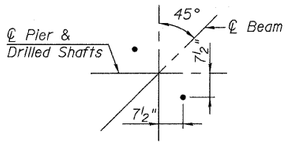
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

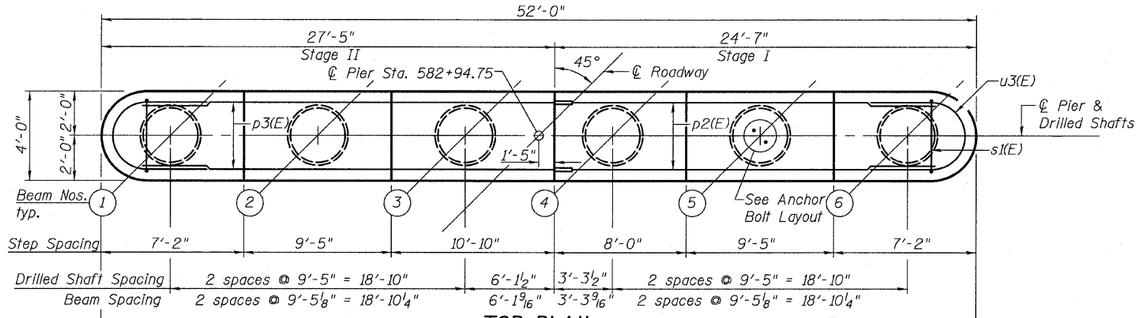
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	119BR	GRUNDY	68	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
27 SHEETS

