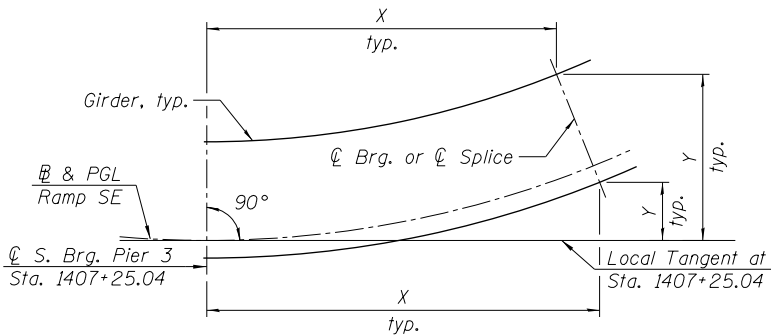


GIRDER COORDINATES - UNIT 2

(All dimensions in feet)

Girder	℄ S. Brg. Pier 3		℄ Splice 2-1		℄ Brg. Pier 4		℄ Splice 2-2		℄ Splice 2-3		℄ Brg. Pier 5		℄ Splice 2-4		℄ W. Brg. Pier 6	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
1	0.000	21.917	57.987	30.119	74.789	35.750	91.053	42.784	127.086	64.973	140.688	76.330	152.146	87.586	179.744	124.191
2	0.000	15.458	59.778	23.914	77.099	29.719	93.865	36.970	131.012	59.845	145.034	71.553	156.846	83.157	185.296	120.892
3	0.000	9.000	61.570	17.709	79.409	23.688	96.678	31.156	134.937	54.716	149.379	66.775	161.545	78.727	190.848	117.593
4	0.000	2.542	63.361	11.504	81.719	17.657	99.490	25.343	138.863	49.588	153.725	61.998	166.245	74.297	196.400	114.294
5	0.000	-3.917	65.152	5.299	84.029	11.626	102.303	19.529	142.788	44.460	158.071	57.220	170.944	69.867	201.952	110.995



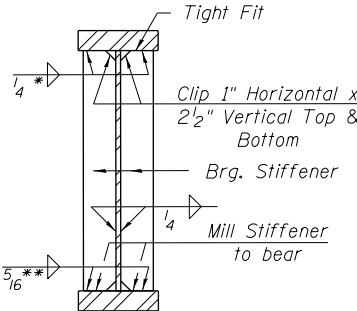
CURVED GIRDER LAYOUT

(X Measured along Local Tangent)

TOP OF WEB ELEVATIONS - UNIT 2

(For fabrication use only)

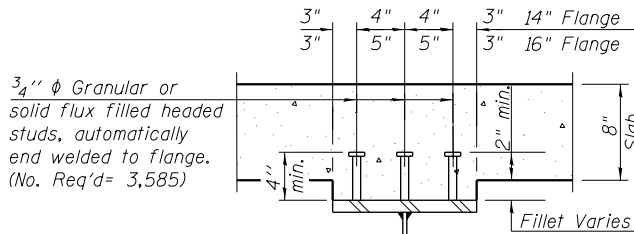
Girder	℄ S. Brg. Pier 3	℄ Splice 2-1	℄ Brg. Pier 4	℄ Splice 2-2	℄ Splice 2-3	℄ Brg. Pier 5	℄ Splice 2-4	℄ W. Brg. Pier 6
1	604.29	603.31	603.01	602.70	602.00	601.71	601.44	600.70
2	604.65	603.69	603.37	603.06	602.36	602.07	601.81	601.06
3	605.02	604.06	603.74	603.42	602.72	602.44	602.17	601.42
4	605.37	604.42	604.09	603.76	603.07	602.78	602.53	601.78
5	605.73	604.79	604.45	604.11	603.43	603.15	602.89	602.14



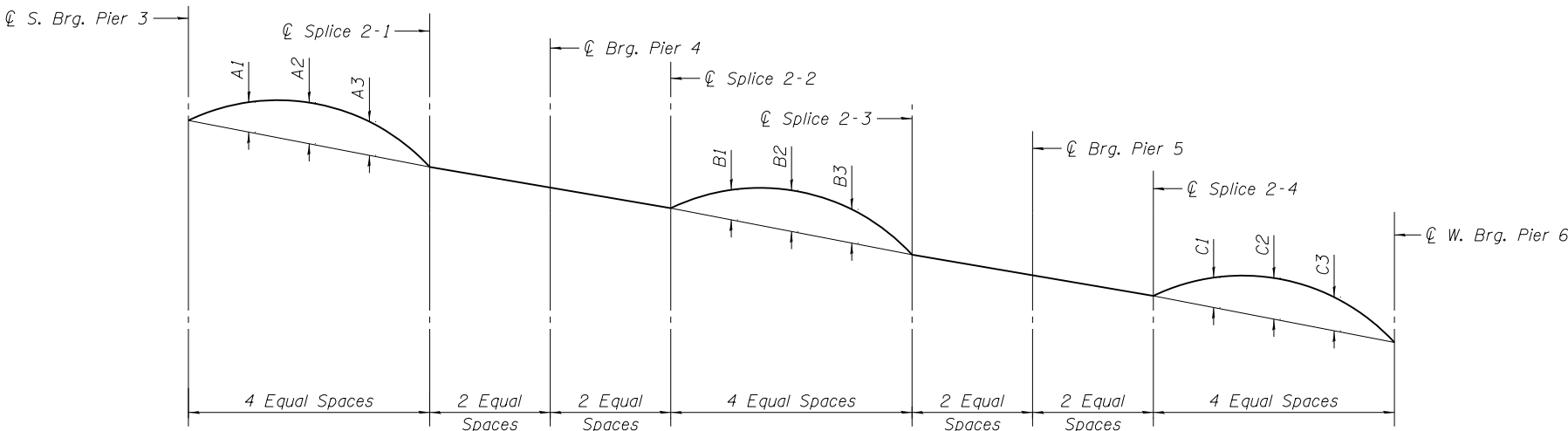
SECTION AT PIER

* Use 5/16" weld for Girders 4 and 5 at Piers 4 and 5.

** Use 1/4" weld for Girders 1 through 3 at Pier 6.



SECTION A-A



CAMBER DIAGRAM - UNIT 2

5:41:08 PM 0161714-60X93-S041-Struct_SteelDet22.dgn



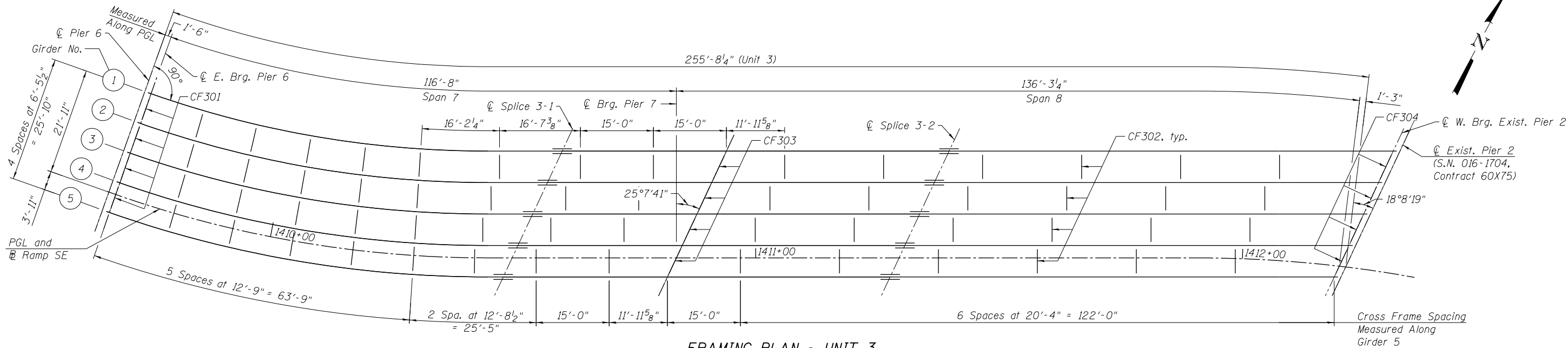
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	CHECKED - ZTW	REVISED
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PLOT DATE = 7/26/2018	CHECKED - JRM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

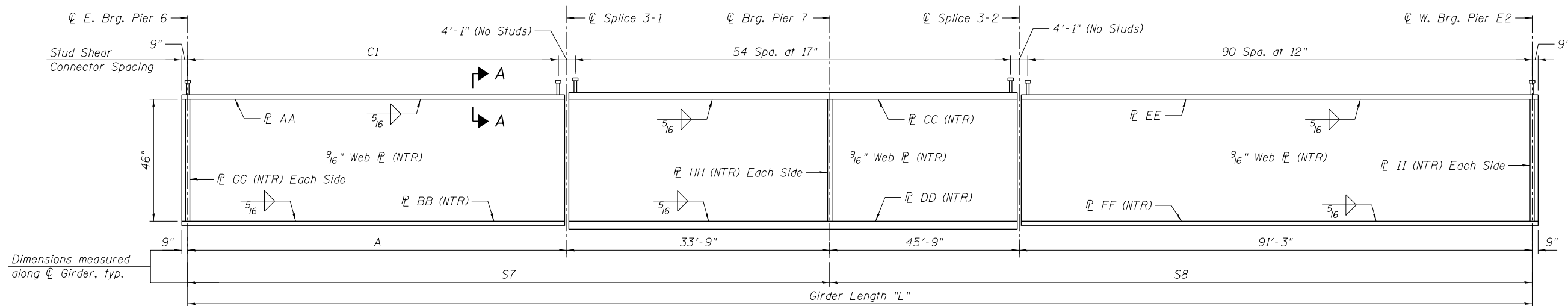
STRUCTURAL STEEL DETAILS 2 – UNIT 2
STRUCTURE NO. 016-1714

SHEET NO. S2-41 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	701
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



FRAMING PLAN - UNIT 3



GIRDER ELEVATION - UNIT 3

PLATE GIRDER DIMENSIONS - UNIT 3

Girder	AA	BB	CC	DD	EE	FF	GG	HH	II
All	1"x20"	1 1/4"x20"	2 1/8"x20"	2 3/8"x20"	1"x20"	1"x20"	7/8"x9"	7/8"x9"	7/8"x9"

GIRDER DIMENSIONS - UNIT 3
(All dimensions in feet)

Girder	Radius	L*	S7	S8	A	C1
1	209.083	256.548	119.548	137.000	85.798	63 Spa. at 16"
2	215.542	255.697	118.697	137.000	84.947	63 Spa. at 16"
3	222.000	254.846	117.846	137.000	84.096	62 Spa. at 16"
4	228.458	253.996	116.995	137.000	83.245	70 Spa. at 14"
5	234.917	253.145	116.145	137.000	82.395	65 Spa. at 15"

* Girder Length "L" excludes girder ends beyond first & last bearings.

Notes:
All structural steel shall be AASHTO M 270, Grade 50.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
For Section A-A, see Sheet S2-44 of S2-82.
For cross frame details, see Sheet S2-46 of S2-82.
Girder spacings and cross frame orientations are radial to the R Ramp SE, except at C Brg. Pier 7 and C Brg. Exist. Pier 2 where the C Brg. and cross frame orientations are parallel to the respective centerline of supports.

5:41:12 PM
0161714-60X93-S042-FramePlan3.dgn



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	CHECKED - ZTW	REVISED
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PLOT DATE = 7/26/2018	CHECKED - JRM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER FRAMING PLAN - UNIT 3
STRUCTURE NO. 016-1714

SHEET NO. S2-42 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	702
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

5:41:15 PM
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		CHECKED -	ZTW	REVISED
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PLOT DATE =	7/26/2018	CHECKED -	JRM	REVISED

STATE OF ILLINOIS
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STRUCTURAL STEEL DETAILS 1 – UNIT 3
STRUCTURE NO. 016–1714

SHEET NO. S2-43 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	703
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

EXTERIOR GIRDER 1 MOMENT TABLE - UNIT 3				
	0.4 Sp. 7	Pier 7	0.6 Sp. 8	
I_s	(in ⁴) 29,361	56,860	26,656	
$I_c(n)$	(in ⁴) 61,859	-	54,835	
$I_c(3n)$	(in ⁴) 44,819	-	40,288	
$I_c(cr)$	(in ⁴) -	61,694	-	
S_s	(in ³) 1,302	2,341	1,111	
$S_c(n)$	(in ³) 1,678	-	1,439	
$S_c(3n)$	(in ³) 1,525	-	1,306	
$S_c(cr)$	(in ³) -	2,408	-	
S_{xc}	(in ³) 83	158	67	
$DC1$	(k/')	0.80	0.94	0.78
M_{DC1}	('k)	295	2,206	1,100
$DC2$	(k/')	0.24	0.24	0.24
M_{DC2}	('k)	107	690	346
DW	(k/')	0.26	0.26	0.26
M_{DW}	('k)	83	553	319
$M_{\frac{1}{2}} + 1M$	('k)	1,132	1,955	1,517
f_t (Strength I)	('k)	6.04	0.80	1.07
$M_u + \frac{1}{3} f_t S_{xc}$	('k)	2622	7875	4943
$\phi_f M_n$	('k)	-	-	-
f_s DC1	(ksi)	2.72	11.31	11.88
f_s DC2	(ksi)	0.84	3.44	3.18
f_s DW	(ksi)	0.65	2.76	2.93
f_s ($\frac{1}{4} + 1M$)	(ksi)	8.10	9.74	12.65
f_t (Service II)	(ksi)	1.12	0.12	0.15
$f_s + \frac{f_t}{2}$ (Service II)	(ksi)	15.30	30.23	34.51
$0.95R_h F_{yr}$	(ksi)	47.50	47.50	47.50
$f_s + \frac{f_t}{3}$ (Total)(Strength I)	(ksi)	21.61	39.88	45.72
$\phi_r F_n$	(ksi)	50.00	50.00	50.00
V_r	(k)	35.70	43.36	39.65

EXTERIOR GIRDER 5 MOMENT TABLE - UNIT 3				
	0.4 Sp. 7	Pier 7	0.6 Sp. 8	
I_s	(in ⁴) 29,361	56,860	26,656	
$I_c(n)$	(in ⁴) 61,859	-	54,835	
$I_c(3n)$	(in ⁴) 44,819	-	40,288	
$I_c(cr)$	(in ⁴) -	61,694	-	
S_s	(in ³) 1,302	2,341	1,111	
$S_c(n)$	(in ³) 1,678	-	1,439	
$S_c(3n)$	(in ³) 1,525	-	1,306	
$S_c(cr)$	(in ³) -	2,408	-	
S_{xc}	(in ³) 83	158	67	
$DC1$	(k/')	0.80	0.94	0.78
M_{DC1}	('k)	840	2,584	969
$DC2$	(k/')	0.24	0.24	0.24
M_{DC2}	('k)	215	746	309
DW	(k/')	0.26	0.26	0.26
M_{DW}	('k)	244	651	289
$M_{\frac{1}{2}} + 1M$	('k)	1,732	2,117	1,636
f_t (Strength I)	('k)	12.26	1.18	1.42
$M_u + \frac{1}{3} f_t S_{xc}$	('k)	4743	8849	4895
$\phi_f M_n$	('k)	-	-	-
f_s DC1	(ksi)	7.74	13.25	10.47
f_s DC2	(ksi)	1.69	3.72	2.83
f_s DW	(ksi)	1.92	3.24	2.65
f_s ($\frac{1}{4} + 1M$)	(ksi)	12.39	10.55	13.64
f_t (Service II)	(ksi)	3.42	0.38	0.05
$f_s + \frac{f_t}{2}$ (Service II)	(ksi)	29.16	34.11	33.71
$0.95R_h F_{yr}$	(ksi)	47.50	47.50	47.50
$f_s + \frac{f_t}{3}$ (Total)(Strength I)	(ksi)	40.42	44.92	44.94
$\phi_r F_n$	(ksi)	50.00	50.00	50.00
V_r	(k)	36.95	33.94	42.40

INTERIOR GIRDER 3 MOMENT TABLE - UNIT 3				
	0.4 Sp. 7	Pier 7	0.6 Sp. 8	
I_s	(in ⁴) 29,361	56,860	26,656	
$I_c(n)$	(in ⁴) 66,879	-	59,033	
$I_c(3n)$	(in ⁴) 48,448	-	43,427	
$I_c(cr)$	(in ⁴) -	63,151	-	
S_s	(in ³) 1,302	2,341	1,111	
$S_c(n)$	(in ³) 1,712	-	1,469	
$S_c(3n)$	(in ³) 1,564	-	1,340	
$S_c(cr)$	(in ³) -	2,427	-	
S_{xc}	(in ³) 83	158	67	
$DC1$	(k/')	0.95	1.10	0.93
M_{DC1}	('k)	572	2,489	1,105
$DC2$	(k/')	0.24	0.24	0.24
M_{DC2}	('k)	174	461	257
DW	(k/')	0.26	0.26	0.26
M_{DW}	('k)	183	672	346
$M_{\frac{1}{2}} + 1M$	('k)	1,243	1,754	1,482
f_t (Strength I)	('k)	8.31	0.84	1.64
$M_u + \frac{1}{3} f_t S_{xc}$	('k)	3402	7769	4817
$\phi_f M_n$	('k)	-	-	-
f_s DC1	(ksi)	5.27	12.76	11.94
f_s DC2	(ksi)	1.34	2.28	2.30
f_s DW	(ksi)	1.41	3.32	3.10
f_s ($\frac{1}{4} + 1M$)	(ksi)	8.71	8.67	12.10
f_t (Service II)	(ksi)	2.28	0.15	0.04
$f_s + \frac{f_t}{2}$ (Service II)	(ksi)	20.48	29.71	33.09
$0.95R_h F_{yr}$	(ksi)	47.50	47.50	47.50
$f_s + \frac{f_t}{3}$ (Total)(Strength I)	(ksi)	28.39	39.24	44.16
$\phi_r F_n$	(ksi)	50.00	50.00	50.00
V_r	(k)	31.12	33.94	39.14

EXTERIOR GIRDER 1 REACTION TABLE - UNIT 3				
	E. Brg. Pier 6	Pier 7	W. Brg. Ex. Pier 2	
R_{DC1}	(k) 20.2	149.4	42.2	
R_{DC2}	(k) 11.0	62.2	21.6	
R_{DW}	(k) 4.8	36.2	11.0	
$R_{\frac{1}{2}} + 1M$	(k) 66.7	148.8	56.6	
R_{Total}	(k) 102.7	396.6	131.4	

INTERIOR GIRDER 3 REACTION TABLE - UNIT 3				
	E. Brg. Pier 6	Pier 7	W. Brg. Ex. Pier 2	
R_{DC1}	(k) 34.7	166.8	45.5	
R_{DC2}	(k) 6.1	20.5	5.0	
R_{DW}	(k) 10.9	46.6	14.6	
$R_{\frac{1}{2}} + 1M$	(k) 78.3	141.8	76.9	
R_{Total}	(k) 129.9	375.7	142.1	

EXTERIOR GIRDER 5 REACTION TABLE - UNIT 3				
	E. Brg. Pier 6	Pier 7	W. Brg. Ex. Pier 2	
R_{DC1}	(k) 43.6	168.0	39.4	
R_{DC2}	(k) 16.2	65.2	19.2	
R_{DW}	(k) 12.0	41.5	10.9	
$R_{\frac{1}{2}} + 1M$	(k) 69.8	144.0	72.8	
R_{Total}	(k) 141.7	418.7	142.2	

I_s , S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short term composite live loads (in.⁴ and in.³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

S_{xc} : Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.³).

$DC1$: Un-factored non-composite dead load (kips/ft.).

M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).

$DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_{\frac{1}{2}} + 1M$: Un-factored live load moment plus dynamic load allowance (Impact)(kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\frac{1}{2}} + 1M$

f_t : Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (kip-ft.).

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).

M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).

$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).

$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s ($\frac{1}{4} + 1M$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).

$M_{\frac{1}{2}} + 1M / S_c(n)$ or $M_{\frac{1}{2}} + 1M / S_c(cr)$ as applicable.

$f_s + \frac{f_t}{2}$ (Service II): Sum of stresses as computed below (ksi).

$f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (\frac{1}{4} + 1M) + \frac{f_t}{2}$

$0.95R_h F_{yr}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

$f_s + \frac{f_t}{3}$ (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).

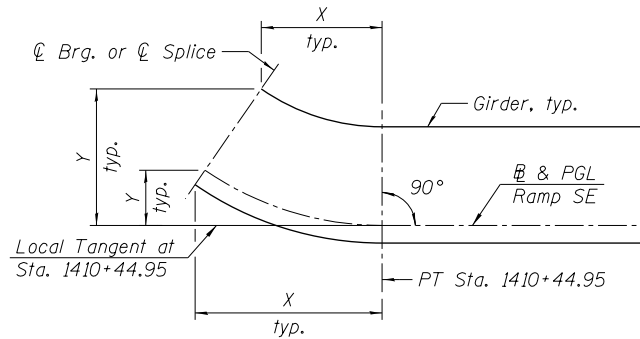
$1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (\frac{1}{4} + 1M) + \frac{f_t}{3}$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_r : Maximum factored shear range in span computed according to Article 6.10.10.

Note:

$M_{\frac{1}{2}}$ and $R_{\frac{1}{2}}$ include the effects of centrifugal force and superelevation.



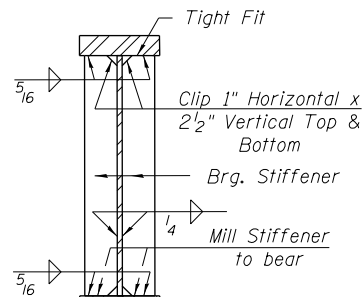
CURVED GIRDER LAYOUT
(X Measured along Local Tangent)

GIRDER COORDINATES - UNIT 3
(All dimensions in feet)

Girder	ϕ E. Brg. Pier 6	
	X	Y
1	-69.194	33.698
2	-71.332	27.604
3	-73.469	21.509
4	-75.606	15.415
5	-77.744	9.321

TOP OF WEB ELEVATIONS - UNIT 3
(For fabrication use only)

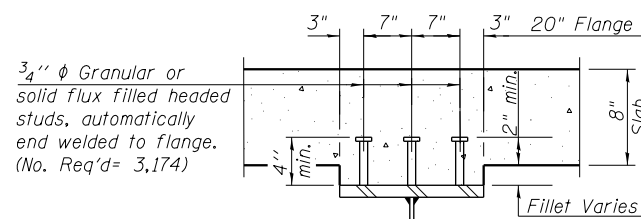
Girder	ϕ E. Brg. Pier 6	ϕ Splice 3-1	ϕ Brg. Pier 7	ϕ Splice 3-2	ϕ W. Brg. Ex. Pier 2
1	600.53	599.68	599.63	599.58	601.63
2	600.89	599.88	599.73	599.52	601.51
3	601.25	600.11	599.84	599.47	601.16
4	601.61	600.35	599.96	599.44	600.78
5	601.97	600.61	600.11	599.42	600.40



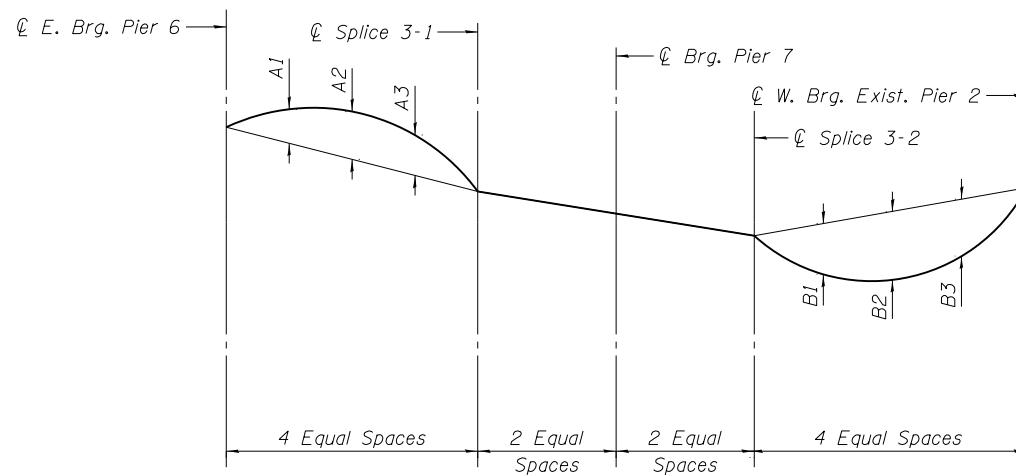
SECTION AT PIER

CAMBER TABLE - UNIT 3

Girder	A1	A2	A3	B1	B2	B3
1	0"	0"	0"	2"	3 1/8"	2 5/8"
2	3/4"	1 7/8"	1 1/2"	2 1/2"	3 1/2"	3"
3	1 1/2"	2 1/2"	2 3/8"	2"	3 5/8"	3 3/8"
4	2 1/4"	3 1/8"	2 3/4"	2"	3 1/2"	3 1/4"
5	3"	3 3/4"	3"	3 1/4"	3 1/2"	3 1/4"



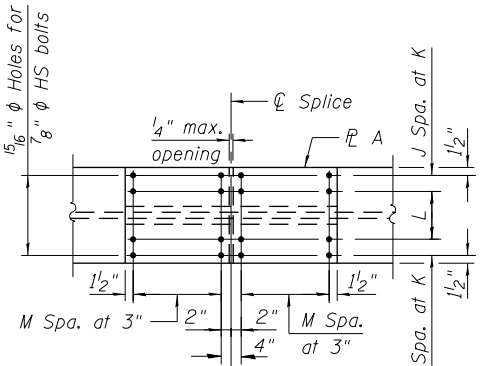
SECTION A-A



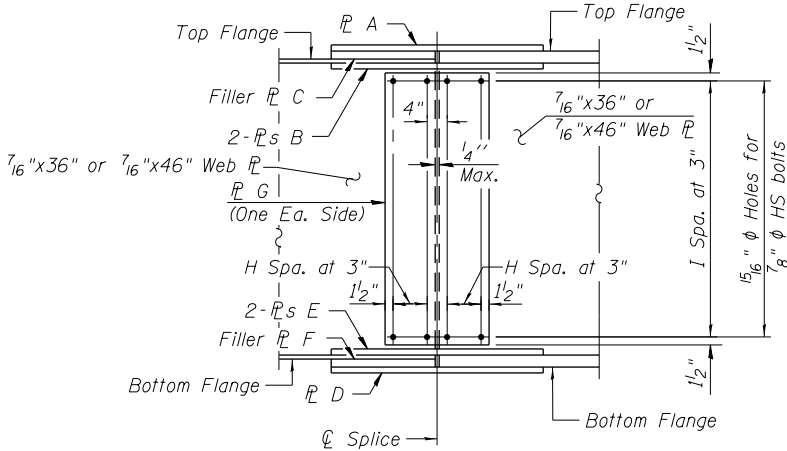
CAMBER DIAGRAM - UNIT 3

SPLICE PLATE SIZES

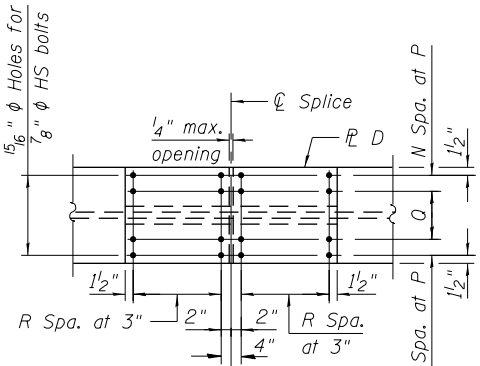
Unit	Girder	Splice	ℙ A	ℙ B	Filler ℙ C	ℙ D	ℙ E	Filler ℙ F	ℙ G
1	1,2,3	1-1	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	$\frac{1}{8}$ " x 1'-2" x 1'-0 $\frac{3}{8}$ "	$\frac{1}{2}$ " x 1'-2" x 2'-7"	$\frac{5}{8}$ " x 6" x 2'-7"	$\frac{1}{4}$ " x 1'-2" x 1'-3 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		1-2	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	$\frac{1}{2}$ " x 1'-2" x 1'-0 $\frac{3}{8}$ "	$\frac{5}{8}$ " x 1'-2" x 3'-1"	$\frac{3}{4}$ " x 6" x 3'-1"	$\frac{1}{2}$ " x 1'-2" x 1'-6 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
	4,5	1-1	$\frac{1}{2}$ " x 1'-4" x 2'-7"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-7"	$\frac{1}{8}$ " x 1'-4" x 1'-3 $\frac{3}{8}$ "	$\frac{1}{2}$ " x 1'-4" x 2'-7"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-7"	$\frac{1}{8}$ " x 1'-4" x 1'-3 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		1-2	$\frac{1}{2}$ " x 1'-4" x 3'-1"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 3'-1"	$\frac{1}{2}$ " x 1'-4" x 1'-6 $\frac{3}{8}$ "	$\frac{1}{8}$ " x 1'-4" x 4'-1"	1" x 6 $\frac{1}{2}$ " x 4'-1"	$\frac{1}{4}$ " x 1'-4" x 2'-0 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
2	1,2,3	2-1	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	N/A	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	$\frac{1}{2}$ " x 1'-2" x 1'-0 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		2-2	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	N/A	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	$\frac{5}{8}$ " x 1'-2" x 1'-0 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		2-3	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	N/A	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	$\frac{1}{4}$ " x 1'-2" x 1'-0 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		2-4	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	N/A	$\frac{1}{2}$ " x 1'-2" x 2'-1"	$\frac{5}{8}$ " x 6" x 2'-1"	$\frac{1}{4}$ " x 1'-2" x 1'-0 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
	4,5	2-1	$\frac{1}{2}$ " x 1'-4" x 2'-1"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-1"	$\frac{1}{8}$ " x 1'-4" x 1'-0 $\frac{3}{8}$ "	$\frac{1}{8}$ " x 1'-4" x 4'-7"	$\frac{1}{4}$ " x 6 $\frac{1}{2}$ " x 4'-7"	$\frac{3}{8}$ " x 1'-4" x 2'-3 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		2-2	$\frac{1}{2}$ " x 1'-4" x 2'-1"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-1"	$\frac{1}{8}$ " x 1'-4" x 1'-0 $\frac{3}{8}$ "	$\frac{5}{8}$ " x 1'-4" x 3'-7"	$\frac{3}{4}$ " x 6 $\frac{1}{2}$ " x 3'-7"	$\frac{3}{4}$ " x 1'-4" x 1'-9 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		2-3	$\frac{1}{2}$ " x 1'-4" x 2'-1"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-1"	$\frac{1}{8}$ " x 1'-4" x 1'-0 $\frac{3}{8}$ "	$\frac{5}{8}$ " x 1'-4" x 2'-7"	$\frac{3}{4}$ " x 6 $\frac{1}{2}$ " x 2'-7"	N/A	$\frac{3}{8}$ " x 1'-7" x 2'-6"
		2-4	$\frac{1}{2}$ " x 1'-4" x 2'-1"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-1"	$\frac{1}{8}$ " x 1'-4" x 1'-0 $\frac{3}{8}$ "	$\frac{1}{2}$ " x 1'-4" x 2'-7"	$\frac{5}{8}$ " x 6 $\frac{1}{2}$ " x 2'-7"	$\frac{1}{8}$ " x 1'-4" x 1'-3 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 2'-6"
3	All	3-1	$\frac{1}{2}$ " x 1'-8" x 3'-7"	$\frac{5}{8}$ " x 8 $\frac{1}{2}$ " x 3'-7"	$\frac{1}{8}$ " x 1'-8" x 1'-9 $\frac{3}{8}$ "	$\frac{5}{8}$ " x 1'-8" x 4'-7"	$\frac{3}{4}$ " x 8 $\frac{1}{2}$ " x 4'-7"	$\frac{1}{8}$ " x 1'-8" x 2'-3 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 3'-3"
		3-2	$\frac{1}{2}$ " x 1'-8" x 3'-7"	$\frac{5}{8}$ " x 8 $\frac{1}{2}$ " x 3'-7"	$\frac{1}{8}$ " x 1'-8" x 1'-9 $\frac{3}{8}$ "	$\frac{1}{2}$ " x 1'-8" x 3'-7"	$\frac{5}{8}$ " x 8 $\frac{1}{2}$ " x 3'-7"	$\frac{1}{3}$ " x 1'-8" x 1'-9 $\frac{3}{8}$ "	$\frac{3}{8}$ " x 1'-7" x 3'-3"



PLAN - TOP FLANGE



ELEVATION



PLAN - BOTTOM FLANGE

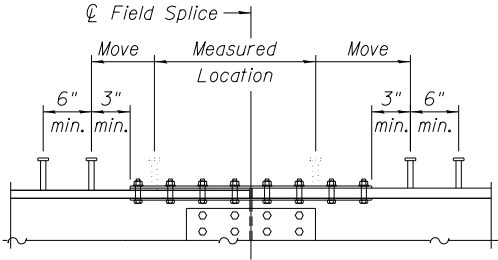
FIELD SPLICE DETAIL

(50 Required)

Notes:
All splice plates, except filler plates, shall comply with NTR.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
All structural steel, except filler plates, shall be AASHTO M 270 Grade 50. Filler plates may be AASHTO M270 Grade 36.

SPLICE BOLT SPACING

Unit	Girder	Splice	H	I	J	K	L	M	N	P	Q	R
1	1,2,3	1-1	2	9	1	3"	5"	3	1	3"	5"	4
		1-2	2	9	1	3"	5"	3	1	3"	5"	5
	4,5	1-1	2	9	1	3 $\frac{1}{2}$ "	6"	4	1	3 $\frac{1}{2}$ "	6"	4
		1-2	2	9	1	3 $\frac{1}{2}$ "	6"	5	1	3 $\frac{1}{2}$ "	6"	7
2	1,2,3	2-1	2	9	1	3"	5"	3	1	3"	5"	3
		2-2	2	9	1	3"	5"	3	1	3"	5"	3
		2-3	2	9	1	3"	5"	3	1	3"	5"	3
		2-4	2	9	1	3"	5"	3	1	3"	5"	3
	4,5	2-1	2	9	1	3 $\frac{1}{2}$ "	6"	3	1	3 $\frac{1}{2}$ "	6"	8
		2-2	2	9	1	3 $\frac{1}{2}$ "	6"	3	1	3 $\frac{1}{2}$ "	6"	6
		2-3	2	9	1	3 $\frac{1}{2}$ "	6"	3	1	3 $\frac{1}{2}$ "	6"	4
		2-4	2	9	1	3 $\frac{1}{2}$ "	6"	3	1	3 $\frac{1}{2}$ "	6"	4
3	All	3-1	2	12	1	5 $\frac{1}{2}$ "	6"	6	1	5 $\frac{1}{2}$ "	6"	8
		3-2	2	12	1	5 $\frac{1}{2}$ "	6"	6	1	5 $\frac{1}{2}$ "	6"	6



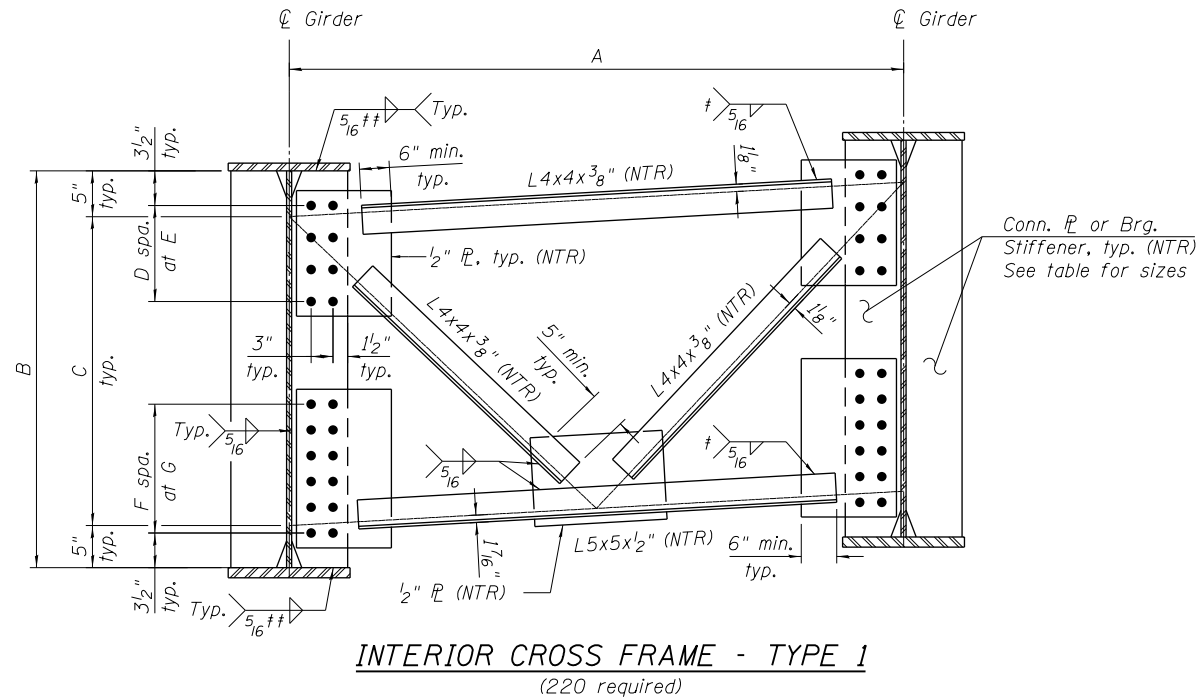
SHEAR CONNECTOR DETAIL AT SPLICE AND FLANGE TRANSITIONS

DO NOT place shear connectors on splice plates.

Move row of studs to 3" beyond nearest edge of splice plate from measured location.

USER NAME = wjcolletti	DESIGNED - WJC	REVISED
	CHECKED - ZTW	REVISED
PLOT SCALE = 0:2.0000 '1" / in.	DRAWN - WJC	REVISED
PLOT DATE = 7/26/2018	CHECKED - JRM	REVISED

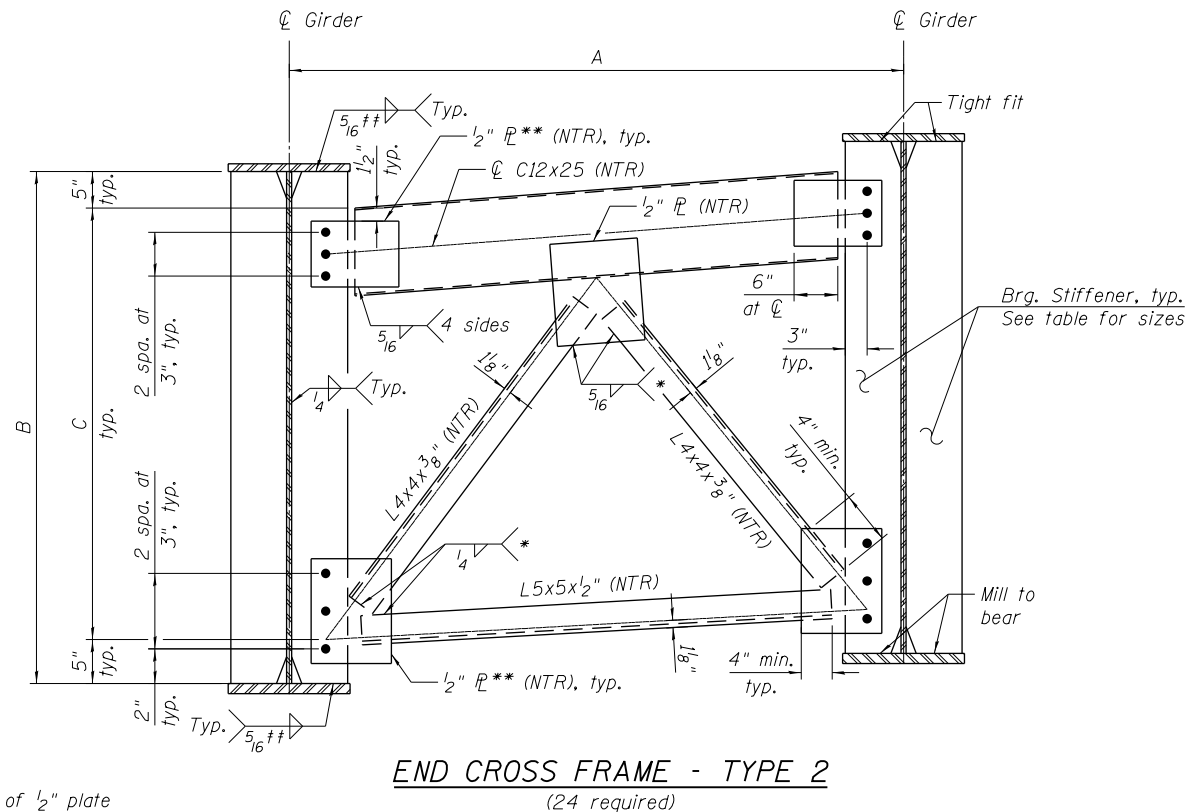
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	705
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



CROSS FRAME TABLE

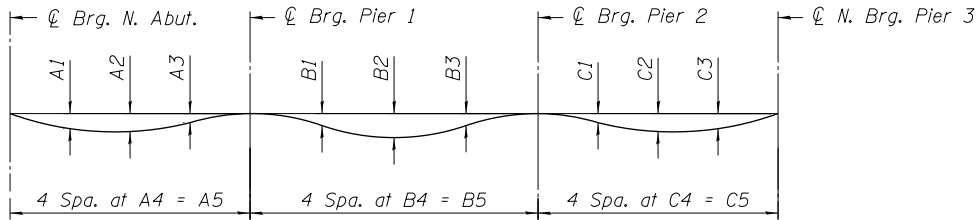
Name	Type	Quantity	A	B	C	D	E	F	G	Connection P or Bearing P	
										1,2,3	4,5
CF101	2	8	6'-5 1/2"	3'-0"	2'-2"	2	3"	2	3"	1/8"x6 1/2"	1/8"x7 1/2"
CF102	1	76	6'-5 1/2"	3'-0"	2'-2"	2	5 1/4"	5	3"	1/2"x6 1/2"	1/2"x7 1/2"
CF103	1	4	6'-6"	3'-0"	2'-2"	2	5 1/4"	5	3"	1/8"x6 1/2"	1/8"x7 1/2"
CF104	1	4	6'-8 1/16"	3'-0"	2'-2"	2	5 1/4"	5	3"	1/8"x6 1/2"	1/8"x7 1/2"
CF201	2	8	6'-5 1/2"	3'-0"	2'-2"	2	3"	2	3"	1/8"x6 1/2"	1/8"x7 1/2"
CF202	1	68	6'-5 1/2"	3'-0"	2'-2"	2	5 1/4"	5	3"	1/2"x6 1/2"	1/2"x7 1/2"
CF203	1	8	6'-5 1/2"	3'-0"	2'-2"	2	5 1/4"	5	3"	1/8"x6 1/2"	1/8"x7 1/2"
CF301	2	4	6'-5 1/2"	3'-10"	3'-0"	2	3"	2	3"	1/8"x9"	1/8"x9"
CF302	1	56	6'-5 1/2"	3'-10"	3'-0"	3	3 1/2"	5	3"	1/2"x9"	1/2"x9"
CF303	1	4	7'-1 5/8"	3'-10"	3'-0"	3	3 1/2"	5	3"	1/8"x9"	1/8"x9"
CF304	2	4	7'-1 5/8"	3'-10"	3'-0"	3	3 1/2"	5	3"	1/8"x9"	1/8"x9"

† Fillet weld angles along 3 sides on one face of gusset plate.
 †† Use 1/4" weld for locations where flange thickness is 3/4".

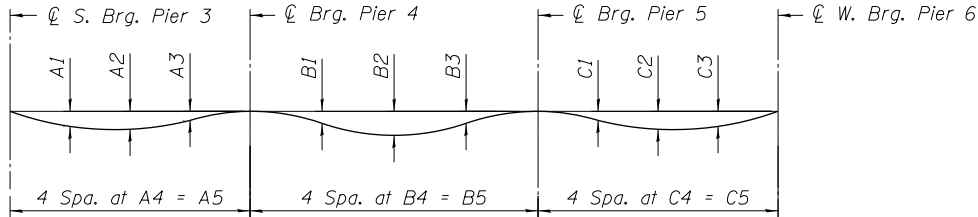


* Weld on near side of 1/2" plate
 ** 1/2" plate to be bent for skewed structures.

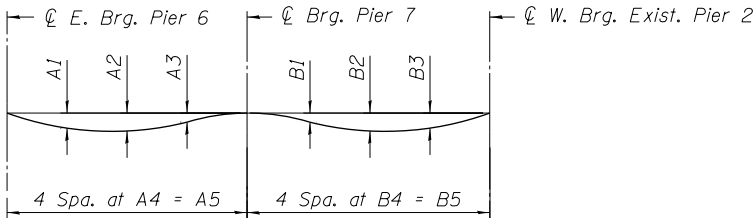
Notes:
 Place cross frame with channel flanges and outstanding angle legs outward from abutment backwall.
 AASHTO M270 Grade 50 steel shall be used for all cross frames, connection plates, and bearing stiffeners.
 Fasteners shall be ASTM A325 Type 1, hot dip galvanized bolts. Bolts 1" φ, holes 1 1/16" φ, unless otherwise noted.
 Bolt edge distances shall be 1 1/2" min., unless otherwise specified.
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
 All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
 No connection plate on exterior side of exterior girders.
 Either of the following shall be provided:
 1. Ream cross frame connection holes during shop assembly, or
 2. Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08 (1) of the Standard Specifications.
 If any field reaming is required, two hardened washers are required for each set of oversized holes.



GIRDER SELF-WEIGHT DEFLECTION DIAGRAM - UNIT 1
(Includes weight of structural steel only.)



GIRDER SELF-WEIGHT DEFLECTION DIAGRAM - UNIT 2
(Includes weight of structural steel only.)



GIRDER SELF-WEIGHT DEFLECTION DIAGRAM - UNIT 3
(Includes weight of structural steel only.)

GIRDER SELF-WEIGHT DEFLECTIONS - UNIT 1

Girder	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1	0"	0"	0"	14'-4 ³ / ₈ "	57'-5 ⁷ / ₁₆ "	1 ¹ / ₈ "	1 ¹ / ₄ "	1 ¹ / ₈ "	22'-4 ⁹ / ₁₆ "	89'-6 ³ / ₁₆ "	0"	1 ¹ / ₈ "	1 ¹ / ₈ "	17'-1 ⁷ / ₁₆ "	68'-5 ³ / ₄ "
2	0"	1 ¹ / ₈ "	0"	15'-0 ¹ / ₈ "	60'-0 ³ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	22'-4 ³ / ₁₆ "	89'-4 ³ / ₄ "	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	18'-2"	72'-8 ¹ / ₁₆ "
3	1 ¹ / ₈ "	1 ¹ / ₈ "	0"	15'-7 ³ / ₁₆ "	62'-7 ³ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	22'-3 ¹ / ₈ "	89'-3 ¹ / ₁₆ "	1 ¹ / ₈ "	1 ¹ / ₄ "	1 ¹ / ₄ "	19'-2 ⁹ / ₁₆ "	76'-10 ⁵ / ₁₆ "
4	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	16'-3 ⁹ / ₁₆ "	65'-2 ⁵ / ₁₆ "	1 ¹ / ₈ "	1 ¹ / ₈ "	0"	22'-3 ⁹ / ₁₆ "	89'-2 ¹ / ₈ "	1 ¹ / ₈ "	3 ¹ / ₈ "	1 ¹ / ₄ "	20'-3 ¹ / ₈ "	81'-0 ¹ / ₂ "
5	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	16'-11 ⁵ / ₁₆ "	67'-9 ¹ / ₄ "	0"	1 ¹ / ₈ "	0"	22'-3 ¹ / ₄ "	89'-0 ¹ / ₈ "	1 ¹ / ₄ "	3 ¹ / ₈ "	3 ¹ / ₈ "	21'-3 ¹ / ₁₆ "	85'-2 ⁵ / ₈ "

GIRDER SELF-WEIGHT DEFLECTIONS - UNIT 2

Girder	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5
1	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	19'-1 ⁷ / ₁₆ "	76'-5 ³ / ₁₆ "	0"	1 ¹ / ₈ "	0"	19'-5 ¹ / ₂ "	77'-10 ¹ / ₁₆ "	0"	1 ¹ / ₈ "	1 ¹ / ₈ "	15'-6"	62'-0"
2	1 ¹ / ₄ "	1 ¹ / ₄ "	1 ¹ / ₈ "	19'-8 ⁹ / ₁₆ "	78'-10 ¹ / ₈ "	0"	1 ¹ / ₈ "	0"	20'-0 ³ / ₄ "	80'-2 ⁵ / ₁₆ "	0"	1 ¹ / ₈ "	1 ¹ / ₈ "	15'-11 ³ / ₄ "	63'-11"
3	1 ¹ / ₄ "	3 ¹ / ₈ "	1 ¹ / ₄ "	20'-3 ³ / ₈ "	81'-2 ¹ / ₂ "	0"	0"	0"	20'-7 ⁵ / ₁₆ "	82'-7 ⁵ / ₁₆ "	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	16'-5 ¹ / ₂ "	65'-10"
4	3 ¹ / ₈ "	1 ¹ / ₂ "	1 ¹ / ₄ "	20'-10 ¹ / ₁₆ "	83'-6 ¹ / ₁₆ "	0"	0"	0"	21'-3 ³ / ₁₆ "	85'-0 ⁵ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	16'-11 ¹ / ₄ "	67'-8 ⁵ / ₁₆ "
5	1 ¹ / ₂ "	5 ¹ / ₈ "	3 ¹ / ₈ "	21'-5 ¹ / ₁₆ "	85'-11 ³ / ₁₆ "	0"	0"	0"	21'-10 ³ / ₈ "	87'-5 ¹ / ₂ "	1 ¹ / ₈ "	1 ¹ / ₄ "	1 ¹ / ₈ "	17'-5"	69'-7 ⁵ / ₁₆ "

GIRDER SELF-WEIGHT DEFLECTIONS - UNIT 3

Girder	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
1	1 ¹ / ₄ "	1 ¹ / ₄ "	0"	29'-10 ⁵ / ₈ "	119'-6 ⁹ / ₁₆ "	5 ¹ / ₈ "	1 ¹ / ₈ "	1"	34'-3"	137'-0"
2	3 ¹ / ₈ "	3 ¹ / ₈ "	1 ¹ / ₈ "	29'-8 ¹ / ₁₆ "	118'-8 ³ / ₈ "	5 ¹ / ₈ "	1 ¹ / ₈ "	1 ¹ / ₈ "	34'-3"	137'-0"
3	3 ¹ / ₈ "	3 ¹ / ₈ "	1 ¹ / ₈ "	29'-5 ⁹ / ₁₆ "	117'-10 ¹ / ₈ "	1 ¹ / ₂ "	1"	1 ¹ / ₈ "	34'-3"	137'-0"
4	1 ¹ / ₂ "	1 ¹ / ₂ "	1 ¹ / ₄ "	29'-3"	116'-11 ⁵ / ₁₆ "	1 ¹ / ₂ "	1"	1 ¹ / ₈ "	34'-3"	137'-0"
5	5 ¹ / ₈ "	5 ¹ / ₈ "	1 ¹ / ₄ "	29'-0 ⁷ / ₁₆ "	116'-1 ³ / ₄ "	3 ¹ / ₈ "	1 ¹ / ₈ "	3 ¹ / ₄ "	34'-3"	137'-0"

Notes:
The calculated deflections of the primary girders under steel self-weight shall be used to detail the cross frame connections, and to erect the structural steel such that girders will be plumb within a tolerance of ±¹/₈ in. per vertical foot throughout the length of the girder system when supporting their own weight.



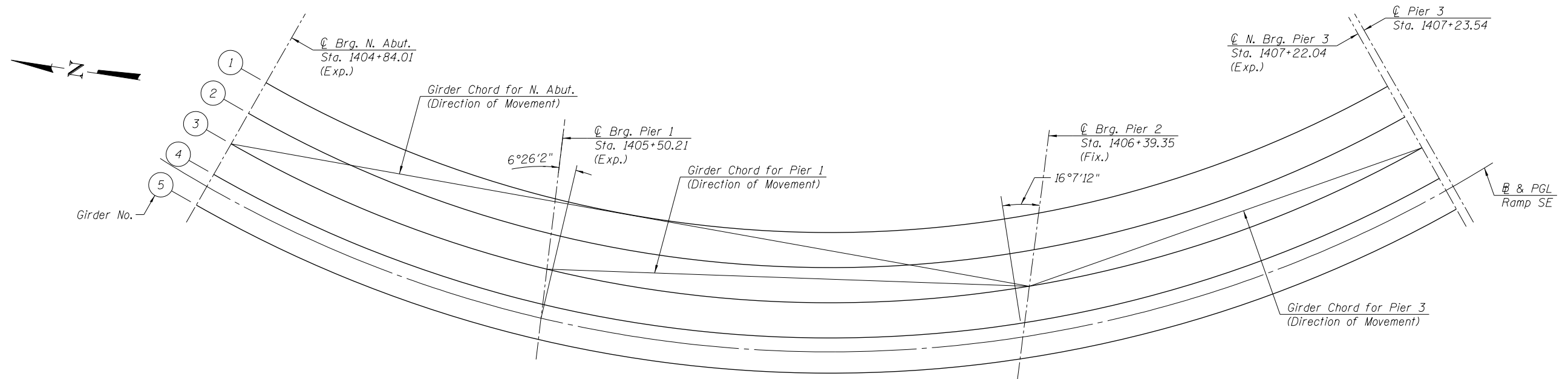
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STATE OF ILLINOIS
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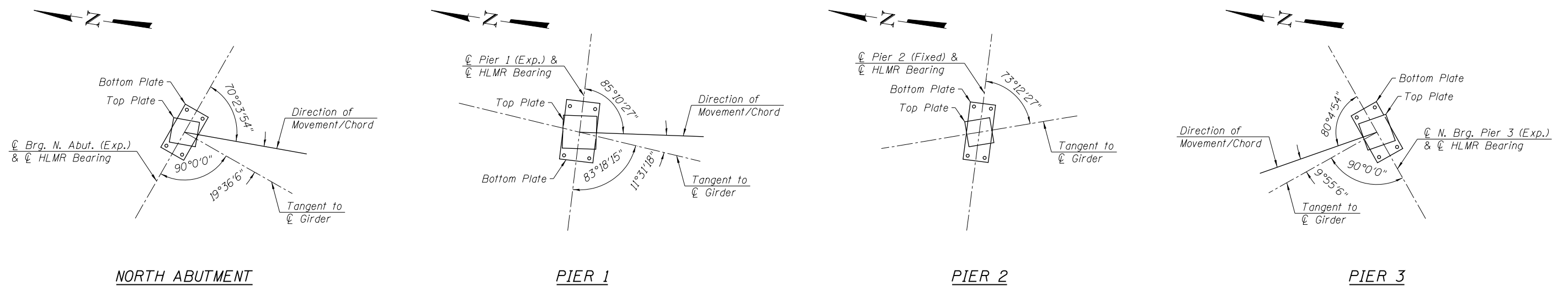
CROSS FRAME DETAILS 2
STRUCTURE NO. 016-1714

SHEET NO. S2-47 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	707
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



BEARING LAYOUT - UNIT 1



BEARING ORIENTATION - UNIT 1

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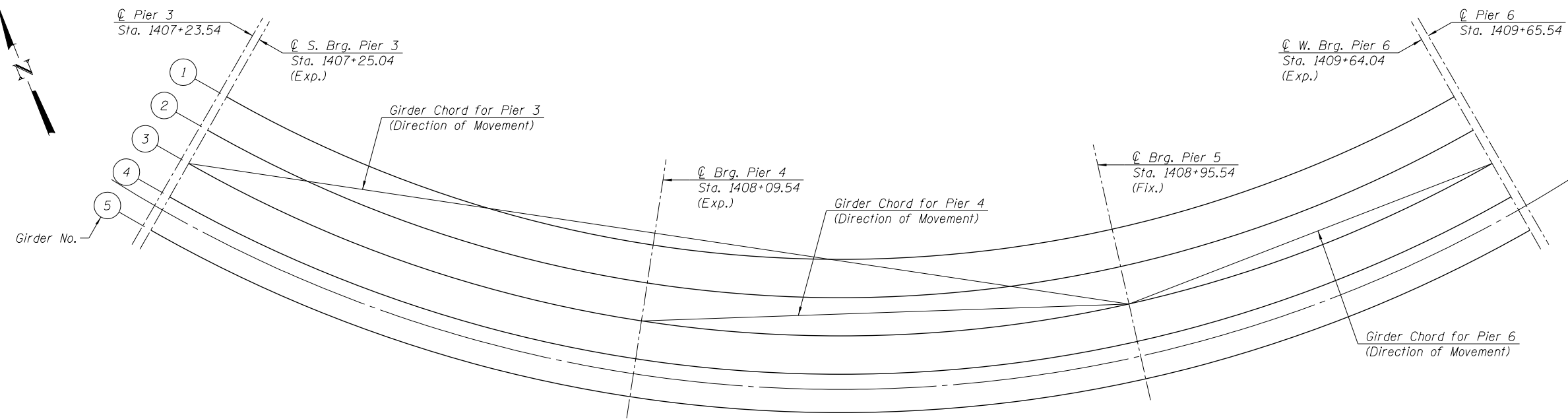
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

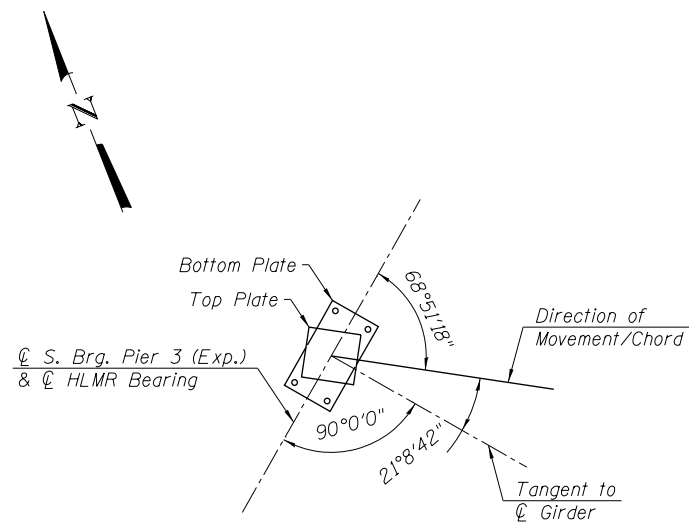
BEARING LAYOUT AND ORIENTATION - UNIT 1
STRUCTURE NO. 016-1714

SHEET NO. S2-48 OF S2-82 SHEETS

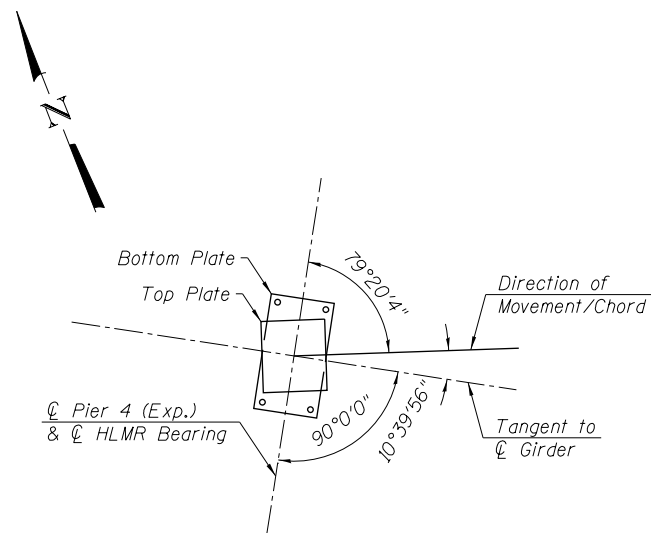
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90/94/290	2014-013 R&B-R	COOK	1972	708
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



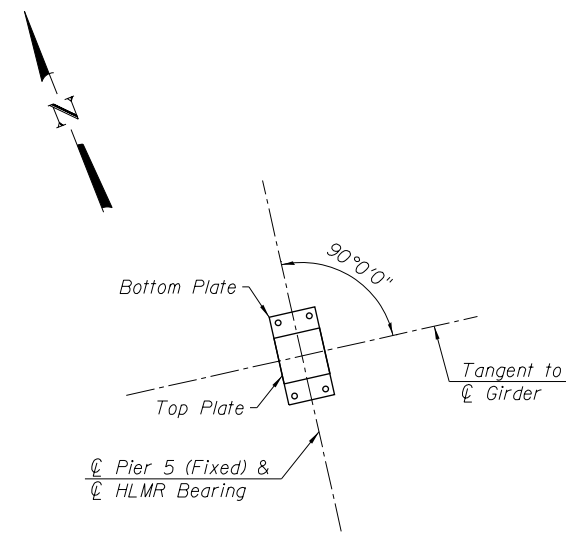
BEARING LAYOUT - UNIT 2



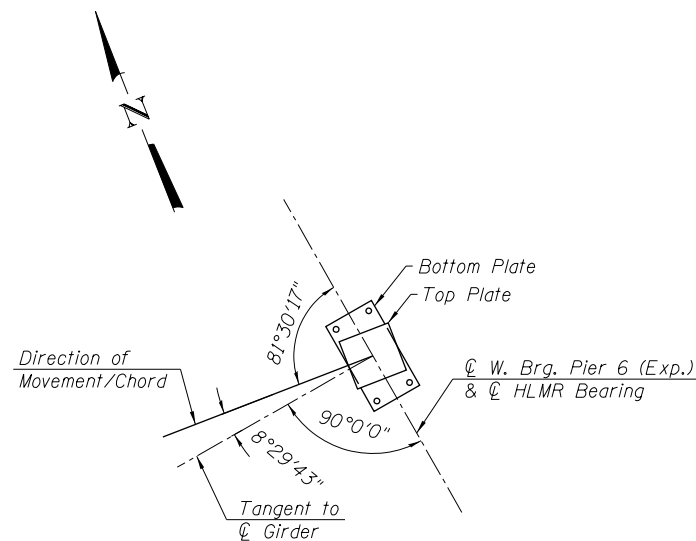
PIER 3



PIER 4



PIER 5



PIER 6

BEARING ORIENTATION - UNIT 2

5:41:33 PM
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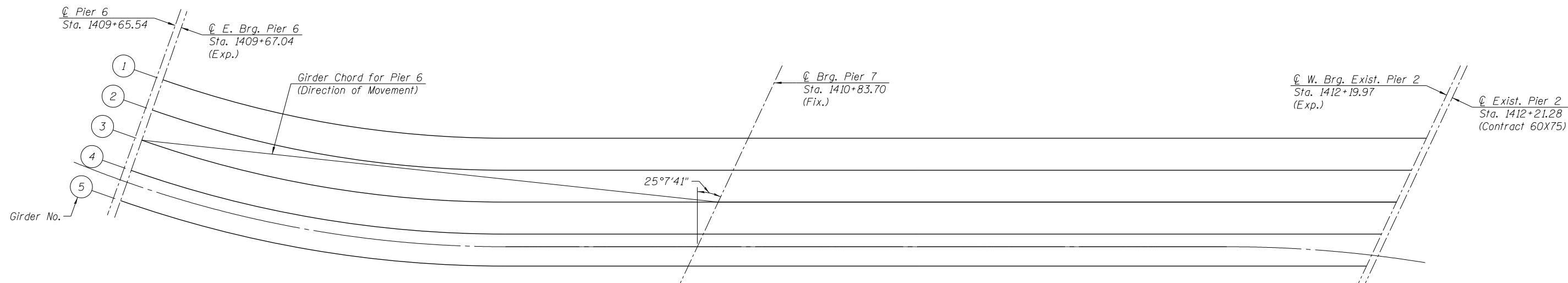
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

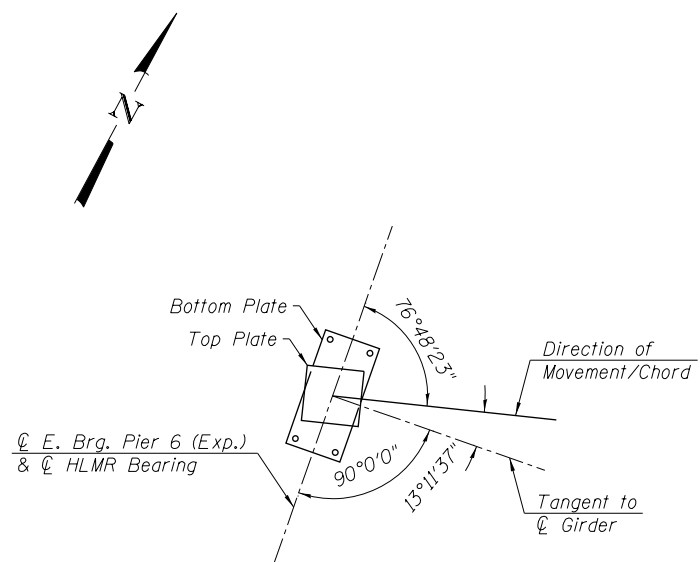
BEARING LAYOUT AND ORIENTATION - UNIT 2
STRUCTURE NO. 016-1714

SHEET NO. S2-49 OF S2-82 SHEETS

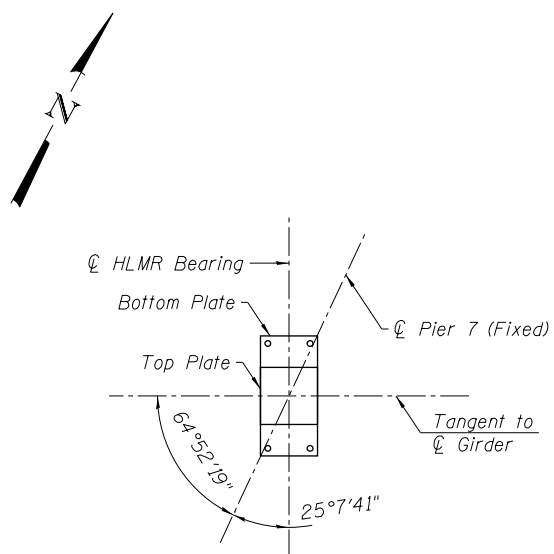
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90/94/290	2014-013 R&B-R	COOK	1972	709
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



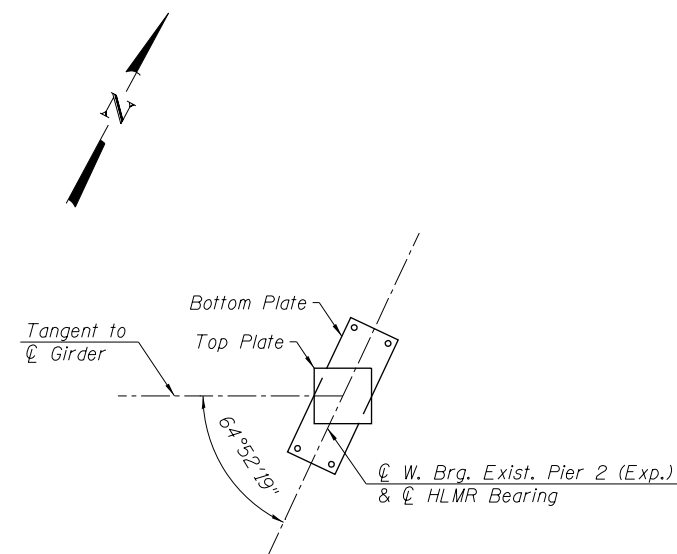
BEARING LAYOUT - UNIT 3



PIER 6



PIER 7



EXISTING PIER 2

BEARING ORIENTATION - UNIT 3

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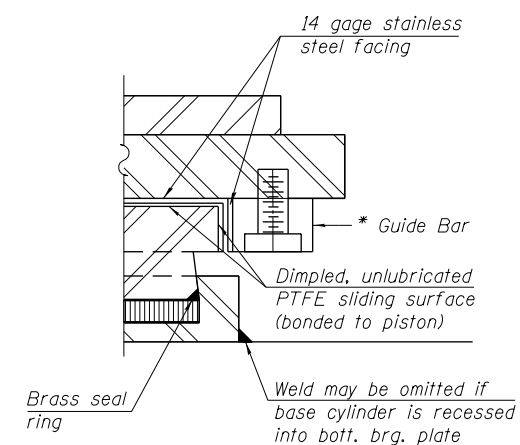
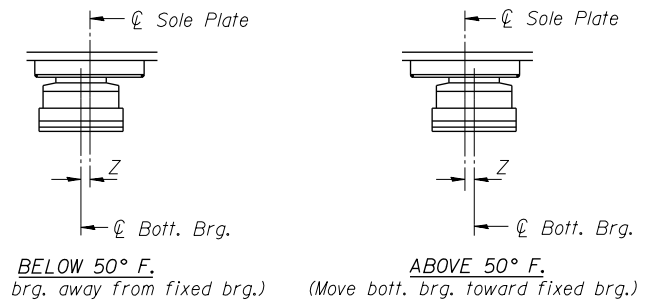
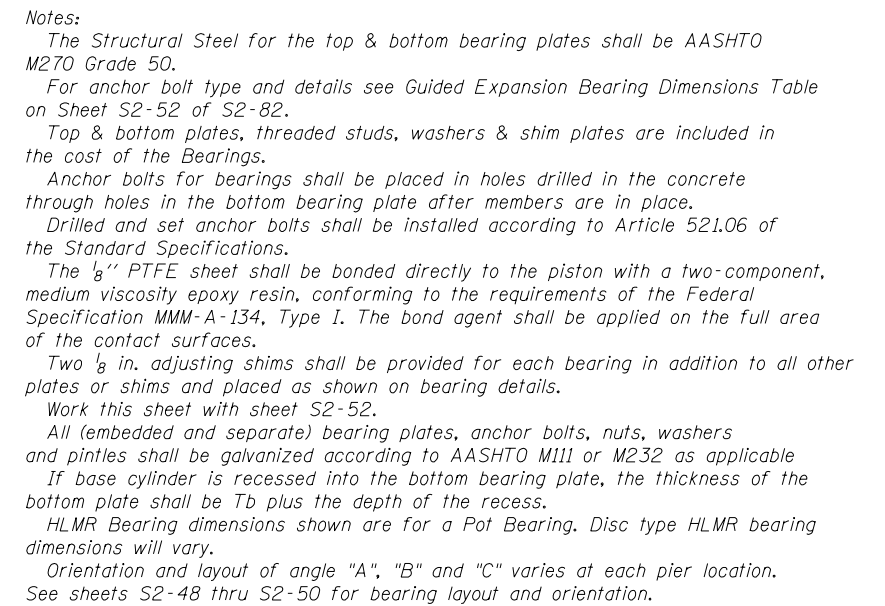
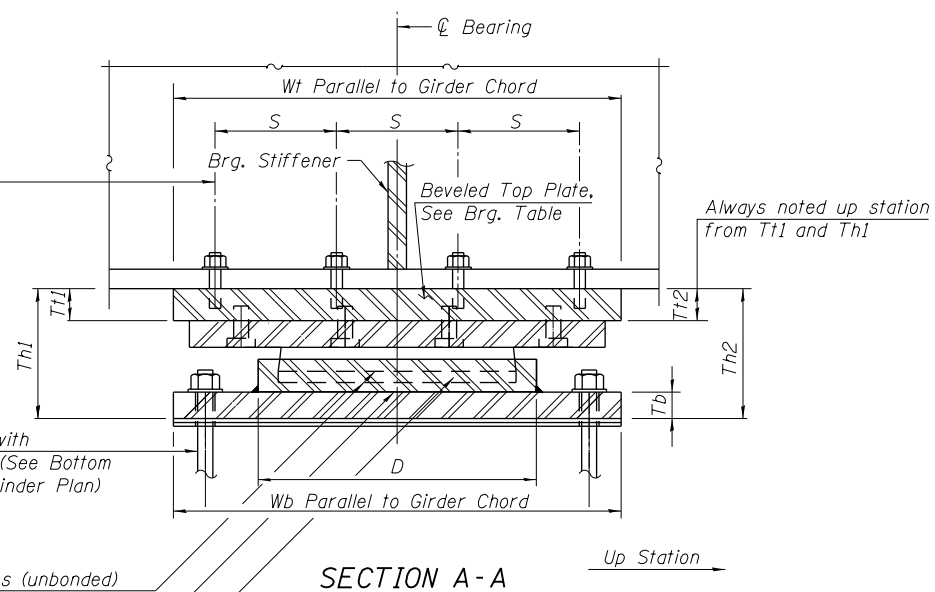
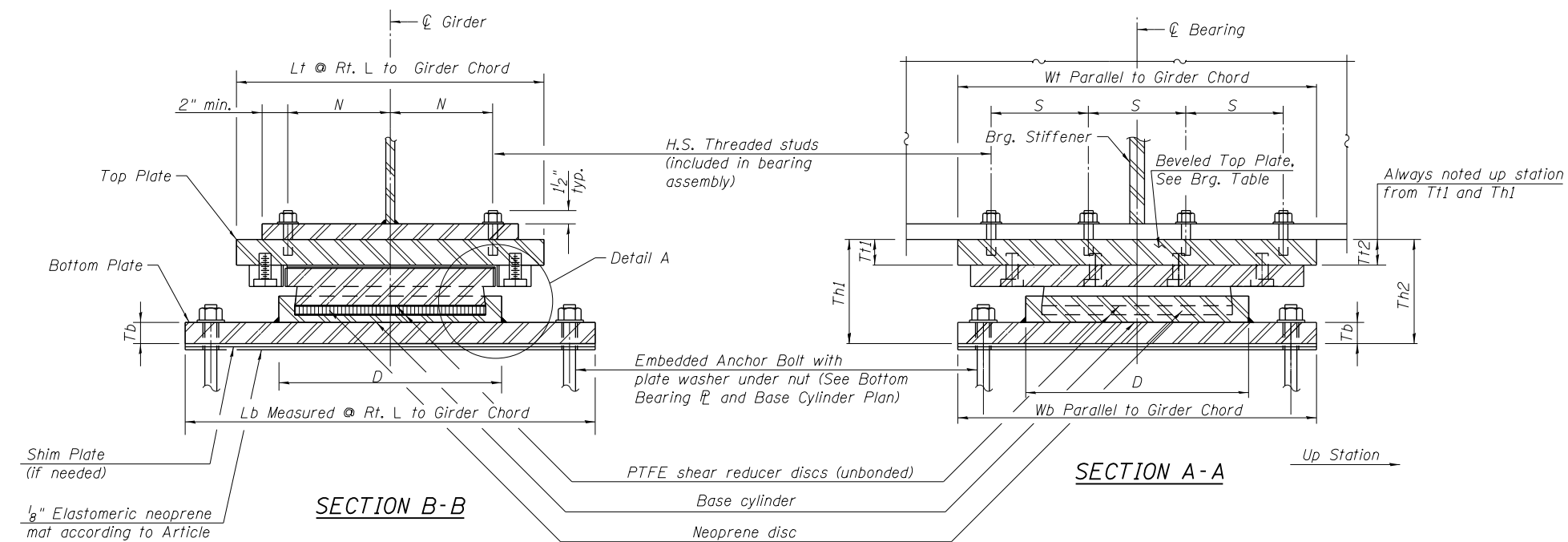
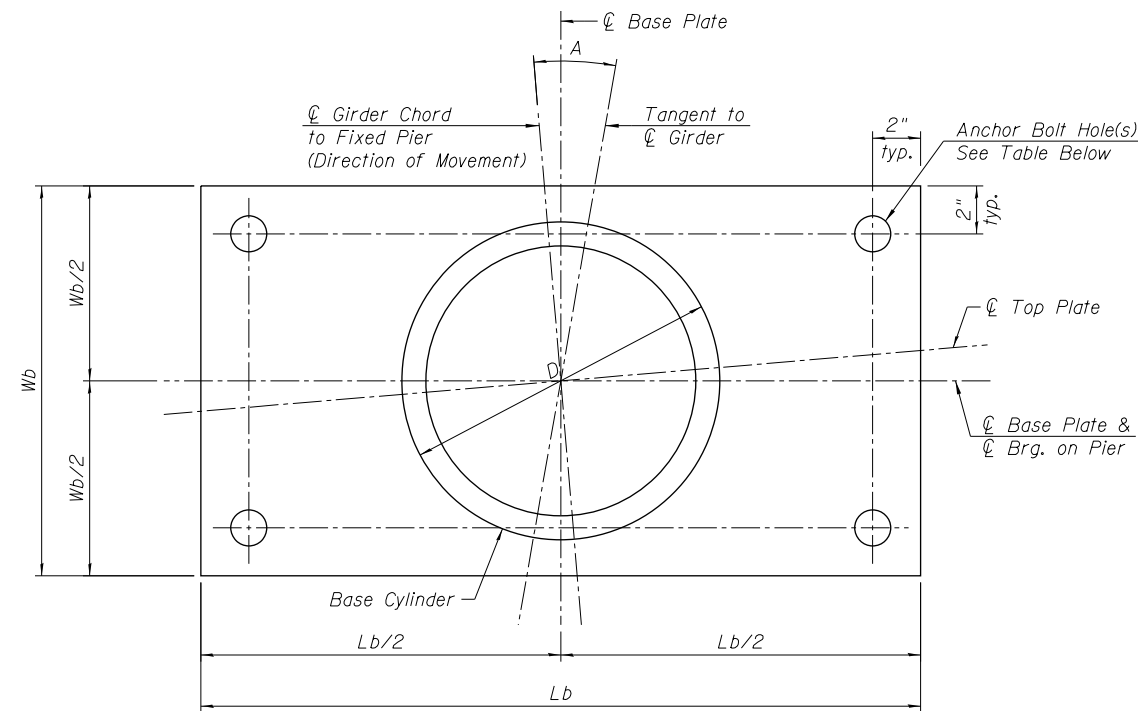
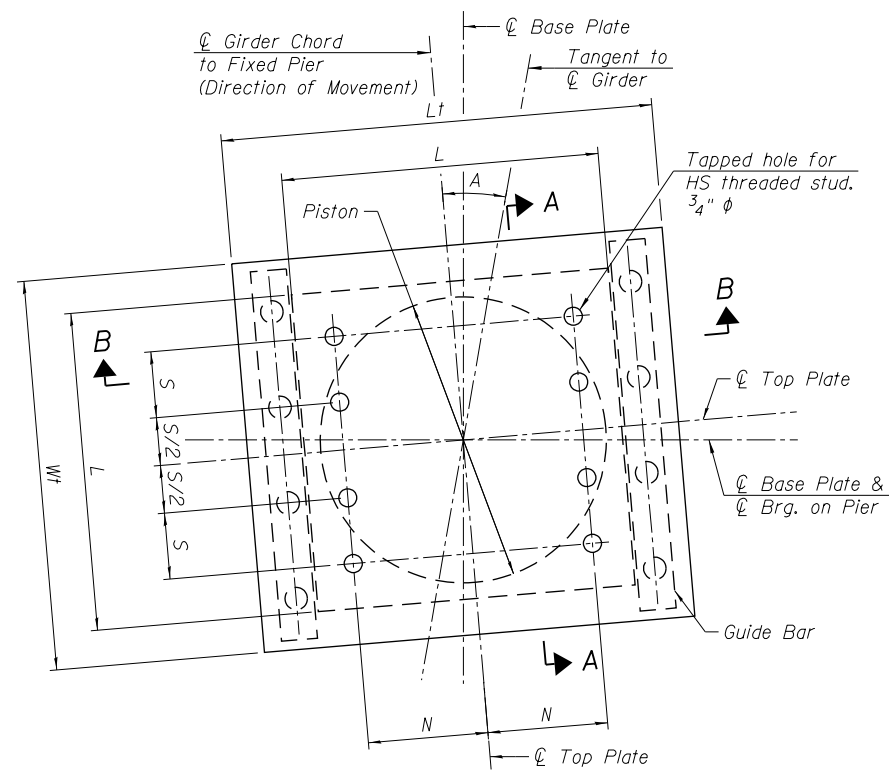
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING LAYOUT AND ORIENTATION - UNIT 3
STRUCTURE NO. 016-1714

SHEET NO. S2-50 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	710
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60X93



ANCHOR BOLT DETAILS

Bolt Dia. x Length**	Plate Washer
3/4" x 12"	2"x2"x5/16"

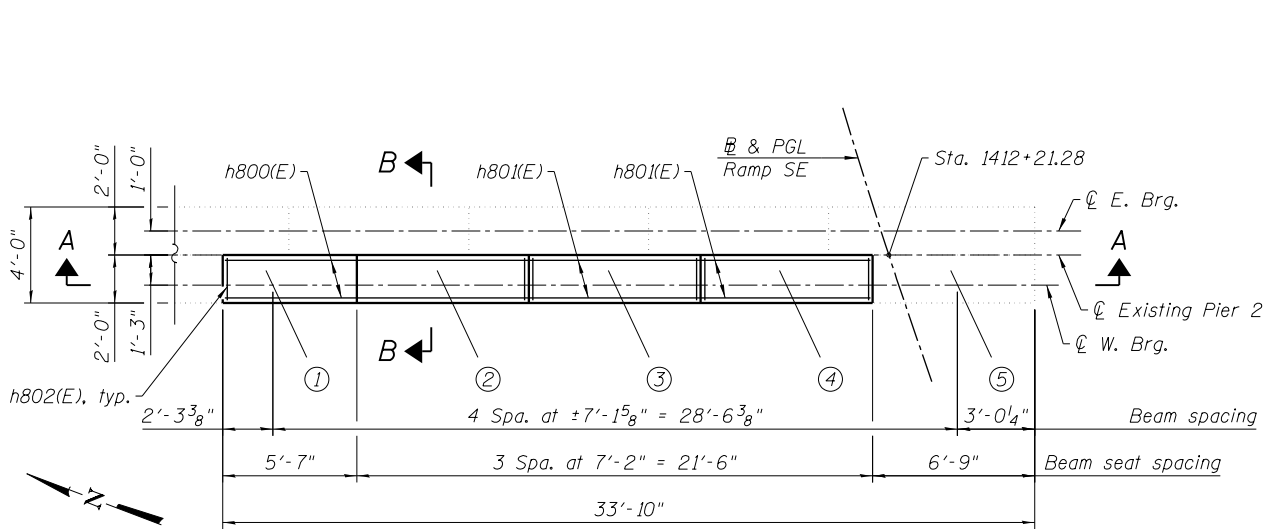
***Length shown is minimum required embedment length.*

BASE PLATE HOLE TABLE

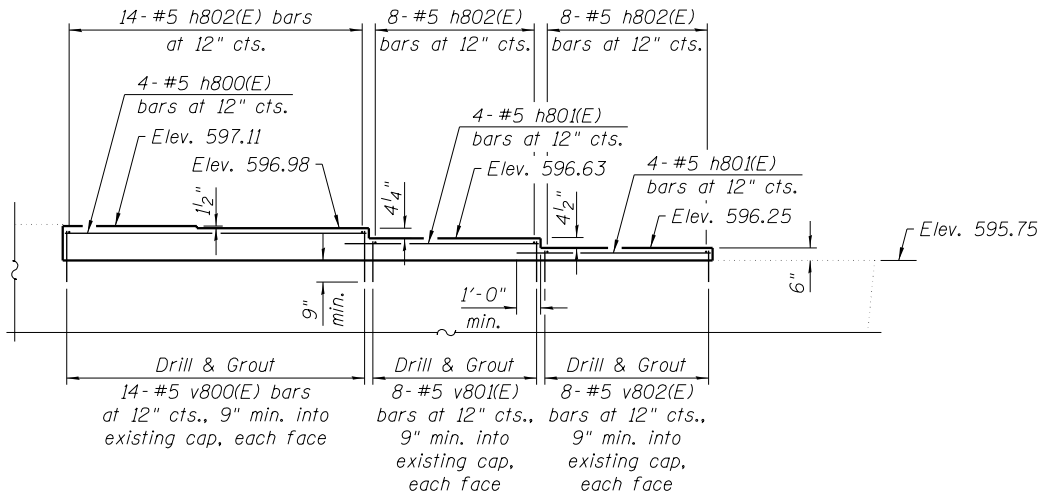
Anchor Bolt ϕ	Max. Hole ϕ
$\frac{3}{4}$ "	$1\frac{1}{4}$ "

GUIDED EXPANSION BEARING DIMENSIONS TABLE

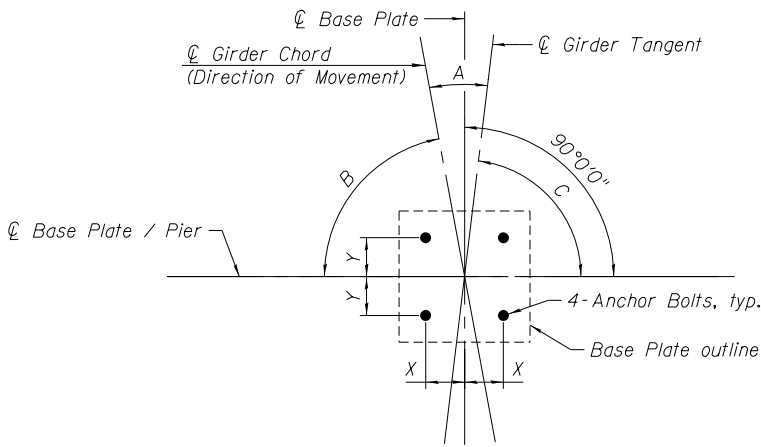
Brg. Location	Vertical Design Load (kips)	Lateral Design Load (kips)	Total Required Movement (inches)	Bottom Bearing Plate			Top Bearing Plate						Th1	Th2	L	D	Anchor Bolt Dia.	Anchor Bolt Specification Grade
				Tb	Lb	Wb	Tt1	Tt2	Lt	Wt	N	S						
Unit 1, N. Abut.	95.3	0.6	1'4"	1'8"	24"	14"	1'2"	2'5'8"	13'2"	14"	3'2"	3'2"	5'3'4"	6'7'8"	13'2"	9"	3'4"	Gr. 55
Unit 1, Pier 1	229.8	14.2	3'4"	1'5'8"	28"	16'4"	1'2"	2'4"	16"	16'4"	3'2"	3'2"	6'2"	7'4"	16"	11'4"	3'4"	Gr. 55
Unit 1, Pier 3-N	113.3	7.1	3'4"	1'3'8"	26"	14"	1'7'8"	1'2"	13'2"	14"	3'2"	3'2"	6'3'8"	6"	13'2"	9"	3'4"	Gr. 55
Unit 2, Pier 3-S	130.6	10.1	1'4"	1'3'8"	26"	14"	1'7'8"	1'2"	13'2"	14"	3'2"	3'2"	6'3'8"	6"	13'2"	9"	3'4"	Gr. 55
Unit 2, Pier 4	257.3	4.1	3'4"	1'7'8"	31"	17"	2"	1'5'8"	16'3'4"	17"	3'2"	3'2"	7'5'8"	7'4"	16'3'4"	12"	3'4"	Gr. 55
Unit 2, Pier 6-W	98.8	5.1	1'2"	1'2"	26"	14"	1'3'4"	1'2"	13'2"	14"	3'2"	3'2"	6'3'8"	6'8"	13'2"	9"	3'4"	Gr. 55
Unit 3, Pier 6-E	141.7	6.6	1"	1'3'4"	32"	14"	1'7'8"	1'2"	13'2"	14"	3'2"	3'2"	6'3'4"	6'3'8"	13'2"	9"	3'4"	Gr. 55
Unit 3, Ex. Pier 2-W	142.2	2.1	1"	2'4"	39'2"	13'2"	1'2"	2'8"	13'2"	14"	3'2"	3'2"	6'7'8"	7'2"	13'2"	9"	3'4"	Gr. 55



PARTIAL TOP PLAN - EXISTING PIER 2

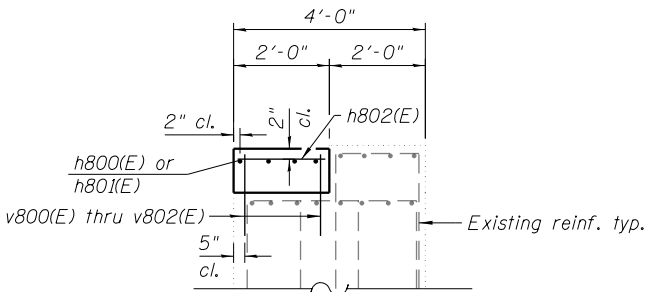


SECTION A-A



ANCHOR BOLT LOCATION DETAIL

Location	X	Y	A	B	C
Unit 1, N. Abut.	10"	5"	19°36'06"	70°23'54"	90°00'00"
Unit 1, Pier 1	12"	6'8"	11°31'18"	85°10'27"	83°18'15"
Unit 1, Pier 3-N	11"	5"	9°55'06"	80°04'54"	90°00'00"
Unit 2, Pier 3-S	11"	5"	21°08'42"	68°51'18"	90°00'00"
Unit 2, Pier 4	13'2"	6'2"	10°39'56"	79°20'04"	90°00'00"
Unit 2, Pier 6-W	11"	5"	8°29'43"	81°30'17"	90°00'00"
Unit 3, Pier 6-E	14"	5'5'8"	13°11'37"	76°48'23"	90°00'00"
Unit 3, Ex. Pier 2-W	17'3'4"	4'3'4"	00°00'00"	64°52'19"	115°07'41"



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h800(E)	4	#5	12'-5"	—
h801(E)	8	#5	8'-2"	—
h802(E)	30	#5	1'-8"	—
v800(E)	28	#5	2'-3"	—
v801(E)	16	#5	1'-9"	—
v802(E)	16	#5	1'-4"	—
Concrete Structures			Cu. Yd.	2.0
Reinforcement Bars, Epoxy Coated			Pound	350
Concrete Sealer			Sq. Ft.	85
High Load Multi-Rotation Bearings, Guided Expansion 150K.			Each	20
High Load Multi-Rotation Bearings, Guided Expansion 200K.			Each	10
High Load Multi-Rotation Bearings, Guided Expansion 250K.			Each	5
High Load Multi-Rotation Bearings, Guided Expansion 300K.			Each	5
Anchor Bolts, 3'4"			Each	160

FILL PLATE THICKNESS TABLE

Location	G1	G2	G3	G4	G5
Pier 3-N	1'4"	1'4"	1'8"	7'8"	1"
Ex. Pier 2-W	-	-	-	-	1'2"

Notes:
All HLMR bearings shall be designed to carry minimum Factored Ultimate (Strength) Design Rotation of 0.02 radians. See Special Provision.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
See Sheets S2-48 thru S2-50 for bearing layout & orientation.

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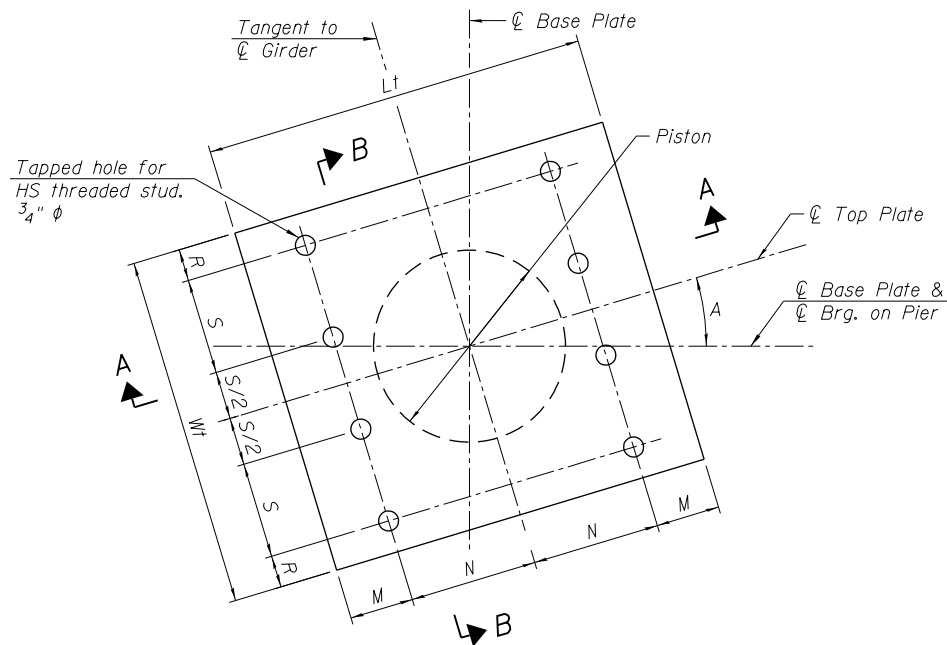
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

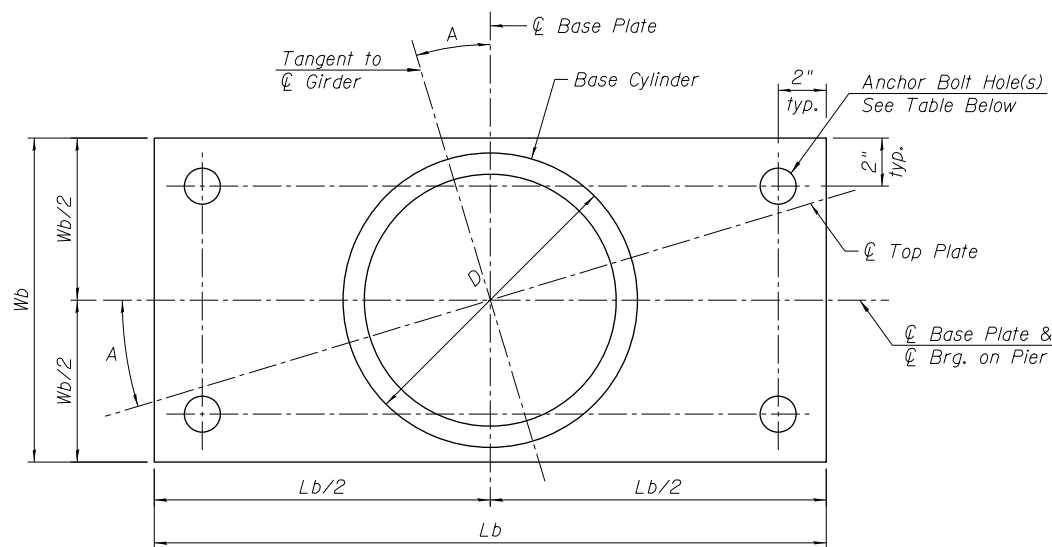
EXPANSION BEARING DETAILS 2
STRUCTURE NO. 016-1714

SHEET NO. S2-52 OF S2-82 SHEETS

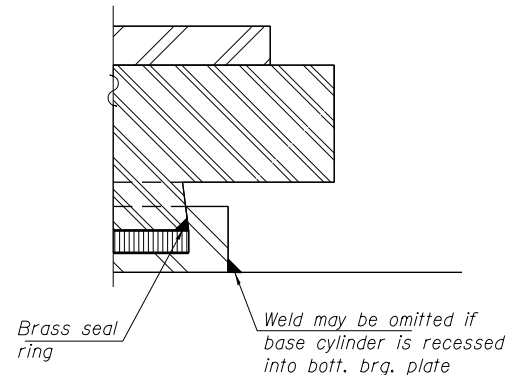
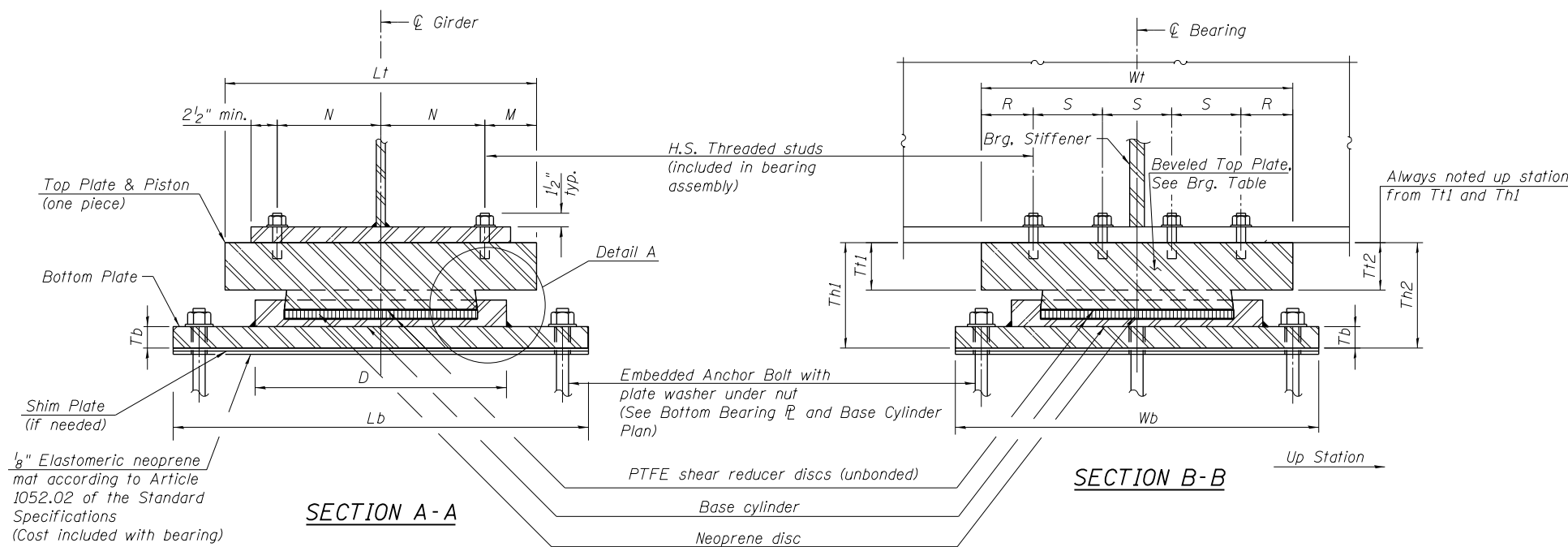
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90/94/290	2014-013 R&B-R	COOK	1972	712
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



TOP BEARING PLATE AND PISTON PLAN



BOTTOM BEARING PLATE AND BASE CYLINDER PLAN



DETAIL A

ANCHOR BOLT DETAILS

Bolt Dia. x Length**	Plate Washer
3/4" x 12"	2"x2"x5/16"
1" x 12"	2 1/4"x2 1/4"x5/16"

**Length shown is minimum required embedment length.

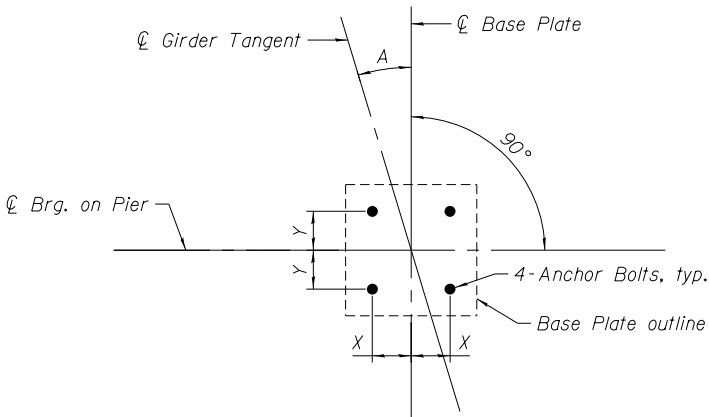
BASE PLATE HOLE TABLE

Anchor Bolt ϕ	Max. Hole ϕ
3/4"	1 1/4"
1"	1 1/2"

Notes:
 The Structural Steel for the top & bottom bearing plates shall be AASHTO M270 Grade 50.
 For anchor bolt type and details see Fixed Bearing Dimensions Table on Sheet S2-54 of S2-82.
 Top & bottom plates, threaded studs, washers & shim plates are included in the cost of the Bearings.
 Anchor bolts for bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 Work this sheet with sheet S2-54.
 All (embedded and separate) bearing plates, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.
 If base cylinder is recessed into the bottom bearing plate, the thickness of the bottom plate shall be Tb plus the depth of the recess.

