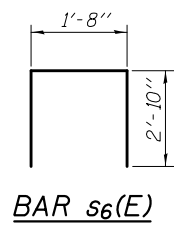


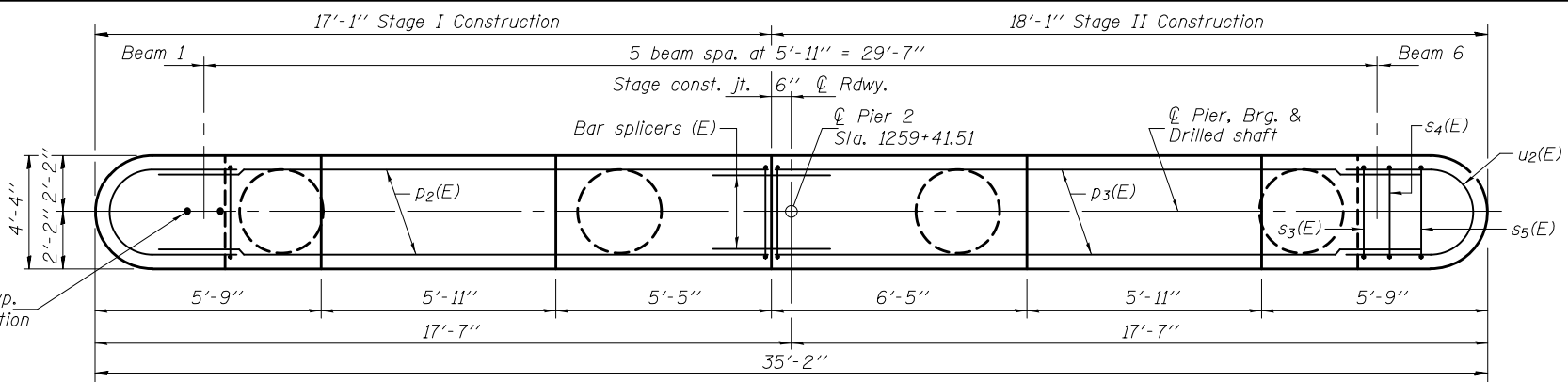
BARS s₃(E), s₄(E) & s₅(E)



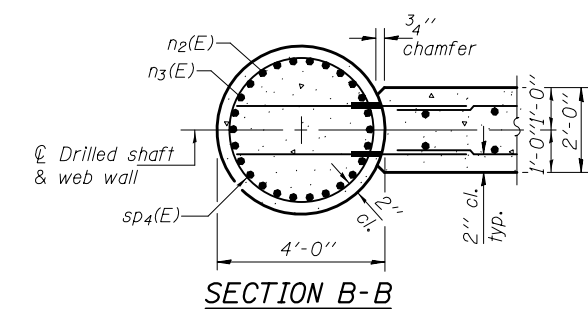
BAR s₆(E)

1/4" φ Anchor Bolt, typ.
See Detail A for location

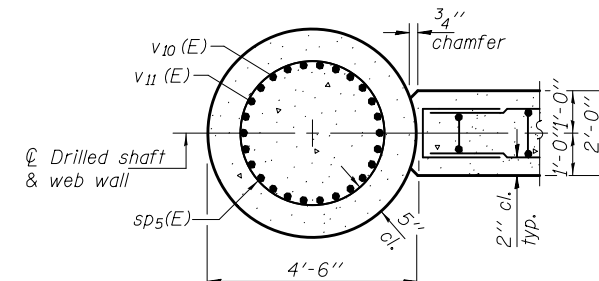
Note: When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
Center web wall shall be constructed during Stage II Construction.



