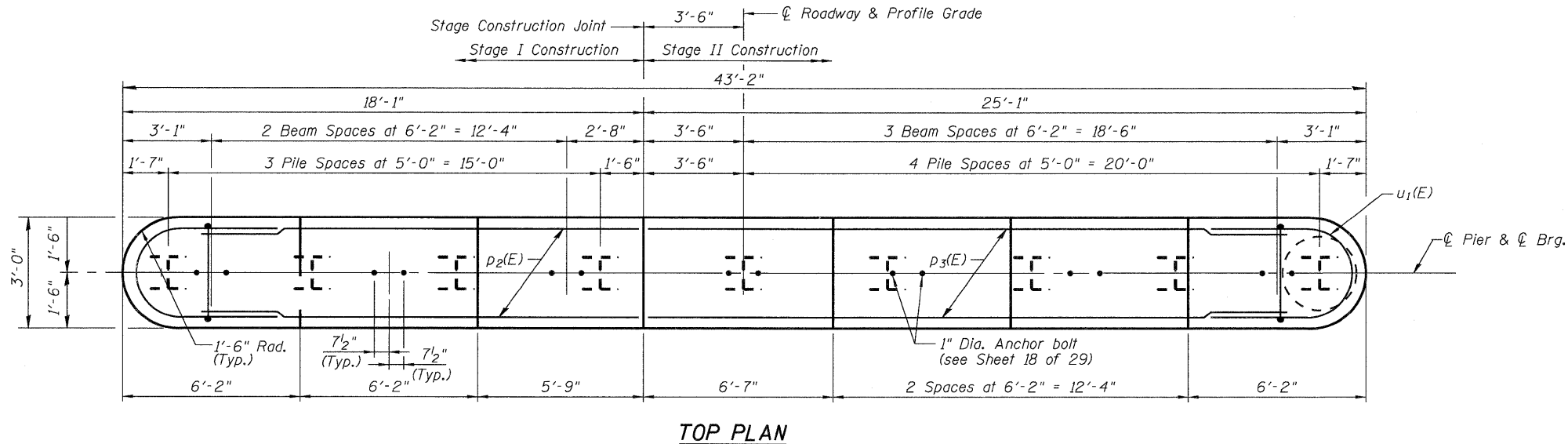
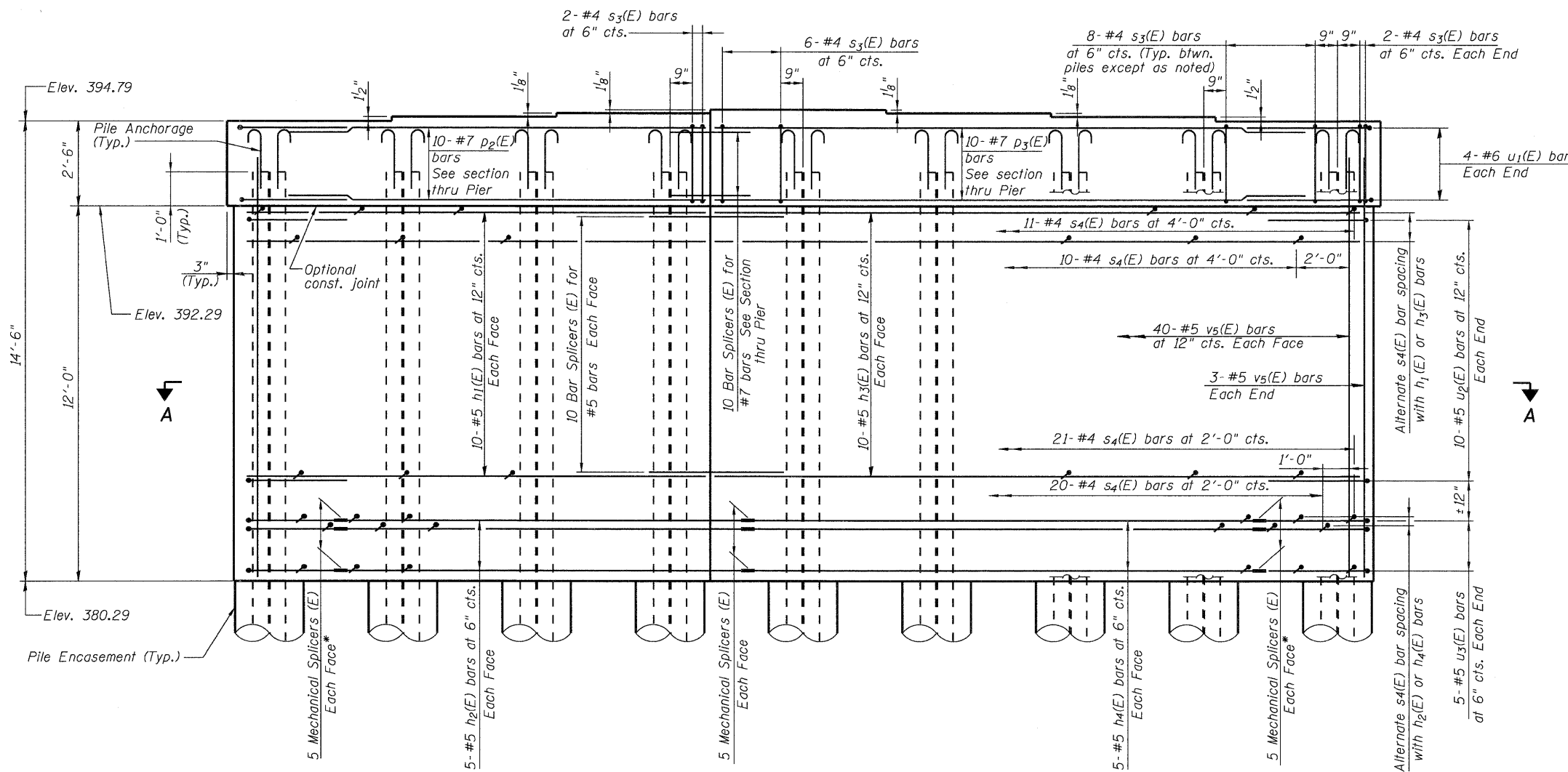


