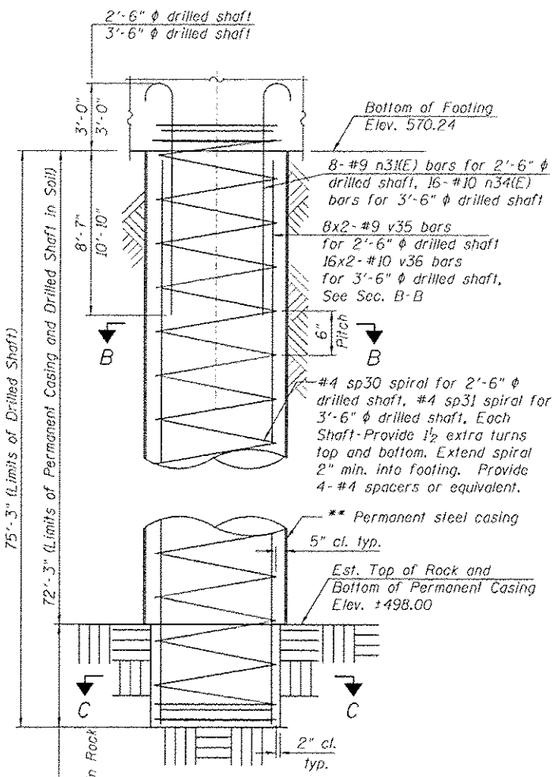
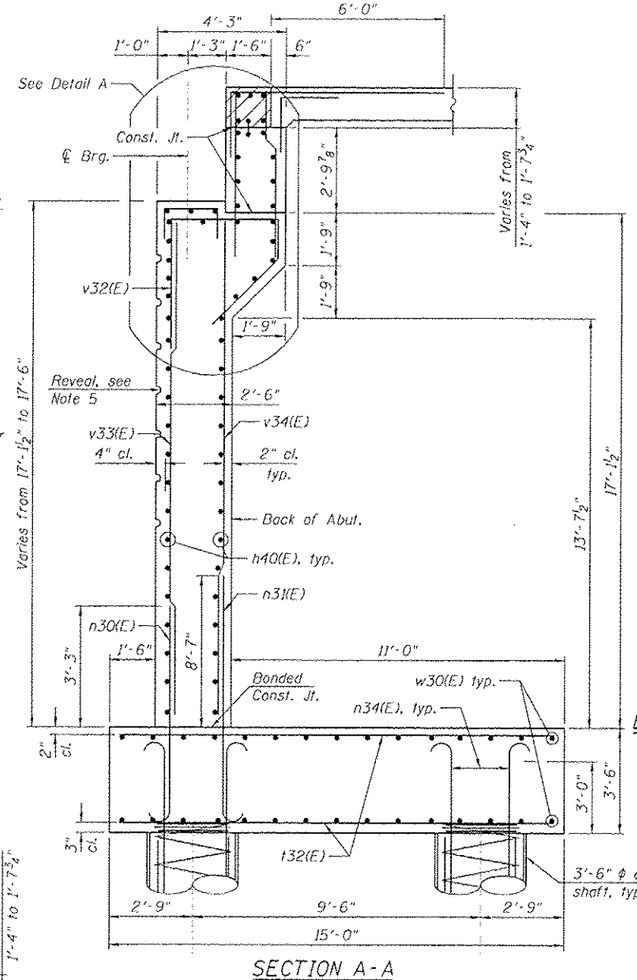
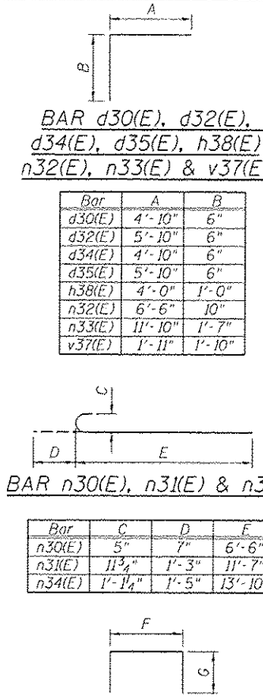


