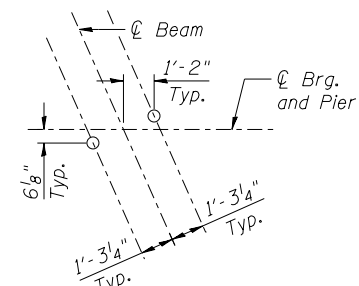
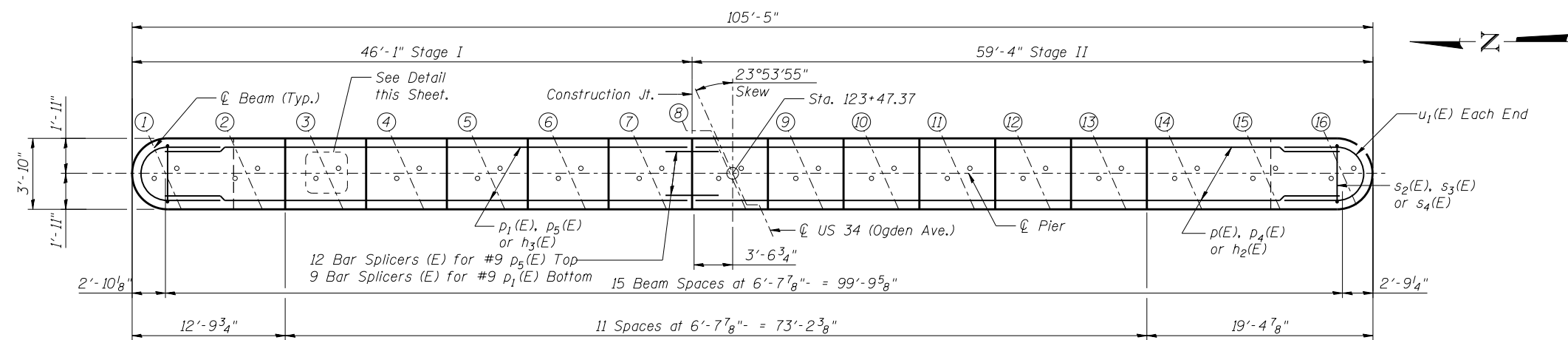


SEAT ELEVATIONS

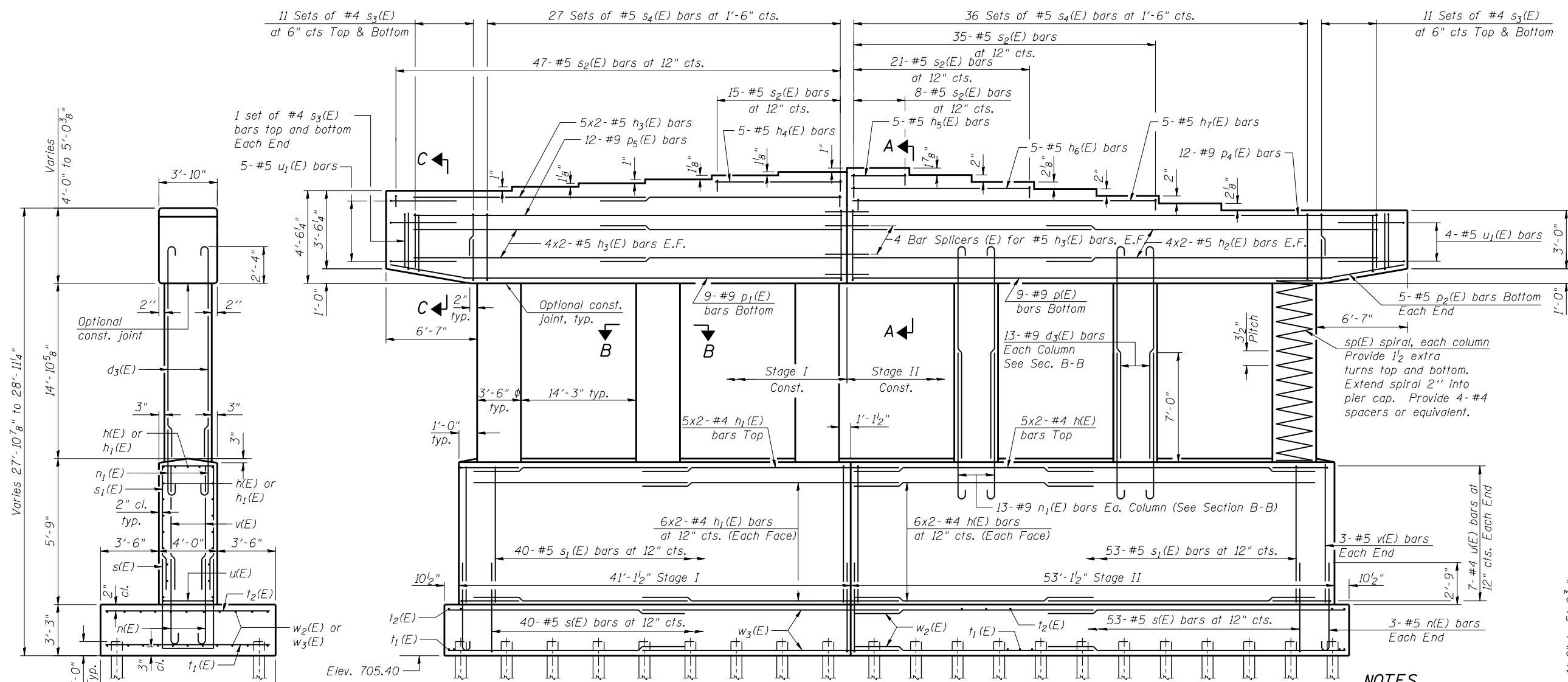
Beam Line	Seat Elevation
1	733.81
2	733.81
3	733.89
4	733.98
5	734.06
6	734.15
7	734.24
8	734.32
9	734.16
10	733.99
11	733.81
12	733.64
13	733.47
14	733.29
15	733.29
16	733.29



ANCHOR BOLT LAYOUT



TOP PLAN

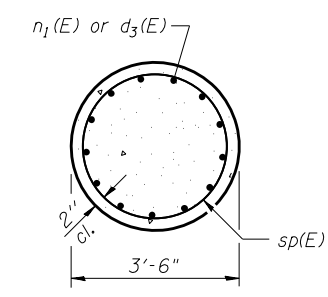


ELEVATION
(Looking East)

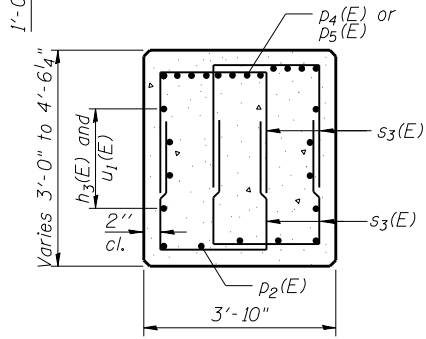
MINIMUM BAR LAP

TOP BARS	OTHER BARS
#4 bar = 2'-4"	#4 bar = 2'-1"
#5 bar = 2'-11"	#5 bar = 2'-7"
#9 bar = 9'-8"	#9 bar = 6'-10"

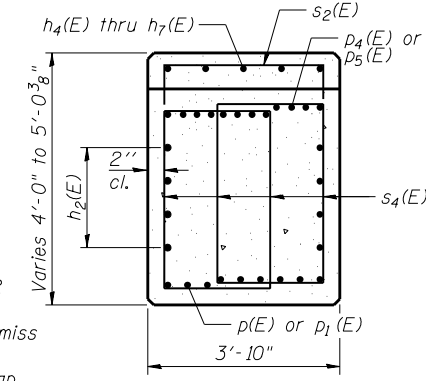
- NOTES**
1. Bars indicated 6x2-#4 etc. indicates 6 lines of bars with 2 lengths per line.
 2. Space reinforcement in cap to miss anchor bolts.
 3. Pour steps monolithically with cap.
 4. For details of piles, see Sheet S-41.



SEC. B-B



SEC. C-C



SEC. A-A



USER NAME =
DESIGNED - KMP
CHECKED - AMK
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - AMK

DESIGNED - KMP
CHECKED - AMK
DRAWN - KMP
CHECKED - AMK

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1
STRUCTURE NO. 022-0512

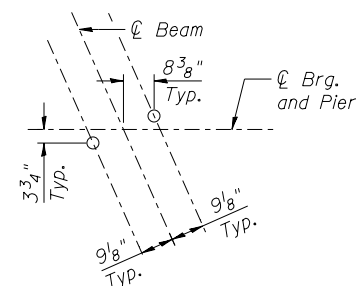
SHEET NO. S-38 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	201

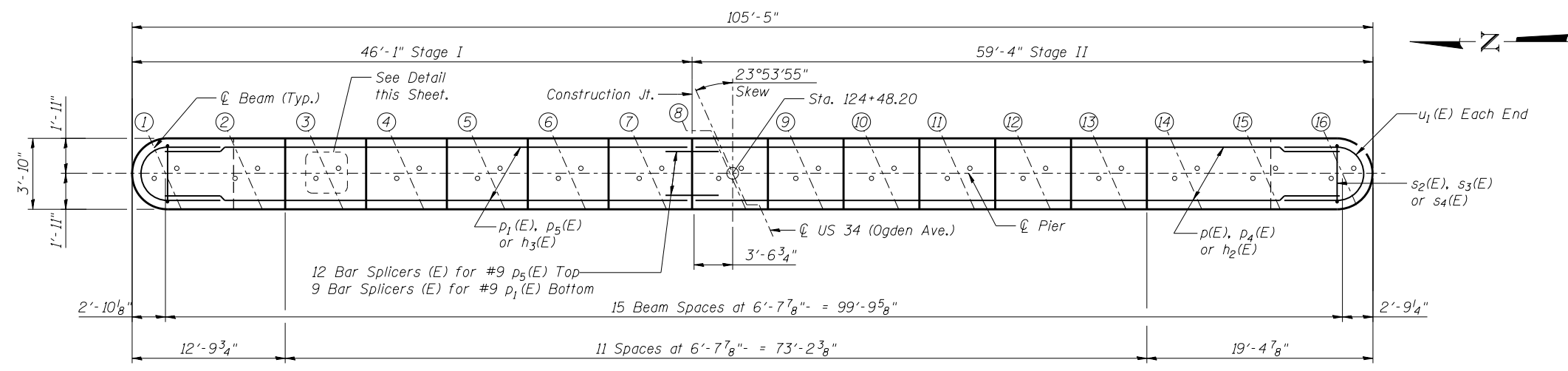
CONTRACT NO. 60R06
ILLINOIS FED. AID PROJECT

SEAT ELEVATIONS

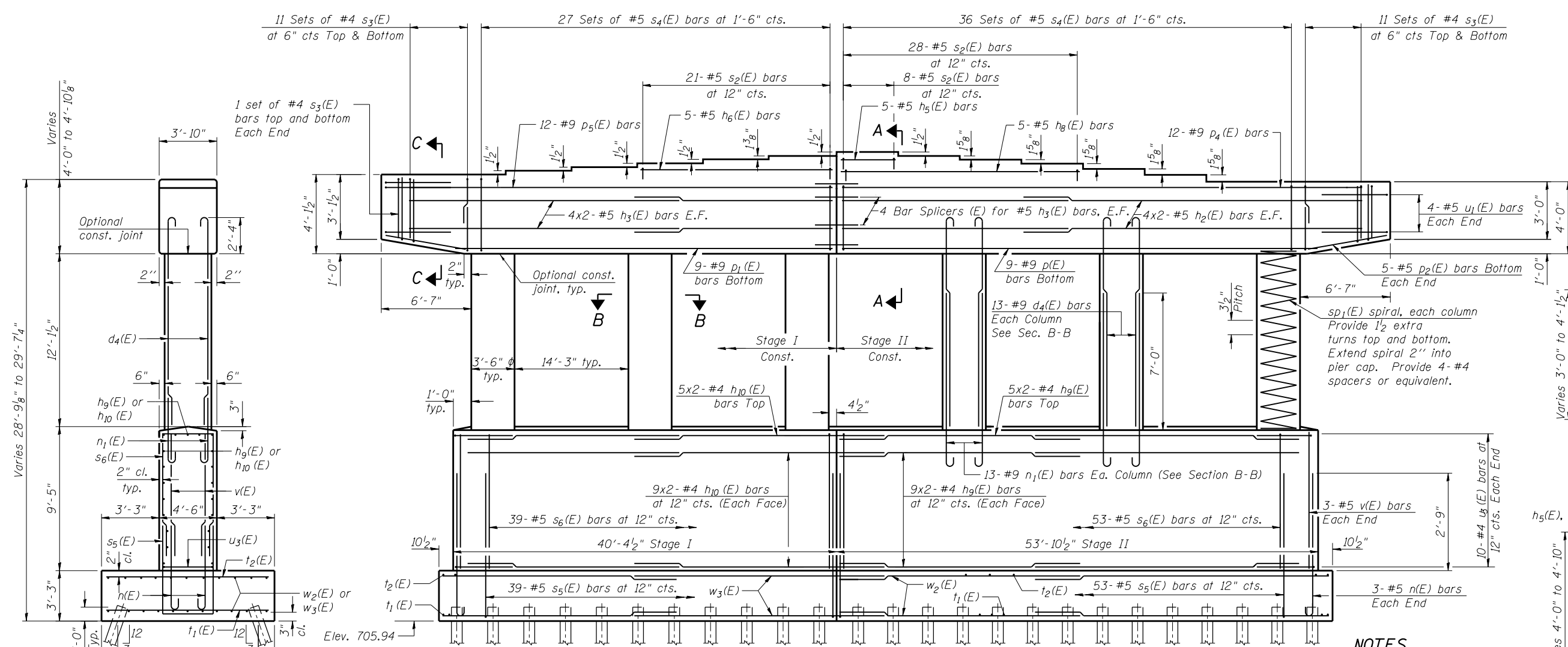
Beam Line	Seat Elevation
1	734.85
2	734.85
3	734.97
4	735.09
5	735.21
6	735.33
7	735.44
8	735.56
9	735.43
10	735.29
11	735.15
12	735.01
13	734.87
14	734.73
15	734.73
16	734.73



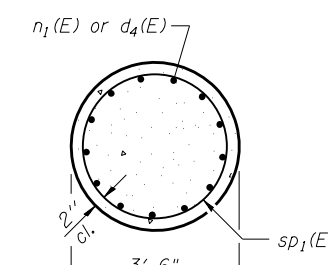
ANCHOR BOLT LAYOUT



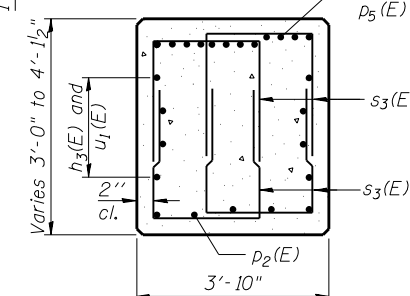
TOP PLAN



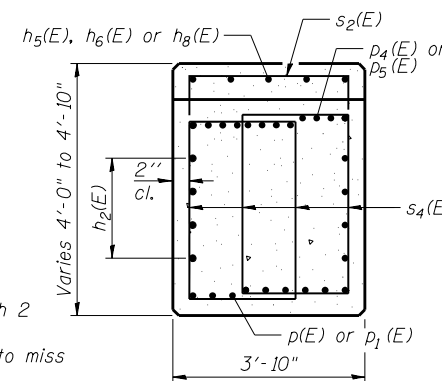
ELEVATION
(Looking East)



SEC. B-B



SEC. C-C



SEC. A-A

NOTES

1. Bars indicated 6x2-#4 etc. indicates 6 lines of bars with 2 lengths per line.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For details of piles, see Sheet S-41.

MINIMUM BAR LAP

TOP BARS	OTHER BARS
#4 bar = 2'-4"	#4 bar = 2'-1"
#5 bar = 2'-11"	#5 bar = 2'-7"
#9 bar = 9'-8"	#9 bar = 6'-10"

END SECTION
See Sheet S-40 for battered pile locations

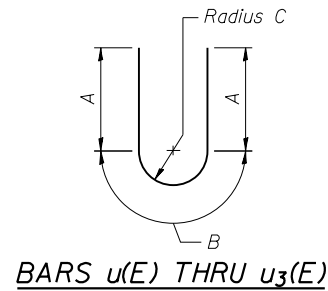


USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

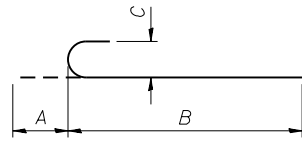
PIER 2
STRUCTURE NO. 022-0512
SHEET NO. S-39 OF S-53 SHEETS

F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPage	TOTAL SHEETS 383	SHEET NO. 202
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



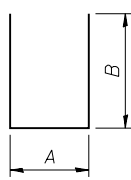
BARS $u(E)$ THRU $u_3(E)$

Bar	A	B	C
$u(E)$	2'-4"	5'-9"	1'-10"
$u_1(E)$	2'-11"	5'-6"	1'-9"
$u_2(E)$	9'-8"	5'-6"	1'-9"
$u_3(E)$	2'-4"	6'-7"	2'-1"



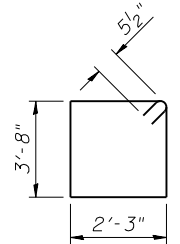
BARS $n(E)$, $n_1(E)$, $d_3(E)$ & $d_4(E)$

Bar	A	B	C
$n(E)$	7"	5'-10"	5"
$n_1(E)$	1'-3"	9'-4"	11 $\frac{3}{4}$ "
$d_3(E)$	1'-3"	17'-4"	11 $\frac{3}{4}$ "
$d_4(E)$	1'-3"	15'-7"	11 $\frac{3}{4}$ "



BARS $s(E)$ THRU $s_3(E)$, $s_5(E)$ and $s_6(E)$

Bar	A	B
$s(E)$	3'-8"	5'-9"
$s_1(E)$	3'-8"	5'-2"
$s_2(E)$	3'-6"	1'-0"
$s_3(E)$	2'-3"	3'-1"
$s_5(E)$	4'-2"	5'-9"
$s_6(E)$	4'-2"	8'-11"



BAR $s_4(E)$

BILL OF MATERIAL - PIER 1

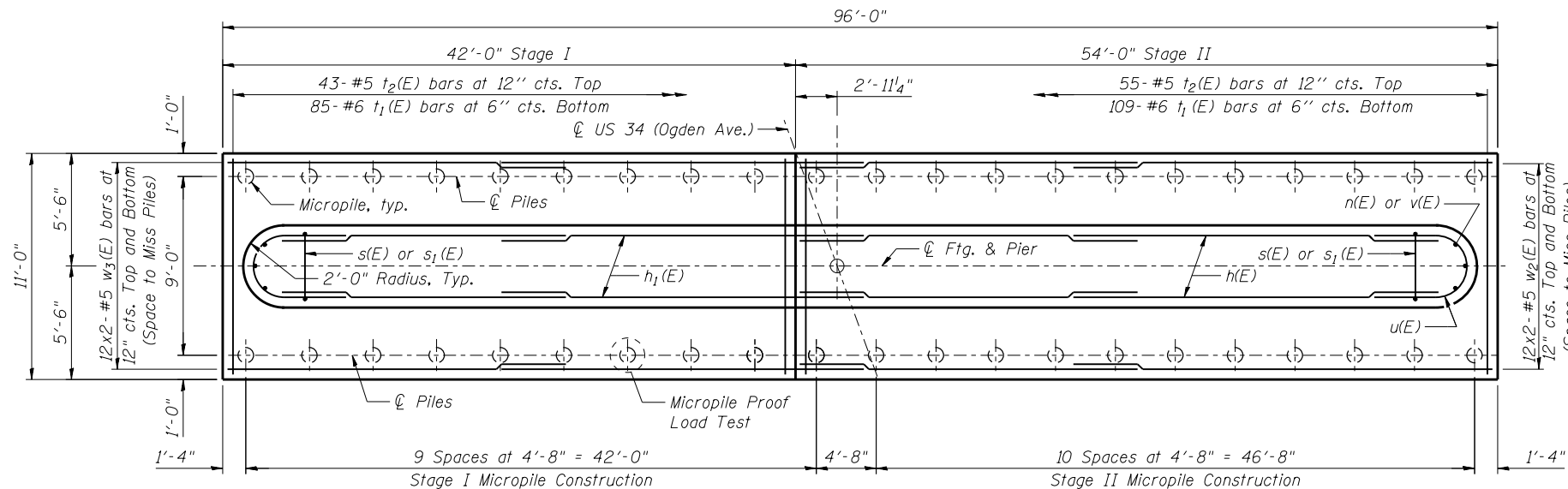
Bar	No.	Size	Length	Shape
$d_3(E)$	78	#9	18'-7"	U
$h(E)$	34	#4	27'-9"	—
$h_1(E)$	34	#4	23'-0"	—
$h_2(E)$	16	#5	30'-3"	—
$h_3(E)$	26	#5	23'-6"	—
$h_4(E)$	5	#5	13'-0"	—
$h_5(E)$	5	#5	6'-3"	—
$h_6(E)$	5	#5	19'-7"	—
$h_7(E)$	5	#5	32'-11"	—
$n(E)$	6	#5	6'-4"	U
$n_1(E)$	78	#9	10'-7"	U
$p(E)$	9	#9	52'-9"	—
$p_1(E)$	9	#9	39'-6"	—
$p_2(E)$	10	#5	6'-4"	—
$p_4(E)$	12	#9	57'-2"	—
$p_5(E)$	12	#9	43'-11"	—
$s(E)$	93	#5	15'-2"	U
$s_1(E)$	93	#5	14'-0"	U
$s_2(E)$	126	#5	5'-6"	U
$s_3(E)$	96	#4	8'-5"	U
$s_4(E)$	126	#5	12'-9"	□
$sp(E)$	6	#4	15'-2"	W
$t_1(E)$	194	#6	10'-8"	—
$t_2(E)$	98	#5	10'-8"	—
$u(E)$	14	#4	10'-5"	U
$u_1(E)$	9	#5	11'-4"	U
$v(E)$	6	#5	5'-5"	—
$w_2(E)$	24	#5	28'-9"	—
$w_3(E)$	24	#5	24'-0"	—
Structure Excavation		Cu. Yd.	223	
Concrete Structures		Cu. Yd.	305.1	
Reinforcement Bars, Epoxy Coated		Pounds	31,180	
Bar Splicers		Each	29	
Micro-Piles		Each	42	
Micro-Pile Proof Load Test		Each	1	

** Length is height of spiral.

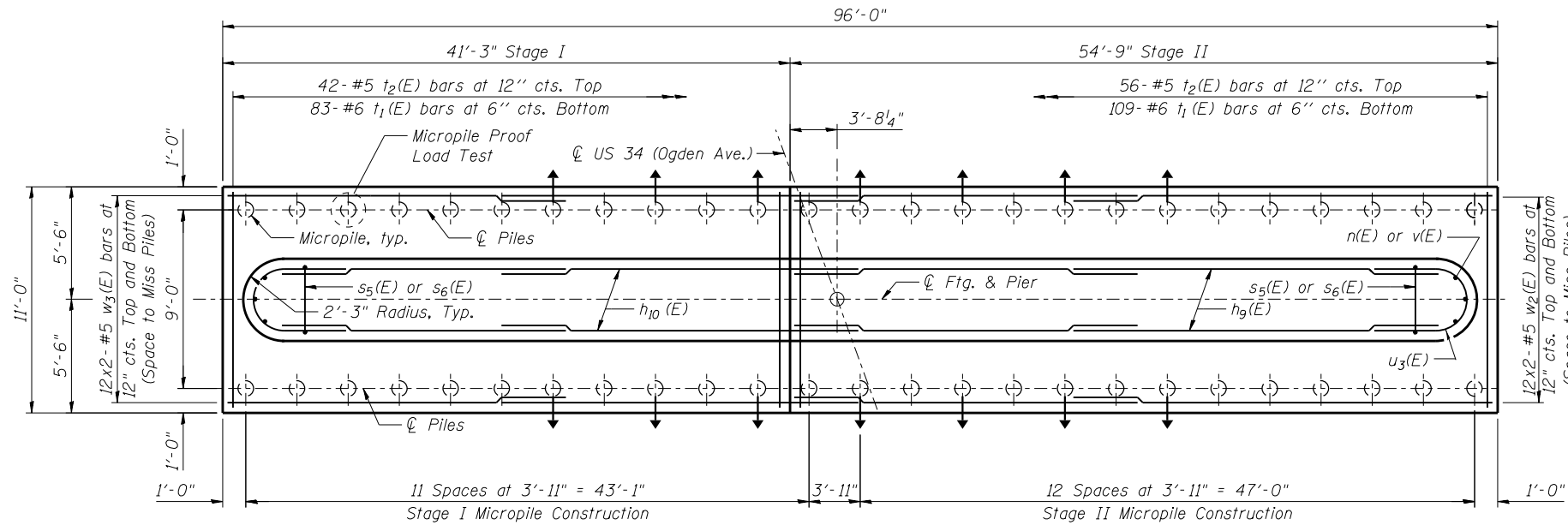
BILL OF MATERIAL - PIER 2

Bar	No.	Size	Length	Shape
$d_4(E)$	78	#9	15'-10"	U
$h_2(E)$	16	#5	30'-3"	—
$h_3(E)$	16	#5	23'-6"	—
$h_5(E)$	5	#5	6'-3"	—
$h_6(E)$	5	#5	19'-7"	—
$h_8(E)$	5	#5	26'-3"	—
$h_9(E)$	46	#4	28'-0"	—
$h_{10}(E)$	46	#4	22'-9"	—
$n(E)$	6	#5	6'-5"	U
$n_1(E)$	78	#9	10'-7"	U
$p(E)$	9	#9	52'-9"	—
$p_1(E)$	9	#9	39'-6"	—
$p_2(E)$	10	#5	6'-4"	—
$p_4(E)$	12	#9	57'-2"	—
$p_5(E)$	12	#9	43'-11"	—
$s_2(E)$	57	#5	5'-6"	U
$s_3(E)$	96	#4	8'-5"	U
$s_4(E)$	126	#5	12'-9"	□
$s_5(E)$	92	#5	15'-8"	U
$s_6(E)$	92	#5	22'-0"	U
$sp_1(E)$	6	#4	12'-5"	W
$t_1(E)$	192	#6	10'-8"	—
$t_2(E)$	98	#5	10'-8"	—
$u_1(E)$	8	#5	11'-4"	U
$u_3(E)$	20	#4	11'-3"	U
$v(E)$	6	#5	8'-11"	—
$w_2(E)$	24	#5	28'-9"	—
$w_3(E)$	24	#5	24'-0"	—
Structure Excavation		Cu. Yd.	223	
Concrete Structures		Cu. Yd.	378.8	
Reinforcement Bars, Epoxy Coated		Pounds	30,550	
Bar Splicers		Each	29	
Micro-Piles		Each	50	
Micro-Pile Proof Load Test		Each	1	

** Length is height of spiral.



FOOTING PLAN - PIER 1



FOOTING PLAN - PIER 2

LEGEND

- () - Vertical Pile
- () - Battered Pile

MINIMUM BAR LAP

#5 Bar = 2'-11"



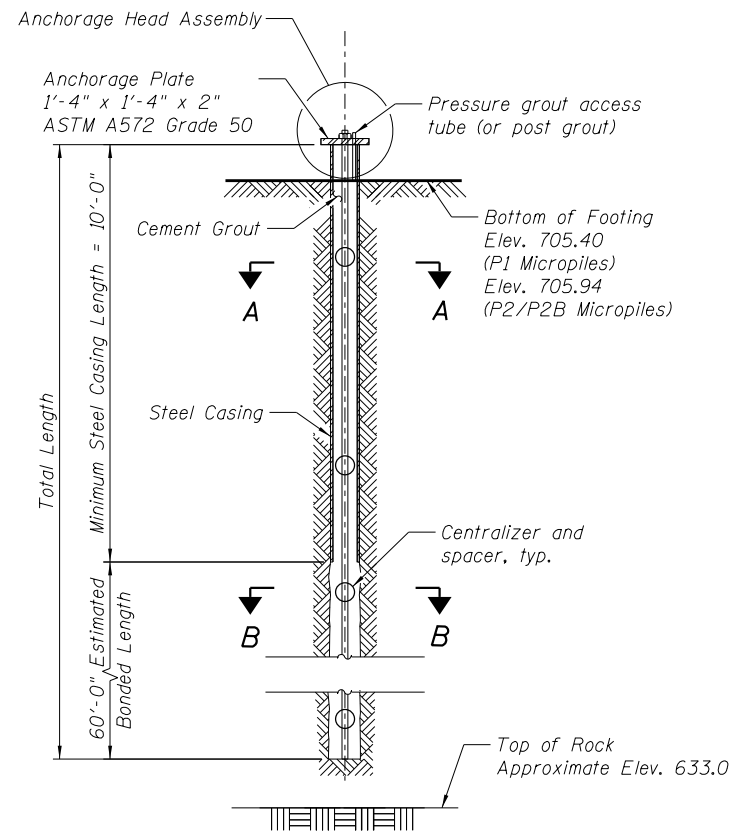
USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS
STRUCTURE NO. 022-0512

SHEET NO. S-40 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	203
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60R06	



MICROPILE DETAILS

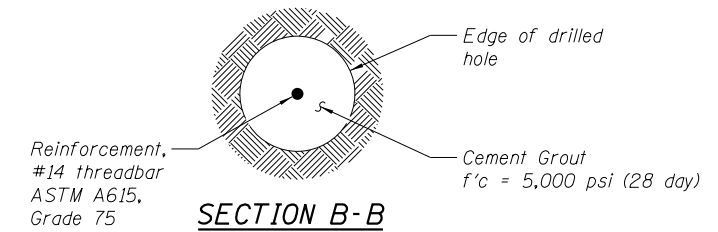
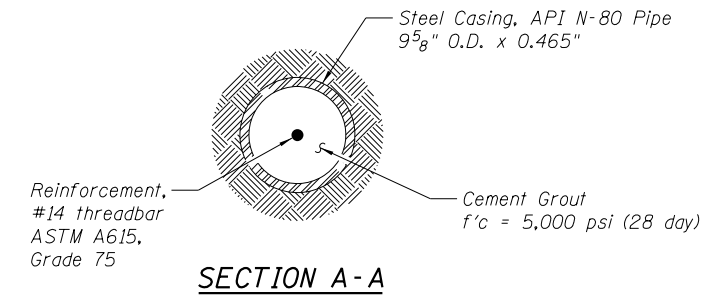
(Straight Piles Shown, Battered Pile Similar)

**MICROPILE
DESIGN STRESSES**

$F_y = 80,000 \text{ psi (Casing)}$
 $f'_c = 5,000 \text{ psi (Grout)}$

NOTES

- Casing splices shall be capable of developing at least 50% of the full moment capacity of the casing.



MICROPILE SCHEDULE

		Pier 1	Pier 2 (Straight)	Pier 2 (Battered)
No. Production Piles	each	42	36	14
Factored Compressive Load	kips	170	162	167
Factored Tensile Load	kips	--	--	--
* Service Compressive Load	kips	126	118	122
* Service Tensile Load	kips	--	--	--
Estimated Tip Elevation of Steel Casing	ft	696.40	696.94	697.21
Minimum Length of Steel Casing	ft	10	10	10
Estimated Bond Length	ft	60	60	60
Estimated Rock Socket Depth	ft	--	--	--
Estimated Total Length of Micropiles	ft	70	70	70

*Use as the "Design Load" in the Proof Test Loading Schedule in the Micropiles special provision.



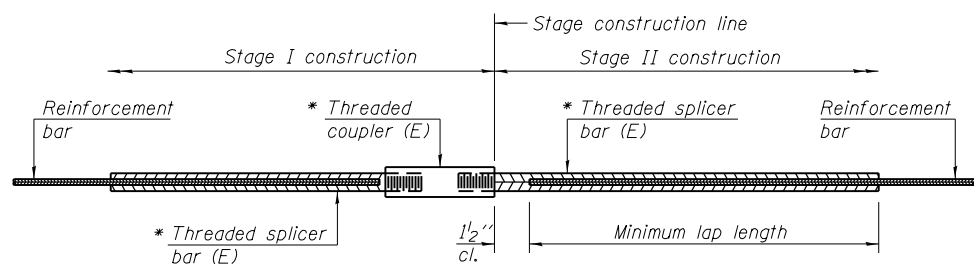
USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 03/19/2014	CHECKED - AMK	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MICROPILE DETAILS
STRUCTURE NO. 022-0512**

SHEET NO. S-41 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	204
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60R06	



STANDARD BAR SPLICER ASSEMBLY

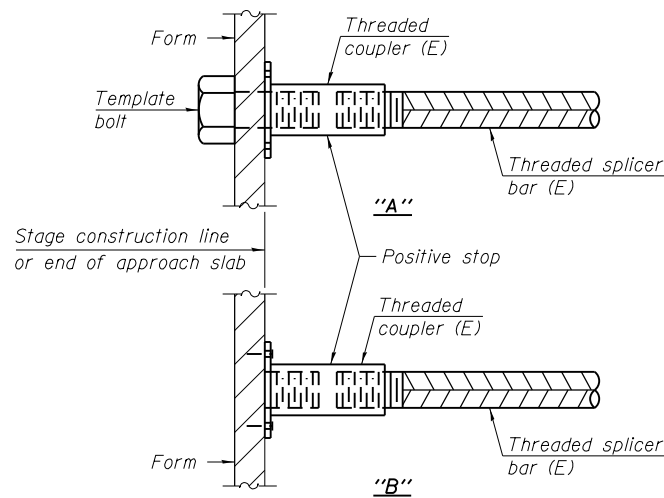
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

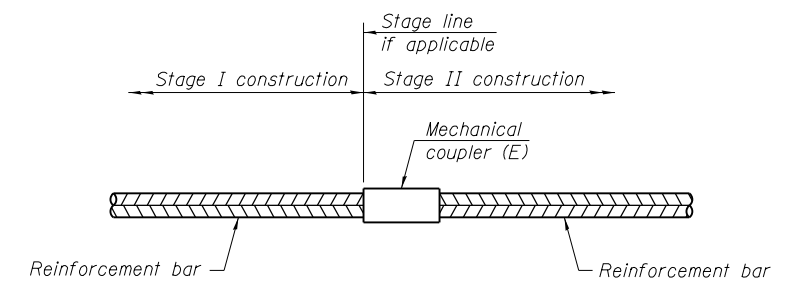
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck (transverse)	#5	842	5
Edge Beam	#5	10	6
Appr. Slab Top	#4	50	6
Appr. Slab Bottom	#5	92	5
Appr. Footing	#5	80	5
Pier Cap Top	#9	24	6
Pier Cap Bottom	#9	18	5
Pier Cap Sides	#5	16	6



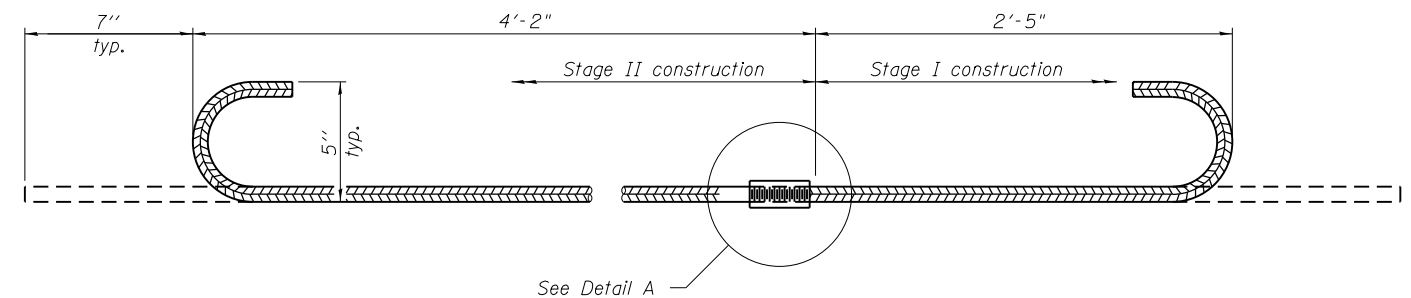
INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt.
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

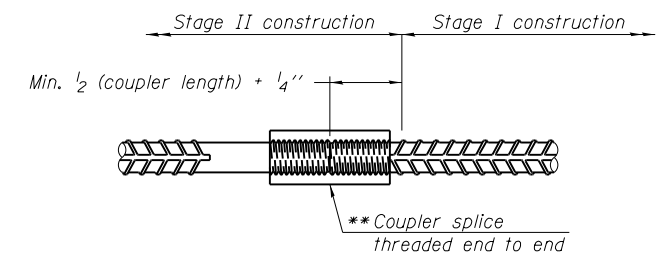
Location	Bar size	No. assemblies required



#5-α4(E) BAR SPLICER ASSEMBLY FOR EDGE BEAMS AT STAGE CONSTRUCTION JOINT

No. required = 6

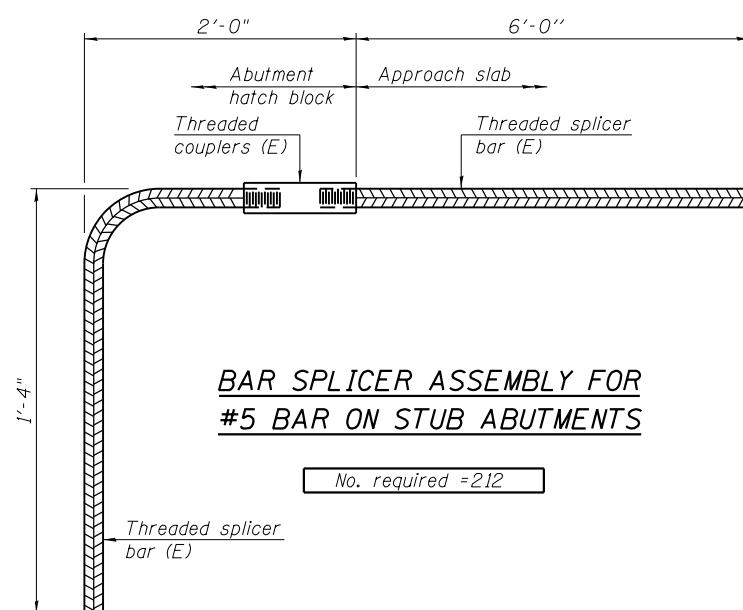
** The bar splicer assembly shall allow completion of the splice without turning of the hook bars. The stage II splice bar shall be threaded such that the entire coupler can be threaded onto the splice bar.



DETAIL A

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 212

BSD-1

1-27-12



USER NAME =	DESIGNED - KMP/BAR	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 022-0512

SHEET NO. S-42 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	205
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



BORING LOG BB-01

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.30 ft
North: 1849536.67 ft
East: 1011323.59 ft
Station: 122+75.61
Offset: 41.90 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.5	10-inch thick, Black SILTY CLAY --TOPSOIL--														
	Very stiff, brown SILTY CLAY LOAM --FILL--		X	1	3 4 5	3.00 P	24				X	9	5 6 13	3.20 B	10
706.3	Stiff, brown and gray SILTY CLAY		X	2	3 5 6	1.25 P	28		--Interbedded SILT--		X	10	5 13 11	3.28 B	16
703.8	Medium Dense, brown and gray SILTY LOAM		X	3	6 7 6	NP	18				X	11	5 8 12	3.44 B	17
			X	4	2 4 6	NP	19				X	12	6 8 13	3.94 B	11
698.8	Stiff to hard, gray SILTY CLAY LOAM, trace gravel		X	5	6 7 9	4.02 B	14	677.3	Very stiff to hard, gray CLAY		X	13	3 4 6	2.21 B	25
			X	6	7 10 13	4.10 B	13				X	14	6 7 9	3.44 B	26
	--L _c = 26%, P _L = 13%-- --% Gravel = 6.7%-- --% Sand = 9.0%-- --% Silt = 61.0%-- --% Clay = 23.2%--		X	7	5 6 10	1.89 B	16								
			X	8	5 6 11	2.62 B	15								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-06-2012	Complete Drilling	04-06-2012	While Drilling	▽	DRY	
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR	At Completion of Drilling	▽	DRY	
Driller	R & J	Logger	B. Wilson	Time After Drilling	NA		
Checked by	M. Snider			Depth to Water	▽	NA	
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



BORING LOG BB-01

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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.30 ft
North: 1849536.67 ft
East: 1011323.59 ft
Station: 122+75.61
Offset: 41.90 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			X	15	6 10 10	4.43 S	23				X	19	22 15 20	4.35 B	24
			X	16	10 11 14	NR		642.8	Very dense, coarse SAND, with gravel and rock fragments		X	20	33 50/4	NP	6
			X	17	8 12 15	4.43 B	20	637.3	Very dense, gray SILTY LOAM, trace gravel		X	21	48 50/3	NP	8
			X	18	6 9 13	3.85 B	21	635.0	Boring terminated at 74.25 ft						

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-06-2012	Complete Drilling	04-06-2012	While Drilling	▽	DRY	
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR	At Completion of Drilling	▽	DRY	
Driller	R & J	Logger	B. Wilson	Time After Drilling	NA		
Checked by	M. Snider			Depth to Water	▽	NA	
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512
SHEET NO. S-43 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	206
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG BB-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.31 ft
North: 1849443.02 ft
East: 1011321.23 ft
Station: 122+36.32
Offset: 43.15 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.5	10-inch thick CONCRETE --PAVEMENT--							687.3							
707.8	Black and brown LOAM, some gravel --FILL--	1	X	1	10 10 6	NP	11	686.3	Medium dense, gray SILTY LOAM	9	X	9	5 9 16	3.69 B	17
706.3	Black SILTY CLAY, small pockets of gray silt, trace organic matter --FILL--	2	X	2	7 9 9	NP	15	685.4	Gray GRAVEL	10	X	10	38 30 25	3.00 B	17
703.8	Medium dense, black, brown and gray LOAM with gravel --FILL--	5	X	3	3 5 7	NP	20		Very stiff, gray SILTY CLAY LOAM, trace gravel	25	X	11	7 9 14	2.07 B	16
701.3	Medium dense, brown and gray SILTY LOAM, with sand seams	10	X	4	13 50/5	NR	11			30	X	12	7 7 8	2.62 B	16
	Very stiff, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace to little gravel	15	X	5	10 11 11		14			35	X	13	8 16 16	3.94 B	21
		20	X	6	14 21 18	NA	13			40	X	14	6 6 9	2.05 B	24
			X	7	5 10 20		15				X	15	3.12 B		
			X	8	6 10 50/5		15				X	16	3.20 B		

GENERAL NOTES

Begin Drilling **07-26-2012** Complete Drilling **07-26-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **31.00 ft**
At Completion of Drilling **22.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC_1192001.GPJ, WANGENG.GDT, 8/6/12



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BORING LOG BB-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.31 ft
North: 1849443.02 ft
East: 1011321.23 ft
Station: 122+36.32
Offset: 43.15 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
667.3								643.3							
	Stiff to very stiff, gray CLAY	45	X	15	3 3 7	1.80 B	25	65		65	X	19	9 15 26	3.36 B	17
		50	X	16	5 8 11	2.71 B	25		Very dense, gray SILTY LOAM, some gravel	70	X	20	24 32 46	NP	22
		55	X	17	6 9 12	2.87 B	25			75	X	21	41 50/3	NP	12
		60	X	18	10 14 18	3.28 B	22								
									Boring terminated at 75.00 ft						

GENERAL NOTES

Begin Drilling **07-26-2012** Complete Drilling **07-26-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **31.00 ft**
At Completion of Drilling **22.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC_1192001.GPJ, WANGENG.GDT, 8/6/12



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-44 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	207
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG BB-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.05 ft
North: 1849574.27 ft
East: 1011408.30 ft
Station: 123+68.28
Offset: 42.84 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.5	7-inch thick asphalt --PAVEMENT--														
709.0	6-inch thick CRUSHED STONE --AGGREGATE BASE--														
	Medium stiff to very stiff, brown SILTY CLAY, trace to little gravel --FILL--	1	X	1	3 6 6	2.00 P	17			9	X	9	7 10 12	2.50 P	16
		2	X	2	1 2 2	0.75 P	22		--Cobbles, hard drilling--	25	X	10	8 10 52/2	2.79 B	17
704.6	Loose, brown SILTY LOAM --L _L = 28%, P _L = 15%-- --% Gravel = 0.1%-- --% Sand = 3.9%-- --% Silt = 77.1%-- --% Clay = 18.9%--	3	X	3	2 3 3	1.31 B	26		--Rock fragments in spoon--		X	11	6 9 12	2.25 P	18
		4	X	4	2 3 3	0.98 B	22		--Cobbles, hard drilling--	30	X	12	50/3	2.13 B	15
699.6	Medium stiff to hard, brown and gray SILTY CLAY LOAM, trace gravel Rock fragments in nose of spoon (cobble)	5	X	5	17 12 12	NA	17				X	13	10 15 17	5.66 B	11
		6	X	6	9 7 8	2.00 P	17				X	14	4 7 12	4.26 B	22
		7	X	7	4 6 8	2.30 B	14								
		8	X	8	5 7 10	3.44 B	16								

GENERAL NOTES

Begin Drilling **04-11-2012** Complete Drilling **04-11-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **B. Wilson** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **67.00 ft**
At Completion of Drilling **MUD**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC_1192001.GPJ; WANGENG.GDT_8/6/12



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BORING LOG BB-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.05 ft
North: 1849574.27 ft
East: 1011408.30 ft
Station: 123+68.28
Offset: 42.84 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
668.1	Very stiff to hard, gray CLAY							648.1	Hard, gray SILTY CLAY, trace gravel --Interbedded SAND and SILT--						
		15	X	15	6 10 13	3.69 B	25			65	X	19	16 22 21	5.08 B	16
		16	X	16	4 7 12	3.85 B	25			70	X	20	23 27 40	NP	19
		17	X	17	6 10 14	5.08 B	24		Very dense, brown and gray SAND --WET--	75	X	21	17 21 50/2	NP	12
		18	X	18	7 13 16	3.85 B	21		Very dense, gray SILTY LOAM with weathered dolostone fragments						
								638.6							
								635.6	Boring terminated at 74.50 ft	75					

GENERAL NOTES

Begin Drilling **04-11-2012** Complete Drilling **04-11-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **B. Wilson** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **67.00 ft**
At Completion of Drilling **MUD**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC_1192001.GPJ; WANGENG.GDT_8/6/12



USER NAME =
DESIGNED - KMP
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DRAWN - KMP
PLOT DATE = 02/28/2014
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-45 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	208
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG BB-05

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.16 ft
North: 1849610.14 ft
East: 1011495.10 ft
Station: 124+62.19
Offset: 41.37 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.2	40-inch thick, GRAVEL and RAIL BALLAST --AGGREGATE SURFACE--			1		NP		707.2				9	6 8 11	3.28 B	17
702.2	Loose, brown SILTY LOAM	5	X	2	3 2 3	0.90 B	30	702.2		25	X	10	4 8 10	3.85 B	17
702.2	--Medium to coarse SAND-- --WET--		X	3	5 4 4	0.98 B	19	682.2	Hard, gray SILTY CLAY to SILTY CLAY LOAM, trace to little gravel	30		11	3 10 12	NR	
		10	X	4	3 4 7	1.72 B	16			35	X	12	7 14 28	4.02 B	13
			X	5	3 6 7	2.79 B	16			40	X	13	10 14 24	5.74 B	8
		15	X	6	3 7 8	1.60 B	15				X	14	7 10 16	6.31 B	16
			X	7	3 6 9	1.25 P	18								
		20	X	8	3 6 8	3.03 B	16								

GENERAL NOTES

Begin Drilling **04-12-2012** Complete Drilling **04-12-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **B. Wilson** Checked by **M. Snider**
Drilling Method **2.25" SSA 0-10' and Rotary 10-74.25'; Boring**
backfilled upon completion.

WATER LEVEL DATA

While Drilling **6.00 ft**
At Completion of Drilling **MUD**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG BB-05

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.16 ft
North: 1849610.14 ft
East: 1011495.10 ft
Station: 124+62.19
Offset: 41.37 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
668.2	Very stiff, gray CLAY							648.7	Very stiff, gray SILTY CLAY						
		45	X	15	6 8 13	3.94 B	24		--Fine SAND--	65	X	19	16 14 17	2.52 B	16
								643.2	Very dense, brown and gray, fine SAND						
		50		16	6 10 12	NR				70	X	20	20 28 33	NP	17
								638.2	Very dense, gray SILTY LOAM, some gravel						
		55	X	17	8 12 15	3.28 B	20			75	X	21	45 60/5	NP	8
								635.7	Boring terminated at 74.50 ft						
		60	X	18	8 14 16	3.77 B	20								

GENERAL NOTES

Begin Drilling **04-12-2012** Complete Drilling **04-12-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **B. Wilson** Checked by **M. Snider**
Drilling Method **2.25" SSA 0-10' and Rotary 10-74.25'; Boring**
backfilled upon completion.

WATER LEVEL DATA

While Drilling **6.00 ft**
At Completion of Drilling **MUD**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-46 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	209
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG BB-06

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.07 ft
North: 1849517.76 ft
East: 1011487.90 ft
Station: 124+18.96
Offset: 40.59 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
710.1	12-inch thick CONCRETE --PAVEMENT--														
	Medium dense, brown GRAVELLY SANDY LOAM --FILL--		X	1	12 12 12	NP	4				X	9	6 5 15	3.69 B	13
708.1	Hard, gray SILTY CLAY, trace fine to coarse sand and gravel		X	2	4 5 4	>4.50 P	15			25	O	10	5 7 10	NR	
705.6	Medium stiff, dark brown CLAY LOAM, trace gravel and organic matter		X	3	1 2 2	0.82 B	23				X	11	4 5 8	3.94 B	17
702.1	Very stiff to hard, brown to gray SILTY CLAY to SILTY CLAY LOAM, trace gravel		O	4	2 3 3	NR				30	X	12	36 17 30	2.87 B	15
			X	5	4 9 14	5.58 B	18				X	13	4 11 16	5.82 B	13
			X	6	6 8 12	4.02 B	15			35	X	13	4 11 16	5.82 B	13
			X	7	9 11 16	>4.50 P	21				X	14	8 12 15	NR	
			X	8	4 7 11	4.84 B	15	672.1	Very stiff to hard, gray CLAY	40	O	14	8 12 15	NR	

GENERAL NOTES

Begin Drilling **07-30-2012** Complete Drilling **07-30-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **F. Bozga** Checked by **M. Snider**
Drilling Method **2.25" SSA 0-10' and Rotary 10-74.25'; Boring backfilled upon completion.**

WATER LEVEL DATA

While Drilling **NA**
At Completion of Drilling **12 MUD**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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BORING LOG BB-06

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.07 ft
North: 1849517.76 ft
East: 1011487.90 ft
Station: 124+18.96
Offset: 40.59 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			X	15	4 6 8	2.95 B	27			45	X	19	7 11 16	4.51 B	21
			X	16	5 6 7	2.95 B	26	644.1	Dense, brown, coarse SAND, trace gravel	50	X	20	20 18 28	NP	16
			X	17	4 7 10	3.61 B	28	639.1	Dense, gray GRAVELLY SAND	55	X	21	23 17 18	NP	8
			X	18	8 9 15	3.36 B	26	636.1	Boring terminated at 75.00 ft	60	X	21	23 17 18	NP	8

GENERAL NOTES

Begin Drilling **07-30-2012** Complete Drilling **07-30-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **F. Bozga** Checked by **M. Snider**
Drilling Method **2.25" SSA 0-10' and Rotary 10-74.25'; Boring backfilled upon completion.**

WATER LEVEL DATA

While Drilling **NA**
At Completion of Drilling **12 MUD**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =
DESIGNED - KMP
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PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-47 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	210
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG BB-07

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.07 ft
North: 1849662.52 ft
East: 1011591.75 ft
Station: 125+71.68
Offset: 51.15 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	Stiff, brown SILTY CLAY, trace roots			1	3 4 5	1.25 P	23					9	5 8 10	3.77 B	16
706.1	Stiff to very stiff, brown to gray SILTY CLAY, trace to little gravel	5		2	3 3 3	1.48 B	19			25		10	5 7 14	2.25 P	20
				3	7 5 9	2.46 B	13					11	6 8 11	2.71 B	16
		10		4	7 7 10	2.71 B	14	681.1	Hard, gray SILTY CLAY LOAM, little gravel	30		12	14 13 14	5.66 B	13
				5	5 6 6	3.36 B	14					13	20 25 21	NP	10
		15		6	4 6 10	2.30 B	15	677.6	Dense, gray LOAM, some gravel	35		13			
				7	6 7 10	3.44 B	16					14	7 10 14	5.41 B	15
		20		8	5 7 11	3.85 B	16	672.1	Hard, gray SILTY CLAY, trace gravel	40		14			

GENERAL NOTES

Begin Drilling **04-09-2012** Complete Drilling **04-09-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **B. Wilson** Checked by **M. Snider**
Drilling Method **2.25" SSA 0-10' and Rotary 10-74.25'; Boring**
backfilled upon completion.

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **MUD**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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BORING LOG BB-07

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.07 ft
North: 1849662.52 ft
East: 1011591.75 ft
Station: 125+71.68
Offset: 51.15 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
667.1	Hard, gray CLAY, trace gravel			15	6 9 12	4.18 B	25					19	7 12 14	4.26 B	19
		45		16	7 9 12	4.26 B	25					20	22 27 29	NP	9
				17	6 8 12	4.59 B	22	642.1	Very dense, gray, medium to coarse SAND, with gravel and rock fragments	70		21	27 48 50/4	NP	9
		55		18	5 10 14	4.43 B	22					21	27 48 50/4	NP	9
		60		19	6 9 12	4.26 B	25	637.6	Very dense, gray SILTY LOAM, some gravel (weathered dolostone fragments at bottom 1-inch)	75		21	27 48 50/4	NP	9
				20	7 9 12	4.26 B	25	634.3	Boring terminated at 74.75 ft	75		21	27 48 50/4	NP	9

GENERAL NOTES

Begin Drilling **04-09-2012** Complete Drilling **04-09-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R & N** Logger **B. Wilson** Checked by **M. Snider**
Drilling Method **2.25" SSA 0-10' and Rotary 10-74.25'; Boring**
backfilled upon completion.

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **MUD**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-48 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	211
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG BB-08

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.31 ft
North: 1849553.22 ft
East: 1011576.69 ft
Station: 125+14.54
Offset: 43.23 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
710.5	10-inch thick CONCRETE --PAVEMENT														
	Very dense, brown LOAM, with gravel --FILL--		X	1	12	NP	10				X	9	7	5.00	15
708.3	Gray SILTY CLAY LOAM, with large gravel --GRAVEL RECOVERY--		X	2	5	NA	28				X	10	25	3.00	15
			X	3	3						X	11	10	4.35	14
			X	4	4						X	12	50/1	NR	15
705.8	Medium dense, gray and brown SILTY LOAM, some gravel		X	5	5	NP	18				X	13	6	4.35	14
			X	6	10						X	14	16	NA	12
			X	7	10						X	15	16	NA	12
700.8	Hard, gray SILTY CLAY to SILTY CLAY LOAM, trace to some gravel		X	8	5	4.50	14	680.3	Very dense, gray SANDY CLAY LOAM, with large gravel		X	16	16	NA	12
			X	9	11	5.08	13				X	17	9	3.03	23
			X	10	13						X	18	7	NR	
			X	11	7	4.50	14	674.3	Dense, GRAVEL, little sand		X	19	11	3.36	21
			X	12	10						X	20	13		
			X	13	10						X	21	19	NP	19
			X	14	15						X	22	23	NP	21
			X	15	15						X	23	25	NP	21

GENERAL NOTES

Begin Drilling: **07-24-2012** Complete Drilling: **07-25-2012**
Drilling Contractor: **K&S** Drill Rig: **D-120 TMR**
Driller: **C&E** Logger: **J. Lundin** Checked by: **M. Snider**
Drilling Method: **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **NA**
At Completion of Drilling: **NA**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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BORING LOG BB-08

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.31 ft
North: 1849553.22 ft
East: 1011576.69 ft
Station: 125+14.54
Offset: 43.23 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
669.3	Very stiff, gray CLAY, trace gravel														
			X	15	7	2.71	24				X	19	11	3.36	21
			X	16	12						X	20	13		
			X	17	17						X	21	23		
			X	18	12	2.54	25	642.3	Dense, gray SILTY LOAM, seams of brown sand		X	22	18	NP	19
			X	19	9						X	23	19	NP	21
			X	20	13			639.8	Dense, gray LOAM		X	24	23	NP	21
			X	21	18						X	25	25	NP	21
			X	22	18			636.3	Boring terminated at 75.00 ft		X	26			

GENERAL NOTES

Begin Drilling: **07-24-2012** Complete Drilling: **07-25-2012**
Drilling Contractor: **K&S** Drill Rig: **D-120 TMR**
Driller: **C&E** Logger: **J. Lundin** Checked by: **M. Snider**
Drilling Method: **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **NA**
At Completion of Drilling: **NA**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-49 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	212
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG ROCK-01

WEI Job No.: 119-20-01

Client: **URS Corporation**
 Project: **US Rte 34 Grade Separation over the CNRR**
 Location: **SE 1/4 Section 29, T. 38N, R. 9E 3rd PM**

Datum: NGVD
 Elevation: 709.30 ft
 North: 1849515.66 ft
 East: 1011318.89 ft
 Station: 122+63.05
 Offset: 24.47 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
627.6	RQD = 0%														
	--BLIND DRILL--	45								65					
		50								70					
		55								75					
		60						633.3	Strong, light gray, fresh, very poor rock quality, highly fractured, less than 2 in. joints spacing, horizontal shale partings, slightly vuggy DOLOSTONE, with joints open more or less than 0.2 in. Run #1: 76' to 81.7' RECOVERY = 100%	80		1			

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	08-29-2012	Complete Drilling	08-29-2012	While Drilling	▽	NA	
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R&N	Logger	D. Kolpacki	Time After Drilling		NA	
Checked by	CLM	Depth to Water	▽	NA			
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



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BORING LOG ROCK-01

WEI Job No.: 119-20-01

Client: **URS Corporation**
 Project: **US Rte 34 Grade Separation over the CNRR**
 Location: **SE 1/4 Section 29, T. 38N, R. 9E 3rd PM**

Datum: NGVD
 Elevation: 709.30 ft
 North: 1849515.66 ft
 East: 1011318.89 ft
 Station: 122+63.05
 Offset: 24.47 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
627.6	RQD = 0%														
	--BLIND DRILL--	85								90					
		95								95		2			
616.3	Strong, light gray, fresh, poor rock quality, highly fractured, less than 2 in. to 0.5-foot joints spacing, horizontal shale partings, slightly vuggy DOLOSTONE, with joints open more or less than 0.2 in. and greenish gray shaly joints fill. Run #2: 93' to 97.3' RECOVERY = 100% RQD = 40%														
612.0	Boring terminated at 97.30 ft	100													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	08-29-2012	Complete Drilling	08-29-2012	While Drilling	▽	NA	
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R&N	Logger	D. Kolpacki	Time After Drilling		NA	
Checked by	CLM	Depth to Water	▽	NA			
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
 STRUCTURE NO. 022-0512
 SHEET NO. S-50 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	213
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG ROCK-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.31 ft
North: 1849442.44 ft
East: 1011312.45 ft
Station: 122+28.12
Offset: 40.12 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
624.8	Run #2: 80.5' to 84.5' RECOVERY = 100% RQD = 24%	85						633.8	Strong, light gray, fresh, very poor rock quality, highly fractured, less than 2-in. to 0.5-foot joints spacing, slightly vuggy and DOLOSTONE, with joints open less than 0.2 in. and greenish gray shaly partings. Run #1: 75.5' to 80.5' RECOVERY = 100% RQD = 0%	80					
									--BLIND DRILL--	75					
GENERAL NOTES Begin Drilling 08-30-2012 Complete Drilling 08-30-2012 Drilling Contractor Wang Testing Service Drill Rig D-50 TMR Driller R&N Logger D. Kolpacki Checked by CLM Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								WATER LEVEL DATA While Drilling <input checked="" type="checkbox"/> NA At Completion of Drilling <input checked="" type="checkbox"/> NA Time After Drilling NA Depth to Water <input checked="" type="checkbox"/> NA <small>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</small>							

WANGENGING_1192001.GPJ, WANGENG.GDT 9/25/12



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BORING LOG ROCK-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.31 ft
North: 1849442.44 ft
East: 1011312.45 ft
Station: 122+28.12
Offset: 40.12 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
624.8	Run #2: 80.5' to 84.5' RECOVERY = 100% RQD = 24%	85						633.8	Strong, light gray, fresh, very poor rock quality, highly fractured, less than 2-in. to 0.5-foot joints spacing, slightly vuggy and DOLOSTONE, with joints open less than 0.2 in. and greenish gray shaly partings. Run #1: 75.5' to 80.5' RECOVERY = 100% RQD = 0%	80					
									--BLIND DRILL--	75					
GENERAL NOTES Begin Drilling 08-30-2012 Complete Drilling 08-30-2012 Drilling Contractor Wang Testing Service Drill Rig D-50 TMR Driller R&N Logger D. Kolpacki Checked by CLM Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								WATER LEVEL DATA While Drilling <input checked="" type="checkbox"/> NA At Completion of Drilling <input checked="" type="checkbox"/> NA Time After Drilling NA Depth to Water <input checked="" type="checkbox"/> NA <small>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</small>							

WANGENGING_1192001.GPJ, WANGENG.GDT 9/25/12



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-51 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	214
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG ROCK-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.07 ft
North: 1849633.85 ft
East: 1011592.69 ft
Station: 125+61.27
Offset: 24.45 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
623.6		85						633.6	Strong, light gray, fresh, poor rock quality, highly fractured, less than 2-in. to 1-foot joints spacing, slightly vuggy DOLOSTONE, with joints open less than 0.2 in. and greenish gray shaly partings. Run #1: 75.5' to 80.5' RECOVERY = 100% RQD = 33%	80					
		45							--BLIND DRILL--	75					

GENERAL NOTES

Begin Drilling **08-27-2012** Complete Drilling **08-27-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **D. Kolpacki** Checked by **CLM**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **NA**
At Completion of Drilling ∇ **NA**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGING_1192001.GPJ, WANGENG.GDT 9/25/12



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BORING LOG ROCK-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.07 ft
North: 1849633.85 ft
East: 1011592.69 ft
Station: 125+61.27
Offset: 24.45 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
623.6		85						633.6	Strong, light gray, fresh, poor rock quality, highly fractured, less than 2-in. to 1-foot joints spacing, slightly vuggy DOLOSTONE, with joints open less than 0.2 in. and greenish gray shaly partings. Run #1: 75.5' to 80.5' RECOVERY = 100% RQD = 33%	80					
		45							--BLIND DRILL--	75					

GENERAL NOTES

Begin Drilling **08-27-2012** Complete Drilling **08-27-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **D. Kolpacki** Checked by **CLM**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **NA**
At Completion of Drilling ∇ **NA**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGING_1192001.GPJ, WANGENG.GDT 9/25/12



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 022-0512

SHEET NO. S-52 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	215
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG ROCK-04

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T. 38N, R. 9E 3rd PM**

Datum: NGVD
Elevation: 711.31 ft
North: 1849559.31 ft
East: 1011582.22 ft
Station: 125+22.12
Offset: 39.84 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
633.8	Strong, light gray, fresh, poor rock quality, highly to moderately fractured, less than 2-in. to 1-foot joints spacing, slightly vuggy DOLOSTONE, with joints open less than 0.2 in. and	80						633.8							
	--BLIND DRILL--														
60		50						45							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-04-2012	Complete Drilling	09-04-2012	While Drilling	NA		
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR	At Completion of Drilling	NA		
Driller	R&N	Logger	D. Kolpacki	Time After Drilling	NA		
Checked by	CLM	Drilling Method	3.25" IDA HSA; Boring backfilled upon completion	Depth to Water	NA		
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

WANGENGINC_1192001.GPJ, WANGENG.GDT 9/25/12



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BORING LOG ROCK-04

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T. 38N, R. 9E 3rd PM**

Datum: NGVD
Elevation: 711.31 ft
North: 1849559.31 ft
East: 1011582.22 ft
Station: 125+22.12
Offset: 39.84 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
623.8	greenish gray shaly partings. Run #1: 77.5' to 82.5' RECOVERY = 100% RQD = 40% Run #2: 82.5' to 87.5' RECOVERY = 100% RQD = 28%	85						623.8							
	Boring terminated at 87.50 ft														
		90						95							
		100													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-04-2012	Complete Drilling	09-04-2012	While Drilling	NA		
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR	At Completion of Drilling	NA		
Driller	R&N	Logger	D. Kolpacki	Time After Drilling	NA		
Checked by	CLM	Drilling Method	3.25" IDA HSA; Boring backfilled upon completion	Depth to Water	NA		
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

WANGENGINC_1192001.GPJ, WANGENG.GDT 9/25/12



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	CHECKED - KJZ	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - KJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

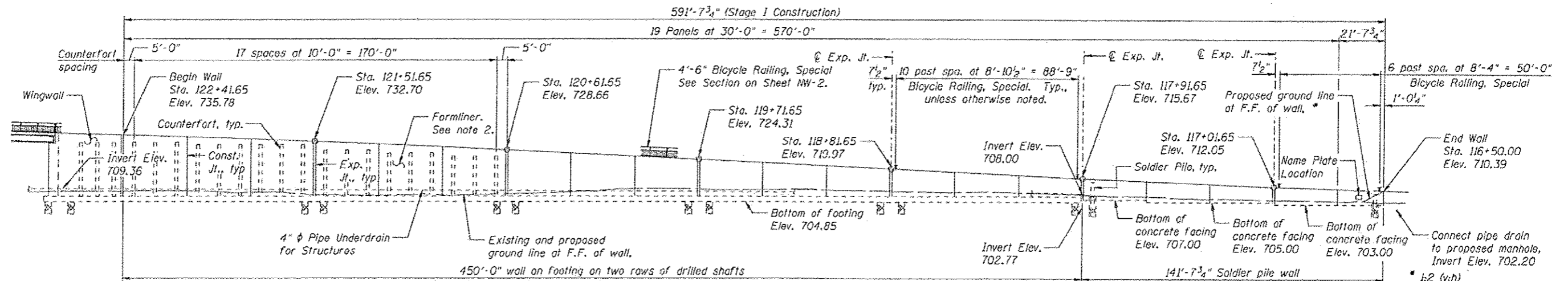
SOIL BORINGS
STRUCTURE NO. 022-0512
SHEET NO. S-53 OF S-53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	216
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	

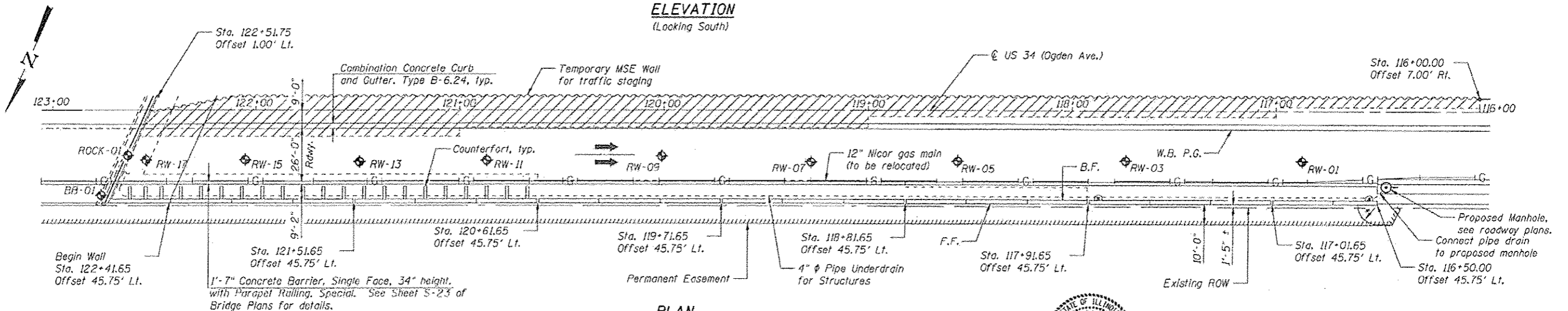
Benchmark: CP#3 - P.K. Rod in ground at driveway next to Nicor Gas pressure regulation station, Sta. 113+67.17, 50.22' Rt. Elev. 706.54.

Existing Structure: None. One lane of traffic in both directions to be maintained during construction utilizing stage construction and Temporary MSE Walls.

Salvage: None.



ELEVATION
(Looking South)



PLAN

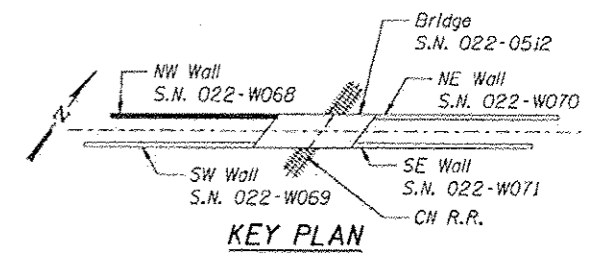
APPROVED
For Structural Adequacy Only

Arif Carl Panyas
Engineer of Bridges & Structures

STATION 116+50.00 TO 122+41.65
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 311 SEC. 652-A
LOADING HL-93
STR. NO. 022-W068
NAME PLATE
See Std. 515001

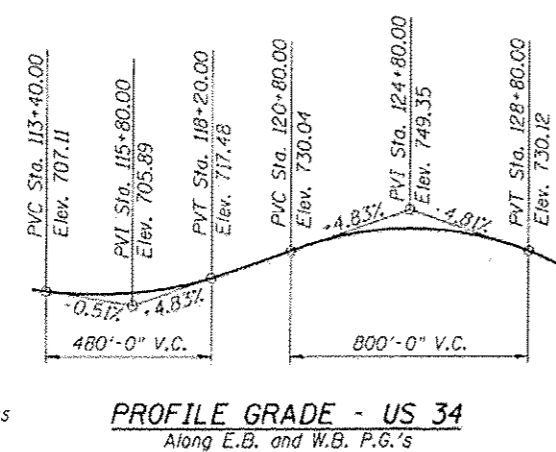
STATE OF ILLINOIS
DIVISION OF TRANSPORTATION
081-006258

Arsalan M. Khan
ARSALAN M. KHAN, S.E.
LICENSE NO.: 081-006258
EXPIRES: NOVEMBER 30, 2014
DATE: 02-26-2014



LEGEND

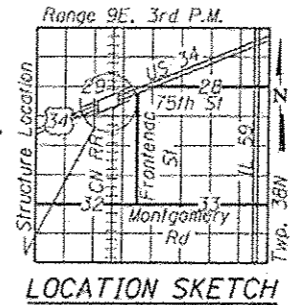
- ◆ Soil Boring Location
- F.F. Front Face
- B.F. Back Face
- E.B. Eastbound
- W.B. Westbound
- ▨ Limits of reinforced soil mass



- NOTES**
- All Offsets are taken from the @ US 34 to the front face of the retaining wall.
 - Form liner textured surface shall be applied to the retaining walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in Impression.

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



GENERAL PLAN & ELEVATION
NW RETAINING WALL - US 34 (OGDEN AVE.)
F.A.P. RTE. 311 - SECTION 652-A
DUPAGE COUNTY
STA. 116+50.00 TO STA. 122+41.65
STRUCTURE NO. 022-W068



USER NAME *	DESIGNED - KMP/PMV	REVISED
PROJECT SCALE *	CHECKED - ANK	REVISED
DATE	DRAWN - PMV	REVISED
	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. NW-1 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	393	217
			CONTRACT NO. 60R06	

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Form liner textured surface shall be applied to the wingwalls, retaining walls and noise abatement walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.
3. The pattern produced on the exposed surfaces of the concrete wingwalls, retaining walls and the noise abatement walls shall be identical. The concrete stain applied to the surfaces of all of those items shall also be identical. The Contractor shall provide all necessary coordination and direction with its vendor manufacturing the noise abatement walls to assure the same concrete form liners and stain are used for them as those for the cast-in-place wingwalls and retaining walls.