FIXED BEARING DIMENSIONS TABLE

Brg. Location	Vertical Design Load (kips)	Lateral Design Load (kips)	Bottom Bearing Plate			Top Bearing Plate								Th1	Th2	D	Anchor Bolt Dia.	Anchor Bolt Specification Grade
			Tb	Lb	Wb	Tt1	Tt2	Lt	Wt	M	N	R	S					
Unit 1, Pier 2	265.0	14.2	2"	28"	12 1/4"	2 1/8"	1 7/8"	12 1/4"	12 1/4"	2"	4 1/8"	1 1/2"	7 5/8"	7 5/8"	7 3/8"	12 1/4"	3/4"	Gr. 55
Unit 2, Pier 5	220.8	13.7	1 5/8"	24"	11 1/2"	2"	1 3/4"	11 1/2"	11 1/2"	2"	4 1/4"	1 1/2"	3 1/8"	6 7/8"	6 5/8"	11 1/2"	3/4"	Gr. 55
Unit 3, Pier 7	418.7	9.9	2 1/4"	32"	15 1/4"	2 5/8"	2 3/8"	15 1/4"	15 1/4"	2"	5 5/8"	2"	3 3/4"	9"	8 3/4"	15 1/4"	1"	Gr. 55



ANCHOR BOLT LOCATION DETAIL.

Location	X	Y	A
Unit 1, Pier 2	12"	4 1/8"	16°47'32.88"
Unit 2, Pier 5	10"	3 3/4"	00°00'00"
Unit 3, Pier 7	14"	5 5/8"	00°00'00"

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed 250K	Each	5
High Load Multi-Rotation Bearings, Fixed 300K	Each	5
High Load Multi-Rotation Bearings, Fixed 450K	Each	5
Anchor Bolts, 3/4"	Each	40
Anchor Bolts, 1"	Each	20

Notes:
All HLMR bearings shall be designed to carry minimum Factored Ultimate (Strength) Design Rotation of 0.02 radians. See Special Provision.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
See Sheets S2-48 thru S2-50 for bearing layout & orientation.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIXED BEARING DETAILS 2
STRUCTURE NO. 016-1714

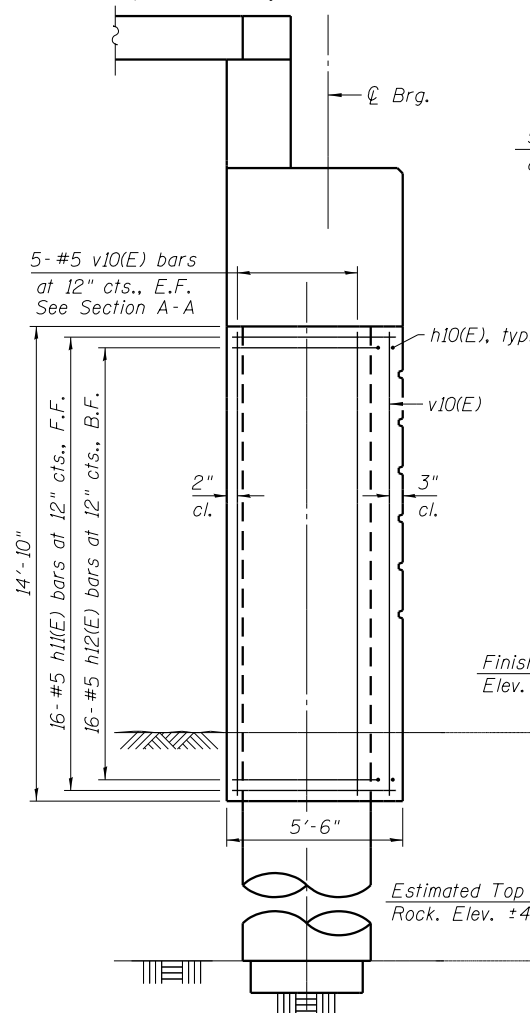
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ILLINOIS FED. AID PROJECT				

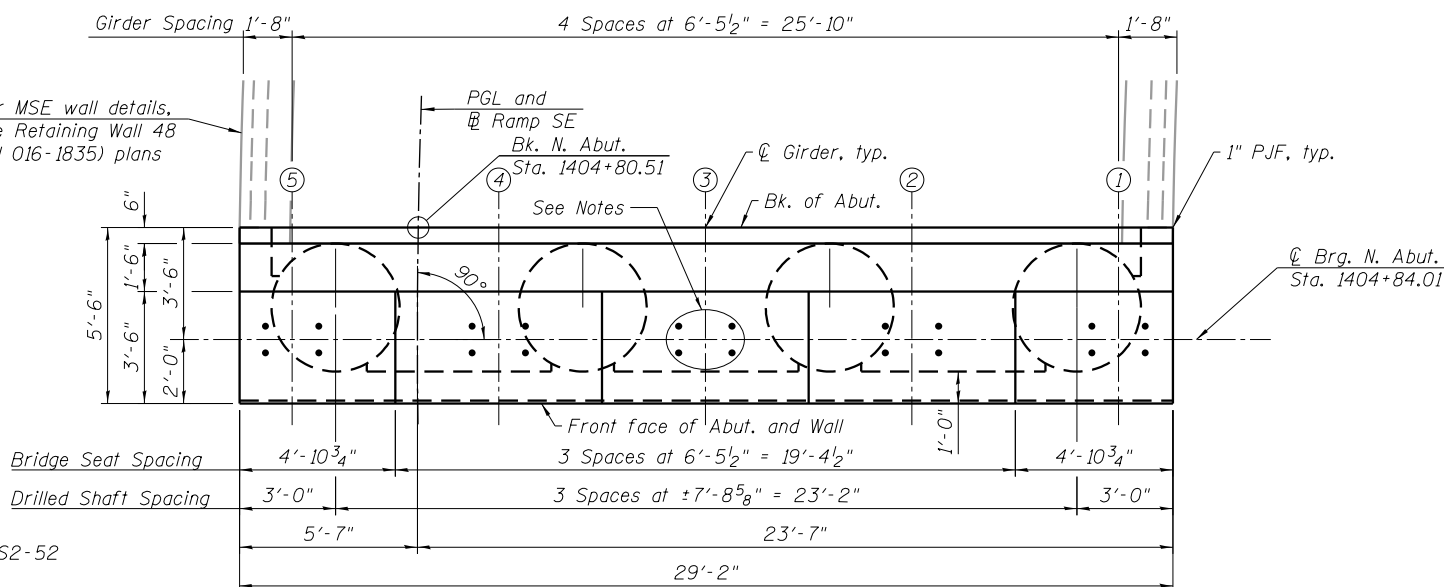
TOP OF SEAT ELEVATIONS

Girder No.	Seat Elevation
1	597.56
2	597.92
3	598.28
4	598.64
5	599.00

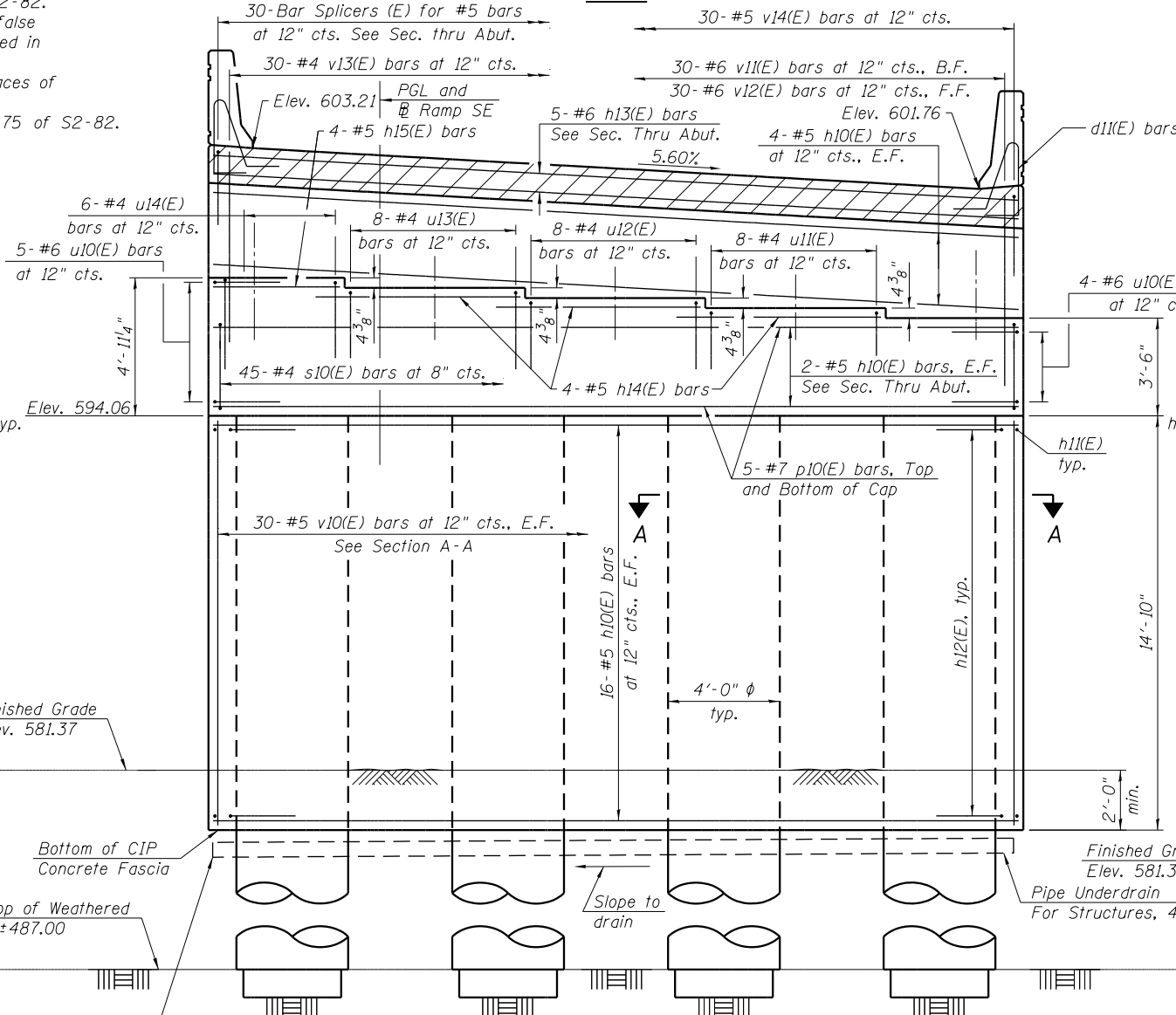
Notes:
 Pour steps monolithically with cap.
 Space reinforcement in cap to miss anchor bolts.
 For Anchor Bolt details, see Sheets S2-51 and S2-52 of S2-82.
 For Section A-A, Drilled Shaft Details, and Bill of Materials, see Sheet S2-56 of S2-82.
 For Architectural Details, see Sheet S2-57 of S2-82.
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included in concrete superstructure.
 Concrete sealer shall be applied to all exposed faces of the abutment cap and fascia.
 For Bar Splicer Assembly Details, See Sheet S2-75 of S2-82.



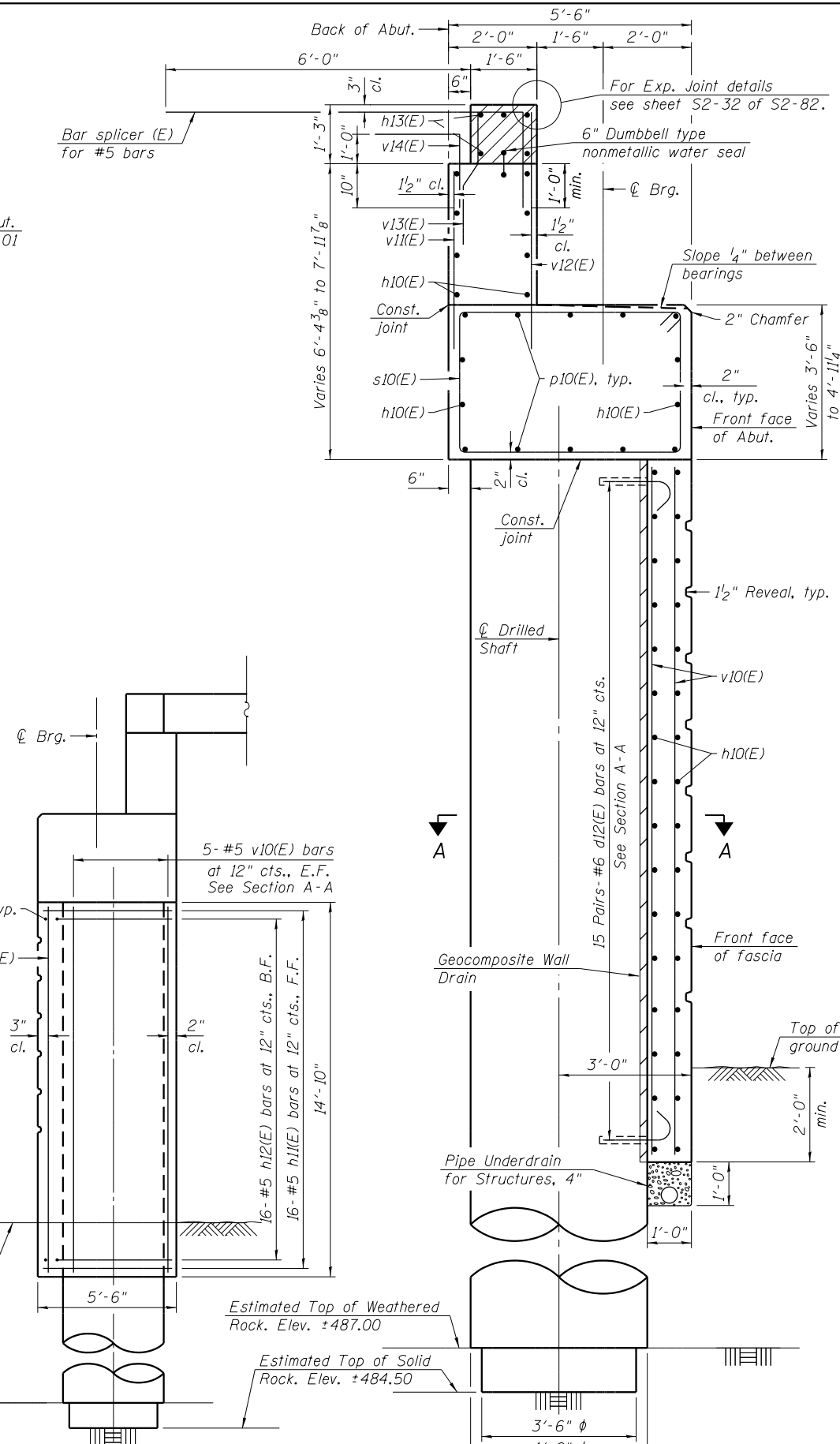
NORTHWEST WALL ELEVATION
(Looking East)



PLAN



ELEVATION
(Looking North)



NORTHEAST WALL ELEVATION
(Looking West)

SECTION THRU ABUTMENT

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

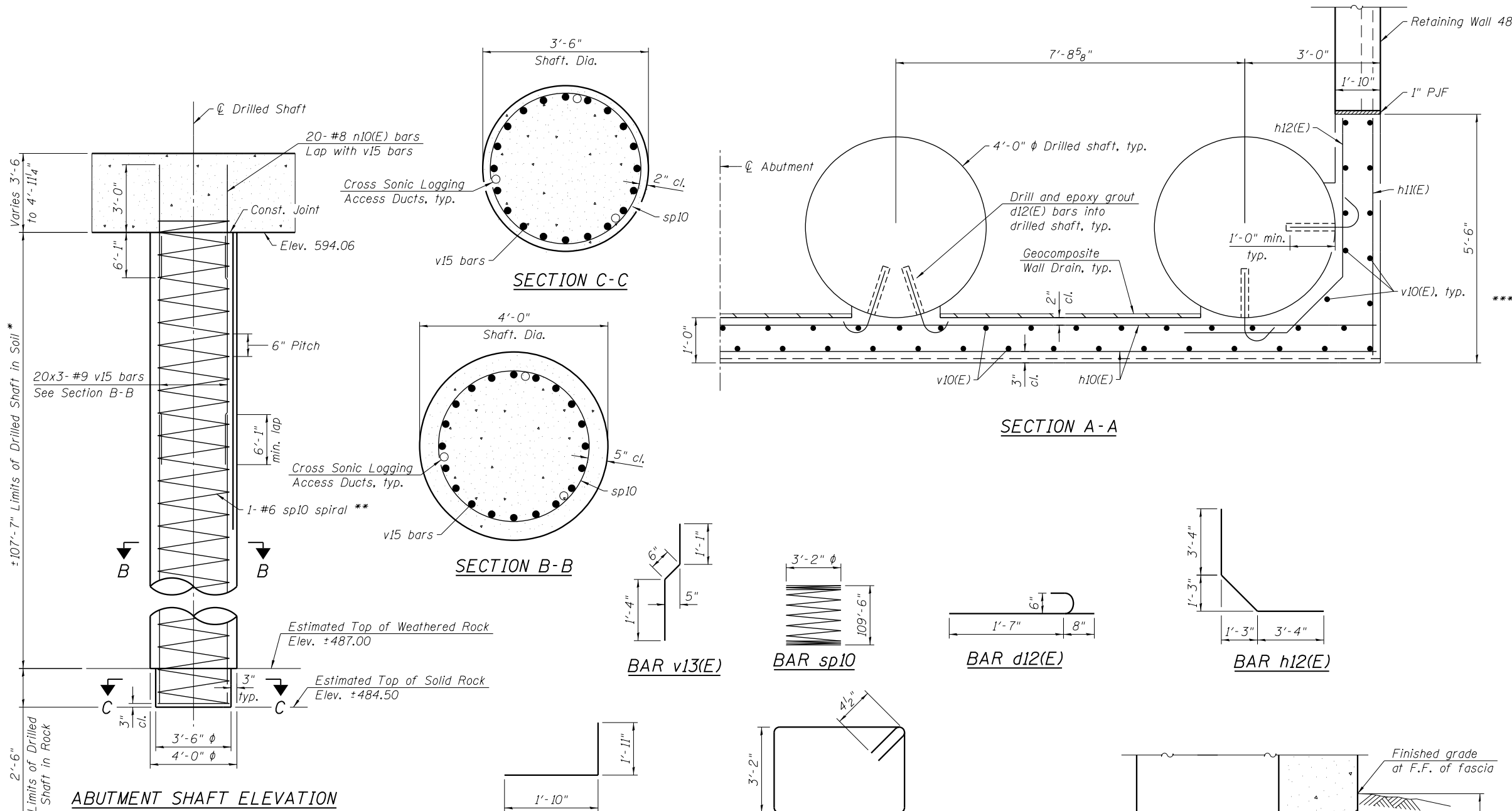
NORTH ABUTMENT DETAILS
STRUCTURE NO. 016-1714

SHEET NO. S2-56 OF S2-82 SHEETS

NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d12(E)	120	#6	2'-3"	
h10(E)	44	#5	28'-10"	—
h11(E)	32	#5	5'-2"	—
h12(E)	32	#5	8'-5"	
h13(E)	5	#6	28'-10"	—
h14(E)	12	#5	7'-4"	—
h15(E)	4	#5	4'-6"	—
n10(E)	20	#8	9'-1"	—
p10(E)	10	#7	28'-10"	—
s10(E)	45	#4	17'-5"	
sp10	4	#6	109'-6"	MM
u10(E)	9	#6	10'-4"	
u11(E)	8	#4	7'-2"	
u12(E)	8	#4	8'-0"	
u13(E)	8	#4	8'-8"	
u14(E)	6	#4	9'-6"	
v10(E)	80	#5	14'-6"	—
v11(E)	30	#6	3'-11"	—
v12(E)	30	#6	5'-2"	—
v13(E)	30	#4	2'-11"	
v14(E)	30	#5	3'-9"	
v15	240	#9	40'-6"	—
Structure Excavation			Cu. Yd.	35
Concrete Structures			Cu. Yd.	52.7
Concrete Superstructure			Cu. Yd.	2.1
Reinforcement Bars			Pound	44,100
Reinforcement Bars, Epoxy Coated			Pound	6,140
Drilled Shaft in Soil			Cu. Yd.	199.4
Drilled Shaft in Rock			Cu. Yd.	3.6
Concrete Sealer			Sq. Ft.	951
Geocomposite Wall Drain			Sq. Yd.	47
Crosshole Sonic Logging Access Ducts			Foot	439
Crosshole Sonic Logging Testing			Each	1
Pipe Underdrains for Structures, 4"			Foot	55

*** Length is height of spiral.



* 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 the abutment cap. Provide 4- #4 spacers or equivalent.

Notes:

Drilling and grouting of d12(E) bars shall be as per Section 584 of the Standard Specifications. Depth of embedment = 12". Cost included in Concrete Structures.

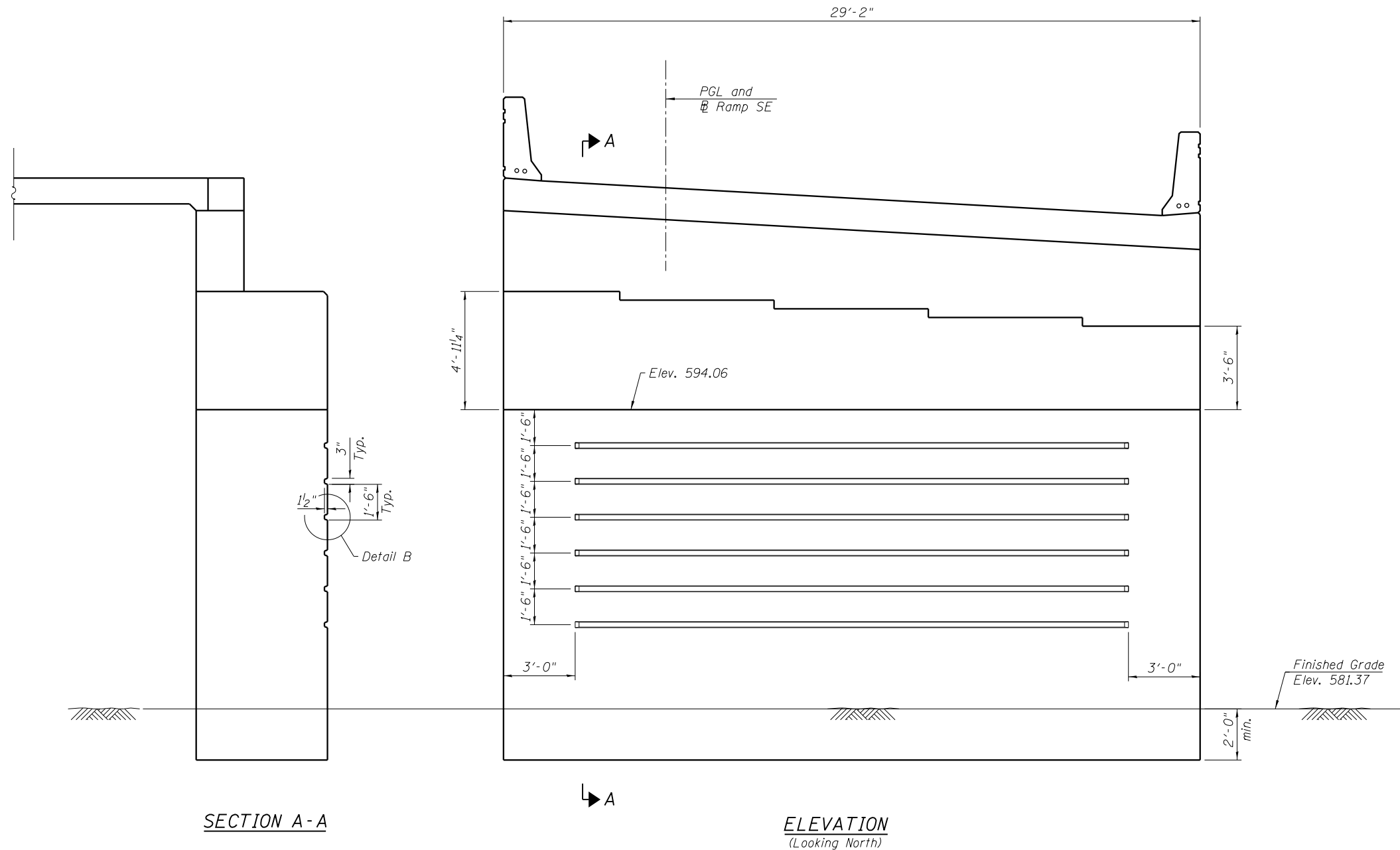
Bars noted thus, 3x2- #5 indicates 3 lines of bars with 2 lengths of bar per line.

When splicing spiral reinforcement is necessary, the spirals shall be provided with 1/2" extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate in 130° standard hook.

Drilled Shaft quantity from top of existing ground elevation to bottom of abutment cap elevation shall be included with Drilled Shaft in Soil.

PIPE UNDERDRAIN DETAIL THRU ABUTMENT

* Included in the cost of Pipe Underdrains for Structures, 4"



Note:
The 3"x 1 1/2" reveal will not be paid separately
and shall be included in the cost of the Concrete Structures.

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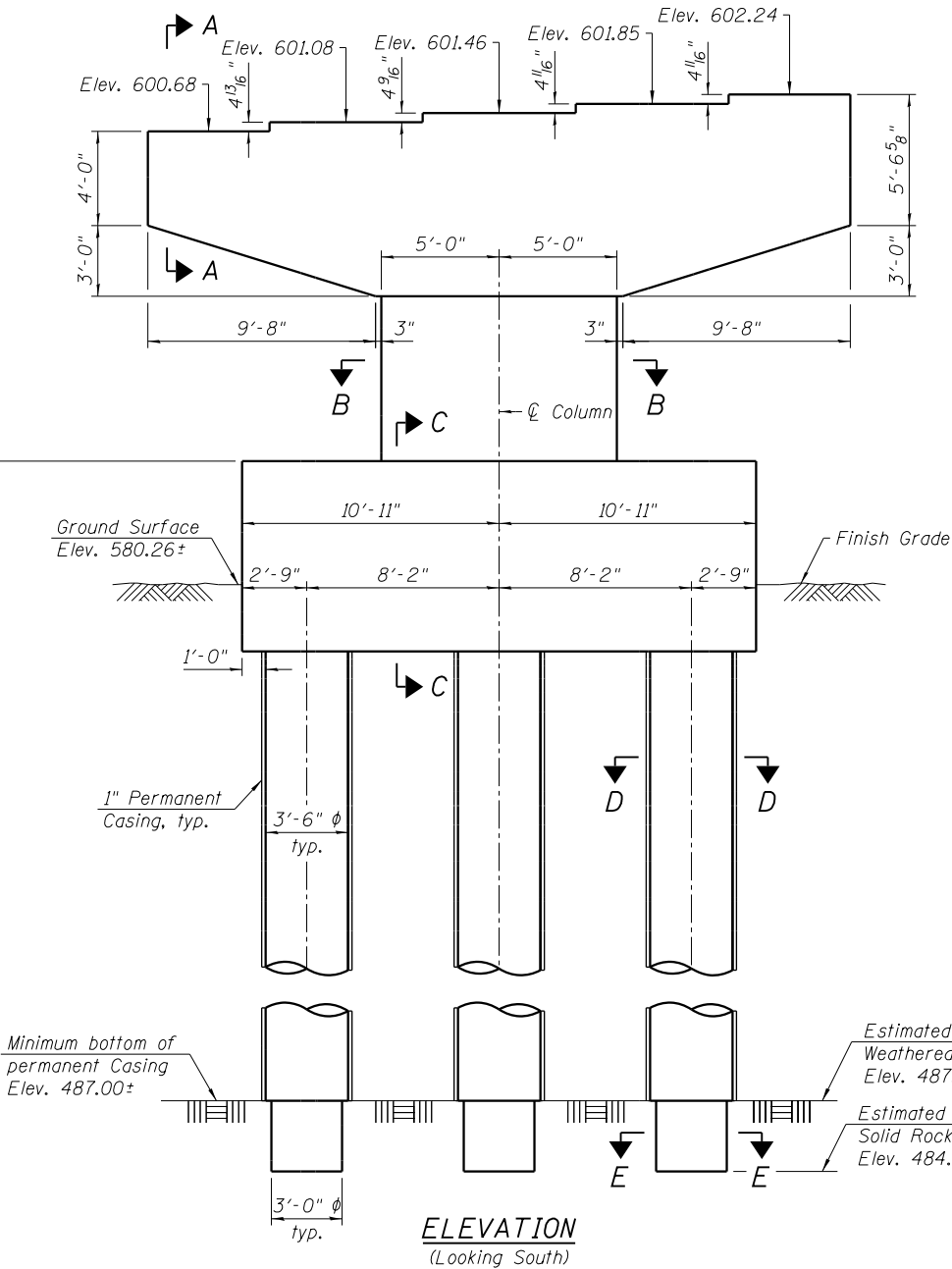
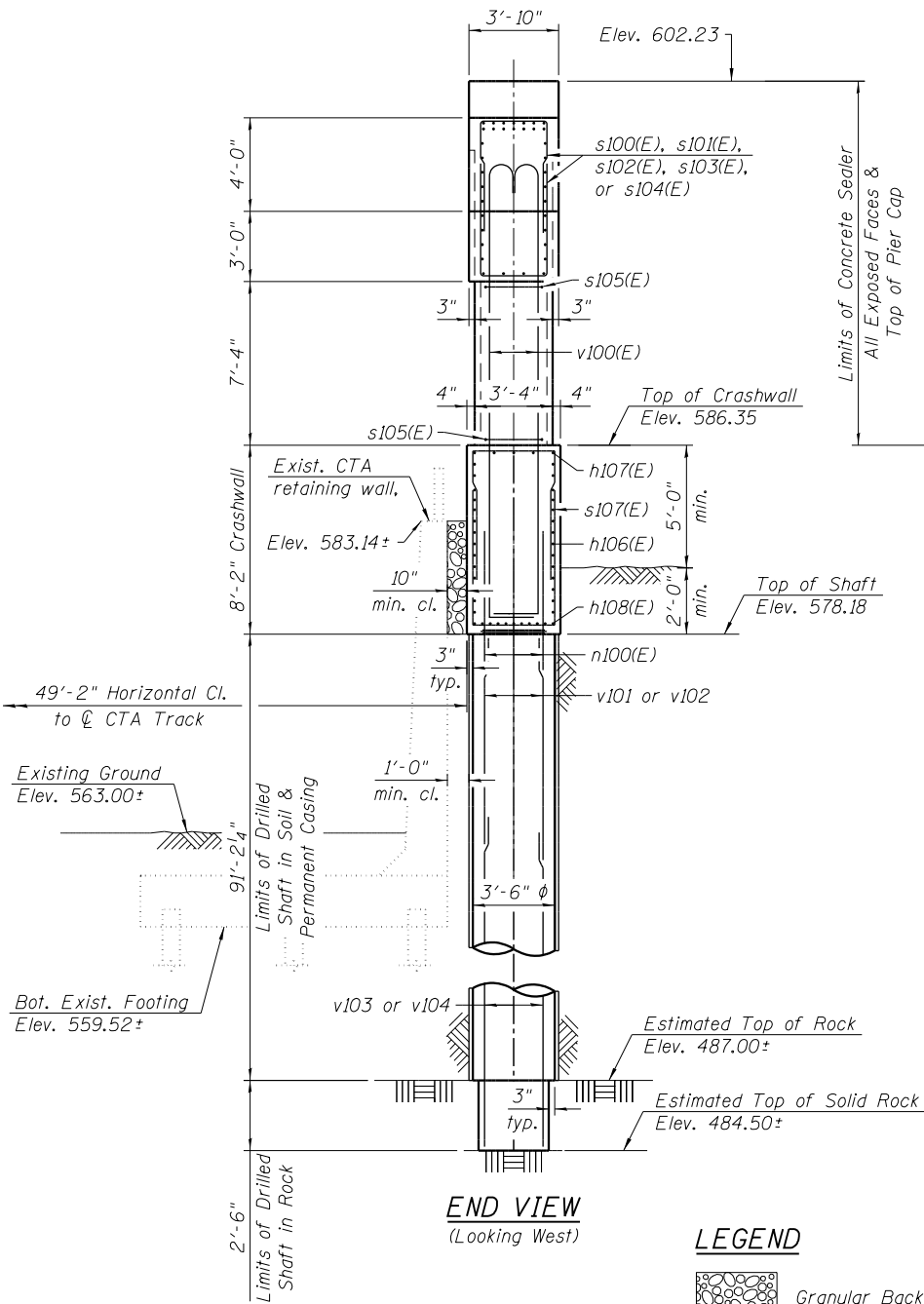
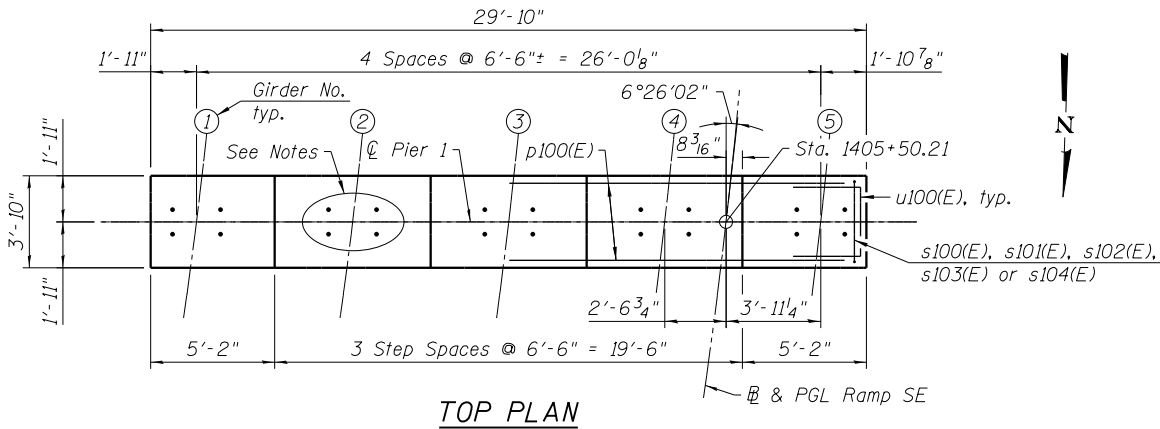
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT ARCHITECTURAL DETAILS
STRUCTURE NO. 016-1714

SHEET NO. S2-57 OF S2-82 SHEETS

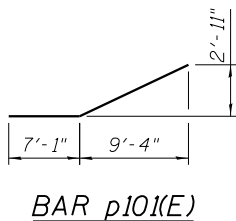
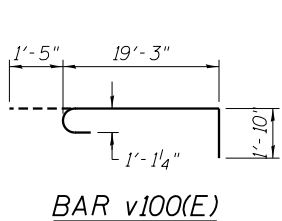
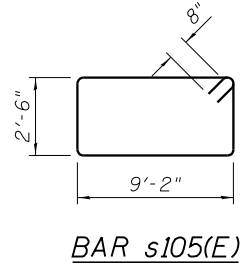
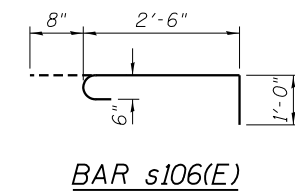
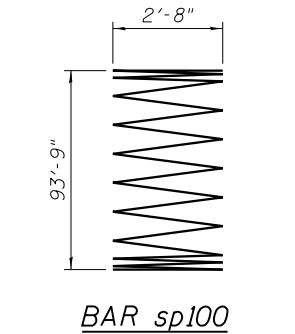
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	717
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-51 & S2-52.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-59 for Sections and Details.
Excavation around the existing CTA retaining wall for the construction of the proposed pier shall be performed per special provision Earth Excavation (Special) using only hand excavation or approved methods that would cause no damage to the existing CTA retaining wall. The limits of excavation work shall be identified prior to start of work. All planned excavation is subject to approval by the Engineer and CTA.
Proposed Pier 1 & 2 permanent casing shall be installed by twisting and/or pushing the casing in conjunction with drilled excavation inside of the permanent casing. The bottom of the permanent casing shall maintain minimum 2 ft. embedment into underlying soil below the bottom of shaft excavation elevation. Neither the Wet Method of construction nor the use of Temporary Casing will be permitted. See Special Provisions for Foundation Drilling Procedures.



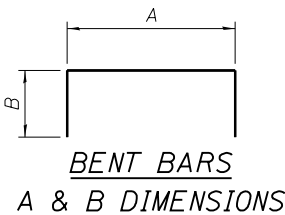
Minimum Bar Laps	
Bar	Lap
#5	3'-7"
#6	3'-10"
* #9	3'-7"
#9	5'-4"

* Uncoated



Bar	No.	Size	Length	Shape
h100(E)	12	#7	29'-0"	—
h101(E)	2	#7	24'-9"	—
h102(E)	2	#7	20'-2"	—
h103(E)	2	#7	15'-6"	—
h104(E)	15	#5	6'-6"	—
h105(E)	10	#5	4'-7"	—
h106(E)	28	#6	21'-6"	—
h107(E)	5	#5	21'-6"	—
h108(E)	11	#10	21'-6"	—
n100(E)	42	#9	9'-11"	—
p100(E)	14	#8	29'-0"	—
p101(E)	8	#5	16'-11"	—
s100(E)	8	#5	9'-10"	U
s101(E)	12	#5	11'-0"	U
s102(E)	20	#5	12'-10"	U
s103(E)	62	#5	13'-4"	U
s104(E)	20	#5	12'-4"	U
s105(E)	8	#6	24'-8"	U
s106(E)	24	#6	4'-2"	C
s107(E)	46	#6	15'-4"	U
sp100	3	#6	93'-9"	WWW
u100(E)	14	#6	10'-8"	U
u101(E)	30	#5	6'-6"	U
u102(E)	28	#6	11'-4"	U
v100(E)	32	#10	22'-6"	C
v101	21	#9	47'-0"	—
v102	21	#9	57'-0"	—
v103	21	#9	50'-0"	—
v104	21	#9	40'-0"	—
Concrete Structures		Cu. Yd.	64.5	
Reinforcement Bars		Pound	20,950	
Reinforcement Bars, Epoxy Coated		Pound	12,900	
Permanent Casing		Foot	274	
Drilled Shaft in Soil		Cu. Yd.	97.5	
Drilled Shaft in Rock		Cu. Yd.	2.0	
Concrete Sealer		Sq. Ft.	1,345	
Granular Backfill Special		Cu. Yd.	14	
Crosshole Sonic Logging Access Ducts		Foot	282	
Crosshole Sonic Logging Testing		Each	1	
Earth Excavation (Special)		Cu. Yd.	23	

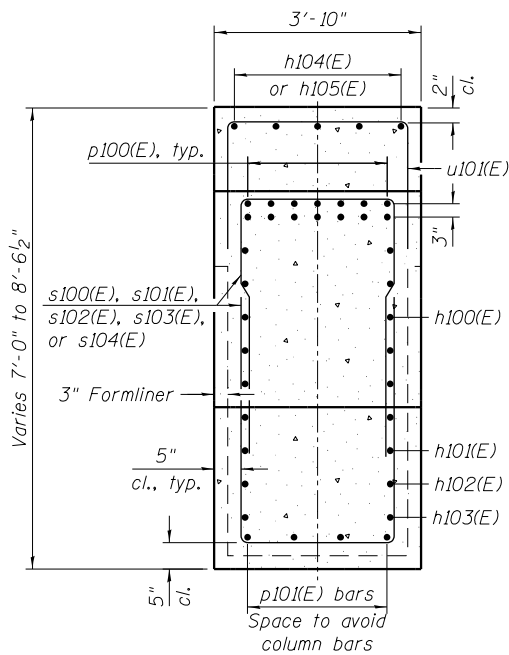
** Length is height of spiral.



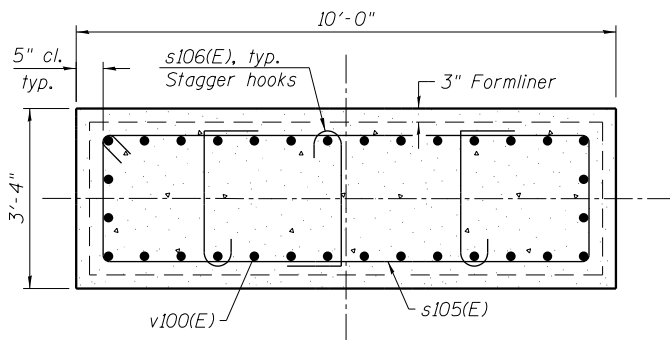
Bar	A	B
s100(E)	3'-0"	3'-5"
s101(E)	3'-0"	4'-0"
s102(E)	3'-0"	4'-11"
s103(E)	3'-0"	5'-2"
s104(E)	3'-0"	4'-8"
s107(E)	3'-8"	5'-10"
u100(E)	3'-0"	3'-10"
u101(E)	3'-6"	1'-6"
u102(E)	3'-8"	3'-10"

USER NAME = wjcollett1	DESIGNED - JM	REVISED
PLOT SCALE = 8.000000' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/30/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

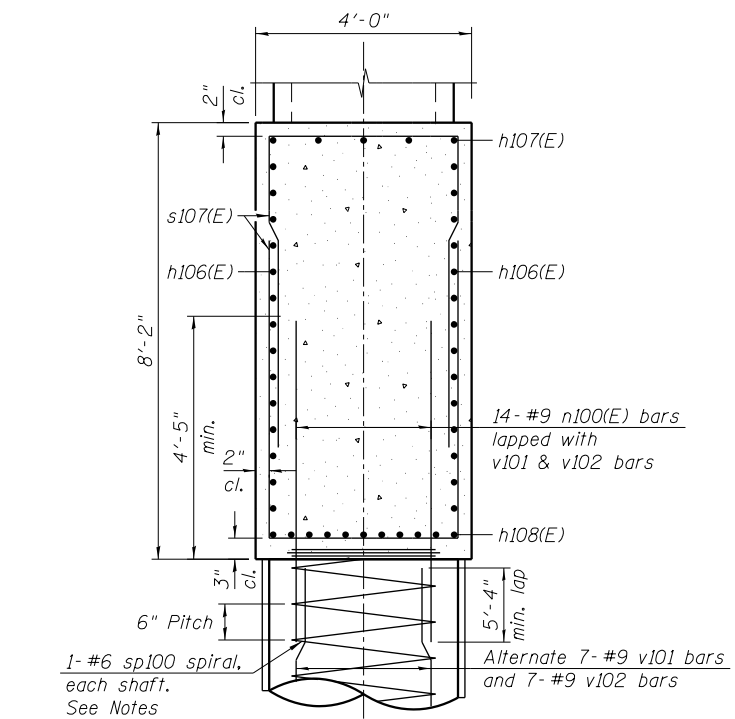
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	718
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



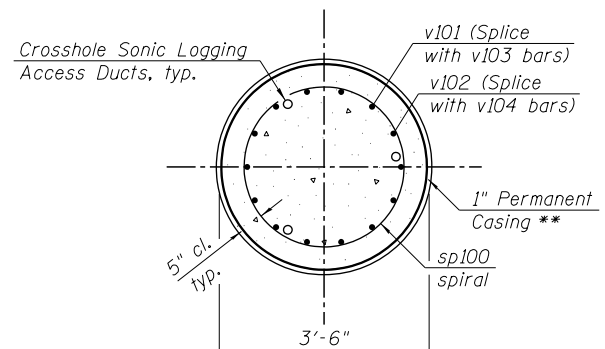
SECTION A-A



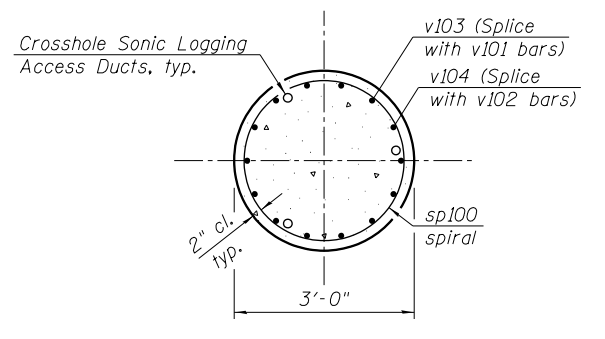
SECTION B-B



SECTION C-C

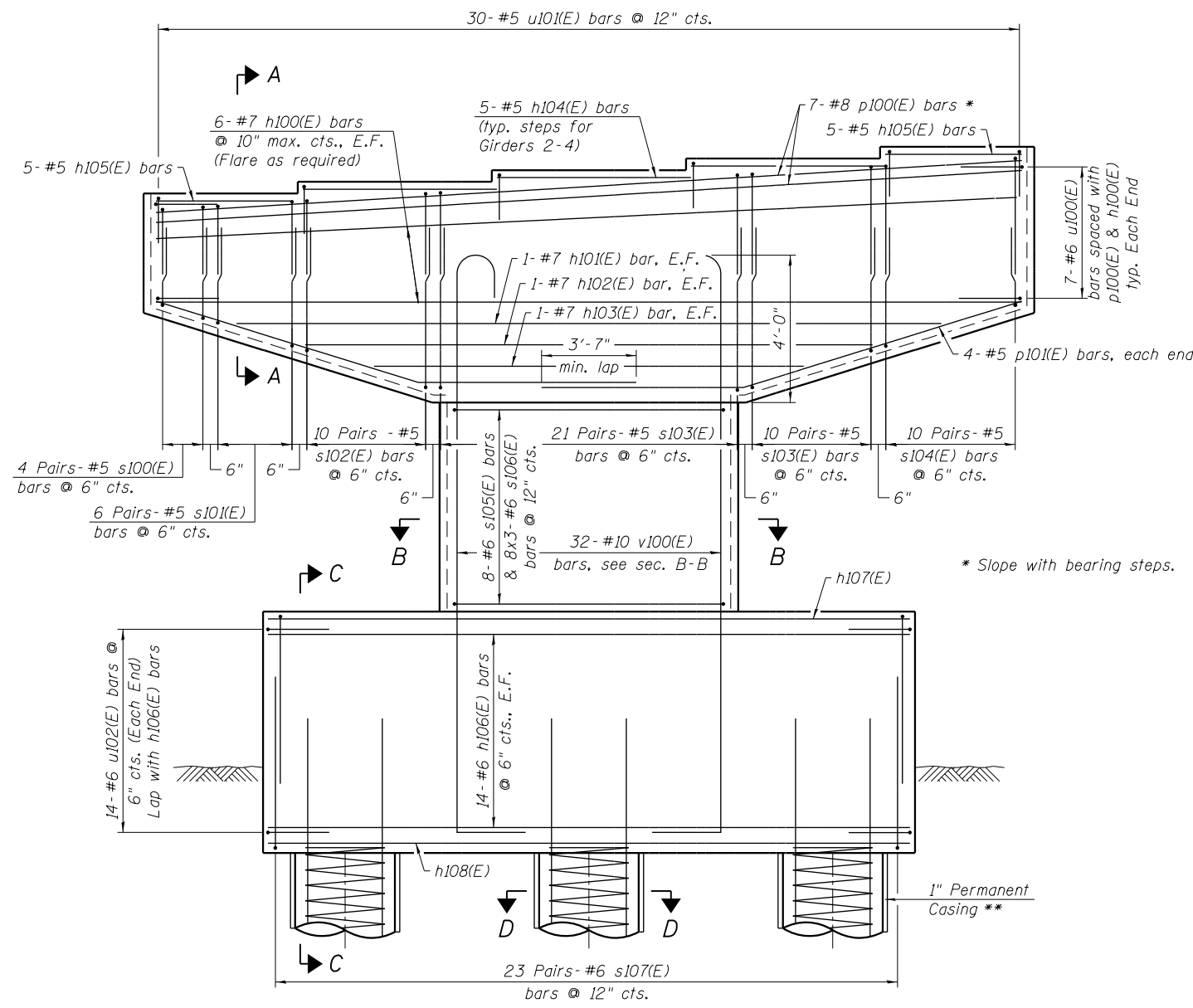


SECTION D-D



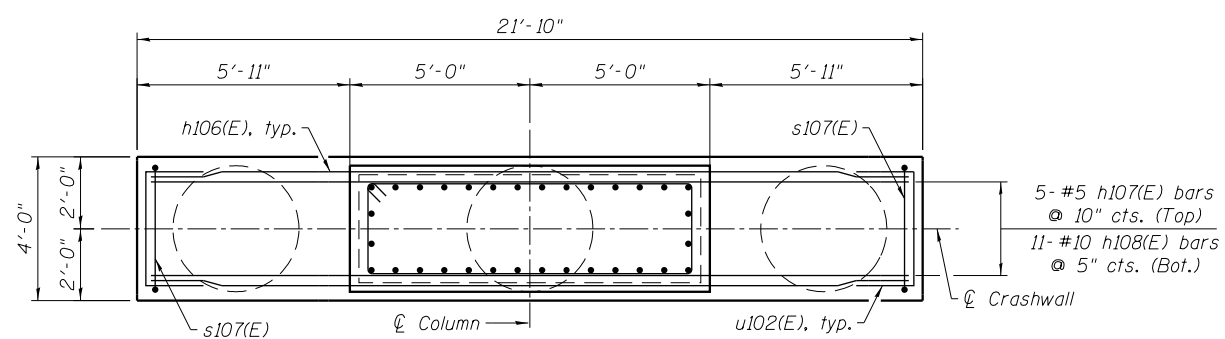
SECTION E-E

Notes:
For sp100 spirals:
1) Provide 1 1/2 extra turns top and bottom. Extend spiral 3" into crashwall. Provide 4-#4 spacers or equivalent.
2) When splicing spiral reinforcement is necessary, the spirals shall be provided with 1 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging Testing.
The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and final top of shaft elevation.
** Contractor may need to increase the casing thickness to withstand the installation process. The estimated Top of Rock/Bottom of Permanent Casing Elevation is shown. The limits of casing shall be adjusted as necessary, and as approved, such that the actual installed casing length extends to the as-encountered top of rock at each shaft. See Article 516.06(d) of the Standard Specifications.



ELEVATION

(Looking South)



CRASHWALL PLAN

5:42:10 PM 0161714-60X93-S059-Pier1_Details1.dgn



USER NAME = wjcolletti	DESIGNED - JM	REVISED
CHECKED - JRM	REVIS	
PLOT SCALE = 5.333384' / in.	DRAWN - JM	REVISED
PLOT DATE = 7/26/2018	CHECKED - JRM	REVISED

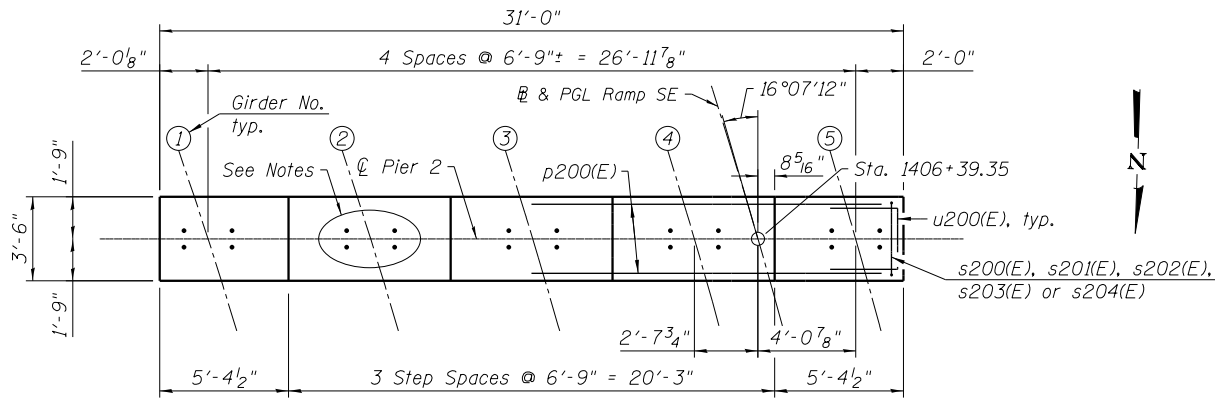
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS
STRUCTURE NO. 016-1714

SHEET NO. S2-59 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	719
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-53 & S2-54.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-61 for Sections and Details.
Excavation around the existing CTA retaining wall for the construction of the proposed pier shall be performed per special provision Earth Excavation (Special) using only hand excavation or approved methods that would cause no damage to the existing CTA retaining wall. The limits of excavation work shall be identified prior to start of work. All planned excavation is subject to approval by the Engineer and CTA.
Proposed Pier 1 & 2 permanent casing shall be installed by twisting and/or pushing the casing in conjunction with drilled excavation inside of the permanent casing. The bottom of the permanent casing shall maintain minimum 2 ft. embedment into underlying soil below the bottom of shaft excavation elevation. Neither the Wet Method of construction nor the use of Temporary Casing will be permitted. See Special Provisions for Foundation Drilling Procedures.

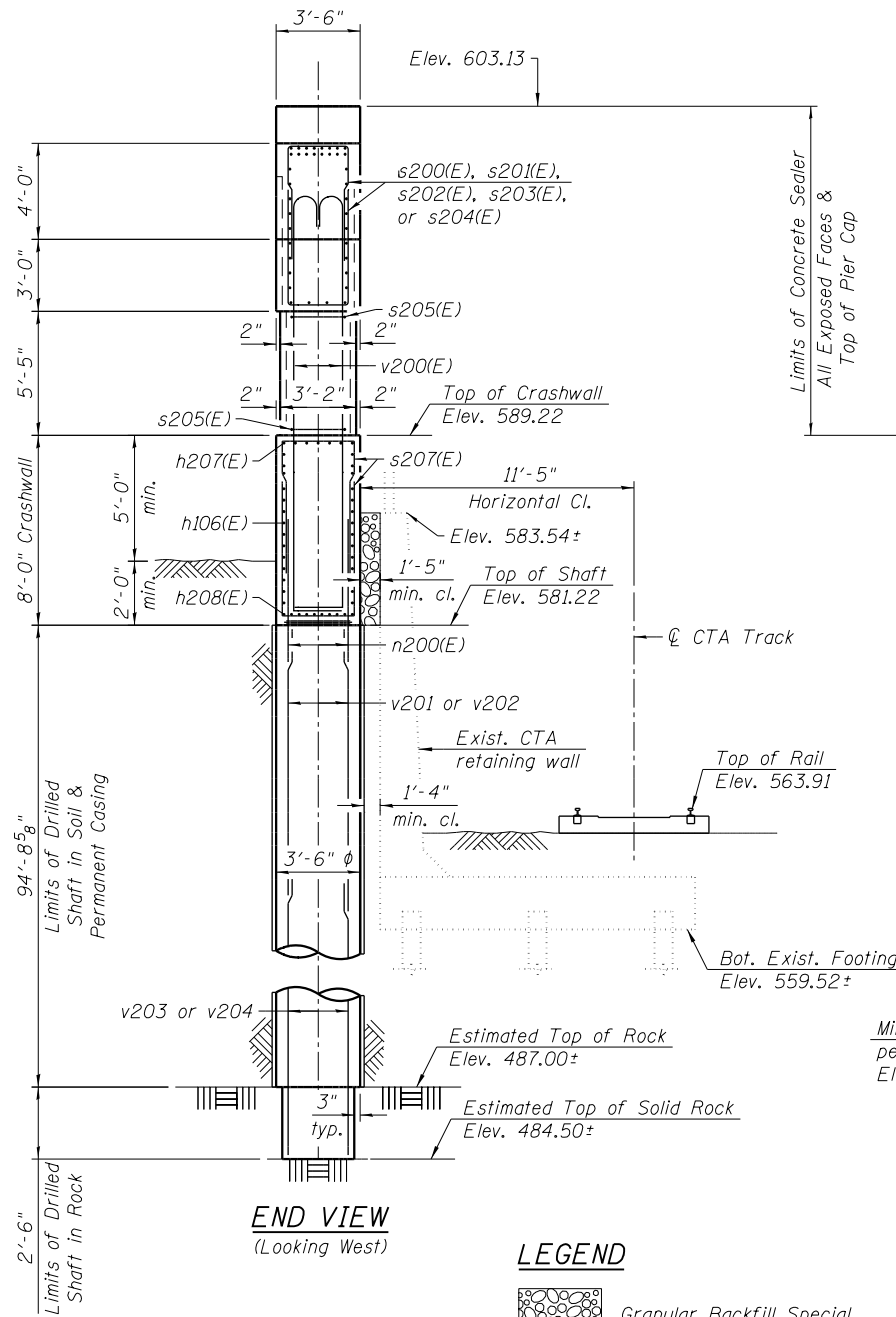


TOP PLAN

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

* Uncoated

**

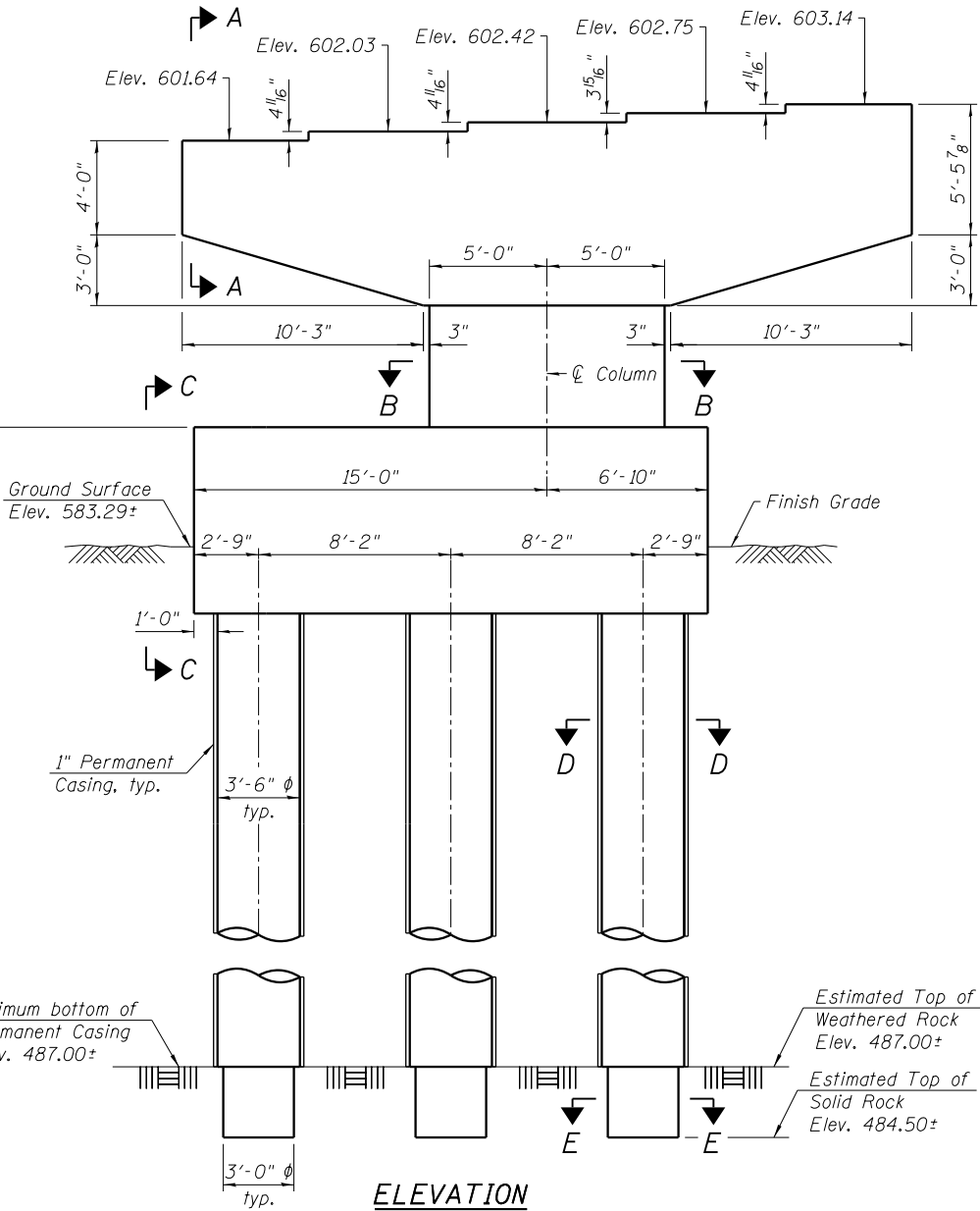


END VIEW
(Looking West)

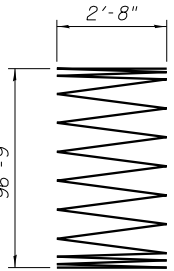
LEGEND



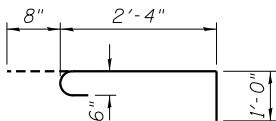
Granular Backfill Special



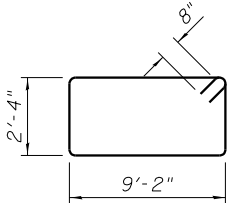
ELEVATION
(Looking South)



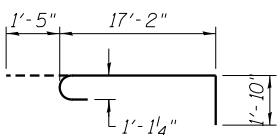
BAR sp200



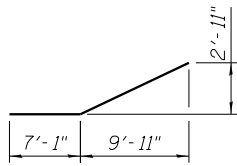
BAR s206(E)



BAR s205(E)



BAR v200(E)

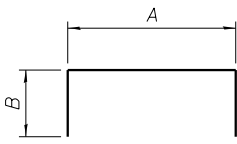


BAR p201(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	12	#7	30'-2"	—
h201(E)	2	#7	25'-7"	—
h202(E)	2	#7	20'-9"	—
h203(E)	2	#7	15'-10"	—
h204(E)	15	#5	6'-9"	—
h205(E)	10	#5	4'-9"	—
h206(E)	30	#6	21'-6"	—
h207(E)	7	#5	21'-6"	—
h208(E)	10	#10	21'-6"	—
n200(E)	42	#9	9'-11"	—
p200(E)	16	#8	30'-2"	—
p201(E)	8	#5	17'-2"	—
s200(E)	8	#5	9'-6"	U
s201(E)	12	#5	10'-8"	U
s202(E)	20	#5	12'-6"	U
s203(E)	62	#5	13'-0"	U
s204(E)	20	#5	11'-8"	U
s205(E)	7	#6	24'-4"	U
s206(E)	21	#6	4'-0"	C
s207(E)	88	#5	14'-6"	U
sp200	3	#6	96'-9"	WWW
u200(E)	14	#6	10'-4"	U
u201(E)	31	#5	6'-2"	U
u202(E)	28	#6	10'-10"	U
v200(E)	32	#10	20'-5"	C
v201	21	#9	50'-0"	—
v202	21	#9	60'-0"	—
v203	21	#9	50'-0"	—
v204	21	#9	40'-0"	—
Concrete Structures		Cu. Yd.	56.4	
Reinforcement Bars		Pound	21,600	
Reinforcement Bars, Epoxy Coated		Pound	13,010	
Permanent Casing		Foot	283	
Drilled Shaft in Soil		Cu. Yd.	100.8	
Drilled Shaft in Rock		Cu. Yd.	2.0	
Concrete Sealer		Sq. Ft.	1266	
Granular Backfill Special		Cu. Yd.	5	
Crosshole Sonic Logging Access Ducts		Foot	291	
Crosshole Sonic Logging Testing		Each	1	
Earth Excavation, Special		Cu. Yd.	14	

** Length is height of spiral.

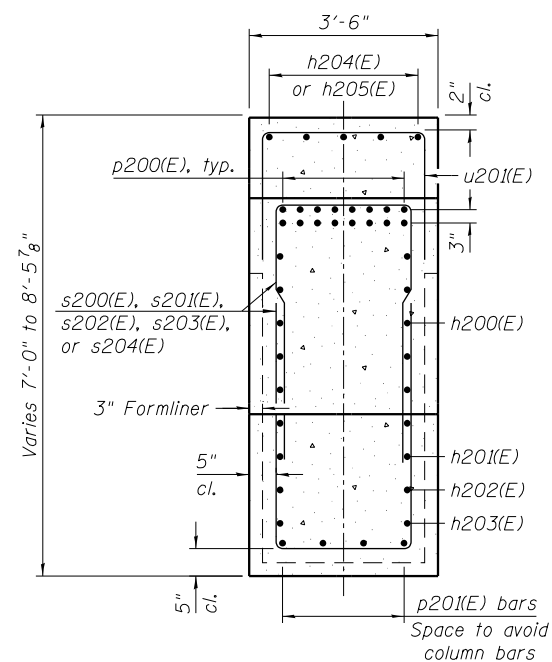


BENT BARS
A & B DIMENSIONS

Bar	A	B
s200(E)	2'-8"	3'-5"
s201(E)	2'-8"	4'-0"
s202(E)	2'-8"	4'-11"
s203(E)	2'-8"	5'-2"
s204(E)	2'-8"	4'-6"
s207(E)	3'-2"	5'-8"
u200(E)	2'-8"	3'-10"
u201(E)	3'-2"	1'-6"
u202(E)	3'-2"	3'-10"

USER NAME = wjcolletti	DESIGNED - JM	REVISED
PLOT SCALE = 8:0 's' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/30/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	720
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



Notes:

For *sp200* spirals:

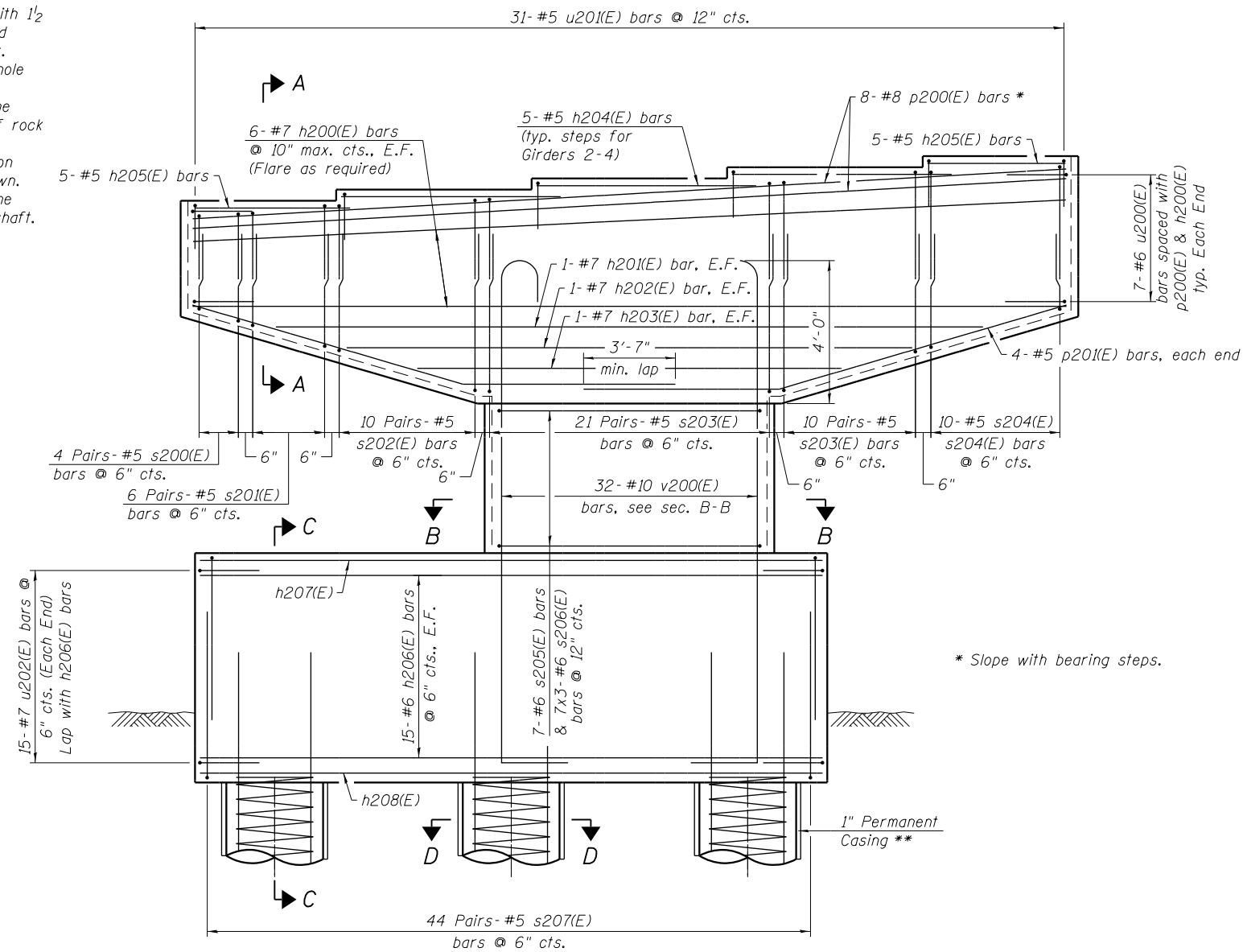
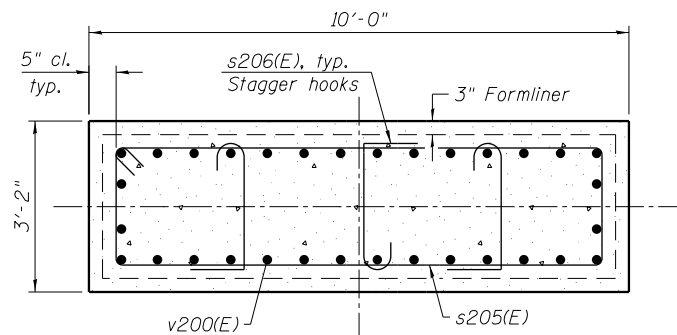
1) Provide 1 1/2 extra turns top and bottom. Extend spiral 3" into crashwall. Provide 4-#4 spacers or equivalent.

2) When splicing spiral reinforcement is necessary, the spirals shall be provided with $1\frac{1}{2}$ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

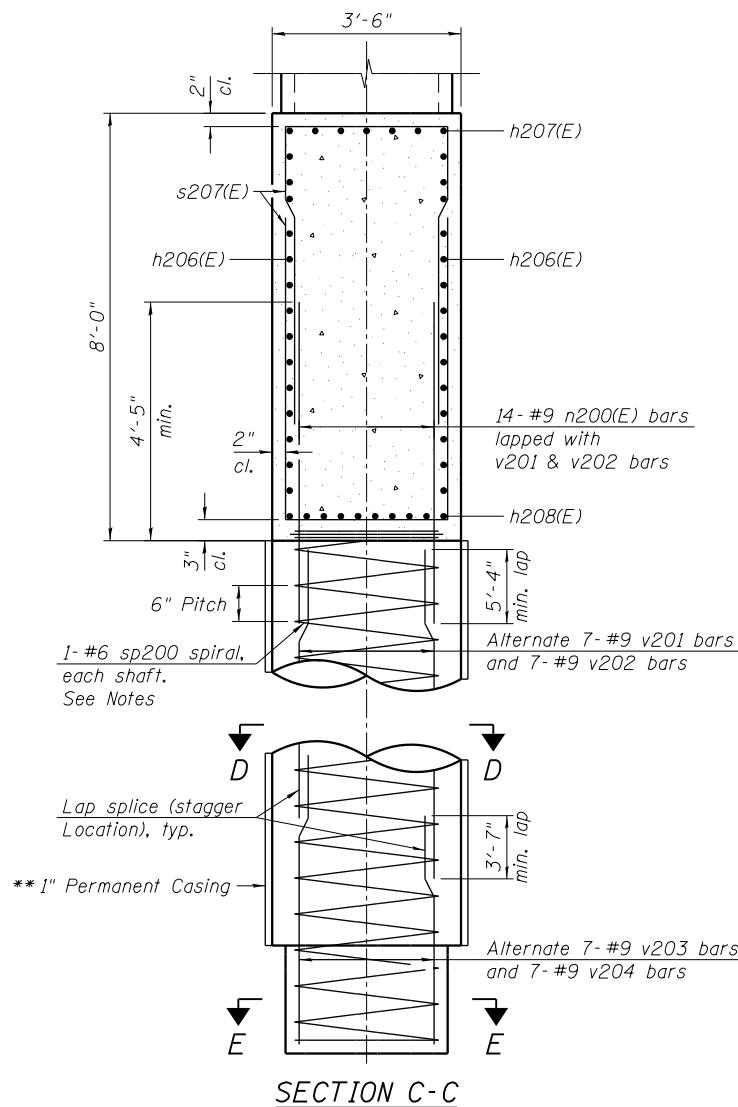
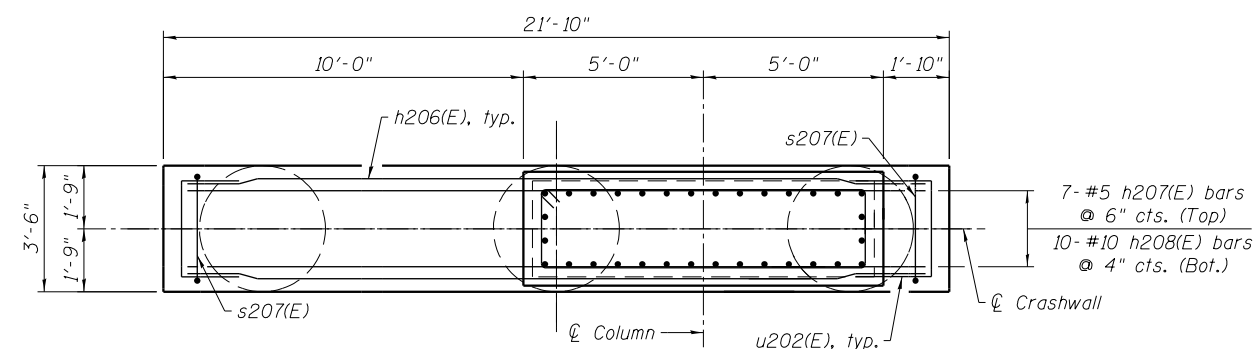
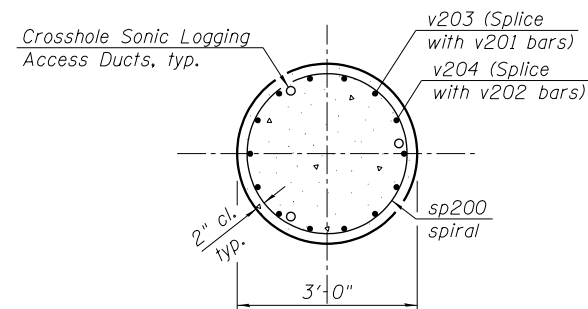
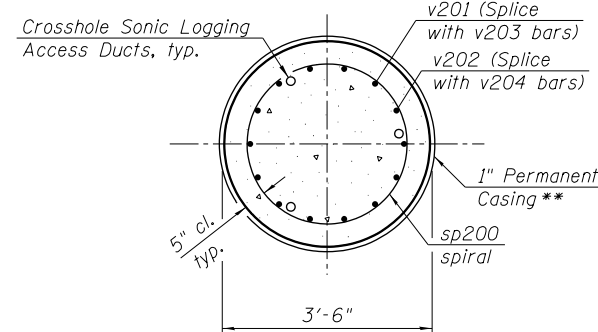
A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging Testing.

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

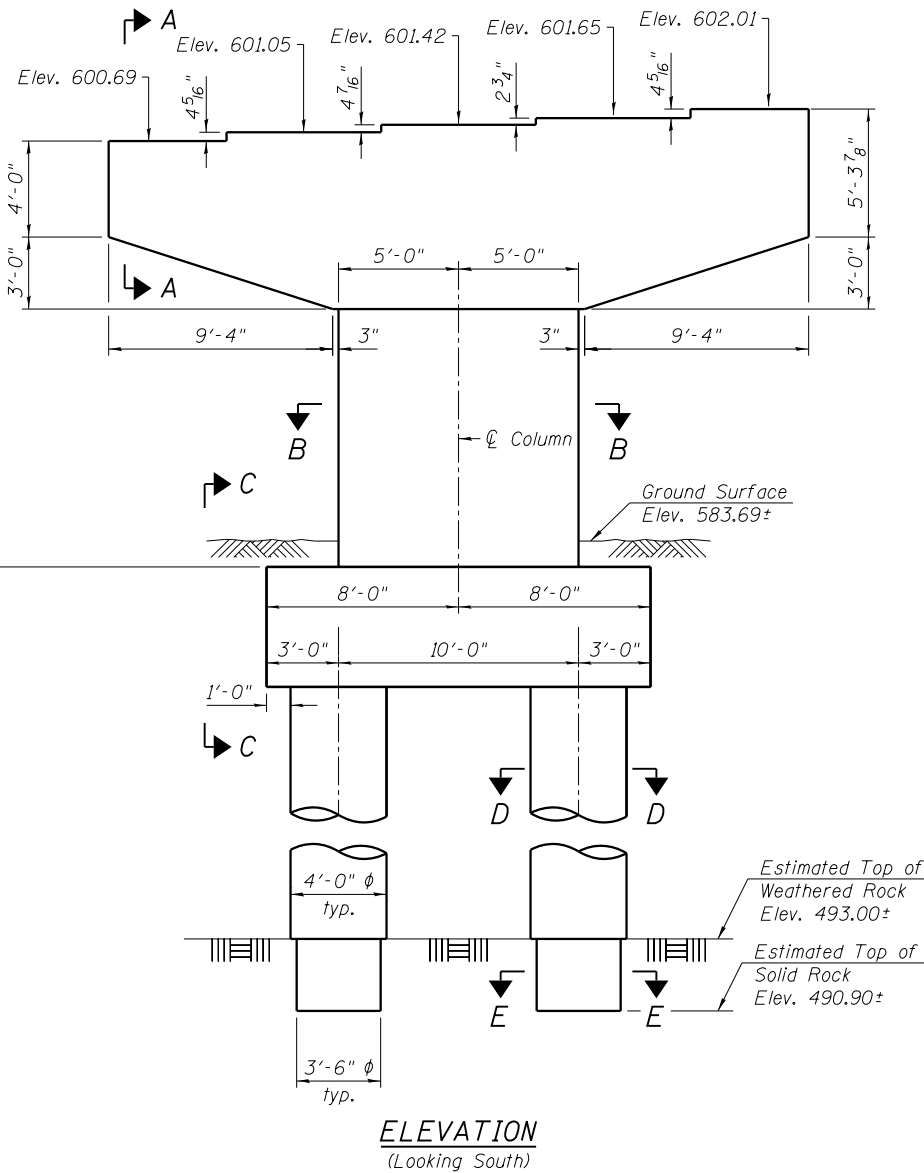
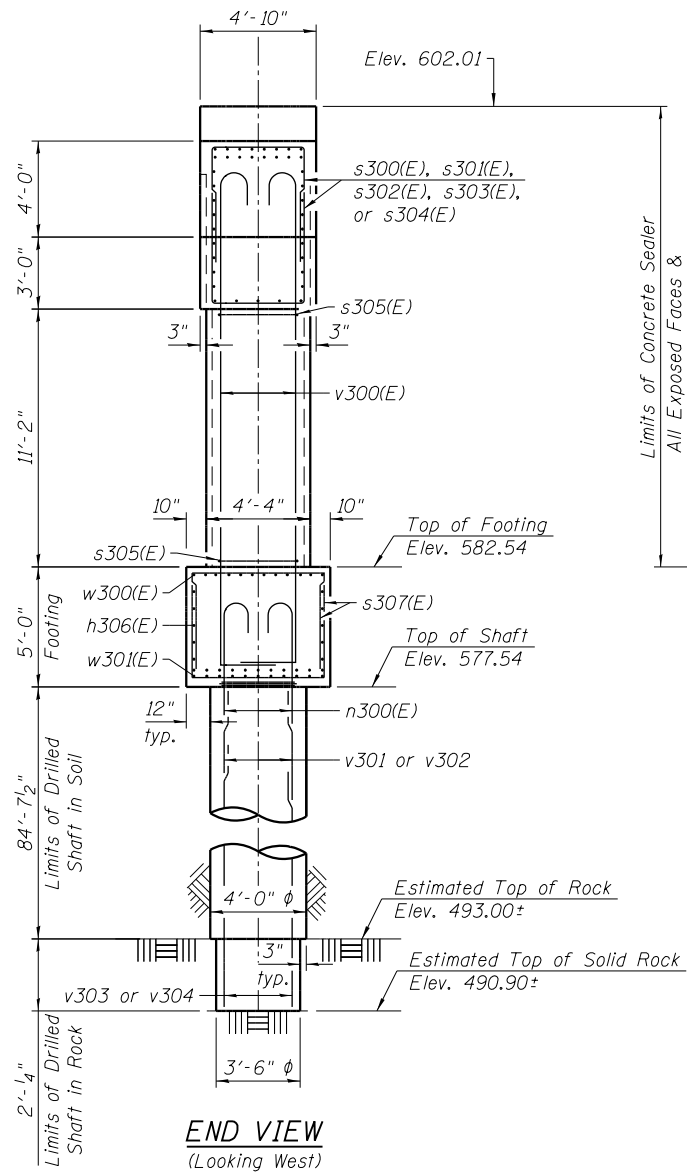
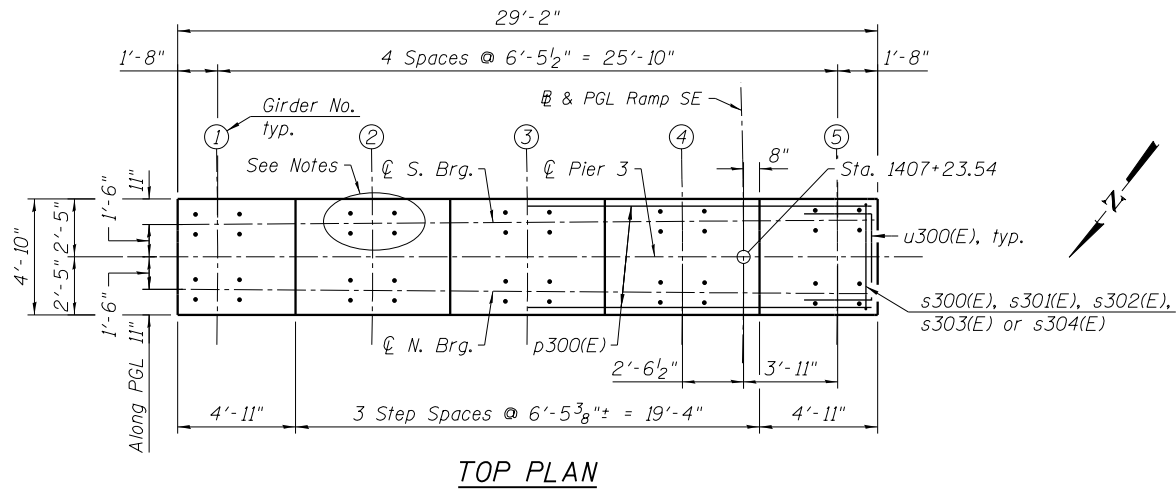
*** Contractor may need to increase the casing thickness to withstand the installation process. The estimated Top of Rock/Bottom of Permanent Casing Elevation is shown. The limits of casing shall be adjusted as necessary, and as approved, such that the actual installed casing length extends to the as-encountered top of rock at each shaft. See Article 516.06(d) of the Standard Specifications.*



* Slope with bearing steps.

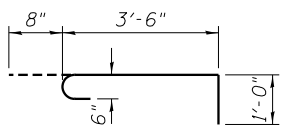


Notes:
Pour steps monolithically with cap.
C of Pier is radial to R Ramp SE at Sta. 1407+23.54.
C of N. Brg. is radial to R Ramp SE at Sta. 1407+22.04.
C of S. Brg. is radial to R Ramp SE at Sta. 1407+25.04.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-51 & S2-52.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-63 for Sections and Details.

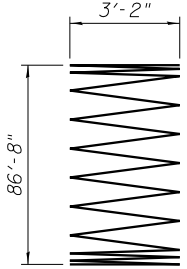


Minimum Bar Laps	
Bar	Lap
#5	3'-7"
#6	3'-10"
* #10	4'-3"
#10	6'-4"

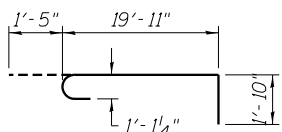
* Uncoated



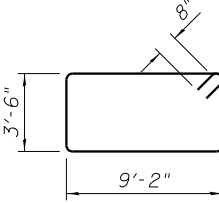
BAR s306(E)



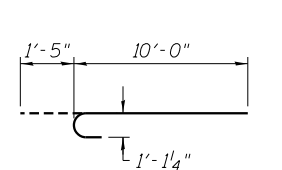
BAR sp300



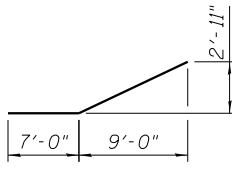
BAR v300(E)



BAR s305(E)



BAR n300(E)

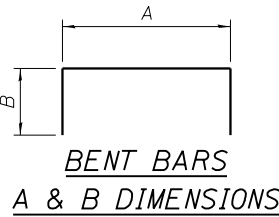


BAR p301(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h300(E)	12	#7	28'-4"	—
h301(E)	2	#7	24'-3"	—
h302(E)	2	#7	19'-10"	—
h303(E)	2	#7	15'-4"	—
h304(E)	18	#5	6'-6"	—
h305(E)	12	#5	4'-4"	—
h306(E)	10	#6	15'-8"	—
n300(E)	32	#10	11'-5"	C
p300(E)	16	#8	28'-4"	—
p301(E)	10	#5	16'-6"	—
s300(E)	8	#5	10'-10"	U
s301(E)	12	#5	12'-0"	U
s302(E)	18	#5	13'-10"	U
s303(E)	60	#5	14'-4"	U
s304(E)	18	#5	13'-0"	U
s305(E)	12	#6	26'-8"	U
s306(E)	36	#6	5'-2"	C
s307(E)	66	#6	13'-8"	U
sp300	2	#6	86'-8"	WWW
u300(E)	14	#6	11'-8"	U
u301(E)	30	#5	7'-6"	U
u302(E)	10	#6	12'-10"	U
v300(E)	44	#10	23'-2"	C
v301	16	#10	40'-7"	—
v302	16	#10	50'-7"	—
v303	16	#10	50'-0"	—
v304	16	#10	40'-0"	—
w300(E)	12	#7	15'-8"	—
w301(E)	22	#10	15'-8"	—
Structure Excavation	Cu. Yd.	44		
Concrete Structures	Cu. Yd.	71.0		
Reinforcement Bars	Pound	17,660		
Reinforcement Bars, Epoxy Coated	Pound	14,990		
Drilled Shaft in Soil	Cu. Yd.	78.7		
Drilled Shaft in Rock	Cu. Yd.	1.8		
Concrete Sealer	Sq. Ft.	999		
Crosshole Sonic Logging Access Ducts	Foot	175		
Crosshole Sonic Logging Testing	Each	1		

** Length is height of spiral.

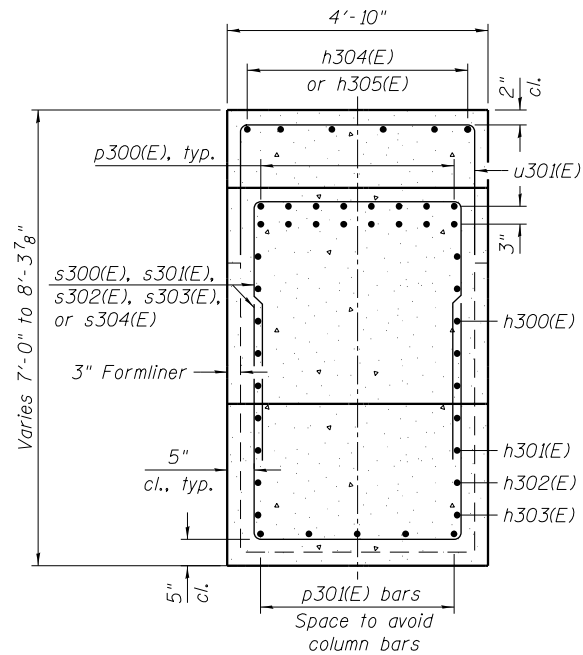


BENT BARS A & B DIMENSIONS

Bar	A	B
s300(E)	4'-0"	3'-5"
s301(E)	4'-0"	4'-0"
s302(E)	4'-0"	4'-11"
s303(E)	4'-0"	5'-2"
s304(E)	4'-0"	4'-6"
s307(E)	5'-8"	4'-3"
u300(E)	4'-0"	3'-10"
u301(E)	4'-6"	1'-6"
u302(E)	5'-2"	3'-10"

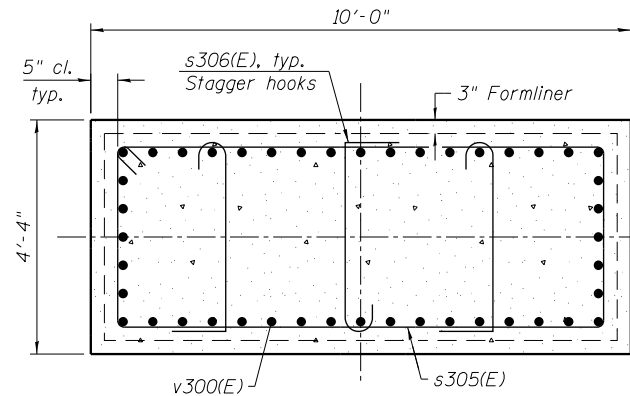
USER NAME = wjcollett1	DESIGNED - JM	REVISED
PLOT SCALE = 8.0000' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	722
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

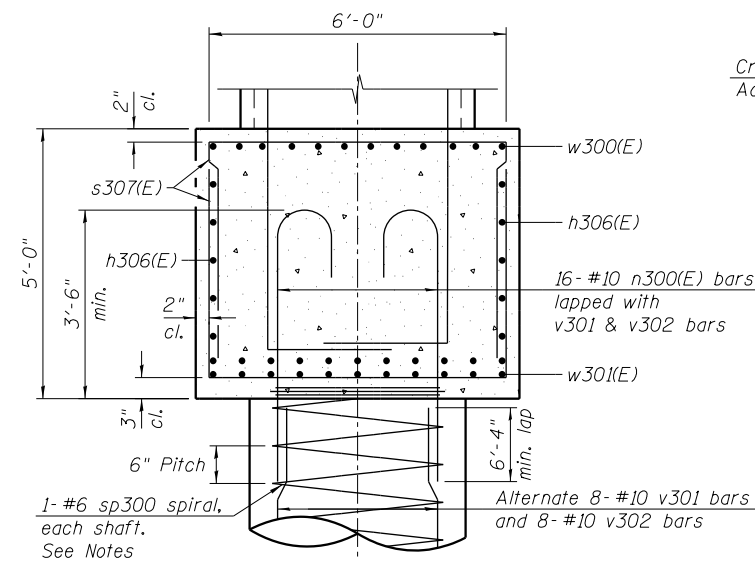


SECTION A-A

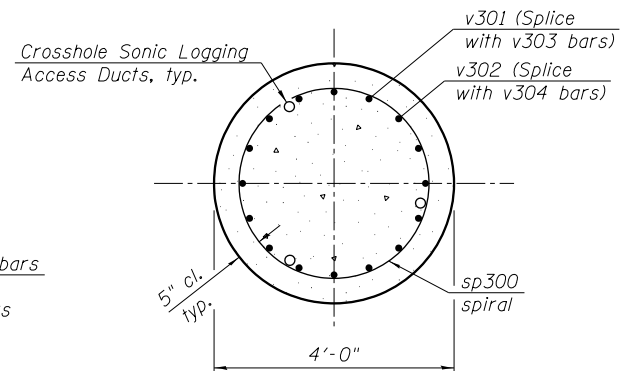
Notes:
 For sp300 spirals:
 1) Provide 1½ extra turns top and bottom. Extend spiral 3" into crashwall. Provide 4-#4 spacers or equivalent.
 2) When splicing spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging Testing.
 The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and final top of shaft elevation.



