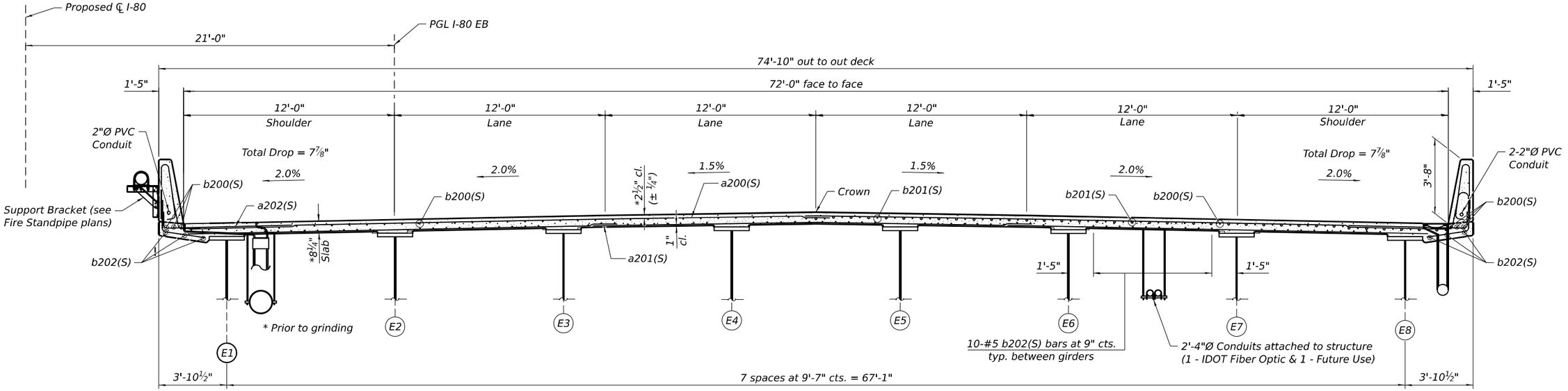
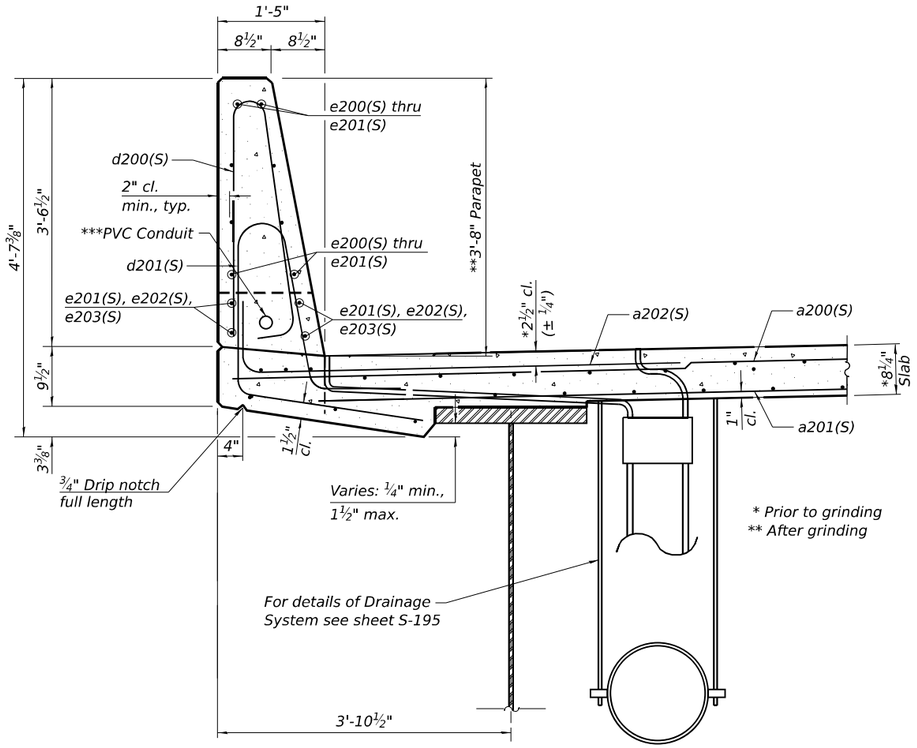


NEAR MIDSPAN

NEAR PIER

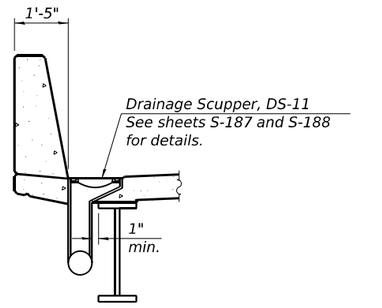
CROSS SECTION - UNIT 2 EB

(Looking East)

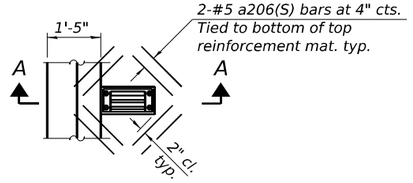


SECTION THRU PARAPET

Drainage Scuppers (Special) shown, Drainage Scupper , DS-11 similar
***2-2" Dia. PVC Conduits Outside Parapet,
1-2" Dia. PVC Conduit Inside Parapet



SECTION A-A



PLAN

Drainage Scupper, DS-11 shown,
Drainage Scuppers (Special), see sheet S-126

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

REINFORCEMENT AT DRAINAGE SCUPPERS

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"

WSP USA Inc.
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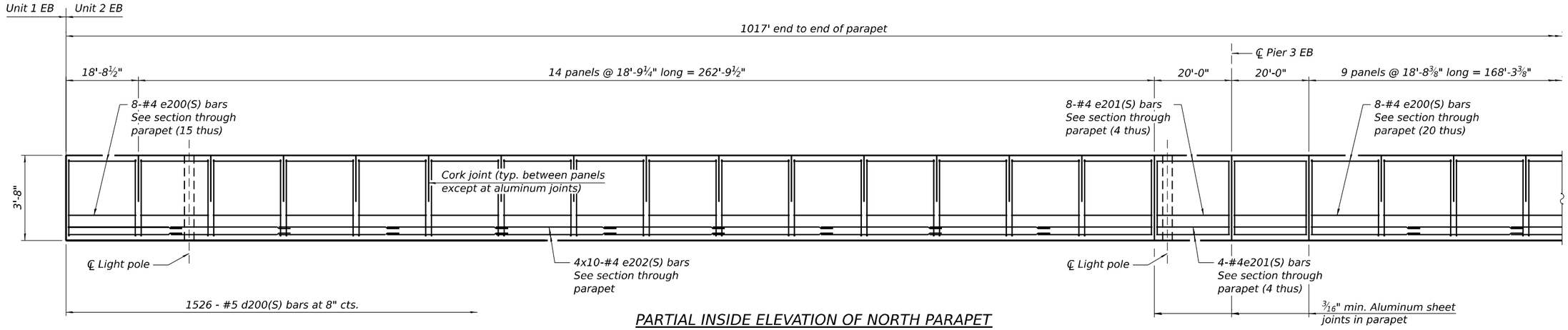
	CHECKED - LAS	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

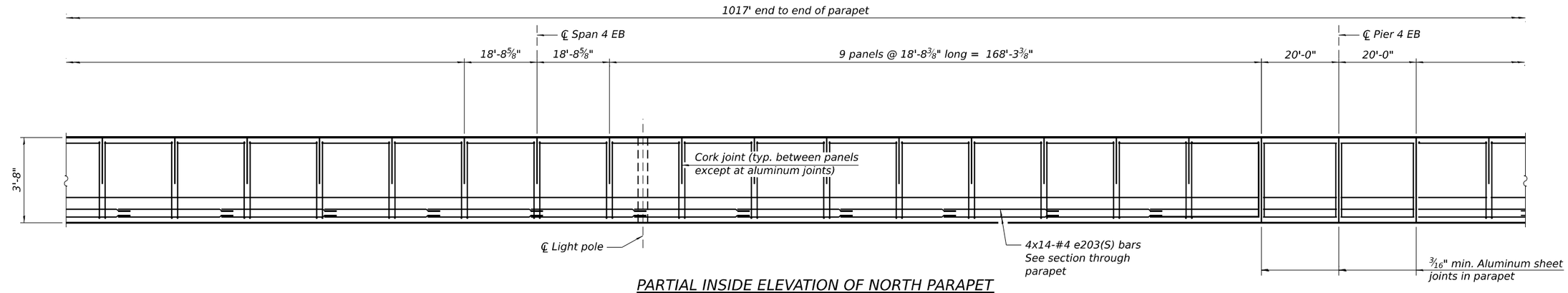
DECK CROSS SECTION AND PARAPET - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-120 OF S-333 SHEETS

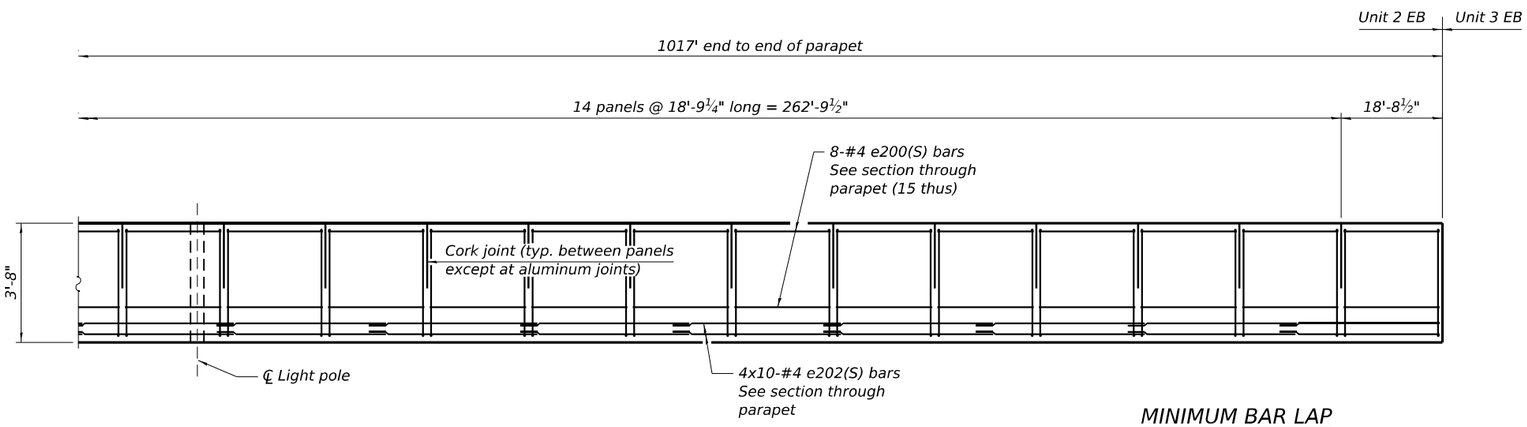
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	701
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



PARTIAL INSIDE ELEVATION OF NORTH PARAPET



PARTIAL INSIDE ELEVATION OF NORTH PARAPET

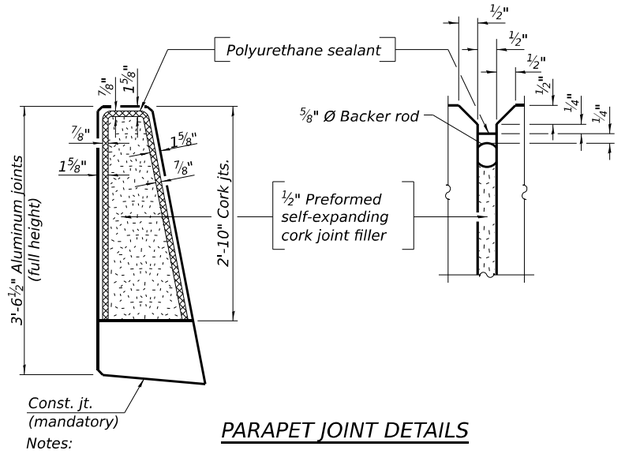


Note:
For details of attachment of navigation lights
see details on sheet S-221

PARTIAL INSIDE ELEVATION OF NORTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"



PARAPET JOINT DETAILS

Notes:

The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or spray paint 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.

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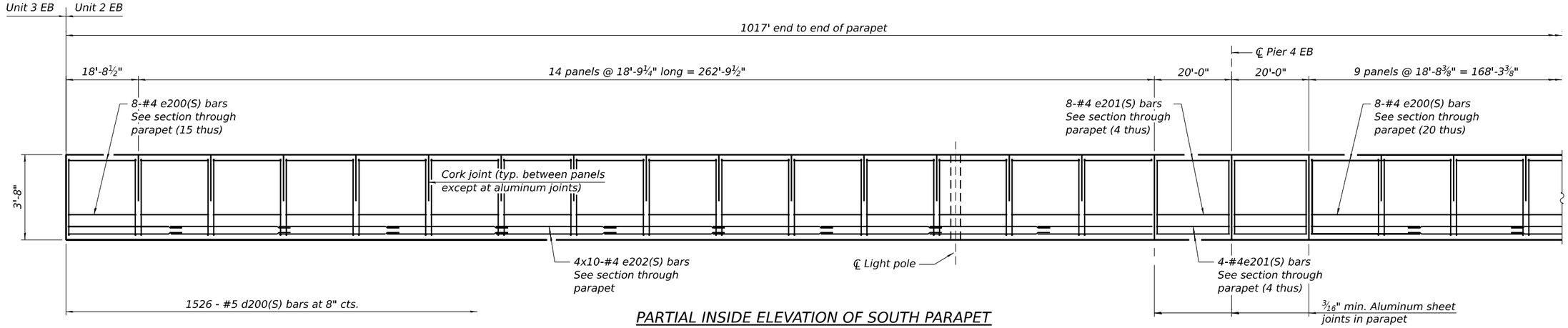
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

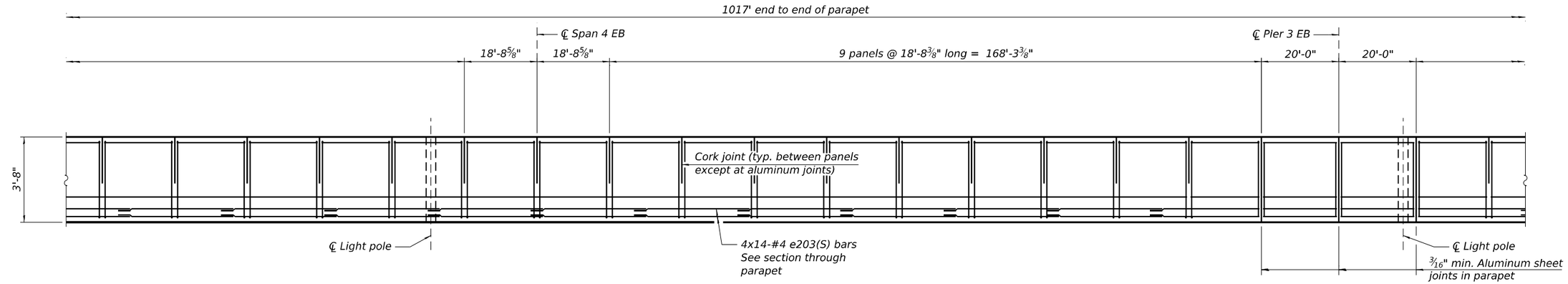
PARAPET ELEVATION 1 - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-121 OF S-333 SHEETS

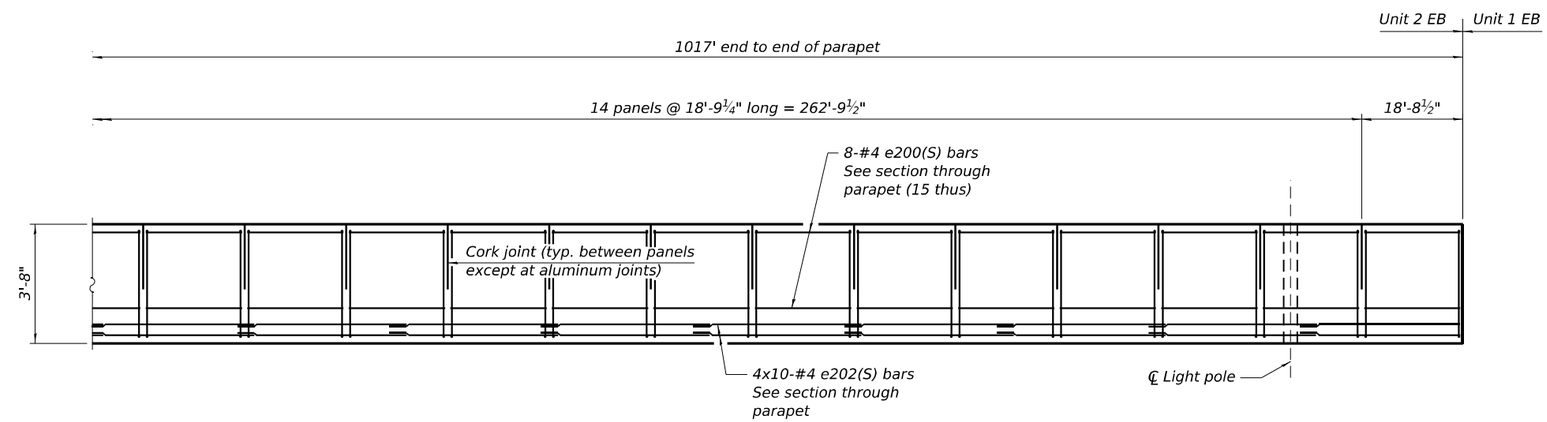
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	702
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



PARTIAL INSIDE ELEVATION OF SOUTH PARAPET



PARTIAL INSIDE ELEVATION OF SOUTH PARAPET



PARTIAL INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"

Note:
For details of attachment of navigation lights see details on sheet S-221

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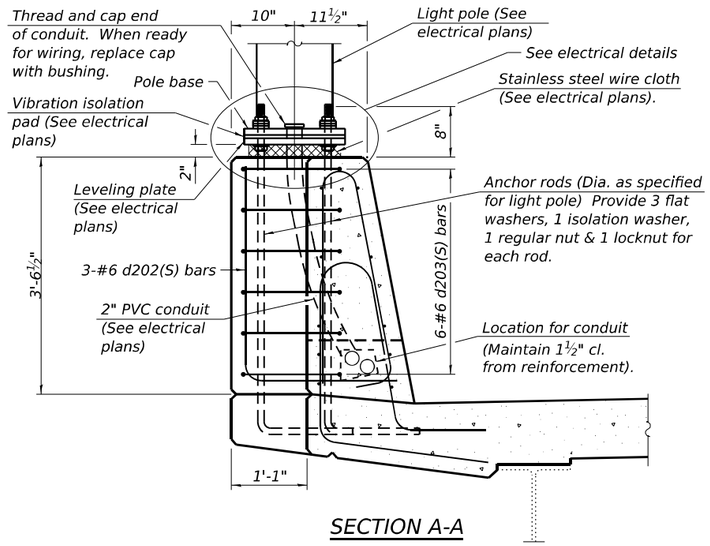
	CHECKED - LAS	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

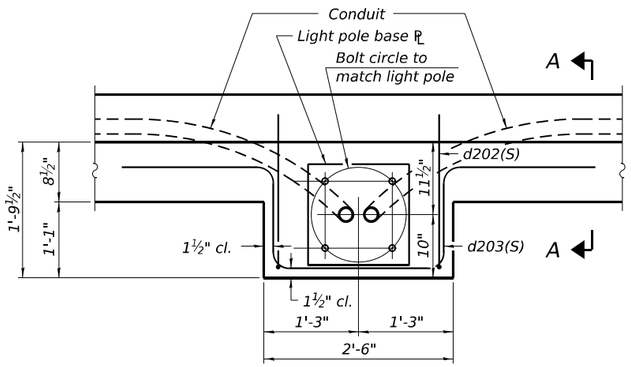
PARAPET ELEVATION 2 - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-122 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	703
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



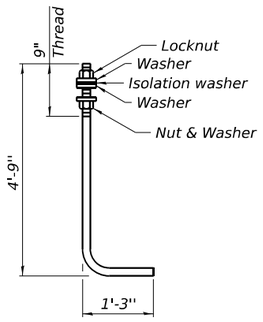
SECTION A-A



PLAN

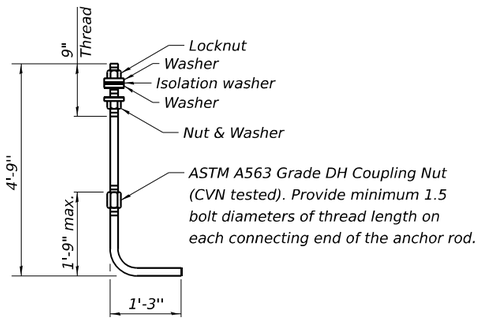
Note:
Cost of anchor rods is included with Concrete Superstructure.

LIGHT POLE DETAILS

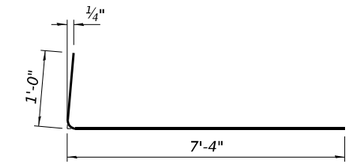


ANCHOR ROD

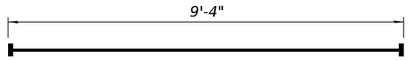
Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized.



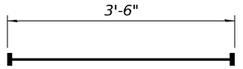
ALTERNATE ANCHOR ROD



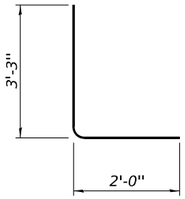
BAR a202(S)



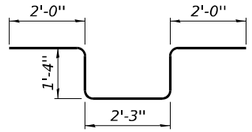
HEADED BAR a204(S)
(Headed. 28-#6 Bar terminators)



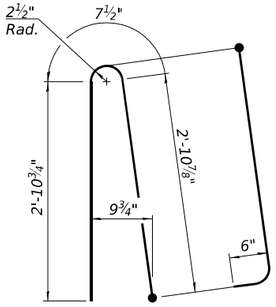
HEADED BAR a205(S)
(Headed. 8-#6 Bar terminators)



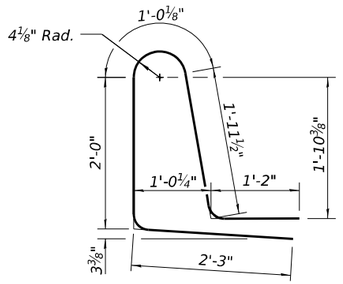
BAR d202(S)



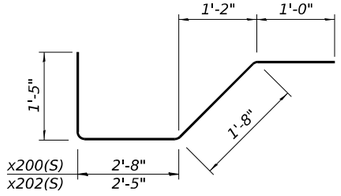
BAR d203(S)



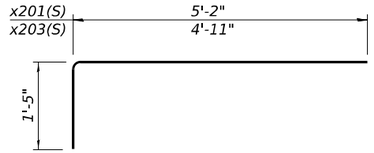
BAR d200(S)



BAR d201(S)



BAR x200(S) or x202(S)



BAR x201(S), x203(S)

UNIT 2 EB SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(S)	4,866	#5	39'-0"	
a201(S)	4,869	#5	26'-4"	
a202(S)	4,864	#6	8'-4"	
a203(S)	32	#6	39'-8"	
a204(S)	14	#6	9'-4"	
a205(S)	4	#6	3'-6"	
a206(S)	112	#5	1'-6"	
b200(S)	2,765	#5	32'-6"	
b201(S)	1,296	#6	33'-9"	
b202(S)	2,584	#5	33'-4"	
d200(S)	3,052	#5	7'-0"	
d201(S)	3,052	#5	8'-5"	
d202(S)	24	#6	5'-3"	
d203(S)	48	#6	8'-11"	
e200(S)	800	#4	18'-5"	
e201(S)	96	#4	19'-8"	
e202(S)	160	#4	30'-4"	
e203(S)	112	#4	29'-0"	
x200(S)	69	#5	6'-9"	
x201(S)	78	#5	6'-7"	
x202(S)	69	#5	6'-6"	
x203(S)	78	#5	6'-4"	

Concrete Superstructure	Cu Yd.	2,376.7
Reinforcement Bars, Stainless Steel	Pound	712,540
Protective Coat	Sq. Yd.	9,139
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	5,429
Diamond Grinding (Bridge Section)	Sq. Yd.	7,691

Note: Bar terminators paid for separately. See Total Bill of Materials.

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	CHECKED - LAS	REVISED -	
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PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

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SUPERSTRUCTURE DETAILS - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-123 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	704
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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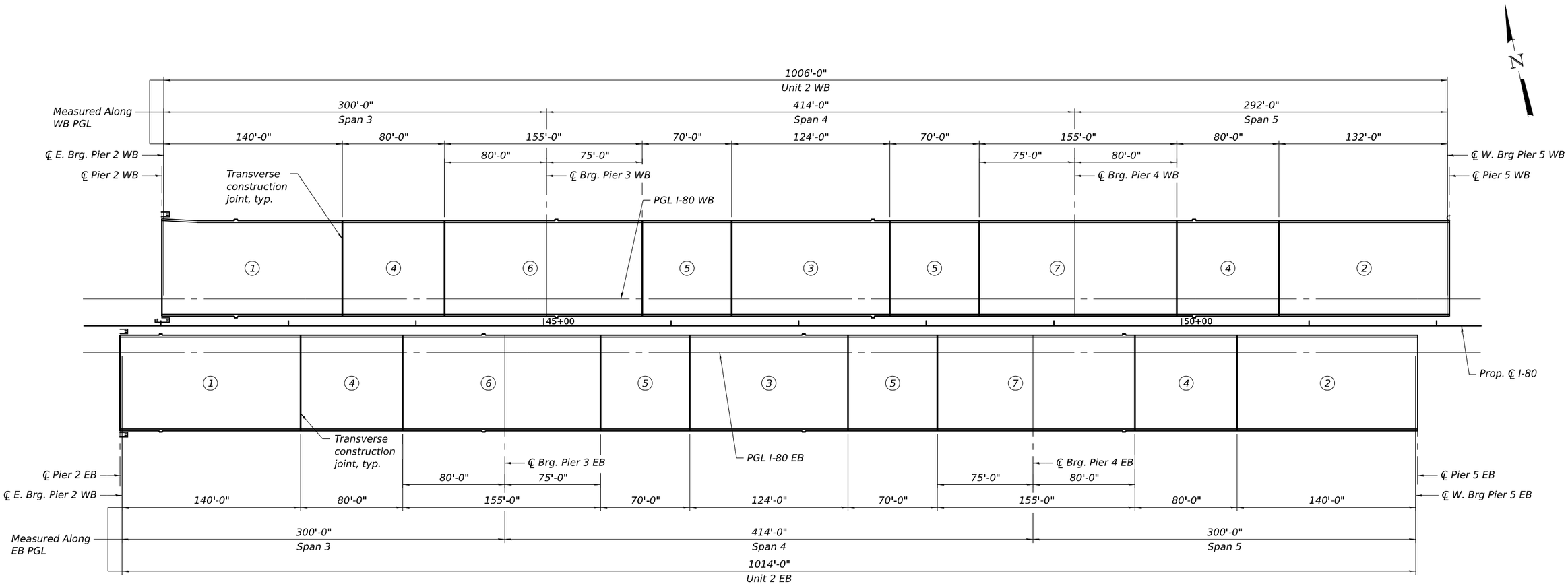

DECK POURING SEQUENCE - UNIT 2

NOTES ON DECK POURING SEQUENCE:

1. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
   a. At least 72 hours shall have elapsed from the end of the previous pour.
   b. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.
2. See sheet S-77 for additional notes regarding the camber and the elevations being developed from the pour sequence.

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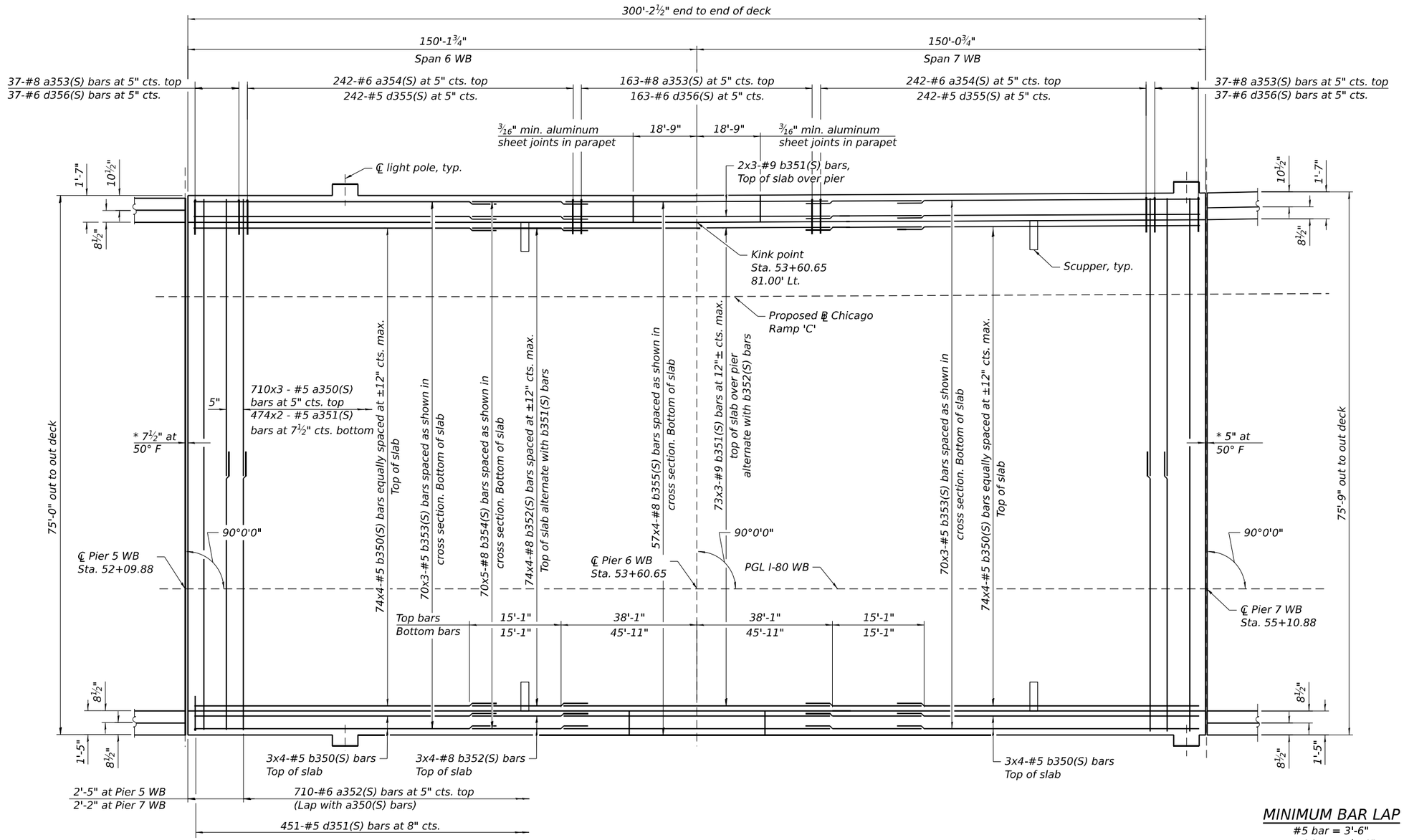
	CHECKED - PSK	REVISED -	
PLOT SCALE = 0:2.0000 '=' / In.	DRAWN - GM	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK POURING SEQUENCE - UNIT 2 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-124 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	705
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



PLAN - UNIT 3 WB

* Dimension showing concrete opening. For joint opening and bars near joint see sheet S-157 and S-161

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"
#8 bar = 7'-10"
#9 bar = 8'-7"

NOTES:

1. See sheet S-130 for superstructure details and Bill of Material.
2. Offsets for scupper and light pole locations are measured off of WB PGL.
3. Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.
4. For Cross Section see sheet S-126.

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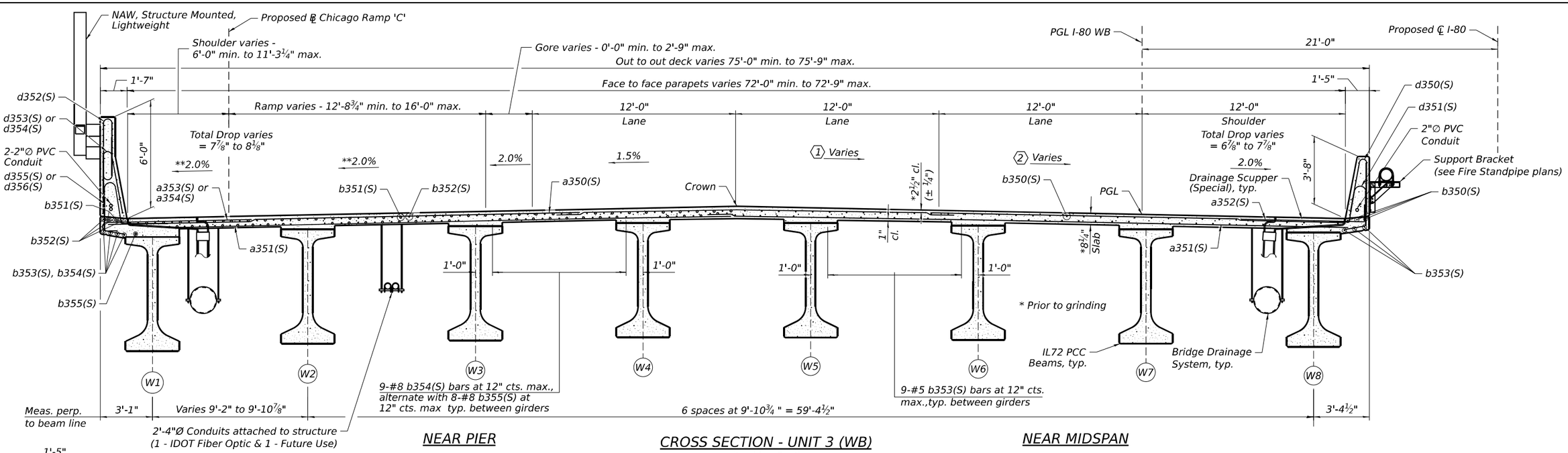
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN - UNIT 3 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-125 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	706
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



NEAR PIER

CROSS SECTION - UNIT 3 (WB)

(Looking East)

NEAR MIDSPAN

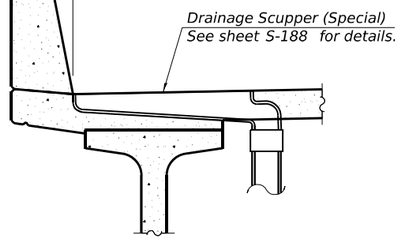
CROSS SLOPE TRANSITION DATA

Note: Positive (+) slopes upward from Lt.-to-Rt., Negative (-) slopes downward from Lt.-to-Rt.

1 Varies from -1.50% at Sta. 55+09 to +5.20% at Sta. 59+33.

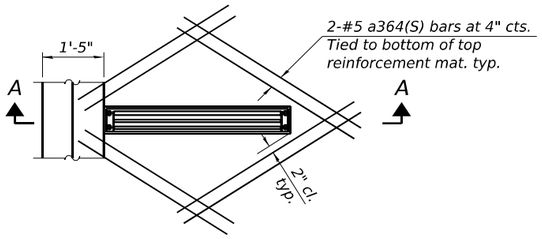
2 Varies from -2.00% at Sta. 54+64 to +5.20% at Sta. 59+33.

** Cross slopes shown are measured relative to the PGL I-80 WB up to Sta. 55+73.61, beyond this point they are measured relative to Proposed ℄ Chicago Ramp C.



SECTION A-A

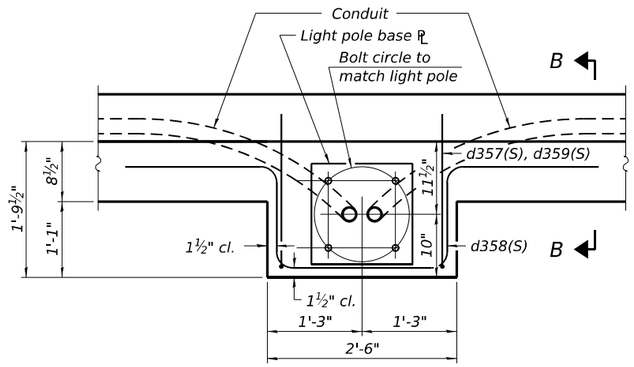
44" parapet shown,
Section similar for 72" parapet



PLAN

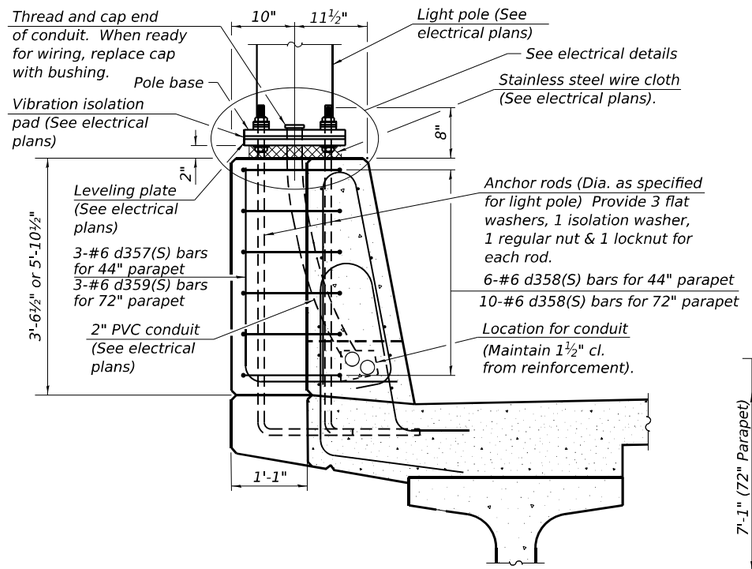
Note:
Cut longitudinal reinforcement to clear drainage scuppers.

REINFORCEMENT AT DRAINAGE SCUPPERS



PLAN

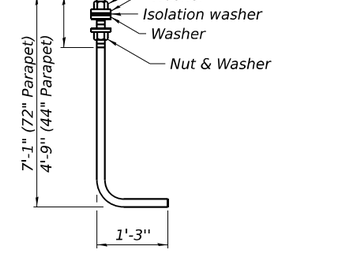
Note:
Cost of anchor rods is included with Concrete Superstructure.



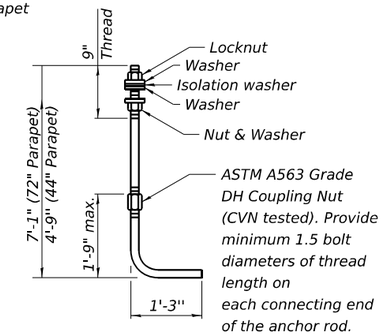
SECTION B-B

44" parapet shown,
Section similar for 72" parapet

LIGHT POLE DETAILS



ANCHOR ROD



ALTERNATE ANCHOR ROD

Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized.

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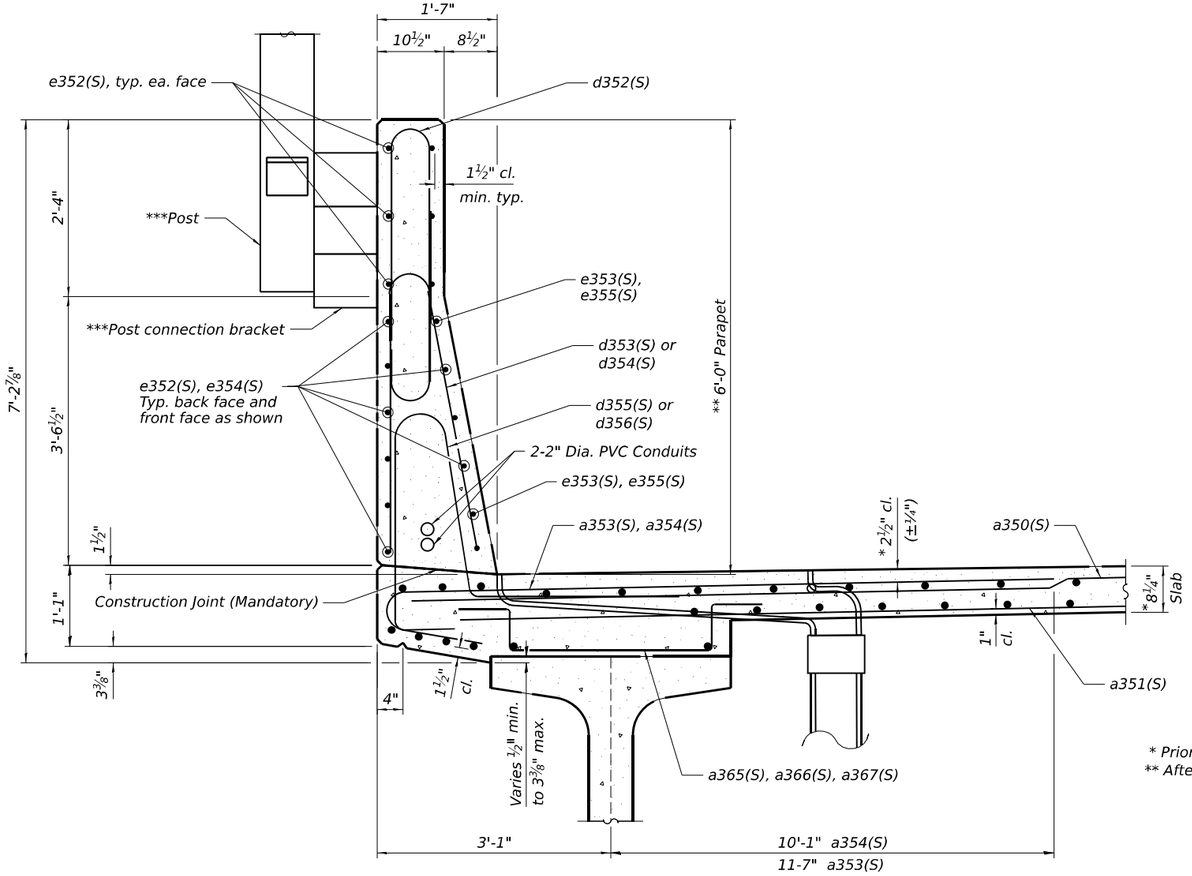
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

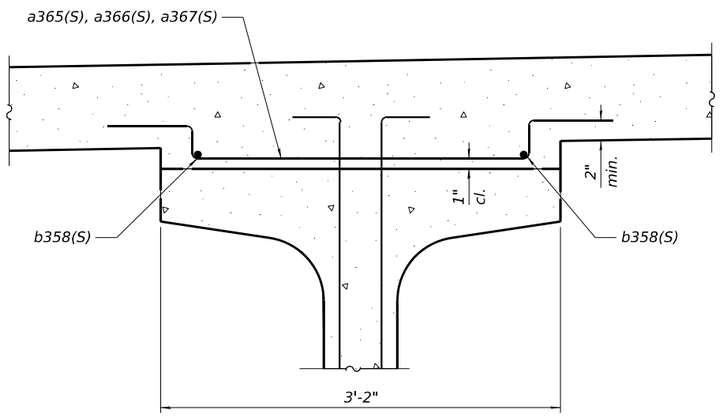
DECK CROSS SECTION AND PARAPET - UNIT 3 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-126 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	707
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

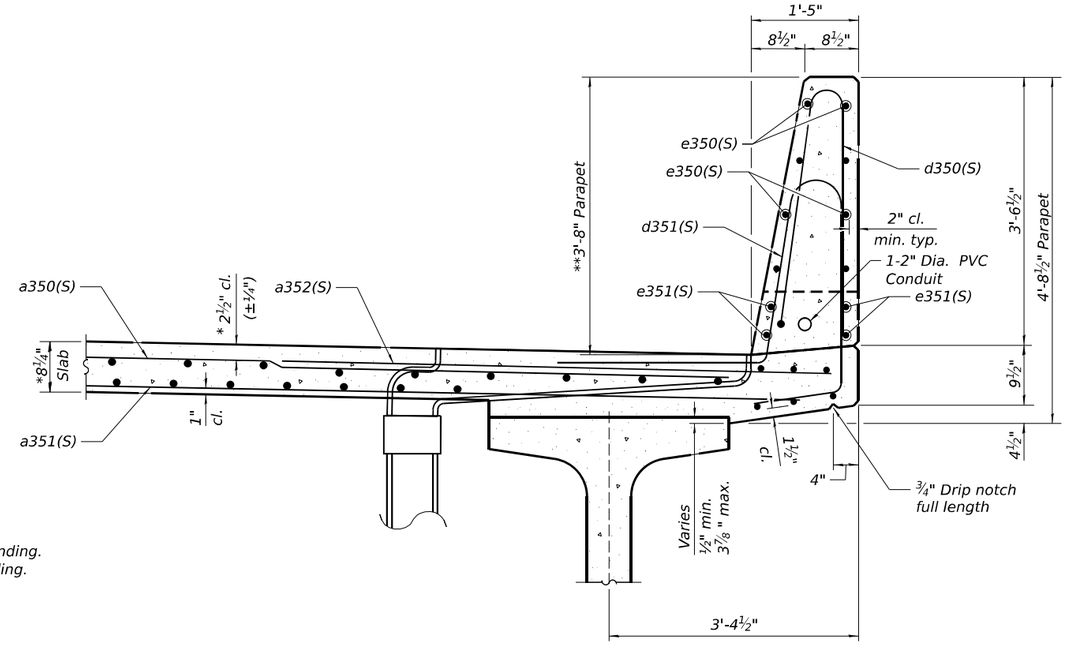


*** Post and connection to parapet to be designed by the Contractor, See Noise Abatement Wall Plans and Special Provisions.

SECTION THRU NORTH PARAPET



FILLET DETAIL



* Prior to grinding.
** After grinding.

SECTION THRU SOUTH PARAPET

NUMBER OF REINFORCEMENT BARS IN FILLET

	W1	W2	W3	W4	W5	W6	W7	W8
Number of Bars in Span 6 near Pier 5	32-a367(S)	30-a365(S)	31-a365(S)	25-a365(S)	30-a365(S)	16-a366(S)	28-a365(S)	16-a366(S)
		2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)
						20-a365(S)		15-a365(S)
No Bars	0'-0"	91'-0"	86'-6"	101'-4"	92'-5"	83'-8"	88'-3"	85'-5"
	87-a366(S)							
	2x5-b358(S)							
		15-a365(S)	18-a365(S)		14-a365(S)	17-a365(S)	20-a365(S)	20-a365(S)
Number of Bars in Span 6 near Pier 6	32-a367(S)	16-a366(S)	16-a366(S)	26-a365(S)	16-a366(S)	16-a366(S)	16-a366(S)	16-a366(S)
		2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)
Number of Bars in Span 7 near Pier 6	32-a367(S)	16-a366(S)	16-a366(S)	27-a365(S)	16-a366(S)	16-a366(S)	16-a366(S)	16-a366(S)
		2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)
		15-a365(S)	20-a365(S)		16-a365(S)	17-a365(S)	20-a365(S)	20-a365(S)
	87-a366(S)							
	2x5-b358(S)							
No Bars	0'-0"	94'-2"	92'-5"	109'-10"	98'-11"	89'-11"	88'-4"	86'-9"
Number of Bars in Span 7 near Pier 7	32-a367(S)	27-a365(S)	24-a365(S)	15-a365(S)	22-a365(S)	29-a365(S)	28-a365(S)	29-a365(S)
		2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)	2-b358(S)

Note:
#4- a365(S), a366(S) and a367(S) bars are spaced at 12" centers above the beam as shown in the Fillet Detail. #4 b358(S) shall be placed as shown in the Fillet Detail. Bars can be cut to fit.

WSP USA Inc.
30 N. LASALLE STREET
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CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET SECTION - UNIT 3 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-127 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	708
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

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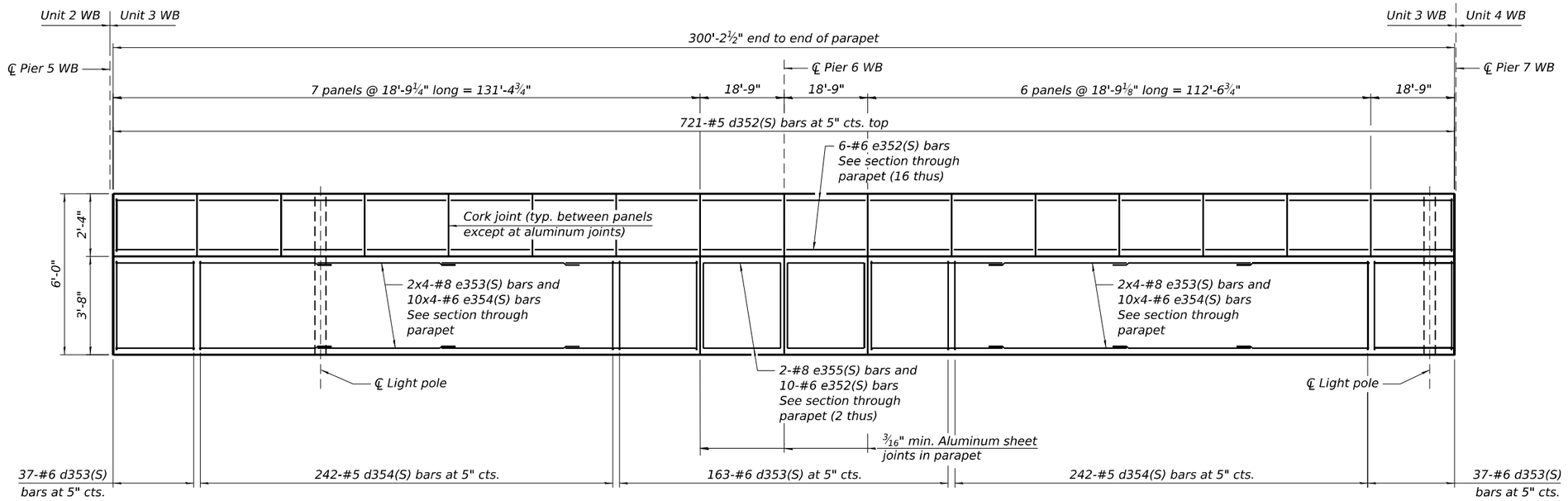
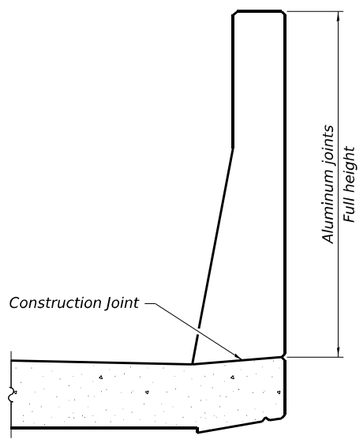


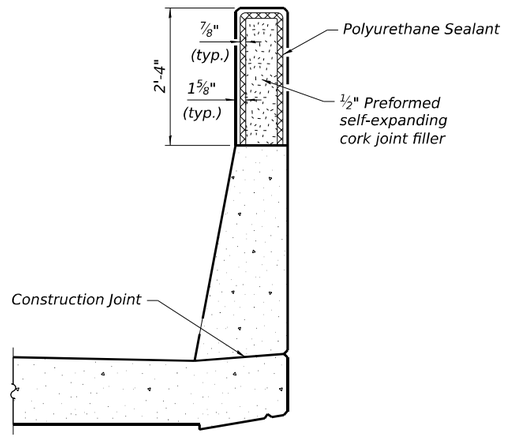
INSIDE ELEVATION OF NORTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"
#6 bar = 3'-7"
#8 bar = 4'-9"



ALUMINUM PARAPET JOINT DETAILS



CORK PARAPET JOINT DETAILS

See S-129 for parapet joint notes.

WSP USA Inc.
30 N. LASALLE STREET
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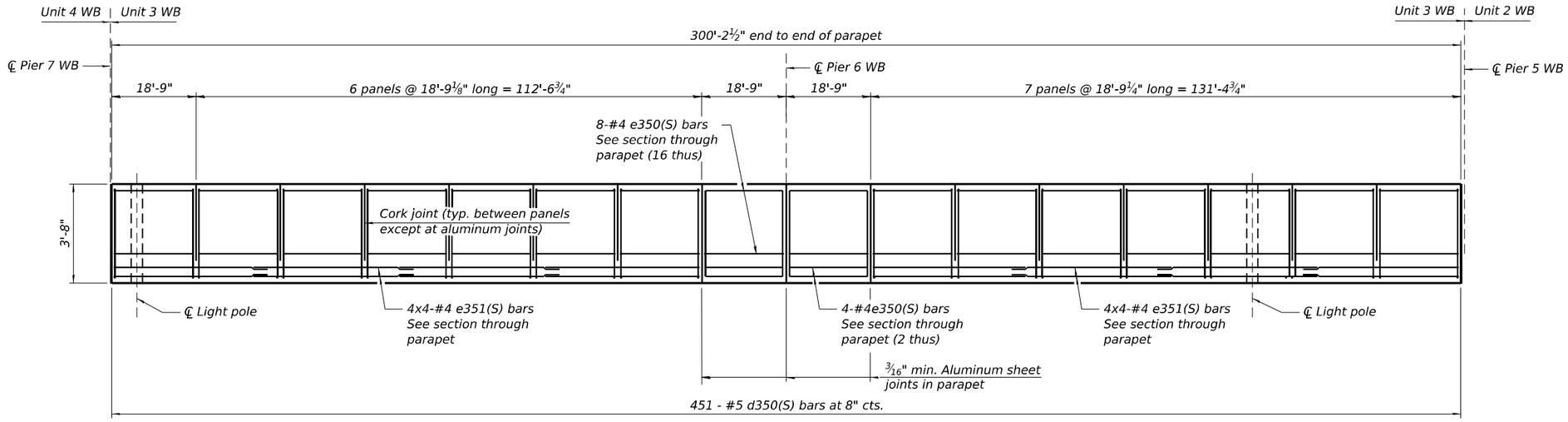
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 1 - UNIT 3 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-128 OF S-333 SHEETS

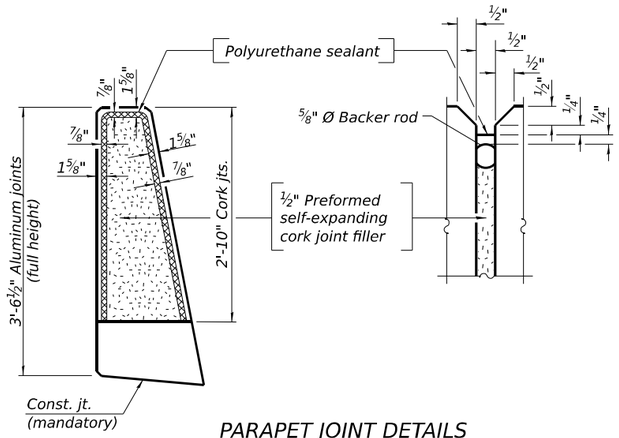
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	709
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"



PARAPET JOINT DETAILS

Notes:

The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint 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.

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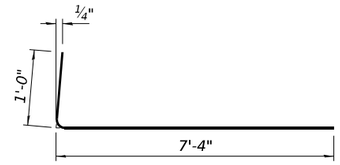
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

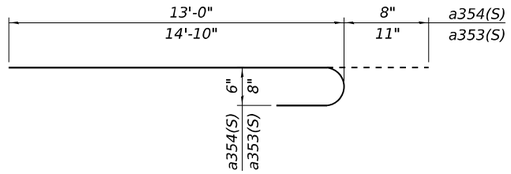
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 2 - UNIT 3 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-129 OF S-333 SHEETS

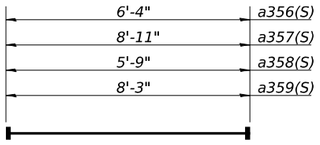
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	710
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



BAR a352(S)

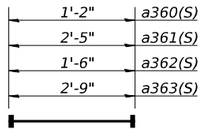


BAR a353(S), a354(S)



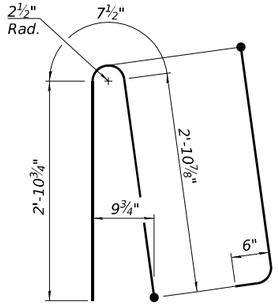
HEADED BAR a356(S), a357(S), a358(S), a359(S)

(Headed 26-#6 a356(S) Bar terminators)
(Headed 26-#6 a357(S) Bar terminators)
(Headed 2-#6 a358(S) Bar terminators)
(Headed 2-#6 a359(S) Bar terminators)

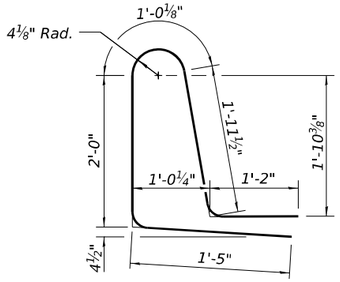


HEADED BAR a360(S), a361(S), a362(S), a363(S)

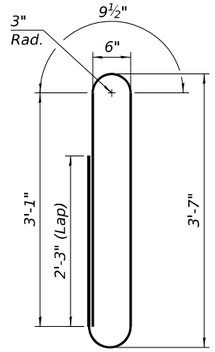
(Headed 2-#6 a360(S) Bar terminators)
(Headed 2-#6 a361(S) Bar terminators)
(Headed 2-#6 a362(S) Bar terminators)
(Headed 2-#6 a363(S) Bar terminators)



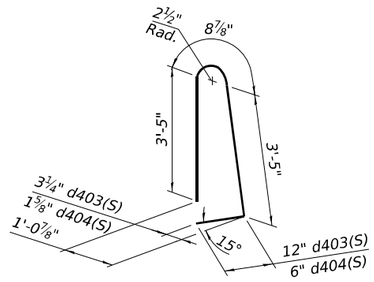
BAR d350(S)



BAR d351(S)

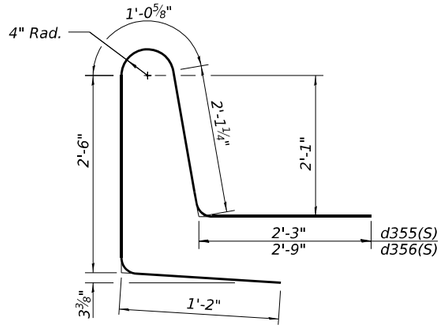


BAR d352(S)

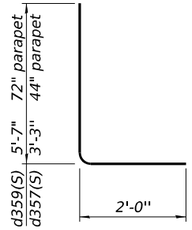


BAR d353(S) or d354(S)

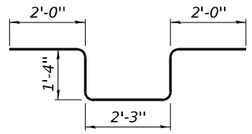
(Trimetric View)



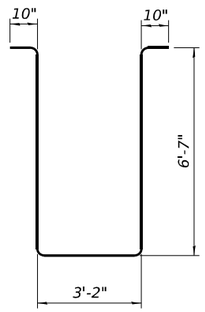
BAR d355(S) or d356(S)



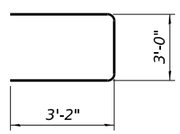
BAR d357(S) & d359(S)



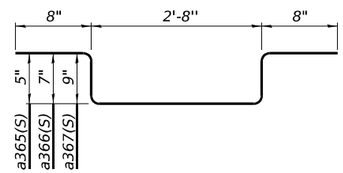
BAR d358(S)



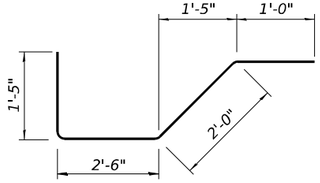
BAR s350(S)



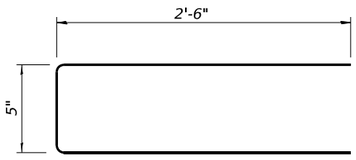
BAR s351(S)



BAR a365(S), a366(S), a367(S)



BAR x350(S)



BAR x351(S)

UNIT 3 WB
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a350(S)	2,130	#5	27'-6"	
a351(S)	948	#5	38'-2"	
a352(S)	710	#6	8'-4"	
a353(S)	237	#8	15'-9"	
a354(S)	484	#6	13'-8"	
a355(S)	72	#6	28'-5"	
a356(S)	13	#6	6'-4"	
a357(S)	13	#6	8'-11"	
a358(S)	1	#6	5'-9"	
a359(S)	1	#6	8'-3"	
a360(S)	2	#6	1'-2"	
a361(S)	2	#6	2'-5"	
a362(S)	2	#6	1'-6"	
a363(S)	2	#6	2'-9"	
a364(S)	32	#5	5'-0"	
a365(S)	618	#4	4'-10"	
a366(S)	398	#4	5'-2"	
a367(S)	128	#4	5'-6"	
b350(S)	640	#5	27'-9"	
b351(S)	231	#9	31'-2"	
b352(S)	320	#8	32'-6"	
b353(S)	420	#5	33'-2"	
b354(S)	350	#8	30'-8"	
b355(S)	228	#8	28'-10"	
b358(S)	76	#4	36'-0"	
d350(S)	451	#5	7'-0"	
d351(S)	451	#5	7'-7"	
d352(S)	721	#5	10'-0"	
d353(S)	237	#5	8'-1"	
d354(S)	484	#6	8'-7"	
d355(S)	484	#5	9'-1"	
d356(S)	237	#6	9'-7"	
d357(S)	6	#6	5'-3"	
d358(S)	32	#6	8'-11"	
d359(S)	6	#6	7'-7"	

Bar	No.	Size	Length	Shape
e350(S)	136	#4	18'-5"	
e351(S)	32	#4	34'-7"	
e352(S)	116	#6	18'-5"	
e353(S)	16	#8	36'-4"	
e354(S)	80	#6	35'-5"	
e355(S)	4	#8	18'-5"	
m350(S)	12	#6	6'-4"	
m351(S)	60	#6	8'-11"	
m352(S)	16	#5	4'-0"	
m353(S)	2	#6	5'-8"	
m354(S)	10	#6	8'-6"	
m355(S)	48	#5	3'-0"	
s350(S)	56	#5	18'-0"	
s351(S)	28	#5	9'-4"	
x350(S)	124	#5	6'-11"	
x351(S)	120	#5	5'-5"	
Concrete Superstructure		Cu Yd.	835.3	
Reinforcement Bars, Stainless Steel		Pound	315,340	
Bar Splicers		Each	298	
Protective Coat		Sq. Yd.	2,788	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	1,708	
Diamond Grinding (Bridge Section)		Sq. Yd.	2,278	

Note: Bar terminators paid for separately.
See Total Bill of Materials.

WSP USA Inc.
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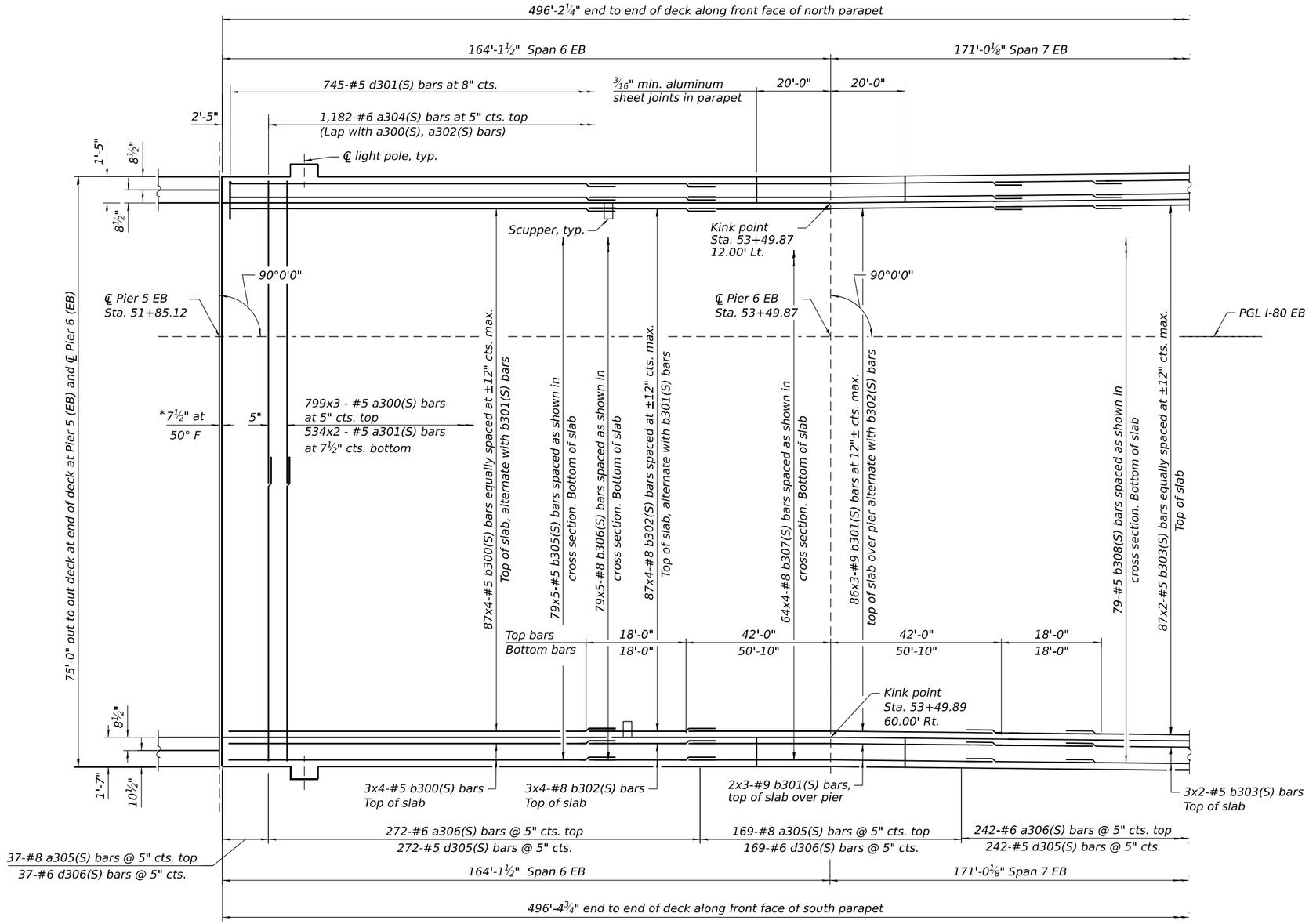
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - UNIT 3 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-130 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	711
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



* *Dimension showing concrete opening.*
For joint opening see sheet S-158

For bars near joint see sheet S-158

PARTIAL PLAN - UNIT 3 EB

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"
#8 bar = 7'-10"
#9 bar = 8'-7"

NOTES:

1. *See sheet S-137 for superstructure details and Bill of Material.*
2. *Offsets for scupper and light pole locations are measured off of EB PGL.*
3. *Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.*
4. *For Cross Section see sheet S-133.*

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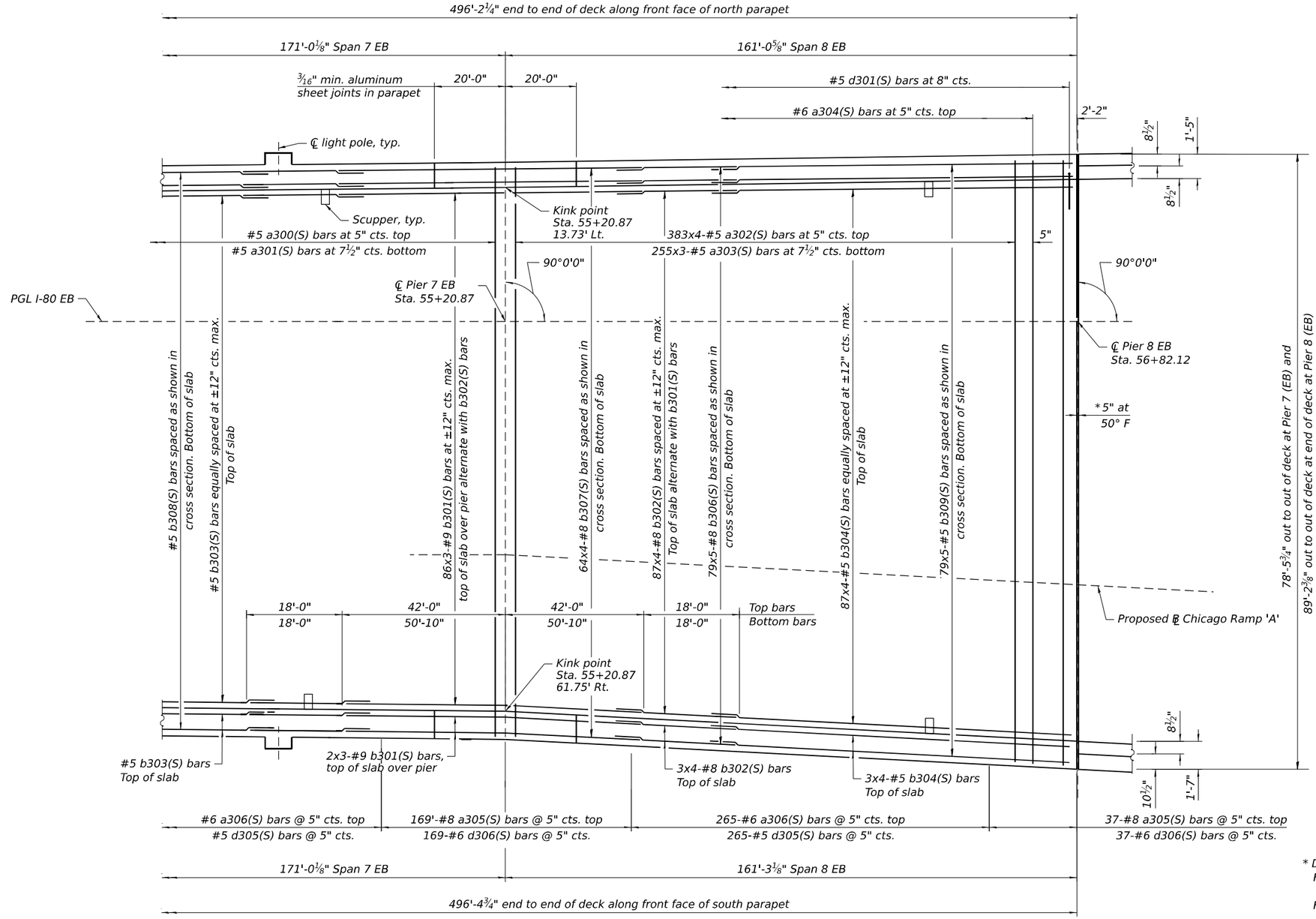
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN 1 - UNIT 3 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-131 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	712
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



PARTIAL PLAN - UNIT 3 EB

* Dimension showing concrete opening.
For joint opening see sheet S-164

For bars near joint see sheet S-164

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"
#8 bar = 7'-10"
#9 bar = 8'-7"

NOTES:

1. See sheet S-137 for superstructure details and Bill of Material.
2. Offsets for scupper and light pole locations are measured off of EB PGL.
3. Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.
4. For Cross Section see sheet S-133
5. Longitudinal bars in deck to be kinked as necessary at pier.

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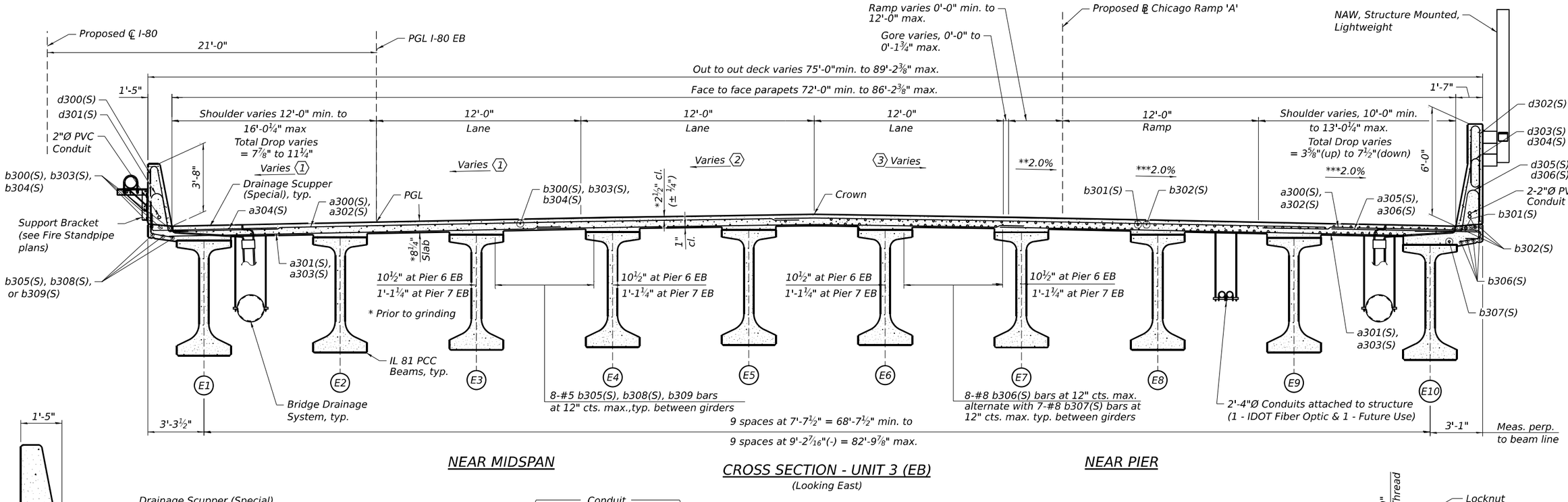
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN 2 - UNIT 3 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-132 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	713
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

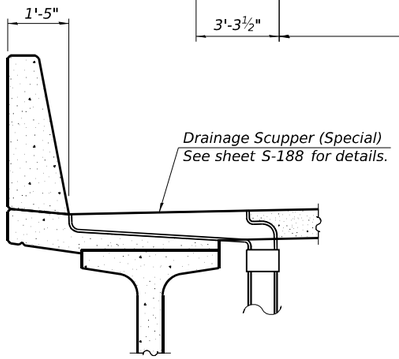


NEAR MIDSPAN

CROSS SECTION - UNIT 3 (EB)

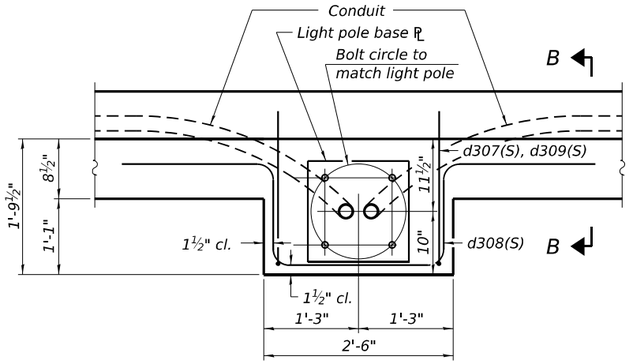
(Looking East)

NEAR PIER



SECTION A-A

44" parapet shown,
Section similar for 72" parapet



PLAN

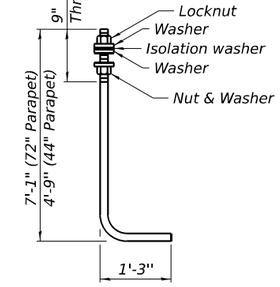
Note:
Cost of anchor rods is included with Concrete Superstructure.

Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized.

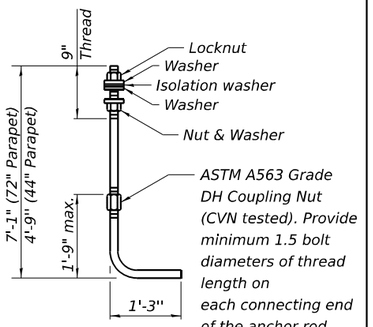
LIGHT POLE DETAILS

SECTION B-B

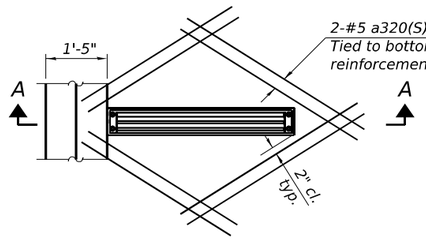
44" parapet shown,
Section similar for 72" parapet



ANCHOR ROD



ALTERNATE ANCHOR ROD



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

REINFORCEMENT AT DRAINAGE SCUPPERS

CROSS SLOPE TRANSITION DATA

Note: Positive (+) slopes upward from Lt.-to-Rt., Negative (-) slopes downward from Lt.-to-Rt.

1. Varies from +2.00% at Sta. 56+61 to +5.20% at Sta. 59+08.
2. Varies from +1.50% at Sta. 55+96 to +5.20% at Sta. 59+08.
3. Varies from -1.50% at Sta. 55+57 to +5.20% at Sta. 59+08.

** Cross slopes shown are measured relative to the PGL I-80 EB up to Sta. 56+79, beyond this point they are measured relative to Proposed ℄ Chicago Ramp A.

*** Cross slopes shown are measured relative to the PGL I-80 EB up to Sta. 54+50, beyond this point they are measured relative to Proposed ℄ Chicago Ramp A.