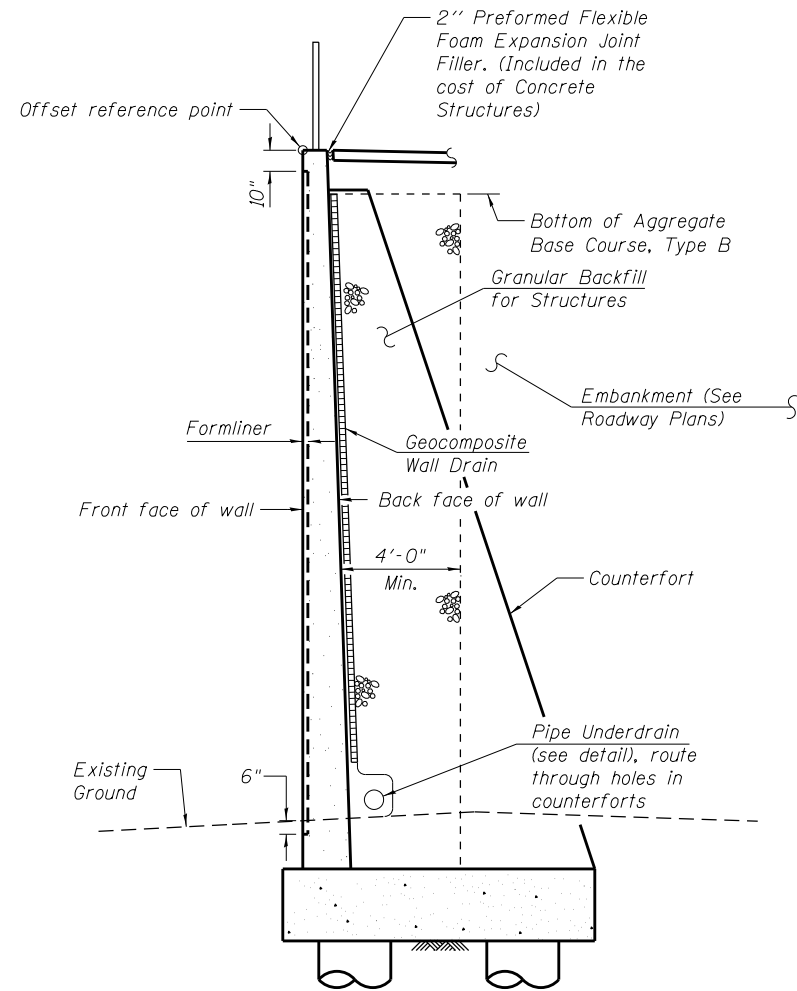
INDEX OF SHEETS

- NW-1 General Plan and Elevation
- NW-2 General Notes, Index of Sheets and Bill of Material
- NW-3 Temporary MSE Retaining Wall Details
- NW-4 Detailed Plan and Elevation 1
- NW-5 Detailed Plan and Elevation 2
- NW-6 Detailed Plan and Elevation 3
- NW-7 Detailed Plan and Elevation 4
- NW-8 Detailed Plan and Elevation 5
- NW-9 Detailed Plan and Elevation 6
- NW-10 Miscellaneous Details
- NW-11 Soil Borings 1
- NW-12 Soil Borings 2
- NW-13 Soil Borings 3
- NW-14 Soil Borings 4
- NW-15 Soil Borings 5
- NW-16 Soil Borings 6

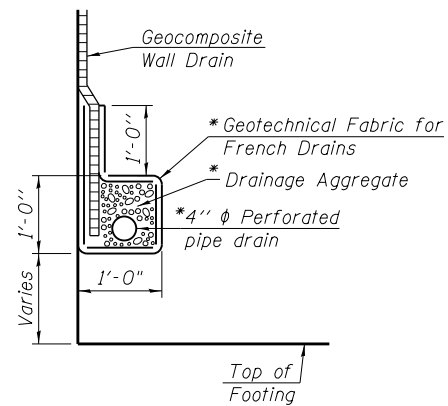
TOTAL BILL OF MATERIALS

Item	Unit	Total
Structure Excavation	Cu. Yd.	1,762
Concrete Structures	Cu. Yd.	1,220.8
Form Liner Textured Surface	Sq. Ft.	8,525
Stud Shear Connectors	Each	159
Reinforcement Bars	Pound	292,740
Reinforcement Bars, Epoxy Coated	Pound	174,600
Bicycle Railing, Special	Foot	592
Parapet Railing, Special	Foot	588
Name Plates	Each	1
Drilled Shaft in Soil	Cu. Yd.	1,182
Drilled Shaft in Rock	Cu. Yd.	25
Geocomposite Wall Drain	Sq. Yd.	975
Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	9,084
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	89
Granular Backfill for Structures	Cu. Yd.	1,368
Furnishing Soldier Piles (HP Section)	Foot	485
Temporary Sheet Piling	Sq. Ft.	-
Pipe Underdrains for Structures 4"	Foot	608
Staining Concrete Structures	Sq. Ft.	8,525

Note: Bill of Material shown for Retaining Wall quantities only. For Bridge Bill of Material, see Sheet S-6.

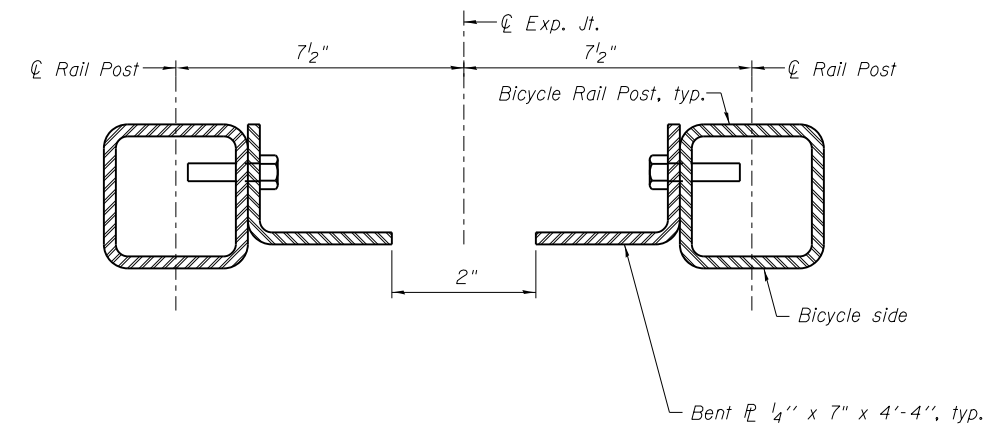


SECTION THRU RETAINING WALL



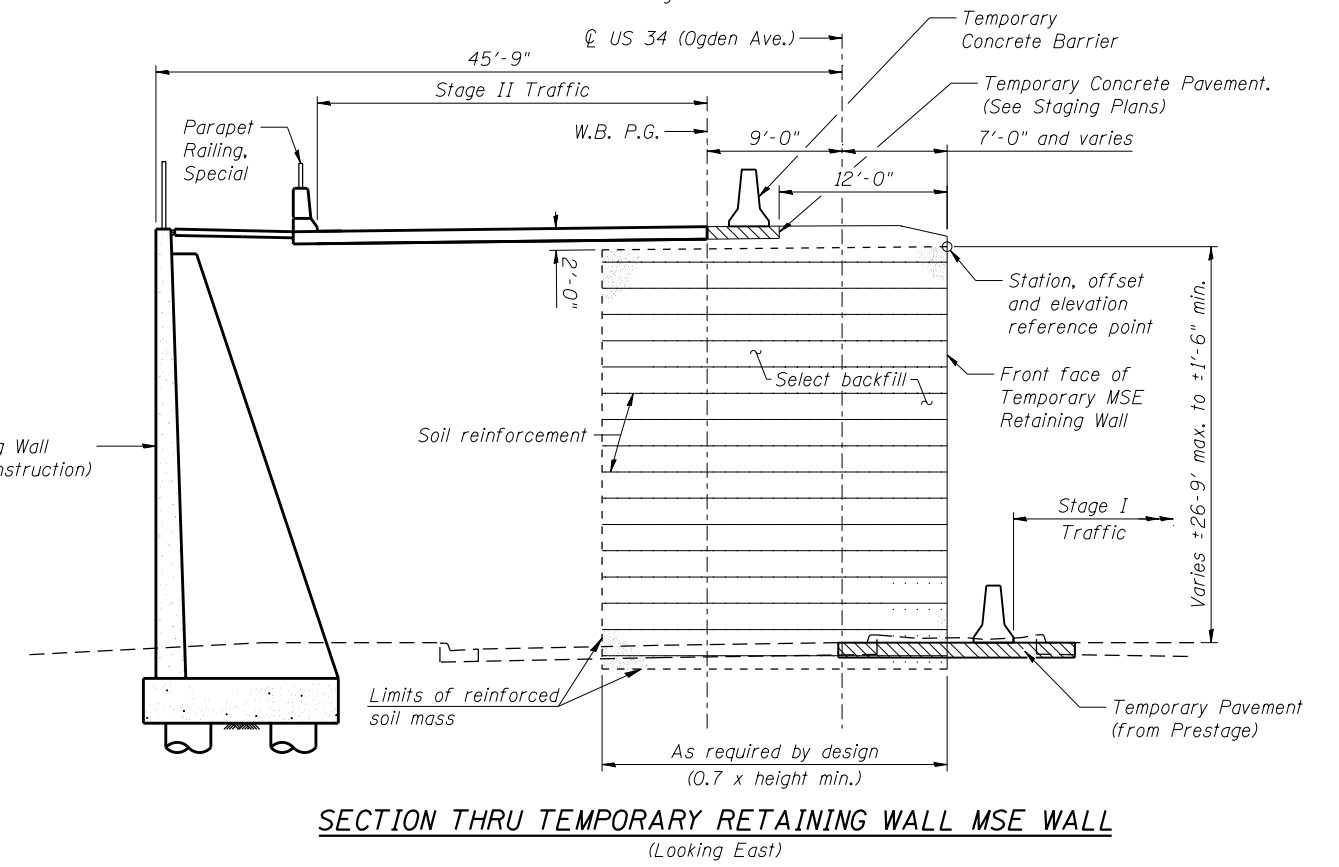
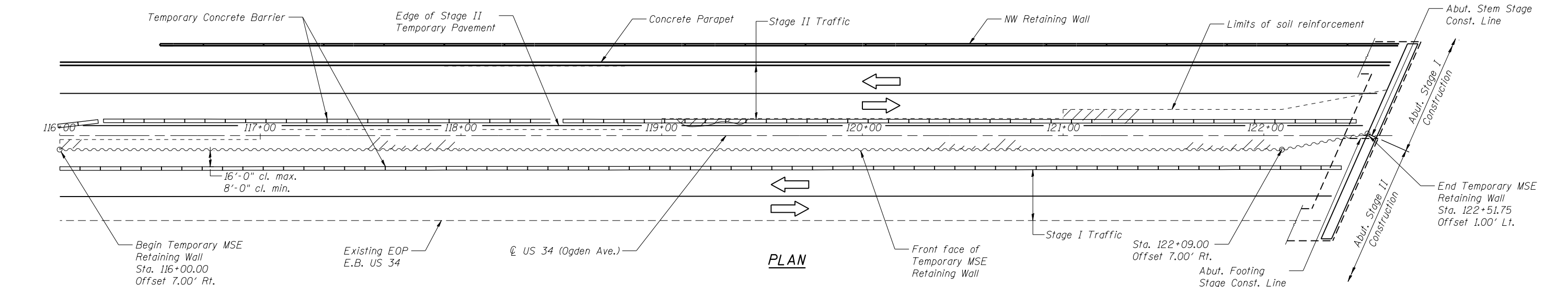
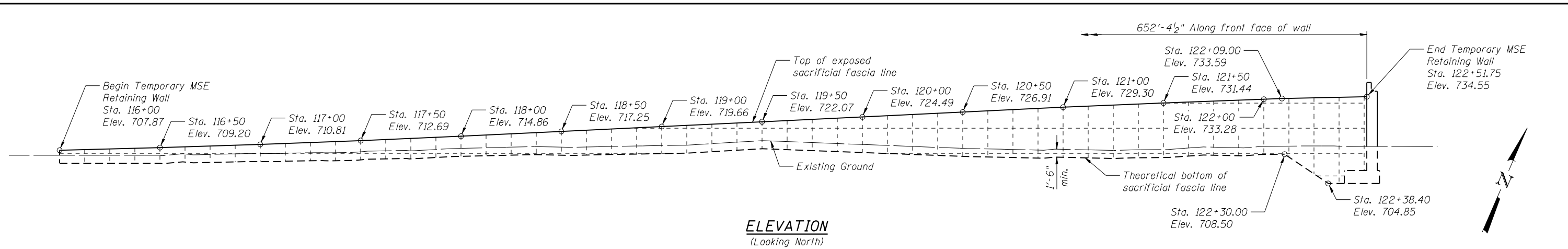
PIPE UNDERDRAIN DETAIL

*Included in the cost of Pipe Underdrains for Structures.



SECTION THRU BICYCLE RAILING POSTS AT EXPANSION JOINTS

For additional dimensions and details, see Sheet S-23 of the bridge plans.



NOTES
1. See Sheet NW-1 of NW-16 for soil boring locations.



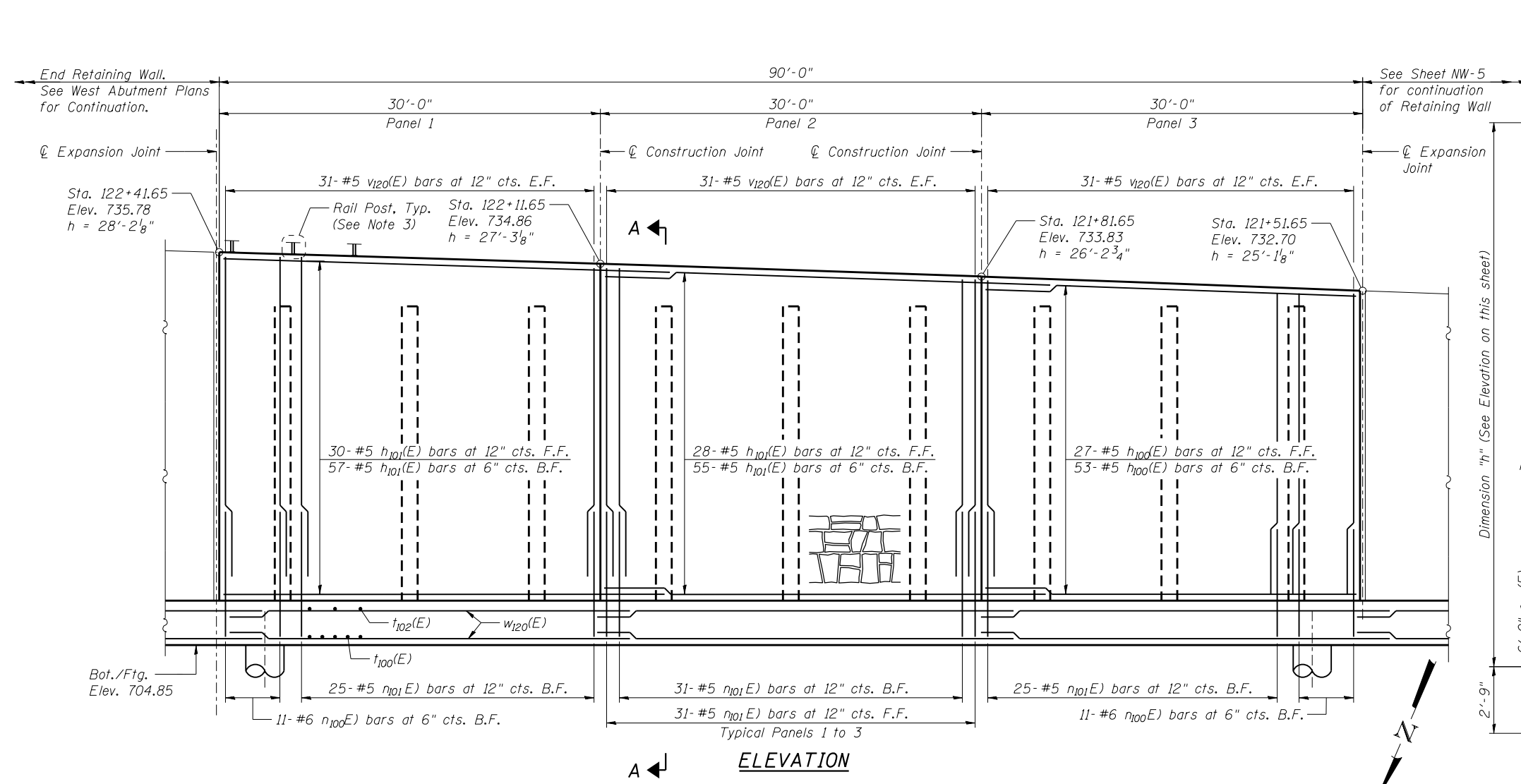
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	CHECKED - AMK	REVISIONS
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

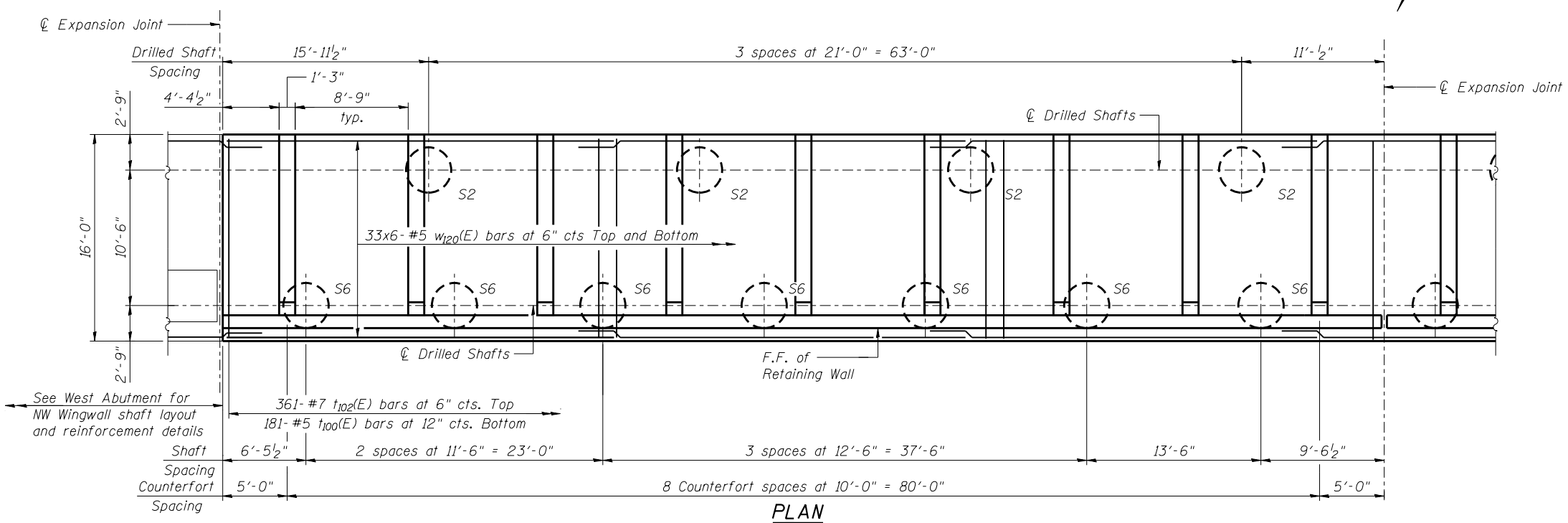
TEMPORARY MSE RETAINING WALL DETAILS
STRUCTURE NO. 022-W068

SHEET NO. NW-3 OF NW-16 SHEETS

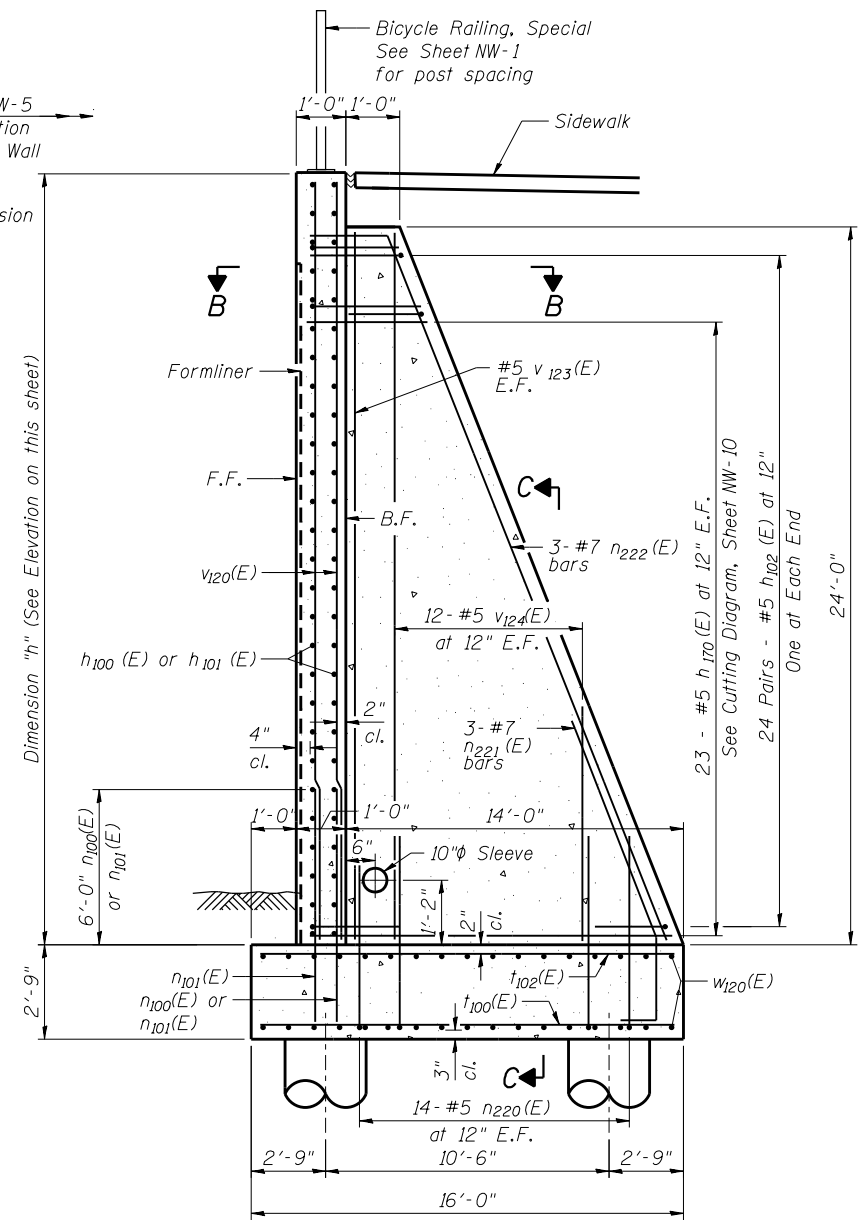
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	219
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



SECTION A-A

MINIMUM BAR LAP
 #5 Bar = 2'-7" (Vertical)
 #5 Bar = 2'-11" (Horizontal)
 #6 Bar = 3'-1"
 #7 Bar = 5'-2"

- NOTES**
1. F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
 2. See Sheet NW-10 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams, Expansion Joint Details, Construction Joint Details and Sections B-B & C-C.
 3. See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.
 4. See General Notes Sheet for Wall Drainage Details.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
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PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

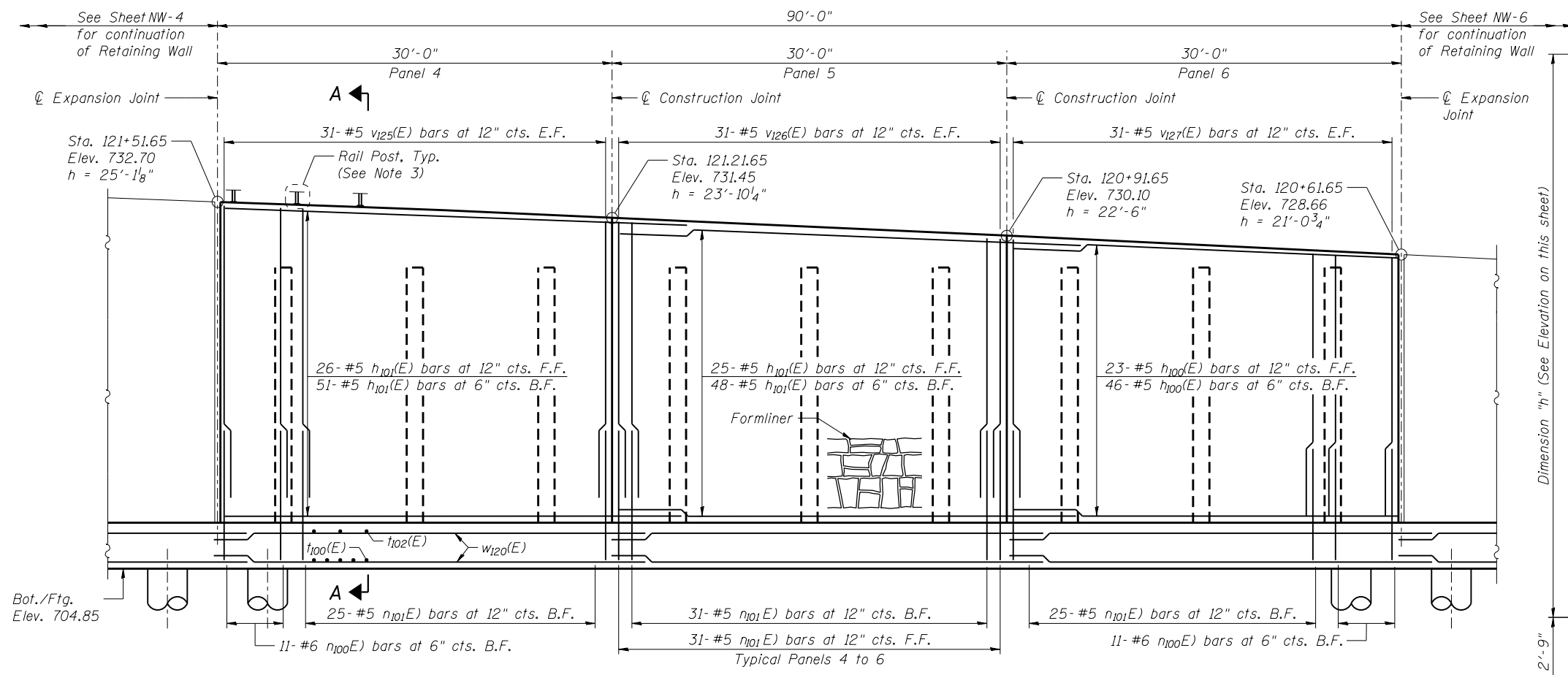
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAIL PLAN AND ELEVATION 1
STRUCTURE NO. 022-W068**

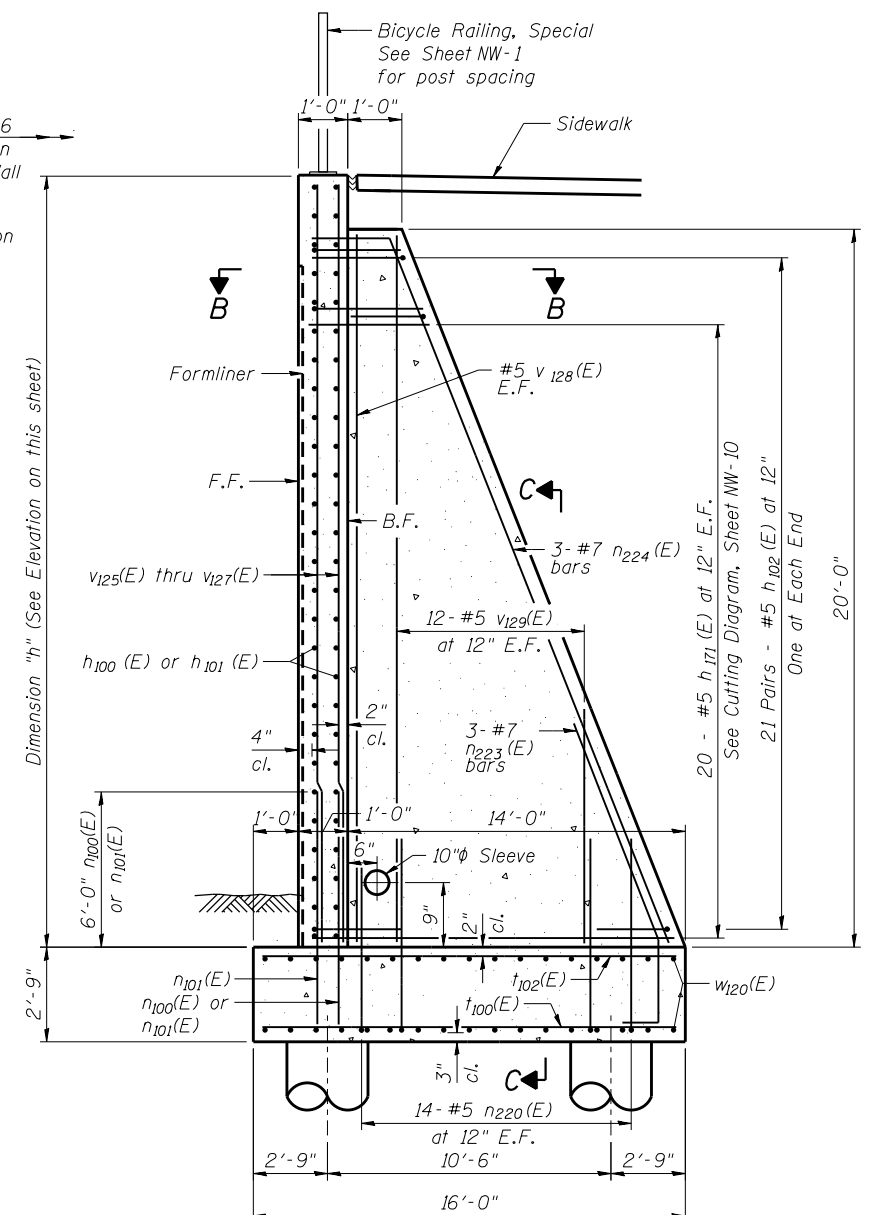
SHEET NO. NW-4 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	220
CONTRACT NO. 60R06				

ILLINOIS FED. AID PROJECT



ELEVATION

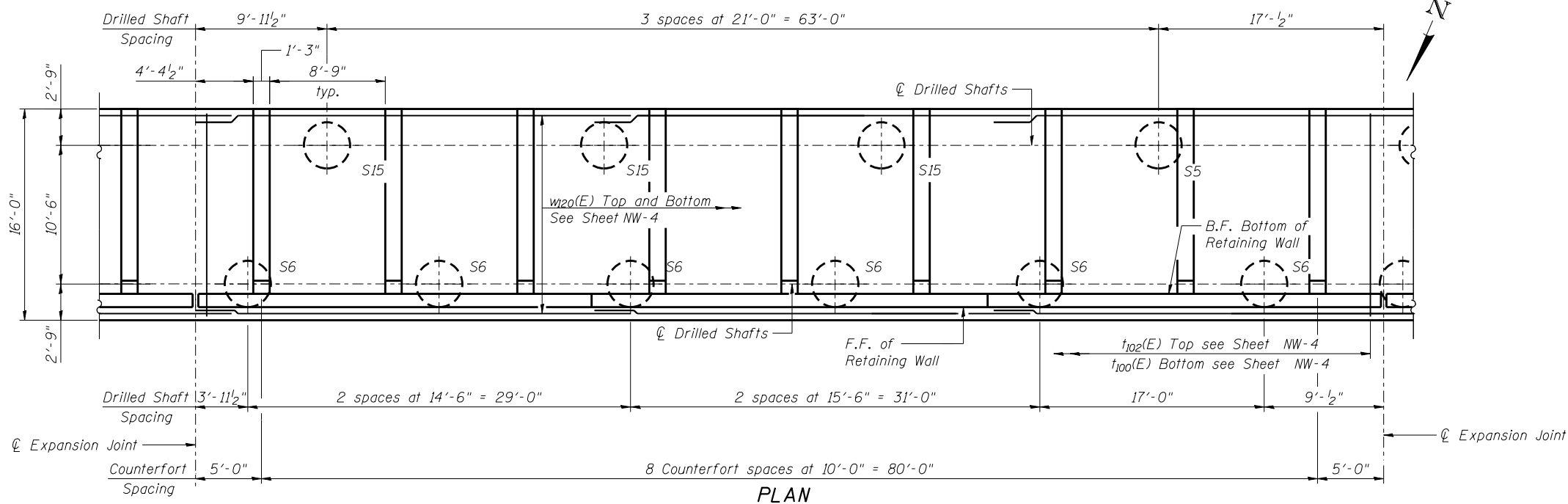


SECTION A-A

MINIMUM BAR LAP
 #5 Bar = 2'-7" (Vertical)
 #5 Bar = 2'-11" (Horizontal)
 #6 Bar = 3'-1"
 #7 Bar = 5'-2"

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet NW-10 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams Expansion Joint Details, Construction Joint Details and Sections B-B & C-C.
- See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.
- See General Notes Sheet for Wall Drainage Details.



PLAN



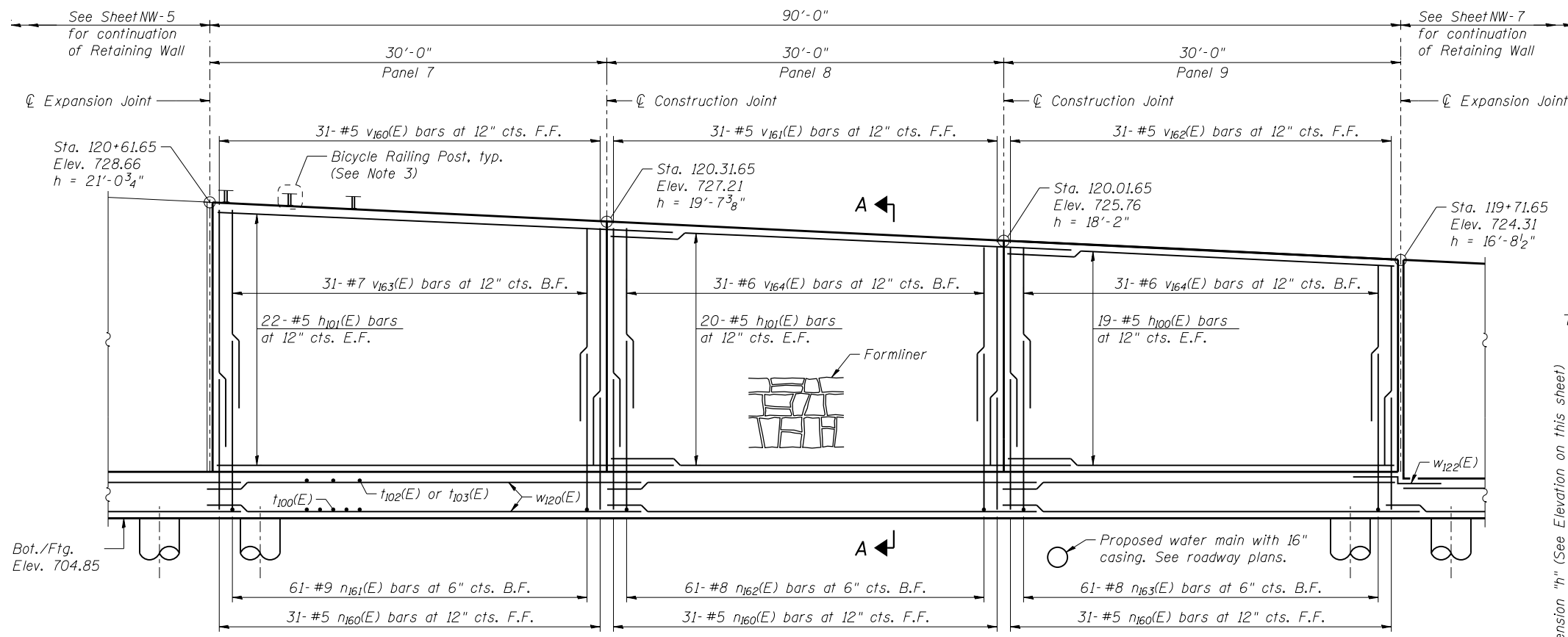
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

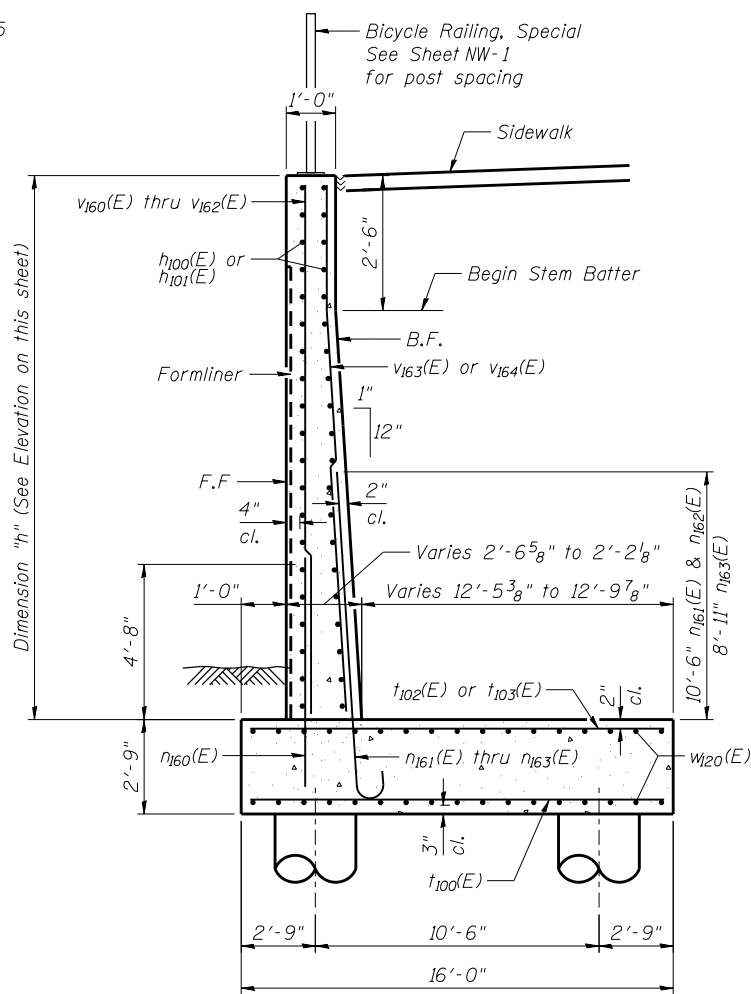
**DETAIL PLAN AND ELEVATION 2
STRUCTURE NO. 022-W068**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	

SHEET NO. NW-5 OF NW-16 SHEETS



ELEVATION



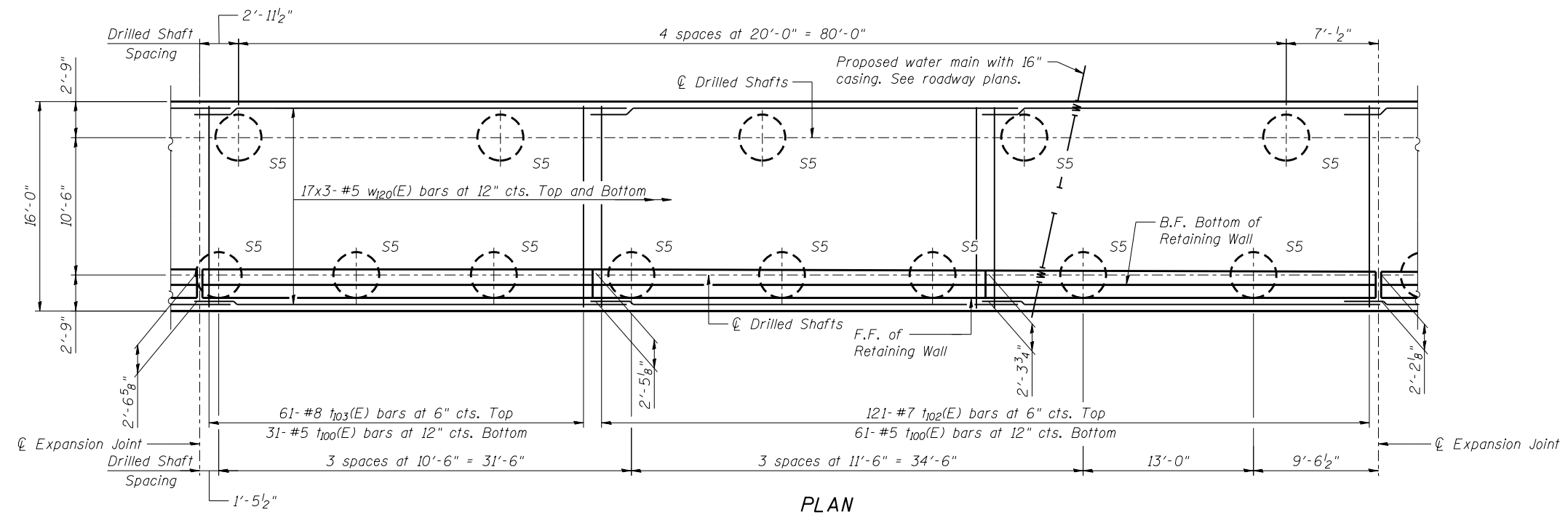
SECTION A-A

MINIMUM BAR LAP

- #5 Bar = 2'-7" (Vertical)
- #5 Bar = 2'-11" (Horizontal)
- #6 Bar = 3'-1"
- #7 Bar = 4'-2"

NOTES

1. F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face
2. See Sheet NW-10 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams, Wall Drainage Details, Expansion Joint Details and Construction Joint Details.
3. See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.
4. See General Notes Sheet for Wall Drainage Details.



PLAN



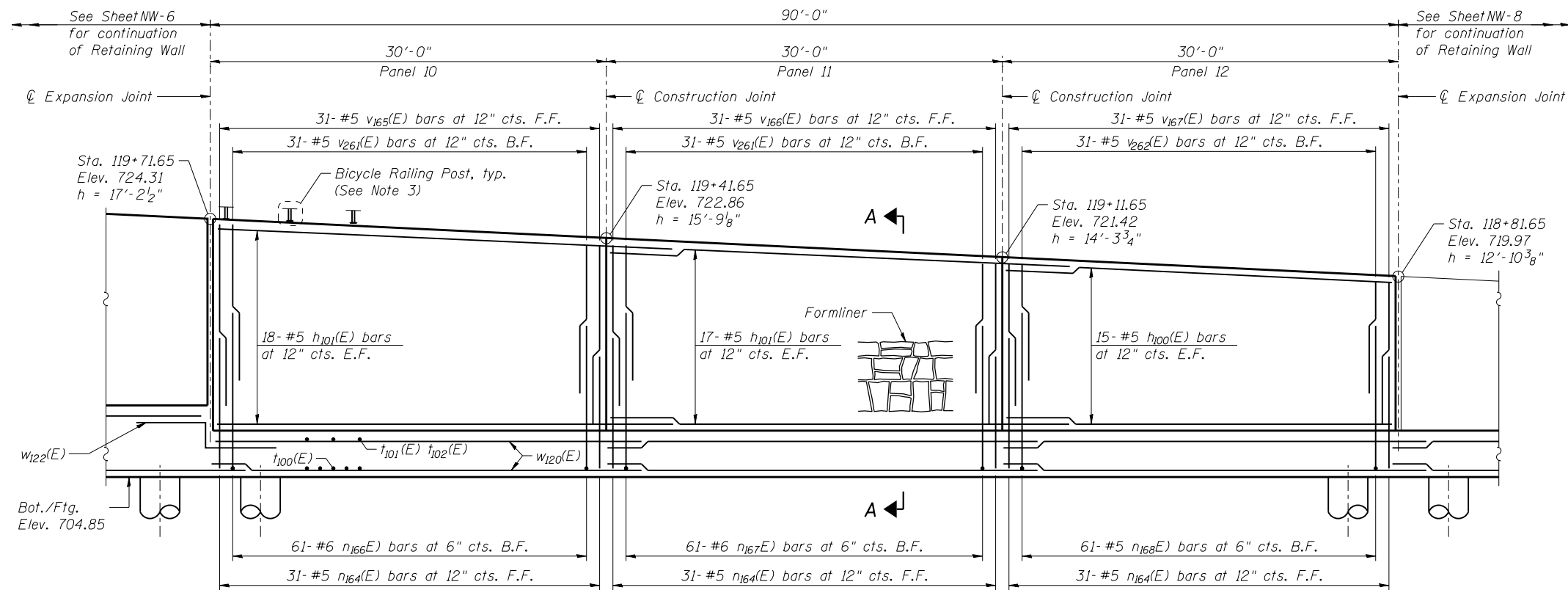
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

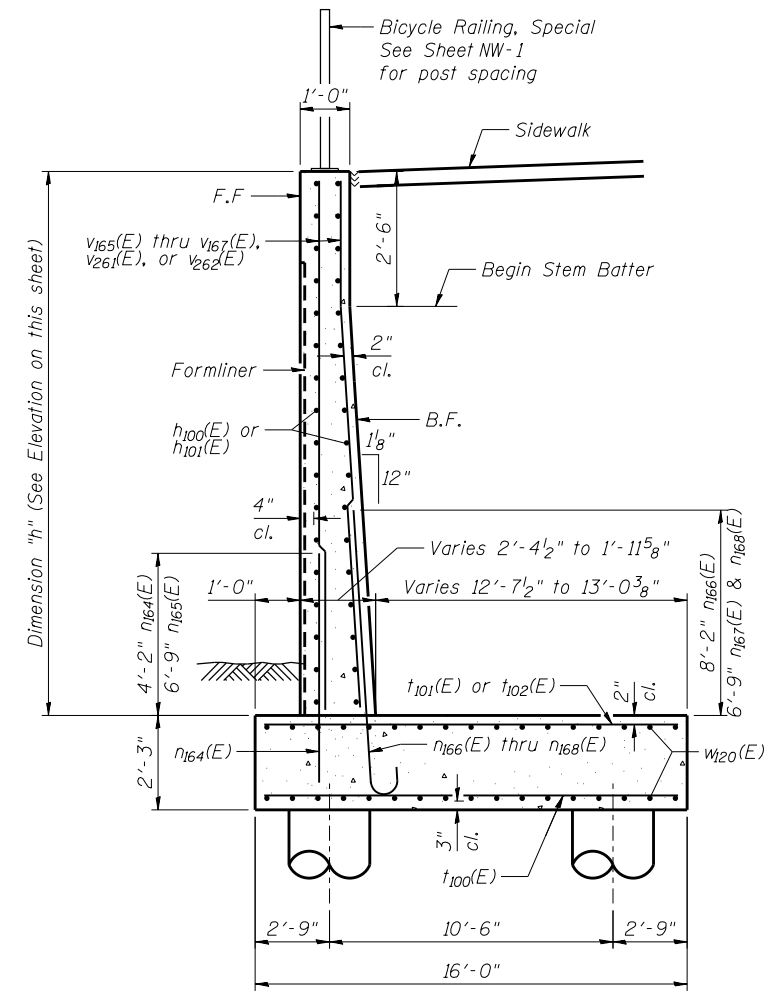
DETAIL PLAN AND ELEVATION 3
STRUCTURE NO. 022-W068

SHEET NO. NW-6 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	222
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



ELEVATION



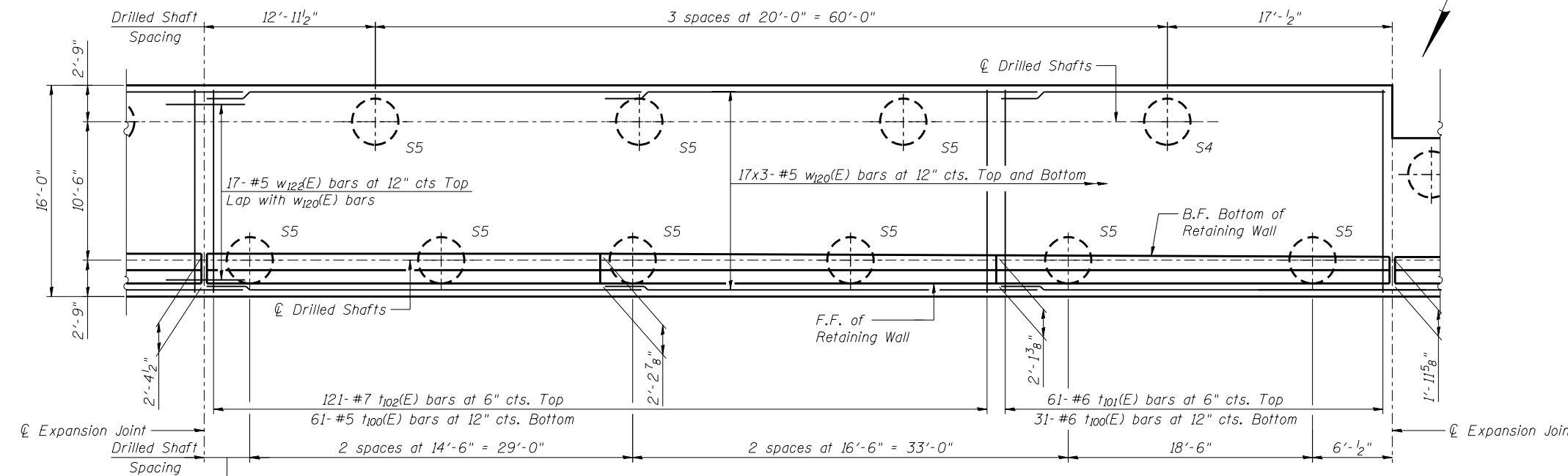
SECTION A-A

MINIMUM BAR LAP

- #5 Bar = 2'-7" (Vertical)
- #5 Bar = 2'-11" (Horizontal)
- #6 Bar = 3'-1"

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet NW-10 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams, Expansion Joint Details and Construction Joint Details.
- See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.
- See General Notes Sheet for Wall Drainage Details.



PLAN



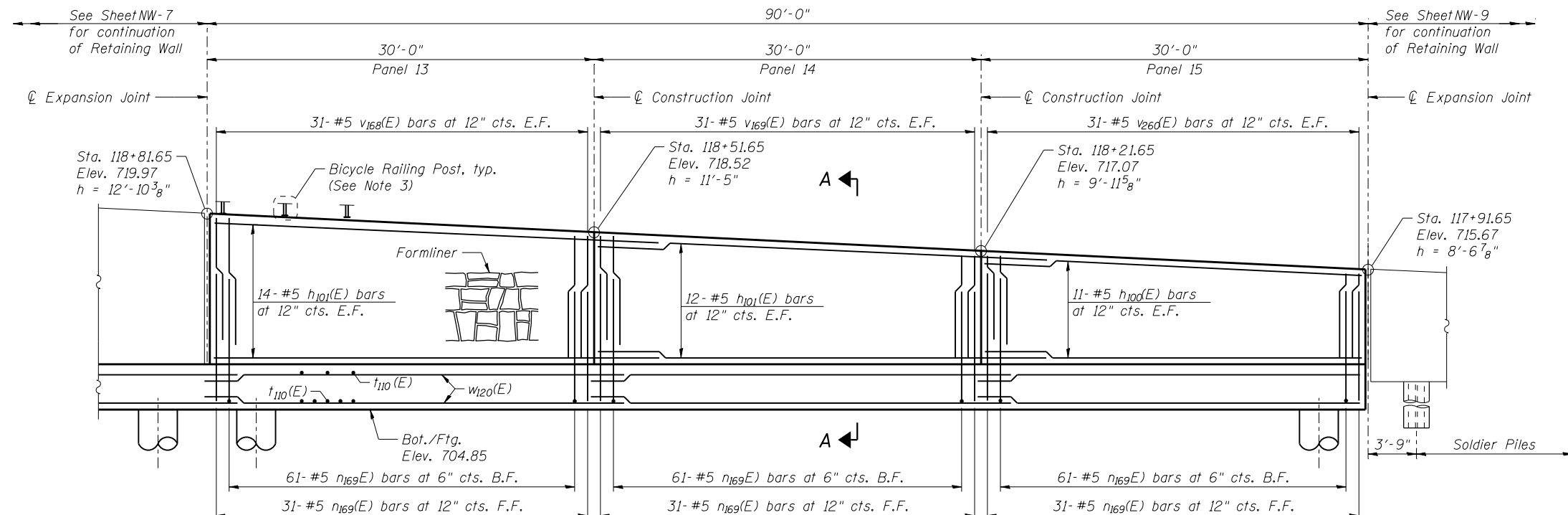
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PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

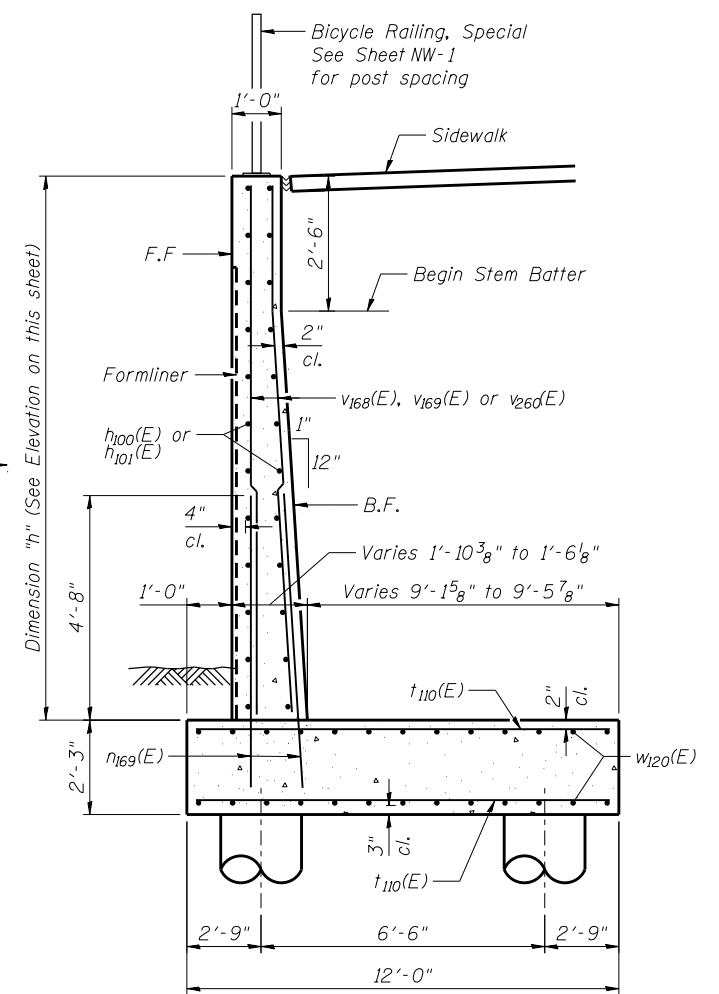
DETAIL PLAN AND ELEVATION 4
STRUCTURE NO. 022-W068

SHEET NO. NW-7 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	223
				CONTRACT NO. 60R06
ILLINOIS FED. AID PROJECT				



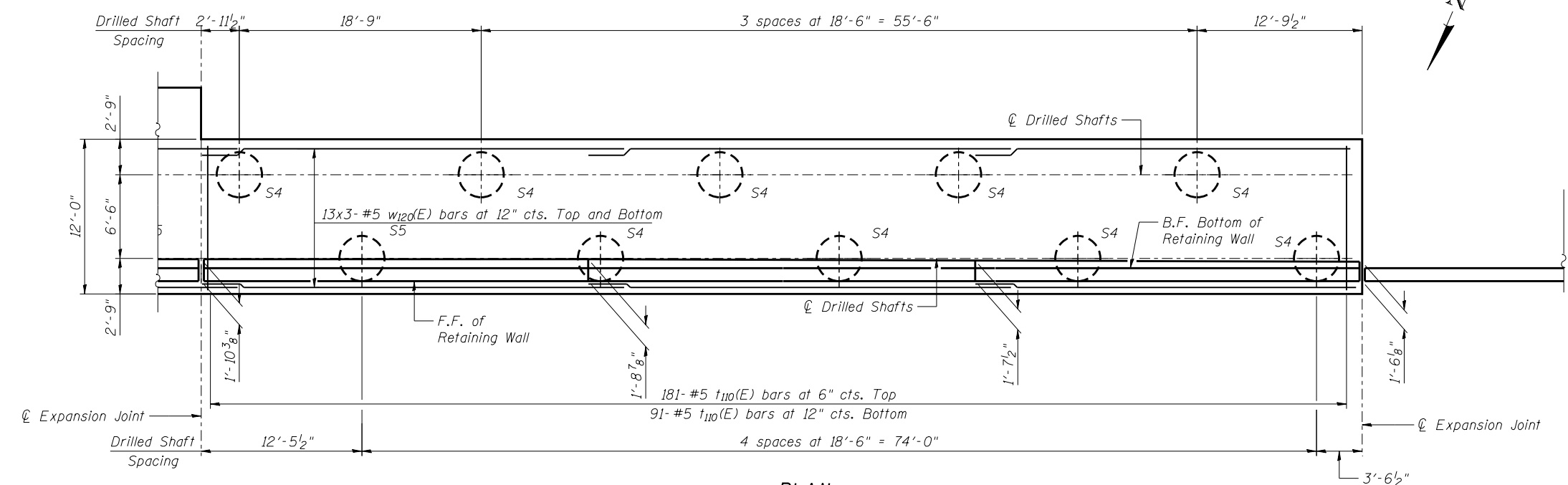
ELEVATION



SECTION A-A

MINIMUM BAR LAP
 #5 Bar = 2'-7" (Vertical)
 #5 Bar = 2'-11" (Horizontal)

- NOTES**
1. F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
 2. See Sheet NW-10 for Bill of Material and Bar Bending Diagrams.
 3. See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.
 4. See General Notes Sheet for Wall Drainage Details.



PLAN



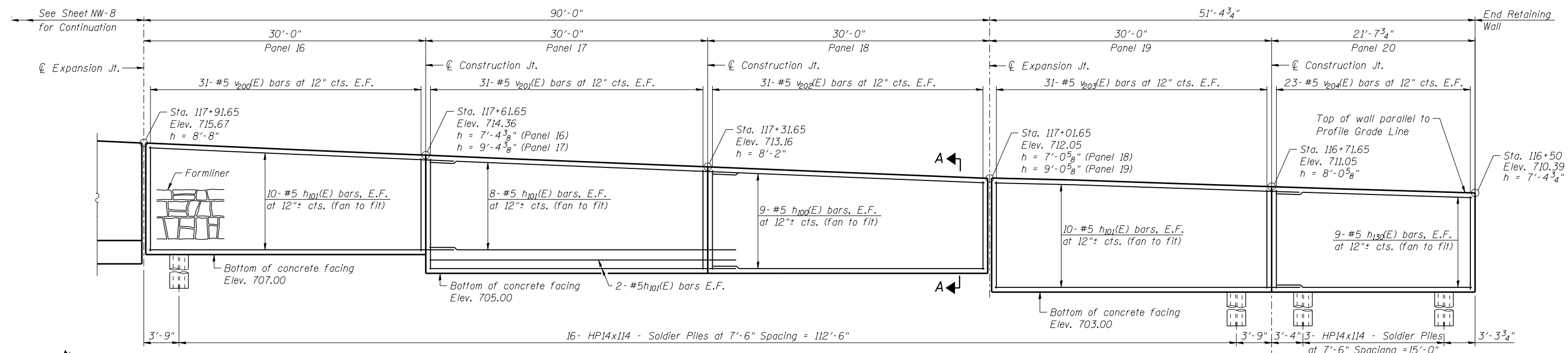
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PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

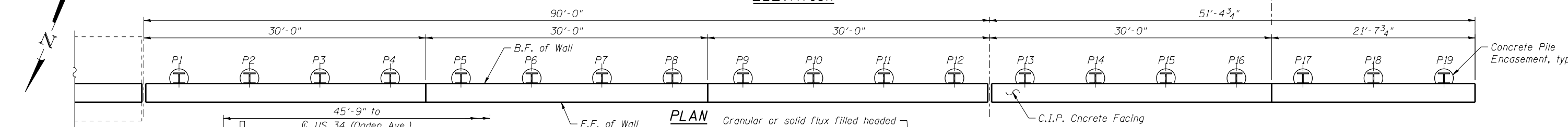
DETAIL PLAN AND ELEVATION 5
 STRUCTURE NO. 022-W068

SHEET NO. NW-8 OF NW-16 SHEETS

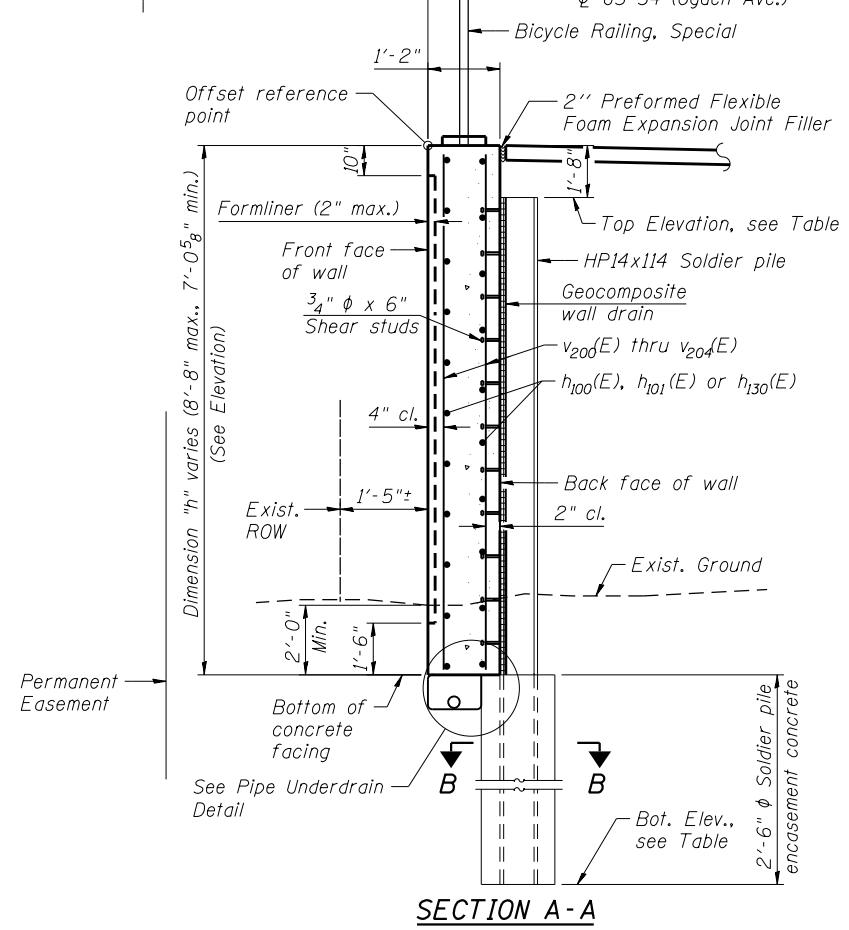
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	224
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



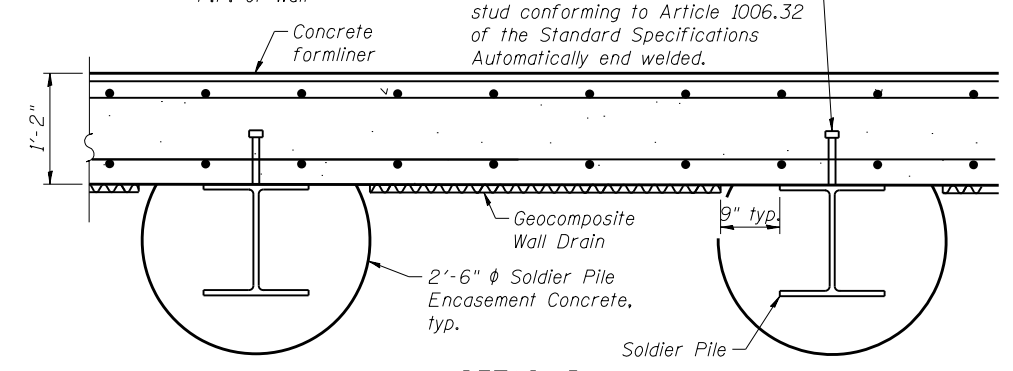
ELEVATION



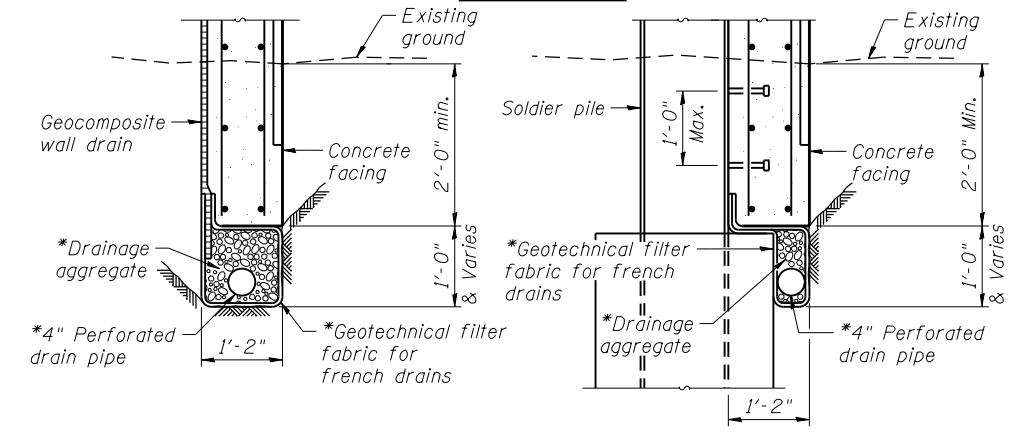
PLAN



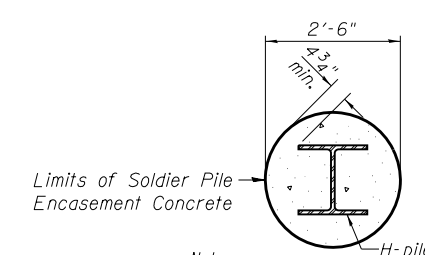
SECTION A-A



DETAIL PLAN



BETWEEN SOLDIER PILES
AT SOLDIER PILES
PIPE UNDERDRAIN DETAIL



Note: Forms for encasement may be omitted when soil conditions permit.

SECTION B-B

PILE DATA

Pile No.	Top Elev.	Bottom Elev.	Length Ft.	No. of Studs
P1	713.83	677.99	35'-10"	12
P2	713.49	678.66	34'-10"	11
P3	713.17	679.25	33'-11"	11
P4	712.85	679.93	32'-11"	11
P5	712.54	680.54	32'-0"	11
P6	712.23	681.14	31'-1"	10
P7	711.93	681.76	30'-2"	10
P8	711.63	682.38	29'-3"	10
P9	711.34	682.93	28'-5"	9
P10	711.06	683.48	27'-7"	9
P11	710.79	684.04	23'-9"	8
P12	710.52	684.60	22'-11"	8
P13	710.25	685.16	22'-2"	7
P14	710.00	685.72	21'-4"	7
P15	709.74	686.28	17'-7"	6
P16	709.50	686.84	16'-10"	5
P17	709.27	687.40	16'-2"	5
P18	709.04	687.96	15'-6"	5
P19	708.82	688.52	11'-10"	4

MINIMUM BAR LAP

#5 Bar = 2'-11"

NOTES:

- 1. F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - NPP	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 6
STRUCTURE NO. 022-W068

SHEET NO. NW-9 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	225
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

DRILLED SHAFT SCHEDULE

Shaft Designation	No. Shafts	Bottom of Footing	Tip Elevation	Est. Top of Rock	Vertical Reinforcement	Spiral Reinforcement	Pitch	Dowel Bar Reinforcement	Total Length	Rock Socket Length
S2	4	704.85	660	616.3	21x2-#9 v ₃₀₁	1x2-#5 s _{D305}	4"	21-#9 n _{300(E)}	44.9	-
S4	10	704.85	660	616.3	13x2-#9 v ₃₀₄	1x2-#5 s _{D306}	5 1/2"	13-#9 n _{301(E)}	44.9	-
S5	24	704.85	648	616.3	13x2-#9 v ₃₀₂	1x2-#5 s _{D307}	5 1/2"	13-#9 n _{301(E)}	56.9	-
S6	13	704.85	609	616.3	21x3-#9 v ₃₀₃	1x3-#5 s _{D308}	4"	21-#9 n _{300(E)}	95.9	7.30'
S15	3	704.85	648	616.3	21x2-#9 v ₃₁₂	1x2-#5 s _{D319}	4"	21-#9 n _{300(E)}	56.9	-

Notes:
See sheets NW-4 thru NW-8 for Drilled Shaft Locations.

