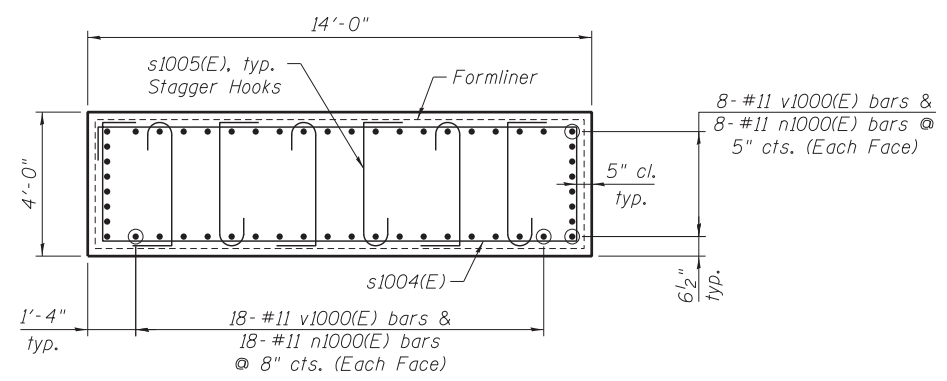
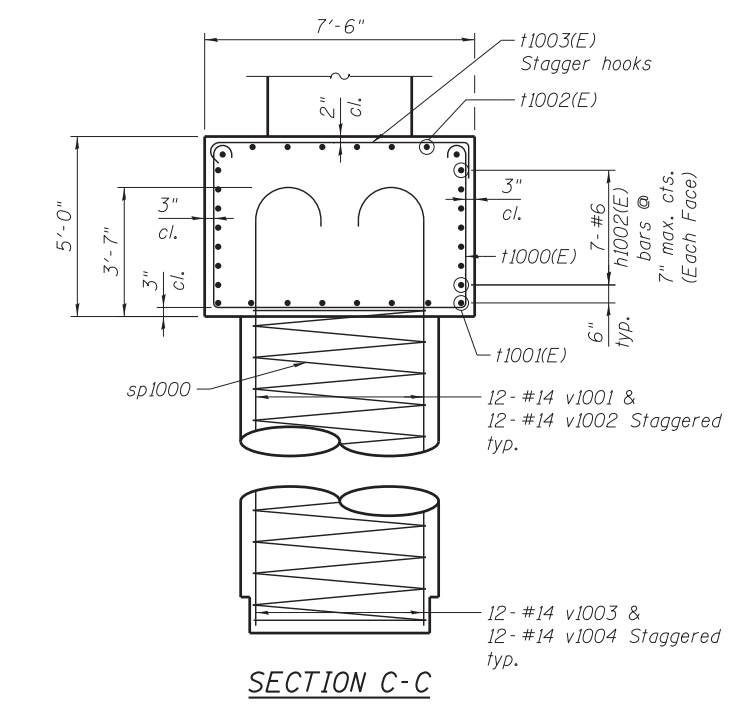


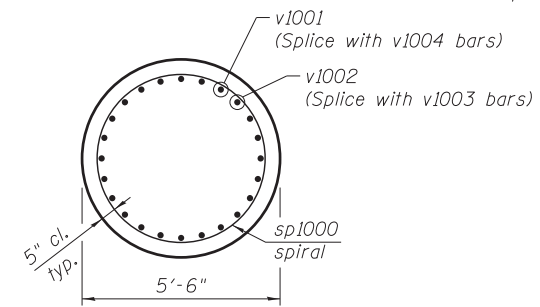
SECTION A-A



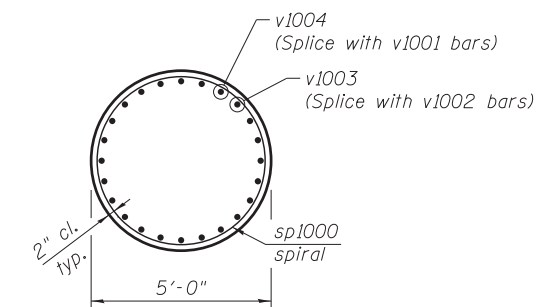
SECTION B-B



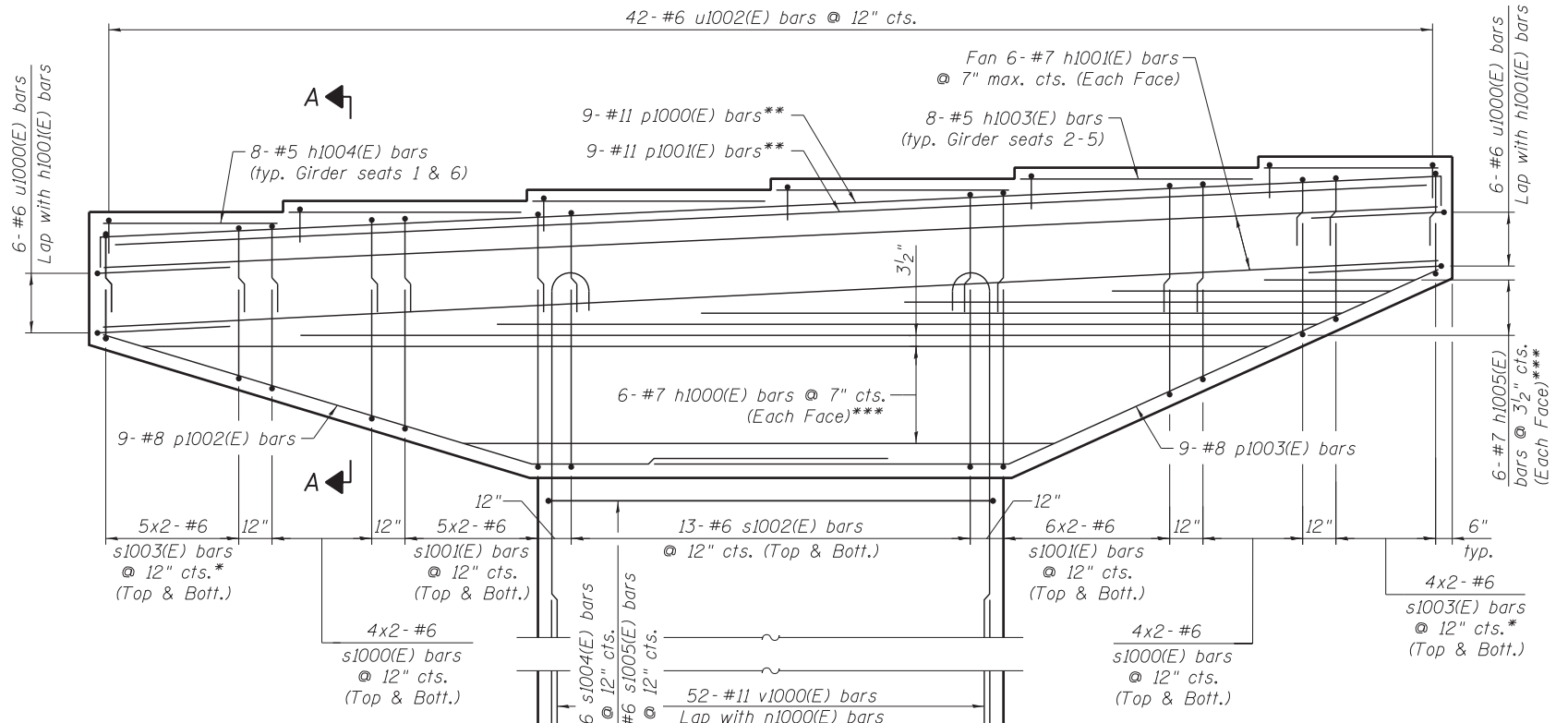
SECTION C-C



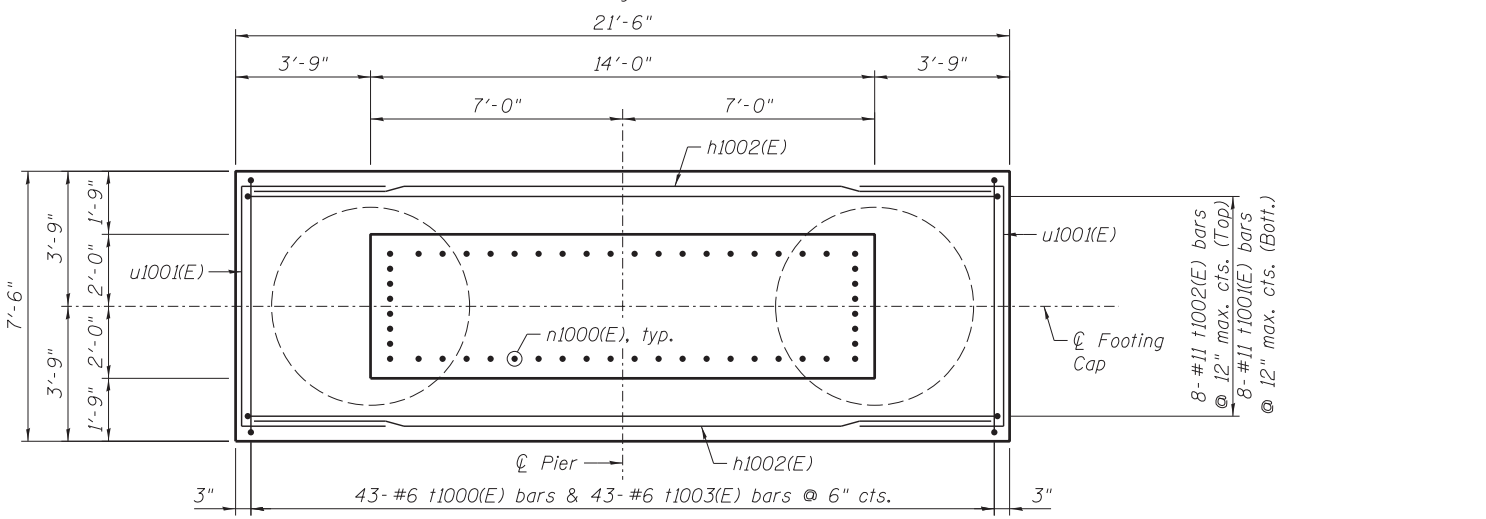
SECTION D-D



SECTION E-E



ELEVATION
(Looking East)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
** Slope with bearing steps.
*** see Field Cutting Diagram on sheet S-177.

- NOTES:**
1. Space reinforcement in cap to miss anchor bolts.
 2. sp1000 spiral:
1) Provide 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. 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 105° standard hook.
 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
 4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

433.0161503_60x07_Pier10-2.dgn



USER NAME = krtizm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

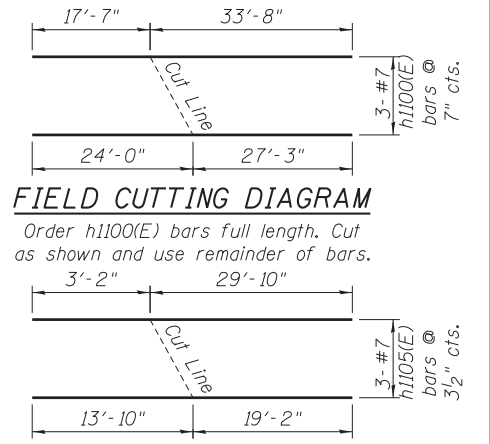
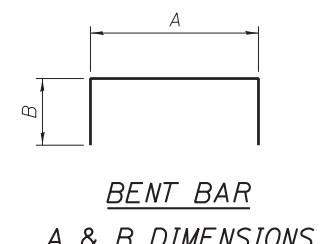
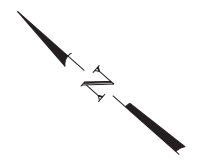
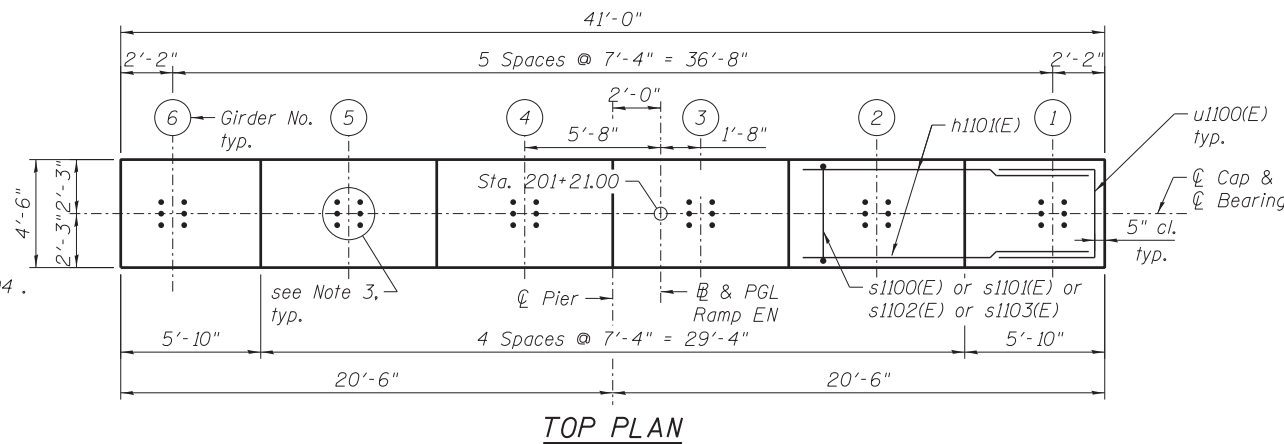
PIER 10E DETAILS - S.N. 016-1503
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)
SHEET NO. S-178 OF S-218 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 701
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				

NOTES:

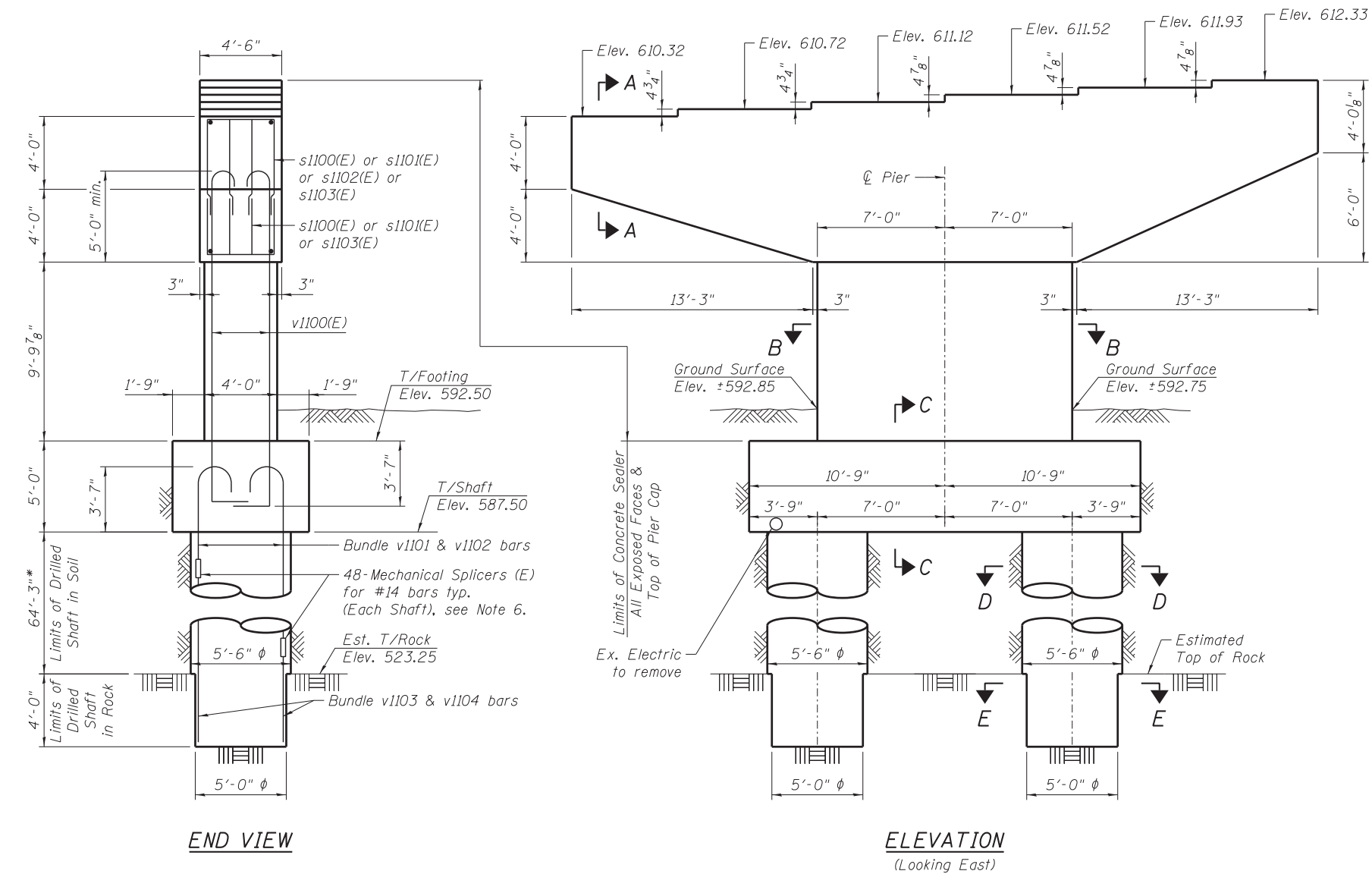
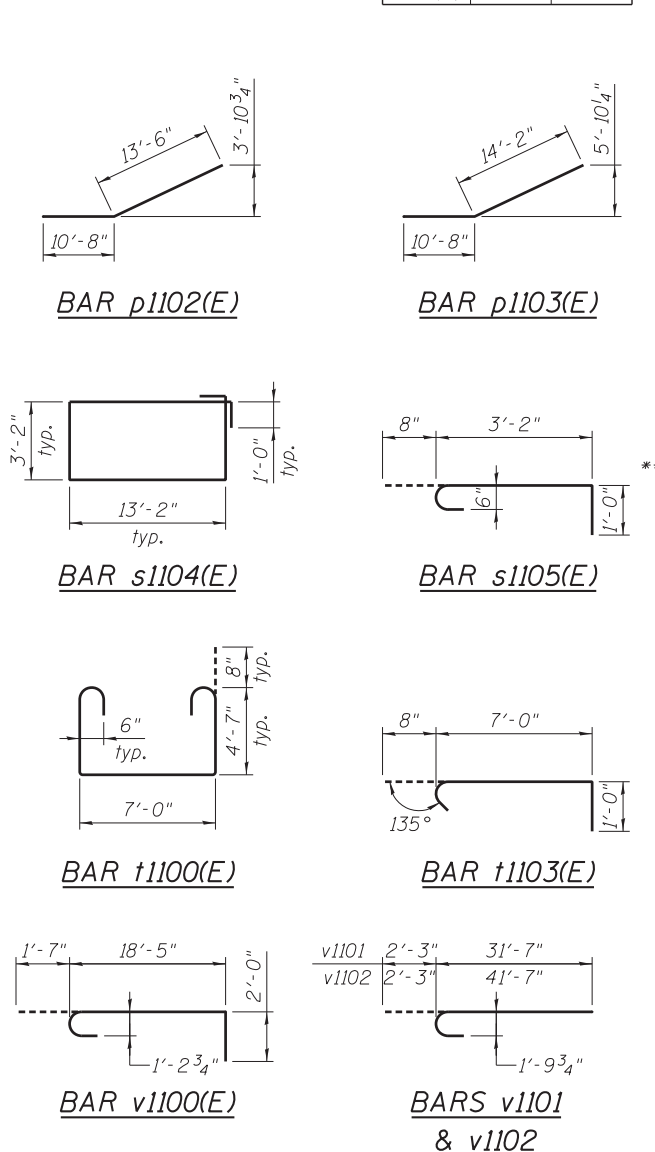
1. Pour steps monolithically with cap.
2. ϕ of Pier is radial to Ramp EN at Sta. 201+21.00.
3. For Anchor Bolts Details, see Sheet S-149.
4. For Architectural Details, see Sheets S-191 thru S-193.
5. For Sections and Details, see Sheet S-180.
6. For Mechanical Splicer Details and Quantities, see Sheet S-194.

* 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.



TYP. MIN. LAP LENGTH

- #6 bars: 3'-10"
- #8 bars: 6'-9"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1100(E)	6	#7	51'-3"	—
h1101(E)	12	#7	40'-2"	—
h1102(E)	14	#11	21'-0"	—
h1103(E)	20	#5	6'-6"	—
h1104(E)	10	#5	4'-10"	—
h1105(E)	6	#7	33'-0"	—
p1100(E)	7	#11	46'-2"	┌┐
p1101(E)	14	#11	39'-6"	┌┐
p1102(E)	6	#8	24'-2"	┌┐
p1103(E)	6	#8	24'-10"	┌┐
s1100(E)	44	#6	12'-4"	┌┐
s1101(E)	84	#6	15'-0"	┌┐
s1102(E)	28	#6	16'-2"	┌┐
s1103(E)	60	#6	11'-2"	┌┐
s1104(E)	11	#6	34'-8"	┌┐
s1105(E)	66	#6	4'-10"	┌┐
sp1100	2	#6	68'-6"	~
t1100(E)	43	#6	17'-6"	┌┐
t1101(E)	10	#11	27'-0"	┌┐
t1102(E)	10	#11	26'-0"	┌┐
t1103(E)	43	#6	8'-8"	┌┐
u1100(E)	12	#6	11'-6"	┌┐
u1101(E)	14	#6	15'-0"	┌┐
u1102(E)	42	#6	5'-8"	┌┐
v1100(E)	72	#11	22'-0"	┌┐
v1101	48	#14	33'-10"	┌┐
v1102	48	#14	43'-10"	┌┐
v1103	48	#14	30'-0"	┌┐
v1104	48	#14	40'-0"	┌┐
Structure Excavation		Cu. Yd.	58	
Concrete Structures		Cu. Yd.	100.8	
Reinforcement Bars, Epoxy Coated		Pound	28,460	
Reinforcement Bars		Pound	60,390	
Drilled Shaft in Soil		Cu. Yd.	113.1	
Drilled Shaft in Rock		Cu. Yd.	5.9	
Concrete Sealer		Sq. Ft.	1,309	
Crosshole Sonic Logging		Each	1	

**Length is height of spiral

434_0161503_60x07_Pier11-1.dgn



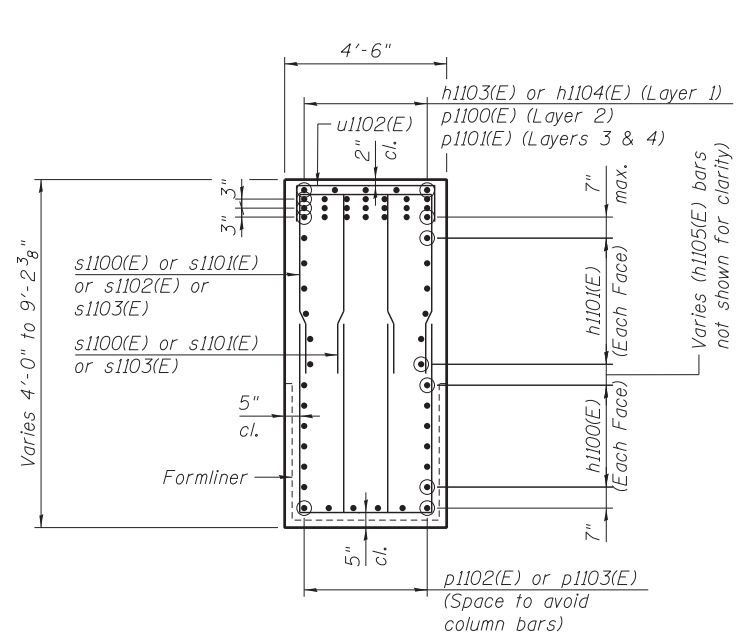
USER NAME = kritz	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

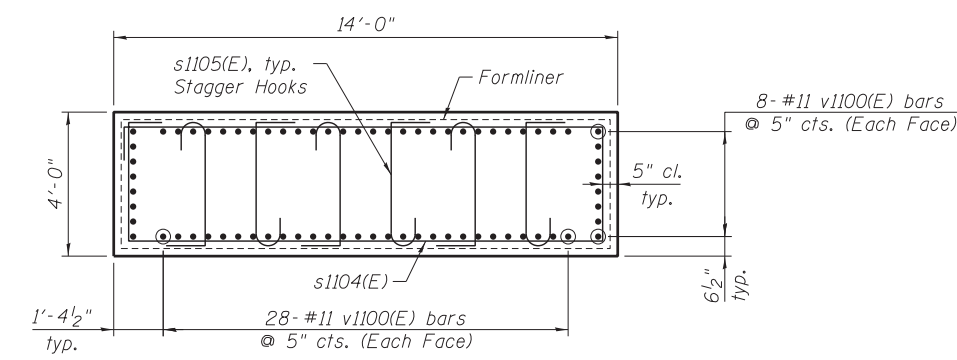
**PIER 11E PLAN & ELEVATION - S.N. 016-1503
 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

SHEET NO. S-179 OF S-218 SHEETS

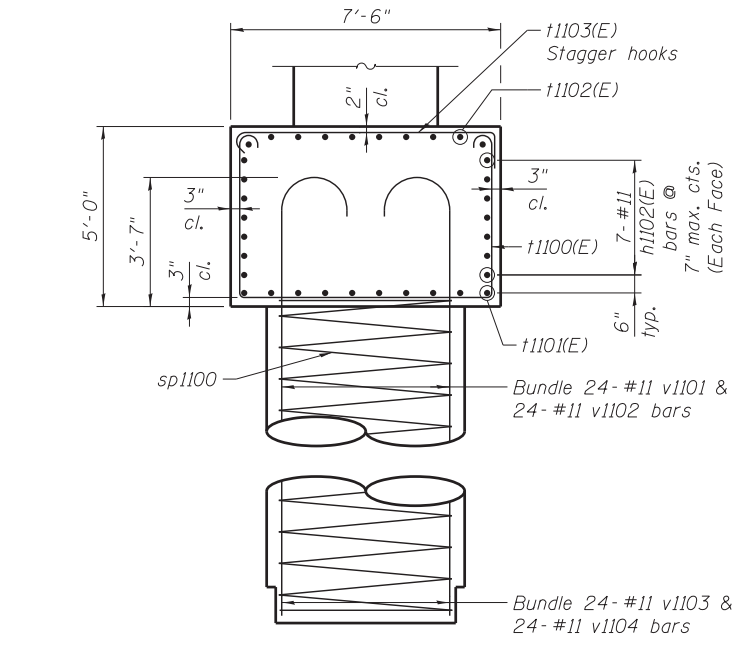
F.A.I. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	702
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				



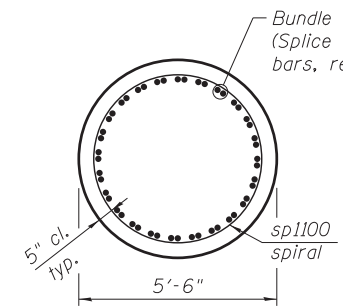
SECTION A-A



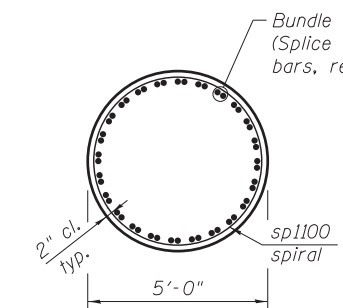
SECTION B-B



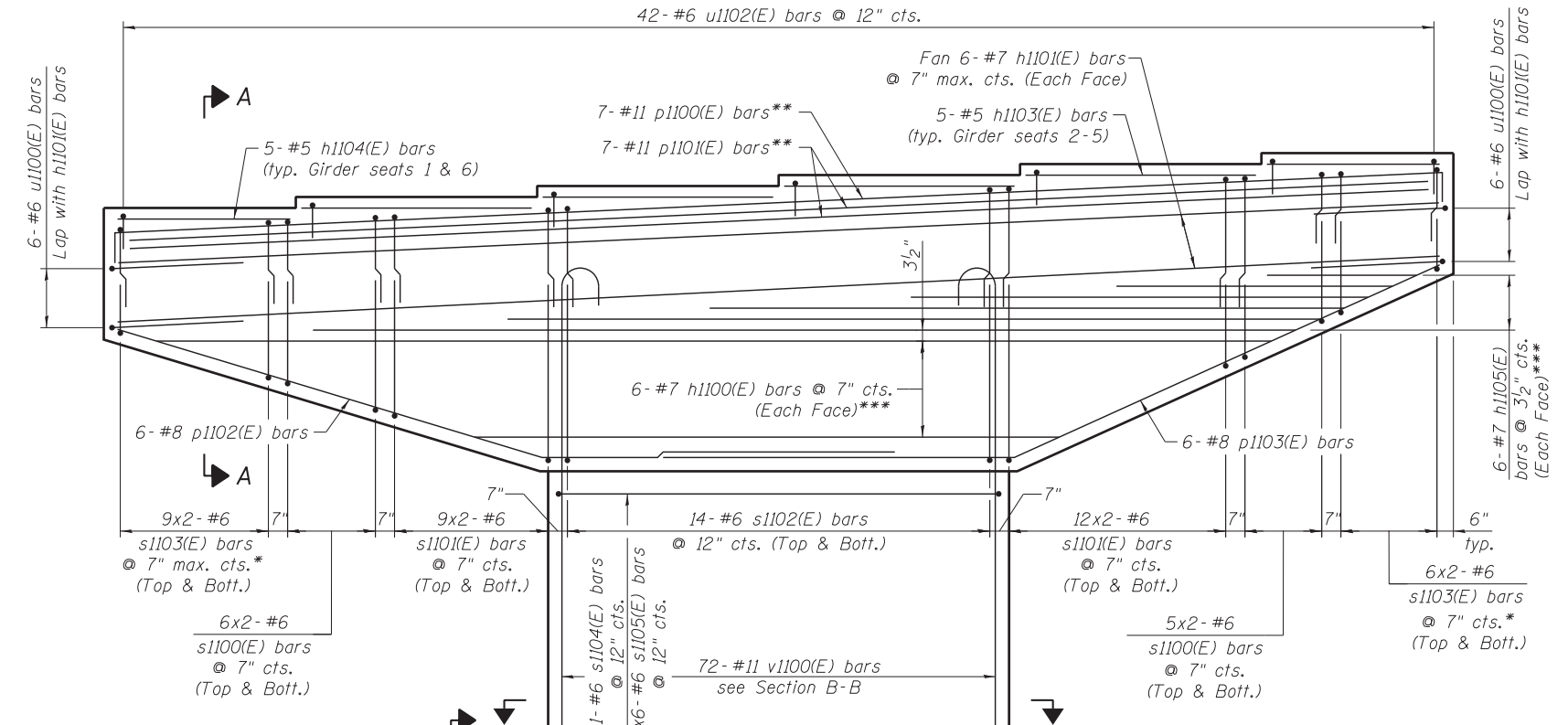
SECTION C-C



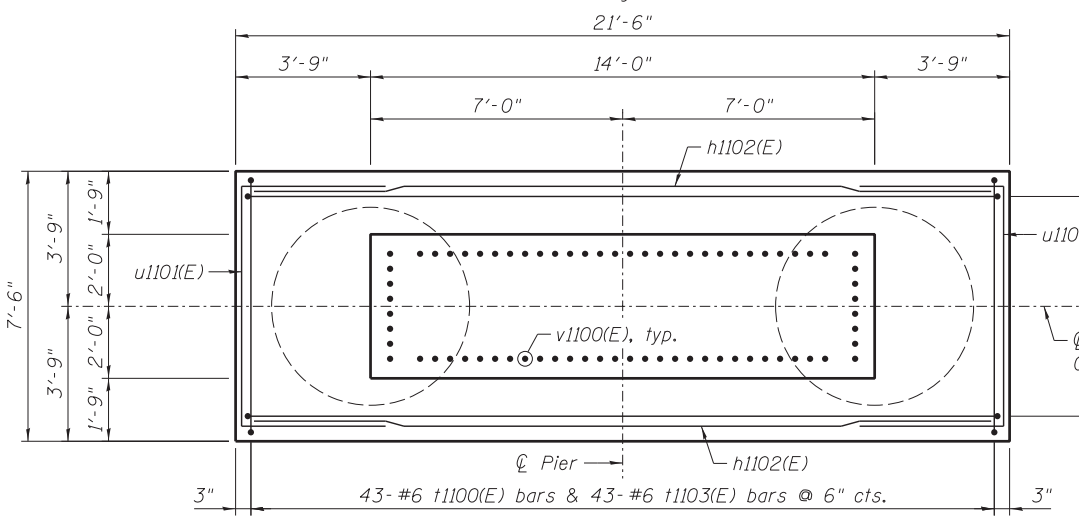
SECTION D-D



SECTION E-E



ELEVATION
(Looking East)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
 ** Slope with bearing steps. see Field Cutting Diagram on sheet S-179.
 *** See Field Cutting Diagram on sheet S-179.

- NOTES:**
- Space reinforcement in cap to miss anchor bolts.
 - sp1100 spiral:
 - Provide 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. Provide 4-#4 spacers or equivalent.
 - 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.
 - Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
 - A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

435_0161503_60x07_Pier11-2.dgn



USER NAME = krtzm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 11E DETAILS - S.N. 016-1503
 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 703
CONTRACT NO. 60X07				

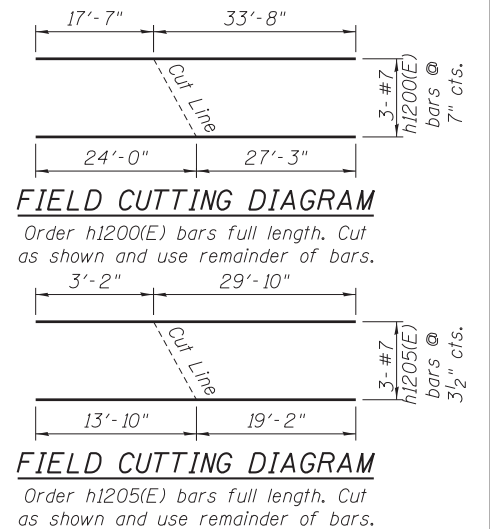
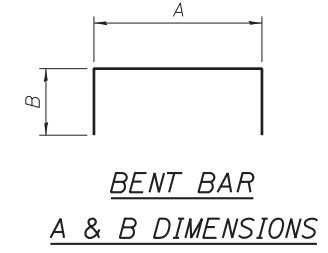
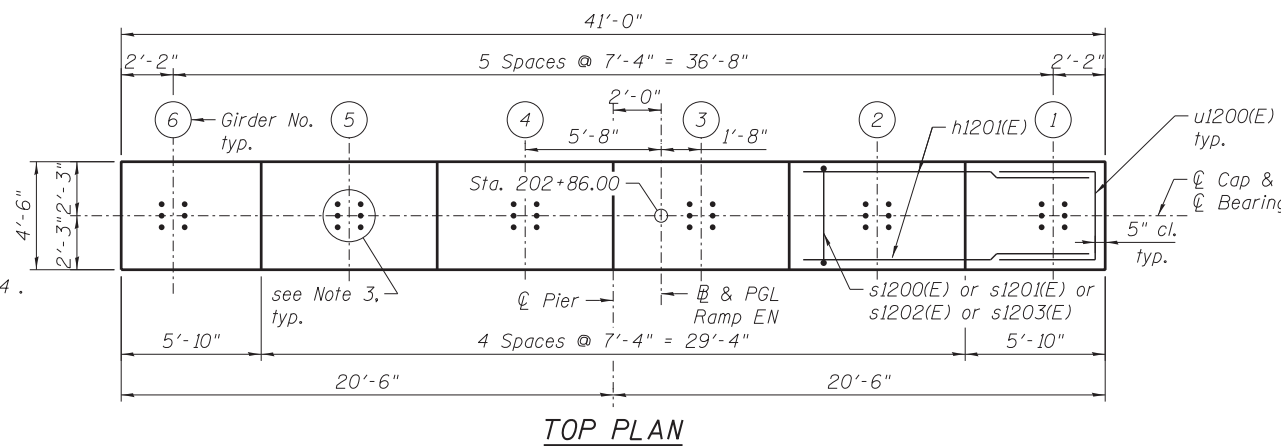
SHEET NO. S-180 OF S-218 SHEETS

ILLINOIS FED. AID PROJECT

NOTES:

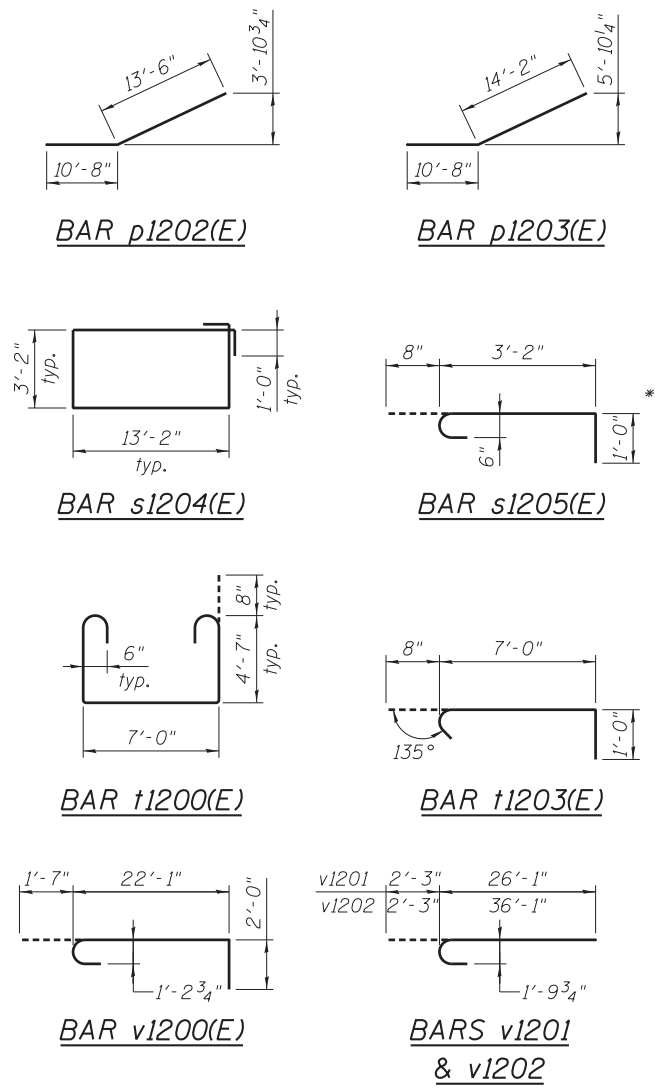
1. Pour steps monolithically with cap.
2. ϕ of Pier is radial to ϕ Ramp EN at Sta. 202+86.00.
3. For Anchor Bolts Details, see Sheet S-149.
4. For Architectural Details, see Sheets S-191 thru S-193.
5. For Sections and Details, see Sheet S-182.
6. For Mechanical Splicer Details and Quantities, see Sheet S-194.

* 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.



TYP. MIN. LAP LENGTH

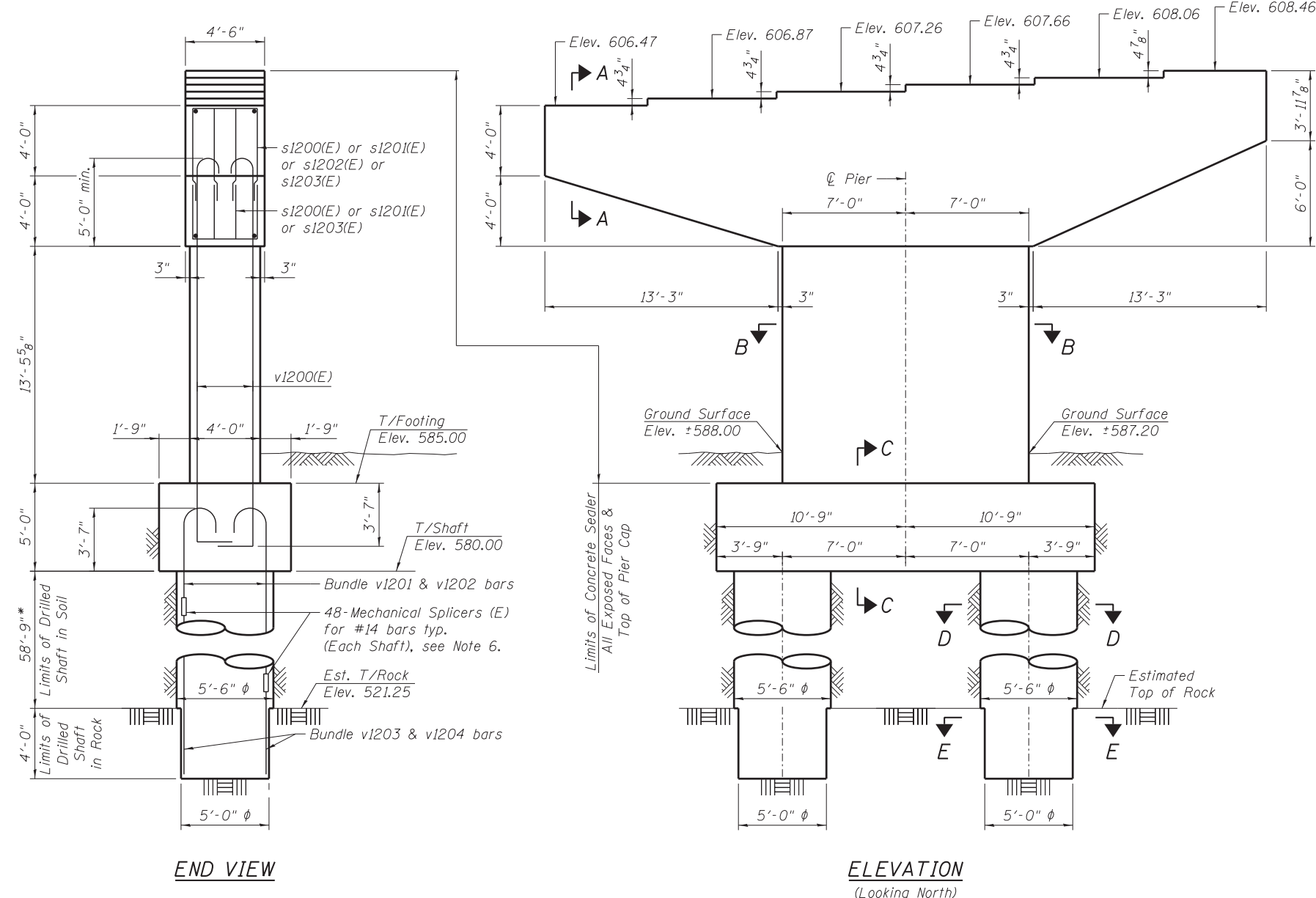
- #6 bars: 3'-10"
- #8 bars: 6'-9"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1200(E)	6	#7	51'-3"	—
h1201(E)	12	#7	40'-2"	—
h1202(E)	14	#11	21'-0"	—
h1203(E)	20	#5	6'-6"	—
h1204(E)	10	#5	4'-10"	—
h1205(E)	6	#7	33'-0"	—
p1200(E)	7	#11	46'-2"	□
p1201(E)	14	#11	39'-6"	—
p1202(E)	6	#8	24'-2"	—
p1203(E)	6	#8	24'-10"	—
s1200(E)	44	#6	12'-4"	□
s1201(E)	84	#6	15'-0"	□
s1202(E)	28	#6	16'-2"	□
s1203(E)	60	#6	11'-2"	□
s1204(E)	15	#6	34'-8"	□
s1205(E)	90	#6	4'-10"	□
sp1200	2	#6	63'-0"	—
t1200(E)	43	#6	17'-6"	—
t1201(E)	10	#11	27'-0"	—
t1202(E)	10	#11	26'-0"	—
t1203(E)	43	#6	8'-8"	—
u1200(E)	12	#6	11'-6"	—
u1201(E)	14	#6	15'-0"	—
u1202(E)	42	#6	5'-8"	—
v1200(E)	72	#11	25'-8"	—
v1201	48	#14	28'-4"	—
v1202	48	#14	38'-4"	—
v1203	48	#14	30'-0"	—
v1204	48	#14	40'-0"	—
Concrete Structures		Cu. Yd.	108.2	
Reinforcement Bars, Epoxy Coated		Pound	30,240	
Reinforcement Bars		Pound	55,865	
Drilled Shaft in Soil		Cu. Yd.	103.4	
Drilled Shaft in Rock		Cu. Yd.	5.9	
Concrete Sealer		Sq. Ft.	1,441	
Structure Excavation		Cu. Yd.	83	
Crosshole Sonic Logging		Each	1	

**Length is height of spiral



436.0161503_60X07_Pier12-1.dgn



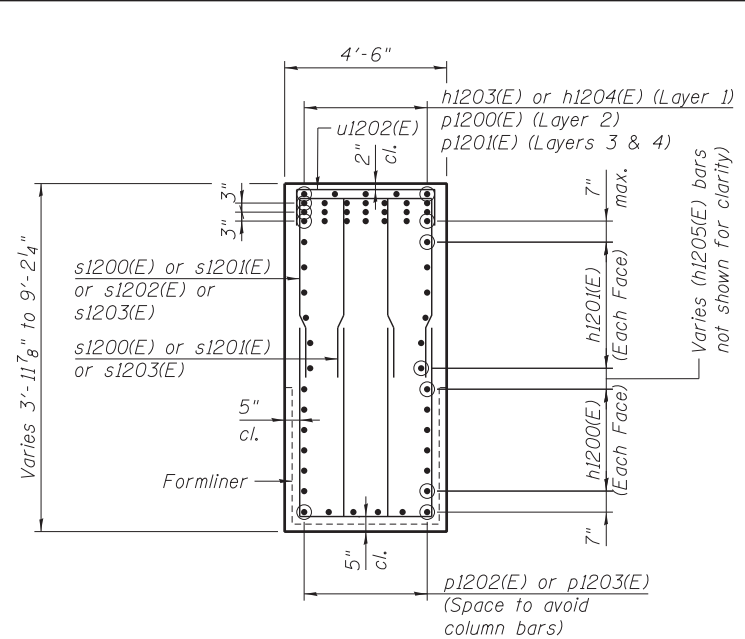
USER NAME = kritzm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

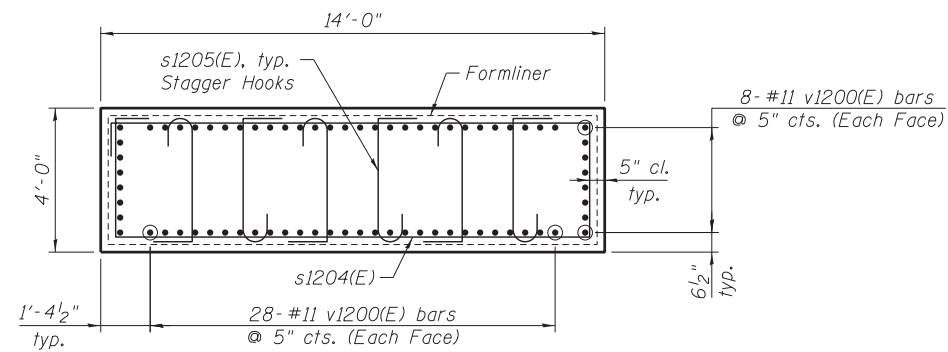
**PIER 12E PLAN & ELEVATION - S.N.016-1503
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

SHEET NO. S-181 OF S-218 SHEETS

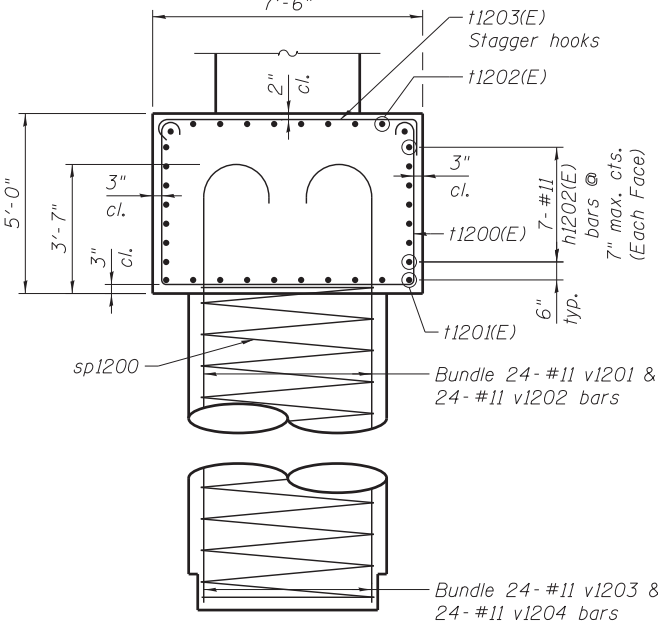
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	704
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



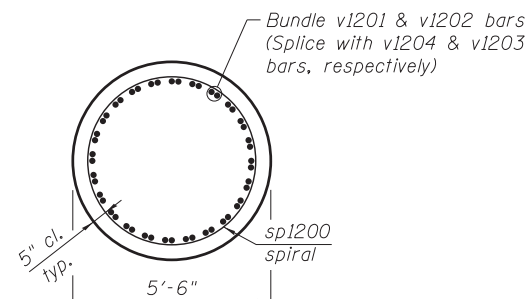
SECTION A-A



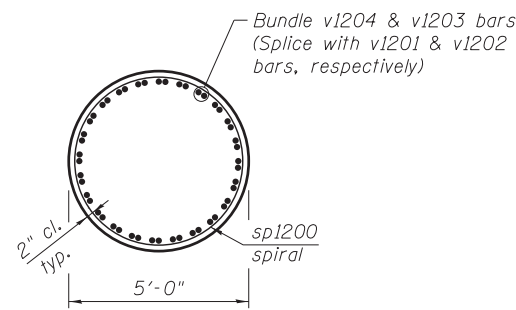
SECTION B-B



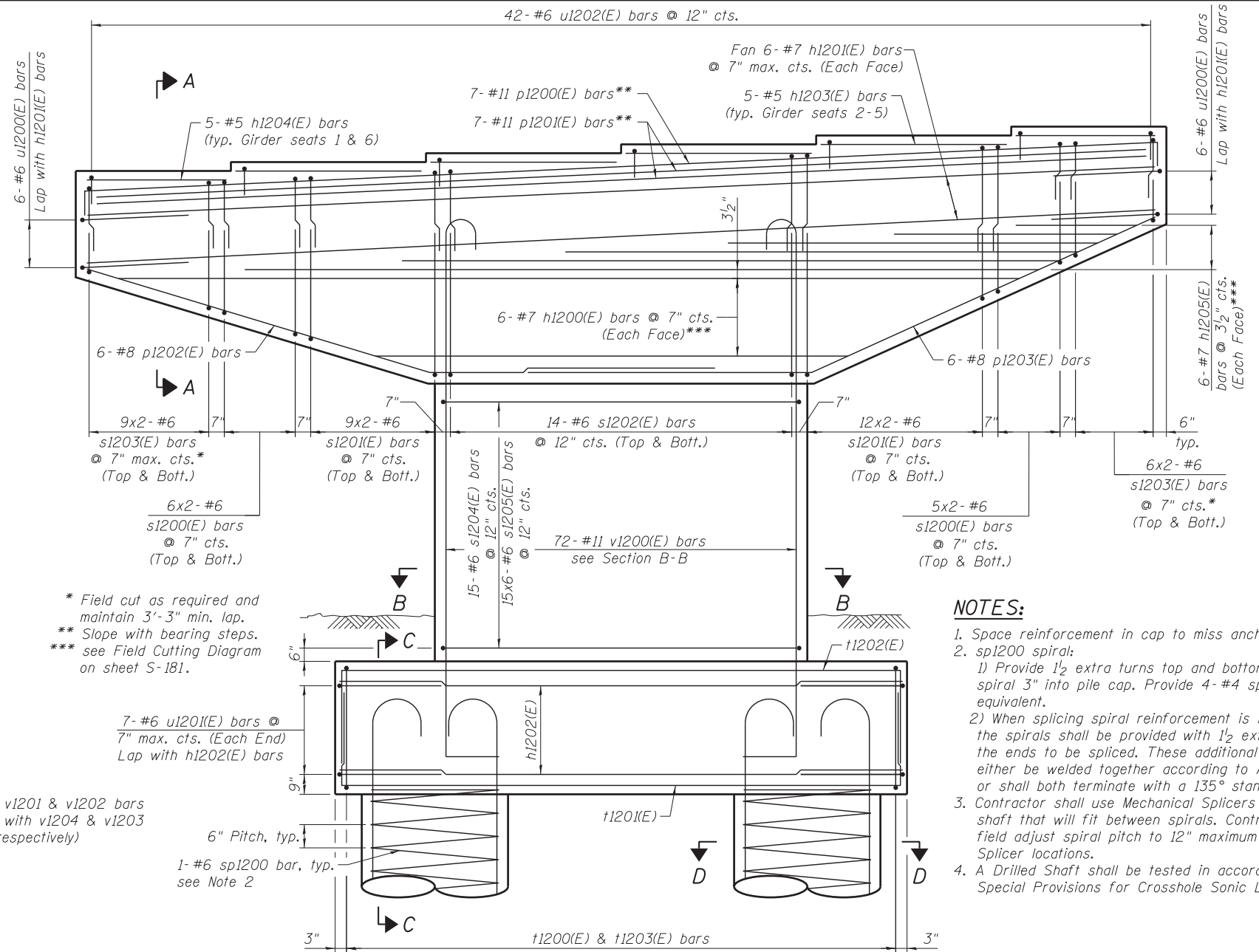
SECTION C-C



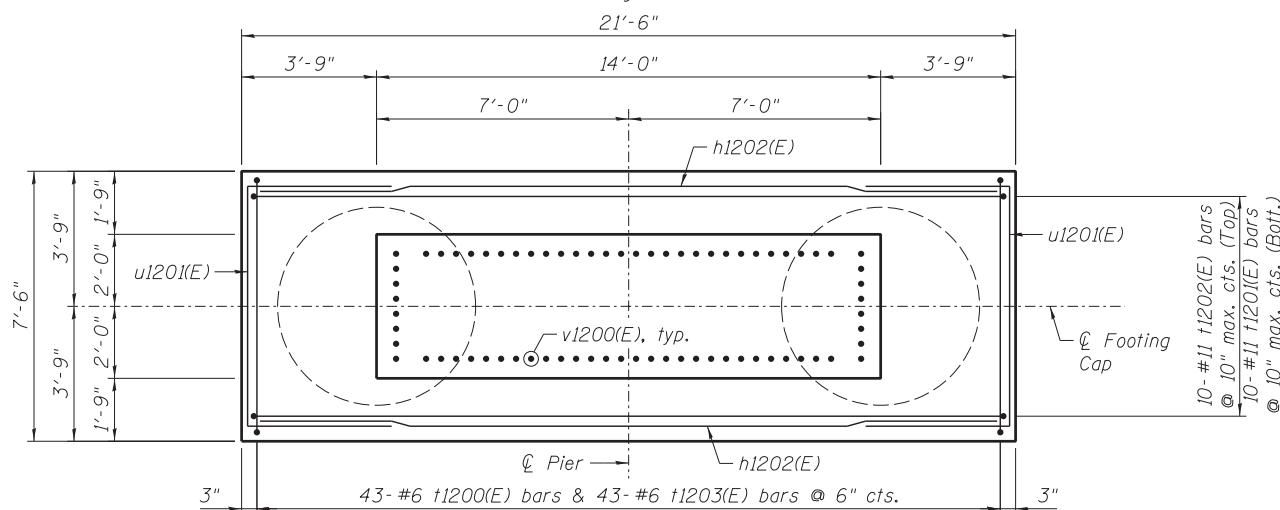
SECTION D-D



SECTION E-E



ELEVATION
(Looking North)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
** Slope with bearing steps. see Field Cutting Diagram on sheet S-181.

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. sp1200 spiral:
 - 1) Provide 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. 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.
3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

437_0161503_60x07_Pier12-2.dgn



USER NAME = krtizm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 12E DETAILS - S.N. 016-1503
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

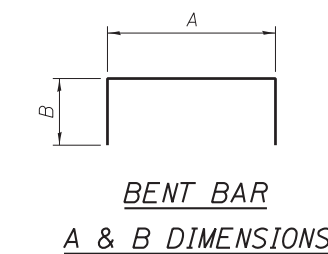
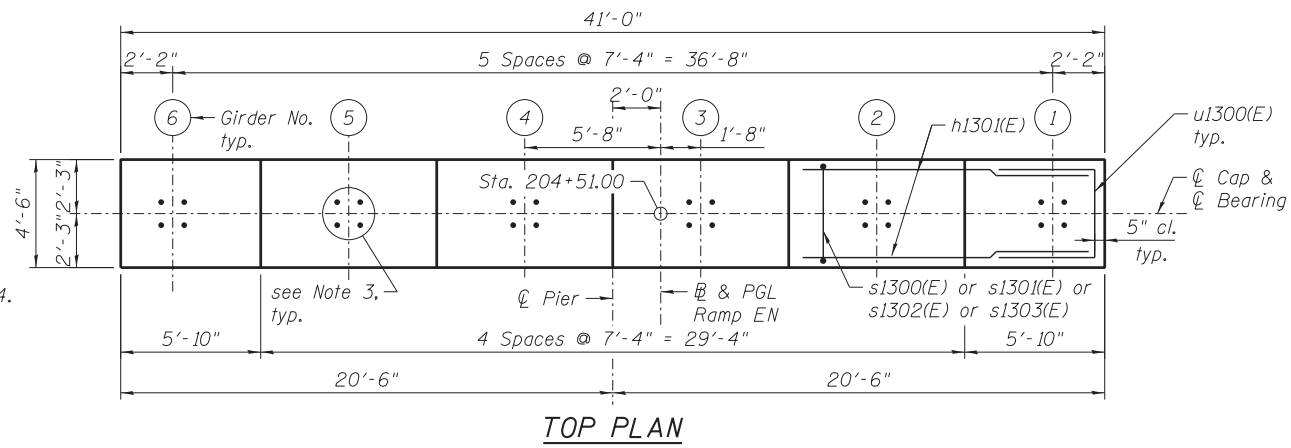
SHEET NO. S-182 OF S-218 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 705
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				

NOTES:

1. Pour steps monolithically with cap.
2. ϕ of Pier is radial to Ramp EN at Sta. 204+51.00.
3. For Anchor Bolts Details, see Sheet S-147.
4. For Architectural Details, see Sheets S-191 thru S-193.
5. For Sections and Details, see Sheet S-184.
6. For Mechanical Splicer Details and Quantities, see Sheet S-194.

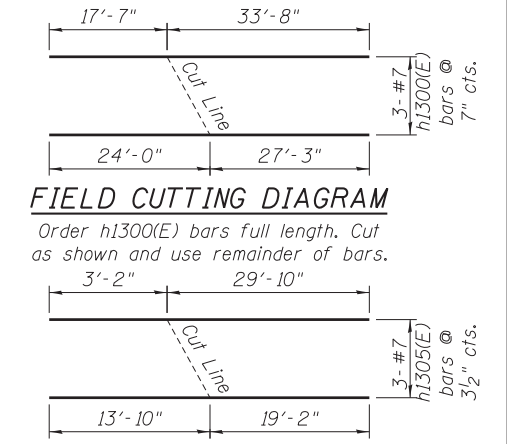
* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.



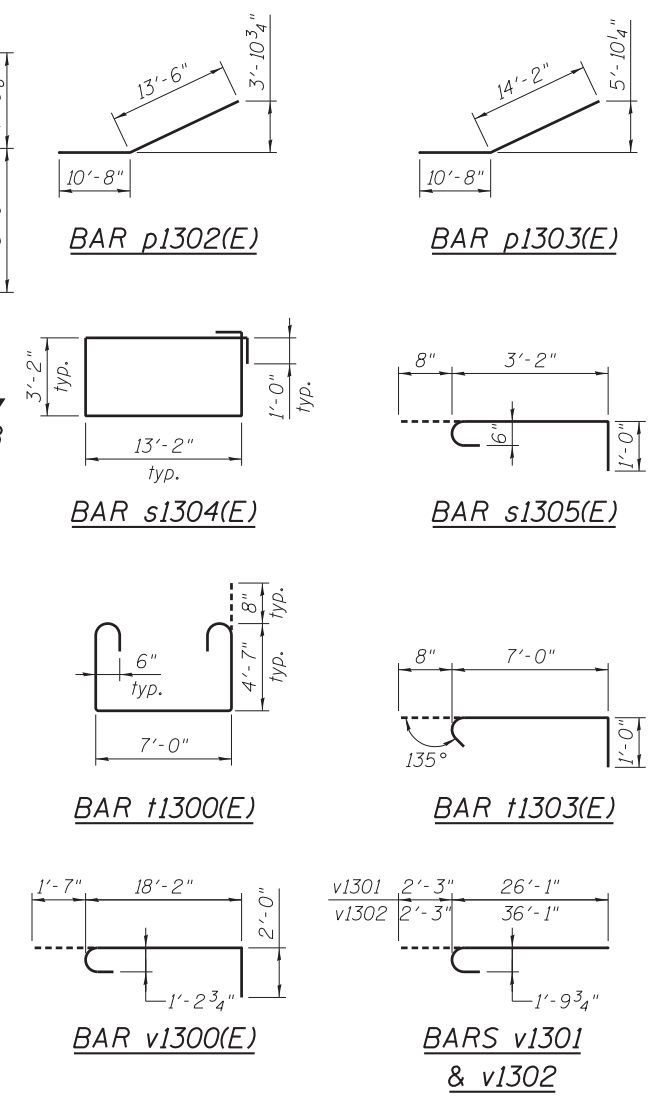
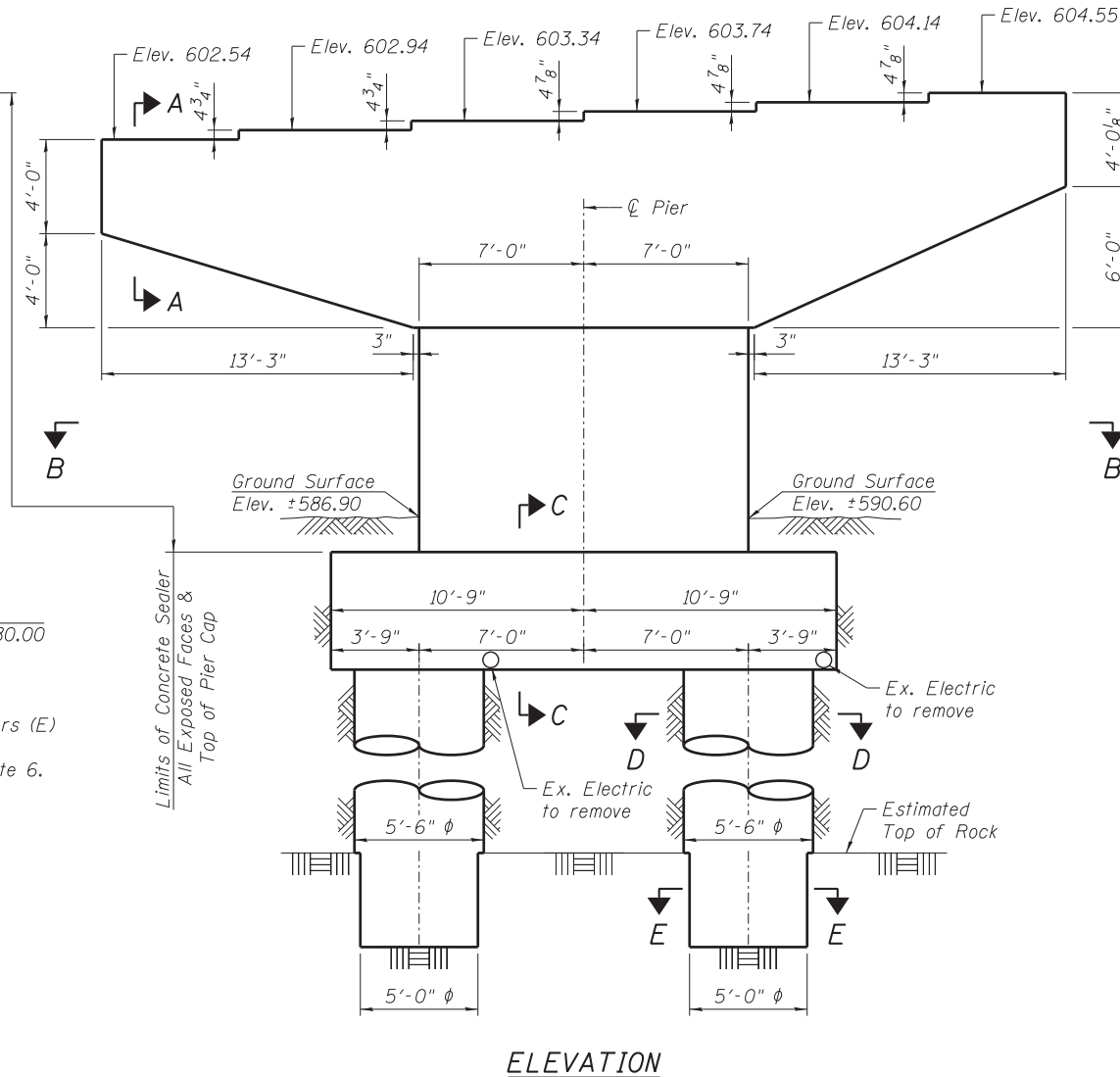
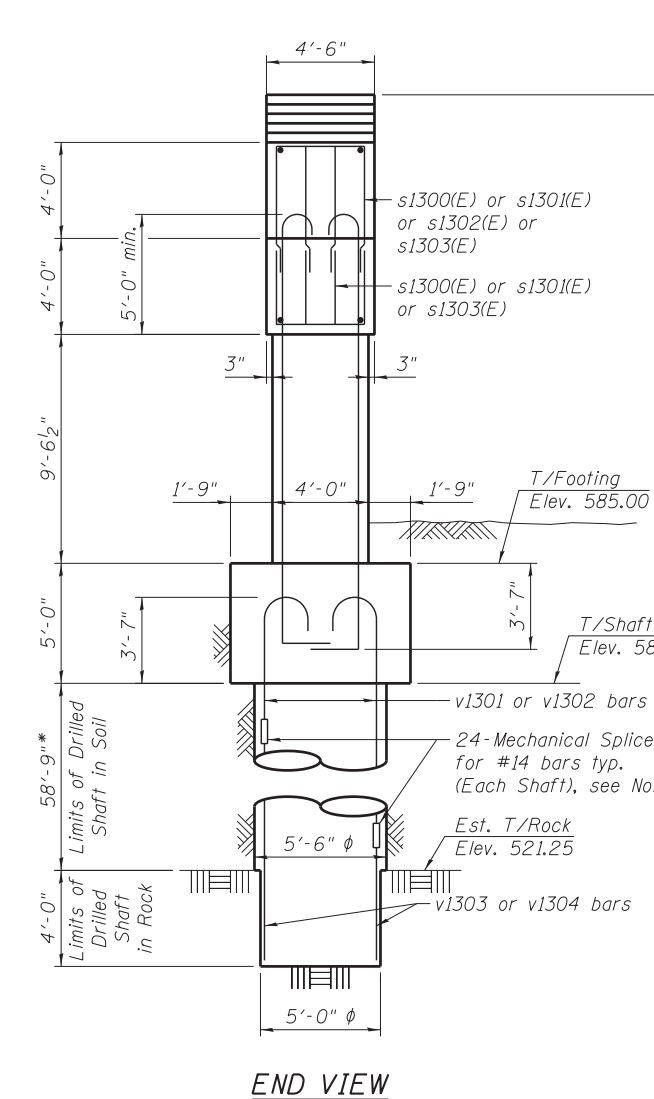
Bar	A	B
p1300(E)	40'-2"	3'-0"
s1300(E)	2'-6"	4'-11"
s1301(E)	2'-6"	6'-3"
s1302(E)	3'-8"	6'-3"
s1303(E)	2'-6"	4'-4"
t1301(E)	21'-0"	3'-0"
t1302(E)	21'-0"	2'-6"
u1300(E)	3'-6"	4'-0"
u1301(E)	7'-0"	4'-0"
u1302(E)	3'-8"	1'-0"

TYP. MIN. LAP LENGTH

- #6 bars: 3'-10"
- #8 bars: 6'-9"



FIELD CUTTING DIAGRAM
Order h1305(E) bars full length. Cut as shown and use remainder of bars.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1300(E)	6	#7	51'-3"	—
h1301(E)	12	#7	40'-2"	—
h1302(E)	14	#6	21'-0"	—
h1303(E)	20	#5	6'-6"	—
h1304(E)	10	#5	4'-10"	—
h1305(E)	6	#7	33'-0"	—
p1300(E)	7	#11	46'-2"	□
p1301(E)	14	#11	39'-6"	□
p1302(E)	6	#8	24'-2"	□
p1303(E)	6	#8	24'-10"	□
s1300(E)	44	#6	12'-4"	□
s1301(E)	84	#6	15'-0"	□
s1302(E)	28	#6	16'-2"	□
s1303(E)	60	#6	11'-2"	□
s1304(E)	11	#6	34'-8"	□
s1305(E)	66	#6	4'-10"	□
sp1300	2	#6	63'-0"	~
t1300(E)	43	#6	17'-6"	□
t1301(E)	10	#11	27'-0"	□
t1302(E)	10	#11	26'-0"	□
t1303(E)	43	#6	8'-8"	□
u1300(E)	12	#6	11'-6"	□
u1301(E)	14	#6	15'-0"	□
u1302(E)	42	#6	5'-8"	□
v1300(E)	52	#11	21'-9"	□
v1301	24	#14	28'-4"	□
v1302	24	#14	38'-4"	□
v1303	24	#14	30'-0"	□
v1304	24	#14	40'-0"	□
Concrete Structures		Cu. Yd.	100.2	
Reinforcement Bars, Epoxy Coated		Pound	24,930	
Reinforcement Bars		Pound	30,773	
Drilled Shaft in Soil		Cu. Yd.	107.8	
Drilled Shaft in Rock		Cu. Yd.	5.9	
Concrete Sealer		Sq. Ft.	1,300	
Structure Excavation		Cu. Yd.	96	
Crosshole Sonic Logging		Each	1	

**Length is height of spiral

438.0161503_60X07_Pier13-1.dgn



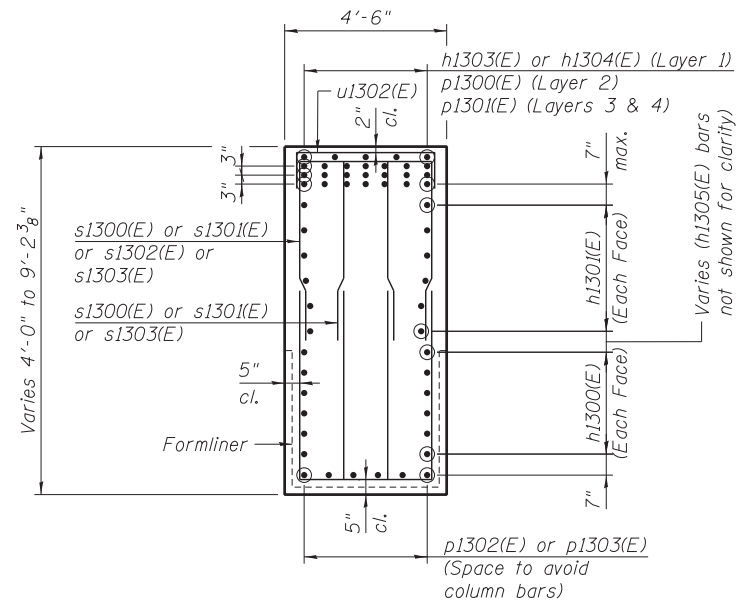
USER NAME = kritzm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

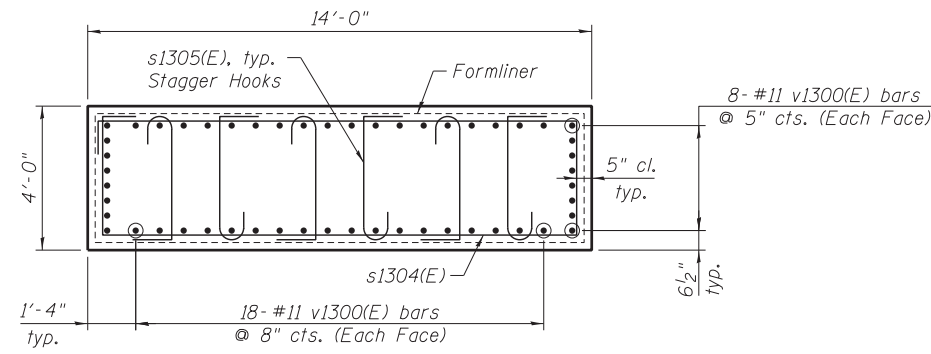
PIER 13E PLAN & ELEVATION - S.N.016-1503
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	706
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	

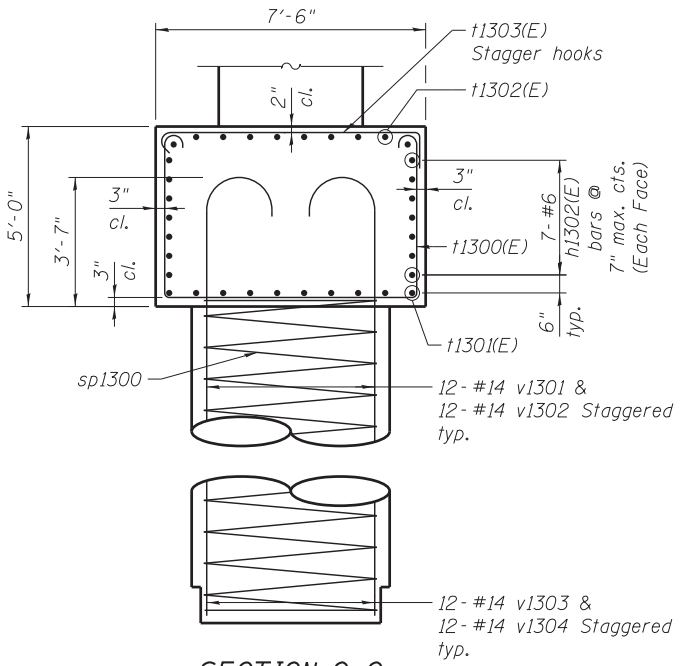
SHEET NO. S-183 OF S-218 SHEETS



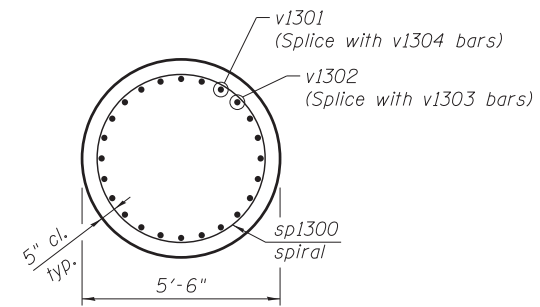
SECTION A-A



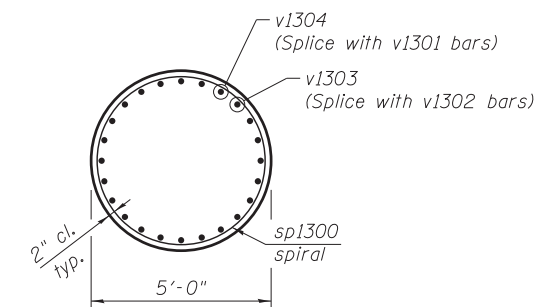
SECTION B-B



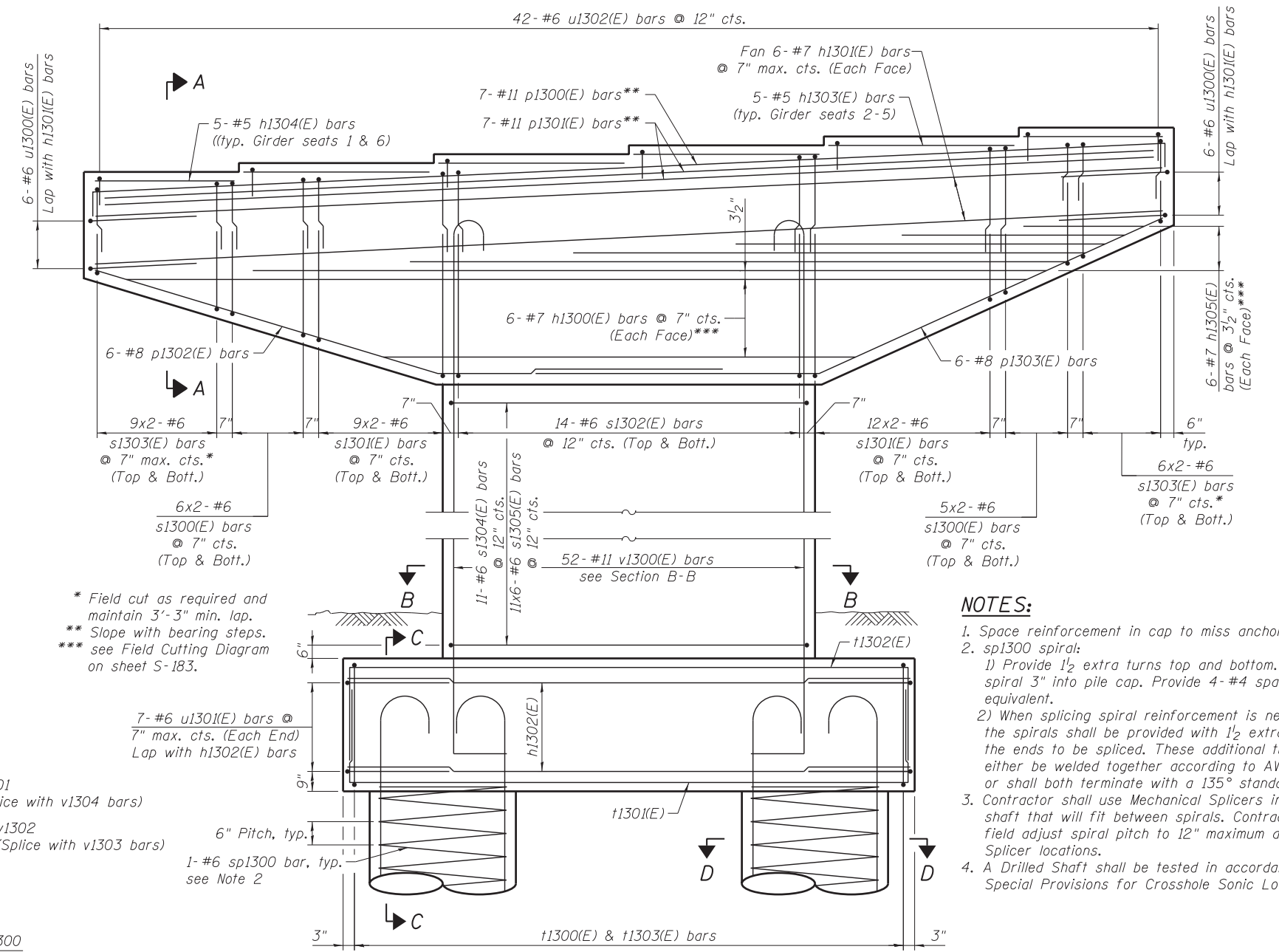
SECTION C-C



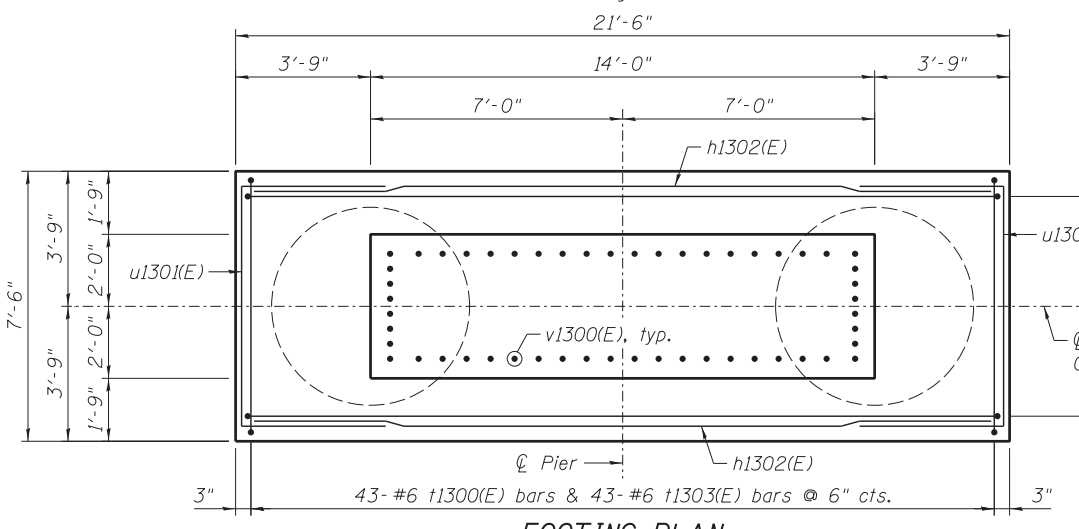
SECTION D-D



SECTION E-E



ELEVATION
(Looking North)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
** Slope with bearing steps. see Field Cutting Diagram on sheet S-183.

- NOTES:**
1. Space reinforcement in cap to miss anchor bolts.
 2. sp1300 spiral:
 - 1) Provide 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. 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.
 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
 4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

439_0161503_60x07_Pier13-2.dgn



USER NAME = krtzm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 13E DETAILS - S.N. 016-1503
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

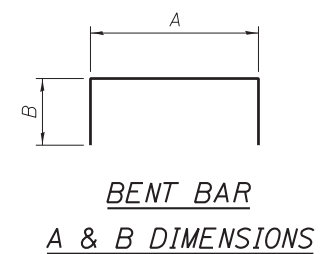
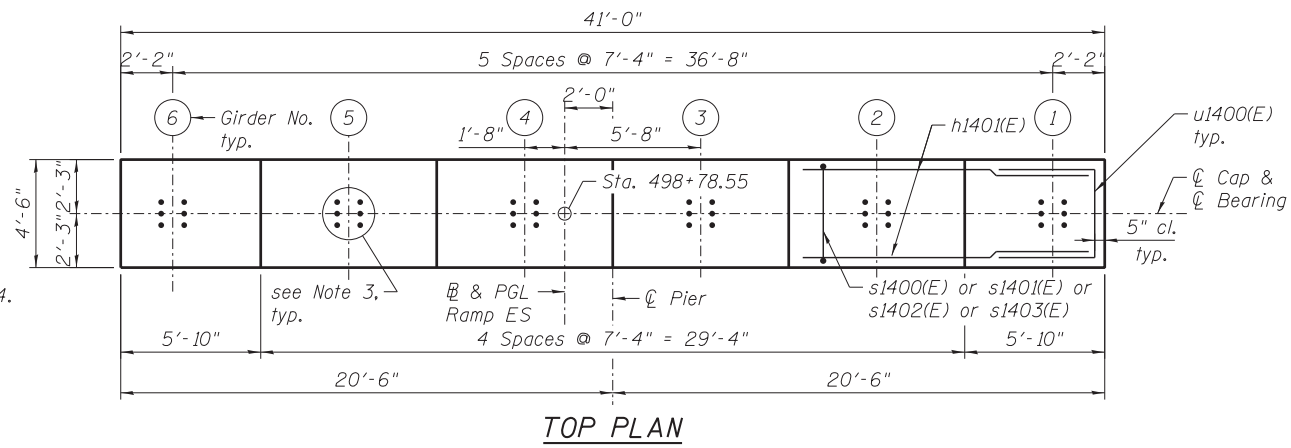
SHEET NO. S-184 OF S-218 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 707
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				

NOTES:

1. Pour steps monolithically with cap.
2. ϕ of Pier is radial to \square Ramp ES at Sta. 498+78.55.
3. For Anchor Bolts Details, see Sheet S-149.
4. For Architectural Details, see Sheets S-191 thru S-193.
5. For Sections and Details, see Sheet S-186.
6. For Mechanical Splicer Details and Quantities, see Sheet S-194.

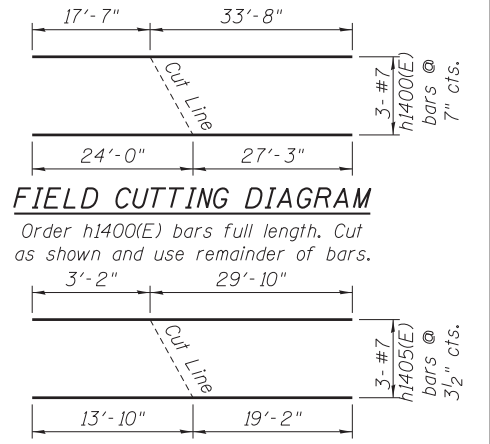
* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.