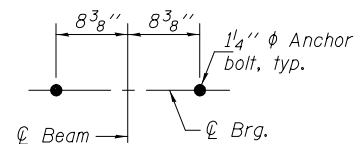
TOP PLAN



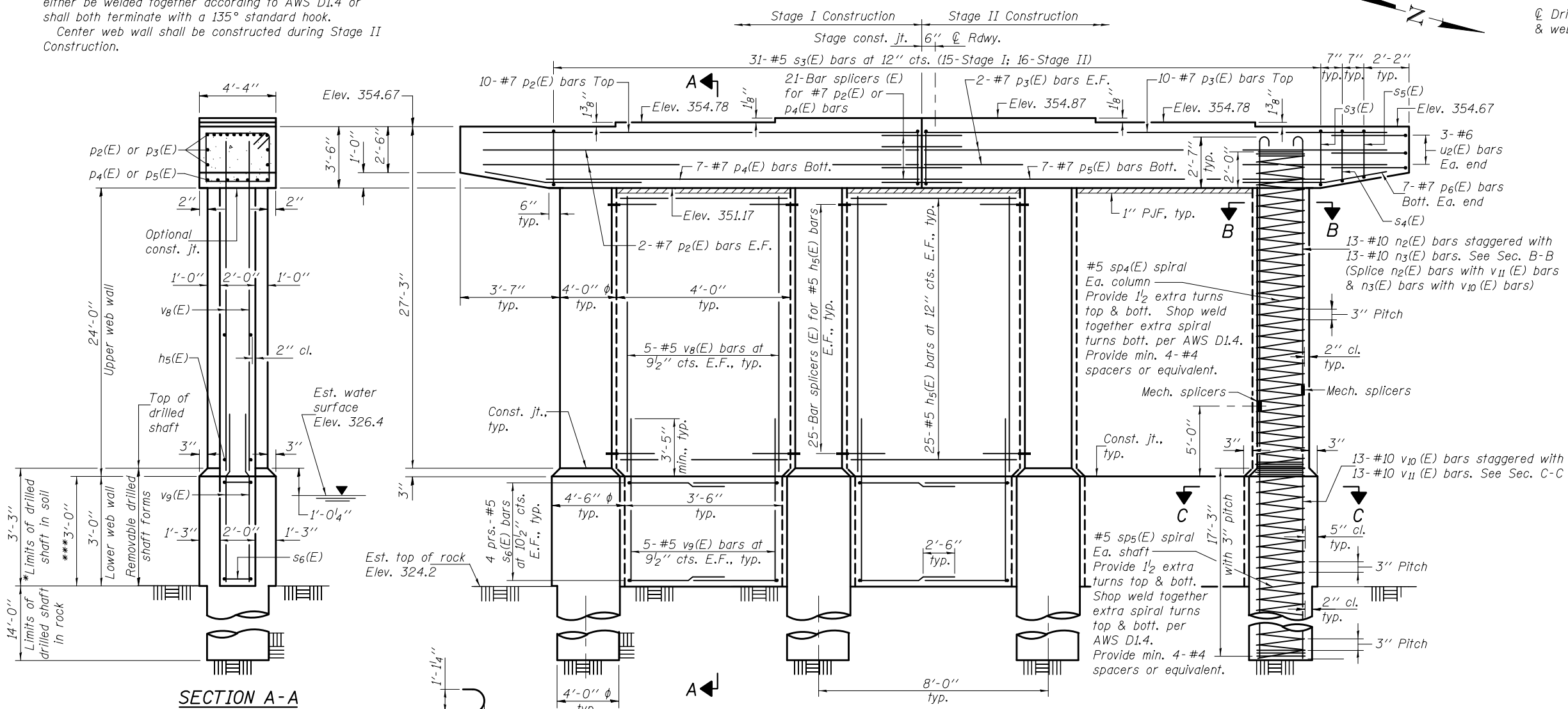
SECTION B-B



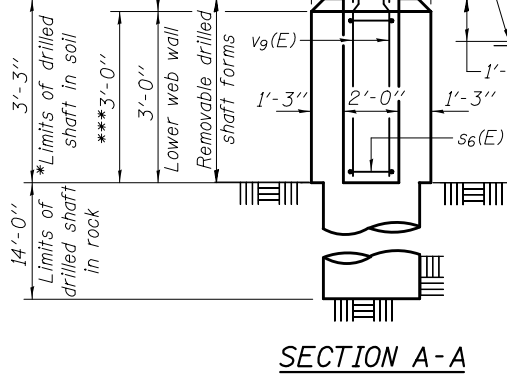
SECTION C-C



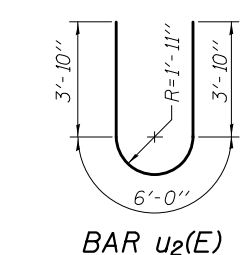
DETAIL A



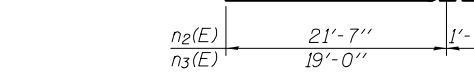
ELEVATION
(Looking west)



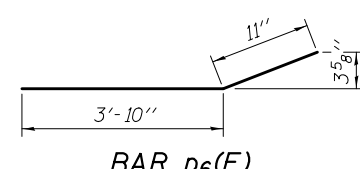
SECTION A-A



BAR u₂(E)



BARS n₂(E) & n₃(E)



BAR p₆(E)

*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.
***Splicing of reinforcement shall not be allowed in this region, typ. ea. column shaft.

- Construction Sequence for Web Wall:**
- Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
 - Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
 - If the forms can be sealed against the shafts and streambed 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.
 - Construct columns.
 - Construct upper web walls.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₅ (E)	150	#5	3'-8"	—
n ₂ (E)	52	#10	23'-0"	U
n ₃ (E)	52	#10	20'-5"	U
p ₂ (E)	14	#7	14'-9"	—
p ₃ (E)	14	#7	15'-9"	—
p ₄ (E)	7	#7	13'-10"	—
p ₅ (E)	7	#7	14'-10"	—
p ₆ (E)	14	#7	4'-9"	—
s ₃ (E)	31	#5	15'-3"	□
s ₄ (E)	2	#5	15'-1"	□
s ₅ (E)	2	#5	14'-7"	□
s ₆ (E)	24	#5	7'-4"	□
sp ₄ (E)	4	#5	25'-9"	~
sp ₅ (E)	4	#5	17'-3"	~
u ₂ (E)	6	#6	13'-8"	U
v ₈ (E)	30	#5	23'-7"	—
v ₉ (E)	30	#5	6'-6"	—
v ₁₀ (E)	52	#10	24'-4"	—
v ₁₁ (E)	52	#10	21'-9"	—
Concrete Structures	Cu. Yd.	87.5		
Reinforcement Bars, Epoxy Coated	Pound	24000		
Drilled Shaft in Soil	Cu. Yd.	7.7		
Drilled Shaft in Rock	Cu. Yd.	26.1		

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
*Length is height of spiral.

DESIGNED - Nicholas R. Barnett
CHECKED - Michael D. Rolape
DRAWN - h.t. duong
CHECKED - NRB/MDR

EXAMINED - *Thomas J. Domagalicki*
PASSED - *Michael D. Rolape*
ENGINEER OF BRIDGES AND STRUCTURES

DATE - MARCH 20, 2012
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2
STRUCTURE NO. 076-0031

SHEET NO. 21 OF 25 SHEETS

F.A.P. RT. SECTION COUNTY TOTAL SHEETS SHEET NO.
885 6B-2 POPE 51 38
CONTRACT NO. 78168
ILLINOIS FED. AID PROJECT