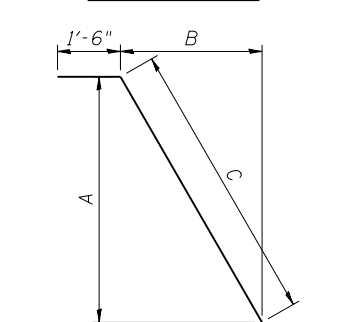
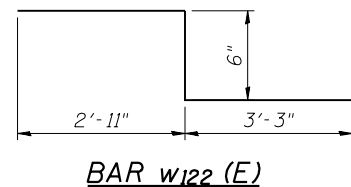
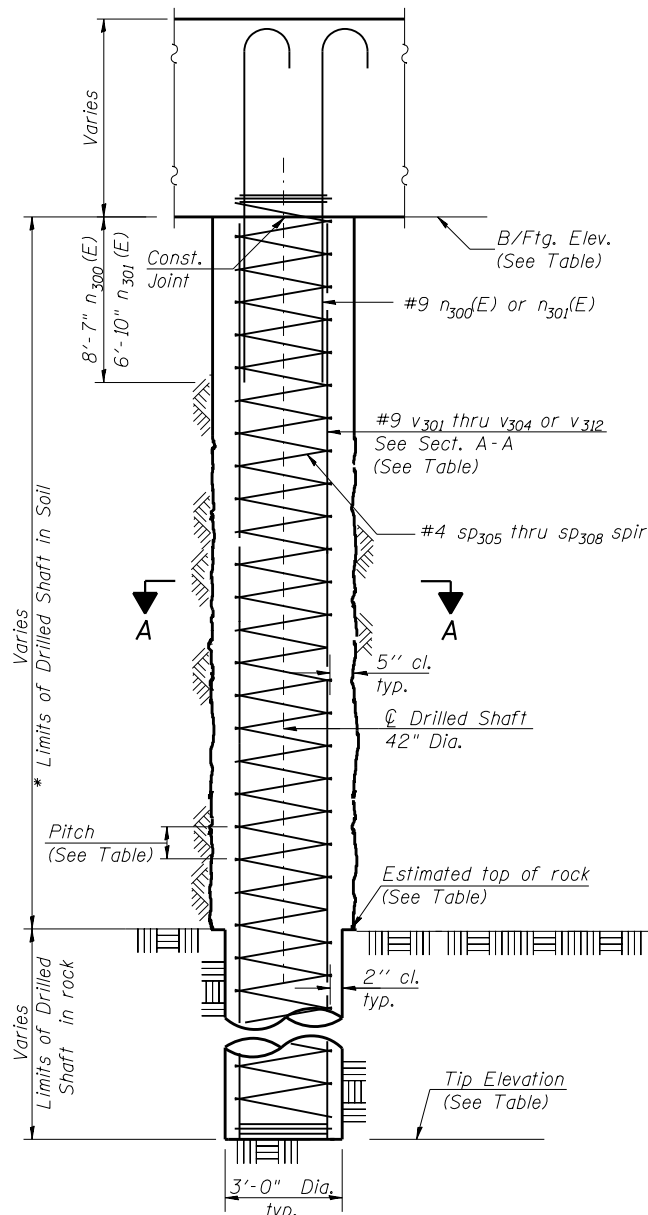
MINIMUM BAR LAP

#9 v₃₀₁, v₃₀₃ and v₃₁₂ Bars = 5'-9"
#9 v₃₀₂ and v₃₀₄ Bars = 4'-7"

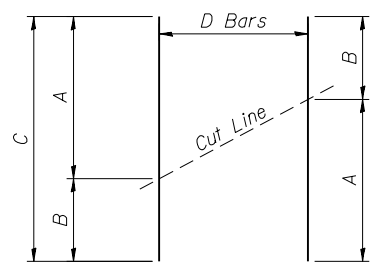
**BILL OF MATERIAL
DRILLED SHAFT**

Bar	No.	Size	Length	Shape
n _{300(E)}	420	#9	11'-6"	—
n _{301(E)}	442	#9	9'-9"	—
s _{D305}	8	#5	22'-8"	⋈
s _{D306}	20	#5	22'-8"	⋈
s _{D307}	48	#5	28'-8"	⋈
s _{D308}	39	#5	32'-1"	⋈
s _{D319}	6	#5	28'-8"	⋈
v ₃₀₁	168	#9	25'-4"	—
v ₃₀₄	260	#9	24'-9"	—
v ₃₀₂	624	#9	30'-9"	—
v ₃₀₃	819	#9	35'-10"	—
v ₃₁₂	126	#9	31'-4"	—

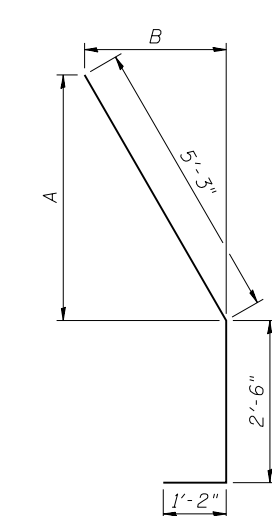
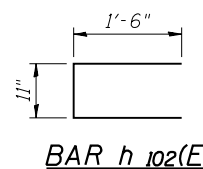
**Length is height of spiral.
Minimum lap for spirals = 2'-6"



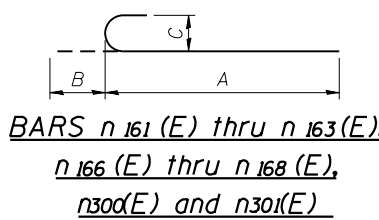
Bar	A	B	C
n ₂₂₂ (E)	23'-8"	12'-9 7/8"	26'-11"
n ₂₂₄ (E)	19'-8 1/2"	12'-9 5/8"	23'-6"



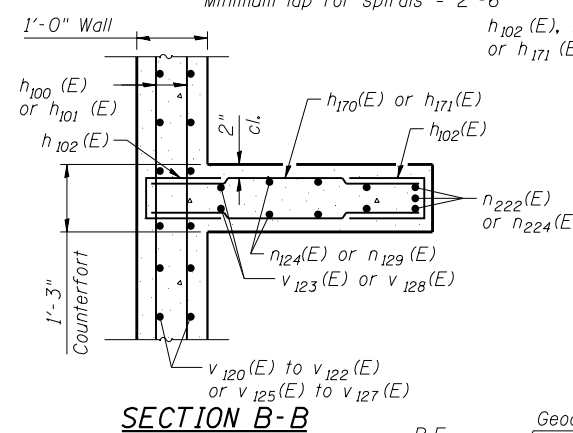
Bar	A	B	C	D
h ₁₇₀ (E)	14'-2"	2'-1"	16'-3"	23
h ₁₇₁ (E)	14'-2"	2'-1"	16'-3"	20
v ₁₂₄ (E)	23'-8"	4'-5"	28'-1"	12
v ₁₂₉ (E)	19'-8"	4'-1"	23'-9"	12
v ₂₀₀ (E)	8'-4"	7'-0"	15'-4"	31
v ₂₀₁ (E)	9'-0"	7'-10"	16'-10"	31
v ₂₀₂ (E)	7'-10"	6'-8"	14'-6"	31
v ₂₀₃ (E)	8'-8"	7'-8"	16'-4"	31
v ₂₀₄ (E)	7'-8"	7'-0"	14'-8"	23



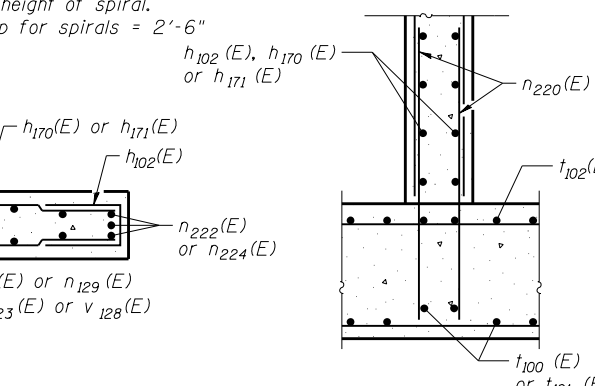
Bar	A	B
n ₂₂₁ (E)	4'-7 3/8"	2'-6"
n ₂₂₃ (E)	4'-4 1/8"	2'-10 3/8"



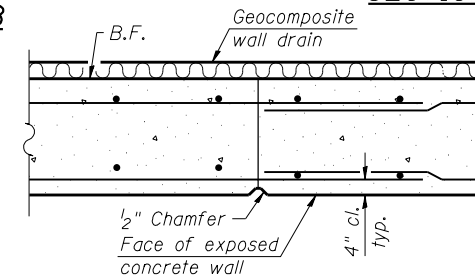
Bar	A	B	C
n ₁₆₁ (E)	13'-0"	1'-3"	11 3/4"
n ₁₆₂ (E)	13'-0"	11"	8"
n ₁₆₃ (E)	11'-5"	11"	8"
n ₁₆₆ (E)	10'-2"	8"	6"
n ₁₆₇ (E)	8'-9"	8"	6"
n ₁₆₈ (E)	8'-9"	7"	5"
n ₃₀₀ (E)	10'-3"	1'-3"	11 3/4"
n ₃₀₁ (E)	8'-6"	1'-3"	11 3/4"



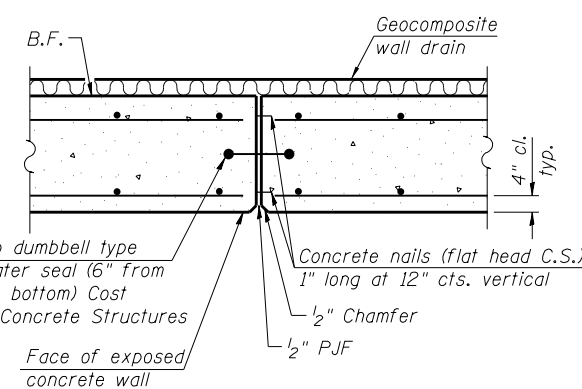
SECTION B-B



SECTION C-C



CONSTRUCTION JOINT DETAIL

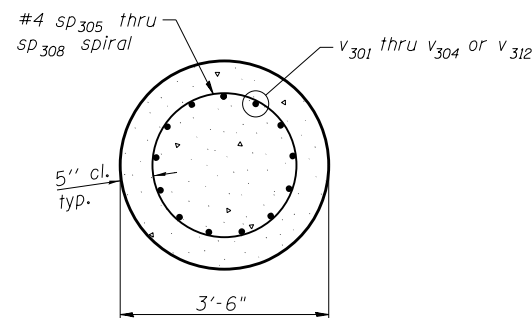


EXPANSION JOINT DETAIL

DRILLED SHAFT DETAILS

* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.

** Provide 1/2 extra turns top and bottom of each drilled shaft. Extend spiral 2" into retaining wall footing. Provide min. 4-#4 spacers or equivalent.



SECTION A-A

BILL OF MATERIAL - NW RETAINING WALL

Bar	No.	Size	Length	Shape
h ₁₀₀ (E)	257	#5	29'-8"	—
h ₁₀₁ (E)	586	#5	32'-11"	—
h ₁₀₂ (E)	810	#5	3'-11"	—
h ₁₃₀ (E)	18	#5	21'-3"	—
h ₁₇₀ (E)	207	#5	16'-3"	—
h ₁₇₁ (E)	180	#5	16'-3"	—
n ₁₀₀ (E)	44	#6	8'-6"	—
n ₁₀₁ (E)	348	#5	8'-6"	—
n ₁₆₀ (E)	93	#5	7'-2"	—
n ₁₆₁ (E)	61	#9	14'-3"	—
n ₁₆₂ (E)	61	#8	13'-11"	—
n ₁₆₃ (E)	61	#8	12'-4"	—
n ₁₆₄ (E)	93	#5	6'-2"	—
n ₁₆₆ (E)	62	#6	10'-10"	—
n ₁₆₇ (E)	62	#6	9'-5"	—
n ₁₆₈ (E)	62	#5	9'-4"	—
n ₁₆₉ (E)	276	#5	6'-8"	—
n ₂₂₀ (E)	504	#5	5'-3"	—
n ₂₂₁ (E)	27	#7	8'-11"	—
n ₂₂₂ (E)	27	#7	28'-5"	—
n ₂₂₃ (E)	27	#7	8'-11"	—
n ₂₂₄ (E)	27	#7	25'-0"	—
t ₁₀₀ (E)	365	#5	15'-8"	—
t ₁₀₁ (E)	61	#6	15'-8"	—
t ₁₀₂ (E)	603	#7	15'-8"	—
t ₁₀₃ (E)	61	#8	15'-8"	—
t ₁₁₀ (E)	272	#5	11'-8"	—
v ₁₂₀ (E)	186	#5	24'-7"	—
v ₁₂₃ (E)	18	#5	23'-8"	—
v ₁₂₄ (E)	108	#5	28'-1"	—
v ₁₂₅ (E)	62	#5	21'-6"	—
v ₁₂₆ (E)	62	#5	20'-3"	—
v ₁₂₇ (E)	62	#5	18'-11"	—
v ₁₂₈ (E)	18	#5	19'-8"	—
v ₁₂₉ (E)	108	#5	23'-9"	—
v ₁₆₀ (E)	31	#5	19'-3"	—
v ₁₆₁ (E)	31	#5	17'-10"	—
v ₁₆₂ (E)	31	#5	16'-4"	—
v ₁₆₃ (E)	31	#7	14'-6"	—
v ₁₆₄ (E)	62	#6	12'-2"	—
v ₁₆₅ (E)	31	#5	15'-5"	—
v ₁₆₆ (E)	31	#5	13'-11"	—
v ₁₆₇ (E)	31	#5	12'-6"	—
v ₁₆₈ (E)	62	#5	10'-8"	—
v ₁₆₉ (E)	62	#5	9'-2"	—
v ₂₀₀ (E)	31	#5	15'-4"	—
v ₂₀₁ (E)	31	#5	16'-10"	—
v ₂₀₂ (E)	31	#5	14'-6"	—
v ₂₀₃ (E)	31	#6	16'-4"	—
v ₂₀₄ (E)	23	#5	14'-8"	—
v ₂₆₀ (E)	62	#5	7'-9"	—
v ₂₆₁ (E)	62	#5	11'-5"	—
v ₂₆₂ (E)	31	#5	10'-0"	—
w ₁₂₀ (E)	678	#5	32'-11"	—
w ₁₂₂ (E)	17	#5	6'-8"	—

Structure Excavation	Cu. Yd.	1,762
Concrete Structures	Cu. Yd.	1,220.8
Reinforcement Bars	Pounds	292,740
Reinforcement Bars, Epoxy Coated	Pounds	174,600



USER NAME =	DESIGNED - KMP	REVISED
PLOT SCALE =	CHECKED - AMK	REVISED
PLOT DATE = 02/28/2014	DRAWN - KMP	REVISED
	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
STRUCTURE NO. 022-W068

SHEET NO. NW-10 OF NW-16 SHEETS

F.A.P. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	226
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



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BORING LOG RW-01

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 706.65 ft
North: 1849287.66 ft
East: 1010790.20 ft
Station: 116+87.20
Offset: 24.70 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
705.3	16-inch thick, CONCRETE --PAVEMENT--														
703.4	Medium dense, black and brown GRAVELLY SANDY LOAM --FILL--	1	X	1	9 12 18	NP	9								
702.9	Stiff, black and gray SILTY CLAY LOAM --BURIED TOPSOIL--	2	X	2	4 3 5	1.07 B	27								
702.3	Stiff, brown and gray SILTY CLAY --FILL--	5	X	5											
698.7	Very soft, black, brown and gray SILTY CLAY, trace organic matter	3	X	3	3 5 3	1.48 B	28								
696.2	Very stiff to hard, brown SILTY CLAY LOAM, trace gravel	4	X	4	4 2 3	0.16 B	34								
691.7	Boring terminated at 15.00 ft	5	X	5	5 9 11	4.92 B	18								
		6	X	6	7 9 13	3.53 B	17								
		15	X	15											
		20													

GENERAL NOTES

Begin Drilling **07-18-2012** Complete Drilling **07-18-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **C. Marin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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BORING LOG RW-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.34 ft
North: 1849321.79 ft
East: 1010869.67 ft
Station: 117+73.69
Offset: 24.54 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.7	8-inch thick CONCRETE --PAVEMENT--														
706.6	12-inch thick, CRUSHED STONE --BASE COURSE--														
704.3	4-inch thick, brown GRAVELLY SAND --FILL--	1	X	1	8 5 3	1.00 P	22								
702.3	Stiff, black, brown and gray SILTY CLAY LOAM, little gravel --FILL--	2	X	2	4 6 9	2.00 P	23								
698.3	Very stiff, black SILTY CLAY --BURIED TOPSOIL--	3	X	3	5 10 9	NP	18								
694.3	Very stiff, to hard, brown and gray SILTY CLAY LOAM, little gravel	4	X	4	5 50/5"	2.00 P	13								
687.3	Stiff, gray SILTY CLAY, little gravel	5	X	5	10 16 15	4.35 B	16								
		6	X	6	5 9 9	1.72 B	16								
		7	X	7	5 7 10	1.89 B	16								
		8	X	8	5 8 11	1.52 B	14								
		20													

GENERAL NOTES

Begin Drilling **07-18-2012** Complete Drilling **07-18-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **C. Marin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - NPP	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 1
STRUCTURE NO. 022-W068

SHEET NO. NW-11 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	227
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-05

Page 1 of 1

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.59 ft
North: 1849354.69 ft
East: 1010945.13 ft
Station: 118+56.02
Offset: 24.83 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.8	10-inch thick, CONCRETE --PAVEMENT--														
	Medium dense, black LOAM, with gravel	1	X	1	8 10 4	NP	9								
704.6	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	5	X	2	4 5 7	5.74 B	14								
		10	X	3	5 5 7	4.18 B	16								
		15	X	4	7 7 8	5.90 B	17								
		20	X	5	7 11 12	9.02 S	18								
		25	X	6	6 10 10	8.61 S	17								
		30	X	7	4 5 8	3.12 B	17								
		35	X	8	4 5 6	2.54 B	17								
687.6	Boring terminated at 20.00 ft	20													

GENERAL NOTES

Begin Drilling **07-17-2012** Complete Drilling **07-17-2012**
 Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
 Driller **R&J** Logger **N. Boddy** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
 At Completion of Drilling **DRY**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-07

Page 1 of 1

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.93 ft
North: 1849383.19 ft
East: 1011010.83 ft
Station: 119+27.63
Offset: 24.95 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.0	11-inches thick CONCRETE --PAVEMENT--														
	Loose, black and gray SILTY LOAM, with gravel --FILL--	1	X	1	10 6 3	NP	11					9	4 6 9	1.00 P	17
704.9	Medium stiff to very stiff, gray SILTY CLAY, trace to some gravel	5	X	2	2 4 5	1.50 P	15					25	8 21 16	0.82 B	11
		10	X	3	3 5 5	2.46 B	18					30	12 20 19	1.31 S	15
		15	X	4	4 8 11	3.12 B	15					35	13 12 12	3.50 P	9
		20	X	5	5 6 8	2.25 P	15					40			
		25	X	6	4 8 14	3.28 B	13								
		30	X	7	4 5 7	2.75 P	17								
		35	X	8	3 6 7	2.13 B	17								
	Boring terminated at 30.00 ft	30						677.9							

GENERAL NOTES

Begin Drilling **07-17-2012** Complete Drilling **07-17-2012**
 Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
 Driller **R&J** Logger **N. Boddy** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
 At Completion of Drilling **DRY**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - NPP	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 2
STRUCTURE NO. 022-W068

SHEET NO. NW-12 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	228
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



BORING LOG RW-09

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WEI Job No.: 119-20-01
 Client: URS Corporation
 Project: US Rte 34 Grade Separation over the CNRR
 Location: SE 1/4 Section 29, T 38N, R 9E 3rd PM

Datum: NAV88
 Elevation: 705.73 ft
 North: 1849410.11 ft
 East: 1011079.07 ft
 Station: 120+00.94
 Offset: 22.62 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
704.9	10-inches thick CONCRETE --PAVEMENT--							684.2	Medium dense, gray SANDY GRAVEL	9		9	10 13 12	4.00 P	6
702.2	Medium dense, gray SANDY GRAVEL --BASE COURSE--			1	14 13 4	NP	7								
		5		2	2 2 5	1.48 B	24			25		10	4 10 14	NP	7
	Stiff to hard, brown and gray SILTY CLAY, trace to little gravel			3	4 5 6	3.61 B	13	679.2	Stiff, gray SILTY CLAY to SILTY CLAY LOAM, some gravel			11	11 15 10	1.50 P	15
		10		4	2 4 6	2.21 B	17			30		12	11 18 13	1.75 P	9
				5	7 9 11	1.25 P	15								
		15		6	4 6 8	3.85 B	16								
				7	3 5 8	2.30 B	17								
		20		8	5 6 11	3.94 B	9								
								675.7	Boring terminated at 30.00 ft						

GENERAL NOTES

Begin Drilling 07-17-2012 Complete Drilling 07-17-2012
 Drilling Contractor Wang Testing Service Drill Rig D-50 TMR
 Driller R&J Logger N. Boddy Checked by M. Snider
 Drilling Method 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling 21.50 ft
 At Completion of Drilling CAVE 20 feet
 Time After Drilling NA
 Depth to Water NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-11

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WEI Job No.: 119-20-01
 Client: URS Corporation
 Project: US Rte 34 Grade Separation over the CNRR
 Location: SE 1/4 Section 29, T 38N, R 9E 3rd PM

Datum: NAV88
 Elevation: 708.79 ft
 North: 1849445.99 ft
 East: 1011157.12 ft
 Station: 120+86.83
 Offset: 24.63 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.0	9-inch thick CONCRETE --PAVEMENT--							683.3	Medium dense, gray SANDY GRAVEL	9		9	6 12 19	3.94 B	14
707.5	Black and brown LOAM, with gravel --FILL--			1	17 9 8	2.00 P	18								
705.8	Very stiff, black SILTY CLAY, some gravel --FILL--			2	4 4 4	0.50 P	26			25		10	4 9 14	1.48 S	10
704.7	Medium stiff, black and brown CLAY LOAM, some gravel --FILL--			3	4 3 4	NP	18					11	5 9 15	NP	9
702.3	Loose, brown SILTY LOAM with gravelly sand			4	10 16 16	NP	12	680.8	Very dense, gray SILTY LOAM, little gravel			12	11 24 30	NP	11
700.8	Dense, brown SAND, some gravel			5	4 6 8	3.03 B	12	680.0	Very dense, gray GRAVELLY SAND			13	7 25 22	4.26 B	17
698.3	Very stiff to hard, gray SILTY CLAY, trace gravel			6	7 10 14	2.54 B	15	676.8	Hard, gray SILTY CLAY, little gravel			14	14 15 17	4.50 P	25
		15		7	4 8 8	4.50 P	14								
		20		8				668.8	Boring terminated at 20.00 ft						

GENERAL NOTES

Begin Drilling 07-17-2012 Complete Drilling 07-18-2012
 Drilling Contractor K&S Drill Rig D-120 TMR
 Driller C&E Logger J. Lundin Checked by AAH
 Drilling Method 4.5" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling 29.50 ft
 At Completion of Drilling CAVE 25.00 ft
 Time After Drilling NA
 Depth to Water NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISOR
	CHECKED - NPP	REVISION
PLOT SCALE =	DRAWN - KMP	REVISION
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISION

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 3
 STRUCTURE NO. 022-W068

SHEET NO. NW-13 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	229
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



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BORING LOG RW-13

WEI Job No.: 119-20-01

Client: URS Corporation
 Project: US Rte 34 Grade Separation over the CNRR
 Location: SE 1/4 Section 29, T 38N, R 9E 3rd PM

Datum: NAV88
 Elevation: 708.98 ft
 North: 1849471.36 ft
 East: 1011214.08 ft
 Station: 121+49.18
 Offset: 25.35 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Cu (tsf)	Moisture Content (%)	Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Cu (tsf)	Moisture Content (%)
	708.1	10-inch thick CONCRETE --PAVEMENT--															
	707.3	Brown LOAM, with gravel --FILL--			1	8 12 7	NP	17						9	7 12 15	2.30 B	15
	706.0	Black and brown, SILTY LOAM --FILL--															
	705.0	Very soft, brown and black SILTY CLAY LOAM, with sand and trace organic matter			2	3 4 7	0.25 B	28						10	7 12 22	NP	14
	702.5	Medium dense, brown SAND, some gravel															
		Medium dense, brown SILTY LOAM			3	5 5 6	NP	19						11	6 11 20	NP	11
					4	4 10 13	NP	23						12	11 11 21	3.50 P	14
	697.5	Loose, black and gray SILTY LOAM, trace organic matter			5	4 3 4	NP	18									
	696.0	Very stiff to hard, gray SILTY CLAY, trace to little gravel															
					6	5 9 8	2.38 B	15						13	9 12 14	NP	19
					7	4 11 13	3.94 B	14									
					8	12 17 20	4.00 P	15						14	11 19 23	4.67 B	16
GENERAL NOTES										WATER LEVEL DATA							
Begin Drilling 07-17-2012 Complete Drilling 07-17-2012										While Drilling 33.50 ft							
Drilling Contractor K&S Drill Rig D-120 TMR										At Completion of Drilling 21.00 ft							
Driller C&E Logger J. Lundin Checked by M. Snider										Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion										Depth to Water NA							
										The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

WANGENG INC 1192001.GPJ WANGENG.GDT 8/6/12

Boring terminated at 40.00 ft



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - NPP	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 4
 STRUCTURE NO. 022-W068

SHEET NO. NW-14 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	230
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-15

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 708.17 ft
North: 1849492.75 ft
East: 1011265.96 ft
Station: 122+05.29
Offset: 24.42 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.4	9-inch thick CONCRETE --PAVEMENT-- Medium dense, black SILTY LOAM, some gravel --FILL--	1	X	1	15 13 11	NP	7	687.7	Very stiff to hard gray SILTY CLAY LOAM, trace to little gravel	9	X	9	6 9 17	3.69 B	14
		2	X	2	6 4 6	1.50 P	28			10	X	10	50/3	4.50 P	14
702.7	Medium dense, brown SILTY LOAM, trace organic matter and sand lenses	3	X	3	4 5 5	NP	18			11	X	11	8 10 50/5	4.67 B	17
		4	X	4	4 4 6	NP	22	680.2	Very stiff gray SILTY CLAY, trace gravel	12	X	12	30 12 9	3.50 P	9
697.7	Medium stiff to very stiff, gray SILTY CLAY LOAM, trace gravel	5	X	5	3 3 7	0.49 B	20			13	X	13	7 7 13	2.50 P	13
		6	X	6	3 8 8	1.48 B	11			14	X	14	6 8 10	3.20 B	23
		7	X	7	5 12 14	3.69 B	15	671.2	Very stiff, gray CLAY						
690.2	Medium dense SILTY LOAM, little gravel	8	X	8	11 10 15	NA	14								

GENERAL NOTES

Begin Drilling **07-16-2012** Complete Drilling **07-17-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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BORING LOG RW-15

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 708.17 ft
North: 1849492.75 ft
East: 1011265.96 ft
Station: 122+05.29
Offset: 24.42 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
658.2	Boring terminated at 50.00 ft	15	X	15	4 7 9	2.95 B	26			45					
		16	X	16	7 11 10	3.03 B	21			50					

GENERAL NOTES

Begin Drilling **07-16-2012** Complete Drilling **07-17-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =
DESIGNED - KMP
CHECKED - NPP
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - NPP

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 5
STRUCTURE NO. 022-W068

SHEET NO. NW-15 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	231
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-17

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.99 ft
North: 1849512.14 ft
East: 1011310.43 ft
Station: 122+53.80
Offset: 24.58 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.4	7.5-inch thick CONCRETE --PAVEMENT--														
	Dense, black SILTY LOAM, some gravel --FILL--	1	X	1	20 21 16	NP	5				X	9	8 11 15	NA	15
705.0	Stiff, black and gray SILTY CLAY LOAM --FILL--	2	X	2	6 5 8	1.50 P	30	685.0	Hard, gray SILTY CLAY, trace gravel	25	X	10	4 8 12	4.10 B	16
702.5	Brown SILTY LOAM	3		3	P U S H	NP	19	682.5	Medium dense to dense, gray SILTY LOAM, trace gravel	30	X	11	9 9 15	NP	16
		4		4	P U S H	NP		679.0	Very stiff, gray SILTY CLAY LOAM	30	X	12	8 18 22	3.50 P	16
697.5	Very stiff, gray SILTY CLAY LOAM, trace gravel	2	X	2	4 7 13	3.00 P	14	678.2	Gray GRAVELLY SAND						
		6		6	P U S H	NA		677.0	Stiff to very stiff, gray CLAY, trace gravel	35	X	13	6 9 13	2.46 B	23
		7		7	P U S H		2.86 B								
		8		8	5 10 11	2.21 B	15			40	X	14	9 7 8	1.89 B	27

GENERAL NOTES

Begin Drilling: **07-16-2012** Complete Drilling: **07-16-2012**
Drilling Contractor: **K&S** Drill Rig: **D-120 TMR**
Driller: **C&E** Logger: **J. Lundin** Checked by: **M. Snider**
Drilling Method: **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **32.00 ft**
At Completion of Drilling: **30.00 ft**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-17

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.99 ft
North: 1849512.14 ft
East: 1011310.43 ft
Station: 122+53.80
Offset: 24.58 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
658.0	Boring terminated at 50.00 ft														
		15	X	15	4 6 6	2.62 B	26								
		16	X	16	6 10 12	3.77 B	20								

GENERAL NOTES

Begin Drilling: **07-16-2012** Complete Drilling: **07-16-2012**
Drilling Contractor: **K&S** Drill Rig: **D-120 TMR**
Driller: **C&E** Logger: **J. Lundin** Checked by: **M. Snider**
Drilling Method: **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **32.00 ft**
At Completion of Drilling: **30.00 ft**
Time After Drilling: **NA**
Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =
DESIGNED - KMP
CHECKED - NPP
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - NPP

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 6
STRUCTURE NO. 022-W068

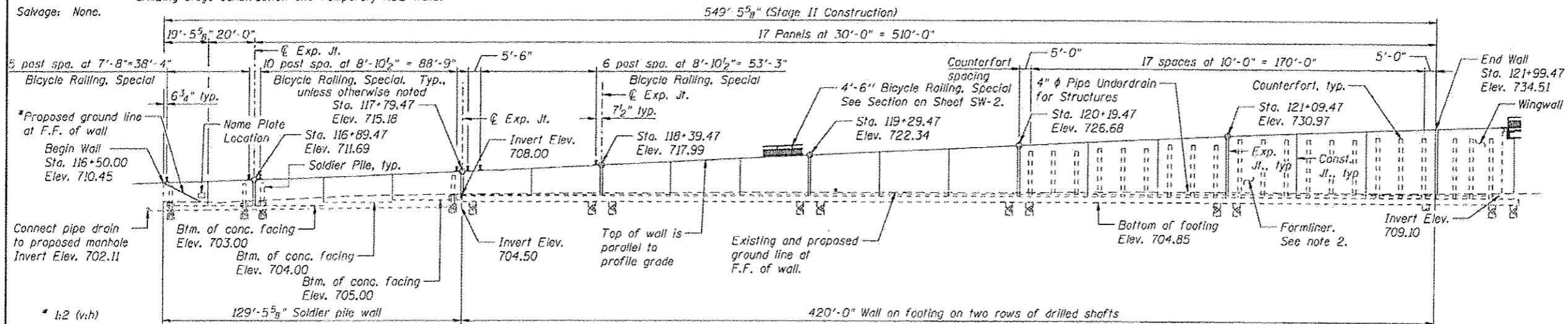
SHEET NO. NW-16 OF NW-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	232
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

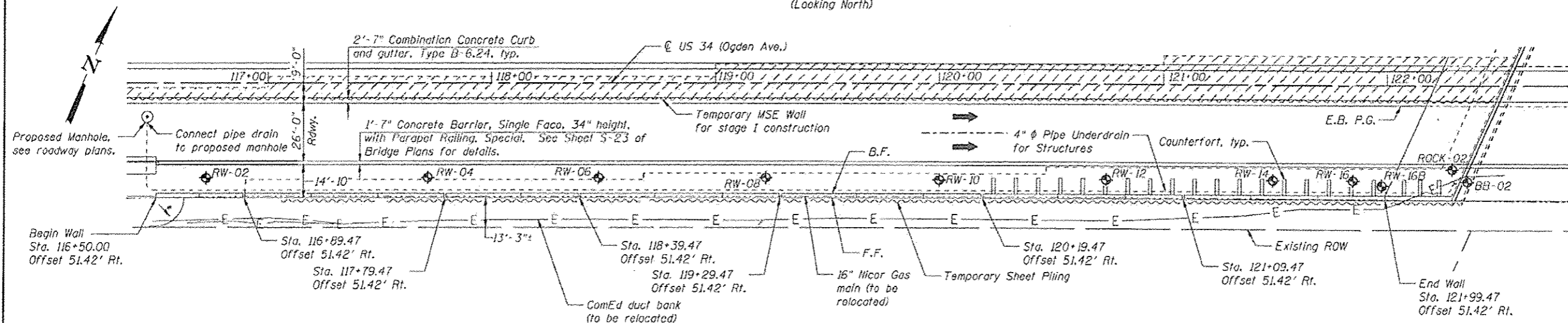
Benchmark: CP#3 - P.K. Rod in ground at driveway next to Nicor Gas pressure regulation station. Sta. 113+67.17, 50.22' Rt. Elev. 706.54.

Existing Structure: None. One lane of traffic in both directions to be maintained during construction utilizing stage construction and Temporary MSE Walls.

Salvage: None.



ELEVATION
(Looking North)



PLAN

APPROVED
For Structural Adequacy Only

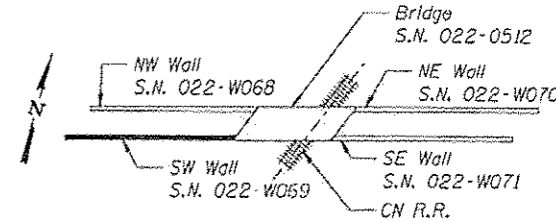
Dr. Carl Kruger
Engineer of Bridges & Structures

STATION 116+50.00 TO 121+99.47
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 311 SEC. 652-A
LOADING HL-93
STR. NO. 022-W069

NAME PLATE
See Std. 515001



Arsalan Khan
ARSALAN M. KHAN, S.E.
LICENSE NO.: 081-006258
EXPIRES: NOVEMBER 30, 2014
DATE: 02-26-2014



KEY PLAN

GENERAL PLAN & ELEVATION
SW RETAINING WALL - US 34 (OGDEN AVE.)
F.A.P. RTE. 311 - SECTION 652-A
DUPAGE COUNTY
STA. 116+50.00 TO STA. 121+99.47
STRUCTURE NO. 022-W069

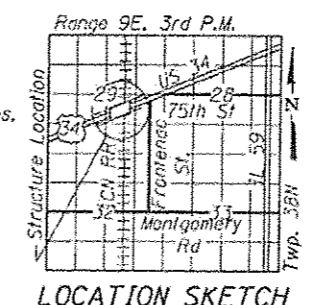
NOTES

- All Offsets are taken from the @ US 34 to the front face of the retaining wall.
- Form liner textured surface shall be applied to the retaining walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in Impression.

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES
FIELD UNITS

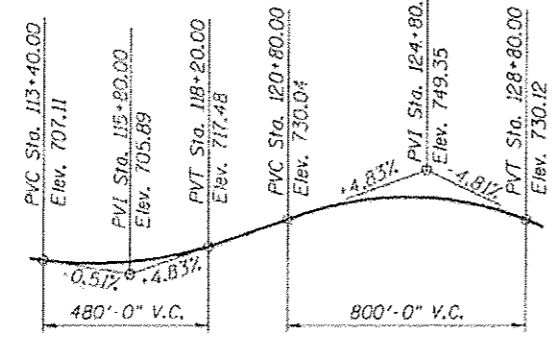
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)



LOCATION SKETCH

LEGEND

- ◆ Soil Boring Location
- F.F. Front Face
- B.F. Back Face
- E.B. Eastbound
- W.B. Westbound
- ▨ Limits of reinforced soil mass



PROFILE GRADE - US 34
Along E.B. and W.B. P.G.'s



USER NAME *	DESIGNED - KMP/PMV	REVISED
PLOT SCALE *	CHECKED - AMK	REVISED
PLOT DATE * 03/17/2014	DRAWN - PMV	REVISED
	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. SW-1 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	233
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Form liner textured surface shall be applied to the wingwalls, retaining walls and noise abatement walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.
3. The pattern produced on the exposed surfaces of the concrete wingwalls, retaining walls and the noise abatement walls shall be identical. The concrete stain applied to the surfaces of all of those items shall also be identical. The Contractor shall provide all necessary coordination and direction with its vendor manufacturing the noise abatement walls to assure the same concrete form liners and stain are used for them as those for the cast-in-place wingwalls and retaining walls.

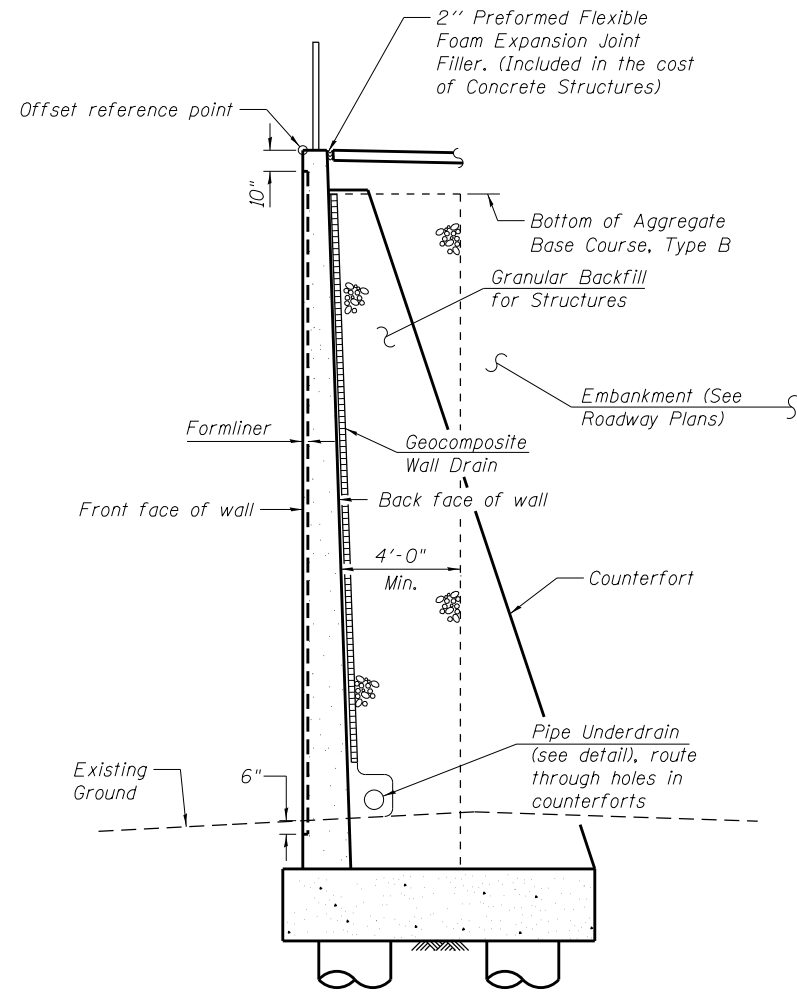
INDEX OF SHEETS

- SW-1 General Plan and Elevation
- SW-2 General Notes, Index of Sheets and Bill of Material
- SW-3 Detailed Plan and Elevation 1
- SW-4 Detailed Plan and Elevation 2
- SW-5 Detailed Plan and Elevation 3
- SW-6 Detailed Plan and Elevation 4
- SW-7 Detailed Plan and Elevation 5
- SW-8 Detailed Plan and Elevation 6
- SW-9 Miscellaneous Details
- SW-10 Soil Borings 1
- SW-11 Soil Borings 2
- SW-12 Soil Borings 3
- SW-13 Soil Borings 4
- SW-14 Soil Borings 5
- SW-15 Soil Borings 6

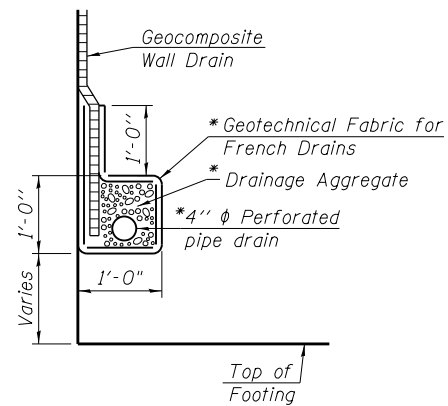
TOTAL BILL OF MATERIALS

Item	Unit	Total
Structure Excavation	Cu. Yd.	1,324
Concrete Structures	Cu. Yd.	1,114.1
Form Liner Textured Surface	Sq. Ft.	7,278
Stud Shear Connectors	Each	173
Reinforcement Bars	Pound	217,310
Reinforcement Bars, Epoxy Coated	Pound	159,810
Bicycle Railing, Special	Foot	550
Parapet Railing, Special	Foot	556
Name Plates	Each	1
Drilled Shaft in Soil	Cu. Yd.	970
Drilled Shaft in Rock	Cu. Yd.	23
Geocomposite Wall Drain	Sq. Yd.	870
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	92
Granular Backfill for Structures	Cu. Yd.	1,352
Furnishing Soldier Piles (HP Section)	Foot	506
Temporary Sheet Piling	Sq. Ft.	7,554
Pipe Underdrains for Structures 4"	Foot	591
Staining Concrete Structures	Sq. Ft.	7,278

Note: Bill of Material shown for Retaining Wall quantities only. For Bridge Bill of Material, see Sheet S-6.



SECTION THRU RETAINING WALL

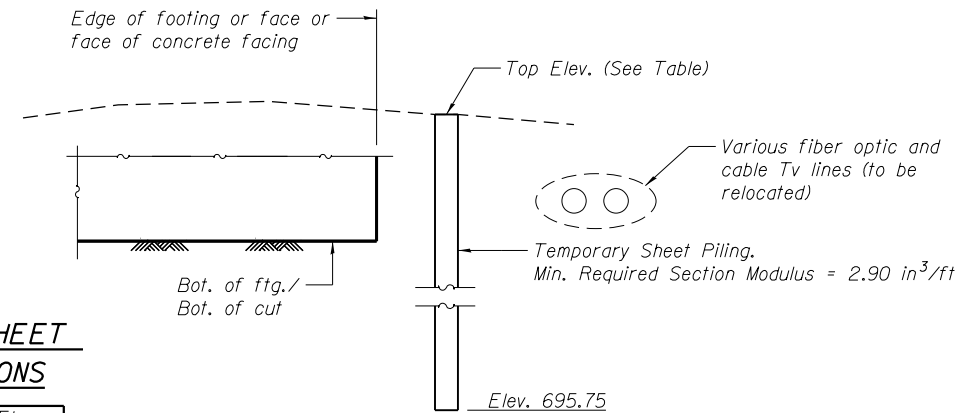


PIPE UNDERDRAIN DETAIL

*Included in the cost of Pipe Underdrains for Structures.

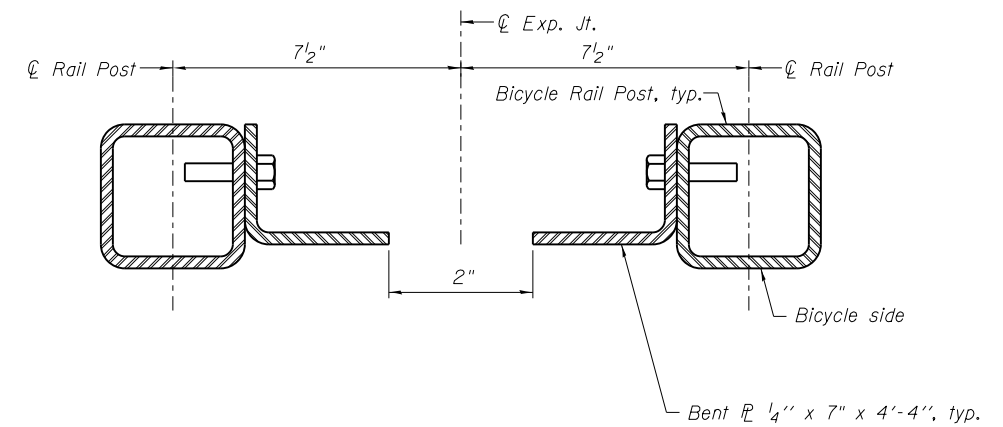
TOP OF TEMP SHEET PILE ELEVATIONS

Sta.	Top Elev.
116+50.00	704.60
118+50.00	709.50
122+35.00	709.50



TEMPORARY SHEET PILING

(Looking East)



SECTION THRU BICYCLE RAILING POSTS AT EXPANSION JOINTS

For additional dimensions and details, see Sheet S-23 of the bridge plans.



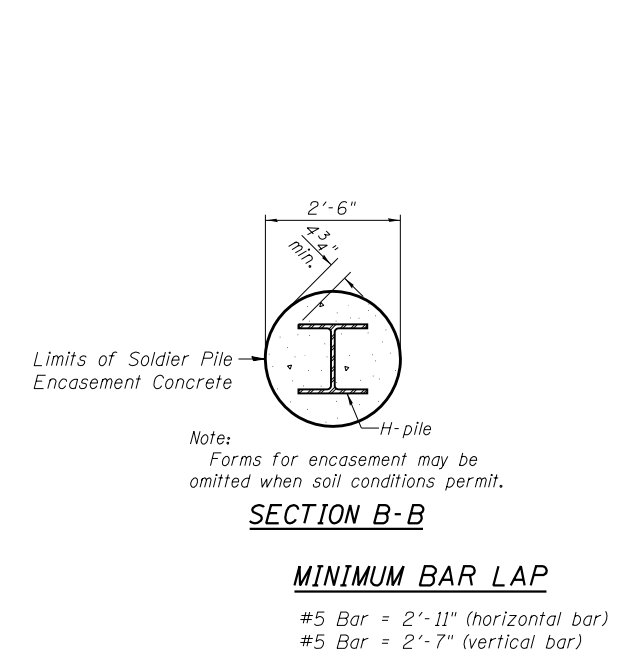
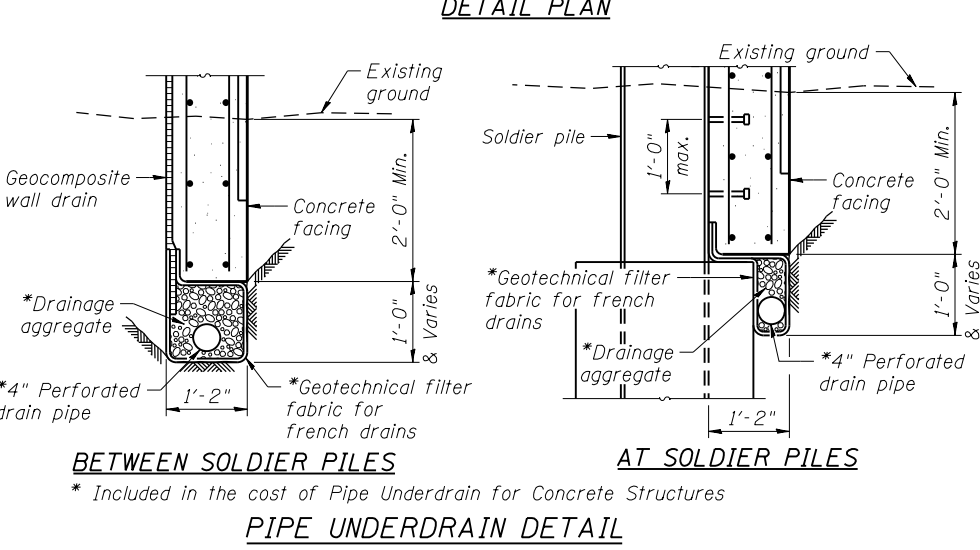
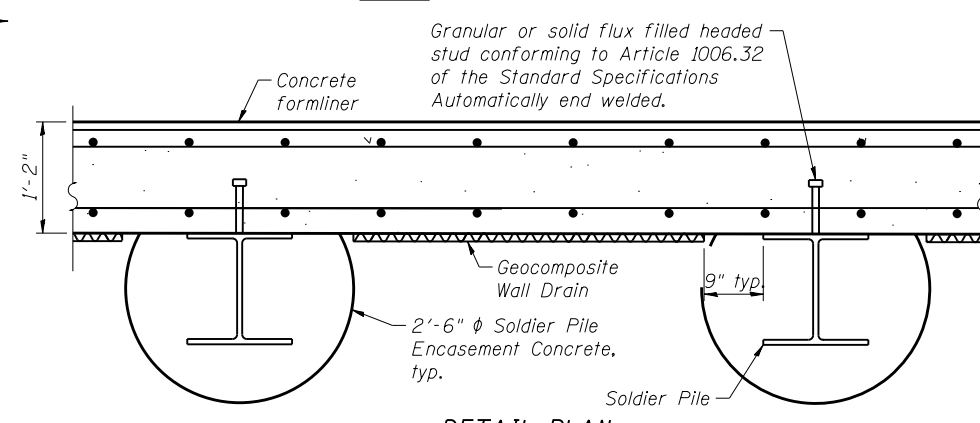
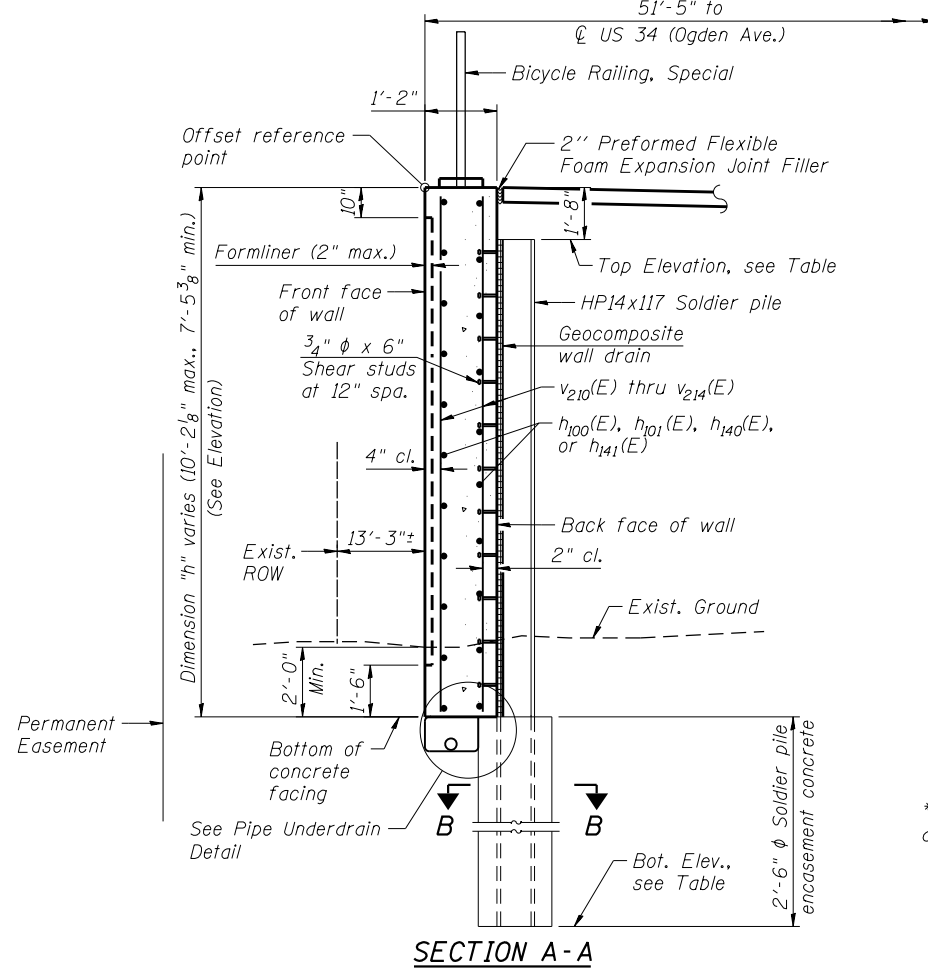
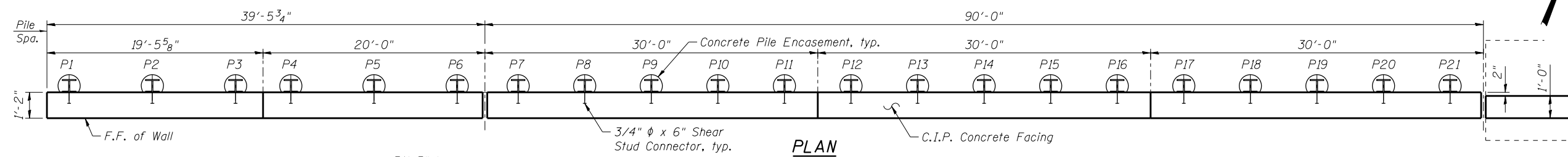
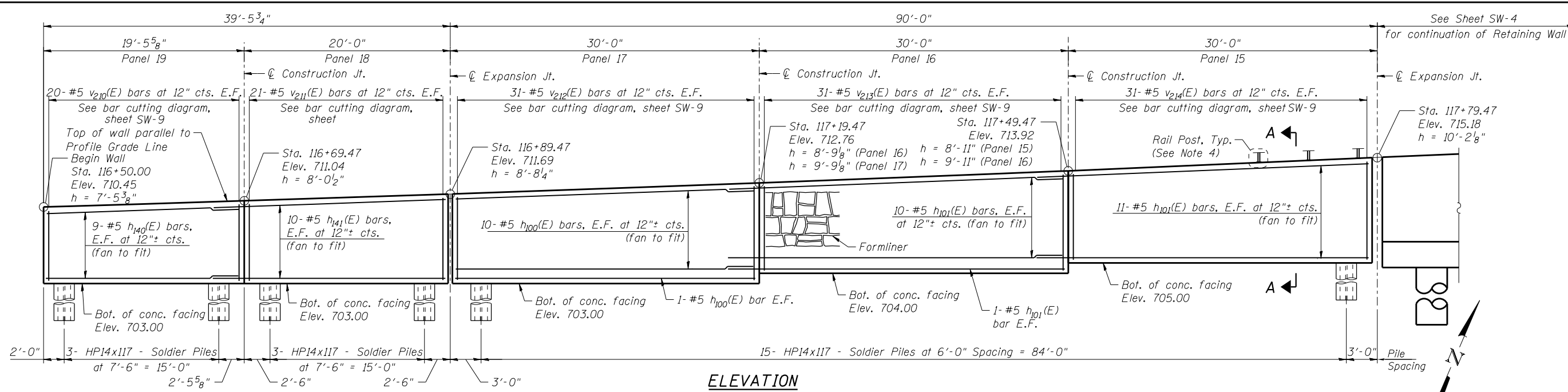
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PLOT SCALE =	CHECKED - AMK	REVISED
PLOT DATE = 02/28/2014	DRAWN - BAR	REVISED
	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, BILL OF MATERIALS, AND INDEX OF SHEETS
STRUCTURE NO. 022-W069

SHEET NO. SW-2 OF SW-15 SHEETS

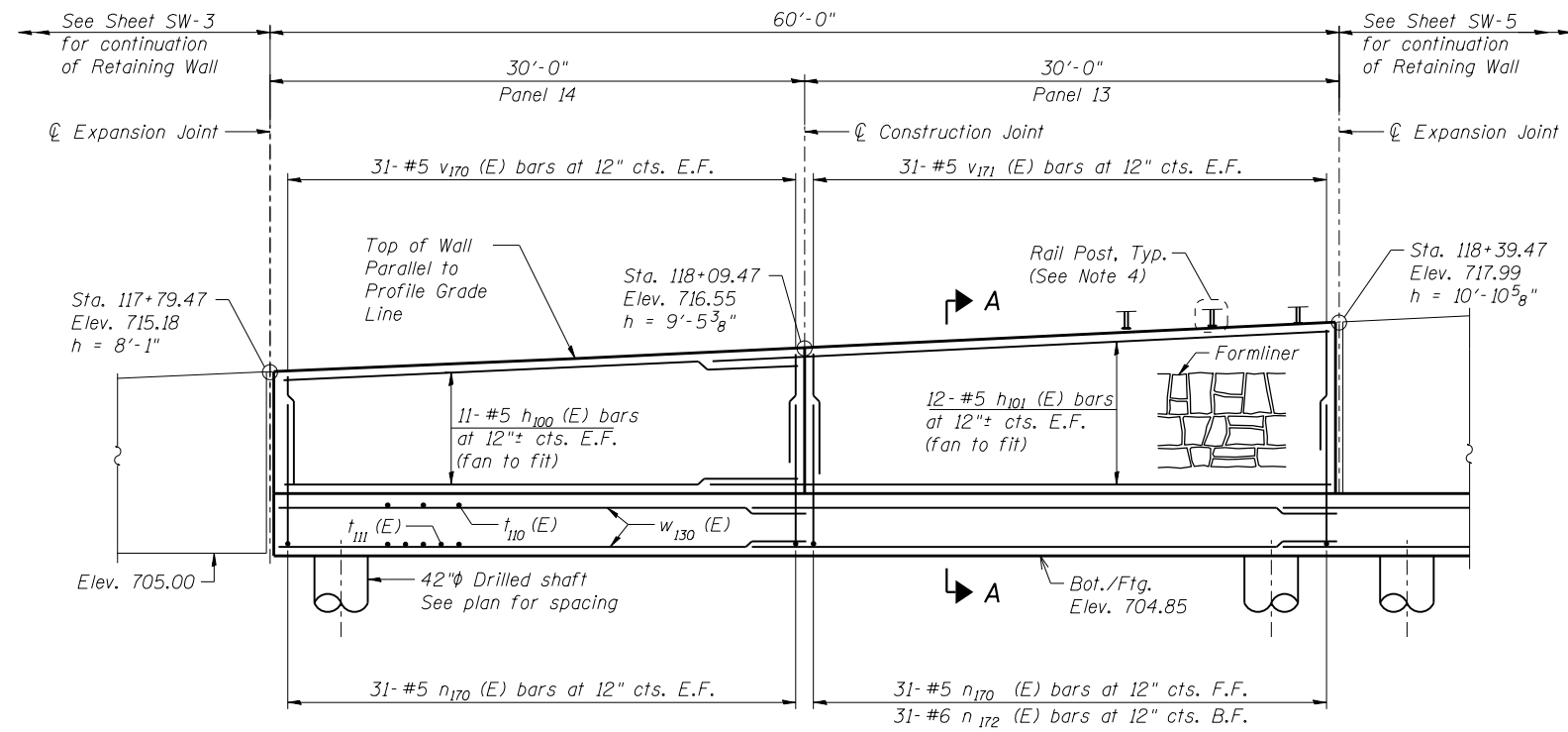
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	234
			CONTRACT NO. 60R06	
ILLINOIS FED. AID PROJECT				



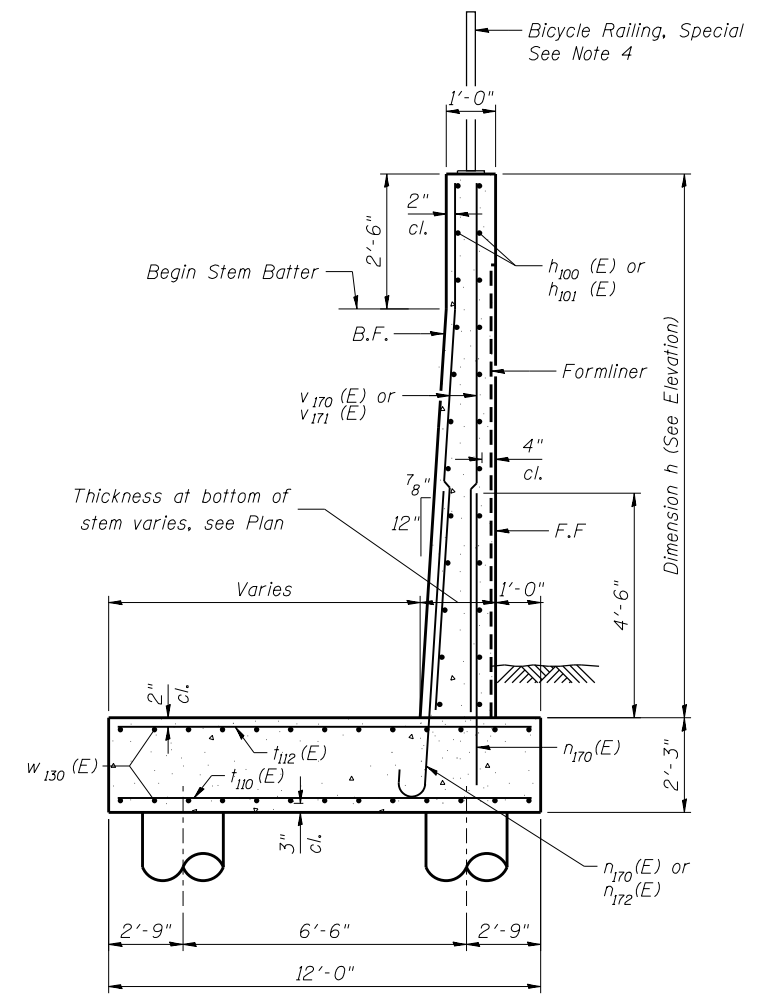
PILE DATA

Pile No.	Top Elev.	Bottom Elev.	Length Ft.	No. of Studs
P1	708.84	686.92	21'-11"	7
P2	709.06	686.98	22'-1"	7
P3	709.29	686.96	22'-4"	7
P4	709.45	686.95	22'-6"	7
P5	709.69	686.94	22'-9"	8
P6	709.94	686.94	23'-0"	8
P7	710.12	685.96	24'-2"	8
P8	710.33	686.00	24'-4"	8
P9	710.54	685.96	24'-7"	9
P10	710.76	685.92	24'-10"	9
P11	710.98	685.98	25'-0"	9
P12	711.20	686.95	24'-3"	8
P13	711.42	686.92	24'-6"	8
P14	711.66	686.99	24'-8"	9
P15	711.89	686.97	24'-11"	9
P16	712.13	686.96	25'-2"	9
P17	712.37	687.95	24'-5"	8
P18	712.62	687.95	24'-8"	9
P19	712.87	687.95	24'-11"	9
P20	713.12	687.96	25'-2"	9
P21	713.38	687.97	25'-5"	9

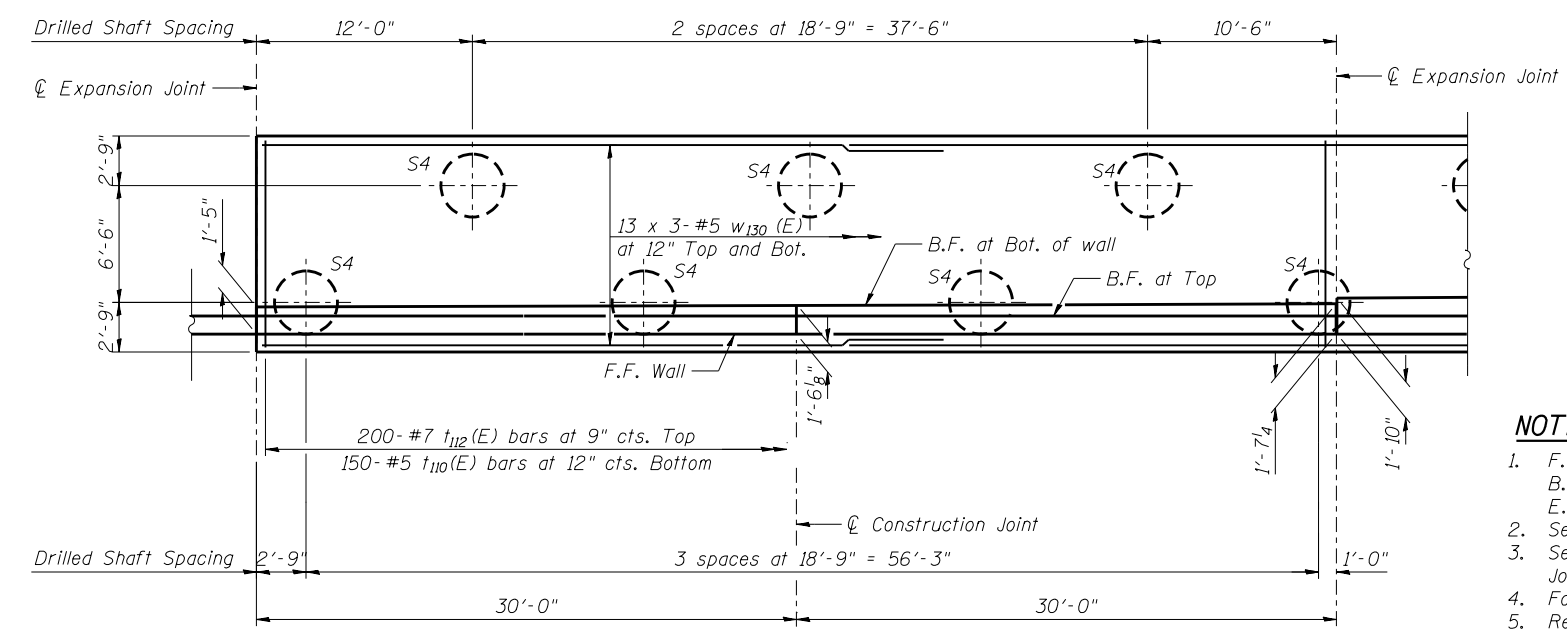
- NOTES:**
- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
 - See Sheet SW-2 for Bill of Material.
 - See Sheet SW-9 for Bar Bending and Cutting Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
 - For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
 - All structural steel shall conform to the requirements of AASHTO M270 grade 50.



ELEVATION



SECTION A-A



PLAN

MINIMUM BAR LAP

- #5 Bar = 2'-11" (horizontal bar)
- #5 Bar = 2'-7" (vertical bar)

NOTES:

1. F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
2. See Sheet SW-2 for Wall Drainage Details and Bill of Material.
3. See Sheet SW-9 for Bar Bending Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
4. For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



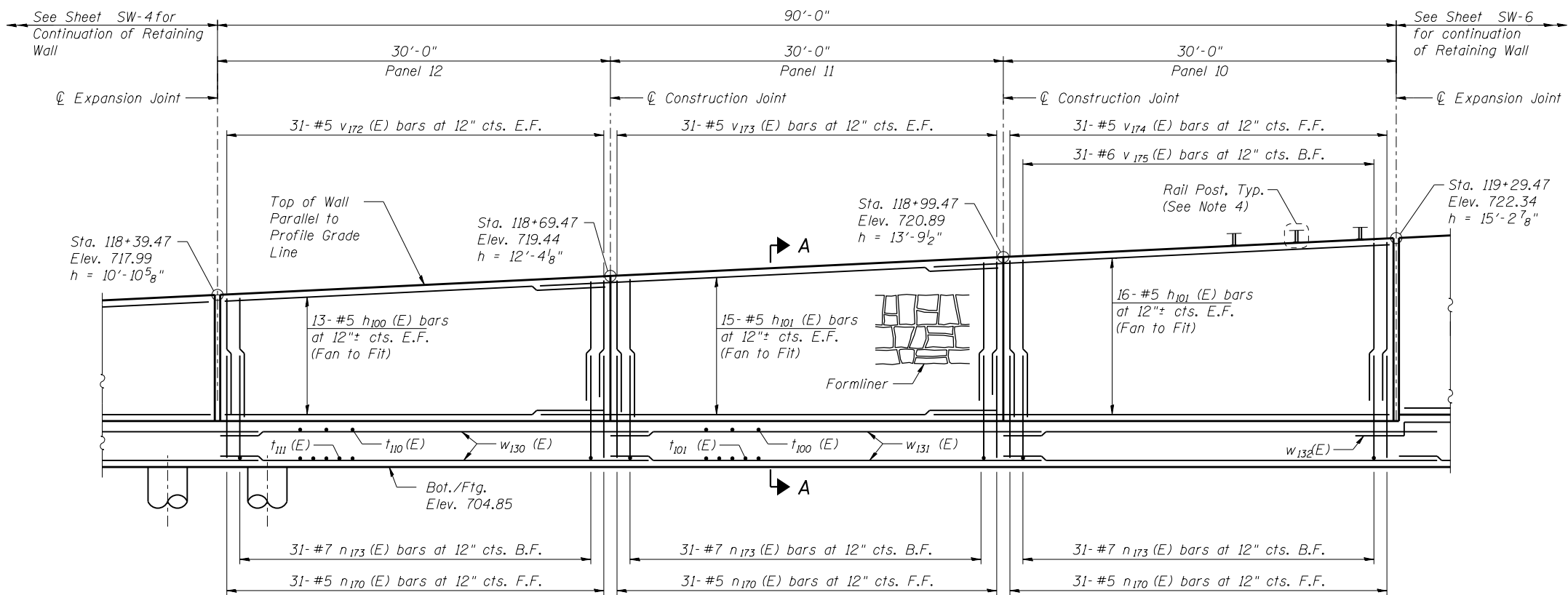
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	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 03/19/2014	CHECKED - MAD	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

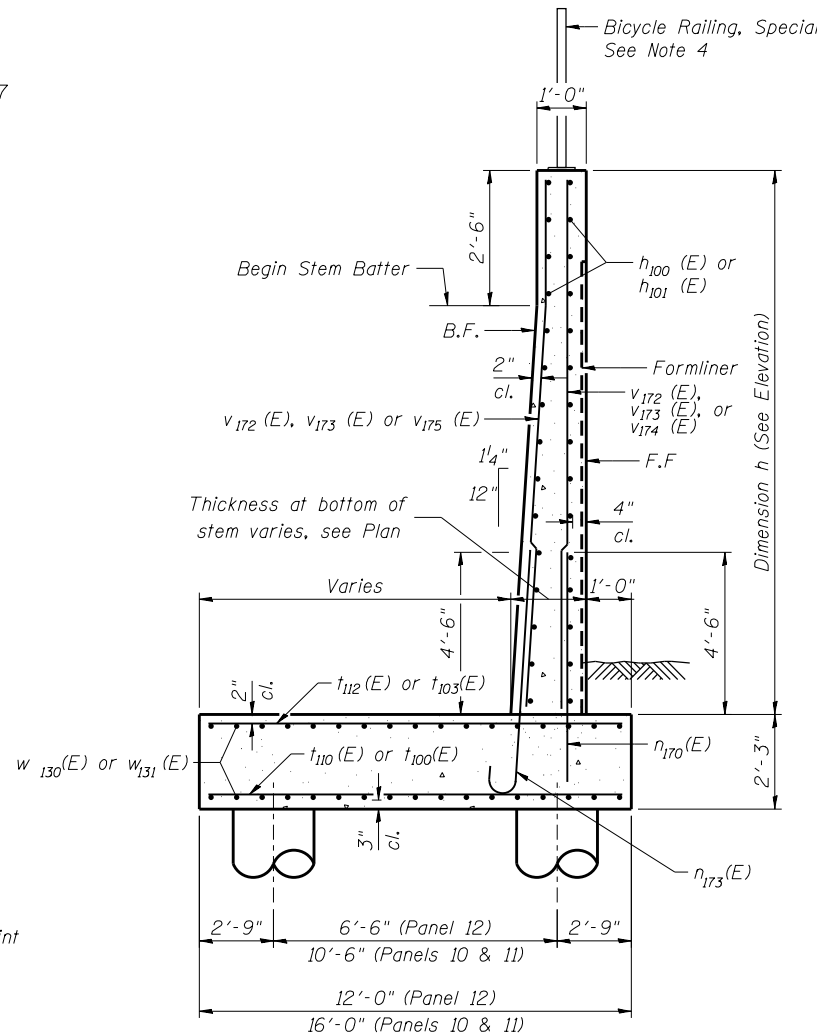
**DETAIL PLAN AND ELEVATION 2
STRUCTURE NO. 022-W069**

SHEET NO. SW-4 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	236
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



ELEVATION



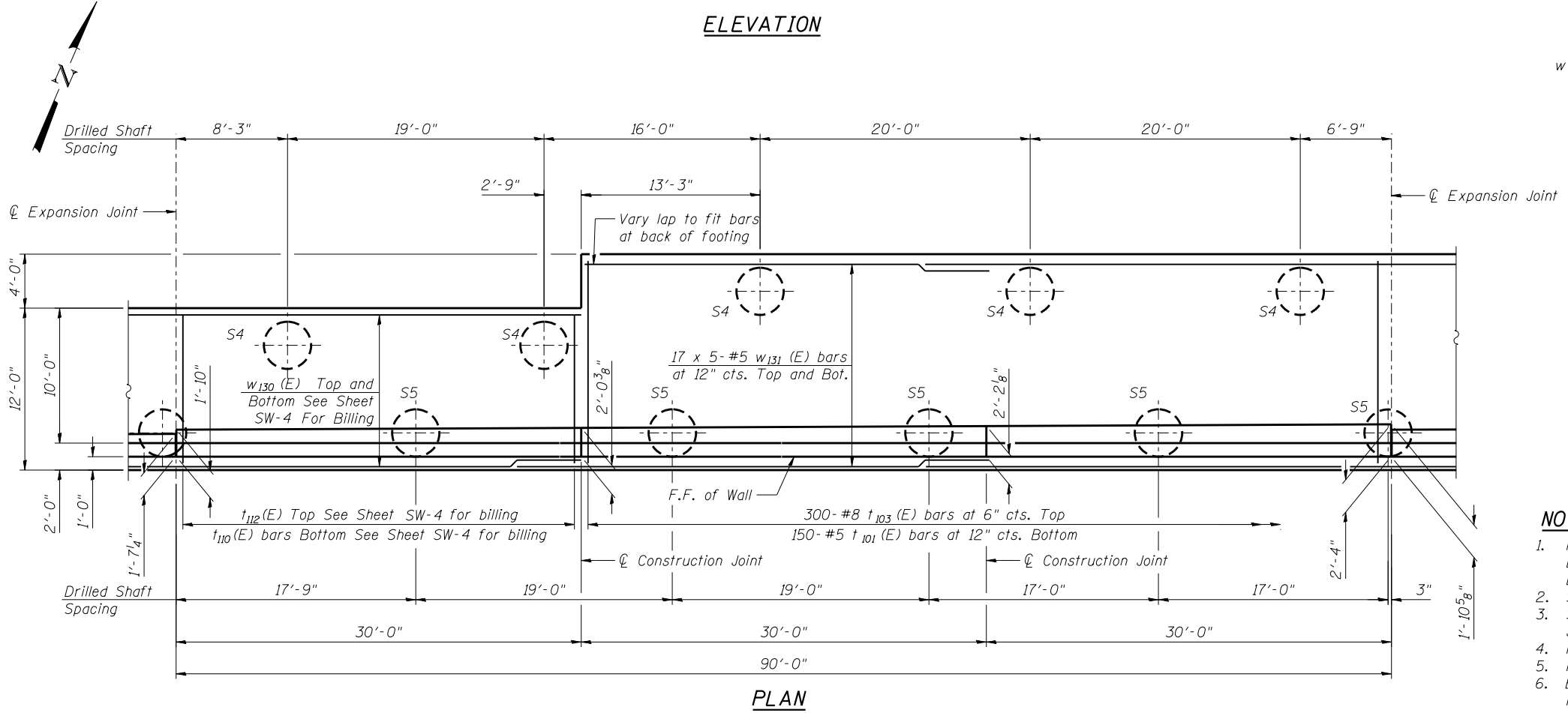
SECTION A-A

MINIMUM BAR LAP

- #5 Bar = 2'-11" (horizontal bar)
- #5 Bar = 2'-7" (vertical bar)
- #6 Bar = 3'-1" (vertical bar)

NOTES:

1. F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
2. See Sheet SW-2 for Wall Drainage Details and Bill of Material.
3. See Sheet SW-9 for Bar Bending Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
4. For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



PLAN



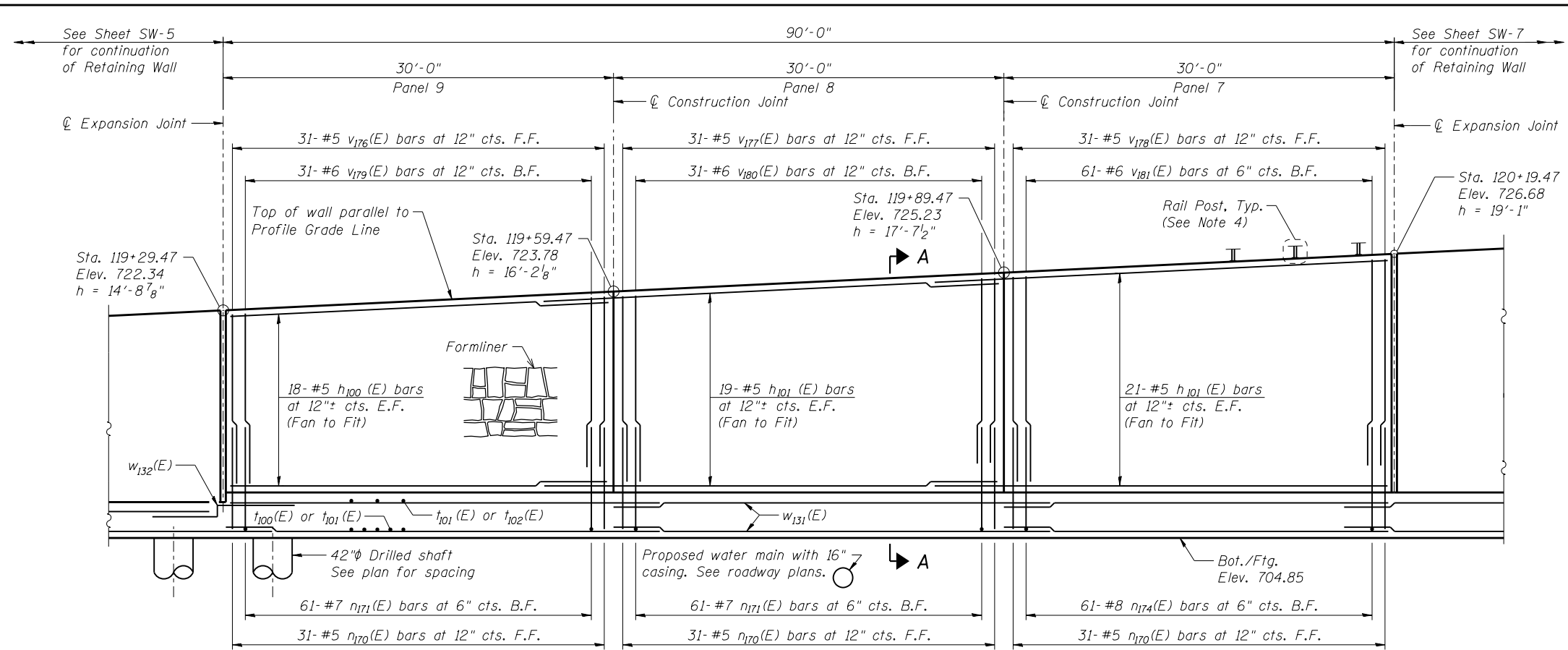
USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 03/19/2014	CHECKED - MAD	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