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USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION AND PARAPET- UNIT 3 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-133 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	714
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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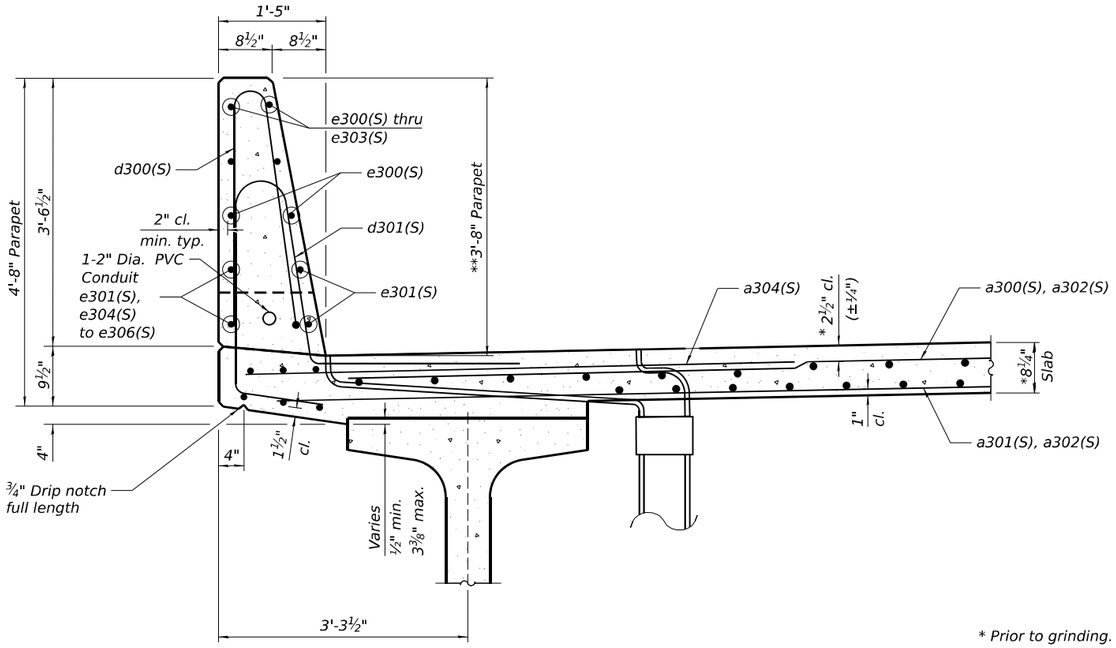
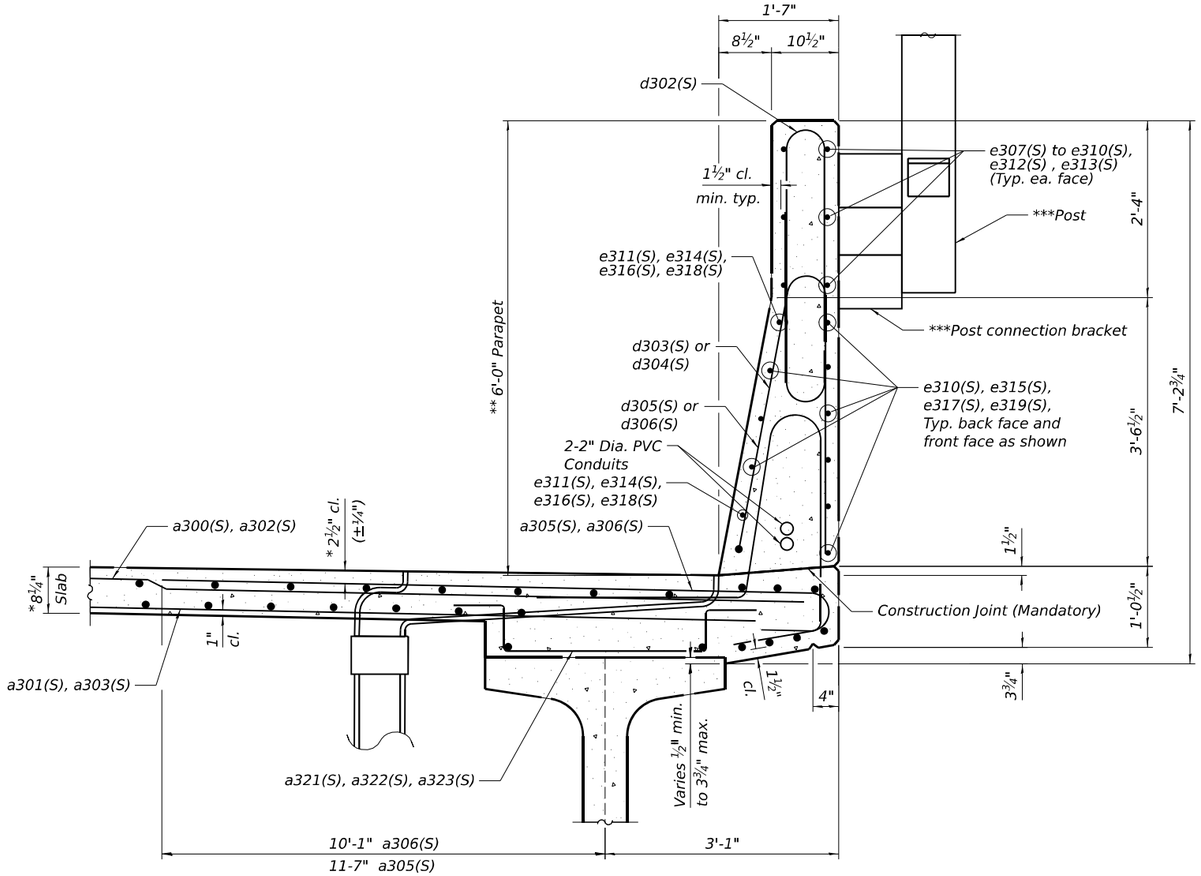


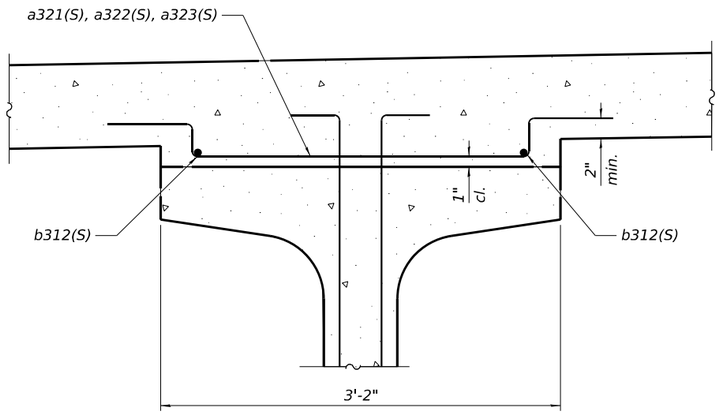
SECTION THRU NORTH PARAPET



SECTION THRU SOUTH PARAPET

* Prior to grinding.
** After grinding.

*** Post and connection to parapet to be designed by the Contractor, See Noise Abatement Wall Plans and Special Provisions.



FILLET DETAIL

NUMBER OF REINFORCEMENT BARS IN FILLET

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
Number of Bars in Span 6	32-a321(S)	31-a321(S)	27-a321(S)	26-a321(S)	26-a321(S)	25-a321(S)	24-a321(S)	24-a321(S)	29-a321(S)	17-a323(S)
near Pier 5	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	
No bars	102'-10"	105'-8"	104'-9"	108'-5"	116'-7"	120'-1"	111'-11"	109'-6"	107'-4"	0'-0"
										131-a322(S)
										2x5-b312(S)
Number of Bars in Span 6	31-a321(S)	30-a321(S)	34-a321(S)	32-a321(S)	23-a321(S)	22-a321(S)	30-a321(S)	32-a321(S)	30-a321(S)	17-a323(S)
near Pier 6	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	
Number of Bars in Span 7	36-a321(S)	35-a321(S)	45-a321(S)	43-a321(S)	33-a321(S)	31-a321(S)	49-a321(S)	57-a321(S)	54-a321(S)	51-a323(S)
near Pier 6	2-b312(S)	2-b312(S)	2x2-b312(S)	2x2-b312(S)	2-b312(S)	2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	
No bars	100'-11"	100'-1"	84'-3"	80'-9"	84'-8"	90'-2"	55'-1"	48'-7"	55'-0"	0'-0"
				31-a321(S)	37-a321(S)	34-a321(S)	51-a321(S)	49-a321(S)	46-a321(S)	70-a322(S)
										2x6-b312(S)
Number of Bars in Span 7	36-a321(S)	37-a321(S)	44-a321(S)	18-a322(S)	18-a322(S)	18-a322(S)	18-a322(S)	18-a322(S)	18-a322(S)	51-a323(S)
near Pier 7	2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	
Number of Bars in Span 8	29-a321(S)	29-a321(S)	31-a321(S)	17-a322(S)	17-a322(S)	17-a322(S)	17-a322(S)	17-a322(S)	17-a322(S)	17-a323(S)
near Pier 7	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2x2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	
				18-a321(S)	23-a321(S)	10-a321(S)	11-a321(S)	11-a321(S)	11-a321(S)	111-a322(S)
										2x5-b312(S)
No bars	98'-3"	101'-4"	99'-10"	96'-3"	91'-11"	103'-1"	86'-1"	84'-9"	86'-11"	0'-0"
			15-a321(S)	15-a321(S)	15-a321(S)	16-a321(S)	18-a321(S)	19-a321(S)	16-a321(S)	
Number of Bars in Span 8	36-a321(S)	33-a321(S)	17-a322(S)	17-a322(S)	17-a322(S)	17-a322(S)	32-a322(S)	32-a322(S)	32-a322(S)	34-a323(S)
near Pier 8	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2-b312(S)	2x2-b312(S)	2x2-b312(S)	2x2-b312(S)	

Note:
#4- a321(S), a322(S) and a323(S) bars are spaced at 12" centers above the beam as shown in the Fillet Detail. #4 b312(S) shall be placed as shown in the Fillet Detail. Bars can be cut to fit.

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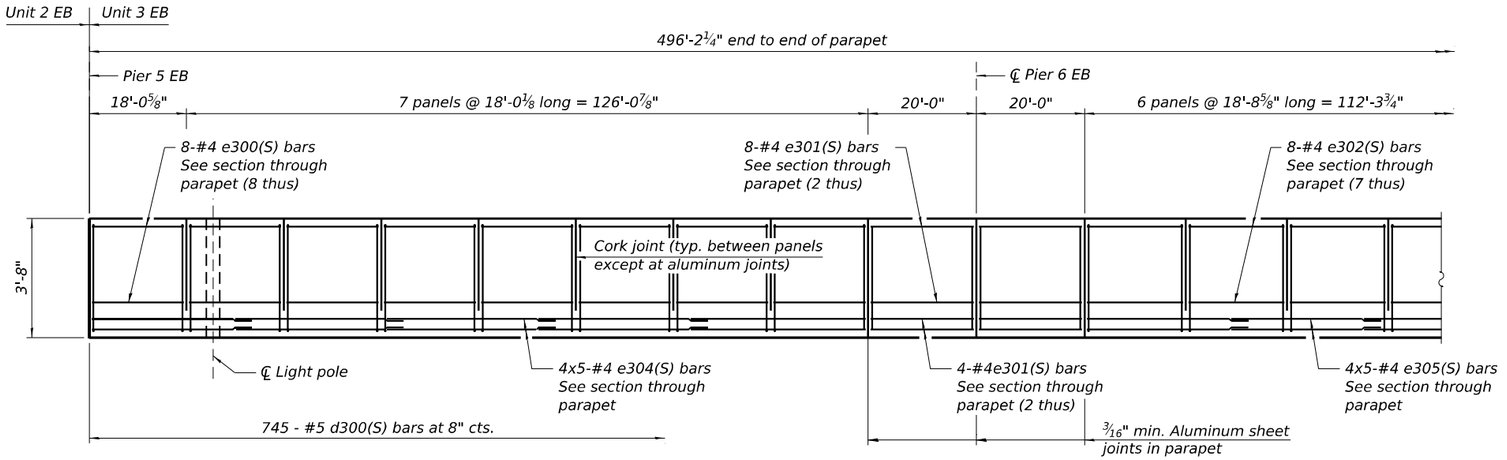
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

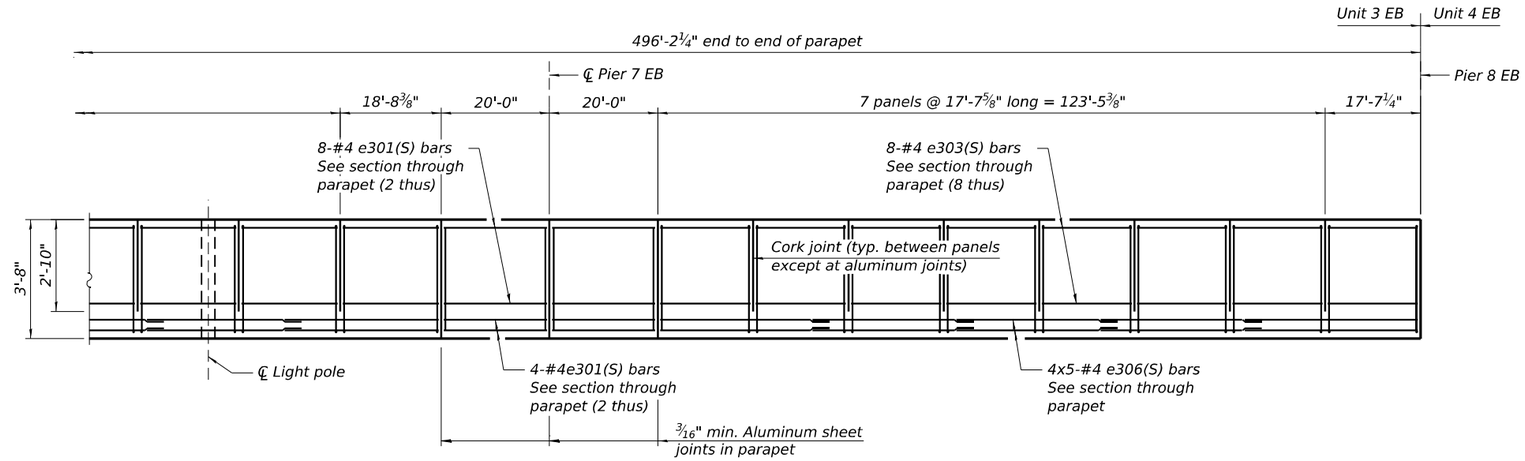
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET SECTION - UNIT 3 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-134 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	715
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



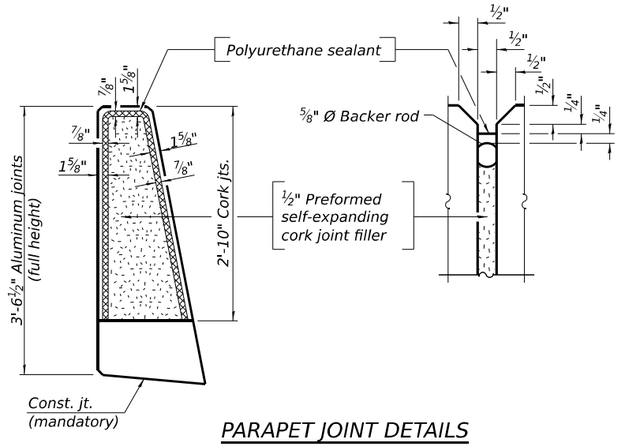
PARTIAL INSIDE ELEVATION OF NORTH PARAPET



PARTIAL INSIDE ELEVATION OF NORTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"



PARAPET JOINT DETAILS

Notes:

The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint 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.

MODEL: Default
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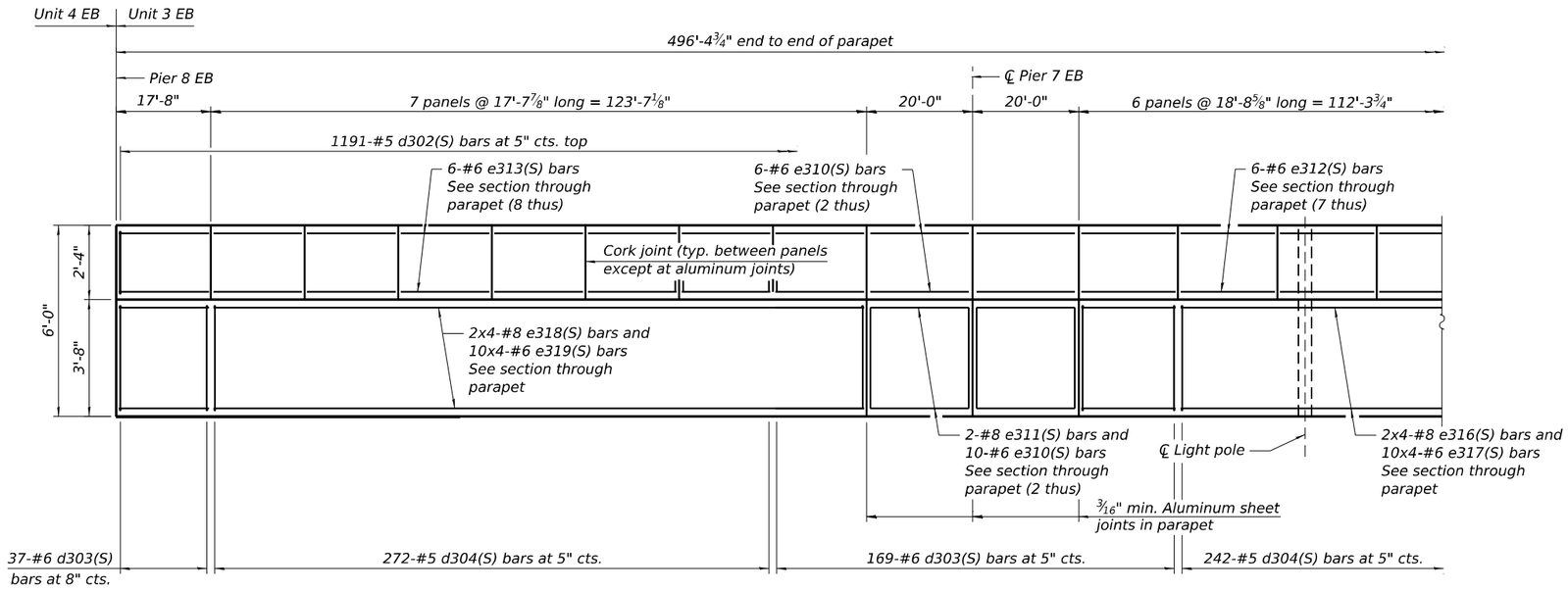
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

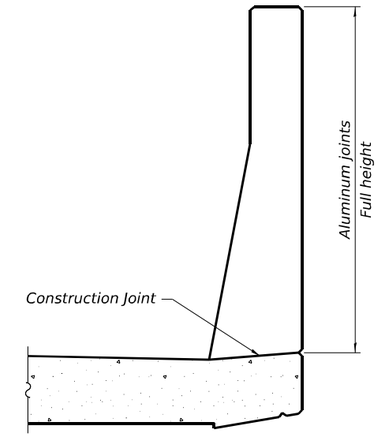
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 1 - UNIT 3 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-135 OF S-333 SHEETS

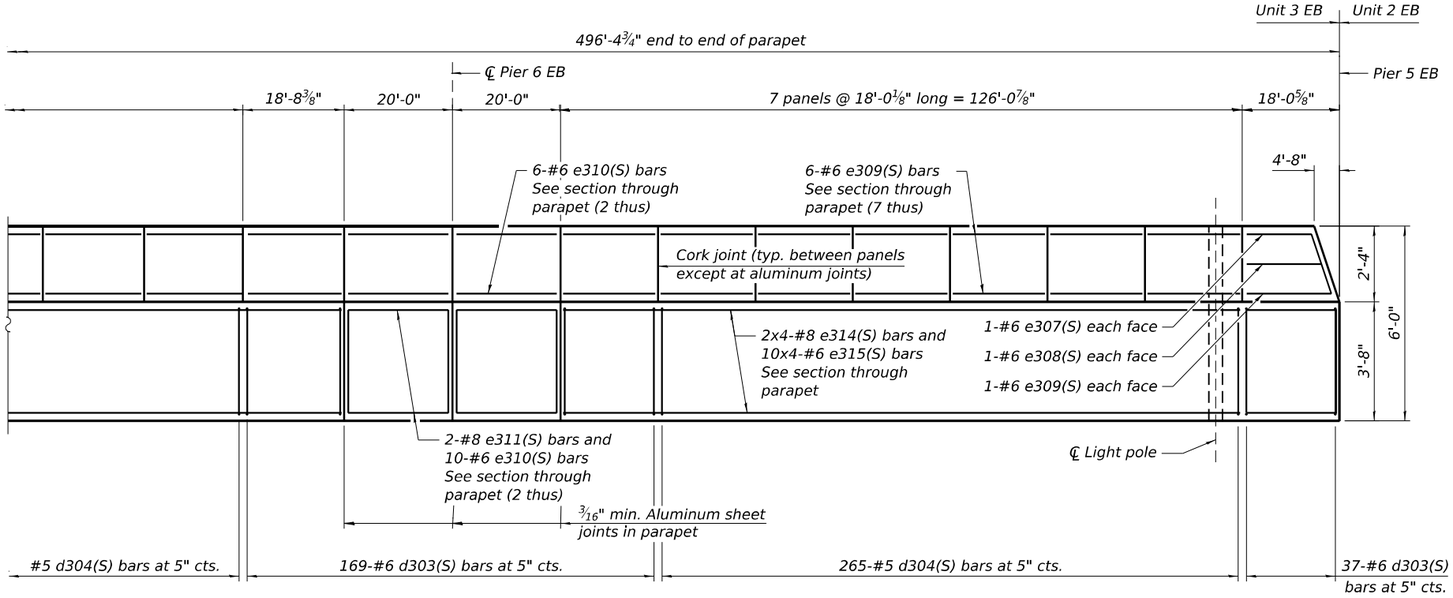
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	716
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



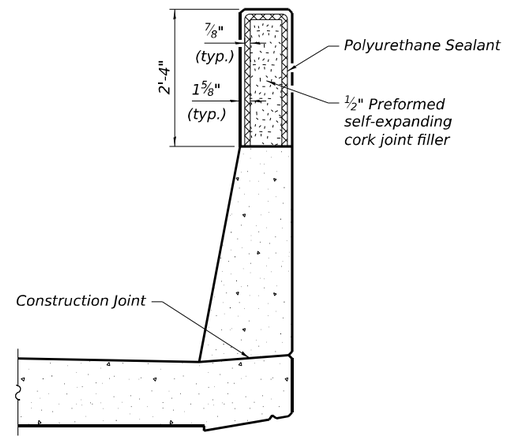
PARTIAL INSIDE ELEVATION OF SOUTH PARAPET



ALUMINUM PARAPET JOINT DETAILS



PARTIAL INSIDE ELEVATION OF SOUTH PARAPET



CORK PARAPET JOINT DETAILS

See sheet S-135 for parapet joint notes.

MINIMUM BAR LAP

#4 bar = 2'-5"
#6 bar = 3'-7"
#8 bar = 4'-9"

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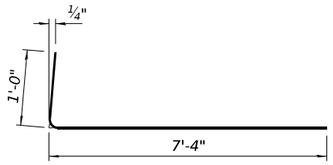
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

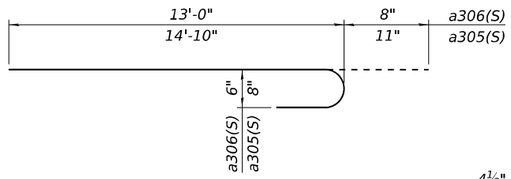
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 2 - UNIT 3 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-136 OF S-333 SHEETS

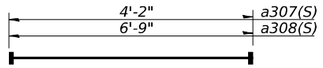
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	717
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



BAR a304(S)

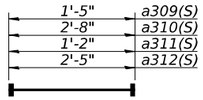


BAR a305(S), a306(S)



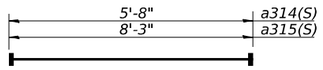
HEADED BAR a307(S), a308(S)

(Headed 18-#5 a307(S) Bar terminators)
(Headed 18-#5 a308(S) Bar terminators)



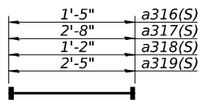
HEADED BAR a309(S), a310(S), a311(S), a312(S)

(Headed 2-#5 a309(S) Bar terminators)
(Headed 2-#5 a310(S) Bar terminators)
(Headed 2-#5 a311(S) Bar terminators)
(Headed 2-#5 a312(S) Bar terminators)



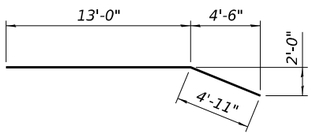
HEADED BAR a314(S), a315(S)

(Headed 18-#6 a314(S) Bar terminators)
(Headed 18-#6 a315(S) Bar terminators)

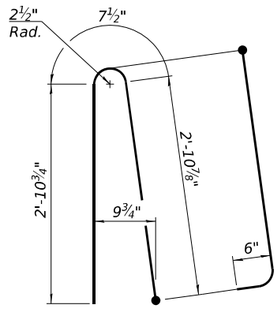


HEADED BAR a316(S), a317(S), a318(S), a319(S)

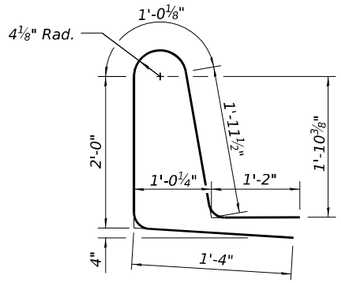
(Headed 2-#6 a316(S) Bar terminators)
(Headed 2-#6 a317(S) Bar terminators)
(Headed 2-#6 a318(S) Bar terminators)
(Headed 2-#6 a319(S) Bar terminators)



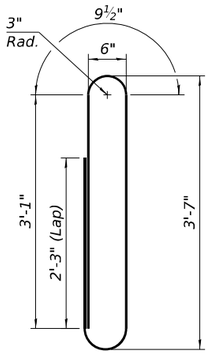
BAR e307(S)



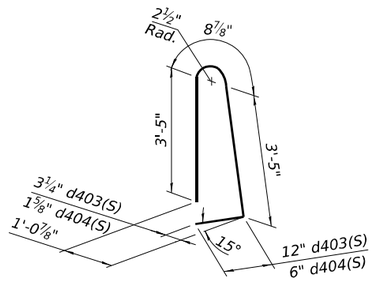
BAR d300(S)



BAR d301(S)

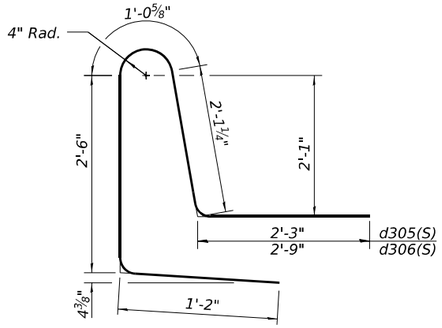


BAR d302(S)

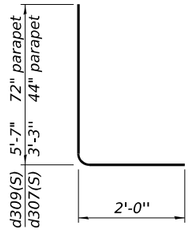


BAR d303(S) or d304(S)

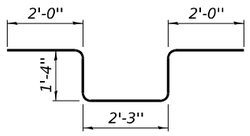
(Trimetric View)



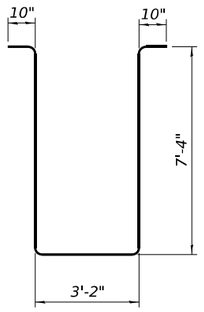
BAR d305(S), d306(S)



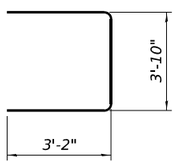
BAR d307(S) & d309(S)



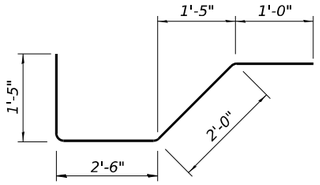
BAR d308(S)



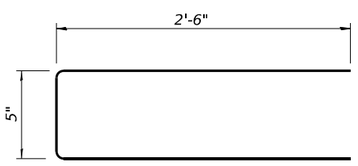
BAR s300(S)



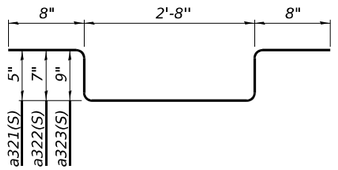
BAR s301(S)



BAR x300(S)



BAR x301(S)



BAR a321(S), a322(S), a323(S)

UNIT 3 EB
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a300(S)	2,433	#5	28'-5"	
a301(S)	1,068	#5	39'-6"	
a302(S)	1,532	#5	24'-11"	
a303(S)	765	#5	31'-1"	
a304(S)	1,182	#6	8'-4"	
a305(S)	412	#8	15'-9"	
a306(S)	779	#6	13'-8"	
a307(S)	9	#5	4'-2"	
a308(S)	9	#5	6'-9"	
a309(S)	1	#5	1'-5"	
a310(S)	1	#5	2'-8"	
a311(S)	1	#5	1'-2"	
a312(S)	1	#5	2'-5"	
a313(S)	36	#6	32'-11"	
a314(S)	9	#6	5'-8"	
a315(S)	9	#6	8'-3"	
a316(S)	1	#6	1'-5"	
a317(S)	1	#6	2'-8"	
a318(S)	1	#6	1'-2"	
a319(S)	1	#6	2'-5"	
a320(S)	48	#5	5'-0"	
a321(S)	1,612	#4	4'-10"	
a322(S)	686	#4	5'-2"	
a323(S)	187	#4	5'-6"	
b300(S)	372	#5	29'-6"	
b301(S)	540	#9	33'-9"	
b302(S)	744	#8	35-11"	
b303(S)	186	#5	30'-10"	
b304(S)	372	#5	28-10"	
b305(S)	395	#5	22'-7"	
b306(S)	790	#8	33'-10"	
b307(S)	512	#8	31'-4"	
b308(S)	79	#5	40'-4"	
b309(S)	395	#5	22'-0"	
b312(S)	174	#4	36'-0"	
d300(S)	745	#5	7'-0"	
d301(S)	745	#5	7'-6"	
d302(S)	1,191	#5	10'-0"	
d303(S)	412	#6	8'-8"	
d304(S)	779	#5	8'-2"	
d305(S)	779	#5	9'-1"	
d306(S)	412	#6	9'-7"	
d307(S)	6	#6	5'-3"	
d308(S)	32	#6	8'-11"	
d309(S)	6	#6	7'-7"	

Bar	No.	Size	Length	Shape
e300(S)	64	#4	17'-8"	
e301(S)	48	#4	19'-8"	
e302(S)	56	#4	18'-5"	
e303(S)	64	#4	17'-4"	
e304(S)	20	#4	30'-9"	
e305(S)	20	#4	28'-2"	
e306(S)	20	#4	30'-2"	
e307(S)	2	#6	17'-11"	
e308(S)	2	#6	15'-4"	
e309(S)	44	#6	17'-8"	
e310(S)	64	#6	19'-8"	
e311(S)	8	#8	19'-8"	
e312(S)	42	#6	18'-5"	
e313(S)	48	#6	17'-4"	
e314(S)	8	#8	39'-6"	
e315(S)	40	#6	38'-8"	
e316(S)	8	#8	36'-3"	
e317(S)	40	#6	35'-5"	
e318(S)	8	#8	38'-10"	
e319(S)	40	#6	37'-11"	
m300(S)	18	#6	4'-2"	
m301(S)	108	#6	6'-3"	
m302(S)	40	#5	4'-0"	
m303(S)	18	#6	4'-5"	
m304(S)	108	#6	6'-8"	
m305(S)	48	#5	3'-0"	
s300(S)	99	#5	19'-6"	
s301(S)	72	#5	10'-2"	
x300(S)	120	#5	6'-11"	
x301(S)	116	#5	5'-5"	

Concrete Superstructure	Cu Yd.	1,462.0
Reinforcement Bars, Stainless Steel	Pound	617,100
Bar Splicers	Each	344
Protective Coat	Sq. Yd.	4,789
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	2,649
Diamond Grinding (Bridge Section)	Sq. Yd.	3,940

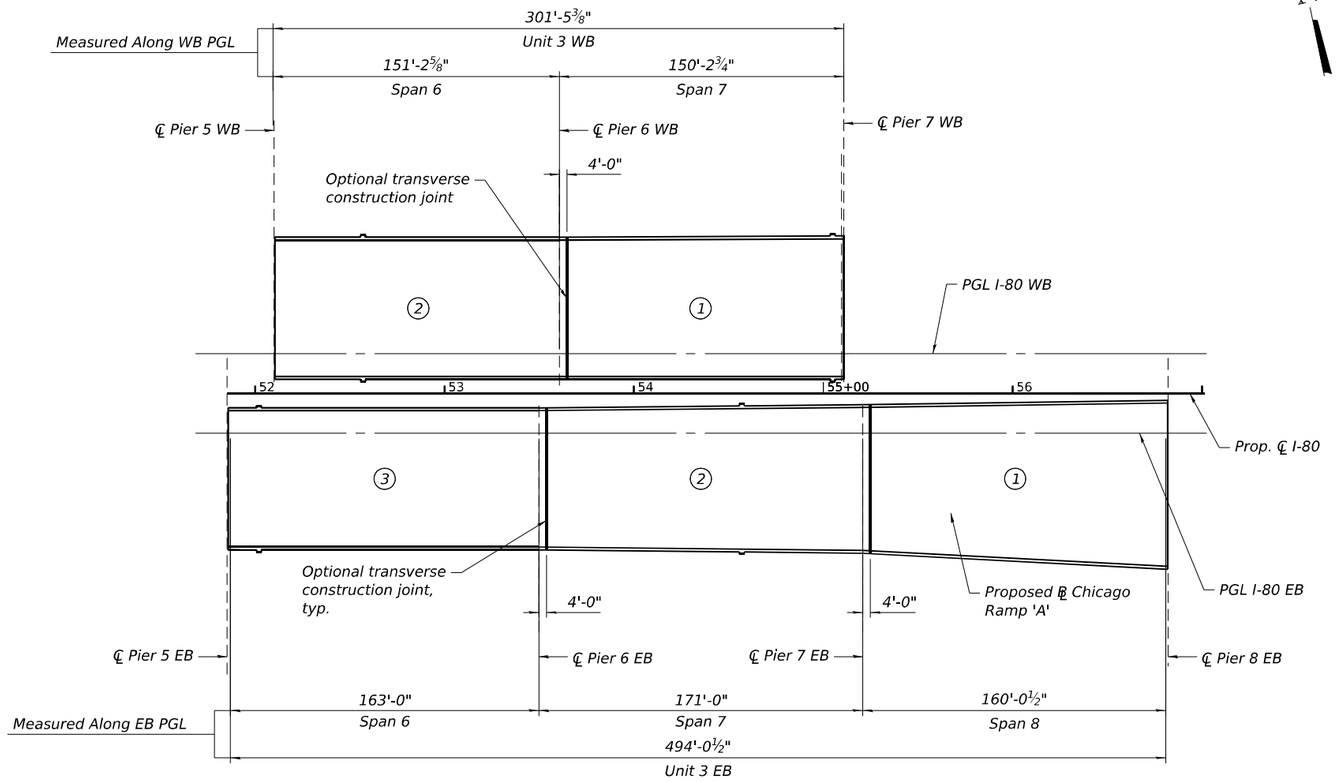
Note: Bar terminators paid for separately.
See Total Bill of Materials.

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS - UNIT 3 EB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB SHEET S-137 OF S-333 SHEETS	
	CHECKED - PJL	REVISED -			
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -			
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -			

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	718
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-Hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1.1Sheets/Structural/09983094-62R23-S337-DK313.dgn



DECK POURING SEQUENCE - UNIT 3

NOTES ON DECK POURING SEQUENCE:

1. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
   a. At least 72 hours shall have elapsed from the end of the previous pour.
   b. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
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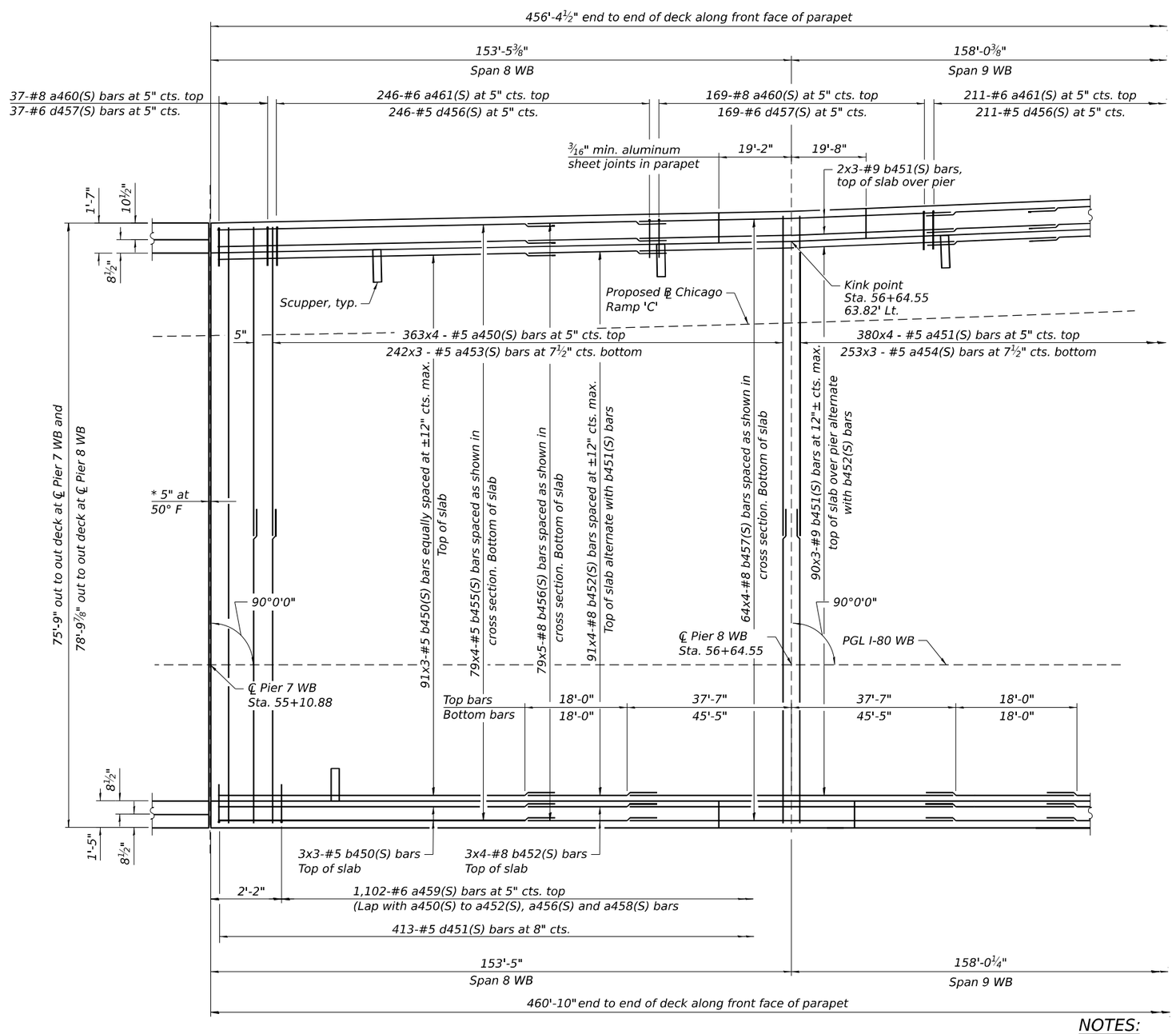
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 0:0 3/16 : / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK POURING SEQUENCE - UNIT 3 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-138 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	719
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



* Dimension showing concrete opening. For joint opening see sheet S-161

For bars near joint see sheet S-161

PARTIAL PLAN - UNIT 4 WB

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"
#8 bar = 7'-10"
#9 bar = 8'-7"

NOTES:

1. See sheet S-145 for superstructure details and Bill of Material.
2. Offsets for scupper and light pole locations are measured off of WB PGL.
3. Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.
4. For Cross Section see sheet S-141.
5. Longitudinal bars in deck to be kinked as necessary at pier.

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
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FAX: (312) 782-1684

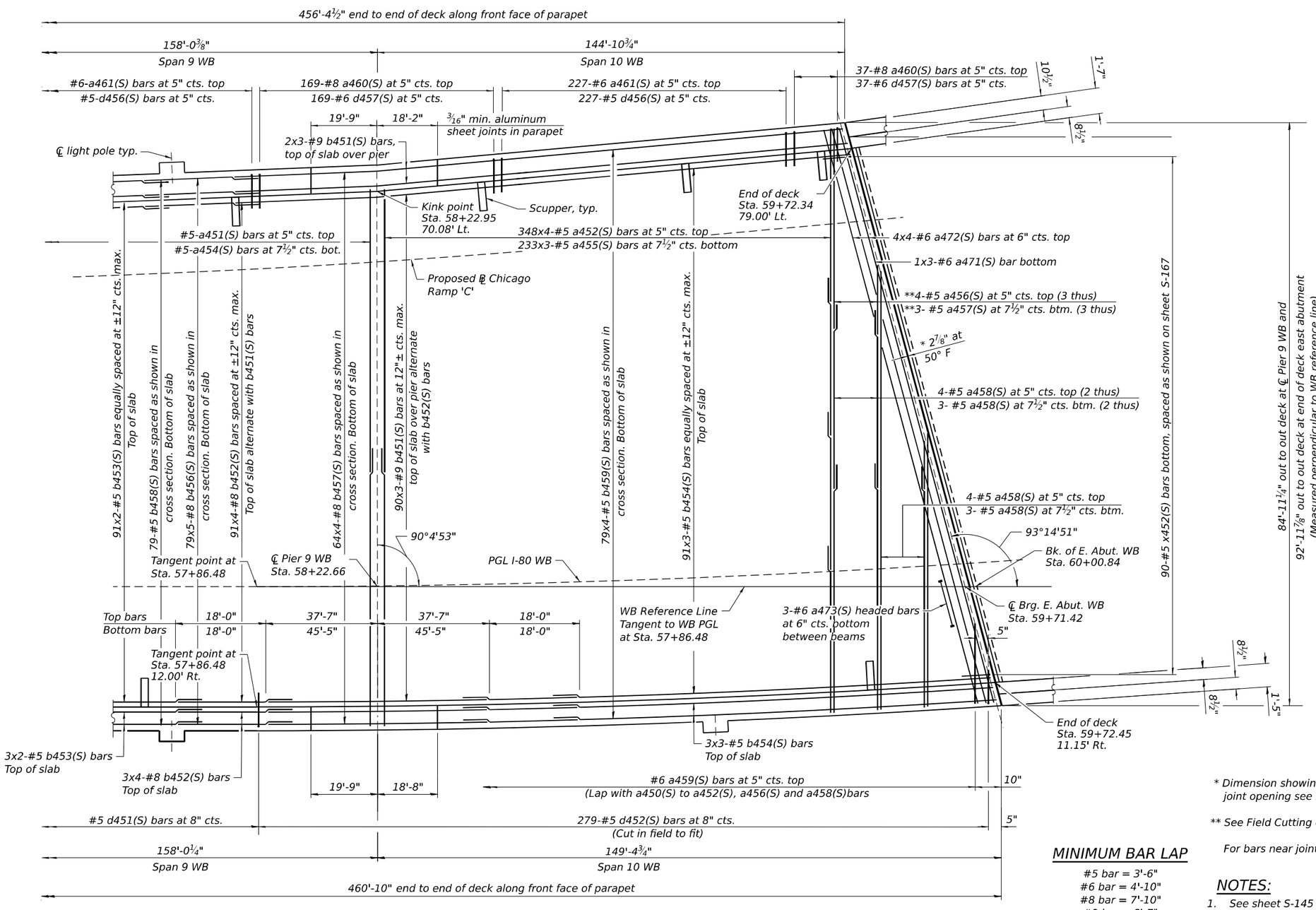
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN 1 - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-139 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	720
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



PARTIAL PLAN - UNIT 4 WB

* Dimension showing concrete opening. For joint opening see sheet S-167

** See Field Cutting diagram on sheet S-145

For bars near joint see sheet S-167

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"
#8 bar = 7'-10"
#9 bar = 8'-7"

NOTES:

1. See sheet S-145 for superstructure details and Bill of Material.
2. Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.
3. For Cross Section see sheet S-141.
4. "a" Bars are to be placed perpendicular to the WB Reference line. "b" Bars are to be placed flared between girders.
5. Longitudinal bars in deck to be kinked as necessary at pier.

WSP USA Inc.
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SUITE 4200
CHICAGO, IL 60602
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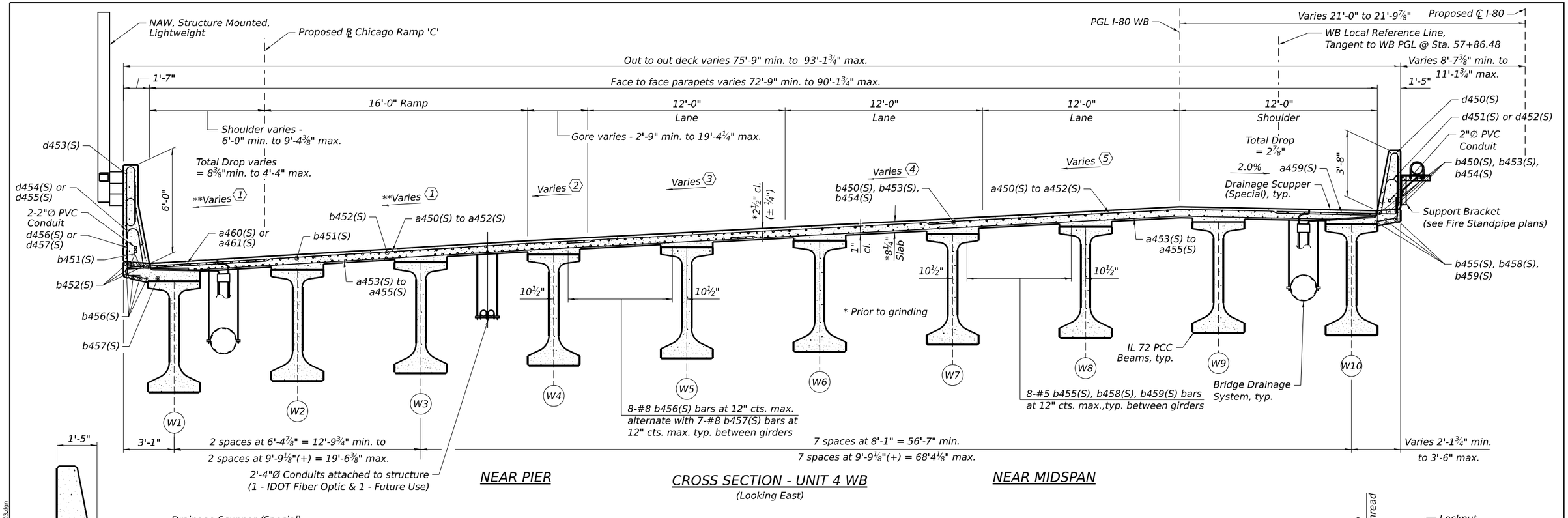
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN 2 - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-140 OF S-333 SHEETS

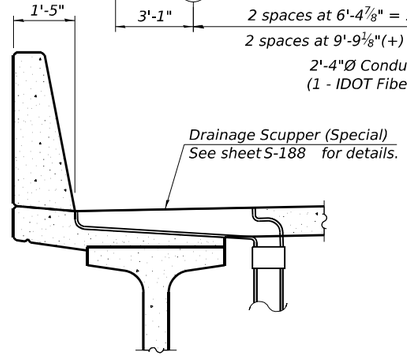
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	721
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



NEAR PIER

CROSS SECTION - UNIT 4 WB
(Looking East)

NEAR MIDSPAN



SECTION A-A
44" parapet shown,
Section similar for 72" parapet

CROSS SLOPE TRANSITION DATA

Note: Positive (+) slopes upward from Lt.-to-Rt., Negative (-) slopes downward from Lt.-to-Rt.

⟨1⟩ Varies from +2.00% at Sta. 56+88 to +6.00% at Sta. 58+16. **

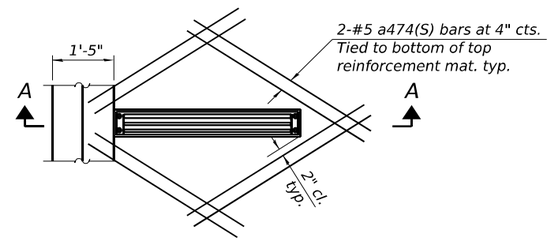
⟨2⟩ Varies from +2.00% at Sta. 56+44 to +5.20% at Sta. 59+33.

⟨3⟩ Varies from +1.50% at Sta. 56+10 to +5.20% at Sta. 59+33.

⟨4⟩ Varies from -1.50% at Sta. 55+09 to +5.20% at Sta. 59+33.

⟨5⟩ Varies from -2.00% at Sta. 54+64 to +5.20% at Sta. 59+33.

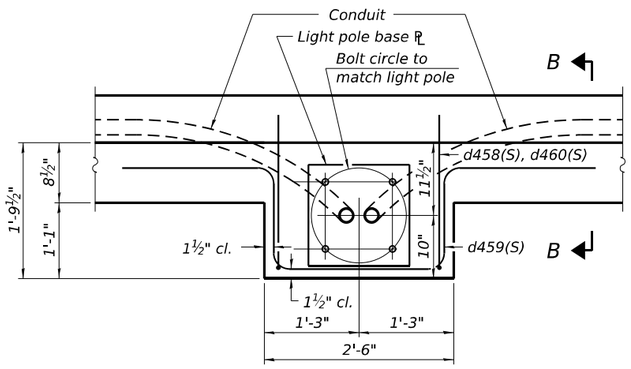
** Cross slopes shown are measured relative to the PGL I-80 WB up to Sta. 56+88, beyond this point they are measured relative to Proposed ℄ Chicago Ramp 'C'.



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

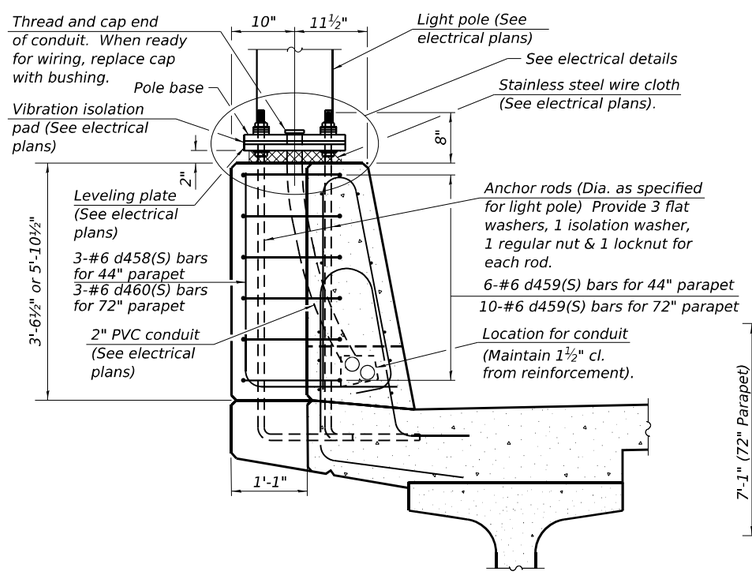
REINFORCEMENT AT DRAINAGE SCUPPERS



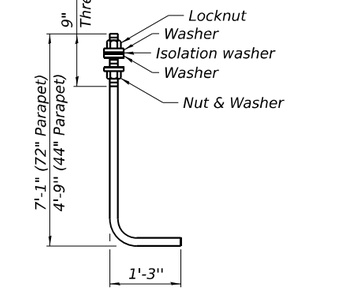
PLAN

Note:
Cost of anchor rods is included with Concrete Superstructure.

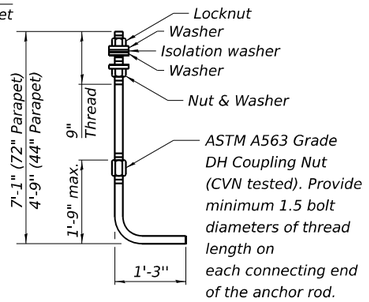
LIGHT POLE DETAILS



SECTION B-B
44" parapet shown,
Section similar for 72" parapet



ANCHOR ROD



ALTERNATE ANCHOR ROD
Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized.

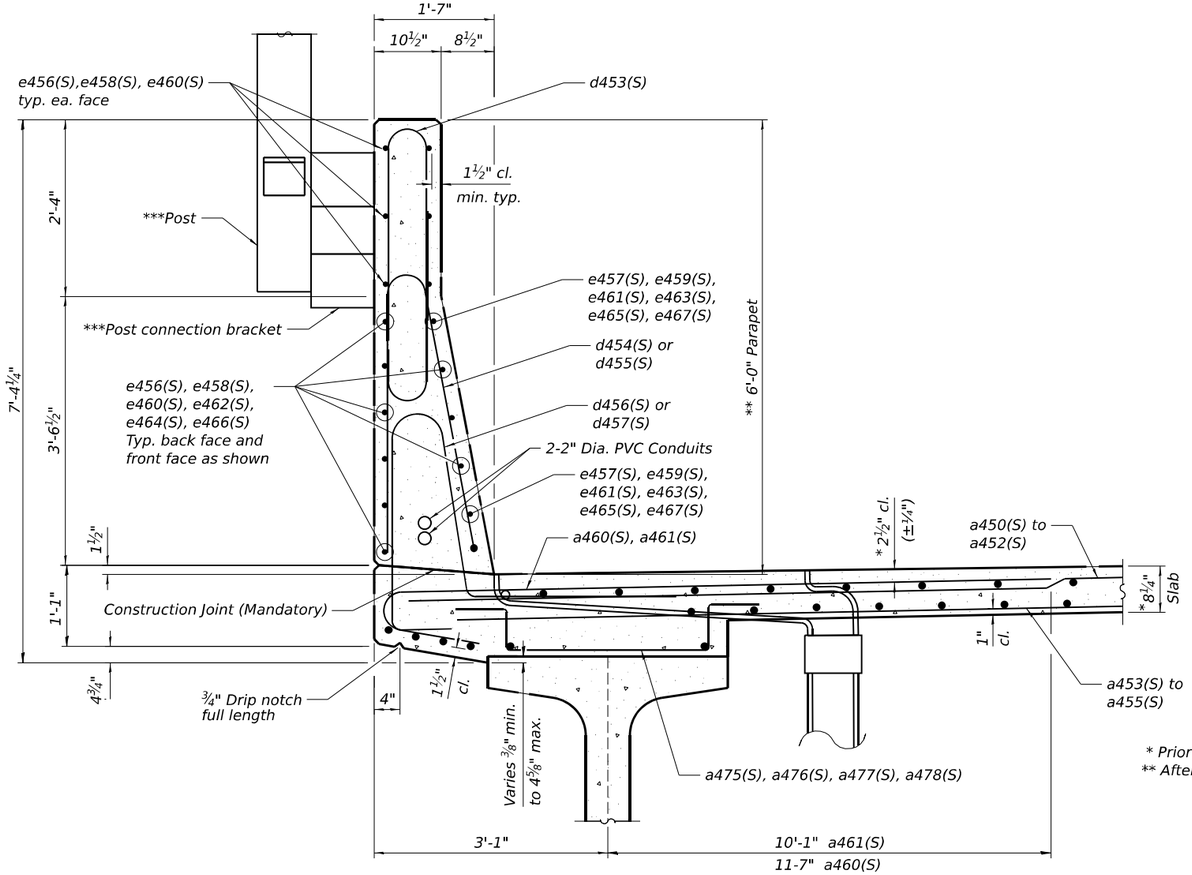
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

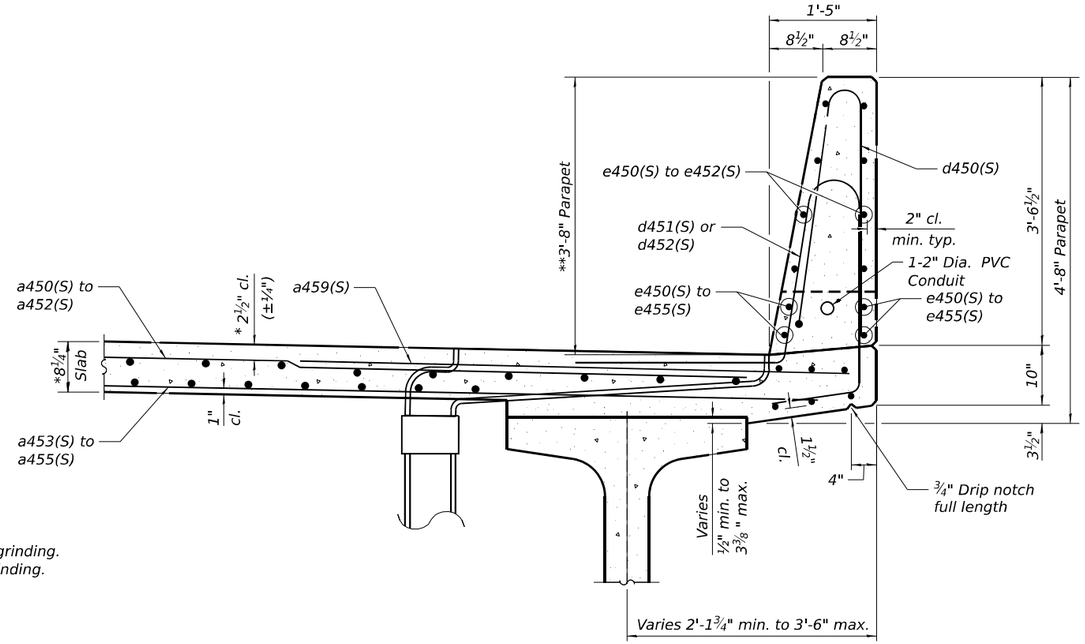
DECK CROSS SECTION AND PARAPET - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-141 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	722
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



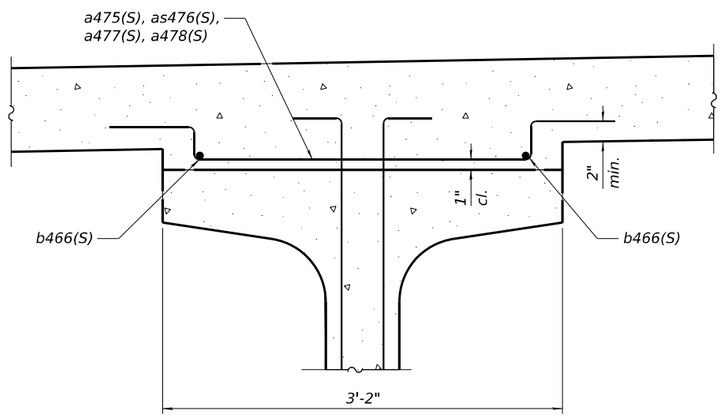
*** Post and connection to parapet to be designed by the Contractor, See Noise Abatement Wall Plans and Special Provisions.

SECTION THRU NORTH PARAPET



* Prior to grinding.
** After grinding.

SECTION THRU SOUTH PARAPET



FILLET DETAIL

NUMBER OF REINFORCEMENT BARS IN FILLET

	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10
Number of Bars in Span 8 near Pier 7	23-a477(S)	16-a476(S)	16-a476(S)	16-a476(S)	16-a476(S)	16-a476(S)	16-a476(S)	24-a475(S)	31-a475(S)	29-a475(S)
		2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)
		13-a475(S)	12-a475(S)	12-a475(S)	11-a475(S)	10-a475(S)	7-a475(S)			
No bars	0'-0"	92'-2"	85'-9"	87'-3"	92'-8"	93'-3"	97'-6"	105'-6"	96'-8"	97'-1"
	115-a476(S)									
	2X6-b466(S)									
		18-a475(S)	26-a475(S)	25-a475(S)	20-a475(S)	21-a475(S)	19-a475(S)			
Number of Bars in Span 8 near Pier 8	16-a477(S)	16-a476(S)	16-a476(S)	16-a476(S)	16-a476(S)	16-a476(S)	16-a476(S)	27-a475(S)	29-a475(S)	29-a475(S)
		2x2-b466(S)	2x2-b466(S)	2x2-b466(S)	2x2-b466(S)	2x2-b466(S)	2x2-b466(S)	2-b466(S)	2-b466(S)	2-b466(S)
Number of Bars in Span 9 near Pier 8	16-a477(S)	143-a476(S)	142-a476(S)	158-a476(S)	158-a476(S)	158-a476(S)	158-a476(S)	32-a476(S)	35-a475(S)	34-a475(S)
	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2x2-b466(S)	2x2-b466(S)
No bars	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	99'-4"	103'-7"
								94-a475(S)		
Number of Bars in Span 9 near Pier 9	143-a478(S)	16-a477(S)	16-a477(S)					32-a476(S)	25-a475(S)	22-a475(S)
									2-b466(S)	2-b466(S)
Number of Bars in Span 10 near Pier 9	30-a478(S)	15-a477(S)	15-a477(S)	44-a476(S)	30-a476(S)	30-a476(S)	30-a476(S)	30-a476(S)		26-a475(S)
										2-b466(S)
No bars	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	111'-6"
	94-a477(S)	116-a476(S)	116-a476(S)	74-a475(S)	87-a475(S)	88-a475(S)	88-a475(S)	89-a475(S)	149-a475(S)	
Number of Bars in Span 10 near Abut	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2X6-b466(S)	2-b466(S)
	22-a478(S)	15-a477(S)	15-a477(S)	29-a476(S)	30-a476(S)	30-a476(S)	30-a476(S)	30-a476(S)		14-a475(S)

Note:
#4-a475(S), a476(S), a477(S) and a478(S) bars are spaced at 12" centers above the beam as shown in the Fillet Detail. #4-b466(S) shall be placed as shown in the Fillet Detail. Bars can be cut to fit.

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

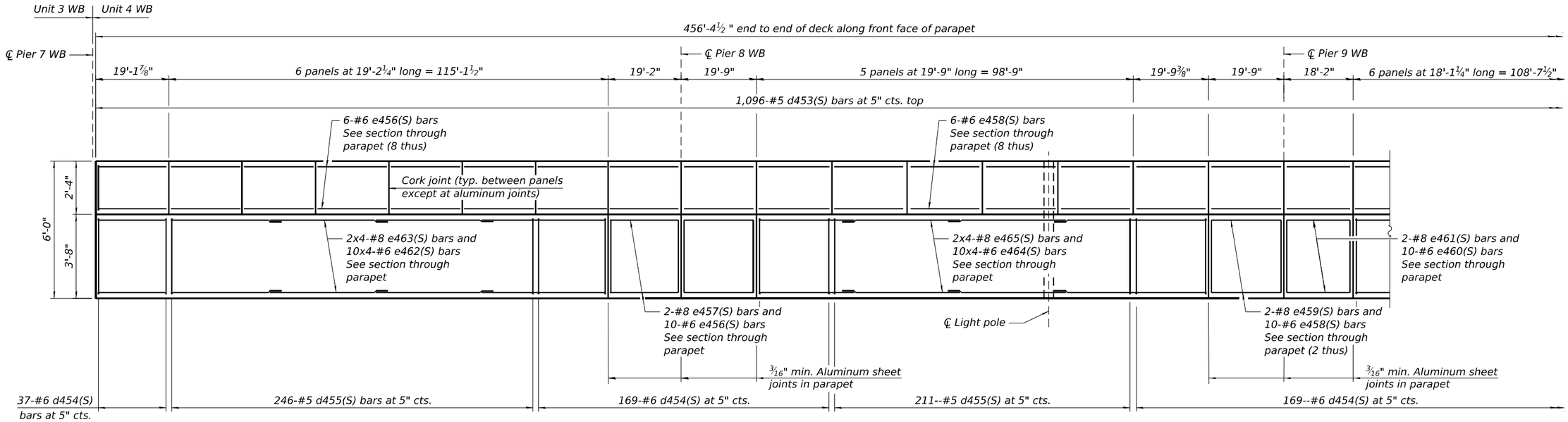
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

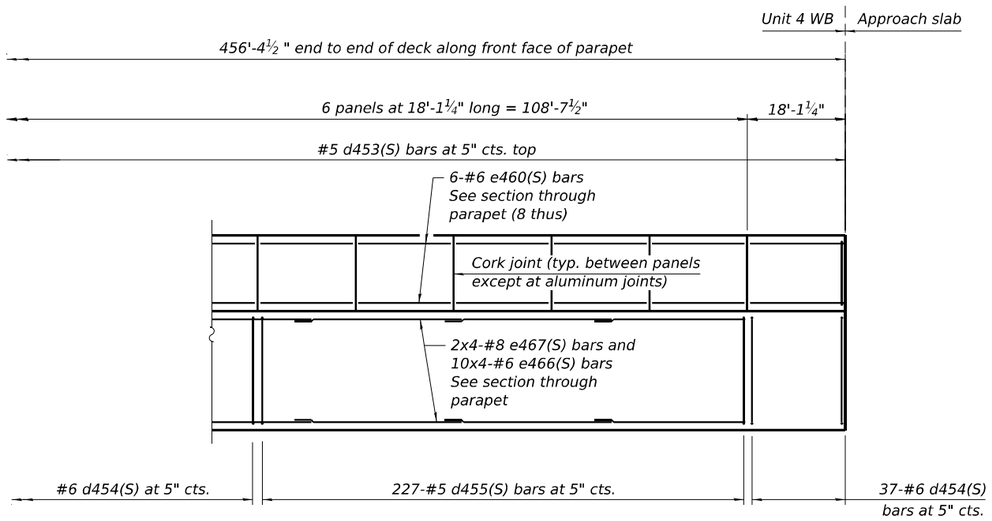
PARAPET SECTION - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-142 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	723
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/C14401/401180022/03-WSP/CAD/62R23-RB-1/Sheets/Structural/099830N-62R23-S342-2PK404.dgn



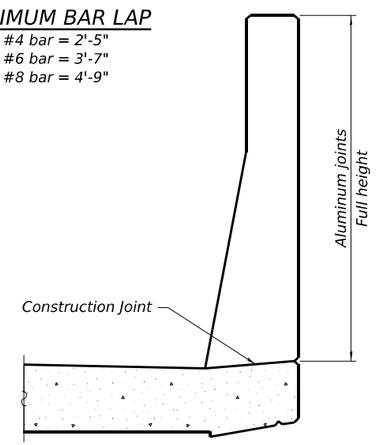
PARTIAL INSIDE ELEVATION OF NORTH PARAPET



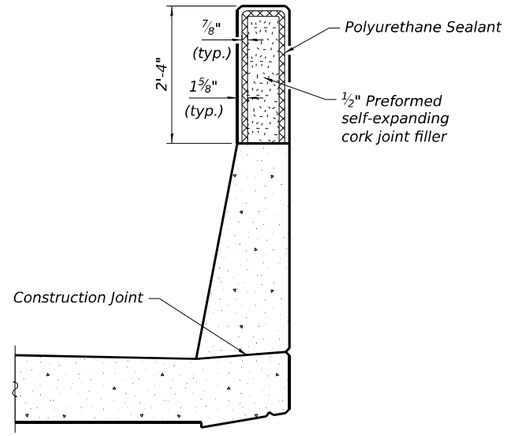
PARTIAL INSIDE ELEVATION OF NORTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"
#6 bar = 3'-7"
#8 bar = 4'-9"



ALUMINUM PARAPET JOINT DETAILS



CORK PARAPET JOINT DETAILS

See sheet S-144 for parapet joint notes.

WSP USA Inc.
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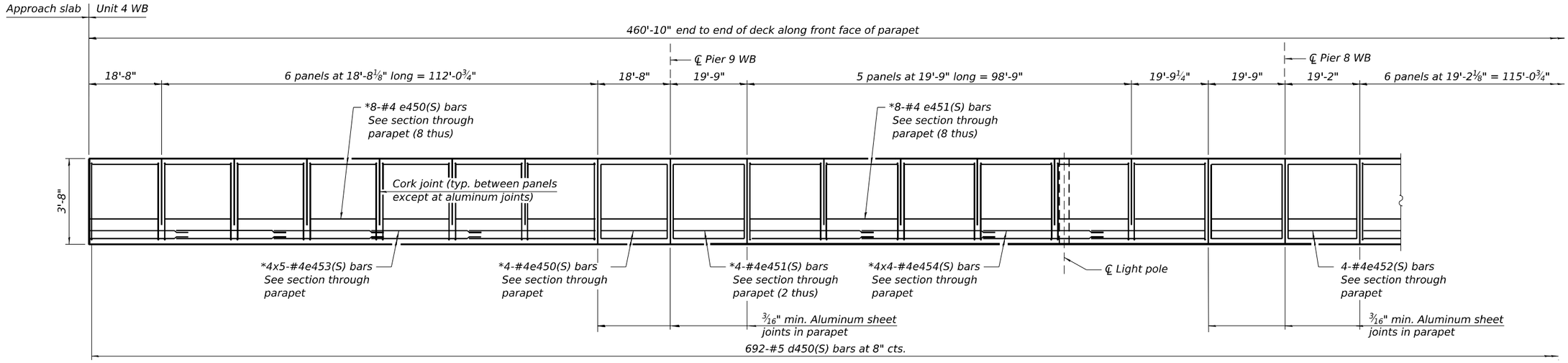
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 1 - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-143 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	724
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

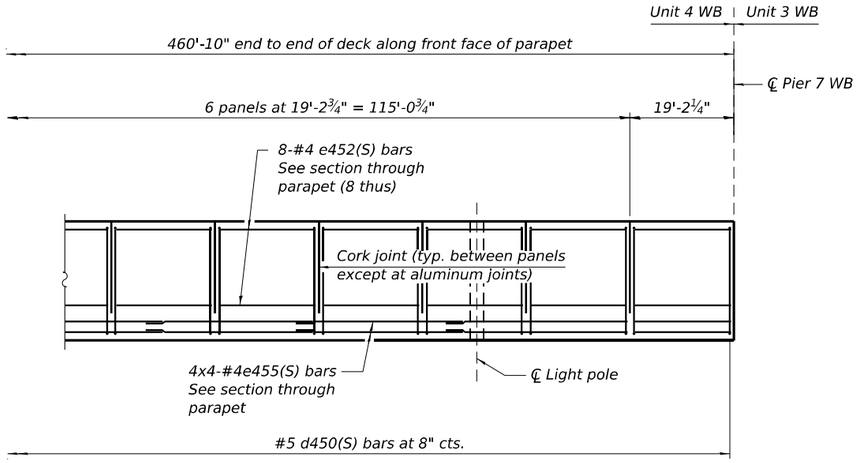


PARTIAL INSIDE ELEVATION OF SOUTH PARAPET

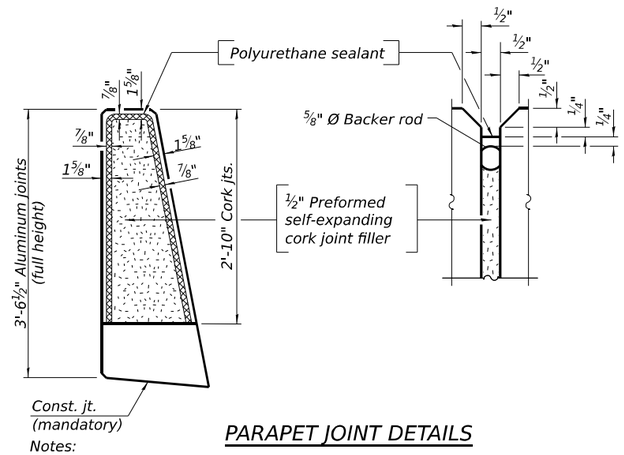
* Bars to be furnished straight and sprung into place to fit.

MINIMUM BAR LAP

#4 bar = 2'-5"



PARTIAL INSIDE ELEVATION OF SOUTH PARAPET



PARAPET JOINT DETAILS

Notes:

The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint 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.

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USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

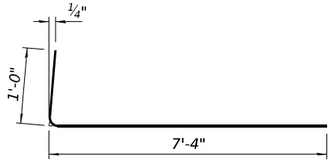
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 2 - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

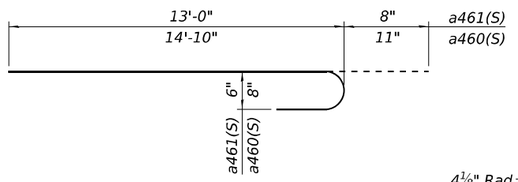
SHEET S-144 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	725
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

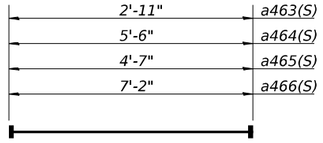
UNIT 4 WB
SUPERSTRUCTURE
BILL OF MATERIAL



BAR a459(S)

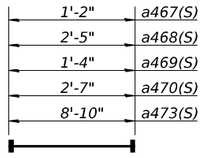


BAR a460(S), a461(S)



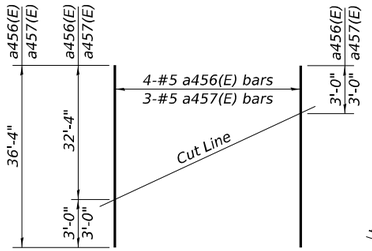
HEADED BAR a463(S), a464(S), a465(S), a466(S)

(Headed 4-#5 a463(S) Bar terminators)
(Headed 4-#5 a464(S) Bar terminators)
(Headed 14-#5 a465(S) Bar terminators)
(Headed 14-#5 a466(S) Bar terminators)



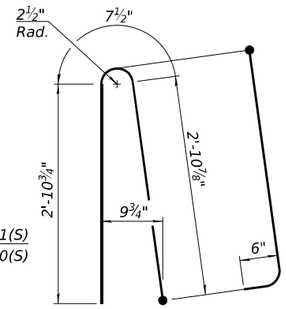
HEADED BAR a467(S), a468(S), a469(S), a470(S), a473(S)

(Headed 2-#5 a467(S) Bar terminators)
(Headed 2-#5 a468(S) Bar terminators)
(Headed 2-#5 a469(S) Bar terminators)
(Headed 2-#5 a470(S) Bar terminators)
(Headed 54-#6 a473(S) Bar terminators)

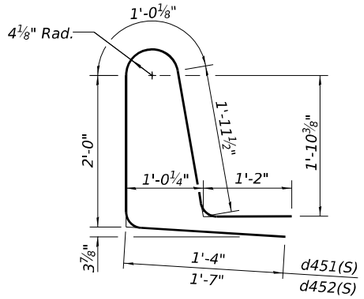


FIELD CUTTING DIAGRAM

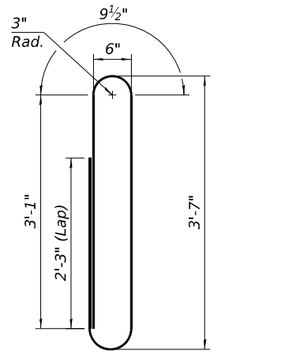
Order 3 thus for each bar full length.
Cut as shown and use remainder of bars as shown in plan on sheet S-140



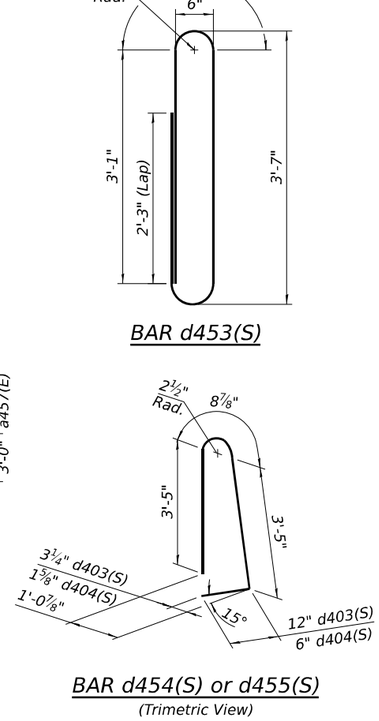
BAR d450(S)



BAR d451(S) & d452(S)

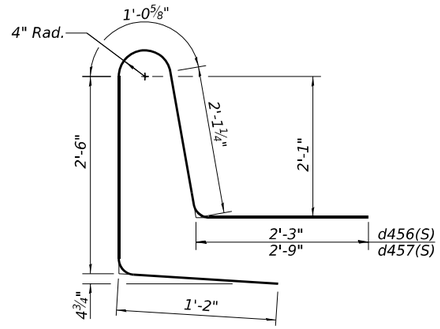


BAR d453(S)

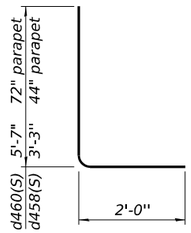


BAR d454(S) or d455(S)

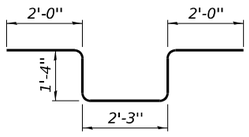
(Trimetric View)



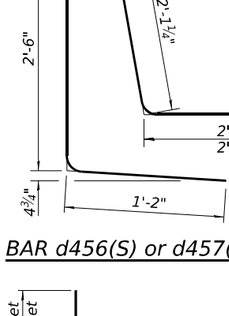
BAR d456(S) or d457(S)



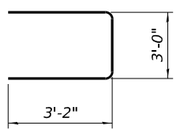
BAR d458(S) & d460(S)



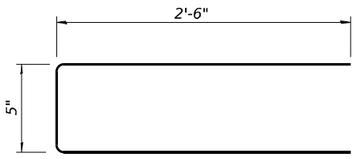
BAR d459(S)



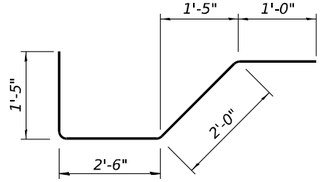
BAR s450(S)



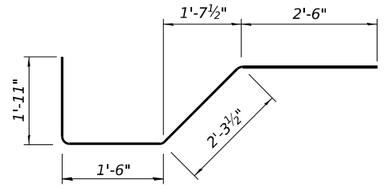
BAR s451(S)



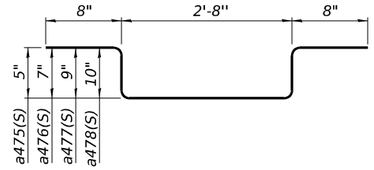
BAR x451(S)



BAR x450(S)



BAR x452(S)



BAR a475(S), a476(S), a477(S), a478(S)

Bar	No.	Size	Length	Shape
a450(S)	1,452	#5	22'-3"	
a451(S)	1,520	#5	23'-10"	
a452(S)	1,392	#5	25'-10"	
a453(S)	726	#5	27'-8"	
a454(S)	759	#5	29'-8"	
a455(S)	699	#5	32'-5"	
a456(S)	12	#5	36'-4"	
a457(S)	9	#5	36'-4"	
a458(S)	21	#5	33'-4"	
a459(S)	1,102	#6	8'-4"	
a460(S)	412	#8	15'-9"	
a461(S)	684	#6	13'-8"	
a462(S)	36	#5	27'-6"	
a463(S)	2	#5	2'-11"	
a464(S)	2	#5	5'-6"	
a465(S)	7	#5	4'-7"	
a466(S)	7	#5	7'-2"	
a467(S)	1	#5	1'-2"	
a468(S)	1	#5	2'-5"	
a469(S)	1	#5	1'-4"	
a470(S)	1	#5	2'-7"	
a471(S)	3	#6	32'-3"	
a472(S)	16	#6	26'-10"	
a473(S)	27	#6	8'-10"	
a474(S)	80	#5	5'-0"	
a475(S)	1,188	#4	4'-10"	
a476(S)	1,833	#4	5'-2"	
a477(S)	241	#4	5'-6"	
a478(S)	195	#4	5'-8"	
b450(S)	291	#5	36'-1"	
b451(S)	564	#9	30'-10"	
b452(S)	776	#8	33'-8"	
b453(S)	194	#5	28'-9"	
b454(S)	291	#5	34'-9"	
b455(S)	316	#5	26'-0"	
b456(S)	790	#8	31'-8"	
b457(S)	512	#8	28'-7"	
b458(S)	79	#5	38'-3"	
b459(S)	316	#5	25'-0"	
b466(S)	280	#4	30'-0"	
d450(S)	692	#5	7'-0"	
d451(S)	413	#5	7'-6"	
d452(S)	279	#5	7'-9"	
d453(S)	1,096	#5	10'-0"	
d454(S)	412	#6	8'-7"	
d455(S)	684	#5	8'-1"	
d456(S)	684	#5	9'-1"	
d457(S)	412	#6	9'-7"	
d458(S)	6	#6	5'-3"	
d459(S)	22	#6	8'-11"	
d460(S)	3	#6	7'-7"	

Bar	No.	Size	Length	Shape
e450(S)	68	#4	18'-4"	
e451(S)	72	#4	19'-5"	
e452(S)	68	#4	18'-10"	
e453(S)	20	#4	28'-10"	
e454(S)	16	#4	31'-3"	
e455(S)	16	#4	35'-4"	
e456(S)	58	#6	18'-10"	
e457(S)	2	#8	18'-10"	
e458(S)	68	#6	19'-5"	
e459(S)	4	#8	19'-5"	
e460(S)	58	#6	17'-9"	
e461(S)	2	#8	17'-9"	
e462(S)	40	#6	36'-2"	
e463(S)	8	#8	37'-1"	
e464(S)	40	#6	32'-3"	
e465(S)	8	#8	33'-2"	
e466(S)	40	#6	34'-4"	
e467(S)	8	#8	35'-2"	
m450(S)	18	#6	4'-5"	
m451(S)	90	#6	6'-7"	
m452(S)	40	#5	4'-0"	
m453(S)	18	#6	5'-3"	
m454(S)	90	#6	7'-5"	
m455(S)	48	#5	3'-0"	
s450(S)	117	#5	18'-0"	
s451(S)	72	#5	9'-4"	
x450(S)	56	#5	6'-11"	
x451(S)	54	#5	5'-5"	
x452(S)	90	#5	8'-3"	
Concrete Superstructure		Cu Yd.	1,430.6	
Reinforcement Bars, Stainless Steel		Pound	596,280	
Bar Splicers		Each	184	
Protective Coat		Sq. Yd.	4,636	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	2,655	
Diamond Grinding (Bridge Section)		Sq. Yd.	3,863	

Note: Bar terminators paid for separately. See Total Bill of Materials.