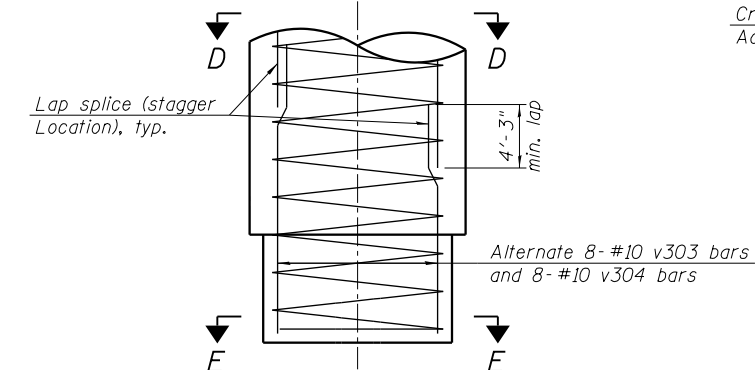
SECTION B-B



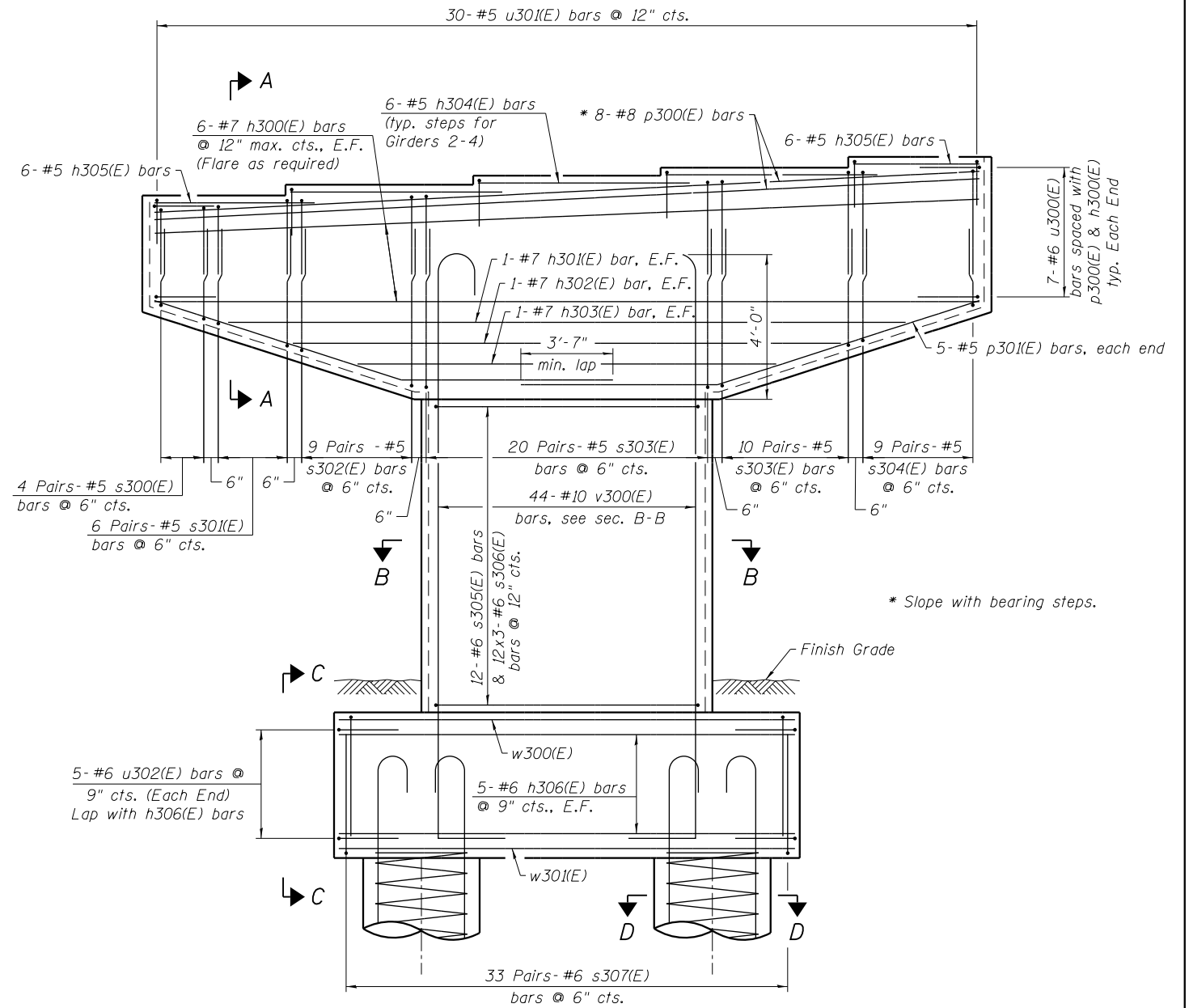
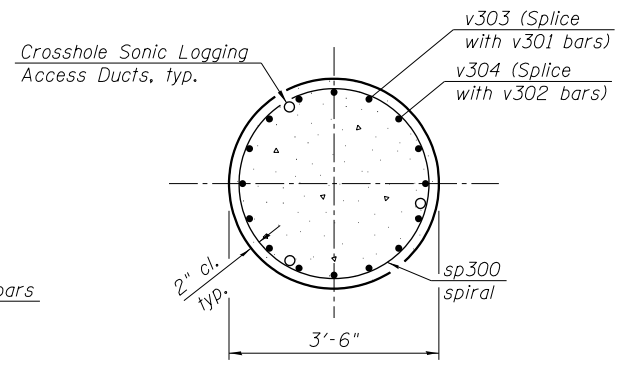
SECTION C-C



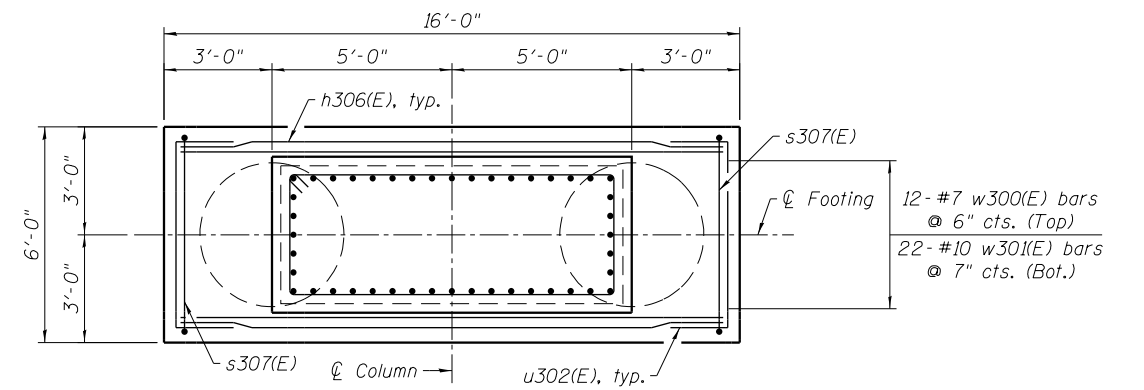
SECTION D-D



SECTION E-E



ELEVATION
(Looking South)

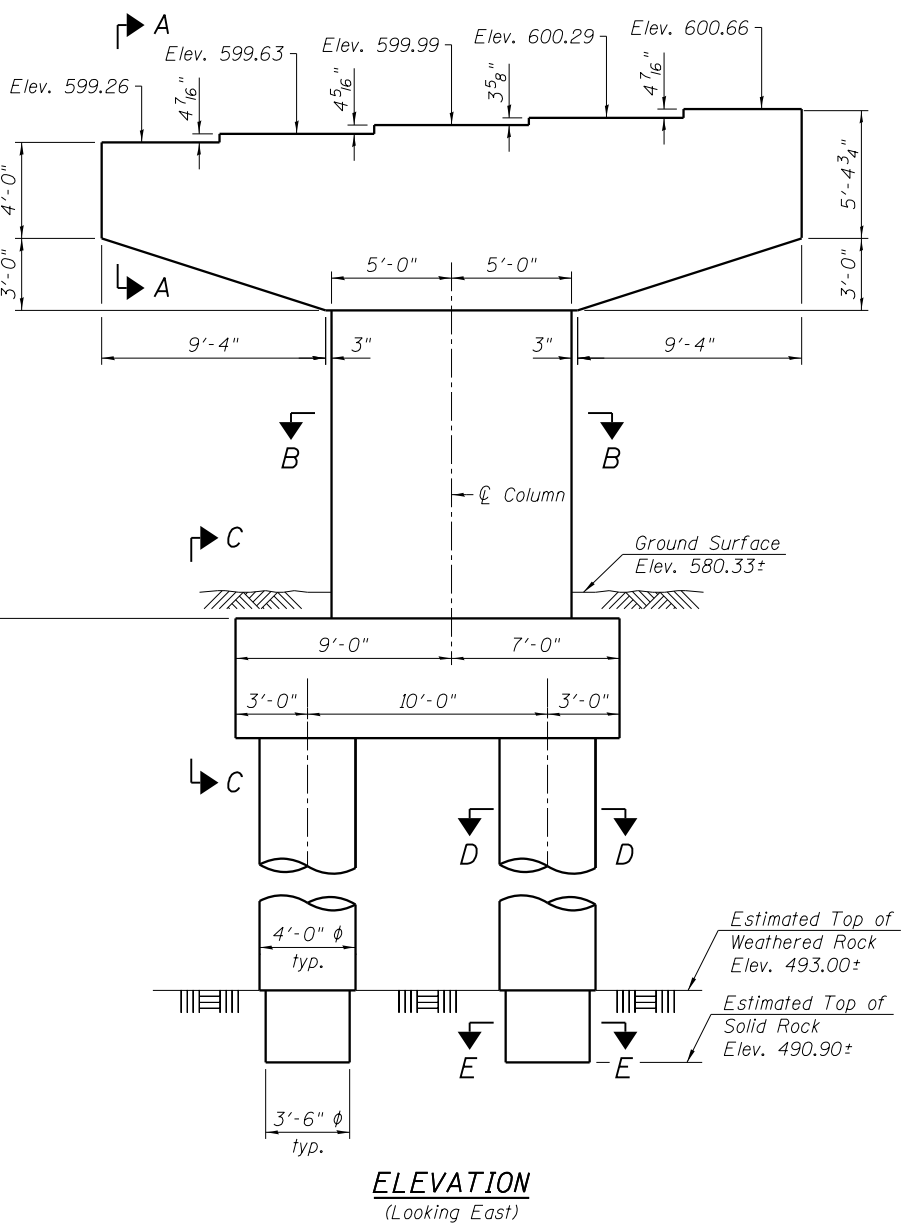
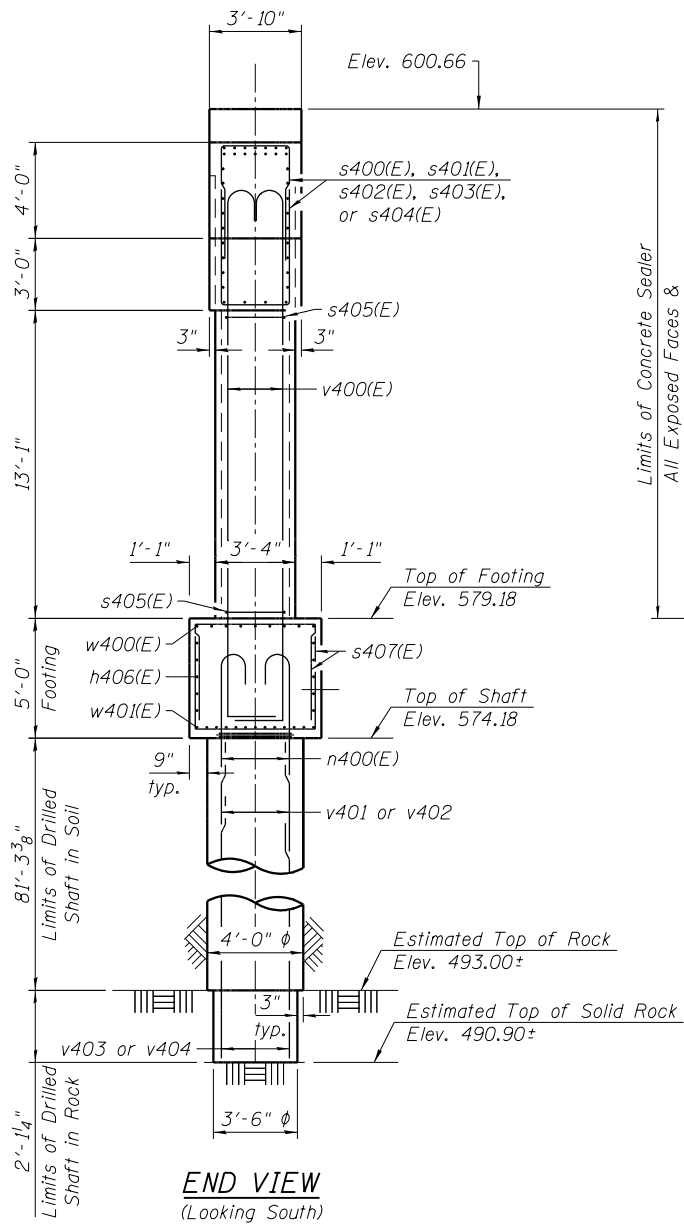
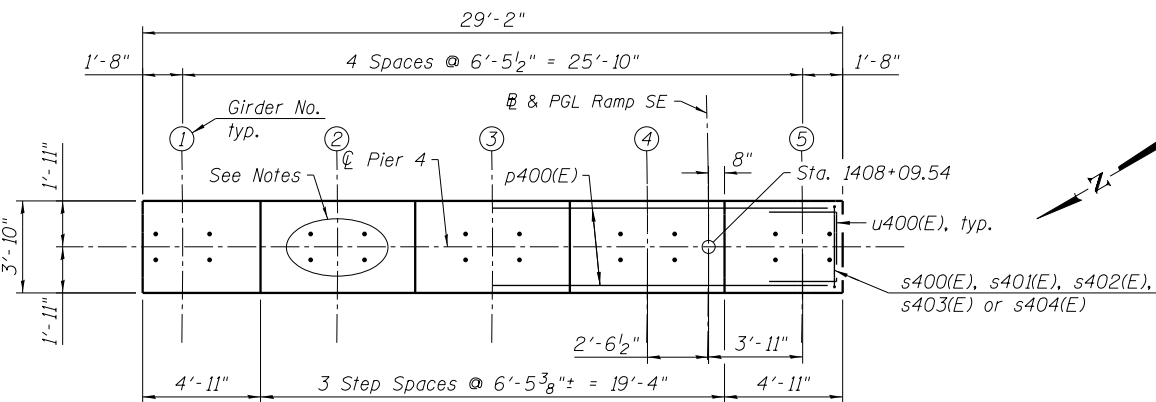


FOOTING PLAN

USER NAME = wjcolletti	DESIGNED - JM	REVISED
PLOT SCALE = 5.3333' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

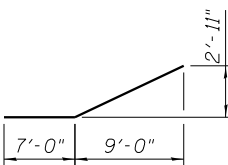
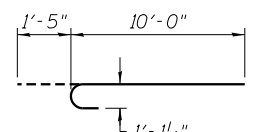
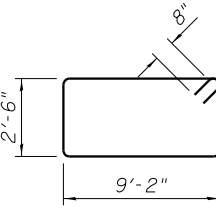
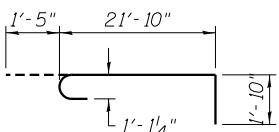
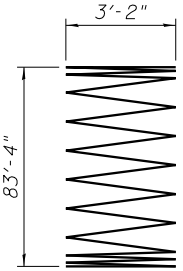
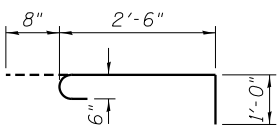
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	723
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-51 & S2-52.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-65 for Sections and Details.



Minimum Bar Laps	
Bar	Lap
#5	3'-7"
#6	3'-10"
* #10	4'-3"
#10	6'-4"

* Uncoated



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h400(E)	12	#7	28'-4"	—
h401(E)	2	#7	24'-3"	—
h402(E)	2	#7	19'-10"	—
h403(E)	2	#7	15'-4"	—
h404(E)	15	#5	6'-6"	—
h405(E)	10	#5	4'-4"	—
h406(E)	10	#6	15'-8"	—
n400(E)	32	#10	11'-5"	C
p400(E)	14	#8	28'-4"	—
p401(E)	8	#5	16'-6"	—
s400(E)	8	#5	9'-10"	U
s401(E)	12	#5	11'-0"	U
s402(E)	18	#5	12'-10"	U
s403(E)	60	#5	13'-4"	U
s404(E)	18	#5	12'-0"	U
s405(E)	14	#6	24'-8"	U
s406(E)	42	#6	4'-2"	C
s407(E)	66	#6	13'-8"	U
sp400	2	#6	83'-4"	WWW
u400(E)	14	#6	10'-8"	U
u401(E)	30	#5	6'-6"	U
u402(E)	10	#6	12'-10"	U
v400(E)	32	#10	25'-1"	C
v401	16	#10	37'-3"	—
v402	16	#10	47'-3"	—
v403	16	#10	50'-0"	—
v404	16	#10	40'-0"	—
w400(E)	9	#7	15'-8"	—
w401(E)	13	#11	15'-8"	—
Structure Excavation		Cu. Yd.	76	
Concrete Structures		Cu. Yd.	60.6	
Reinforcement Bars		Pound	17,010	
Reinforcement Bars, Epoxy Coated		Pound	13,200	
Drilled Shaft in Soil		Cu. Yd.	75.6	
Drilled Shaft in Rock		Cu. Yd.	1.5	
Concrete Sealer		Sq. Ft.	970	
Crosshole Sonic Logging Access Ducts		Foot	167	
Crosshole Sonic Logging Testing		Each	1	

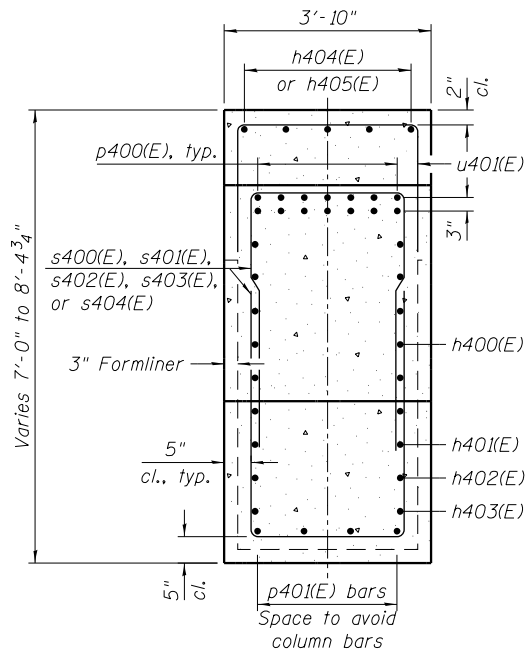
** Length is height of spiral.

BENT BARS
A & B DIMENSIONS

Bar	A	B
s400(E)	3'-0"	3'-5"
s401(E)	3'-0"	4'-0"
s402(E)	3'-0"	4'-11"
s403(E)	3'-0"	5'-2"
s404(E)	3'-0"	4'-6"
s407(E)	5'-2"	4'-3"
u400(E)	3'-0"	3'-10"
u401(E)	3'-6"	1'-6"
u402(E)	5'-2"	3'-10"

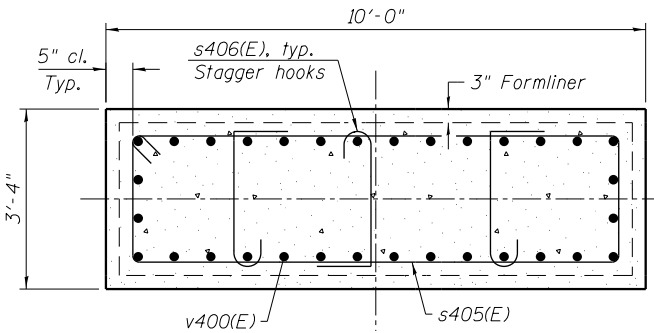
USER NAME = wjcollett1	DESIGNED - JM	REVISED
PLOT SCALE = 8.0000' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	724
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

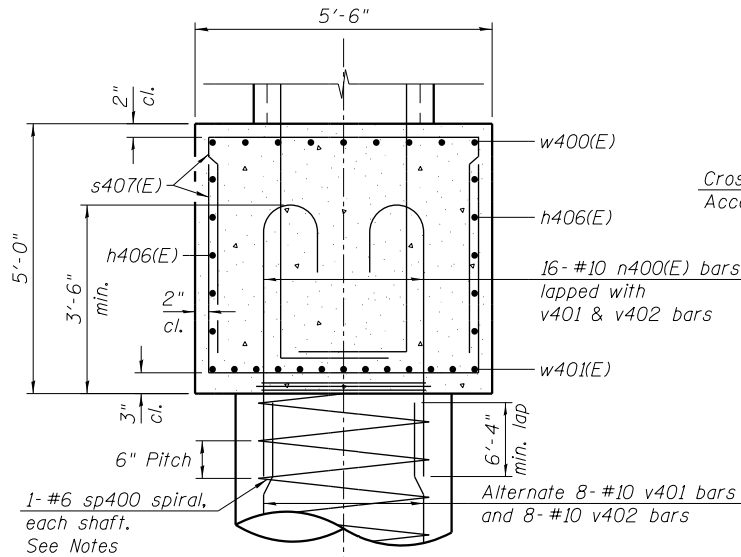


SECTION A-A

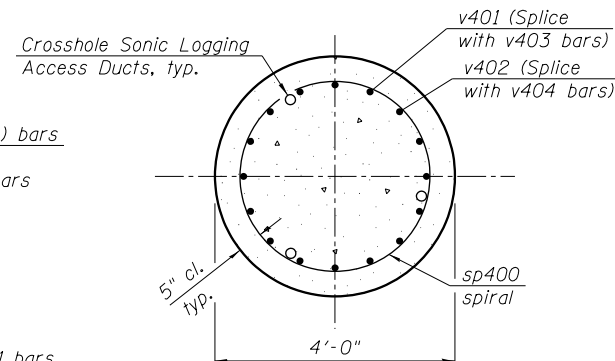
Notes:
For sp400 spirals:
1) Provide 1½ extra turns top and bottom. Extend spiral 3" into crashwall. Provide 4- #4 spacers or equivalent.
2) When splicing spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging Testing.
The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and final top of shaft elevation.



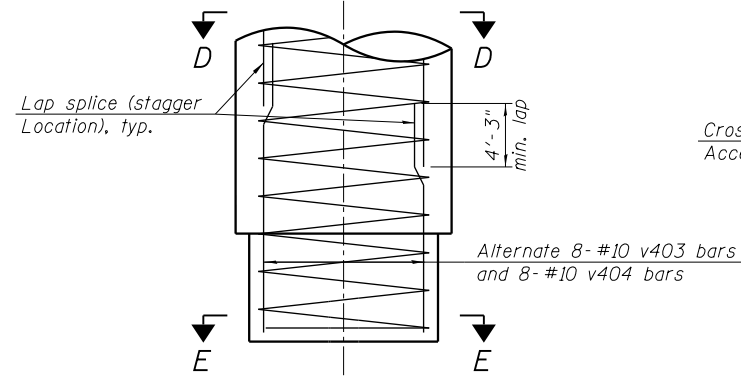
SECTION B-B



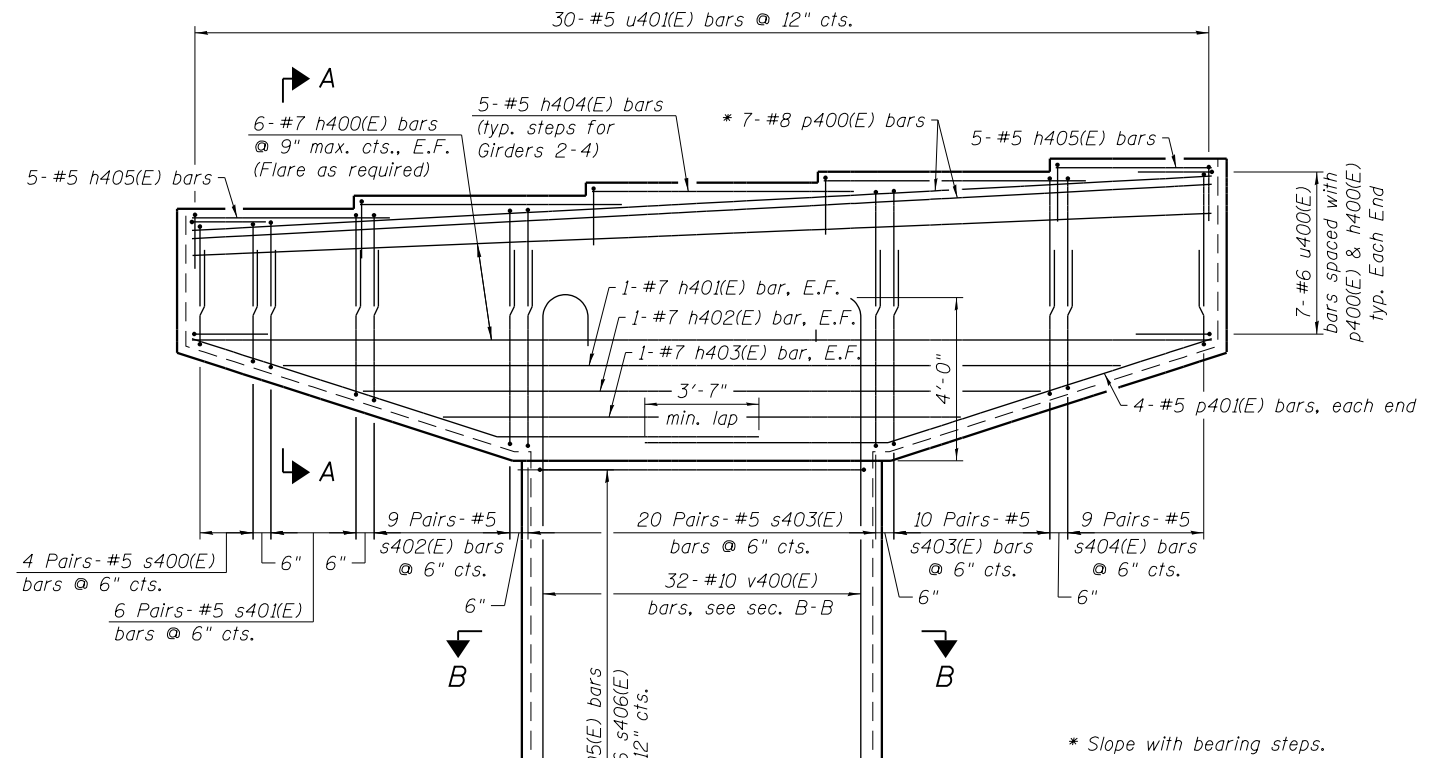
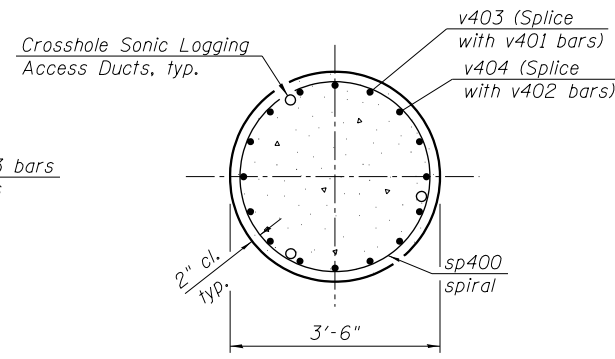
SECTION C-C



SECTION D-D

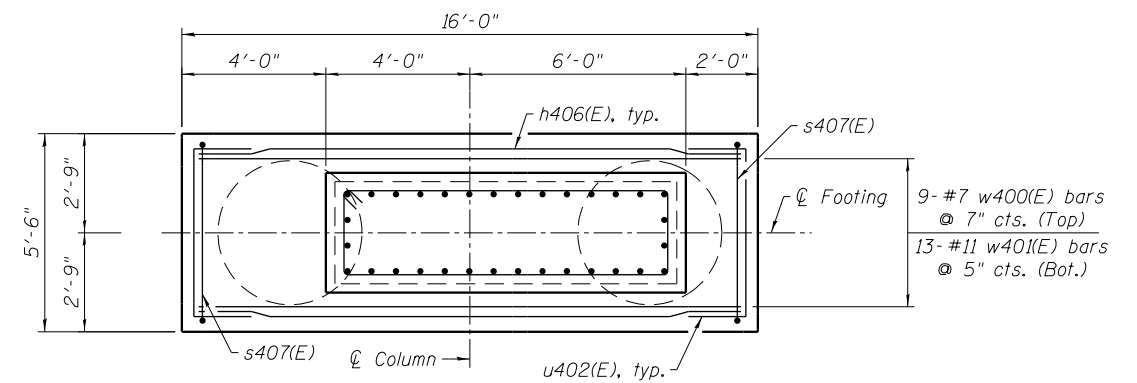


SECTION E-E



ELEVATION

(Looking East)

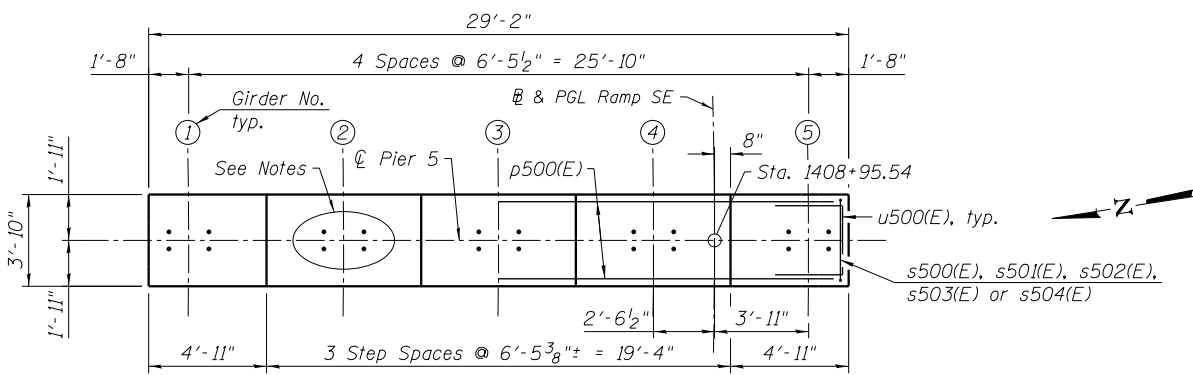


FOOTING PLAN

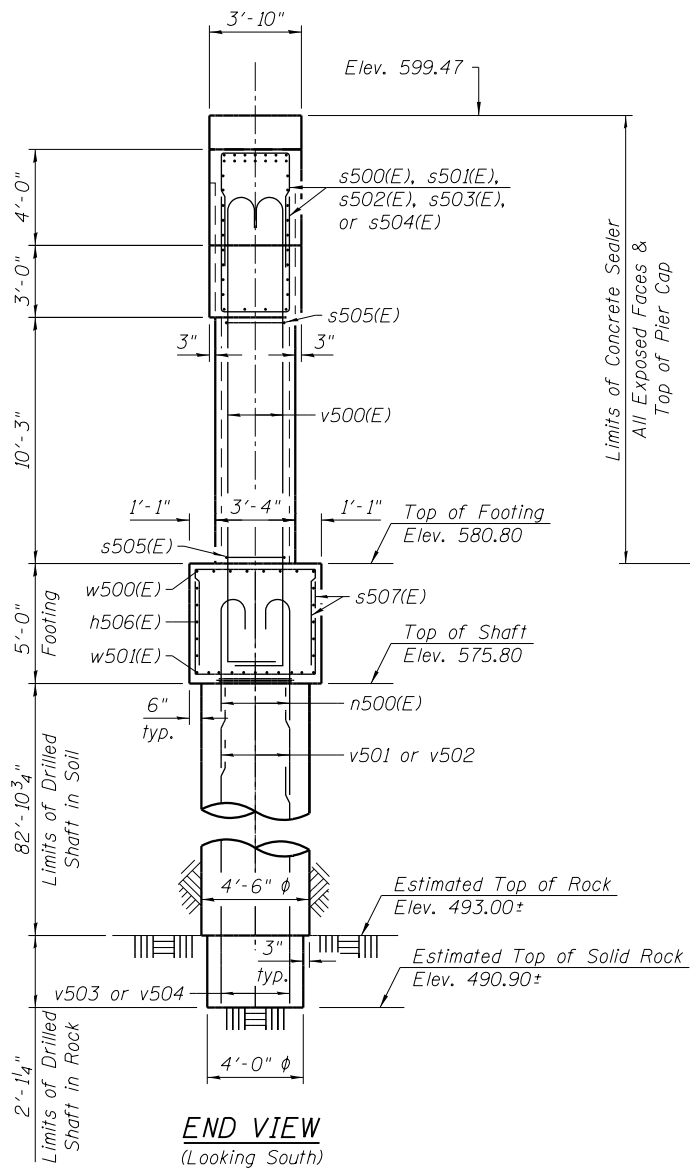
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PLOT SCALE = 5.3333' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	725
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

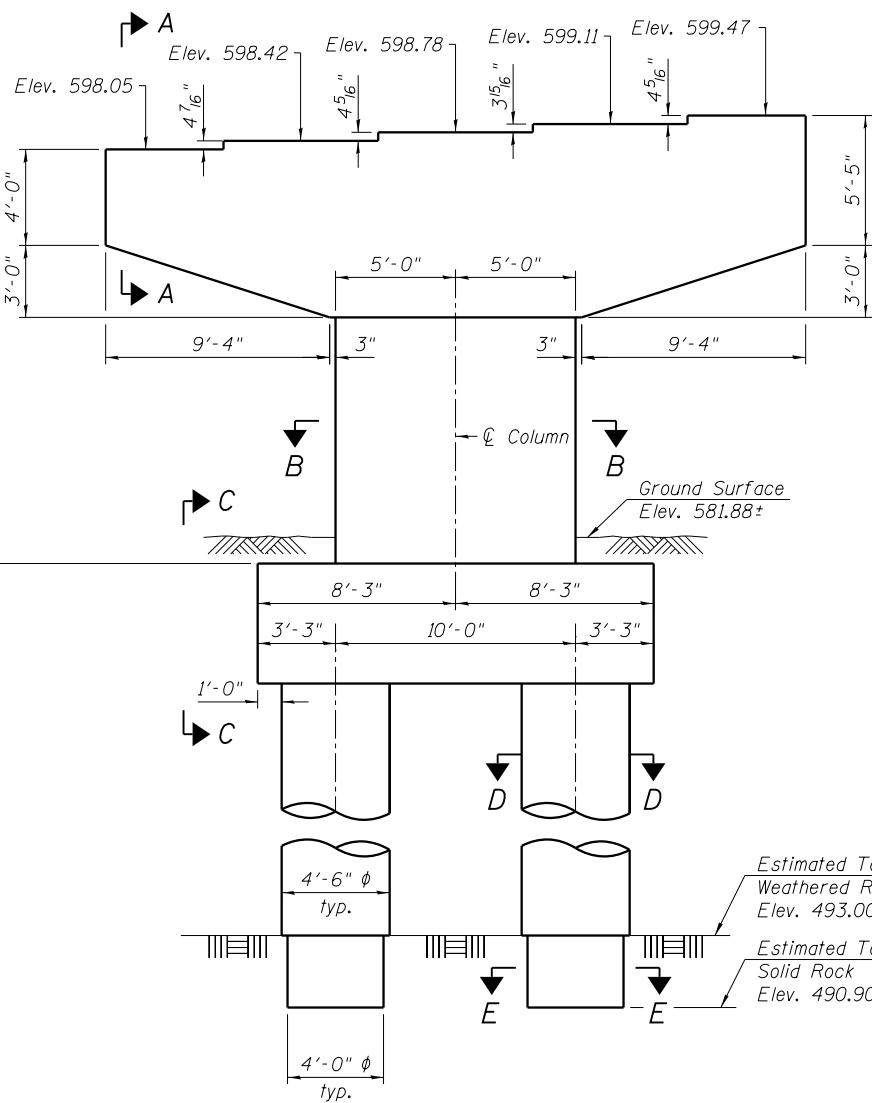
Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-53 & S2-54.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-67 for Sections and Details.



TOP PLAN



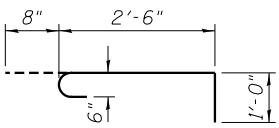
END VIEW
(Looking South)



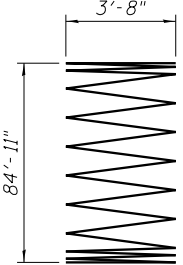
ELEVATION
(Looking East)

Minimum Bar Laps	
Bar	Lap
#5	3'-7"
#6	3'-10"
* #10	4'-3"
#10	6'-4"

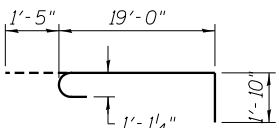
* Uncoated



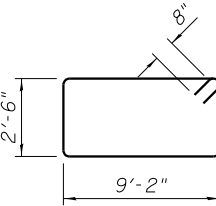
BAR s506(E)



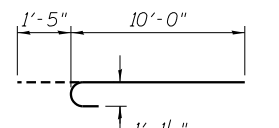
BAR sp500



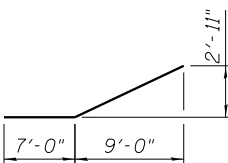
BAR v500(E)



BAR s505(E)



BAR n500(E)



BAR p501(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h500(E)	12	#7	28'-4"	—
h501(E)	2	#7	24'-3"	—
h502(E)	2	#7	19'-10"	—
h503(E)	2	#7	15'-4"	—
h504(E)	15	#5	6'-6"	—
h505(E)	10	#5	4'-4"	—
h506(E)	10	#6	16'-2"	—
n500(E)	36	#10	11'-5"	—
p500(E)	14	#8	28'-4"	—
p501(E)	8	#5	16'-6"	—
s500(E)	10	#5	9'-10"	—
s501(E)	12	#5	11'-0"	—
s502(E)	14	#5	12'-10"	—
s503(E)	62	#5	13'-4"	—
s504(E)	20	#5	12'-0"	—
s505(E)	11	#6	24'-8"	—
s506(E)	33	#6	4'-2"	—
s507(E)	68	#6	13'-8"	—
sp500	2	#6	84'-11"	—
u500(E)	14	#6	10'-8"	—
u501(E)	30	#5	6'-6"	—
u502(E)	10	#6	12'-10"	—
v500(E)	32	#10	22'-3"	—
v501	18	#10	38'-10"	—
v502	18	#10	48'-10"	—
v503	18	#10	50'-0"	—
v504	18	#10	40'-0"	—
w500(E)	9	#7	16'-2"	—
w501(E)	13	#11	16'-2"	—
Structure Excavation	Cu. Yd.	93		
Concrete Structures	Cu. Yd.	57.7		
Reinforcement Bars	Pound	19,650		
Reinforcement Bars, Epoxy Coated	Pound	12,950		
Drilled Shaft in Soil	Cu. Yd.	97.6		
Drilled Shaft in Rock	Cu. Yd.	2.0		
Concrete Sealer	Sq. Ft.	895		
Crosshole Sonic Logging Access Ducts	Foot	170		
Crosshole Sonic Logging Testing	Each	1		

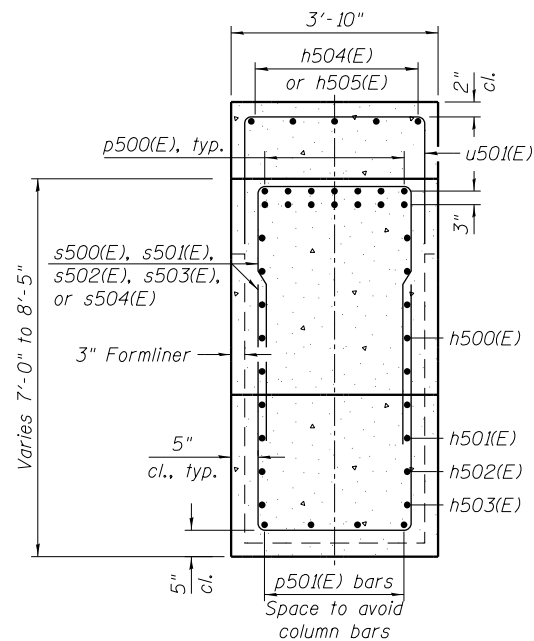
** Length is height of spiral.

BENT BARS
A & B DIMENSIONS

Bar	A	B
s500(E)	3'-0"	3'-5"
s501(E)	3'-0"	4'-0"
s502(E)	3'-0"	4'-11"
s503(E)	3'-0"	5'-2"
s504(E)	3'-0"	4'-6"
s507(E)	5'-2"	4'-3"
u500(E)	3'-0"	3'-10"
u501(E)	3'-6"	1'-6"
u502(E)	5'-2"	3'-10"

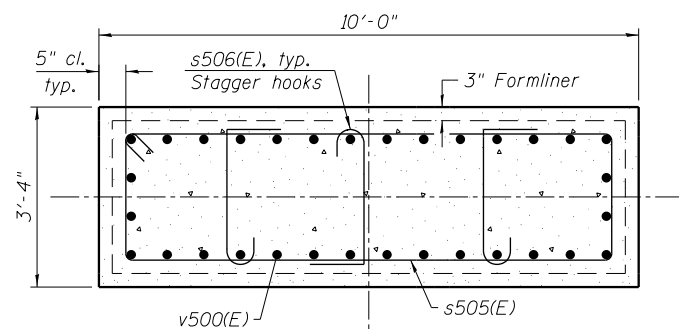
USER NAME = wjcollett1	DESIGNED - JM	REVISED
PLOT SCALE = 8:0 's' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	726
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

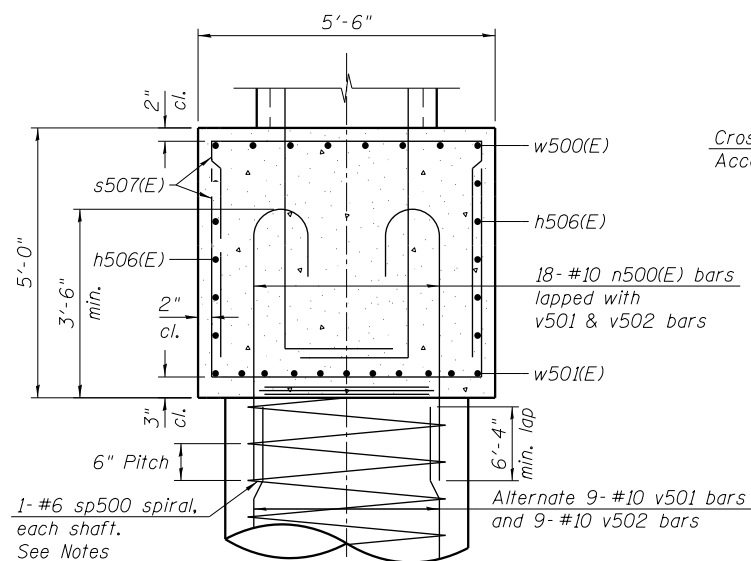


SECTION A-A

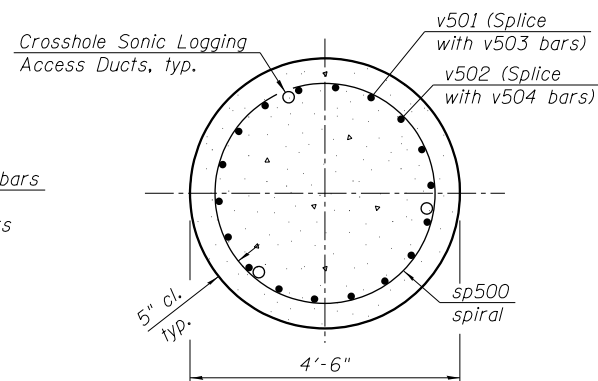
Notes:
 For sp500 spirals:
 1) Provide 1/2 extra turns top and bottom. Extend spiral 3" into crashwall. Provide 4-#4 spacers or equivalent.
 2) When splicing spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging Testing.
 The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and final top of shaft elevation.



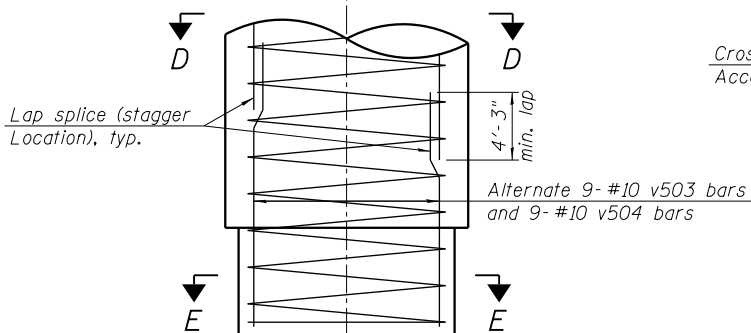
SECTION B-B



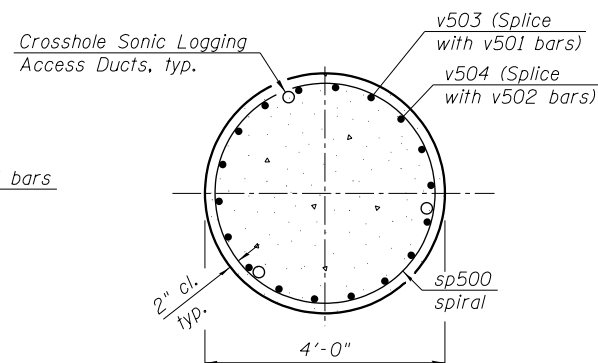
SECTION C-C



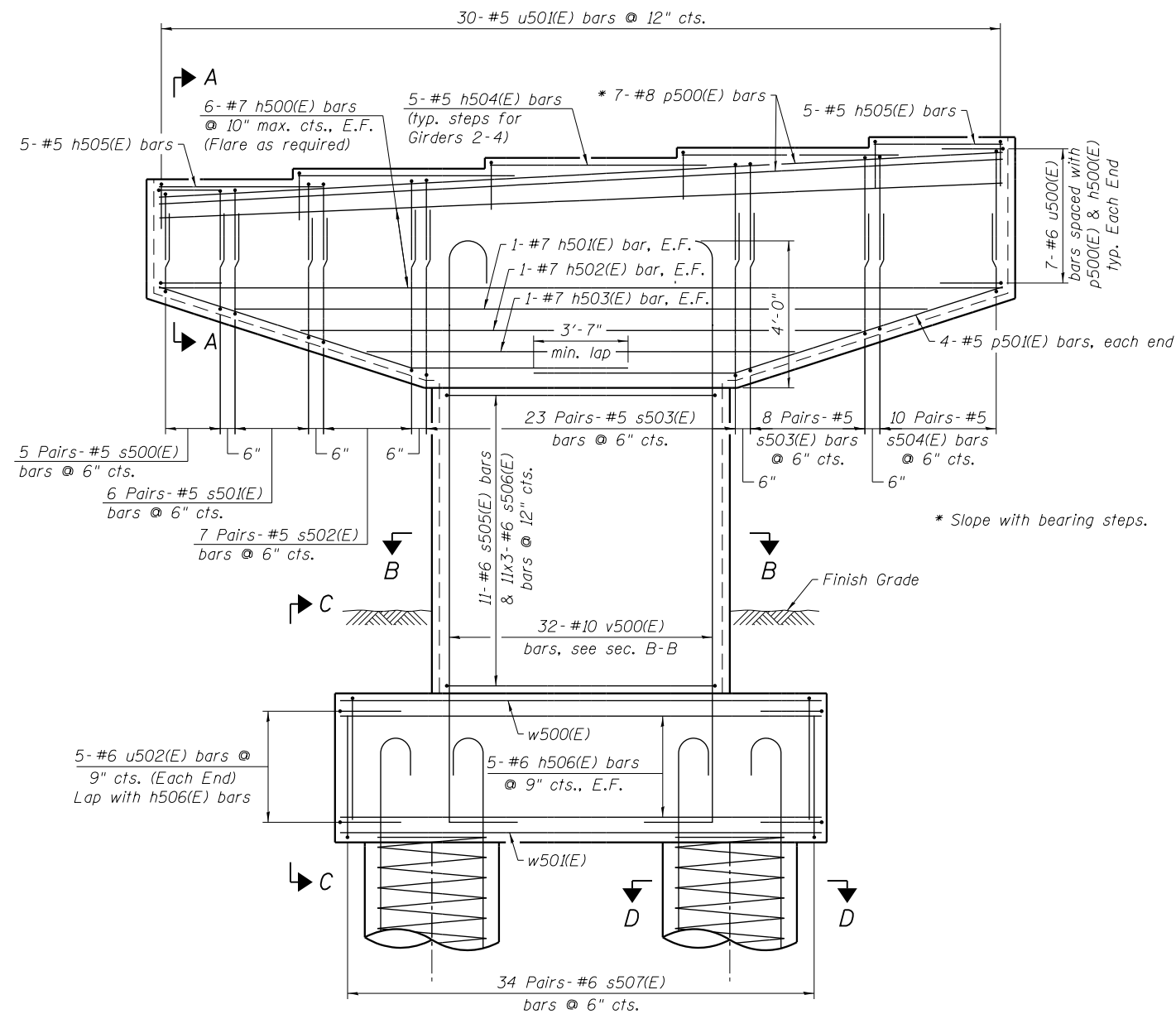
SECTION D-D



SECTION E-E

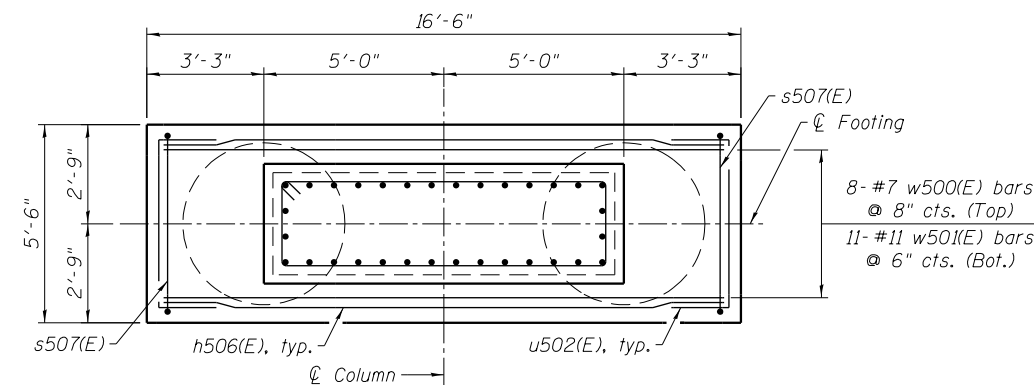


SECTION F-F



ELEVATION

(Looking East)



FOOTING PLAN

5:42:44 PM
 0161714-60X93-S067-Pier5_Details.dgn



USER NAME = wjcolletti	DESIGNED - JM	REVISED
CHECKED - JRM	REVISED	
PLOT SCALE = 5/4 's' / in.	DRAWN - JM	REVISED
PLOT DATE = 7/26/2018	CHECKED - JRM	REVISED

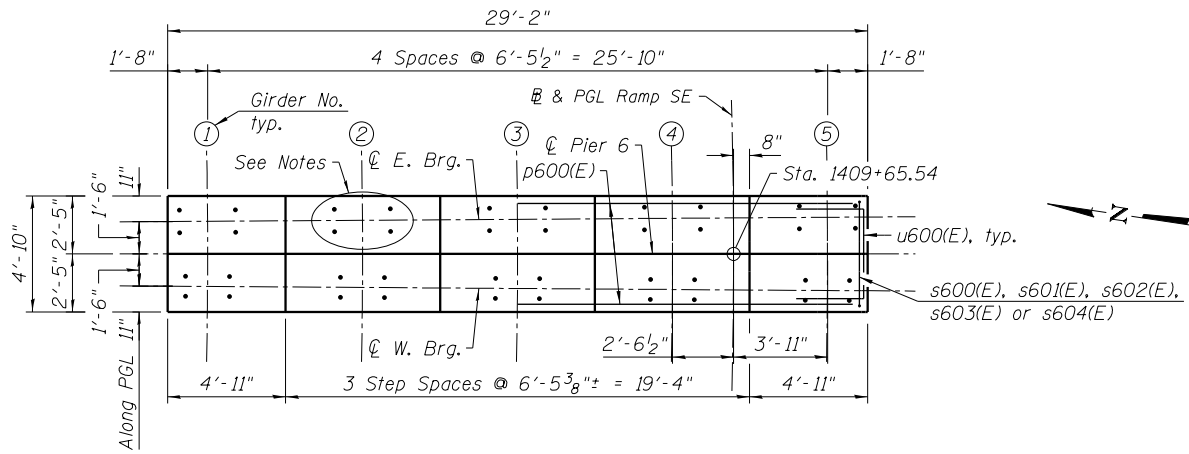
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 5 DETAILS
 STRUCTURE NO. 016-1714

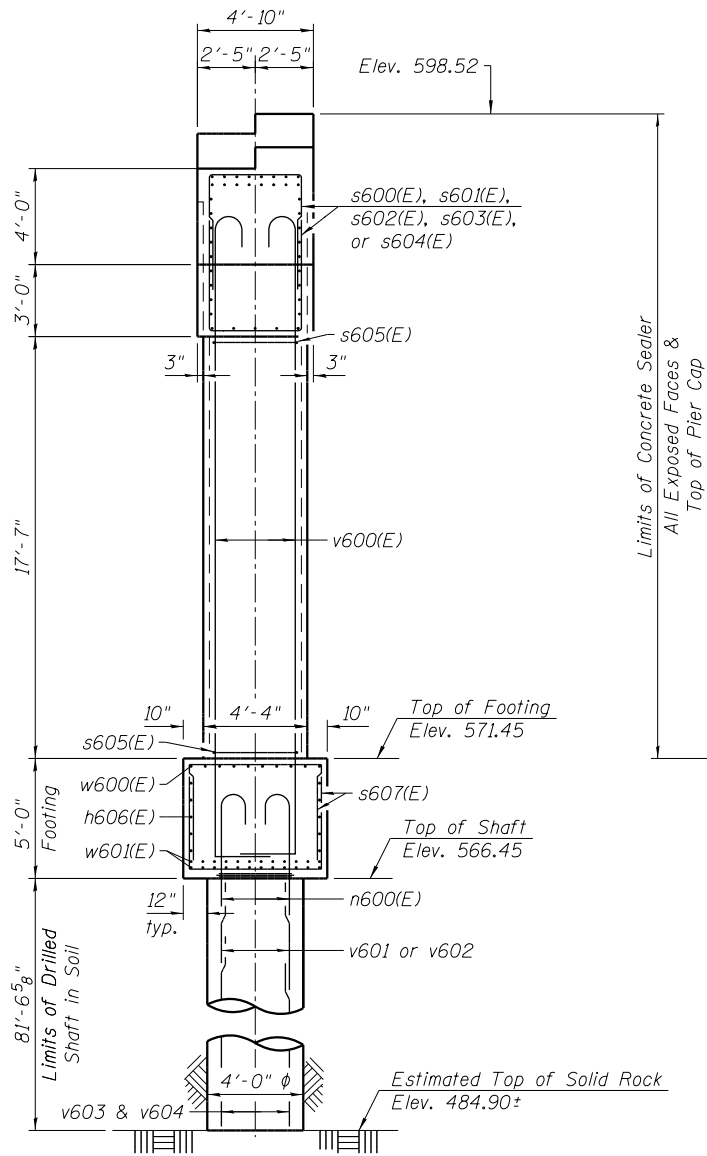
SHEET NO. S2-67 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	727
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

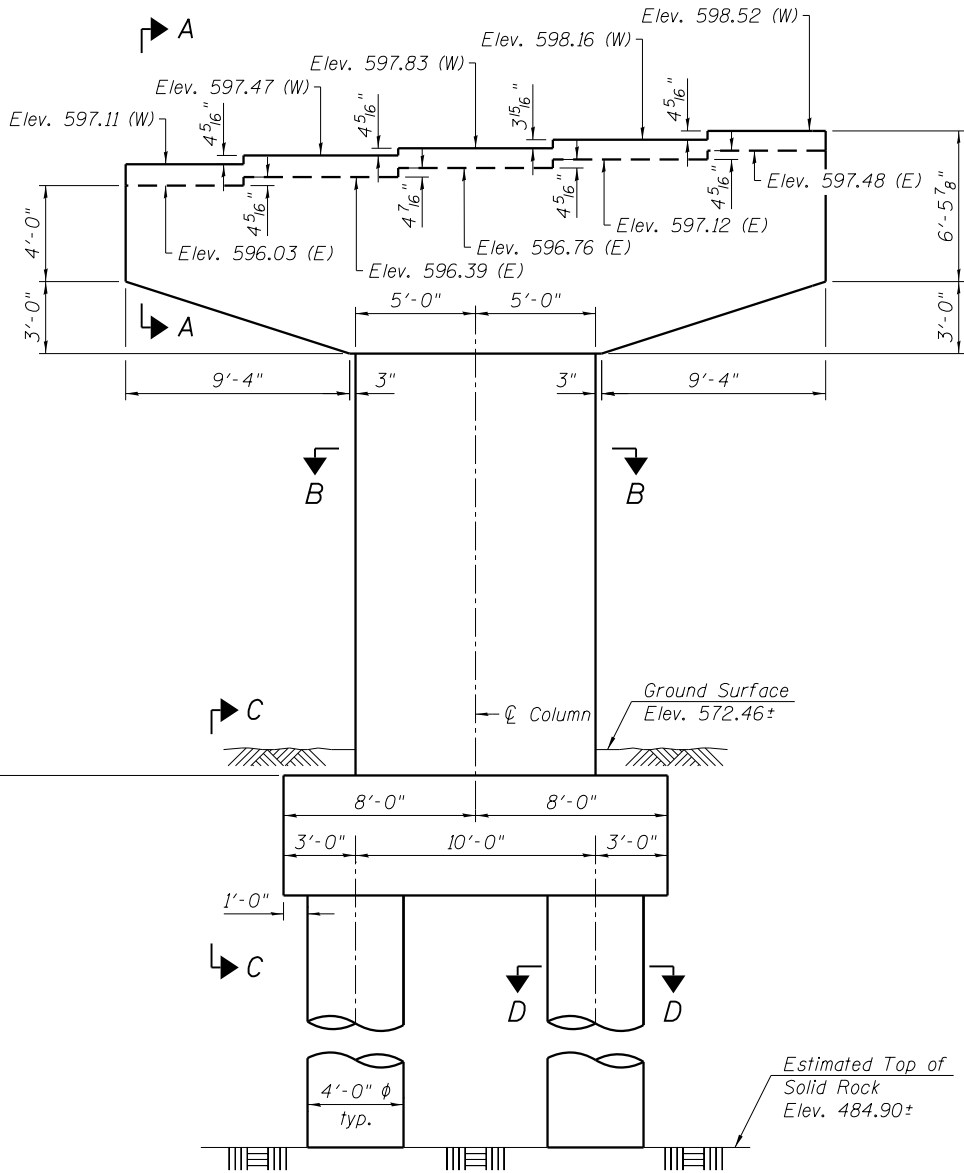
Notes:
Pour steps monolithically with steps.
C of Pier is radial to R Ramp SE at Sta. 1409+65.54.
C of E. Brg. is radial to R Ramp SE at Sta. 1409+67.04.
C of W. Brg. is radial to R Ramp SE at Sta. 1409+64.04.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-51 & S2-52.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-69 for Sections and Details.
(W) - West Girder, (E) - East Girder



TOP PLAN



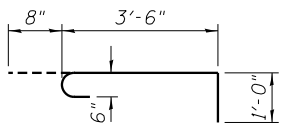
END VIEW
(Looking South)



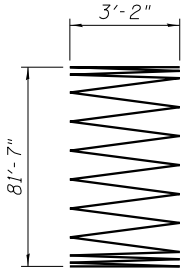
ELEVATION
(Looking East)

Minimum Bar Laps	
Bar	Lap
#5	3'-7"
#6	3'-10"
* #10	4'-3"
#10	6'-4"

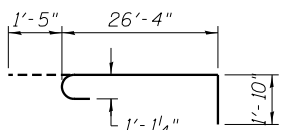
* Uncoated



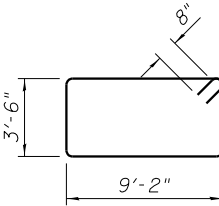
BAR s606(E)



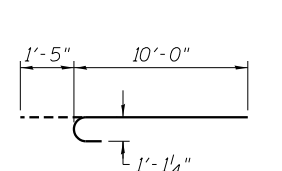
BAR sp600



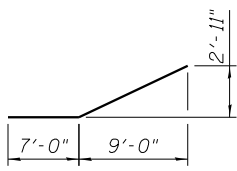
BAR v600(E)



BAR s605(E)



BAR n600(E)

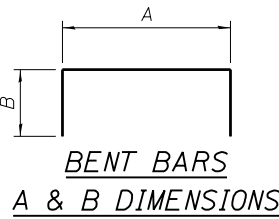


BAR p601(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h600(E)	12	#7	28'-4"	U
h601(E)	2	#7	24'-3"	U
h602(E)	2	#7	19'-10"	U
h603(E)	2	#7	15'-4"	U
h604(E)	24	#5	6'-6"	U
h605(E)	16	#5	4'-4"	U
h606(E)	10	#6	15'-8"	U
n600(E)	32	#10	11'-5"	C
p600(E)	16	#8	28'-4"	U
p601(E)	10	#5	16'-6"	U
s600(E)	10	#5	10'-10"	U
s601(E)	12	#5	12'-0"	U
s602(E)	14	#5	13'-10"	U
s603(E)	62	#5	14'-4"	U
s604(E)	18	#5	13'-0"	U
s605(E)	19	#6	26'-8"	U
s606(E)	57	#6	5'-2"	C
s607(E)	78	#6	14'-2"	U
sp600	2	#6	81'-7"	WWW
u600(E)	14	#6	11'-8"	U
u601(E)	30	#5	5'-1"	U
u602(E)	10	#6	13'-4"	U
u603(E)	30	#5	7'-3"	U
v600(E)	44	#10	29'-7"	C
v601	16	#10	35'-6"	U
v602	16	#10	45'-6"	U
v603	16	#10	50'-0"	U
v604	16	#10	40'-0"	U
w600(E)	10	#8	15'-8"	U
w601(E)	24	#10	15'-8"	U
Structure Excavation			Cu. Yd.	123
Concrete Structures			Cu. Yd.	86.2
Reinforcement Bars			Pound	16,660
Reinforcement Bars, Epoxy Coated			Pound	15,300
Drilled Shaft in Soil			Cu. Yd.	76
Concrete Sealer			Sq. Ft.	1,222
Crosshole Sonic Logging Access Ducts			Foot	164
Crosshole Sonic Logging Testing			Each	1

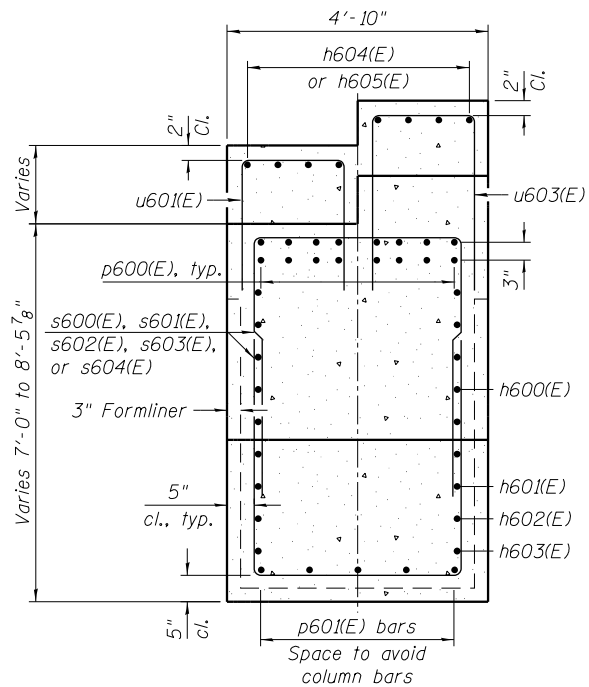
** Length is height of spiral.



Bar	A	B
s600(E)	4'-0"	3'-5"
s601(E)	4'-0"	4'-0"
s602(E)	4'-0"	4'-11"
s603(E)	4'-0"	5'-2"
s604(E)	4'-0"	4'-6"
s607(E)	5'-8"	4'-3"
u600(E)	4'-0"	3'-10"
u601(E)	2'-1"	1'-6"
u602(E)	5'-8"	3'-10"
u603(E)	2'-1"	2'-4"

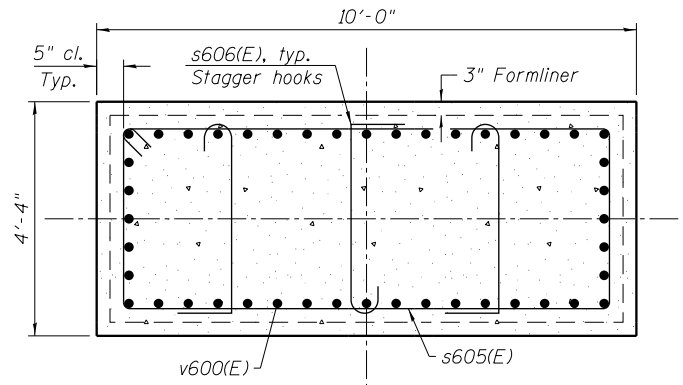
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PLOT SCALE = 8:0 's' / in.	CHECKED - JRM	REVISED
PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	728
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

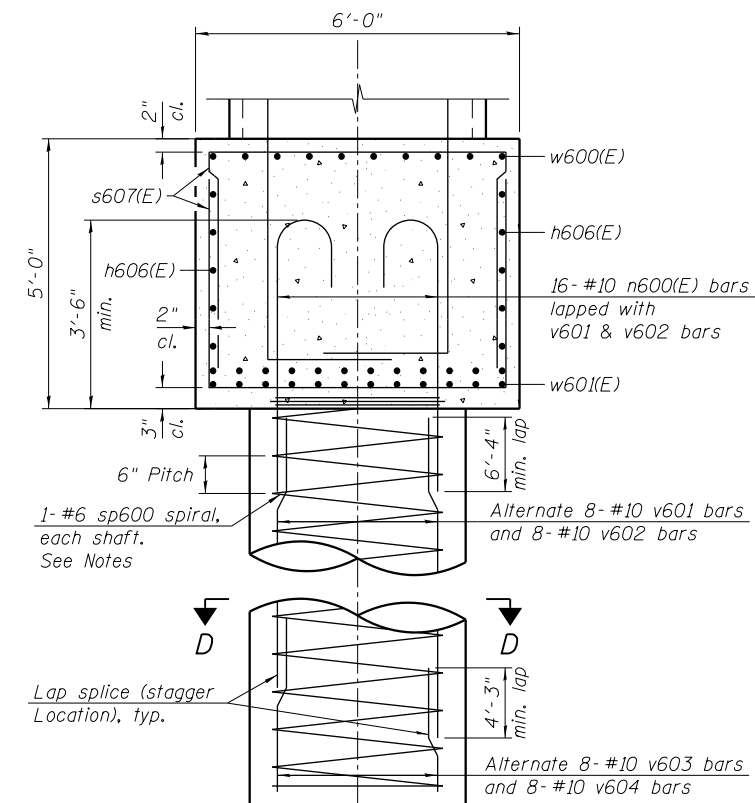


SECTION A-A

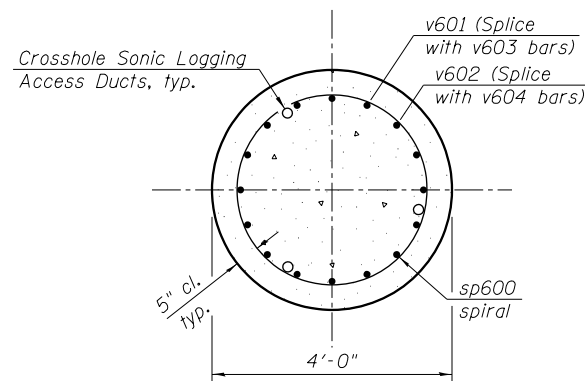
Notes:
 For sp600 spirals:
 1) Provide 1 1/2 extra turns top and bottom. Extend spiral 3" into crashwall. Provide 4- #4 spacers or equivalent.
 2) When splicing spiral reinforcement is necessary, the spirals shall be provided with 1 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.
 A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging Testing.
 The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and final top of shaft elevation.



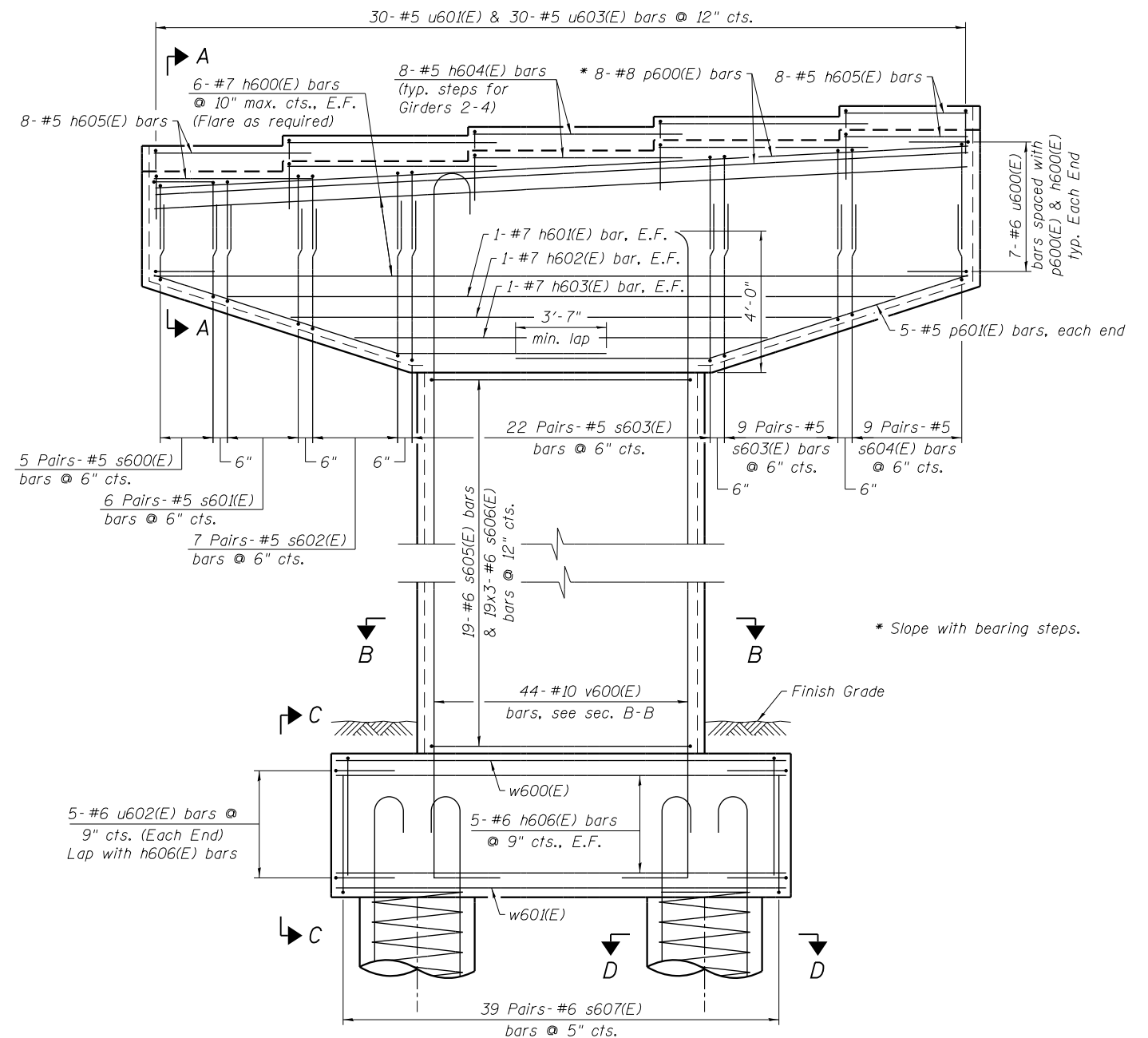
SECTION B-B



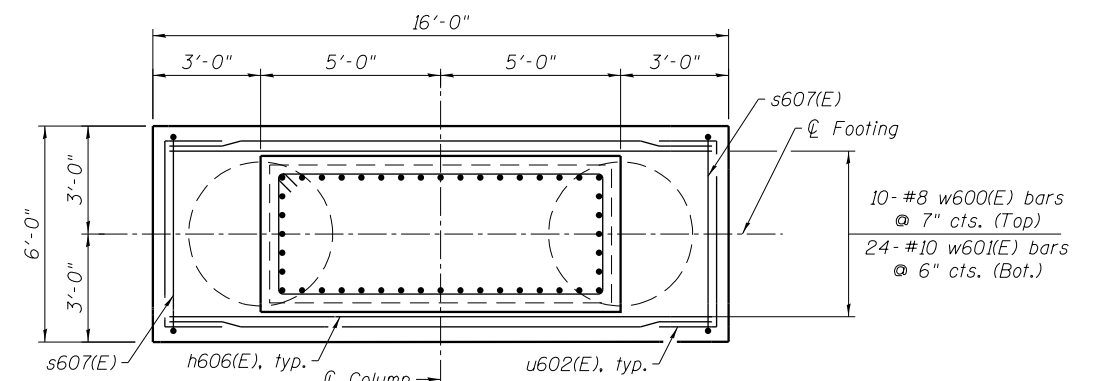
SECTION C-C



SECTION D-D



ELEVATION
(Looking East)



FOOTING PLAN

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

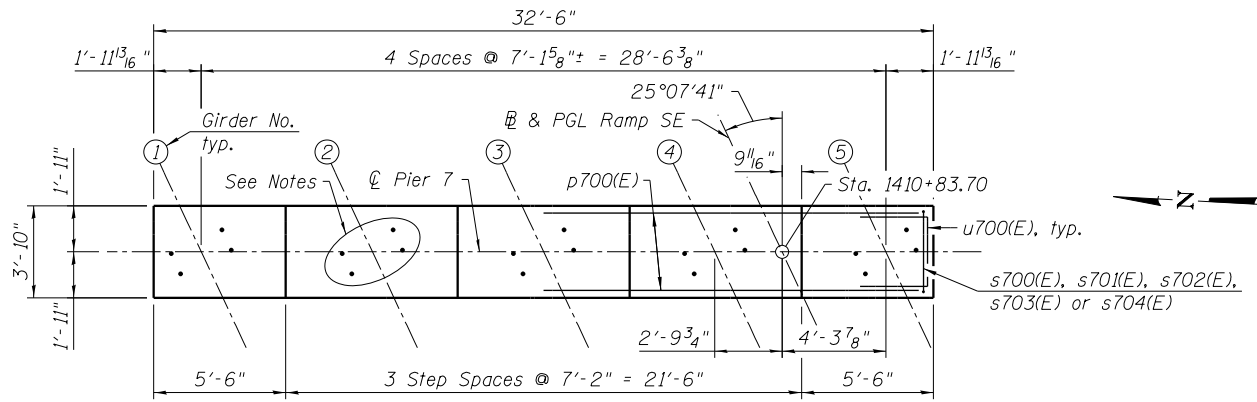
PIER 6 DETAILS
 STRUCTURE NO. 016-1714

SHEET NO. S2-69 OF S2-82 SHEETS

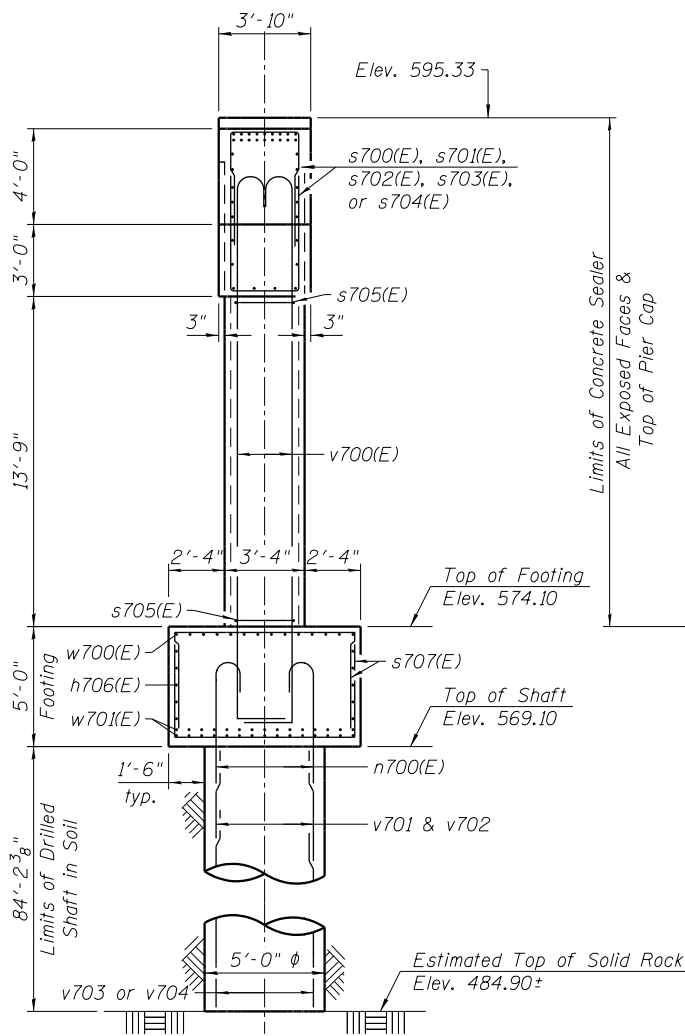
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90/94/290	2014-013 R&B-R	COOK	1972	729
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

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PLOT DATE = 7/26/2018	DRAWN - JM	REVISED
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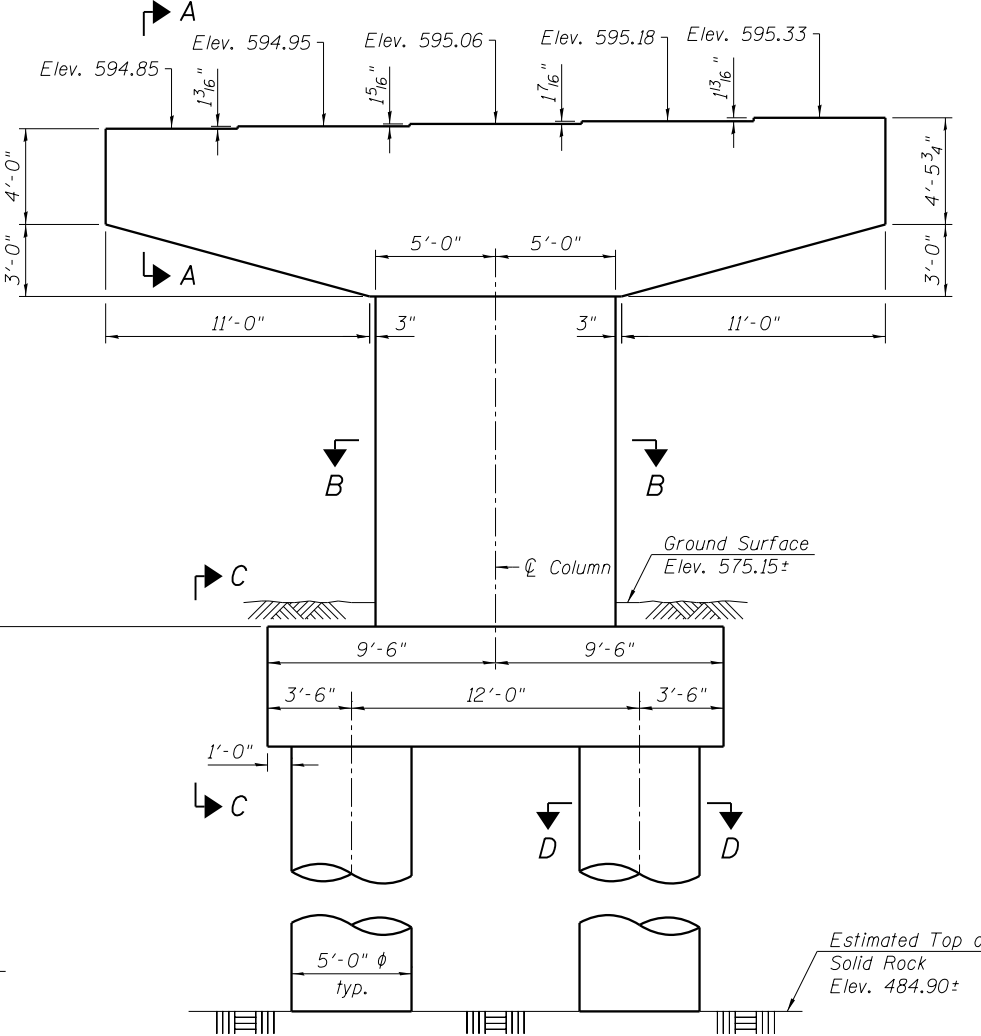
Notes:
Pour steps monolithically with steps.
Space reinforcement in cap to miss anchor bolts.
For Anchor Bolt Details see sheets S2-53 & S2-54.
For Architectural Details see sheets S2-72 thru S2-74.
See sheet S2-71 for Sections and Details.



TOP PLAN



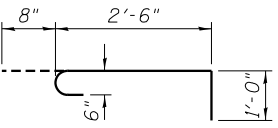
END VIEW
(Looking South)



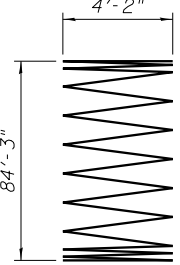
ELEVATION
(Looking East)

Minimum Bar Laps	
Bar	Lap
#5	3'-7"
#6	3'-10"
* #11	5'-3"
#11	7'-10"

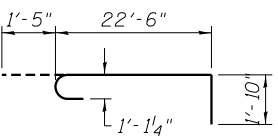
* Uncoated



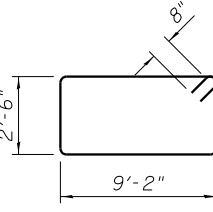
BAR s706(E)



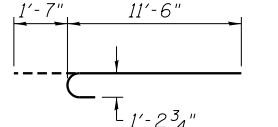
BAR sp700



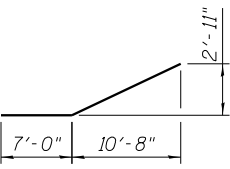
BAR v700(E)



BAR s705(E)



BAR n700(E)



BAR p701(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h700(E)	8	#7	31'-8"	—
h701(E)	2	#7	26'-9"	—
h702(E)	2	#7	21'-6"	—
h703(E)	2	#7	16'-3"	—
h704(E)	15	#5	7'-2"	—
h705(E)	10	#5	4'-11"	—
h706(E)	10	#6	18'-8"	—
n700(E)	40	#11	13'-1"	—
p700(E)	18	#10	31'-8"	—
p701(E)	8	#5	18'-1"	—
s700(E)	12	#5	9'-10"	—
s701(E)	18	#5	11'-0"	—
s702(E)	22	#5	12'-4"	—
s703(E)	82	#5	12'-8"	—
s704(E)	20	#5	10'-10"	—
s705(E)	15	#6	24'-8"	—
s706(E)	45	#6	4'-2"	—
s707(E)	92	#6	16'-2"	—
sp700	2	#6	84'-3"	—
u700(E)	10	#6	10'-8"	—
u701(E)	33	#5	6'-6"	—
u702(E)	10	#6	15'-4"	—
v700(E)	32	#10	25'-9"	—
v701	20	#11	39'-2"	—
v702	20	#11	49'-2"	—
v703	20	#11	50'-0"	—
v704	20	#11	40'-0"	—
w700(E)	14	#8	18'-8"	—
w701(E)	30	#10	18'-8"	—
Structure Excavation	Cu. Yd.	100		
Concrete Structures	Cu. Yd.	74.0		
Reinforcement Bars	Pound	25,590		
Reinforcement Bars, Epoxy Coated	Pound	15,770		
Drilled Shaft in Soil	Cu. Yd.	122.5		
Concrete Sealer	Sq. Ft.	980		
Crosshole Sonic Logging Access Ducts	Foot	169		
Crosshole Sonic Logging Testing	Each	1		

** Length is height of spiral.

BENT BARS
A & B DIMENSIONS

Bar	A	B
s700(E)	3'-0"	3'-5"
s701(E)	3'-0"	4'-0"
s702(E)	3'-0"	4'-8"
s703(E)	3'-0"	4'-10"
s704(E)	3'-0"	3'-11"
s707(E)	7'-8"	4'-3"
u700(E)	2'-10"	3'-10"
u701(E)	3'-6"	1'-6"
u702(E)	7'-8"	3'-10"

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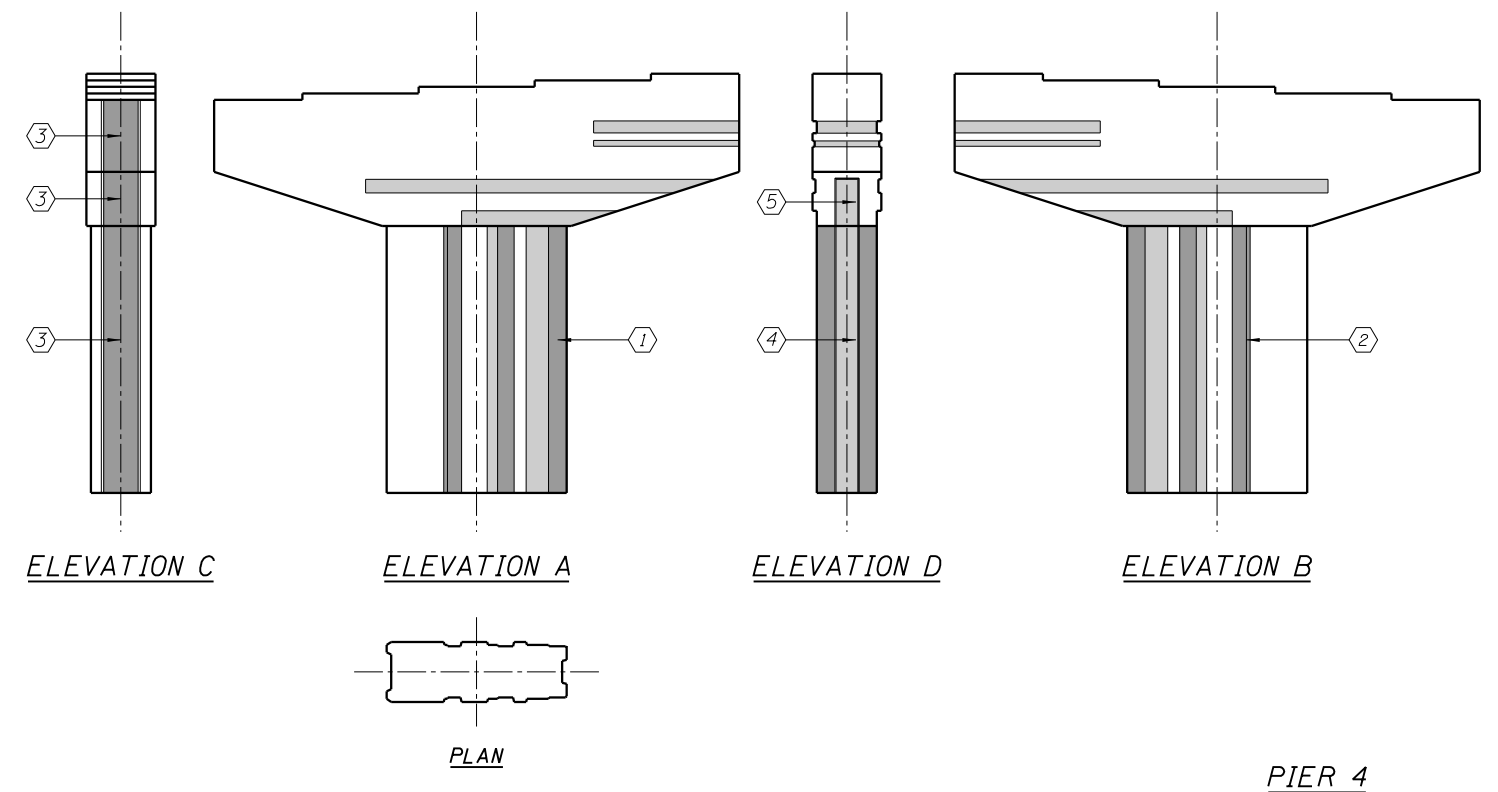
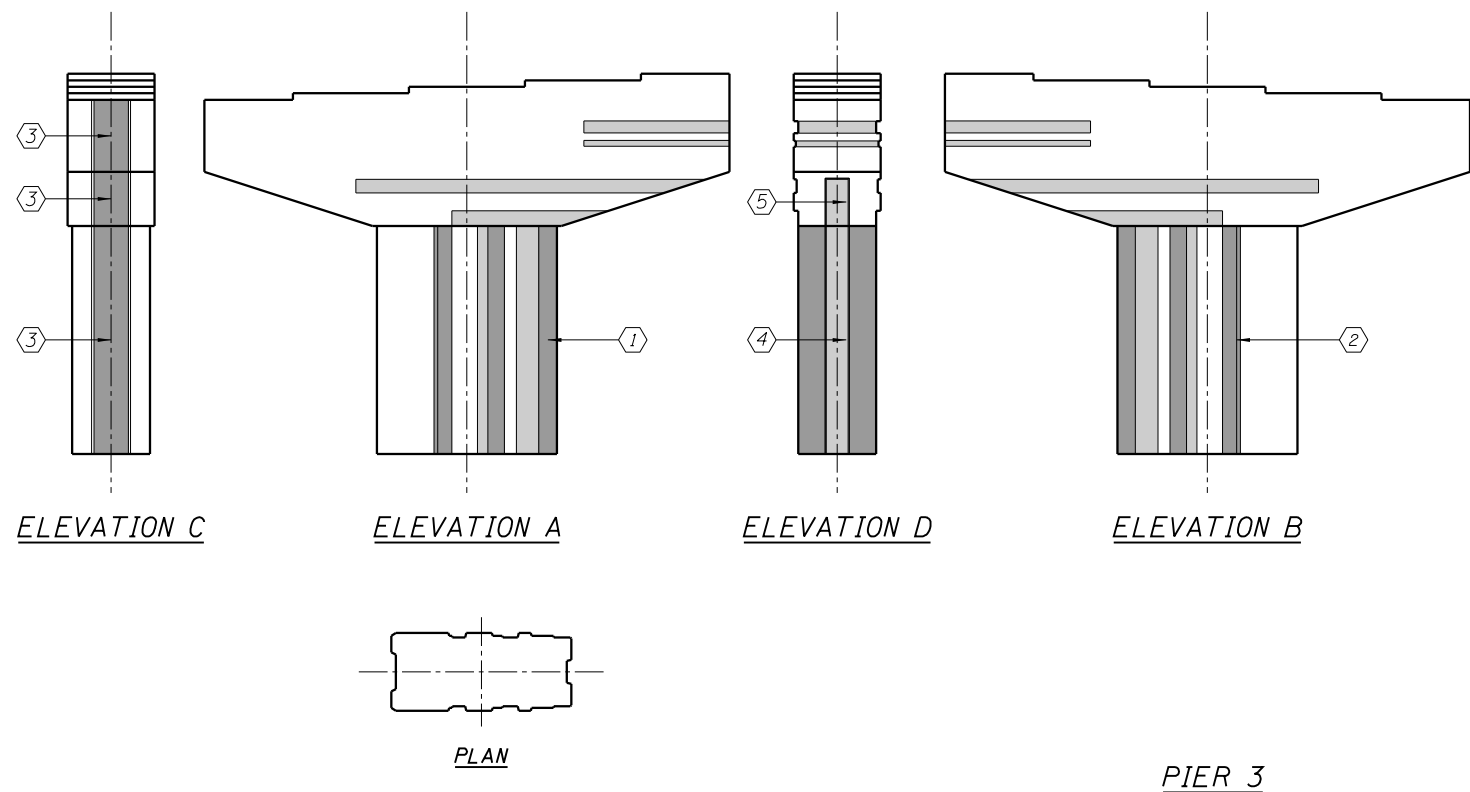
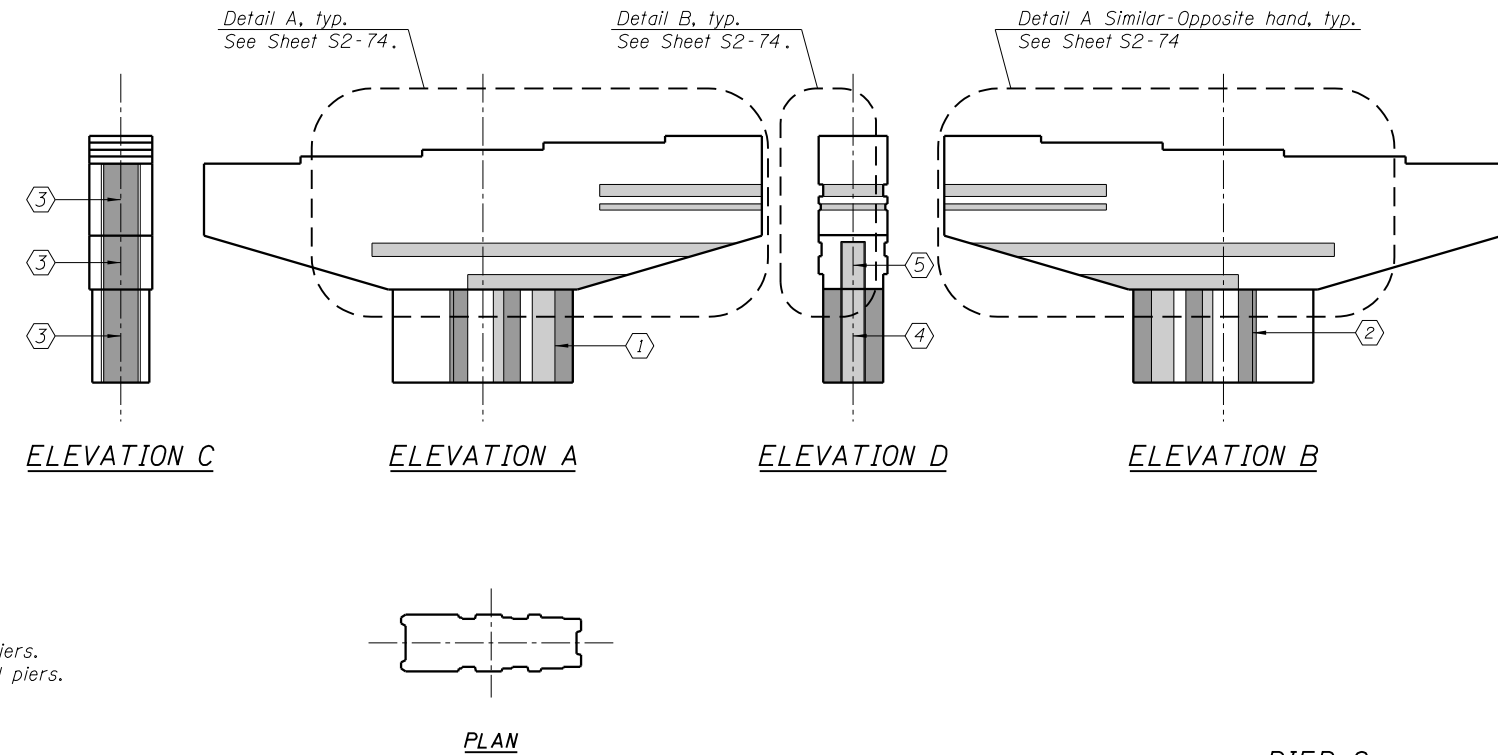
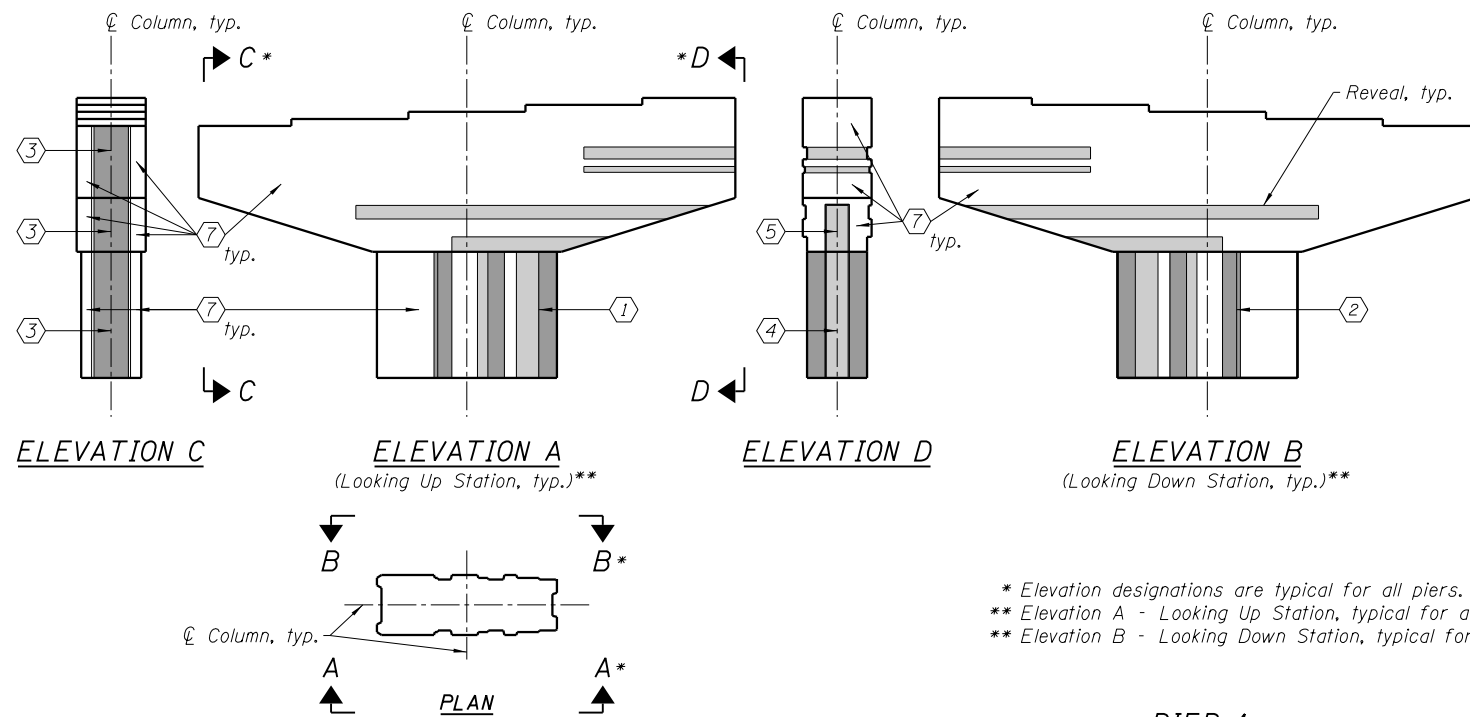
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	CHECKED - JRM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 7 PLAN AND ELEVATION
STRUCTURE NO. 016-1714

SHEET NO. S2-70 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	730
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



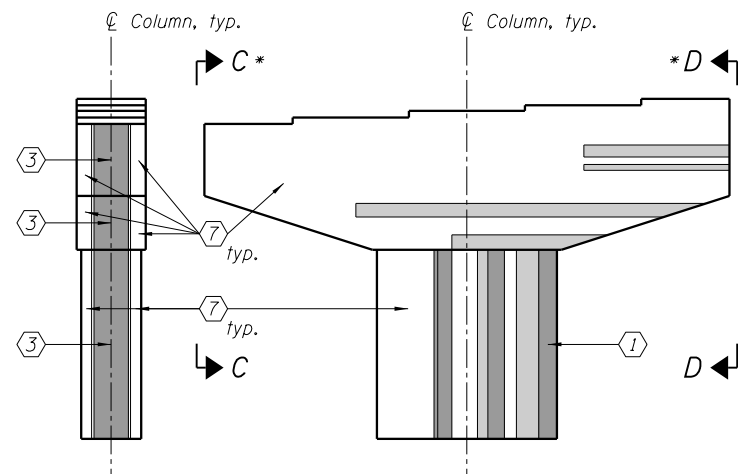
Notes:
 For Pier and Pier Cap dimensions see structural drawings: S2-58 thru S2-71.
 For Formliner and Reveal details see drawing S2-74.

LEGEND:

- ① ② ③ ④ ⑤ Textured Formliner
 ⑦ Contractor's Form

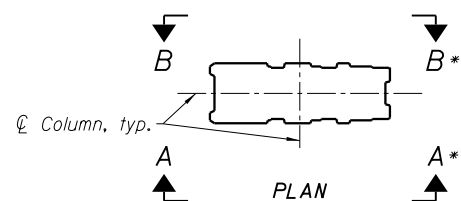
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PLOT DATE = 7/26/2018	CHECKED - JRM	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	732
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

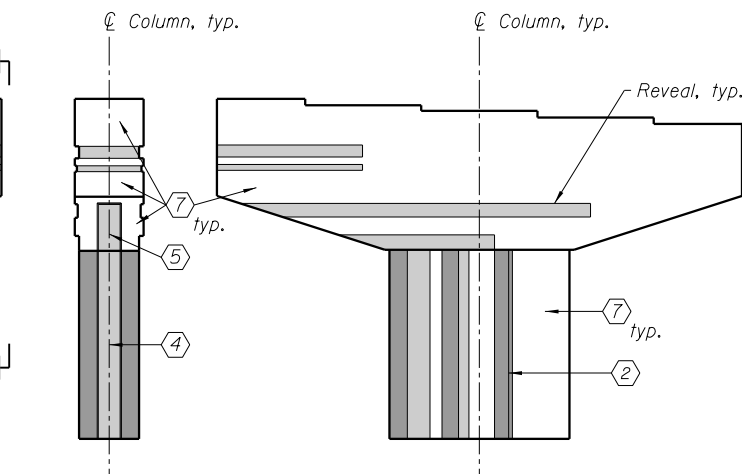


ELEVATION C

ELEVATION A
(Looking Up Station, typ.)**



PLAN

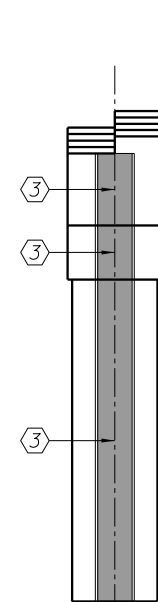


ELEVATION D

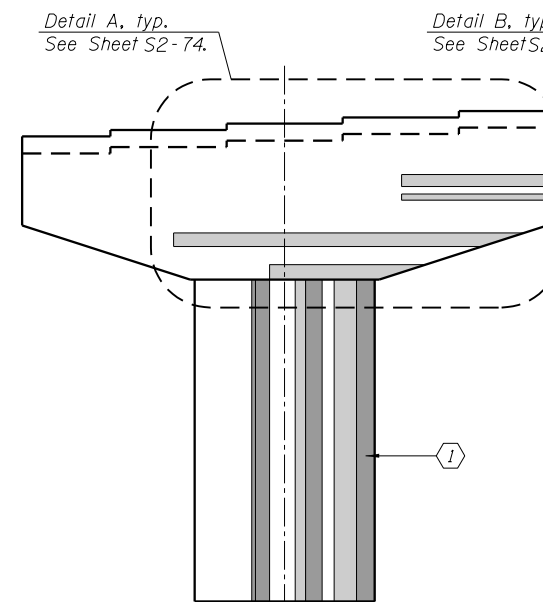
ELEVATION B
(Looking Down Station, typ.)**

* Elevation designations are typical for all piers.
** Elevation A - Looking Up Station, typical for all piers.
** Elevation B - Looking Down Station, typical for all piers.