DRILLED SHAFT



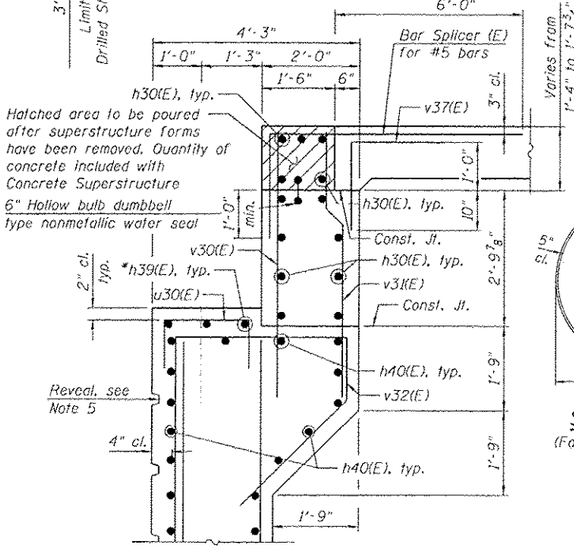
SECTION A-A



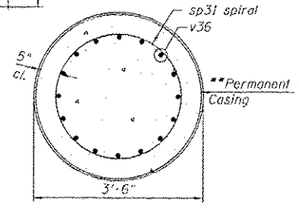
Bar	A	B
d30(E)	4'-10"	6"
d32(E)	5'-10"	6"
d34(E)	4'-10"	6"
d35(E)	5'-10"	6"
h38(E)	4'-0"	1'-0"
n32(E)	6'-6"	10"
n33(E)	11'-10"	1'-7"
v37(E)	1'-11"	1'-10"

Bar	C	D	E
n30(E)	5"	7"	6'-6"
n31(E)	11¾"	1'-3"	11'-7"
n34(E)	1'-1¼"	1'-5"	13'-10"

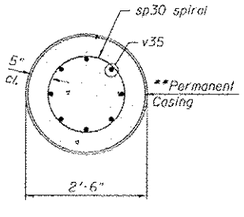
Bar	F	G
d31(E)	1'-1"	9"
e33(E)	2'-2"	1'-0"
u30(E)	1'-9"	1'-0"



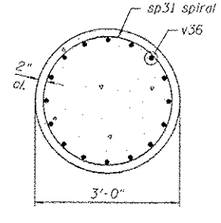
DETAIL A



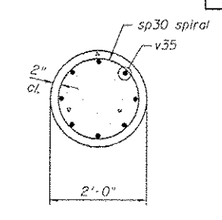
SECTION B-B
(For 3'-6" ϕ drilled shaft)



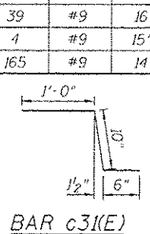
SECTION B-B
(For 2'-6" ϕ drilled shaft)



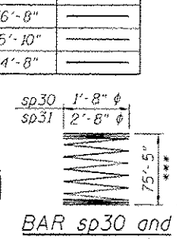
SECTION C-C
(For 3'-6" ϕ drilled shaft)



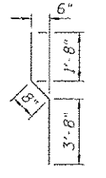
SECTION C-C
(For 2'-6" ϕ drilled shaft)



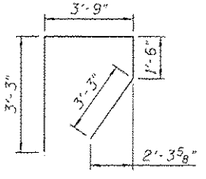
BAR c31(E)



BAR sp30 and sp31



BAR v31(E)