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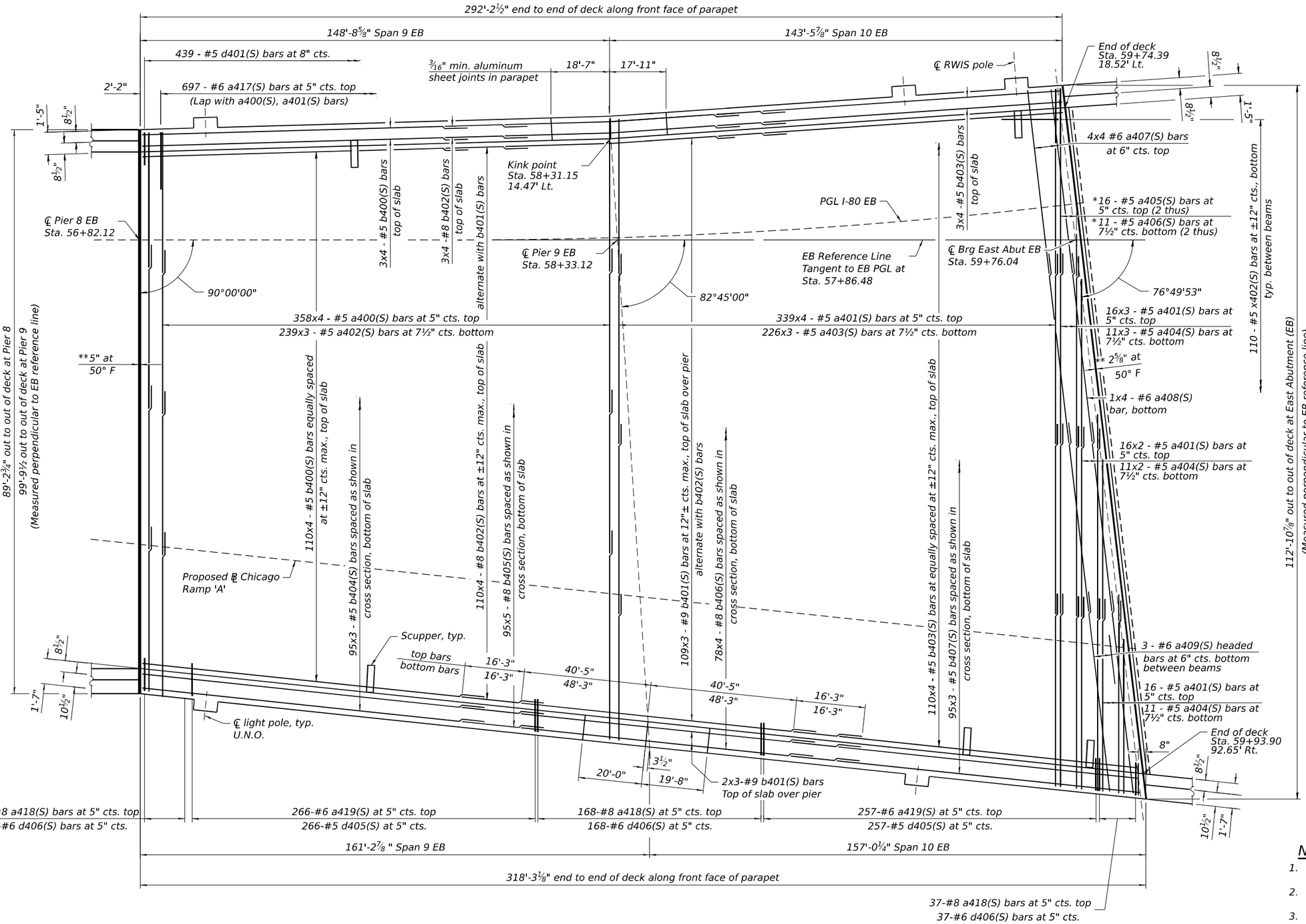
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - UNIT 4 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-145 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	726
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



PLAN - UNIT 4 EB

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"
#8 bar = 7'-10"
#9 bar = 8'-7"

* See Field Cutting Diagram on sheet S-151
** Dimension showing concrete opening. For joint opening see sheet S-164

For bars near joint see sheet S-168

NOTES:

1. See sheet S-151 for superstructure details and Bill of Material.
2. Offsets for scupper and light pole locations are measured off of EB PGL.
3. Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.
4. For Cross Section see sheet S-147.
5. Longitudinal bars in deck to be kinked as necessary at pier.

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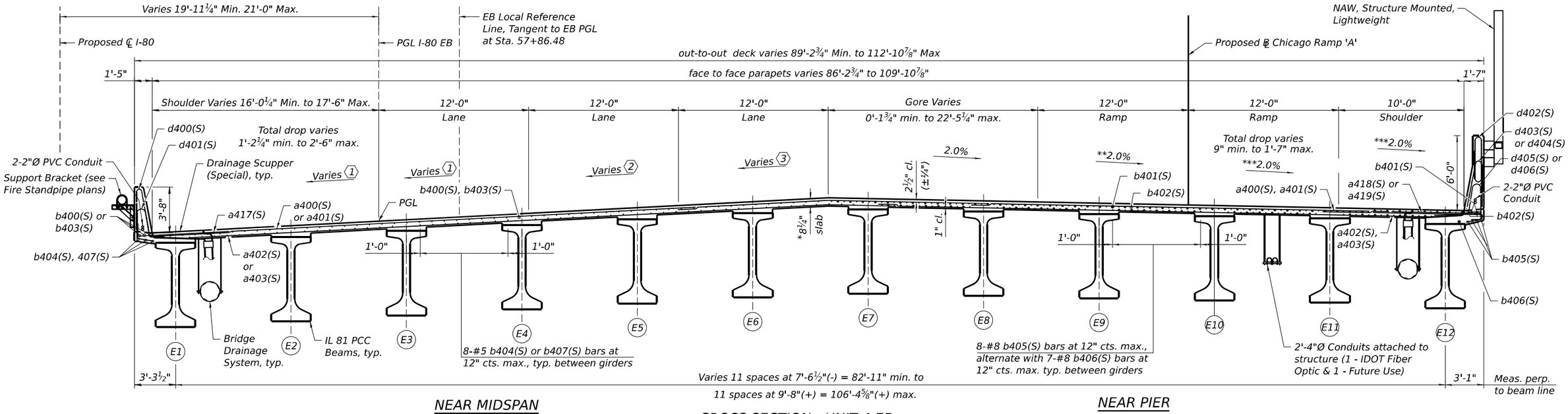
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN - UNIT 4 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-146 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	727
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

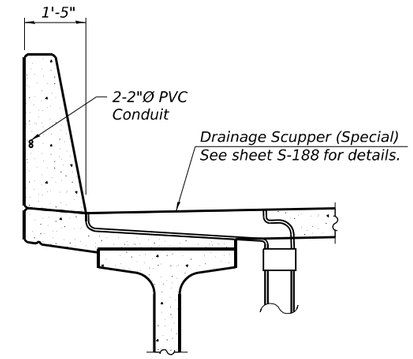


NEAR MIDSPAN

NEAR PIER

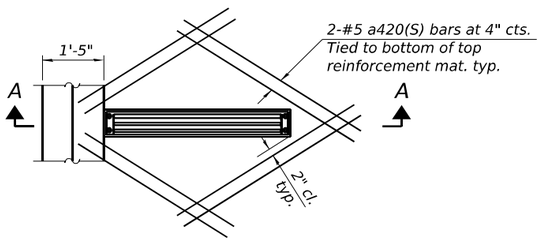
CROSS SECTION - UNIT 4 EB

(Looking East)



SECTION A-A

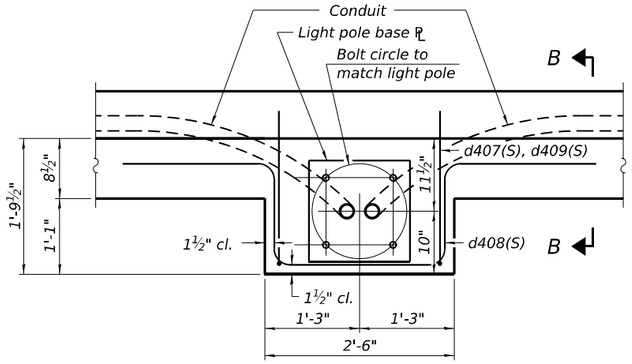
44" parapet shown,
Section similar for 72" parapet



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

REINFORCEMENT AT DRAINAGE SCUPPERS



PLAN

Note:
Cost of anchor rods is included with Concrete Superstructure.

CROSS SLOPE TRANSITION DATA

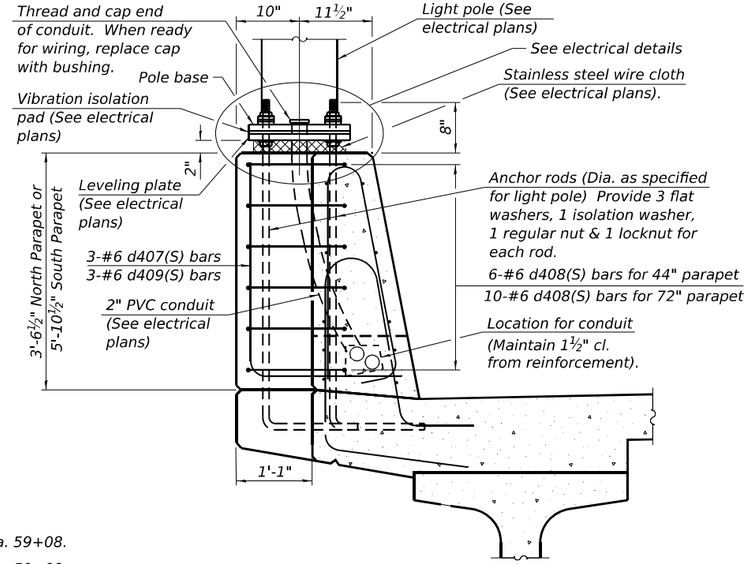
Note: Positive (+) slopes upward from Lt.-to-Rt., Negative (-) slopes downward from Lt.-to-Rt.

1. Varies from +2.00% at Sta. 56+61 to +5.20% at Sta. 59+08.
2. Varies from +1.50% at Sta. 55+96 to +5.20% at Sta. 59+08.
3. Varies from -1.50% at Sta. 55+57 to +5.20% at Sta. 59+08.

** Cross slopes shown are measured relative to the PGL I-80 EB up to Sta. 56+79, beyond this point they are measured relative to Proposed ℄ Chicago Ramp A.

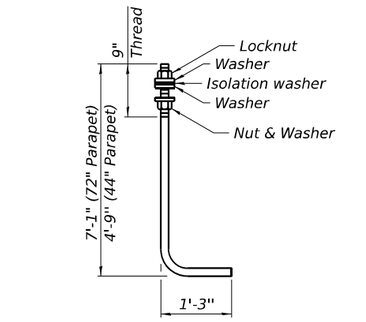
*** Cross slopes shown are measured relative to the PGL I-80 EB up to Sta. 54+50, beyond this point they are measured relative to Proposed ℄ Chicago Ramp A.

LIGHT POLE DETAILS

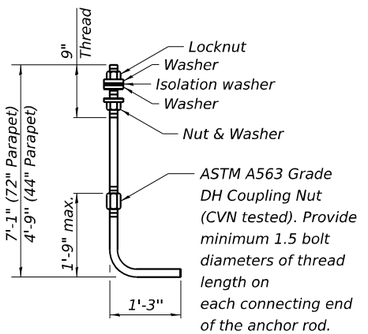


SECTION B-B

44" parapet shown,
Section similar for 72" parapet
(Reinforcement for RWIS Structure similar)



ANCHOR ROD



ALTERNATE ANCHOR ROD

Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized.

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystems-pw1-Hosted/Documents/Projects_2018/CH4014011801800222/03-WSP/CAD/62R23-RB-1.ISheets/Structural/099B309-62R23-S347-DK409.dgn

WSP USA Inc.
30 N. LASALLE STREET
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CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

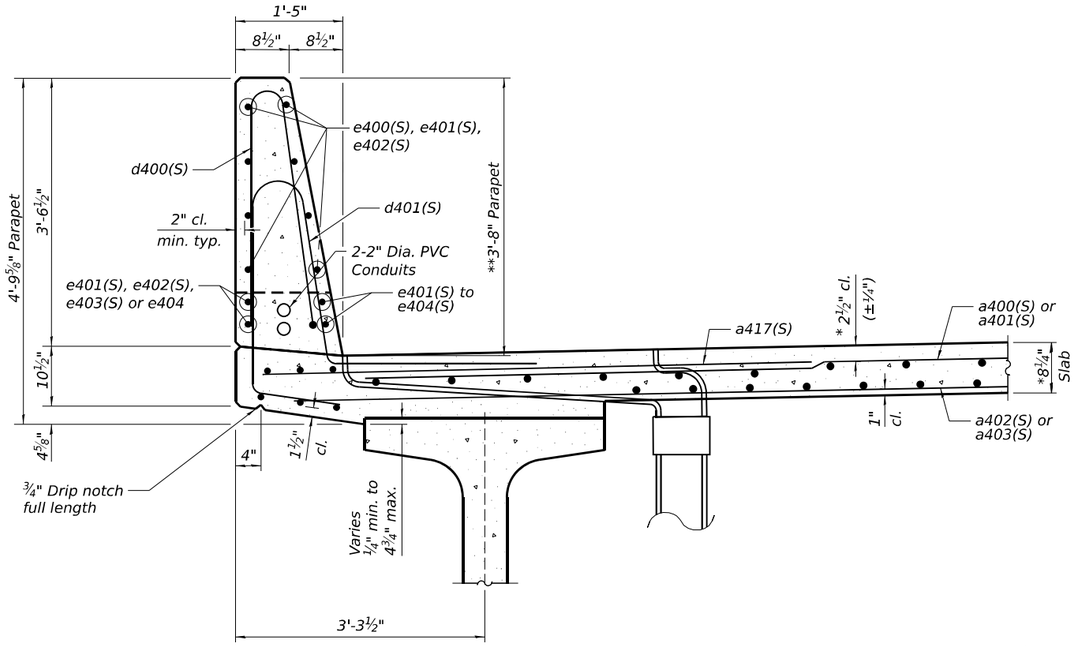
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 10.667 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

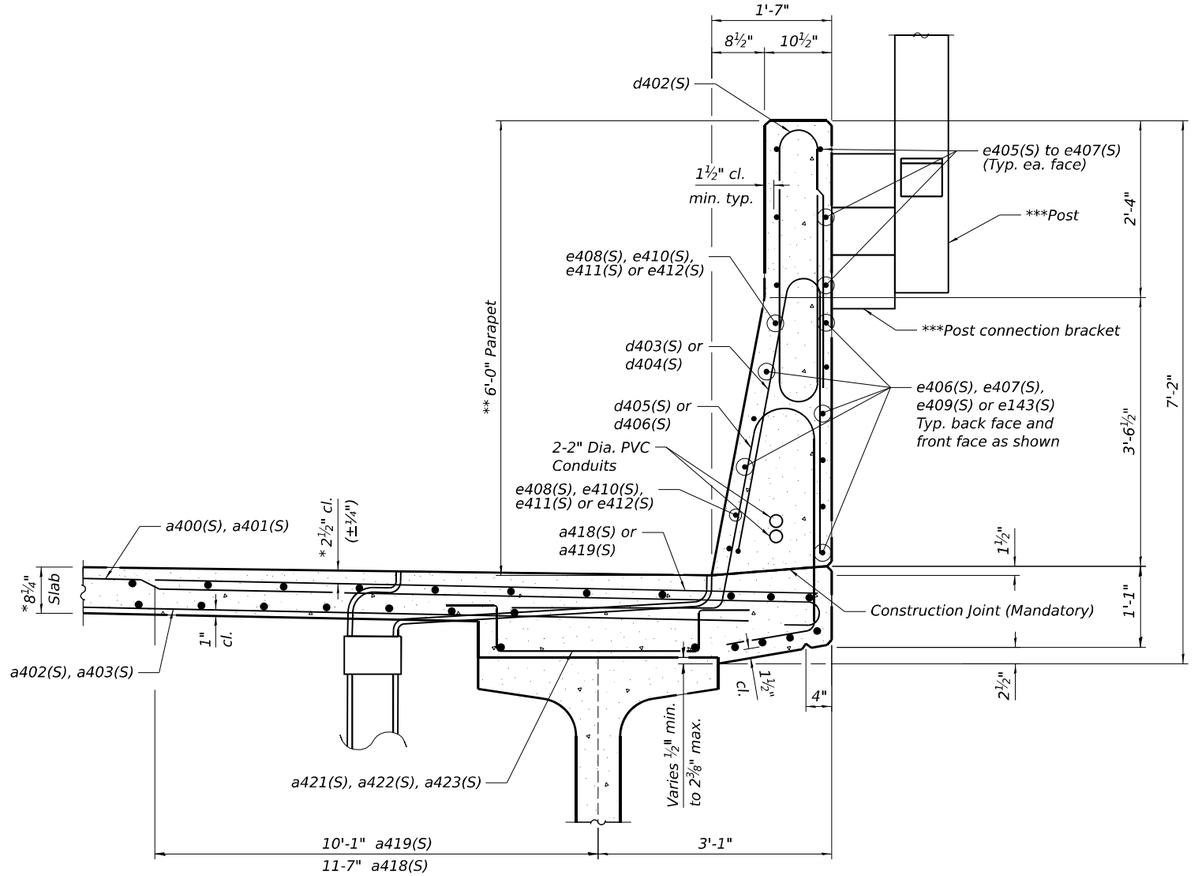
DECK CROSS SECTION AND PARAPET - UNIT 4 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-147 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	728
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



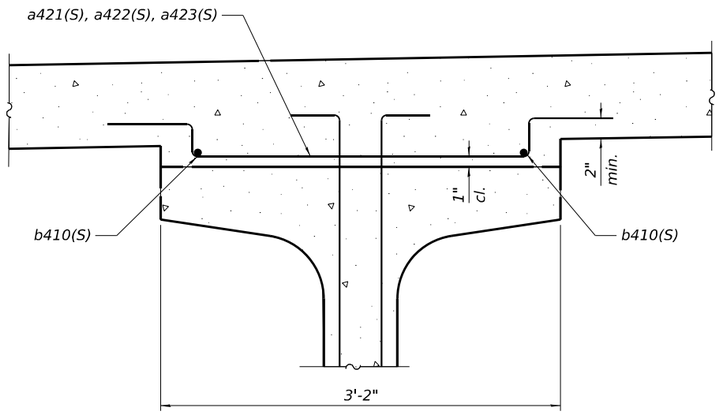
SECTION THRU NORTH PARAPET



SECTION THRU SOUTH PARAPET

* Prior to grinding.
** After grinding.

*** Post and connection to parapet to be designed by the Contractor, See Noise Abatement Wall Plans and Special Provisions



FILLET DETAIL

NUMBER OF REINFORCEMENT BARS IN FILLET

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
Number of Bars in Span 9 near Pier 8	25-a421(S)	21-a421(S)	27-a421(S)	16-a422(S)	16-a422(S)	16-a422(S)	16-a422(S)	32-a421(S)	29-a421(S)	31-a421(S)	32-a421(S)	17-a423(S)
	2-b410(S)	2-b410(S)	2-b410(S)	2x2-b410(S)	2x2-b410(S)	2x2-b410(S)	2x2-b410(S)	2-b410(S)	2-b410(S)	2-b410(S)	2-b410(S)	2-b410(S)
				24-a421(S)	27-a421(S)	31-a421(S)	31-a421(S)					
No Bars	55'-8"	69'-3"	67'-9"	60'-7"	64'-8"	66'-6"	68'-3"	98'-11"	100'-5"	101'-8"	102'-11"	0'-0"
	38-a421(S)	30-a421(S)										128-a422(S)
	16-a422(S)	16-a422(S)	42-a422(S)	38-a422(S)	32-a422(S)	27-a422(S)	27-a422(S)					2x6-b410(S)
Number of Bars in Span 9 near Pier 9	16-a423(S)	16-a423(S)	16-a423(S)	16-a423(S)	16-a423(S)	16-a423(S)	16-a423(S)	28-1a421(S)	31-1a421(S)	28-1a421(S)	28-1a421(S)	17-a423(S)
	2x3-b410(S)	2x3-b410(S)	2x2-b410(S)	2x2-b410(S)	2x2-b410(S)	2x2-b410(S)	2x2-b410(S)	2-b410(S)	2-b410(S)	2-b410(S)	2-b410(S)	
Number of Bars in Span 10 near Pier 9	15-a423(S)	44-a422(S)	30-a422(S)	30-a422(S)	30-a422(S)	15-a422(S)	45-a422(S)	80-a421(S)	82-a421(S)	77-a421(S)	80-a421(S)	
	29-a422(S)						69-a421(S)					157-a422(S)
	70-a421(S)	57-a421(S)	72-a421(S)	72-a421(S)	74-a421(S)	105-a421(S)						2x6-b410(S)
	2x5-b410(S)	2x5-b410(S)	2x5-b410(S)	2x5-b410(S)	2x5-b410(S)	2x5-b410(S)	2x4-b410(S)	2x3-b410(S)	2x3-b410(S)	2x3-b410(S)	2x3-b410(S)	
No Bars	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	22'-1"	71'-6"	70'-2"	77'-0"	75'-5"	0'-0"
Number of Bars in Span 10 near Abut.	15-a422(S)	29-a422(S)					2-b410(S)					
	15-a423(S)	15-a423(S)	44-a422(S)	45-a422(S)	45-a422(S)	30-a422(S)	16-a422(S)					

Note:
#4-a421(S), a422(S) and a423(S) bars are spaced at 12" centers above the beam as shown in the Fillet Detail. #4-b410(S) shall be placed as shown in the Fillet Detail. Bars can be cut to fit.

WSP USA Inc.
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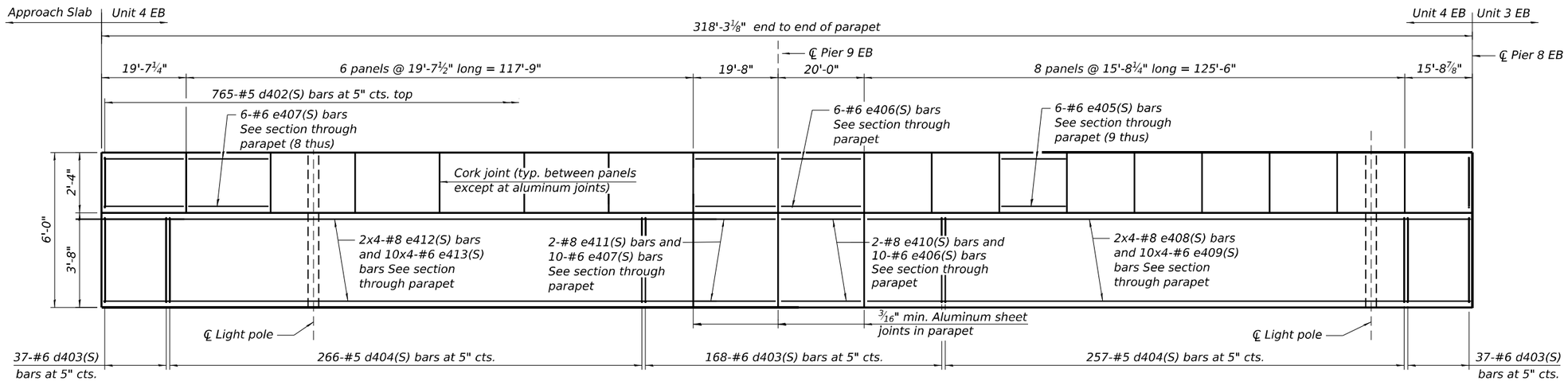
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET SECTION - UNIT 4 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-148 OF S-333 SHEETS

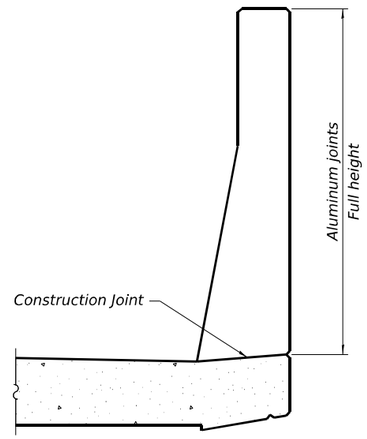
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	729
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



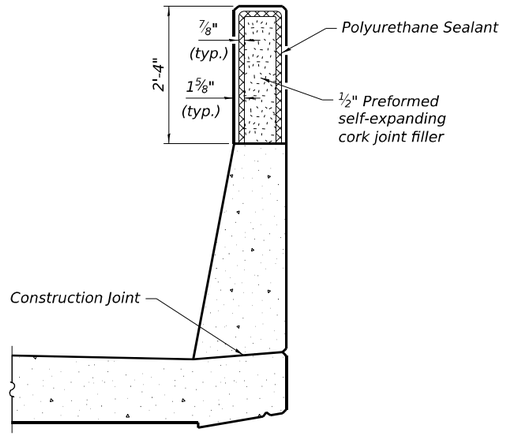
INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"
#6 bar = 3'-7"
#8 bar = 4'-9"



ALUMINUM PARAPET JOINT DETAILS



CORK PARAPET JOINT DETAILS

For parapet joint notes see sheet S-150

WSP USA Inc.
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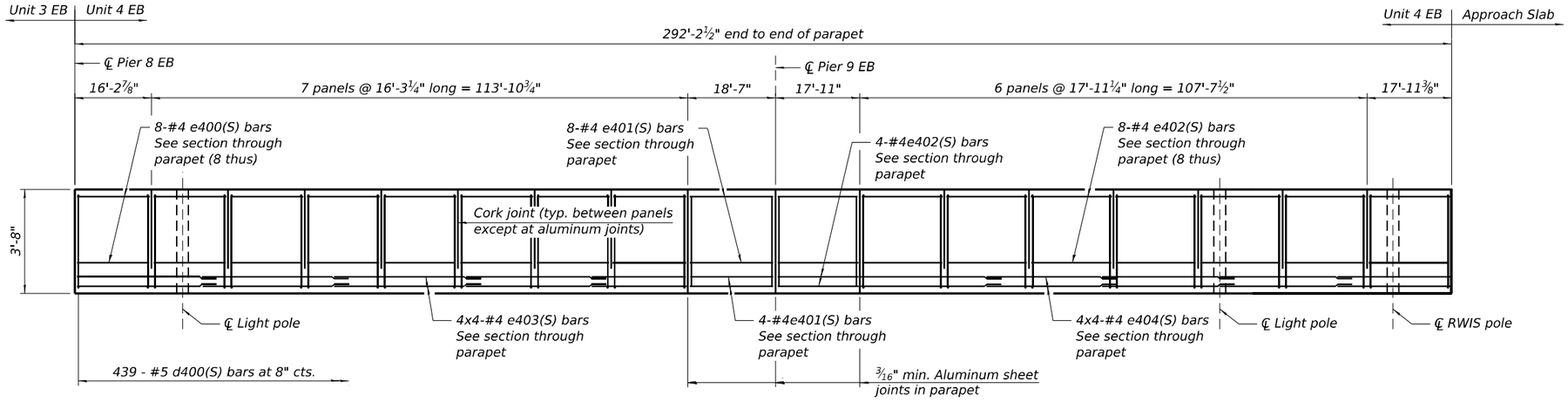
MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystcorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1/Sheets/Structural/099830S-62R23-S349-DK411.dgn

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 1 - UNIT 4 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-149 OF S-333 SHEETS

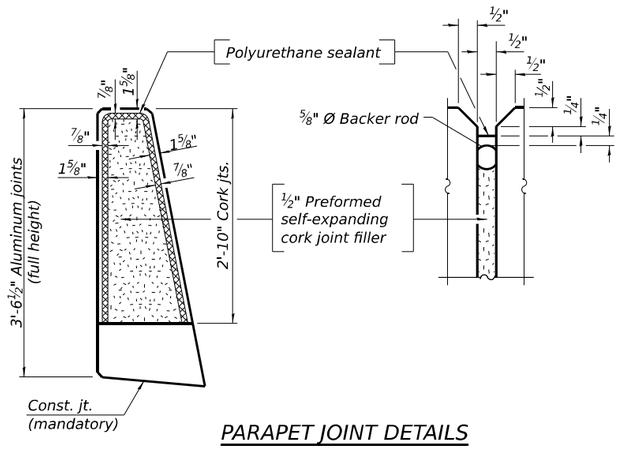
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	730
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF NORTH PARAPET

MINIMUM BAR LAP

#4 bar = 2'-5"



PARAPET JOINT DETAILS

Notes:

The 3/16" minimum aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated with 5 mils of either bitumen paint or epoxy paint 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.

MODEL: Default
FILE NAME: pw:\transystems-pw.bentley.com:transystcorp-pw1-Hosted\Documents\Projects 2018\CH401\401180022\03-WSP\CAD\62R23-RB-1\Sheets\Structural\0998309-62R23-S350-DK412.dgn

WSP USA Inc.
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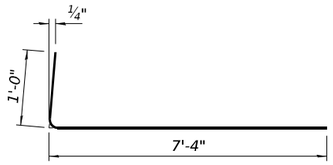
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 28.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

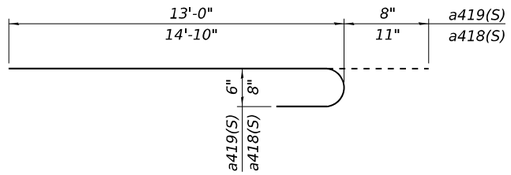
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATION 2 - UNIT 4 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-150 OF S-333 SHEETS

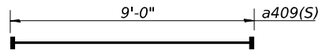
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	731
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



BAR a417(S)

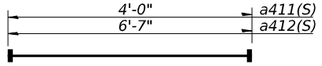


BAR a418(S), a419(S)



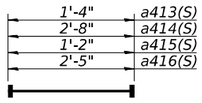
HEADED BAR a409(S)

(Headed 66-#6 a409(S) Bar terminators)



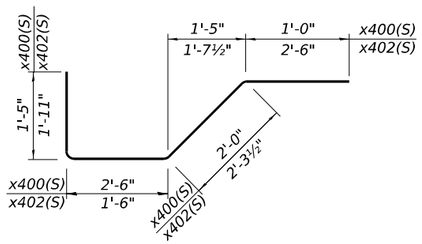
HEADED BAR a411(S), a412(S)

(Headed 22-#5 a411(S) Bar terminators)
(Headed 22-#5 a412(S) Bar terminators)

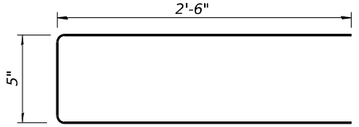


HEADED BAR a413(S), a414(S), a415(S), a416(S)

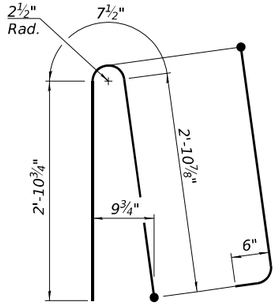
(Headed 2-#5 a413(S) Bar terminators)
(Headed 2-#5 a414(S) Bar terminators)
(Headed 2-#5 a415(S) Bar terminators)
(Headed 2-#5 a416(S) Bar terminators)



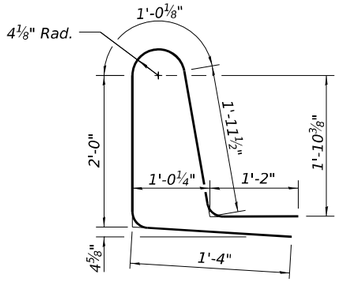
BAR x400(S) or x402(S)



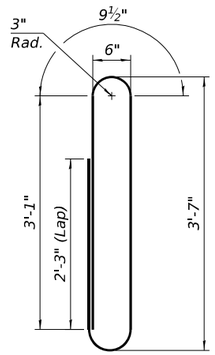
BAR x401(S)



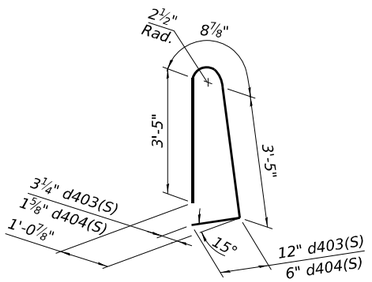
BAR d400(S)



BAR d401(S)

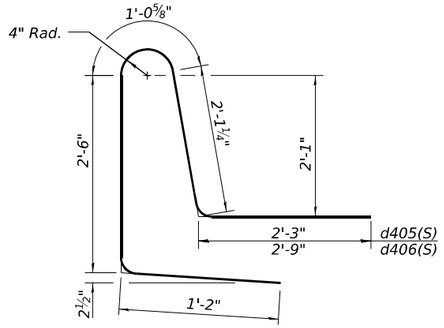


BAR d402(S)

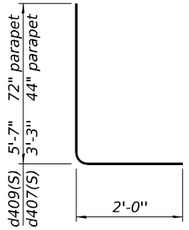


BAR d403(S) or d404(S)

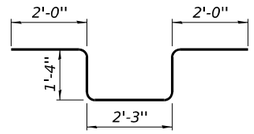
(Trimetric View)



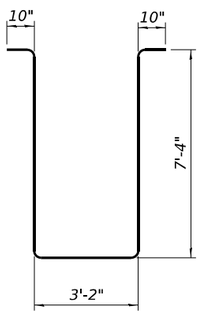
BAR d405(S), d406(S)



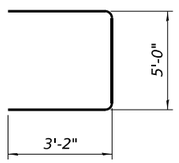
BAR d407(S) & d409(S)



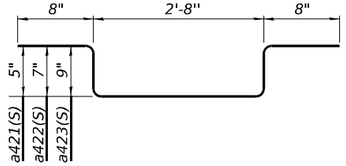
BAR d408(S)



BAR s400(S)



BAR s401(S)



BAR a421(S), a422(S), a423(S)

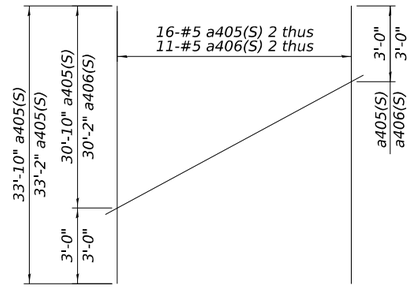
UNIT 4 EB
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a400(S)	1,432	#5	27'-6"	
a401(S)	1,452	#5	30'-10"	
a402(S)	717	#5	34'-8"	
a403(S)	678	#5	39'-0"	
a404(S)	66	#5	30'-2"	
a405(S)	32	#5	33'-10"	
a406(S)	22	#5	33'-2"	
a407(S)	16	#6	32'-7"	
a408(S)	4	#6	31'-1"	
a409(S)	33	#6	9'-0"	
a410(S)	36	#5	32'-0"	
a411(S)	11	#5	4'-0"	
a412(S)	11	#5	6'-7"	
a413(S)	1	#5	1'-4"	
a414(S)	1	#5	2'-8"	
a415(S)	1	#5	1'-2"	
a416(S)	1	#5	2'-5"	
a417(S)	697	#6	8'-4"	
a418(S)	242	#8	15'-9"	
a419(S)	523	#6	13'-8"	
a420(S)	40	#5	5'-0"	
a421(S)	1,331	#4	4'-10"	
a422(S)	994	#4	5'-2"	
a423(S)	191	#4	5'-6"	
b400(S)	464	#5	29'-8"	
b401(S)	339	#9	32'-8"	
b402(S)	464	#8	34'-3"	
b403(S)	464	#5	28'-8"	
b404(S)	285	#5	36'-10"	
b405(S)	475	#8	32'-1"	
b406(S)	312	#8	30'-0"	
b407(S)	285	#5	34'-4"	
b410(s)	190	#4	32'-0"	
d400(S)	439	#5	7'-0"	
d401(S)	439	#5	7'-6"	
d402(S)	765	#5	10'-0"	
d403(S)	242	#6	8'-7"	
d404(S)	523	#5	8'-1"	
d405(S)	523	#5	9'-1"	
d406(S)	242	#6	9'-7"	
d407(S)	9	#6	5'-3"	
d408(S)	38	#6	8'-11"	
d409(S)	6	#6	7'-7"	

Bar	No.	Size	Length	Shape
e400(S)	64	#4	15'-11"	
e401(S)	12	#4	18'-3"	
e402(S)	68	#4	17'-7"	
e403(S)	16	#4	34'-4"	
e404(S)	16	#4	33'-2"	
e405(S)	54	#6	15'-4"	
e406(S)	16	#6	19'-8"	
e407(S)	58	#6	19'-3"	
e408(S)	8	#8	38'-10"	
e409(S)	40	#6	37'-11"	
e410(S)	2	#8	19'-8"	
e411(S)	2	#8	19'-4"	
e412(S)	8	#8	37'-10"	
e413(S)	40	#6	37'-0"	
m400(S)	22	#6	4'-11"	
m401(S)	132	#6	7'-1"	
m402(S)	24	#5	4'-0"	
m403(S)	24	#5	3'-0"	
s400(S)	66	#5	19'-6"	
s401(S)	44	#5	11'-4"	
x400(S)	61	#5	6'-11"	
x401(S)	59	#5	5'-5"	
X402(S)	110	#5	8'-3"	

Concrete Superstructure	Cu Yd.	1,113.9
Reinforcement Bars, Stainless Steel	Pound	434,120
Bar Splicers	Each	215
Protective Coat	Sq. Yd.	3,691
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	2,038
Diamond Grinding (Bridge Section)	Sq. Yd.	3,159

Note: Bar terminators paid for separately.
See Total Bill of Materials.



FIELD CUTTING DIAGRAM

Order a405(S) and a406(S) bars full length.
Cur as shown and use remainder of bars
as shown in plans on sheet S-146

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - UNIT 4 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-151 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	732
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

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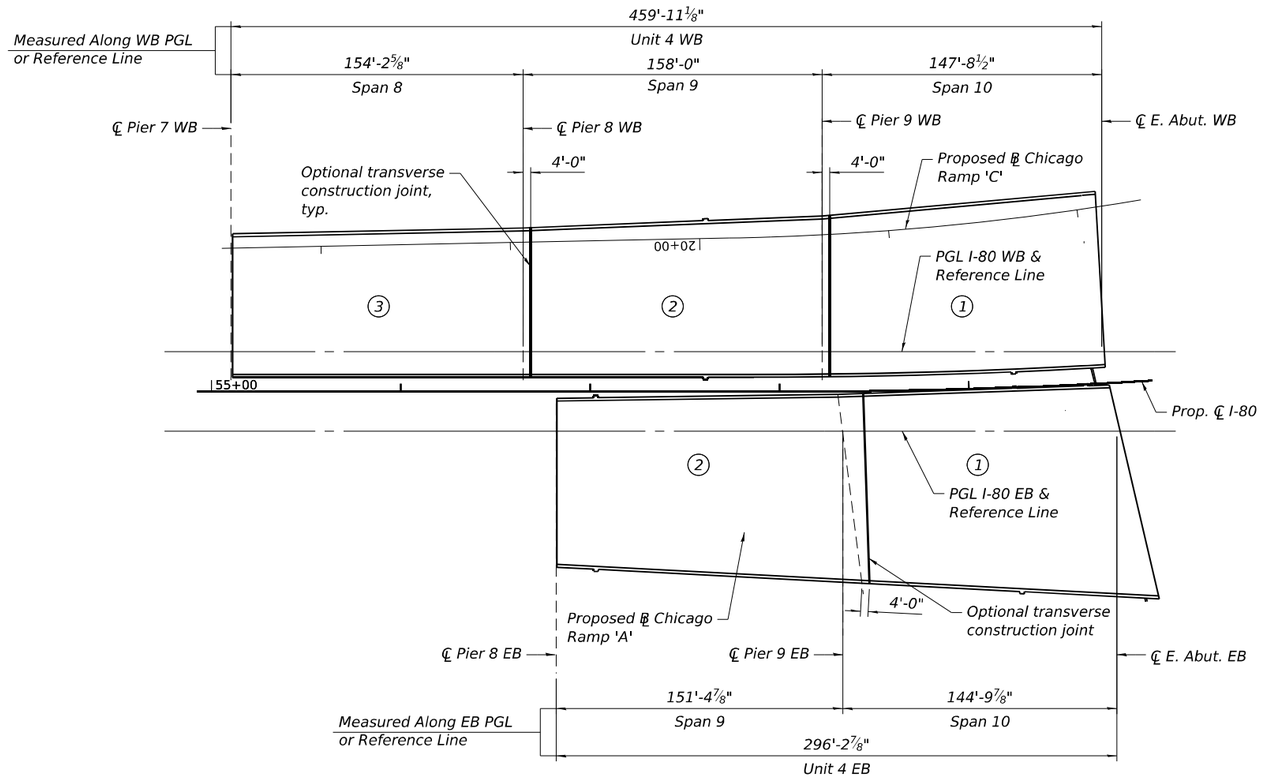

DECK POURING SEQUENCE - UNIT 4

NOTES ON DECK POURING SEQUENCE:

1. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
   a. At least 72 hours shall have elapsed from the end of the previous pour.
   b. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

WSP USA Inc.
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SUITE 4200
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FAX: (312) 782-1684

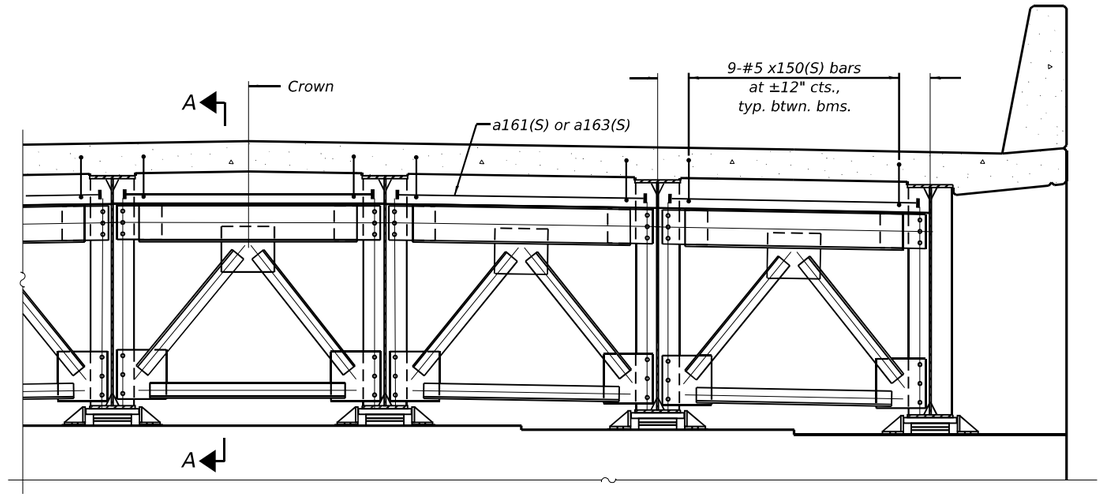
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 0:0 3/16 : / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

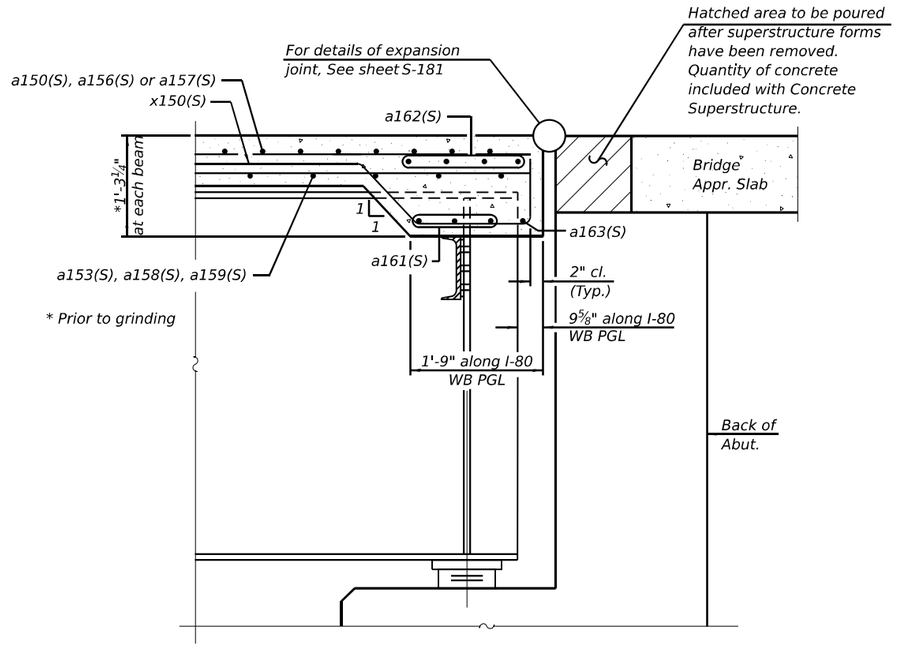
DECK POURING SEQUENCE - UNIT 4 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-152 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	733
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



DIAPHRAGM AT WEST ABUTMENT WB



SECTION A-A
(at Rt. ℄'s)
(Full cross frame not shown for clarity)

Notes:
See sheet S-104 for superstructure details and Bill of Material.
The x150(S) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

WSP USA Inc.
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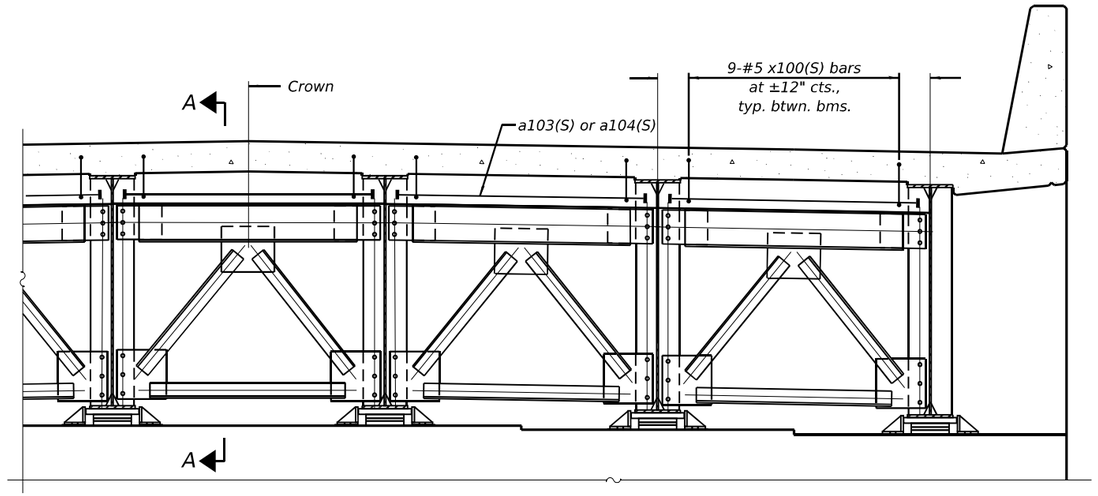
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

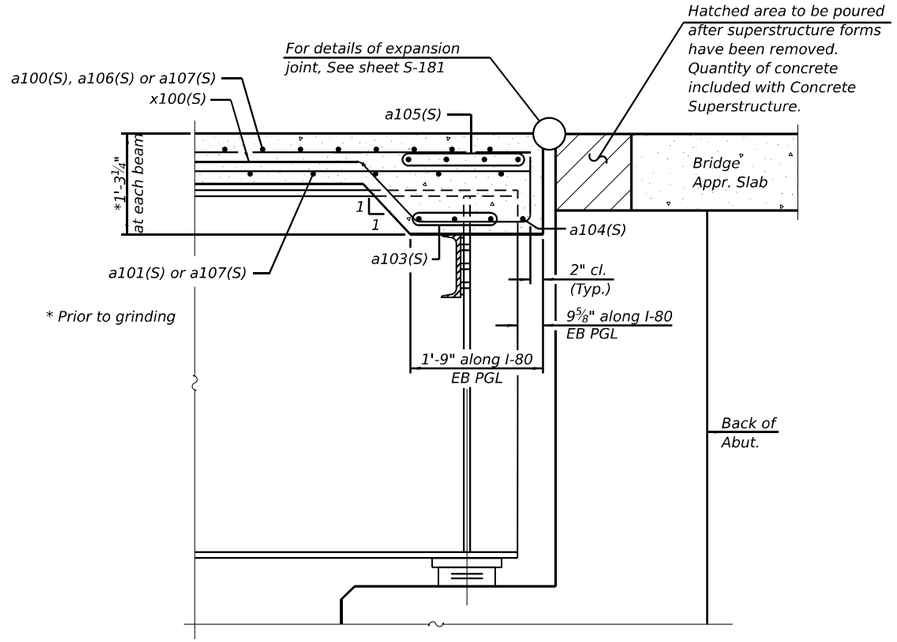
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - WEST ABUTMENT WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-153 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	734
		CONTRACT NO. 62R23		
	ILLINOIS | FED. AID PROJECT			



DIAPHRAGM AT WEST ABUTMENT EB



SECTION A-A

(at Rt. ℄'s)

(Full cross frame not shown for clarity)

Notes:

See sheet S-108 for superstructure details and Bill of Material.

The x100(S) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

WSP USA Inc.
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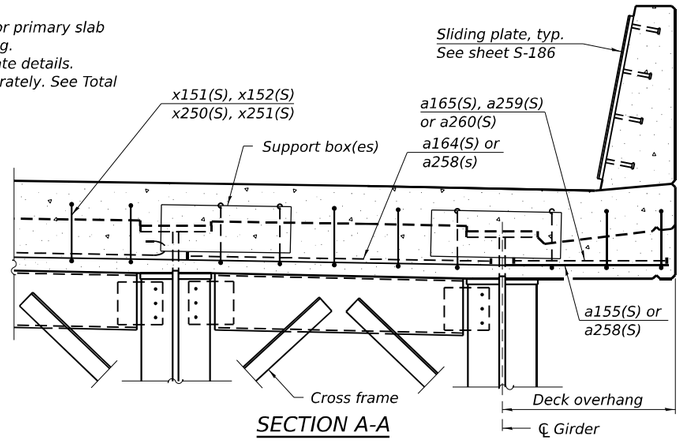
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

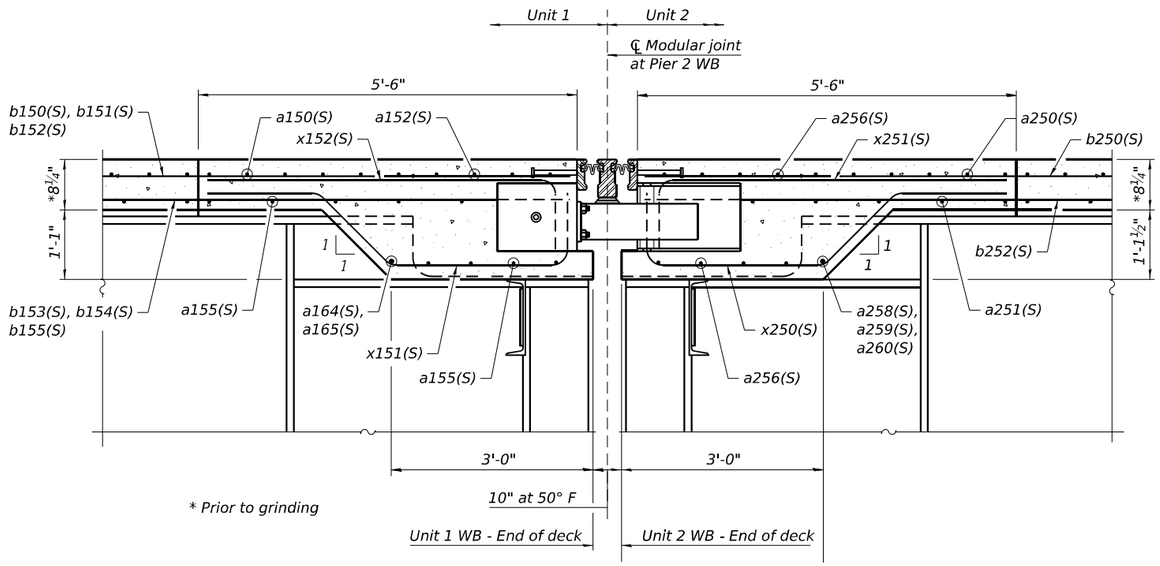
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DIAPHRAGM DETAILS - WEST ABUTMENT EB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - PJL	REVISED -			I-80	FAI 80 21 STRUCTURE 2	WILL	1230	735
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -					CONTRACT NO. 62R23		
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -		SHEET S-154 OF S-333 SHEETS			ILLINOIS	FED. AID PROJECT	

NOTES:

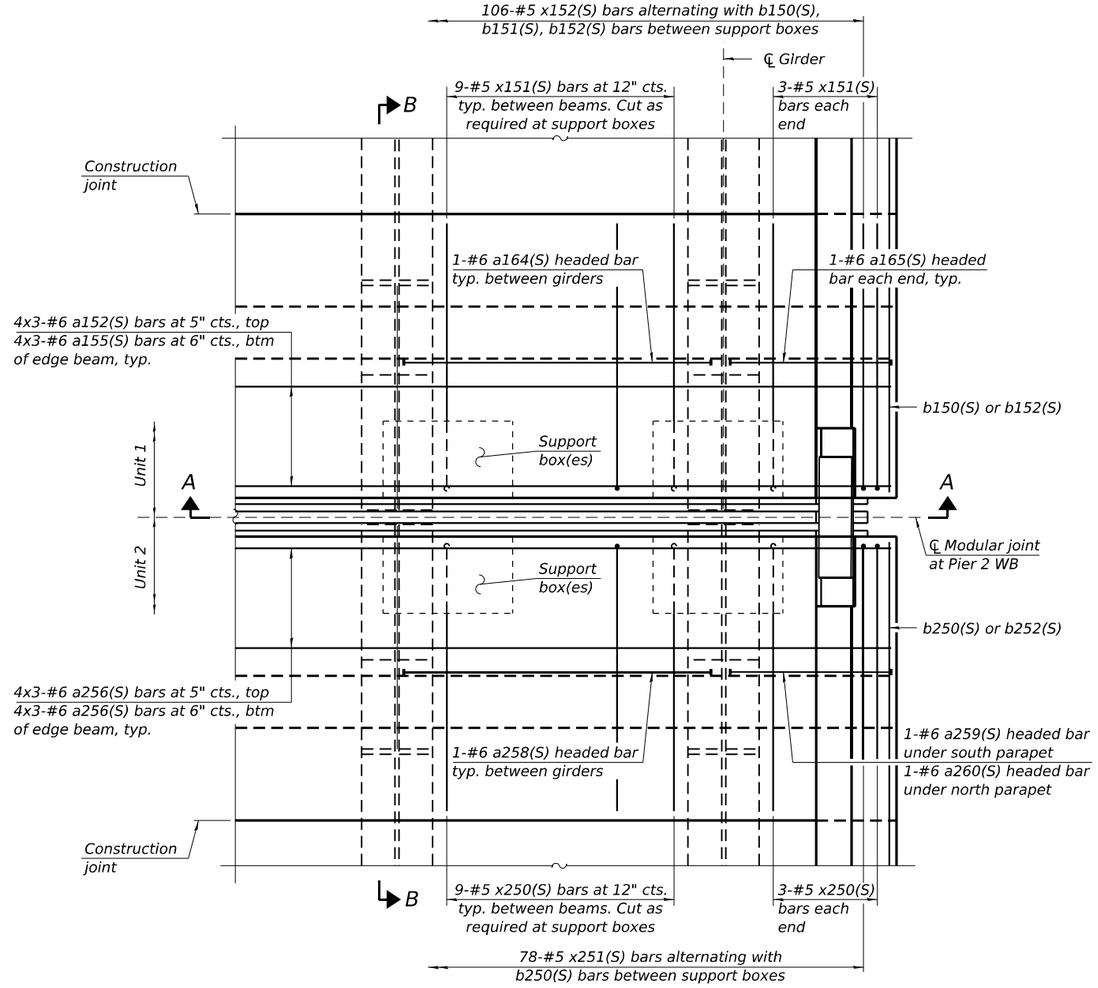
1. See sheets S-101 and S-110 for primary slab reinforcement size and spacing.
2. See sheet S-186 for sliding plate details.
3. Bar terminators, paid for separately. See Total Bill of Material.



SECTION A-A



SECTION B-B



PARTIAL PLAN

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

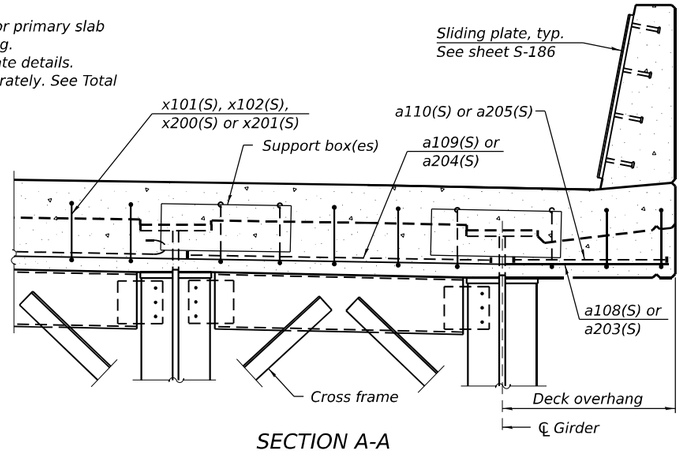
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 2 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-155 OF S-333 SHEETS

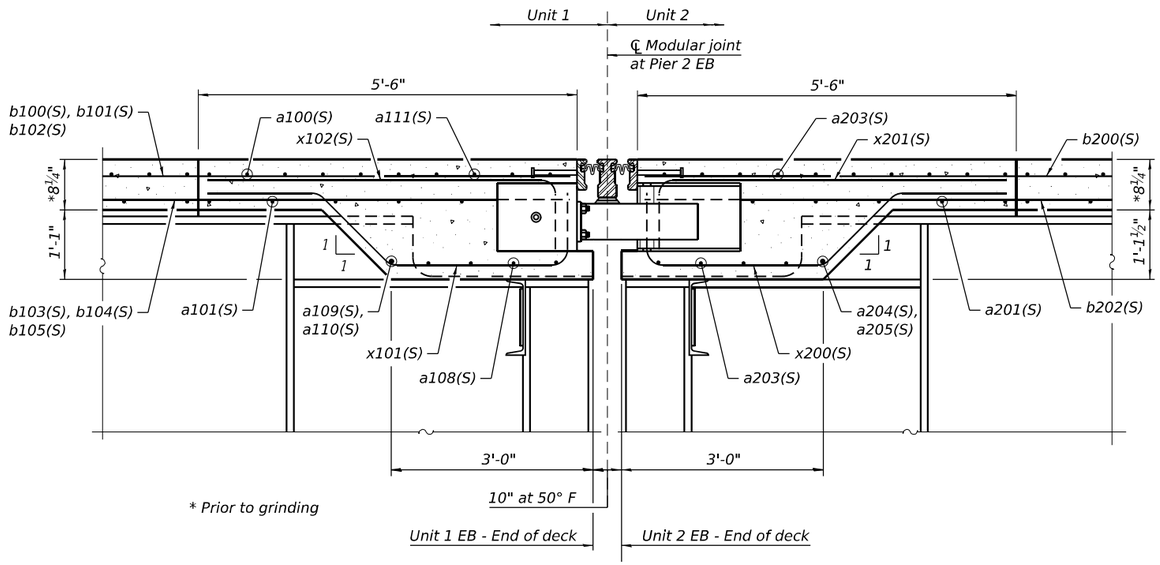
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	736
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

NOTES:

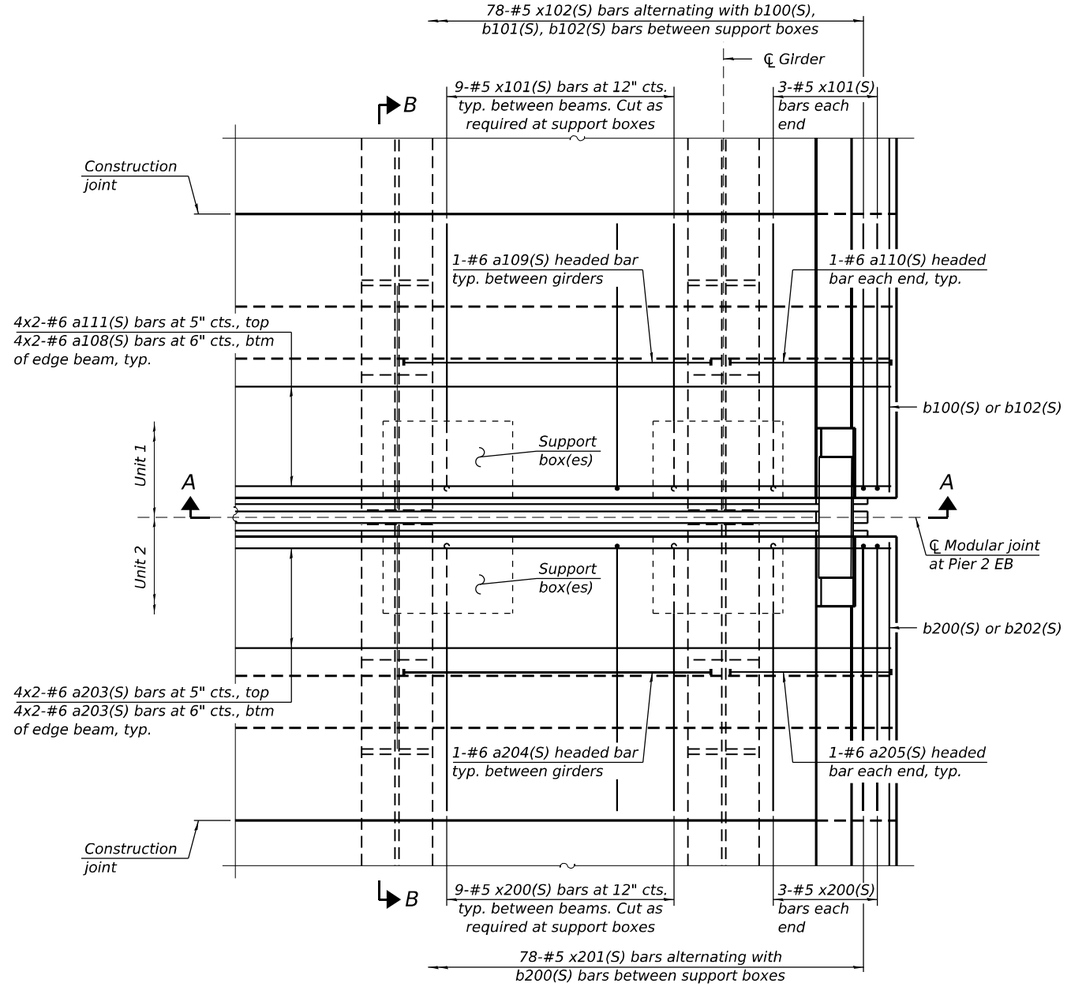
1. See sheets S-105 and S-117 for primary slab reinforcement size and spacing.
2. See sheet S-186 for sliding plate details.
3. Bar terminators, paid for separately. See Total Bill of Material.



SECTION A-A



SECTION B-B



PARTIAL PLAN

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

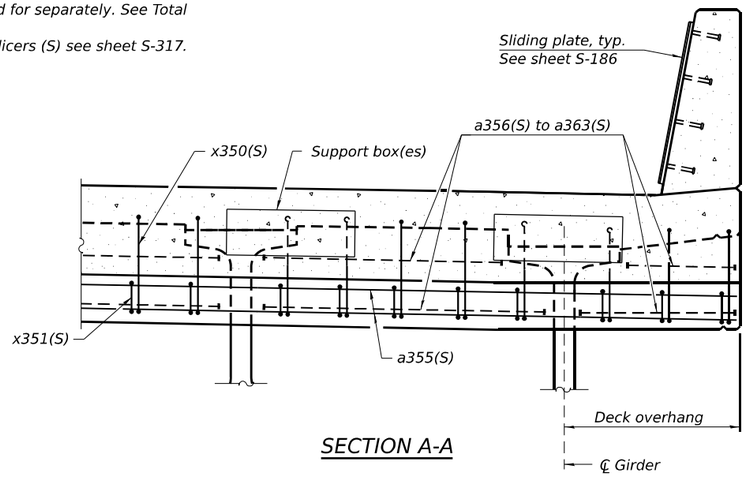
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-156 OF S-333 SHEETS

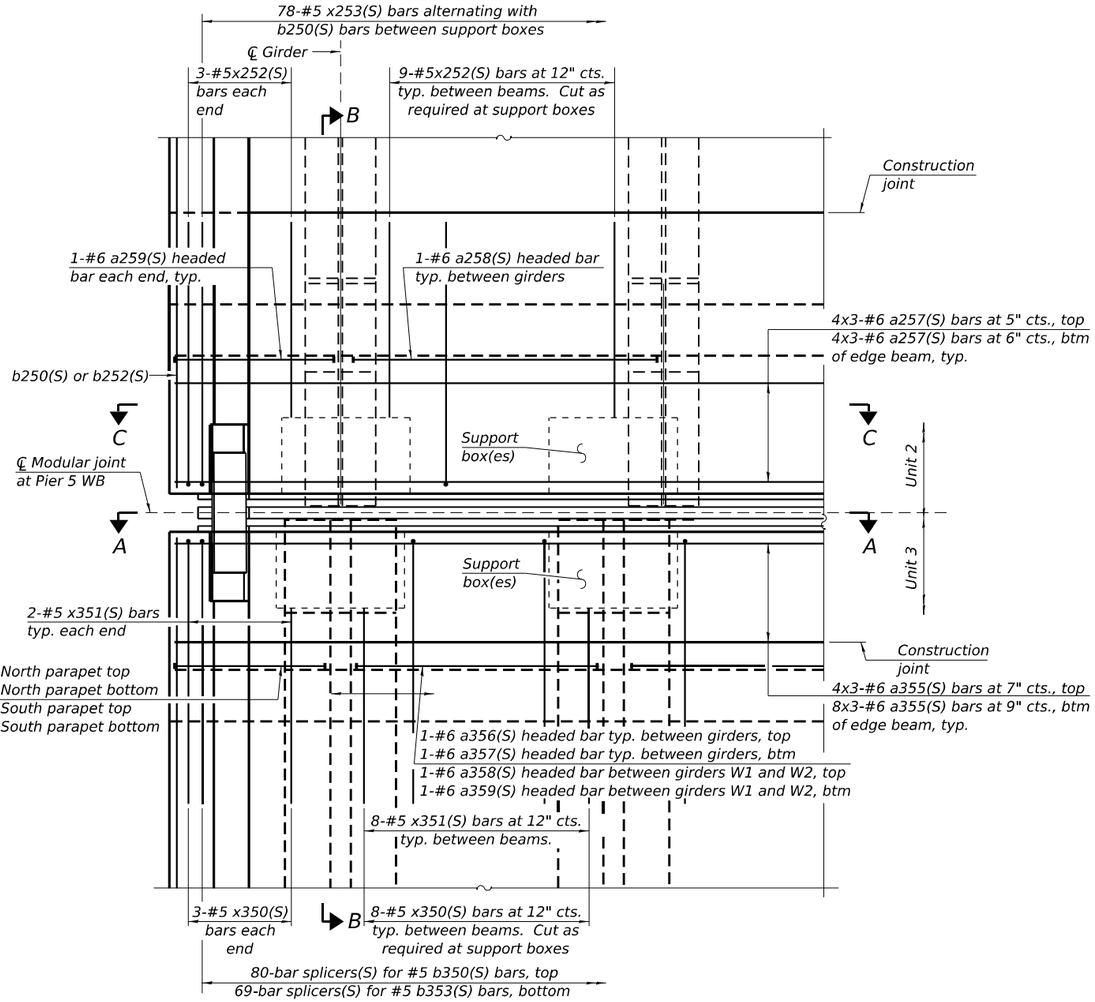
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	737
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

NOTES:

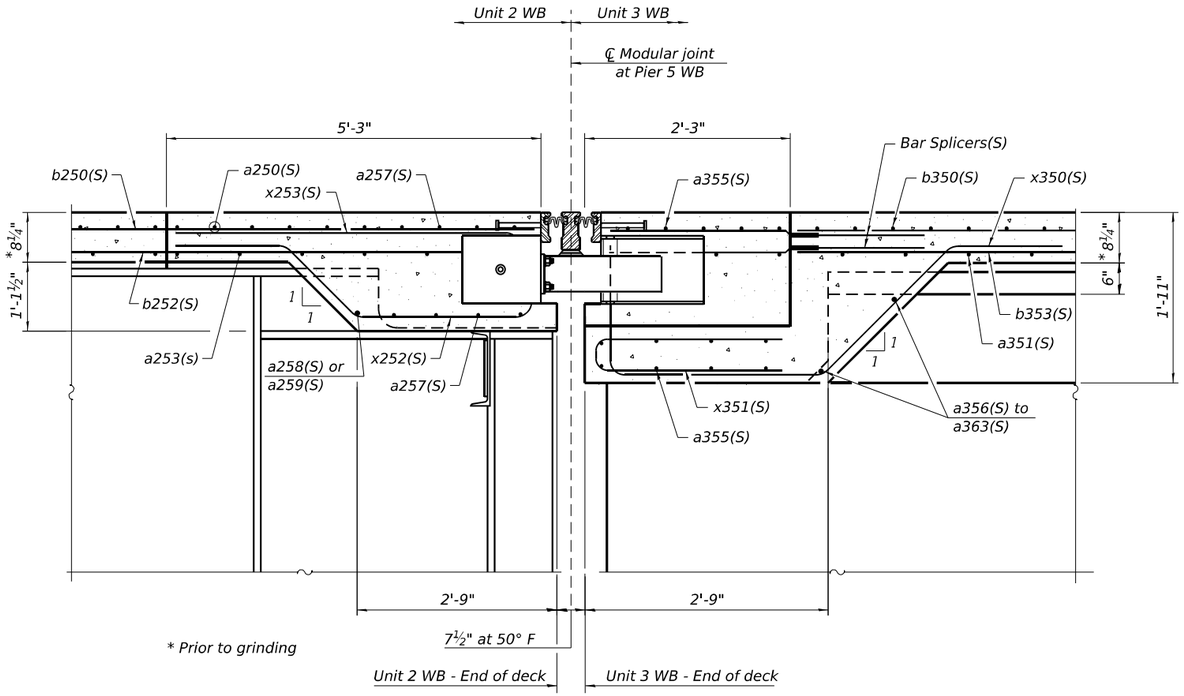
1. See sheets S-112 and S-125 for primary slab reinforcement size and spacing.
2. See sheet S-186 for sliding plate details.
3. Bar terminators, paid for separately. See Total Bill of Material.
4. For details of Bar Splicers (S) see sheet S-317.