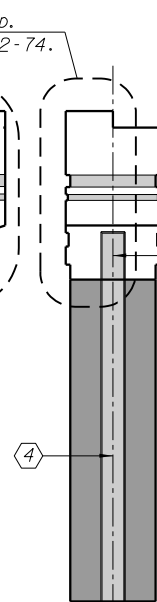
PIER 5



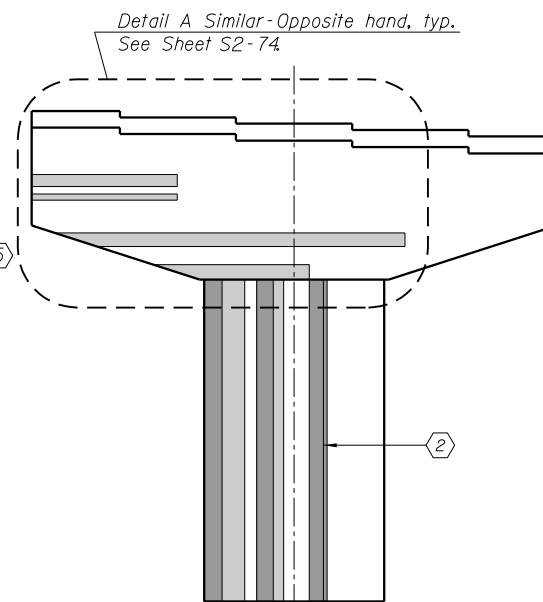
ELEVATION C



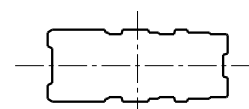
ELEVATION A



ELEVATION D

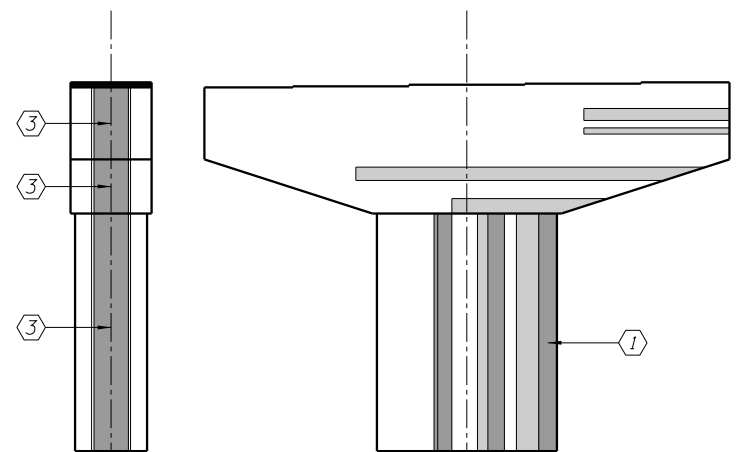


ELEVATION B



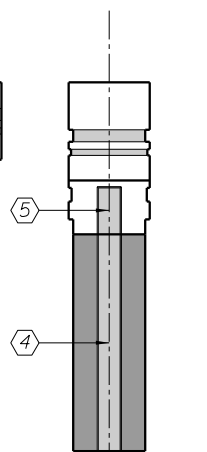
PLAN

PIER 6

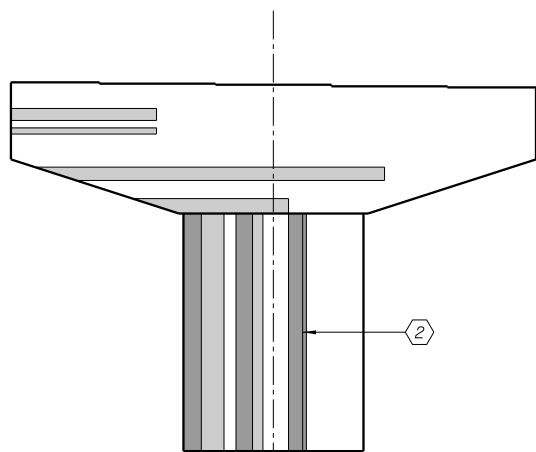


ELEVATION C

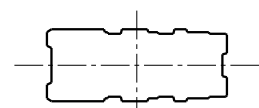
ELEVATION A



ELEVATION D



ELEVATION B



PLAN

PIER 7

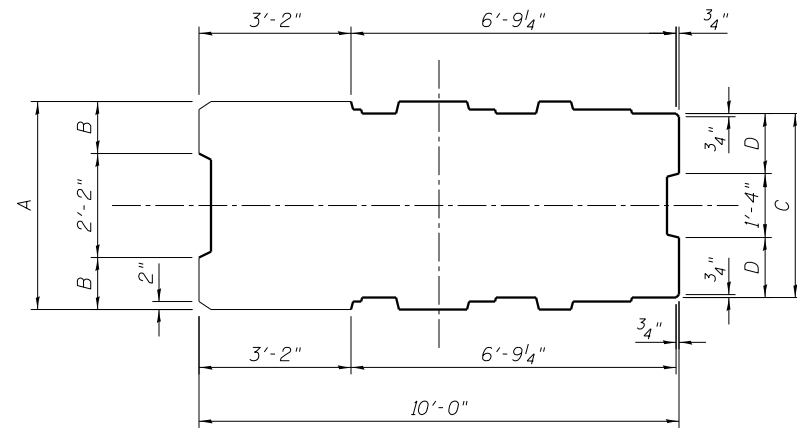
Notes:
For Pier and Pier Cap dimensions see structural drawings: S2-58 thru S2-71.
For Formliner and Reveal details see drawing S2-74.

LEGEND:

- ① ② ③ ④ ⑤ Textured Formliner
⑦ Contractor's Form

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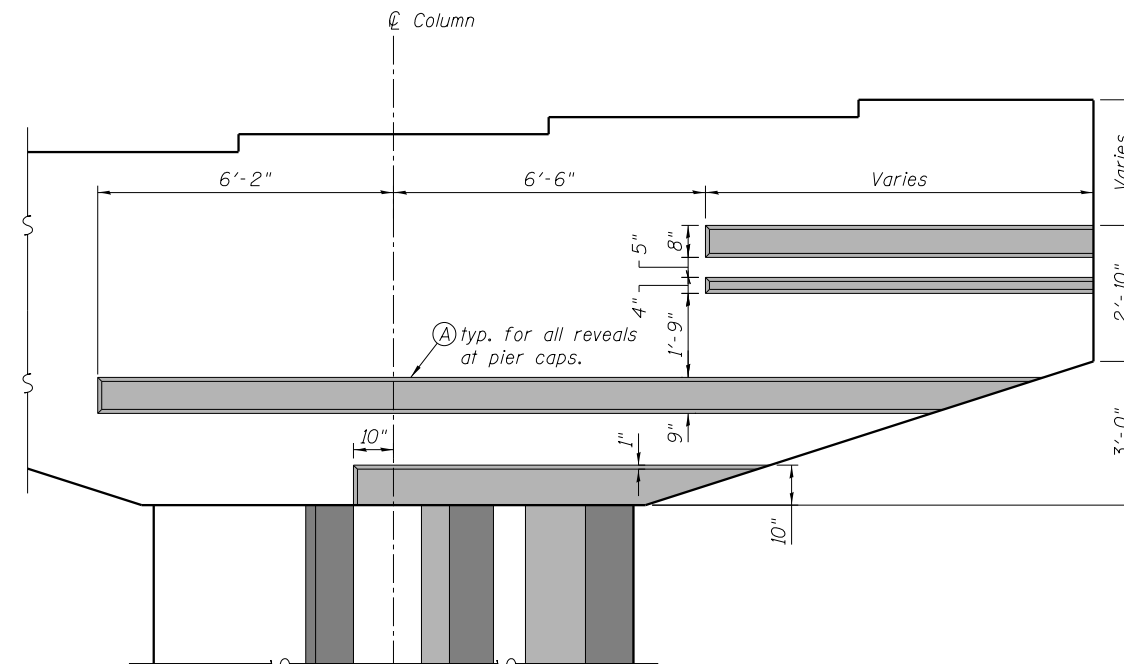
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90/94/290	2014-013 R&B-R	COOK	1972	733
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



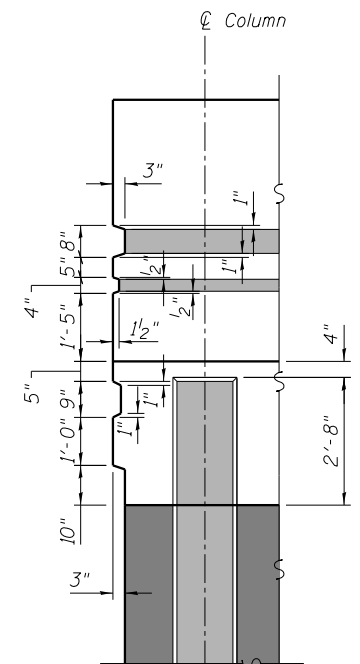
FORMLINER LAYOUT
TYP. FOR COLUMNS AT PIER 1, 2, 3, 4, 5, 6 & 7

TABLE 2

Pier	A	B	C	D
1	3'-4"	7"	2'-10"	9"
2	3'-2"	6"	2'-8"	8"
3	4'-4"	1'-1"	3'-10"	1'-3"
4	3'-4"	7"	3'-0"	10"
5	3'-4"	7"	3'-0"	10"
6	4'-4"	1'-1"	3'-10"	1'-3"
7	3'-4"	7"	3'-0"	10"



DETAIL A



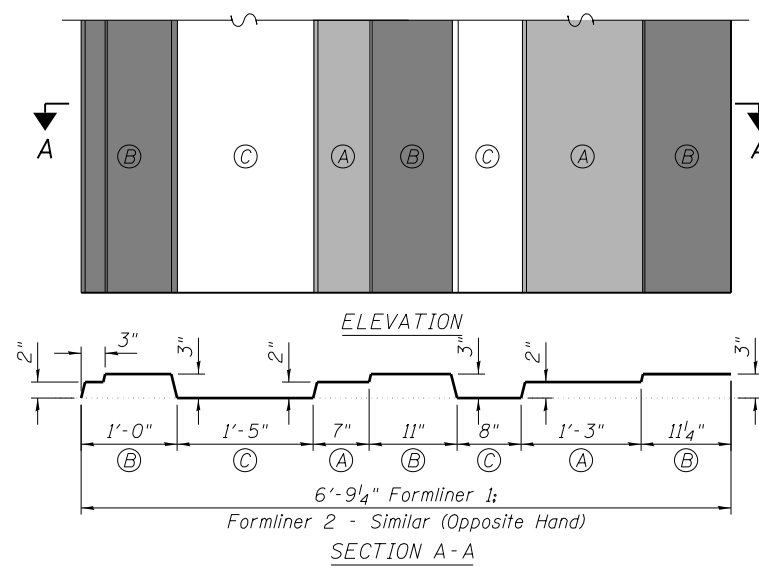
DETAIL B

PIER CAP REVEAL DETAIL AT PIERS 1-7

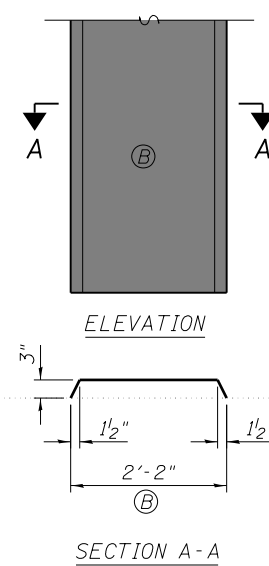
LEGEND:

- ①②③④⑤ Textured Formliner
- ⑦ Contractor's Form: Rubbed Finish at all concrete surface on columns and pier caps, exposed to view and not indicated as textured formliner or textured reveal.
- (A) Texture: Light Sandblast: Max Depth: 0.0625"
- (B) Texture: Medium Sandblast: Max Depth: 0.125"
- (C) Texture: Smooth

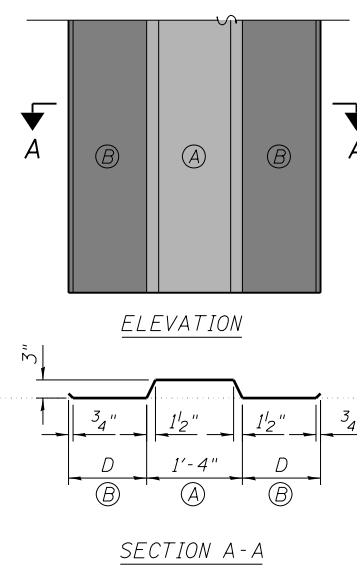
Notes:
Verify / coordinate pier dimensions with drawings S2-58 thru S2-71.
Unless otherwise noted on plans, draft at formliner will be 1/4" per inch depth, typ.
Maximum depth of formliner texture at columns and maximum depth of reveals at pier caps is 3".



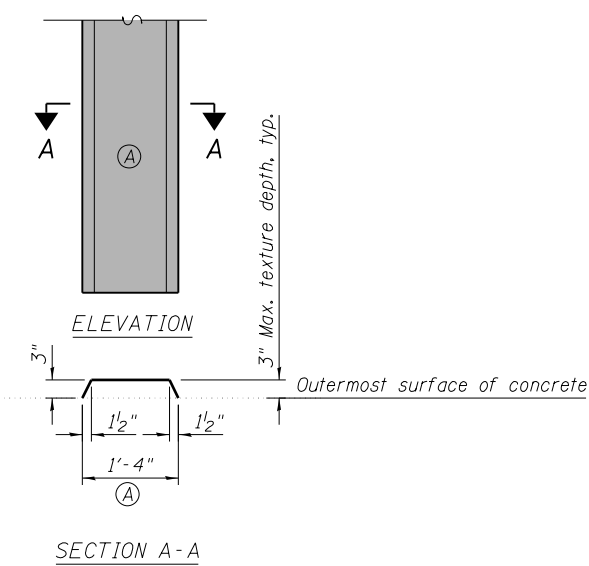
FORMLINER ① ②



FORMLINER ③



FORMLINER ④



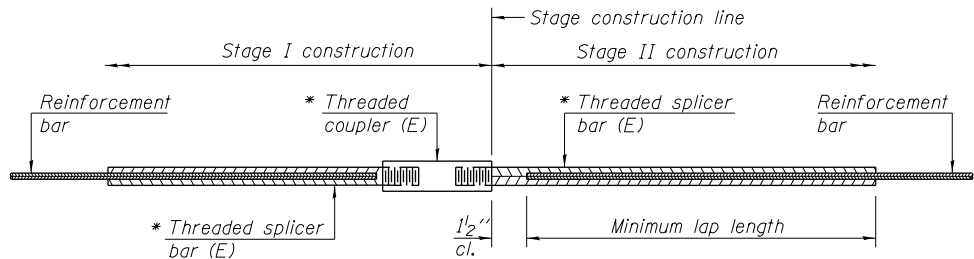
FORMLINER ⑤

TABLE 1

Pier	Formliner Quantity (Sq.Ft.)	Rubbed Finish Quantity (Sq.Ft.)
1	250	469
2	217	456
3	331	524
4	357	500
5	304	478
6	457	652
7	382	563

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Form Liner Textured Surface	Sq. Ft.	2,298
Rubbed Finish	Sq. Ft.	3,642

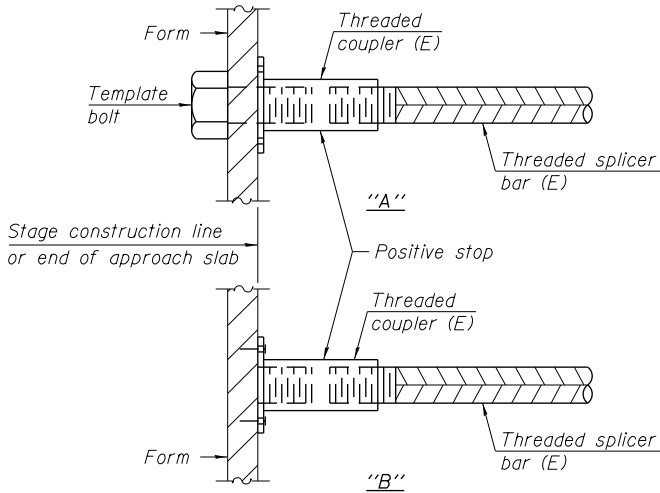


STANDARD BAR SPLICER ASSEMBLY

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

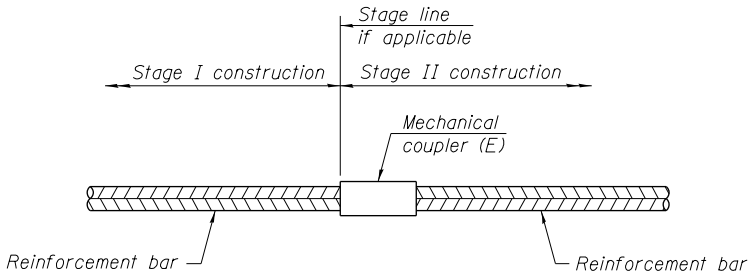
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



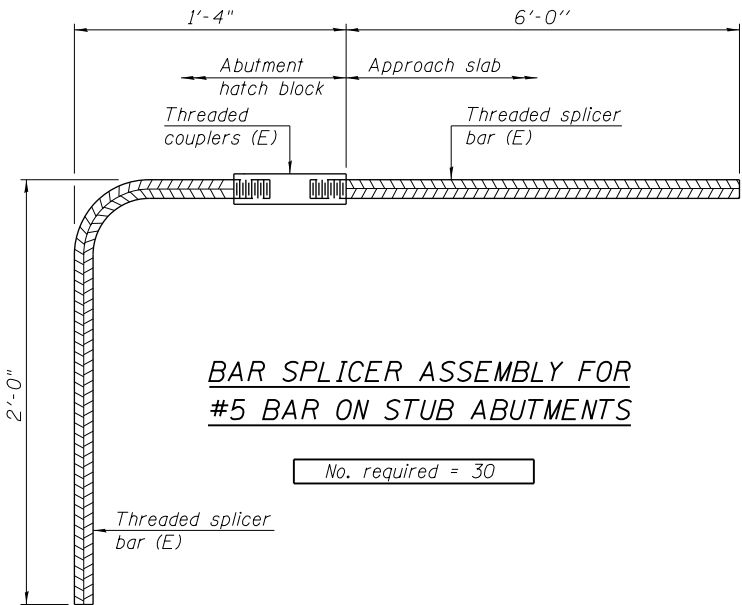
INSTALLATION AND SETTING METHODS

"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



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 30

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.

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0161714-60X93-S075-Bar Splice.dgn

BSD-1

2-17-2017



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	CHECKED - WJC	REVISED
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PLOT DATE = 7/26/2018	CHECKED - WJC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 016-1714

SHEET NO. S2-75 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	735
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS 1 STRUCTURE NO. 016-1714	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	90/94/290	2014-013 R&B-R	COOK	1972	736
SHEET NO. S2-76 OF S2-82 SHEETS	CONTRACT NO. 60X93				

ILLINOIS	FED. AID PROJECT
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	CHECKED - WJC	REVISED
PLOT SCALE = 0x2 'in / in.	DRAWN - RVV	REVISED
PLOT DATE = 7/26/2018	CHECKED - WJC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

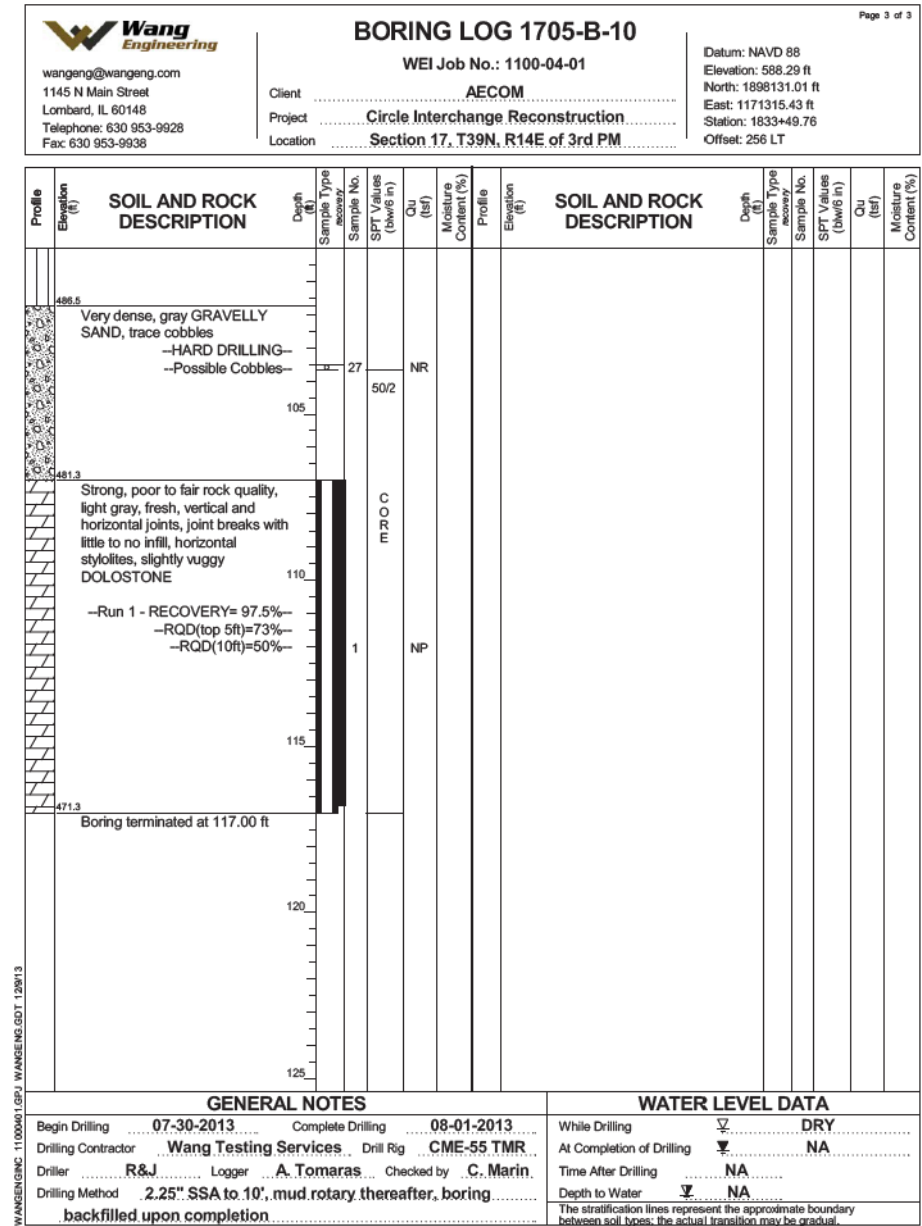
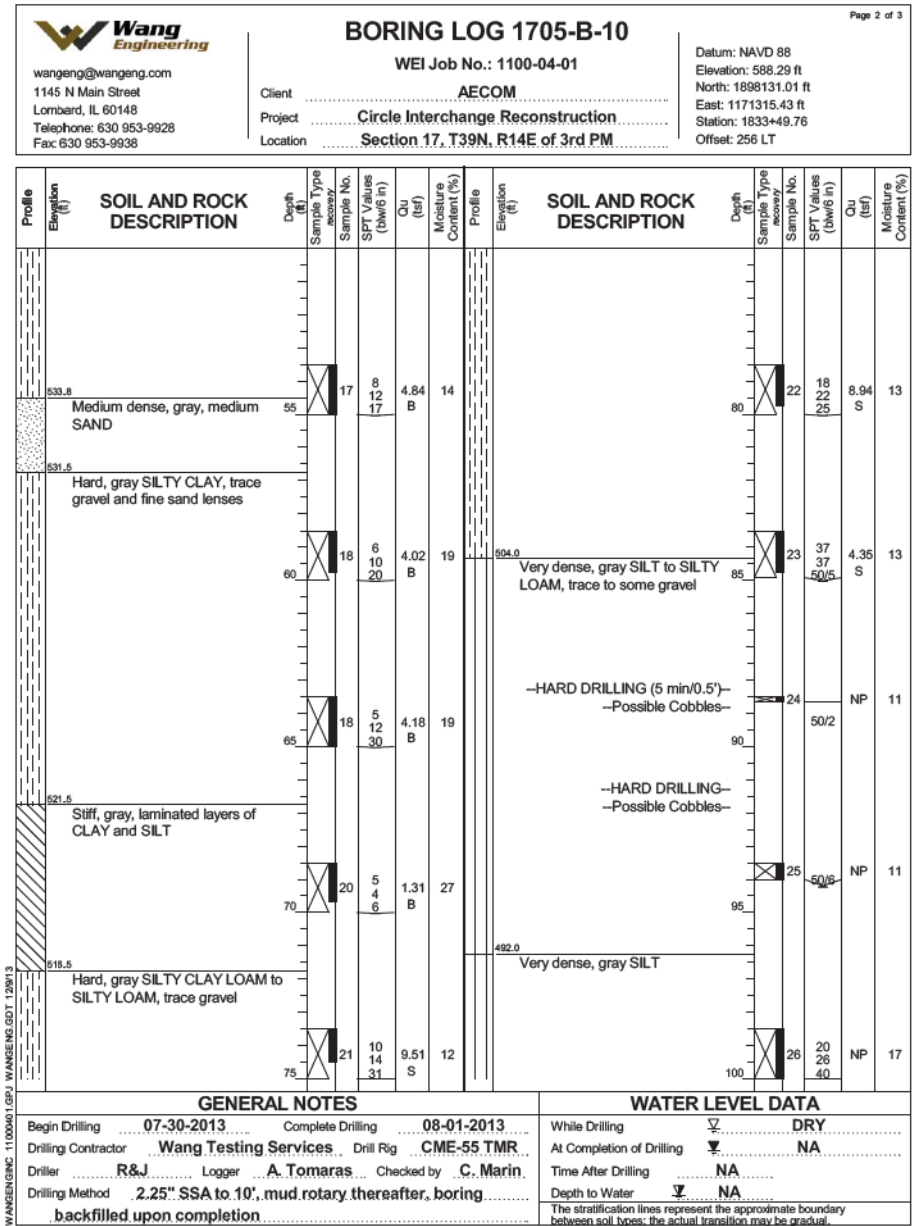
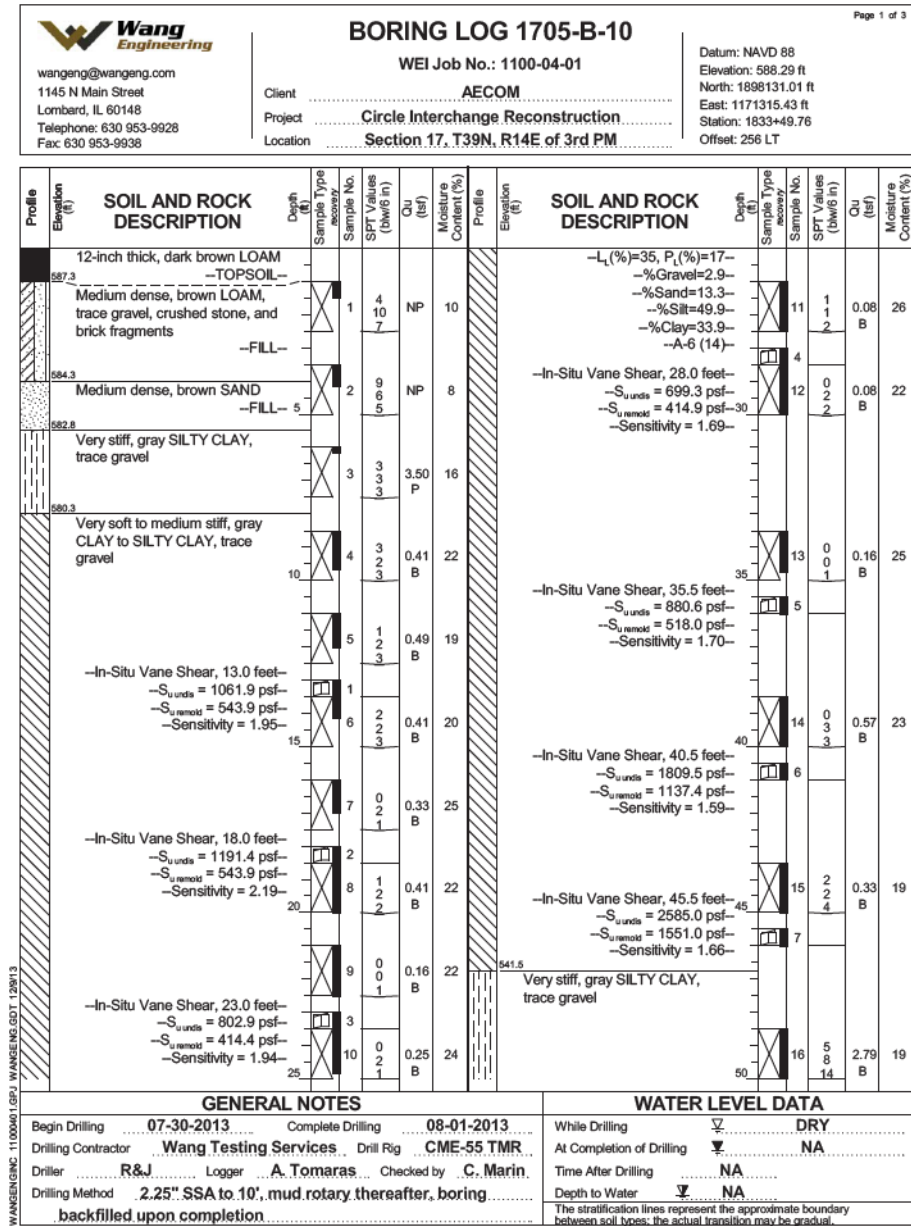
BORING LOGS 2
STRUCTURE NO. 016-1714

SHEET NO. S2-77 OF S2-82 SHEETS

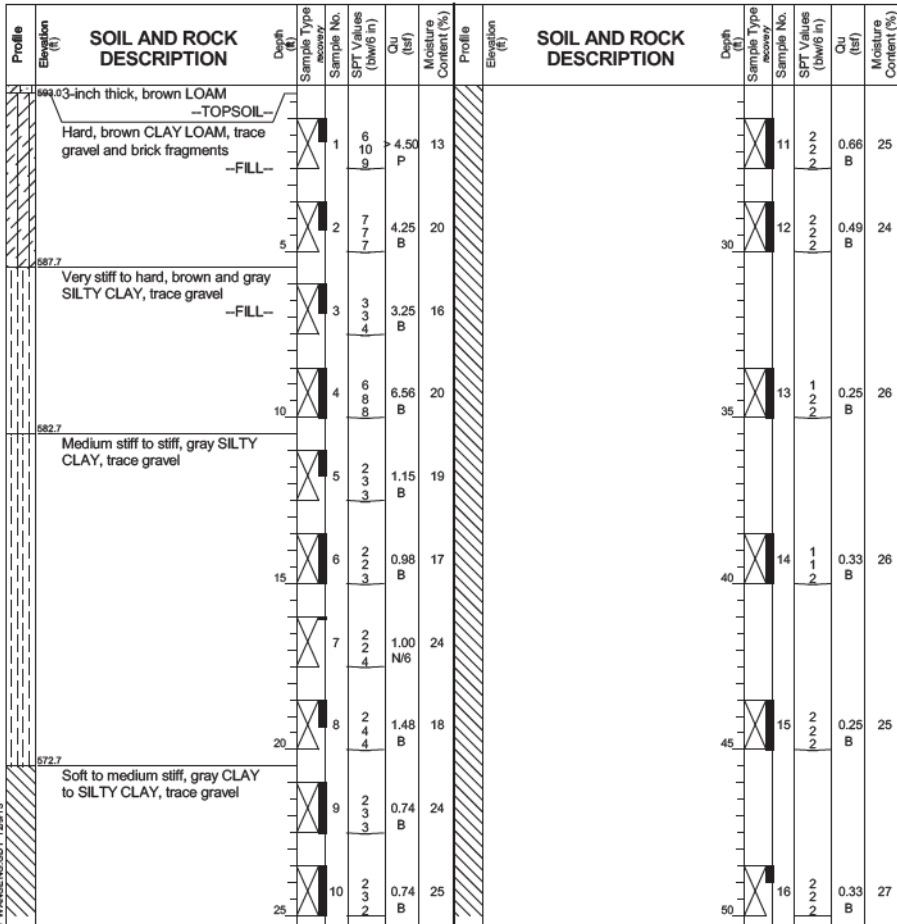
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90/94/290	2014-013 R&B-R	COOK	1972	737
CONTRACT NO. 60X93				ILLINOIS FED. AID PROJECT

Notes:

Boring Log 1705-B-10 station and offset along
@ Ramp SE is: Sta. 1404+26.18, Offset 47.19' Lt.

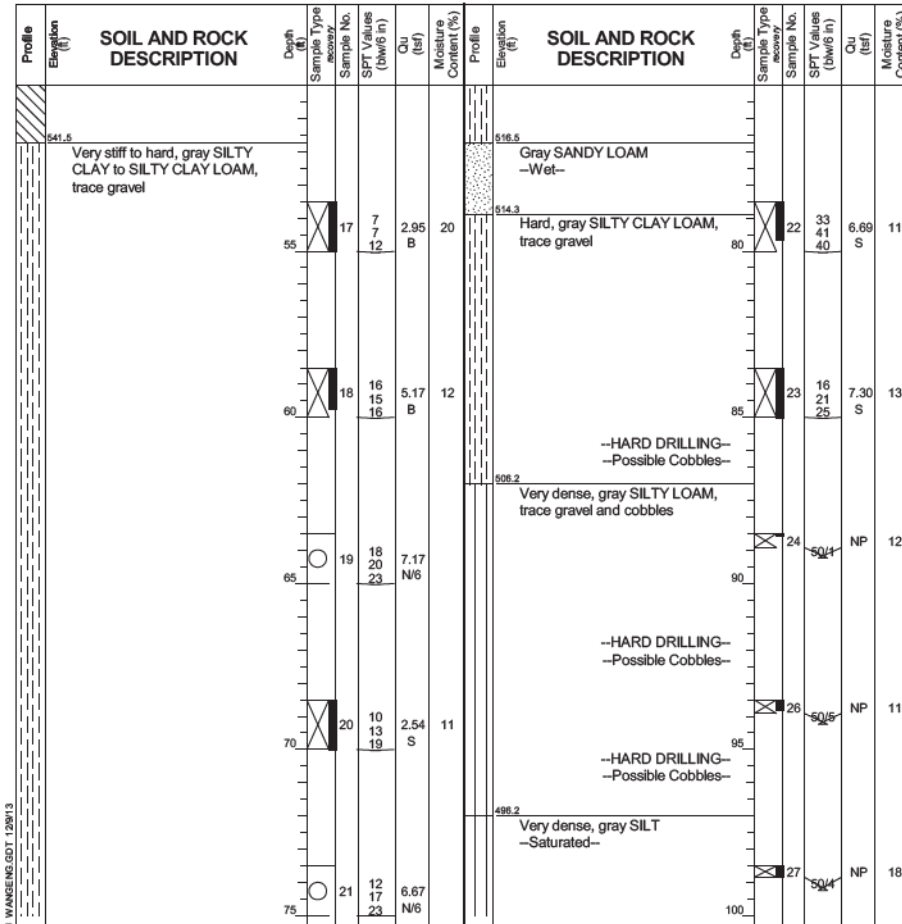


Wang Engineering logo and contact info. BORING LOG 1714-B-01. WEI Job No.: 1100-04-01. Client: AECOM. Project: Circle Interchange Reconstruction. Location: Section 17, T39N, R14E of 3rd PM. Datum: NAVD 88. Elevation: 593.22 ft. North: 1898191.77 ft. East: 1171304.89 ft. Station: 1403+82.49. Offset: 00.00.



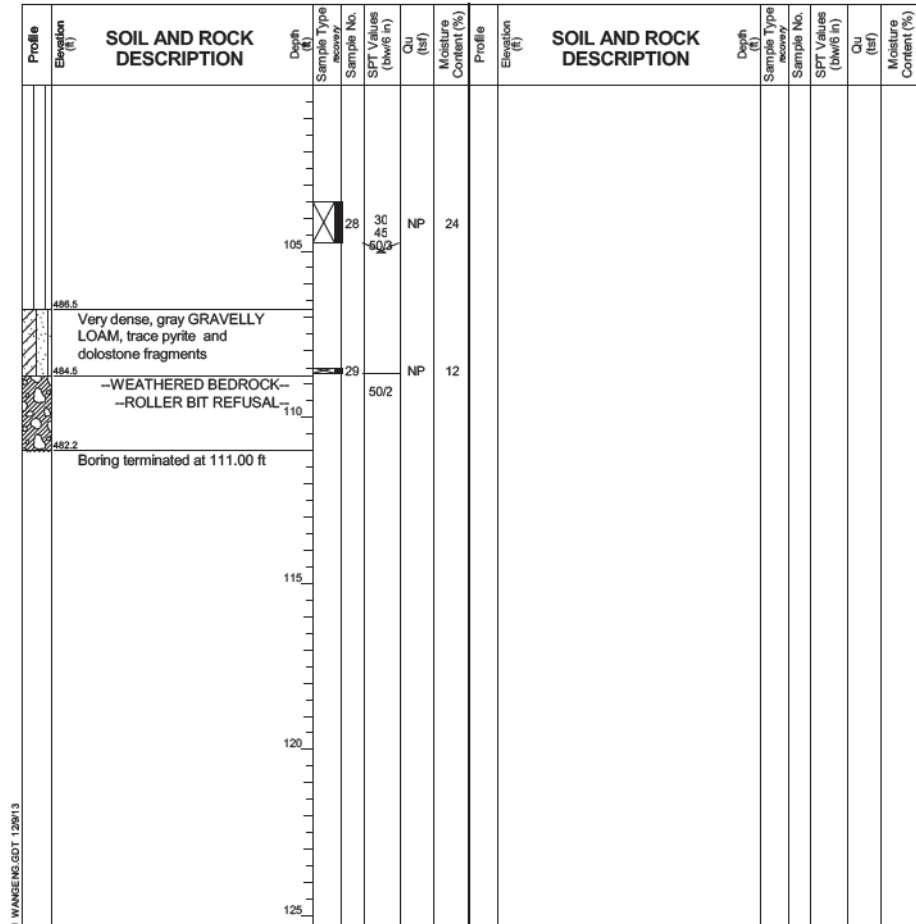
GENERAL NOTES: Begin Drilling 10-16-2013, Complete Drilling 10-16-2013, Drilling Contractor Wang Testing Services, Drill Rig CME-55 TMR, Driller R&J, Logger A. Tomaras, Checked by C. Marin, Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion. WATER LEVEL DATA: While 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.

Wang Engineering logo and contact info. BORING LOG 1714-B-01. WEI Job No.: 1100-04-01. Client: AECOM. Project: Circle Interchange Reconstruction. Location: Section 17, T39N, R14E of 3rd PM. Datum: NAVD 88. Elevation: 593.22 ft. North: 1898191.77 ft. East: 1171304.89 ft. Station: 1403+82.49. Offset: 00.00.



GENERAL NOTES: Begin Drilling 10-16-2013, Complete Drilling 10-16-2013, Drilling Contractor Wang Testing Services, Drill Rig CME-55 TMR, Driller R&J, Logger A. Tomaras, Checked by C. Marin, Drilling Method 2.25" HSA to 10', mud rotary thereafter, 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.

Wang Engineering logo and contact info. BORING LOG 1714-B-01. WEI Job No.: 1100-04-01. Client: AECOM. Project: Circle Interchange Reconstruction. Location: Section 17, T39N, R14E of 3rd PM. Datum: NAVD 88. Elevation: 593.22 ft. North: 1898191.77 ft. East: 1171304.89 ft. Station: 1403+82.49. Offset: 00.00.



GENERAL NOTES: Begin Drilling 10-16-2013, Complete Drilling 10-16-2013, Drilling Contractor Wang Testing Services, Drill Rig CME-55 TMR, Driller R&J, Logger A. Tomaras, Checked by C. Marin, Drilling Method 2.25" HSA to 10', mud rotary thereafter, 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.

Notes:
Stations and offsets are measured along
@ Ramp SE.

5:43:24 PM
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PLOT DATE = 7/26/2018	DRAWN - RVV	REVISED
	CHECKED - WJC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 3
STRUCTURE NO. 016-1714

SHEET NO. S2-78 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	738
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

[illegible][illegible]

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS 4
STRUCTURE NO. 016-1714

SHEET NO. S2-79 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	739
		CONTRACT NO. 60X93		
ILLINOIS FED. AID PROJECT				

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	CHECKED - WJC	REVISED
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PLOT DATE = 7/26/2018	CHECKED - WJC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

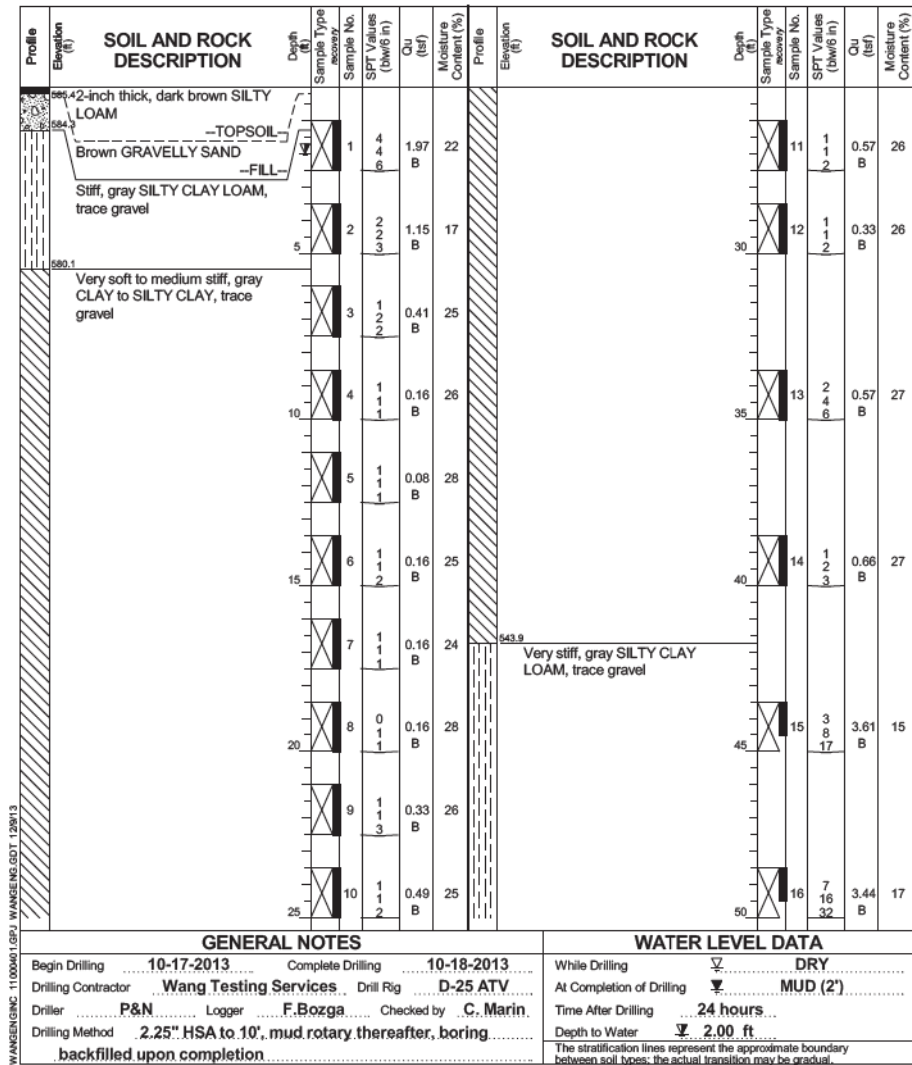
BORING LOGS 5
STRUCTURE NO. 016-1714

SHEET NO. S2-80 OF S2-82 SHEETS

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CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

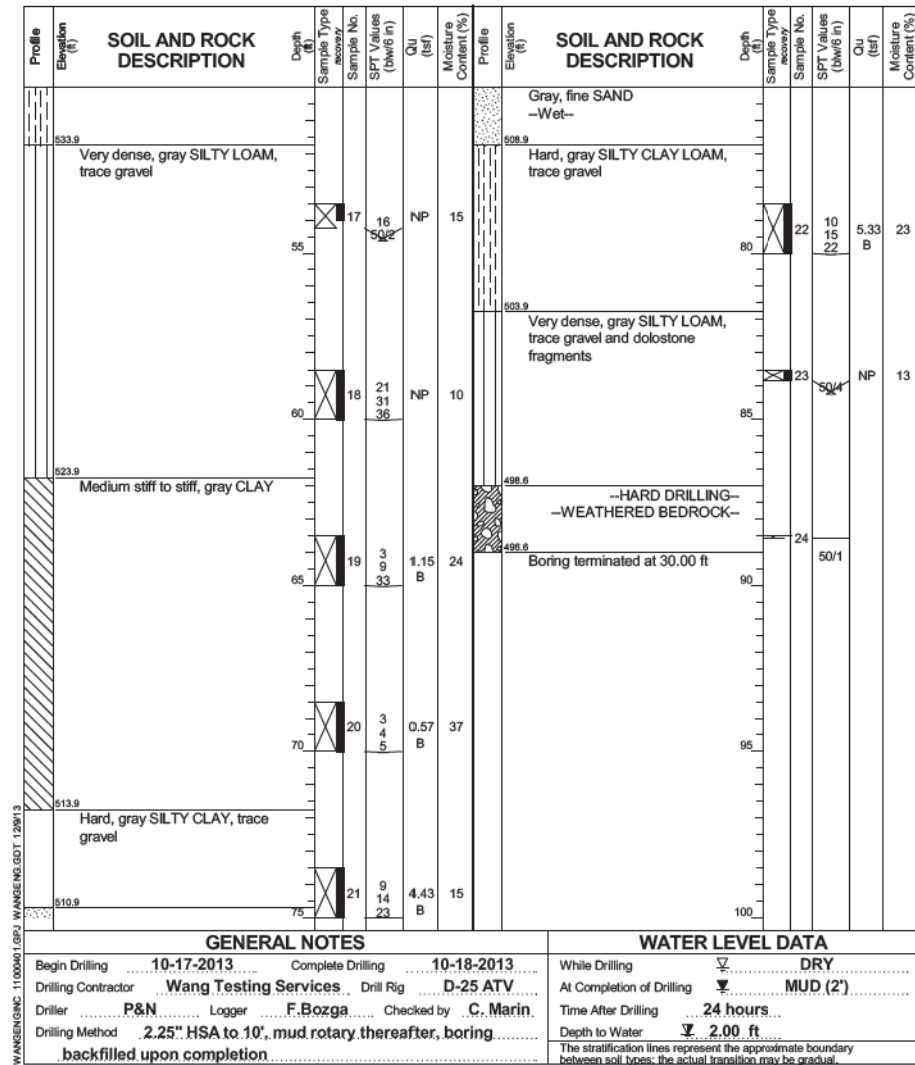
Wang Engineering wangeng@wangeng.com 1145 N Main Street Lombard, IL 60148 Telephone: 630 953-9928 Fax: 630 953-9938	BORING LOG 1714-B-03 WEI Job No.: 1100-04-01 Client: AECOM Project: Circle Interchange Reconstruction Location: Section 17, T39N, R14E of 3rd PM	Datum: NAVD 88 Elevation: 585.63 ft North: 1897874.84 ft East: 1171337.66 ft Station: 1407+67.90 Offset: 33.82 LT
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Page 1 of 2



Wang Engineering wangeng@wangeng.com 1145 N Main Street Lombard, IL 60148 Telephone: 630 953-9928 Fax: 630 953-9938	BORING LOG 1714-B-03 WEI Job No.: 1100-04-01 Client: AECOM Project: Circle Interchange Reconstruction Location: Section 17, T39N, R14E of 3rd PM	Datum: NAVD 88 Elevation: 585.63 ft North: 1897874.84 ft East: 1171337.66 ft Station: 1407+67.90 Offset: 33.82 LT
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Page 2 of 2



Notes:
Stations and offsets are measured along
@ Ramp SE.

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USER NAME = wjcolletti	DESIGNED - RVV	REVISED
	CHECKED - WJC	REVISED
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PLOT DATE = 7/26/2018	CHECKED - WJC	REVISED

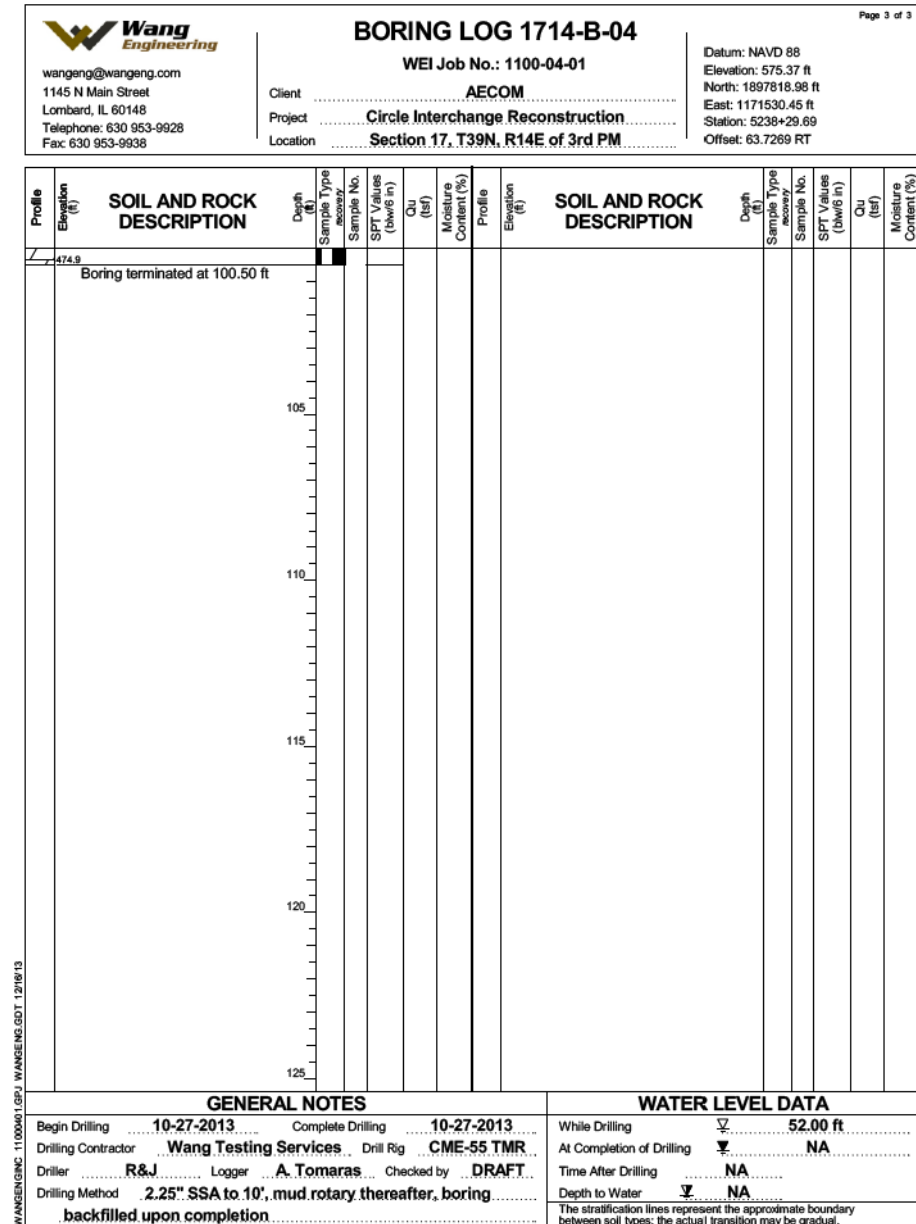
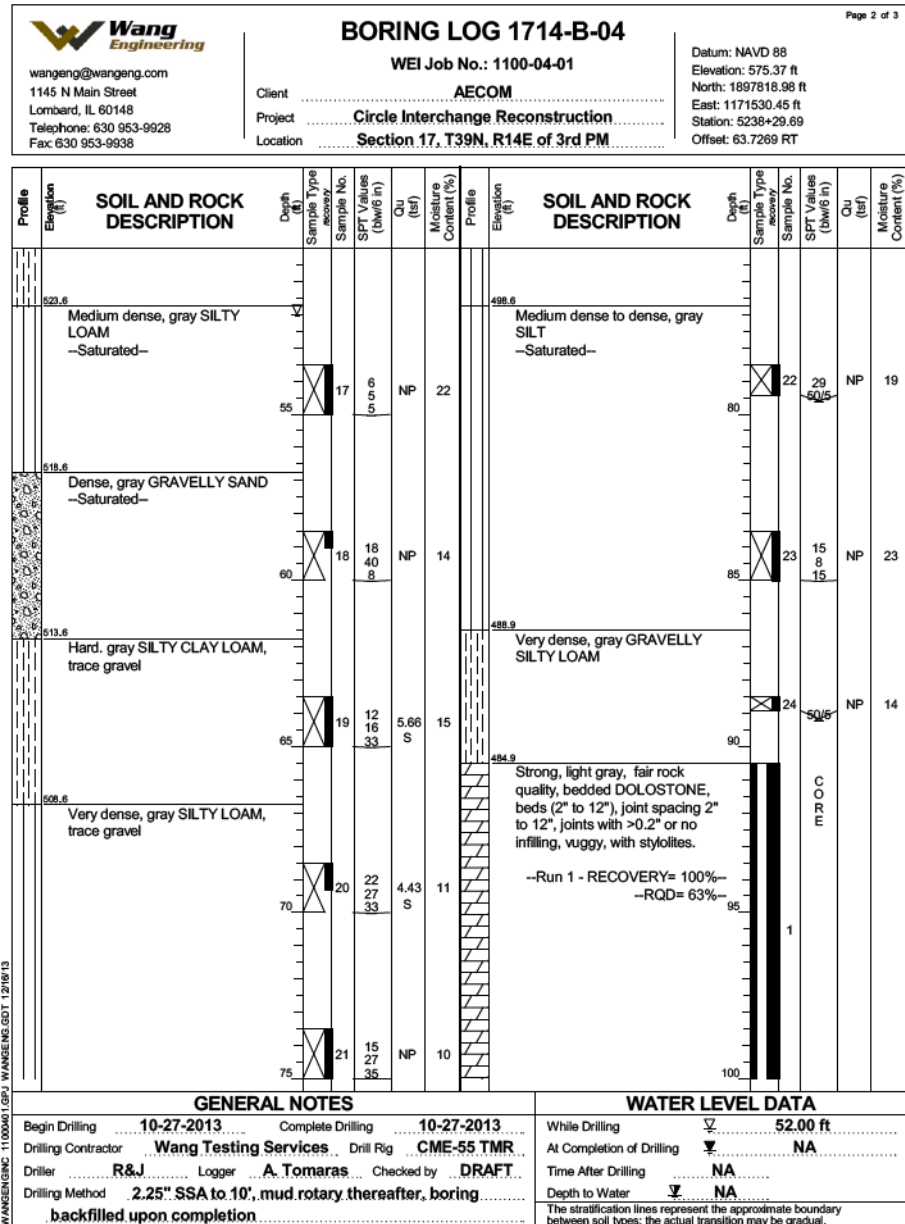
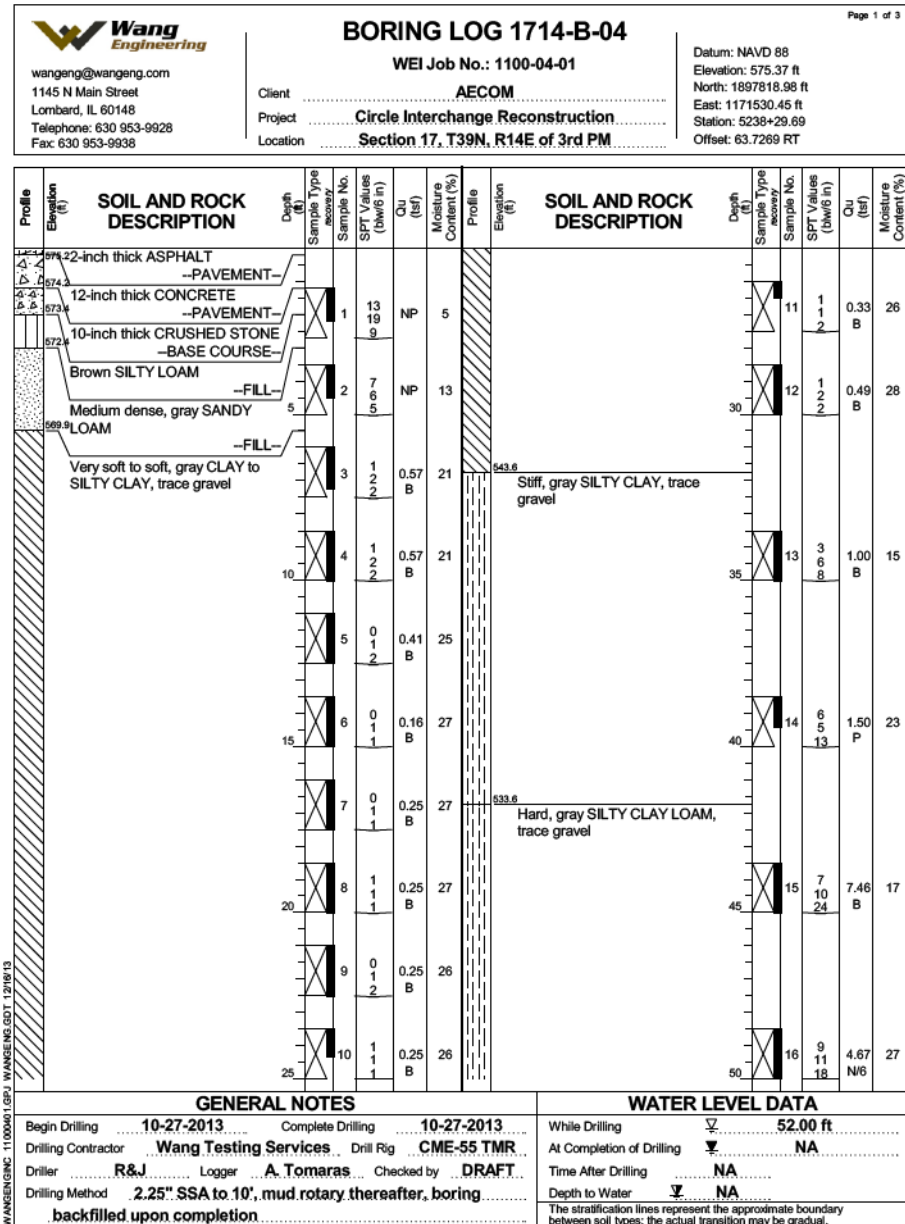
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 6
STRUCTURE NO. 016-1714

SHEET NO. S2-81 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	741
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

Notes:
Boring Log 1714-B-04 station and offset along
@ Ramp SE is: Sta. 1410+01.69, Offset 15.06' Lt.



Page 2 of 3

wangeng@wangeng.com

Telephone:

Fax:

BORING LOG 1714-B-05

WEI Job No.: 1100-04-01

Client

AECOM

Project

Circle Interchange Reconstruction

Location

Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88

Elevation: 588.93 ft

North: 1897789.88 ft

East: 1171431.16 ft

Station: 1408+97.61

Offset: 6.5640 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
		55	X	17	8 10 15	4.10 B		15							
		60	X	18	9 16 23	5.33 B		20	Very dense, gray SILTY LOAM, trace gravel and cobbles	85	X	23	21 23 35	4.50 P	13
527.2	Medium stiff, gray CLAY	65	X	19	4 4 4	0.90 B		29	-HARD DRILLING-- -Possible Cobbles-	90					
522.2	Medium dense, gray SILT	70	X	20	9 9 10	NP		20	-HARD DRILLING-- -Possible Cobbles-	95					
519.9	Medium dense, gray SANDY LOAM, trace gravel	75	X	21	12 28 29	8.69 B		15	-VERY HARD DRILLING-- -WEATHERED BEDROCK--	100					
517.2	Hard, gray SILTY CLAY LOAM to SILTY LOAM, trace gravel								Strong, light gray, fair rock quality, bedded DOLOSTONE, beds up to 12 inch, wuggy, 6 inch joint spacing, joints with less than 100						

GENERAL NOTES

Begin Drilling 04-18-2014 Complete Drilling 04-21-2014
Drilling Contractor Wang Testing Services Drill Rig
Driller N&J Logger A. Happel Checked by C. Marin
Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling Rotary wash
At Completion of Drilling mud in the borehole
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary
between soil layers; the actual transition may occur at a different depth.

WANGENG INC. 11000401.GPJ WANGENG.DOT 8/24/17

 Wang
Engineering

wangeng@wangeng.com

Telephone:
Fax:

BORING LOG 1714-B-05

WEI Job No.: 1100-04-01

Client AECOM
Project Circle Interchange Reconstruction
Location Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 588.93 ft
North: 1897789.88 ft
East: 1171431.16 ft
Station: 1408+97.61
Offset: 6.5640 RT

Page 3 of 3

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)	Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)
		0.2 inch or no infilling, and stylolitic surfaces. --Run 1 - RECOVERY= 90%-- --RQD= 62%--			2												
	483.9	Boring terminated at 105.00 ft	105														
			110														
			115														
			120														
			125														

GENERAL NOTES

Begin Drilling 04-18-2014 Complete Drilling 04-21-2014
Drilling Contractor Wang Testing Services Drill Rig
Driller N&J Logger A. Happel Checked by C. Marin
Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling Rotary wash
At Completion of Drilling mud in the borehole
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

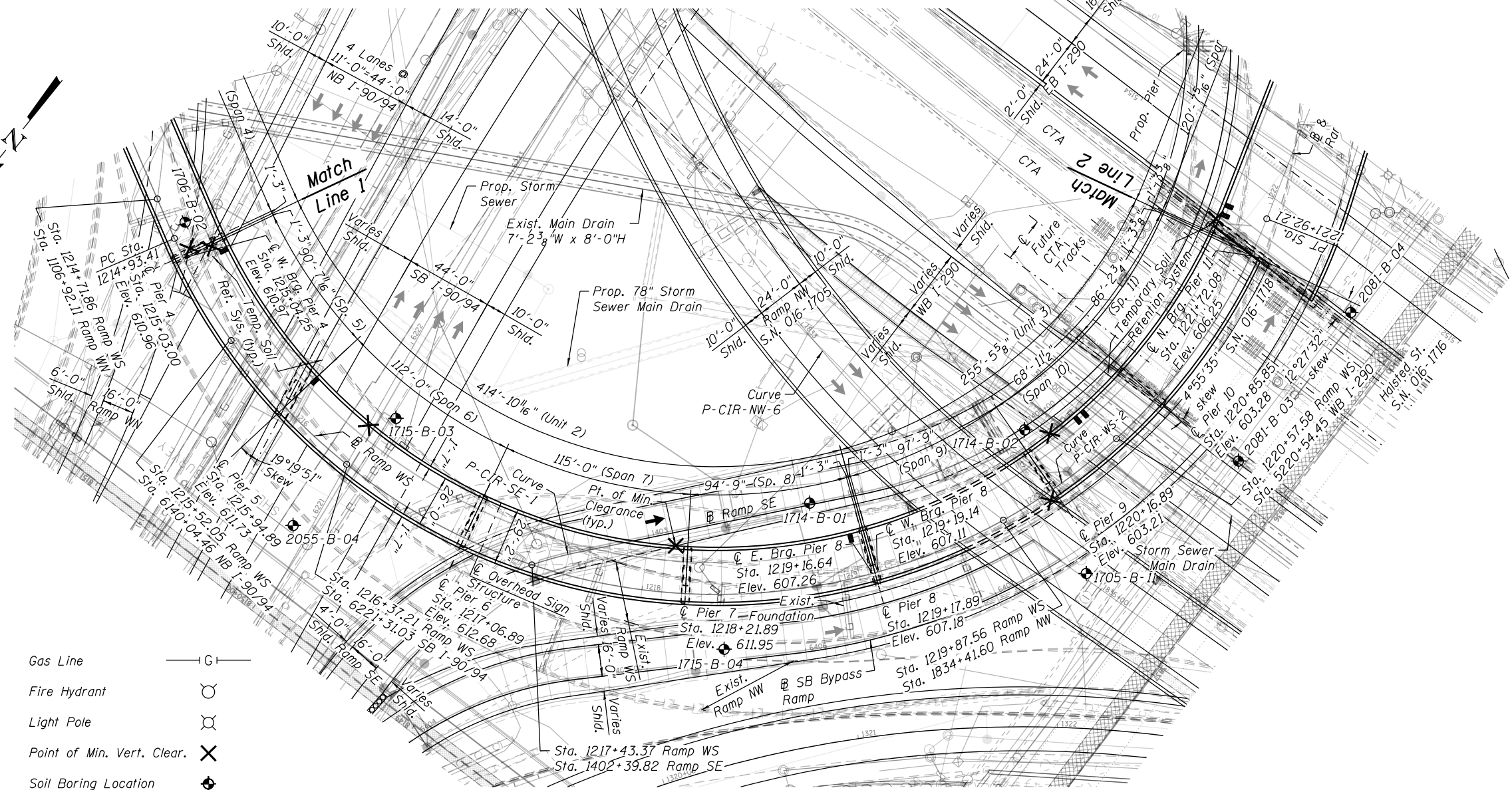
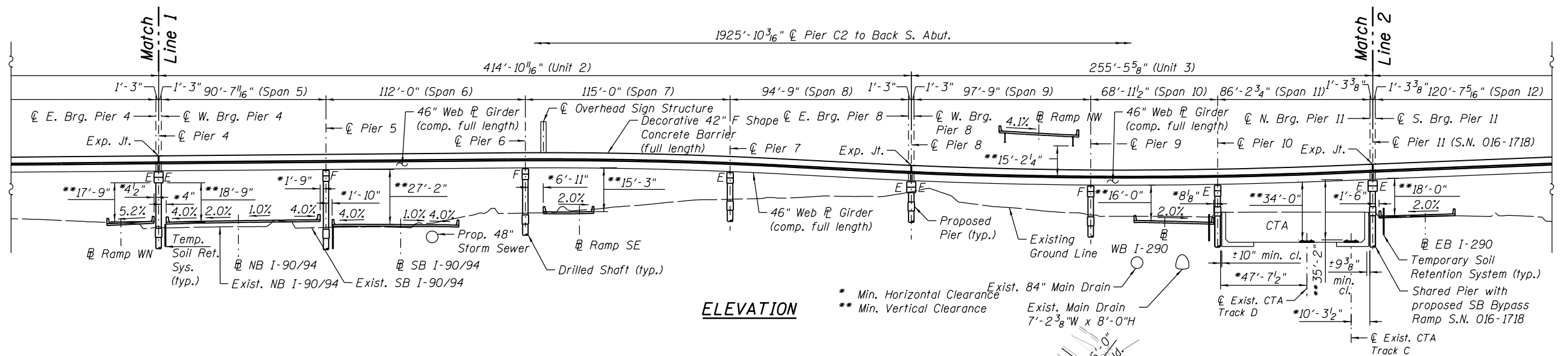
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS 7
STRUCTURE NO. 016-1714

SHEET NO. S2-82 OF S2-82 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013 R&B-R	COOK	1972	742
		CONTRACT NO. 60X93		
ILLINOIS FED. AID PROJECT				

0161715-60X93-S001-GPE-I



LEGEND:

Combined Sewer 

Electric 

Fiber Optic 

Exist. Storm Sewer 

Prop. Storm Sewer 

Water Line 

Gas Line	— G—
Fire Hydrant	⊙
Light Pole	⊗
Point of Min. Vert. Clear.	✕
Soil Boring Location	⊕

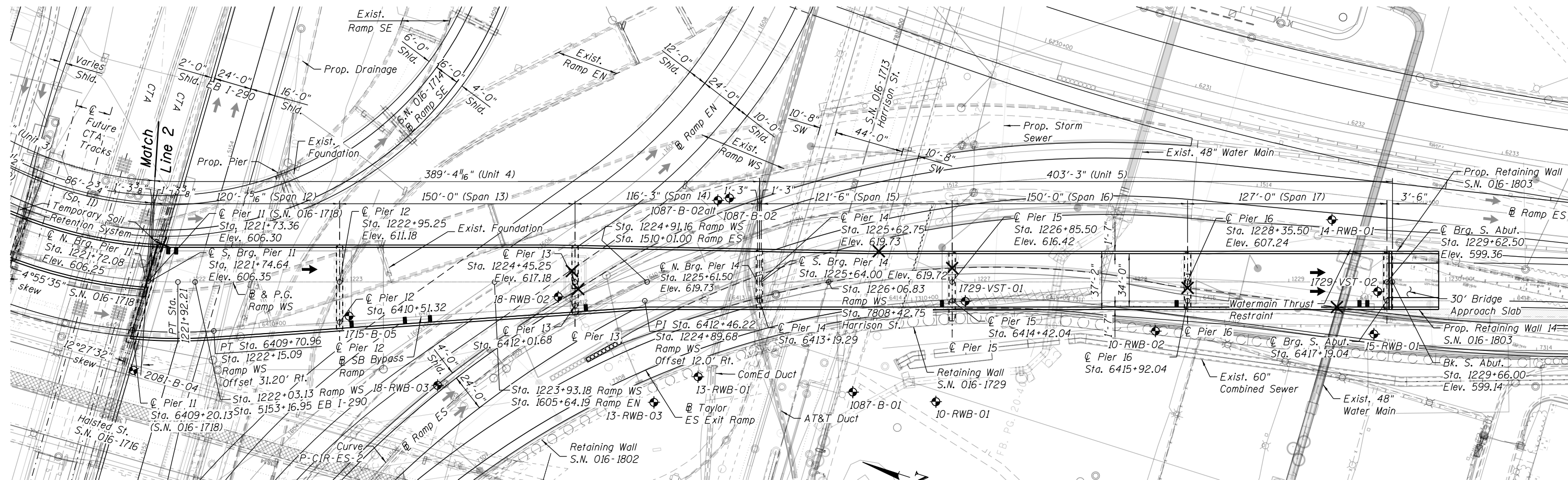
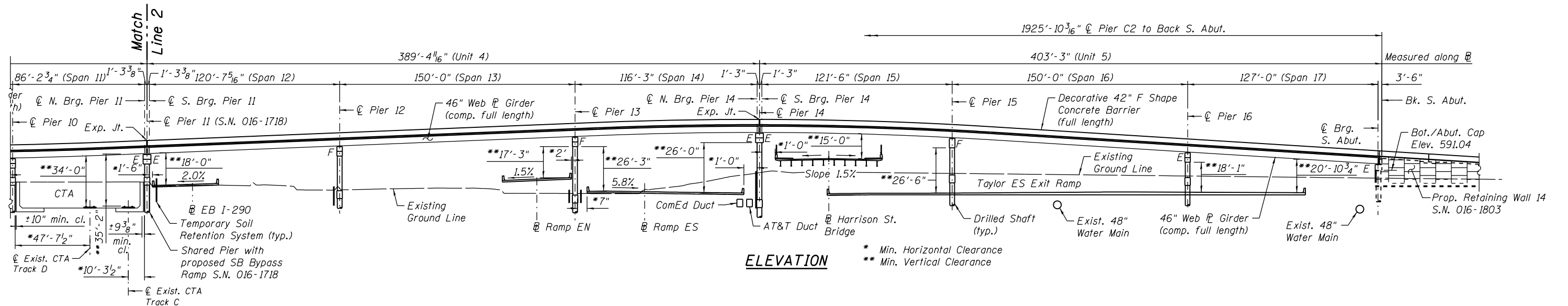
PLAN

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL PLAN & ELEVATION - 2
STRUCTURE NO. 016-1715

SHEET NO. S3-02 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	744
		CONTRACT NO. 60X93		
		ILLINOIS FED. AID PROJECT		



LEGEND:

Combined Sewer	—C—C—C—C—	Gas Line	—G—
Electric	—E—	Fire Hydrant	⊙
Fiber Optic	—FO—	Light Pole	⊗
Exist. Storm Sewer	—S—S—S—S—	Point of Min. Vert. Clear.	×
Prop. Storm Sewer	—P—P—P—P—	Soil Boring Location	⊕
Water Line	—W—		

PLAN

AECOM

USER NAME = floresg	DESIGNED - JXH	REVISED
PLOT SCALE = N.T.S.	CHECKED - ATB	REVISED
PLOT DATE = 7/26/2018	DRAWN - JXH	REVISED
	CHECKED - ATB	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION - 3
STRUCTURE NO. 016-1715**

SHEET NO. S3-03 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	745
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S003-GPE-III.dgn

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal Of Existing Structures No. 2	Each	1		1
Protective Shield	Sq Yd	1,710		1,710
Structure Excavation	Cu Yd		1,671.0	1,671.0
Concrete Structures	Cu Yd	10.5	1,932.8	1,943.3
Concrete Superstructure	Cu Yd	2,245.1		2,245.1
Bridge Deck Grooving (Longitudinal)	Sq Yd	6,229		6,229
Rubbed Finish	Sq Ft		13,753	13,753
Form Liner Textured Surface	Sq Ft		6,139	6,139
Protective Coat	Sq Yd	11,065		11,065
Concrete Superstructure (Approach Slab)	Cu Yd	51.9		51.9
Furnishing And Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	37,347		37,347
Reinforcement Bars	Pound		582,120	582,120
Reinforcement Bars, Epoxy Coated	Pound	625,090	548,450	1,173,540
Bar Splicers	Each		38	38
Mechanical Splicers	Each		788	788
Name Plates	Each	1		1
Permanent Casing	Foot		701	701
Drilled Shaft In Soil	Cu Yd		2,242.4	2,242.4
Drilled Shaft In Rock	Cu Yd		73.4	73.4
Preformed Joint Strip Seal	Foot	38		38
Elastomeric Bearing Assembly, Type I	Each	42		42
Anchor Bolts, 3/4"	Each	180		180
Anchor Bolts, 1"	Each	128		128
Anchor Bolts, 1 1/2"	Each	44		44
Temporary Soil Retention System	Sq Ft		4,894	4,894
Concrete Sealer	Sq Ft		25,238	25,238
Geocomposite Wall Drain	Sq Yd		54	54
Drainage Scuppers, DS-II	Each	20		20
Drainage System	L. Sum	0.60		0.60
High Load Multi-Rotational Bearings ,Guided Expansion , 150k	Each	20		20
High Load Multi-Rotational Bearings ,Guided Expansion , 200k	Each	5		5
High Load Multi-Rotational Bearings ,Guided Expansion , 250k	Each	5		5
High Load Multi-Rotational Bearings ,Guided Expansion , 300k	Each	10		10
High Load Multi-Rotational Bearings ,Fixed , 300k	Each	10		10
High Load Multi-Rotational Bearings ,Fixed , 350k	Each	5		5
Pipe Underdrains For Structures 4"	Foot		38	38
Crosshole Sonic Logging Access Ducts	Foot		3,118	3,118
Crosshole Sonic Logging Testing	Each		17	17
Foundation Construction at Existing Obstructions	Each	4		4
Earth Excavation (Special)	Cu Yd		119.0	119.0
CTA Protective Shield	L. Sum	0.34		0.34
Soil Retention System	Sq Ft		758	758
Granular Backfill Special	Cu Yd		4.8	4.8
Modular Expansion Joint, Swivel 6"	Foot	150		150

STATION 1216+37.21
BUILT BY
STATE OF ILLINOIS
F.A.I. ROUTE 90/94/290
SECTION 2014-003R&B-R
LOADING HL-93
STRUCTURE NO. 016-1715

NAME PLATE
See Std. 515001

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S3-03 General Plan & Elevation - 3
S3-04 Total Bill of Material & Index of Sheets
S3-05 General Notes & Abutment Section
S3-06 Profiles and Curve Data
S3-07 Offset Sketch
S3-08 Existing Structure Removal
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S3-10 Substructure Layout - II
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S3-14 Top of Slab Elevations I - Unit 1
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S3-58 Modular Expansion Joint - Pier 11
S3-59 Modular Expansion Joint - Pier 14
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S3-65 Girder Moment and Reaction Table - Unit 1
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S3-129 Pier 14 Details - 1
S3-130 Pier 15
S3-131 Pier 15 Details - 1
S3-132 Pier 15 Details - 2
S3-133 Pier 16
S3-134 Pier 16 Details
S3-135 South Abutment
S3-136 Abutment Details
S3-137 Architectural Details - I
S3-138 Architectural Details - II
S3-139 Architectural Details - III
S3-140 Bar Splicer & Mechanic Splicer Details
S3-141 Soil Boring Logs - 1
S3-142 Soil Boring Logs - 2
S3-143 Soil Boring Logs - 3
S3-144 Soil Boring Logs - 4
S3-145 Soil Boring Logs - 5
S3-146 Soil Boring Logs - 6
S3-147 Soil Boring Logs - 7
S3-148 Soil Boring Logs - 8
S3-149 Soil Boring Logs - 9
S3-150 Soil Boring Logs - 10
S3-151 Soil Boring Logs - 11
S3-152 Soil Boring Logs - 12
S3-153 Soil Boring Logs - 13
S3-154 Soil Boring Logs - 14
S3-155 Soil Boring Logs - 15
S3-156 Soil Boring Logs - 16
S3-157 Soil Boring Logs - 17
S3-158 Soil Boring Logs - 18
S3-159 Soil Boring Logs - 19
S3-160 Soil Boring Logs - 20
S3-161 Soil Boring Logs - 21
S3-162 Soil Boring Logs - 22
S3-163 Soil Boring Logs - 23
S3-164 Soil Boring Logs - 24
S3-165 Soil Boring Logs - 25
S3-166 Soil Boring Logs - 26
S3-167 Soil Boring Logs - 27
S3-168 Soil Boring Logs - 28
S3-169 Soil Boring Logs - 29
S3-170 Soil Boring Logs - 30
S3-171 Soil Boring Logs - 31
S3-172 Soil Boring Logs - 32

0161715-60X93-S004-TotalBillOfMaterial&IndexOfSheets

	USER NAME = vasudevana	DESIGNED - AV	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOTAL BILL OF MATERIAL AND INDEX OF SHEETS STRUCTURE NO. 016-1715	SHEET NO. S3-04 OF S3-172	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ATB	REVISED				90/94/290	2014-013R&B-R	COOK	1972	746
	PLOT SCALE = N.T.S.	DRAWN - AV	REVISED				CONTRACT NO. 60X93				
	PLOT DATE = 9/19/2018	CHECKED - ATB	REVISED				ILLINOIS FED. AID PROJECT				

GENERAL NOTES

1.

Fasteners shall be ASTM A325 Type 1, hot dip galvanized bolts. Bolts 7/8" Ø, holes 15/16" Ø, unless otherwise noted.
2.

Calculated weight of structural steel = 3,153,560 lbs.
3.

All structural steel shall be AASHTO M270 Grade 50.
4.

All structural steel shall be metalized (thermal spraying). See special provision for "Metallizing of Structural Steel".
5.

No field welding is permitted except as specified in the contract documents.
6.

Reinforcement bars designated (E) shall be epoxy coated.
7.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
8.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
9.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
10.

Concrete Sealer shall be applied to the designated areas of the abutment and piers.
11.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
12.

Slipforming of the parapets is not allowed.
13.

Structural steel erection shall be accomplished by an steel erection contractor or subcontractor certified as an Advanced Certified Steel Erector (ACSE) by the American Institute of Steel Construction (AISC). See special provision for "Erection of Complex Steel Structures".
14.

For the Conduits Attached to Structure and Embedded in Structure details and quantities, see Civil and Electrical Plans. Embedded conduits shall be PVC.
15.

For drilled shaft locations where permanent casing is required as shown on the plans, the casing will be paid for under the Permanent Casing pay item. If contractor elects to use permanent casing for ease of construction in locations where permanent casing is not required, the casing will not be paid for separately and shall be considered included in the Drilled Shaft in Soil pay item.
16.

Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The Contractor will not be compensated for issues related to the groundwater elevation.
17.

Contractor shall provide equipment, labor and materials as required to install drilled shafts thru existing known obstruction. Obstruction mitigation shall be as per Special Provision Foundation Construction at Existing Obstructions.
18.

The Drilled Shaft quantities and reinforcement detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft locations and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.
19.

The Contractor shall take all necessary precautions not to contaminate groundwater during the drilled shaft construction operation. Contractor is responsible for the proper containment and disposal of the contaminated groundwater and spoils resulting from Contractor's means and methods. No additional cost will be paid for this effort.
20.

The Contractor shall field verify location of existing utilities prior to construction. The Contractor shall take precautions not to damage existing utilities. Any such damage shall be repaired by the Contractor at no additional cost.
21.

The Contractor shall exercise extreme caution during construction to make certain that construction activities, live load surcharge and other loads applied to the structures will not have detrimental effects on the adjacent structures, buildings and utilities. See Contract Special Provision for details.
22.

The contractor shall provide vibration and displacement monitoring at the locations specified in the Special Provision for Construction Vibration Monitoring and Monitoring Adjacent Structures, to ensure that construction activities in the vicinity of the structures do not have detrimental effects on building foundations. No additional compensation shall be provided to the Contractor for alternative means and methods, or additional precautionary measures, required during removal/construction activities to satisfy these requirements. See Contract Special Provisions for details.
23.

The Contractor shall coordinate the construction of proposed structure with the construction of shared Pier C2 (S.N. 016-0461), SB Taylor Bypass Ramp (S.N. 016-1718) and Retaining Wall 14 (S.N. 016-1803). The Contractor shall also coordinate proposed Pier 13 construction with the construction of proposed Retaining Wall 18 (S.N. 016-1807, Contract 60X79). See Available Work Areas and Sequencing Requirements Special Provision for additional information and requirements.
24.

The Contractor may encounter abandoned foundation elements that obstruct construction of the proposed structure. Removal and disposal of portion of abandoned foundation elements shall be per special provision "Abandoned Foundation Removal". See Civil plans for approximate location and quantity.
25.

Superstructure Unit 2 & 4 uses multiple fixed piers. The temperature during the anchor bolt installation will determine the temperature at which the fixed piers have no thermal stress. To minimize thermal stress, anchor bolt installation temperature should be as close to 50° F. as possible. For units with two fixed piers, the Contractor can install anchor bolts at one of the fixed pier of their choice at any temperature, but shall install anchor bolts at the second fixed pier when the temperature is between 40° F. & 60° F. This installation procedure shall be included in the Contractor's Erection Plan.
26.

Based on the squeeze potential of the clay soils, the use of temporary casing will be required to two feet below the clay layer in order to properly construct the drilled shafts. Casing may be pulled or left in place as directed determined by the Contractor at no additional cost to the Department.

EXISTING STRUCTURE ASSESSMENT NOTES

1.

In order to construct proposed superstructure & substructure elements, Contractor may elect to support temporary construction material and/or equipment, on the existing structures in the vicinity of the proposed structure. The Contractor shall submit Structural Assessment Report(s) for approval prior to beginning the work. See Special Provision.
2.

An Existing Structure Information Package (ESIP) will be provided by the Department to the Contractor upon request.
3.

The Contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridge (Adv. Typical), for preparation of the Structural Assessment Report(s). Contractor's pre-approval shall not be applicable for this project. See Special Provision.
- Current existing structure Load Rating on file:

S.N. 016-1713 (Harrison St over SB I-90/94)

Inventory Rating Factor: 2.19 (HL-93)

Operating Rating Factor: 2.84 (HL-93)

Live Load Restriction: None

S.N. 016-1703 (WB I-290 over I-90/94)

Inventory Rating Factor: 1.21 (HL-93)

Operating Rating Factor: 2.11 (HL-93)

Live Load Restriction: None

S.N. 0161716 (Halsted St over I-290 & CTA)

Inventory Rating Factor: 1.12 (HL-93)

Operating Rating Factor: 1.45 (HL-93)

Live Load Restriction: None

S.N. 016-2450 (WB I-290 to SB I-90/94)

Inventory: 0.71 (H20)

Operating: 1.18 (H20)

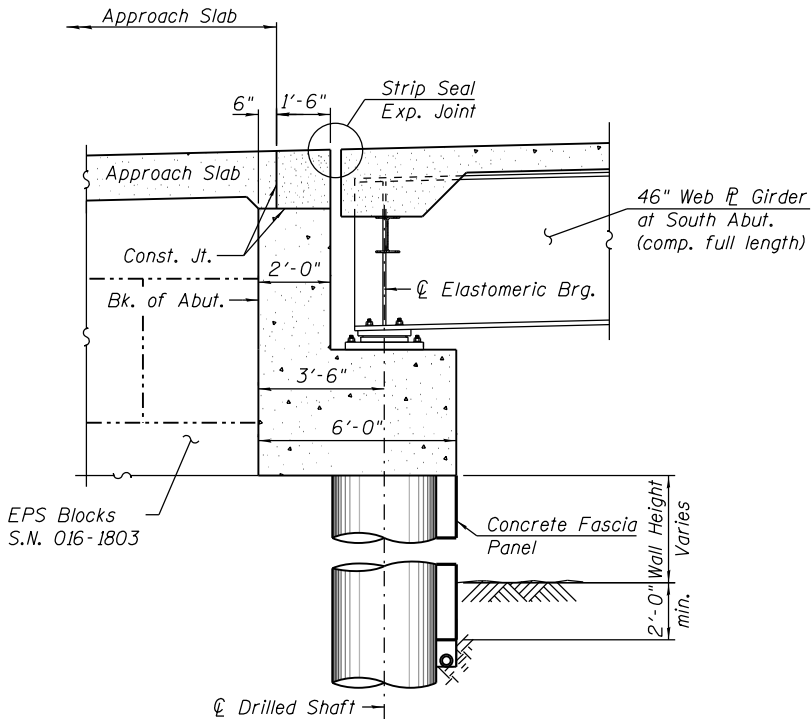
Live Load Restriction: None
4.

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on live loading and configuration as noted. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.
5.

The contractor is advised that the existing structures may contain members in deteriorated conditions with reduced load carrying capacities. It is the Contractor's responsibility to account for the condition of existing structures when developing construction procedures for using them to support construction loads.
6.

The contractor shall verify that the structural demands of the applied loads due to the Contractor's means and methods will not exceed the available capacity of the structure at the time loads are applied. Most likely, the Contractor will be required to provide additional shoring under the existing bridges (or other methods of retrofitting) to support construction loads. Design, installation and subsequent removal of such shoring system will be the responsibility of the Contractor and will not be paid separately.
7.

The Contractor shall use caution and not damage any component of the existing structure. Upon completion of work and prior to allowing traffic back on the existing structure the contractor must restore existing structure in its original condition.



SECTION THRU SOUTH ABUTMENT
(Horiz. Dim. @ Rt. L's)

0161715-60X93-S005-GeneralNotes



USER NAME =	bhatta	DESIGNED -	JXH	REVISED
		CHECKED -	ATB	REVISED
PLOT SCALE =	N.T.S.	DRAWN -	JXH	REVISED
PLOT DATE =	9/19/2018	CHECKED -	ATB	REVISED

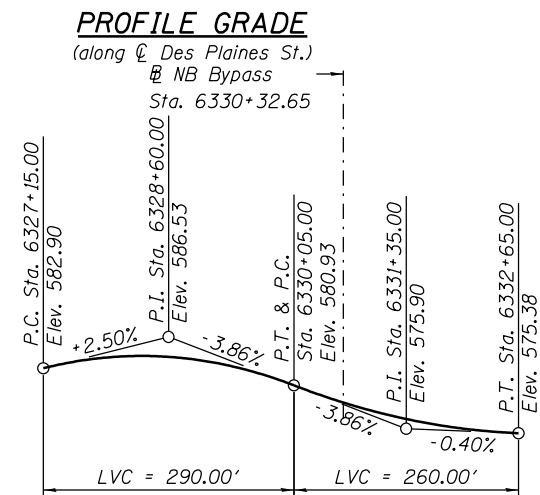
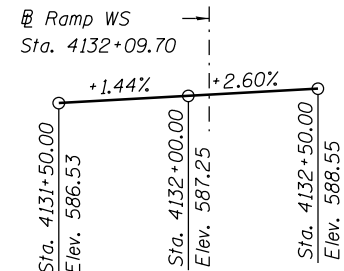
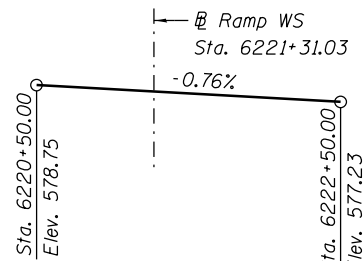
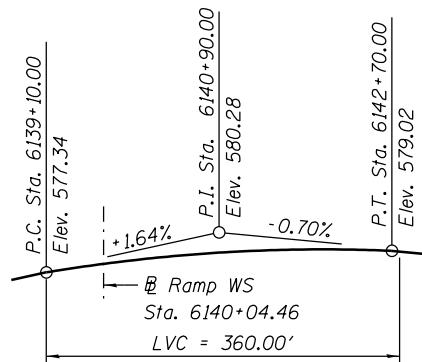
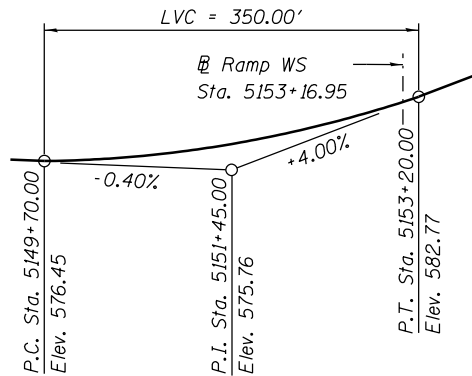
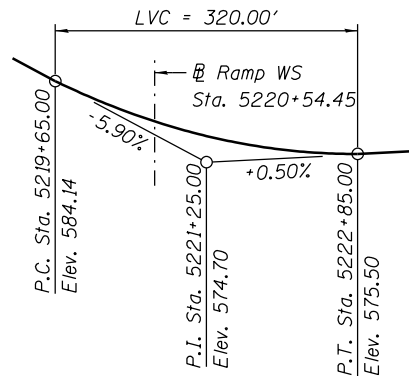
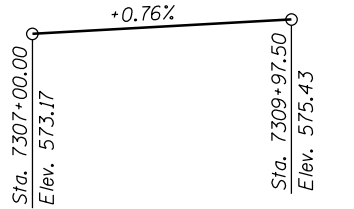
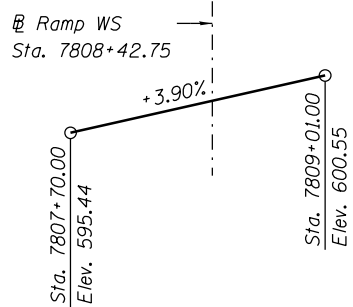
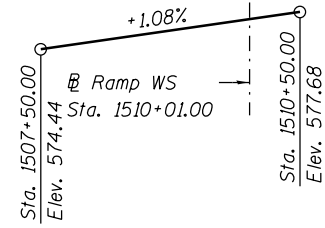
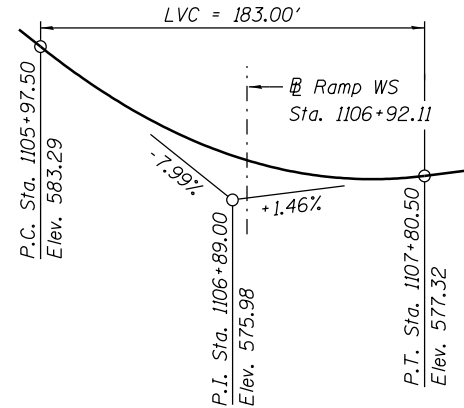
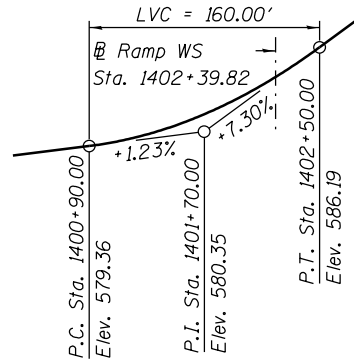
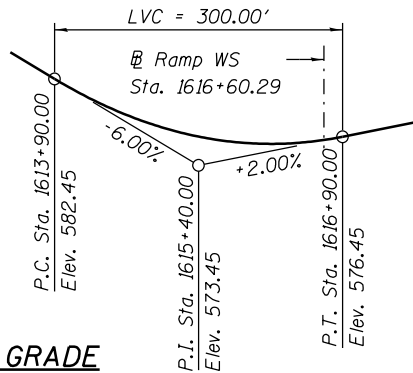
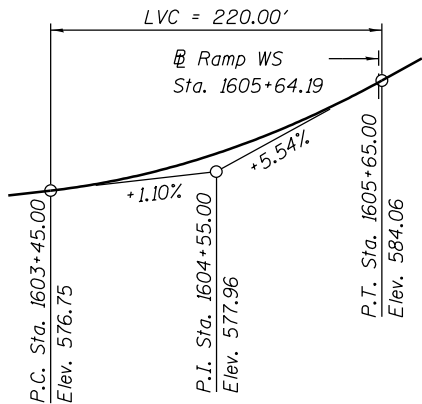
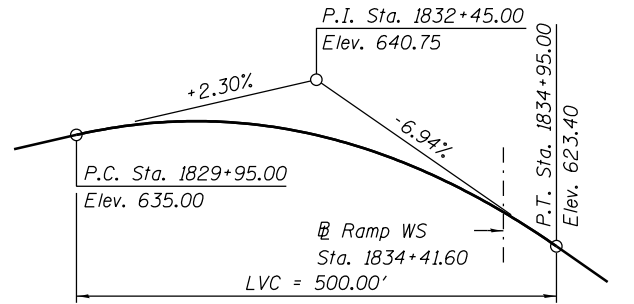
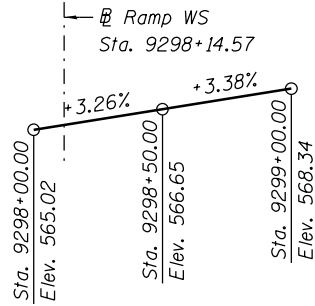
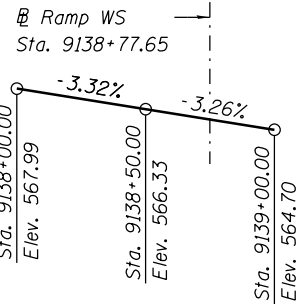
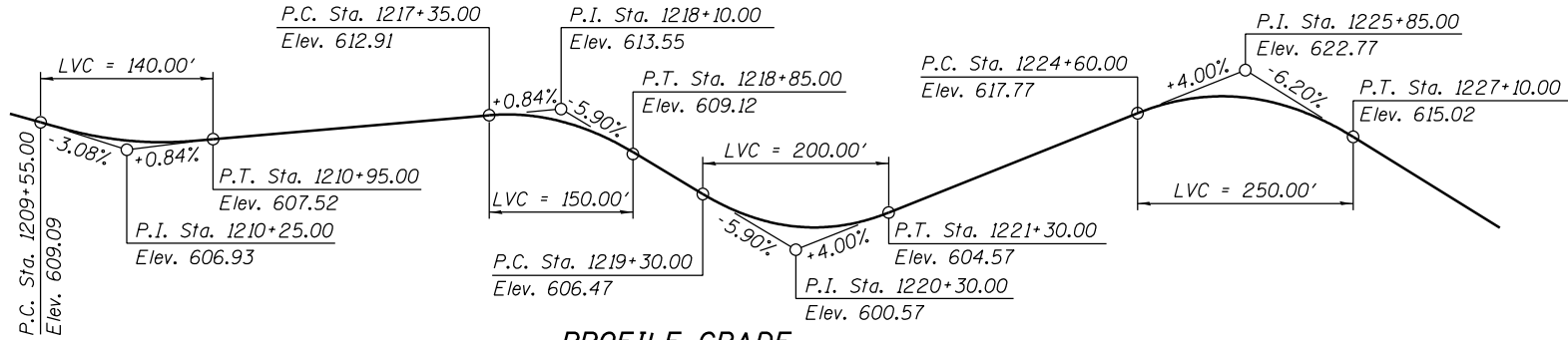
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND ABUTMENT SECTION
STRUCTURE NO. 016-1715

SHEET NO. S3-05 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	747
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S006-Profile&Curve.dgn



CURVE DATA

(Ramp WS)
Curve: P-CIR-WS-1
PI Sta. = 1210+36.88
 $\Delta = 26^\circ 00' 07''$ (RT)
D = $8^\circ 48' 53''$
R = 650.00'
T = 150.08'
L = 294.98'
E = 17.10'
e = 5.20%
T.R. = 52'
S.E. Run = 134'
P.C. Sta. = 1208+86.80
P.T. Sta. = 1211+81.78
DS = 35

Curve: P-CIR-WS-2
PI Sta. = 1222+12.72
 $\Delta = 135^\circ 15' 55''$ (Lt)
D = $19^\circ 21' 24''$
R = 296.00'
T = 719.31'
L = 698.80'
E = 481.83'
e = 5.00%
T.R. = 46'
S.E. Run = 114'
P.C. Sta. = 1214+93.41
P.T. Sta. = 1221+92.21
DS = 25

CURVE DATA

(Ramp WN)
Curve: P-CIR-WN-2
PI Sta. = 1105+88.67
 $\Delta = 69^\circ 00' 44''$ (RT)
D = $12^\circ 43' 57''$
R = 450.00'
T = 309.35'
L = 542.02'
E = 96.07'
e = 5.20%
T.R. = NA
S.E. Run = 132'
P.C. Sta. = 1102+79.32
P.T. Sta. = 1108+21.34
DS = 30

CURVE DATA

(Ramp SE)
Curve: P-CIR-SE-1
PI Sta. = 1401+94.82
 $\Delta = 45^\circ 11' 30''$ (RT)
D = $30^\circ 58' 14''$
R = 185.00'
T = 76.99'
L = 145.92'
E = 15.38'
e = 6.00%
T.R. = NA
S.E. Run = 91
P.C. Sta. = 1401+17.83
P.T. Sta. = 1402+63.75
DS = 25

CURVE DATA

(Ramp NW)
Curve: P-CIR-NW-6
PI Sta. = 1831+44.22
 $\Delta = 88^\circ 30' 25''$ (LT)
D = $10^\circ 36' 37''$
R = 540.00'
T = 526.11'
L = 834.16'
E = 213.92'
e = 5.40%
T.R. = 39'
S.E. Run = 105'
P.C. Sta. = 1826+18.11
P.T. Sta. = 1834+52.27
DS = 35

CURVE DATA

(Ramp ES)
Curve: P-CIR-ES-2
PI Sta. = 1510+49.08
 $\Delta = 63^\circ 26' 03''$ (RT)
D = $8^\circ 37' 44''$
R = 664.00'
T = 410.37'
L = 735.14'
E = 116.58'
e = 5.80%
T.R. = 41'
S.E. Run = 120'
P.C. Sta. = 1506+38.71
P.T. Sta. = 1513+73.85
DS = 40

CURVE DATA

(Taylor ES Exit Ramp)
Curve: P-TAY-ES-4
PI STA. = 7309+26.26
 $\Delta = 44^\circ 07' 39''$ (RT)
D = $10^\circ 13' 53''$
R = 560.00'
T = 226.98'
L = 431.30'
E = 44.25'
e = 5.80%
T.R. = NA
S.E. Run = 150'
P.C. STA. = 7306+99.28
P.T. STA. = 7311+30.57
DS = 35

AECOM

USER NAME = floresq
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - JXH
CHECKED - ATB

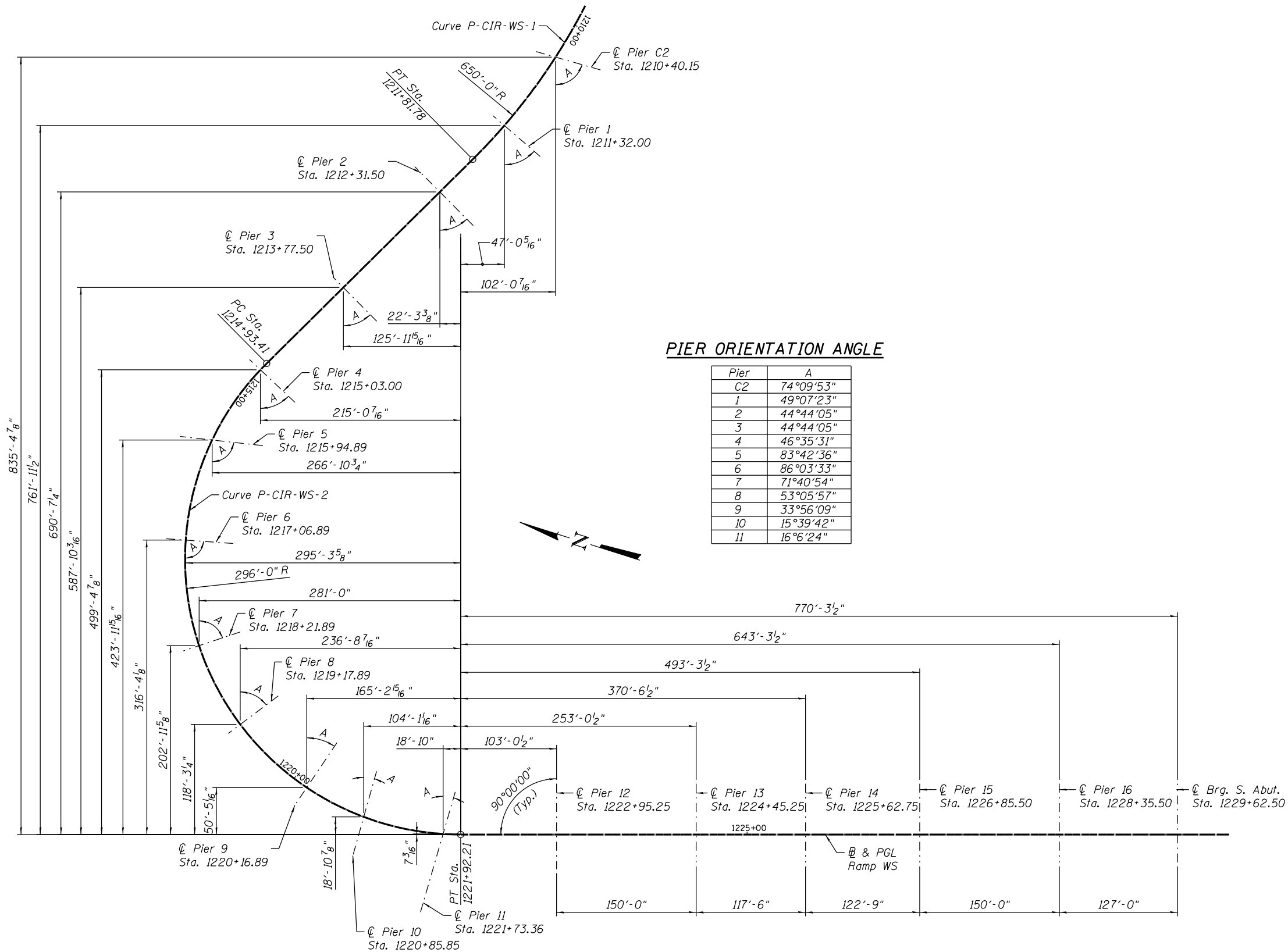
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROFILES AND CURVE DATA
STRUCTURE NO. 016-1715

SHEET NO. S3-06 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	748
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



PIER ORIENTATION ANGLE

Pier	A
C2	74°09'53"
1	49°07'23"
2	44°44'05"
3	44°44'05"
4	46°35'31"
5	83°42'36"
6	86°03'33"
7	71°40'54"
8	53°05'57"
9	33°56'09"
10	15°39'42"
11	16°6'24"

OFFSET SKETCH

AECOM

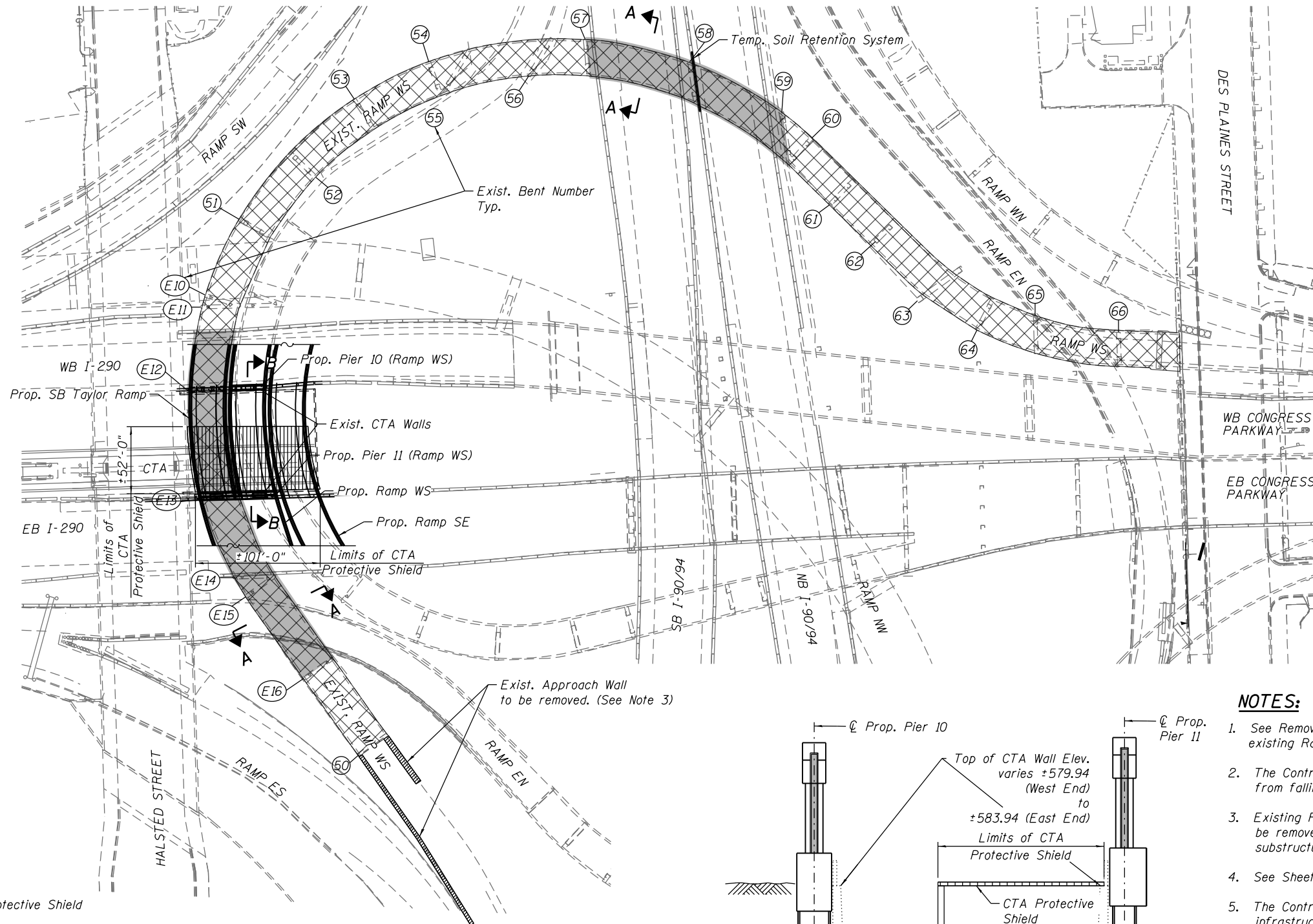
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PLOT SCALE =	N.T.S.	DRAWN -	JXH	REVISED
PLOT DATE =	8/28/2018	CHECKED -	ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

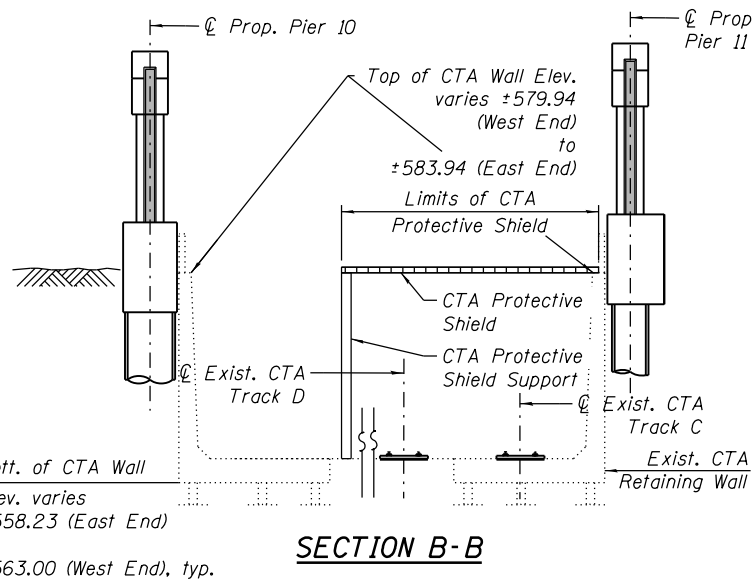
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STRUCTURE NO. 016-1715

SHEET NO. S3-07 OF S3-172

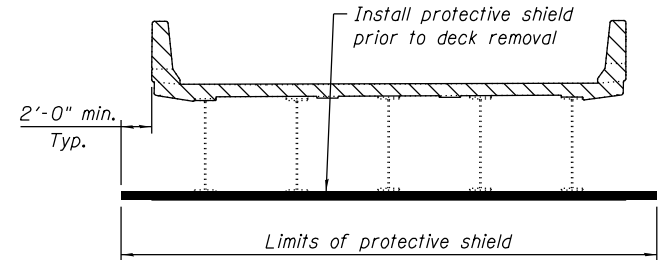
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	749
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



PLAN



SECTION B-B



SECTION A-A

Note: Approximate length of the existing structure that requires Protective Shield is ±176'-0" over I-90/94 and ±290'-0" over I-290, CTA Tracks and Ramp EN.

