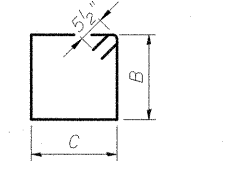


**BARS s24(E), s25(E) & s27(E)**

Bar	A
s24(E)	2'-6 1/2"
s25(E)	2'-2"
s27(E)	2'-11 1/4"



**BARS s26(E) & s28(E) thru s31(E)**

Bar	B	C
s26(E)	5'-8"	5'-0"
s28(E)	3'-4 1/2"	2'-7"
s29(E)	3'-11 1/2"	2'-7"
s30(E)	3'-9 3/4"	2'-7"
s31(E)	3'-7 1/4"	2'-7"

**MINIMUM BAR LAP**  
 #5(E) Bar = 3'-3"  
 #6(E) Bar = 3'-10"  
 #7(E) Bar = 5'-2"  
 #8(E) Bar = 6'-9"

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h20(E)	24	#5	25'-9"	—
h21(E)	48	#6	22'-8"	—
p20(E)	32	#8	31'-9"	—
p21(E)	16	#8	20'-9"	—
p22(E)	8	#7	33'-2"	—
p23(E)	16	#7	24'-0"	—
p24(E)	4	#5	12'-7"	—
p27(E)	4	#5	11'-5"	—
p28(E)	4	#5	16'-0"	—
s24(E)	32	#5	7'-8"	—
s25(E)	12	#5	6'-11"	—
s26(E)	61	#5	22'-3"	—
s27(E)	44	#5	8'-6"	—
s28(E)	28	#5	12'-10"	—
s29(E)	58	#5	14'-0"	—
s30(E)	22	#5	13'-9"	—
s31(E)	16	#5	13'-4"	—
sp(E)	5	#5	47'-9"	—
sp1(E)	5	#5	24'-7"	—
u20(E)	7	#5	11'-10"	—
u21(E)	10	#5	15'-4"	—
v20(E)	50	#11	24'-0"	—
v21(E)	50	#11	25'-7"	—
v23(E)	100	#11	28'-3"	—
v26(E)	50	#11	21'-0"	—
v27(E)	50	#11	28'-7"	—
Structure Excavation		Cu. Yd.	48.0	
Concrete Structures		Cu. Yd.	321.1	
Reinforcement Bars, Epoxy Coated		Pound	53,900	
Mechanical Splicers		Each	100	
Drilled Shaft in Soil		Cu. Yd.	149.1	
Drilled Shaft in Rock		Cu. Yd.	14.7	

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

\* The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.

\*\* Allowable substitution:  
 Provide 1/2 extra turns top and bottom with 135° standard hook into core at ends of spiral

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

USER NAME = Gary Davis	DESIGNED - MCC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PIER 2 DETAILS STRUCTURE NO. 100-0093 (W.B.)</b>	F.A.P. RTE. 331	SECTION (1X-1VB-1)	COUNTY WILLIAMSON	TOTAL SHEETS 367	SHEET NO. 197	
PLOT SCALE =	CHECKED - ATI	REVISED -			SHEET NO. S-310F S-41 SHEETS		CONTRACT NO. 98859		ILLINOIS FED. AID PROJECT	
PLOT DATE = 1/10/2012	DRAWN - GLD	REVISED -								
	CHECKED - ATI	REVISED -								