Bar	A	B
p1400(E)	40'-2"	3'-0"
s1400(E)	2'-6"	4'-11"
s1401(E)	2'-6"	6'-3"
s1402(E)	3'-8"	6'-3"
s1403(E)	2'-6"	4'-4"
t1401(E)	21'-0"	3'-0"
t1402(E)	21'-0"	2'-6"
u1400(E)	3'-6"	4'-0"
u1401(E)	7'-0"	4'-0"
u1402(E)	3'-8"	1'-0"

TYP. MIN. LAP LENGTH

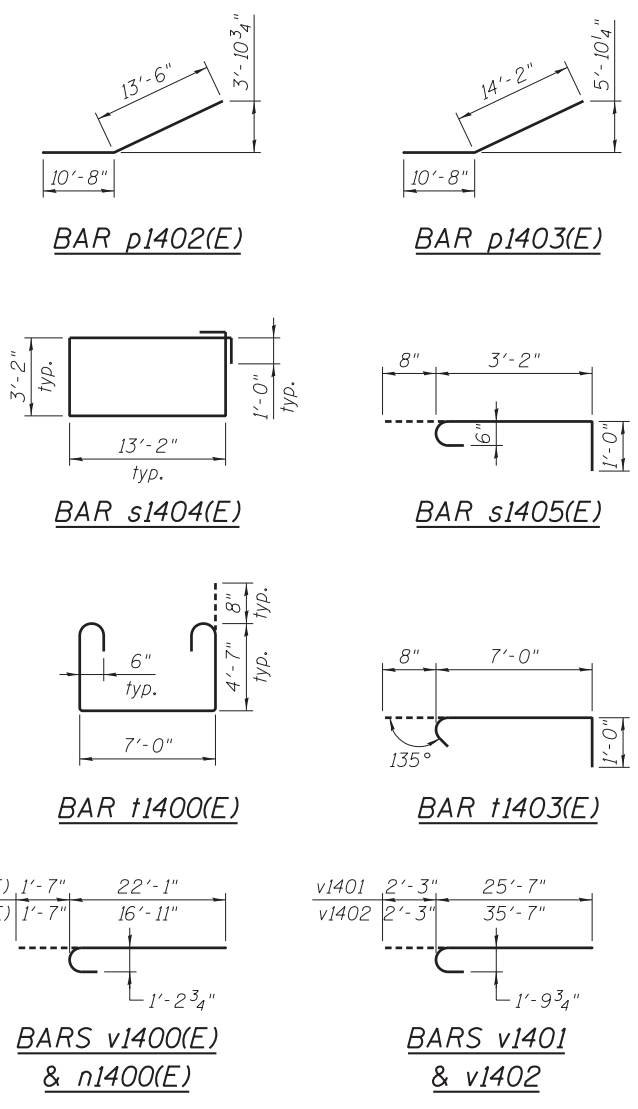
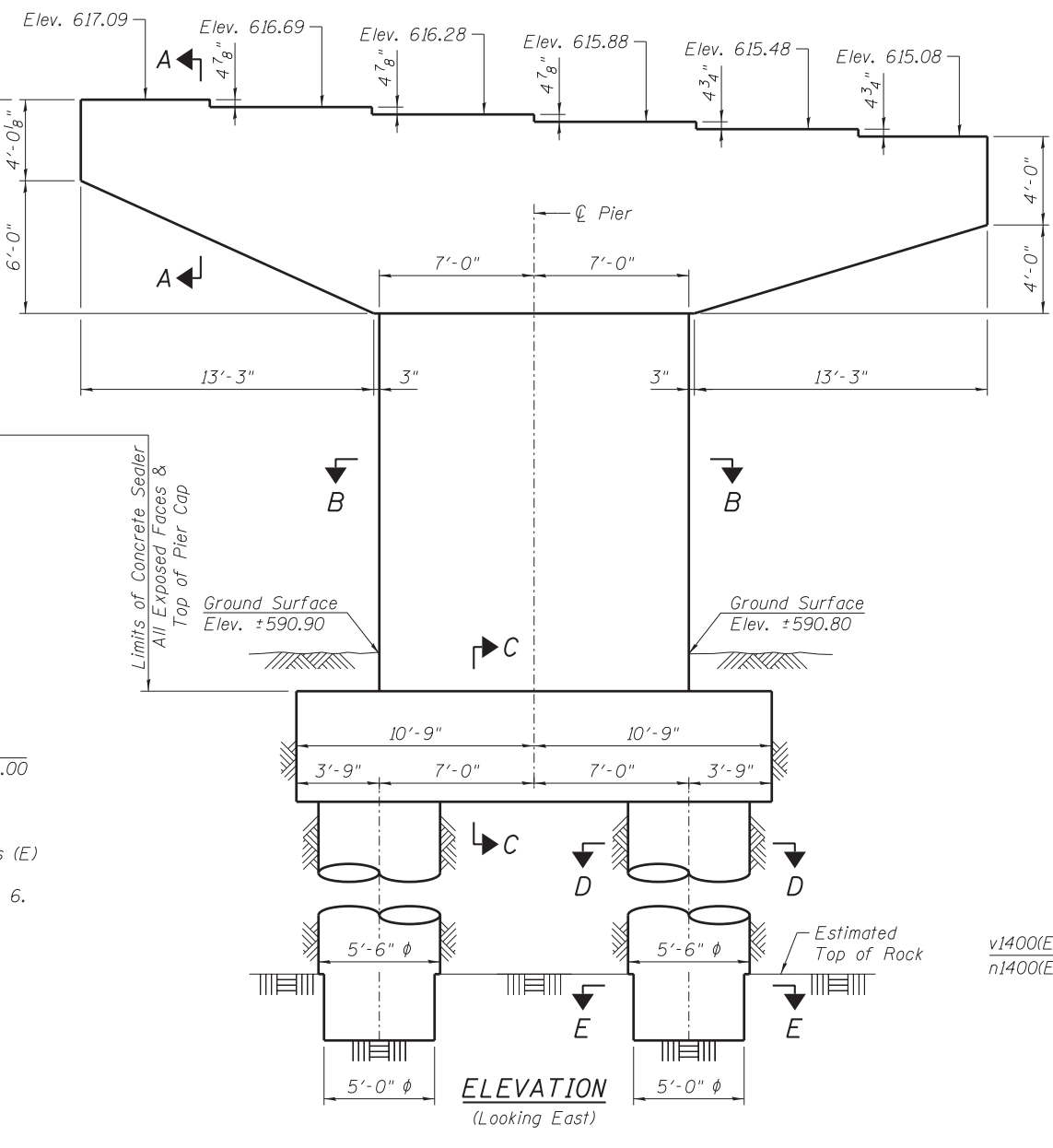
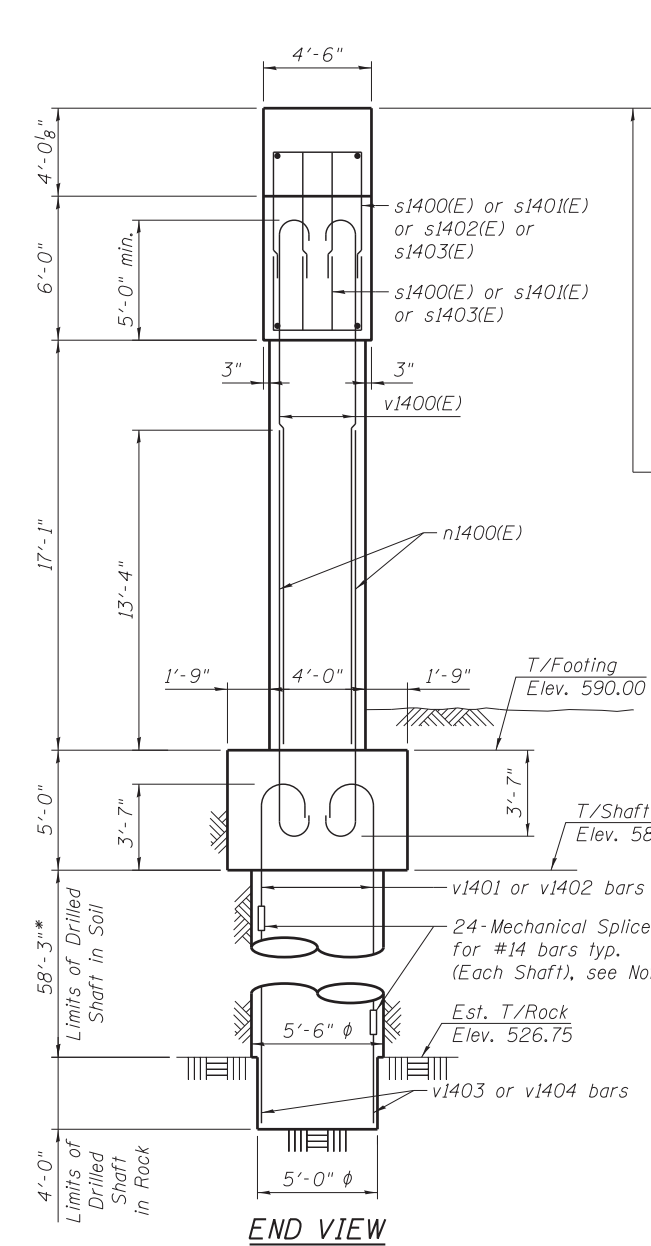
- #6 bars: 3'-10"
- #8 bars: 6'-9"
- #11 bars: 13'-4"



FIELD CUTTING DIAGRAM
Order h1405(E) bars full length. Cut as shown and use remainder of bars.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1400(E)	6	#7	51'-3"	
h1401(E)	12	#7	40'-2"	
h1402(E)	14	#6	21'-0"	
h1403(E)	20	#5	6'-6"	
h1404(E)	10	#5	4'-10"	
h1405(E)	6	#7	33'-0"	
n1400(E)	72	#11	18'-6"	
p1400(E)	7	#11	46'-2"	
p1401(E)	14	#11	39'-6"	
p1402(E)	6	#8	24'-2"	
p1403(E)	6	#8	24'-10"	
s1400(E)	44	#6	12'-4"	
s1401(E)	84	#6	15'-0"	
s1402(E)	28	#6	16'-2"	
s1403(E)	60	#6	11'-2"	
s1404(E)	18	#6	34'-8"	
s1405(E)	108	#6	4'-10"	
sp1400	2	#6	62'-6"	
t1400(E)	43	#6	17'-6"	
t1401(E)	10	#11	27'-0"	
t1402(E)	10	#11	26'-0"	
t1403(E)	43	#6	8'-8"	
u1400(E)	12	#6	11'-6"	
u1401(E)	14	#6	15'-0"	
u1402(E)	42	#6	5'-8"	
v1400(E)	72	#11	23'-8"	
v1401	24	#14	27'-10"	
v1402	24	#14	37'-10"	
v1403	24	#14	30'-0"	
v1404	24	#14	40'-0"	
Concrete Structures		Cu. Yd.	115.8	
Reinforcement Bars, Epoxy Coated		Pound	35,720	
Reinforcement Bars		Pound	30,550	
Drilled Shaft in Soil		Cu. Yd.	102.6	
Drilled Shaft in Rock		Cu. Yd.	5.9	
Concrete Sealer		Sq. Ft.	1,571	
Structure Excavation		Cu. Yd.	65	
Crosshole Sonic Logging		Each	1	



440_0161502_60X07_Pier14-1.dgn



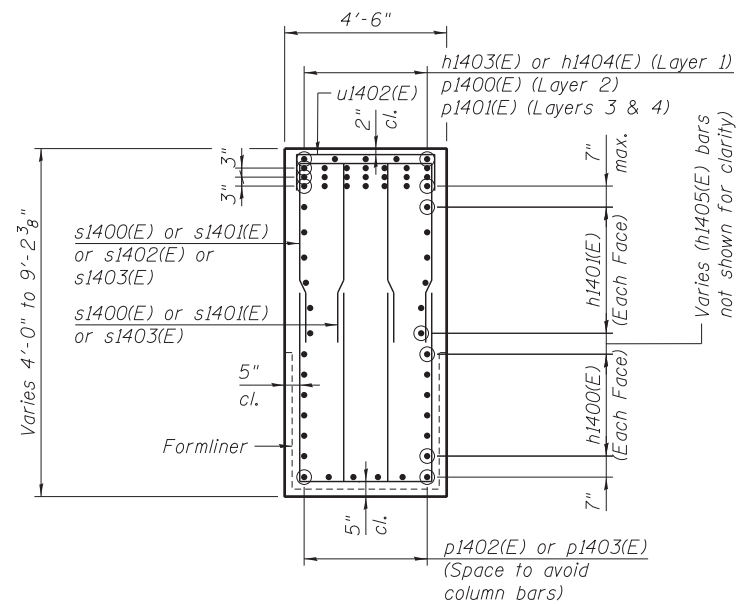
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	CHECKED - AA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

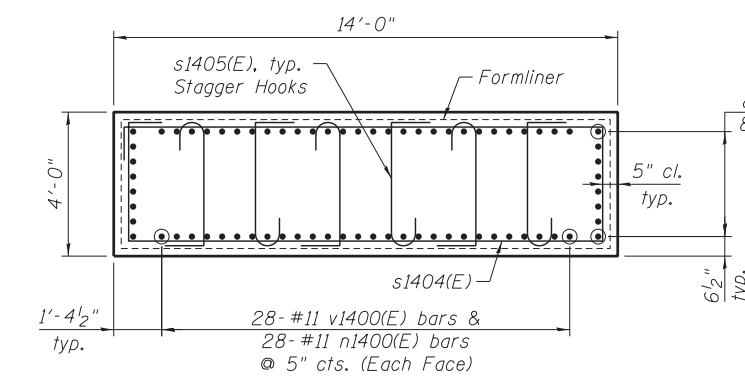
PIER 14E PLAN & ELEVATION - S.N.016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	708
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	

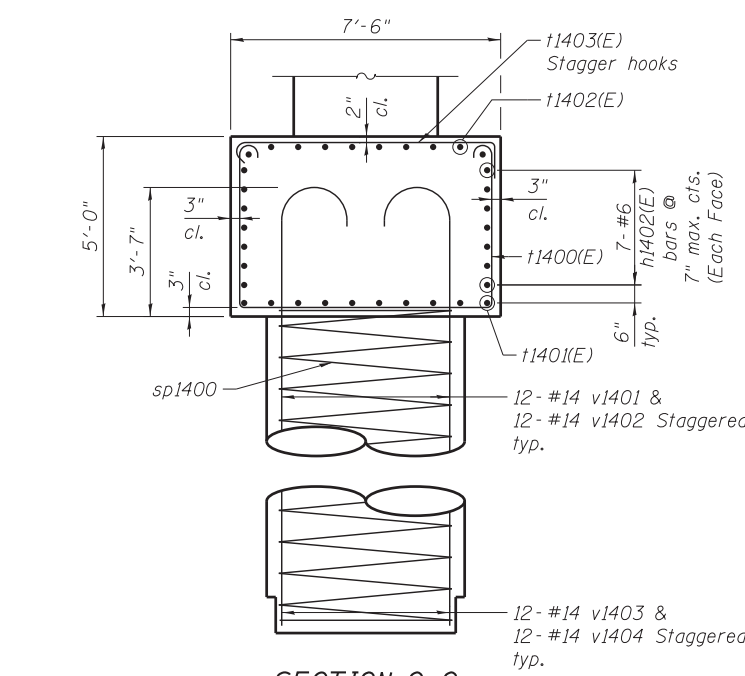
SHEET NO. S-185 OF S-218 SHEETS



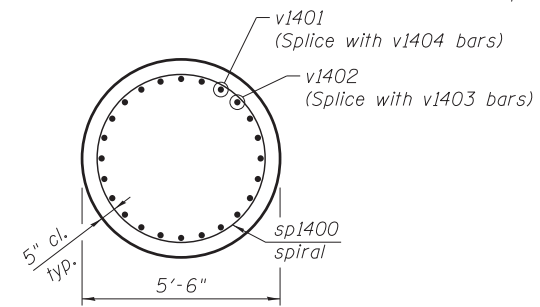
SECTION A-A



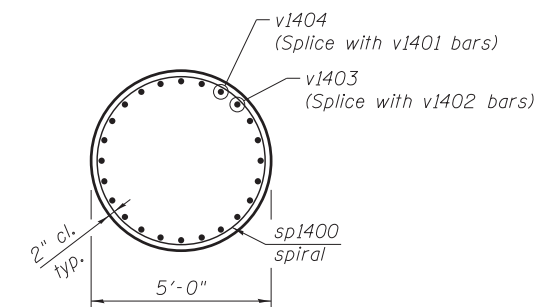
SECTION B-B



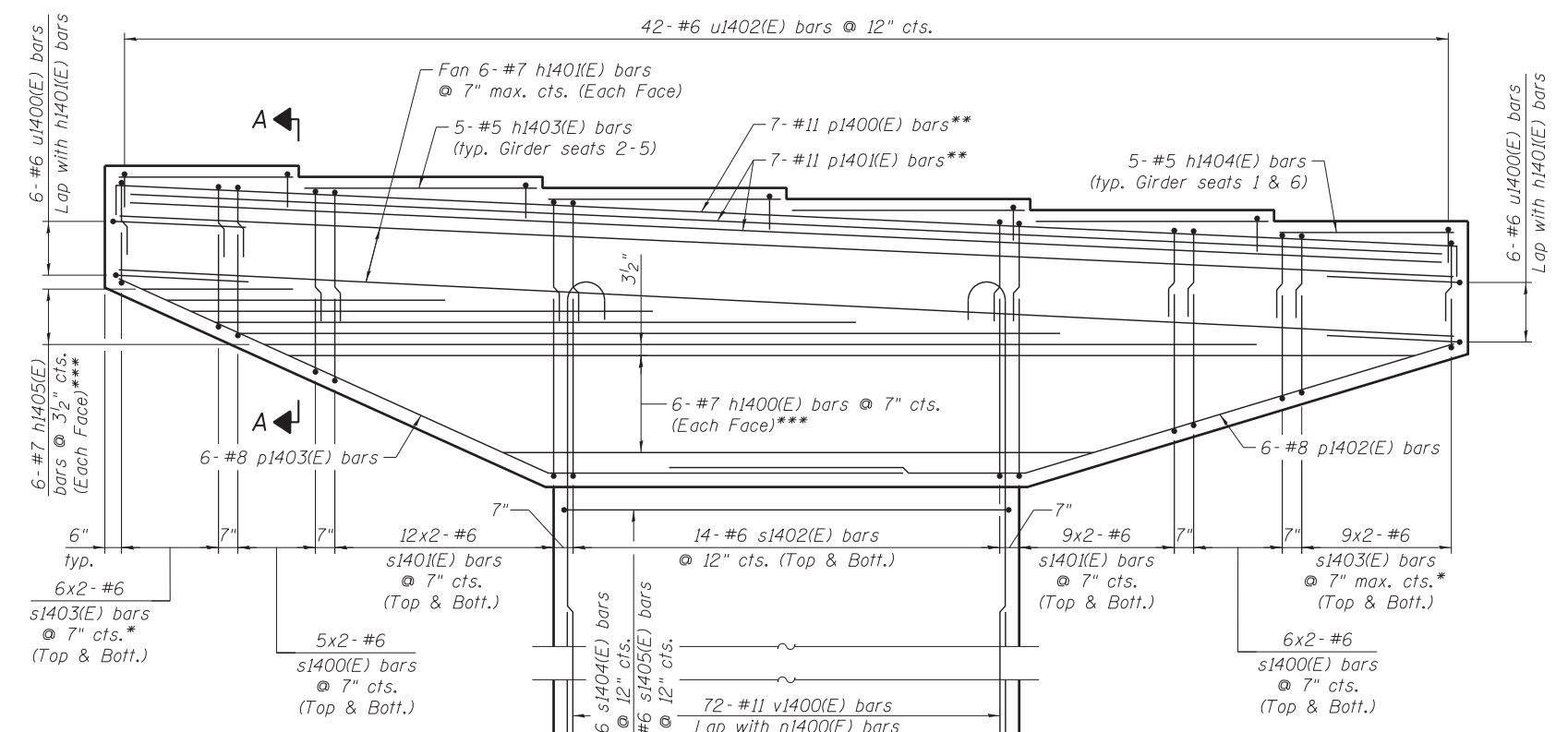
SECTION C-C



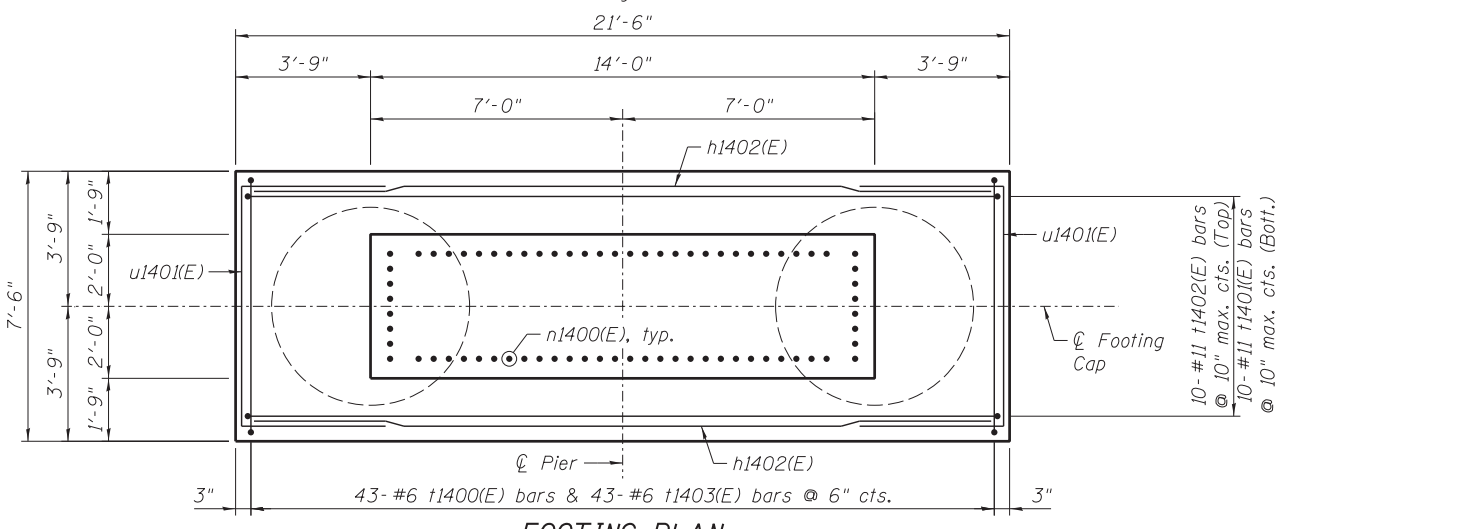
SECTION D-D



SECTION E-E



ELEVATION
(Looking East)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
 ** Slope with bearing steps.
 *** see Field Cutting Diagram on sheet S-185.

- NOTES:**
1. Space reinforcement in cap to miss anchor bolts.
 2. sp1400 spiral:
 - 1) Provide 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. 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.
 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
 4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

441_0161502_60X07_Pier14-2.dgn



USER NAME = kritz	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

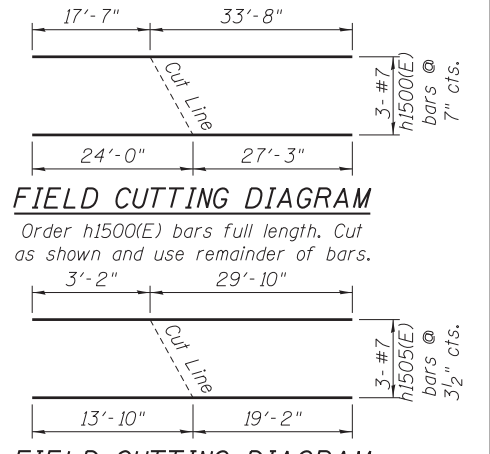
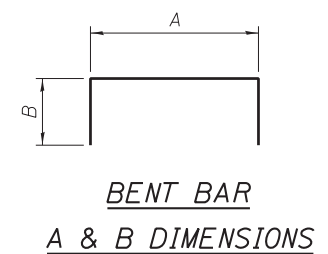
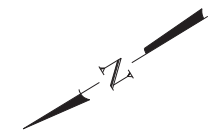
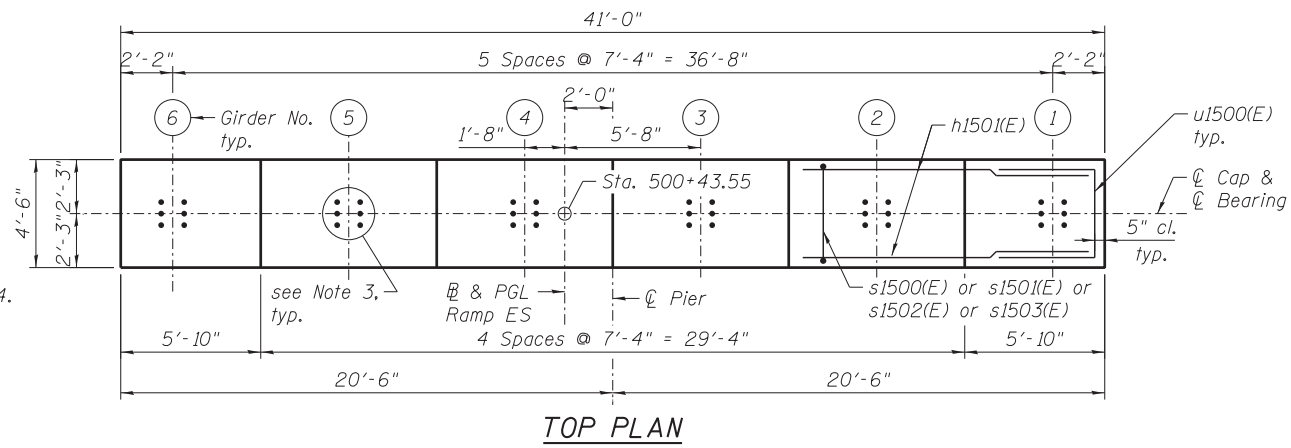
PIER 14E DETAILS - S.N. 016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)
 SHEET NO. S-186 OF S-218 SHEETS

F.A.I. R.T.E. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 709
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				

NOTES:

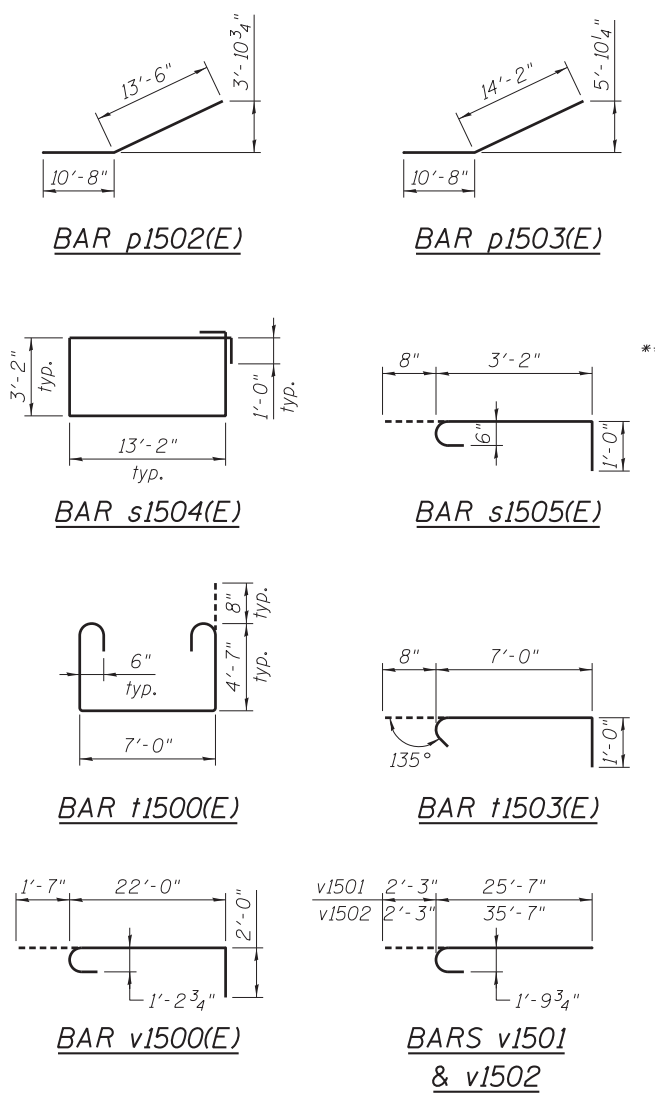
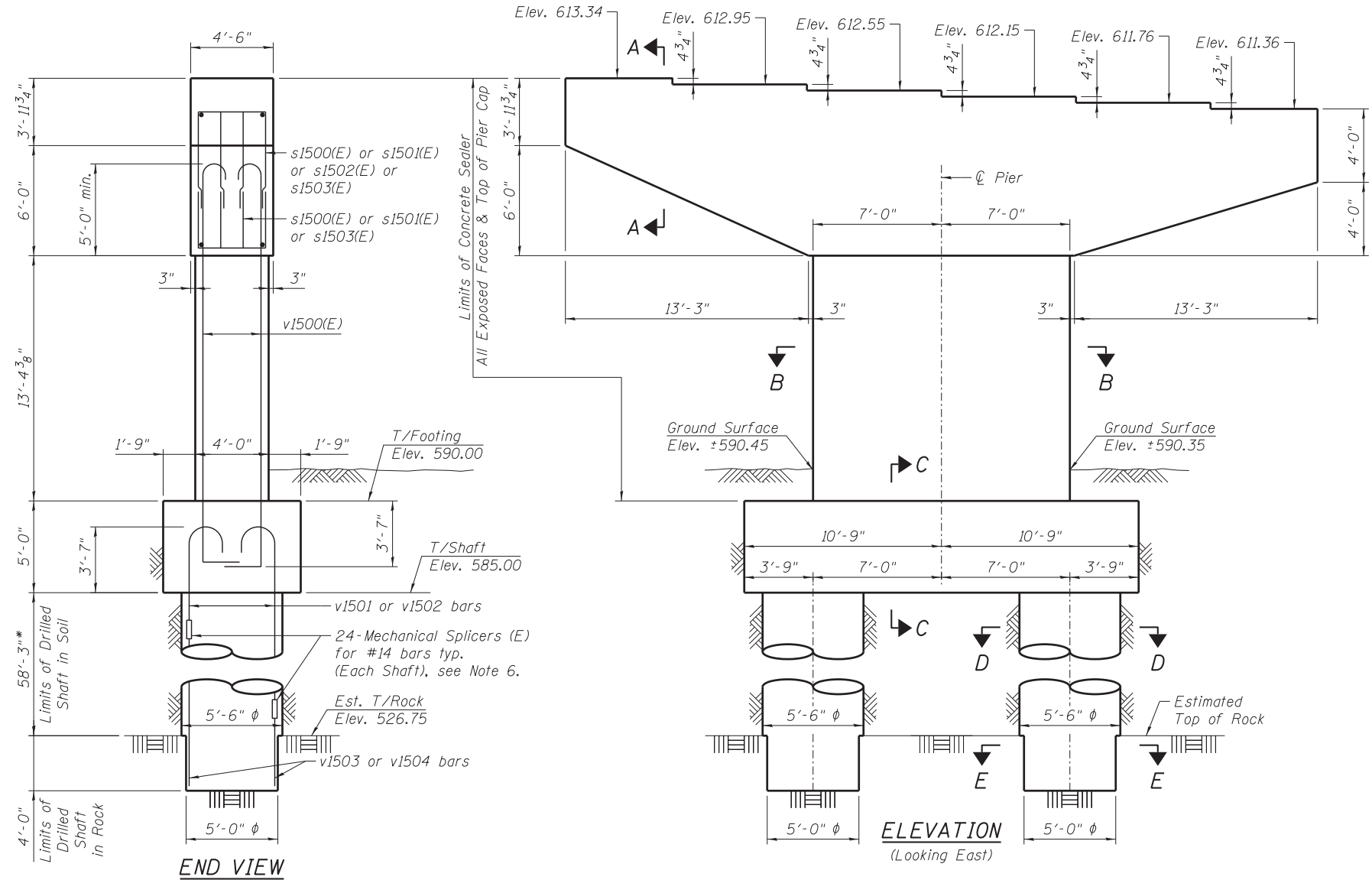
1. Pour steps monolithically with cap.
2. ϕ of Pier is radial to \square Ramp ES at Sta. 500+43.55.
3. For Anchor Bolts Details, see Sheet S-149.
4. For Architectural Details, see Sheets S-191 thru S-193.
5. For Sections and Details, see Sheet S-188.
6. For Mechanical Splicer Details and Quantities, see Sheet S-194.

* 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.



TYP. MIN. LAP LENGTH

- #6 bars: 3'-10"
- #8 bars: 6'-9"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1500(E)	6	#7	51'-3"	—
h1501(E)	12	#7	40'-2"	—
h1502(E)	14	#6	21'-0"	—
h1503(E)	20	#5	6'-6"	—
h1504(E)	10	#5	4'-10"	—
h1505(E)	6	#7	33'-0"	—
p1500(E)	7	#11	46'-2"	—
p1501(E)	14	#11	39'-6"	—
p1502(E)	6	#8	24'-2"	—
p1503(E)	6	#8	24'-10"	—
s1500(E)	44	#6	12'-4"	—
s1501(E)	84	#6	15'-0"	—
s1502(E)	28	#6	16'-2"	—
s1503(E)	60	#6	11'-2"	—
s1504(E)	15	#6	34'-8"	—
s1505(E)	90	#6	4'-10"	—
sp1500	2	#6	62'-6"	—
t1500(E)	43	#6	17'-6"	—
t1501(E)	10	#11	27'-0"	—
t1502(E)	10	#11	26'-0"	—
t1503(E)	43	#6	8'-8"	—
u1500(E)	12	#6	11'-6"	—
u1501(E)	14	#6	15'-0"	—
u1502(E)	42	#6	5'-8"	—
v1500(E)	72	#11	25'-7"	—
v1501	24	#14	27'-10"	—
v1502	24	#14	37'-10"	—
v1503	24	#14	30'-0"	—
v1504	24	#14	40'-0"	—
Concrete Structures		Cu. Yd.	108.0	
Reinforcement Bars, Epoxy Coated		Pound	29,090	
Reinforcement Bars		Pound	30,550	
Drilled Shaft in Soil		Cu. Yd.	102.6	
Drilled Shaft in Rock		Cu. Yd.	5.9	
Concrete Sealer		Sq. Ft.	1,437	
Structure Excavation		Cu. Yd.	59	
Crosshole Sonic Logging		Each	1	

**Length is height of spiral



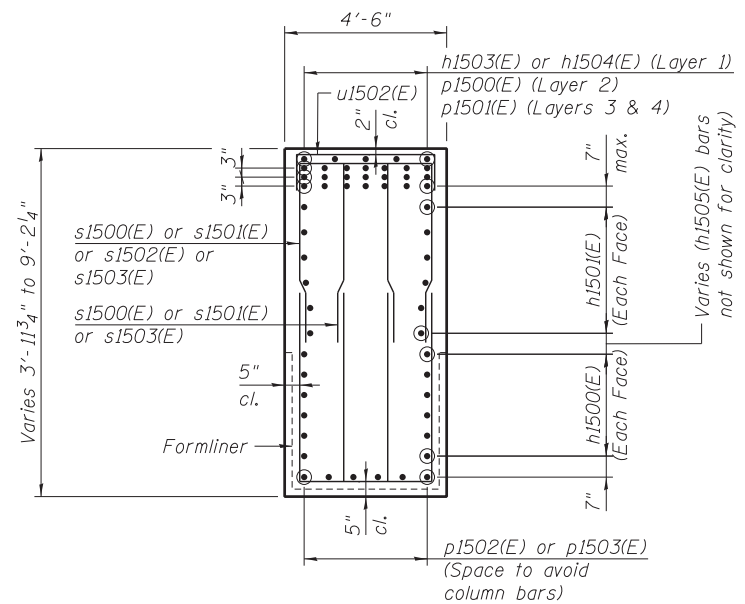
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PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

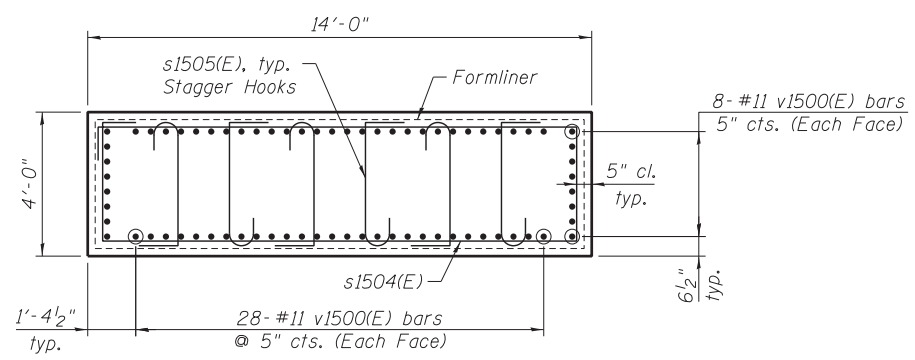
PIER 15E PLAN & ELEVATION - S.N.016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. R.T.E. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 710
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	

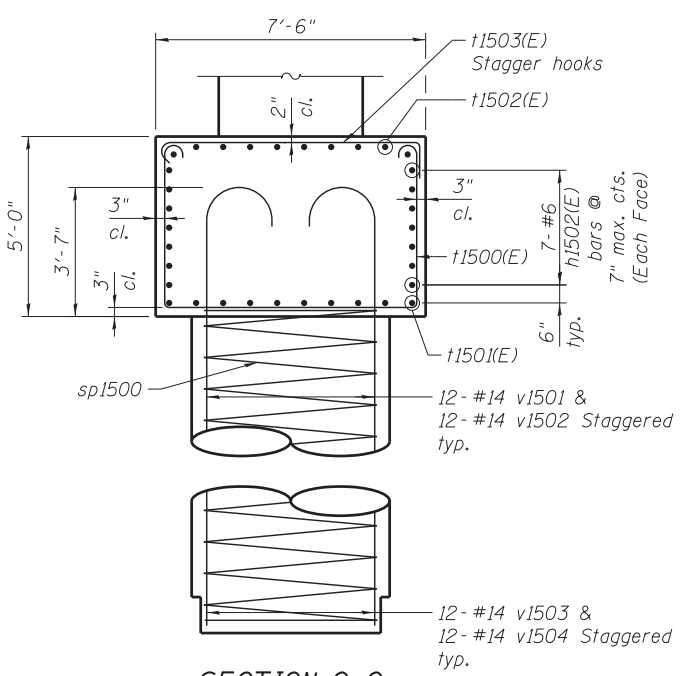
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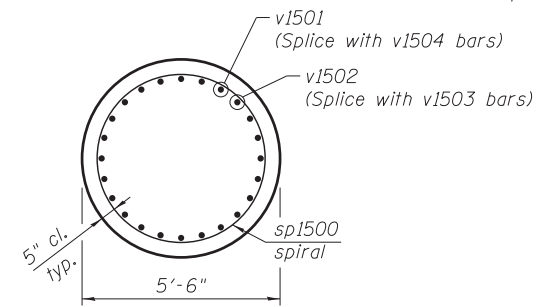
SECTION A-A



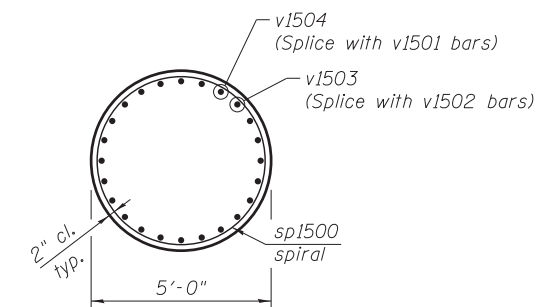
SECTION B-B



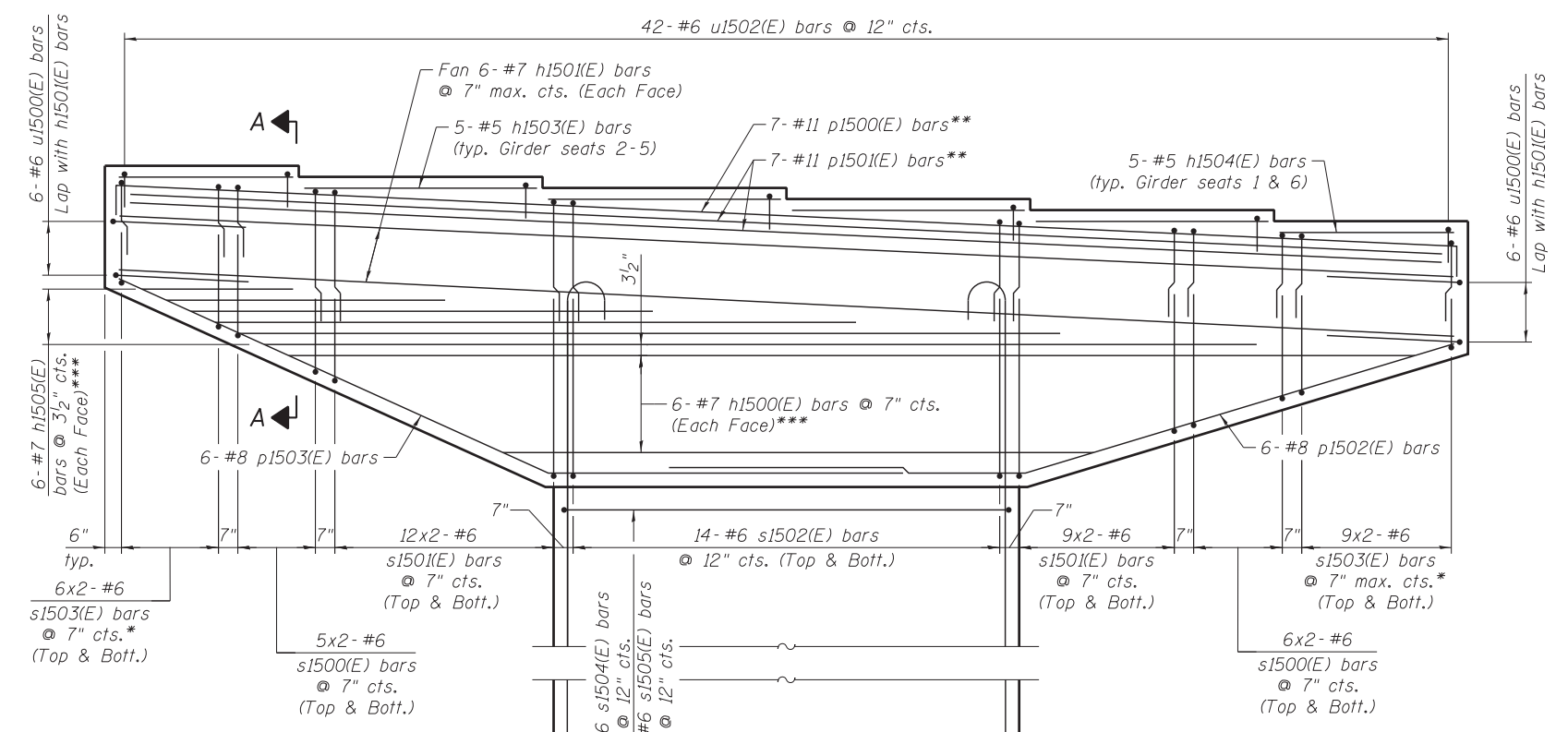
SECTION C-C



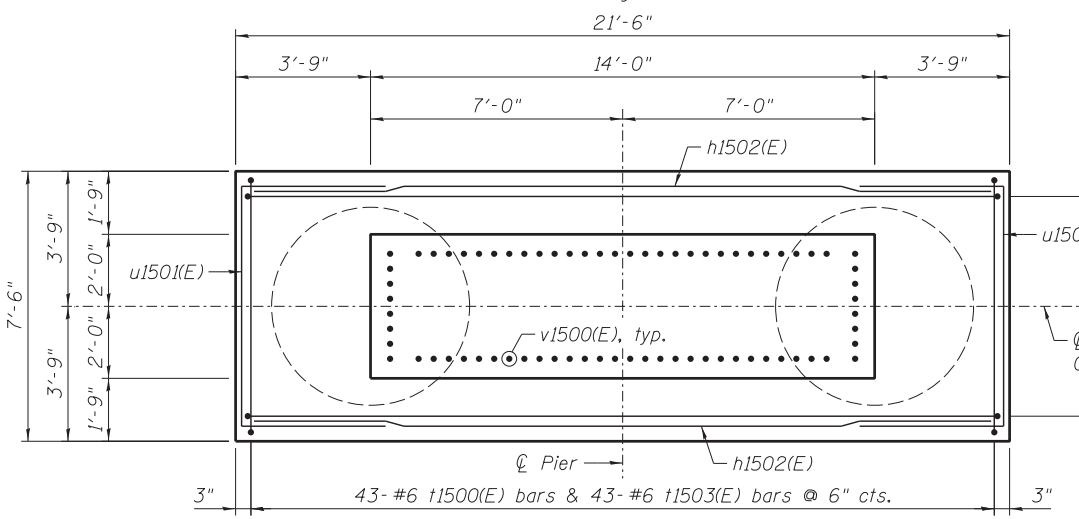
SECTION D-D



SECTION E-E



ELEVATION
(Looking East)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
 ** Slope with bearing steps.
 *** see Field Cutting Diagram on sheet S-187.

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. sp1500 spiral:
 - 1) Provide 1 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. 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.
3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

443.0161502.50x07_Pier15-2.dgn



USER NAME = krtzm	DESIGNED - AA	REVISED -
PLOT SCALE =	CHECKED - ATB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - GF	REVISED -
	CHECKED - AA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 15E DETAILS - S.N. 016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

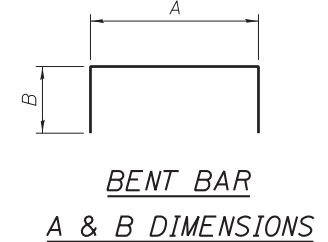
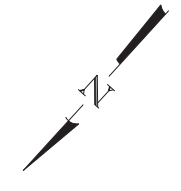
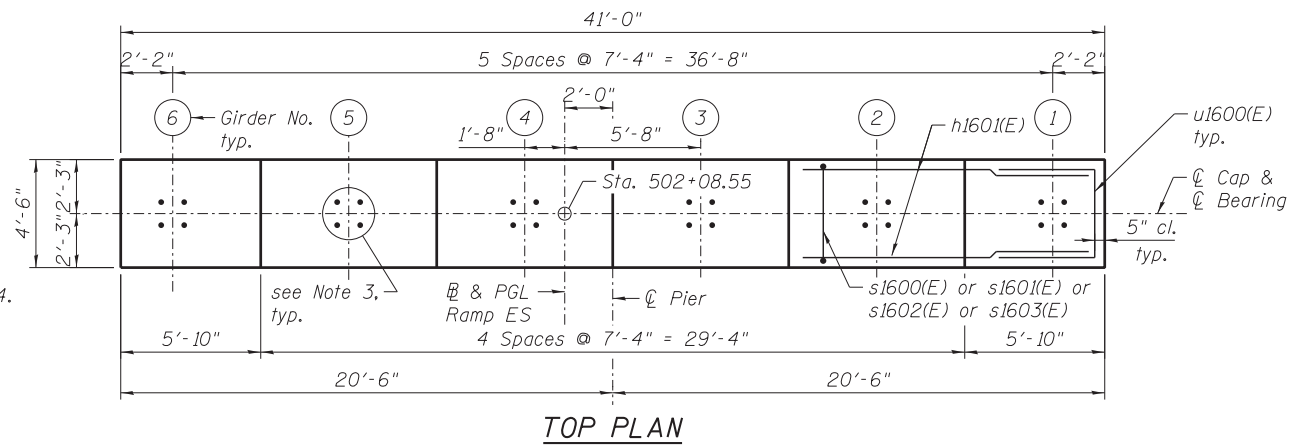
SHEET NO. S-188 OF S-218 SHEETS

F.A.I. R.T.E. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 711
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				

NOTES:

1. Pour steps monolithically with cap.
2. ϕ of Pier is radial to ϕ Ramp ES at Sta. 502+08.55.
3. For Anchor Bolts Details, see Sheet S-147.
4. For Architectural Details, see Sheets S-191 thru S-193.
5. For Sections and Details, see Sheet S-190.
6. For Mechanical Splicer Details and Quantities, see Sheet S-194.

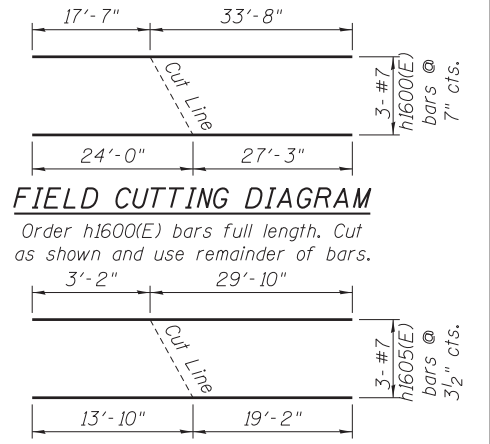
* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.



Bar	A	B
p1600(E)	40'-2"	3'-0"
s1600(E)	2'-6"	4'-11"
s1601(E)	2'-6"	6'-3"
s1602(E)	3'-8"	6'-3"
s1603(E)	2'-6"	4'-4"
t1601(E)	21'-0"	3'-0"
t1602(E)	21'-0"	2'-6"
u1600(E)	3'-6"	4'-0"
u1601(E)	7'-0"	4'-0"
u1602(E)	3'-8"	1'-0"

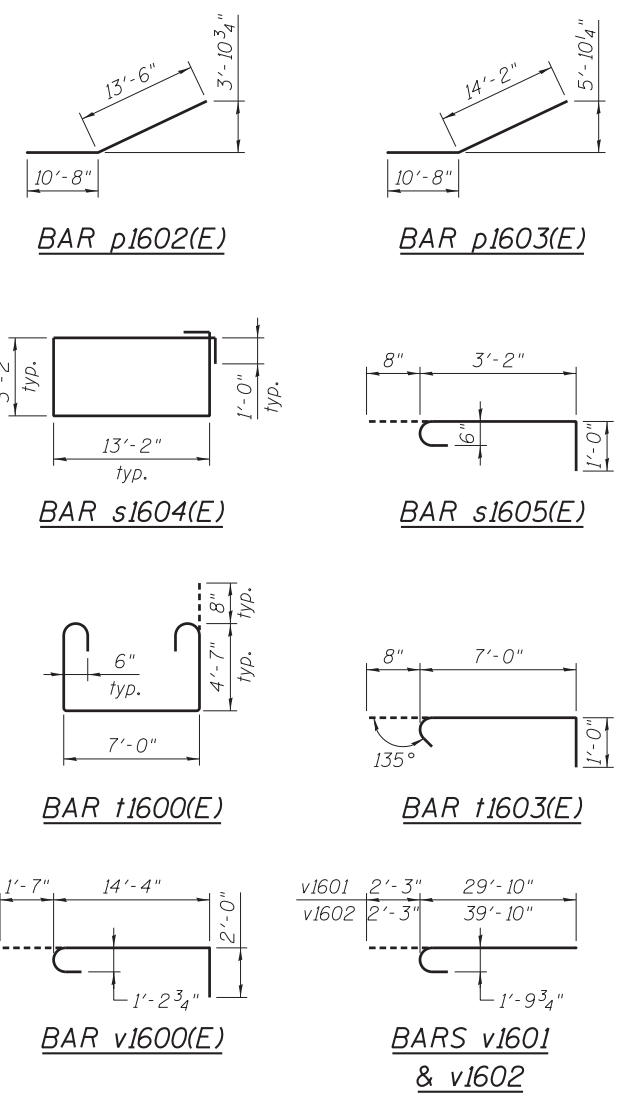
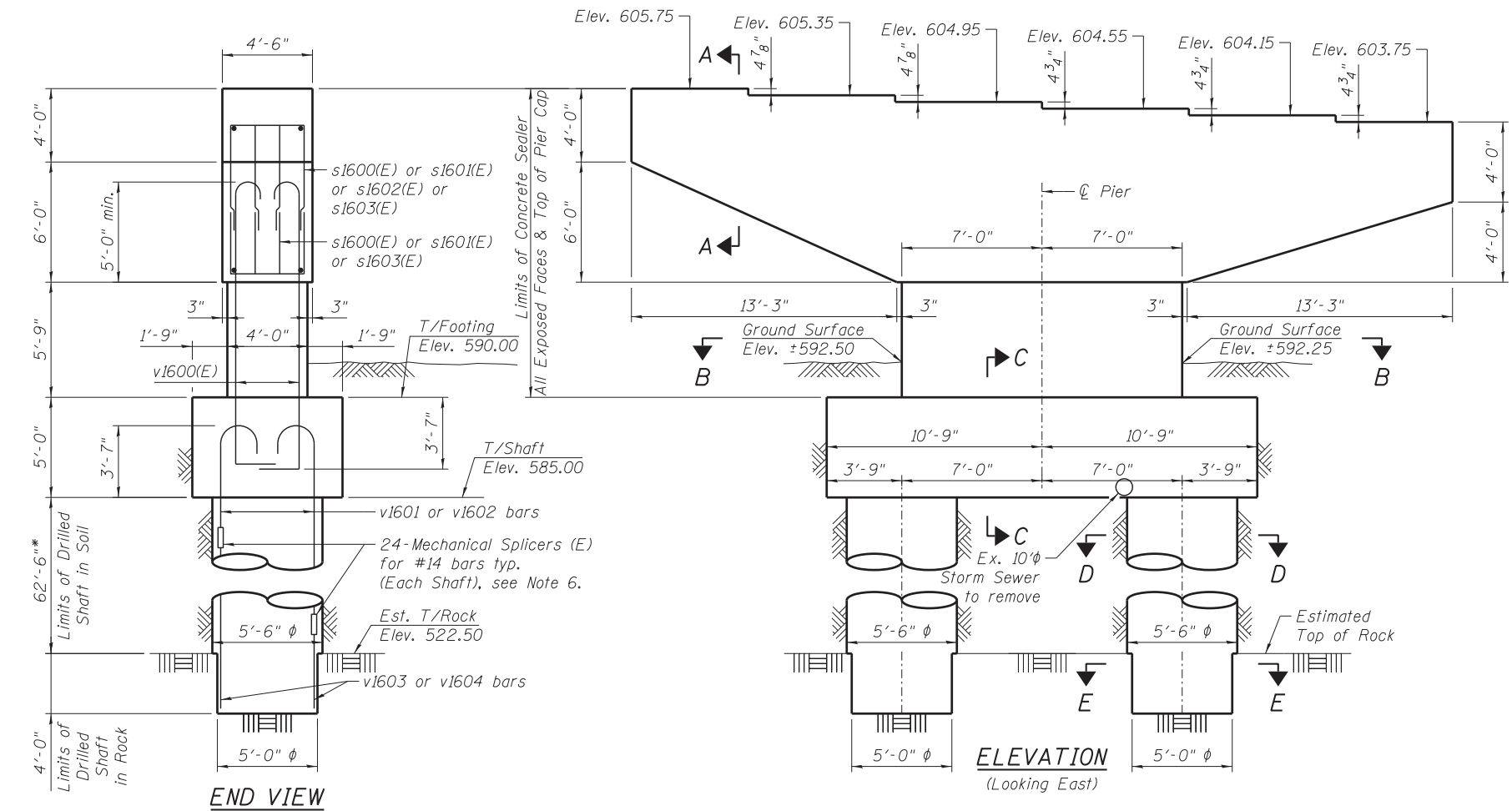
TYP. MIN. LAP LENGTH

#6 bars: 3'-10"
#8 bars: 6'-9"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1600(E)	6	#7	51'-3"	—
h1601(E)	12	#7	40'-2"	—
h1602(E)	14	#6	21'-0"	—
h1603(E)	20	#5	6'-6"	—
h1604(E)	10	#5	4'-10"	—
h1605(E)	6	#7	33'-0"	—
p1600(E)	7	#11	46'-2"	⌋
p1601(E)	14	#11	39'-6"	⌋
p1602(E)	6	#8	24'-2"	⌋
p1603(E)	6	#8	24'-10"	⌋
s1600(E)	44	#6	12'-4"	⌋
s1601(E)	84	#6	15'-0"	⌋
s1602(E)	28	#6	16'-2"	⌋
s1603(E)	60	#6	11'-2"	⌋
s1604(E)	7	#6	34'-8"	⌋
s1605(E)	42	#6	4'-10"	⌋
sp1600	2	#6	66'-9"	⌋
t1600(E)	43	#6	17'-6"	⌋
t1601(E)	10	#11	27'-0"	⌋
t1602(E)	10	#11	26'-0"	⌋
t1603(E)	43	#6	8'-8"	⌋
u1600(E)	12	#6	11'-6"	⌋
u1601(E)	14	#6	15'-0"	⌋
u1602(E)	42	#6	5'-8"	⌋
v1600(E)	52	#11	17'-11"	⌋
v1601	24	#14	32'-1"	⌋
v1602	24	#14	42'-1"	⌋
v1603	24	#14	30'-0"	⌋
v1604	24	#14	40'-0"	⌋
Concrete Structures		Cu. Yd.	92.3	
Reinforcement Bars, Epoxy Coated		Pound	23,490	
Reinforcement Bars		Pound	32,490	
Drilled Shaft in Soil		Cu. Yd.	110.0	
Drilled Shaft in Rock		Cu. Yd.	5.9	
Concrete Sealer		Sq. Ft.	1,163	
Structure Excavation		Cu. Yd.	81	
Crosshole Sonic Logging		Each	1	



444_0161502_50x07_Pier16-1.dgn



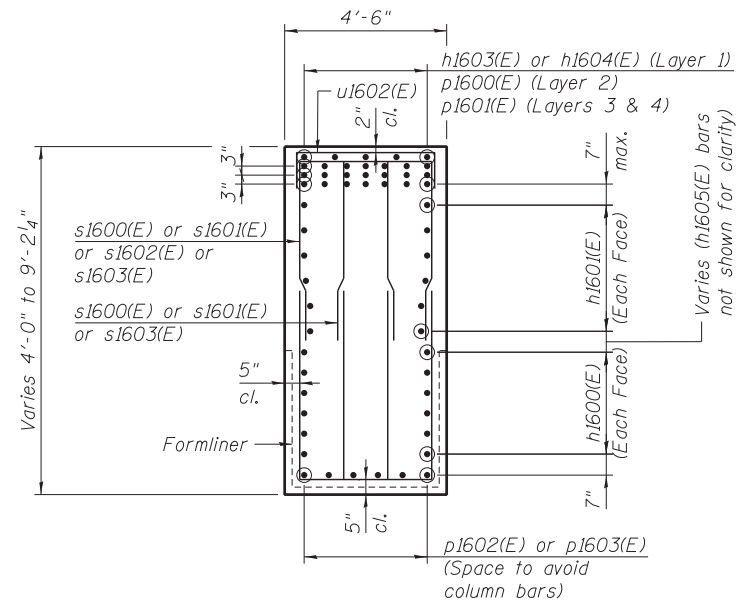
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DEPARTMENT OF TRANSPORTATION**

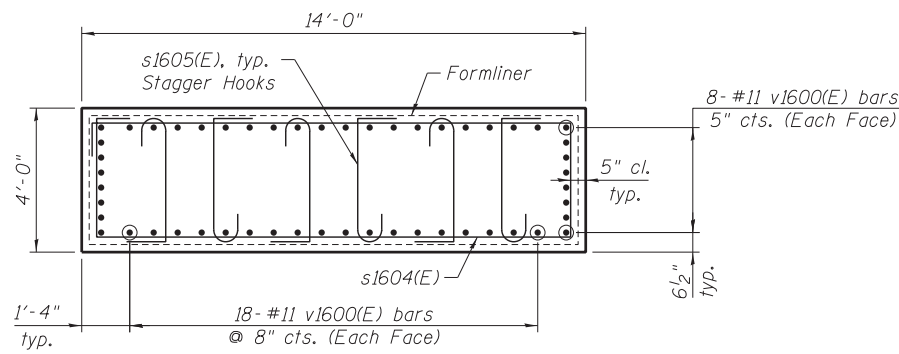
**PIER 16E PLAN & ELEVATION - S.N.016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

SHEET NO. S-189 OF S-218 SHEETS

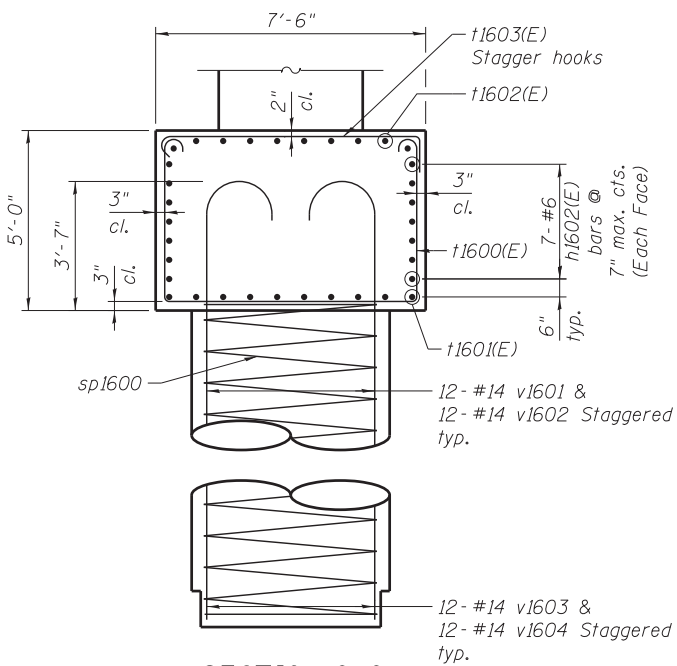
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55	2013-049B	COOK	888	712
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				



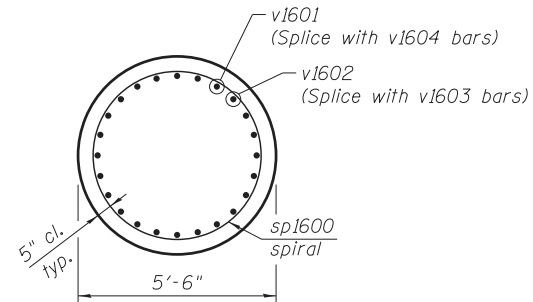
SECTION A-A



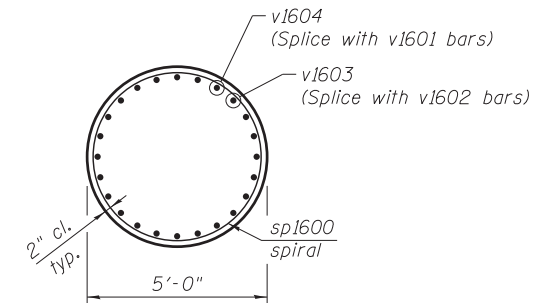
SECTION B-B



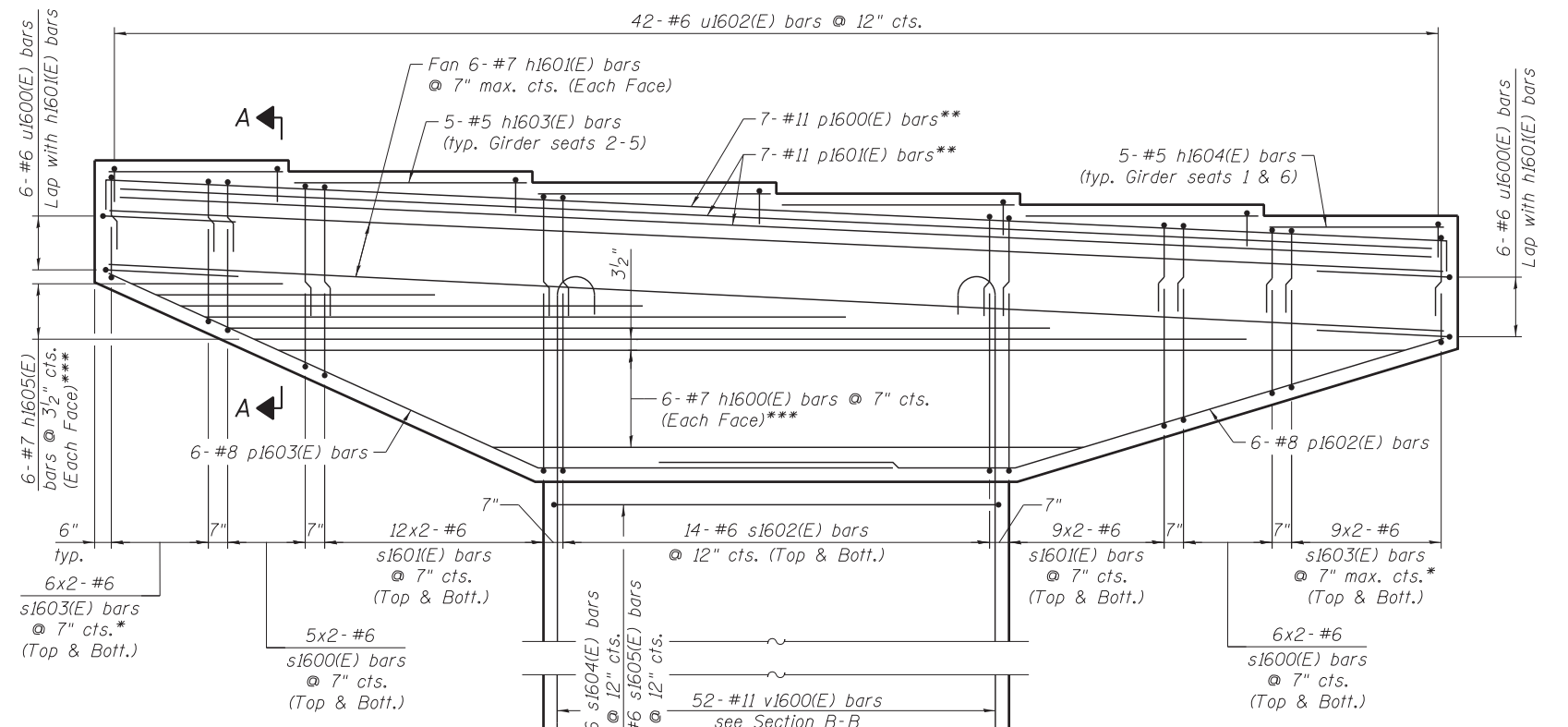
SECTION C-C



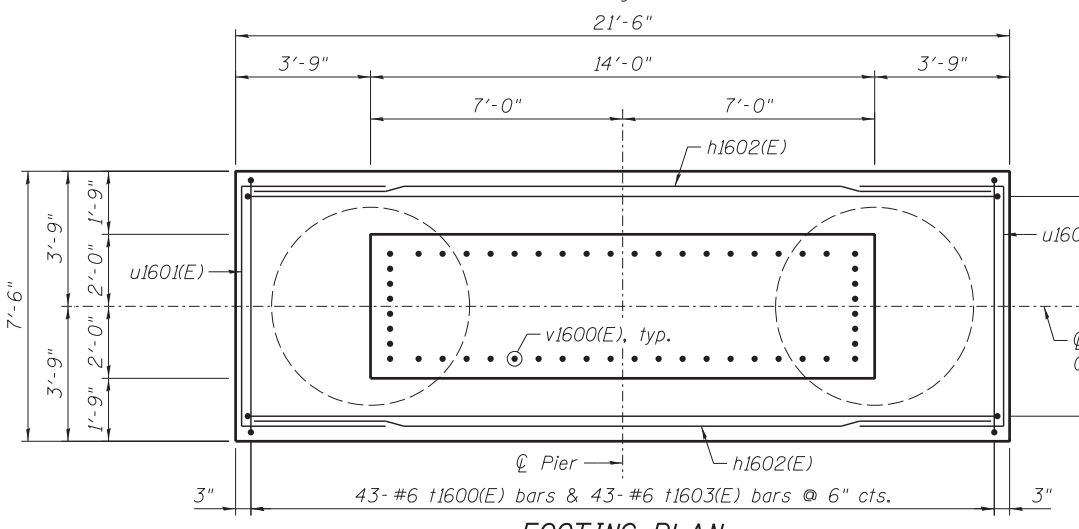
SECTION D-D



SECTION E-E



ELEVATION
(Looking East)



FOOTING PLAN

* Field cut as required and maintain 3'-3" min. lap.
** Slope with bearing steps.
*** see Field Cutting Diagram on sheet S-189.

- NOTES:**
1. Space reinforcement in cap to miss anchor bolts.
 2. sp1600 spiral:
1) Provide 1 1/2 extra turns top and bottom. Extend spiral 3" into pile cap. 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.
 3. Contractor shall use Mechanical Splicers in drilled shaft that will fit between spirals. Contractor shall field adjust spiral pitch to 12" maximum at Mechanical Splicer locations.
 4. A Drilled Shaft shall be tested in accordance with Special Provisions for Crosshole Sonic Logging.

445_0161502_50x07_Pier16-2.dgn



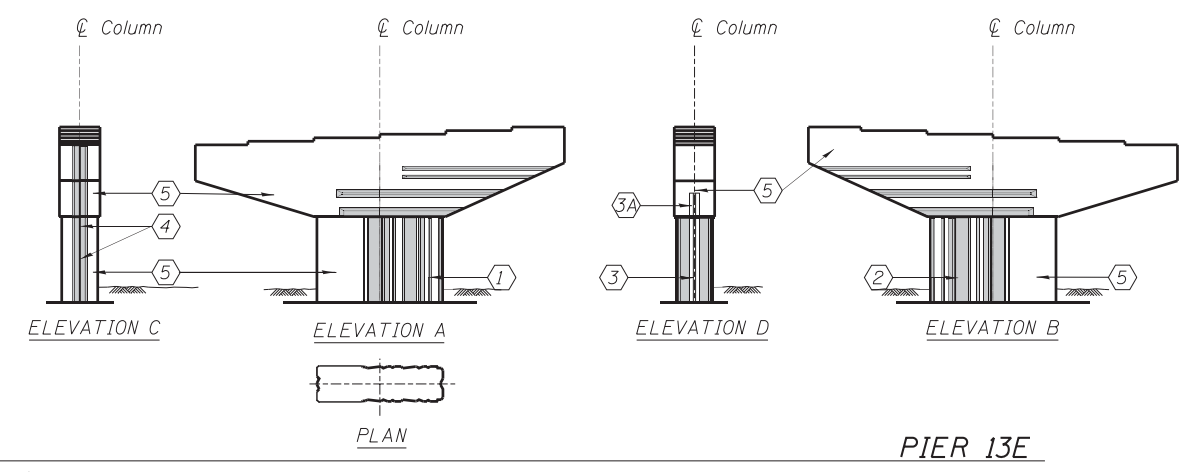
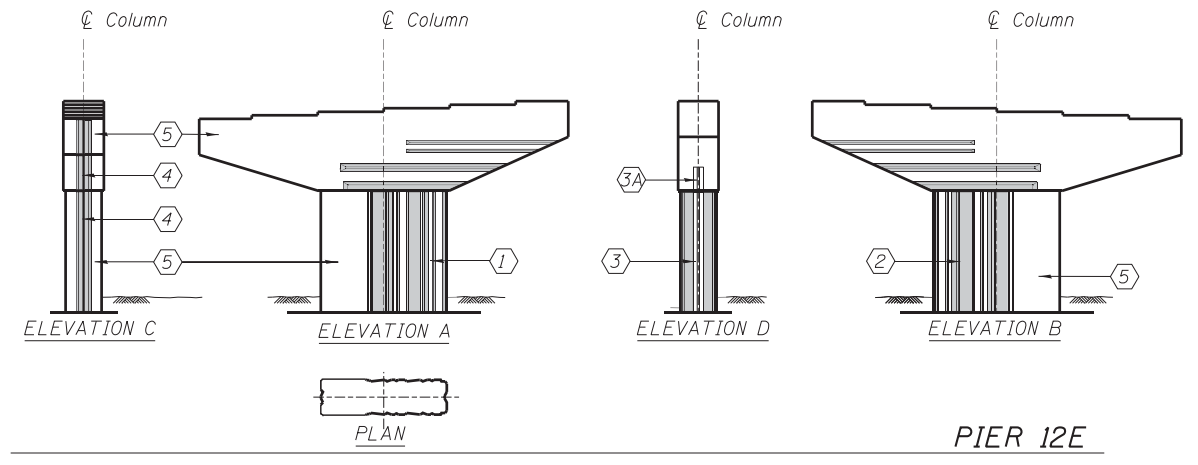
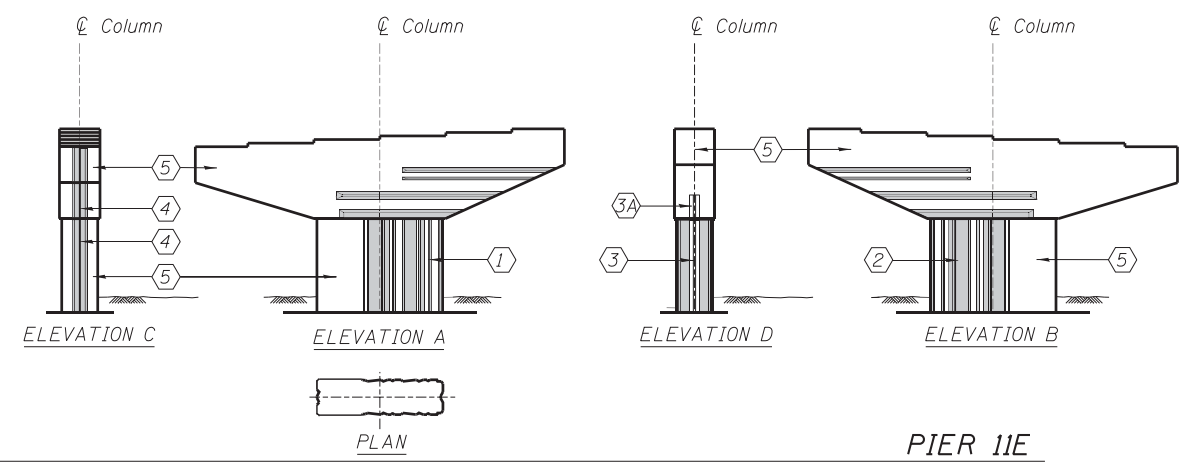
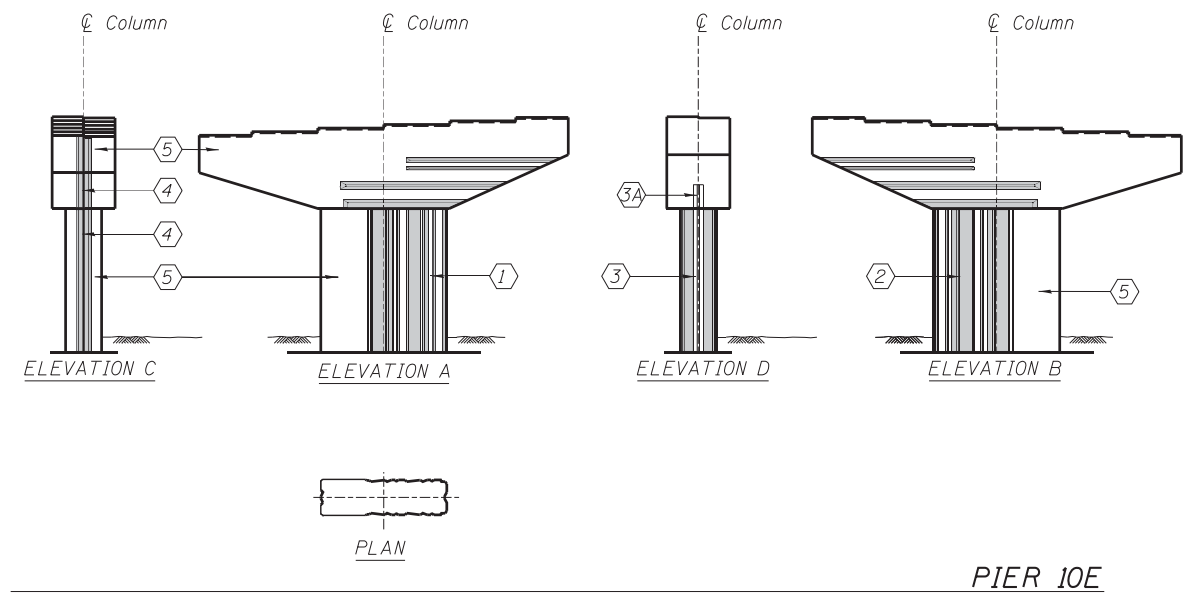
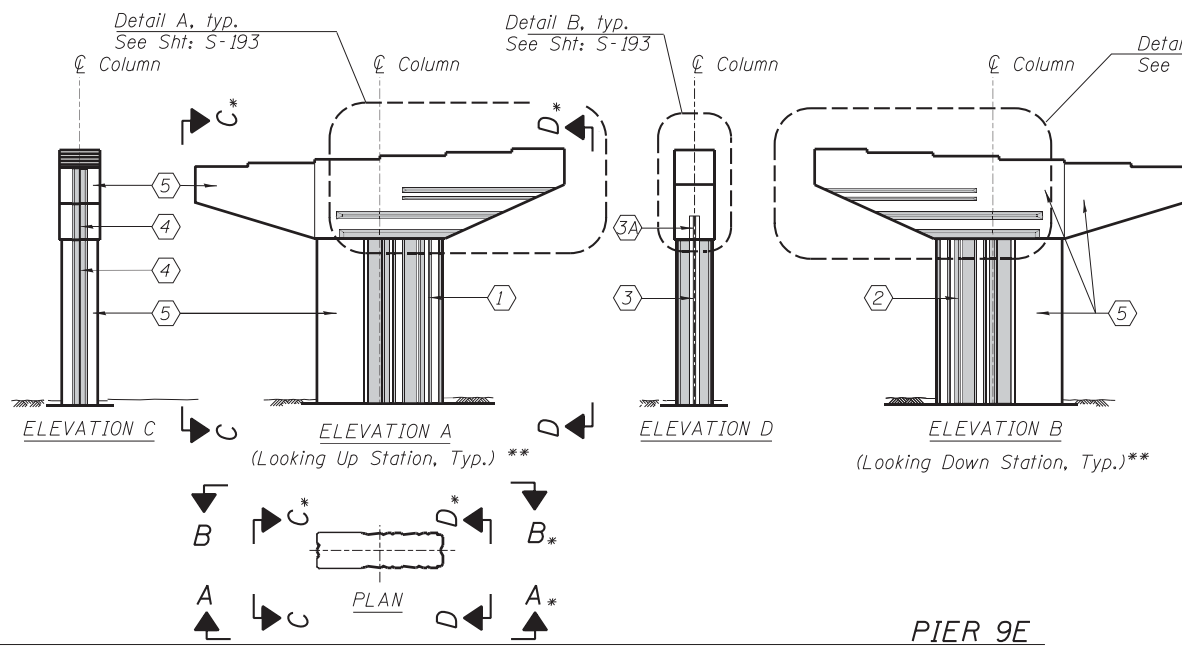
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		CHECKED -	AA	REVISED -	

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PIER 16E DETAILS - S.N. 016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-190 OF S-218 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	713
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



* 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.

NOTES:

For Pier and Pier Cap dimensions see Sheets S-175 to S-190.
For Formliner and Reveal details see Sheet S-193

LEGEND:

- ① ② ③ ③A ④ Textured Formliner
- ⑤ Rubbed Finish

491_0160000_60X07_ArchDef-1.dgn



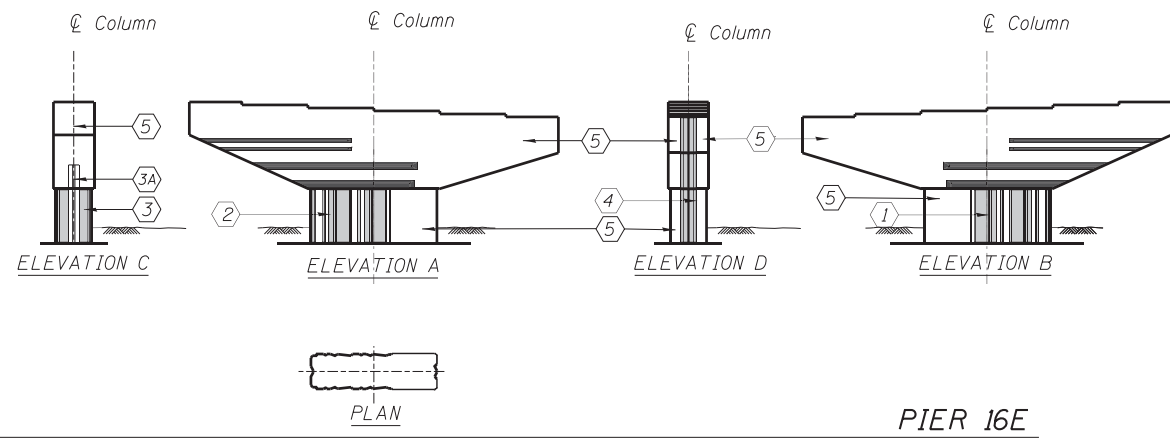
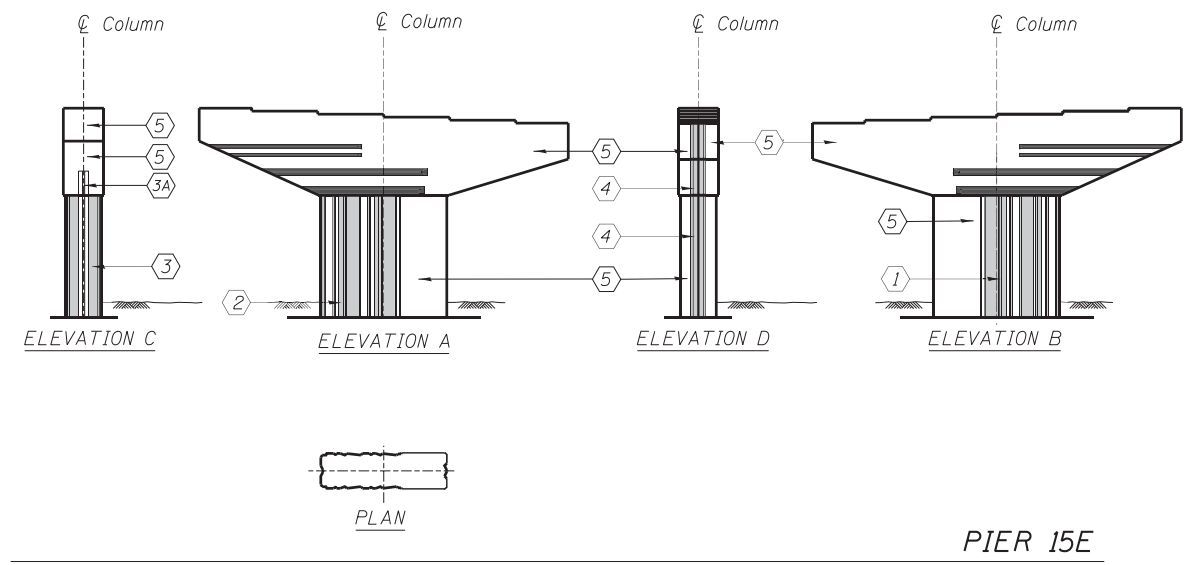
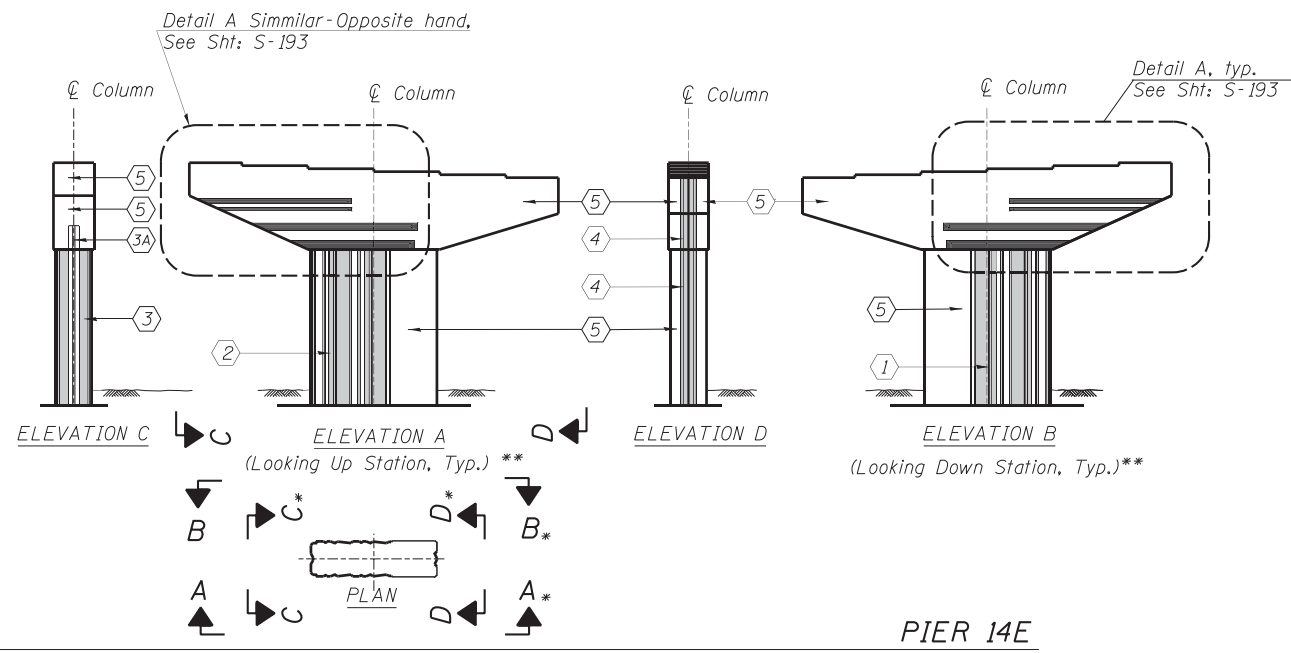
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS I - S.N. 016-1503
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-191 OF S-218 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	714
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



* 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.

NOTES:

For Pier and Pier Cap dimensions see Sheets S-175 to S-190.