**EXIST. RAMP WS SUBSTRUCTURE
REMOVAL ELEVATION TABLE**

Exist. Bent No.	Removal Elev.
51	575.53
52	577.92
53	581.36
54	581.11
55	579.11
56	577.13
57	569.06
58	570.25
59	567.14
60	567.64
61	573.21
62	576.17
63	576.99
64*	574.09*
65	569.42
66	575.66
E10	573.31
E11	573.31
E12	575.94
E13	576.73
E14	574.44
E15	574.44
E16	574.69

*Existing north drilled shaft at Bent 64 to be removed to Elev. 568.80

NOTES:

- See Removal of Existing Structures No. 2 Special Provisions for the removal of the existing Ramp WS structure (S.N. 016-2450) and the existing approach walls.
- The Contractor shall install protective shield system to protect travelling public from falling objects during the removal of existing Ramp WS (S.N. 016-2450).
- Existing Ramp WS (S.N. 016-2450) Bent 50 and approach retaining walls shall be removed to bottom of grade beam / footing elevation. Remaining substructure units shall be removed at elevation provided on this sheet.
- See Sheet S3-12 for Temporary Soil Retention System details at Exist. Bent 58.
- The Contractor shall install protective shield system to protect the existing CTA infrastructure from any falling objects during the demolition of existing structures and construction of Prop. Ramp WS (S.N. 016-1715), Ramp SE (S.N. 016-1714) & SB Taylor Street Ramp (S.N. 016-1718). The Contractor shall install the CTA protective shield prior to any construction activity over and/or adjacent to CTA. CTA protective shield dimensions shown are conceptual only and subject to refinement by the Contractor. This work shall be in accordance with the Special Provision for CTA Protective Shield.
- Work this sheet with Sheet S3-10.
- See Sheet S3-08 for CTA Protective Shield details and notes.

LEGEND:

	CTA Protective Shield
	Existing Ramp WS Removal Paid For as Removal of Existing Structures No. 2
	Existing Ramp WS Approach Wall Removal Paid For as Removal of Existing Structures No. 2
	Protective Shield

AECOM

USER NAME = bhatta	DESIGNED - AV	REVISED
	CHECKED - ATB	REVISED
PLOT SCALE = N.T.S.	DRAWN - AV	REVISED
PLOT DATE = 9/20/2018	CHECKED - ATB	REVISED

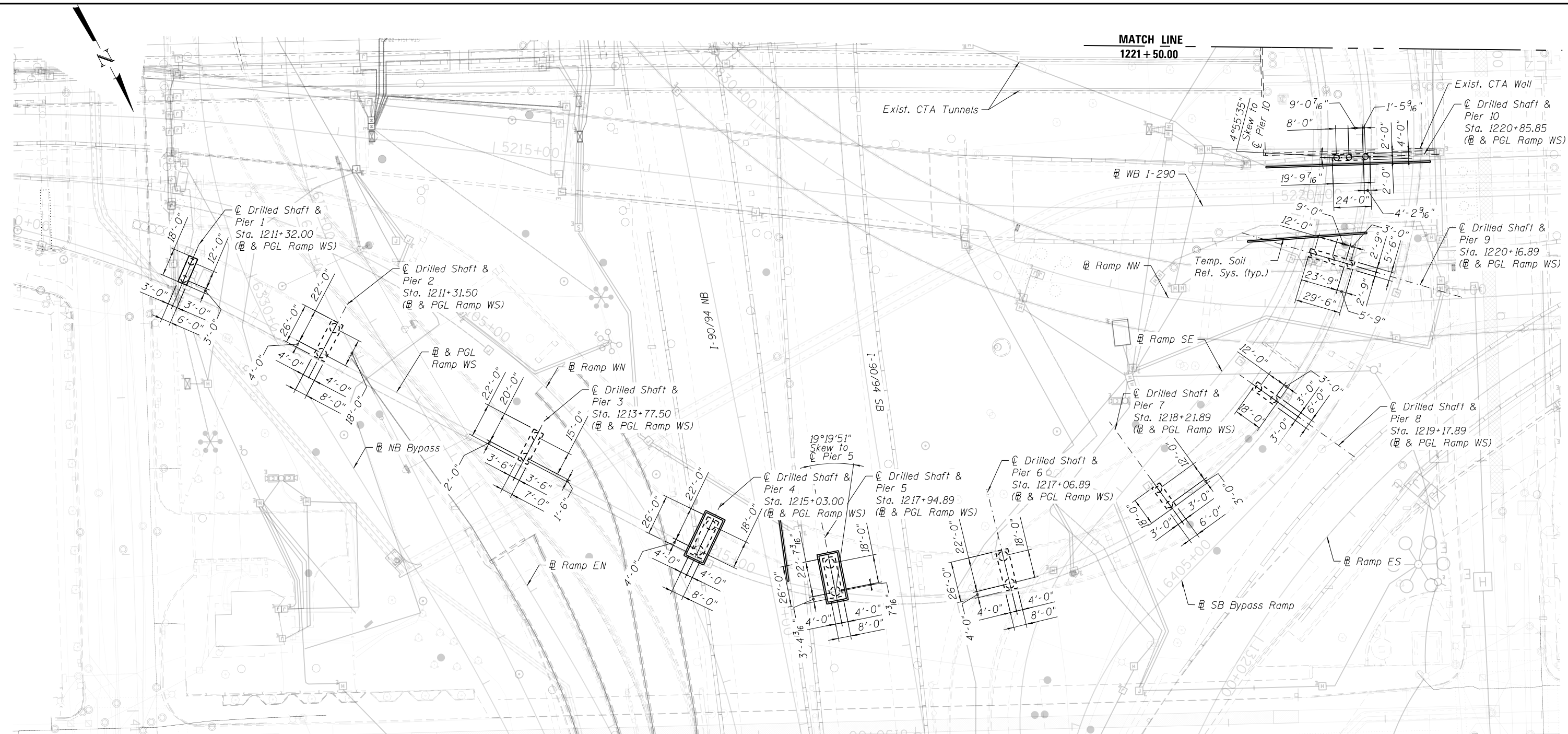
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURE REMOVAL
STRUCTURE NO. 016-1715**

SHEET NO. S3-08 OF S3-172

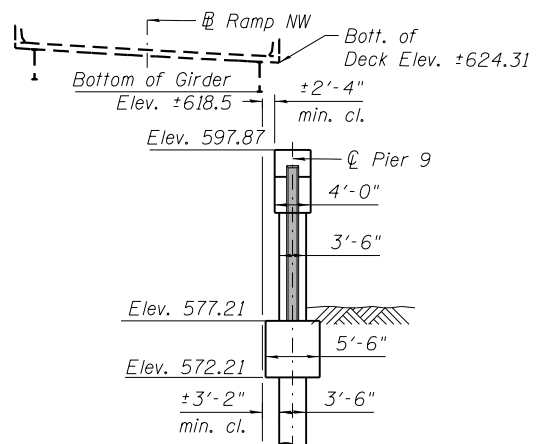
F.A.I. RTE. 90/94/290	SECTION 2014-013R&B-R	COUNTY COOK	TOTAL SHEETS 1972	SHEET NO. 750
CONTRACT NO. 60X93			ILLINOIS FED. AID PROJECT	

0161715-60X93-S007A-StructRem



LEGEND:

- Combined Sewer
- Electric
- Fiber Optic
- Exist. Storm Sewer
- Prop. Storm Sewer
- Water Line
- Gas Line
- Fire Hydrant
- Light Pole



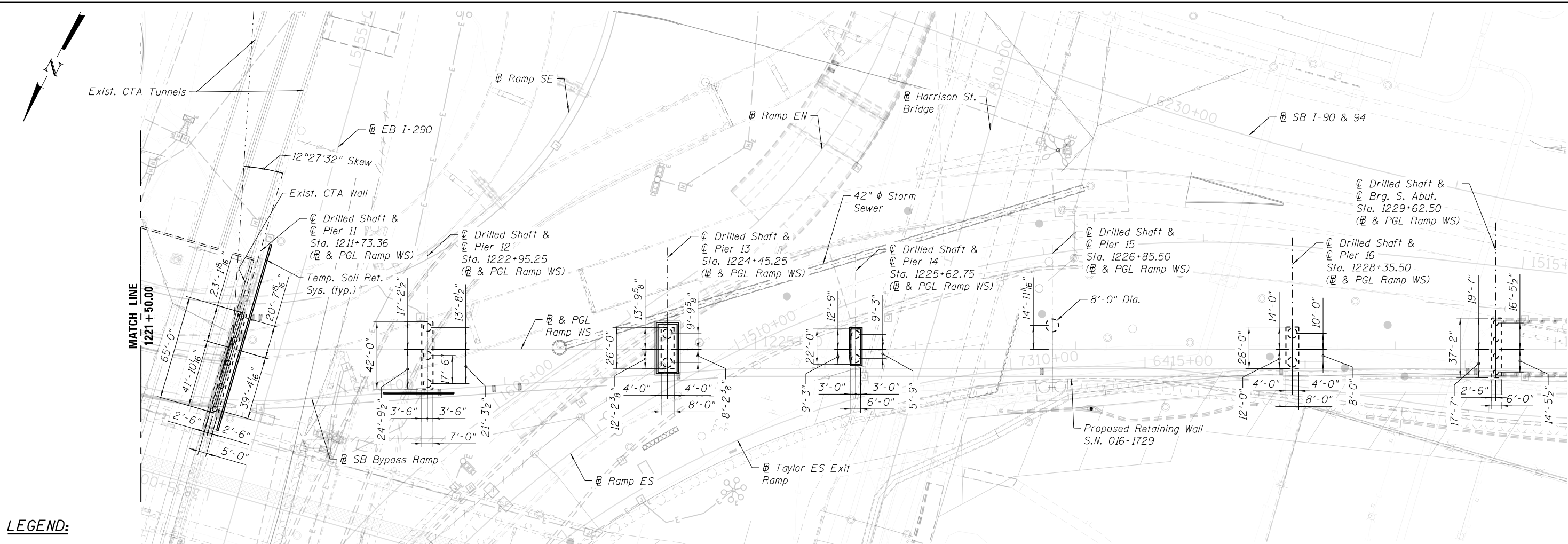
SECTION AT PIER 9
(Looking East)

SUBSTRUCTURE LAYOUT PLAN

NOTES:

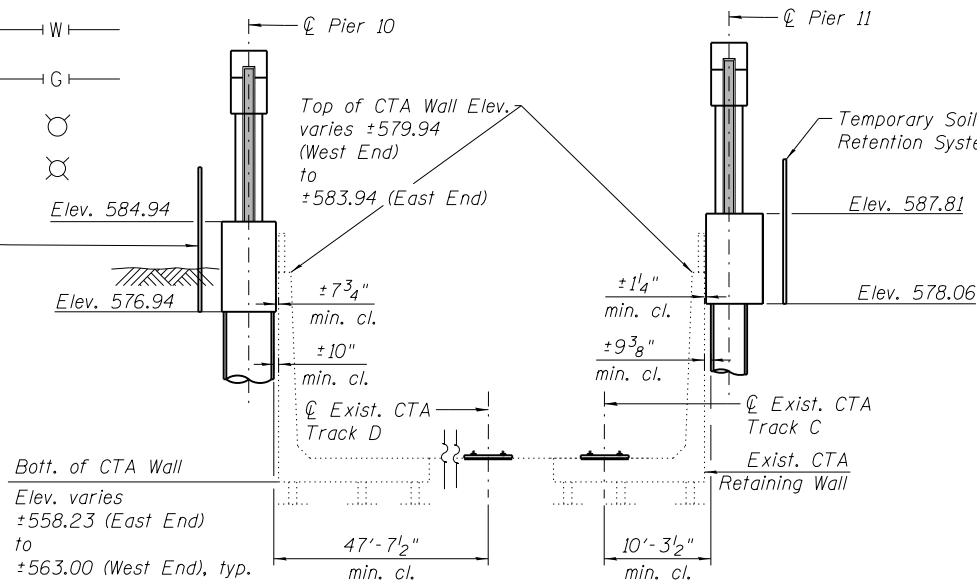
- All Substructure are oriented 90° to B & PGL Ramp WS unless noted otherwise.
- The Contractor shall take extreme caution next to all facilities during excavation, drilled shaft and footing construction or any other underground work. Any damage to utilities/facilities shall be repaired by the Contractor at no additional cost to the Department.
- See sheet S3-12 for Temporary Soil Retention System details at Piers 4, 5, 9, 10.
- It is anticipated that existing Ramp SE foundation elements conflict with the installation of the Pier 8, 9, 10 & 11 drilled shafts. The Contractor shall provide the necessary equipment, labor and materials as required to construct proposed drilled shafts. This work shall be completed in accordance with the Special Provision Foundation Construction at Existing Obstructions.
- The Contractor is advised that there is limited space available under existing Ramp NW (S.N. 016-1705) for the construction of the proposed Pier 9. The Contractor shall take necessary measures for the construction of the proposed Pier 9 drilled shafts, footing, column and cap. Finding suitable means and methods for the successful construction of Pier 9 is the responsibility of the Contractor. No additional costs shall be paid for this effort.
- Work this sheet with sheet S3-10.
- See Sheet S3-08 for CTA Protective Shield details and notes

0161715-60X93-S008-Sublayout+1



LEGEND:

- Combined Sewer
- Electric
- Fiber Optic
- Prop. Storm Sewer
- Exist. Storm Sewer
- Water Line
- Gas Line
- Fire Hydrant
- Light Pole



SECTION AT PIER 10 & 11

SUBSTRUCTURE LAYOUT PLAN

NOTES:

- All Substructure are oriented 90° to & PGL Ramp WS unless noted otherwise.
- See sheet S3-12 for Temporary Soil Retention System details at Piers 11, 12, 13.
- See sheet S3-11 for Drilled Shaft and Footing construction at Pier 14.
- See sheet S3-12 for Soil Retention System at Pier 14.
- All work adjacent to and over the existing CTA retaining wall and/or tracks shall conform to requirements identified within the CTA Flagging and Coordination Special Provision.
- The Contractor must protect all CTA structures and elements at all times. The Contractor shall obtain approval from CTA prior to proceeding with any construction activity adjacent to CTA. Contractor shall take extreme precautions to not to damage existing CTA structures during the construction and shall not support any construction equipment and/or material from any elements of existing CTA structures. In case of placing wet concrete against any elements of CTA structures, the Contractor must ensure that no additional load is applied to those elements and provide structural calculations prepared by an Illinois Licensed Structural Engineer for review and approval. The Contractor is responsible for the structural integrity and stability of the existing CTA structures. Any damage to the existing CTA structures shall be repaired by the Contractor to the satisfaction of CTA and the Engineer at no additional cost.
- Excavation around existing CTA retaining wall for the construction of the proposed piers 10 & 11 shall be performed per special provision Earth Excavation (Special) using only hand excavation or approved methods that would cause no damage to the existing CTA retaining wall. The limits of excavation work shall be identified prior to start of work. All planned excavation is subject to approval by the Engineer and CTA.
- The location of existing CTA retaining wall has been identified using a combination of record drawings and topographical survey. Clearance information shown from the proposed Pier 10 & 11 to the existing CTA retaining wall is approximate and subject to variation. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction and/or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The Contractor is advised that there is limited space available adjacent to existing CTA retaining wall for the construction of the proposed drilled shafts and pier crash wall at Pier 10 & 11. The Contractor shall take necessary measures for the construction of the proposed Pier 10 & 11. Finding suitable means and methods for the successful construction of Pier 10 & 11 is the responsibility of the Contractor. No additional costs shall be paid for this effort.
- Proposed Pier 10 & 11 permanent casing shall be installed by twisting and/or pushing the casing in conjunction with drilled excavation inside of the permanent casing. The bottom of the permanent casing shall maintain minimum 2 ft. embedment into underlying soil below the bottom of shaft excavation elevation. Neither the Wet Method of construction nor the use of Temporary Casing will be permitted. See Special Provisions for Foundation Drilling Procedures.
- Work this sheet with sheet S3-09.
- See Sheet S3-08 for CTA Protective Shield details and notes.



USER NAME =	vasudevana	DESIGNED -	AV	REVISED
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PLOT SCALE =	N.T.S.	DRAWN -	AV	REVISED
PLOT DATE =	8/27/2018	CHECKED -	ATB	REVISED

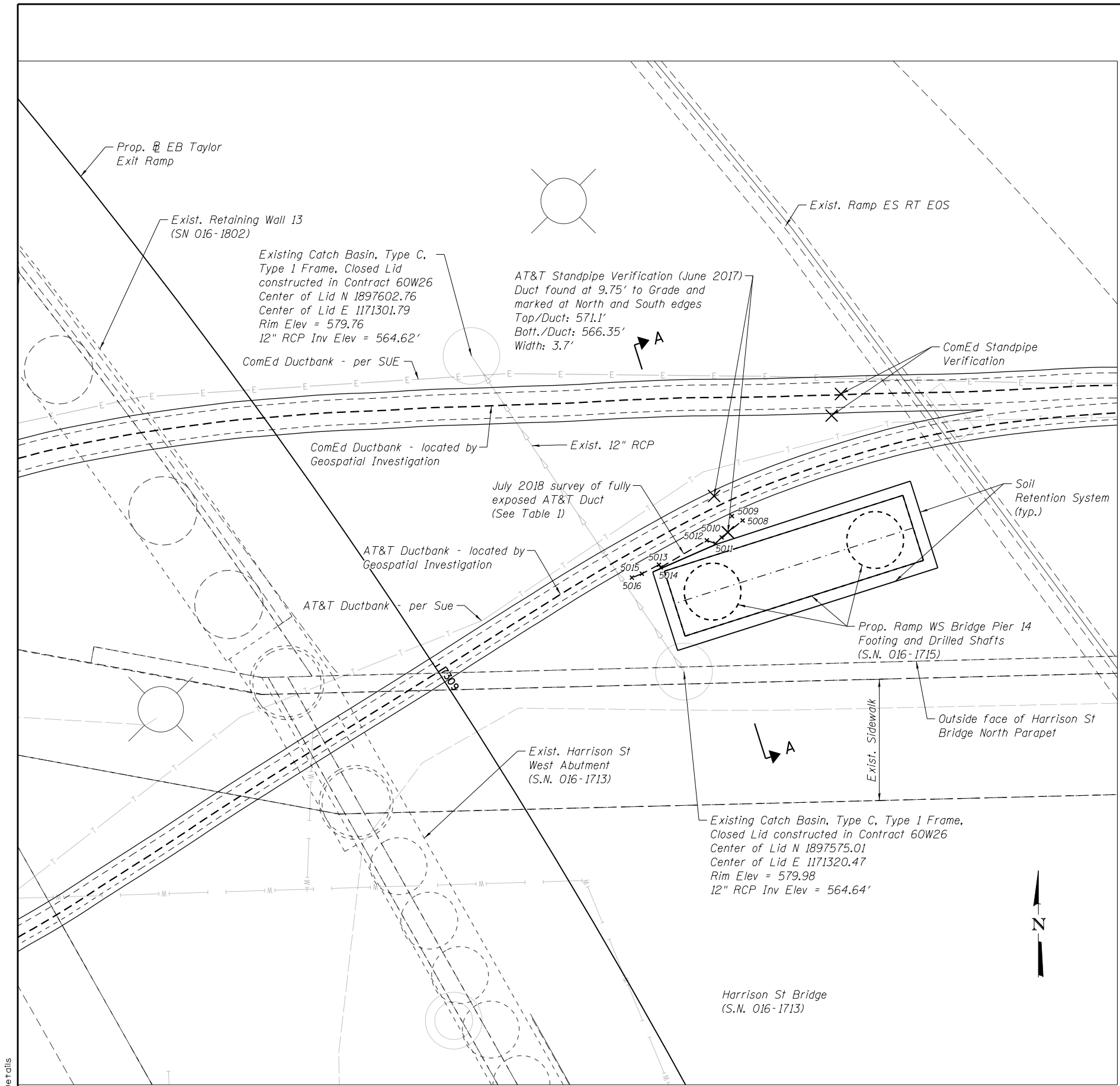
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT II
STRUCTURE NO. 016-1715

SHEET NO. S3-10 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	752
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

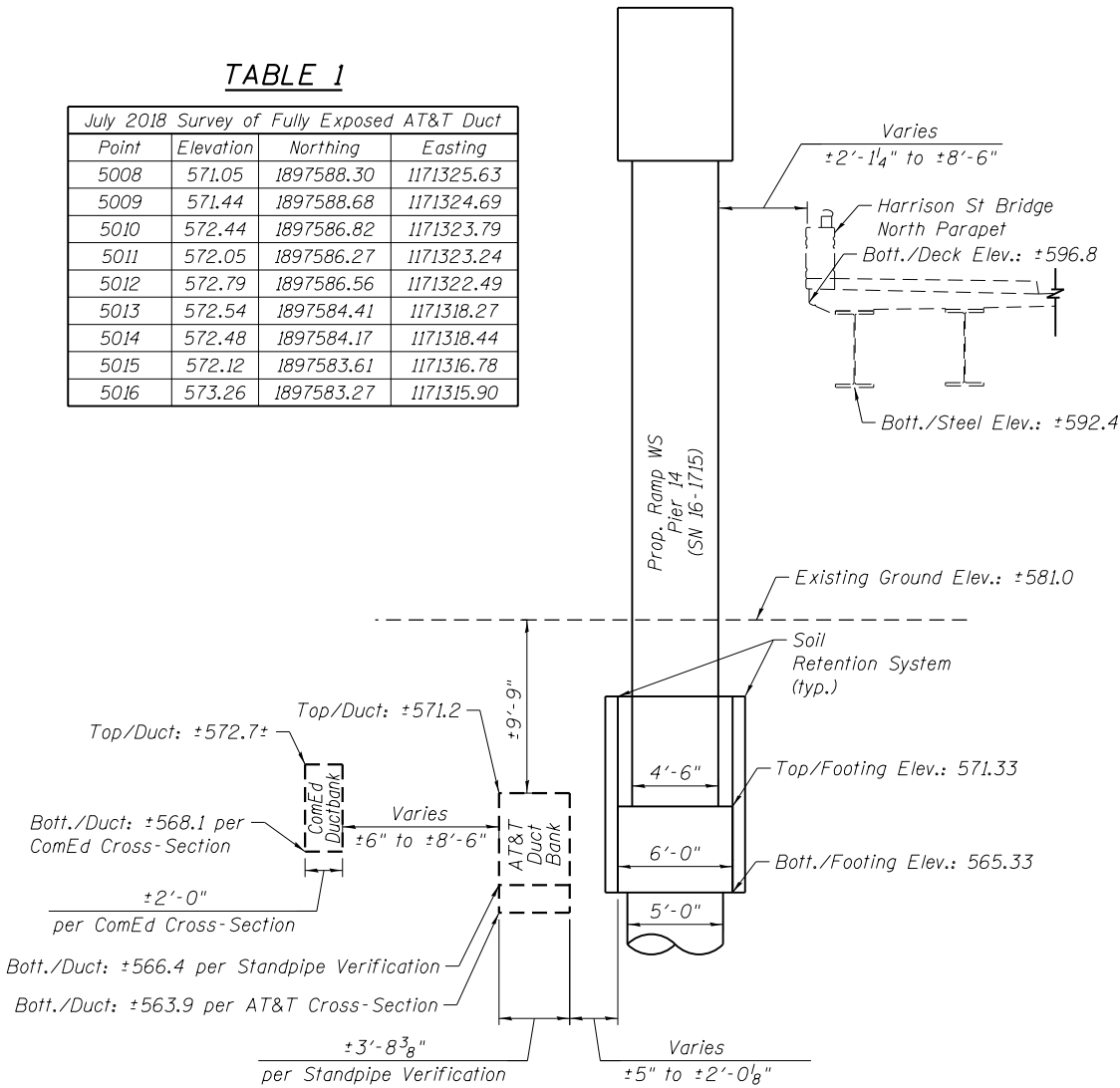
0161715-60X93-S010-SubDetails



PLAN VIEW

TABLE 1

July 2018 Survey of Fully Exposed AT&T Duct			
Point	Elevation	Northing	Easting
5008	571.05	1897588.30	1171325.63
5009	571.44	1897588.68	1171324.69
5010	572.44	1897586.82	1171323.79
5011	572.05	1897586.27	1171323.24
5012	572.79	1897586.56	1171322.49
5013	572.54	1897584.41	1171318.27
5014	572.48	1897584.17	1171318.44
5015	572.12	1897583.61	1171316.78
5016	573.26	1897583.27	1171315.90



SECTION A-A

NOTES:

- See sheet S3-12 for Soil Retention System details at Pier 14.
- The Contractor must protect existing AT&T Ductbank, existing ComEd Ductbank and existing Harrison Street Bridge (S.N. 016-1713) at all times and shall take extreme precautions to not to damage existing Structure and/or Ductbanks. Any damage to the existing Structure and/or Ductbanks shall be repaired by the Contractor to the satisfaction of utility owners and the Engineer at no additional cost.
- The location of existing Ductbanks and elevations are estimated based upon profile defined by the Geospatial investigation adjusted per Standpipe verified locations. The Contractor shall field verify existing ductbank location, dimensions and details affecting new construction and make necessary approved adjustments prior to construction and/or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The Contractor is advised that there is limited space available adjacent to existing AT&T Ductbank and existing Harrison Street Bridge (S.N. 016-1713) for the construction of the proposed drilled shafts and footing for Pier 14. The Contractor shall take necessary measures for the construction of the proposed Pier 14. Finding suitable means and methods for the successful construction of Pier 14 is the responsibility of the Contractor. No additional costs shall be paid for this effort.

AECOM

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PLOT DATE = 7/30/2018

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CHECKED - ATB

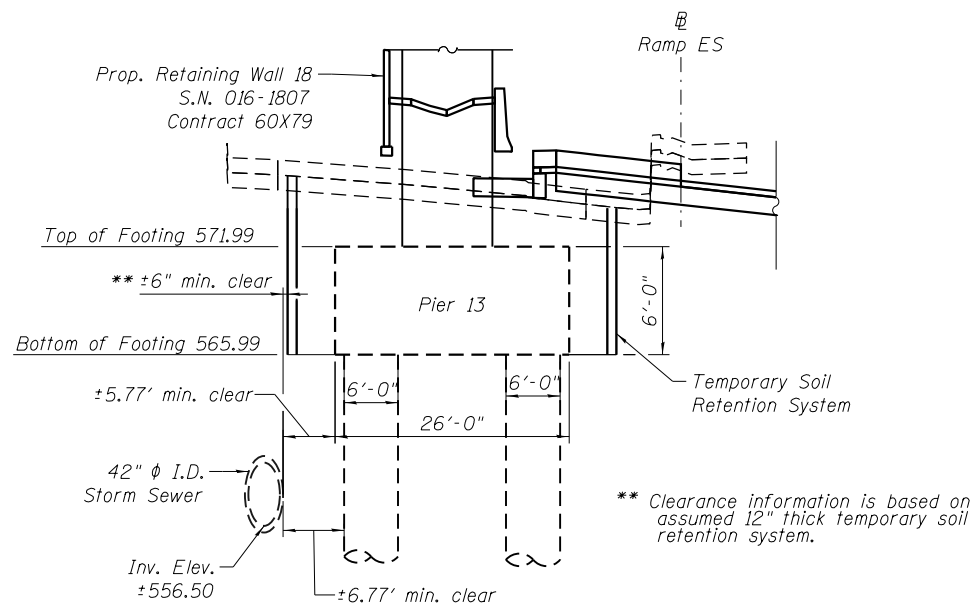
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DEPARTMENT OF TRANSPORTATION

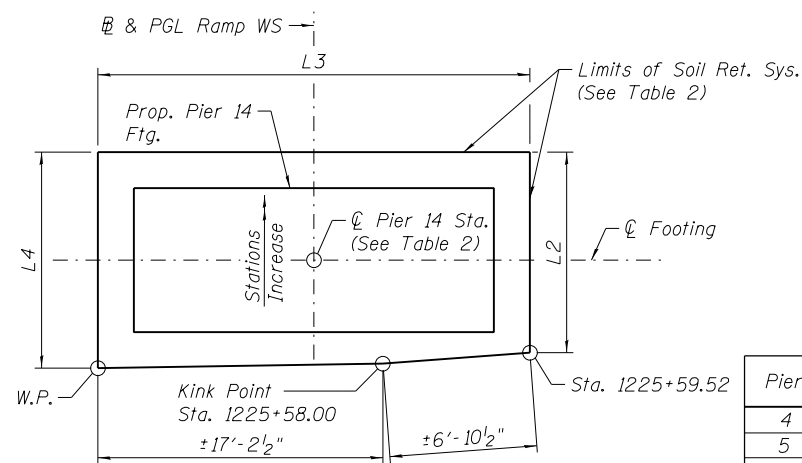
SUBSTRUCTURE DETAILS
STRUCTURE NO. 016-1715

SHEET NO. S3-11 OF S3-172

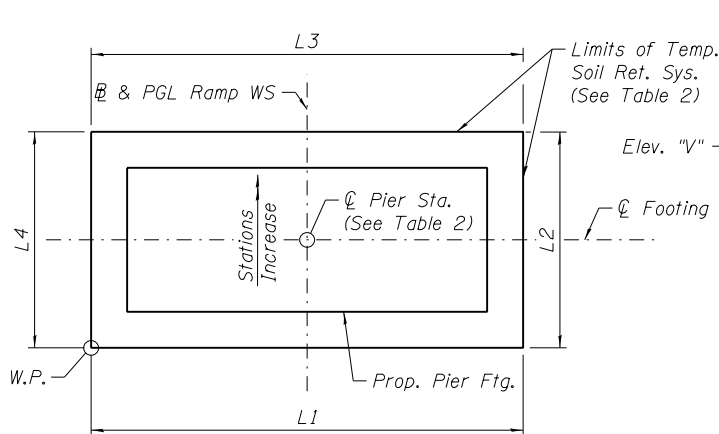
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	753
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



SECTION AT PIER 13
(Looking South)



PLAN - PIER 14 SOIL RETENTION SYSTEM

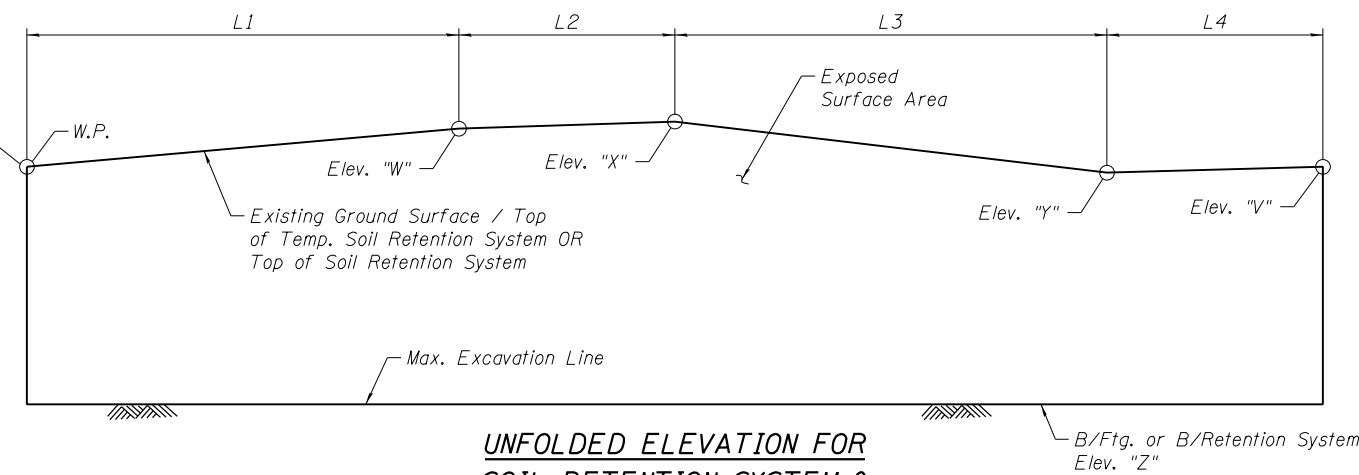


PLAN - TEMP. SOIL RETENTION SYSTEM
FOR PIER 4, 5 & 13

TABLE 2

Pier	Sta.	L1	L2	L3	L4	Elevation				
						V	W	X	Y	Z
4	1215+03.00	30'-0"	12'-0"	30'-0"	12'-0"	+574.42	+574.58	+574.65	+574.67	565.46
5	1225+94.89	30'-0"	12'-0"	30'-0"	12'-0"	+574.33	+574.91	+575.09	+574.54	565.38
13	1224+45.25	30'-0"	12'-0"	30'-0"	12'-0"	+576.09	+577.25	+578.63	+576.28	565.99
* 14	1225+62.75	-	8'-0"	24'-0"	8'-0"	+576.93	+576.88	+577.89	+576.91	565.33

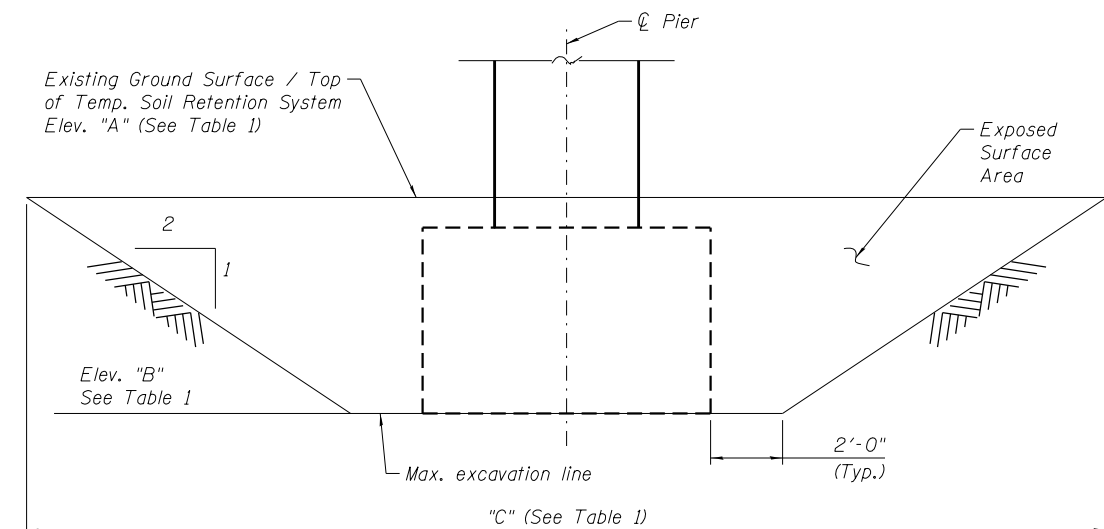
*See Note 4



UNFOLDED ELEVATION FOR
SOIL RETENTION SYSTEM &
TEMPORARY SOIL RETENTION SYSTEM

NOTES:

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Temporary Soil Retention System and Soil Retention System shall be installed without the use of impact-type pile drivers. The proposed equipment and procedures used for the installation shall be submitted to the Engineer for approval prior to their use. If vibratory equipment utilized, the Contractor shall also submit documentation regarding the operating noise levels and operating vibration characteristics of the equipment proposed. The approval of the equipment and procedure by the Engineer does not guarantee the performance in the field of the equipment will be acceptable. All provisions and requirements required under Construction Vibration Monitoring, Monitoring Adjacent Structures and Noise Compliance shall apply to work performed under this items. The costs incurred finding suitable equipment and procedures shall be included in the cost of Temporary Soil Retention System and/or Soil Retention System. No additional costs shall be paid for this effort.
3. See Sheet S3-09 & S3-10 for locations of Temporary soil retention system.
4. Soil retention system at Pier 14 shall be left in place and this work shall be in accordance with the Special Provision for Soil Retention System. Soil Retention system at Pier 14 shall be removed to elev. +572.47, as approved by the Engineer, after construction of the Pier 14 is complete to facilitate the prop. pavement construction for EB Taylor Exit Ramp & Ramp ES.
5. See Sheet S3-11 for location of Soil Retention System at Pier 14.



ELEVATION - TEMP. SOIL RETENTION SYSTEM
AT PIER 9, 10, 11, 12 & EXIST. BENT 58

TABLE 1

Structure	Elev. "A"	Elev. "B"	Length "C" (ft.)
Pier 9	+583.63	+572.21	77
Pier 10	+580.32	+575.46	103
Pier 11	+583.29	+578.06	134
Pier 12	+582.49	+571.73	45
Exist. Bent 58	+578.32	+570.25	49

BILL OF MATERIALS

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	4,894
Soil Retention System	Sq. Ft.	758

AECOM

USER NAME =	vasudevana	DESIGNED -	AV	REVISED
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PLOT DATE =	8/28/2018	CHECKED -	ATB	REVISED

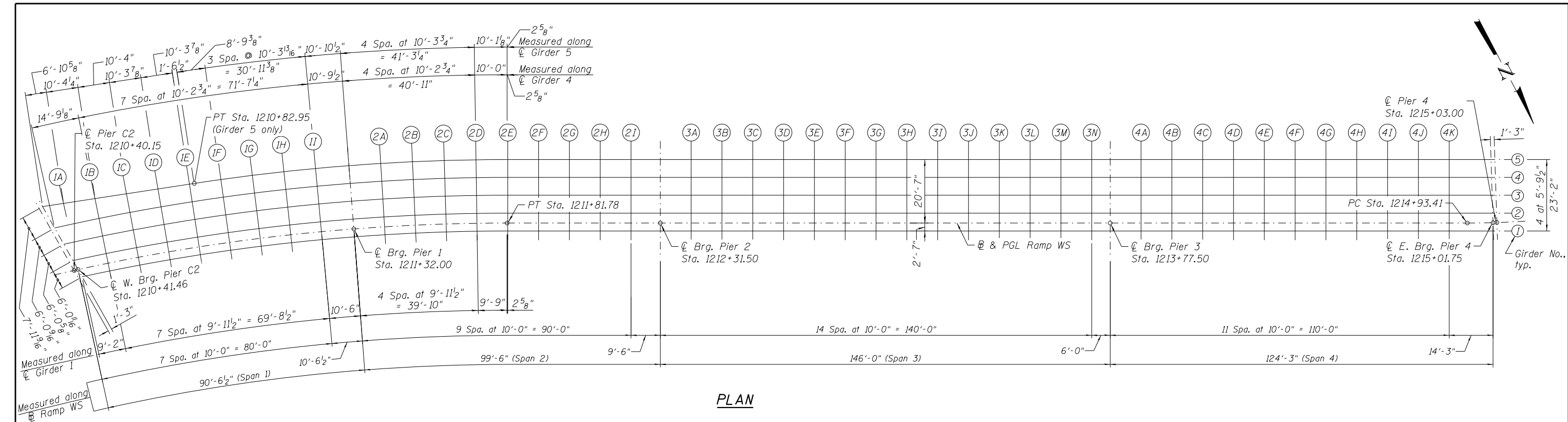
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM DETAILS
STRUCTURE NO. 016-1715

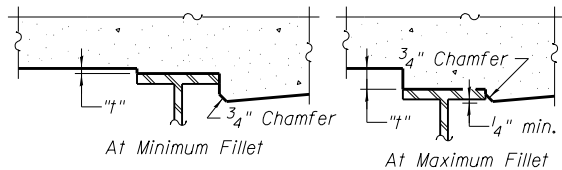
SHEET NO. S3-12 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	754
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S011-TSR5

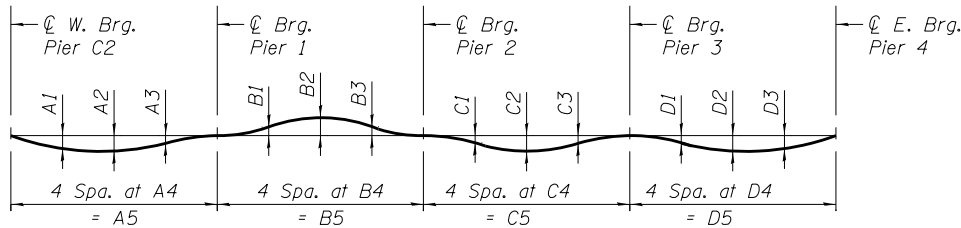


PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in Sheets S3-14 and S3-15, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)
Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in Sheets S3-14 and S3-15.

Girder No.	DEAD LOAD DEFLECTIONS - UNIT 1									
	Span 1					Span 2				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
1	5/8"	7/8"	1/2"	22'-4 1/8"	89'-4 3/4"	0"	0"	1/8"	24'-9 7/8"	99'-3 5/8"
2	7/8"	1 1/8"	5/8"	22'-11 7/8"	91'-11 3/4"	1/8"	1/8"	1/4"	24'-11 1/4"	99'-9"
3	1"	1 3/8"	3/4"	23'-7 5/8"	94'-6 3/4"	1/4"	1/4"	1/4"	25'-0 5/8"	100'-2 1/4"
4	1 1/4"	1 5/8"	7/8"	24'-3 3/8"	97'-1 5/8"	1/4"	1/4"	1/4"	25'-1 7/8"	100'-7 5/8"
5	1 3/8"	1 7/8"	1"	25'-1 1/8"	100'-4 1/4"	3/8"	3/8"	1/4"	25'-3 1/4"	101'-0 7/8"

Girder No.	DEAD LOAD DEFLECTIONS - UNIT 1									
	Span 3					Span 4				
	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5
1	1 3/8"	2 1/4"	1"	36'-6"	146'-0"	3/4"	1 3/4"	1 1/2"	31'-1"	124'-4"
2	1 3/8"	2 1/4"	1"	36'-6"	146'-0"	3/4"	1 5/8"	1 1/2"	31'-0 1/2"	124'-1 3/4"
3	1 1/2"	2 1/4"	1"	36'-6"	146'-0"	5/8"	1 5/8"	1 5/8"	30'-11 7/8"	123'-11 1/2"
4	1 1/2"	2 1/4"	1"	36'-6"	146'-0"	5/8"	1 5/8"	1 3/8"	30'-11 3/8"	123'-9 1/4"
5	1 1/2"	2 3/8"	1"	36'-6"	146'-0"	5/8"	1 5/8"	1 3/8"	30'-10 3/4"	123'-7"

0161715-60X93-S012-TopSlabPlan-1



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		CHECKED -	ATB	REVISED
PLOT SCALE =	N.T.S.	DRAWN -	AV	REVISED
PLOT DATE =	7/30/2018	CHECKED -	ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS PLAN - UNIT 1
STRUCTURE NO. 016-1715

SHEET NO. S3-13 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	755
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S013-TopSlabElev.dgn

GIRDER 1					BASELINE & PROFILE GRADE					GIRDER 2					GIRDER 3				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier C2	1210+40.94	2.58	607.34	607.34	℄ Pier C2	1210+40.15	0.00	607.48	607.48	℄ Pier C2	1210+39.18	-3.21	607.65	607.65	℄ Pier C2	1210+37.45	-9.00	607.97	607.97
℄ Brg Pier C2	1210+42.25	2.58	607.33	607.33	℄ Brg Pier C2	1210+41.46	0.00	607.47	607.47	℄ Brg Pier C2	1210+40.48	-3.21	607.64	607.64	℄ Brg Pier C2	1210+38.73	-9.00	607.96	607.96
1B	1210+51.46	2.58	607.28	607.31	1B	1210+51.46	0.00	607.42	607.46	1B	1210+51.46	-3.21	607.59	607.63	1B	1210+51.46	-9.00	607.89	607.94
1C	1210+61.46	2.58	607.26	607.32	1C	1210+61.46	0.00	607.40	607.47	1C	1210+61.46	-3.21	607.56	607.63	1C	1210+61.46	-9.00	607.86	607.95
1D	1210+71.46	2.58	607.27	607.34	1D	1210+71.46	0.00	607.40	607.49	1D	1210+71.46	-3.21	607.57	607.66	1D	1210+71.46	-9.00	607.87	607.98
1E	1210+81.46	2.58	607.30	607.38	1E	1210+81.46	0.00	607.43	607.53	1E	1210+81.46	-3.21	607.60	607.70	1E	1210+81.46	-9.00	607.90	608.02
1F	1210+91.46	2.58	607.36	607.43	1F	1210+91.46	0.00	607.49	607.58	1F	1210+91.46	-3.21	607.66	607.75	1F	1210+91.46	-9.00	607.96	608.07
1G	1211+01.46	2.58	607.44	607.50	1G	1211+01.46	0.00	607.57	607.65	1G	1211+01.46	-3.21	607.74	607.81	1G	1211+01.46	-9.00	608.04	608.13
1H	1211+11.46	2.58	607.52	607.56	1H	1211+11.46	0.00	607.66	607.71	1H	1211+11.46	-3.21	607.83	607.87	1H	1211+11.46	-9.00	608.13	608.19
1I	1211+21.46	2.58	607.61	607.63	1I	1211+21.46	0.00	607.74	607.77	1I	1211+21.46	-3.21	607.91	607.93	1I	1211+21.46	-9.00	608.21	608.24
℄ Brg Pier 1	1211+32.00	2.58	607.70	607.70	℄ Brg Pier 1	1211+32.00	0.00	607.83	607.83	℄ Brg Pier 1	1211+32.00	-3.21	608.00	608.00	℄ Brg Pier 1	1211+32.00	-9.00	608.30	608.30
2A	1211+42.00	2.58	607.79	607.78	2A	1211+42.00	0.00	607.92	607.91	2A	1211+42.00	-3.21	608.08	608.07	2A	1211+42.00	-9.00	608.37	608.35
2B	1211+52.00	2.58	607.88	607.87	2B	1211+52.00	0.00	608.00	607.99	2B	1211+52.00	-3.21	608.15	608.13	2B	1211+52.00	-9.00	608.42	608.40
2C	1211+62.00	2.58	607.98	607.97	2C	1211+62.00	0.00	608.09	608.07	2C	1211+62.00	-3.21	608.22	608.21	2C	1211+62.00	-9.00	608.47	608.44
2D	1211+72.00	2.58	608.07	608.06	2D	1211+72.00	0.00	608.17	608.15	2D	1211+72.00	-3.21	608.29	608.28	2D	1211+72.00	-9.00	608.52	608.49
2E	1211+82.00	2.58	608.16	608.16	2E	1211+82.00	0.00	608.25	608.24	2E	1211+82.00	-3.21	608.36	608.35	2E	1211+82.00	-9.00	608.57	608.54
2F	1211+92.00	2.58	608.26	608.25	2F	1211+92.00	0.00	608.34	608.32	2F	1211+92.00	-3.21	608.44	608.42	2F	1211+92.00	-9.00	608.61	608.59
2G	1212+02.00	2.58	608.35	608.34	2G	1212+02.00	0.00	608.42	608.40	2G	1212+02.00	-3.21	608.51	608.49	2G	1212+02.00	-9.00	608.66	608.64
2H	1212+12.00	2.58	608.45	608.43	2H	1212+12.00	0.00	608.51	608.49	2H	1212+12.00	-3.21	608.58	608.56	2H	1212+12.00	-9.00	608.71	608.69
2I	1212+22.00	2.58	608.54	608.53	2I	1212+22.00	0.00	608.59	608.58	2I	1212+22.00	-3.21	608.65	608.64	2I	1212+22.00	-9.00	608.76	608.75
℄ Brg Pier 2	1212+31.50	2.58	608.63	608.63	℄ Brg Pier 2	1212+31.50	0.00	608.67	608.67	℄ Brg Pier 2	1212+31.50	-3.21	608.72	608.72	℄ Brg Pier 2	1212+31.50	-9.00	608.81	608.81
3A	1212+41.50	2.58	608.73	608.75	3A	1212+41.50	0.00	608.76	608.78	3A	1212+41.50	-3.21	608.79	608.82	3A	1212+41.50	-9.00	608.86	608.89
3B	1212+51.50	2.58	608.82	608.88	3B	1212+51.50	0.00	608.84	608.90	3B	1212+51.50	-3.21	608.86	608.93	3B	1212+51.50	-9.00	608.91	608.97
3C	1212+61.50	2.58	608.91	609.01	3C	1212+61.50	0.00	608.92	609.02	3C	1212+61.50	-3.21	608.94	609.04	3C	1212+61.50	-9.00	608.96	609.06
3D	1212+71.50	2.58	609.01	609.15	3D	1212+71.50	0.00	609.01	609.15	3D	1212+71.50	-3.21	609.01	609.15	3D	1212+71.50	-9.00	609.01	609.15
3E	1212+81.50	2.58	609.10	609.27	3E	1212+81.50	0.00	609.09	609.26	3E	1212+81.50	-3.21	609.08	609.25	3E	1212+81.50	-9.00	609.06	609.23
3F	1212+91.50	2.58	609.20	609.38	3F	1212+91.50	0.00	609.18	609.36	3F	1212+91.50	-3.21	609.15	609.34	3F	1212+91.50	-9.00	609.11	609.30
3G	1213+01.50	2.58	609.29	609.48	3G	1213+01.50	0.00	609.26	609.45	3G	1213+01.50	-3.21	609.22	609.41	3G	1213+01.50	-9.00	609.16	609.35
3H	1213+11.50	2.58	609.39	609.57	3H	1213+11.50	0.00	609.35	609.53	3H	1213+11.50	-3.21	609.30	609.48	3H	1213+11.50	-9.00	609.21	609.39
3I	1213+21.50	2.58	609.48	609.64	3I	1213+21.50	0.00	609.43	609.59	3I	1213+21.50	-3.21	609.37	609.53	3I	1213+21.50	-9.00	609.26	609.41
3J	1213+31.50	2.58	609.57	609.69	3J	1213+31.50	0.00	609.51	609.64	3J	1213+31.50	-3.21	609.45	609.57	3J	1213+31.50	-9.00	609.33	609.46
3K	1213+41.50	2.58	609.65	609.73	3K	1213+41.50	0.00	609.60	609.68	3K	1213+41.50	-3.21	609.53	609.62	3K	1213+41.50	-9.00	609.42	609.50
3L	1213+51.50	2.58	609.74	609.78	3L	1213+51.50	0.00	609.68	609.73	3L	1213+51.50	-3.21	609.62	609.67	3L	1213+51.50	-9.00	609.50	609.55
3M	1213+61.50	2.58	609.82	609.84	3M	1213+61.50	0.00	609.77	609.78	3M	1213+61.50	-3.21	609.70	609.72	3M	1213+61.50	-9.00	609.59	609.61
3N	1213+71.50	2.58	609.90	609.91	3N	1213+71.50	0.00	609.85	609.85	3N	1213+71.50	-3.21	609.79	609.79	3N	1213+71.50	-9.00	609.67	609.67
℄ Brg Pier 3	1213+77.50	2.58	609.95	609.95	℄ Brg Pier 3	1213+77.50	0.00	609.90	609.90	℄ Brg Pier 3	1213+77.50	-3.21	609.84	609.84	℄ Brg Pier 3	1213+77.50	-9.00	609.72	609.72
4A	1213+87.50	2.58	610.04	610.05	4A	1213+87.50	0.00	609.99	610.00	4A	1213+87.50	-3.21	609.92	609.93	4A	1213+87.50	-9.00	609.81	609.82
4B	1213+97.50	2.58	610.12	610.16	4B	1213+97.50	0.00	610.07	610.10	4B	1213+97.50	-3.21	610.01	610.04	4B	1213+97.50	-9.00	609.89	609.92
4C	1214+07.50	2.58	610.21	610.27	4C	1214+07.50	0.00	610.16	610.21	4C	1214+07.50	-3.21	610.09	610.15	4C	1214+07.50	-9.00	609.98	610.03
4D	1214+17.50	2.58	610.29	610.38	4D	1214+17.50	0.00	610.24	610.33	4D	1214+17.50	-3.21	610.18	610.27	4D	1214+17.50	-9.00	610.06	610.15
4E	1214+27.50	2.58	610.38	610.50	4E	1214+27.50	0.00	610.32	610.44	4E	1214+27.50	-3.21	610.26	610.38	4E	1214+27.50	-9.00	610.14	610.26
4F	1214+37.50	2.58	610.46	610.61	4F	1214+37.50	0.00	610.41	610.55	4F	1214+37.50	-3.21	610.34	610.49	4F	1214+37.50	-9.00	610.23	610.37
4G	1214+47.50	2.58	610.54	610.70	4G	1214+47.50	0.00	610.49	610.65	4G	1214+47.50	-3.21	610.43	610.58	4G	1214+47.50	-9.00	610.31	610.46
4H	1214+57.50	2.58	610.63	610.78	4H	1214+57.50	0.00	610.58	610.73	4H	1214+57.50	-3.21	610.51	610.66	4H	1214+57.50	-9.00	610.40	610.54
4I	1214+67.50	2.58	610.72	610.86	4I	1214+67.50	0.00	610.66	610.80	4I	1214+67.50	-3.21	610.59	610.73	4I	1214+67.50	-9.00	610.46	610.59
4J	1214+77.50	2.58	610.81	610.92	4J	1214+77.50	0.00	610.75	610.85	4J	1214+77.50	-3.21	610.66	610.77	4J	1214+77.50	-9.00	610.51	610.61
4K	1214+87.50	2.58	610.91	610.98	4K	1214+87.50	0.00	610.83	610.90	4K	1214+87.50	-3.21	610.73	610.80	4K	1214+87.50	-9.00	610.55	610.62
℄ Brg Pier 4	1215+01.76	2.70	611.05	611.05	℄ Brg Pier 4	1215+01.75	0.00	610.95	610.95	℄ Brg Pier 4	1215+01.74	-3.09	610.84	610.84	℄ Brg Pier 4	1215+01.71	-8.89	610.62	610.62
℄ Pier 4	1215+03.00	2.74	611.06	611.06	℄ Pier 4	1215+03.00	0.00	610.96	610.96	℄ Pier 4	1215+03.00	-3.05	610.85	610.85	℄ Pier 4	1215+03.00	-8.85	610.63	610.63



USER NAME = floresq
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I – UNIT 1
STRUCTURE NO. 016–1715

SHEET NO. S3-14 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	756
		CONTRACT NO. 60X93		
ILLINOIS		FED. AID PROJECT		

0161715-60X93-S014-TopSlabElev.dgn

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
CL Pier C2	1210+35.75	-14.79	608.28	608.28
CL Brg Pier C2	1210+37.02	-14.79	608.27	608.27
1B	1210+51.46	-14.79	608.19	608.26
1C	1210+61.46	-14.79	608.16	608.28
1D	1210+71.46	-14.79	608.17	608.31
1E	1210+81.46	-14.79	608.20	608.34
1F	1210+91.46	-14.79	608.26	608.39
1G	1211+01.46	-14.79	608.34	608.45
1H	1211+11.46	-14.79	608.43	608.50
1I	1211+21.46	-14.79	608.51	608.54
CL Brg Pier 1	1211+32.00	-14.79	608.60	608.60
2A	1211+42.00	-14.79	608.66	608.64
2B	1211+52.00	-14.79	608.68	608.66
2C	1211+62.00	-14.79	608.71	608.68
2D	1211+72.00	-14.79	608.74	608.71
2E	1211+82.00	-14.79	608.77	608.74
2F	1211+92.00	-14.79	608.79	608.76
2G	1212+02.00	-14.79	608.82	608.79
2H	1212+12.00	-14.79	608.85	608.82
2I	1212+22.00	-14.79	608.87	608.86
CL Brg Pier 2	1212+31.50	-14.79	608.90	608.90
3A	1212+41.50	-14.79	608.93	608.96
3B	1212+51.50	-14.79	608.95	609.02
3C	1212+61.50	-14.79	608.98	609.09
3D	1212+71.50	-14.79	609.01	609.15
3E	1212+81.50	-14.79	609.04	609.21
3F	1212+91.50	-14.79	609.06	609.25
3G	1213+01.50	-14.79	609.09	609.28
3H	1213+11.50	-14.79	609.12	609.30
3I	1213+21.50	-14.79	609.14	609.30
3J	1213+31.50	-14.79	609.22	609.34
3K	1213+41.50	-14.79	609.30	609.39
3L	1213+51.50	-14.79	609.39	609.44
3M	1213+61.50	-14.79	609.47	609.49
3N	1213+71.50	-14.79	609.56	609.56
CL Brg Pier 3	1213+77.50	-14.79	609.61	609.61
4A	1213+87.50	-14.79	609.69	609.70
4B	1213+97.50	-14.79	609.78	609.80
4C	1214+07.50	-14.79	609.86	609.91
4D	1214+17.50	-14.79	609.94	610.03
4E	1214+27.50	-14.79	610.03	610.14
4F	1214+37.50	-14.79	610.11	610.25
4G	1214+47.50	-14.79	610.20	610.34
4H	1214+57.50	-14.79	610.28	610.43
4I	1214+67.50	-14.79	610.33	610.46
4J	1214+77.50	-14.79	610.35	610.46
4K	1214+87.50	-14.79	610.37	610.44
CL Brg Pier 4	1215+01.68	-14.68	610.41	610.41
CL Pier 4	1215+03.00	-14.64	610.41	610.41

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
CL Pier C2	1210+33.53	-22.53	608.43	608.43
CL Brg Pier C2	1210+34.81	-22.43	608.43	608.43
1A	1210+41.46	-21.95	608.40	608.45
1B	1210+51.46	-21.37	608.38	608.48
1C	1210+61.46	-20.95	608.39	608.53
1D	1210+71.46	-20.69	608.42	608.58
1E	1210+81.46	-20.58	608.48	608.65
1F	1210+91.46	-20.58	608.56	608.72
1G	1211+01.46	-20.58	608.65	608.77
1H	1211+11.46	-20.58	608.73	608.81
1I	1211+21.46	-20.58	608.81	608.85
CL Brg Pier 1	1211+32.00	-20.58	608.90	608.90
2A	1211+42.00	-20.58	608.95	608.93
2B	1211+52.00	-20.58	608.95	608.92
2C	1211+62.00	-20.58	608.96	608.92
2D	1211+72.00	-20.58	608.96	608.93
2E	1211+82.00	-20.58	608.97	608.93
2F	1211+92.00	-20.58	608.97	608.94
2G	1212+02.00	-20.58	608.98	608.94
2H	1212+12.00	-20.58	608.98	608.95
2I	1212+22.00	-20.58	608.98	608.97
CL Brg Pier 2	1212+31.50	-20.58	608.99	608.99
3A	1212+41.50	-20.58	608.99	609.03
3B	1212+51.50	-20.58	609.00	609.07
3C	1212+61.50	-20.58	609.00	609.11
3D	1212+71.50	-20.58	609.01	609.16
3E	1212+81.50	-20.58	609.01	609.19
3F	1212+91.50	-20.58	609.02	609.21
3G	1213+01.50	-20.58	609.02	609.22
3H	1213+11.50	-20.58	609.03	609.21
3I	1213+21.50	-20.58	609.03	609.19
3J	1213+31.50	-20.58	609.10	609.23
3K	1213+41.50	-20.58	609.19	609.27
3L	1213+51.50	-20.58	609.27	609.32
3M	1213+61.50	-20.58	609.36	609.38
3N	1213+71.50	-20.58	609.44	609.44
CL Brg Pier 3	1213+77.50	-20.58	609.49	609.49
4A	1213+87.50	-20.58	609.58	609.58
4B	1213+97.50	-20.58	609.66	609.69
4C	1214+07.50	-20.58	609.74	609.80
4D	1214+17.50	-20.58	609.83	609.91
4E	1214+27.50	-20.58	609.91	610.03
4F	1214+37.50	-20.58	610.00	610.13
4G	1214+47.50	-20.58	610.08	610.23
4H	1214+57.50	-20.58	610.17	610.31
4I	1214+67.50	-20.58	610.21	610.34
4J	1214+77.50	-20.58	610.20	610.30
4K	1214+87.50	-20.58	610.20	610.26
CL Brg Pier 4	1215+01.66	-20.48	610.19	610.19
CL Pier 4	1215+03.00	-20.44	610.19	610.19



USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

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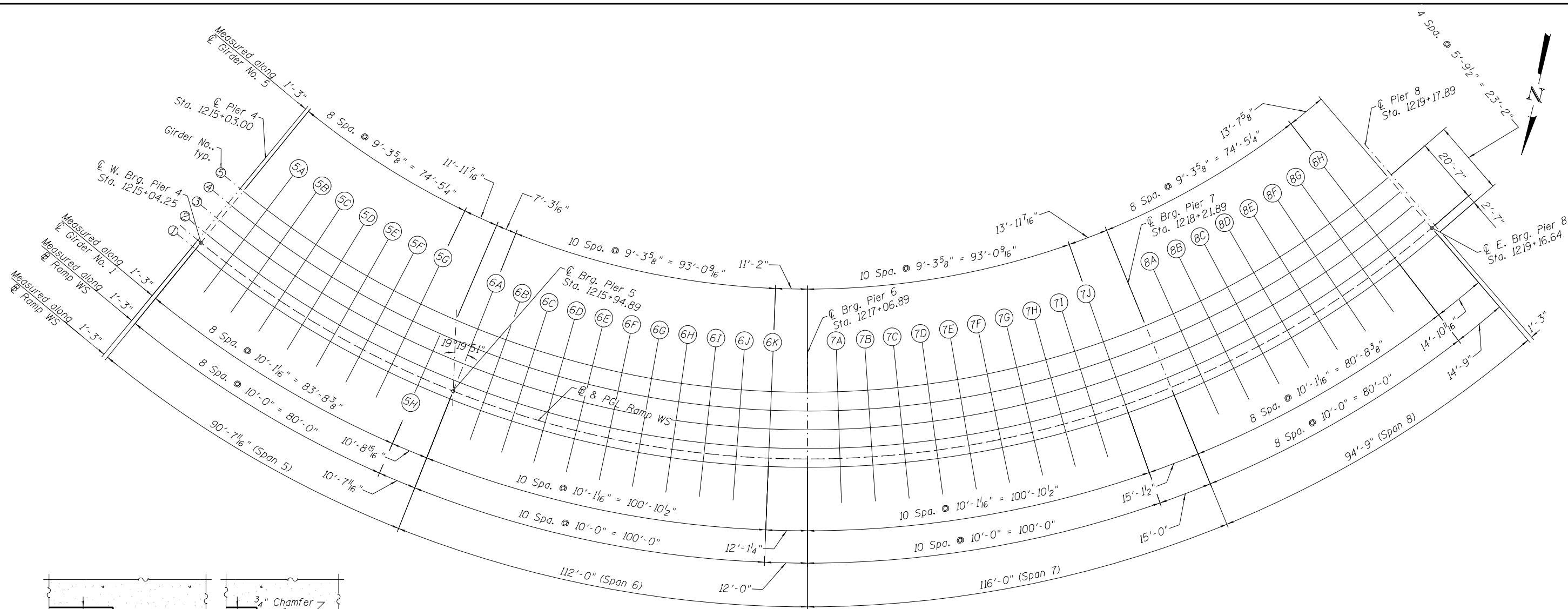
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II- UNIT 1
STRUCTURE NO. 016-1715

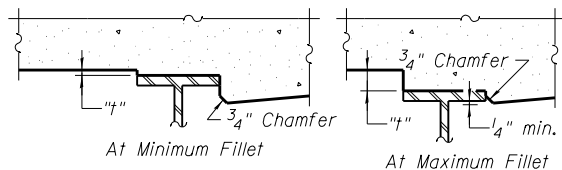
SHEET NO. S3-15 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	757
		CONTRACT NO. 60X93		
		ILLINOIS FED. AID PROJECT		

0161715-60X93-S015-TopSlabPlan-2

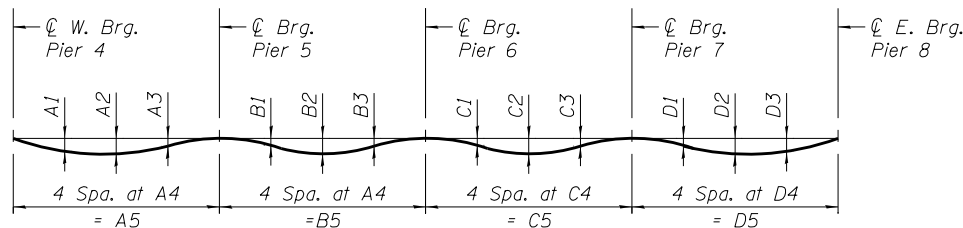


PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in Sheets S3-17 and S3-18, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in Sheets S3-17 and S3-18.

Girder No.	DEAD LOAD DEFLECTIONS -UNIT 2									
	Span 5					Span 6				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
1	1 1/8"	1 1/4"	1/2"	23'-1"	92'-4 1/4"	3/8"	7/8"	1/2"	28'-0 1/4"	112'-0 7/8"
2	7/8"	1"	3/8"	22'-1 1/2"	88'-6 1/4"	3/8"	1"	1/2"	27'-11 3/4"	111'-11"
3	5/8"	3/4"	1/4"	21'-2"	84'-8 1/4"	1/2"	1"	1/2"	27'-11 1/4"	111'-9 1/8"
4	3/8"	1/2"	1/8"	20'-2 1/2"	80'-10 1/8"	1/2"	1"	1/2"	27'-10 7/8"	111'-7 3/8"
5	1/4"	1/4"	0"	19'-3"	77'-0"	5/8"	1 1/8"	1/2"	27'-10 3/8"	111'-5 5/8"

Girder No.	DEAD LOAD DEFLECTIONS -UNIT 2									
	Span 7					Span 8				
	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5
1	1/2"	1"	1/4"	29'-0"	116'-0"	5/8"	1 1/2"	1 1/4"	23'-10 3/4"	95'-7"
2	3/8"	7/8"	1/4"	28'-5 1/4"	113'-9"	1/2"	1 1/4"	1 1/8"	23'-5 1/8"	93'-8 1/2"
3	3/8"	3/4"	1/4"	27'-10 1/2"	111'-6"	1/2"	1 1/8"	7/8"	22'-11 1/2"	91'-10"
4	1/4"	5/8"	1/4"	27'-3 3/4"	109'-3"	3/8"	7/8"	3/4"	22'-5 7/8"	89'-11 3/8"
5	1/4"	5/8"	1/4"	26'-9"	107'-0"	1/4"	5/8"	5/8"	22'-0 1/4"	88'-0 7/8"

AECOM

USER NAME = vasudevana
PLOT SCALE = N.T.S.
PLOT DATE = 7/30/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS PLAN - UNIT 2
STRUCTURE NO. 016-1715

SHEET NO. S3-16 OF S3-172

F.A.I. RTE. 90/94/290	SECTION 2014-013R&B-R	COUNTY COOK	TOTAL SHEETS 1972	SHEET NO. 758
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S016-TopSlabElev.dgn

GIRDER 1				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 4	1215+03.00	2.58	611.06	611.06
☒ W. Brg. Pier 4	1215+04.24	2.58	611.07	611.07
5A	1215+14.25	2.58	611.17	611.22
5B	1215+24.25	2.58	611.26	611.35
5C	1215+34.25	2.58	611.35	611.46
5D	1215+44.25	2.58	611.44	611.55
5E	1215+54.25	2.58	611.52	611.62
5F	1215+64.25	2.58	611.61	611.68
5G	1215+74.25	2.58	611.69	611.73
5H	1215+84.25	2.58	611.78	611.79
☒ Brg. Pier 5	1215+95.79	2.58	611.87	611.87
6B	1216+04.89	2.58	611.95	611.95
6C	1216+14.89	2.58	612.03	612.05
6D	1216+24.89	2.58	612.12	612.16
6E	1216+34.89	2.58	612.20	612.27
6F	1216+44.89	2.58	612.29	612.37
6G	1216+54.89	2.58	612.37	612.45
6H	1216+64.89	2.58	612.46	612.53
6I	1216+74.89	2.58	612.54	612.59
6J	1216+84.89	2.58	612.62	612.65
6K	1216+94.89	2.58	612.71	612.72
☒ Brg. Pier 6	1217+06.89	2.58	612.81	612.81
7A	1217+16.89	2.58	612.89	612.90
7B	1217+26.89	2.58	612.98	613.00
7C	1217+36.89	2.58	613.06	613.11
7D	1217+46.89	2.58	613.12	613.19
7E	1217+56.89	2.58	613.12	613.21
7F	1217+66.89	2.58	613.09	613.17
7G	1217+76.89	2.58	613.01	613.07
7H	1217+86.89	2.58	612.88	612.92
7I	1217+96.89	2.58	612.71	612.73
7J	1218+06.89	2.58	612.49	612.49
☒ Brg. Pier 7	1218+21.89	2.58	612.08	612.08
8A	1218+31.89	2.58	611.75	611.77
8B	1218+41.89	2.58	611.38	611.43
8C	1218+51.89	2.58	610.96	611.04
8D	1218+61.89	2.58	610.50	610.61
8E	1218+71.89	2.58	609.99	610.12
8F	1218+81.89	2.58	609.44	609.57
8G	1218+91.89	2.58	608.85	608.97
8H	1219+01.89	2.58	608.26	608.34
☒ E. Brg. Pier 8	1219+16.65	2.58	607.39	607.39
☒ Pier 8	1219+17.89	2.58	607.31	607.31

GIRDER 2				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 4	1215+03.00	-3.21	610.84	610.84
☒ W. Brg. Pier 4	1215+04.26	-3.21	610.85	610.85
5A	1215+14.25	-3.21	610.92	610.96
5B	1215+24.25	-3.21	610.99	611.06
5C	1215+34.25	-3.21	611.06	611.15
5D	1215+44.25	-3.21	611.15	611.24
5E	1215+54.25	-3.21	611.23	611.31
5F	1215+64.25	-3.21	611.32	611.37
5G	1215+74.25	-3.21	611.40	611.43
5H	1215+84.25	-3.21	611.49	611.49
☒ Brg. Pier 5	1215+93.75	-3.21	611.57	611.57
6B	1216+04.89	-3.21	611.66	611.67
6C	1216+14.89	-3.21	611.74	611.77
6D	1216+24.89	-3.21	611.83	611.88
6E	1216+34.89	-3.21	611.91	611.98
6F	1216+44.89	-3.21	612.00	612.08
6G	1216+54.89	-3.21	612.08	612.16
6H	1216+64.89	-3.21	612.17	612.24
6I	1216+74.89	-3.21	612.25	612.30
6J	1216+84.89	-3.21	612.33	612.36
6K	1216+94.89	-3.21	612.42	612.43
☒ Brg. Pier 6	1217+06.89	-3.21	612.52	612.52
7A	1217+16.89	-3.21	612.60	612.61
7B	1217+26.89	-3.21	612.69	612.71
7C	1217+36.89	-3.21	612.77	612.82
7D	1217+46.89	-3.21	612.83	612.89
7E	1217+56.89	-3.21	612.83	612.91
7F	1217+66.89	-3.21	612.80	612.87
7G	1217+76.89	-3.21	612.72	612.78
7H	1217+86.89	-3.21	612.59	612.63
7I	1217+96.89	-3.21	612.42	612.44
7J	1218+06.89	-3.21	612.20	612.21
☒ Brg. Pier 7	1218+21.89	-3.21	611.79	611.79
8A	1218+31.89	-3.21	611.46	611.48
8B	1218+41.89	-3.21	611.09	611.13
8C	1218+51.89	-3.21	610.67	610.74
8D	1218+61.89	-3.21	610.21	610.31
8E	1218+71.89	-3.21	609.70	609.81
8F	1218+81.89	-3.21	609.15	609.26
8G	1218+91.89	-3.21	608.56	608.66
8H	1219+01.89	-3.21	607.97	608.04
☒ E. Brg. Pier 8	1219+16.63	-3.21	607.10	607.10
☒ Pier 8	1219+17.89	-3.21	607.02	607.02

BASELINE & PROFILE GRADE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 4	1215+03.00	0.00	610.96	610.96
☒ W. Brg. Pier 4	1215+04.25	0.00	610.97	610.97
5A	1215+14.25	0.00	611.06	611.09
5B	1215+24.25	0.00	611.14	611.21
5C	1215+34.25	0.00	611.22	611.31
5D	1215+44.25	0.00	611.31	611.40
5E	1215+54.25	0.00	611.39	611.47
5F	1215+64.25	0.00	611.48	611.53
5G	1215+74.25	0.00	611.56	611.59
5H	1215+84.25	0.00	611.65	611.66
☒ Brg. Pier 5	1215+94.89	0.00	611.74	611.74
6B	1216+04.89	0.00	611.82	611.83
6C	1216+14.89	0.00	611.90	611.93
6D	1216+24.89	0.00	611.99	612.03
6E	1216+34.89	0.00	612.07	612.14
6F	1216+44.89	0.00	612.16	612.24
6G	1216+54.89	0.00	612.24	612.33
6H	1216+64.89	0.00	612.33	612.40
6I	1216+74.89	0.00	612.41	612.46
6J	1216+84.89	0.00	612.49	612.52
6K	1216+94.89	0.00	612.58	612.59
☒ Brg. Pier 6	1217+06.89	0.00	612.68	612.68
7A	1217+16.89	0.00	612.76	612.77
7B	1217+26.89	0.00	612.85	612.87
7C	1217+36.89	0.00	612.93	612.98
7D	1217+46.89	0.00	612.99	613.05
7E	1217+56.89	0.00	612.99	613.07
7F	1217+66.89	0.00	612.96	613.03
7G	1217+76.89	0.00	612.88	612.94
7H	1217+86.89	0.00	612.75	612.79
7I	1217+96.89	0.00	612.58	612.60
7J	1218+06.89	0.00	612.36	612.37
☒ Brg. Pier 7	1218+21.89	0.00	611.95	611.95
8A	1218+31.89	0.00	611.62	611.64
8B	1218+41.89	0.00	611.25	611.29
8C	1218+51.89	0.00	610.83	610.90
8D	1218+61.89	0.00	610.37	610.47
8E	1218+71.89	0.00	609.86	609.97
8F	1218+81.89	0.00	609.31	609.42
8G	1218+91.89	0.00	608.72	608.82
8H	1219+01.89	0.00	608.13	608.20
☒ E. Brg. Pier 8	1219+16.64	0.00	607.26	607.26
☒ Pier 8	1219+17.89	0.00	607.18	607.18

GIRDER 3				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 4	1215+03.00	-9.00	610.62	610.62
☒ W. Brg. Pier 4	1215+04.29	-9.00	610.63	610.63
5A	1215+14.25	-9.00	610.67	610.70
5B	1215+24.25	-9.00	610.72	610.77
5C	1215+34.25	-9.00	610.77	610.84
5D	1215+44.25	-9.00	610.86	610.92
5E	1215+54.25	-9.00	610.94	611.00
5F	1215+64.25	-9.00	611.03	611.06
5G	1215+74.25	-9.00	611.11	611.13
5H	1215+84.25	-9.00	611.20	611.20
☒ Brg. Pier 5	1215+91.63	-9.00	611.26	611.26
6B	1216+04.89	-9.00	611.37	611.38
6C	1216+14.89	-9.00	611.45	611.49
6D	1216+24.89	-9.00	611.54	611.59
6E	1216+34.89	-9.00	611.62	611.70
6F	1216+44.89	-9.00	611.71	611.79
6G	1216+54.89	-9.00	611.79	611.88
6H	1216+64.89	-9.00	611.88	611.95
6I	1216+74.89	-9.00	611.96	612.01
6J	1216+84.89	-9.00	612.04	612.08
6K	1216+94.89	-9.00	612.13	612.14
☒ Brg. Pier 6	1217+06.89	-9.00	612.23	612.23
7A	1217+16.89	-9.00	612.31	612.32
7B	1217+26.89	-9.00	612.40	612.42
7C	1217+36.89	-9.00	612.48	612.52
7D	1217+46.89	-9.00	612.54	612.59
7E	1217+56.89	-9.00	612.54	612.61
7F	1217+66.89	-9.00	612.51	612.57
7G	1217+76.89	-9.00	612.43	612.48
7H	1217+86.89	-9.00	612.30	612.34
7I	1217+96.89	-9.00	612.13	612.15
7J	1218+06.89	-9.00	611.91	611.92
☒ Brg. Pier 7	1218+21.89	-9.00	611.50	611.50
8A	1218+31.89	-9.00	611.17	611.19
8B	1218+41.89	-9.00	610.80	610.83
8C	1218+51.89	-9.00	610.38	610.44
8D	1218+61.89	-9.00	609.92	610.00
8E	1218+71.89	-9.00	609.41	609.51
8F	1218+81.89	-9.00	608.86	608.95
8G	1218+91.89	-9.00	608.27	608.35
8H	1219+01.89	-9.00	607.68	607.74
☒ E. Brg. Pier 8	1219+16.60	-9.00	606.81	606.81
☒ Pier 8	1219+17.89	-9.00	606.73	606.73



USER NAME =	floresq
PLOT SCALE =	N.T.S.
PLOT DATE =	7/26/2018

DESIGNED -	JXH
CHECKED -	ATB
DRAWN -	AV
CHECKED -	ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I- UNIT 2
STRUCTURE NO. 016-1715

SHEET NO. S3-17 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	759
		CONTRACT NO. 60X93		
ILLINOIS		FED. AID PROJECT		

0161715-60X93-S017-TopSlabElev.dgn

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 4	1215+03.00	-14.79	610.40	610.40
℄ W. Brg. Pier 4	1215+04.32	-14.79	610.41	610.41
5A	1215+14.25	-14.79	610.43	610.45
5B	1215+24.25	-14.79	610.45	610.49
5C	1215+34.25	-14.79	610.48	610.53
5D	1215+44.25	-14.79	610.57	610.62
5E	1215+54.25	-14.79	610.65	610.69
5F	1215+64.25	-14.79	610.74	610.76
5G	1215+74.25	-14.79	610.82	610.83
5H	1215+84.25	-14.79	610.91	610.91
℄ Brg. Pier 5	1215+89.41	-14.79	610.95	610.95
6A	1215+94.89	-14.79	611.00	611.00
6B	1216+04.89	-14.79	611.08	611.10
6C	1216+14.89	-14.79	611.17	611.20
6D	1216+24.89	-14.79	611.25	611.31
6E	1216+34.89	-14.79	611.33	611.42
6F	1216+44.89	-14.79	611.42	611.51
6G	1216+54.89	-14.79	611.50	611.59
6H	1216+64.89	-14.79	611.59	611.66
6I	1216+74.89	-14.79	611.67	611.73
6J	1216+84.89	-14.79	611.76	611.79
6K	1216+94.89	-14.79	611.84	611.85
℄ Brg. Pier 6	1217+06.89	-14.79	611.94	611.94
7A	1217+16.89	-14.79	612.03	612.03
7B	1217+26.89	-14.79	612.11	612.12
7C	1217+36.89	-14.79	612.19	612.23
7D	1217+46.89	-14.79	612.25	612.29
7E	1217+56.89	-14.79	612.25	612.31
7F	1217+66.89	-14.79	612.22	612.28
7G	1217+76.89	-14.79	612.14	612.19
7H	1217+86.89	-14.79	612.01	612.05
7I	1217+96.89	-14.79	611.84	611.86
7J	1218+06.89	-14.79	611.62	611.63
℄ Brg. Pier 7	1218+21.89	-14.79	611.21	611.21
8A	1218+31.89	-14.79	610.88	610.89
8B	1218+41.89	-14.79	610.51	610.54
8C	1218+51.89	-14.79	610.09	610.14
8D	1218+61.89	-14.79	609.63	609.70
8E	1218+71.89	-14.79	609.12	609.20
8F	1218+81.89	-14.79	608.57	608.65
8G	1218+91.89	-14.79	607.98	608.05
8H	1219+01.89	-14.79	607.39	607.44
℄ E. Brg. Pier 8	1219+16.57	-14.79	606.52	606.52
℄ Pier 8	1219+17.89	-14.79	606.44	606.44

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 4	1215+03.00	-20.58	610.19	610.19
℄ W. Brg. Pier 4	1215+04.34	-20.58	610.19	610.19
5A	1215+14.25	-20.58	610.18	610.20
5B	1215+24.25	-20.58	610.18	610.20
5C	1215+34.25	-20.58	610.20	610.23
5D	1215+44.25	-20.58	610.28	610.31
5E	1215+54.25	-20.58	610.36	610.38
5F	1215+64.25	-20.58	610.45	610.46
5G	1215+74.25	-20.58	610.53	610.53
℄ Brg. Pier 5	1215+87.09	-20.58	610.64	610.64
6A	1215+94.89	-20.58	610.71	610.71
6B	1216+04.89	-20.58	610.79	610.82
6C	1216+14.89	-20.58	610.88	610.92
6D	1216+24.89	-20.58	610.96	611.03
6E	1216+34.89	-20.58	611.04	611.13
6F	1216+44.89	-20.58	611.13	611.22
6G	1216+54.89	-20.58	611.21	611.30
6H	1216+64.89	-20.58	611.30	611.37
6I	1216+74.89	-20.58	611.38	611.44
6J	1216+84.89	-20.58	611.47	611.50
6K	1216+94.89	-20.58	611.55	611.56
℄ Brg. Pier 6	1217+06.89	-20.58	611.65	611.65
7A	1217+16.89	-20.58	611.74	611.74
7B	1217+26.89	-20.58	611.82	611.83
7C	1217+36.89	-20.58	611.90	611.93
7D	1217+46.89	-20.58	611.96	612.00
7E	1217+56.89	-20.58	611.97	612.02
7F	1217+66.89	-20.58	611.93	611.98
7G	1217+76.89	-20.58	611.85	611.90
7H	1217+86.89	-20.58	611.72	611.76
7I	1217+96.89	-20.58	611.55	611.57
7J	1218+06.89	-20.58	611.33	611.34
℄ Brg. Pier 7	1218+21.89	-20.58	610.92	610.92
8A	1218+31.89	-20.58	610.60	610.60
8B	1218+41.89	-20.58	610.22	610.24
8C	1218+51.89	-20.58	609.80	609.84
8D	1218+61.89	-20.58	609.34	609.39
8E	1218+71.89	-20.58	608.83	608.89
8F	1218+81.89	-20.58	608.28	608.34
8G	1218+91.89	-20.58	607.69	607.74
8H	1219+01.89	-20.58	607.10	607.14
℄ E. Brg. Pier 8	1219+16.55	-20.58	606.23	606.23
℄ Pier 8	1219+17.89	-20.58	606.16	606.16



USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

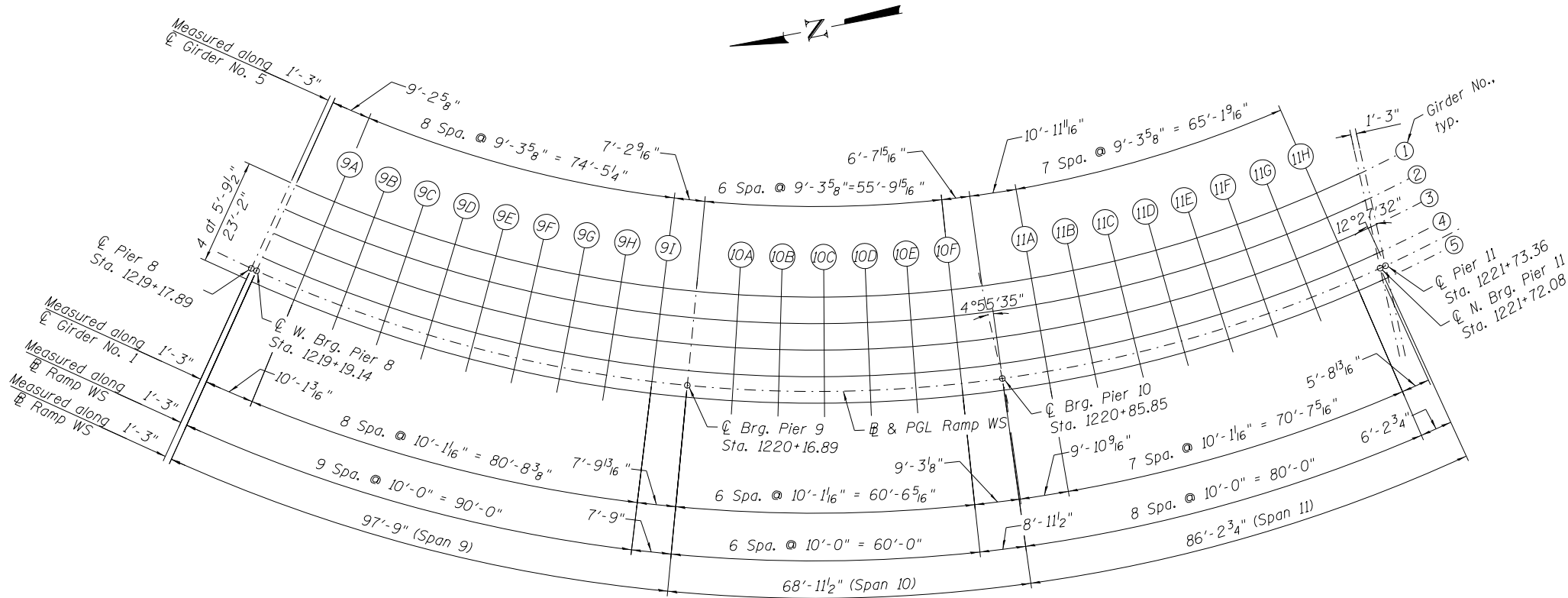
REVISED
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REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

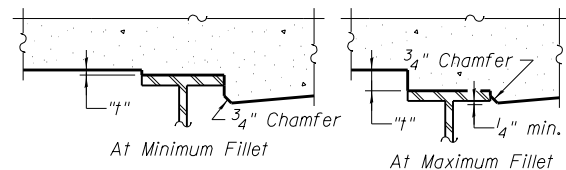
TOP OF SLAB ELEVATIONS II – UNIT 2
STRUCTURE NO. 016–1715

SHEET NO. S3-18 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	760
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X93	

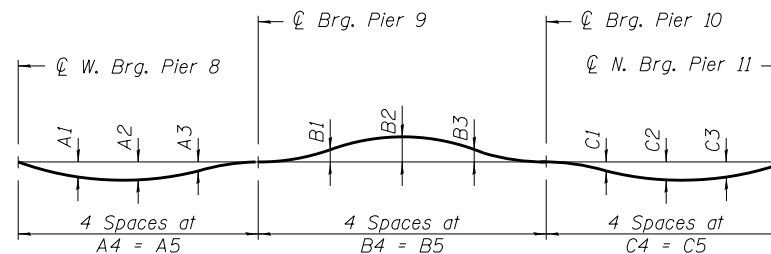


PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in Sheets S3-20 and S3-21, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Notes:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets S3-20 and S3-21.