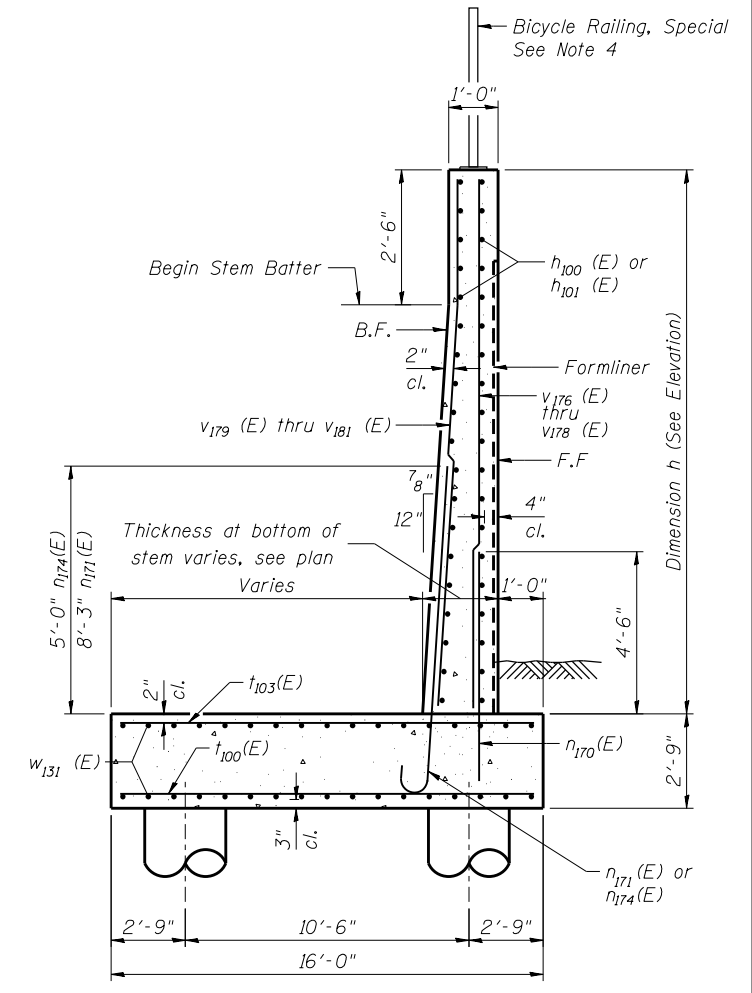
**DETAIL PLAN AND ELEVATION 3
STRUCTURE NO. 022-W069**

SHEET NO. SW-5 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	237
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

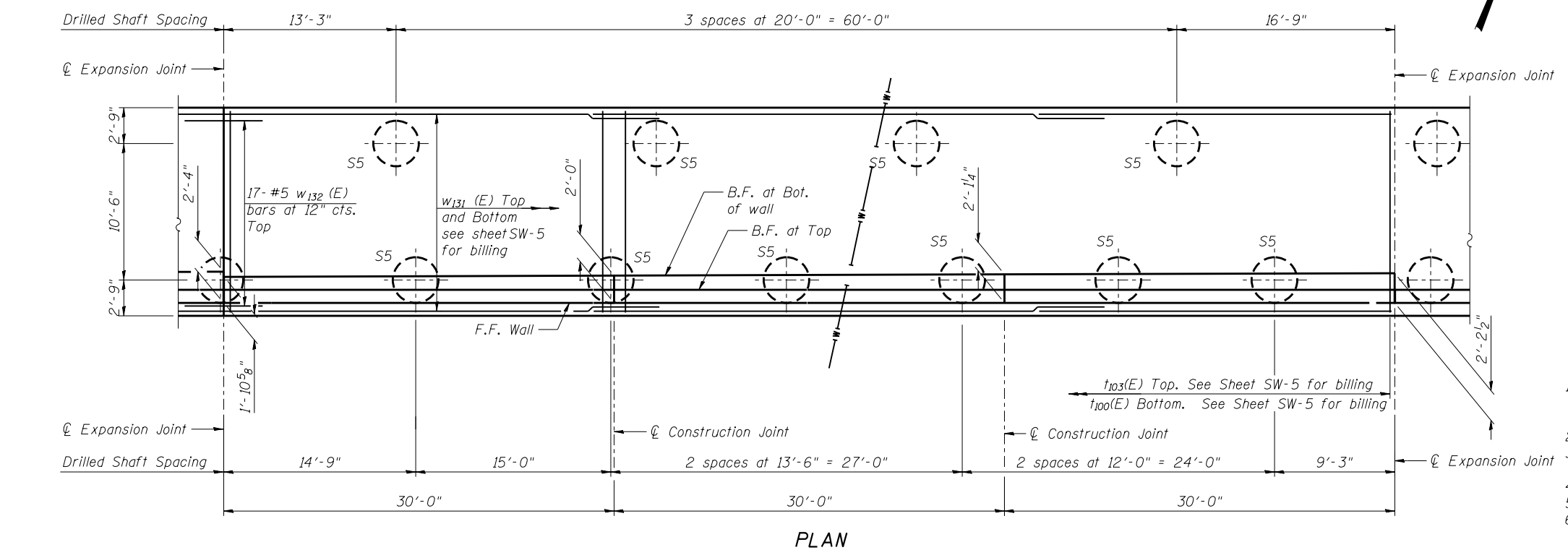


ELEVATION



SECTION A-A

MINIMUM BAR LAP
 #5 Bar = 2'-11" (horizontal bar)
 #5 Bar = 2'-7" (vertical bar)
 #6 Bar = 3'-1" (vertical bar)



PLAN

NOTES:

1. F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
2. See Sheet SW-2 for Wall Drainage Details and Bill of Material.
3. See Sheet SW-9 for Bar Bending Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
4. For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



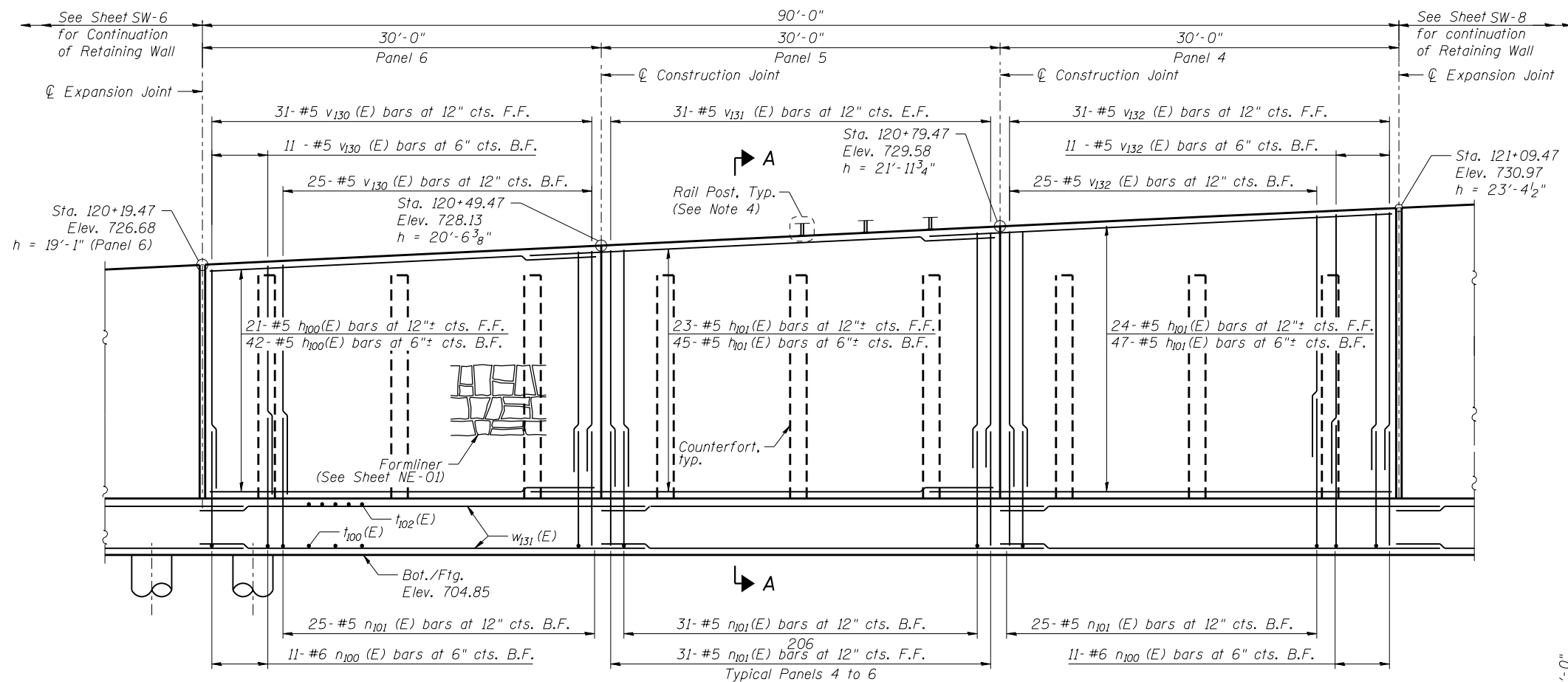
USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 03/19/2014	CHECKED - MAD	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

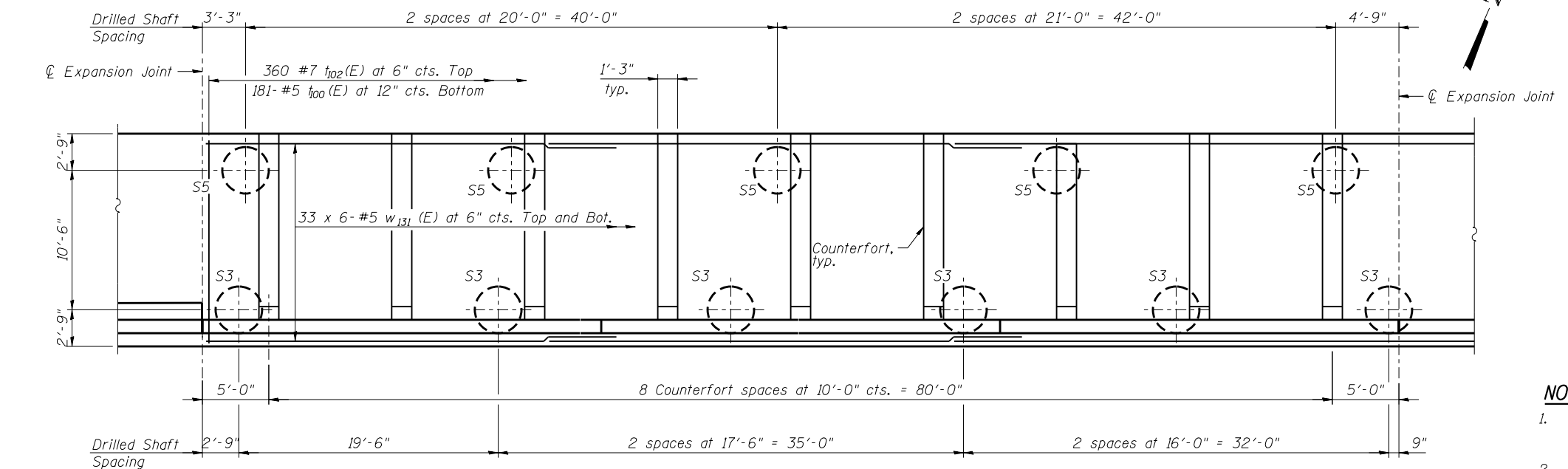
**DETAIL PLAN AND ELEVATION 4
STRUCTURE NO. 022-W069**

SHEET NO. SW-6 OF SW-15 SHEETS

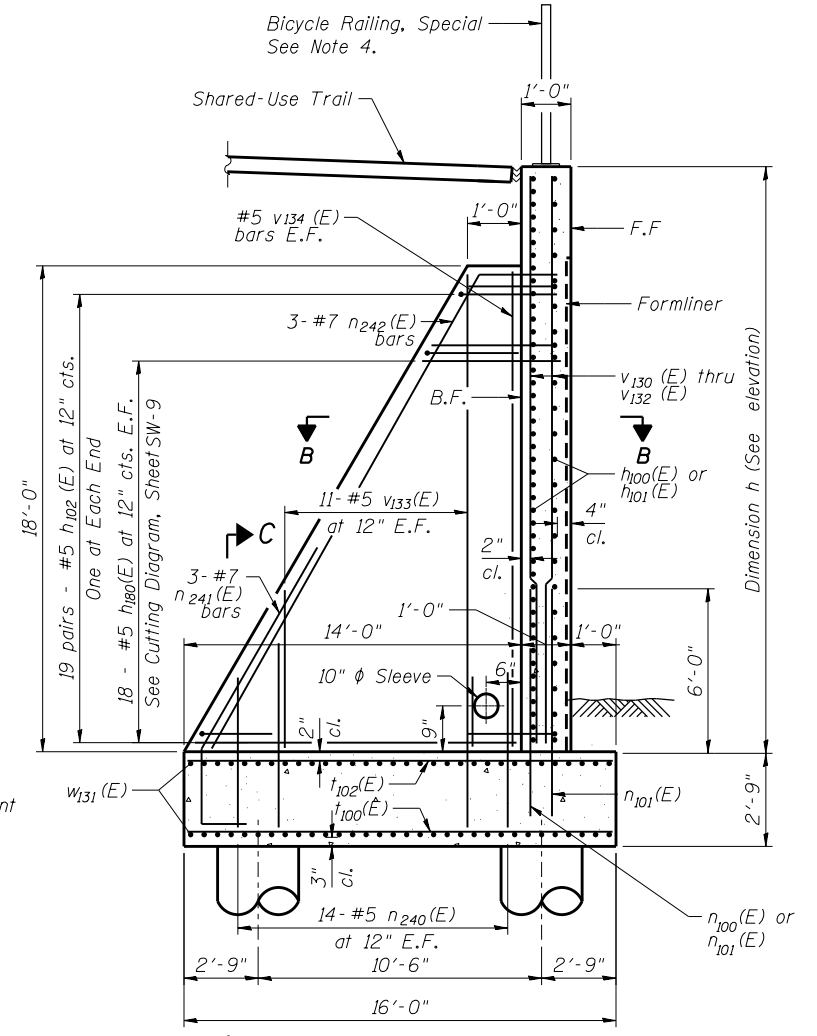
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	238
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



SECTION A-A

MINIMUM BAR LAP

- #5 Bar = 2'-11" (horizontal bar)
- #5 Bar = 2'-7" (vertical bar)
- #6 Bar = 3'-1" (vertical bar)
- #7 Bar = 5'-2"

NOTES:

1. F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face
2. See Sheet SW-2 for Wall Drainage Details and Bill of Material.
3. See Sheet SW-9 for Bar Bending and Cutting Diagrams, Bill of Bars, Concrete Construction Joint, Sections B-B and C-C, and Expansion Joint details.
4. For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



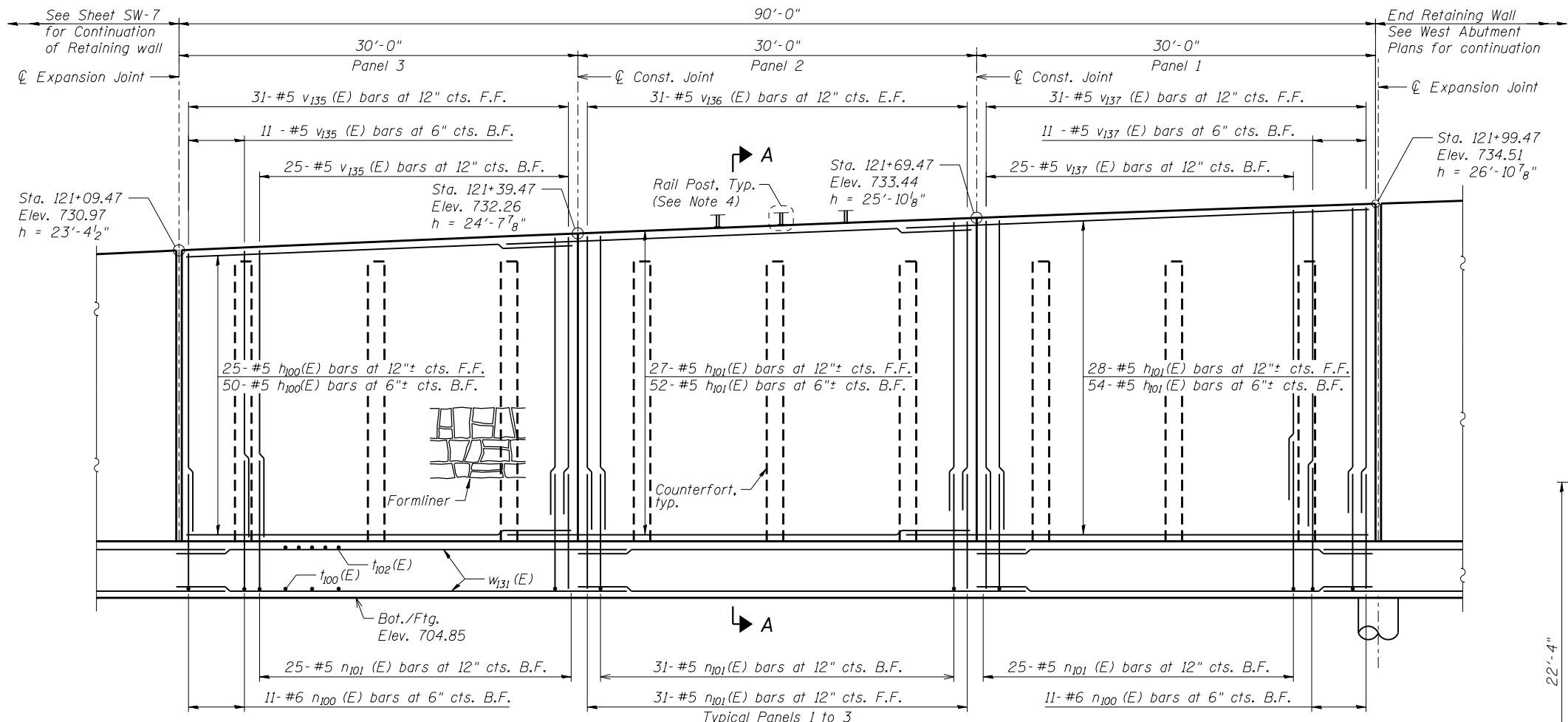
USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 03/19/2014	CHECKED - MAD	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

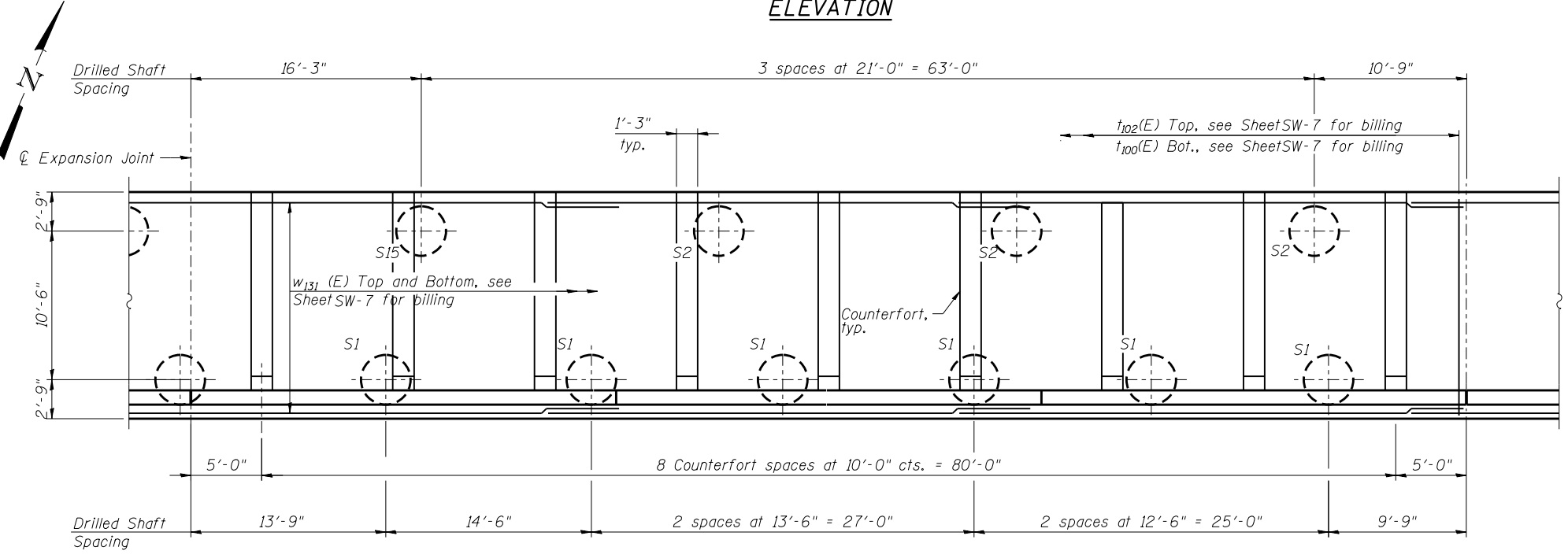
**DETAIL PLAN AND ELEVATION 5
STRUCTURE NO. 022-W069**

SHEET NO. SW-7 OF SW-15 SHEETS

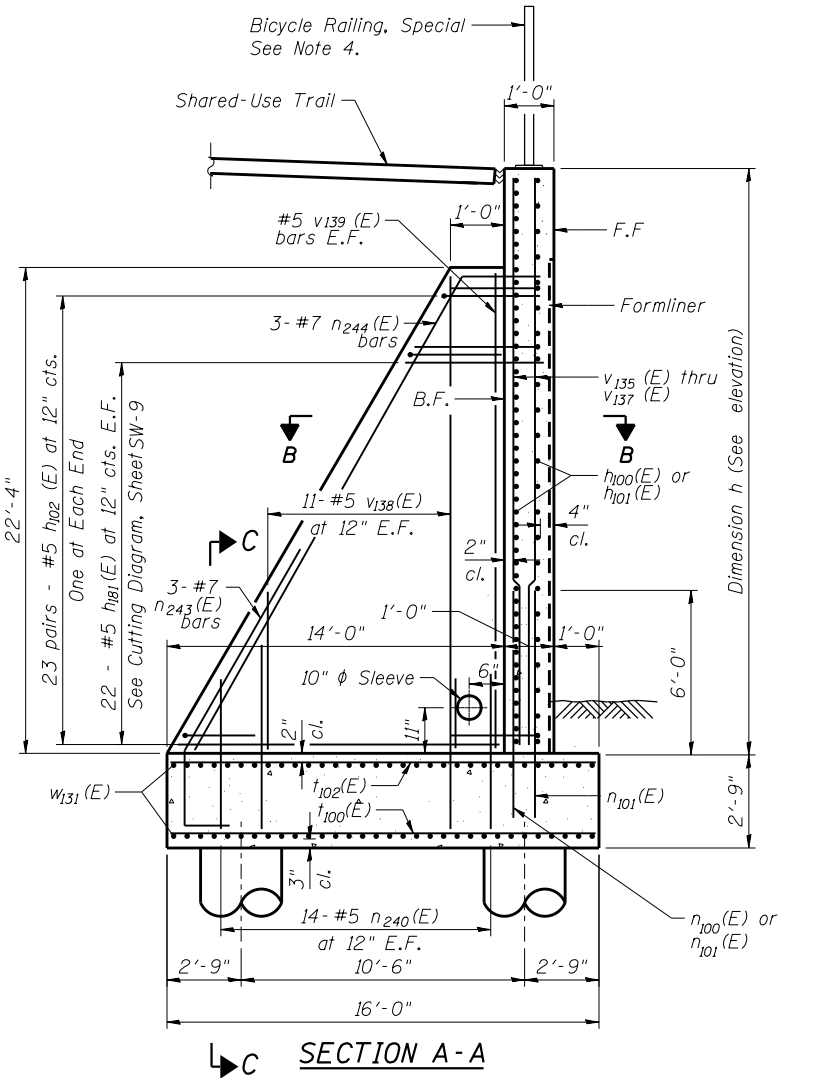
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	239
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



SECTION A-A

MINIMUM BAR LAP
 #5 Bar = 2'-11" (horizontal bar)
 #5 Bar = 2'-7" (vertical bar)
 #6 Bar = 3'-1" (vertical bar)
 #7 Bar = 5'-2"

NOTES:

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet SW-2 for Wall Drainage Details and Bill of Material.
- See Sheet SW-9 for Bar Bending and Cutting Diagrams, Bill of Bars, Concrete Construction Joint, Sections B-B and C-C, and Expansion Joint details.
- For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 03/19/2014	CHECKED - MAD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 6
STRUCTURE NO. 022-W069

SHEET NO. SW-8 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	240
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-02

Page 1 of 1

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 706.15 ft
North: 1849220.09 ft
East: 1010803.08 ft
Station: 116+72.24
Offset: 42.44 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
705.4	9-inch thick CONCRETE --PAVEMENT--														
704.9	6-inch thick, SANDY GRAVEL --BASE COURSE--														
	Very stiff, black SILTY CLAY LOAM --FILL--		X	1	1 4 4	2.50 P	13								
702.2	Loose, brown, medium SAND --FILL--		X	2	3 2 4	NP	6								
700.7	Stiff to very stiff, brown and gray SILTY CLAY		X	3	3 3 4	1.56 B	29								
			X	4	2 3 4	1.80 B	23								
			X	5	4 5 7	3.36 B	18								
			X	6	4 6 9	2.38 B	15								
691.2	Boring terminated at 15.00 ft	15													
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 07-18-2012 Complete Drilling 07-18-2012								While Drilling <input checked="" type="checkbox"/> DRY							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling <input checked="" type="checkbox"/> DRY							
Driller R&J Logger N. Boddy Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water <input checked="" type="checkbox"/> NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															

WANGENG 1192001.GPJ WANGENG.GDT 8/6/12



BORING LOG RW-04

Page 1 of 1

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.22 ft
North: 1849259.64 ft
East: 1010894.32 ft
Station: 117+71.69
Offset: 42.29 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.5	9-inch thick CONCRETE --PAVEMENT--														
	Loose, black SILTY LOAM, with gravel --FILL--		X	1	8 5 3	NP	6								
704.2	Stiff, brown and gray SILTY CLAY, trace organic matter		X	2	2 3 3	1.39 B	24								
			X	3	3 4 5	2.46 B	17								
			X	4	4 7 6	4.76 B	15								
			X	5	7 10 14	5.90 B	17								
			X	6	7 9 9	4.35 B	15								
			X	7	5 7 6	2.54 B	10								
			X	8	3 5 6	1.97 B	15								
687.2	Boring terminated at 20.00 ft	20													
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 07-18-2012 Complete Drilling 07-18-2012								While Drilling <input checked="" type="checkbox"/> DRY							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling <input checked="" type="checkbox"/> DRY							
Driller R&J Logger N. Boddy Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water <input checked="" type="checkbox"/> NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															

WANGENG 1192001.GPJ WANGENG.GDT 8/6/12



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 1
STRUCTURE NO. 022-W069

SHEET NO. SW-10 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	242
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-06

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T. 38N, R. 9E 3rd PM**

Datum: NAV88
Elevation: 707.55 ft
North: 1849289.75 ft
East: 1010964.26 ft
Station: 118+47.84
Offset: 42.37 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.8	9-inch thick CONCRETE --PAVEMENT--														
706.9	6-inch thick SANDY GRAVEL --FILL--														
	Loose black SILTY LOAM, with gravel --FILL--			1	7 5 3	NP	16								
704.3	Stiff to hard, brown and gray SILTY CLAY, trace gravel			2	4 5 7	2.38 B	17								
				3	3 6 8	4.92 B	16								
				4	6 9 11	5.90 B	16								
				5	6 6 9	2.62 B	4								
				6	4 5 6	2.71 B	15								
				7	3 4 7	1.80 B	11								
				8	4 5 10	3.03 B	13								
687.6	Boring terminated at 20.00 ft														
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 07-18-2012 Complete Drilling 07-18-2012								While Drilling <input checked="" type="checkbox"/> DRY							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling <input checked="" type="checkbox"/> DRY							
Driller R&J Logger N. Boddy Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water <input checked="" type="checkbox"/> NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															



BORING LOG RW-08

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T. 38N, R. 9E 3rd PM**

Datum: NAV88
Elevation: 707.83 ft
North: 1849319.50 ft
East: 1011032.98 ft
Station: 119+22.72
Offset: 42.30 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.9	11-inch thick, CONCRETE --PAVEMENT--														
	Medium dense, black SILTY LOAM, with gravel --FILL--			1	15 12 3	NP	6					9	2 4 50/1*	3.30 B	18
705.3	Very stiff to hard, brown and gray SILTY CLAY, trace gravel			2	2 4 5	3.20 B	16					10	8 9 9	3.44 S	8
				3	3 4 5	2.21 B	16					11	8 10 9	2.65 S	11
				4	3 8 12	5.25 B	13					12	14 13 18	6.31 B	10
				5	5 6 8	4.92 B	15								
				6	4 5 7	3.28 B	13								
				7	7 7 5	4.02 B	13								
				8	5 6 9	2.95 B	17								
								677.8	Boring terminated at 30.00 ft						
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 07-18-2012 Complete Drilling 07-18-2012								While Drilling <input checked="" type="checkbox"/> DRY							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling <input checked="" type="checkbox"/> DRY							
Driller R&J Logger N. Boddy Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water <input checked="" type="checkbox"/> NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 2
STRUCTURE NO. 022-W069

SHEET NO. SW-11 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	243
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-10

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1145 N Main Street
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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 707.73 ft
North: 1849349.46 ft
East: 1011104.32 ft
Station: 120+00.09
Offset: 43.06 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.9	10-inch thick CONCRETE --PAVEMENT--														
705.7	Loose, black SILTY LOAM, and gravel --FILL--	1	X	1	7 2 2	2.25 P	27				X	9	7 7 10	2.21 B	15
704.7	Very stiff, gray SILTY CLAY --FILL--														
703.0	Loose, brown LOAM, with gravel --FILL--	2	X	2	2 2 5	NP	18				X	10	4 7 9	4.59 B	13
	Stiff to very stiff, brown SILTY CLAY, little to some gravel --FILL--	5	X	3	4 5 8	1.50 P	11				X	11	5 7 12	3.61 B	11
								679.7	Medium dense, gray SANDY GRAVEL						
		10	X	4	5 11 12	2.25 P	18				X	12	6 8 7	NP	13
								677.7	Boring terminated at 30.00 ft						
695.7	Very stiff to hard, gray SILTY CLAY, trace gravel	5	X	5	15 8 9	2.46 B	14				X	15	5 7 10	4.43 B	15
		15	X	6	4 5 8	3.44 B	15				X	16	5 7 10	4.43 B	15
		20	X	8	3 4 6	2.05 B	17				X	17	6 7 12	2.50 P	20

GENERAL NOTES

Begin Drilling **07-19-2012** Complete Drilling **07-19-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **B-57 TMR**
Driller **R&J** Logger **N. Boddy** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **27.50 ft**
At Completion of Drilling ∇ **30.00 ft**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-12

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 708.46 ft
North: 1849379.32 ft
East: 1011172.68 ft
Station: 120+74.68
Offset: 42.75 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.7	9-inch thick CONCRETE --PAVEMENT--														
	Loose, gray SANDY GRAVEL --FILL--	1	X	1	9 5 4	NP	12				X	9	11 9 10	2.25 P	15
705.5	Very stiff, SILTY CLAY LOAM, some gravel --FILL--														
		2	X	2	4 4 6	2.25 P	19				X	10	8 9 7	3.03 B	12
	Medium stiff to stiff, brown and gray SILTY CLAY LOAM, trace gravel	5	X	3	2 3 7	0.74 B	22				X	11	6 8 10	3.85 B	14
703.0								679.7	Dense, gray SANDY GRAVEL						
		10	X	4	4 7 8	1.23 B	14				X	12	8 21 19	NP	10
698.0	Medium dense, gray SANDY GRAVEL	5	X	5	6 8 12	NP	12				X	13	10 12 12	3.20 B	25
695.5	Very stiff to hard, gray SILTY CLAY, trace to some gravel	15	X	6	5 7 11	2.25 P	22				X	14	6 8 7	1.56 B	25
								674.7	Stiff to very stiff, gray SILTY CLAY, trace gravel						
		20	X	8	6 7 12	2.50 P	20				X	14	6 8 7	1.56 B	25

GENERAL NOTES

Begin Drilling **07-19-2012** Complete Drilling **07-19-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **B-57 TMR**
Driller **R&J** Logger **N. Boddy** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **3.00 ft**
At Completion of Drilling ∇ **DRY**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 3
STRUCTURE NO. 022-W069

SHEET NO. SW-12 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	244
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



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BORING LOG RW-14

WEI Job No.: 119-20-01

Client: **URS Corporation**
 Project: **US Rte 34 Grade Separation over the CNRR**
 Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
 Elevation: 708.94 ft
 North: 1849408.84 ft
 East: 1011241.08 ft
 Station: 121+49.18
 Offset: 42.76 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	
	708.2	9-inch thick CONCRETE --PAVEMENT--																
		Stiff, brown and black SILTY CLAY LOAM, trace gravel	1	X	1	6 6 11	1.72 B	27				9	X	9	4 8 8	1.56 B	11	
	705.9	Loose, brown SILTY LOAM, trace gravel	5	X	2	4 4 4	NP P	23				25	X	10	6 14 17	2.05 B	12	
				X	3	3 4 5	NP	22					X	11	9 9 14	1.64 B	12	
	700.9	Medium stiff to very stiff, gray SILTY CLAY LOAM, trace gravel	10	X	4	4 5 7	0.74 B	12				30	X	12	6 25 26	NP	18	
				X	5	7 5 9	1.72 B	15		680.9	Very dense, brown SANDY LOAM							
				X	6	4 5 8	1.80 B	16				35	X	13	9 19 23	4.35 B	13	
				X	7	2 6 11	1.80 B	14		677.4	Very stiff to hard, gray SILTY CLAY LOAM, trace gravel							
				X	8	4 7 10	1.72 B	15				40	X	14	13 17 18	2.25 P	22	
			20							668.9	Boring terminated at 40.00 ft							

WANGENG 1192001.GPJ WANGENG.GDT 8/6/12

GENERAL NOTES

Begin Drilling: **07-19-2012** Complete Drilling: **07-19-2012**
 Drilling Contractor: **K&S** Drill Rig: **D-120 TMR**
 Driller: **C&E** Logger: **D. Kolpacki** Checked by: **M. Snider**
 Drilling Method: **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
 At Completion of Drilling: **DRY**
 Time After Drilling: **NA**
 Depth to Water: **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 4
 STRUCTURE NO. 022-W069

SHEET NO. SW-13 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	245
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-16

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.44 ft
North: 1849426.03 ft
East: 1011286.72 ft
Station: 121+97.90
Offset: 45.06 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.7	9-inch thick CONCRETE --PAVEMENT--														
	Medium dense to dense, brown SANDY GRAVEL	1	X	1	10 6 7	NP	6				X	9	4 7 13	2.62 B	16
		5	X	2	8 14 17	NP	9	686.4	Dense, gray SILTY LOAM	25	X	10	15 20 16	3.50 P	11
703.9	Medium dense, brown SILTY LOAM	3	X	3	4 5 5	NP	22				X	11	40 50	NP	10
		10	X	4	4 5 7	NP	23				X	12	50/5	NR	
698.2	Very stiff, gray SILTY CLAY LOAM, trace gravel	5	X	5	7 8 13	2.05 B	12				X	13	13 17 24	4.59 B	21
		15	X	6	5 8 12	2.25 P	15				X	14	7 10 13	2.13 B	25
		20	X	7	8 9 15	2.13 B	15	672.4	Very stiff, gray CLAY						
			X	8	5 7 9	2.21 B	15								

GENERAL NOTES

Begin Drilling **07-19-2012** Complete Drilling **07-19-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **D. Kolpacki** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **31.00 ft**
At Completion of Drilling **23.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



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1145 N Main Street
Lombard, IL 60148
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BORING LOG RW-16

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.44 ft
North: 1849426.03 ft
East: 1011286.72 ft
Station: 121+97.90
Offset: 45.06 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		45	X	15	11 12 16	2.95 B	24								
659.4	Boring terminated at 50.00 ft	50	X	16	12 13 19	2.30 B	25								
		55													
		60													

GENERAL NOTES

Begin Drilling **07-19-2012** Complete Drilling **07-19-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **D. Kolpacki** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **31.00 ft**
At Completion of Drilling **23.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =
DESIGNED - KMP
CHECKED - AMK
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - AMK

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 5
STRUCTURE NO. 022-W069

SHEET NO. SW-14 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	246
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-16B

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.00 ft
North: 1849423.00 ft
East: 1011274.00 ft
Station: 121+97.90
Offset: 45.06 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
698.0	BLIND DRILL TO 11.0 FEET														
		5								25	X	2	5 10 15	2.50 P	11
		10								30					
		15													
677.0	Stiff to very stiff, gray SILTY CLAY LOAM, trace to some gravel		X	1	3 5 9	1.56 B	16	677.0	Very stiff, gray CLAY						
		35								40					

GENERAL NOTES

Begin Drilling **07-30-2012** Complete Drilling **07-30-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
 At Completion of Drilling **DRY**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-16B

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.00 ft
North: 1849423.00 ft
East: 1011274.00 ft
Station: 121+97.90
Offset: 45.06 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		5													
		10													
		13													
		25								30					
		50								55					
659.0	Boring terminated at 50.00 ft									60					

GENERAL NOTES

Begin Drilling **07-30-2012** Complete Drilling **07-30-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
 At Completion of Drilling **DRY**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 6
STRUCTURE NO. 022-W069

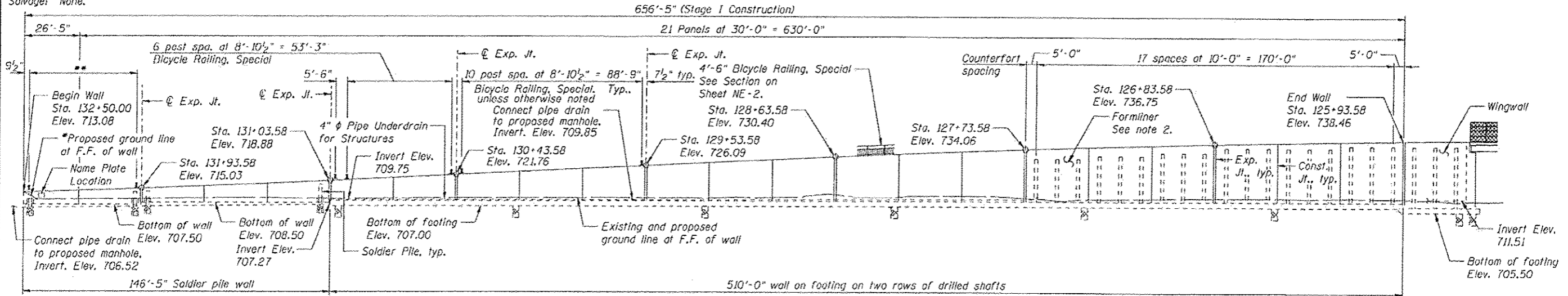
SHEET NO. SW-15 OF SW-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	247
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

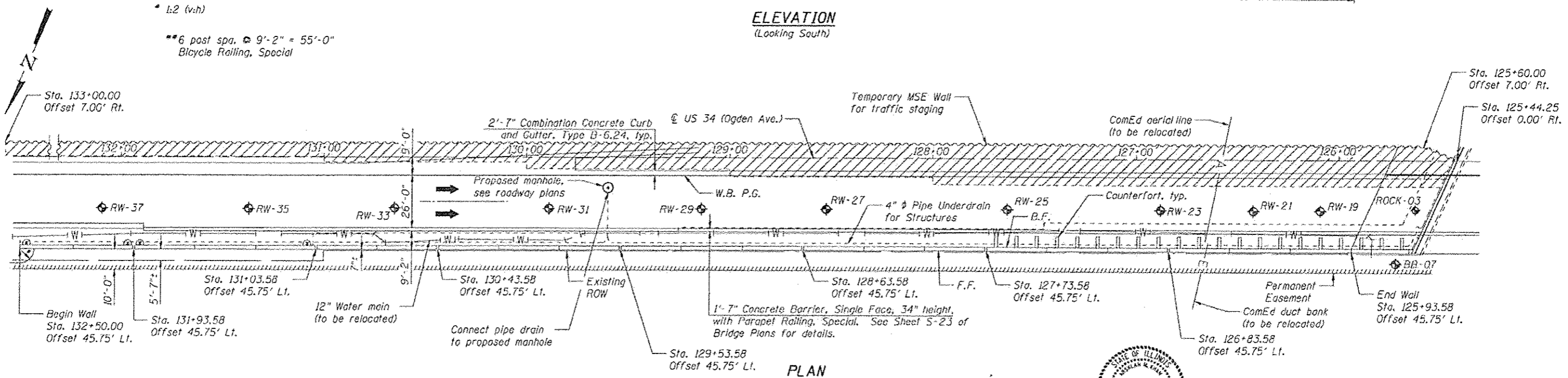
Benchmark: CP#3 - P.K. Rod in ground at driveway next to Nicor Gas pressure regulation station, Sta. 113+67.17, 50.22' Rt, Elev. 706.54.

Existing Structure: None. One lane of traffic in both directions to be maintained during construction utilizing stage construction and Temporary MSE Walls.

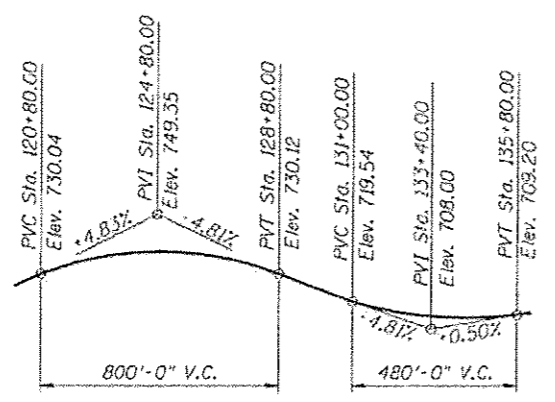
Salvage: None.



ELEVATION
(Looking South)



PLAN



PROFILE GRADE - US 34
Along E.B. and W.B. P.G.'s

LEGEND

- ⊕ Soil Boring Location
- F.F. Front Face
- B.F. Back Face
- E.B. Eastbound
- W.B. Westbound
- ▨ Limits of reinforced soil mass

APPROVED
For Structural Adequacy Only
Dr. Carl Krueger
Engineer of Bridges & Structures

STATION 125+93.58 TO 132+50.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 311 SEC. 652-A
LOADING HL-93
STR. NO. 022-W070

NAME PLATE
See Std. 515001

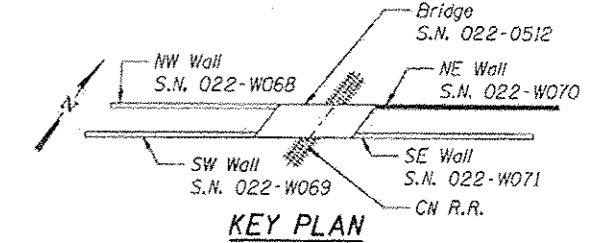
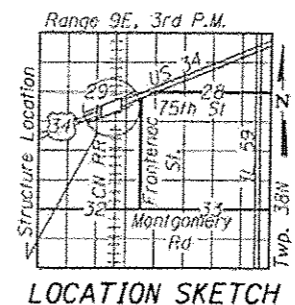
- NOTES**
- All Offsets are taken from the @ US 34 to the front face of the retaining wall.
 - Form liner textured surface shall be applied to the retaining walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



Arsalan Khan
ARSALAN M. KHAN, S.E.
LICENSE NO. 081-006258
EXPIRES: NOVEMBER 30, 2014
DATE: 02-26-2014



GENERAL PLAN & ELEVATION
NE RETAINING WALL - US 34 (OGDEN AVE.)
F.A.P. RTE. 311 - SECTION 652-A
DUPAGE COUNTY
STA. 125+93.58 TO STA. 132+50.00
STRUCTURE NO. 022-W070



USER NAME :	DESIGNED - KMP/PMV	REVISED
PLOT SCALE :	CHECKED - AMK	REVISED
PLOT DATE - 03/19/2014	DRAWN - PMV	REVISED
	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. NE-1 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	248
			CONTRACT NO. 60R06	

ILLINOIS FED. AID PROJECT

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Form liner textured surface shall be applied to the wingwalls, retaining walls and noise abatement walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.
3. The pattern produced on the exposed surfaces of the concrete wingwalls, retaining walls and the noise abatement walls shall be identical. The concrete stain applied to the surfaces of all of those items shall also be identical. The Contractor shall provide all necessary coordination and direction with its vendor manufacturing the noise abatement walls to assure the same concrete form liners and stain are used for them as those for the cast-in-place wingwalls and retaining walls.

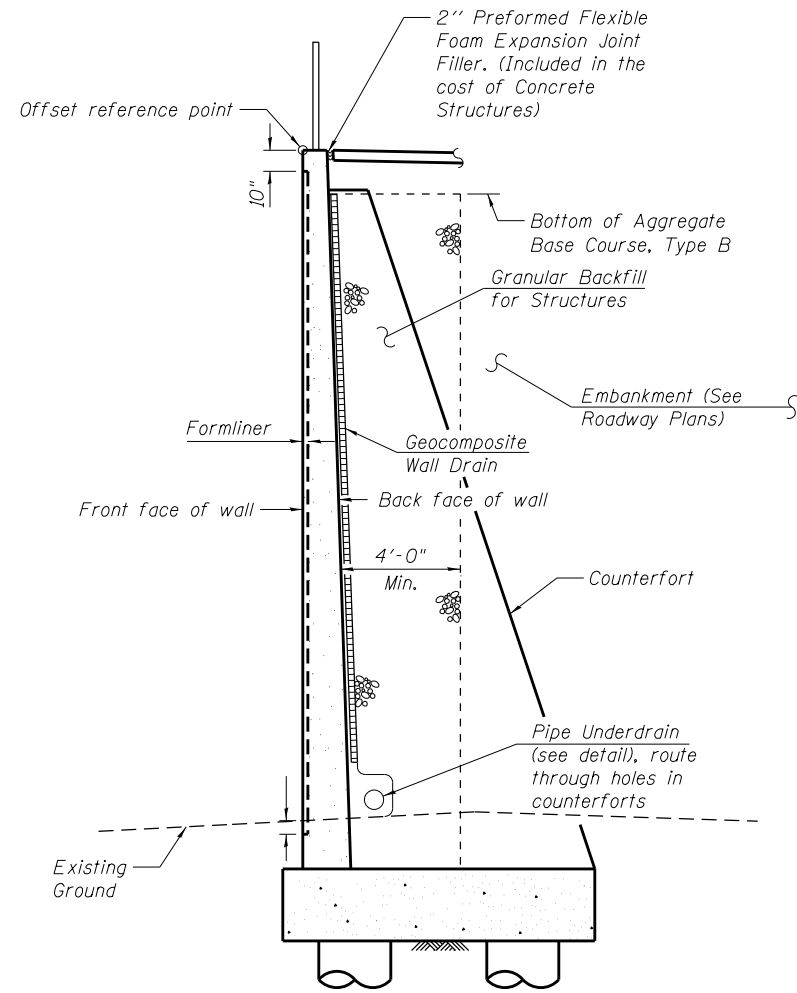
INDEX OF SHEETS

- NE-1 General Plan and Elevation
- NE-2 General Notes, Index of Sheets and Bill of Material
- NE-3 Temporary MSE Retaining Wall Details
- NE-4 Detailed Plan and Elevation 1
- NE-5 Detailed Plan and Elevation 2
- NE-6 Detailed Plan and Elevation 3
- NE-7 Detailed Plan and Elevation 4
- NE-8 Detailed Plan and Elevation 5
- NE-9 Detailed Plan and Elevation 6
- NE-10 Detailed Plan and Elevation 7
- NE-11 Miscellaneous Details
- NE-12 Soil Borings 1
- NE-13 Soil Borings 2
- NE-14 Soil Borings 3
- NE-15 Soil Borings 4
- NE-16 Soil Borings 5
- NE-17 Soil Borings 6
- NE-18 Soil Borings 7

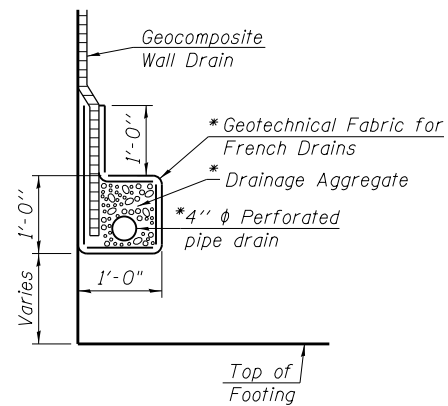
TOTAL BILL OF MATERIALS

Item	Unit	Total
Structure Excavation	Cu. Yd.	1,849
Concrete Structures	Cu. Yd.	1543.2
Form Liner Textured Surface	Sq. Ft.	10,116
Stud Shear Connectors	Each	144
Reinforcement Bars	Pound	327,690
Reinforcement Bars, Epoxy Coated	Pound	212,070
Bicycle Railing, Special	Foot	657
Parapet Railing, Special	Foot	600
Name Plates	Each	1
Drilled Shaft in Soil	Cu. Yd.	1,373
Drilled Shaft in Rock	Cu. Yd.	41
Geocomposite Wall Drain	Sq. Yd.	1,184
Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	11,575
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	80
Granular Backfill for Structures	Cu. Yd.	1,728
Furnishing Soldier Piles (HP Section)	Foot	440
Pipe Underdrains for Structures 4"	Foot	604
Staining Concrete Structures	Sq. Ft.	10,116

Note: Bill of Material shown for Retaining Wall quantities only.
For Bridge Bill of Material, see Sheet S-6.

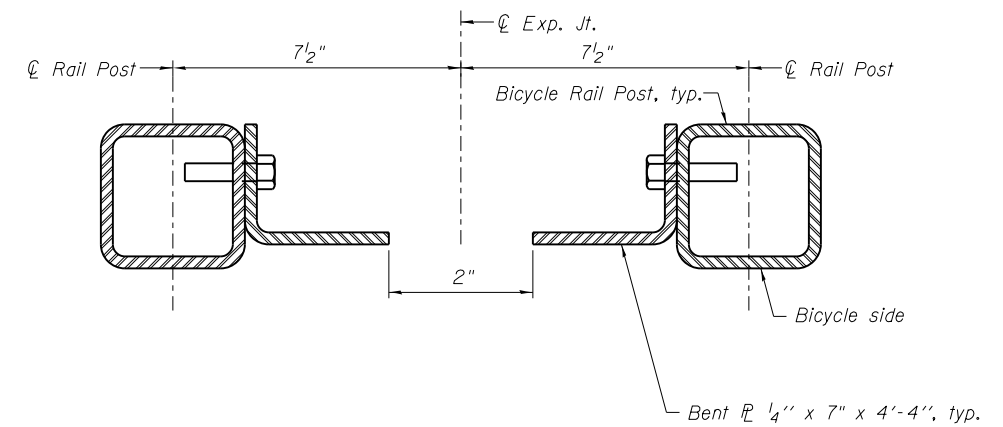


SECTION THRU RETAINING WALL



PIPE UNDERDRAIN DETAIL

*Included in the cost of Pipe Underdrains for Structures.



SECTION THRU BICYCLE RAILING POSTS AT EXPANSION JOINTS

For additional dimensions and details, see Sheet S-23 of the bridge plans.



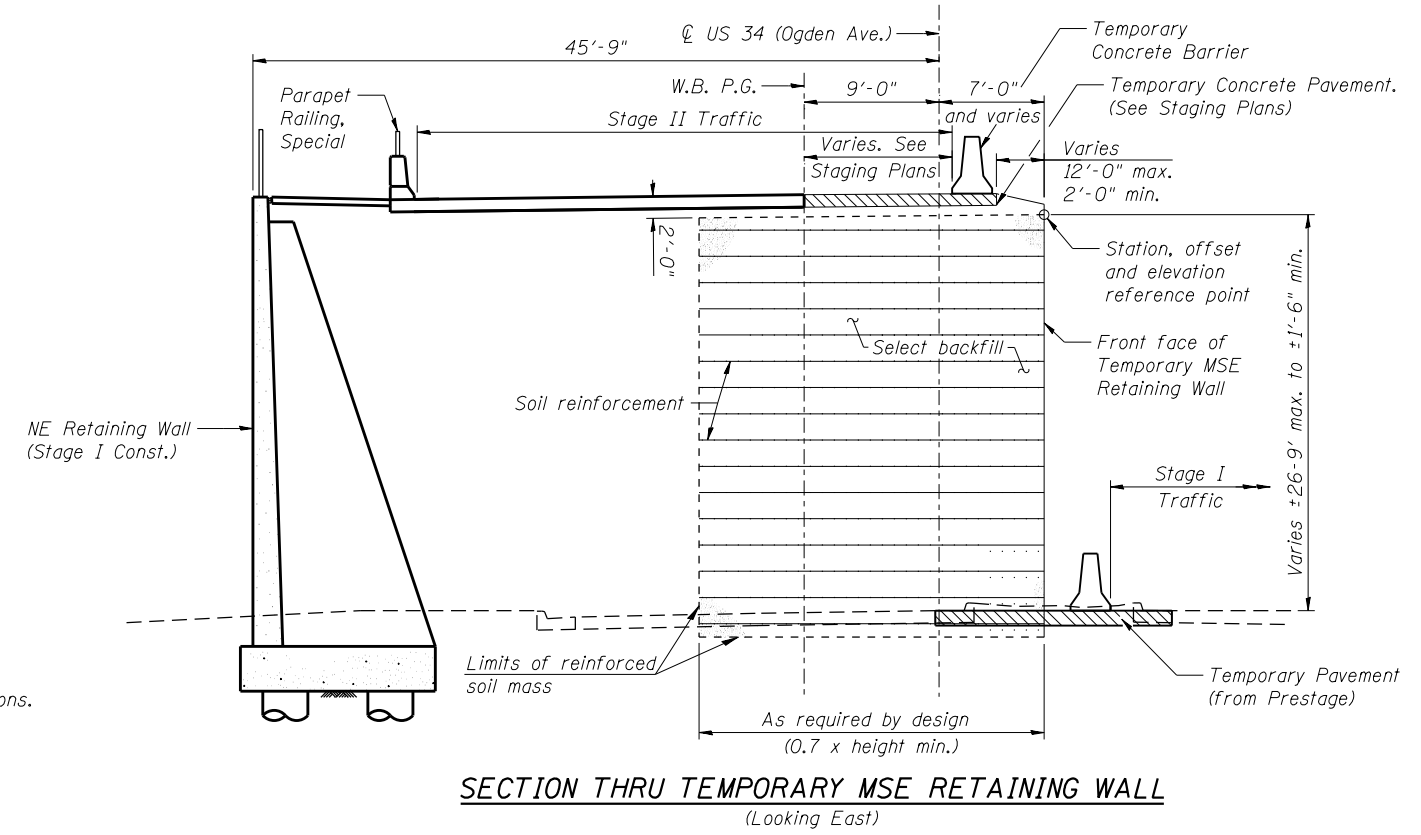
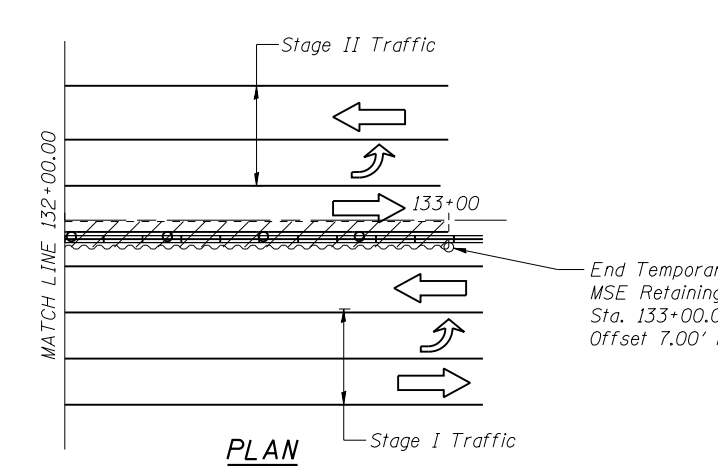
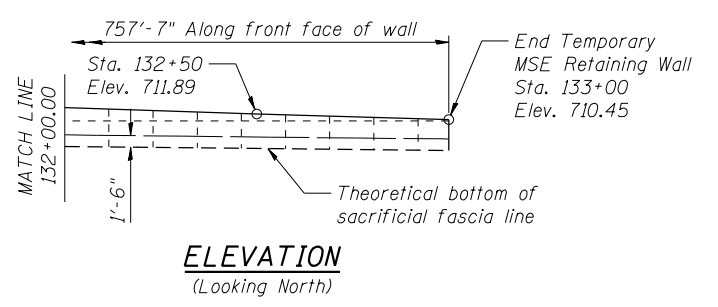
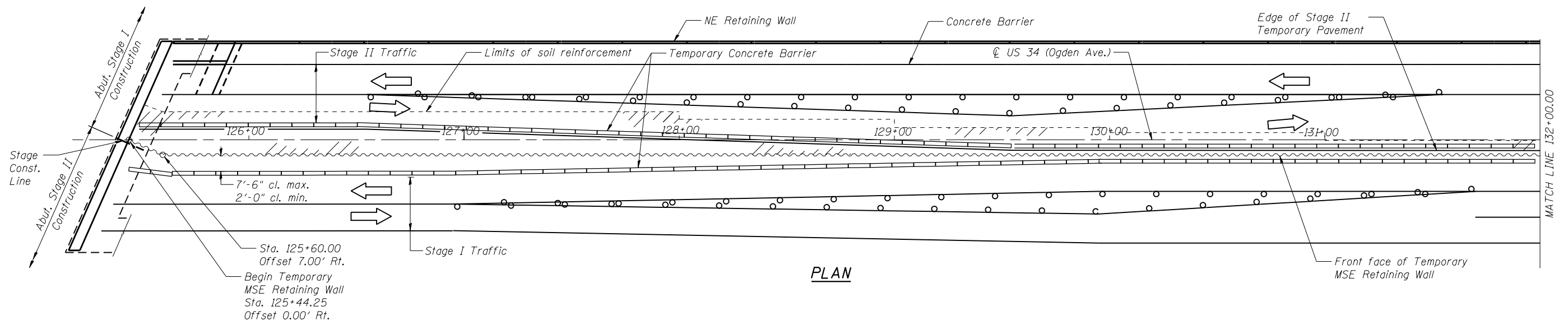
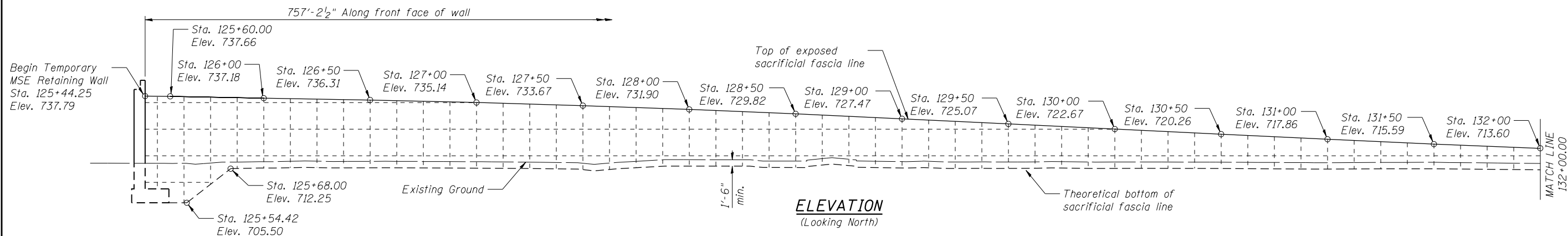
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	CHECKED - AMK	REVISED
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PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, BILL OF MATERIALS, AND INDEX OF SHEETS
STRUCTURE NO. 022-W070**

SHEET NO. NE-2 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	249
			CONTRACT NO. 60R06	
ILLINOIS FED. AID PROJECT				



NOTES

1. See Sheet NE-1 of NE-18 for soil boring locations.



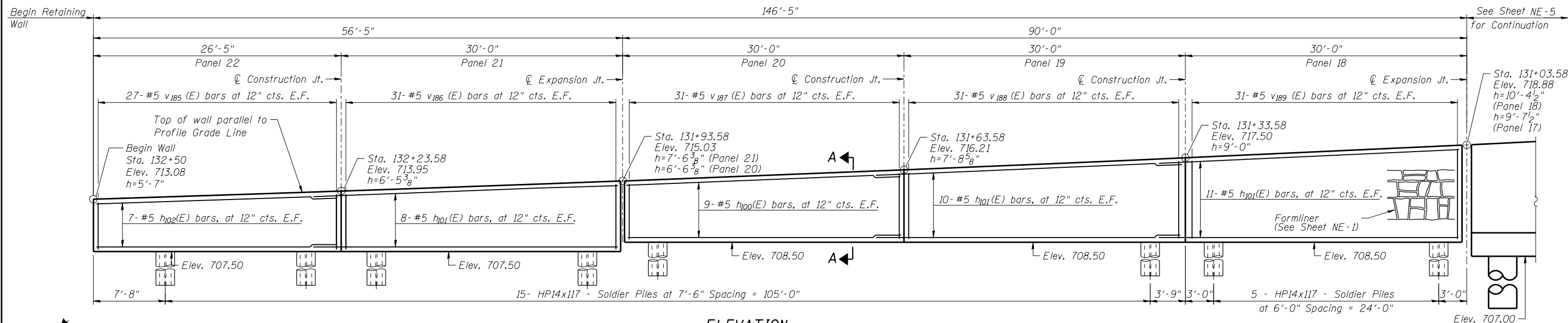
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	CHECKED - AMK	REVISED
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PLOT DATE = 03/19/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

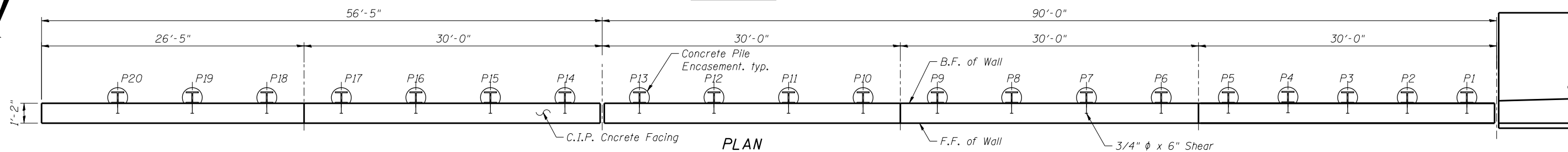
TEMPORARY MSE RETAINING WALL DETAILS
STRUCTURE NO. 022-W070

SHEET NO. NE-3 OF NE-18 SHEETS

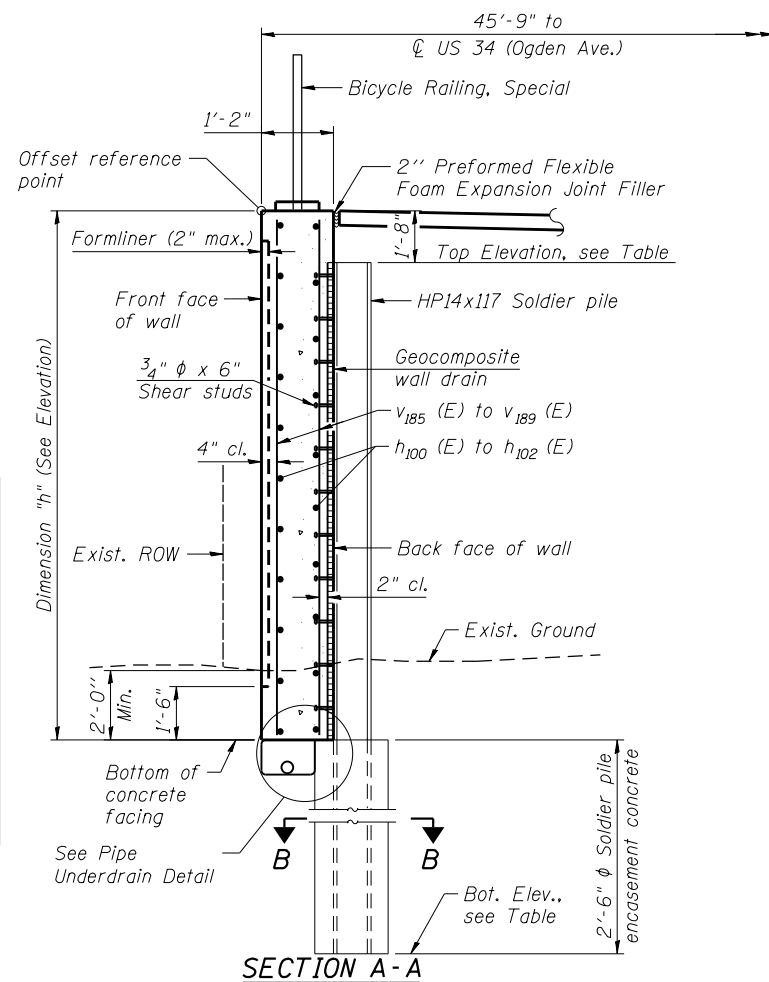
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CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



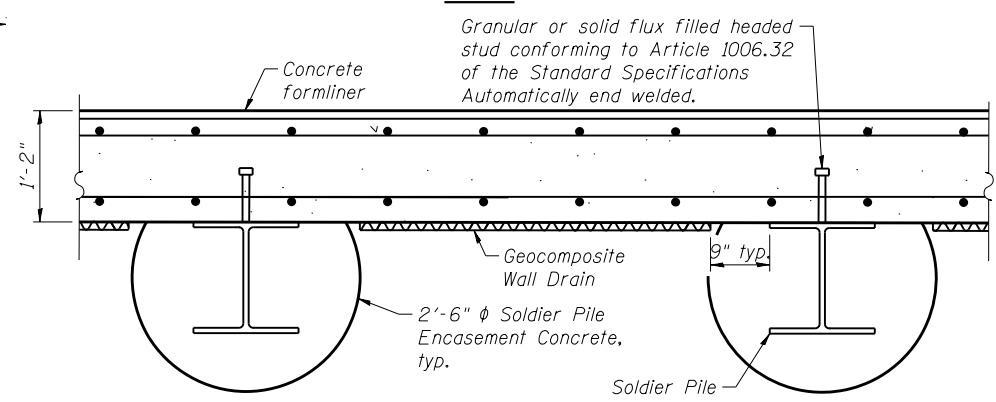
ELEVATION



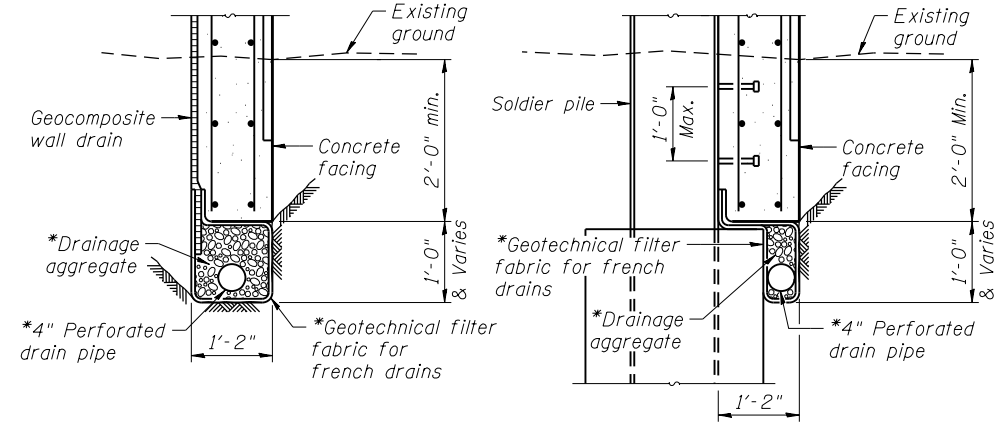
PLAN



SECTION A-A



DETAIL PLAN



BETWEEN SOLDIER PILES **AT SOLDIER PILES**
PIPE UNDERDRAIN DETAIL

PILE DATA

Pile No.	Top Elev.	Bottom Elev.	Length Ft.	No. of Studs
P1	717.07	687.98	29'-1"	10
P2	716.79	688.54	28'-3"	9
P3	716.51	689.09	27'-5"	9
P4	716.23	689.65	26'-7"	9
P5	715.96	690.21	25'-9"	8
P6	715.66	690.83	24'-10"	8
P7	715.34	691.42	23'-11"	8
P8	715.02	692.10	22'-11"	8
P9	714.70	692.70	22'-0"	7
P10	714.39	693.31	21'-1"	7
P11	714.09	693.93	20'-2"	7
P12	713.80	694.55	19'-3"	6
P13	713.51	692.09	21'-5"	7
P14	713.23	692.64	20'-7"	7
P15	712.95	693.20	19'-9"	6
P16	712.68	693.76	18'-11"	6
P17	712.41	694.33	18'-1"	6
P18	712.16	694.82	17'-4"	6
P19	711.90	695.32	16'-7"	5
P20	711.66	695.82	15'-10"	5

SECTION B-B

NOTES:

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet NE-11 for Bill of Material.
- See Sheet NE-11 for Bar Bending Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
- For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
- All structural steel shall conform to the requirements of AASHTO M270 grade 50.
- Reinforcement bars designated (E) shall be epoxy coated.