LEGEND:

- ① ② ③ ③A ④ Textured Formliner
- ⑤ Rubbed Finish

492_0160000_60X07_ArchDet+2.dgn



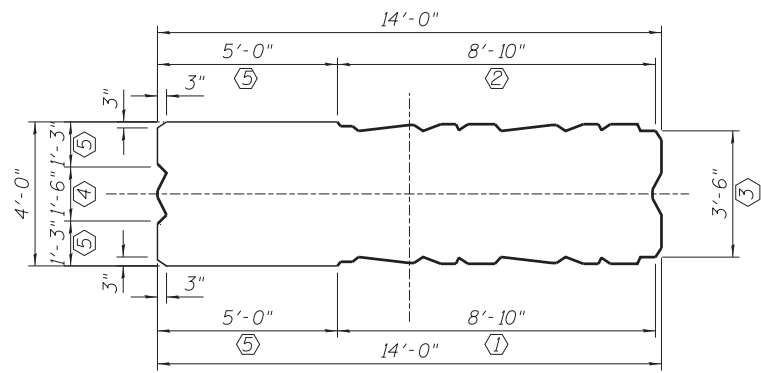
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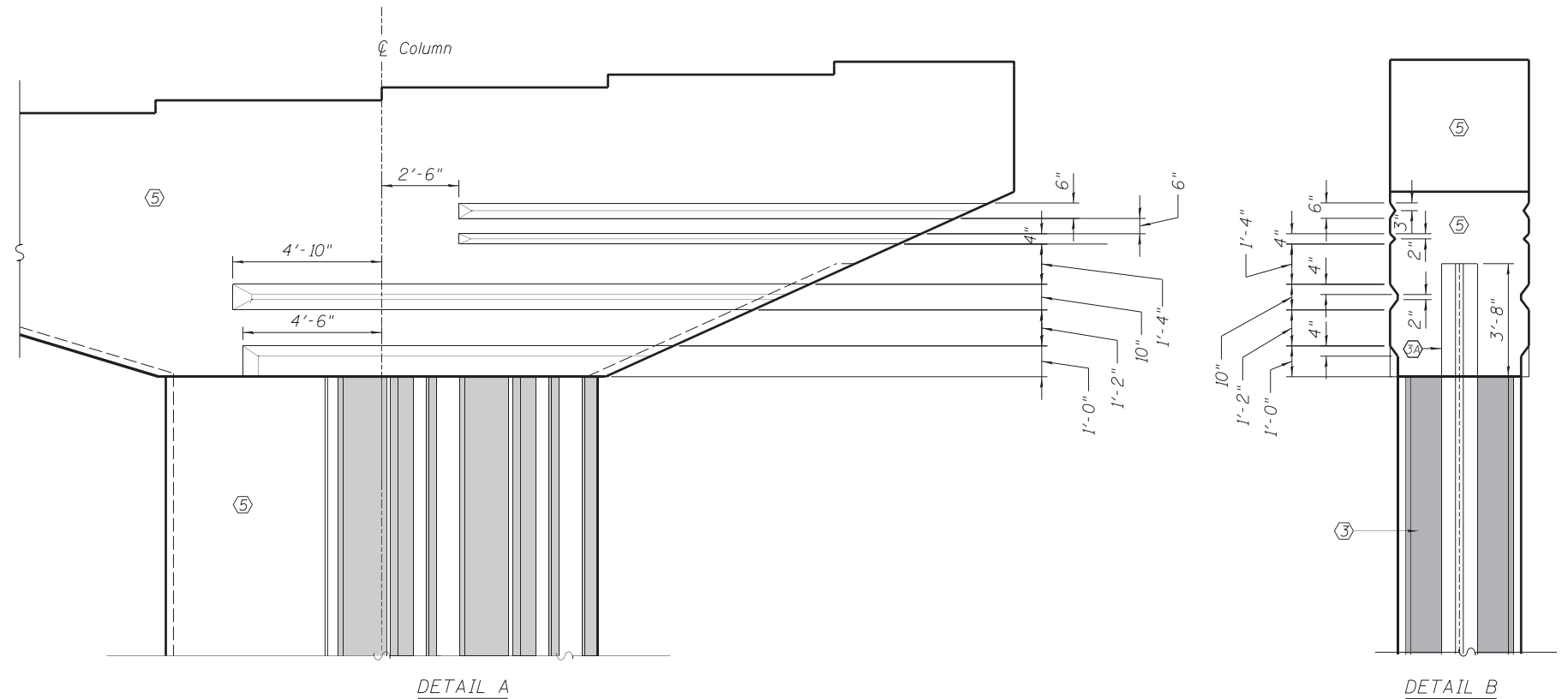
ARCHITECTURAL DETAILS II - S.N. 016-1502
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-192 OF S-218 SHEETS

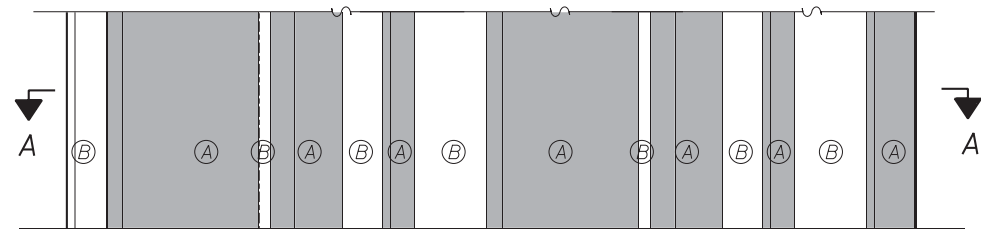
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				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				



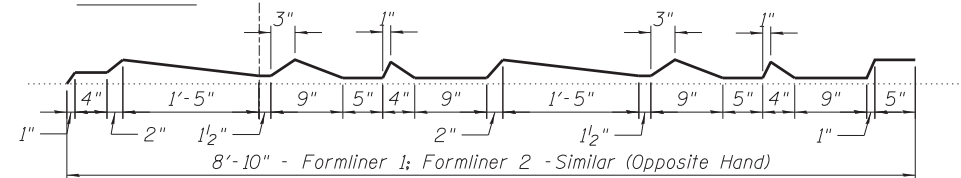
FORMLINER LAYOUT
 TYP. FOR HAMMER HEAD PIERS
 STRUCTURE NO. 016-1502 & 016-1503



PIER CAP REVEAL DETAIL

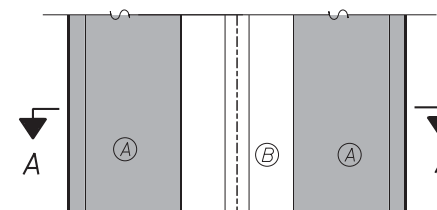


ELEVATION

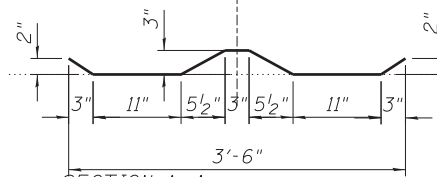


SECTION A-A

FORMLINER ① & ② Sim.

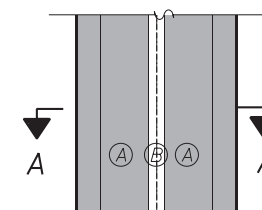


ELEVATION

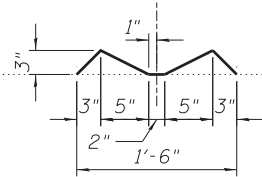


SECTION A-A

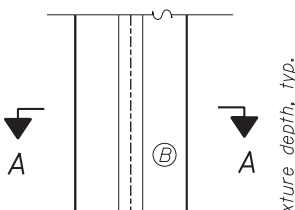
FORMLINER ③



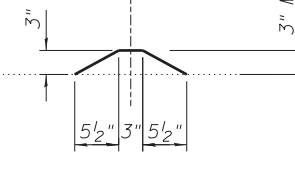
ELEVATION



FORMLINER ④



ELEVATION



FORMLINER ③A

NOTES:

1. For pier and pier cap dimensions see Sheets: S-175 to S-190
2. Maximum depth of formliner texture at columns and maximum depth of reveals at pier caps is 3".
3. The pier architectural treatment including formliner and reveal pattern and texture are similar to Outbound Contract. Texture and overall appearance to match the piers included in Outbound Contract.

LEGEND:

- ① ② ③ ④ Textured Formliner
- ⑤ 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.
- Ⓐ Texture: Light Sandblast: Max Depth: 0.0625"
- Ⓑ Texture: Smooth

Pier	Formliner Quantity (Sq.Ft.)	Rubbed Finish Quantity (Sq.Ft.)
9E	539	911
10E	489	973
11E	351	802
12E	435	850
13E	345	798
14E	517	898
15E	435	850
16E	258	748

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Form Liner Textured Surface	Sq. Ft.	3,370
Rubbed Finish	Sq. Ft.	6,832

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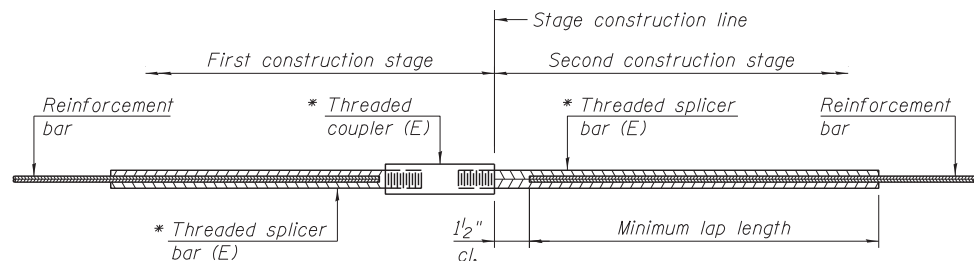
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ARCHITECTURAL DETAILS III
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-193 OF S-218 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	716
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

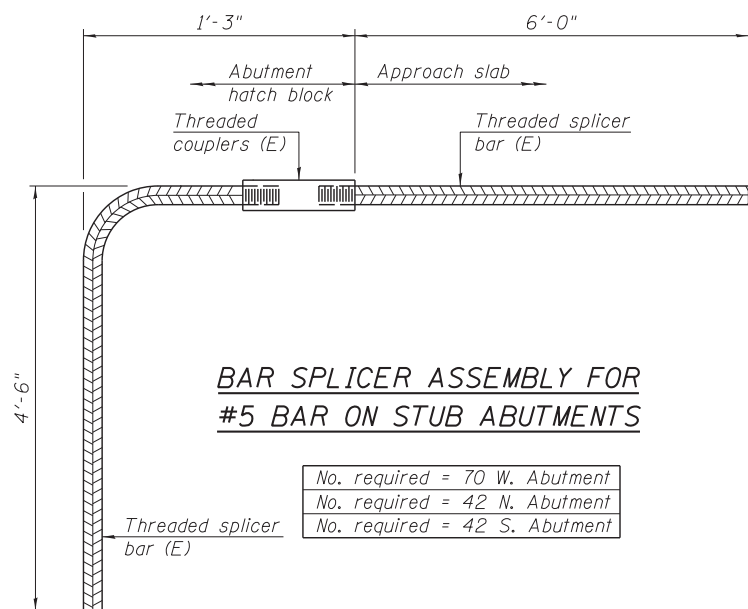
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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

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

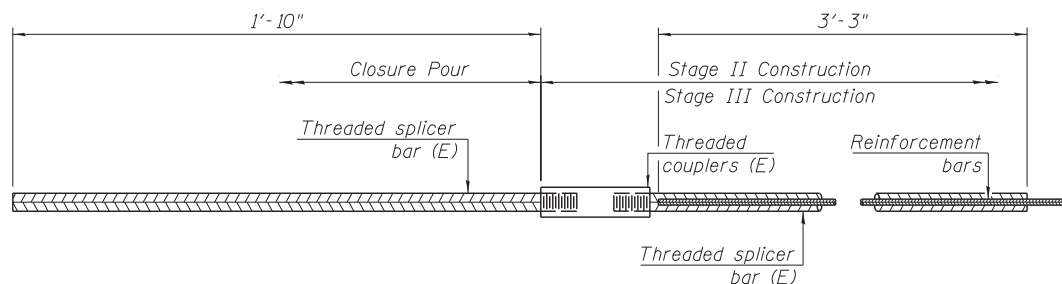
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
West Abut.	#5	22	Table 5
	#6	5	Table 5
	#9	16	Table 5
W. Approach Slab	#4	25	Table 5
	#5	86	Table 5
Deck (1500)	#5	2,609	Table 5
	#6	8	Table 5
Deck (1502)	#5	2,189	Table 5
N. Approach Slab	#5	40	Table 5
Deck (1503 Unit 1)	#5	3,320	Table 5
	#6	36	Table 5
Deck (1503 Unit 2)	#6	4	Table 5
	#5	30	Table 5
Deck (1503 Unit 3)	#6	4	Table 5
	#5	4	Table 5



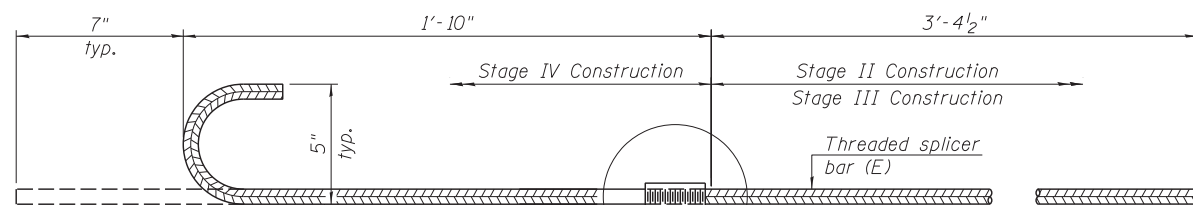
BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 70 W. Abutment
 No. required = 42 N. Abutment
 No. required = 42 S. Abutment



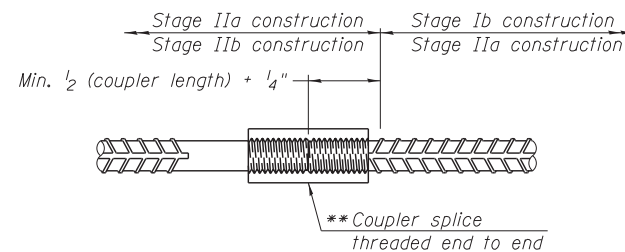
BAR SPLICER ASSEMBLY FOR #5 BAR ON TOP BARS @ BRIDGE DECK STAGE CONSTRUCTION JOINT

No. required = 605 S.N. 016-1503 (Unit 2)

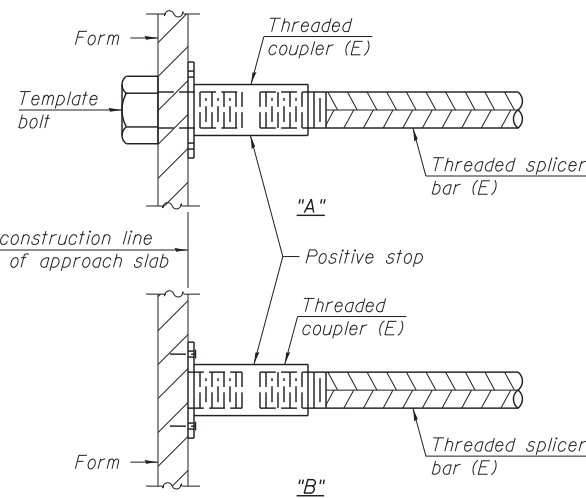


BAR SPLICER ASSEMBLY FOR #5 BAR ON BOTTOM BARS @ BRIDGE DECK STAGE CONSTRUCTION JOINT

No. required = 432 S.N. 016-1503 (Unit 2)

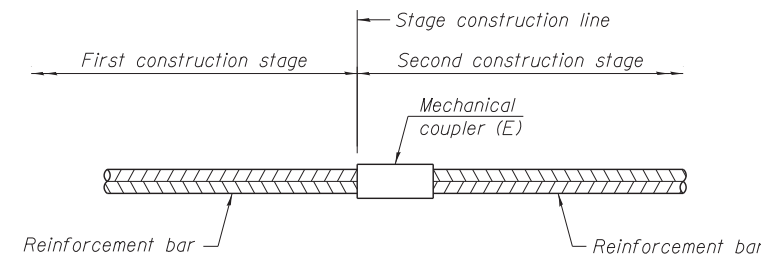


DETAIL A



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
W. Abutment	#14	70
Pier 1E	#5	32
	#6	14
	#11	81
Pier 2E	#5	34
	#6	14
	#11	81
Pier 3E	#5	18
	#11	24
	#14	48
Pier 4E	#5	18
	#11	24
	#14	48
Pier 5E	#5	34
	#6	7
	#8	20
Pier 6E	#11	79
	#14	48
	#5	64
Pier 7E	#6	28
	#11	155
	#14	100
Pier 8E	#5	64
	#6	28
	#11	178
Pier 9E	#14	120
	#5	58
	#6	18
Pier 10E	#11	84
	#14	88
	#7	26
Pier 11E	#8	6
	#11	21
	#14	48
Pier 12E	#14	48
	#14	96
	#14	96
Pier 13E	#14	48
	#14	72
	#14	48
Pier 14E	#14	48
	#14	48
	#14	48
S. Abutment	#14	48
	#14	42

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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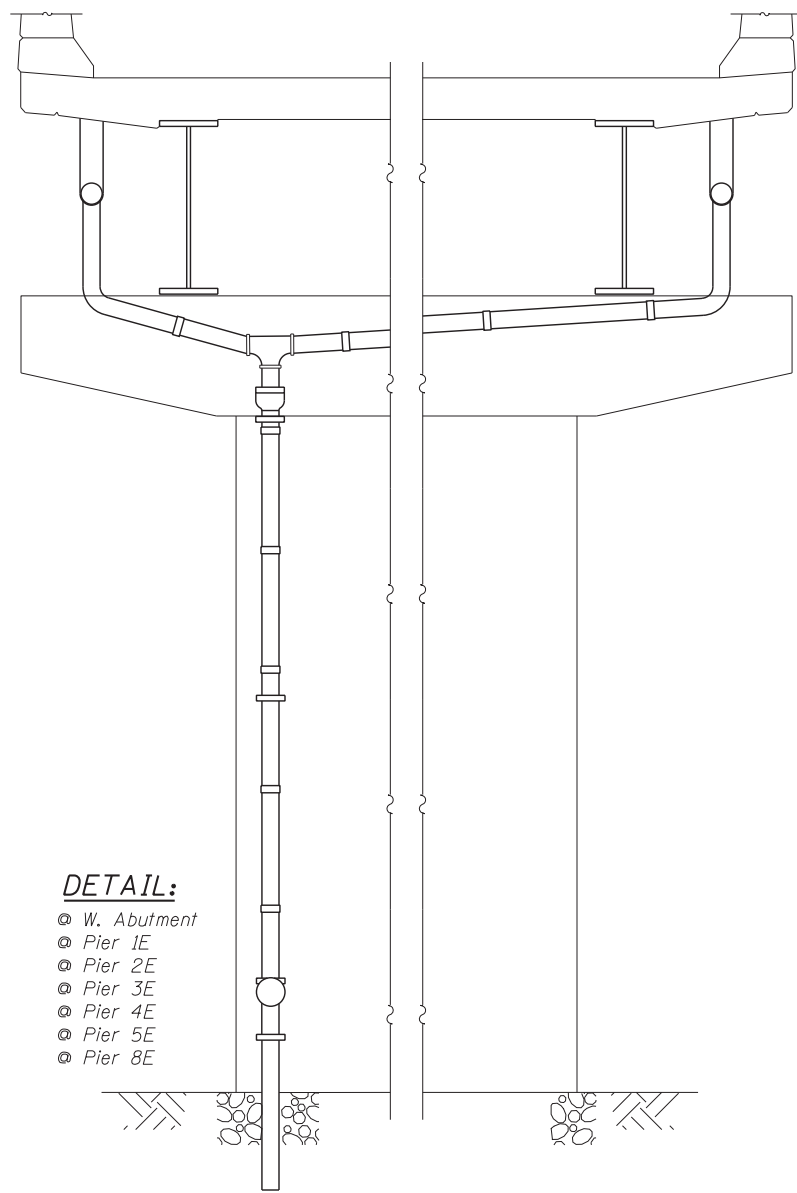
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BAR SPLICER ASSEMBLY DETAILS
 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-194 OF S-218 SHEETS

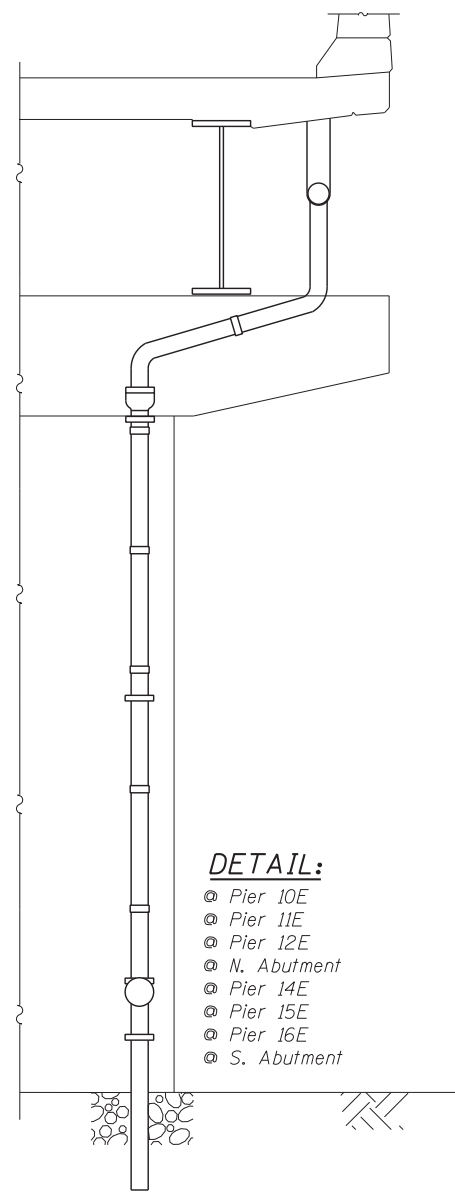
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				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				



DETAIL:

- ⊙ W. Abutment
- ⊙ Pier 1E
- ⊙ Pier 2E
- ⊙ Pier 3E
- ⊙ Pier 4E
- ⊙ Pier 5E
- ⊙ Pier 8E

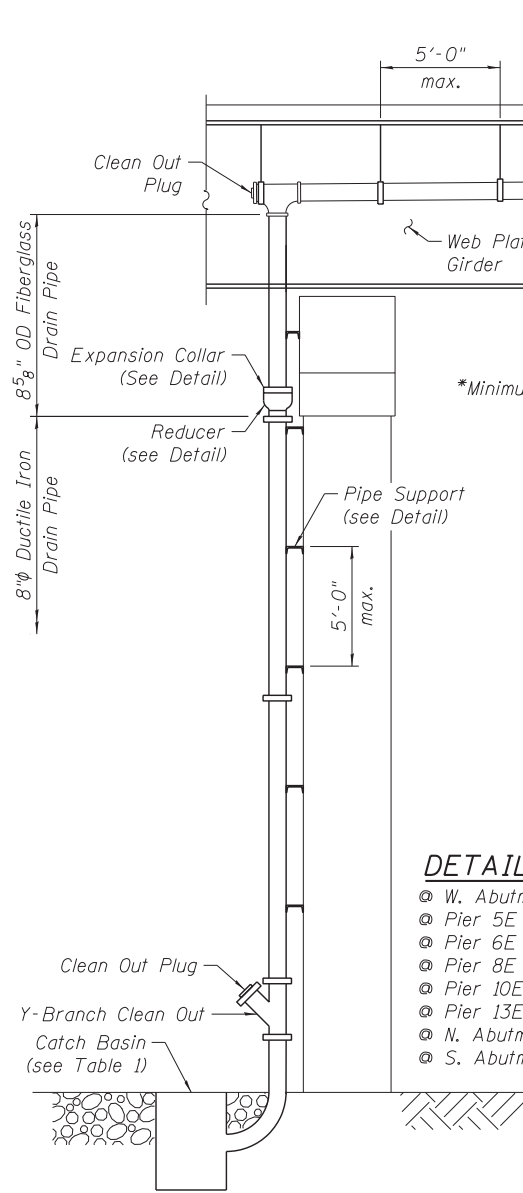
**ELEVATION VIEW
DRAINAGE SYSTEM ACROSS CAP**



DETAIL:

- ⊙ Pier 10E
- ⊙ Pier 11E
- ⊙ Pier 12E
- ⊙ N. Abutment
- ⊙ Pier 14E
- ⊙ Pier 15E
- ⊙ Pier 16E
- ⊙ S. Abutment

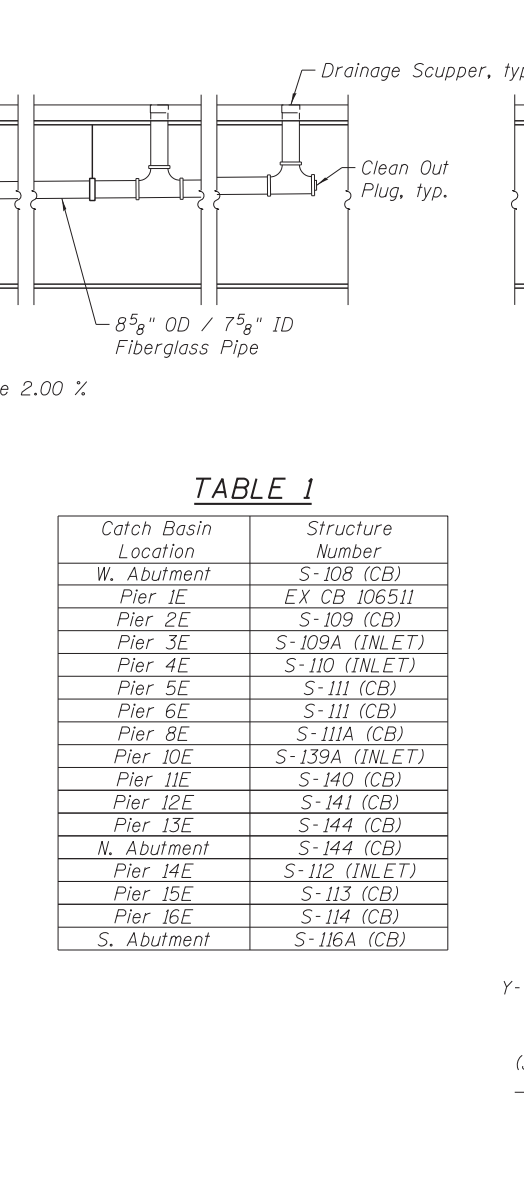
**ELEVATION VIEW
DRAINAGE SYSTEM STRAIGHT DOWN**



DETAIL:

- ⊙ W. Abutment
- ⊙ Pier 5E
- ⊙ Pier 6E
- ⊙ Pier 8E
- ⊙ Pier 10E
- ⊙ Pier 13E
- ⊙ N. Abutment
- ⊙ S. Abutment

**END VIEW
MULTIPLE SCUPPER RUN**



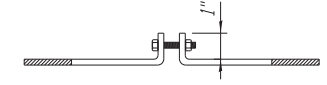
DETAIL:

- ⊙ Pier 1E
- ⊙ Pier 2E
- ⊙ Pier 3E
- ⊙ Pier 4E
- ⊙ Pier 5E
- ⊙ Pier 8E
- ⊙ Pier 10E
- ⊙ Pier 11E
- ⊙ Pier 12E
- ⊙ Pier 14E
- ⊙ Pier 15E
- ⊙ Pier 16E

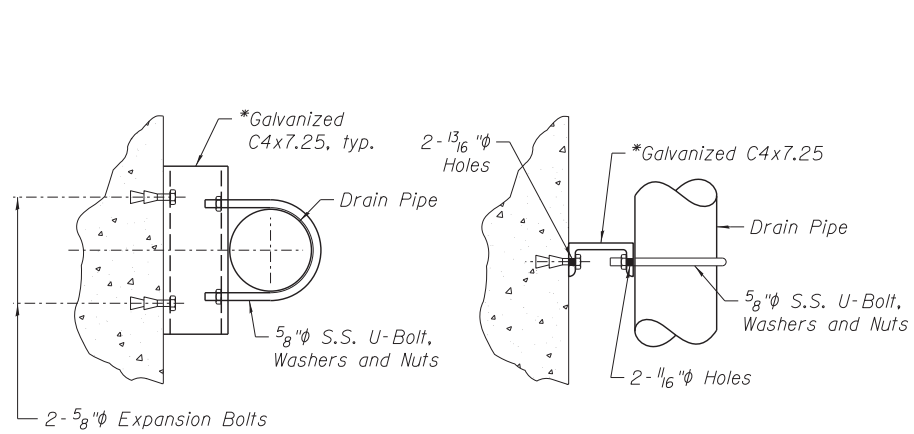
**END VIEW
SINGLE SCUPPER RUN**

TABLE 1

Catch Basin Location	Structure Number
W. Abutment	S-108 (CB)
Pier 1E	EX CB 106511
Pier 2E	S-109 (CB)
Pier 3E	S-109A (INLET)
Pier 4E	S-110 (INLET)
Pier 5E	S-111 (CB)
Pier 6E	S-111 (CB)
Pier 8E	S-111A (CB)
Pier 10E	S-139A (INLET)
Pier 11E	S-140 (CB)
Pier 12E	S-141 (CB)
Pier 13E	S-144 (CB)
N. Abutment	S-144 (CB)
Pier 14E	S-112 (INLET)
Pier 15E	S-113 (CB)
Pier 16E	S-114 (CB)
S. Abutment	S-116A (CB)



SECTION A-A

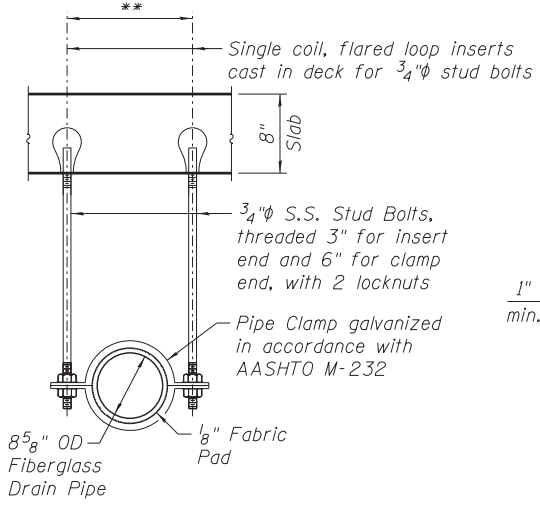


PLAN

ELEVATION

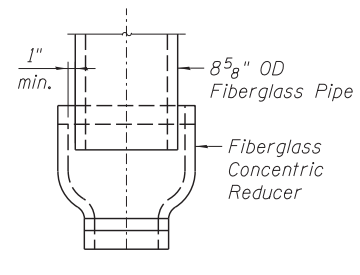
PIPE SUPPORT DETAIL

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

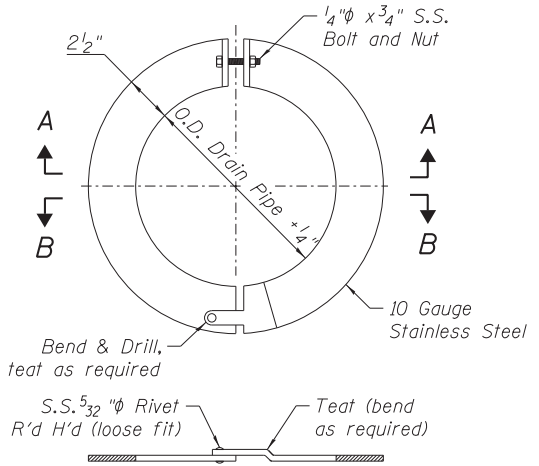


PIPE SUPPORT DETAIL

**Dimension as required by Pipe Clamp



REDUCER DETAIL



**SECTION B-B
DETAIL OF EXPANSION COLLAR**

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage System	L. Sum	1

NOTES:

- If piping configuration allows, the Contractor shall locate drain pipe for Piers 5, 6 and 8 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.

511-016000C_60X07_DRAIN.dgn



USER NAME =	krizm	DESIGNED -	CLS	REVISED -	
CHECKED -	ATB	REVISOR -		REVISOR -	
PLOT SCALE =		DRAWN -	MRK	REVISOR -	
PLOT DATE =	5/26/2015	CHECKED -	CLS	REVISOR -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SYSTEM DETAIL
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	718
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	

SHEET NO. S-195 OF S-218 SHEETS



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - MALOUF

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns for Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, and Test Results. Includes soil layers like SAND, GRAVEL and CLAY, and SILTY CLAY.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns for Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Soil Description, and Test Results. Includes layers like SILTY CLAY and BEDROCK.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - MALOUF

COUNTY COOK

Boring No. STR-01 Core Type NX
Station 85+73.92 Core Diameter 2.16 in
Offset 35.20ft LT Core Length 14.1 ft

Surface Elev. 594.97 ft

Table with columns for Top Elev., Coring Notes and Rock Description, Core Run, Recovery, Core Time, and Comp. Includes notes on rock fractures and test procedures.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and their respective values.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS I - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-196 OF S-218 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

601_0161500_60X07_BOR1.dgn



STRUCTURE SOIL BORING LOG

Page 1 of 3
Date 2/26/13

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Boring No.	DEPTH	BLOW COUNT	Qu	W	Surface Water Elev.	Groundwater Elev. when drilling	at Completion	Hrs.	DEPTH	BLOW COUNT	Qu	W
STR-02					None	585.9	Not Meas.					
Station	85+78.55											
Offset	56.74ft RT											
Surface Elev.	595.87 ft											
FILL: Black, TOPSOIL, BRICK, CONCRETE and CINDERS	11	11	12.8		Gray, soft SILTY CLAY LOAM				1	1	4B	26.2
	8	4	12.4		Gray, very stiff to hard SILTY CLAY	568.37			5	7	3.4B	22.6
FILL: Brown and gray SAND, GRAVEL and CONCRETE	3	3	17.9						6	8	4.2B	18.1
Brown, moist, medium dense, fine SAND	5	7	7.7		Gray, stiff SILTY CLAY	562.87						
Brown, saturated, medium dense, fine SAND	9	7	25.4						3	5	1.9B	22.4
	7	9	24.3									
Gray, saturated, medium dense to loose, fine SAND to SANDY LOAM	7	7	22.7						4	4	1.3B	24.7
	6	3	29.4									
	4	5	21.9						4	4	1.1B	19.6
	4	7	27.1									
Gray, soft SILTY CLAY LOAM	4	4			Gray, very stiff SILTY CLAY LOAM	546.87						

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

Page 2 of 3
Date 2/26/13

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Boring No.	DEPTH	BLOW COUNT	Qu	W	Surface Water Elev.	Groundwater Elev. when drilling	at Completion	Hrs.	DEPTH	BLOW COUNT	Qu	W
STR-02					None	585.9	Not Meas.					
Station	85+78.55											
Offset	56.74ft RT											
Surface Elev.	545.87 ft											
Gray, very stiff SILTY CLAY	9	14	3.0B	20.5								
Apparant weathered BEDROCK	544.77	50'										
Pressuremeter Test performed at 51.75 ft	542.87											
po = 6.0 tsf / pf = 38.0 tsf / pl = * tsf												
Ed = 5481 tsf / E+ = 12008 tsf												
*Possible weathered bedrock at 51 ft.												

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

Page 3 of 3
Date 2/26/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - KOMEN

COUNTY COOK

Boring No. STR-02 Core Type NX
Station 85+78.55 Core Diameter 2.16 in
Offset 56.74ft RT Core Length 15 ft

Surface Elev. 595.87 ft

Top Elev. ft	Coring Notes and Rock Description	Core Run (#)	RECOVERY (%)	RQD (%)	CORE TIME (Min/ft)	COMP. STRENGTH (tsf)
542.87	Gray, hard, horizontally fractured, occasional vertical fractures, trace vugs to vuggy fresh to slightly weathered, fair, DOLOMITE	1	100	58	2	
-55.0						
-60.0						
-65.0		2	100	61	2	
527.87	End of Boring Diedrich D-50 drill rig used for drilling Automatic Diedrich hammer used for SPT Casing used: 27 ft of 4 in diameter Driller converted to rotary wash drilling at 10 ft depth Borehole grouted upon completion					

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

602_0161500_60X07_BOR2.dgn



USER NAME =	krizm	DESIGNED -	CLS	REVISED -	
		CHECKED -	ATB	REVISED -	
PLOT SCALE =		DRAWN -	MRK	REVISED -	
PLOT DATE =	5/26/2015	CHECKED -	CLS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS II - S.N. 016-1500
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-197 OF S-218 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	720
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	



STRUCTURE SOIL BORING LOG

Page 1 of 3 Date 3/11/13

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, Groundwater Elev., etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 3/11/13

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Soil Description, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

Page 3 of 3 Date 3/11/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-03 Core Type NX
Station 86+87.95 Core Diameter 2.16 in
Offset 32.09ft LT Core Length 15.3 ft

Surface Elev. 594.04 ft

Table with columns: Top Elev., Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf)

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

603_0161500_60X07_BOR3.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS III - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-198 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns for Depth (ft), Blows (B), Penetration (P), Shear (S), and Soil Description. Includes data for various soil layers like ASPHALT, SILTY CLAY, SAND, and GRAVEL.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns for Depth (ft), Blows (B), Penetration (P), Shear (S), and Soil Description. Includes data for SILTY CLAY, BEDROCK, and test results.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-04 Core Type NX Station 89+00.24 Core Diameter 2.16 in Offset 37.19ft LT Core Length 16 ft

Surface Elev. 595.35 ft

Table with columns for Top Elev. (ft), Core Run (#), Recovery (%), Core Time (Min/ft), and Core Length (tsf). Includes coring notes and rock descriptions.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

604_0161500_60X07_BOR4.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, and PLOT DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS IV - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-199 OF S-218 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, Depth, Blows, Qu, W. Includes soil descriptions like 'Asphalt', 'Brown, dry to moist', 'Brownish gray to gray', 'Gray, wet to saturated', 'Gray, saturated, loose'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W. Includes soil descriptions like 'Gray, medium to stiff SILTY CLAY', 'Gray, very stiff SILTY CLAY', 'Gray, moist, dense LOAM'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-05 Core Type NX
Station 90+61.04 Core Diameter 2.16 in
Offset 31.07ft LT Core Length 15.5 ft

Surface Elev. 596.13 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), CORE TIME (Min/ft), COMP. STRENGTH (tsf). Includes description: 'Gray, hard, horizontally fractured, vuggy to slightly vuggy, slightly weathered, fair to good, DOLOMITE'.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

605_0161500_60X07_BORS.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS V - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-200 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, and SPT values.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Soil Description, and SPT values.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-06 Core Type NX Station 90+69.11 Core Diameter 2.16 in Offset 54.21ft RT Core Length 15 ft

Surface Elev. 594.83 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), and Comp. Strength (tsf).

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

606_0161500_60X07_BOR6.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and DRAWN.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS VI - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-201 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., and ILLINOIS FED. AID PROJECT.



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, Water Elev., Groundwater Elev., Completion Hrs., Not Meas., Depth, Blows, Qu, W. Includes soil descriptions like ASPHALT, CRUSHED STONE, SANDY LOAM, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Description, Pressuremeter Test results. Includes soil descriptions like SILTY CLAY, LOAM, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - KOMEN

COUNTY COOK

Boring No. STR-07 Core Type NX Station 92+10.85 Core Diameter 2.16 in Offset 31.56ft LT Core Length 15 ft

Surface Elev. 596.85 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf). Includes rock description: DOLOMITE.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

607_0161500_60X07_BORT.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS VII - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-202 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, SPT, Blows, Qu, W. Includes soil descriptions like ASPHALT, CONCRETE, FILL, CRUSHED STONE, SAND and GRAVEL base course, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Soil Description. Includes descriptions like Gray, very stiff SLITY CLAY, Gray, medium SILTY CLAY, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-08 Core Type NX
Station 92+00.68 Core Diameter 2.16 in
Offset 63.96ft RT Core Length 15.5 ft

Surface Elev. 594.93 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf). Includes description: Gray, hard, horizontally fractured, vuggy, slightly weathered to fresh, fair to good, DOLOMITE.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

608_0161500_60X07_BORL.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS VIII - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-203 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, Soil Type, Blows, Depth, Qu, W. Includes soil descriptions like 'CONCRETE', 'CRUSHED STONE, SAND and GRAVEL base course', 'Brown, moist to wet, very loose, fine SAND', etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W. Includes soil descriptions like 'Brown and gray, wet, loose SILTY LOAM - trace shells and organics noted', 'Dark gray, stiff SILTY CLAY LOAM', etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-09 Core Type NX
Station 93+27.00 Core Diameter 2.16 in
Offset 32.84ft LT Core Length 15.5 ft

Surface Elev. 596.77 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf). Includes notes like 'Gray, hard, horizontally fractured to completely fractured, slightly vuggy to trace vugs, slightly weathered to moderately weathered, fair to very poor, DOLOMITE'.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

609_0161500_60X07_BOR3.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS IX - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-204 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, Groundwater Elev., Completion Hrs., Not Meas., Depth, Blows, Qu, W. Includes soil descriptions like 'Gray, saturatec, medium dense, fine SAND to SANDY LOAM' and 'Brown, moist to wet, medium dense, fine SAND'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1500

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Description. Includes soil descriptions like 'Dark gray, medium to stiff SILTY CLAY LOAM to SILTY LOAM, trace shells, wood and organics' and 'Brown and gray, very stiff SILTY CLAY'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1500 DRILLED BY STRATA - KOMEN

COUNTY COOK

Boring No. STR-10 Core Type NX Station 93+82.21 Core Diameter 2.16 in Offset 76.68ft RT Core Length 15 ft

Surface Elev. 597.05 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf). Includes description: 'Gray, hard, horizontally fractured, occasional dipping fracture, slightly vuggy, slightly weathered to fresh, poor to fair, DOLOMITE'.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

610_0161500_60X07_BOR10.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS X - S.N. 016-1500 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-205 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

Page 1 of 3 Date 3/15/13

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, Water Elev., etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 3/15/13

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1502

ROUTE FAI 55 SECTION 2013-049B COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Description, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

Page 3 of 3 Date 3/15/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-13 Core Type NX Station 98+95.54 Core Diameter 2.16 in Offset 23.33ft LT Core Length 15.2 ft

Surface Elev. 590.89 ft

Table with columns: Top Elev., Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf)

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

611-0161502_60X07_BOR11.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XI - S.N. 016-1502 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-206 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - MALOUF

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns for Depth (ft), Blows (15' SPT), Qu (tsf), W (%), and Soil Description. Includes notes on asphalt, fill, and groundwater levels.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1502

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns for Depth (ft), Blows (15' SPT), Cu (tsf), and W (%). Soil description includes silty clay and bedrock.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - MALOUF

COUNTY COOK

Boring No. STR-14 Core Type NX
Station 100+81.26 Core Diameter 2.16 in
Offset 34.78ft RT Core Length 15 ft

Surface Elev. 590.53 ft

Table with columns for Top Elev. (ft), Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), and Comp. Strength (tsf). Includes notes on coring process.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

612_0161502_60X07_BOR12.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and their respective values.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XII - S.N. 016-1502 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-207 OF S-218 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - MALOUF

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blow Count (B, L, O, W, S), Soil Description, SPT Values (Qu, W), and Notes. Includes data for concrete, gravel base, and various soil layers with fill descriptions.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1502

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blow Count (B, L, O, W, S), Soil Description, SPT Values (Cu, W), and Notes. Includes data for silty clay and loam with pressuremeter test results.

SPT. (N) = Sum of last two blow values in sample. (Cu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - MALOUF

COUNTY COOK

Boring No. STR-15 Core Type NX
Station 102+54.84 Core Diameter 2.16 in
Offset 27.31ft RT Core Length 15 ft

Surface Elev. 590.62 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), and Comp. Strength (tsf). Includes data for dolomite and end of boring notes.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

613_0161502_60X07_BOR13.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XIII - S.N. 016-1502 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-208 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., and ILLINOIS FED. AID PROJECT.



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns for Depth (ft), Blows (B), Penetration (P), Shear (S), Bulge (B), and Soil Description. Includes data for TOPSOIL, Sample 11, Sample 12, Sample 5, Sample 6, and Sample 10.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1502

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns for Depth (ft), Blows (B), Penetration (P), Shear (S), Bulge (B), and Soil Description. Includes data for Gray, medium SILTY CLAY and Gray, hard SILTY CLAY.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1502 DRILLED BY STRATA - KOMEN

COUNTY COOK

Boring No. STR-16 Core Type NX Station 103+93.40 Core Diameter 2.16 in Offset 38.95ft LT Core Length 15 ft Surface Elev. 593.22 ft

Table with columns for Top Elev. (ft), Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), and Comp. Strength (tsf). Includes data for Dolomite and bedrock/gravel.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days



Table with columns for User Name, Designated, Revised, Checked, and Plot Date.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XIV - S.N. 016-1502 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-209 OF S-218 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, SPT, Blows, WOH, Cu, W. Includes soil descriptions like 'Gray, saturatec, very loose SANDY LOAM to SILTY LOAM' and test results.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, WOH, Cu, W. Includes soil descriptions like 'Brown and gray, stiff SILTY CLAY' and test results.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-11 Core Type NX Station 96+43.60 Core Diameter 2.16 in Offset 51.87ft RT Core Length 15.5 ft Surface Elev. 590.88 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), Core Length (ft). Includes notes like 'Gray, hard, horizontally fractured, occasional vertical fracture...' and 'End of Boring Mobile B-57 drill rig used for drilling...'.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

615_0161503_60X07_BOR15.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XV - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-210 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, SPT, Blows, Qu, W. Includes soil descriptions like ASPHALT, SAND, CLAY, and LOAM.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Description. Includes soil descriptions like SILTY CLAY, CLAYLOAM, and LOAM.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-12 Core Type NX
Station 97+20.63 Core Diameter 2.16 in
Offset 54.79ft RT Core Length 15 ft

Surface Elev. 591.08 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf). Includes rock descriptions like DCLOMITE.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

616_0161503_60X07_BOR16.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, DRAWN, CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XVI - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-211 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Description, etc. Includes soil descriptions like Bituminous CONCRETE GRAVEL BASE COURSE and Gray, medium SILTY LOAM.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Description, etc. Includes soil descriptions like Brown and gray to gray, stiff SILTY CLAY and Gray, moist, extremely dense CLAY LOAM.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-25 Core Type NX Station 98+44.24 Core Diameter 2.16 in Offset 21.02ft LT Core Length 14.1 ft

Surface Elev. 590.75 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), Comp. Strength (tsf). Includes notes like Gray, hard, horizontally fractured, slightly vuggy to trace vugs.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

617_0161503_60X07_BOR17.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XVII - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-212 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

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AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, Water Elev., etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

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AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Soil Description, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

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ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-26 Core Type NX Station 99+60.43 Core Diameter 2.16 in Offset 54.88ft RT Core Length 15 ft

Surface Elev. 590.28 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), Comp. Strength (tsf)

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

618_0161503_60X07_BOR18.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XVIII - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-213 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

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AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Depth (ft), Blows (15', 30', 45', 60', 75'), Qu (tsf), W (%), Description, and Elevation (ft). Includes soil descriptions like 'TOPSOIL', 'SANDY CLAY', and 'SILTY CLAY'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 3/25/13

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Depth (ft), Blows (15', 30', 45', 60', 75'), Cu (tsf), W (%), Description, and Elevation (ft). Includes soil descriptions like 'Brown and gray, hard to very stiff SILTY CLAY'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

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ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - KOMEN

COUNTY COOK

Boring No. STR-27 Core Type NX Station 101+13.56 Core Diameter 2.16 in Offset 23.34ft LT Core Length 15 ft

Surface Elev. 593.84 ft

Table with columns: Top Elev. (ft), Core Run (#), Recovery (%), Core Time (Min/ft), and Comp. STH (tsf). Includes 'Coring Notes and Rock Description' such as 'Gray, hard, horizontally fractured, vuggy to slightly vuggy, slightly weathered, fair to good, DOLOMITE'.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

619_0161503_60X07_BOR19.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, and their respective values.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XIX - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-214 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blow Count (B, L, O, W, S), Qu, W, Soil Description, and SPT values. Includes soil descriptions like 'TOPSOIL' and 'Gray, soft to medium SILTY CLAY'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503 ROUTE FAI 55

SECTION 2013-049B SECTION 2013-049B

COUNTY COOK COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blow Count (B, L, O, W, S), Cu, W, Soil Description, and SPT values. Includes soil descriptions like 'Gray, soft to medium SILTY CLAY' and 'Apparent weathered BEDROCK'.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-29 Core Type NX Station 104+58.80 Core Diameter 2.16 in Offset 52.35ft RT Core Length 16 ft

Surface Elev. 597.53 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), and Comp. Strength (tsf). Includes notes on 'Gray, hard, horizontally fractured' rock and 'End of Boring'.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

620_0161503_60X07_BOR20.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and CHECKED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XX - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-215 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, Groundwater Elev., etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503 STRUCTURE NO. 016-1503

ROUTE FAI 55 ROUTE FAI 55

SECTION 2013-049B SECTION 2013-049B

COUNTY COOK COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blows, Cu, W, Soil Description, etc.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No., Station, Offset, Surface Elev., Core Type, Core Diameter, Core Length

Table with columns: Top Elev., Coring Notes and Rock Description, Core Run (#), Recovery (%), Core Time (Min/ft), Comp. Strength (tsf)

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

621_0161503_60X07_BOR21.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, etc.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XXI - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-216 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

Page 1 of 3 Date 4/4/13

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blow Count (B, L, O, W, S), Qu, W, Soil Description, and Penetration Test Results.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

Page 2 of 3 Date 4/4/13

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth, Blow Count (B, L, O, W, S), Cu, W, Soil Description, and Penetration Test Results.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

Page 3 of 3 Date 4/4/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - BAKER

COUNTY COOK

Boring No. STR-32 Core Type NX
Station 103+10.65 Core Diameter 2.16 in
Offset 31.66ft LT Core Length 15 ft

Surface Elev. 587.84 ft

Table with columns: Top Elev. ft, Coring Notes and Rock Description, Core Run (#), Recovery (%), RQD (%), Core Time (Min/ft), and Comp. Strength (tsf).

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and DRAWN.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XXII - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-217 OF S-218 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., and ILLINOIS FED. AID PROJECT.

622_0161503_60X07_BOR22.dgn



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns for Depth (ft), Blows (B), Penetration (P), Shear (S), and Soil Description. Includes data for TOPSOIL, SAND, SILTY CLAY, and LOAM.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

STRUCTURE NO. 016-1503

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns for Depth (ft), Blows (B), Penetration (P), Shear (S), and Soil Description. Includes data for SILTY CLAY, BEDROCK, and LOAM.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE ROCK CORING LOG

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-1503 DRILLED BY STRATA - ULLRICH

COUNTY COOK

Boring No. STR-34 Core Type NX
Station 102+29.72 Core Diameter 2.16 in
Offset 0.63ft RT Core Length 15 ft

Surface Elev. 588.72 ft

Table with columns for Top Elev. (ft), Coring Notes and Rock Description, Core Run (#), Recovery (%), and Core Time (Min/ft). Includes data for DOLOMITE and End of Boring.

Color pictures of the cores Yes - See Appendix

Cores will be stored for examination until Minimum 60 days

623_0161503_60X07_BOR23.dgn



Table with columns for USER NAME, DESIGNED, CHECKED, PLOT SCALE, and PLOT DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS XXIII - S.N. 016-1503 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. S-218 OF S-218 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

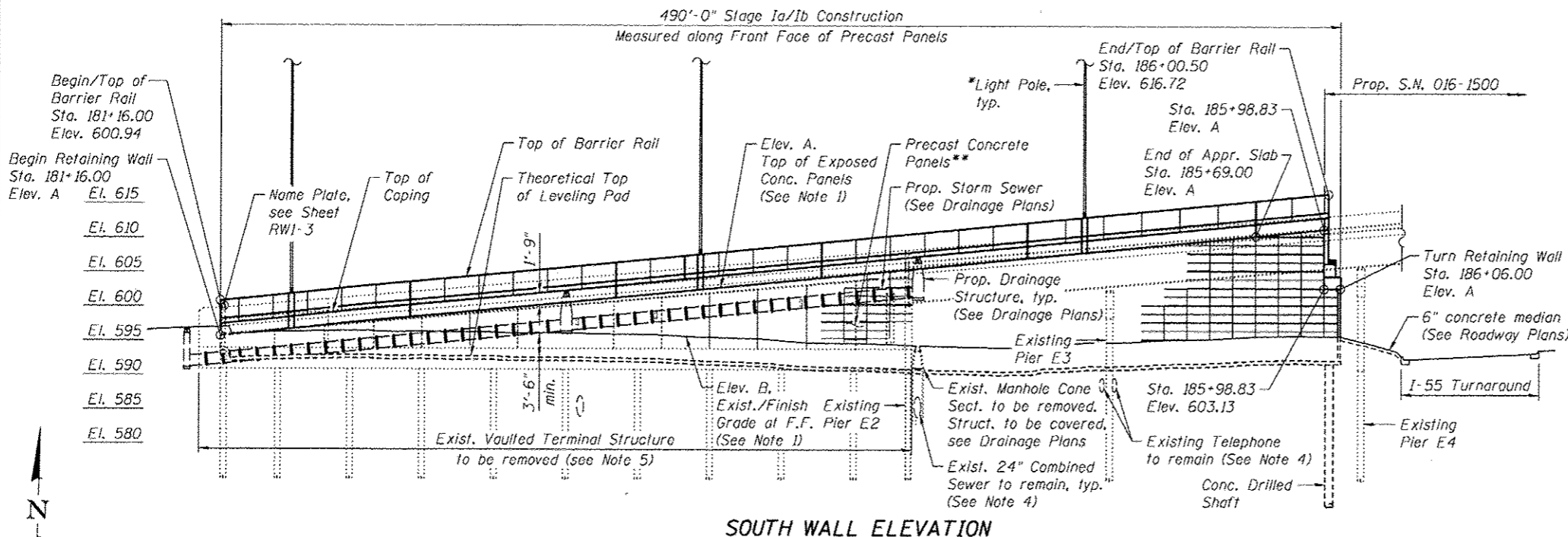
ILLINOIS FED. AID PROJECT

Bench Mark: BM-4, chiseled square on NE corner of existing crashwall at Pier E20 East of Mae Drive on EB I-55 to NB Lake Shore Drive (Pier 8 of S.N. 016-1075), Elev.: 594.65 (NAVD 88).

Exist. Structure: The North and South walls were built in 1966 & carry NB I-55 traffic from existing S.N. 016-1036. The walls, 298'-2" in length, are part of a concrete vaulted terminal structure with a 3 span, monolithically built, concrete deck measuring 12 1/2" thick, supported on each side wall of the vault and two longitudinal support girders running parallel to the deck's center line all on drilled caissons. The south side of the EB roadway was widened in 1994 from Abutment E1 to Pier E5.

Traffic Control: For Stage Ia/Ib, maintain 2-lanes of EB traffic on the north half of existing S.N. 016-0036 during construction of south half of proposed S.N. 016-0766. For Stage II/III, shift single lane of EB traffic on south half of proposed S.N. 016-0766 while maintaining 2-lanes of EB traffic on the north half of existing S.N. 016-0036. For Stage IV, shift EB traffic & increase to 3-lanes on south half of proposed S.N. 016-0766 during construction of north half of proposed S.N. 016-0766.

Mohsen Farahany
Mohsen M. Farahany
5-26-2015
Submittal Date
11-30-2016
Expiration Date



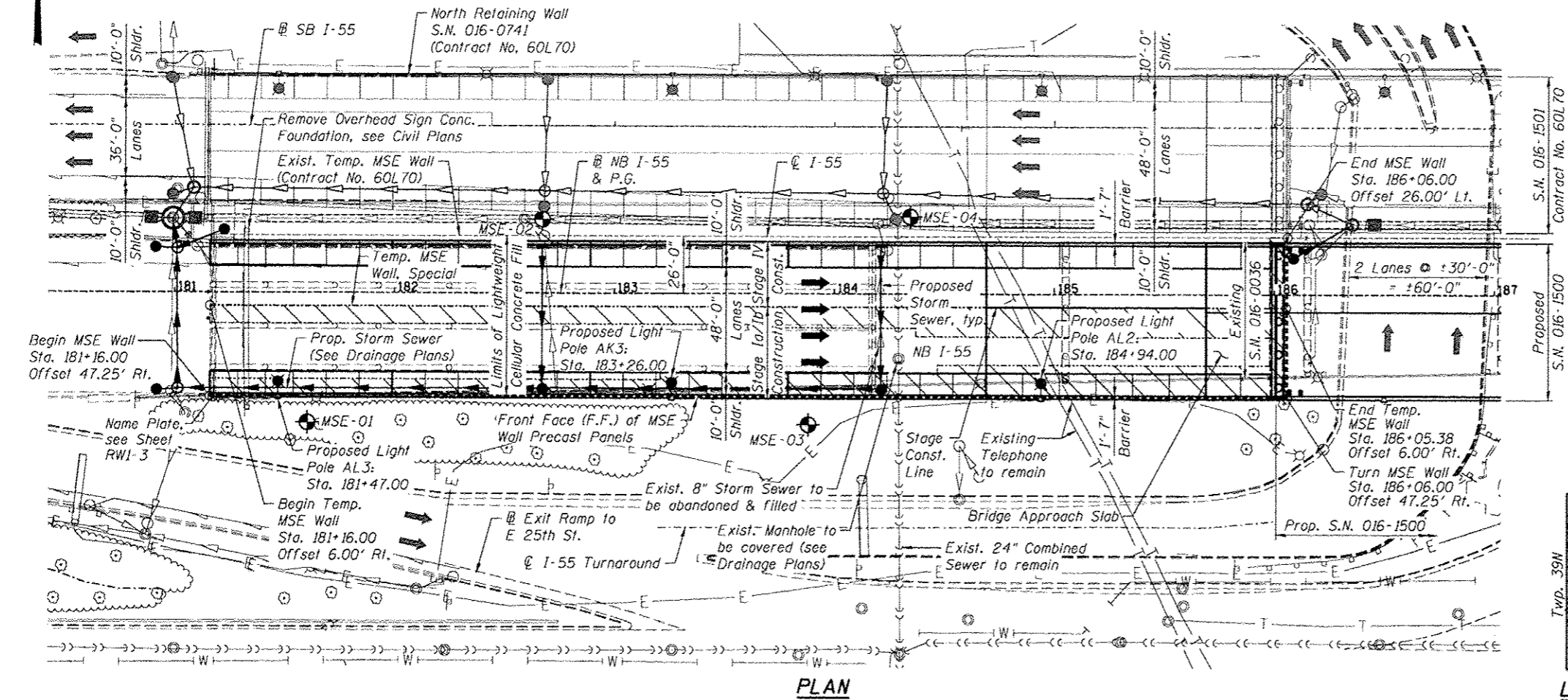
* Aluminum light poles are 10"φ (15"φ bolt circle), have height of 45', support 6'-8" mast arms, and are mounted on outside parapets only.
** For a typical precast concrete panels layout and architectural treatment see Sheet RW1-11.

APPROVED
For Structural Adequacy Only
Mohsen Farahany
Engineer of Bridges & Structures

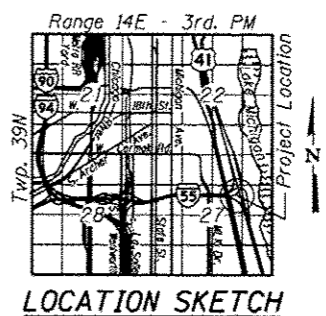
- LEGEND**
- Limits of Reinforced Fill Mass
 - A-A- Exist. Aerial Line
 - E-E- Exist. Electric Line
 - X-X- Exist. Fence
 - FO-FO- Exist. Fiber Optic Line
 - G-G- Exist. Gas Line
 - Exist. Guardrail
 - S-S- Exist. Storm Sewer
 - W-W- Exist. Water Line
 - >->- Prop. Storm Sewer
 - ◆ MSE-01 Soil Boring Location

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interim Revisions

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
PRECAST UNITS
f'c = 4,500 psi (Precast Panels)

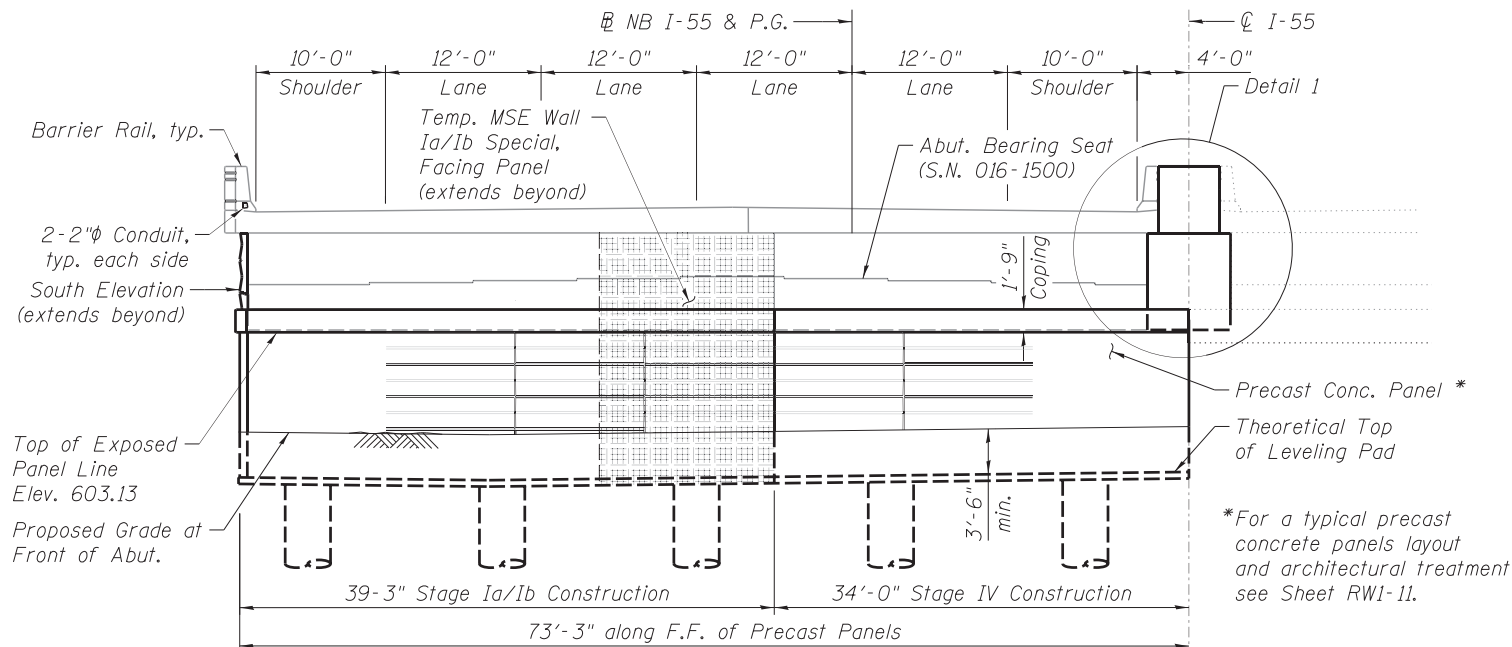


- NOTES:**
- For Stations & Elevations of Elev. A & B see Sheet RW1-2, Table 1.
 - Horizontal dimensions measured along front face of precast panels.
 - Stations & Offsets are given to front face of precast panels relative to Prop. NB I-55.
 - Contractor shall field verify location and elevation of existing utilities. If utilities pass through prop. MSE and temp. MSE panels or leveling pad, wall supplier shall design break in the wall and/or leveling pad to accommodate.
 - For existing Terminal Structure removal limits, see Sheet RW1-6.
 - For Index of Sheets, see Sheet RW1-3.
 - For MSE Soil Boring Logs, see Sheets RW1-12 thru RW1-15.

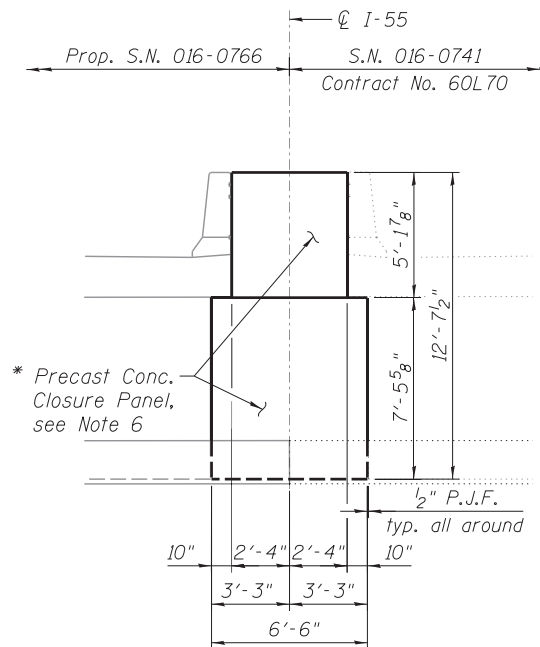


GENERAL PLAN & ELEVATION
NB I-55 WEST APPROACH
SOUTH MSE WALL
F.A.I. RTE. 55 - SEC. 2013-049B
COOK COUNTY
STA. 181+16.00 TO STA. 186+06.00
STRUCTURE NO. 016-0766

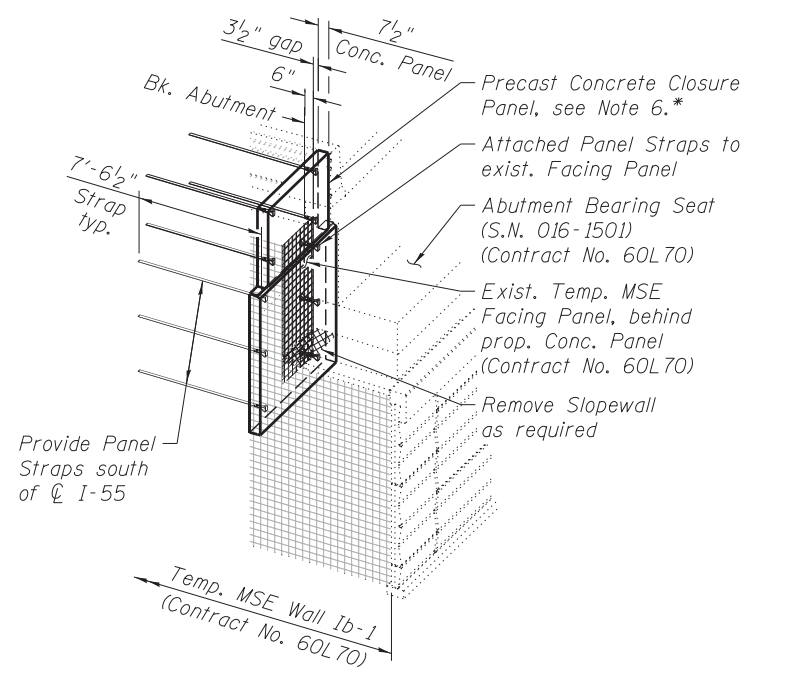
	USER NAME = Phodina	DESIGNED - EV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)	F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 868	SHEET NO. = 742
	PLOT SCALE =	CHECKED - PH	REVISED -			CONTRACT NO. 60X07				
	PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -			ILLINOIS FED. AID PROJECT				
		CHECKED - PH	REVISED -							



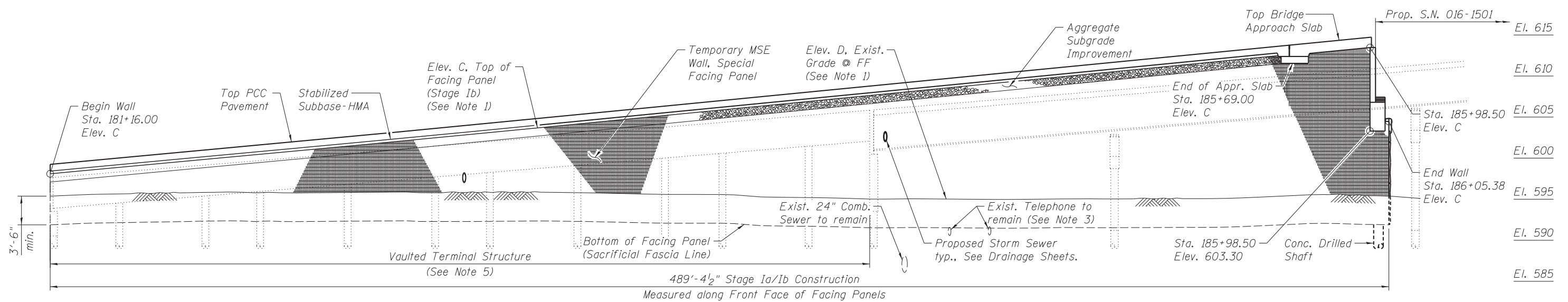
EAST ELEVATION
(Looking West, IH:IV)



DETAIL 1



CLOSURE PANEL DETAIL



TEMPORARY MSE WALL ELEVATION

TABLE 1

Station	Elev. A	Elev. B	Elev. C	Elev. D
181+16.00	595.82	597.68	597.10	595.38
181+50.00	596.97	596.37	598.14	595.69
182+00.00	598.65	596.41	599.69	595.78
182+50.00	600.22	596.17	601.26	595.81
183+00.00	601.83	596.01	602.87	595.83
183+50.00	603.46	595.41	604.50	595.58
184+00.00	605.08	594.70	606.12	595.17
184+50.00	606.71	594.24	607.75	595.00
185+00.00	608.33	594.97	609.37	595.03
185+50.00	609.96	595.49	611.00	595.14
185+69.00	610.58	595.84	611.51	595.42
185+98.83	611.55	595.88	612.48	595.42
186+00.00	611.60	595.89	612.52	595.42
186+05.38	-	-	604.55	595.37
186+06.00	603.13	595.90	-	-

NOTES

- For Stations & Elevations of Elev. C and D, see Table 1.
- Stations are given relative to @ NB I-55.
- Wall supplier shall design break in panel to accommodate proposed storm sewers that pass through proposed MSE facing panels.
- For Existing Structural Removal limits, see Sheet RW1-6.
- For Pier E2 (Exist. W. Abut.), Pier E3 & Pier E4 removal details, see Sheet S-20.
- Contractor to account for construction variances, verify closure panel dimensions in field.

2_0160766_60X07_MSE_TempWall_Elev.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST WALL & TEMPORARY WALL ELEVATIONS - S.N. 016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	743
CONTRACT NO. 60X07				

SHEET NO. RW1-2 OF RW1-15 SHEETS

ILLINOIS FED. AID PROJECT

GENERAL NOTES:

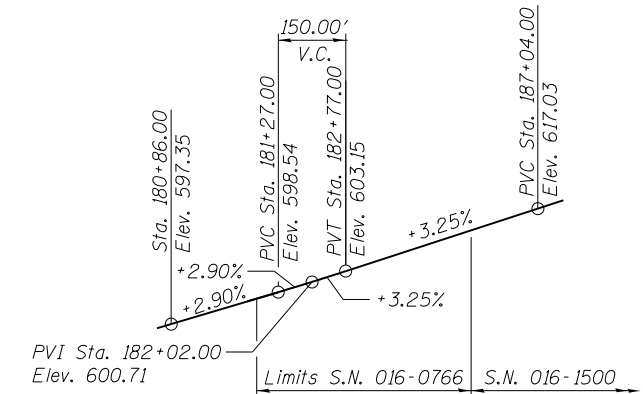
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Slip forming of the barrier rails is not allowed.
3. Protective Coat shall be applied to the designated areas of Anchor Slabs & Barrier Rails & MSE Wrap Around Coping.
4. Stations & Offsets are measured from the \mathcal{M} of NB I-55 to the Front Face of South MSE wall panels and outside face of North Barrier Rail.
5. MSE Supplier to design load transfer systems within reinforced fill mass to accommodate drainage structures & abutment drilled shafts.
6. MSE wall supplier shall design MSE Wall, Special & Temporary MSE Wall, Special using granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind granular reinforced mass; an embankment unit weight of 120 lbs/cu. ft & an effective friction angle of 30 degrees shall be used in the wall system design.
7. MSE Wall lengths measured along front face of precast panels unless noted otherwise.
8. Contractor shall field verify location of existing footings & underground utilities & shall take all precautions to protect them during construction of the wall & final condition of the ramp. Any damages to the existing structures and/or utilities shall be the responsibility of the Contractor.
9. Quantity for Lightweight Cellular Concrete Fill includes reinforced fill mass & fill area beneath roadway. Lightweight Cellular Concrete Fill shall meet Class II requirements (see Special Provisions).
10. See Special Provision for Mechanically Stabilized Earth Retaining Wall, Special & Temporary Mechanically Stabilized Earth Retaining Wall, Special for design & construction requirements.
11. For drainage structure location, type, & size, see Drainage Sheets.

INDEX OF SHEETS:

- RW1-1 General Plan & Elevation
- RW1-2 East Wall & Temporary Wall Elevations
- RW1-3 Total Bill of Material, Index of Sheets & General Notes
- RW1-4 Stage Construction
- RW1-5 Typical Section
- RW1-6 Existing Structural Removal
- RW1-7 North Barrier Rail & Anchorage Slab
- RW1-8 South Barrier Rail & Anchorage Slab
- RW1-9 Details
- RW1-10 MSE Wrap Around Details
- RW1-11 Architectural Details
- RW1-12 Boring Logs I
- RW1-13 Boring Logs II
- RW1-14 Boring Logs III
- RW1-15 Boring Logs IV

TOTAL BILL OF MATERIAL

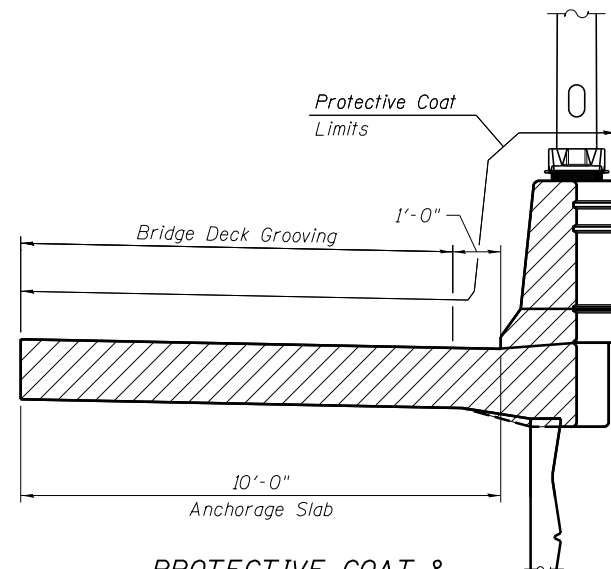
Item	Unit	Total
Protective Coat	Sq. Yd.	1,600
Structure Excavation	Cu. Yd.	1,530
Concrete Superstructure	Cu. Yd.	675.4
Reinforcement Bars, Epoxy Coated	Pound	94,770
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	966
Name Plates	Each	1
Lightweight Cellular Concrete Fill	Cu. Yd.	11,862
Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	6,498
Temporary Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	6,727
Temporary Shoring for Existing NB I-55 Vaulted Terminal Structure	Each	1



PROFILE GRADE
(Along \mathcal{M} NB I-55)

SUGGESTED SEQUENCE OF CONSTRUCTION:

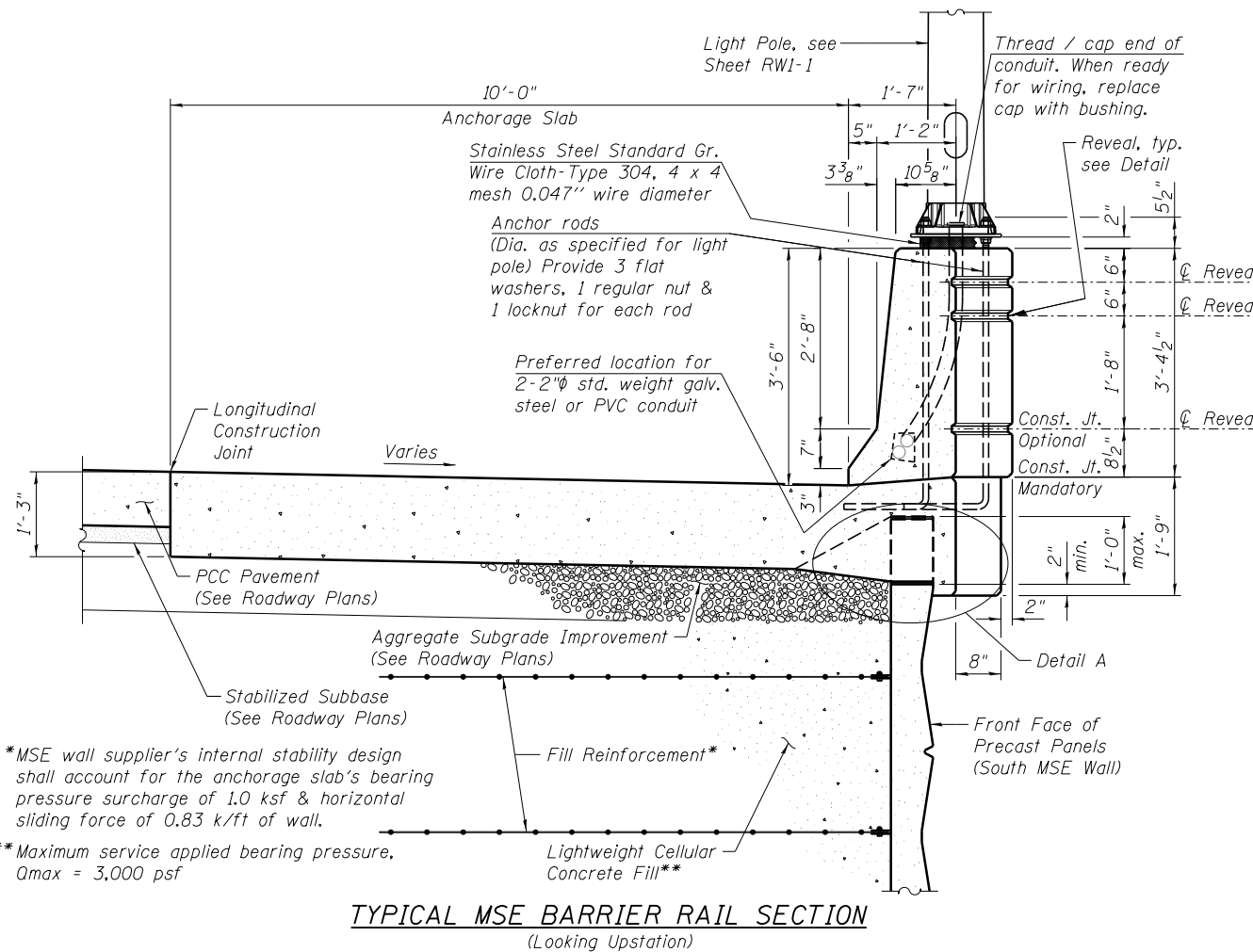
1. Remove portions of existing structure as directed (Stage Ia/Ib).
2. Install drilled shafts (Stage Ia/Ib) for West Abutment of Tangent Structure (S.N. 016-1500).
3. Construct south portion of West Abutment (Stage Ia/Ib) of Tangent Structure (S.N. 016-1500).
4. Construct Temp. MSE Wall and South MSE Wall elevations (S.N. 016-0766) simultaneously. Fill between wall faces. Construct South Anchorage Slab & Barrier Rail & south portion of West Approach slab.
5. Remove remaining portions of existing structure as directed (Stage IV).
6. Install remaining drilled shafts (Stage IV) for West Abutment of Tangent Structure (S.N. 016-1500).
7. Construct remaining portion of West Abutment (Stage IV) of Tangent Structure (S.N. 016-1500).
8. Construct remaining portion of Lightweight Cellular Concrete Fill embankment, North Anchorage Slab & Barrier Rail & north portion of West Approach slab.



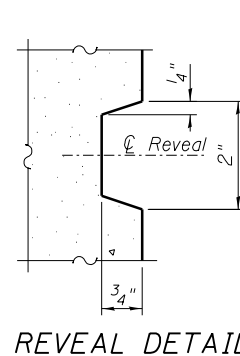
PROTECTIVE COAT & BRIDGE DECK GROOVING LIMITS

ANCHORAGE SLAB PAY ITEM LEGEND

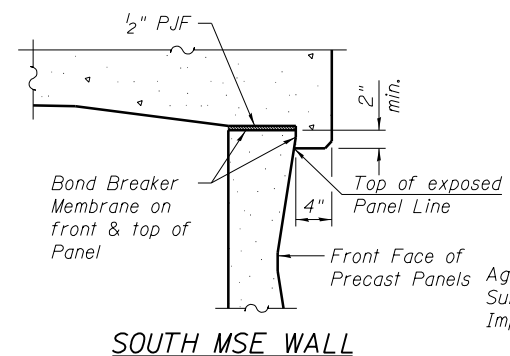
Paid as Concrete Superstructure



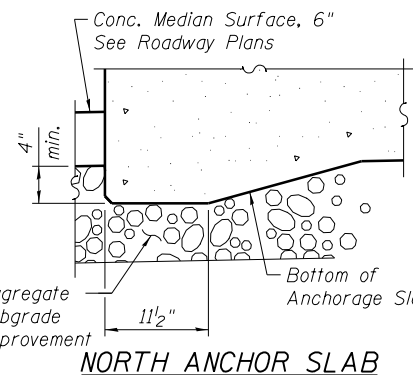
TYPICAL MSE BARRIER RAIL SECTION
(Looking Upstation)



REVEAL DETAIL

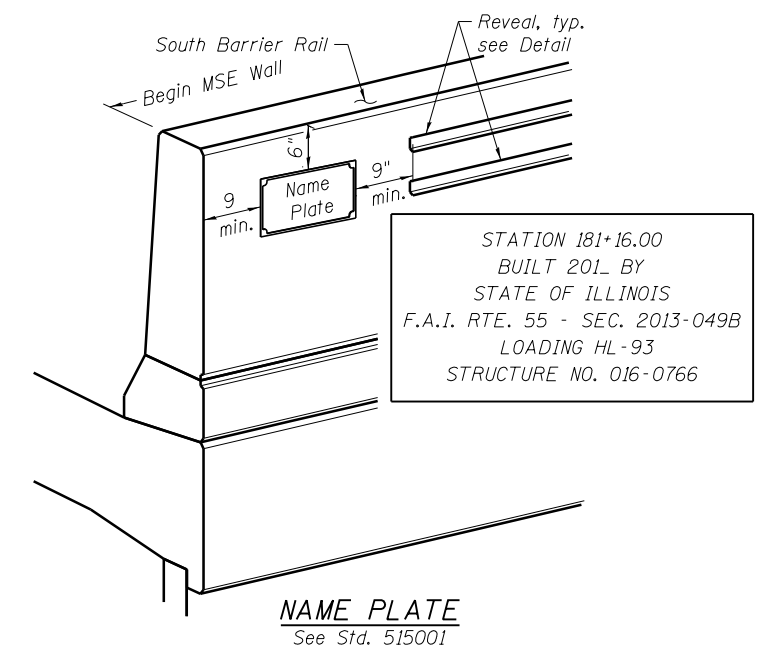


SOUTH MSE WALL



NORTH ANCHOR SLAB

DETAIL A



NAME PLATE
See Std. 515001

3_0160766_60X07_MSE_BOM_Notes.dgn



USER NAME = PHodina	DESIGNED - PW	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 6/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

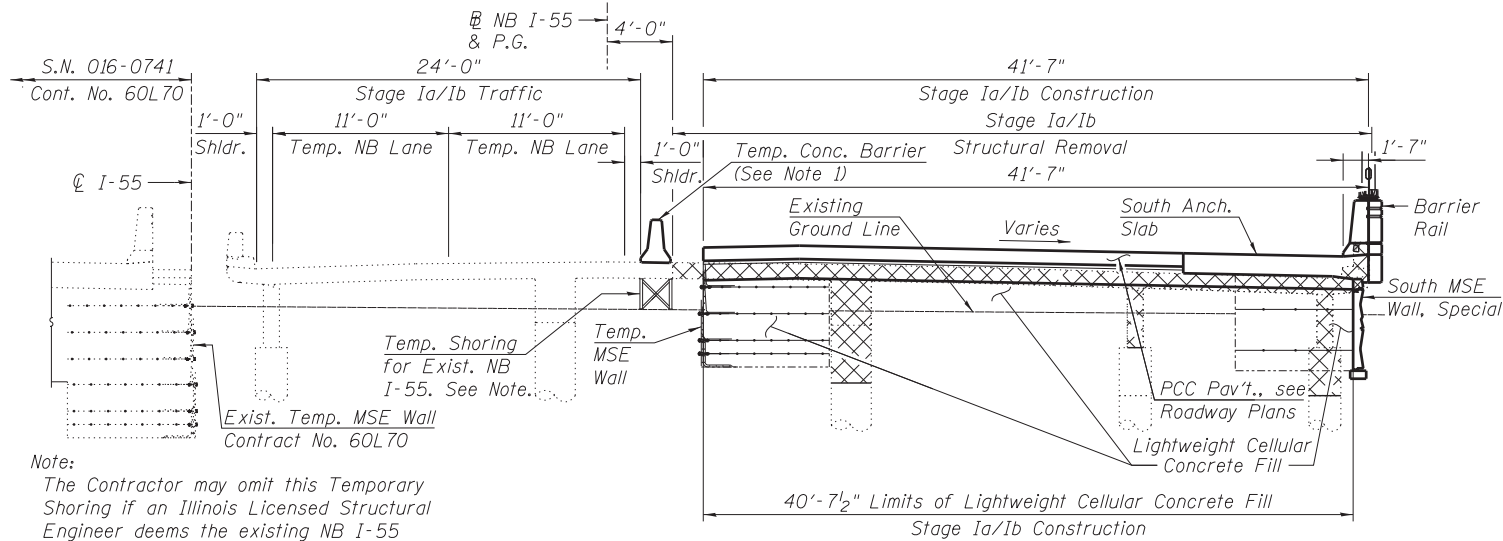
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MAT'L, INDEX OF SHEETS & GEN. NOTES - S.N. 016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW1-3 OF RW1-15 SHEETS

F.A.I. RTE. 55	SECTION 2013-049B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 744
CONTRACT NO. 60X07				

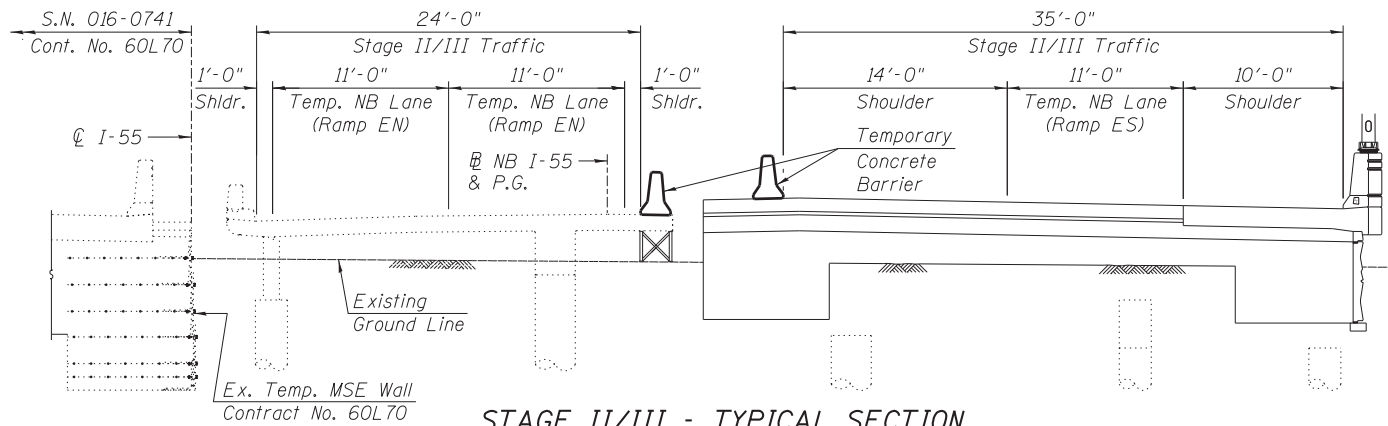
ILLINOIS FED. AID PROJECT



STAGE Ia/Ib - TYPICAL SECTION

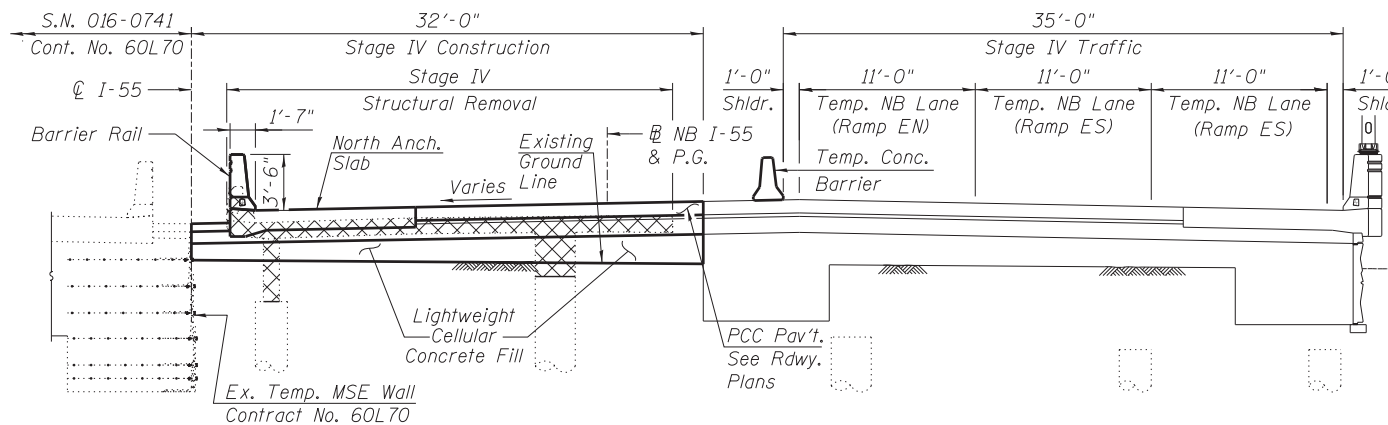
(Sta. 181+16.00 to Sta. 184+15.77
Looking East)

Note:
The Contractor may omit this Temporary Shoring if an Illinois Licensed Structural Engineer deems the existing NB I-55 Vault Slab Overhang structurally adequate. Calculations showing structural adequacy shall be submitted to the Engineer for review & acceptance prior to omission of this Temporary Shoring.