Girder No.	DEAD LOAD DEFLECTIONS -UNIT 3									
	Span 9					Span 10				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
1	2 1/8"	2 3/4"	1 1/2"	24'-7 7/8"	98'-7 3/8"	1/2"	5/8"	1/2"	17'-5 3/8"	69'-9 3/8"
2	1 3/4"	2 1/4"	1 1/4"	24'-2"	96'-8 1/8"	3/8"	1/2"	3/8"	16'-11 3/4"	67'-11 1/4"
3	1 3/8"	1 7/8"	1"	23'-8 1/4"	94'-8 7/8"	1/4"	3/8"	1/4"	16'-6 1/4"	66'-1"
4	1 1/8"	1 1/2"	3/4"	23'-2 3/8"	92'-9 5/8"	1/4"	1/4"	1/8"	16'-0 3/4"	64'-2 7/8"
5	7/8"	1 1/8"	5/8"	22'-8 5/8"	90'-10 3/8"	1/8"	1/8"	1/8"	15'-7 1/8"	62'-4 5/8"

Girder No.	DEAD LOAD DEFLECTIONS -UNIT 3				
	Span 11				
	C1	C2	C3	C4	C5
1	1"	1 7/8"	1 3/8"	21'-6 5/8"	86'-2 1/2"
2	7/8"	1 5/8"	1 1/8"	21'-6 7/8"	86'-3 1/4"
3	3/4"	1 3/8"	1"	21'-7"	86'-4 1/8"
4	5/8"	1 1/8"	7/8"	21'-7 1/4"	86'-4 7/8"
5	1/2"	1"	3/4"	21'-7 3/8"	86'-5 3/4"

AECOM

USER NAME = vasudevana
PLOT SCALE = N.T.S.
PLOT DATE = 7/30/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS PLAN - UNIT 3
STRUCTURE NO. 016-1715

SHEET NO. S3-19 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	761
CONTRACT NO. 60X93				ILLINOIS FED. AID PROJECT

0161715-60X93-S019-TopSlabElev.dgn

GIRDER 1					BASELINE & PROFILE GRADE					GIRDER 2					GIRDER 3				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 8	1219+17.89	2.58	607.31	607.31	℄ Pier 8	1219+17.89	0.00	607.18	607.18	℄ Pier 8	1219+17.89	- 3.21	607.02	607.02	℄ Pier 8	1219+17.89	-9.00	606.73	606.73
℄ W Brg Pier 8	1219+19.13	2.58	607.24	607.24	℄ W. Brg. Pier 8	1219+19.14	0.00	607.11	607.11	℄ W. Brg. Pier 8	1219+19.15	- 3.21	606.95	606.95	℄ W. Brg. Pier 8	1219+19.18	-9.00	606.66	606.66
9A	1219+29.14	2.58	606.65	606.74	9A	1219+29.14	0.00	606.52	606.59	9A	1219+29.14	- 3.21	606.36	606.43	9A	1219+29.14	-9.00	606.07	606.13
9B	1219+39.14	2.58	606.08	606.24	9B	1219+39.14	0.00	605.95	606.08	9B	1219+39.14	- 3.21	605.79	605.92	9B	1219+39.14	-9.00	605.50	605.61
9C	1219+49.14	2.58	605.56	605.77	9C	1219+49.14	0.00	605.43	605.61	9C	1219+49.14	- 3.21	605.27	605.45	9C	1219+49.14	-9.00	604.98	605.13
9D	1219+59.14	2.58	605.09	605.33	9D	1219+59.14	0.00	604.96	605.16	9D	1219+59.14	- 3.21	604.80	605.00	9D	1219+59.14	-9.00	604.51	604.67
9E	1219+69.14	2.58	604.67	604.90	9E	1219+69.14	0.00	604.54	604.73	9E	1219+69.14	- 3.21	604.38	604.57	9E	1219+69.14	-9.00	604.09	604.25
9F	1219+79.14	2.58	604.30	604.50	9F	1219+79.14	0.00	604.17	604.34	9F	1219+79.14	- 3.21	604.01	604.18	9F	1219+79.14	-9.00	603.72	603.86
9G	1219+89.14	2.58	603.98	604.13	9G	1219+89.14	0.00	603.85	603.98	9G	1219+89.14	- 3.21	603.69	603.82	9G	1219+89.14	-9.00	603.40	603.50
9H	1219+99.14	2.58	603.70	603.80	9H	1219+99.14	0.00	603.57	603.65	9H	1219+99.14	- 3.21	603.41	603.49	9H	1219+99.14	-9.00	603.12	603.19
9I	1220+09.14	2.58	603.48	603.52	9I	1220+09.14	0.00	603.35	603.38	9I	1220+09.14	- 3.21	603.19	603.22	9I	1220+09.14	-9.00	602.90	602.93
℄ Brg Pier 9	1220+16.89	2.58	603.34	603.34	℄ Brg Pier 9	1220+16.89	0.00	603.21	603.21	℄ Brg Pier 9	1220+16.89	- 3.21	603.05	603.05	℄ Brg Pier 9	1220+16.89	-9.00	602.76	602.76
10A	1220+26.89	2.58	603.21	603.17	10A	1220+26.89	0.00	603.08	603.05	10A	1220+26.89	- 3.21	602.92	602.89	10A	1220+26.89	-9.00	602.63	602.61
10B	1220+36.89	2.58	603.12	603.07	10B	1220+36.89	0.00	602.99	602.95	10B	1220+36.89	- 3.21	602.83	602.79	10B	1220+36.89	-9.00	602.54	602.51
10C	1220+46.89	2.58	603.08	603.02	10C	1220+46.89	0.00	602.96	602.91	10C	1220+46.89	- 3.21	602.79	602.75	10C	1220+46.89	-9.00	602.51	602.47
10D	1220+56.89	2.58	603.10	603.04	10D	1220+56.89	0.00	602.97	602.92	10D	1220+56.89	- 3.21	602.81	602.76	10D	1220+56.89	-9.00	602.52	602.48
10E	1220+66.89	2.58	603.16	603.11	10E	1220+66.89	0.00	603.03	602.99	10E	1220+66.89	- 3.21	602.87	602.83	10E	1220+66.89	-9.00	602.58	602.55
10F	1220+76.89	2.58	603.27	603.24	10F	1220+76.89	0.00	603.14	603.12	10F	1220+76.89	- 3.21	602.98	602.96	10F	1220+76.89	-9.00	602.69	602.68
℄ Brg Pier 10	1220+86.07	2.58	603.42	603.42	℄ Brg Pier 10	1220+85.85	0.00	603.29	603.29	℄ Brg Pier 10	1220+85.57	- 3.21	603.12	603.12	℄ Brg Pier 10	1220+85.05	-9.00	602.82	602.82
11A	1220+95.85	2.58	603.62	603.66	11A	1220+95.85	0.00	603.49	603.53	11A	1220+95.85	- 3.21	603.33	603.37	11A	1220+95.85	-9.00	603.04	603.07
11B	1221+05.85	2.58	603.88	603.96	11B	1221+05.85	0.00	603.75	603.82	11B	1221+05.85	- 3.21	603.59	603.66	11B	1221+05.85	-9.00	603.30	603.36
11C	1221+15.85	2.58	604.18	604.31	11C	1221+15.85	0.00	604.05	604.16	11C	1221+15.85	- 3.21	603.89	604.00	11C	1221+15.85	-9.00	603.60	603.70
11D	1221+25.85	2.58	604.54	604.69	11D	1221+25.85	0.00	604.41	604.54	11D	1221+25.85	- 3.21	604.25	604.38	11D	1221+25.85	-9.00	603.96	604.07
11E	1221+35.85	2.58	604.93	605.09	11E	1221+35.85	0.00	604.80	604.94	11E	1221+35.85	- 3.21	604.64	604.78	11E	1221+35.85	-9.00	604.35	604.47
11F	1221+45.85	2.58	605.33	605.47	11F	1221+45.85	0.00	605.20	605.32	11F	1221+45.85	- 3.21	605.04	605.16	11F	1221+45.85	-9.00	604.75	604.86
11G	1221+55.85	2.58	605.73	605.83	11G	1221+55.85	0.00	605.60	605.69	11G	1221+55.85	- 3.21	605.45	605.53	11G	1221+55.85	-9.00	605.16	605.24
11H	1221+65.85	2.58	606.12	606.16	11H	1221+65.85	0.00	606.00	606.04	11H	1221+65.85	- 3.21	605.86	605.90	11H	1221+65.85	-9.00	605.60	605.64
℄ E.Brg. Pier 11	1221+71.53	2.58	606.34	606.34	℄ E.Brg. Pier 11	1221+72.08	0.00	606.25	606.25	℄ E.Brg. Pier 11	1221+72.79	- 3.21	606.15	606.15	℄ E.Brg. Pier 11	1221+74.09	-9.00	605.96	605.96
℄ Pier 11	1221+72.79	2.58	606.39	606.39	℄ Pier 11	1221+73.36	0.00	606.30	606.30	℄ Pier 11	1221+74.08	- 3.21	606.20	606.20	℄ Pier 11	1221+75.41	-9.00	606.02	606.02



USER NAME =	floresg
PLOT SCALE =	N.T.S.
PLOT DATE =	7/26/2018

DESIGNED -	JXH
CHECKED -	ATB
DRAWN -	AV
CHECKED -	ATB

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REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I- UNIT 3
STRUCTURE NO. 016-1715

SHEET NO. S3-20 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	762
		CONTRACT NO. 60X93		
ILLINOIS		FED. AID PROJECT		

0161715-60X93-S020-TopSlabElev.dgn

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⌒ Pier 8	1219+17.89	-14.79	606.44	606.44
⌒ W. Brg. Pier 8	1219+19.21	-14.79	606.37	606.37
9A	1219+29.14	-14.79	605.78	605.83
9B	1219+39.14	-14.79	605.21	605.30
9C	1219+49.14	-14.79	604.69	604.81
9D	1219+59.14	-14.79	604.22	604.35
9E	1219+69.14	-14.79	603.80	603.93
9F	1219+79.14	-14.79	603.43	603.54
9G	1219+89.14	-14.79	603.11	603.19
9H	1219+99.14	-14.79	602.89	602.89
9I	1220+09.14	-14.79	602.61	602.63
⌒ Brg Pier 9	1220+16.89	-14.79	602.47	602.47
10A	1220+26.89	-14.79	602.34	602.32
10B	1220+36.89	-14.79	602.25	602.23
10C	1220+46.89	-14.79	602.22	602.19
10D	1220+56.89	-14.79	602.23	602.20
10E	1220+66.89	-14.79	602.29	602.27
10F	1220+76.89	-14.79	602.40	602.39
⌒ Brg Pier 10	1220+84.50	-14.79	602.52	602.52
11A	1220+95.85	-14.79	602.75	602.78
11B	1221+05.85	-14.79	603.01	603.06
11C	1221+15.85	-14.79	603.31	603.39
11D	1221+25.85	-14.79	603.67	603.76
11E	1221+35.85	-14.79	604.06	604.17
11F	1221+45.85	-14.79	604.46	604.56
11G	1221+55.85	-14.79	604.88	604.95
11H	1221+65.85	-14.79	605.34	605.38
⌒ E.Brg. Pier 11	1221+75.46	-14.79	605.79	605.79
⌒ Pier 11	1221+76.80	-14.79	605.85	605.85

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⌒ Pier 8	1219+17.89	-20.58	606.16	606.16
⌒ W. Brg. Pier 8	1219+19.23	-20.58	606.08	606.08
9A	1219+29.14	-20.58	605.49	605.53
9B	1219+39.14	-20.58	604.92	604.99
9C	1219+49.14	-20.58	604.40	604.49
9D	1219+59.14	-20.58	603.93	604.03
9E	1219+69.14	-20.58	603.51	603.61
9F	1219+79.14	-20.58	603.14	603.22
9G	1219+89.14	-20.58	602.82	602.88
9H	1219+99.14	-20.58	602.54	602.58
9I	1220+09.14	-20.58	602.32	602.34
⌒ Brg Pier 9	1220+16.89	-20.58	602.18	602.18
10A	1220+26.89	-20.58	602.05	602.04
10B	1220+36.89	-20.58	601.96	601.95
10C	1220+46.89	-20.58	601.93	601.91
10D	1220+56.89	-20.58	601.94	601.92
10E	1220+66.89	-20.58	602.00	601.99
10F	1220+76.89	-20.58	602.11	602.11
⌒ Brg Pier 10	1220+83.94	-20.58	602.22	602.22
11A	1220+95.85	-20.58	602.46	602.48
11B	1221+05.85	-20.58	602.72	602.76
11C	1221+15.85	-20.58	603.02	603.09
11D	1221+25.85	-20.58	603.38	603.46
11E	1221+35.85	-20.58	603.77	603.86
11F	1221+45.85	-20.58	604.17	604.25
11G	1221+55.85	-20.58	604.59	604.65
11H	1221+65.85	-20.58	605.08	605.12
⌒ E.Brg. Pier 11	1221+76.88	-20.58	605.62	605.62
⌒ Pier 11	1221+78.26	-20.58	605.69	605.69



USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

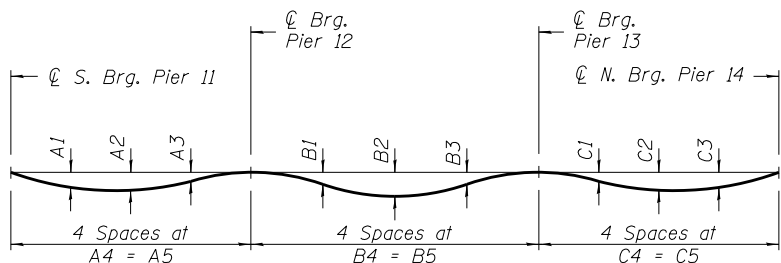
REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II – UNIT 3
STRUCTURE NO. 016–1715

SHEET NO. S3-21 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	763
		CONTRACT NO. 60X93		
		ILLINOIS FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

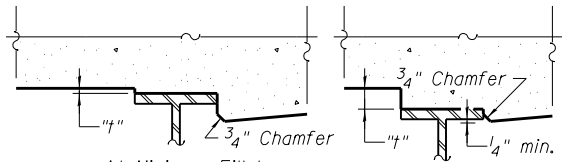
(Includes weight of concrete only.)

Notes:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets S3-23 thru S3-25.

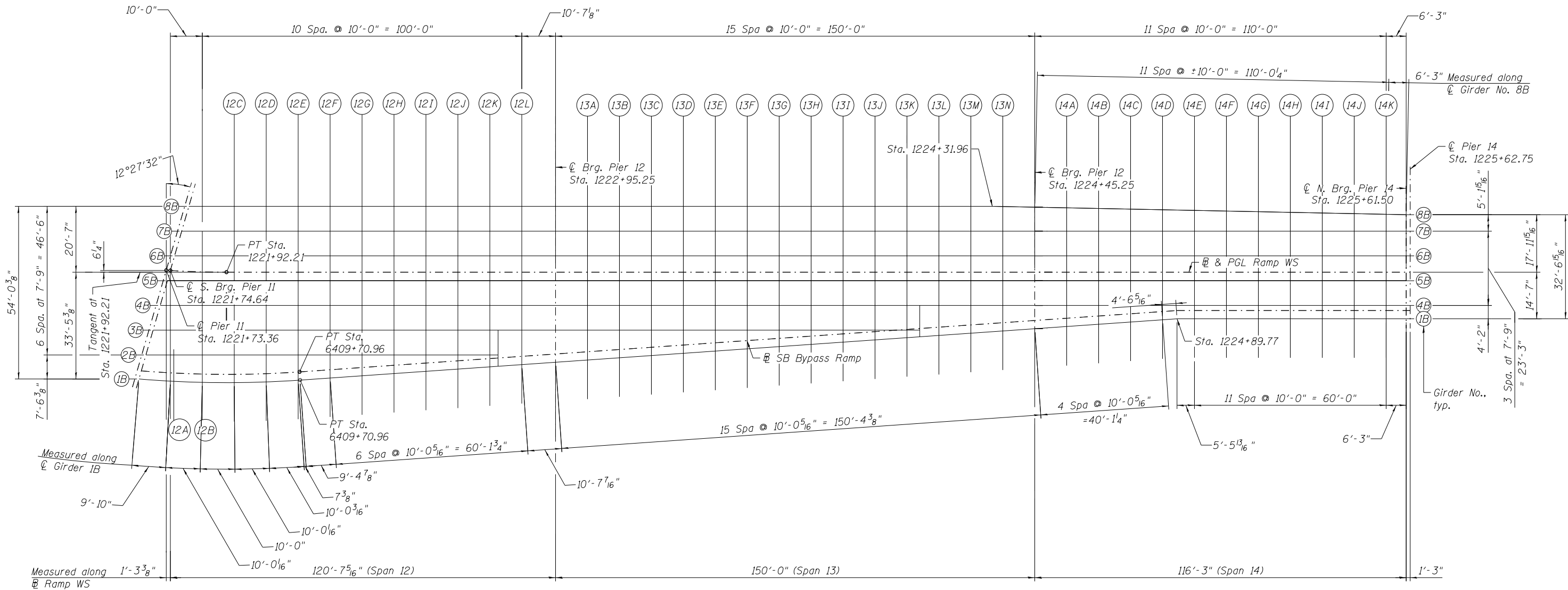
Girder No.	DEAD LOAD DEFLECTIONS - UNIT 4									
	Span 12					Span 13				
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5
1B	2 5/8"	3 1/4"	1 5/8"	32'-8 1/8"	130'-8 1/2"	1/8"	1 1/8"	3/4"	37'-7 1/8"	150'-4 3/8"
2B	2"	2 7/8"	2 1/4"	27'-6 3/4"	110'-2 7/8"	-	-	-	-	-
3B	2"	2 3/8"	1 1/4"	31'-6"	126'-0"	1/8"	7/8"	1 1/4"	28'-6"	114'-0"
4B	1 3/4"	2"	7/8"	30'-11 1/4"	123'-9 1/8"	1/2"	1 3/8"	7/8"	37'-6"	150'-0"
5B	1 1/2"	1 3/4"	3/4"	30'-4 1/2"	121'-6 1/4"	3/4"	1 5/8"	7/8"	37'-6"	150'-0"
6B	1 1/4"	1 3/8"	1/2"	29'-9 7/8"	119'-3 3/8"	7/8"	1 3/4"	1"	37'-6"	150'-0"
7B	1"	1 1/8"	3/8"	29'-3 1/8"	117'-0 1/2"	7/8"	1 3/4"	1"	37'-6"	150'-0"
8B	7/8"	7/8"	1/4"	28'-8 3/8"	114'-9 3/4"	1"	1 7/8"	1"	37'-6"	150'-0"

Girder No.	DEAD LOAD DEFLECTIONS - UNIT 4				
	Span 14				
	C1	C2	C3	C4	C5
1B	1/4"	1"	7/8"	29'-1 1/8"	116'-4 1/4"
2B	-	-	-	-	-
3B	-	-	-	-	-
4B	3/8"	1"	1"	29'-0 3/4"	116'-3"
5B	3/8"	1 1/8"	1"	29'-0 3/4"	116'-3"
6B	3/8"	1 1/8"	1 1/8"	29'-0 3/4"	116'-3"
7B	3/8"	1 1/8"	1"	29'-0 3/4"	116'-3"
8B	3/8"	1 1/8"	1"	29'-0 7/8"	116'-3 1/4"



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in Sheets S3-23 thru S3-25, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

0161715-60X93-S021-TopSlabPlan-4

AECOM

USER NAME = vasudevana
PLOT SCALE = N.T.S.
PLOT DATE = 7/30/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS PLAN - UNIT 4
STRUCTURE NO. 016-1715

SHEET NO. S3-22 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	764
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S022-TopSlabElev

GIRDER 1B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 11	1221+66.54	34.58	607.57	607.57
℄ S. Brg. Pier 11	1221+67.68	34.58	607.60	607.60
12A	1221+77.45	34.58	607.84	607.93
12B	1221+85.44	34.58	608.04	608.20
12C	1221+94.65	34.57	608.27	608.49
12D	1222+04.65	34.35	608.51	608.77
12E	1222+14.65	33.82	608.75	609.03
12F	1222+24.65	33.12	608.99	609.27
12G	1222+34.65	32.42	609.24	609.50
12H	1222+44.65	31.72	609.49	609.71
12I	1222+54.65	31.02	609.74	609.92
12J	1222+64.65	30.32	610.01	610.14
12K	1222+74.65	29.63	610.28	610.36
12L	1222+84.65	28.93	610.55	610.59
℄ Brg Pier 12	1222+95.25	28.19	610.85	610.85
13A	1223+05.25	27.49	611.14	611.12
13B	1223+15.25	26.79	611.44	611.43
13C	1223+25.25	26.09	611.86	611.86
13D	1223+35.25	25.39	612.27	612.29
13E	1223+45.25	24.69	612.69	612.73
13F	1223+55.25	23.99	613.10	613.17
13G	1223+65.25	23.29	613.51	613.60
13H	1223+75.25	22.59	613.93	614.02
13I	1223+85.25	21.89	614.34	614.44
13J	1223+95.25	21.19	614.76	614.85
13K	1224+05.25	20.49	615.17	615.25
13L	1224+15.25	19.79	615.58	615.64
13M	1224+25.25	19.09	616.00	616.03
13N	1224+35.25	18.40	616.41	616.42
℄ Brg Pier 13	1224+45.25	17.70	616.83	616.83
14A	1224+55.25	17.00	617.24	617.24
14B	1224+65.25	16.30	617.65	617.66
14C	1224+75.25	15.60	618.02	618.05
14D	1224+85.25	14.90	618.35	618.41
14E	1224+95.25	14.58	618.63	618.71
14F	1225+05.25	14.58	618.87	618.96
14G	1225+15.25	14.58	619.07	619.16
14H	1225+25.25	14.58	619.22	619.31
14I	1225+35.25	14.58	619.33	619.41
14J	1225+45.25	14.58	619.41	619.46
14K	1225+55.25	14.58	619.44	619.46
℄ N. Brg. Pier 14	1225+61.50	14.58	619.44	619.44
℄ Pier 14	1225+62.75	14.58	619.43	619.43

GIRDER 2B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 11	1221+67.90	27.01	607.27	607.27
℄ S. Brg. Pier 11	1221+69.09	26.90	607.30	607.30
12A	1221+77.07	26.34	607.51	607.57
12B	1221+85.26	26.01	607.73	607.85
12C	1221+94.65	25.92	607.99	608.17
12D	1222+04.65	25.92	608.28	608.49
12E	1222+14.65	25.92	608.57	608.80
12F	1222+24.65	25.92	608.85	609.10
12G	1222+34.65	25.92	609.14	609.37
12H	1222+44.65	25.92	609.43	609.63
12I	1222+54.65	25.92	609.71	609.88
12J	1222+64.65	25.92	610.00	610.12
12K	1222+74.65	25.92	610.29	610.36

GIRDER 3B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 11	1221+69.40	19.10	606.97	606.97
℄ S. Brg. Pier 11	1221+70.62	19.00	607.01	607.01
12A	1221+76.70	18.60	607.18	607.23
12B	1221+85.09	18.26	607.44	607.53
12C	1221+94.65	18.17	607.74	607.89
12D	1222+04.65	18.17	608.06	608.25
12E	1222+14.65	18.17	608.38	608.59
12F	1222+24.65	18.17	608.70	608.92
12G	1222+34.65	18.17	609.02	609.23
12H	1222+44.65	18.17	609.34	609.52
12I	1222+54.65	18.17	609.67	609.81
12J	1222+64.65	18.17	609.99	610.09
12K	1222+74.65	18.17	610.31	610.37
12L	1222+84.65	18.17	610.63	610.65
℄ Brg Pier 12	1222+95.25	18.17	610.97	610.97
13A	1223+05.25	18.17	611.29	611.28
13B	1223+15.25	18.17	611.62	611.62
13C	1223+25.25	18.17	612.02	612.03
13D	1223+35.25	18.17	612.42	612.46
13E	1223+45.25	18.17	612.82	612.88
13F	1223+55.25	18.17	613.22	613.30
13G	1223+65.25	18.17	613.62	613.72
13H	1223+75.25	18.17	614.02	614.12
13I	1223+85.25	18.17	614.42	614.52
13J	1223+95.25	18.17	614.82	614.91
13K	1224+05.25	18.17	615.22	615.30

GIRDER 4B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 11	1221+70.98	11.21	606.69	606.69
℄ S. Brg. Pier 11	1221+72.23	11.12	606.73	606.73
12B	1221+84.91	10.51	607.15	607.23
12C	1221+94.65	10.42	607.49	607.61
12D	1222+04.65	10.42	607.85	608.00
12E	1222+14.65	10.42	608.20	608.38
12F	1222+24.65	10.42	608.56	608.74
12G	1222+34.65	10.42	608.91	609.08
12H	1222+44.65	10.42	609.26	609.41
12I	1222+54.65	10.42	609.62	609.73
12J	1222+64.65	10.42	609.97	610.05
12K	1222+74.65	10.42	610.33	610.37
12L	1222+84.65	10.42	610.68	610.70
℄ Brg Pier 12	1222+95.25	10.42	611.06	611.06
13A	1223+05.25	10.42	611.41	611.41
13B	1223+15.25	10.42	611.77	611.78
13C	1223+25.25	10.42	612.17	612.20
13D	1223+35.25	10.42	612.57	612.63
13E	1223+45.25	10.42	612.97	613.05
13F	1223+55.25	10.42	613.37	613.48
13G	1223+65.25	10.42	613.77	613.89
13H	1223+75.25	10.42	614.17	614.30
13I	1223+85.25	10.42	614.57	614.69
13J	1223+95.25	10.42	614.97	615.08
13K	1224+05.25	10.42	615.37	615.46
13L	1224+15.25	10.42	615.77	615.83
13M	1224+25.25	10.42	616.17	616.20
13N	1224+35.25	10.42	616.57	616.58
℄ Brg Pier 13	1224+45.25	10.42	616.97	616.97
14A	1224+55.25	10.42	617.37	617.37
14B	1224+65.25	10.42	617.77	617.78
14C	1224+75.25	10.42	618.12	618.16
14D	1224+85.25	10.42	618.44	618.50
14E	1224+95.25	10.42	618.72	618.80
14F	1225+05.25	10.42	618.95	619.05
14G	1225+15.25	10.42	619.15	619.25
14H	1225+25.25	10.42	619.30	619.40
14I	1225+35.25	10.42	619.42	619.50
14J	1225+45.25	10.42	619.49	619.55
14K	1225+55.25	10.42	619.52	619.55
℄ N. Brg. Pier 14	1225+61.50	10.42	619.52	619.52
℄ Pier 14	1225+62.75	10.42	619.52	619.52



USER NAME = vasudevana
PLOT SCALE = N.T.S.
PLOT DATE = 7/27/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I – UNIT 4
STRUCTURE NO. 016-1715

SHEET NO. S3-23 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	765
CONTRACT NO. 60X93				
ILLINOIS			FED. AID PROJECT	

0161715-60X93-S023-TopSlabElev

GIRDER 5B				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 11	1221+72.63	3.32	606.41	606.41
☒ S. Brg. Pier 11	1221+73.92	3.24	606.46	606.46
12B	1221+84.72	2.76	606.86	606.92
12C	1221+94.65	2.67	607.24	607.34
12D	1222+04.65	2.67	607.63	607.76
12E	1222+14.65	2.67	608.02	608.17
12F	1222+24.65	2.67	608.41	608.56
12G	1222+34.65	2.67	608.80	608.94
12H	1222+44.65	2.67	609.18	609.31
12I	1222+54.65	2.67	609.57	609.67
12J	1222+64.65	2.67	609.96	610.03
12K	1222+74.65	2.67	610.35	610.39
12L	1222+84.65	2.67	610.74	610.75
☒ Brg Pier 12	1222+95.25	2.67	611.15	611.15
13A	1223+05.25	2.67	611.54	611.54
13B	1223+15.25	2.67	611.93	611.95
13C	1223+25.25	2.67	612.33	612.37
13D	1223+35.25	2.67	612.73	612.80
13E	1223+45.25	2.67	613.13	613.23
13F	1223+55.25	2.67	613.53	613.65
13G	1223+65.25	2.67	613.93	614.06
13H	1223+75.25	2.67	614.33	614.47
13I	1223+85.25	2.67	614.73	614.86
13J	1223+95.25	2.67	615.13	615.24
13K	1224+05.25	2.67	615.53	615.62
13L	1224+15.25	2.67	615.93	615.99
13M	1224+25.25	2.67	616.33	616.36
13N	1224+35.25	2.67	616.73	616.74
☒ Brg Pier 13	1224+45.25	2.67	617.13	617.13
14A	1224+55.25	2.67	617.53	617.53
14B	1224+65.25	2.67	617.92	617.94
14C	1224+75.25	2.67	618.28	618.32
14D	1224+85.25	2.67	618.60	618.66
14E	1224+95.25	2.67	618.87	618.96
14F	1225+05.25	2.67	619.11	619.21
14G	1225+15.25	2.67	619.30	619.42
14H	1225+25.25	2.67	619.46	619.56
14I	1225+35.25	2.67	619.57	619.66
14J	1225+45.25	2.67	619.64	619.71
14K	1225+55.25	2.67	619.68	619.70
☒ N. Brg. Pier 14	1225+61.50	2.67	619.68	619.68
☒ Pier 14	1225+62.75	2.67	619.67	619.67

BASELINE & PROFILE GRADE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 11	1221+73.36	0.00	606.30	606.30
☒ S. Brg. Pier 11	1221+74.64	0.00	606.36	606.36
12B	1221+84.65	0.00	606.76	606.81
12C	1221+94.65	0.00	607.16	607.25
12D	1222+04.65	0.00	607.56	607.68
12E	1222+14.65	0.00	607.96	608.11
12F	1222+24.65	0.00	608.36	608.51
12G	1222+34.65	0.00	608.76	608.90
12H	1222+44.65	0.00	609.16	609.28
12I	1222+54.65	0.00	609.56	609.65
12J	1222+64.65	0.00	609.96	610.02
12K	1222+74.65	0.00	610.36	610.39
12L	1222+84.65	0.00	610.76	610.77
☒ Brg Pier 12	1222+95.25	0.00	611.18	611.18
13A	1223+05.25	0.00	611.58	611.59
13B	1223+15.25	0.00	611.98	612.00
13C	1223+25.25	0.00	612.38	612.42
13D	1223+35.25	0.00	612.78	612.85
13E	1223+45.25	0.00	613.18	613.28
13F	1223+55.25	0.00	613.58	613.70
13G	1223+65.25	0.00	613.98	614.12
13H	1223+75.25	0.00	614.38	614.52
13I	1223+85.25	0.00	614.78	614.91
13J	1223+95.25	0.00	615.18	615.29
13K	1224+05.25	0.00	615.58	615.67
13L	1224+15.25	0.00	615.98	616.04
13M	1224+25.25	0.00	616.38	616.41
13N	1224+35.25	0.00	616.78	616.79
☒ Brg Pier 13	1224+45.25	0.00	617.18	617.18
14A	1224+55.25	0.00	617.58	617.58
14B	1224+65.25	0.00	617.97	617.99
14C	1224+75.25	0.00	618.33	618.37
14D	1224+85.25	0.00	618.65	618.71
14E	1224+95.25	0.00	618.93	619.02
14F	1225+05.25	0.00	619.16	619.27
14G	1225+15.25	0.00	619.36	619.47
14H	1225+25.25	0.00	619.51	619.62
14I	1225+35.25	0.00	619.62	619.71
14J	1225+45.25	0.00	619.70	619.76
14K	1225+55.25	0.00	619.73	619.76
☒ N. Brg. Pier 14	1225+61.50	0.00	619.73	619.73
☒ Pier 14	1225+62.75	0.00	619.73	619.73

GIRDER 6B				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☒ Pier 11	1221+74.38	-4.55	606.16	606.16
☒ S. Brg. Pier 11	1221+75.70	-4.63	606.21	606.21
12B	1221+84.52	-4.98	606.57	606.61
12C	1221+94.65	-5.08	606.99	607.07
12D	1222+04.65	-5.08	607.41	607.52
12E	1222+14.65	-5.08	607.84	607.96
12F	1222+24.65	-5.08	608.26	608.39
12G	1222+34.65	-5.08	608.68	608.81
12H	1222+44.65	-5.08	609.10	609.21
12I	1222+54.65	-5.08	609.53	609.61
12J	1222+64.65	-5.08	609.95	610.00
12K	1222+74.65	-5.08	610.37	610.40
12L	1222+84.65	-5.08	610.79	610.80
☒ Brg Pier 12	1222+95.25	-5.08	611.24	611.24
13A	1223+05.25	-5.08	611.66	611.67
13B	1223+15.25	-5.08	612.08	612.11
13C	1223+25.25	-5.08	612.48	612.53
13D	1223+35.25	-5.08	612.88	612.96
13E	1223+45.25	-5.08	613.28	613.39
13F	1223+55.25	-5.08	613.68	613.82
13G	1223+65.25	-5.08	614.08	614.23
13H	1223+75.25	-5.08	614.48	614.63
13I	1223+85.25	-5.08	614.88	615.02
13J	1223+95.25	-5.08	615.28	615.40
13K	1224+05.25	-5.08	615.68	615.77
13L	1224+15.25	-5.08	616.08	616.14
13M	1224+25.25	-5.08	616.48	616.51
13N	1224+35.25	-5.08	616.88	616.89
☒ Brg Pier 13	1224+45.25	-5.08	617.28	617.28
14A	1224+55.25	-5.08	617.68	617.68
14B	1224+65.25	-5.08	618.08	618.10
14C	1224+75.25	-5.08	618.43	618.48
14D	1224+85.25	-5.08	618.75	618.82
14E	1224+95.25	-5.08	619.03	619.12
14F	1225+05.25	-5.08	619.26	619.37
14G	1225+15.25	-5.08	619.46	619.57
14H	1225+25.25	-5.08	619.61	619.72
14I	1225+35.25	-5.08	619.73	619.82
14J	1225+45.25	-5.08	619.80	619.86
14K	1225+55.25	-5.08	619.83	619.86
☒ N. Brg. Pier 14	1225+61.50	-5.08	619.83	619.83
☒ Pier 14	1225+62.75	-5.08	619.83	619.83



USER NAME =	vasudevana
PLOT SCALE =	N.T.S.
PLOT DATE =	7/30/2018

DESIGNED -	JXH
CHECKED -	ATB
DRAWN -	AV
CHECKED -	ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II – UNIT 4
STRUCTURE NO. 016-1715

SHEET NO. S3-24 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	766
CONTRACT NO. 60X93			ILLINOIS FED. AID PROJECT	

0161715-60X93-S024-TopSlabElev.dgn

GIRDER 7B				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 11	1221+76.23	-12.42	605.92	605.92
☉ S. Brg. Pier 11	1221+77.58	-12.49	605.98	605.98
12B	1221+84.31	-12.73	606.27	606.30
12C	1221+94.65	-12.83	606.74	606.80
12D	1222+04.65	-12.83	607.20	607.29
12E	1222+14.65	-12.83	607.65	607.76
12F	1222+24.65	-12.83	608.11	608.22
12G	1222+34.65	-12.83	608.57	608.67
12H	1222+44.65	-12.83	609.02	609.11
12I	1222+54.65	-12.83	609.48	609.54
12J	1222+64.65	-12.83	609.93	609.98
12K	1222+74.65	-12.83	610.39	610.41
12L	1222+84.65	-12.83	610.85	610.85
☉ Brg Pier 12	1222+95.25	-12.83	611.33	611.33
13A	1223+05.25	-12.83	611.79	611.80
13B	1223+15.25	-12.83	612.24	612.27
13C	1223+25.25	-12.83	612.64	612.70
13D	1223+35.25	-12.83	613.04	613.13
13E	1223+45.25	-12.83	613.44	613.55
13F	1223+55.25	-12.83	613.84	613.98
13G	1223+65.25	-12.83	614.24	614.39
13H	1223+75.25	-12.83	614.64	614.79
13I	1223+85.25	-12.83	615.04	615.18
13J	1223+95.25	-12.83	615.44	615.56
13K	1224+05.25	-12.83	615.84	615.93
13L	1224+15.25	-12.83	616.24	616.30
13M	1224+25.25	-12.83	616.64	616.67
13N	1224+35.25	-12.83	617.04	617.05
☉ Brg Pier 13	1224+45.25	-12.83	617.44	617.44
14A	1224+55.25	-12.83	617.84	617.84
14B	1224+65.25	-12.83	618.23	618.25
14C	1224+75.25	-12.83	618.59	618.63
14D	1224+85.25	-12.83	618.91	618.97
14E	1224+95.25	-12.83	619.18	619.27
14F	1225+05.25	-12.83	619.42	619.52
14G	1225+15.25	-12.83	619.61	619.73
14H	1225+25.25	-12.83	619.77	619.87
14I	1225+35.25	-12.83	619.88	619.97
14J	1225+45.25	-12.83	619.95	620.02
14K	1225+55.25	-12.83	619.99	620.01
☉ N. Brg. Pier 14	1225+61.50	-12.83	619.99	619.99
☉ Pier 14	1225+62.75	-12.83	619.98	619.98

GIRDER 8B				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 11	1221+78.18	-20.27	605.70	605.70
☉ S. Brg. Pier 11	1221+79.57	-20.33	605.76	605.76
12C	1221+94.65	-20.58	606.49	606.54
12D	1222+04.65	-20.58	606.98	607.05
12E	1222+14.65	-20.58	607.47	607.56
12F	1222+24.65	-20.58	607.96	608.05
12G	1222+34.65	-20.58	608.45	608.54
12H	1222+44.65	-20.58	608.94	609.01
12I	1222+54.65	-20.58	609.43	609.48
12J	1222+64.65	-20.58	609.92	609.95
12K	1222+74.65	-20.58	610.41	610.43
12L	1222+84.65	-20.58	610.90	610.90
☉ Brg Pier 12	1222+95.25	-20.58	611.42	611.42
13A	1223+05.25	-20.58	611.91	611.93
13B	1223+15.25	-20.58	612.39	612.43
13C	1223+25.25	-20.58	612.79	612.85
13D	1223+35.25	-20.58	613.19	613.29
13E	1223+45.25	-20.58	613.59	613.71
13F	1223+55.25	-20.58	613.99	614.14
13G	1223+65.25	-20.58	614.39	614.55
13H	1223+75.25	-20.58	614.79	614.95
13I	1223+85.25	-20.58	615.19	615.34
13J	1223+95.25	-20.58	615.59	615.72
13K	1224+05.25	-20.58	615.99	616.09
13L	1224+15.25	-20.58	616.39	616.46
13M	1224+25.25	-20.58	616.79	616.83
13N	1224+35.25	-20.52	617.19	617.20
☉ Brg Pier 13	1224+45.25	-20.32	617.59	617.59
14A	1224+55.25	-20.12	617.98	617.98
14B	1224+65.25	-19.92	618.37	618.39
14C	1224+75.25	-19.72	618.73	618.76
14D	1224+85.25	-19.52	619.04	619.10
14E	1224+95.25	-19.32	619.31	619.40
14F	1225+05.25	-19.12	619.54	619.64
14G	1225+15.25	-18.92	619.74	619.84
14H	1225+25.25	-18.72	619.89	619.99
14I	1225+35.25	-18.52	620.00	620.08
14J	1225+45.25	-18.32	620.06	620.12
14K	1225+55.25	-18.12	620.09	620.12
☉ N. Brg. Pier 14	1225+61.50	-17.99	620.09	620.09
☉ Pier 14	1225+62.75	-17.97	620.09	620.09



USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - JXH
CHECKED - ATB
DRAWN - AV
CHECKED - ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS III – UNIT 4
STRUCTURE NO. 016–1715

SHEET NO. S3-25 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	767
		CONTRACT NO. 60X93		
ILLINOIS		FED. AID PROJECT		

0161715-60X93-S026-TopSlabElev.dgn

GIRDER 1				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	14.58	619.43	619.43
℄ N. Brg. Pier 14	1225+64.00	14.58	619.43	619.43
15A	1225+74.00	14.58	619.39	619.44
15B	1225+84.00	14.58	619.30	619.41
15C	1225+94.00	14.58	619.18	619.32
15D	1226+04.00	14.58	619.01	619.18
15E	1226+14.00	14.58	618.80	618.98
15F	1226+24.00	14.58	618.55	618.72
15G	1226+34.00	14.58	618.26	618.41
15H	1226+44.00	14.58	617.93	618.05
15I	1226+54.00	14.58	617.56	617.64
15J	1226+64.00	14.58	617.15	617.20
15K	1226+74.00	14.58	616.70	616.71
℄ Brg Pier 15	1226+85.50	14.58	616.12	616.12
16A	1226+95.50	14.58	615.58	615.59
16B	1227+05.50	14.58	615.00	615.03
16C	1227+15.50	14.58	614.39	614.44
16D	1227+25.50	14.58	613.77	613.85
16E	1227+35.50	14.58	613.15	613.26
16F	1227+45.50	14.58	612.53	612.66
16G	1227+55.50	14.58	611.91	612.05
16H	1227+65.50	14.58	611.29	611.43
16I	1227+75.50	14.58	610.67	610.79
16J	1227+85.50	14.58	610.05	610.15
16K	1227+95.50	14.58	609.43	609.50
16L	1228+05.50	14.58	608.81	608.85
16M	1228+15.50	14.58	608.19	608.21
16N	1228+25.50	14.58	607.57	607.57
℄ Brg Pier 16	1228+35.50	14.58	606.95	606.95
17A	1228+45.50	14.58	606.33	606.35
17B	1228+55.50	14.58	605.71	605.76
17C	1228+65.50	14.58	605.09	605.18
17D	1228+75.50	14.58	604.47	604.60
17E	1228+85.50	14.58	603.85	604.02
17F	1228+95.50	14.58	603.23	603.43
17G	1229+05.50	14.58	602.61	602.82
17H	1229+15.50	14.58	601.99	602.20
17I	1229+25.50	14.58	601.37	601.56
17J	1229+35.50	14.58	600.75	600.91
17K	1229+45.50	14.58	600.13	600.23
17L	1229+55.50	14.58	599.51	599.55
℄ Brg S. Abut.	1229+62.50	14.58	599.07	599.07
Bk. S. Abut.	1229+66.00	14.58	598.86	598.86

GIRDER 2				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	8.08	619.56	619.56
℄ N. Brg. Pier 14	1225+64.00	8.08	619.56	619.56
15A	1225+74.00	8.08	619.52	619.57
15B	1225+84.00	8.08	619.43	619.54
15C	1225+94.00	8.08	619.31	619.45
15D	1226+04.00	8.08	619.14	619.31
15E	1226+14.00	8.08	618.93	619.11
15F	1226+24.00	8.08	618.68	618.85
15G	1226+34.00	8.08	618.39	618.54
15H	1226+44.00	8.08	618.06	618.18
15I	1226+54.00	8.08	617.69	617.77
15J	1226+64.00	8.08	617.28	617.33
15K	1226+74.00	8.08	616.83	616.84
℄ Brg Pier 15	1226+85.50	8.08	616.25	616.25
16A	1226+95.50	8.08	615.71	615.72
16B	1227+05.50	8.08	615.13	615.16
16C	1227+15.50	8.08	614.52	614.57
16D	1227+25.50	8.08	613.90	613.98
16E	1227+35.50	8.08	613.28	613.39
16F	1227+45.50	8.08	612.66	612.79
16G	1227+55.50	8.08	612.04	612.18
16H	1227+65.50	8.08	611.42	611.56
16I	1227+75.50	8.08	610.80	610.92
16J	1227+85.50	8.08	610.18	610.28
16K	1227+95.50	8.08	609.56	609.63
16L	1228+05.50	8.08	608.94	608.98
16M	1228+15.50	8.08	608.32	608.34
16N	1228+25.50	8.08	607.70	607.70
℄ Brg Pier 16	1228+35.50	8.08	607.08	607.08
17A	1228+45.50	8.08	606.46	606.48
17B	1228+55.50	8.08	605.84	605.89
17C	1228+65.50	8.08	605.22	605.31
17D	1228+75.50	8.08	604.60	604.73
17E	1228+85.50	8.08	603.98	604.15
17F	1228+95.50	8.08	603.36	603.56
17G	1229+05.50	8.08	602.74	602.95
17H	1229+15.50	8.08	602.12	602.33
17I	1229+25.50	8.08	601.50	601.69
17J	1229+35.50	8.08	600.88	601.04
17K	1229+45.50	8.08	600.26	600.36
17L	1229+55.50	8.08	599.64	599.68
℄ Brg S. Abut.	1229+62.50	8.08	599.20	599.20
Bk. S. Abut.	1229+66.00	8.08	598.99	598.99

GIRDER 3				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	1.58	619.69	619.69
℄ N. Brg. Pier 14	1225+64.00	1.58	619.69	619.69
15A	1225+74.00	1.58	619.65	619.70
15B	1225+84.00	1.58	619.56	619.67
15C	1225+94.00	1.58	619.44	619.58
15D	1226+04.00	1.58	619.27	619.44
15E	1226+14.00	1.58	619.06	619.24
15F	1226+24.00	1.58	618.81	618.98
15G	1226+34.00	1.58	618.52	618.67
15H	1226+44.00	1.58	618.19	618.31
15I	1226+54.00	1.58	617.82	617.90
15J	1226+64.00	1.58	617.41	617.46
15K	1226+74.00	1.58	616.96	616.97
℄ Brg Pier 15	1226+85.50	1.58	616.38	616.38
16A	1226+95.50	1.58	615.84	615.85
16B	1227+05.50	1.58	615.26	615.29
16C	1227+15.50	1.58	614.65	614.70
16D	1227+25.50	1.58	614.03	614.11
16E	1227+35.50	1.58	613.41	613.52
16F	1227+45.50	1.58	612.79	612.92
16G	1227+55.50	1.58	612.17	612.31
16H	1227+65.50	1.58	611.55	611.69
16I	1227+75.50	1.58	610.93	611.05
16J	1227+85.50	1.58	610.31	610.41
16K	1227+95.50	1.58	609.69	609.76
16L	1228+05.50	1.58	609.07	609.11
16M	1228+15.50	1.58	608.45	608.47
16N	1228+25.50	1.58	607.83	607.83
℄ Brg Pier 16	1228+35.50	1.58	607.21	607.21
17A	1228+45.50	1.58	606.59	606.61
17B	1228+55.50	1.58	605.97	606.02
17C	1228+65.50	1.58	605.35	605.44
17D	1228+75.50	1.58	604.73	604.86
17E	1228+85.50	1.58	604.11	604.28
17F	1228+95.50	1.58	603.49	603.69
17G	1229+05.50	1.58	602.87	603.08
17H	1229+15.50	1.58	602.25	602.46
17I	1229+25.50	1.58	601.63	601.82
17J	1229+35.50	1.58	601.01	601.17
17K	1229+45.50	1.58	600.39	600.49
17L	1229+55.50	1.58	599.77	599.81
℄ Brg S. Abut.	1229+62.50	1.58	599.33	599.33
Bk. S. Abut.	1229+66.00	1.58	599.12	599.12

BASELINE & PROFILE GRADE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	0.00	619.73	619.73
℄ N. Brg. Pier 14	1225+64.00	0.00	619.72	619.72
15A	1225+74.00	0.00	619.68	619.73
15B	1225+84.00	0.00	619.59	619.70
15C	1225+94.00	0.00	619.47	619.61
15D	1226+04.00	0.00	619.30	619.47
15E	1226+14.00	0.00	619.09	619.27
15F	1226+24.00	0.00	618.84	619.01
15G	1226+34.00	0.00	618.55	618.70
15H	1226+44.00	0.00	618.22	618.34
15I	1226+54.00	0.00	617.85	617.93
15J	1226+64.00	0.00	617.44	617.49
15K	1226+74.00	0.00	616.99	617.00
℄ Brg Pier 15	1226+85.50	0.00	616.42	616.42
16A	1226+95.50	0.00	615.88	615.88
16B	1227+05.50	0.00	615.29	615.32
16C	1227+15.50	0.00	614.68	614.73
16D	1227+25.50	0.00	614.06	614.14
16E	1227+35.50	0.00	613.44	613.55
16F	1227+45.50	0.00	612.82	612.95
16G	1227+55.50	0.00	612.20	612.34
16H	1227+65.50	0.00	611.58	611.72
16I	1227+75.50	0.00	610.96	611.08
16J	1227+85.50	0.00	610.34	610.44
16K	1227+95.50	0.00	609.72	609.79
16L	1228+05.50	0.00	609.10	609.14
16M	1228+15.50	0.00	608.48	608.50
16N	1228+25.50	0.00	607.86	607.86
℄ Brg Pier 16	1228+35.50	0.00	607.24	607.24
17A	1228+45.50	0.00	606.62	606.64
17B	1228+55.50	0.00	606.00	606.05
17C	1228+65.50	0.00	605.38	605.47
17D	1228+75.50	0.00	604.76	604.89
17E	1228+85.50	0.00	604.14	604.31
17F	1228+95.50	0.00	603.52	603.72
17G	1229+05.50	0.00	602.90	603.12
17H	1229+15.50	0.00	602.28	602.49
17I	1229+25.50	0.00	601.66	601.85
17J	1229+35.50	0.00	601.04	601.20
17K	1229+45.50	0.00	600.42	600.53
17L	1229+55.50	0.00	599.80	599.85
℄ Brg S. Abut.	1229+62.50	0.00	599.37	599.37
Bk. S. Abut.	1229+66.00	0.00	599.15	599.15



USER NAME =	floresq
PLOT SCALE =	N.T.S.
PLOT DATE =	7/26/2018

DESIGNED -	JXH
CHECKED -	ATB
DRAWN -	AV
CHECKED -	ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I- UNIT 5
STRUCTURE NO. 016-1715

SHEET NO. S3-27 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	769
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S027-TopSlabElev.dgn

GIRDER 4				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	-4.92	619.82	619.82
℄ N. Brg. Pier 14	1225+64.00	-4.92	619.82	619.82
15A	1225+74.00	-4.92	619.78	619.83
15B	1225+84.00	-4.92	619.69	619.80
15C	1225+94.00	-4.92	619.57	619.71
15D	1226+04.00	-4.92	619.40	619.57
15E	1226+14.00	-4.92	619.19	619.37
15F	1226+24.00	-4.92	618.94	619.11
15G	1226+34.00	-4.92	618.65	618.80
15H	1226+44.00	-4.92	618.32	618.44
15I	1226+54.00	-4.92	617.95	618.03
15J	1226+64.00	-4.92	617.54	617.59
15K	1226+74.00	-4.92	617.09	617.10
℄ Brg Pier 15	1226+85.50	-4.92	616.51	616.51
16A	1226+95.50	-4.92	615.97	615.98
16B	1227+05.50	-4.92	615.39	615.42
16C	1227+15.50	-4.92	614.78	614.83
16D	1227+25.50	-4.92	614.16	614.24
16E	1227+35.50	-4.92	613.54	613.65
16F	1227+45.50	-4.92	612.92	613.05
16G	1227+55.50	-4.92	612.30	612.44
16H	1227+65.50	-4.92	611.68	611.82
16I	1227+75.50	-4.92	611.06	611.18
16J	1227+85.50	-4.92	610.44	610.54
16K	1227+95.50	-4.92	609.82	609.89
16L	1228+05.50	-4.92	609.20	609.24
16M	1228+15.50	-4.92	608.58	608.60
16N	1228+25.50	-4.92	607.96	607.96
℄ Brg Pier 16	1228+35.50	-4.92	607.34	607.34
17A	1228+45.50	-4.92	606.72	606.74
17B	1228+55.50	-4.92	606.10	606.15
17C	1228+65.50	-4.92	605.48	605.57
17D	1228+75.50	-4.92	604.86	604.99
17E	1228+85.50	-4.92	604.24	604.41
17F	1228+95.50	-4.92	603.62	603.82
17G	1229+05.50	-4.92	603.00	603.21
17H	1229+15.50	-4.92	602.38	602.59
17I	1229+25.50	-4.92	601.76	601.95
17J	1229+35.50	-4.92	601.14	601.30
17K	1229+45.50	-4.92	600.52	600.62
17L	1229+55.50	-4.92	599.90	599.94
℄ Brg S. Abut.	1229+62.50	-4.92	599.46	599.46
Bk. S. Abut.	1229+66.00	-4.92	599.25	599.25

GIRDER 5				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	-11.42	619.95	619.95
℄ N. Brg. Pier 14	1225+64.00	-11.42	619.95	619.95
15A	1225+74.00	-11.42	619.91	619.96
15B	1225+84.00	-11.42	619.82	619.93
15C	1225+94.00	-11.42	619.70	619.84
15D	1226+04.00	-11.42	619.53	619.70
15E	1226+14.00	-11.42	619.32	619.50
15F	1226+24.00	-11.42	619.07	619.24
15G	1226+34.00	-11.42	618.78	618.93
15H	1226+44.00	-11.42	618.45	618.57
15I	1226+54.00	-11.42	618.08	618.16
15J	1226+64.00	-11.42	617.67	617.72
15K	1226+74.00	-11.42	617.22	617.23
℄ Brg Pier 15	1226+85.50	-11.42	616.64	616.64
16A	1226+95.50	-11.42	616.10	616.11
16B	1227+05.50	-11.42	615.52	615.55
16C	1227+15.50	-11.42	614.91	614.96
16D	1227+25.50	-11.42	614.29	614.37
16E	1227+35.50	-11.42	613.67	613.78
16F	1227+45.50	-11.42	613.05	613.18
16G	1227+55.50	-11.42	612.43	612.57
16H	1227+65.50	-11.42	611.81	611.95
16I	1227+75.50	-11.42	611.19	611.31
16J	1227+85.50	-11.42	610.57	610.67
16K	1227+95.50	-11.42	609.95	610.02
16L	1228+05.50	-11.42	609.33	609.37
16M	1228+15.50	-11.42	608.71	608.73
16N	1228+25.50	-11.42	608.09	608.09
℄ Brg Pier 16	1228+35.50	-11.42	607.47	607.47
17A	1228+45.50	-11.42	606.85	606.87
17B	1228+55.50	-11.42	606.23	606.28
17C	1228+65.50	-11.42	605.61	605.70
17D	1228+75.50	-11.42	604.99	605.12
17E	1228+85.50	-11.42	604.37	604.54
17F	1228+95.50	-11.42	603.75	603.95
17G	1229+05.50	-11.42	603.13	603.34
17H	1229+15.50	-11.42	602.51	602.72
17I	1229+25.50	-11.42	601.89	602.08
17J	1229+35.50	-11.42	601.27	601.43
17K	1229+45.50	-11.42	600.65	600.75
17L	1229+55.50	-11.42	600.03	600.07
℄ Brg S. Abut.	1229+62.50	-11.42	599.59	599.59
Bk. S. Abut.	1229+66.00	-11.42	599.38	599.38

GIRDER 6				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
℄ Pier 14	1225+62.75	-17.97	620.09	620.09
℄ N. Brg. Pier 14	1225+64.00	-17.94	620.08	620.08
15A	1225+74.00	-17.74	620.03	620.09
15B	1225+84.00	-17.54	619.94	620.05
15C	1225+94.00	-17.34	619.81	619.96
15D	1226+04.00	-17.14	619.64	619.81
15E	1226+14.00	-16.94	619.43	619.61
15F	1226+24.00	-16.74	619.18	619.35
15G	1226+34.00	-16.58	618.89	619.03
15H	1226+44.00	-16.58	618.56	618.67
15I	1226+54.00	-16.58	618.18	618.27
15J	1226+64.00	-16.58	617.77	617.82
15K	1226+74.00	-16.58	617.32	617.34
℄ Brg Pier 15	1226+85.50	-16.58	616.75	616.75
16A	1226+95.50	-16.58	616.21	616.21
16B	1227+05.50	-16.58	615.63	615.65
16C	1227+15.50	-16.58	615.01	615.06
16D	1227+25.50	-16.58	614.39	614.47
16E	1227+35.50	-16.58	613.77	613.88
16F	1227+45.50	-16.58	613.15	613.28
16G	1227+55.50	-16.58	612.53	612.67
16H	1227+65.50	-16.58	611.91	612.05
16I	1227+75.50	-16.58	611.29	611.42
16J	1227+85.50	-16.58	610.67	610.77
16K	1227+95.50	-16.58	610.05	610.13
16L	1228+05.50	-16.58	609.43	609.48
16M	1228+15.50	-16.58	608.81	608.83
16N	1228+25.50	-16.58	608.19	608.19
℄ Brg Pier 16	1228+35.50	-16.58	607.57	607.57
17A	1228+45.50	-16.58	606.95	606.97
17B	1228+55.50	-16.58	606.33	606.38
17C	1228+65.50	-16.58	605.71	605.80
17D	1228+75.50	-16.58	605.09	605.23
17E	1228+85.50	-16.58	604.47	604.65
17F	1228+95.50	-16.58	603.85	604.05
17G	1229+05.50	-16.58	603.23	603.45
17H	1229+15.50	-16.58	602.61	602.83
17I	1229+25.50	-16.58	601.99	602.19
17J	1229+35.50	-16.58	601.37	601.53
17K	1229+45.50	-16.58	600.75	600.86
17L	1229+55.50	-16.58	600.13	600.18
℄ Brg S. Abut.	1229+62.50	-16.58	599.70	599.70
Bk. S. Abut.	1229+66.00	-16.58	599.48	599.48



USER NAME =	floresq
PLOT SCALE =	N.T.S.
PLOT DATE =	7/26/2018

DESIGNED -	JXH
CHECKED -	ATB
DRAWN -	AV
CHECKED -	ATB

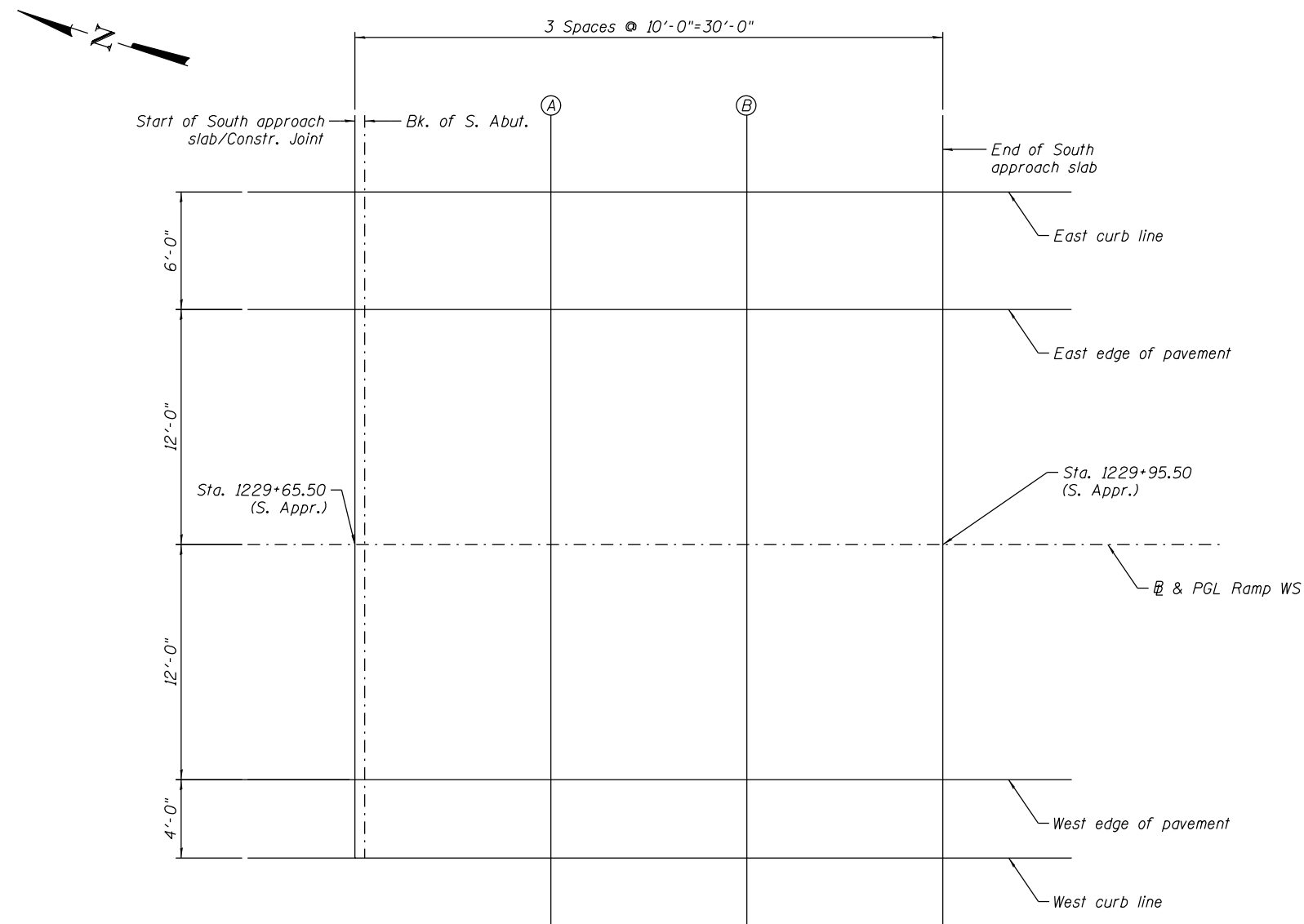
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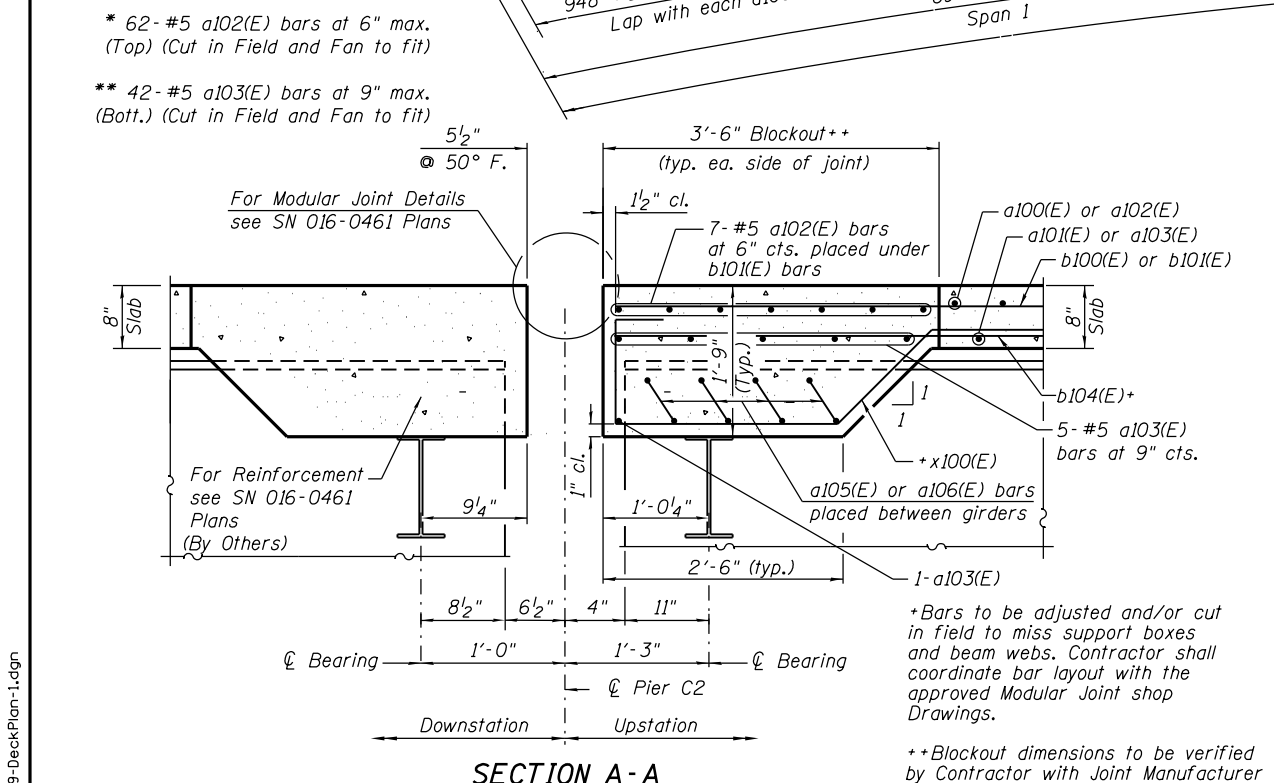
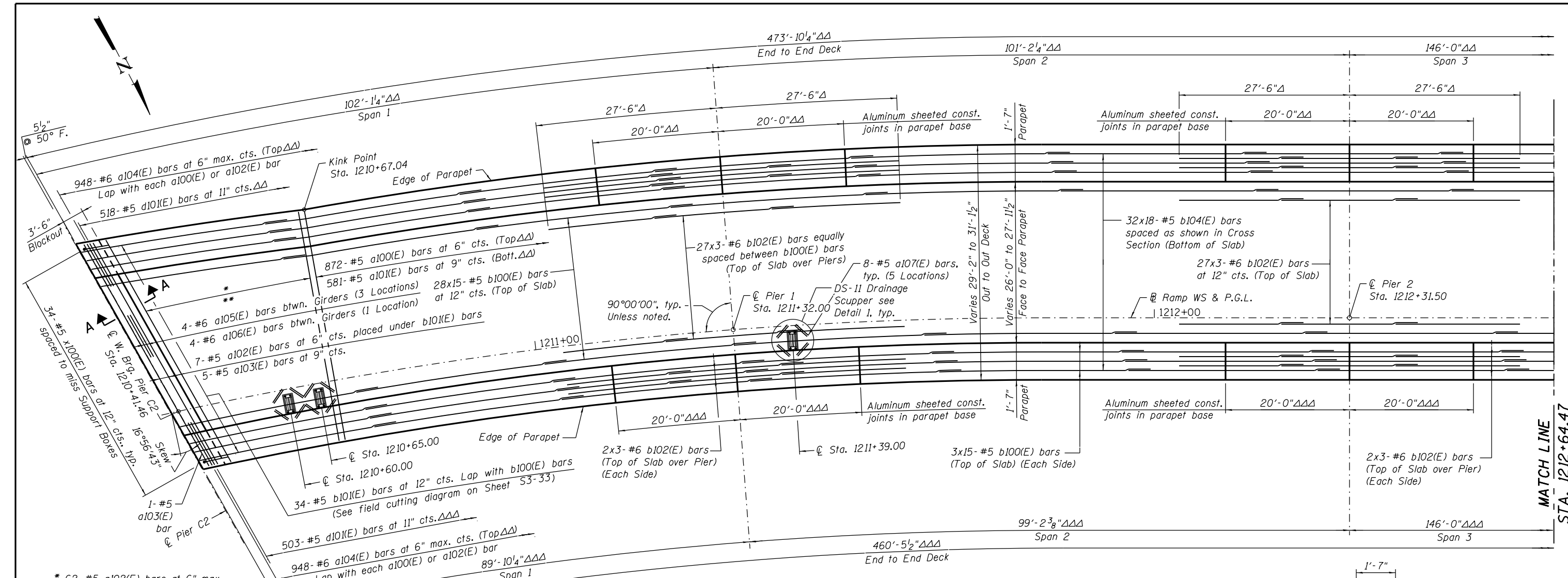
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II – UNIT 5
STRUCTURE NO. 016–1715

SHEET NO. S3-28 OF S3-172

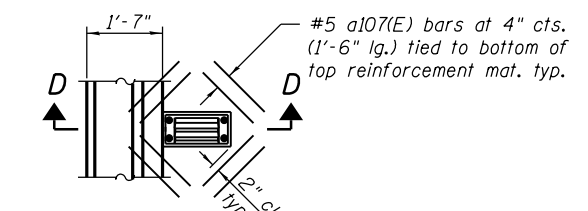
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	770
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X93	





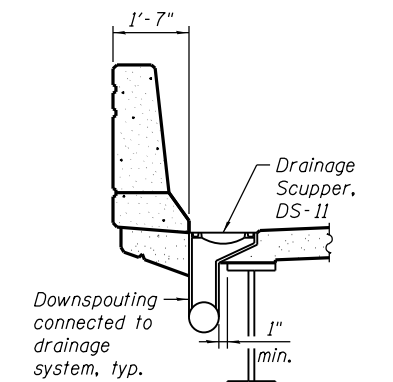
DECK PLAN I - UNIT 1

Δ Measured along Δ Ramp WS (S.N. 016-1715).
 ΔΔ Measured along inside face of south parapet.
 ΔΔΔ Measured along inside face of north parapet.



**DETAIL 1
DRAINAGE SCUPPER DS-11**

Note:
 Reinforcement bars designated (E) shall be epoxy coated.
 Cut longitudinal reinforcement to clear drainage scuppers.

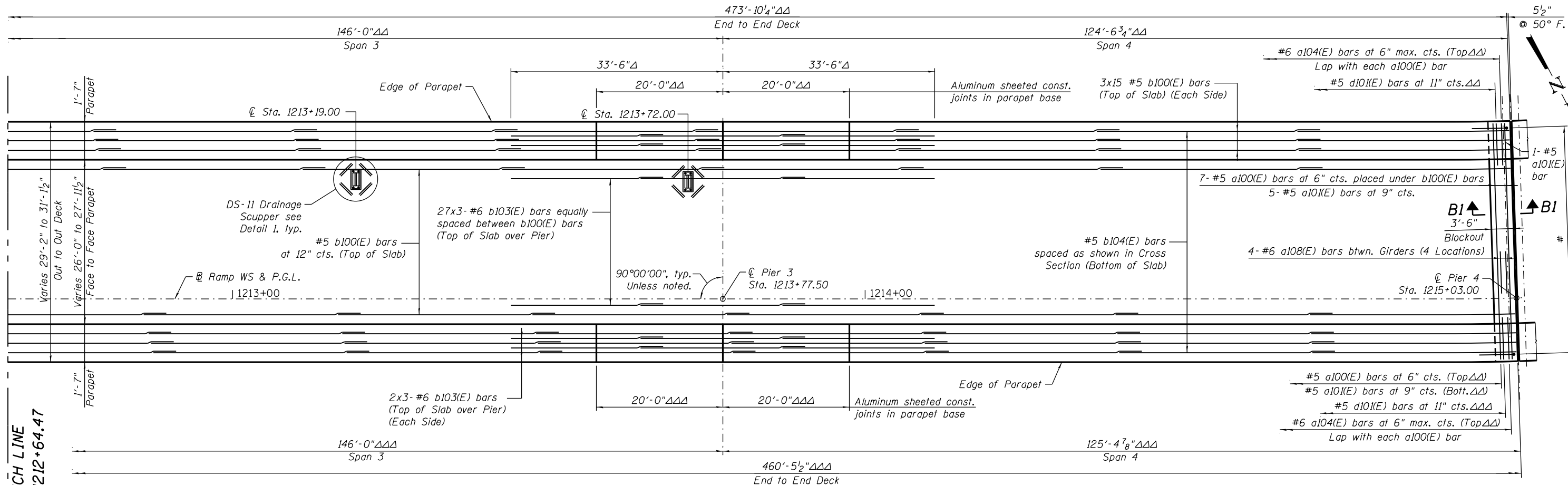


NOTES:

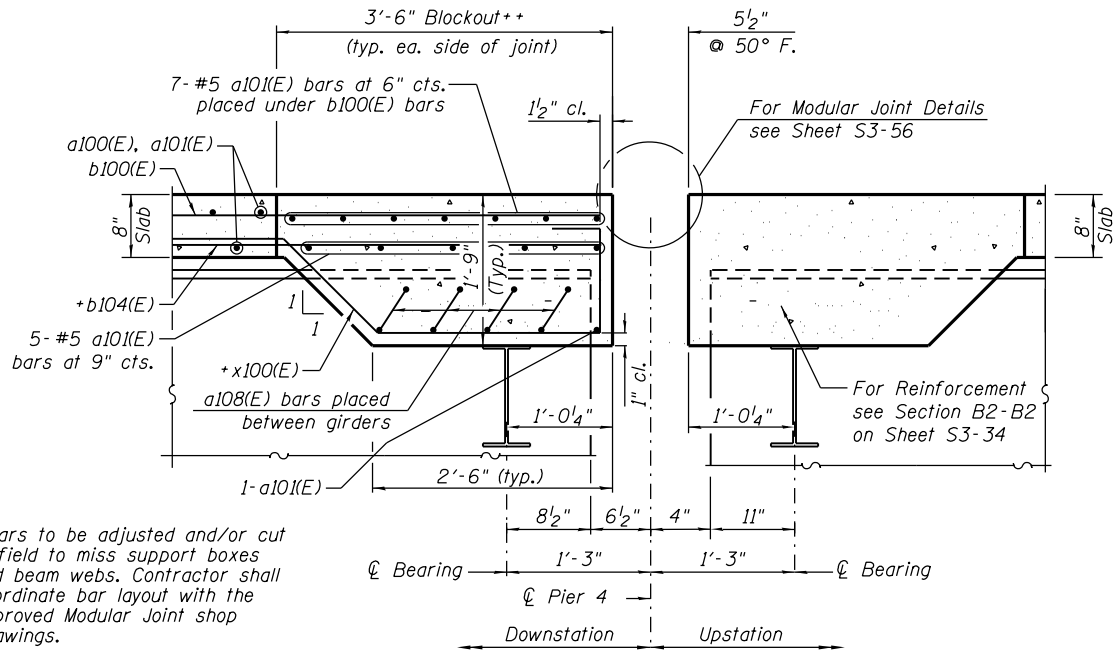
1. Stations are along Δ Ramp WS & PGL unless noted otherwise.
2. Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
3. Bars indicated 28x15-#5 etc. indicates 28 lines of bars with 15 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See Sheet S3-32 for parapet reinforcement.
6. See Sheet S3-33 for deck cross section.
7. See Sheet S3-33 for Bill of Material.
8. See Sheet S3-54 for DS-11 Drainage Scupper.
9. See Sheet S3-51 for Deck Pouring Sequence.

0161715-60X93-S029-DeckPlan-1.dgn

	USER NAME = floresg	DESIGNED - ATM	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK PLAN I – UNIT 1 STRUCTURE NO. 016-1715	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - AV	REVISED			90/94/290	2014-013R&B-R	COOK	1972	772
	PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED			CONTRACT NO. 60X93				
	PLOT DATE = 7/26/2018	CHECKED - AV	REVISED			ILLINOIS FED. AID PROJECT				
SHEET NO. S3-30 OF S3-172										



MATCH LINE
STA. 1212+64.47



- NOTES:
- Stations are along @ Ramp WS & PGL unless noted otherwise.
 - Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
 - Bars indicated 13x15-#5 etc. indicates 13 lines of bars with 15 lengths per line.
 - Bend longitudinal reinforcement bars as required to fit in the field.
 - See Sheet S3-32 for parapet reinforcement.
 - See Sheet S3-33 for deck cross section.
 - See Sheet S3-33 for Bill of Material.
 - See Sheet S3-54 for DS-11 Drainage Scupper, and Sheet S3-30 for Detail 1.
 - See Sheet S3-51 for Deck Pouring Sequence.

AECOM

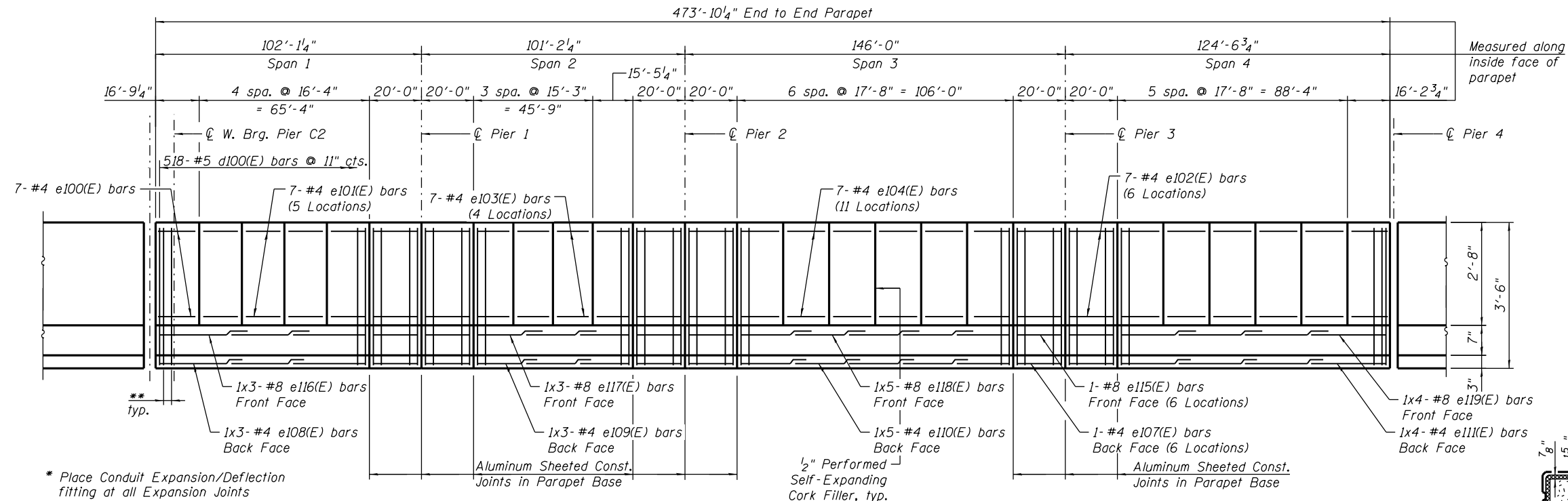
USER NAME = floresg	DESIGNED - ATM	REVISED
PLOT SCALE = N.T.S.	CHECKED - AV	REVISED
PLOT DATE = 7/26/2018	DRAWN - ATM	REVISED
	CHECKED - AV	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN II - UNIT 1
STRUCTURE NO. 016-1715

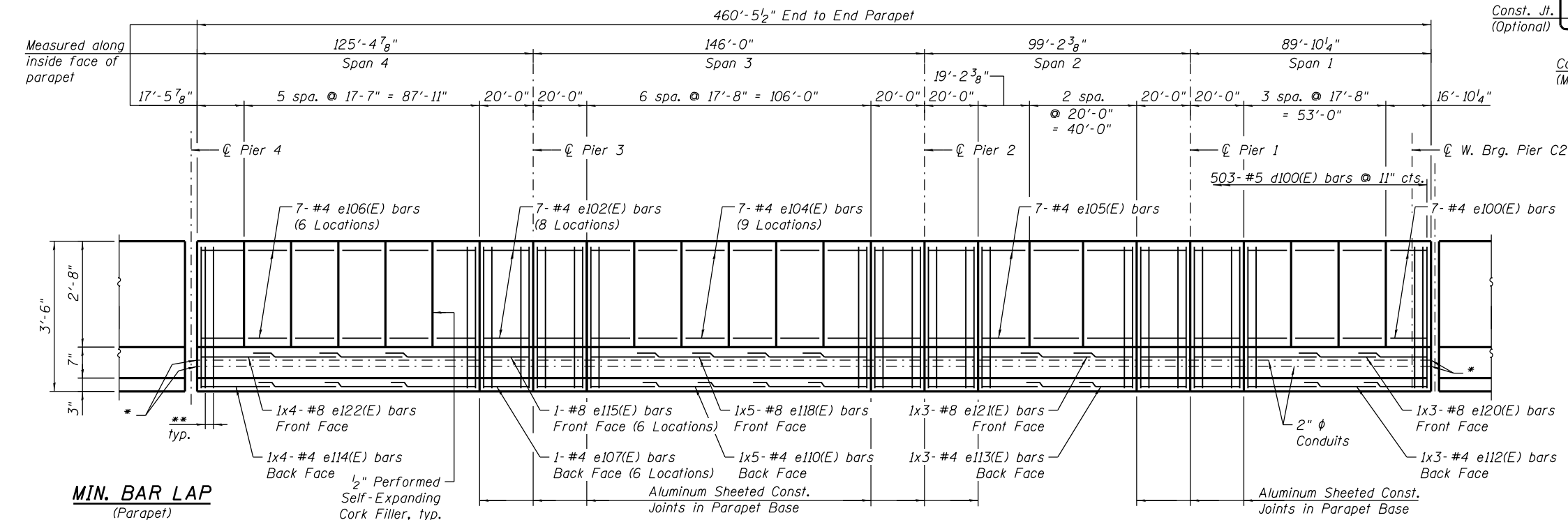
SHEET NO. S3-31 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	773
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



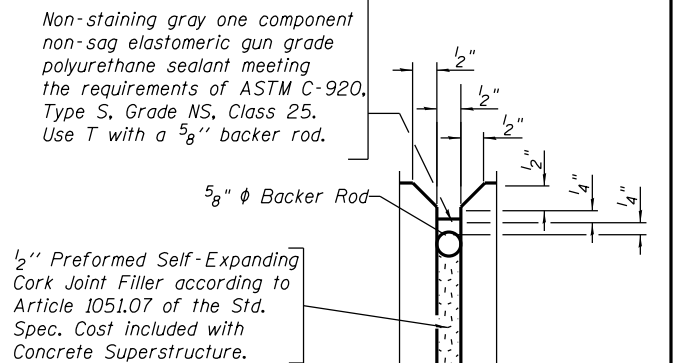
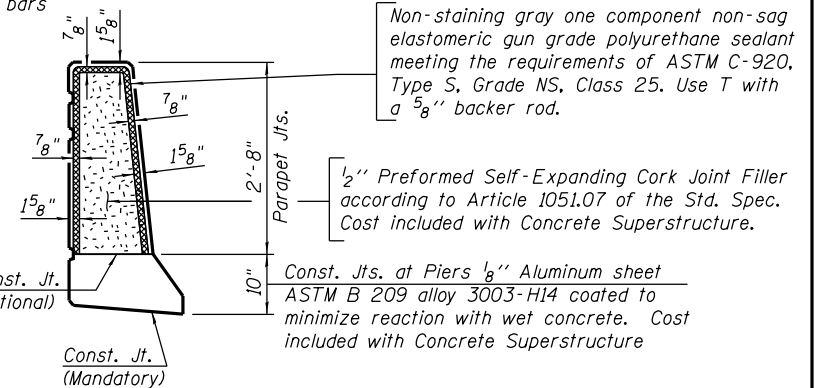
- * Place Conduit Expansion/Deflection fitting at all Expansion Joints
- ** Additional 4-#5 d100(E) bars @ 11\" cts. Space between the already specified d100(E) bars that run End to End Parapet. Typical at parapet ends and each side of aluminum sheeted joints. (20 Locations North Parapet) (20 Locations South Parapet)

INSIDE ELEVATION OF SOUTH PARAPET - UNIT 1



MIN. BAR LAP
(Parapet)
#4 bar = 2'-8\"
#8 bar = 5'-11\"

INSIDE ELEVATION OF NORTH PARAPET - UNIT 1



PARAPET JOINT DETAILS

NOTES:

- Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
- Bars indicated Locations: 1x4-#8 etc., indicates one line of bars with 4 lengths per line.
- See Sheet S3-33 for parapet details.

AECOM

USER NAME = floresg	DESIGNED - ATM	REVISED
	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PARAPET ELEVATION - UNIT 1
STRUCTURE NO. 016-1715**

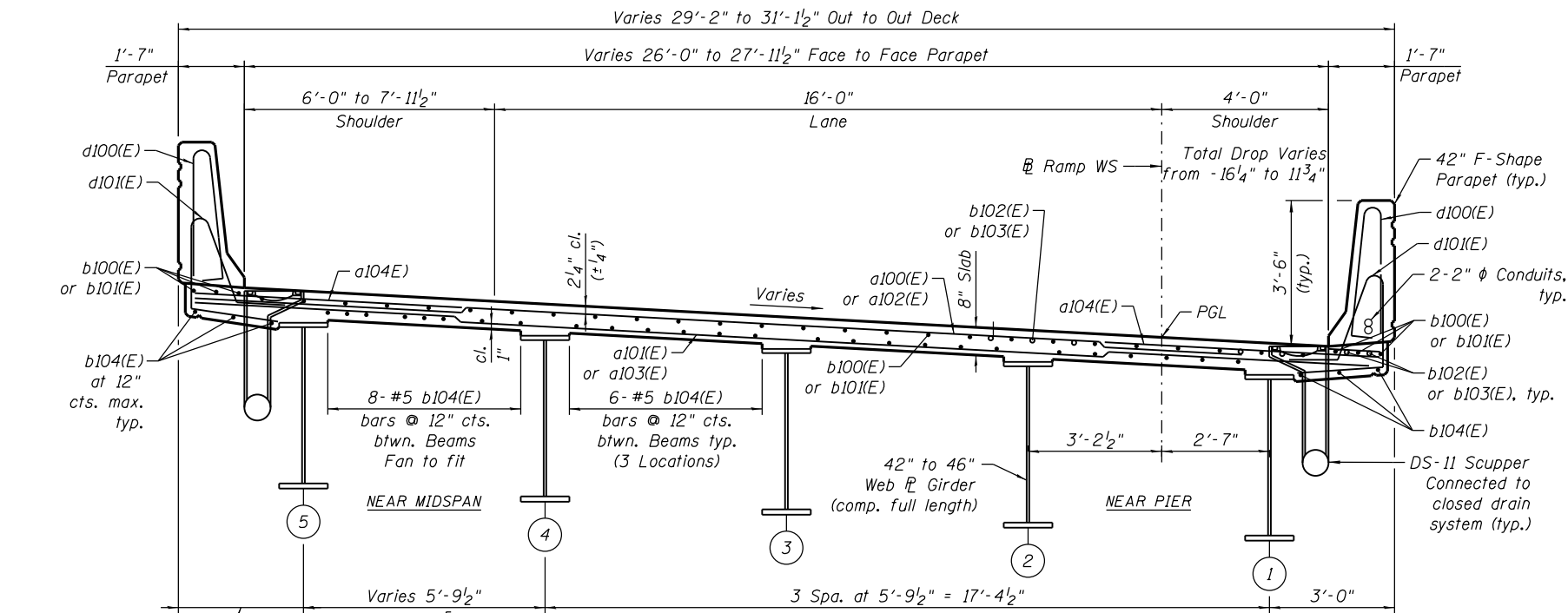
SHEET NO. S3-32 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	774
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S031-Parapet-1.dgn

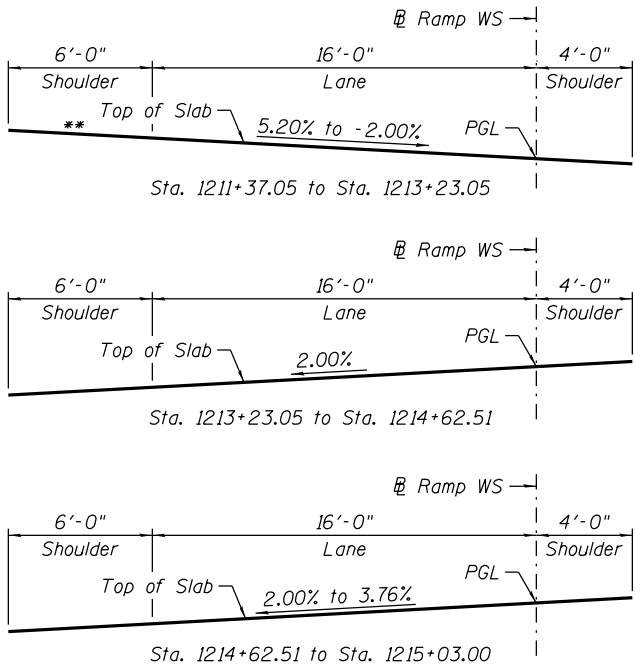
SUPERSTRUCTURE
BILL OF MATERIAL UNIT-1

Bar	No.	Size	Length	Shape
a100(E)	879	#5	28'-6"	
a101(E)	587	#5	28'-6"	
a102(E)	69	#5	31'-10"	
a103(E)	48	#5	31'-10"	
a104(E)	1896	#6	6'-6"	
a105(E)	12	#6	7'-2"	
a106(E)	4	#6	9'-1"	
a107(E)	40	#5	1'-6"	
a108(E)	16	#6	6'-11"	
b100(E)	510	#5	32'-9"	
b101(E)	17	#5	58'-10"	
b102(E)	186	#6	20'-9"	
b103(E)	93	#6	24'-9"	
b104(E)	576	#5	29'-7"	
d100(E)	1181	#5	6'-10"	
d101(E)	1021	#5	7'-7"	
e100(E)	14	#4	16'-5"	
e101(E)	35	#4	16'-0"	
e102(E)	98	#4	19'-8"	
e103(E)	28	#4	14'-11"	
e104(E)	140	#4	17'-4"	
e105(E)	7	#4	18'-11"	
e106(E)	42	#4	17'-3"	
e107(E)	12	#4	19'-8"	
e108(E)	3	#4	29'-1"	
e109(E)	3	#4	22'-1"	
e110(E)	10	#4	23'-4"	
e111(E)	4	#4	28'-1"	
e112(E)	3	#4	24'-11"	
e113(E)	3	#4	21'-6"	
e114(E)	4	#4	28'-3"	
e115(E)	12	#8	19'-8"	
e116(E)	3	#8	31'-3"	
e117(E)	3	#8	24'-3"	
e118(E)	10	#8	25'-11"	
e119(E)	4	#8	30'-6"	
e120(E)	3	#8	27'-1"	
e121(E)	3	#8	23'-7"	
e122(E)	4	#8	30'-8"	
x100(E)	64	#5	8'-4"	
Reinforcement Bars, Epoxy Coated			Pound	137,090
Concrete Superstructure			Cu. Yd.	473.1
Bridge Deck grooving (Longitudinal)			Sq. Yd.	1,198
Protective Coat			Sq. Yd.	2,355

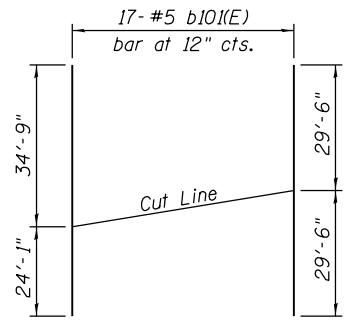


CROSS SECTION - UNIT 1
(Looking Upstation)

** Shoulder cross-slope varies from 0.74% to 5.2% from Sta. 1210+29.26 to Sta. 1210+87.26

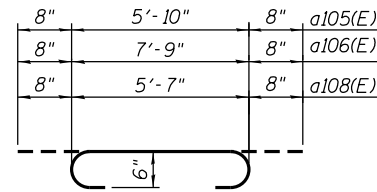


DECK CROSS SLOPE DETAIL

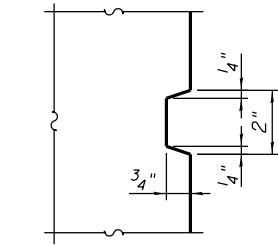


FIELD CUTTING DIAGRAM

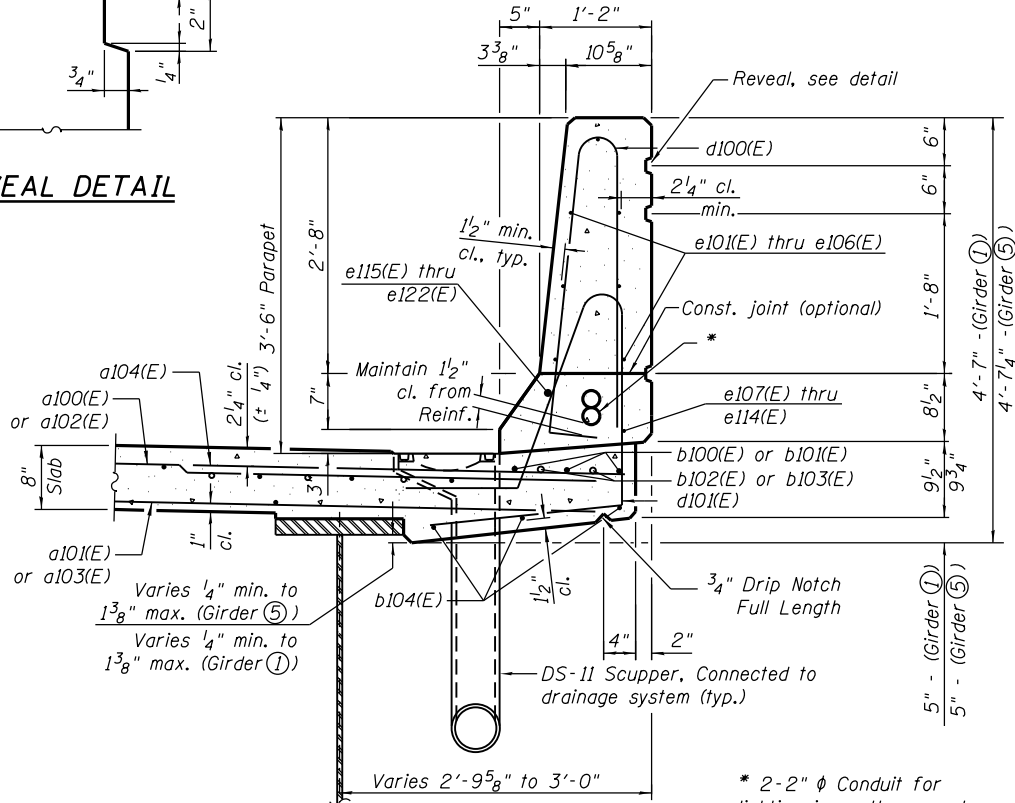
Order b101(E) bars full length. Cut as shown and use remainder of bars.



BAR a105(E), a106(E) and a108(E)



REVEAL DETAIL



SECTION THRU PARAPET

* 2'-2" ϕ Conduit for lighting in north parapet.

AECOM

USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - ATM
CHECKED - AV
DRAWN - ATM
CHECKED - AV

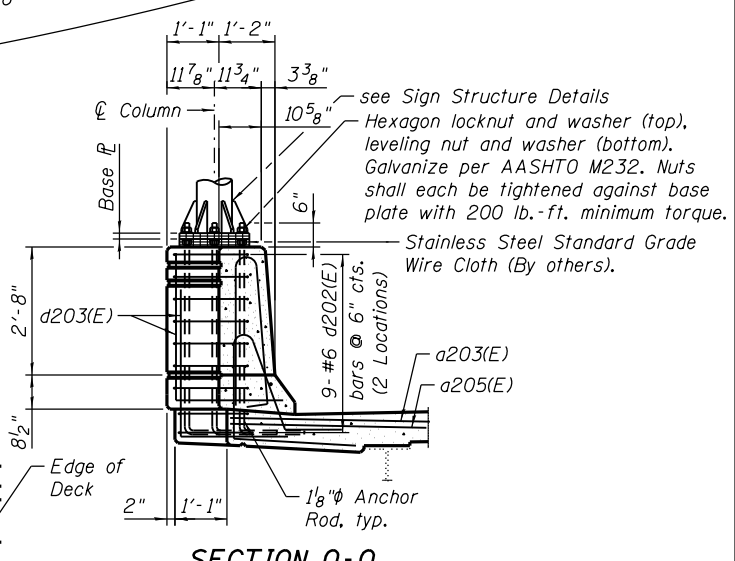
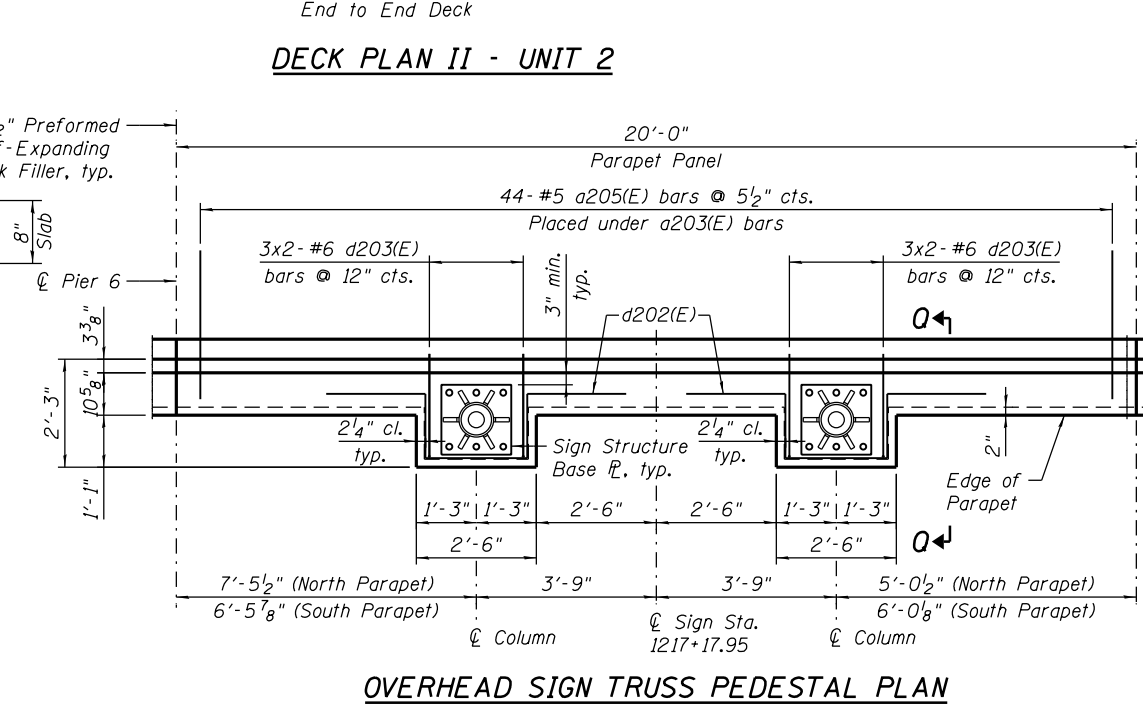
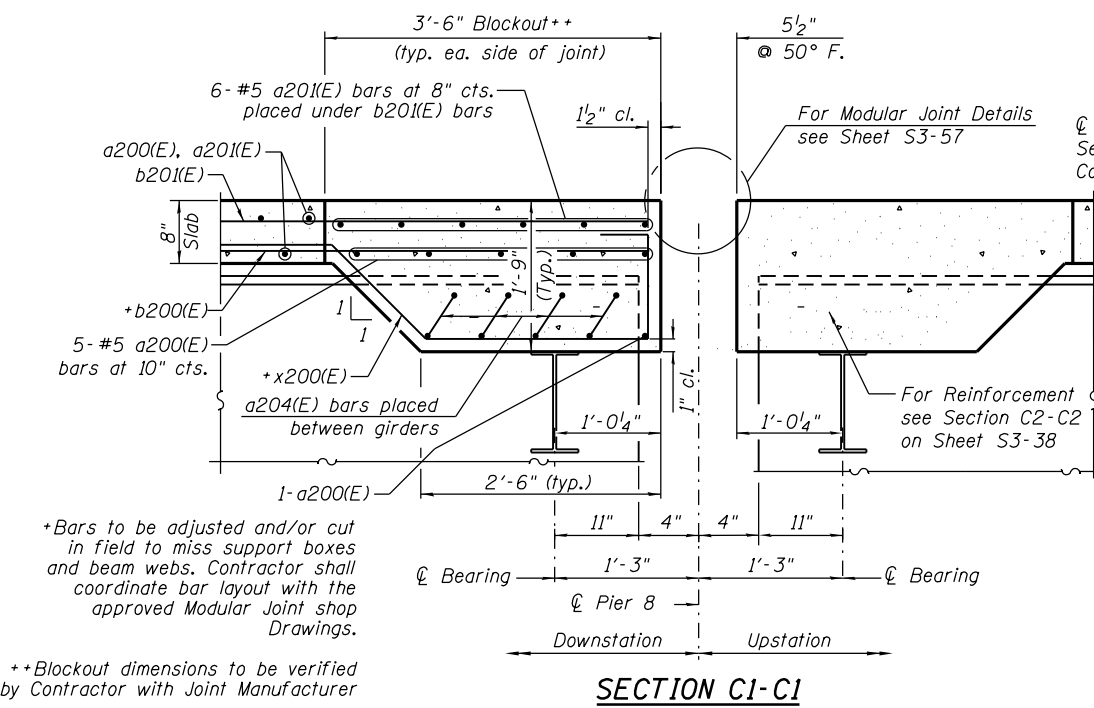
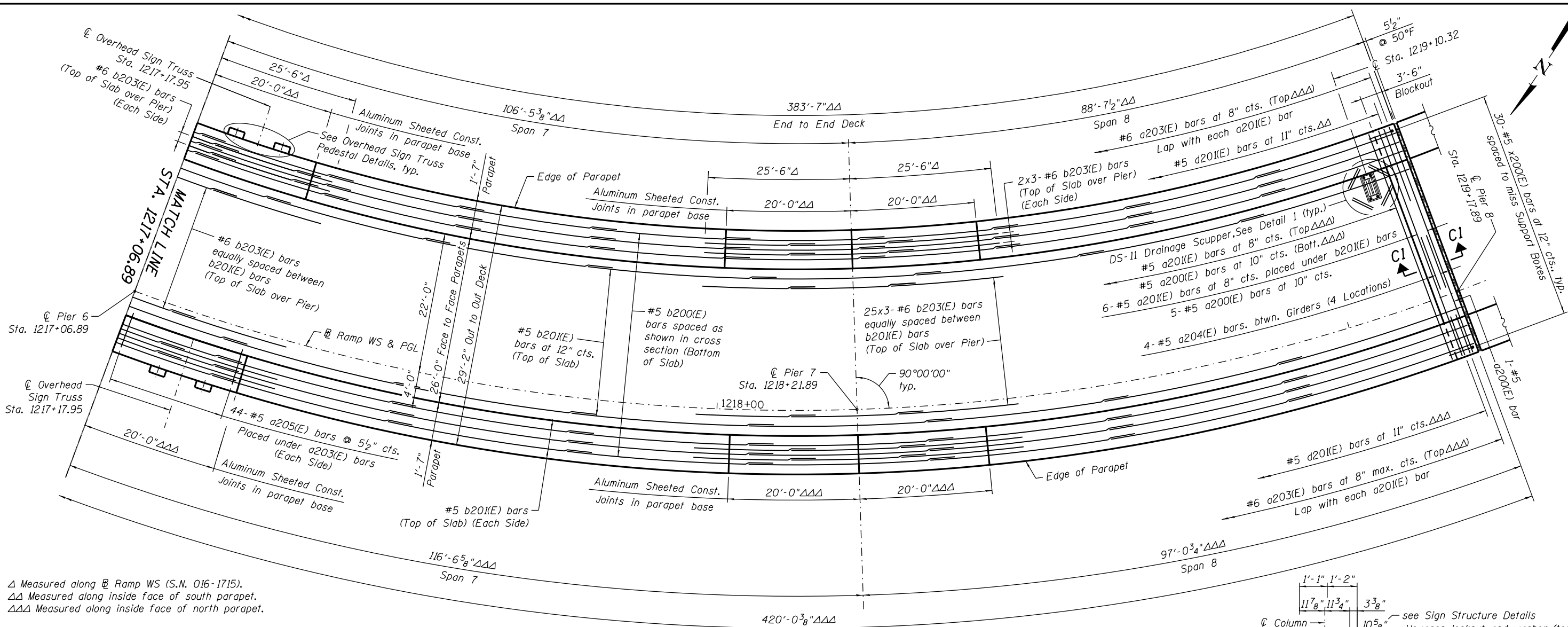
REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

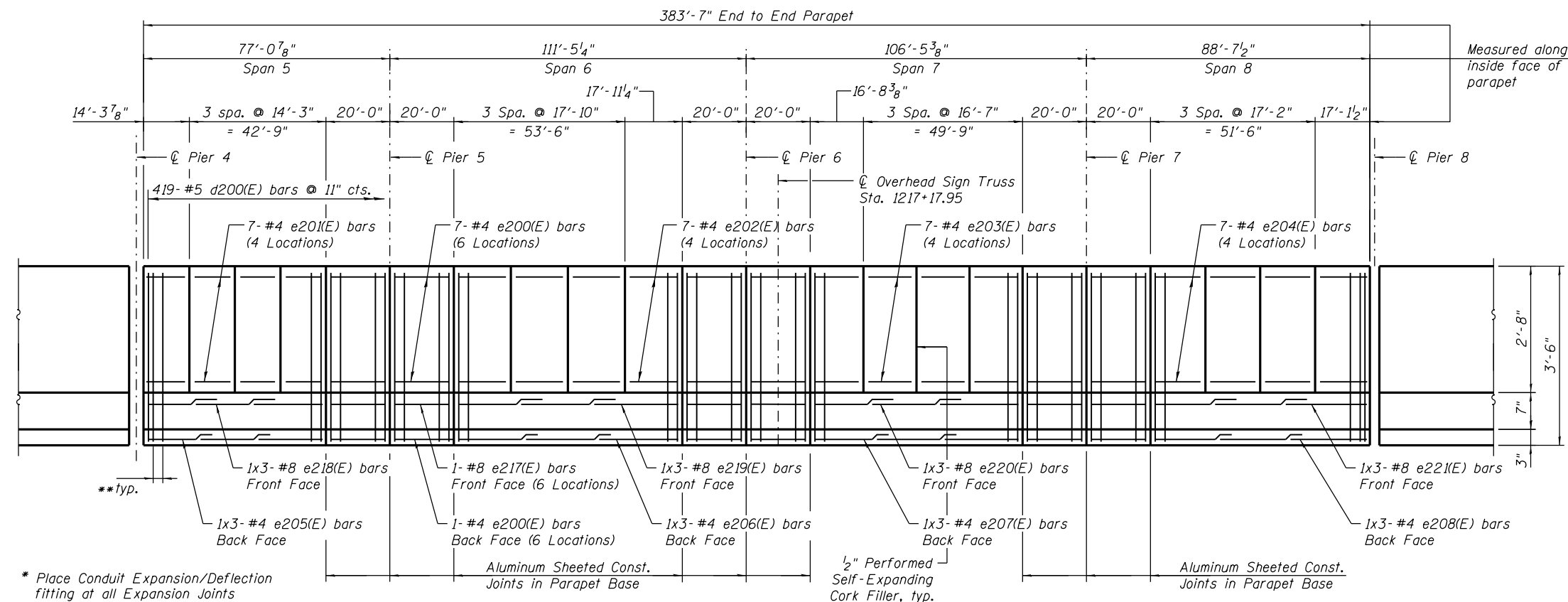
DECK CROSS SECTION & DETAILS - UNIT 1
STRUCTURE NO. 016-1715

SHEET NO. S3-33 OF S3-172

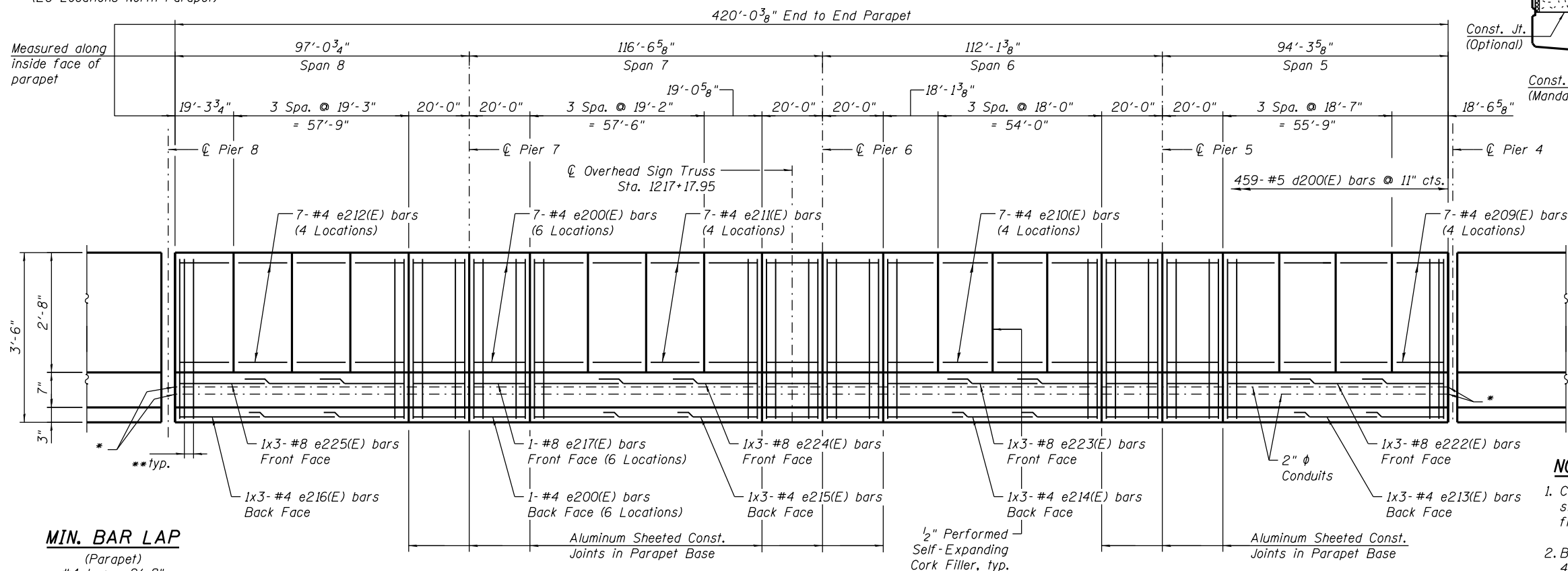
F.A.I. RTE. 90/94/290
SECTION 2014-013R&B-R
COUNTY COOK
TOTAL SHEETS 1972
SHEET NO. 775
CONTRACT NO. 60X93
ILLINOIS FED. AID PROJECT



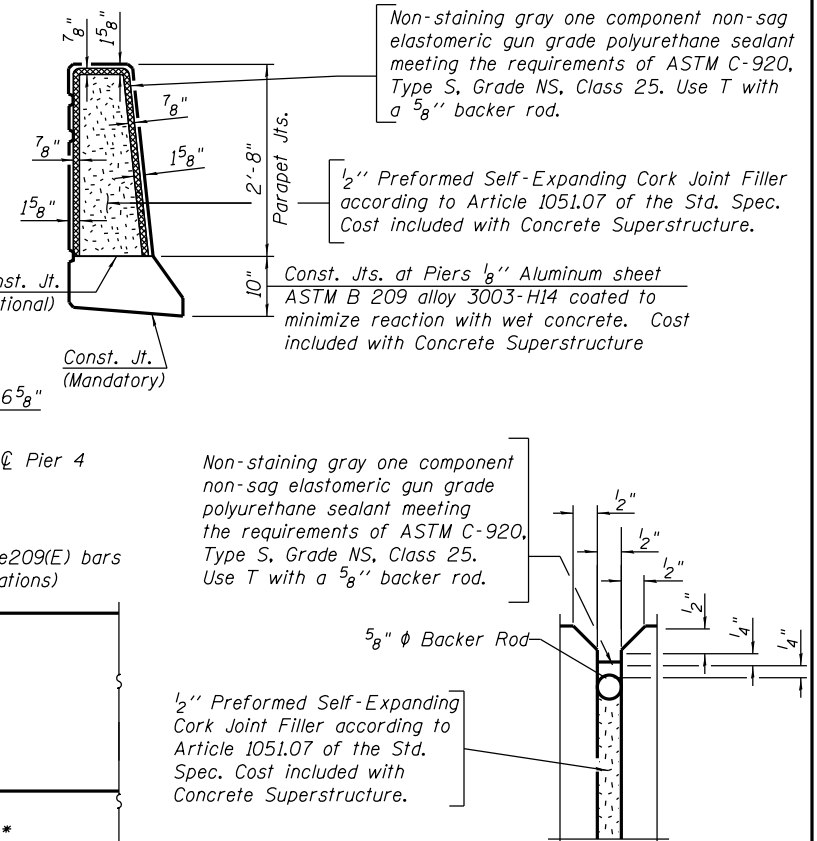
- NOTES:**
- Stations are along $\oplus$ Ramp WS & PGL unless noted otherwise.
 - Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
 - Bars indicated 4x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
 - Bend longitudinal reinforcement bars as required to fit in the field.
 - See Sheet S3-36 for parapet reinforcement.
 - See Sheet S3-37 for deck cross section.
 - See Sheet S3-37 for Bill of Material.
 - See Sheet S3-34 for Detail 1 and Sheet S3-54 for DS-11 Drainage Scupper.