MINIMUM BAR LAP
 #5 Bar = 2'-11"



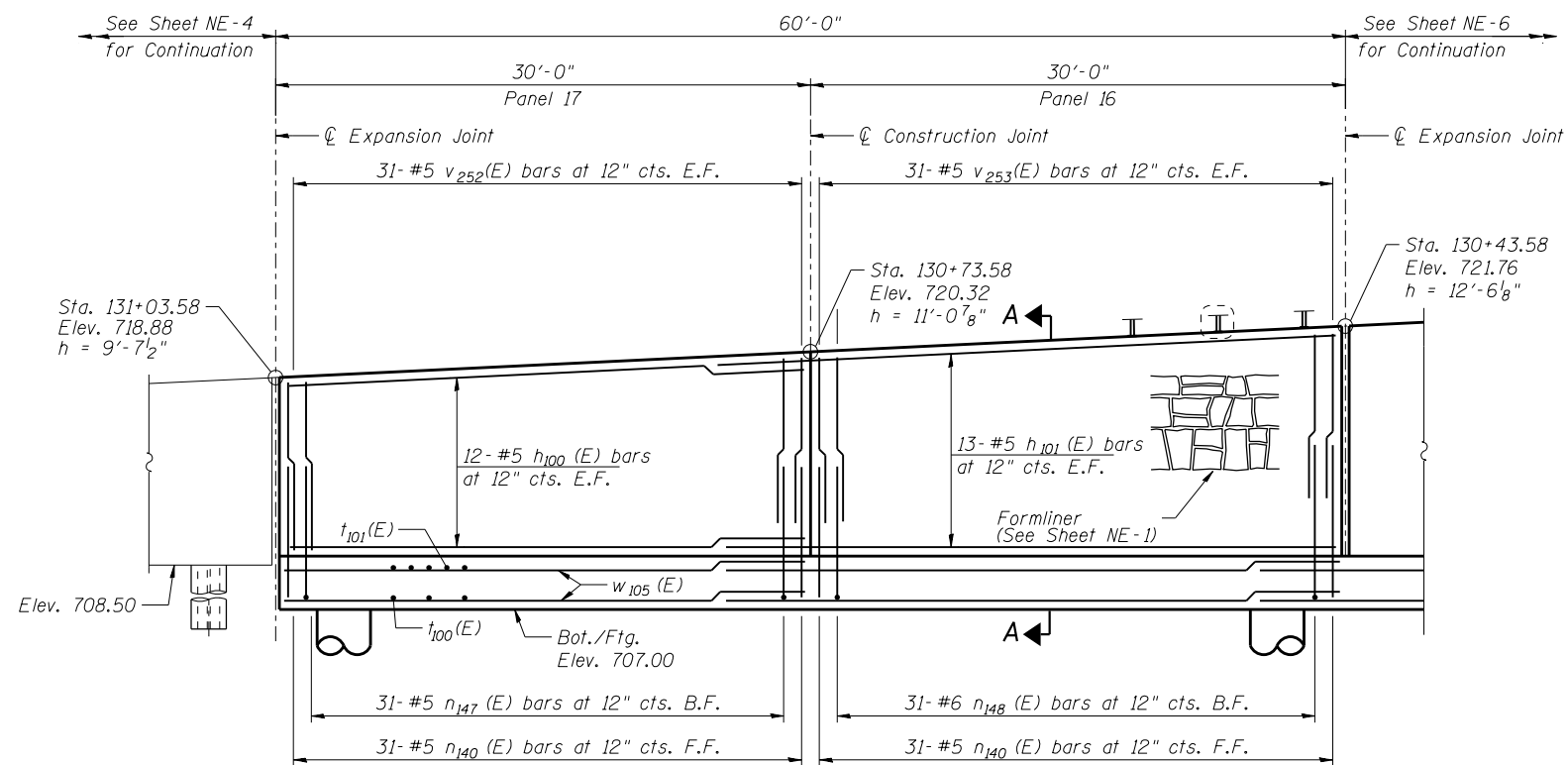
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PLOT DATE = 02/28/2014	CHECKED - NPP	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

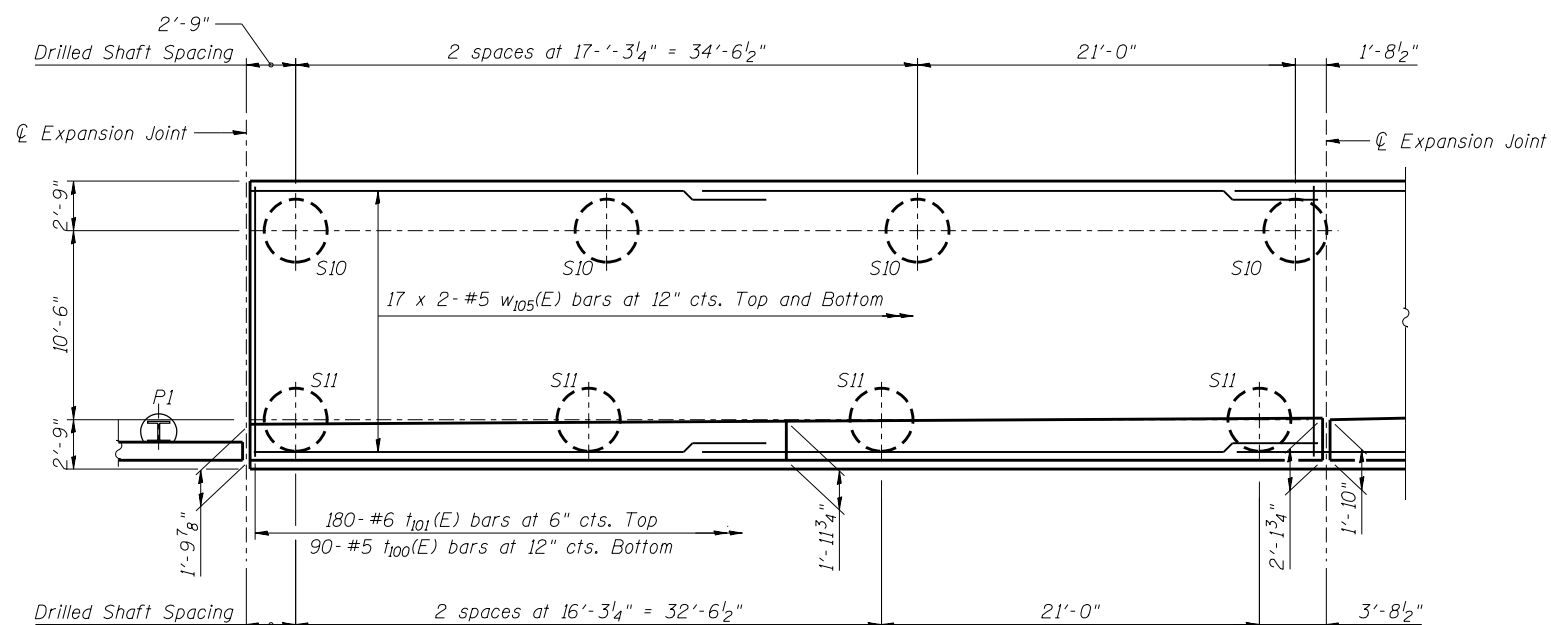
DETAIL PLAN AND ELEVATION 1
STRUCTURE NO. 022-W070

F.A.P. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	251
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

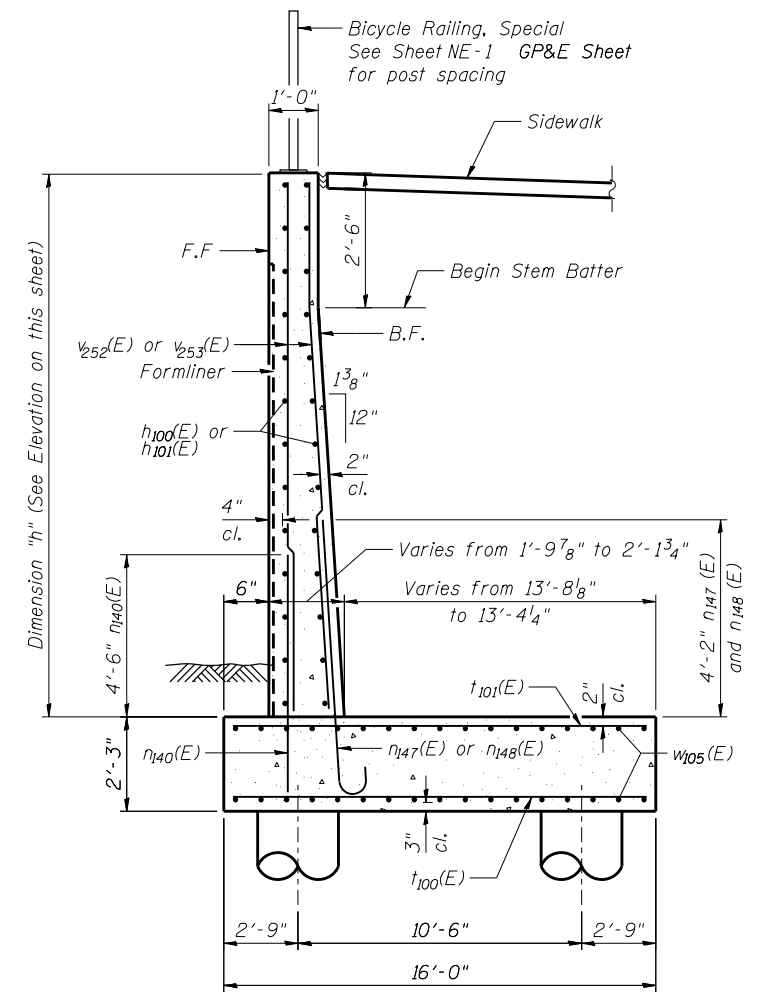
SHEET NO. NE-4 OF NE-18 SHEETS



ELEVATION



PLAN



SECTION A-A

MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)

NOTES

- F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face
- See Sheet NE-11 for Bill of Material, Bar Bending Diagrams.
- See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.



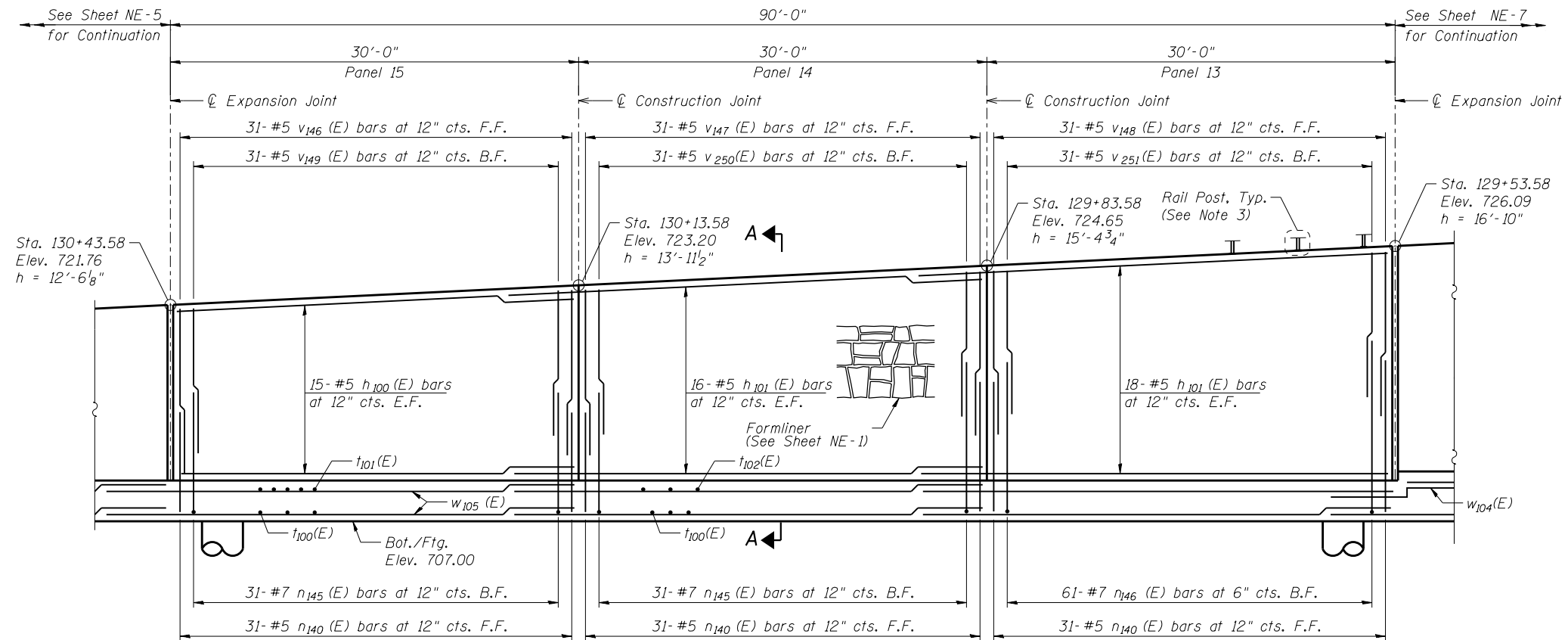
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	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KJZ	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

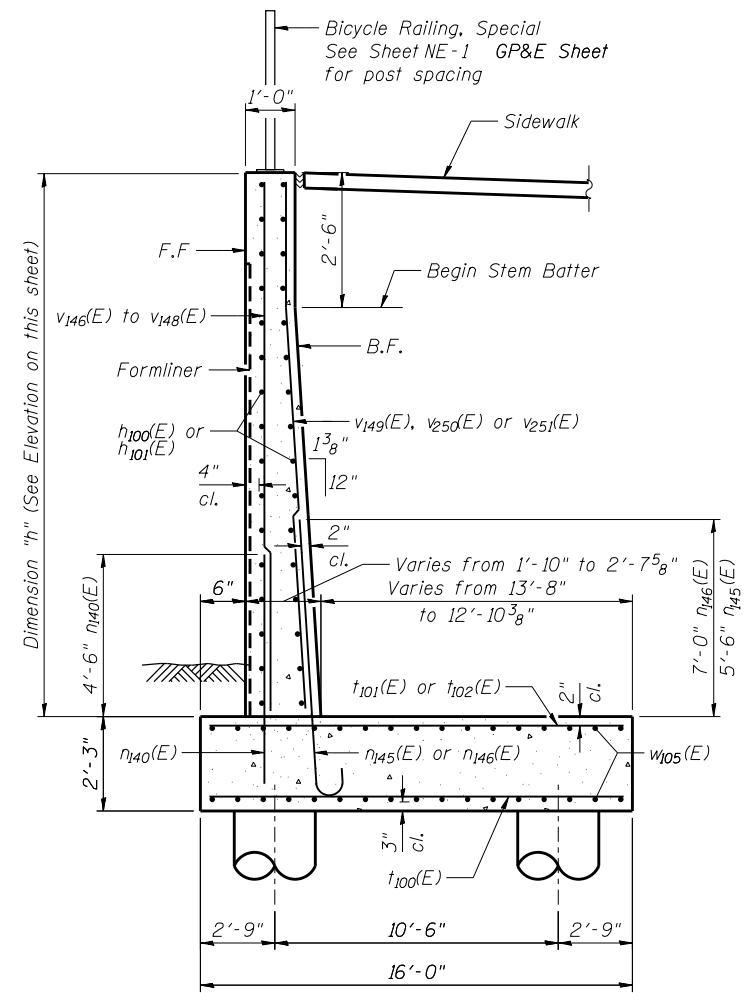
DETAIL PLAN AND ELEVATION 2
STRUCTURE NO. 022-W070

SHEET NO. NE-5 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	252
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



ELEVATION



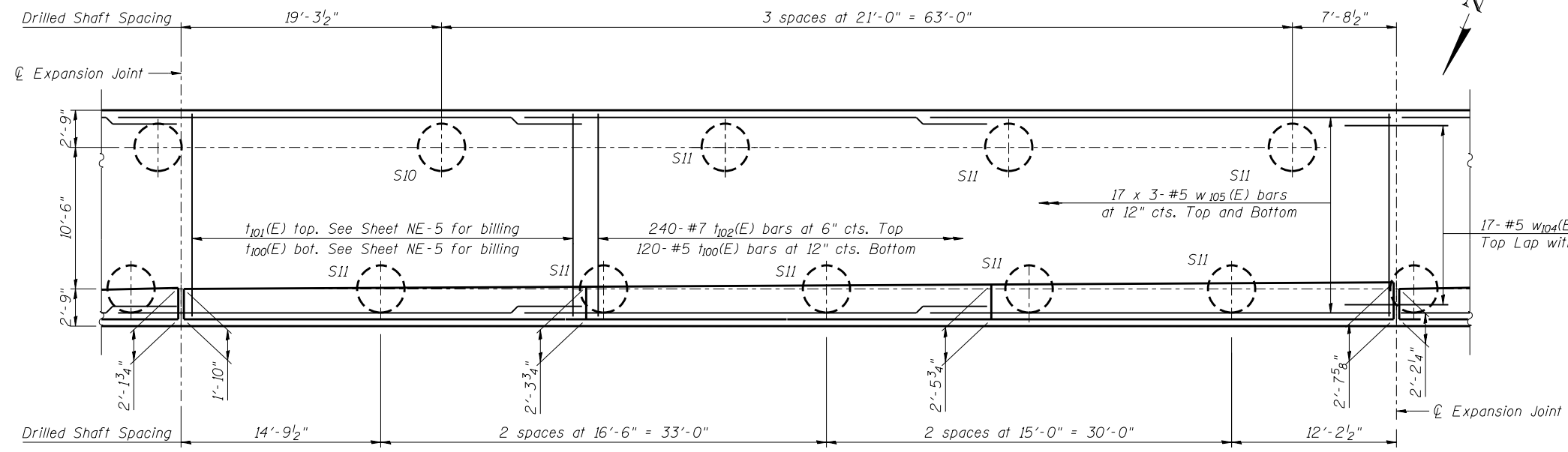
SECTION A-A

MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet NE-11 for Bill of Material, Bar Bending Diagrams.
- See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.



PLAN



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KJZ	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

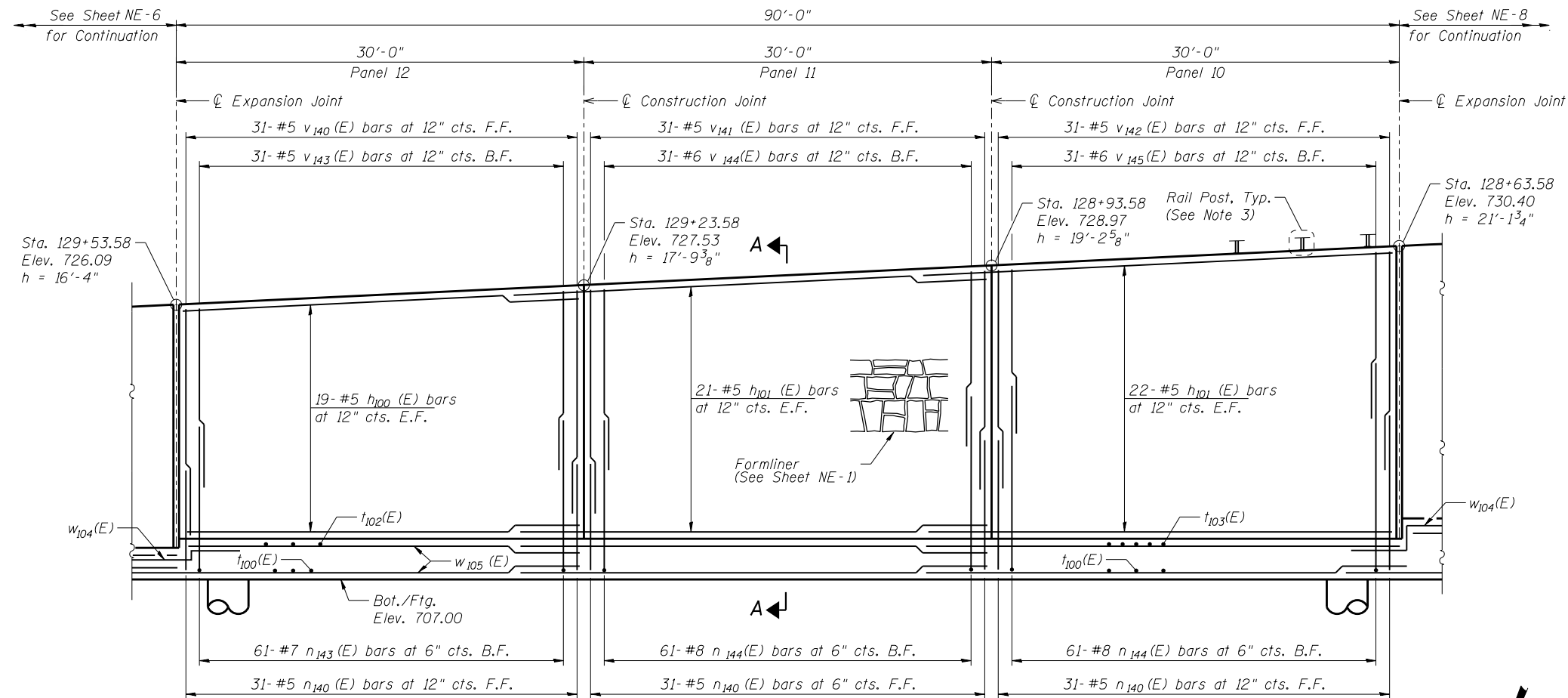
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAIL PLAN AND ELEVATION 3
STRUCTURE NO. 022-W070**

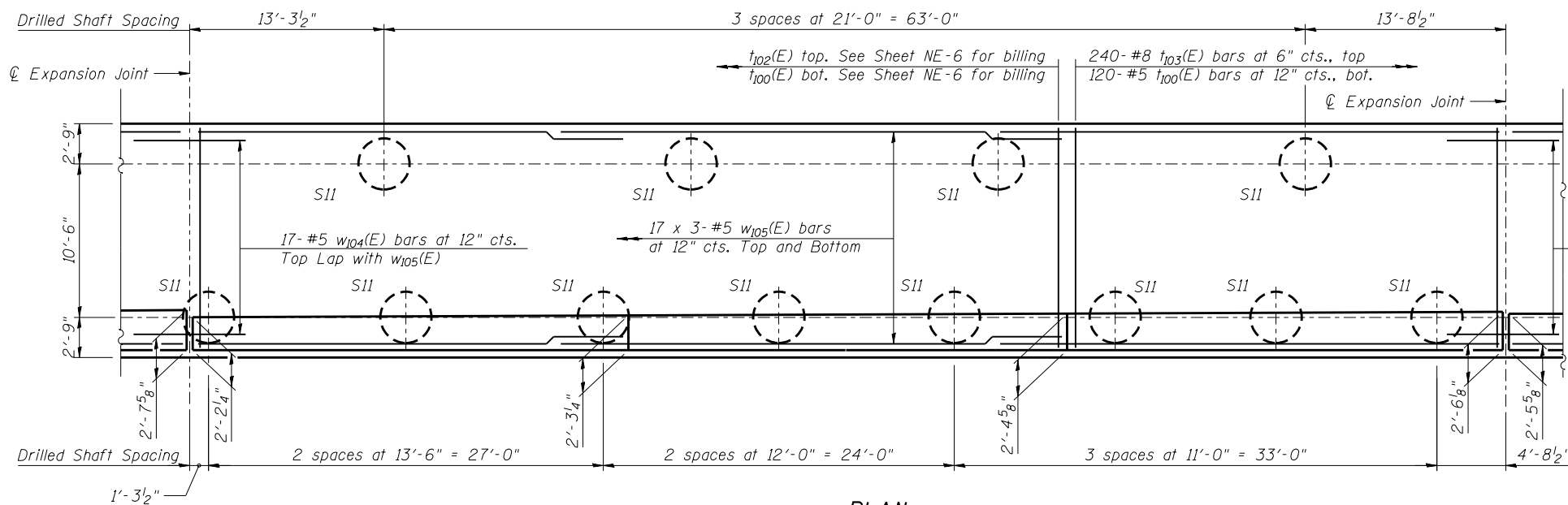
SHEET NO. NE-6 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	253
CONTRACT NO. 60R06				

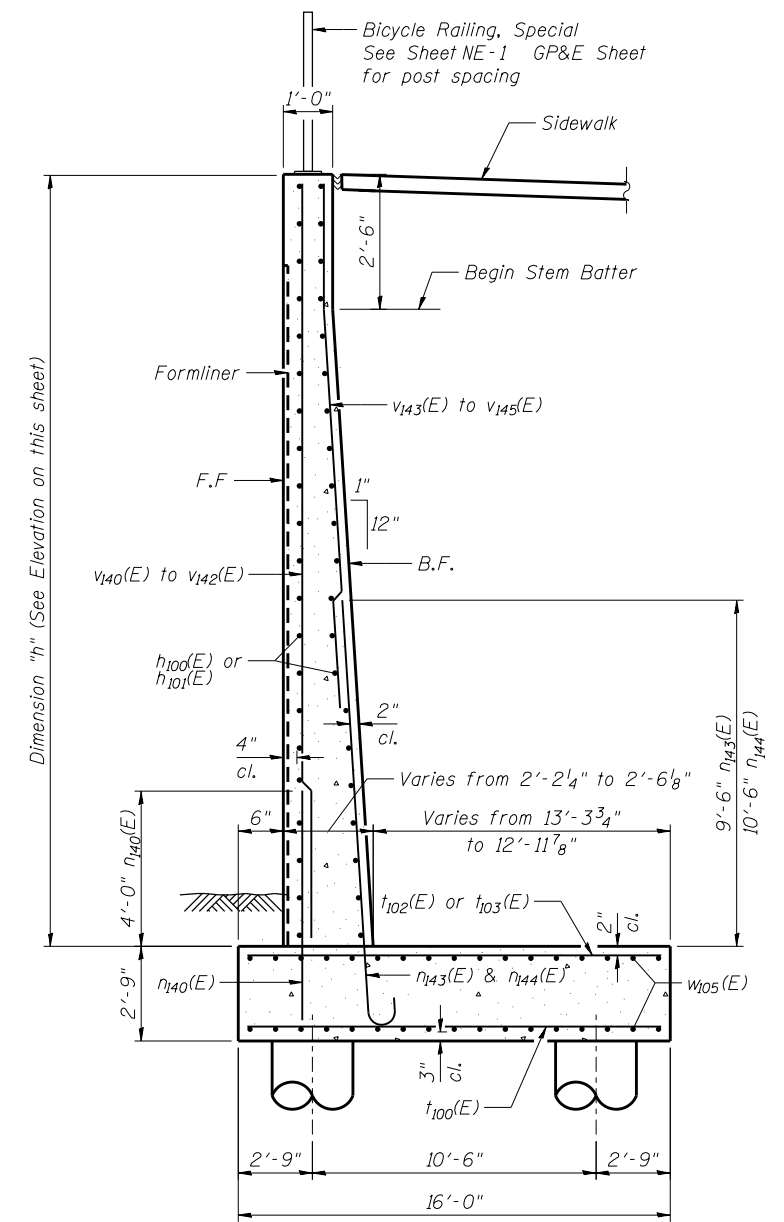
ILLINOIS FED. AID PROJECT



ELEVATION



PLAN



SECTION A-A

MINIMUM BAR LAP
 #5 bar = 2'-7" (Vertical)
 #5 bar = 2'-11" (Horizontal)
 #6 bar = 3'-1"

NOTES

1. F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
2. See Sheet NE-11 for Bill of Material, Bar Bending Diagrams.
3. See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KJZ	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

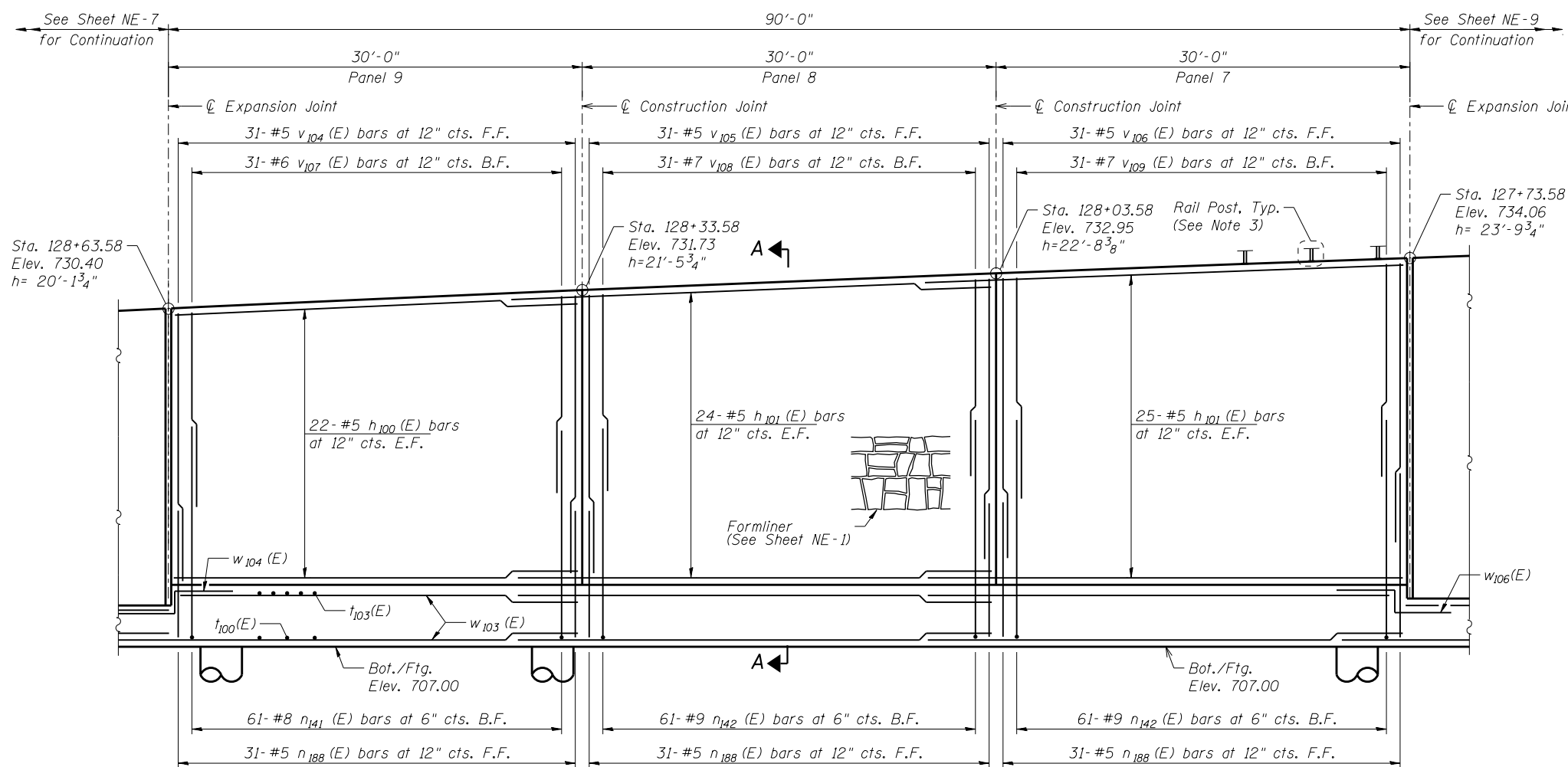
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 4
STRUCTURE NO. 022-W070

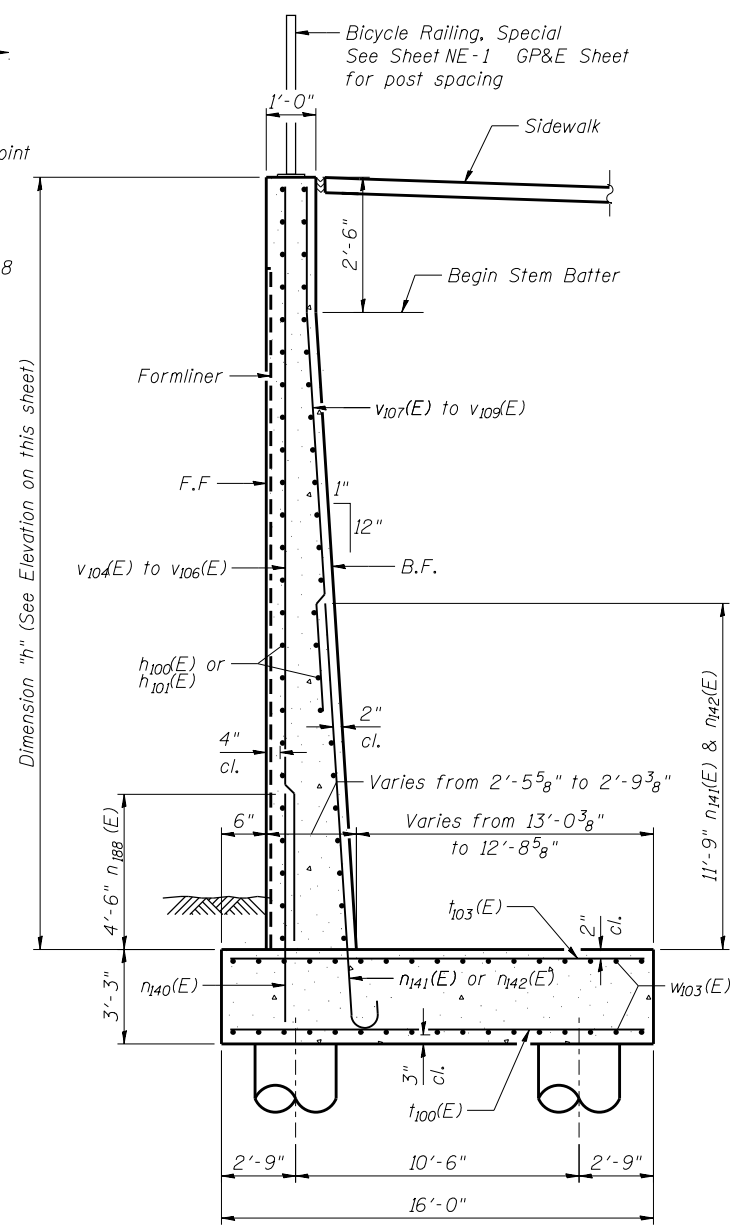
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	254
CONTRACT NO. 60R06				

ILLINOIS FED. AID PROJECT



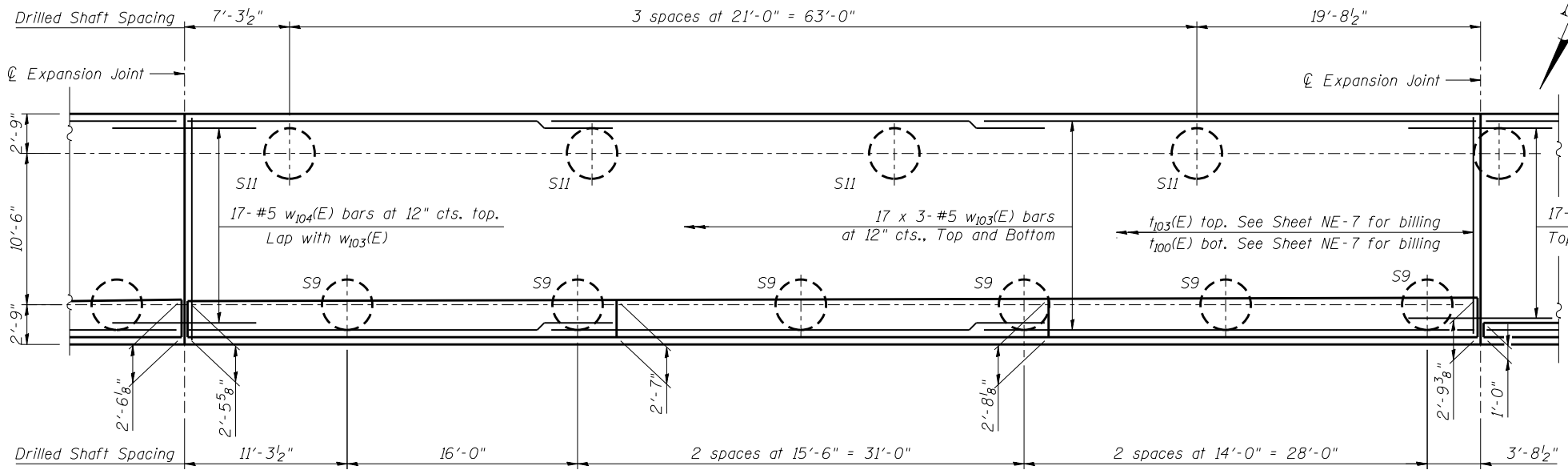
ELEVATION



SECTION A-A

MINIMUM BAR LAP
 #5 bar = 2'-7" (Vertical)
 #5 bar = 2'-11" (Horizontal)
 #6 bar = 3'-1"
 #7 bar = 4'-2"

- NOTES**
- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
 - See Sheet NE-11 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams.
 - See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.



PLAN



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KJZ	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

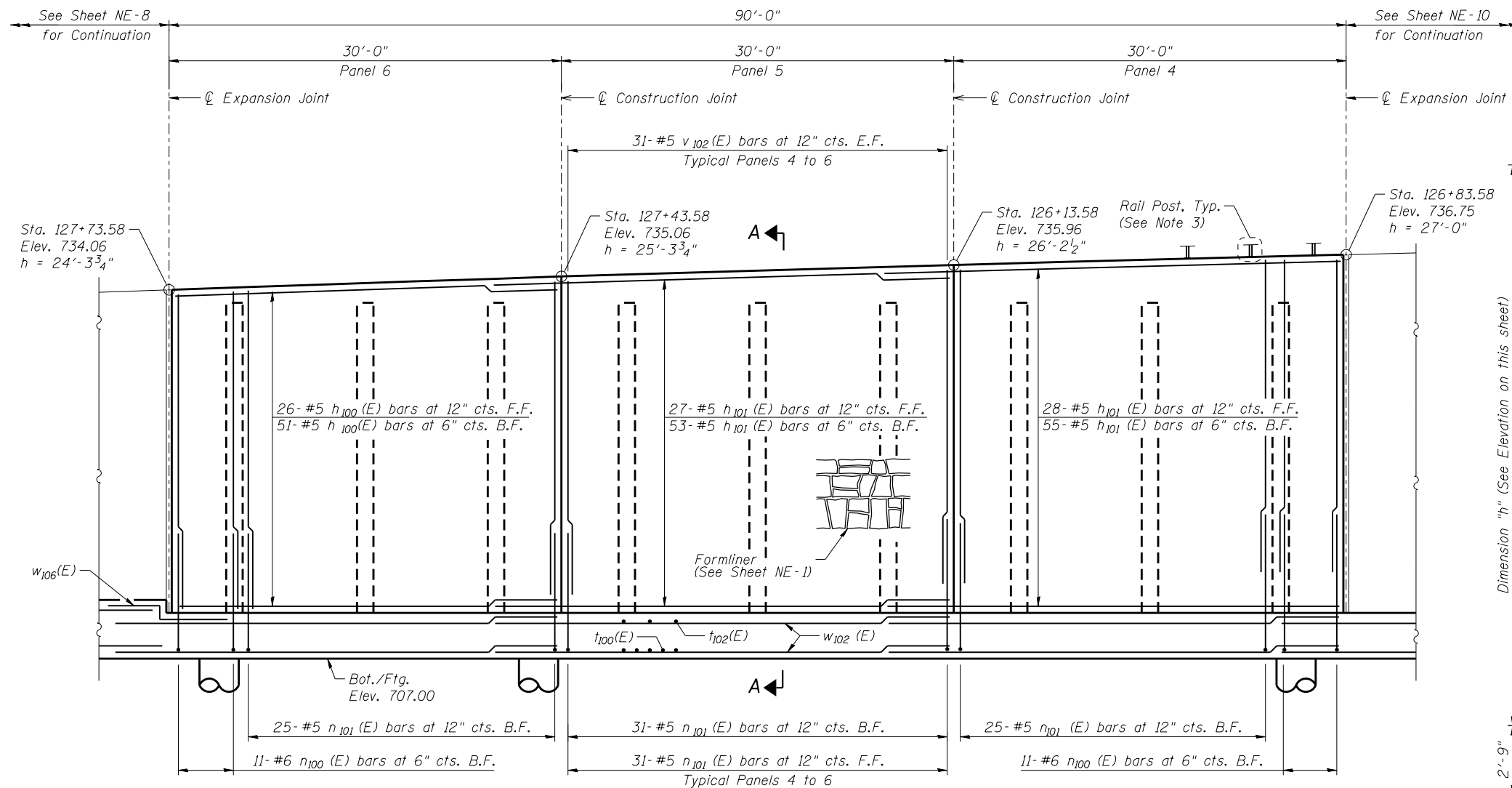
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 5
STRUCTURE NO. 022-W070

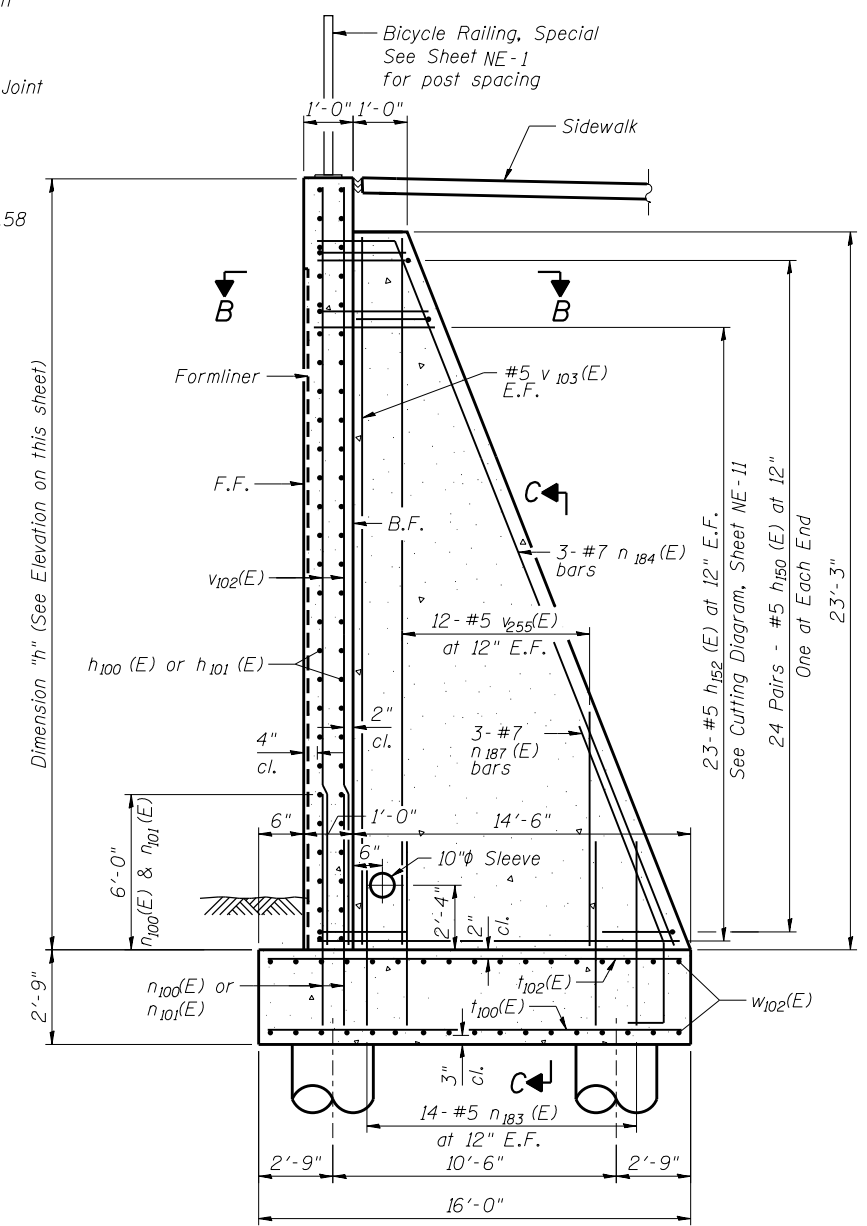
SHEET NO. NE-8 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60R06				

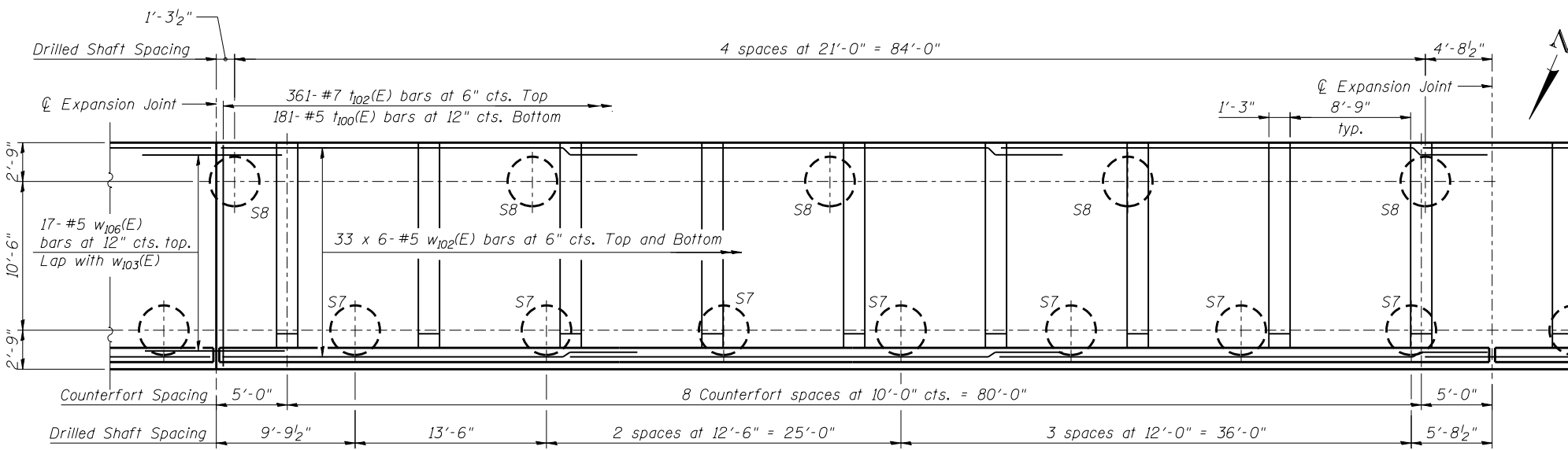
ILLINOIS FED. AID PROJECT



ELEVATION



SECTION A-A



PLAN

MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)
- #7 bar = 5'-2"

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet NE-11 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams, Section B-B, and Section C-C
- See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.



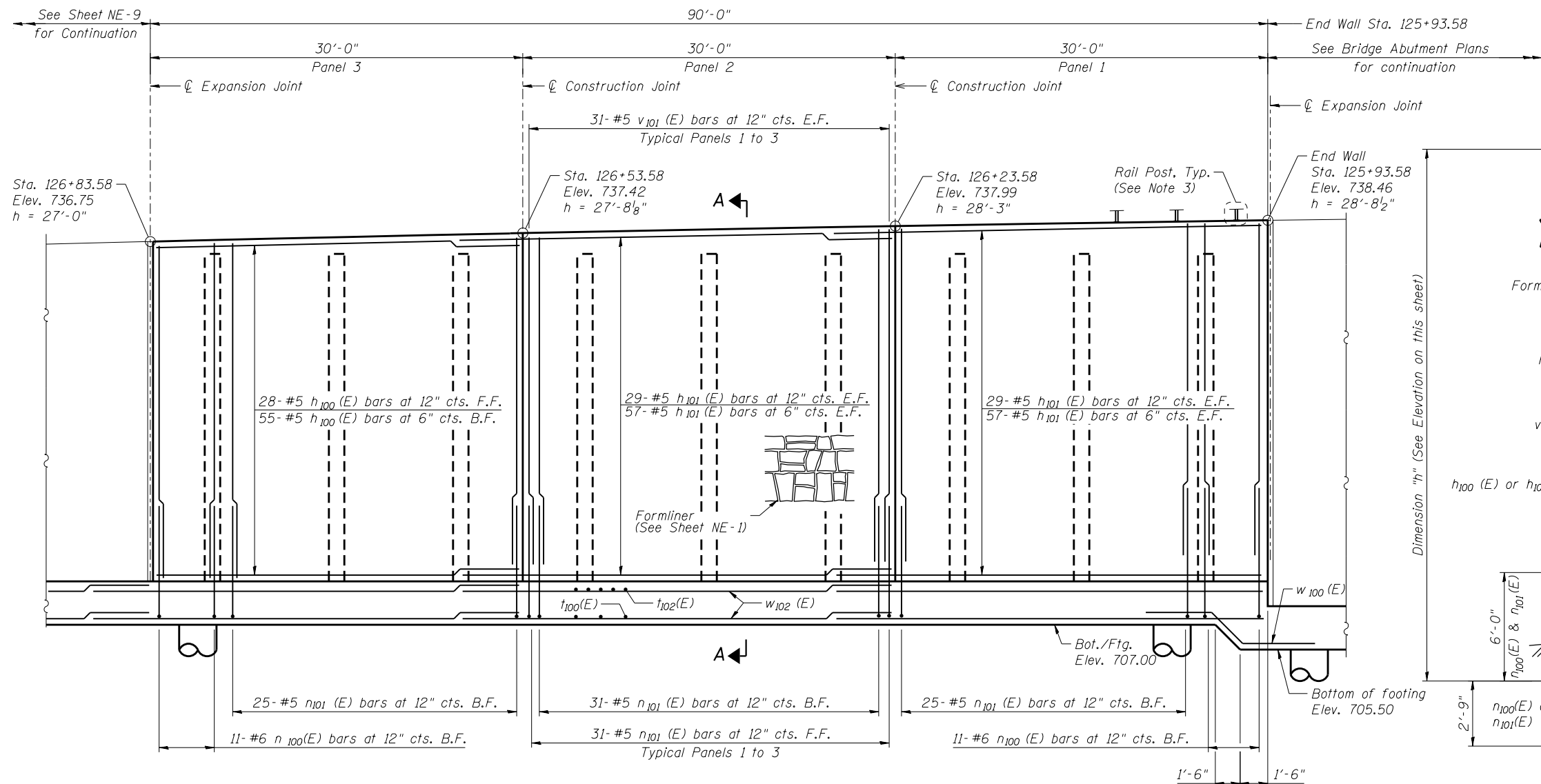
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PLOT SCALE =	DRAWN - KJZ	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

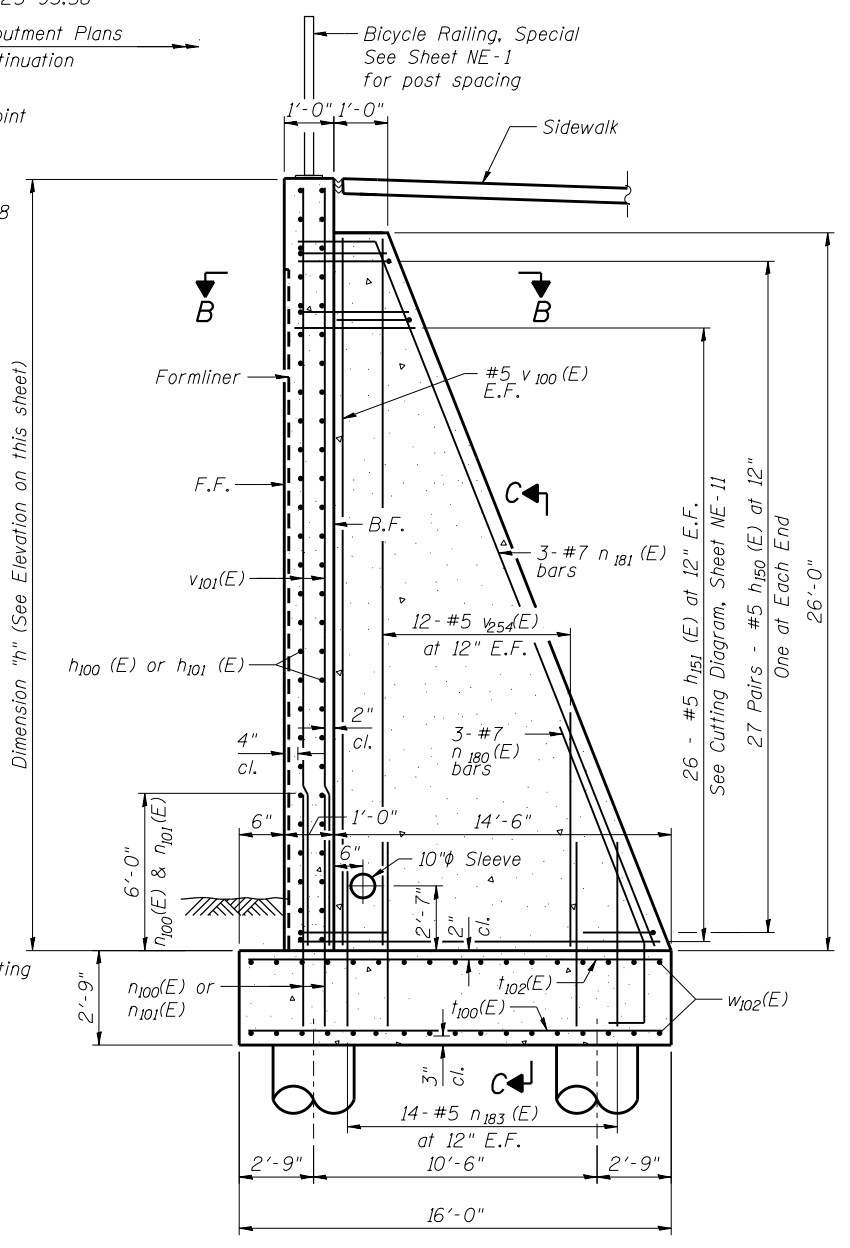
DETAIL PLAN AND ELEVATION 6
STRUCTURE NO. 022-W070

SHEET NO. NE-9 OF NE-18 SHEETS

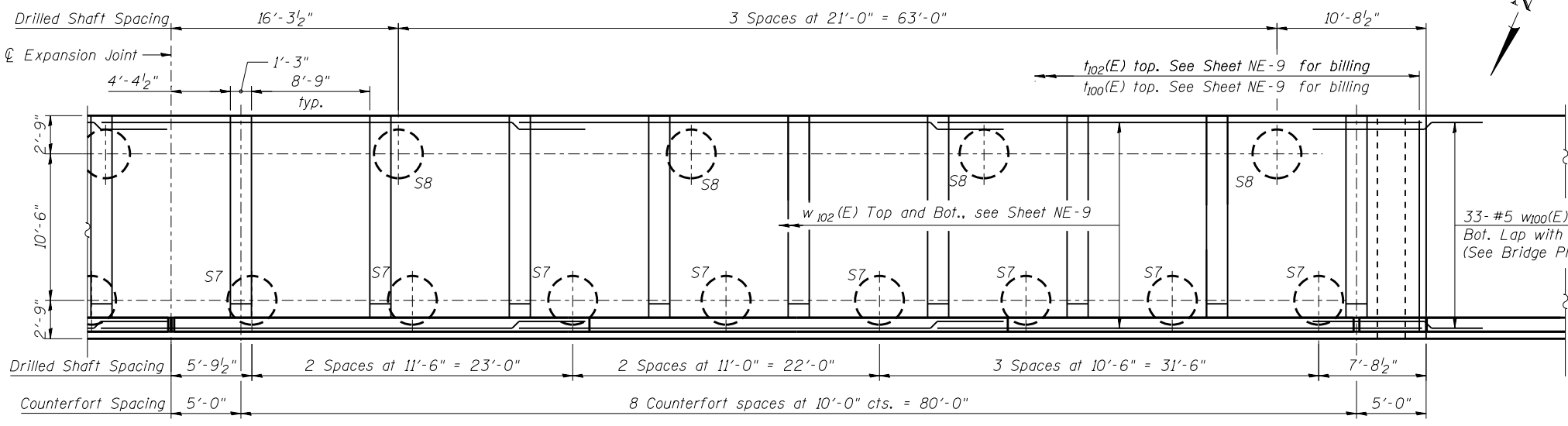
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	256
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



ELEVATION



SECTION A-A



PLAN

MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)
- #7 bar = 5'-2"

NOTES

1. F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face
2. See Sheet NE-11 for Bill of Material, Bar Bending Diagrams, Cutting Diagrams, Section B-B, and Section C-C
3. See General Plan and Elevation Sheet for Location and Spacing of Rail Posts.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KJZ	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAIL PLAN AND ELEVATION 7
STRUCTURE NO. 022-W070**

SHEET NO. NE-10 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

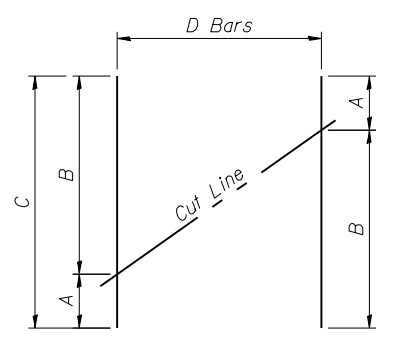
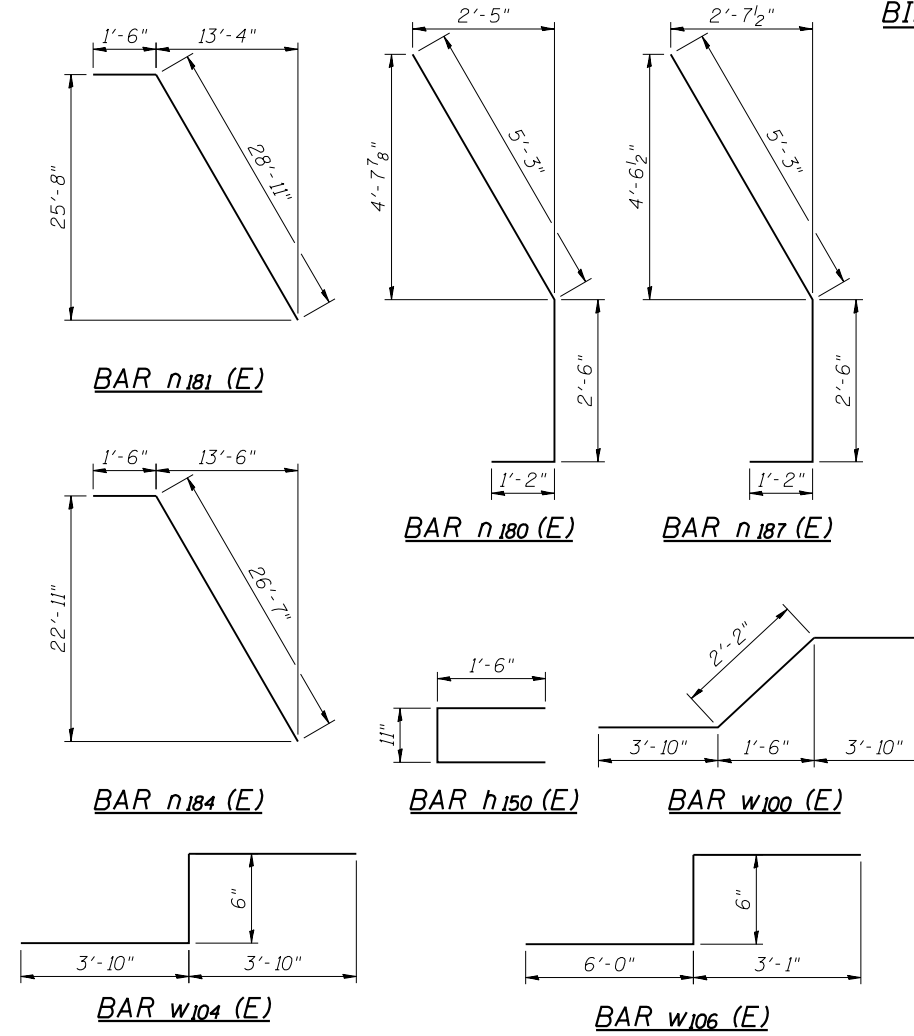
BILL OF MATERIAL
DRILLED SHAFT

Bar	No.	Size	Length	Shape
n ₃₀₀ (E)	504	#9	11'-6"	
n ₃₀₁ (E)	507	#9	9'-9"	
SP309	45	#5	27'-1"	
SP310	18	#5	23'-8"	
SP311	18	#5	27'-1"	
SP312	10	#5	23'-8"	
SP313	56	#5	29'-8"	
V ₃₀₇	945	#9	30'-9"	
V ₃₁₀	378	#9	26'-5"	
V ₃₀₈	234	#9	30'-0"	
V ₃₀₉	130	#9	25'-10"	
V ₃₀₆	728	#9	31'-10"	

** Length is height of spiral.
Minimum lap for spirals = 2'-6"

BARS n₁₄₁(E) THRU n₁₄₈(E),
n₃₀₀(E) & n₃₀₁(E)

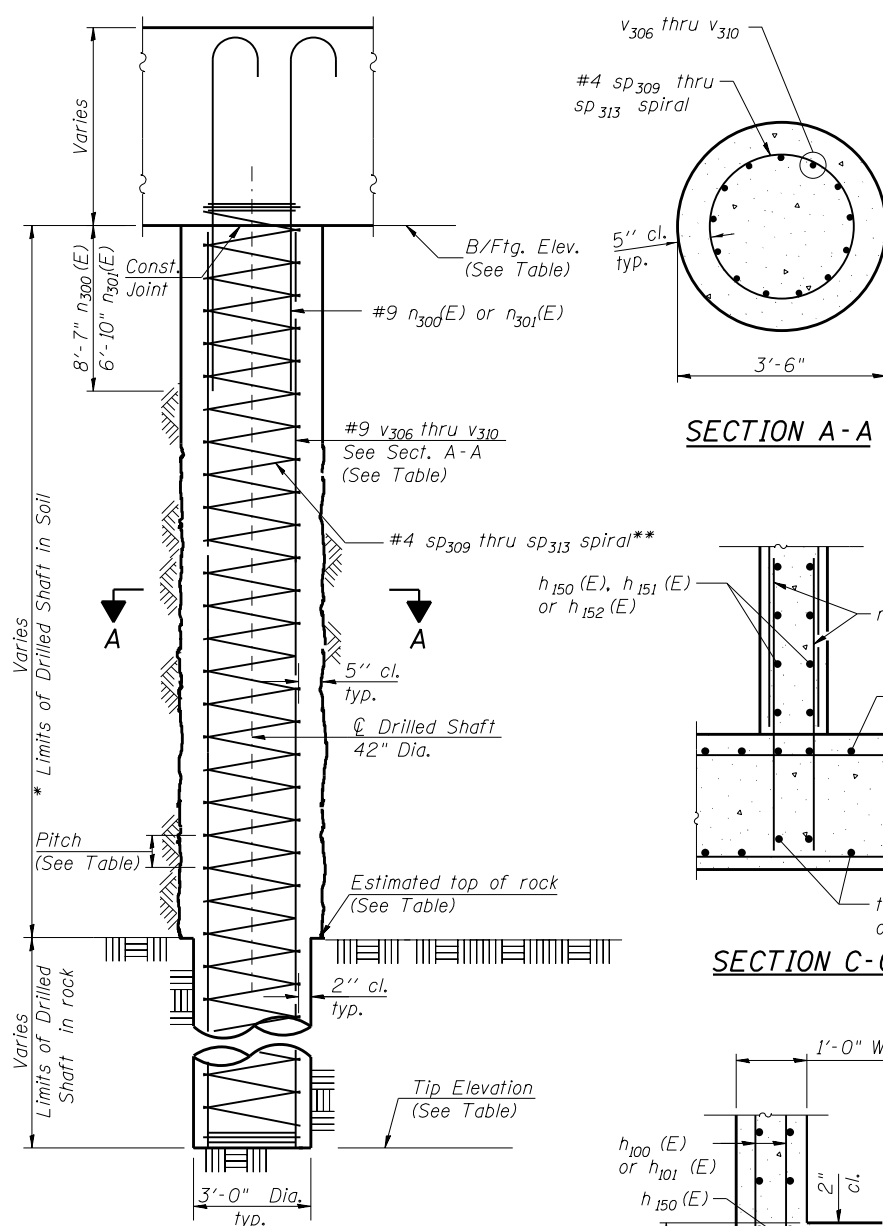
Bar	A	B	C
n ₁₄₁ (E)	14'-9"	11"	8"
n ₁₄₂ (E)	14'-9"	1'-3"	11 ³ / ₄ "
n ₁₄₃ (E)	12'-0"	10"	7"
n ₁₄₄ (E)	13'-0"	11"	8"
n ₁₄₅ (E)	7'-6"	10"	7"
n ₁₄₆ (E)	9'-0"	10"	7"
n ₁₄₇ (E)	6'-2"	7"	5"
n ₁₄₈ (E)	6'-2"	8"	6"
n ₃₀₀ (E)	10'-3"	1'-3"	11 ³ / ₄ "
n ₃₀₁ (E)	8'-6"	1'-3"	11 ³ / ₄ "



BAR CUTTING DIAGRAM
Order bars full length. Cut as shown and use remainder of bars in opposite face.

BAR	A	B	C	D
h ₁₅₁ (E)	2'-0"	14'-9"	16'-9"	26
h ₁₅₂ (E)	2'-0"	14'-9"	16'-9"	23
v ₂₅₄ (E)	3'-3"	25'-8"	28'-11"	12
v ₂₅₅ (E)	3'-3"	22'-11"	26'-2"	12
v ₁₈₅ (E)	5'-3"	6'-1"	11'-4"	27
v ₁₈₆ (E)	6'-1"	7'-2"	13'-3"	31
v ₁₈₇ (E)	6'-2"	7'-4"	13'-6"	31
v ₁₈₈ (E)	7'-4"	8'-8"	16'-0"	31
v ₁₈₉ (E)	8'-8"	10'-0"	18'-8"	31

Bar	No.	Size	Length	Shape
h ₁₀₀ (E)	314	#5	29'-8"	
h ₁₀₁ (E)	671	#5	32'-11"	
h ₁₀₂ (E)	14	#5	26'-1"	
h ₁₅₀ (E)	918	#5	3'-11"	
h ₁₅₁ (E)	234	#5	16'-9"	
h ₁₅₂ (E)	207	#5	16'-9"	
n ₁₀₀ (E)	44	#6	8'-6"	
n ₁₀₁ (E)	348	#5	8'-6"	
n ₁₄₀ (E)	248	#5	6'-6"	
n ₁₄₁ (E)	61	#8	15'-8"	
n ₁₄₂ (E)	122	#9	16'-0"	
n ₁₄₃ (E)	61	#7	12'-10"	
n ₁₄₄ (E)	122	#8	13'-11"	
n ₁₄₅ (E)	62	#7	8'-4"	
n ₁₄₆ (E)	61	#7	9'-10"	
n ₁₄₇ (E)	31	#5	6'-9"	
n ₁₄₈ (E)	31	#6	6'-10"	
n ₁₈₀ (E)	27	#7	8'-11"	
n ₁₈₁ (E)	27	#7	30'-5"	
n ₁₈₃ (E)	504	#5	5'-3"	
n ₁₈₄ (E)	27	#7	28'-1"	
n ₁₈₇ (E)	27	#7	8'-11"	
n ₁₈₈ (E)	93	#5	7'-6"	
t ₁₀₀ (E)	511	#5	15'-8"	
t ₁₀₁ (E)	180	#6	15'-8"	
t ₁₀₂ (E)	601	#7	15'-8"	
t ₁₀₃ (E)	240	#8	15'-8"	
v ₁₀₀ (E)	18	#5	25'-8"	
v ₁₀₁ (E)	186	#5	25'-1"	
v ₁₀₂ (E)	186	#5	23'-5"	
v ₁₀₃ (E)	18	#5	22'-11"	
v ₁₀₄ (E)	31	#5	19'-7"	
v ₁₀₅ (E)	31	#5	20'-10"	
v ₁₀₆ (E)	31	#5	22'-11"	
v ₁₀₇ (E)	31	#6	13'-9"	
v ₁₀₈ (E)	31	#7	14'-10"	
v ₁₀₉ (E)	31	#7	16'-1"	
v ₁₄₀ (E)	31	#5	15'-8"	
v ₁₄₁ (E)	31	#5	17'-2"	
v ₁₄₂ (E)	31	#5	19'-1"	
v ₁₄₃ (E)	31	#5	10'-2"	
v ₁₄₄ (E)	31	#6	11'-8"	
v ₁₄₅ (E)	31	#6	13'-1"	
v ₁₄₆ (E)	31	#5	12'-2"	
v ₁₄₇ (E)	31	#5	13'-8"	
v ₁₄₈ (E)	31	#5	15'-1"	
v ₁₄₉ (E)	31	#5	10'-10"	
v ₂₅₀ (E)	31	#5	12'-4"	
v ₂₅₁ (E)	31	#5	12'-3"	
v ₂₅₂ (E)	62	#5	9'-4"	
v ₂₅₃ (E)	62	#5	10'-9"	
v ₂₅₄ (E)	108	#5	28'-11"	
v ₂₅₅ (E)	108	#5	26'-2"	
v ₁₈₅ (E)	27	#5	11'-4"	
v ₁₈₆ (E)	31	#5	13'-3"	
v ₁₈₇ (E)	31	#5	13'-6"	
v ₁₈₈ (E)	31	#5	16'-0"	
v ₁₈₉ (E)	31	#5	18'-8"	
w ₁₀₀ (E)	33	#5	9'-10"	
w ₁₀₂ (E)	396	#5	33'-8"	
w ₁₀₃ (E)	102	#5	32'-4"	
w ₁₀₄ (E)	34	#5	8'-2"	
w ₁₀₅ (E)	272	#5	33'-2"	
w ₁₀₆ (E)	17	#5	9'-7"	
Structure Excavation		Cu. Yd.	1,849	
Concrete Structures		Cu. Yd.	1,543.2	
Reinforcement Bars		Pounds	327,690	
Reinforcement Bars, Epoxy Coated		Pounds	212,070	



DRILLED SHAFT DETAILS

* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.

** Provide 1/2 extra turns top and bottom of each drilled shaft. Extend spiral 2' into retaining wall footing. Provide min. 4-#4 spacers or equivalent.

MINIMUM BAR LAP

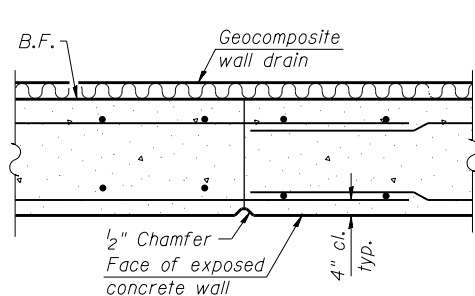
- #9 v₃₀₇ and #9 v₃₁₀ Bars = 5'-9"
- #9 v₃₀₆, #9 v₃₀₈ and #9 v₃₀₉ Bars = 4'-7"

DRILLED SHAFT SCHEDULE

Shaft Designation	No. Shafts	Bottom of Footing	Tip Elevation	Est. Top of Rock	Vertical Reinforcement	Spiral Reinforcement	Pitch	Dowel Bar Reinforcement	Total Length	Rock Socket Length
S7	15	707.00	626.3	633.6	21x3-#9 v ₃₀₇	1x3-#5 SP309	4"	21-#9 n ₃₀₀ (E)	80.7	7.30'
S8	9	707.00	660	633.6	21x2-#9 v ₃₁₀	1x2-#5 SP310	4"	21-#9 n ₃₀₀ (E)	47.0	-
S9	6	707.00	626.3	633.6	13x3-#9 v ₃₀₈	1x3-#5 SP311	5 1/2"	13-#9 n ₃₀₁ (E)	80.7	7.30'
S10	5	707.00	660	633.6	13x2-#9 v ₃₀₉	1x2-#5 SP312	5 1/2"	13-#9 n ₃₀₁ (E)	47.0	-
S11	28	707.00	648	633.6	13x2-#9 v ₃₀₆	1x2-#5 SP313	5 1/2"	13-#9 n ₃₀₁ (E)	59.0	-

Notes:
See sheets NE-5 thru NE-10 for Drilled Shaft Locations.

EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
STRUCTURE NO. 022-W070

URS

USER NAME =	DESIGNED - KMP	REVISED
PLOT SCALE =	CHECKED - AMK	REVISED
PLOT DATE = 02/28/2014	DRAWN - KJZ	REVISED
	CHECKED - NNP	REVISED

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	258
			CONTRACT NO. 60R06	
ILLINOIS FED. AID PROJECT				

SHEET NO. NE-11 OF NE-18 SHEETS



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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-19

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.76 ft
North: 1849653.48 ft
East: 1011636.34 ft
Station: 126+09.04
Offset: 25.18 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.8	12-inch thick TOPSOIL --TOPSOIL--														
	Very stiff, brown and black SILTY CLAY, trace gravel and organics --FILL--		X	1	8 9 7	3.50 P	21				X	9	6 7 10	1.00 P	18
707.8	Stiff, black, brown, and gray SILTY CLAY LOAM, trace gravel		X	2	2 2 4	1.75 P	31			25	X	10	4 6 9	2.95 B	17
			X	3	2 4 4	1.25 P	26				X	11	5 9 18	3.50 P	16
702.8	Brown and gray, GRAVELLY SANDY LOAM		X	4	2 3 3	NP	19				X	12	3 6 21	3.00 P	11
701.8	Loose, brown SILTY LOAM		X	5	7 10 10	3.50 P	15				X	13	8 15 19	>4.50 P	15
700.3	Very stiff, brown SILTY CLAY LOAM, some gravel		X	6	4 5 7	NP	18				X	14	11 14 19	4.00 P	14
697.8	Medium dense, gray and brown SILTY LOAM, trace gravel		X	7	3 5 9	1.39 B	16				X	15			
695.3	Stiff to hard, gray SILTY CLAY to SILTY CLAY LOAM, trace to some gravel		X	8	3 6 8	3.12 B	17				X	16			

GENERAL NOTES

Begin Drilling **07-03-2012** Complete Drilling **07-03-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **9.00 ft**
At Completion of Drilling **NA**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC_1192001.GPJ, WANGENG.GDT 8/6/12



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Lombard, IL 60148
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BORING LOG RW-19

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.76 ft
North: 1849653.48 ft
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Station: 126+09.04
Offset: 25.18 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
668.8	Stiff to very stiff, gray CLAY		X	15	5 6 10	3.85 B	24				X	16	4 5 8	1.89 B	25
660.8	Boring terminated at 50.00 ft														

GENERAL NOTES

Begin Drilling **07-03-2012** Complete Drilling **07-03-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **9.00 ft**
At Completion of Drilling **NA**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC_1192001.GPJ, WANGENG.GDT 8/6/12



USER NAME =
DESIGNED - KMP
CHECKED - AMK
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - NPP

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 1
STRUCTURE NO. 022-W070

SHEET NO. NE-12 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	259
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-21

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.22 ft
North: 1849666.74 ft
East: 1011666.70 ft
Station: 126+42.17
Offset: 25.32 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.2	12-inch thick TOPSOIL														
	Stiff to very stiff, brown and black SILTY CLAY LOAM, some gravel		X	1	8 5 6	3.00 P	15				X	9	10 9 12	NR	24
			X	2	4 5 7	1.50 P	29				X	10	9 7 12	0.25 B	24
704.7	Black SILTY LOAM														
703.9	Medium dense, brown SANDY LOAM, with gravel		X	3	6 7 10	NP	10	684.7	Medium dense to dense, gray SANDY LOAM, some gravel		X	11	10 18 17	NP	11
702.2	Medium dense, brown SILTY LOAM, with sand lenses		X	4	3 3 7	NP	20				X	12	9 14 13	NP	8
699.7	Soft, gray SILTY CLAY, with laminated black clay		X	5	2 1 3	0.25 B	20				X	13	9 8 9	2.05 B	11
697.2	Medium dense, gray SILTY LOAM, trace gravel		X	6	4 6 14	NP	14				X	14	7 9 13	2.87 B	9
694.7	Very soft to very stiff, gray SILTY CLAY to SILTY CLAY LOAM, some gravel		X	7	4 6 8	2.54 B	14				X	14	7 9 13	2.87 B	9
			X	8	6 7 10	2.50 P	15				X	14	7 9 13	2.87 B	9

GENERAL NOTES

Begin Drilling **06-29-2012** Complete Drilling **07-02-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **8.50 ft**
At Completion of Drilling **CAVE**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-21

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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.22 ft
North: 1849666.74 ft
East: 1011666.70 ft
Station: 126+42.17
Offset: 25.32 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
668.2	Very stiff, gray CLAY														
			X	15	4 7 10	3.00 P	25				X	16	4 5 10	2.41 B	22
660.2	Boring terminated at 50.00 ft														

GENERAL NOTES

Begin Drilling **06-29-2012** Complete Drilling **07-02-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **8.50 ft**
At Completion of Drilling **CAVE**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 2
STRUCTURE NO. 022-W070

SHEET NO. NE-13 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	260
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-23

wangeng@wangeng.com
1145 N Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.86 ft
North: 1849684.70 ft
East: 1011708.77 ft
Station: 126+87.91
Offset: 25.13 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.9	12-inch thick TOPSOIL														
	Stiff, black SILTY CLAY LOAM, trace organics and gravel	1	X	1	6 3 5	1.75 P	16			9	X	9	6 7 12	3.03 B	15
		5	X	2	5 7 6	1.50 P	19			25	X	10	6 11 12	1.89 B	16
705.4	Medium dense, brown GRAVELLY SAND														
		3	X	3	5 6 7	NP	11				X	11	5 8 40	3.44 B	16
701.9	Loose, gray SILTY LOAM, with laminated black clay							682.9	Medium dense, brown SANDY LOAM, some gravel						
		10	X	4	3 3 3	NP	20			30	X	12	12 9 9	NP	12
		15	X	5	2 2 2	NP	20				X	13	7 12 17	5.90 B	12
695.4	Medium stiff gray LOAM, some gravel							679.9	Very stiff to hard, gray SILTY CLAY, some gravel						
		7	X	7	9 6 8	NP	13				X	14	6 10 13	2.31 B	10
692.9	Stiff to very stiff, gray SILTY CLAY, trace to some gravel														
		8	X	8	5 7 11	3.03 B	14			40	X	14	6 10 13	2.31 B	10

GENERAL NOTES

Begin Drilling **06-29-2012** Complete Drilling **06-29-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **8.50 ft**
At Completion of Drilling ∇ **CAVE**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-23

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Telephone: 630 953-9928
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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.86 ft
North: 1849684.70 ft
East: 1011708.77 ft
Station: 126+87.91
Offset: 25.13 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
668.9	Hard, gray CLAY														
		15	X	15	5 8 10	4.26 B	22								
		45	X	16	4 8 11	4.10 B	21								
660.9	Boring terminated at 50.00 ft														

GENERAL NOTES

Begin Drilling **06-29-2012** Complete Drilling **06-29-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **8.50 ft**
At Completion of Drilling ∇ **CAVE**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 3
STRUCTURE NO. 022-W070

SHEET NO. NE-14 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	261
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-25

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.54 ft
North: 1849714.59 ft
East: 1011777.93 ft
Station: 127+63.26
Offset: 25.15 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.5	12-inch thick, brown SILTY LOAM, little gravel														
	--TOPSOIL--														
	Medium dense, gray and brown SILTY LOAM, with gravel and trace organic matter		X	1	7 13 13	NP	14				X	9	4 5 9	3.94 B	15
	--FILL--														
707.5	Stiff, black SILTY CLAY LOAM, trace gravel and organic matter		X	2	4 4 5	1.75 P	29				X	10	3 4 44	2.77 B	15
705.0	Loose, gray and brown SILTY LOAM, trace gravel		X	3	2 2 4	NP	17				X	11	7 7 6	NR	15
			X	4	1 3 3	NP	20	682.5	Medium dense, brown and gray LOAM, some gravel		X	12	7 9 15	NP	10
			X	5	2 2 3	NP	19	679.5	Gray SILTY CLAY		X	13	12 13 15	NA	10
697.5	Stiff to very stiff, gray SILTY CLAY, trace to some gravel		X	6	3 2 5	1.72 B	15				X	14	9 19 21	NP	7
			X	7	4 6 9	NR		673.5	Dense, gray SANDY GRAVEL		X	15			
			X	8	5 7 8	2.54 B	16	670.5	Boring terminated at 40.00 ft		X	16			

GENERAL NOTES

WATER LEVEL DATA

Begin Drilling: 06-27-2012
 Complete Drilling: 06-27-2012
 Drilling Contractor: Wang Testing Service
 Drill Rig: D-50 TMR
 Driller: R&N
 Logger: J. Lundin
 Checked by: M. Snider
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

While Drilling: 37.00 ft
 At Completion of Drilling: 19.00 ft
 Time After Drilling: NA
 Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-27

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1145 N Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.26 ft
North: 1849750.15 ft
East: 1011859.66 ft
Station: 128+52.38
Offset: 25.41 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.3	12-inch thick, brown SILTY LOAM, little gravel														
	--TOPSOIL--														
	Medium dense, brown and gray SILTY LOAM		X	1	7 11 8	NP	15	689.8	Medium dense, gray SILTY LOAM with lenses of sand and some gravel.		X	9	10 7 10	NP	7
	--FILL--														
707.3	Stiff to hard, gray and brown SILTY CLAY, trace to some gravel		X	2	7 5 7	3.44 B	25	687.3	Very stiff, gray SILTY CLAY LOAM, some gravel		X	10	24 51	3.50 P	15
			X	3	3 2 3	0.66 B	20				X	11	20 21 19	NR	
			X	4	3 4 5	3.03 B	16	682.3	Medium dense, gray SILTY LOAM, some gravel		X	12	9 11 13	NP	10
			X	5	3 4 5	1.80 B	18	678.8	Dense, gray GRAVELLY SAND		X	13	14 22 27	NP	5
			X	6	5 9 13	6.97 B	16				X	14	60 24 18	NP	8
			X	7	5 7 14	5.41 B	18				X	15			
			X	8	1 7 15	3.61 B	15	670.3	Boring terminated at 40.00 ft		X	16			

GENERAL NOTES

WATER LEVEL DATA

Begin Drilling: 06-27-2012
 Complete Drilling: 06-27-2012
 Drilling Contractor: Wang Testing Service
 Drill Rig: D-50 TMR
 Driller: R&N
 Logger: J. Lundin
 Checked by: M. Snider
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

While Drilling: 4.00 ft
 At Completion of Drilling: 20.00 ft
 Time After Drilling: NA
 Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
CHECKED - AMK	REVISOR	
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 4
STRUCTURE NO. 022-W070

SHEET NO. NE-15 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	262
			CONTRACT NO. 60R06	
ILLINOIS FED. AID PROJECT				



BORING LOG RW-29

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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.12 ft
North: 1849774.49 ft
East: 1011916.21 ft
Station: 129+13.95
Offset: 25.34 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.6	18-inch thick black SILTY CLAY LOAM, some gravel --TOPSOIL--														
707.1	Medium dense, black SANDY LOAM, some gravel --FILL--			1	8 8 5	NP	5					9	5 15 17	NP	11
704.6	Very stiff, gray and brown SILTY CLAY, trace gravel and organic matter			2	3 3 4	2.00 P	19					10	10 14 21	NP	17
684.6	Hard, brown SILTY CLAY, trace gravel			3	4 5 6	4.50 P	17	684.6	Dense, gray SAND to SANDY LOAM, trace to some gravel			11	6 17 20	NP	18
680.1				4	3 6 9	5.49 B	18	680.1				12	16 22 12	NP	10
				5	5 8 9	5.33 S	22		Boring terminated at 30.00 ft						
697.1	Medium dense to dense, gray SILTY LOAM, trace to some gravel and sand			6	5 6 6	NP	10								
				7	4 6 7	NP	11								
				8	12 16 18	NR									

GENERAL NOTES

Begin Drilling **06-27-2012** Complete Drilling **06-27-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **23.50 ft**
At Completion of Drilling ∇ **15.00 ft**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-31

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1145 N Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.79 ft
North: 1849804.12 ft
East: 1011984.99 ft
Station: 129+88.84
Offset: 25.28 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.8	12-inch thick TOPSOIL --TOPSOIL--														
706.8	Medium dense, brown and gray SILTY LOAM, with some organics and gravel			1	10 10 6	NP	15					9	4 7 11	4.18 B	14
685.8	Medium stiff to very stiff, gray and brown SILTY CLAY, trace to some gravel			2	4 4 5	2.46 B	16	685.8	Medium dense, gray SANDY LOAM, trace gravel			10	5 12 16	NP	18
684.3				3	4 4 6	2.38 B	18	684.3	Medium dense, gray LOAM, trace gravel			11	8 10 14	NP	19
681.3				4	3 6 6	2.62 B	15	681.3	Medium dense, gray SILTY LOAM			12	8 15 13	NP	20
679.8				5	3 6 5	0.98 B	18	679.8	Boring terminated at 30.00 ft						
				6	4 8 15	1.00 P	8								
				7	4 7 8	2.75 P	16								
				8	8 11 14	NR									

GENERAL NOTES

Begin Drilling **06-26-2012** Complete Drilling **06-26-2012**
Drilling Contractor **Wang Testing Service** Drill Rig **D-50 TMR**
Driller **R&N** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling ∇ **25.00 ft**
At Completion of Drilling ∇ **26.00 ft**
Time After Drilling **NA**
Depth to Water ∇ **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
CHECKED - AMK	REVISED	
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 5
STRUCTURE NO. 022-W070

SHEET NO. NE-16 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	263
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-33

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.90 ft
North: 1849834.29 ft
East: 1012055.09 ft
Station: 130+65.16
Offset: 25.20 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.9	12-inch thick TOPSOIL --TOPSOIL--														
	Brown GRAVELLY SILTY LOAM			1	9 10 9	NP	14								
706.9	Stiff to hard, brown and gray SILTY CLAY, trace to some gravel			2	5 7 7	4.00 P	16								
				3	5 5 4	4.00 P	17								
				4	5 9 14	3.50 P	18								
				5	6 12 12	3.00 P	16								
				6	5 7 10	NA	17								
				7	4 8 9	4.26 P	13								
691.9	Dense, SANDY GRAVEL			8	19 15 19	NP	11								
689.9															
Boring terminated at 20.00 ft															
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 06-26-2012 Complete Drilling 06-26-2012								While Drilling ∇ 18.50 ft							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling ∇ 18.50 ft							
Driller R&N Logger J. Lundin Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water ∇ NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															



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BORING LOG RW-35

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 709.58 ft
North: 1849863.08 ft
East: 1012121.23 ft
Station: 131+37.29
Offset: 25.41 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.7	11-inch thick TOPSOIL --TOPSOIL--														
	Stiff, gray and brown SILTY CLAY LOAM, trace organic matter and gravel --FILL--			1	8 13 14	NP	9								
				2	4 4 6	1.23 B	28								
704.1	Stiff to hard, gray and brown SILTY CLAY, trace to some gravel			3	2 3 3	1.31 B	24								
				4	3 5 8	4.51 B	15								
				5	4 6 12	3.12 B	16								
				6	6 6 5	2.71 B	15								
				7	2 7 8	2.46 B	12								
				8	4 6 8	3.44 B	13								
689.6															
Boring terminated at 20.00 ft															
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 06-26-2012 Complete Drilling 06-26-2012								While Drilling ∇ DRY							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling ∇ DRY							
Driller R&N Logger J. Lundin Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water ∇ NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 6
STRUCTURE NO. 022-W070

SHEET NO. NE-17 OF NE-18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	264
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-37

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 708.78 ft
North: 1849891.62 ft
East: 1012187.63 ft
Station: 132+09.57
Offset: 25.29 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.8	12-inch thick TOPSOIL --TOPSOIL--														
	Dense, brown and dark gray SILTY LOAM, trace gravel and organic matter		X	1	8 10 26	NP	9								
705.8	Medium stiff to very stiff, black and gray SILTY CLAY, trace organic matter		X	2	6 4 4	2.05 B	18								
		5													
			X	3	2 2 3	0.57 B	25								
700.8	Medium stiff to hard, gray SILTY CLAY, trace gravel		X	4	1 2 1	0.49 B	19								
		10													
			X	5	2 4 6	0.90 B	13								
			X	6	3 5 8	2.87 B	18								
		15													
			X	7	4 6 9	5.49 B	21								
			X	8	3 5 7	3.28 B	15								
		20													
688.8	Boring terminated at 20.00 ft														
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 06-26-2012 Complete Drilling 06-26-2012								While Drilling <input checked="" type="checkbox"/> DRY							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling <input checked="" type="checkbox"/> DRY							
Driller R&N Logger J. Lundin Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water <input checked="" type="checkbox"/> NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															

WANGENGINC_1192001.GPJ; WANGENG.GDT 8/6/12



wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-39

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 708.34 ft
North: 1849931.20 ft
East: 1012279.98 ft
Station: 133+10.04
Offset: 25.02 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.3	12-inch thick TOPSOIL --TOPSOIL--														
	Medium dense, black and brown SILTY LOAM, trace organic matter and gravel		X	1	11 10 11	NP	12								
705.3	Very stiff, gray and brown SILTY CLAY, some gravel		X	2	4 4 5	2.00 P	20								
		5													
702.8	Soft to stiff black, gray, brown SILTY CLAY, trace organic matter and gravel		X	3	4 3 5	1.31 B	24								
			X	4	3 4 4	1.50 P	16								
		10													
			X	5	6 50	0.25 P	12								
			X	6	6 50/3	1.00 P	13								
		15													
693.3	Boring terminated at 15.00 ft														
GENERAL NOTES								WATER LEVEL DATA							
Begin Drilling 06-26-2012 Complete Drilling 06-26-2012								While Drilling <input checked="" type="checkbox"/> 11.00 ft							
Drilling Contractor Wang Testing Service Drill Rig D-50 TMR								At Completion of Drilling <input checked="" type="checkbox"/> 11.00 ft							
Driller R&N Logger J. Lundin Checked by M. Snider								Time After Drilling NA							
Drilling Method 3.25" IDA HSA; Boring backfilled upon completion								Depth to Water <input checked="" type="checkbox"/> NA							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.															

WANGENGINC_1192001.GPJ; WANGENG.GDT 8/6/12



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - NPP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 7
STRUCTURE NO. 022-W070

SHEET NO. NE-18 OF NE-18 SHEETS

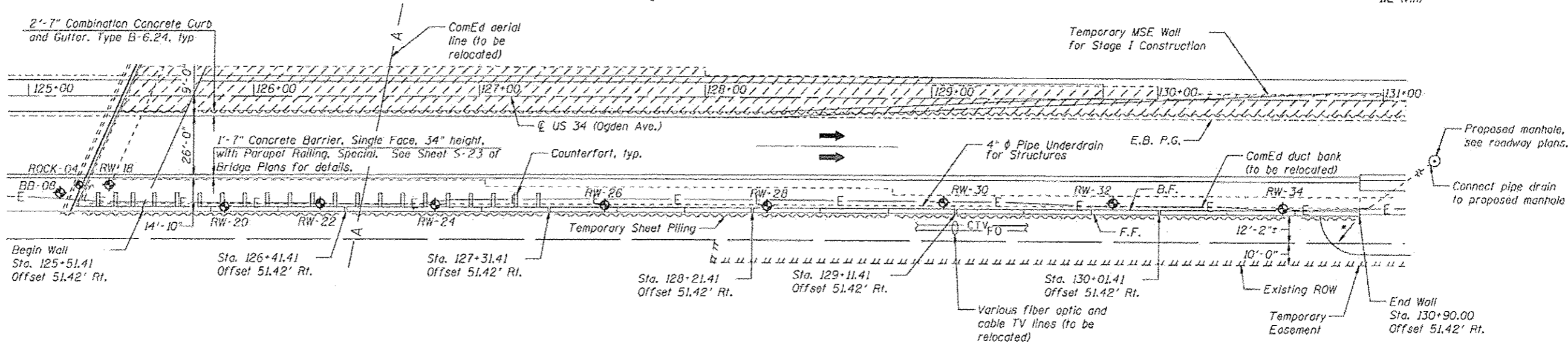
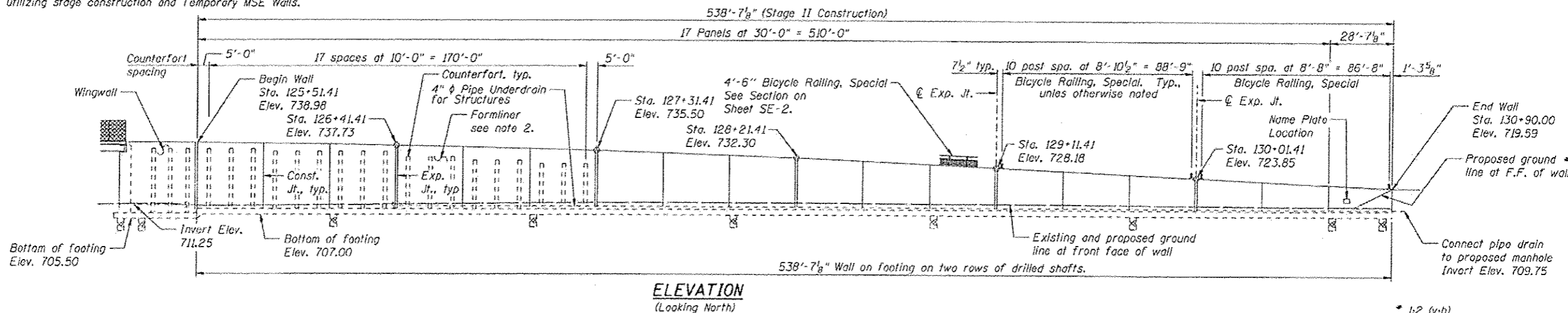
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	265
CONTRACT NO. 60R06				

ILLINOIS FED. AID PROJECT

Benchmark: CP#3 - P.K. Rod in ground at driveway next to Nicor Gas pressure regulation station, Sta. 113+67.17, 50.22' Rt, Elev. 706.54.

Existing Structure: None. One lane of traffic in both directions to be maintained during construction utilizing stage construction and Temporary MSE Walls.

Salvage: None.



PLAN

APPROVED
For Structural Adequacy Only

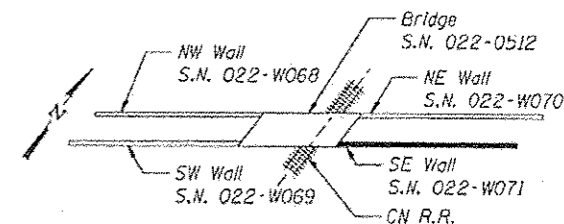
Arslan M. Khan
Engineer of Bridges & Structures

STATION 125+51.41 TO 130+90.00
BUILT 20... BY
STATE OF ILLINOIS
F.A.P. RTE. 311 SEC. 652-A
LOADING HL-93
STR. NO. 022-W071

NAME PLATE
See Std. 515001



Arslan M. Khan
ARSALAN M. KHAN, S.E.
LICENSE NO.: 081-006258
EXPIRES: NOVEMBER 30, 2014
DATE: 02-26-2014



KEY PLAN

GENERAL PLAN & ELEVATION
SE RETAINING WALL - US 34 (OGDEN AVE.)
F.A.P. RTE. 311 - SECTION 652-A
DUPAGE COUNTY
STA. 125+51.41 TO STA. 130+90.00
STRUCTURE NO. 022-W071

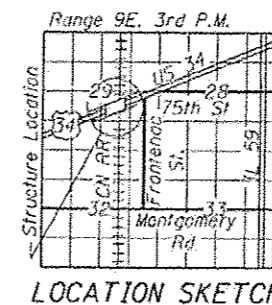
NOTES

- All Offsets are taken from the $\text{C} \text{ US 34}$ to the front face of the retaining wall.
- Form liner textured surface shall be applied to the retaining walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES
FIELD UNITS

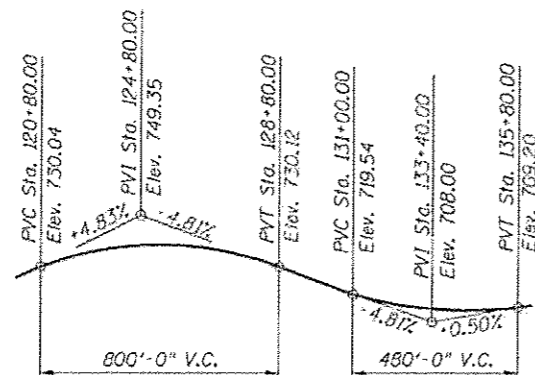
$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$



LOCATION SKETCH

LEGEND

- Soil Boring Location
- F.F. Front Face
- B.F. Back Face
- E.B. Eastbound
- W.B. Westbound
- Limits of reinforced soil mass



PROFILE GRADE - US 34
Along E.B. and W.B. P.G.'s



USER NAME *	DESIGNED - KMP/PMV	REVISED
PLOT SCALE *	CHECKED - AMK	REVISED
PLOT DATE * 03/19/2014	DRAWN - PMV	REVISED
	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. SE-1 OF SE-15 SHEETS

F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPAGE	TOTAL SHEETS 383	SHEET NO. 266
			CONTRACT NO. 60R06	

ILLINOIS DEP. OF TRANSPORTATION

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Form liner textured surface shall be applied to the wingwalls, retaining walls and noise abatement walls. The finish shall consist of a rolled Ashlar Stone finish and shall have a minimum 0.75 in impression.
3. The pattern produced on the exposed surfaces of the concrete wingwalls, retaining walls and the noise abatement walls shall be identical. The concrete stain applied to the surfaces of all of those items shall also be identical. The Contractor shall provide all necessary coordination and direction with its vendor manufacturing the noise abatement walls to assure the same concrete form liners and stain are used for them as those for the cast-in-place wingwalls and retaining walls.

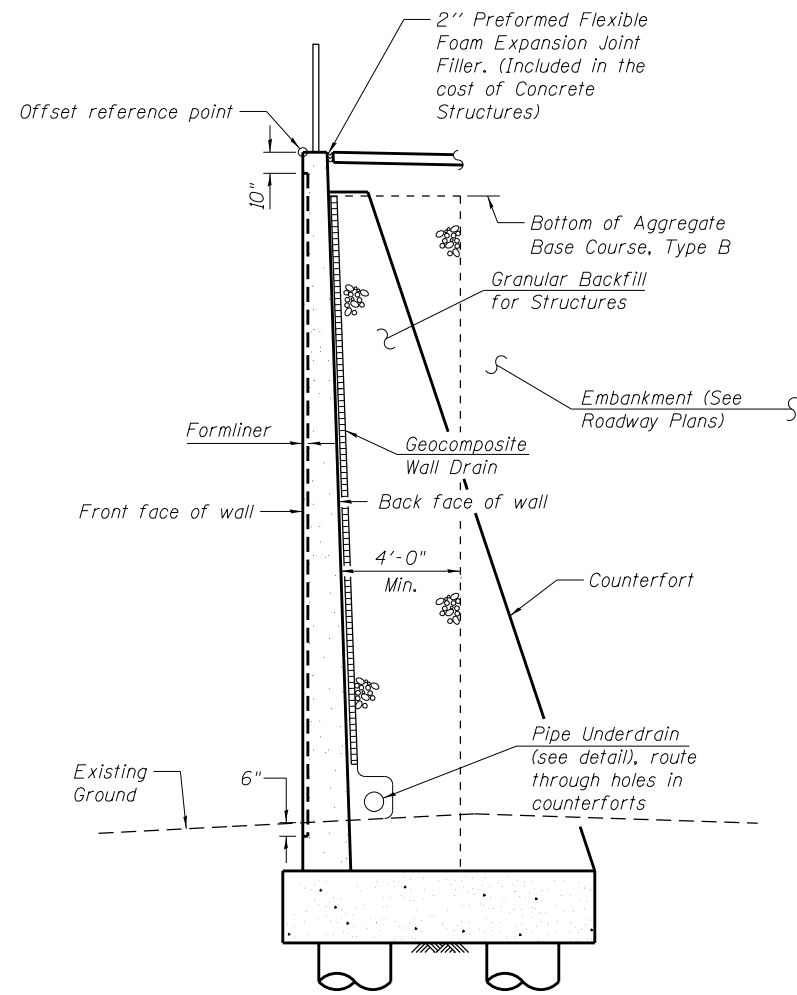
INDEX OF SHEETS

- SE-1 General Plan and Elevation
- SE-2 General Notes, Index of Sheets and Bill of Material
- SE-3 Detailed Plan and Elevation 1
- SE-4 Detailed Plan and Elevation 2
- SE-5 Detailed Plan and Elevation 3
- SE-6 Detailed Plan and Elevation 4
- SE-7 Detailed Plan and Elevation 5
- SE-8 Detailed Plan and Elevation 6
- SE-9 Miscellaneous Details
- SE-10 Soil Borings 1
- SE-11 Soil Borings 2
- SE-12 Soil Borings 3
- SE-13 Soil Borings 4
- SE-14 Soil Borings 5
- SE-15 Soil Borings 6

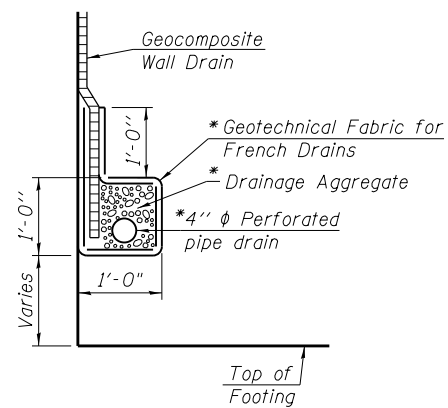
TOTAL BILL OF MATERIALS

Item	Unit	Total
Structure Excavation	Cu. Yd.	2,125
Concrete Structures	Cu. Yd.	1,623.7
Form Liner Textured Surface	Sq. Ft.	10,706
Reinforcement Bars	Pound	366,130
Reinforcement Bars, Epoxy Coated	Pound	226,460
Bicycle Railing, Special	Foot	539
Parapet Railing, Special	Foot	533
Name Plates	Each	1
Drilled Shaft in Soil	Cu. Yd.	1,454
Drilled Shaft in Rock	Cu. Yd.	46
Geocomposite Wall Drain	Sq. Yd.	1,207
Granular Backfill for Structures	Cu. Yd.	1,807
Temporary Sheet Piling	Sq. Ft	8,806
Pipe Underdrains for Structures 4"	Foot	806
Staining Concrete Structures	Cu. Ft.	10,706

Note: Bill of Material shown for Retaining Wall quantities only. For Bridge Bill of Material, see Sheet S-6.



SECTION THRU RETAINING WALL

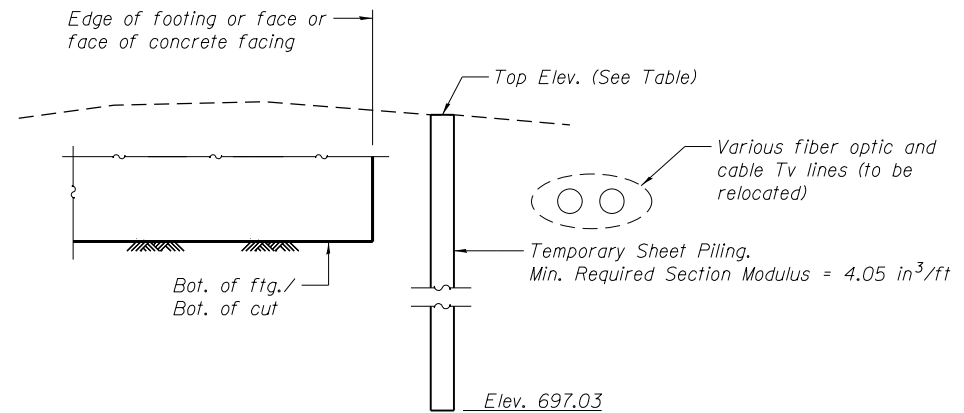


PIPE UNDERDRAIN DETAIL

*Included in the cost of Pipe Underdrains for Structures.

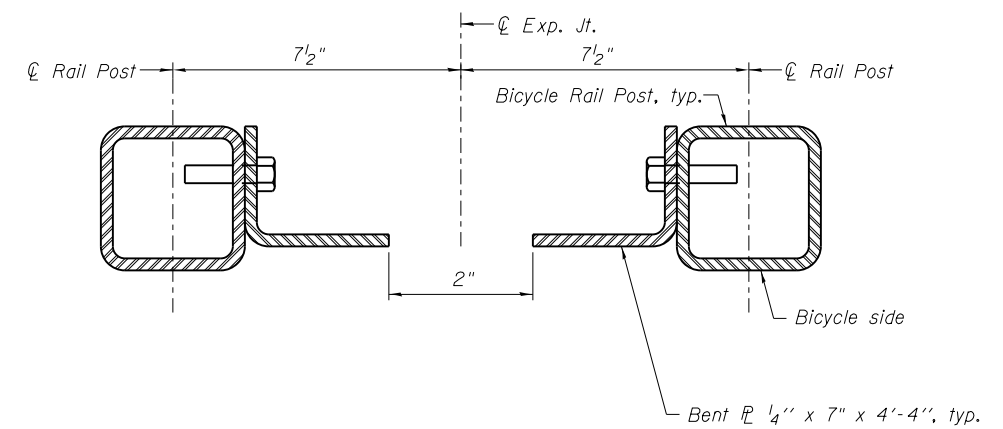
TOP OF TEMP SHEET PILE ELEVATIONS

Sta.	Top Elev.
125+14.00	711.90
127+70.00	712.90
130+90.00	711.60



TEMPORARY SHEET PILING

(Looking East)



SECTION THRU BICYCLE RAILING POSTS AT EXPANSION JOINTS

For additional dimensions and details, see Sheet S-23 of the bridge plans.



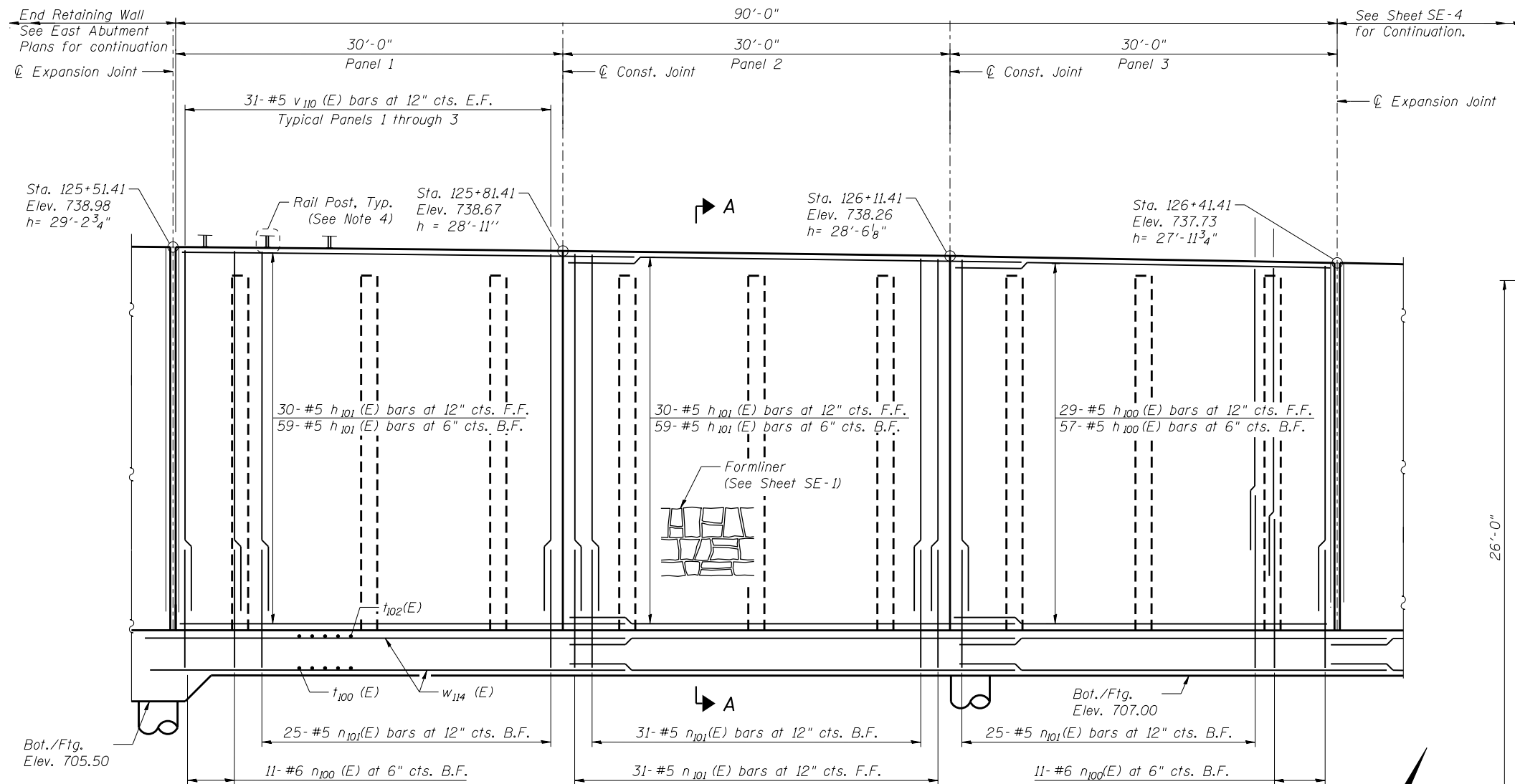
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	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - BAR	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

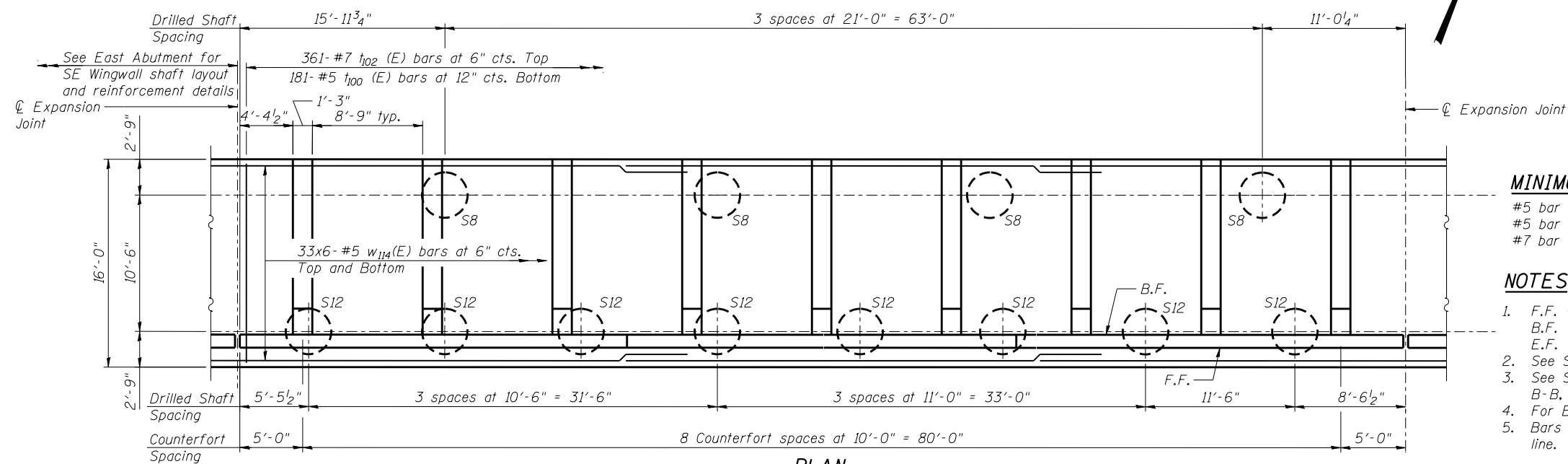
GENERAL NOTES, BILL OF MATERIALS, AND INDEX OF SHEETS
STRUCTURE NO. 022-W071

SHEET NO. SE-2 OF SE-15 SHEETS

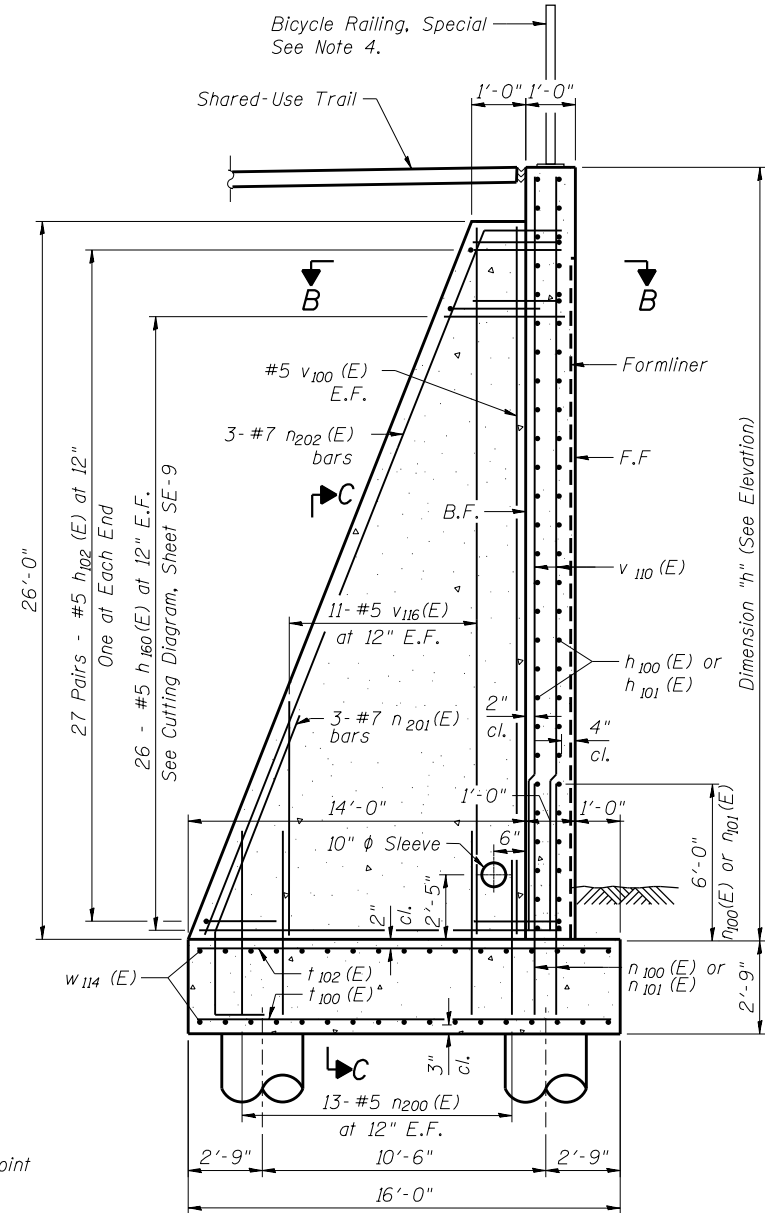
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	267
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



SECTION A-A

MINIMUM BAR LAP

- #5 bar = 2'-11" (Horizontal)
- #5 bar = 2'-7" (Vertical)
- #7 bar = 5'-2"

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet SE-2 for Bill of Material.
- See Sheet SE-9 for Bar Bending Diagrams, Bill of Bars, Construction Joint, Section B-B, C-C, and Expansion Joint details.
- For Bicycle Railing post location spacing, see General Plan and Elevation Sheet.
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



USER NAME =
PLOT SCALE =
PLOT DATE = 02/28/2014

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CHECKED - AMK
DRAWN - KMP
CHECKED - AMK

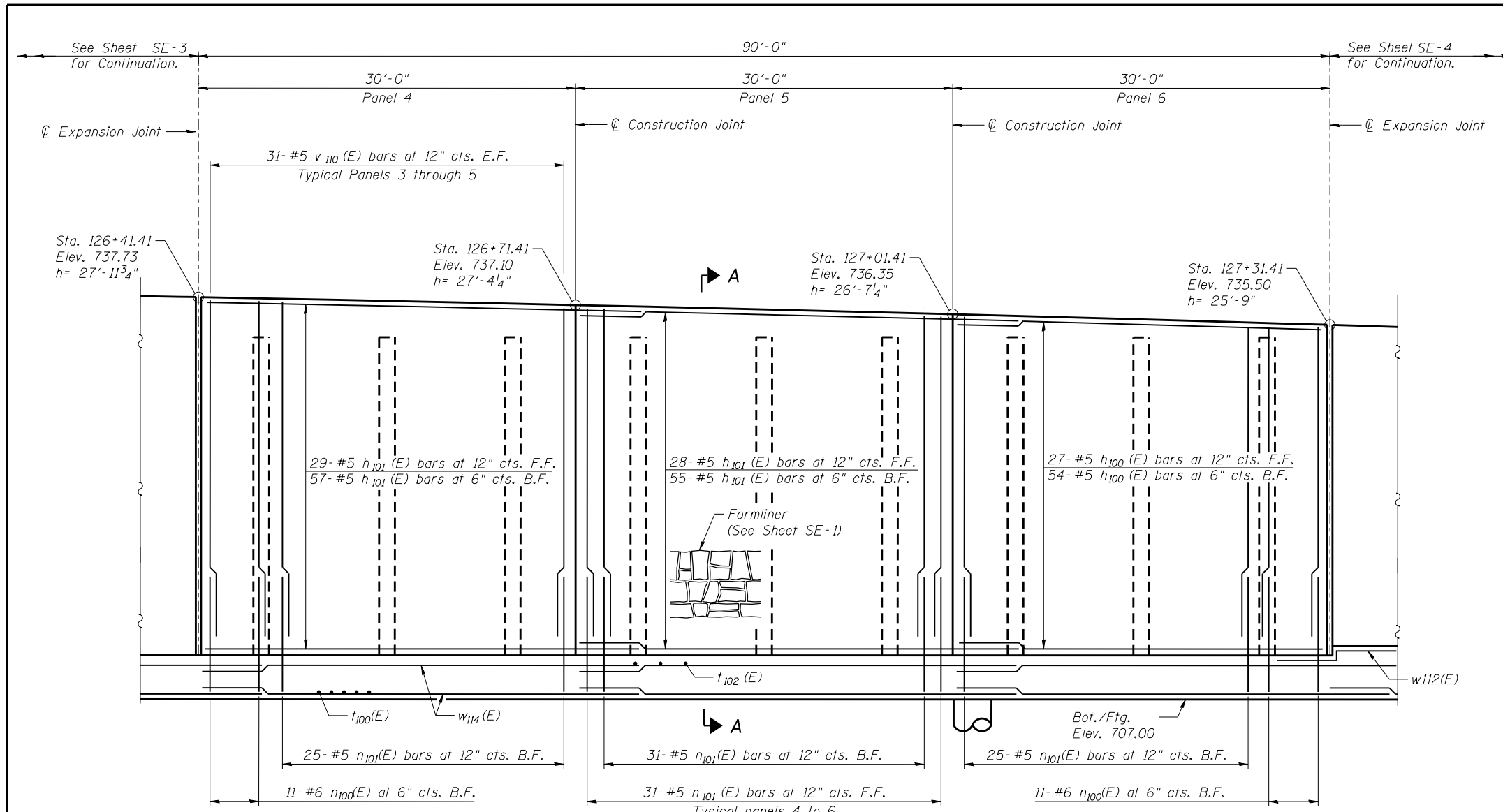
REVISED
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REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

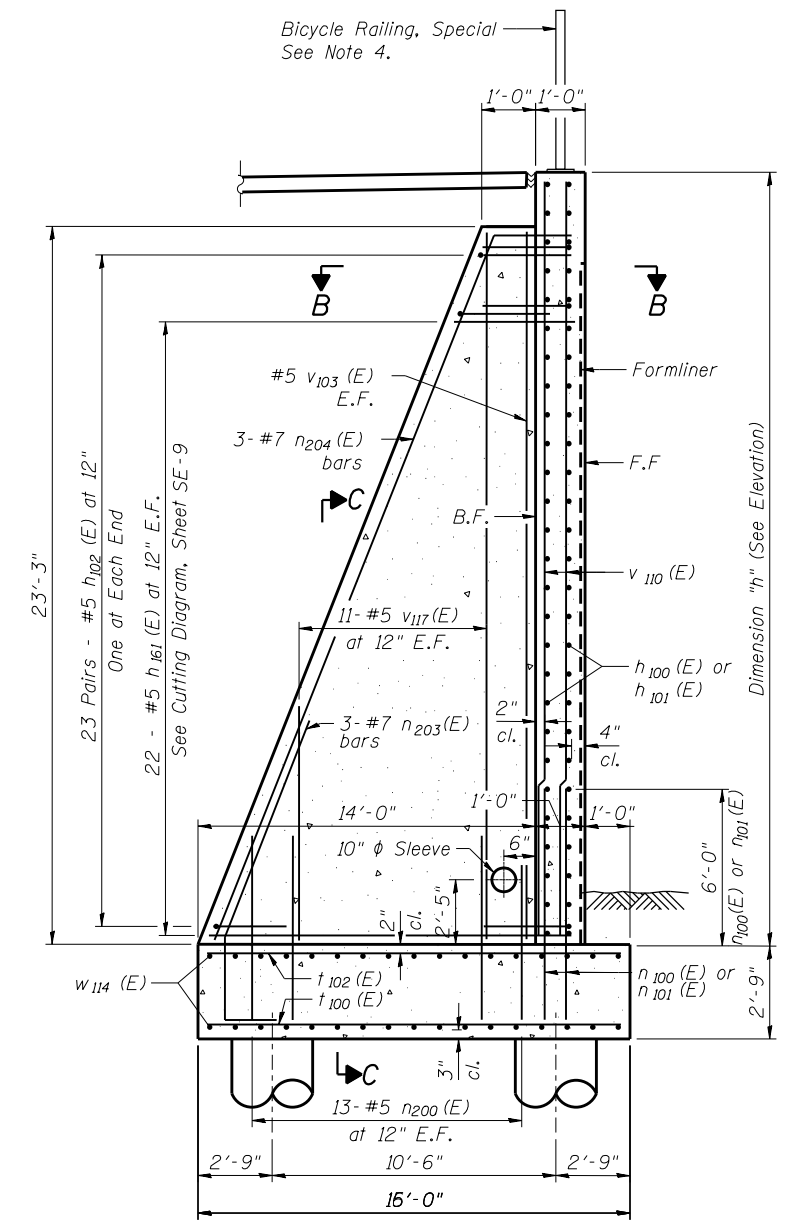
DETAIL PLAN AND ELEVATION 1
STRUCTURE NO. 022-W071

SHEET NO. SE-3 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	268
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



ELEVATION



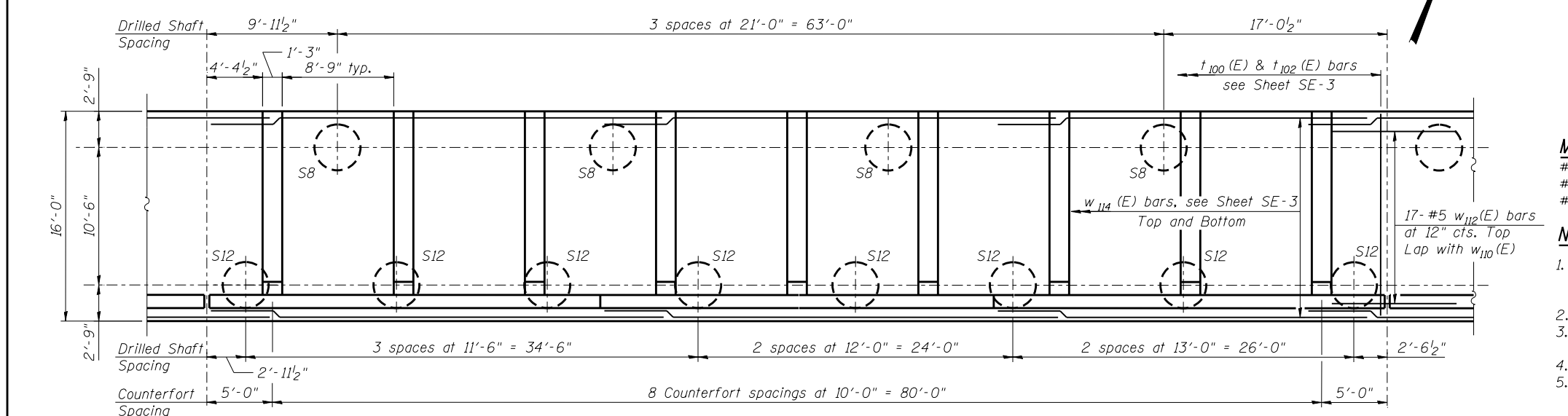
SECTION A-A

MINIMUM BAR LAP

- #5 bar = 2'-11" (Horizontal)
- #5 bar = 2'-7" (Vertical)
- #7 bar = 5'-2"

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet SE-2 for Bill of Material.
- See Sheet SE-9 for Bar Bending Diagrams, Bill of Bars, Construction Joint, Section B-B, C-C, and Expansion Joint details.
- For Bicycle Railing post location spacing, see General Plan and Elevation Sheet.
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



PLAN



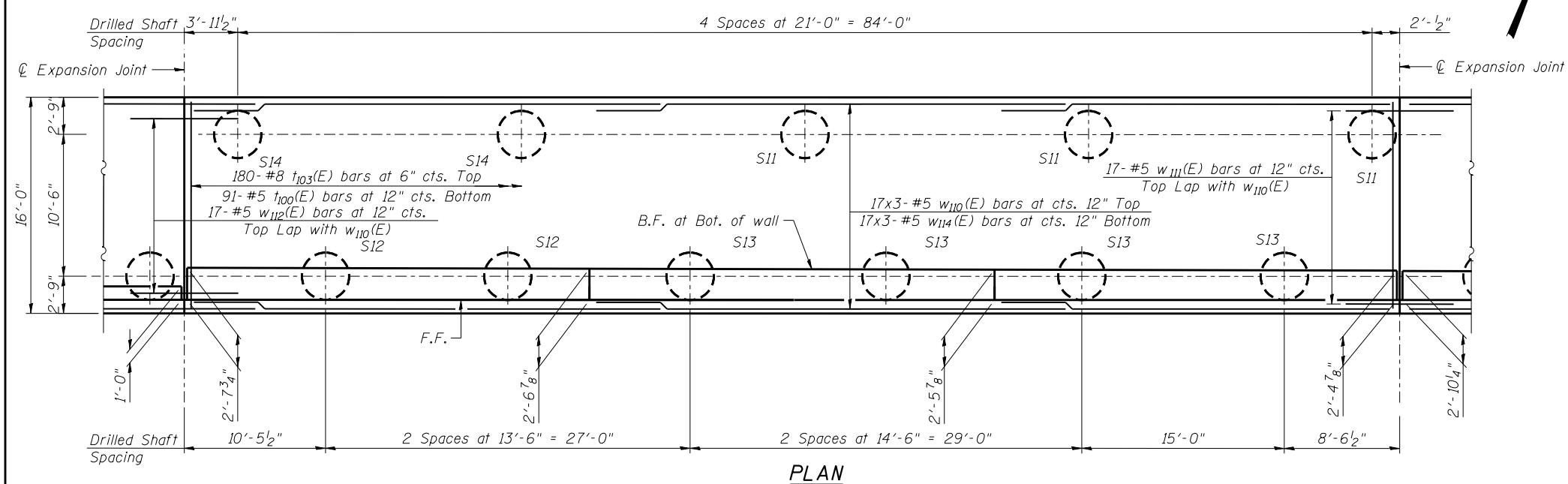
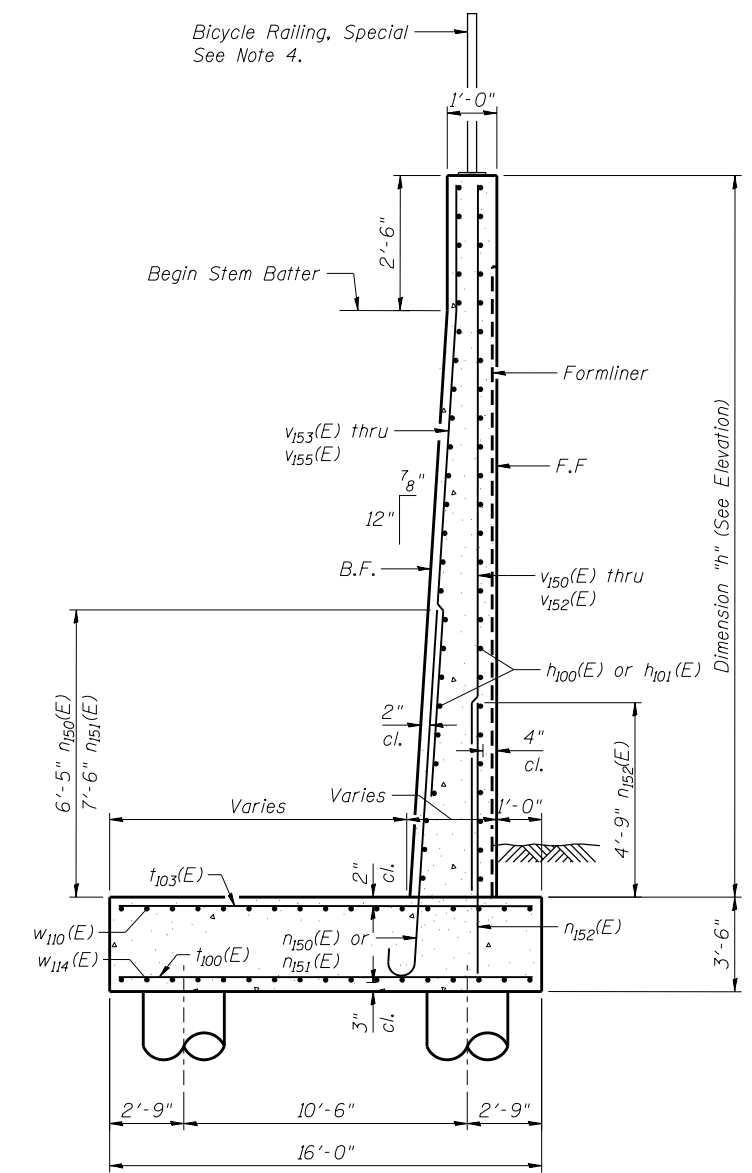
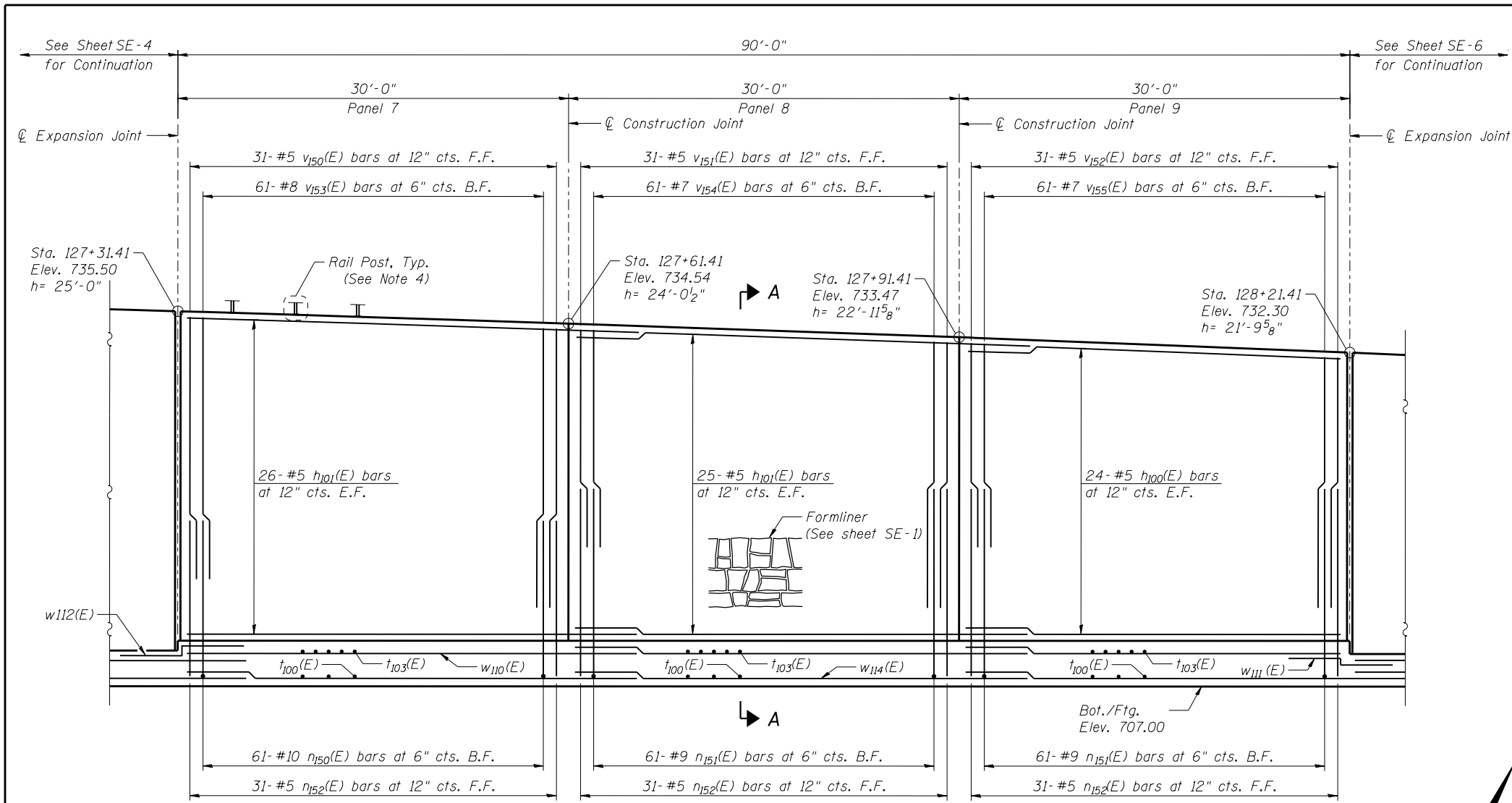
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PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 2
STRUCTURE NO. 022-W071

SHEET NO. SE-4 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	269
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)
- #7 bar = 4'-2"
- #8 bar = 5'-5"

NOTES

- F.F. - Denotes Front Face
B.F. - Denotes Back Face
E.F. - Denotes Each Face
- See Sheet SE-2 for Bill of Material.
- See Sheet SE-9 for Bar Bending Diagrams, Bill of Bars, Construction Joint, Section B-B, and Expansion Joint details.
- For Bicycle Railing post location spacing, see General Plan and Elevation Sheet.
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



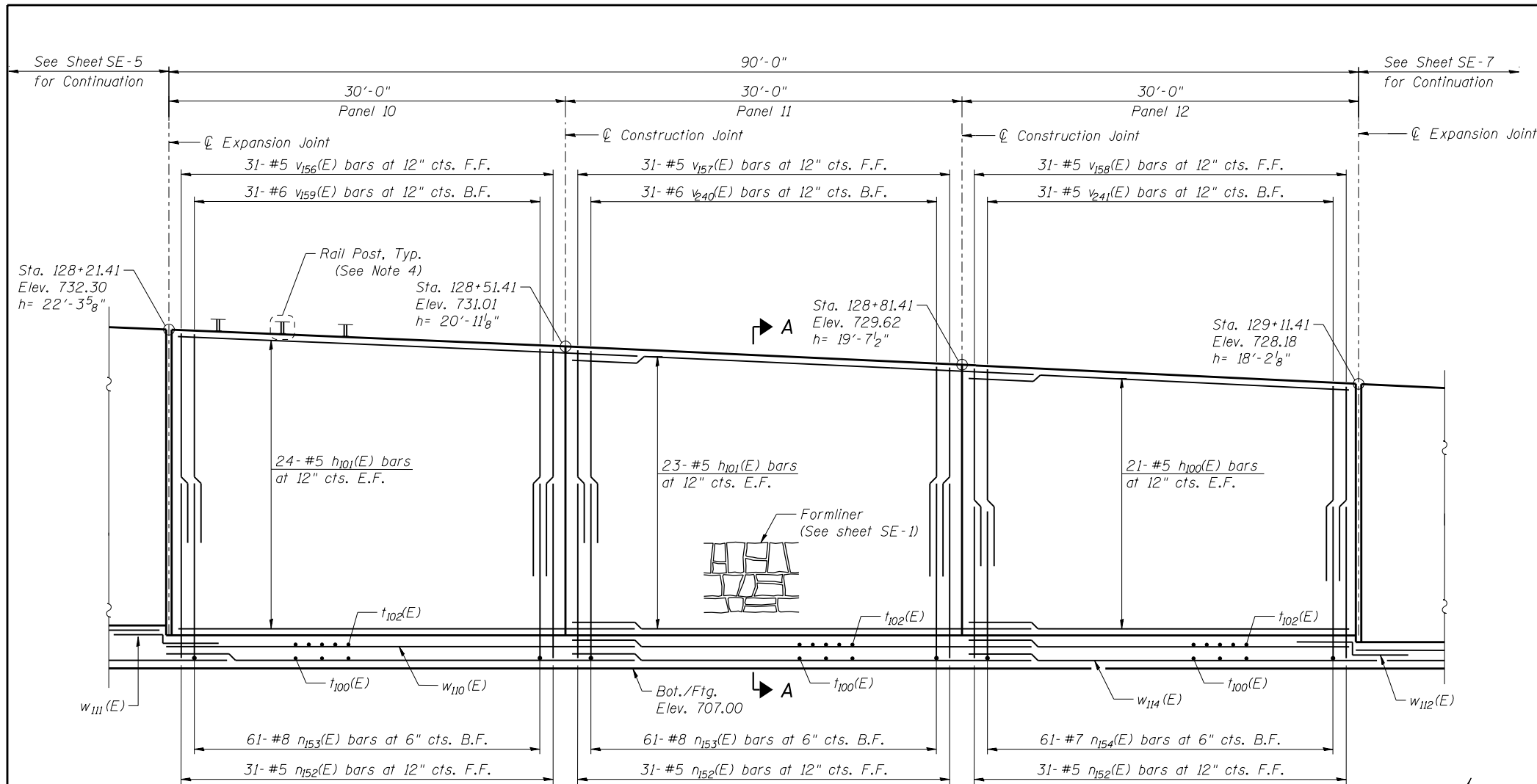
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PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

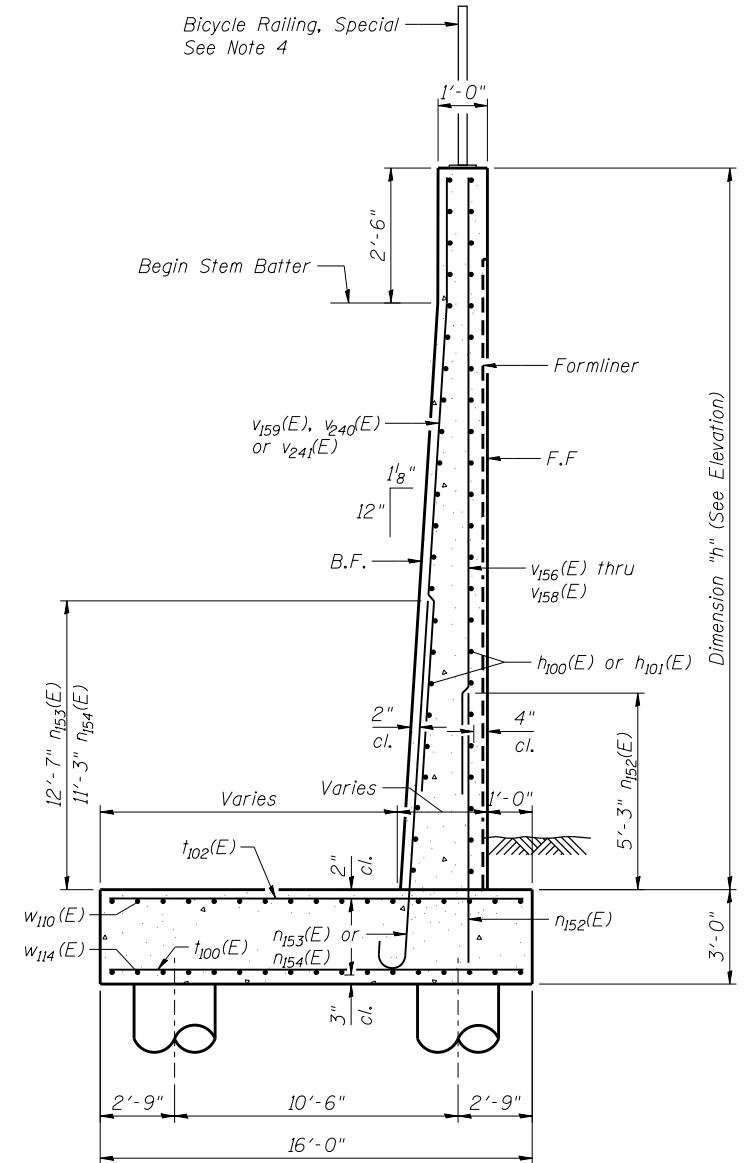
DETAIL PLAN AND ELEVATION 3
STRUCTURE NO. 022-W071

SHEET NO. SE-5 OF SE-15 SHEETS

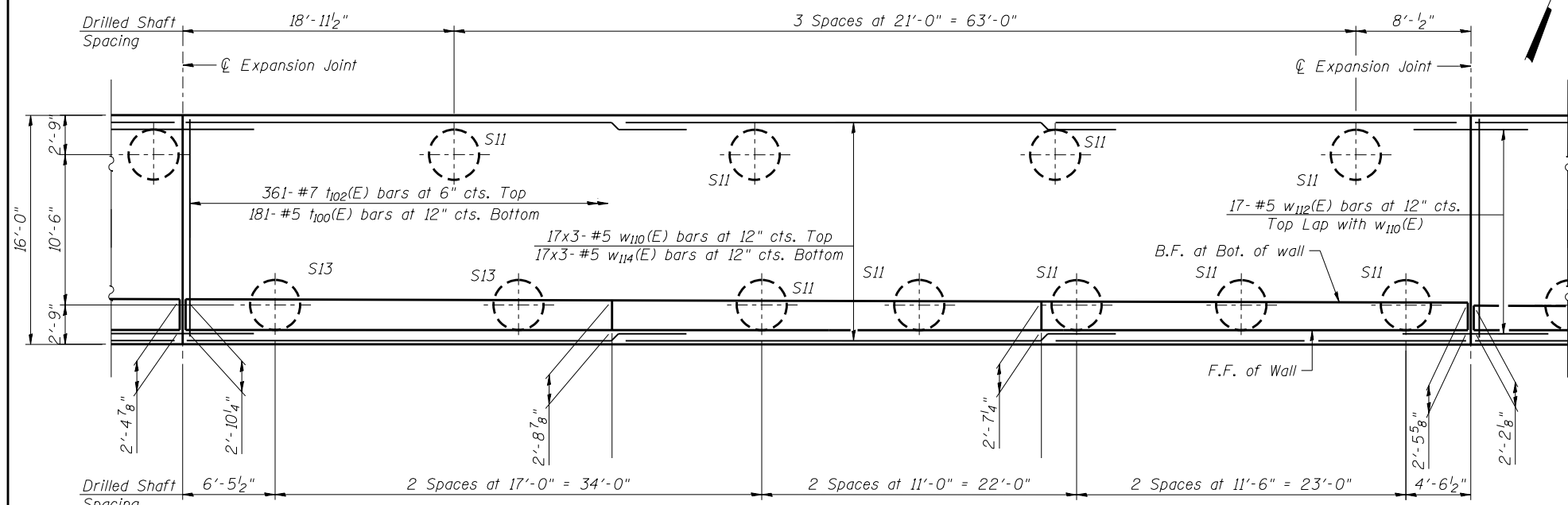
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	270
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



ELEVATION



SECTION A-A



PLAN

MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)
- #6 bar = 3'-1"

NOTES

- F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face
- See Sheet SE-2 for Bill of Material.
- See Sheet SE-9 for Bar Bending Diagrams, Bill of Bars, Construction Joint, Section B-B, and Expansion Joint details.
- For Bicycle Railing post location spacing, see General Plan and Elevation Sheet.
- Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.