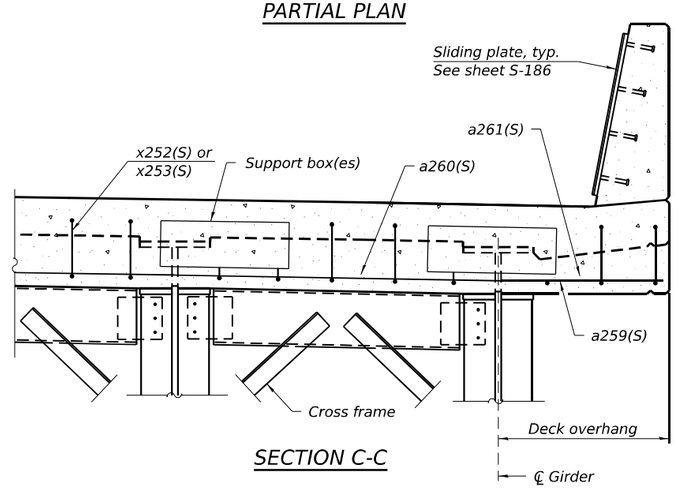
SECTION A-A



PARTIAL PLAN



SECTION B-B



SECTION C-C

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

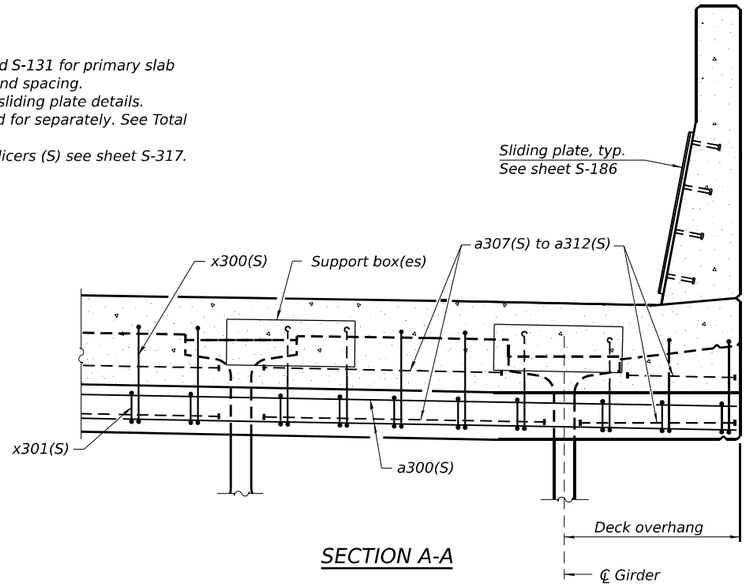
DIAPHRAGM DETAILS - PIER 5 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-157 OF S-333 SHEETS

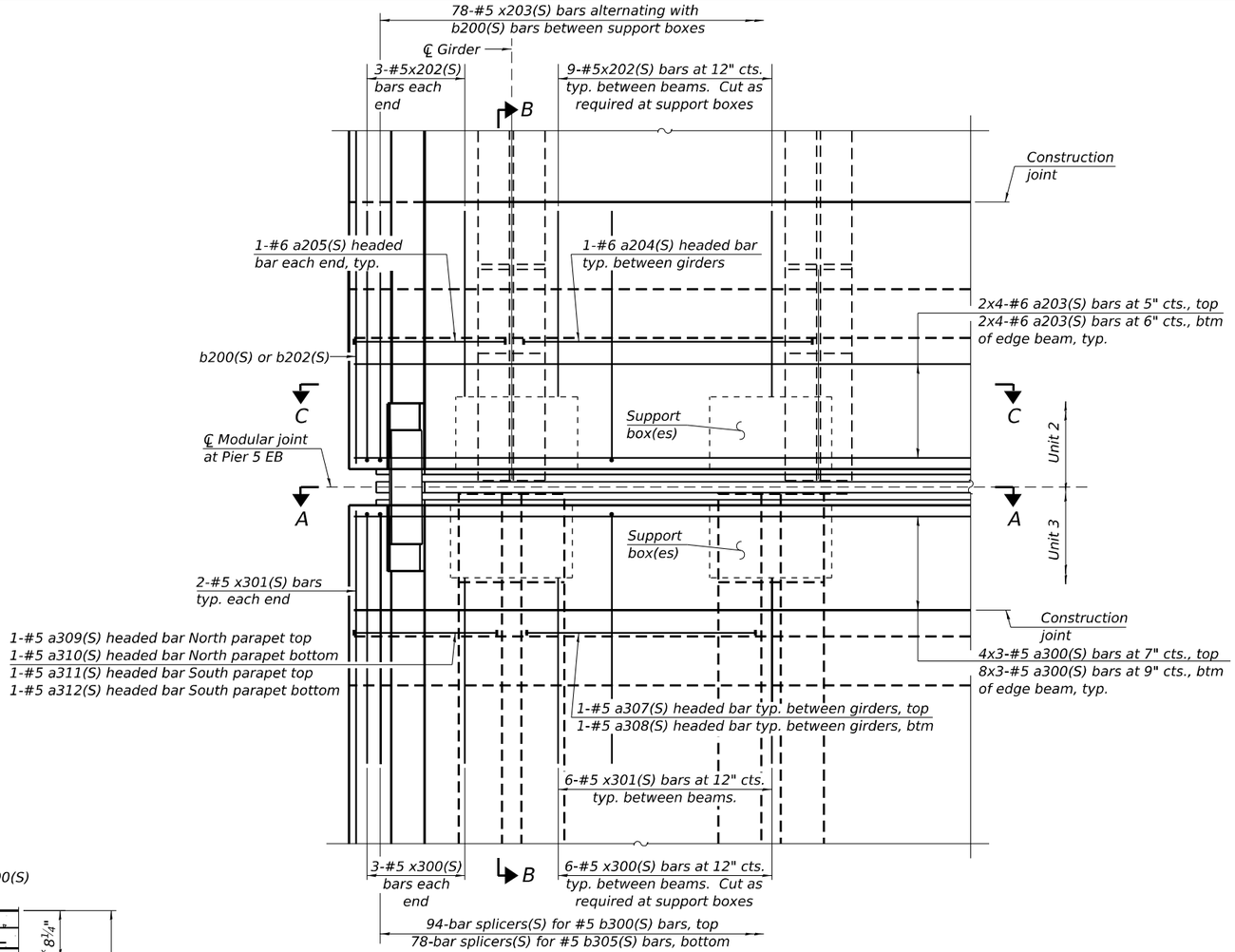
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	738
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

NOTES:

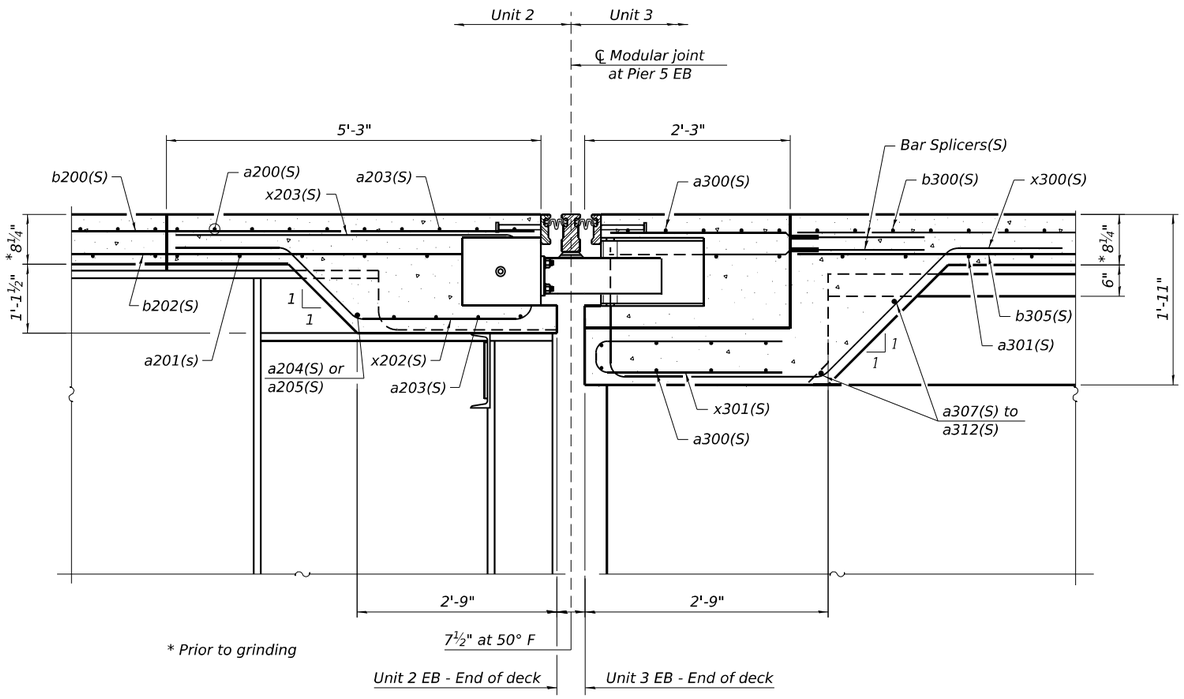
1. See sheets S-119 and S-131 for primary slab reinforcement size and spacing.
2. See sheet S-186 for sliding plate details.
3. Bar terminators, paid for separately. See Total Bill of Material.
4. For details of Bar Splicers (S) see sheet S-317.



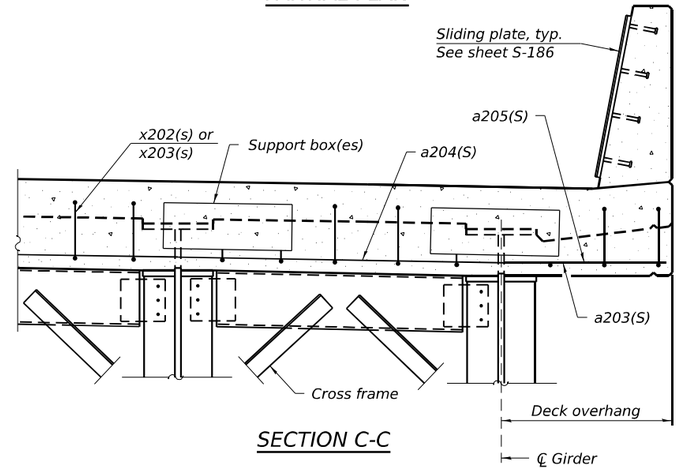
SECTION A-A



PARTIAL PLAN



SECTION B-B



SECTION C-C

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

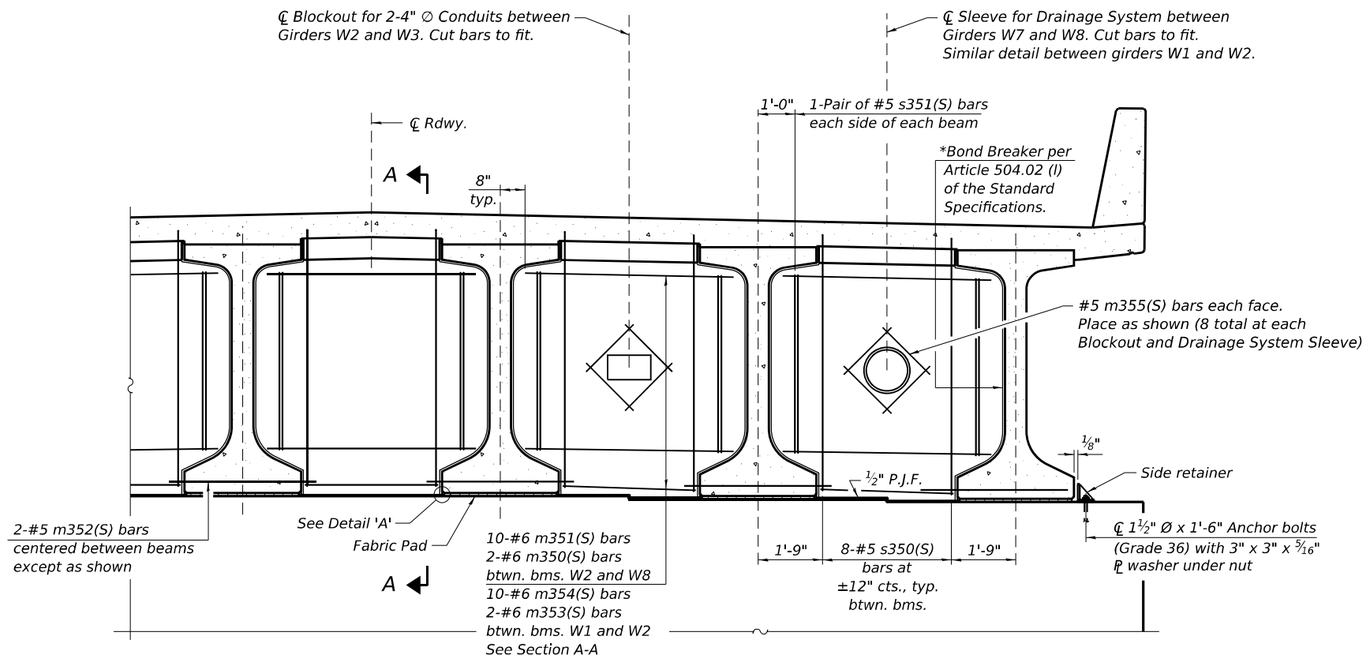
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 5 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

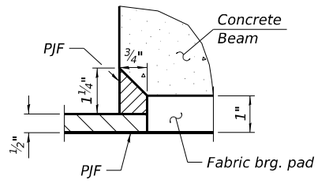
SHEET S-158 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	739
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

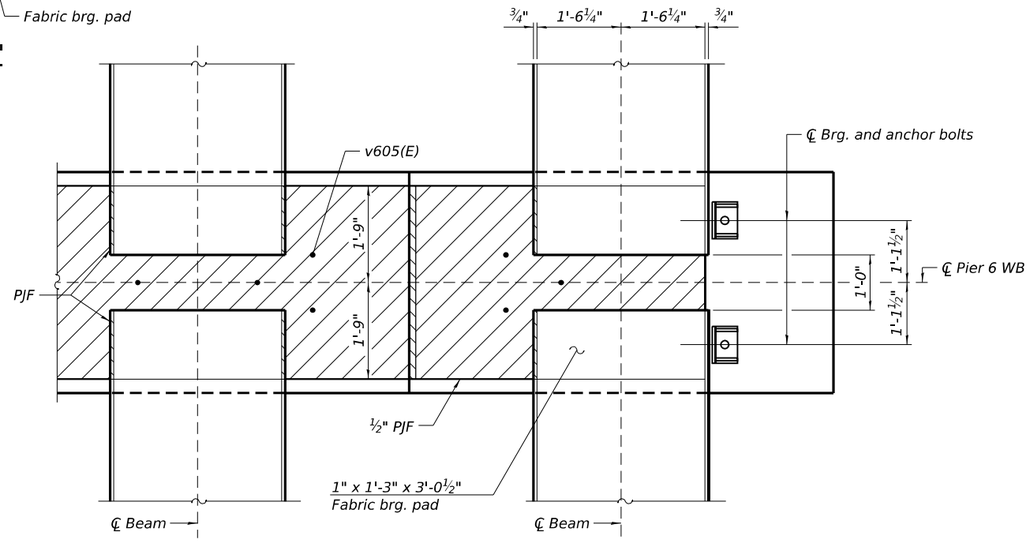


DIAPHRAGM AT PIER 6 WB

*Bonded to sides of beams embedded into diaphragm.

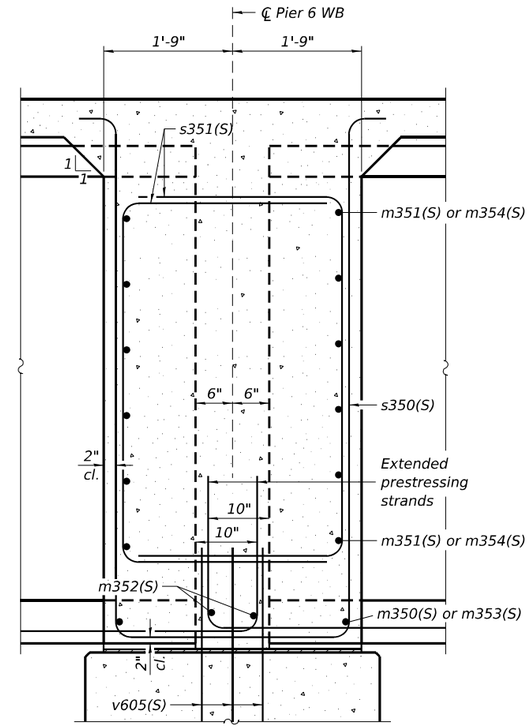


DETAIL 'A'

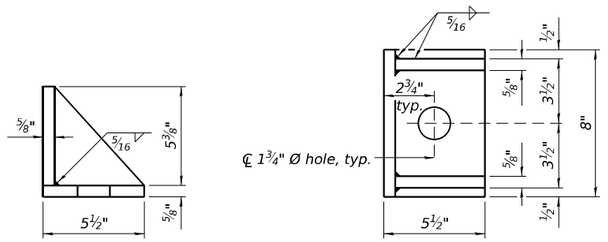


PLAN AT PIER 6 WB

(Showing bearing pads and PJF details)



SECTION A-A



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

1. See sheet S-130 for superstructure details and Bill of Material. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
2. Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.
3. Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

WSP USA Inc.
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SUITE 4200
CHICAGO, IL 60602
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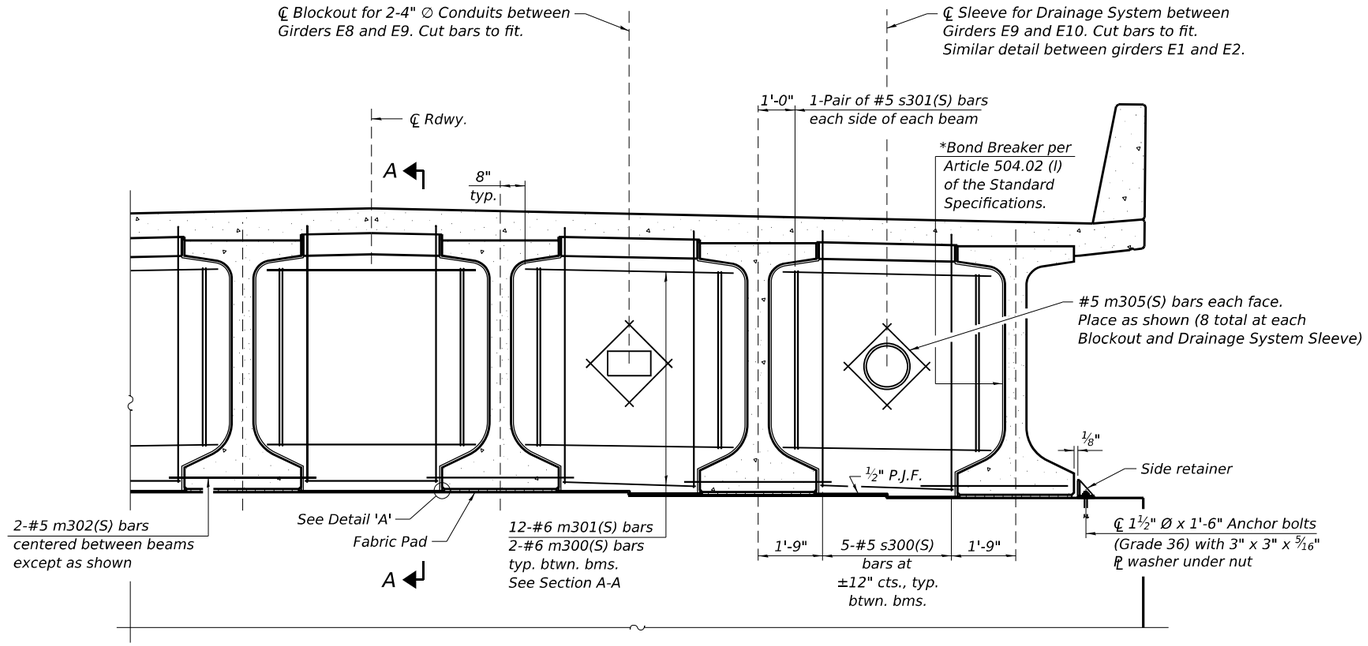
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 6 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

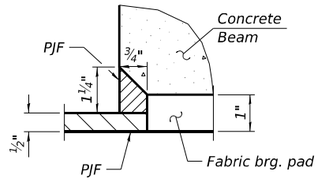
SHEET S-159 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	740
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

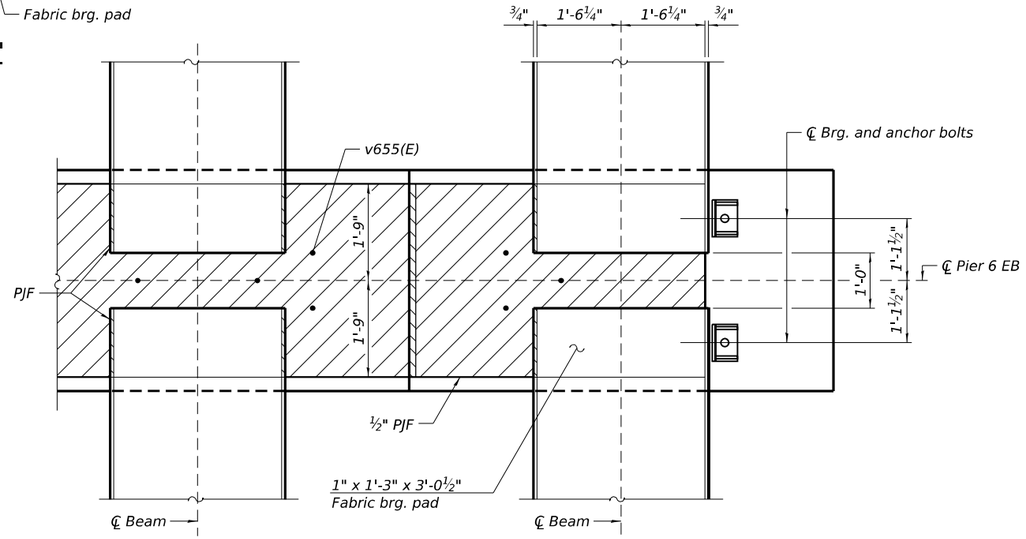


DIAPHRAGM AT PIER 6 EB

*Bonded to sides of beams embedded into diaphragm.

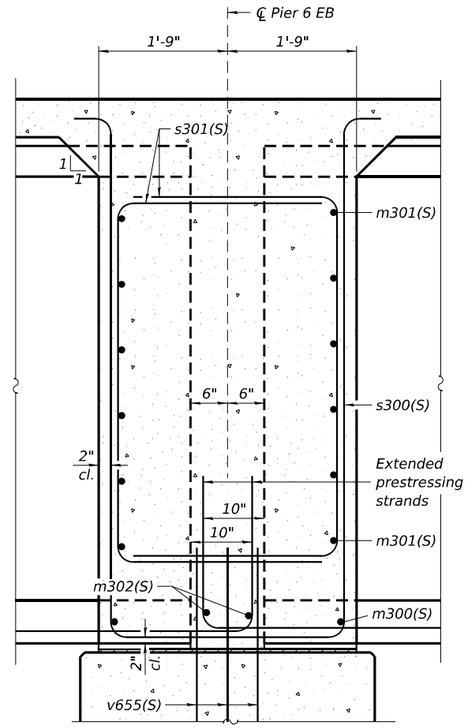


DETAIL 'A'

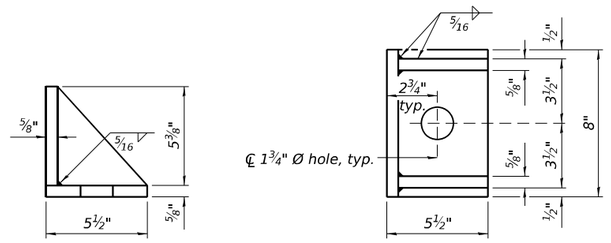


PLAN AT PIER 6 EB

(Showing bearing pads and PJF details)



SECTION A-A



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

1. See sheet S-137 for superstructure details and Bill of Material. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
2. Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.
3. Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

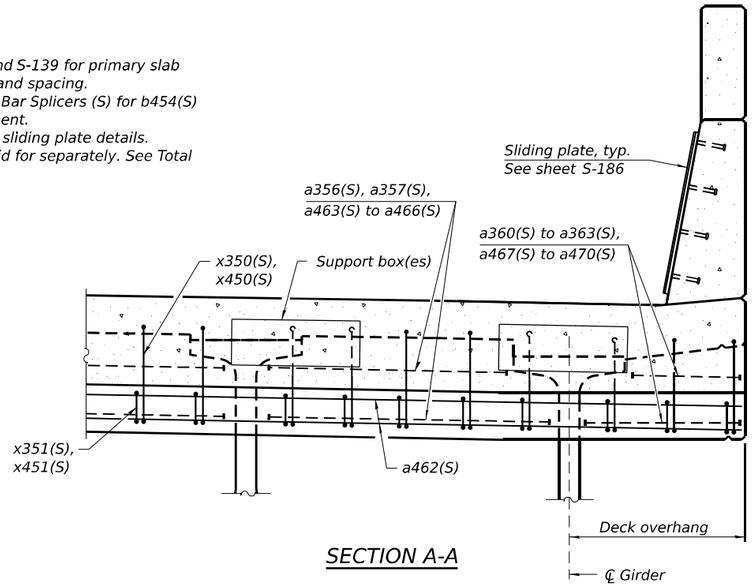
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 6 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-160 OF S-333 SHEETS

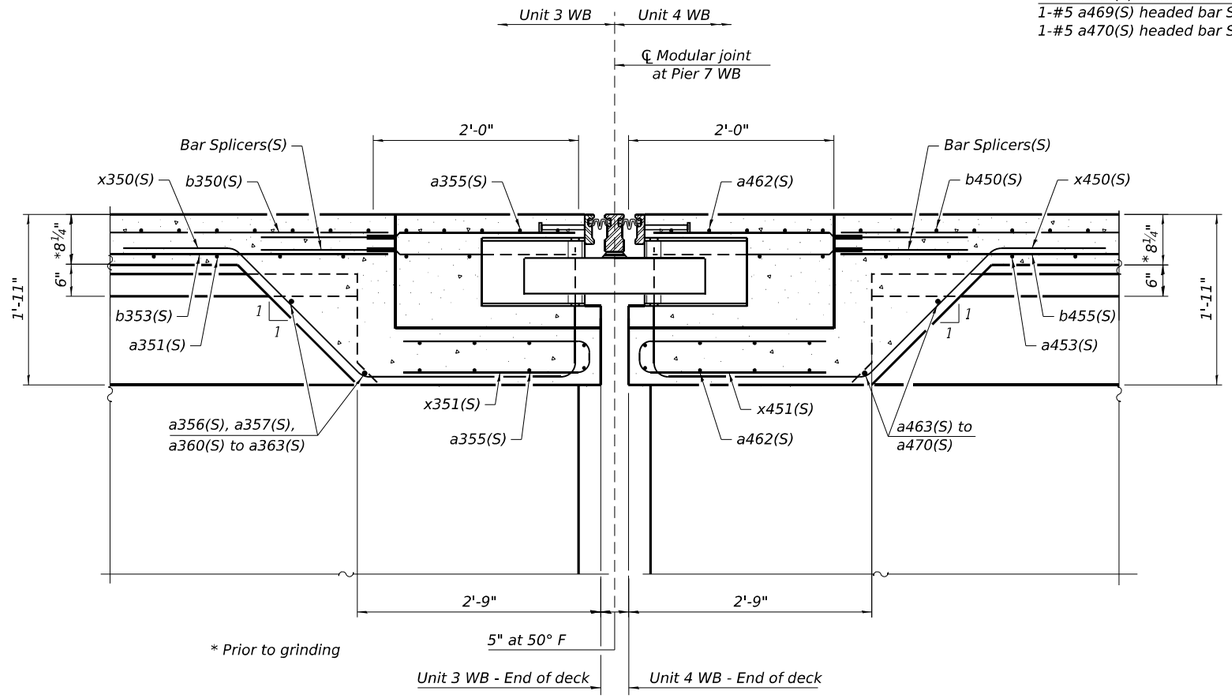
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	741
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

NOTES:

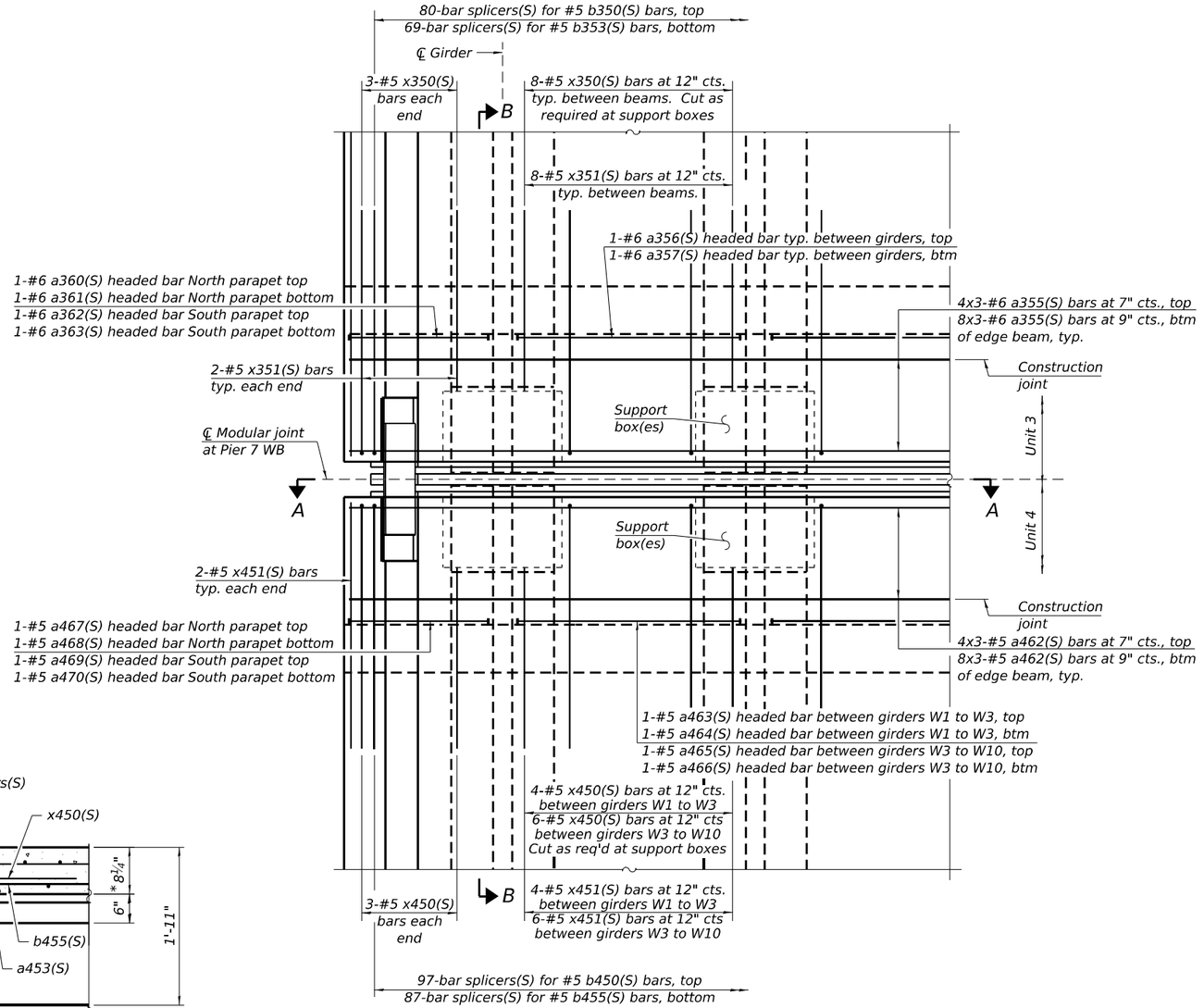
1. See sheets S-125 and S-139 for primary slab reinforcement size and spacing.
2. See sheet S-317 for Bar Splicers (S) for b454(S) and b455(S) placement.
3. See sheet S-186 for sliding plate details.
4. Bar terminators, paid for separately. See Total Bill of Material.



SECTION A-A



SECTION B-B



PARTIAL PLAN

WSP USA Inc.
30 N. LASALLE STREET
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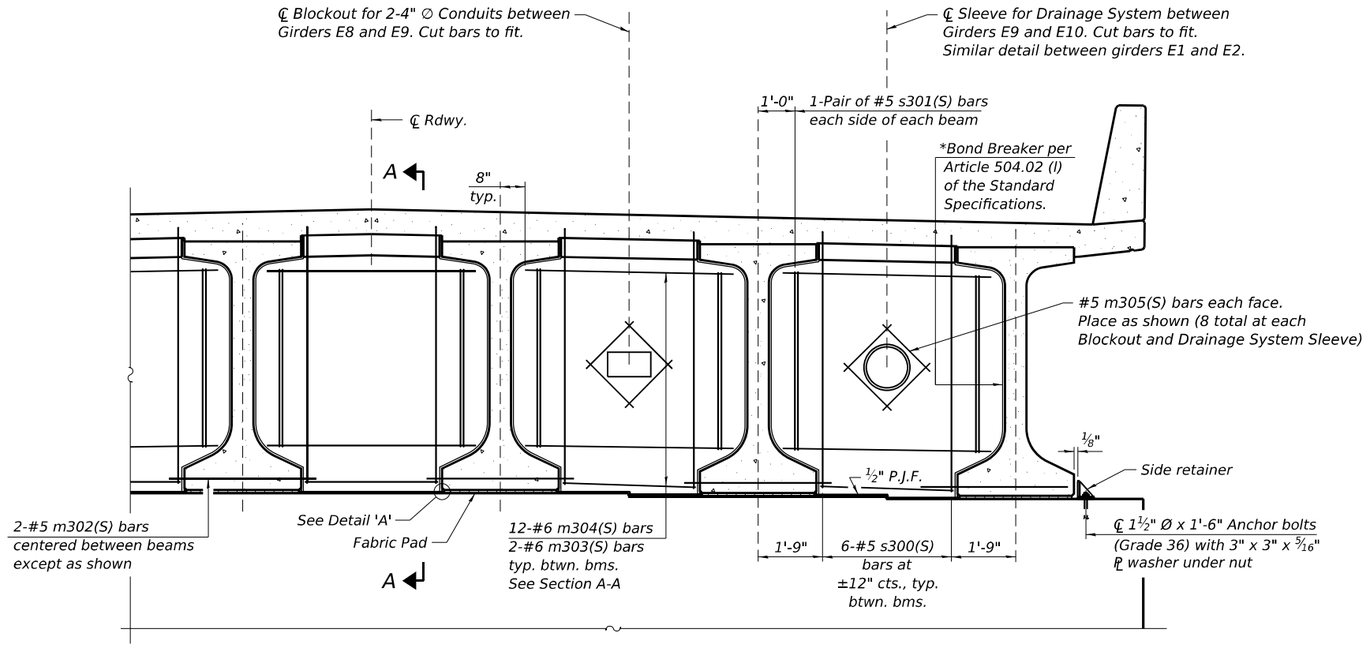
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / In.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

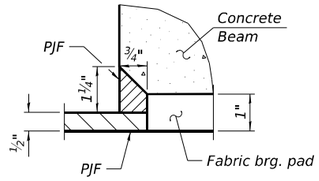
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 7 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-161 OF S-333 SHEETS

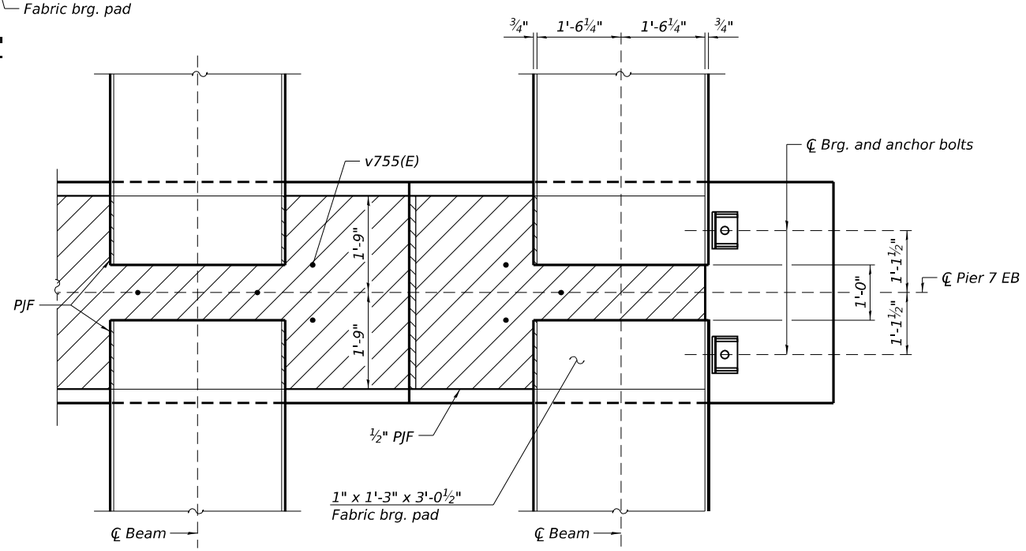
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	742
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



DIAPHRAGM AT PIER 7 EB

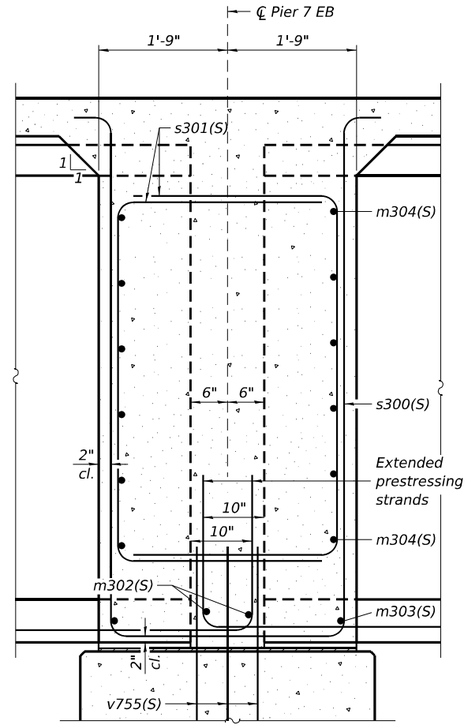


DETAIL 'A'

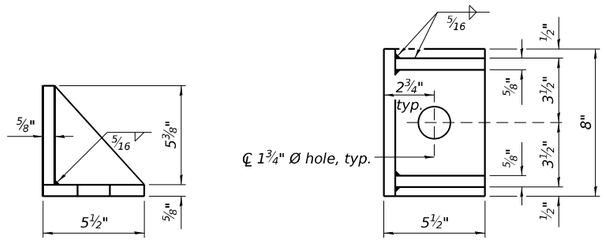


PLAN AT PIER 7 EB

(Showing bearing pads and PJF details)



SECTION A-A



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

1. See sheet S-137 for superstructure details and Bill of Material. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
2. Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.
3. Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

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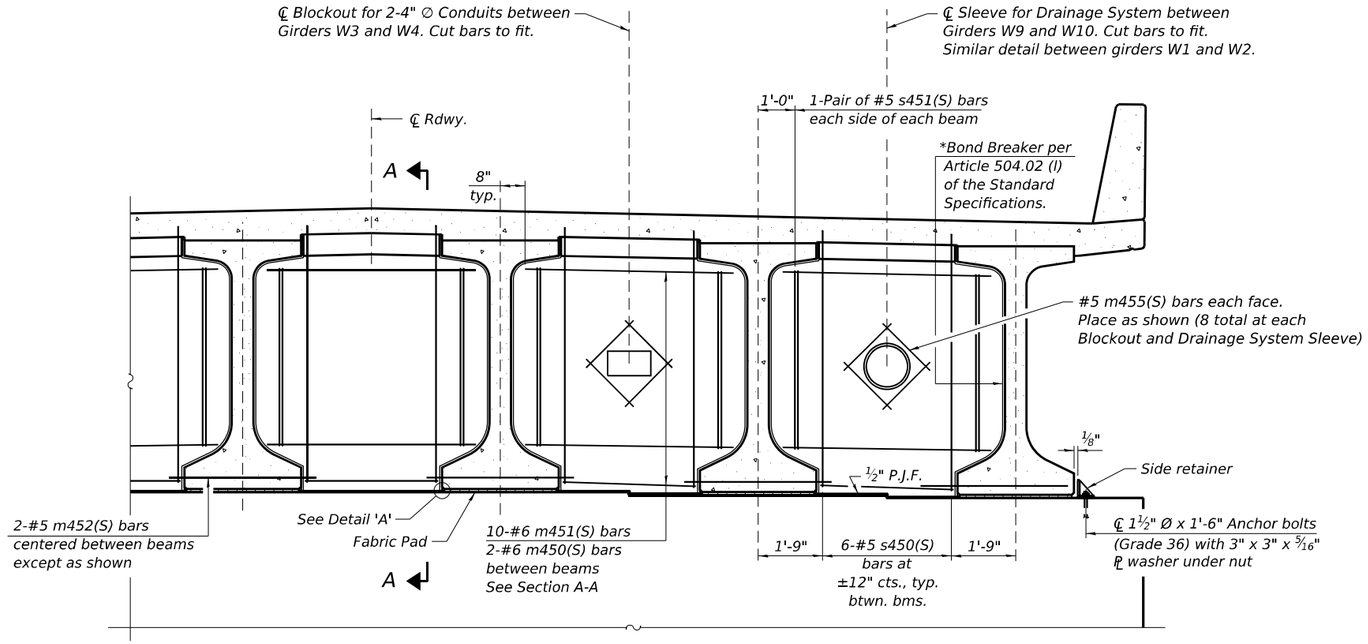
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

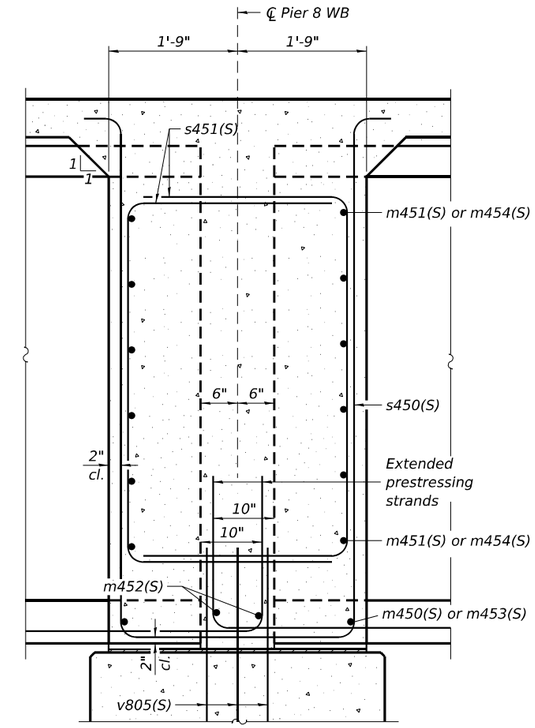
DIAPHRAGM DETAILS - PIER 7 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-162 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	743
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

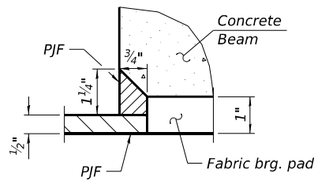


DIAPHRAGM AT PIER 8 WB

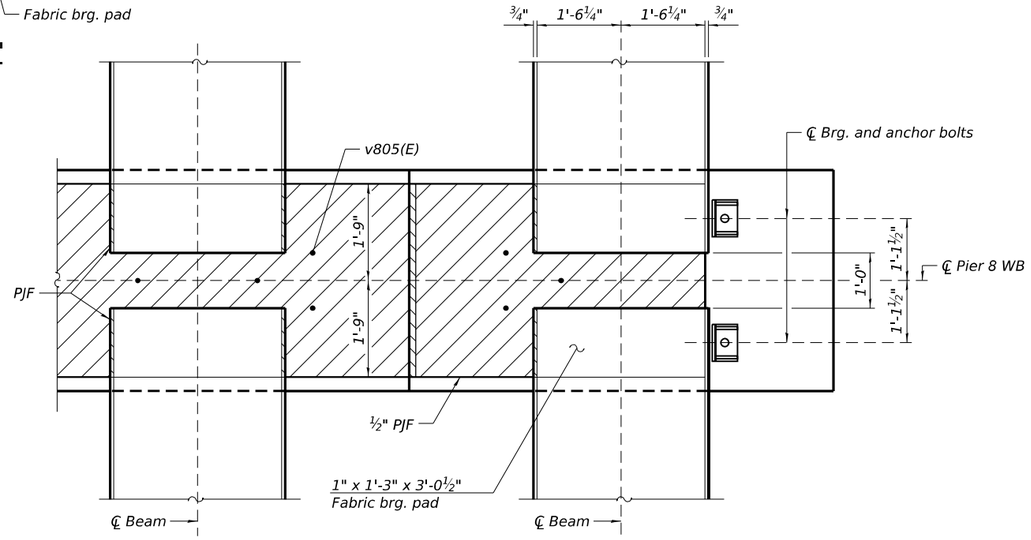
*Bonded to sides of beams embedded into diaphragm.



SECTION A-A

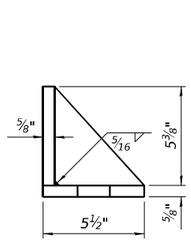


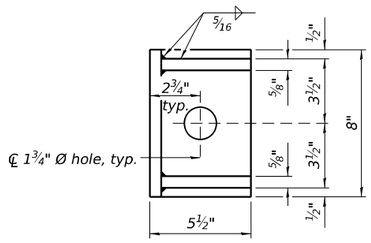
DETAIL 'A'



PLAN AT PIER 8 WB

(Showing bearing pads and PJF details)





SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

1. See sheet S-145 for superstructure details and Bill of Material. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
2. Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.
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USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

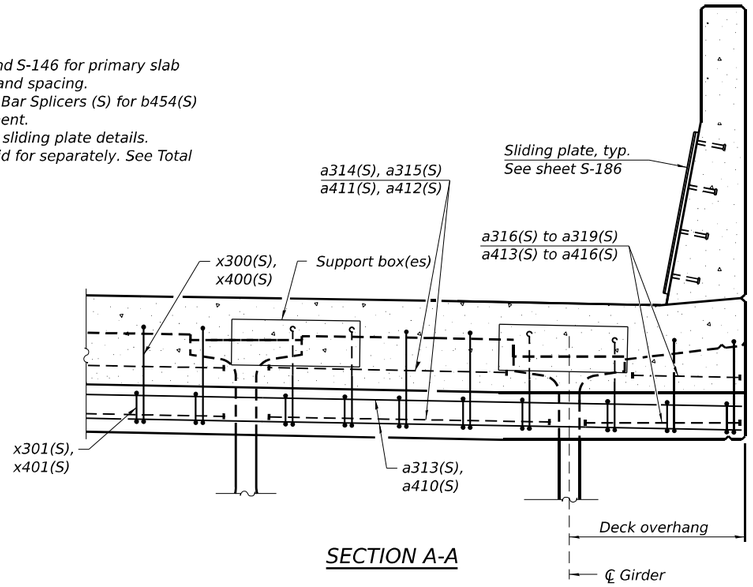
DIAPHRAGM DETAILS - PIER 8 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-163 OF S-333 SHEETS

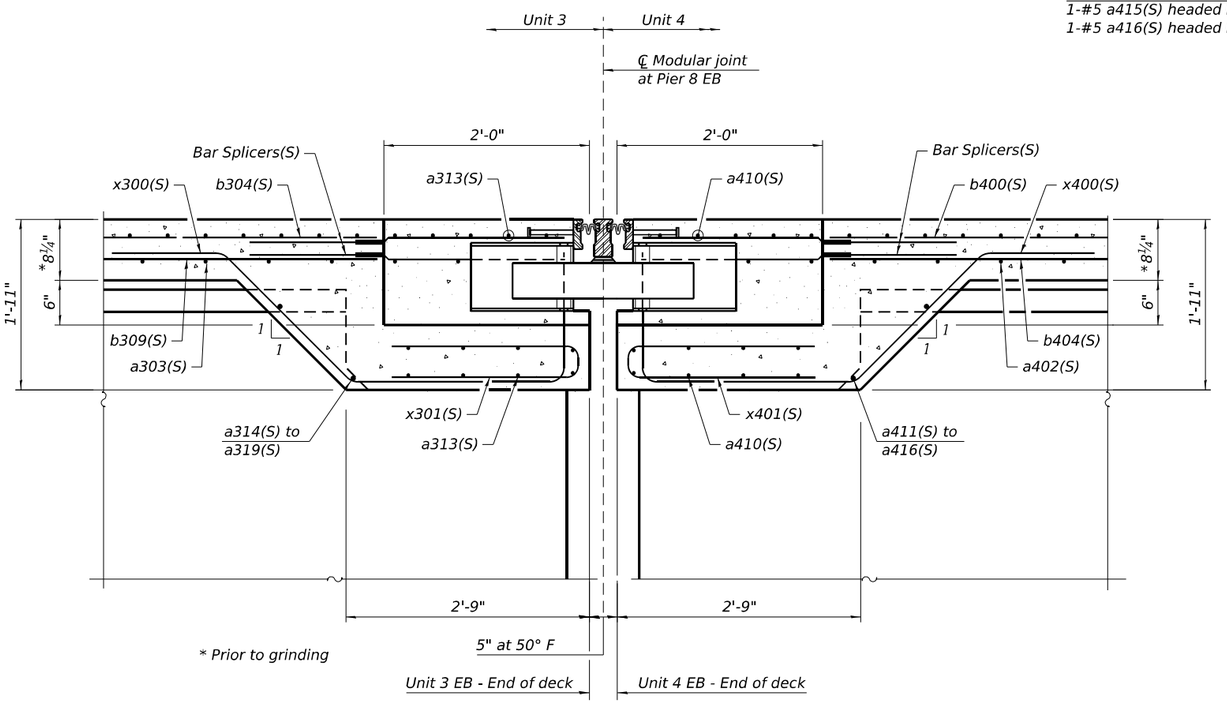
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	744
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

NOTES:

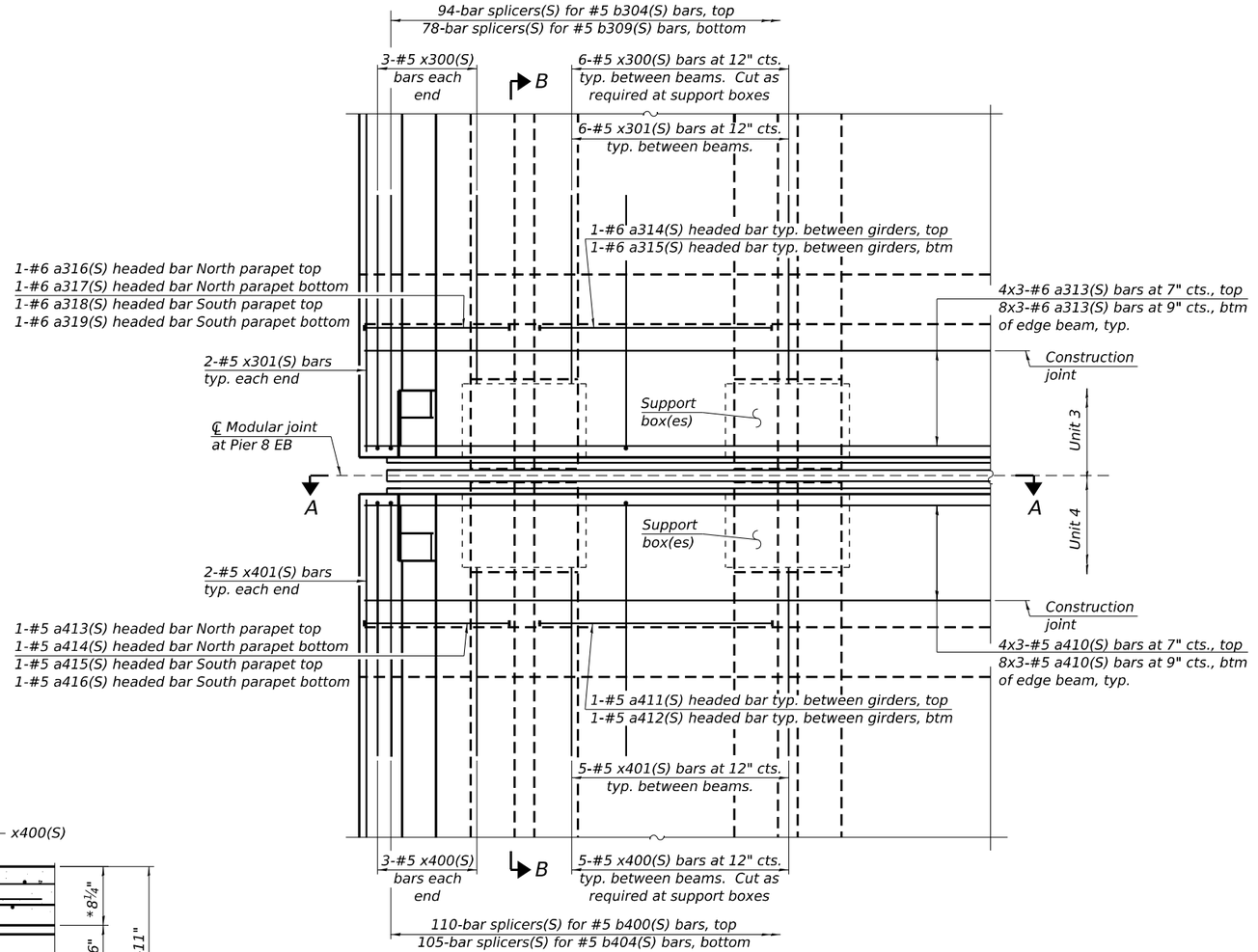
1. See sheets S-132 and S-146 for primary slab reinforcement size and spacing.
2. See sheet S-317 for Bar Splicers (S) for b454(S) and b455(S) placement.
3. See sheet S-186 for sliding plate details.
4. Bar terminators, paid for separately. See Total Bill of Material.



SECTION A-A



SECTION B-B



PARTIAL PLAN

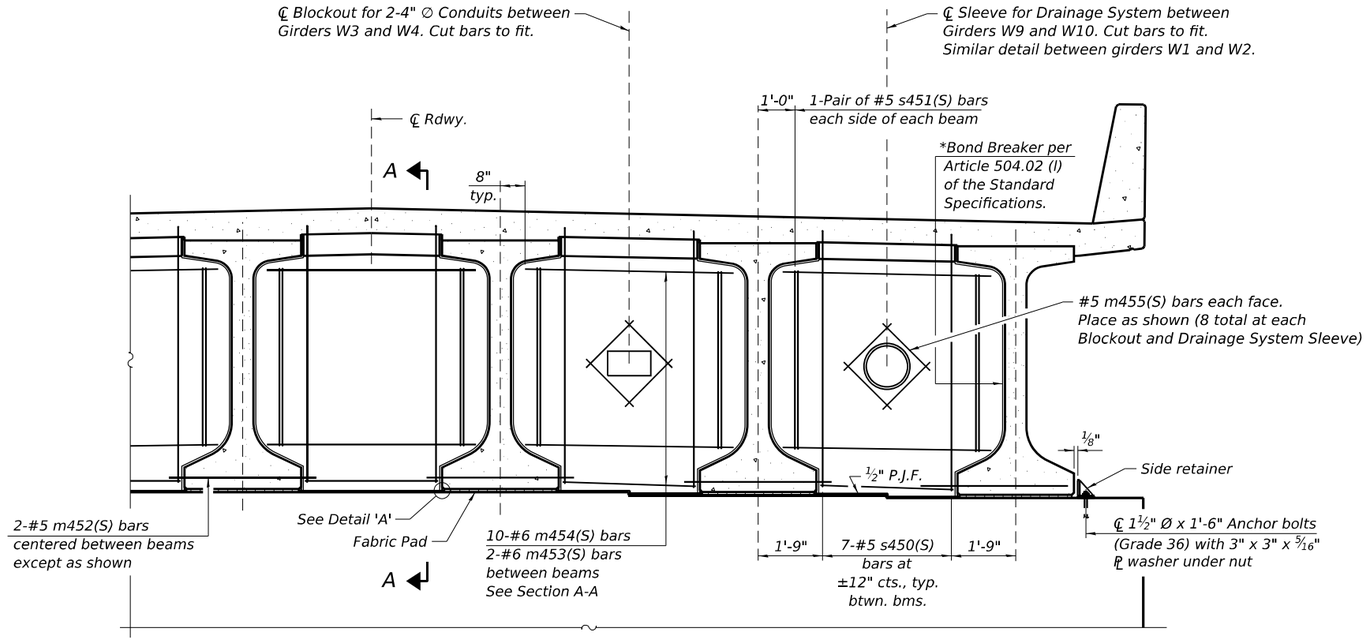
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

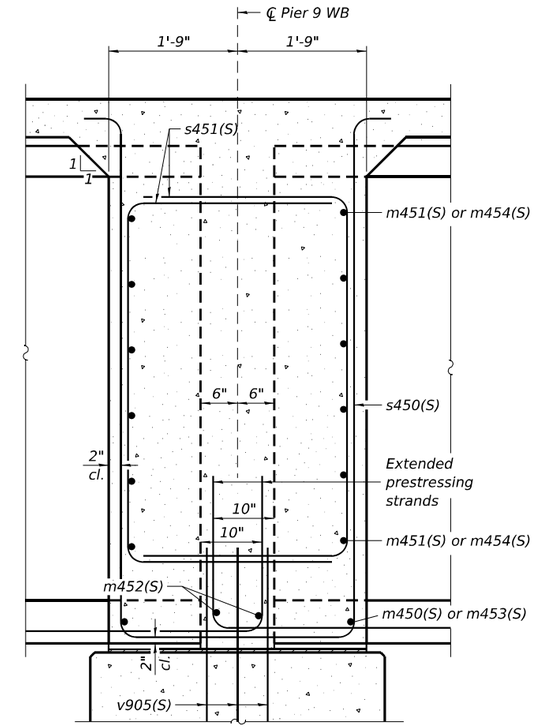
DIAPHRAGM DETAILS - PIER 8 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-164 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	745
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

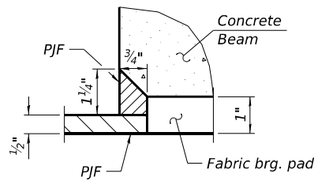


DIAPHRAGM AT PIER 9 WB

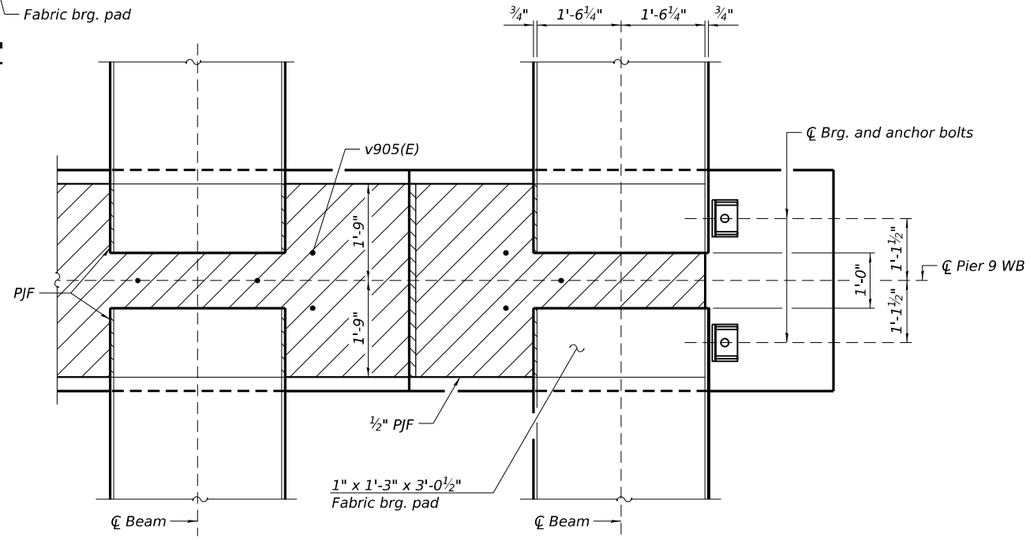
*Bonded to sides of beams embedded into diaphragm.



SECTION A-A

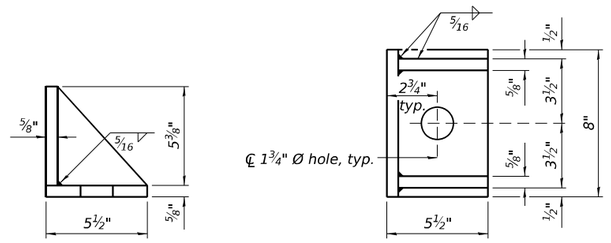


DETAIL 'A'



PLAN AT PIER 9 WB

(Showing bearing pads and PJF details)



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

1. *See sheet S-145 for superstructure details and Bill of Material. Cost of side retainer and anchor bolts shall be included with Concrete Structures.*
2. *Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.*
3. *Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.*

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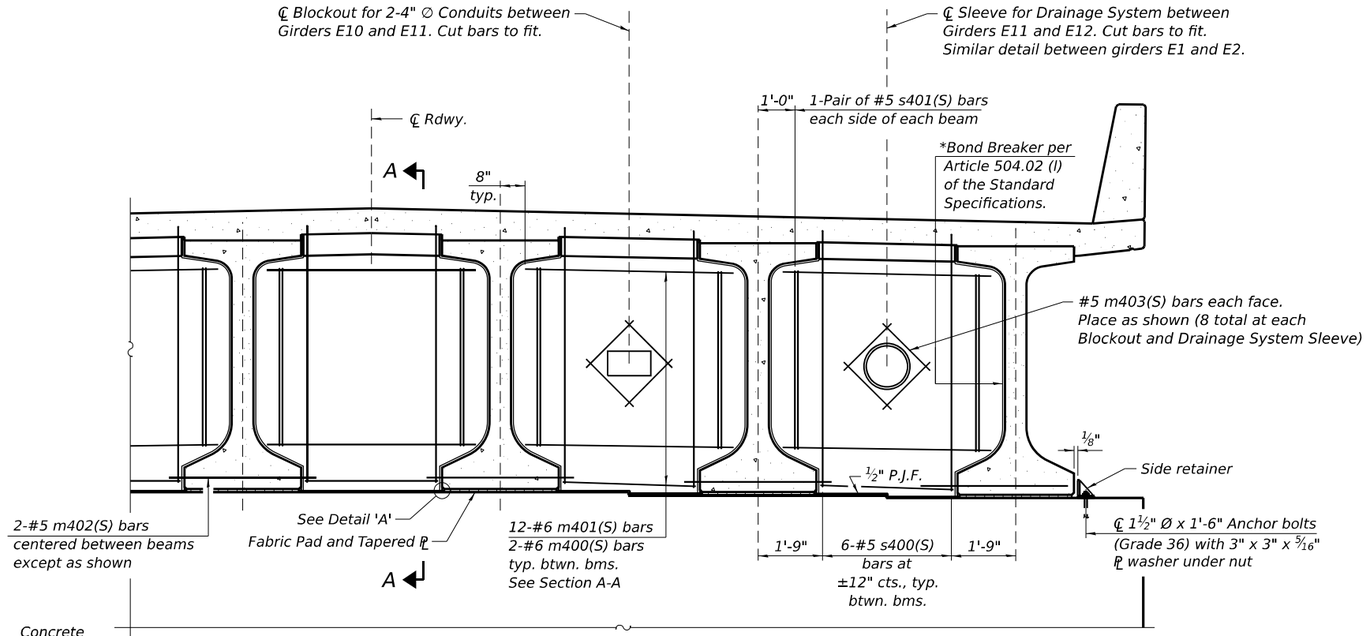
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - PIER 9 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

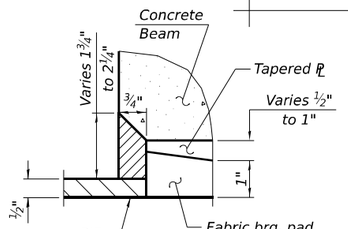
SHEET S-165 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	746
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



DIAPHRAGM AT PIER 9 EB

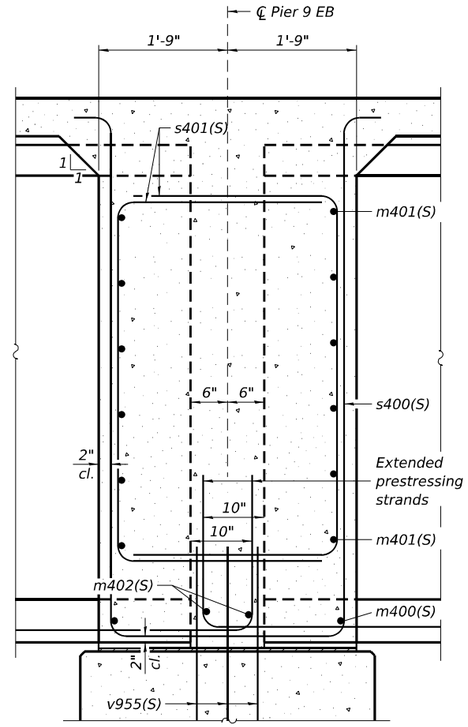
*Bonded to sides of beams embedded into diaphragm.



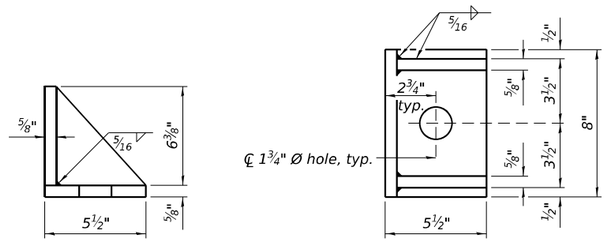
DETAIL 'A'

PLAN AT PIER 9 EB

(Showing bearing pads and PJF details)



SECTION A-A



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES:

1. *See sheet S-151 for superstructure details and Bill of Material. Cost of side retainer and anchor bolts shall be included with Concrete Structures.*
2. *Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.*
3. *Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.*

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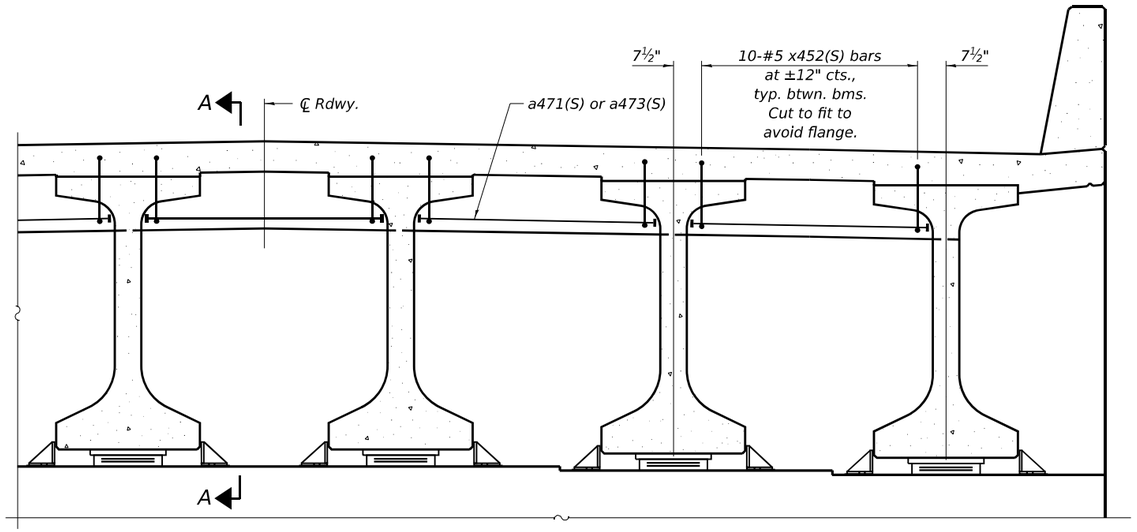
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

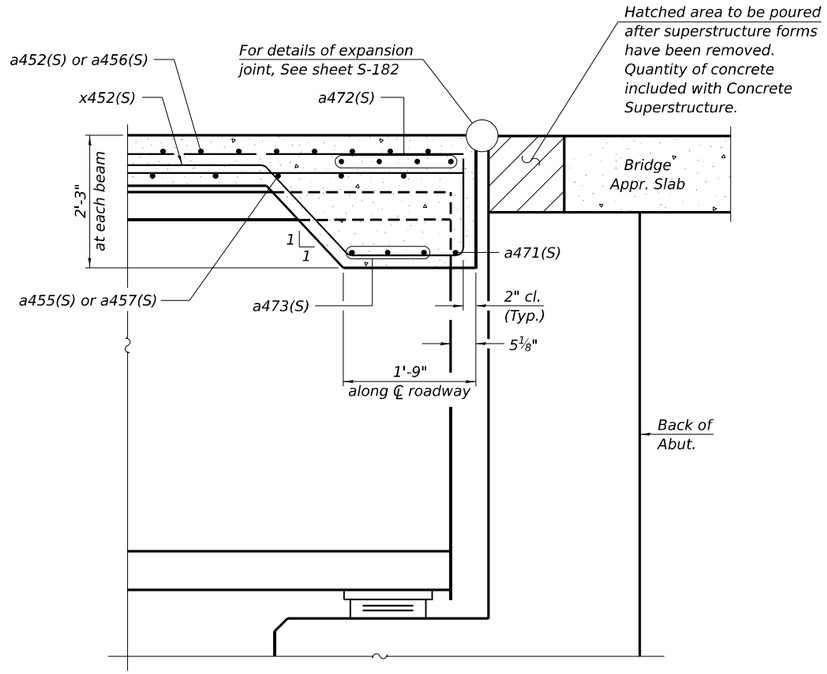
DIAPHRAGM DETAILS AT PIER 9 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-166 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	747
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



DIAPHRAGM AT EAST ABUTMENT WB



SECTION A-A
(at Rt. ∠'s)

Notes:
See sheet S-145 for superstructure details and Bill of Material.
The x452(S) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.

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WSP USA Inc.
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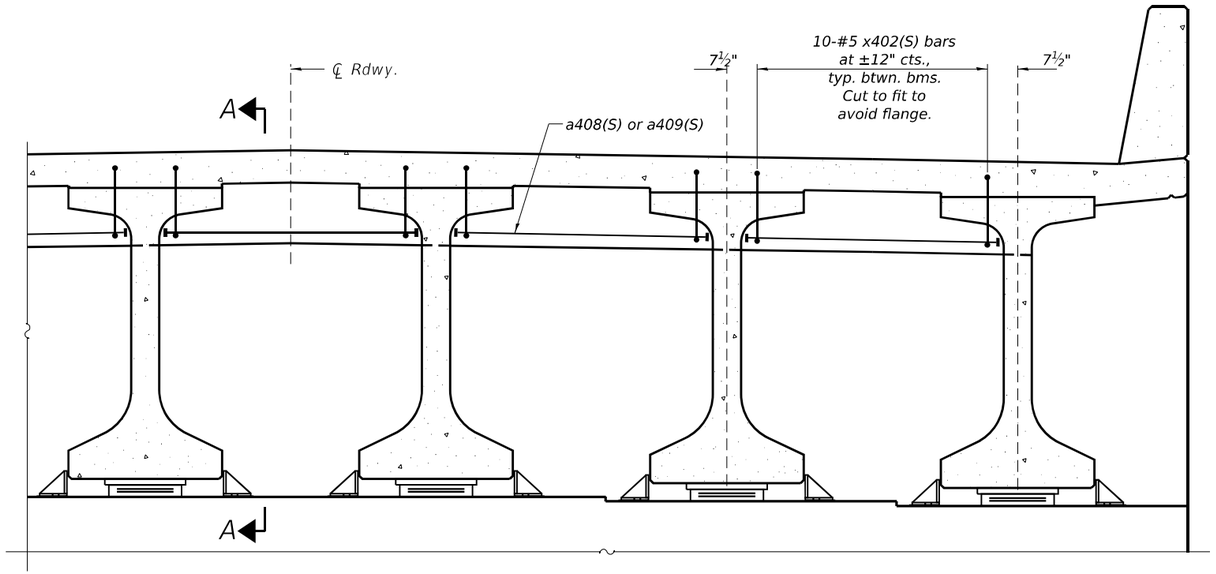
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 32.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

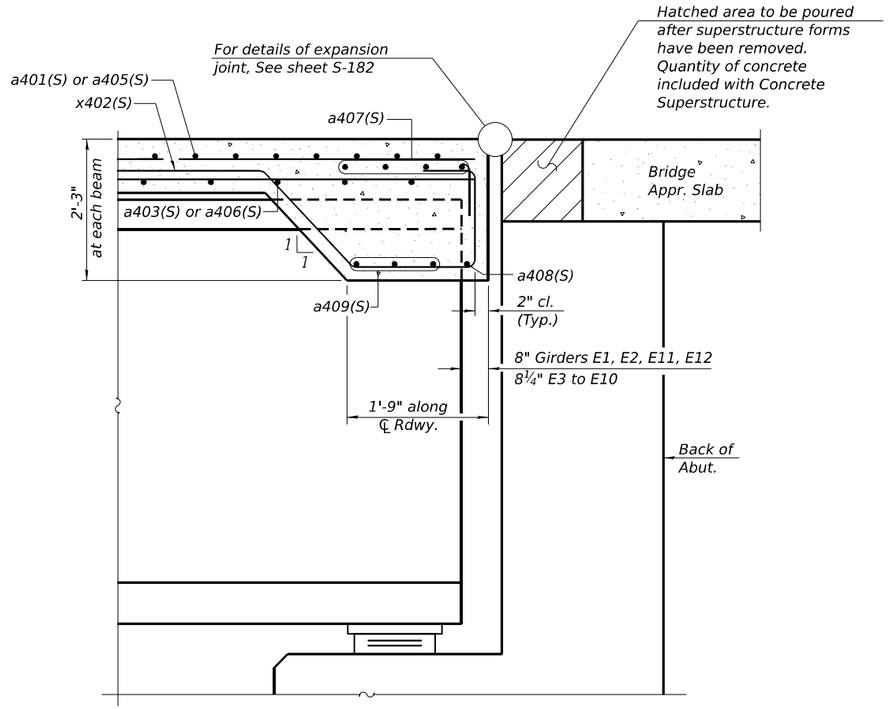
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - EAST ABUTMENT WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-167 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	748
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



DIAPHRAGM AT EAST ABUTMENT EB



SECTION A-A

(at Rt. ∠'s)

Notes:
See sheet S-151 for superstructure details and Bill of Material.
The x402(S) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.

WSP USA Inc.
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	CHECKED - PJL	REVISED -	
PLOT SCALE = 6.000 ' / in.	DRAWN - PP	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

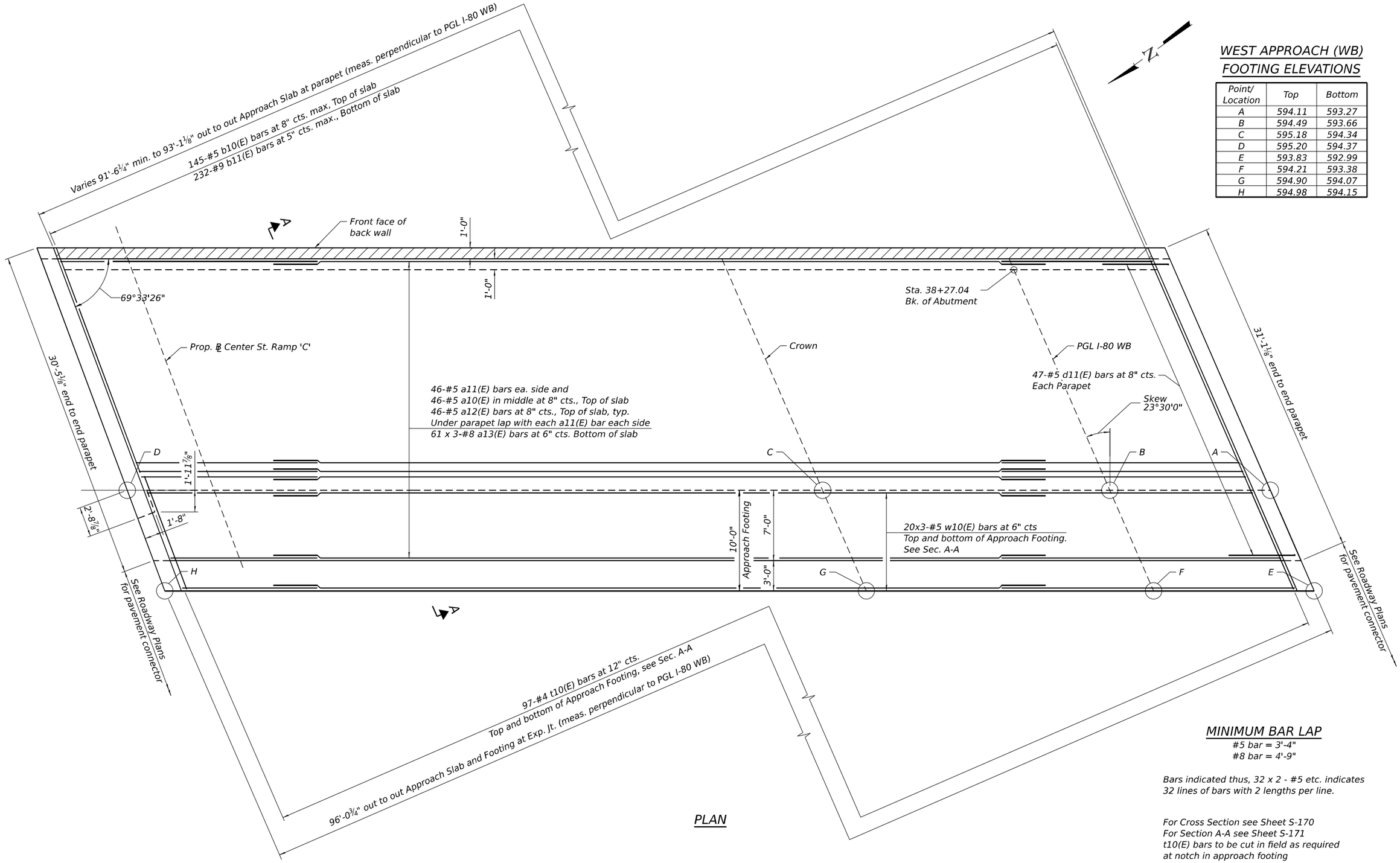
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS - EAST ABUTMENT EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-168 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	749
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

WEST APPROACH (WB)
FOOTING ELEVATIONS

Point/ Location	Top	Bottom
A	594.11	593.27
B	594.49	593.66
C	595.18	594.34
D	595.20	594.37
E	593.83	592.99
F	594.21	593.38
G	594.90	594.07
H	594.98	594.15



PLAN

MINIMUM BAR LAP
#5 bar = 3'-4"
#8 bar = 4'-9"

Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.