BAR v32(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b30(E)	11	#5	1'-2"	
c30(E)	3	#5	9'-6"	
c31(E)	3	#5	2'-4"	
d30(E)	42	#5	5'-4"	
d31(E)	60	#5	2'-7"	
d32(E)	4	#5	6-4"	
d33(E)	14	#5	5'-9"	
d34(E)	76	#7	5'-4"	
d35(E)	6	#7	6'-4"	
d36(E)	26	#7	7'-8"	
e30(E)	8	#4	19'-11"	
e31(E)	8	#4	21'-3"	
e32(E)	8	#4	11'-10"	
e33(E)	4	#4	4'-2"	
h30(E)	26	#5	31'-3"	
h31(E)	46	#5	11'-9"	
h32(E)	2	#5	11'-10"	
h33(E)	8	#5	20'-3"	
h34(E)	8	#5	21'-6"	
h35(E)	8	#5	1'-11"	
h36(E)	24	#5	7'-7"	
h37(E)	12	#5	6'-0"	
h38(E)	48	#5	5'-0"	
h39(E)	3	#5	9'-8"	
h40(E)	84	#5	32'-2"	
n30(E)	62	#5	7'-1"	
n31(E)	139	#9	12'-10"	
n32(E)	13	#5	7'-4"	
n33(E)	25	#9	13'-5"	
n34(E)	224	#10	15'-3"	
*** sp30	2	#4	75'-5"	
*** sp31	14	#4	75'-5"	
t30(E)	39	#9	16'-8"	
t31(E)	4	#9	15'-10"	
t32(E)	165	#9	14'-8"	

BILL OF MATERIAL (CONT'D)

Bar	No.	Size	Length	Shape
u30(E)	11	#4	3'-9	
v30(E)	61	#5	6'-1"	
v31(E)	61	#5	6'-0"	
v32(E)	61	#5	11'-9"	
v33(E)	62	#5	16'-11"	
v34(E)	123	#9	16'-11"	
v35	32	#9	41'-9"	
v36	448	#10	42'-11"	
v37(E)	61	#5	3'-9"	
v38(E)	13	#5	21'-9"	
v39(E)	25	#9	21'-9"	
v40(E)	6	#5	6'-1"	
v41(E)	36	#5	4'-3"	
w30(E)	64	#7	35'-5"	
w31(E)	8	#7	11'-8"	

Concrete Structures	Cu Yd	278.5
Concrete Superstructure	Cu Yd	12.7
Protective Coat	Sq Yd	25
Reinforcement Bars, Epoxy Coated	Pound	96,570
	Pound	59,000
Permanent Casing	Foot	1,156
Drilled Shaft in Soil	Cu Yd	388
Drilled Shaft in Rock	Cu Yd	12
Concrete Sealer	Sq Ft	1,953
Geocomposite Wall Drain	Sq Yd	171
Braced Excavation	Cu Yd	1,300
Granular Backfill for Structures	Cu Yd	225
Pipe Underdrains for Structures 6"	Foot	84

*** Length is height of spiral

* Space h39(E) bars to miss anchor bolts.

** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on the minimum length shown.

NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths of bars per line.
3. Apply concrete sealer to all exposed concrete surfaces of the abutment.
4. All edges shall have standard ¾" chamfer.
5. For reveal details, see Sheet S1-36.

Minimum Bar Laps	
Bar	Lap
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#8	6'-9"
#9	8'-7"
#10	10'-10"

⚠ Entire sheet revised

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FILE PATH = C:\Users\will.merdouss\Desktop\Projects for The Dot\016I709-68W25-S34-NorthAbut3.dgn

016I709-68W25-S34-NorthAbut3.dgn	DESIGNED - MI, MAI	REVISED - ⚠ 07/19/2013 MI, LAB
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PLOT SCALE = 360.0000 '/ in.	CHECKED - MAI, MI, WM	REVISED -
PLOT DATE = 7/15/2013	DATE - 6/17/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT SECTIONS AND DETAILS
STRUCTURE NO. 016-1709

SCALE: | SHEET S1-34 OF S1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-007R	COOK	317	178
		CONTRACT NO. 60W25		
ILLINOIS	FED. AID PROJECT			