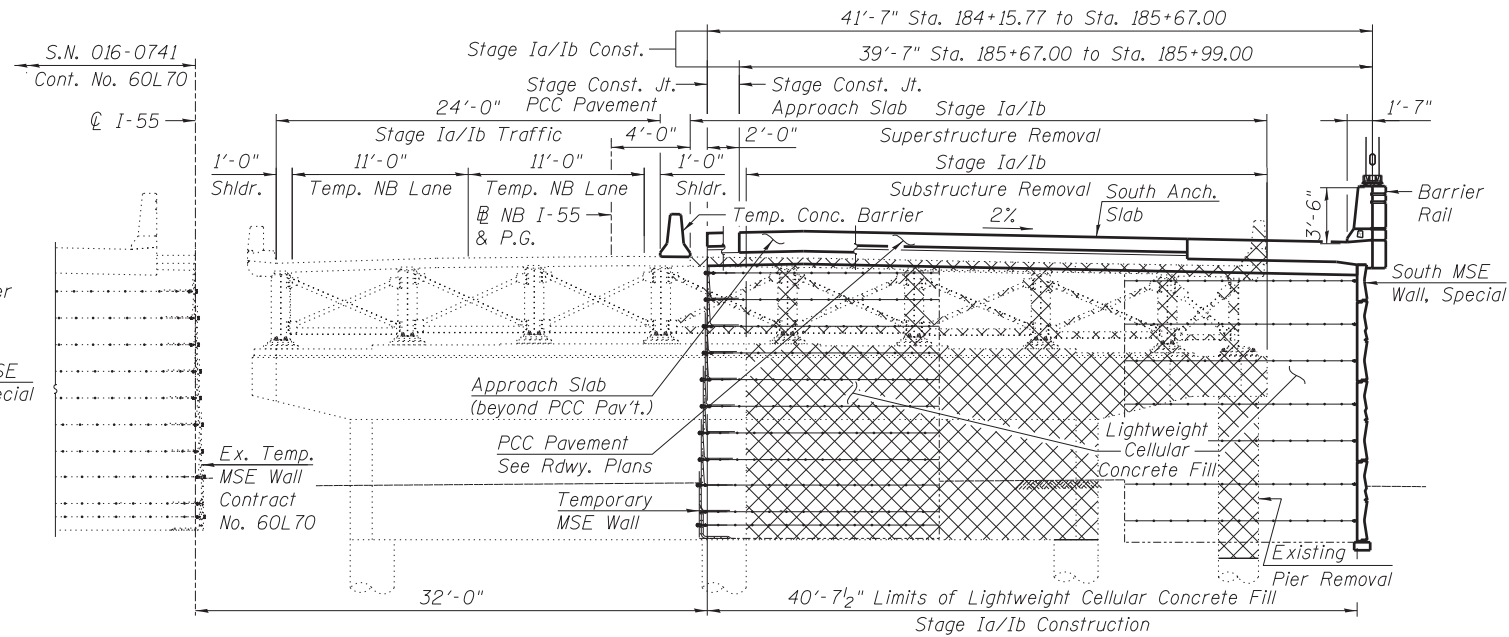
STAGE II/III - TYPICAL SECTION

(Sta. 181+16.00 to Sta. 184+15.77
Looking East)



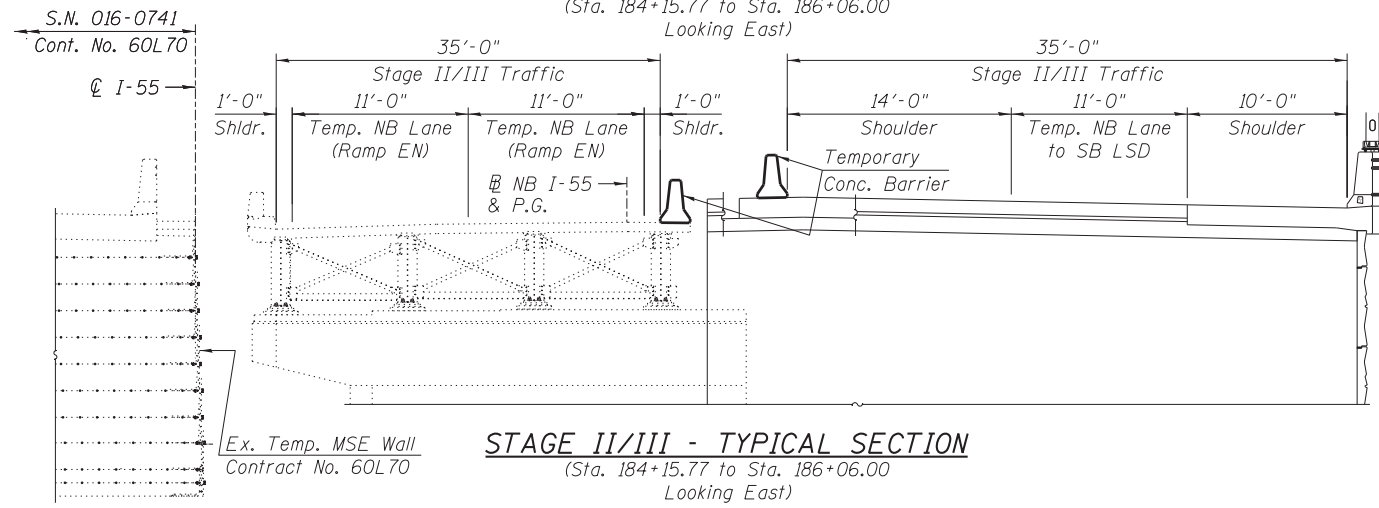
STAGE IV - TYPICAL SECTION

(Sta. 181+16.00 to Sta. 184+15.77
Looking East)



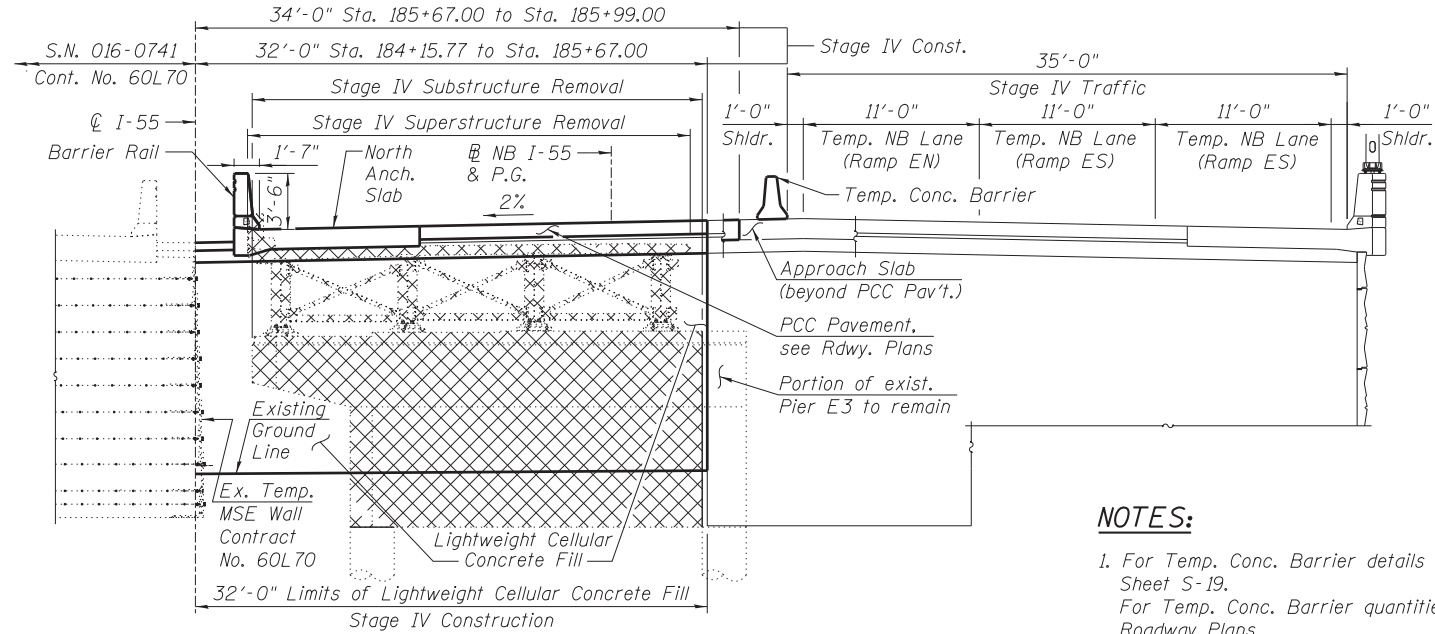
STAGE Ia/Ib - TYPICAL SECTION

(Sta. 184+15.77 to Sta. 186+06.00
Looking East)



STAGE II/III - TYPICAL SECTION

(Sta. 184+15.77 to Sta. 186+06.00
Looking East)



STAGE IV - TYPICAL SECTION

(Sta. 184+15.77 to Sta. 186+06.00
Looking East)

NOTES:

- For Temp. Conc. Barrier details see Sheet S-19.
For Temp. Conc. Barrier quantities see Roadway Plans.
- Hatched area indicates removal of Existing Structures.

4_0160766_60X07_MSE_Staging.dgn



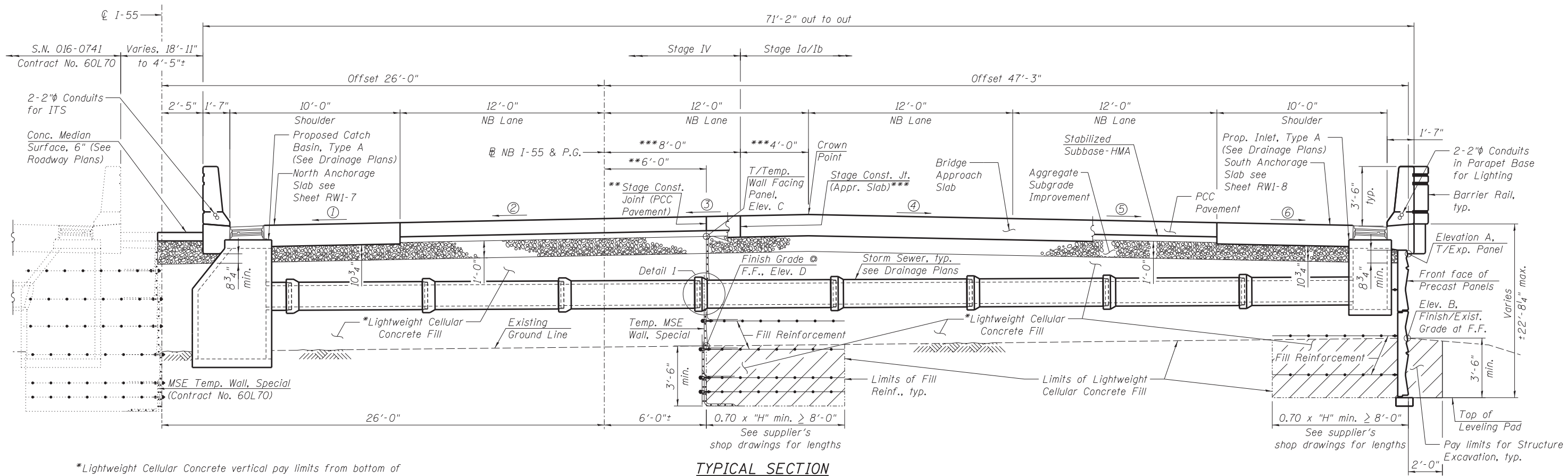
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CHECKED - PH	REVISIONS -	
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 5/26/2015	CHECKED - PH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION - S.N. 016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

SHEET NO. RW1-4 OF RW1-15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	745
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				



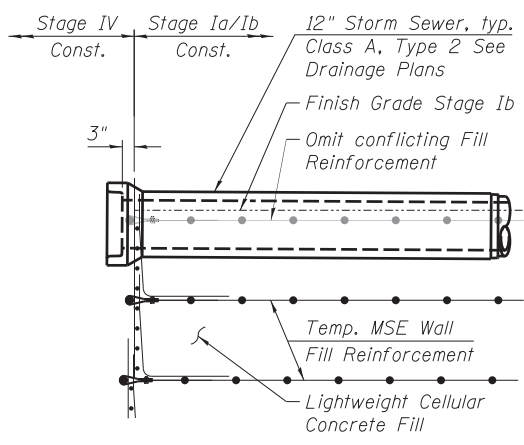
TYPICAL SECTION
(Looking East)

*Lightweight Cellular Concrete vertical pay limits from bottom of Aggregate Base Course to top of Leveling Pad within fill reinforcement zones or to existing Ground Line outside of reinforcement zones.
 **Stage Construction Joint (PCC Pavement) Sta. 181+16.00 to Sta. 185+69.00
 ***Stage Construction Joint (Approach Slab) Sta. 185+69.00 to 185+99.00

- ① -2.38% from Sta. 180+86.00 to Sta. 181+61.00
Varies -2.38% @ Sta. 181+61.00 to -2.00% @ Sta. 181+75.00
-2.00% from Sta. 181+75.00 to Sta. 197+20.89
- ② -0.59% from Sta. 180+86.00 to Sta. 181+24.00
Varies -0.59% @ Sta. 181+24.00 to -2.00% @ Sta. 181+75.00
-2.00% from Sta. 181+75.00 to Sta. 197+20.89
- ③ Varies -0.46% @ Sta. 180+86.00 to 2.00% @ Sta. 181+75.00
2.00% from Sta. 181+75.00 to Sta. 197+20.89
- ④ -1.70% from Sta. 180+86.00 to Sta. 181+64.00
Varies -1.70% @ Sta. 181+64.00 to -2.00% @ Sta. 181+75.00
-2.00% from Sta. 181+75.00 to Sta. 197+20.89
- ⑤ -2.53% from Sta. 180+86.00 to Sta. 181+56.00
Varies -2.53% @ Sta. 181+56.00 to -2.00% @ Sta. 181+75.00
-2.00% from Sta. 181+75.00 to Sta. 197+20.89
- ⑥ -3.14% from Sta. 180+86.00 to Sta. 181+34.00
Varies -3.14% @ Sta. 181+34.00 to -2.00% @ Sta. 181+75.00
-2.00% from Sta. 181+75.00 to Sta. 197+20.89

NOTES

1. Overexcavation beyond pay limits for Structure Excavation shall not be measured for payment. Additional Lightweight Cellular Concrete Fill in overexcavation area also shall not be measured for payment.
2. Approach Slab for NB I-55 (S.N. 016-1500) is between anchorage Slabs from Sta. 185+69.00 to Sta. 185+99.00. See bridge plans.
3. For Stations & Elevations of Elev. A, B, C & D see Sheet RW1-2, Table 1.
4. See Sheet RW1-9 for Anchorage Slab details.



DETAIL 1
(Looking East)

5_0160766_60X07_MSE_TypSections.dgn



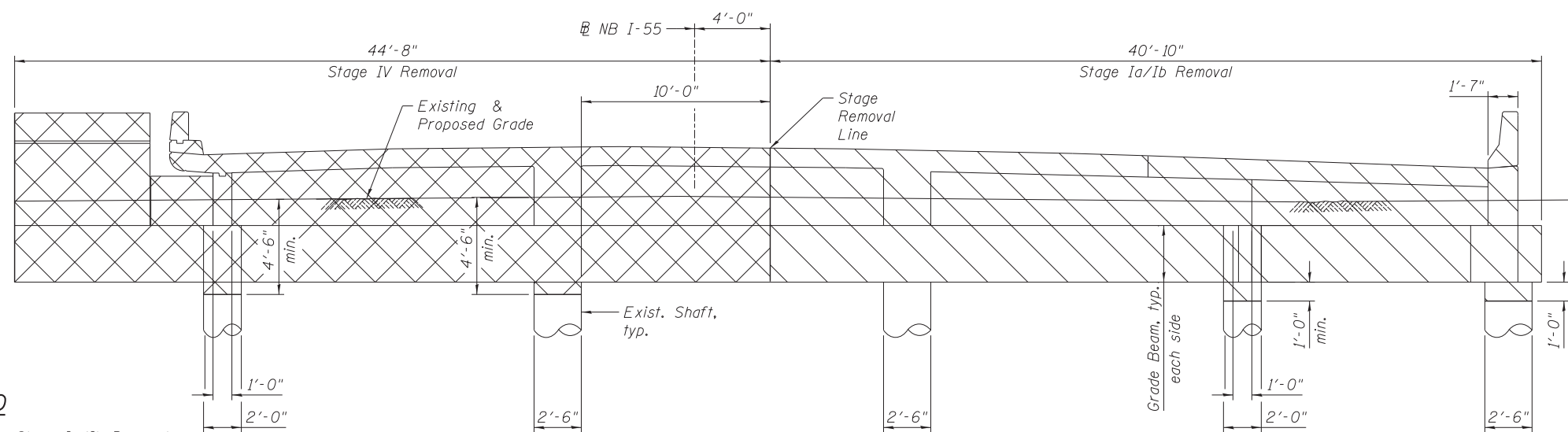
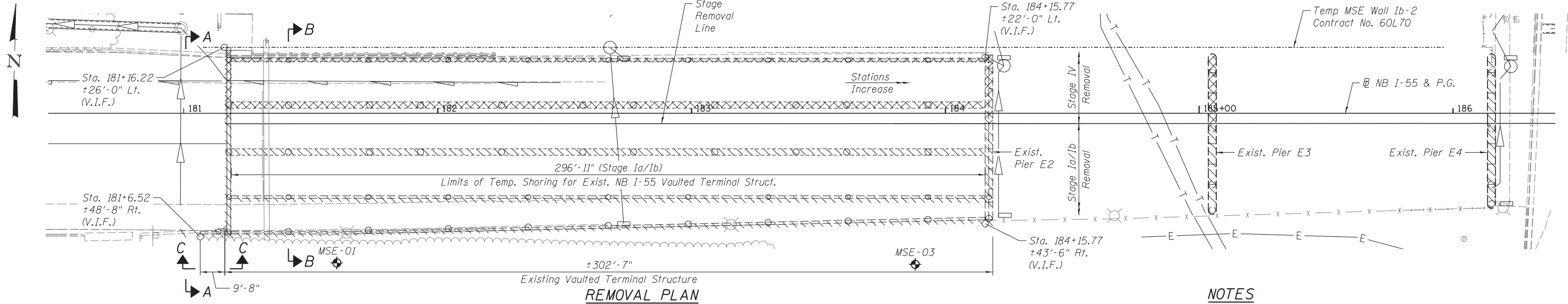
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	CHECKED - PH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 5/26/2015	CHECKED - PH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

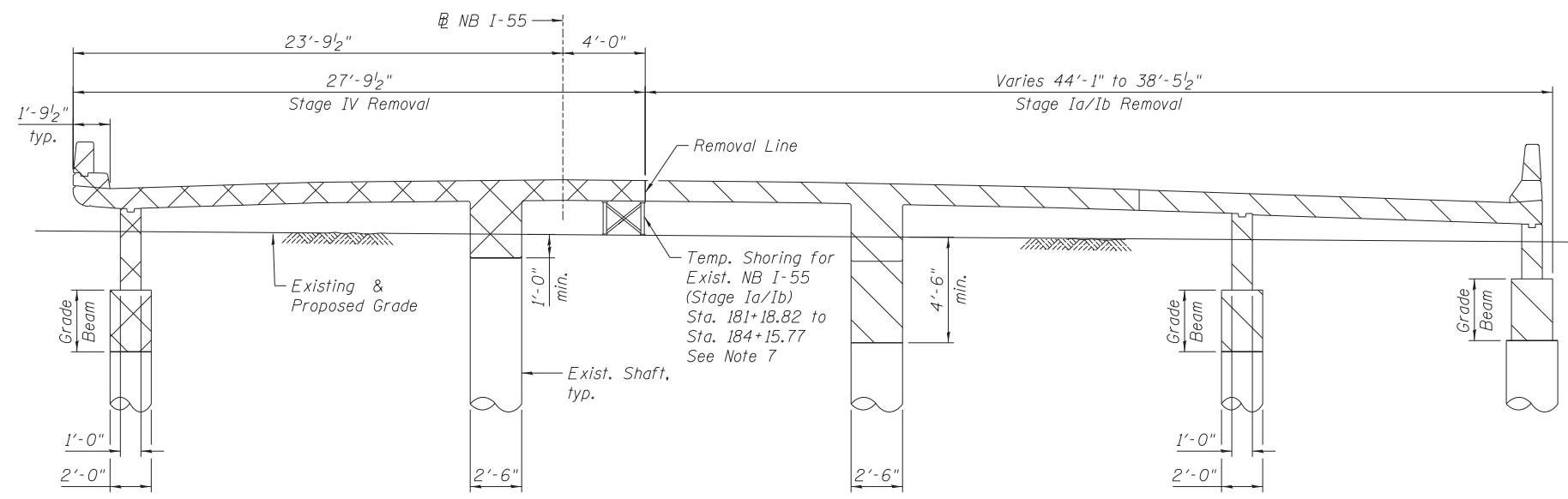
TYPICAL SECTION - S.N.016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 746
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				

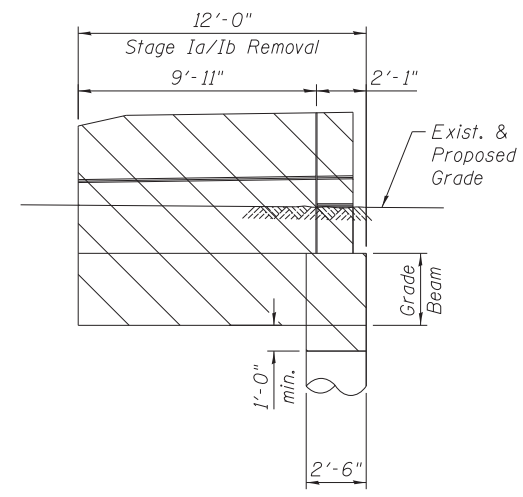
SHEET NO. RW1-5 OF RW1-15 SHEETS



SECTION A-A
(Looking East)



SECTION B-B
(Sta. 181+16.00 to Sta. 184+15.77
Looking East)



VIEW C-C
(Looking North)

NOTES

1. Excavation area shall be backfilled to pre-excavation elevation where applicable. Cost of structure excavation & backfill is included in cost of "Removal of Existing Structures No. 1".
2. See Sheet S-20 for Pier E2 (Exist. W. Abut.), Pier E3, & Pier E4 removal details.
3. Station and offsets are given with respect to \mathbb{N} of NB I-55.
4. V.I.F. = "Verify in Field"
5. Cost of Vaulted Terminal Structure removal shall be included with cost of "Removal of Existing Structures No. 1".
6. If required, temporary shoring of the existing vaulted terminal structure shall be paid for as "Temporary Shoring for Existing NB I-55 Vaulted Terminal Structure", see Special Provisions.
7. The Contractor may omit Stage Ia/Ib temporary shoring if an Illinois Licensed Structural Engineer deems the existing NB I-55 vault slab overhang structurally adequate. Calculations showing structural adequacy shall be submitted to the Engineer for review & acceptance prior to omission of this Temporary Shoring.
8. Plan dimensions & details relative to existing plans subject to construction variations. The Contractor shall field verify existing dimensions & details & modify suggested Stage Removal Lines as necessary to provide the minimum traffic width shown in the plans.

LEGEND

- Stage Ia/Ib Removal
- Stage IV Removal

6_0160766_60X07_MSE_Removal.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

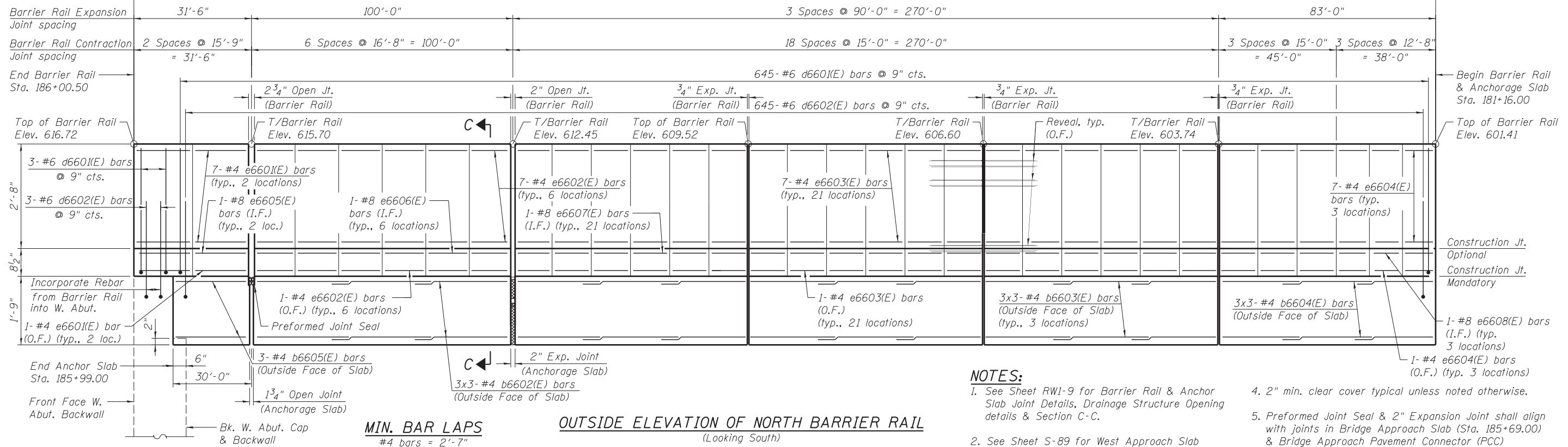
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURAL REMOVAL - S.N. 016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW1-6 OF RW1-15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	747
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				

484'-6" Measured along Inside Face of Barrier Rail

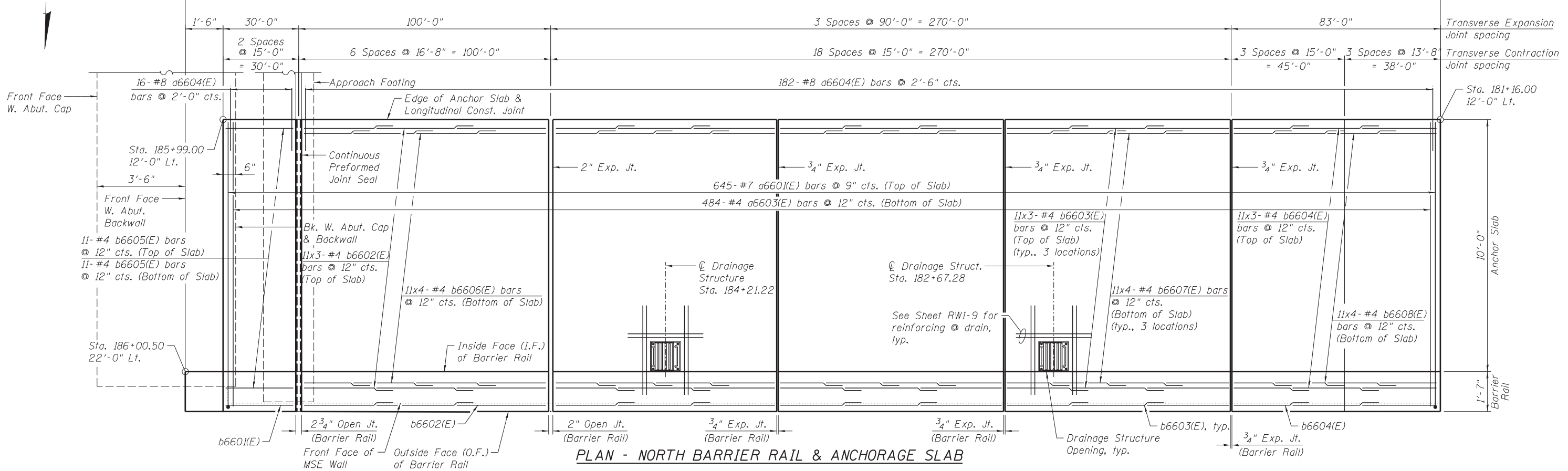


MIN. BAR LAPS
#4 bars = 2'-7"

OUTSIDE ELEVATION OF NORTH BARRIER RAIL
(Looking South)

- NOTES:**
1. See Sheet RW1-9 for Barrier Rail & Anchor Slab Joint Details, Drainage Structure Opening details & Section C-C.
 2. See Sheet S-89 for West Approach Slab Preformed Joint Seal details.
 3. Bars noted thus, 11x4-#4 indicates 11 lines of #4 bars with 4 lengths per line.
 4. 2" min. clear cover typical unless noted otherwise.
 5. Preformed Joint Seal & 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 185+69.00) & Bridge Approach Pavement Connector (PCC) (Sta. 184+69.00).
 6. See Sheets S-153 & S-154 for West Abutment Plan and details.

484'-6" Measured along Inside Face of Barrier Rail



PLAN - NORTH BARRIER RAIL & ANCHORAGE SLAB

7_0160766_60X07_MSE_NBBarrierRail.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISÉD -
	CHECKED - PH	REVISÉD -
PLOT SCALE =	DRAWN - EV	REVISÉD -
PLOT DATE = 5/26/2015	CHECKED - PH	REVISÉD -

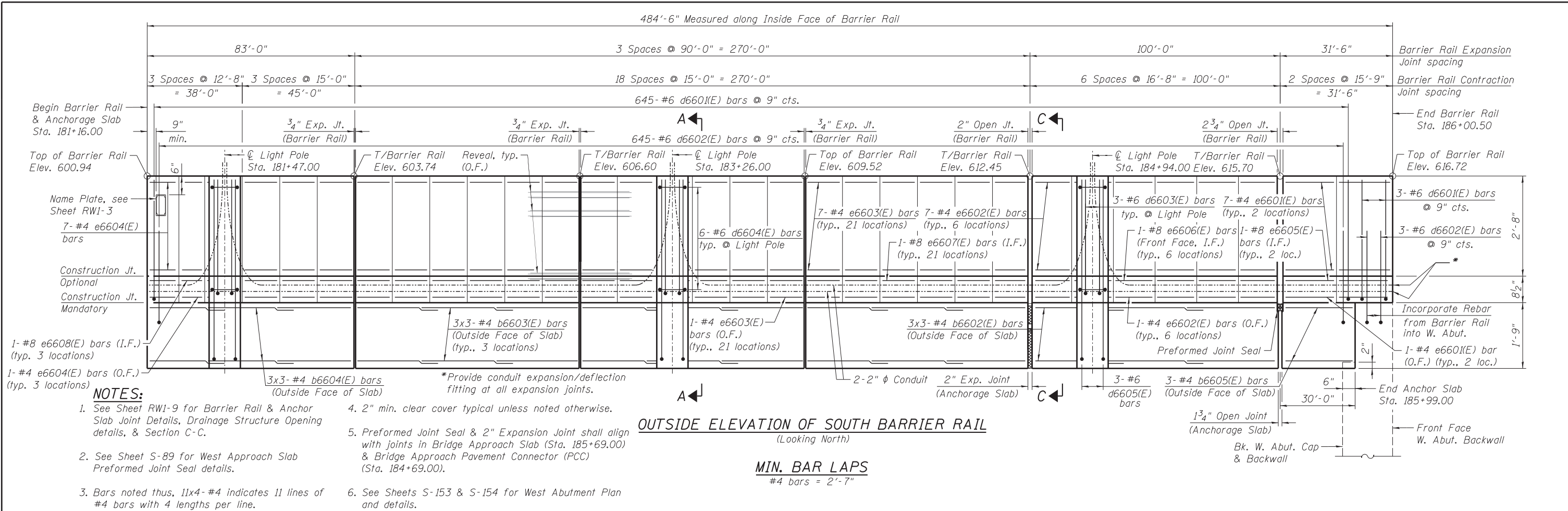
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH BARRIER RAIL & ANCHORAGE SLAB - S.N.016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 748
				CONTRACT NO. 60X07

SHEET NO. RW1-7 OF RW1-15 SHEETS

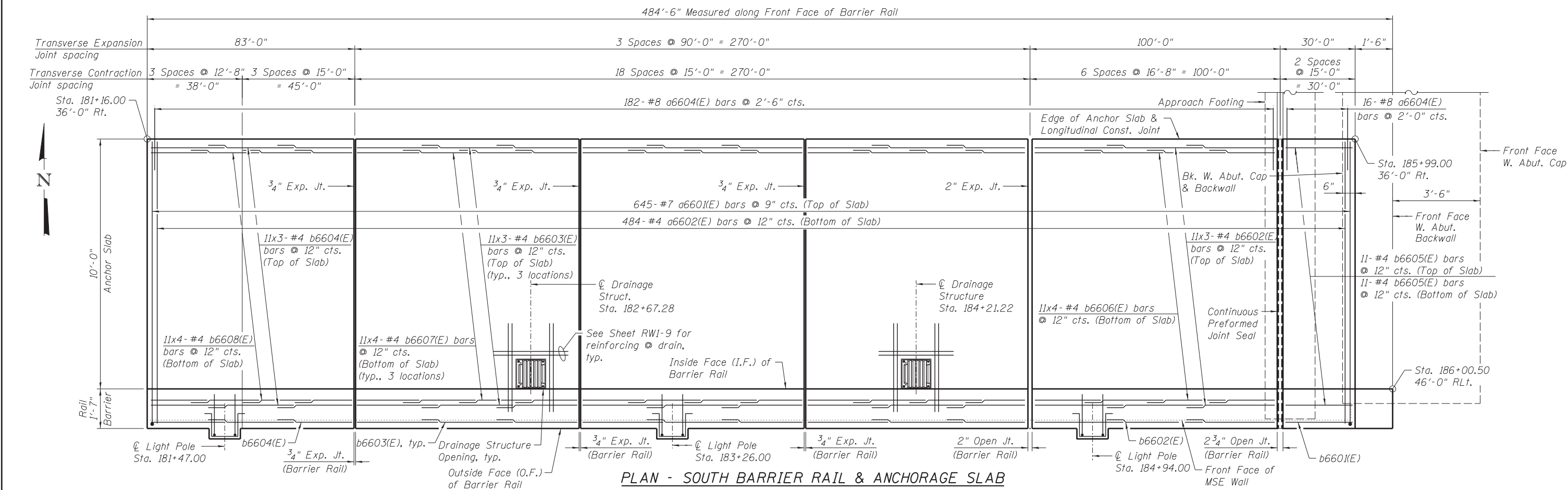
ILLINOIS FED. AID PROJECT



- NOTES:**
- See Sheet RW1-9 for Barrier Rail & Anchor Slab Joint Details, Drainage Structure Opening details, & Section C-C.
 - See Sheet S-89 for West Approach Slab Preformed Joint Seal details.
 - Bars noted thus, 11x4- #4 indicates 11 lines of #4 bars with 4 lengths per line.
 - 2" min. clear cover typical unless noted otherwise.
 - Preformed Joint Seal & 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 185+69.00) & Bridge Approach Pavement Connector (PCC) (Sta. 184+69.00).
 - See Sheets S-153 & S-154 for West Abutment Plan and details.
- *Provide conduit expansion/deflection fitting at all expansion joints.

OUTSIDE ELEVATION OF SOUTH BARRIER RAIL
(Looking North)

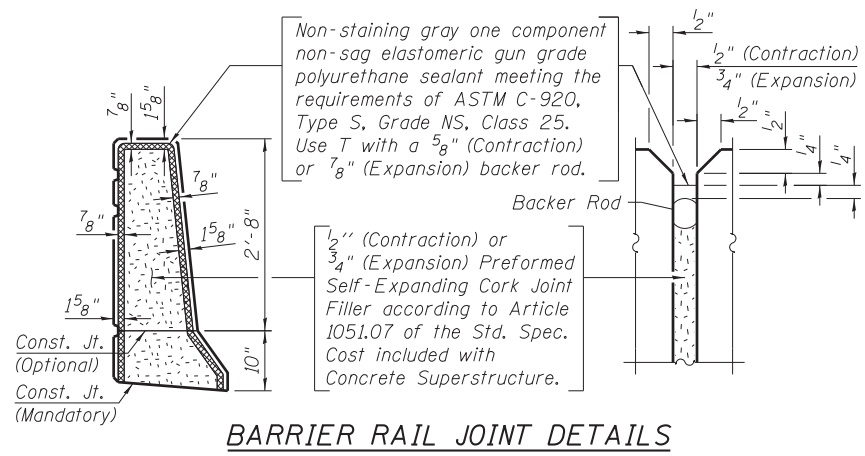
MIN. BAR LAPS
#4 bars = 2'-7"



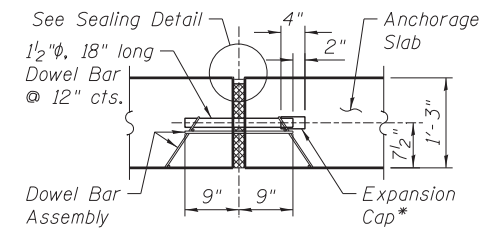
PLAN - SOUTH BARRIER RAIL & ANCHORAGE SLAB

8_0160766_60X07_MSE_SBarrierRail.dgn

<p>Rubinos & Menasia Engineers, Inc. 200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482</p>	USER NAME = AVasonis	DESIGNED - EV	REVISD -	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p align="center">SOUTH BARRIER RAIL & ANCHORAGE SLAB - S.N.016-0766 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)</p> <p align="right">SHEET NO. RW1-8 OF RW1-15 SHEETS</p>	F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 749
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	PLOT DATE = 5/26/2015	CHECKED - PH	REVISD -		ILLINOIS FED. AID PROJECT				
		CHECKED - PH	REVISD -						



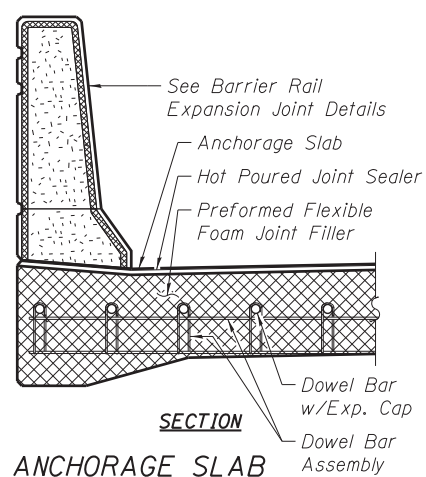
BARRIER RAIL JOINT DETAILS



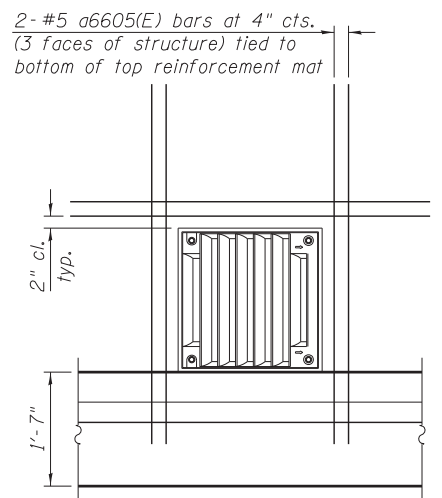
ANCHORAGE SLAB TO ANCHORAGE SLAB TRANSVERSE EXPANSION JOINT

Expansion Joint Filler, Sealer, Dowel Bars, Dowel Bar Assembly, and Expansion Caps included in cost of Concrete Superstructure

*Expansion caps shall be installed on the exposed end of each dowel bar once header has been removed and the joint filler material has been installed.

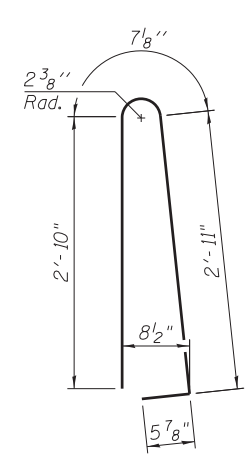


SECTION

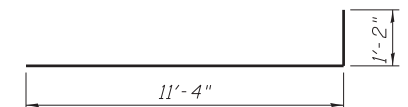


PLAN @ DRAINAGE STRUCTURE

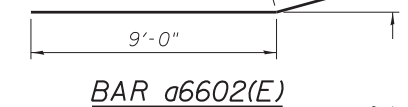
Note: Cut longitudinal reinforcement to clear catch basins and inlets.



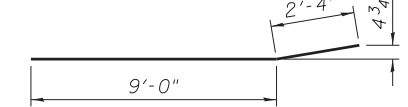
BAR d6601(E)



BAR d6601(E)



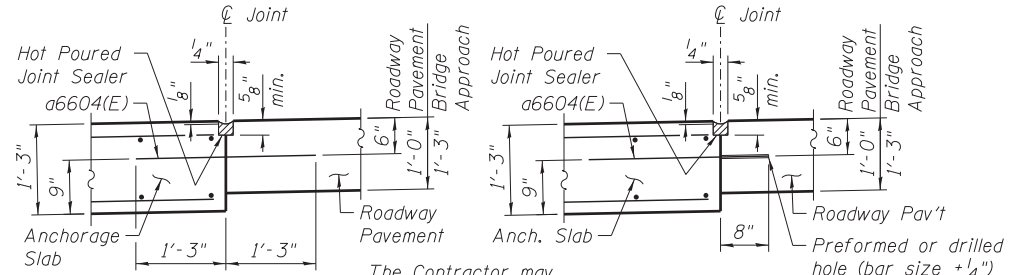
BAR d6602(E)



BAR d6603(E)



BAR d6604(E)



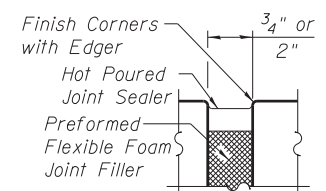
FORMED IN PLACE TIE BAR

The Contractor may substitute grout in place tie bars. The bar length can be reduced by 6".

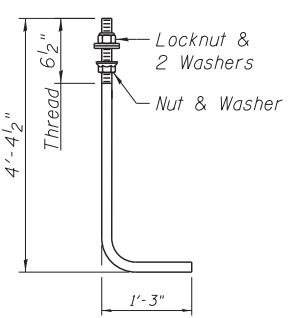
GROUT IN PLACE TIE BAR

LONGITUDINAL CONSTRUCTION JOINT

See Article 420.05 & 420.12 of the Standard Specifications.

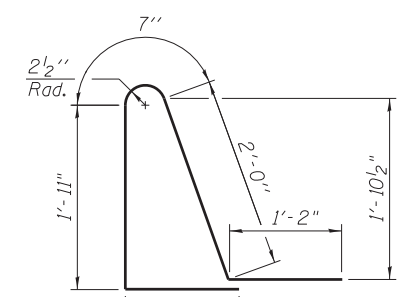


SEALING DETAIL

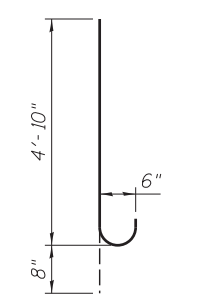


ANCHOR ROD

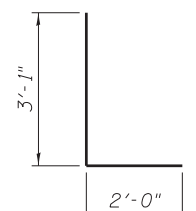
Diameter as specified for light poles. (ASTM F 1554 Grade 105)



BAR d6602(E)



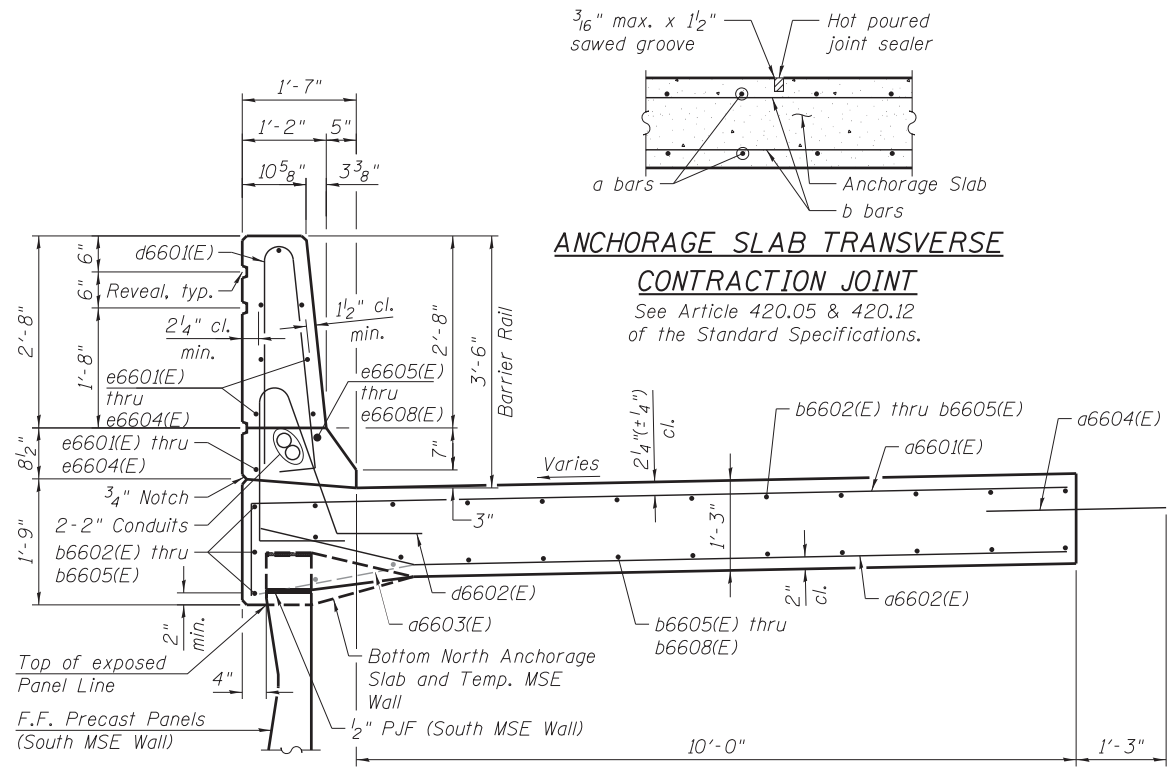
BAR d6605(E)



BAR d6603(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a6601(E)	1290	#7	12'-6"	—
a6602(E)	484	#4	11'-4"	—
a6603(E)	484	#4	11'-4"	—
a6604(E)	396	#8	2'-6"	—
a6605(E)	24	#5	4'-0"	—
b6602(E)	84	#4	34'-11"	—
b6603(E)	252	#4	31'-8"	—
b6604(E)	84	#4	29'-4"	—
b6605(E)	50	#4	29'-8"	—
b6606(E)	88	#4	26'-10"	—
b6607(E)	264	#4	24'-5"	—
b6608(E)	88	#4	22'-8"	—
d6601(E)	1296	#6	6'-10"	—
d6602(E)	1296	#6	6'-10"	—
d6603(E)	9	#6	5'-1"	—
d6604(E)	18	#6	8'-9"	—
d6605(E)	9	#6	5'-6"	—
e6601(E)	32	#4	15'-5"	—
e6602(E)	96	#4	16'-4"	—
e6603(E)	336	#4	14'-8"	—
e6604(E)	48	#4	7'-8"	—
e6605(E)	4	#8	15'-5"	—
e6606(E)	12	#8	16'-4"	—
e6607(E)	46	#8	14'-8"	—
e6608(E)	6	#8	12'-5"	—
Protective Coat		Sq. Yd.	1,600	
Concrete Superstructure		Cu. Yd.	675.4	
Reinforcement Bars, Epoxy Coated		Pound	94,770	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	966	



SECTION C-C

(Sheets RW1-7 & RW1-8)

SECTION A-A

Barrier Rail/Anchorage Slab reinforcing not shown for clarity.

PLAN AT LIGHT POLE

Cost of Anchor Rods is included with Concrete Superstructure.

9_0160766_60X07_MSE_Details.dgn



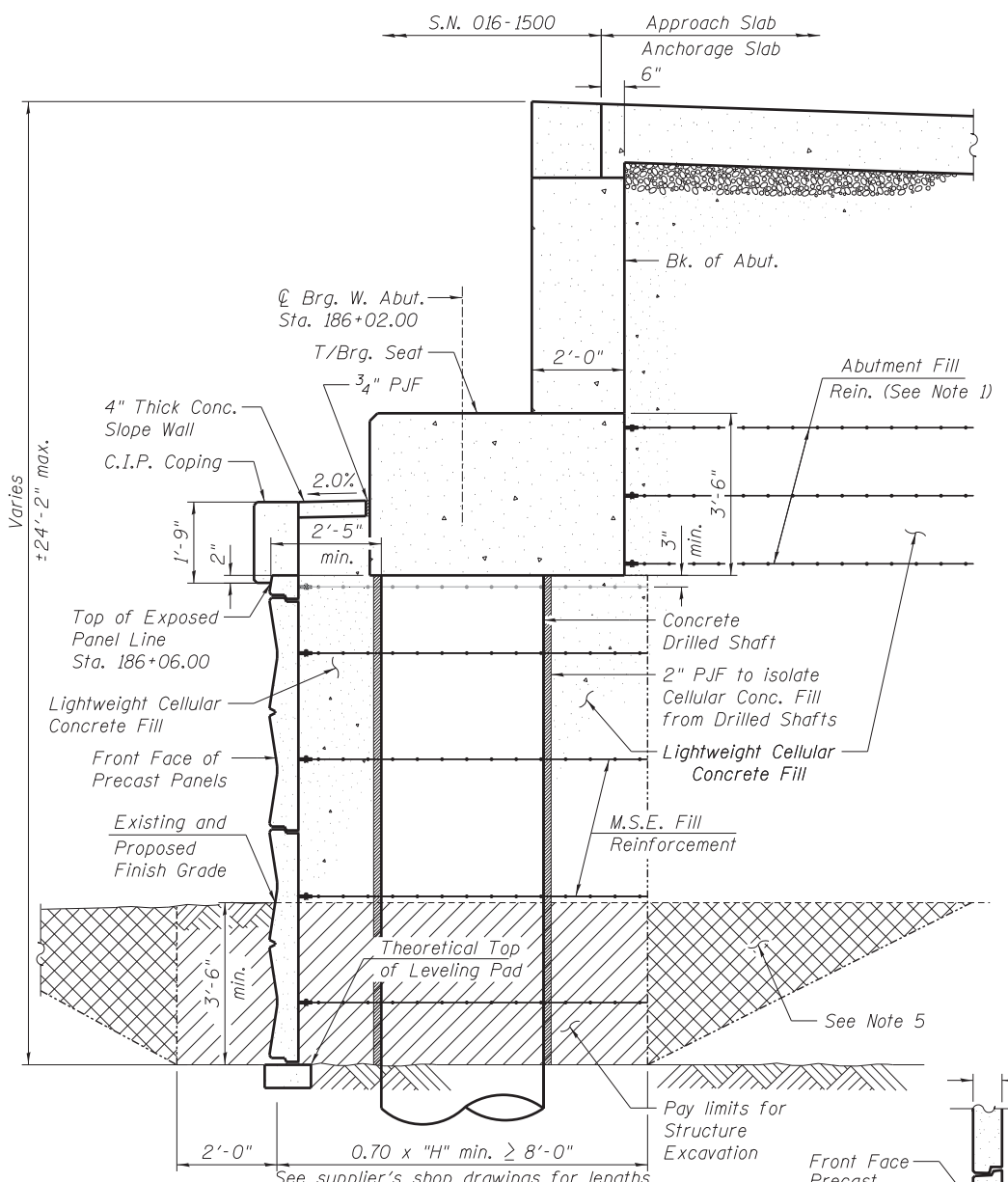
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PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

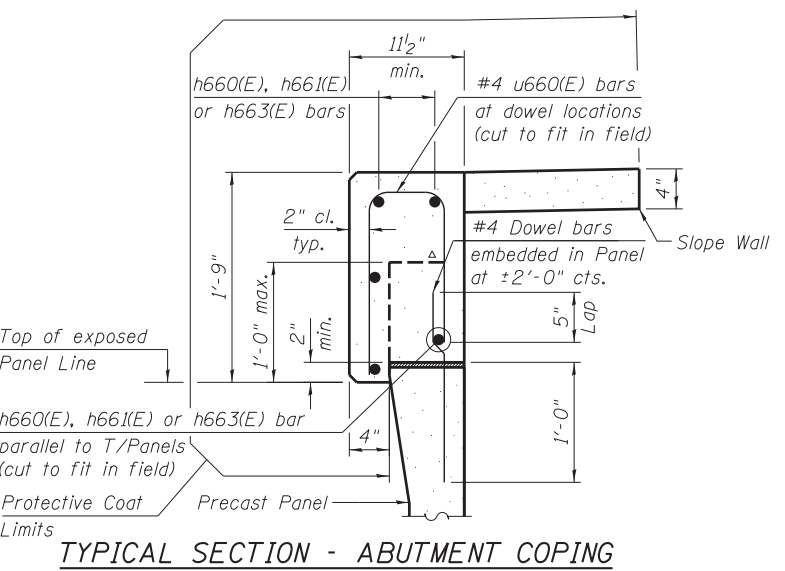
DETAILS - S.N. 016-0766 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW1-9 OF RW1-15 SHEETS

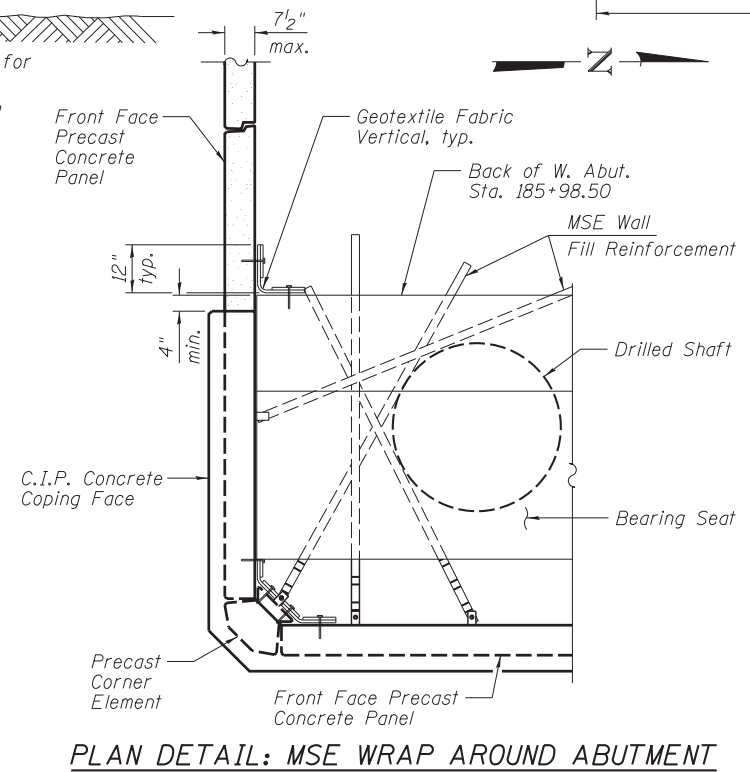
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	750
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



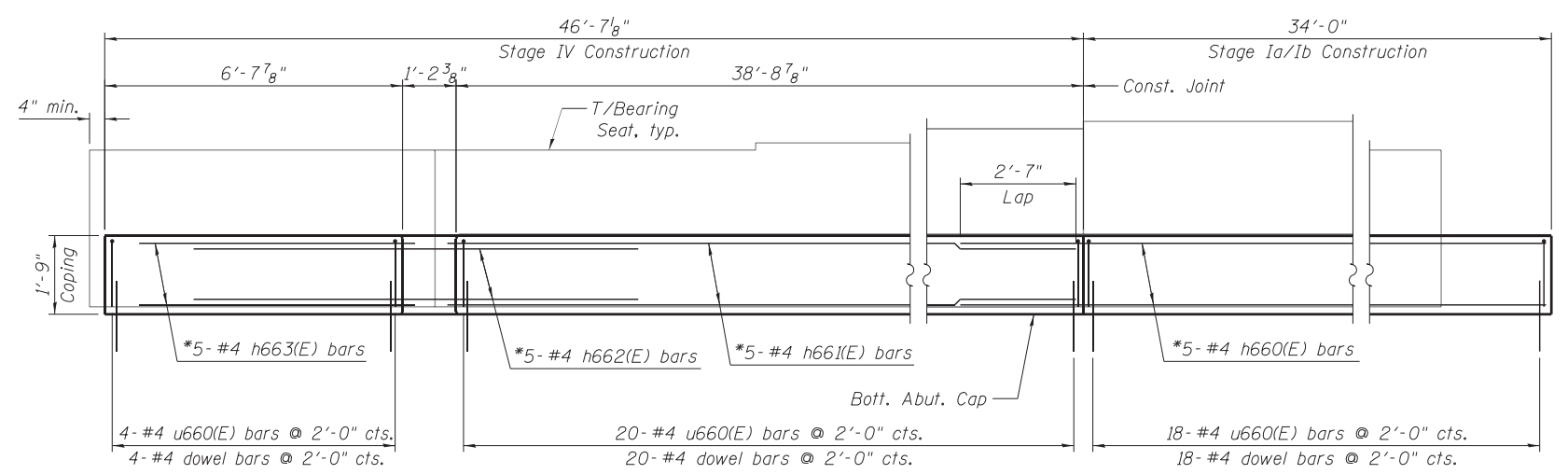
TYPICAL SECTION THRU ABUTMENT



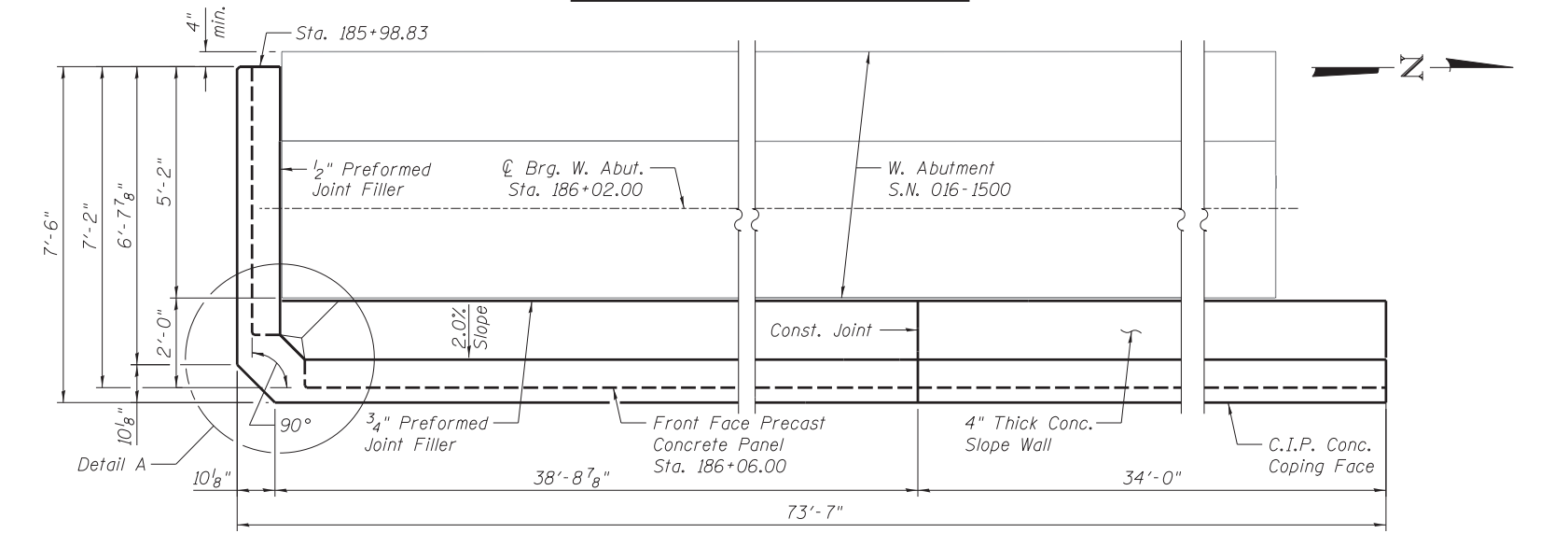
TYPICAL SECTION - ABUTMENT COPING



PLAN DETAIL: MSE WRAP AROUND ABUTMENT



MSE WALL COPING ELEVATION



MSE WALL COPING PLAN

NOTES

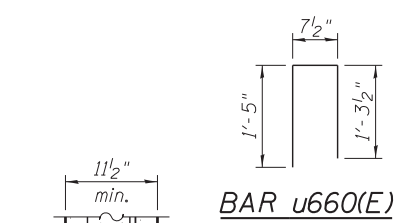
1. The MSE wall supplier shall design the abutment fill reinforcement to resist a horizontal force of 3.98 k/ft of abutment. Cost included in cost of Mechanically Stabilized Earth Retaining Wall, Special.
2. The costs of 4" thick slope wall, cast-in-place concrete coping, geotextile fabric, reinforcement bars, & dowel bars are included in cost of "Mechanically Stabilized Earth Retaining Wall, Special". The costs of preformed joint filler is included in cost of "Concrete Superstructure".
3. The Contractor may substitute a precast coping at their own expense, the details of which must be included in the shop plans & approved by the Engineer.
4. See Sheets S-153 & S-154 for West Abutment Plan and details.
5. Overexcavation beyond pay limits for Structure Excavation shall not be measured for payment. Additional Lightweight Cellular Concrete Fill in overexcavation area also shall not be measured for payment.

****MSE WALL COPING BILL OF MATERIAL**

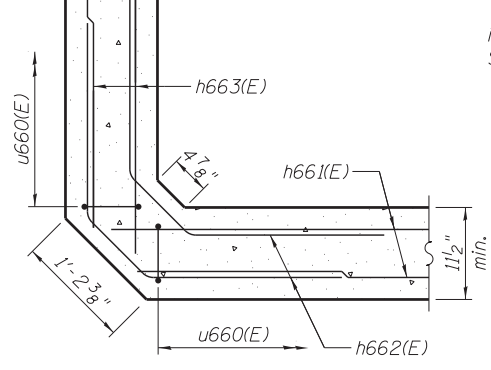
Bar	No.	Size	Length	Shape
h660(E)	5	#4	36'-7"	—
h661(E)	5	#4	38'-8"	—
h662(E)	5	#4	5'-0"	∇
h663(E)	5	#4	6'-2"	—
u660(E)	42	#4	3'-4"	□

**For information only

MIN. BAR LAP
#4 Bars - 2'-7"



DETAIL A
BAR u660(E)



DETAIL A
BAR h662(E)

10_0160766_60X07_MSE_WrapAround.dgn



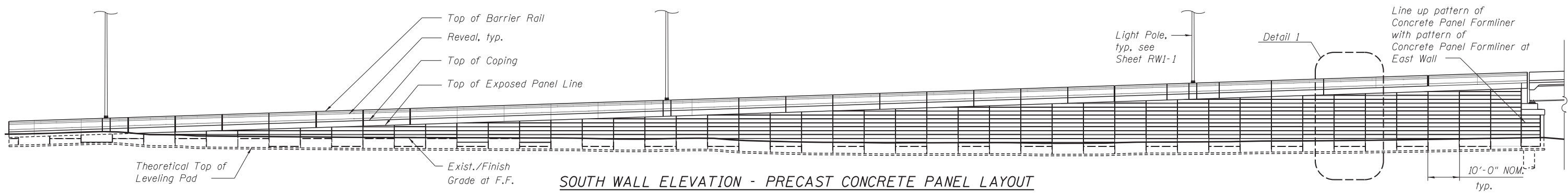
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PLOT SCALE =	CHECKED - PH	REVISD -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISD -
	CHECKED - PH	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

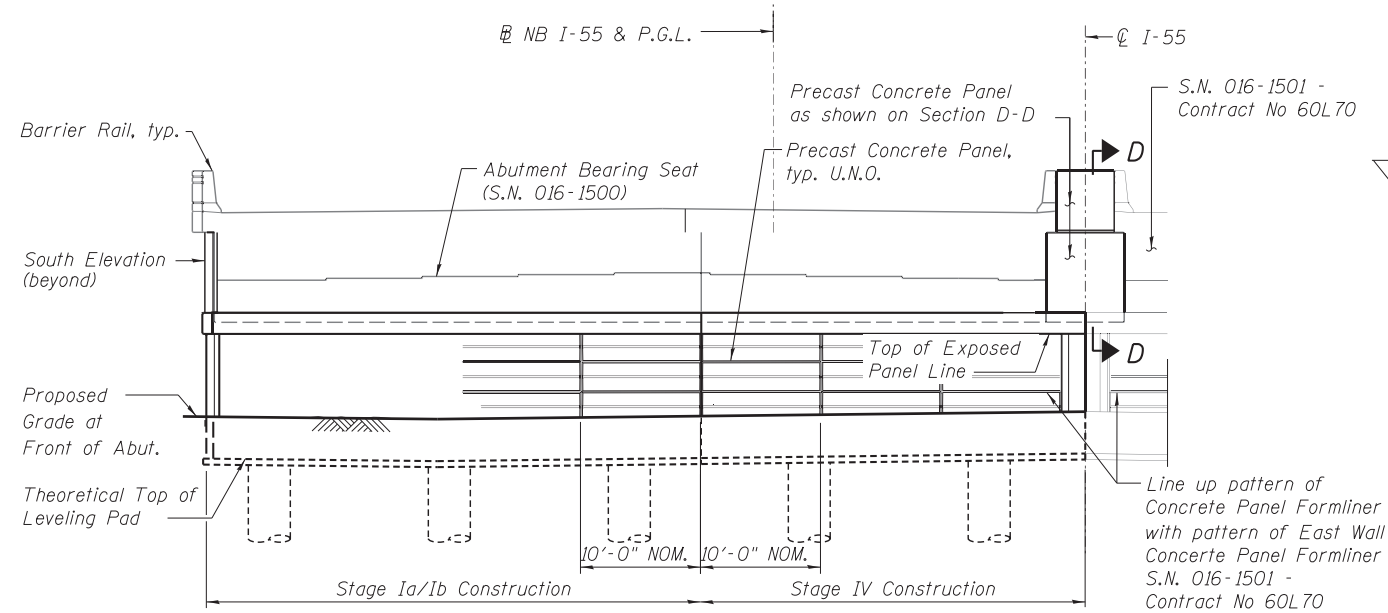
MSE WRAP AROUND DETAILS - S.N.016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW1-10 OF RW1-15 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 751
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	



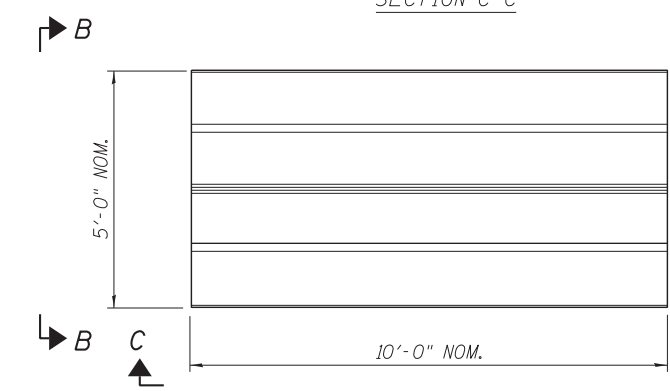
SOUTH WALL ELEVATION - PRECAST CONCRETE PANEL LAYOUT



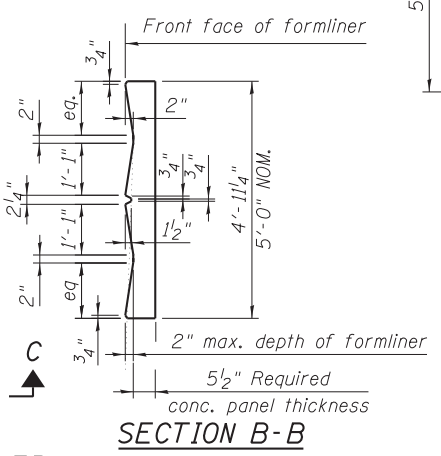
EAST ELEVATION
(Looking West)



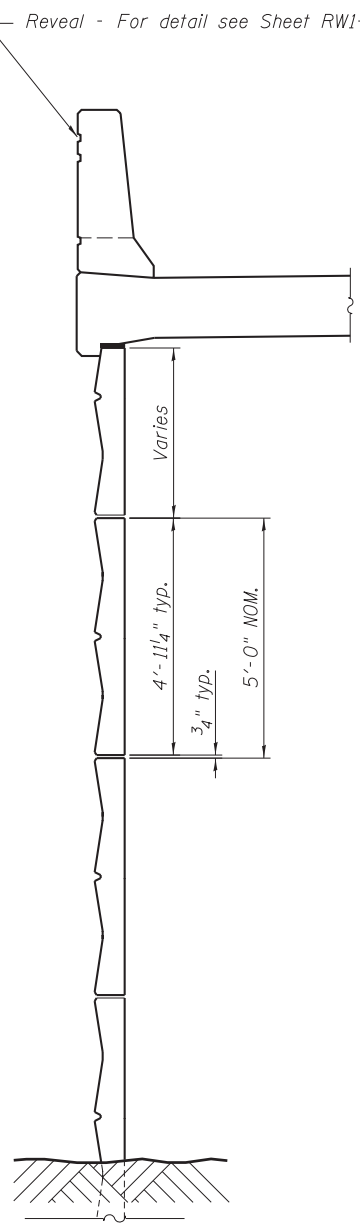
SECTION C-C



ARCHITECTURAL TREATMENT - FORMLINER

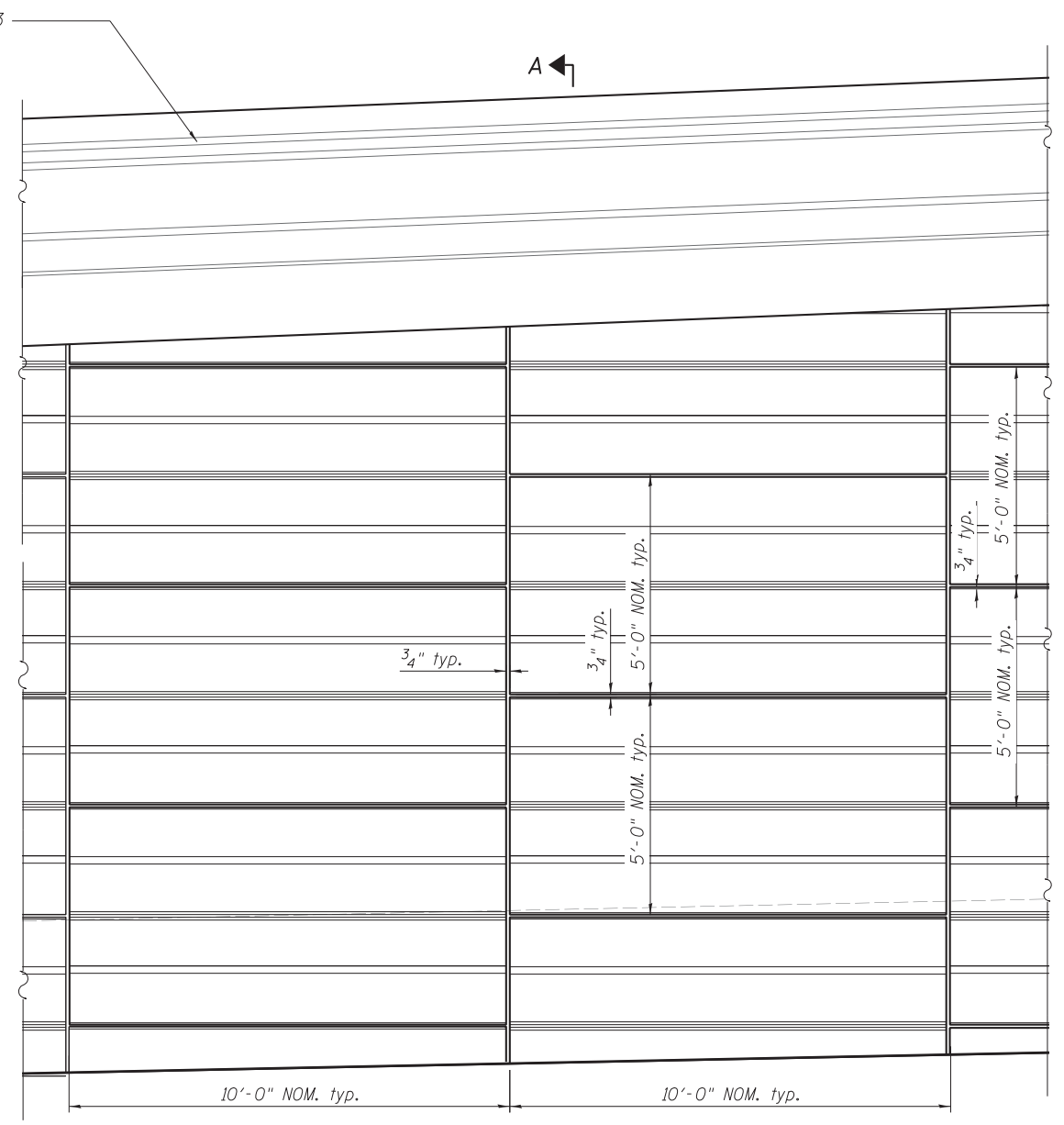


SECTION B-B



SECTION D-D

SECTION A-A



DETAIL 1

NOTES:

1. Formliner for precast panels will not be paid separately and will be included in the cost of the pay item "Mechanically Stabilized Earth Retaining Wall, Special".
2. Typical layout of precast panels and formliner details are shown on this drawing. For MSE Wall, Special see Sheets RW-1 and RW-2.
3. All Precast Concrete Panels to have smooth finish.

* For precast Concrete Panel dimensions see Sheet RW1-2

11.0160766_60X07_ArchDet-1.dgn



USER NAME = RistovskaM	DESIGNED - MR	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - MR	REVISED -
	CHECKED - ME	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARCHITECTURAL DETAILS - S.N. 016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

SHEET NO. RW1-11 OF RW1-15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	752
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 2/27/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-0766 DRILLED BY STRATA-KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Boring No.	Station	Offset	Surface Elev.	DEPTH	BLOWS	Qu	W	Surface Water Elev.	Groundwater Elev. when drilling at Completion after	DEPTH	BLOWS	Qu	W
MSE-01	181+60.35	58.98ft RT	596.11 ft					None	585.6				
FILL: Black, dry, medium dense TOPSOIL, BRICK, CONCRETE and CINDERS				5	8		27.5			5	5		23.8
				6						7			
				23	11		14.3			ST			23.2
				8									
591.11				-5						-30	4		28.7
Brown, dry to wet, medium dense to loose, fine SAND				6	5		3.4			6			
				5						8			
				5	4		8.8			564.11			
				4									
585.11				-10						-35	ST	0.97*	42.4
Brown, saturated, medium dense, fine SAND				3	4		23.3						
				2									
				9	13		29.3						
				11									
				-15						-40	ST	1.0P	61.4
				4	6		22.3						
				8									
579.11													
Gray, saturated, medium dense to loose, fine SAND to SANDY LOAM				7	8		24.4			553.11			
				9									
				-20						-45	ST	1.0P	59.7
				7	8		25.3						
				8									
				8									
				5	5		23.2						
				4									
				-25						-50			

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 2/27/13

STRUCTURE NO. 016-0766

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Boring No.	Station	Offset	Elevation	DEPTH	BLOWS	Qu	W
MSE-01	181+60.35	58.98ft RT	546.11 ft				
Gray, very stiff SILTY CLAY				2	3	1.6S	44.6
				11			
544.11							
Possible weathered BEDROCK, COBBLES or large GRAVEL							
540.61				-55			
End of Boring Diedrich D-50 drill rig used for drilling Automatic Diedrich hammer used for SPT Casing used: 27 ft of 4 in diameter Driller converted to rotary wash drilling at 10 ft depth Borehole grouted upon completion				73			12.1
				-60			
				-65			
				-70			
				-75			

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

12-0160766_60X07_BOR1.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
	CHECKED - PH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 5/26/2015	CHECKED - PH	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS I - S.N. 016-0766 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW1-12 OF RW1-15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	753
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 2/26/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-0766 DRILLED BY STRATA-KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth (ft), Blows (N), Qu (tsf), W (%), Soil Description, Surface Water Elev., Groundwater Elev., Completion Date, Depth (ft), Blows (N), Qu (tsf), W (%). Rows include soil layers like TOPSOIL, SAND, CLAY, and LOAM with associated test results.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 2/26/13

STRUCTURE NO. 016-0766

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth (ft), Blows (N), Qu (tsf), W (%), Soil Description. Includes notes on weathered bedrock and drilling equipment used.

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

14_0160766_60X07_BOR3.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS III - S.N. 016-0766 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW1-14 OF RW1-15 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

Page 1 of 2

AECOM PROJ NO. 60225454

Date 3/4/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-0766 DRILLED BY STRATA-KOMEN

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Boring No.	MSE-04	DEPTH	BLOW	Qu	W	Surface Water Elev.	None	DEPTH	BLOW	Qu	W
Station	84+27.51	ft	S	tsf	%	Groundwater Elev.:	584.8	ft	S	tsf	%
Offset	30.81ft RT					when drilling	at Completion				
Surface Elev.	594.76										
FILL: Black and brown, moist, medium dense to very loose SAND, GRAVEL and BRICK		20	12	17.5							
		7					567.26				
		3		9.4							
		4									
		6									
		7									
		-5									
		2		9.4							
		2									
		1									
FILL: Brown and dark brown, moist, loose, SAND		587.76									
		1		11.3							
		1									
		4									
		-10									
FILL: Brown and dark brown, saturated, very loose SAND		584.76									
		WOH		30.5							
		WOH									
		WOH									
		1		27.5							
		-15									
		1		28.7							
		-40									
		1		29.7							
		2									
		6									
Obstruction encountered at 19.17'. Offset boring and blank drilled to 20.0'		20/2'		8.3							
		-20									
		1		31.3							
		-									
		1									
		572.26									
Gray, saturated, very loose SILTY LOAM		3		21.3							
		1									
		1									
		-25									
		8		4.9B	17.3						
		12									
		15									
		-50									

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

Page 2 of 2

AECOM PROJ NO. 60225454

Date 3/4/13

STRUCTURE NO. 016-0766

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Boring No.	MSE-04	DEPTH	BLOW	Qu	W	Surface Water Elev.	None	DEPTH	BLOW	Qu	W
Station	84+27.51	ft	S	tsf	%	Groundwater Elev.:	584.8	ft	S	tsf	%
Offset	30.81ft RT					when drilling	at Completion				
Surface Elev.	544.76										
End of Boring											
Mobile B-61 drill rig used for drilling											
Automatic Mobile hammer used for SPT											
Casing used: 35 ft of 4in diameter											
Driller converted to rotary wash drilling at 10 ft depth											
Borehole grouted upon completion											
		-55									
		-60									
		-65									
		-70									
		-75									

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

15_0160766_60X07_BOR4.dgn



USER NAME =	AVasonis	DESIGNED -	EV	REVISED -	
		CHECKED -	PH	REVISED -	
PLOT SCALE =		DRAWN -	EV	REVISED -	
PLOT DATE =	5/26/2015	CHECKED -	PH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS IV - S.N. 016-0766
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	756
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				

SHEET NO. RW1-15 OF RW1-15 SHEETS

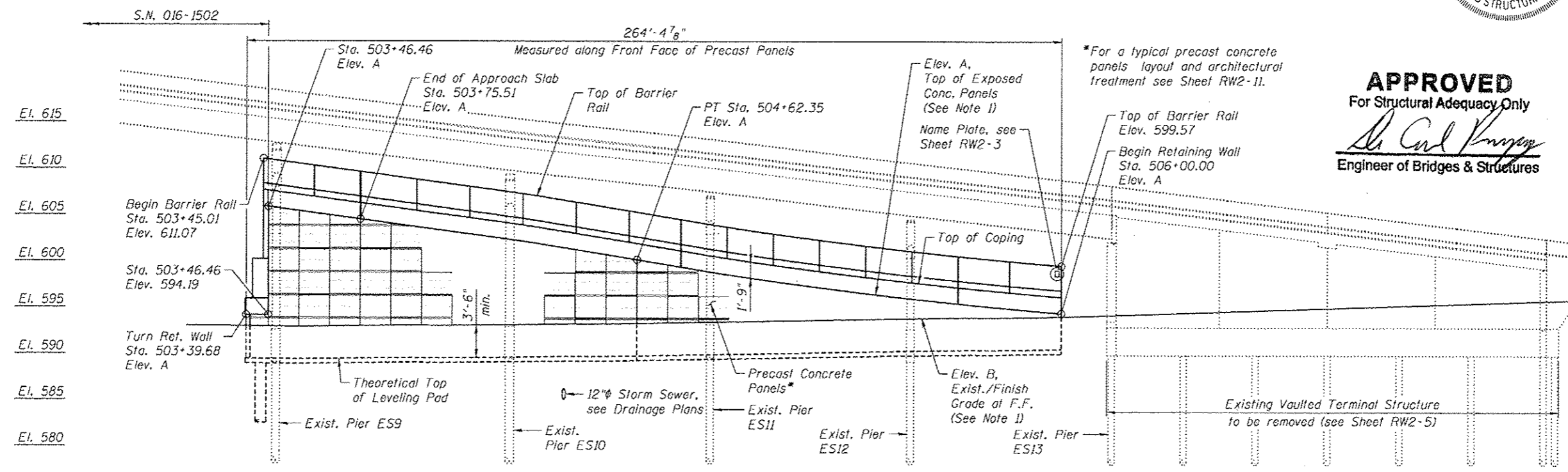
Bench Mark: BM-4, chiseled square on NE corner of existing crashwall at Pier E20 East of Moe Drive on EB I-55 to NB Lake Shore Drive (Pier 8 of S.N. 016-1075), Elev. 594.65 (NAVD 88).