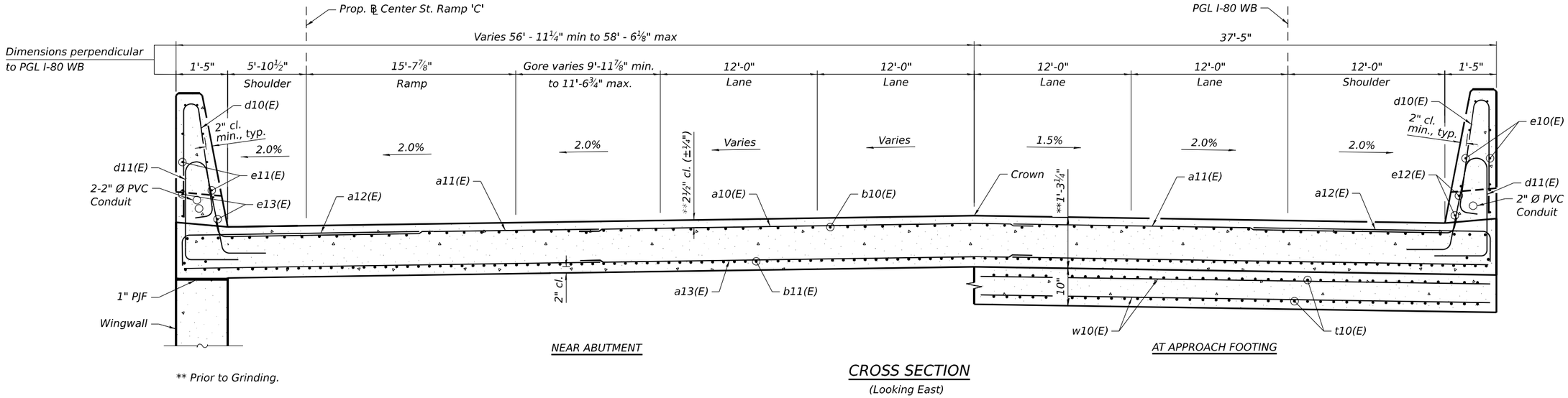
For Cross Section see Sheet S-170
For Section A-A see Sheet S-171
t10(E) bars to be cut in field as required at notch in approach footing

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystems-pw1-frosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1/Sheets/Structural/099830942R23-S369-ASW101.dgn

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**WEST APPROACH SLAB PLAN -WB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB**	SHEET S-169 OF S-333 SHEETS
	CHECKED - PJL	REVISED -			
PLOT SCALE = 8.333 ' / in.	DRAWN - BK	REVISED -			
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -			

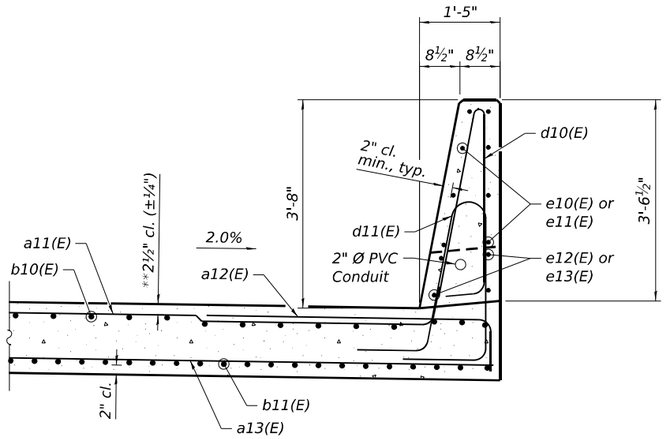
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	750
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



** Prior to Grinding.

CROSS SECTION

(Looking East)



SECTION B-B

WSP USA Inc.
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CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

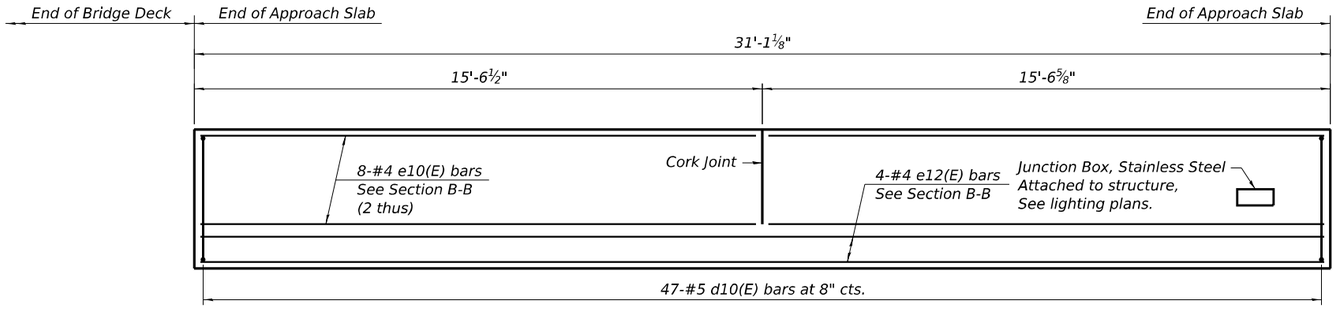
USER NAME	= USSJ696614	DESIGNED -	LAS	REVISED	-
		CHECKED -	PJL	REVISED	-
PLOT SCALE	= 8.333 ' / in.	DRAWN -	BK	REVISED	-
PLOT DATE	= 11/5/2025	CHECKED -	LAS	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

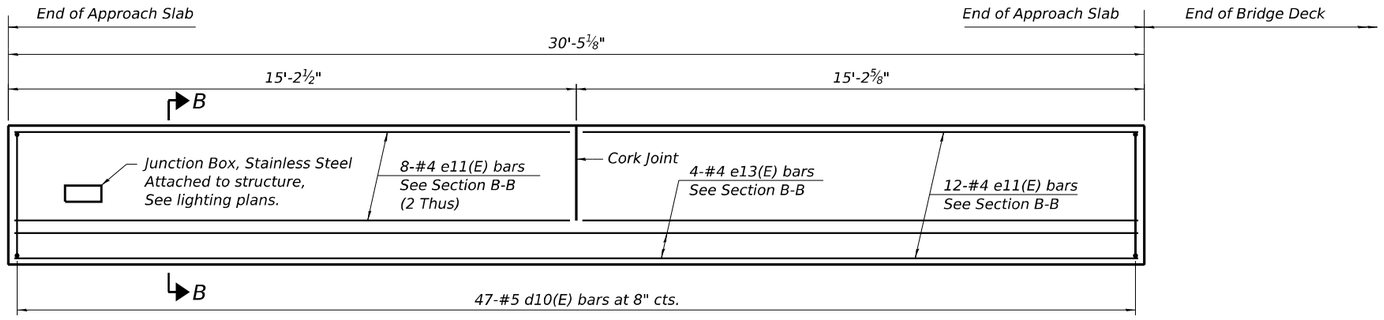
WEST APPROACH SLAB CROSS SECTION - WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-170 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	751
		CONTRACT NO. 62R23		
	ILLINOIS | FED. AID PROJECT			

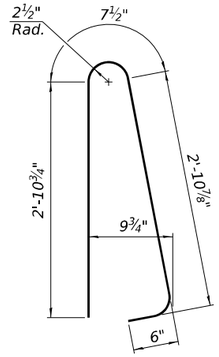


INSIDE ELEVATION OF SOUTH PARAPET

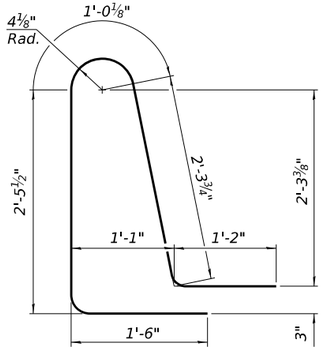


INSIDE ELEVATION OF NORTH PARAPET

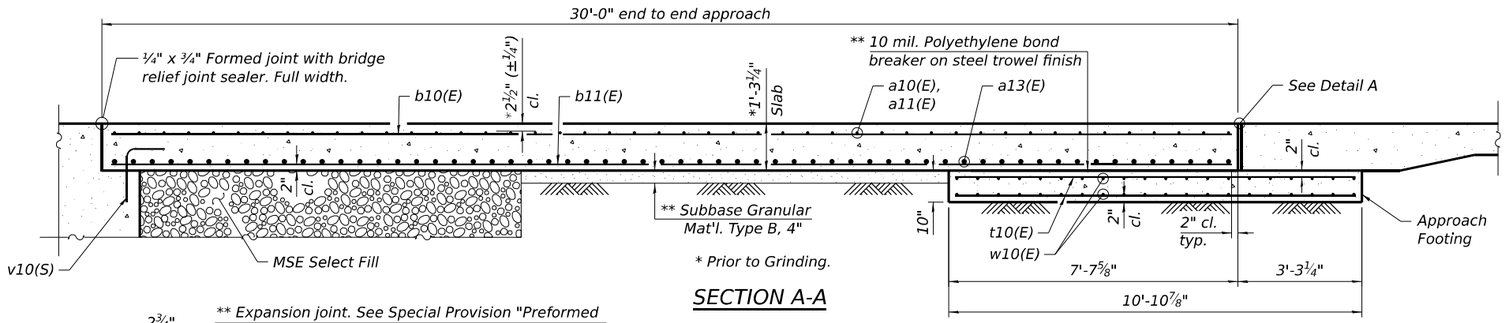
Notes:
Parapet concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
See sheet S-251 for hatched block details.
For Section B-B see sheet S-170.
For Cork Joint Detail, see sheet S-103



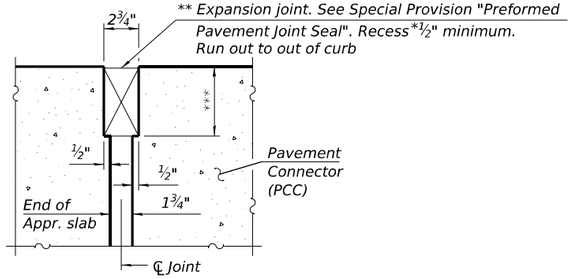
BAR d10(E)



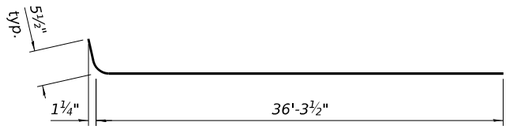
BAR d11(E)



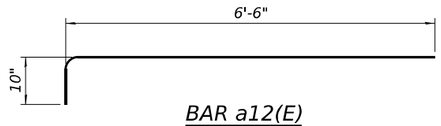
SECTION A-A



DETAIL A



BAR a11(E)



BAR a12(E)

WEST APPROACH (WB)
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	46	#5	36'-0"	
a11(E)	92	#5	36'-9"	
a12(E)	92	#5	7'-4"	
a13(E)	183	#8	37'-11"	
b10(E)	145	#5	29'-8"	
b11(E)	232	#9	29'-8"	
d10(E)	94	#5	7'-0"	
d11(E)	94	#5	8'-6"	
e10(E)	16	#4	15'-2"	
e11(E)	16	#4	14'-10"	
e12(E)	4	#4	30'-9"	
e13(E)	4	#4	30'-1"	
t10(E)	194	#4	10'-7"	
w10(E)	120	#5	37'-0"	
Concrete Superstructure			Cu Yd.	8.7
Concrete Superstructure (Approach Slab)			Cu Yd.	134.3
Concrete Structures			Cu Yd.	29.6
Reinforcement Bars, Epoxy Coated			Pound	60,390
Protective Coat			Sq. Yd.	347
Bridge Deck Grooving (Longitudinal)			Sq. Yd.	220
Diamond Grinding (Bridge Section)			Sq. Yd.	295

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

*** Per manufacturer recommendations

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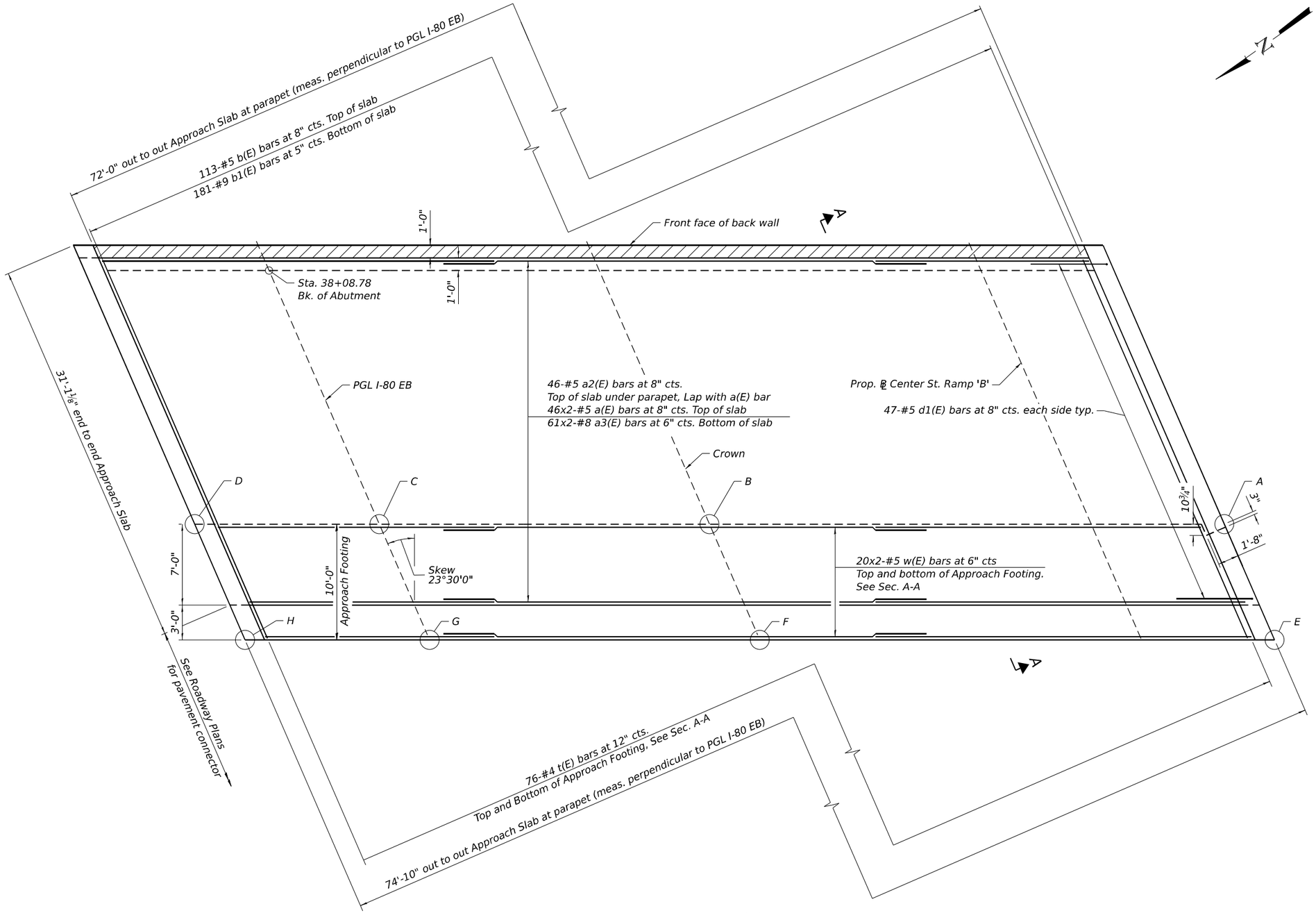
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 4:0.000 '-" / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB DETAILS - WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-171 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	752
		CONTRACT NO. 62R23		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystems-pw-1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1/Sheets/Structural/099830942R23-S371-ASW103.dgn



PLAN

WEST APPROACH (EB) FOOTING ELEVATIONS

Point/ Location	Top	Bottom
A	592.17	591.34
B	593.35	593.52
C	594.03	593.19
D	593.91	593.07
E	591.89	591.06
F	593.01	592.18
G	593.74	592.91
H	593.63	592.79

MINIMUM BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"

Bars indicated thus, 32 x 2 - #5 etc. indicates 32 lines of bars with 2 lengths per line.

For Cross Section see Sheet S-173
For Section A-A see Sheet S-174
t(E) bars to be cut in field
as required at notch in approach footing

WSP USA Inc.
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FAX: (312) 782-1684

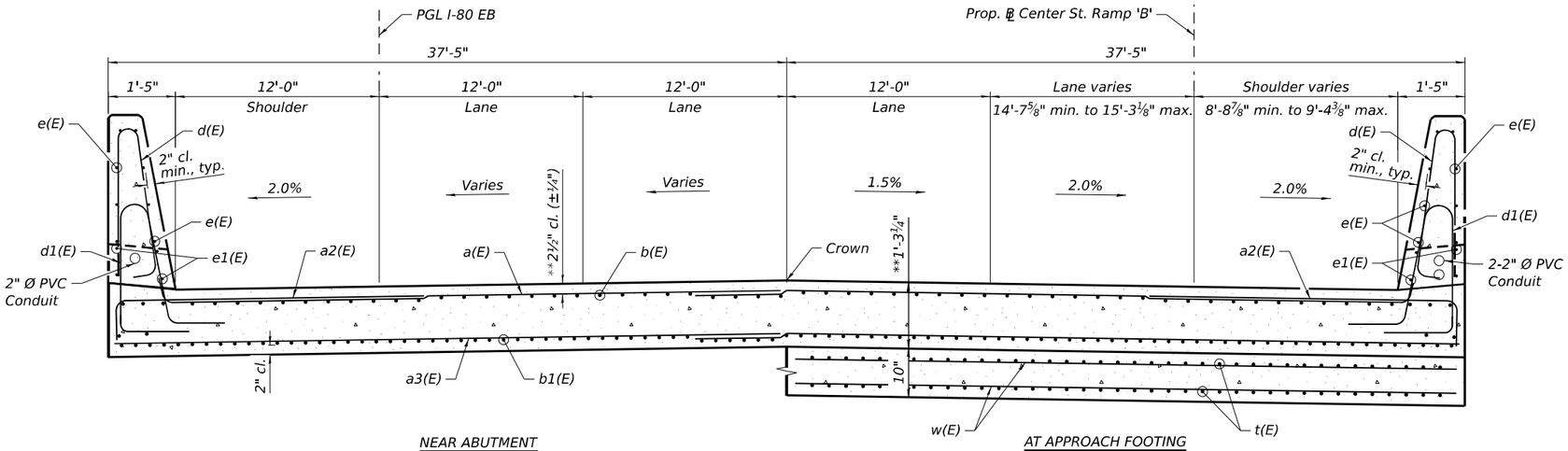
MODEL: Default
FILE NAME: pw:/transystems-pw.bentley.com:transyscorp-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/C4D/62R23-RB-1/Sheets/Structural/099830S-62R23-S372-ASE101.dgn

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 8.333 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB PLAN - EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-172 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	753
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



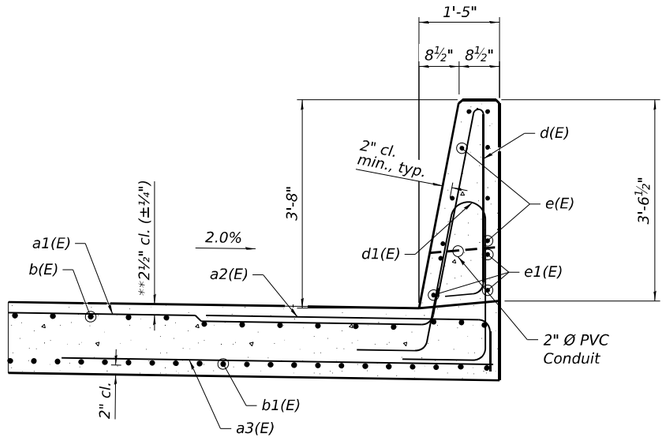
NEAR ABUTMENT

AT APPROACH FOOTING

CROSS SECTION

(Looking East)

** Prior to Grinding.



SECTION B-B

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WSP USA Inc.
30 N. LASALLE STREET
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CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

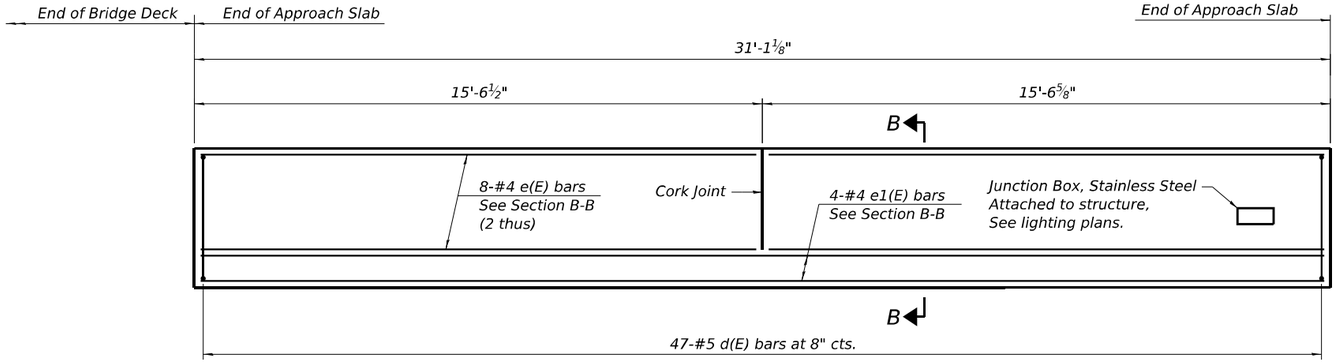
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 4,000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

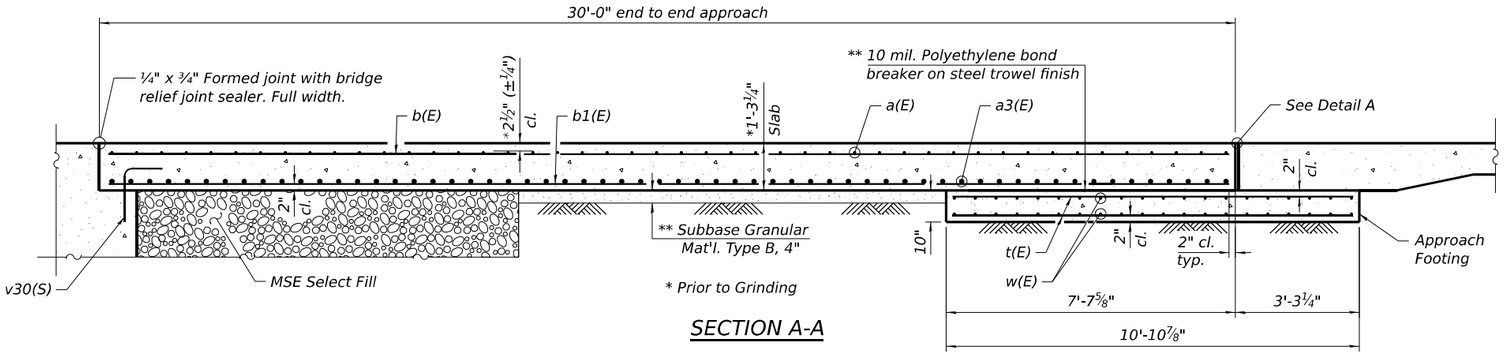
WEST APPROACH SLAB CROSS SECTION - EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-173 OF S-333 SHEETS

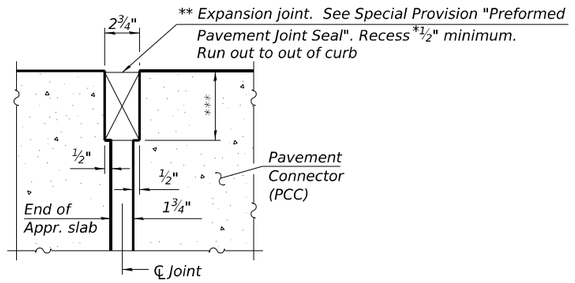
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	754
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET



SECTION A-A

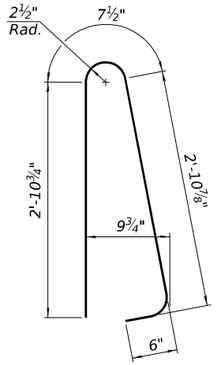


DETAIL A

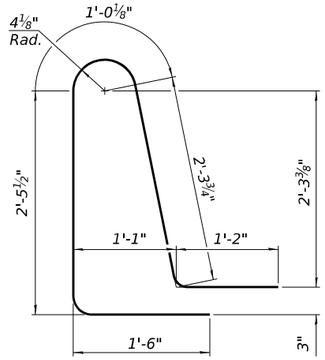
** Cost included with Concrete Superstructure (Approach Slab).

*** Per manufacturer recommendations

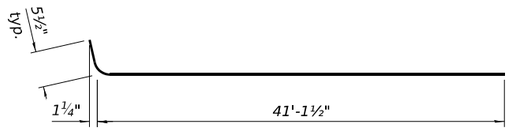
Notes:
- Parapet concrete shall be paid for as Concrete Superstructure.
- Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
- Approach footing concrete shall be paid for as Concrete Structures.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- Cost of excavation for approach footing included with Concrete Structures.
- See sheet S-252 for hatched block details.
- For Section B-B see sheet S-173.
- For Cork Joint Detail, see sheet S-103.



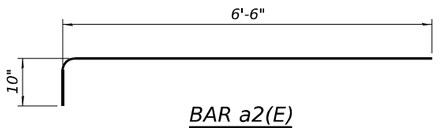
BAR d(E)



BAR d1(E)



BAR a(E)



BAR a2(E)

WEST APPROACH (EB)
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	92	#5	41'-8"	
a2(E)	92	#5	7'-4"	
a3(E)	122	#8	43'-0"	
b(E)	113	#5	29'-8"	
b1(E)	181	#9	29'-8"	
d(E)	94	#5	7'-0"	
d1(E)	94	#5	8'-6"	
e(E)	32	#4	15'-2"	
e1(E)	8	#4	30'-9"	
t(E)	152	#4	10'-7"	
w(E)	80	#5	42'-4"	
Concrete Superstructure		Cu Yd.	8.8	
Concrete Superstructure (Approach Slab)		Cu Yd.	105.7	
Concrete Structures		Cu Yd.	23.1	
Reinforcement Bars, Epoxy Coated		Pound	47,090	
Protective Coat		Sq. Yd.	270	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	176	
Diamond Grinding (Bridge Section)		Sq. Yd.	227	

WSP USA Inc.
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USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 4.000 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

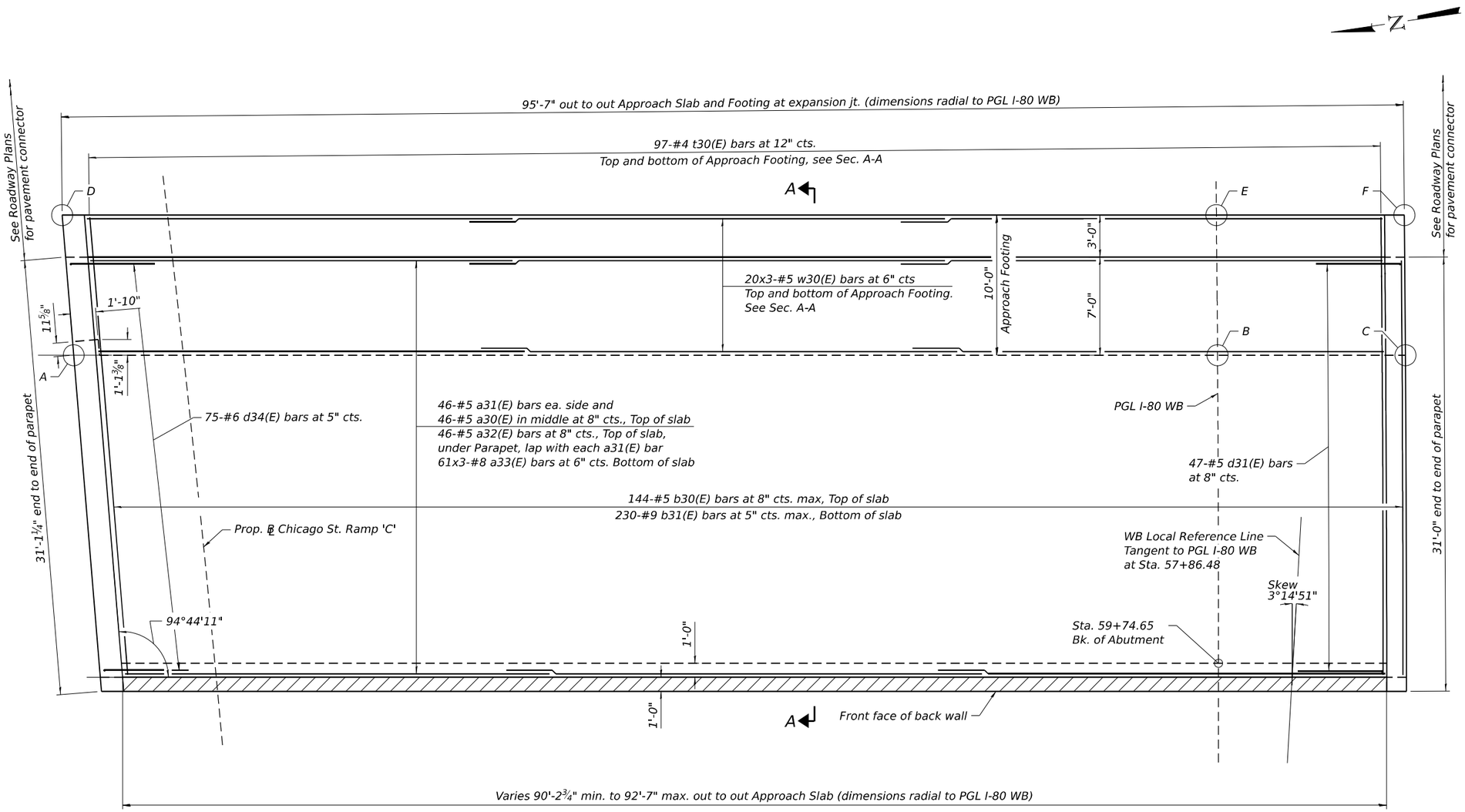
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB DETAILS - EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-174 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	755
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

EAST APPROACH (WB) FOOTING ELEVATIONS

Point/ Location	Top	Bottom
A	562.18	561.35
B	566.61	565.77
C	566.37	565.54
D	561.88	561.04
E	566.31	565.48
F	566.09	565.25



PLAN

MINIMUM BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"

Bars indicated thus, 32 x 3 - #5 etc. indicates 32 lines of bars with 3 lengths per line.

For Cross Section see Sheet S-176
For Section A-A see Sheet S-177
t30(E) bars to be cut in field
as required at notch in approach footing.

WSP USA Inc.
30 N. LASALLE STREET
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USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST APPROACH SLAB PLAN - WB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB SHEET S-175 OF S-333 SHEETS
	CHECKED - PJL	REVISED -		
PLOT SCALE = 8.333 ' / in.	DRAWN - BK	REVISED -		
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -		

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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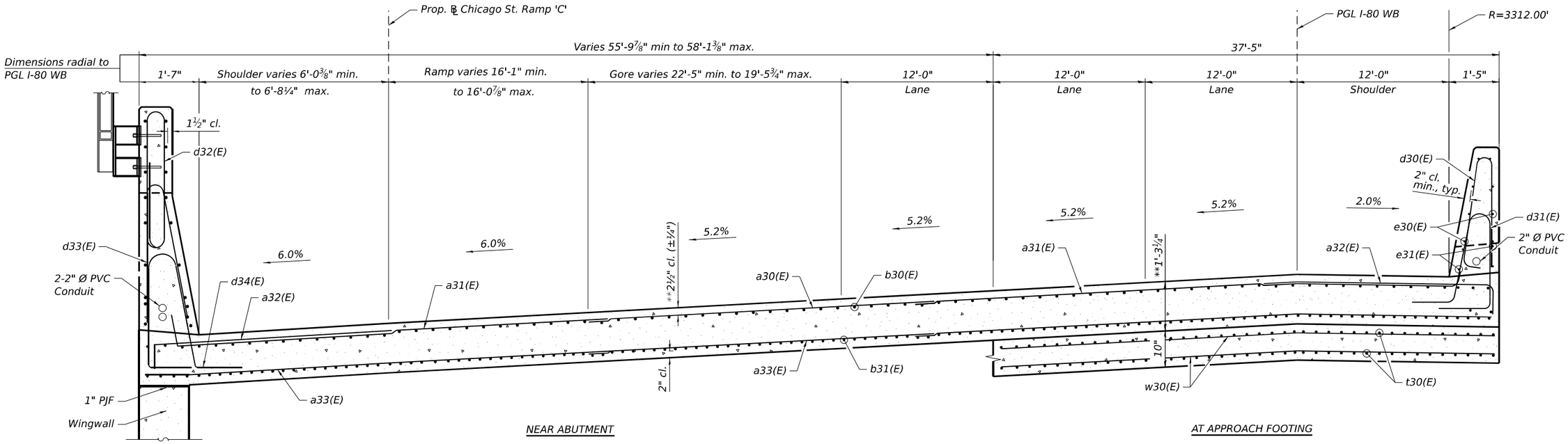
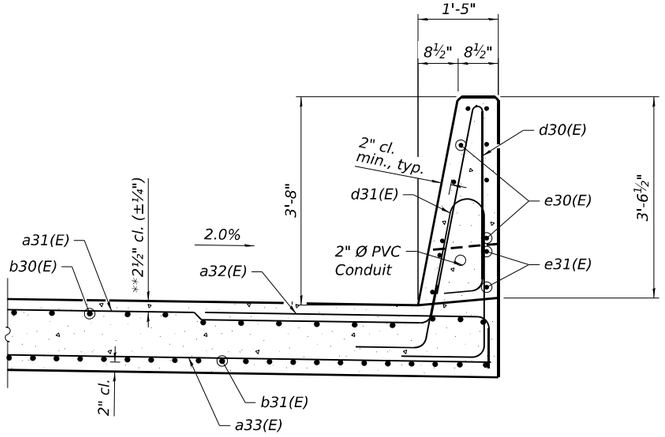
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



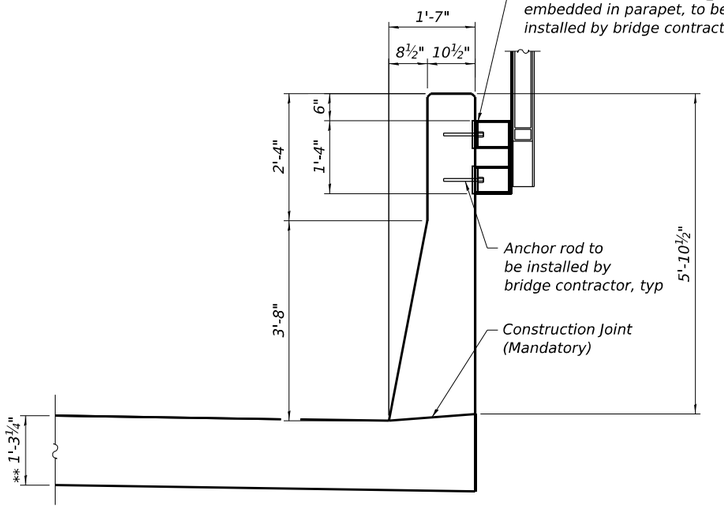
CROSS SECTION

(Looking East)

** Prior to Grinding

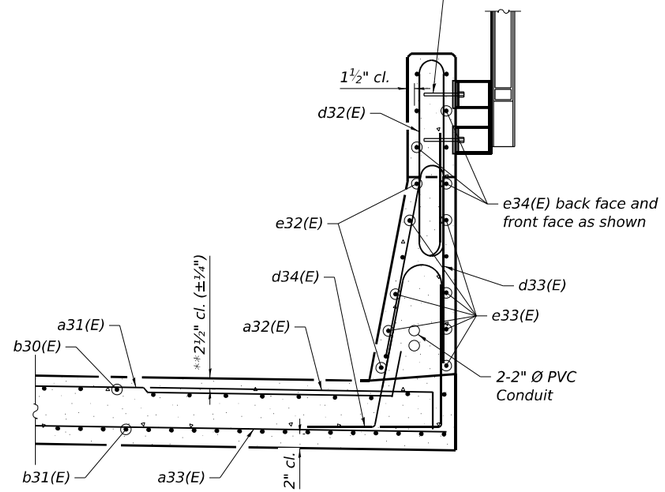


SECTION B-B



Post and post connection bracket details shown for information only. See Noise Abatement Wall plans for details.

NOISE ABATEMENT WALL MOUNTED ON APPROACH SLAB CONFIGURATION



Note:
Cost of four anchor rods, template plate, and associated hardware included in the cost for one each of Noise Abatement Wall Anchor Rod Assembly

NOISE ABATEMENT WALL MOUNTED ON APPROACH SLAB REINFORCEMENT

SECTION C-C

MODEL: Default
FILE NAME: pw:\\transystems-pw.bentley.com:transystems-pw1-Hosted\Documents\Projects 2018\CH401\401180022\03-WSP\CAD\62R23-RB-1.Sheets\Structural\009983094262R23-S376-ASW105.dgn

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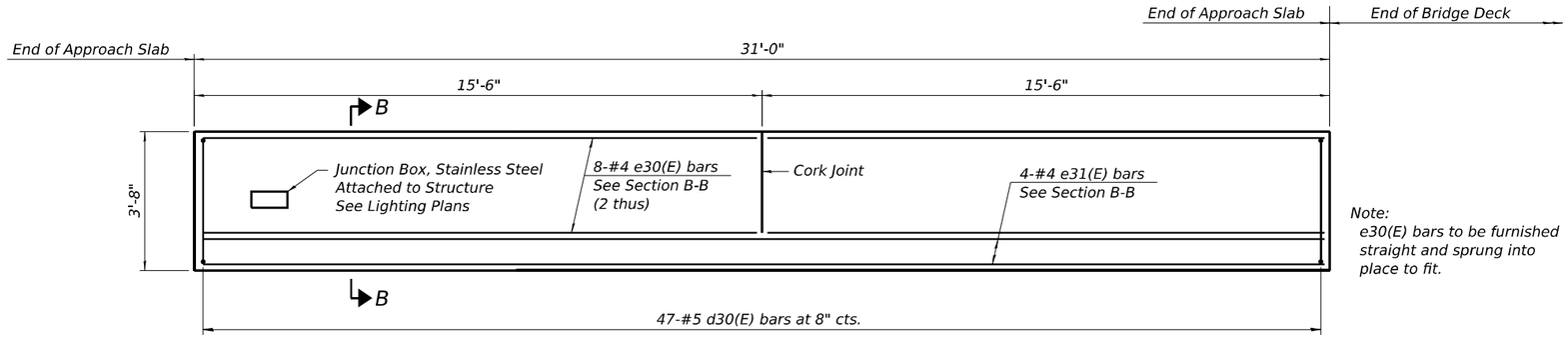
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 8.333 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

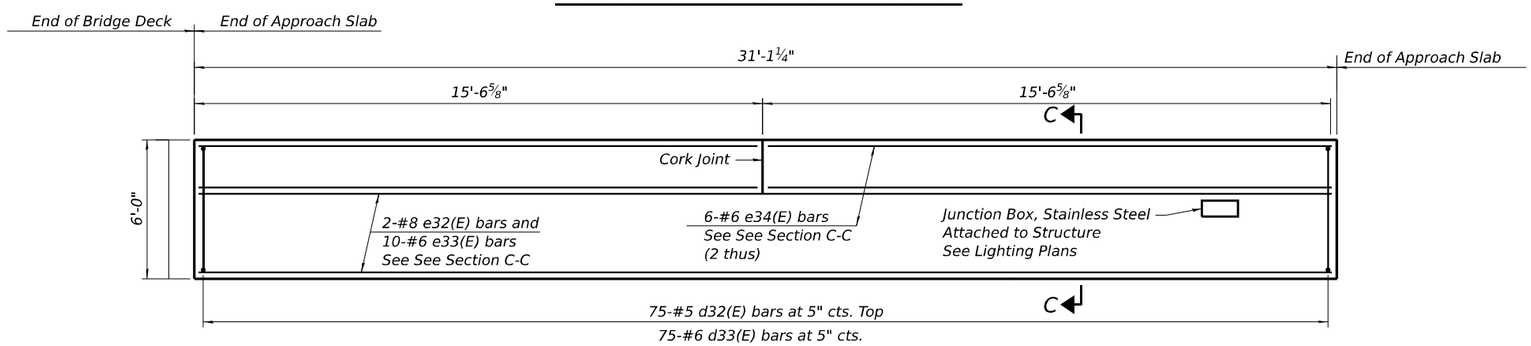
EAST APPROACH SLAB CROSS SECTION - WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-176 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	757
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

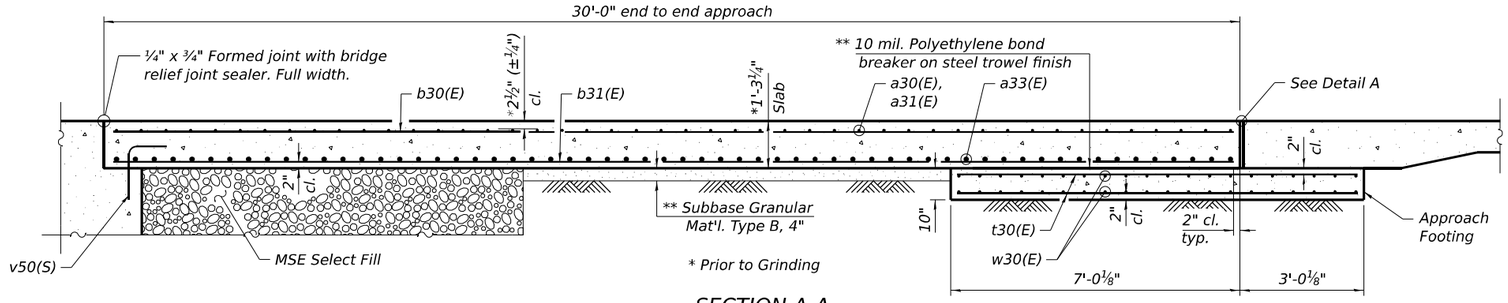


Note:
e30(E) bars to be furnished straight and sprung into place to fit.

INSIDE ELEVATION OF SOUTH PARAPET

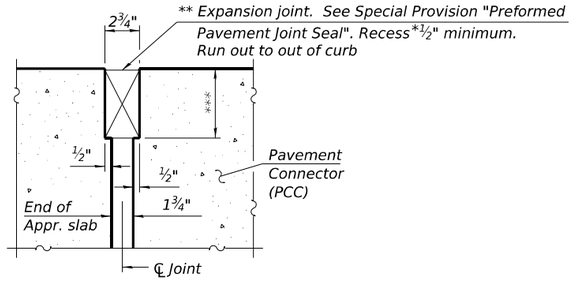


INSIDE ELEVATION OF NORTH PARAPET

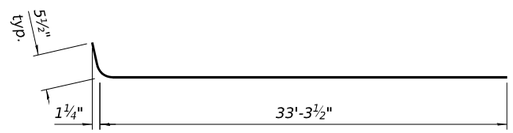


* Prior to Grinding

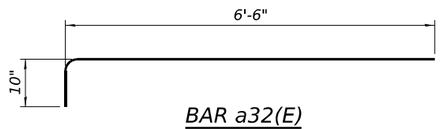
SECTION A-A



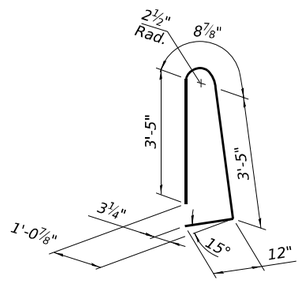
DETAIL A



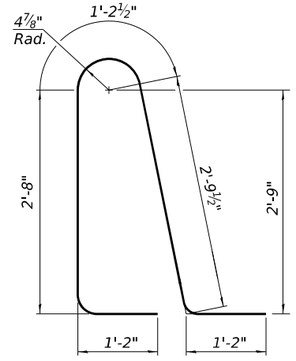
BAR a31(E)



BAR a32(E)



BAR d33(E)
(Trimetric View)

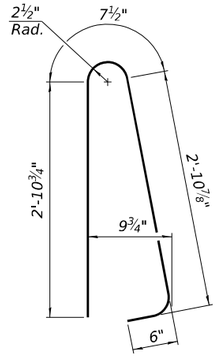


BAR d34(E)

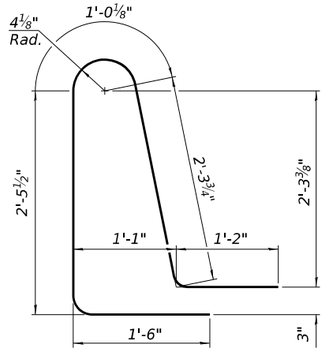
** Cost included with Concrete Superstructure (Approach Slab).

*** Per manufacturer recommendations

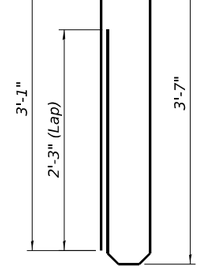
Notes:
Parapet concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
See sheet S-260 for hatched block details.
For Sections B-B and C-C see sheet S-176.
For Cork Joint details, see sheets S-143 to S-144.



BAR d30(E)



BAR d31(E)



BAR d32(E)

EAST APPROACH (WB)
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a30(E)	46	#5	33'-3"	
a31(E)	92	#5	33'-9"	
a32(E)	92	#5	7'-4"	
a33(E)	183	#8	35'-0"	
b30(E)	144	#5	29'-8"	
b31(E)	230	#9	29'-8"	
d30(E)	47	#5	7'-0"	
d31(E)	47	#5	8'-6"	
d32(E)	75	#5	10'-0"	
d33(E)	75	#6	8'-7"	
d34(E)	75	#6	9'-0"	
e30(E)	16	#4	15'-2"	
e31(E)	4	#4	30'-8"	
e32(E)	2	#8	30'-9"	
e33(E)	10	#6	30'-9"	
e34(E)	12	#6	15'-2"	
t30(E)	194	#4	9'-8"	
w30(E)	120	#5	34'-1"	
Concrete Superstructure		Cu Yd.	11.8	
Concrete Superstructure (Approach Slab)		Cu Yd.	133.3	
Concrete Structures		Cu Yd.	29.5	
Reinforcement Bars, Epoxy Coated		Pound	60,490	
Protective Coat		Sq. Yd.	344	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	178	
Diamond Grinding (Bridge Section)		Sq. Yd.	300	

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 4:0.000 '=' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB DETAILS - WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-177 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	758
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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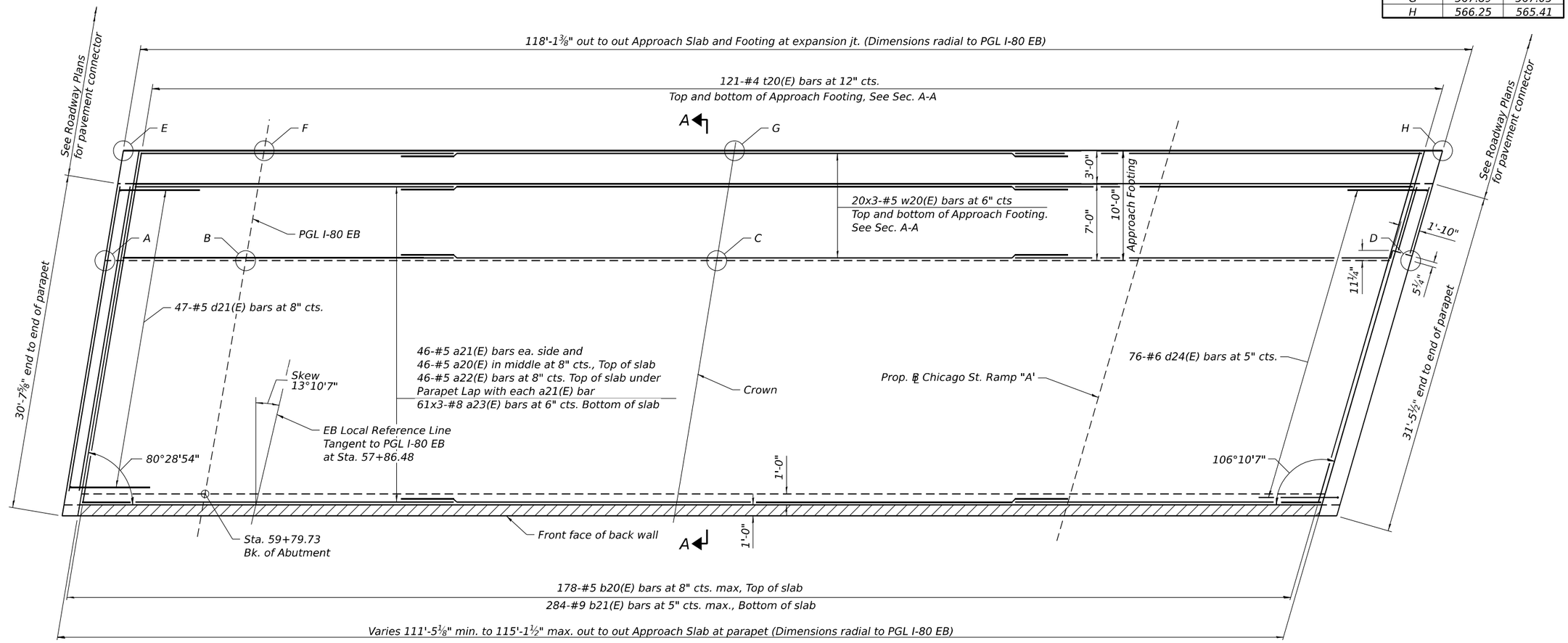
EAST APPROACH (EB) FOOTING ELEVATIONS

Point/ Location	Top	Bottom
A	565.65	564.82
B	566.47	565.64
C	568.17	567.34
D	566.57	565.73
E	565.37	564.54
F	566.18	565.35
G	567.89	567.05
H	566.25	565.41



PLAN

MINIMUM BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"

Bars indicated thus, 32 x 3 - #5 etc. indicates 32 lines of bars with 3 lengths per line.

For Cross Section see Sheet S-179
For Section A-A see Sheet S-180
t20(E) bars to be cut in field
as required at notch in approach footing

WSP USA Inc.
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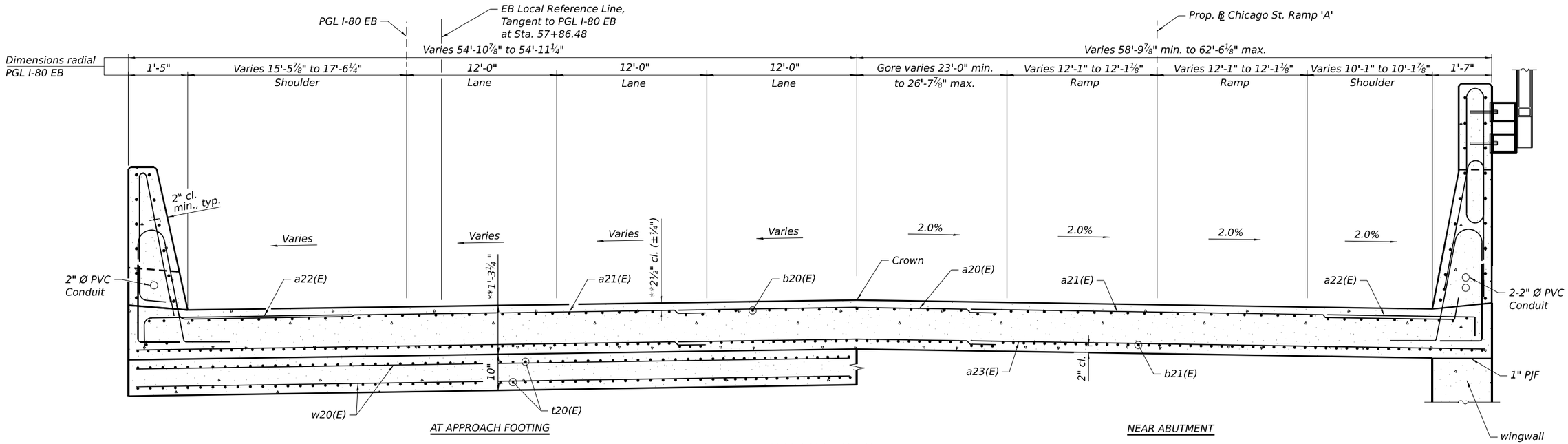
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST APPROACH SLAB PLAN - EB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB SHEET S-178 OF S-333 SHEETS
	CHECKED - PJL	REVISED -		
PLOT SCALE = 10.000 ' / in.	DRAWN - BK	REVISED -		
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -		

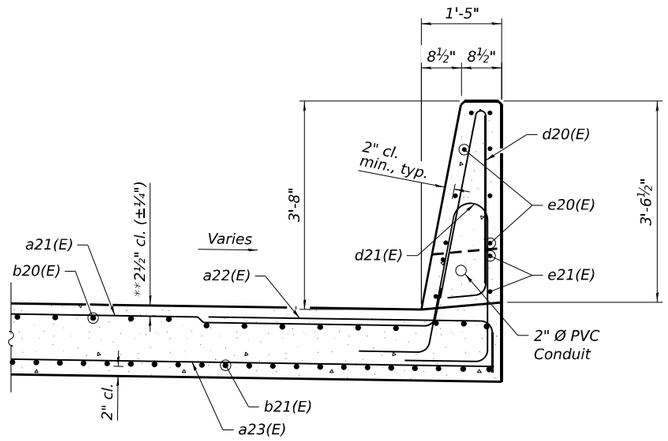
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	759
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



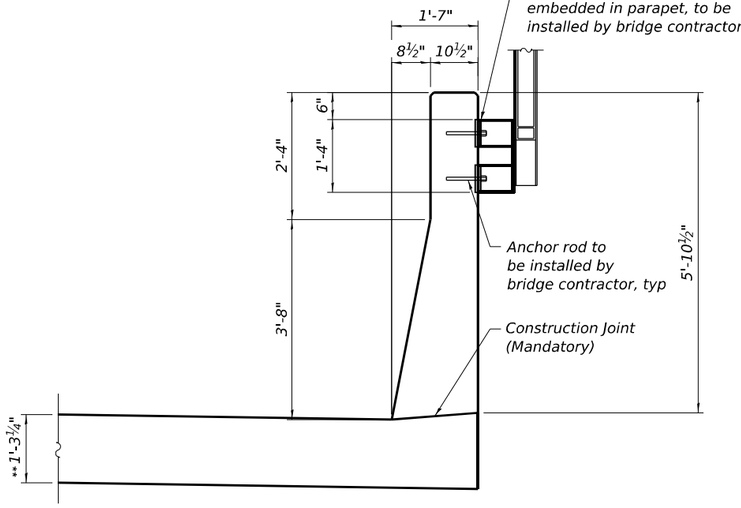
** Prior to grinding.

CROSS SECTION

(Looking East)

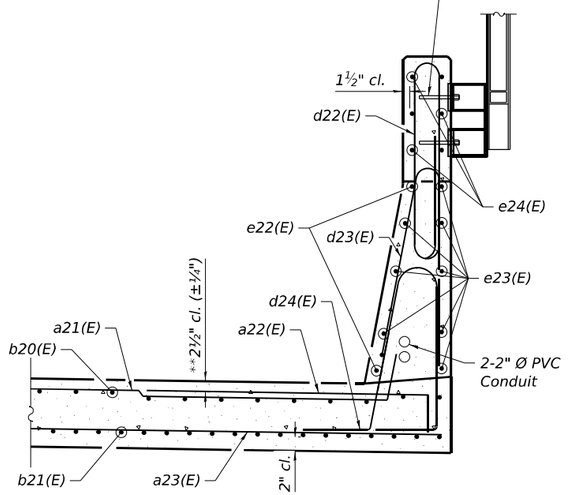


SECTION B-B



Post and post connection bracket details shown for information only. See Noise Abatement Wall plans for details.

NOISE ABATEMENT WALL MOUNTED ON APPROACH SLAB CONFIGURATION



Note:
Cost of four anchor rods, template plate, and associated hardware included in the cost for one each of Noise Abatement Wall Anchor Rod Assembly

NOISE ABATEMENT WALL MOUNTED ON APPROACH SLAB REINFORCEMENT

SECTION C-C

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystems-pw1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1/Sheets/Structural/099830%-62R23-S379-ASE105.dgn

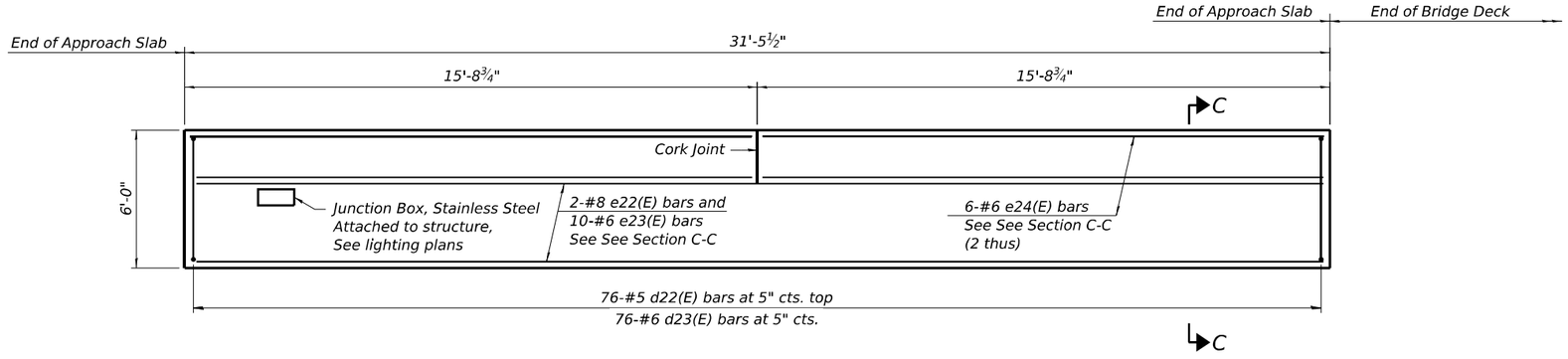
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 8.333 ' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

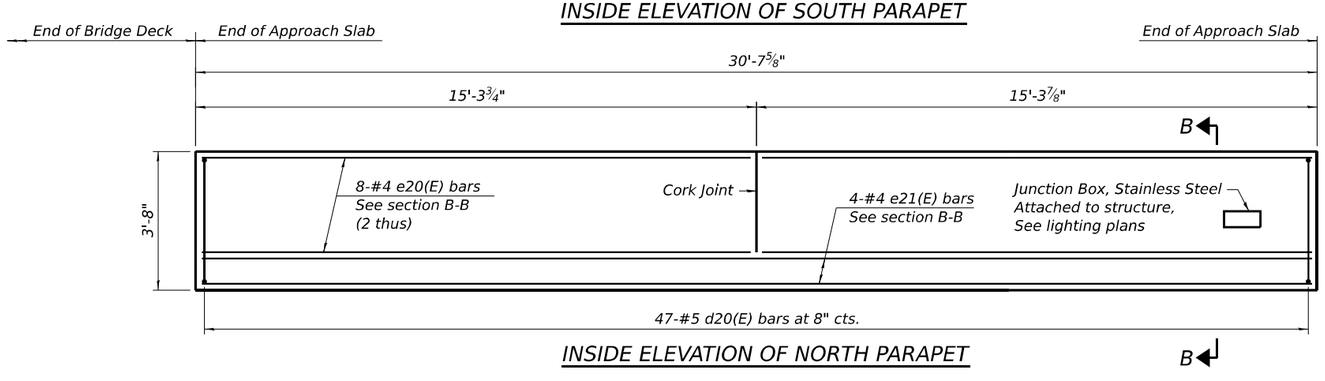
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB CROSS SECTION - EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-179 OF S-333 SHEETS

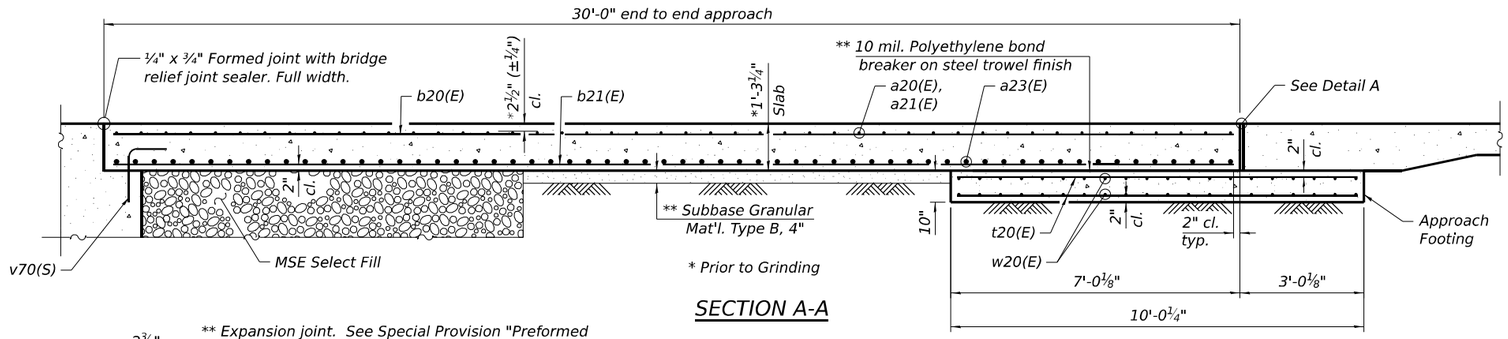
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	760
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



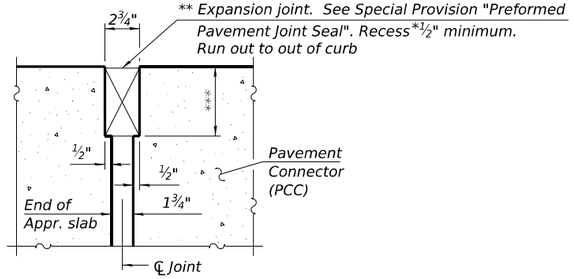
INSIDE ELEVATION OF SOUTH PARAPET



INSIDE ELEVATION OF NORTH PARAPET



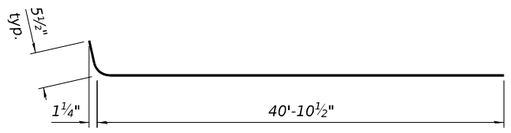
SECTION A-A



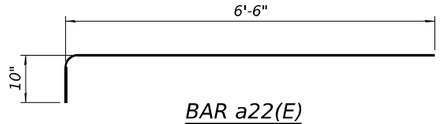
DETAIL A

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

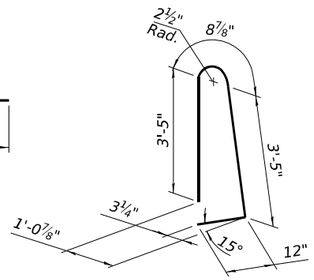
*** Per manufacturer recommendations



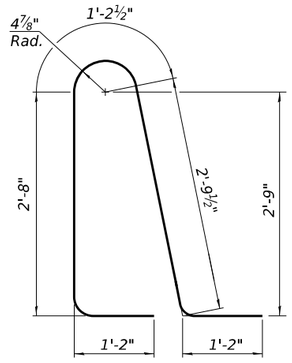
BAR a21(E)



BAR a22(E)

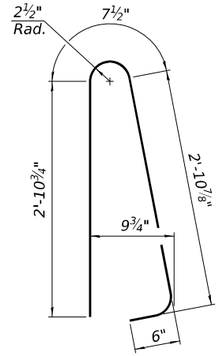


BAR d23(E)
(Trimetric View)

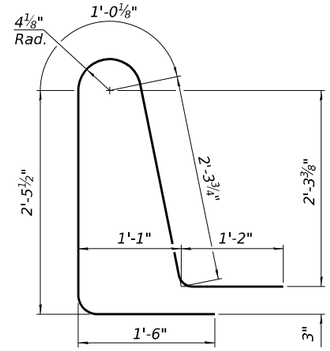


BAR d24(E)

Notes:
Parapet concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
See sheet S-261 for hatched block details.
For Sections B-B and C-C see sheet S-179.
For Cork Joint details, see sheets S-143 to S-144.



BAR d20(E)



BAR d21(E)

BAR d22(E)

EAST APPROACH (EB)
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a20(E)	46	#5	40'-10"	
a21(E)	92	#5	41'-4"	
a22(E)	92	#5	7'-4"	
a23(E)	183	#8	42'-6"	
b20(E)	178	#5	29'-8"	
b21(E)	284	#9	29'-8"	
d20(E)	47	#5	7'-0"	
d21(E)	47	#5	8'-6"	
d22(E)	76	#5	10'-0"	
d23(E)	76	#6	8'-7"	
d24(E)	76	#6	9'-0"	
e20(E)	16	#4	14'-11"	
e21(E)	4	#4	31'-3"	
e22(E)	2	#8	31'-1"	
e23(E)	10	#6	31'-1"	
e24(E)	6	#6	15'-5"	
t20(E)	242	#4	9'-8"	
w20(E)	120	#5	42'-0"	
Concrete Superstructure	Cu Yd.	11.9		
Concrete Superstructure (Approach Slab)	Cu Yd.	164.2		
Concrete Structures	Cu Yd.	36.5		
Reinforcement Bars, Epoxy Coated	Pound	72,950		
Protective Coat	Sq. Yd.	416		
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	207		
Diamond Grinding (Bridge Section)	Sq. Yd.	372		

WSP USA Inc.
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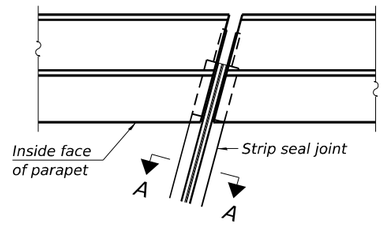
USER NAME = USSJ696614	DESIGNED - LAS	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 4:0.000 '=' / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

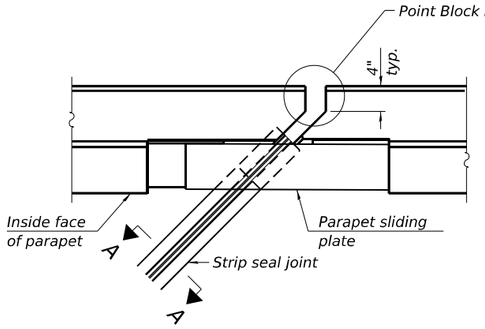
EAST APPROACH SLAB DETAILS - EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-180 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	761
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw:/transystems-pw.bentley.com:transystems-pw1-Hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1 Sheets/Structural/0998309-62R23-S180-ASE106.dgn

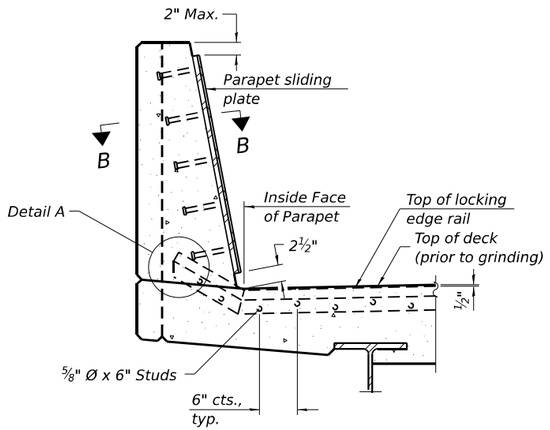


FOR SKEWS ≤ 30°



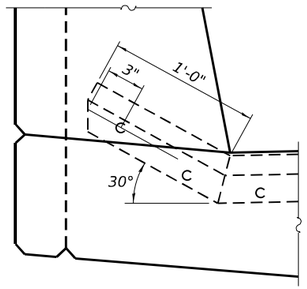
FOR SKEWS > 30°

PLAN AT PARAPET

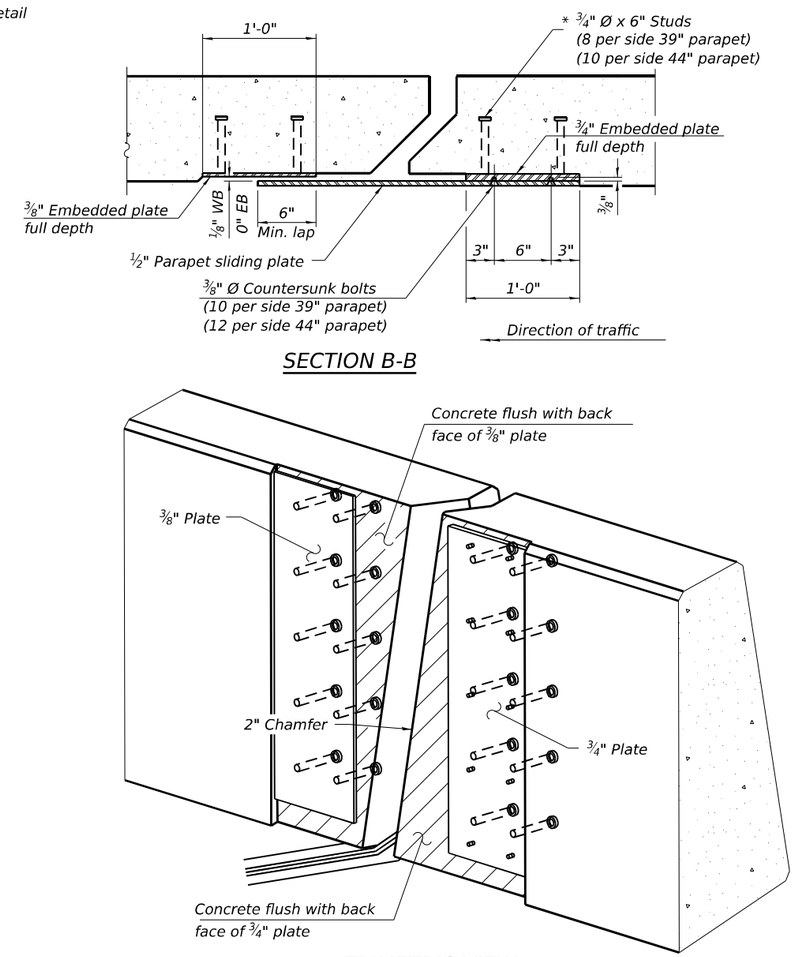


SECTION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



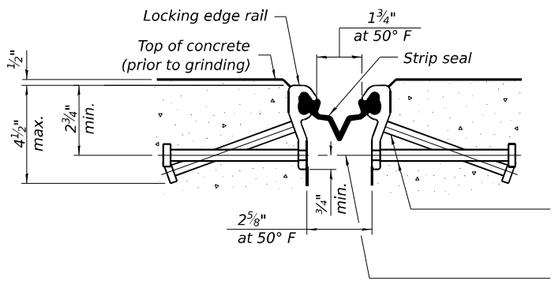
DETAIL A



SECTION B-B

TRIMETRIC VIEW

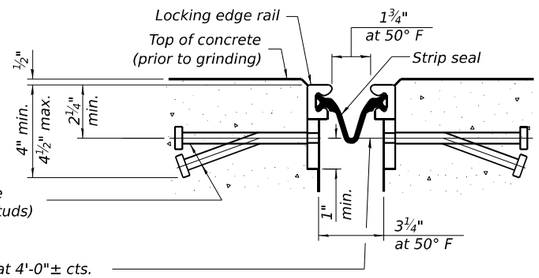
(Showing embedded plates only)



* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" Ø threaded rods in 7/16" Ø holes at 4'-0"± cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

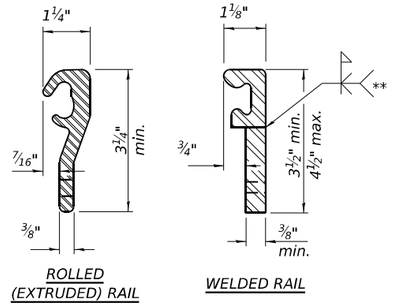
SHOWING ROLLED RAIL JOINT



SHOWING WELDED RAIL JOINT

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

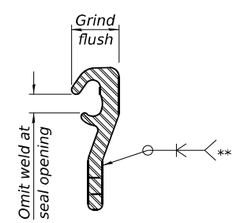


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal 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 locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

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.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

BILL OF MATERIAL - WB

Item	Unit	Total
Preformed Joint Strip Seal	Foot	102

BILL OF MATERIAL - EB

Item	Unit	Total
Preformed Joint Strip Seal	Foot	81

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
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	CHECKED - LAS	REVISED -			
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PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODIFIED PREFORMED JOINT STRIP SEAL - WEST ABUTMENT
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-181 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	762
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

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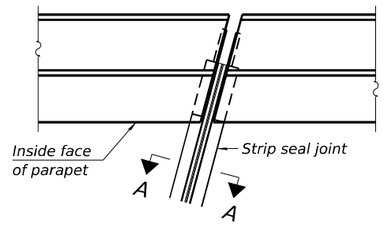
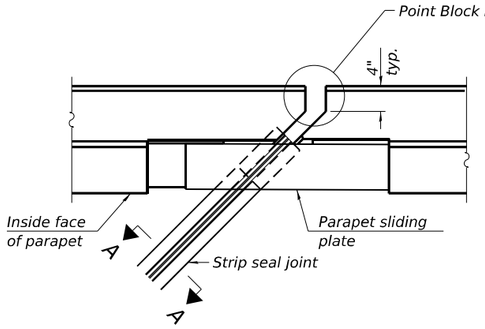
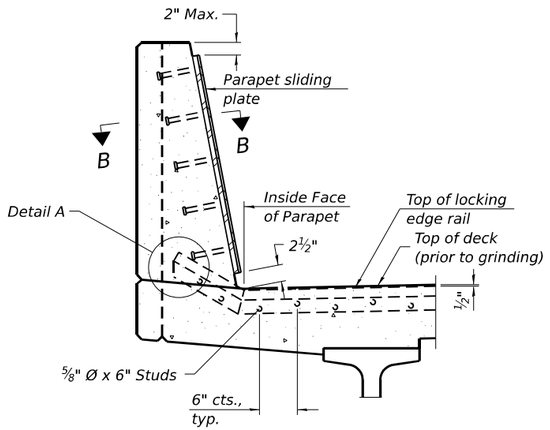


FOR SKEWS ≤ 30°



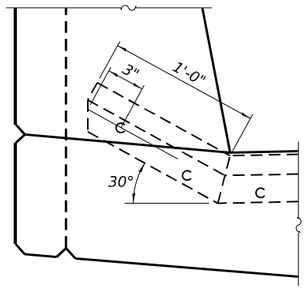
FOR SKEWS > 30°

PLAN AT PARAPET

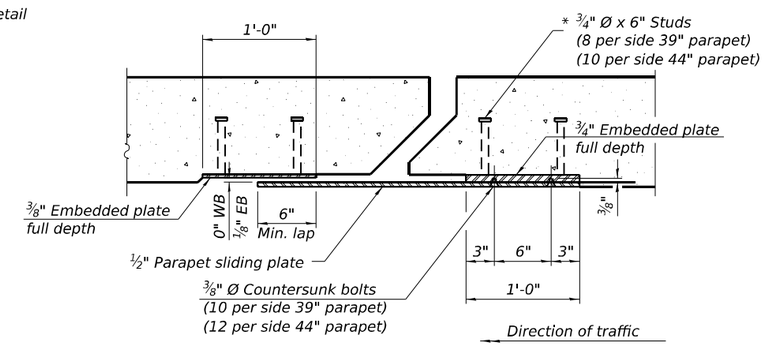


SECTION AT PARAPET

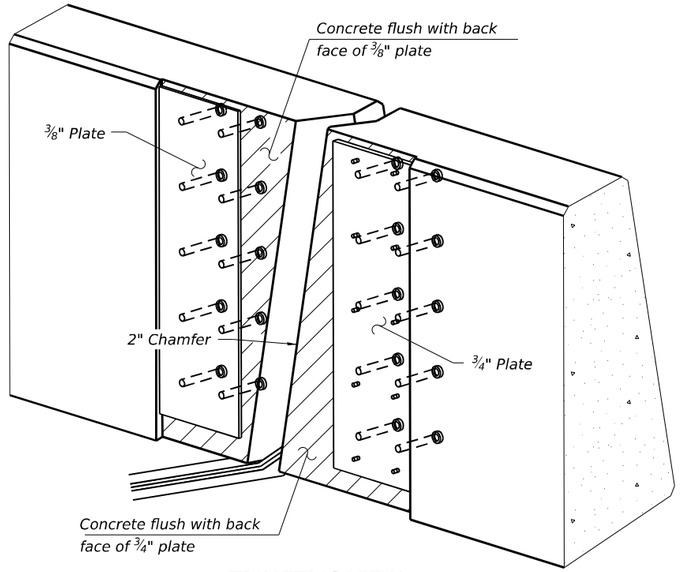
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A

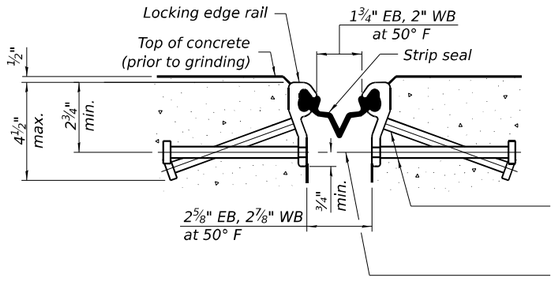


SECTION B-B



TRIMETRIC VIEW

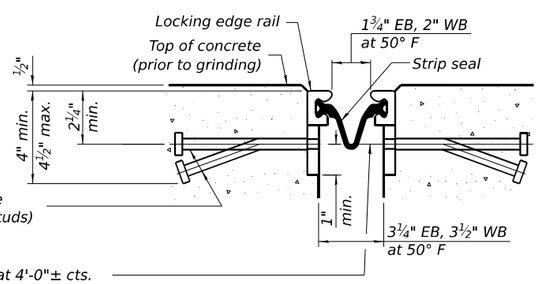
(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

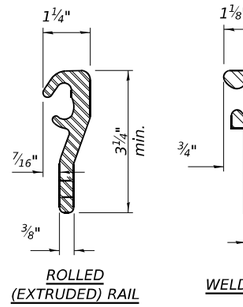
⅜" Ø threaded rods in 7/16" Ø holes at 4'-0"± cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



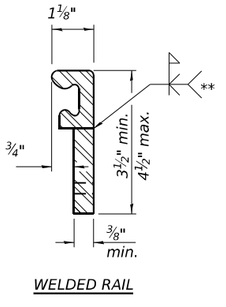
SHOWING WELDED RAIL JOINT

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



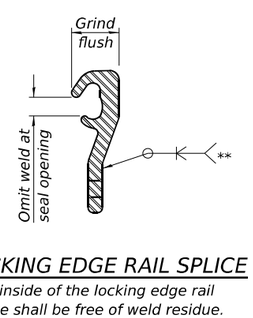
ROLLED (EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal 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 locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

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.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

ADJUSTMENT FOR TEMPERATURE:

1. When adjusting the joint opening for temperature variations, the location of fixity for Unit 4 WB shall be assumed to be half-way between fixed piers (middle of Span 9 WB).

