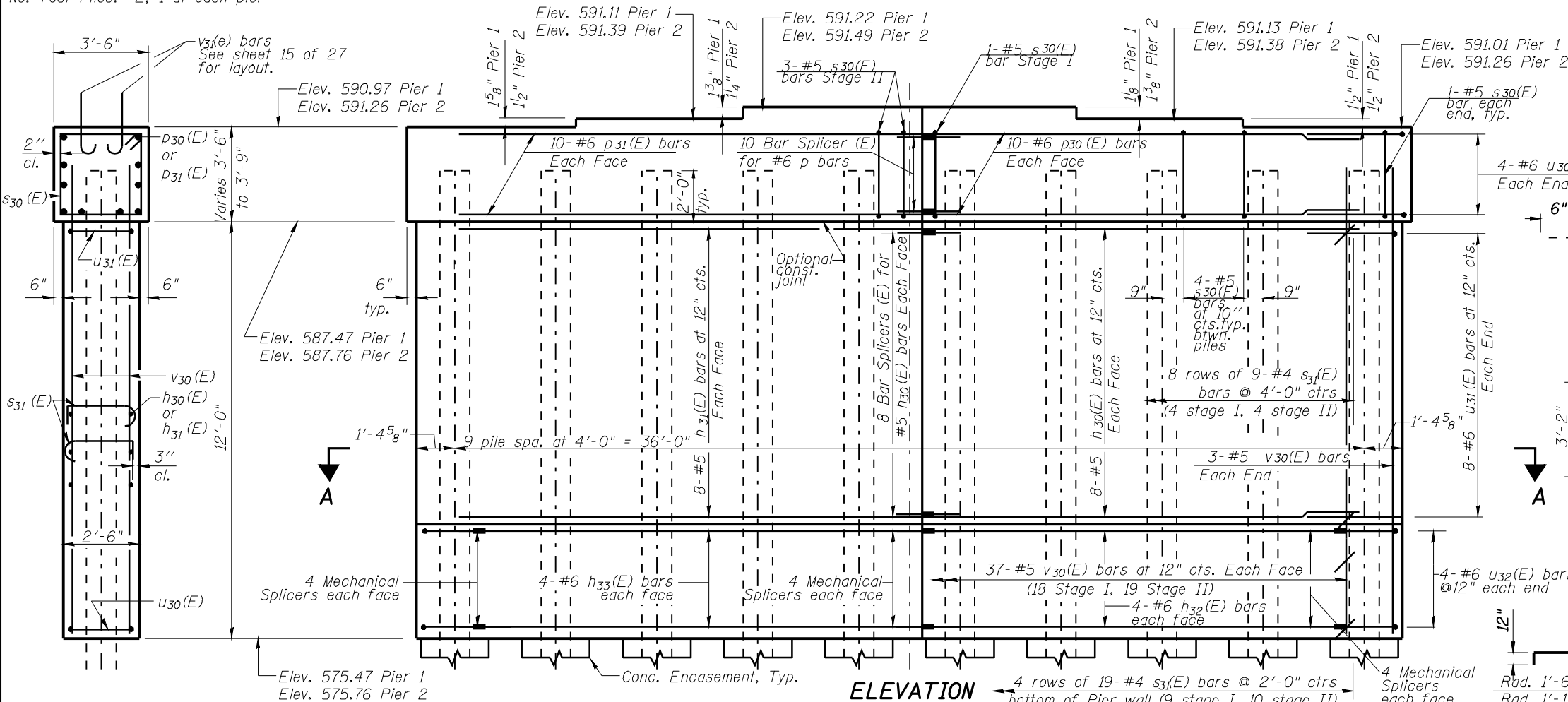
NOTES:

The contractor shall limit the pile hammer size selected considering the relatively high soil strengths indicated in the borings and avoid overdriving the piles beyond their nominal required bearing to prevent pile damage during driving.

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.