Exist. Structure: The East and West Walls, part of a concrete vaulted terminal structure, were built in 1965 as part of S.N. 016-1045 & carry traffic from NB I-55 to SB Lake Shore Drive over Moe Drive, Mines Drive, CNRR, Metra Electric RR and McCormick Place Busway. The walls, each 137'-6" in length are monolithically built with a concrete deck measuring 12 1/2" thick, supported on each side wall of the vault and one longitudinal support girder at and running parallel to the deck's center line.

Traffic Control: For Stage 1a/1b, II, maintain 1-lane of ES traffic on west half of existing S.N. 016-1045 vaulted terminal structure during construction of proposed S.N. 016-0773.

Mohsen Farahany
Mohsen M. Farahany
5-26-2015
Submital Date
11-30-2016
Expiration Date

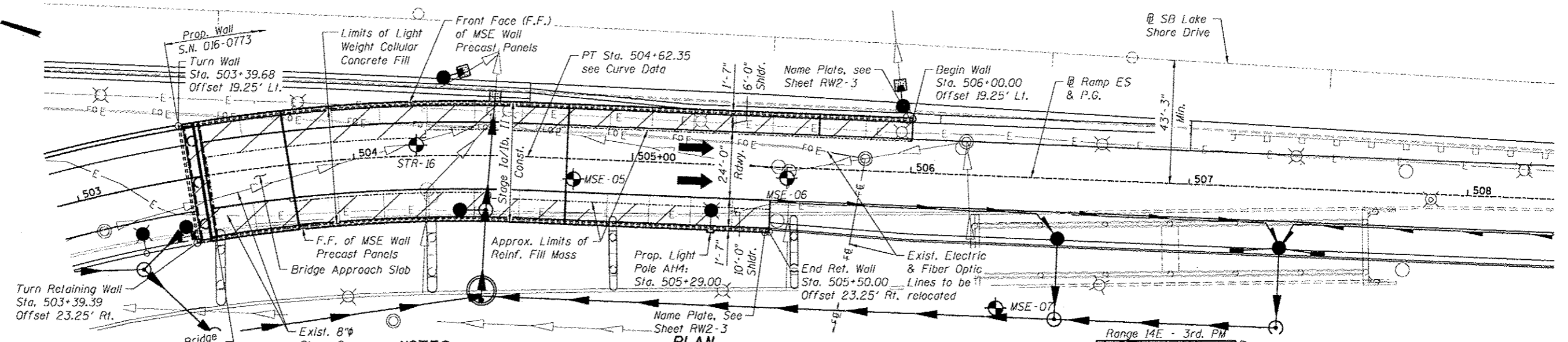
STATE OF ILLINOIS
MOHSEN M. FARAHANY
81-5131
REGISTERED STRUCTURAL ENGINEER



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

CURVE DATA
RAMP ES
PI Sta. = 501+57.40
Δ = 71° 24' 03" (RT)
D = 9° 54' 46"
R = 578.00'
T = 415.34'
L = 720.29'
E = 133.75'
e = 5.40%
T.R. = N/A
S.E. Run = 66.00'
P.C. Sta. = 497+42.05
P.T. Sta. = 504+62.35

REFLECTED EAST WALL ELEVATION



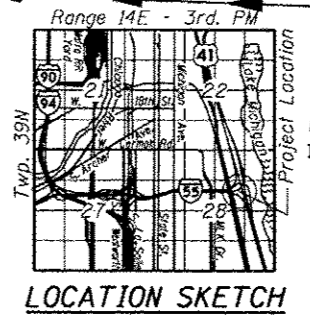
- NOTES:**
- For Stations & Elevations of Elev. A & B see Sheet RW2-2, Table 1.
 - Horizontal dimensions measured along front face of precast panels.
 - Stations & Offsets are given to front face of precast panels relative to @ Ramp ES.
 - For Soil Boring Logs, see Sheets RW2-12 thru RW2-14.
 - Contractor shall field verify location and elevation of existing utilities. If utilities pass through prop. MSE and temp. MSE panels or leveling pad, wall supplier shall design break in the wall and/or leveling pad to accommodate.

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interim Revisions

DESIGN STRESSES

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

PRECAST UNITS
f'c = 4,500 psi (Precast Panels)

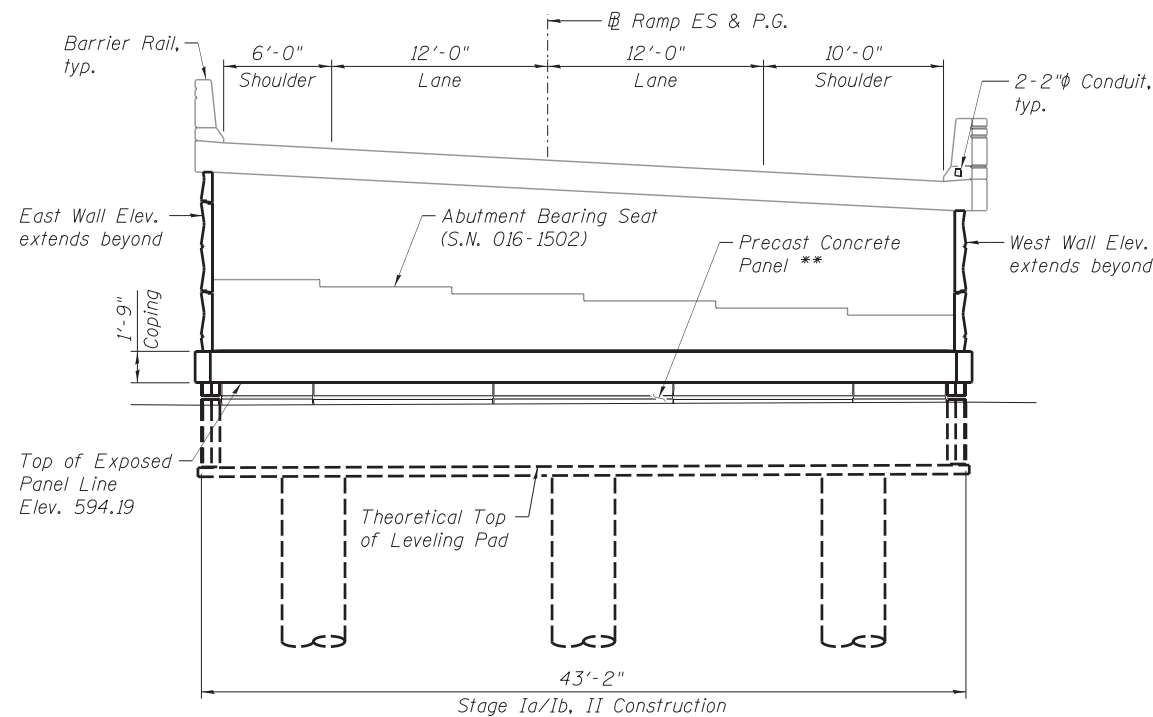


GENERAL PLAN & ELEVATION
NB I-55 TO SB LAKE SHORE DRIVE
F.A.I. RTE. 55 - SEC. 2013-049B
COOK COUNTY
STA. 503+39.39 TO STA. 506+00.00
STRUCTURE NO. 016-0773

- LEGEND**
- Limits of Reinforced Fill Mass
 - Exist. Aerial Line
 - Exist. Electric Line
 - Exist. Fence
 - Exist. Fiber Optic Line
 - Exist. Gas Line
 - Exist. Guardrail
 - Exist. Storm Sewer
 - Exist. Water Line
 - Prop. Storm Sewer
 - Prop. Light Pole
 - Prop. Catch Basin
 - Prop. Manhole
 - MSE-05 Soil Boring Location

RME Rubino & Mose Engineers, Inc. 200 S. Michigan Avenue, Suite 1100, Chicago, IL 60605-3442	USER NAME = PHodino	DESIGNED = EV	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)	F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 757
	PLOT SCALE =	DRAWN = EV	REVISED =			SHEET NO. = RW2-1 OF RW2-14 SHEETS	CONTRACT NO. 60X07		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 5/26/2015	CHECKED = PH	REVISED =							

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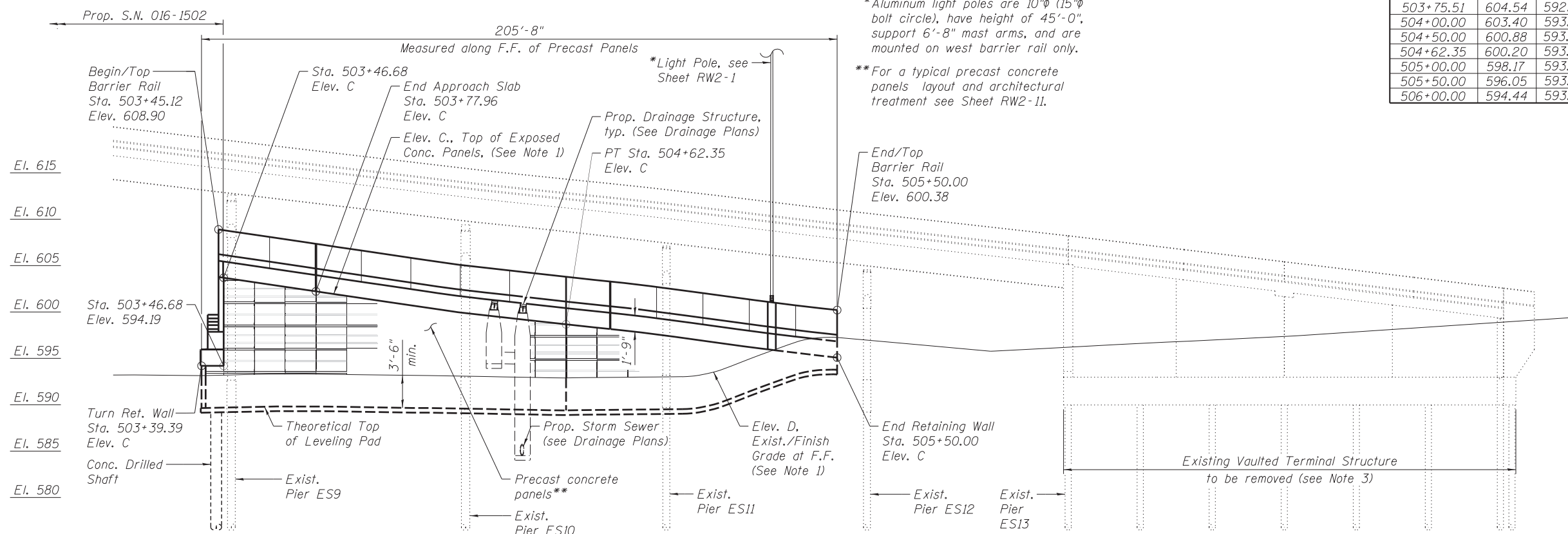
NORTH ELEVATION
(Looking South)

TABLE 1 (EAST WALL)

Station	Elev. A	Elev. B
503+39.68	594.19	592.66
503+46.46	605.88	592.71
503+50.00	605.71	592.74
503+75.51	604.54	592.90
504+00.00	603.40	593.04
504+50.00	600.88	593.22
504+62.35	600.20	593.30
505+00.00	598.17	593.54
505+50.00	596.05	593.86
506+00.00	594.44	593.99

TABLE 2 (WEST WALL)

Station	Elev. C	Elev. D
503+39.39	594.19	592.68
503+46.68	603.71	592.73
503+50.00	603.55	592.76
503+77.96	602.26	592.93
504+00.00	601.24	592.95
504+50.00	599.19	592.87
504+62.35	598.76	592.84
505+00.00	597.37	593.05
505+50.00	595.25	592.29



WEST WALL ELEVATION

* Aluminum light poles are 10"φ (15"φ bolt circle), have height of 45'-0", support 6'-8" mast arms, and are mounted on west barrier rail only.

** For a typical precast concrete panels layout and architectural treatment see Sheet RW2-11.

NOTES:

1. For Stations and Elevations of Elev. C and D, see Table 2.
2. Anchorage Slabs on West and East sides of Ramp ES end at Sta. 503+46.55 where they overlap the abutment backwall by 6". 30' Bridge Approach Slab located between the anchor slabs.
3. For limits of existing Vaulted Terminal Structure & Pier ES13 removal, see Sheet RW2-6.
4. For removal of Piers ES9 thru ES12, see Sheets S-21 and S-22.

2_0160773_60X07_01 West Elev.dgn

USER NAME = AVasonis	DESIGNED - PH	REVISED -
	CHECKED - BG	REVISED -
PLOT SCALE =	DRAWN - PH	REVISED -
PLOT DATE = 5/26/2015	CHECKED - BG	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	758
CONTRACT NO. 60X07				

GENERAL NOTES:

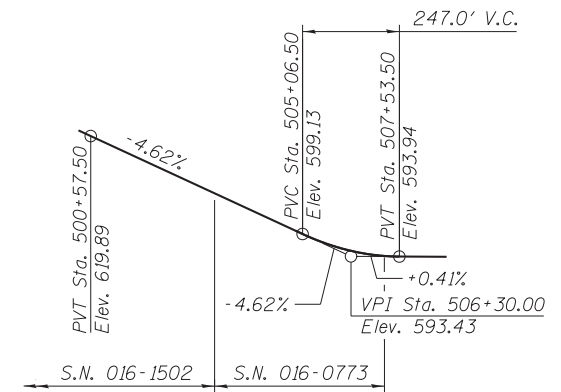
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Slip forming of the barrier rails is not allowed.
3. Protective Coat shall be applied to the designated areas of Anchorage Slabs & Barrier Rails & MSE Wrap Around Coping.
4. Stations & Offsets are measured from the \mathbb{E} of Ramp ES to the Front Face of MSE wall panels.
5. MSE Wall lengths measured along front face of precast panels unless noted otherwise.
6. MSE Supplier to design load transfer systems within reinforced fill mass to accommodate drainage structures & abutment drilled shafts.
7. MSE wall supplier shall design MSE Wall, Special using granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind granular reinforced mass; an embankment unit weight of 120 lbs/cu. ft & an effective friction angle of 30 degrees shall be used in the wall system design.
8. Contractor shall field verify location of existing footings & underground utilities & shall take all precautions to protect them during construction of the wall & final condition of the ramp. Any damages to the existing structures and/or utilities shall be the responsibility of the Contractor.
9. Quantity for Lightweight Cellular Concrete Fill includes reinforced fill mass & fill area beneath roadway. Lightweight Cellular Concrete Fill shall meet Class II requirements (see Special Provisions).
10. See Special Provision for Mechanically Stabilized Earth Retaining Wall, Special for design & construction requirements.
11. For drainage structure location, type, & size, see Drainage Sheets.

INDEX OF SHEETS:

- RW2-1 General Plan & Elevation
- RW2-2 North Wall & West Wall Elevations & Detail
- RW2-3 Total Bill of Material, Index of Sheets & General Notes
- RW2-4 Stage Construction
- RW2-5 Typical Sections
- RW2-6 Existing Structural Removal
- RW2-7 East Barrier Rail & Anchorage Slab
- RW2-8 West Barrier Rail & Anchorage Slab
- RW2-9 Details
- RW2-10 MSE Wrap Around Details
- RW2-11 Architectural Details
- RW2-12 Boring Logs I
- RW2-13 Boring Logs II
- RW2-14 Boring Logs III

TOTAL BILL OF MATERIAL

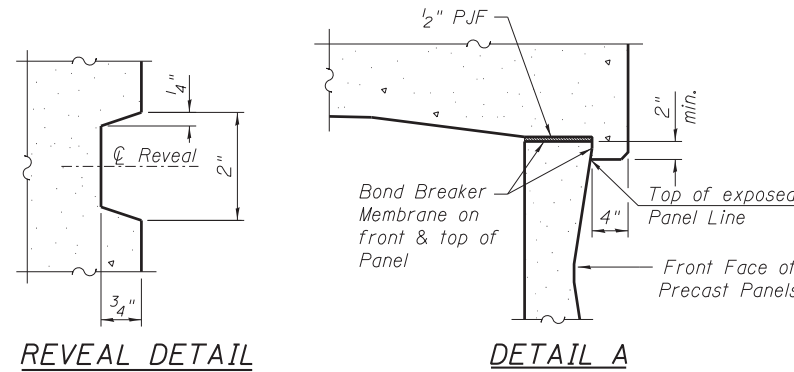
Item	Unit	Total
Protective Coat	Sq. Yd.	649
Structure Excavation	Cu. Yd.	1,334
Concrete Superstructure	Cu. Yd.	277.2
Reinforcement Bars, Epoxy Coated	Pound	39,910
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	343
Name Plates	Each	1
Lightweight Cellular Concrete Fill	Cu. Yd.	3,242
Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	5,167



PROFILE GRADE
(Along \mathbb{E} Ramp ES)

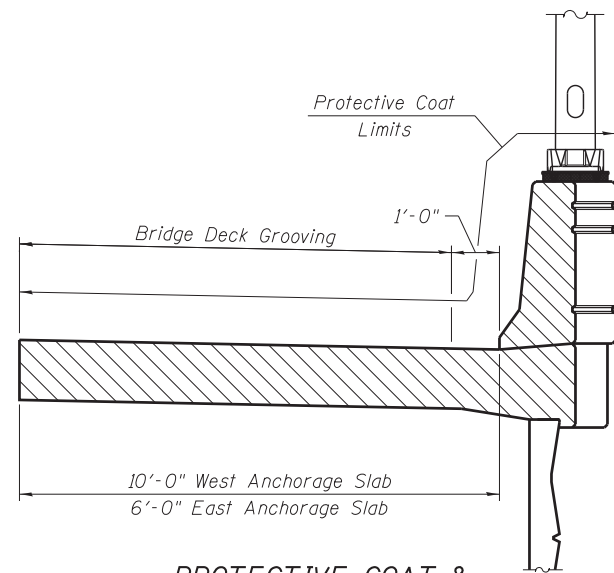
SUGGESTED SEQUENCE OF CONSTRUCTION:

1. Remove portions of existing structure as directed (Stage Ia/Ib, II).
2. Install drilled shafts (Stage Ia/Ib, II) for South Abutment of Ramp ES Structure (S.N. 016-1502).
3. Construct South Abutment (Stage Ia/Ib, II) of Ramp ES Structure (S.N. 016-1502).
4. Construct East, Front, & West MSE Wall elevations (Stage Ia/Ib, II) simultaneously (S.N. 016-0773). Fill between East & West wall faces. Construct South Approach Slab, East & West Anchorage Slabs & Barrier Rails.
5. Remove remaining portions of existing structure as directed (Stage III).



REVEAL DETAIL

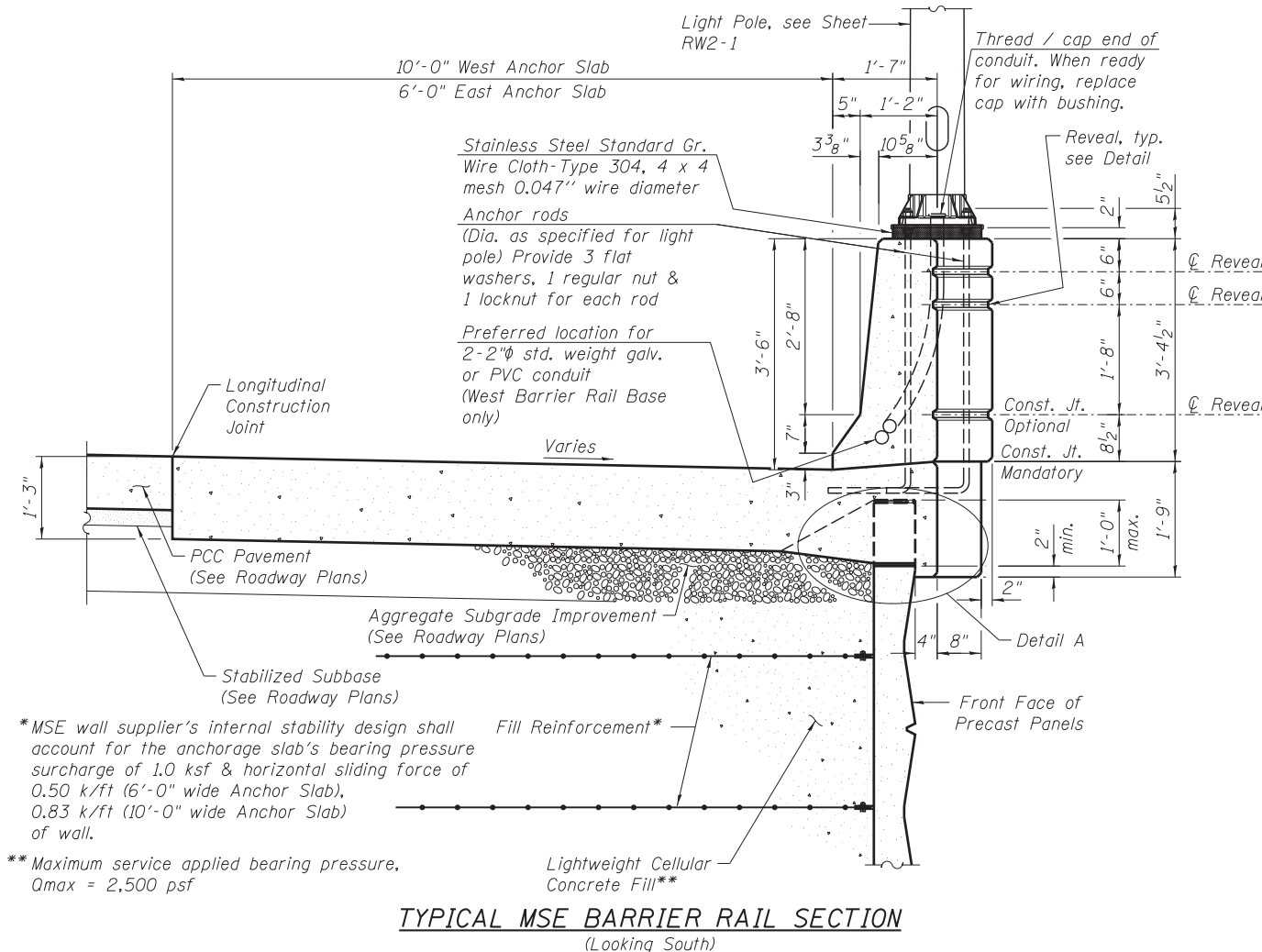
DETAIL A



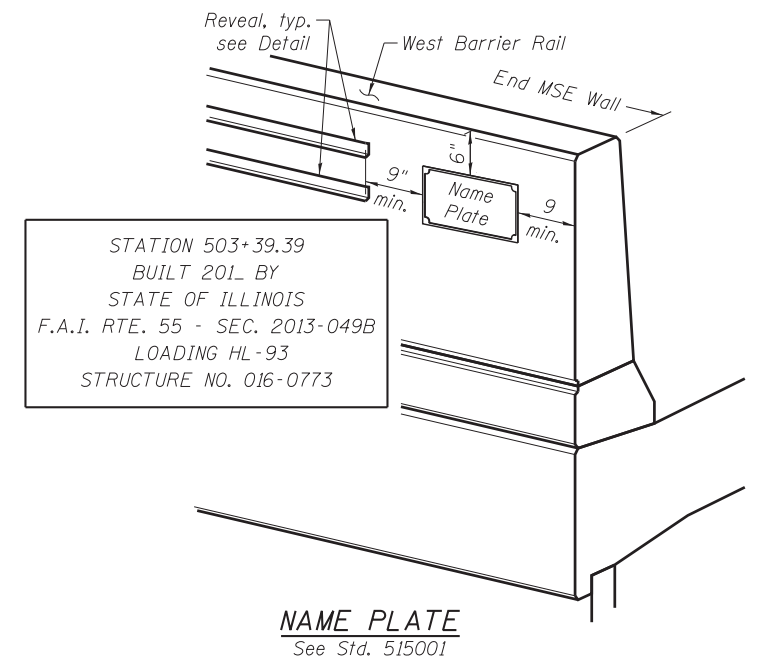
PROTECTIVE COAT & BRIDGE DECK GROOVING LIMITS

ANCHORAGE SLAB PAY ITEM LEGEND

Paid as Concrete Superstructure



TYPICAL MSE BARRIER RAIL SECTION
(Looking South)



NAME PLATE
See Std. 515001

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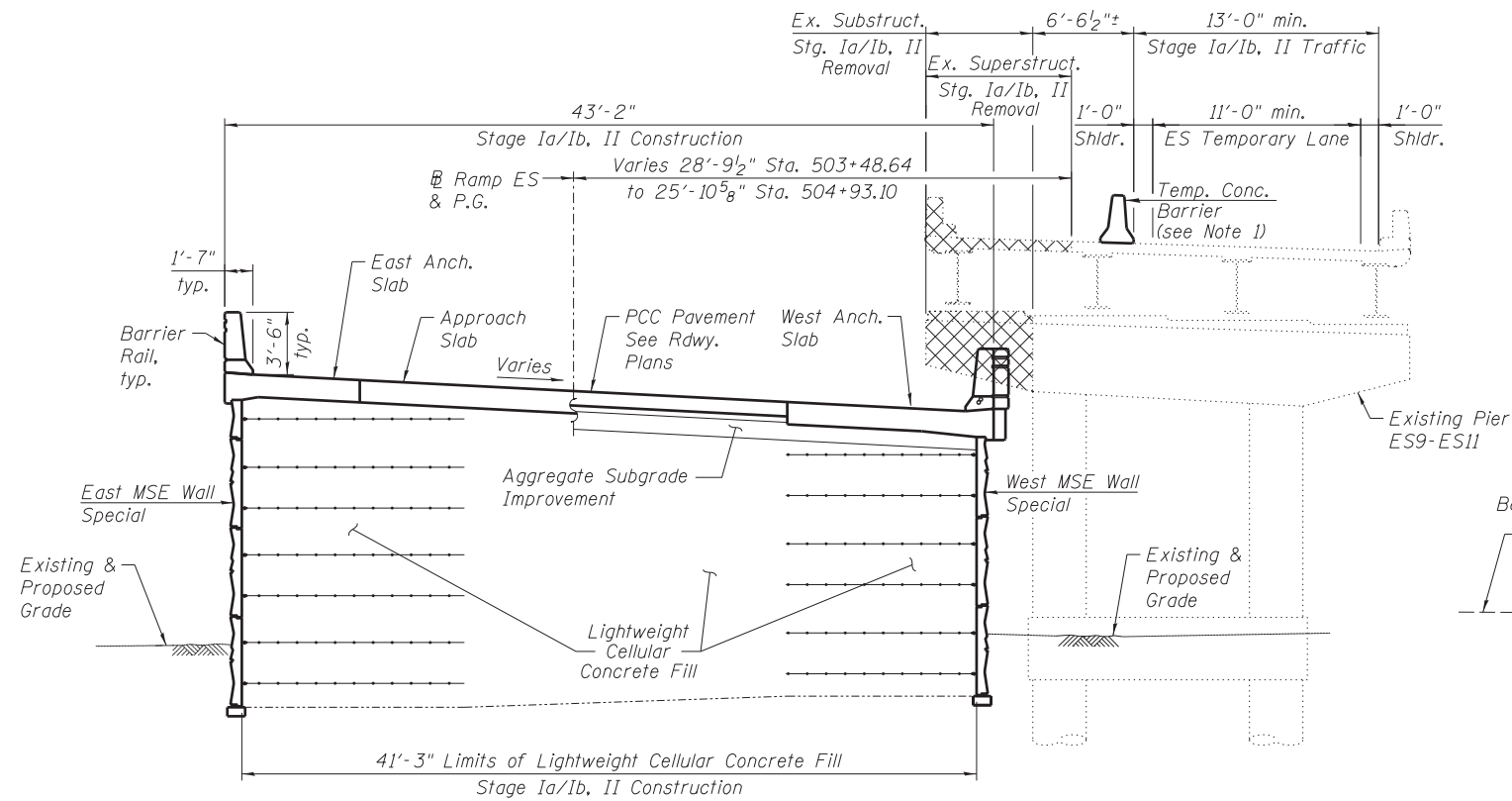
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PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

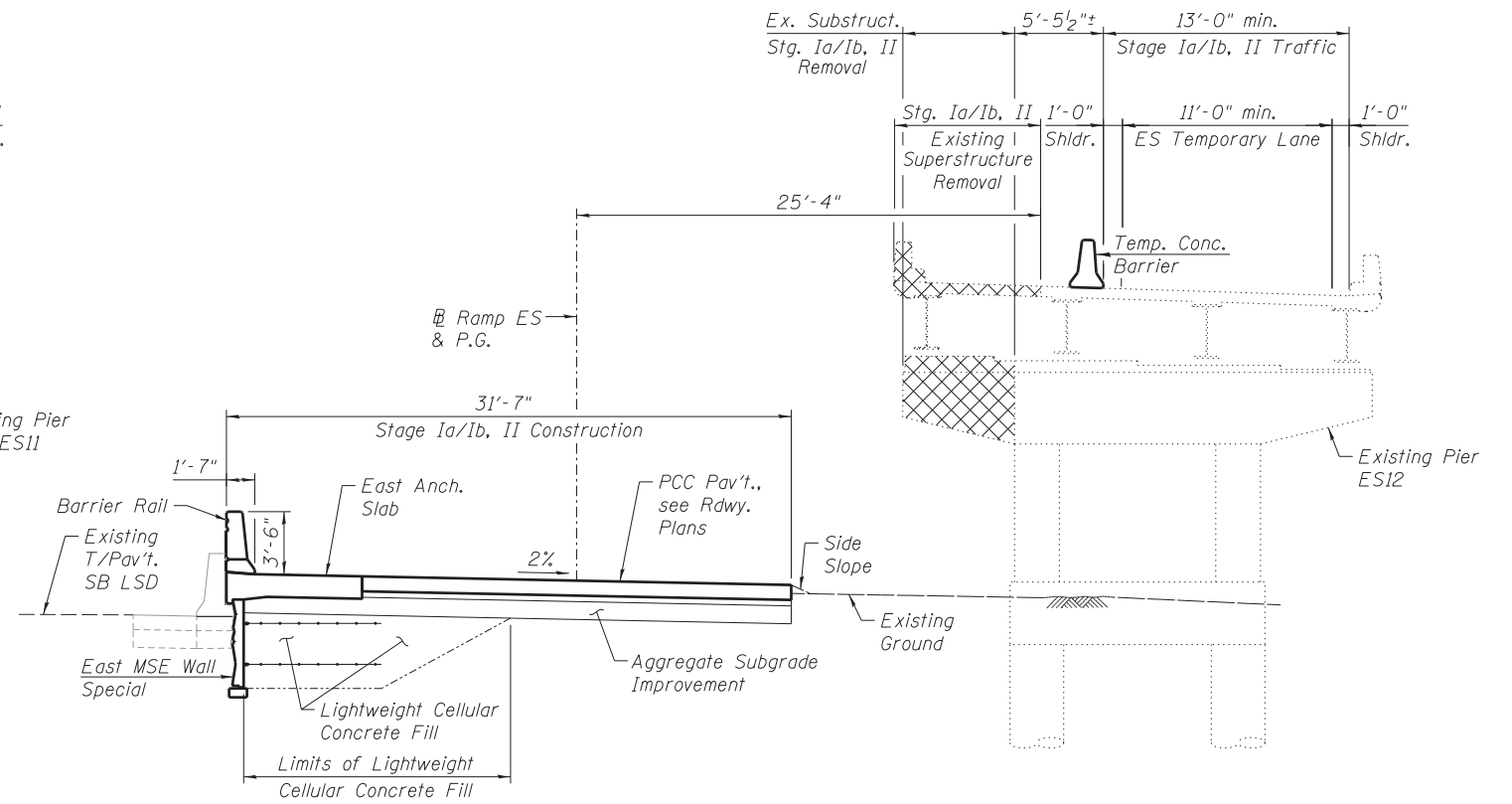
TOTAL BILL OF MAT'L, INDEX OF SHEETS & GEN. NOTES - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW2-3 OF RW2-14 SHEETS

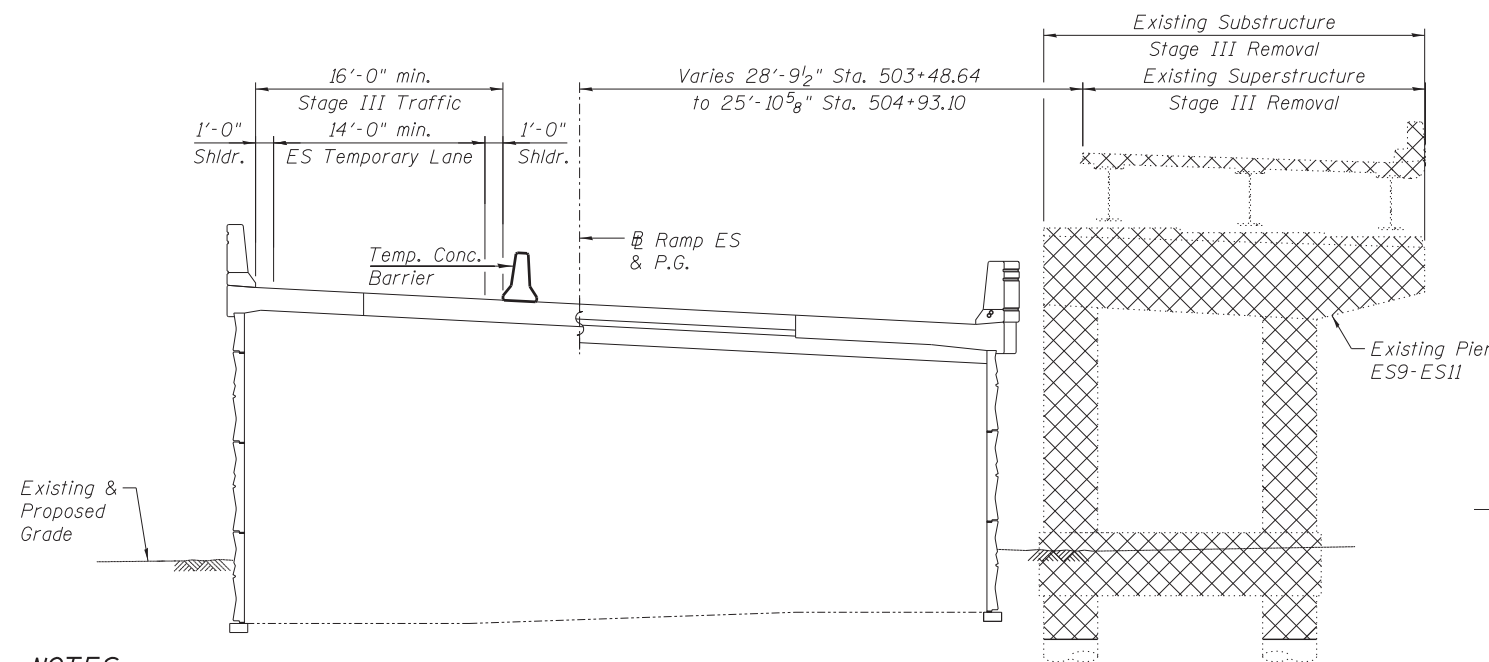
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	759
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X07	



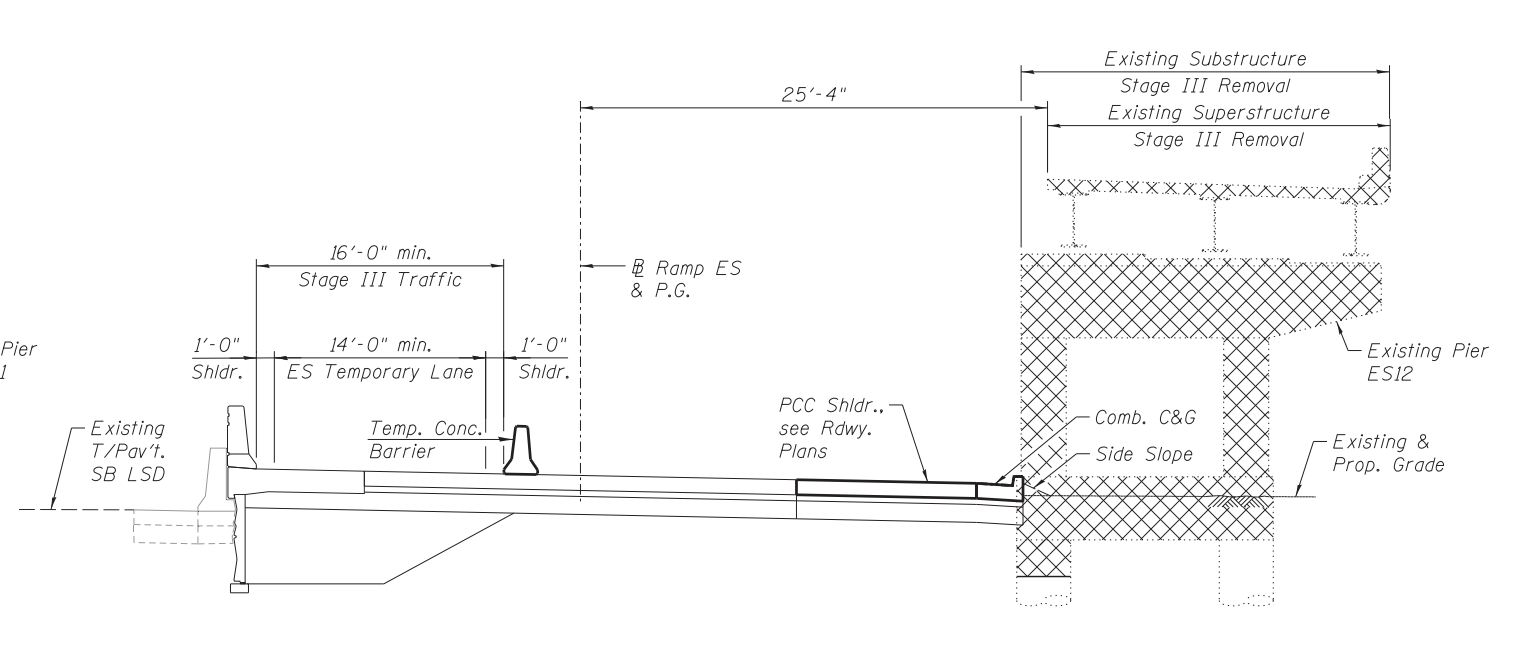
STAGE Ia/Ib, II - TYPICAL SECTION
 (Sta. 503+39.39 to Sta. 505+50.00)
 (Looking South)



STAGE Ia/Ib, II - TYPICAL SECTION
 (Sta. 505+50.00 to Sta. 506+00.00)
 (Looking South)



STAGE III - TYPICAL SECTION
 (Sta. 503+39.39 to Sta. 505+50.00)
 (Looking South)



STAGE III - TYPICAL SECTION
 (Sta. 505+50.00 to Sta. 506+00.00)
 (Looking South)

NOTES:

- For Temp. Conc. Barrier details see Sheet S-19.
For Temp. Conc. Barrier quantities see Roadway Plans.
- Hatched area indicates removal of Existing Structures.

4_0160773_60X07_Stageing.dgn



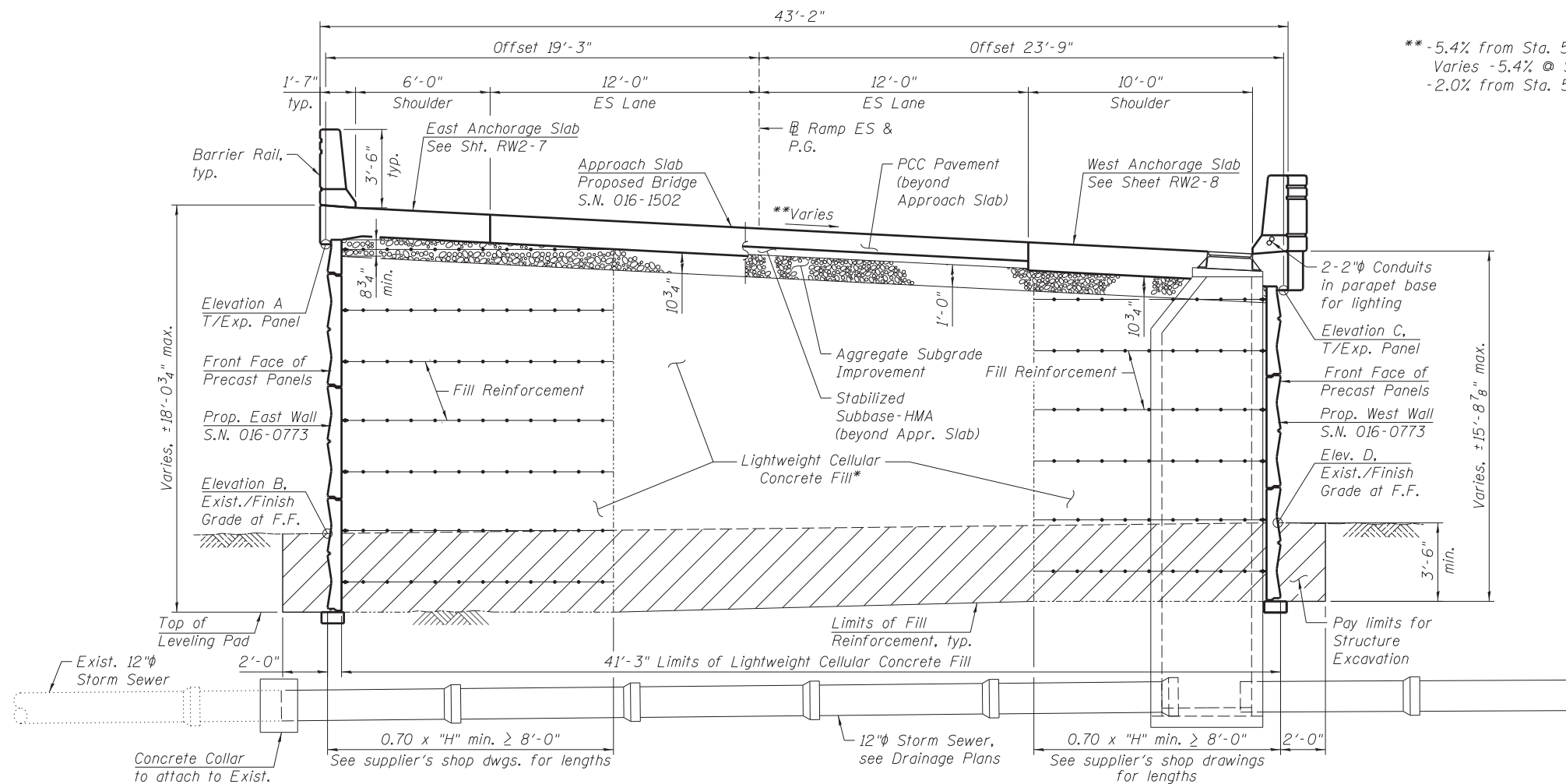
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PLOT SCALE =	CHECKED - BB	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EM	REVISED -
	CHECKED - BB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

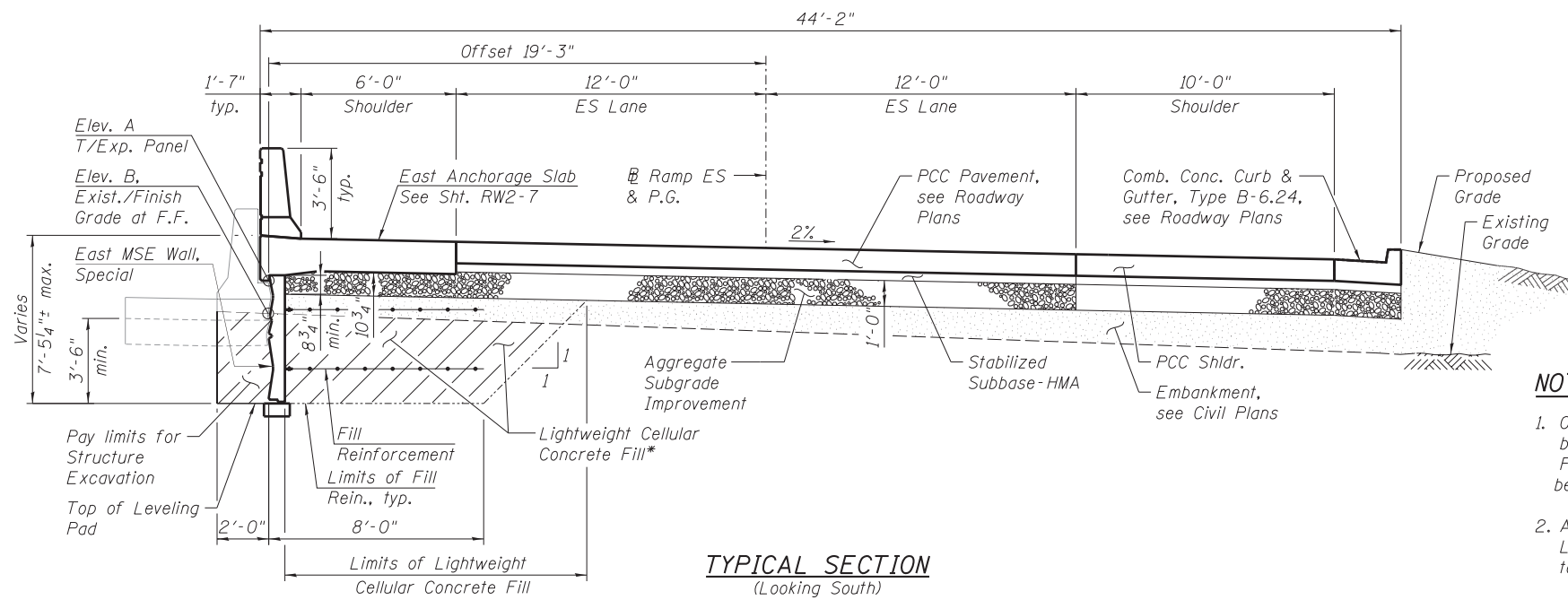
SHEET NO. RW2-4 OF RW2-14 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 760
CONTRACT NO. 60X07				ILLINOIS FED. AID PROJECT



TYPICAL SECTION
(Looking South)
(Sta. 503+39.39 to Sta. 505+50.00)

** -5.4% from Sta. 503+39.39 to Sta. 504+27.51
Varies -5.4% @ Sta. 504+27.51 to -2.0% @ Sta. 504+93.51
-2.0% from Sta. 504+93.51 to Sta. 506+00.00



TYPICAL SECTION
(Looking South)
(Sta. 505+50.00 to Sta. 506+00.00)

NOTES

- Overexcavation beyond pay limits for Structure Excavation shall not be measured for payment. Additional Lightweight Cellular Concrete Fill in overexcavation area also shall not be measured for payment.
- Approach Slab for Ramp ES from NB I-55 (SN 016-1502) to SB Lakeshore Drive is between anchorage slabs from Sta. 503+46.55 to Sta. 503+76.55 along Ramp ES. See bridge plans.
- For Stations & Elevations of Elev. A, B, C & D see Sheet RW2-2.

5_0160773_60X07_TypSections.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
	CHECKED - PH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 5/26/2015	CHECKED - PH	REVISED -

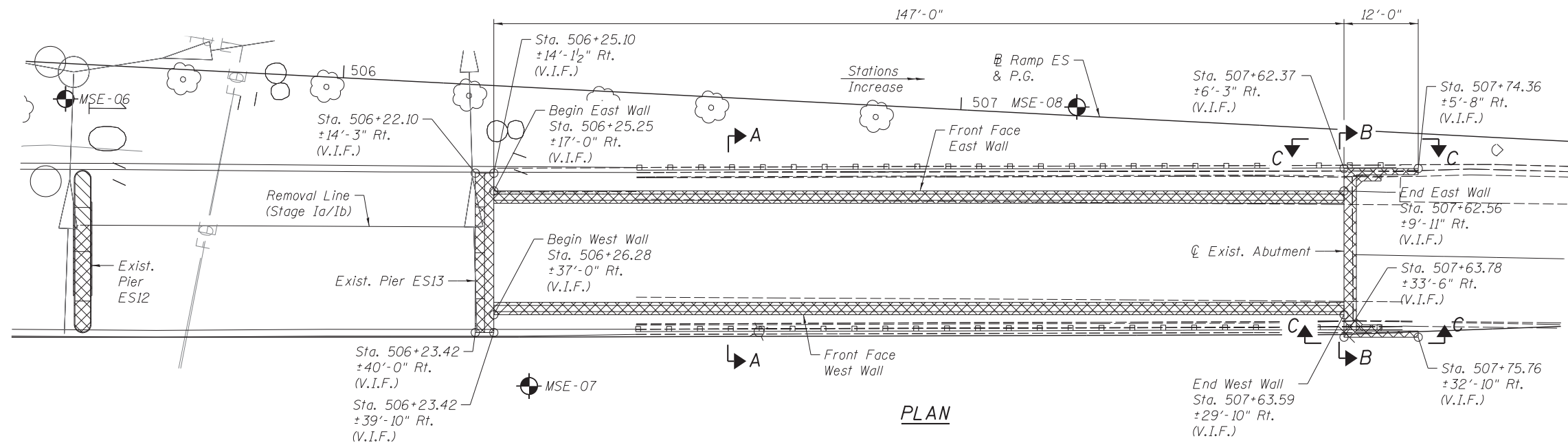
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

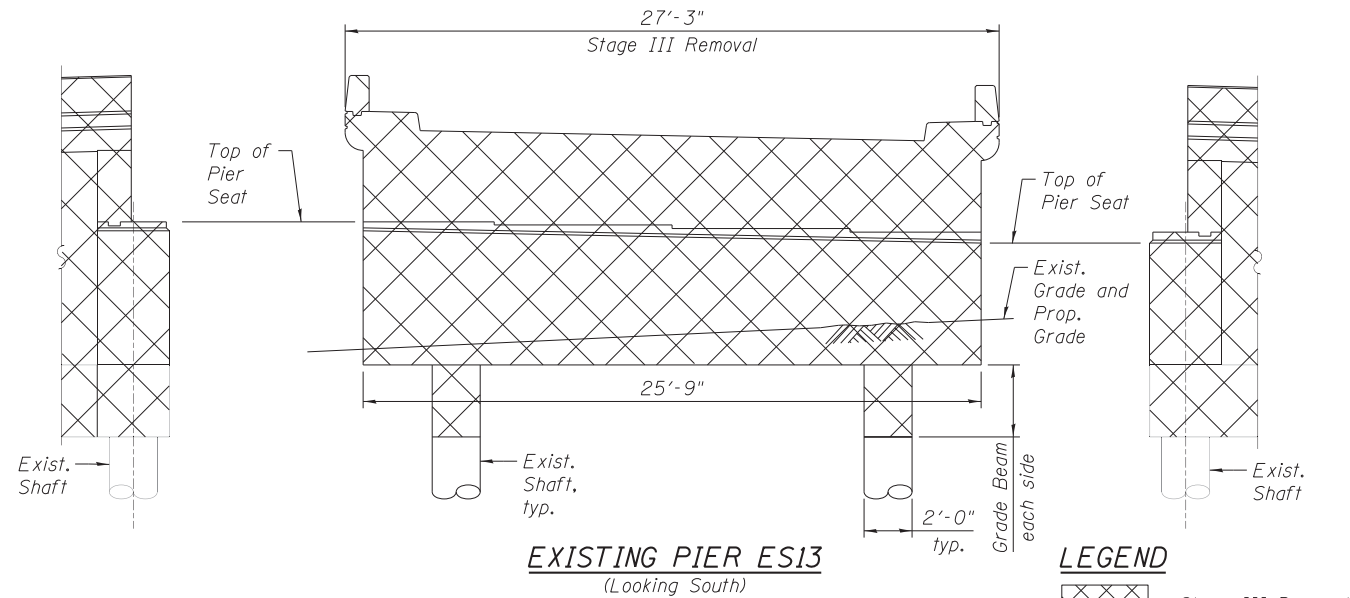
SHEET NO. RW2-5 OF RW2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	761
CONTRACT NO. 60X07				

ILLINOIS FED. AID PROJECT

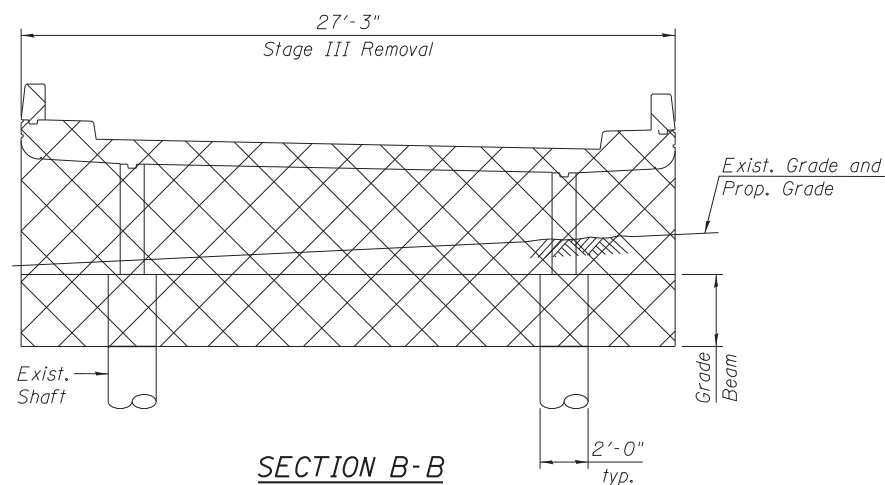


PLAN

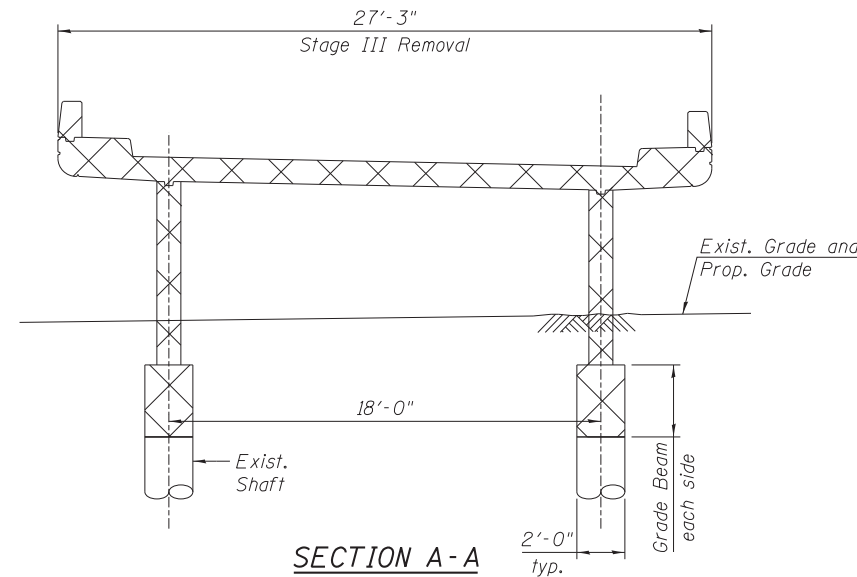


EXISTING PIER ES13
(Looking South)

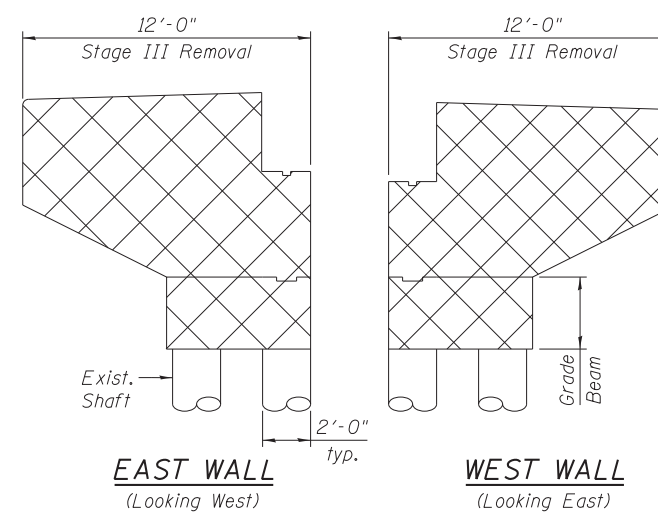
LEGEND
 Stage III Removal



SECTION B-B



SECTION A-A



EAST WALL
(Looking West)

WEST WALL
(Looking East)

SECTION C-C

NOTES

- Excavation required to remove existing structures shall be backfilled to pre-excavation elevation where applicable. Cost of excavation & backfill is included in cost of "Removal of Existing Structures No. 2".
- Station & offsets are given with respect to baseline of Ramp ES.
- V.I.F. = "Verify in Field"
- Cost of Vaulted Terminal Structure removal shall be included with cost of "Removal of Existing Structures No. 2", see Special Provisions.
- For removal of Pier ES9 thru Pier ES12 see Sheets S-21 & S-22.
- Plan dimensions & details relative to existing plans subject to construction variations. The Contractor shall field verify existing dimensions & details & modify suggested Stage Removal Lines as necessary to provide the minimum traffic width shown in the plans.

6_0160773_60X07_Removal.dgn



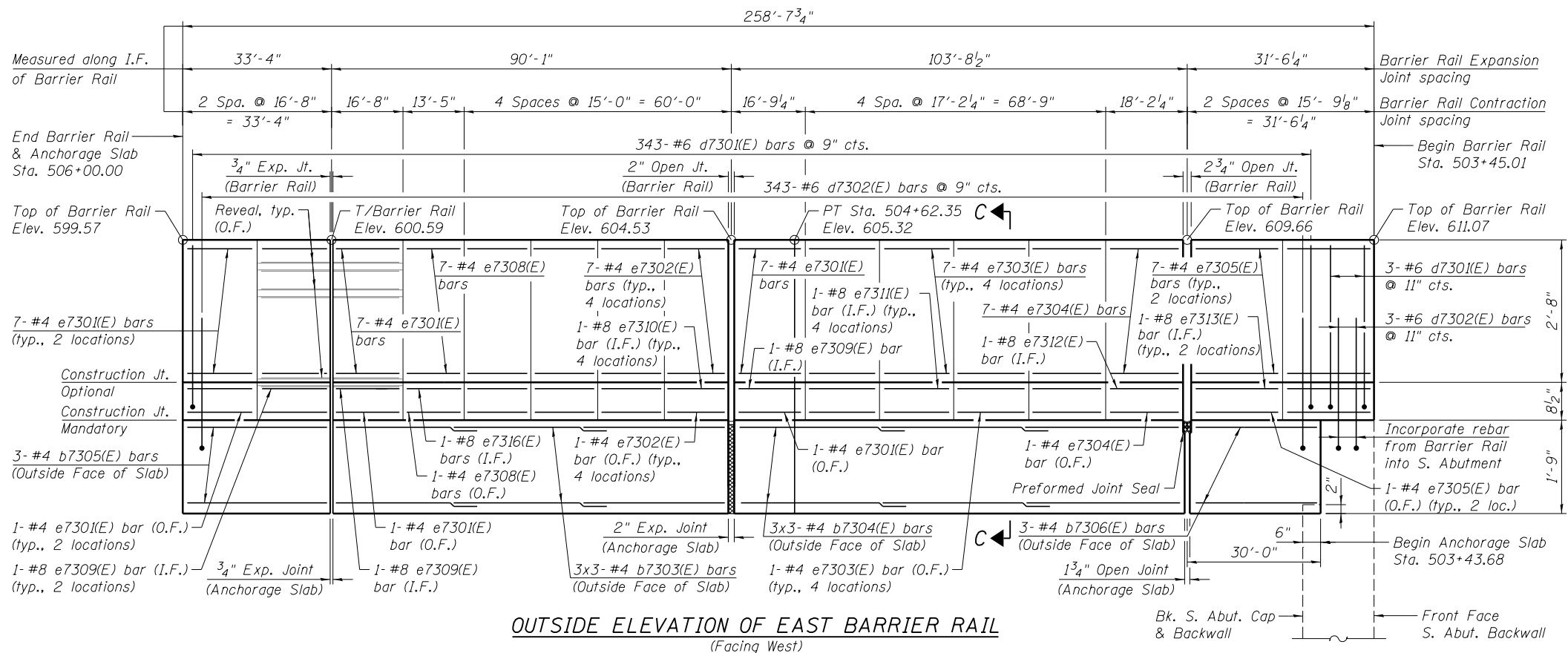
USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURAL REMOVAL - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

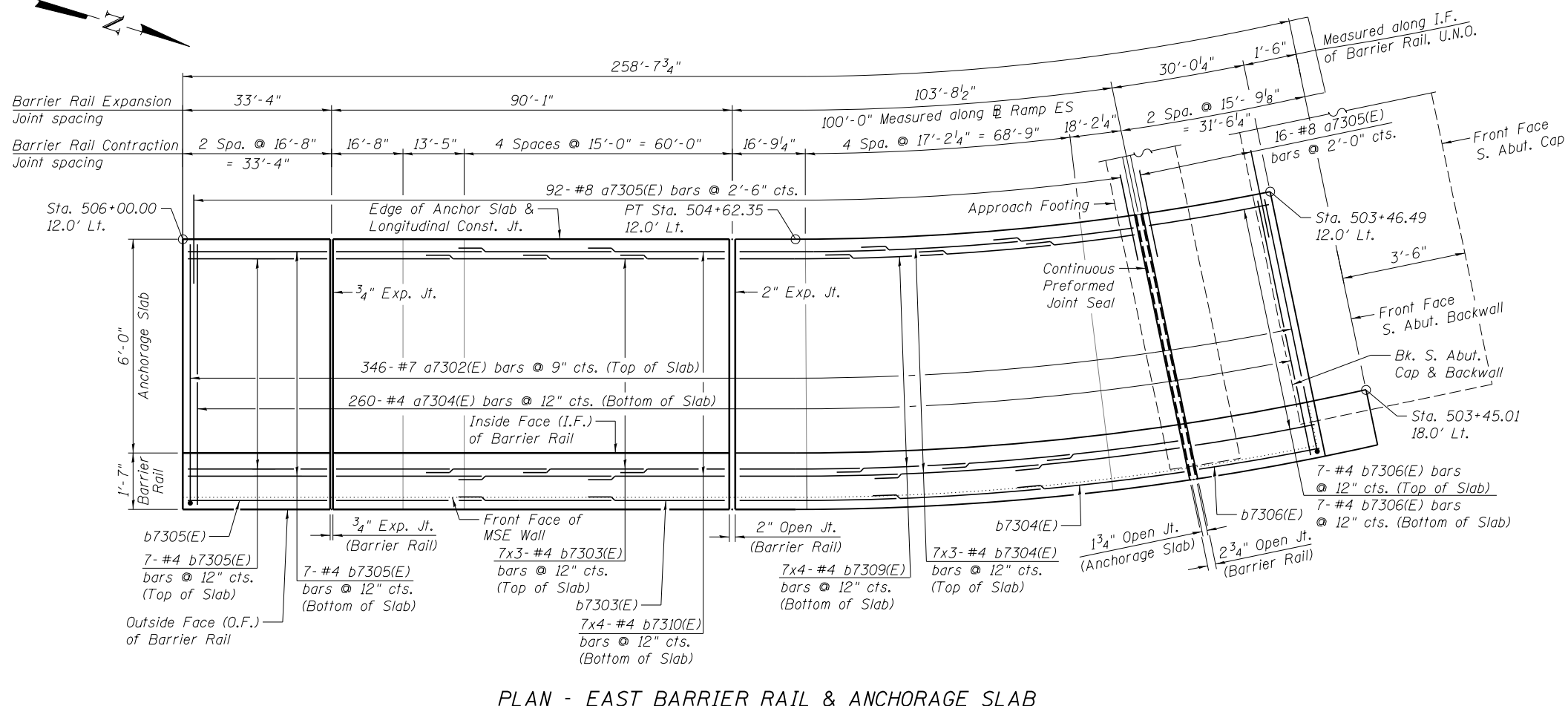
SHEET NO. RW2-6 OF RW2-14 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 762
CONTRACT NO. 60X07				ILLINOIS FED. AID PROJECT



OUTSIDE ELEVATION OF EAST BARRIER RAIL
(Facing West)

MIN. BAR LAPS
#4 bars = 2'-7"



PLAN - EAST BARRIER RAIL & ANCHORAGE SLAB

- NOTES:**
1. For Barrier Rail & Anchorage Slab Joint Details & Section C-C see Sheet RW2-10.
 2. For South Approach Slab Preformed Joint Seal details see Sheet S-91.
 3. Bars noted thus, 7x3-#4 indicates 7 lines of #4 bars with 3 lengths per line.
 4. 2" min. clear cover typical unless noted otherwise.
 5. Preformed Joint Seal & 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 503+46.55) & Bridge Approach Pavement Connector (PCC) (Sta. 503+76.55).
 6. For South Abutment Plan and details see Sheets S-155 & S-156.

7_0160773_60X07_EBarrierRail.dgn



USER NAME = PHodina	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 6/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

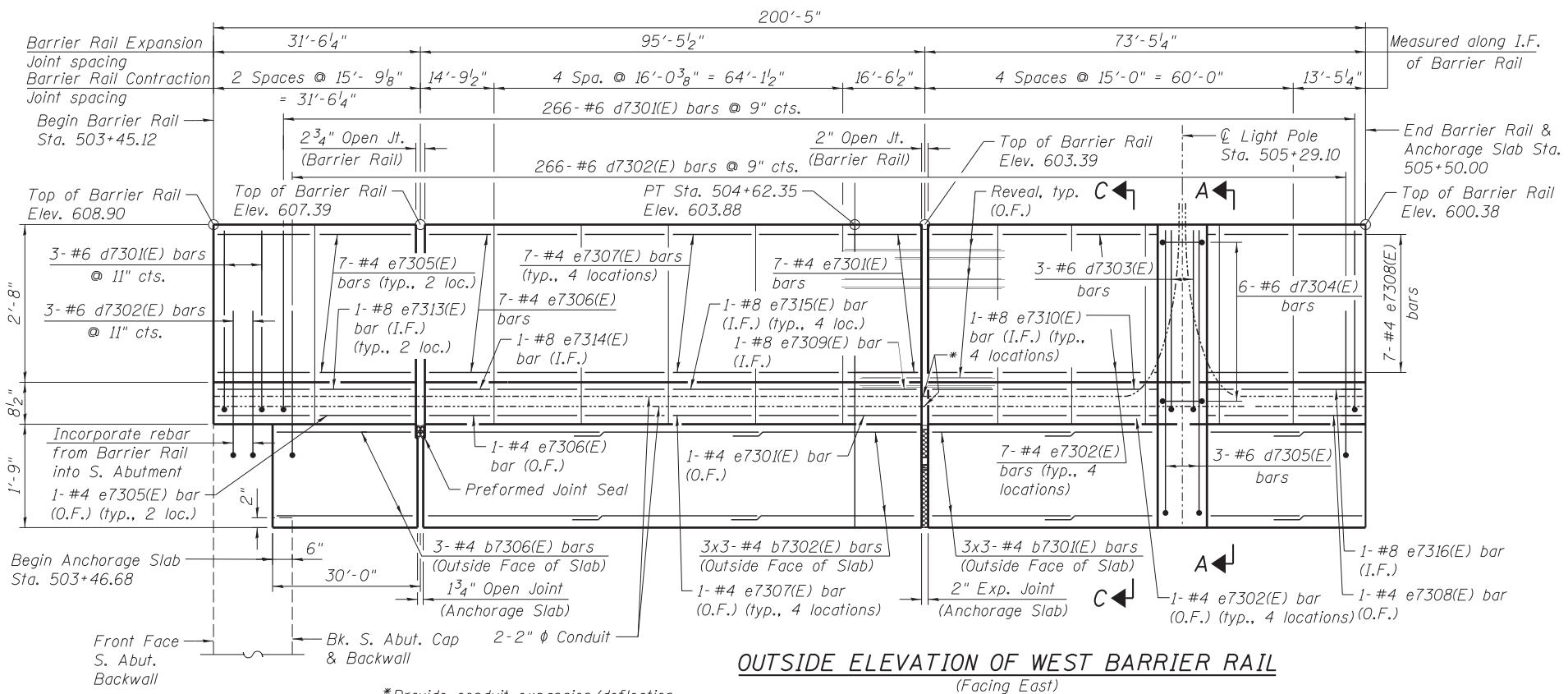
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST BARRIER RAIL & ANCHORAGE SLAB - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 763
CONTRACT NO. 60X07				

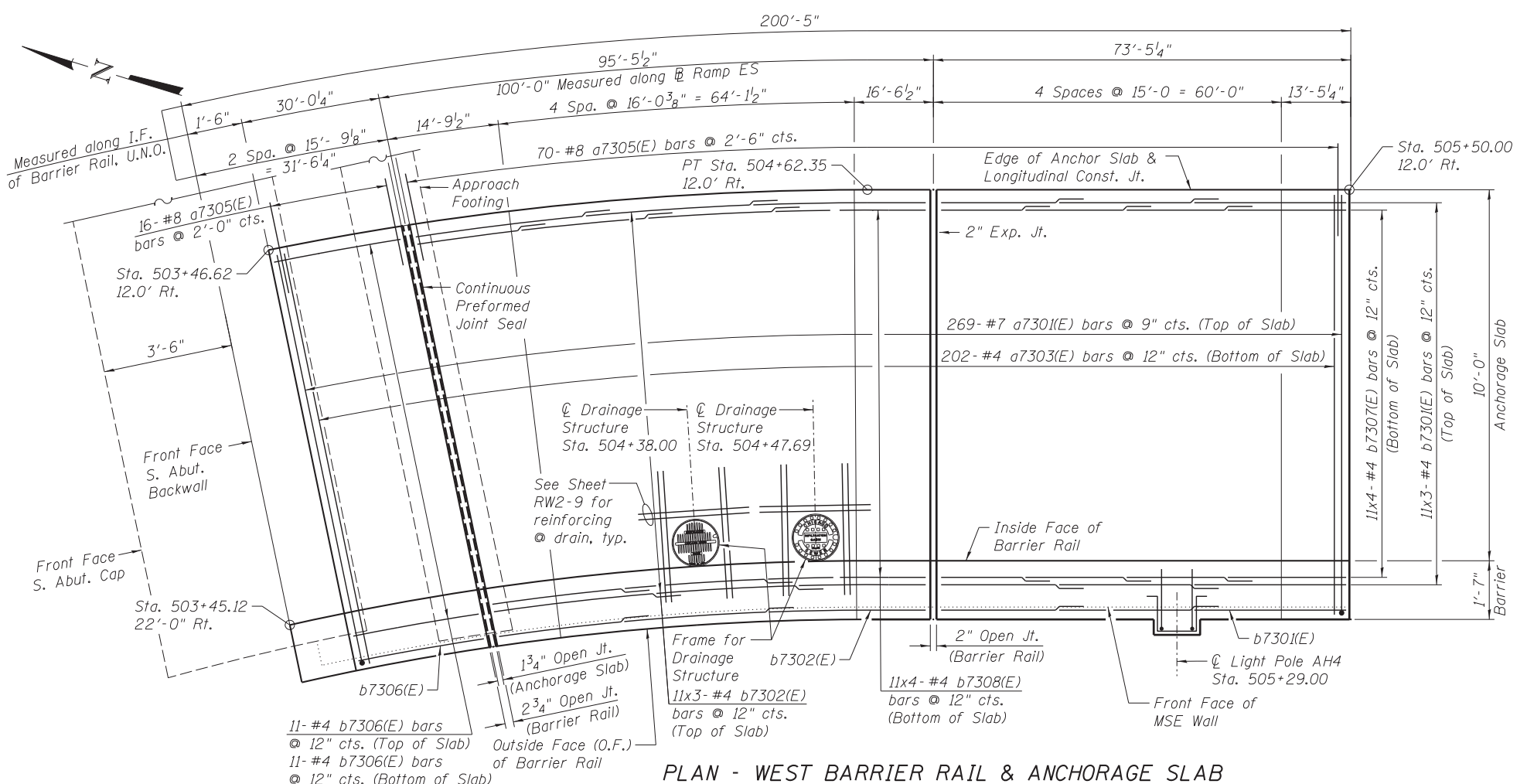
SHEET NO. RW2-7 OF RW2-14 SHEETS

ILLINOIS FED. AID PROJECT



OUTSIDE ELEVATION OF WEST BARRIER RAIL
(Facing East)

*Provide conduit expansion/deflection fitting at all expansion joints.



PLAN - WEST BARRIER RAIL & ANCHORAGE SLAB

MIN. BAR LAPS
#4 bars = 2'-7"

NOTES:

1. For Barrier Rail & Anchorage Slab Joint Details & Section C-C see Sheet RW2-9.
2. For South Approach Slab Preformed Joint Seal details see Sheet S-91.
3. Bars noted thus, 11x3-#4 indicates 11 lines of #4 bars with 3 lengths per line.
4. 2" min. clear cover typical unless noted otherwise.
5. Preformed Joint Seal and 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 503+46.55) and Bridge Approach Pavement Connector (PCC) (Sta. 503+76.55).
6. For South Abutment Plan and details see Sheets S-155 & S-156.
7. For catch basin size & type see Drainage Plans.

8_0160773_60X07_WBarrierRail.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

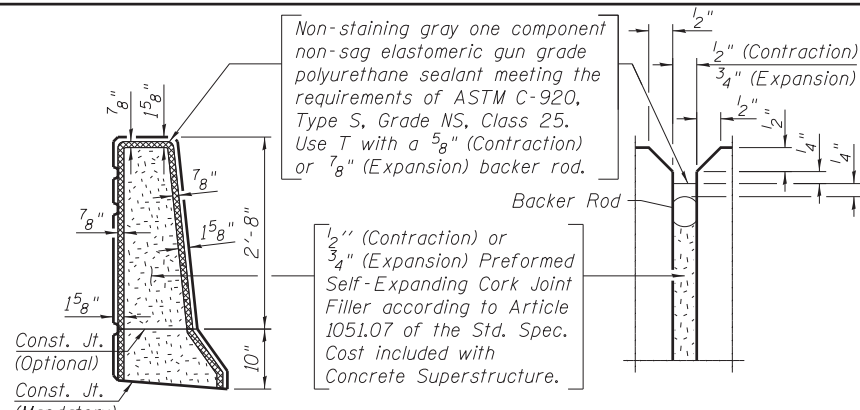
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BARRIER RAIL & ANCHORAGE SLAB - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 764
CONTRACT NO. 60X07				

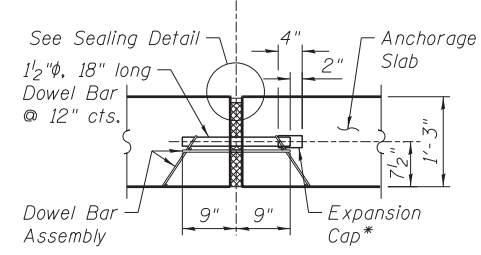
SHEET NO. RW2-8 OF RW2-14 SHEETS

ILLINOIS FED. AID PROJECT



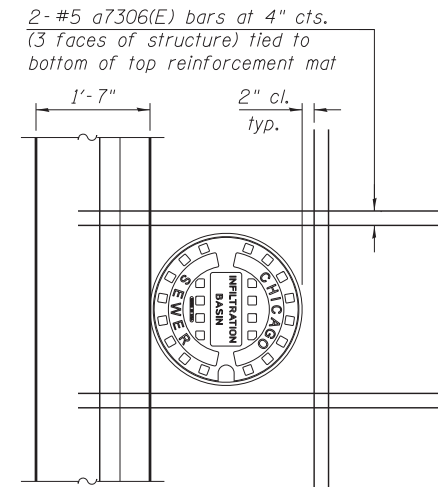
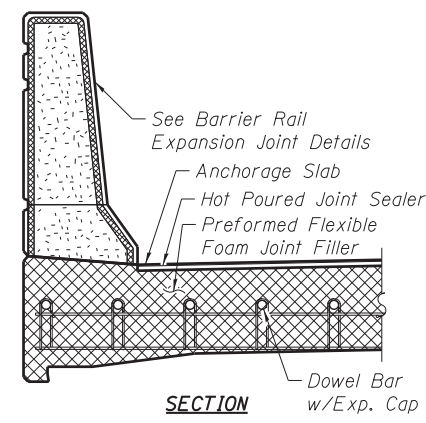
BARRIER RAIL JOINT DETAILS

* Expansion caps shall be installed on the exposed end of each dowel bar once header has been removed and the joint filler material has been installed.



ANCHORAGE SLAB TO ANCHORAGE SLAB TRANSVERSE EXPANSION JOINT

Expansion Joint Filler, Sealer, Dowel Bars, Dowel Bar Assembly, and Expansion Caps included in cost of Concrete Superstructure



PLAN @ DRAINAGE STRUCTURE

Note: Cut longitudinal reinforcement to clear catch basins and inlets.

A DIMENSIONS

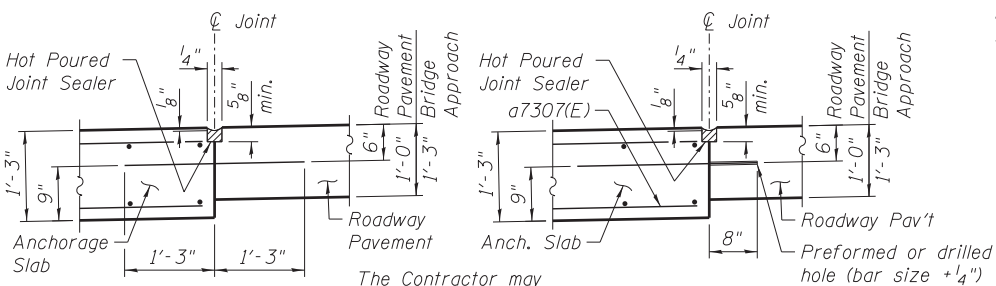
Bar	A
a7301(E)	11'-4"
a7302(E)	7'-4"

B DIMENSIONS

Bar	B
a7303(E)	9'-0"
a7304(E)	5'-0"

BARS a7301(E) & a7302(E)

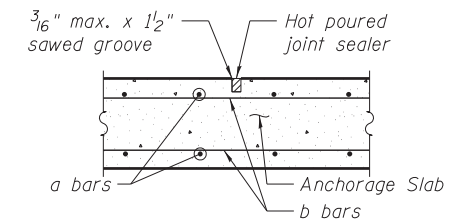
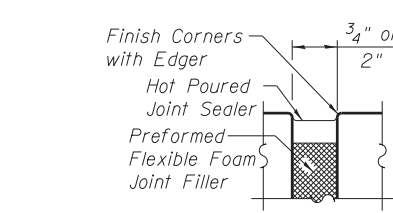
BARS a7303(E) & a7304(E)



The Contractor may substitute grout in place tie bars. The bar length can be reduced by 6".

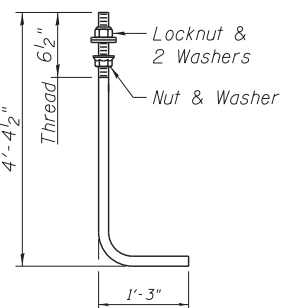
LONGITUDINAL CONSTRUCTION JOINT

See Article 420.05 & 420.12 of the Standard Specifications.



CONTRACTION JOINT

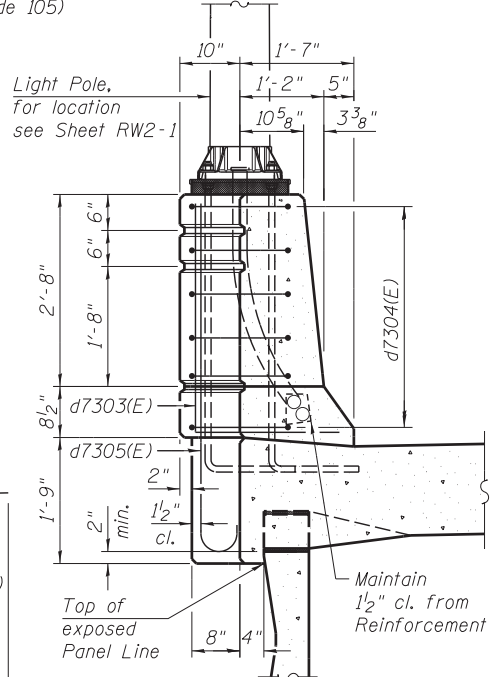
See Article 420.05 & 420.12 of the Standard Specifications.



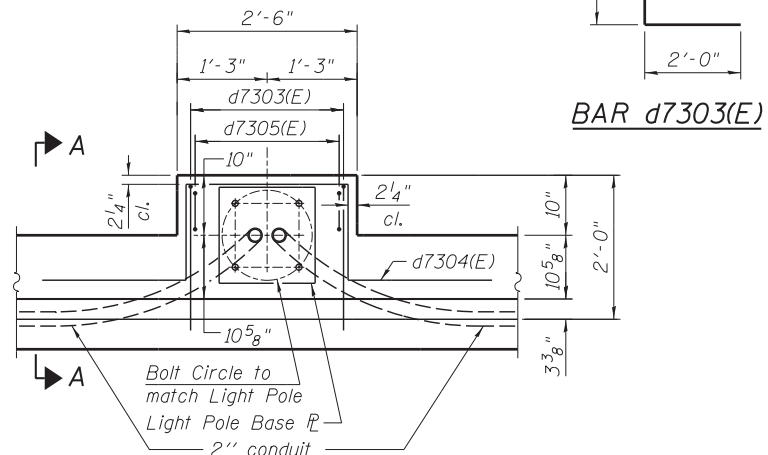
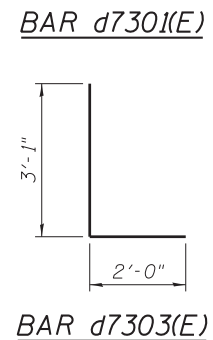
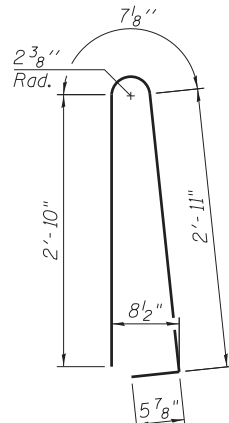
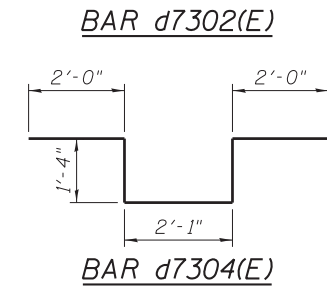
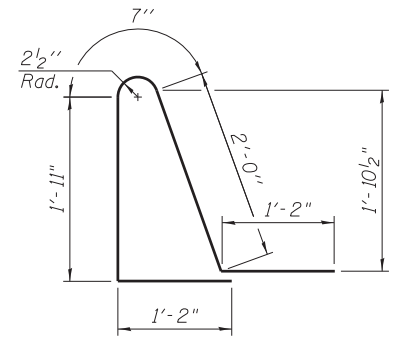
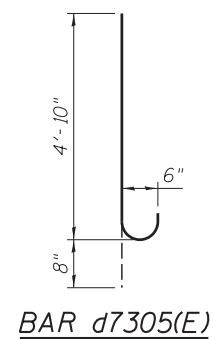
ANCHOR ROD
Diameter as specified for light poles. (ASTM F 1554 Grade 105)

NOTES:

- See Sheets S-91 & S-92 for South Approach Slab details and civil plans for roadway details.
- See Sheet RW2-3 for limits of Bridge Deck Grooving (Longitudinal) & Protective Coat. Apply Protective Coat after Bridge Deck Grooving is complete.



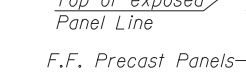
SECTION A-A
Barrier Rail/Anchorage Slab reinforcing not shown for clarity.



PLAN AT LIGHT POLE
Cost of Anchor Rods is included with Concrete Superstructure.