BILL OF MATERIAL - WB

Item	Unit	Total
Preformed Joint Strip Seal	Foot	93

BILL OF MATERIAL- EB

Item	Unit	Total
Preformed Joint Strip Seal	Foot	115

WSP USA Inc.
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CHICAGO, IL 60602
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODIFIED PREFORMED JOINT STRIP SEAL - EAST ABUTMENT
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-182 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	763
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

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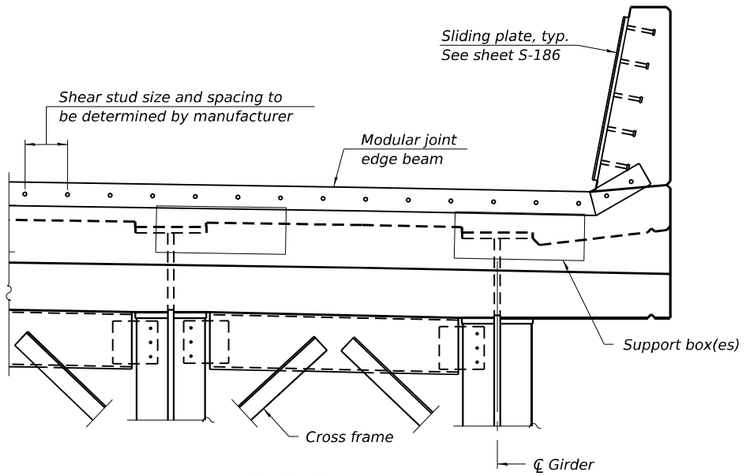
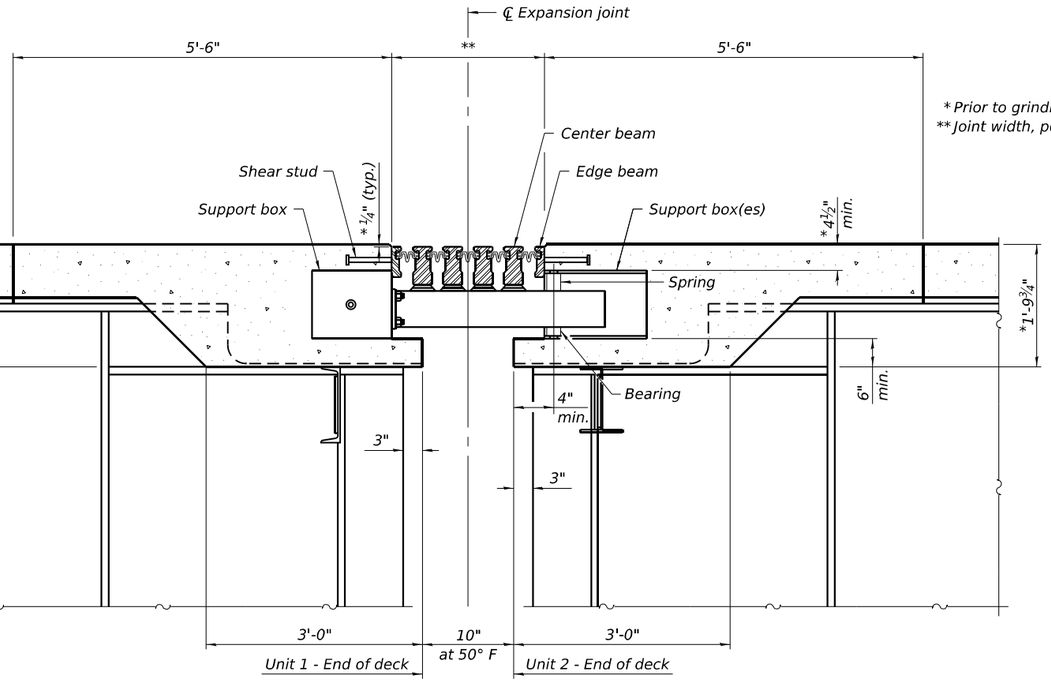


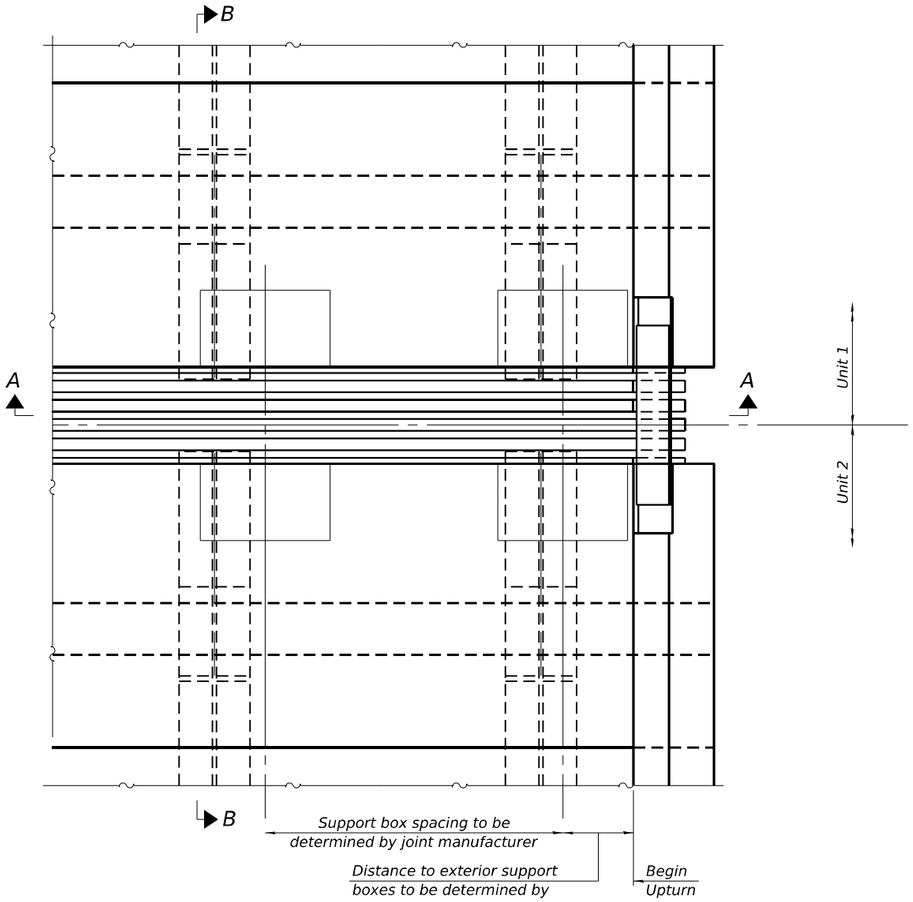
SECTION A-A



SECTION B-B

(Dimensions shown at right ∠'s to the joint)

*Prior to grinding.
**Joint width, per manufacturer.



PARTIAL PLAN

Notes:

Actual dimensions may vary depending on modular joint manufacturer's design.

Modular expansion joints shall be installed with forming and reinforcement bars in place prior to pouring the adjoining concrete deck span.

Modular joint assemblies shall be temporarily supported off the beam ends until the concrete is placed. Additional supports, if required by design, shall be detailed on the shop drawings to connect to the top chord of the cross frames.

Modular expansion joints shall be adjusted for temperature prior to pouring the blockout area.

Modular expansion joints shall be assembled in their final relative position with ends in place for shop inspection and acceptance.

For beam coping and modular joint diaphragm details see sheets S-206 and S-219.

Bars in the blockout may be adjusted in the field if necessary to miss joint support boxes, as approved by the Engineer.

PIER 2 WB

Total Long. Movement (in.)	Total Lateral Movement (in.)	Joint Size (in.)
12"	-	15"

PIER 2 EB

Total Long. Movement (in.)	Total Lateral Movement (in.)	Joint Size (in.)
12"	-	15"

BILL OF MATERIAL - WB

Item	Unit	Quantity
Modular Expansion Joint, 15"	Foot	74

BILL OF MATERIAL - EB

Item	Unit	Quantity
Modular Expansion Joint, 15"	Foot	72

EJ-MOD-FD-PIER 5-15-2023

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CHICAGO, IL 60602
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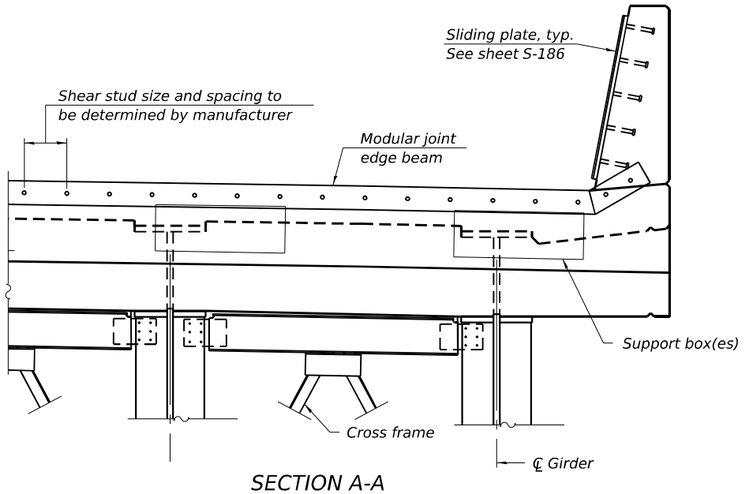
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

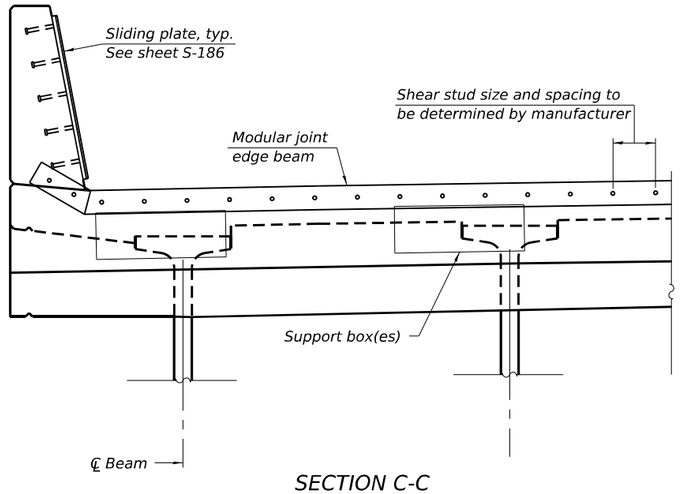
MODULAR EXPANSION JOINT - PIER 2 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-183 OF S-333 SHEETS

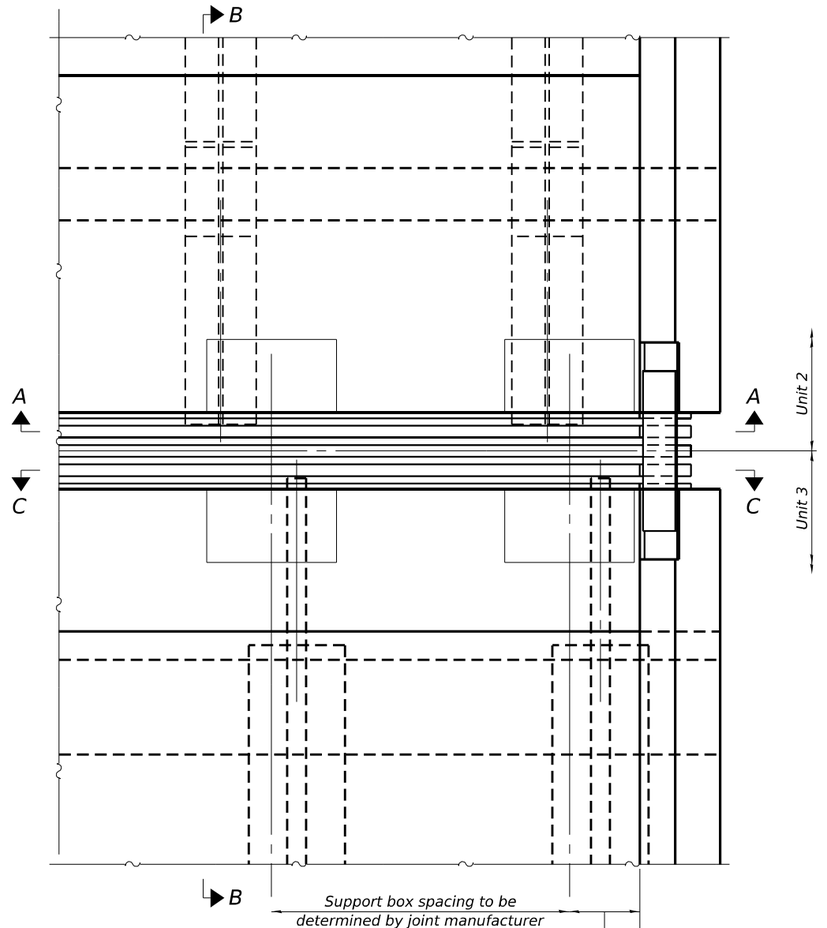
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	764
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



SECTION A-A



SECTION C-C



PARTIAL PLAN

* Prior to grinding.
** Joint width, per manufacturer.

SECTION B-B

(Dimensions shown at right ∠'s to the joint)

ADJUSTMENT FOR TEMPERATURE:

1. When adjusting the joint opening for temperature variations, the location of fixity for Unit 3 EB shall be assumed to be half-way between fixed piers (middle of Span 7 EB).

Notes:

Actual dimensions may vary depending on modular joint manufacturer's design.

Modular expansion joints shall be installed with forming and reinforcement bars in place prior to pouring the adjoining concrete deck span at end of Unit 2.

Modular joint assemblies shall be temporarily supported off the beam ends until the concrete is placed. Additional supports, if required by design, shall be detailed on the shop drawings to connect to the top chord of the cross frames at end of Unit 2.

Modular expansion joint assembly shall be installed after the concrete ledge below the blockout has been poured and reached required strength as specified on the General Plan and Elevation at end of Unit 3.

Modular expansion joints shall be adjusted for temperature prior to pouring the blockout area.

Modular expansion joints shall be assembled in their final relative position with ends in place for shop inspection and acceptance.

For modular joint diaphragm and beam coping details see sheets S-219, S-223 and S-225.

Bars in the blockout may be adjusted in the field if necessary to miss joint support boxes, as approved by the Engineer.

PIER 5 WB

Total Long. Movement (in.)	Total Lateral Movement (in.)	Joint Size (in.)
8½"	-	12"

PIER 5 EB

Total Long. Movement (in.)	Total Lateral Movement (in.)	Joint Size (in.)
10"	-	12"

BILL OF MATERIAL - WB

Item	Unit	Quantity
Modular Expansion Joint, 12"	Foot	72

BILL OF MATERIAL - EB

Item	Unit	Quantity
Modular Expansion Joint, 12"	Foot	72

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30 N. LASALLE STREET
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CHICAGO, IL 60602
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT - PIER 5 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-184 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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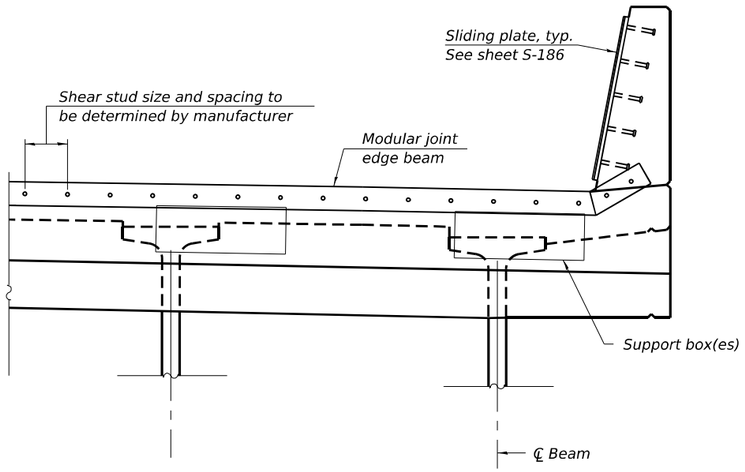
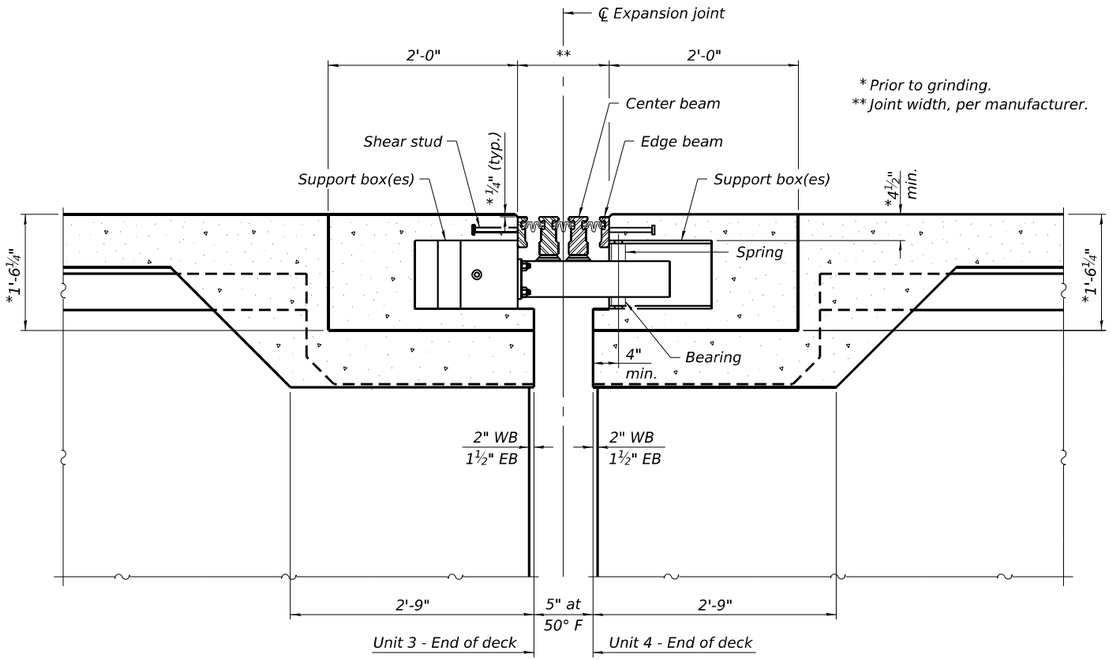
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



SECTION A-A

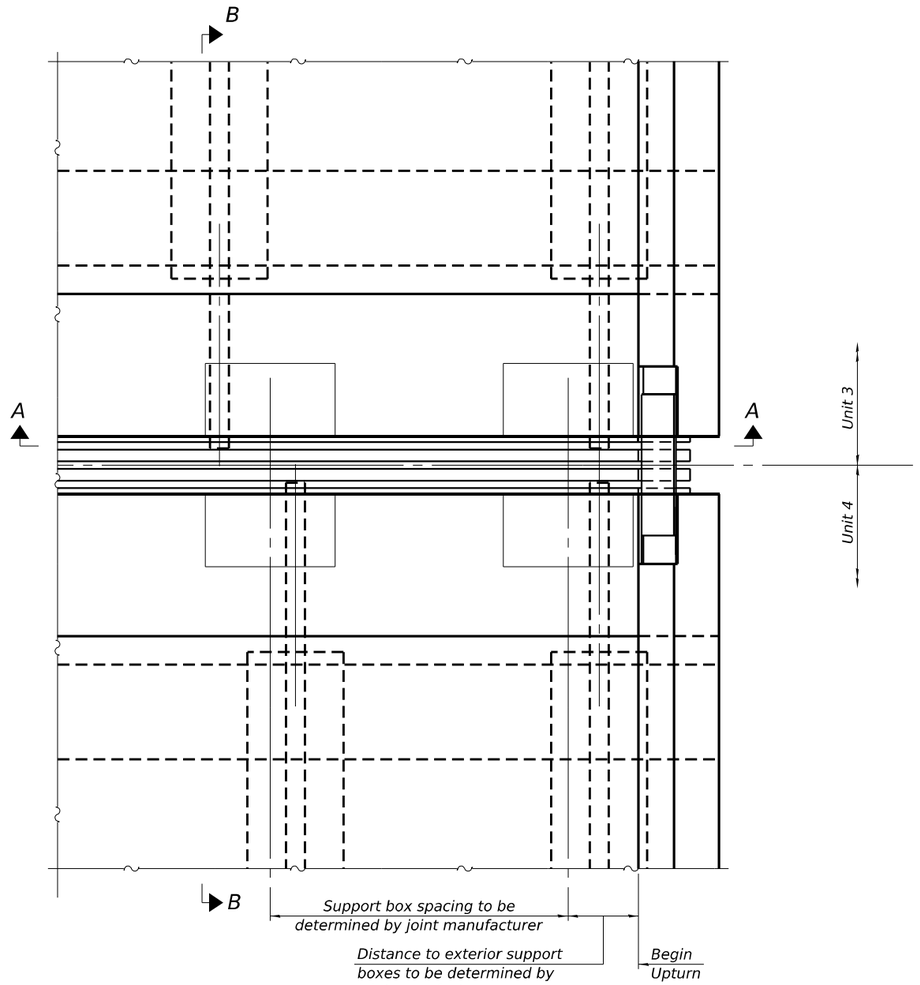
(showing 44" parapet, 72" similar)



* Prior to grinding.
** Joint width, per manufacturer.

SECTION B-B

(Dimensions shown at right ∠'s to the joint)



PARTIAL PLAN

ADJUSTMENT FOR TEMPERATURE:

1. When adjusting the joint opening for temperature variations, the location of fixity for Unit 3 EB shall be assumed to be half-way between fixed piers (middle of Span 7 EB).
2. When adjusting the joint opening for temperature variations, the location of fixity for Unit 4 WB shall be assumed to be half-way between fixed piers (middle of Span 9 WB).

Notes:

Actual dimensions may vary depending on modular joint manufacturer's design.

Modular expansion joint assembly shall be installed after the concrete ledge below the blockout has been poured and reached required strength as specified on the General Plan and Elevation.

Modular expansion joints shall be adjusted for temperature prior to pouring the blockout area.

Modular expansion joints shall be assembled in their final relative position with ends in place for shop inspection and acceptance.

For beam coping details see sheets S-223, S-227, S-229 and S-233.

Bars in the blockout may be adjusted in the field if necessary to miss joint support boxes, as approved by the Engineer.

PIER 7 WB

Total Long. Movement (in.)	Total Lateral Movement (in.)	Joint Size (in.)
5¼"	-	9"

PIER 8 EB

Total Long. Movement (in.)	Total Lateral Movement (in.)	Joint Size (in.)
5½"	-	9"

BILL OF MATERIAL - WB

Item	Unit	Quantity
Modular Expansion Joint, 9"	Foot	73

BILL OF MATERIAL - EB

Item	Unit	Quantity
Modular Expansion Joint, 9"	Foot	87

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30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
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	CHECKED - LAS	REVISED -
PLOT SCALE = 0.2 '/ in.	DRAWN - SJJ	REVISED -
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT - PIER 7 WB & PIER 8 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-185 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	766
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

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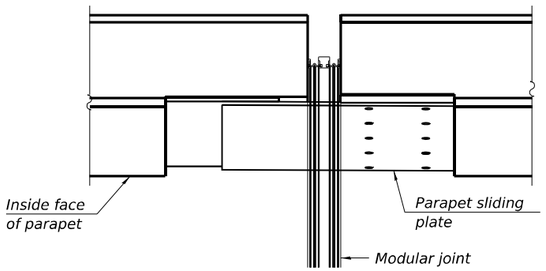
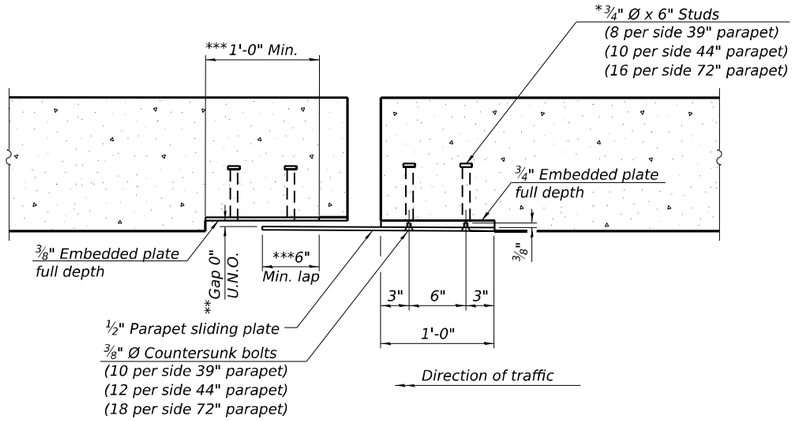


PLAN AT PARAPET



SECTION B-B

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Standard Specifications, automatically end welded.

** Gap for N. Parapet at Pier 2 WB shall be ⅜". Gap for S. Parapet at Pier 8 EB shall be ⅛".

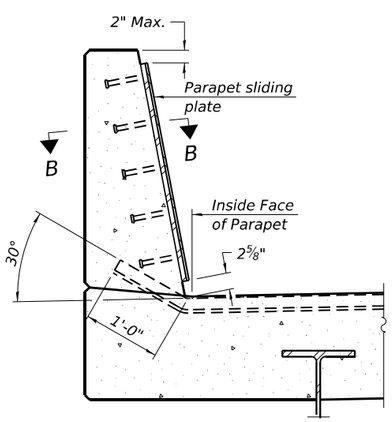
*** Manufacturer to increase embedded plate length as required to meet joint movement requirements.

Notes:

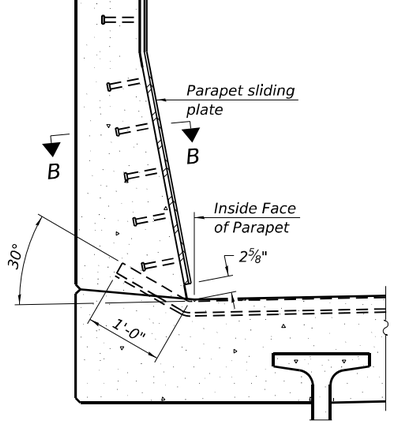
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Cost of parapet sliding plates, embedded plates, and anchorage studs, is included with Modular Expansion Joint of the width shown on sheets S-183 thru S-185.

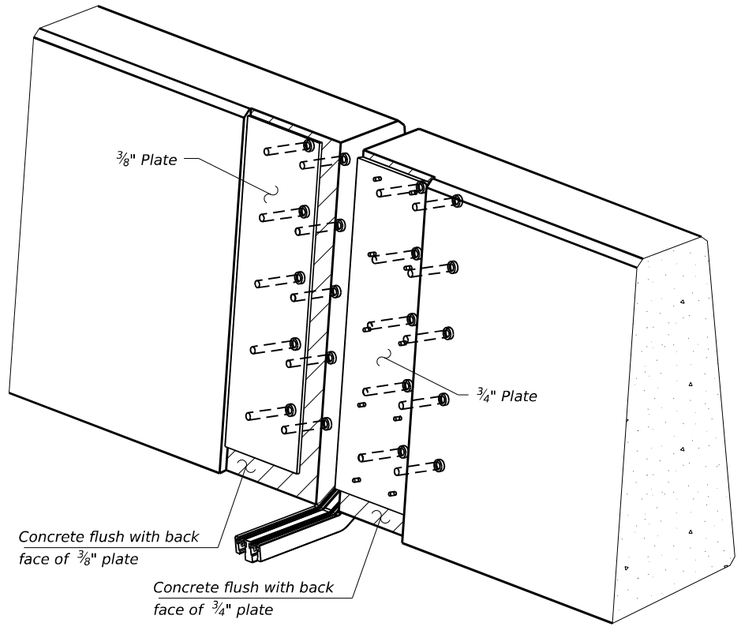
Actual dimension of joint opening may vary based on modular joint manufacturer's design.



SECTION AT 44" PARAPET



SECTION AT 72" PARAPET



TRIMETRIC VIEW

(Showing embedded plates only)

(Showing 44" parapet, 72" similar)

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

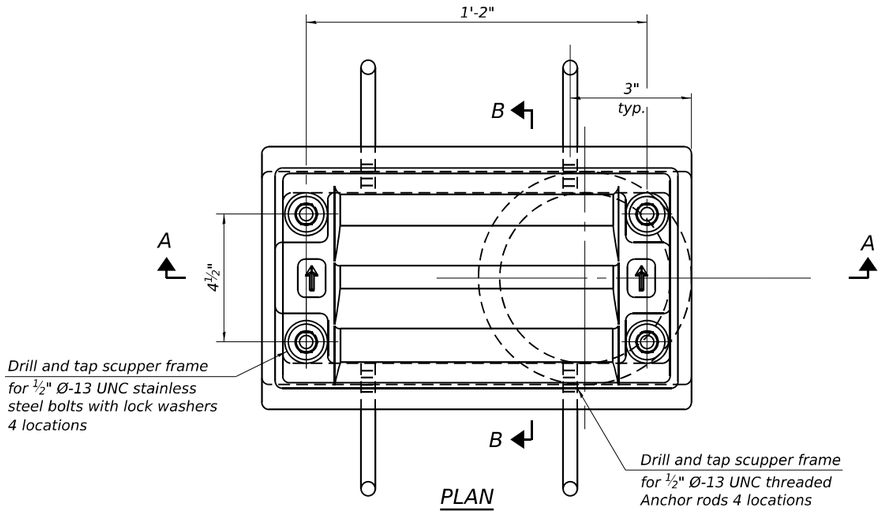
USER NAME = USSJ696614	DESIGNED - PSK	REVISED -	
	CHECKED - LAS	REVISED -	
PLOT SCALE = 0:2 ':' / in.	DRAWN - SJJ	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

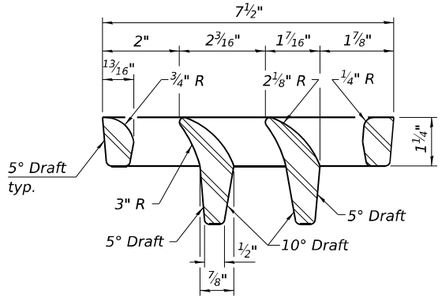
SLIDING PLATE DETAILS
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-186 OF S-333 SHEETS

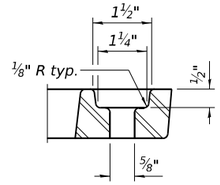
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	767
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



GRATE BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

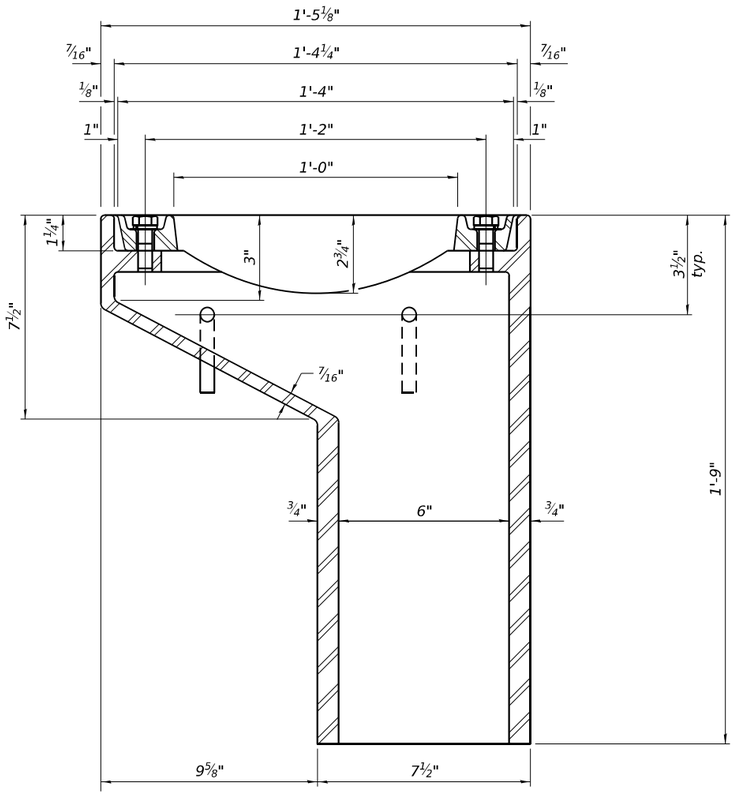
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be pigmented or painted to match the color of the adjacent beam.

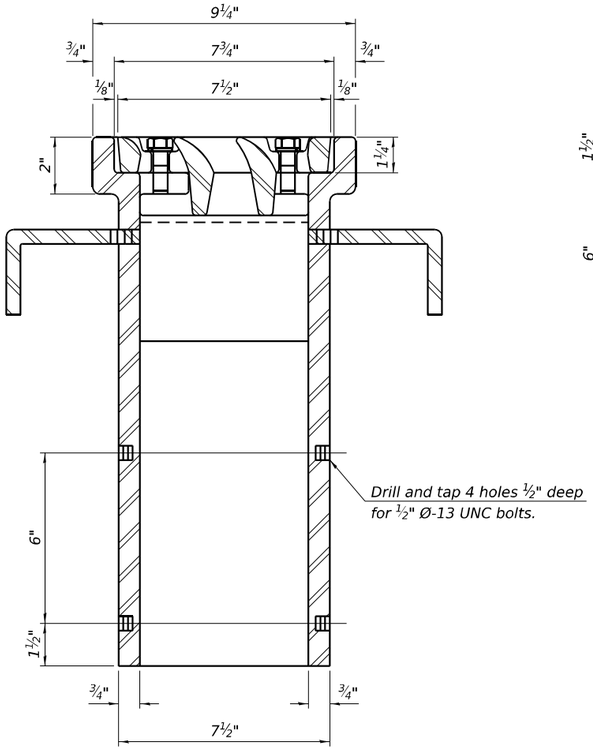
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scuppers, DS-11.

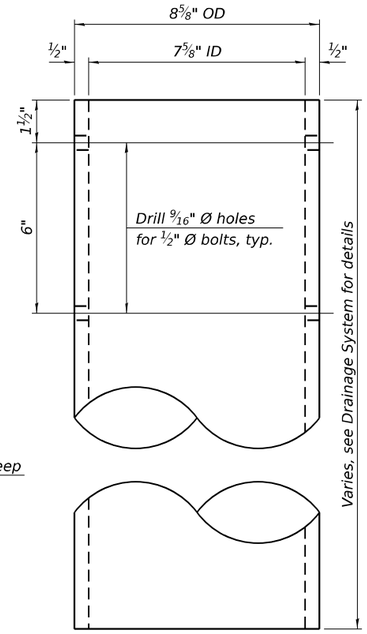


SECTION A-A

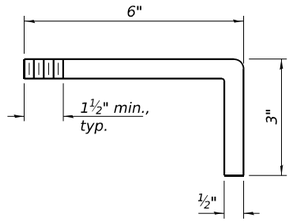
See deck sheets S-102, S-106, S-113, and S-120 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	34

DS-11

5-15-2023

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

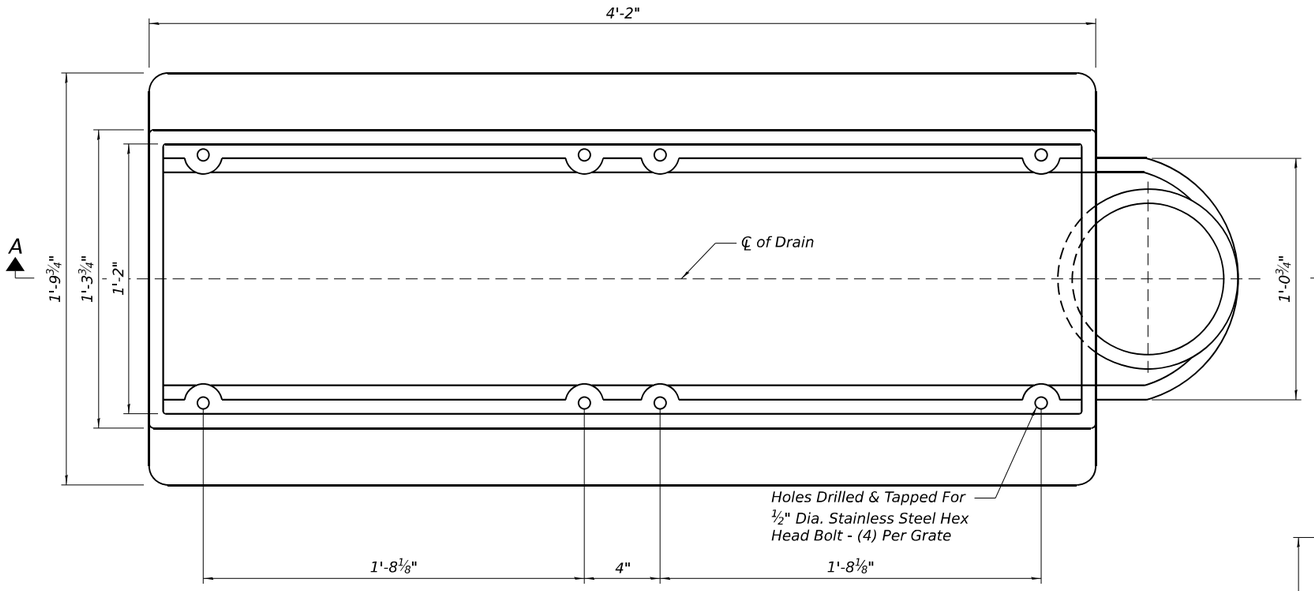
USER NAME = USSJ696614	DESIGNED - SJJ	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 0:2 ':' / in.	DRAWN - SJJ	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PJL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPERS, DS-11
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-187 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	768
		CONTRACT NO. 62R23		
		ILLINOIS	FED. AID PROJECT	



PLAN

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

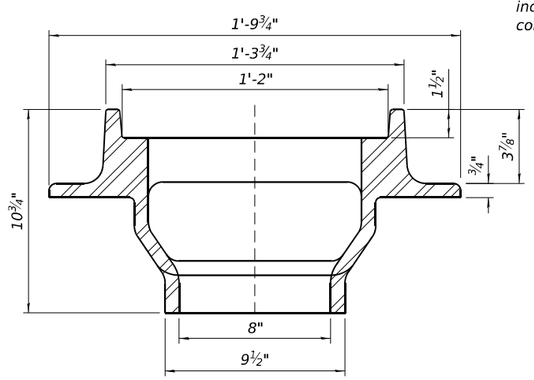
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

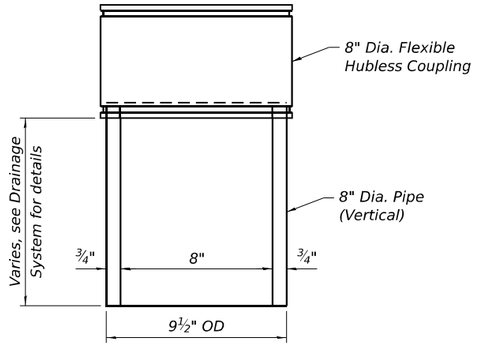
Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be pigmented or painted to match the color of the adjacent beam.

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

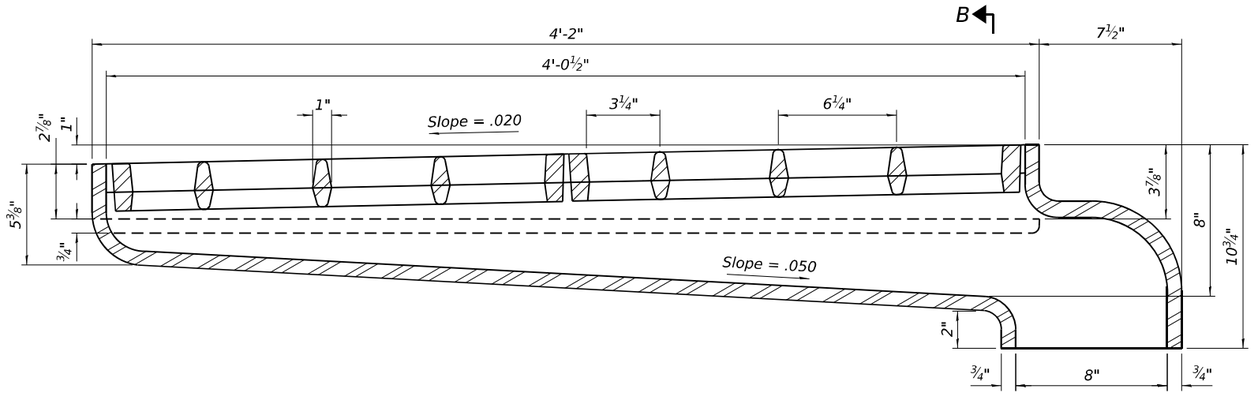
Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper (Special).



SECTION B-B

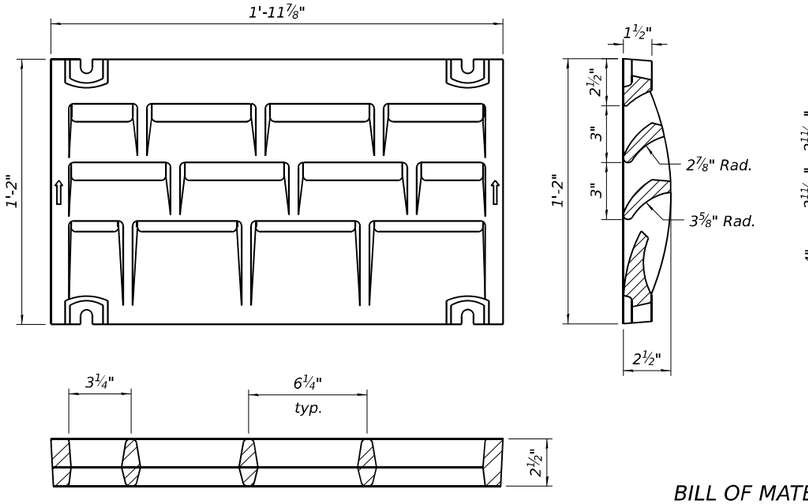


DOWNSPOUT
(Includes Coupling)



SECTION A-A

See deck sheets S-113, S-120, S-126, S-133, S-141, and S-147 for scupper location relative to parapet.



VANE GRATE DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers (Special)	Each	45

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME	= USSJ696614	DESIGNED -	SJJ	REVISED -	
		CHECKED -	PJL	REVISED -	
PLOT SCALE	= 0.2 '=' / in.	DRAWN -	SJJ	REVISED -	
PLOT DATE	= 11/5/2025	CHECKED -	PJL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER (SPECIAL)
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-188 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	769
		CONTRACT NO. 62R23		
	ILLINOIS | FED. AID PROJECT			

MODEL: Default
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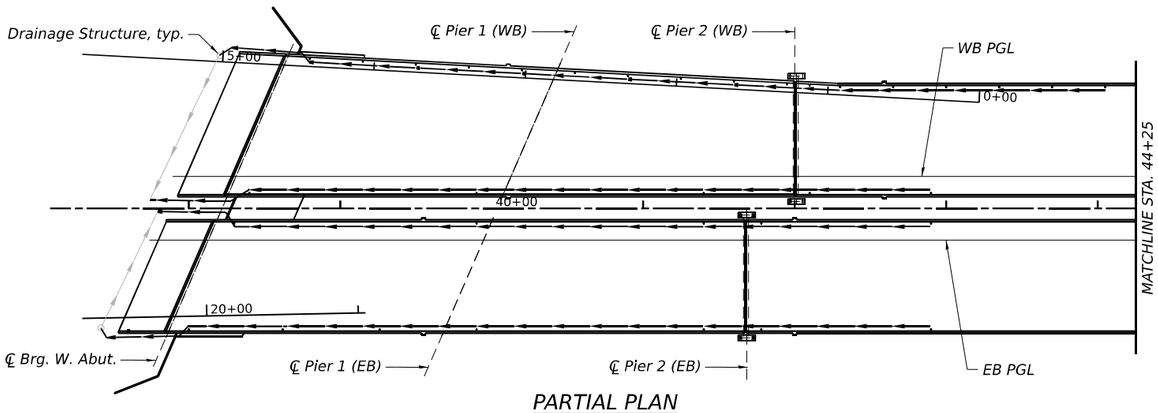
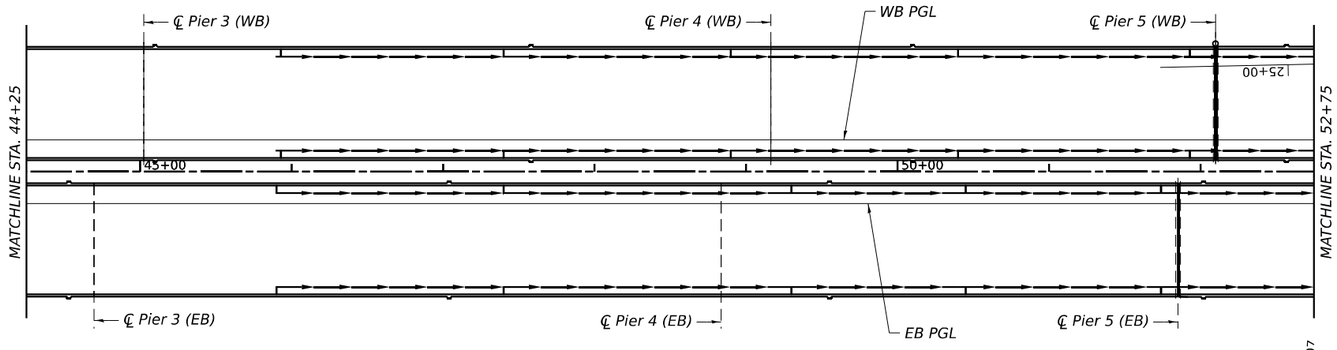
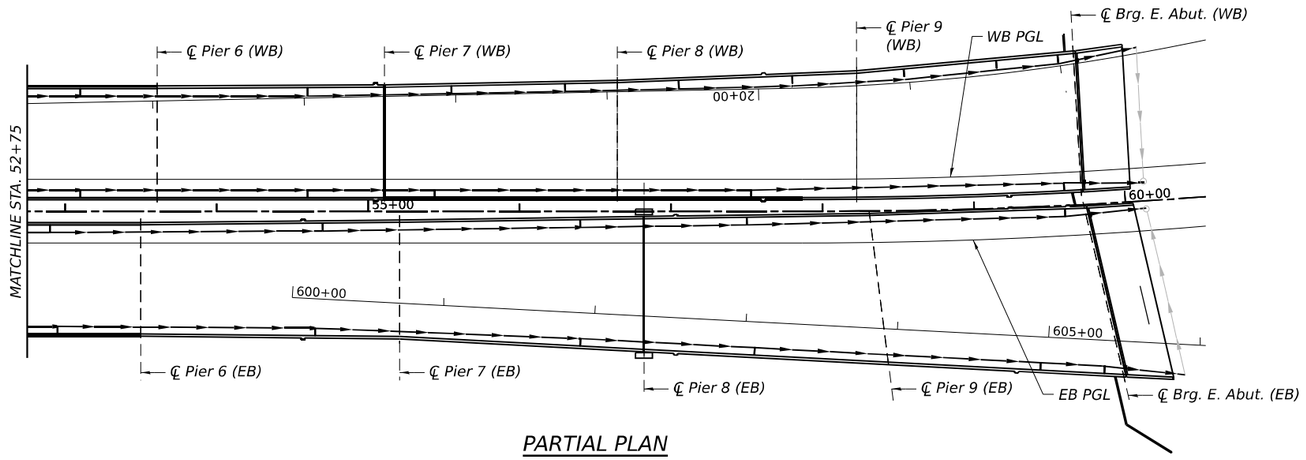


PARTIAL PLAN



PARTIAL PLAN



PARTIAL PLAN

EB SCUPPER LOCATIONS TABLES

Inside Scuppers		
Station	Offset (ft)	Type
38+30	12.0' LT	DS-11
39+90	12.0' LT	DS-11
41+40	12.0' LT	DS-11
41+78	12.0' LT	DS-11
42+90	12.0' LT	DS-11
45+90	12.0' LT	Special
47+40	12.0' LT	Special
49+30	12.0' LT	Special
50+45	12.0' LT	Special
51+74	12.0' LT	Special
52+90	12.0' LT	Special
54+70	13.2' LT	Special
56+40	15.4' LT	Special
57+50	17.0' LT	Special
59+60	17.8' LT	Special

Outside Scuppers		
Station	Offset (ft)	Type
38+00	60.0' RT	DS-11
38+62	60.0' RT	DS-11
39+26	60.0' RT	DS-11
39+90	60.0' RT	DS-11
41+40	60.0' RT	DS-11
41+78	60.0' RT	DS-11
42+90	60.0' RT	DS-11
45+90	60.0' RT	Special
47+40	60.0' RT	Special
49+30	60.0' RT	Special
50+45	60.0' RT	Special
51+74	60.0' RT	Special
52+95	60.0' RT	Special
54+65	61.2' RT	Special
56+40	68.0' RT	Special
57+55	74.0' RT	Special
59+40	87.7' RT	Special
59+80	92.2' RT	Special

WB SCUPPER LOCATIONS TABLES

Inside Scuppers		
Station	Offset (ft)	Type
38+40	12.0' RT	DS-11
39+90	12.0' RT	DS-11
41+40	12.0' RT	DS-11
42+10	12.0' RT	DS-11
42+90	12.0' RT	DS-11
45+93	12.0' RT	Special
47+40	12.0' RT	Special
48+90	12.0' RT	Special
50+40	12.0' RT	Special
51+93	12.0' RT	Special
53+10	12.0' RT	Special
54+60	12.0' RT	Special
55+44	12.0' RT	Special
57+53	12.0' RT	Special
59+60	12.0' RT	Special

Outside Scuppers		
Station	Offset (ft)	Type
38+80	78.6' LT	DS-11
39+15	76.7' LT	DS-11
39+50	74.9' LT	DS-11
39+85	73.0' LT	DS-11
40+20	71.1' LT	DS-11
40+55	69.3' LT	DS-11
40+90	67.4' LT	DS-11
41+25	65.5' LT	DS-11
41+60	63.6' LT	DS-11
41+95	61.8' LT	DS-11
42+10	61.0' LT	DS-11
42+30	60.0' LT	DS-11
42+65	60.0' LT	DS-11
43+00	60.0' LT	DS-11
43+35	60.0' LT	DS-11
43+70	60.0' LT	DS-11
44+05	60.0' LT	DS-11
45+93	60.0' LT	Special
47+40	60.0' LT	Special
48+90	60.0' LT	Special
50+40	60.0' LT	Special
51+93	60.0' LT	Special
53+10	60.0' LT	Special
54+60	60.5' LT	Special
55+55	61.6' LT	Special
56+30	63.1' LT	Special
57+05	65.4' LT	Special
57+80	68.4' LT	Special
58+55	72.2' LT	Special
59+18	75.9' LT	Special
59+60	77.7' LT	Special

NOTES:

1. Scupper offsets are measured relative the respective profile grade lines.

WSP USA Inc.
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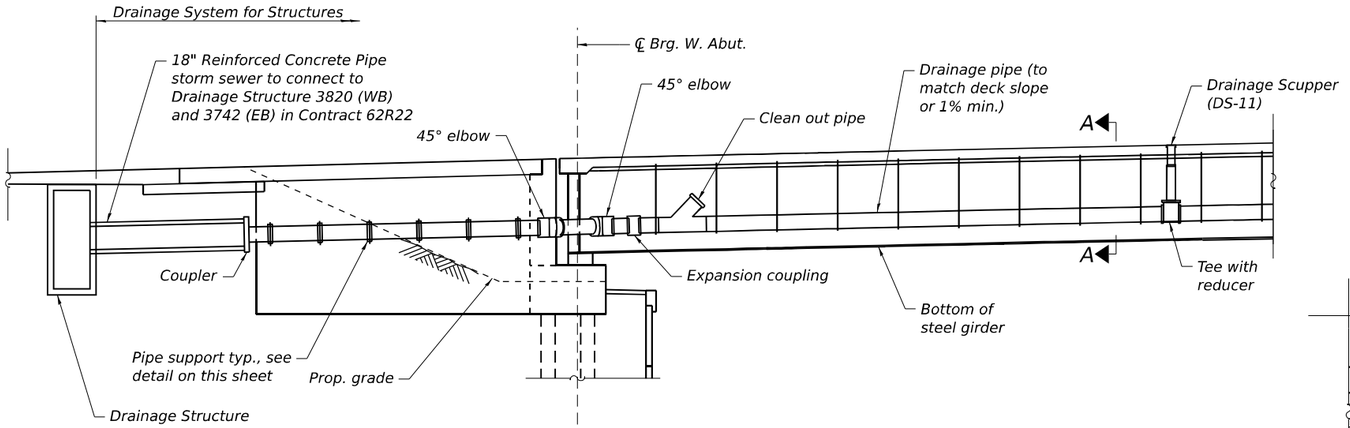
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

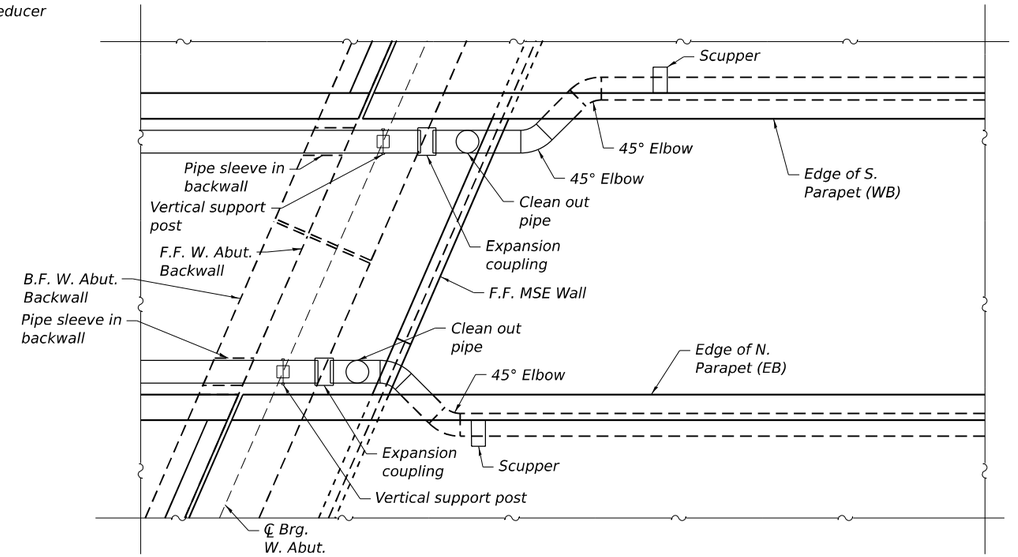
USER NAME = USSJ696614	DESIGNED - SJJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE SYSTEM PLAN STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB	
	CHECKED - PJL	REVISED -			
PLOT SCALE = 0:2 '' / in.	DRAWN - SJJ	REVISED -			
PLOT DATE = 11/5/2025	CHECKED - PJL	REVISED -		SHEET S-189 OF S-333 SHEETS	

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	770
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

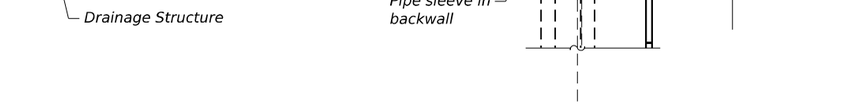


ELEVATION - W. ABUT.

(Showing N. Parapet (WB), S. Parapet (EB) similar)

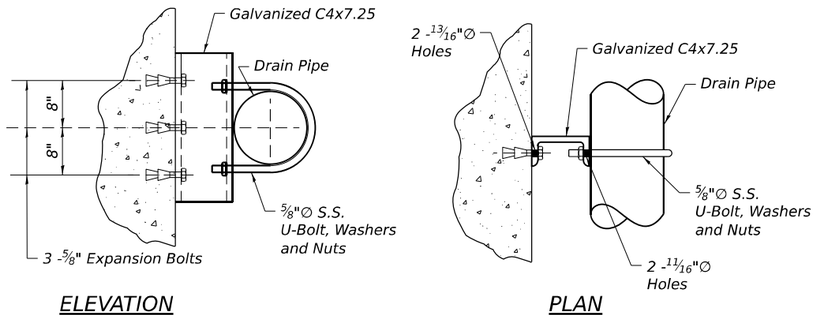


PLAN - W. ABUT. MEDIAN



ELEVATION - W. ABUT.

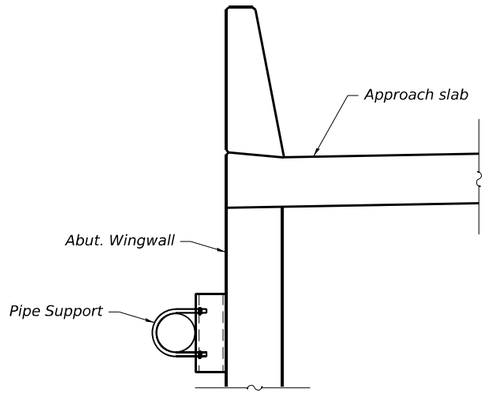
(Showing S. Parapet (WB), N. Parapet (EB) similar)



ELEVATION

PLAN

PIPE SUPPORT DETAIL



TYP. SECTION - W. ABUT. AT WINGWALLS

NOTES:

1. Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendations, not to exceed 6' cts. Cost included with "Drainage System for Structures".
2. All pipes, pipe fittings and brackets needed shall be included with the cost of "Drainage System for Structures".
3. Drain pipes and fittings shall be 15" dia.
4. For Section A-A, see sheet S-191.
5. Drainage System shall connect to drainage structure. See Drainage Schedule for stationing and offset of drainage structure.

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

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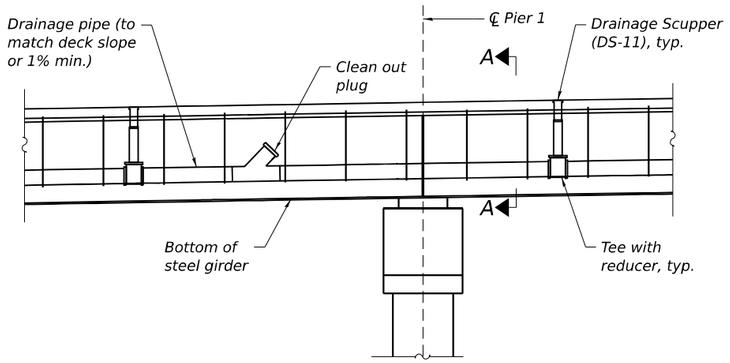
	CHECKED - PJL	REVISED -	
PLOT SCALE = 12.6 '-" / in.	DRAWN - SJJ	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PJL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

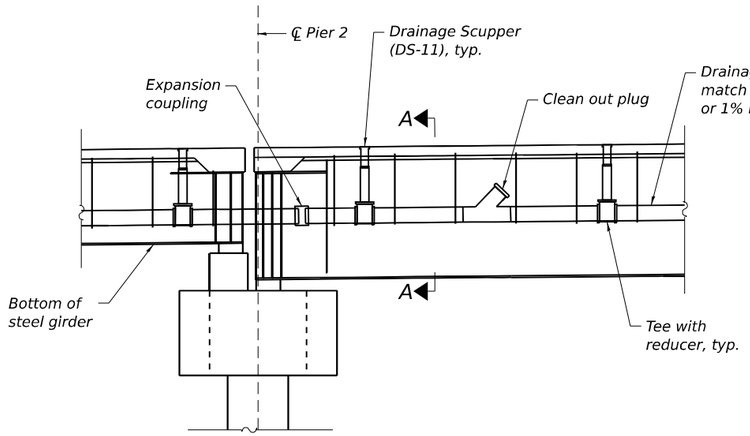
DRAINAGE SYSTEM 1
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-190 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	771
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



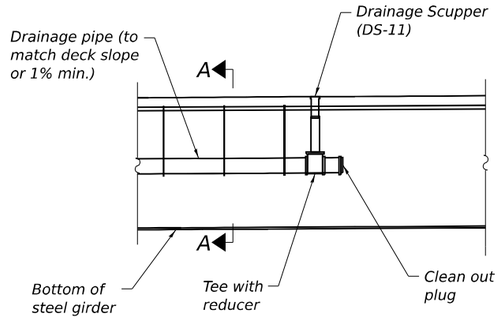
ELEVATION - SPAN 1

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)



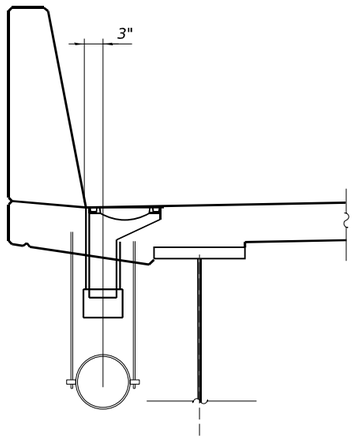
ELEVATION - PIER 2

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)

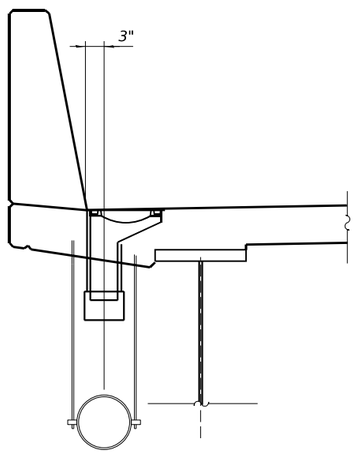


ELEVATION - SPAN 3

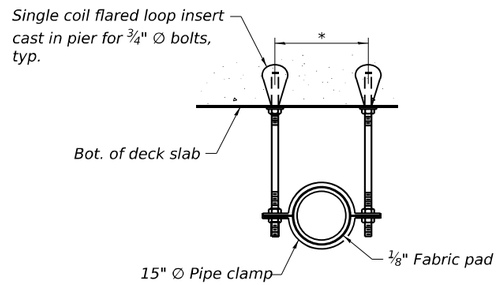
(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)



TYP. SECTION - SPANS 1 & 2



TYP. SECTION - SPAN 3



SECTION A-A

**Dimension as required by pipe clamp*

NOTES:

1. *Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendations, not to exceed 6' cts. Cost included with "Drainage System for Structures".*
2. *All pipes, pipe fittings and brackets needed shall be included with the cost of "Drainage System for Structures".*
3. *Drain pipes and fittings shall be 15" dia.*

WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

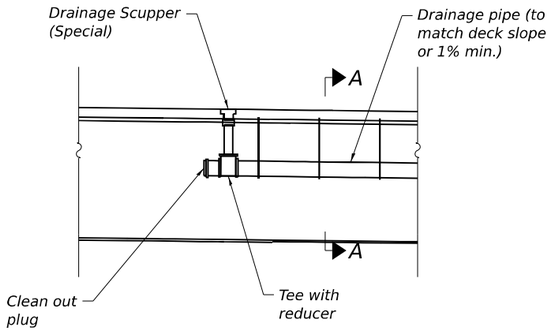
USER NAME = USSJ696614	DESIGNED - SJJ	REVISED -	
	CHECKED - PJL	REVISED -	
PLOT SCALE = 12:6 ':" / in.	DRAWN - SJJ	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PJL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM 2
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

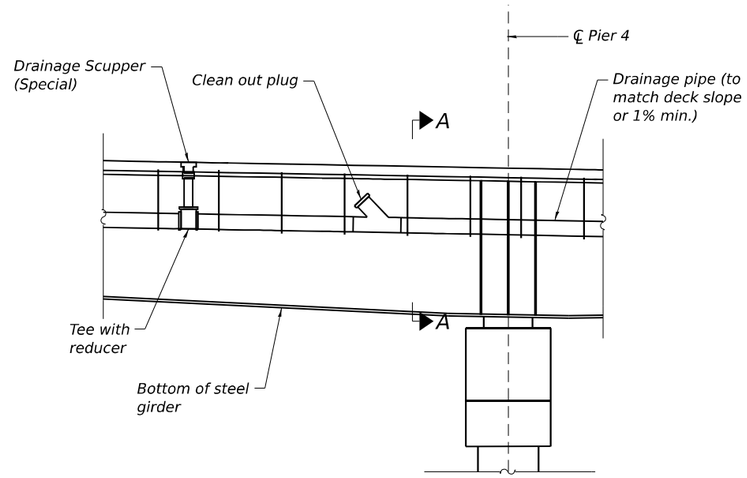
SHEET S-191 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	772
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



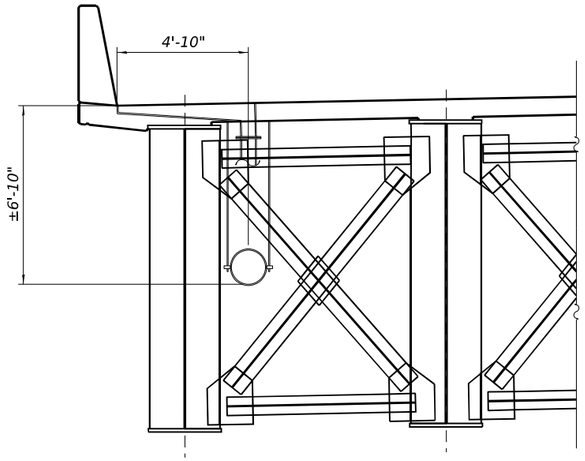
ELEVATION - SPAN 4

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)

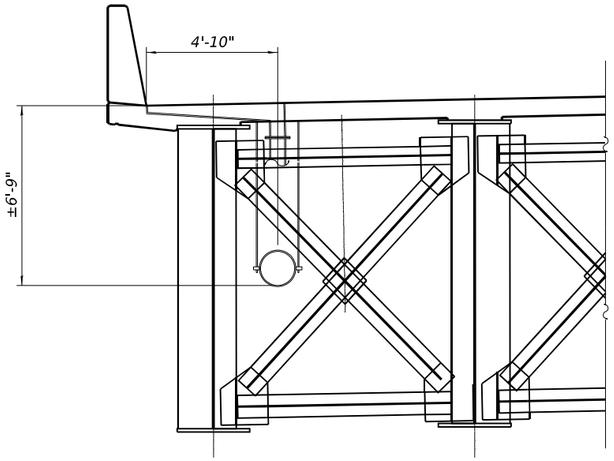


ELEVATION - PIER 4

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)



SECTION - PIER 4



SECTION - SPANS 4 & 5

NOTES:

1. *Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendations, not to exceed 6' cts. Cost included with "Drainage System for Structures".*
2. *All pipes, pipe fittings and brackets needed shall be included with the cost of "Drainage System for Structures".*
3. *Drain pipes and fittings shall be 15" dia.*
4. *For Section A-A, see sheet S-191.*

WSP USA Inc.
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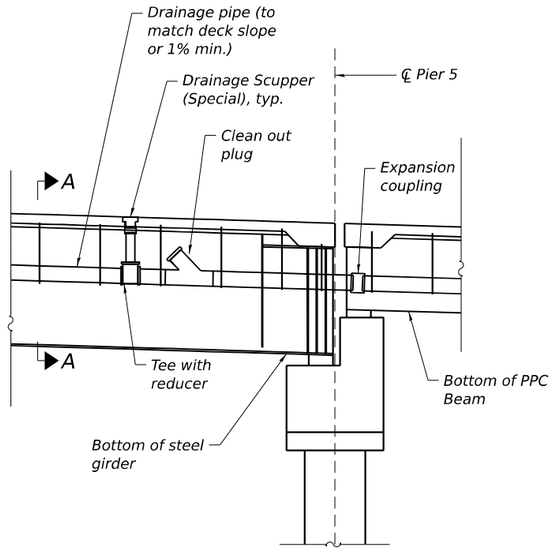
	CHECKED - PJL	REVISED -
PLOT SCALE = 12:6 ':" / in.	DRAWN - SJJ	REVISED -
PLOT DATE = 11/5/2025	CHECKED - PJL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM 3
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

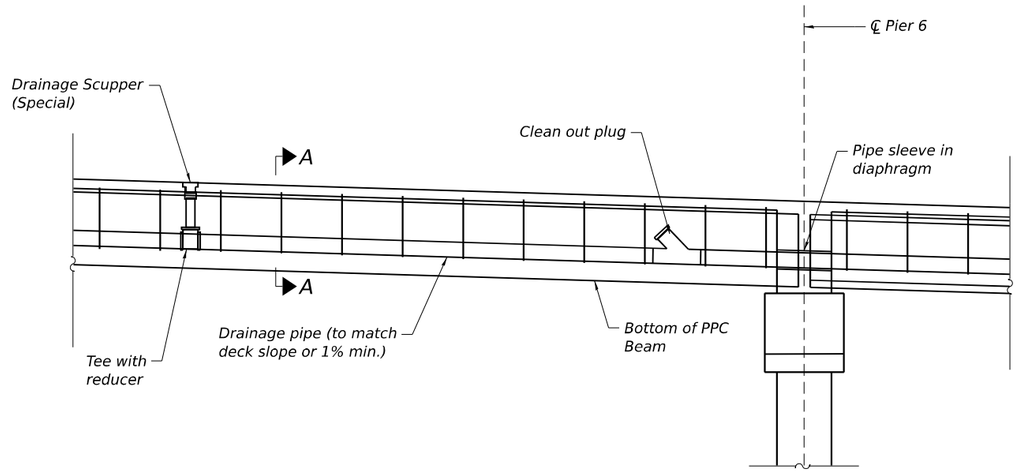
SHEET S-192 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	773
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



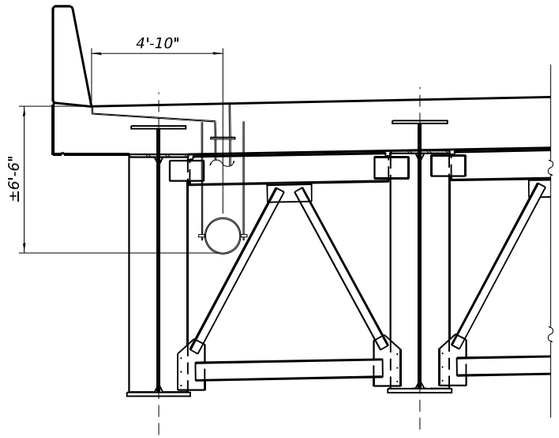
ELEVATION - PIER 5

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)

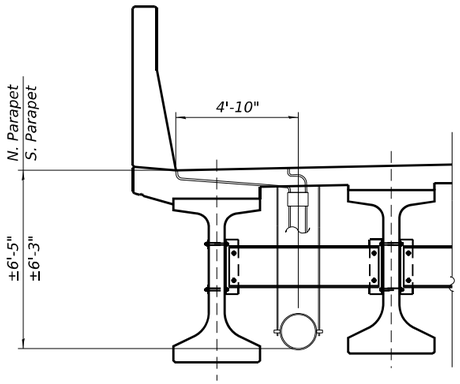


ELEVATION - PIER 6

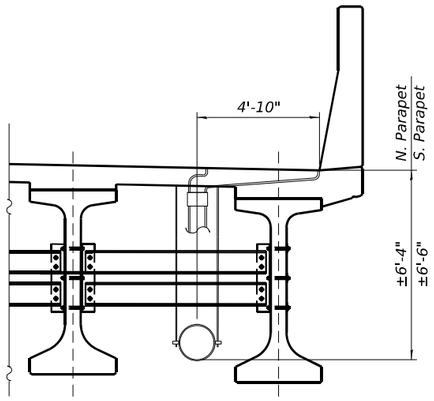
(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)



TYP. SECTION - SPAN 5 AT PIER 5



TYP. SECTION - SPAN 6 - WB



TYP. SECTION - SPAN 6 - EB

NOTES:

1. *Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendations, not to exceed 6' cts. Cost included with "Drainage System for Structures".*
2. *All pipes, pipe fittings and brackets needed shall be included with the cost of "Drainage System for Structures".*
3. *Drain pipes and fittings shall be 15" dia.*
4. *For Section A-A, see sheet S-191.*
5. *For Typical Section - Spans 4 & 5, see sheet S-192.*

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM 4
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-193 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	774
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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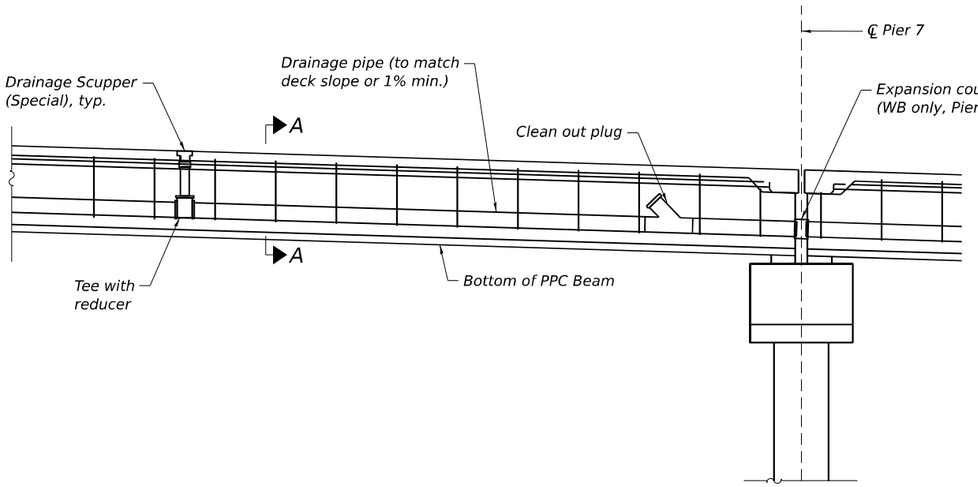
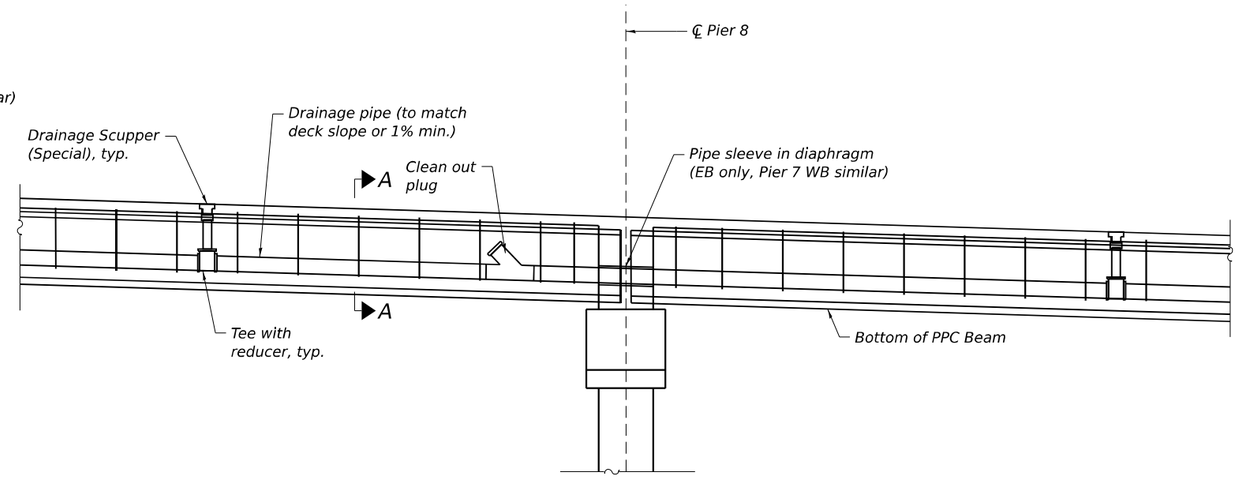


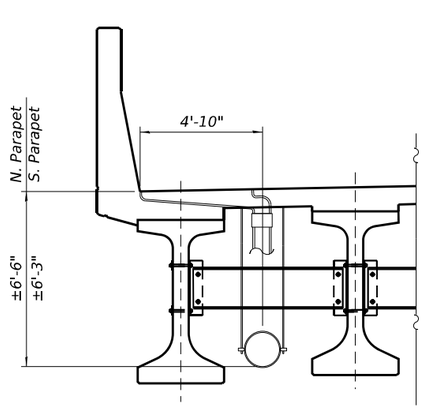
ELEVATION - PIER 7

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)

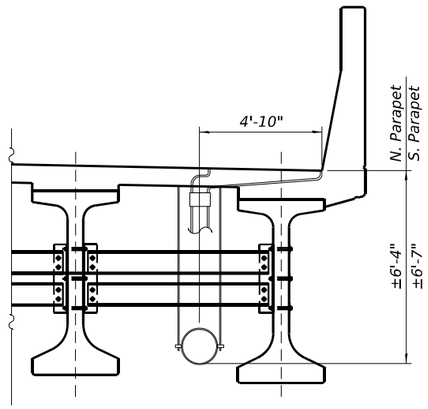


ELEVATION - PIER 8

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)



TYP. SECTION - SPANS 7 & 8 - WB



TYP. SECTION - SPANS 7 & 8 EB

NOTES:

1. *Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendations, not to exceed 6' cts. Cost included with "Drainage System for Structures".*
2. *All pipes, pipe fittings and brackets needed shall be included with the cost of "Drainage System for Structures".*
3. *Drain pipes and fittings shall be 15" dia.*
4. *For Section A-A, see sheet S-191.*

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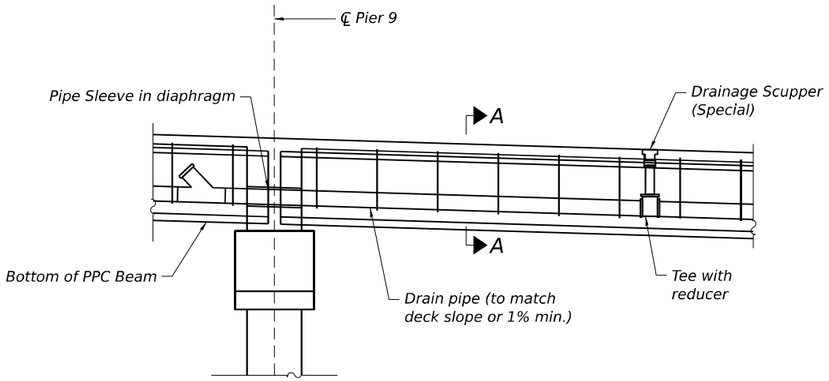
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM 5
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

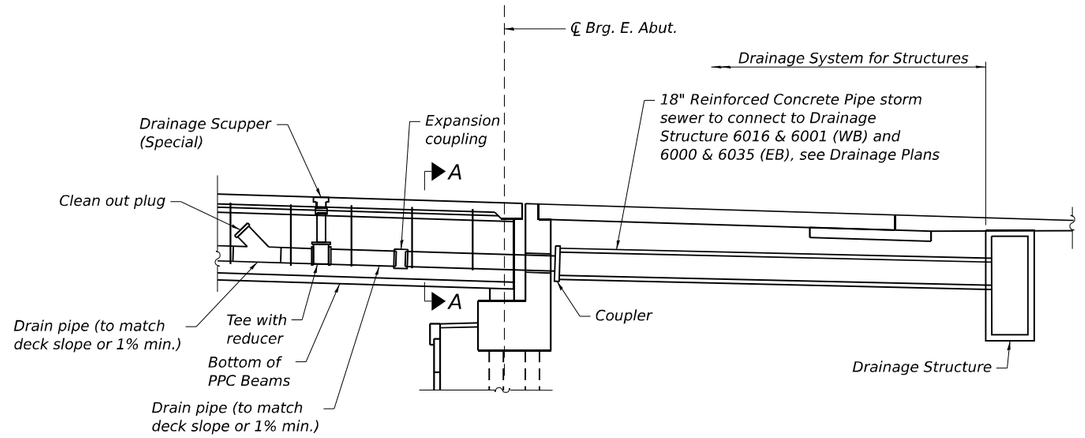
SHEET S-194 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	775
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



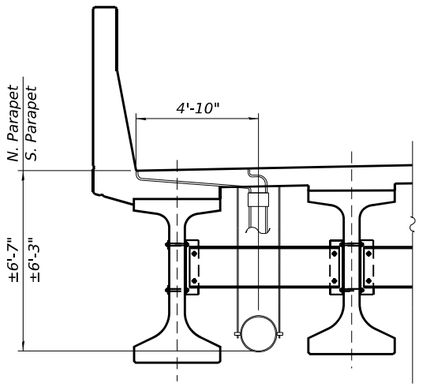
ELEVATION - PIER 9

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)

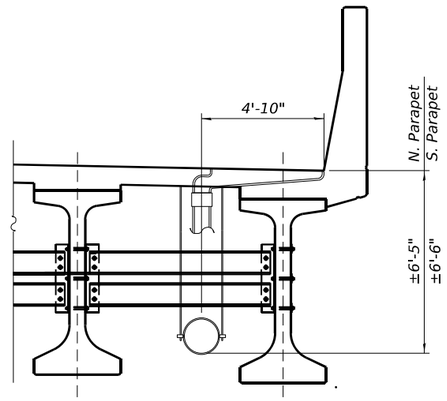


ELEVATION - E. ABUT.