USER NAME =
 PLOT SCALE =
 PLOT DATE = 02/28/2014

DESIGNED - KMP
 CHECKED - AMK
 DRAWN - KMP
 CHECKED - AMK

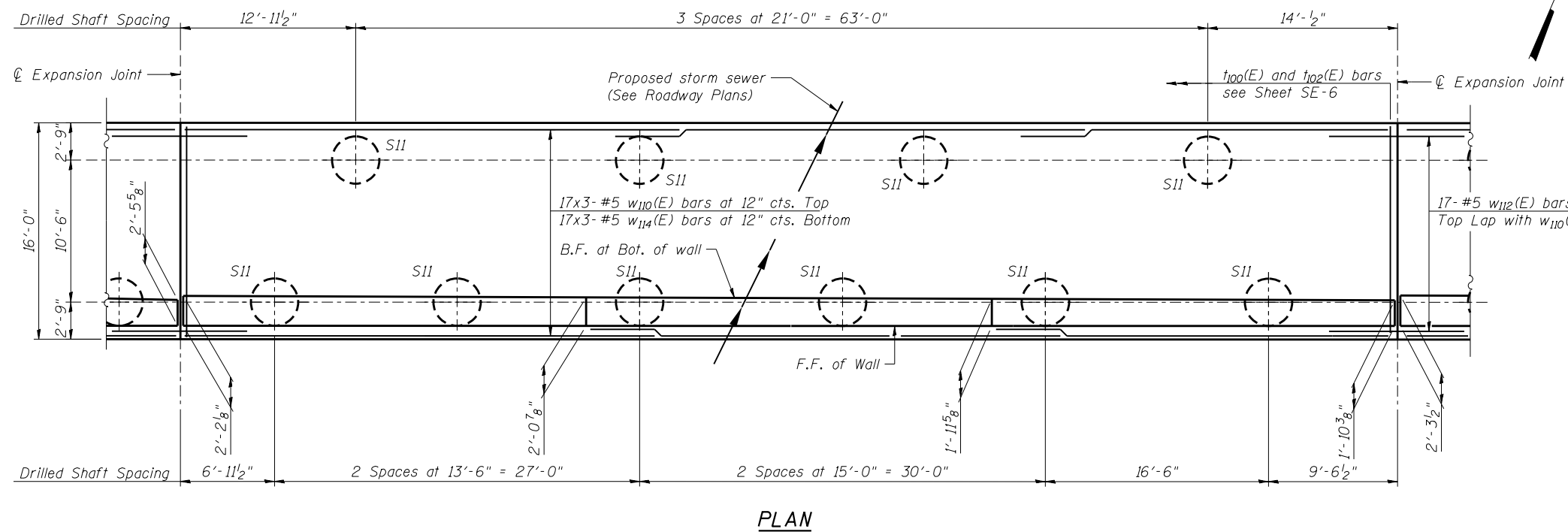
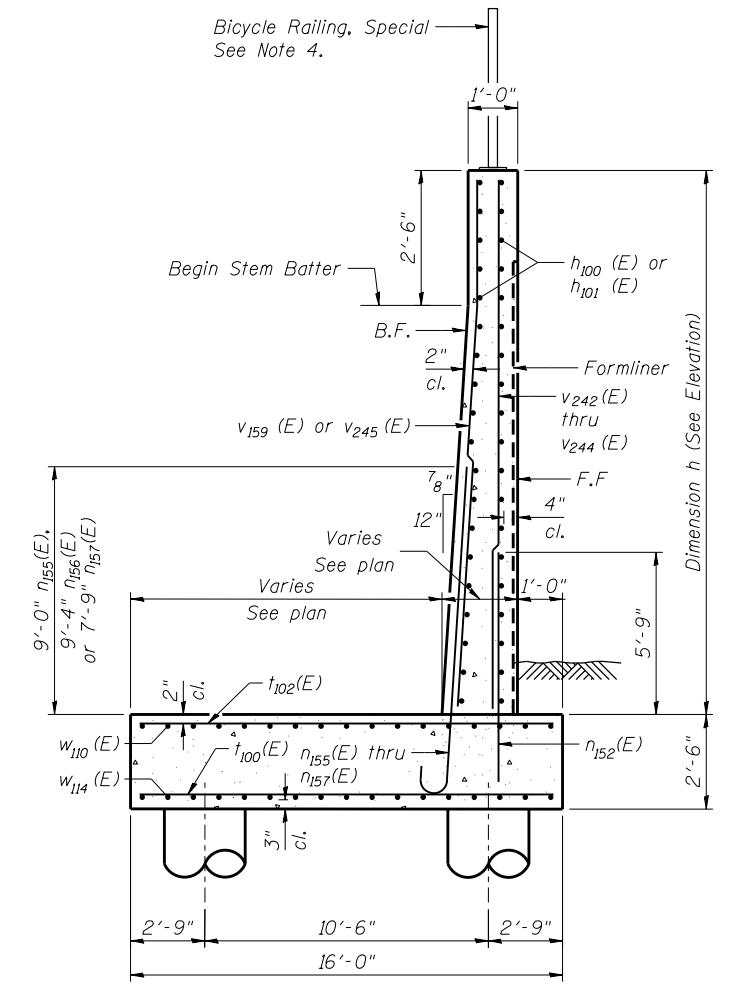
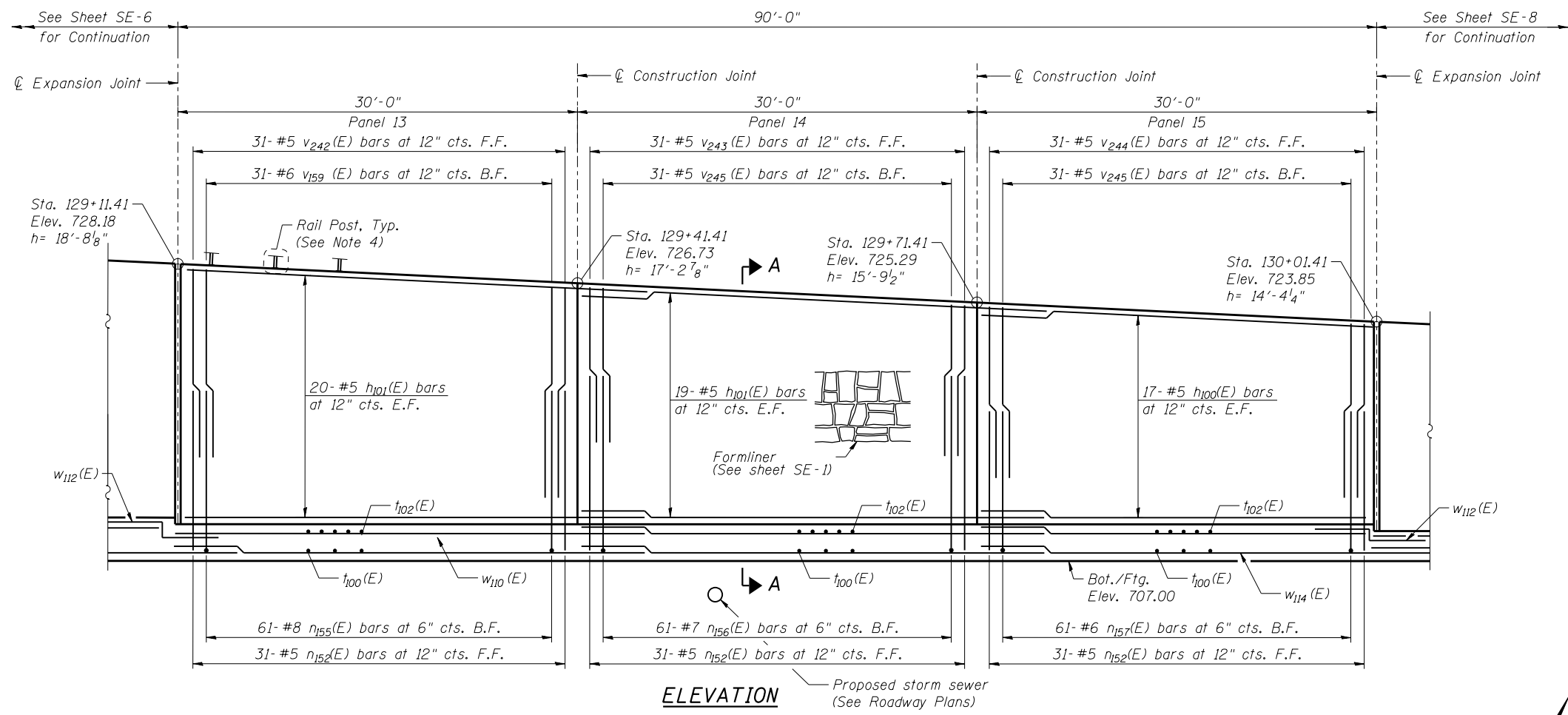
REVISED
 REVISED
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 4
 STRUCTURE NO. 022-W071

SHEET NO. SE-6 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	271
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	



MINIMUM BAR LAP

#5 bar = 2'-7" (Vertical)
 #5 bar = 2'-11" (Horizontal)
 #6 bar = 3'-1"

- NOTES**
- F.F. - Denotes Front Face
 B.F. - Denotes Back Face
 E.F. - Denotes Each Face
 - See Sheet SE-2 for Bill of Material.
 - See Sheet SE-9 for Bar Bending Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
 - For Bicycle Railing post location spacing see General Plan and Elevation Sheet.
 - Bars indicated thus 17 x 3-#5 etc. indicates 17 lines of bars with 3 lengths per line.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

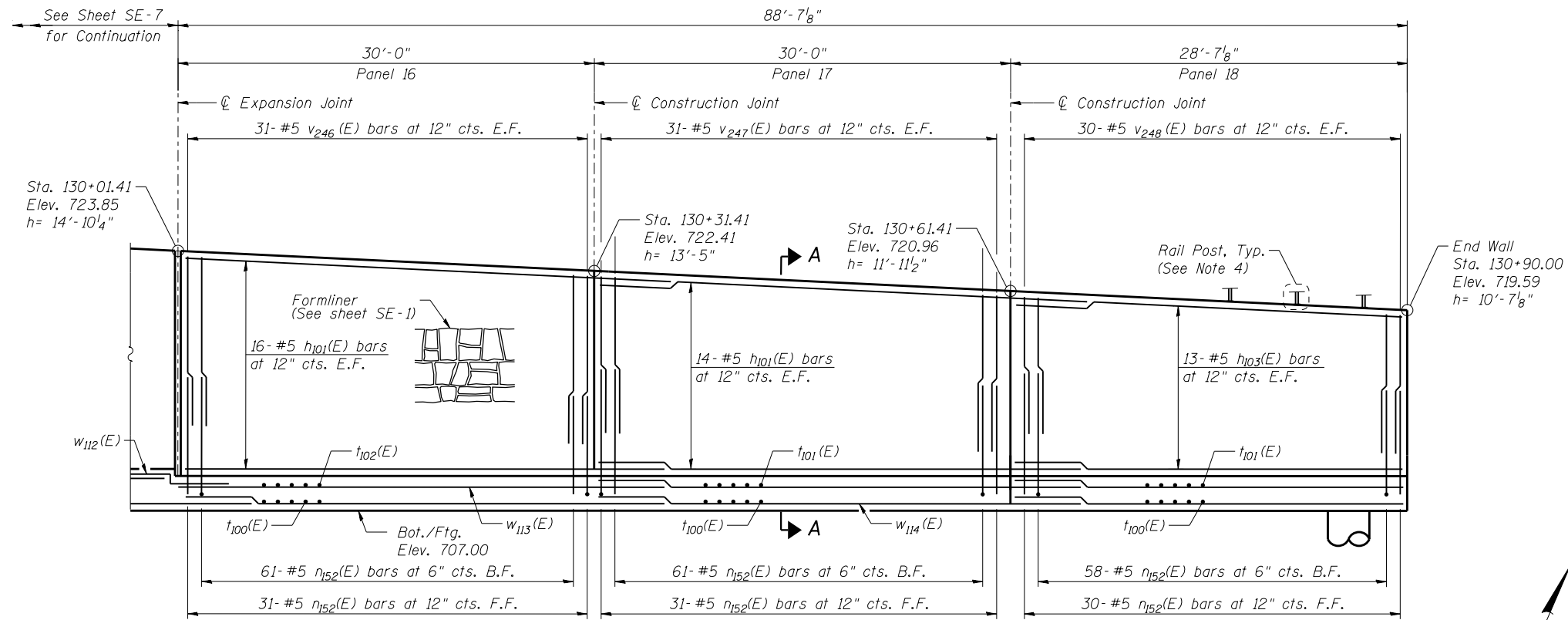
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DETAIL PLAN AND ELEVATION 5
 STRUCTURE NO. 022-W071**

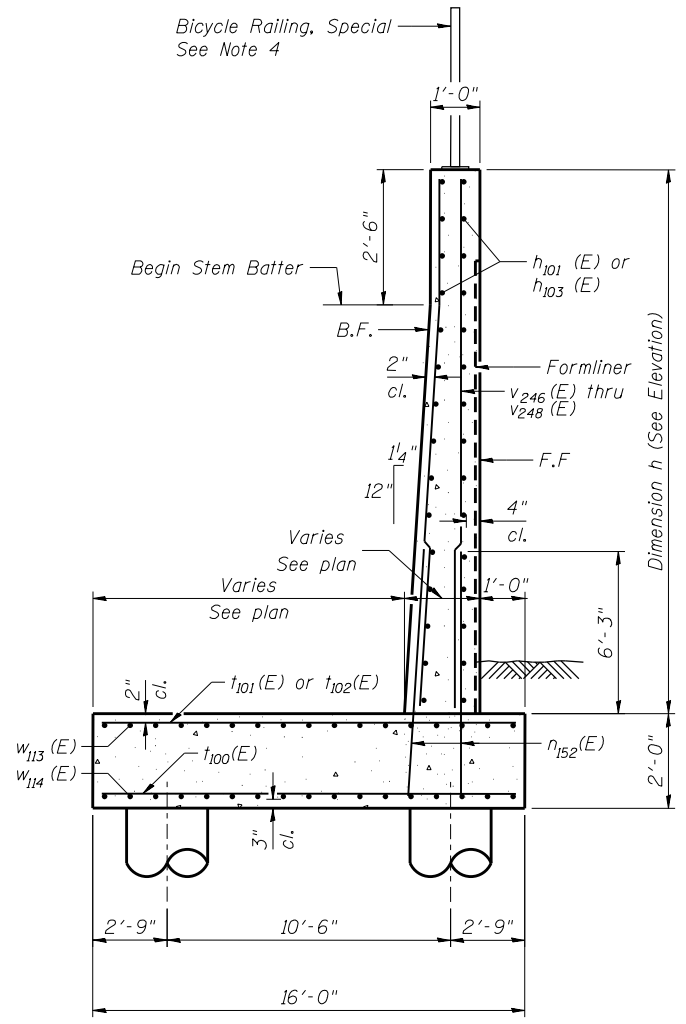
SHEET NO. SE-7 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60R06				

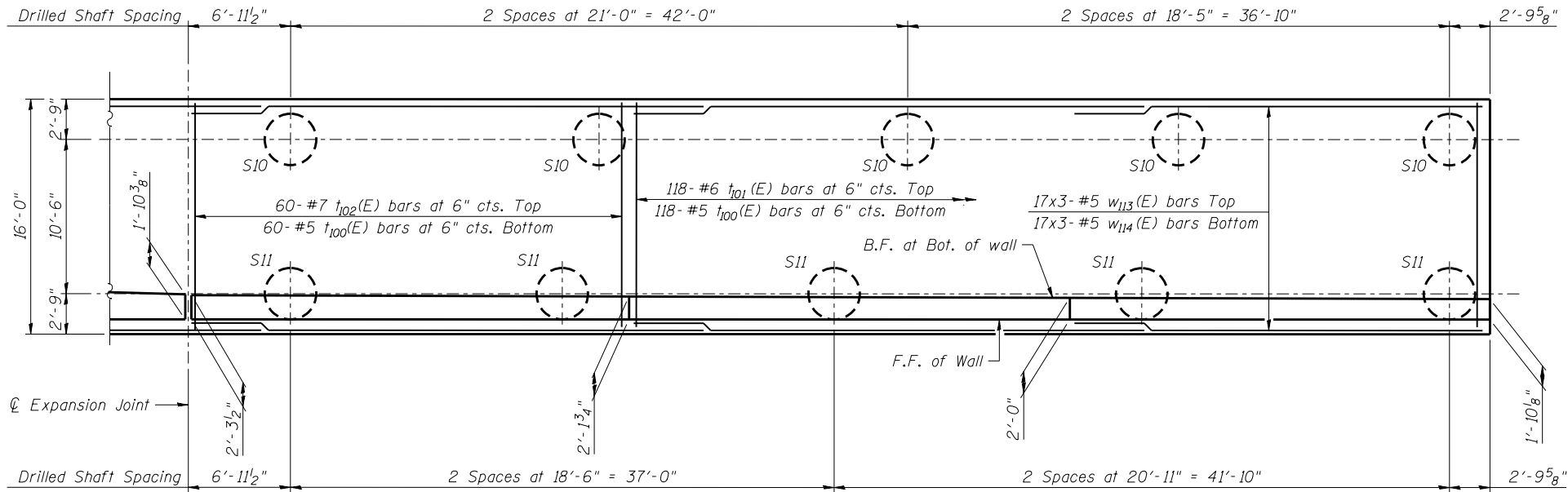
ILLINOIS FED. AID PROJECT



ELEVATION



SECTION A-A



PLAN

MINIMUM BAR LAP

- #5 bar = 2'-7" (Vertical)
- #5 bar = 2'-11" (Horizontal)

NOTES

- F.F. - Denotes Front Face
- B.F. - Denotes Back Face
- E.F. - Denotes Each Face
- See Sheet SE-2 for Bill of Material.
- See Sheet SE-9 for Bar Bending Diagrams, Bill of Bars, Concrete Construction Joint, and Expansion Joint details.
- For Bicycle Railing post spacing see General Plan and Elevation Sheet.
- Bars indicated thus 17 x 3-#5 etc. indicates 17 lines of bars with 3 lengths per line.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL PLAN AND ELEVATION 6
STRUCTURE NO. 022-W071

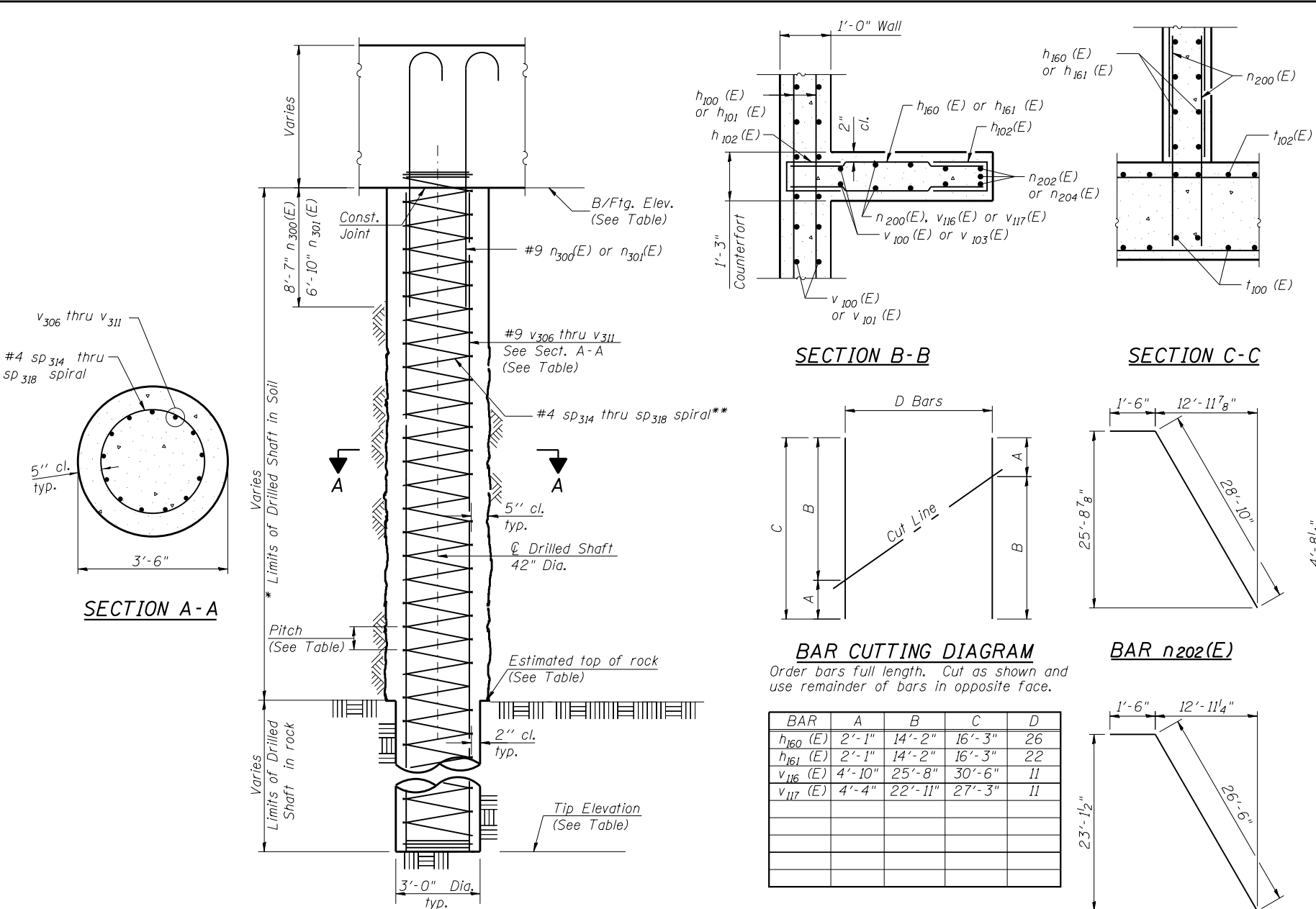
SHEET NO. SE-8 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	273
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL
DRILLED SHAFT

Bar	No.	Size	Length	Shape
n300(E)	588	#9	11'-6"	[Symbol]
n301(E)	494	#9	9'-9"	[Symbol]
SP314	16	#5	23'-8"	[Symbol]
SP315	10	#5	23'-8"	[Symbol]
SP316	54	#5	29'-8"	[Symbol]
SP317	54	#5	27'-0"	[Symbol]
SP318	18	#5	27'-0"	[Symbol]
SP320	4	#5	29'-8"	[Symbol]
v310	336	#9	26'-5"	[Symbol]
v309	130	#9	25'-10"	[Symbol]
v306	702	#9	31'-10"	[Symbol]
v307	1134	#9	30'-9"	[Symbol]
v308	234	#9	32'-0"	[Symbol]
v311	84	#9	32'-5"	[Symbol]

** Length is height of spiral.
Minimum lap for spirals = 2'-6"



DRILLED SHAFT DETAILS

* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.

** Provide 1/2 extra turns top and bottom of each drilled shaft. Extend spiral 2" into retaining wall footing. Provide min. 4- #4 spacers or equivalent.

MINIMUM BAR LAP

#9 v307, v310 and v311 Bars = 5'-9"
#9 v306, v308 and v309 Bars = 4'-7"

DRILLED SHAFT SCHEDULE

Shaft Designation	No. Shafts	Bottom of Footing	Tip Elevation	Est. Top of Rock	Vertical Reinforcement	Spiral Reinforcement	Pitch	Dowel Bar Reinforcement	Total Length	Rock Socket Length
S8	8	707.00	660	633.8	21x2- #9 v 310	1x2- #5 sp314	4"	21- #9 n300(E)	47.0	-
S10	5	707.00	660	633.8	13x2- #9 v 309	1x2- #5 sp315	5 1/2"	13- #9 n301(E)	47.0	-
S11	27	707.00	648	633.8	13x2- #9 v 306	1x2- #5 sp316	5 1/2"	13- #9 n301(E)	59.0	-
S12	18	707.00	626.5	633.8	21x3- #9 v 307	1x3- #5 sp317	4"	21- #9 n300(E)	80.5	7.30'
S13	6	707.00	626.5	633.8	13x3- #9 v 308	1x3- #5 sp318	5 1/2"	13- #9 n301(E)	80.5	7.30'
S14	2	707.00	648	633.8	21x2- #9 v 311	1x2- #5 sp320	4"	21- #9 n300(E)	59.0	-

Bar	No.	Size	Length	Shape
h100(E)	291	#5	29'-8"	[Symbol]
h101(E)	681	#5	32'-11"	[Symbol]
h102(E)	900	#5	3'-11"	[Symbol]
h103(E)	26	#5	28'-5"	[Symbol]
h160(E)	234	#5	16'-3"	[Symbol]
h161(E)	198	#5	16'-3"	[Symbol]
n100(E)	44	#6	8'-6"	[Symbol]
n101(E)	224	#5	8'-6"	[Symbol]
n150(E)	61	#10	11'-1"	[Symbol]
n151(E)	122	#9	12'-0"	[Symbol]
n152(E)	551	#5	8'-0"	[Symbol]
n153(E)	122	#8	16'-3"	[Symbol]
n154(E)	61	#7	14'-10"	[Symbol]
n155(E)	61	#8	12'-2"	[Symbol]
n156(E)	61	#7	12'-5"	[Symbol]
n157(E)	61	#6	10'-8"	[Symbol]
n200(E)	468	#5	5'-3"	[Symbol]
n201(E)	27	#7	8'-11"	[Symbol]
n202(E)	27	#7	30'-4"	[Symbol]
n203(E)	27	#7	8'-11"	[Symbol]
n204(E)	27	#7	28'-0"	[Symbol]
t100(E)	631	#5	15'-8"	[Symbol]
t101(E)	118	#6	15'-8"	[Symbol]
t102(E)	782	#7	15'-8"	[Symbol]
t103(E)	180	#8	15'-8"	[Symbol]
v100(E)	18	#5	25'-8"	[Symbol]
v103(E)	18	#5	22'-11"	[Symbol]
v110(E)	372	#5	25'-8"	[Symbol]
v116(E)	99	#5	30'-6"	[Symbol]
v117(E)	99	#5	27'-3"	[Symbol]
v150(E)	31	#5	22'-8"	[Symbol]
v151(E)	31	#5	21'-8"	[Symbol]
v152(E)	31	#5	20'-8"	[Symbol]
v153(E)	61	#8	23'-10"	[Symbol]
v154(E)	61	#7	20'-8"	[Symbol]
v155(E)	61	#7	19'-6"	[Symbol]
v156(E)	31	#5	19'-6"	[Symbol]
v157(E)	31	#5	18'-2"	[Symbol]
v158(E)	31	#5	16'-10"	[Symbol]
v159(E)	62	#6	12'-8"	[Symbol]
v240(E)	31	#6	11'-3"	[Symbol]
v241(E)	31	#5	10'-10"	[Symbol]
v242(E)	31	#5	15'-4"	[Symbol]
v243(E)	31	#5	13'-11"	[Symbol]
v244(E)	31	#5	12'-6"	[Symbol]
v245(E)	62	#5	10'-6"	[Symbol]
v246(E)	62	#5	11'-0"	[Symbol]
v247(E)	62	#5	9'-7"	[Symbol]
v248(E)	60	#5	8'-2"	[Symbol]
w110(E)	153	#5	31'-10"	[Symbol]
w111(E)	17	#5	6'-7"	[Symbol]
w112(E)	51	#5	6'-4"	[Symbol]
w113(E)	51	#5	31'-4"	[Symbol]
w114(E)	600	#5	33'-9"	[Symbol]

Structure Excavation	Cu. Yd.	2,125
Concrete Structures	Cu. Yd.	1623.6
Reinforcement Bars	Pounds	366,130
Reinforcement Bars, Epoxy Coated	Pounds	226,460

Notes:
See sheets SE-3 thru SE-8 for Drilled Shaft Locations.
See sheet NW-10 for Expansion Joint and Construction Joint Details.



USER NAME =	DESIGNED - KMP	REVISED
PLOT SCALE =	CHECKED - AMK	REVISED
PLOT DATE = 02/28/2014	DRAWN - KMP	REVISED
	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
STRUCTURE NO. 022-W071

SHEET NO. SE-9 OF SE-15 SHEETS

F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPAGE	TOTAL SHEETS 383	SHEET NO. 274
			CONTRACT NO. 60R06	
ILLINOIS FED. AID PROJECT				



BORING LOG RW-18

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.56 ft
North: 1849565.15 ft
East: 1011595.26 ft
Station: 125+36.31
Offset: 39.63 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
710.6	11-inch thick CONCRETE --PAVEMENT--														
	Medium dense, black and brown LOAM, some gravel --FILL--			1	10 15 7	NP	7					9	5 9 10	2.62 B	16
708.6	Medium dense, brown and gray SILTY LOAM, trace to some gravel			2	4 6 6	NP	15					10	3 6 9	2.79 B	17
				3	6 8 12	NP	14					11	4 7 12	4.02 B	18
				4	3 8 16	NP	16	682.6	Dense, gray SILTY LOAM, trace gravel			12	5 16 32	3.00 P	14
701.1	Very stiff to hard, gray SILTY CLAY LOAM, trace gravel			5	8 12 18	3.44 B	13					13	10 14 25	4.50 P	12
				6	6 8 12	4.00 P	14					14	10 21 40	4.59 B	21
				7	11 9 14	4.02 B	15	674.6	Very stiff to hard, gray CLAY						
693.6	Very stiff to hard, gray SILTY CLAY, trace gravel			8	6 10 13	2.71 B	15								

GENERAL NOTES

Begin Drilling **07-24-2012** Complete Drilling **07-24-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **38.00 ft**
At Completion of Drilling **22.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-18

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1145 N Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.56 ft
North: 1849565.15 ft
East: 1011595.26 ft
Station: 125+36.31
Offset: 39.63 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
				15	9 13 18	3.20 B	23								
				16	7 12 19	2.46 B	23								
661.6	Boring terminated at 50.00 ft														

GENERAL NOTES

Begin Drilling **07-24-2012** Complete Drilling **07-24-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **38.00 ft**
At Completion of Drilling **22.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =
DESIGNED - KMP
CHECKED - AMK
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - AMK

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 1
STRUCTURE NO. 022-W071

SHEET NO. SE-10 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	275
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-20

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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.82 ft
North: 1849576.64 ft
East: 1011646.15 ft
Station: 125+87.59
Offset: 49.26 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	
710.0	10-inch thick CONCRETE --PAVEMENT--															
	Dense, black LOAM, some gravel --FILL--			1	18 27 11	NP	8					9	50/4	NR	18	
707.8	Stiff to very stiff, black and brown SILTY CLAY LOAM, trace gravel --FILL--			2	5 5 8	1.50 P	28					10	3 6 20	1.89 B	18	
				3	5 5 9	3.50 P	16		685.3	Dense to very dense, gray SILTY LOAM, some gravel			11	24 24 26	NP	9
702.8	Medium dense, brown SILTY LOAM, trace gravel			4	6 11 17	NP	15					12	23 14 18	NP	11	
700.3	Very stiff to hard, gray SILTY CLAY LOAM, trace to little gravel			5	5 8 12	4.50 P	13					13	12 18 21	NP	12	
				6	6 7 11	3.77 B	14					14	10 28	NP	11	
695.3	Stiff to hard, gray SILTY CLAY, trace to some gravel			7	5 8 10	4.50 P	15					14	50/2			
				8	6 24 11	4.50 P	13					14	50/2			

GENERAL NOTES

Begin Drilling **07-26-2012** Complete Drilling **07-26-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **24.50 ft**
At Completion of Drilling **21.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-20

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Telephone: 630 953-9928
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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 710.82 ft
North: 1849576.64 ft
East: 1011646.15 ft
Station: 125+87.59
Offset: 49.26 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
668.8	Stiff to hard, gray CLAY, trace gravel			15	13 20 36	4.67 B	22					16	9 12 16	1.56 S	24
660.8	Boring terminated at 50.00 ft														

GENERAL NOTES

Begin Drilling **07-26-2012** Complete Drilling **07-26-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **4.5" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **24.50 ft**
At Completion of Drilling **21.00 ft**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =
DESIGNED - KMP
CHECKED - AMK
PLOT SCALE =
DRAWN - KMP
PLOT DATE = 02/28/2014
CHECKED - AMK

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 2
STRUCTURE NO. 022-W071

SHEET NO. SE-11 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	276
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-22

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1145 N Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.75 ft
North: 1849594.77 ft
East: 1011684.50 ft
Station: 126+29.99
Offset: 47.81 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
710.9	10-inch thick CONCRETE --PAVEMENT--														
	Medium dense, black LOAM, some fine to medium gravel --FILL--			1	15 17 12	NP	14					9	4 5 9	1.48 B	18
708.7	Stiff, black and gray SILTY CLAY LOAM, trace gravel			2	4 4 6	1.48 B	32					10	4 5 10	1.31 B	16
706.2	Brown GRAVELLY SAND														
705.0	Loose, brown to gray SILTY LOAM, trace thin black clay laminations			3	5 6 5	NP	17					11	4 7 11	0.82 B	12
				4	6 4 5	NP	18					12	4 7 13	2.79 B	14
701.2	Stiff to very stiff, gray SILTY CLAY LOAM, trace to some gravel			5	3 6 8	1.48 B	15								
				6	4 6 8	2.05 B	15					13	5 10 14	2.54 B	13
				7	6 6 9	1.75 P	15								
				8	8 6 9	1.89 B	16	672.9	Dense, brown GRAVEL			14	15 21 27	4.00 P	12

GENERAL NOTES

Begin Drilling **07-27-2012** Complete Drilling **07-27-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **32.00 ft**
 At Completion of Drilling **40.50 ft**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-22

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.75 ft
North: 1849594.77 ft
East: 1011684.50 ft
Station: 126+29.99
Offset: 47.81 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
669.7	Very stiff to hard, gray SILTY CLAY LOAM, trace to some gravel														
				15	10 13 17	5.08 B	14								
				16	6 10 15	2.79 B	25								
661.7	Boring terminated at 50.00 ft														

GENERAL NOTES

Begin Drilling **07-27-2012** Complete Drilling **07-27-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **32.00 ft**
 At Completion of Drilling **40.50 ft**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 3
STRUCTURE NO. 022-W071

SHEET NO. SE-12 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	277
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-24

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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.82 ft
North: 1849614.54 ft
East: 1011731.43 ft
Station: 126+80.91
Offset: 48.26 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
711.1	9-inch thick CONCRETE --PAVEMENT--														
	Stiff to very stiff, brown to black SILTY CLAY to SILTY CLAY LOAM, trace organic matter	1	X	1	12 7 7	2.21 B	28			9	X	9	5 9 14	3.44 B	14
		5	X	2	5 5 10	1.72 B	34			25	X	10	10 8 20	2.62 B	18
705.6	Medium dense, brown SANDY LOAM		X	3	6 8 6	NP	21				X	11	7 9 14	2.95 B	13
703.8	Loose to medium dense, brown SILTY LOAM		X	4	3 5 6	NP	23	683.8	Medium stiff, gray SANDY CLAY LOAM, some gravel		X	12	7 17 11	0.98 B	
		10	X	5	2 2 2	NP	20			30	X	13	11 11 18	2.38 B	12
698.8	Stiff to very stiff, gray SILTY CLAY LOAM, trace gravel		X	6	7 9 7	2.13 B	13	680.3	Stiff to very stiff gray SILTY CLAY LOAM, trace to some gravel		X	14	3 4 10	1.23 B	13
		15	X	7	5 7 8	1.89 B	15			35	X	14	3 4 10	1.23 B	13
		20	X	8	5 8 10	2.54 B	14			40	X	14	3 4 10	1.23 B	13

GENERAL NOTES

WATER LEVEL DATA

Begin Drilling **07-19-2012** Complete Drilling **07-19-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **D. Kolpacki** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

While Drilling **11.00 ft**
 At Completion of Drilling **12.00 ft**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-26

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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.79 ft
North: 1849644.14 ft
East: 1011800.27 ft
Station: 127+55.84
Offset: 48.38 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
711.1	8-inch thick CONCRETE --PAVEMENT--														
710.5	SANDY GRAVEL		X	1	6 7 5	2.25 P	28	691.3	Medium dense to dense, brown LOAM, some gravel		X	9	6 10 12	NP	11
	Very stiff, brown SILTY CLAY, trace organic matter	5	X	2	3 2 3	1.48 B	26			25	X	10	17 21 25	NP	8
708.8	Stiff to hard, brown and gray SILTY CLAY LOAM, trace gravel		X	3	3 5 6	2.54 B	15				X	11	10 19 19	6.56 B	12
		10	X	4	3 5 9	3.20 B	16	686.3	Very stiff to hard, gray brown SILTY CLAY LOAM, trace to some gravel		X	12	12 18 36	2.46 S	12
		15	X	5	5 8 10	3.85 B	13			30	X	13	11 12 28	4.35 B	12
		20	X	6	4 8 10	2.62 B	15			35	X	14	4 5 9	NP	6
		25	X	7	16 16 50/4	3.25 P	15	674.8	Medium dense, brown SANDY GRAVEL		X	14	4 5 9	NP	6
		30	X	8				671.8			X	14			

GENERAL NOTES

WATER LEVEL DATA

Begin Drilling **07-20-2012** Complete Drilling **07-20-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **D. Kolpacki** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

While Drilling **28.50 ft**
 At Completion of Drilling **22.00 ft**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 4
STRUCTURE NO. 022-W071

SHEET NO. SE-13 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	278
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-28

Page 1 of 1

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.70 ft
North: 1849672.68 ft
East: 1011866.49 ft
Station: 128+27.95
Offset: 48.42 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
711.0	9-inch thick CONCRETE --PAVEMENT--														
710.7	SANDY GRAVEL														
	Very stiff, brown SILTY CLAY, trace gravel	1	X	1	15 16 8	2.00 P	4					9	9 16 25	3.85 B	12
708.7	Very stiff to hard, brown SILTY LOAM, trace gravel	5	X	2	4 5 4	3.53 S	18					10	12 17 40	NP	13
		5	X	3	4 7 6	4.92 B	17					11	12 24 23	NP	10
		10	X	4	7	5.41 B	16					12	18 30 50/4	NP	9
701.2	Very stiff to hard, gray SILTY CLAY LOAM, trace gravel	15	X	5	8 13 15	3.69 B	16					13	29 34 50/4	NP	11
		20	X	6	6 13 28	2.46 B	14					14	45 50/5	NP	19
			X	7	8 12 17	2.79 B	12					14			
			X	8	21 19 25	4.10 B	13					14			
			X	14								14			
			X	19								19			
			X	20								20			
			X	25								25			
			X	30								30			
			X	35								35			
			X	40								40			

GENERAL NOTES

Begin Drilling **07-20-2012** Complete Drilling **07-20-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **D. Kolpacki** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **28.50 ft**
 At Completion of Drilling **27.00 ft**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-30

Page 1 of 1

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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.86 ft
North: 1849705.35 ft
East: 1011937.20 ft
Station: 129+05.81
Offset: 46.46 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
711.1	9-inch thick CONCRETE --PAVEMENT--														
	Dense, black LOAM, some gravel --FILL--	1	X	1	10 18 15	NP	6					9	11 15 41	NP	13
708.9	Medium dense, brown SILTY LOAM, little to some gravel	5	X	2	8 10 13	NP	16					10	11 17 25	NP	17
		10	X	3	6 9 12	NP	17					11	17 30 42	NP	11
		15	X	4	5 8 17	NP	23					12	16 30 24	NP	10
701.4	Very stiff to hard, SILTY CLAY LOAM, some fine to coarse gravel	20	X	5	11 22 28	NA	12					12			
		25	X	6	17 15 17	4.00 P	12					12			
		30	X	7	7 11 22	3.77 B	15					15			
		35	X	8	7 13 22	>4.50 P	14					14			
		40	X									40			

GENERAL NOTES

Begin Drilling **07-27-2012** Complete Drilling **07-27-2012**
 Drilling Contractor **K&S** Drill Rig **D-120 TMR**
 Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **12.00 ft**
 At Completion of Drilling **14.50 ft**
 Time After Drilling **NA**
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - AMK	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 5
STRUCTURE NO. 022-W071

SHEET NO. SE-14 OF SE-15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	279
CONTRACT NO. 60R06				
ILLINOIS FED. AID PROJECT				



BORING LOG RW-32

wangeng@wangeng.com
1145 N Main Street
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WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.45 ft
North: 1849735.14 ft
East: 1012006.04 ft
Station: 129+80.83
Offset: 52.39 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
710.7	9.5-inch thick CONCRETE --PAVEMENT--							691.0	Medium dense to dense, gray SILT with fine sand and clay laminations						
710.0	Black SILTY LOAM, some gravel --FILL--			1	12 13 9	NP	6					9	10 16 24	NP	18
	Stiff to hard, brown and gray SILTY CLAY LOAM, trace to some gravel --FILL--			2	5 7 10	4.51 B	13					10	11 12 15	NP	17
				3	4 6 14	1.80 B	15	686.0	Very dense, gray SILTY LOAM, trace gravel			11	11 24 31	NP	10
703.5	Very stiff, brown CLAY LOAM, some gravel			4	3 8 13	2.50 P	17					12	9 15 50/4	NP	13
701.0	Very dense, brown and gray SILTY LOAM, trace gravel			5	50/5	NP	13	681.5	Boring terminated at 30.00 ft						
699.0	Very stiff to hard, gray SILTY CLAY LOAM, some gravel			6	7 10 13	3.50 P	11								
				7	5 12 19	6.81 B	15								
				8	14 18 21	NA	12								

GENERAL NOTES

Begin Drilling **07-31-2012** Complete Drilling **07-31-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



BORING LOG RW-34

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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 119-20-01
Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NAV88
Elevation: 711.57 ft
North: 1849763.09 ft
East: 1012075.94 ft
Station: 130+56.08
Offset: 48.44 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
710.8	10-inch thick CONCRETE --PAVEMENT--														
	Medium dense, black LOAM, some gravel --FILL--			1	14 7 5	NP	7								
708.6	Very stiff, brown and gray SILTY CLAY LOAM, trace gravel			2	9 15 18	NA									
				3	6 7 10	2.95 B	16								
703.6	Dense, brown SILTY LOAM, trace gravel and sand seams			4	8 12 18	NP	10								
701.1	Stiff to very stiff, brown to gray SILTY CLAY LOAM, little to some gravel			5	3 5 16	1.89 B	14								
				6	7 8 13	2.05 B	14								
				7	17 18 22	2.00 P	14								
				8	8 9 6	2.30 B	13								
691.6	Boring terminated at 20.00 ft														

GENERAL NOTES

Begin Drilling **07-27-2012** Complete Drilling **07-27-2012**
Drilling Contractor **K&S** Drill Rig **D-120 TMR**
Driller **C&E** Logger **J. Lundin** Checked by **M. Snider**
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **DRY**
At Completion of Drilling **DRY**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



USER NAME =	DESIGNED - KMP	REVISOR
	CHECKED - AMK	REVISION
PLOT SCALE =	DRAWN - KMP	REVISION
PLOT DATE = 02/28/2014	CHECKED - AMK	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS 6
STRUCTURE NO. 022-W071

SHEET NO. SE-15 OF SE-15 SHEETS

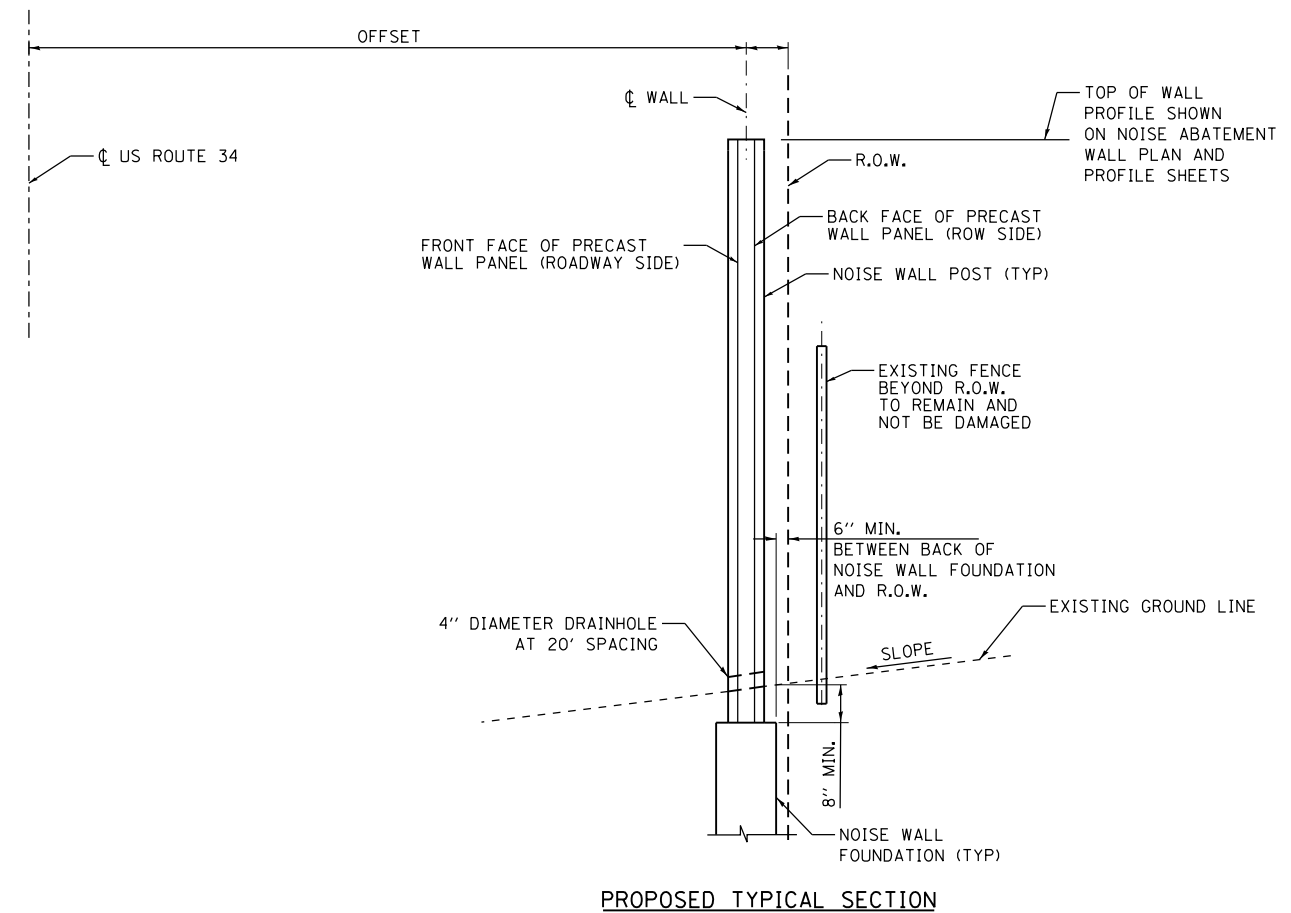
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DuPAGE	383	280
CONTRACT NO. 60R06			ILLINOIS FED. AID PROJECT	

NOTES:

- 1) THE CONTRACTOR'S ATTENTION IS DRAWN TO THE FACT THAT THERE ARE EXISTING OVERHEAD POWER LINES LOCATED ABOVE NOISE ABATEMENT WALL #2 ALONG THE SOUTH SIDE OF US ROUTE 34. CONTRACTOR SHALL ACCOUNT FOR THIS EXISTING CONDITION IN PLANNING THE MEANS, METHODS AND EQUIPMENT TO BE USED FOR CONSTRUCTING AND ERECTING WALL #2.
- 2) THE EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF THESE UTILITIES IN THE FIELD PRIOR TO LAYING OUT FOUNDATIONS FOR THE WALLS AND FINALIZING WALL PANEL LENGTHS. NO ADDITIONAL PAYMENT WILL BE MADE DUE TO DISCREPANCY IN THE ACTUAL LOCATIONS PROVIDED ON THE DRAWINGS.
- 3) SEE DRAINAGE AND UTILITY SHEETS FOR APPROXIMATE LOCATION OF EXISTING UTILITIES. VERIFY LOCATIONS THROUGH JULIE 800-892-0123. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF THESE UTILITIES AND MAKE NECESSARY NOTIFICATIONS WITH THE UTILITY PRIOR TO COMMENCING FOUNDATION WORK NEAR THEIR FACILITIES.
- 4) MAINTAIN UNIFORMITY BETWEEN WALL PANEL LENGTHS TO GREATEST EXTENT POSSIBLE.
- 5) THE CONTRACTOR SHALL MAINTAIN 2' MINIMUM CLEARANCE BETWEEN EXISTING UNDERGROUND UTILITIES AND NEW FOUNDATIONS UNLESS NOTED OTHERWISE. IN AREAS WHERE FOUNDATIONS ARE PROPOSED IMMEDIATELY ADJACENT TO EXISTING UTILITIES, THE CONTRACTOR SHALL POT HOLE BY VACUUM EXCAVATION OR HAND EXCAVATION TO LOCATE THE EXISTING UTILITY TO VERIFY ACTUAL CLEARANCE.
- 6) STATIONS AND OFFSETS SHOWN ON NOISE ABATEMENT WALL PLAN AND PROFILE SHEETS ARE TO CENTERLINE OF WALL.
- 7) THE PATTERN PRODUCED ON THE EXPOSED SURFACES OF THE CONCRETE RETAINING WALLS AND THE NOISE ABATEMENT WALLS SHALL BE IDENTICAL. THE CONCRETE STAIN APPLIED TO THE SURFACE OF BOTH OF THOSE ITEMS SHALL ALSO BE IDENTICAL. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY COORDINATION AND DIRECTION WITH ITS VENDOR MANUFACTURING THE NOISE ABATEMENT WALLS TO ASSURE THE SAME CONCRETE FORM LINERS AND STAINS ARE USED FOR THEM AS THOSE FOR CAST-IN-PLACE RETAINING WALLS. THE FORM LINERS USED SHALL PROVIDE AN ASHLAR PATTERN.
- 8) ALL ADJACENT EXISTING FENCES BEYOND HIGHWAY RIGHT OF WAY SHALL REMAIN AND BE UNDAMAGED BY NOISE WALL CONSTRUCTION.
- 9) THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE NOISE ABATEMENT WALLS THAT INCLUDE ALL DETAILS FOR PANEL WIDTHS, POST PLACEMENT AND MAINTENANCE OF A MINIMUM TOP OF WALL HEIGHT ABOVE THE PGL OR GREATER.

**NOISE ABATEMENT WALL,
GROUND MOUNTED**

WALL	AREA SQ FT
NOISE ABATEMENT WALL #1	13,472
NOISE ABATEMENT WALL #2	21,229
NOISE ABATEMENT WALL #3	7,332
TOTAL	42,033



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USER NAME = URS	DESIGNED - MB	REVISED -
	DRAWN - KJB	REVISED -
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PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -

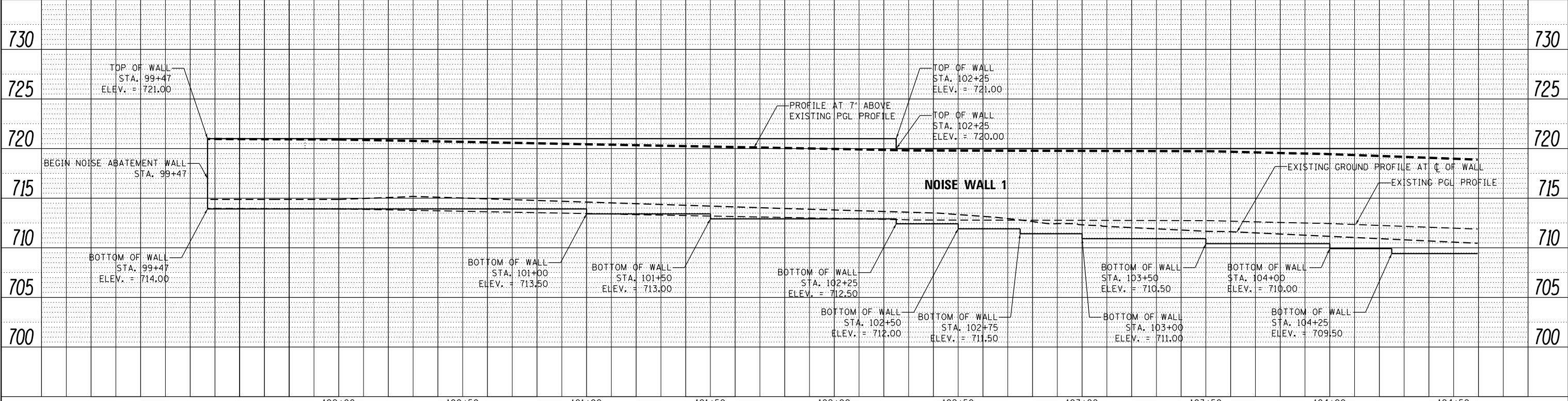
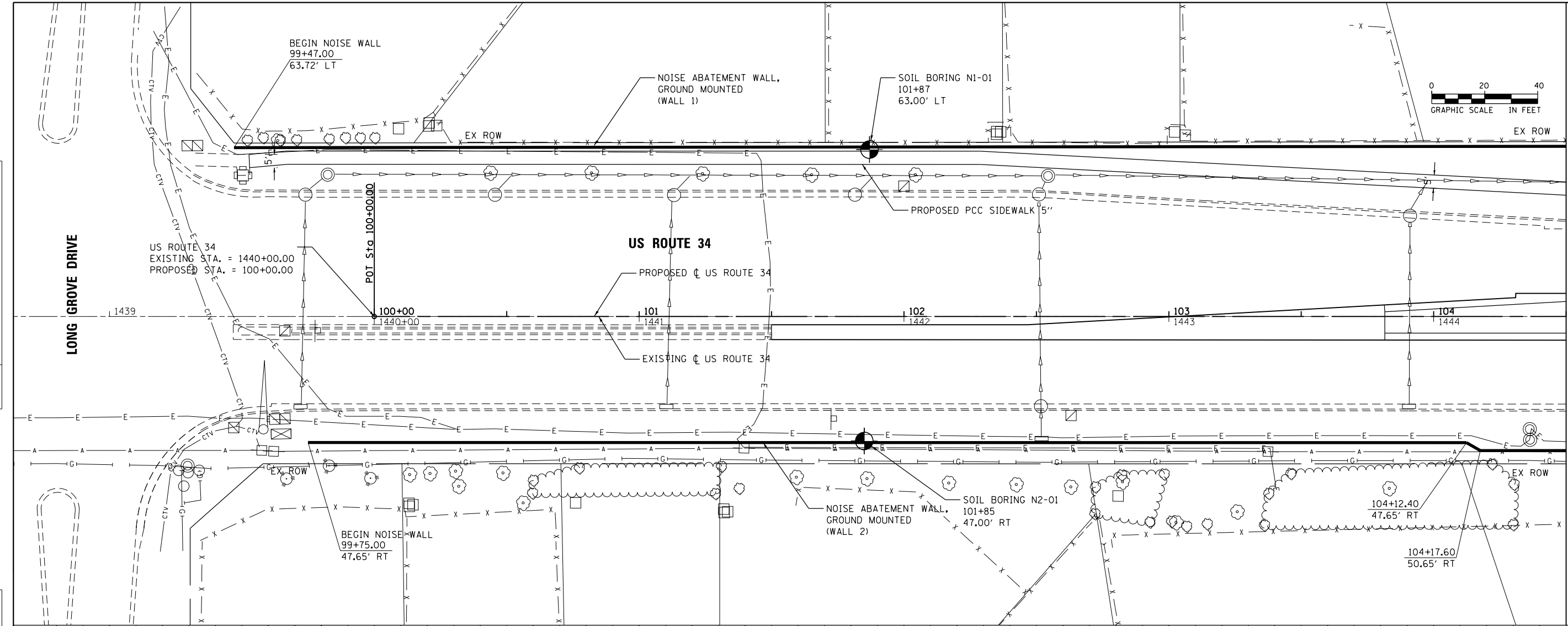
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

NOISE ABATEMENT WALLS NOTES			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	281
CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
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	NO. _____	
	FILE NAME	

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	FILE NAME	

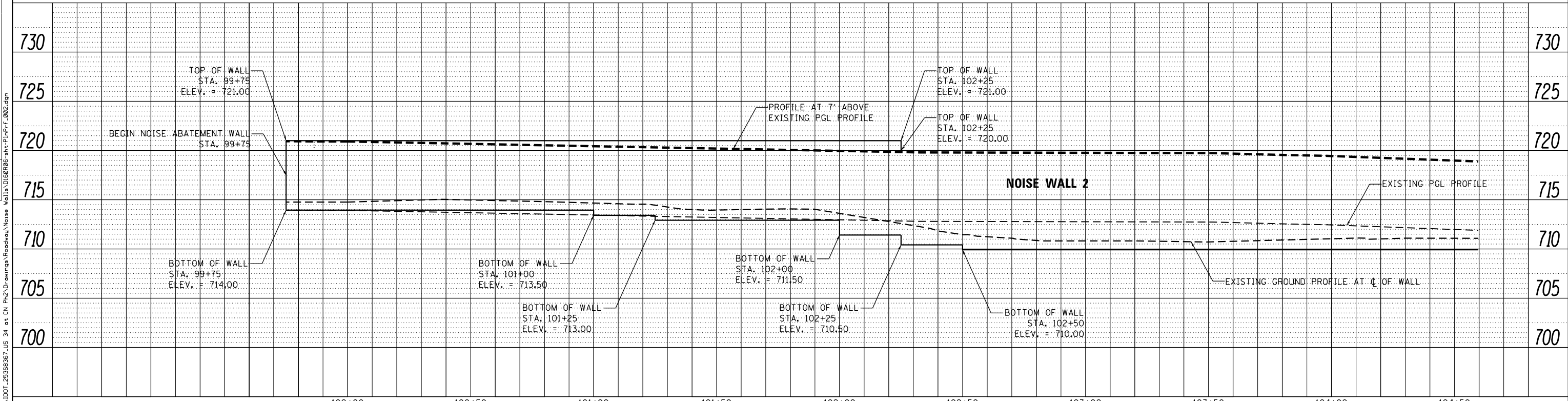


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	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -			ILLINOIS FED. AID PROJECT						

FILE NAME: 0A\1001_25368967_US_34.ctb

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NOTE BOOK NO.	GRADES CHECKED		
	ALIGNMENT CHECKED		
	STRUCTURE NOT AT THIS OFFICE		
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PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	GRADES CHECKED		
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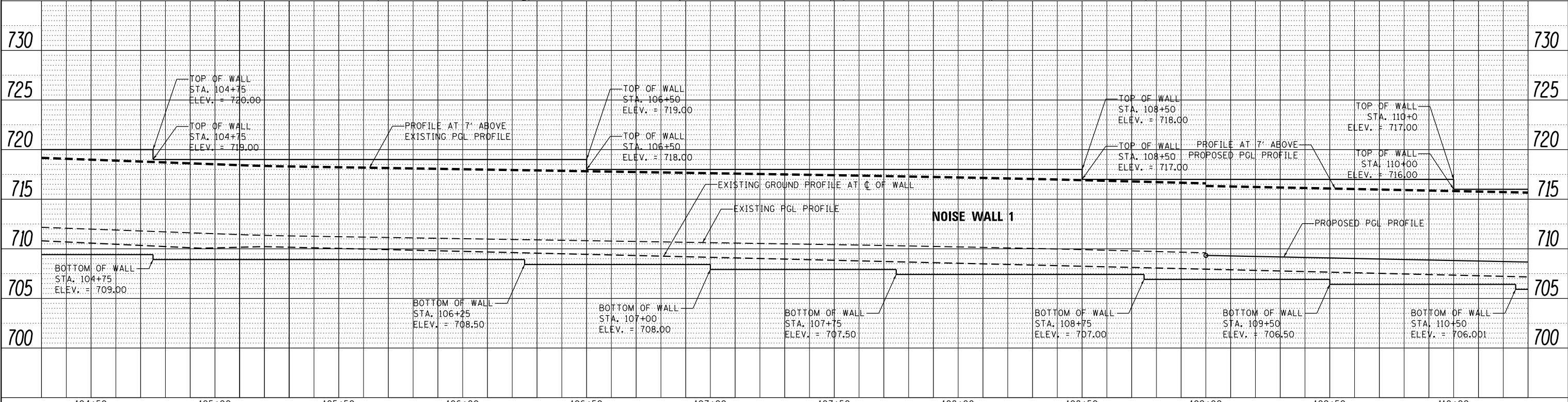
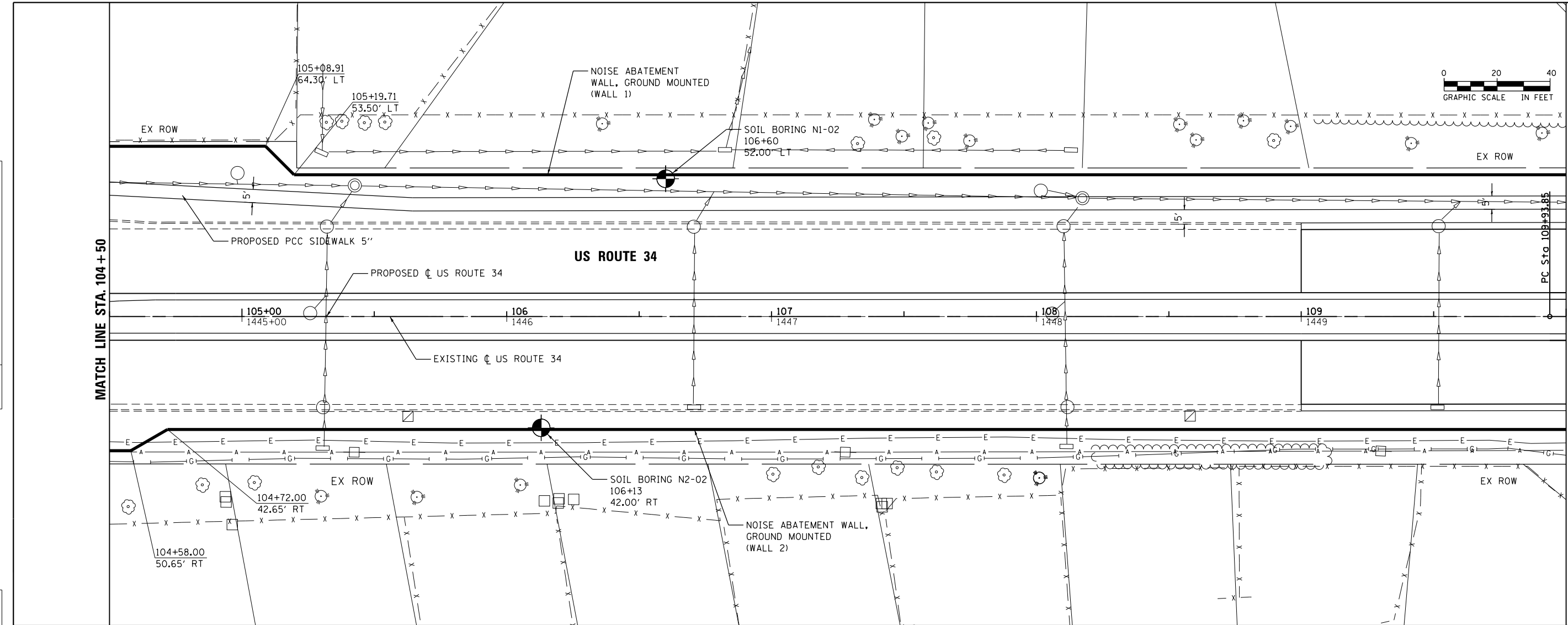


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	PLOT SCALE = 48.0000' / in.	CHECKED - SPF	REVISED -		SCALE: 20	SHEET NO. 2 OF 8 SHEETS	STA. 100+00 TO STA. 104+50	CONTRACT NO. 60R06		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -								

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	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
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	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
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	FILE NAME	

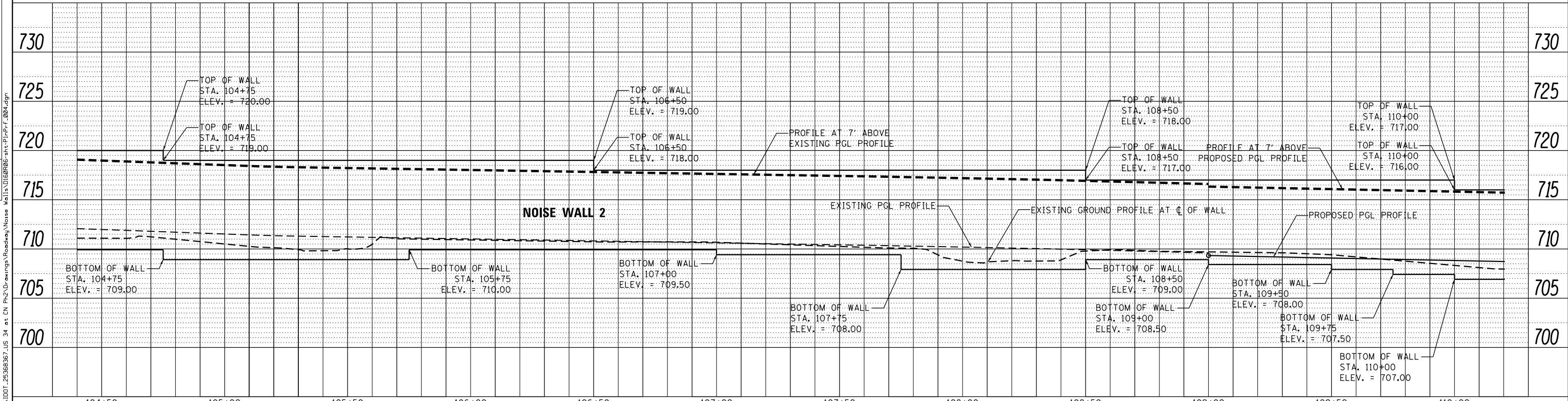


	USER NAME = URS	DESIGNED - MB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NOISE ABATEMENT WALL 1 & 2 PLAN AND WALL 1 PROFILE	F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPAGE	TOTAL SHEETS 383	SHEET NO. 284		
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	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -			ILLINOIS FED. AID PROJECT						

FILE NAME: 0A\1001_25368667_US_34.ctb

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NOTE BOOK NO.	GRADES CHECKED		
	ALIGNMENT CHECKED		
	STRUCTURE NOT AT THIS OFFICE		
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NOTE BOOK NO.	GRADES CHECKED		
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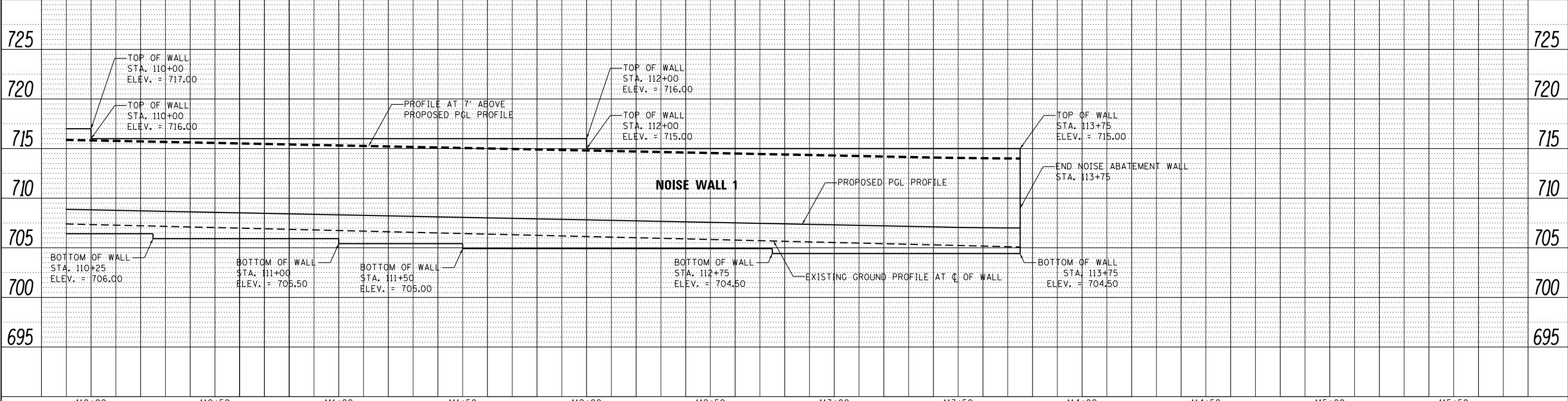
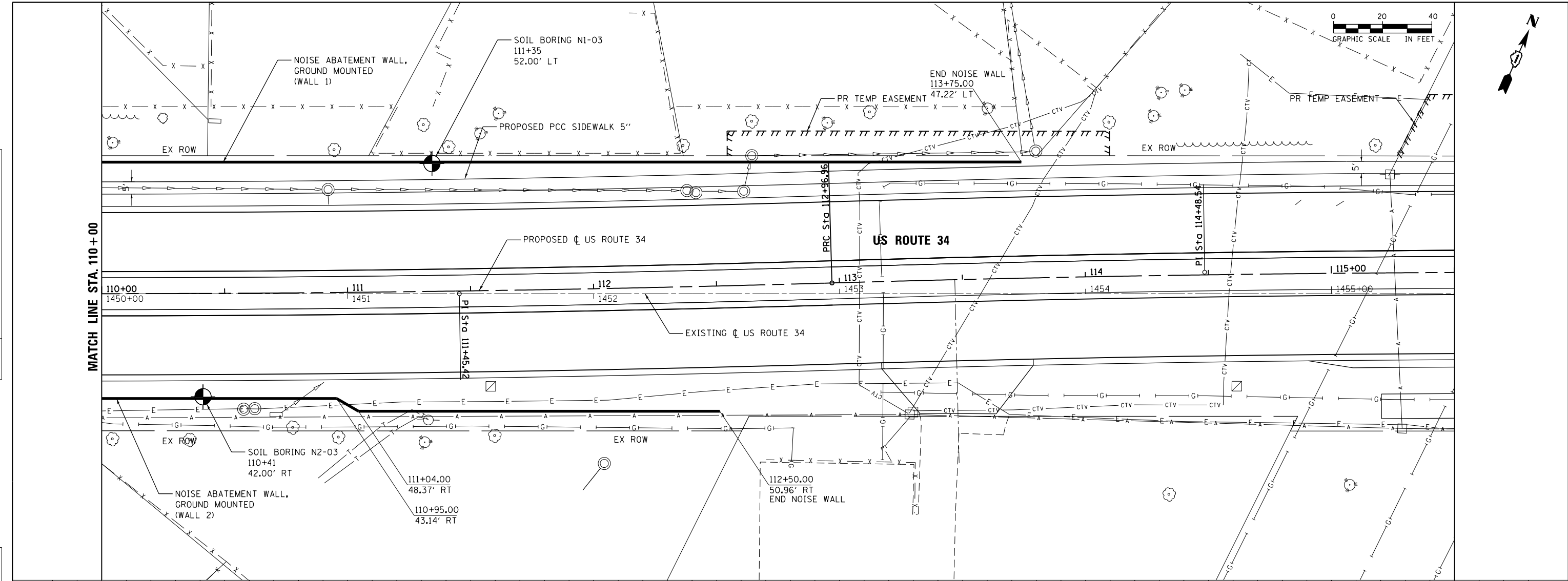


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	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -										ILLINOIS FED. AID PROJECT	

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	PLOTTED	BY
	NOTE BOOK	
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	CHECKED	
	FILE NAME	

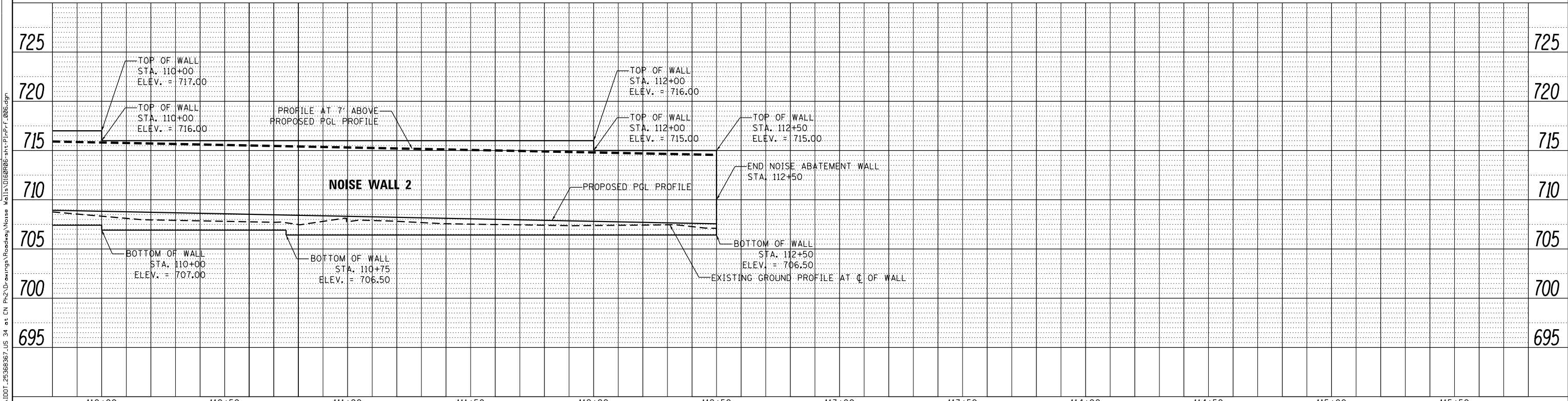
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	GRADES CHECKED	BY
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	FILE NAME	



	USER NAME = URS	DESIGNED - MB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NOISE ABATEMENT WALL 1 & 2 PLAN AND WALL 1 PROFILE	F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPAGE	TOTAL SHEETS 383	SHEET NO. 286		
	PLOT SCALE = 48.0000' / in.	CHECKED - SPF	REVISED -			SCALE: 20	SHEET NO. 5 OF 8 SHEETS	STA. 110+00 TO STA. 115+50	CONTRACT NO. 60R06			
	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -			ILLINOIS FED. AID PROJECT						

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	ALIGNMENT CHECKED		
	STRUCTURE NOT AT THIS OFFICE		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	GRADES CHECKED		
	STRUCTURE NOT AT THIS OFFICE		
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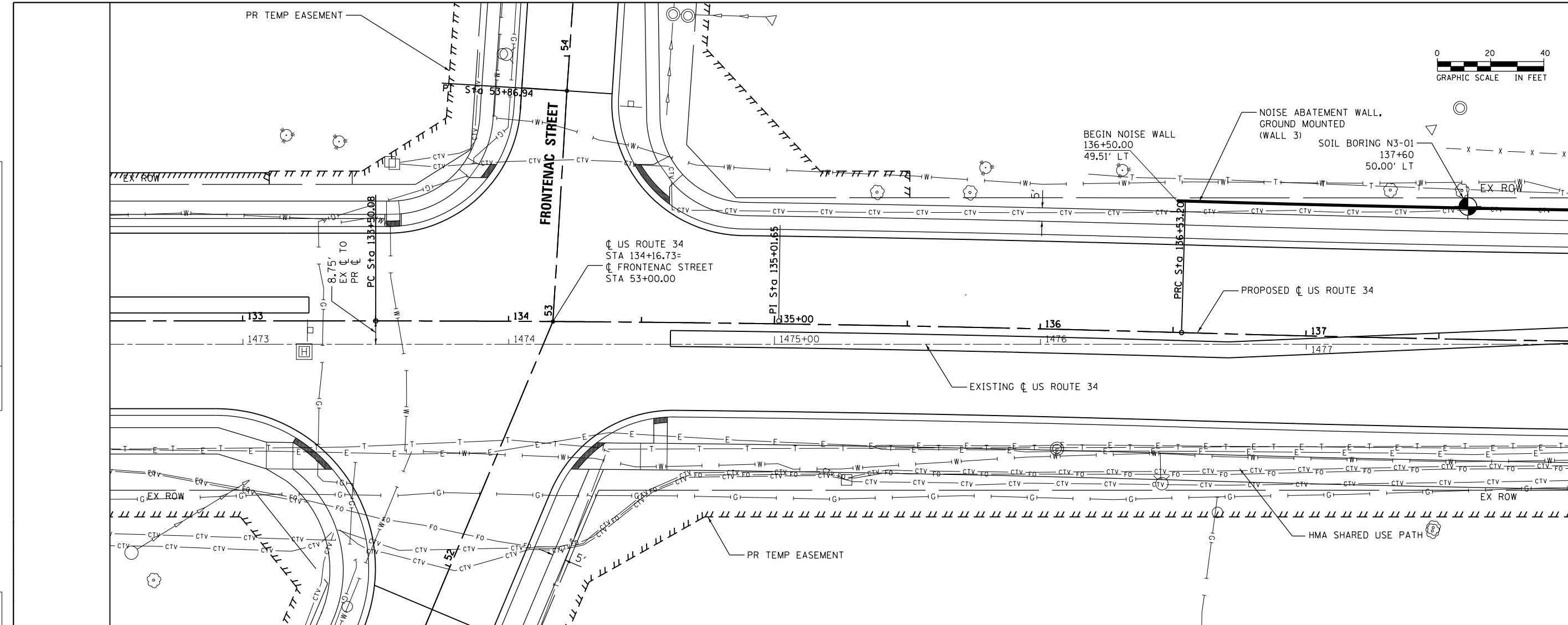