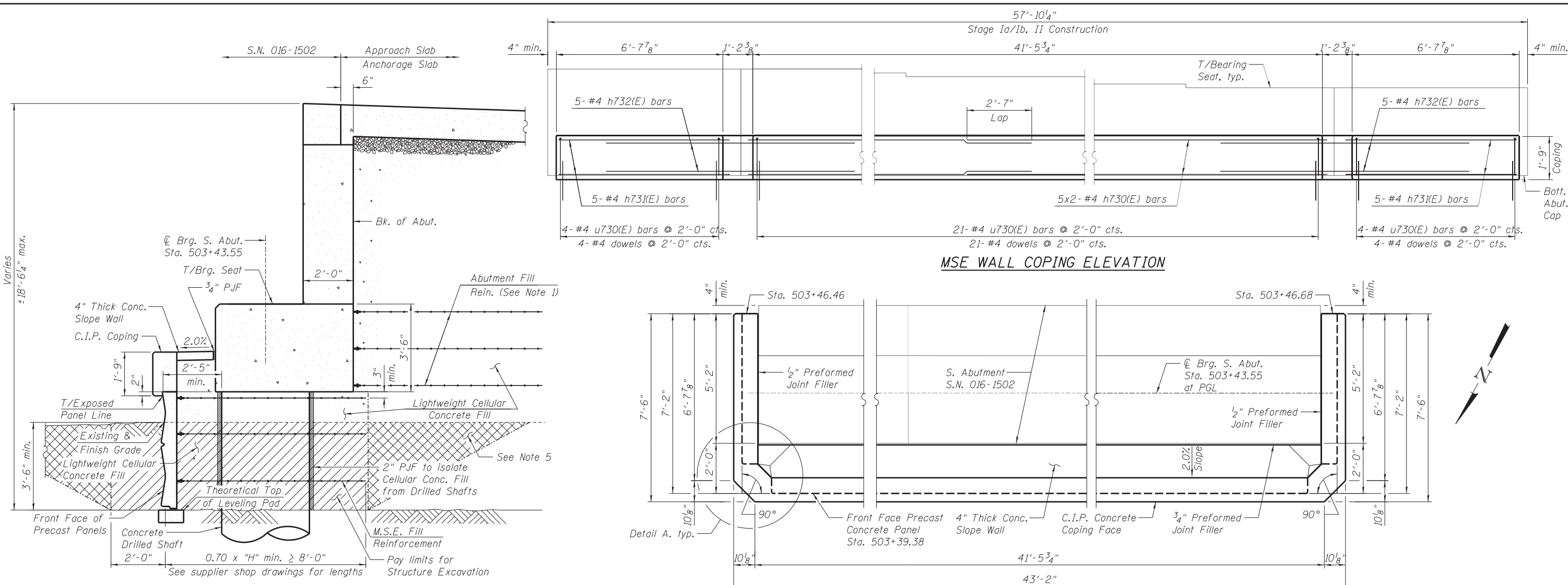
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7301(E)	269	#7	12'-6"	┌
a7302(E)	346	#7	8'-6"	┌
a7303(E)	202	#4	11'-4"	┌
a7304(E)	260	#4	7'-4"	┌
a7305(E)	194	#8	2'-6"	┌
a7306(E)	12	#5	4'-0"	┌
b7301(E)	42	#4	26'-1"	┌
b7302(E)	42	#4	34'-2"	┌
b7303(E)	30	#4	31'-9"	┌
b7304(E)	30	#4	36'-3"	┌
b7305(E)	17	#4	33'-2"	┌
b7306(E)	42	#4	29'-9"	┌
b7307(E)	44	#4	20'-3"	┌
b7308(E)	44	#4	26'-3"	┌
b7309(E)	28	#4	27'-9"	┌
b7310(E)	28	#4	24'-4"	┌
d7301(E)	615	#6	6'-10"	┌
d7302(E)	615	#6	6'-10"	┌
d7303(E)	3	#6	5'-1"	┌
d7304(E)	6	#6	8'-9"	┌
d7305(E)	3	#6	5'-6"	┌
e7301(E)	40	#4	16'-3"	┌
e7302(E)	64	#4	14'-7"	┌
e7303(E)	32	#4	16'-9"	┌
e7304(E)	8	#4	17'-9"	┌
e7305(E)	32	#4	15'-4"	┌
e7306(E)	8	#4	14'-4"	┌
e7307(E)	32	#4	15'-7"	┌
e7308(E)	8	#4	13'-1"	┌
e7309(E)	4	#8	16'-3"	┌
e7310(E)	8	#8	14'-7"	┌
e7311(E)	4	#8	16'-9"	┌
e7312(E)	1	#8	17'-9"	┌
e7313(E)	1	#8	15'-4"	┌
e7314(E)	1	#8	14'-4"	┌
e7315(E)	4	#8	15'-7"	┌
e7316(E)	1	#8	13'-1"	┌
Protective Coat		Sq. Yd.	649	
Concrete Superstructure		Cu. Yd.	277.2	
Reinforcement Bars, Epoxy Coated		Pound	39,910	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	343	

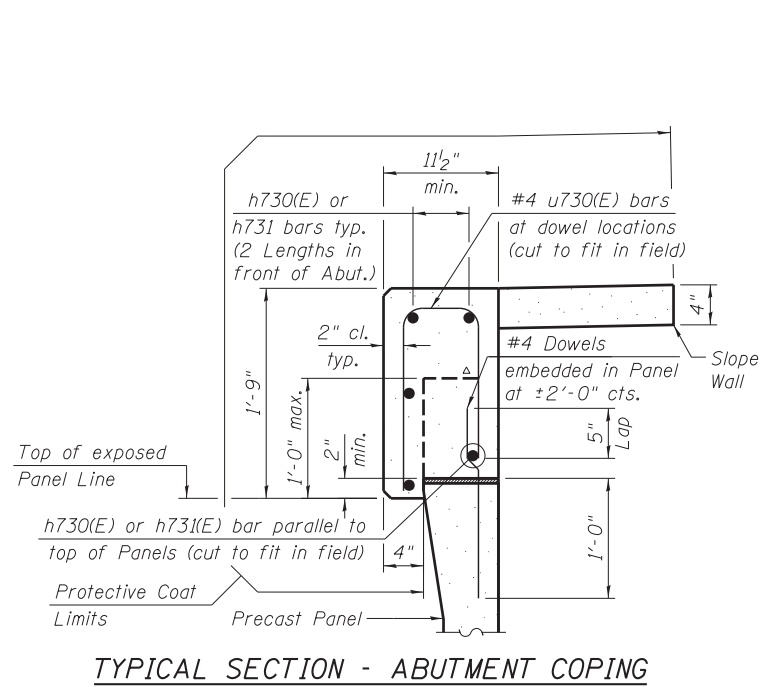


SECTION C-C
(Sheet RW2-7 and RW2-8)

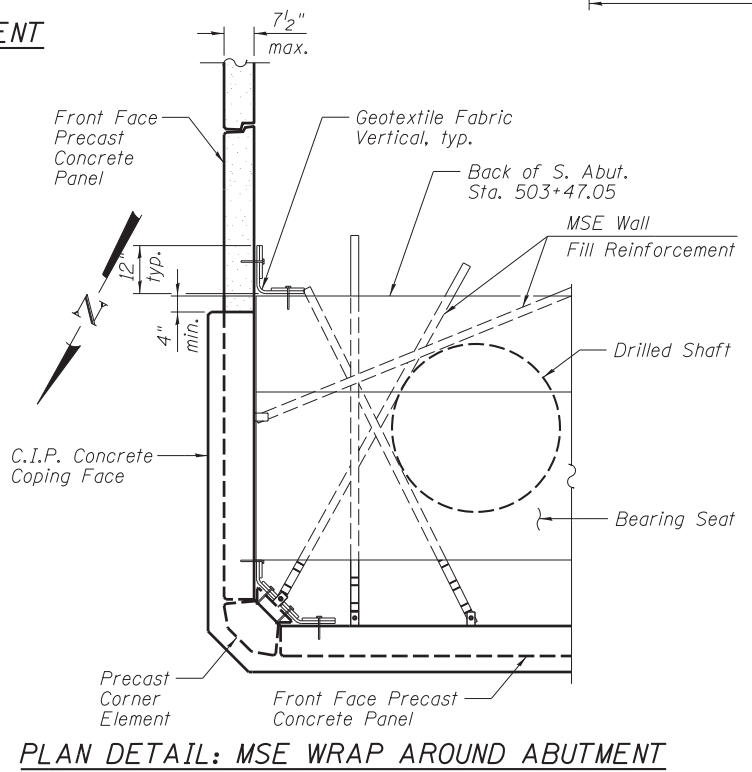
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PLOT SCALE =	CHECKED - PH	REVISIONS -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISIONS -
	CHECKED - PH	REVISIONS -



TYPICAL SECTION THRU ABUTMENT
Station and Elevation shown at PGL



TYPICAL SECTION - ABUTMENT COPING



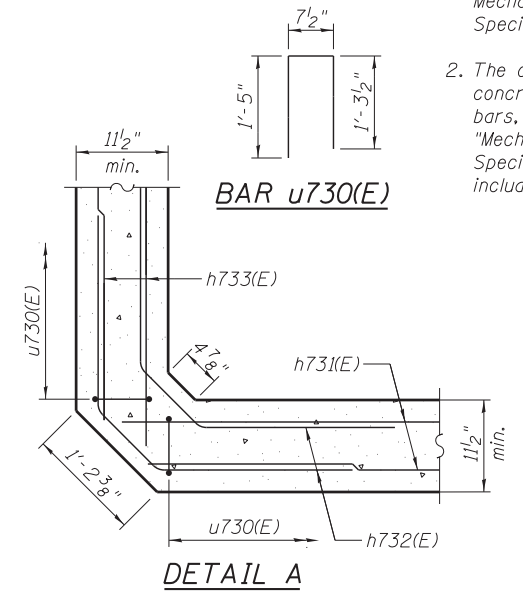
PLAN DETAIL: MSE WRAP AROUND ABUTMENT

MSE WALL COPING PLAN

NOTES:

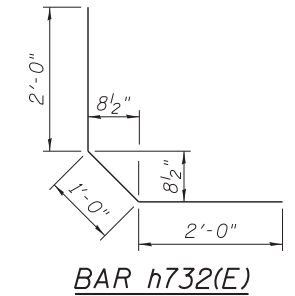
1. The MSE wall supplier shall design the abutment fill reinforcement to resist a horizontal force of 4.63 k/ft of abutment. Cost included in cost of Mechanically Stabilized Earth Retaining Wall, Special.
2. The costs of 4" thick slope wall, cast-in-place concrete coping, geotextile fabric, reinforcement bars, & dowel bars are included in cost of "Mechanically Stabilized Earth Retaining Wall, Special". The costs of preformed joint filler is included in cost of "Concrete Superstructure".
3. For South Abutment Plan and details see Sheets S-155 & S-156.
4. The Contractor may substitute a precast coping at their own expense, the details of which must be included in the shop plans and approved by the Engineer.
5. Overexcavation beyond pay limits for Structure Excavation shall not be measured for payment. Additional Lightweight Cellular Concrete Fill in overexcavation area also shall not be measured for payment.

BAR u730(E)



DETAIL A

BAR h732(E)



****MSE WALL COPING BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h730(E)	10	#4	22'-8"	—
h731(E)	10	#4	6'-2"	—
h732(E)	10	#4	5'-0"	∩
u730(E)	29	#4	3'-4"	⊔

** For information only

MIN. BAR LAP
#4 Bars - 2'-7"

10_0160773_60X07_WrapAround.dgn



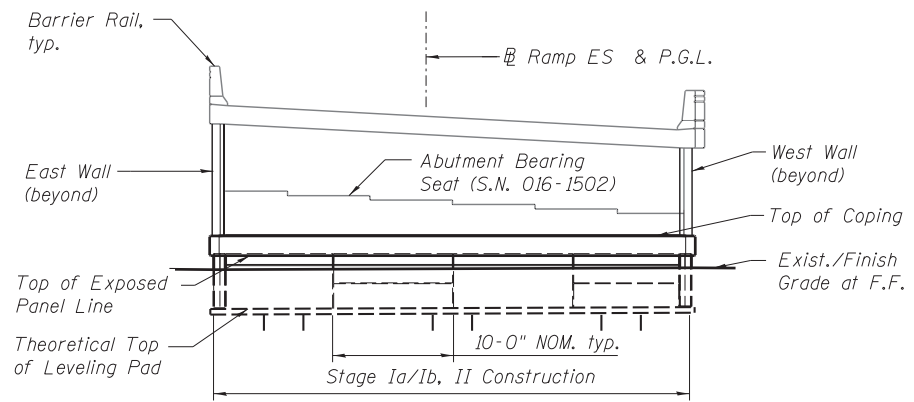
USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

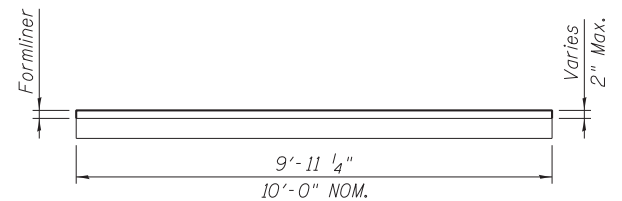
MSE WRAP AROUND DETAILS - S.N.016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. R.T.E. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 766
CONTRACT NO. 60X07			ILLINOIS FED. AID PROJECT	

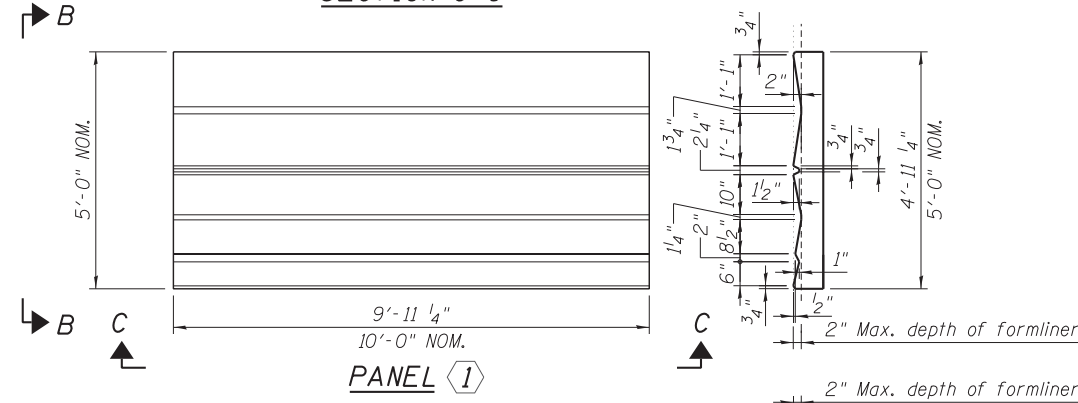
SHEET NO. RW2-100 OF RW2-14 SHEETS



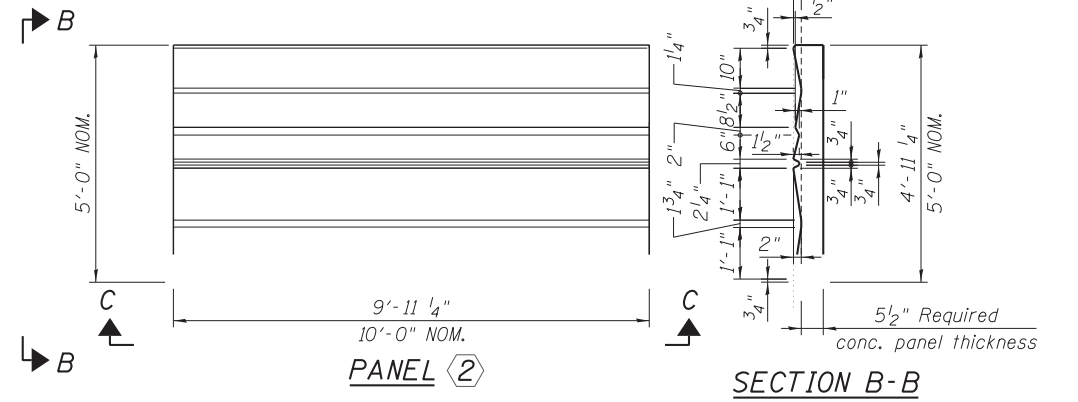
**NORTH WALL ELEVATION
TYP. PRECAST CONCRETE PANEL LAYOUT**



SECTION C-C



PANEL ①

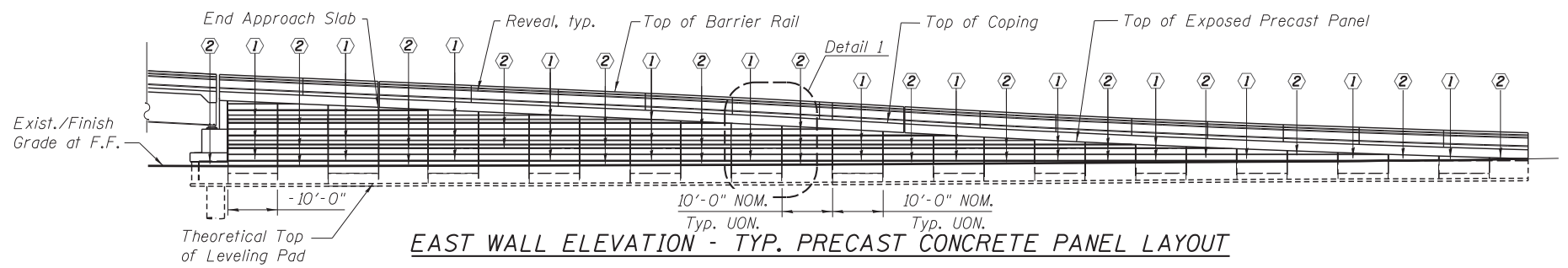


PANEL ②

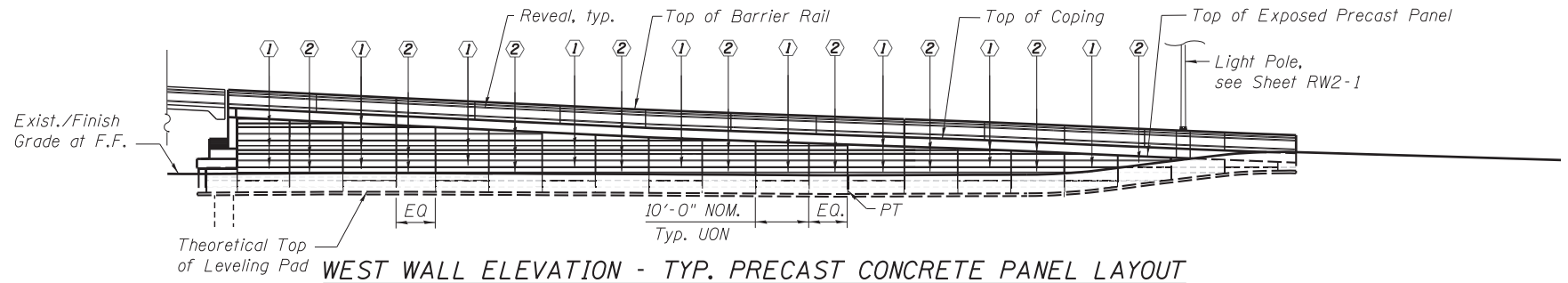
SECTION B-B

PRECAST CONCRETE PANEL ARCHITECTURAL TREATMENT - FORMLINER

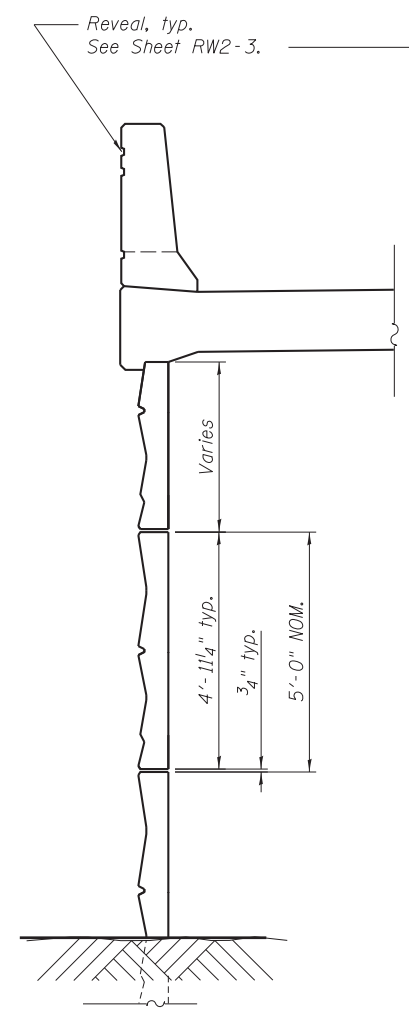
- NOTES:**
- Formliner for precast panels will not be paid separately and will be included in the cost of the pay item "Mechanically Stabilized Earth Retaining Wall, Special".
 - Typical layout of precast panels and formliner details are shown on this drawing. For MSE Wall, Special see Sheets RW2-1 and RW2-2.
 - Formliner texture to be smooth.
 - Line up the pattern of concrete precast panel formliner at east and west wall with pattern of concrete precast panels at north wall.



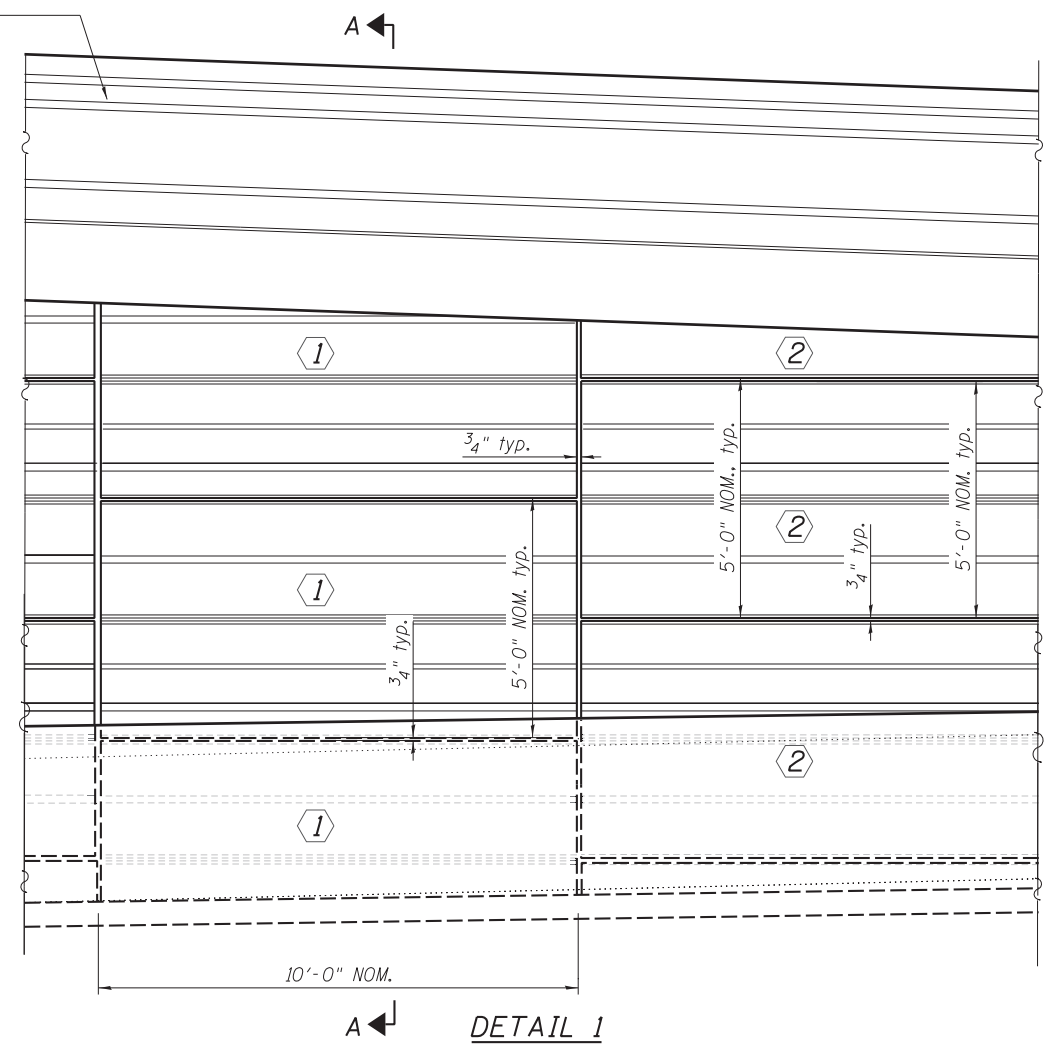
EAST WALL ELEVATION - TYP. PRECAST CONCRETE PANEL LAYOUT



WEST WALL ELEVATION - TYP. PRECAST CONCRETE PANEL LAYOUT



SECTION A-A



DETAIL 1

11.0160733.60X07_ArcnDet-1-Adgn



USER NAME = RistovskaM	DESIGNED - MR	REVISED -
	CHECKED - PH	REVISED -
PLOT SCALE =	DRAWN - MR	REVISED -
PLOT DATE = 5/26/2015	CHECKED - ME	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARCHITECTURAL DETAILS - S.N. 016-0773
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

F.A.I. RTE. 55	SECTION 2013-049B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 767
				CONTRACT NO. 60X07

SHEET NO. RW2-11 OF RW2-14 SHEETS

ILLINOIS FED. AID PROJECT



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 4/17/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-0773 DRILLED BY STRATA - BAKER

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Boring No.	Station	Offset	Surface Elev.	DEPTH	BLWS	Qu	W	Surface Water Elev.	Groundwater Elev.	DEPTH	BLWS	Qu	W
MSE-05	504+70.59	7.93ft LT	591.35 ft					None					
				1	1	17.3		565.85		7	7	21.0	
				1	1					9	5.1S	18.7	
				3	3					12			
				2	3	20.3				6	3.6S	15.8	
				3	3					12			
				3	3					14			
				-5	ST	0.54*	31.3			-30	4	1.8B	19.3
					ST		39.2				6		
											12		
					2	39.3							
					1								
					1								
				-10	ST		24.3			-35	4	3.9B	21.0
											8		
											10		
			579.35										
					5	26.3							
					8								
					4								
				-15	1	27.3				-40	4	3.0B	21.0
					1						7		
					1						10		
					1	20.3		548.35					
					1								
					1								
				-20	1	31.3				-45	3	.7B	21.5
					2	73.4					4		
					3						5		
					2	117.8							
					6	25.3							
					7								
				-25						-50			

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 4/17/13

STRUCTURE NO. 016-0773

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Boring No.	Station	Offset	Elevation	DEPTH	BLWS	Qu	W
MSE-05	504+70.59	7.93ft LT	541.35 ft				
					3	.8B	24.6
					6		
					7		
				-55	WDH	.9B	25.4
					4		
					3		
				-60	WDH	.5B	20.8
					5		
					4		
			528.35				
			527.85		125	10.6	
				-65			

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

12-0160773_60X07_BOR1.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
CHECKED - PH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 5/26/2015	CHECKED - PH	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS I - S.N. 016-0773 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW2-12 OF RW2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	768
CONTRACT NO. 60X07				
ILLINOIS FED. AID PROJECT				

AECOM PROJ NO. 60225454

Date 3/20/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)

SECT. 2013-049B STRUCT. NO. 016-0773 DRILLED BY STRATA - ULLRICH

COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth (ft), Description, Blows (DPT), SPT (N), Qu (tsf), W (%)

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

AECOM PROJ NO. 60225454

Date 3/20/13

STRUCTURE NO. 016-0773

ROUTE FAI 55

SECTION 2013-049B

COUNTY COOK

Table with columns: Boring No., Station, Offset, Elevation, Depth (ft), Description, Blows (DPT), SPT (N), Qu (tsf), W (%)

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

14_0160773_60X07_BOR3.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS III - S.N.016-0773 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW2-14 OF RW2-14 SHEETS

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

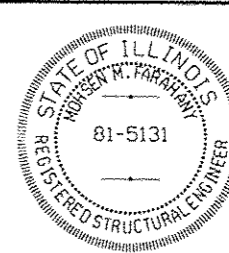
ILLINOIS FED. AID PROJECT

Bench Mark: BM-4, chiseled square on NE corner of crashwall at existing Pier E20, just East of Moe Drive, on existing S.N. 016-1075 carrying NB I-55 to NB L.S.D., Elev. 594.65 (NAVD 88).

Exist. Structure: The East and West Walls and Wall "G" were built in 1965 and carry NB I-55 to NB Lake Shore Drive traffic from S.N. 016-1075 over Lake Shore Drive, Moe Drive, Mines Drive, CNRR, Metra Electric RR and McCormick Place (No salvage) Busway. The East and West Walls, each 116'-3 1/4" in length, are part of a concrete vaulted terminal structure with a 2 span, monolithically built, concrete deck measuring 12 1/2" thick, supported on each side wall of the vault and one longitudinal support girder at and running parallel to the deck's center line all founded on drilled caissons. Wall "G" is a cast in place "T" type wall supported on concrete drilled shafts.

Traffic Control: For Stage Ia/Ib, maintain 2-lanes of EN traffic on west half of existing S.N. 016-1075 vaulted terminal structure during construction of east and a portion of the front MSE wall, temporary MSE wall, and the east anchorage slab and barrier rail of proposed S.N. 016-0778. For Stage II/III maintain 2-lanes of EN traffic on west half of existing S.N. 016-0775. For Stage IV, shift EN traffic & reduce to 1-lane on east half of proposed S.N. 016-1503 during construction of remaining front portion, west MSE wall, and the west anchorage slab and barrier rail of proposed S.N. 016-0778.

Salvage: Existing Wall "G" to remain in place beyond proposed Sta. 209+52.92.



Mohsen M. Farahany
 5-26-2015
 11-30-2016

CURVE DATA RAMP EN
 (@ Ramp EN)

Prop. Curve PR_55NB-1	Prop. Curve PR_55NB-2
P.I. Sta. = 205+10.60	P.I. Sta. = 209+64.80
Δ = 109° 27' 18" (Lt.)	Δ = 4° 11' 16" (Rt.)
D = 10° 31' 56"	D = 2° 33' 08"
R = 544.00'	R = 2,245.00'
T = 769.10'	T = 82.08'
L = 1,039.23'	L = 164.09'
E = 398.05'	E = 1.50'
a. = 5.40%	e. = N.C.
T.R. = N/A	T.R. = N/A
S.E. Run = 105.00'	S.E. Run = N/A
P.C. Sta. = 197+41.50	P.C. Sta. = 208+82.72
P.T. Sta. = 207+80.73	P.T. Sta. = 210+46.80

DESIGN SPECIFICATIONS

2012 AASHTO LRFD
 Bridge Design Specifications,
 6th Edition with 2013 Interim Revisions

DESIGN STRESSES

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

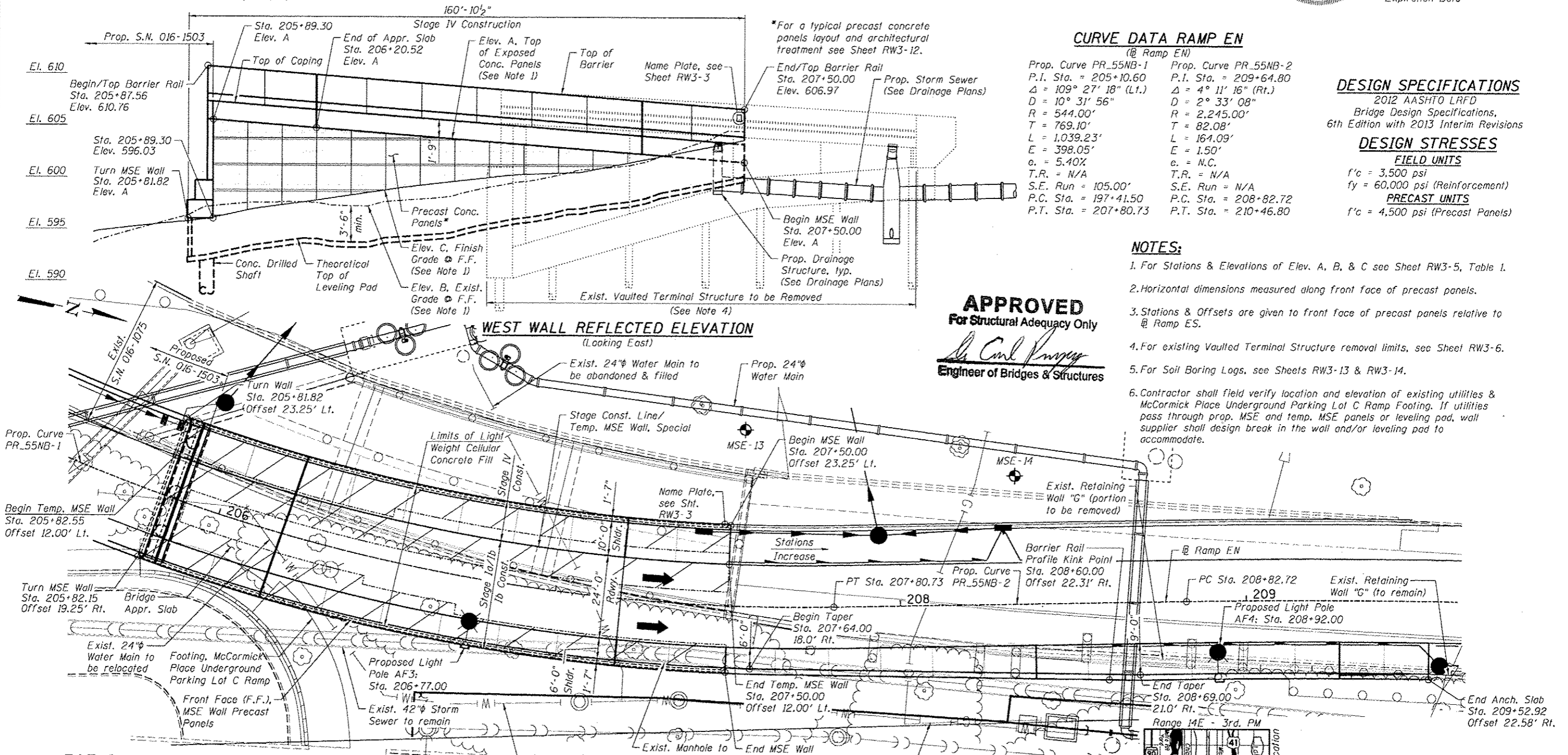
PRECAST UNITS
 f'c = 4,500 psi (Precast Panels)

NOTES:

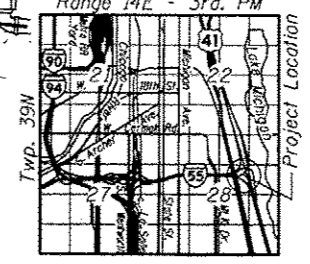
- For Stations & Elevations of Elev. A, B, & C see Sheet RW3-5, Table 1.
- Horizontal dimensions measured along front face of precast panels.
- Stations & Offsets are given to front face of precast panels relative to @ Ramp ES.
- For existing Vaulted Terminal Structure removal limits, see Sheet RW3-6.
- For Soil Boring Logs, see Sheets RW3-13 & RW3-14.
- Contractor shall field verify location and elevation of existing utilities & McCormick Place Underground Parking Lot C Ramp Footing. If utilities pass through prop. MSE and temp. MSE panels or leveling pad, wall supplier shall design break in the wall and/or leveling pad to accommodate.

APPROVED
 For Structural Adequacy Only

Carl Ruppel
 Engineer of Bridges & Structures



PLAN



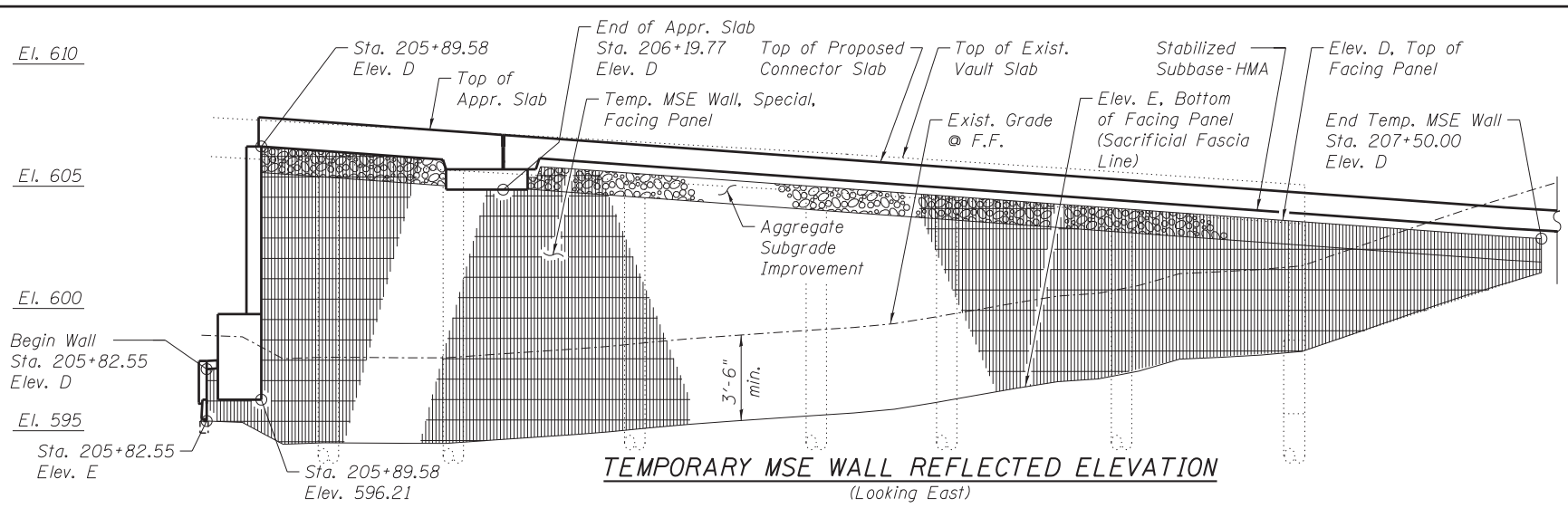
GENERAL PLAN & ELEVATION
 NB I-55 TO NB LAKE SHORE DRIVE
 F.A.I. RTE. 55 - SEC. 2013-049B
 COOK COUNTY
 STA. 205+81.82 TO STA. 207+50.00
 STRUCTURE NO. 016-0778

LEGEND:

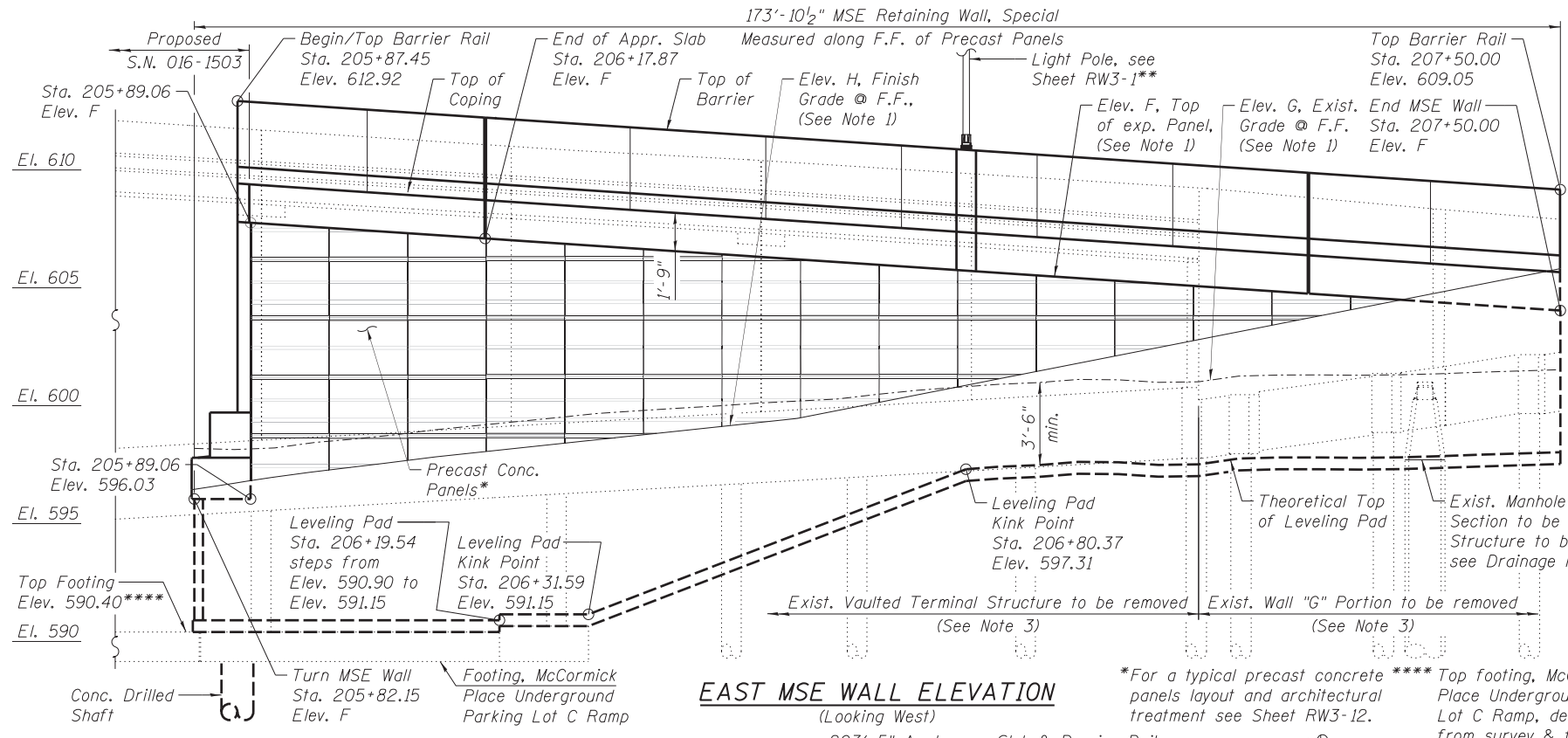
- Limits of Reinforced Fill Mass
- Exist. Gas Line
- Exist. Water Line
- Exist. Storm Sewer
- Exist. Guardrail
- Prop. Storm Sewer
- Prop. Light Pole
- Prop. Catch Basin
- Prop. Manhole
- MSE-13 Soil Boring Location

1:0160778-60X07_CPE.dgn

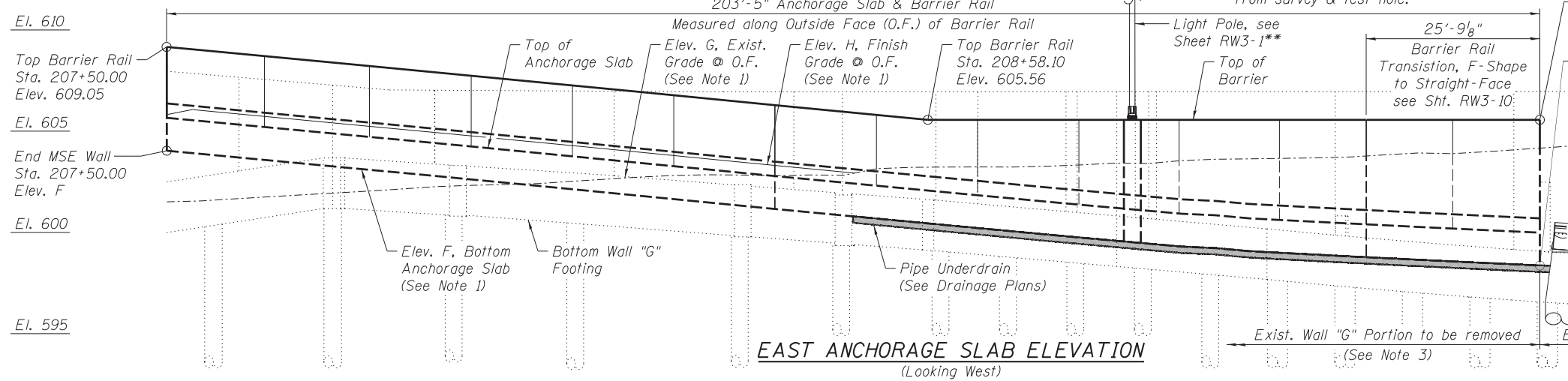
Rubino & Moser Engineers, Inc. 200 E. Morgan Street, Suite 1000, Chicago, IL 60601-2442	USER NAME = Phadina	DESIGNED - EV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)	F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 771
	PLOT SCALE =	CHECKED - PH	REVISED -			SHEET NO. RW3-1 OF RW3-14 SHEETS	CONTRACT NO. 60X07			
	PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -							ILLINOIS FED. AID PROJECT
		CHECKED - PH	REVISED -							



TEMPORARY MSE WALL REFLECTED ELEVATION
(Looking East)



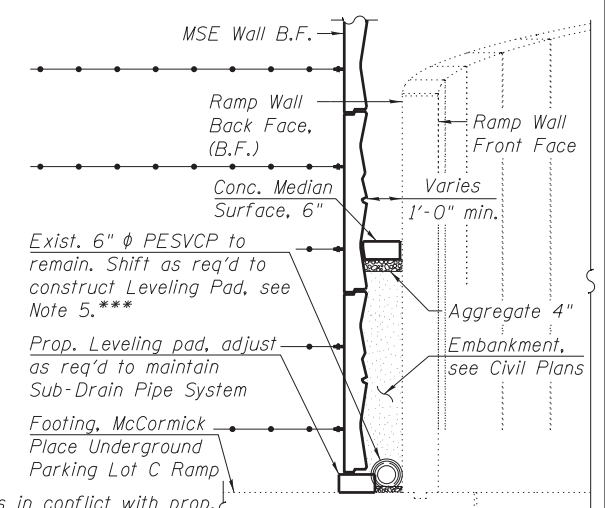
EAST MSE WALL ELEVATION
(Looking West)



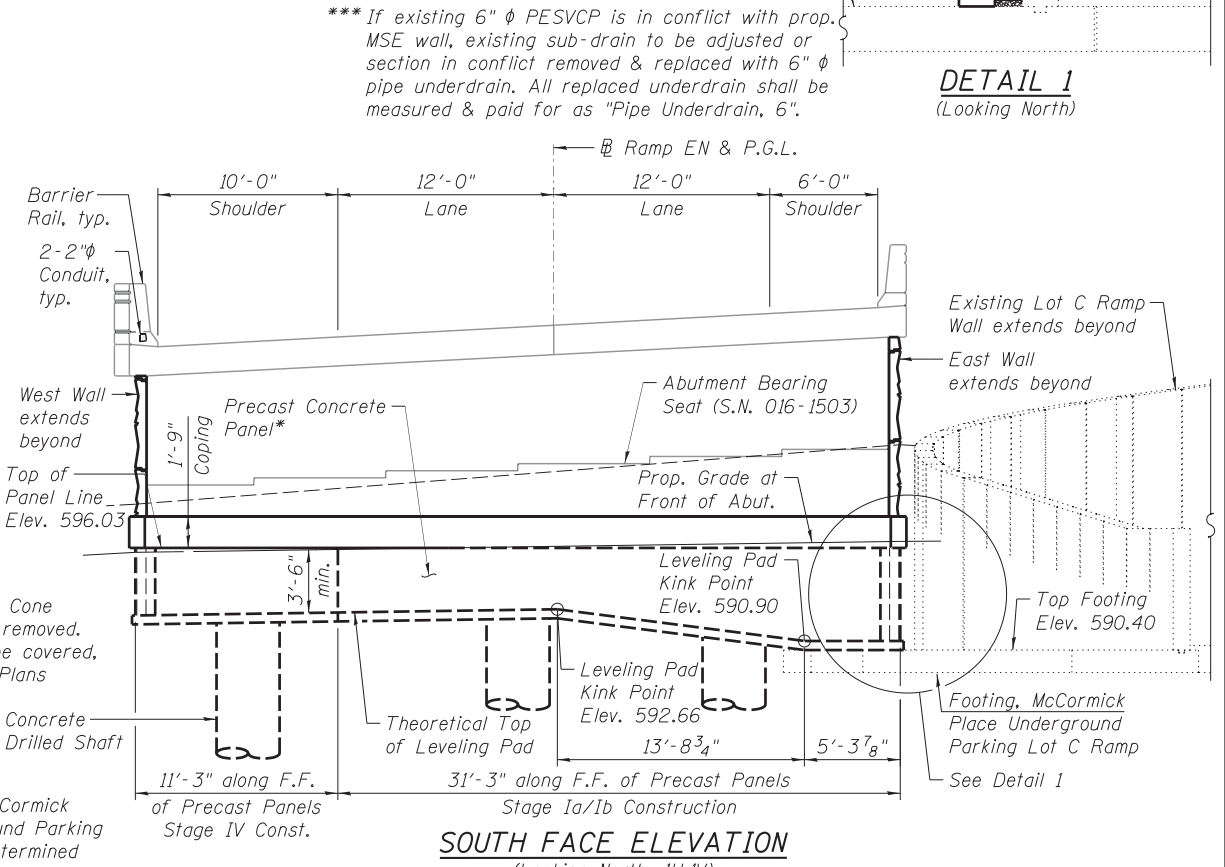
EAST ANCHORAGE SLAB ELEVATION
(Looking West)

NOTES:

1. For Stations and Elevations of Elev. D, E, F, G, & H, see Sheet RW3-5.
2. Anchorage Slabs on West and East sides of Ramp EN end at Sta. 205+89.00 @ Ramp EN where they overlap the abutment backwall by 6". 30' Bridge Approach Slab located between the anchor slabs.
3. For limits of existing Vaulted Terminal Structure & Wall "G" removal, see Sheet RW3-6.
4. Contractor shall field verify location and elevation of existing utilities & McCormick Place Underground Parking Lot C Ramp Footing & existing Sub-Drain Pipe System. Contractor shall provide protection for existing Sub-Drain Pipe System during excavation & construction.
5. The existing Sub-Drain Pipe System behind the existing Ramp Wall must be maintained throughout construction.



DETAIL 1
(Looking North)



SOUTH FACE ELEVATION
(Looking North, IH:IV)

*For a typical precast concrete panels layout and architectural treatment see Sheet RW3-12.
**** Top footing, McCormick Place Underground Parking Lot C Ramp, determined from survey & test hole.

**Aluminum light poles are 10" phi (15" bolt circle), have height of 45'-0", support 6'-8" mast arms, & are mounted east barrier rail only.

2_0160778_60X07_East and Temp.Elev.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH WALL, EAST WALL & TEMPORARY WALL ELEVATION - S.N.016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)

SHEET NO. RW3-2 OF RW3-14 SHEETS

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 772
CONTRACT NO. 60X07				ILLINOIS FED. AID PROJECT

GENERAL NOTES:

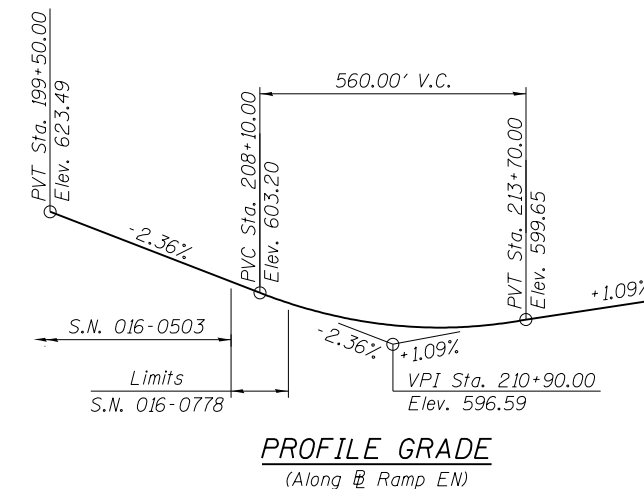
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Slip forming of the barrier rails is not allowed.
3. Protective Coat shall be applied to the designated areas of Anchorage Slabs & Barrier Rails & MSE Wrap Around Coping.
4. Stations & Offsets are measured from the \mathcal{B} of Ramp EN to the Front Face of MSE wall panels.
5. MSE wall supplier shall design MSE Wall, Special & Temporary MSE Wall, Special using granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind granular reinforced mass; an embankment unit weight of 120 lbs/cu. ft & an effective friction angle of 30 degrees shall be used in the wall system design.
6. MSE Supplier to design load transfer systems within reinforced fill mass to accommodate abutment drilled shafts.
7. MSE Wall lengths measured along front face of precast panels unless noted otherwise.
8. Contractor shall field verify location of existing footings & underground utilities & shall take all precautions to protect them during construction of the wall & final condition of the ramp. Any damages to the existing structures shall be the responsibility of the Contractor.
9. Quantity for Lightweight Cellular Concrete Fill includes reinforced fill mass & fill area beneath roadway. Type is specified as Class II Lightweight Fill.
10. See Special Provision For Mechanically Stabilized Earth Retaining Wall, Special & Temporary Mechanically Stabilized Earth Retaining Wall, Special for design & construction requirements.
11. Anchorage Slabs & Barrier Rails shall be paid for as Concrete Superstructure.

INDEX OF SHEETS:

- RW3-1 General Plan & Elevation
- RW3-2 South Wall, East Wall & Temporary Wall Elevation
- RW3-3 Total Bill of Material, Index of Sheets & General Notes
- RW3-4 Stage Construction
- RW3-5 Typical Sections
- RW3-6 Existing Structural Removal
- RW3-7 East Barrier Rail & Anchorage Slab
- RW3-8 West Barrier Rail & Anchorage Slab
- RW3-9 Details I
- RW3-10 Details II
- RW3-11 MSE Wrap Around Details
- RW3-12 Architectural Details
- RW3-13 Boring Logs I
- RW3-14 Boring Logs II

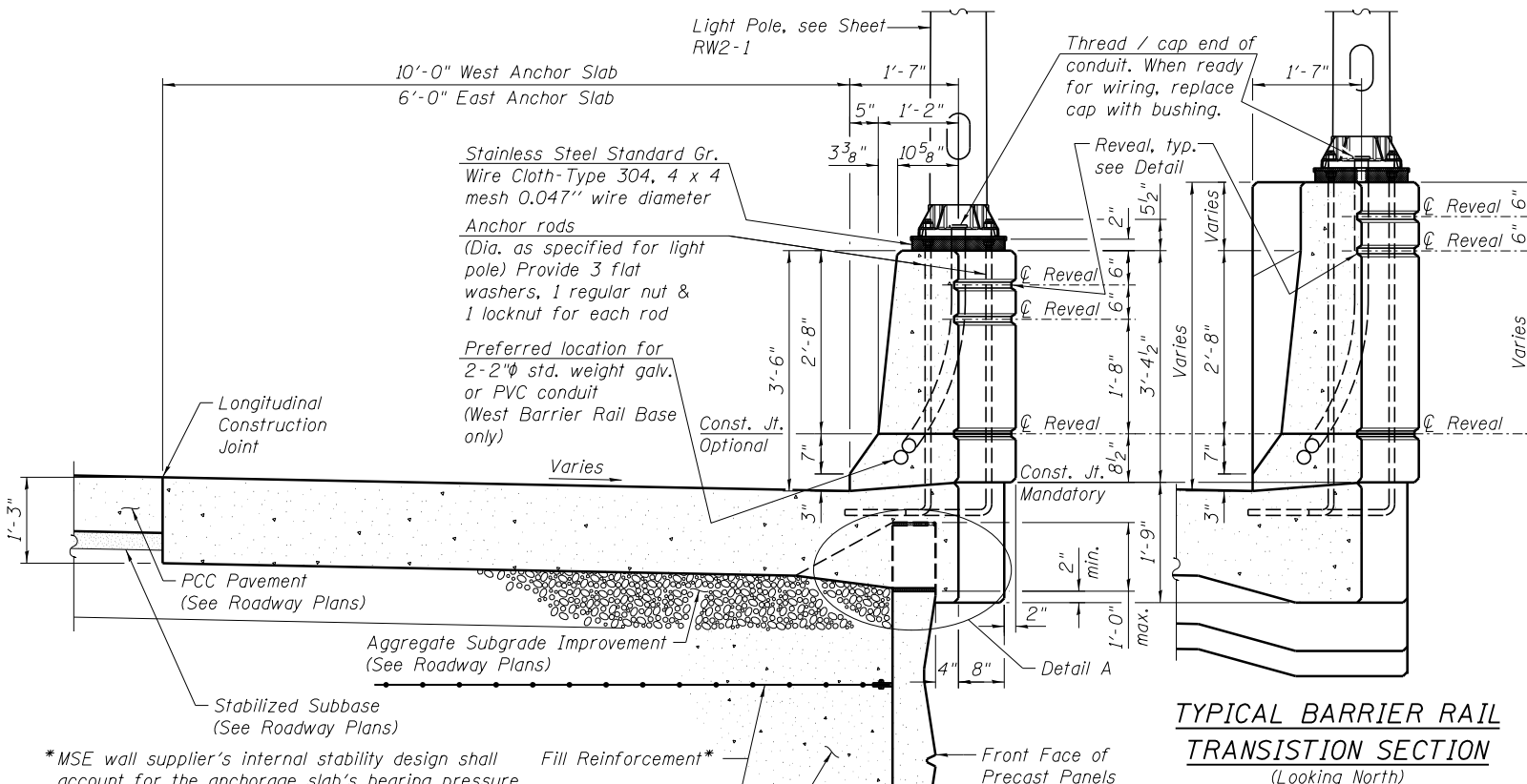
TOTAL BILL OF MATERIAL

Item	Unit	Total
Protective Coat	Sq. Yd.	786
Structure Excavation	Cu. Yd.	1,301
Concrete Superstructure	Cu. Yd.	329.6
Reinforcement Bars, Epoxy Coated	Pound	48,280
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	427
Name Plates	Each	1
Lightweight Cellular Concrete Fill	Cu. Yd.	2,193
Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	3,295
Temporary Mechanically Stabilized Earth Retaining Wall, Special	Sq. Ft.	1,273
Temporary Shoring for Ramp EN Vaulted Terminal Structure	Each	1



SUGGESTED SEQUENCE OF CONSTRUCTION:

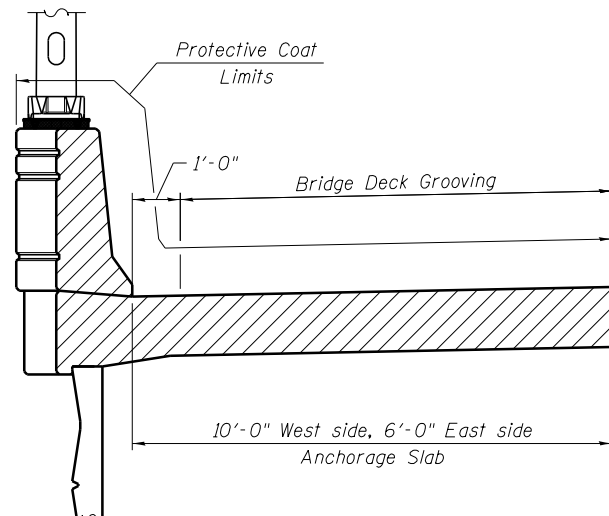
1. Remove portions (Stage Ia/Ib) of existing structure (S.N. 016-1075) and existing Wall "G" as directed.
2. Excavate adjacent to proposed North Abutment drilled shaft locations. Install all drilled shafts (Stage Ia/Ib) for North Abutment of Ramp EN Structure (S.N. 016-1503) & construct North Abutment (Stage Ia) of Ramp EN Structure (S.N. 016-1503).
3. Construct entire East, and a portion of South MSE Wall & entire Temp. MSE Wall elevations (S.N. 016-0778) (Stage Ia/Ib). Fill between East & Temp. MSE Wall faces. Construct East Anchorage Slab & Barrier Rail (S.N. 016-0778) & portion of North Approach Slab (S.N. 016-1503).
4. Remove remaining portion of existing structure (S.N. 016-1075) as directed (Stage IV).
5. Construct remainder of South & entire West MSE Wall (S.N. 016-0778) (Stage IV). Fill between West MSE Wall & Stage Ia Temp. MSE Wall face. Construct West Anchorage Slab & Barrier Rail (S.N. 016-0778).



*MSE wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf & horizontal sliding force of 0.50 k/ft (6'-0" wide Anchor Slab), 0.83 k/ft (10'-0" wide Anchor Slab) of wall.

**Maximum service applied bearing pressure, $Q_{max} = 2,200$ psf

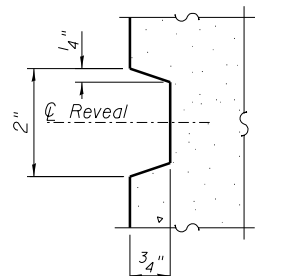
TYPICAL MSE BARRIER RAIL SECTION (Looking North)



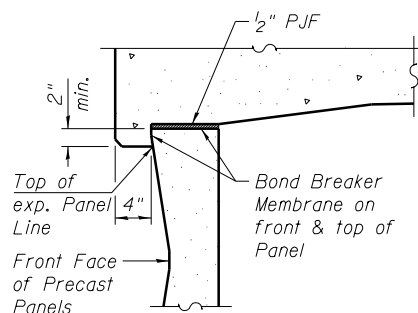
PROTECTIVE COAT & BRIDGE DECK GROOVING LIMITS

ANCHORAGE SLAB PAY ITEM LEGEND

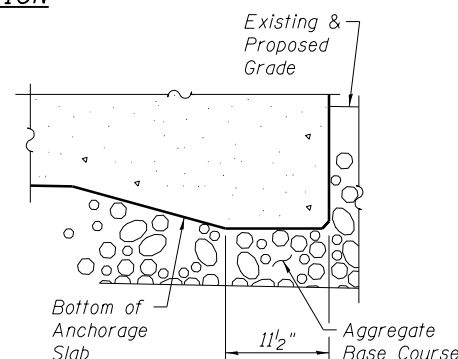
Paid as Concrete Superstructure



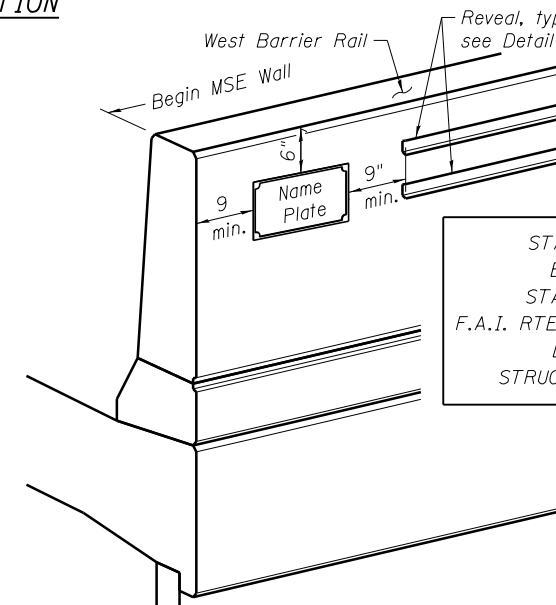
REVEAL DETAIL



MSE WALL DETAIL A



EAST ANCHORAGE SLAB (Beyond East MSE Wall)



NAME PLATE See Std. 515001

STATION 205+81.82
BUILT 201 BY
STATE OF ILLINOIS
F.A.I. RTE. 55 - SEC. 2013-049B
LOADING HL-93
STRUCTURE NO. 016-0778

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MAT'L, INDEX OF SHEETS & GEN. NOTES - S.N. 016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW3-3 OF RW3-14 SHEETS

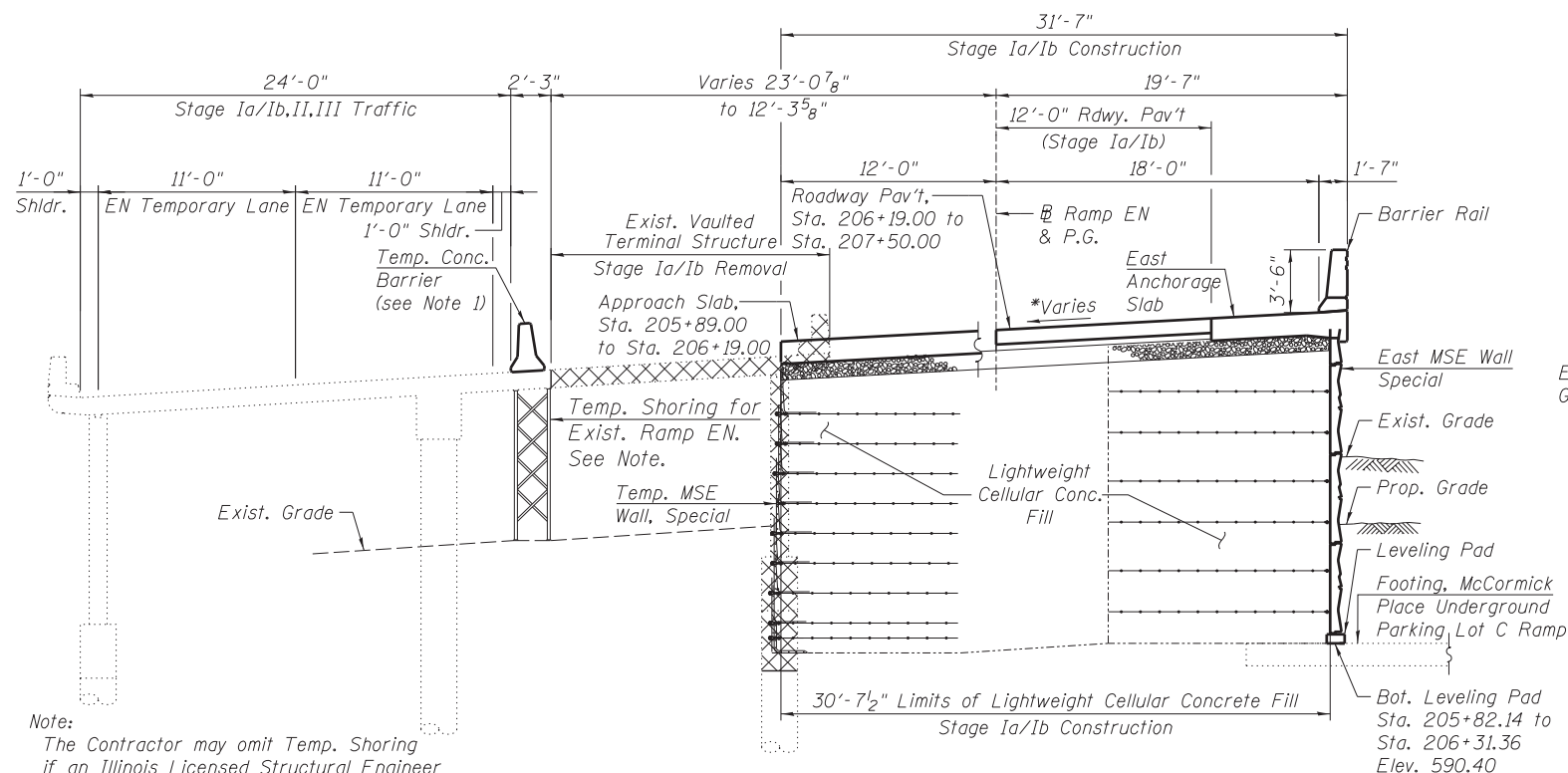
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	773
CONTRACT NO. 60X07				

ILLINOIS FED. AID PROJECT

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RME
Rubinos & Mesia
Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

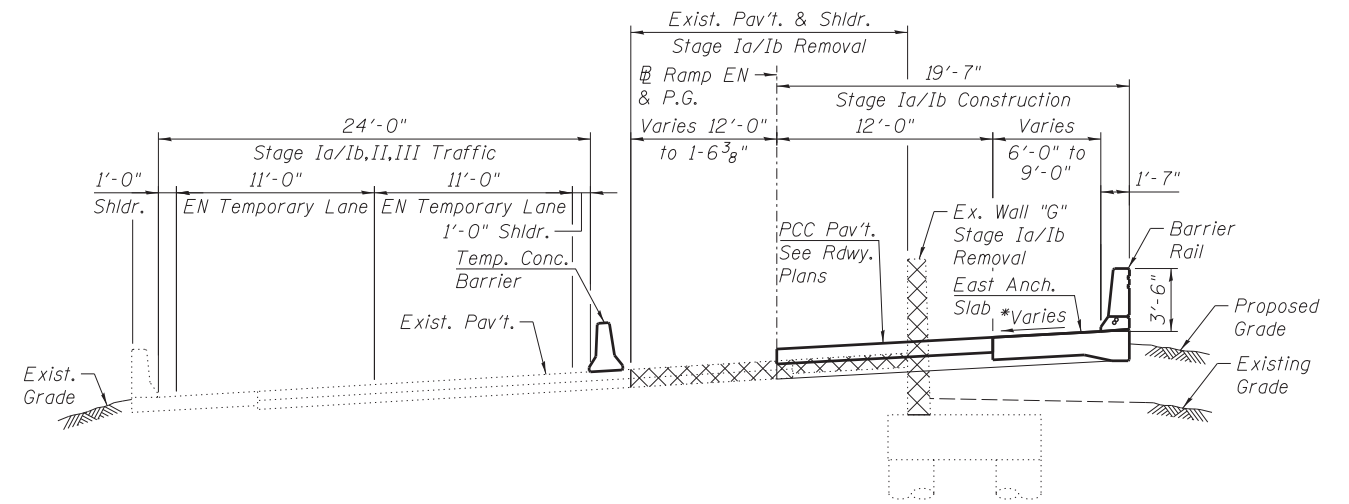
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PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 6/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -



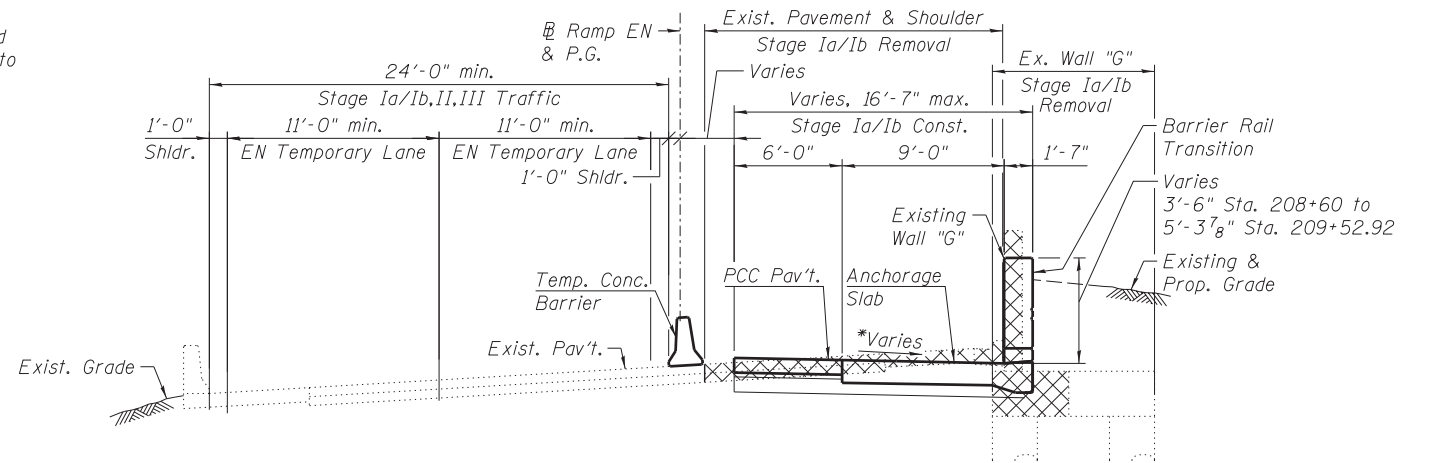
Note:
The Contractor may omit Temp. Shoring if an Illinois Licensed Structural Engineer deems the exist. Ramp EN Vault Slab Overhang structurally adequate. Calculations showing structural adequacy shall be submitted to the Engineer for review & acceptance prior to omission of this Temporary Shoring.

STAGE Ia/Ib,II,III - TYPICAL SECTION
(Sta. 205+82.00 to Sta. 207+50.00)
(Looking North)

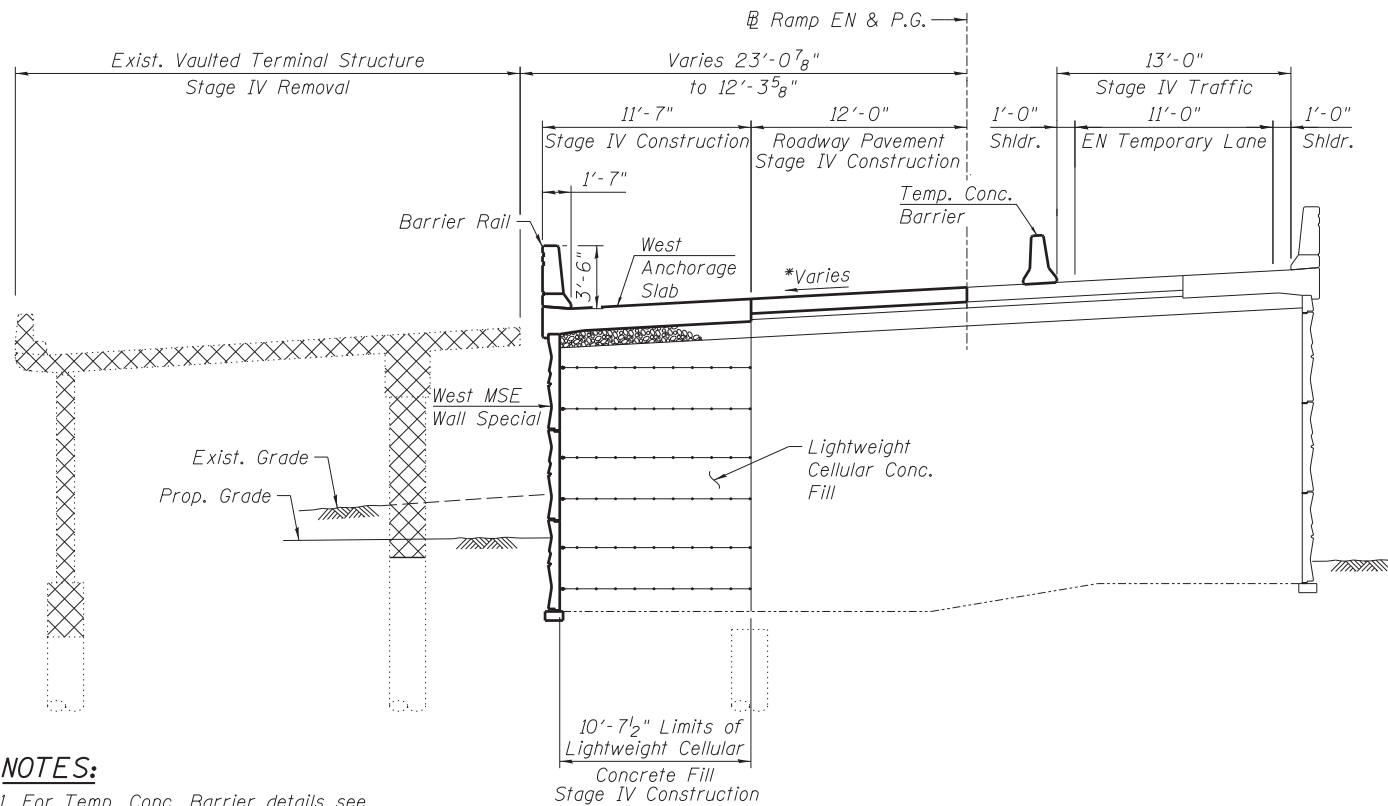
*Varies -5.4% @ Sta. 207+45.89
to 2.5% @ Sta. 208+99.89
2.5% from Sta. 208+99.89
to Sta. 209+52.92



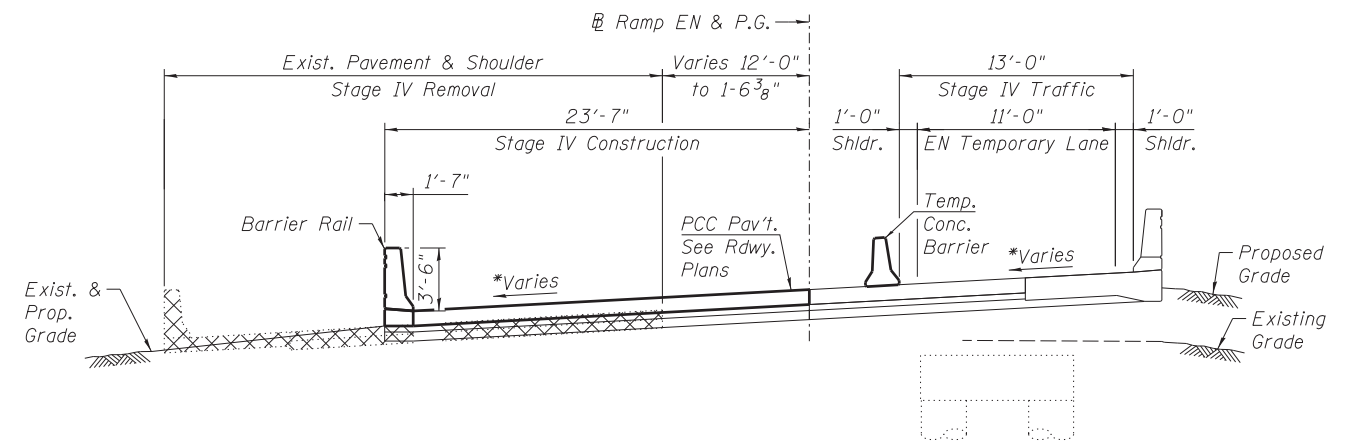
STAGE Ia/Ib,II,III - TYPICAL SECTION
(Sta. 207+50.00 to Sta. 208+69.02)
(Looking North)



STAGE Ia/Ib,II,III - TYPICAL SECTION
(Sta. 208+69.02 to Sta. 209+52.92)
(Looking North)



STAGE IV - TYPICAL SECTION
(Sta. 205+82.00 to Sta. 207+50.00)
(Looking North)



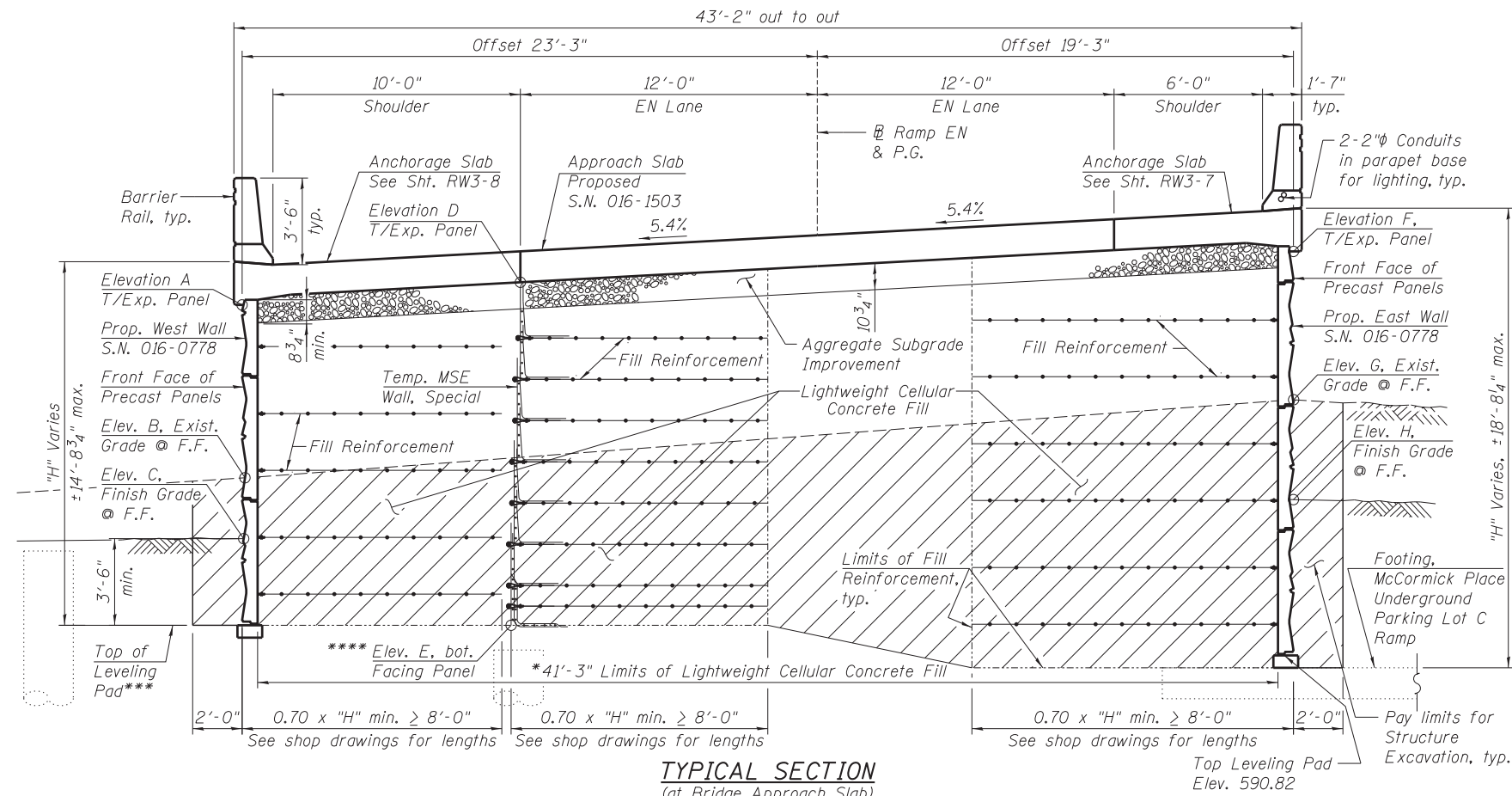
STAGE IV - TYPICAL SECTION
(Sta. 207+50.00 to Sta. 208+69.02)
(Looking North)

NOTES:

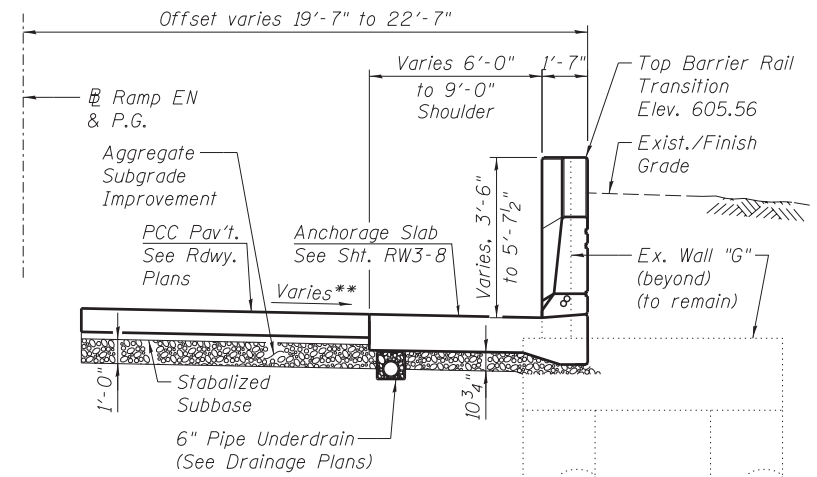
- For Temp. Conc. Barrier details see Sheet S-19. For Temp. Conc. Barrier quantities see Roadway Plans.
- Hatched area indicates removal of Existing Structures.

USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 774
CONTRACT NO. 60X07				ILLINOIS FED. AID PROJECT



TYPICAL SECTION
(at Bridge Approach Slab)
(Sta. 205+89.00 to Sta. 206+19.00)
(Looking North)



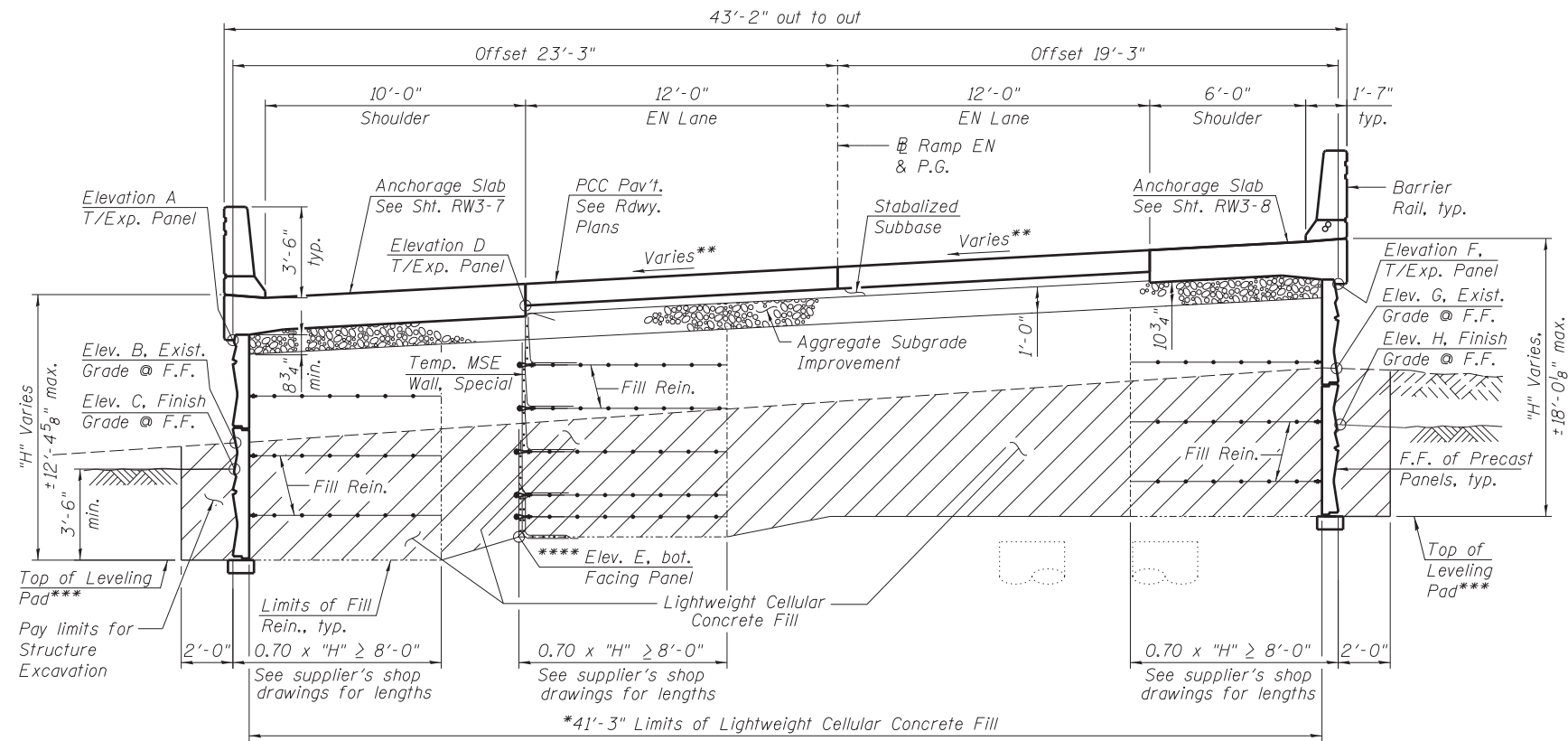
TYPICAL SECTION
(Sta. 207+50.00 to Sta. 209+52.92)
(Looking North)

TABLE 1 (WEST WALL)

Station	Elev. A	Elev. B	Elev. C
205+81.82	596.03	596.35	594.79
205+89.30	605.59	597.22	595.62
206+00.00	605.34	597.57	596.81
206+20.52	604.85	598.19	597.74
206+50.00	604.16	597.84	599.07
207+00.00	602.98	600.26	600.50
207+50.00	601.85	601.97	604.07

TABLE 3 (TEMP. WALL)

Station	Elev. D	Elev. E
205+82.55	597.45	591.29
205+89.58	606.50	592.12
206+00.00	606.25	593.31
206+19.77	605.89	594.23
206+50.00	605.18	595.37
207+00.00	604.00	597.43
207+50.00	602.84	598.17



TYPICAL SECTION
(Sta. 206+19.00 to Sta. 207+50.00)
(Looking North)

TABLE 2 (EAST WALL)

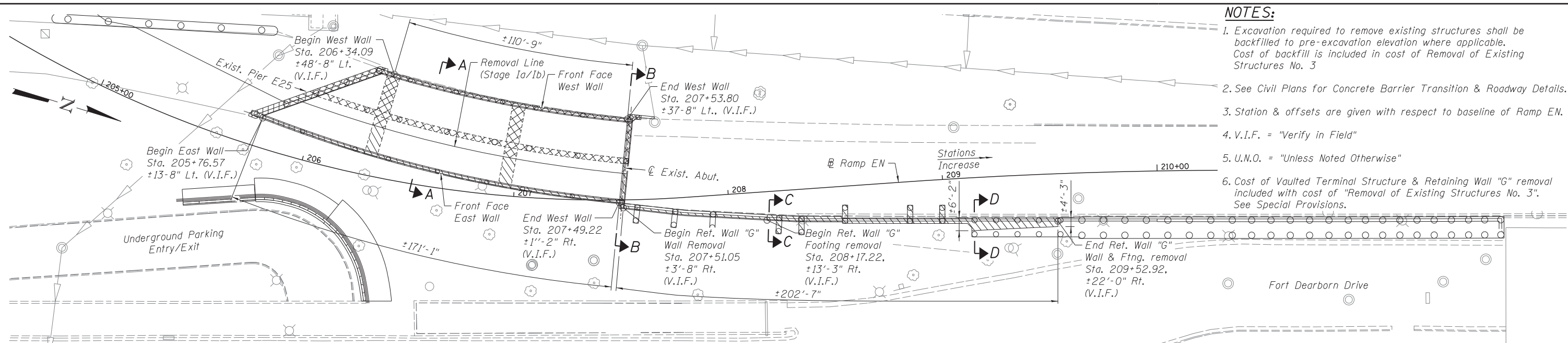
Station	Elev. F	Elev. G	Elev. H
205+82.15	596.03	598.19	596.46
205+89.06	607.76	598.06	596.80
205+89.50	607.75	598.08	596.82
206+00.00	607.50	598.54	597.34
206+17.87	607.08	599.22	598.33
206+50.00	606.32	600.11	600.11
207+00.00	605.14	600.97	600.97
207+50.00	603.92	601.54	605.73
207+63.90	603.47	601.83	605.39
207+80.73	602.92	602.19	604.97
208+00.00	602.31	602.44	604.05
208+50.00	600.69	603.17	603.17
208+58.10	600.44	603.23	602.80
208+69.00	600.10	603.24	603.34
208+82.72	599.72	603.39	603.46
209+00.00	599.17	603.61	603.61
209+50.00	598.35	605.57	603.90
209+52.92	598.30	605.02	603.98

- *Lightweight Cellular Concrete vertical pay limits from bottom of Aggregate Base Course to top of Leveling Pad.
- **Varies -5.4% @ Sta. 207+45.89 to 2.5% @ Sta. 208+99.89 to 2.5% from Sta. 208+99.89 to Sta. 209+52.92
- *** Top of Leveling Pad is 3'-6" min. below lowest of Elev. B or C.
- **** Elevation E (bottom of Temp. MSE Wall, Special) is 3'-6" min. below the lower of Elevation B or C, Sta. 205+81.91 to Sta. 206+50.00. Elevation E is 3'-6" min. below exist. ground Sta. 206+50.00 to Sta. 207+50.00.

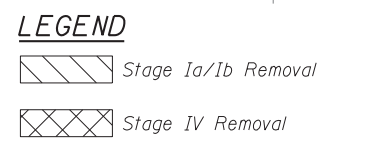
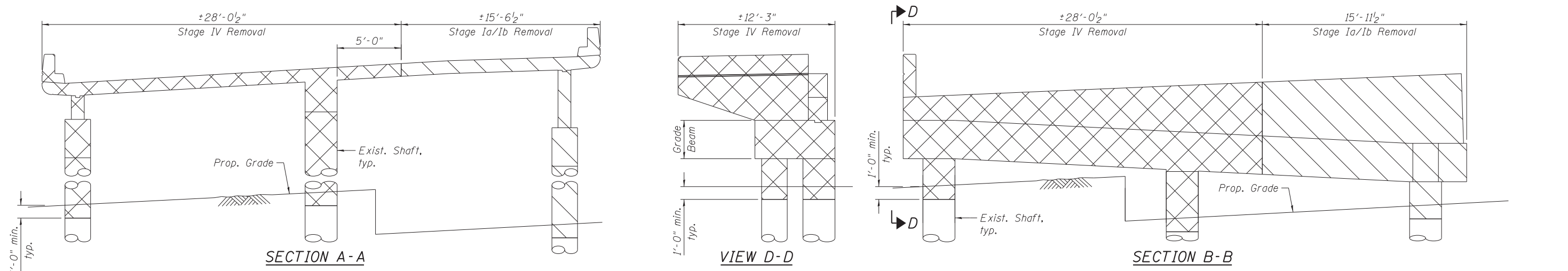
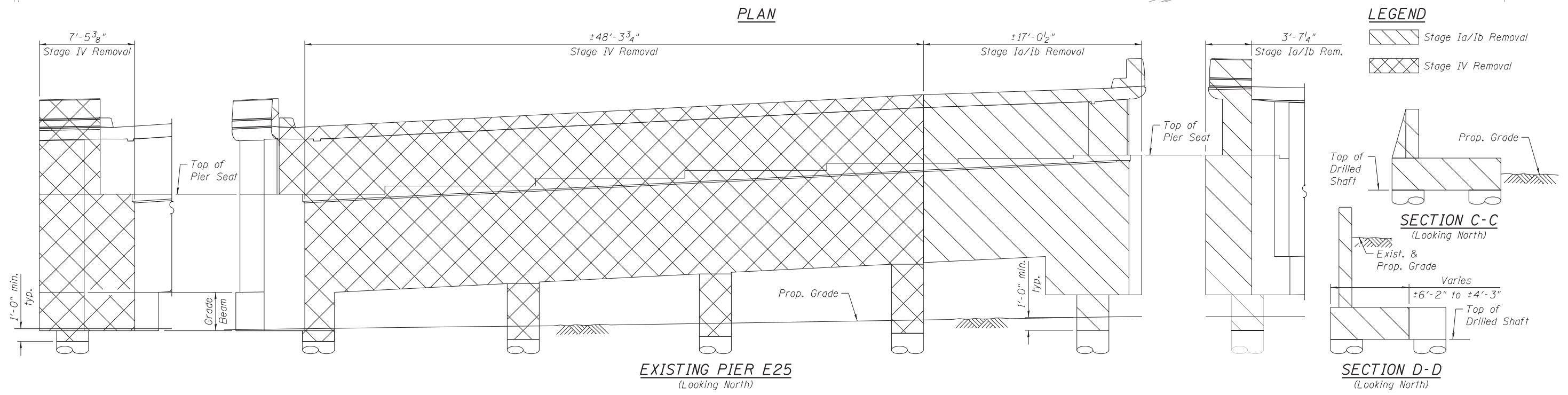
NOTES

1. Overexcavation beyond pay limits for Structure Excavation shall not be measured for payment. Additional Lightweight Cellular Concrete Fill in overexcavation area also shall not be measured for payment.
2. Approach Slab for Ramp EN from NB I-55 (SN 016-1503) to NB Lakeshore Drive is between anchor Slabs from Sta. 205+89.00 to Sta. 206+19.00. See Sheets S-93 and S-94.

S:\0160778_60X07_TypSections.dgn



- NOTES:**
- Excavation required to remove existing structures shall be backfilled to pre-excavation elevation where applicable. Cost of backfill is included in cost of Removal of Existing Structures No. 3
 - See Civil Plans for Concrete Barrier Transition & Roadway Details.
 - Station & offsets are given with respect to baseline of Ramp EN.
 - V.I.F. = "Verify in Field"
 - U.N.O. = "Unless Noted Otherwise"
 - Cost of Vaulted Terminal Structure & Retaining Wall "G" removal included with cost of "Removal of Existing Structures No. 3". See Special Provisions.



6_0160778_60X07_Removal.dgn

RME Rubinos & Meneses Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

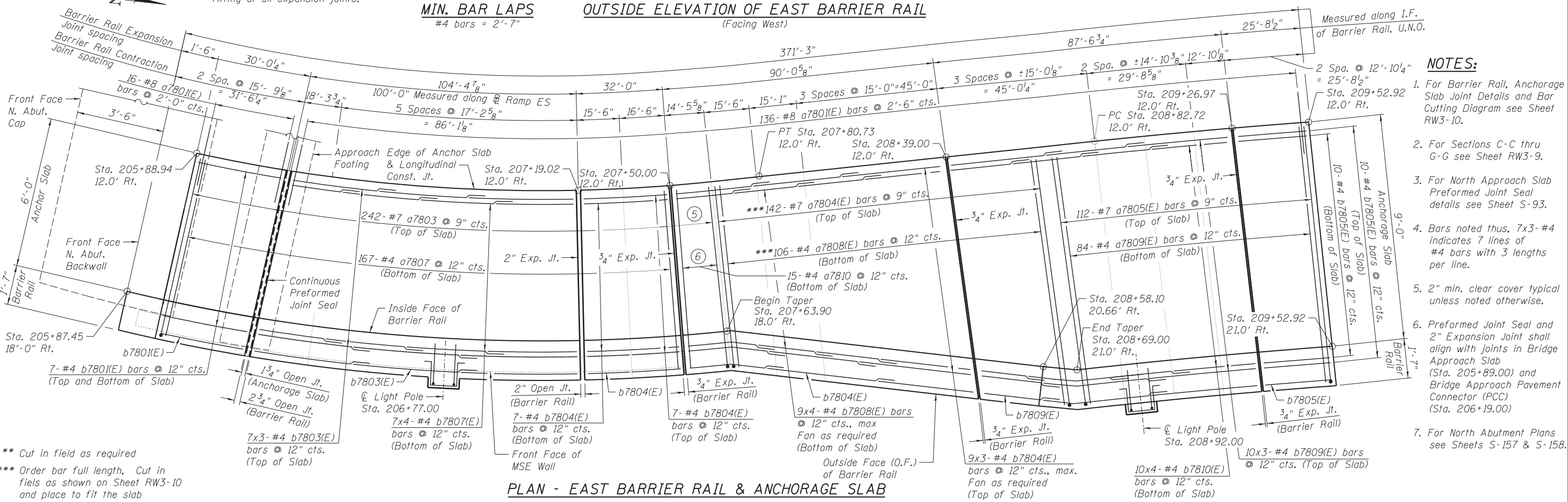
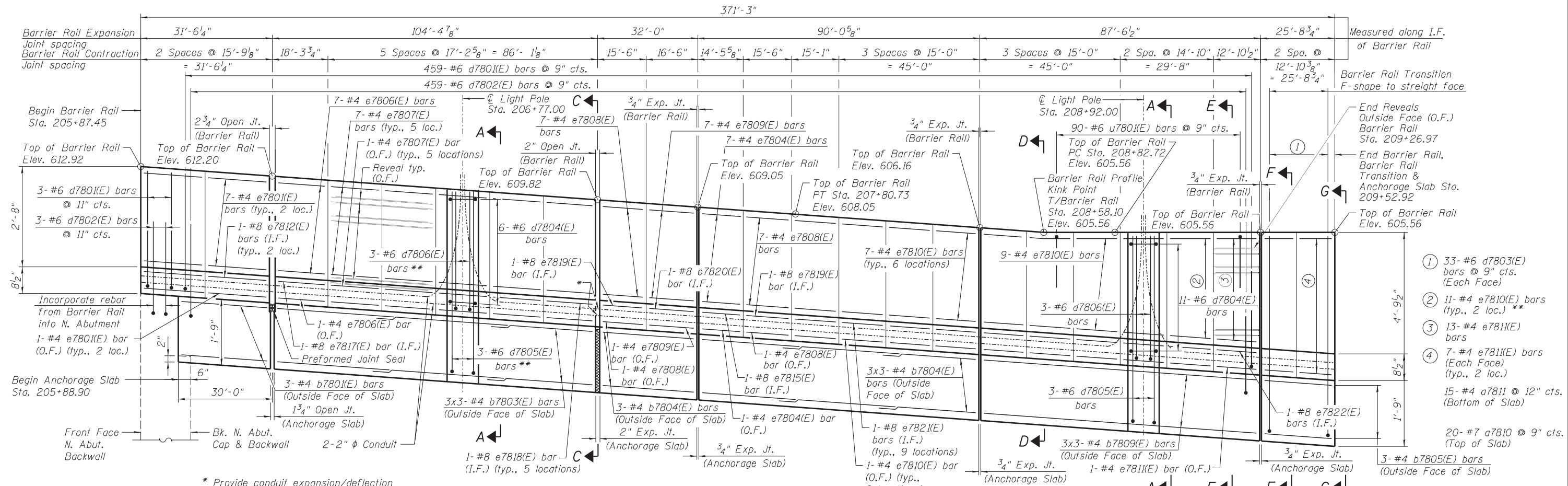
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PLOT SCALE =	CHECKED - PH	REVISD -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISD -
	CHECKED - PH	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURAL REMOVAL - S.N. 016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 776
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				

SHEET NO. RW3-6 OF RW3-14 SHEETS



- NOTES:**
1. For Barrier Rail, Anchorage Slab Joint Details and Bar Cutting Diagram see Sheet RW3-10.
 2. For Sections C-C thru G-G see Sheet RW3-9.
 3. For North Approach Slab Preformed Joint Seal details see Sheet S-93.
 4. Bars noted thus, 7x3- #4 indicates 7 lines of #4 bars with 3 lengths per line.
 5. 2" min. clear cover typical unless noted otherwise.
 6. Preformed Joint Seal and 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 205+89.00) and Bridge Approach Pavement Connector (PCC) (Sta. 206+19.00)
 7. For North Abutment Plans see Sheets S-157 & S-158.

** Cut in field as required
 *** Order bar full length, Cut in fields as shown on Sheet RW3-10 and place to fit the slab

MIN. BAR LAPS
 #4 bars = 2'-7"

OUTSIDE ELEVATION OF EAST BARRIER RAIL
 (Facing West)

PLAN - EAST BARRIER RAIL & ANCHORAGE SLAB

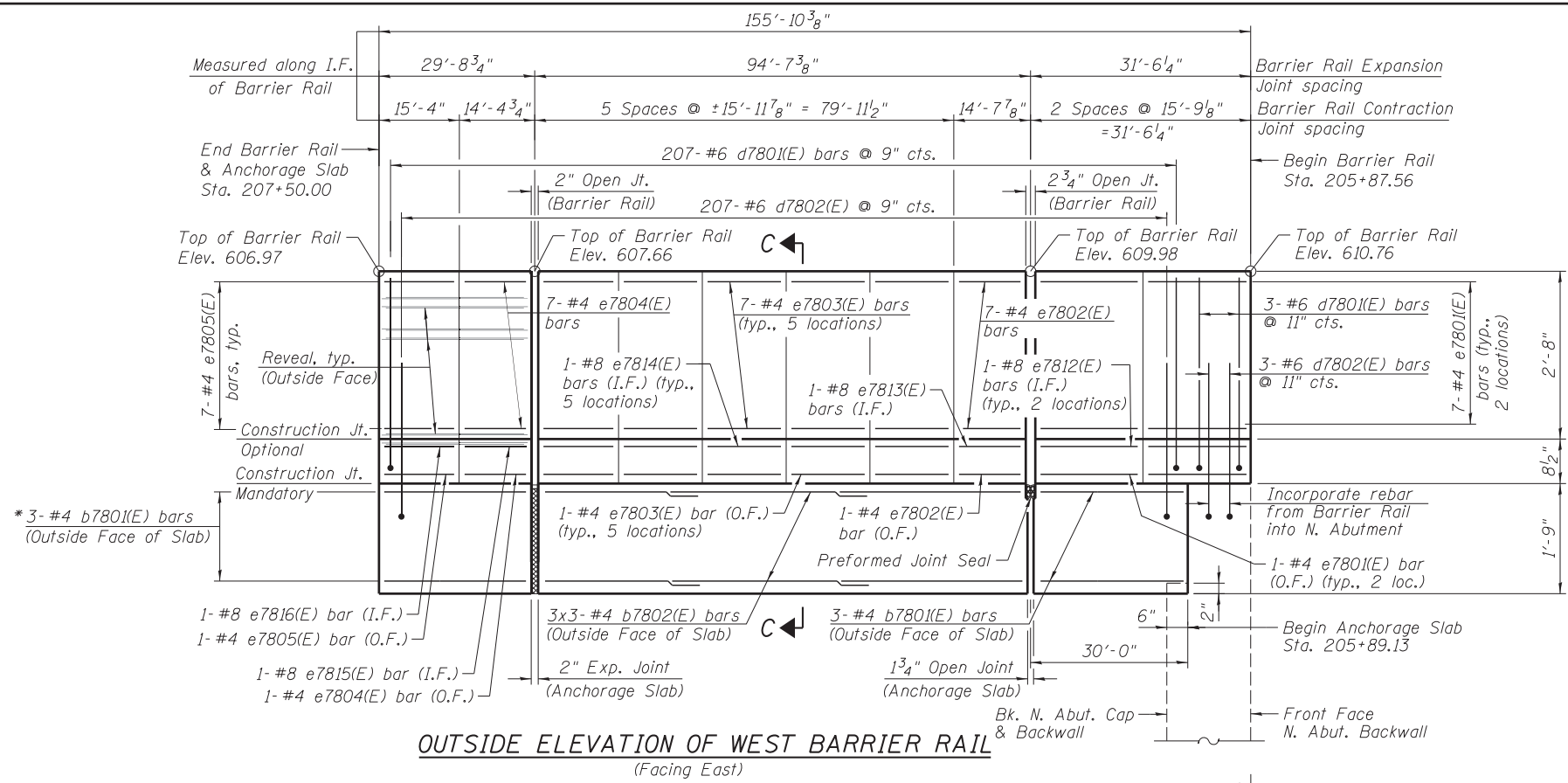


USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

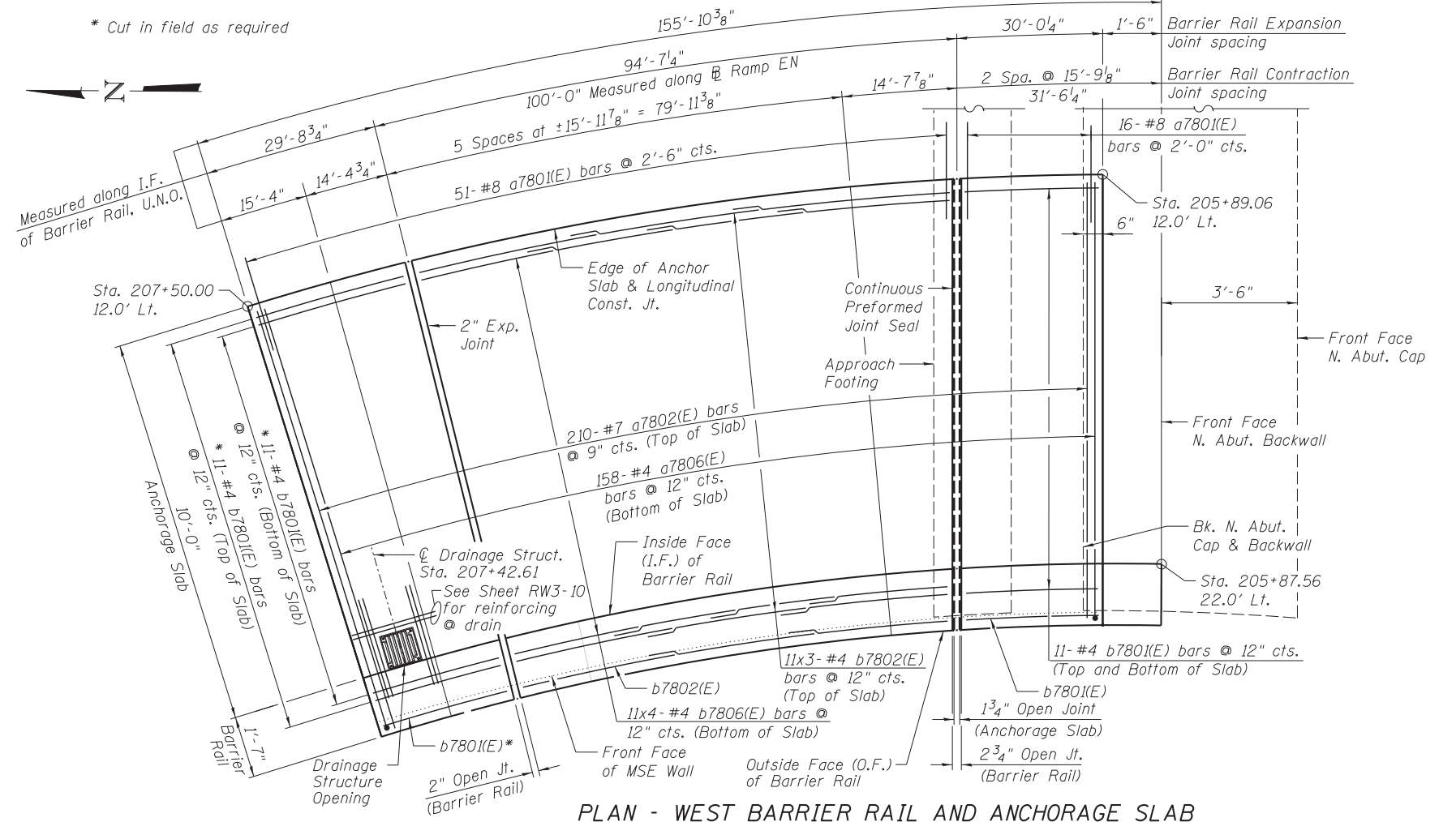
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST BARRIER RAIL & ANCHORAGE SLAB - S.N. 016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 777
CONTRACT NO. 60X07				ILLINOIS FED. AID PROJECT



OUTSIDE ELEVATION OF WEST BARRIER RAIL
(Facing East)



PLAN - WEST BARRIER RAIL AND ANCHORAGE SLAB

MIN. BAR LAPS
#4 bars = 2'-7"

NOTES:

- For Barrier Rail, Anchorage Slab Joint Details & Drainage Structure Opening details see Sheet RW3-10.
- For Section C-C see Sheet RW3-9.
- For North Approach Slab Preformed Joint Seal details see Sheet S-93.
- Bars noted thus, 11x3-#4 indicates 11 lines of #4 bars with 3 lengths per line.
- 2" min. clear cover typical unless noted otherwise.
- Preformed Joint Seal and 2" Expansion Joint shall align with joints in Bridge Approach Slab (Sta. 205+89.00) and Bridge Approach Pavement Connector (PCC) (Sta. 206+19.00)
- For North Abutment Plans see Sheets S-157 & S-158.

8_0160778_60X07_MBarrierRail.dgn



USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

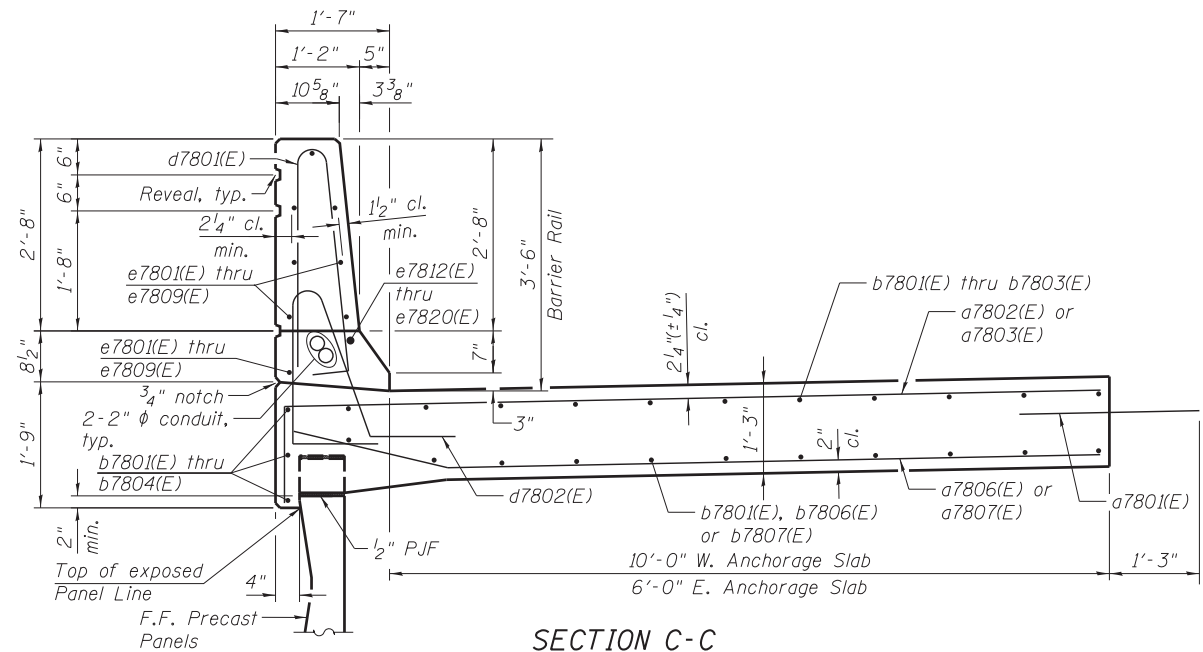
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST BARRIER RAIL & ANCHORAGE SLAB - S.N. 016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

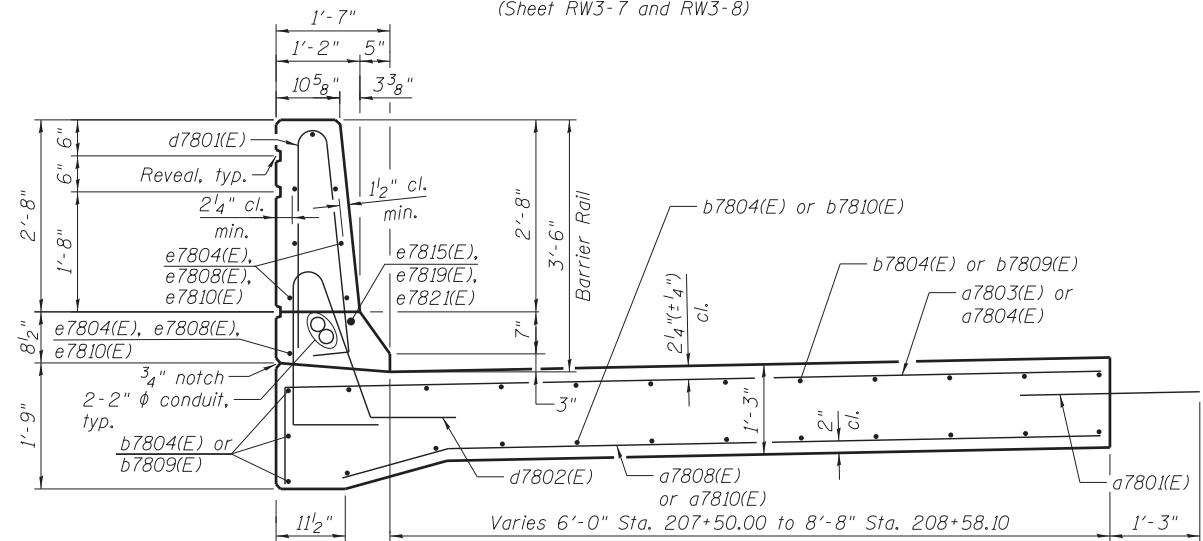
F.A.I. RTE. = 55	SECTION = 2013-049B	COUNTY = COOK	TOTAL SHEETS = 888	SHEET NO. = 778
				CONTRACT NO. 60X07

SHEET NO. RW3-8 OF RW3-14 SHEETS

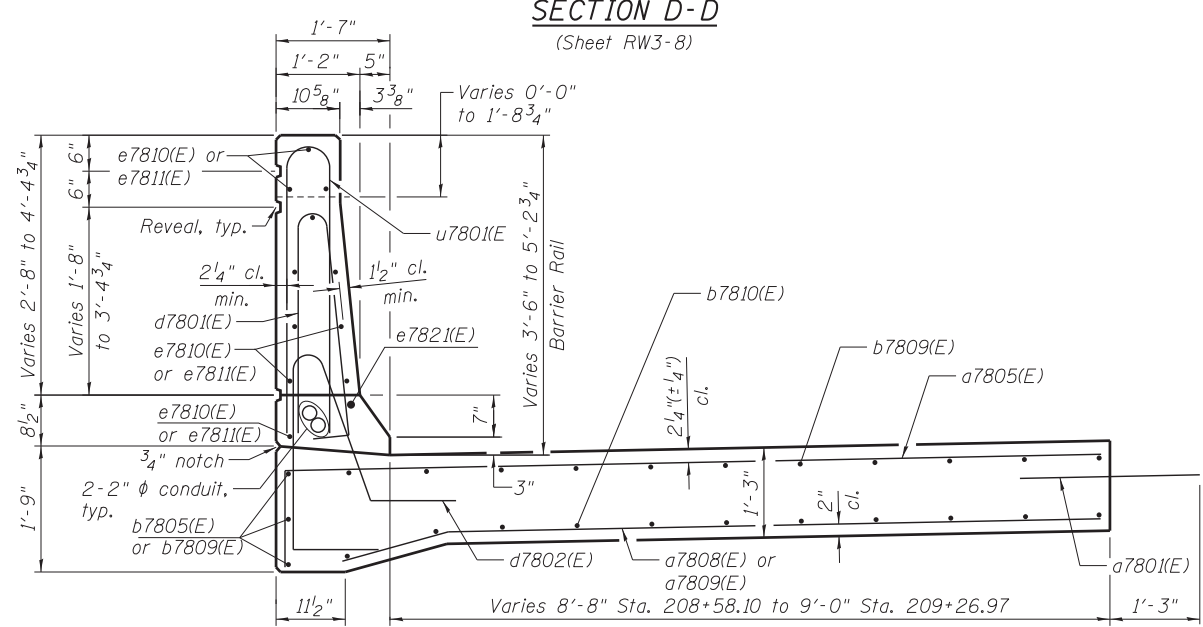
ILLINOIS FED. AID PROJECT



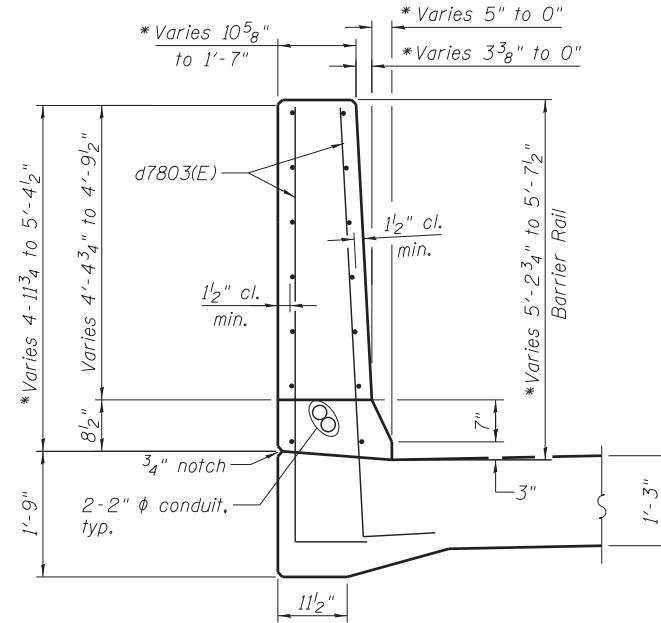
SECTION C-C
(Sheet RW3-7 and RW3-8)



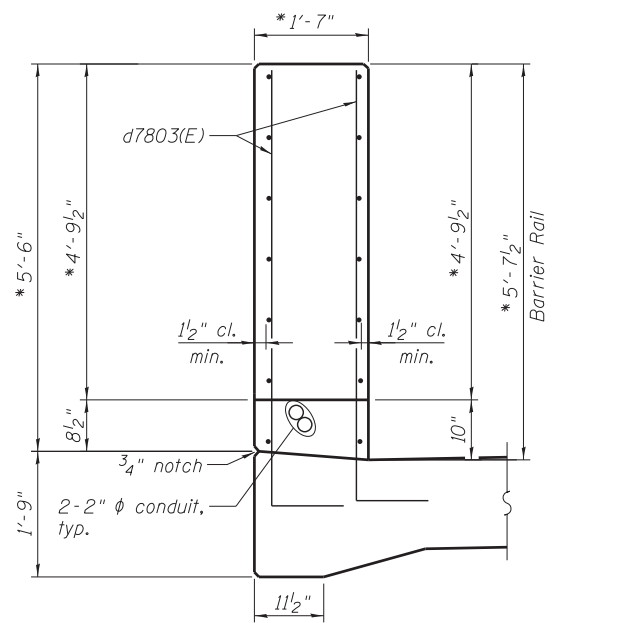
SECTION D-D
(Sheet RW3-8)



SECTION E-E
(Sheet RW3-8)

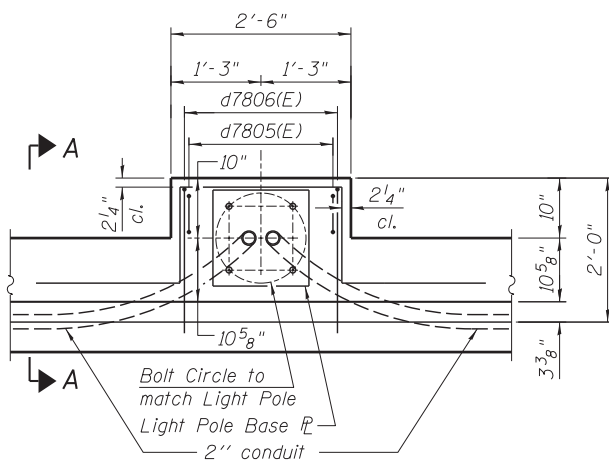


SECTION F-F
(Sheet RW3-8)
Anchorage Slab reinforcing not shown for clarity.

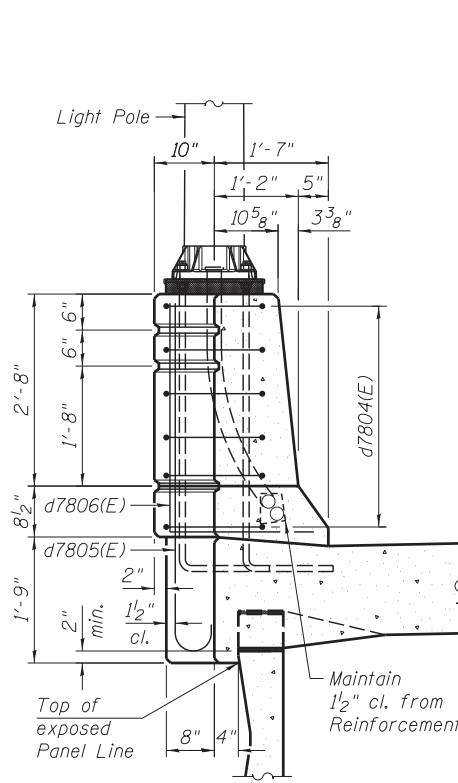


SECTION G-G
(Sheet RW3-8)
Anchorage Slab reinforcing not shown for clarity.

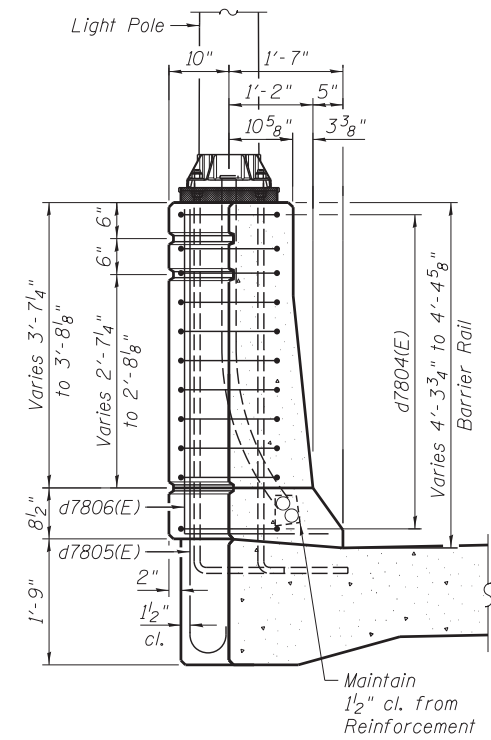
* Match inside and top face of the exist. Wall G. Contractor to verify in field dimensions of the exist. Wall G and adjust bars as needed.



PLAN AT LIGHT POLE
Cost of Anchor Rods is included with Concrete Superstructure.



SECTION A-A
at Sta. 206+77.00
Barrier Rail/Anchorage Slab reinforcing not shown for clarity.



SECTION A-A
at Sta. 208+92.00
Barrier Rail/Anchorage Slab reinforcing not shown for clarity.

- NOTES:**
1. For location of Section C-C see Sheets RW3-7 and RW3-8.
 2. For location of Sections D-D thru Section G-G see Sheet RW3-8.

9_0160778_60X07_Details.dgn



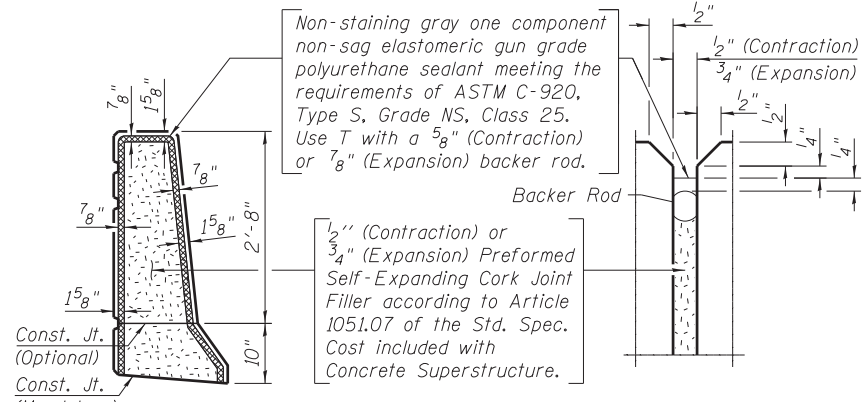
USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

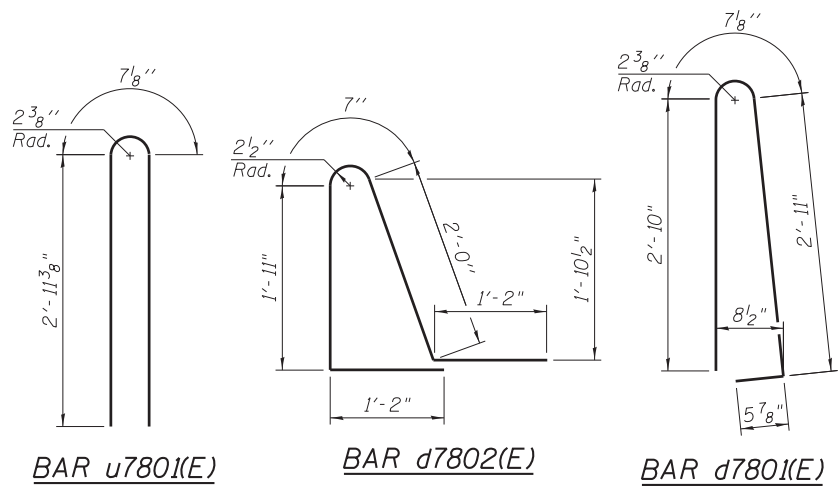
DETAILS I- S.N.016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (OUTBOUND STRUCTURES)

SHEET NO. RW3-9 OF RW3-14 SHEETS

F.A.I. RTE. 55	SECTION 2013-049B	COUNTY COOK	TOTAL SHEETS 888	SHEET NO. 779
CONTRACT NO. 60X07				ILLINOIS FED. AID PROJECT



BARRIER RAIL JOINT DETAILS



A DIMENSIONS

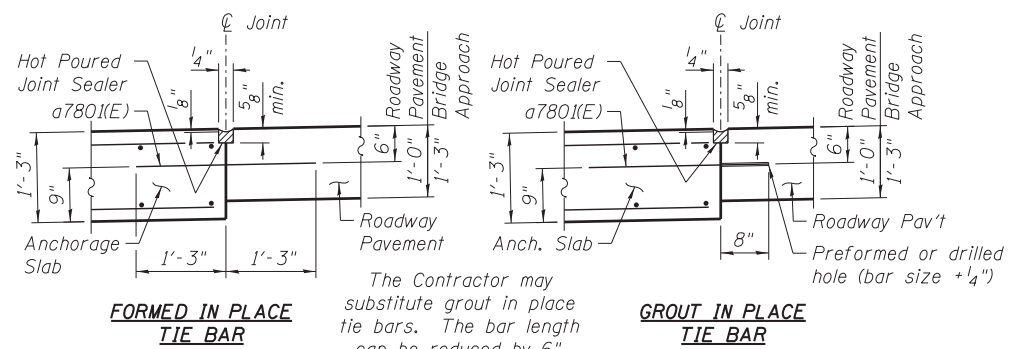
Bar	A
a7802(E)	11'-4"
a7803(E)	7'-4"
a7805(E)	10'-4"

BARS a7802(E), a7803(E) & a7805(E)

B, C & D DIMENSIONS

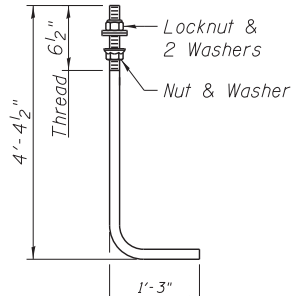
Bar	B	C	D
a7806(E)	9'-0"	2'-4"	2'-3"
a7807(E)	5'-0"	2'-4"	2'-3"
a7809(E)	8'-0"	1'-6"	1'-5 3/4"
a7810(E)	5'-0"	1'-6"	1'-5 3/4"

BARS a7806(E), a7807(E), a7809(E) & a7810(E)



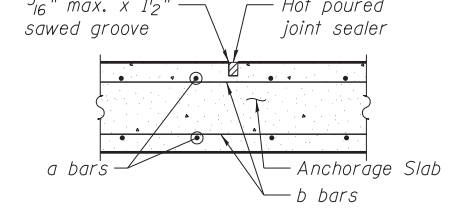
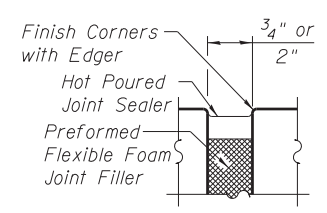
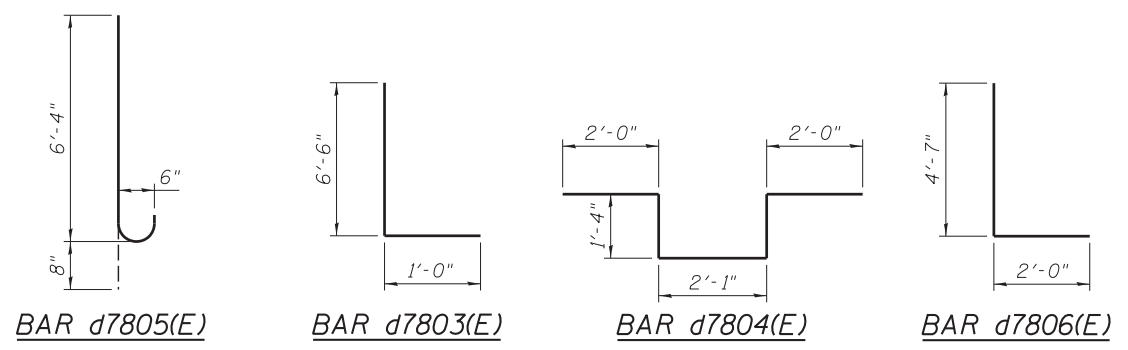
LONGITUDINAL CONSTRUCTION JOINT

See Article 420.05 & 420.12 of the Standard Specifications.



ANCHOR ROD

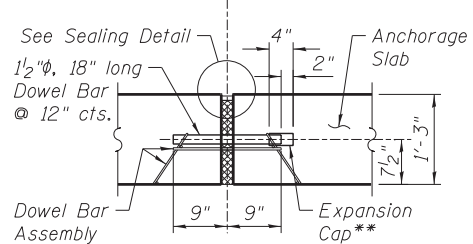
Diameter as specified for light poles. (ASTM F 1554 Grade 105)



CONTRACTION JOINT

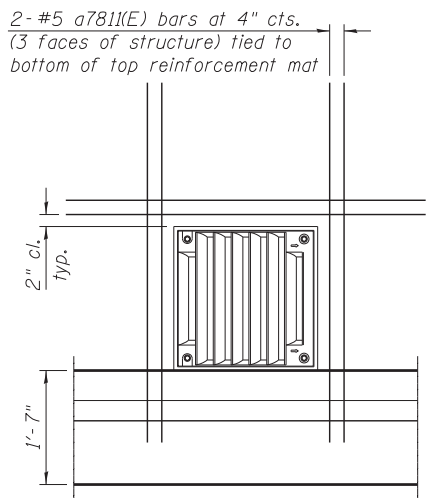
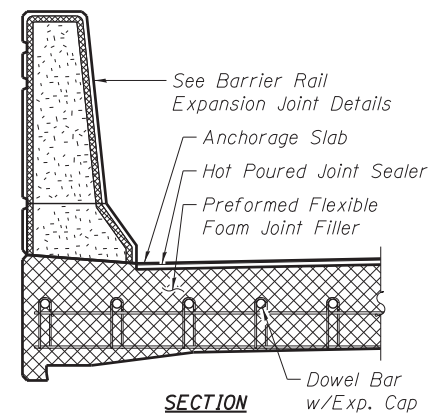
See Article 420.05 & 420.12 of the Standard Specifications.

**Expansion caps shall be installed on the exposed end of each dowel bar once header has been removed and the joint filler material has been installed.

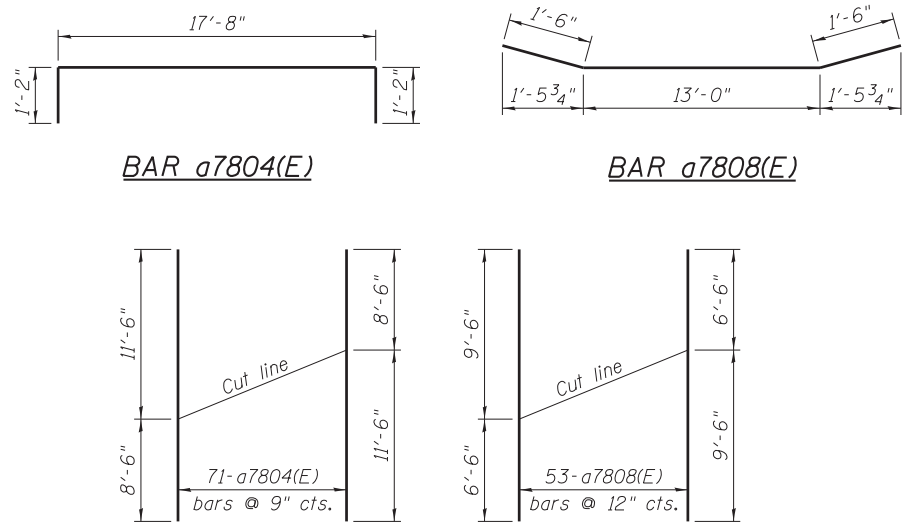


ANCHORAGE SLAB TO ANCHORAGE SLAB TRANSVERSE EXPANSION JOINT

Expansion Joint Filler, Sealer, Dowel Bars, Dowel Bar Assembly, and Expansion Caps included in cost of Concrete Superstructure



Note: Cut longitudinal reinforcement to clear catch basins and inlets.



BILL OF MATERIAL

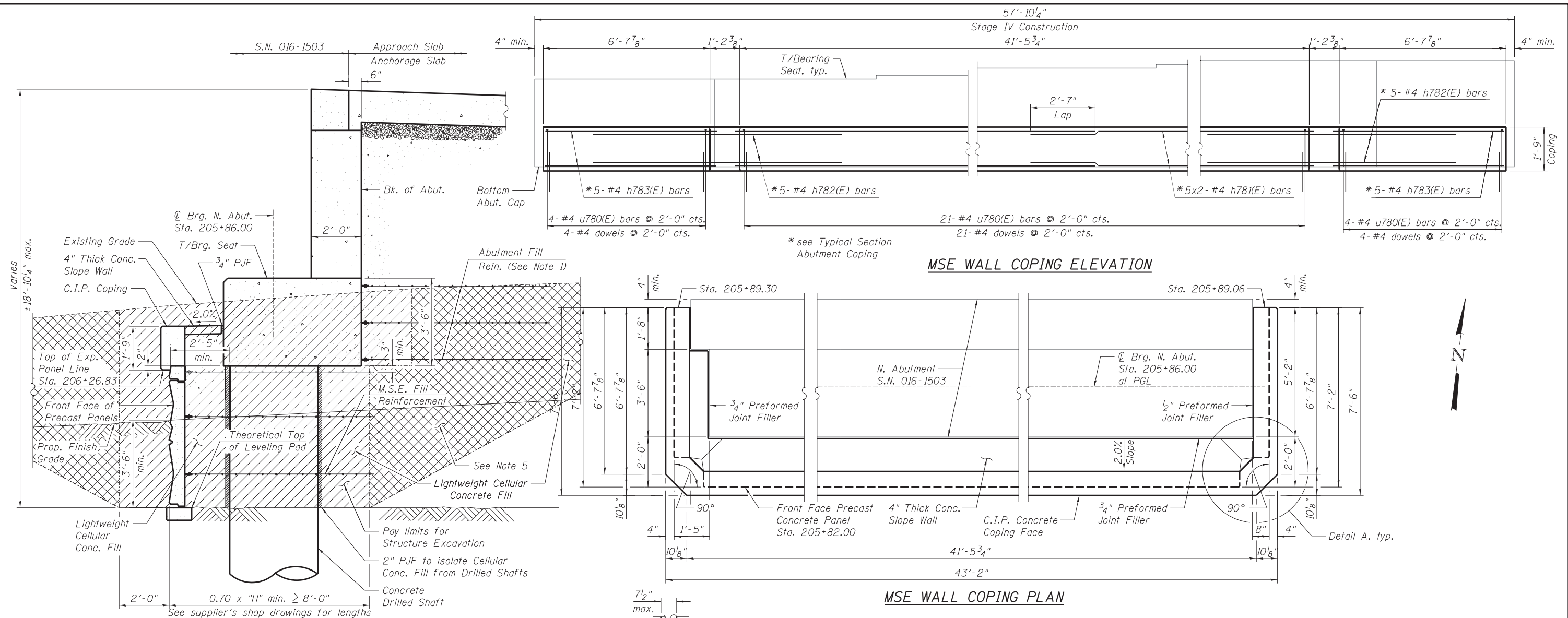
Bar	No.	Size	Length	Shape
a7801(E)	221	#8	2'-6"	—
a7802(E)	211	#7	12'-6"	—
a7803(E)	242	#7	8'-6"	—
a7804(E)	71	#7	20'-0"	—
a7805(E)	112	#7	11'-6"	—
a7806(E)	158	#4	11'-4"	—
a7807(E)	167	#4	7'-4"	—
a7808(E)	106	#4	16'-0"	—
a7809(E)	84	#4	9'-6"	—
a7810(E)	15	#4	6'-6"	—
a7811(E)	6	#5	4'-0"	—
b7801(E)	67	#4	29'-8"	—
b7802(E)	42	#4	34'-0"	—
b7803(E)	30	#4	37'-1"	—
b7804(E)	50	#4	31'-9"	—
b7805(E)	23	#4	25'-6"	—
b7806(E)	44	#4	26'-2"	—
b7807(E)	28	#4	28'-7"	—
b7808(E)	33	#4	24'-5"	—
b7809(E)	39	#4	30'-11"	—
b7810(E)	40	#4	23'-9"	—
d7801(E)	677	#6	6'-10"	—
d7802(E)	677	#6	6'-10"	—
d7803(E)	66	#6	7'-6"	—
d7804(E)	17	#6	8'-9"	—
d7805(E)	6	#6	6'-6"	—
d7806(E)	6	#6	6'-0"	—
e7801(E)	32	#4	15'-3"	—
e7802(E)	8	#4	14'-2"	—
e7803(E)	40	#4	15'-6"	—
e7804(E)	16	#4	13'-11"	—
e7805(E)	8	#4	15'-0"	—
e7806(E)	8	#4	17'-10"	—
e7807(E)	40	#4	16'-9"	—
e7808(E)	16	#4	15'-1"	—
e7809(E)	8	#4	16'-1"	—
e7810(E)	82	#4	14'-7"	—
e7811(E)	42	#4	12'-6"	—
e7812(E)	4	#8	15'-3"	—
e7813(E)	1	#8	14'-2"	—
e7814(E)	5	#8	15'-6"	—
e7815(E)	2	#8	13'-11"	—
e7816(E)	1	#8	15'-0"	—
e7817(E)	1	#8	17'-10"	—
e7818(E)	5	#8	16'-9"	—
e7819(E)	2	#8	15'-1"	—
e7820(E)	1	#8	16'-1"	—
e7821(E)	9	#8	14'-7"	—
e7822(E)	1	#8	12'-6"	—
u7801(E)	90	#6	6'-6"	—
Protective Coat		Sq. Yd.	786	
Concrete Superstructure		Cu. Yd.	329.6	
Reinforcement Bars, Epoxy Coated		Pound	48,280	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	427	

NOTES:

- See Sheet S-93 & S-94 for North Approach Slab details and civil plans for roadway details.
- See Sheet RW3-3 for limits of Bridge Deck Grooving (Longitudinal) & Protective Coat. Apply Protective Coat after Bridge Deck Grooving is complete.

USER NAME = AVasonis	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PH	REVISED -
PLOT DATE = 5/26/2015	DRAWN - EV	REVISED -
	CHECKED - PH	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	780
CONTRACT NO. 60X07				



TYPICAL SECTION THRU ABUTMENT
Station and Elevation shown at PGL

MSE WALL COPING PLAN

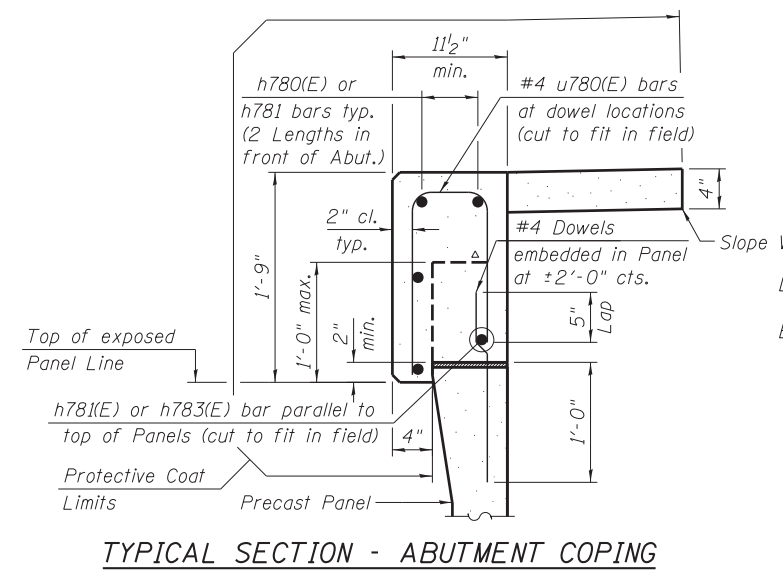
NOTES:

- The MSE wall supplier shall design the abutment fill reinforcement to resist a horizontal force of 4.73 k/ft of abutment. Cost included in cost of Mechanically Stabilized Earth Retaining Wall, Special.
- The costs of 4" thick slope wall, cast-in-place concrete coping, geotextile fabric, reinforcement bars & dowel bars are included in cost of "Mechanically Stabilized Earth Retaining Wall, Special". The costs of preformed joint filler is included in cost of "Concrete Superstructure".
- For N. Abutment, S.N. 016-1503, see Sheet S-157 and S-158.
- The Contractor may substitute a precast coping at their own expense, the details of which must be included in the shop plans and approved by the Engineer.
- Overexcavation beyond limits of Structure Excavation shall not be measured for payment. Additional Lightweight Cellular Concrete Fill in overexcavation area also shall not be measured for payment.

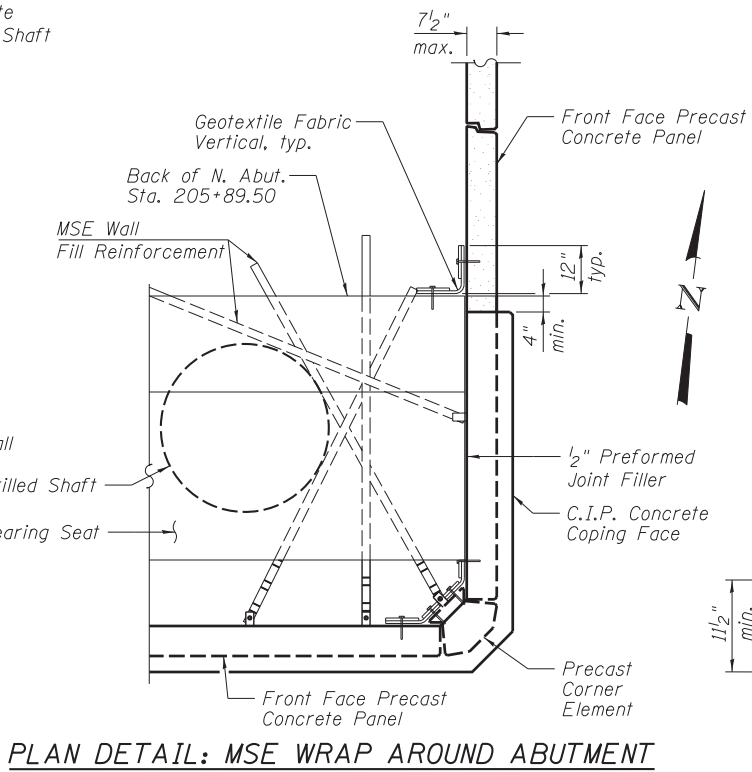
****MSE WALL COPING BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h781(E)	10	#4	22'-8"	—
h782(E)	10	#4	5'-0"	∩
h783(E)	10	#4	6'-2"	—
u780(E)	29	#4	3'-4"	⊏

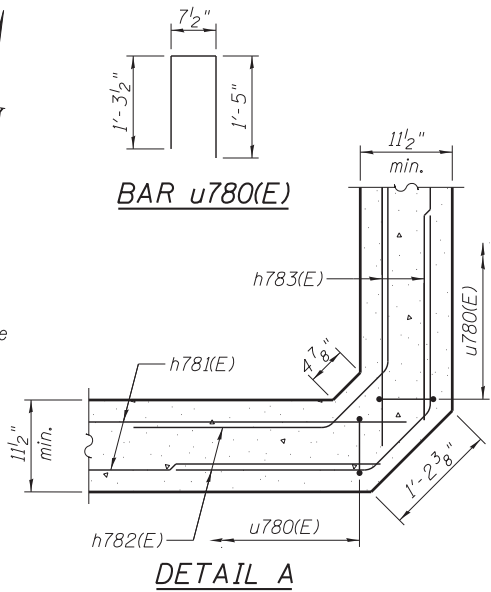
** For information only
MIN. BAR LAP
#4 Bars - 2'-7"



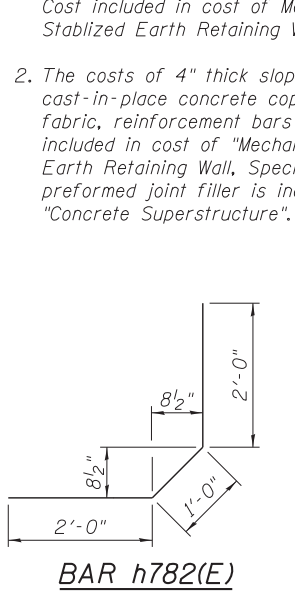
TYPICAL SECTION - ABUTMENT COPING



PLAN DETAIL: MSE WRAP AROUND ABUTMENT

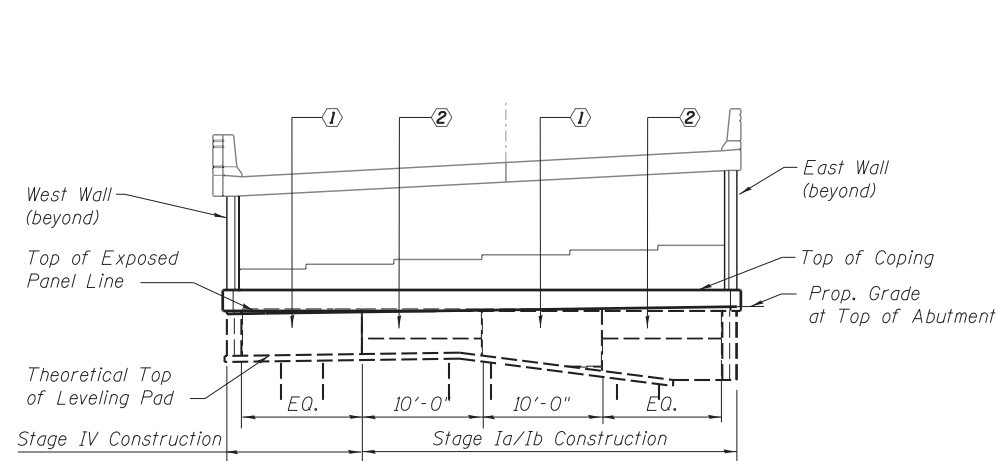


DETAIL A

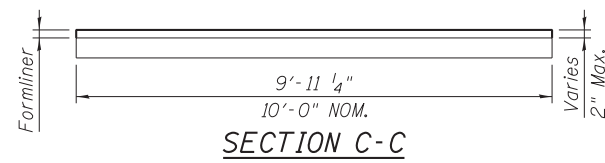


BAR h782(E)

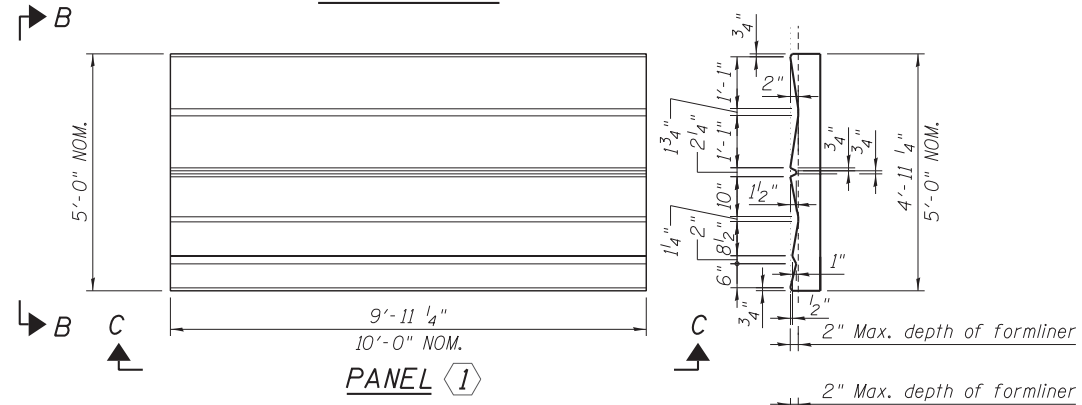
11.0160778_60X07_wraparound.dgn



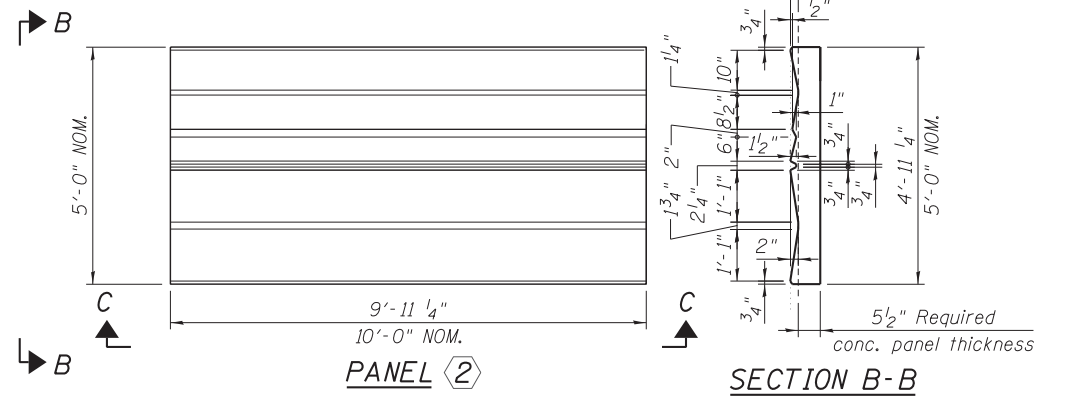
NORTH WALL ELEVATION
TYP. PRECAST CONCRETE PANEL LAYOUT



SECTION C-C



PANEL 1



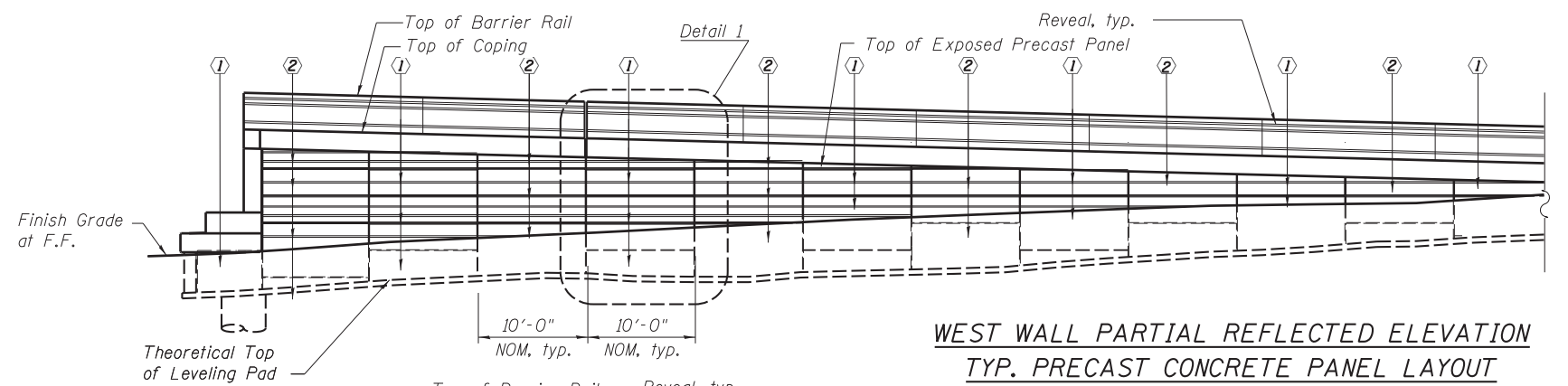
PANEL 2

SECTION B-B

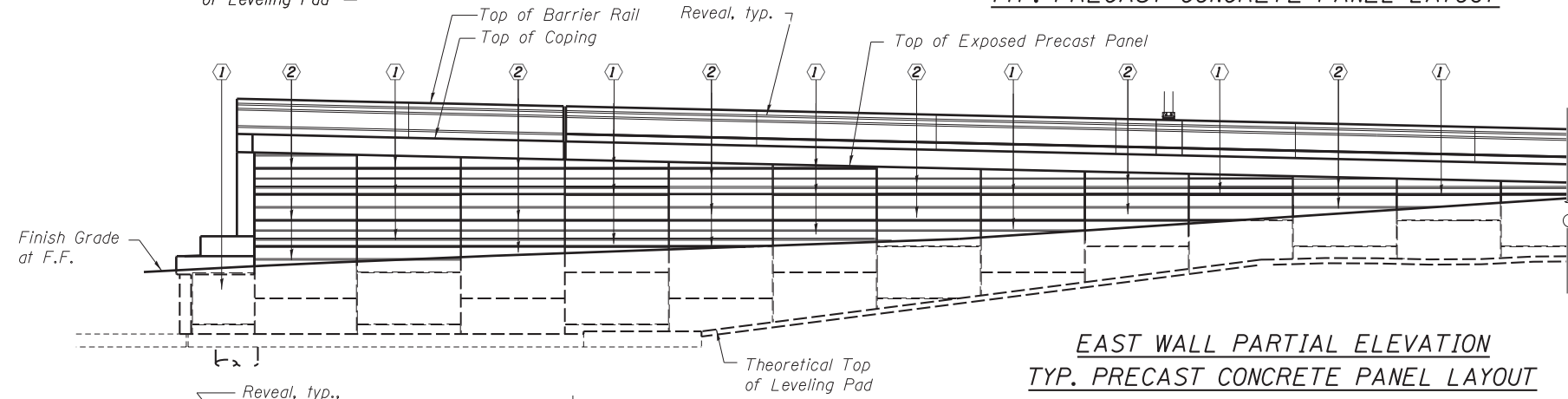
PRECAST CONCRETE PANEL ARCHITECTURAL TREATMENT - FORMLINER

NOTES:

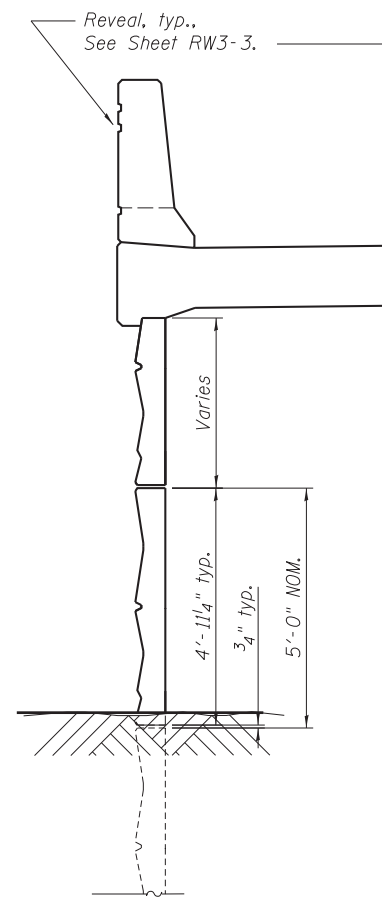
1. Formliner for precast panels will not be paid separately and will be included in the cost of the pay item "Mechanically Stabilized Earth Retaining Wall, Special".
2. Typical layout of precast panels and formliner details are shown on this drawing. For MSE Wall, Special see Sheets RW3-1 and RW3-2.
3. Formliner texture to be smooth.
4. Line up the pattern of concrete precast panel formliner at east and west wall with pattern of concrete precast panels at north wall.



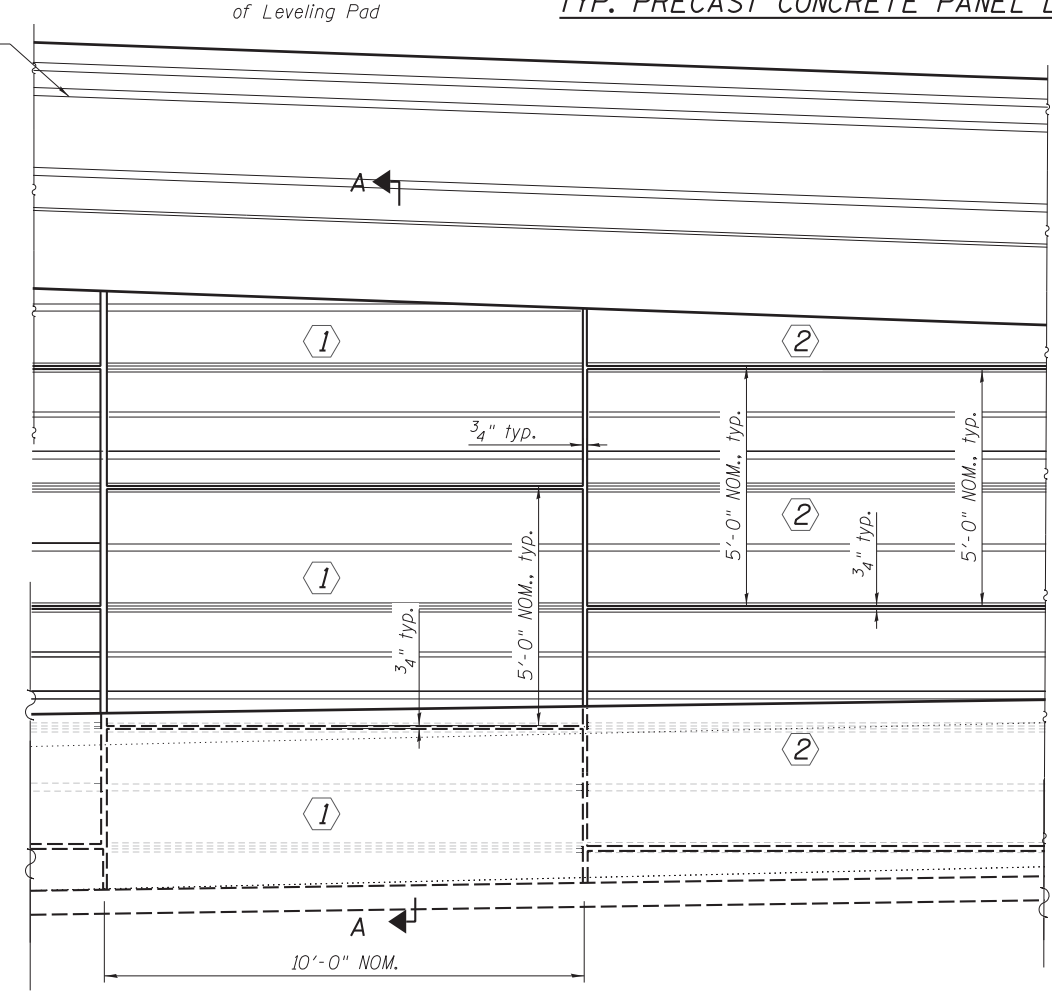
WEST WALL PARTIAL REFLECTED ELEVATION
TYP. PRECAST CONCRETE PANEL LAYOUT



EAST WALL PARTIAL ELEVATION
TYP. PRECAST CONCRETE PANEL LAYOUT



SECTION A-A



DETAIL 1

0160788-60X07-ArchDet-1.dgn



USER NAME = RistovskaM	DESIGNED - MR	REVISIONS -
PLOT SCALE =	CHECKED - PH	REVISIONS -
PLOT DATE = 5/26/2015	DRAWN - MR	REVISIONS -
	CHECKED - ME	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS - S.N. 016-0778
I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW3-12 OF RW3-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	782
CONTRACT NO. 60X07				

ILLINOIS FED. AID PROJECT

AECOM PROJ NO. 60225454

Date 4/22/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)
 SECT. 2013-049B STRUCT. NO. 016-0778 DRILLED BY STRATA - McCARTHY
 COUNTY COOK LOCATION CHICAGO, ILLINOIS

Boring No.	Station	Offset	Surface Elev.	DEPTH	BLOW	Qu	W	Surface Water Elev.	Groundwater Elev.	DEPTH	BLOW	Qu	W
MSE-13	207+43.28	41.15ft LT	593.83 ft			tsf	%	None				tsf	%
			593.33	2	8		9.0			6	2	0.4B	26.0
				8	10					2	2		
FILL: Black, brown and gray, moist to wet, medium dense to loose GRAVEL, SAND, BRICK, CINDERS and CLAY													
				6	7		14.3			WOH	1		24.2
				6	6					1	1		
				2	2		15.0			ST	4.5+P		16.7
				2	3								
				1	2		9.6						
				2	2								
				3	4		4.4			4	2.2B		21.0
				4	3					6	8		
				2	3		48.2						
				3	3								
			579.33	WOH	WOH		29.1			ST	1.91*		18.0
				1	1								
				ST			0.28*						26.2
				3	2		24.3			ST	1.0P		22.0
				2	1		44.5						
				3	1								
			569.33										

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

AECOM PROJ NO. 60225454

Date 4/22/13

STRUCTURE NO. 016-0778 STRUCTURE NO. 016-0778
 ROUTE FAI 55 ROUTE FAI 55
 SECTION 2013-049B SECTION 2013-049B
 COUNTY COOK COUNTY COOK

Boring No.	Station	Offset	Surface Elev.	DEPTH	BLOW	Qu	W	Surface Water Elev.	Groundwater Elev.	DEPTH	BLOW	Qu	W
MSE-13	207+43.28	41.15ft LT	543.83 ft			tsf	%					tsf	%
			543.83	2	2		0.4B			2	2		25.6
				3	3								
Gray, soft to medium SILTY CLAY													
				1	1								
				WOH	WOH		0.7B			WOH	3		22.8
				3	3								
				WOH	WOH		0.4B			WOH	2		26.8
				3	3								
				1	2		0.3B			1	2		23.9
				2	3								
				3	3								
				6	15		4.4S			6	15		17.3
				22	22								
				2	3		44.5						
				3	1								
			519.33										
			518.83										

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

BECROCK
 End of Boring
 CME-75 drill rig used for drilling
 Automatic CME hammer used for SPT
 Casng used: 30 ft of 4 in diameter
 Drillar converted to rotary was drilling at 12.5 ft depth
 Borehole grouted upon completion

13_0160778_60X07_BOR1.dgn



USER NAME = AVasonis	DESIGNED - PH	REVISED -
	CHECKED - EV	REVISED -
PLOT SCALE =	DRAWN - PH	REVISED -
PLOT DATE = 5/26/2015	CHECKED - EV	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BORING LOGS I- S.N.016-0778
 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)**

SHEET NO. RW3-13 OF RW3-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2013-049B	COOK	888	783
				CONTRACT NO. 60X07
ILLINOIS FED. AID PROJECT				



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 4/22/13

ROUTE FAI 55 DESCRIPTION I-94 (DAN RYAN EXPRESSWAY) TO US 41 (LAKE SHORE DRIVE)
SECT. 2013-049B STRUCT. NO. 016-0778 DRILLED BY STRATA - McCARTHY
COUNTY COOK LOCATION CHICAGO, ILLINOIS

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, Surface Water Elev., Groundwater Elev., etc.

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet



STRUCTURE SOIL BORING LOG

AECOM PROJ NO. 60225454

Date 4/22/13

STRUCTURE NO. 016-0778 STRUCTURE NO. 016-0778
ROUTE FAI 55 ROUTE FAI 55
SECTION 2013-049B SECTION 2013-049B
COUNTY COOK COUNTY COOK

Table with columns: Boring No., Station, Offset, Surface Elev., Depth, Blows, Qu, W, Soil Description, Surface Water Elev., Groundwater Elev., etc.

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

14_0160778_60X07_BOR2.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, etc.

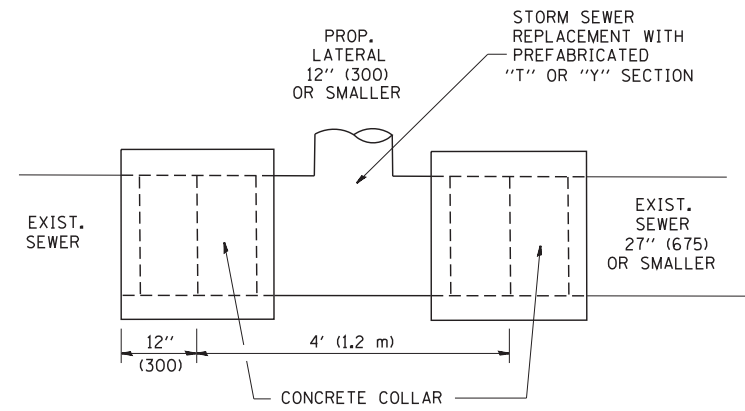
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS II - S.N. 016-0778 I-55 & LAKE SHORE DRIVE INTERCHANGE (INBOUND STRUCTURES)

SHEET NO. RW3-14 OF RW3-14 SHEETS

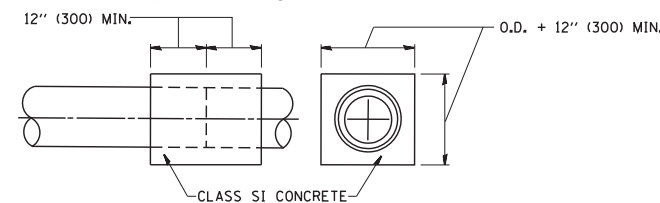
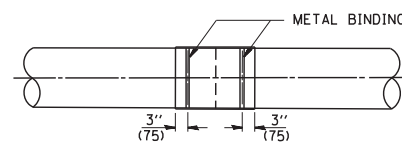
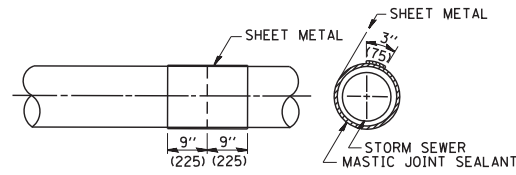
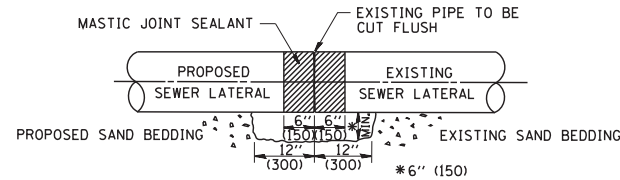
Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

ILLINOIS FED. AID PROJECT



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

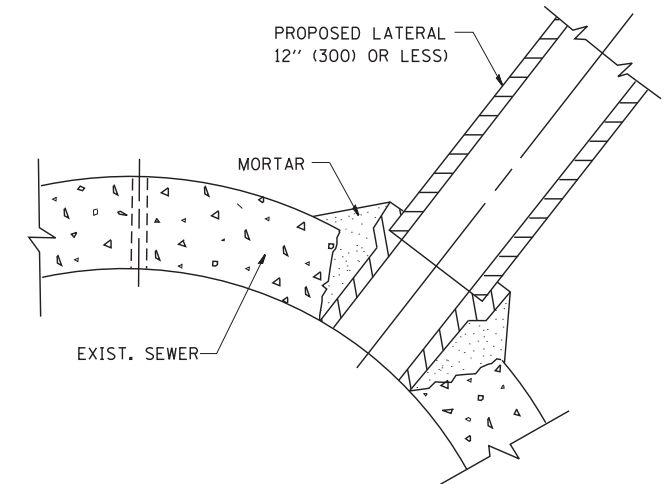


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

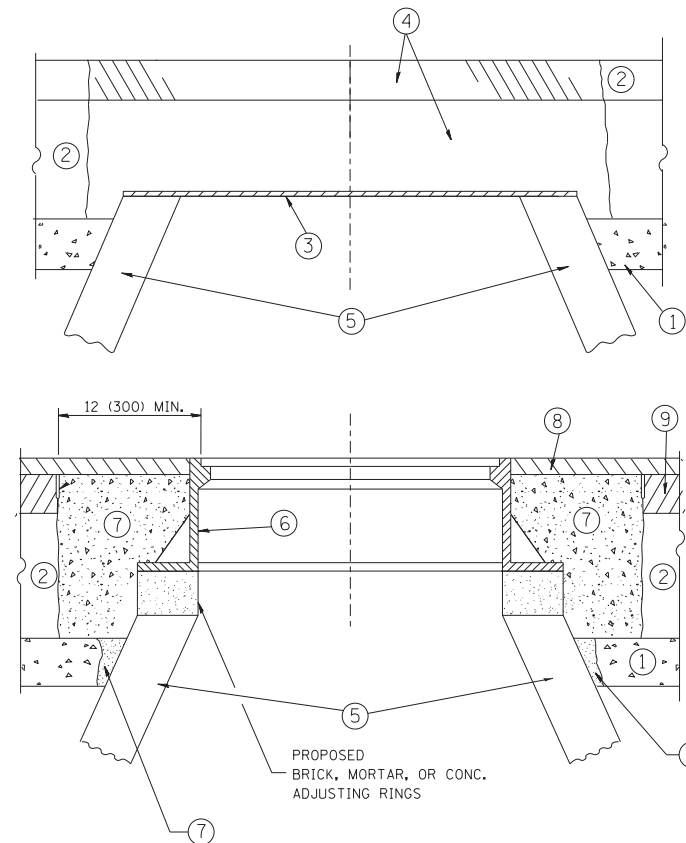
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAIL OF STORM SEWER
CONNECTION TO EXISTING SEWER**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			888	785
BD500-01 (BD-7)		CONTRACT NO. 60X07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

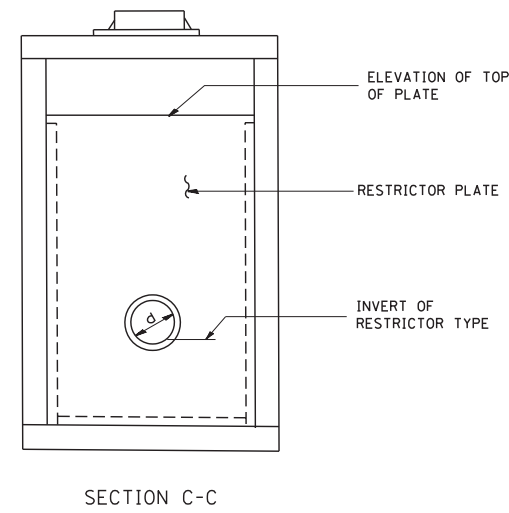
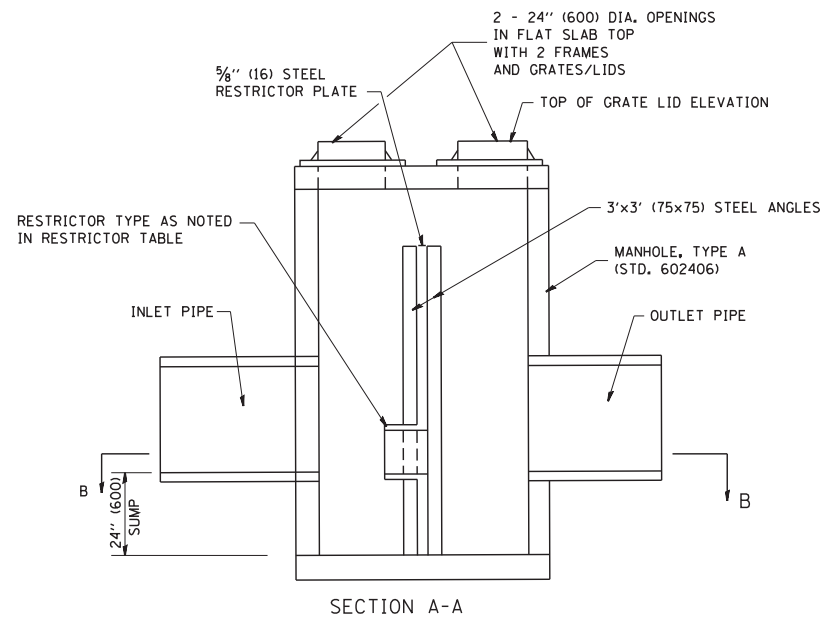
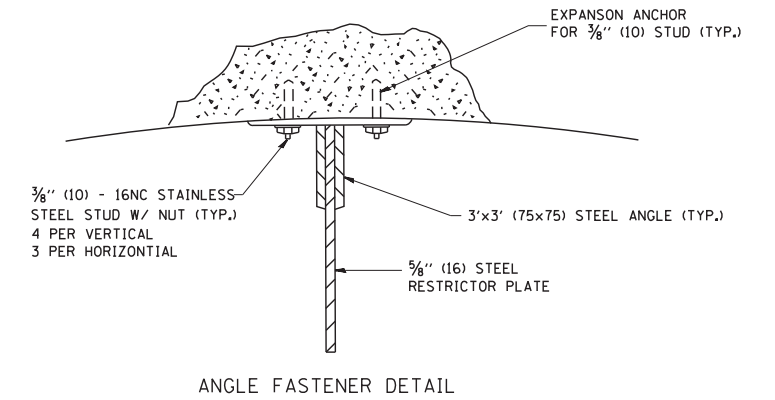
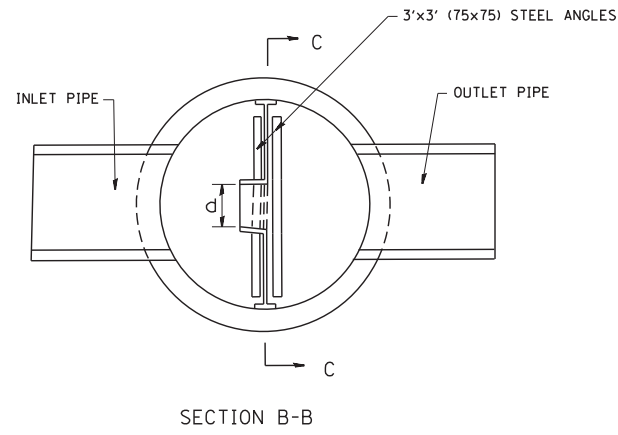
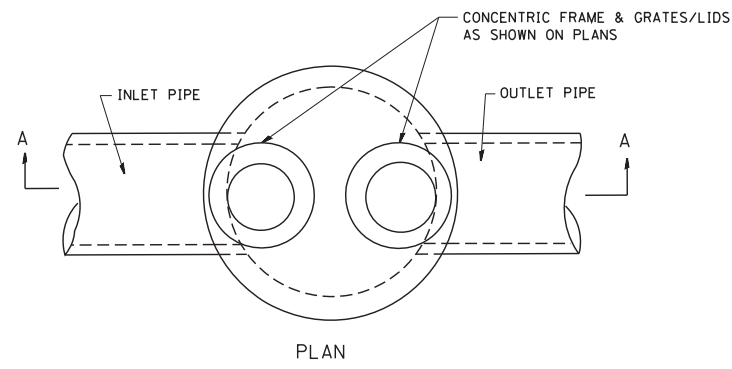
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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	PLOT SCALE = 1/8" = 1' / m	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 12/6/2011	DATE - 10-25-94	REVISED - R. BORO 12-06-11

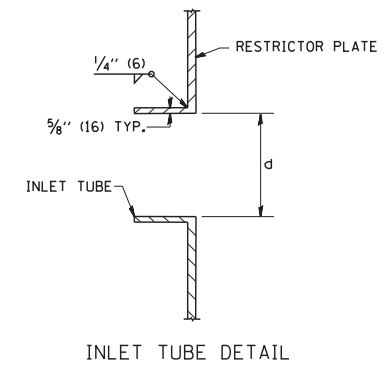
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

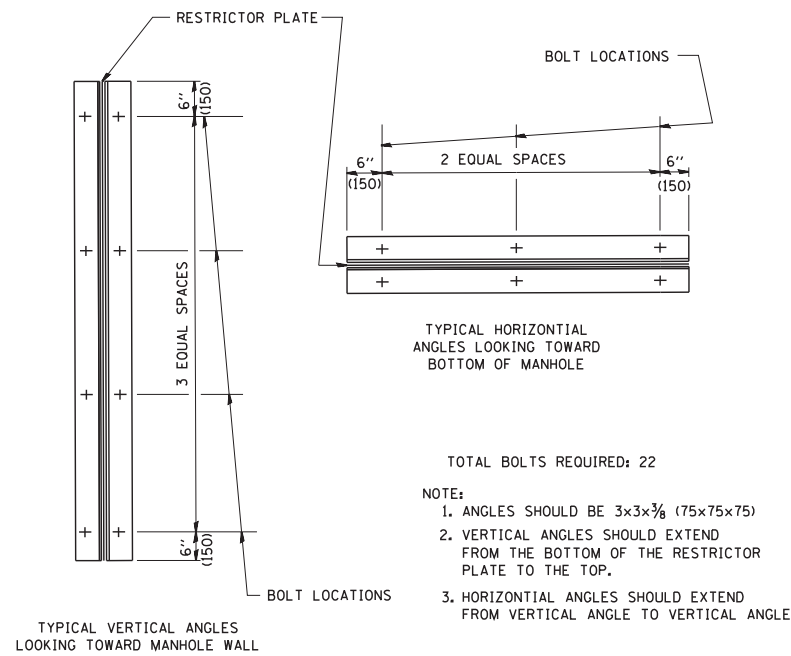
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			888	786
BD600-03 (BD-8)		CONTRACT NO. 60X07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- NOTES:
- ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
 - ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
 - BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW

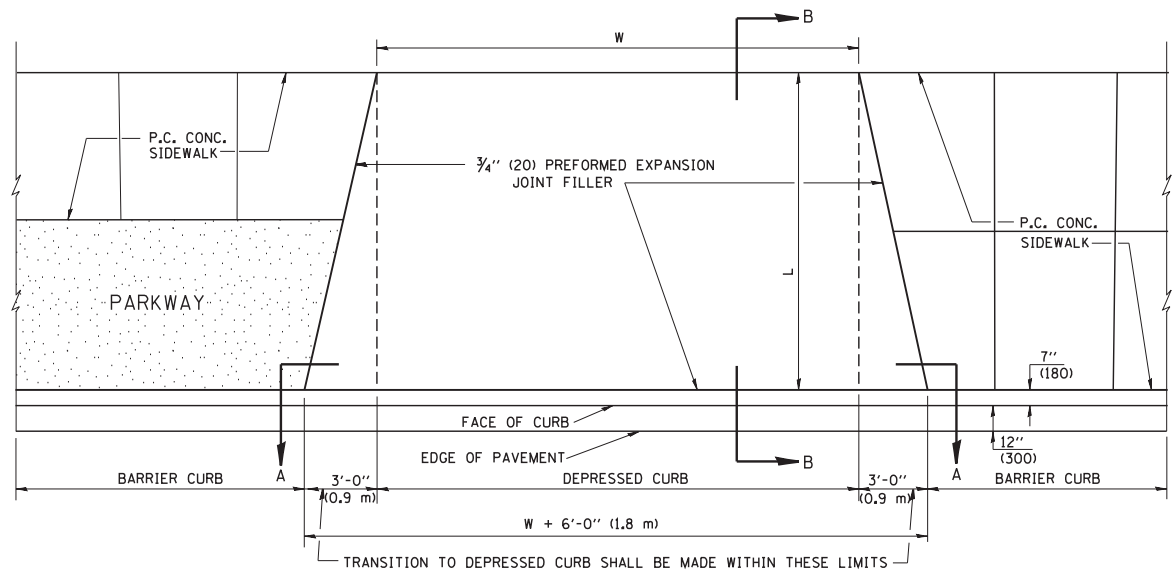


- TOTAL BOLTS REQUIRED: 22
- NOTE:
- ANGLES SHOULD BE 3x3x3/8 (75x75x75)
 - VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
 - HORIZONTAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

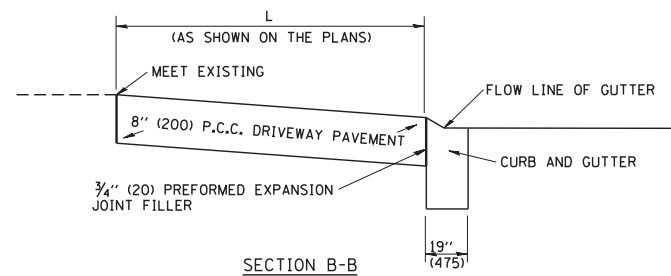
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



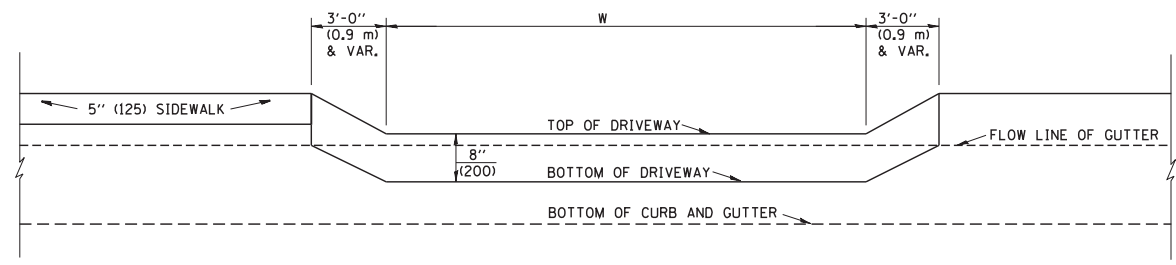
PLAN VIEW

NOTES:

1. EXPANSION JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE DETAILS FOR P.C.C. SIDEWALK.
2. THE CURB BETWEEN ADJACENT DRIVEWAYS SHALL BE FULL HEIGHT FOR A DISTANCE OF AT LEAST FOUR FEET (1.2 METERS)
3. P.C. CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. 3/4" (20) PREFORMED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO P.C.C. DRIVEWAY PAVEMENT 8" (200).
5. COMBINATION CONC. CURB AND GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE TRANSITION CURB AND GUTTER.

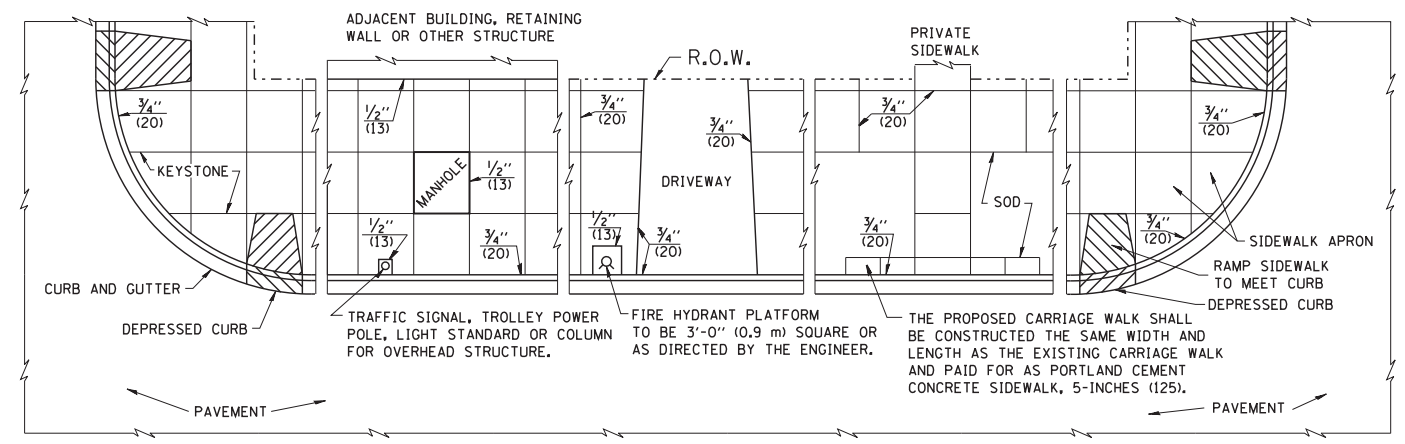


SECTION B-B



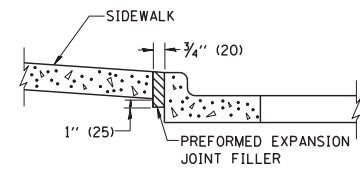
SECTION A-A

P.C.C. DRIVEWAY PAVEMENT DETAIL



NOTES:

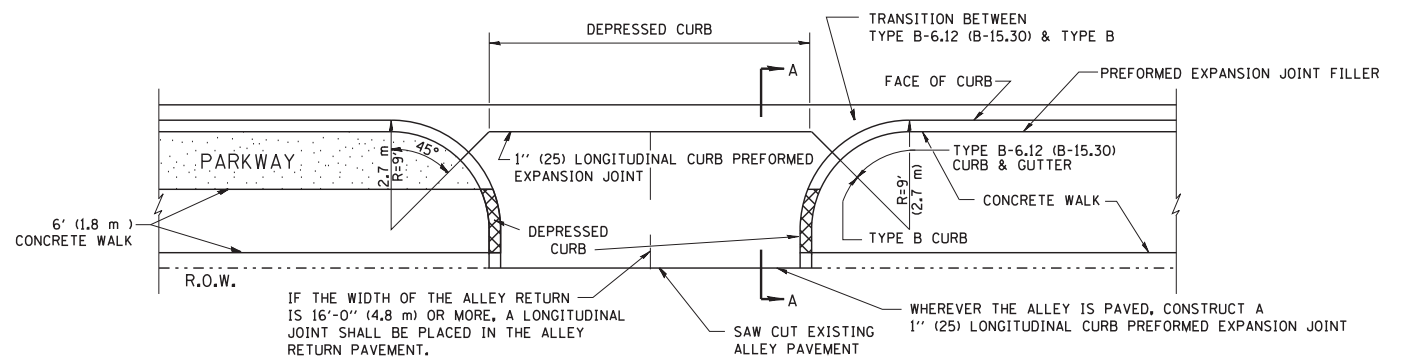
1. ONE-HALF INCH THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS, MANHOLES, WHICH EXTEND THROUGH THE SIDEWALK.
2. 3/4" (20) THICK EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET (30 METERS) IN THE SIDEWALK, WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED OPPOSITE THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK AND CURBS WHERE THE SIDEWALK ABUTS A CURB.



SLOPE FOR SIDEWALK
1" (25) IN 3'-0" (0.9 m) IN CHICAGO

PORTLAND CEMENT CONCRETE SIDEWALK DETAILS

NOTES: NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE GUTTER FLARE



SECTION A-A

ALLEY RETURN DETAIL

FILE NAME = W:\diststd\22x34\bd17.dgn
USER NAME = gajlonobt

DESIGNED - M. DE YONG
DRAWN -
PLOT SCALE = 50.0000' / IN.
CHECKED -
PLOT DATE = 1/4/2008

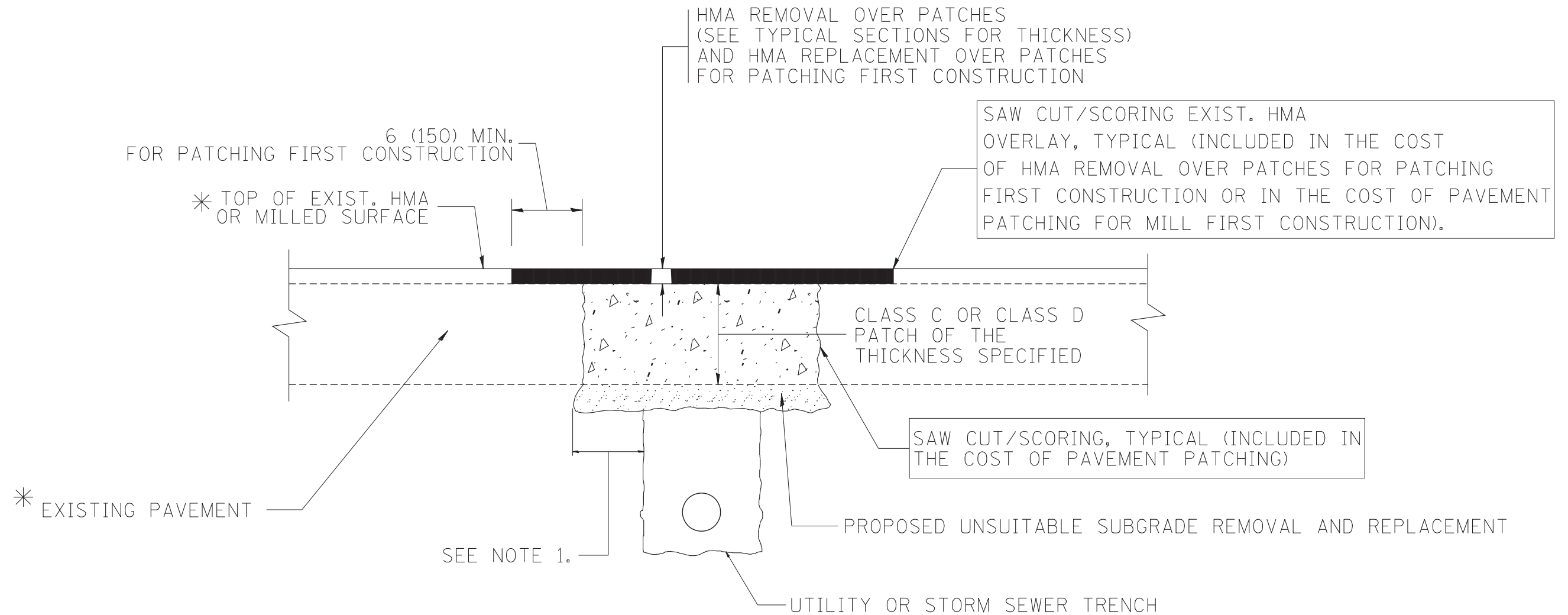
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DATE - 06-13-90

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BD400-03 (BD-17)		888	788
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X07	



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		DRAWN -	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	888	789	CONTRACT NO. 60X07	
		PLOT SCALE = 50.000' / IN.	REVISED - R. BORO 09-04-07		BD400-04 (BD-22)							
		PLOT DATE = 10/27/2008	REVISED - K. ENG 10-27-08		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

1/4" (5) **

18" (450) MAX.

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

T/2 *

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

3" (75) MIN.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

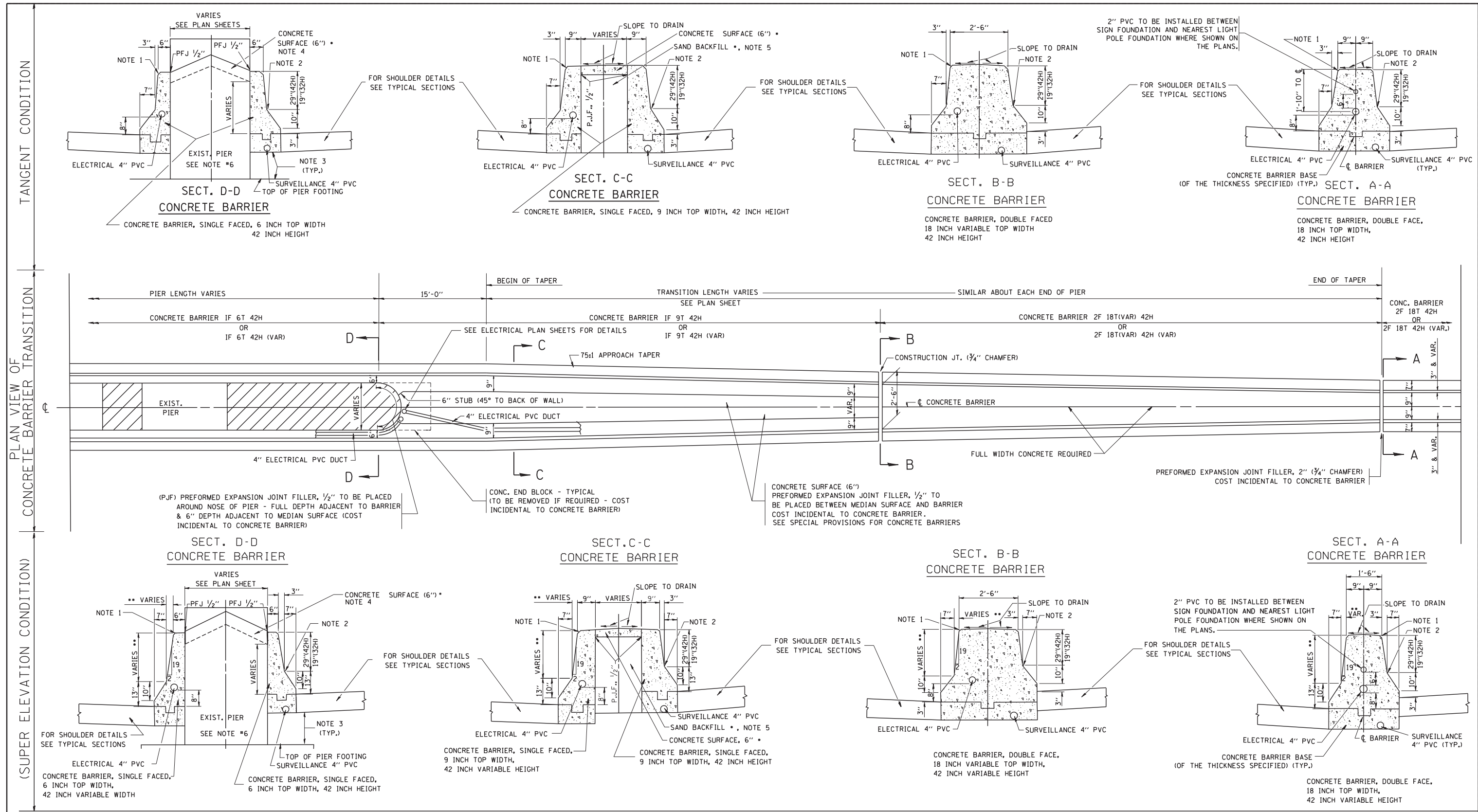
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01
	PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CURB OR CURB AND GUTTER
REMOVAL AND REPLACEMENT**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			888	790
BD600-06 (BD-24)		CONTRACT NO. 60X07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



GENERAL NOTES - FOR UNDERDRAIN DETAILS SEE TYPICAL SECTIONS

- PREFORMED JOINT FILLER SHALL BE INCIDENTAL TO THE CONCRETE BARRIER OF THE TYPE INVOLVED.
- FOR KEYWAY (F) DIMENSIONS, SEE TYPICAL SECTIONS
- CONCRETE BARRIER BASE PAY ITEM IS TO BE INCLUDED IF THE BARRIER IS CONSTRUCTED MONOLITHIC OR JOINTED TO BASE. IF JOINTED CONTRACTORS WILL HAVE THE OPTION OF USING A KEYWAY OR TIE BARS AT O.C.

NOTE 1 - 3/4" CHAMFER OR 1" RADIUS (OPTIONAL)

NOTE 2 - 10" RADIUS (OPTIONAL)

NOTE 3 - EXTEND BOTTOM OF BARRIER TO FOOTING ONLY WHEN DEPTH IS 6" OR LESS, OTHERWISE MAINTAIN SAME DEPTH AS BOTTOM OF SHOULDER

NOTE 4 - PIER FILLER MATERIAL TO BE CONCRETE IF MINIMUM 6" THICKNESS WILL BE MAINTAINED. IF 6" THICKNESS CANNOT BE MAINTAINED USE ASPHALT FILLER MATERIAL AS DIRECTED BY THE ENGINEER.

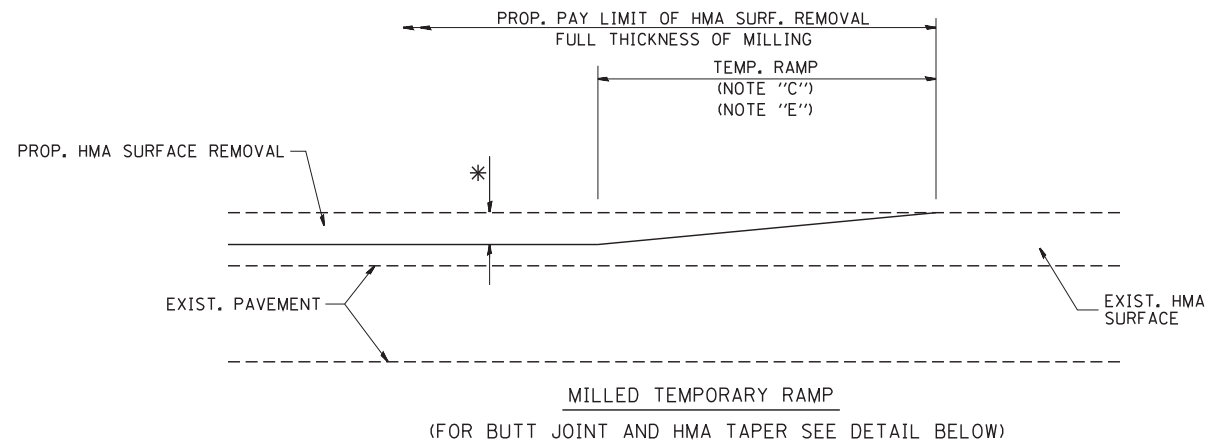
NOTE 5 - SAND BACKFILL AND CONCRETE SURFACE WILL BE REQUIRED. FILLING WITH CONCRETE WILL NOT BE ALLOWED.

NOTE 6 - IF PIER IS NEW CONSTRUCTION BARRIER WALL MAY BE MONOLITHIC

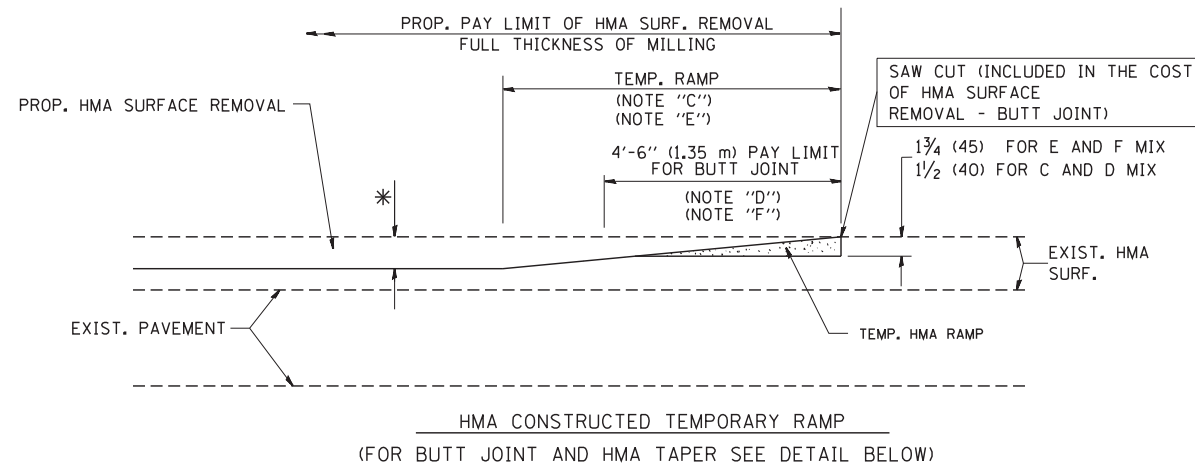
•• MAINTAIN SLOPE OF FACE AS SHOWN ON DETAIL. HEIGHT AND WIDTH OF BARRIER INCREASE WHERE A DIFFERENCE IN MEDIAN EDGE-OF-PAVEMENT GRADE ELEVATION EXISTS.

• COST OF SAND BACKFILL, CONCRETE SURFACE (6"), AND PIER FILLER MATERIAL WILL NOT BE INCIDENTAL.

FILE NAME = W:\diststd\22x34\bd27.dgn	USER NAME = gaglianobt	DESIGNED - FORD	REVISED - FORD 12-06-88	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE BARRIER TRANSITION & GENERAL DETAILS, CONCRETE BARRIER BASE			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/4/2008	DATE - 09-09-88	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
					BD-27							

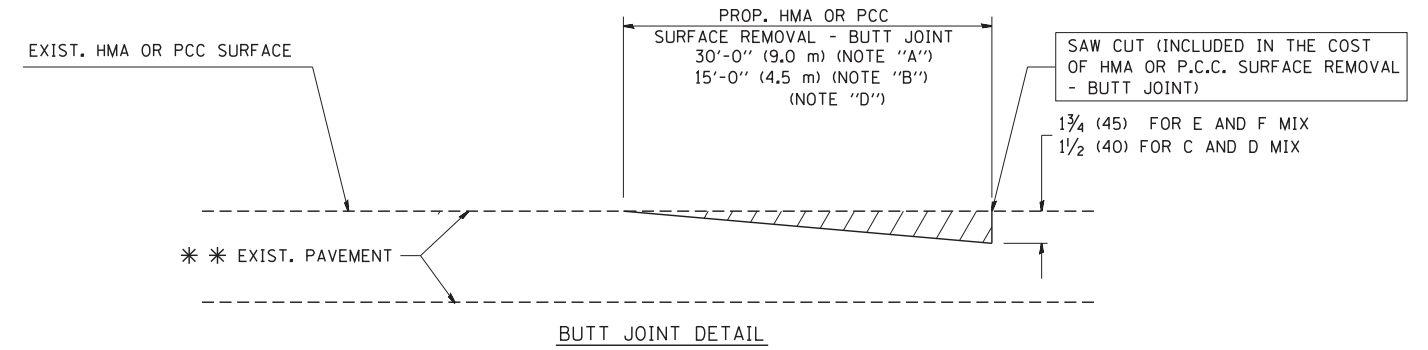


OPTION 1

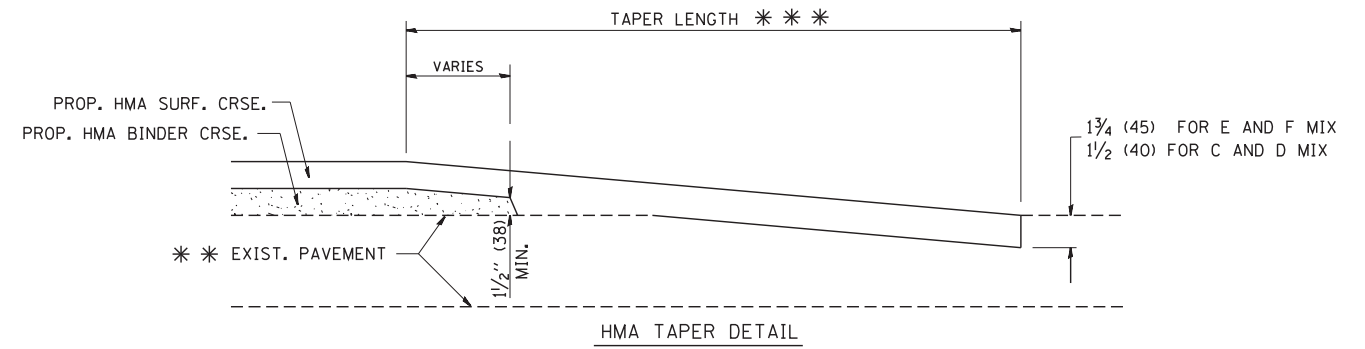


OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

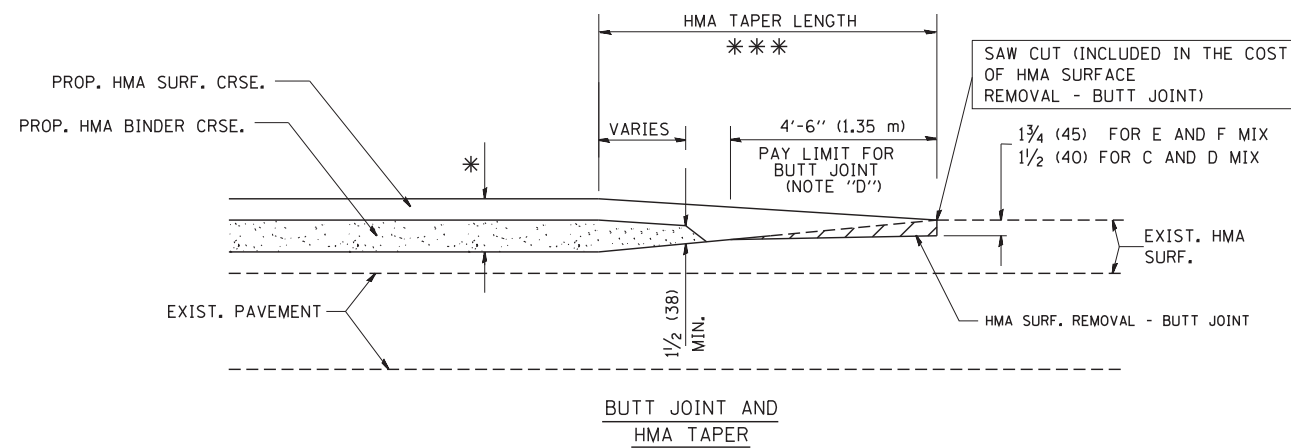
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- * * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

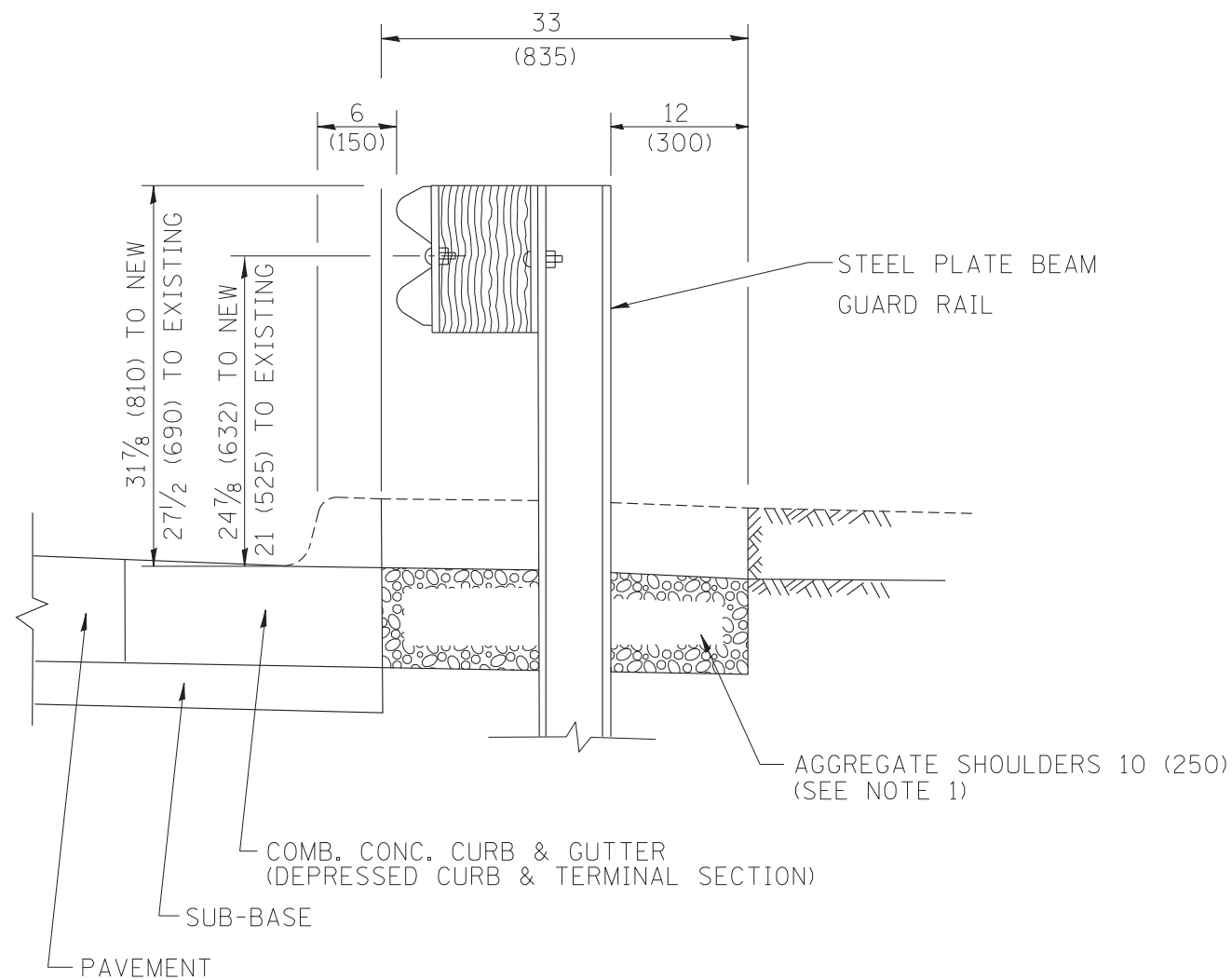
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		DRAWN -	REVISED - A. ABBAS 03-21-97
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	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

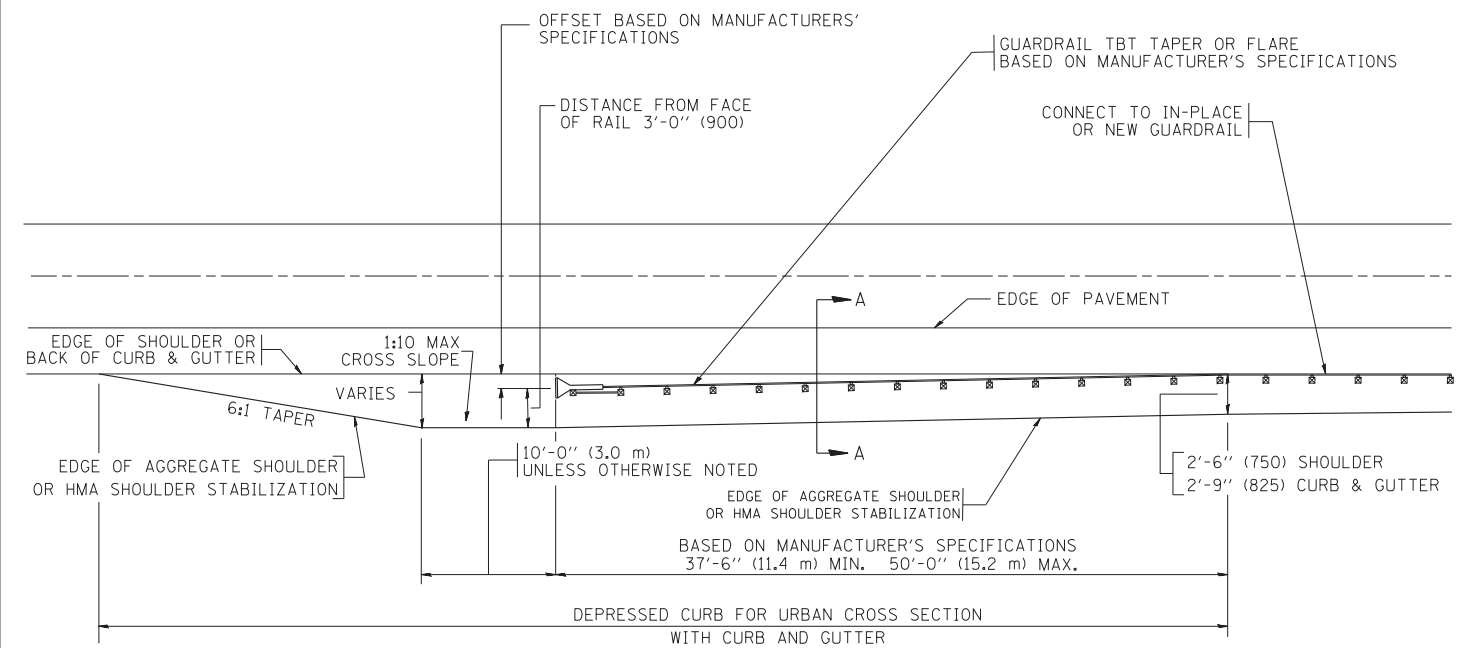
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			888	793
BD400-05 BD32		CONTRACT NO. 60X07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
 2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
 3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND
SHOULDER TREATMENT AT TBT TY. 1 SPL.

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL
 ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

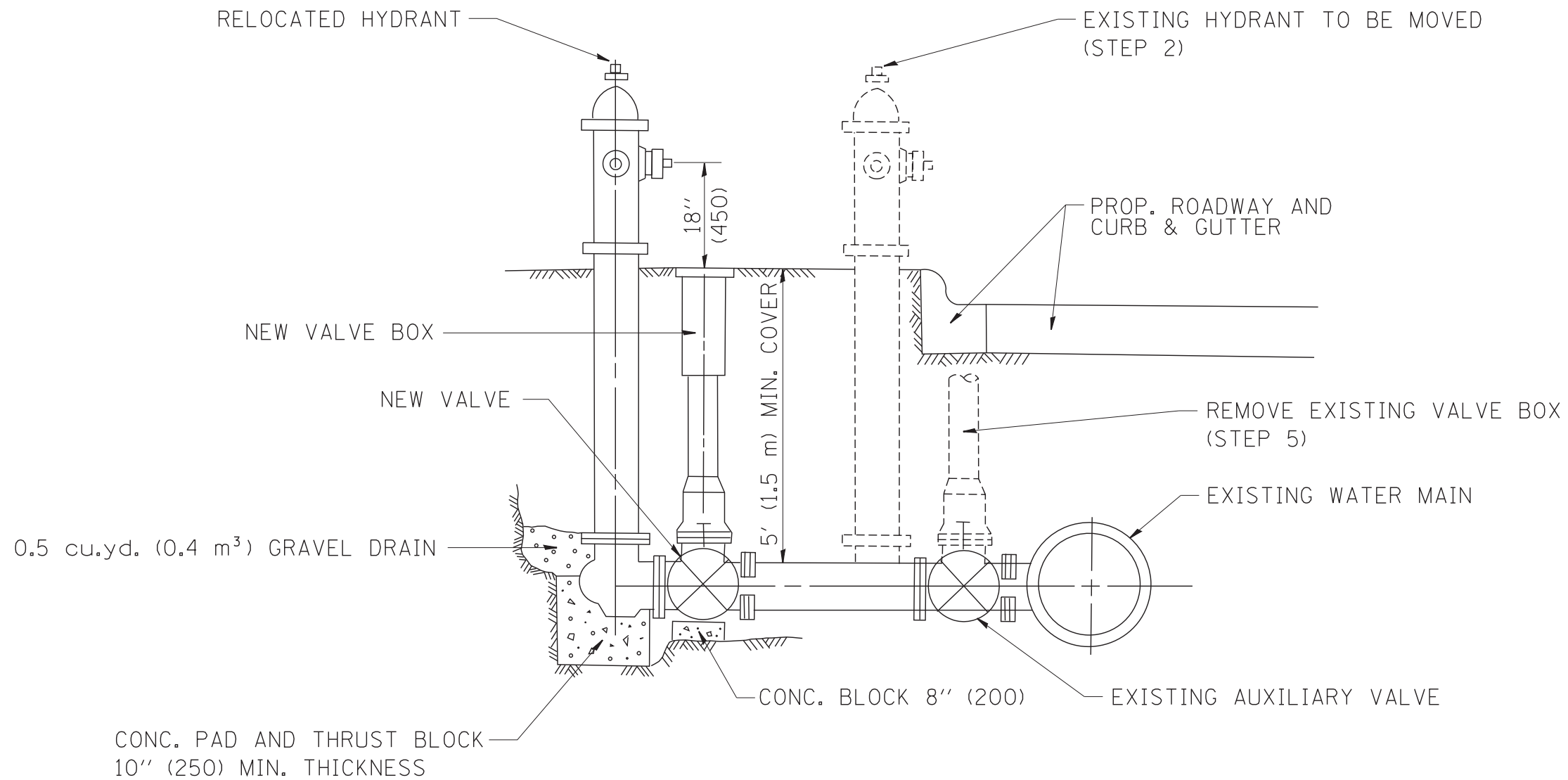
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	PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO 09-14-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR DEPRESSED CURB & GUTTER AND
SHOULDER TREATMENT AT TBT TY 1 SPL.

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			888	794
BD600-10 (BD 34)		CONTRACT NO. 60X07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SEQUENCE OF CONSTRUCTION:

1. CLOSE EXISTING VALVE.
2. REMOVE EXISTING HYDRANT.
3. INSTALL HYDRANT EXTENSION AND NEW VALVE.
4. RELOCATE EXISTING HYDRANT.
5. OPEN EXISTING VALVE, REMOVE BOX.
6. BACKFILL.
7. FLUSH AND TEST FOR CHLORIDE RESIDUAL AND PROVIDE TEST.

ALL WORK TO BE DONE IN ACCORDANCE WITH ARTICLE 564 OF THE STANDARD SPECIFICATIONS. NEW VALVE AND BOX SHALL BE SAME MAKE AND MODEL AS EXISTING.

FIRE HYDRANT TO BE MOVED

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

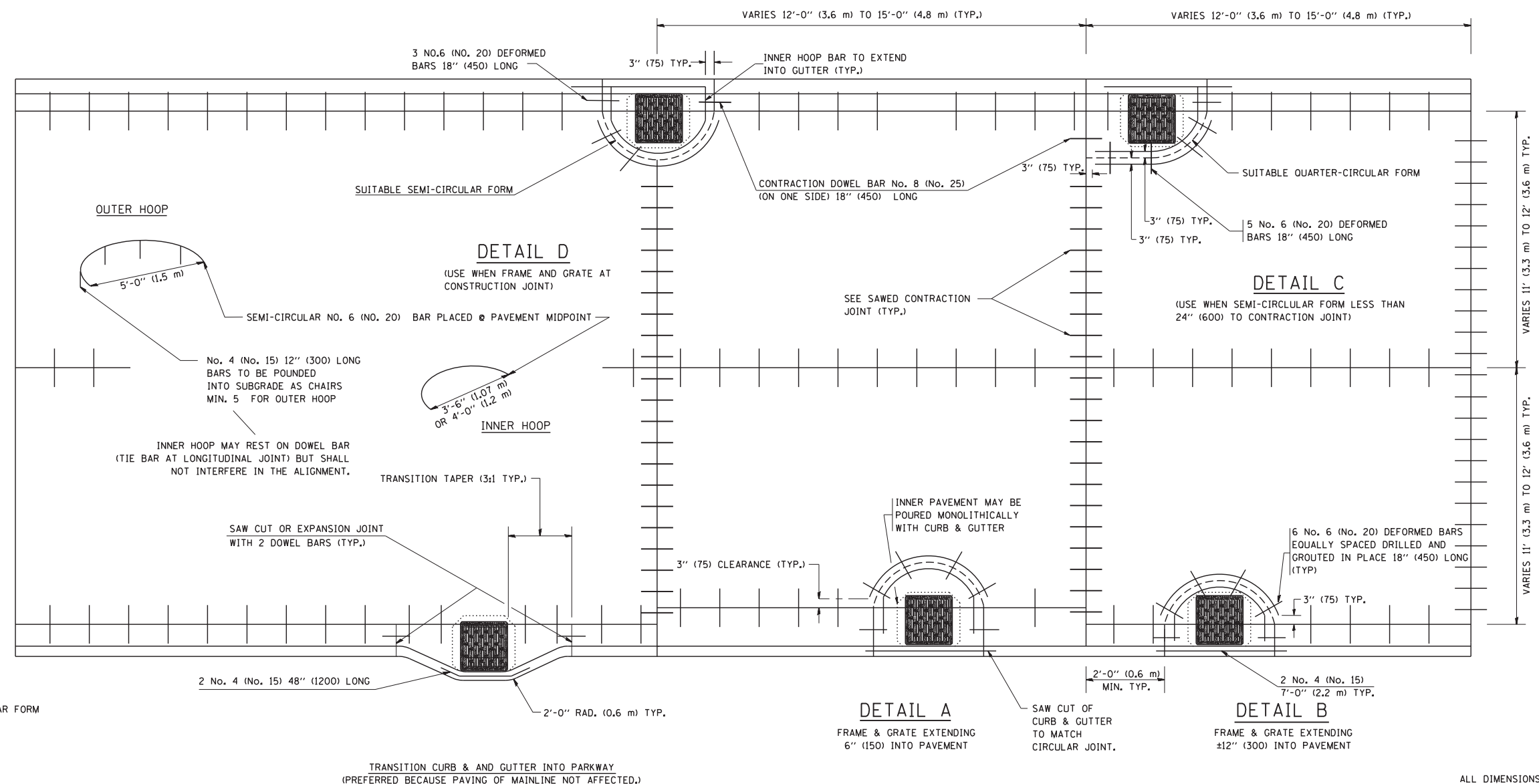
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	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - R. SHAH 10-25-94								888	795
PLOT DATE = 1/4/2008	CHECKED -	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
									BD-36 CONTRACT NO. 60X07			

FRAME EXTENSION INTO PAVEMENT	INNER HOOP REINFORCEMENT DIAMETER	SEMI CIRCULAR FORM DIAMETER	OUTER HOOP REINFORCEMENT DIAMETER
UP TO 8" (200)	3'-6" (1.1 m)	4'-0" (1.2 m)	5'-0" (1.5 m)
> 8" (200) TO 14" (360)	4'-0" (1.2 m)	4'-6" (1.4 m)	5'-0" (1.5 m)

DESIGNER NOTE:
THIS DETAIL IS TO BE USED
WHEN THE GUTTER FLAG IS
LESS THAN 24"

NOTES :

1. THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
2. TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT. EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
3. SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.
4. ALL REINFORCED BARS SHALL BE EPOXY COATED.
5. DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.
6. WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE FRAMES FILLED WITH NON SHRINK GROUT.
7. HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
8. CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
9. CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.



LEGEND:
..... CASTING
----- SUITABLE SEMI-CIRCULAR FORM

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS) UNLESS OTHERWISE NOTED

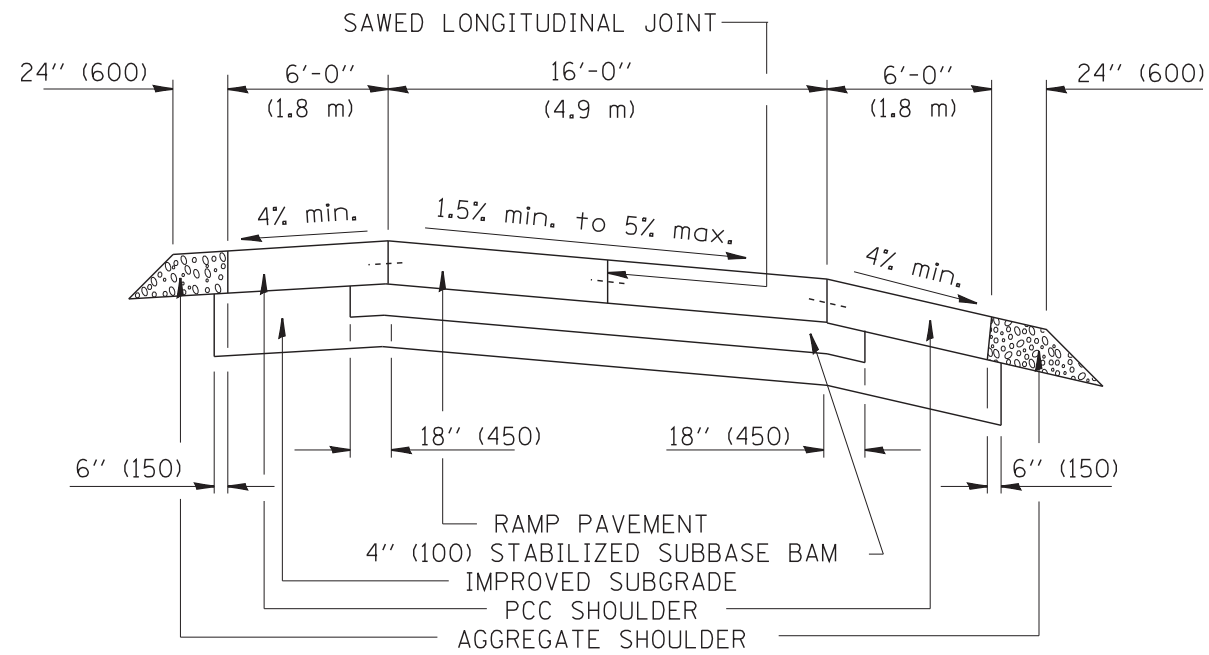
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	PLOT DATE = 1/4/2008	DATE - 01-04-99	REVISED - P. LAFLEUR 08-27-02

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PCC PAVEMENT ROUNDOUTS AT
CURB AND GUTTER

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

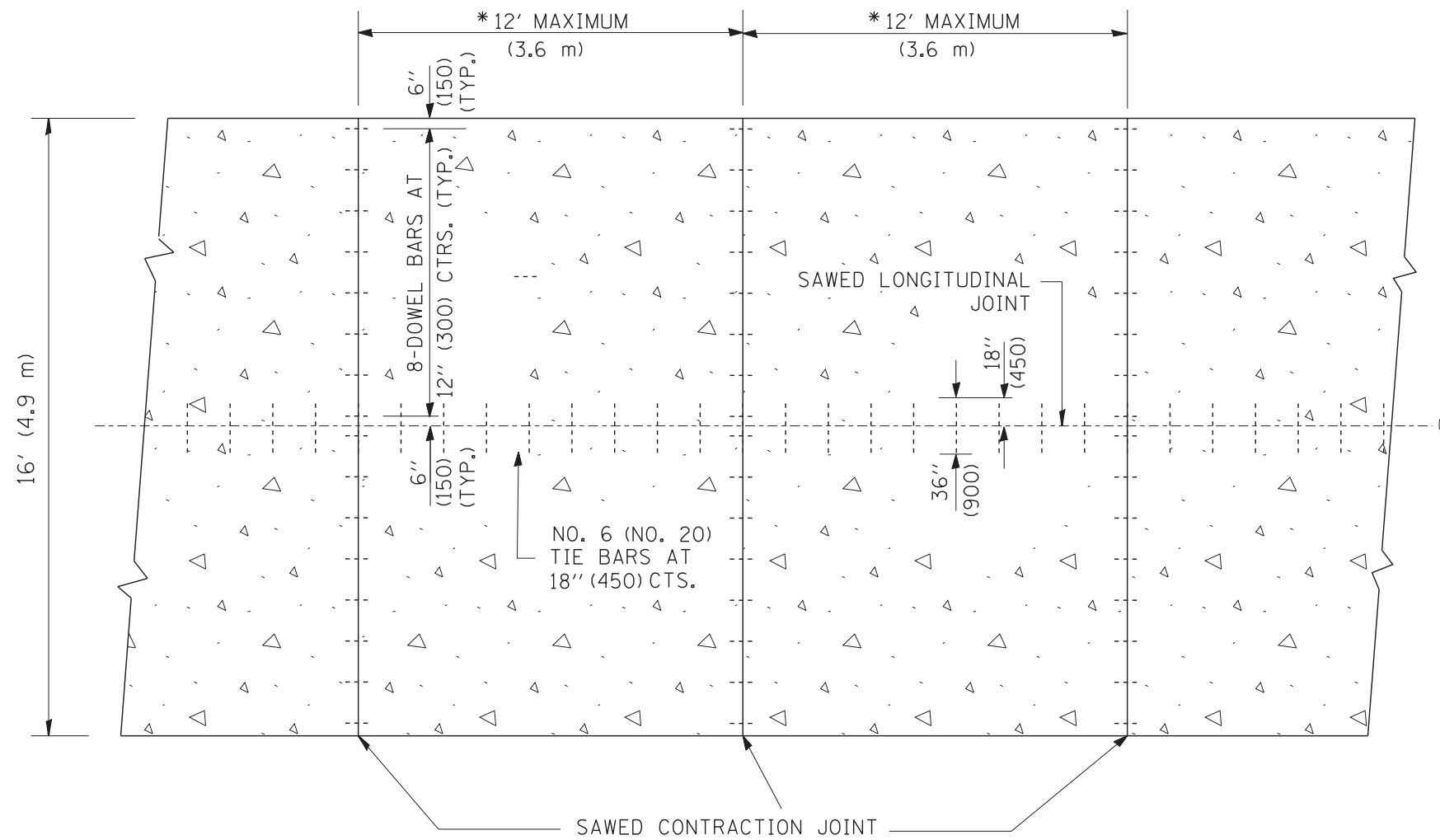
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	BD-48		888	796
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X07	



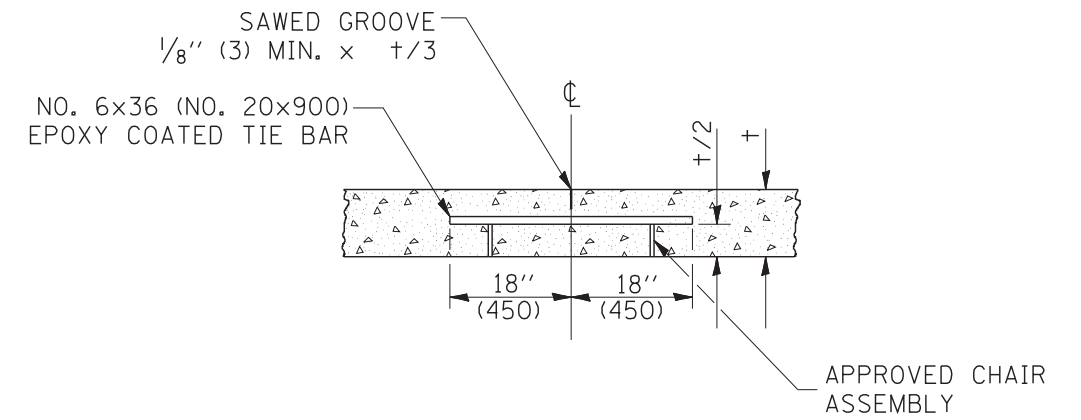
SECTION

NOTES:

1. CENTERLINE JOINT REMAINS IN THE CENTER WHEN RAMP TRANSITIONS TO TWO (2) RAMPS AT 12' (3.6 m).
2. ALL BARS TO BE EPOXY COATED.



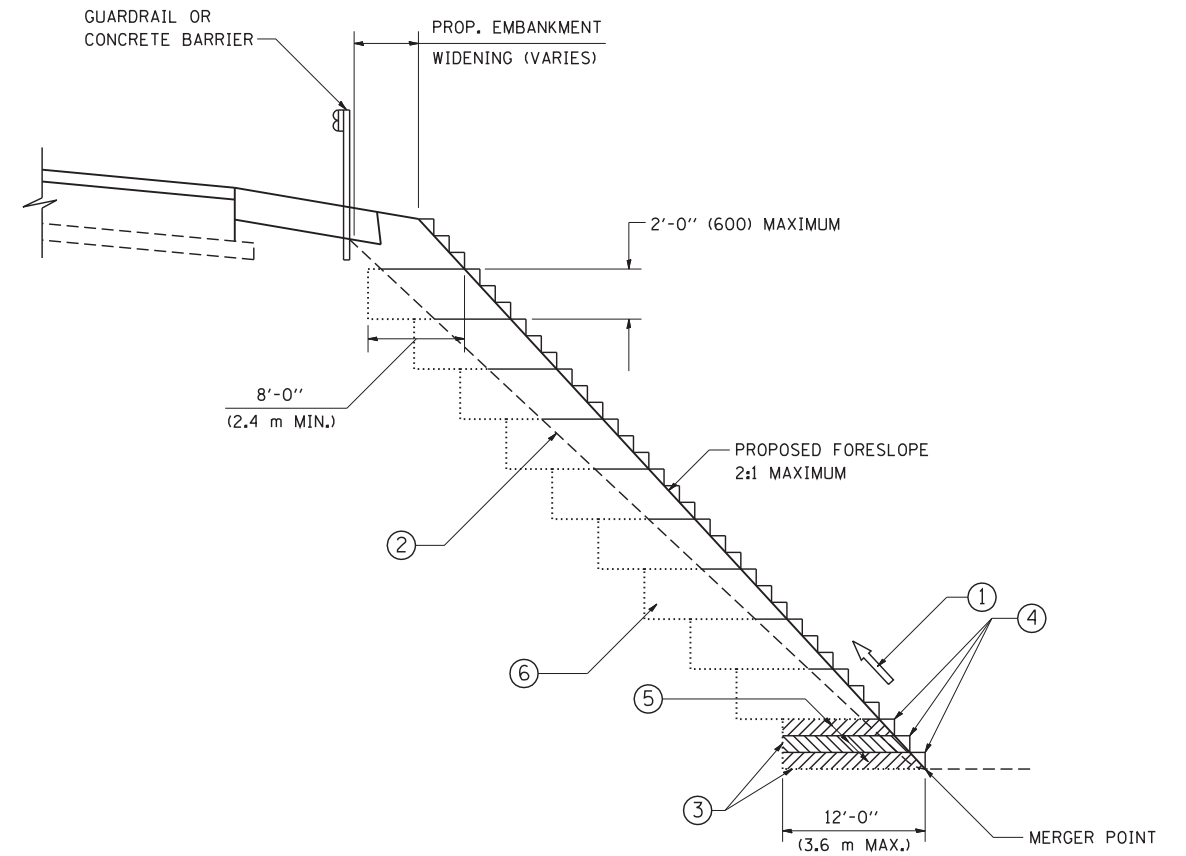
PLAN



SAWED LONGITUDINAL JOINT

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS) UNLESS OTHERWISE NOTED

FILE NAME = W:\diststd\22x34\bd49.dgn	USER NAME = geglionbt	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL FOR CENTERLINE SAW CUT 16' (4.9 m) AND VARIABLE JOINTED PCC PAVEMENT FOR RAMPS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN - TOM MATOUSEK	REVISED -						888	797
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		DATE - 10-18-02	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
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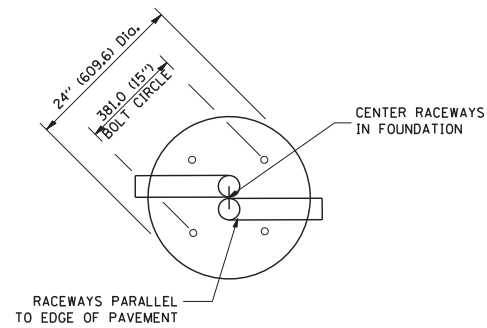
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL			
FOR EMBANKMENT WIDENING			
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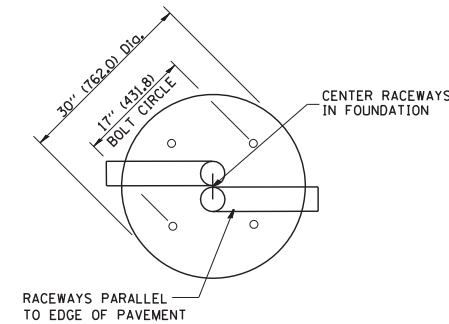
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			888	798
BD-51		CONTRACT NO. 60X07		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O _u = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O _u = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O _u = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



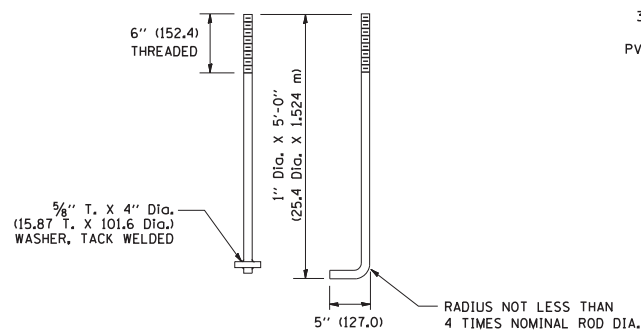
TOP VIEW



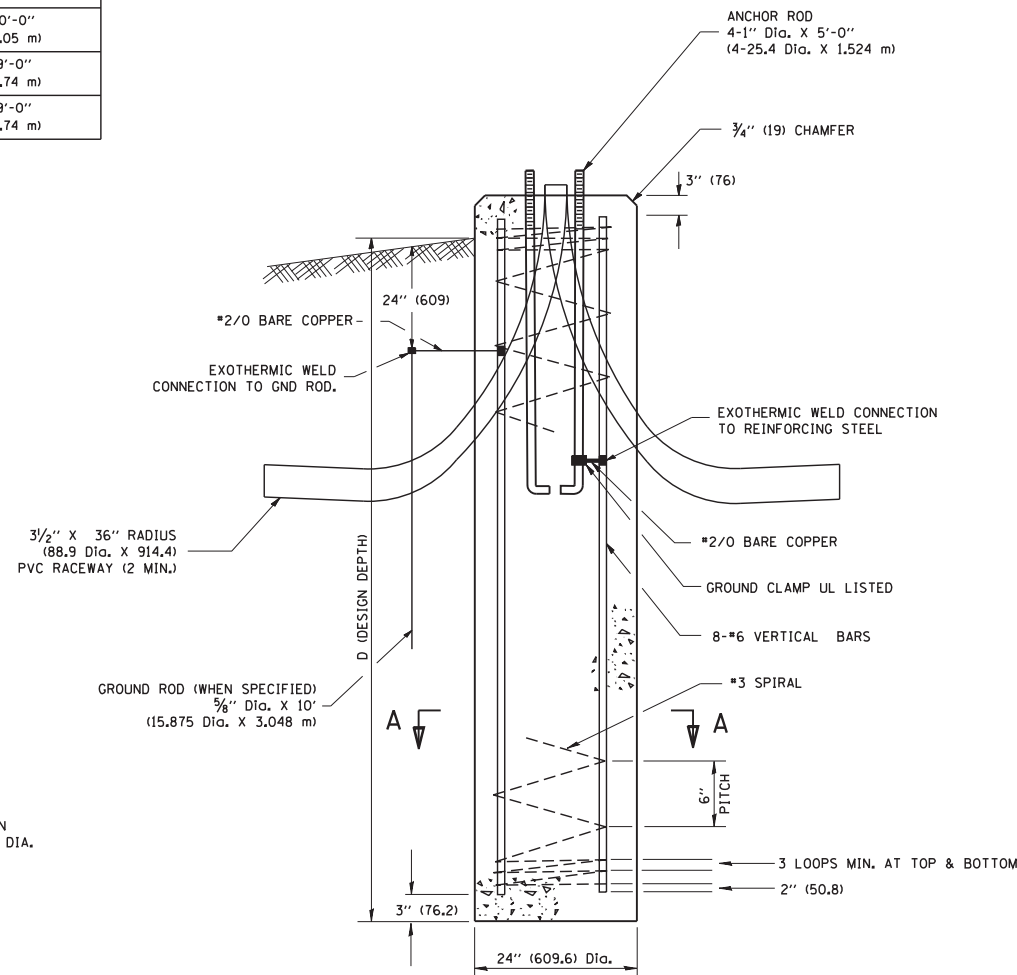
TOP VIEW

NOTES

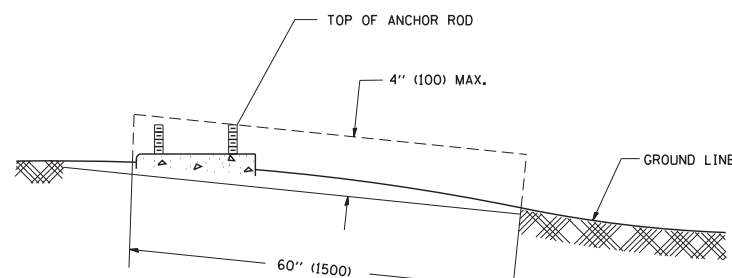
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



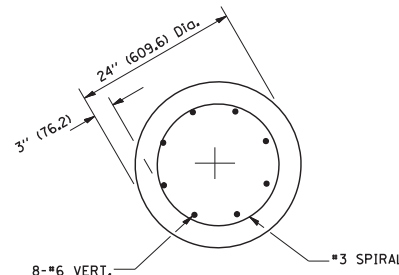
ANCHOR ROD DETAIL



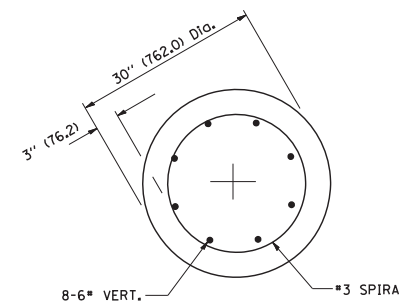
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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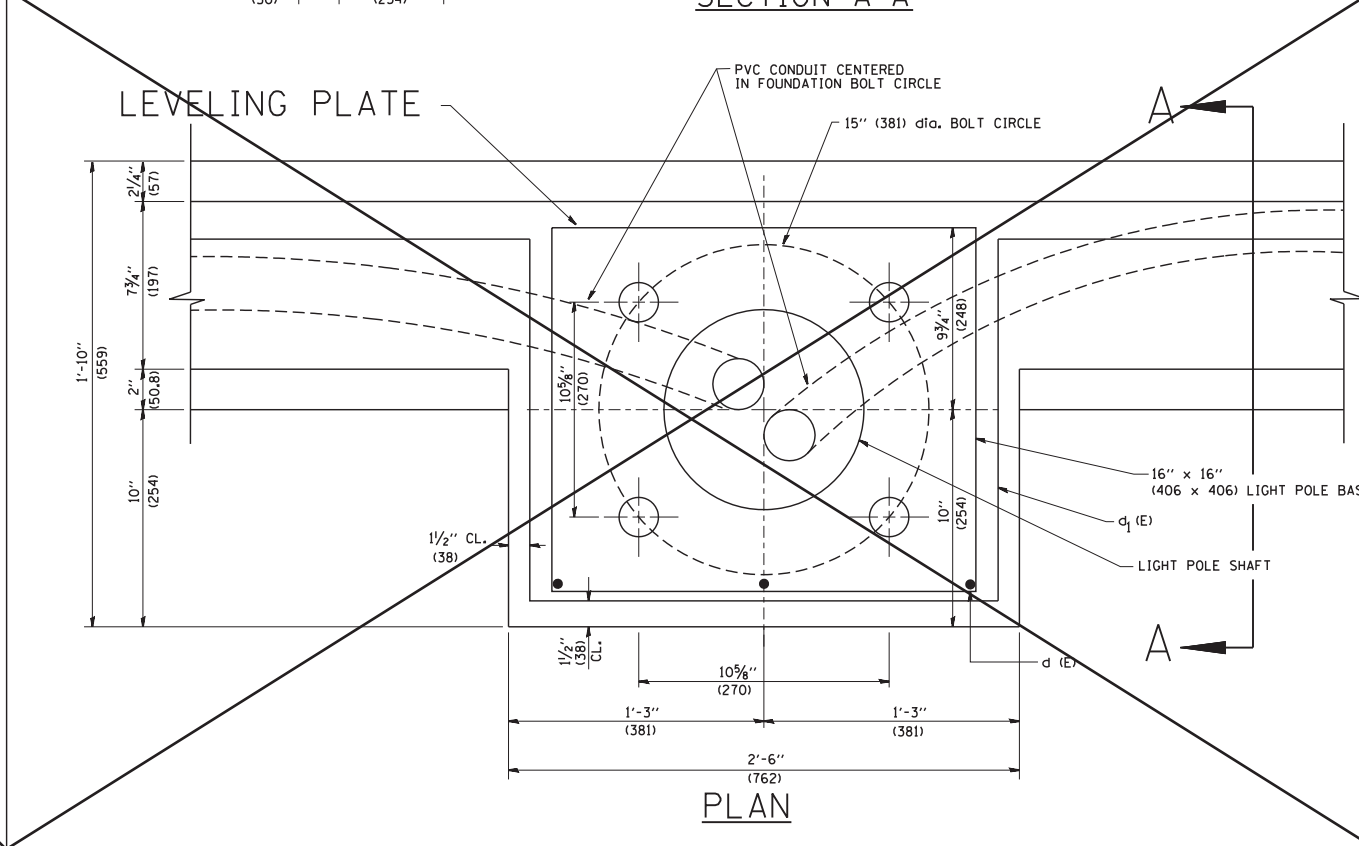
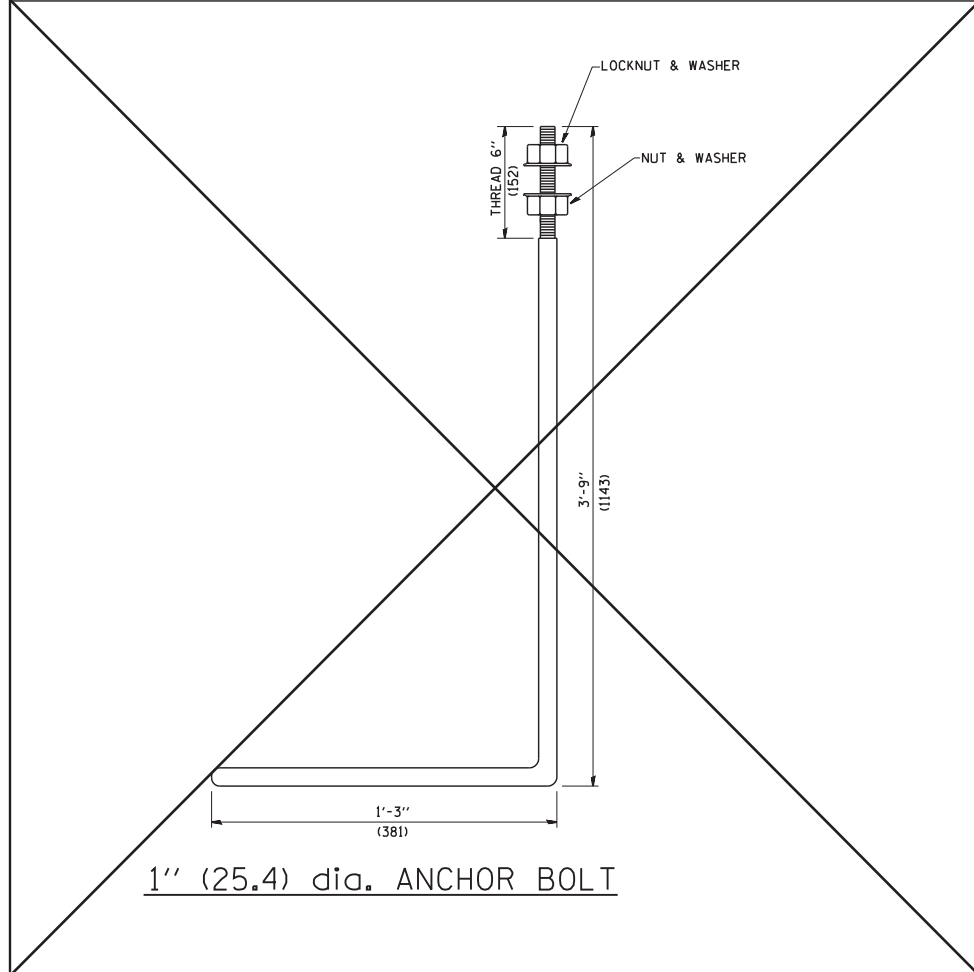
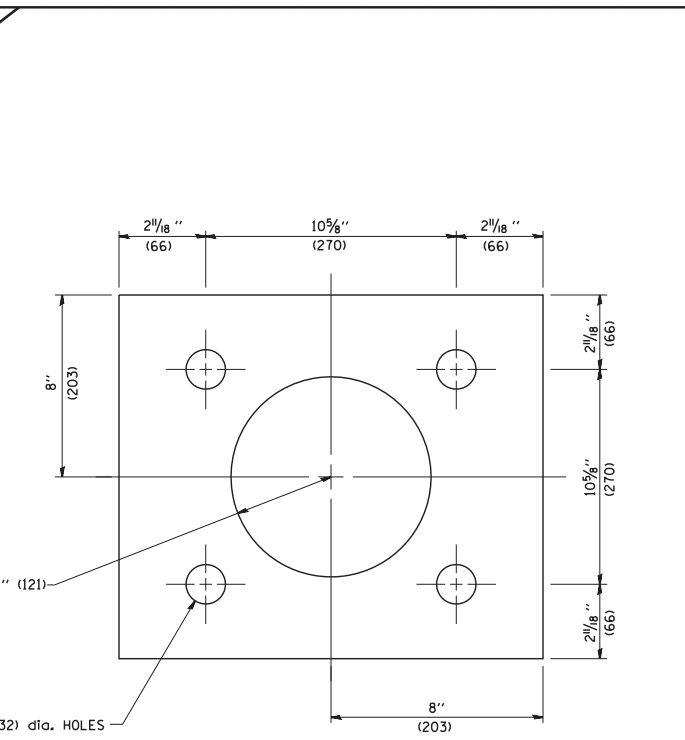
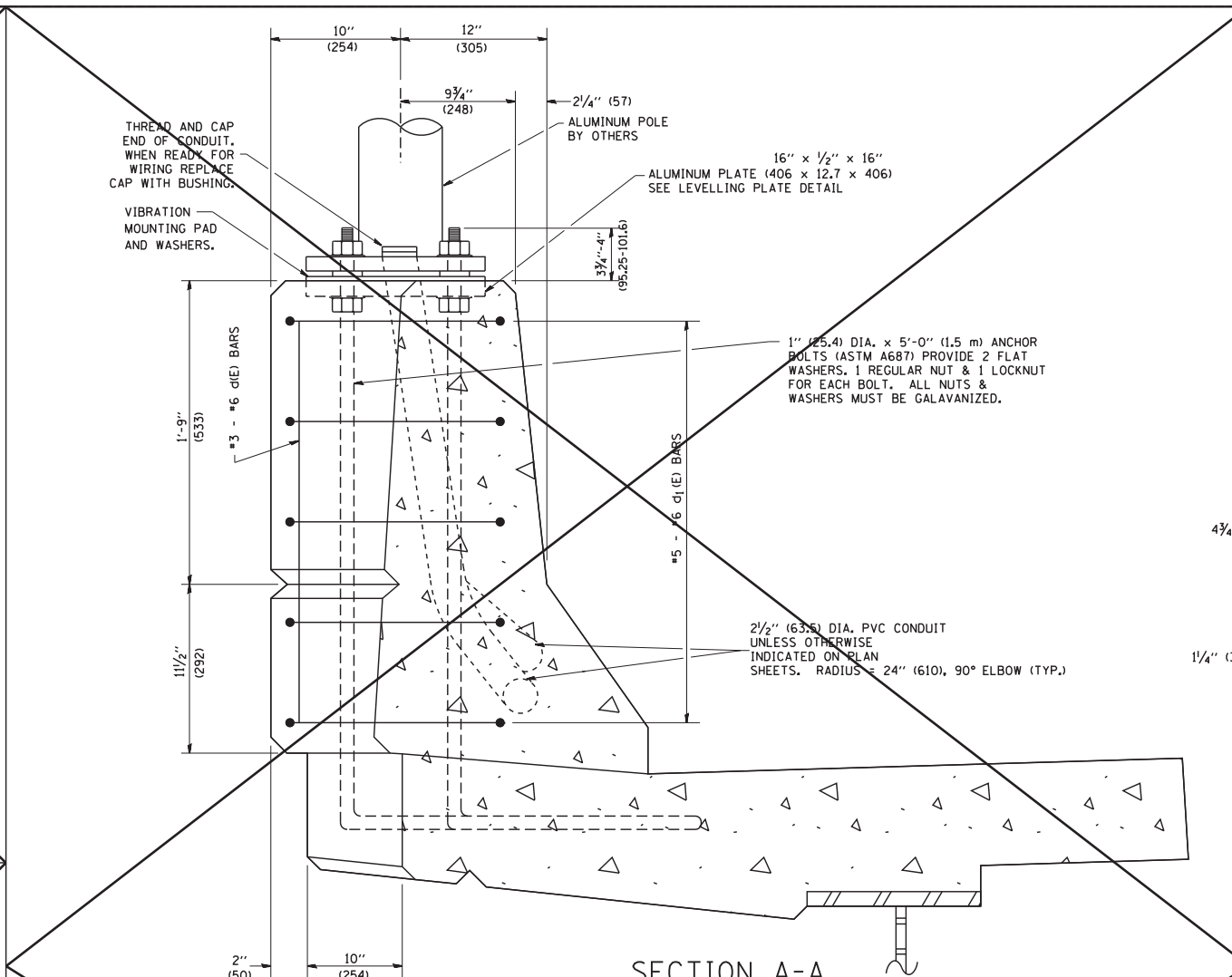
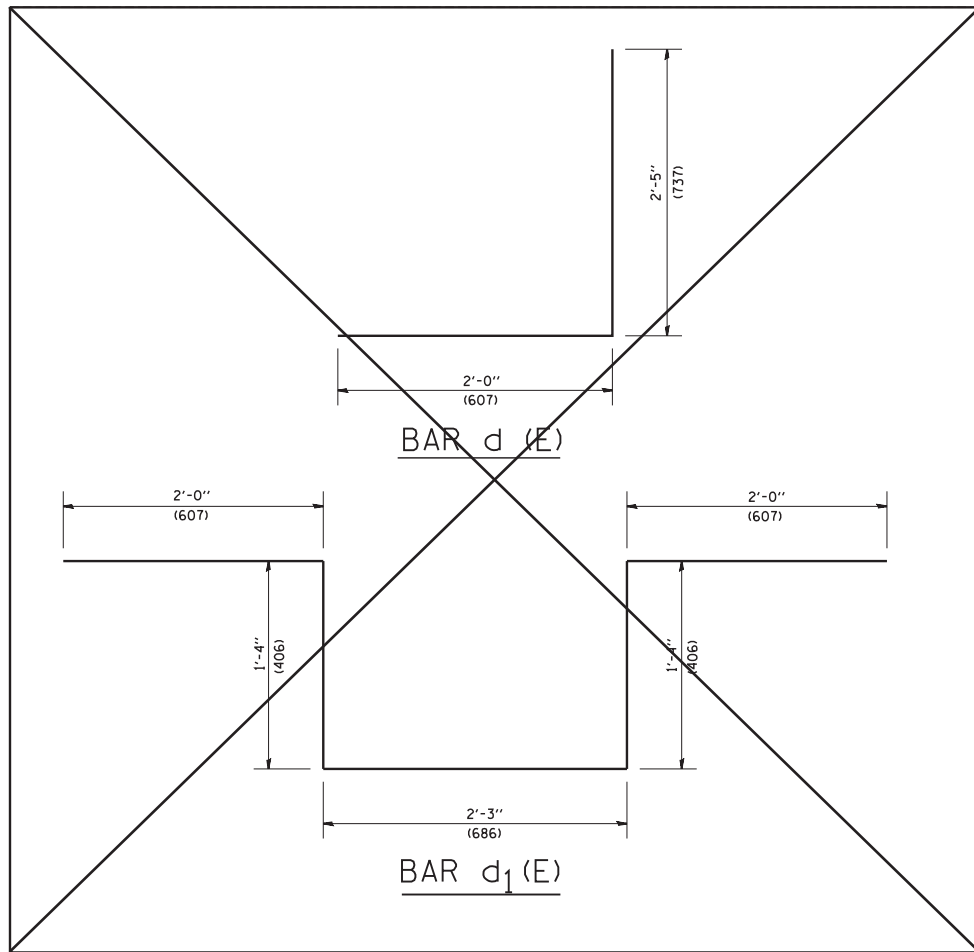
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION

40' (12.192 m) TO 47' 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-301		888	799
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		CONTRACT NO. 60X07		



- NOTES**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
 3. THE COST OF ANCHOR BOLTS, CONDUIT, LEVELLING PLATE AND FOUNDATION IS INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.
 4. THIS DRAWING IS FOR THE LEVELING PLATE DETAIL ONLY. FOR ADDITIONAL LIGHT POLE MOUNTING DETAILS SEE STRUCTURAL PLANS.

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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL
15" (381 mm) BOLT CIRCLE**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-330		888	800
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X07	