(Showing N. Parapet (WB), locations at S. Parapet (WB), N. Parapet (EB), and S. Parapet (EB) similar)



TYP. SECTION - SPANS 9 & 10 WB



TYP. SECTION - SPANS 9 & 10 EB

NOTES:

1. *Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendations, not to exceed 6' cts. Cost included with "Drainage System for Structures".*
2. *All pipes, pipe fittings and brackets needed shall be included with the cost of "Drainage System for Structures".*
3. *Drain pipes and fittings shall be 15" dia, except in Span 9 at the N. Parapet (WB) which transitions to 18" dia.*
4. *For Section A-A, see sheet S-191.*
5. *Drainage system shall connect to drainage structure. See Drainage Schedule for stationing and offset of drainage structure.*

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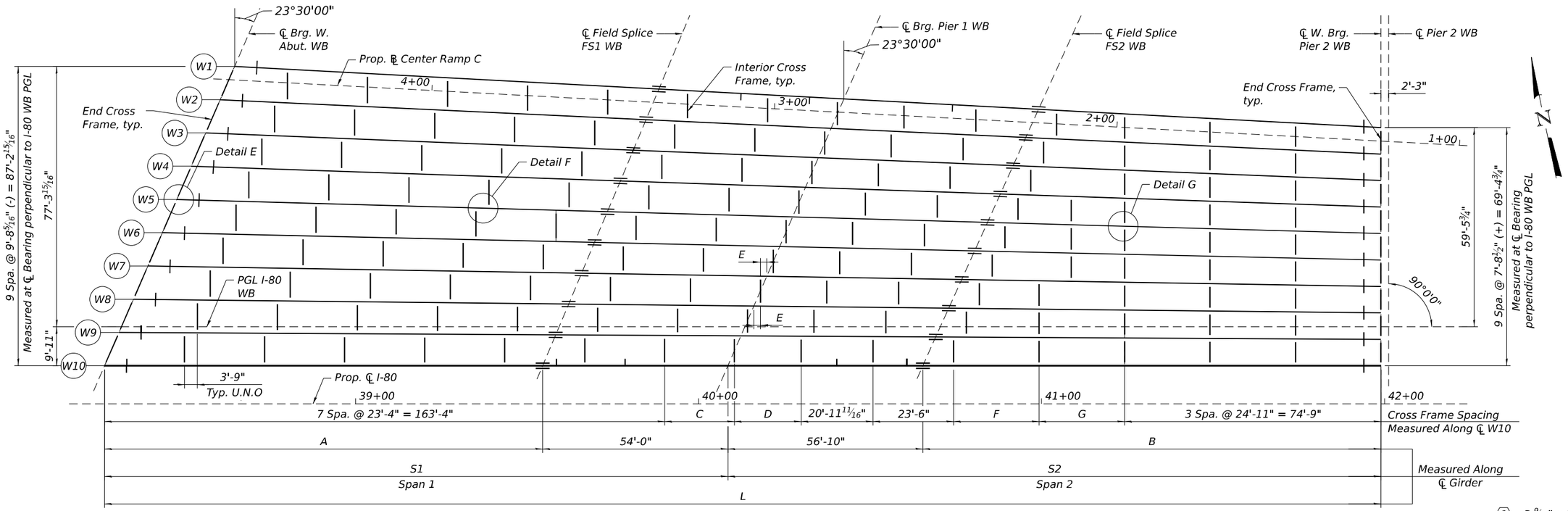
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

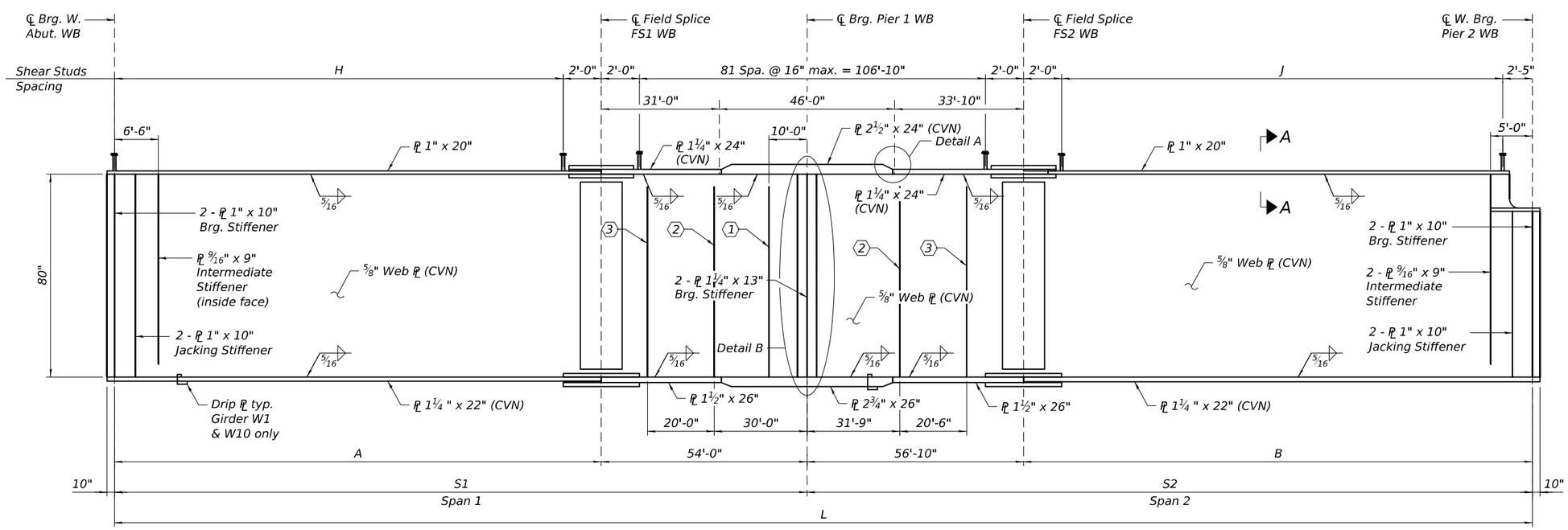
DRAINAGE SYSTEM 6
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-195 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	776
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



FRAMING PLAN - UNIT 1 WB



GIRDER ELEVATION - UNIT 1 WB

1. ℄ 9/16" x 9" Intermediate Stiffener at W1 (inside face)
2. ℄ 9/16" x 9" Intermediate Stiffener at W1 and W10 (inside face)
3. ℄ 9/16" x 9" Intermediate Stiffener at W10 (inside face)

NOTES:

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
2. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.
3. All dimensions are horizontal.
4. For Framing Plan Details, Section A-A, and Detail A and Drip Plate details, see sheet S-198.
5. For Girder Moment and Reaction tables, see sheet S-199.
6. For Camber Diagram and Top of Web Elevation Table, see sheet S-201.
7. For Girder Bolted Field Splice Details, see sheet S-202 .
8. For abutment cross frames, Detail E, and stiffener details, see sheet S-204.
9. For interior cross frames details, and Details F and G, see sheet S-205.
10. For Pier 2 cross frames details, see sheet S-206.
11. All interior cross frames are perpendicular to PGL WB.
12. All structural steel shall be AASHTO M270 Grade 50W.

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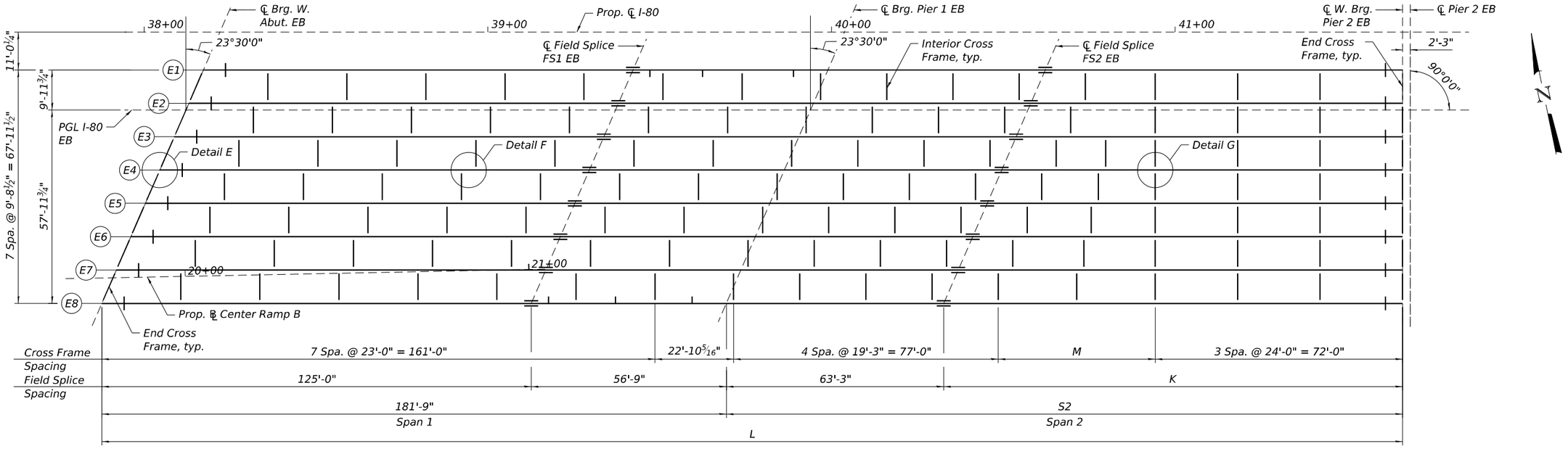
PLOT SCALE = 32.0 '-" / in.	DRAWN - FIM/MHD	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

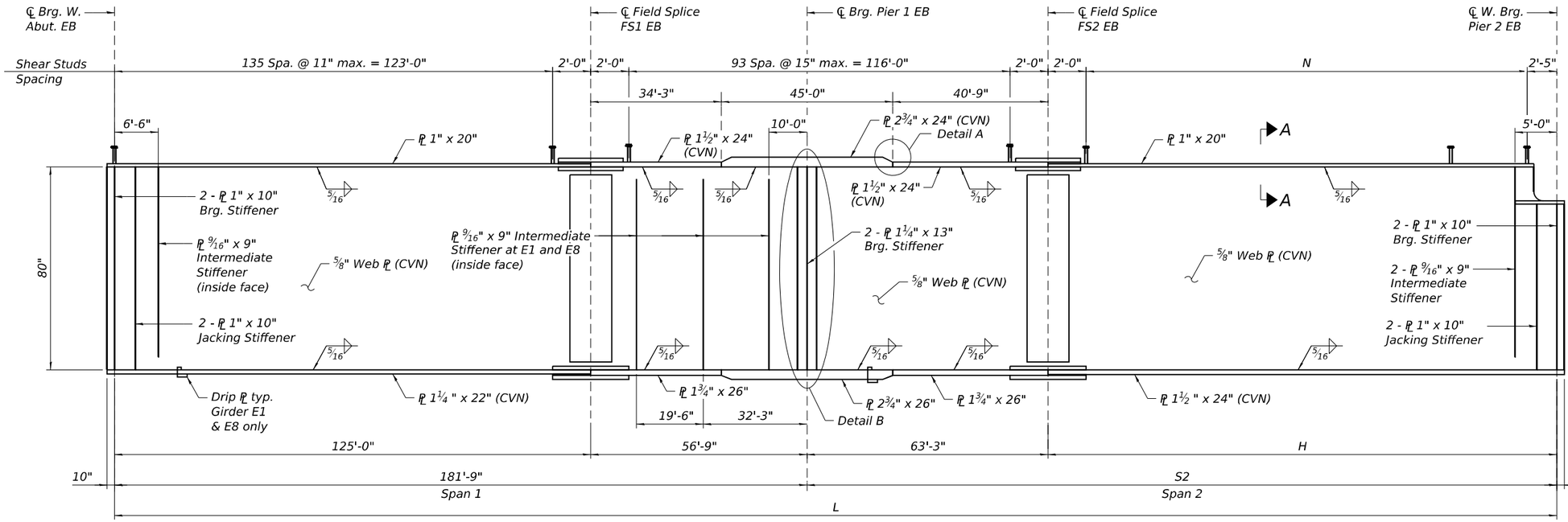
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & ELEVATION - UNIT 1 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-196 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	777
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN - UNIT 1 EB



GIRDER ELEVATION - UNIT 1 EB

NOTES:

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
2. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor bolts.
3. All dimensions are horizontal.
4. For Framing Plan Details, Section A-A, and Detail A and Drip Plate details, see sheet S-198.
5. For Girder Moment and Reaction tables, see sheet S-200.
6. For Camber Diagram and Top of Web Elevation Table, see sheet S-201.
7. For Girder Bolted Field Splice Details, see sheet S-203.
8. For abutment cross frames, Detail E, and stiffener details, see sheet S-204.
9. For interior cross frames details, and Details F and G, see sheet S-205.
10. For Pier 2 cross frames details, see sheet S-206.
11. All interior cross frames are parallel to the ℄ of Pier 2 EB.
12. All structural steel shall be AASHTO M270 Grade 50W.

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PLOT SCALE = 32:0 ':' / in.	DRAWN - FIM	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & ELEVATION - UNIT 1 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-197 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	778
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

GIRDER LENGTHS - UNIT 1 WB

Girder	S1	S2	L
W1	177'-10 9/16"	156'-9 5/8"	334'-8 3/16"
W2	178'-3 3/4"	160'-5 3/4"	338'-9 1/2"
W3	178'-9"	164'-2"	342'-11"
W4	179'-2 3/16"	167'-10 7/16"	347'-0 5/8"
W5	179'-7 3/8"	171'-7 1/16"	351'-2 7/16"
W6	180'-0 9/16"	175'-3 7/8"	355'-4 7/16"
W7	180'-5 11/16"	179'-0 13/16"	359'-6 1/2"
W8	180'-10 13/16"	182'-9 15/16"	363'-8 3/4"
W9	181'-3 15/16"	186'-7 1/4"	367'-11 3/16"
W10	181'-9"	190'-4 11/16"	372'-1 11/16"

FIELD SPLICE SPACING - UNIT 1 WB

Location	A	B
W1	123'-10 9/16"	99'-11 5/8"
W2	124'-3 3/4"	103'-7 3/4"
W3	124'-9"	107'-4"
W4	125'-2 3/16"	111'-0 7/16"
W5	125'-7 3/8"	114'-9 1/16"
W6	126'-0 9/16"	118'-5 7/8"
W7	126'-5 11/16"	122'-2 13/16"
W8	126'-10 13/16"	125'-11 15/16"
W9	127'-3 15/16"	129'-9 1/4"
W10	127'-9"	133'-6 11/16"

CROSS FRAME SPACING - UNIT 1 WB

Location	C	D	E	F	G
W1-W2	20'-4 3/8"	19'-4 5/8"	1'-10 5/16"	19'-10"	--
W2-W3	20'-4 11/16"	19'-4 5/16"	1'-10 3/8"	23'-7"	--
W3-W4	20'-4 7/8"	19'-4 1/8"	1'-10 7/16"	27'-4"	--
W4-W5	20'-4 15/16"	19'-4 1/16"	1'-10 1/2"	15'-6 1/2"	15'-6 1/2"
W5-W6	20'-4 7/8"	19'-4 1/8"	1'-10 9/16"	19'-3 1/2"	15'-6 1/2"
W6-W7	20'-4 3/4"	19'-4 1/4"	1'-10 5/8"	23'-0 1/2"	15'-6 1/2"
W7-W8	20'-4 1/2"	19'-4 1/2"	1'-10 3/8"	17'-5"	24'-11"
W8-W9	20'-4 3/16"	19'-4 13/16"	1'-10 11/16"	21'-2"	24'-11"
W9-W10	20'-3 3/4"	19'-5 1/4"	1'-10 3/4"	24'-11"	24'-11"

SHEAR STUDS SPACING - UNIT 1 WB

Location	H	J
W1	133 Spa. @ 11" max. = 121'-10 9/16"	89 Spa. @ 13" max. = 95'-6 5/8"
W2	134 Spa. @ 11" max. = 122'-3 3/4"	92 Spa. @ 13" max. = 99'-2 3/4"
W3	134 Spa. @ 11" max. = 122'-9"	95 Spa. @ 13" max. = 102'-11"
W4	135 Spa. @ 11" max. = 123'-2 3/16"	99 Spa. @ 13" max. = 106'-7 7/16"
W5	135 Spa. @ 11" max. = 123'-7 3/8"	102 Spa. @ 13" max. = 110'-4 1/16"
W6	136 Spa. @ 11" max. = 124'-0 9/16"	106 Spa. @ 13" max. = 114'-0 7/8"
W7	136 Spa. @ 11" max. = 124'-5 11/16"	109 Spa. @ 13" max. = 117'-9 13/16"
W8	137 Spa. @ 11" max. = 124'-10 13/16"	113 Spa. @ 13" max. = 121'-6 15/16"
W9	137 Spa. @ 11" max. = 125'-3 15/16"	116 Spa. @ 13" max. = 125'-4 1/4"
W10	138 Spa. @ 11" max. = 125'-9"	120 Spa. @ 13" max. = 129'-1 11/16"

GIRDER LENGTHS - UNIT 1 EB

Girder	S2	L
E1	167'-2 15/16"	348'-11 15/16"
E2	171'-5 9/16"	353'-2 9/16"
E3	175'-8 1/4"	357'-5 1/4"
E4	179'-10 7/8"	361'-7 7/8"
E5	184'-1 9/16"	365'-10 9/16"
E6	188'-4 3/16"	370'-1 3/16"
E7	192'-6 7/8"	374'-3 7/8"
E8	196'-9 1/2"	378'-6 1/2"

FIELD SPLICE SPACING - UNIT 1 EB

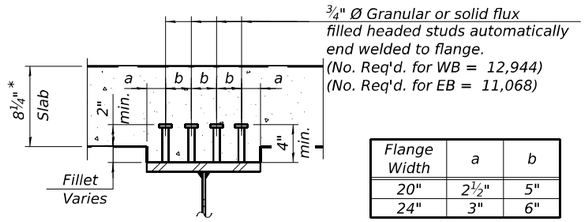
Location	K
E1	103'-11 15/16"
E2	108'-2 9/16"
E3	112'-5 1/4"
E4	116'-7 7/8"
E5	120'-10 9/16"
E6	125'-1 3/16"
E7	129'-3 7/8"
E8	133'-6 1/2"

CROSS FRAME SPACING - UNIT 1 EB

Location	M
E1 - E2	1 Spa. @ 20'-4 1/4"
E2 - E3	1 Spa. @ 24'-6 15/16"
E3 - E4	2 Spa. @ 14'-4 13/16" (-)
E4 - E5	2 Spa. @ 16'-6 1/8"
E5 - E6	2 Spa. @ 18'-7 7/16"
E6 - E7	2 Spa. @ 20'-8 13/16" (-)
E7 - E8	2 Spa. @ 22'-10 1/8" (-)

SHEAR STUDS SPACING - UNIT 1 EB

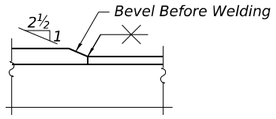
Girder	N
E1	100 Spa. @ 12" max. = 99'-6 5/16"
E2	104 Spa. @ 12" max. = 103'-9 9/16"
E3	109 Spa. @ 12" max. = 108'-0 1/4"
E4	113 Spa. @ 12" max. = 112'-2 7/8"
E5	117 Spa. @ 12" max. = 116'-5 9/16"
E6	121 Spa. @ 12" max. = 120'-8 3/16"
E7	125 Spa. @ 12" max. = 124'-10 7/8"
E8	130 Spa. @ 12" max. = 129'-1 1/2"



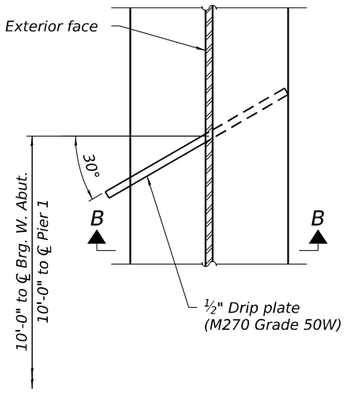
Flange Width	a	b
20"	2½"	5"
24"	3"	6"

* Prior to grinding

SECTION A-A

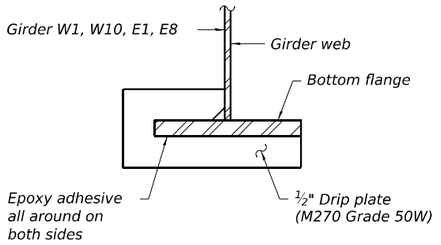


DETAIL A

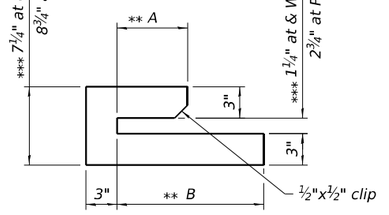


DRIP PLATE - PLAN

(8 Required, see Framing Plans for locations)



SECTION B-B



** Adjust A and B to fit girder bottom flange.

*** Adjust dimensions as required for thickness tolerance and fit-up.

DRIP PLATE - ELEVATION

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	CHECKED - LAS	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN DETAILS - UNIT 1 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-198 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	779
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

UNIT 1 WB INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in^4)	103,895	249,950	103,895
I_c (n)	(in^4)	225,133	--	217,330
I_c (3n)	(in^4)	166,518	--	160,498
I_c (cr)	(in^4)	--	269,551	--
S_s	(in^3)	2,727	5,535	2,727
S_c (n)	(in^3)	3,529	--	3,497
S_c (3n)	(in^3)	3,240	--	3,202
S_c (cr)	(in^3)	--	6,270	--
S_x	(in^3)	3,505	6,374	3,475
DC1	(k/')	1.46	1.70	1.34
M_{DC1}	('k)	2,778	6,938	2,684
DC2	(k/')	0.19	0.19	0.19
M_{DC2}	('k)	376	935	420
DW	(k/')	0.44	0.41	0.38
M_{DW}	('k)	916	1,998	818
LLDF		0.628	0.594	0.568
M_{LL+IM}	('k)	3,201	3,753	2,996
f_f (Strength I)	(ksi)	--	--	--
* $M_u + \frac{1}{3} f_f S_x$	('k)	11,464	20,376	10,868
$\Phi_f M_n$	('k)	17,496	--	17,428
f_s DC1	(ksi)	12.2	15.0	11.8
f_s DC2	(ksi)	1.4	1.8	1.6
f_s DW	(ksi)	3.4	3.8	3.1
f_s (LL+IM)	(ksi)	10.9	7.2	10.3
f_f (Service II)	(ksi)	-	-	-
$f_s + f_f/2$ (Service II)	(ksi)	31.2	30.0	29.9
Service II Resistance	(ksi)	47.5	47.5	47.5
* $f_s + f_f/3$ (Strength I)	(ksi)	--	41.3	--
$\Phi_f F_n$	(ksi)	--	50.0	--
V_f	(k)	79.3	72.9	70.1

UNIT 1 WB EXTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in^4)	103,895	249,950	103,895
I_c (n)	(in^4)	217,622	--	213,302
I_c (3n)	(in^4)	160,716	--	157,547
I_c (cr)	(in^4)	--	267,756	--
S_s	(in^3)	2,727	5,535	2,727
S_c (n)	(in^3)	3,498	--	3,480
S_c (3n)	(in^3)	3,203	--	3,183
S_c (cr)	(in^3)	--	6,199	--
S_x	(in^3)	3,477	6,362	3,456
DC1	(k/')	1.38	1.64	1.32
M_{DC1}	('k)	2,588	6,894	2,871
DC2	(k/')	0.19	0.19	0.19
M_{DC2}	('k)	370	957	444
DW	(k/')	0.44	0.41	0.38
M_{DW}	('k)	907	2,042	867
LLDF		0.628	0.592	0.566
M_{LL+IM}	('k)	3,229	3,810	3,072
f_f (Strength I)	(ksi)	--	--	--
* $M_u + \frac{1}{3} f_f S_x$	('k)	11,244	20,521	11,361
$\Phi_f M_n$	('k)	17,470	--	17,260
f_s DC1	(ksi)	11.4	14.9	12.6
f_s DC2	(ksi)	1.4	1.9	1.7
f_s DW	(ksi)	3.4	4.0	3.3
f_s (LL+IM)	(ksi)	11.1	7.4	10.6
f_f (Service II)	(ksi)	-	-	-
$f_s + f_f/2$ (Service II)	(ksi)	30.6	30.4	31.4
Service II Resistance	(ksi)	47.5	47.5	47.5
* $f_s + f_f/3$ (Strength I)	(ksi)	--	41.8	--
$\Phi_f F_n$	(ksi)	--	50.0	--
V_f	(k)	79.7	72.8	69.7

UNIT 1 WB INTERIOR GIRDER REACTION TABLE				
		W. Abut.	Pier 1	Pier 2
LLDF		1.012	0.928	0.863
OCF		--	--	--
R_{DC1}	(k)	91.3	339.6	83.6
R_{DC2}	(k)	12.1	45.1	12.7
R_{DW}	(k)	29.0	97.2	24.9
R_{LL}	(k)	118.3	242.7	101.8
R_{IM}	(k)	22.4	37.8	19.1
* R_{Total} (Strength I)(Impact)	(k)	439.9	1173.4	387.9
* R_{Total} (Strength I)(No Impact)	(k)	398.7	1103.9	352.7

UNIT 1 WB INTERIOR GIRDER REACTION TABLE				
		W. Abut.	Pier 1	Pier 2
LLDF		1.012	0.928	0.863
OCF		1.087	--	--
R_{DC1}	(k)	85.9	334.4	86.7
R_{DC2}	(k)	12.0	45.7	13.1
R_{DW}	(k)	28.9	98.2	25.6
R_{LL}	(k)	118.6	244.2	102.7
R_{IM}	(k)	22.4	37.9	19.1
* R_{Total} (Strength I)(Impact)	(k)	433.0	1171.7	395.1
* R_{Total} (Strength I)(No Impact)	(k)	391.9	1102.3	360.0

* *Limit states for moment, stress, and reaction shown include a load modifier factor of 1.05 relating to operational classification for an essential bridge*

Note:
Moments and Reactions are for Girders W9 and W10.

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

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

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

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

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

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

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

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

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

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

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

LLDF: *Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.*

M_{LL+IM}: *Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).*

M_u : *Strength I load combination of factored design moments (kip-ft.).*
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}

f_f : *Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).*

$\Phi_f M_n$: *Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).*

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

f_s DC2: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).*
M_{DC2} / S_c (3n) or M_{DC2} / S_c (cr) as applicable.

f_s DW: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).*
M_{DW} / S_c (3n) or M_{DW} / S_c (cr) as applicable.

f_s (LL+ IM): *Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).*
M_{LL+IM} / S_c (n) or M_{LL+IM} / S_c (cr) as applicable.

$f_s + f_f / 2$ (Service II): *Sum of stresses as computed below (ksi).*
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (LL+ IM) + f_f /2

Service II Resistance: *Composite ($0.95R_hF_{yf}$) or noncomposite ($0.80R_hF_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).*

$f_s + f_f / 3$ (Strength I): *Sum of stresses as computed below on non-compact sections (ksi).*
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (LL+ IM) + f_f /3

$\Phi_f F_n$: *Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).*

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

OCF: *Obtuse Correction Factor 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_{LL} : *Un-factored live load reaction (kip).*

R_{IM} : *Un-factored dynamic load allowance (impact) (kip).*

R_{Total} (Strength I)(Impact): *Strength I load combination of factored design reactions (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_{LL} + R_{IM})

R_{Total} (Strength I)(No Impact): *Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_{LL})

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	CHECKED - LAS	REVISED -	
PLOT SCALE = 0:2 ':" / in.	DRAWN - FIM	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT AND REACTION TABLES - UNIT 1 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-199 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	780
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

UNIT 1 EB GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in⁴)	103,895	261,862	115,188
I_c (n)	(in⁴)	227,577	--	261,292
I_c (3n)	(in⁴)	168,491	--	189,984
I_c (cr)	(in⁴)	--	282,716	--
S_s	(in³)	2,727	6,304	3,263
S_c (n)	(in³)	3,539	--	4,207
S_c (3n)	(in³)	3,252	--	3,875
S_c (cr)	(in³)	--	6,450	--
S_x	(in³)	3,516	6,446	4,178
DC1	(k/ft)	1.44	1.75	1.47
M_{DC1}	('k)	2,665	7,920	3,483
DC2	(k/ft)	0.19	0.19	0.19
M_{DC2}	('k)	368	962	461
DW	(k/ft)	0.45	0.45	0.45
M_{DW}	('k)	872	2,278	1,091
LLDF		0.650	0.647	0.644
M_{LL+IM}	('k)	3,296	4,108	3,579
f_f (Strength I)	(ksi)	--	--	--
* $M_u + 1/3\ f_f S_x$	('k)	11,411	22,794	13,471
$\Phi_f M_n$	('k)	17,601	--	20,808
f_s DC1	(ksi)	11.7	15.1	12.8
f_s DC2	(ksi)	1.4	1.8	1.4
f_s DW	(ksi)	3.2	4.2	3.4
f_s (LL+IM)	(ksi)	11.2	7.6	10.2
f_f (Service II)	(ksi)	-	-	-
$f_s + f_f/2$ (Service II)	(ksi)	30.9	31.1	30.9
Service II Resistance	(ksi)	47.5	47.5	47.5
* $f_s + f_f/3$ (Strength I)	(ksi)	-	43.0	-
$\Phi_f F_n$	(ksi)	-	50.0	-
V_f	(k)	78.9	77.2	77.8

UNIT 1 EB GIRDER REACTION TABLE				
		W. Abut.	Pier 1	Pier 2
LLDF		1.013	1.013	1.013
OCF		--	--	--
R_{DC1}	(k)	90.3	378.4	103.1
R_{DC2}	(k)	12.0	45.9	13.3
R_{DW}	(k)	28.4	108.6	31.5
R_{LL}	(k)	118.6	263.4	122.1
R_{Im}	(k)	22.4	40.7	22.6
* R_{Total} (Strength I)(Impact)	(k)	438.1	1286.7	468.2
* R_{Total} (Strength I)(No Impact)	(k)	396.8	1211.9	426.7

** Limit states for moment, stress, and reaction shown include a load modifier factor of 1.05 relating to operational classification for an essential bridge.*

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

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

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

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

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

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

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

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

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

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

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

LLDF: *Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.*

M_{LL+IM}: *Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).*

M_u : *Strength I load combination of factored design moments (kip-ft.).*
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}

f_f : *Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).*

$\Phi_f M_n$: *Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).*

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

f_s DC2: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).*
M_{DC2} / S_c (3n) or M_{DC2} / S_c (cr) as applicable.

f_s DW: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).*
M_{DW} / S_c (3n) or M_{DW} / S_c (cr) as applicable.

f_s (f_{LL}+ IM): *Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).*
M_{LL+IM}/ S_c (n) or M_{LL+IM}/ S_c (cr) as applicable.

$f_s + f_f / 2$ (Service II): *Sum of stresses as computed below (ksi).*
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (f_{LL}+ IM) + f_f /2

Service II Resistance: *Composite (0.95$R_h F_{yf}$) or noncomposite (0.80$R_h F_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).*

$f_s + f_f / 3$ (Strength I): *Sum of stresses as computed below on non-compact sections (ksi).*
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (f_{LL}+ IM) + f_f /3

$\Phi_f F_n$: *Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).*

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

OCF: *Obtuse Correction Factor 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_{LL} : *Un-factored live load reaction (kip).*

R_{IM} : *Un-factored dynamic load allowance (impact) (kip).*

R_{Total} (Strength I)(Impact): *Strength I load combination of factored design reactions (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_{LL} + R_{IM})

R_{Total} (Strength I)(No Impact): *Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_{LL})

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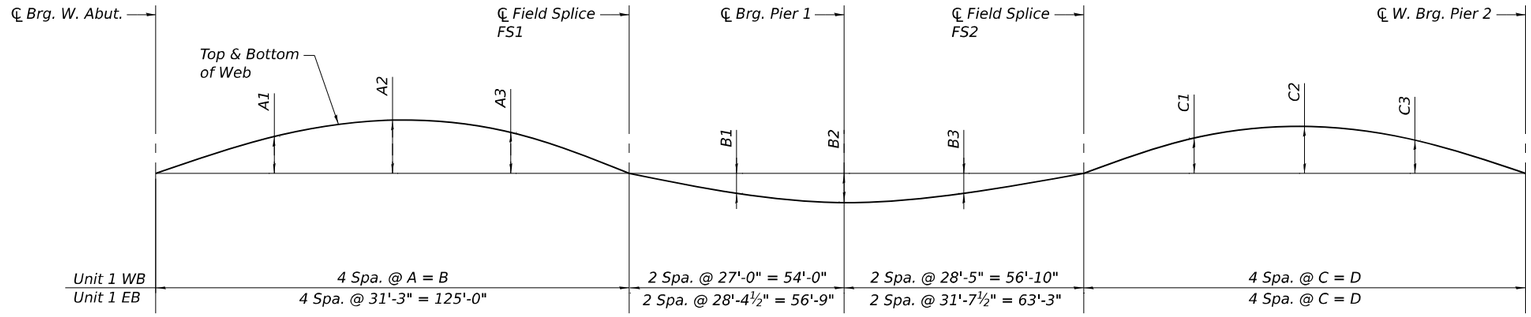
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT AND REACTION TABLES - UNIT 1 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-200 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	781
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



CAMBER DIAGRAM - UNIT 1

CAMBER DIMENSIONS - UNIT 1 WB

Location	℄ Brg. W. Abut. WB	A1	A2	A3	℄ Field Splice FS1 WB	B1	B2	B3	℄ Field Splice FS2 WB	C1	C2	C3	℄ W. Brg. Pier 2 WB	A	B	C	D
Girder W1	0"	2"	2½"	2"	0"	-½"	-1¼"	-½"	0"	1¾"	2"	1¼"	0"	±30'-11⅝"	123'-10 9/16"	±24'-11 15/16"	99'-11⅝"
Girder W2	0"	2¼"	2¾"	2"	0"	-½"	-1¼"	-½"	0"	1¾"	2"	1½"	0"	31'-0 15/16"	124'-3¾"	±25'-10 15/16"	103'-7¾"
Girder W3	0"	2¼"	3"	2"	0"	-½"	-1½"	-½"	0"	2"	2¼"	1½"	0"	31'-2¼"	124'-9"	26'-10"	107'-4"
Girder W4	0"	2½"	3"	2¼"	0"	-½"	-1½"	-½"	0"	2¼"	2½"	1¾"	0"	±31'-3 9/16"	125'-2 3/16"	±27'-9⅛"	111'-0 7/16"
Girder W5	0"	2¼"	3¼"	2½"	0"	-½"	-1½"	-½"	0"	2½"	2¾"	2"	0"	±31'-4⅞"	125'-7⅞"	±28'-8¼"	114'-9 1/16"
Girder W6	0"	2½"	3¾"	3"	0"	-½"	-1½"	-½"	0"	2½"	3"	2¼"	0"	±31'-6⅛"	126'-0 9/16"	±29'-7 7/16"	118'-5⅞"
Girder W7	0"	2¾"	4"	3¼"	0"	-½"	-1½"	-½"	0"	2¾"	3¼"	2¼"	0"	±31'-7 7/16"	126'-5 11/16"	±30'-6 11/16"	122'-2 13/16"
Girder W8	0"	2¾"	4"	3¼"	0"	-½"	-1½"	-½"	0"	3"	3¾"	2½"	0"	±31'-8 13/16"	126'-10 13/16"	±31'-6"	125'-11 15/16"
Girder W9	0"	2¾"	4"	3¼"	0"	-½"	-1¾"	-½"	0"	3¼"	4"	2¾"	0"	±31'-10"	127'-3 15/16"	32'-5 5/16"	129'-9¼"
Girder W10	0"	2¾"	3¾"	3"	0"	-½"	-1¾"	-½"	0"	3½"	4¼"	3"	0"	31'-11¼"	127'-9"	±33'-4 11/16"	133'-6 11/16"

TOP OF WEB ELEVATION - UNIT 1 WB

(For Fabrication Only)

Location	℄ Brg. W. Abut. WB	℄ Field Splice FS1 WB	℄ Brg. Pier 1 WB	℄ Field Splice FS2 WB	℄ W. Brg. Pier 2 WB
Girder W1	596.151	598.544	599.278	600.268	601.574
Girder W2	596.272	598.662	599.390	600.390	601.729
Girder W3	596.389	598.766	599.501	600.515	601.883
Girder W4	596.506	598.871	599.612	600.640	602.037
Girder W5	596.406	598.964	599.710	600.747	602.154
Girder W6	596.283	599.025	599.777	600.832	602.270
Girder W7	596.091	598.870	599.610	600.655	602.062
Girder W8	595.832	598.636	599.393	600.467	601.914
Girder W9	595.535	598.373	599.155	600.262	601.760
Girder W10	595.238	598.100	598.915	600.056	601.606

CAMBER DIMENSIONS - UNIT 1 EB

Location	℄ Brg. W. Abut. EB	A1	A2	A3	℄ Field Splice FS1 EB	B1	B2	B3	℄ Field Splice FS2 EB	C1	C2	C3	℄ W. Brg. Pier 2 EB	C	D
Girder E1	0"	2¾"	4"	3½"	0"	-½"	-1½"	-½"	0"	2¼"	2½"	1¾"	0"	±26'-0"	103'-11 15/16"
Girder E2	0"	3"	4¼"	3½"	0"	-½"	-1¼"	-½"	0"	3"	3"	2"	0"	±27'-0⅜"	108'-2 9/16"
Girder E3	0"	3"	4¼"	3½"	0"	-½"	-1½"	-½"	0"	2¾"	3¼"	2"	0"	±28'-1 5/16"	112'-5¼"
Girder E4	0"	2¾"	4"	3½"	0"	-½"	-1½"	-½"	0"	3"	3½"	2¼"	0"	±29'-1 15/16"	116'-7⅞"
Girder E5	0"	2¾"	4"	3¼"	0"	-½"	-1½"	-½"	0"	3¼"	3¾"	2½"	0"	±30'-2⅝"	120'-10 9/16"
Girder E6	0"	2¾"	4"	3¼"	0"	-½"	-1¼"	-½"	0"	3½"	4¼"	3"	0"	±31'-3 5/16"	125'-1 3/16"
Girder E7	0"	2¾"	4"	3¼"	0"	-½"	-1¼"	-½"	0"	3¾"	4½"	3¼"	0"	±32'-4"	129'-3⅞"
Girder E8	0"	2½"	3¾"	3"	0"	-½"	-1"	-½"	0"	4¼"	5"	3½"	0"	33'-4⅜"	133'-6½"

TOP OF WEB ELEVATION - UNIT 1 EB

(For Fabrication Only)

Location	℄ Brg. W. Abut. EB	℄ Field Splice FS1 EB	℄ Brg. Pier 1 EB	℄ Field Splice FS2 EB	℄ W. Brg. Pier 2 EB
Girder E1	594.999	597.898	598.725	599.912	601.266
Girder E2	595.088	598.005	598.844	600.014	601.460
Girder E3	594.890	598.069	598.963	600.219	601.655
Girder E4	594.666	598.108	599.045	600.336	601.813
Girder E5	594.409	597.989	598.968	600.293	601.813
Girder E6	594.121	597.710	598.732	600.090	601.655
Girder E7	593.797	597.394	598.459	599.849	601.460
Girder E8	593.472	597.070	598.185	599.607	601.266

NOTES:

1. For framing plan and girder elevations, see Sheets S-196 and S-197.

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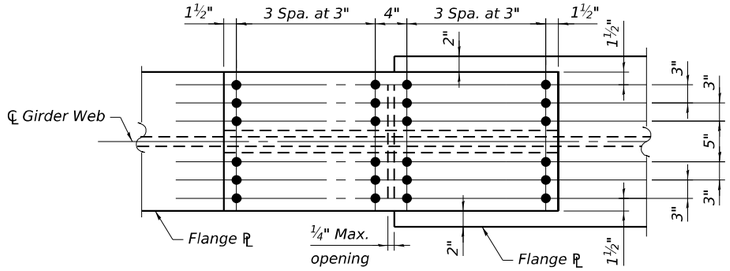
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAMBER DIAGRAM - UNIT 1 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-201 OF S-333 SHEETS

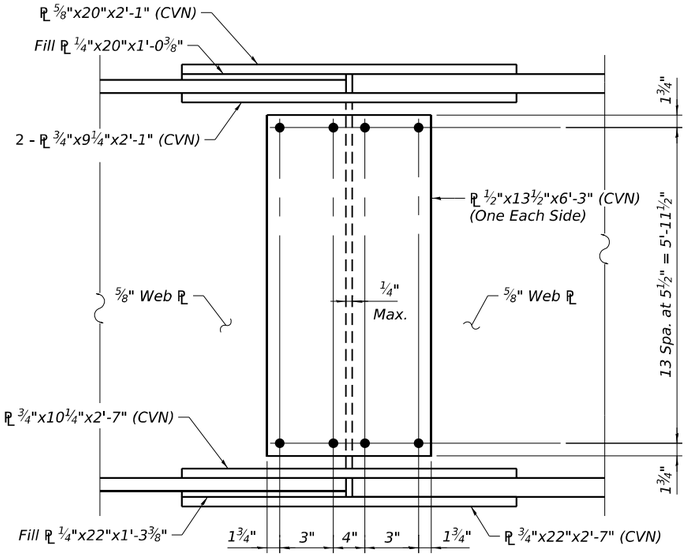
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	782
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



TOP FLANGE

Field Splice FS1 WB

Field Splice FS2 WB similar but opposite hand

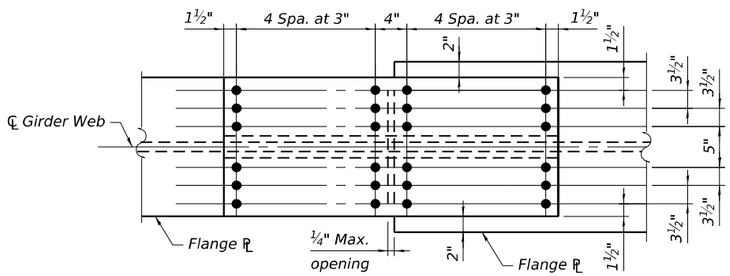


ELEVATION

Field Splice FS1 WB

Field Splice FS2 WB similar but opposite hand

(No. Required: 20)



BOTTOM FLANGE

Field Splice FS1 WB

Field Splice FS2 WB similar but opposite hand

NOTES:

1. *Fasteners shall be ASTM F3125 Grade A325 Type 3 weathering steel bolts in unpainted areas. Bolts ⅞" ∅, holes 15⁄16" ∅.*
2. *Load carrying components designated (CVN) denotes Charpy V-Notch Impact Energy Requirements, Zone 2.*
3. *Class B contact surface, for slip resistance, shall be provided for all connections.*
4. *All structural steel shall be AASHTO M270 Grade 50W.*

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD SPLICE DETAILS - UNIT 1 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-202 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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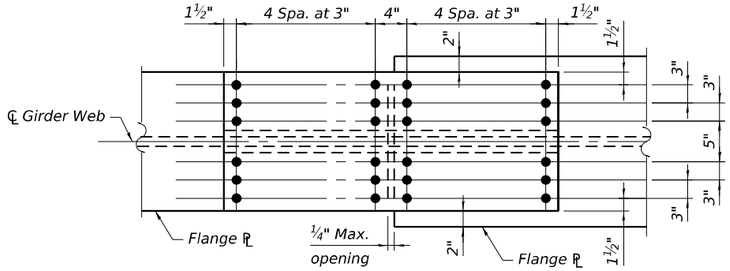
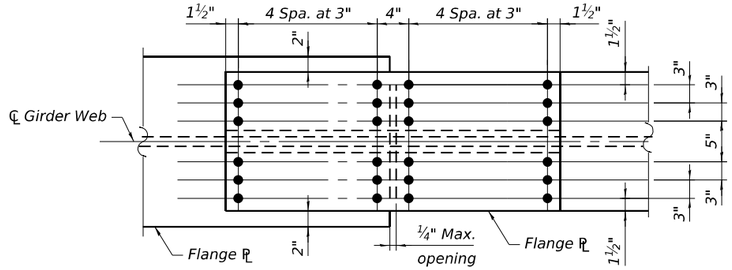
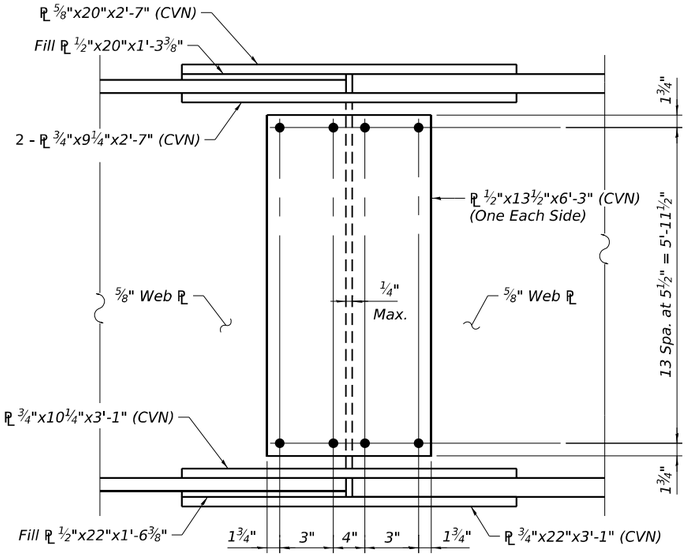
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



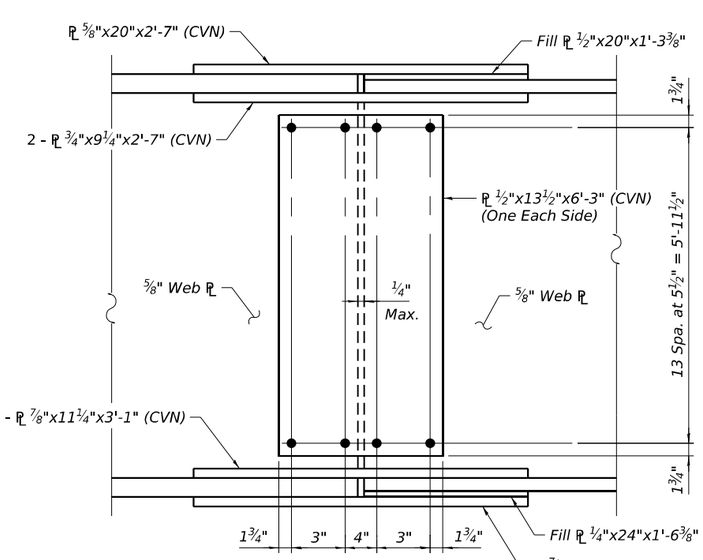
TOP FLANGE
Field Splice FS1 EB



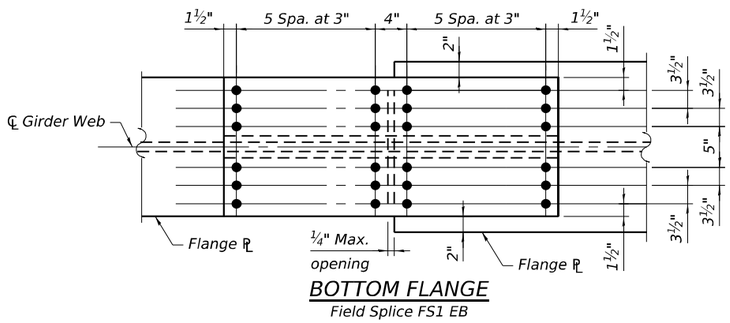
TOP FLANGE
Field Splice FS2 EB



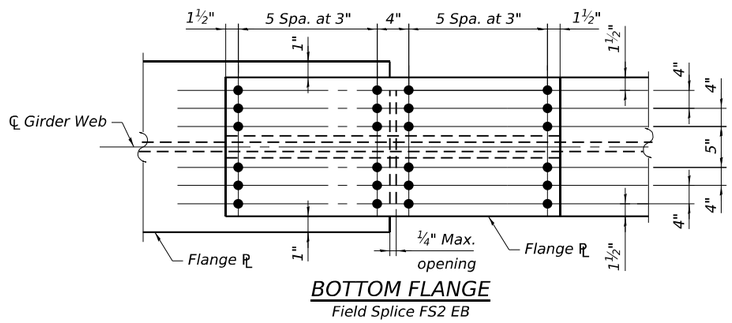
ELEVATION
Field Splice FS1 EB
(No. Required: 8)



ELEVATION
Field Splice FS2 EB
(No. Required: 8)



BOTTOM FLANGE
Field Splice FS1 EB



BOTTOM FLANGE
Field Splice FS2 EB

NOTES:
1. Fasteners shall be ASTM F3125 Grade A325 Type 3 weathering steel bolts in unpainted areas. Bolts ⅞" ∅, holes $^{15}/_{16}$" ∅.
2. Load carrying components designated (CVN) denotes Charpy V-Notch Impact Energy Requirements, Zone 2.
3. Class B contact surface, for slip resistance, shall be provided for all connections.
4. All structural steel shall be AASHTO M270 Grade 50W.

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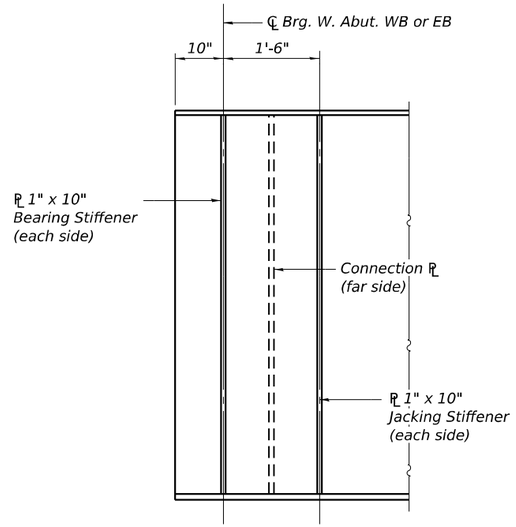
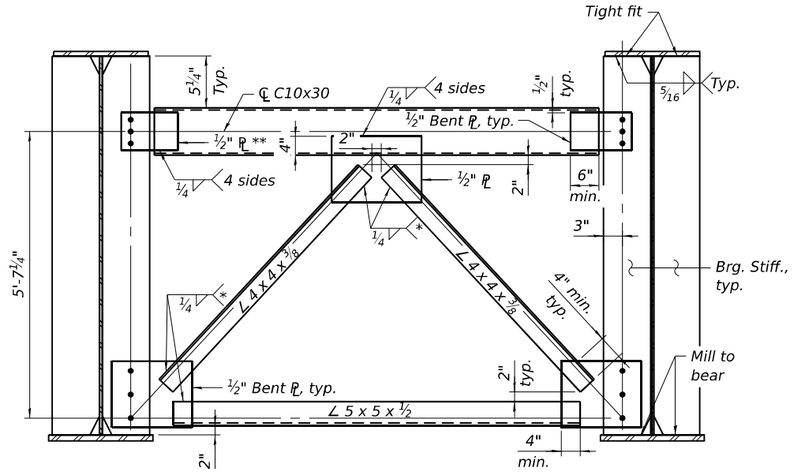
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD SPLICE DETAILS - UNIT 1 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-203 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	784
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



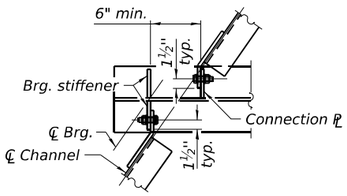
TYPICAL GIRDER END - W. ABUT. WB & EB



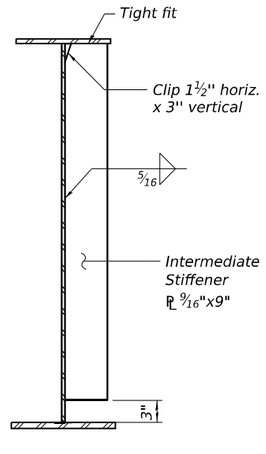
* Weld angles along 3 sides on one face of gusset plate.

END CROSS-FRAME WB & EB

At West Abutment
(No. Required WB = 9)
(No. Required EB = 7)

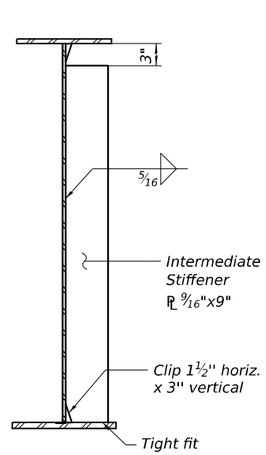


DETAIL E



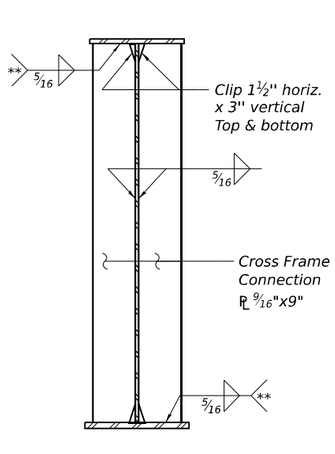
INTERMEDIATE STIFFENER

Near West Abutment
(No. Plates Required WB = 10)
(No. Plates Required EB = 8)



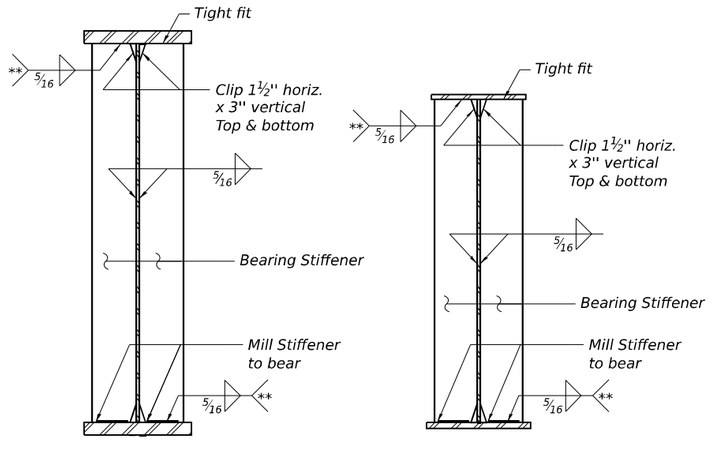
INTERMEDIATE STIFFENER

Near Pier 1
(No. Plates Required WB = 7)
(No. Plates Required EB = 20)



CONNECTION PLATE

(No. Plates Required WB = 270)
(No. Plates Required EB = 220)



BEARING & JACKING STIFFENER

At West Abutment
(No. Plates Required WB= 40)
(No. Plates Required EB= 32)
At Pier 1
(No. Plates Required WB= 60)
(No. Plates Required EB= 48)

BEARING & JACKING STIFFENER

At Pier 2
(No. Plates Required WB= 40)
(No. Plates Required EB= 32)

** Stop welds ¼" (±⅛") as shown on sheet S-55. Typical.

NOTES:

1. *For location of cross frames, see sheet S-196 and S-197.*
2. *Bearing and jacking stiffeners to be vertical under full dead load, unless noted otherwise.*
3. *For end cross frames, Detail 15/16" ∅ holes for all ¾" ∅ bolts.*
4. *Two hardened washers required for each set of oversized hole.*
5. *Place cross frame with channel flanges outward from abutment backwall.*
6. *Class B contact surface, for slip resistance, shall be provided for all crossframes.*
7. *All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.*
8. *All structural steel shall be AASHTO M270 Grade 50W.*

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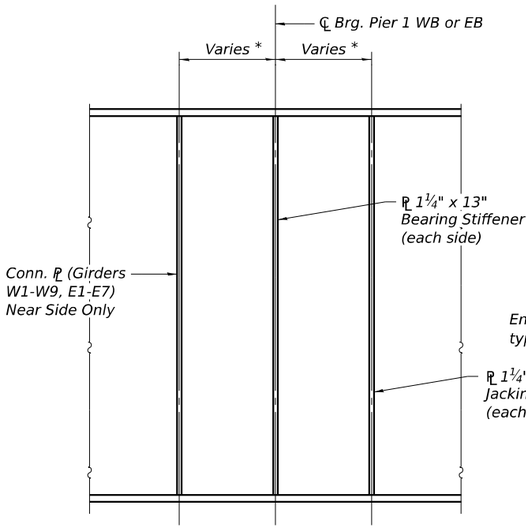
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

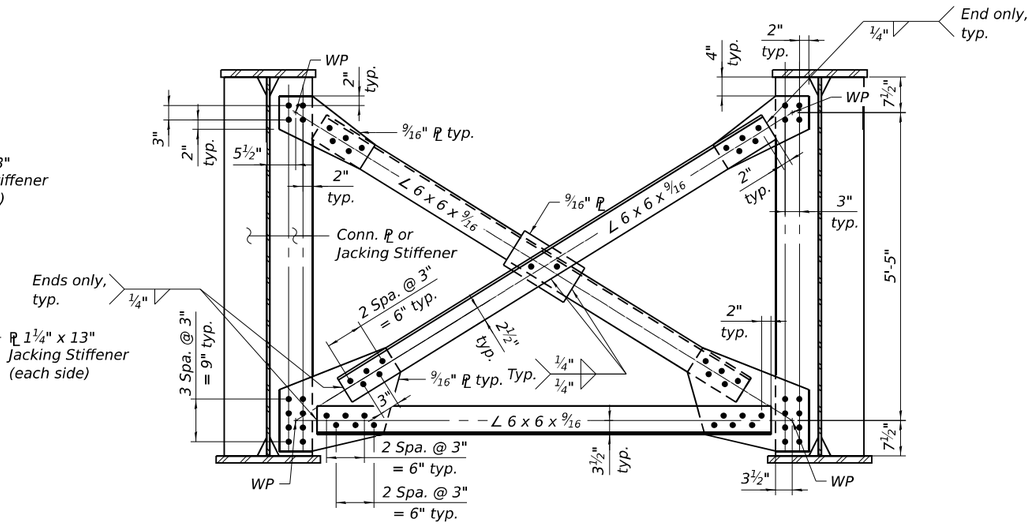
ABUTMENT END CROSS FRAME DETAILS - UNIT 1 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-204 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	785
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



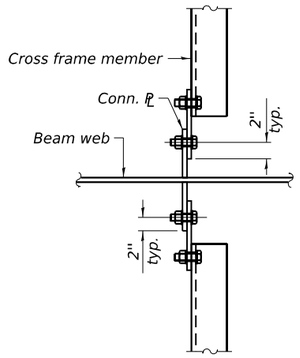
DETAIL B

* *Jacking stiffeners and cross frame connection plates near Pier 1 shall be located to match interior cross frames. See framing plan sheets for locations of cross frames.*

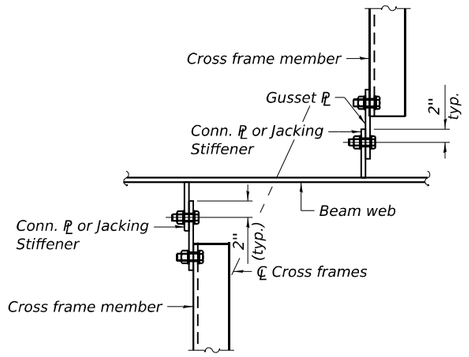


INTERIOR CROSS-FRAME

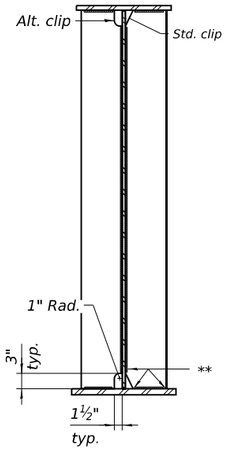
(No Required WB = 132)
(No Required EB = 110)



DETAIL G

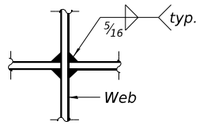


DETAIL F



WELD LIMITS AND CLIP DETAILS

** *Stop welds ¼" (±⅛") from edges as shown. Typical.*



WEB WELD DETAIL

NOTES:

1. *For location of cross frames, see sheet S-196 and S-197.*
2. *All interior cross frame connections shall be ASTM F3125, Grade A325 Type 3, ⅞" ∅ bolts in 1 1/16" ∅ holes, unless noted otherwise.*
3. *Two hardened washers required for each set of oversized hole.*
4. *Class B contact surface, for slip resistance, shall be provided for all crossframes.*
5. *All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.*
6. *All structural steel shall be AASHTO M270 Grade 50W.*
7. *Cross frame bottom chord, diagonal members, and gusset plates shall be fully shop assembled to the required shop fabricated geometry and shall utilize bolts and erection pins per Art. 505.04(f). Shop bolting shall be in accordance with Art. 505.04(f) and 505.08(h) and shall have shop inspection by IDOT representative. After all bolts at a cross frame have been fully torqued, the cross frames shall be shop welded. The cross frames and gussets shall be delivered to the erector as an assembled cross-frame.*

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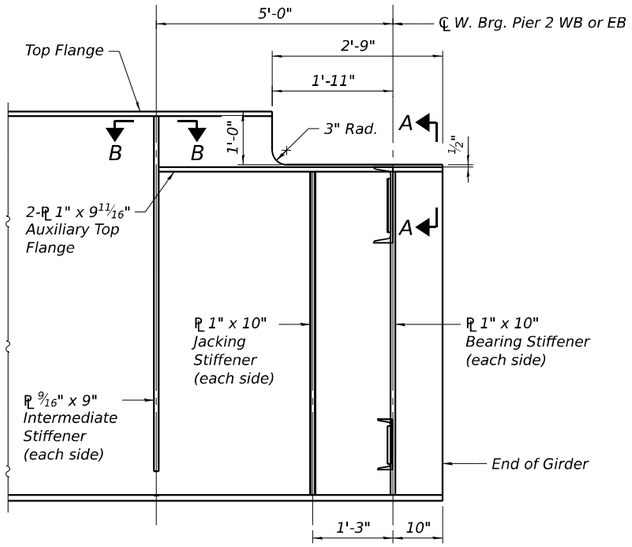
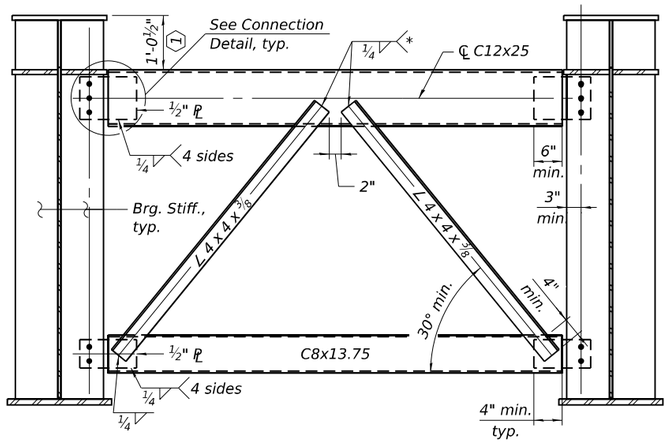
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERIOR CROSS FRAME DETAILS - UNIT 1 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-205 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	786
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



TYPICAL GIRDER END AT PIER 2 WB & EB

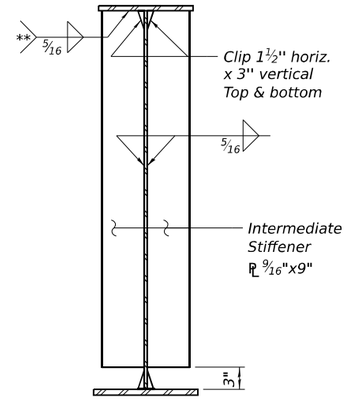


* Weld angles along 3 sides on one face of the channel.

1 Constant across structure.

END CROSS-FRAME

At Pier 2
(No. Required WB = 9)
(No. Required EB = 7)



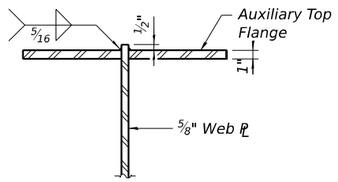
** Stop welds ¼" (±⅛") as shown on sheet S-55. Typical.

INTERMEDIATE STIFFENER

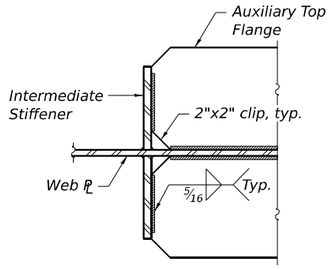
Near Pier 2
(No. Plates Required WB = 20)
(No. Plates Required EB = 16)

NOTES:

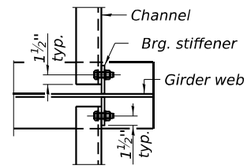
1. For location of cross frames, see sheet S-196 and S-197.
2. Bearing and jacking stiffeners to be vertical under full dead load, unless noted otherwise.
3. For end cross frames, Detail 15/16" ∅ holes for all ¾" ∅ bolts.
4. Two hardened washers required for each set of oversized hole.
5. Place cross frame with channel flanges outward from joint.
6. Place bolts to maintain minimum 1½" clearance between channels and edge of ½" mounting plates.
7. Class B contact surface, for slip resistance, shall be provided for all crossframes.
8. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.
9. All structural steel shall be AASHTO M270 Grade 50W.



SECTION A-A



SECTION B-B



CONNECTION DETAIL

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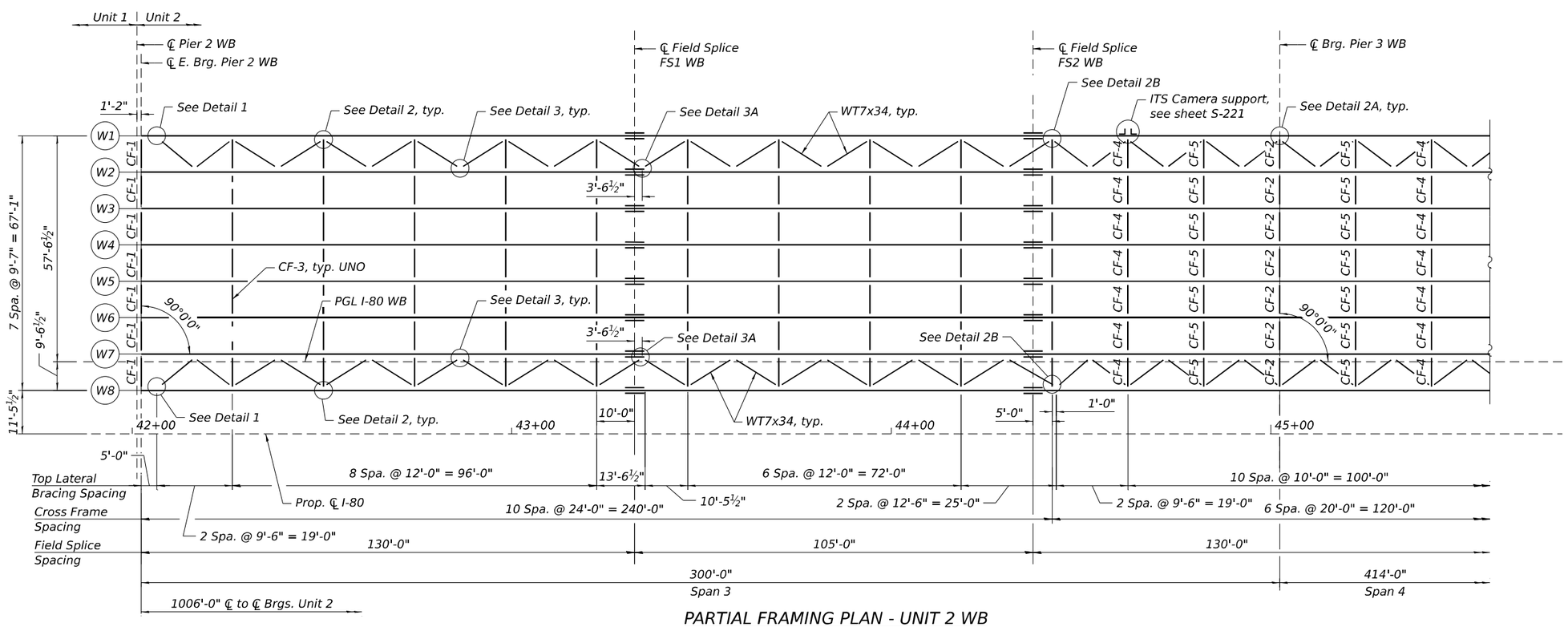
WSP USA Inc.
30 N. LASALLE STREET
SUITE 4200
CHICAGO, IL 60602
TEL: (312) 782-8150
FAX: (312) 782-1684

USER NAME = USSJ696614	DESIGNED - FIM	REVISED -	
	CHECKED - LAS	REVISED -	
PLOT SCALE = 0:2 ':' / In.	DRAWN - FIM	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

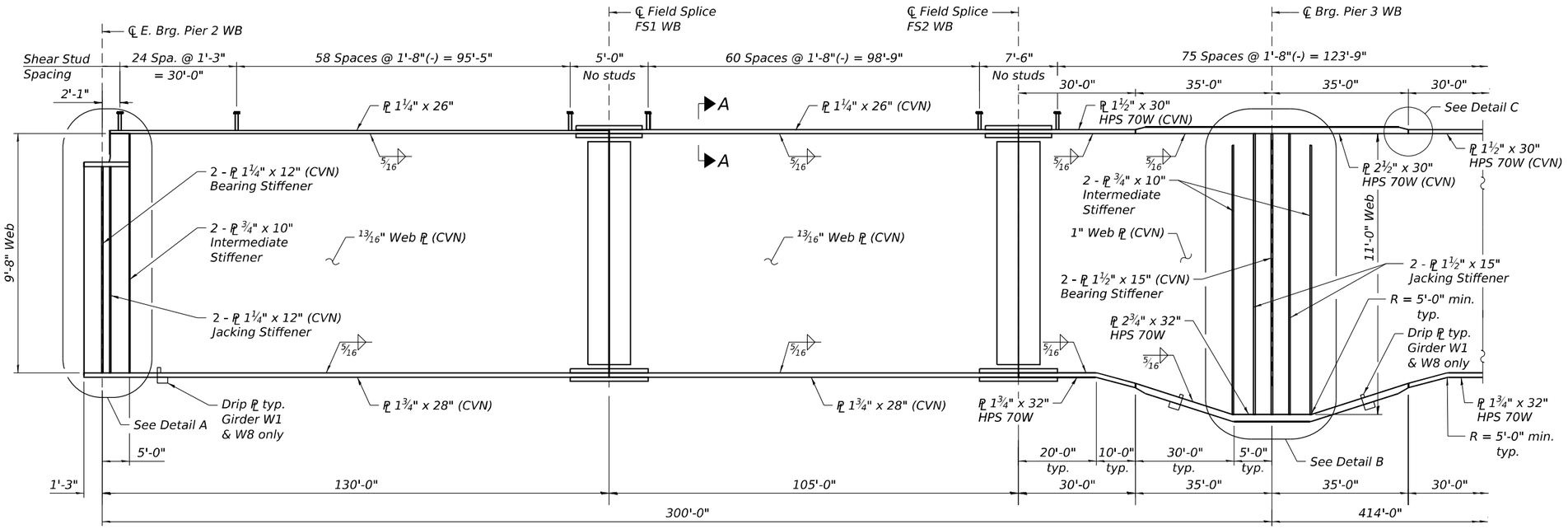
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR JOINT STEEL DETAILS - UNIT 1 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-206 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	787
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



PARTIAL FRAMING PLAN - UNIT 2 WB



PARTIAL ELEVATION - UNIT 2 WB

NOTES:

1. *Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.*
2. *All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts..*
3. *All dimensions are horizontal.*
4. *All steel shall be M270 Grade 50W except as otherwise noted.*
5. *For Girder Moment and Reaction tables, see sheet S-213.*
6. *For Camber Diagram, see sheet S-215.*
7. *For Section A-A, Detail C, and Girder Bolted Field Splice Details, see sheet S-216.*
8. *For Interior and Pier Cross Frame Details, see sheet S-217.*
9. *For Detail B, Stiffener Details and drip ℄ details, see sheet S-218.*
10. *For Detail A and End Cross Frame Details, see sheet S-219.*
11. *For lateral bracing details see sheet S-220.*
12. *For navigation light support, see sheet S-221.*

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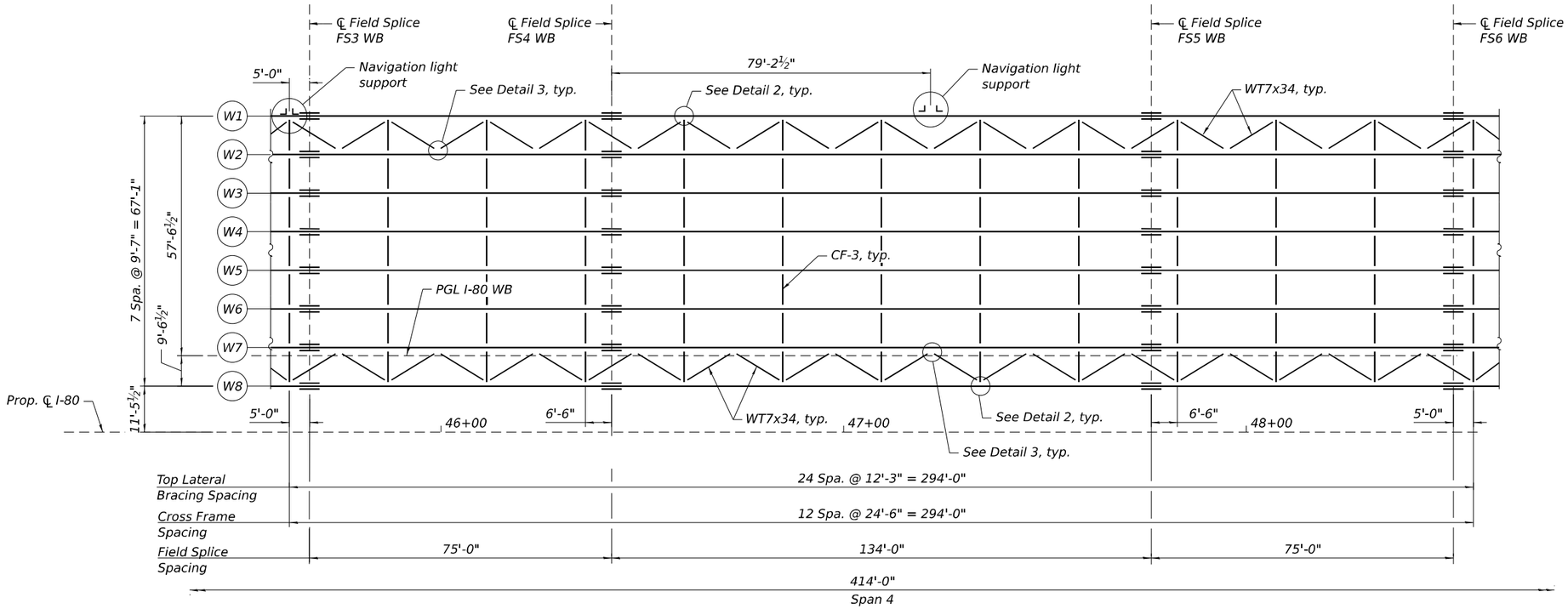
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

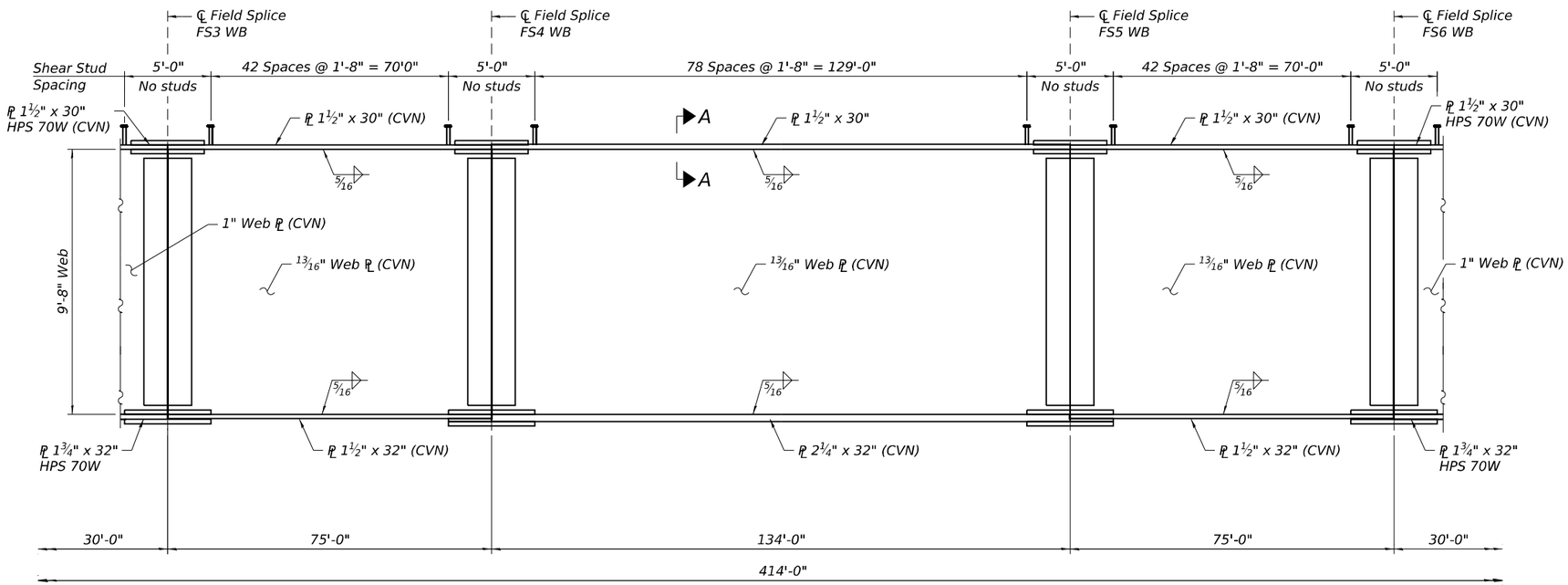
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION 1 - UNIT 2 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-207 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	788
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



PARTIAL FRAMING PLAN - UNIT 2 WB



PARTIAL ELEVATION - UNIT 2 WB

NOTES:

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
2. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.
3. All dimensions are horizontal.
4. All steel shall be M270 Grade 50W except as otherwise noted.
5. For Girder Moment and Reaction tables, see sheet S-213.
6. For Camber Diagram, see sheet S-215.
7. For Section A-A, Detail C, and Girder Bolted Field Splice Details, see sheet S-216.
8. For Interior and Pier Cross Frame Details, see sheet S-217.
9. For Stiffener Details, see sheet S-218.
10. For lateral bracing details see sheet S-220.
11. For navigation light support, see sheet S-221.