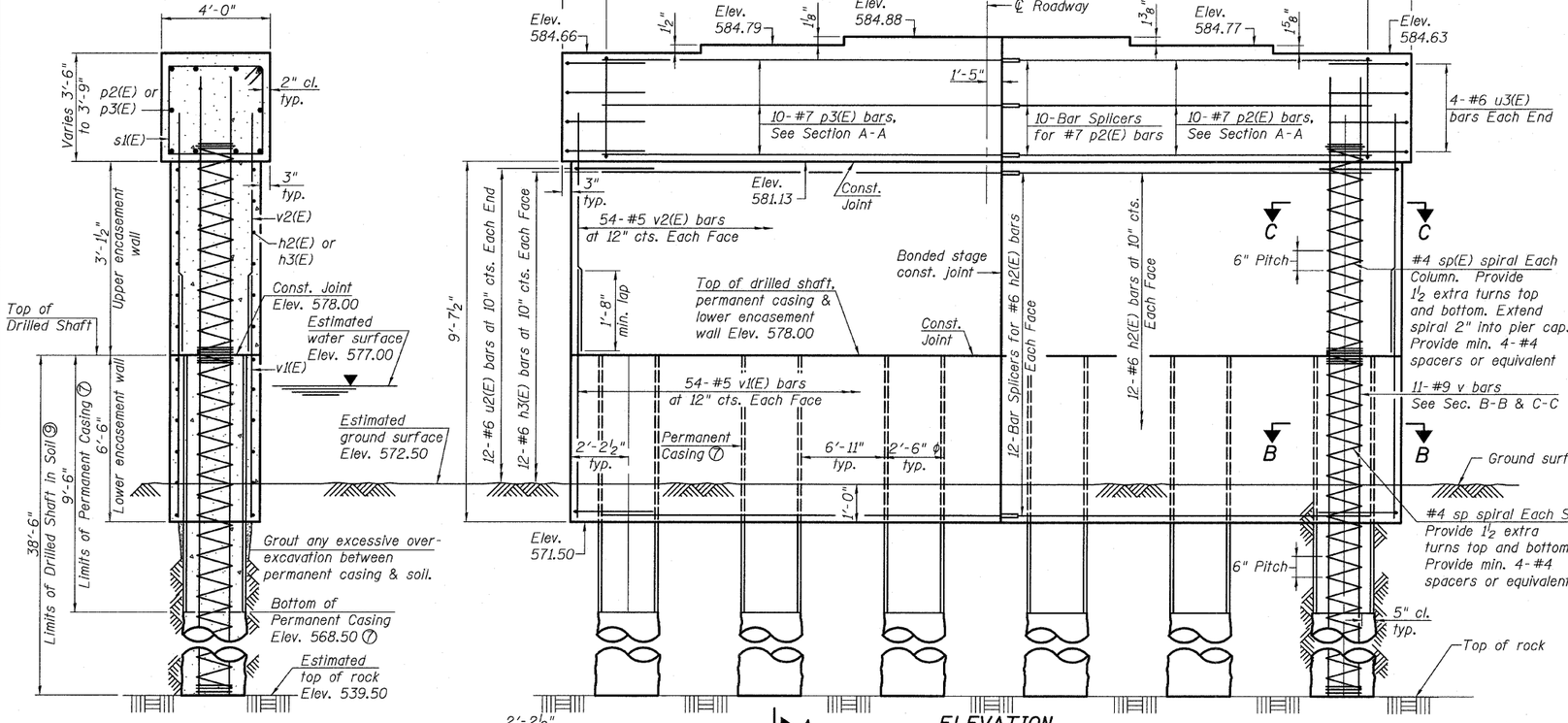
Contract #66687

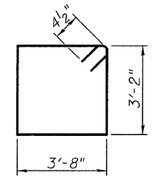


ANCHOR BOLT LAYOUT ④

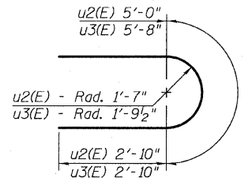


TOP PLAN





BAR s1(E)



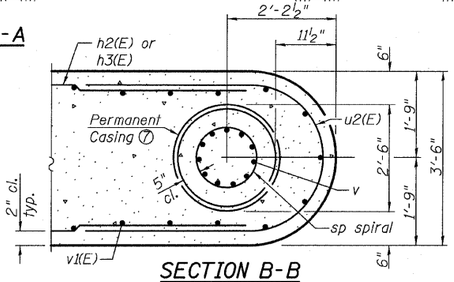
BARS u2(E) & u3(E)

BILL OF MATERIAL

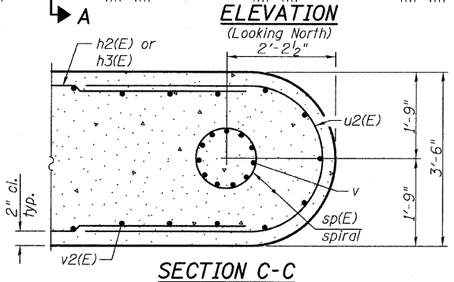
	Bar	No.	Size	Length	Shape
	h2(E)	24	#6	22'-5"	—
	h3(E)	24	#6	25'-3"	—
	p2(E)	10	#7	22'-5"	—
	p3(E)	10	#7	25'-3"	—
	s1(E)	33	#4	14'-5"	□
⑥	sp	6	#4	38'-6"	∿∿∿
⑤	sp(E)	6	#4	3'-4"	∿∿∿
	u2(E)	24	#6	10'-8"	⊃
	u3(E)	8	#6	11'-4"	⊃
	v	66	#9	44'-4"	—
	v1(E)	108	#5	8'-2"	—
	v2(E)	108	#5	4'-2"	—
	Structure Excavation		Cu. Yd.		15
	Concrete Structures		Cu. Yd.		83.9
	Reinforcement Bars		Pound		11,530
	Reinforcement Bars, Epoxy Coated		Pound		5,060
	Underwater Structure Excavation Protection, Location 2		Each		1
	Drilled Shaft in Soil		Cu. Yd.		42.0
	Permanent Casing		Foot		57

Notes:
① Pour steps monolithically with cap.
② For details of Bar Splicers, see sheet 23 of 27.
③ All edges shall have standard ¾" chamfer.
④ Space cap reinforcement to miss anchor bolts.
⑤ Minimum lap for spirals = 2'-0"
⑥ Length is height of spiral.
⑦ Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. If the required tip elevation is below the bottom of Permanent Casing elevation shown on the plans, a design submittal including plan details and calculations for the pier and foundation, sealed by an Illinois Structural Engineer, will be required for review and acceptance by the Engineer. Alternatively, the Contractor may utilize one of the other construction methods described in Article 516.06 of the Standard Specifications. Cost of alternative construction method, if used, shall be included in Drilled Shaft in Soil.
⑧ Pay limits for the Permanent Casing are based on the length shown. Contractor shall not be paid for Permanent Casing if an alternative construction method is used.
⑨ If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.
⑩ Exposed surface areas of the pier within 10'-0" of the outer edge of shoulder shall be treated with Concrete Sealer.

SECTION A-A



SECTION B-B



SECTION C-C

Construction Sequence for encasement walls:

1. Excavate through water, between and outside of shafts, to base of lower encasement wall.
2. Set lower encasement wall forms into place through water and secure at top and bottom as required to maintain proper clearance from shaft.
3. Place the lower encasement wall reinforcement cage into forms using spacers to maintain proper clearances from shaft and forms.
4. If the forms can be sealed against the stream bed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
5. Prepare construction joint at top of drilled shafts and lower encasement wall.
6. Splice upper encasement wall reinforcement and cage length to lower encasement and shaft reinforcement, form and pour upper encasement wall.

DESIGNED	DGL
CHECKED	MJP
DRAWN	DGL
CHECKED	MJP

PIER 2 DETAILS
IL 47 OVER JOHNNY RUN CREEK
FAP ROUTE 326 - SECTION 119BR
GRUNDY COUNTY
STATION 582+65.75
STRUCTURE NO. 032-0112

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