INSIDE ELEVATION OF SOUTH PARAPET - UNIT 2



INSIDE ELEVATION OF NORTH PARAPET - UNIT 2



NOTES:

1. Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
2. Bars indicated Locations: 1x4- #8 etc., indicates one line of bars with 4 lengths per line.
3. See Sheet S3-37 for parapet details.

AECOM

USER NAME = floresg	DESIGNED - ATM	REVISED
	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

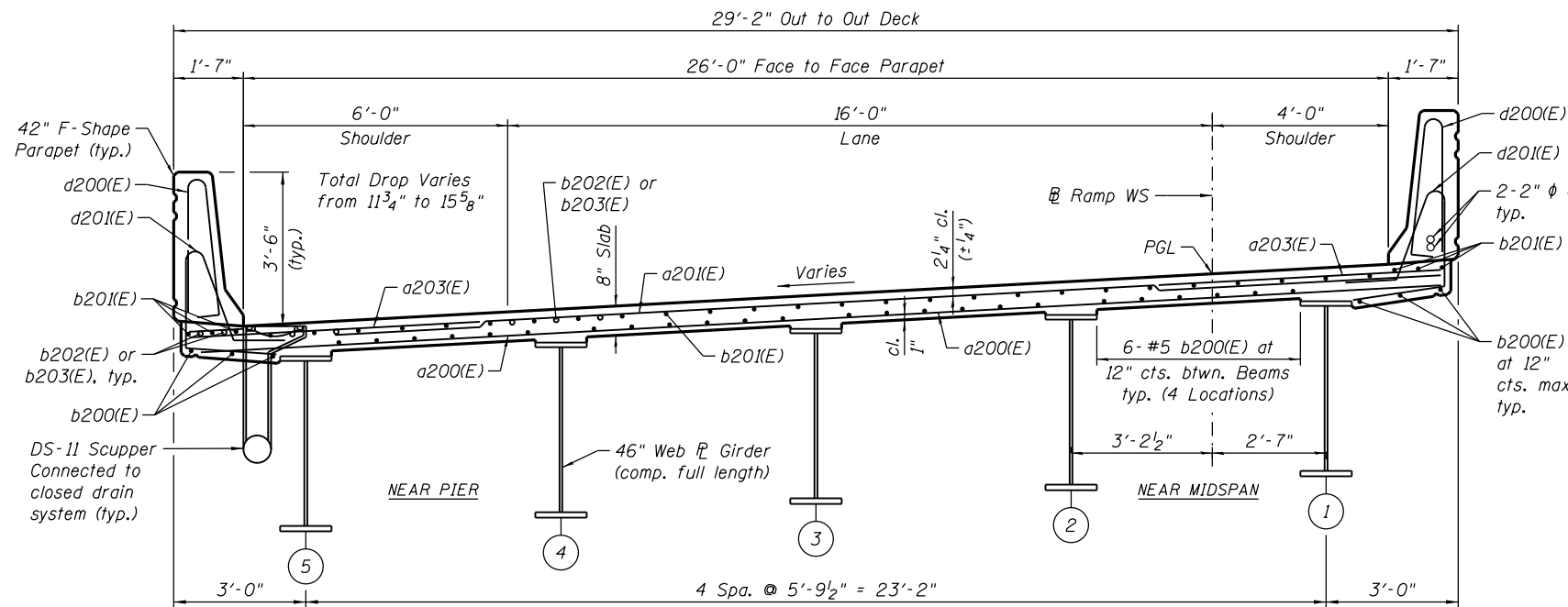
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PARAPET ELEVATION - UNIT 2
STRUCTURE NO. 016-1715**

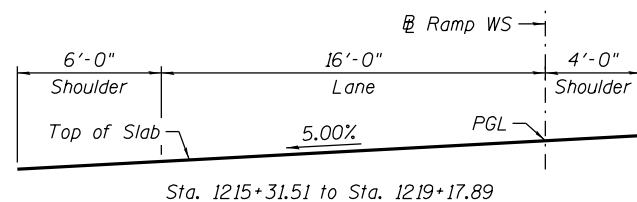
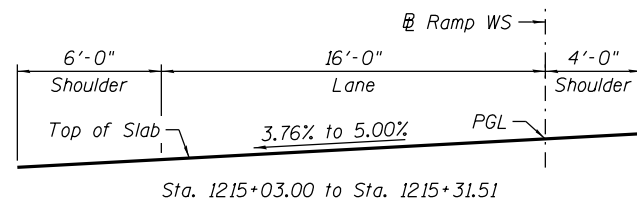
SHEET NO. S3-36 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

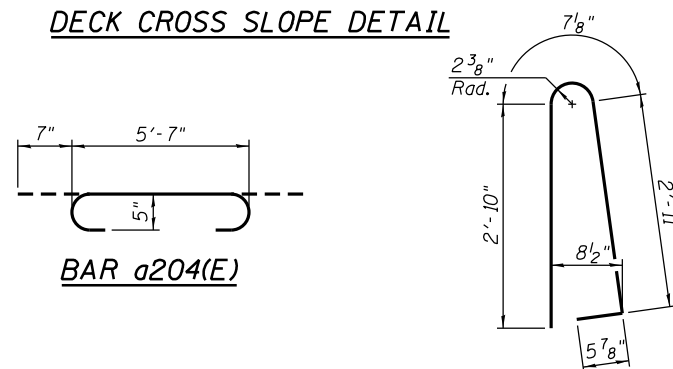
0161715-60X93-S035-Parapet-2.dgn



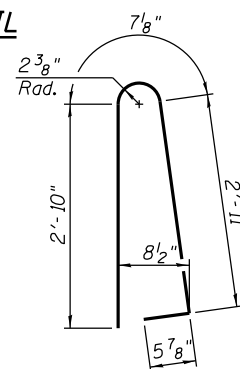
CROSS SECTION - UNIT 2
(Looking Upstation)



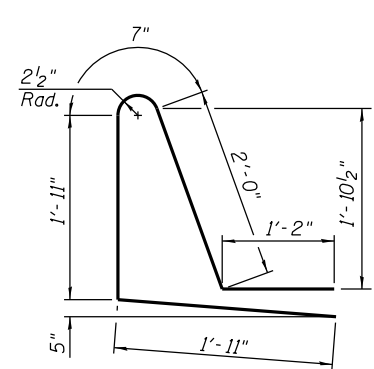
DECK CROSS SLOPE DETAIL



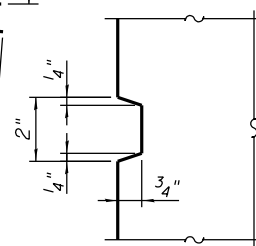
BAR a204(E)



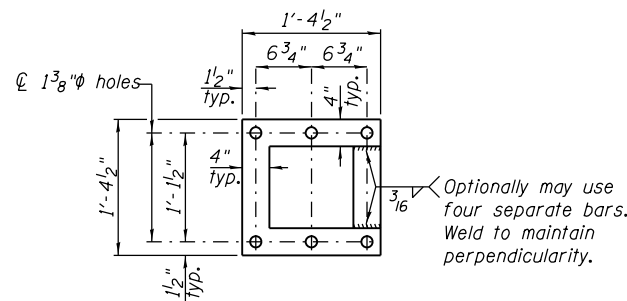
BAR d200(E)



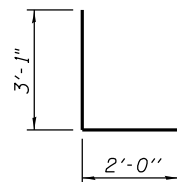
BAR d201(E)



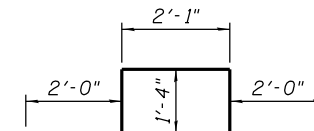
REVEAL DETAIL



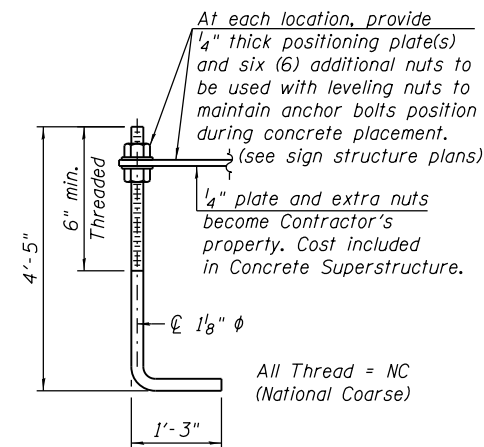
POSITIONING PLATE(S)



BAR d203(E)



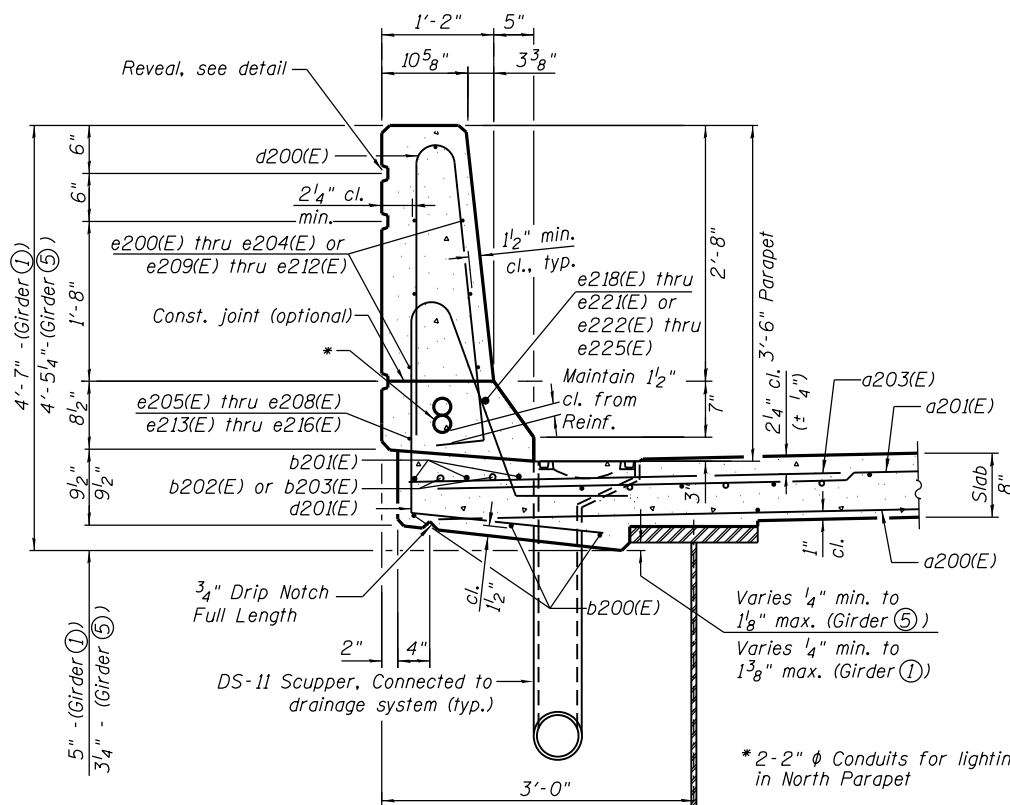
BAR d202(E)



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

Cost of Anchor Rods is included with Concrete Superstructure.



SECTION THRU PARAPET

**SUPERSTRUCTURE
BILL OF MATERIAL UNIT-2**

Bar	No.	Size	Length	Shape
a200(E)	508	#5	28'-6"	—
a201(E)	632	#5	28'-6"	—
a202(E)	24	#5	1'-6"	—
a203(E)	1264	#6	6'-6"	—
a204(E)	32	#5	6'-9"	—
a205(E)	88	#5	8'-10"	—
b200(E)	540	#5	26'-8"	—
b201(E)	480	#5	31'-3"	—
b202(E)	87	#6	19'-4"	—
b203(E)	174	#6	19'-4"	—
d200(E)	1038	#5	6'-10"	—
d201(E)	878	#5	7'-7"	—
d202(E)	36	#6	8'-9"	—
d203(E)	24	#6	5'-1"	—
e200(E)	96	#4	19'-8"	—
e201(E)	28	#4	13'-11"	—
e202(E)	28	#4	17'-6"	—
e203(E)	28	#4	16'-3"	—
e204(E)	28	#4	16'-10"	—
e205(E)	3	#4	20'-9"	—
e206(E)	3	#4	25'-6"	—
e207(E)	3	#4	23'-10"	—
e208(E)	3	#4	24'-7"	—
e209(E)	28	#4	18'-3"	—
e210(E)	28	#4	17'-8"	—
e211(E)	28	#4	18'-10"	—
e212(E)	28	#4	18'-11"	—
e213(E)	3	#4	26'-5"	—
e214(E)	3	#4	25'-9"	—
e215(E)	3	#4	27'-3"	—
e216(E)	3	#4	27'-5"	—
e217(E)	12	#8	19'-8"	—
e218(E)	3	#8	22'-10"	—
e219(E)	3	#8	27'-8"	—
e220(E)	3	#8	26'-1"	—
e221(E)	3	#8	26'-9"	—
e222(E)	3	#8	28'-8"	—
e223(E)	3	#8	27'-11"	—
e224(E)	3	#8	29'-5"	—
e225(E)	3	#8	29'-7"	—
x200(E)	60	#5	8'-4"	—
Reinforcement Bars, Epoxy Coated				Pound 107,850
Concrete Superstructure				Cu. Yd. 409.3
Bridge Deck grooving (Longitudinal)				Sq. Yd. 1,028
Protective Coat				Sq. Yd. 2,032

AECOM

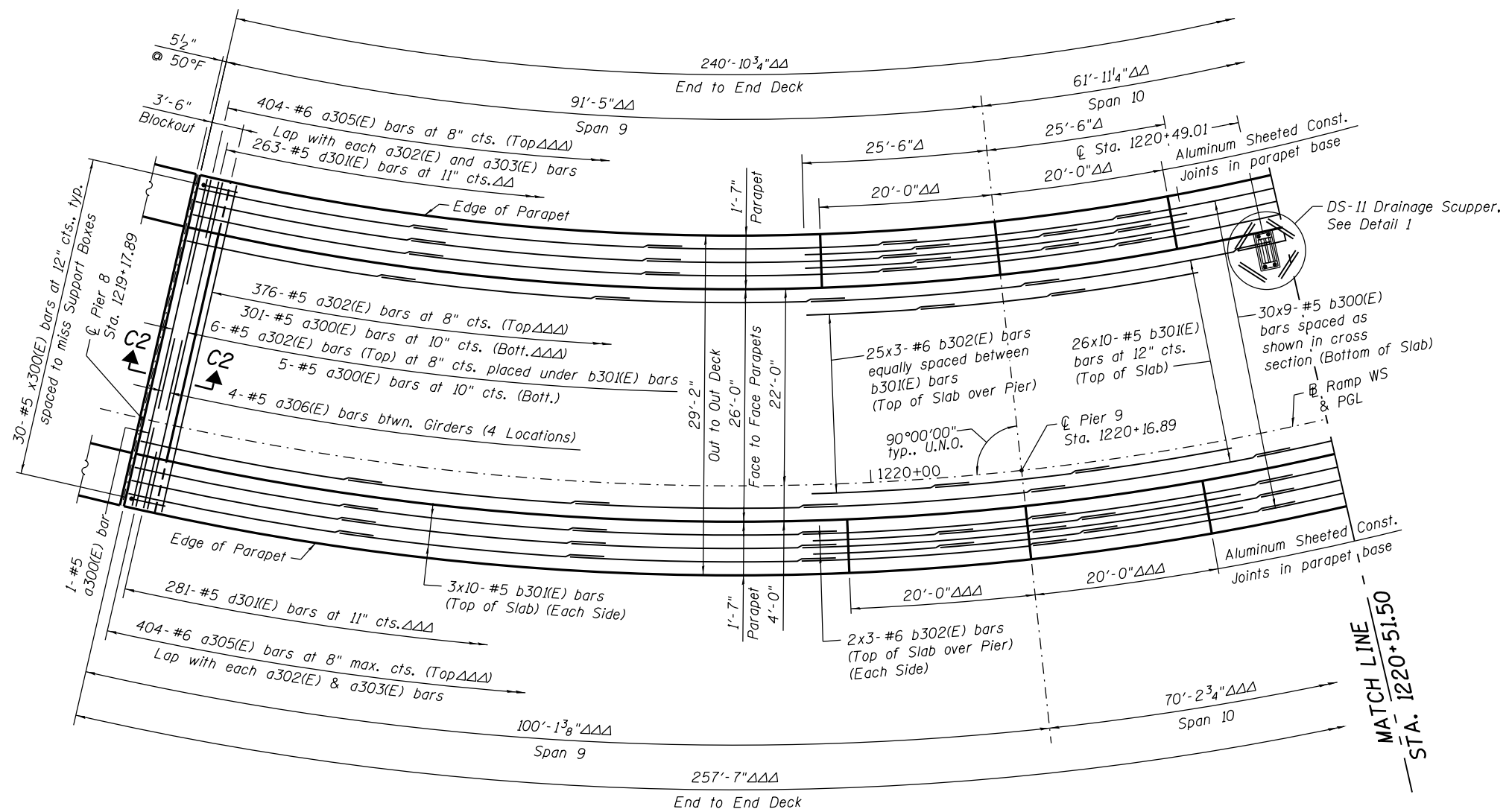
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PLOT SCALE = N.T.S.	CHECKED - AV	REVISED
PLOT DATE = 7/26/2018	DRAWN - ATM	REVISED
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION & DETAILS - UNIT 2
STRUCTURE NO. 016-1715**

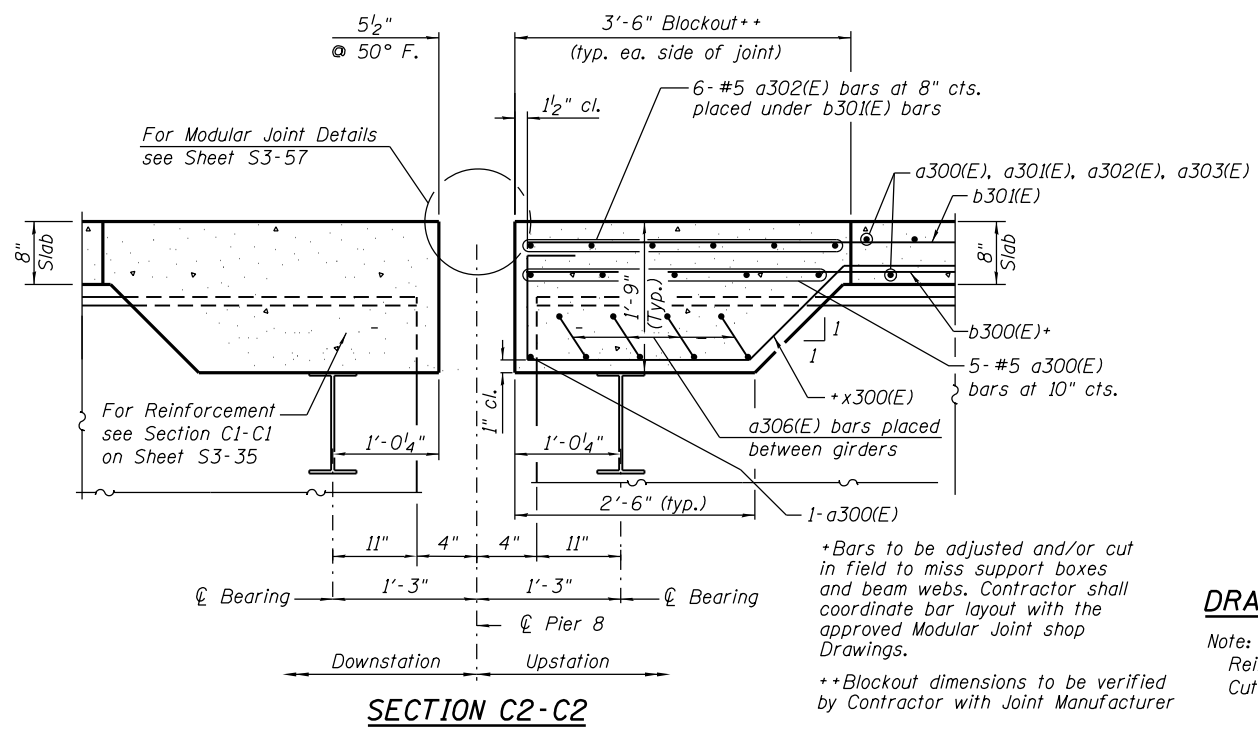
SHEET NO. S3-37 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	779
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



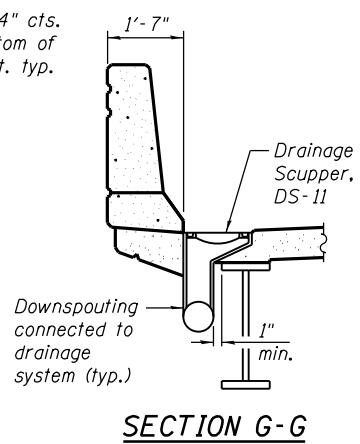
DECK PLAN I - UNIT 3

Δ Measured along Ramp WS (S.N. 016-1715).
 ΔΔ Measured along inside face of south parapet.
 ΔΔΔ Measured along inside face of north parapet.



DETAIL 1 DRAINAGE SCUPPER DS-11

Note:
 Reinforcement bars designated (E) shall be epoxy coated.
 Cut longitudinal reinforcement to clear drainage scuppers.



NOTES:

1. Stations are along Ramp WS & PGL unless noted otherwise.
2. Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
3. Bars indicated 41x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See Sheet S3-40 for parapet reinforcement.
6. See Sheet S3-41 for deck cross section.
7. See Sheet S3-41 for Bill of Material.
8. See Sheet S3-54 for DS-11 Drainage Scupper.
9. See Sheet S3-51 for Deck Pouring Sequence.



USER NAME = floresg	DESIGNED - ATM	REVISED
CHECKED - AV	REVIS	
PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

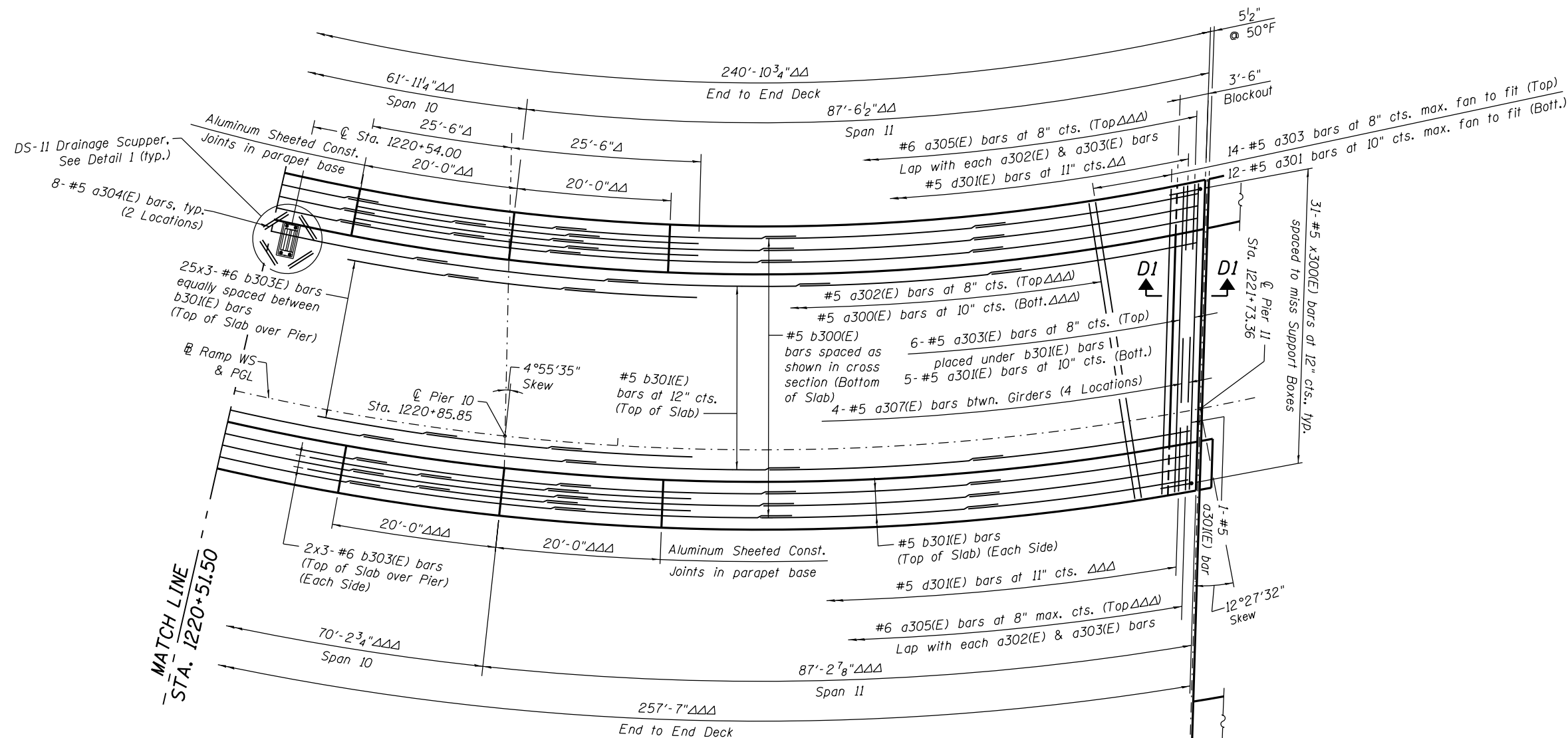
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DECK PLAN I - UNIT 3
 STRUCTURE NO. 016-1715

SHEET NO. S3-38 OF S3-172

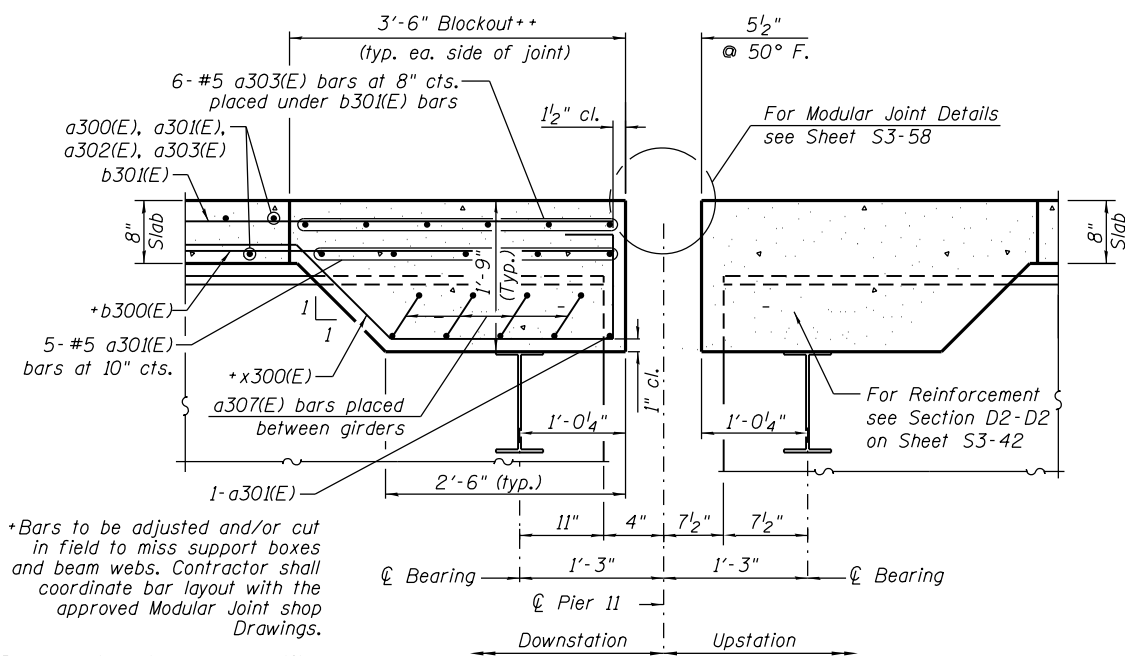
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	780
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S037-DeckPlan-3.dgn



DECK PLAN II - UNIT 3

Δ Measured along @ Ramp WS (S.N. 016-1715).
 ΔΔ Measured along inside face of south parapet.
 ΔΔΔ Measured along inside face of north parapet.



NOTES:

1. Stations are along @ Ramp WS & PGL unless noted otherwise.
2. Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
3. Bars indicated 41x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See Sheet S3-40 for parapet reinforcement.
6. See Sheet S3-41 for deck cross section.
7. See Sheet S3-41 for Bill of Material.
8. See Sheet S3-38 for Detail 1 and Sheet S3-54 for DS-11 Drainage Scupper.
9. See Sheet S3-51 for Deck Pouring Sequence.

AECOM

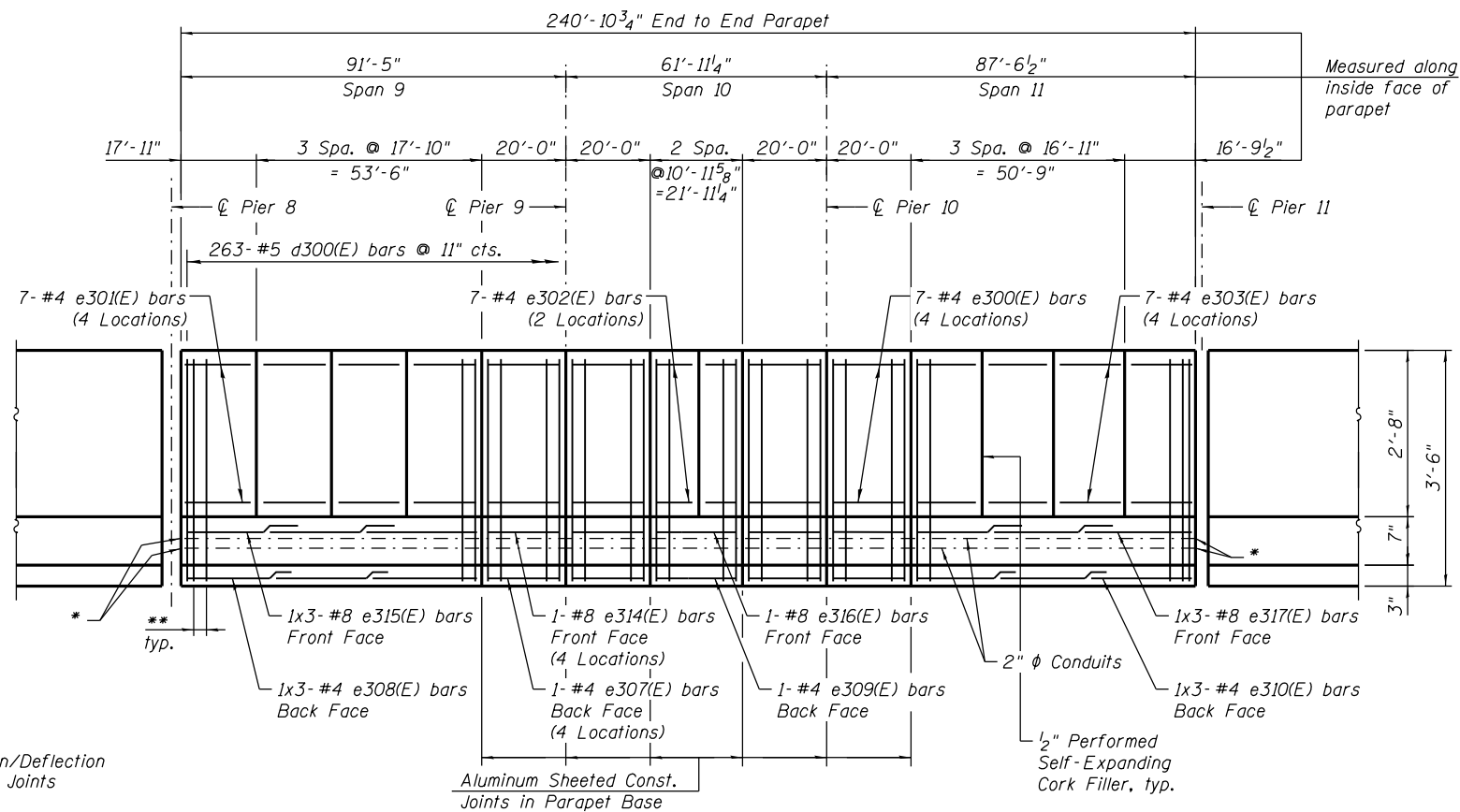
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PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN II - UNIT 3
STRUCTURE NO. 016-1715

SHEET NO. S3-39 OF S3-172

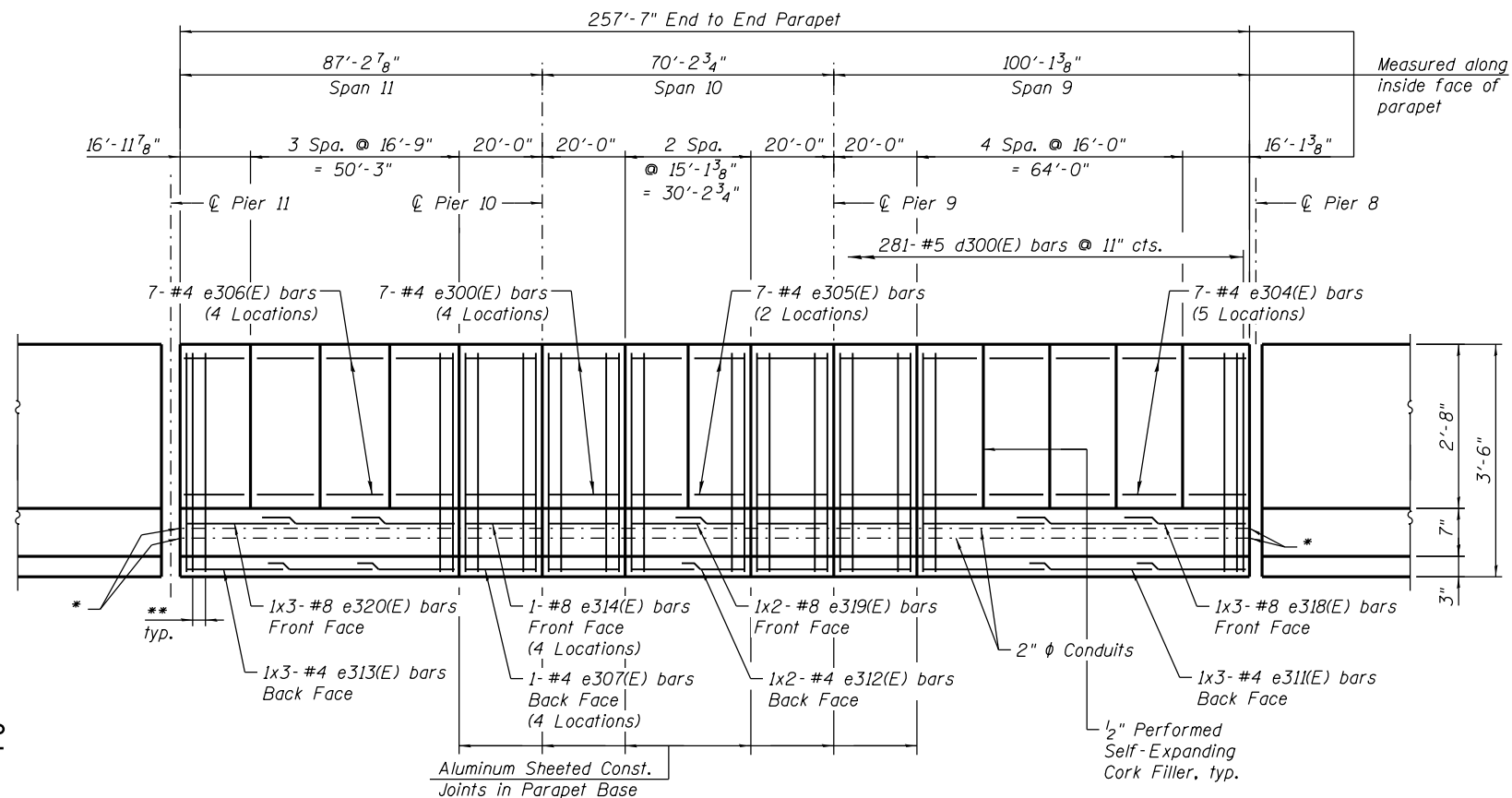
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	781
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



* Place Conduit Expansion/Deflection fitting at all Expansion Joints

** Additional 4-#5 d300(E) bars @ 11" cts. Space between the already specified d300(E) bars that run End to End Parapet. Typical at parapet ends and each side of aluminum sheeted joints. (14 Locations North Parapet) (14 Locations South Parapet)

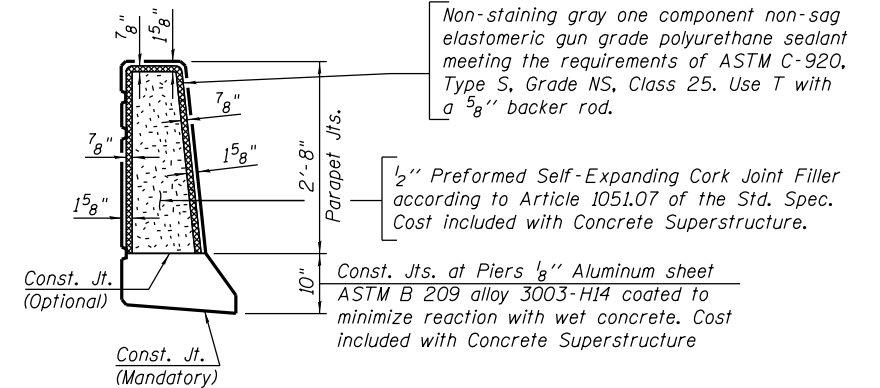
INSIDE ELEVATION OF SOUTH PARAPET - UNIT 3



MIN. BAR LAP

(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"

INSIDE ELEVATION OF NORTH PARAPET - UNIT 3



Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.

1/2" Preformed Self-Expanding Cork Joint Filler according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

PARAPET JOINT DETAILS

NOTES:

- Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
- Bars indicated Locations: 1x4-#8 etc., indicates one line of bars with 4 lengths per line.
- See Sheet S3-41 for parapet details.

AECOM

USER NAME = floresg	DESIGNED - ATM	REVISED
	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

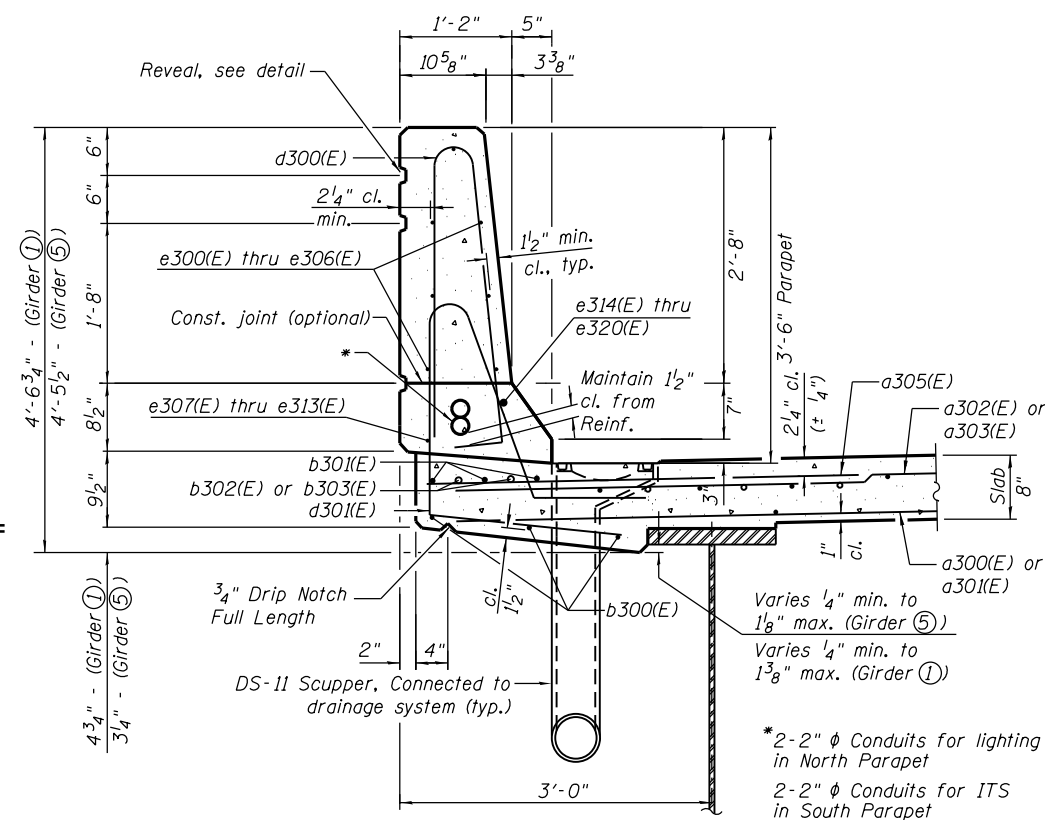
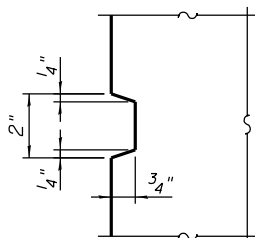
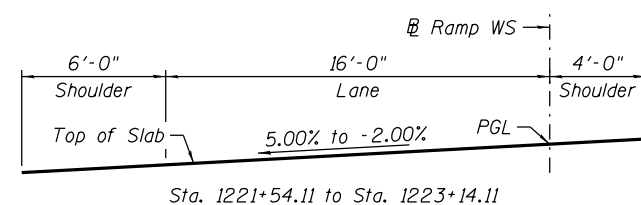
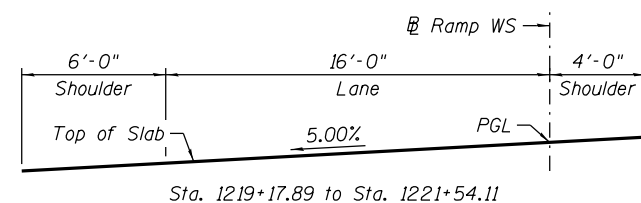
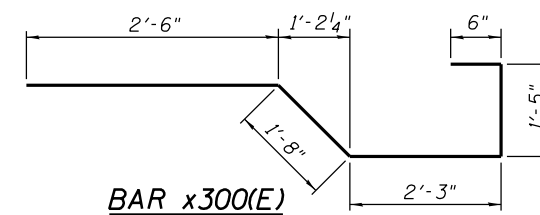
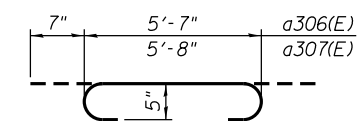
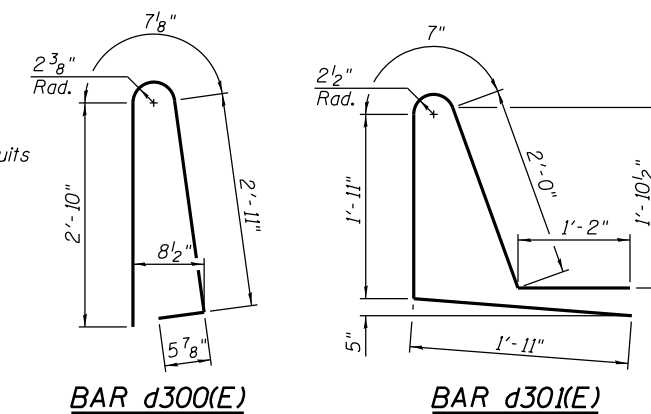
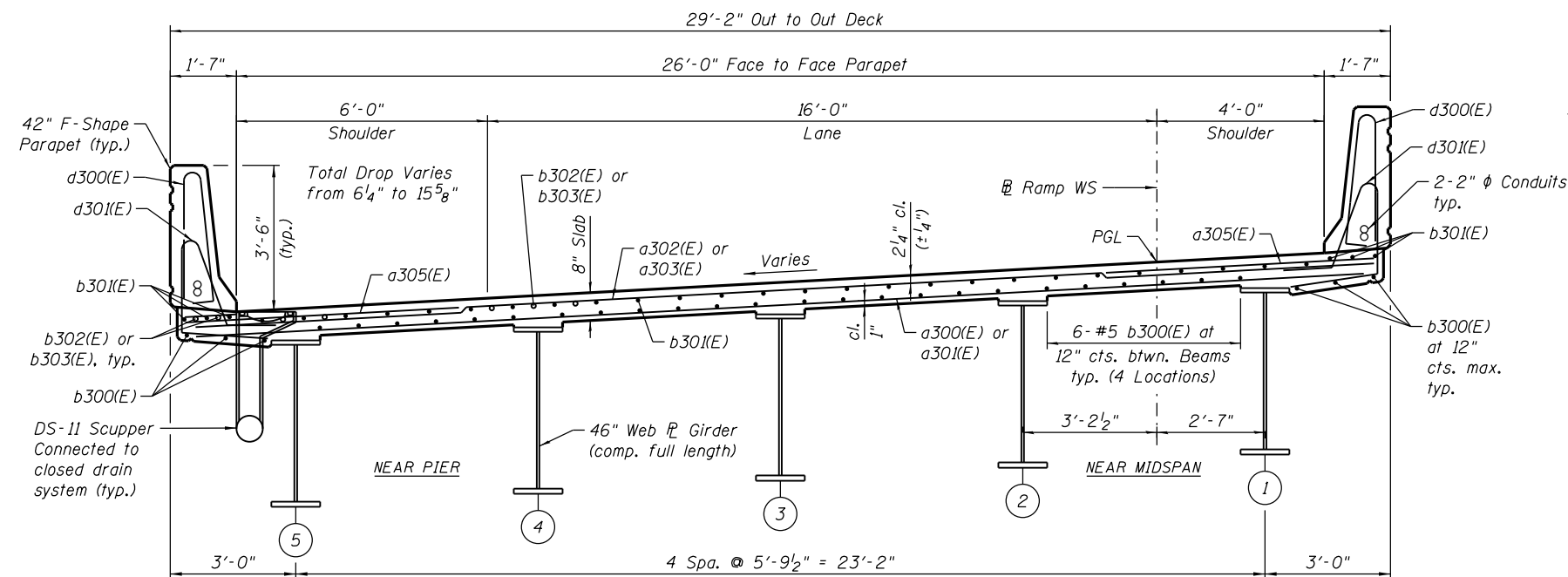
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION - UNIT 3
STRUCTURE NO. 016-1715

SHEET NO. S3-40 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	782
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S039-Parapet-3.dgn

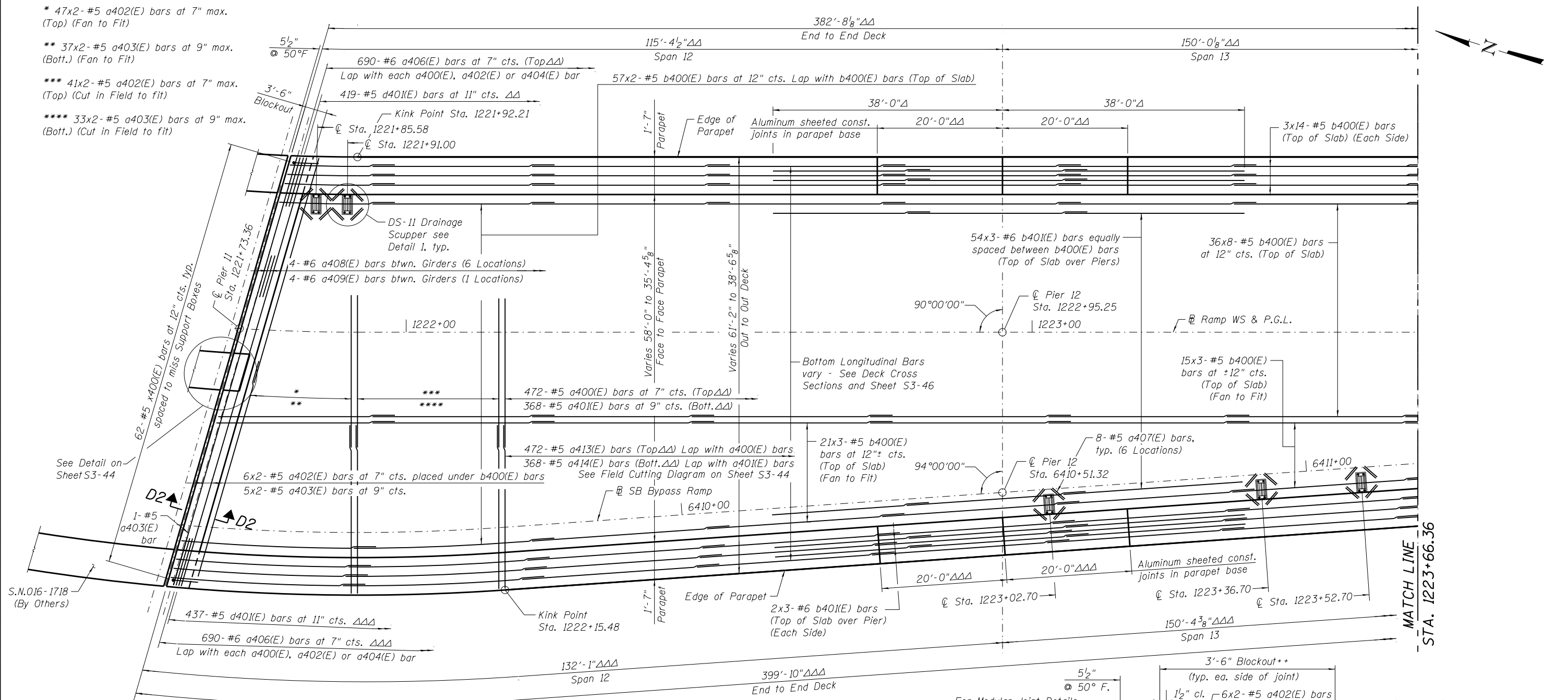


SUPERSTRUCTURE
BILL OF MATERIAL UNIT-3

Bar	No.	Size	Length	Shape
a300(E)	307	#5	28'-6"	————
a301(E)	18	#5	29'-3"	————
a302(E)	382	#5	28'-6"	————
a303(E)	20	#5	29'-3"	————
a304(E)	16	#5	1'-6"	————
a305(E)	808	#6	6'-6"	————
a306(E)	16	#5	6'-9"	C———
a307(E)	16	#5	6'-10"	C———
b300(E)	270	#5	31'-9"	————
b301(E)	320	#5	28'-10"	————
b302(E)	87	#6	19'-5"	————
b303(E)	87	#6	19'-5"	————
d300(E)	656	#5	6'-10"	∩
d301(E)	544	#5	7'-7"	∩
e300(E)	56	#4	19'-8"	————
e301(E)	28	#4	17'-6"	————
e302(E)	14	#4	10'-7"	————
e303(E)	28	#4	16'-7"	————
e304(E)	35	#4	15'-10"	————
e305(E)	14	#4	14'-9"	————
e306(E)	28	#4	16'-5"	————
e307(E)	8	#4	19'-8"	————
e308(E)	3	#4	25'-6"	————
e309(E)	1	#4	21'-7"	————
e310(E)	3	#4	24'-3"	————
e311(E)	3	#4	28'-5"	————
e312(E)	2	#4	17'-3"	————
e313(E)	3	#4	24'-1"	————
e314(E)	8	#8	19'-8"	————
e315(E)	3	#8	27'-8"	————
e316(E)	1	#8	21'-7"	————
e317(E)	3	#8	26'-5"	————
e318(E)	3	#8	30'-7"	————
e319(E)	2	#8	20'-11"	————
e320(E)	3	#8	26'-3"	————
x300(E)	61	#5	8'-4"	———┐
Reinforcement Bars, Epoxy Coated			Pound	67,140
Concrete Superstructure			Cu. Yd.	259.0
Bridge Deck grooving (Longitudinal)			Sq. Yd.	636
Protective Coat			Sq. Yd.	1,255

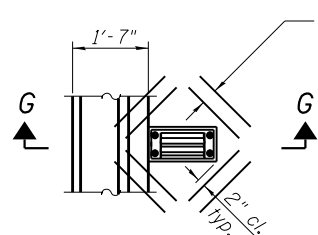
Reinforcement Bars, Epoxy Coated	Pound	67,140
Concrete Superstructure	Cu. Yd.	259.0
Bridge Deck grooving (Longitudinal)	Sq. Yd.	636
Protective Coat	Sq. Yd.	1,255

- * 47x2-#5 a402(E) bars at 7" max.
(Top) (Fan to Fit)
- ** 37x2-#5 a403(E) bars at 9" max.
(Bott.) (Fan to Fit)
- *** 41x2-#5 a402(E) bars at 7" max.
(Top) (Cut in Field to fit)
- **** 33x2-#5 a403(E) bars at 9" max.
(Bott.) (Cut in Field to fit)



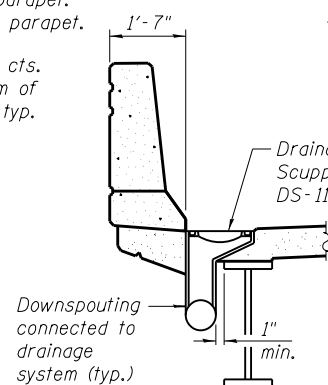
DECK PLAN I - UNIT 4

Δ Measured along @ Ramp WS (S.N. 016-1715).
ΔΔ Measured along inside face of north parapet.
ΔΔΔ Measured along inside face of south parapet.

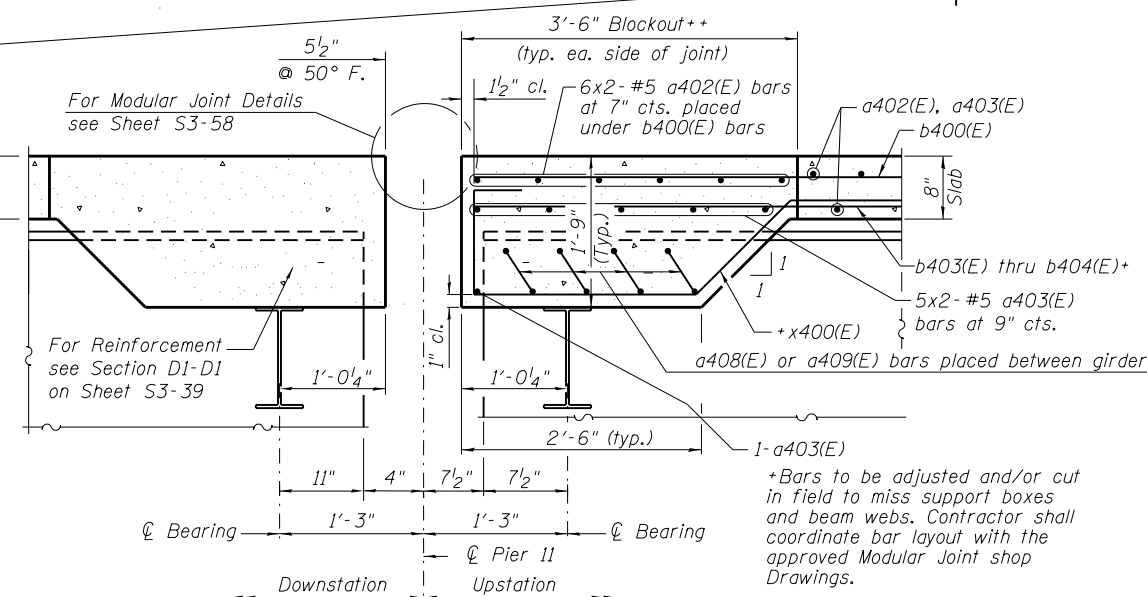


DETAIL 1
DRAINAGE SCUPPER DS-II

Note:
Reinforcement bars designated (E) shall be epoxy coated.
Cut longitudinal reinforcement to clear drainage scuppers.



SECTION G-G



SECTION D2-D2

*Bars to be adjusted and/or cut in field to miss support boxes and beam webs. Contractor shall coordinate bar layout with the approved Modular Joint shop Drawings.
**Blockout dimensions to be verified by Contractor with Joint Manufacturer

NOTES:

1. Stations are along @ Ramp WS & PGL unless noted otherwise.
2. Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
3. Bars indicated 41x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See Sheet S3-45 for parapet reinforcement.
6. See Sheet S3-46 for deck cross section.
7. See Sheet S3-46 for Bill of Material.
8. See Sheet S3-54 for DS-II Drainage Scupper.
9. See Sheet S3-51 for Deck Pouring Sequence.

AECOM

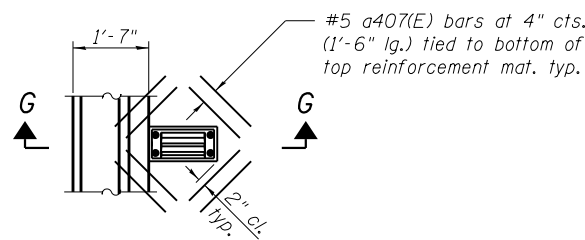
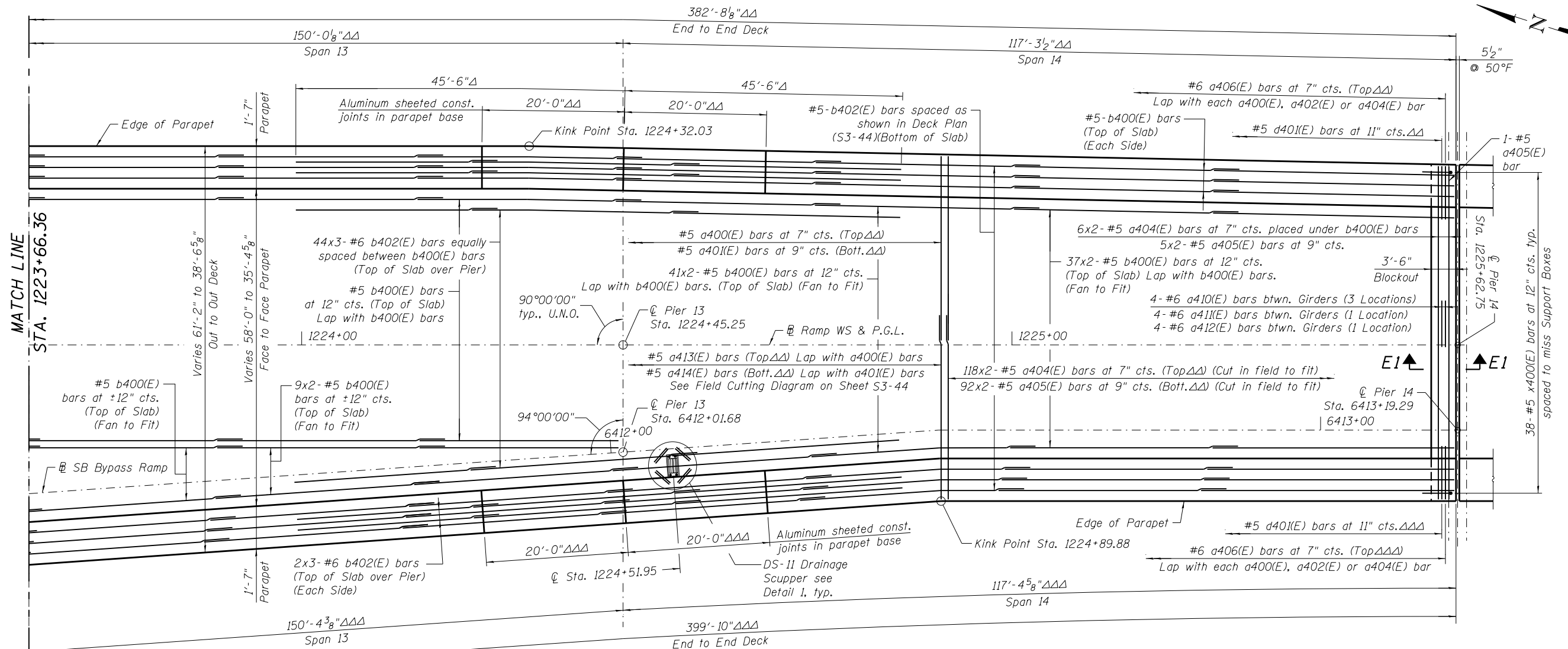
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		CHECKED -	AV	REVISED	
PLOT SCALE =	N.T.S.	DRAWN -	ATM	REVISED	
PLOT DATE =	8/28/2018	CHECKED -	AV	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN I - UNIT 4
STRUCTURE NO. 016-1715

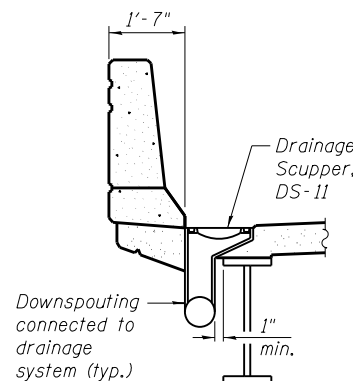
SHEET NO. S3-42 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	784
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

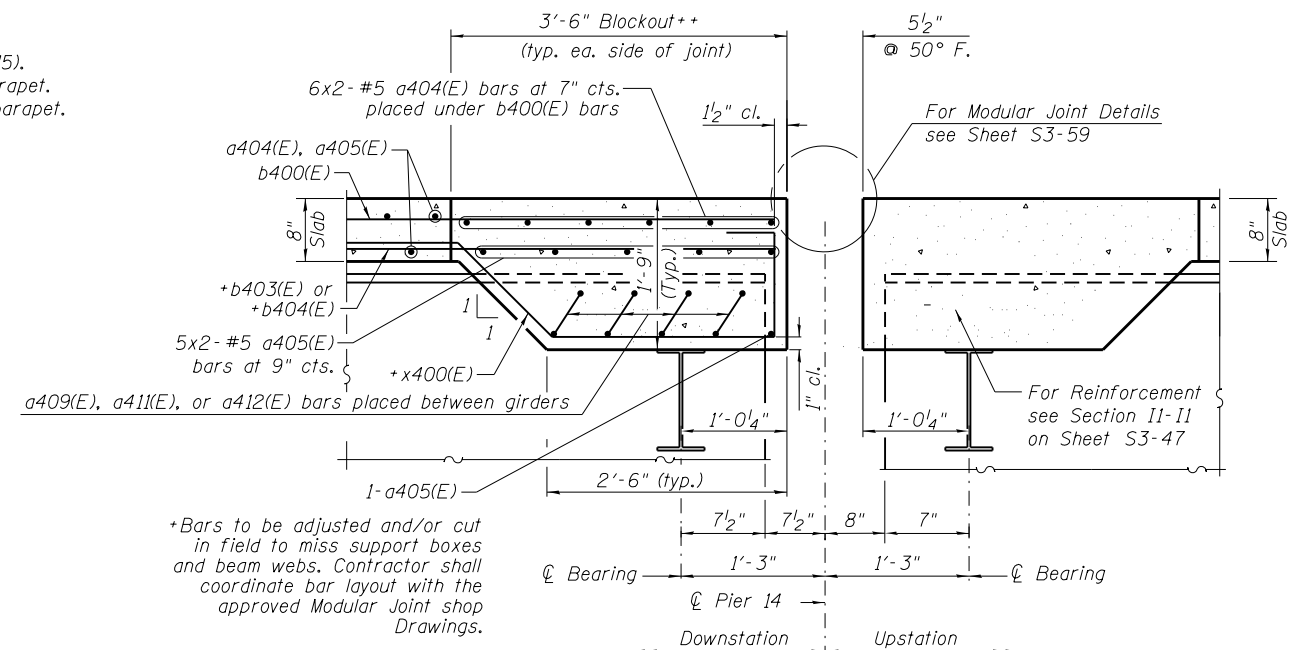


**DETAIL 1
DRAINAGE SCUPPER DS-11**

Note:
Reinforcement bars designated (E) shall be epoxy coated.
Cut longitudinal reinforcement to clear drainage scuppers.



SECTION G-G



SECTION E1-E1

**Blockout dimensions to be verified by Contractor with Joint Manufacturer

NOTES:

1. Stations are along $\bar{R}$ Ramp WS & PGL unless noted otherwise.
2. Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
3. Bars indicated 41x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See Sheet S3-45 for parapet reinforcement.
6. See Sheet S3-46 for deck cross section.
7. See Sheet S3-46 for Bill of Material.
8. See Sheet S3-54 for DS-11 Drainage Scupper.
9. See Sheet S3-51 for Deck Pouring Sequence.

AECOM

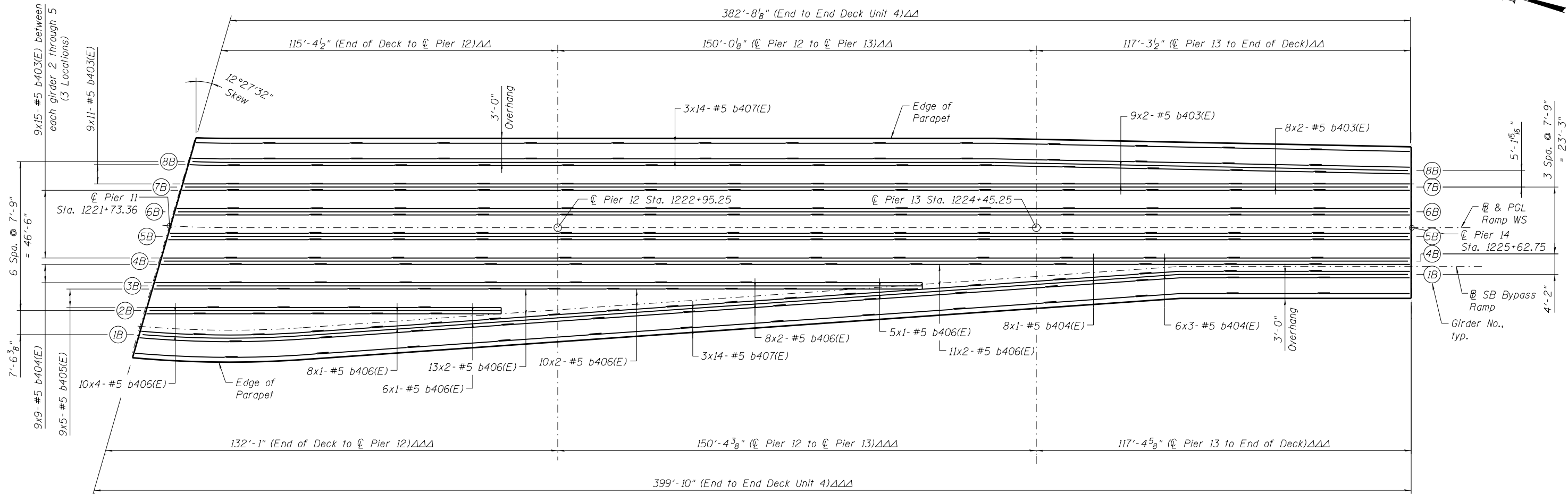
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		CHECKED -	AV	REVISED
PLOT SCALE =	N.T.S.	DRAWN -	ATM	REVISED
PLOT DATE =	8/28/2018	CHECKED -	AV	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLAN II - UNIT 4
STRUCTURE NO. 016-1715**

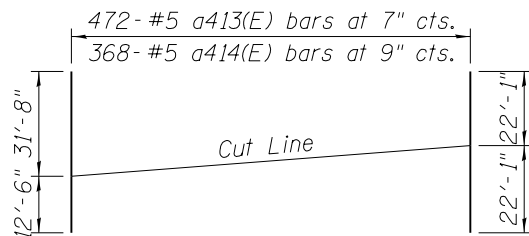
SHEET NO. S3-43 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	785
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



DECK PLAN III - UNIT 4 BOTTOM LONGITUDINAL REINFORCEMENT

△△ Measured along inside face of north parapet.
△△△ Measured along inside face of south parapet.

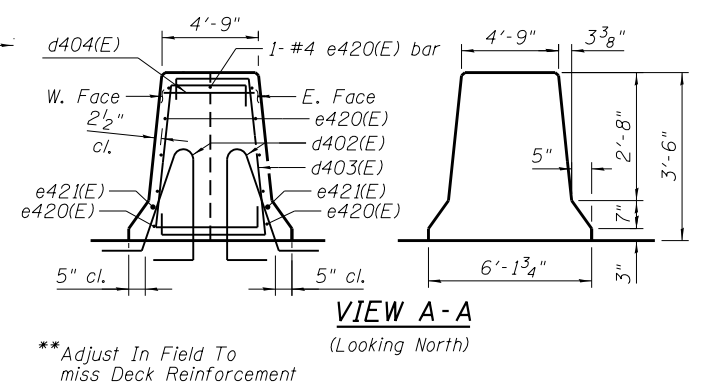
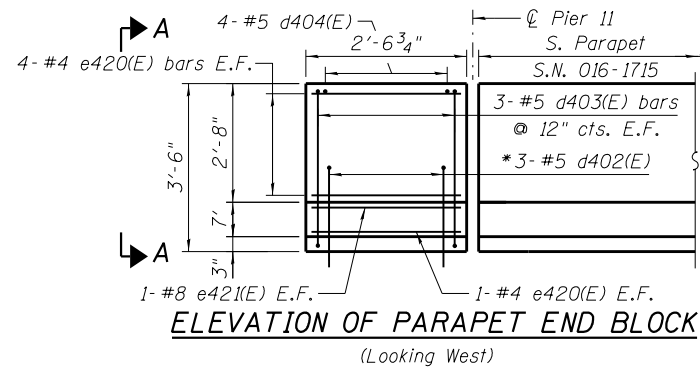
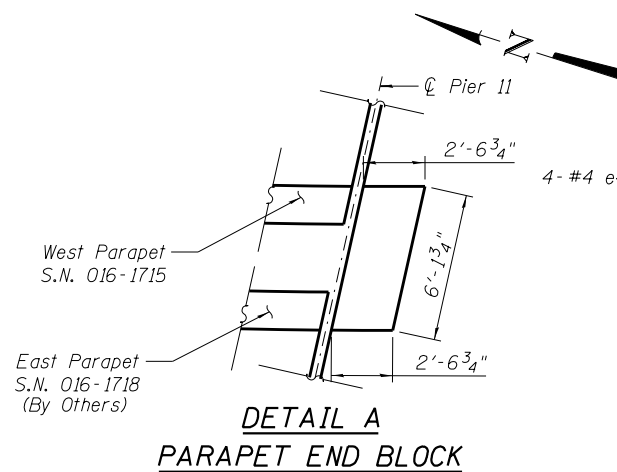


FIELD CUTTING DIAGRAM

Order A400(E) and A401(E) bars full length.
Cut as shown and use remainder of bars
at opposite end.

NOTES:

- Stations are along B Ramp WS & PGL unless noted otherwise.
- Minimum lap for #5 bars shall be 3'-6\".
- Bars indicated 41x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
- Bend longitudinal reinforcement bars as required to fit in the field.
- Work this Sheet with Sheet Nos. S3-42, S3-43 & S3-46.
- ⑤ indicates girder designations. See Deck Cross Sections and Framing Plan for Unit IV.



AECOM

USER NAME =	vasudevana	DESIGNED -	ATM	REVISED
		CHECKED -	AV	REVISED
PLOT SCALE =	N.T.S.	DRAWN -	ATM	REVISED
PLOT DATE =	8/28/2018	CHECKED -	AV	REVISED

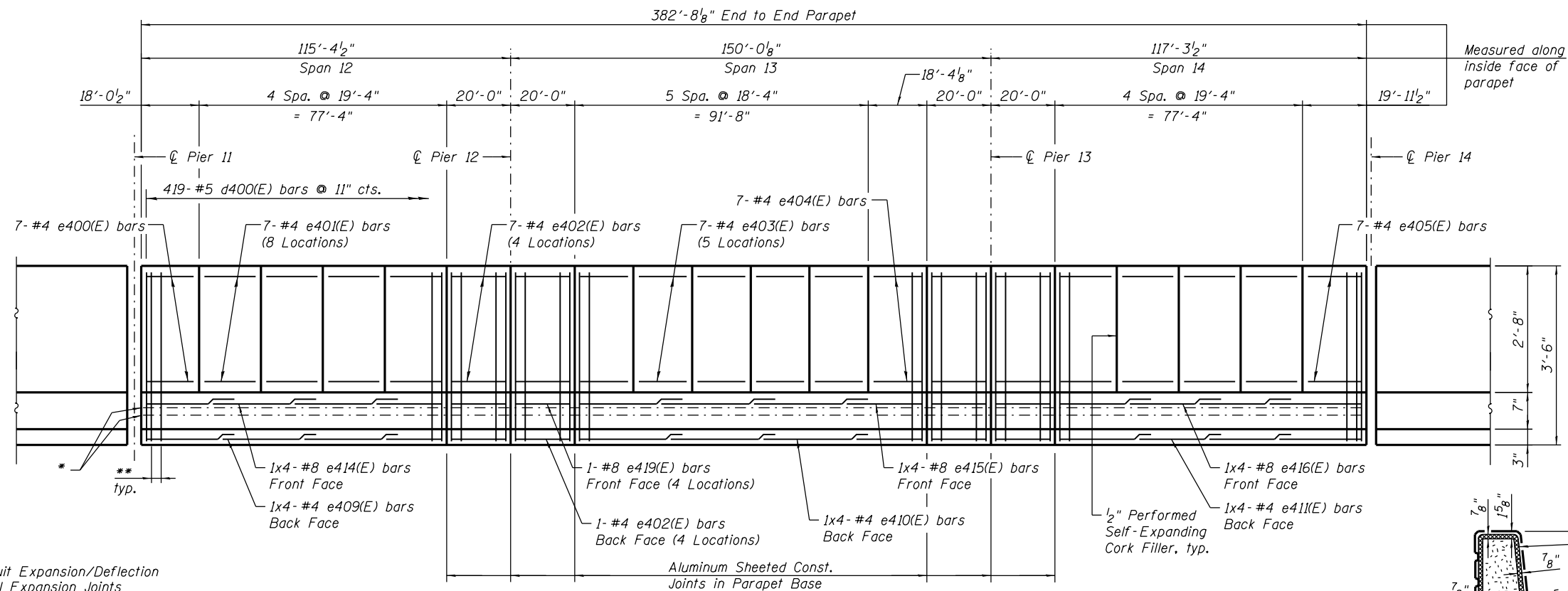
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN III - UNIT 4
STRUCTURE NO. 016-1715

SHEET NO. S3-44 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

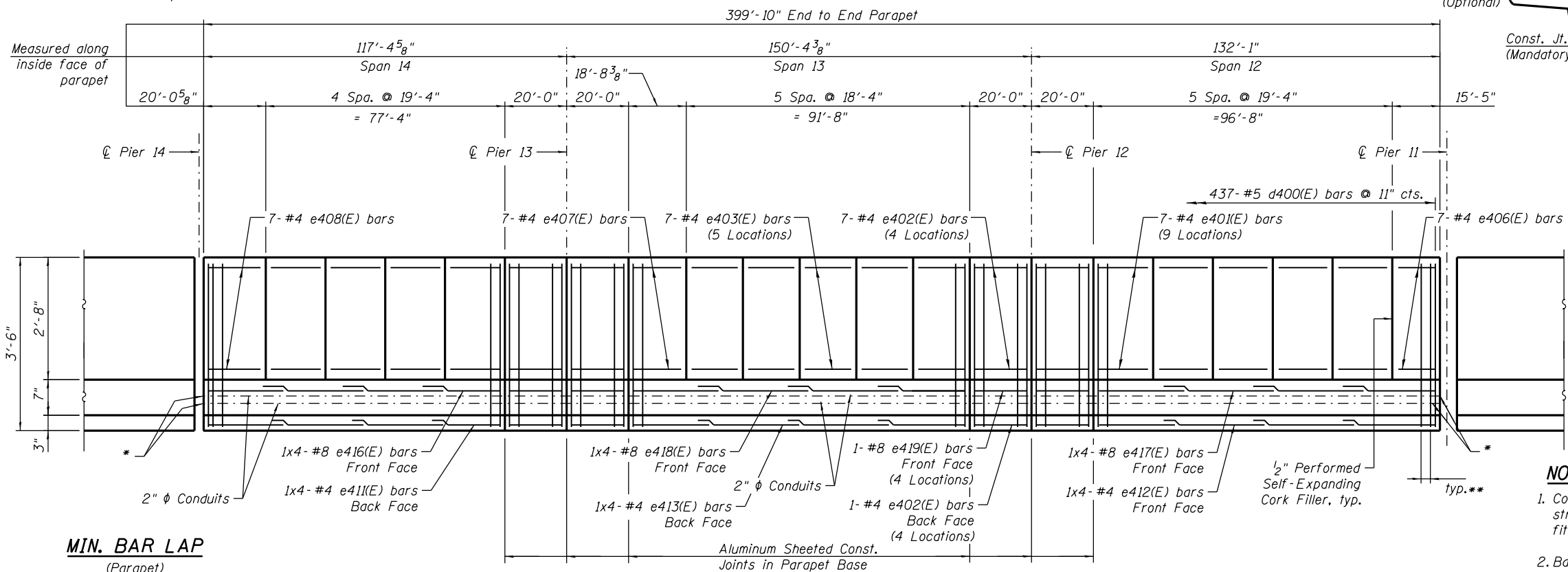
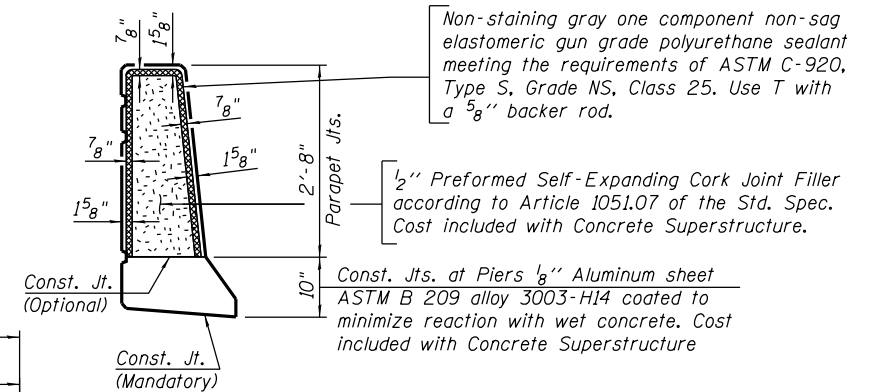
0161715-60X93-S043-DeckPlan-4



* Place Conduit Expansion/Deflection fitting at all Expansion Joints

** Additional 4-#5 d400(E) bars @ 11" cts. Space between the already specified d400(E) bars that run End to End Parapet. Typical at parapet ends and each side of aluminum sheeted joints. (14 Locations North Parapet) (14 Locations South Parapet)

INSIDE ELEVATION OF EAST PARAPET - UNIT 4



Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.

1/2" Preformed Self-Expanding Cork Joint Filler according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

PARAPET JOINT DETAILS

MIN. BAR LAP

(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"

INSIDE ELEVATION OF WEST PARAPET - UNIT 4

NOTES:

- Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
- Bars indicated Locations: 1x4-#8 etc., indicates one line of bars with 4 lengths per line.
- See Sheet S3-46 for parapet details.

AECOM

USER NAME = floresg	DESIGNED - ATM	REVISED
	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

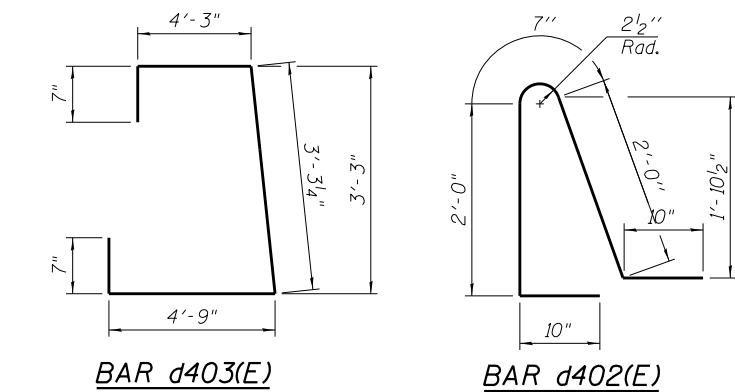
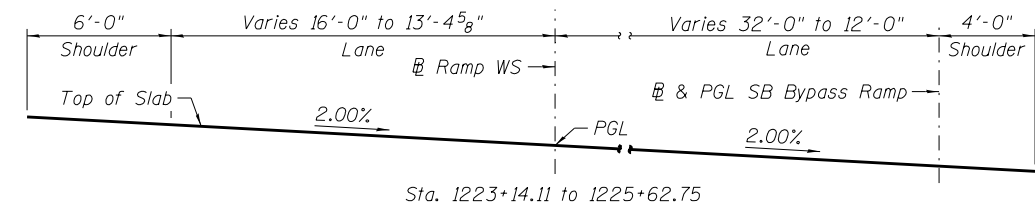
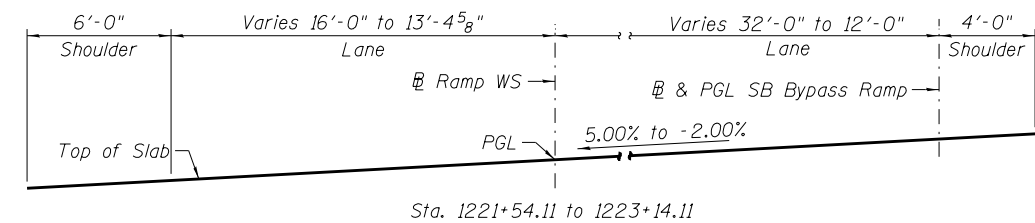
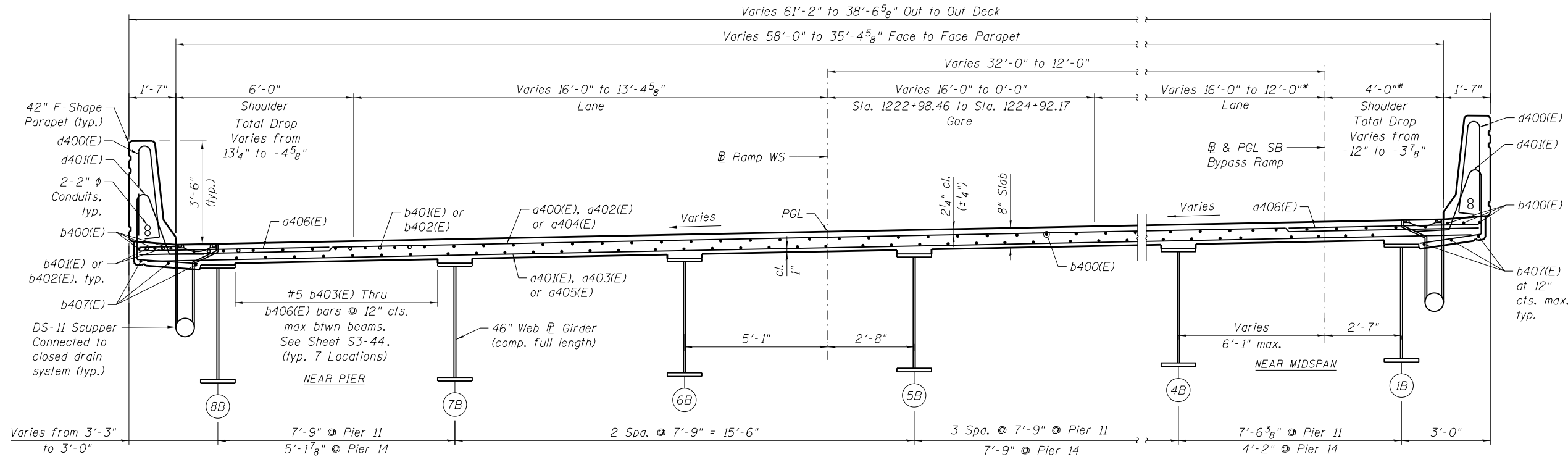
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION - UNIT 4
STRUCTURE NO. 016-1715

SHEET NO. S3-45 OF S3-172

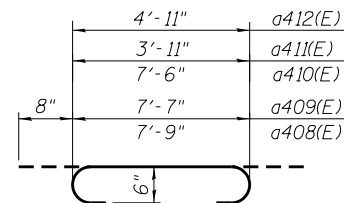
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	787
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S044-Parapet-4.dgn

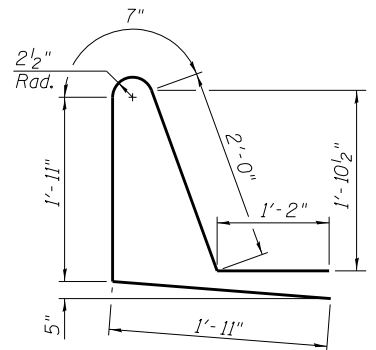


CROSS SECTION - UNIT 4

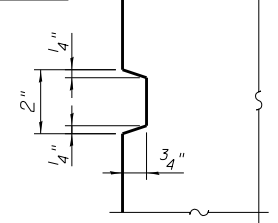
(Looking Upstation)
(Dimensions are measured perpendicular to Ramp WS (U.N.O.)
*Dimensions are measured perpendicular to SB Bypass Ramp



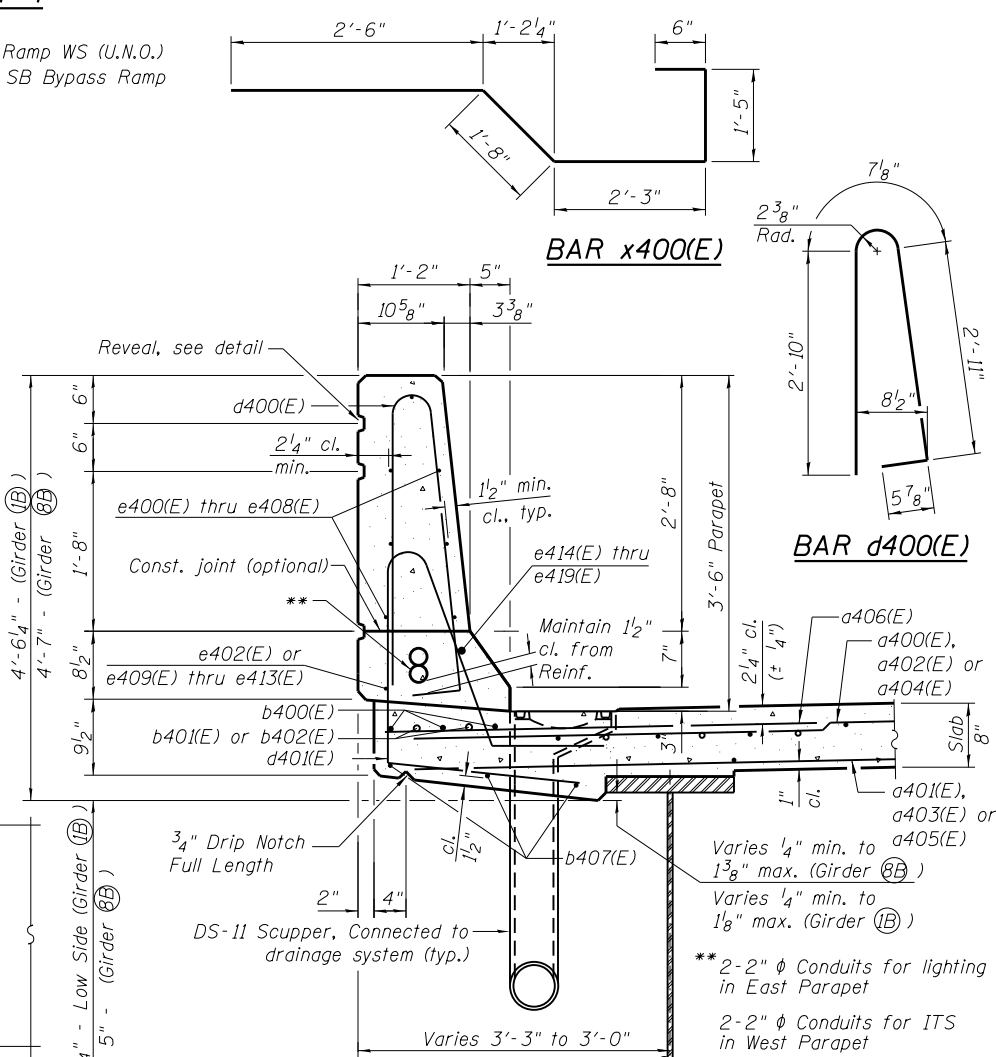
BAR a408(E) thru a413(E)



BAR d401(E)



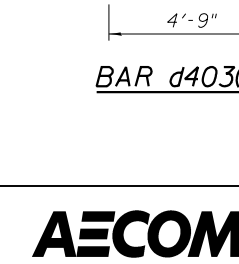
REVEAL DETAIL



SECTION THRU PARAPET

SUPERSTRUCTURE
BILL OF MATERIAL UNIT-4

Bar	No.	Size	Length	Shape
a400(E)	472	#5	31'-8"	
a401(E)	368	#5	31'-8"	
a402(E)	188	#5	32'-9"	
a403(E)	151	#5	32'-9"	
a404(E)	248	#5	21'-6"	
a405(E)	195	#5	21'-6"	
a406(E)	1380	#6	6'-6"	
a407(E)	48	#5	1'-6"	
a408(E)	24	#6	9'-1"	
a409(E)	4	#6	8'-11"	
a410(E)	12	#6	8'-10"	
a411(E)	4	#6	5'-3"	
a412(E)	4	#6	6'-3"	
a413(E)	236	#5	44'-2"	
a414(E)	184	#5	44'-2"	
b400(E)	768	#5	32'-1"	
b401(E)	174	#6	27'-9"	
b402(E)	144	#6	32'-9"	
b403(E)	538	#5	30'-0"	
b404(E)	107	#5	30'-3"	
b405(E)	45	#5	25'-8"	
b406(E)	143	#5	23'-0"	
b407(E)	84	#5	32'-7"	
d400(E)	968	#5	6'-10"	
d401(E)	856	#5	7'-7"	
d402(E)	3	#5	6'-3"	
d403(E)	3	#5	13'-5"	
d404(E)	4	#5	4'-3"	
e400(E)	7	#4	17'-8"	
e401(E)	119	#4	19'-0"	
e402(E)	64	#4	19'-8"	
e403(E)	70	#4	18'-0"	
e404(E)	7	#4	18'-0"	
e405(E)	7	#4	19'-8"	
e406(E)	7	#4	15'-1"	
e407(E)	7	#4	18'-4"	
e408(E)	7	#4	19'-9"	
e409(E)	4	#4	25'-10"	
e410(E)	4	#4	29'-5"	
e411(E)	8	#4	26'-4"	
e412(E)	4	#4	30'-0"	
e413(E)	4	#8	29'-6"	
e414(E)	4	#8	28'-3"	
e415(E)	4	#8	31'-11"	
e416(E)	8	#8	28'-9"	
e417(E)	4	#8	32'-5"	
e418(E)	4	#8	32'-0"	
e419(E)	8	#4	19'-8"	
e420(E)	11	#4	2'-2"	
e421(E)	2	#8	2'-2"	
x400(E)	100	#5	8'-4"	
Reinforcement Bars, Epoxy Coated			Pound	171,630
Concrete Superstructure			Cu. Yd.	604.4
Bridge Deck grooving (Longitudinal)			Sq. Yd.	1,897
Protective Coat			Sq. Yd.	2,862



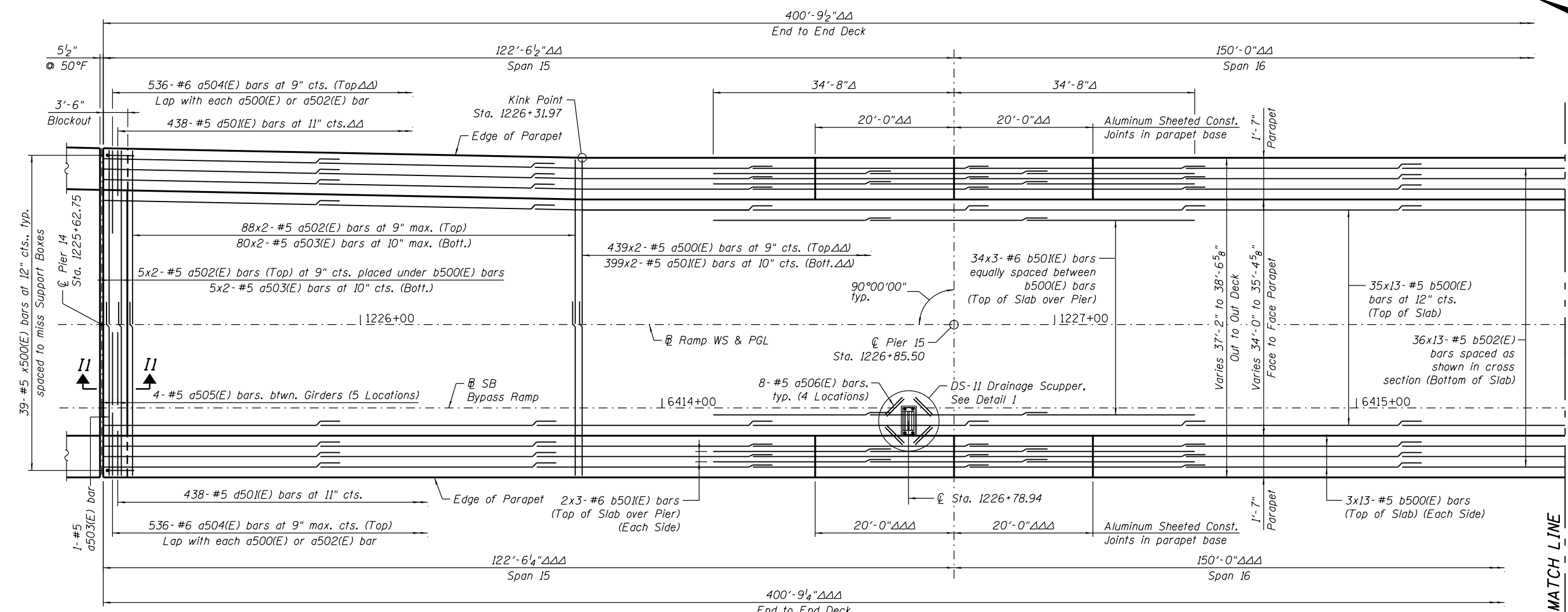
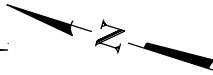
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CHECKED -	AV	REVISED		
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PLOT DATE =	8/28/2018	CHECKED -	AV	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION & DETAILS - UNIT 4
STRUCTURE NO. 016-1715

SHEET NO. S3-46 OF S3-172

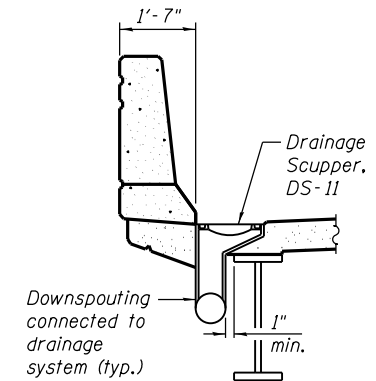
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	788
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



MATCH LINE
STA. 1227+73.50

DECK PLAN I - UNIT 5

Δ Measured along @ Ramp WS (S.N. 016-1715).
ΔΔ Measured along inside face of south parapet.
ΔΔΔ Measured along inside face of north parapet.