BILL OF MATERIAL - 2 PIERS

Bar	No.	Size	Length	Shape
h ₃₀ (E)	32	#5	17'-4"	—
h ₃₁ (E)	32	#5	18'-4"	—
h ₃₂ (E)	16	#6	14'-0"	—
h ₃₃ (E)	16	#6	15'-0"	—
p ₃₀ (E)	20	#6	17'-10"	—
p ₃₁ (E)	20	#6	18'-10"	—
s ₃₀ (E)	76	#5	13'-7"	□
s ₃₁ (E)	296	#4	3'-3"	J
u ₃₀ (E)	16	#6	14'-1"	U
u ₃₁ (E)	32	#6	12'-7"	U
u ₃₂ (E)	16	#6	10'-7"	U
v ₃₀ (E)	160	#5	14'-0"	—
v ₃₁ (E)	60	#8	4'-2"	J
Structure Excavation			Cu. Yd.	272
Concrete Structures			Cu. Yd.	119.0
Reinforcement Bars, Epoxy Coated			Pound	8,860
Furnishing Metal Shell Piles, 14" x 0.250"			Foot	702
Driving Piles			Foot	702
Test Pile, Metal Shell			Each	2
Concrete Encasement			Cu. Yd.	10.9
Bar Splicers			Each	52
Mechanical Splicers			Each	48
Underwater structure excavation protection - Location 1			Each	1
Underwater structure excavation protection - Location 2			Each	1

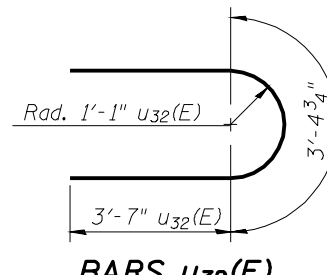


BAR s₃₁(E)

BAR s₃₀(E)

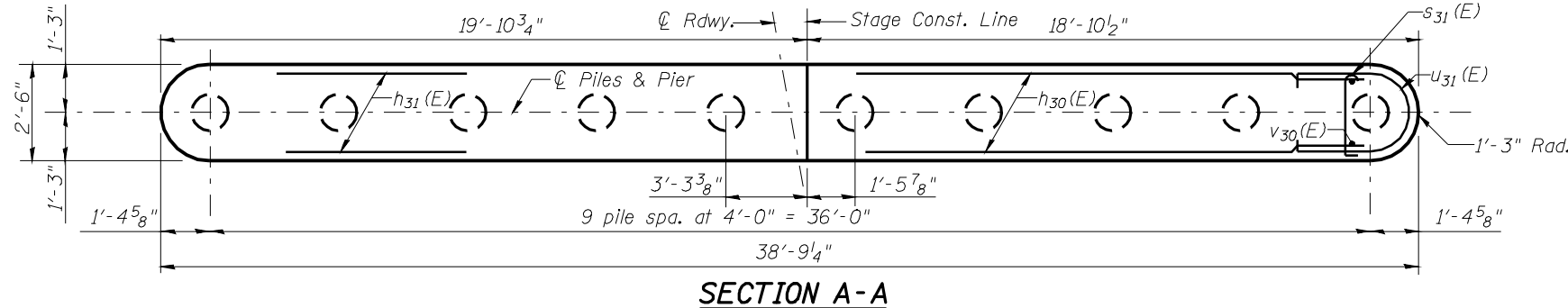
BARS u₃₀(E) & u₃₁(E)

BAR v₃₁(E)



**PIERS NUMBER 1 AND 2
 STRUCTURE NO. 054-0514**

END VIEW



SECTION A-A

USER NAME:	DESIGNED - RTM	REVISED -
	DRAWN - MSD	REVISED -
PLOT SCALE:	CHECKED - KEB	REVISED -
PLOT DATE:	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PIERS NUMBER 1 AND 2

SCALE: SHEET NO. 23 OF 27 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
717	109B-3	LOGAN	73	58
CONTRACT NO. 72A88				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		