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TOP PLAN



ELEVATION
(Looking South)

PILE DATA

Type: Steel HP14x89
Nominal Required Bearing: 705 Kips
Factored Resistance Available: 308 Kips
Est. Length: 53 ft
No. Production Piles: 9
No. Test Piles: 0

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁ (E)	20	#5	16'-4"	—
h ₂ (E)	10	#5	14'-10"	—
h ₃ (E)	20	#5	23'-6"	—
h ₄ (E)	10	#5	20'-11"	—
p ₂ (E)	10	#7	16'-4"	—
p ₃ (E)	10	#7	23'-6"	—
s ₃ (E)	68	#4	10'-5"	□
s ₄ (E)	208	#4	2'-11"	┌
u ₁ (E)	8	#6	9'-3"	U
u ₂ (E)	20	#5	9'-4"	U
u ₃ (E)	10	#5	7'-8"	U
** v ₄	36	#5	2'-5"	┌
v ₅ (E)	86	#5	14'-0"	—
Structure Excavation			Cu. Yd.	151
Concrete Structures			Cu. Yd.	59.4
Concrete Encasement			Cu. Yd.	4.9
Reinforcement Bars, Epoxy Coated			Pound	4,540
Furnishing Steel Piles HP14x89			Foot	477
Driving Piles			Foot	477
Mechanical Splice			Each	30
Underwater Structure Excavation Protection - Location 2			Each	1

Notes:
Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
For sections thru the pier, see sheet 23 of 29.
For details of piles, see sheet 24 of 29.
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 the elevation of 1'-0" above the water line at the time of construction.
For details of bar splicers, see sheet 25 of 29.
For mechanical splice details, see the Special Provisions.

PIER 2 DETAILS
SN 028-0078

DESIGNED	RLM
CHECKED	AMS
DRAWN	AEC
CHECKED	RLM



09/25/09

* The Contractor has the option to use a mechanical splice or shop welded splice per AWS D1.4.
** See pile anchorage detail on sheet 23 of 29. Cost of v₄ bars is included with Furnishing Steel Piles HP14x89.

SHEET NO. 22 29 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	9481	12B1-1	FRANKLIN	304	148
SN 028-0078			CONTRACT NO. 98823		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					