SECTION G-G

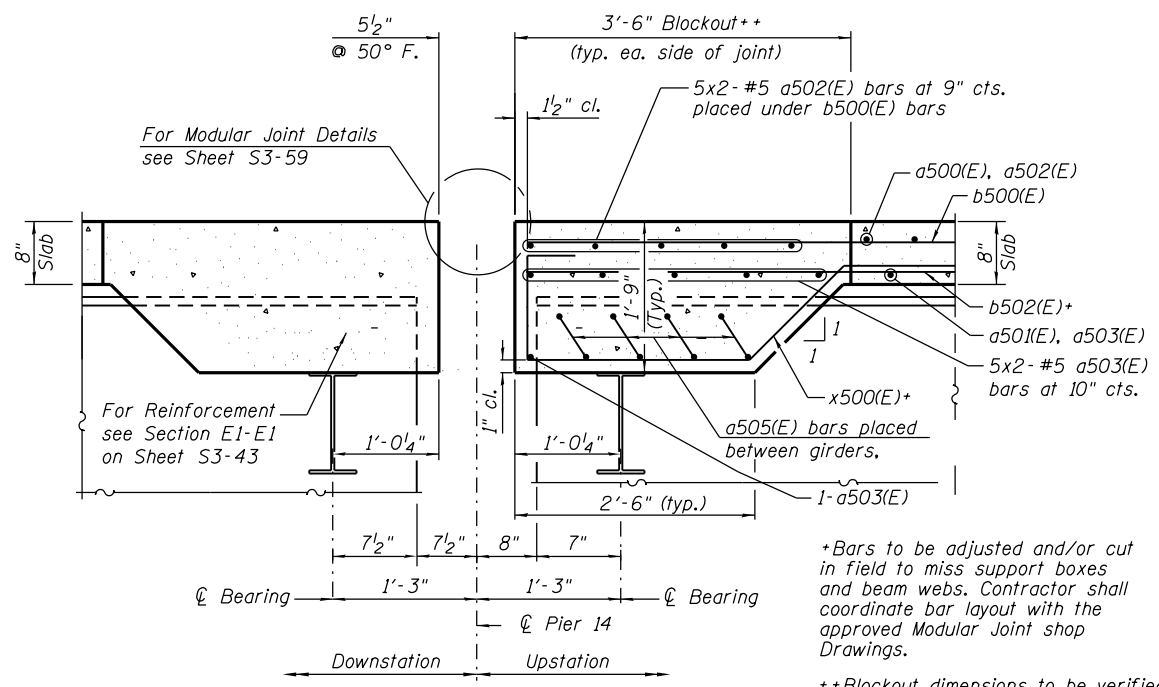
DETAIL 1 DRAINAGE SCUPPER DS-11

Note:
Reinforcement bars designated (E) shall be epoxy coated.
Cut longitudinal reinforcement to clear drainage scuppers.

NOTES:

1. Stations are along @ Ramp WS & PGL unless noted otherwise.
2. Minimum lap for #5 bars shall be 3'-6" and for #6 bars shall be 3'-7".
3. Bars indicated 41x12-#5 etc. indicates 41 lines of bars with 12 lengths per line.
4. Bend longitudinal reinforcement bars as required to fit in the field.
5. See Sheet S3-49 for parapet reinforcement.
6. See Sheet S3-50 for deck cross section.
7. See Sheet S3-50 for Bill of Material.
8. See Sheet S3-54 for DS-11 Drainage Scupper.
9. See Sheet S3-51 for Deck Pouring Sequence.

SECTION 11-11



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PLOT DATE = 7/26/2018	DRAWN - ATM	REVISED
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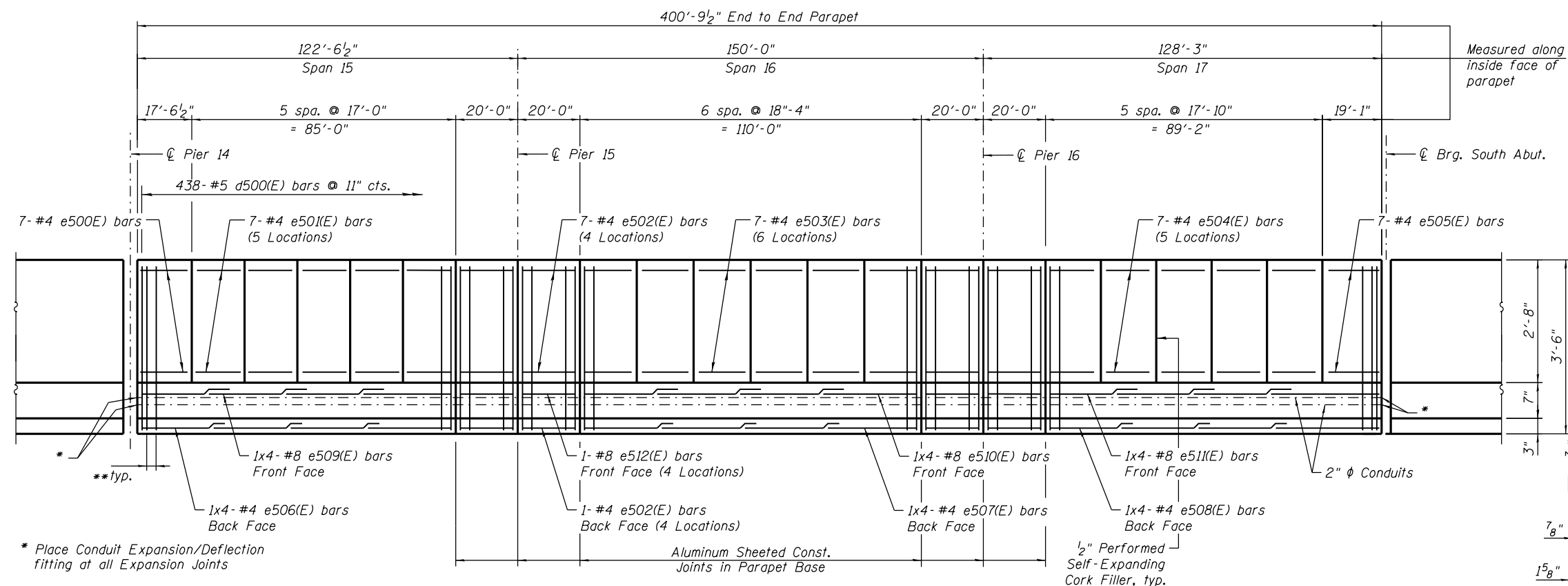
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN I - UNIT 5
STRUCTURE NO. 016-1715

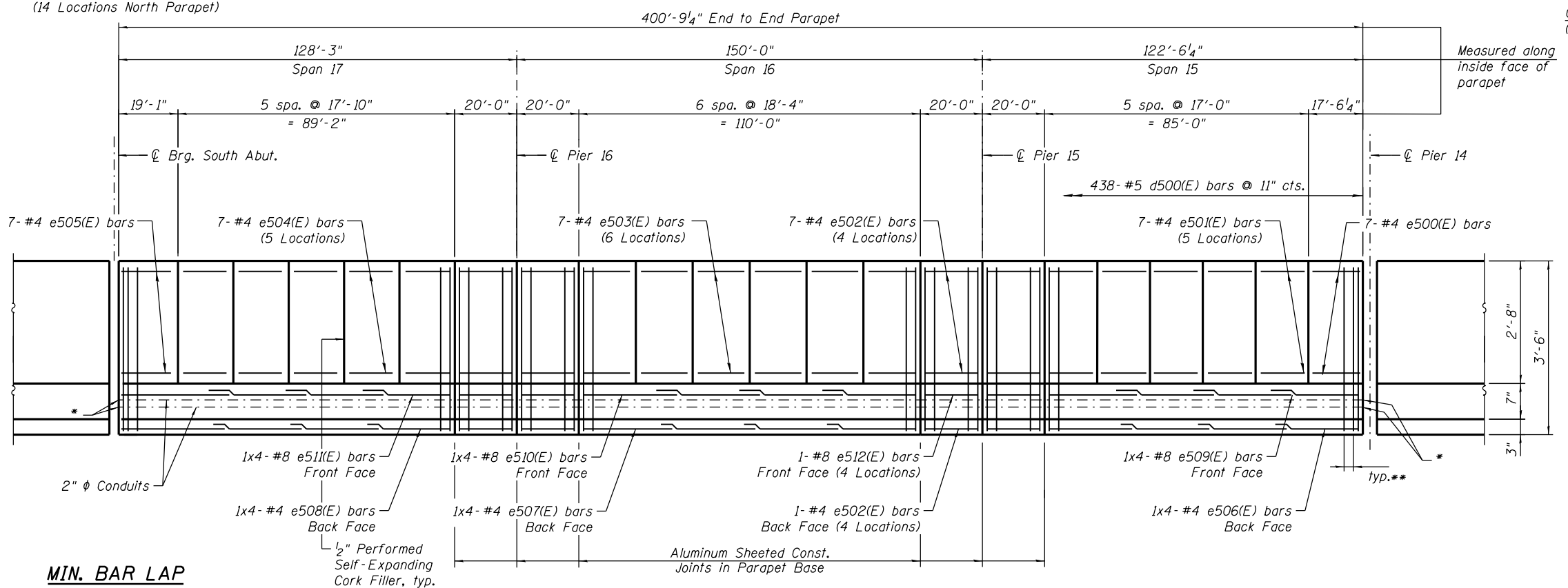
SHEET NO. S3-47 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60X93				

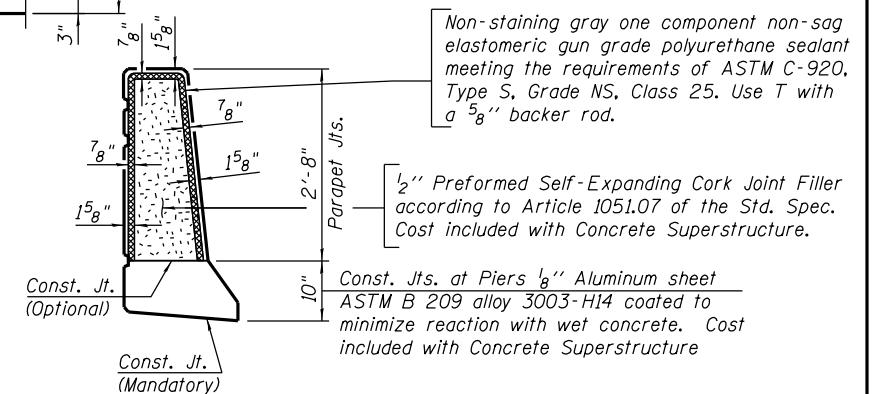
ILLINOIS FED. AID PROJECT



INSIDE ELEVATION OF EAST PARAPET - UNIT 5



INSIDE ELEVATION OF WEST PARAPET - UNIT 5



PARAPET JOINT DETAILS

NOTES:

- Contractor to provide expansion/deflection conduit fittings at all structural expansion joints. See lighting plans for expansion/deflection fitting installation details.
- Bars indicated Locations: 1x4-#8 etc., indicates one line of bars with 4 lengths per line.
- See Sheet S3-50 for parapet details.

AECOM

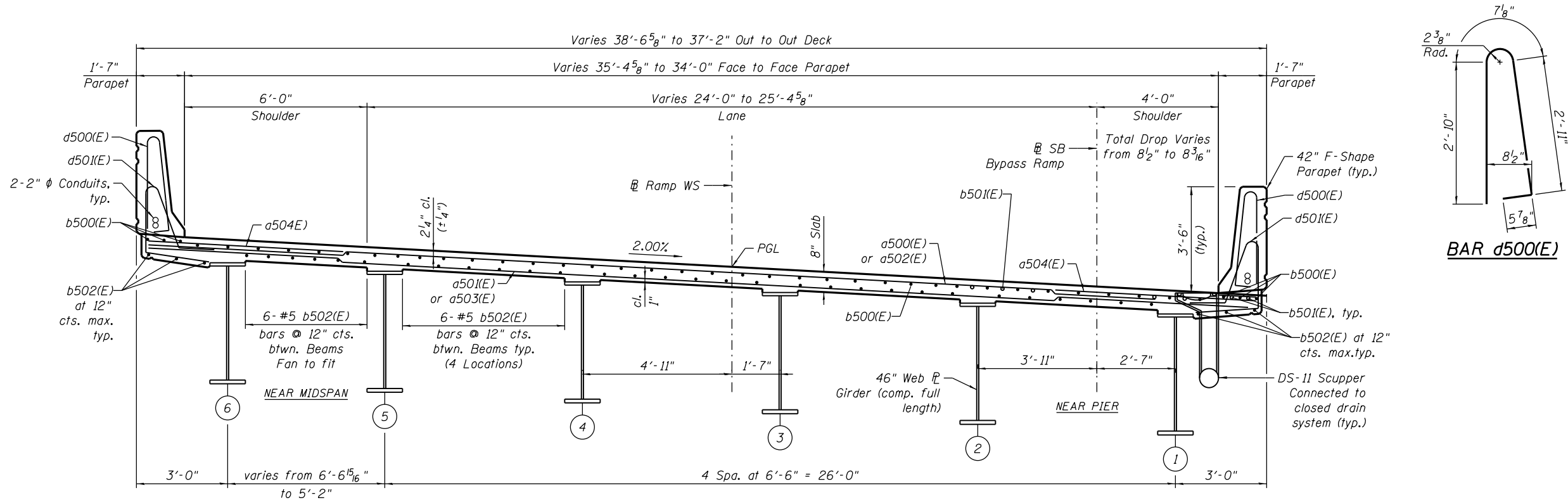
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PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

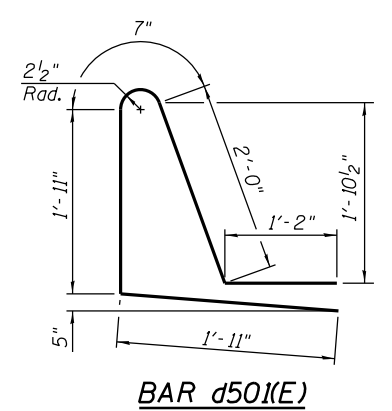
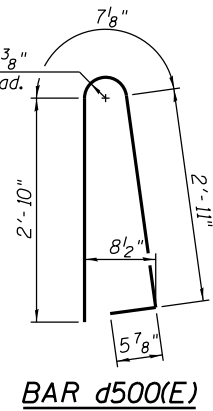
**PARAPET ELEVATION - UNIT 5
STRUCTURE NO. 016-1715**

SHEET NO. S3-49 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	791
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



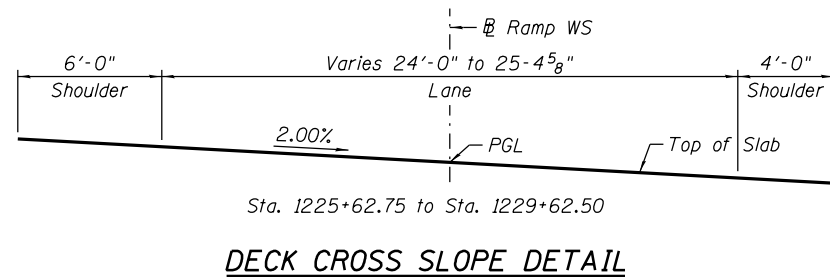
CROSS SECTION - UNIT 5
(Looking Upstation)



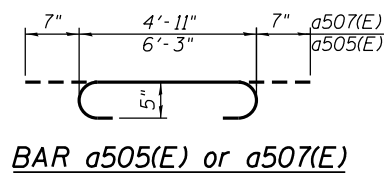
**SUPERSTRUCTURE
BILL OF MATERIAL UNIT-5**

Bar	No.	Size	Length	Shape
a500(E)	886	#5	20'-3"	—
a501(E)	799	#5	20'-3"	—
a502(E)	186	#5	21'-11"	—
a503(E)	172	#5	21'-11"	—
a504(E)	1072	#6	6'-6"	—
a505(E)	32	#5	7'-5"	—
a506(E)	32	#5	1'-6"	—
a507(E)	4	#5	6'-1"	—
b500(E)	533	#5	34'-1"	—
b501(E)	228	#6	25'-6"	—
b502(E)	468	#5	34'-1"	—
d500(E)	988	#5	6'-10"	—
d501(E)	876	#5	7'-7"	—
e500(E)	14	#4	17'-2"	—
e501(E)	70	#4	16'-8"	—
e502(E)	64	#4	19'-8"	—
e503(E)	84	#4	18'-0"	—
e504(E)	70	#4	17'-6"	—
e505(E)	14	#4	18'-9"	—
e506(E)	8	#4	27'-7"	—
e507(E)	8	#4	29'-6"	—
e508(E)	8	#4	29'-0"	—
e509(E)	8	#8	30'-0"	—
e510(E)	8	#8	32'-0"	—
e511(E)	8	#8	31'-6"	—
e512(E)	8	#8	19'-8"	—
x500(E)	77	#5	6'-5"	—

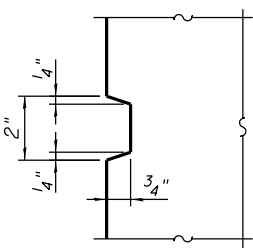
Reinforcement Bars, Epoxy Coated	Pound	120,030
Concrete Superstructure Bridge Deck grooving (Longitudinal)	Sq. Yd.	1,366
Protective Coat	Sq. Yd.	2,378



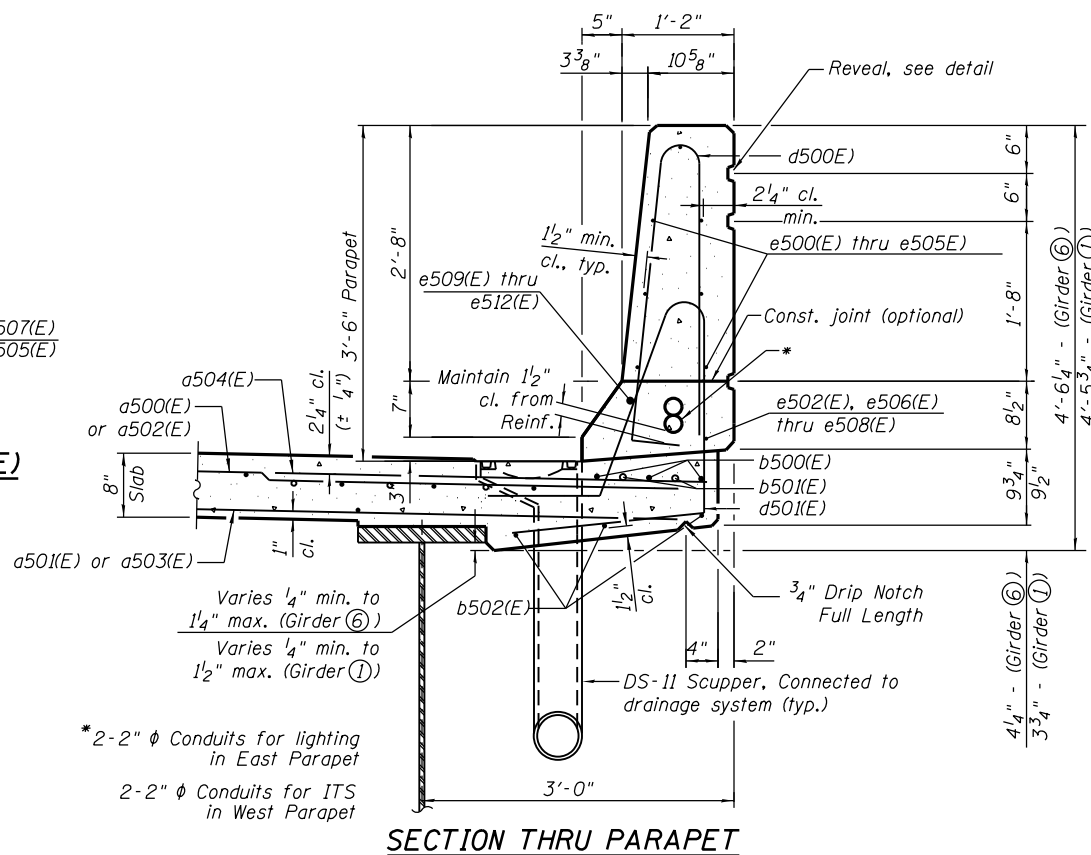
DECK CROSS SLOPE DETAIL



BAR a505(E) or a507(E)



REVEAL DETAIL



SECTION THRU PARAPET

AECOM

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CHECKED - AV	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - ATM	REVISED
PLOT DATE = 7/26/2018	CHECKED - AV	REVISED

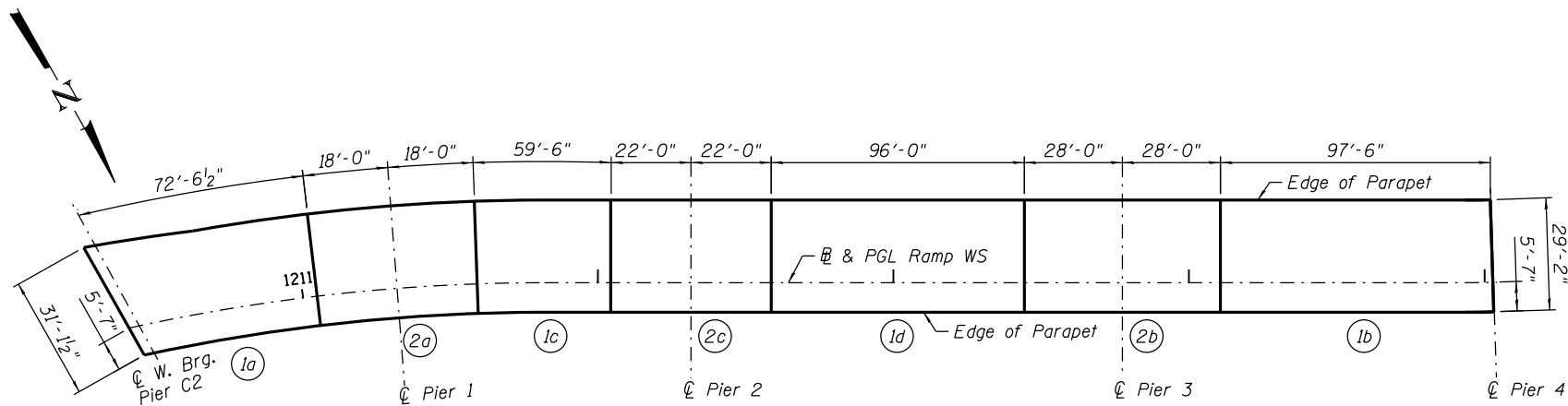
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK CROSS SECTION & DETAILS - UNIT 5
STRUCTURE NO. 016-1715**

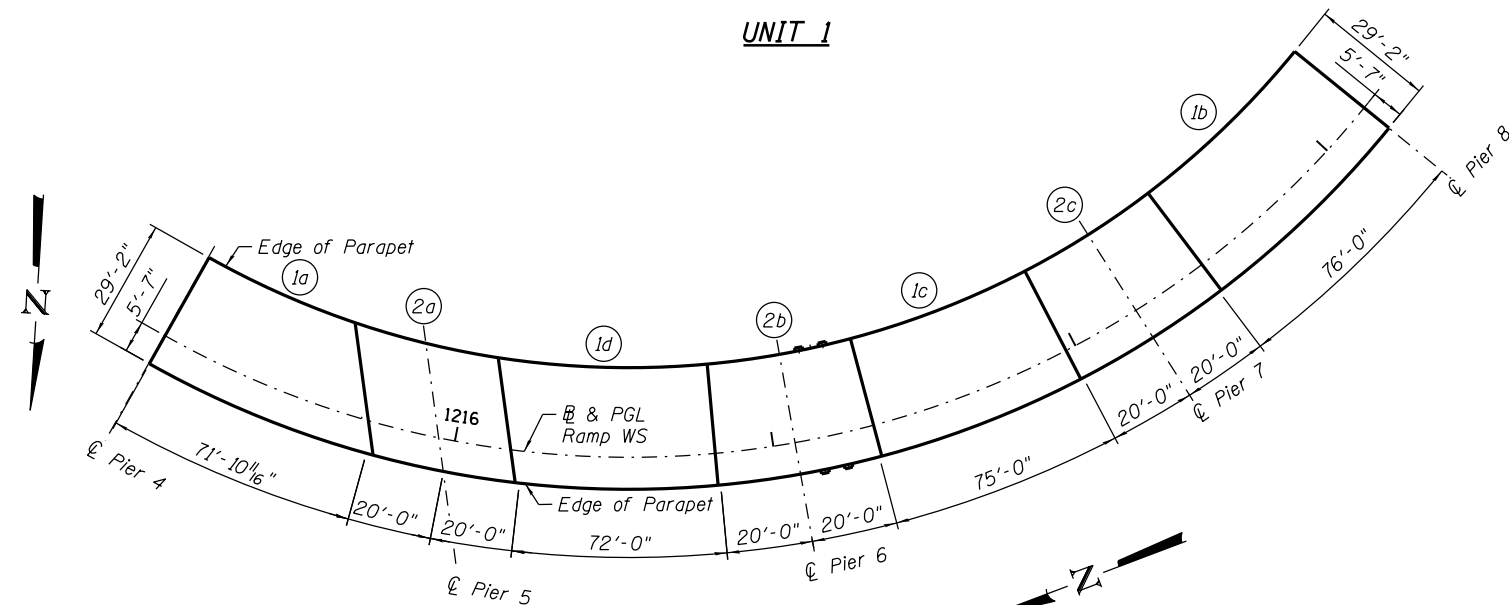
SHEET NO. S3-50 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	792
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

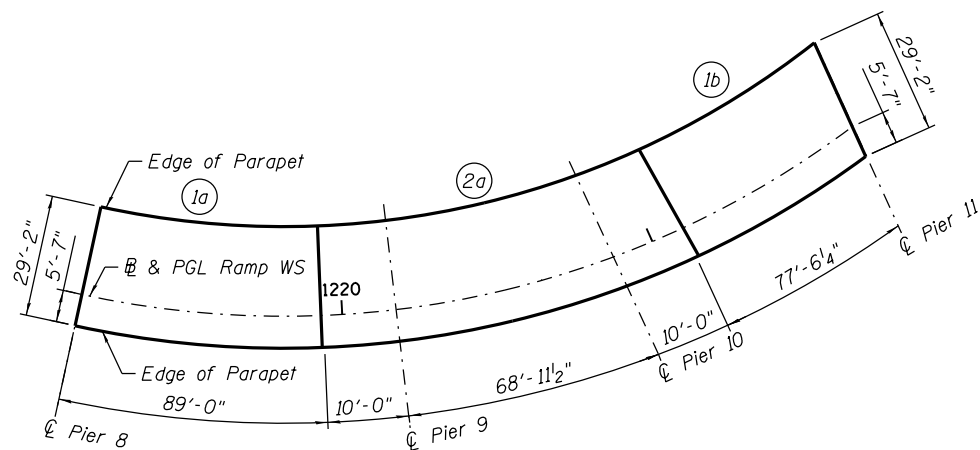
0161715-60X93-S049-Deck Xsect-5.dgn



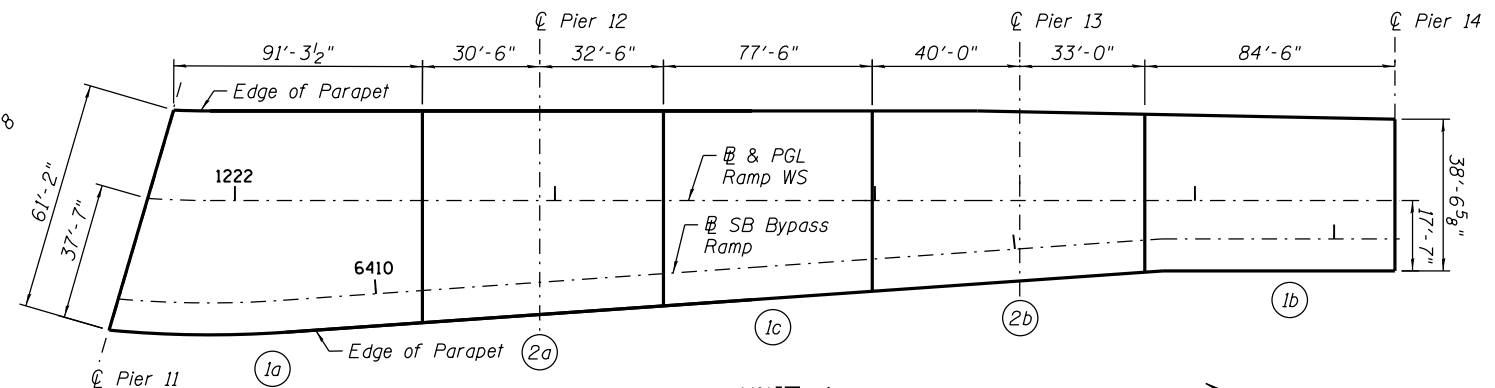
UNIT 1



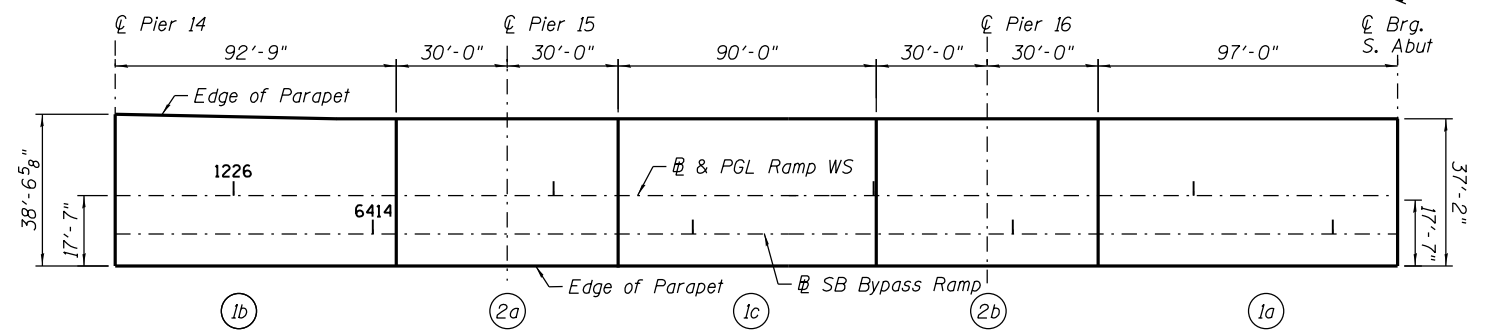
UNIT 2



UNIT 3



UNIT 4



UNIT 5

DECK POURING SEQUENCE

Longitudinal dimensions are measured along B & PGL Ramp WS.

When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the Deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

Numbers within the deck pouring sequence indicate the minimum number of group pours required for each unit. Letters next to the group pour numbers indicate the order if pour groups are further subdivided into individual pours. If the Contractor wishes to revise the deck pouring sequence, then the revised deck pouring sequence and calculations shall be submitted to the Engineer for review & approval. The calculations shall be prepared by and sealed by an Illinois Licensed Structural Engineer.

AECOM

USER NAME = floresg	DESIGNED - AV	REVISED
	CHECKED - ATB	REVISED
PLOT SCALE = N.T.S.	DRAWN - AV	REVISED
PLOT DATE = 7/26/2018	CHECKED - ATB	REVISED

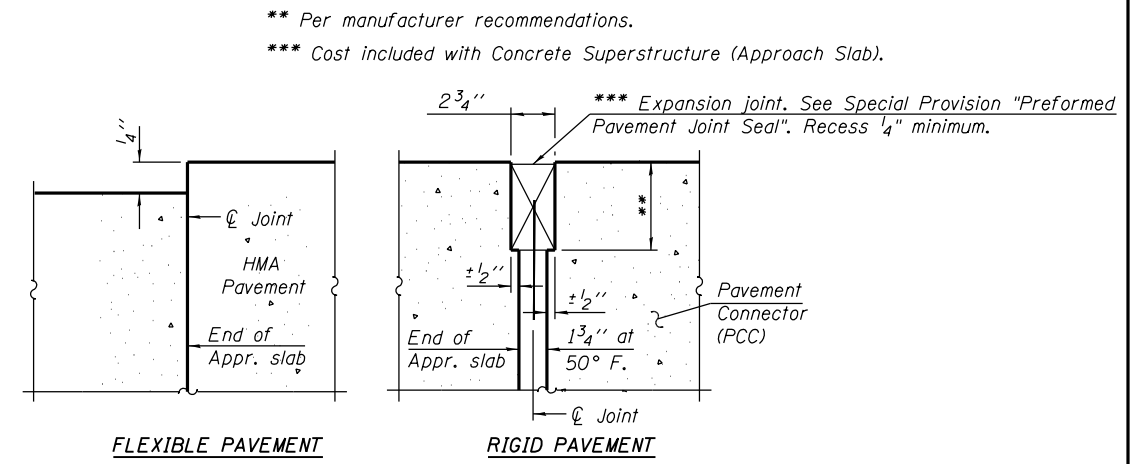
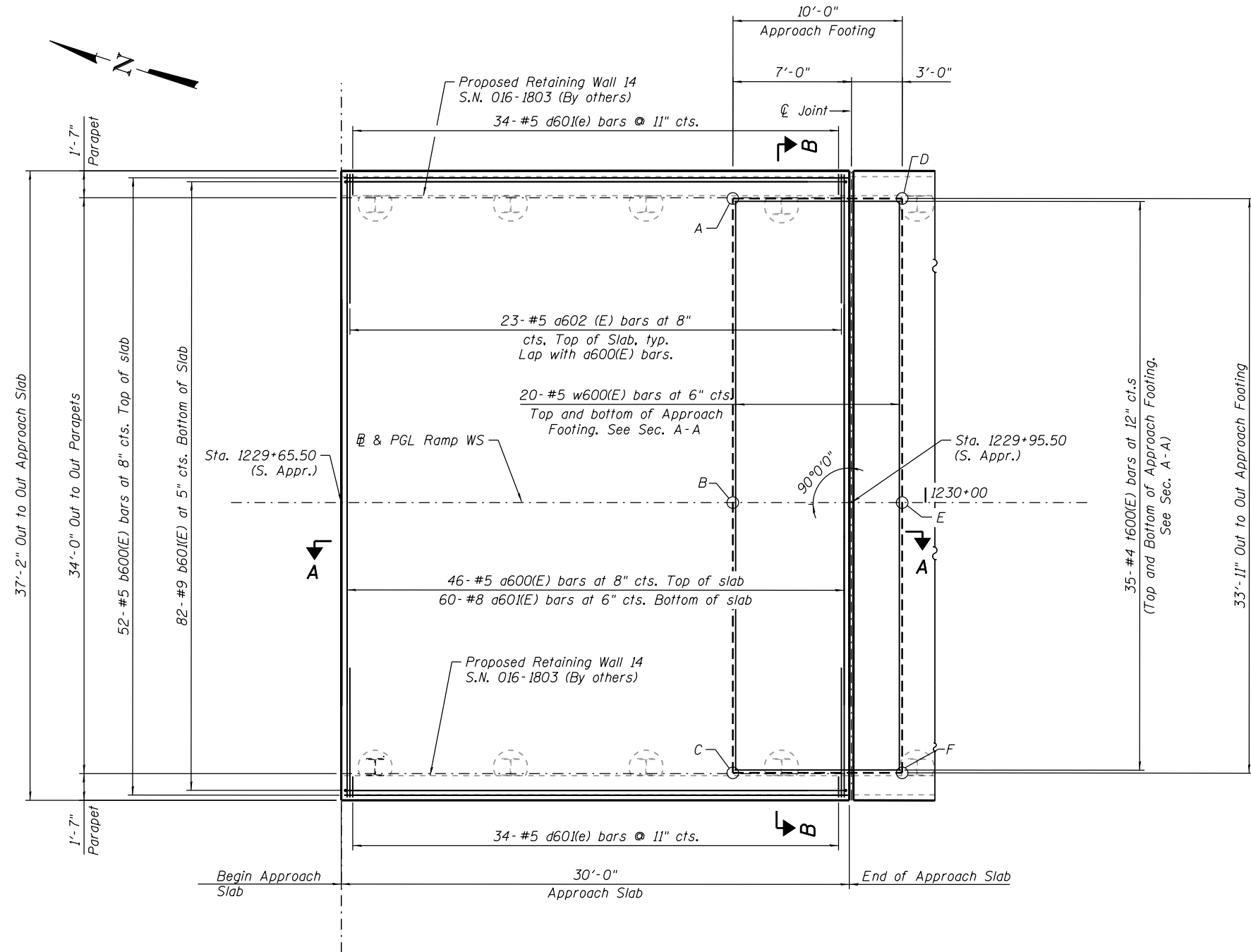
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK POURING SEQUENCE
STRUCTURE NO. 016-1715

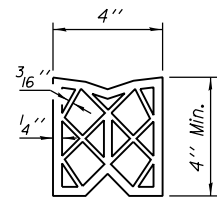
SHEET NO. S3-51 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	793
CONTRACT NO. 60X93				ILLINOIS FED. AID PROJECT

0161715-60X93-S050-Deck Pouring.dgn



DETAIL A



PREFORMED JOINT SEAL

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	Approach Slab			
	Station	Offset	Top	Bottom
A	1229+88.50	17.97 LT	596.85	596.02
B	1229+88.50	0	596.50	595.66
C	1229+88.50	15.97 RT	596.18	596.34
D	1229+98.50	17.97 LT	596.23	596.40
E	1229+98.50	0	595.88	595.04
F	1229+98.50	15.97 RT	595.56	594.72

NOTES:

1. See sheet S3-53 for Sections A-A & B-B.

0161715-60X93-S051-ApprSlab.dgn

AECOM

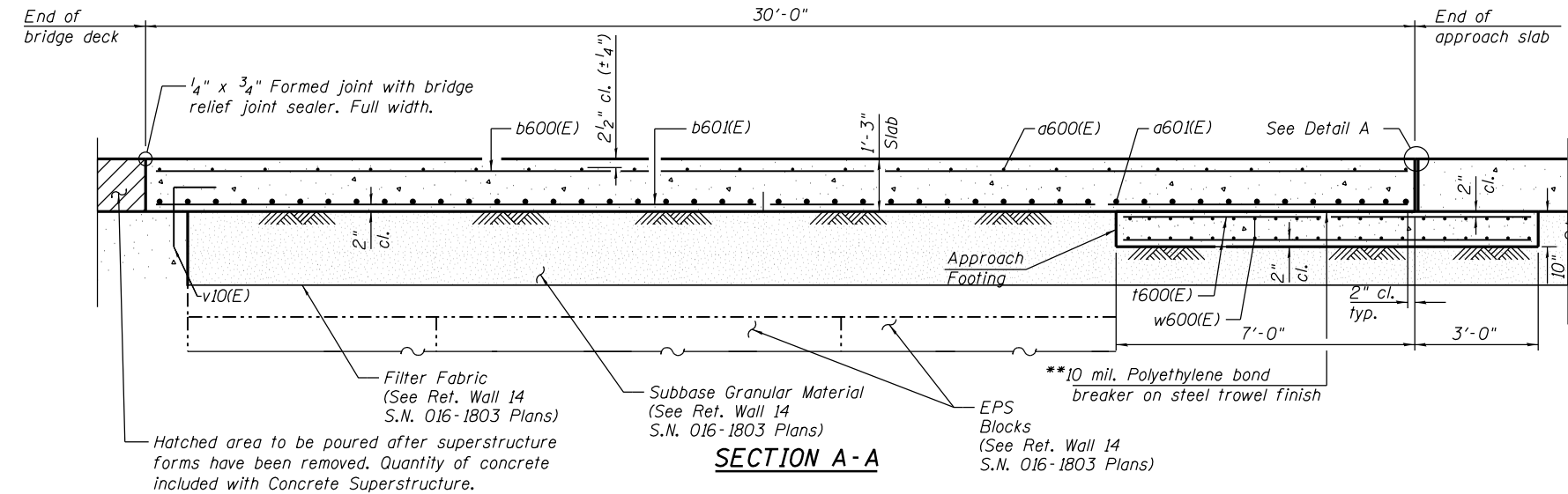
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	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - AV	REVISED
PLOT DATE = 7/26/2018	CHECKED - ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

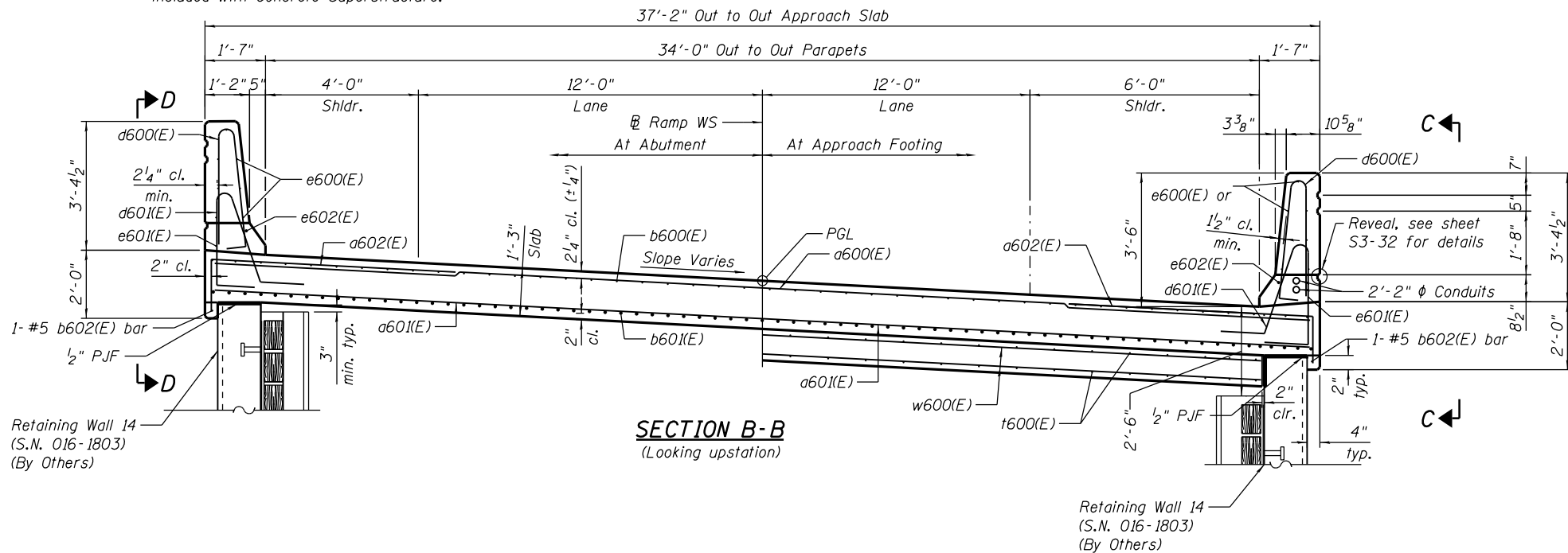
SOUTH APPROACH SLAB PLAN
STRUCTURE NO. 016-1715

SHEET NO. S3-52 OF S3-172

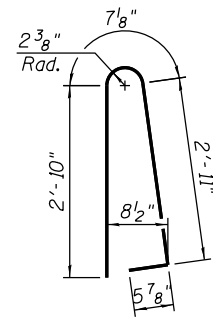
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	794
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



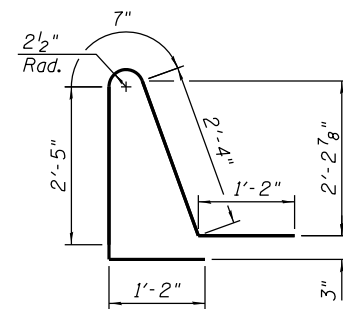
SECTION A-A



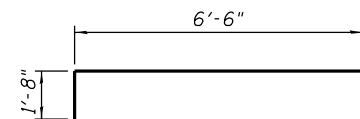
SECTION B-B
(Looking upstation)



BAR d600(E)



BAR d601(E)



BAR a602(E)

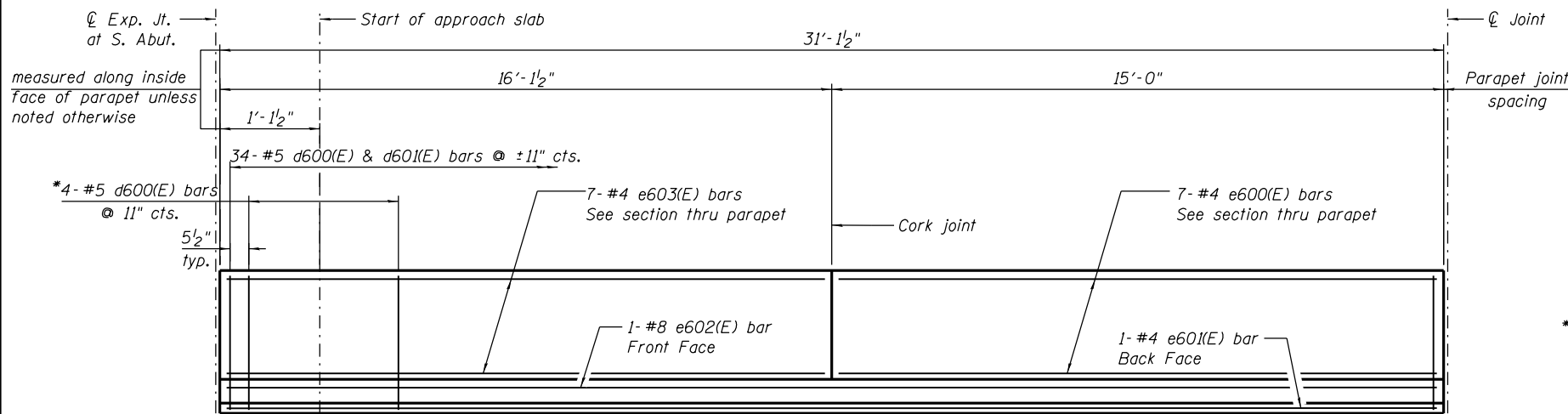
NOTES:

1. Parapet concrete shall be paid for as Concrete Superstructure.
2. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
3. Approach footing concrete shall be paid for as Concrete Structures.
4. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
5. Cost of excavation for approach footing included with Concrete Structures.
6. See sheet S3-33 for Section thru parapet details.
7. For v10(E) bar details, see sheet S3-135.
8. See sheet S3-52 for Detail - A.
9. See Retaining Wall 14 Plans (S.N. 016-1803) for wall details not shown.

* Typical at parapet ends

** Cost included with Concrete Superstructure (Approach Slab).

INSIDE ELEVATION OF SOUTH PARAPET (NORTH PARAPET SIMILAR & MIRRORED)



AECOM

USER NAME = floresg	DESIGNED - ATM	REVISED
	CHECKED - AV	REVISED
PLOT SCALE = N.T.S.	DRAWN - AV	REVISED
PLOT DATE = 7/26/2018	CHECKED - ATB	REVISED

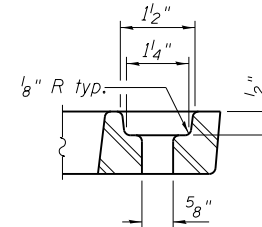
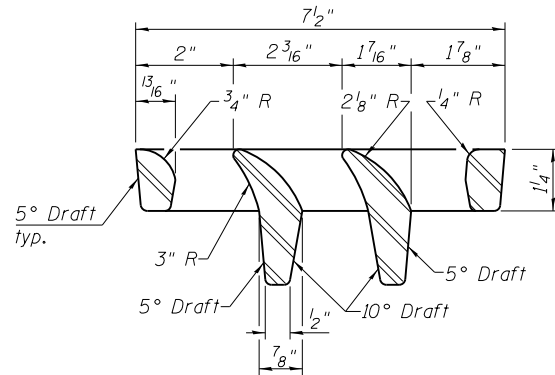
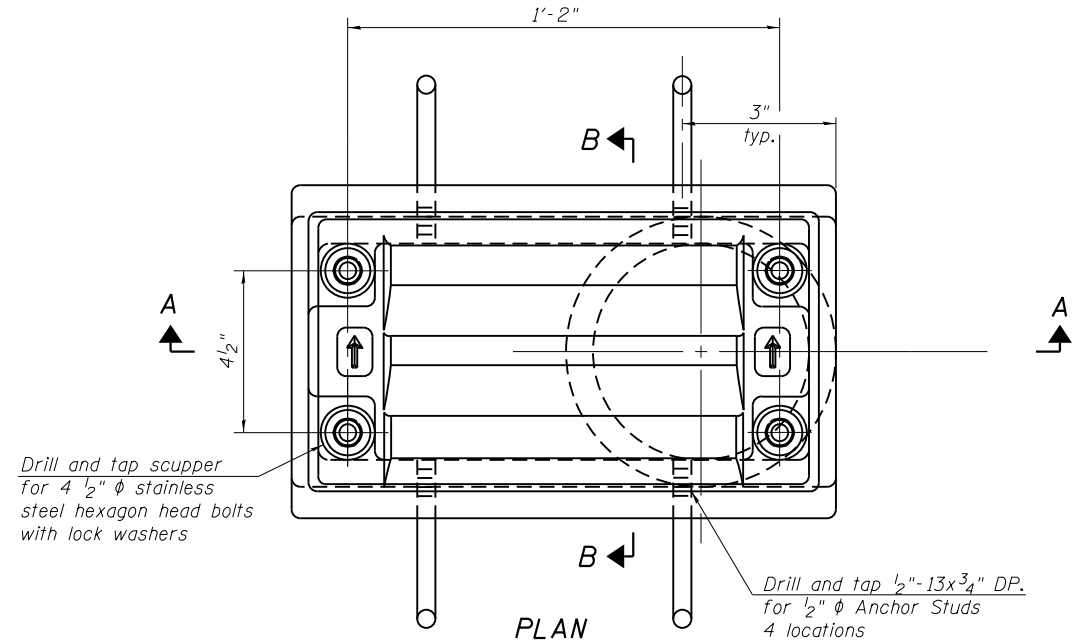
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTH APPROACH SLAB DETAILS
STRUCTURE NO. 016-1715**

SHEET NO. S3-53 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	795
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S052-Appr Slab Details.dgn



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

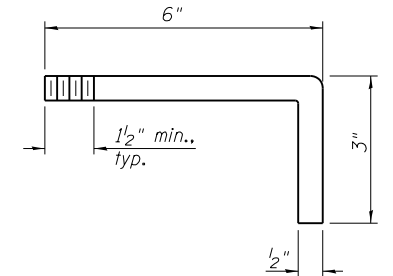
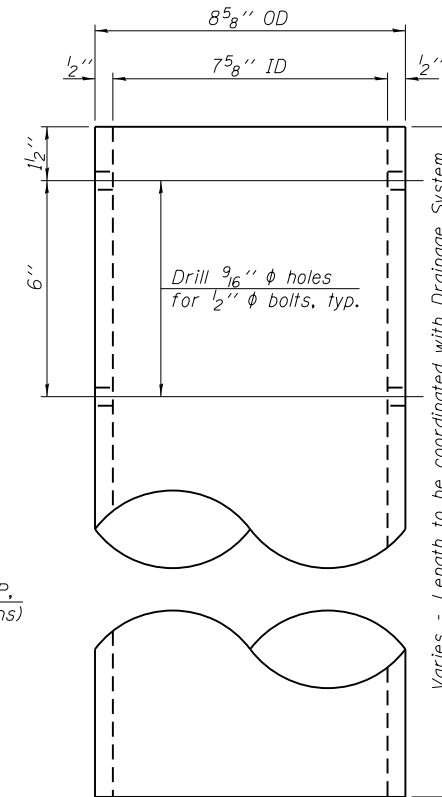
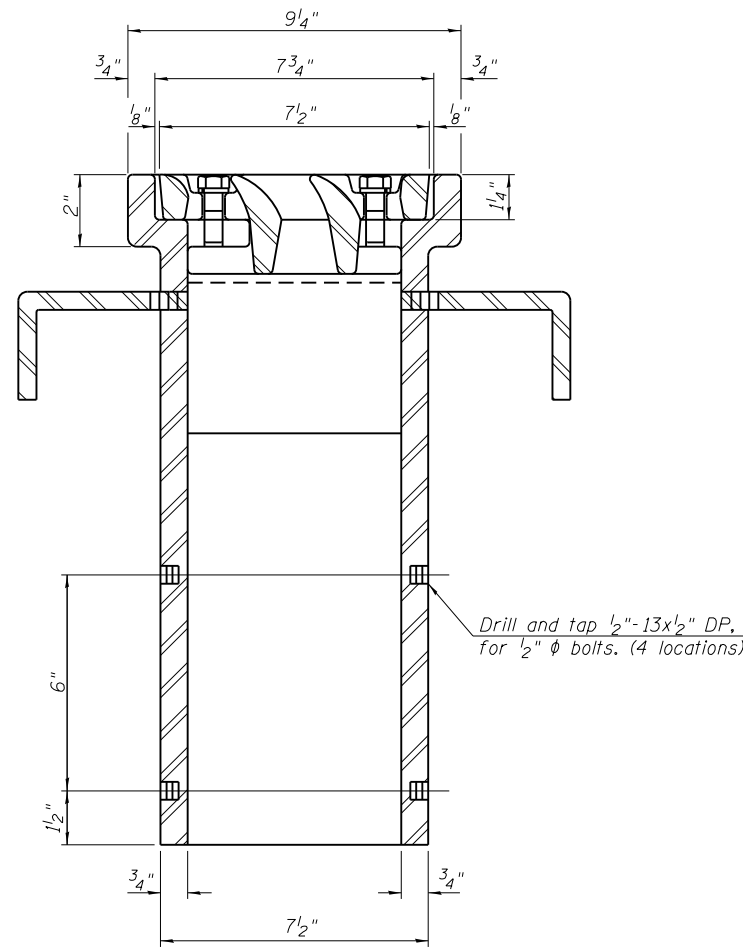
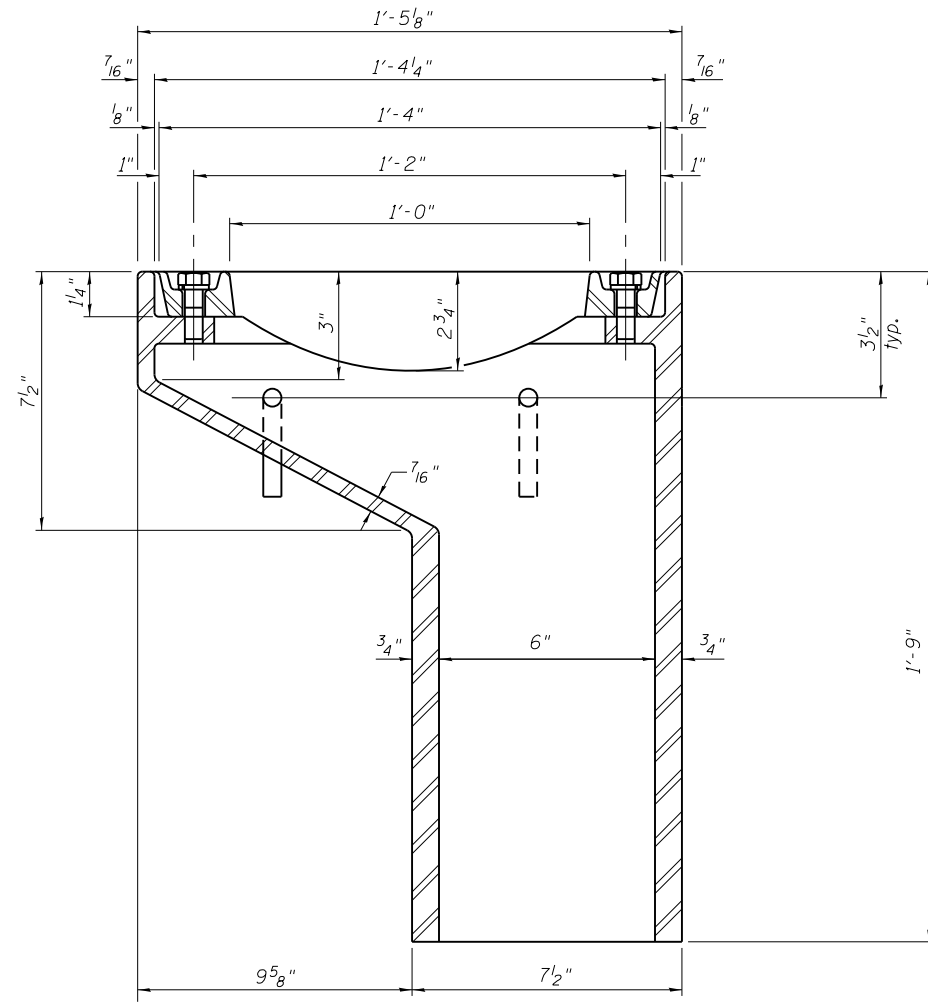
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



See sheets S3-30 thru S3-50 for scupper locations relative to parapet.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	20

DS-11

2-17-2017
2-17-2017

AECOM

USER NAME =	vasudevana
PLOT SCALE =	N.T.S.
PLOT DATE =	7/30/2018

DESIGNED -	AV
CHECKED -	ATB
DRAWN -	AV
CHECKED -	ATB

REVISED
REVISED
REVISED
REVISED

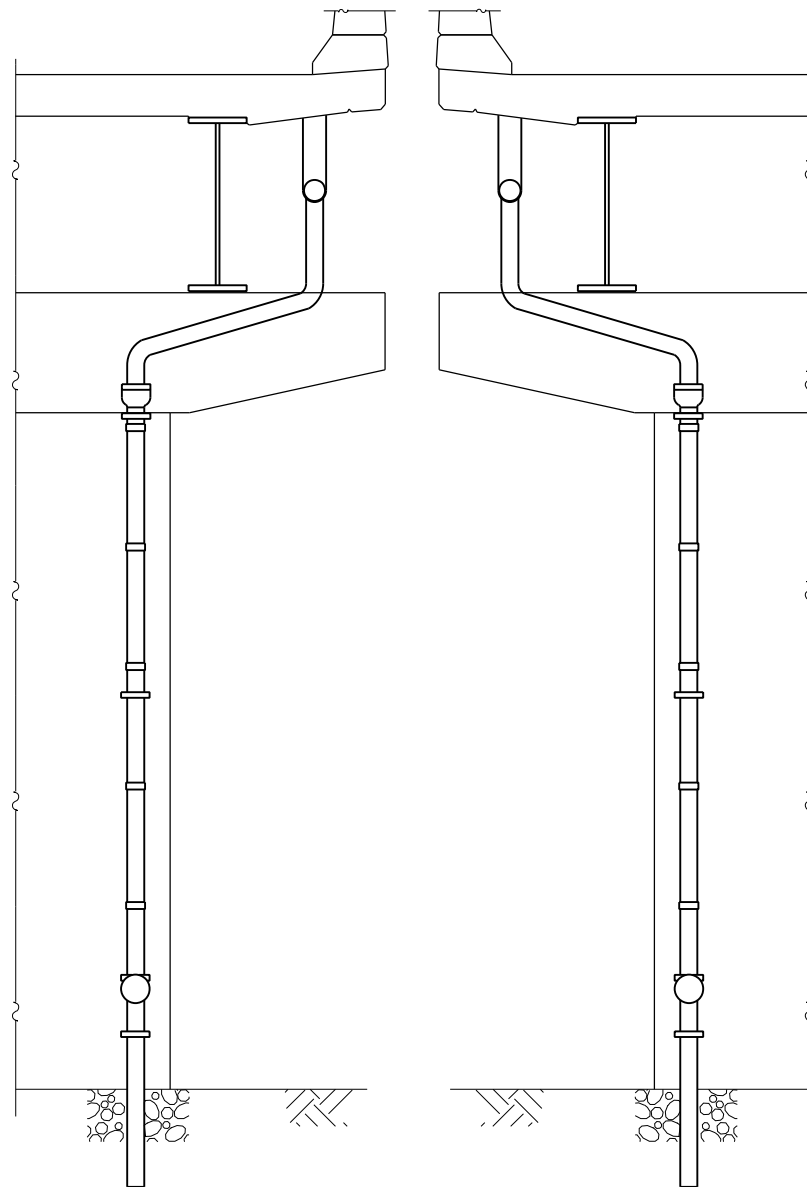
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 016-1715**

SHEET NO. S3-54 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	796
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

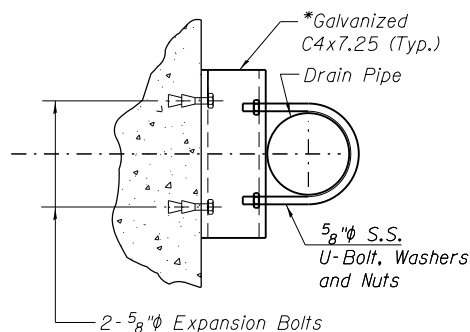
0161715-60X93-S053-DrainageScupper-DS-11



ELEVATION VIEW

- Pier C2 (Looking West)
- Pier 4 (Looking East)
- Pier 9 (Looking North)
- Pier 13 (Looking South)
- Pier 15 (Looking South)**

**Drain to the east column and outlet into structure listed in Table 1



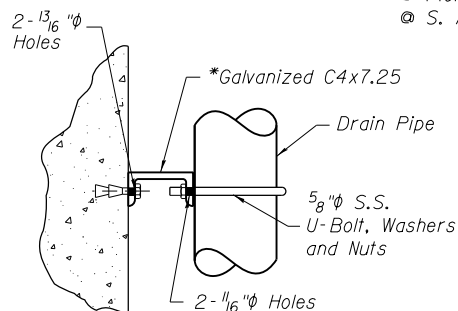
PLAN

PIPE SUPPORT DETAIL

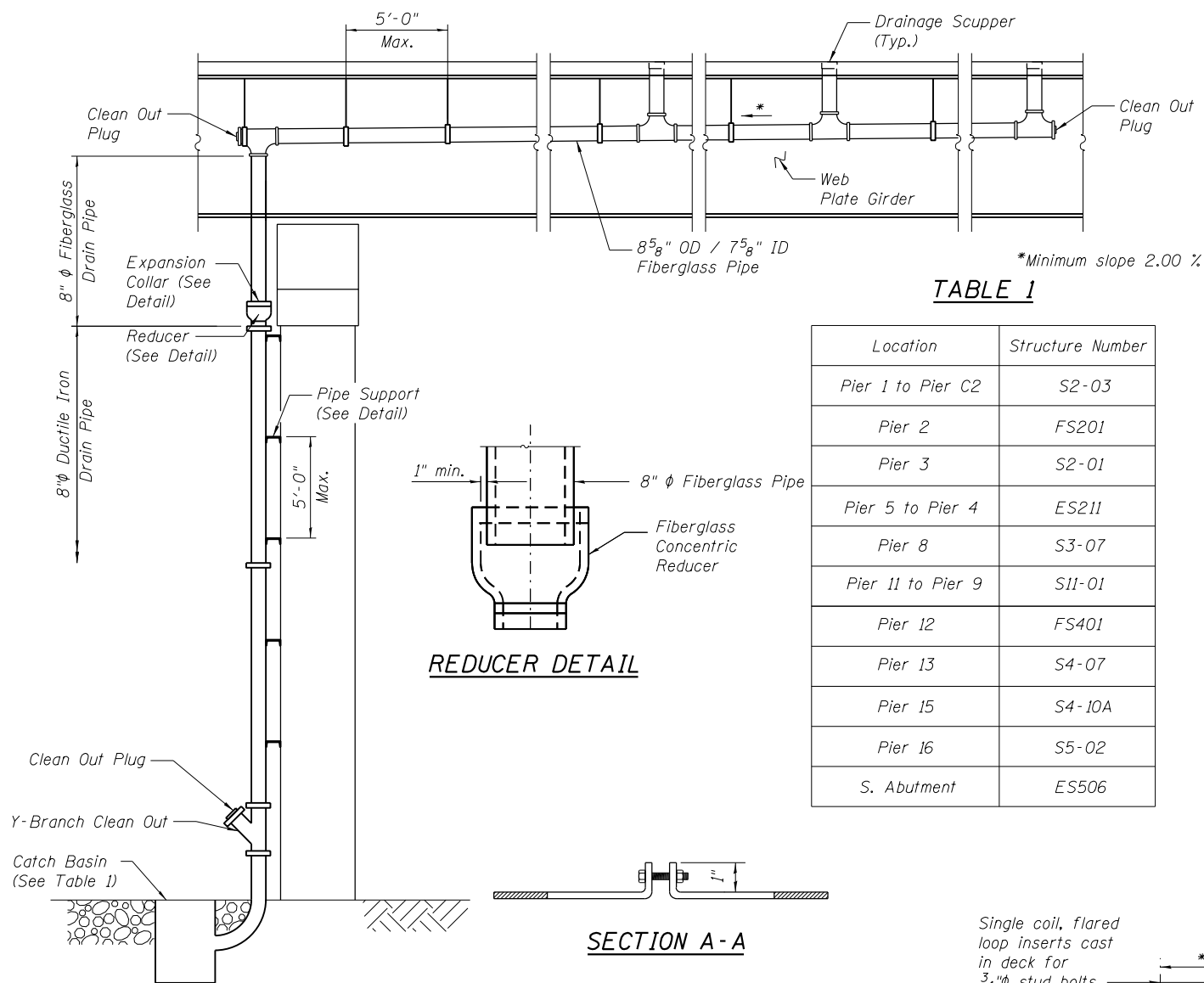
*Provide curved C6x8.2 to fit Round Pier Columns where needed

ELEVATION VIEW

- Pier 2 (Looking East)
- Pier 3 (Looking West)
- Pier 8 (Looking South)
- Pier 12 (Looking North)
- Pier 16 (Looking North)



ELEVATION

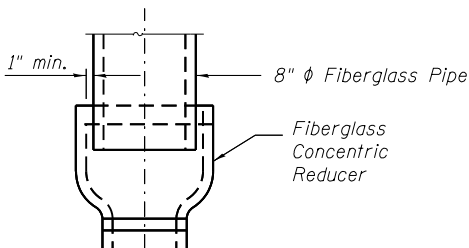


END VIEW

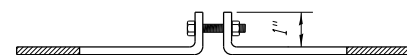
Multiple Scupper Run

DRAINAGE SYSTEM

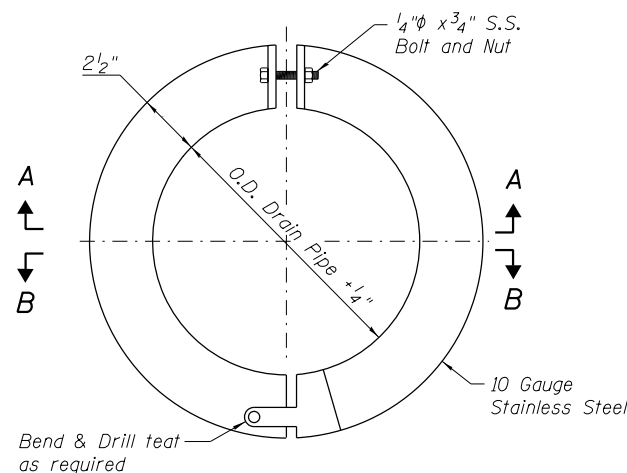
- Pier C2
- Pier 3
- Pier 4
- Pier 9
- Pier 12
- S. Abutment



REDUCER DETAIL



SECTION A-A



SECTION B-B

DETAIL OF EXPANSION COLLAR

TABLE 1

Location	Structure Number
Pier 1 to Pier C2	S2-03
Pier 2	FS201
Pier 3	S2-01
Pier 5 to Pier 4	ES211
Pier 8	S3-07
Pier 11 to Pier 9	S11-01
Pier 12	FS401
Pier 13	S4-07
Pier 15	S4-10A
Pier 16	S5-02
S. Abutment	ES506

*Minimum slope 2.00 %

Single coil, flared loop inserts cast in deck for 3/4" stud bolts

3/4" S.S. Stud Bolts, threaded 3" for insert end and 6" for clamp end, with 2 locknuts

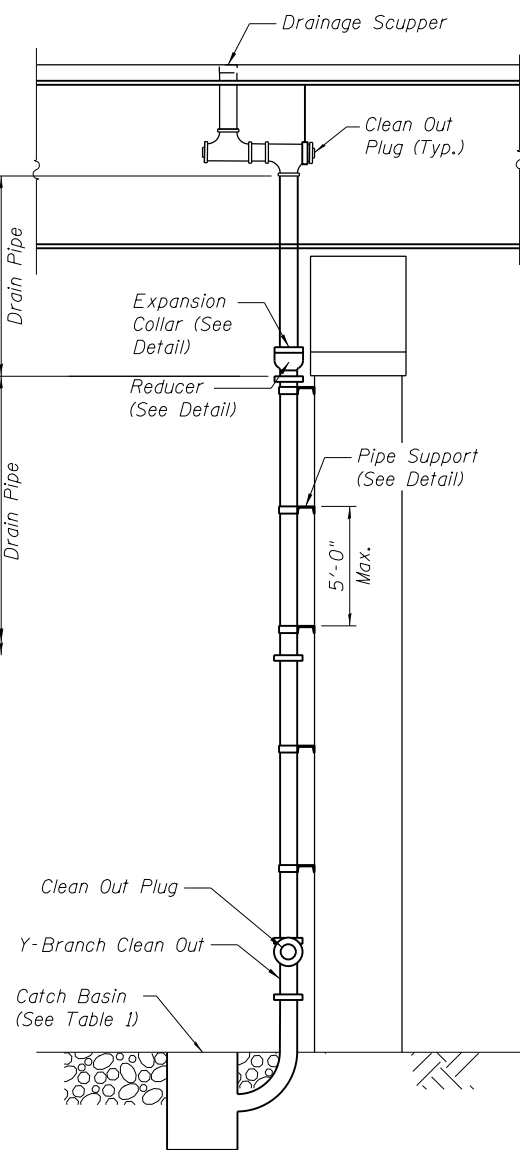
Pipe Clamp galvanized in accordance with AASHTO M-232

PIPE SUPPORT DETAIL

** Dimension as required by Pipe Clamp

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage System	L. Sum	0.6



END VIEW

Single Scupper Run

DRAINAGE SYSTEM

- Pier 2
- Pier 8
- Pier 13
- Pier 15
- Pier 16

NOTES:

- If piping configuration allows, the Contractor shall locate drain pipe for Piers 2, 3, 8, 9 and 12 within the reveals indicated in the Architectural Details. This installation, along with necessary additional pipe bends, supports and related appurtenances are included in the cost of Drainage System.
- S.S. denotes Stainless Steel.

AECOM

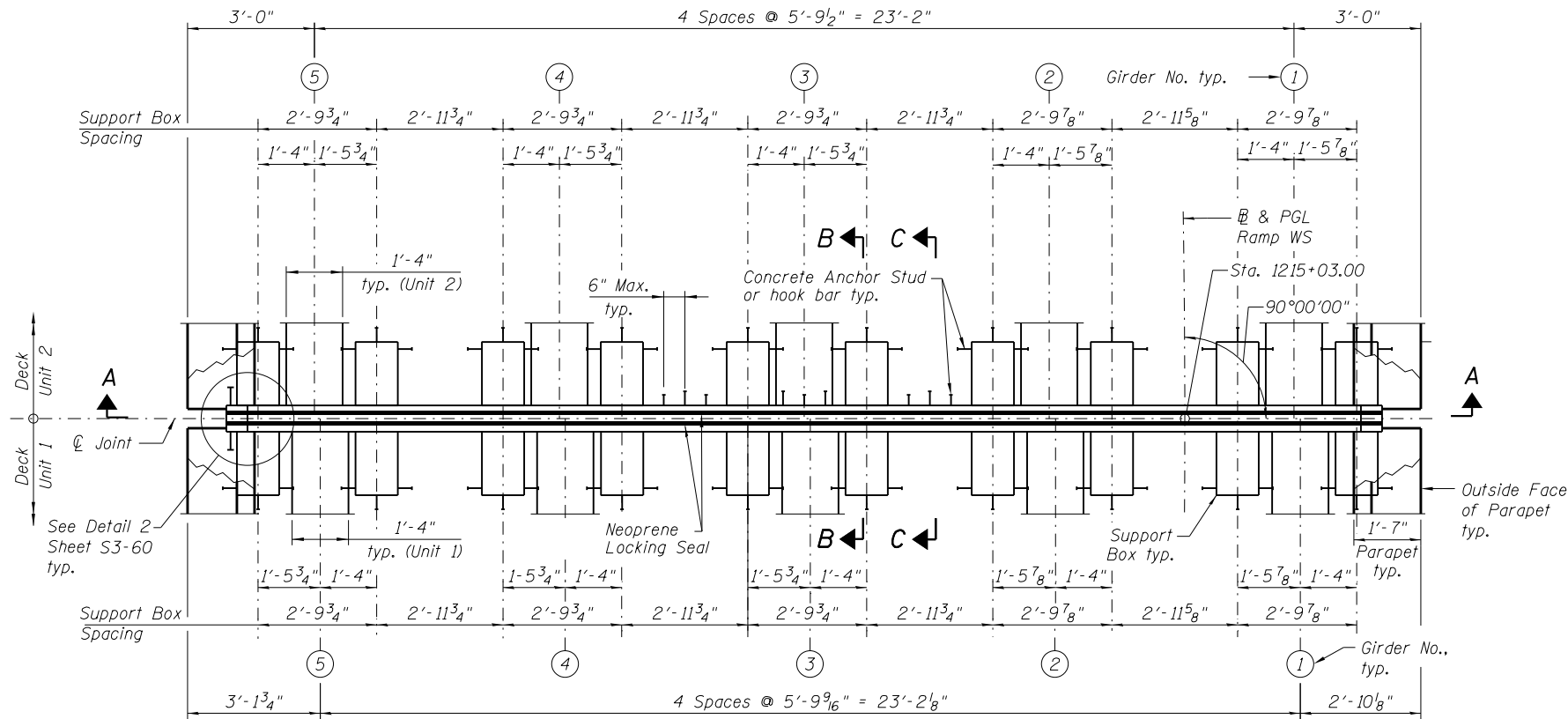
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CHECKED =	ATB	REVISED		
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PLOT DATE =	8/31/2018	CHECKED =	ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

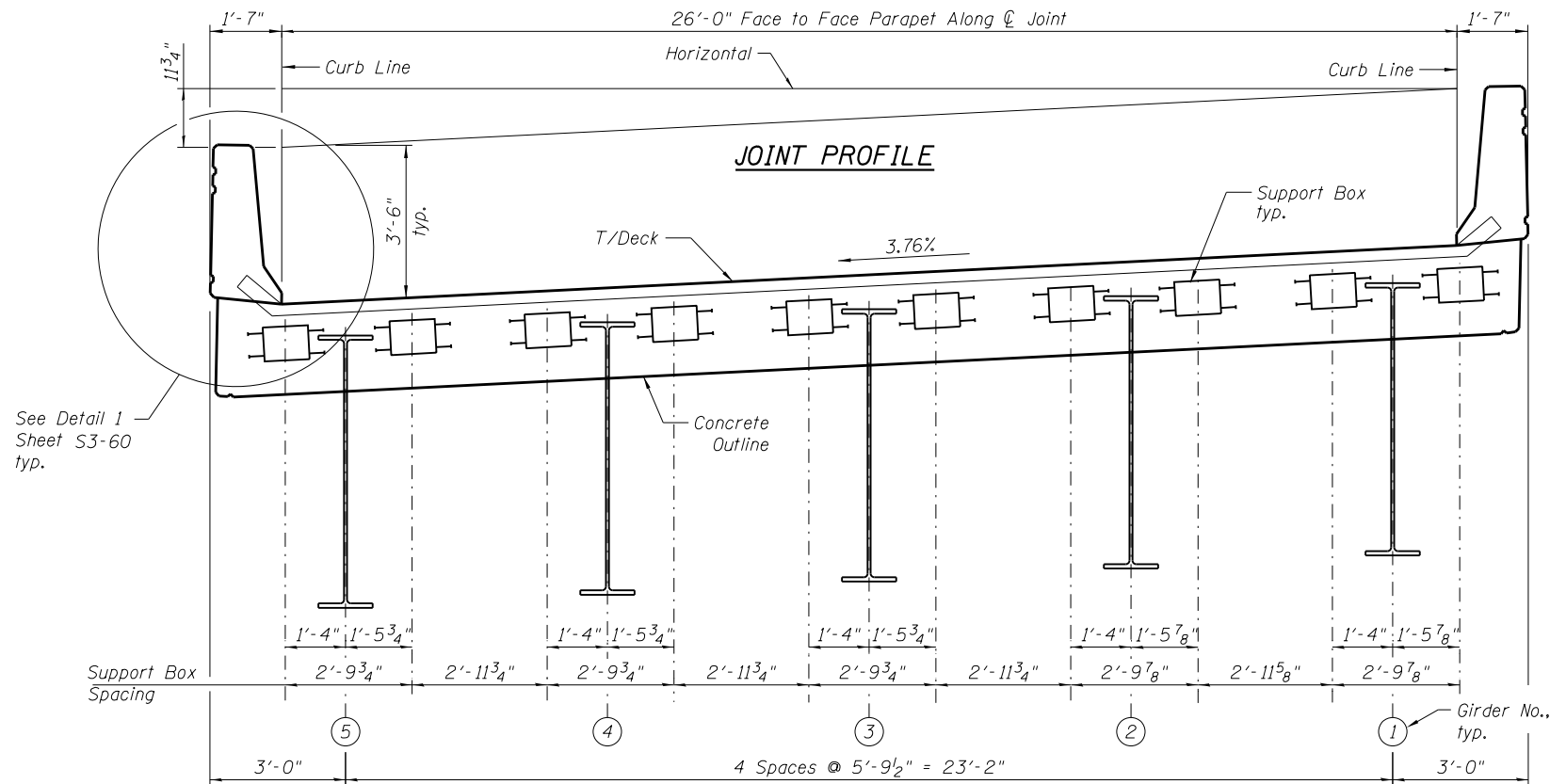
DRAINAGE SYSTEM
STRUCTURE NO. 016-1715

SHEET NO. S3-55 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	797
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



PLAN



SECTION A-A
(Looking Upstation)

Note:
All Concrete Anchor Studs required are not shown on plans for clarity.

GENERAL NOTES:

1. Furnishing and installing Swivel Modular Expansion Joint shall be in accordance with Special Provision Modular Expansion Joint.
2. The swivel modular expansion joint system shall be limited to pre-approved systems as indicated in special provision for Modular Expansion Joint. The joint shall provide the movement as shown in Table A.
3. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
4. Modular expansion joints shall be shipped in one piece unless noted otherwise.
5. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the Concrete Anchor Studs shall be included with Modular Expansion Joint-Swivel, 6".
6. For Sections B-B and C-C, see Sheet S3-60
7. The swivel modular expansion joint system shall assembled in their final relative position with the ends in place for shop inspection and acceptance.
8. Dimensions are measured along C of Joint.
9. Support box dimensions and spacing shown are conceptual only and subject to refinement by the joint manufacturer.

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
Pier 4	6"	6

BILL OF MATERIAL

Item	Unit	Total
Modular Exp. Jt.-Swivel, 6"	Foot	27

AECOM

USER NAME =	vasudevana	DESIGNED -	AV	REVISED
		CHECKED -	ATB	REVISED
PLOT SCALE =	N.T.S.	DRAWN -	ATM	REVISED
PLOT DATE =	7/30/2018	CHECKED -	ATB	REVISED

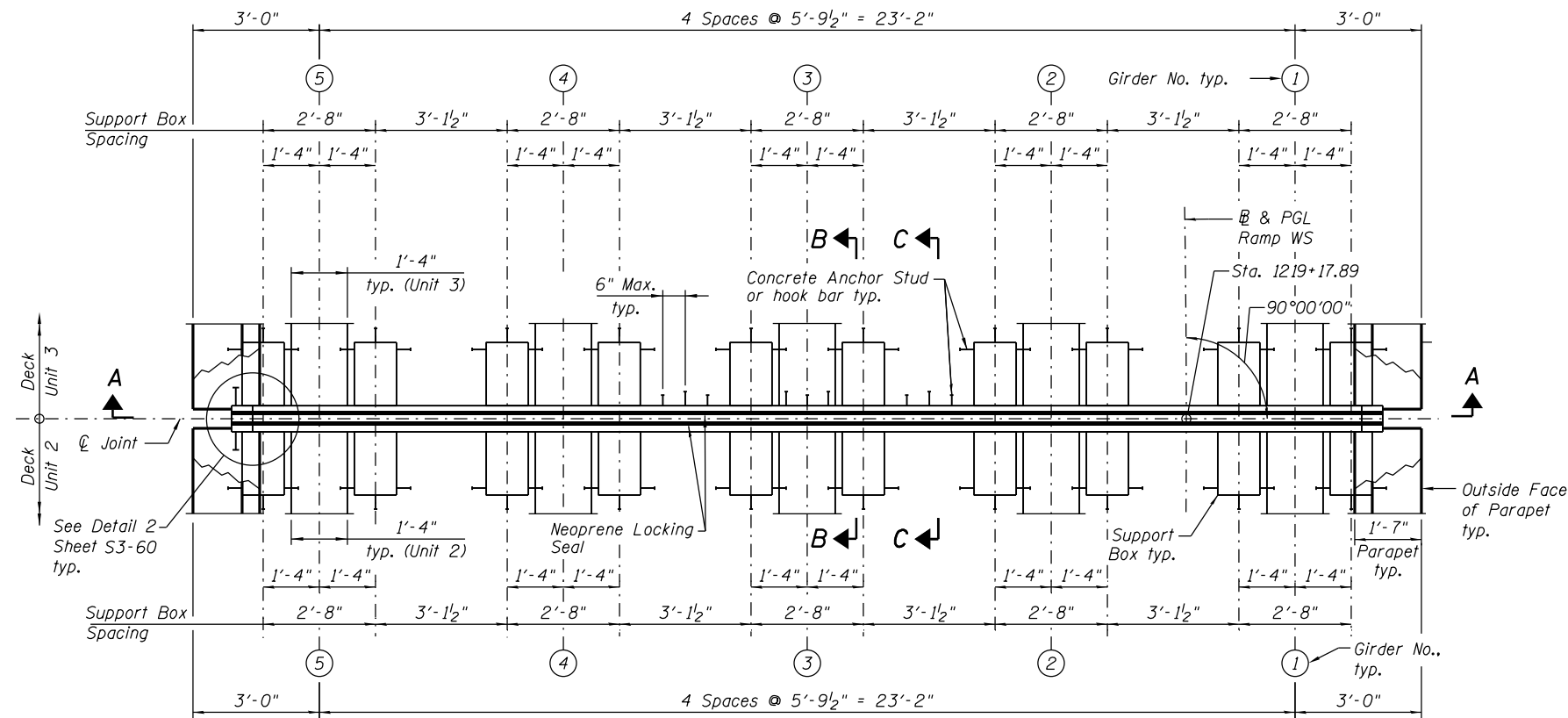
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT – PIER 4
STRUCTURE NO. 016-1715

SHEET NO. S3-56 OF S3-172

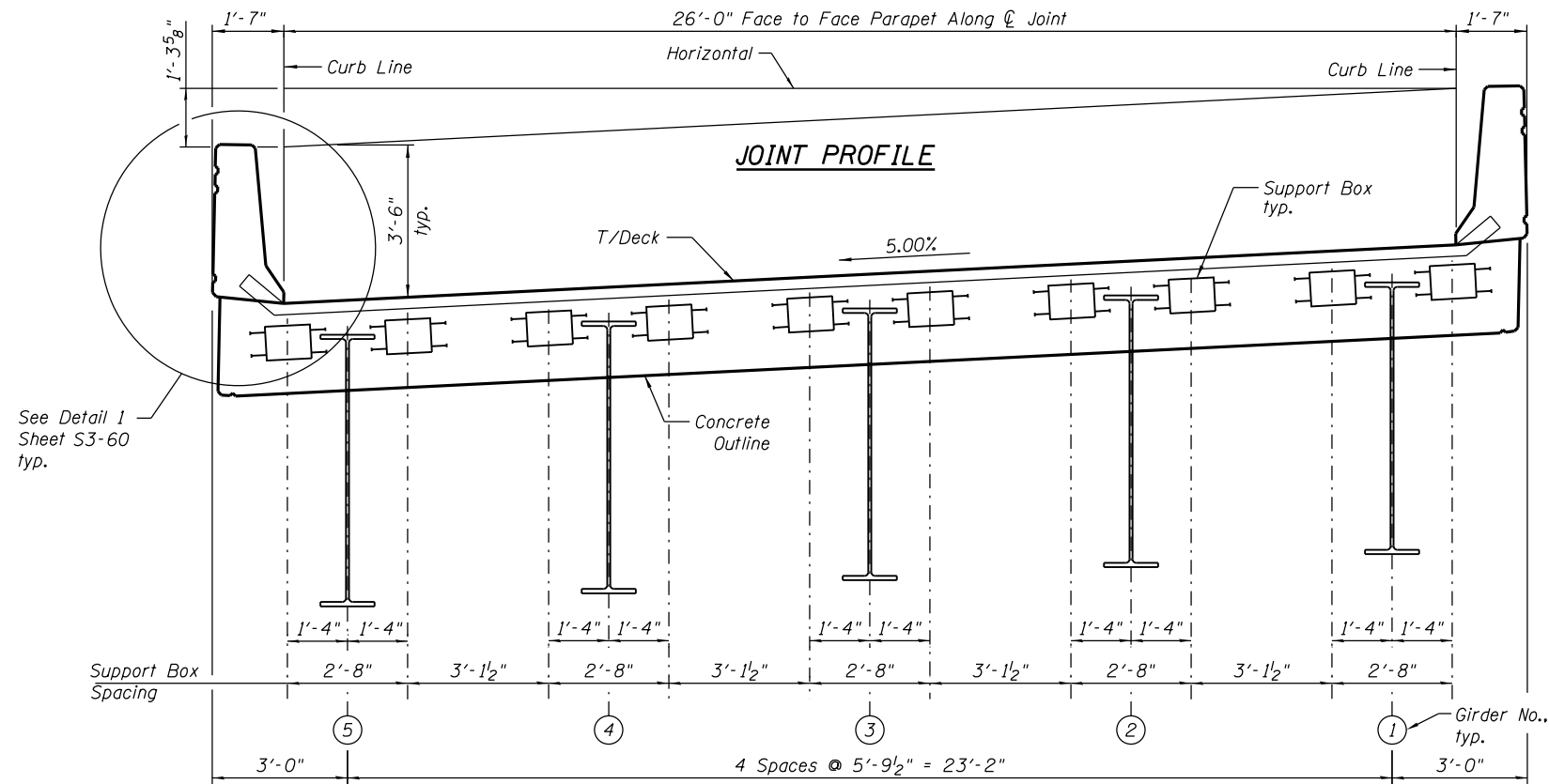
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	798
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S055-ExpJoint



PLAN

Note:
All Concrete Anchor Studs required are not shown on plans for clarity.



SECTION A-A
(Looking Upstation)

NOTES:

- For General Notes, see Sheet S3-56.
- For Sections B-B and C-C, see Sheet S3-60.
- The swivel modular expansion joint system shall be limited to pre-approved systems as indicated in special provision for Modular Expansion Joint. The joint shall provide the movement as shown in Table A.
- Dimensions are measured along ϕ of Joint.
- Support box dimensions and spacing shown are conceptual only and subject to refinement by joint manufacturer.

TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
Pier 8	5 3/4"	6

BILL OF MATERIAL

Item	Unit	Total
Modular Exp. Jt.-Swivel, 6"	Foot	27

AECOM

USER NAME = floresg	DESIGNED - AV	REVISED
PLOT SCALE = N.T.S.	CHECKED - ATB	REVISED
PLOT DATE = 7/26/2018	DRAWN - ATM	REVISED
	CHECKED - ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT - PIER 8
STRUCTURE NO. 016-1715

SHEET NO. S3-57 OF S3-172

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	799
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				

0161715-60X93-S056-ExpJoint.dgn

0161715-60X93-S057-ExpJoint.dgn

AECOM

USER NAME = floresg
PLOT SCALE = N.T.S.
PLOT DATE = 7/26/2018

DESIGNED - AV
CHECKED - ATB
DRAWN - ATM
CHECKED - ATB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT - PIER 11
STRUCTURE NO. 016-1715

SHEET NO. S3-58 OF S3-172

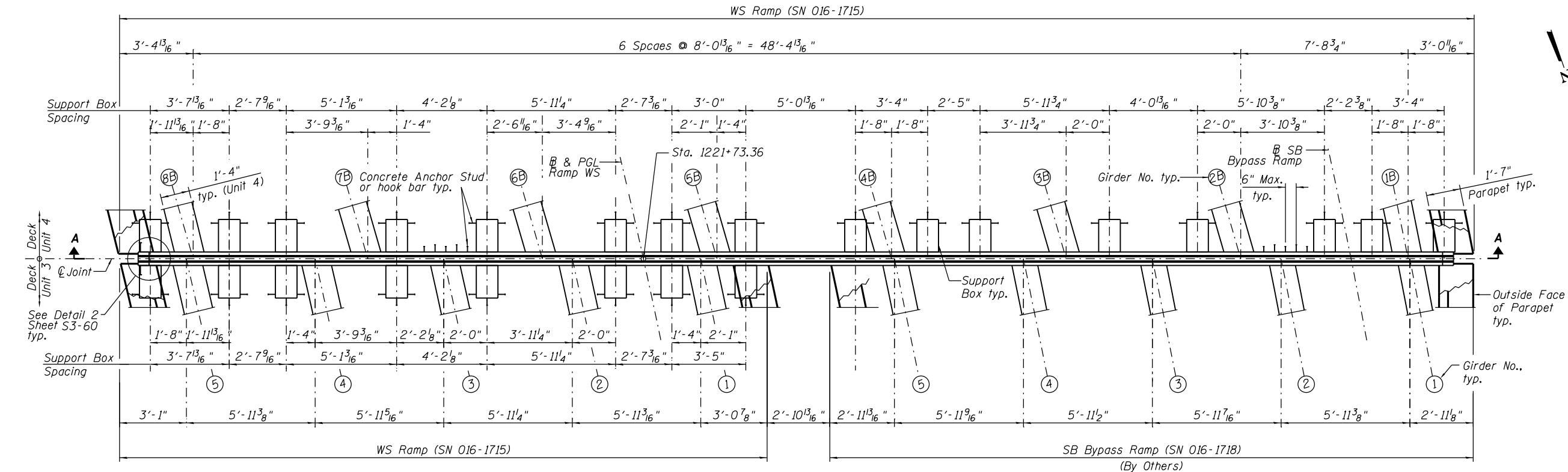
TABLE A

Location	Longitudinal Movement (Inch)	Size (Inch)
Pier 11	5 1/2"	6

BILL OF MATERIAL

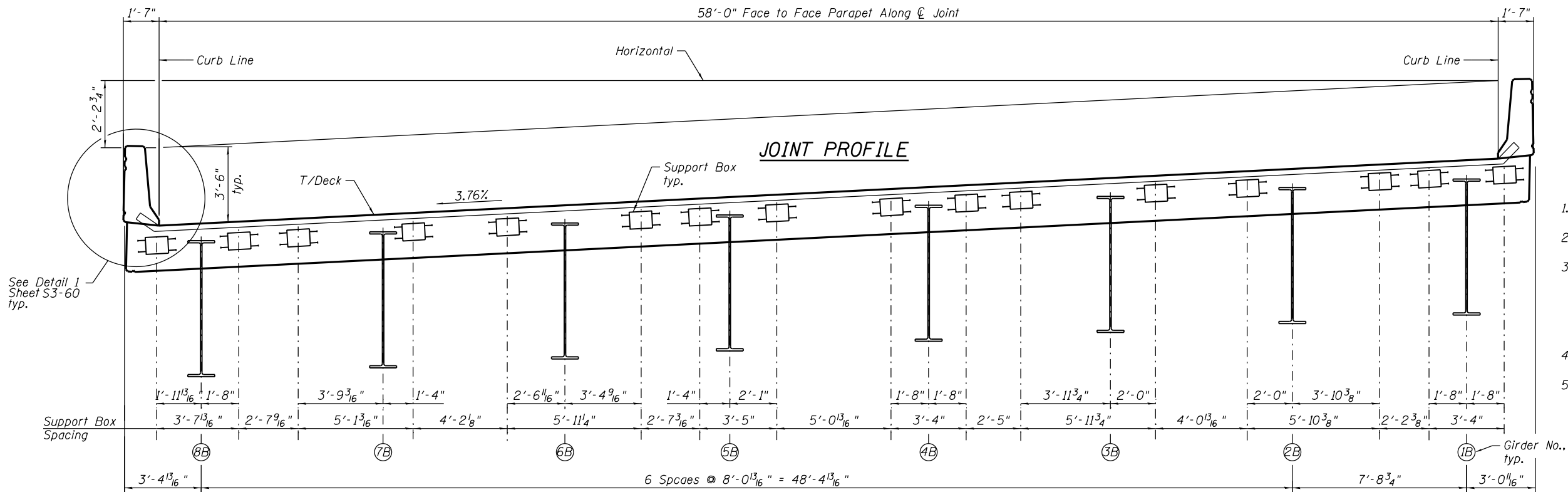
Item	Unit	Total
Modular Exp. Jt.-Swivel, 6"	Foot	59

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-013R&B-R	COOK	1972	800
CONTRACT NO. 60X93				
ILLINOIS FED. AID PROJECT				



Note:
All Concrete Anchor Studs required are not shown on plans for clarity.

PLAN



SECTION A-A

(Looking Upstation)

NOTES:

- For General Notes, see Sheet S3-56.
- For Sections B-B and C-C, see Sheet S3-60.
- The swivel modular expansion joint system shall be limited to pre-approved systems as indicated in special provision for Modular Expansion Joint. The joint shall provide the movement as shown in Table A.
- Dimensions are measured along C of Joint.
- Support box dimensions and spacing shown are conceptual only and subject to refinement by joint manufacturer.