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	PLOT SCALE = 40.0000' / in.	CHECKED - SPF	REVISED -		SCALE: 20	SHEET NO. 6 OF 8 SHEETS	STA. 110+00 TO STA. 115+50	CONTRACT NO. 60R06		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -								

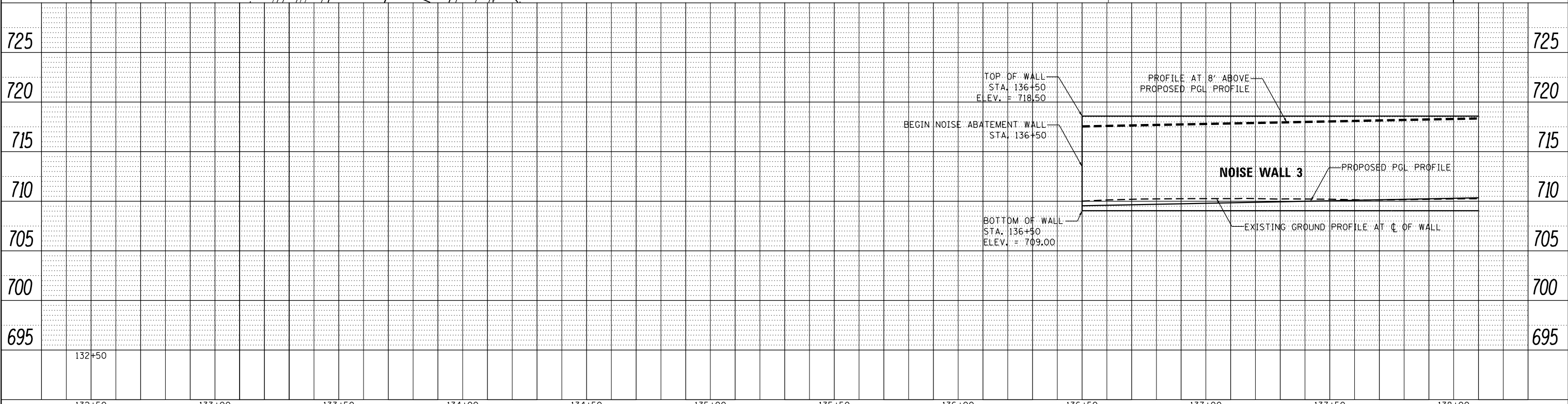
FILE NAME: 0A\1001_25368667_US_34.ctb CN P:\2\Drawings\Roadway\Noise Wall\11060R06-act-PlnPrf-006.dgn

PLAN	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOT AT THIS CHKD	
	NO. _____	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOT AT THIS CHKD	
	NO. _____	
	FILE NAME	



MATCH LINE STA. 138+00

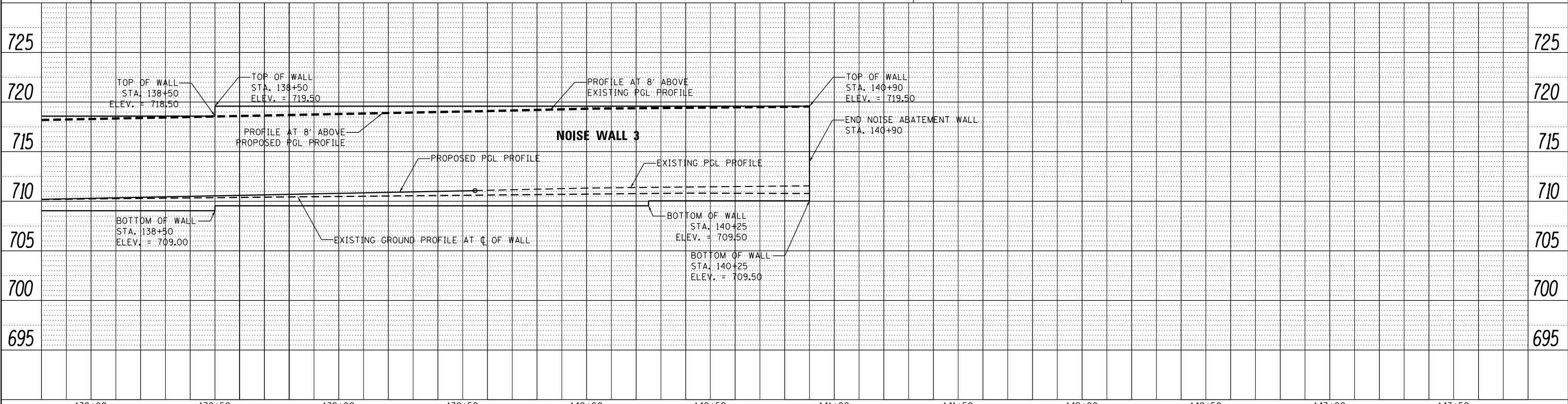
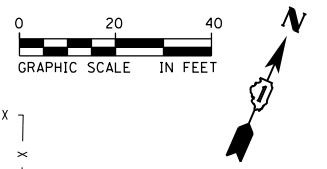
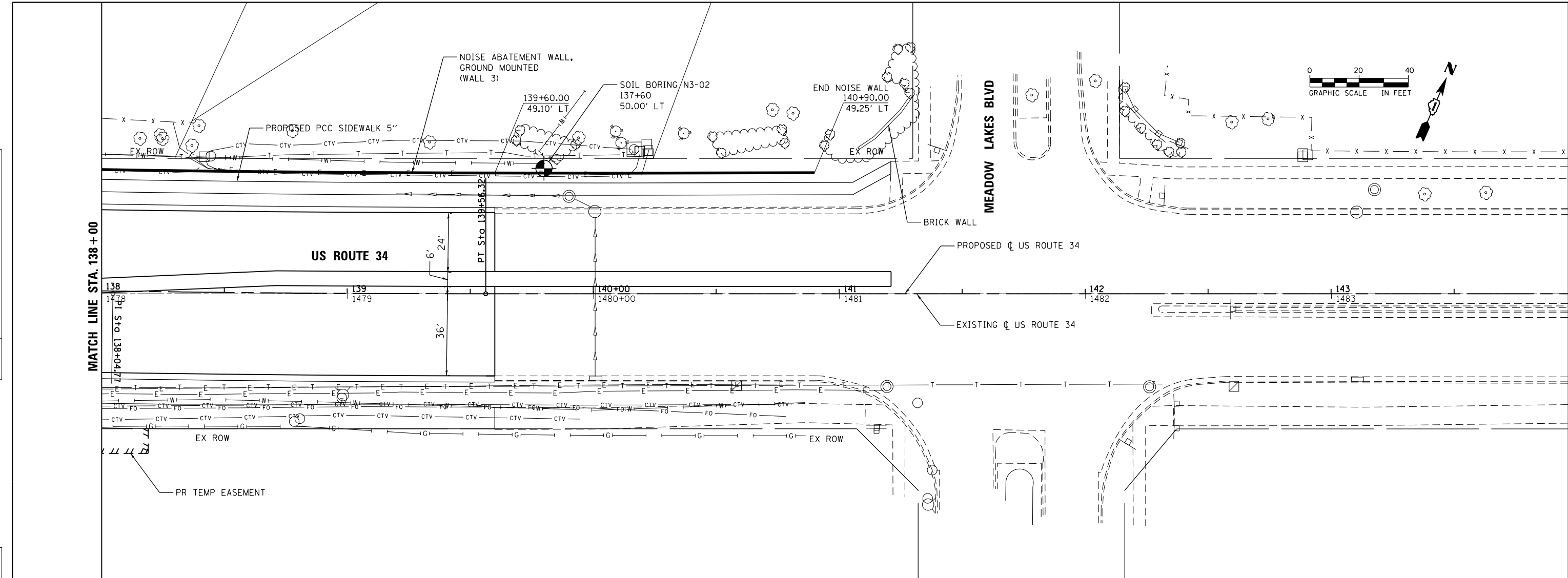


FILE NAME: 0A\1001_25368967_US 34.ctb	USER NAME: URS	DESIGNED: MB	REVISD: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NOISE ABATEMENT WALL 3 PLAN AND PROFILE			F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPAGE	TOTAL SHEETS 383	SHEET NO. 288	
	PLOT SCALE: 40.0000' / in.	CHECKED: SPF	REVISD: -		SCALE: 20	SHEET NO. 7 OF 8 SHEETS	STA. 132+50 TO STA. 138+00	CONTRACT NO. 60R06		ILLINOIS FED. AID PROJECT			
	PLOT DATE: 02/28/2014	DATE: 02/28/2014	REVISD: -										



PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOT AT THIS OFFICE	
	NO. _____	
	DATE _____	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOT AT THIS OFFICE	
	NO. _____	
	DATE _____	



	USER NAME = URS	DESIGNED - MB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NOISE ABATEMENT WALL 3 PLAN AND PROFILE		F.A.P. RTE. 311	SECTION 652-A	COUNTY DuPAGE	TOTAL SHEETS 383	SHEET NO. 289	
	PLOT SCALE = 40.0000' / in.	CHECKED - SPF	REVISED -		SCALE: 20	SHEET NO. 8 OF 8 SHEETS	STA. 138+00 TO STA. 143+90	CONTRACT NO. 60R06		ILLINOIS FED. AID PROJECT		
	PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -									



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BORING LOG N1-01

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 713.97 ft
North: 1848719.02 ft
East: 1009403.71 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No. recovery	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No. recovery	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
713.6	6-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Stiff to hard, brown, black and gray SILTY CLAY LOAM to SILTY LOAM, trace gravel and organic matter --FILL--	0-1	1	4 3 3	1.75 P								
		1-5	2	7 8 8	2.50 P								
		5-15	3	15 15 10	4.50 P								
706.0	Very stiff to hard, gray SILTY CLAY LOAM to SILTY LOAM, trace gravel	10-12	4	11 11 12	4.51 B								
		12-15	5	4 6 8	2.75 P								
699.0	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



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BORING LOG N1-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 708.65 ft
North: 1848904.26 ft
East: 1009865.91 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No. recovery	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No. recovery	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.1	6-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Very stiff, brown, black and gray SILTY CLAY LOAM, trace gravel --FILL--	0-1	1	3 4 5	2.54 S								
705.1	Stiff to hard, gray SILTY CLAY LOAM, trace gravel	1-5	2	2 3 3	2.00 P								
		5-10	3	2 2 3	1.31 B								
	3-inch thick, brown coarse SAND seam	10-12	4	2 6 7	4.50 P								
		12-15	5	5 5 8	2.05 B								
693.6	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 8.00 ft
At Completion of Drilling: 10.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13

FILE NAME = Q:\DOT_25368367_US 34.ctb CN Pkz\Drawings\Roadway\Noise Wall\1192001\Borings_001.dgn



USER NAME = URS
DESIGNED - MB
DRAWN - KJB
PLOT SCALE = 48.0000' / in.
PLOT DATE = 02/28/2014

REVISIONS
REVISOR
DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE ABATEMENT WALL
SOIL BORINGS

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	290
CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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BORING LOG N1-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 707.75 ft
North: 1849081.32 ft
East: 1010272.11 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
707.1	8-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Hard, brown and black SILTY CLAY LOAM to SILTY LOAM, trace gravel		1	2 3 3	4.00 P								
	--FILL--												
			2	11 16 24	NA								
702.2	Very stiff to hard, brown SILTY CLAY LOAM to SILTY LOAM, trace gravel		3	7 12 24	4.50 P								
			4	7 13 16	7.95 B								
			5	7 8 11	3.50 P								
692.7	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



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BORING LOG N2-01

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 711.80 ft
North: 1848624.42 ft
East: 1009443.63 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
711.0	10-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Stiff to hard, brown, black and gray SILTY CLAY LOAM, trace gravel		1	1 3 4	1.00 P								
	--FILL--												
			2	4 4 6	4.00 P								
706.3	Hard, brown and gray SILTY CLAY LOAM		3	4 6 7	6.23 B								
			4	5 7 11	6.72 B								
698.0	Dense, brown and white SANDY GRAVEL, seams of SILTY CLAY		5	7 15 15	NP								
696.8	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 13.75 ft
At Completion of Drilling: 13.75 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



USER NAME = URS
DESIGNED - MB
DRAWN - KJB
PLOT SCALE = 40.0000' / in.
CHECKED - SPF
PLOT DATE = 02/28/2014
DATE - 02/28/2014

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE ABATEMENT WALL
SOIL BORINGS

SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	291
CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME = Q:\100T_25368367_US_34.ctb CN Pk2Drawings\Roadway\Noise Wall\1192001\Borings\002.dgn



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BORING LOG N2-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.61 ft
North: 1848789.82 ft
East: 1009836.49 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.1	6-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown, black and gray SILTY CLAY LOAM, trace gravel --FILL--	1	5 3 5	4.50 P									
		2	3 1 3	NA									
704.1	Very stiff to hard, brown and gray SILTY CLAY LOAM	3	4 5 4	2.25 P									
		4	4 5 7	4.51 B									
		5	3 5 7	2.21 B									
694.6	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



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BORING LOG N2-03

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 707.20 ft
North: 1848961.62 ft
East: 1010231.22 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
706.4	10-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Very stiff to hard, brown, black and gray SILTY CLAY LOAM, trace gravel	1	3 5 5	3.00 P									
		2	5 6 6	4.10 B									
		3	4 6 8	7.05 B									
		4	6 8 12	7.54 B									
		5	4 5 6	3.36 B									
692.2	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



USER NAME = URS
DESIGNED - MB
DRAWN - KJB
PLOT SCALE = 40.0000' / in.
CHECKED - SPF
DATE = 02/28/2014

REVISED -
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REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE ABATEMENT WALL
SOIL BORINGS

SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	292
CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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BORING LOG N3-01

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.18 ft
North: 1850133.12 ft
East: 1012693.30 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
708.7	6-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Very stiff to hard, brown and black SILTY CLAY LOAM, trace gravel		1	4 4 5	3.25 P								
	--FILL--												
			2	4 5 4	4.25 P								
703.7	Very loose, brown SILTY LOAM, trace gravel		3	2 2 1	NP								
701.2	Hard, gray SILTY CLAY LOAM, trace gravel		4	5 7 7	5.82 B								
697.2	Very stiff, gray SILTY CLAY, trace gravel		5	5 7 8	3.69 B								
694.2	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 5.50 ft
At Completion of Drilling: 6.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



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BORING LOG N3-02

WEI Job No.: 119-20-01

Client: **URS Corporation**
Project: **US Rte 34 Grade Separation over the CNRR**
Location: **SE 1/4 Section 29, T 38N, R 9E 3rd PM**

Datum: NGVD
Elevation: 709.72 ft
North: 1850214.22 ft
East: 1012887.38 ft
Station:
Offset:

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
709.1	6-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Very stiff, gray and black SILTY CLAY LOAM, trace gravel		1	3 4 13	3.25 P								
	--FILL--												
	Loose, brown coarse SAND, little gravel		2	2 3 6	NP								
704.2	Loose, brown SILTY LOAM		3	5 5 4	NP								
701.7	Loose, brown SANDY LOAM		4	3 4 5	NP								
697.7	Gray SILTY LOAM, trace gravel		5	2 5 10	1.80 B								
695.7	Stiff, gray SILTY CLAY LOAM, trace gravel		5	2 5 10	1.80 B								
694.7	Boring terminated at 15.00 ft	15											

GENERAL NOTES

Begin Drilling: 01-21-2013 Complete Drilling: 01-21-2013
Drilling Contractor: Wang Testing Service Drill Rig: B-57 TMR
Driller: R&J Logger: A. Happel Checked by:
Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 5.50 ft
At Completion of Drilling: 6.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1192001.GPJ WANGENG.GDT 1/22/13



USER NAME = URS
DESIGNED - MB
DRAWN - KJB
PLOT SCALE = 40.0000' / in.
PLOT DATE = 02/28/2014

REVISIONS
REVISED -
REVISED -
REVISED -
REVISED -

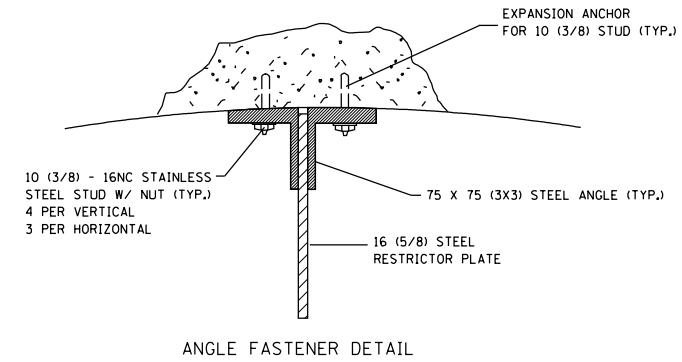
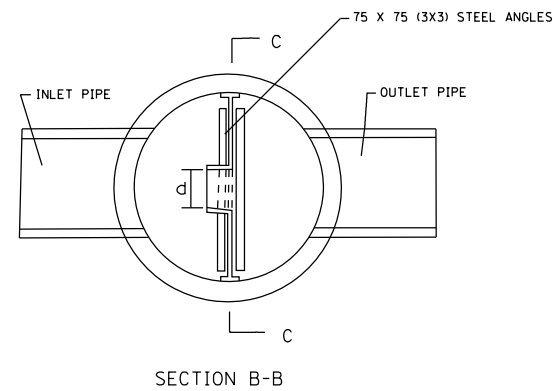
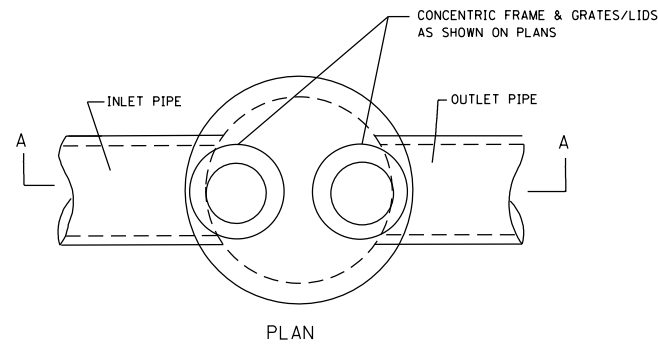
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOISE ABATEMENT WALL
SOIL BORINGS

SCALE: SHEET NO. 4 OF 4 SHEETS STA. TO STA.

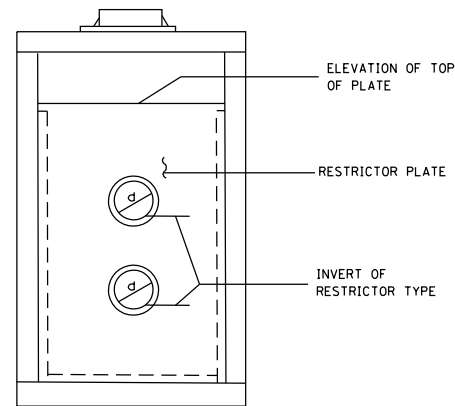
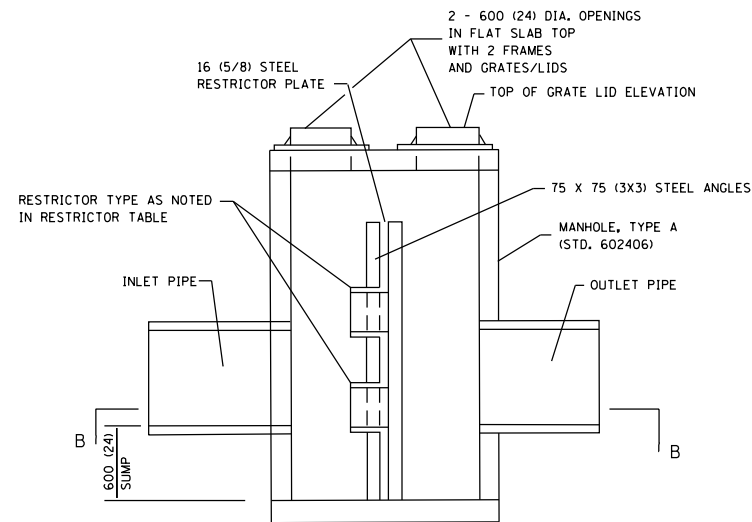
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	293
CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME = Q:\DOT_25368367_US_34.ctb CN Pk2Drawings\Roadway\Noise Wall\1192001\Borings_004.dgn

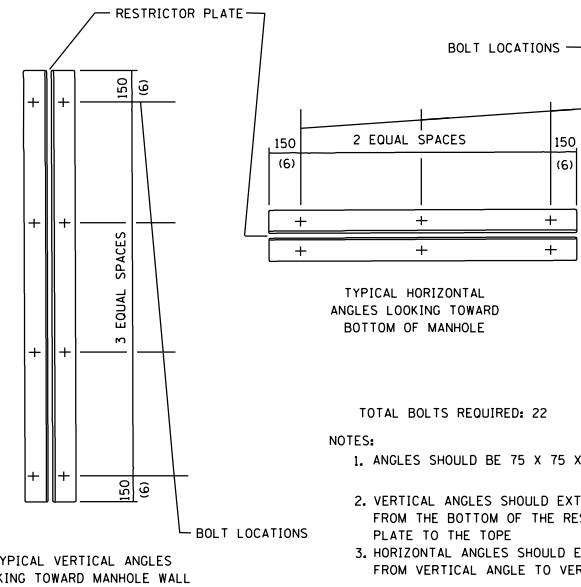


NOTES:

1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT-DIAMETER, WITH TWO TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

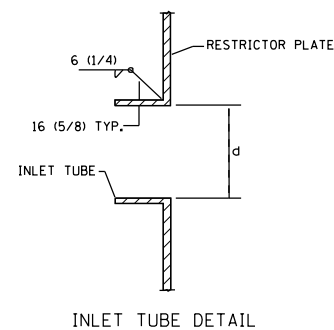


STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER mm (in.) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW
*129 STA 114+15.0, 43' L	6'	2 - TY-1 FR, CL	C=.61	6.0	697.50	702.00
*206 STA 116+45.0, 37' L	6'	2 - TY-1 FR, CL	C=.61	8.7	701.95	707.00
*333 STA 134+75.5, 51' L	6'	2 - TY-1 FR, CL	C=.61	17.7	703.68	707.25



RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES



ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN

FILE NAME = Q:\1001_25368367_US 34 at CN Ph2\Drawings\Roadway\Drainage\Utility\Outlet Control Structure Details.dgn



USER NAME = URS	DESIGNED - MB	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - KJB	REVISED -
PLOT DATE = 02/28/2014	CHECKED - SPF	REVISED -
	DATE - 02/28/2014	REVISED -

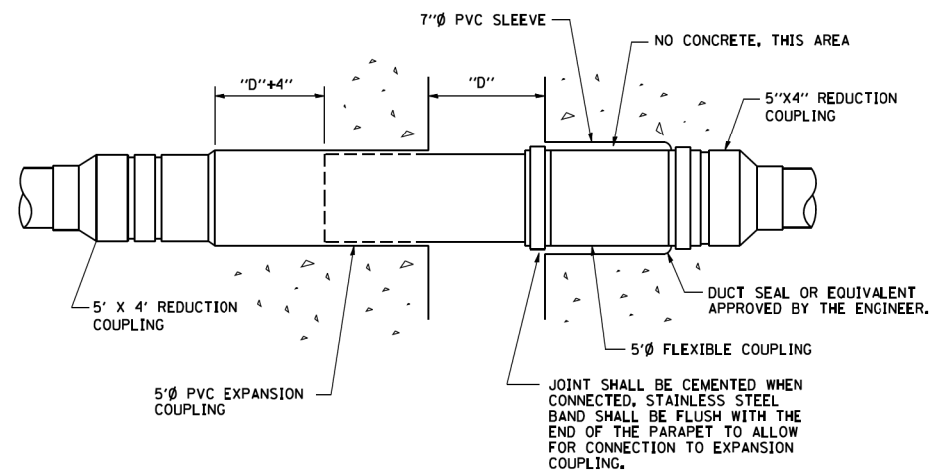
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OUTLET CONTROL STRUCTURE DETAILS

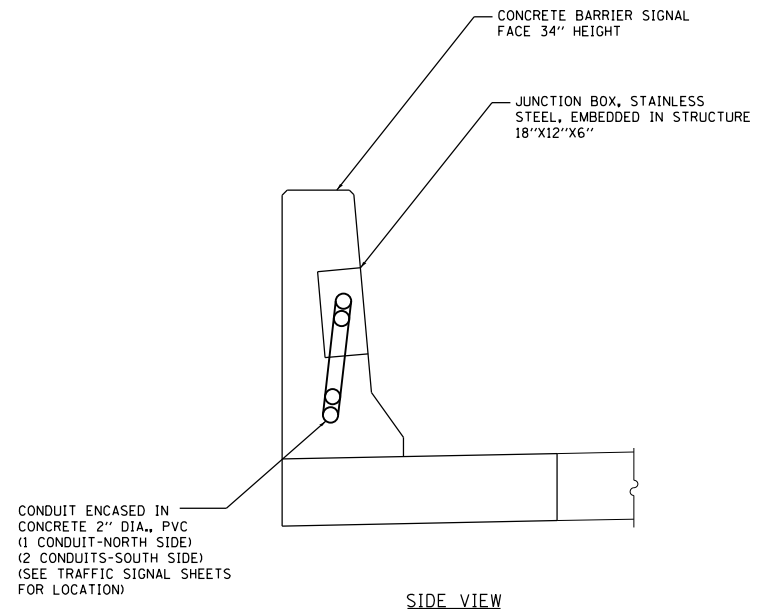
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

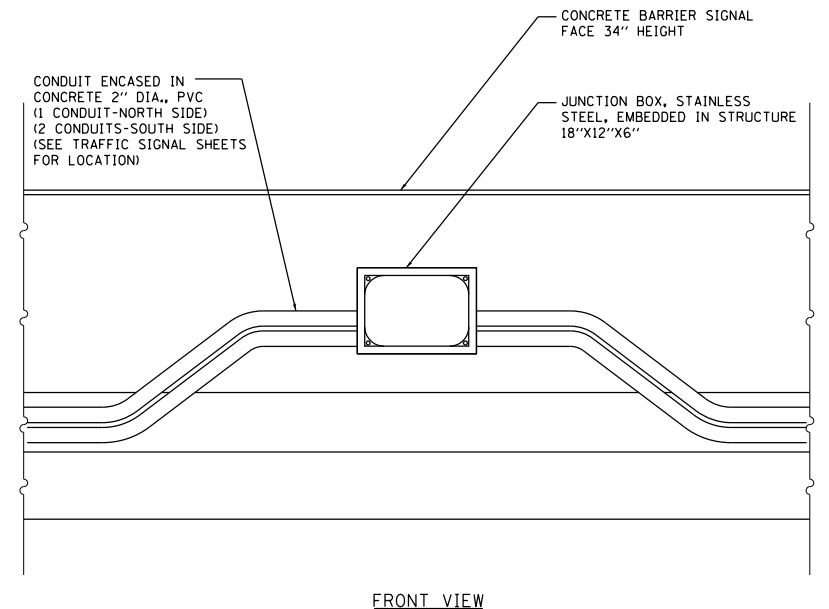
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**INSTALLATION OF CONDUIT
IN BRIDGE PARAPET EXPANSION JOINT
(N.T.S.)**



SIDE VIEW



FRONT VIEW

JUNCTION BOX AND CONDUIT EMBEDDED IN CONCRETE BARRIER SINGLE FACE, 34" HEIGHT



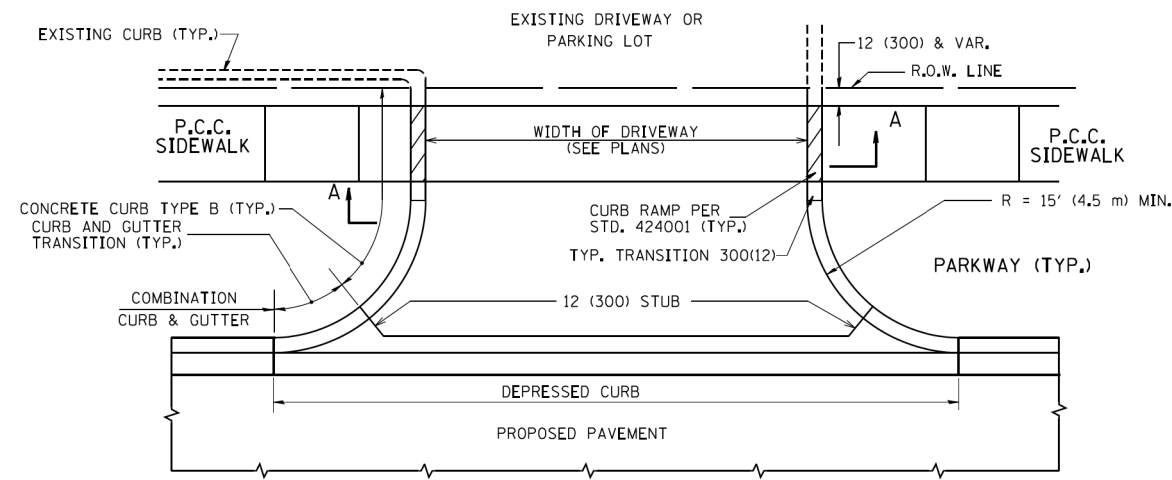
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	DRAWN - KJB	REVISED -
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PLOT DATE = 02/28/2014	DATE - 02/28/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

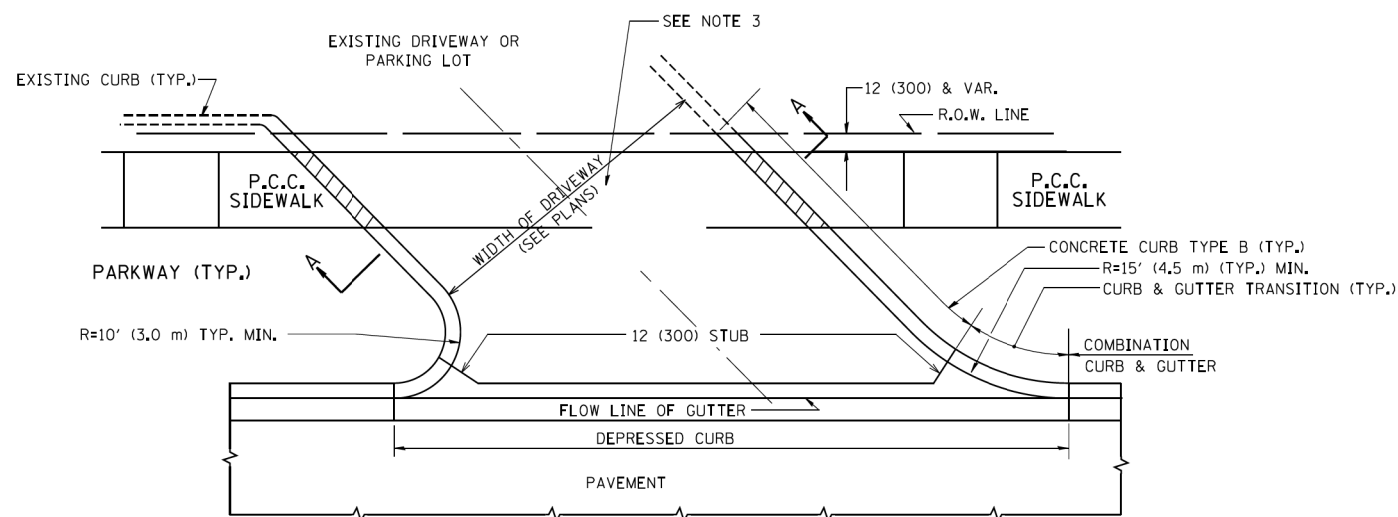
**MISCELLANEOUS ELECTRICAL DETAILS
J BOX EMBEDDED IN BARRIER WALL - INSTALLATION OF
CONDUIT IN BRIDGE PARRAPET EXPANSION JOINT**

SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

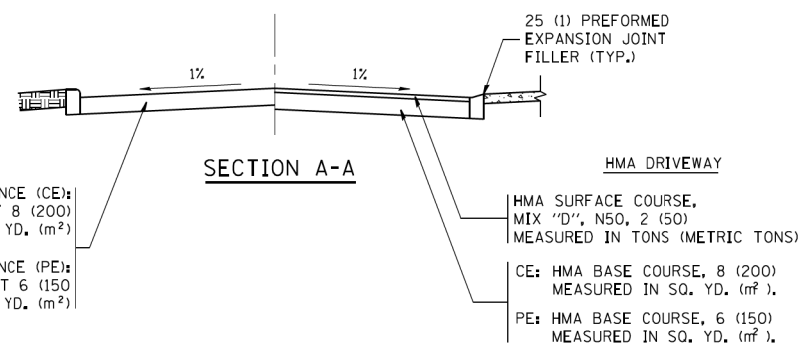
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	295
CONTRACT NO. 60R06				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



WITH CONCRETE CURB, TYPE B

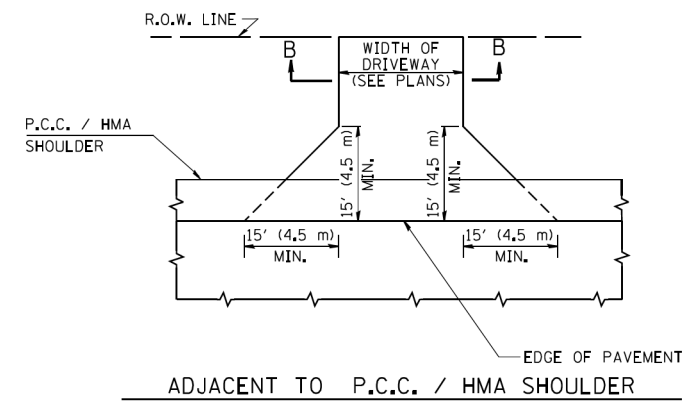


WITH CONCRETE CURB, TYPE B

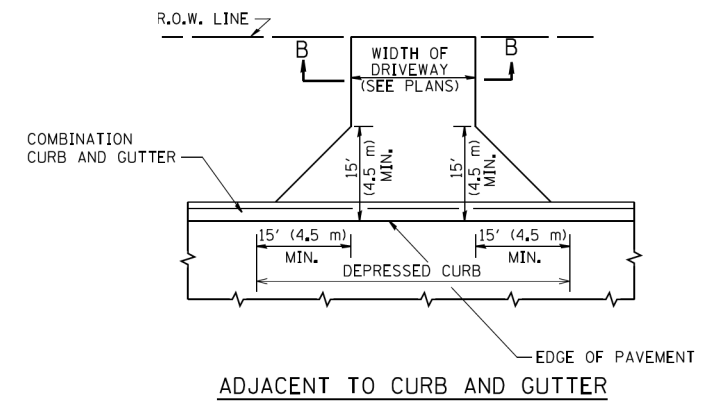


RIGID DRIVEWAY
 COMMERCIAL ENTRANCE (CE):
 P.C.C. DRIVEWAY PAVEMENT 8 (200)
 MEASURED IN SQ. YD. (m²)
 NON-COMMERCIAL ENTRANCE (PE):
 P.C.C. DRIVEWAY PAVEMENT 6 (150)
 MEASURED IN SQ. YD. (m²)

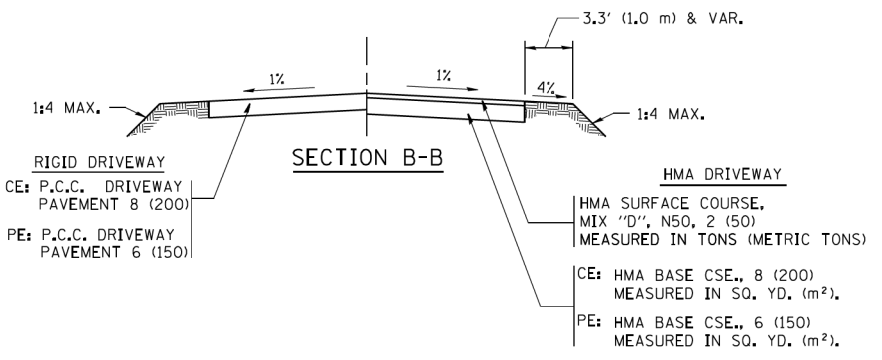
HMA DRIVEWAY
 HMA SURFACE COURSE,
 MIX "D", N50, 2 (50)
 MEASURED IN TONS (METRIC TONS)
 CE: HMA BASE COURSE, 8 (200)
 MEASURED IN SQ. YD. (m²).
 PE: HMA BASE COURSE, 6 (150)
 MEASURED IN SQ. YD. (m²).



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)
 HMA SURFACE COURSE,
 MIX "D", N50, 2 (50)
 MEASURED IN TONS (METRIC TONS)
 AGGREGATE BASE CSE., TYPE B, 8 (200)
 MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

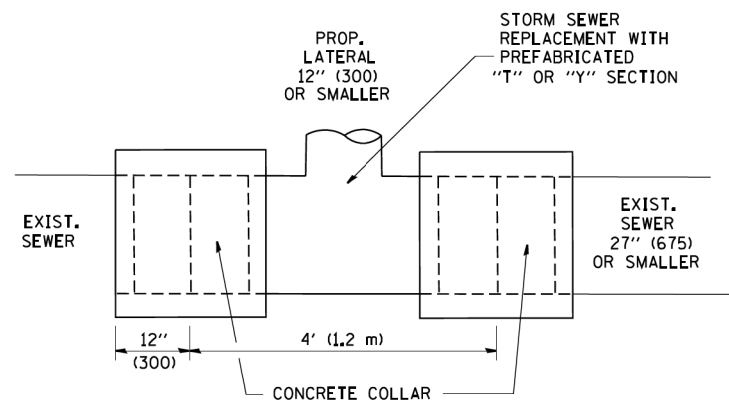
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

FILE NAME =	USER NAME = leysa	DESIGNED - R. SHAH	REVISED - P. LoFLUER 04-15-03
ca:\p\work\p\dot\1eysa\d0108315\bd01.dgn		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50,0000' / 1"	CHECKED -	REVISED - R. BORO 06-11-08
	PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R. BORO 09-06-11

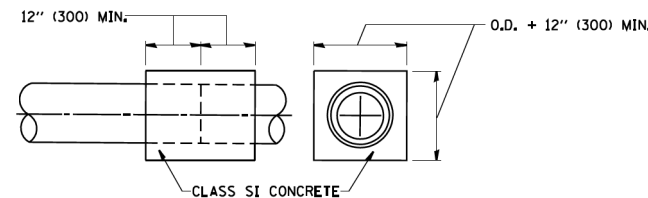
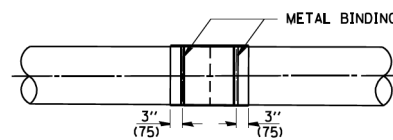
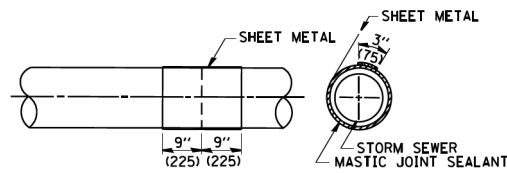
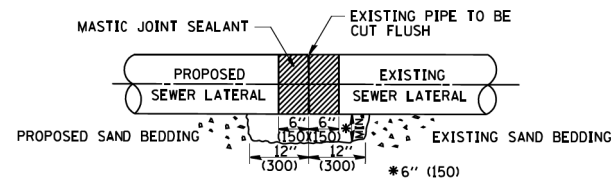
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	296
BD0156-07 (BD-01)			CONTRACT NO. 60R06	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



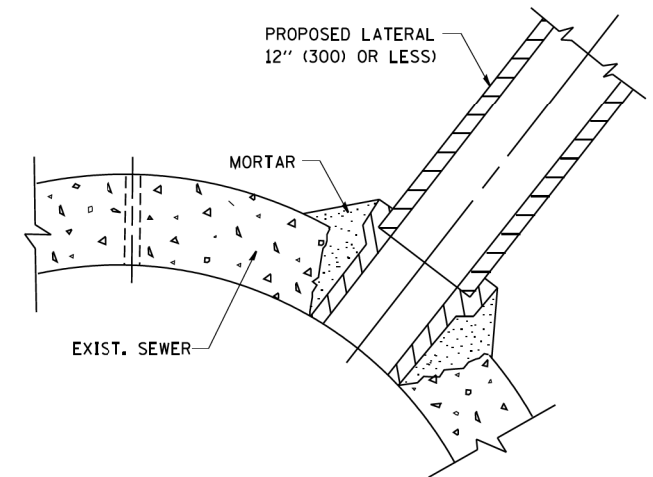
DETAIL "A"
LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER



DETAIL "B"
CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1,1 (0,0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OZZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"
PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

- A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
- B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

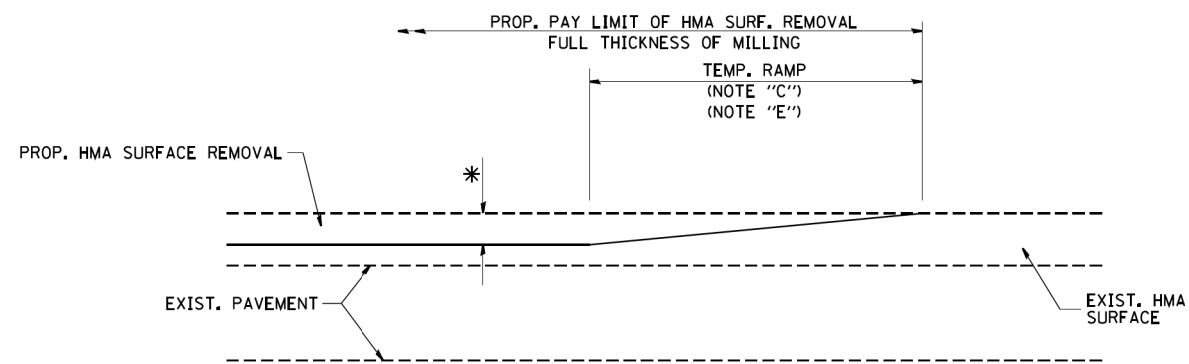
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

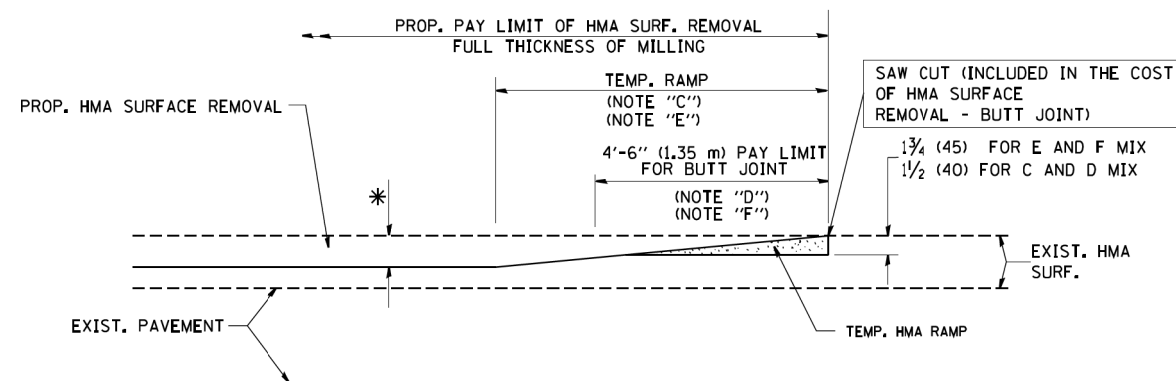
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. SHAH 09-09-94		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BD500-01 (BD-7)		CONTRACT NO. 60R06	
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 10-25-94						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
			REVISED - R. SHAH 06-12-96									



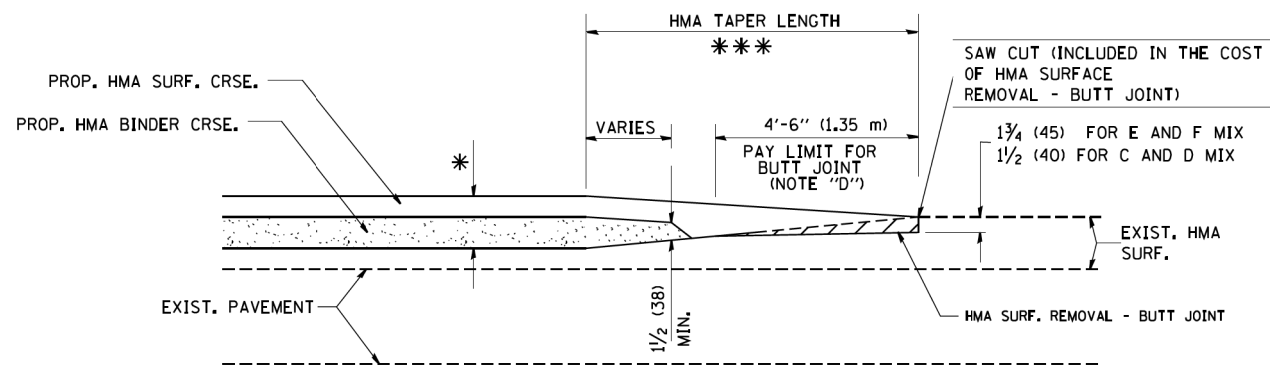
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

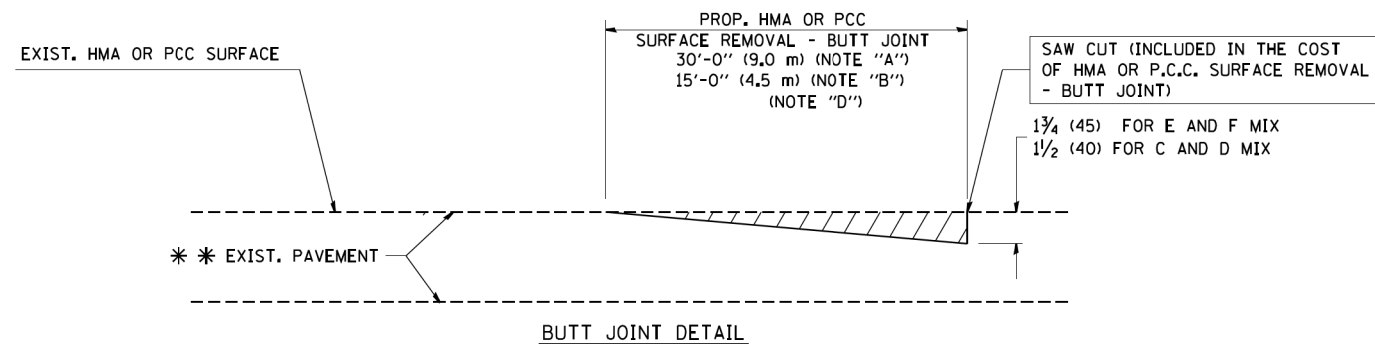


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

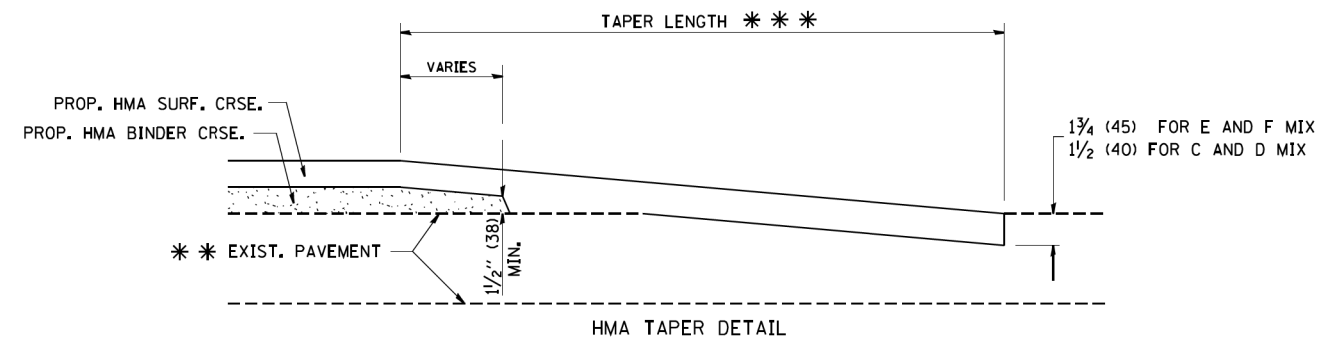
OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- * * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

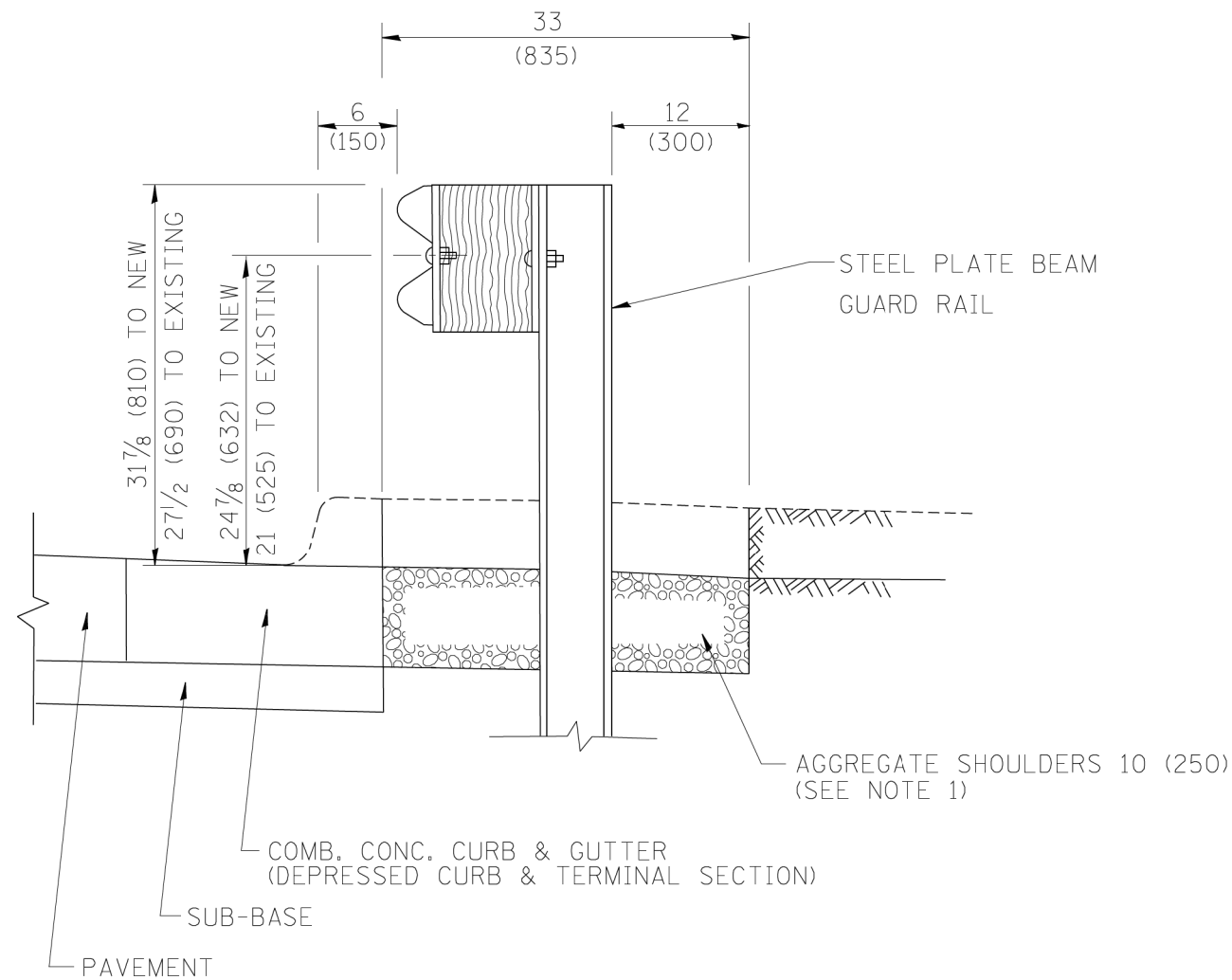
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		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 58.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER DETAILS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

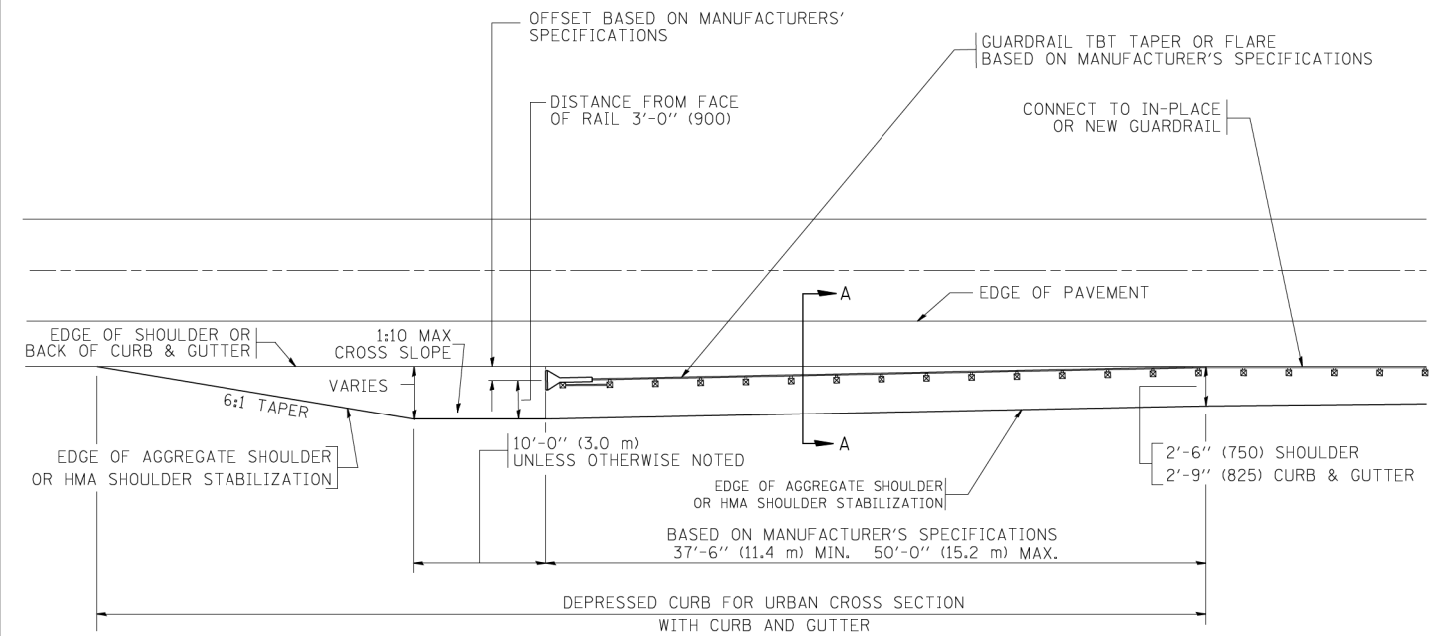
F.A.P. RTE. 311	SECTION 652-A	COUNTY DUPAGE	TOTAL SHEETS 383	SHEET NO. 298
BD400-05 BD32			CONTRACT NO. 60R06	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
 2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
 3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



**DEPRESSED CURB AND GUTTER AND
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - M. DE YONG	REVISED - E. GOMEZ 08-28-00
ca:\pwwork\pwidot\DRIVAKOSGN\d0108315\134.dgn		DRAWN -	REVISED - R. BORO C1-01-07
	PLOT SCALE = 49,9999 ' / IN.	CHECKED -	REVISED - R. BORO 12-08-2008
	PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO C9-14-2009

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND
SHOULDER TREATMENT AT TBT TY 1 SPL.**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	652-A	DUPAGE	383	299
BD600-10 (BD 34)			CONTRACT NO. 60R06	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

GENERAL NOTES

ALTERNATE MATERIAL FOR THE WALLS MAY BE CONCRETE MASONRY UNITS, PRECAST REINFORCED CONCRETE SECTIONS OR CAST-IN-PLACE CONCRETE. THE CAST IRON STEPS AS DETAILED HEREON ARE TYPICAL. STEPS OF OTHER DESIGN AND MATERIAL THAT CONFORM TO THE MINIMUM REQUIREMENTS OF THE STEPS SHOWN MAY BE USED WHEN APPROVED BY THE ENGINEER.

CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ARTICLE 1006.14 OF THE STANDARD SPECIFICATIONS.

STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF THREE (3) INCHES. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.

STEPS SHALL BE OMITTED FOR WORK IN COOK COUNTY WHEN THE DEPTH OF THE MANHOLE IS TEN (10') OR LESS.

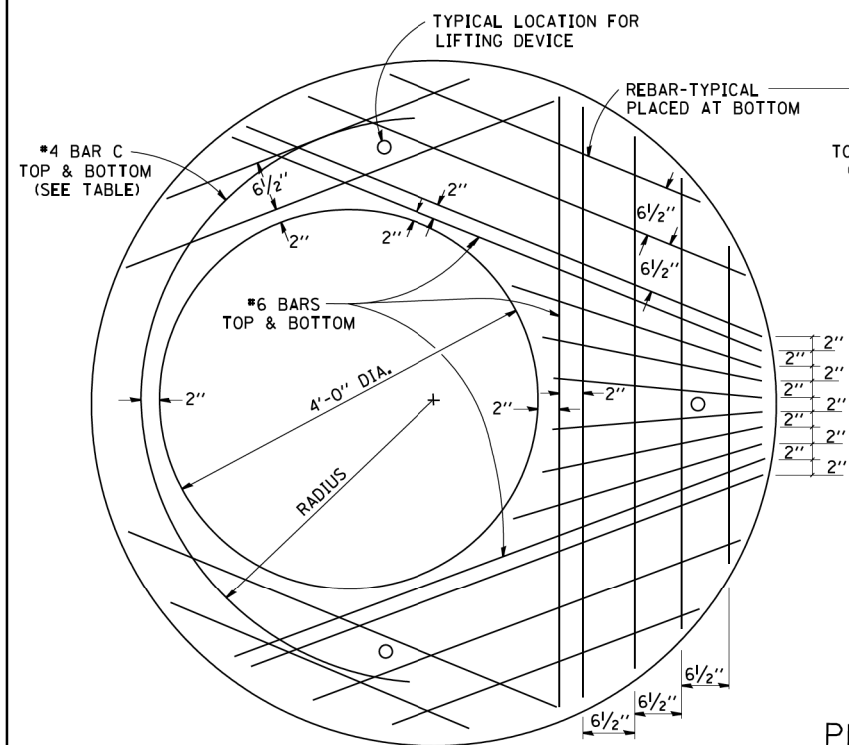
IN ADDITION TO THE REQUIREMENTS OF ARTICLE 612.13 OF THE STANDARD SPECIFICATIONS, THE CONTRACT UNIT PRICE FOR MANHOLES, TYPE A, 7'-DIAMETER SHALL INCLUDE THE SAND CUSHION WHEN REQUIRED, FURNISHING AND INSTALLING STEPS WHEN REQUIRED, FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL, AND FURNISHING AND INSTALLING FLAT SLAB TOP.

PRECAST FLAT SLAB TOP SHALL CONFORM TO ARTICLES 505.01 THRU 505.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE CONCRETE STRENGTH SHALL BE 4,000 PSI AFTER 28 DAYS. REINFORCEMENT BARS AND WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.10. ONLY GRADE 60 REINFORCEMENT BARS WILL BE PERMITTED.

BOTTOM SLAB SHALL BE REINFORCED BY EITHER REINFORCEMENT BARS OR WELDED WIRE FABRIC. THE MINIMUM REINFORCEMENT SHALL BE 0.46 SQUARE INCH PER LINEAR FOOT IN BOTH DIRECTIONS.

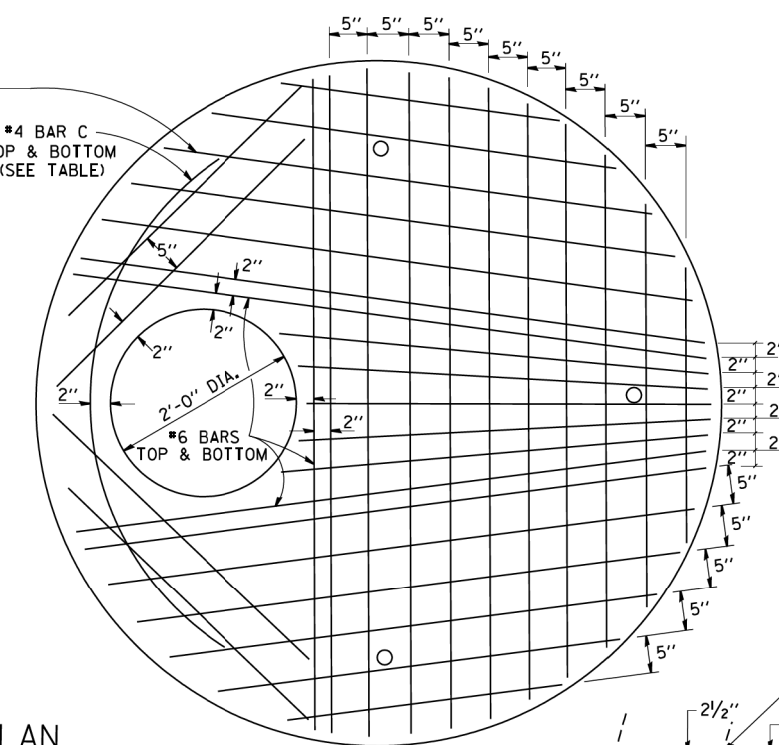
JOINT CONFIGURATION AND DIMENSIONS OF FLAT SLAB TOP SHALL MATCH AND FIT THE RISER JOINT DETAIL.

LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.

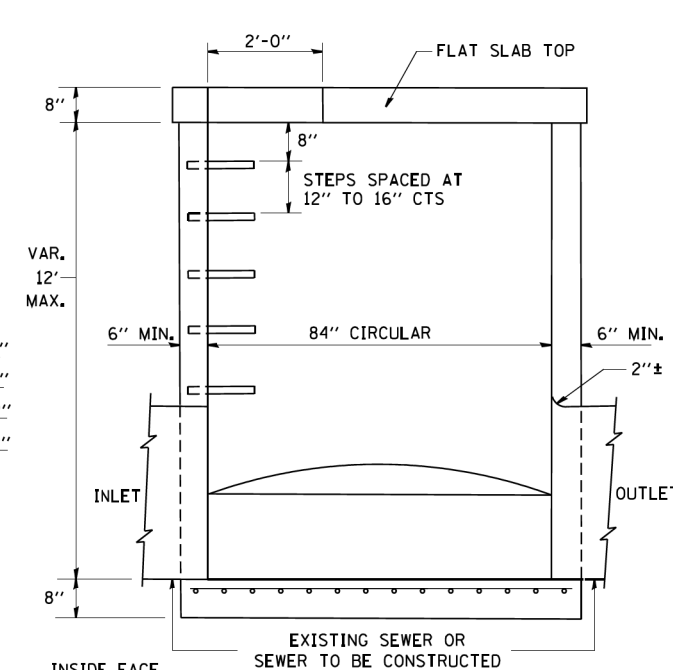


PLAN

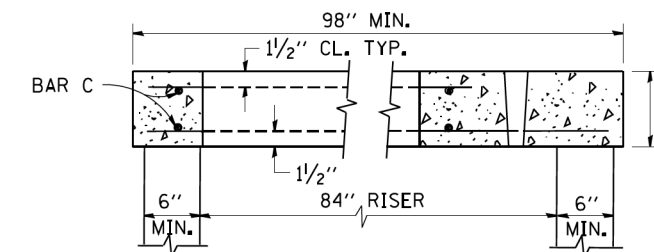
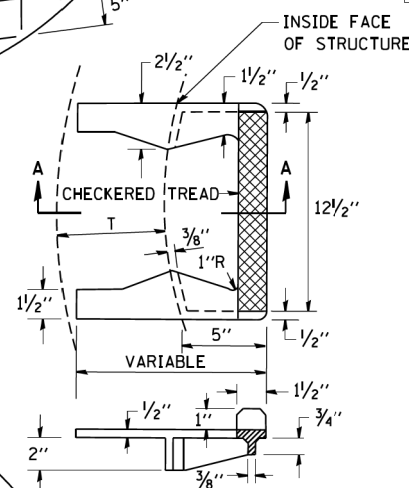
SHOWING REBAR REINFORCEMENT



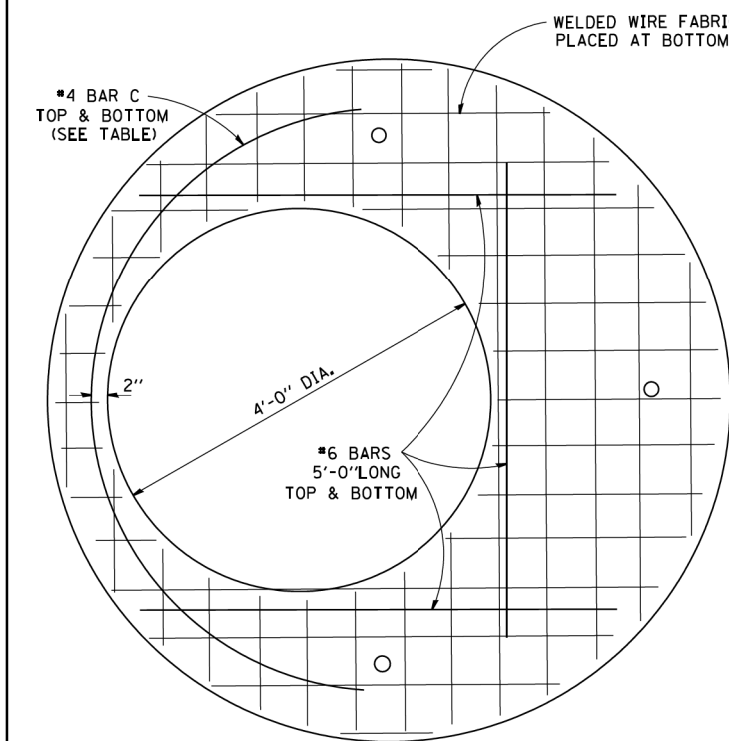
**SEC. A-A
CAST IRON STEPS**



ELEVATION



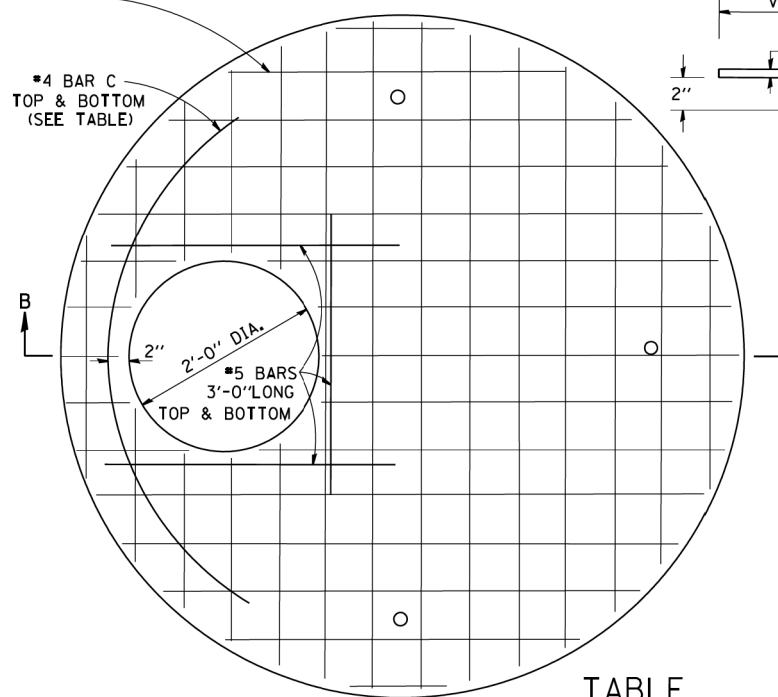
SECTION B-B



PLAN

SHOWING WELDED WIRE FABRIC REINFORCEMENT

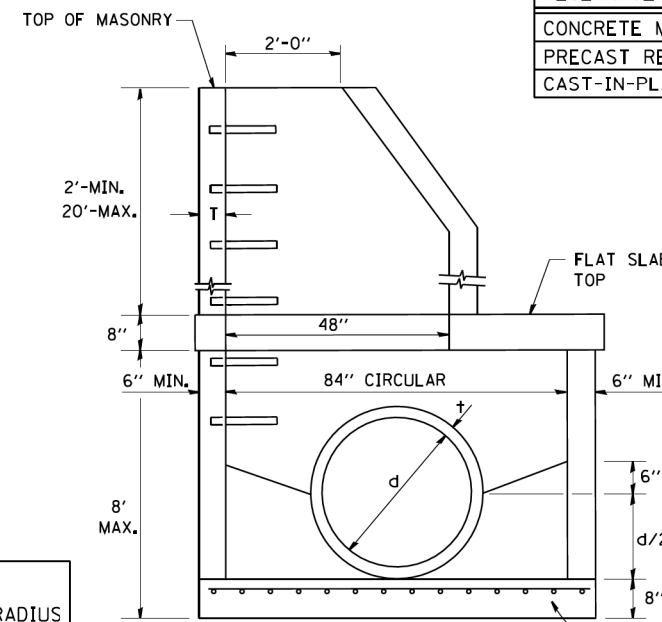
NOTE: THIS STRUCTURE SHOULD BE USED WITH PIPES SIZE 54" DIA. OR SMALLER.



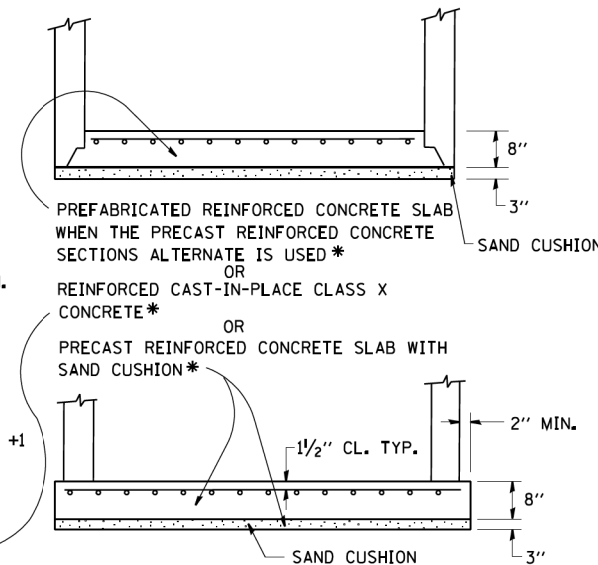
TABLE

DIAMETER OF OPENING	REINFORCEMENT "A _S " WWF OR BAR SIZE EACH DIRECTION	BAR SIZE	BAR C		
			SIZE	LENGTH	RADIUS
2'-0"	1.06 SQ.IN./LIN.FT.	#6	#4	6'-0"	38"
4'-0"	0.82 SQ.IN./LIN.FT.	#6	#4	9'-0"	38"

ALTERNATE MATERIALS FOR RISERS	T (MIN.)
CONCRETE MASONRY UNITS	5"
PRECAST REINFORCED CONCRETE SECTIONS	4"
CAST-IN-PLACE CONCRETE	6"



ELEVATION



PREFABRICATED REINFORCED CONCRETE SLAB WHEN THE PRECAST REINFORCED CONCRETE SECTIONS ALTERNATE IS USED *

OR REINFORCED CAST-IN-PLACE CLASS X CONCRETE *

OR PRECAST REINFORCED CONCRETE SLAB WITH SAND CUSHION *

FILE NAME = W:\distad\22x34\bd37.dgn

USER NAME = geglianobt
PLOT SCALE = 58.0000' / IN.
PLOT DATE = 1/4/2008

DESIGNED -
DRAWN -
CHECKED -
DATE - 10-18-02

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: NONE
SHEET NO. 1 OF 1 SHEETS

**MANHOLE TYPE A
7 FOOT DIAMETER**

STA. TO STA.

F.A.P. 311
SECTION 652-A
COUNTY DUPAGE
TOTAL SHEETS 383
SHEET NO. 300
CONTRACT NO. 60R06
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT