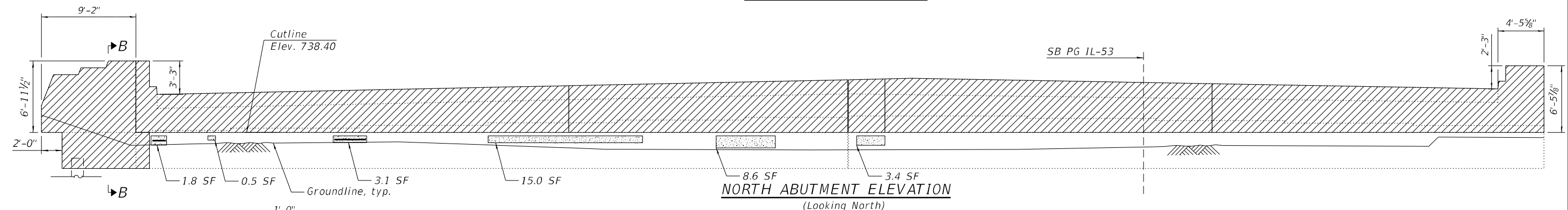
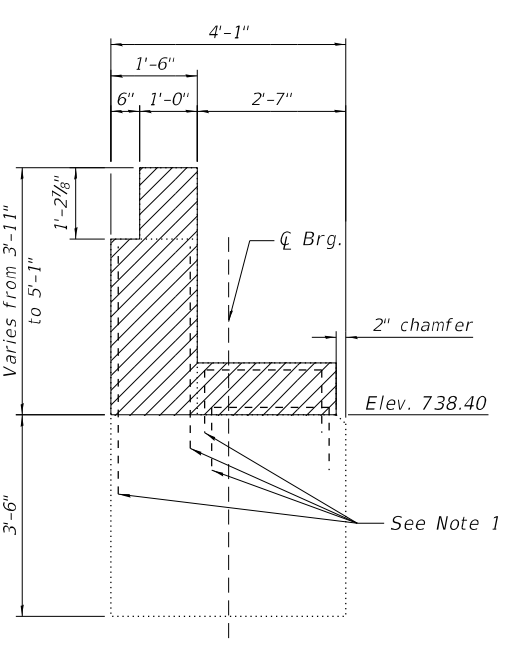


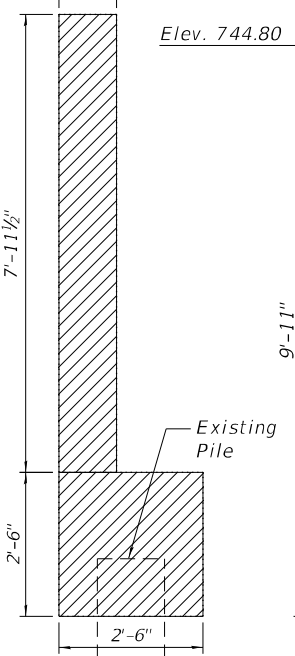
NORTH ABUTMENT PLAN



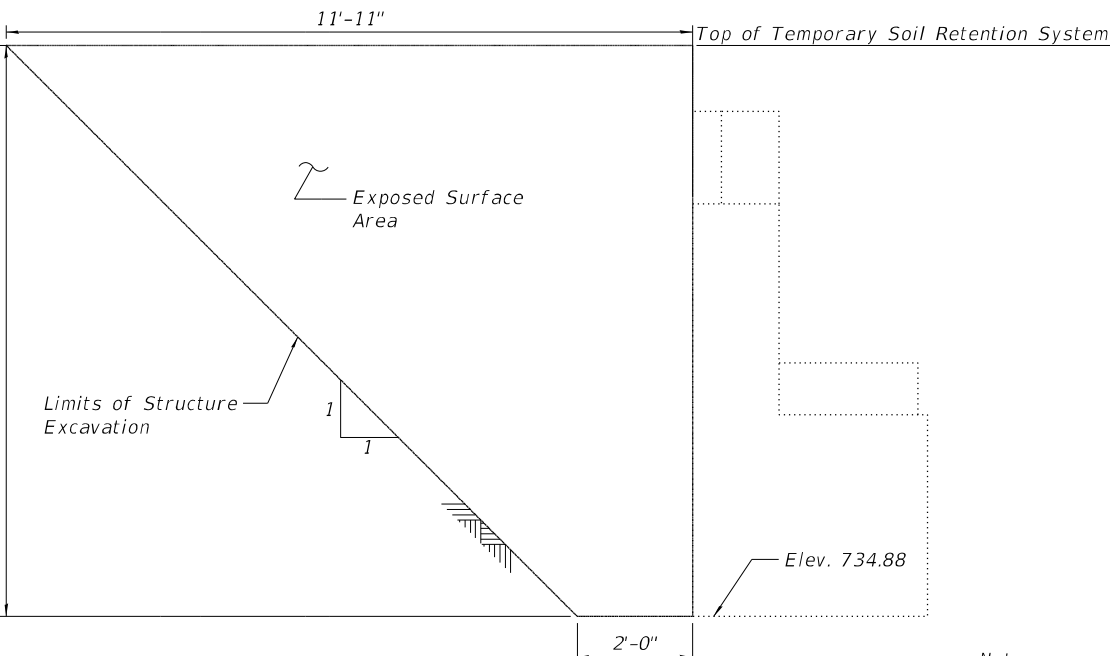
NORTH ABUTMENT ELEVATION
(Looking North)



SECTION A-A



SECTION B-B



SECTION C-C - TEMPORARY SOIL RETENTION SYSTEM
(Excavation slope and 2'-0" dim. at Rt. L's to Bk. of Abut.)

LEGEND:

- Concrete Removal
- Temporary Soil Retention System
- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- Structural Repair of Concrete (Depth Greater Than 5 Inches)
- SF Square Feet

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	46.5
Temporary Soil Retention System	SQ FT	208
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	28
Structural Repair of Concrete (Depth Greater Than 5 Inches)	SQ FT	5

- Notes:
- Existing vertical reinforcement in back wall shall be cleaned and incorporated into new construction. Cost included in the cost of "Concrete Removal".
 - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
 - Contractor to take care not to damage pile or pile anchorage during Concrete Removal.
 - For additional information, see Existing Drawings.
 - A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soilretention system design including plan details and calculations for review and acceptance by the Engineer.

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1170 SOUTH HOUBOLT ROAD
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IDFPR NO. 184-001273

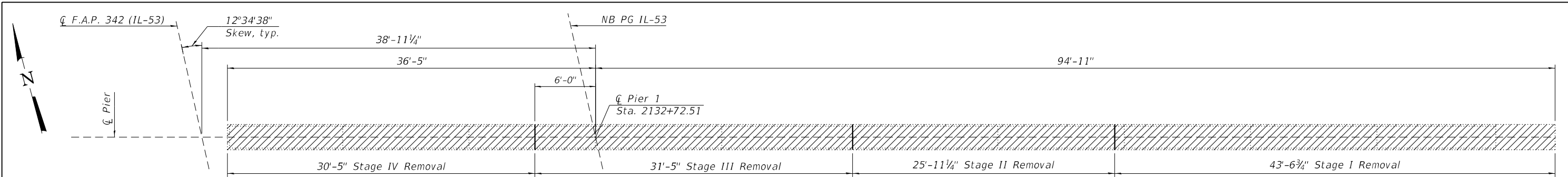
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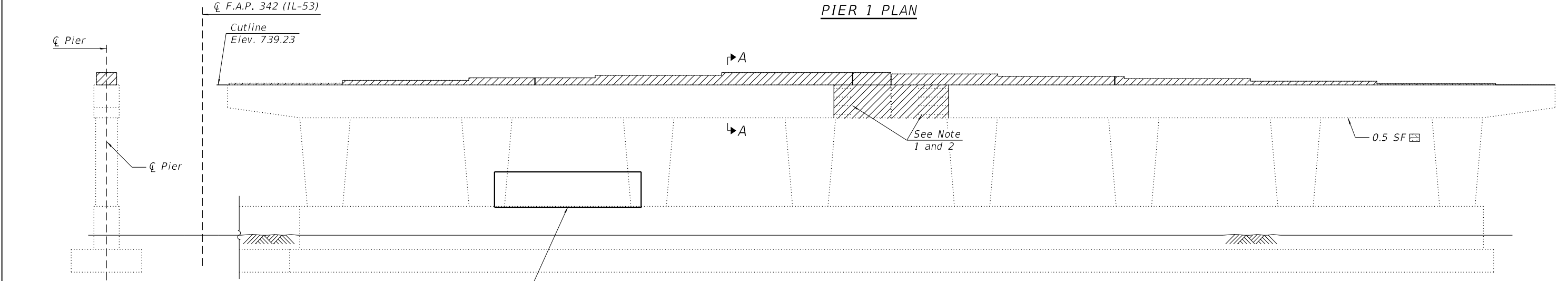
**NORTH ABUTMENT REMOVAL AND REPAIRS
STRUCTURE NO. 016-2133 (SB)**

SHEET 54 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 801
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

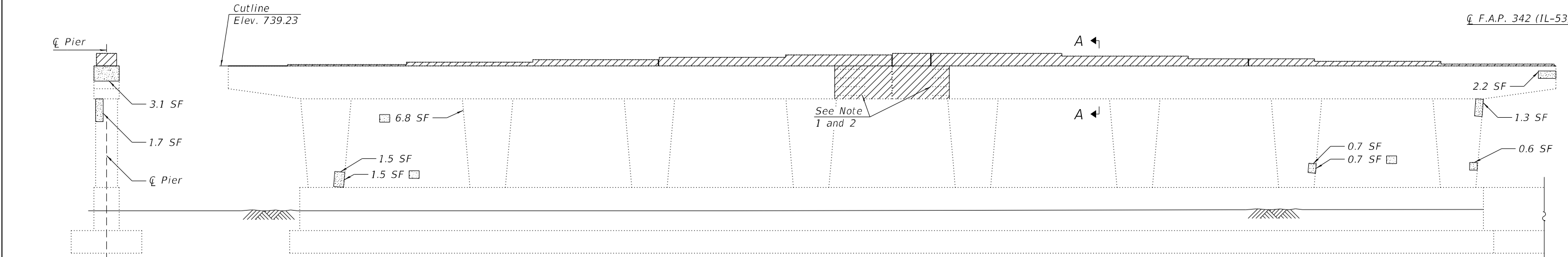


PIER 1 PLAN



PIER 1 EAST ELEVATION
(Looking West)

SOUTH FACE PIER 1
(Looking North)



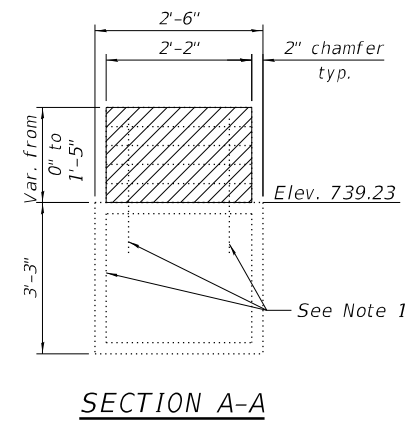
PIER 1 WEST ELEVATION
(Looking East)

NORTH FACE PIER 1
(Looking South)

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	9.8
Fence Removal	FOOT	98
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	21
Structural Repair of Concrete (Depth Greater Than 5 Inches)	SQ FT	1

- Notes:
- Existing reinforcement shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
 - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
 - For additional information, see Existing drawings.



SECTION A-A

LEGEND:

- Concrete Removal
- Structural Repair of Concrete (Depth Greater Than 5 Inches)
- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- SF Square Feet

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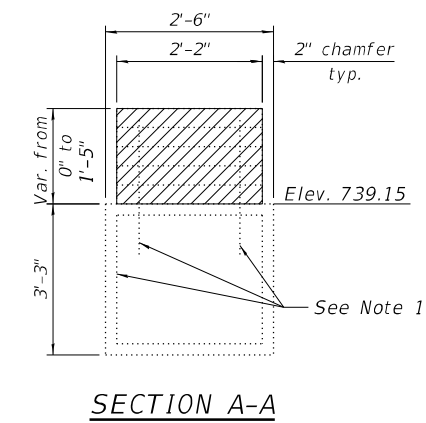
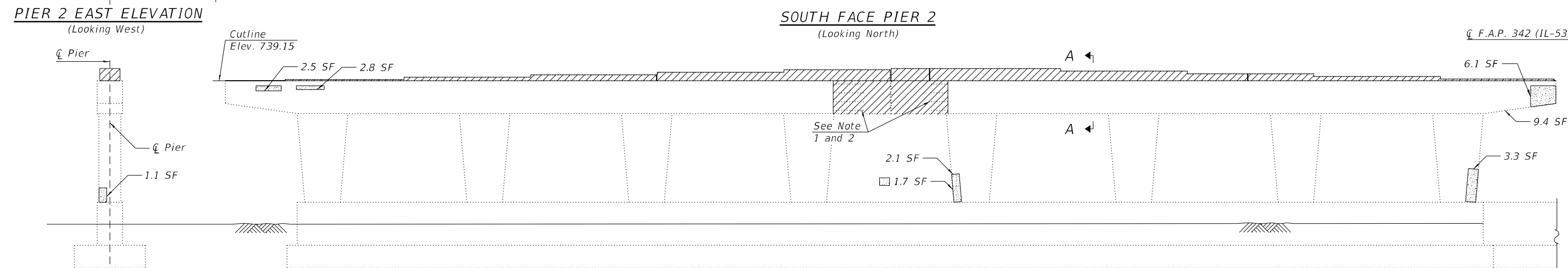
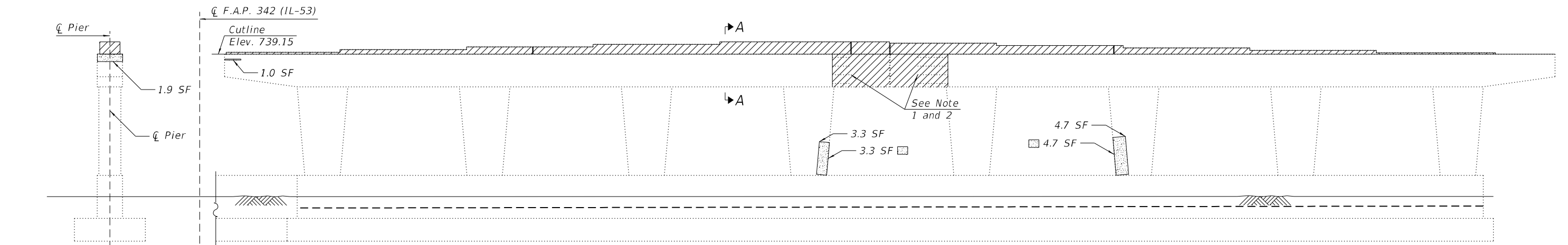
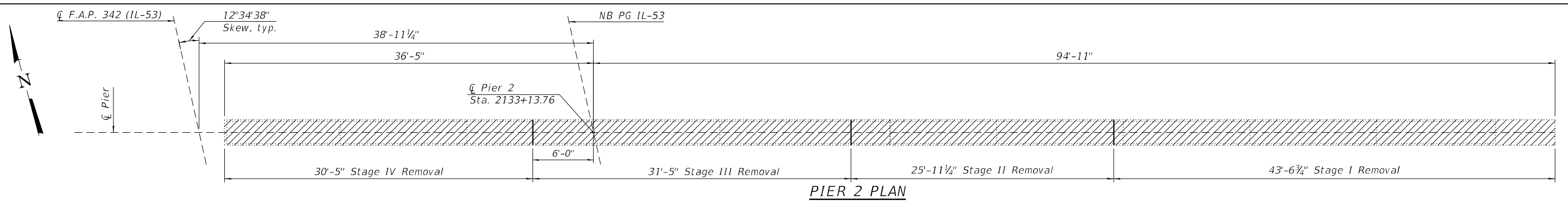


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PIER 1 REMOVAL AND REPAIRS
STRUCTURE NO. 016-0378 (NB)

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 802
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	9.9
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	48

LEGEND:

	Concrete Removal
	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
SF	Square Feet

- Notes:**
- Existing reinforcement shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
 - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
 - For additional information, see Existing drawings.

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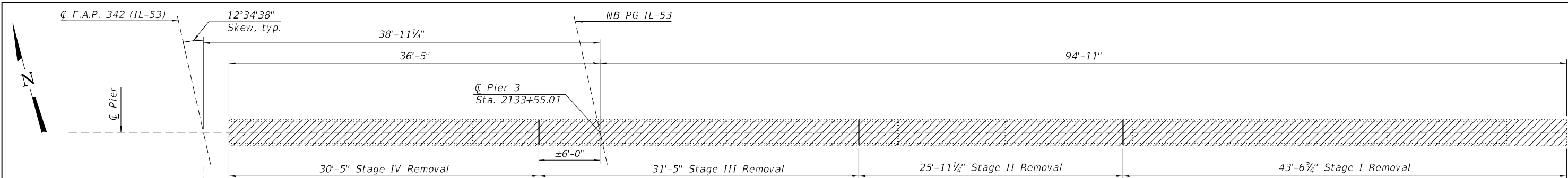
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

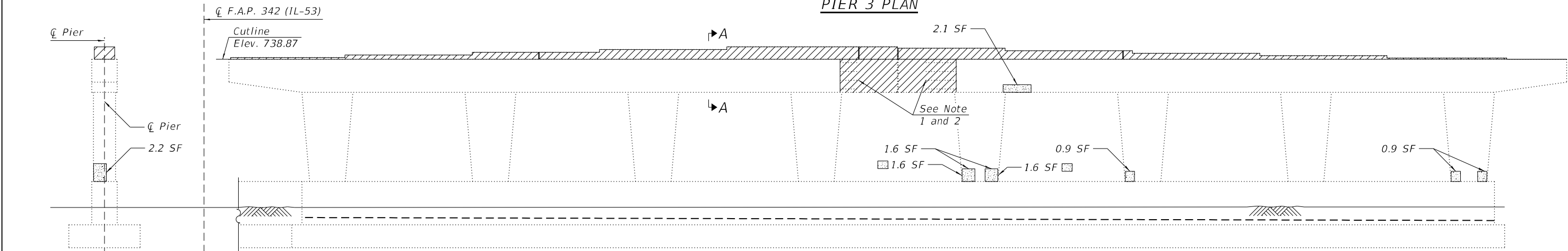
**PIER 2 REMOVAL AND REPAIRS
STRUCTURE NO. 016-0378 (NB)**

SHEET 56 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 803
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

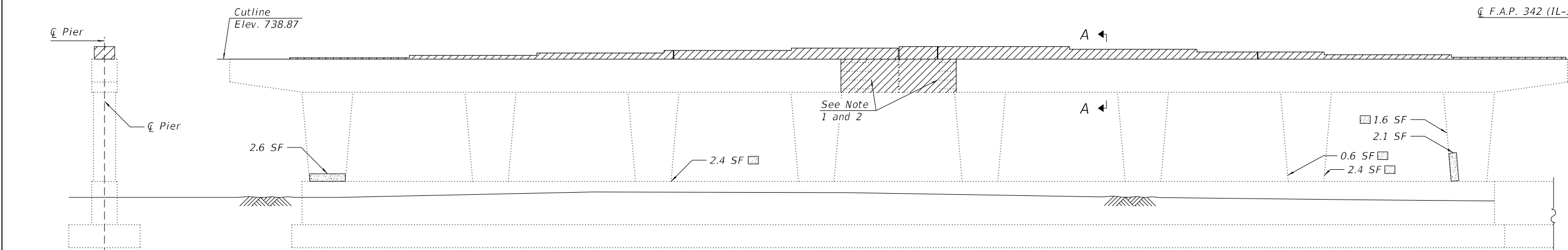


PIER 3 PLAN



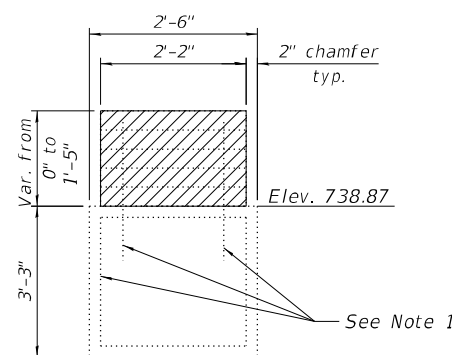
PIER 3 EAST ELEVATION
(Looking West)

SOUTH FACE PIER 3
(Looking North)



PIER 3 WEST ELEVATION
(Looking East)

NORTH FACE PIER 3
(Looking South)



SECTION A-A

LEGEND:

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
- SF Square Feet

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	10.1
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	26

Notes:

1. Existing reinforcement shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
2. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
3. For additional information, see Existing drawings.

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IDFPR NO. 184-001273

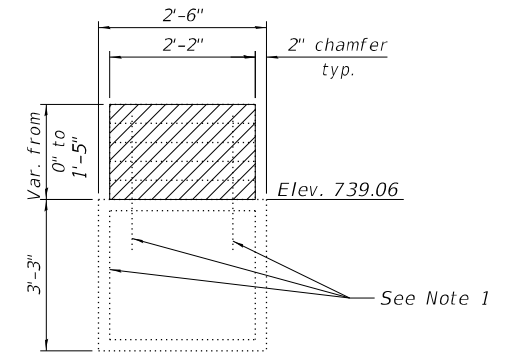
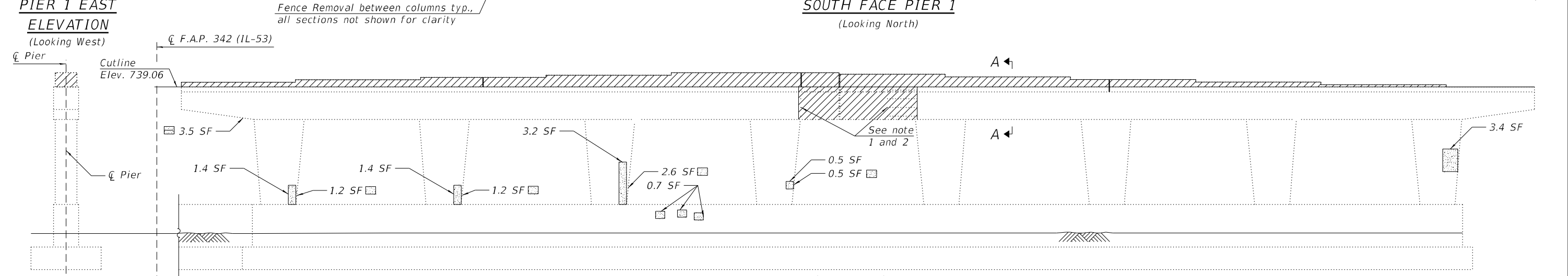
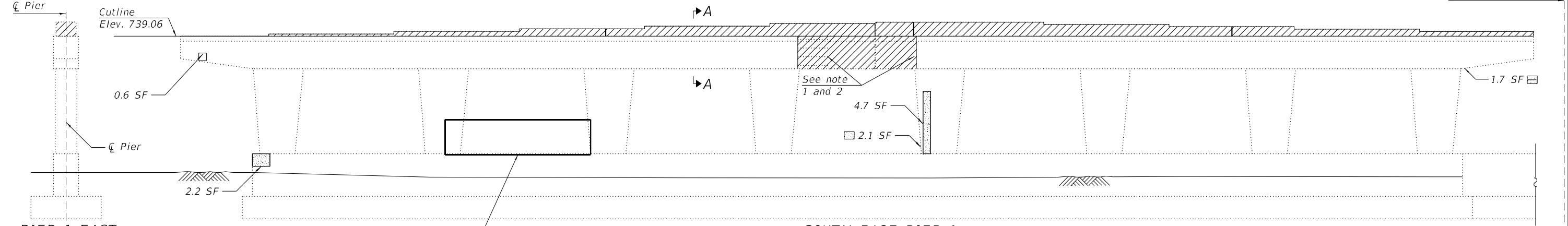
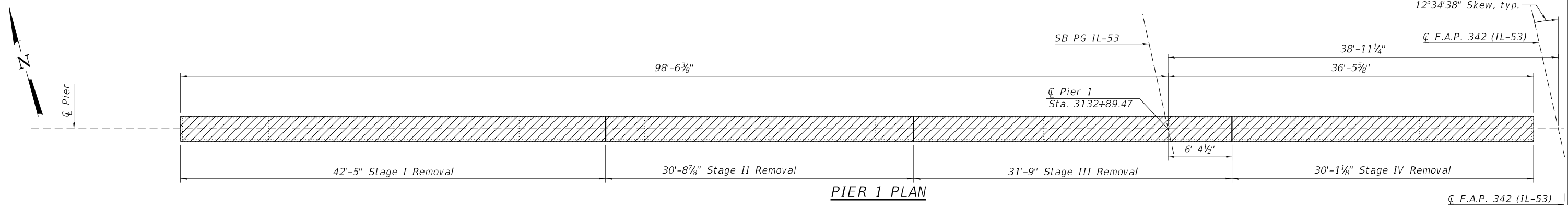
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 REMOVAL AND REPAIRS
STRUCTURE NO. 016-0378 (NB)

SHEET 57 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 804
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



LEGEND:

	Concrete Removal
	Structural Repair of Concrete (Depth Greater Than 5 Inches)
	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
SF	Square Feet

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	11.2
Fence Removal	FOOT	98
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	28
Structural Repair of Concrete (Depth Greater Than 5 Inches)	SQ FT	6

- Notes:**
- Existing reinforcement shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
 - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
 - For additional information, see Existing Drawings.

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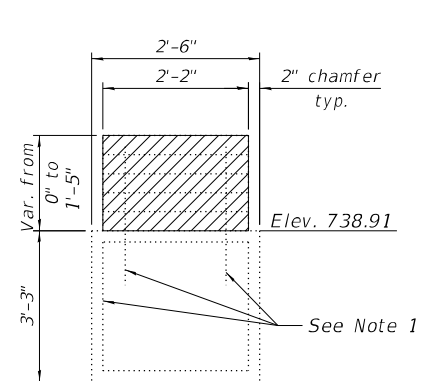
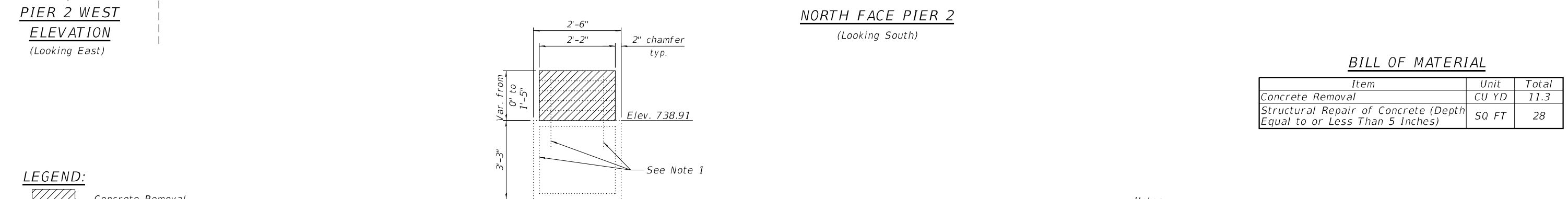
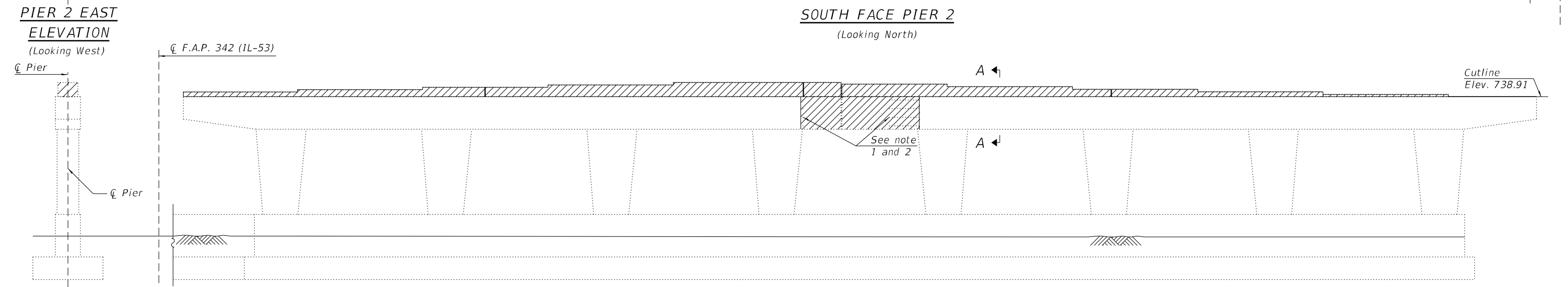
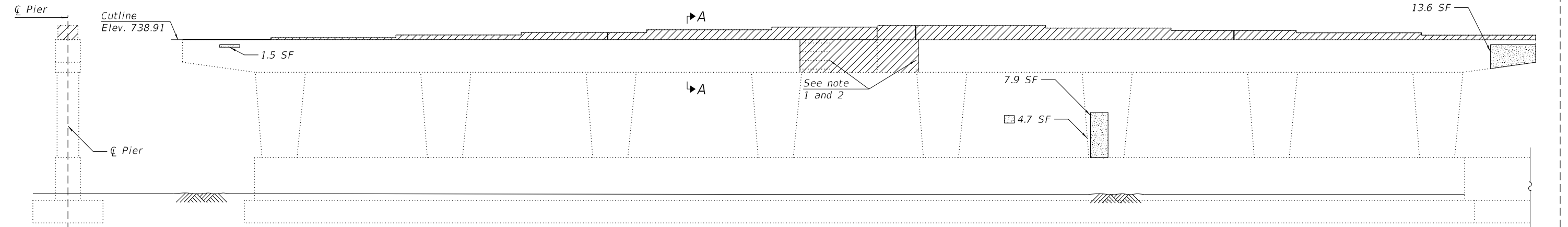
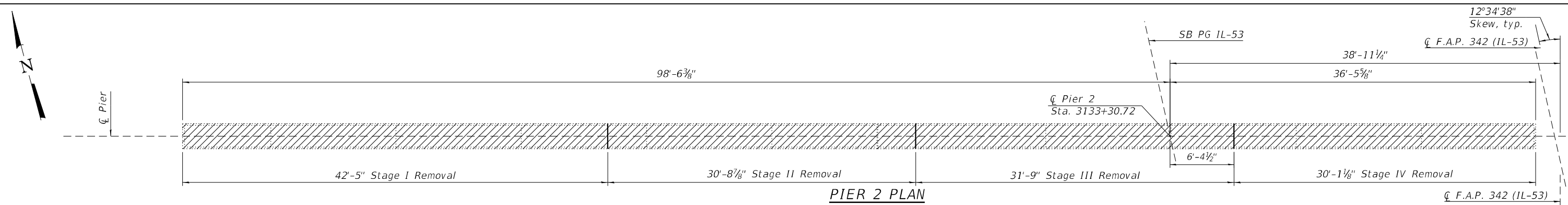
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 1 REMOVAL AND REPAIRS
STRUCTURE NO. 016-2133 (SB)**

SHEET 58 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 805
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	11.3
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	28

- Notes:**
- Existing reinforcement shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
 - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
 - For additional information, see Existing Drawings.

- LEGEND:**
- Concrete Removal
 - Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)
 - SF Square Feet

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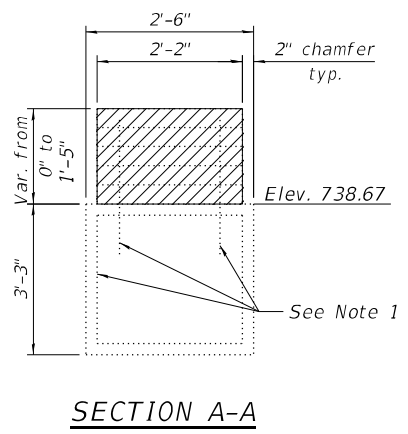
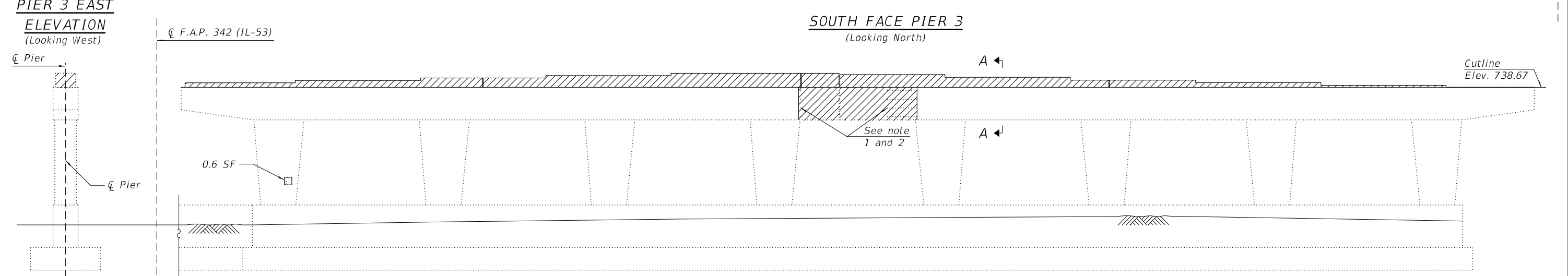
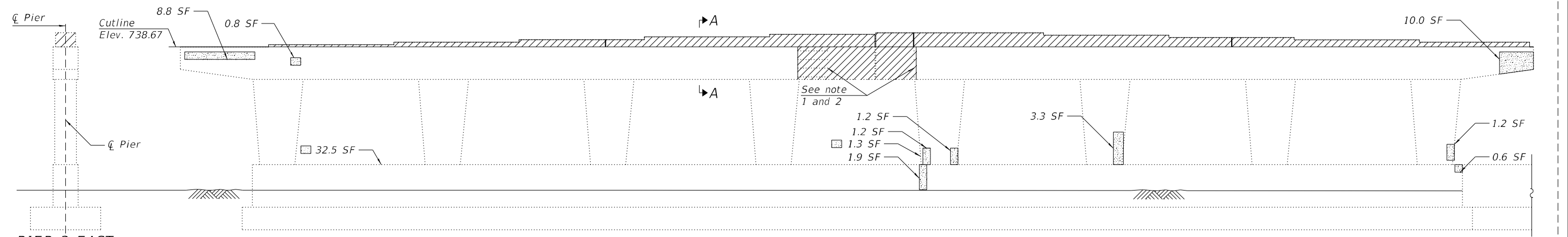
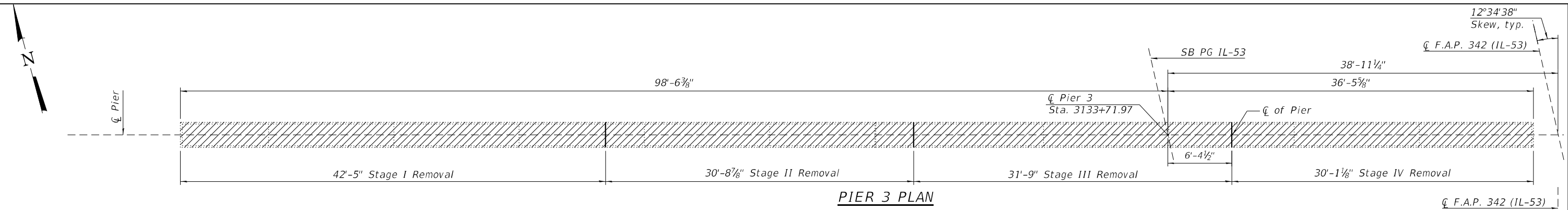
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 2 REMOVAL AND REPAIRS
STRUCTURE NO. 016-2133 (SB)**

SHEET 59 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 806
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	CU YD	10.9
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT	64

- Notes:**
- Existing reinforcement shall be cleaned, straightened and incorporated into new construction. Cost included with Concrete Removal.
 - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the cost of "Concrete Removal".
 - For additional information, see Existing Drawings.
 - See sheet 61 thru 64 of 80 for bearing seat elevation.
 - A flim forming concrete sealer shall be applied to horizontal surfaces to the designated area of the bearing seats. A penetrating concrete sealer shall be applied to vertical suraces to the designated area of all new and existing concrete.

LEGEND:

Concrete Removal

Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

SF Square Feet

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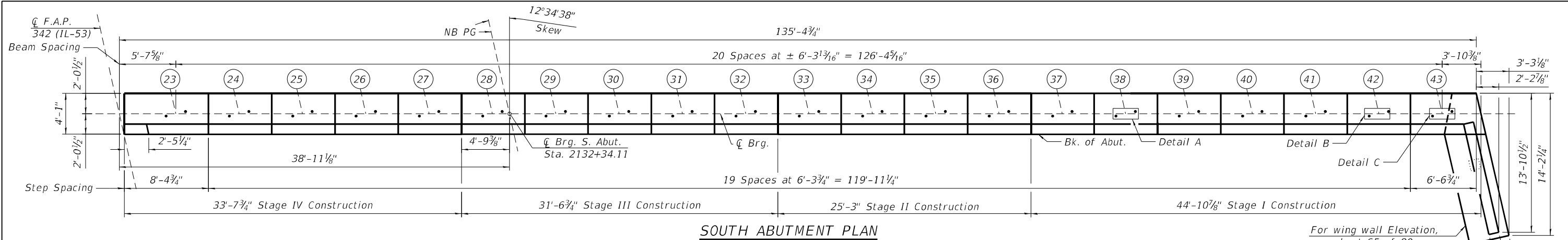
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**PIER 3 REMOVAL AND REPAIRS
STRUCTURE NO. 016-2133 (SB)**

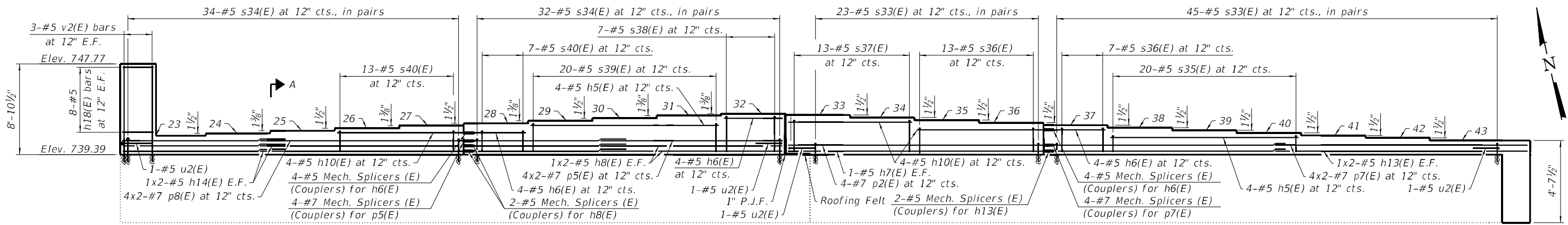
SHEET 60 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 807
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



SOUTH ABUTMENT PLAN

For wing wall Elevation, see sheet 65 of 80.



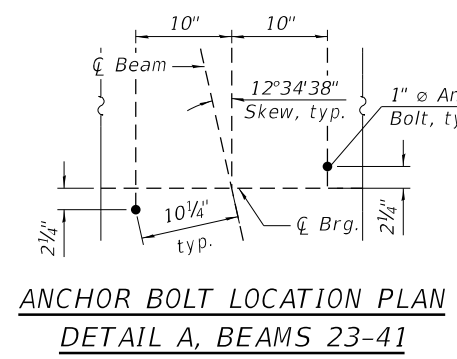
SOUTH ABUTMENT ELEVATION
(Looking South)

BEARING SEAT ELEVATIONS

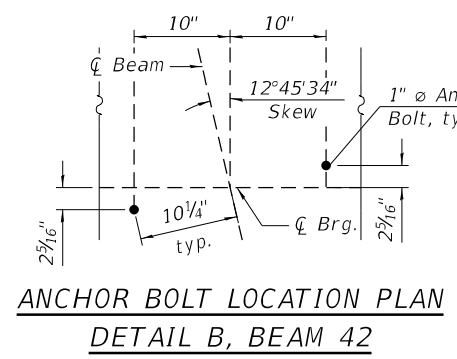
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24	740.89
25	741.00
26	741.13
27	741.24
28	741.38
29	741.49
30	741.61
31	741.73
32	741.84
33	741.77
34	741.65
35	741.52
36	741.40
37	741.27
38	741.15
39	741.02
40	740.90
41	740.77
42	740.65
43	740.51

BILL OF MATERIALS

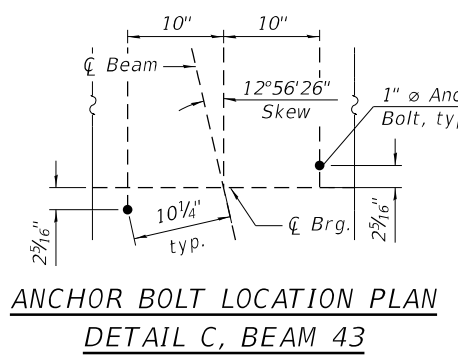
Bar	No.	Size	Length	Shape
h5(E)	8	#5	18'-11"	—
h6(E)	12	#5	6'-2"	—
h7(E)	2	#5	24'-11"	—
h8(E)	8	#5	17'-1"	—
h10(E)	12	#5	12'-8"	—
h11(E)	10	#5	10'-10"	—
h13(E)	4	#5	23'-9"	—
h14(E)	8	#5	18'-2"	—
h18(E)	16	#5	2'-3"	—
n1(E)	32	#5	5'-8"	—
p2(E)	4	#7	25'-0"	—
p5(E)	8	#7	17'-8"	—
p7(E)	8	#7	24'-4"	—
p8(E)	8	#7	18'-9"	—
s32(E)	16	#5	12'-5"	—
s33(E)	136	#5	4'-9"	—
s34(E)	132	#5	5'-0"	—
s35(E)	20	#5	6'-1"	—
s36(E)	20	#5	6'-11"	—
s37(E)	13	#5	7'-7"	—
s38(E)	7	#5	8'-1"	—
s39(E)	20	#5	7'-5"	—
s40(E)	20	#5	6'-7"	—
u2(E)	4	#5	9'-9"	—
v2(E)	38	#5	3'-8"	—
w6(E)	10	#5	6'-4"	—
w7(E)	10	#5	14'-2"	—
Concrete Structures		CU YD	47.5	
Reinforcement Bars, Epoxy Coated		POUND	4,470	



ANCHOR BOLT LOCATION PLAN
DETAIL A, BEAMS 23-41



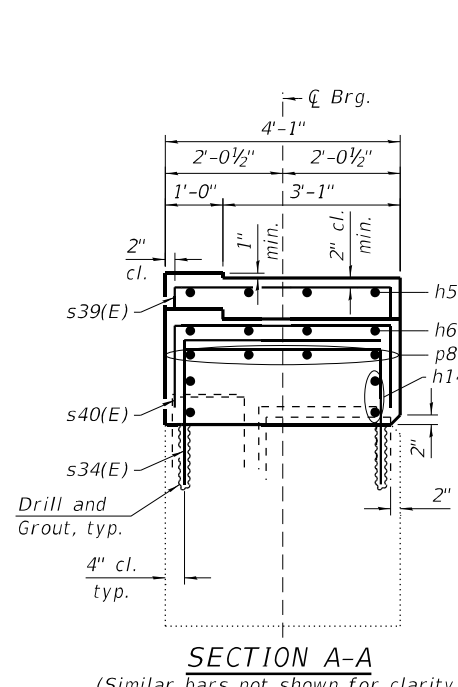
ANCHOR BOLT LOCATION PLAN
DETAIL B, BEAM 42



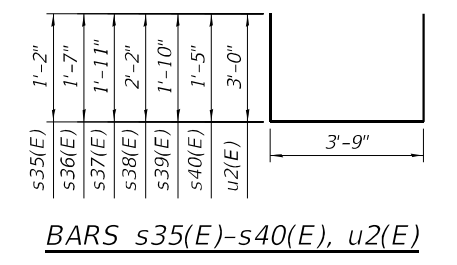
ANCHOR BOLT LOCATION PLAN
DETAIL C, BEAM 43

MINIMUM BAR LAP
#5 Bar = 3'-0"

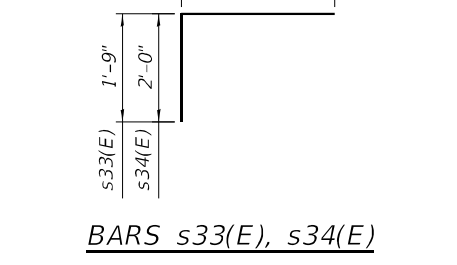
- Notes:
- Cost of drilling and grouting reinforcing bars and roofing felt included in cost of Concrete Structures.
 - Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
 - Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.



SECTION A-A
(Similar bars not shown for clarity)



BARS s35(E)-s40(E), u2(E)



BARS s33(E), s34(E)

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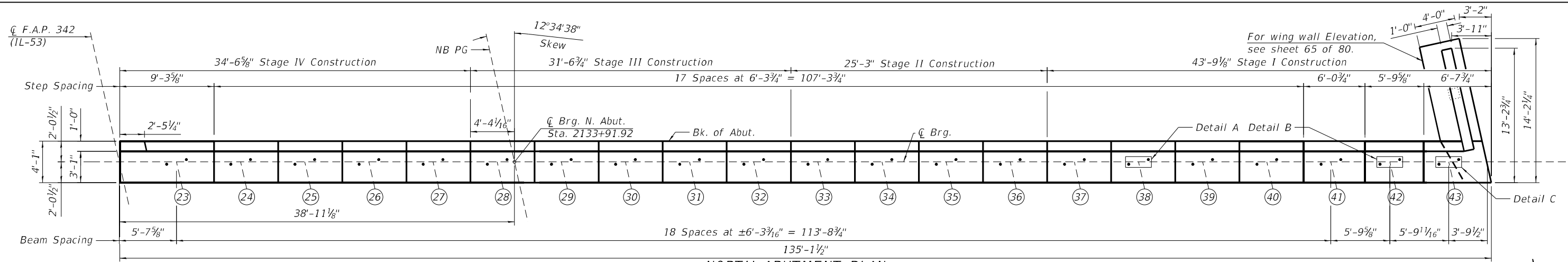
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR No. 184-001273

USER NAME = CodyH
DESIGNED - ELR
CHECKED - NDR
PLOT SCALE = 0:2.0000 "/>

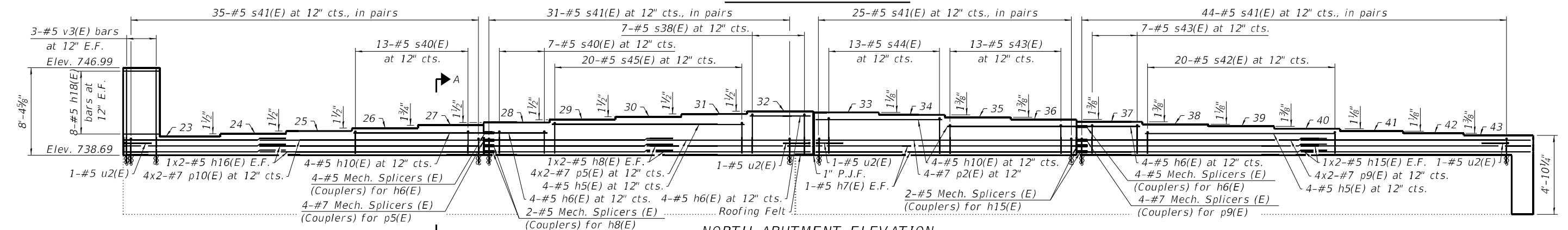
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN AND ELEVATIONS (1 OF 2)
STRUCTURE NO. 016-0378 (NB)

SHEET 61 OF 80 SHEETS
F.A.P. RTE. 342 SECTION 2018-100-BR COUNTY COOK TOTAL SHEETS 1351 SHEET NO. 808
CONTRACT NO. 62N91
ILLINOIS FED. AID PROJECT



NORTH ABUTMENT PLAN



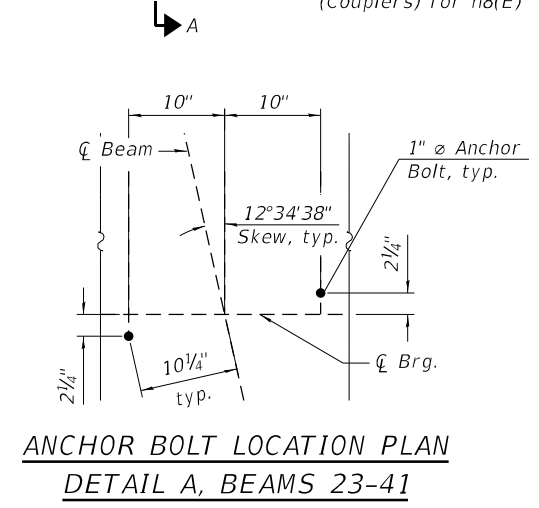
NORTH ABUTMENT ELEVATION
(Looking North)

BEAM SEAT ELEVATIONS

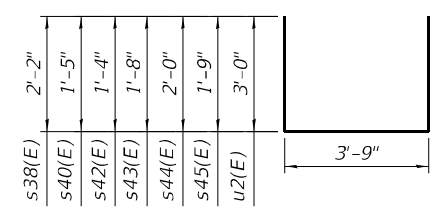
N. Abut.	Elevation
23	739.98
24	740.12
25	740.25
26	740.39
27	740.53
28	740.67
29	740.80
30	740.94
31	741.07
32	741.20
33	741.14
34	741.04
35	740.92
36	740.81
37	740.69
38	740.58
39	740.47
40	740.36
41	740.25
42	740.15
43	740.04

BILL OF MATERIALS

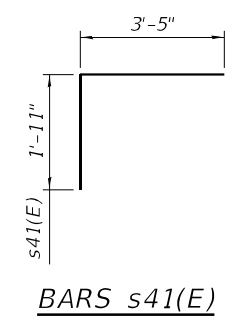
Bar	No.	Size	Length	Shape
h5(E)	8	#5	18'-11"	—
h6(E)	12	#5	6'-2"	—
h7(E)	4	#5	24'-11"	—
h8(E)	8	#5	17'-1"	—
h10(E)	12	#5	12'-8"	—
h12(E)	10	#5	9'-8"	—
h15(E)	8	#5	23'-3"	—
h16(E)	8	#5	18'-7"	—
h18(E)	16	#5	2'-3"	—
n1(E)	30	#5	5'-8"	—
p2(E)	4	#7	25'-0"	—
p5(E)	8	#7	17'-8"	—
p9(E)	8	#7	23'-10"	—
p10(E)	8	#7	19'-2"	—
s32(E)	14	#5	12'-5"	—
s38(E)	7	#5	8'-1"	—
s40(E)	20	#5	6'-7"	—
s41(E)	270	#5	4'-11"	—
s42(E)	20	#5	6'-5"	—
s43(E)	20	#5	7'-1"	—
s44(E)	13	#5	7'-9"	—
s45(E)	20	#5	7'-3"	—
u2(E)	4	#5	9'-9"	—
v3(E)	36	#5	3'-7"	—
w7(E)	10	#5	14'-2"	—
w8(E)	10	#5	6'-7"	—
Concrete Structures		CU YD	48.3	
Reinforcement Bars, Epoxy Coated		POUND	5,190	



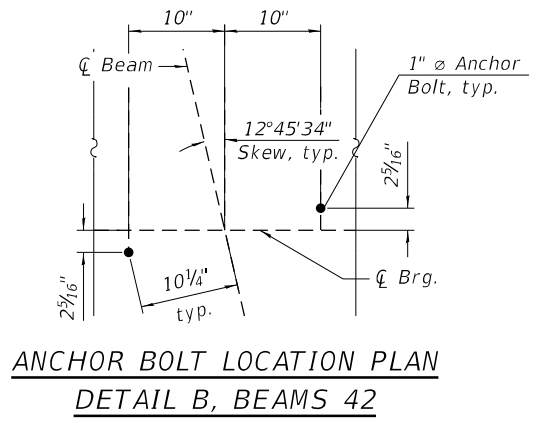
ANCHOR BOLT LOCATION PLAN
DETAIL A, BEAMS 23-41



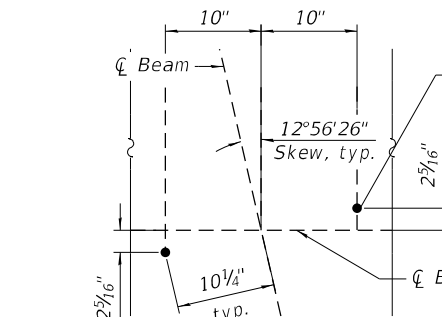
BARS s38(E), s40(E), s42(E)-s45(E), u2(E)



BARS s41(E)



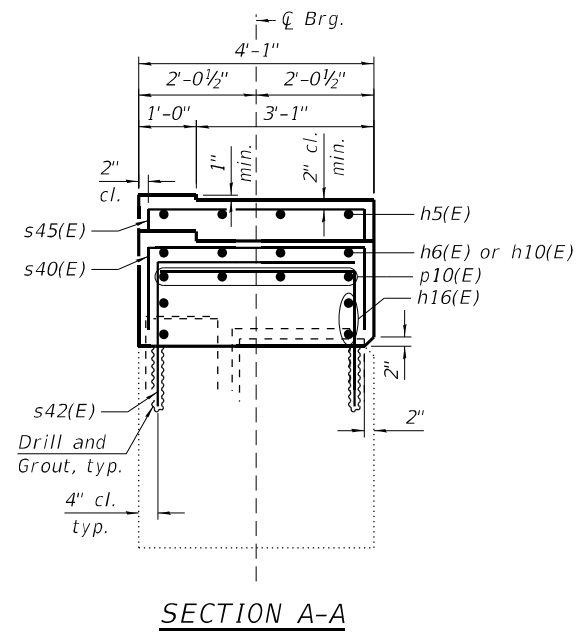
ANCHOR BOLT LOCATION PLAN
DETAIL B, BEAM 42



ANCHOR BOLT LOCATION PLAN
DETAIL C, BEAM 43

MINIMUM BAR LAP
#5 Bar = 3'-0"

- Notes:
- Cost of drilling and grouting reinforcing bars and roofing felt included in cost of Concrete Structures.
 - Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
 - Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.



SECTION A-A

MODEL: Default
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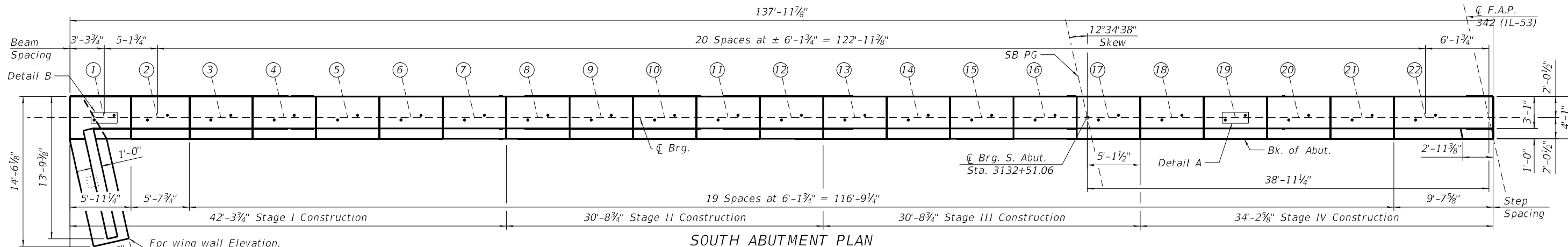
1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = CodyH	DESIGNED - ELR	REVISIONS -
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	PLOT DATE = 2/11/2025	DRAWN - CJH	REVISIONS -
		CHECKED - TJE	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

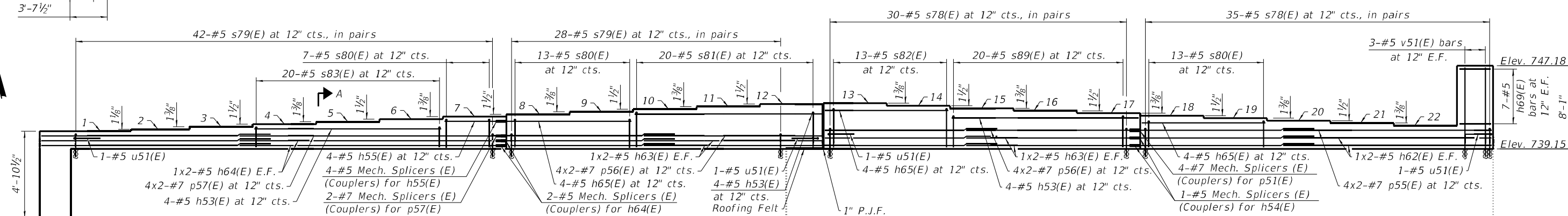
ABUTMENT PLAN AND ELEVATIONS (2 OF 2)
STRUCTURE NO. 016-0378 (NB)

SHEET 62 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	809
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N91	



SOUTH ABUTMENT PLAN



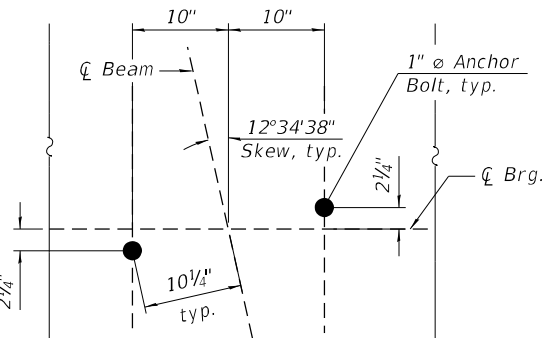
SOUTH ABUTMENT ELEVATION
(Looking South)

BEAM SEAT ELEVATIONS

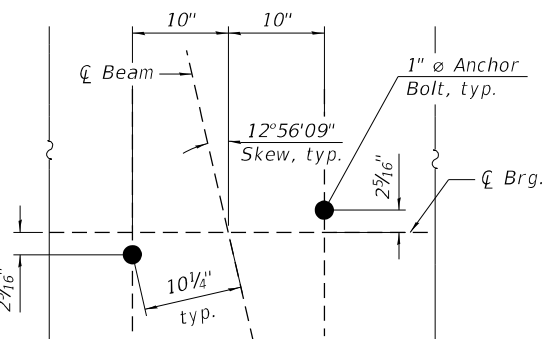
S. Abut.	Elevation
1	740.52
2	740.62
3	740.74
4	740.87
5	740.99
6	741.11
7	741.23
8	741.35
9	741.47
10	741.59
11	741.71
12	741.84
13	741.88
14	741.77
15	741.64
16	741.53
17	741.40
18	741.29
19	741.16
20	741.05
21	740.92
22	740.81

BILL OF MATERIALS

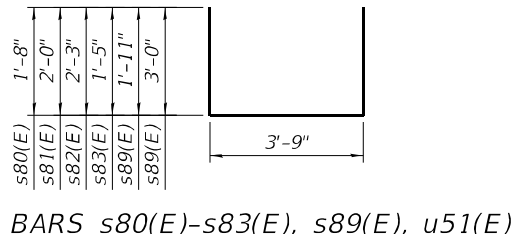
Bar	No.	Size	Length	Shape	
h53(E)	12	#5	18'-1"	—	
h55(E)	4	#5	5'-10"	—	
h60(E)	10	#5	10'-4"	—	
h62(E)	8	#5	18'-5"	—	
h63(E)	16	#5	16'-9"	—	
h64(E)	8	#5	22'-7"	—	
h65(E)	12	#5	12'-0"	—	
h69(E)	14	#5	2'-9"	—	
n50(E)	30	#5	5'-8"	—	
p55(E)	8	#7	22'-2"	—	
p56(E)	8	#7	17'-4"	—	
p57(E)	8	#7	23'-2"	—	
s77(E)	14	#5	11'-1"	—	
s78(E)	130	#5	5'-8"	—	
s79(E)	140	#5	5'-4"	—	
s80(E)	40	#5	7'-1"	—	
s81(E)	20	#5	7'-9"	—	
s82(E)	7	#5	8'-3"	—	
s83(E)	20	#5	6'-7"	—	
s89(E)	20	#5	7'-7"	—	
u51(E)	4	#5	9'-9"	—	
v51(E)	36	#5	3'-11"	—	
w55(E)	2	#5	4'-9"	—	
w56(E)	8	#5	5'-10"	—	
w57(E)	10	#5	13'-11"	—	
Concrete Structures				CU YD	52.4
Reinforcement Bars, Epoxy Coated				POUND	4,150



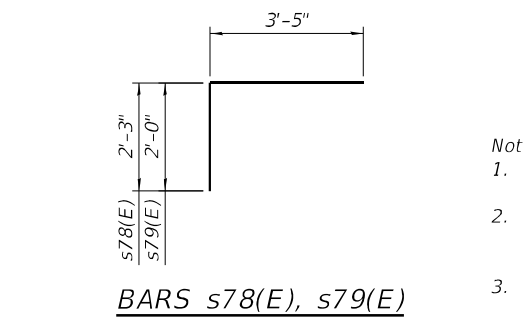
**ANCHOR BOLT LOCATION PLAN
DETAIL A, BEAMS 2-22**



**ANCHOR BOLT LOCATION PLAN
DETAIL B, BEAM 1**



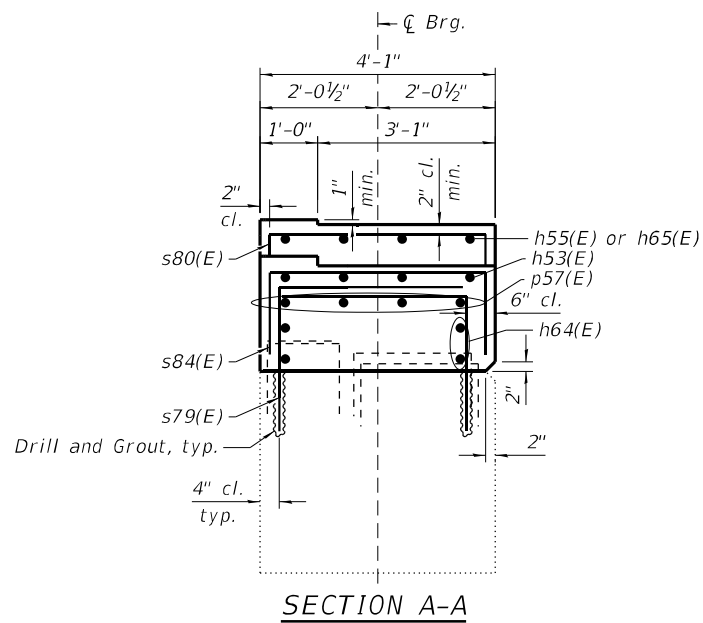
BARS s80(E)-s83(E), s89(E), u51(E)



BARS s78(E), s79(E)

MINIMUM BAR LAP
#5 Bar = 3'-0"

- Notes:
- Cost of drilling and grouting reinforcing bars and roofing felt included in cost of Concrete Structures.
 - Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
 - Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.



SECTION A-A

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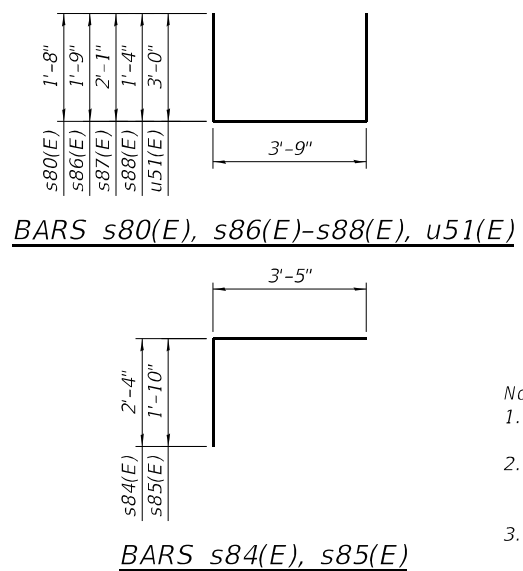
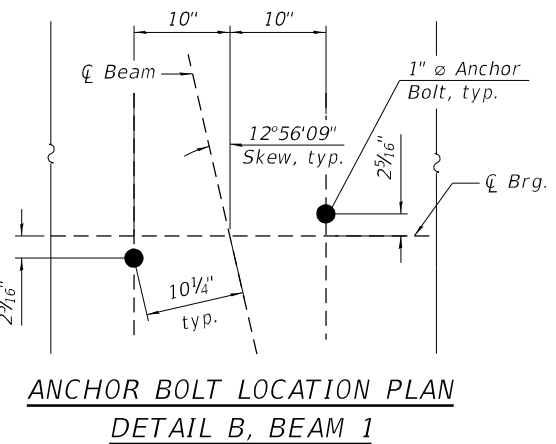
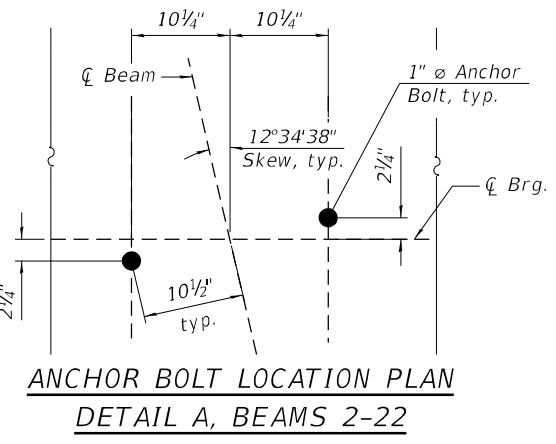
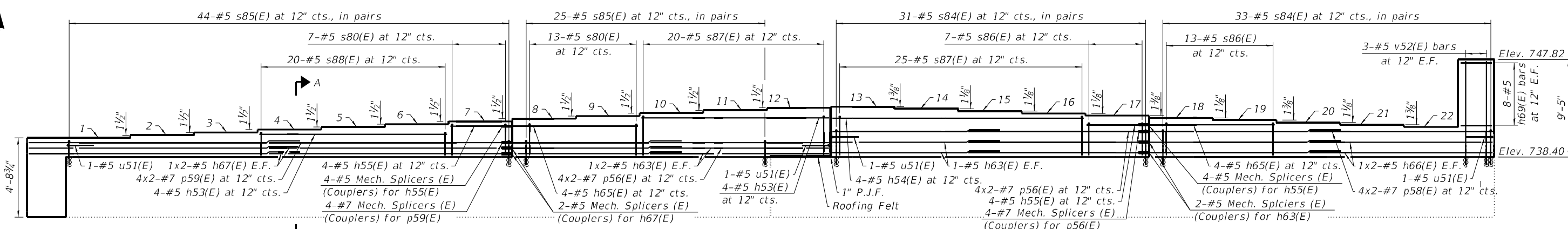
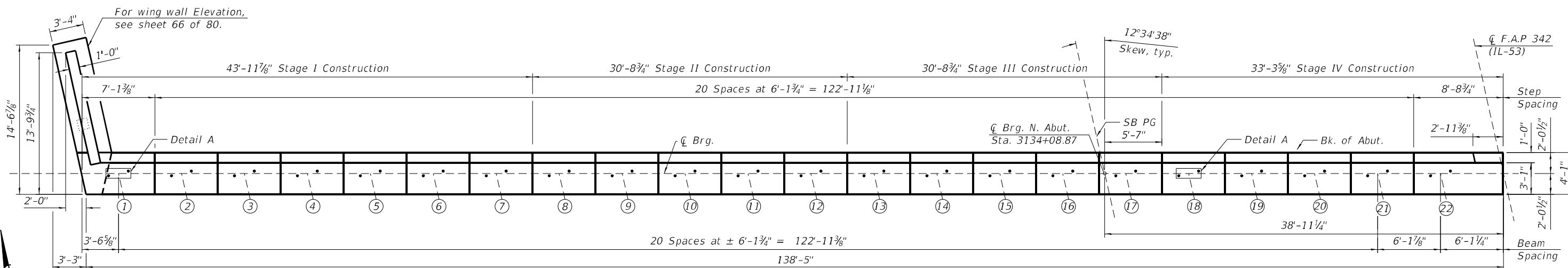
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PLOT SCALE = 0:2.0000" / in.	CHECKED - NDR	REVISD -
PLOT DATE = 2/11/2025	DRAWN - CJH	REVISD -
	CHECKED - TJE	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN AND ELEVATIONS (1 OF 2)
STRUCTURE NO. 016-2133 (SB)

SHEET 63 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 810
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N91	



BEAM SEAT ELEVATIONS

N. Abut.	Elevation
1	739.63
2	739.77
3	739.90
4	740.04
5	740.16
6	740.30
7	740.43
8	740.57
9	740.69
10	740.83
11	740.96
12	741.09
13	741.14
14	741.03
15	740.92
16	740.82
17	740.71
18	740.60
19	740.49
20	740.38
21	740.28
22	740.16

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h53(E)	8	#5	18'-1"	—
h54(E)	4	#5	24'-3"	—
h55(E)	8	#5	5'-10"	—
h61(E)	10	#5	10'-11"	—
h63(E)	16	#5	16'-9"	—
h65(E)	8	#5	11'-12"	—
h66(E)	8	#5	18'-1"	—
h67(E)	8	#5	23'-5"	—
h69(E)	16	#5	2'-9"	—
n50(E)	32	#5	5'-8"	—
p56(E)	16	#7	17'-4"	—
p58(E)	8	#7	18'-8"	—
p59(E)	8	#7	24'-0"	—
s77(E)	14	#5	11'-1"	—
s80(E)	20	#5	7'-1"	—
s84(E)	128	#5	5'-4"	—
s85(E)	138	#5	4'-10"	—
s86(E)	20	#5	7'-3"	—
s87(E)	45	#5	7'-11"	—
s88(E)	20	#5	6'-5"	—
u51(E)	4	#5	9'-9"	—
v52(E)	38	#5	3'-8"	—
w58(E)	10	#5	14'-5"	—
w59(E)	10	#5	5'-10"	—
Concrete Structures			CU YD	51.5
Reinforcement Bars, Epoxy Coated			POUND	3,480

- Notes:**
- Cost of drilling and grouting reinforcing bars and roofing felt included in cost of Concrete Structures.
 - Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
 - Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.

MINIMUM BAR LAP
#5 Bar = 3'-0"

MODEL: Default
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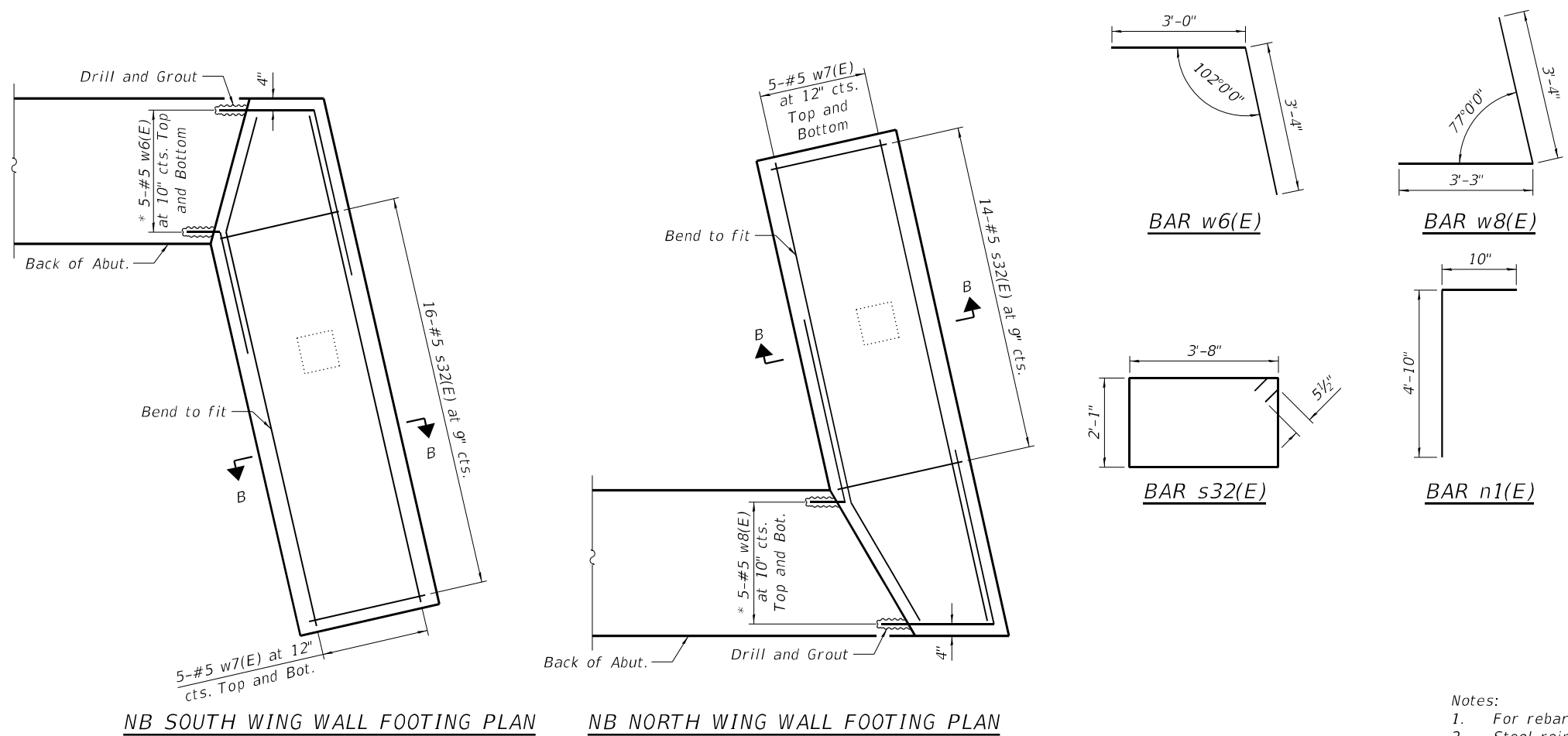
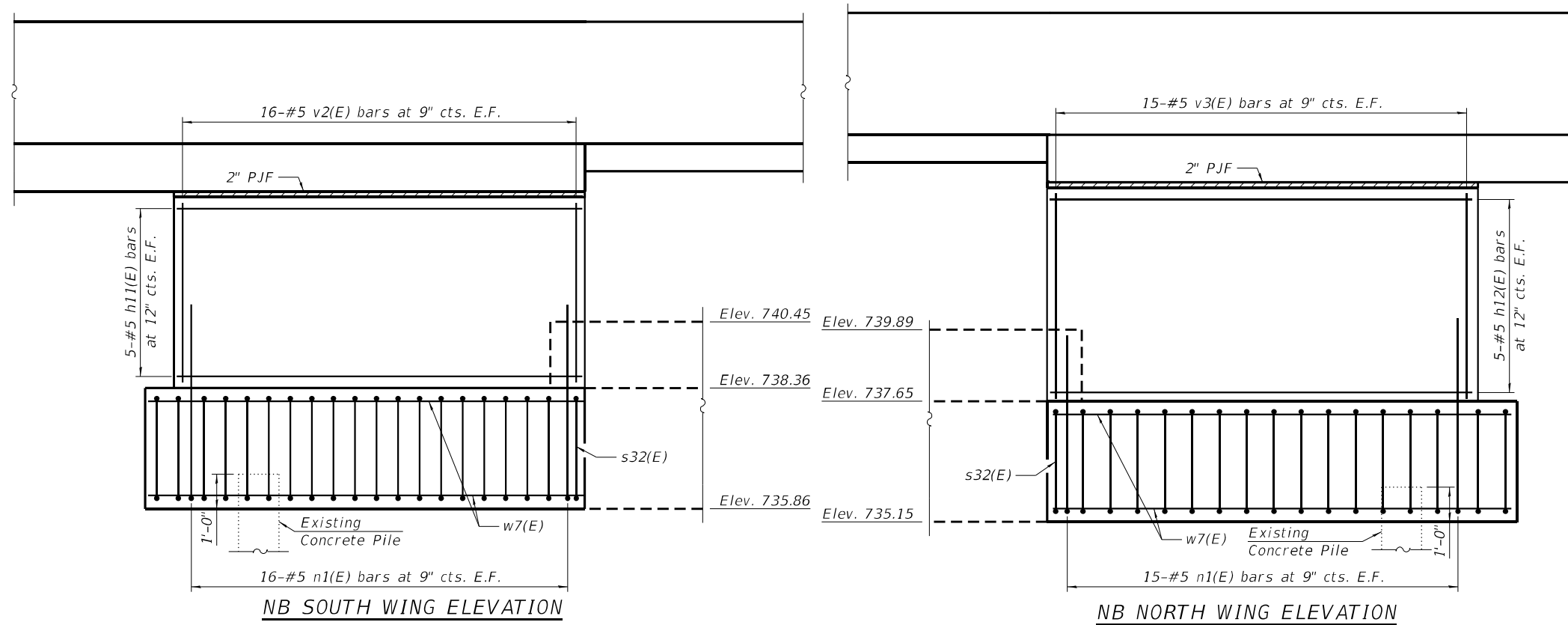
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	CHECKED - TJE	REVISIONS -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN AND ELEVATIONS (2 OF 2)
STRUCTURE NO. 016-2133 (SB)

SHEET 64 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 811
ILLINOIS			FED. AID PROJECT	



Notes:

- For rebar quantities and details see sheets 61 and 62 of 80.
- Steel reinforcement should be adjusted to miss existing piles.

* Cut dowel leg as needed for drill and grout.

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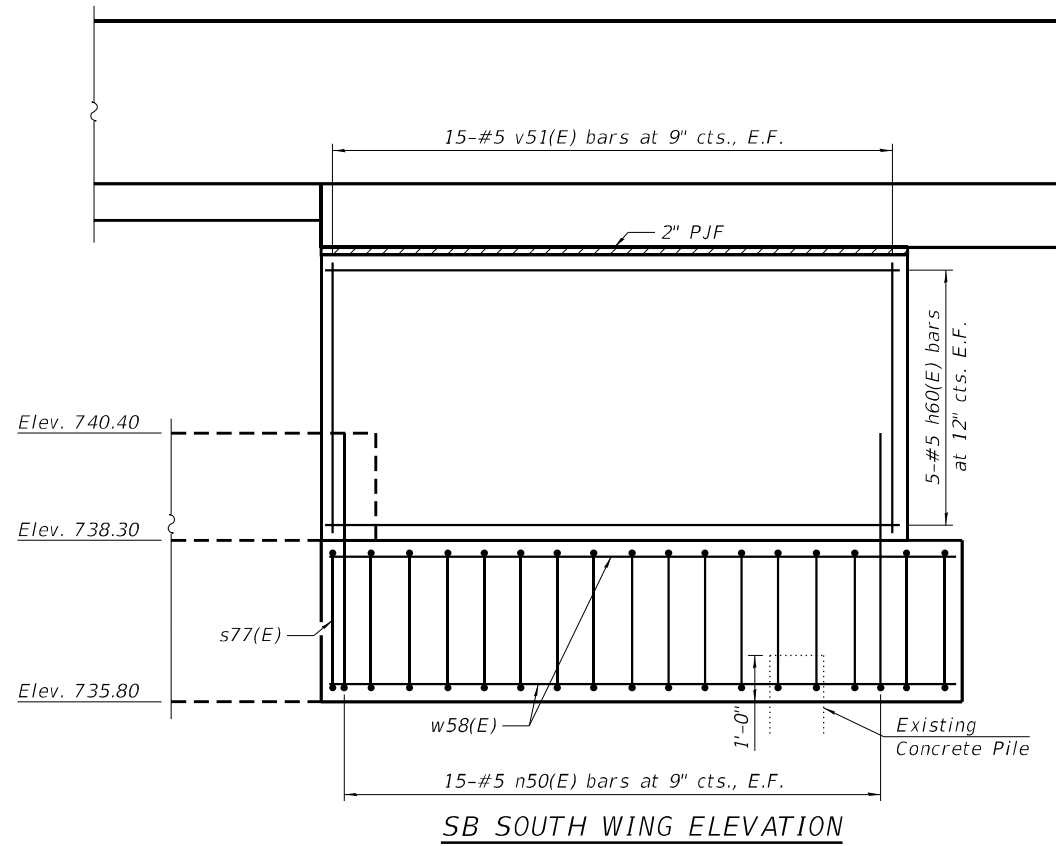
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

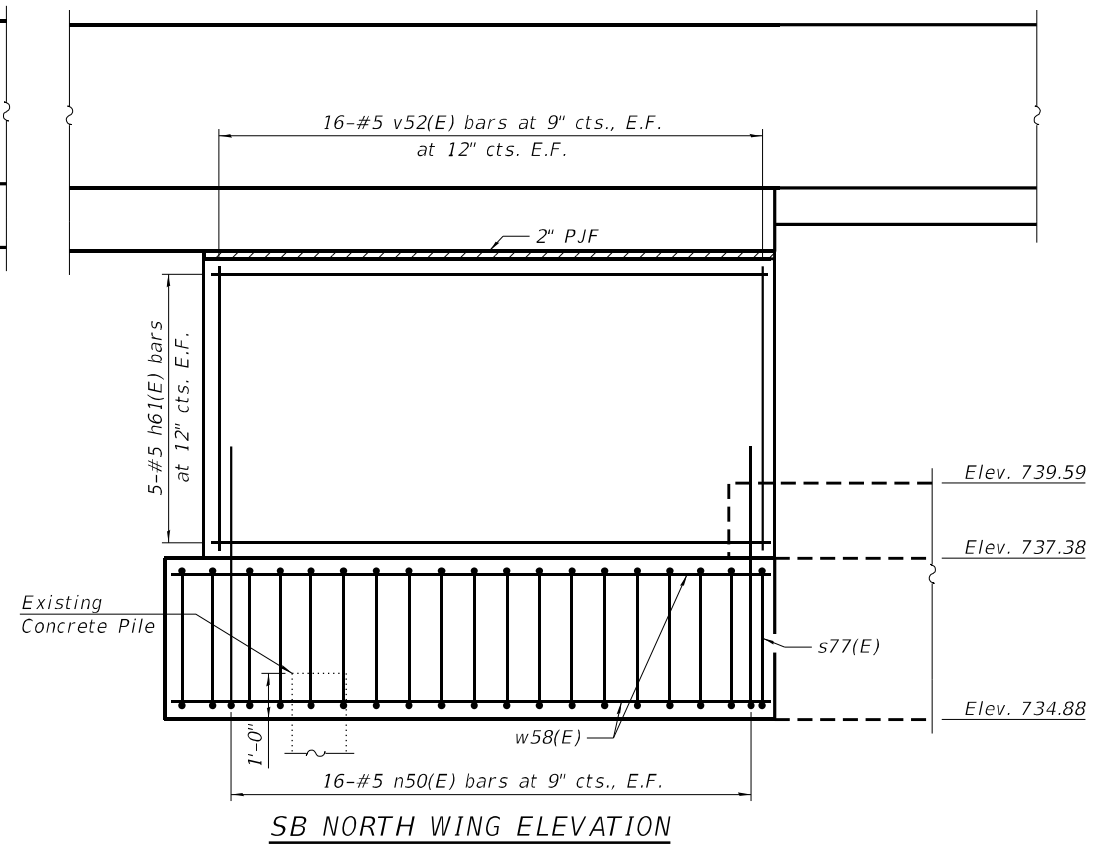
WING WALL PLAN AND ELEVATION
 STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

SHEET 65 OF 80 SHEETS

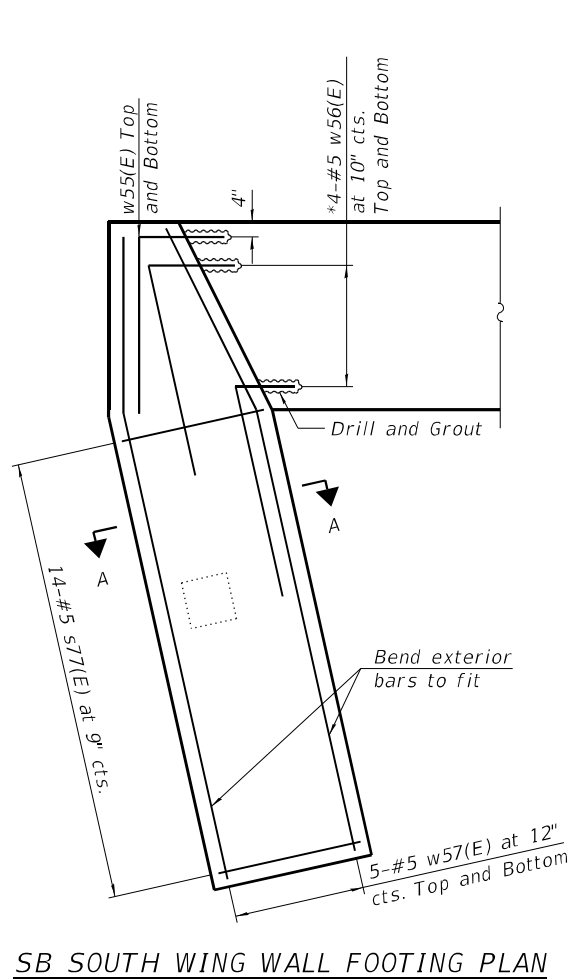
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	812
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



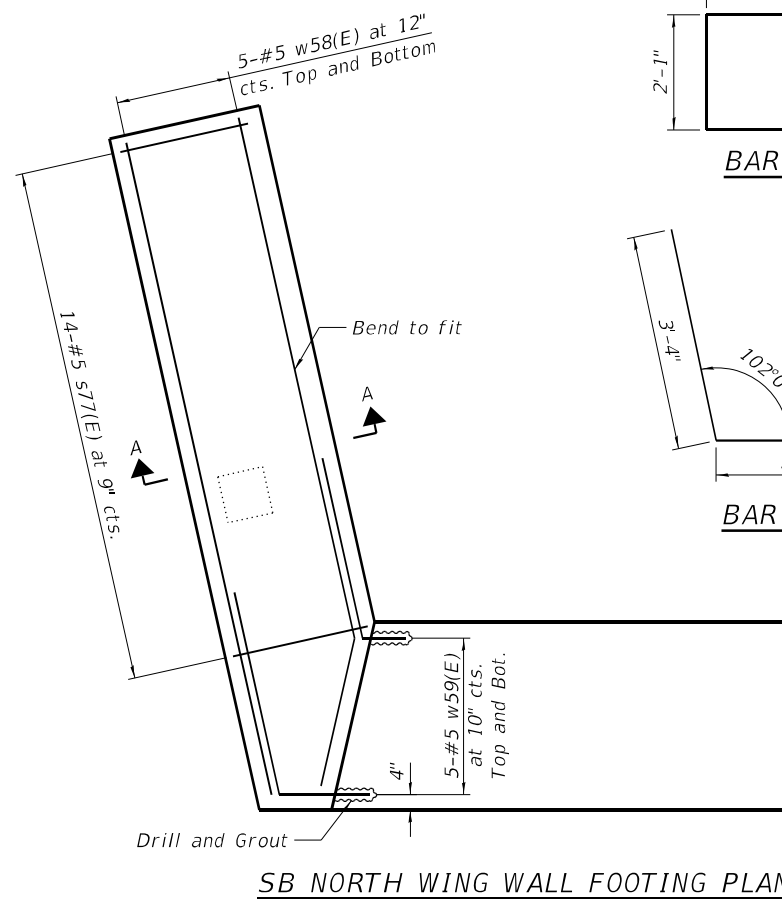
SB SOUTH WING ELEVATION



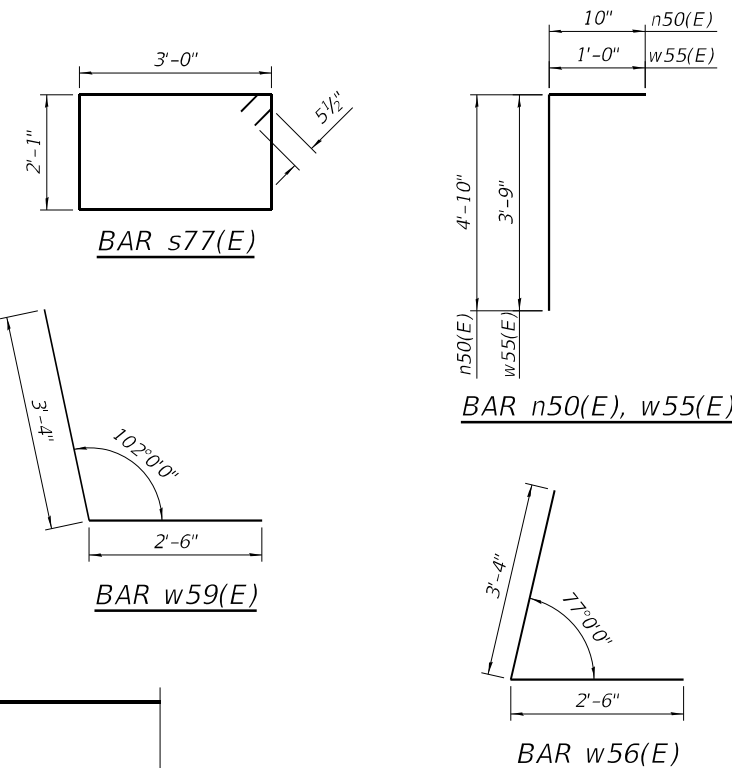
SB NORTH WING ELEVATION



SB SOUTH WING WALL FOOTING PLAN



SB NORTH WING WALL FOOTING PLAN



Notes:

1. For rebar quantities and details, see sheets 63 and 64 of 80.
 2. Steel reinforcement should be adjusted to miss existing piles.
- * Cut dowel leg as needed for drill and Grout.

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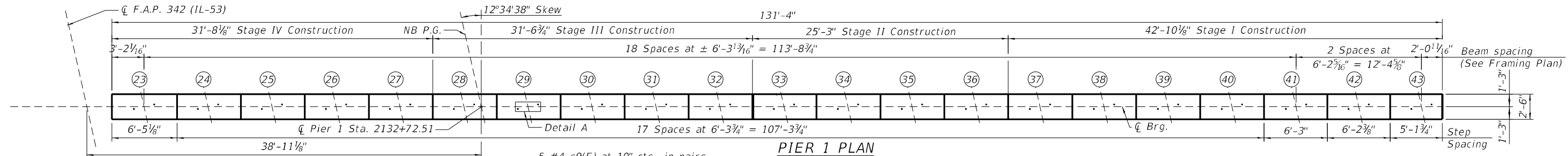
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

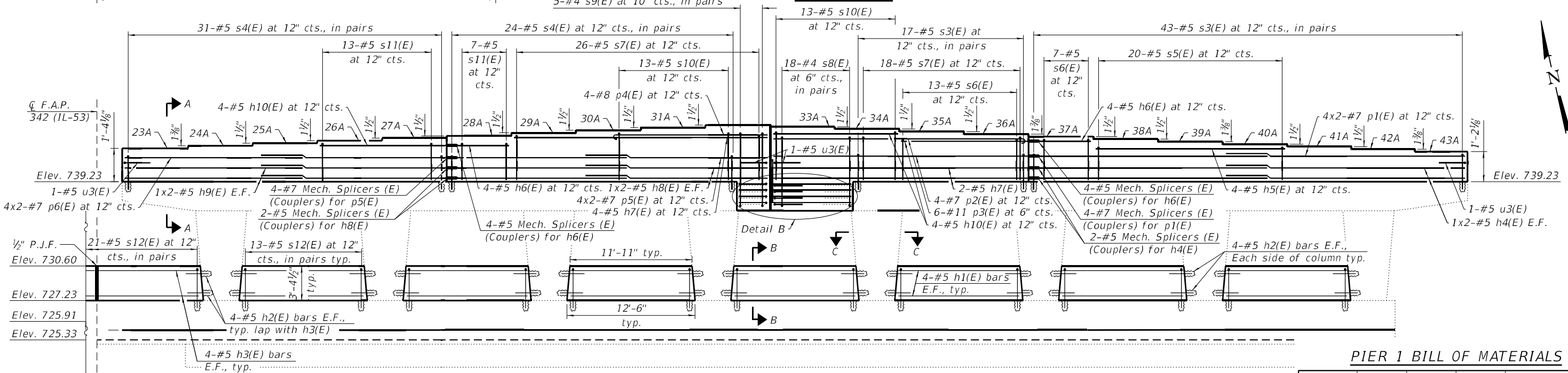
**WING WALL PLAN AND ELEVATION
 STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)**

SHEET 66 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	813
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



PIER 1 PLAN



PIER 1 SOUTH ELEVATION

(Looking North)

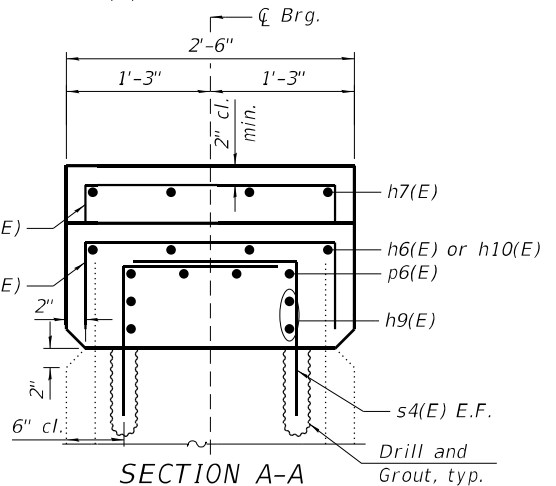
PIER 1 CAP

ELEVATIONS

Pier	Elev.
23A	740.58
24A	740.69
25A	740.83
26A	740.96
27A	741.08
28A	741.21
29A	741.33
30A	741.46
31A	741.58
32A	741.71
33A	741.63
34A	741.51
35A	741.38
36A	741.26
37A	741.14
38A	741.02
39A	740.89
40A	740.78
41A	740.65
42A	740.53
43A	740.41

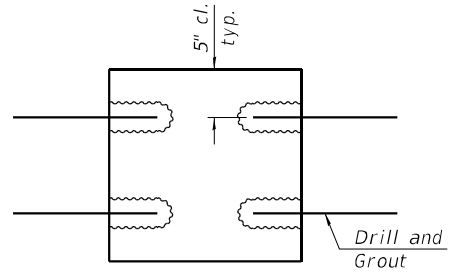
PIER 1 BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h1(E)	56	#5	10'-7"	—
h2(E)	128	#5	3'-2"	—
h3(E)	16	#5	9'-10"	—
h4(E)	8	#5	22'-9"	—
h5(E)	4	#5	18'-7"	—
h6(E)	8	#5	6'-0"	—
h7(E)	8	#5	24'-11"	—
h8(E)	8	#5	17'-1"	—
h9(E)	8	#5	17'-2"	—
h10(E)	12	#5	12'-4"	—
h17(E)	11	#5	8'-6"	—
p1(E)	8	#7	23'-4"	—
p2(E)	4	#7	24'-11"	—
p3(E)	6	#11	26'-0"	—
p4(E)	4	#8	16'-2"	—
p5(E)	8	#7	17'-8"	—
p6(E)	8	#7	17'-9"	—
p12(E)	5	#8	11'-10"	—
s3(E)	120	#5	3'-3"	—
s4(E)	110	#5	3'-6"	—
s5(E)	20	#5	4'-8"	—
s6(E)	20	#5	5'-4"	—
s7(E)	44	#5	5'-7"	—
s8(E)	36	#4	13'-4"	—
s9(E)	10	#4	13'-10"	—
s10(E)	26	#5	6'-0"	—
s11(E)	20	#5	5'-0"	—
s12(E)	224	#5	5'-9"	—
u3(E)	12	#5	8'-2"	—
Concrete Structures		CU YD		55.0
Reinforcement Bars, Epoxy Coated		POUND		8,000
Concrete Sealer		SQ FT		1,502

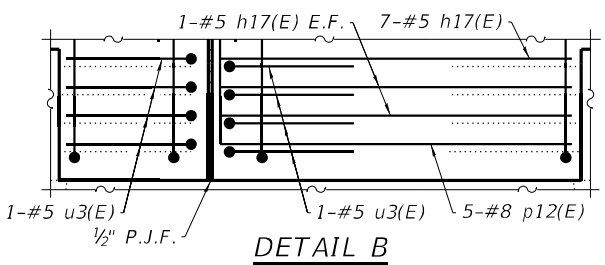


SECTION A-A

(Similar bars not shown for clarity)



SECTION C-C

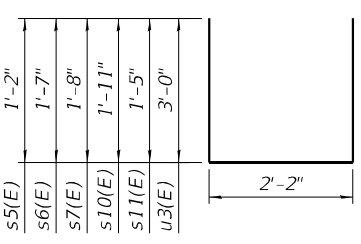


DETAIL B

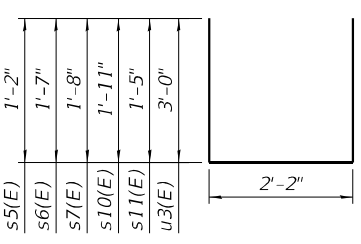
ANCHOR BOLT LAYOUT

Beamline	A	B	C
23-41	11"	2 7/16"	12°34'38"
42	10 15/16"	2 1/2"	12°45'34"
43	10 15/16"	2 1/2"	12°56'26"

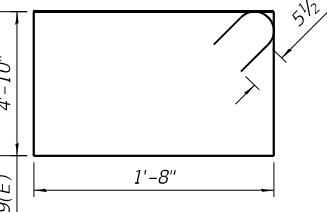
BARS p3(E), p4(E)



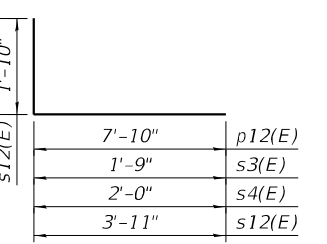
BARS s5(E)-s7(E), s10(E), s11(E), AND u3(E)



BARS s8(E), s9(E)



BARS p12(E), s3(E), s4(E), s12(E)



Notes:

- See sheet 69 of 80 for Section B-B.
- Cost of drilling and grouting reinforcing bars included in cost of Concrete Structures.
- Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
- Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER MODIFICATION DETAILS (1 OF 3)
STRUCTURE NO. 016-0378 (NB)

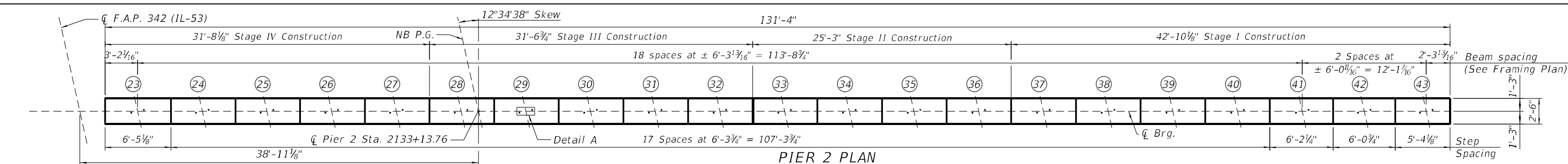
SHEET 67 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	814
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N91	

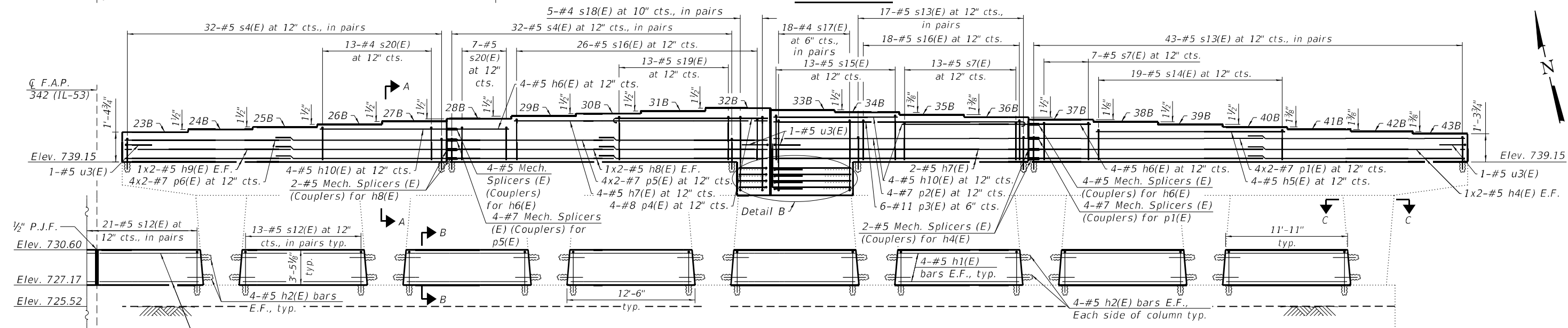
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PLOT DATE = 2/11/2025	DRAWN - CJH	REVISED -
	CHECKED - TJE	REVISED -

SA
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273
ASSOCIATES



PIER 2 PLAN



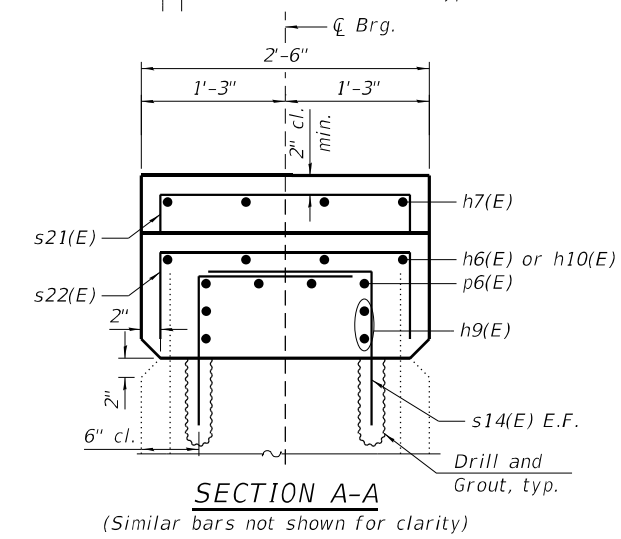
PIER 2 SOUTH ELEVATION
(Looking North)

PIER 2 BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h1(E)	56	#5	10'-7"	—
h2(E)	128	#5	3'-2"	—
h3(E)	16	#5	9'-10"	—
h4(E)	8	#5	22'-9"	—
h5(E)	4	#5	18'-7"	—
h6(E)	8	#5	6'-0"	—
h7(E)	8	#5	24'-11"	—
h8(E)	8	#5	17'-1"	—
h9(E)	8	#5	17'-2"	—
h10(E)	12	#5	12'-4"	—
h17(E)	11	#5	8'-6"	—
p1(E)	8	#7	23'-4"	—
p2(E)	4	#7	24'-11"	—
p3(E)	6	#11	26'-0"	—
p4(E)	4	#8	16'-2"	—
p5(E)	8	#7	17'-8"	—
p6(E)	8	#7	17'-9"	—
p12(E)	5	#8	11'-10"	—
s4(E)	128	#5	3'-6"	—
s7(E)	20	#5	5'-6"	—
s12(E)	224	#5	5'-9"	—
s13(E)	120	#5	3'-4"	—
s14(E)	19	#5	4'-10"	—
s15(E)	13	#5	6'-2"	—
s16(E)	44	#5	5'-9"	—
s17(E)	36	#4	14'-11"	—
s18(E)	10	#4	15'-9"	—
s19(E)	13	#5	6'-6"	—
s20(E)	20	#5	5'-2"	—
u3(E)	12	#5	8'-2"	—
Concrete Structures	CU YD		57.1	
Reinforcement Bars, Epoxy Coated	POUND		8,160	
Concrete Sealer	SQ FT		1,502	

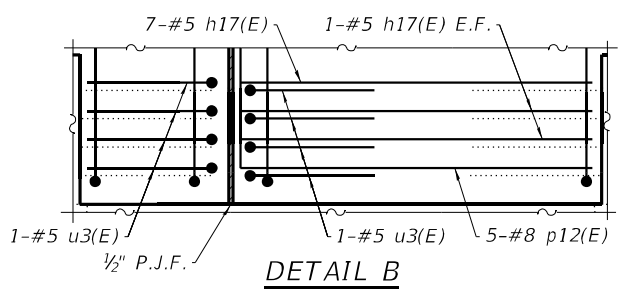
PIER 2 CAP ELEVATIONS

Pier 2	Elev.
23B	740.55
24B	740.68
25B	740.81
26B	740.94
27B	741.07
28B	741.21
29B	741.33
30B	741.46
31B	741.58
32B	741.71
33B	741.64
34B	741.52
35B	741.40
36B	741.29
37B	741.16
38B	741.06
39B	740.93
40B	740.81
41B	740.69
42B	740.58
43B	740.46

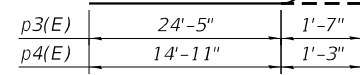


SECTION A-A

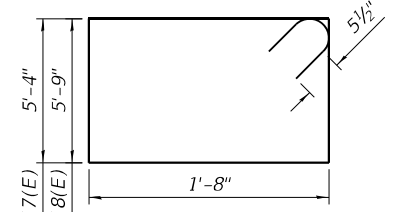
(Similar bars not shown for clarity)



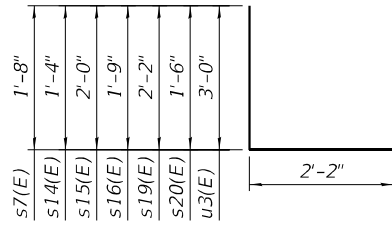
DETAIL B



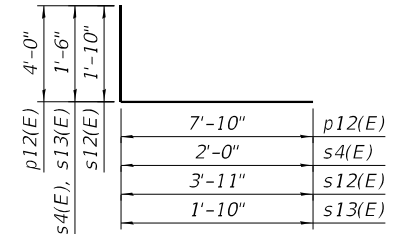
BARS p3(E), p4(E)



BARS s17(E), s18(E)



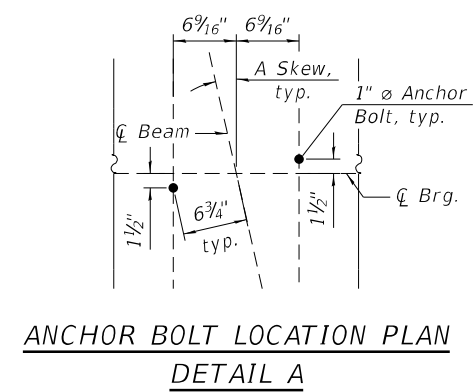
BARS s7(E), s14(E)-s16(E), s19(E), s20(E), AND u3(E)



BARS p12(E), s4(E), s12(E), s13(E)

ANCHOR BOLT LAYOUT

Beamline	A	B	C
23-41	11"	2 7/16"	12°34'38"
42	10 15/16"	2 1/2"	12°45'34"
43	10 15/16"	2 1/2"	12°56'26"



ANCHOR BOLT LOCATION PLAN
DETAIL A

Notes:

- See sheet 69 of 80 for Section B-B.
- Cost of drilling and grouting reinforcing bars included in cost of Concrete Structures.
- Bars shall be drilled and set according in Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
- Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.
- See sheet 67 of 80 for Section C-C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

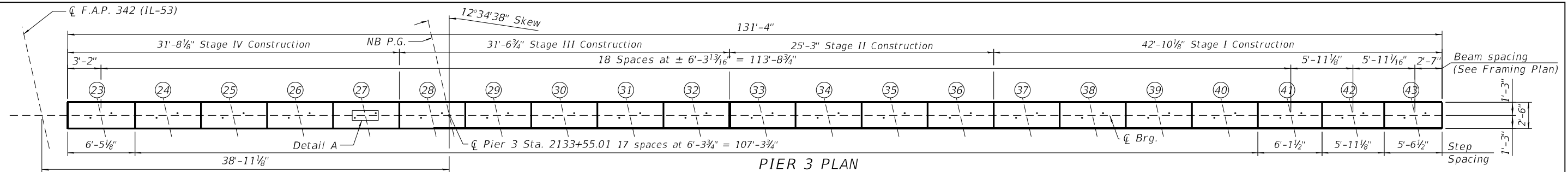
PIER MODIFICATION DETAILS (2 OF 3)
STRUCTURE NO. 016-0378 (NB)

SHEET 68 OF 80 SHEETS

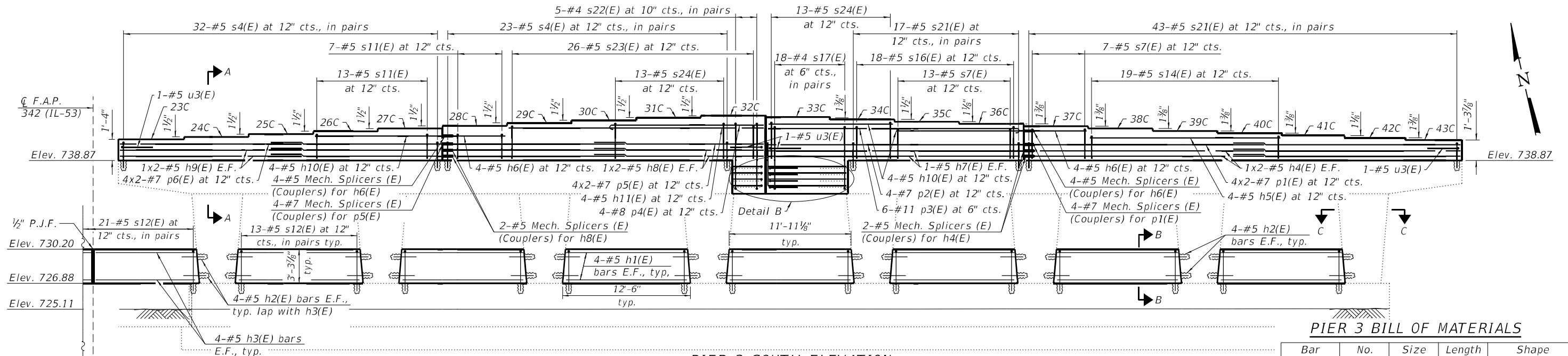
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	815
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N91	

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CodyH	ELR	ELR	0:2.0000" / in.	2/11/2025
	REVISOR	REVISOR		
	REVISOR	REVISOR		
	REVISOR	REVISOR		



PIER 3 PLAN



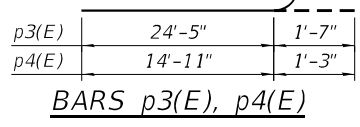
PIER 3 SOUTH ELEVATION
(Looking North)

PIER 3 BILL OF MATERIALS

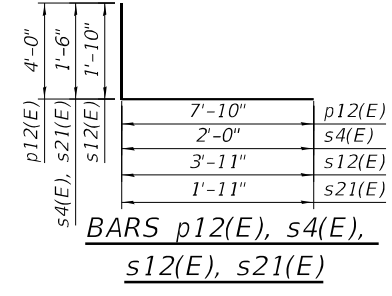
Bar	No.	Size	Length	Shape
h1(E)	56	#5	10'-7"	
h2(E)	128	#5	3'-2"	
h3(E)	16	#5	9'-10"	
h4(E)	8	#5	22'-9"	
h5(E)	4	#5	18'-7"	
h6(E)	8	#5	6'-0"	
h7(E)	4	#5	24'-11"	
h8(E)	8	#5	17'-1"	
h9(E)	8	#5	17'-2"	
h10(E)	12	#5	12'-4"	
h11(E)	4	#5	25'-0"	
h17(E)	11	#5	8'-6"	
p1(E)	8	#7	23'-4"	
p2(E)	4	#7	24'-11"	
p3(E)	6	#11	26'-0"	
p4(E)	4	#8	16'-2"	
p5(E)	8	#7	17'-8"	
p6(E)	8	#7	17'-9"	
p12(E)	5	#8	11'-10"	
s4(E)	110	#5	3'-6"	
s7(E)	20	#5	5'-6"	
s11(E)	20	#5	5'-0"	
s12(E)	224	#5	5'-9"	
s14(E)	19	#5	4'-10"	
s16(E)	18	#5	5'-9"	
s17(E)	36	#4	14'-11"	
s21(E)	120	#5	3'-5"	
s22(E)	10	#4	15'-8"	
s23(E)	26	#5	5'-10"	
s24(E)	26	#5	6'-4"	
u3(E)	12	#5	8'-2"	
Concrete Structures		CU YD	55.6	
Reinforcement Bars, Epoxy Coated		POUND	8,090	
Concrete Sealer		SQ FT	1,502	

PIER 3 CAP ELEVATIONS

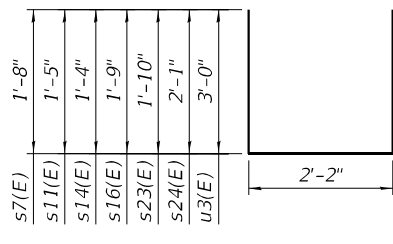
Pier 3	Elev.
23C	740.21
24C	740.34
25C	740.47
26C	740.61
27C	740.74
28C	740.88
29C	741.01
30C	741.14
31C	741.27
32C	741.40
33C	741.33
34C	741.22
35C	741.09
36C	740.99
37C	740.87
38C	740.76
39C	740.64
40C	740.53
41C	740.41
42C	740.31
43C	740.19



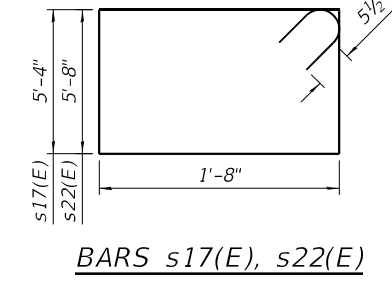
BARS p3(E), p4(E)



BARS p12(E), s4(E), s12(E), s21(E)



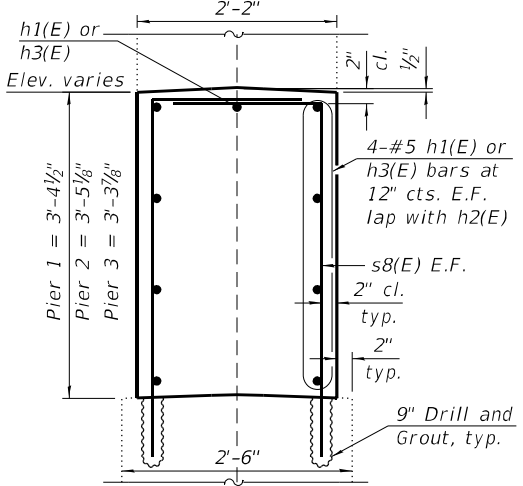
BARS s7(E), s11(E), s14(E), s16(E), s23(E), s24(E) AND u3(E)



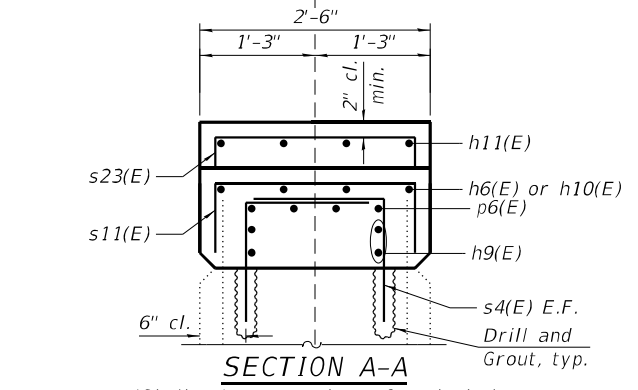
BARS s17(E), s22(E)

Notes:

1. Cost of P/JF shall be included with Concrete Structures.
2. Cost of drilling and grouting reinforcing bars included in cost of Concrete Structures.
3. Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
4. Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.
5. See sheet 67 of 80 for Section C-C.

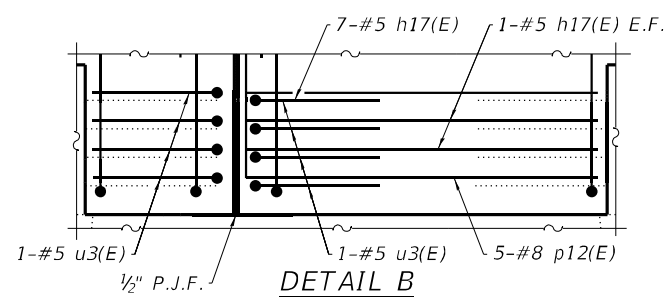


SECTION B-B



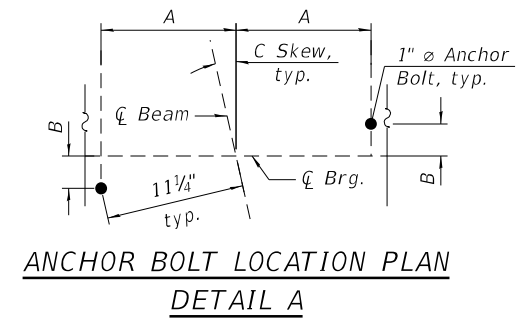
SECTION A-A

(Similar bars not shown for clarity)



ANCHOR BOLT LAYOUT

Beamline	A	B	C
23-41	11"	2 7/16"	12°34'38"
42	10 15/16"	2 1/2"	12°45'34"
43	10 15/16"	2 1/2"	12°56'26"



ANCHOR BOLT LOCATION PLAN
DETAIL A

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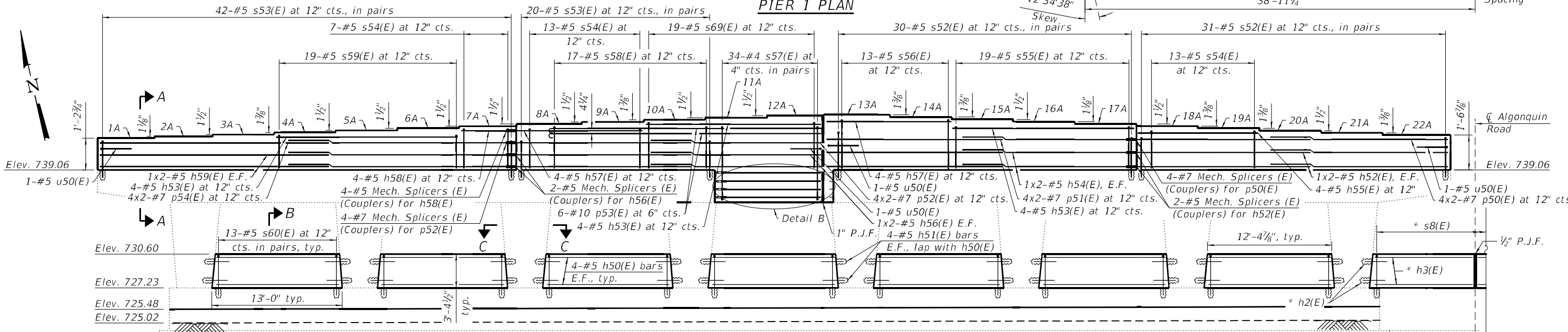
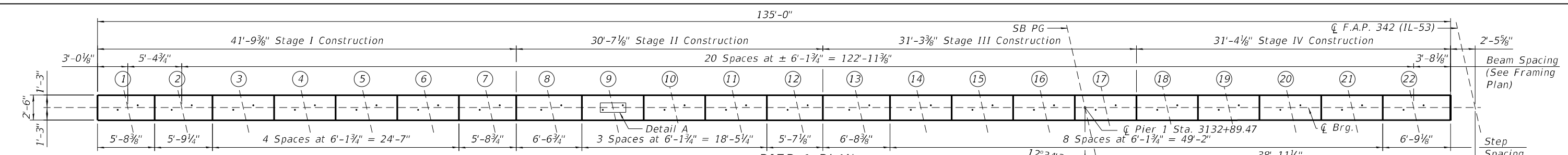
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME = CodyH
DESIGNED - ELR
CHECKED - NDR
PLOT SCALE = 0:2.0000" / in.
DRAWN - CJH
PLOT DATE = 2/11/2025
CHECKED - TJE
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER MODIFICATION DETAILS (3 OF 3)
STRUCTURE NO. 016-0378 (NB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	816
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



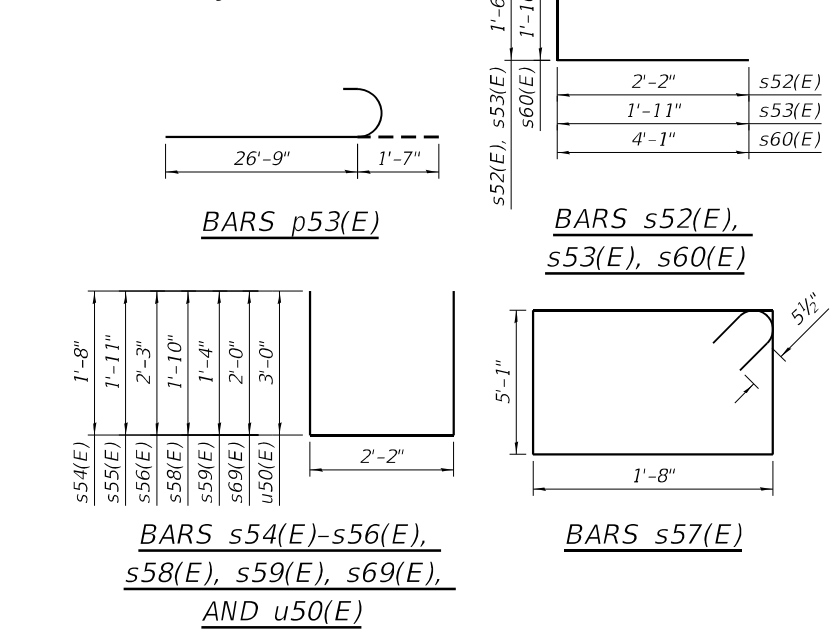
PIER 1 BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h50(E)	56	#5	12'-1"	—
h51(E)	112	#5	3'-6"	—
h52(E)	8	#5	17'-1"	—
h53(E)	12	#5	18'-1"	—
h54(E)	8	#5	17'-0"	—
h55(E)	4	#5	12'-0"	—
h56(E)	8	#5	16'-8"	—
h57(E)	8	#5	12'-5"	—
h58(E)	4	#5	5'-5"	—
h59(E)	8	#5	22'-4"	—
h60(E)	4	#5	10'-3"	—
p50(E)	8	#7	17'-8"	—
p51(E)	8	#7	17'-7"	—
p52(E)	8	#7	17'-4"	—
p53(E)	12	#10	28'-4"	—
p54(E)	8	#7	22'-11"	—
p55(E)	7	#11	10'-3"	—
p56(E)	5	#8	10'-3"	—
s52(E)	122	#5	3'-8"	—
s53(E)	124	#5	3'-5"	—
s54(E)	33	#5	5'-6"	—
s55(E)	19	#5	5'-11"	—
s56(E)	13	#5	6'-7"	—
s57(E)	68	#4	14'-4"	—
s58(E)	17	#5	5'-9"	—
s59(E)	19	#5	4'-10"	—
s60(E)	182	#5	5'-11"	—
s69(E)	19	#5	6'-2"	—
u50(E)	4	#5	8'-2"	—
Concrete Structures			CU YD	54.0
Reinforcement Bars, Epoxy Coated			POUND	8,790
Concrete Sealer			SQ FT	1,546

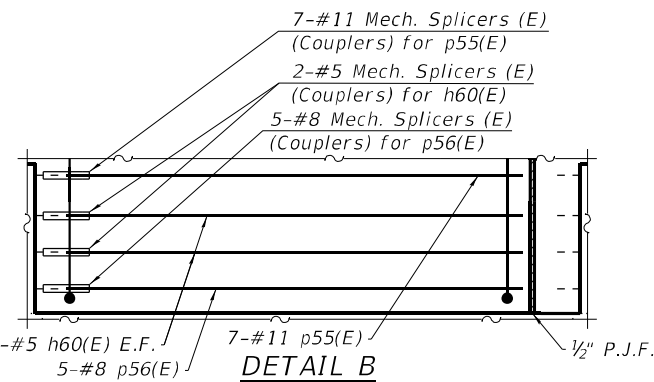
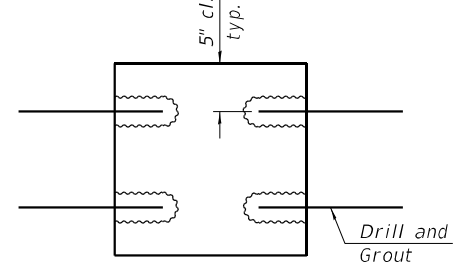
PIER 1 CAP ELEVATIONS

Pier	Elev.
1A	740.29
2A	740.39
3A	740.53
4A	740.64
5A	740.77
6A	740.89
7A	741.02
8A	741.14
9A	741.27
10A	741.38
11A	741.51
12A	741.63
13A	741.68
14A	741.57
15A	741.45
16A	741.33
17A	741.22
18A	741.10
19A	740.98
20A	740.87
21A	740.74
22A	740.63

PIER 1 - SOUTH ELEVATION (Looking North)

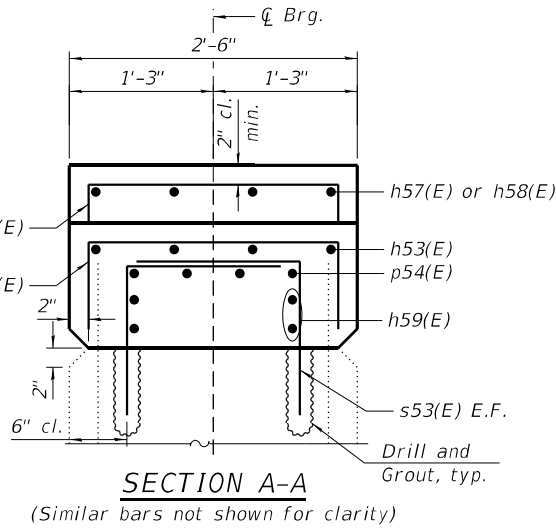


SECTION C-C

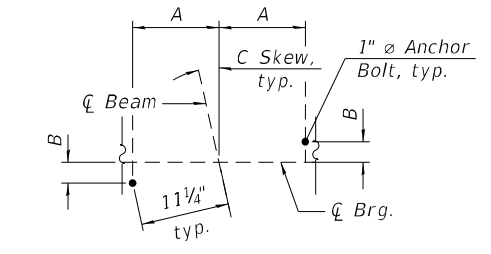


ANCHOR BOLT LAYOUT

Beamline	A	B	C
1	10 15/16"	2 1/2"	12°56'09"
2-22	11"	2 7/16"	12°34'38"



SECTION A-A (Similar bars not shown for clarity)



ANCHOR BOLT LOCATION PLAN DETAIL A

- Notes:
- See sheet 72 of 80 for bar Section B-B.
 - Cost of drilling and grouting reinforcing bars included in cost of Concrete Structures.
 - Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
 - Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

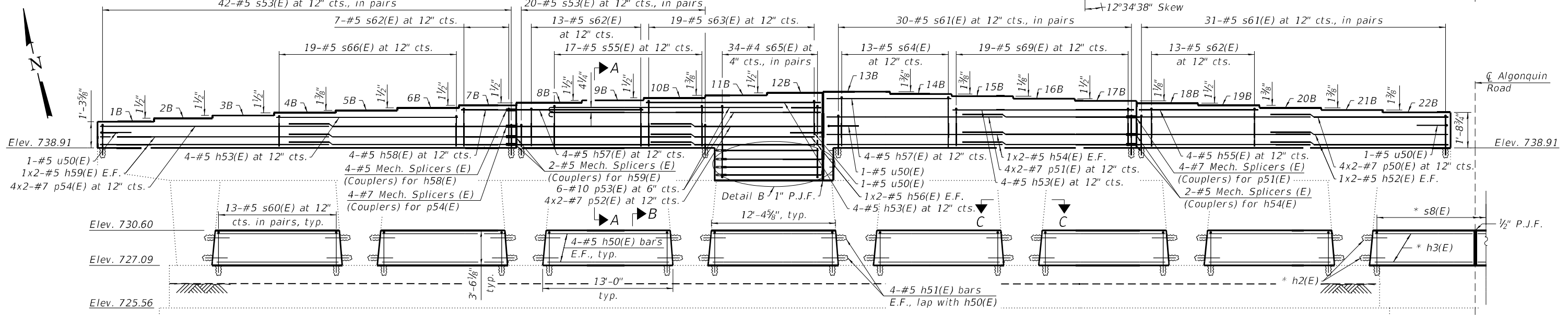
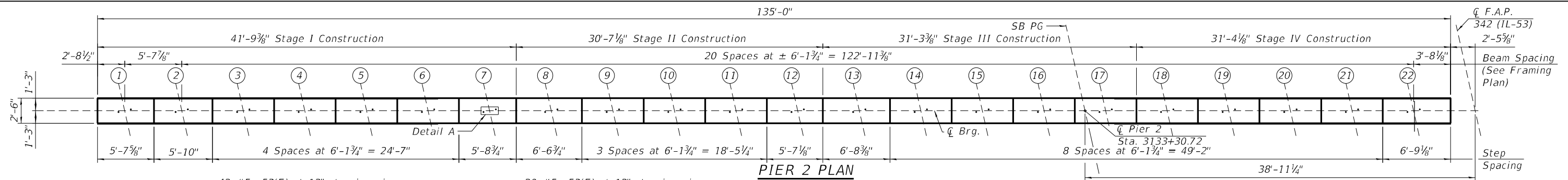
PIER MODIFICATION DETAILS (1 OF 3) STRUCTURE NO. 016-2133 (SB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	817

CONTRACT NO. 62N91
ILLINOIS FED. AID PROJECT

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USER NAME	DESIGNED	CHECKED	REVISIONS
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	ELR	ELR	REVISIONS
	CJH	CJH	REVISIONS
	TJE	TJE	REVISIONS



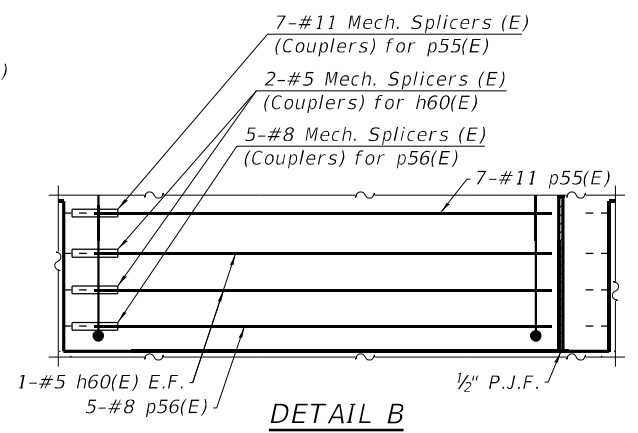
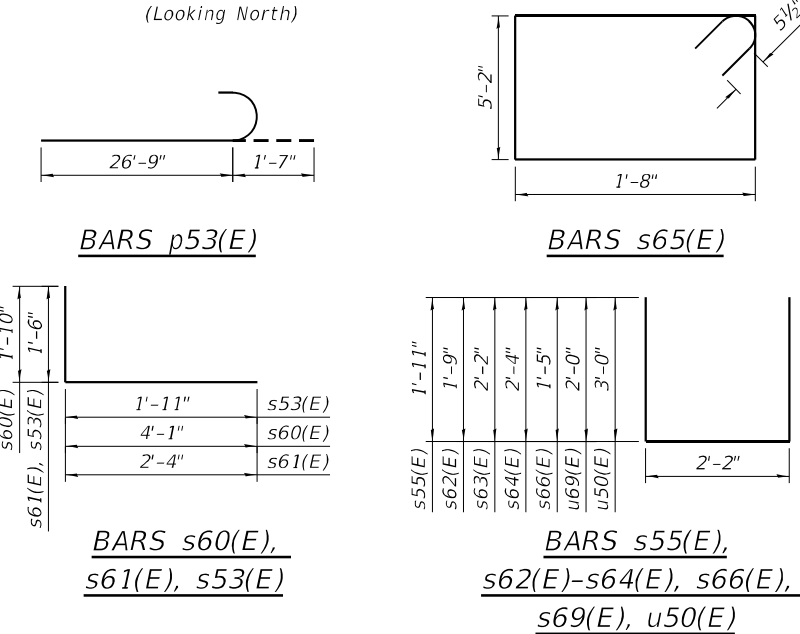
PIER 2 BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h50(E)	56	#5	12'-1"	—
h51(E)	112	#5	3'-6"	—
h52(E)	8	#5	17'-1"	—
h53(E)	12	#5	18'-1"	—
h54(E)	8	#5	17'-0"	—
h55(E)	4	#5	11'-12"	—
h56(E)	8	#5	16'-8"	—
h57(E)	8	#5	12'-5"	—
h58(E)	4	#5	5'-5"	—
h59(E)	8	#5	22'-4"	—
h60(E)	4	#5	10'-6"	—
p50(E)	8	#7	17'-8"	—
p51(E)	8	#7	17'-7"	—
p52(E)	8	#7	17'-4"	—
p53(E)	12	#10	28'-4"	—
p54(E)	8	#7	22'-11"	—
p55(E)	7	#11	10'-6"	—
p56(E)	5	#8	10'-6"	—
s53(E)	124	#5	3'-5"	—
s55(E)	17	#5	6'-0"	—
s60(E)	182	#5	5'-11"	—
s61(E)	122	#5	3'-10"	—
s62(E)	33	#5	5'-8"	—
s63(E)	19	#5	6'-6"	—
s64(E)	13	#5	6'-10"	—
s65(E)	68	#4	14'-8"	—
s66(E)	19	#5	5'-0"	—
s69(E)	19	#5	6'-2"	—
u50(E)	4	#5	8'-2"	—
Concrete Structures			CU YD	55.9
Reinforcement Bars, Epoxy Coated			POUND	8,860
Concrete Sealer			SQ FT	1,546

PIER 2 CAP ELEVATIONS

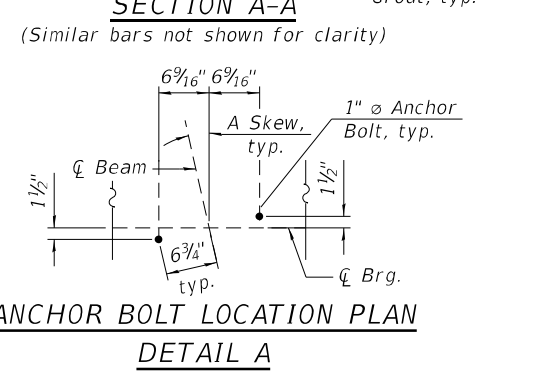
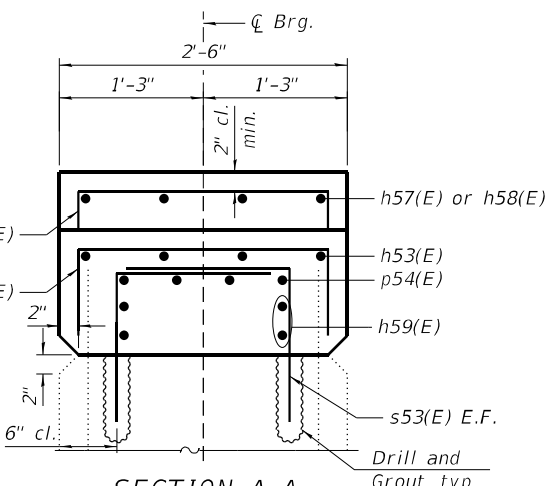
Pier 2	Elev.
1B	740.22
2B	740.35
3B	740.47
4B	740.61
5B	740.72
6B	740.86
7B	740.98
8B	741.11
9B	741.23
10B	741.37
11B	741.48
12B	741.61
13B	741.66
14B	741.55
15B	741.43
16B	741.33
17B	741.20
18B	741.10
19B	740.97
20B	740.86
21B	740.74
22B	740.63

PIER 2 - SOUTH ELEVATION (Looking North)



ANCHOR BOLT LAYOUT

Beamline	A	B	C
1	10 15/16"	2 1/2"	12°56'09"
2-22	11"	2 7/16"	12°34'38"



Notes:

- See sheet 72 of 80 for bar Section B-B.
- Cost of drilling and grouting reinforcing bars included in cost of Concrete Structures.
- Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
- Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.
- See sheet 70 of 80 for Section C-C.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER MODIFICATION DETAILS (2 OF 3) STRUCTURE NO. 016-2133 (SB)

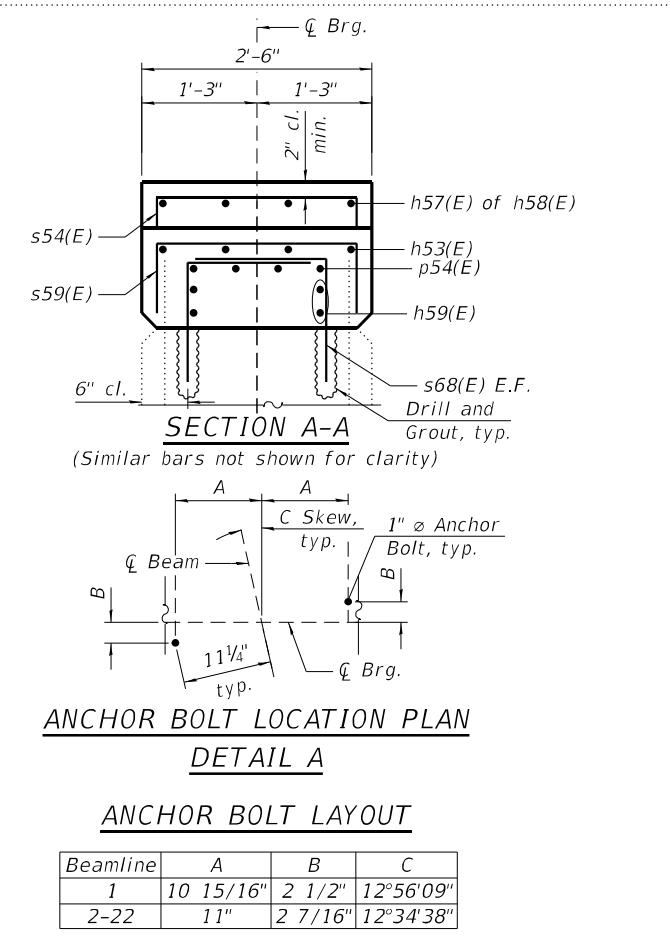
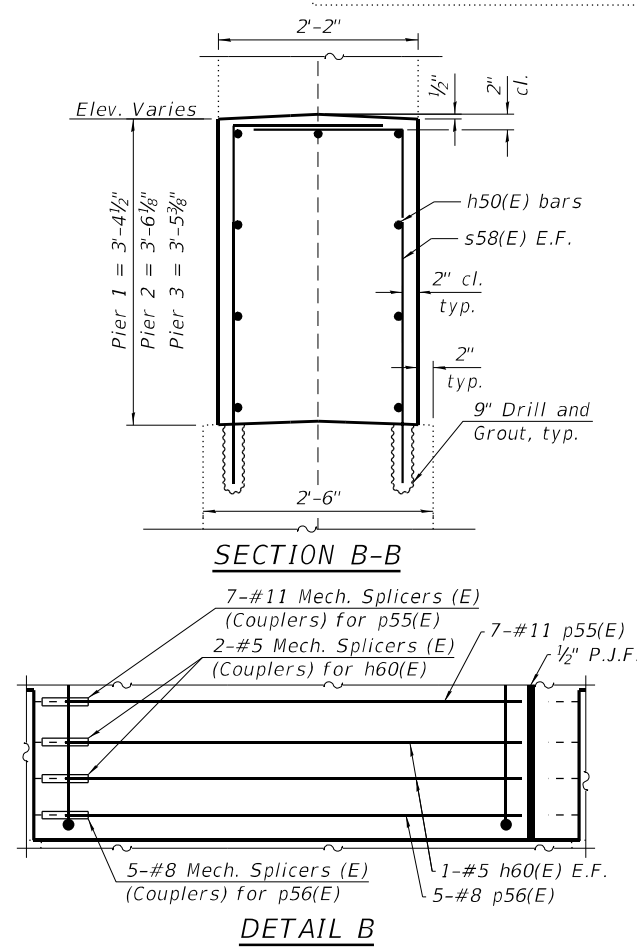
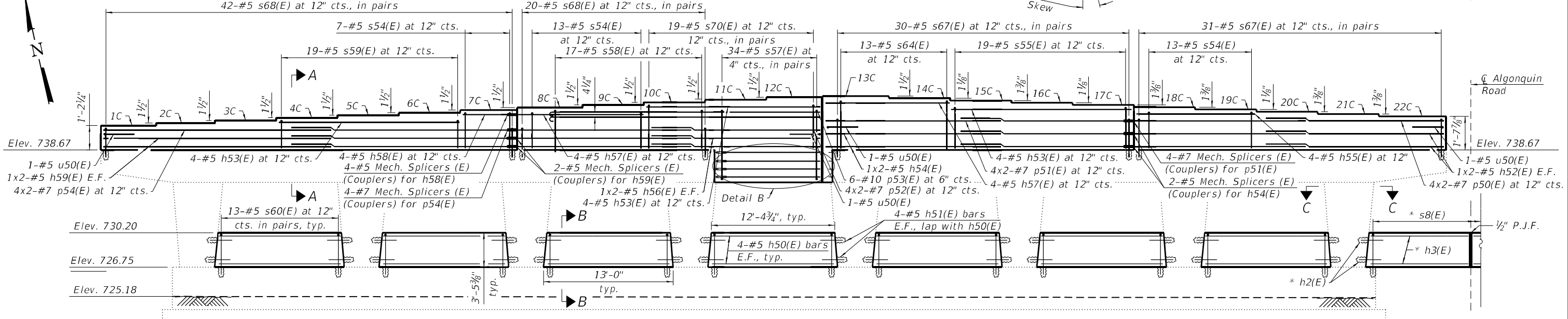
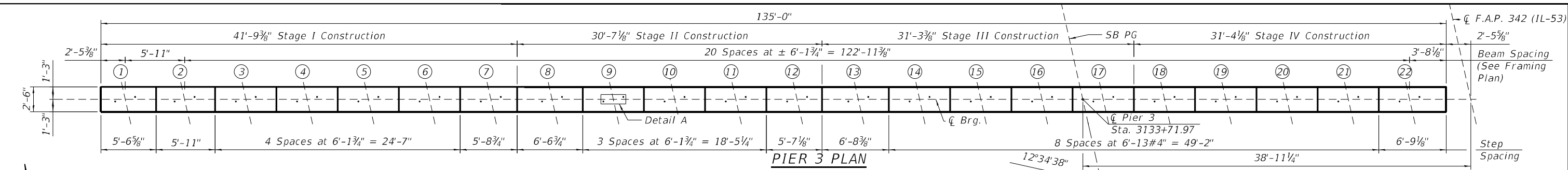
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342	2018-100-BR	COOK	1351	818
				CONTRACT NO. 62N91
				ILLINOIS FED. AID PROJECT

SHEET 71 OF 80 SHEETS

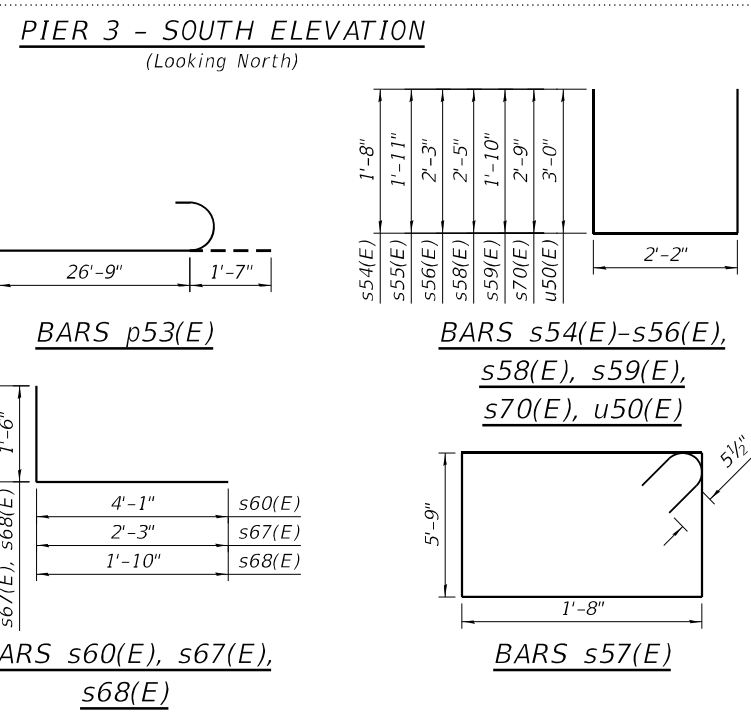
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	CHECKED - TJE	REVISIONS -



Beamline	A	B	C
1	10 15/16"	2 1/2"	12°56'09"
2-22	11"	2 7/16"	12°34'38"



PIER 3 CAP ELEVATIONS

Pier 3	Elev.
1C	739.86
2C	739.99
3C	740.12
4C	740.25
5C	740.38
6C	740.51
7C	740.64
8C	740.77
9C	740.90
10C	741.03
11C	741.16
12C	741.29
13C	741.34
14C	741.22
15C	741.11
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17C	740.89
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19C	740.66
20C	740.56
21C	740.44
22C	740.33

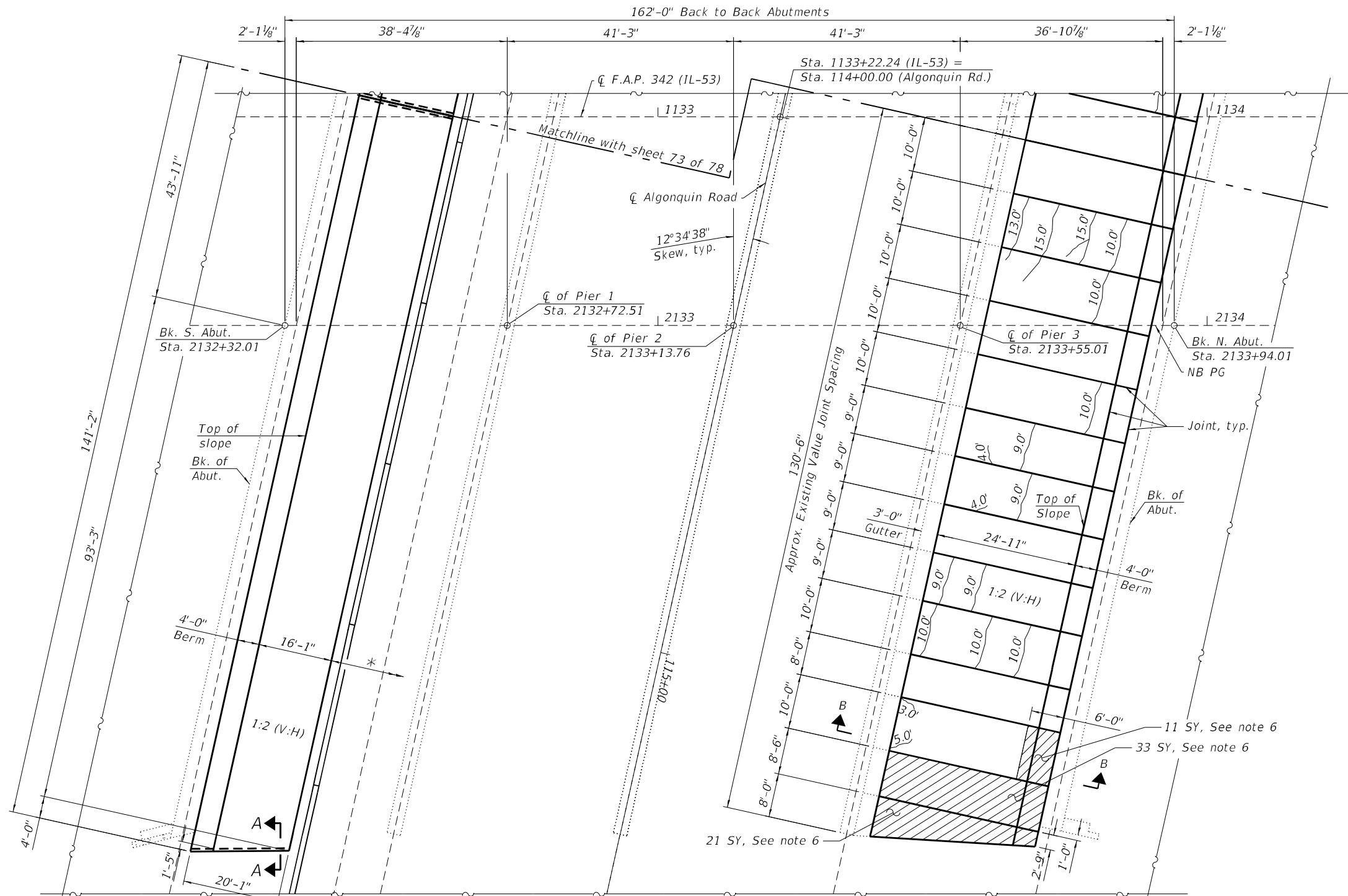
MINIMUM BAR LAP
#5 Bar = 3'-0"

PIER 3 BILL OF MATERIALS

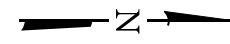
Bar	No.	Size	Length	Shape
h50(E)	56	#5	12'-1"	—
h51(E)	112	#5	3'-6"	—
h52(E)	8	#5	17'-1"	—
h53(E)	12	#5	18'-1"	—
h54(E)	8	#5	17'-0"	—
h55(E)	4	#5	6'-4"	—
h56(E)	8	#5	16'-8"	—
h57(E)	8	#5	12'-5"	—
h58(E)	4	#5	5'-5"	—
h59(E)	8	#5	22'-4"	—
h60(E)	4	#5	10'-6"	—
p50(E)	8	#7	17'-8"	—
p51(E)	8	#7	17'-7"	—
p52(E)	8	#7	17'-4"	—
p53(E)	12	#10	28'-4"	—
p54(E)	8	#7	22'-11"	—
p55(E)	7	#11	10'-6"	—
p56(E)	5	#8	10'-6"	—
s54(E)	39	#5	5'-6"	—
s55(E)	19	#5	6'-0"	—
s56(E)	13	#5	6'-7"	—
s57(E)	68	#4	15'-8"	—
s58(E)	17	#5	7'-1"	—
s59(E)	19	#5	5'-10"	—
s60(E)	182	#5	5'-11"	—
s67(E)	122	#5	3'-9"	—
s68(E)	124	#5	3'-4"	—
s70(E)	19	#5	7'-8"	—
u50(E)	4	#5	8'-2"	—

Concrete Structures	CU YD	54.8
Reinforcement Bars, Epoxy Coated	POUND	8,930
Concrete Sealer	SQ FT	1,546

- Notes:
- Cost of PJF shall be included with Concrete Structures.
 - Cost of drilling and grouting reinforcing bars included in cost of Concrete Structures.
 - Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.
 - Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.
 - See sheet 70 of 80 for Section C-C.



SLOPEWALL PLAN



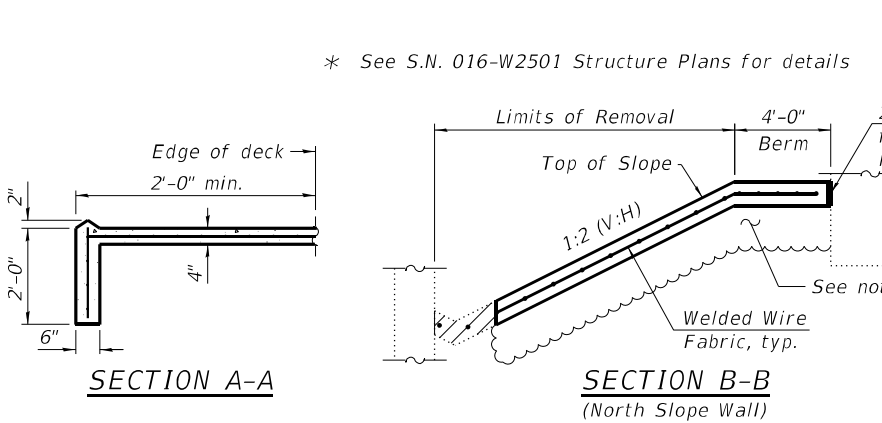
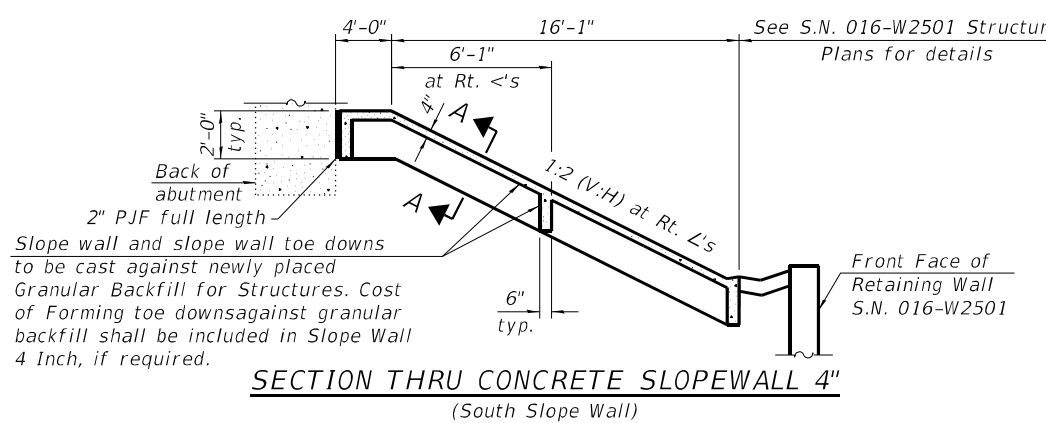
LEGEND

	Slope Wall Crack Sealing
	Slope Wall Repair

BILL OF MATERIALS

Item	Unit	Total
Slope Wall 4 Inch	SQ YD	366
Granular Backfill for Structures	CU YD	33
Slope Wall Crack Sealing	FOOT	889
Slope Wall Repair	SQ YD	65

- Notes:
- Slope wall shall be reinforced with welded wire fabric, 6in. x 6in. - W4.0 x W4.0, weighing 58lbs. per 100 sq. ft.
 - Removal of the existing slope wall at the South Abutment will occur with the construction of the multi-use path retaining wall. See S.N. 016-W2501 structure plans for details.
 - Existing welded wire fabric shall extend 6" into the area of Slope Wall Repair. The exposed 6" of welded wire fabric on either side shall be lapped with the new slope wall reinforcement.
 - The cost of welded wire fabric shall be included in the cost of Slope Wall Repair or Slope Wall 4 Inch, per controlling detail.
 - The cost of Preformed Joint Filler 2" is included in the cost of Slope Wall Repair or Slope Wall 4 Inch, per controlling detail.
 - Voids underneath areas marked for Slope Wall Repair are to be filled with Granular Backfill for Structures to a level that will allow the replacement of appropriate thickness of base material per repair specifications. For bidding purposes the volume of voids has been estimated as 33.0 CY at these locations, but the actual volume of material will be determined by the Contractor after slope wall removal and approved by the Engineer.



SECTION THRU CONCRETE SLOPEWALL 4"
(South Slope Wall)

SECTION A-A

SECTION B-B
(North Slope Wall)

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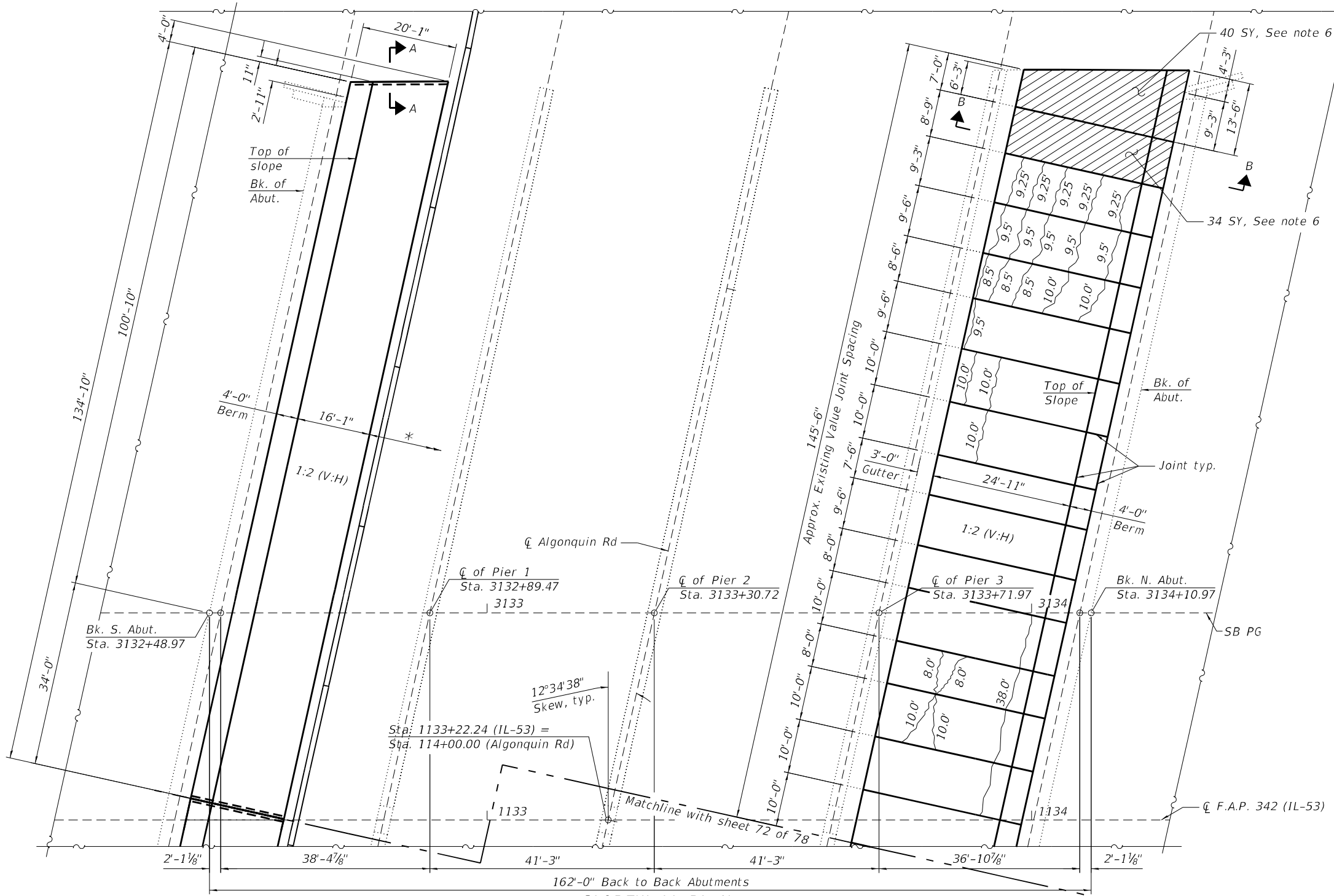
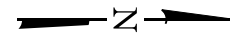
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PLOT DATE = 2/11/2025	DRAWN - CJH	REVISED -
	CHECKED - TJE	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SLOPE WALL REPAIR
STRUCTURE NO. 016-0378 (NB)**

SHEET 73 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	820
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



SLOPEWALL PLAN

LEGEND

Length ' Slope Wall Crack Sealing

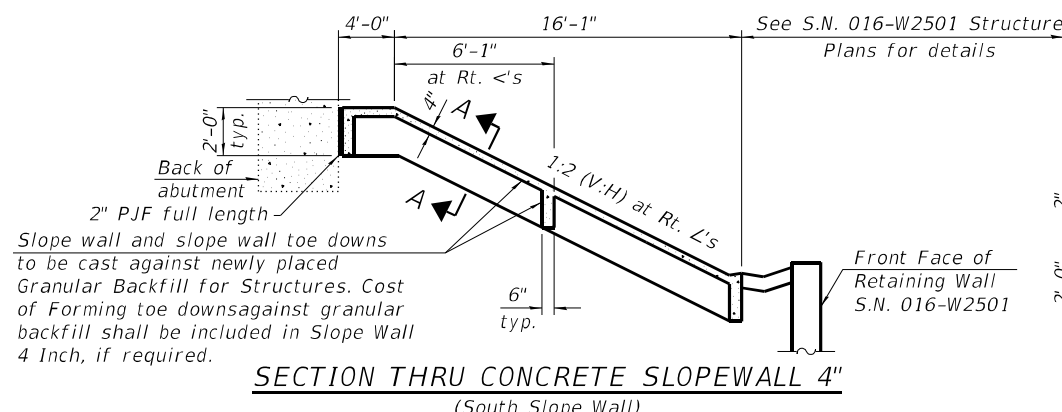
Slope Wall Repair

BILL OF MATERIALS

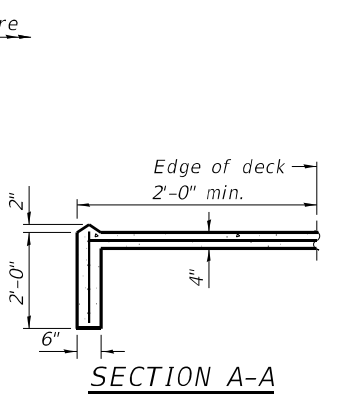
Item	Unit	Total
Slope Wall 4 Inch	SQ YD	348
Granular Backfill for Structures	CU YD	37
Slope Wall Crack Sealing	FOOT	1,049
Slope Wall Repair	SQ YD	74

Notes:

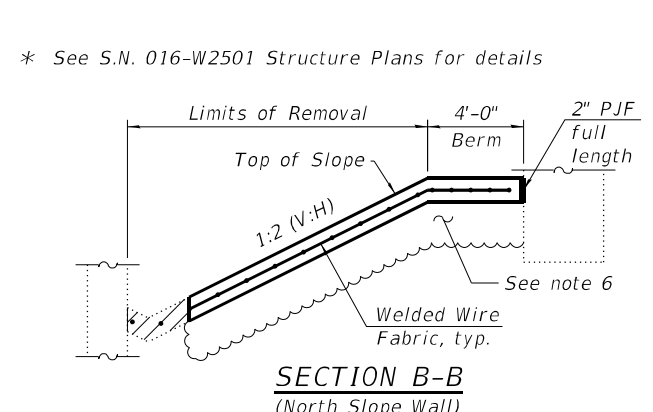
- Slope wall shall be reinforced with welded wire fabric, 6in. x 6in. - W4.0 x W4.0, weighing 58lbs. per 100 sq. ft.
- Removal of the existing slope wall at the South Abutment will occur with the construction of the multi-use path retaining wall. See S.N. 016-W2501 structure plans for details.
- Existing welded wire fabric shall extend 6" into the area of Slope Wall Repair. The exposed 6" of welded wire fabric on either side shall be lapped with the new slope wall reinforcement.
- The cost of welded wire fabric shall be included in the cost of Slope Wall Repair or Slope Wall 4 Inch, per controlling detail.
- The cost of Preformed Joint Filler 2" is included in the cost of Slope Wall Repair or Slope Wall 4 Inch, per controlling detail.
- Voids underneath areas marked for Slope Wall Repair are to be filled with Granular Backfill for Structures to a level that will allow the replacement of appropriate thickness of base material per repair specifications. For bidding purposes the volume of voids has been estimated as 37.0 CY at these locations, but the actual volume of material will be determined by the Contractor after slope wall removal and approved by the Engineer.



SECTION THRU CONCRETE SLOPEWALL 4"
(South Slope Wall)



SECTION A-A



SECTION B-B
(North Slope Wall)

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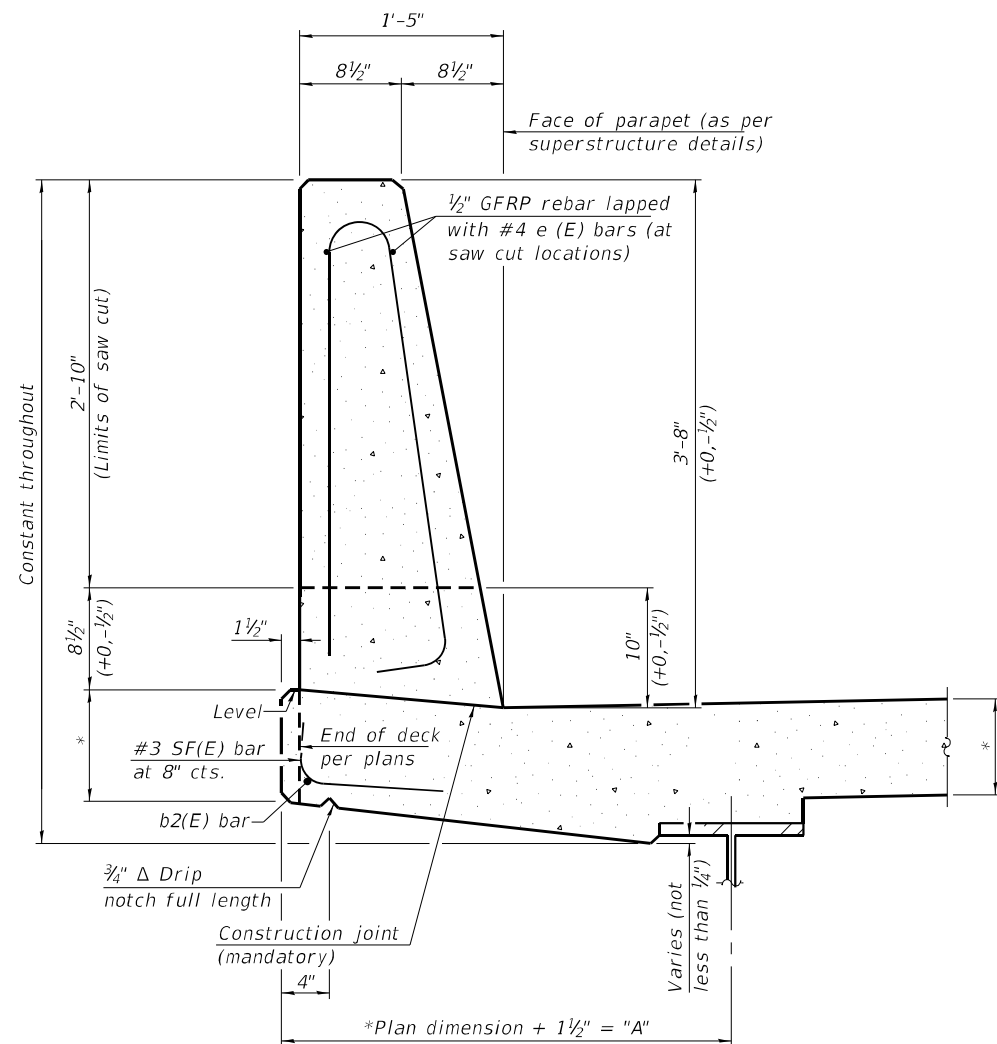
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SLOPE WALL REPAIR
STRUCTURE NO. 016-2133 (SB)**

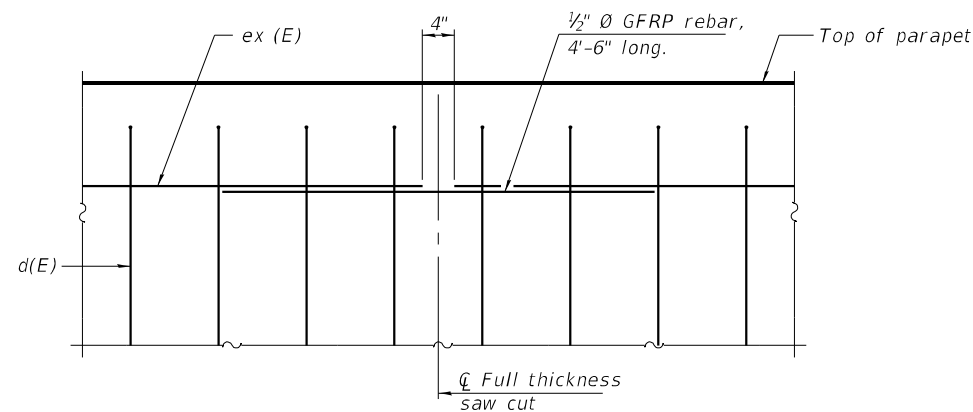
SHEET 74 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	821
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



**44" CONSTANT-SLOPE
PARAPET SECTION**

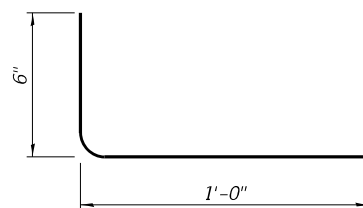
*See Superstructure Details. (Showing dimensions, d(E), and 1/2" Ø GFRP rebar)



DETAIL - GFRP REBAR STIFFENING ELEVATION
(Place as shown in parapet section at each parapet joint location.)

Notes:

- All dimensions shall remain the same as shown on superstructure details, except dimension "A" which is to be revised as shown. Additional concrete needed to revise dimension "A":
Steel Superstructures: 0.00348 cu. yds./ft.
- Place full depth aluminum sheets as shown on superstructure details.
- Replace all cork joint filler locations with a full thickness saw cut.
- Steel and slab superstructures shown. Other superstructure types similar.
- Slip forming is not allowed on parapets with form liners.



SF(E) BAR

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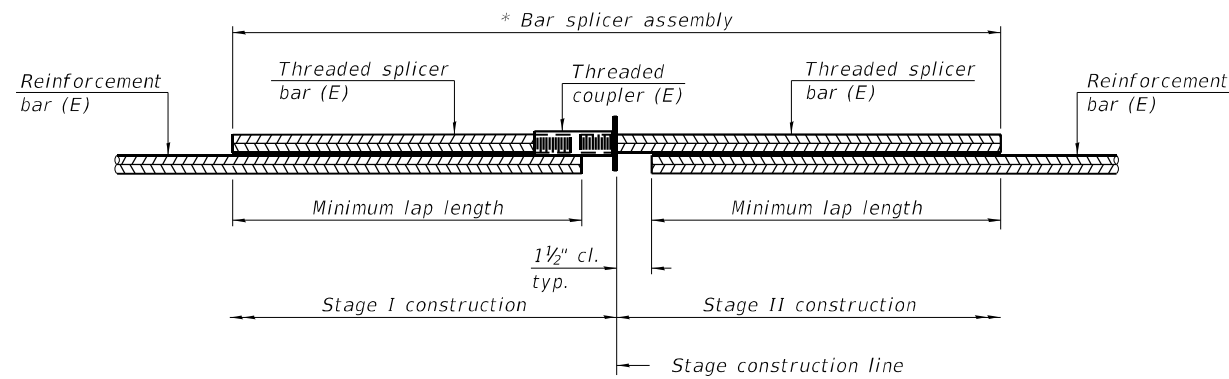
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIP FORMING OPTION
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)**

SHEET 75 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	822
CONTRACT NO. 62N91				
ILLINOIS		FED. AID PROJECT		

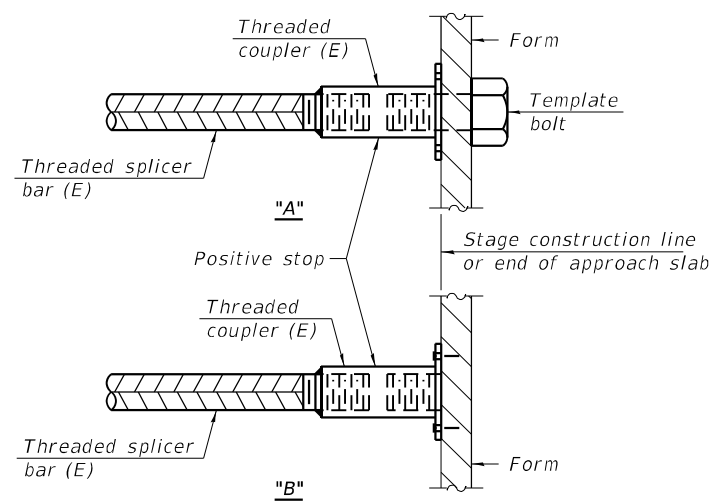


STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

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.

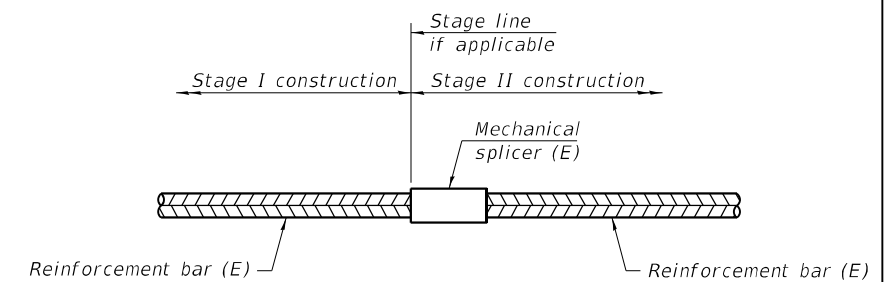


INSTALLATION AND SETTING METHODS

"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.



MECHANICAL SPLICER (E) (COUPLERS)

Structure No. 016-0378 (NB)

Location	Bar Size	No. Assemblies Required
S. Abut. Diaphragm	#4	6
S. Abut. Diaphragm	#6	21
N. Abut. Diaphragm	#4	6
N. Abut. Diaphragm	#6	21
S. Abut.	#5	14
S. Abut.	#7	8
N. Abut.	#5	16
N. Abut.	#7	8
Pier 1	#5	16
Pier 1	#7	8
Pier 2	#5	16
Pier 2	#7	8
Pier 3	#5	16
Pier 3	#7	8

Structure No. 016-2133 (SB)

Location	Bar Size	No. Assemblies Required
S. Abut. Diaphragm	#4	6
S. Abut. Diaphragm	#6	21
N. Abut. Diaphragm	#4	6
N. Abut. Diaphragm	#6	21
S. Abut.	#5	12
S. Abut.	#7	8
N. Abut.	#5	16
N. Abut.	#7	8
Pier 1	#5	16
Pier 1	#7	8
Pier 1	#8	5
Pier 1	#11	7
Pier 2	#5	16
Pier 2	#7	8
Pier 2	#8	5
Pier 2	#11	7
Pier 3	#5	15
Pier 3	#7	8
Pier 3	#8	5
Pier 3	#11	7

Structure No. 016-0378 (NB)

Location	Bar Size	No. Assemblies	Minimum lap
Top Deck	#5	888	3'-0"
Bottom Deck	#5	576	3'-6"
S. Approach Slab	#5	252	3'-0"
S. Approach Slab	#8	177	4'-9"
N. Approach Slab	#5	252	3'-0"
N. Approach Slab	#8	177	4'-9"

Structure No. 016-2133 (SB)

Location	Bar Size	No. Assemblies	Minimum lap
Top Deck	#5	888	3'-0"
Bottom Deck	#5	576	3'-6"
S. Approach Slab	#5	252	3'-0"
S. Approach Slab	#8	177	4'-9"
N. Approach Slab	#5	252	3'-0"
N. Approach Slab	#8	177	4'-9"

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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SA STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

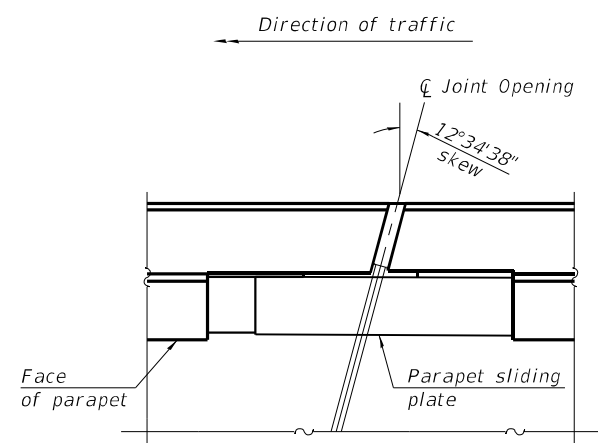
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER DETAILS
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)**

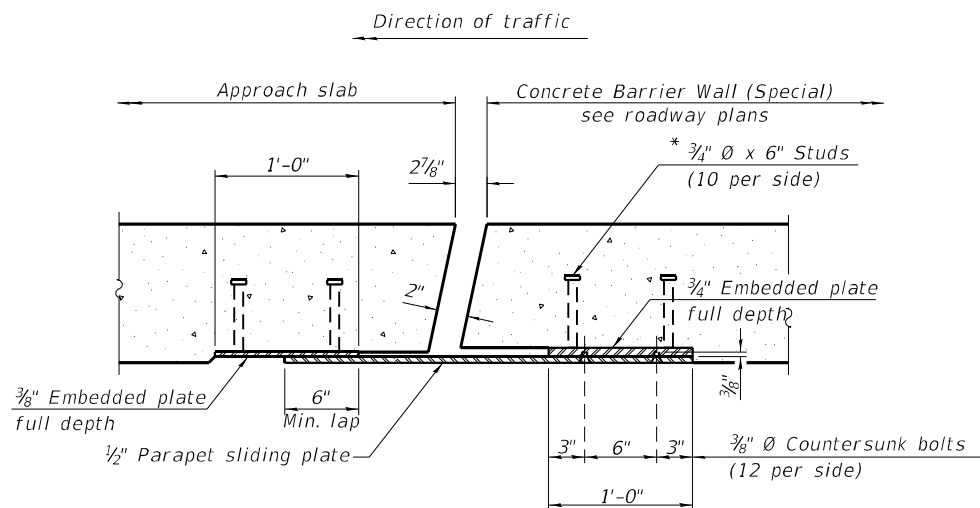
SHEET 76 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 823
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



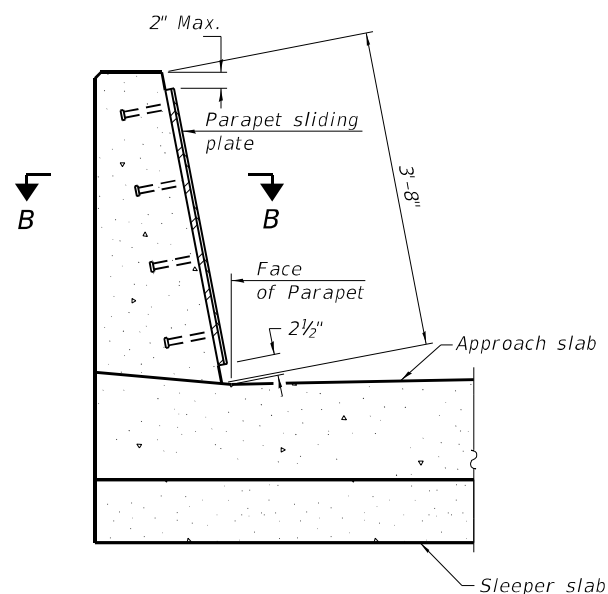
PLAN AT END OF APPROACH

(Drawn for SB 1L-53 North approach sliding plate detail, other views similar.)

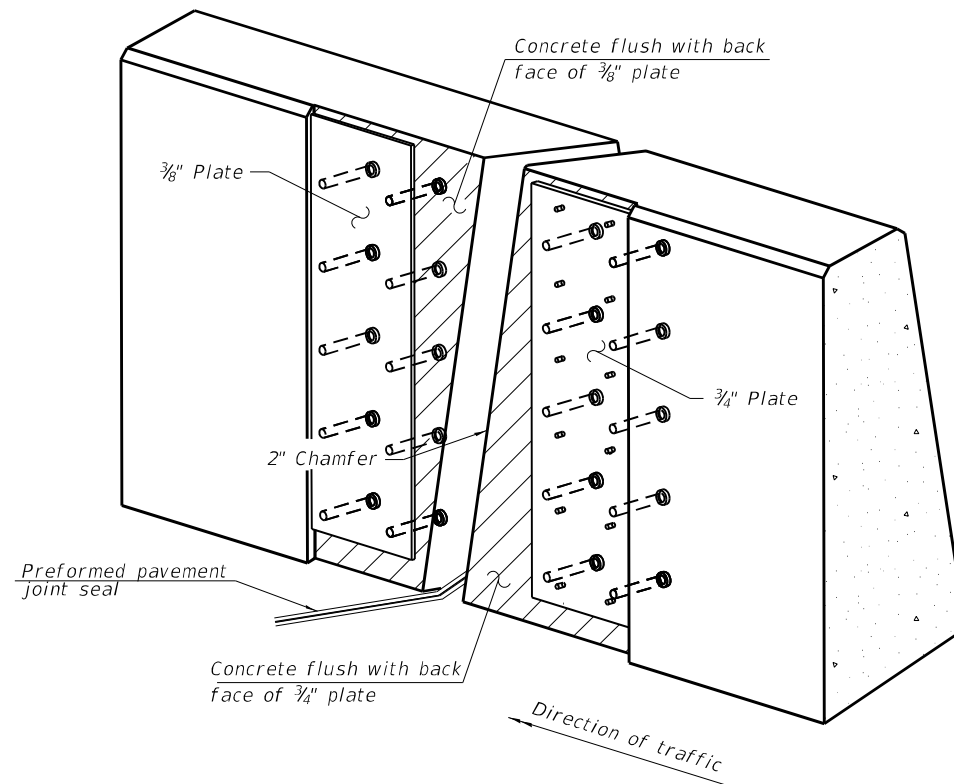


SECTION B-B

(Drawn for SB 1L-53 North approach sliding plate detail, other views similar.)

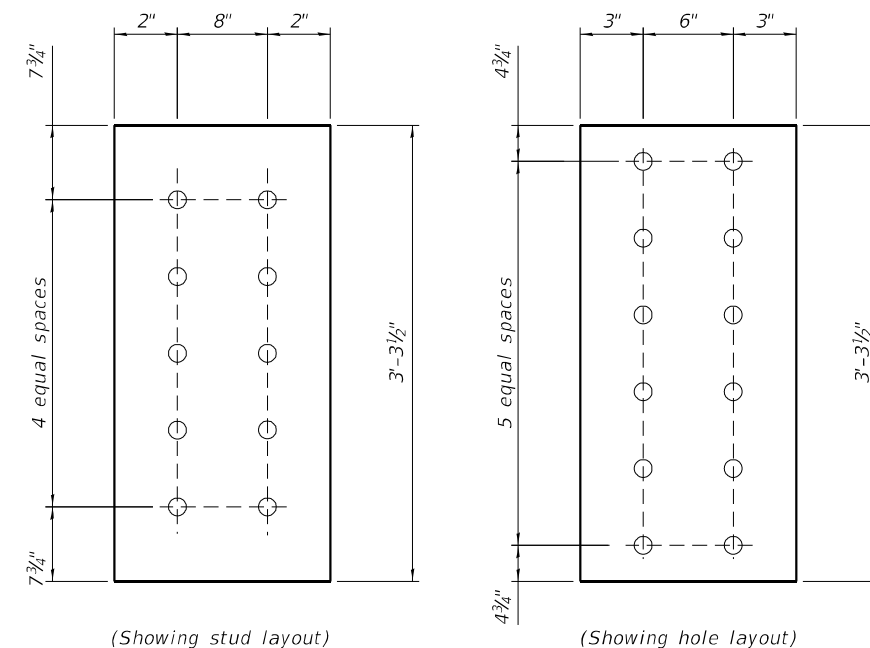


SECTION AT PARAPET

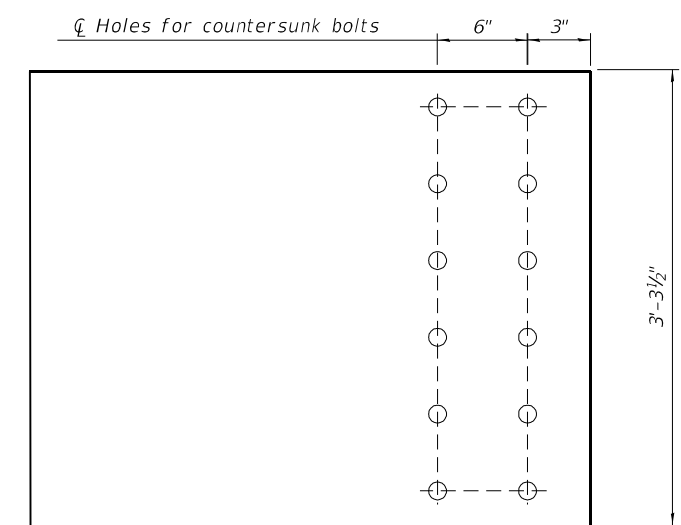


TRIMETRIC VIEW

(Showing embedded plates only)



EMBEDDED PLATE DETAIL



MEDIAN SLIDING PLATE

Notes:
 The preformed pavement joint seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the stripseal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The manufacturer's recommended installation methods shall be followed.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Concrete Barrier Wall (Special) 39" constant slope barrier shown, 44" constant slope barrier similar as noted.

Notes:
 1. See bridge approach sheet 53

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MEDIAN SLIDING PLATE
 STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)**

SHEET 77 OF 80 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 824
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (NRK)
 SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM, Latitude 42.06219532, Longitude 88.02767553
 COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. Station	D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O D I F I E D S P T (%)	Surface Water Elev. _____ ft		Stream Bed Elev. _____ ft		D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O D I F I E D S P T (%)
					Groundwater Elev.:	First Encounter _____ ft	Upon Completion _____ ft	After _____ Hrs. _____ Filled ft				
016-0378 GC-01 2131+77 88.0 ft RT 743.3 ft												
ASPHALT - 11.5"	742.3											Stiff, Dark Brown, Moist, CLAY (continued)
CRUSHED ROCK - 6"	741.8	3								9		
Stiff, Brown, Dry, CLAY, Some Sand, Trace Gravel		4	1.7	16						8		20
		6	P							7		
		3								3		
		4	2.7	18						5	4.1	17
		6	B							7	B	
		3								5		
		4	2.9	15						4	0.2	19
		4	B							5	B	
		3								5		
		4	3.2	16						6	1.8	19
		4	P							9	S	
		4								6		
		5	2.5	16						4	0.2	19
		6	B							5	B	
		2								1		
		4	1.6	19						1	0.7	20
		5	B							2	B	
		3								4		
		4	0.6	19						6	2.7	14
		5	B							8	P	
		2								4		
		4	1.6	32						6	2.7	14
		6	B							8	P	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (NRK)
 SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM, Latitude 42.06219532, Longitude 88.02767553
 COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. Station	D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O D I F I E D S P T (%)	Surface Water Elev. _____ ft		Stream Bed Elev. _____ ft		D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O D I F I E D S P T (%)
					Groundwater Elev.:	First Encounter _____ ft	Upon Completion _____ ft	After _____ Hrs. _____ Filled ft				
016-0378 GC-01 2131+77 88.0 ft RT 743.3 ft												
Soft to Stiff, Brown, Wet, CLAY (continued)												
		4								6		
		6	4.5	14						9	B	
		3								3		
		5	2.2	20						6	1.8	19
		8	B							9	S	
		4								4		
		5	3.1	20						5	0.7	20
		9	B							9	B	
		4								4		
		5	2.2	20						5	0.7	20
		9	B							9	B	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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USER NAME = CodyH	DESIGNED -	REVISED -
PLOT SCALE = 0:2.0000" / in.	DRAWN - CJH	REVISED -
PLOT DATE = 2/11/2025	CHECKED - TJE	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (1 OF 3)
 STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)
 SHEET 78 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	825
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (BR)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM, Latitude 42.06237519, Longitude 88.02860531

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. 016-2133
Station

BORING NO. GC-02
Station 3132+31
Offset 91.1 ft LT
Ground Surface Elev. 743.5 ft

D	B	U	M	Surface Water Elev. _____ ft	D	B	U	M
P	L	C	O	Stream Bed Elev. _____ ft	E	L	C	O
T	O	S	I	Groundwater Elev.: _____ ft	P	O	S	I
H	W	Qu	T	First Encounter _____ ft	H	S	Qu	T
	S			Upon Completion _____ ft				
				After _____ Hrs. _____ Filled ft				
(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)

ASPHALT - 10"	742.7				Stiff, Brown, Moist, CLAY, Trace Gravel (continued)			
Medium Stiff to Stiff, Moist, Brown, CLAY, Some Gravel, Trace Sand		10			722.0	3		
		4	4.5	14	Stiff, Brown, Moist, CLAY, Trace Gravel (fill)	4	4.0	16
		6	P			5	B	
1" Sand Seam		3				8		
		4	4.1	15		9		18
		-5	5	B		-25	10	
		1				4		
		2	2.5	20		5	2.2	19
		2	P			6	B	
		2			714.7	3		
		1	1.3	18	Soft to Medium Stiff, Brown, Moist, SILTY LOAM, Trace Gravel	3		20
		-10	5	B		-30	3	
		2						
		3	2.5	19				
		4	B					
		3			710.0	3		
		3	4.5	21	Stiff, Brown, Moist, CLAY, Trace Gravel	4	1.4	17
		-15	6	P		-35	5	B
ASPHALT	727.2	8						
Stiff, Brown, Moist, CLAY, Trace Gravel	727.0	46	2.1	17				
		9	B					
		5				3		
		7	4.2	18		4	1.6	20
		-20	7	B		-40	4	B

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (BR)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM, Latitude 42.06237519, Longitude 88.02860531

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. 016-2133
Station

BORING NO. GC-02
Station 3132+31
Offset 91.1 ft LT
Ground Surface Elev. 743.5 ft

D	B	U	M	Surface Water Elev. _____ ft	D	B	U	M
P	L	C	O	Stream Bed Elev. _____ ft	E	L	C	O
T	O	S	I	Groundwater Elev.: _____ ft	P	O	S	I
H	W	Qu	T	First Encounter _____ ft	H	S	Qu	T
	S			Upon Completion _____ ft				
				After _____ Hrs. _____ Filled ft				
(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)

Stiff, Brown, Moist, CLAY, Trace Gravel (continued)								
		4						
		6	3.3	18				
		-45	9	B				
		3						
		4	2.5	12				
		-50	7	P				
		4						
		5	2.4	21				
		-55	7	B				
Boring terminated at 55 feet.	688.5							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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1170 SOUTH HOUBOLT ROAD	USER NAME = CodyH	DESIGNED -	REVISED -
JOLIET, ILLINOIS 60431		CHECKED -	REVISED -
(815) 744-4200	PLOT SCALE = 0:2.0000 " / in.	DRAWN - CJH	REVISED -
IDFPR NO. 184-001273	PLOT DATE = 2/11/2025	CHECKED - TJE	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (2 OF 3) STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

SHEET 79 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	826
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (BR)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM,
Latitude 42.06298957, Longitude 88.02804913

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. <u>016-0378</u>	D	B	U	M	Surface Water Elev. _____ ft	D	B	U	M
Station _____	E	L	C	O	Stream Bed Elev. _____ ft	E	L	C	O
BORING NO. <u>GC-22</u>	P	O	S	I	Groundwater Elev.:	P	O	S	I
Station <u>2134+62</u>	T	W	Qu	S	First Encounter _____ ft	H	W	Qu	T
Offset <u>26.2 ft LT</u>	H	S		T	Upon Completion _____ ft				
Ground Surface Elev. <u>742.5</u> ft	(ft)	(/6")	(tsf)	(%)	After _____ Hrs. _____ Filled ft	(ft)	(/6")	(tsf)	(%)

Soil Description	Depth (ft)	Blow Count (/6")	UCS (tsf)	M-Value (%)	Soil Description	Depth (ft)	Blow Count (/6")	UCS (tsf)	M-Value (%)
CONCRETE - 14"	741.3	5			Stiff, Brown to Dark Brown, Moist to Wet, CLAY, Trace Gravel (continued)				
Loose, Brown, Moist, Fine SAND	740.5	4	3.5	24		5			
Stiff, Brown, Dry, CLAY, Trace Gravel		3	P			6	2.2	28	
		2				7	B		
		5	3.4	17		4			
	-5	7	B			5	2.1	19	
		5				-25	5	B	
		6	3.7	13			3		
		8	B			5	1.4	22	
		4				8	B		
		6	3.5	13		3			
	-10	7	P		4	2.0	17		
		4			-30	5	B		
		6	3.8	16					
		7	B						
		3				4			
		6	2.6	19		5	1.8	19	
	-15	8	B		-35	6	B		
Gravel/Asphalt with Clay	726.5	13							
Stiff, Brown to Dark Brown, Moist to Wet, CLAY, Trace Gravel	725.3	15		10					
		19							
		3				5			
		5	0.7	26		5	2.6	18	
	-20	5	B			8	B		

Boring terminated at 40 feet.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = CodyH	DESIGNED -	REVISED -
	PLOT SCALE = 0:2.0000" = 1" / in.	CHECKED -	REVISED -
	PLOT DATE = 2/11/2025	DRAWN - CJH	REVISED -
		CHECKED - TJE	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (3 OF 3)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

SHEET 80 OF 80 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	827
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

**STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 61	531-1-HB-5 531-1-HF-5	COOK	26	1
ILLINOIS PROJECT U-184(24)				

SCALES { PLAN 1 INCH = 100 FT.
PROFILE, HOR. 1 INCH = 100 FT.
PROFILE, VERT. 1 INCH = 10 FT.
CROSS-SECTIONS 1 INCH = 5 FT.

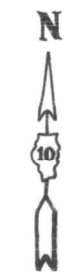
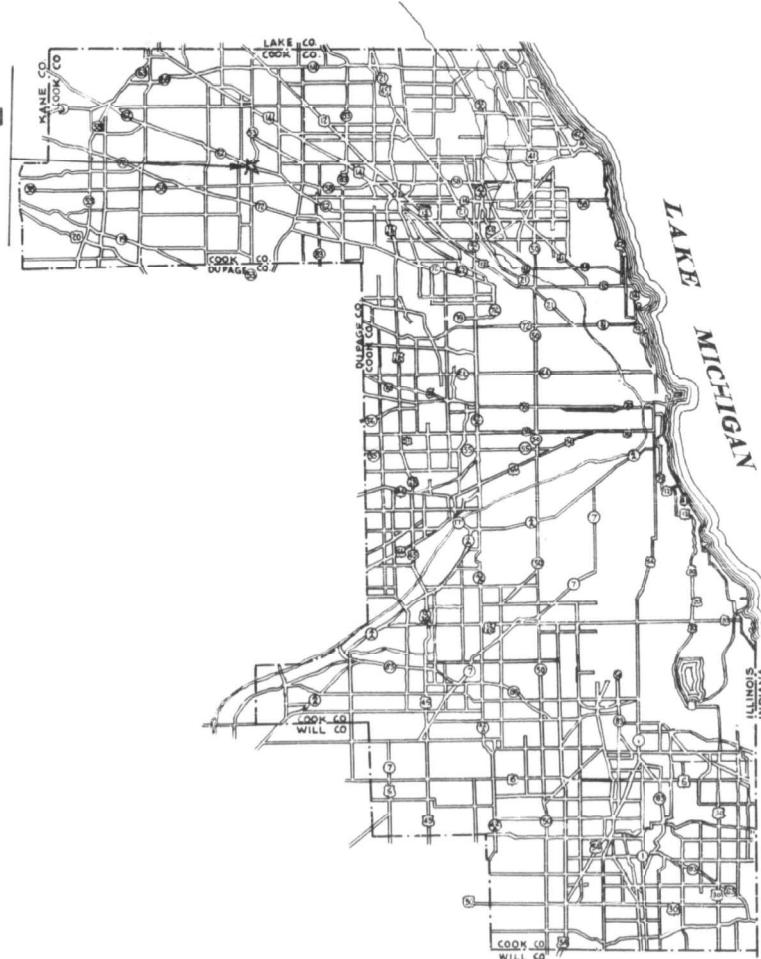
**DISTRICT 10
RELOCATED S.B.I. ROUTE 53 (F.A. ROUTE 61) SECTION 531-1-HB-5,
DUAL STRUCTURES OVER ALGONQUIN ROAD I-HF-5
PROJECT U-184(24)
COOK COUNTY**

GROSS LENGTH 162.00 LIN. FT.
NET LENGTH 162.00 LIN. FT. OR 0.031 MILES



SECTION 531-1-HB-5 INCLUDES THE CONSTRUCTION OF DUAL 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURES (TO CARRY RELOCATED ROUTE 53 OVER ALGONQUIN ROAD), EACH HAVING SPANS 2 AT 41'-3", 1 AT 38'-2", AND 1 AT 36'-8", WITH OPEN R.C. ABUTMENTS AND R.C. PIERS, AT STATION 119+77.27 IN ELK GROVE TWP.

SECTION 531-1HF-5 INCLUDES THE FURNISHING, FABRICATION, SHOP PAINTING AND DELIVERY OF THE STRUCTURAL STEEL, F.O.B. THE STRUCTURE SITE, FOR THE DUAL 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURES (CARRYING RELOCATED ROUTE 53 OVER ALGONQUIN ROAD) AT STATION 119+77.07 IN ELK GROVE TOWNSHIP.



FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED 10-3-62
Marshall Johnson DISTRICT ENGINEER

EXAMINED October 4, 1962
William C. Hall ENGINEER OF ROAD PLANS AND CONTRACTS

PASSED October 1962
John J. ... ENGINEER OF DESIGN

APPROVED October 4, 1962
William C. Hall CHIEF HIGHWAY ENGINEER

APPROVED October 1962
W. J. ... DIRECTOR

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

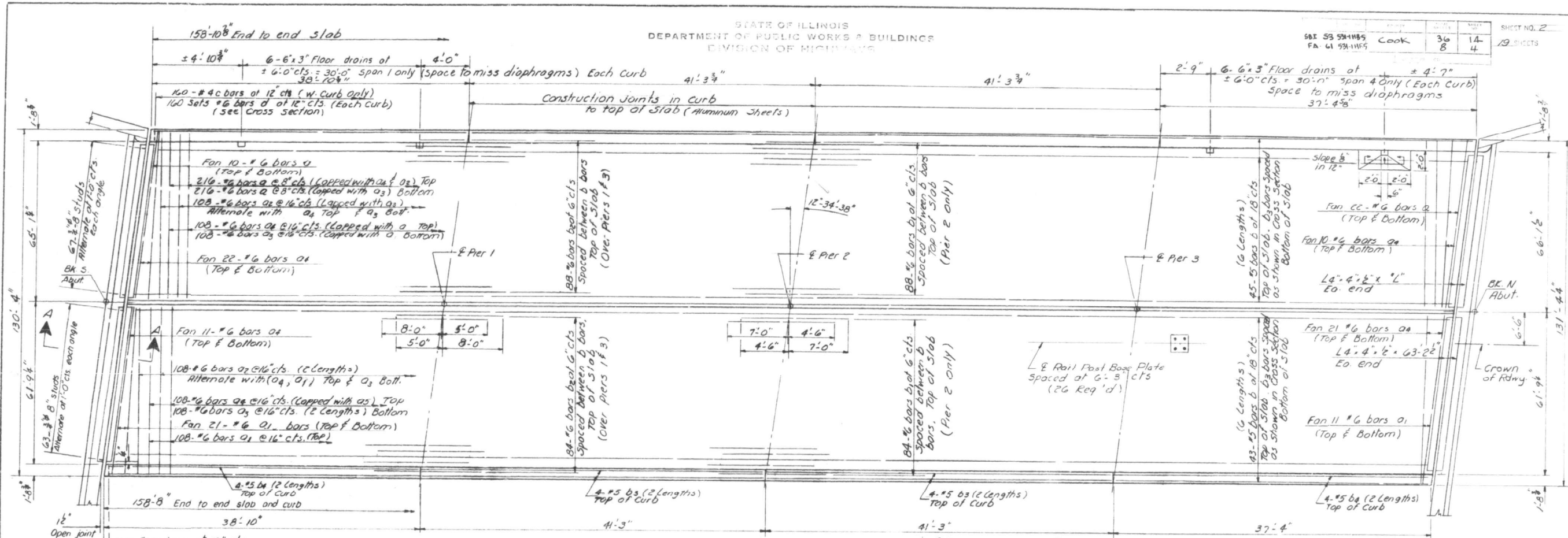
APPROVED _____ DATE _____

DIVISION ENGINEER

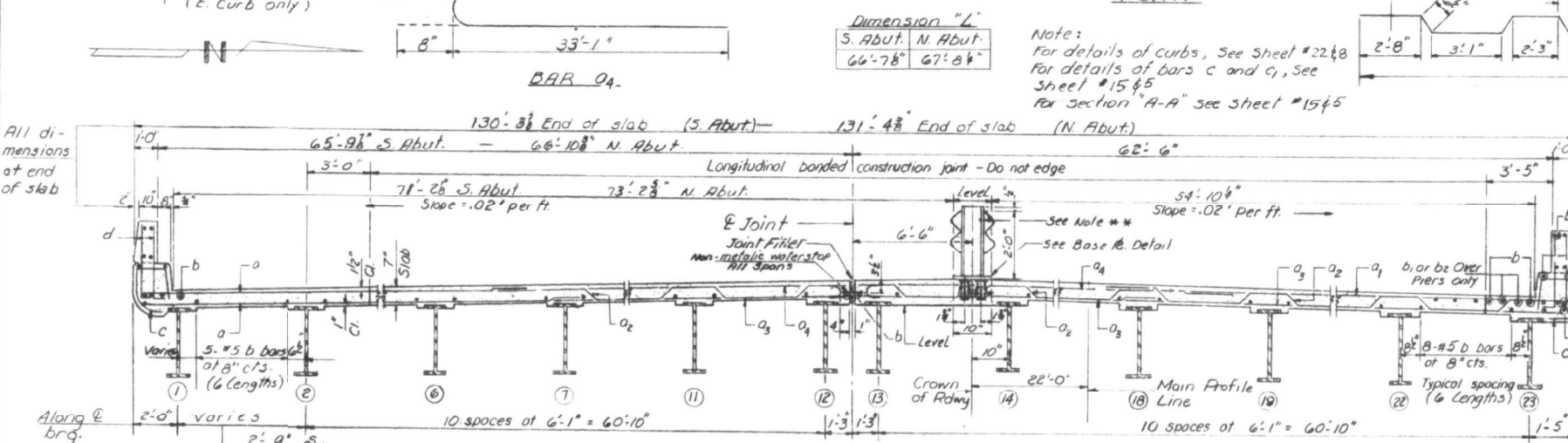
JOB NO. 22719(F) & 22720(B)
COOK COUNTY SECTION 531-1-HB-5 F. A. ROUTE 61

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 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDPR NO. 184-001273	USER NAME = CodyH DESIGNED - CHECKED - PLOT SCALE = 0:2.0000" = 1/16" DRAWN - CJH CHECKED - TJE PLOT DATE = 2/11/2025	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING DRAWINGS (1 OF 8) STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)	F.A.P. RTE. 342 SECTION 2018-100-BR COUNTY COOK TOTAL SHEETS 1351 SHEET NO. 828 CONTRACT NO. 62N91 ILLINOIS FED. AID PROJECT
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PLAN

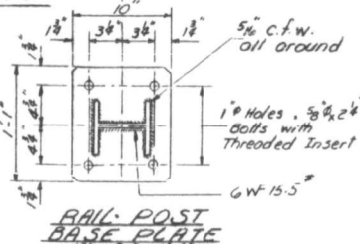


NEAR MIDSPAN

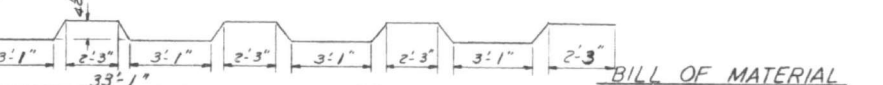
NEAR PIERS

CROSS SECTION (Looking North)

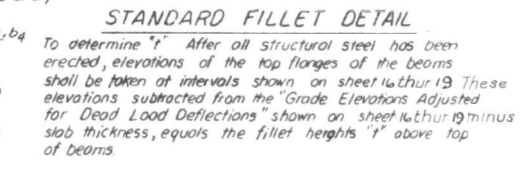
Note **
Steel R. Beam Guard Rail with Base Pl. attached to rail post, by others
See Std 1687-3 for detail of railing
Threaded inserts by bridge contractor. Est. Wt. = 32 Lbs. is included structural steel.



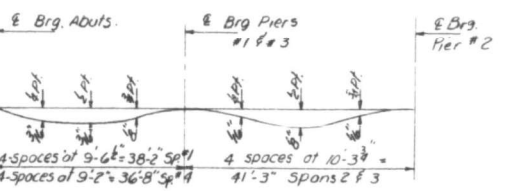
RAIL POST BASE PLATE



Bar	No.	Size	Length	Shape
a	496	#6	36'-0"	
a1	172	#6	31'-9"	
a2	324	#6	34'-4"	
a3	324	#6	33'-0"	
a4	344	#6	33'-9"	
b	1554	#5	32'-9"	
b1	172	#6	11'-6"	
b2	344	#6	13'-0"	
b3	32	#6	21'-0"	
b4	32	#5	20'-0"	
b5	16	#5	19'-5"	
b6	48	#5	13'-6"	
b7	16	#5	18'-5"	
c	160	#4	8'-9"	
c1	160	#4	4'-5"	
d	640	#6	2'-9"	



To determine 'f' After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 14th 13. These elevations subtracted from the "Grade Elevations Adjusted for Dead Load Deflections" shown on sheet 14th 19 minus slab thickness, equals the fillet heights 'f' above top of beams.



(Includes weight of concrete only)
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 14, 17, 18 & 19

Reinforcement Bars	Lbs.
154,600	
409,790	
520.2	

Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel.
Est. Weight = 26,220 Lbs.

Sept 25 1962
A. K. Beck
J. F. Pitts
A. K. Beck
J. F. Pitts
W. E. Baumann
R. H. Bantlinger

FOR INFORMATION ONLY

MODEL: Default
FILE NAME: S:\JUL16300-6399(6346)113(Drawings\CAD\Micro-55\CAD_Sheets\01603782133-C2-082-EPLAN2-5ALD09

1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME	DESIGNED	CHECKED	REVISIONS
CodyH	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

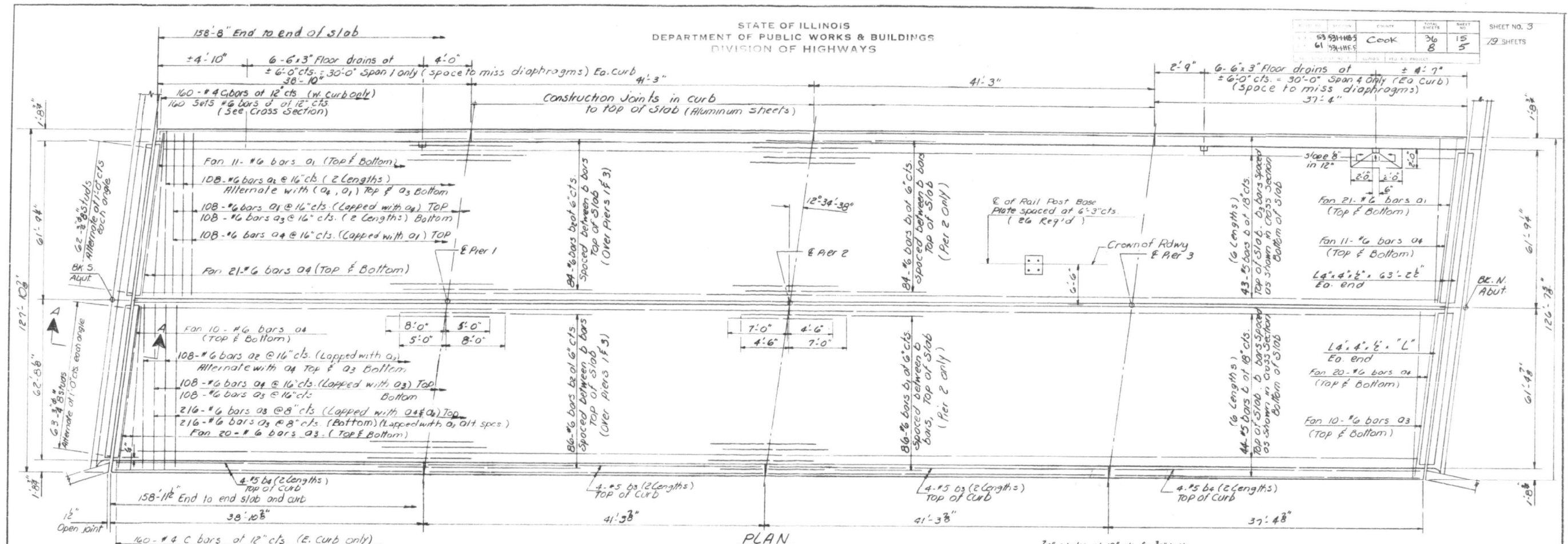
EXISTING DRAWINGS (2 OF 8)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	829
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
53-111-103	2018-100-BR	COOK	36	15
61-53-111-103			8	5

SHEET NO. 3
19 SHEETS



PLAN

DIMENSION 'L'

S. Abut.	N. Abut.
64'-1 1/4"	62'-9"

16" diameter holes at 12" cts. for 3/8" bolts set on 2 1/2" gage line. All bolts shall be burned, sawed, or clipped off flush with back of angles after forms are removed.

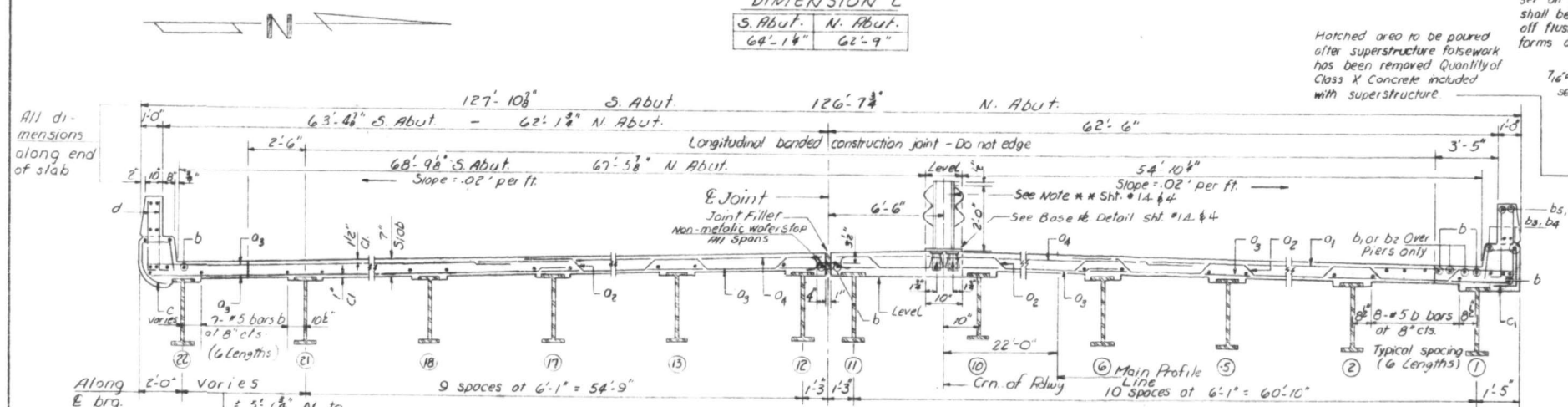
7/16" vent holes at 12" cts. set on 1 1/2" gage line.

Hatched area to be poured after superstructure reinforcement has been removed. Quantity of Class X Concrete included with superstructure.

BILL OF MATERIAL

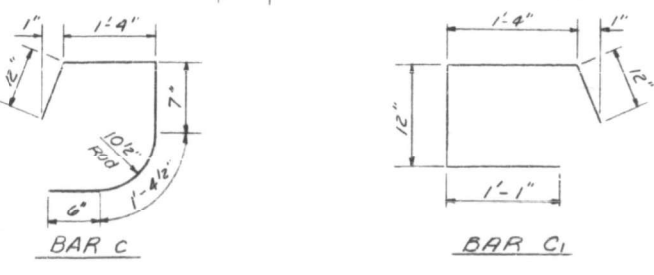
Bar	NO.	SIZE	LENGTH	SHAPE
a1	640	#6	2'-9"	—
a2	172	#6	31'-9"	—
a3	316	#6	33'-0"	—
a4	340	#6	33'-9"	—
b	1512	#5	32'-9"	—
b1	170	#6	11'-6"	—
b2	340	#6	13'-0"	—
b3	32	#5	21'-0"	—
b4	32	#5	20'-0"	—
b5	16	#5	19'-3"	—
b6	48	#5	13'-6"	—
b9	16	#5	18'-5"	—
c	160	#4	4'-9"	—
c1	160	#4	4'-5"	—
Reinforcement Bars				Lbs. 150,110
Structural Steel				Lbs. 392,500
Class X Concrete				Cu Yd. 490.5

* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel. Est. Weight = 25,080 Lbs.



CROSS SECTION
(Looking South)

SECTION A-A



SEPT 25 62

Abraham K. Beck
J. F. Pitts
Abraham K. Beck
J. F. Pitts

W.G. Baumann
R.H. Bartenweg

FOR INFORMATION ONLY

SUPERSTRUCTURE
EAST BRIDGE
S.B.I. AT 53 SEC. 531-1-11(B) 5
COOK COUNTY
STA. 119+77.27

MODEL: Default
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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
STRAND ASSOCIATES, INC.
IDFPR No. 184-001273

USER NAME = CodyH	DESIGNED -	REVISED -
PLOT SCALE = 0:2,0000 "/in.	CHECKED -	REVISED -
PLOT DATE = 2/11/2025	DRAWN - CJH	REVISED -
	CHECKED - TJE	REVISED -

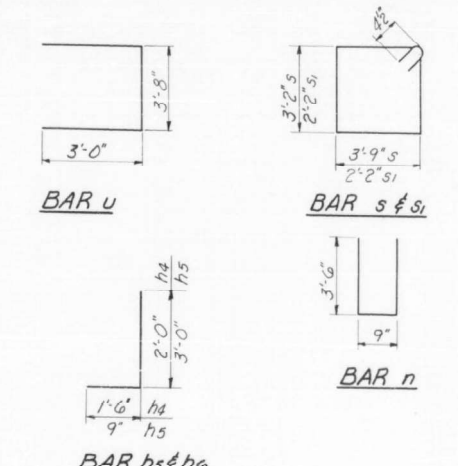
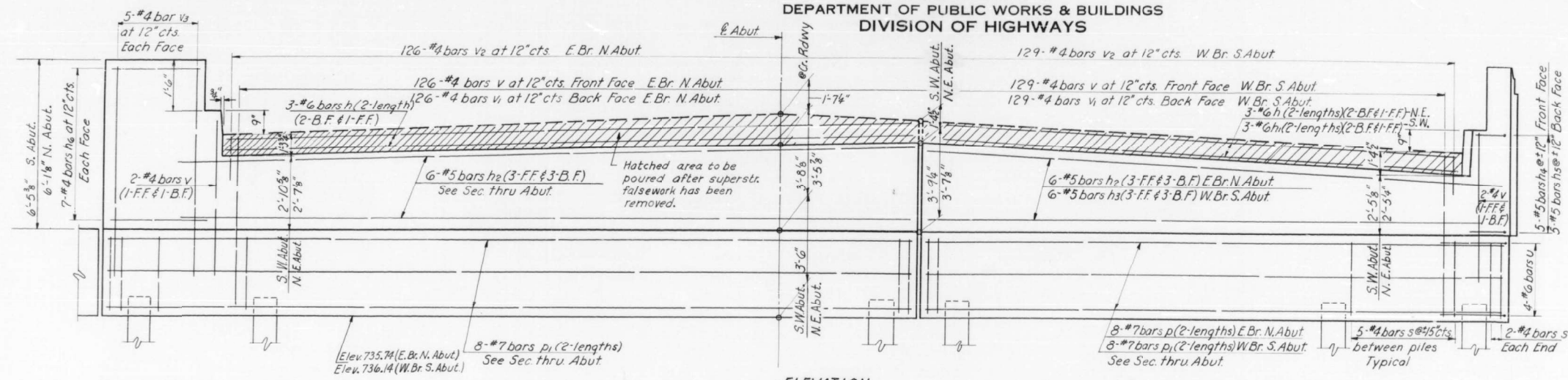
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (3 OF 8)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	830
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

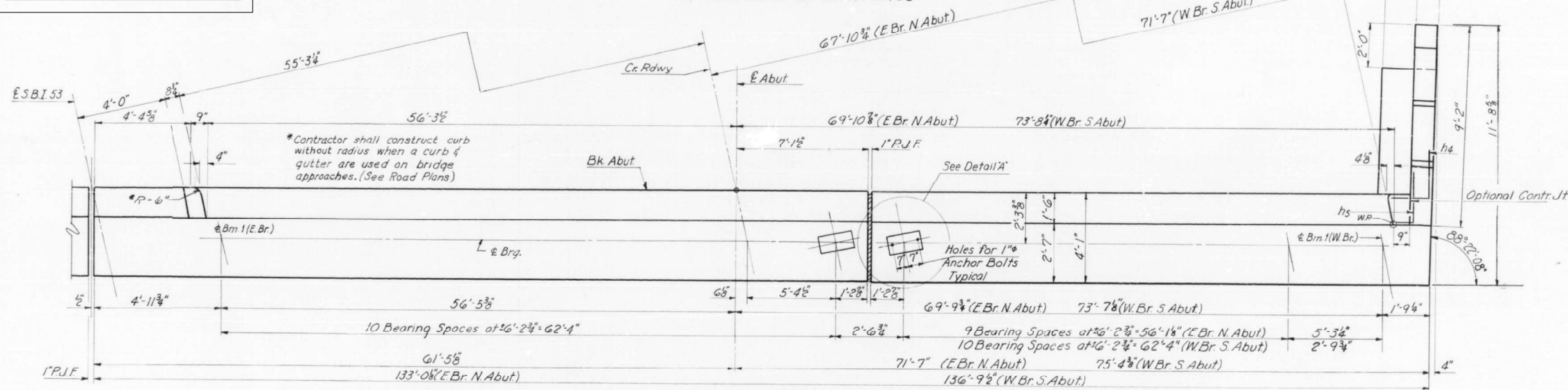
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 53	531-1485	Cook	36	24
SHEET NO. 12				
19 SHEETS				

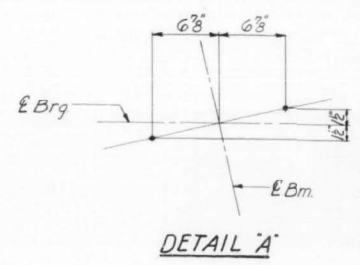


FOR INFORMATION ONLY

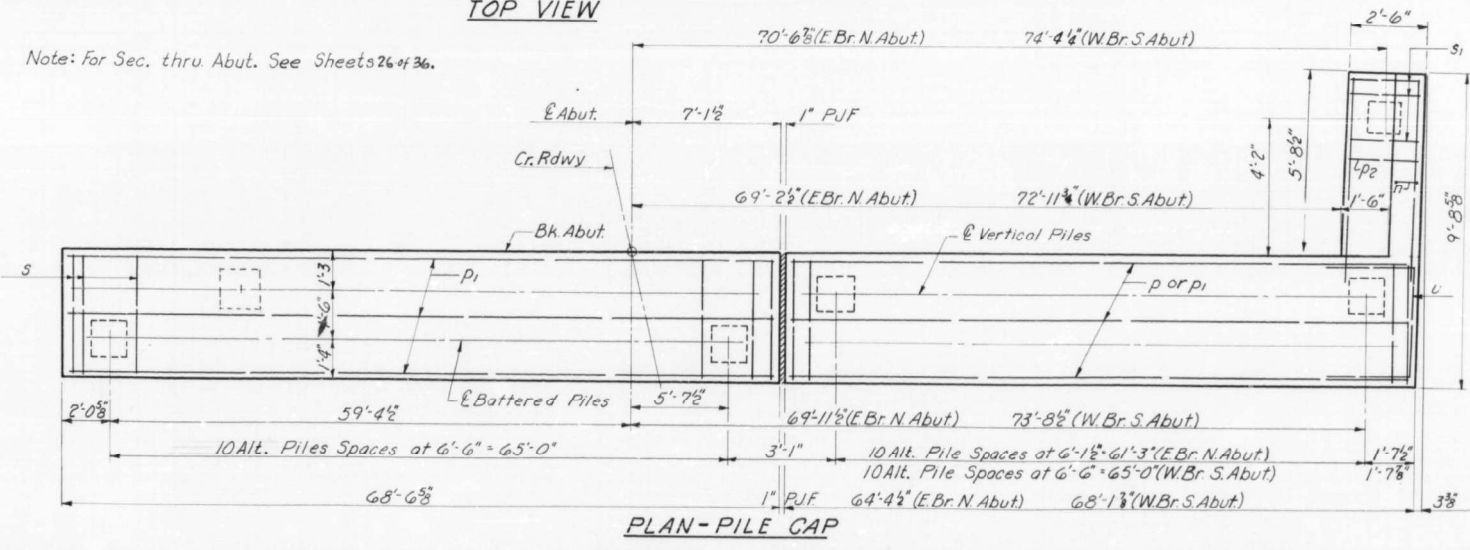
ELEVATION
N. Abut. Looking North
S. Abut. Looking South
For Seat Elevation See Sheets 26 of 36



TOP VIEW



DETAIL A



PLAN - PILE CAP

TWO ABUTMENTS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	18	#6	32'-6"	—
h1	6	#6	34'-0"	—
h2	36	#5	33'-0"	—
h3	12	#5	35'-6"	—
h4	10	#5	3'-6"	—
h5	10	#5	3'-9"	—
h6	28	#4	3'-10"	—
h15	6	#5	16'-6"	—
h16	12	#5	27'-9"	—
h17	6	#5	22'-9"	—
h18	12	#5	24'-6"	—
p	16	#7	33'-3"	—
p1	48	#7	35'-3"	—
p2	12	#7	6'-6"	—
s	216	#4	14'-7"	□
s1	14	#4	9'-5"	□
s2	204	#4	6'-8"	□
u	8	#6	9'-8"	□
v	263	#4	10'-6"	—
v1	255	#4	5'-0"	—
v2	255	#4	3'-0"	—
v3	20	#4	8'-0"	—
n	14	#5	7'-9"	□

PILE DATA

Type - Concrete
Capacity - 30 Tons
Estimated Length - 55'-0"
No. Req'd - 44 plus 1 Test Pile @ Each Abut.

Work this sheet with sheets 14 of 19.

EAST BRIDGE NO. ABUTMENT
WEST BRIDGE SO. ABUTMENT
S.B.I. RT. 53 SEC. 531-148-5
COOK COUNTY
STA. 119 + 77.27

DESIGNED: Wei Huang
CHECKED: T. m. Yang
DRAWN: W.R. Deason, W.E. Dickerson
CHECKED: T. m. Yang

SEPT 25 1962
EXAMINED: W.E. Baumann
PASSED: [Signature]
APPROVED: R.L. [Signature]

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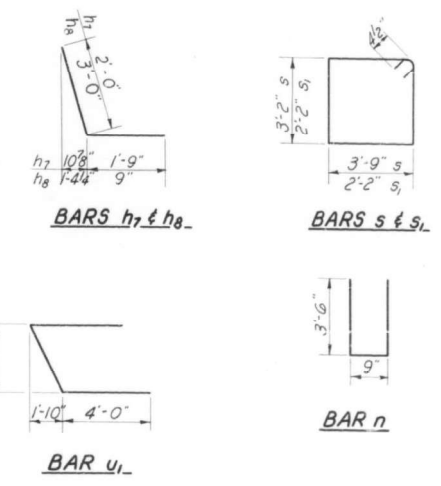
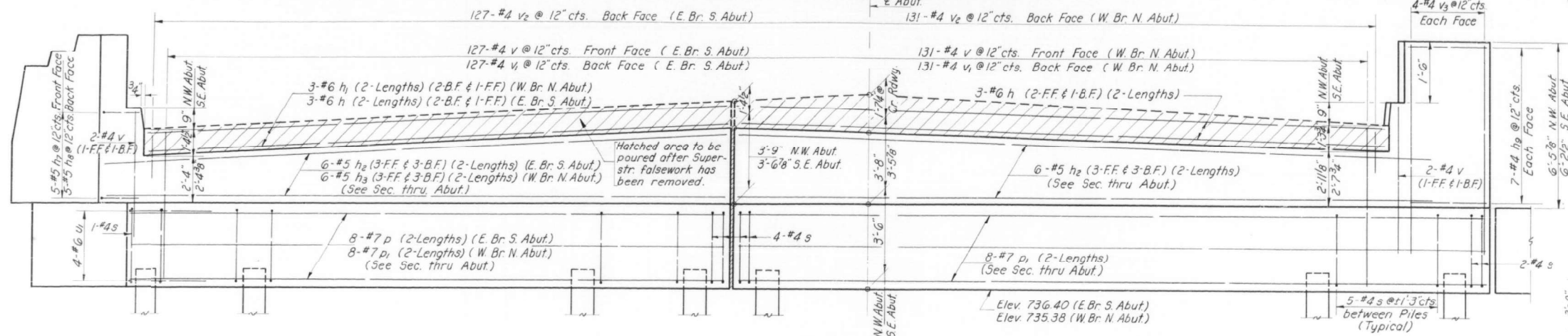
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (4 OF 8)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	831
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

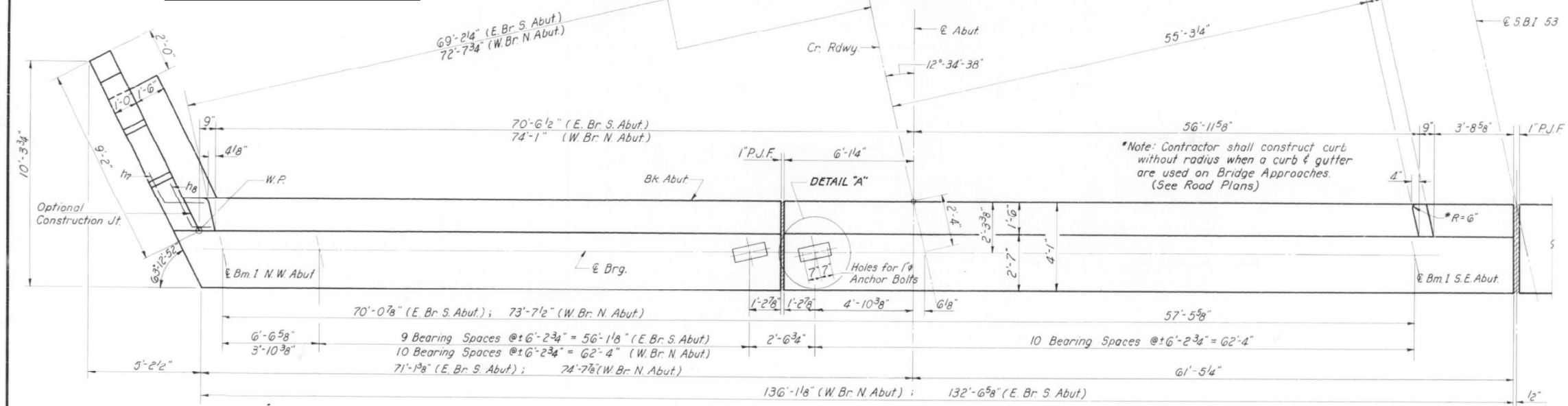
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
S.A. 53	531-HB3	Cook	36	25	19 SHEETS
F.A. 61					
FED. ROAD DIST. NO. 7	SLINGS	FED. AID PROJECT			

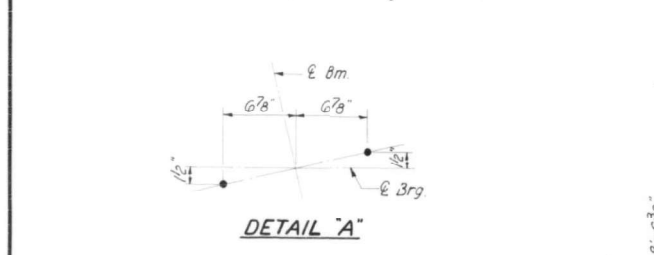


FOR INFORMATION ONLY

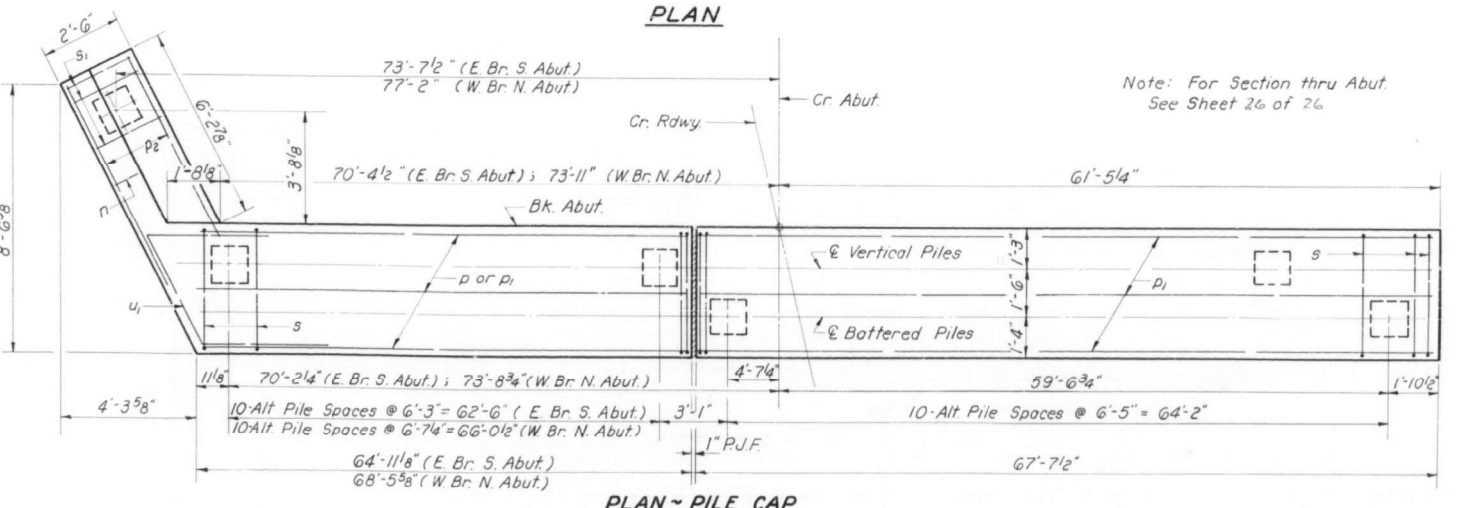
ELEVATION
No. Abut. Looking North & So. Abut. Looking South
For Seat Elevation See Sheet # 26



PLAN



DETAIL 'A'



PLAN ~ PILE CAP

**2 ABUTMENTS
BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	18	#6	32'-6"	—
h1	6	#6	34'-0"	—
h2	36	#5	33'-3"	—
h3	12	#5	35'-6"	—
h7	10	#5	3'-9"	—
h8	10	#5	3'-9"	—
h9	28	#4	3'-6"	—
h15	6	#5	16'-6"	—
h16	12	#5	27'-9"	—
h17	6	#5	22'-9"	—
h18	12	#5	24'-6"	—
n	14	#5	7'-9"	U
p	16	#7	33'-3"	—
p1	48	#7	35'-3"	—
p2	12	#7	6'-6"	—
s	214	#4	14'-7"	□
s1	14	#4	9'-5"	□
s2	204	#4	6'-8"	□
u1	3	#6	12'-3"	—
v	266	#4	6'-6"	—
v1	258	#4	5'-0"	—
v2	258	#4	3'-0"	—
v3	16	#4	8'-0"	—
Class X Concrete			Cu. Yds.	215.3
Reinforcement Bars			Lbs.	15,760
Concrete Piles			Lin. Ft.	2530
Name Plate			Each	2

PILE DATA
Type: Concrete
Capacity: 30 Ton
Est. Length: 55 ft.
No. Reqd. 46

Note: Work this Sheet with Sheet 26 of 26.

**W. BR. N. ABUT. & E. BR. S. ABUT.
S.B.I. RT. 53 SEC. 531-HB-5
COOK COUNTY
STA. 119+77.27**

DESIGNED	W. H. Young	EXAMINED	W. E. Baumgartner
CHECKED	T. M. Yang	PASSED	C. J. H. Armstrong
DRAWN	J. L. Armstrong	APPROVED	R. H. Butelmann
CHECKED	T. M. Yang		

SEPT 25 1962

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SA STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME =	CodyH	DESIGNED -	-	REVISED -	-
PLOT SCALE =	0:2.0000" / in.	CHECKED -	-	REVISED -	-
PLOT DATE =	2/11/2025	DRAWN -	CJH	REVISED -	-
		CHECKED -	TJE	REVISED -	-

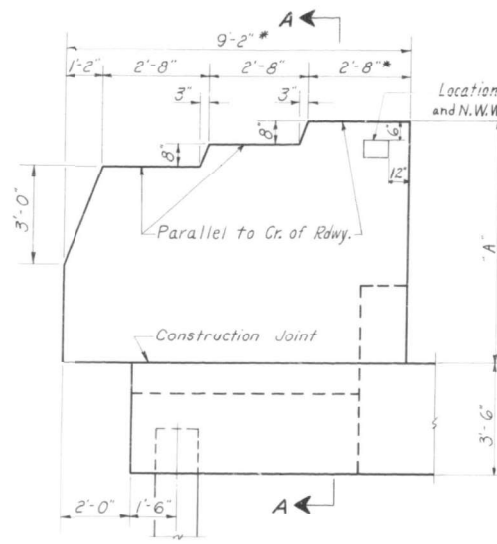
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (5 OF 8)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	832
ILLINOIS			FED. AID PROJECT	
CONTRACT NO. 62N91				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO. S. 153 I. 61	SECTION 531-11B-5	COUNTY Cook	TOTAL SHEETS 36	SHEET NO. 26	SHEET NO. 14 19 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT	

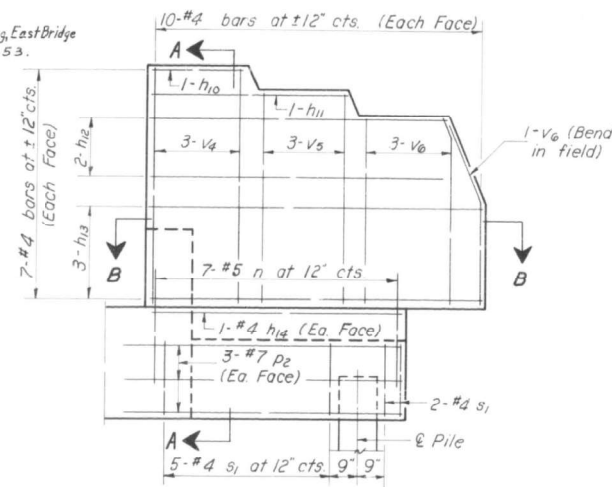


WING WALL ELEVATION
Dimensions

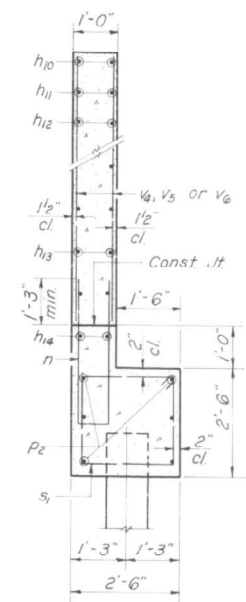
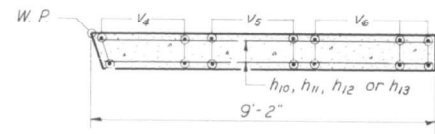
* Measured along inside face

VALUE OF 'A'

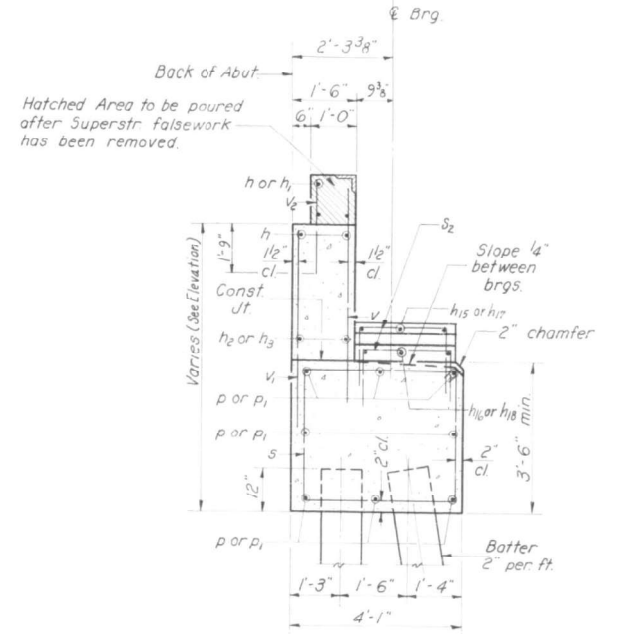
	N. Abut.	S. Abut.
	W. Wing	E. Wing
A	6'-11 1/2"	7'-0 3/8"
	W. Wing	E. Wing
	7'-0 6"	6'-11 3/8"



WING WALL ELEVATION
Reinforcement

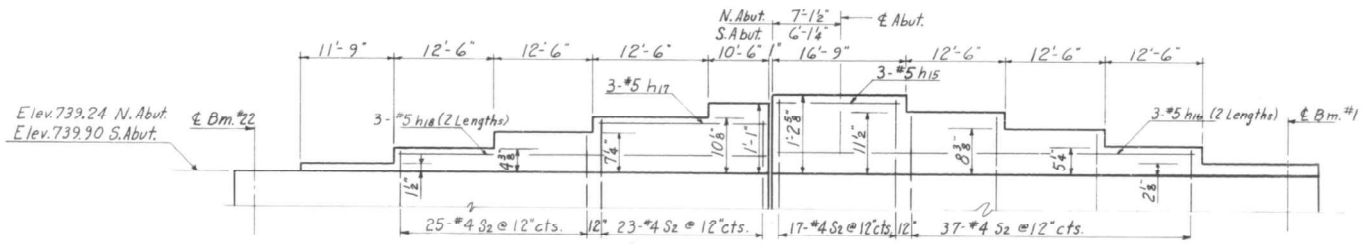


SEC. A-A

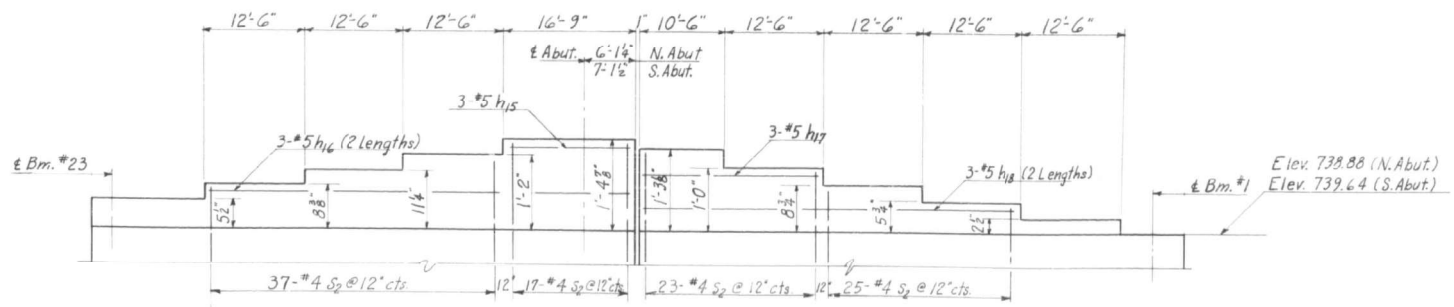


SEC. THRU ABUT.

Note: Four steps monolithically with pile cap.



SEAT ELEVATION-EAST BRIDGE (Looking South)



SEAT ELEVATION-WEST BRIDGE (Looking South)

ONE WING WALL
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10	2	#4	2'-3"	---
h11	2	#4	4'-9"	---
h12	4	#4	7'-6"	---
h13	6	#4	8'-9"	---
h14	2	#4	7'-0"	---
V4	6	#4	6'-9"	---
V5	6	#4	6'-0"	---
V6	8	#4	5'-3"	---
Class X Concrete		Cu Yds	2.0	
Reinforcement Bars		Lbs.	130	

Wing Wall quantities are included in Abutment Bill of Material on sheet 24 and 25 of 34.
Work this sheet with sheet 24 and 25 of 34.

FOR INFORMATION ONLY

DESIGNED <i>Wei Hsiang</i>	EXAMINED <i>H.C. Baumann</i> ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
CHECKED <i>T.M. Yang</i>	PASSED <i>Elmer</i> ENGINEER OF DESIGN
DRAWN <i>J.L. Armstrong</i>	APPROVED <i>R.H. Burtelmeier</i> CHIEF HIGHWAY ENGINEER
CHECKED <i>T.M. Yang</i>	

SEPT 25 1962

ABUTMENT DETAIL
S.B.I. RT. 53 SEC. 531-1-HB-5
COOK COUNTY
STA. 119+77.27

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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
STRAND ASSOCIATES, INC.
IDFPR NO. 184-001273

USER NAME = CodyH	DESIGNED -	REVISED -
PLOT SCALE = 0:2.0000 "/in.	CHECKED -	REVISED -
PLOT DATE = 2/11/2025	DRAWN - CJH	REVISED -
	CHECKED - TJE	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

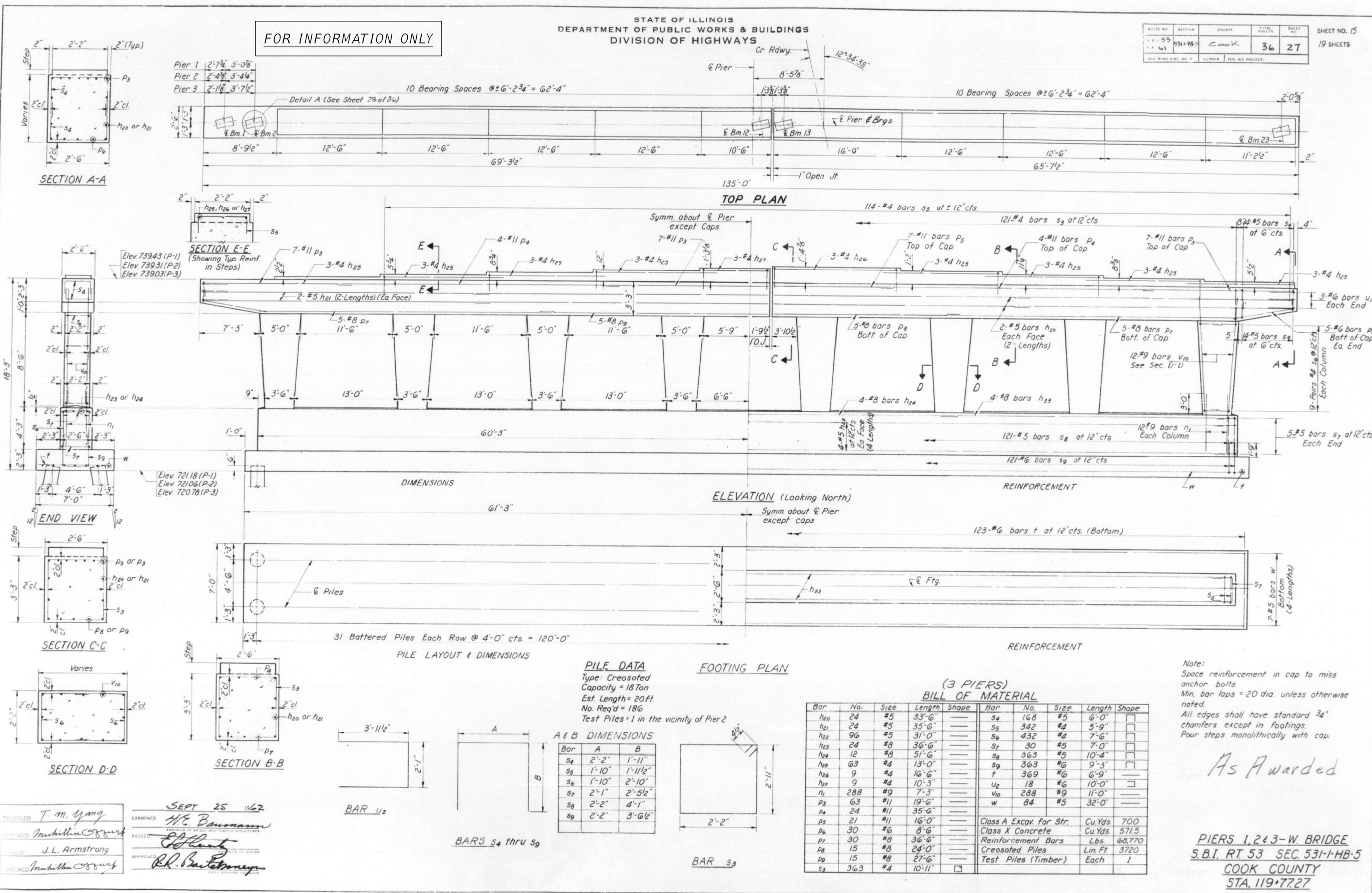
EXISTING DRAWINGS (6 OF 8)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 833
CONTRACT NO. 62N91				
ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
53	531+HB-5	COOK	36	27
SHEET NO. 15 19 SHEETS				

FOR INFORMATION ONLY



DESIGNED: T. M. Yang
CHECKED: M. H. Armstrong
DRAWN: J. L. Armstrong
APPROVED: R. H. Baumann
SEPT 25 1962

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (7 OF 8)
STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

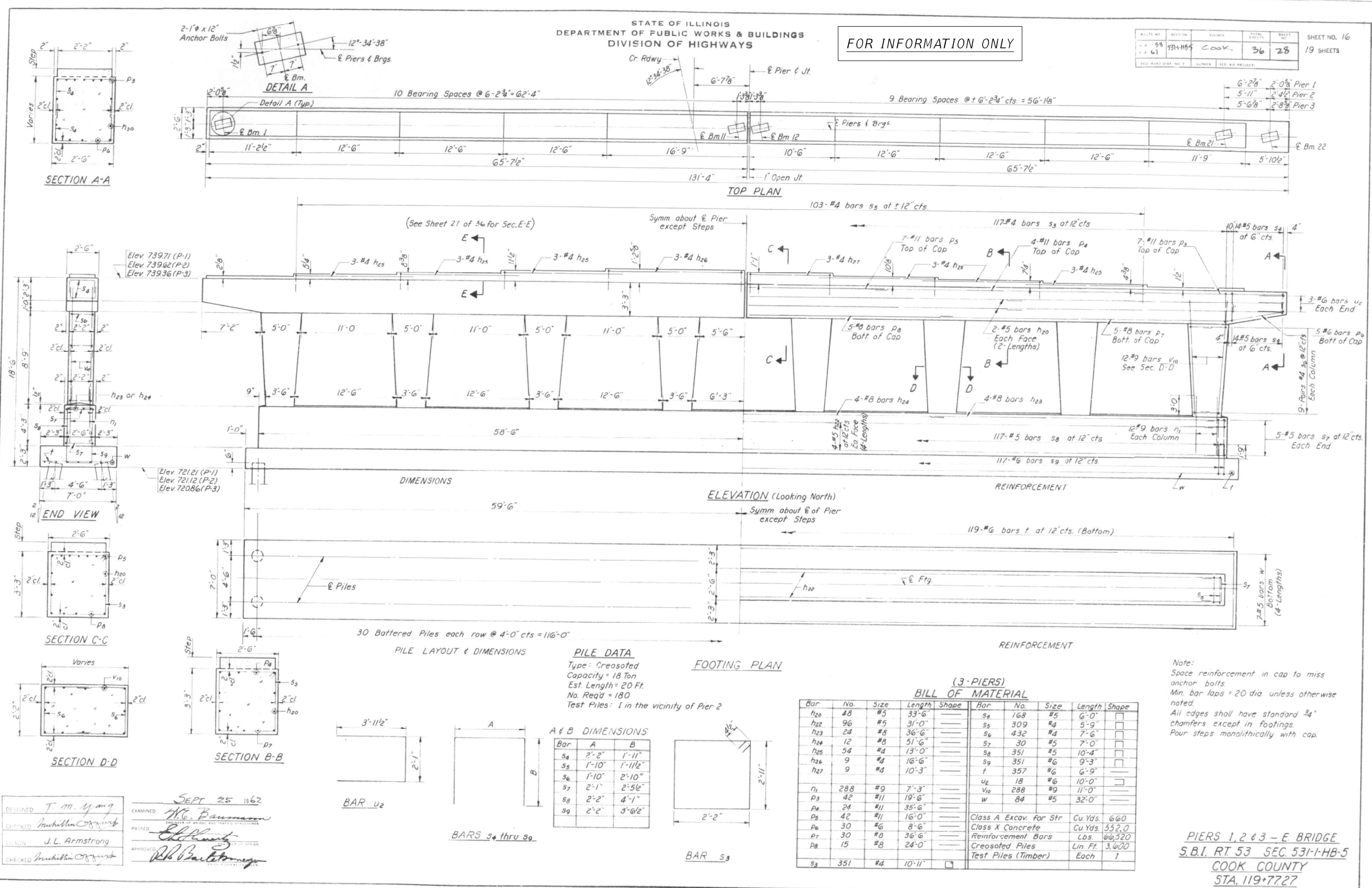
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342	2018-100-BR	COOK	1351	834
CONTRACT NO. 62N91				

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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
58	5314-HB-5	COOK	36	28
19 SHEETS				



PILE DATA
Type: Creosoted
Capacity = 18 Ton
Est. Length = 20 Ft.
No. Req'd = 180
Test Piles: 1 in the vicinity of Pier 2

A & B DIMENSIONS

Bar	A	B
s ₄	2'-2"	1'-11"
s ₅	1'-10"	1'-11 1/2"
s ₆	1'-10"	2'-10"
s ₇	2'-1"	2'-5 1/2"
s ₈	2'-2"	4'-1"
s ₉	2'-2"	3'-0 1/2"

**(3-PIERS)
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
h ₂₀	48	#5	33'-6"		s ₄	168	#5	6'-0"	
h ₂₂	96	#5	31'-0"		s ₅	309	#4	5'-9"	
h ₂₃	24	#8	36'-6"		s ₆	432	#4	7'-6"	
h ₂₄	12	#8	51'-6"		s ₇	30	#5	7'-0"	
h ₂₅	54	#4	13'-0"		s ₈	351	#5	10'-4"	
h ₂₆	9	#4	16'-6"		s ₉	351	#6	9'-3"	
h ₂₇	9	#4	10'-3"		t	357	#6	6'-9"	
n ₁	288	#9	7'-3"		u ₂	18	#6	10'-0"	
p ₃	42	#11	19'-6"		v ₁₀	288	#9	11'-0"	
p ₄	24	#11	35'-6"		w	84	#5	32'-0"	
p ₅	42	#11	16'-0"		Class A Excav. for Str Cu Yds. 660				
p ₆	30	#6	8'-6"		Class X Concrete Cu Yds. 552.0				
p ₇	30	#8	36'-6"		Reinforcement Bars Lbs. 66,520				
p ₈	15	#8	24'-0"		Creosoted Piles Lin. Ft. 3,600				
s ₃	351	#4	10'-11"		Test Piles (Timber) Each 1				

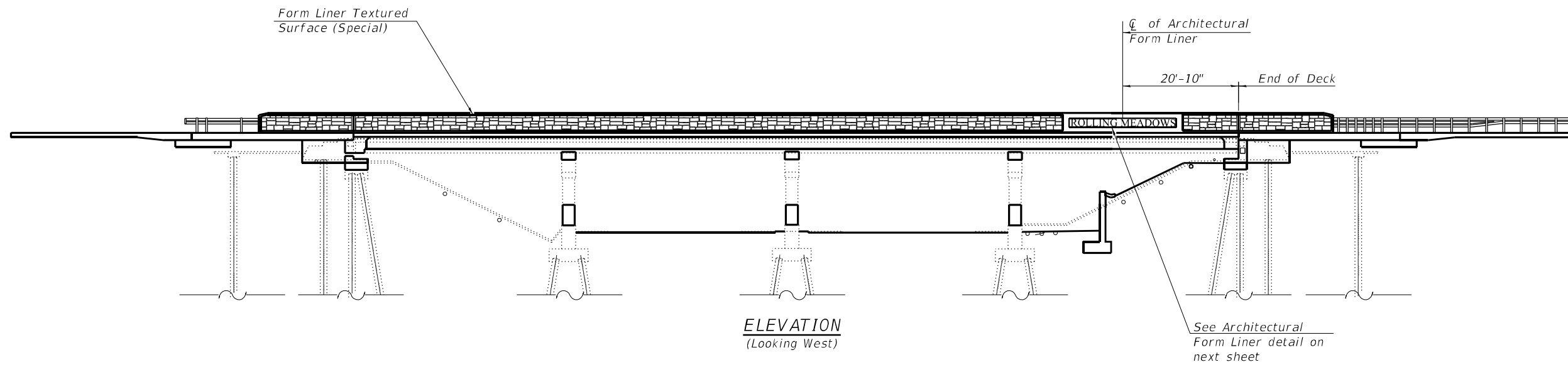
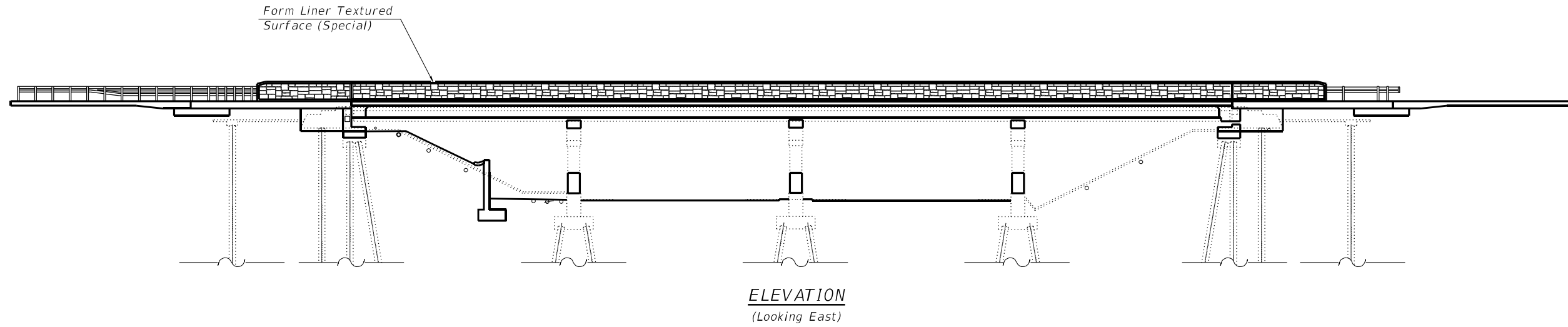
Note:
Space reinforcement in cap to miss anchor bolts
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard 3/4" chamfers except in footings.
Pour steps monolithically with cap.

PIERS 1, 2 & 3 - E BRIDGE
S.B.I. RT. 53 SEC. 5314-HB-5
COOK COUNTY
STA. 119+7227

DESIGNED: T. M. Young
CHECKED: M. H. Armstrong
DATE: 2/11/2025

EXAMINED: W. C. Baumann
DATE: SEPT 25 1962

MODEL: Default
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- Notes:
1. For parapet dimension not shown, see Bridge Plans.
 2. Concrete Color Additive to be incorporated into Superstructure Concrete for all parapet locations receiving Form Liner Treatment.

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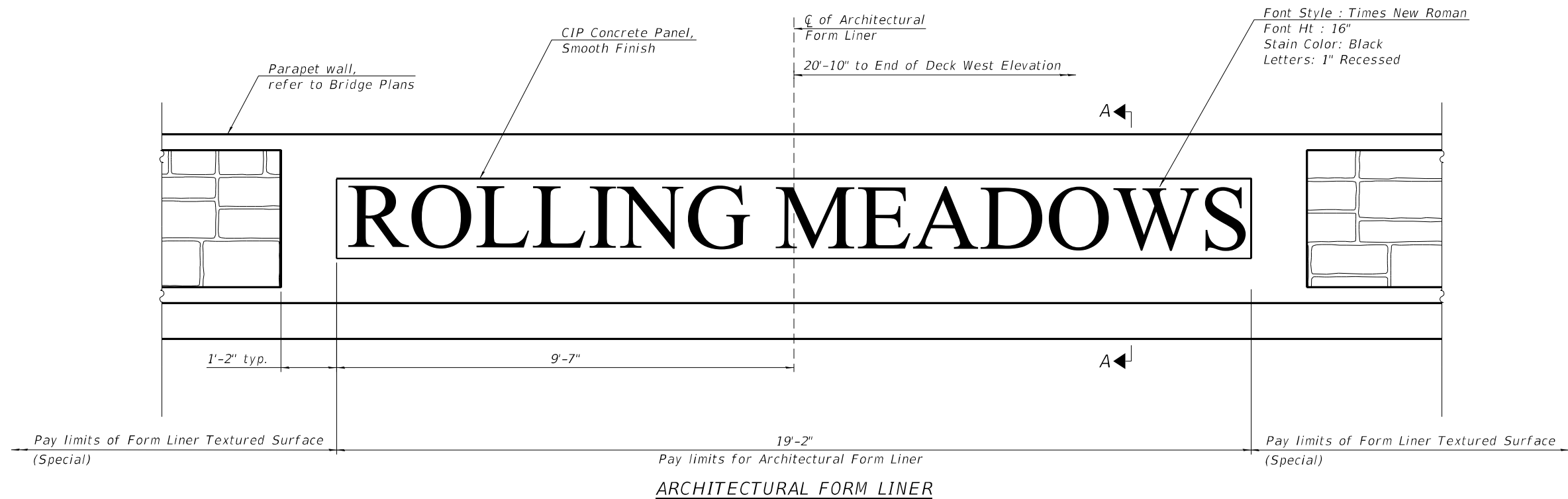
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PLOT SCALE =	0:2.0000" = 1" / in.	DRAWN -	ZHH	REVISED -	
PLOT DATE =	2/11/2025	CHECKED -	NDR	REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

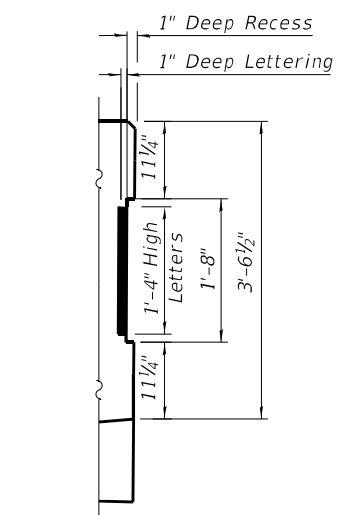
**BRIDGE AESTHETIC PLAN (1 OF 2)
 STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	836
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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ARCHITECTURAL FORM LINER



SECTION A-A

- Notes:
- For parapet dimensions not shown, see Bridge Plans.
 - Concrete Color Additive to be incorporated into Superstructure Concrete for all parapet locations receiving Form Liner Treatment.



USER NAME =	CodyH	DESIGNED -		REVISED -	
CHECKED -		DRAWN -	ZHH	REVISED -	
PLOT SCALE =	0:2.0000 " = 1" / in.	CHECKED -	NDR	REVISED -	
PLOT DATE =	2/11/2025				

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE AESTHETIC PLAN (2 OF 2)
 STRUCTURE NO. 016-0378 (NB) AND 016-2133 (SB)

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	837
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

Benchmark: BM 38 Elev. 736.25. Cut cross on the East side of the third concrete light pole foundation North of Algonquin Rd, and just West of the Southbound entrance ramp to IL Rte. 53.

Existing Structure: Low profile cast-in-place concrete retaining wall with unknown foundation type and mounted fence railing. Structure to be completely removed.

Traffic Control: Shoulder closures are required along Algonquin Road (IL-62) Eastbound during wall construction. Pedestrian traffic to be routed onto Algonquin Road for duration of construction.

Salvage: None

* Measured along F.F. of Wall

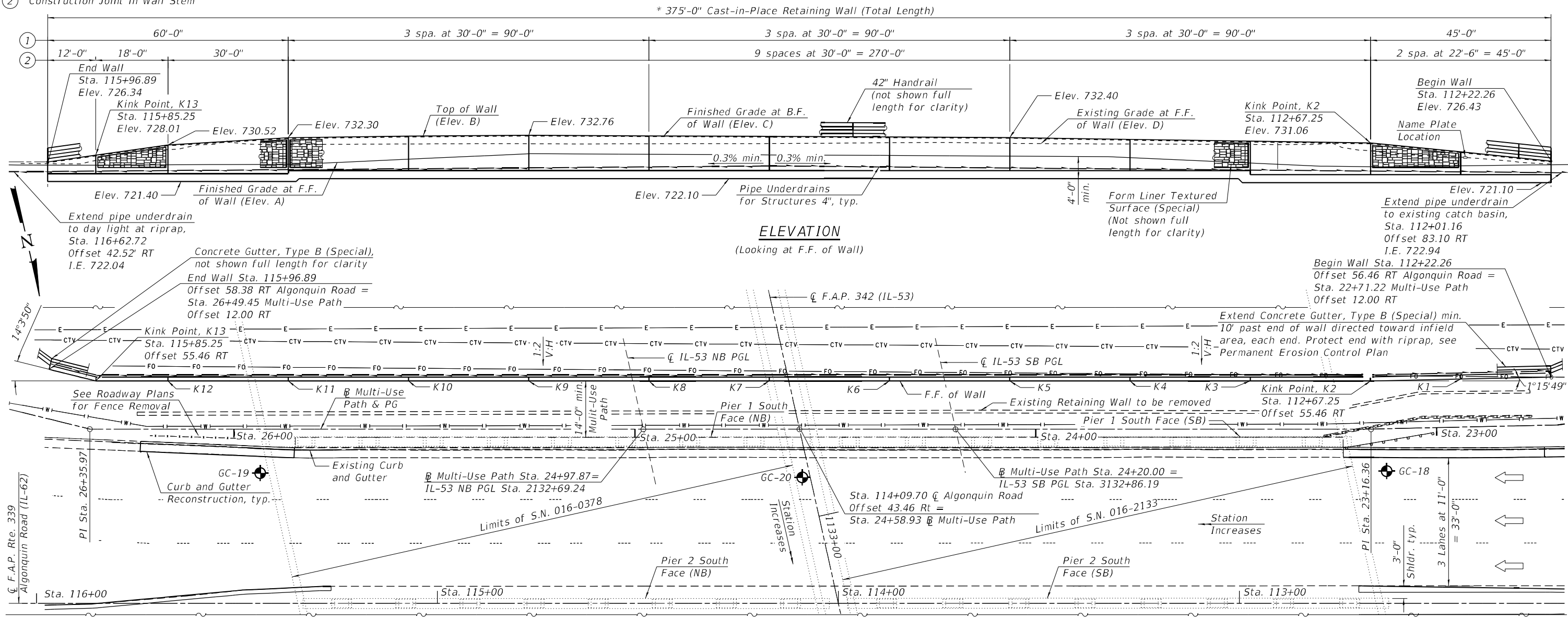
- ① Expansion Joint in Wall Stem
- ② Construction Joint in Wall Stem

STA. 112+22.26
BUILT 20XX BY
STATE OF ILLINOIS
F.A.P. RTE 339 SEC. 2018-100-BR
STR. NO. 016-W2501

NAME PLATE
(See Std. 515001)

LEGEND

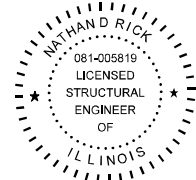
- FO Fiber Optic
- CTV Cable TV
- E Underground Electric
- A Aerial Lines
- W Underground Water
- Existing Fence
- Pipe Underdrains for Structures 4"
- Existing Storm Sewer
- Existing Sanitary Sewer
- Soil Boring



ELEVATION
(Looking at F.F. of Wall)

PLAN

- Notes:
- Offsets are measured from ϕ F.A.P. Rte. 339 Algonquin Road to the front face of wall.
 - F.F. = Front Face and B.F. = Back Face
 - Concrete Gutter, Type B (Special) and pipe underdrain not shown for clarity.
 - See sheet 4 of 9 for Elevations A, B, C, and D data

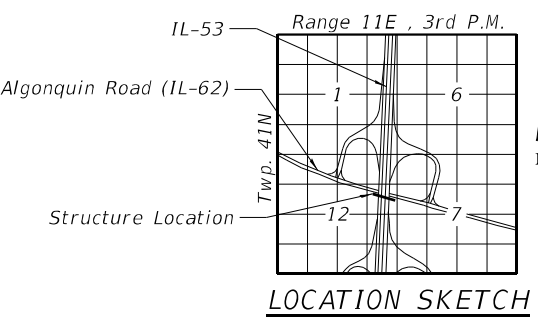


Nathan D. Rick, S.E.
Licensed Structural Engineer
State of Illinois No. 081-007039
Registration Expires 11/30/2026

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition with Interims

DESIGN STRESSES
FIELD UNITS

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



**GENERAL PLAN AND ELEVATION
RETAINING WALL ALONG
F.A.P. RTE. 339 -
ALGONQUIN ROAD (IL-62) UNDER
F.A.P. 342 (IL-53)
SECTION 2018-100-BR
COOK COUNTY
STA. 112+22.26 TO STA. 115+96.89
STRUCTURE NO. 016-W2501**

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

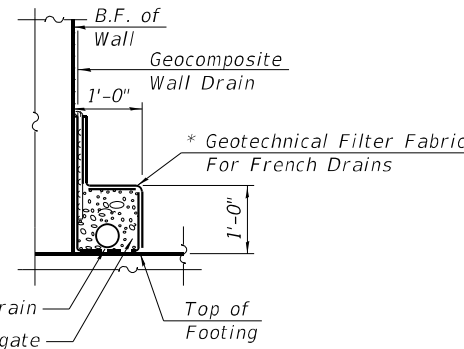
**GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-W2501**

SHEET 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	838
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to the existing structure have been taken from existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete surfaces that are to receive the textured form liner treatment shall also be tinted according to the special provision for "Concrete Color Additive". The revealed and exposed formed textured surface shall receive the application of "Concrete Sealant (Special)".



PIPE UNDERDRAIN DETAIL

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

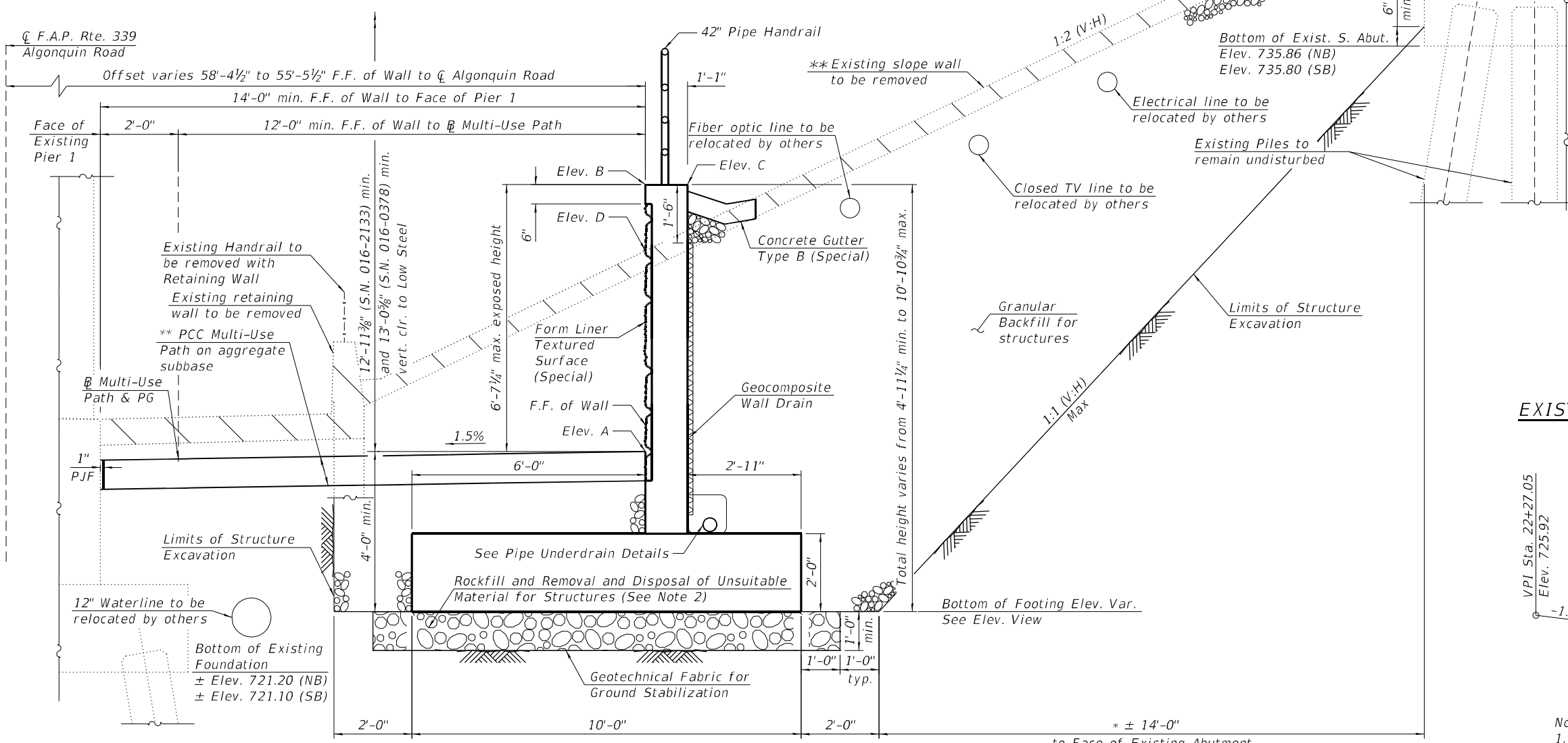
TOTAL BILL OF MATERIAL

Item	Unit	Total
Geotechnical Fabric for Ground Stabilization	SQ YD	503
Slope Wall Removal	SQ YD	1,689
Structure Excavation	CU YD	2,918
Removal and Disposal of Unsuitable Material for Structures	CU YD	168
Protective Coat	SQ YD	62
Reinforcement Bars, Epoxy Coated	POUND	37,690
Name Plates	EACH	1
Concrete Structures (Retaining Wall)	CU YD	374
Granular Backfill for Structures	CU YD	1,739
Geocomposite Wall Drain	SQ YD	262
Pipe Underdrains for Structures 4"	FOOT	375
Concrete Color Additive	CU YD	117
Form Liner Textured Surface (Special)	SQ FT	2,765
Furnish and Install Handrail	FOOT	376
Retaining Wall Removal	FOOT	399
Concrete Gutter, Type B (Special)	FOOT	396
Rock Fill (Special)	CU YD	185
Concrete Sealant (Special)	SQ YD	250

INDEX OF SHEETS

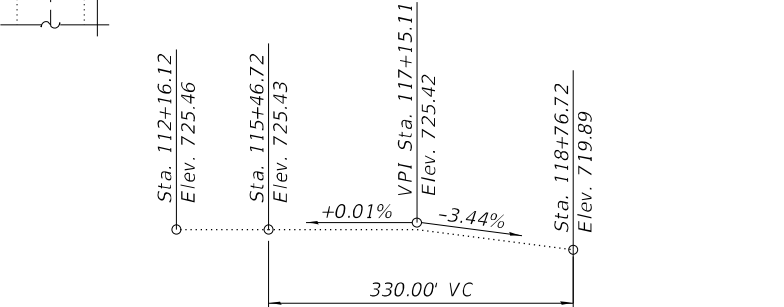
- General Plan & Elevation
- General Notes, Drainage Details, & Total BOM
- Wall Plan and Foundation Layout
- Wall Panel Elevation
- Wall Details
- Railing Details
- 9 Soil Borings

LEGEND

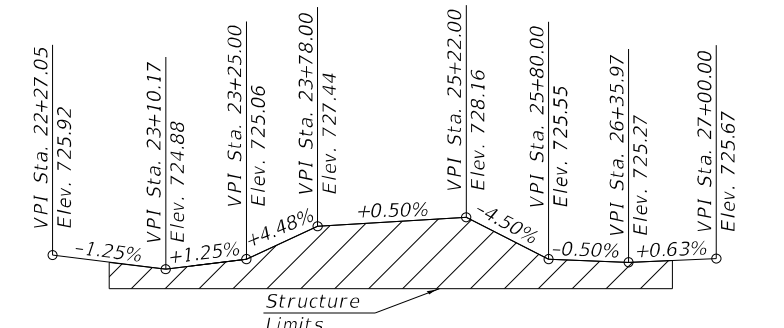


SECTION THRU CAST-IN-PLACE T-TYPE WALL

** Slope wall reconstruction and Multi-Use Path Construction to be included with concurrent bridge rehabilitation project



EXISTING ALGONQUIN ROAD (IL-62) PROFILE GRADE



MULTI-USE PATH PROFILE GRADE (Along R)

- Notes:
- See sheet 4 of 9 for Elevations A, B, C, and D data
 - The volume of material excavated below the bottom of the footing is considered to be unsuitable material for structures. The quantity shown for Removal and Disposal of Unsuitable Material for Structures is for estimating purposes only, but the actual volume of material will be determined by the Contractor during excavation and approved by the Engineer.

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SA STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

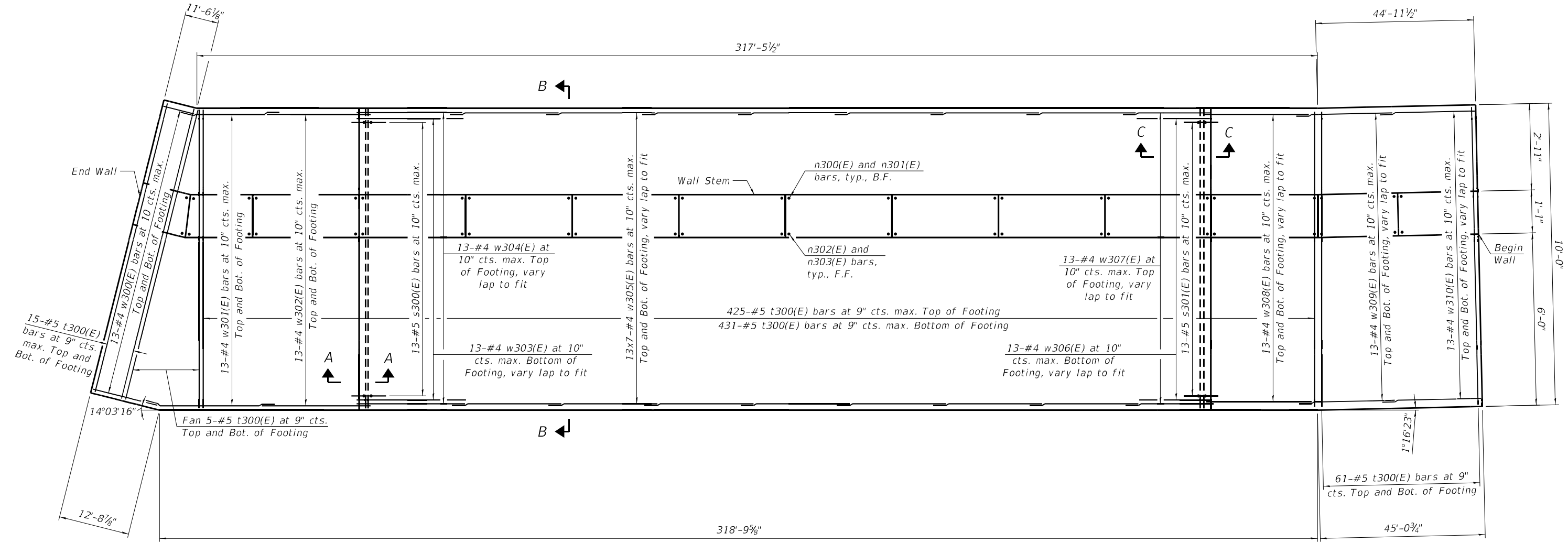
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, DRAINAGE DETAILS, & TOTAL BOM
STRUCTURE NO. 016-W2501**

SHEET 2 OF 9 SHEETS

F.A.P. RTE. 339	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 839
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



WALL PLAN

MIN. LAP
#4 = 2'-7"

- Notes:
- The nominal soil bearing capacity required shall be a minimum of 3,500 psf (The factored bearing resistance required shall be a minimum of 1,925 psf). Contractor shall verify soil properties and notify the engineer if bearing values are not encountered at the bottom of footing elevations.
 - See Wall Details sheet 5 of 9 for section A-A, B-B, and C-C.
 - See sheet 4 of 9 for Wall Panel Elevation and Layout Data.
 - Bars indicated thus 13 x 7-#4 etc. indicate 13 lines of bars with 7 lengths per line.

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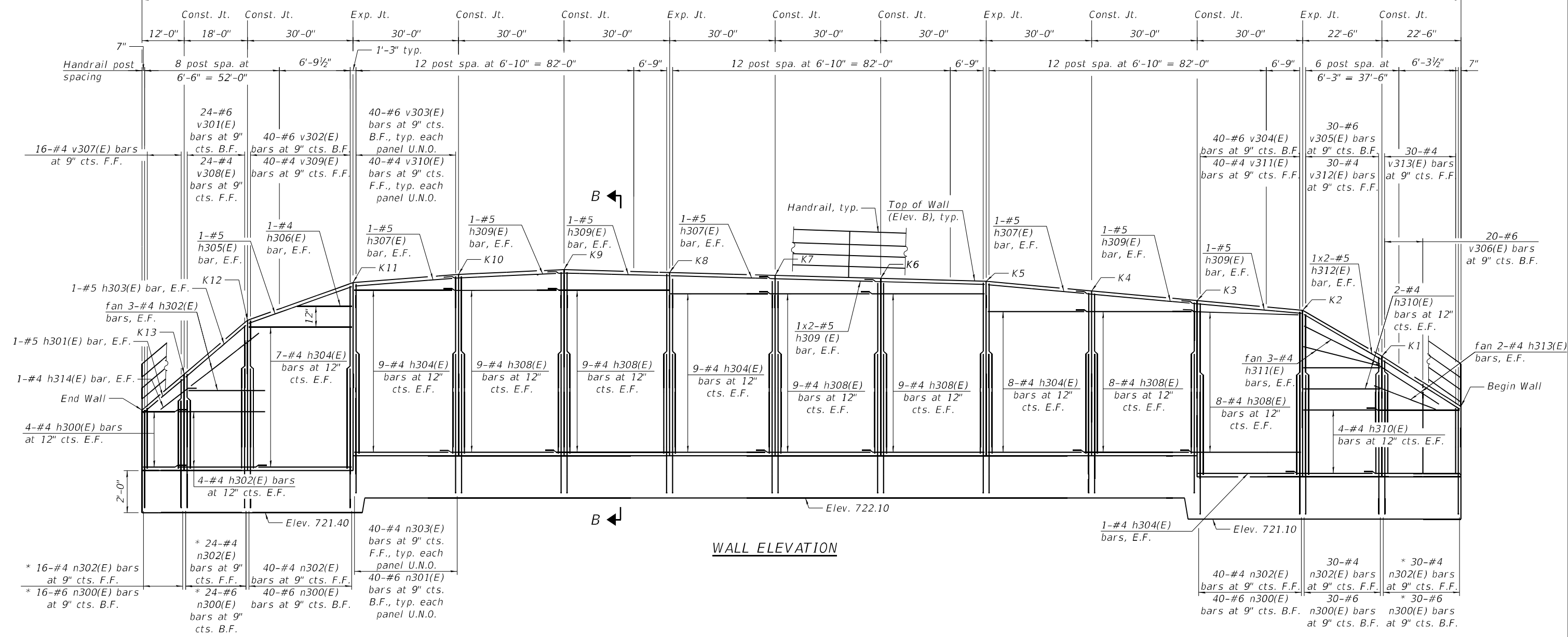
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL PLAN AND FOUNDATION LAYOUT
STRUCTURE NO. 016-W2501

SHEET 3 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	840
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

375'-0"

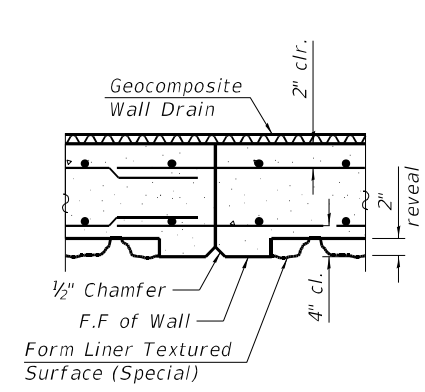


WALL ELEVATION

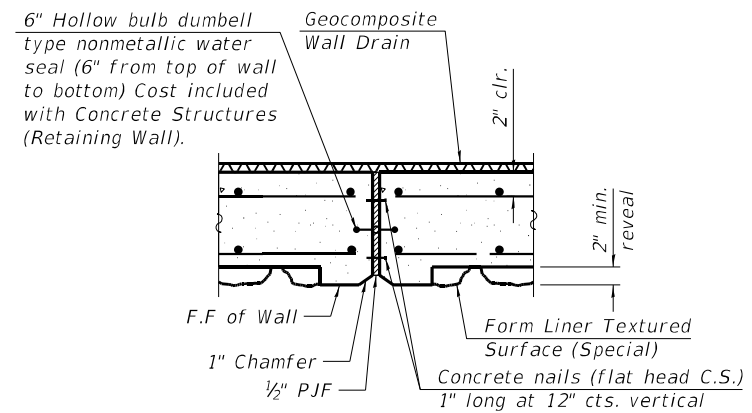
S.N. 016-W2501 WALL ELEVATION TABLE

Location	Algonquin Road (IL-62)		Elevations			
	Station	Offset (RT)	Elev. A	Elev. B	Elev. C	Elev. D
Begin Wall	112+22.26	56.46	725.55	726.43	726.26	726.00
K1	112+44.76	55.96	725.27	728.79	728.62	727.10
K2	112+67.25	55.46	725.14	731.06	730.89	728.50
K3	112+97.25	55.46	726.21	731.51	731.81	730.50
K4	113+27.25	55.46	727.55	731.95	732.06	730.50
K5	113+57.25	55.46	727.76	732.40	732.23	731.00
K6	113+87.25	55.46	727.91	732.49	732.24	731.00
K7	114+17.25	55.46	728.06	732.58	732.25	730.80
K8	114+47.25	55.46	728.21	732.67	732.33	730.60
K9	114+77.25	55.46	728.14	732.76	732.40	730.60
K10	115+07.25	55.46	726.79	732.53	732.29	730.50
K11	115+37.25	55.46	725.70	732.30	732.13	730.50
K12	115+67.25	55.46	725.55	730.52	730.35	728.00
K13	115+85.25	55.46	725.46	728.01	726.75	725.90
End Wall	115+96.89	58.38	725.53	726.34	726.17	725.80

Elev. A - Finished Grade at F.F. of Wall
 Elev. B - Top of Wall
 Elev. C - Finished Grade at B.F. of Wall
 Elev. D - Exist. Grade at F.F. of Wall



CONSTRUCTION JOINT



EXPANSION JOINT

* Cut bars to fit final projection of wall stem geometry

MIN. LAP
 #4 = 2'-7"
 #5 = 3'-7"
 #6 = 3'-10"

- Notes:
- See Sheet 5 of 9 for Section B-B and Gutter Details.
 - For Wall Enhancements details not shown on Structure Plans, see Wall Aesthetic Plan.
 - See sheet 6 of 9 for Railing Details.
 - Bars indicated thus 9x2-#4 etc. indicate 9 lines of bars with 2 lengths per line.
 - See Sheets 1, 2, and 3 of 9 for Elevations A, C, and D information.

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

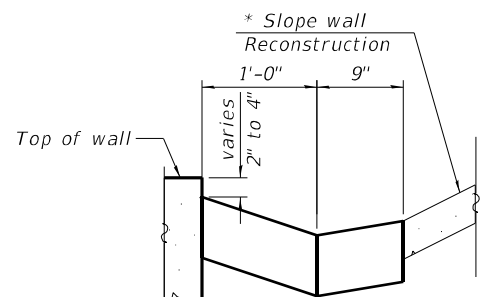
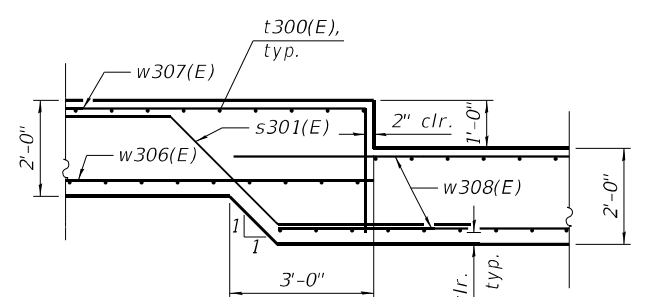
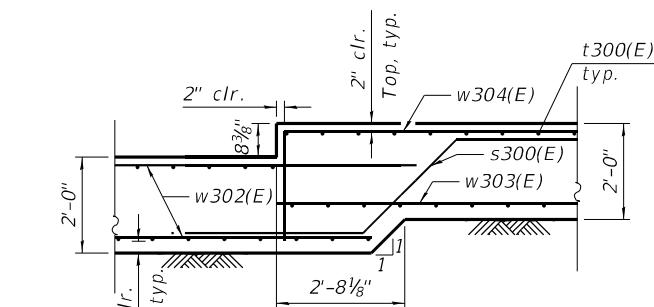
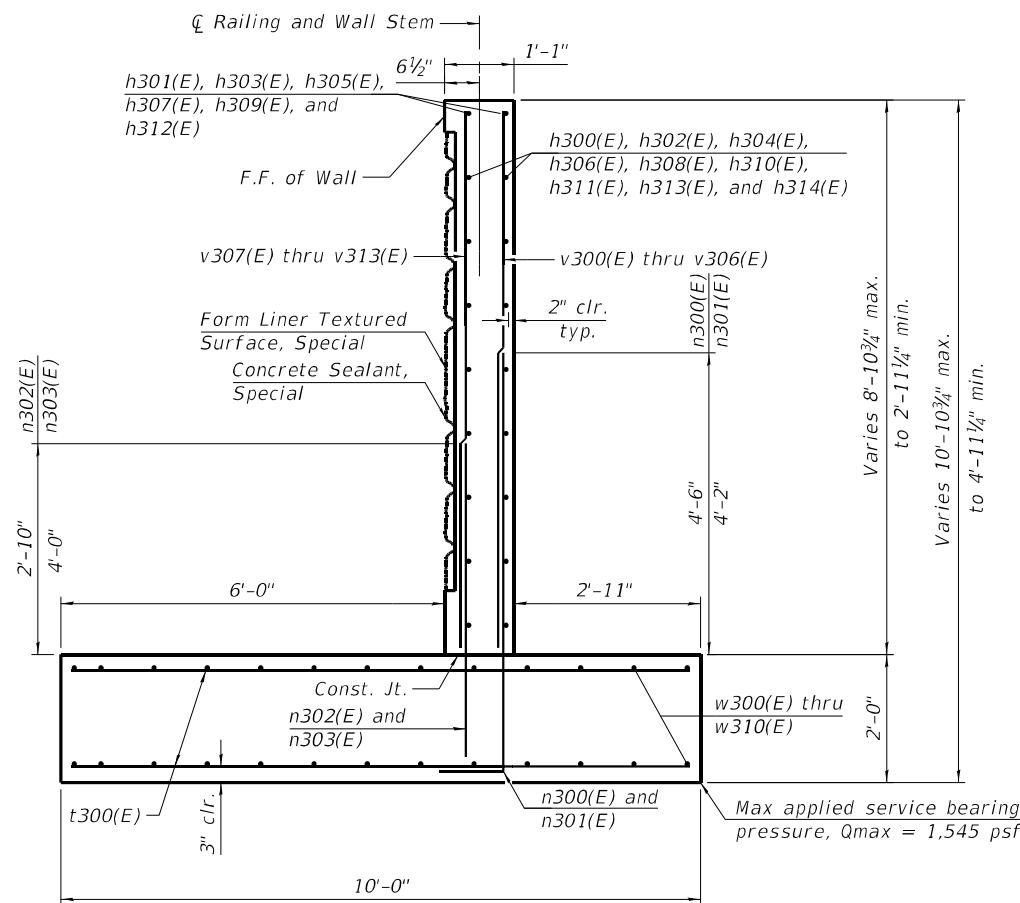
WALL PANEL ELEVATION (2 OF 2)
 STRUCTURE NO. 016-W2501

SHEET 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	841
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h300(E)	8	4	22'-6"	—
h301(E)	2	5	11'-8"	—
h302(E)	14	4	20'-3"	—
h303(E)	2	5	18'-0"	—
h304(E)	68	4	29'-8"	—
h305(E)	2	5	29'-9"	—
h306(E)	2	4	15'-10"	—
h307(E)	6	5	29'-8"	—
h308(E)	104	4	32'-7"	—
h309(E)	12	5	33'-7"	—
h310(E)	20	4	24'-11"	—
h311(E)	6	4	16'-0"	—
h312(E)	4	5	25'-10"	—
h313(E)	4	4	15'-6"	—
h314(E)	2	4	7'-1"	—
n300(E)	184	6	7'-3"	┘
n301(E)	320	6	7'-1"	┘
n302(E)	184	4	4'-7"	—
n303(E)	320	4	5'-9"	—
s300(E)	13	5	10'-9"	┘
s301(E)	13	5	11'-2"	┘
t300(E)	1018	5	9'-8"	—
v301(E)	12	6	11'-0"	—
v302(E)	20	6	15'-4"	—
v303(E)	320	6	7'-5"	—
v304(E)	20	6	15'-6"	—
v305(E)	15	6	13'-1"	—
v306(E)	10	6	9'-7"	—
v307(E)	8	4	7'-1"	—
v308(E)	12	4	11'-0"	—
v309(E)	20	4	15'-4"	—
v310(E)	320	4	7'-4"	—
v311(E)	20	4	15'-6"	—
v312(E)	15	4	13'-1"	—
v313(E)	10	4	8'-5"	—
w300(E)	26	4	12'-7"	—
w301(E)	26	4	23'-8"	—
w302(E)	26	4	29'-8"	—
w303(E)	13	4	29'-10"	—
w304(E)	13	4	32'-1"	┘
w305(E)	182	4	32'-7"	—
w306(E)	13	4	22'-4"	—
w307(E)	13	4	32'-5"	┘
w308(E)	26	4	33'-0"	—
w309(E)	26	4	25'-1"	┘
w310(E)	26	4	24'-5"	—
Structure Excavation		CU YD	2,918	
Protective Coat		SQ YD	62	
Reinforcement Bars, Epoxy Coated		POUND	37,690	
Granular Backfill for Structures		CU YD	1,739	
Form Liner Textured Surface (Special)		SQ FT	2,765	
Furnish and Install Handrail		FOOT	376	
Concrete Sealant (Special)		SQ YD	250	



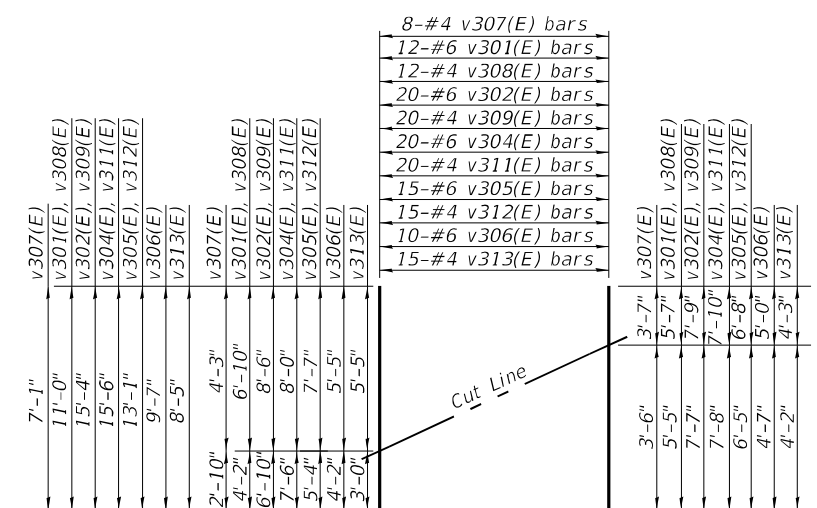
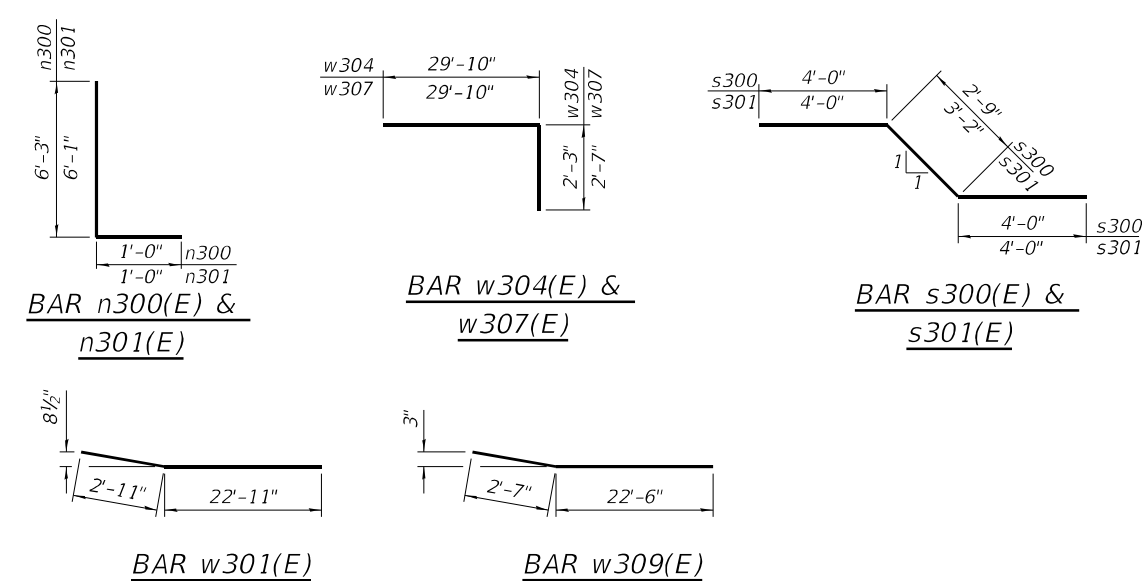
CONCRETE GUTTER, TYPE B (SPECIAL)
 * Slope wall reconstruction to be included with concurrent bridge rehabilitation project.

MIN. LAP
 #4 = 2'-7"
 #5 = 3'-7"
 #6 = 3'-10"

SECTION B-B

SECTION A-A

SECTION C-C



FIELD CUTTING DIAGRAM

Order bars full length. Cut as shown and use remainder of bars in opposite end of Wall panel

Notes:
 1. See sheets 3 and 4 of 9 for Section A-A, B-B, and C-C.
 2. For Structure Aesthetic Plans, see sheets after Existing Drawings.

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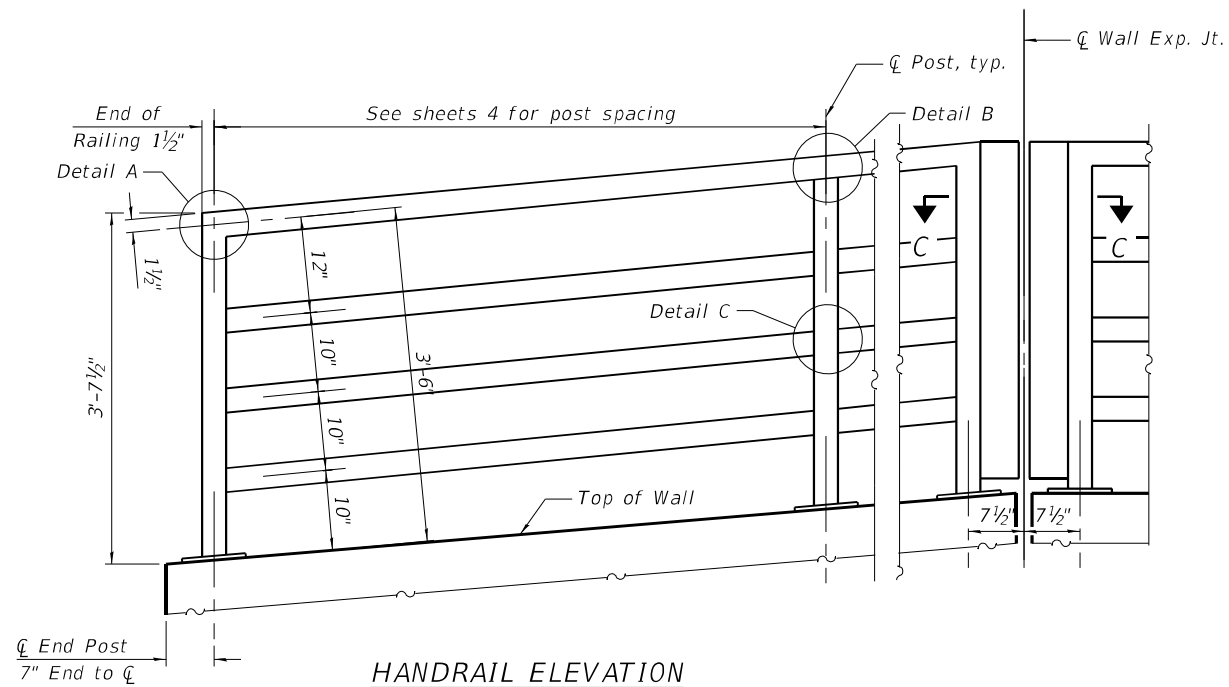
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

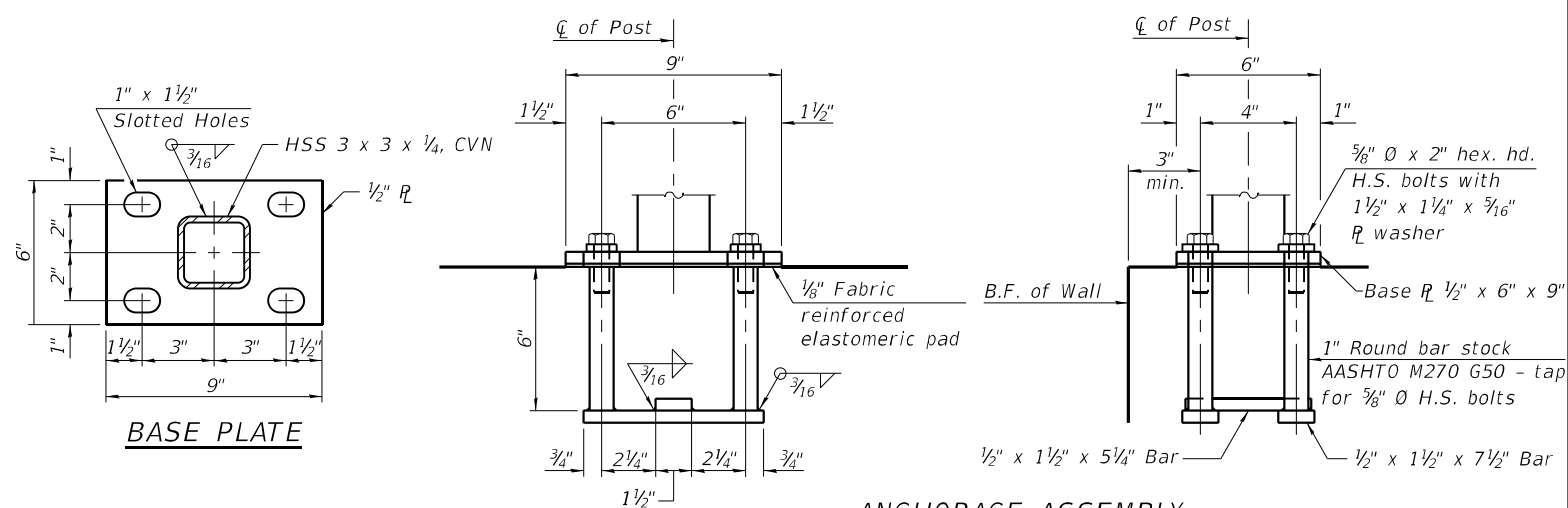
**WALL DETAILS
 STRUCTURE NO. 016-W2501**

SHEET 5 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	842
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

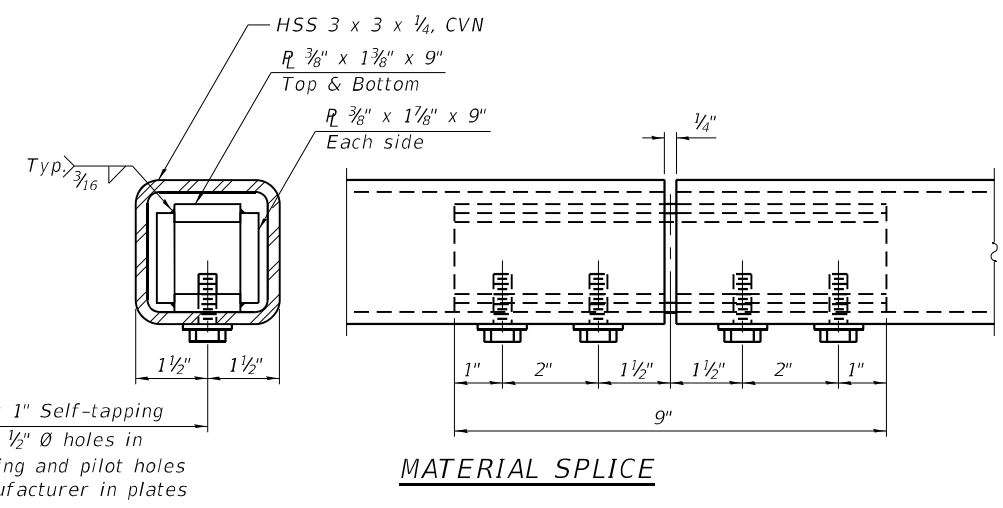


HANDRAIL ELEVATION

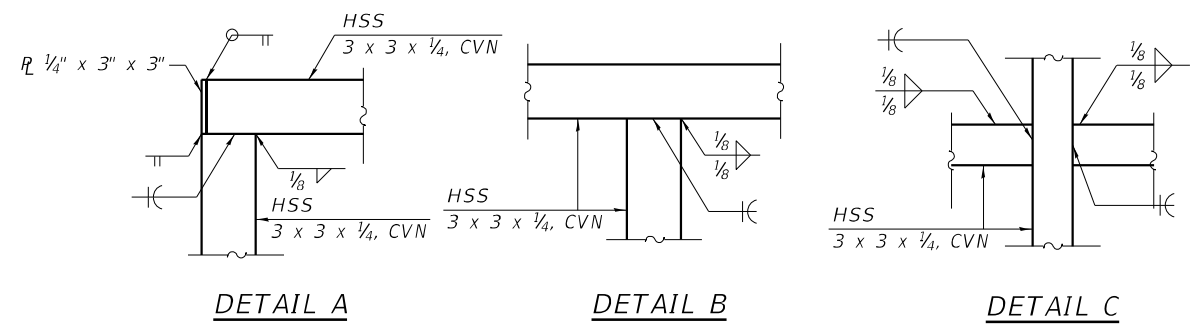


ANCHORAGE ASSEMBLY

The Hand Railing fasteners for end posts near expansion joints may need to be installed prior to installing the bent plates.



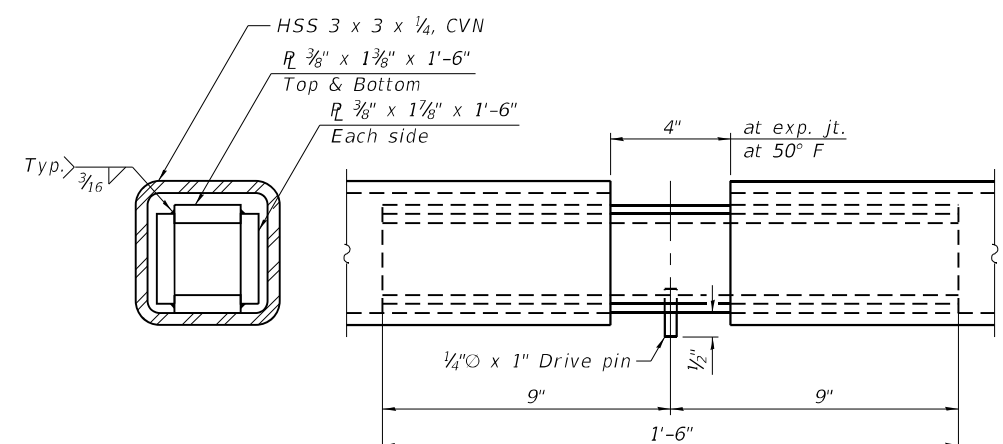
MATERIAL SPLICE



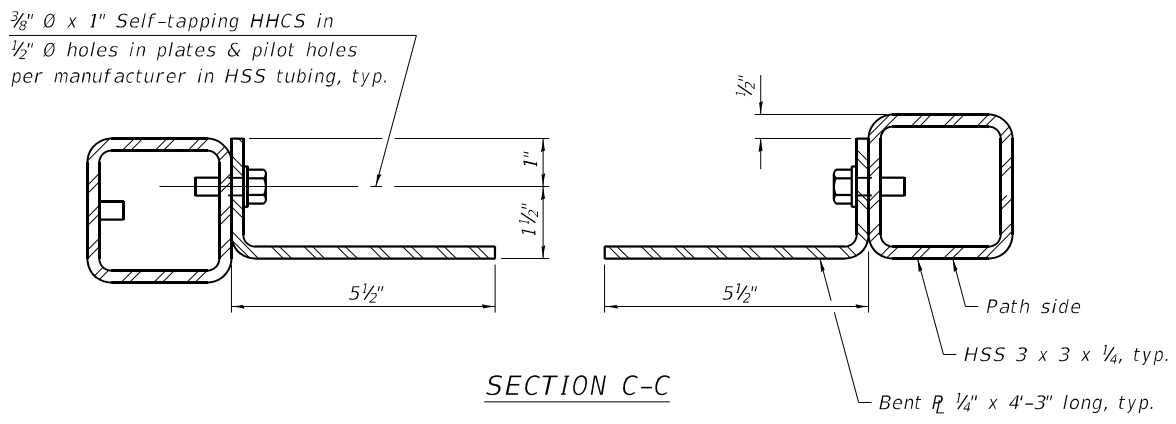
DETAIL A

DETAIL B

DETAIL C



EXPANSION SPLICE



SECTION C-C

- Notes:
1. Place reinforcement bars to miss anchorage assembly locations.
 2. All HSS tubing used for the Handrailing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.
 3. All HSS tubing used for the Handrailing shall be ASTM A500 grade C.
 4. All base plates used for the Handrailing shall be AASHTO M270 grade 50.
 5. All heavy hex nuts shall be according to ASTM A 563 grade DH.
 6. The post base plate shall be fastened to the top of wall snug tight and given an additional 1/8" turn.
 7. Rail splice inserts may be built out of bent plates of the same thicknesses and outside geometry limits as the 4 plate rail splice inserts shown.
 8. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 9. See sheet 4 of 9 for dimensions of concrete openings at expansion joints.

BILL OF MATERIAL

Item	Unit	Quantity
Furnish and Install Handrail	Foot	376

RAILING CRITERIA

MASH 2016 Test Level	4
Max Post Spacing	7'-6"
Railing Weight (plf)	25

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RAILING DETAILS
STRUCTURE NO. 016-W2501**

SHEET 6 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	843
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (NRK)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM.
Latitude 42.06219532, Longitude 88.02767553

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. 016-0378 Station _____
BORING NO. GC-01 Station 2131+77 Offset 88.0 ft RT Ground Surface Elev. 743.3 ft

D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O D I F I E D S P T (%)	Surface Water Elev. _____ ft	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O D I F I E D S P T (%)
				Stream Bed Elev. _____ ft				
				Groundwater Elev.: _____ ft				
				First Encounter _____ Dry ft				
				Upon Completion 695.3 ft				
				After _____ Hrs. Filled ft				

ASPHALT - 11.5"	742.3			Stiff, Dark Brown, Moist, CLAY (continued)
CRUSHED ROCK - 6"	741.8	3		
Stiff, Brown, Dry, CLAY, Some Sand, Trace Gravel		4	1.7	16
		6	P	
		3		
		4	2.7	18
		6	B	
		3		
		4	2.9	15
		4	B	
		3		
		4	3.2	16
		4	P	
		3		
		4	1.6	19
		5	B	
		4	0.6	19
		5	B	
		2		
		4	1.6	32
		4		
		6	2.7	14
		8	P	

Soft to Stiff, Brown, Wet, SILTY LOAM
717.8

Soft to Stiff, Brown, Wet, CLAY
711.3

Stiff, Brown, Dry, SILTY CLAY LOAM, Trace Sand and Gravel

Stiff, Brown, Moist, CLAY, Some Sand, Trace Gravel, Trace Organics

LL=31, PL=19, PI=12

Stiff, Dark Brown, Moist, CLAY

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (NRK)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM.
Latitude 42.06219532, Longitude 88.02767553

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO. 016-0378 Station _____
BORING NO. GC-01 Station 2131+77 Offset 88.0 ft RT Ground Surface Elev. 743.3 ft

D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O D I F I E D S P T (%)	Surface Water Elev. _____ ft	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O D I F I E D S P T (%)
				Stream Bed Elev. _____ ft				
				Groundwater Elev.: _____ ft				
				First Encounter _____ Dry ft				
				Upon Completion 695.3 ft				
				After _____ Hrs. Filled ft				

Soft to Stiff, Brown, Wet, CLAY (continued)				
		4		
		6	4.5	14
		9	B	
		3		
		5	2.2	20
		8	B	
		4		
		5	3.1	20
		9	B	
Boring terminated at 55 feet.				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME = CodyH	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = 0:2.0000" / 1 in.	DRAWN - CJH	REVISED -
PLOT DATE = 2/10/2025	CHECKED - NDR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (1 OF 3)
STRUCTURE NO. 016-W2501

SHEET 7 OF 9 SHEETS

F.A.P. RTE. 339	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 844
				CONTRACT NO. 62N91
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (BR)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM, Latitude 42.06237519, Longitude 88.02860531

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO.	Station	D E P T H S T	B L O W S H S	U C S Q u	M O D I F I E D S P T	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	D E P T H S T	B L O W S H S	U C S Q u	M O D I F I E D S P T
016-2133											
GC-02	3132+31										
	Offset 91.1 ft LT										
	Ground Surface Elev. 743.5 ft	(ft)	(/6")	(tsf)	(%)			(ft)	(/6")	(tsf)	(%)
ASPHALT - 10"						742.7					
Medium Stiff to Stiff, Moist, Brown, CLAY, Some Gravel, Trace Sand							10				
							4	4.5	14		
							6	P			
							3				
							4	4.1	15		
1" Sand Seam						-5	5	B			
							1				
							2	2.5	20		
							2	P			
							2				
							1	1.3	18		
						-10	5	B			
							2				
							3	2.5	19		
							4	B			
							3				
							3	4.5	21		
						-15	6	P			
							8				
ASPHALT						727.2					
						727.0					
Stiff, Brown, Moist, CLAY, Trace Gravel							46	2.1	17		
							9	B			
							5				
							7	4.2	18		
						-20	7	B			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAP 342 DESCRIPTION IL 53 over IL 62 (Algonquin Rd) LOGGED BY Gonzalez (BR)

SECTION 2018-100-BR LOCATION NW 1/4, SEC. 7, TWP. 41N, RNG. 11E, 3rd PM, Latitude 42.06237519, Longitude 88.02860531

COUNTY Cook DRILLING METHOD Hollow Stem Auger (8" O.D., 3.25" I.D.) HAMMER TYPE Auto 140 lb HE 105

STRUCT. NO.	Station	D E P T H S T	B L O W S H S	U C S Q u	M O D I F I E D S P T	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	D E P T H S T	B L O W S H S	U C S Q u	M O D I F I E D S P T
016-2133											
GC-02	3132+31										
	Offset 91.1 ft LT										
	Ground Surface Elev. 743.5 ft	(ft)	(/6")	(tsf)	(%)			(ft)	(/6")	(tsf)	(%)
Stiff, Brown, Moist, CLAY, Trace Gravel (continued)											
							3				
							4	4.0	16		
							5	B			
							8				
							9				
							10				
						-25					
							4				
							5	2.2	19		
							6	B			
							3				
							3				
							3				
						-30	3				
							3				
							4				
							5	2.4	12		
						-50	7	P			
							3				
							4				
							4				
							5	2.4	21		
						-55	7	B			
							4				
							5	2.4	21		
						-60	7	B			
Boring terminated at 55 feet.						688.5					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, M-Modified SPT)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

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	PLOT SCALE = 0:2.0000" = 1" / in.	CHECKED -	REVISED -
	PLOT DATE = 2/10/2025	DRAWN - CJH	REVISED -
		CHECKED - NDR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (2 OF 3)
STRUCTURE NO. 016-W2501

SHEET 8 OF 9 SHEETS

F.A.P. RTE. 339	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 845
			CONTRACT NO. 62N91	
		ILLINOIS FED. AID PROJECT		

**STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 61	531-1-HB-5 531-1-HF-5	COOK	26	1
ILLINOIS PROJECT U-184(24)				

SCALES { PLAN 1 INCH = 100 FT.
PROFILE, HOR. 1 INCH = 100 FT.
PROFILE, VERT. 1 INCH = 10 FT.
CROSS-SECTIONS 1 INCH = 5 FT.

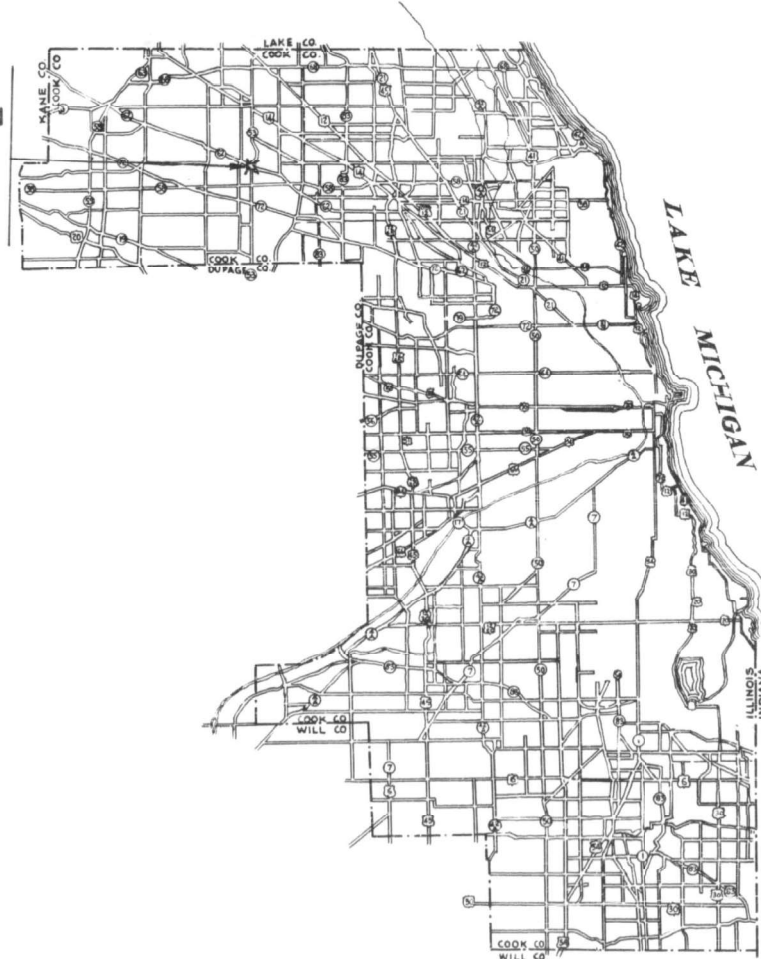
**DISTRICT 10
RELOCATED S.B.I. ROUTE 53 (F.A. ROUTE 61) SECTION 531-1-HB-5,
DUAL STRUCTURES OVER ALGONQUIN ROAD I-HF-5
PROJECT U-184(24)
COOK COUNTY**

GROSS LENGTH 162.00 LIN. FT.
NET LENGTH 162.00 LIN. FT. OR 0.031 MILES



SECTION 531-1-HB-5 INCLUDES THE CONSTRUCTION OF DUAL 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURES (TO CARRY RELOCATED ROUTE 53 OVER ALGONQUIN ROAD), EACH HAVING SPANS 2 AT 41'-3", 1 AT 38'-2", AND 1 AT 36'-8", WITH OPEN R.C. ABUTMENTS AND R.C. PIERS, AT STATION 119+77.27 IN ELK GROVE TWP.

SECTION 531-1HF-5 INCLUDES THE FURNISHING, FABRICATION, SHOP PAINTING AND DELIVERY OF THE STRUCTURAL STEEL, F.O.B. THE STRUCTURE SITE, FOR THE DUAL 4-SPAN CONTINUOUS WIDE FLANGE BEAM GRADE SEPARATION STRUCTURES (CARRYING RELOCATED ROUTE 53 OVER ALGONQUIN ROAD) AT STATION 119+77.07 IN ELK GROVE TOWNSHIP.



FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED 10-3-62
Marshall Johnson CHIEF ENGINEER

EXAMINED October 4, 1962
William C. Hall ENGINEER OF ROAD PLANS AND CONTRACTS

PASSED October 1962
John J. ... ENGINEER OF DESIGN

APPROVED October 4, 1962
William C. Hall CHIEF HIGHWAY ENGINEER

APPROVED October 1962
W. J. ... DIRECTOR

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED _____ DATE _____

DIVISION ENGINEER

COOK COUNTY SECTION 531-1-HB-5 F. A. ROUTE 61
JOB NO. 22719(F) & 22720(B)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (1 OF 7)
STRUCTURE NO. 016-W2501

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	847
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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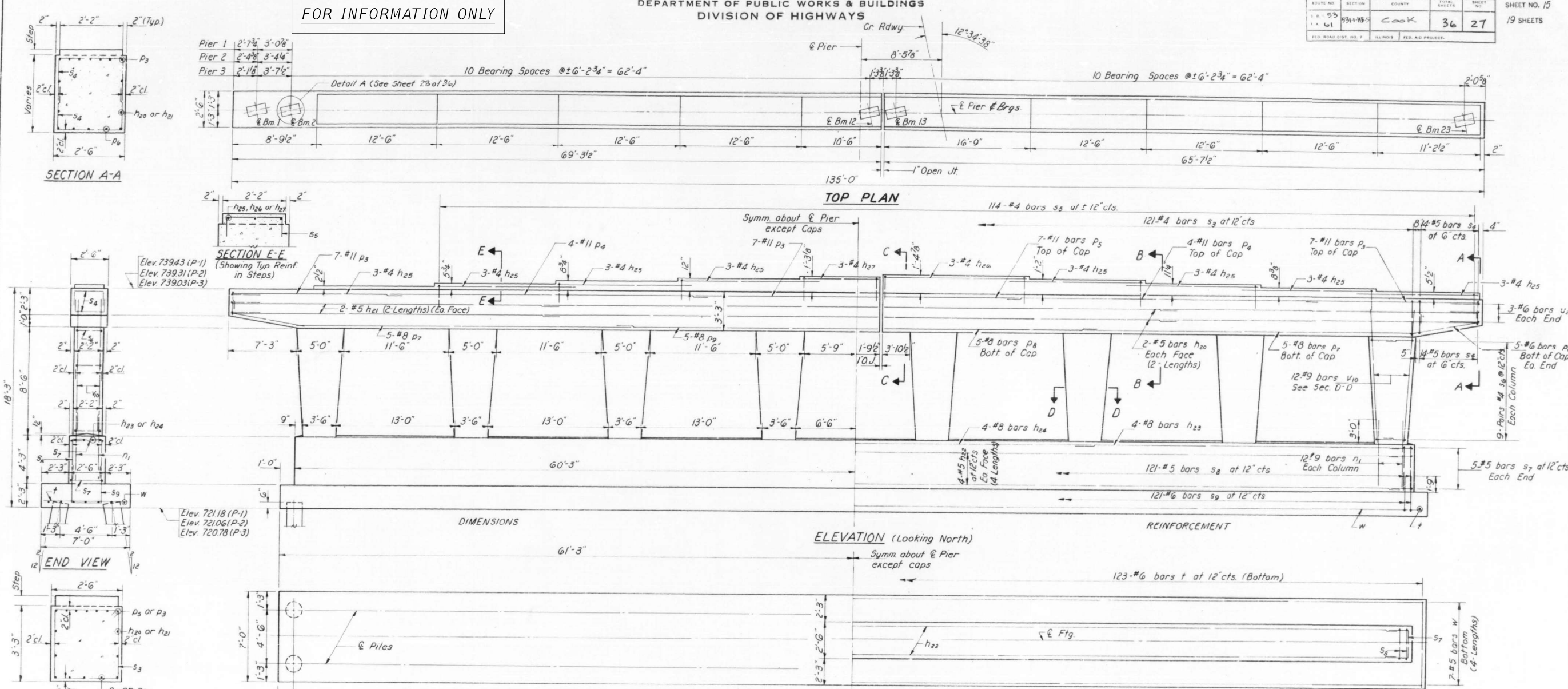
SA STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME = CodyH	DESIGNED - TJE	REVISED -
PLOT SCALE = 0:2.0000 "/in.	DRAWN - CJH	REVISED -
PLOT DATE = 2/10/2025	CHECKED - NDR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
53	531+HB-5	COOK	36	27
SHEET NO. 15 19 SHEETS				

FOR INFORMATION ONLY



PILE DATA
Type: Creosoted
Capacity = 18 Ton
Est Length = 20ft.
No. Req'd = 186
Test Piles - 1 in the vicinity of Pier 2

A & B DIMENSIONS

Bar	A	B
s4	2'-2"	1'-11"
s5	1'-10"	1'-11 1/2"
s6	1'-10"	2'-10"
s7	2'-1"	2'-5 1/2"
s8	2'-2"	4'-1"
s9	2'-2"	3'-6 1/2"

**(3 PIERS)
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
h20	24	#5	33'-6"		s4	168	#5	6'-0"	
h21	24	#5	35'-6"		s5	342	#4	5'-9"	
h22	96	#5	31'-0"		s6	432	#4	7'-6"	
h23	24	#8	36'-6"		s7	30	#5	7'-0"	
h24	12	#8	51'-6"		s8	363	#5	10'-4"	
h25	63	#4	13'-0"		s9	363	#6	9'-3"	
h26	9	#4	16'-6"		t	369	#6	6'-9"	
h27	9	#4	10'-3"		u2	18	#6	10'-0"	
n1	288	#9	7'-3"		v10	288	#9	11'-0"	
p3	63	#11	19'-6"		w	84	#5	32'-0"	
p4	24	#11	35'-6"						
p5	21	#11	16'-0"						
p6	30	#6	8'-6"						
p7	30	#8	36'-6"						
p8	15	#8	24'-0"						
p9	15	#8	27'-6"						
s3	363	#4	10'-11"						

Note:
Space reinforcement in cap to miss anchor bolts.
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard 3/4" chamfers except in footings.
Four steps monolithically with cap.

As Awarded

PIERS 1, 2 & 3 - W. BRIDGE
S.B.I. RT. 53 SEC. 531+HB-5
COOK COUNTY
STA. 119+77.27

DESIGNED: T. M. Yang
CHECKED: M. H. Armstrong
APPROVED: R. L. Baumann
DATE: SEPT 25 1962

MODEL: Default
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PLOT DATE = 2/10/2025	DRAWN - CJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

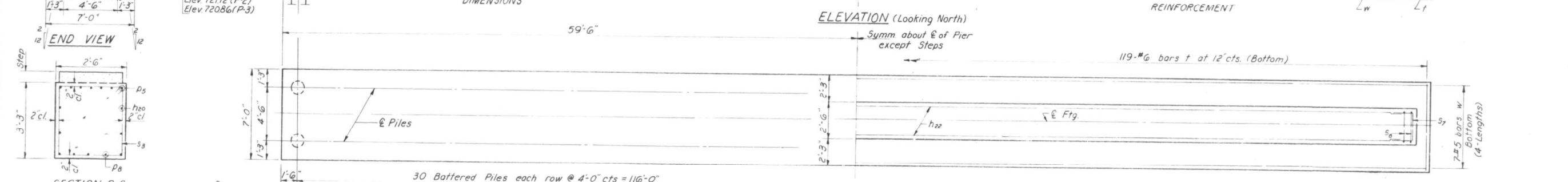
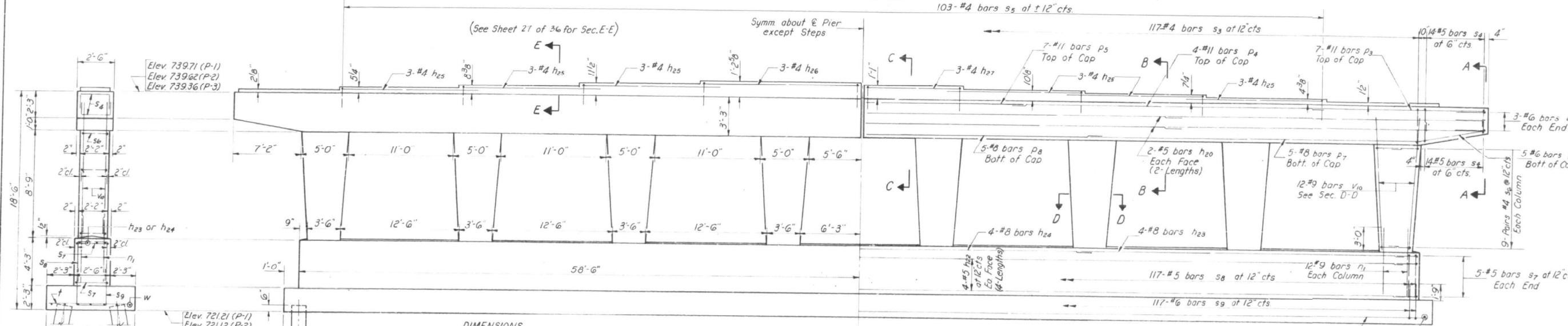
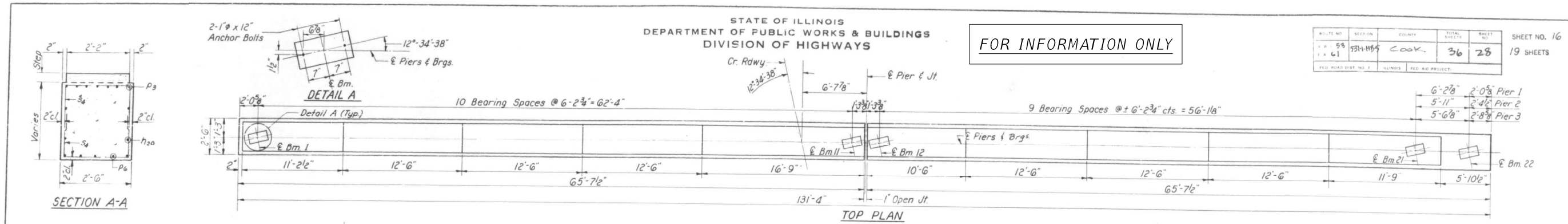
EXISTING DRAWINGS (2 OF 7)
STRUCTURE NO. 016-W2501

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	848
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
58	531-HB-5	COOK	36	28
FILE NO.	PROJECT NO.	CONTRACT NO.	SHEET NO. 16	
1130	119	62N91	19 SHEETS	



PILE DATA

Type: Creosoted
Capacity = 18 Ton
Est. Length = 20 Ft.
No. Req'd = 180
Test Piles: 1 in the vicinity of Pier 2

A & B DIMENSIONS

Bar	A	B
s4	2'-2"	1'-11"
s5	1'-10"	1'-11 1/2"
s6	1'-10"	2'-10"
s7	2'-1"	2'-5 1/2"
s8	2'-2"	4'-1"
s9	2'-2"	3'-0 1/2"

**(3-PIERS)
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
h20	48	#5	33'-6"		s4	168	#5	6'-0"	
h22	96	#5	31'-0"		s5	309	#4	5'-9"	
h23	24	#8	36'-6"		s6	432	#4	7'-6"	
h24	12	#8	51'-6"		s7	30	#5	7'-0"	
h25	54	#4	13'-0"		s8	351	#5	10'-4"	
h26	9	#4	16'-6"		s9	351	#6	9'-3"	
h27	9	#4	10'-3"		t	357	#6	6'-9"	
n1	288	#9	7'-3"		u2	18	#6	10'-0"	
p3	42	#11	19'-6"		v10	288	#9	11'-0"	
p4	24	#11	35'-6"		w	84	#5	32'-0"	
p5	42	#11	16'-0"		Class A Excav. for Str Cu Yds. 660				
p6	30	#6	8'-6"		Class X Concrete Cu Yds. 552.0				
p7	30	#8	36'-6"		Reinforcement Bars Lbs. 66,520				
p8	15	#8	24'-0"		Creosoted Piles Lin. Ft. 3,600				
s3	351	#4	10'-11"		Test Piles (Timber) Each 1				

Note:
Space reinforcement in cap to miss anchor bolts
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard 3/4" chamfers except in footings.
Pour steps monolithically with cap.

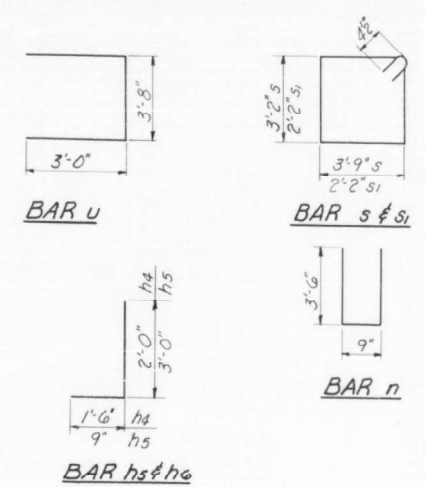
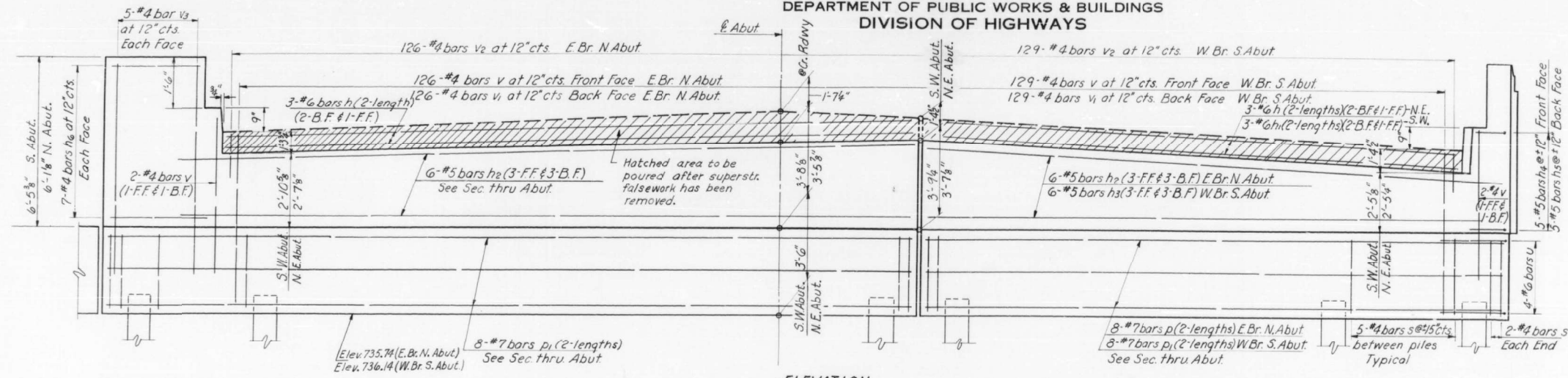
PIERS 1, 2 & 3 - E BRIDGE
S.B.I. RT. 53 SEC. 531-HB-5
COOK COUNTY
STA. 119+7227

DESIGNED: T.M. Young
EXAMINED: M.C. Baumann
CHECKED: M. J. Armstrong
APPROVED: R.B. Baumann

SEPT 25 1962

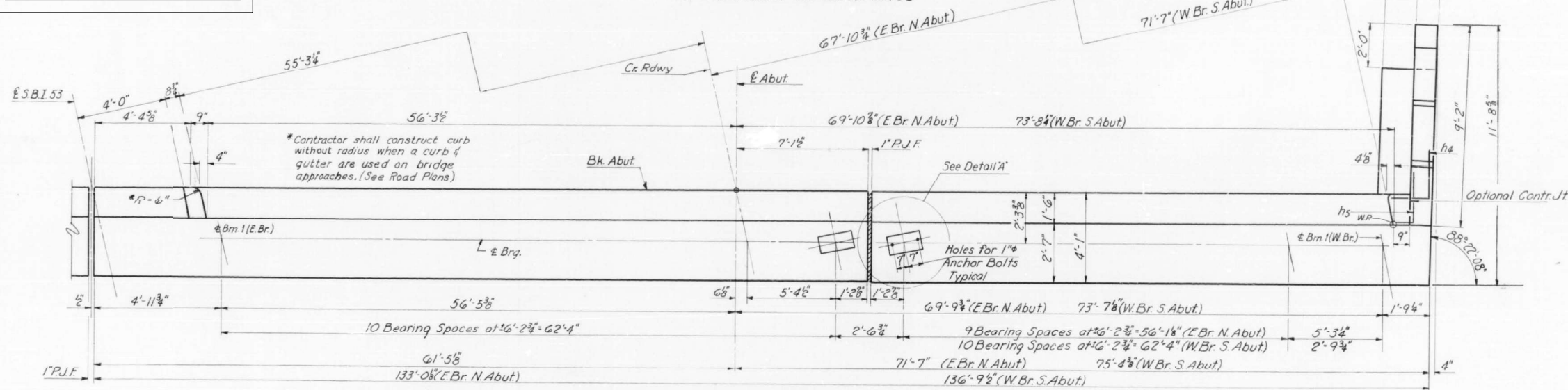
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 53 P.A. 61	531-1485	Cook	36	24
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	SHEET NO. 12 19 SHEETS

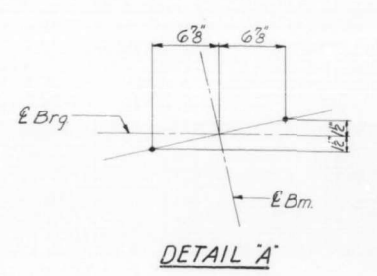


FOR INFORMATION ONLY

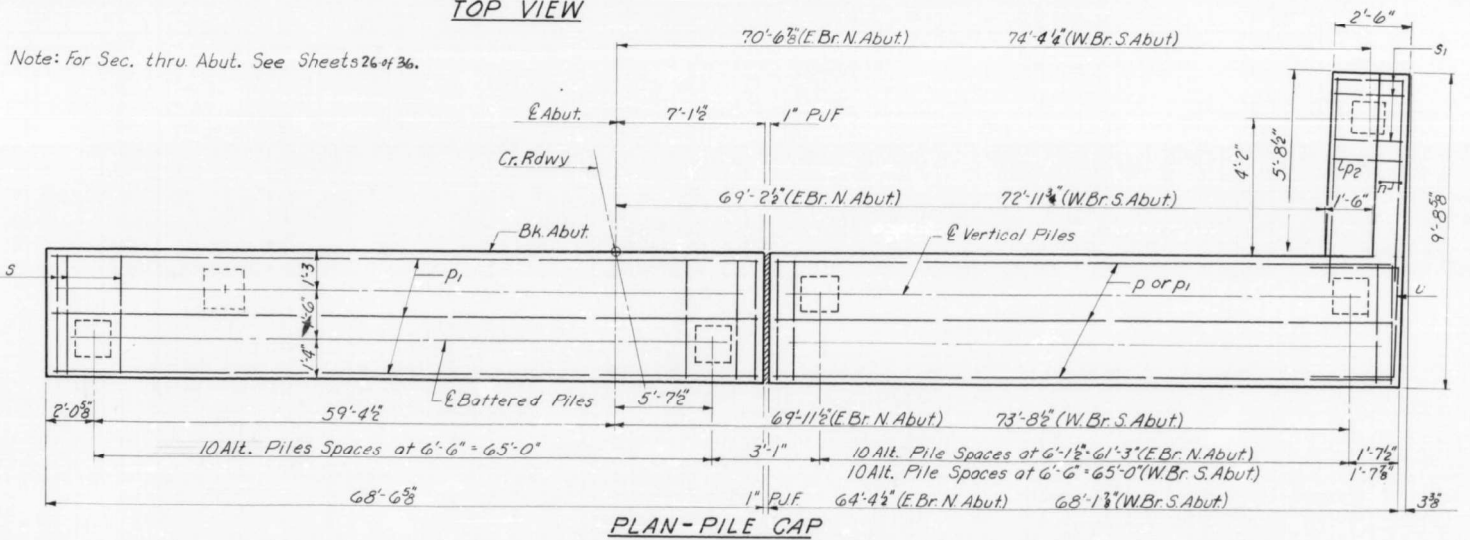
ELEVATION
N. Abut. Looking North
S. Abut. Looking South
For Seat Elevation See Sheets 26 of 36



TOP VIEW



DETAIL A



PLAN - PILE CAP

TWO ABUTMENTS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	18	#6	32'-6"	—
h1	6	#6	34'-0"	—
h2	36	#5	33'-0"	—
h3	12	#5	35'-6"	—
h4	10	#5	3'-6"	—
h5	10	#5	3'-9"	—
h6	28	#4	3'-10"	—
h15	6	#5	16'-6"	—
h16	12	#5	27'-9"	—
h17	6	#5	22'-9"	—
h18	12	#5	24'-6"	—
p	16	#7	33'-3"	—
p1	48	#7	35'-3"	—
p2	12	#7	6'-6"	—
s	216	#4	14'-7"	□
s1	14	#4	9'-5"	□
s2	204	#4	6'-8"	□
u	8	#6	9'-8"	□
v	263	#4	10'-6"	—
v1	255	#4	5'-0"	—
v2	255	#4	3'-0"	—
v3	20	#4	8'-0"	—
n	14	#5	7'-9"	□
Class X Concrete		Cu Yds	213.0	
Reinforcement Bars		Lbs	14,830	
Concrete Piles		Lin Ft	2,420	
Test Piles (Conc.)		Ea	2	

PILE DATA

Type - Concrete
Capacity - 30 Tons
Estimated Length - 55'-0"
No. Req'd - 44 plus 1 Test Pile @ Each Abut.

Work this sheet with sheets 14 of 19.

EAST BRIDGE NO. ABUTMENT
WEST BRIDGE SO. ABUTMENT
S.B.I. RT. 53 SEC. 531-148-5
COOK COUNTY
STA. 119 + 77.27

DESIGNED: Wei Huang
CHECKED: T. m. Yang
DRAWN: W.R. Deason, W.E. Dickerson
CHECKED: T. m. Yang

SEPT 25 1962
EXAMINED: W.E. Baumann
PASSED: [Signature]
APPROVED: R.L. Baumann

MODEL: Default
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PLOT DATE = 2/10/2025	CHECKED - NDR	REVISED -

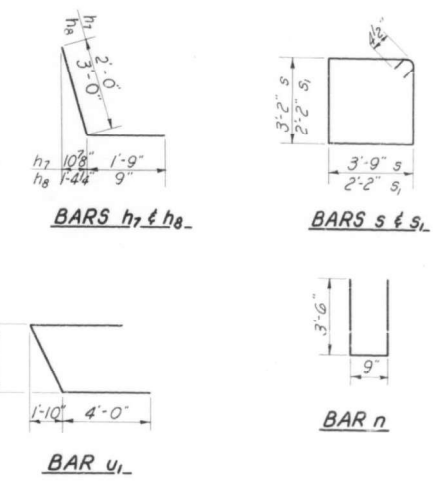
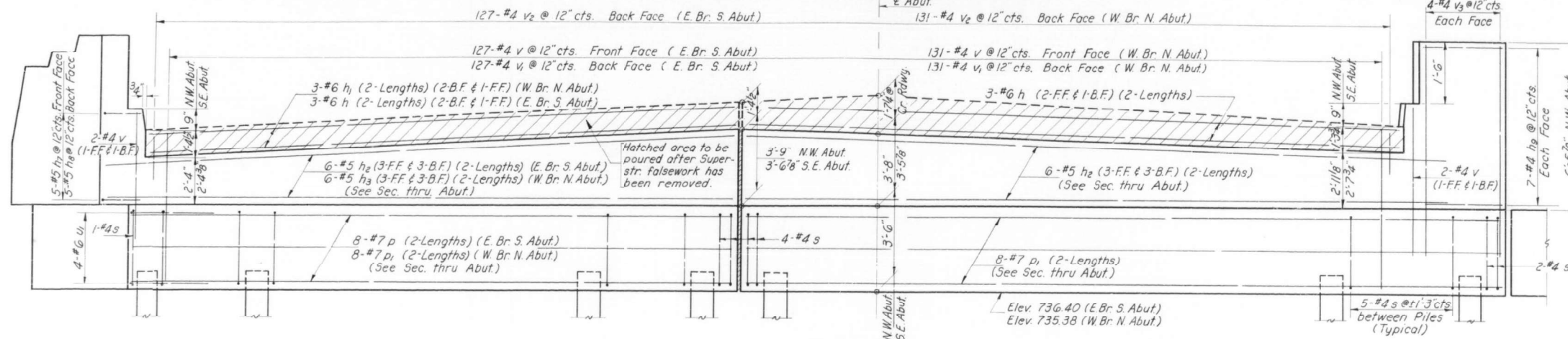
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (4 OF 7)
STRUCTURE NO. 016-W2501

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	850
		CONTRACT NO. 62N91		
		ILLINOIS FED. AID PROJECT		

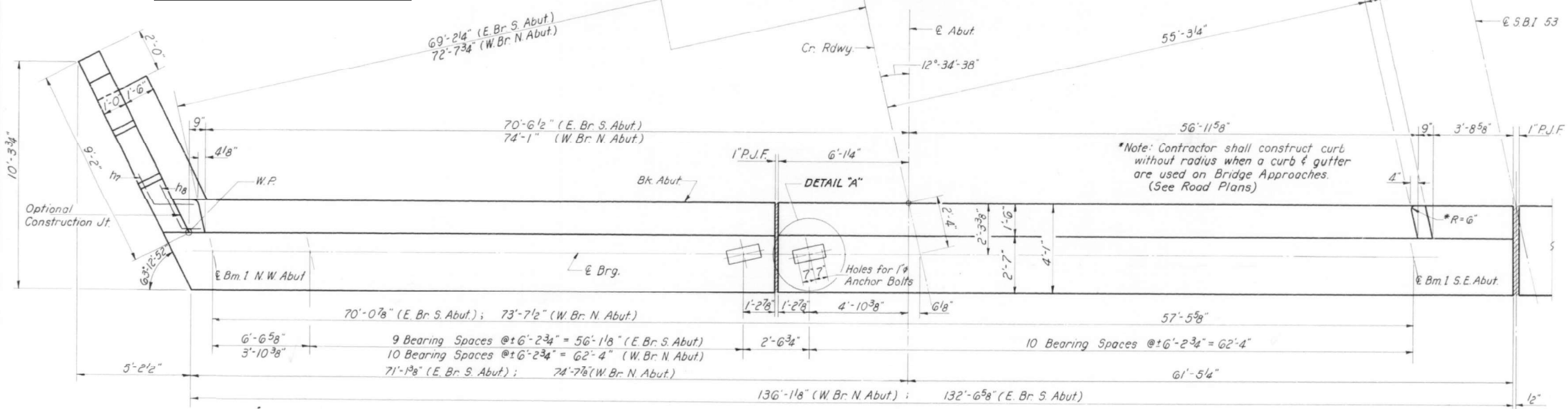
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
S.A. 53	531-HB3	Cook	36	25	19 SHEETS
F.A. 61					
FED. ROAD DIST. NO. 7	SLINGS	FED. AID PROJECT			

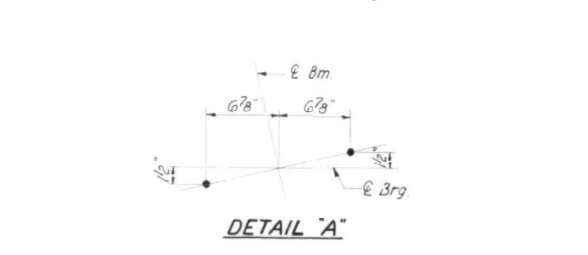


FOR INFORMATION ONLY

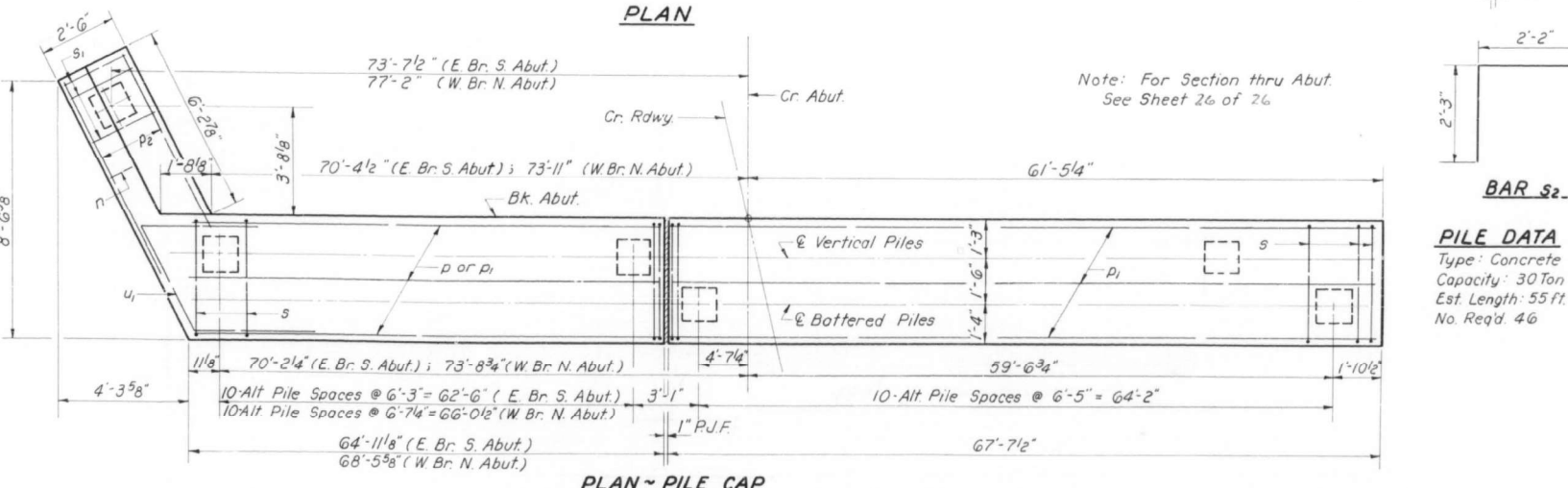
ELEVATION
No. Abut. Looking North & So. Abut. Looking South
For Seat Elevation See Sheet # 26



PLAN



DETAIL 'A'



PLAN ~ PILE CAP

**2 ABUTMENTS
BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	18	#6	32'-6"	—
h1	6	#6	34'-0"	—
h2	36	#5	33'-3"	—
h3	12	#5	35'-6"	—
h7	10	#5	3'-9"	—
h8	10	#5	3'-9"	—
h9	28	#4	3'-6"	—
h15	6	#5	16'-6"	—
h16	12	#5	27'-9"	—
h17	6	#5	22'-9"	—
h18	12	#5	24'-6"	—
n	14	#5	7'-9"	U
p	16	#7	33'-3"	—
p1	48	#7	35'-3"	—
p2	12	#7	6'-6"	—
s	214	#4	14'-7"	□
s1	14	#4	9'-5"	□
s2	204	#4	6'-8"	□
u1	3	#6	12'-3"	—
v	266	#4	6'-6"	—
v1	258	#4	5'-0"	—
v2	258	#4	3'-0"	—
v3	16	#4	8'-0"	—
Class X Concrete			Cu.Yds.	215.3
Reinforcement Bars			Lbs.	15,760
Concrete Piles			Lin. Ft.	2530
Name Plate			Each	2

Note: Work this Sheet with Sheet 26 of 26.

PILE DATA
Type: Concrete
Capacity: 30 Ton
Est. Length: 55 ft.
No. Req'd. 46

W. BR. N. ABUT. & E. BR. S. ABUT.
S.B.I. RT. 53 SEC. 531-HB-5
COOK COUNTY
STA. 119+77.27

DESIGNED	W. H. Young	EXAMINED	W.E. Baumgartner
CHECKED	T. M. Yang	PASSED	C. H. ...
DRAWN	J. L. Armstrong	APPROVED	R.H. ...
CHECKED	T. M. Yang		

USER NAME =	CodyH	DESIGNED -	TJE	REVISED -	
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PLOT DATE =	2/10/2025	DRAWN -	CJH	REVISED -	
		CHECKED -	NDR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (5 OF 7)
STRUCTURE NO. 016-W2501

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	851
ILLINOIS			FED. AID PROJECT	

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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
S.B.I. 53	531-1-HB-5	Cook	36	30	19 SHEETS
FED. ROAD DIST. NO. 7	BLANK	FED. AID PROJECT			

Form No. B.D. 137 Rev. 9-60

Sh. 7 of 10 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: BRIDGE Relocated S.B.I. 53 over Algonquin Road Date: Sept. 1962
 ROUTE: S.B.I. Route 53 Bored By: R. Moody
 SEC: 531-1-HB-5 STA: 119+77.27 Checked By: G.R.B.
 COUNTY: Cook

Elevation	N	Qu / s.t.	(%)	Surface Water El.	Groundwater El. at Completion	Elevation	N	Qu / s.t.	(%)
723.7									
721.7						701.2	15	1.7	Est.
							16	2.6	B
							12	2.2	B
							14	2.0	B
							15	Lost	
							13	1.6	B
							19	2.3	B
							14	2.8	B
							26		
							18		
							33	3.2	B
							34		
							25		

Form No. B.D. 137 Rev. 9-60

Sh. 9 of 10 Sh.

BRIDGE FOUNDATION BORING LOG

PROJECT: BRIDGE Relocated S.B.I. 53 over Algonquin Road Date: Sept. 1962
 ROUTE: S.B.I. Route 53 Bored By: R. Moody
 SEC: 531-1-HB-5 STA: 119+77.26 Checked By: G.R.B.
 COUNTY: Cook

Elevation	N	Qu / s.t.	(%)	Surface Water El.	Groundwater El. at Completion	Elevation	N	Qu / s.t.	(%)
723.9									
721.9						699.4	7	0.7	B
							16	2.2	B
							11	1.6	B
							11	2.0	B
							13	2.2	B
							13	2.2	B
							14	2.3	B
							14	2.2	B
							17	2.5	B
							10	Lost	
							27		
							17	2.8	B
							20		

DESIGNED: Abraham E. Beck	SEPT. 25 1962
CHECKED: [Signature]	EXAMINED: [Signature]
DRAWN: Abraham E. Beck	PASSED: [Signature]
CHECKED: M.O.	APPROVED: [Signature]

FOR INFORMATION ONLY

BORING DATA
S.B.I. RT. 53 SEC. 531-1-HB-5
COOK COUNTY
STA 119+77.27

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1170 SOUTH HOBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

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	CHECKED - NDR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS (7 OF 7)
STRUCTURE NO. 016-W2501

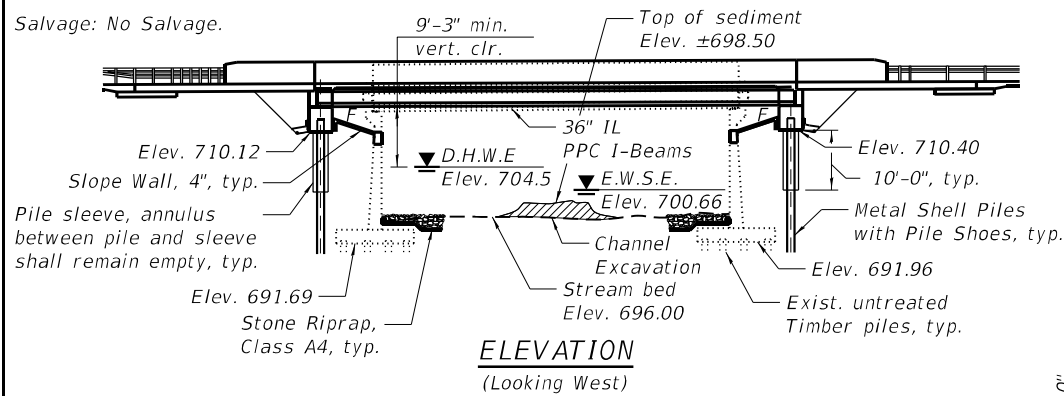
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
339	2018-100-BR	COOK	1351	853
			CONTRACT NO. 62N91	
ILLINOIS		FED. AID PROJECT		

Benchmark: TBM 37 cut cross on the southeast corner of the westerly concrete foundation of an overhead sign that is approximately 380 feet north of salt creek and over the southbound lanes. elevation 718.951

Existing Structure: The structure carrying IL-53 (SN 016-0377) over Salt Creek was originally built in 1962 as Relocated SBI Route 53 (F.A. Route 61) under Project U-184(26), Section 531-I-B-7. In 1990, as part of Contract 80797, the asphalt overlay was removed, the top of the deck was scarified 1/2", and 2 1/2" Microsilica Concrete was overlaid. In 2010, as part of Contract 60138, the deck had some partial and full depth concrete repairs, the abutments had several epoxy crack injections, and partial depth concrete repairs. The expansion joints at the abutments were removed and Silicone Joint Sealers were installed. Eighteen floor drain extensions were added to existing floor drains to extend the drains below the bottom web of the beams. Superstructure has an overall length of 63'-3" back to back of abutments and a width of 210'-0" out to out of deck. The northeast retaining wall has a length of 36'-7", the northwest retaining wall has a length of 37'-9 1/2", the southeast retaining wall has a length of 37'-10", and the southwest retaining wall has a length of 28'-3 1/4". The southeast retaining wall between the mainline bridge and East Frontage Road bridge was leaning for several years, finally failing in 2017. The stem of the wall was replaced with a modified section in 2017 under contract 62D37, Section 2016-0551. The contractor will remove the deck, superstructure and partial height of existing abutment, leaving the rest of the abutment stem in-place, construct new bridge and remove and reconstruct the stems of the northeast, northwest, and southwest retaining walls.

Traffic Control: Traffic is to be maintained utilizing Stage Construction.

Salvage: No Salvage.



WATERWAY INFORMATION

Drainage Area = 17.0 square miles Existing Overtopping Elev. = 717.9 at Sta. 1155+44.91
Proposed Overtopping Elev. = 717.9 at Sta. 1155+44.91

Flood Event	Freq. Yr.	Discharge C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El. - Ft.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Ten-Year	10	577	385	385	703.3	0.3	0.3	703.6	703.6
Design	50	947	454	454	704.5	0.3	0.3	704.8	704.8
Base	100	1129	485	485	705.0	0.2	0.2	705.2	705.2
Scour Check	200	1308	509	509	705.4	0.2	0.2	705.6	705.6
Max. Calc.	500	1547	541	541	706.0	0.2	0.2	706.2	706.2

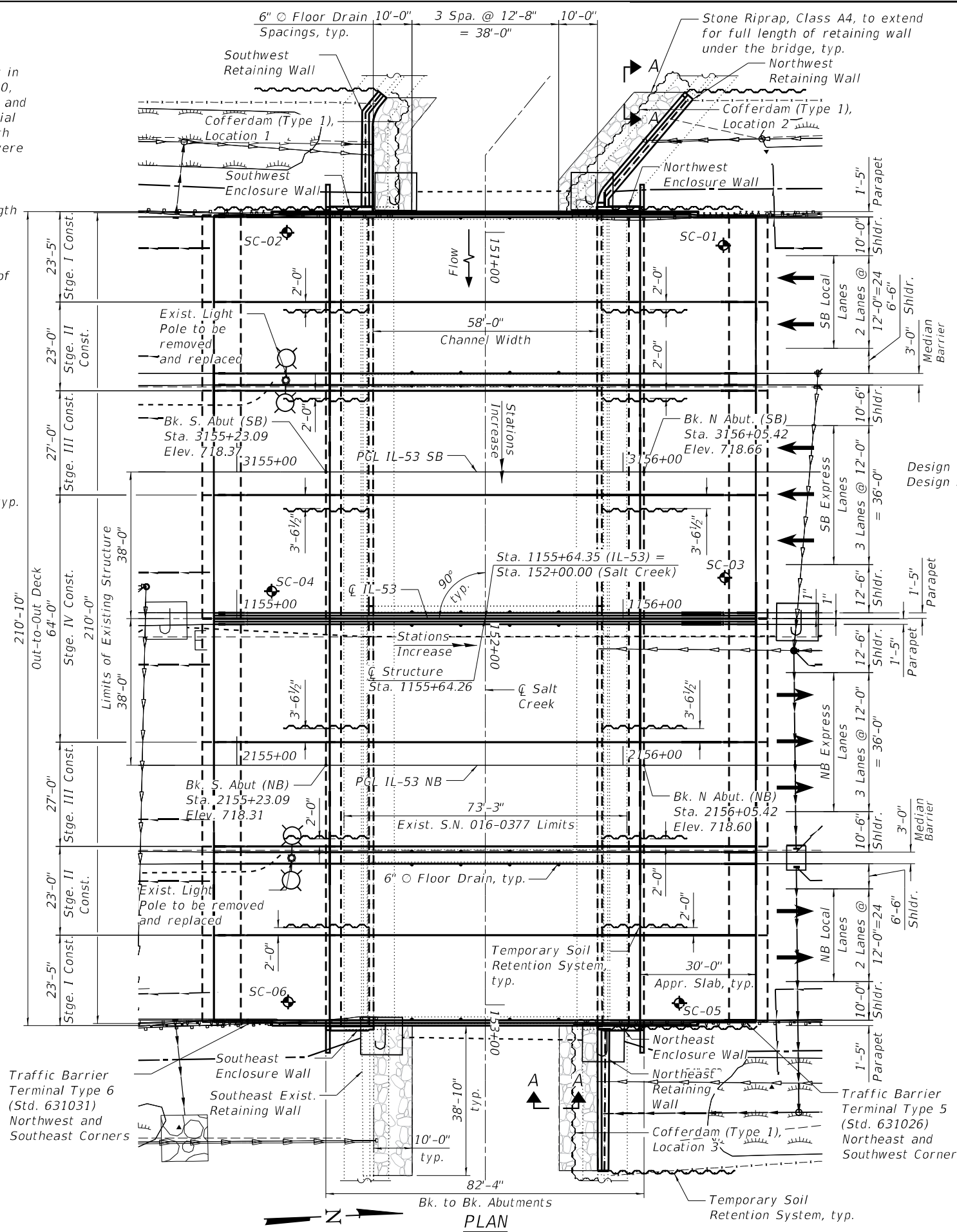
10-Year Velocity through Existing Structure = 1.5 fps
10-Year Velocity through Proposed Structure = 1.5 fps
2-Year flow rate = 164 cfs

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)			Item 113
	State	N. Abut.	S. Abut.	
Q100	691.60	691.60		5
Q200	690.60	690.60		
Design	691.60	691.60		
Check	690.60	690.60		



Signed Moussa A. Issa
Dr. Moussa A. Issa, S.E. IL Lic. No. 081-005738
Expires 11-30-2026
Date 01/22/2025 For Sheets SB-01 Thru SB-75



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

USER NAME =	DESIGNED - EN, PG	REVISED -
PLOT SCALE =	CHECKED - MI, JJS	REVISED -
PLOT DATE =	DRAWN - PG	REVISED -
	CHECKED - MI, JJS	REVISED -

DESIGN SPECIFICATIONS

BRIDGE
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition
RETAINING WALLS
AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS
f'c = 4,000 psi (Superstructure)
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 8,500 psi
f'ci = 6,500 psi
fpu = 270,000 psi (0.6" low lax strands)
fpbt = 202,300 psi (0.6" low lax strands)

FIELD UNITS (EXISTING CONSTRUCTION)

f'c = 1,000 psi (Substructure)
fy = 20,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.083g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.144g
Soil Site Class = D

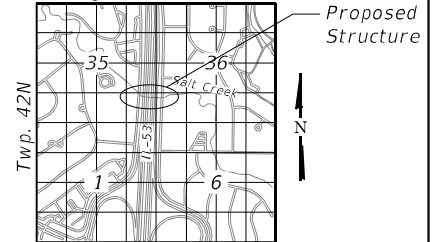
Note:
Up to 1/4" to be ground off the bridge deck and bridge approach slabs. The Profile Grade shows the final grade after grinding.

LEGEND

- Exist. Storm Sewer
- Prop. Storm Sewer
- Exist. Fence
- Wetland
- Exist. Guardrails
- Prop. Guardrails
- Prop. Lighting Conduit
- Exist. Gaslines
- Temporary Soil Retention System
- Cofferdam (Type 1)
- Prop. Light Pole

J Junction Box

Range 10E, 3rd P.M.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

F.A.P. RTE. 342 (IL-53)
OVER SALT CREEK
SECTION 2018-100-BR
COOK COUNTY
STA. 1155+64.26
STRUCTURE NO. 016-1195

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	854
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

SHEET SB-01 OF SB-75 SHEETS

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INDEX OF SHEETS

SB-01	General Plan & Elevation
SB-02	Index of Sheets and Total Bill of Material
SB-03	General Data
SB-04	SB Substructure Layout
SB-05	NB Substructure Layout
SB-06	Temporary Soil Retention Systems (Sheet 1 of 2)
SB-07	Temporary Soil Retention Systems (Sheet 2 of 2)
SB-08	Stage Construction (Sheet 1 of 3)
SB-09	Stage Construction (Sheet 2 of 3)
SB-10	Stage Construction (Sheet 3 of 3)
SB-11	Temporary Concrete Barrier
SB-12	Existing Structure Removal Plan and Elevation
SB-13	Exist. Struct. Rem. Deck Sections and Elevation
SB-14	Exist. SB S. Abut. Partial Removal Plan, Elev. and Sections
SB-15	Exist. SB N. Abut. Partial Removal Plan, Elev. and Sections
SB-16	Exist. NB S. Abut. Partial Removal Plan, Elev. and Sections
SB-17	Exist. NB N. Abut. Partial Removal Plan, Elev. and Sections
SB-18	SB Top of Slab Elevations Layout
SB-19	SB Top of Slab Elevation Tables (Sheet 1 of 3)
SB-20	SB Top of Slab Elevation Tables (Sheet 2 of 3)
SB-21	SB Top of Slab Elevation Tables (Sheet 3 of 3)
SB-22	NB Top of Slab Elevations Layout
SB-23	NB Top of Slab Elevation Tables (Sheet 1 of 3)
SB-24	NB Top of Slab Elevation Tables (Sheet 2 of 3)
SB-25	NB Top of Slab Elevation Tables (Sheet 3 of 3)
SB-26	SB Top of S. Approach Slab Layout & Tables
SB-27	SB Top of N. Approach Slab Layout & Tables
SB-28	NB Top of S. Approach Slab Layout & Tables
SB-29	NB Top of N. Approach Slab Layout & Tables
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SB-34 - SB-35	Superstructure Details
SB-36	South Abutment Diaphragm Details
SB-37	North Abutment Diaphragm Details
SB-38 - SB-40	Bridge Approach Slab Details
SB-41	SB Framing Plan
SB-42	NB Framing Plan
SB-43	IL36-2438 PPC I-Beam
SB-44	IL36-2438 PPC I-Beam Details
SB-45	Abutment Plan and Elev. - Stages I & II Const.
SB-46	Abutment Plan and Elev. - Stages III & IV Const.
SB-47	Abutment Sections and Details
SB-48	SB Exist. N. Abut. Modifications Plan, Elev. and Sections
SB-49	SB Exist. S. Abut. Modifications Plan, Elev. and Sections
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SB-53	SouthWest Wall - Reinforcement, Sections and Details
SB-54	SouthWest Wall - Partial Removal & Str. Excav. Details
SB-55	SouthWest Wall - TSRS, Backfill Section, and Details
SB-56	NorthWest Wall - Plan and Elevation
SB-57	NorthWest Wall - Reinforcement, Sections and Details
SB-58	NorthWest Wall - Partial Removal & Str. Excav. Details
SB-59	NorthWest Wall - TSRS, Backfill Section, and Details
SB-60	NorthEast Wall - Plan and Elevation
SB-61	NorthEast Wall - Reinforcement, Sections and Details
SB-62	NorthEast Wall - Partial Removal & Str. Excav. Details
SB-63	NorthEast Wall - TSRS, Backfill Section, and Details
SB-64	Enclosure Wall - South Abutment - SW and SE
SB-65	Enclosure Wall - North Abutment - NW and NE
SB-66	Metal Shell Pile Details
SB-67	HP Pile Details
SB-68	Concrete Parapet Slip Forming Option
SB-69	Bar Splicer Assembly and Mechanical Splicer Details
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-	Existing Drawings (Sheet 1 of 8)
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-	Existing Drawings (Sheet 5 of 8)
-	Existing Drawings (Sheet 6 of 8)
-	Existing Drawings (Sheet 7 of 8)
-	Existing Drawings (Sheet 8 of 8)

TOTAL BILL OF MATERIAL (S.N. 016-1195)

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd	-	374	374
Stone Riprap, Class A4	Sq Yd	-	630	630
Filter Fabric	Sq Yd	-	630	630
Removal Of Existing Superstructures No. 3	Each	1	-	1
Concrete Removal	Cu Yd	-	339.9	339.9
Structure Excavation	Cu Yd	-	2,588	2,588
Cofferdam Excavation	Cu Yd	-	49	49
Cofferdam (Type 1) (Location - 1)	Each	-	1	1
Cofferdam (Type 1) (Location - 2)	Each	-	1	1
Cofferdam (Type 1) (Location - 3)	Each	-	1	1
Floor Drains	Each	32	-	32
Concrete Structures	Cu Yd	-	585.9	585.9
Concrete Superstructure	Cu Yd	799.0	-	799.0
Protective Coat	Sq Yd	3,632	-	3,632
Concrete Superstructure (Approach Slab)	Cu Yd	595.2	-	595.2
Furnishing And Erecting Precast Prestressed Concrete Beams, IL36N	Foot	2,232	-	2,232
Reinforcement Bars, Epoxy Coated	Pound	383,140	75,430	458,570
Bar Splicers	Each	3,408	256	3,664
Mechanical Splicers	Each	32	-	32
Slope Wall 4 Inch	Sq Yd	-	346	346
Furnishing Metal Shell Piles 16" X 0.375"	Foot	-	3,692	3,692
Furnishing Steel Piles HP8X36	Foot	-	296	296
Driving Piles	Foot	-	3,988	3,988
Test Pile Metal Shells	Each	-	4	4
Pile Shoes	Each	-	56	56
Name Plates	Each	1	-	1
Preformed Joint Seal 3 1/2"	Foot	141	-	141
Temporary Soil Retention System	Sq Ft	-	4,047	4,047
Granular Backfill For Structures	Cu Yd	-	950	950
Concrete Sealer	Sq Ft	-	4,382	4,382
Epoxy Crack Injection	Foot	-	244	244
Geocomposite Wall Drain	Sq Yd	-	556	556
Pipe Underdrains For Structures 4"	Foot	-	460	460
Bridge Deck Grooving (Longitudinal)	Sq Yd	1,872	-	1,872
Bar Terminators	Each	436	1,992	2,428
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	-	924	924
Diamond Grinding (Bridge Section)	Sq Yd	2,922	-	2,922

STA. 1155+64.26
 BUILT 20__ BY
 STATE OF ILLINOIS
 F.A.P. Rt. 342 (IL-53) Sec. 2018-100-BR
 LOADING HL-93
 STR. NO. 016-1195

NAME PLATE
(IL-53 OVER SALT CREEK)
 See Std. 515001

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

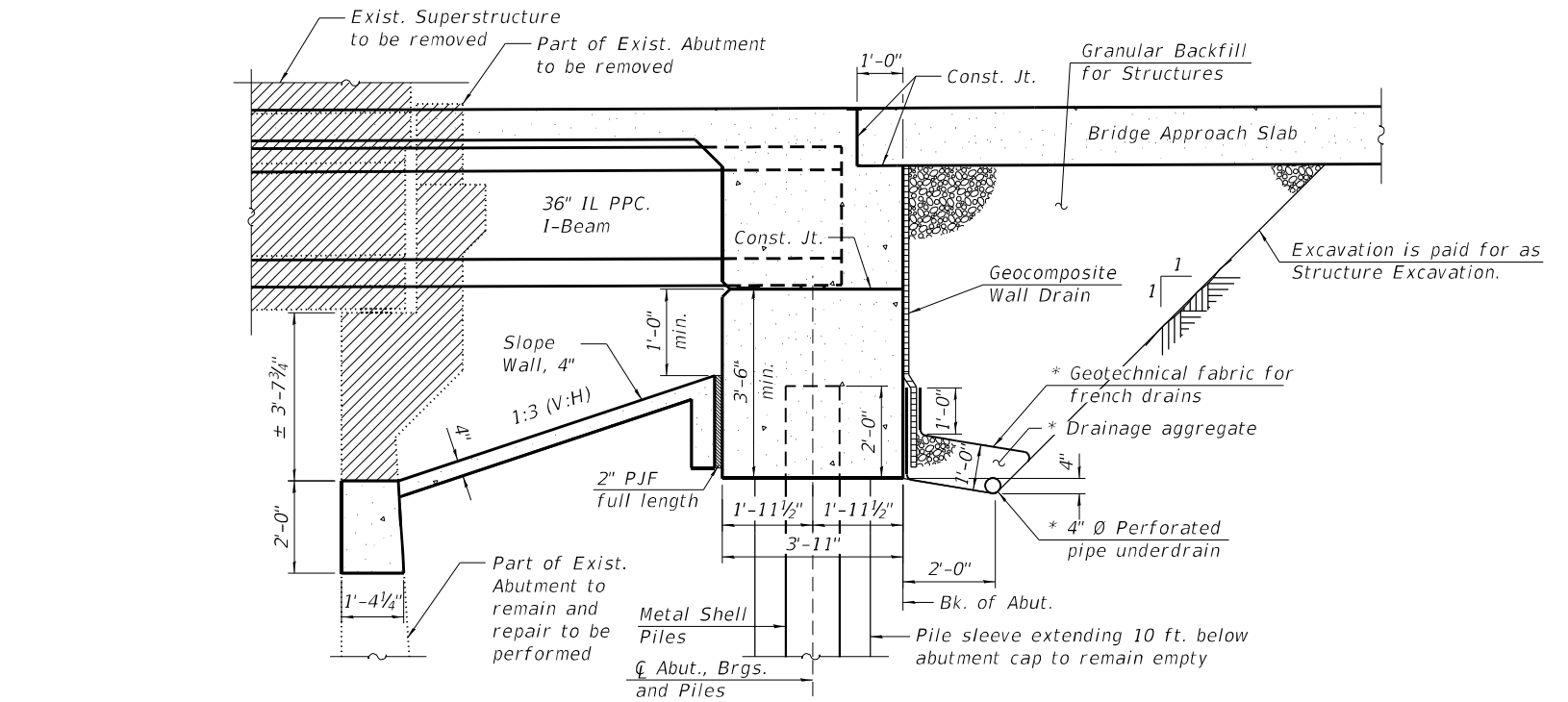
**INDEX OF SHEETS AND TOTAL BILL OF MATERIAL
 STRUCTURE NO. 016-1195**

SHEET SB-02 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 855
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N91	

GENERAL NOTES

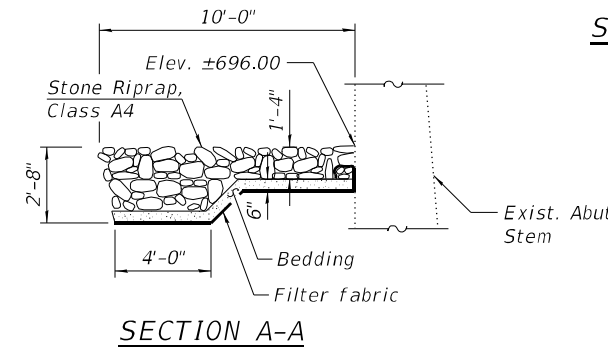
1. Reinforcement bars designated (E) shall be epoxy coated.
2. A penetrating Concrete Sealer shall be applied to the exposed surfaces of the existing/modified North and South Abutment stems, the proposed North and South Wingwalls, the SW, NW and NE Retaining walls and all enclosure walls.
3. Slip forming of the median parapet is not allowed. Slip forming of the Outside Traffic Barriers is allowed.
4. Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
5. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
6. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
7. Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



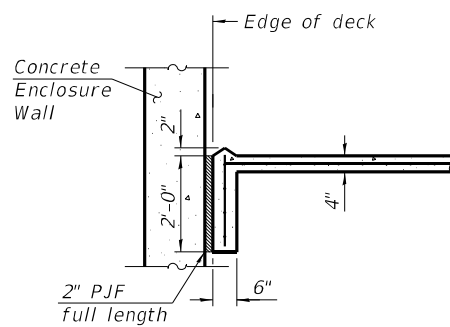
SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. at Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

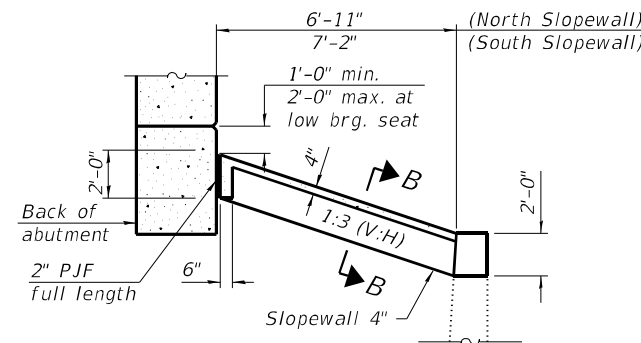
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



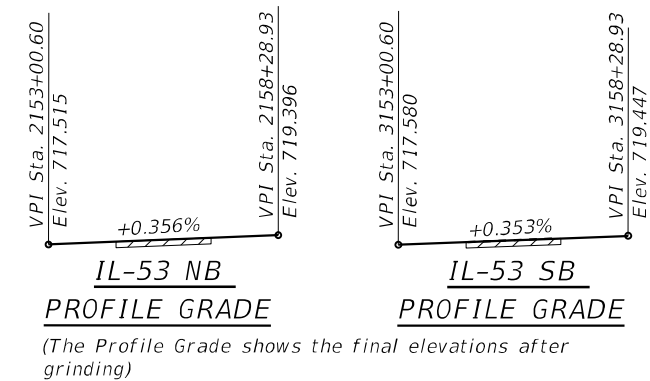
SECTION A-A



SECTION B-B



SECTION THRU CONCRETE SLOPEWALL



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

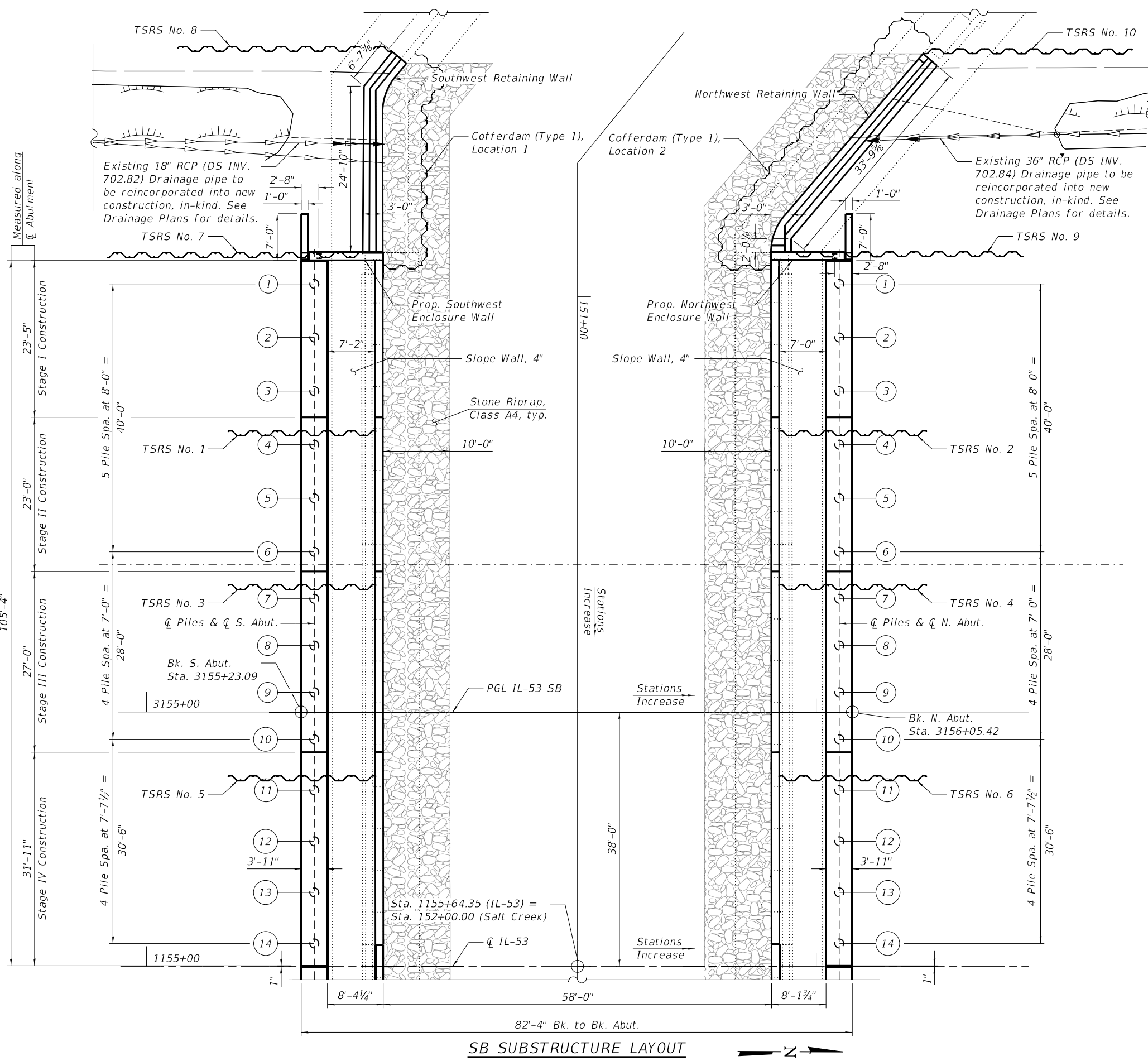
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STRUCTURE NO. 016-1195**

SHEET SB-03 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	856
CONTRACT NO. 62N91				

ILLINOIS FED. AID PROJECT

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NOTES:

1. The maximum allowable excavation slope is 1:2 (V:H) unless noted otherwise.
2. For Removal of Existing Structure, see Sheets SB-12 thru SB-17.
3. For Proposed Temporary Soil Retention Systems, see Sheets SB-06 and SB-07.
4. For Prop. Enclosure Walls, see Sheets SB-64 and SB-65.
5. For Prop. Retaining Walls, see Sheets SB-52 thru SB-63.
6. The Contractor shall field-verify locations of existing underground utilities and shall take all necessary precautions to protect existing utilities during removal and construction activities. Any damage to existing utilities caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
7. Prior to construction of the northwest and southwest enclosure walls, the northwest and southwest retaining walls shall be constructed, and portions of TSRS No. 7 and No. 9 removed to avoid conflicts with the proposed enclosure wall piles.

LEGEND

- Prop. Storm Sewer
- Wetland
- Temporary Soil Retention System
- Cofferdam (Type 1)

SB SUBSTRUCTURE LAYOUT

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SB SUBSTRUCTURE LAYOUT
 STRUCTURE NO. 016-1195

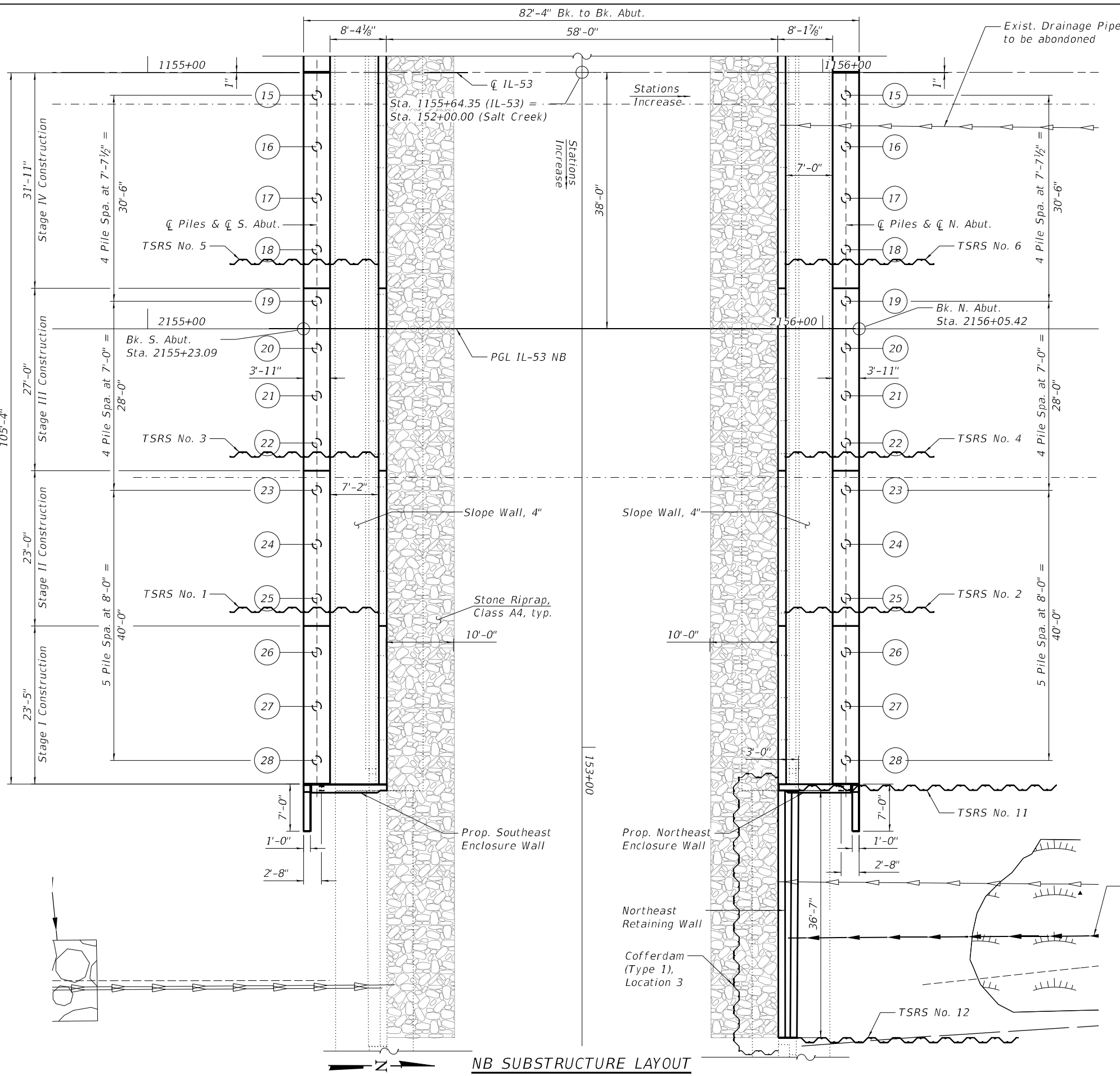


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PLOT DATE =	CHECKED - MI, KJD	REVISED -

SHEET SB-04 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	857
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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NOTES:

1. The maximum allowable excavation slope is 1:2 (V:H) unless noted otherwise.
2. For Removal of Existing Structure, see Sheets SB-12 thru SB-17.
3. For Proposed Temporary Soil Retention Systems, see Sheets SB-06 and SB-07.
4. For Prop. Enclosure Walls, see Sheets SB-64 and SB-65.
5. For Prop. Retaining Walls, see Sheets SB-52 thru SB-63.
6. The Contractor shall field-verify locations of existing underground utilities and shall take all necessary precautions to protect existing utilities during removal and construction activities. Any damage to existing utilities caused by the Contractor in the performance of the work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
7. Prior to construction of the northeast enclosure wall, the northeast retaining wall shall be constructed, and portion of TSRS No. 11 removed to avoid conflicts with the proposed enclosure wall piles.

LEGEND

- Exist. Storm Sewer
- Prop. Storm Sewer
- Wetland
- Temporary Soil Retention System
- Cofferdam (Type 1)



USER NAME =	DESIGNED - PG	REVISED -
CHECKED - MI, KJD	CHECKED - MI, KJD	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI, KJD	REVISED -

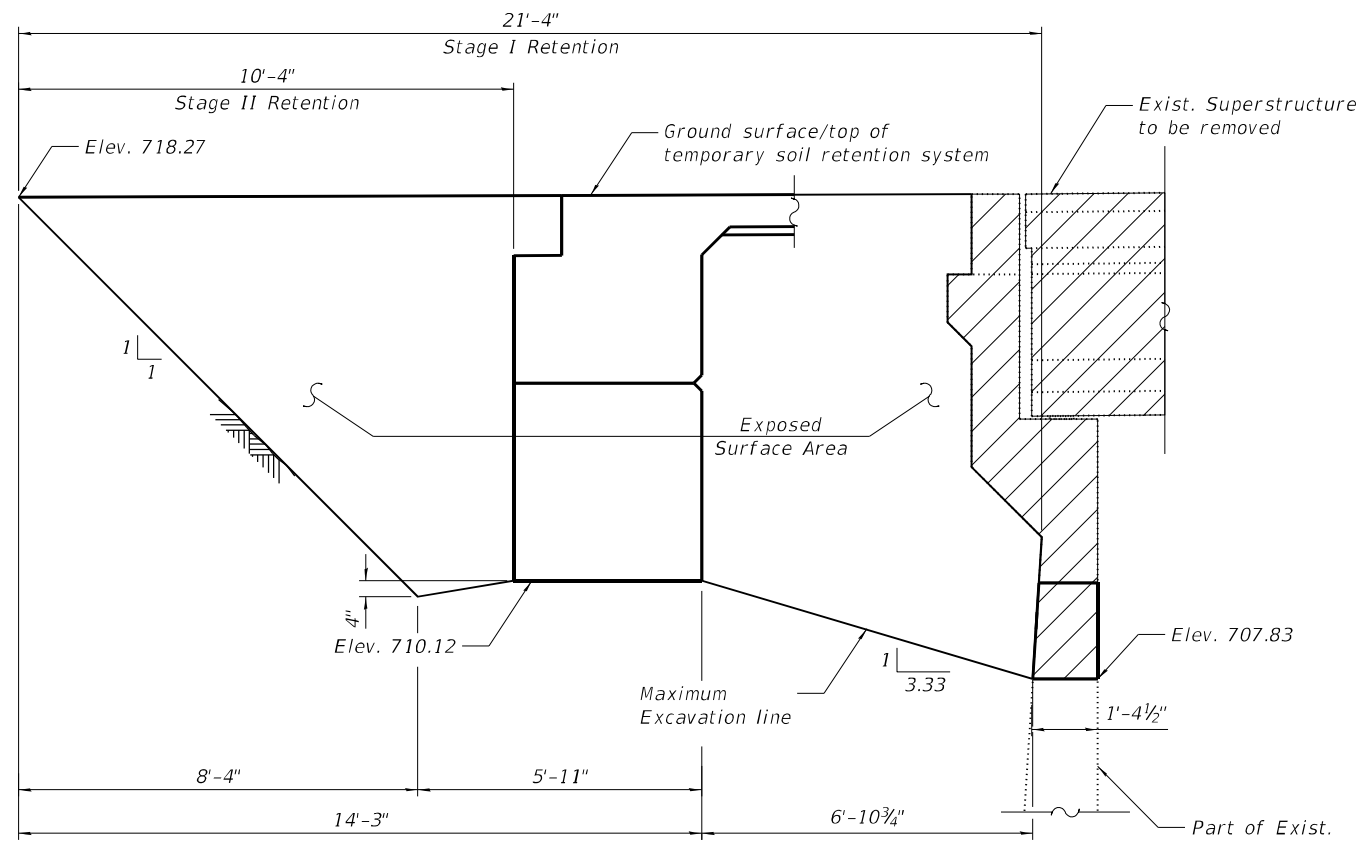
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NB SUBSTRUCTURE LAYOUT
 STRUCTURE NO. 016-1195

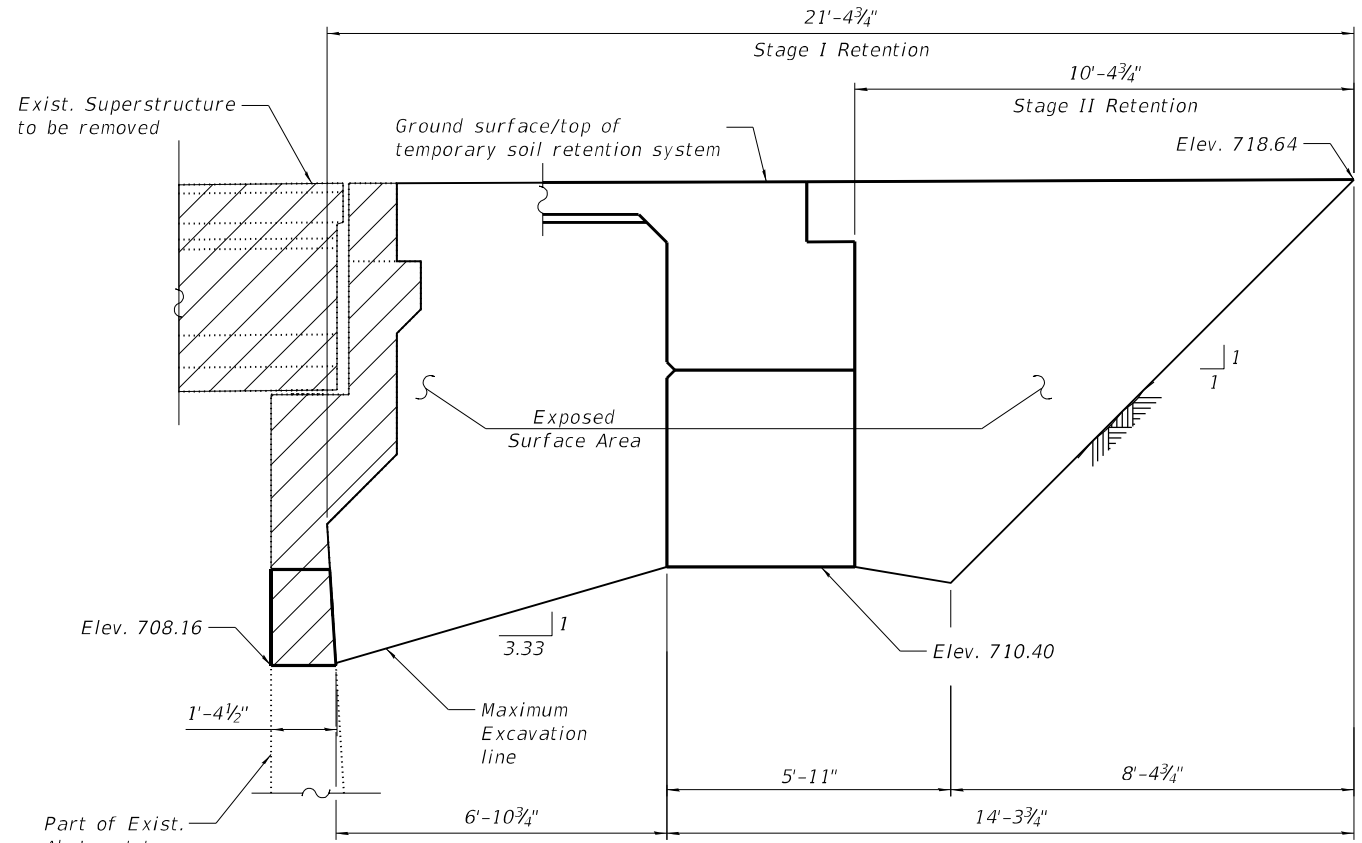
SHEET SB-05 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

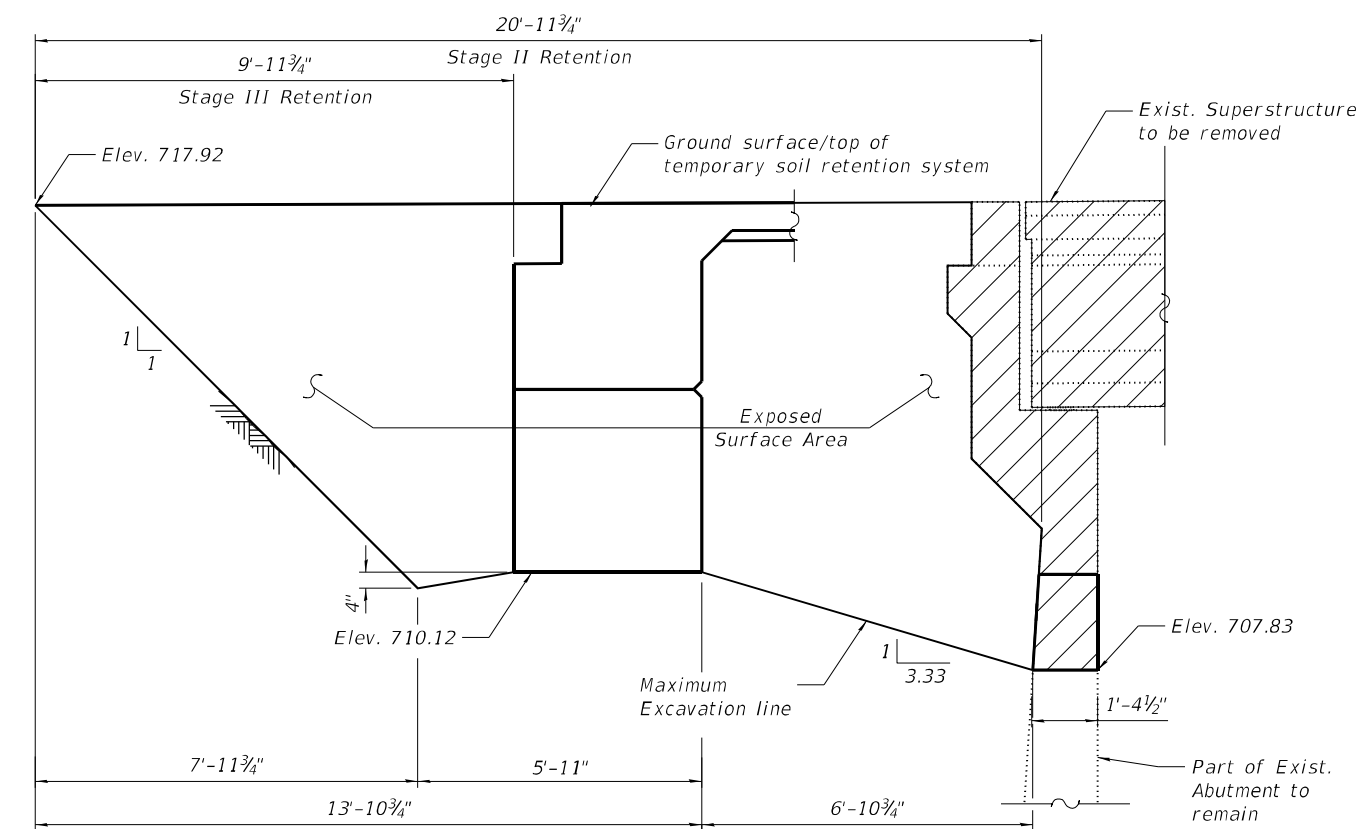
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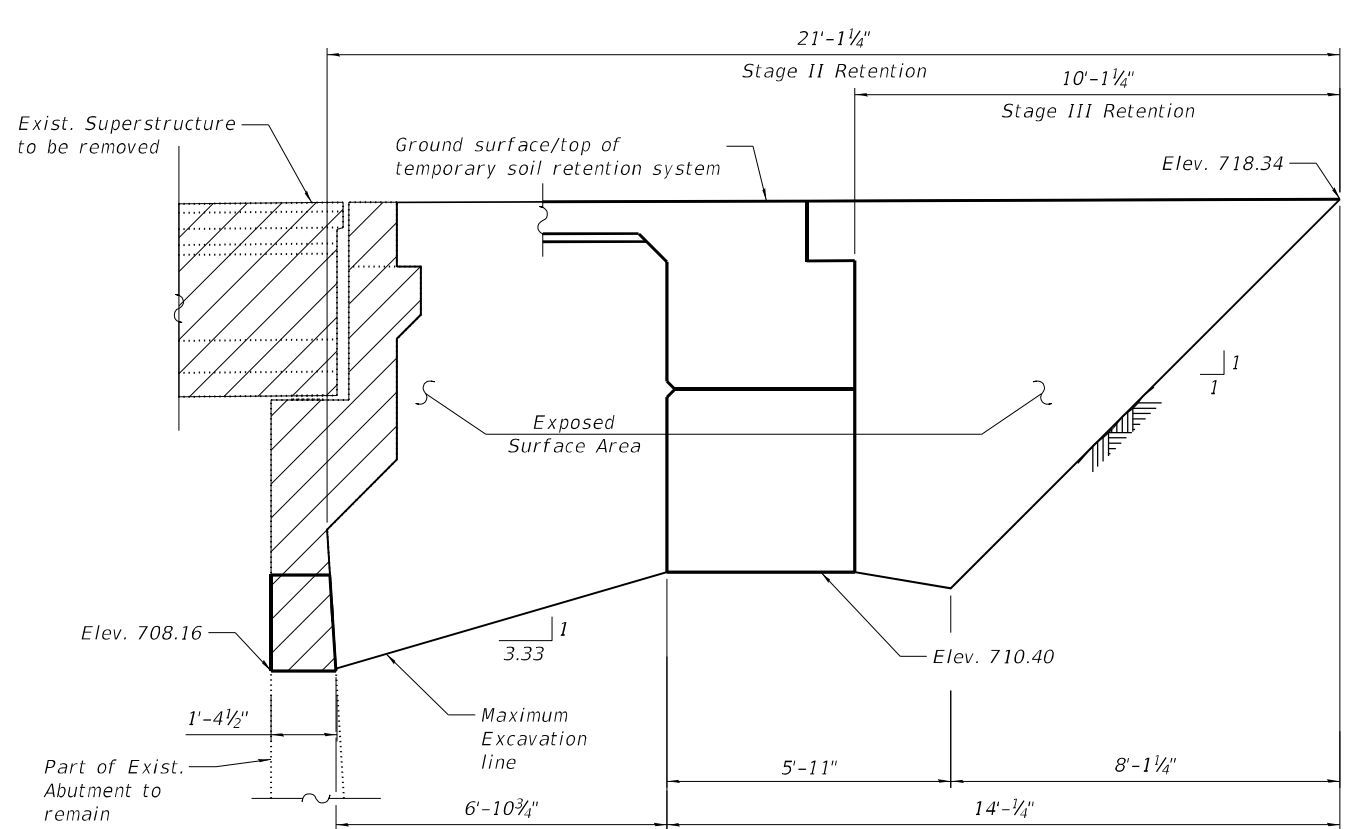
**TEMPORARY SOIL RETENTION SYSTEM NO. 1
 AT SOUTH ABUTMENT**



**TEMPORARY SOIL RETENTION SYSTEM NO. 2
 AT NORTH ABUTMENT**



**TEMPORARY SOIL RETENTION SYSTEM NO. 3
 AT SOUTH ABUTMENT**



**TEMPORARY SOIL RETENTION SYSTEM NO. 4
 AT NORTH ABUTMENT**

LEGEND

Concrete Removal

NOTE:

1. For Bill of Material, see Sheet SB-07.



USER NAME =	DESIGNED - PG	REVISED -
PLOT SCALE =	CHECKED - MI, LAB	REVISED -
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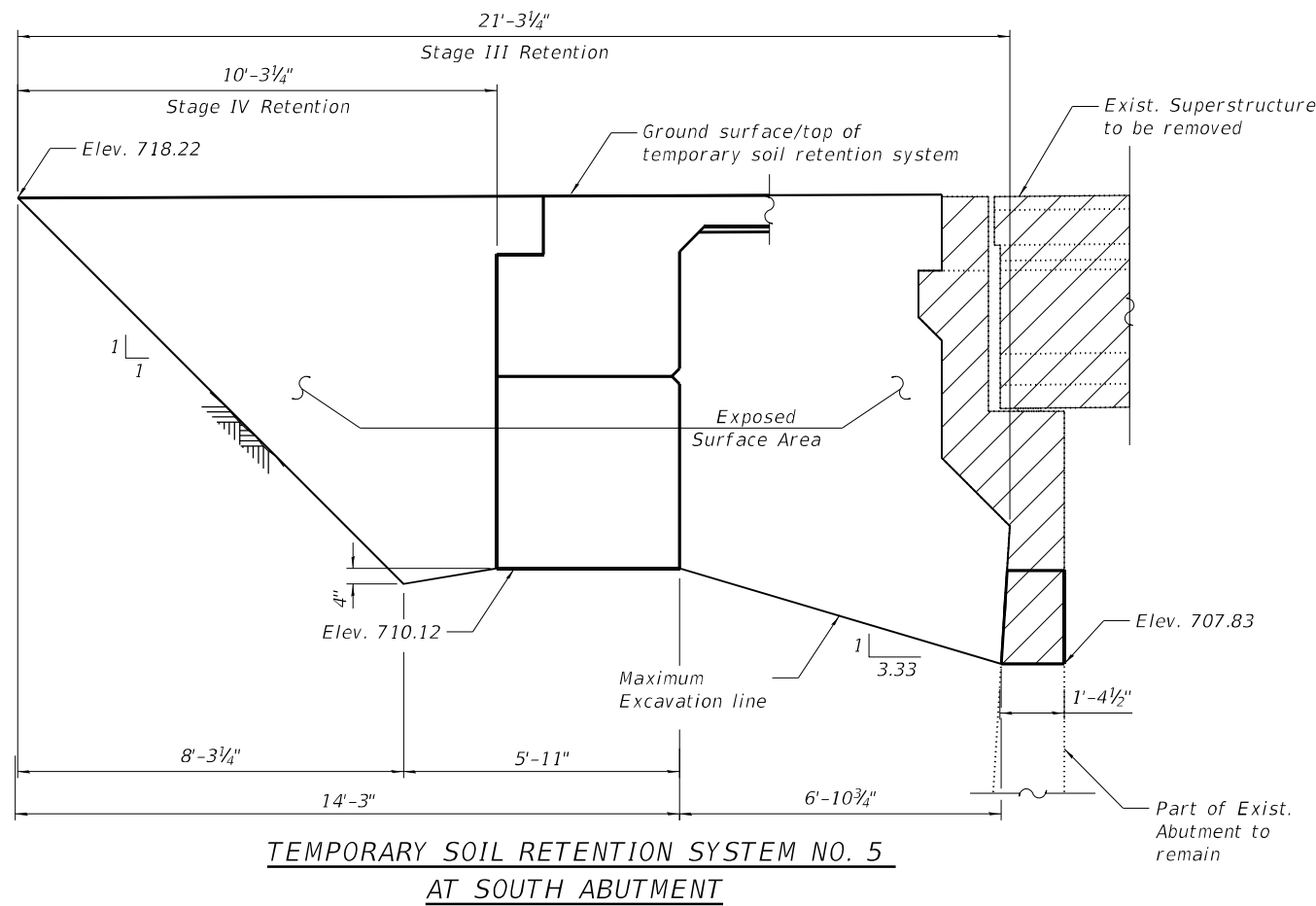
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SOIL RETENTION SYSTEMS (SHEET 1 OF 2)
 STRUCTURE NO. 016-1195**

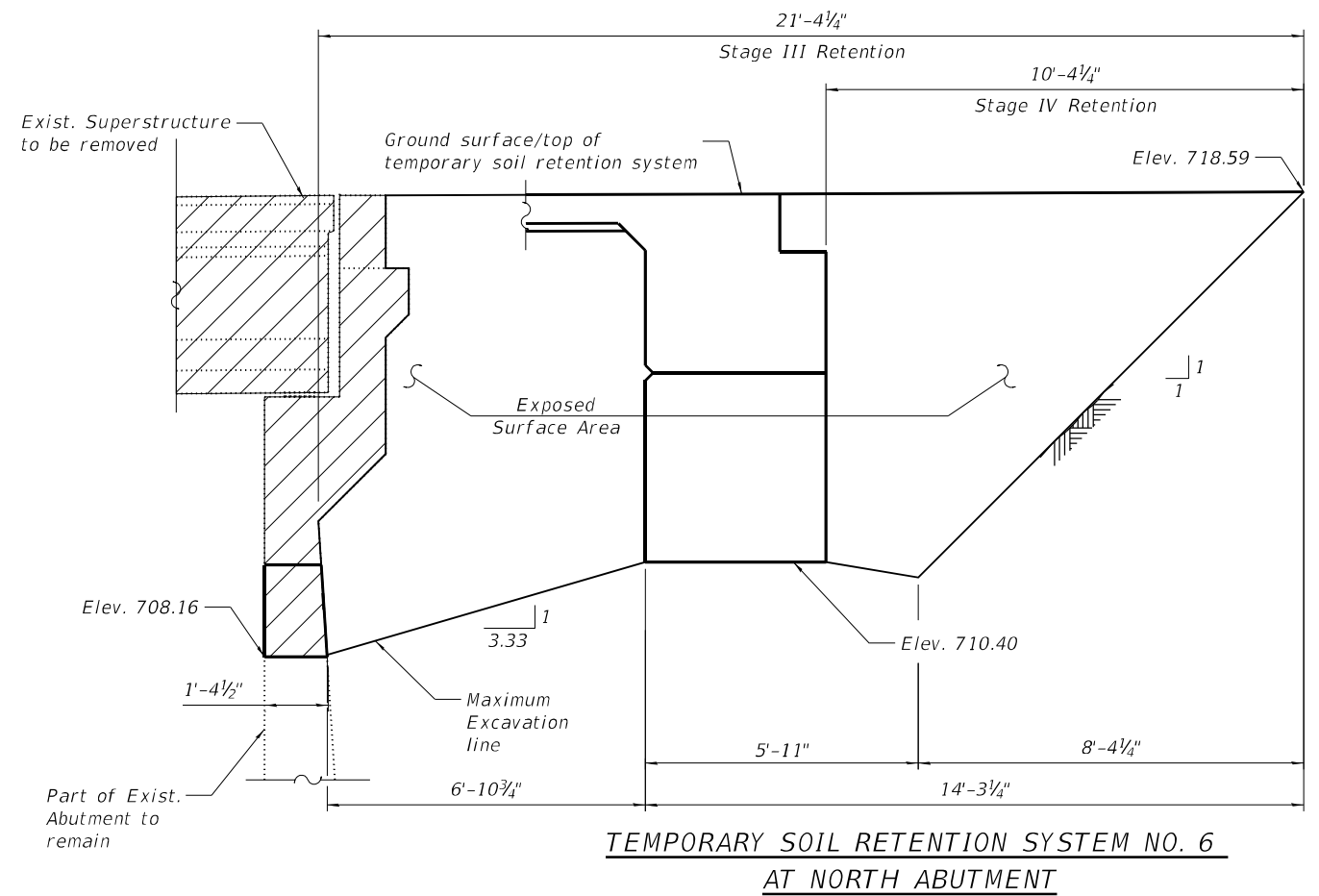
SHEET SB-06 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 859
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		ILLINOIS FED. AID PROJECT		

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**TEMPORARY SOIL RETENTION SYSTEM NO. 5
 AT SOUTH ABUTMENT**



**TEMPORARY SOIL RETENTION SYSTEM NO. 6
 AT NORTH ABUTMENT**

LEGEND

 Concrete Removal

NOTE:

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Soil Retention System	Sq Ft	1,615



USER NAME =	DESIGNED - PG	REVISED -
	CHECKED - MI, LAB	REVISED -
PLOT SCALE =	DRAWN - PG	REVISED -
PLOT DATE =	CHECKED - MI, LAB	REVISED -

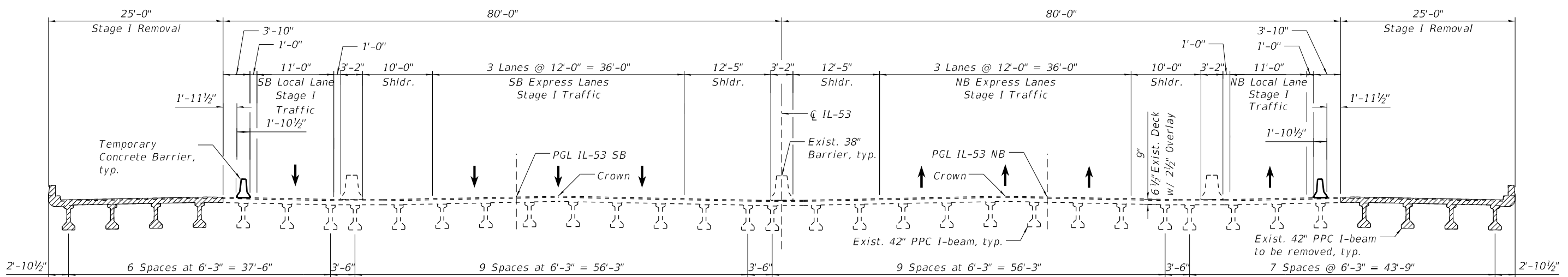
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SOIL RETENTION SYSTEMS (SHEET 2 OF 2)
 STRUCTURE NO. 016-1195**

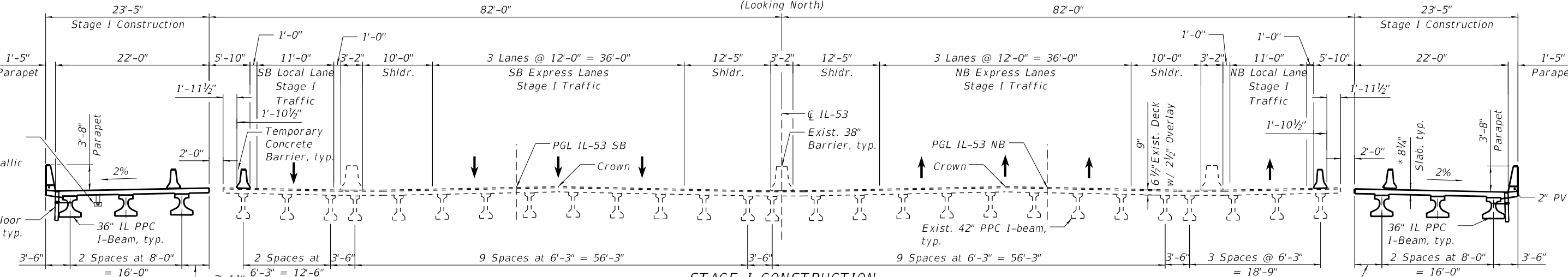
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

SHEET SB-07 OF SB-75 SHEETS

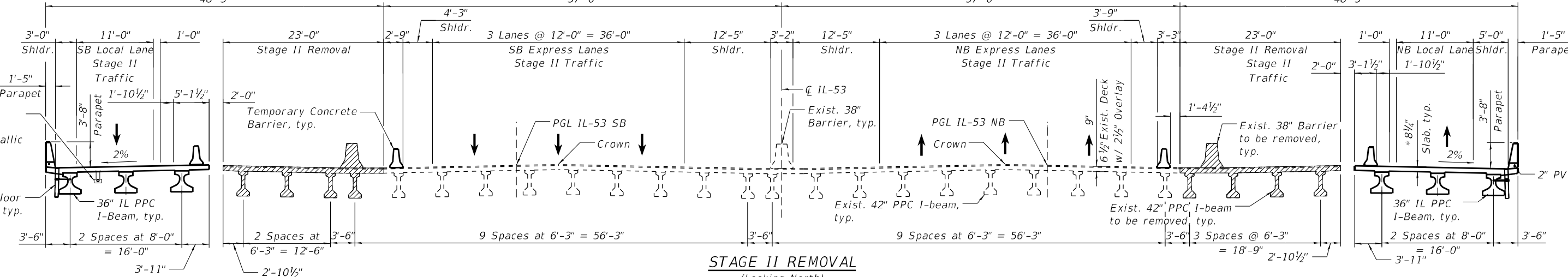
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STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)

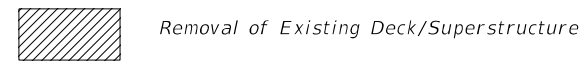


STAGE II REMOVAL
(Looking North)

NOTES:

- Up to 1/4" to be ground off the bridge deck and bridge approach slabs. * Prior to Grinding
- See Roadway plans for Temporary Concrete Barrier.
- See Sheet SB-11 for Temporary Concrete Barrier Details.

LEGEND



USER NAME =	DESIGNED - KJD	REVISED -
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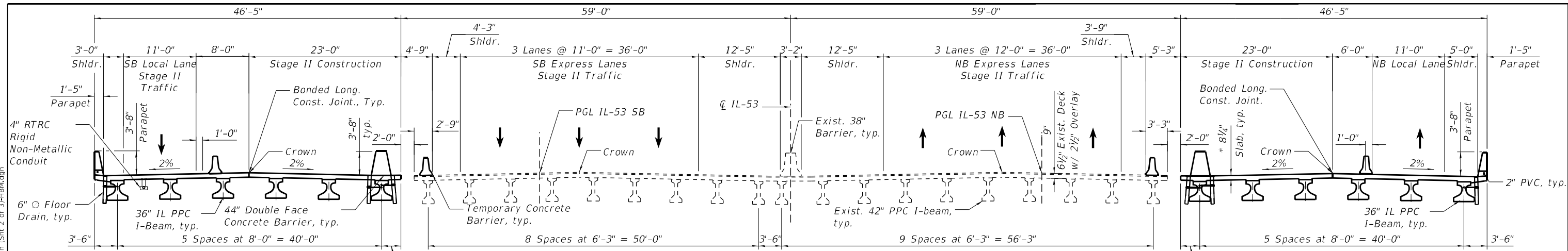
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DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION (SHEET 1 OF 3)
STRUCTURE NO. 016-1195**

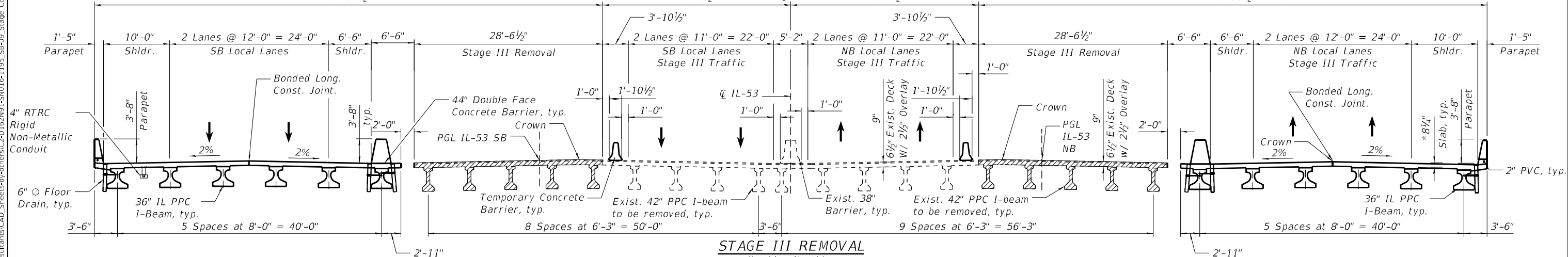
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

SHEET SB-08 OF SB-75 SHEETS

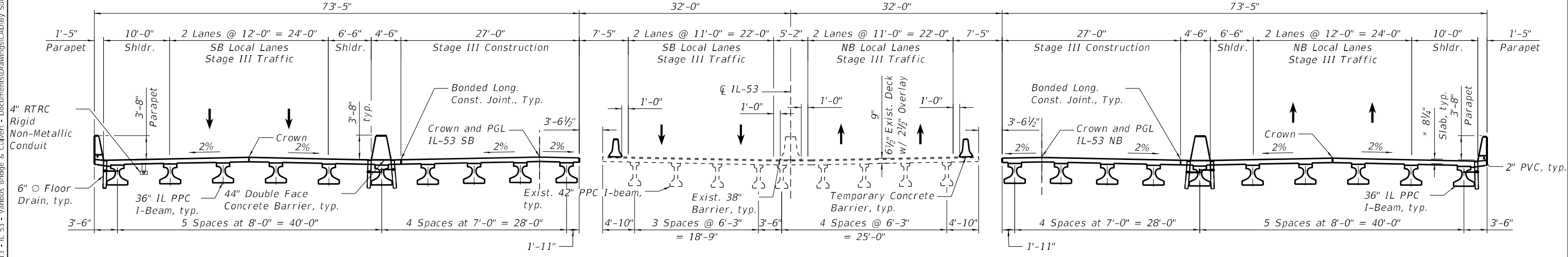
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STAGE II CONSTRUCTION
(Looking North)



STAGE III REMOVAL
(Looking North)



STAGE III CONSTRUCTION
(Looking North)

NOTES:

- Up to 1/4" to be ground off the bridge deck and bridge approach slabs. *Prior to Grinding
- See Roadway plans for Temporary Concrete Barrier.
- See Sheet SB-11 for Temporary Concrete Barrier Details.

LEGEND



USER NAME =	DESIGNED - KJD	REVISED -
CHECKED - MI	REVISIONS -	
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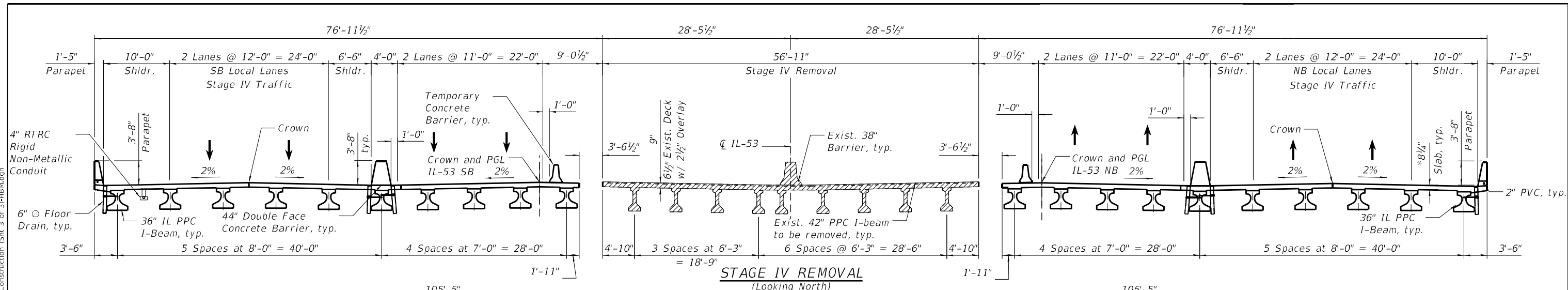
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION (SHEET 2 OF 3)
STRUCTURE NO. 016-1195**

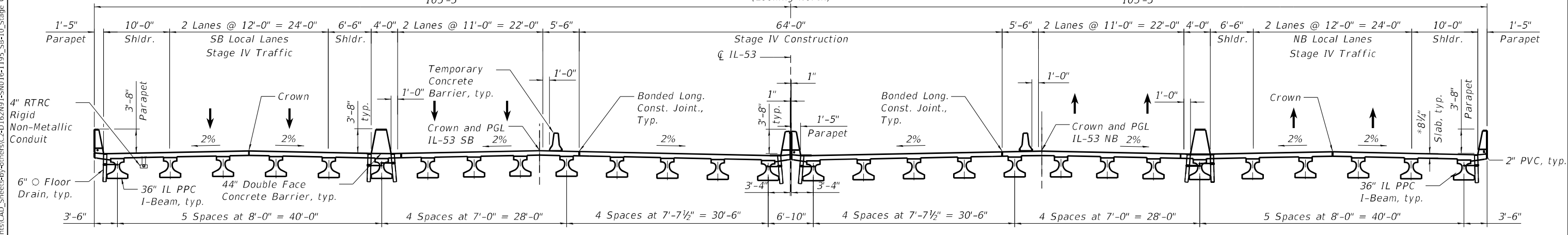
SHEET SB-09 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 862
			CONTRACT NO. 62N91	
		ILLINOIS FED. AID PROJECT		

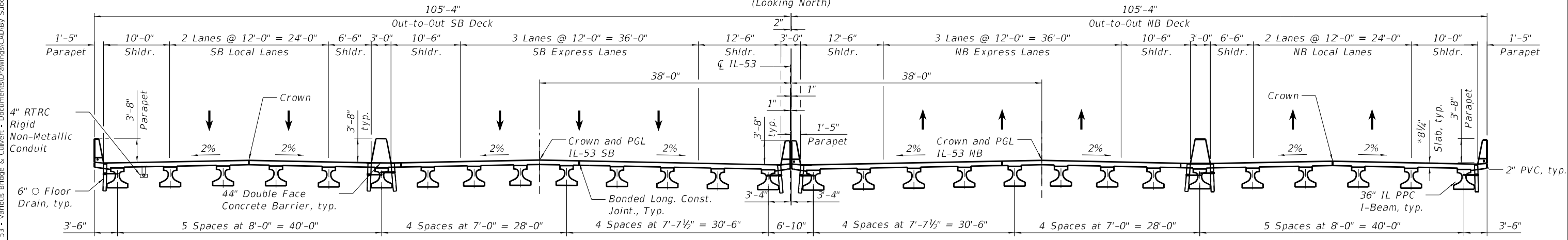
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STAGE IV REMOVAL
(Looking North)



STAGE IV CONSTRUCTION
(Looking North)



FINAL CROSS SECTION
(Looking North)

NOTES:

1. Up to 1/4" to be ground off the bridge deck and bridge approach slabs. *Prior to Grinding
2. See Roadway plans for Temporary Concrete Barrier.
3. See Sheet SB-11 for Temporary Concrete Barrier Details.

LEGEND

Removal of Existing Deck/Superstructure



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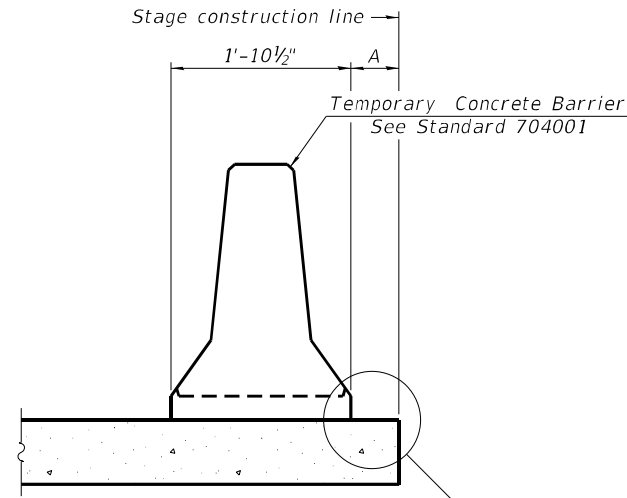
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION (SHEET 3 OF 3)
STRUCTURE NO. 016-1195**

SHEET SB-10 OF SB-75 SHEETS

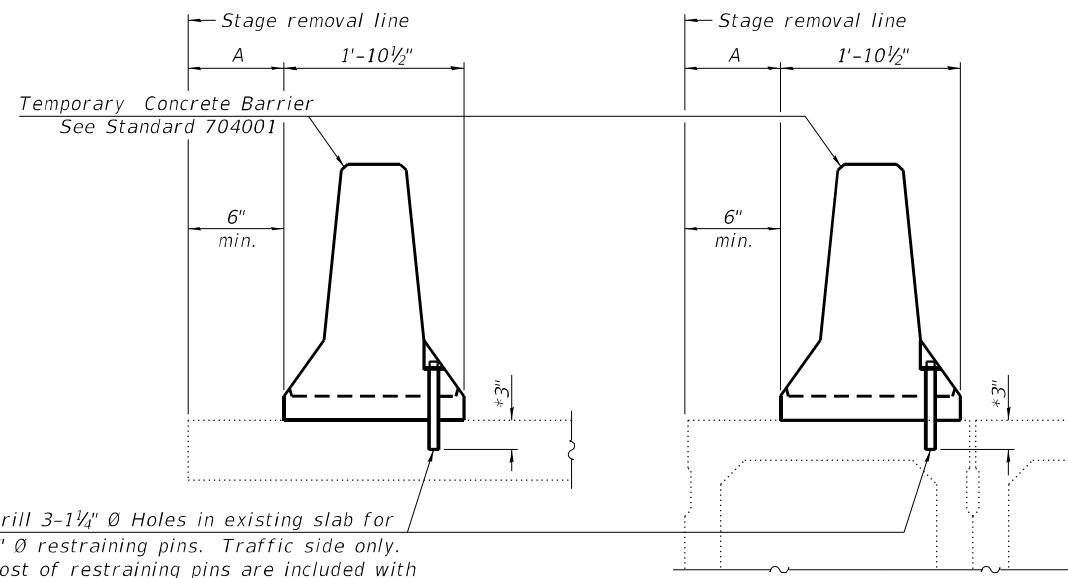
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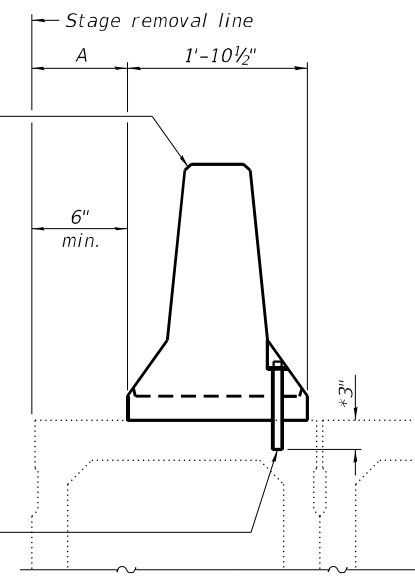
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



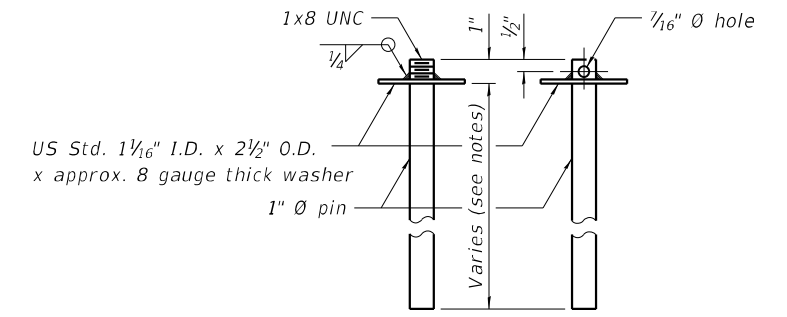
Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB



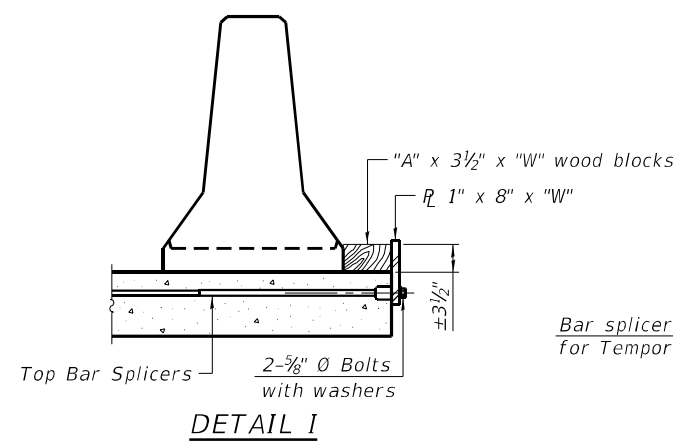
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

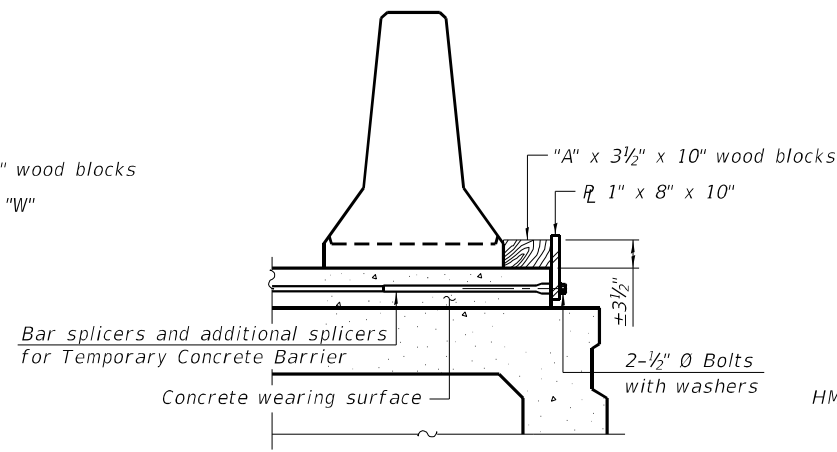


RESTRAINING PIN

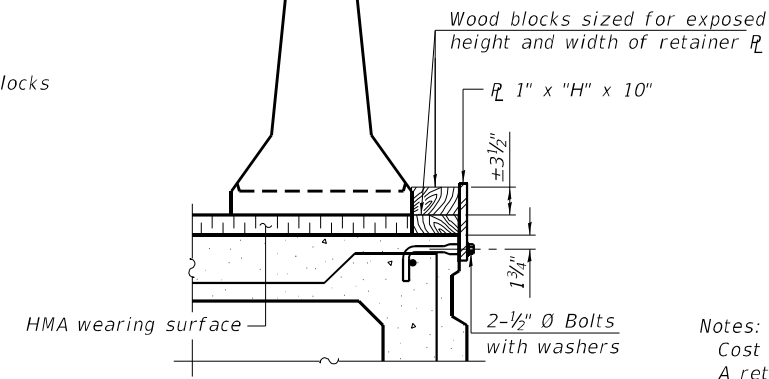
SECTIONS THRU SLAB OR DECK BEAM



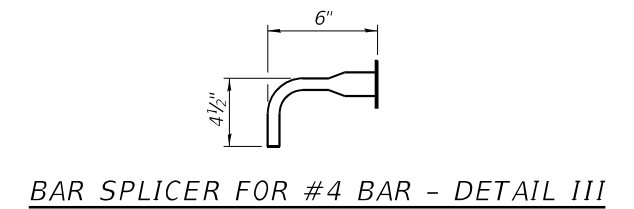
DETAIL I



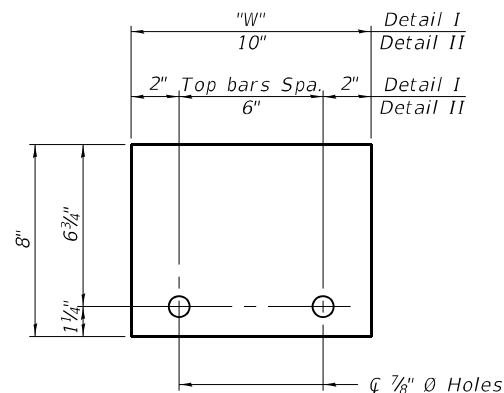
DETAIL II



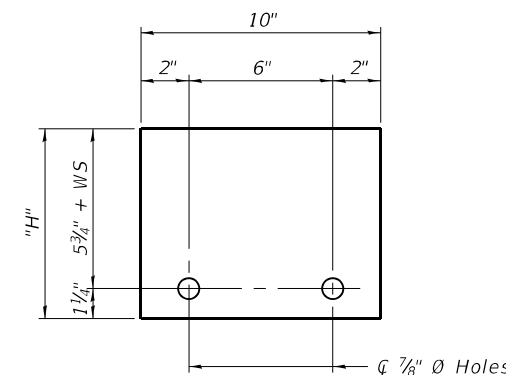
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate $\frac{1}{2}$ of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate.
 For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 05-15-2023



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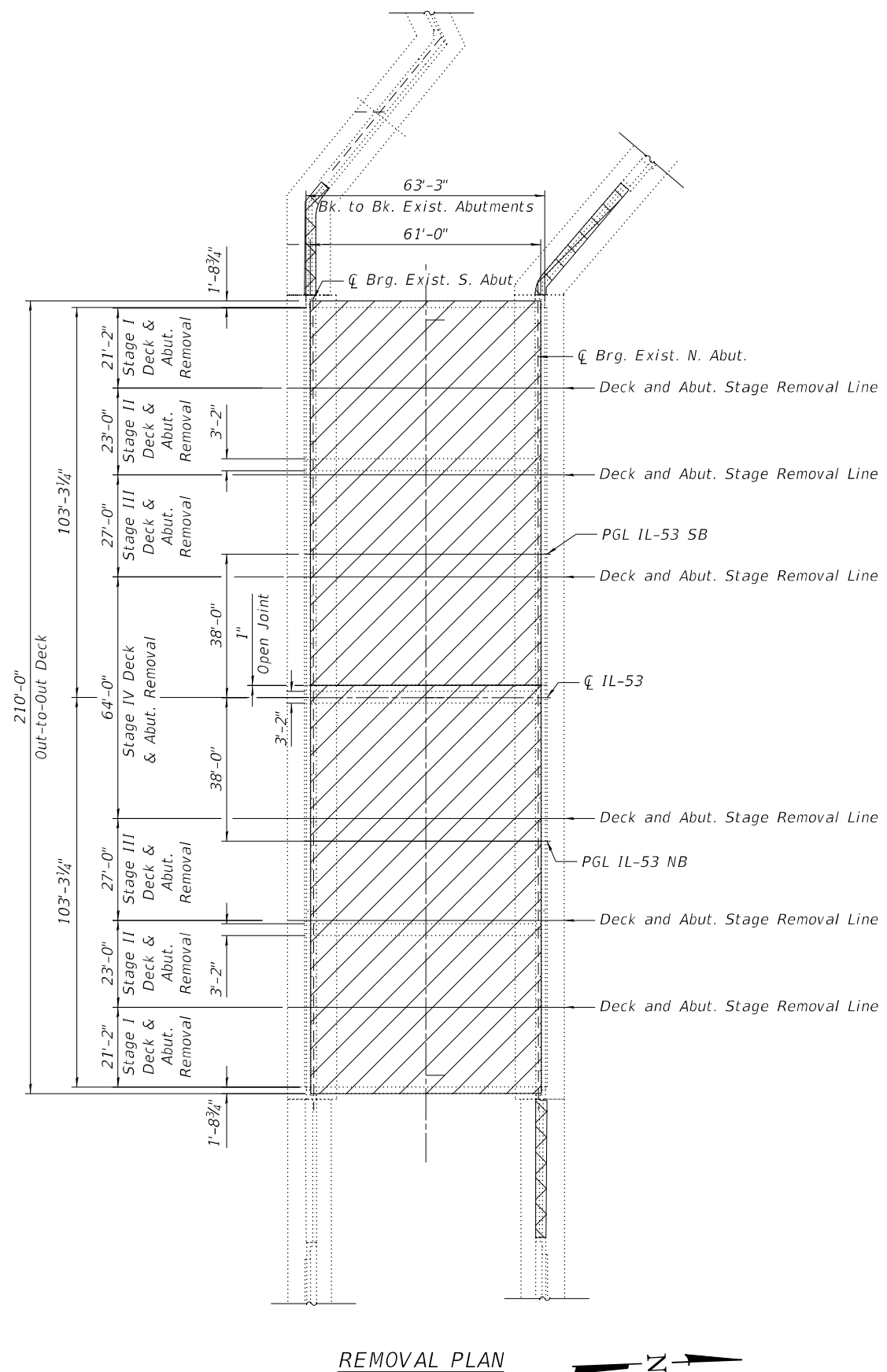
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 016-1195**

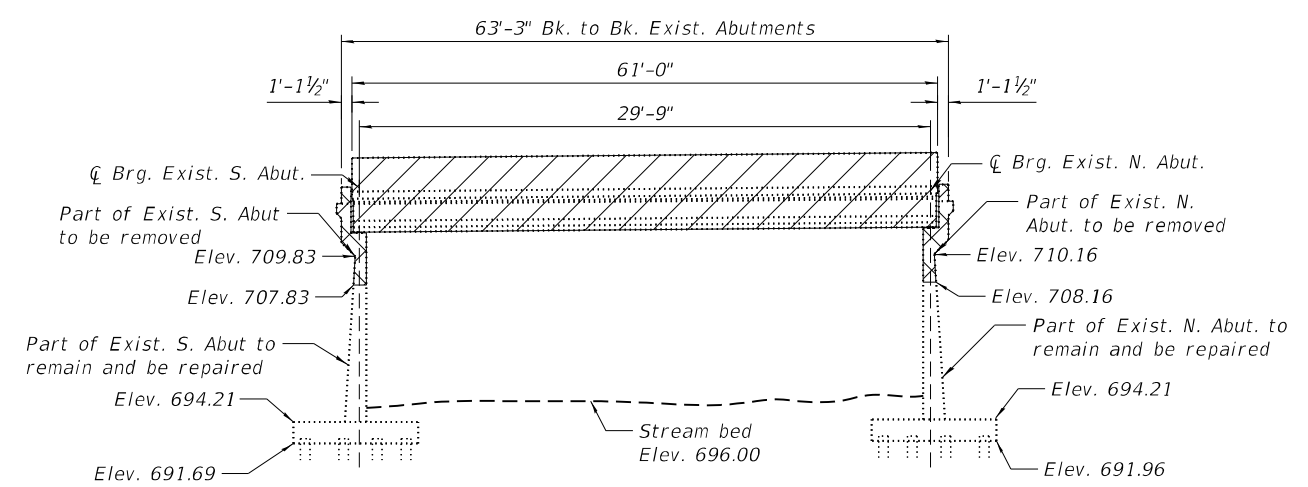
SHEET SB-11 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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REMOVAL PLAN



REMOVAL ELEVATION
(Looking North)

NOTES:

1. For suggested stages of construction and sequencing requirements, see Roadway Plans and Special Provisions.
2. For substructure removal details, see Sheets SB-14 thru SB-17.
3. For Temporary Soil Retention System limits and details, see Sheets SB-06 and SB-07.
4. The Contractor shall take all necessary precautions to protect existing utilities and adjacent structures during removal/construction of the bridge.
5. For Approach Slab Removal, See Roadway Plans.

LEGEND

- Removal of Existing Superstructures No. 5
- Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal Of Existing Superstructures No. 3	Each	1



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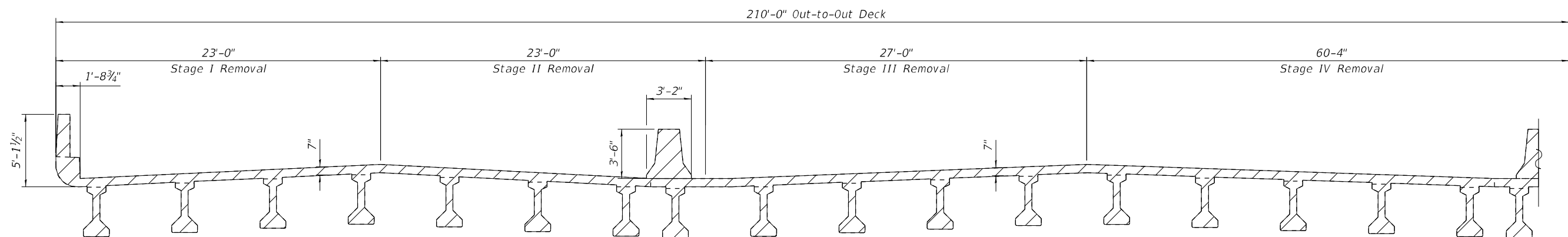
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURE REMOVAL PLAN AND ELEVATION
 STRUCTURE NO. 016-1195**

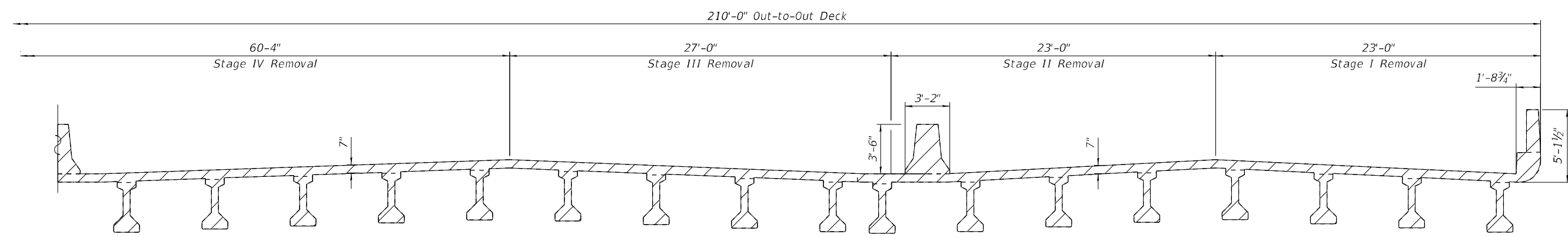
SHEET SB-12 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 62N91	

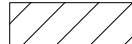
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DECK SECTION REMOVAL
 Exist. S.N. 016-0377
 Looking Upstation



DECK SECTION REMOVAL
 Exist. S.N. 016-0377
 Looking Upstation

LEGEND
 Removal of Existing Superstructure



USER NAME =	DESIGNED - EN	REVISED -
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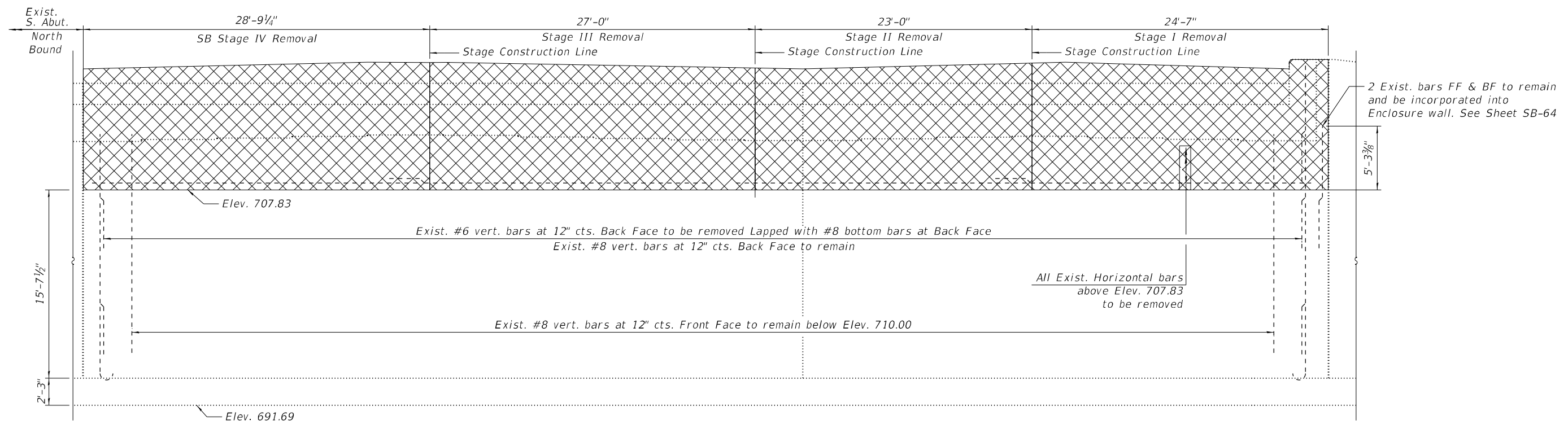
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXIST. STRUCT. REM. DECK SECTIONS AND ELEVATION
 STRUCTURE NO. 016-1195**

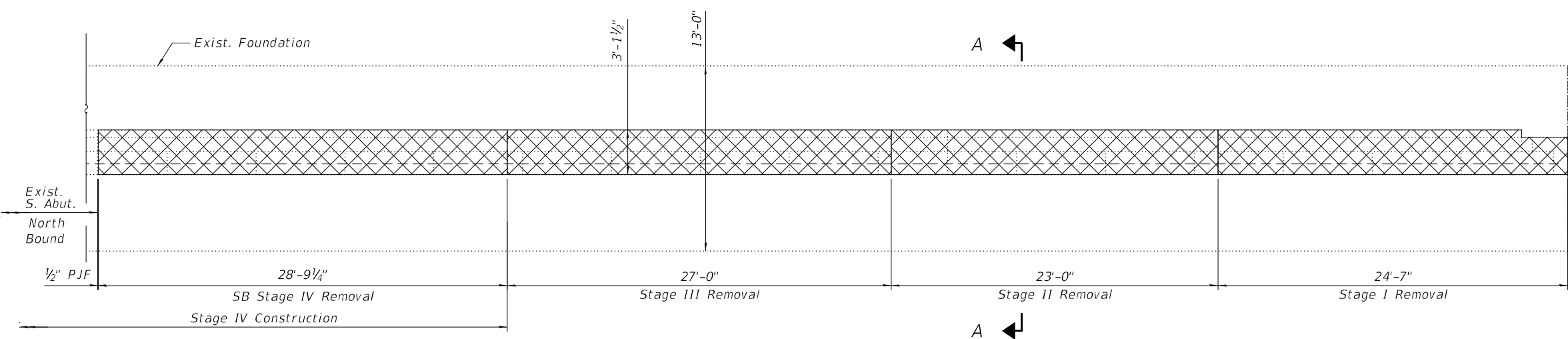
SHEET SB-13 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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REMOVAL ELEVATION



REMOVAL PLAN

NOTES:

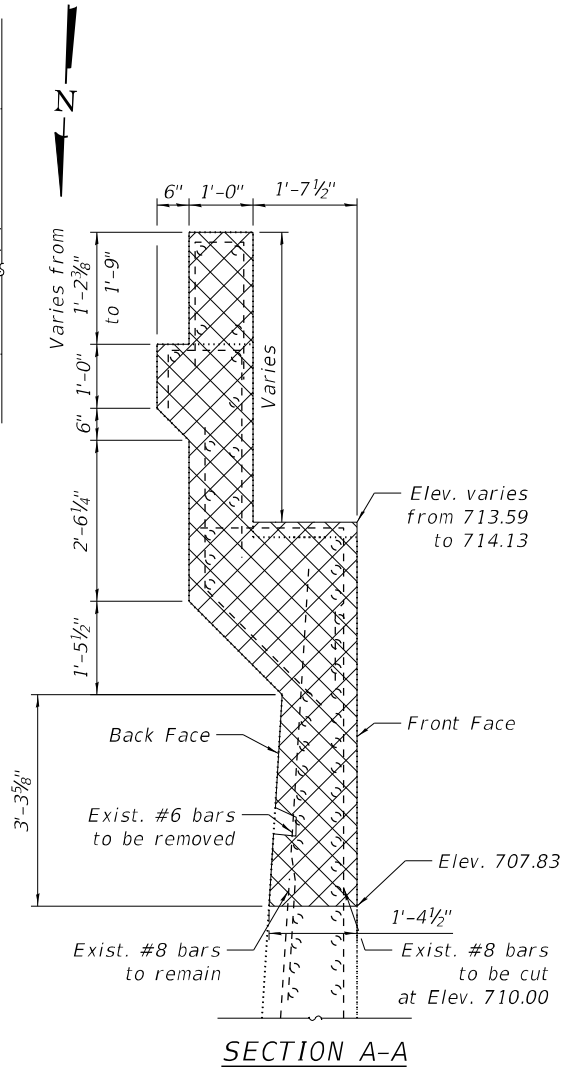
- For Concrete Repair of Existing South Abutment, see Sheet SB-49.
- Existing Reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- Removal of the portion of the failed wall that has fallen into Salt Creek shall be removed and shall not be paid for separately and shall be included in Concrete Removal.

LEGEND

Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	58.3



SECTION A-A



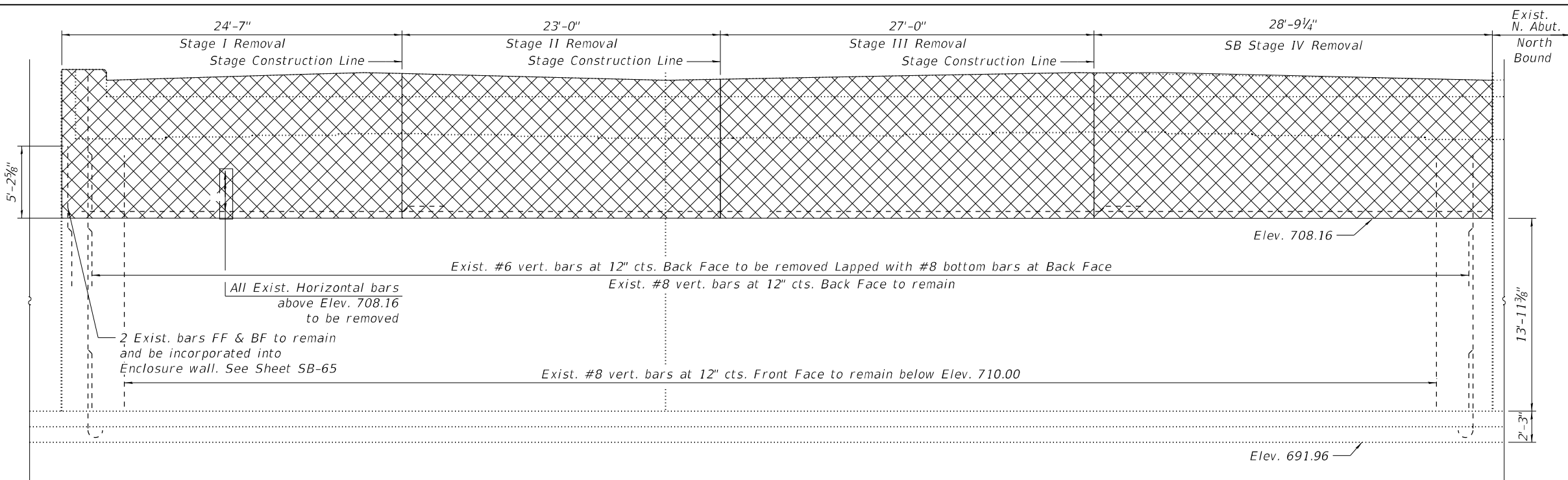
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

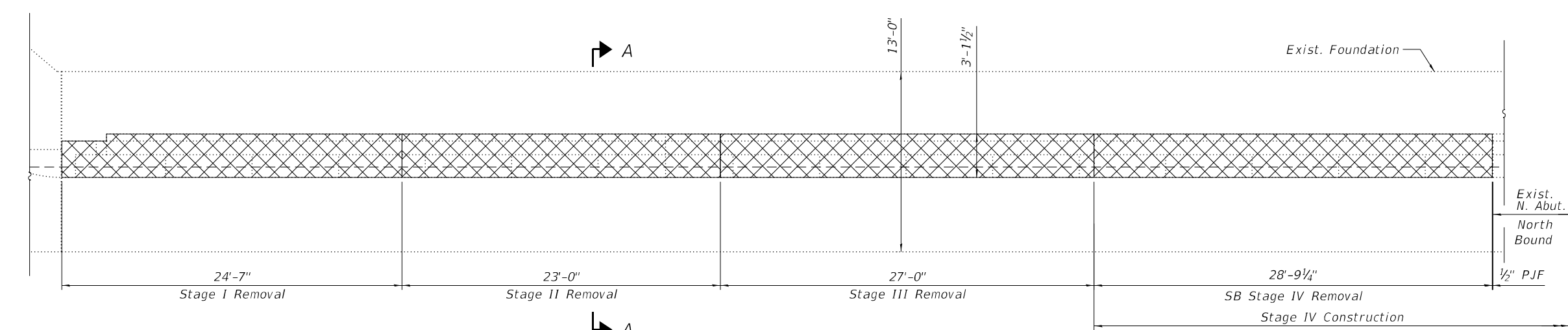
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STRUCTURE NO. 016-1195
 SHEET SB-14 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	867
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ILLINOIS FED. AID PROJECT				

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REMOVAL ELEVATION



REMOVAL PLAN

NOTES:

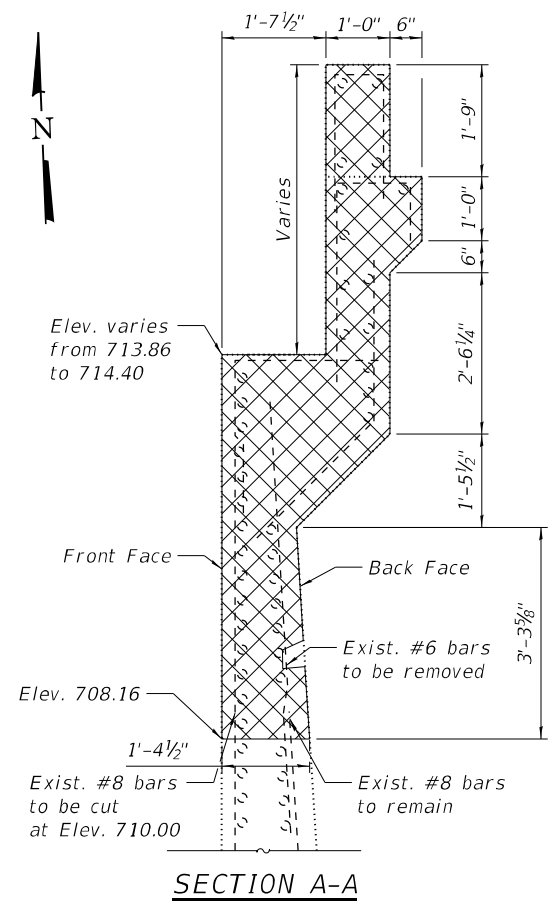
- For Concrete Repair of Existing North Abutment see Sheet SB-48.
- Existing Reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- Removal of the portion of the failed wall that has fallen into Salt Creek shall be removed and shall not be paid for separately and shall be included in Concrete Removal.

LEGEND

Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	58.3



SECTION A-A



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PLOT SCALE =	CHECKED - MI, PG	REVISED -
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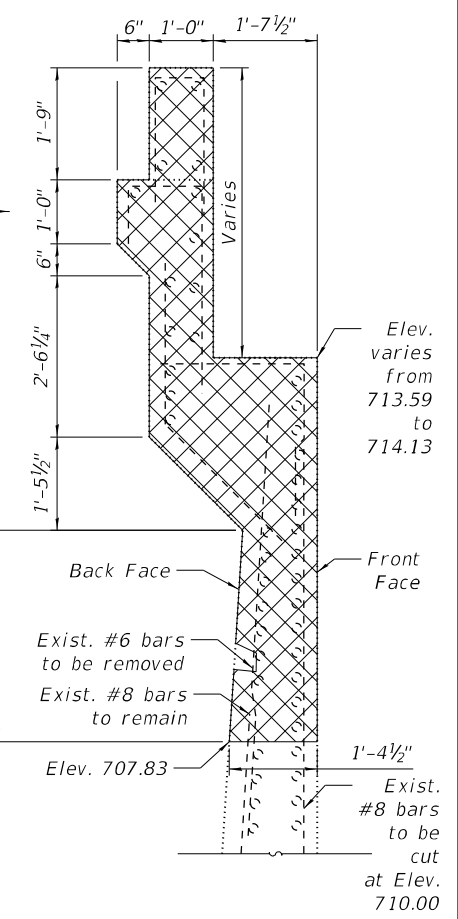
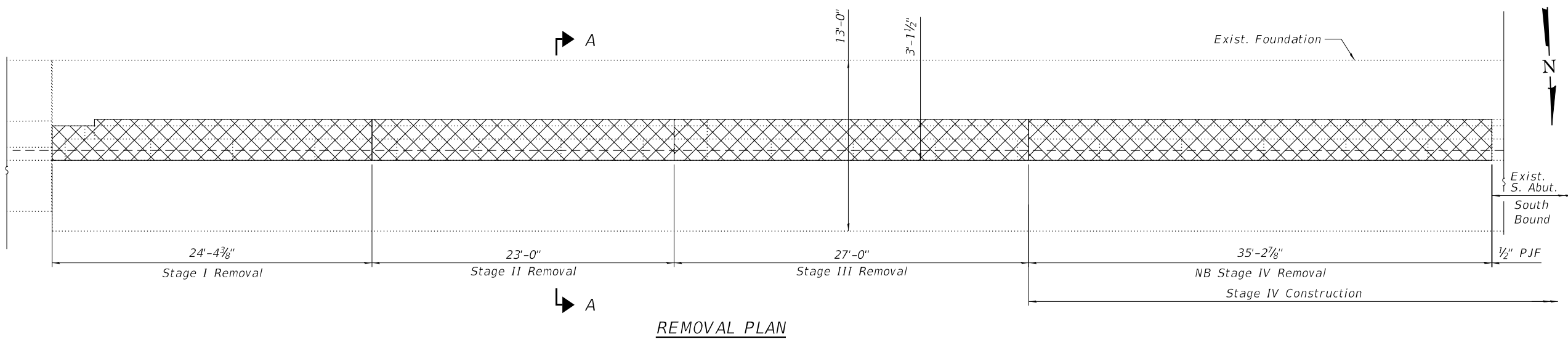
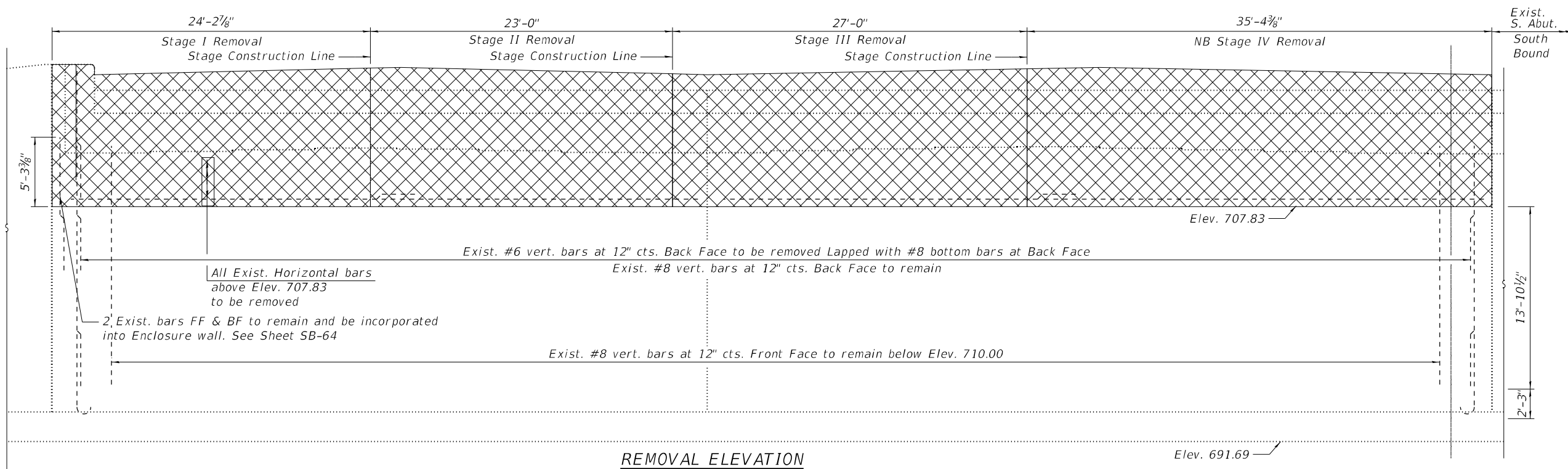
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXIST. SB N. ABUT. PARTIAL REMOVAL PLAN, ELEV. AND SECTIONS
 STRUCTURE NO. 016-1195**

SHEET SB-15 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 868
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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NOTES:

- For Concrete Repair of Existing South Abutment, see Sheet SB-51
- Existing Reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- Removal of the portion of the failed wall that has fallen into Salt Creek shall be removed and shall not be paid for separately and shall be included in Concrete Removal.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	61.8

LEGEND



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	CHECKED - MI, PG	REVISED -
PLOT SCALE =	DRAWN - EN	REVISED -
PLOT DATE =	CHECKED - MI, PG	REVISED -

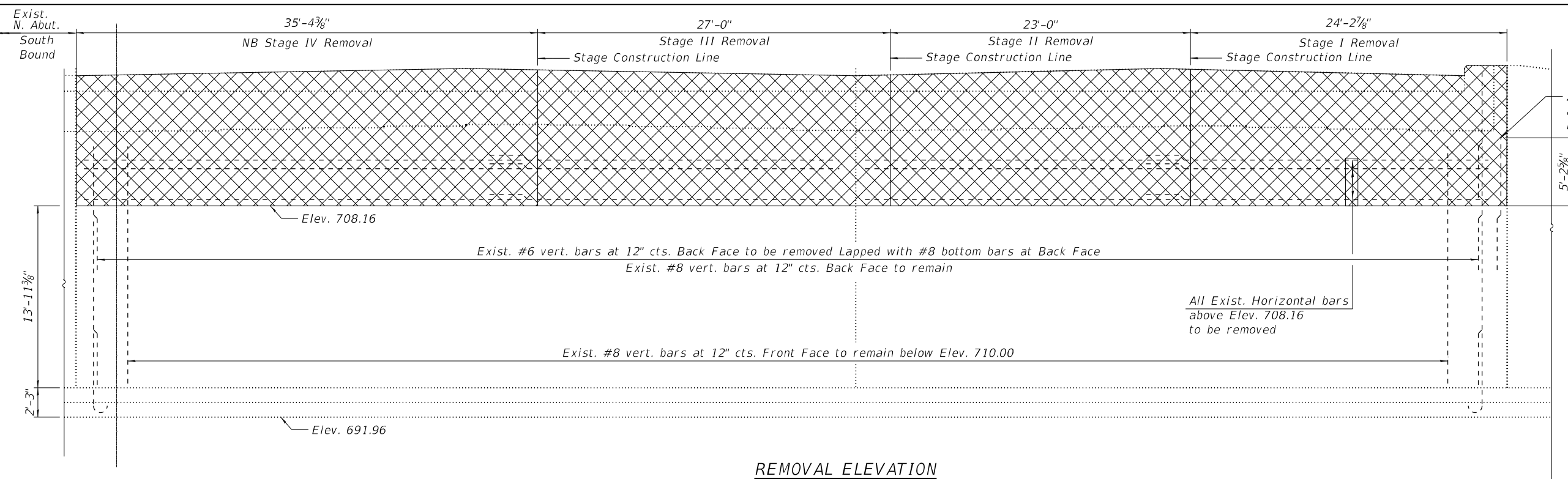
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXIST. NB S. ABUT. PARTIAL REMOVAL PLAN, ELEV. AND SECTIONS
STRUCTURE NO. 016-1195

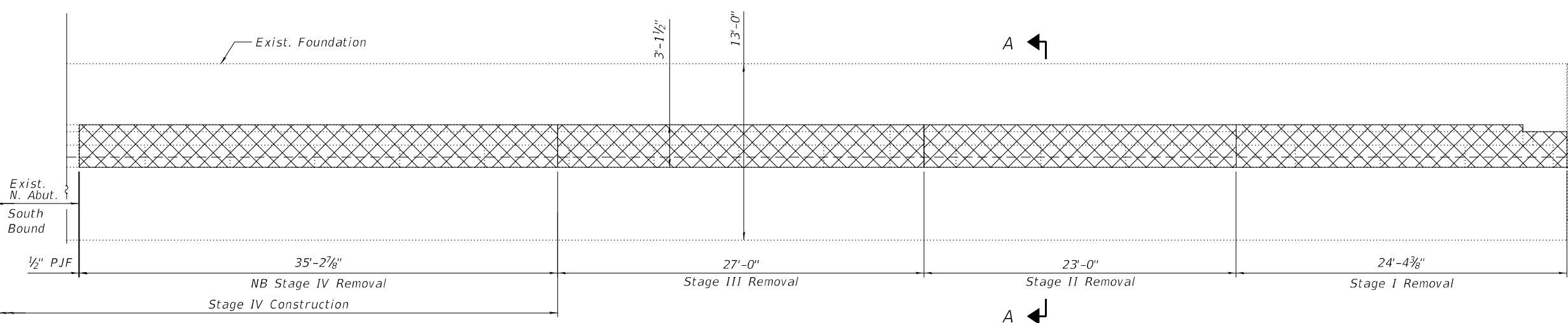
SHEET SB-16 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 869
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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REMOVAL ELEVATION



REMOVAL PLAN

NOTES:

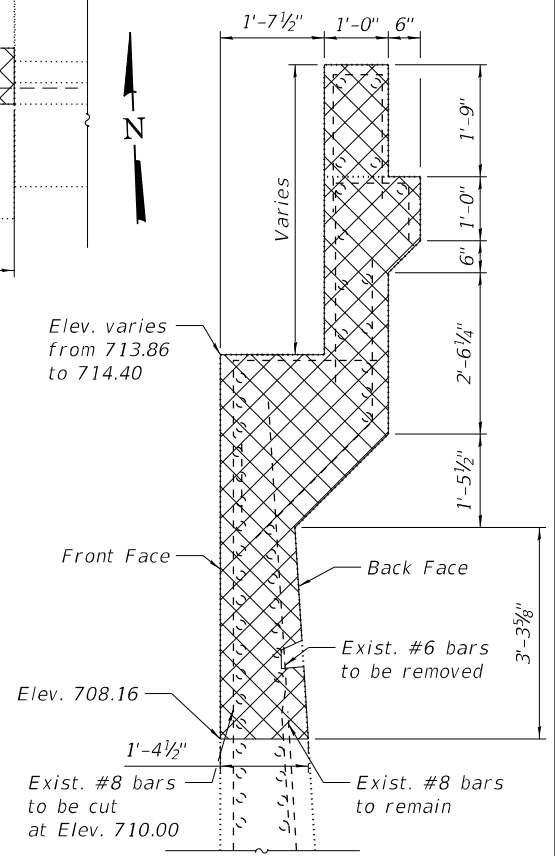
- For Concrete Repair of Existing North Abutment, see Sheet SB-50.
- Existing Reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- Removal of the portion of the failed wall that has fallen into Salt Creek shall be removed and shall not be paid for separately and shall be included in Concrete Removal.

LEGEND

Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	61.8



SECTION A-A



USER NAME =	DESIGNED - EN	REVISED -
PLOT SCALE =	CHECKED - MI, PG	REVISED -
PLOT DATE =	DRAWN - EN	REVISED -
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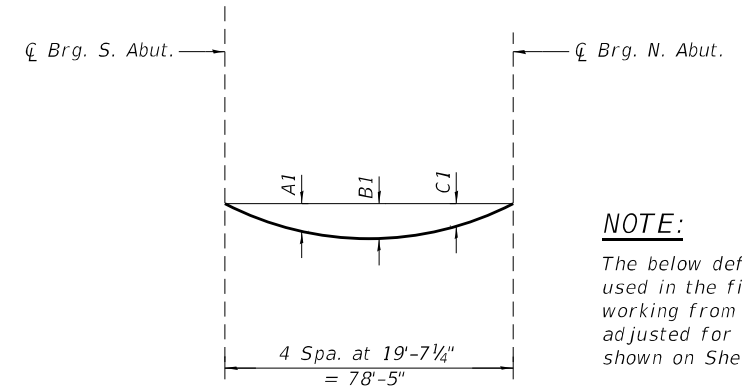
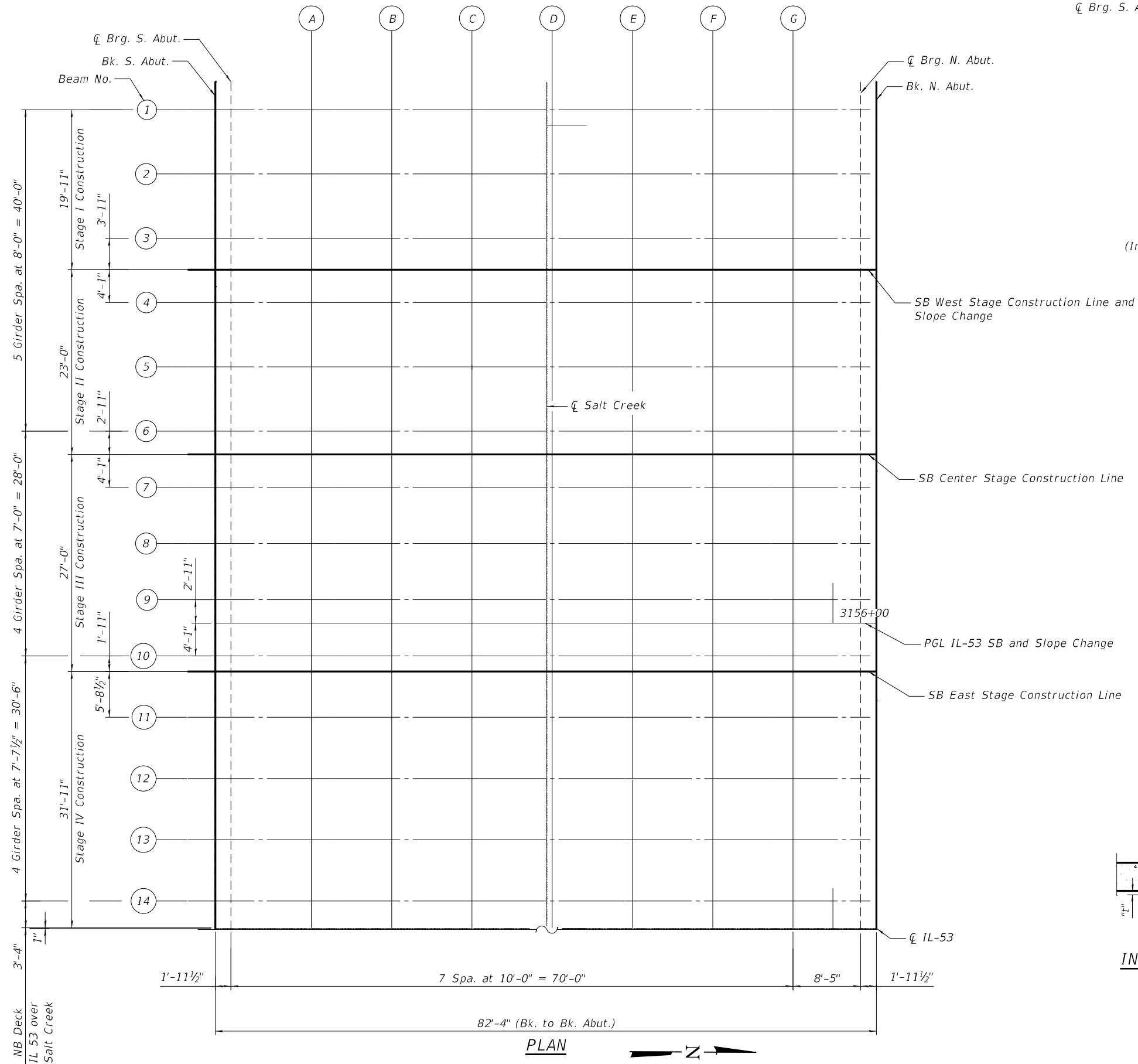
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXIST. NB N. ABUT. PARTIAL REMOVAL PLAN, ELEV. AND SECTIONS
STRUCTURE NO. 016-1195**

SHEET SB-17 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 870
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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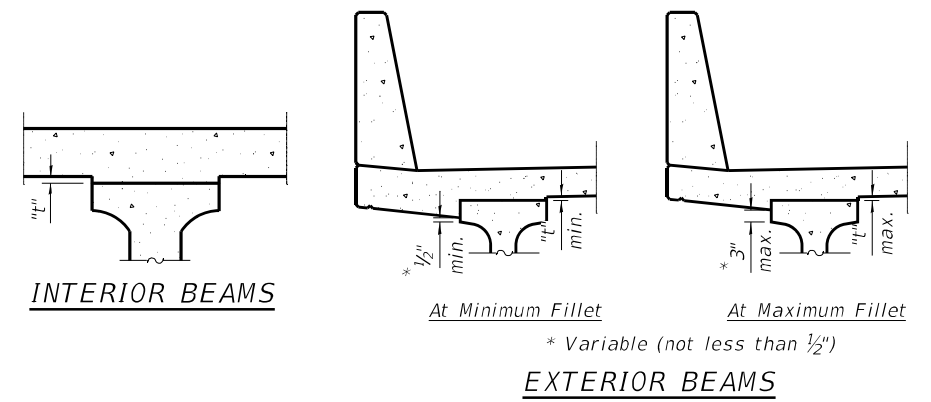
NOTE:
 The below deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets SB-19 thru SB-21.

DEAD LOAD DEFLECTION
 (Includes weight of concrete only excluding beams)

Beam #	DEAD LOAD DEFLECTIONS		
	Span 1		
	A1	B1	C1
1	1 1/4"	1 5/8"	1 1/4"
2, 14	1 1/8"	1 5/8"	1 1/8"
3	1"	1 1/2"	1"
4, 7, 13	1 1/8"	1 1/2"	1 1/8"
5	1 1/4"	1 3/4"	1 1/4"
6	1 3/8"	2"	1 3/8"
8, 12	1"	1 3/8"	1"
9	7/8"	1 1/8"	7/8"
10, 11	7/8"	1 1/4"	7/8"

FILLET HEIGHTS

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheets SB-19 thru SB-21. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on Sheets SB-19 thru SB-21, minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.
 The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on Sheets SB-19 thru SB-21. For grinding the deck, see Special Provisions.



* Variable (not less than 1/2")
EXTERIOR BEAMS

USER NAME =	DESIGNED - EN	REVISED -
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SB TOP OF SLAB ELEVATIONS LAYOUT
 STRUCTURE NO. 016-1195

SHEET SB-18 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	871
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



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BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	34.58'	717.67	717.70
☉ Brg. S. Abut.	3155+25.05	34.58'	717.68	717.70
A	3155+35.05	34.58'	717.72	717.79
B	3155+45.05	34.58'	717.75	717.87
C	3155+55.05	34.58'	717.79	717.93
D	3155+65.05	34.58'	717.82	717.98
E	3155+75.05	34.58'	717.86	718.00
F	3155+85.05	34.58'	717.89	718.01
G	3155+95.05	34.58'	717.93	717.99
☉ Brg. N. Abut.	3156+03.47	34.58'	717.96	717.98
Bk. N. Abut.	3156+05.42	34.58'	717.97	717.99

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	26.96'	717.83	717.85
☉ Brg. S. Abut.	3155+25.05	26.96'	717.83	717.85
A	3155+35.05	26.96'	717.87	717.94
B	3155+45.05	26.96'	717.90	718.02
C	3155+55.05	26.96'	717.94	718.08
D	3155+65.05	26.96'	717.98	718.12
E	3155+75.05	26.96'	718.01	718.15
F	3155+85.05	26.96'	718.05	718.15
G	3155+95.05	26.96'	718.08	718.14
☉ Brg. N. Abut.	3156+03.47	26.96'	718.11	718.13
Bk. N. Abut.	3156+05.42	26.96'	718.12	718.14

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	19.33'	717.98	718.00
☉ Brg. S. Abut.	3155+25.05	19.33'	717.99	718.01
A	3155+35.05	19.33'	718.02	718.09
B	3155+45.05	19.33'	718.06	718.16
C	3155+55.05	19.33'	718.09	718.22
D	3155+65.05	19.33'	718.13	718.27
E	3155+75.05	19.33'	718.16	718.29
F	3155+85.05	19.33'	718.20	718.30
G	3155+95.05	19.33'	718.23	718.29
☉ Brg. N. Abut.	3156+03.47	19.33'	718.26	718.28
Bk. N. Abut.	3156+05.42	19.33'	718.27	718.29

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	11.71'	718.13	718.15
☉ Brg. S. Abut.	3155+25.05	11.71'	718.14	718.16
A	3155+35.05	11.71'	718.17	718.24
B	3155+45.05	11.71'	718.21	718.31
C	3155+55.05	11.71'	718.24	718.36
D	3155+65.05	11.71'	718.28	718.40
E	3155+75.05	11.71'	718.32	718.43
F	3155+85.05	11.71'	718.35	718.44
G	3155+95.05	11.71'	718.39	718.44
☉ Brg. N. Abut.	3156+03.47	11.71'	718.42	718.44
Bk. N. Abut.	3156+05.42	11.71'	718.42	718.44

SB EAST STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	6.00'	718.25	718.27
☉ Brg. S. Abut.	3155+25.05	6.00'	718.25	718.27
A	3155+35.05	6.00'	718.29	718.35
B	3155+45.05	6.00'	718.32	718.42
C	3155+55.05	6.00'	718.36	718.47
D	3155+65.05	6.00'	718.39	718.51
E	3155+75.05	6.00'	718.43	718.54
F	3155+85.05	6.00'	718.47	718.55
G	3155+95.05	6.00'	718.50	718.55
☉ Brg. N. Abut.	3156+03.47	6.00'	718.53	718.55
Bk. N. Abut.	3156+05.42	6.00'	718.54	718.56

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	4.08'	718.28	718.31
☉ Brg. S. Abut.	3155+25.05	4.08'	718.29	718.31
A	3155+35.05	4.08'	718.33	718.39
B	3155+45.05	4.08'	718.36	718.45
C	3155+55.05	4.08'	718.40	718.51
D	3155+65.05	4.08'	718.43	718.55
E	3155+75.05	4.08'	718.47	718.58
F	3155+85.05	4.08'	718.50	718.59
G	3155+95.05	4.08'	718.54	718.59
☉ Brg. N. Abut.	3156+03.47	4.08'	718.57	718.59
Bk. N. Abut.	3156+05.42	4.08'	718.58	718.60



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SB TOP OF SLAB ELEVATION TABLES (SHEET 1 OF 3)
 STRUCTURE NO. 016-1195

SHEET SB-19 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	872
CONTRACT NO. 62N91				
ILLINOIS		FED. AID PROJECT		

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PGL IL-53 SB AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	0.00'	718.37	718.39
☉ Brg. S. Abut.	3155+25.05	0.00'	718.37	718.39
A	3155+35.05	0.00'	718.41	718.47
B	3155+45.05	0.00'	718.44	718.53
C	3155+55.05	0.00'	718.48	718.59
D	3155+65.05	0.00'	718.51	718.63
E	3155+75.05	0.00'	718.55	718.66
F	3155+85.05	0.00'	718.59	718.67
G	3155+95.05	0.00'	718.62	718.67
☉ Brg. N. Abut.	3156+03.47	0.00'	718.65	718.67
Bk. N. Abut.	3156+05.42	0.00'	718.66	718.68

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-2.92'	718.31	718.33
☉ Brg. S. Abut.	3155+25.05	-2.92'	718.31	718.34
A	3155+35.05	-2.92'	718.35	718.41
B	3155+45.05	-2.92'	718.39	718.48
C	3155+55.05	-2.92'	718.42	718.53
D	3155+65.05	-2.92'	718.46	718.57
E	3155+75.05	-2.92'	718.49	718.60
F	3155+85.05	-2.92'	718.53	718.61
G	3155+95.05	-2.92'	718.56	718.62
☉ Brg. N. Abut.	3156+03.47	-2.92'	718.59	718.61
Bk. N. Abut.	3156+05.42	-2.92'	718.60	718.62

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-9.92'	718.17	718.19
☉ Brg. S. Abut.	3155+25.05	-9.92'	718.17	718.20
A	3155+35.05	-9.92'	718.21	718.28
B	3155+45.05	-9.92'	718.25	718.35
C	3155+55.05	-9.92'	718.28	718.41
D	3155+65.05	-9.92'	718.32	718.45
E	3155+75.05	-9.92'	718.35	718.47
F	3155+85.05	-9.92'	718.39	718.48
G	3155+95.05	-9.92'	718.42	718.48
☉ Brg. N. Abut.	3156+03.47	-9.92'	718.45	718.47
Bk. N. Abut.	3156+05.42	-9.92'	718.46	718.48

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-16.92'	718.03	718.05
☉ Brg. S. Abut.	3155+25.05	-16.92'	718.03	718.06
A	3155+35.05	-16.92'	718.07	718.14
B	3155+45.05	-16.92'	718.11	718.22
C	3155+55.05	-16.92'	718.14	718.28
D	3155+65.05	-16.92'	718.18	718.33
E	3155+75.05	-16.92'	718.21	718.35
F	3155+85.05	-16.92'	718.25	718.35
G	3155+95.05	-16.92'	718.28	718.35
☉ Brg. N. Abut.	3156+03.47	-16.92'	718.31	718.33
Bk. N. Abut.	3156+05.42	-16.92'	718.32	718.34

SB CENTER STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-21.00'	717.95	717.97
☉ Brg. S. Abut.	3155+25.05	-21.00'	717.95	717.97
A	3155+35.05	-21.00'	717.99	718.08
B	3155+45.05	-21.00'	718.02	718.17
C	3155+55.05	-21.00'	718.06	718.24
D	3155+65.05	-21.00'	718.09	718.28
E	3155+75.05	-21.00'	718.13	718.30
F	3155+85.05	-21.00'	718.17	718.30
G	3155+95.05	-21.00'	718.20	718.28
☉ Brg. N. Abut.	3156+03.47	-21.00'	718.23	718.25
Bk. N. Abut.	3156+05.42	-21.00'	718.24	718.26

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-23.92'	717.92	717.94
☉ Brg. S. Abut.	3155+25.05	-23.92'	717.92	717.94
A	3155+35.05	-23.92'	717.96	718.05
B	3155+45.05	-23.92'	717.99	718.14
C	3155+55.05	-23.92'	718.03	718.21
D	3155+65.05	-23.92'	718.06	718.25
E	3155+75.05	-23.92'	718.10	718.27
F	3155+85.05	-23.92'	718.14	718.27
G	3155+95.05	-23.92'	718.17	718.25
☉ Brg. N. Abut.	3156+03.47	-23.92'	718.20	718.22
Bk. N. Abut.	3156+05.42	-23.92'	718.21	718.23



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SB TOP OF SLAB ELEVATION TABLES (SHEET 2 OF 3)
 STRUCTURE NO. 016-1195**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	873
CONTRACT NO. 62N91				
ILLINOIS		FED. AID PROJECT		

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BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-31.92'	718.04	718.07
☉ Brg. S. Abut.	3155+25.05	-31.92'	718.05	718.07
A	3155+35.05	-31.92'	718.09	718.16
B	3155+45.05	-31.92'	718.12	718.25
C	3155+55.05	-31.92'	718.16	718.31
D	3155+65.05	-31.92'	718.19	718.35
E	3155+75.05	-31.92'	718.23	718.38
F	3155+85.05	-31.92'	718.26	718.38
G	3155+95.05	-31.92'	718.30	718.37
☉ Brg. N. Abut.	3156+03.47	-31.92'	718.33	718.35
Bk. N. Abut.	3156+05.42	-31.92'	718.34	718.36

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-39.92'	718.20	718.23
☉ Brg. S. Abut.	3155+25.05	-39.92'	718.21	718.23
A	3155+35.05	-39.92'	718.25	718.32
B	3155+45.05	-39.92'	718.28	718.39
C	3155+55.05	-39.92'	718.32	718.45
D	3155+65.05	-39.92'	718.35	718.50
E	3155+75.05	-39.92'	718.39	718.52
F	3155+85.05	-39.92'	718.42	718.53
G	3155+95.05	-39.92'	718.46	718.52
☉ Brg. N. Abut.	3156+03.47	-39.92'	718.49	718.51
Bk. N. Abut.	3156+05.42	-39.92'	718.50	718.52

SB WEST STAGE CONSTRUCTION LINE AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-44.00'	718.29	718.31
☉ Brg. S. Abut.	3155+25.05	-44.00'	718.29	718.31
A	3155+35.05	-44.00'	718.33	718.40
B	3155+45.05	-44.00'	718.36	718.47
C	3155+55.05	-44.00'	718.40	718.54
D	3155+65.05	-44.00'	718.43	718.58
E	3155+75.05	-44.00'	718.47	718.60
F	3155+85.05	-44.00'	718.51	718.61
G	3155+95.05	-44.00'	718.54	718.60
☉ Brg. N. Abut.	3156+03.47	-44.00'	718.57	718.59
Bk. N. Abut.	3156+05.42	-44.00'	718.58	718.60

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-47.92'	718.21	718.23
☉ Brg. S. Abut.	3155+25.05	-47.92'	718.21	718.24
A	3155+35.05	-47.92'	718.25	718.32
B	3155+45.05	-47.92'	718.29	718.40
C	3155+55.05	-47.92'	718.32	718.46
D	3155+65.05	-47.92'	718.36	718.50
E	3155+75.05	-47.92'	718.39	718.52
F	3155+85.05	-47.92'	718.43	718.53
G	3155+95.05	-47.92'	718.46	718.52
☉ Brg. N. Abut.	3156+03.47	-47.92'	718.49	718.51
Bk. N. Abut.	3156+05.42	-47.92'	718.50	718.52

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-55.92'	718.05	718.07
☉ S. Abut.	3155+25.05	-55.92'	718.05	718.08
A	3155+35.05	-55.92'	718.09	718.16
B	3155+45.05	-55.92'	718.13	718.24
C	3155+55.05	-55.92'	718.16	718.30
D	3155+65.05	-55.92'	718.20	718.35
E	3155+75.05	-55.92'	718.23	718.37
F	3155+85.05	-55.92'	718.27	718.38
G	3155+95.05	-55.92'	718.30	718.37
☉ N. Abut.	3156+03.47	-55.92'	718.33	718.35
Bk. N. Abut.	3156+05.42	-55.92'	718.34	718.36

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	3155+23.09	-63.92'	717.89	717.91
☉ Brg. S. Abut.	3155+25.05	-63.92'	717.89	717.92
A	3155+35.05	-63.92'	717.93	718.01
B	3155+45.05	-63.92'	717.97	718.09
C	3155+55.05	-63.92'	718.00	718.15
D	3155+65.05	-63.92'	718.04	718.20
E	3155+75.05	-63.92'	718.07	718.22
F	3155+85.05	-63.92'	718.11	718.22
G	3155+95.05	-63.92'	718.14	718.21
☉ Brg. N. Abut.	3156+03.47	-63.92'	718.17	718.19
Bk. N. Abut.	3156+05.42	-63.92'	718.18	718.20



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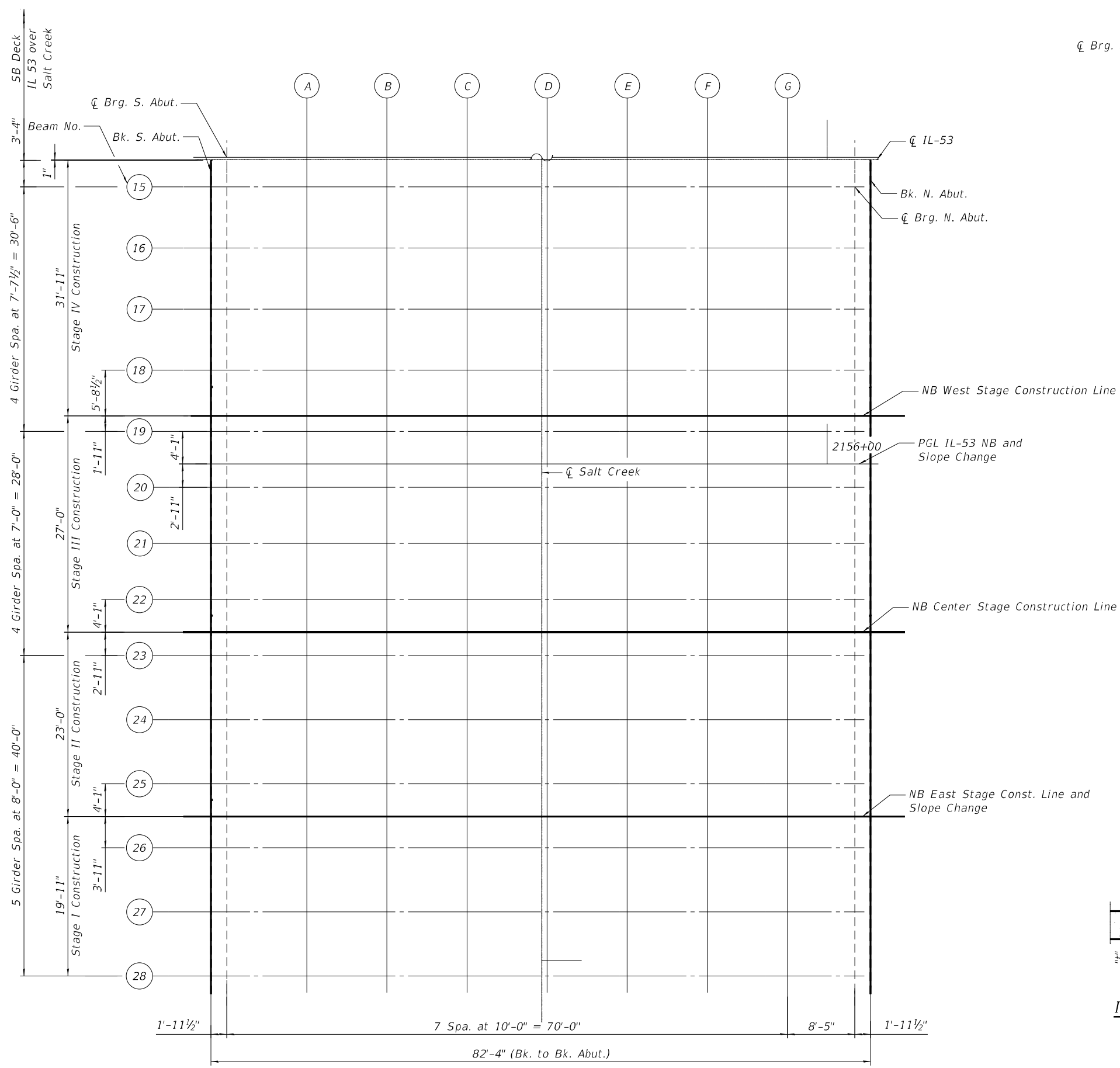
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SB TOP OF SLAB ELEVATION TABLES (SHEET 3 OF 3)
 STRUCTURE NO. 016-1195

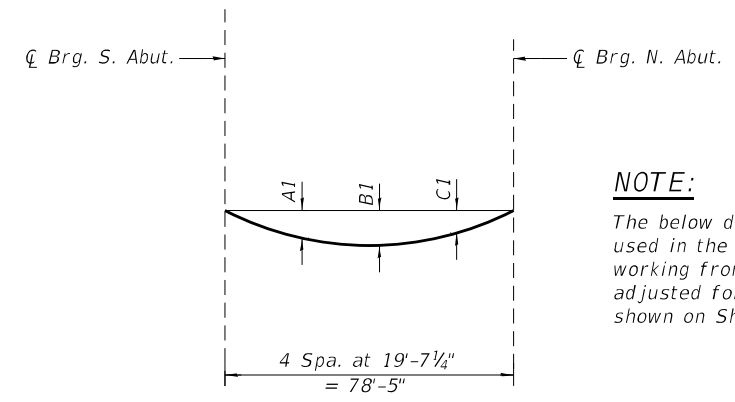
SHEET SB-21 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	874
CONTRACT NO. 62N91				
ILLINOIS		FED. AID PROJECT		

MODEL: Default
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PLAN



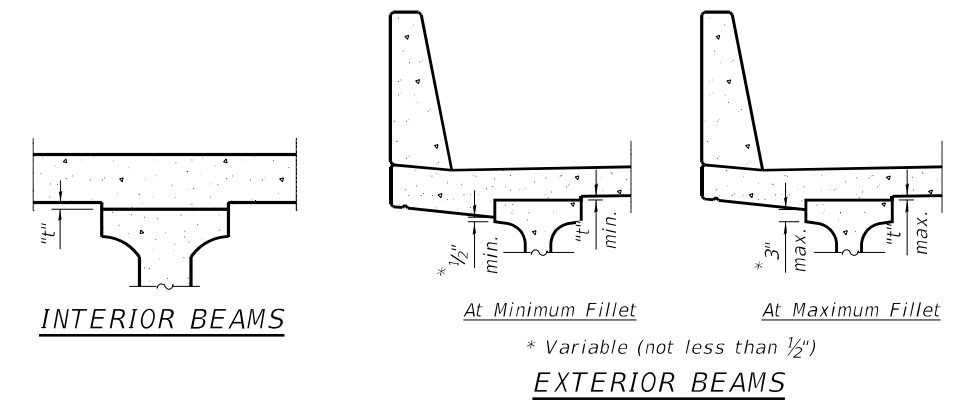
DEAD LOAD DEFLECTION
 (Includes weight of concrete only excluding beams)

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

Beam #	DEAD LOAD DEFLECTIONS		
	Span 1		
	A1	B1	C1
15, 27	1 1/8"	1 5/8"	1 1/8"
16, 22, 25	1 1/8"	1 1/2"	1 1/8"
17, 21	1"	1 3/8"	1"
18, 19	7/8"	1 1/4"	7/8"
20	7/8"	1 1/8"	7/8"
23	1 3/8"	2"	1 3/8"
24	1 1/4"	1 3/4"	1 1/4"
26	1"	1 1/2"	1"
28	1 1/4"	1 5/8"	1 1/4"

FILLET HEIGHTS

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheets SB-23 thru SB-25. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on Sheets SB-23 thru SB-25, minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams. The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on Sheets SB-23 thru SB-25. For grinding the deck, see Special Provisions.



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NB TOP OF SLAB ELEVATIONS LAYOUT
 STRUCTURE NO. 016-1195

SHEET SB-22 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	875
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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BEAM 28

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	63.92'	717.83	717.85
☉ Brg. S. Abut.	2155+25.05	63.92'	717.84	717.86
A	2155+35.05	63.92'	717.87	717.95
B	2155+45.05	63.92'	717.91	718.03
C	2155+55.05	63.92'	717.94	718.09
D	2155+65.05	63.92'	717.98	718.14
E	2155+75.05	63.92'	718.01	718.16
F	2155+85.05	63.92'	718.05	718.16
G	2155+95.05	63.92'	718.08	718.15
☉ Brg. N. Abut.	2156+03.47	63.92'	718.11	718.14
Bk. N. Abut.	2156+05.42	63.92'	718.12	718.14

BEAM 27

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	55.92'	717.99	718.01
☉ Brg. S. Abut.	2155+25.05	55.92'	718.00	718.02
A	2155+35.05	55.92'	718.03	718.10
B	2155+45.05	55.92'	718.07	718.18
C	2155+55.05	55.92'	718.10	718.25
D	2155+65.05	55.92'	718.14	718.29
E	2155+75.05	55.92'	718.17	718.31
F	2155+85.05	55.92'	718.21	718.32
G	2155+95.05	55.92'	718.24	718.31
☉ Brg. N. Abut.	2156+03.47	55.92'	718.27	718.30
Bk. N. Abut.	2156+05.42	55.92'	718.28	718.30

BEAM 26

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	47.92'	718.15	718.17
☉ Brg. S. Abut.	2155+25.05	47.92'	718.16	718.18
A	2155+35.05	47.92'	718.19	718.26
B	2155+45.05	47.92'	718.23	718.34
C	2155+55.05	47.92'	718.26	718.40
D	2155+65.05	47.92'	718.30	718.44
E	2155+75.05	47.92'	718.33	718.47
F	2155+85.05	47.92'	718.37	718.47
G	2155+95.05	47.92'	718.40	718.47
☉ Brg. N. Abut.	2156+03.47	47.92'	718.43	718.46
Bk. N. Abut.	2156+05.42	47.92'	718.44	718.46

NB EAST STAGE CONST. LINE AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	44.00'	718.23	718.25
☉ Brg. S. Abut.	2155+25.05	44.00'	718.23	718.25
A	2155+35.05	44.00'	718.27	718.34
B	2155+45.05	44.00'	718.31	718.42
C	2155+55.05	44.00'	718.34	718.48
D	2155+65.05	44.00'	718.38	718.52
E	2155+75.05	44.00'	718.41	718.55
F	2155+85.05	44.00'	718.45	718.55
G	2155+95.05	44.00'	718.48	718.55
☉ Brg. N. Abut.	2156+03.47	44.00'	718.51	718.53
Bk. N. Abut.	2156+05.42	44.00'	718.52	718.54

BEAM 25

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	39.92'	718.15	718.17
☉ Brg. S. Abut.	2155+25.05	39.92'	718.15	718.17
A	2155+35.05	39.92'	718.19	718.26
B	2155+45.05	39.92'	718.22	718.33
C	2155+55.05	39.92'	718.26	718.40
D	2155+65.05	39.92'	718.29	718.44
E	2155+75.05	39.92'	718.33	718.46
F	2155+85.05	39.92'	718.37	718.47
G	2155+95.05	39.92'	718.40	718.46
☉ Brg. N. Abut.	2156+03.47	39.92'	718.43	718.45
Bk. N. Abut.	2156+05.42	39.92'	718.44	718.46

BEAM 24

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	31.92'	717.99	718.01
☉ Brg. S. Abut.	2155+25.05	31.92'	717.99	718.01
A	2155+35.05	31.92'	718.03	718.10
B	2155+45.05	31.92'	718.06	718.19
C	2155+55.05	31.92'	718.10	718.25
D	2155+65.05	31.92'	718.13	718.30
E	2155+75.05	31.92'	718.17	718.32
F	2155+85.05	31.92'	718.21	718.32
G	2155+95.05	31.92'	718.24	718.31
☉ Brg. N. Abut.	2156+03.47	31.92'	718.27	718.29
Bk. N. Abut.	2156+05.42	31.92'	718.28	718.30



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 DEPARTMENT OF TRANSPORTATION**

**NB TOP OF SLAB ELEVATION TABLES (SHEET 1 OF 3)
 STRUCTURE NO. 016-1195**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	876
CONTRACT NO. 62N91				
		ILLINOIS	FED. AID PROJECT	

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BEAM 23

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	23.92'	717.86	717.88
☉ Brg. S. Abut.	2155+25.05	23.92'	717.86	717.88
A	2155+35.05	23.92'	717.90	717.99
B	2155+45.05	23.92'	717.94	718.08
C	2155+55.05	23.92'	717.97	718.15
D	2155+65.05	23.92'	718.01	718.20
E	2155+75.05	23.92'	718.04	718.22
F	2155+85.05	23.92'	718.08	718.21
G	2155+95.05	23.92'	718.11	718.19
☉ Brg. N. Abut.	2156+03.47	23.92'	718.14	718.16
Bk. N. Abut.	2156+05.42	23.92'	718.15	718.17

NB CENTER STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	21.00'	717.89	717.91
☉ Brg. S. Abut.	2155+25.05	21.00'	717.89	717.91
A	2155+35.05	21.00'	717.93	718.02
B	2155+45.05	21.00'	717.97	718.11
C	2155+55.05	21.00'	718.00	718.18
D	2155+65.05	21.00'	718.04	718.23
E	2155+75.05	21.00'	718.07	718.25
F	2155+85.05	21.00'	718.11	718.24
G	2155+95.05	21.00'	718.14	718.22
☉ Brg. N. Abut.	2156+03.47	21.00'	718.17	718.19
Bk. N. Abut.	2156+05.42	21.00'	718.18	718.20

BEAM 22

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	16.92'	717.97	717.99
☉ Brg. S. Abut.	2155+25.05	16.92'	717.98	718.00
A	2155+35.05	16.92'	718.01	718.08
B	2155+45.05	16.92'	718.05	718.16
C	2155+55.05	16.92'	718.08	718.22
D	2155+65.05	16.92'	718.12	718.27
E	2155+75.05	16.92'	718.15	718.29
F	2155+85.05	16.92'	718.19	718.30
G	2155+95.05	16.92'	718.22	718.29
☉ Brg. N. Abut.	2156+03.47	16.92'	718.25	718.28
Bk. N. Abut.	2156+05.42	16.92'	718.26	718.28

BEAM 21

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	9.92'	718.11	718.13
☉ Brg. S. Abut.	2155+25.05	9.92'	718.12	718.14
A	2155+35.05	9.92'	718.15	718.22
B	2155+45.05	9.92'	718.19	718.29
C	2155+55.05	9.92'	718.22	718.35
D	2155+65.05	9.92'	718.26	718.39
E	2155+75.05	9.92'	718.29	718.42
F	2155+85.05	9.92'	718.33	718.43
G	2155+95.05	9.92'	718.36	718.42
☉ Brg. N. Abut.	2156+03.47	9.92'	718.39	718.42
Bk. N. Abut.	2156+05.42	9.92'	718.40	718.42

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	2.92'	718.25	718.27
☉ Brg. S. Abut.	2155+25.05	2.92'	718.26	718.28
A	2155+35.05	2.92'	718.29	718.35
B	2155+45.05	2.92'	718.33	718.42
C	2155+55.05	2.92'	718.36	718.47
D	2155+65.05	2.92'	718.40	718.51
E	2155+75.05	2.92'	718.43	718.54
F	2155+85.05	2.92'	718.47	718.55
G	2155+95.05	2.92'	718.50	718.56
☉ Brg. N. Abut.	2156+03.47	2.92'	718.53	718.56
Bk. N. Abut.	2156+05.42	2.92'	718.54	718.56

PGL IL-53 NB AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	0.00'	718.31	718.33
☉ Brg. S. Abut.	2155+25.05	0.00'	718.31	718.33
A	2155+35.05	0.00'	718.35	718.41
B	2155+45.05	0.00'	718.39	718.48
C	2155+55.05	0.00'	718.42	718.53
D	2155+65.05	0.00'	718.46	718.57
E	2155+75.05	0.00'	718.49	718.60
F	2155+85.05	0.00'	718.53	718.61
G	2155+95.05	0.00'	718.56	718.62
☉ Brg. N. Abut.	2156+03.47	0.00'	718.59	718.61
Bk. N. Abut.	2156+05.42	0.00'	718.60	718.62



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**NB TOP OF SLAB ELEVATION TABLES (SHEET 2 OF 3)
 STRUCTURE NO. 016-1195**

SHEET SB-24 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	877
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	-4.08'	718.23	718.25
☉ Brg. S. Abut.	2155+25.05	-4.08'	718.23	718.25
A	2155+35.05	-4.08'	718.27	718.33
B	2155+45.05	-4.08'	718.30	718.40
C	2155+55.05	-4.08'	718.34	718.45
D	2155+65.05	-4.08'	718.37	718.50
E	2155+75.05	-4.08'	718.41	718.52
F	2155+85.05	-4.08'	718.45	718.53
G	2155+95.05	-4.08'	718.48	718.54
☉ Brg. N. Abut.	2156+03.47	-4.08'	718.51	718.53
Bk. N. Abut.	2156+05.42	-4.08'	718.52	718.54

NB WEST STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	-6.00'	718.19	718.21
☉ Brg. S. Abut.	2155+25.05	-6.00'	718.19	718.21
A	2155+35.05	-6.00'	718.23	718.29
B	2155+45.05	-6.00'	718.27	718.36
C	2155+55.05	-6.00'	718.30	718.41
D	2155+65.05	-6.00'	718.34	718.46
E	2155+75.05	-6.00'	718.37	718.48
F	2155+85.05	-6.00'	718.41	718.50
G	2155+95.05	-6.00'	718.44	718.50
☉ Brg. N. Abut.	2156+03.47	-6.00'	718.47	718.49
Bk. N. Abut.	2156+05.42	-6.00'	718.48	718.50

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	-11.71'	718.07	718.09
☉ Brg. S. Abut.	2155+25.05	-11.71'	718.08	718.10
A	2155+35.05	-11.71'	718.12	718.18
B	2155+45.05	-11.71'	718.15	718.25
C	2155+55.05	-11.71'	718.19	718.30
D	2155+65.05	-11.71'	718.22	718.35
E	2155+75.05	-11.71'	718.26	718.37
F	2155+85.05	-11.71'	718.29	718.38
G	2155+95.05	-11.71'	718.33	718.38
☉ Brg. N. Abut.	2156+03.47	-11.71'	718.36	718.38
Bk. N. Abut.	2156+05.42	-11.71'	718.37	718.39

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	-19.33'	717.92	717.94
☉ Brg. S. Abut.	2155+25.05	-19.33'	717.93	717.95
A	2155+35.05	-19.33'	717.96	718.03
B	2155+45.05	-19.33'	718.00	718.11
C	2155+55.05	-19.33'	718.03	718.17
D	2155+65.05	-19.33'	718.07	718.21
E	2155+75.05	-19.33'	718.11	718.23
F	2155+85.05	-19.33'	718.14	718.24
G	2155+95.05	-19.33'	718.18	718.24
☉ Brg. N. Abut.	2156+03.47	-19.33'	718.21	718.23
Bk. N. Abut.	2156+05.42	-19.33'	718.21	718.23

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	-26.96'	717.77	717.79
☉ Brg. S. Abut.	2155+25.05	-26.96'	717.77	717.80
A	2155+35.05	-26.96'	717.81	717.88
B	2155+45.05	-26.96'	717.85	717.96
C	2155+55.05	-26.96'	717.88	718.02
D	2155+65.05	-26.96'	717.92	718.06
E	2155+75.05	-26.96'	717.95	718.09
F	2155+85.05	-26.96'	717.99	718.09
G	2155+95.05	-26.96'	718.02	718.09
☉ Brg. N. Abut.	2156+03.47	-26.96'	718.05	718.07
Bk. N. Abut.	2156+05.42	-26.96'	718.06	718.08

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	2155+23.09	-34.58'	717.62	717.64
☉ Brg. S. Abut.	2155+25.05	-34.58'	717.62	717.64
A	2155+35.05	-34.58'	717.66	717.73
B	2155+45.05	-34.58'	717.69	717.81
C	2155+55.05	-34.58'	717.73	717.88
D	2155+65.05	-34.58'	717.76	717.92
E	2155+75.05	-34.58'	717.80	717.94
F	2155+85.05	-34.58'	717.84	717.95
G	2155+95.05	-34.58'	717.87	717.94
☉ Brg. N. Abut.	2156+03.47	-34.58'	717.90	717.92
Bk. N. Abut.	2156+05.42	-34.58'	717.91	717.93



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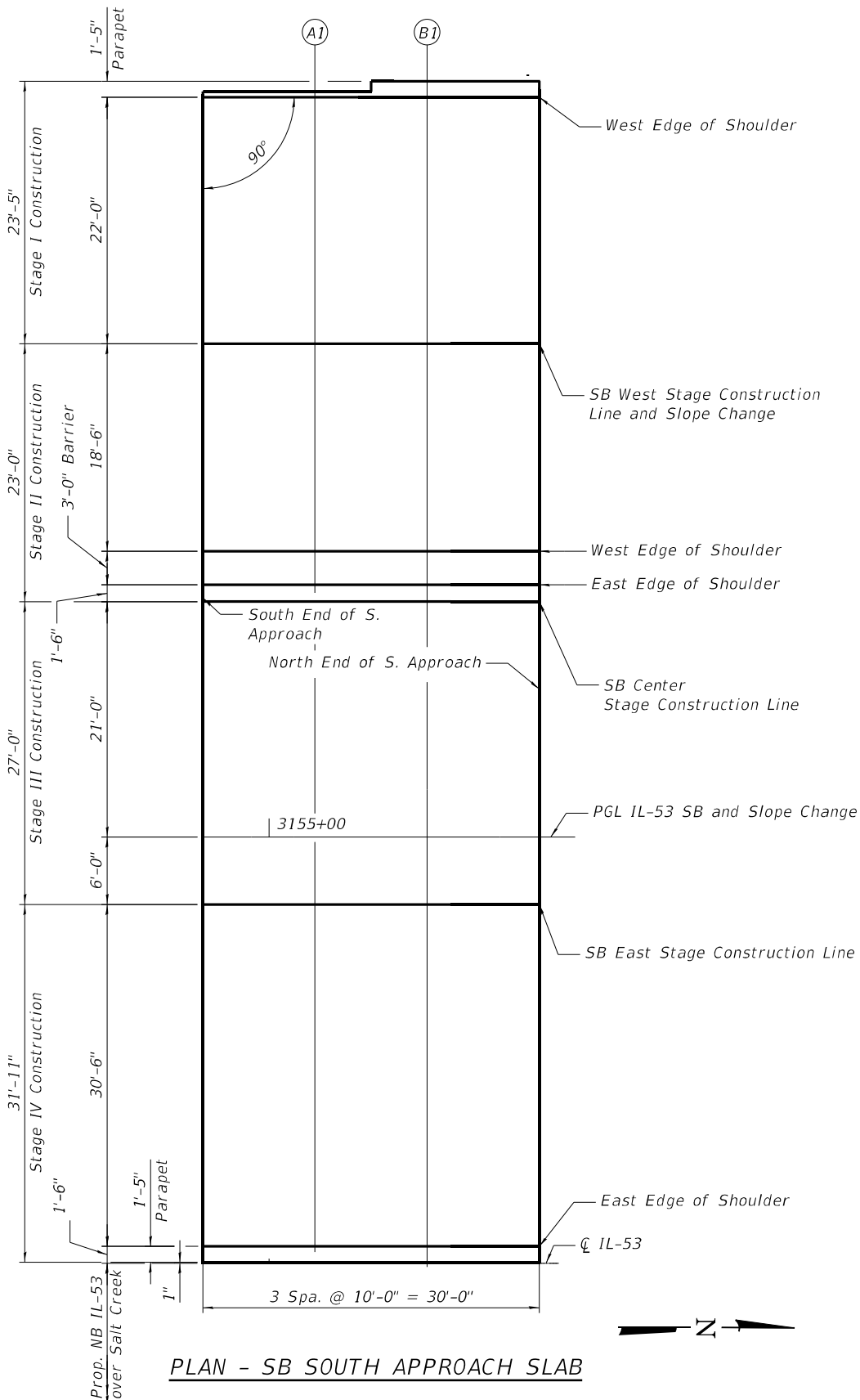
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NB TOP OF SLAB ELEVATION TABLES (SHEET 3 OF 3)
 STRUCTURE NO. 016-1195

SHEET SB-25 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	878
CONTRACT NO. 62N91				
ILLINOIS		FED. AID PROJECT		

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EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	36.50'	717.53	717.55
A1	3155+04.09	36.50'	717.57	717.59
B1	3155+14.09	36.50'	717.60	717.63
N. End of S. Approach	3155+24.09	36.50'	717.64	717.66

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	-22.50'	717.81	717.83
A1	3155+04.09	-22.50'	717.85	717.87
B1	3155+14.09	-22.50'	717.88	717.91
N. End of S. Approach	3155+24.09	-22.50'	717.92	717.94

SB EAST STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	6.00'	718.14	718.16
A1	3155+04.09	6.00'	718.18	718.20
B1	3155+14.09	6.00'	718.21	718.24
N. End of S. Approach	3155+24.09	6.00'	718.25	718.27

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	-25.50'	717.81	717.83
A1	3155+04.09	-25.50'	717.85	717.87
B1	3155+14.09	-25.50'	717.88	717.91
N. End of S. Approach	3155+24.09	-25.50'	717.92	717.94

PGL IL-53 SB AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	0.00'	718.26	718.28
A1	3155+04.09	0.00'	718.30	718.32
B1	3155+14.09	0.00'	718.33	718.36
N. End of S. Approach	3155+24.09	0.00'	718.37	718.39

SB WEST STAGE CONSTRUCTION LINE AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	-44.00'	718.18	718.20
A1	3155+04.09	-44.00'	718.22	718.24
B1	3155+14.09	-44.00'	718.25	718.28
N. End of S. Approach	3155+24.09	-44.00'	718.29	718.31

SB CENTER STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	-21.00'	717.84	717.86
A1	3155+04.09	-21.00'	717.88	717.90
B1	3155+14.09	-21.00'	717.91	717.94
N. End of S. Approach	3155+24.09	-21.00'	717.95	717.97

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	3154+94.09	-66.00'	717.74	717.76
A1	3155+04.09	-66.00'	717.78	717.80
B1	3155+14.09	-66.00'	717.81	717.84
N. End of S. Approach	3155+24.09	-66.00'	717.85	717.87



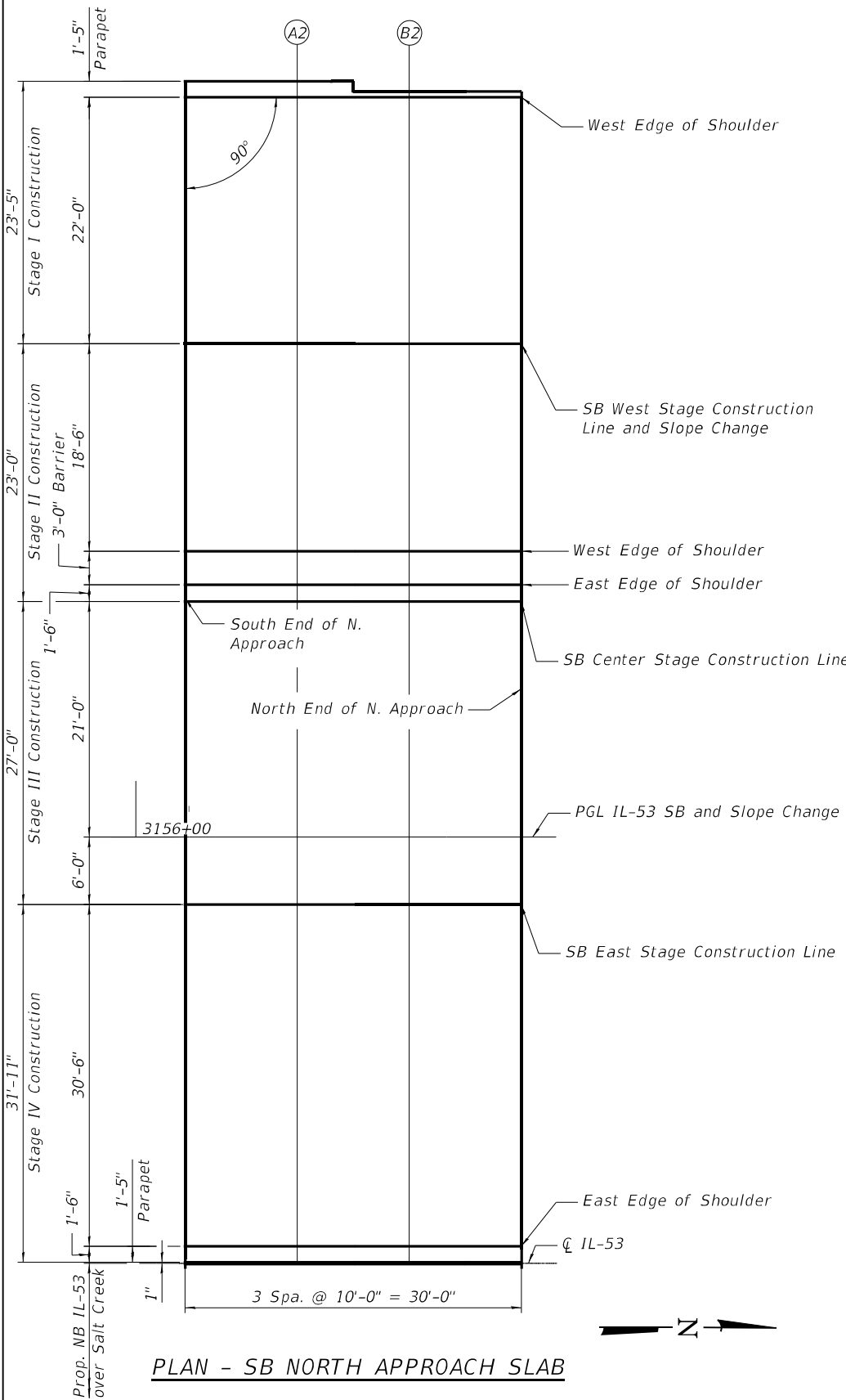
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**SB TOP OF S. APPROACH SLAB LAYOUT & TABLES
 STRUCTURE NO. 016-1195**

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 879
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	36.50'	717.92	717.94
A2	3156+14.42	36.50'	717.96	717.98
B2	3156+24.42	36.50'	717.99	718.02
N. End of N. Approach	3156+34.42	36.50'	718.03	718.05

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	-22.50'	718.20	718.22
A2	3156+14.42	-22.50'	718.24	718.26
B2	3156+24.42	-22.50'	718.27	718.30
N. End of N. Approach	3156+34.42	-22.50'	718.31	718.33

SB EAST STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	6.00'	718.53	718.55
A2	3156+14.42	6.00'	718.57	718.59
B2	3156+24.42	6.00'	718.60	718.63
N. End of N. Approach	3156+34.42	6.00'	718.64	718.66

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	-25.50'	718.20	718.22
A2	3156+14.42	-25.50'	718.24	718.26
B2	3156+24.42	-25.50'	718.27	718.30
N. End of N. Approach	3156+34.42	-25.50'	718.31	718.33

PGL IL-53 SB AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	0.00'	718.65	718.67
A2	3156+14.42	0.00'	718.69	718.71
B2	3156+24.42	0.00'	718.72	718.75
N. End of N. Approach	3156+34.42	0.00'	718.76	718.78

SB WEST STAGE CONSTRUCTION LINE AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	-44.00'	718.57	718.59
A2	3156+14.42	-44.00'	718.61	718.63
B2	3156+24.42	-44.00'	718.64	718.67
N. End of N. Approach	3156+34.42	-44.00'	718.68	718.70

SB CENTER STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	-21.00'	718.23	718.25
A2	3156+14.42	-21.00'	718.27	718.29
B2	3156+24.42	-21.00'	718.30	718.33
N. End of N. Approach	3156+34.42	-21.00'	718.34	718.36

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	3156+04.42	-66.00'	718.13	718.15
A2	3156+14.42	-66.00'	718.17	718.19
B2	3156+24.42	-66.00'	718.20	718.23
N. End of N. Approach	3156+34.42	-66.00'	718.24	718.26

PLAN - SB NORTH APPROACH SLAB



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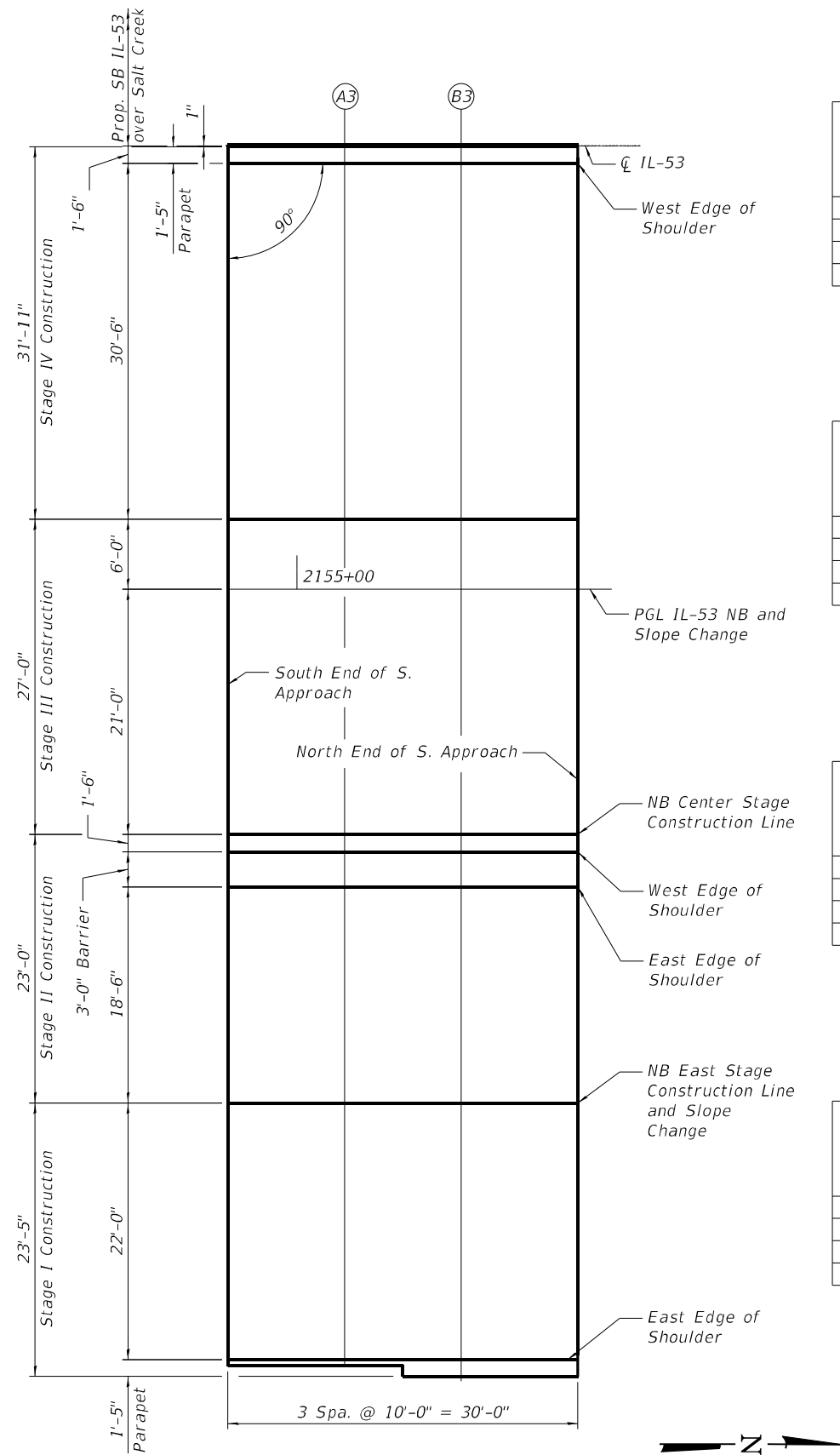
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SB TOP OF N. APPROACH SLAB LAYOUT & TABLES
 STRUCTURE NO. 016-1195

SHEET SB-27 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 880
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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PLAN - NB SOUTH APPROACH SLAB

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	66.00'	717.68	717.70
A3	2155+04.09	66.00'	717.72	717.74
B3	2155+14.09	66.00'	717.76	717.78
N. End of S. Approach	2155+24.09	66.00'	717.79	717.81

NB CENTER STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	21.00'	717.78	717.80
A3	2155+04.09	21.00'	717.82	717.84
B3	2155+14.09	21.00'	717.86	717.88
N. End of S. Approach	2155+24.09	21.00'	717.89	717.91

NB EAST STAGE CONSTRUCTION LINE AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	44.00'	718.12	718.14
A3	2155+04.09	44.00'	718.16	718.18
B3	2155+14.09	44.00'	718.20	718.22
N. End of S. Approach	2155+24.09	44.00'	718.23	718.25

PGL IL-53 NB AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	0.00'	718.20	718.22
A3	2155+04.09	0.00'	718.24	718.26
B3	2155+14.09	0.00'	718.28	718.30
N. End of S. Approach	2155+24.09	0.00'	718.31	718.33

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	25.50'	717.75	717.77
A3	2155+04.09	25.50'	717.79	717.81
B3	2155+14.09	25.50'	717.83	717.85
N. End of S. Approach	2155+24.09	25.50'	717.86	717.88

NB WEST STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	-6.00'	718.08	718.10
A3	2155+04.09	-6.00'	718.12	718.14
B3	2155+14.09	-6.00'	718.16	718.18
N. End of S. Approach	2155+24.09	-6.00'	718.19	718.21

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	22.50'	717.75	717.77
A3	2155+04.09	22.50'	717.79	717.81
B3	2155+14.09	22.50'	717.83	717.85
N. End of S. Approach	2155+24.09	22.50'	717.86	717.88

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of S. Approach	2154+94.09	-36.50'	717.47	717.49
A3	2155+04.09	-36.50'	717.51	717.53
B3	2155+14.09	-36.50'	717.55	717.57
N. End of S. Approach	2155+24.09	-36.50'	717.58	717.60



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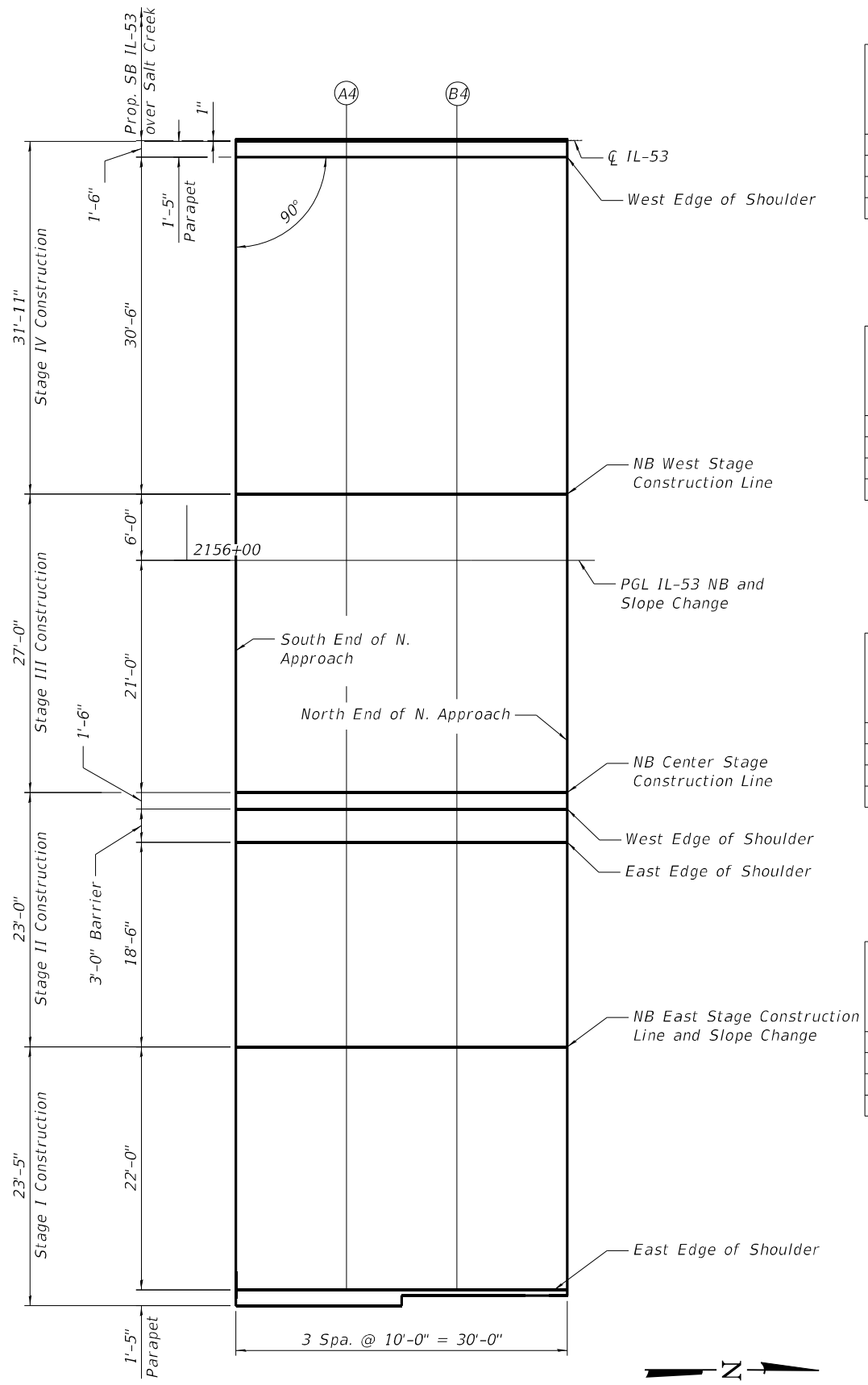
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NB TOP OF S. APPROACH SLAB LAYOUT & TABLES
 STRUCTURE NO. 016-1195

SHEET SB-28 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 881
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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PLAN - NB NORTH APPROACH SLAB

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	66.00'	718.08	718.10
A4	2156+14.42	66.00'	718.11	718.13
B4	2156+24.42	66.00'	718.15	718.17
N. End of N. Approach	2156+34.42	66.00'	718.18	718.20

NB CENTER CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	21.00'	718.18	718.20
A4	2156+14.42	21.00'	718.21	718.23
B4	2156+24.42	21.00'	718.25	718.27
N. End of N. Approach	2156+34.42	21.00'	718.28	718.30

NB EAST STAGE CONSTRUCTION LINE AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	44.00'	718.52	718.54
A4	2156+14.42	44.00'	718.55	718.57
B4	2156+24.42	44.00'	718.59	718.61
N. End of N. Approach	2156+34.42	44.00'	718.62	718.64

PGL IL-53 AND SLOPE CHANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	0.00'	718.60	718.62
A4	2156+14.42	0.00'	718.63	718.65
B4	2156+24.42	0.00'	718.67	718.69
N. End of N. Approach	2156+34.42	0.00'	718.70	718.72

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	25.50'	718.15	718.17
A4	2156+14.42	25.50'	718.18	718.20
B4	2156+24.42	25.50'	718.22	718.24
N. End of N. Approach	2156+34.42	25.50'	718.25	718.27

NB WEST STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	-6.00'	718.48	718.50
A4	2156+14.42	-6.00'	718.51	718.53
B4	2156+24.42	-6.00'	718.55	718.57
N. End of N. Approach	2156+34.42	-6.00'	718.58	718.60

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	22.50'	718.15	718.17
A4	2156+14.42	22.50'	718.18	718.20
B4	2156+24.42	22.50'	718.22	718.24
N. End of N. Approach	2156+34.42	22.50'	718.25	718.27

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End of N. Approach	2156+04.42	-36.50'	717.87	717.89
A4	2156+14.42	-36.50'	717.90	717.92
B4	2156+24.42	-36.50'	717.94	717.96
N. End of N. Approach	2156+34.42	-36.50'	717.97	717.99

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NB TOP OF N. APPROACH SLAB LAYOUT & TABLES
 STRUCTURE NO. 016-1195

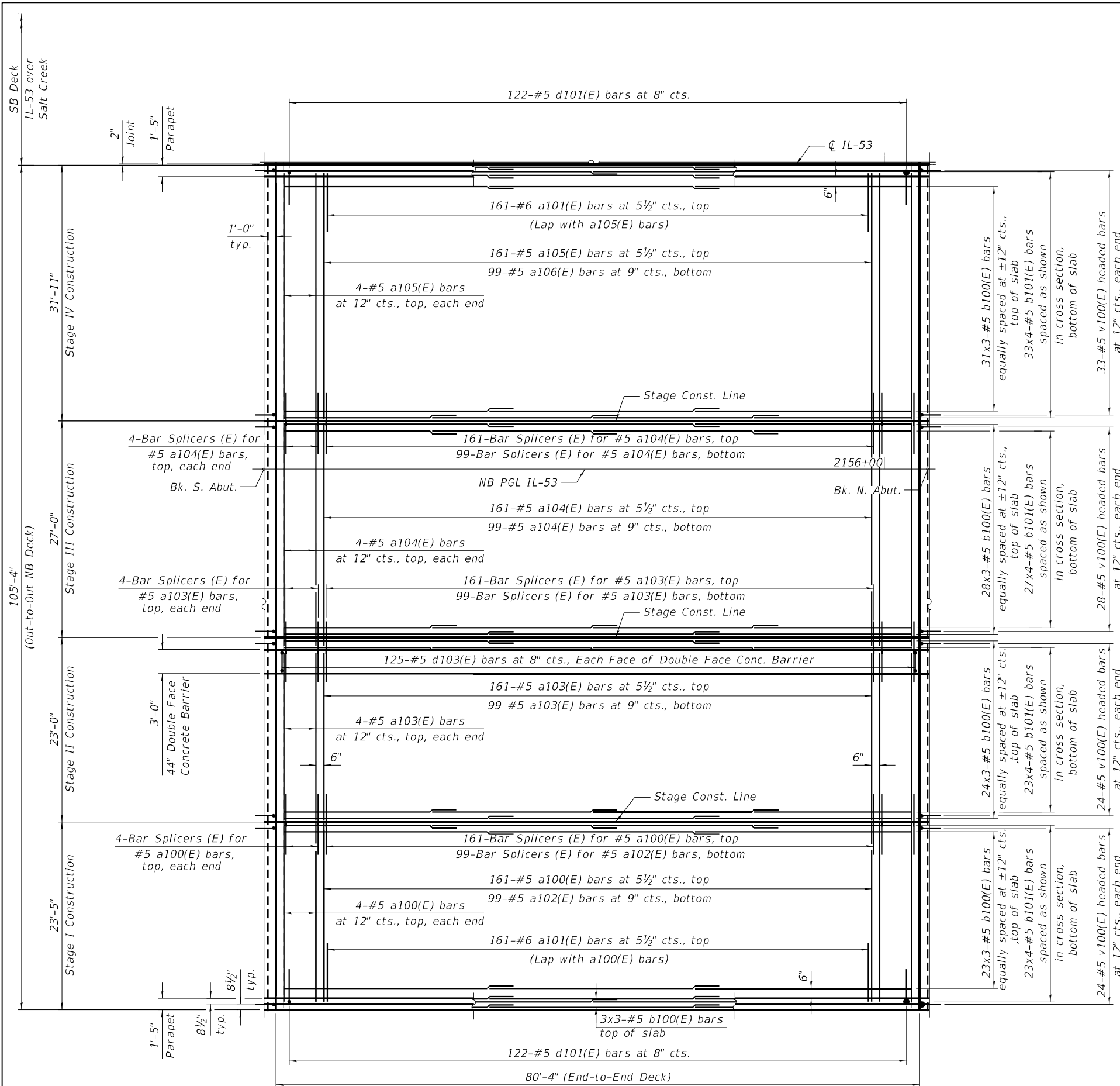
SHEET SB-29 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	882
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				



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PLAN
 (NB Deck Shown, SB Deck Similar)

NOTES:

1. Bars indicated thus 23x4-#5 etc. indicate 23 lines of bars with 4 lengths per line.
2. For Deck Cross Section, see Sheet SB-31.
3. For Parapet Elevations and Reinforcement, see Sheets SB-32 and SB-33.
4. For South Abutment Diaphragm Elevation and Sections, see Sheet SB-36.
5. For North Abutment Diaphragm Elevation and Sections, see Sheet SB-37.
6. For Deck Details see Sheet SB-34.
7. For Bar Details and Bill of Material, see Sheet SB-35.
8. For Bar Splicer Details, see Sheet SB-69.
9. The anticipated limits of the deep fillet reinforcement is from Sta. 3155+24.43 to Sta. 3155+30.43 and from Sta. 3155+98.10 to Sta. 3156+34.10 for all SB beams. The anticipated limits of the deep fillet reinforcement is from Sta. 2155+24.43 to Sta. 2155+30.43 and from Sta. 2155+98.10 to Sta. 2156+34.10 for all NB beams. The d104(E) bars shall be spaced at 1'-0" cts. For Fillet Reinforcement For Fillets over 2 1/2" Details, see Sheets SB-34 and SB-35.

MINIMUM BAR LAP

#5 bar = 3'-6"



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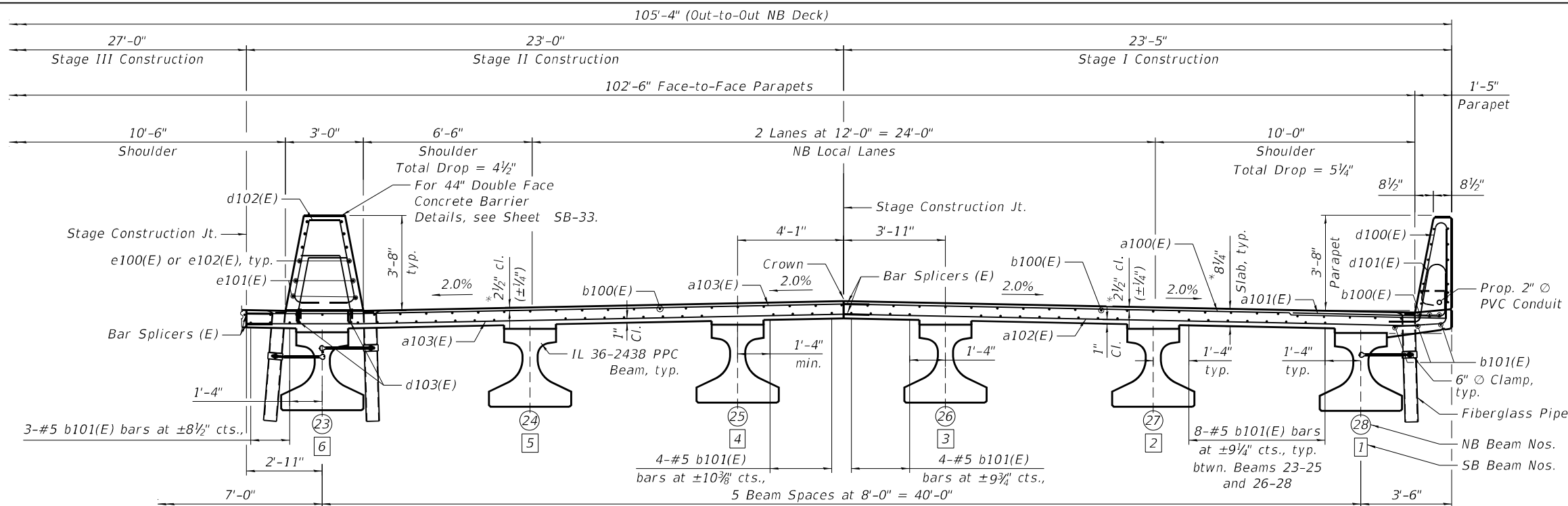
**STATE OF ILLINOIS
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**SUPERSTRUCTURE
 STRUCTURE NO. 016-1195**

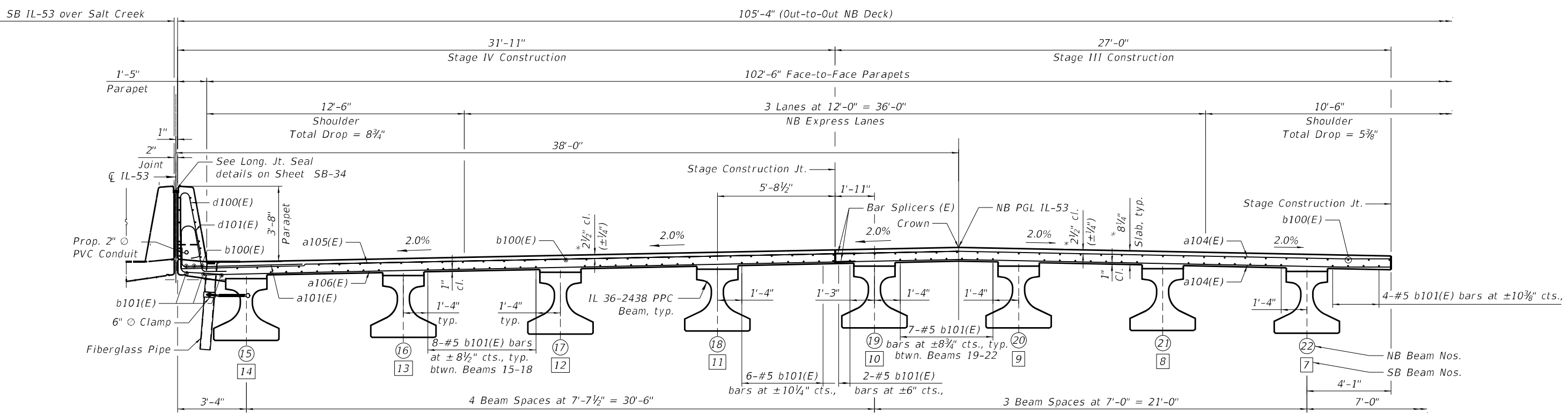
SHEET SB-30 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	883
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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DECK CROSS SECTION - STAGES I & II CONSTRUCTION
 (Looking North)
 (NB Deck Cross Section Shown, SB Deck Cross Section Similar)



DECK CROSS SECTION - STAGES III & IV CONSTRUCTION
 (Looking North)
 (NB Deck Cross Section Shown, SB Deck Cross Section Similar)

NOTE:
 1. For Notes, see Sheet SB-30.



USER NAME =	DESIGNED - EN	REVISED -
PLOT SCALE =	CHECKED - MI, JJS	REVISED -
PLOT DATE =	DRAWN - EN	REVISED -
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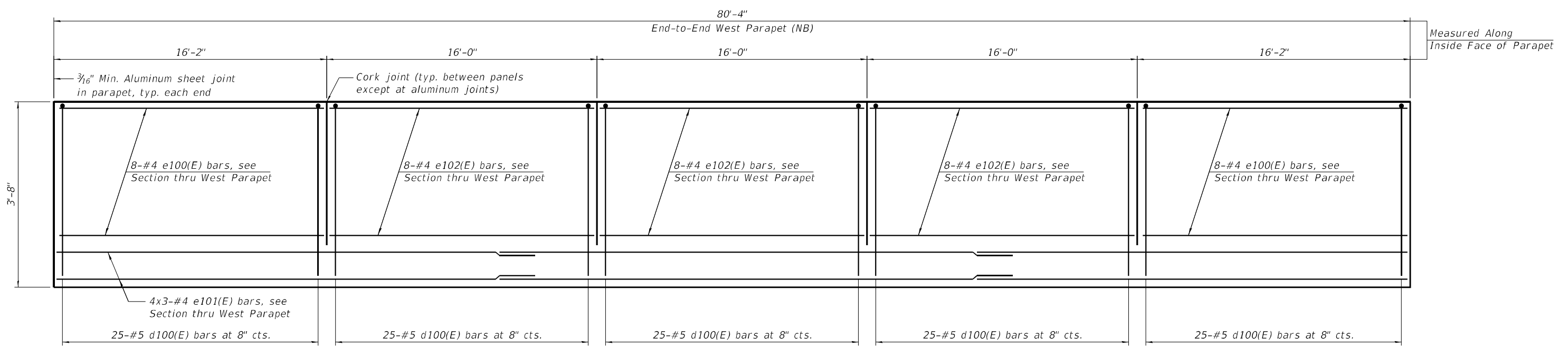
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
 STRUCTURE NO. 016-1195**

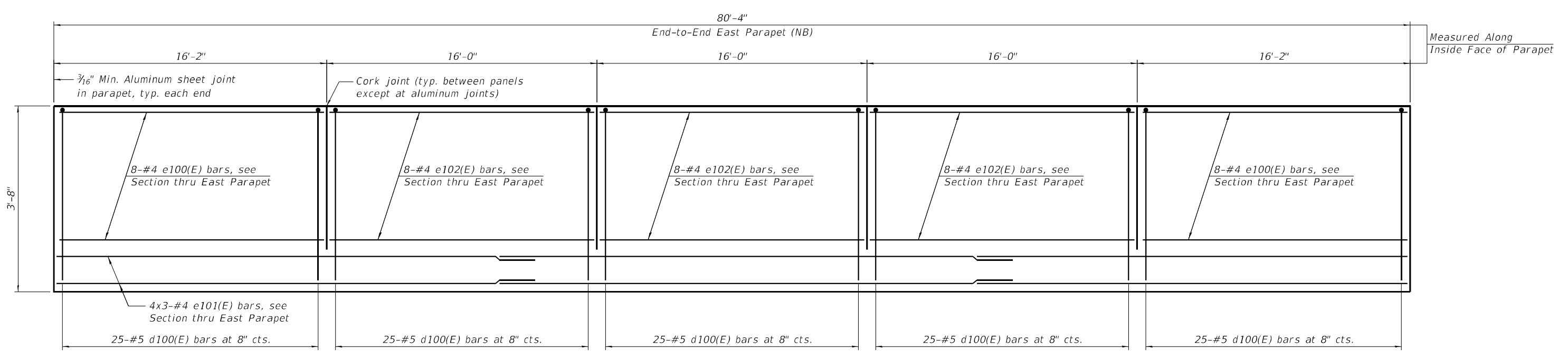
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

SHEET SB-31 OF SB-75 SHEETS

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 Various Bridge & Culvert - IL 53 - Documents\Drawings\CAD\By_Subconsultants\CAD_Sheets\by_others\C2-D162N91-SB-32_NB Parapets Elevation (Sheet 1 of 2)-HBM.dgn



INSIDE ELEVATION OF WEST PARAPET
 (Looking West)
 (NB Parapet Elevation Shown, SB Parapet Elevations Similar)



INSIDE ELEVATION OF EAST PARAPET
 (Looking East)
 (NB Parapet Elevation Shown, SB Parapet Elevations Similar)

NOTES:

- For additional notes, Sections thru East and West Parapets and joint details, see Sheet SB-34.
- For bar diagrams and Bill of Materials, see Sheet SB-35.

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



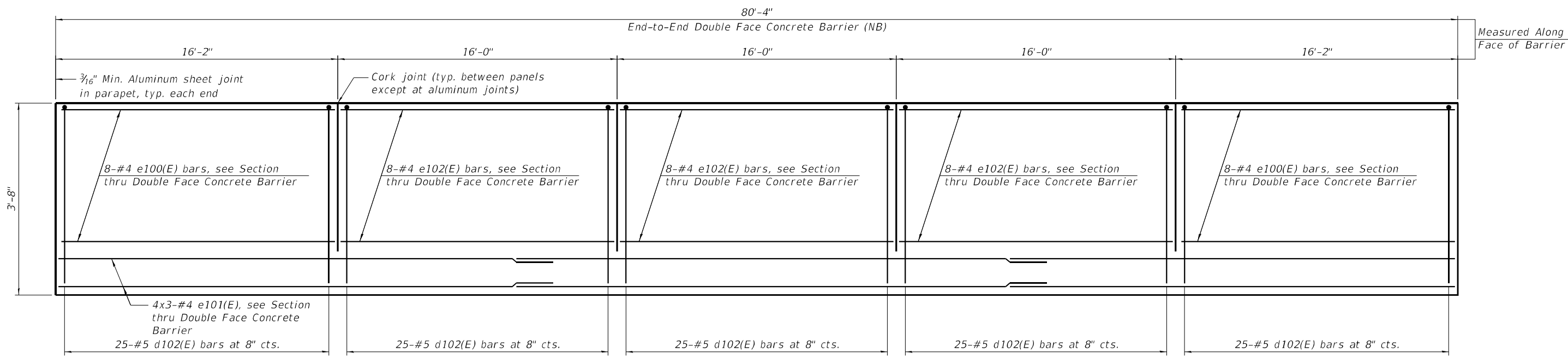
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	CHECKED - MI, JJS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

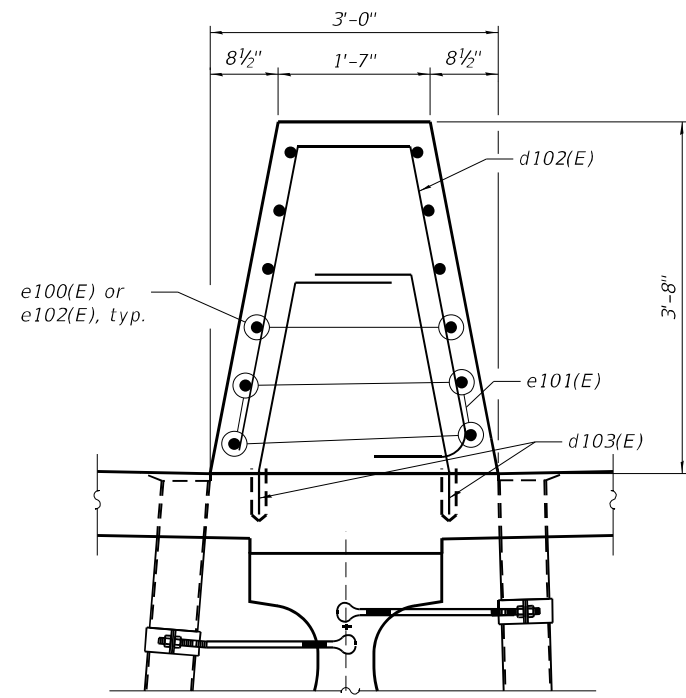
SUPERSTRUCTURE
STRUCTURE NO. 016-1195
 SHEET SB-32 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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ELEVATION OF DOUBLE-FACE CONCRETE BARRIER
 (Looking West)
 (NB Double Face Barrier Shown, SB Double Face Barrier Similar)



SECTION THRU 44" DOUBLE FACE CONCRETE BARRIER
 (Reinforcement in Slab omitted for clarity)

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

NOTES:

- For additional notes, Sections thru Double Face Concrete Barrier Parapet and joint details, see Sheet SB-34.
- For bar diagrams and Bill of Material, see Sheet SB-35.



USER NAME =	DESIGNED - EN	REVISED -
	CHECKED - MI, JJS	REVISED -
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PLOT DATE =	CHECKED - MI, JJS	REVISED -

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 DEPARTMENT OF TRANSPORTATION**

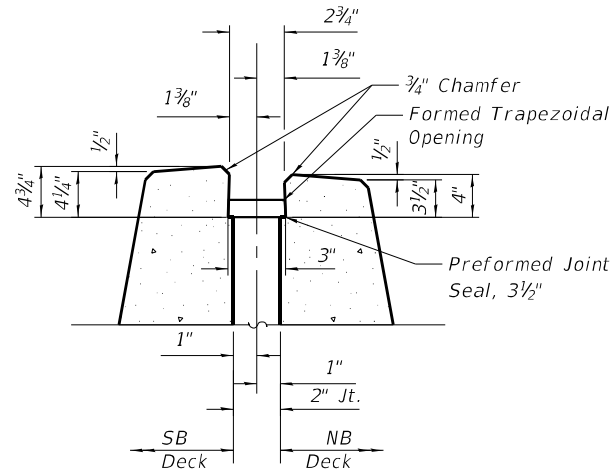
**SUPERSTRUCTURE
 STRUCTURE NO. 016-1195**

SHEET SB-33 OF SB-75 SHEETS

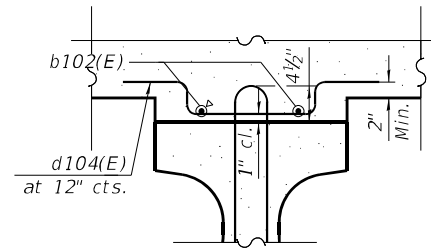
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342	2018-100-BR	COOK	1351	886
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

NOTES:

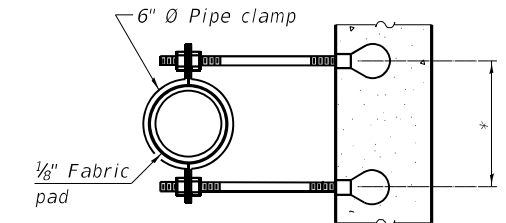
- Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
- The exterior surfaces of the fiberglass floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
- The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.
- The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.
- The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
- The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.
- Bar Terminators, paid for separately.
- Protective Coat shall be applied to the top and front face of east and west parapets and top of deck.



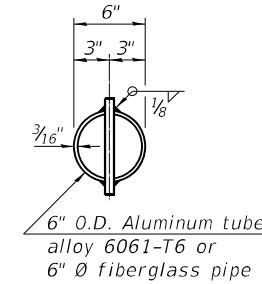
LONGITUDINAL JOINT SEAL DETAIL



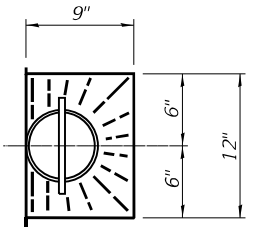
FILLET REINFORCEMENT FOR FILLETS OVER 2 1/2"



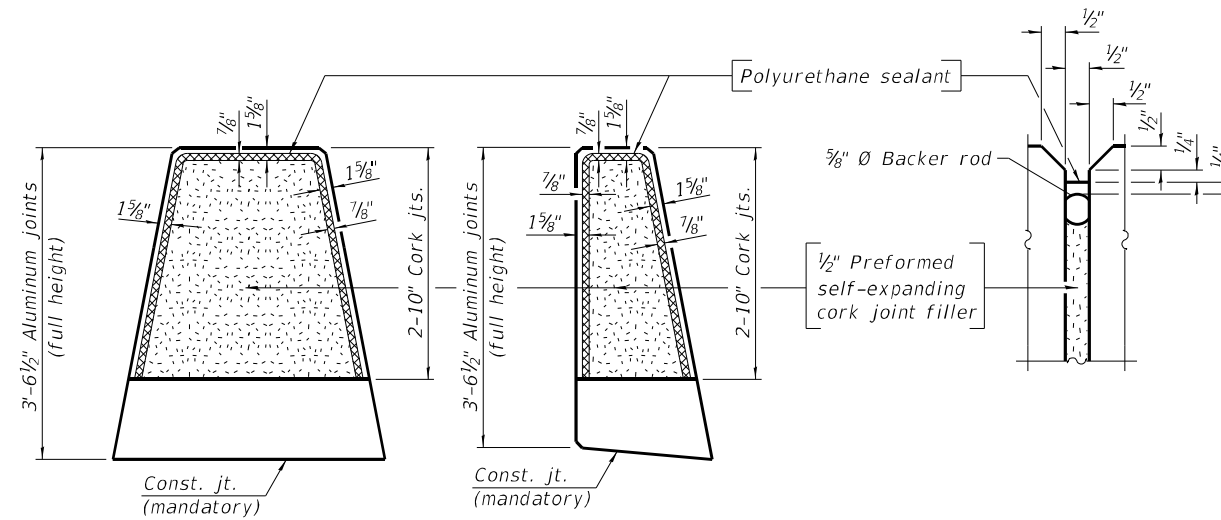
SECTION A-A
*Dimension as required by pipe clamp



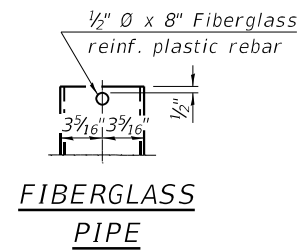
TOP PLAN
(Showing aluminum tube)



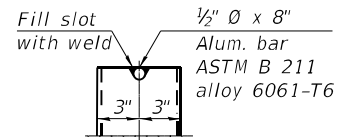
TOP PLAN



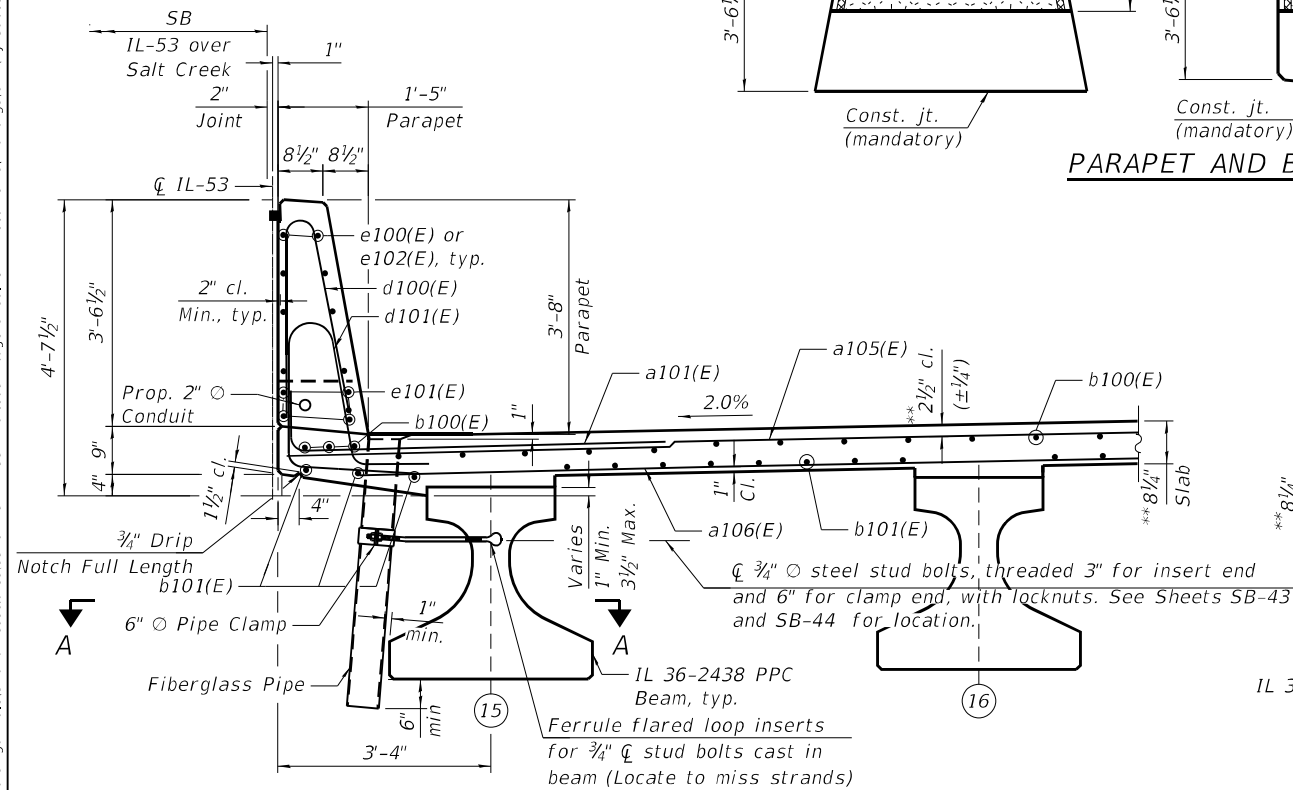
PARAPET AND BARRIER JOINT DETAILS



FIBERGLASS PIPE

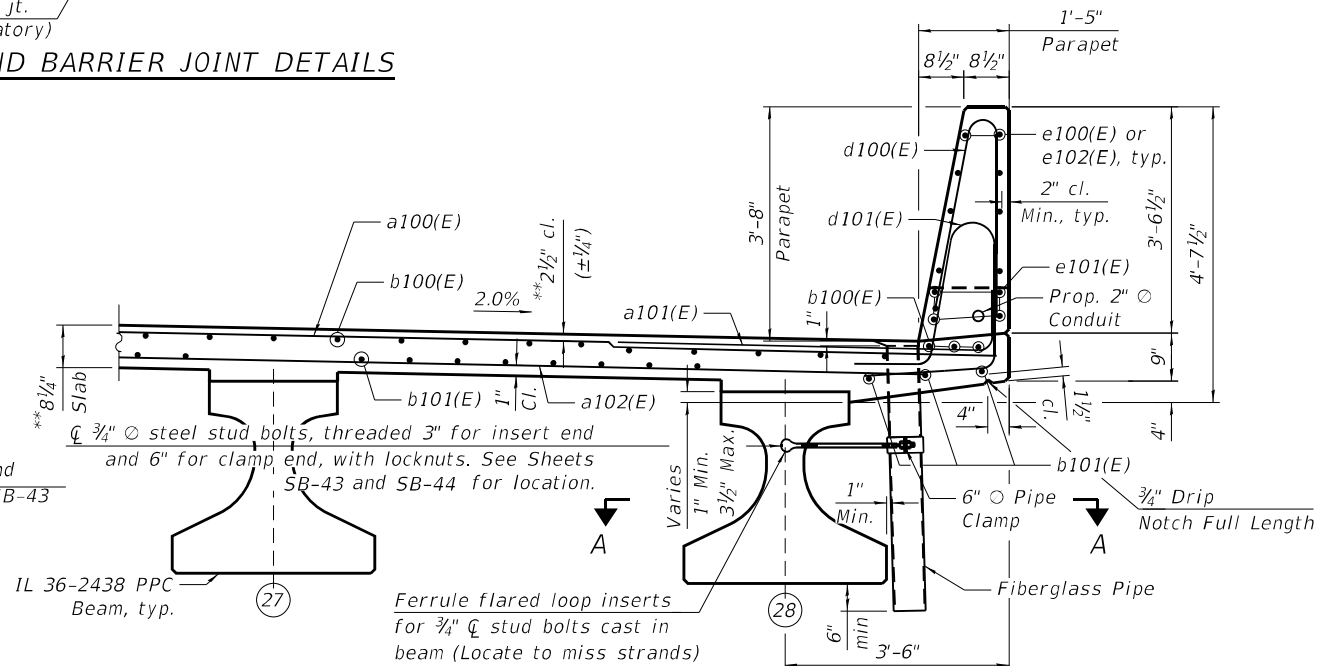


ALUMINUM TUBE



SECTION THRU WEST PARAPET

(Looking North)
(NB Deck Section shown, SB Deck Section Similar)



SECTION THRU EAST PARAPET

(Looking North)
(NB Deck Section shown, SB Deck Section Similar)

** Prior to grinding



USER NAME =	DESIGNED - EN	REVISED -
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PLOT DATE =	DRAWN - EN	REVISED -
	CHECKED - MI, JJS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-1195**

SHEET SB-34 OF SB-75 SHEETS

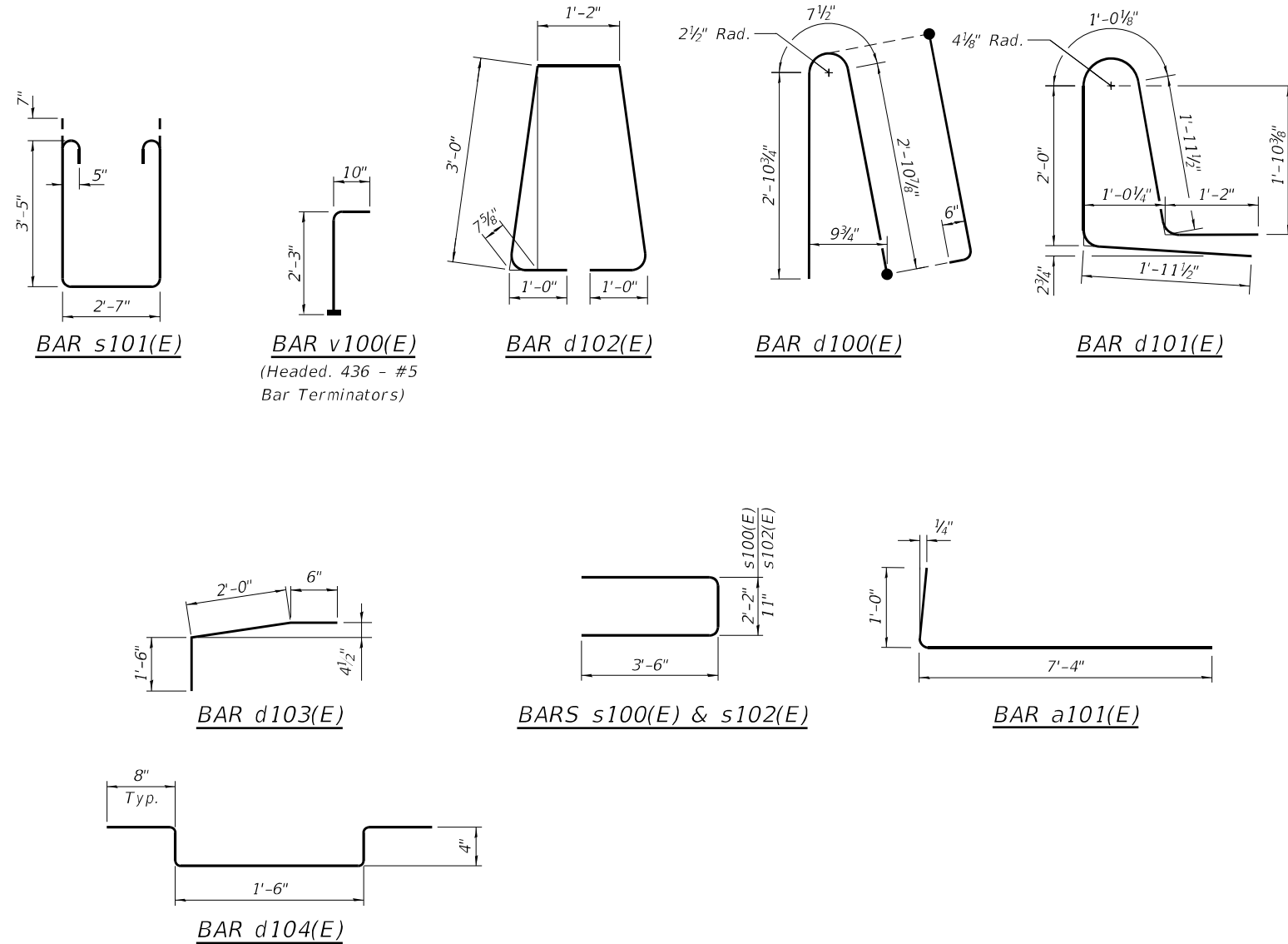
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CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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**NB SUPERSTRUCTURE
BILL OF MATERIAL**

**SB SUPERSTRUCTURE
BILL OF MATERIAL**



Bar	No.	Size	Length	Shape
a100(E)	169	#5	23'-1"	=====
a101(E)	322	#6	8'-4"	=====
a102(E)	99	#5	22'-7"	=====
a103(E)	268	#5	22'-9"	=====
a104(E)	268	#5	26'-9"	=====
a105(E)	169	#5	31'-8"	=====
a106(E)	99	#5	30'-10"	=====
b100(E)	336	#5	29'-0"	=====
b101(E)	424	#5	22'-8"	=====
b102(E)	56	#4	6'-0"	=====
d100(E)	250	#5	7'-0"	=====
d101(E)	244	#5	8'-1"	=====
d102(E)	125	#5	9'-4"	=====
d103(E)	250	#5	4'-0"	=====
d104(E)	196	#4	3'-6"	=====
e100(E)	48	#4	15'-10"	=====
e101(E)	36	#4	28'-4"	=====
e102(E)	72	#4	15'-8"	=====
m100(E)	8	#6	23'-2"	=====
m101(E)	16	#6	6'-8"	=====
m102(E)	4	#6	2'-8"	=====
m103(E)	8	#6	4'-6"	=====
m104(E)	2	#6	1'-7"	=====
m105(E)	56	#5	3'-8"	=====
m106(E)	4	#6	3'-1"	=====
m107(E)	2	#6	2'-2"	=====
m108(E)	8	#6	3'-3"	=====
m109(E)	4	#6	2'-4"	=====
m110(E)	8	#6	22'-8"	=====
m111(E)	4	#6	2'-0"	=====
m112(E)	2	#6	1'-1"	=====
m113(E)	12	#6	5'-4"	=====
m114(E)	6	#6	3'-4"	=====
m115(E)	8	#6	26'-8"	=====
m116(E)	4	#6	0'-9"	=====
m117(E)	4	#6	4'-7"	=====
m118(E)	2	#6	3'-10"	=====
m119(E)	12	#6	5'-9"	=====
m120(E)	6	#6	4'-2"	=====
m121(E)	8	#6	31'-7"	=====
m122(E)	4	#6	2'-5"	=====
m123(E)	2	#6	1'-5"	=====
s100(E)	148	#5	9'-2"	=====
s101(E)	148	#5	10'-7"	=====
s102(E)	112	#5	7'-11"	=====
v100(E)	218	#5	3'-1"	=====
Concrete Superstructure	Cu Yd		368.1	
Protective Coat	Sq Yd		1048	
Reinforcement Bars, Epoxy Coated	Pound		68,790	
Preformed Joint Seal 3 1/2'	Foot		81	
Bridge Deck Grooving (Longitudinal)	Sq Yd		536	
Bar Terminators	Each		218	

Bar	No.	Size	Length	Shape
a100(E)	169	#5	23'-1"	=====
a101(E)	322	#6	8'-4"	=====
a102(E)	99	#5	22'-7"	=====
a103(E)	268	#5	22'-9"	=====
a104(E)	268	#5	26'-9"	=====
a105(E)	169	#5	31'-8"	=====
a106(E)	99	#5	30'-10"	=====
b100(E)	336	#5	29'-0"	=====
b101(E)	424	#5	22'-8"	=====
b102(E)	56	#4	6'-0"	=====
d100(E)	250	#5	7'-0"	=====
d101(E)	244	#5	8'-1"	=====
d102(E)	125	#5	9'-4"	=====
d103(E)	250	#5	4'-0"	=====
d104(E)	196	#4	3'-6"	=====
e100(E)	48	#4	15'-10"	=====
e101(E)	36	#4	28'-4"	=====
e102(E)	72	#4	15'-8"	=====
m100(E)	8	#6	23'-2"	=====
m101(E)	16	#6	6'-8"	=====
m102(E)	4	#6	2'-8"	=====
m103(E)	8	#6	4'-6"	=====
m104(E)	2	#6	1'-7"	=====
m105(E)	56	#5	3'-8"	=====
m106(E)	4	#6	3'-1"	=====
m107(E)	2	#6	2'-2"	=====
m108(E)	8	#6	3'-3"	=====
m109(E)	4	#6	2'-4"	=====
m110(E)	8	#6	22'-8"	=====
m111(E)	4	#6	2'-0"	=====
m112(E)	2	#6	1'-1"	=====
m113(E)	12	#6	5'-4"	=====
m114(E)	6	#6	3'-4"	=====
m115(E)	8	#6	26'-8"	=====
m116(E)	4	#6	0'-9"	=====
m117(E)	4	#6	4'-7"	=====
m118(E)	2	#6	3'-10"	=====
m119(E)	12	#6	5'-9"	=====
m120(E)	6	#6	4'-2"	=====
m121(E)	8	#6	31'-7"	=====
m122(E)	4	#6	2'-5"	=====
m123(E)	2	#6	1'-5"	=====
s100(E)	148	#5	9'-2"	=====
s101(E)	148	#5	10'-7"	=====
s102(E)	112	#5	7'-11"	=====
v100(E)	218	#5	3'-1"	=====
Concrete Superstructure	Cu Yd		368.1	
Protective Coat	Sq Yd		1048	
Reinforcement Bars, Epoxy Coated	Pound		68,790	
Bridge Deck Grooving (Longitudinal)	Sq Yd		536	
Bar Terminators	Each		218	



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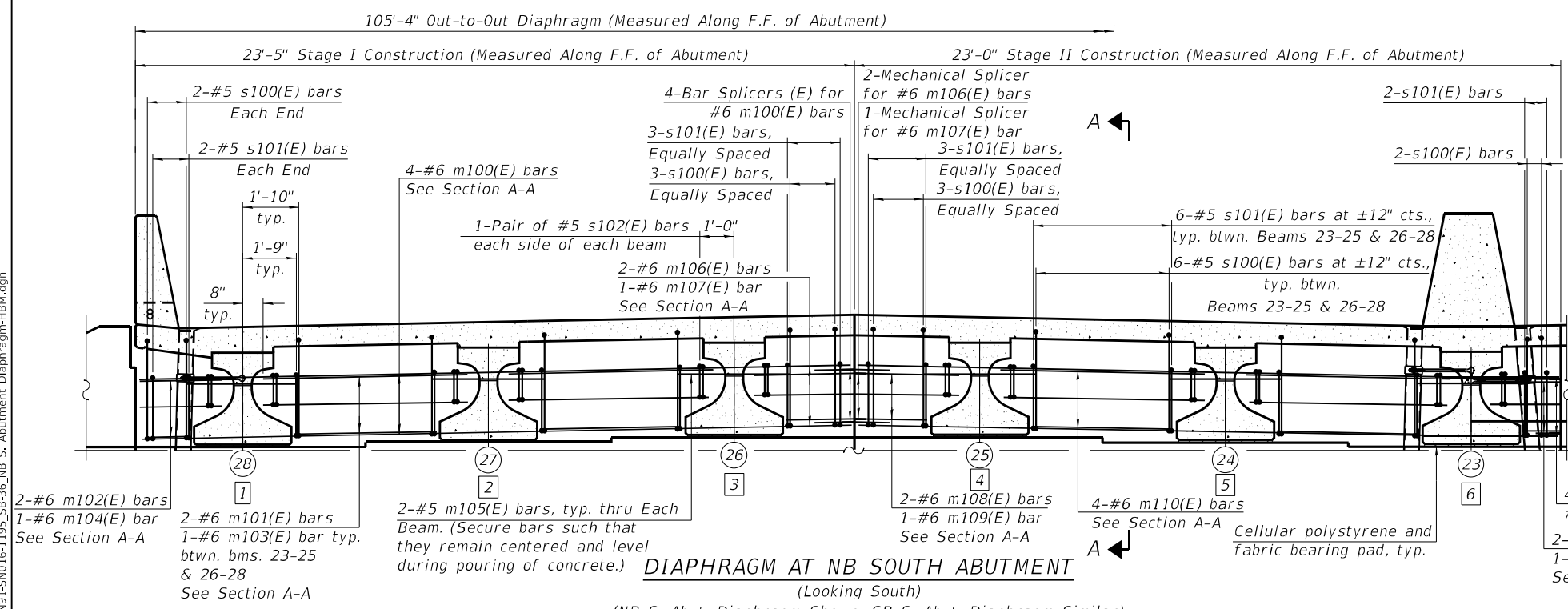
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-1195**

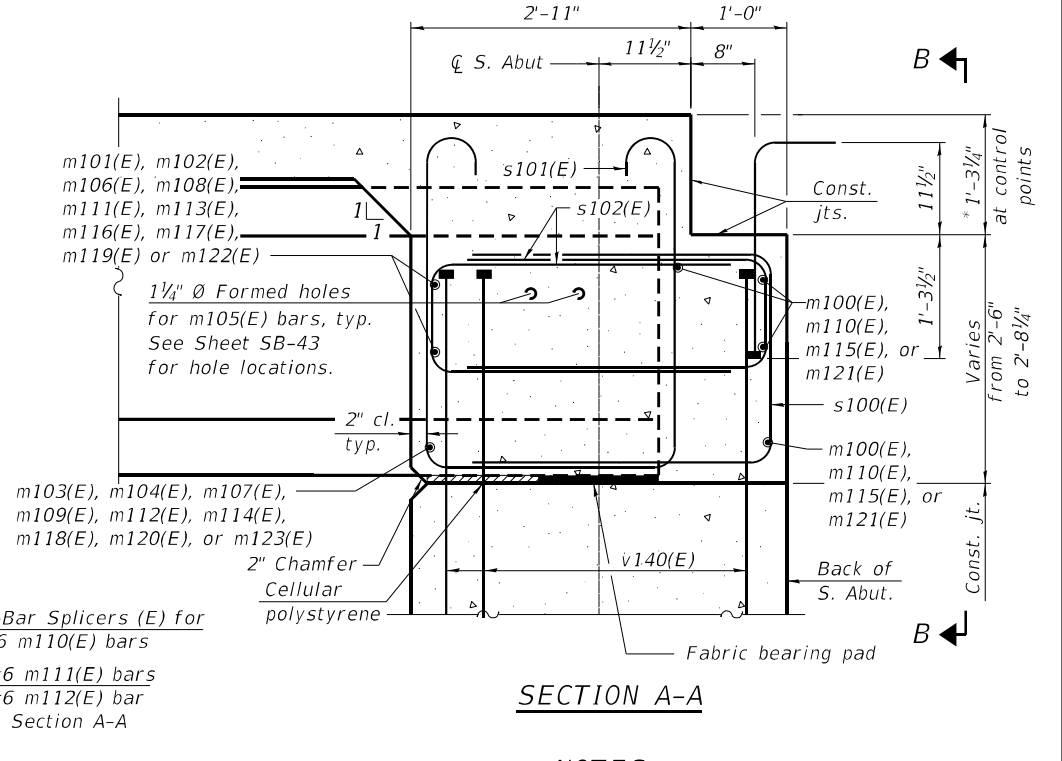
SHEET SB-35 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 888
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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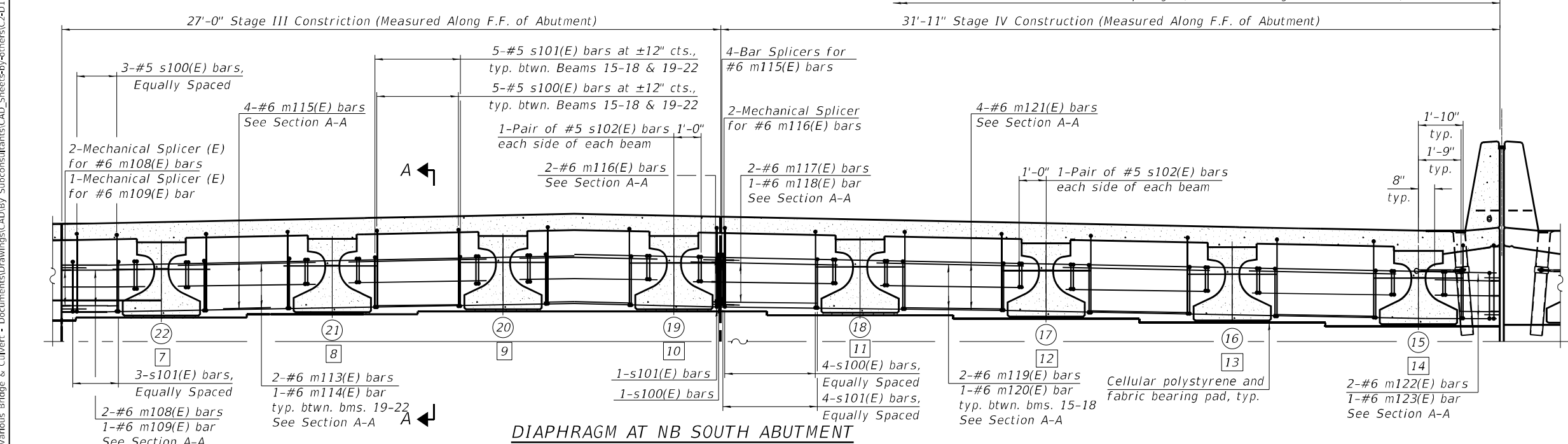


DIAPHRAGM AT NB SOUTH ABUTMENT
 (Looking South)
 (NB S. Abut. Diaphragm Shown, SB S. Abut. Diaphragm Similar)

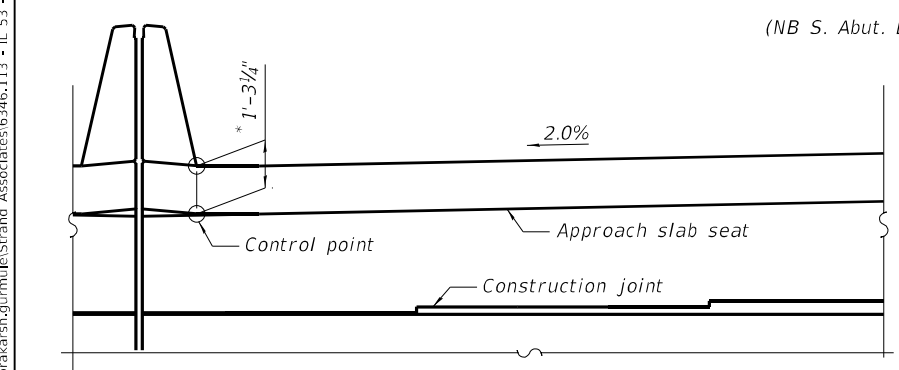


SECTION A-A

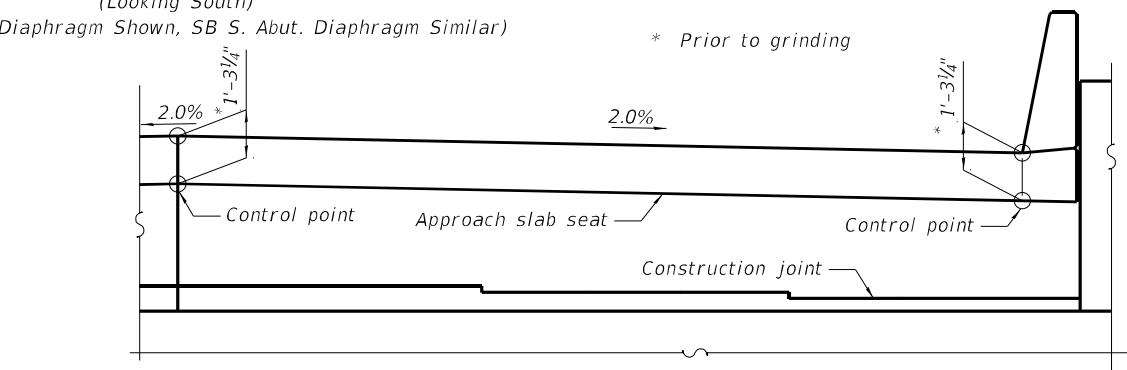
- NOTES:**
- For additional notes, quantities and Bill of Material, see Sheets SB-34 and SB-35.
 - The approach slab seat shall have a constant slope determined from control points shown.
 - Cost of cellular polystyrene is included with Concrete Superstructure.
 - Cost of fabric bearing pad is included with Furnishing and Erecting Precast Prestressed Concrete Beams, IL36 N.



DIAPHRAGM AT NB SOUTH ABUTMENT
 (Looking South)
 (NB S. Abut. Diaphragm Shown, SB S. Abut. Diaphragm Similar)

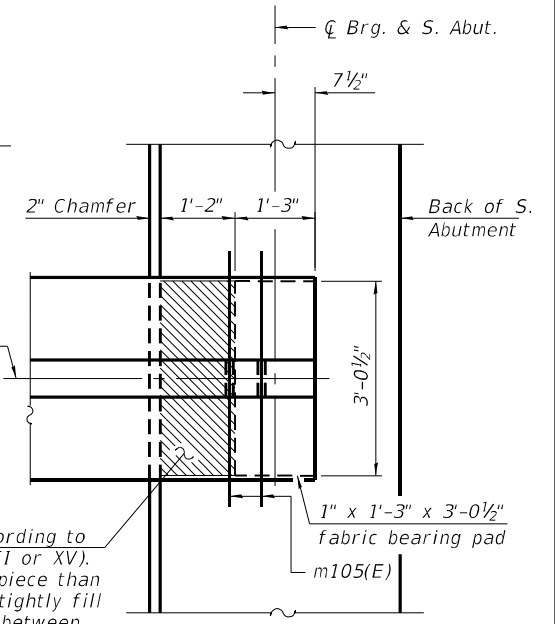


VIEW B-B



MINIMUM BAR LAP
 #6 Bar = 3'-7"

Cellular polystyrene according to ASTM C 578 (Types V, VII or XV). Provide slightly thicker piece than measured gap height to tightly fill the hatched area shown between abutment cap and bottom of beam.



PLAN AT ABUTMENT
 (Showing bottom flange of beam)



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PLOT DATE =	DRAWN - EN	REVISED -
	CHECKED - MI, JJS	REVISED -

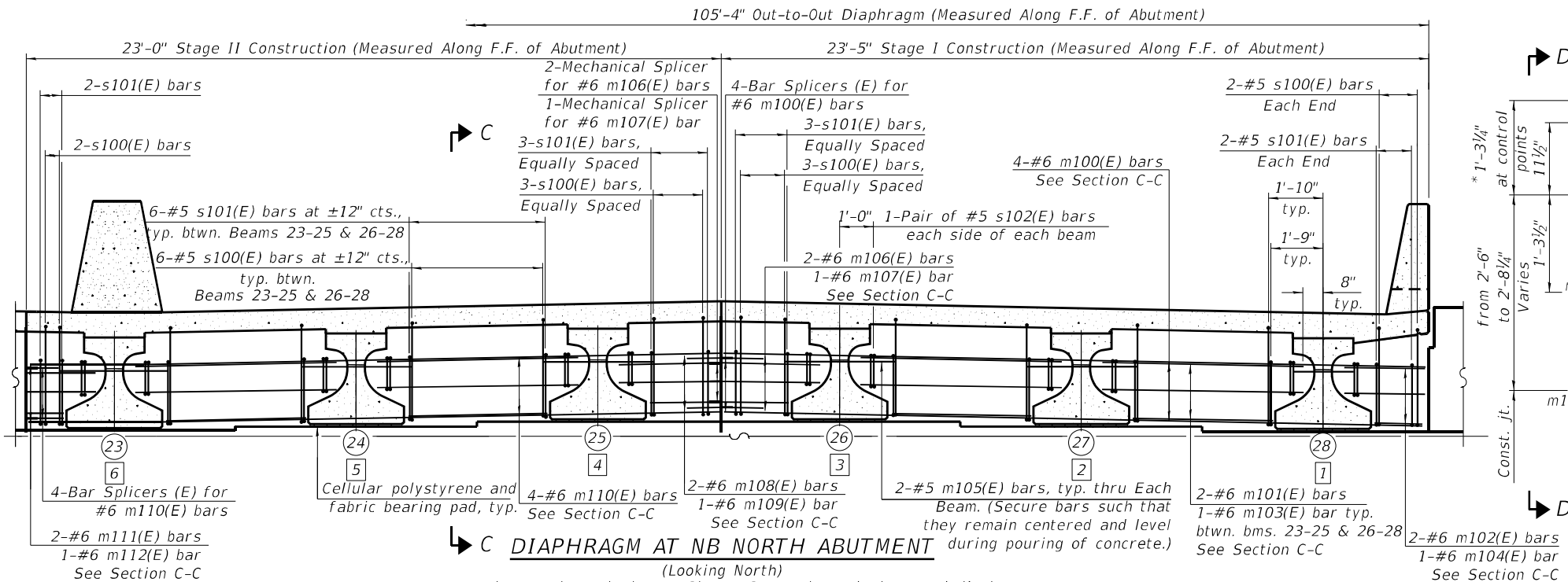
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 016-1195

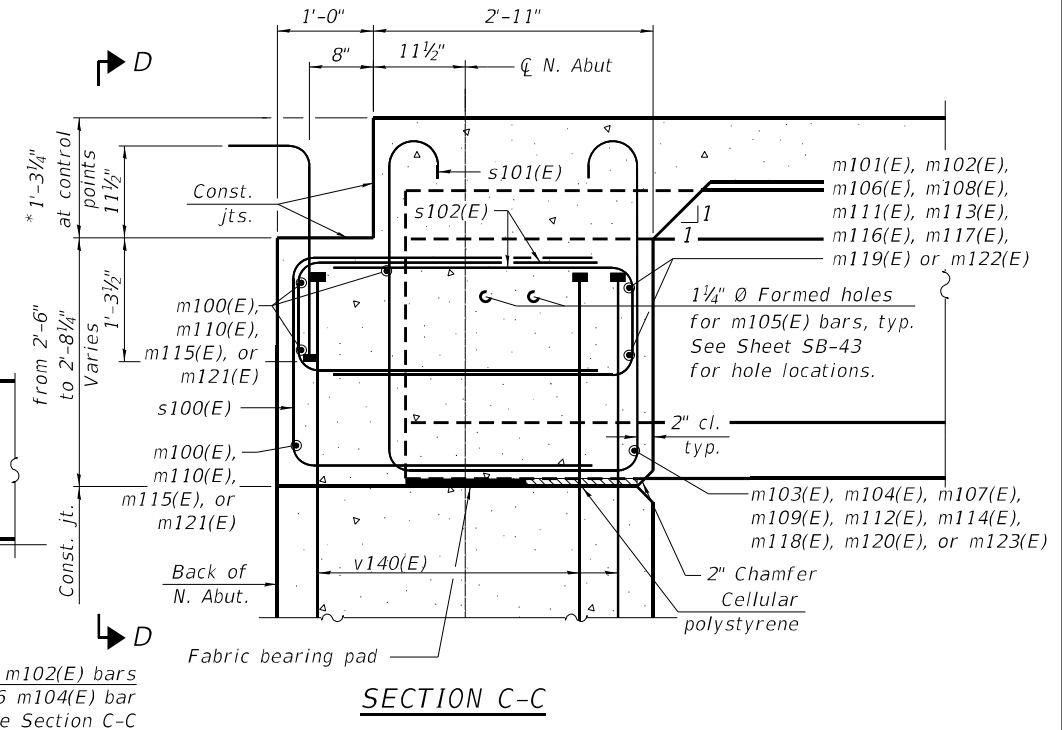
SHEET SB-36 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 889
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

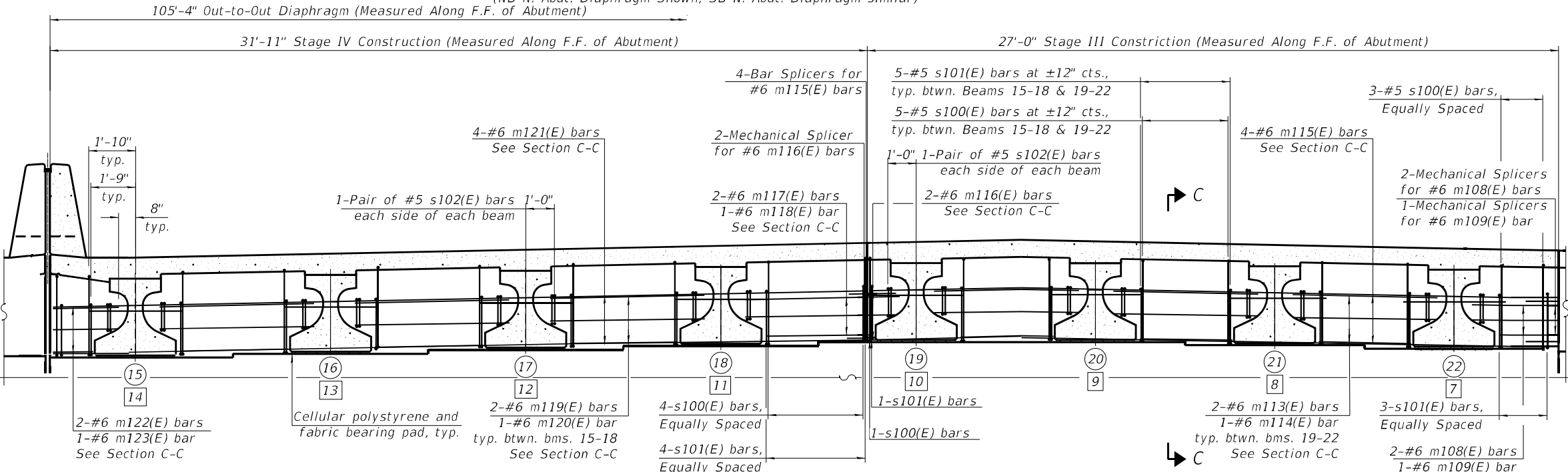
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DIAPHRAGM AT NB NORTH ABUTMENT
(Looking North)
(NB N. Abut. Diaphragm Shown, SB N. Abut. Diaphragm similar)



SECTION C-C

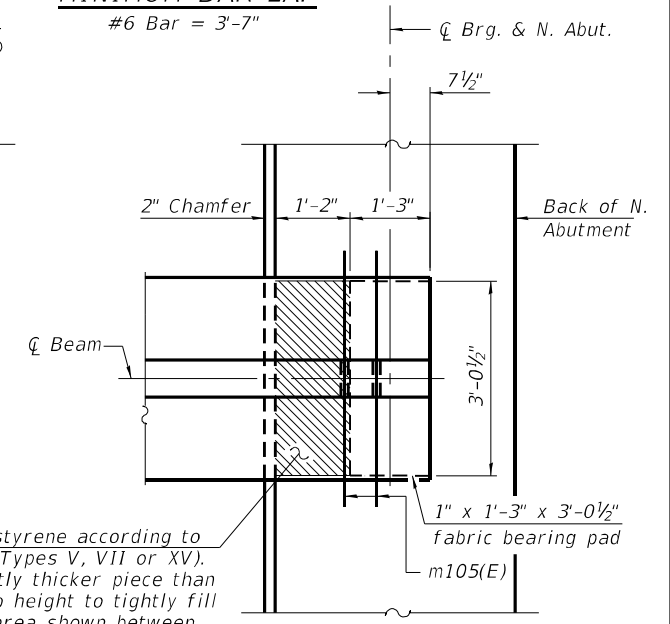


DIAPHRAGM AT NB NORTH ABUTMENT
(Looking North)
(NB N. Abut. Diaphragm Shown, SB N. Abut. Diaphragm similar)

- NOTES:**
- For additional notes, quantities and Bill of Material, see Sheets SB-34 and SB-35.
 - The approach slab seat shall have a constant slope determined from control points shown.
 - Cost of cellular polystyrene is included with Concrete Superstructure.
 - Cost of fabric bearing pad is included with Furnishing and Erecting Precast Prestressed Concrete Beams, IL36 N.

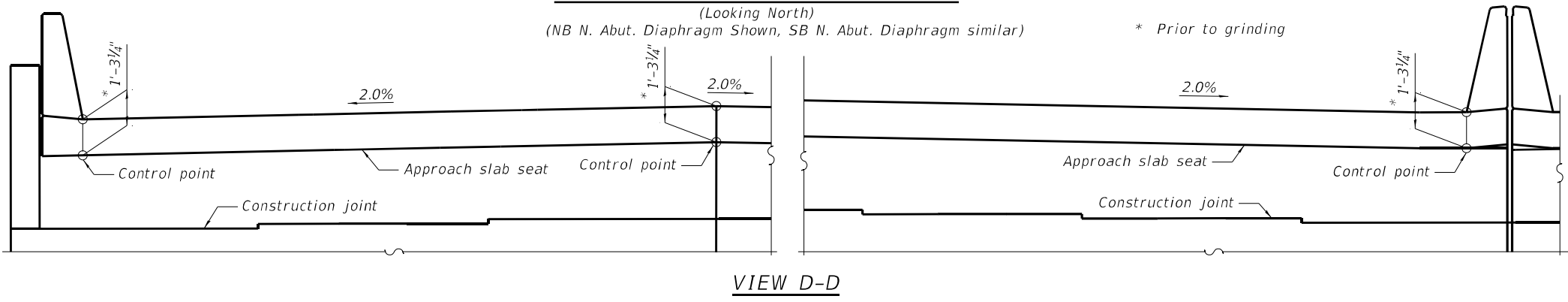
MINIMUM BAR LAP

#6 Bar = 3'-7"



PLAN AT ABUTMENT
(Showing bottom flange of beam)

Cellular polystyrene according to ASTM C 578 (Types V, VII or XV). Provide slightly thicker piece than measured gap height to tightly fill the hatched area shown between abutment cap and bottom of beam.



VIEW D-D



USER NAME =	DESIGNED - EN	REVISED -
PLOT SCALE =	CHECKED - MI, JJS	REVISED -
PLOT DATE =	DRAWN - EN	REVISED -
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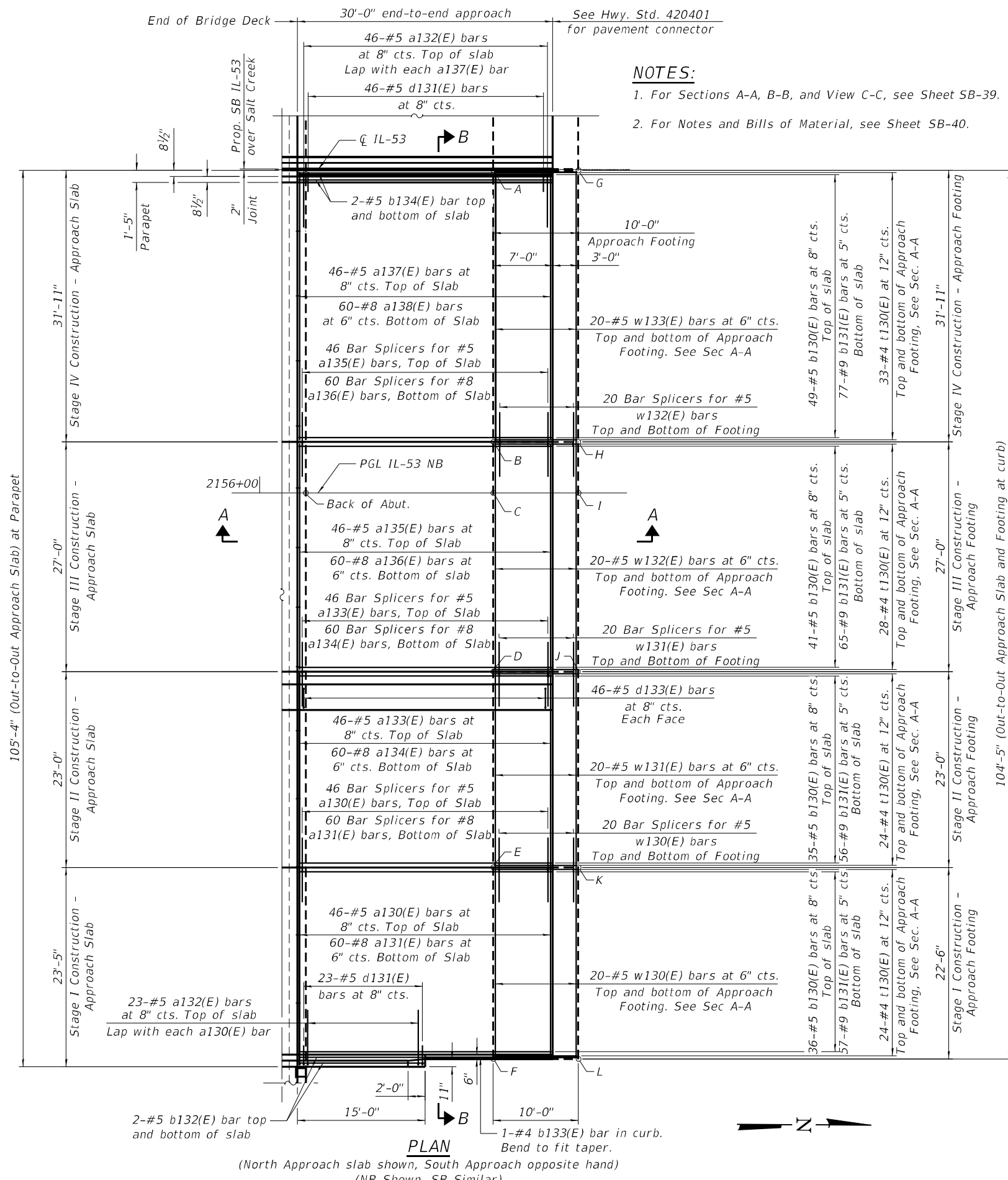
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 016-1195**

SHEET SB-37 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 890
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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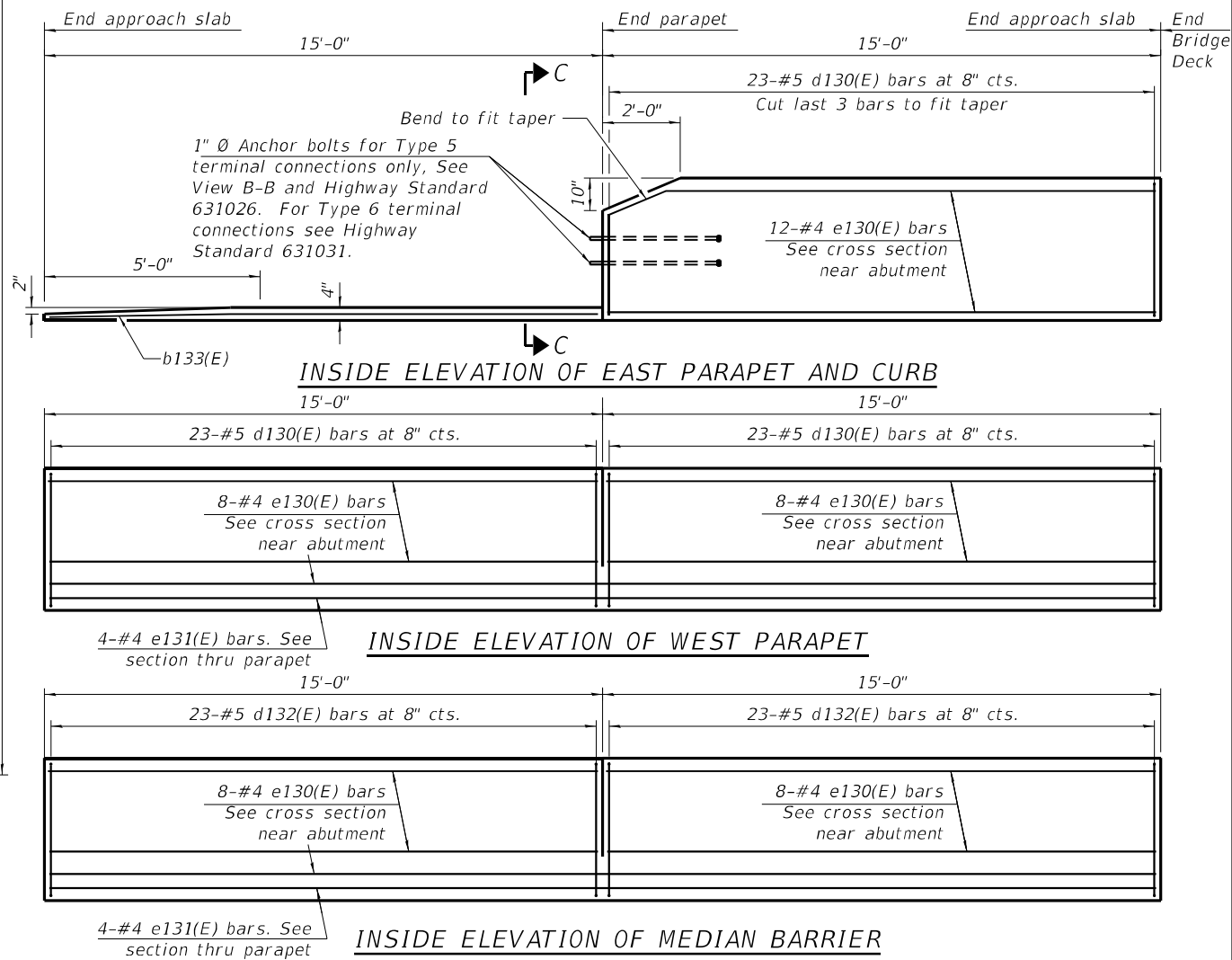
NOTES:
 1. For Sections A-A, B-B, and View C-C, see Sheet SB-39.
 2. For Notes and Bills of Material, see Sheet SB-40.

TOP AND BOTTOM ELEVATIONS FOR NB APPROACH FOOTING

South Approach			North Approach		
Point / Location	Top	Bottom	Point / Location	Top	Bottom
A - SW	716.34	715.50	A - SW	716.82	715.99
B - Stage III/IV Const. Line	716.82	715.99	B - Stage III/IV Const. Line	717.31	716.48
C - NB. PGL	716.94	716.11	C - NB. PGL	717.43	716.60
D - Stage II/III Const. Line	716.52	715.69	D - Stage II/III Const. Line	717.01	716.18
E - Stage I/II Const. Line	716.86	716.03	E - Stage I/II Const. Line	717.35	716.52
F - SE	716.41	715.58	F - SE	716.90	716.07
G - NW	716.37	715.54	G - NW	716.86	716.03
H - Stage III/IV Const. Line	716.86	716.03	H - Stage III/IV Const. Line	717.34	716.51
I - NB. PGL	716.98	716.15	I - NB. PGL	717.46	716.63
J - Stage II/III Const. Line	716.56	715.73	J - Stage II/III Const. Line	717.04	716.21
K - Stage I/II Const. Line	716.90	716.07	K - Stage I/II Const. Line	717.38	716.55
L - NE	716.45	715.62	L - NE	716.93	716.10

TOP AND BOTTOM ELEVATIONS FOR SB APPROACH FOOTING

South Approach			North Approach		
Point / Location	Top	Bottom	Point / Location	Top	Bottom
A - SW	716.47	715.64	A - SW	716.95	716.12
B - Stage I/II Const. Line	716.92	716.09	B - Stage I/II Const. Line	717.40	716.57
C - Stage II/III Const. Line	716.58	715.75	C - Stage II/III Const. Line	717.06	716.23
D - SB. PGL	717.00	716.17	D - SB. PGL	717.48	716.65
E - Stage III/IV Const. Line	716.88	716.05	E - Stage III/IV Const. Line	717.36	716.53
F - SE	716.40	715.56	F - SE	716.88	716.05
G - NW	716.51	715.68	G - NW	716.99	716.16
H - Stage I/II Const. Line	716.96	716.13	H - Stage I/II Const. Line	717.44	716.61
I - Stage II/III Const. Line	716.62	715.79	I - Stage II/III Const. Line	717.10	716.27
J - SB. PGL	717.04	716.21	J - SB. PGL	717.52	716.69
K - Stage III/IV Const. Line	716.92	716.09	K - Stage III/IV Const. Line	717.40	716.57
L - NE	716.43	715.60	L - NE	716.92	716.08



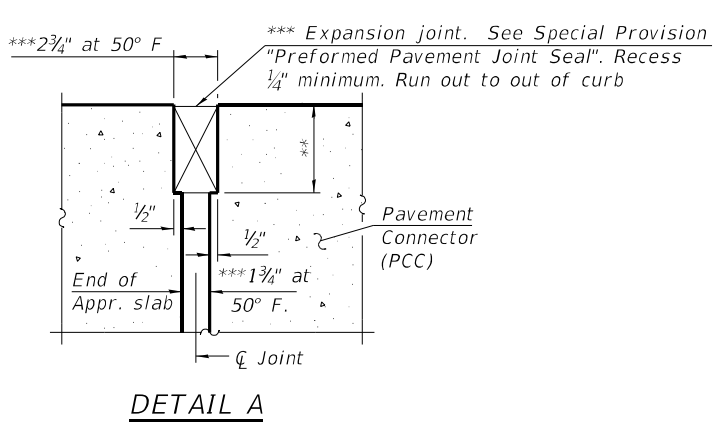
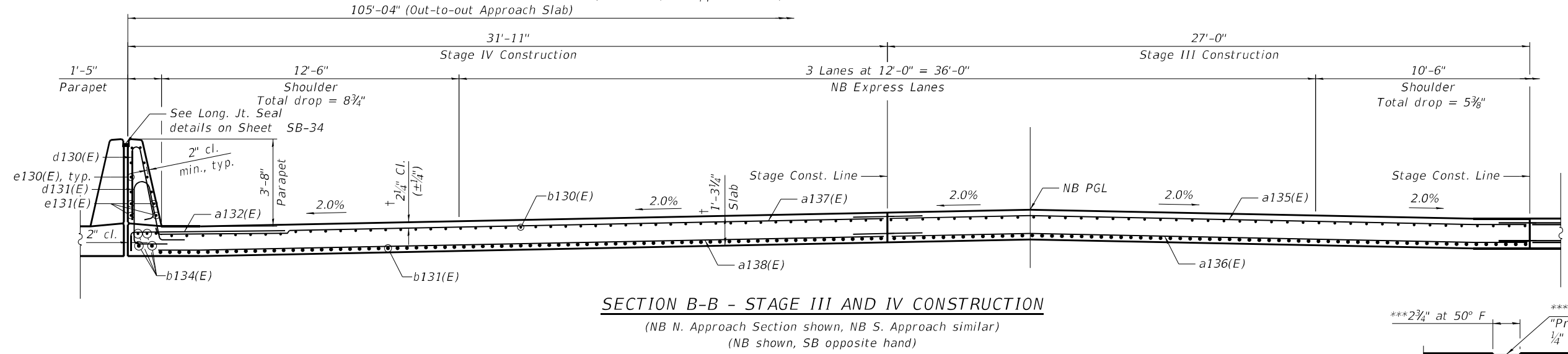
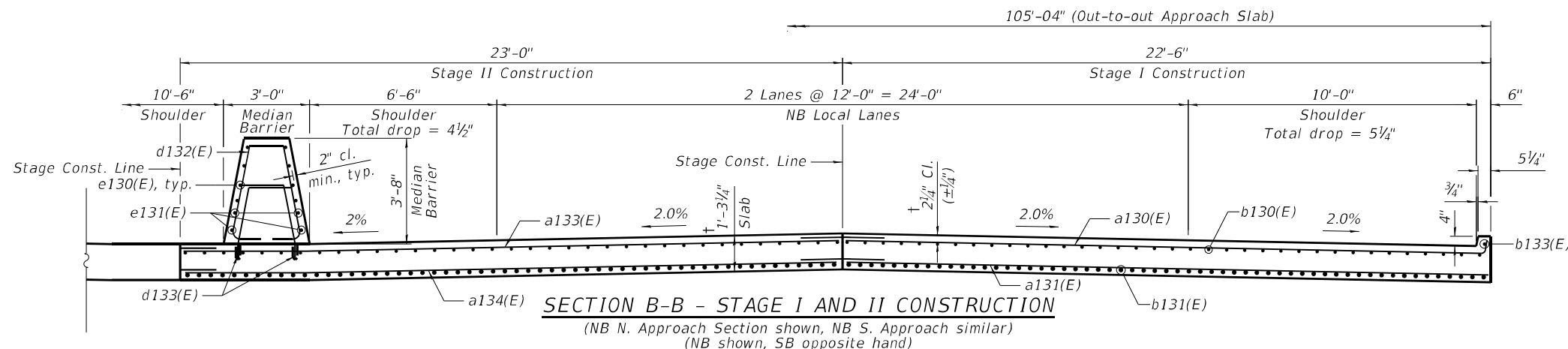
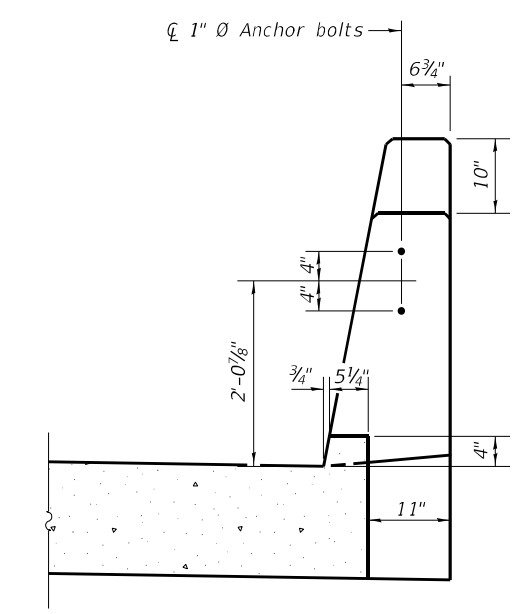
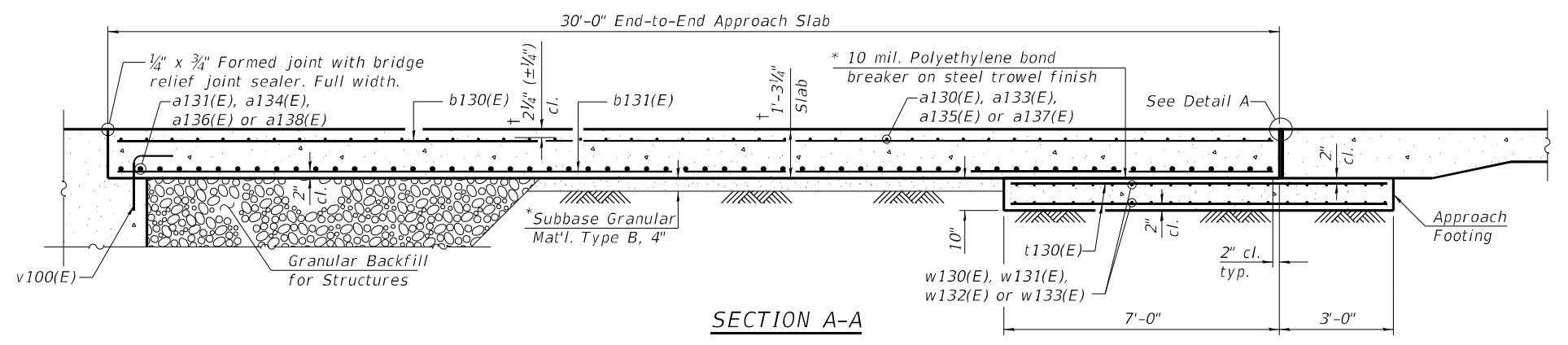
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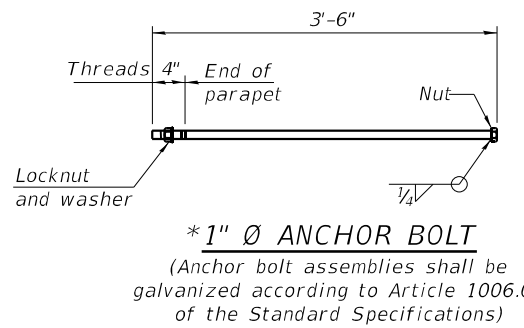
BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 016-1195
 SHEET SB-38 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	891
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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- NOTES:**
- For additional notes, see sheet SB-40.
 - Core and set #5 d133(E) bar (barrier median) according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".



- * Cost included with Concrete Superstructure (Approach Slab).
- ** Per manufacturer recommendations
- *** The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of the bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.



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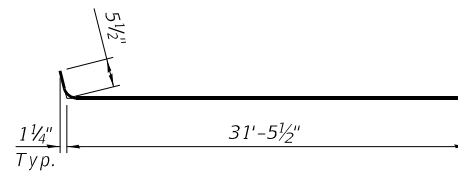
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-1195

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-100-BR	COOK	1351	892
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

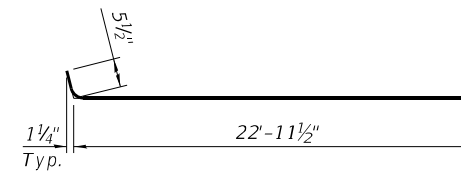
SHEET SB-39 OF SB-75 SHEETS

NOTES:

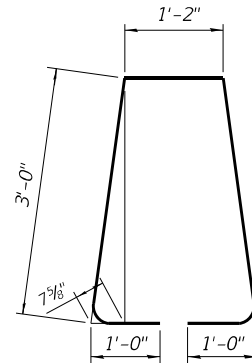
1. Parapet concrete shall be paid for as Concrete Superstructure.
2. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
3. Approach footing concrete shall be paid for as Concrete Structures.
4. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
5. Cost of excavation for approach footing included with Concrete Structures.
6. For v100(E) bar, see Sheet SB-35.
7. For bar splicer details, see Sheet SB-69.
8. For Longitudinal Joint Seal Detail along CL IL-53, see Sheet SB-34.



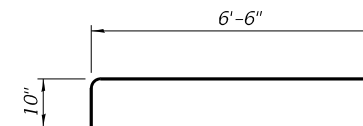
BARS a137(E)



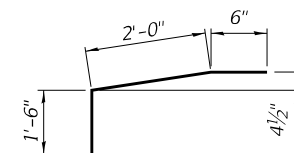
BARS a130(E)



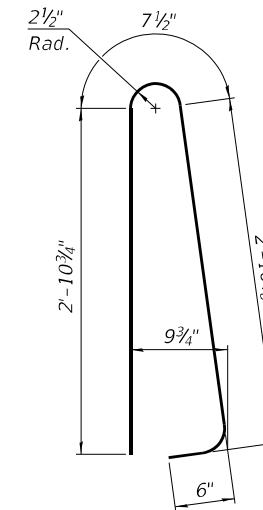
BAR d132(E)



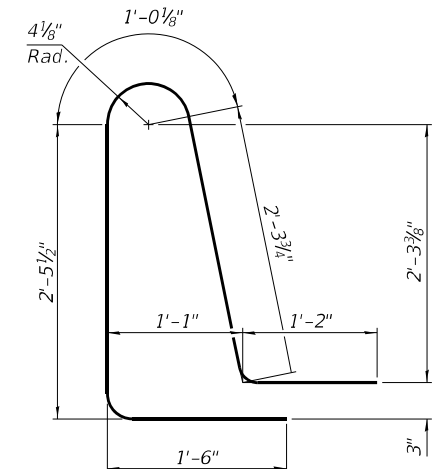
BAR a132(E)



BAR d133(E)



BAR d130(E)



BAR d131(E)

NB BRIDGE

NORTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a130(E)	46	#5	23'-5"	=====
a131(E)	60	#8	23'-1"	=====
a132(E)	69	#5	7'-4"	=====
a133(E)	46	#5	22'-8"	=====
a134(E)	60	#8	22'-8"	=====
a135(E)	46	#5	26'-8"	=====
a136(E)	60	#8	26'-8"	=====
a137(E)	46	#5	31'-11"	=====
a138(E)	60	#8	31'-7"	=====
b130(E)	161	#5	29'-8"	=====
b131(E)	255	#9	29'-8"	=====
b132(E)	4	#5	14'-8"	=====
b133(E)	1	#4	14'-8"	=====
b134(E)	4	#5	29'-8"	=====
d130(E)	69	#5	7'-0"	=====
d131(E)	69	#5	8'-6"	=====
d132(E)	46	#5	9'-2"	=====
d133(E)	92	#5	4'-0"	=====
e130(E)	44	#4	14'-8"	=====
e131(E)	8	#4	29'-8"	=====
t130(E)	218	#4	9'-8"	=====
w130(E)	40	#5	23'-1"	=====
w131(E)	40	#5	22'-8"	=====
w132(E)	40	#5	26'-8"	=====
w133(E)	40	#5	31'-7"	=====
Concrete Structures		Cu Yd	32.3	
Concrete Superstructure		Cu Yd	15.7	
Protective Coat		Cu Yd	384	
Concrete Superstructure (Approach Slab)		Cu Yd	148.8	
Reinforcement Bars, Epoxy Coated		Pound	61,390	
Preformed Joint Seal 3 1/2"		Foot	30	
Bridge Deck Grooving (Longitudinal)		Sq Yd	200	

NB BRIDGE

SOUTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a130(E)	46	#5	23'-5"	=====
a131(E)	60	#8	23'-1"	=====
a132(E)	69	#5	7'-4"	=====
a133(E)	46	#5	22'-8"	=====
a134(E)	60	#8	22'-8"	=====
a135(E)	46	#5	26'-8"	=====
a136(E)	60	#8	26'-8"	=====
a137(E)	46	#5	31'-11"	=====
a138(E)	60	#8	31'-7"	=====
b130(E)	161	#5	29'-8"	=====
b131(E)	255	#9	29'-8"	=====
b132(E)	4	#5	14'-8"	=====
b133(E)	1	#4	14'-8"	=====
b134(E)	4	#5	29'-8"	=====
d130(E)	69	#5	7'-0"	=====
d131(E)	69	#5	8'-6"	=====
d132(E)	46	#5	9'-2"	=====
d133(E)	92	#5	4'-0"	=====
e130(E)	44	#4	14'-8"	=====
e131(E)	8	#4	29'-8"	=====
t130(E)	218	#4	9'-8"	=====
w130(E)	40	#5	23'-1"	=====
w131(E)	40	#5	22'-8"	=====
w132(E)	40	#5	26'-8"	=====
w133(E)	40	#5	31'-7"	=====
Concrete Structures		Cu Yd	32.3	
Concrete Superstructure		Cu Yd	15.7	
Protective Coat		Cu Yd	384	
Concrete Superstructure (Approach Slab)		Cu Yd	148.8	
Reinforcement Bars, Epoxy Coated		Pound	61,390	
Preformed Joint Seal 3 1/2"		Foot	30	
Bridge Deck Grooving (Longitudinal)		Sq Yd	200	

SB BRIDGE

NORTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a130(E)	46	#5	23'-5"	=====
a131(E)	60	#8	23'-1"	=====
a132(E)	69	#5	7'-4"	=====
a133(E)	46	#5	22'-8"	=====
a134(E)	60	#8	22'-8"	=====
a135(E)	46	#5	26'-8"	=====
a136(E)	60	#8	26'-8"	=====
a137(E)	46	#5	31'-11"	=====
a138(E)	60	#8	31'-7"	=====
b130(E)	161	#5	29'-8"	=====
b131(E)	255	#9	29'-8"	=====
b132(E)	4	#5	14'-8"	=====
b133(E)	1	#4	14'-8"	=====
b134(E)	4	#5	29'-8"	=====
d130(E)	69	#5	7'-0"	=====
d131(E)	69	#5	8'-6"	=====
d132(E)	46	#5	9'-2"	=====
d133(E)	92	#5	4'-0"	=====
e130(E)	44	#4	14'-8"	=====
e131(E)	8	#4	29'-8"	=====
t130(E)	218	#4	9'-8"	=====
w130(E)	40	#5	23'-1"	=====
w131(E)	40	#5	22'-8"	=====
w132(E)	40	#5	26'-8"	=====
w133(E)	40	#5	31'-7"	=====
Concrete Structures		Cu Yd	32.3	
Concrete Superstructure		Cu Yd	15.7	
Protective Coat		Cu Yd	384	
Concrete Superstructure (Approach Slab)		Cu Yd	148.8	
Reinforcement Bars, Epoxy Coated		Pound	61,390	
Bridge Deck Grooving (Longitudinal)		Sq Yd	200	

SB BRIDGE

SOUTH APPROACH BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a130(E)	46	#5	23'-5"	=====
a131(E)	60	#8	23'-1"	=====
a132(E)	69	#5	7'-4"	=====
a133(E)	46	#5	22'-8"	=====
a134(E)	60	#8	22'-8"	=====
a135(E)	46	#5	26'-8"	=====
a136(E)	60	#8	26'-8"	=====
a137(E)	46	#5	31'-11"	=====
a138(E)	60	#8	31'-7"	=====
b130(E)	161	#5	29'-8"	=====
b131(E)	255	#9	29'-8"	=====
b132(E)	4	#5	14'-8"	=====
b133(E)	1	#4	14'-8"	=====
b134(E)	4	#5	29'-8"	=====
d130(E)	69	#5	7'-0"	=====
d131(E)	69	#5	8'-6"	=====
d132(E)	46	#5	9'-2"	=====
d133(E)	92	#5	4'-0"	=====
e130(E)	44	#4	14'-8"	=====
e131(E)	8	#4	29'-8"	=====
t130(E)	218	#4	9'-8"	=====
w130(E)	40	#5	23'-1"	=====
w131(E)	40	#5	22'-8"	=====
w132(E)	40	#5	26'-8"	=====
w133(E)	40	#5	31'-7"	=====
Concrete Structures		Cu Yd	32.3	
Concrete Superstructure		Cu Yd	15.7	
Protective Coat		Cu Yd	384	
Concrete Superstructure (Approach Slab)		Cu Yd	148.8	
Reinforcement Bars, Epoxy Coated		Pound	61,390	
Bridge Deck Grooving (Longitudinal)		Sq Yd	200	

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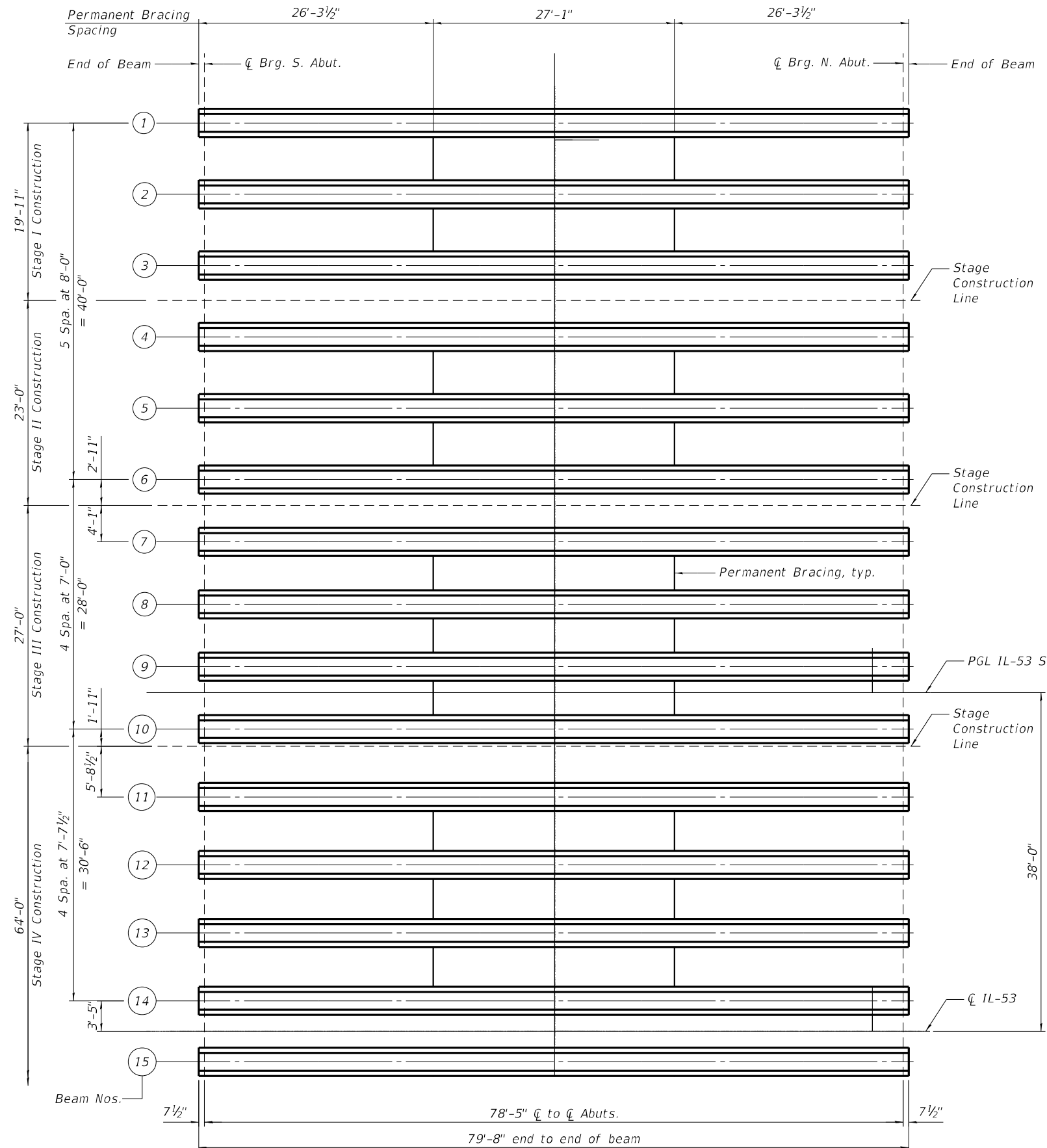
**STATE OF ILLINOIS
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**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-1195**

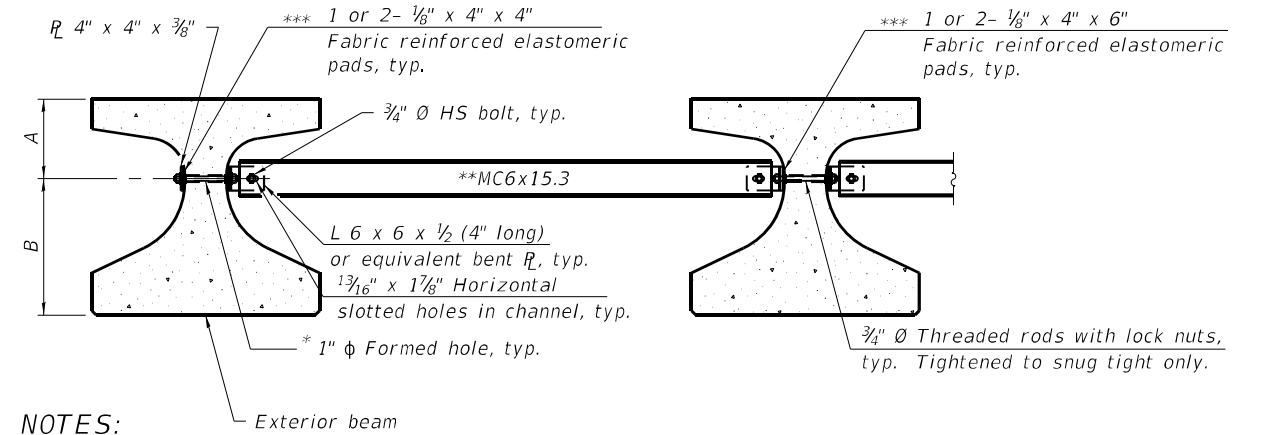
SHEET SB-40 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	893
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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PLAN



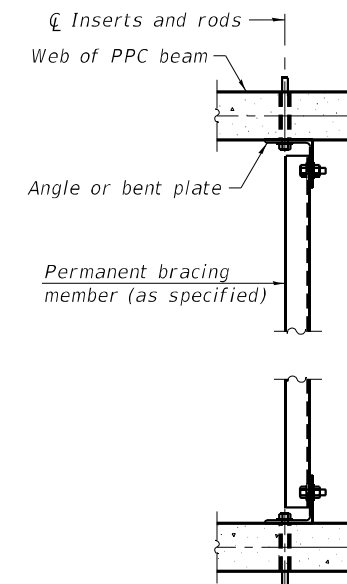
NOTES:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
 Two hardened washers are required for each set of oversized holes.
 All holes shall be 1⁵/₁₆" Ø unless otherwise noted.
 3⁵/₁₆" x 3" x 3" plate washers are required over all slotted holes.
 All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.
 Threaded rods shall be ASTM F 1554 Grade 55.
 Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
 Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.

Beam	A	B
IL36	1'-1 ¹ / ₄ "	1'-10 ³ / ₄ "

- * Fabricator shall locate to miss strands within permissible tolerances.
- ** Alternate MC6x18 channels are permitted to facilitate material acquisition.
- *** Place pads as necessary to provide a flat mounting surface between the steel and concrete.

PERMANENT BRACING DETAILS FOR IL36 BEAMS



PLAN
 (When 90° bracing is specified)



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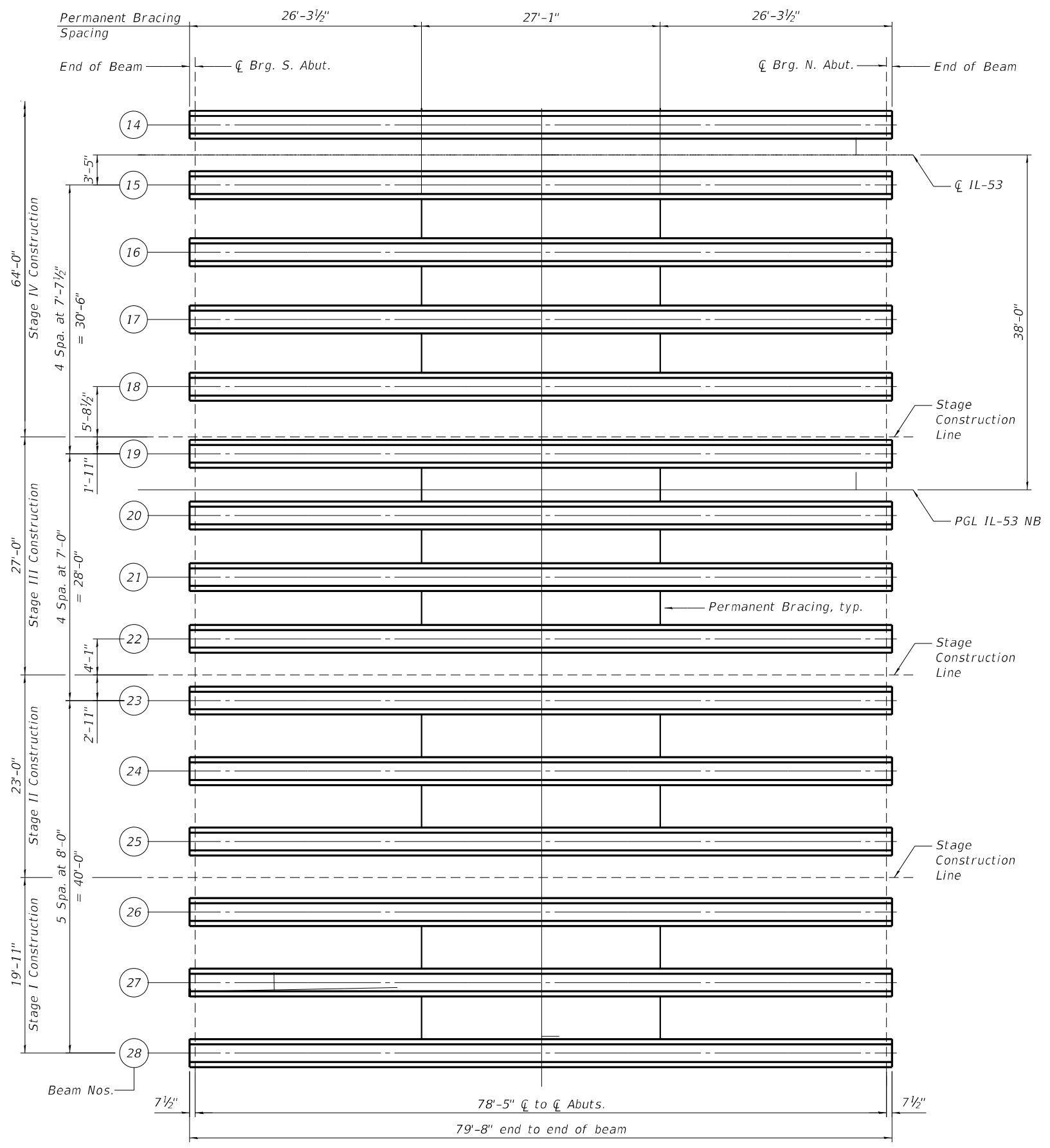
SB FRAMING PLAN
 STRUCTURE NO. 016-1195

SHEET SB-41 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 894
CONTRACT NO. 62N91				

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PLAN

INTERIOR BEAM MOMENT TABLE		
0.5 Span		
I	(in ⁴)	100433
I'	(in ⁴)	308306
S _b	(in ³)	6833
S _b '	(in ³)	11941
S _t	(in ³)	4716
S _t '	(in ³)	30288
DC1	(k/ft)	1.609
M _{DC1}	(k)	1237
DC2	(k/ft)	0.623
M _{DC2}	(k)	483
DW	(k/ft)	0.400
M _{DW}	(k)	308
LLDF	(k)	0.673
M _{ℓ + IM}	(k)	1345

EXTERIOR BEAM MOMENT TABLE		
0.5 Span		
I	(in ⁴)	100433
I'	(in ⁴)	300738
S _b	(in ³)	6833
S _b '	(in ³)	11831
S _t	(in ³)	4716
S _t '	(in ³)	28426
DC1	(k/ft)	1.618
M _{DC1}	(k)	1243
DC2	(k/ft)	0.288
M _{DC2}	(k)	219
DW	(k/ft)	0.304
M _{DW}	(k)	234
LLDF	(k)	0.762
M _{ℓ + IM}	(k)	1523

INTERIOR BEAM REACTION TABLE		
Abutments		
LLDF	(k)	0.814
OCF	(k)	-
R _{DC1}	(k)	64.1
R _{DC2}	(k)	24.4
R _{DW}	(k)	15.7
R _{ℓ + IM}	(k)	89.1
R _{Total (Strength I)(Impact)}	(k)	324.4
R _{Total (Strength I)(No Impact)}	(k)	287.8

EXTERIOR BEAM REACTION TABLE		
Abutments		
LLDF	(k)	0.762
OCF	(k)	-
R _{DC1}	(k)	64.3
R _{DC2}	(k)	11.3
R _{DW}	(k)	11.9
R _{ℓ + IM}	(k)	83.4
R _{Total (Strength I)(Impact)}	(k)	302.7
R _{Total (Strength I)(No Impact)}	(k)	266.1

- I: Non-composite moment of inertia of beam section (in⁴).
- I': Composite moment of inertia of beam section (in⁴).
- S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_b': Composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_t: Non-composite section modulus for the top fiber of the prestressed beam (in³).
- S_t': Composite section modulus for the top fiber of the prestressed beam (in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.
- M_{ℓ + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- OCF: Obtuse Correction Factor computed according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.
- R_{DC1}: Un-factored reaction due to non-composite dead load (kip).
- R_{DC2}: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
- R_{DW}: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
- R_ℓ: Un-factored live load reaction (kip).
- R_{IM}: Un-factored dynamic load allowance (impact) (kip).
- R_{Total (Strength I)(Impact)}: Total factored reaction including dynamic load allowance (impact) (kip).
- R_{Total (Strength I)(No Impact)}: Total factored reaction not including dynamic load allowance (impact) (kip).



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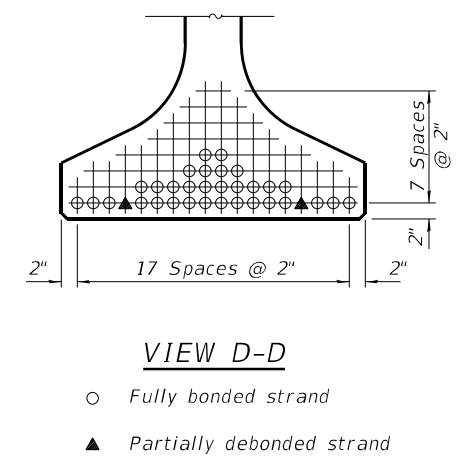
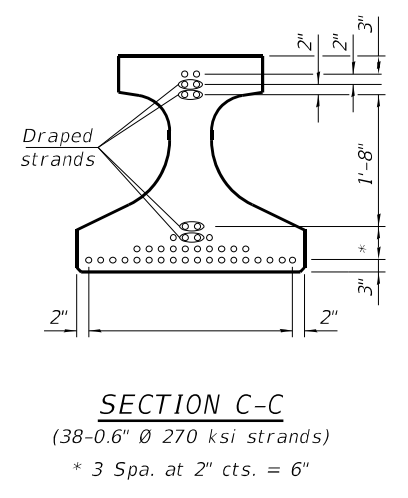
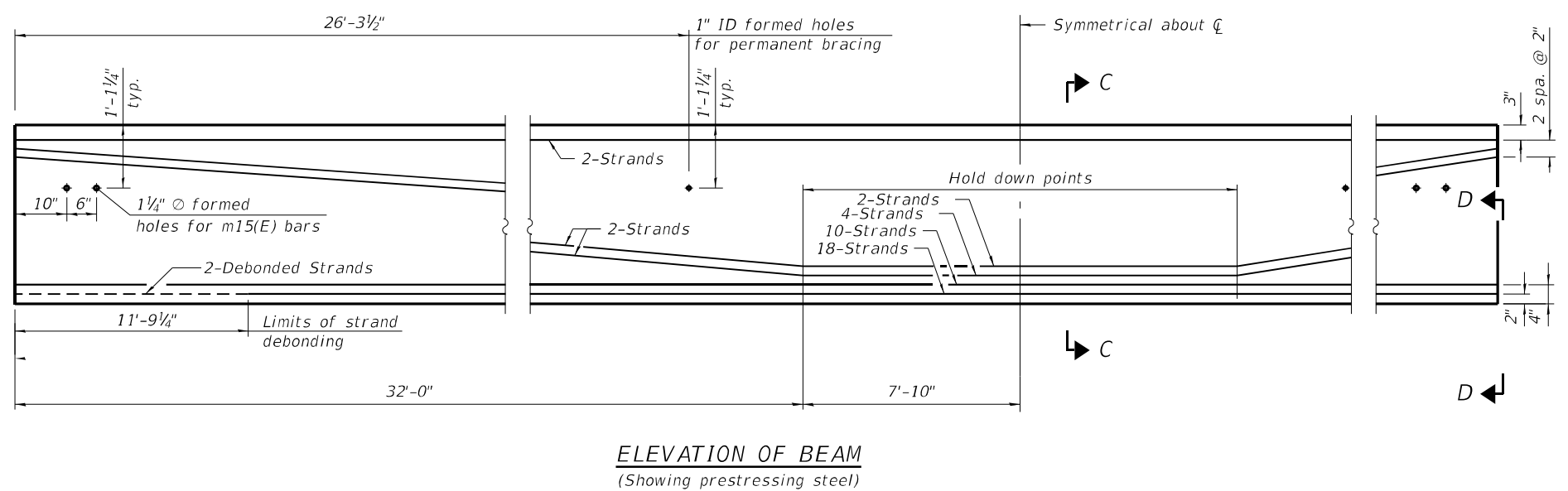
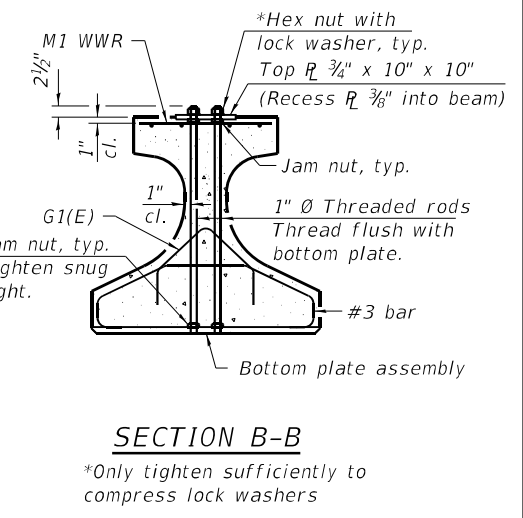
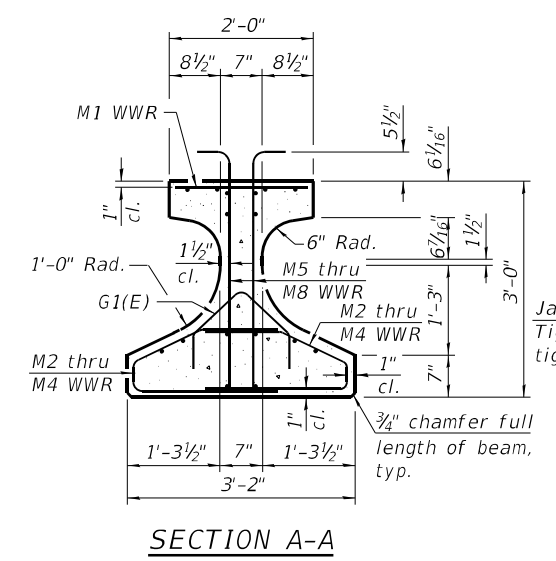
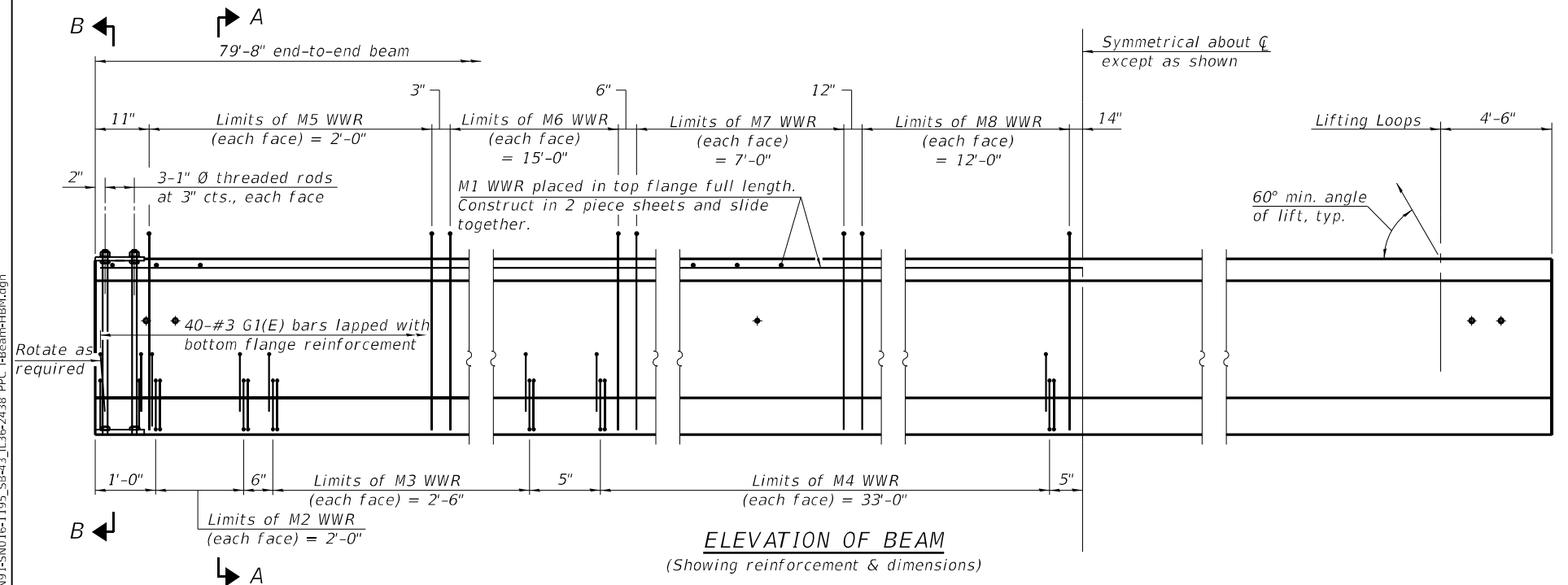
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

NB FRAMING PLAN
 STRUCTURE NO. 016-1195

SHEET SB-42 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	895
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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NOTE:
1. See Sheet SB-44 for additional details and Bill of Material.

IL36-2438

5-15-2023



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DEPARTMENT OF TRANSPORTATION**

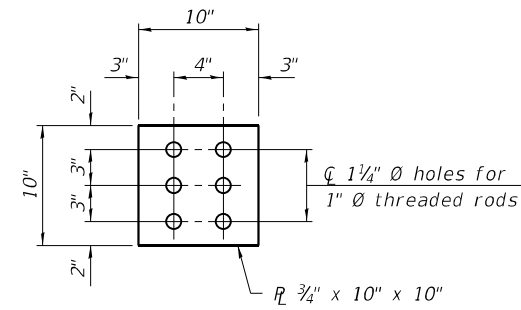
**IL36-2438 PPC I-BEAM
STRUCTURE NO. 016-1195**

SHEET SB-43 OF SB-75 SHEETS

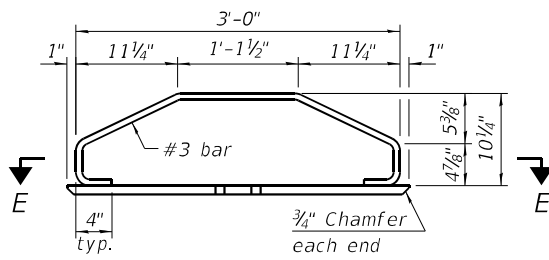
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CONTRACT NO. 62N91				

ILLINOIS FED. AID PROJECT

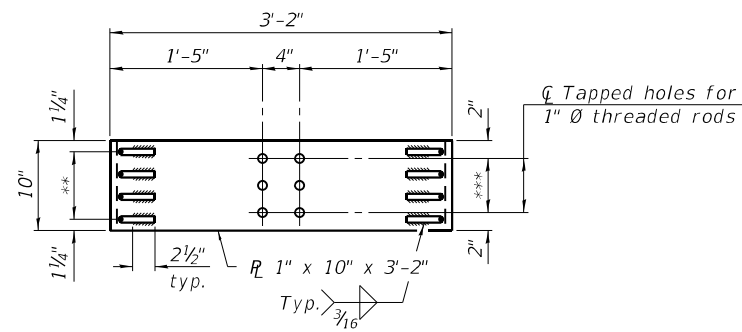
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PLAN - TOP PLATE



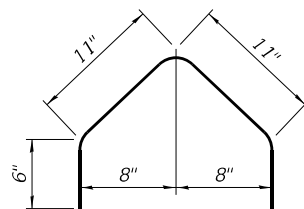
ELEVATION - BOTTOM PLATE ASSEMBLY



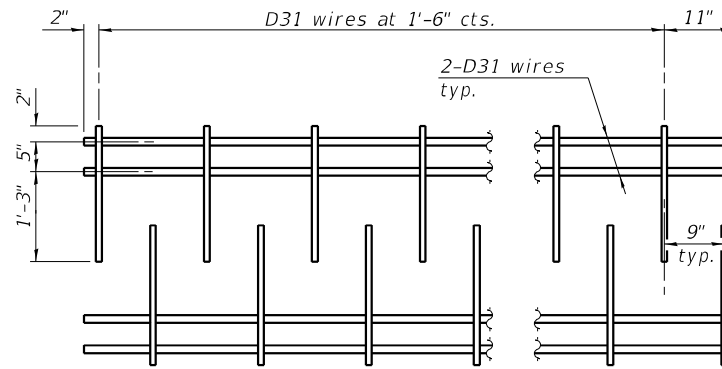
SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"

*** 2 Spaces at 3" = 6"

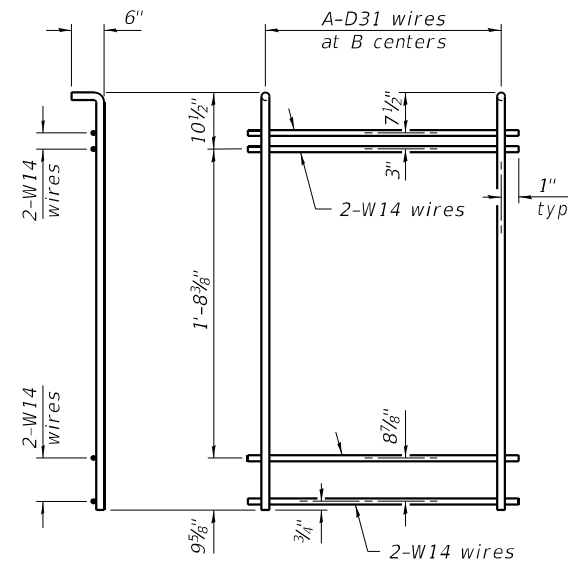


BAR G1(E)



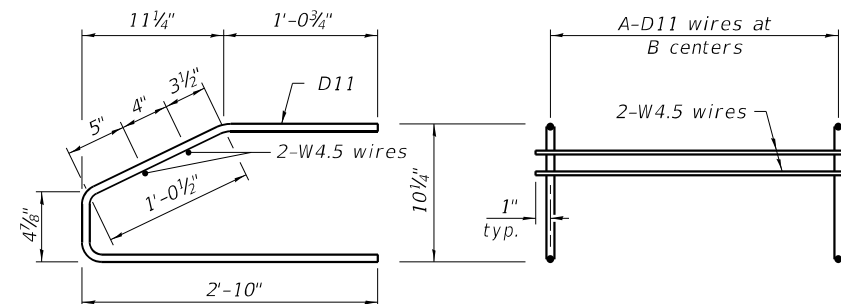
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (5'-0" long) shall be used to splice the longitudinal D31 wires together (Min. Lap 2'-4").



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

NOTES:

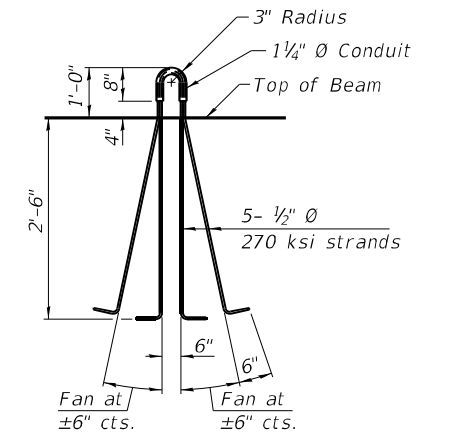
1. Inserts for 3/4" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
2. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.
3. The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 6500 psi.
4. A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling.
5. The top and bottom plates shall be AASHTO M270 Grade 50.
6. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.
7. Threaded rods shall be ASTM F 1554 Grade 55.
8. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating or ASTM A1060, Table 3 galvanized coating.

TABLE OF DIMENSIONS

(The WWR designs assume grade 60. If necessary, this permits the fabricator to directly substitute grade 60 rebar as detailed in the Manual for Fabrication of Precast Prestressed Concrete Products.)

SPAN 1

WWR	A	B
M2	9	3"
M3	6	6"
M4	22	1'-6"
M5	9	3"
M6	31	6"
M7	8	1'-0"
M8	7	2'-0"



LIFTING LOOP DETAIL

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing And Erecting Precast Prestressed Concrete Beams, IL36N	Foot	2,232

IL36-2438D

07-11-2024



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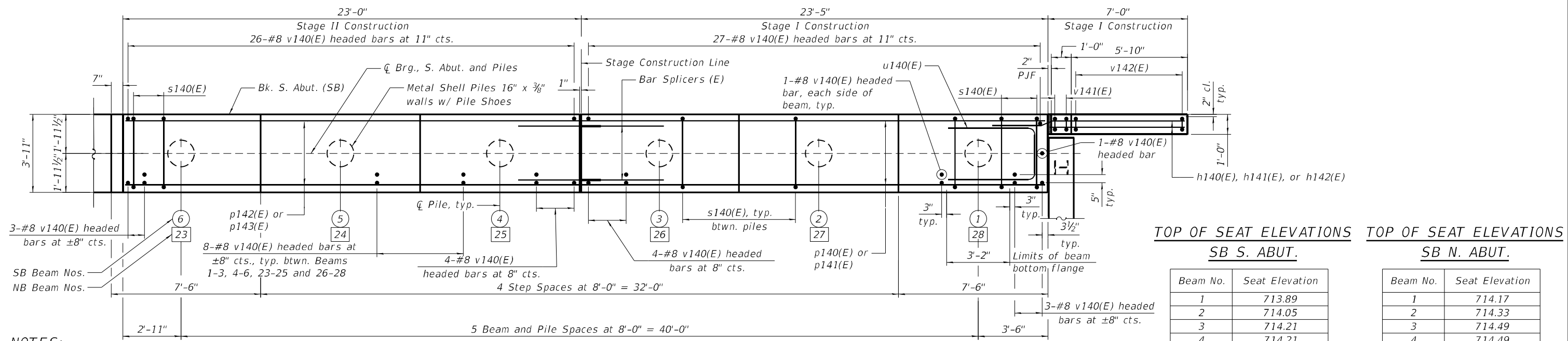
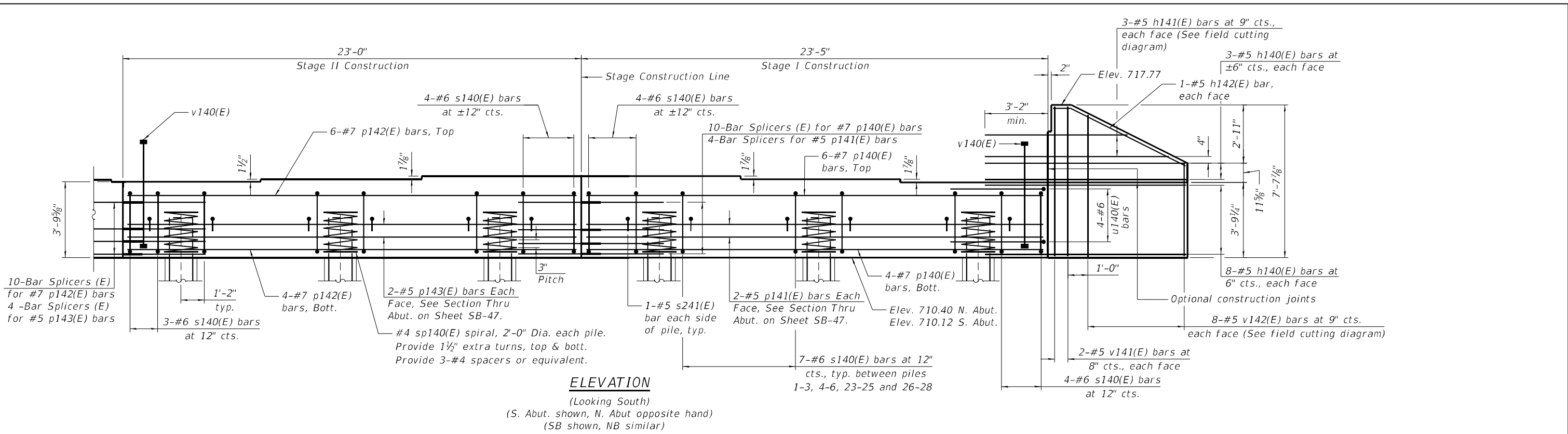
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL36-2438 PPC I-BEAM DETAILS
STRUCTURE NO. 016-1195**

SHEET SB-44 OF SB-75 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2018-100-BR	COOK	1351	897
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

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- NOTES:**
- For diaphragm details, see Sheets SB-36 and SB-37.
 - For details of piles, see Sheet SB-66.
 - For Bar Splicers, see Sheet SB-69.
 - Pour steps monolithically with cap.
 - Space reinforcement in cap to miss anchor bolts.
 - Headed bars shall conform to ASTM A970 with threaded attachment. Class HA; and reinforcement bars conforming to ASTM A706.
 - Bar terminators paid for separately.
 - Apply Concrete Sealer to all exposed concrete surfaces of the abutment wingwalls above grade.

TOP OF SEAT ELEVATIONS
 SB S. ABUT. SB N. ABUT.

Beam No.	Seat Elevation
1	713.89
2	714.05
3	714.21
4	714.21
5	714.05
6	713.92

Beam No.	Seat Elevation
1	714.17
2	714.33
3	714.49
4	714.49
5	714.33
6	714.20

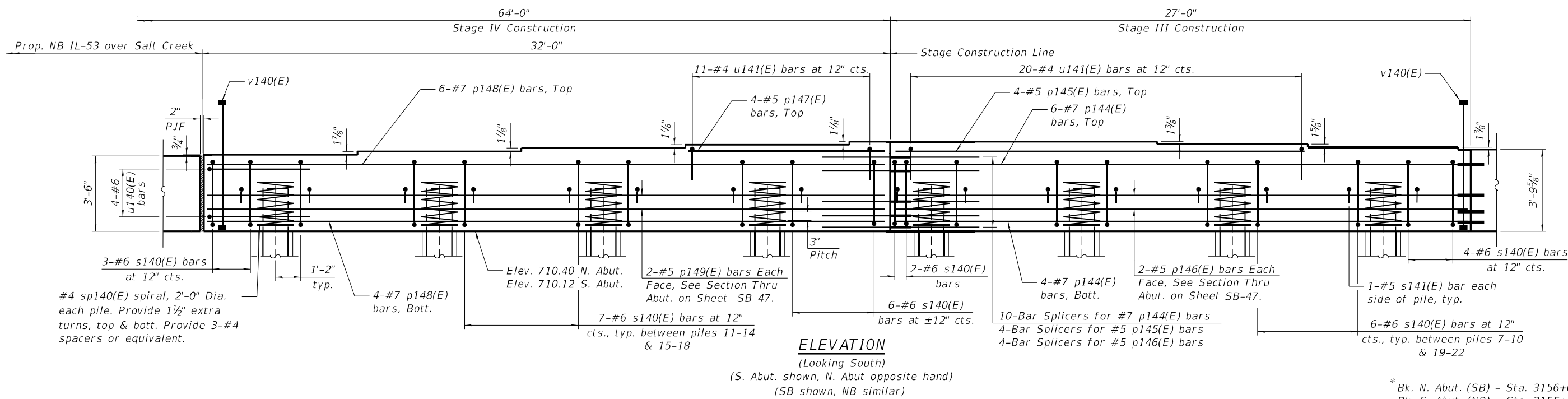
TOP OF SEAT ELEVATIONS
 NB S. ABUT. NB N. ABUT.

Beam No.	Seat Elevation
23	713.86
24	713.99
25	714.15
26	714.15
27	714.00
28	713.84

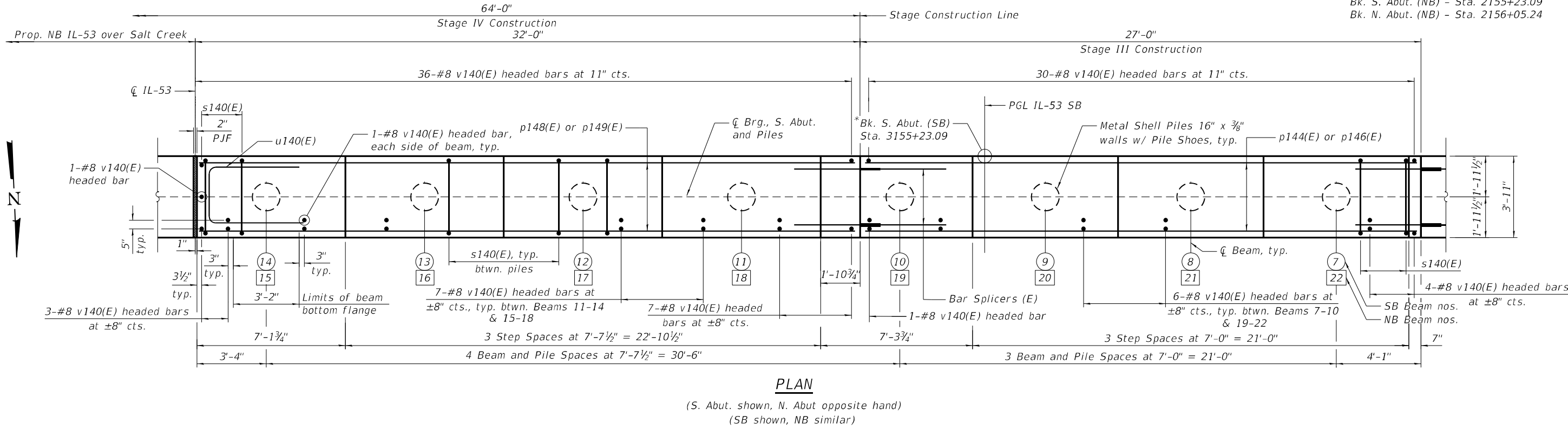
Beam No.	Seat Elevation
23	714.14
24	714.27
25	714.43
26	714.43
27	714.27
28	714.11

MINIMUM BAR LAP
 #5 Bar = 3'-2"
 #7 Bar = 4'-5"

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* Bk. N. Abut. (SB) - Sta. 3156+05.42
 Bk. S. Abut. (NB) - Sta. 2155+23.09
 Bk. N. Abut. (NB) - Sta. 2156+05.24



TOP OF SEAT ELEVATIONS - SB S. ABUT.

Beam No.	Seat Elevation
7	714.03
8	714.17
9	714.29
10	714.29
11	714.14
12	713.99
13	713.83
14	713.68

TOP OF SEAT ELEVATIONS - NB S. ABUT.

Beam No.	Seat Elevation
15	713.62
16	713.77
17	713.93
18	714.08
19	714.23
20	714.23
21	714.12
22	713.98

TOP OF SEAT ELEVATIONS - SB N. ABUT.

Beam No.	Seat Elevation
7	714.31
8	714.45
9	714.57
10	714.57
11	714.42
12	714.26
13	714.11
14	713.96

TOP OF SEAT ELEVATIONS - NB N. ABUT.

Beam No.	Seat Elevation
15	713.90
16	714.05
17	714.21
18	714.36
19	714.51
20	714.51
21	714.39
22	714.25

NOTE:
 1. For Notes, see Sheet SB-45.



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN AND ELEV. - STAGES III & IV CONST.
 STRUCTURE NO. 016-1195

SHEET SB-46 OF SB-75 SHEETS

F.A.P. RTE. 342	SECTION 2018-100-BR	COUNTY COOK	TOTAL SHEETS 1351	SHEET NO. 899
CONTRACT NO. 62N91				
ILLINOIS FED. AID PROJECT				