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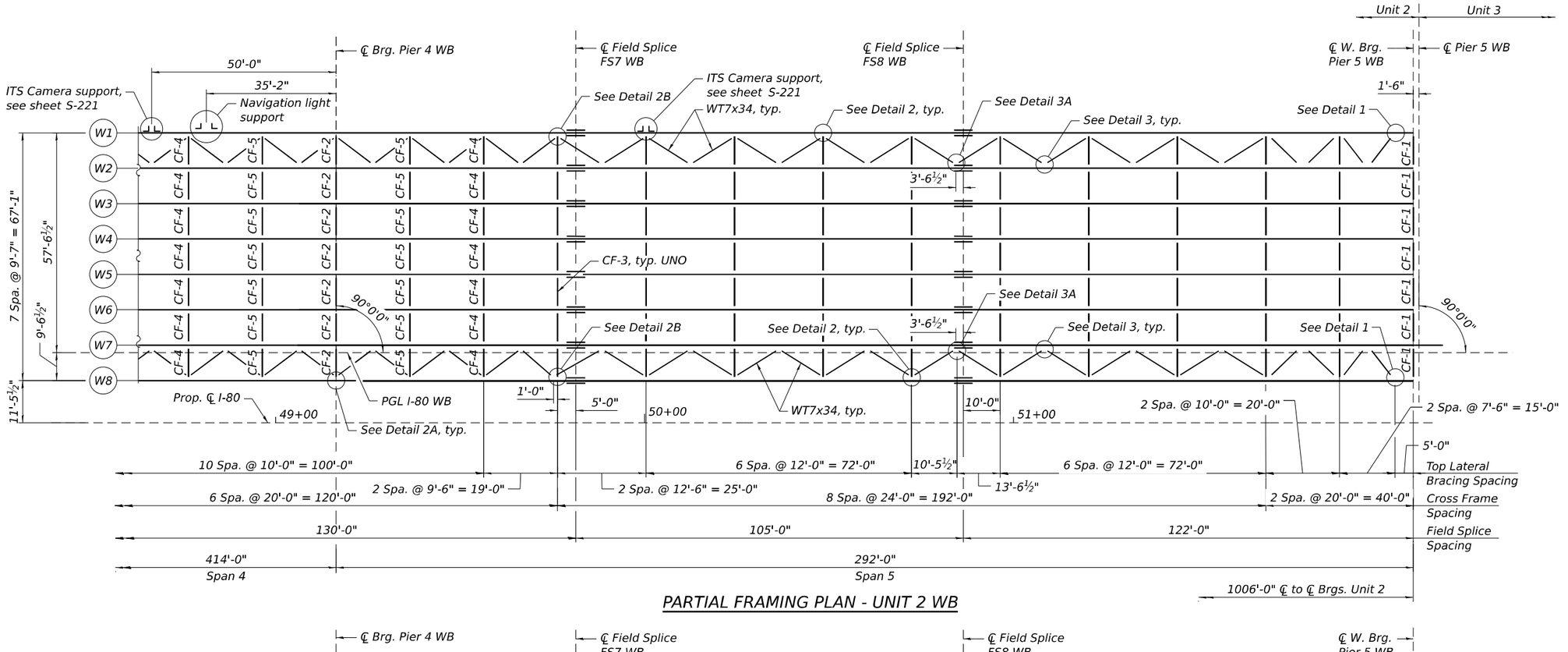
	CHECKED - LAS	REVISED -	
PLOT SCALE = 32:0 ':" / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

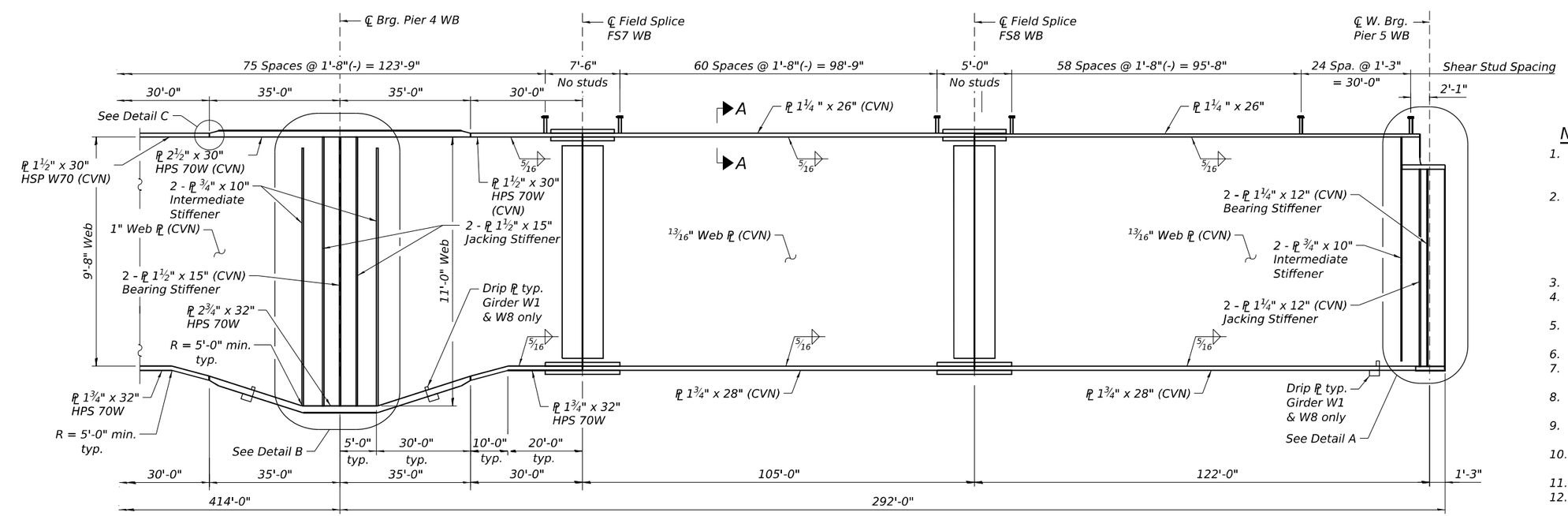
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION 2 - UNIT 2 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-208 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	789
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



PARTIAL FRAMING PLAN - UNIT 2 WB



PARTIAL ELEVATION - UNIT 2 WB

NOTES:

1. *Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.*
2. *All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.*
3. *All dimensions are horizontal.*
4. *All steel shall be M270 Grade 50W except as otherwise noted.*
5. *For Girder Moment and Reaction tables, see sheet S-213.*
6. *For Camber Diagram, see sheet S-215.*
7. *For Section A-A, Detail C, and Girder Bolted Field Splice Details, see sheet S-216.*
8. *For Interior and Pier Cross Frame Details, see sheet S-217.*
9. *For Detail B, Stiffener Details and drip ℄ details, see sheet S-218.*
10. *For Detail A and End Cross Frame Details, see sheet S-219.*
11. *For lateral bracing details see sheet S-220.*
12. *For navigation light support, see sheet S-221.*

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	CHECKED - LAS	REVISED -	
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PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION 3 - UNIT 2 WB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-209 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	790
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

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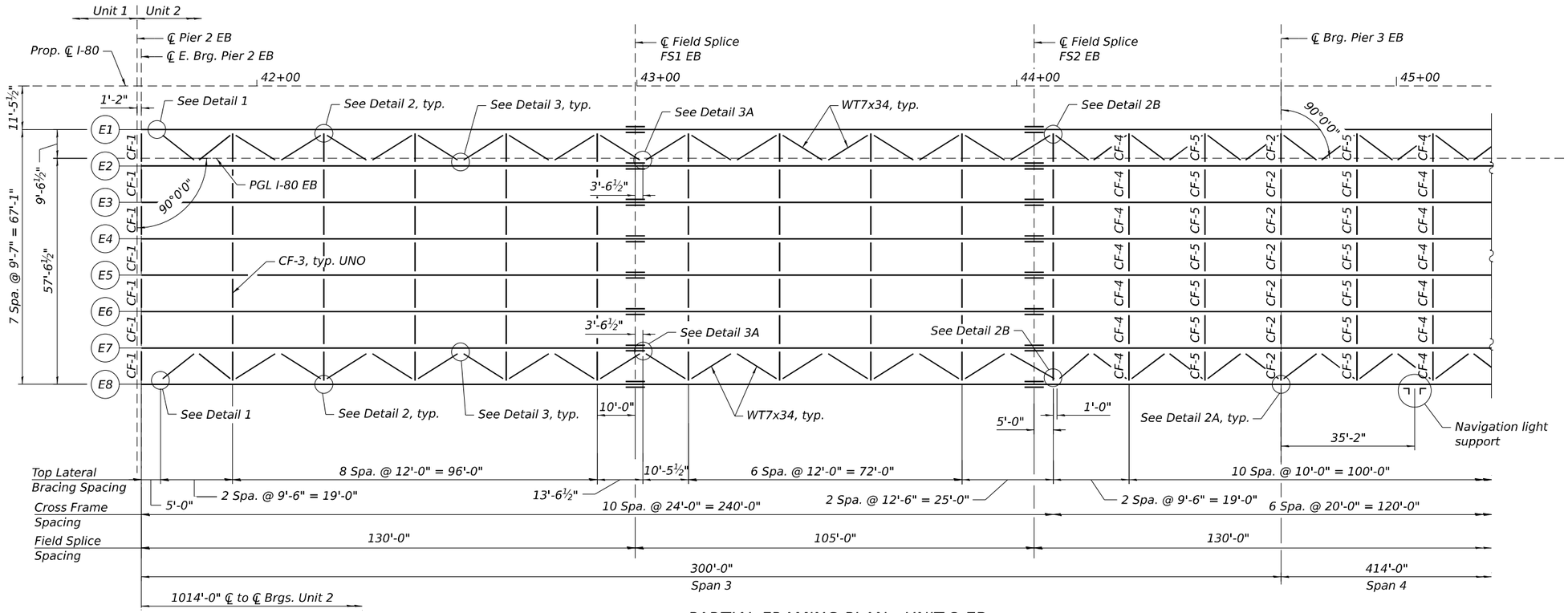
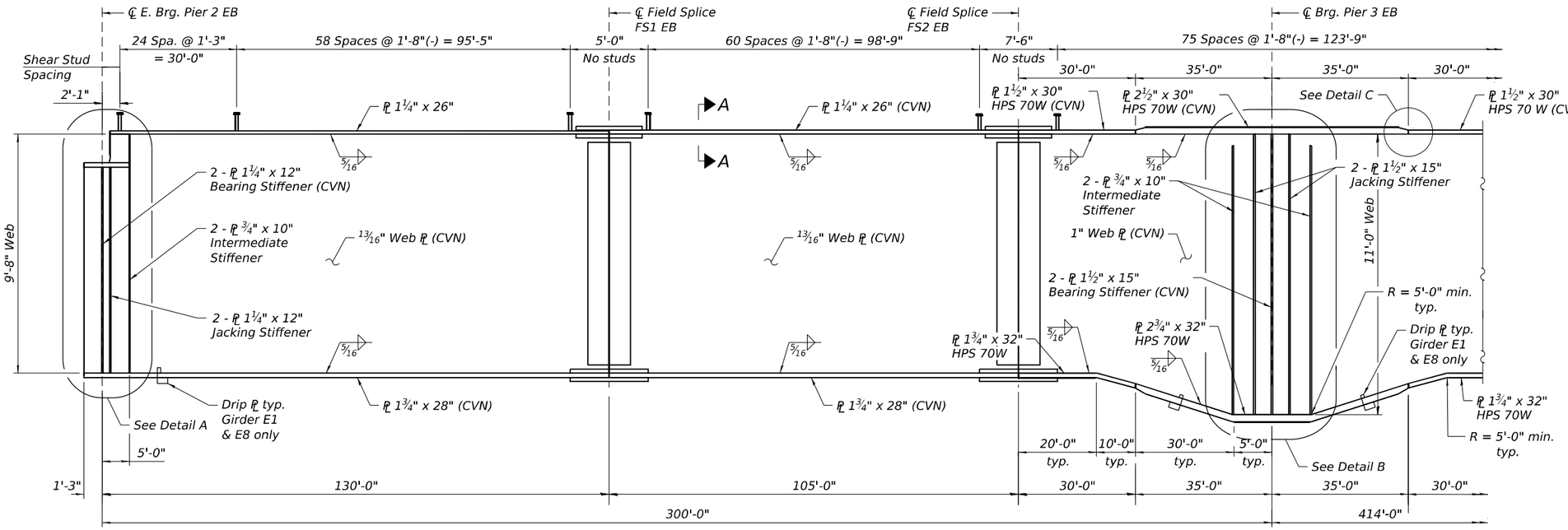


PARTIAL FRAMING PLAN - UNIT 2 EB



PARTIAL ELEVATION - UNIT 2 EB

NOTES:

1. *Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.*
2. *All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.*
3. *All dimensions are horizontal.*
4. *All steel shall be M270 Grade 50W except as otherwise noted.*
5. *For Girder Moment and Reaction tables, see sheet S-214.*
6. *For Camber Diagram, see sheet S-215.*
7. *For Section A-A, Detail C, and Girder Bolted Field Splice Details, see sheet S-216.*
8. *For Interior and Pier Cross Frame Details, see sheet S-217.*
9. *For Detail B, Stiffener Details and drip ℄ details, see sheet S-218.*
10. *For Detail A and End Cross Frame Details, see sheet S-219.*
11. *For lateral bracing details see sheet S-220.*
12. *For navigation light support see sheet S-221 .*

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	CHECKED - LAS	REVISED -	
PLOT SCALE = 32:0 ':" / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION 1 - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-210 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	791
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

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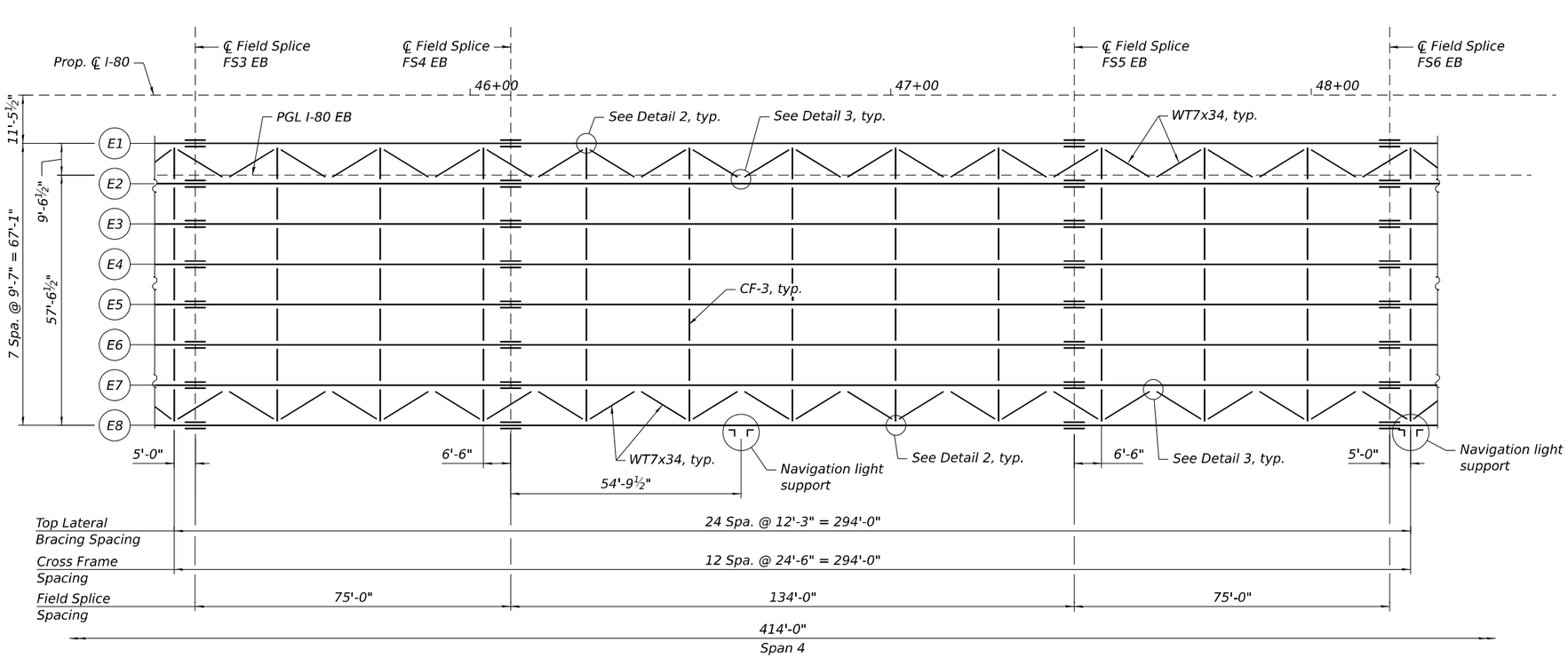
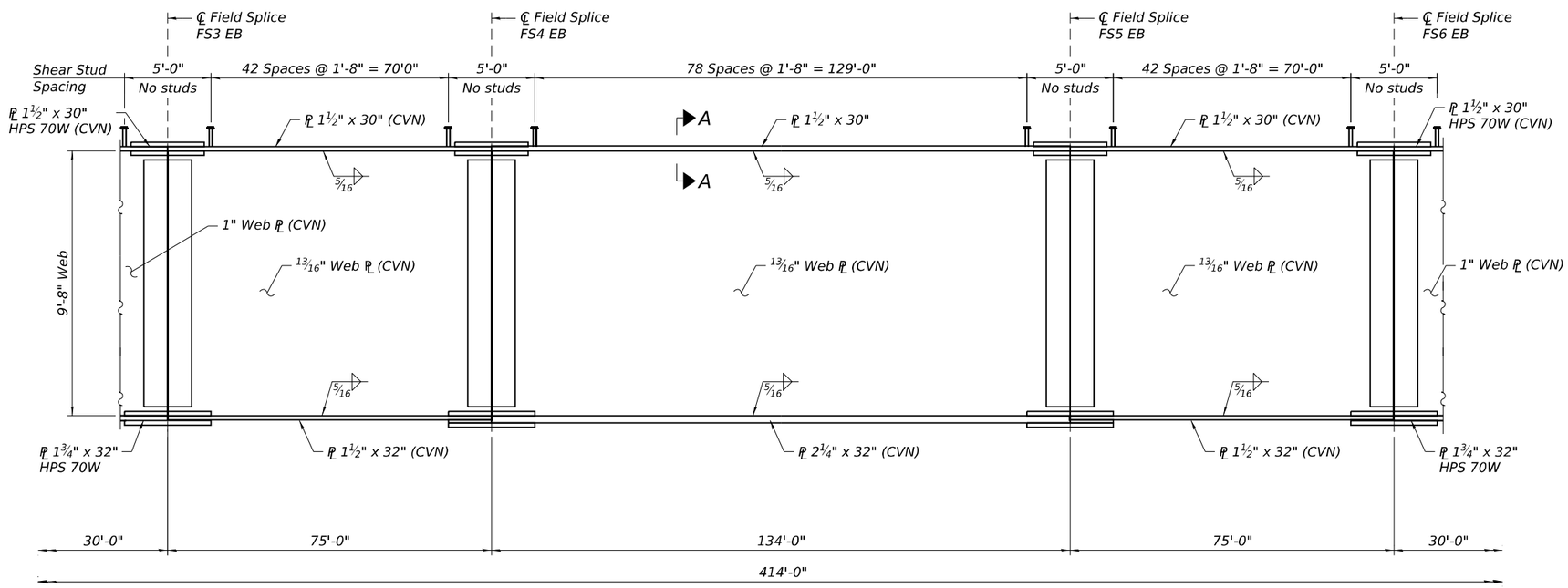


PARTIAL FRAMING PLAN - UNIT 2 EB



PARTIAL ELEVATION - UNIT 2 EB

NOTES:

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
2. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.
3. All dimensions are horizontal.
4. All steel shall be M270 Grade 50W except as otherwise noted.
5. For Girder Moment and Reaction tables, see sheet S-213.
6. For Camber Diagram, see sheet S-215.
7. For Section A-A, Detail C, and Girder Bolted Field Splice Details, see sheet S-216.
8. For Interior and Pier Cross Frame Details, see sheet S-217.
9. For Stiffener Details, see sheet S-218.
10. For lateral bracing details see sheet S-220.
11. For navigation light support see sheet S-221.

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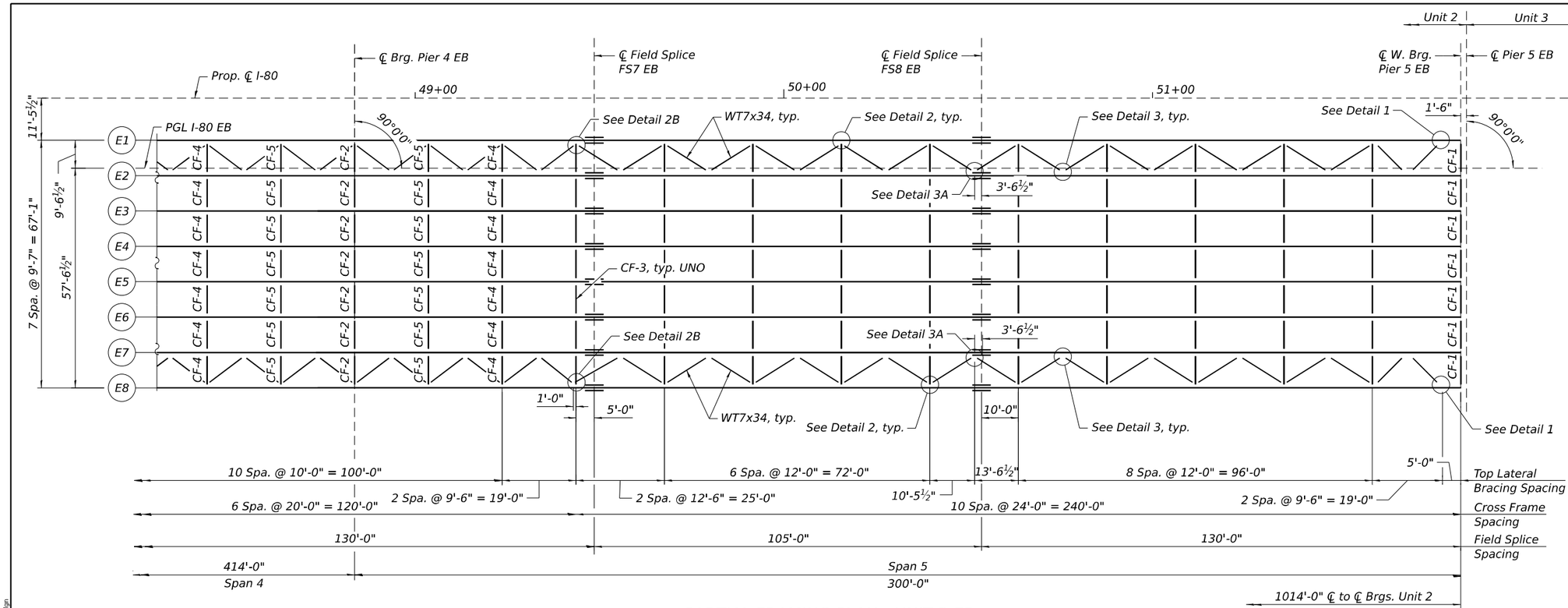
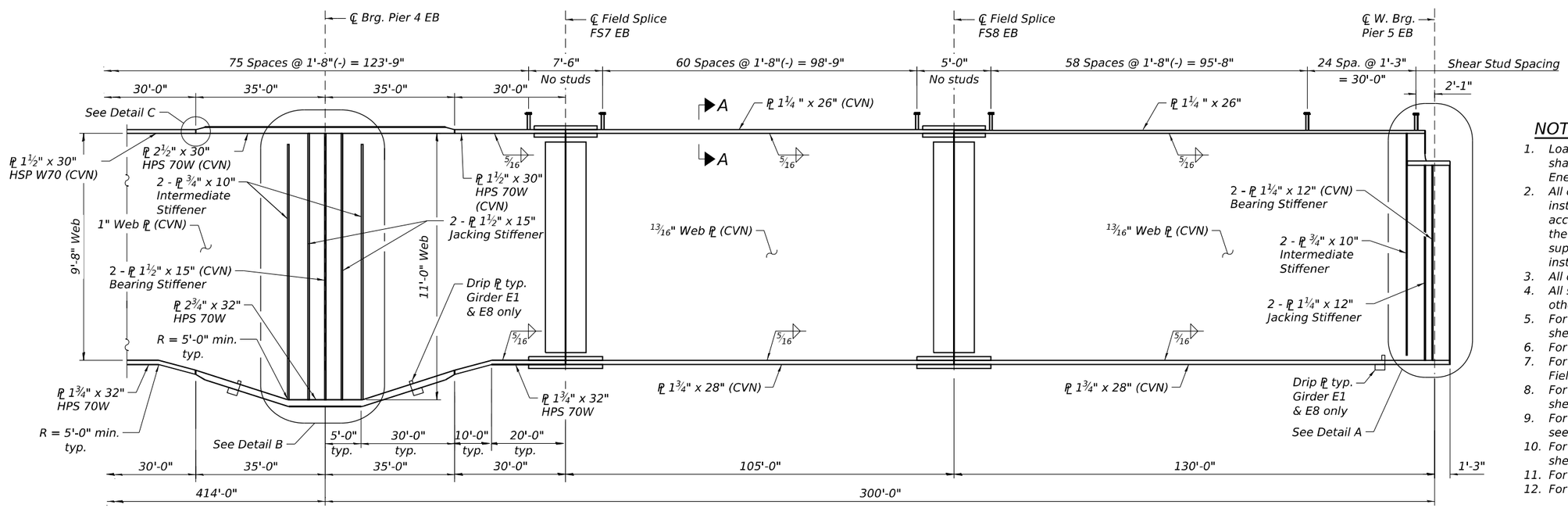
USER NAME = USSJ696614	DESIGNED - KB	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**FRAMING PLAN AND ELEVATION 2 - UNIT 2 EB** STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB	F.A.I RTE. / SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
	CHECKED - LAS	REVISED -			I-80 / FAI 80 21 STRUCTURE 2 / WILL / 1230 / 792
PLOT SCALE = 32:0 ':" / in.	DRAWN - BK	REVISED -		SHEET S-211 OF S-333 SHEETS	CONTRACT NO. 62R23
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -			ILLINOIS / FED. AID PROJECT



PARTIAL FRAMING PLAN - UNIT 2 EB



PARTIAL ELEVATION - UNIT 2 EB

NOTES:

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.
2. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.
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4. All steel shall be M270 Grade 50W except as otherwise noted.
5. For Girder Moment and Reaction tables, see sheet S-214.
6. For Camber Diagram, see sheet S-215.
7. For Section A-A, Detail C, and Girder Bolted Field Splice Details, see sheet S-216.
8. For Interior & Pier Cross Frame Details, see sheet S-217.
9. For Detail B, Stiffener Detailsand drip ℄ details, see sheet S-218.
10. For Detail A & End Cross Frame Details, see sheet S-219.
11. For lateral bracing details see sheet S-220.
12. For navigation light support see sheet S-221.

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PLOT SCALE = 32:0 ':" / in.	DRAWN - BK	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND ELEVATION 3 - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-212 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	793
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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INTERIOR GIRDER MOMENT TABLE						EXTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 3 or 0.6 Sp. 5	Pier 3 or Pier 4	0.5 Sp. 4			0.4 Sp. 3 or 0.6 Sp. 5	Pier 3 or Pier 4	0.5 Sp. 4
I_s	(in^4)	381,789	927,761	500,420		I_s	381,789	927,761	500,420
I_c (n)	(in^4)	711,669	--	877,851		I_c (n)	691,824	--	853,640
I_c (3n)	(in^4)	531,054	--	664,814		I_c (3n)	519,126	--	651,303
I_c (cr)	(in^4)	--	984,195	--		I_c (cr)	--	976,214	--
S_s	(in^3)	7,047	12,976	9,511		S_s	7,047	12,976	9,511
S_c (n)	(in^3)	8,743	--	11,300		S_c (n)	8,674	--	11,220
S_c (3n)	(in^3)	7,986	--	10,463		S_c (3n)	7,924	--	10,397
S_c (cr)	(in^3)	--	14,263	--		S_c (cr)	--	14,079	--
S_x	(in^3)	8,685	14,197	11,228		S_x	8,618	14,023	11,151
DC1	(k/')	1.77	2.31	1.94		DC1	1.68	2.22	1.85
M_{DC1}	('k)	8,282	26,462	13,246		M_{DC1}	8,287	26,384	13,173
DC2	(k/')	0.16	0.19	0.16		DC2	0.33	0.33	0.33
M_{DC2}	('k)	733	2,101	1,016		M_{DC2}	722	2,561	998
DW	(k/')	0.48	0.48	0.48		DW	0.45	0.45	0.36
M_{DW}	('k)	2,296	6,476	3,292		M_{DW}	2,239	6,186	3,210
LLDF		*	*	*		LLDF	*	*	*
M_{L+IM}	('k)	7,259	9,676	8,457		M_{L+IM}	8,355	11,360	9,757
f_f (Strength I)	(ksi)	--	--	--		f_f (Strength I)	-	-	-
** $M_u + \frac{1}{3} f_f S_x$	('k)	28,787	65,468	39,444	**	$M_u + \frac{1}{3} f_f S_x$	30,703	68,607	41,584
$\Phi_f M_n$	('k)	38,599	--	45,162		$\Phi_f M_n$	36,918	--	43,184
f_s DC1	(ksi)	14.1	24.5	16.7		f_s DC1	14.1	24.4	16.6
f_s DC2	(ksi)	1.0	1.8	1.2		f_s DC2	1.2	2.2	1.2
f_s DW	(ksi)	3.5	5.5	3.8		f_s DW	3.4	5.3	3.7
f_s (L+IM)	(ksi)	10.0	8.1	9.0		f_s (L+IM)	11.6	9.7	10.4
f_f (Service II)	(ksi)	-	-	-		f_f (Service II)	-	-	-
$f_s + f_f/2$ (Service II)	(ksi)	31.6	42.3	33.4		$f_s + f_f/2$ (Service II)	33.8	44.5	35.0
Service II Resistance	(ksi)	47.5	54.7	47.5		Service II Resistance	47.5	55.3	47.5
** $f_s + f_f/3$ (Strength I)	(ksi)	-	58.0	-	**	$f_s + f_f/3$ (Strength I)	-	61.0	-
$\Phi_f F_n$	(ksi)	-	68.4	-		$\Phi_f F_n$	-	68.4	-
V_f	(k)	82.1	99.5	62.8		V_f	69.0	94.5	68.7

Note: The analysis considers 2 scenarios: stresses resulting from the staged construction sequence and stresses assuming a single deck pour.

INTERIOR GIRDER REACTION TABLE					EXTERIOR GIRDER REACTION TABLE			
		Pier 2 & Pier 5	Pier 3 & Pier 4			Pier 2 & Pier 5	Pier 3 & Pier 4
LLDF		*	*		LLDF	*	*
OCF		--	--		OCF	--	--
R_{DC1}	(k)	173.7	759.3		R_{DC1}	174.1	755.0
R_{DC2}	(k)	11.7	52.9		R_{DC2}	29.7	102.9
R_{DW}	(k)	46.6	187.3		R_{DW}	44.8	163.9
R_L	(k)	120.2	287.4		R_L	128.9	296.5
R_{IM}	(k)	19.9	35.4		R_{IM}	20.5	38.0
** R_{Total} (Strength I)(Impact)	(k)	574.2	1,954.2	**	R_{Total} (Strength I)(Impact)	612.6	1,998.8
** R_{Total} (Strength I)(No Impact)	(k)	537.6	1,889.1	**	R_{Total} (Strength I)(No Impact)	574.9	1,929.0

* *See LLDF Tables below*

** *Limit states for moment, stress, and reaction shown include a load modifier factor of 1.05 relating to operational classification for an essential bridge*

EXTERIOR GIRDER LIVE LOAD + IMPACT DISTRIBUTION FACTORS											
Span/Support	Positive Moment			Negative Moment			Shear			Reactions	Deflection
	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	Design	Design
Pier 2 & 5	--	--	--	--	--	--	0.70	0.83	0.64	0.83	--
Spans 3 & 5	0.48	0.72	0.39	--	--	--	--	--	--	--	0.49
Piers 3 & 4	--	--	--	0.51	0.77	0.41	0.71	0.91	0.70	0.91	--
Span 4	0.47	0.71	0.37	--	--	--	--	--	--	--	0.49

INTERIOR GIRDER LIVE LOAD + IMPACT DISTRIBUTION FACTORS											
Span/Support	Positive Moment			Negative Moment			Shear			Reactions	Deflection
	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	Design	Design
Pier 2 & 5	--	--	--	--	--	--	0.57	0.77	0.49	0.77	--
Spans 3 & 5	0.38	0.63	0.30	--	--	--	--	--	--	--	0.49
Piers 3 & 4	--	--	--	0.41	0.66	0.34	0.53	0.81	0.55	0.81	--
Span 4	0.38	0.62	0.30	--	--	--	--	--	--	--	0.49

NOTES:

1. *Moments and Reactions are for Interior Girder W2 and Exterior Girder W1.*
2. *Live load distribution for design was determined by a refined method of analysis.*
3. *The live load + impact distribution factors provided in the tables on this sheet were computed for HL-93 loading only, and are intended to be used to approximate HL-93 live load + impact demands.*
4. *The live load + impact distribution factors are in the form of a ratio of the girder live load demand obtained from the refined method of analysis caused by HL-93 loading, divided by the girder live load demand obtained from the application of a single lane of HL-93 loading acting on a single isolated girder.*
5. *Example calculation of exterior girder live load design moment in Span 3 based on the distribution factors provided in the tables:*

   A. *From a line girder analysis with a distribution factor of 1.0 lane, the live load moment at Span 3 is found to be:*

   M_{L+IM} = 11,614 k-ft per lane

   B. *From the Exterior Girder Live Load + Impact Distribution Factor table shown on this sheet, the design distribution factor for positive moment in Span 3 is 0.72. Therefore, the live load + impact moment at Span 3 based on the refined method of analysis is:*

   0.72 x 11,614 k-ft = 8,355 k-ft

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

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

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

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

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

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

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

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

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

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

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

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.).*

M_u : *Strength I load combination of factored design moments (kip-ft.).*
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{L+IM}

f_f : *Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).*

$\Phi_f M_n$: *Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).*

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

f_s DC2: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).*
M_{DC2} / S_c (3n) or M_{DC2} / S_c (cr) as applicable.

f_s DW: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).*
M_{DW} / S_c (3n) or M_{DW} / S_c (cr) as applicable.

f_s (L+ IM): *Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).*
M_{L+IM} / S_c (n) or M_{L+IM} / S_c (cr) as applicable.

$f_s + f_f / 2$ (Service II): *Sum of stresses as computed below (ksi).*
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (L+ IM) + f_f /2

Service II Resistance: *Composite ($0.95R_hF_{yf}$) or noncomposite ($0.80R_hF_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).*

$f_s + f_f / 3$ (Strength I): *Sum of stresses as computed below on non-compact sections (ksi).*
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (L+ IM) + f_f /3

$\Phi_f F_n$: *Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).*

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

OCF: *Obtuse Correction Factor 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): *Strength I load combination of factored design reactions (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_L + R_{IM})

R_{Total} (Strength I)(No Impact): *Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_L)

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USER NAME = USSJ696614	DESIGNED - KB	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**MOMENT AND REACTION TABLES - UNIT 2 WB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB**
	CHECKED - PSK	REVISED -		
PLOT SCALE = 0:2.0000 ':" / in.	DRAWN - KB	REVISED -		SHEET S-213 OF S-333 SHEETS
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -		

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	794
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			

INTERIOR GIRDER MOMENT TABLE					
			0.4 Sp. 3 or 0.6 Sp. 5	Pier 3 or Pier 4	0.5 Sp. 4
	I_s	(in⁴)	381,789	927,761	500,420
	I_c (n)	(in⁴)	711,669	--	877,851
	I_c (3n)	(in⁴)	531,054	--	664,814
	I_c (cr)	(in⁴)	--	984,195	--
	S_s	(in³)	7,047	12,976	9,511
	S_c (n)	(in³)	8,743	--	11,300
	S_c (3n)	(in³)	7,986	--	10,463
	S_c (cr)	(in³)	--	14,263	--
	S_x	(in³)	8,684	14,196	11,229
	DC1	(k/')	1.77	2.31	1.94
	M_{DC1}	('k)	8,368	26,591	13,087
	DC2	(k/')	0.16	0.19	0.16
	M_{DC2}	('k)	980	2,077	902
	DW	(k/')	0.48	0.48	0.48
	M_{DW}	('k)	2,308	6,427	3,243
	LLDF		*	*	*
	M_{L+IM}	('k)	7,141	9,676	8,375
	f_f (Strength I)	(ksi)	--	--	--
**	$M_u + \frac{1}{3} f_f S_x$	('k)	29,026	65,529	38,857
	$\Phi_f M_n$	('k)	38,599	--	45,162
	f_s DC1	(ksi)	14.3	24.6	16.5
	f_s DC2	(ksi)	1.1	1.8	1.0
	f_s DW	(ksi)	3.5	5.4	3.7
	f_s (L+IM)	(ksi)	9.8	8.1	8.9
	f_f (Service II)	(ksi)	-	-	-
	$f_s + f_f/2$ (Service II)	(ksi)	31.9	42.3	32.8
	Service II Resistance	(ksi)	47.5	54.7	47.5
**	$f_s + f_f/3$ (Strength I)	(ksi)	-	58.0	-
	$\Phi_f F_n$	(ksi)	-	68.4	-
	V_f	(k)	82.6	99.1	62.8

EXTERIOR GIRDER MOMENT TABLE					
			0.4 Sp. 3 or 0.6 Sp. 5	Pier 3 or Pier 4	0.5 Sp. 4
	I_s	(in⁴)	381,789	927,761	500,420
	I_c (n)	(in⁴)	691,824	--	853,640
	I_c (3n)	(in⁴)	519,126	--	651,303
	I_c (cr)	(in⁴)	--	976,214	--
	S_s	(in³)	7,047	12,976	9,511
	S_c (n)	(in³)	8,674	--	11,220
	S_c (3n)	(in³)	7,924	--	10,397
	S_c (cr)	(in³)	--	14,079	--
	S_x	(in³)	8,617	14,023	11,152
	DC1	(k/')	1.68	2.22	1.85
	M_{DC1}	('k)	8,383	26,191	13,055
	DC2	(k/')	0.33	0.19	0.33
	M_{DC2}	('k)	1,060	2,506	893
	DW	(k/')	0.45	0.36	0.45
	M_{DW}	('k)	2,249	6,133	3,163
	LLDF		*	*	*
	M_{L+IM}	('k)	8,196	11,193	9,594
	f_f (Strength I)	(ksi)	--	--	--
**	$M_u + \frac{1}{3} f_f S_x$	('k)	30,996	67,891	40,917
	$\Phi_f M_n$	('k)	36,918	--	43,184
	f_s DC1	(ksi)	14.3	24.2	16.5
	f_s DC2	(ksi)	1.6	2.1	1.0
	f_s DW	(ksi)	3.4	5.1	3.7
	f_s (L+IM)	(ksi)	11.3	9.5	10.3
	f_f (Service II)	(ksi)	-	-	-
	$f_s + f_f/2$ (Service II)	(ksi)	33.6	44.0	34.5
	Service II Resistance	(ksi)	47.5	55.3	47.5
**	$f_s + f_f/3$ (Strength I)	(ksi)	-	60.0	-
	$\Phi_f F_n$	(ksi)	-	68.4	-
	V_f	(k)	69.0	94.5	68.7

Note: The analysis considers 2 scenarios: stresses resulting from the staged construction sequence and stresses assuming a single deck pour.

INTERIOR GIRDER REACTION TABLE				
			Pier 2 & Pier 5	Pier 3 & Pier 4
	LLDF		*	*
	OCF		--	--
	R_{DC1}	(k)	173.7	759.3
	R_{DC2}	(k)	11.7	52.9
	R_{DW}	(k)	46.6	187.3
	R_L	(k)	120.2	287.4
	R_{Im}	(k)	19.9	35.4
**	R_{Total} (Strength I)(Impact)	(k)	574.2	1,954.2
**	R_{Total} (Strength I)(No Impact)	(k)	537.6	1,889.1

EXTERIOR GIRDER REACTION TABLE				
			Pier 2 & Pier 5	Pier 3 & Pier 4
	LLDF		*	*
	OCF		--	--
	R_{DC1}	(k)	174.1	755.0
	R_{DC2}	(k)	29.7	102.9
	R_{DW}	(k)	44.8	163.9
	R_L	(k)	128.9	296.5
	R_{Im}	(k)	20.5	38.0
**	R_{Total} (Strength I)(Impact)	(k)	612.6	1,998.8
**	R_{Total} (Strength I)(No Impact)	(k)	574.9	1,929.0

* *See LLDF Tables on sheet S-213*

** *Limit states for moment, stress, and reaction shown include a load modifier factor of 1.05 relating to operational classification for an essential bridge*

NOTES:

1. *Moments and Reactions are for Interior Girder E7 and Exterior Girder E8.*
2. *Live load distribution for design was determined by a refined method of analysis.*
3. *The live load + impact distribution factors provided in the tables on this sheet were computed for HL-93 loading only, and are intended to be used to approximate HL-93 live load + impact demands.*
4. *The live load + impact distribution factors are in the form of a ratio of the girder live load demand obtained from the refined method of analysis caused by HL-93 loading, divided by the girder live load demand obtained from the application of a single lane of HL-93 loading acting on a single isolated girder.*
5. *Example calculation of exterior girder live load design moment in Span 3 based on the distribution factors provided in the tables:*

   A. *From a line girder analysis with a distribution factor of 1.0 lane, the live load moment at Span 3 is found to be:*

   M_{L+IM} = 11,838 k-ft per lane

   B. *From the Exterior Girder Live Load + Impact Distribution Factor table shown on this sheet, the design distribution factor for positive moment in Span 3 is 0.72. Therefore, the live load + impact moment at Span 3 based on the refined method of analysis is:*

   0.72 x 11,838 k-ft = 8,196 k-ft

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

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

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

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

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

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

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

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

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

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

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

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.).*

M_u : *Strength I load combination of factored design moments (kip-ft.).*
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{L+IM}

f_f : *Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).*

$\Phi_f M_n$: *Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).*

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

f_s DC2: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).*
M_{DC2} / S_c (3n) or M_{DC2} / S_c (cr) as applicable.

f_s DW: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).*
M_{DW} / S_c (3n) or M_{DW} / S_c (cr) as applicable.

f_s (L+ IM): *Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).*
M_{L+IM}/ S_c (n) or M_{L+IM}/ S_c (cr) as applicable.

$f_s + f_f / 2$ (Service II): *Sum of stresses as computed below (ksi).*
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (L+ IM) + f_f /2

Service II Resistance: *Composite ($0.95R_hF_{yf}$) or noncomposite ($0.80R_hF_{yf}$) stress capacity according to Article 6.10.4.2 (ksi).*

$f_s + f_f / 3$ (Strength I): *Sum of stresses as computed below on non-compact sections (ksi).*
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (L+ IM) + f_f /3

$\Phi_f F_n$: *Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).*

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

OCF: *Obtuse Correction Factor 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): *Strength I load combination of factored design reactions (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_L + R_{IM})

R_{Total} (Strength I)(No Impact): *Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).*
1.25 (R_{DC1} + R_{DC2}) + 1.5R_{DW} + 1.75 (R_L)

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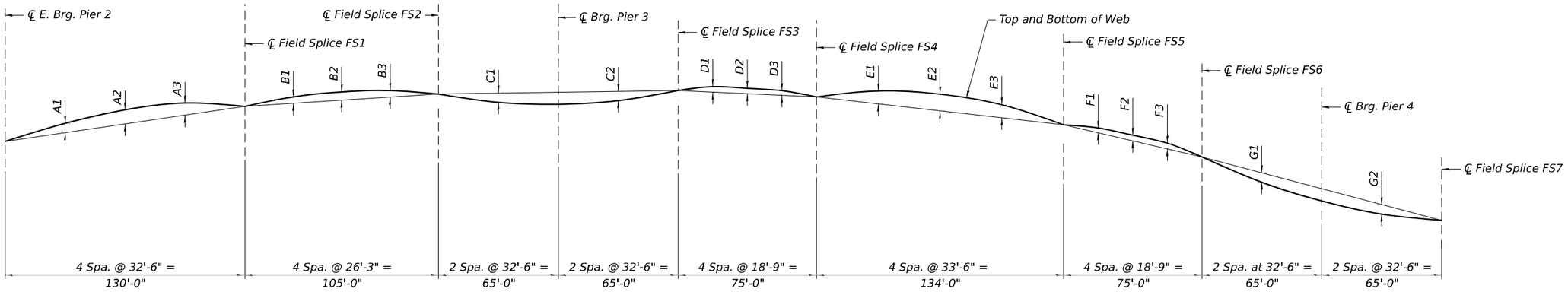
PLOT SCALE = 0:2.0000 ':" / in.	DRAWN - KB	REVISED -		
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -		

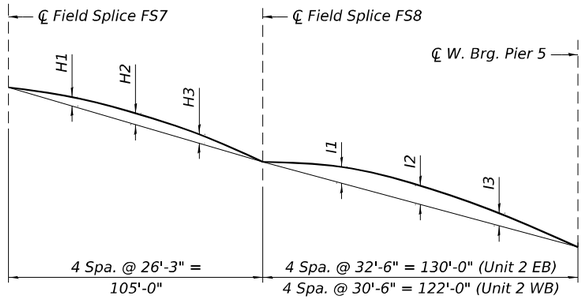
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT AND REACTION TABLES - UNIT 2 EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-214 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	795
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		





CAMBER DIAGRAM - UNIT 2

NOTES:

1. Camber values shown here were developed based on the deck pour sequence shown on sheet S-124.
2. Any deviation from the pouring sequence will result in changes to the camber. If the contractor chooses to change the sequence, then the proposed plan revisions and design calculations shall be submitted to the engineer for review and approval. The plan and calculations shall be prepared and sealed by a Licensed Structural Engineer in Illinois.
3. The theoretical deflections used to determine the girder camber values and top of web elevations shown in these tables include the weight of steel, deck concrete, and the parapets. The net effects of temporary formwork, assumed to be 10psf of the deck surface area, placed on the noncomposite structure and later removed from the composite structure are included in these theoretical deflections.

CAMBER DIMENSIONS - UNIT 2

Location	℄ E. Brg. Pier 2	A1	A2	A3	℄ FS1	B1	B2	B3	℄ FS2	C1	℄ Brg. Pier 3	C2	℄ FS3	D1	D2	D3	℄ FS4	E1	E2	E3
Girder E1 to E8	0"	2½"	3⅝"	3"	0"	1⅝"	1¾"	1¼"	0"	-2½"	-3⅛"	-2⅜"	0"	⅝"	⅞"	¾"	0"	3½"	4⅝"	3½"
Girder W1 to W8	0"	2½"	3⅜"	2⅞"	0"	1⅜"	1¾"	1¼"	0"	-2½"	-3⅛"	-2⅜"	0"	⅝"	⅞"	⅞"	0"	3½"	4⅝"	3½"

CAMBER DIMENSIONS - UNIT 2 (CONT.)

Location	℄ FS5	F1	F2	F3	℄ FS6	G1	℄ Brg. Pier 4	G2	℄ FS7	H1	H2	H3	℄ FS8	I1	I2	I3	℄ W. Brg. Pier 5
Girder E1 to E8	0"	¾"	⅞"	⅝"	0"	-2⅜"	-3⅛"	-2½"	0"	1¼"	1¾"	1⅝"	0"	3"	3⅝"	2½"	0"
Girder W1 to W8	0"	⅞"	⅞"	⅝"	0"	-2⅜"	-3"	-2⅜"	0"	1¼"	1¾"	1½"	0"	2½"	3"	2⅛"	0"

TOP OF WEB ELEVATION - UNIT 2 EB

(For Fabrication Only)

Location	℄ E. Brg. Pier 2	℄ FS1	℄ FS2	℄ Brg. Pier 3	℄ FS3	℄ FS4	℄ FS5	℄ FS6	℄ Brg. Pier 4	℄ FS7	℄ FS8	℄ W. Brg. Pier 5
Girder E1	601.250	603.004	602.778	602.598	602.938	603.297	602.033	600.259	598.691	597.644	595.890	591.681
Girder E2	601.441	603.196	602.970	602.790	603.130	603.488	602.225	600.451	598.883	597.836	596.081	591.872
Girder E3	601.633	603.388	603.161	602.981	603.322	603.680	602.416	600.642	599.075	598.028	596.273	592.064
Girder E4	601.789	603.543	603.317	603.137	603.477	603.836	602.572	600.798	599.230	598.183	596.429	592.219
Girder E5	601.789	603.543	603.317	603.137	603.477	603.836	602.572	600.798	599.230	598.183	596.429	592.219
Girder E6	601.633	603.388	603.161	602.981	603.322	603.680	602.416	600.642	599.075	598.028	596.273	592.064
Girder E7	601.441	603.196	602.970	602.790	603.130	603.488	602.225	600.451	598.883	597.836	596.081	591.872
Girder E8	601.250	603.004	602.778	602.598	602.938	603.297	602.033	600.259	598.691	597.644	595.890	591.681

TOP OF WEB ELEVATION - UNIT 2 WB

(For Fabrication Only)

Location	℄ E. Brg. Pier 2	℄ FS1	℄ FS2	℄ Brg. Pier 3	℄ FS3	℄ FS4	℄ FS5	℄ FS6	℄ Brg. Pier 4	℄ FS7	℄ FS8	℄ W. Brg. Pier 5
Girder W1	601.583	603.157	602.796	602.539	602.806	603.082	601.658	599.772	598.089	596.914	594.953	590.933
Girder W2	601.775	603.349	602.987	602.730	602.998	603.274	601.849	599.964	598.281	597.106	595.145	591.124
Girder W3	601.967	603.540	603.179	602.922	603.190	603.465	602.041	600.156	598.473	597.297	595.337	591.316
Girder W4	602.122	603.696	603.334	603.078	603.345	603.621	602.197	600.311	598.628	597.453	595.492	591.471
Girder W5	602.122	603.696	603.334	603.078	603.345	603.621	602.197	600.311	598.628	597.453	595.492	591.471
Girder W6	601.967	603.540	603.179	602.922	603.190	603.465	602.041	600.156	598.473	597.297	595.337	591.316
Girder W7	601.775	603.349	602.987	602.730	602.998	603.274	601.849	599.964	598.281	597.106	595.145	591.124
Girder W8	601.583	603.157	602.796	602.539	602.806	603.082	601.658	599.772	598.089	596.914	594.953	590.933

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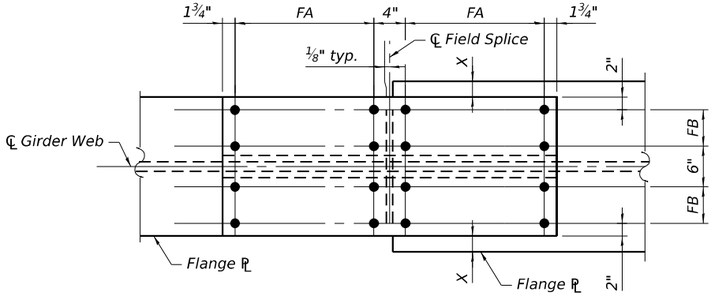
USER NAME = USSJ696614	DESIGNED - KB	REVISED -	
	CHECKED - PSK	REVISED -	
PLOT SCALE = 62.6 '-" / in.	DRAWN - KB	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

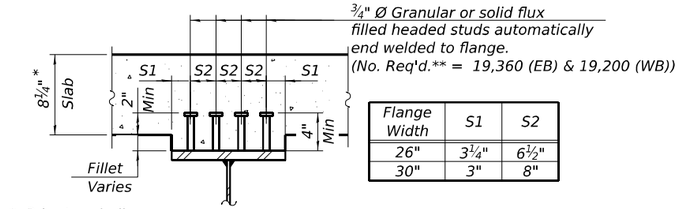
CAMBER DIAGRAM - UNIT 2 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-215 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	796
		CONTRACT NO. 62R23		
	ILLINOIS FED. AID PROJECT			



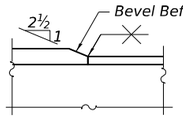
TOP FLANGE



* Prior to grinding

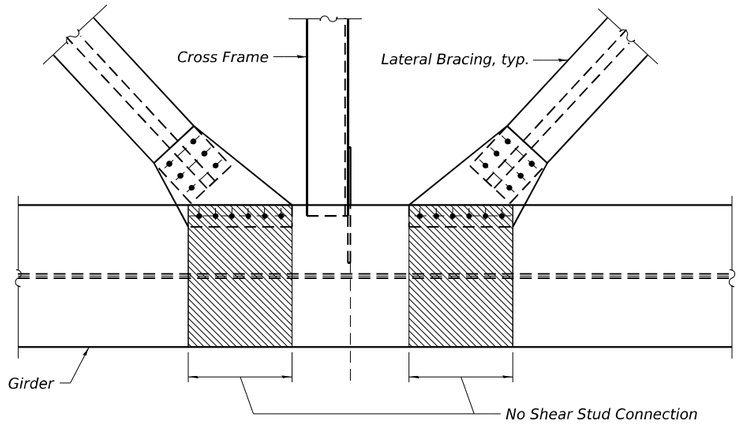
Flange Width	S1	S2
26"	3¼"	6½"
30"	3"	8"

SECTION A-A

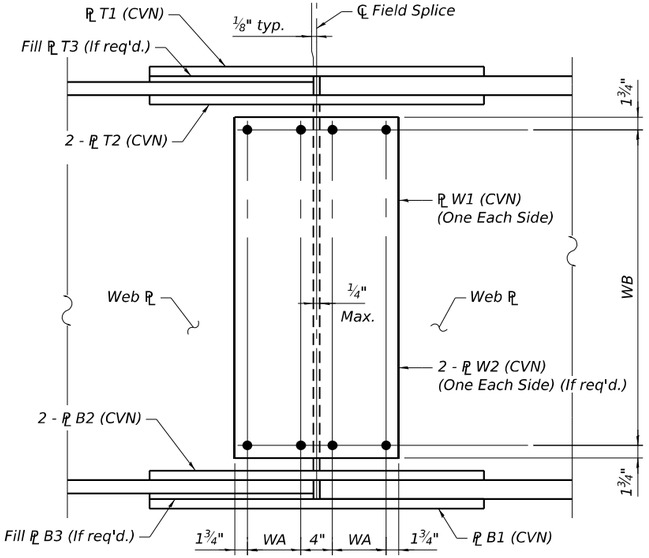


DETAIL C

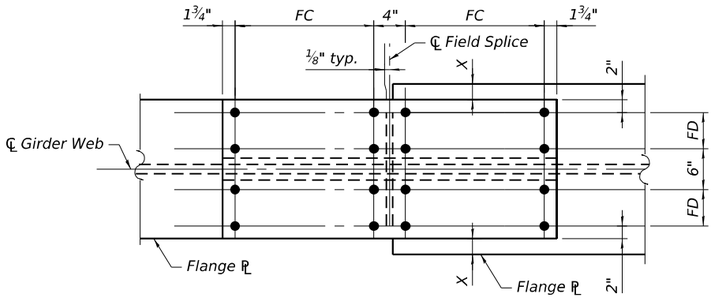
Do not place shear connectors on top lateral bracing bolted connection. Move studs beyond the nearest bolt as necessary. Exterior girder is shown. Interior girder similar.



DETAIL D



ELEVATION



BOTTOM FLANGE

SPLICE PLATE TABLE

Top Flange						
Field Splice	Splice ℙ		Filler ℙ	Bolt Spacing		X
	T1	T2	T3	FA	FB	
FS1 & FS8	¾"x2'-2"x2'-7½"	⅞"x1'-0⅛"x2'-7½"	-	4 Spa. at 3"	2 Spa. at 4"	-
FS2 & FS7	¾"x2'-2"x6'-7½"	⅞"x1'-0⅛"x6'-7½"	¼"x2'-2"x3'-3⅝"	18 Spa. at 2" Alt. Cts.	2 Spa. at 4"	2"
FS3 & FS6	¾"x2'-6"x3'-7½"	⅞"x1'-2⅛"x3'-7½"	¼"x2'-6"x1'-9⅝"	6 Spa. at 3"	2 Spa. at 5"	-
FS4 & FS5	¾"x2'-6"x3'-7½"	⅞"x1'-2⅛"x3'-7½"	-	6 Spa. at 3"	2 Spa. at 5"	-

Web				
Field Splice	Splice ℙ	Filler ℙ	Bolt Spacing	
	W1	W2	WA	WB
FS1 & FS8	½"x1'-7½"x9'-1¾"	-	2 Spa. at 3"	25 Spa. at 4¼"
FS2 & FS7	⅝"x1'-7½"x9'-1¾"	3/32"x9⅝"x9'-1¾"	2 Spa. at 3"	25 Spa. at 4¼"
FS3 & FS6	½"x1'-7½"x9'-2¾"	3/32"x9⅝"x9'-2¾"	2 Spa. at 3"	22 Spa. at 4⅞"
FS4 & FS5	½"x1'-7½"x9'-2¾"	-	2 Spa. at 3"	22 Spa. at 4⅞"

Bottom Flange						
Field Splice	Splice ℙ		Filler ℙ	Bolt Spacing		X
	B1	B2	B3	FC	FD	
FS1 & FS8	1"x2'-4"x5'-11½"	1⅛"x1'-1⅛"x5'-11½"	-	16 Spa. at 2" Alt. Cts.	2 Spa. at 4½"	-
FS2 & FS7	⅞"x2'-4"x4'-7½"	1"x1'-1⅛"x4'-7½"	-	8 Spa. at 3"	2 Spa. at 4½"	2"
FS3 & FS6	⅞"x2'-8"x4'-7½"	1"x1'-3⅛"x4'-7½"	¼"x2'-8"x2'-3⅝"	8 Spa. at 3"	2 Spa. at 5½"	-
FS4 & FS5	⅞"x2'-8"x5'-7½"	1"x1'-3⅛"x5'-7½"	¾"x2'-8"x2'-9⅝"	10 Spa. at 3"	2 Spa. at 5½"	-

Field Splice	No. Req'd WB	No. Req'd EB
FS1	8	8
FS2	8	8
FS3	8	8
FS4	8	8
FS5	8	8
FS6	8	8
FS7	8	8
FS8	8	8

NOTES:

1. Fasteners shall be ASTM F3125 Grade A325 Type 3 weathering steel bolts in unpainted areas. Bolts ⅞" ∅, holes 15/16" ∅.
2. All splice plates shall be AASHTO M270 Grade 50W steel, unless noted otherwise.
3. Load carrying components designated (CVN) denotes Charpy V-Notch Impact Energy Requirement, Zone 2.
4. Class B contact surface, for slip resistance, shall be provided for all connections.

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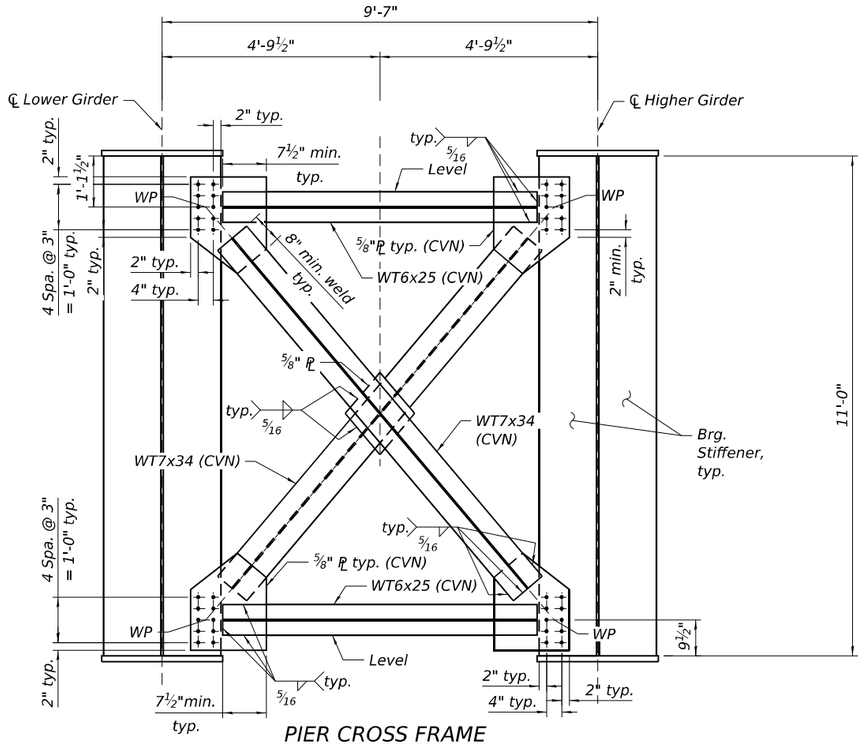
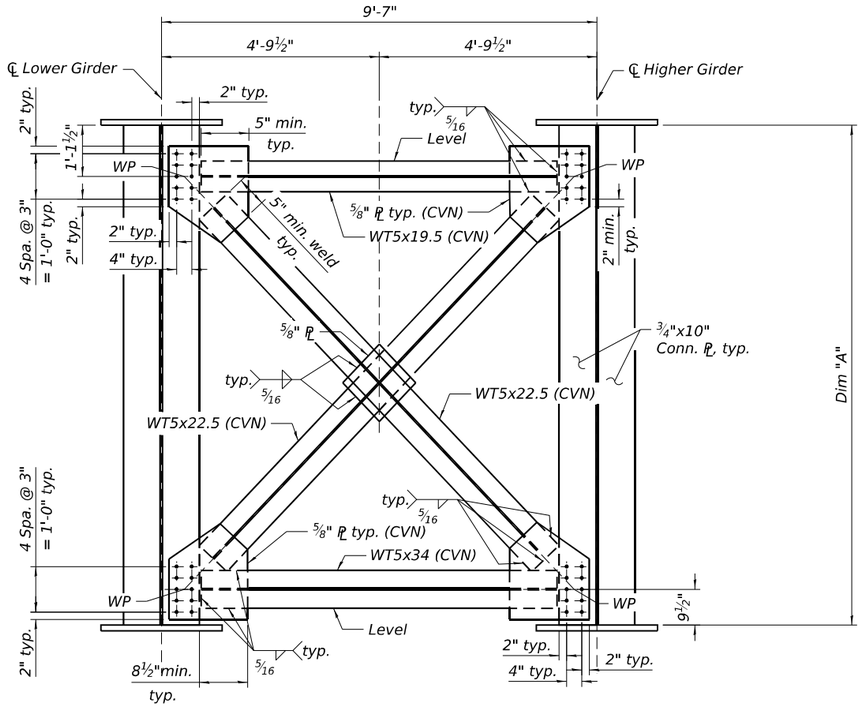
USER NAME = USSJ696614	DESIGNED - KB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIELD SPLICE DETAILS - UNIT 2 WB & EB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB SHEET S-216 OF S-333 SHEETS
	CHECKED - LAS	REVISED -		
PLOT SCALE = 0:2 ':' / in.	DRAWN - KB	REVISED -		
PLOT DATE = 11/5/2025	CHECKED - LAS/PJL	REVISED -		

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	797
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



PIER CROSS FRAME

At Piers 3 & 4
(CF-2 - 14 Required EB, 14 Required WB)

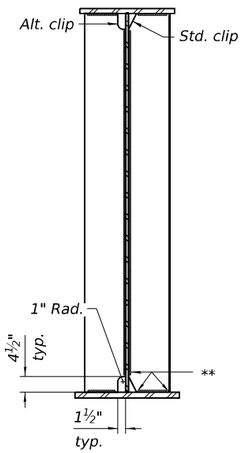


INTERIOR CROSS FRAME

(CF-3, CF-4, & CF-5)

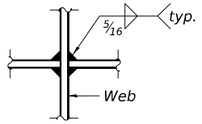
Cross Frame	Web Dim "A"	Number Required *			
		Span 3	Span 4	Span 5	Total
CF-3	9'-8"	70	91	70	231
CF-4	9'-10"	7	14	7	28
CF-5	10'-6"	7	14	7	28

* Number required per structure EB & WB.



WELD LIMITS AND CLIP DETAILS

** Stop welds ¼" (±⅛") from edges as shown. Typical.



WEB WELD DETAIL

NOTES:

1. All steel for the cross frames and connection plates shall conform to the requirements of AASHTO M270 Grade 50W, unless otherwise noted.
2. All steel for the bearing stiffeners, jacking stiffeners and transverse stiffeners shall conform to the requirements of AASHTO M270 Grade 50W.
3. For location of cross frames, see sheets S-207 to S-212.
4. All bolted cross frame connections shall be ASTM F3125, Grade A325 Type 3, ⅞"Ø bolts in $1\frac{1}{16}$"Ø holes, unless otherwise noted.
5. Two hardened washers required for each oversized hole.
6. Class B contact surface, for slip resistance, shall be provided for all crossframes.
7. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.
8. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.

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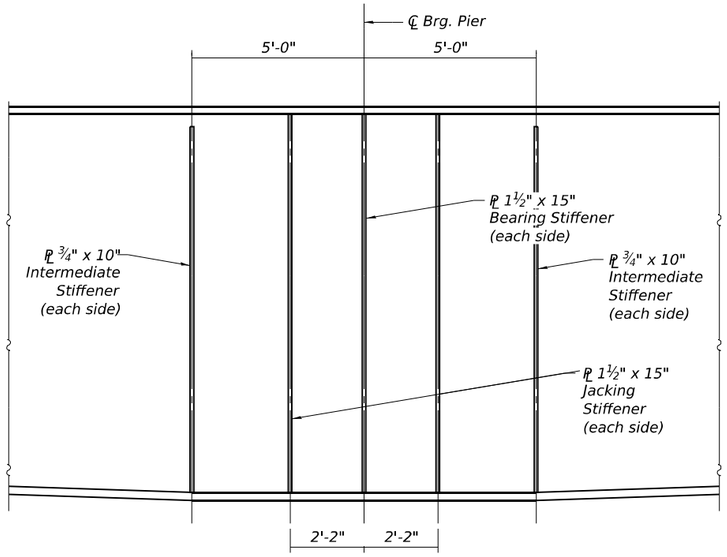
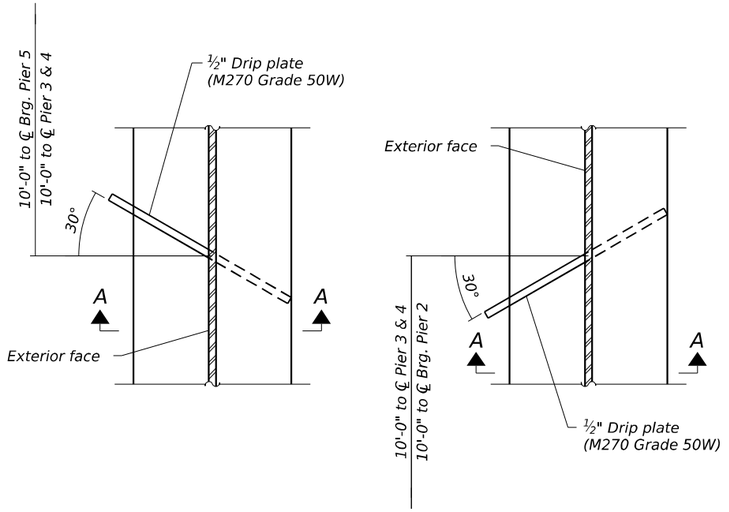
USER NAME = USSJ696614	DESIGNED - KB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERIOR CROSS FRAME DETAILS - UNIT 2 WB & EB STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
	CHECKED - LAS	REVISED -		
PLOT SCALE = 0:2 ':' / in.	DRAWN - BK	REVISED -		
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -		SHEET S-217 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	798
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw://transystems-pw.bentley.com:transystems-pw-1-hosted/Documents/Projects_2018/CH401/401180022/03-WSP/CAD/62R23-RB-1/Sheets/Structural/099830%-62R23-SS22-BM211.dgn

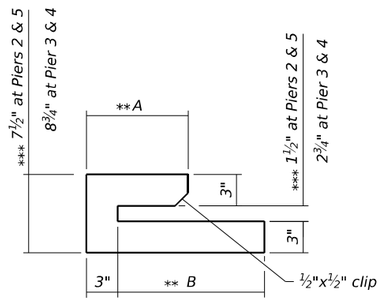


DETAIL B



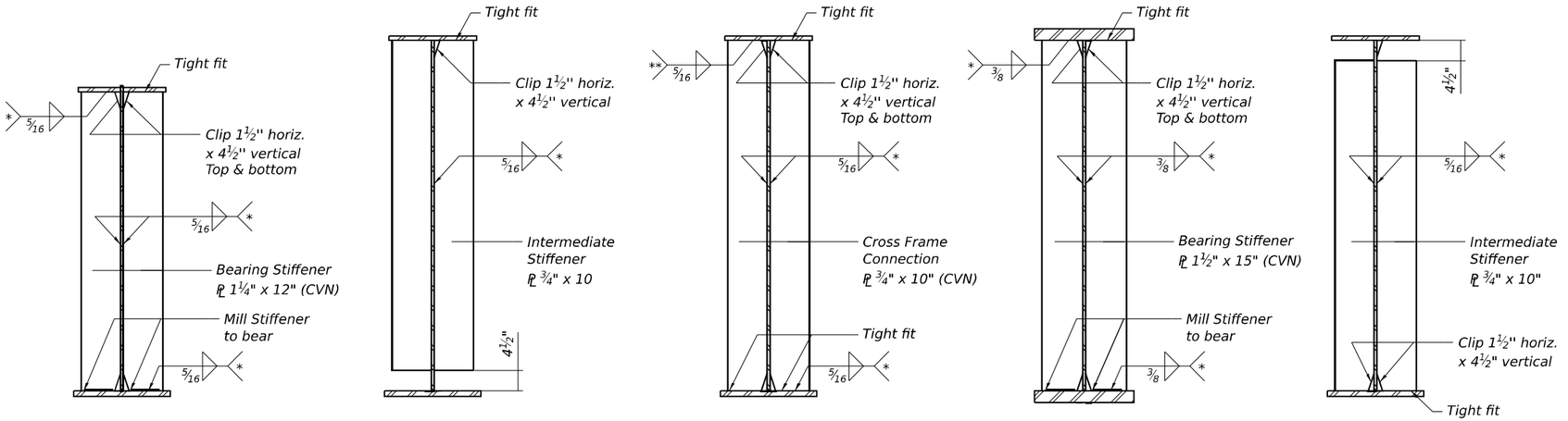
DRIP PLATE - PLAN

(24 Required, see Framing Plans for locations)



** *Adjust A and B to fit girder bottom flange.*
*** *Adjust dimensions as required for thickness tolerance and fit-up.*

DRIP PLATE - ELEVATION



BEARING & JACKING STIFFENER

At Piers 2 & 5
(No. Plates Required = 64 EB)
(No. Plates Required = 64 WB)

INTERMEDIATE STIFFENER

At Piers 2 & 5
(No. Plates Required = 32 EB)
(No. Plates Required = 32 WB)

CONNECTION PLATE

(No. Plates Required = 574 EB)
(No. Plates Required = 574 WB)

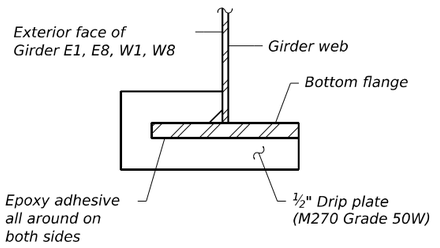
BEARING & JACKING STIFFENER

At Piers 3 & 4
(No. Plates Required = 96 EB)
(No. Plates Required = 96 WB)

INTERMEDIATE STIFFENER

Near Piers 3 & 4
(No. Plates Required = 64 EB)
(No. Plates Required = 64 WB)

* *Stop welds ¼'' (±⅛'') as shown on sheet S-207. Typical.*



SECTION A-A

NOTES:

1. *All steel for bearing stiffeners, jacking stiffeners and transverse stiffeners shall conform to the requirements of AASHTO M270 Grade 50W.*
2. *Bearing and jacking stiffeners to be vertical under full dead load, unless noted otherwise.*
3. *Cost of drip plates and adhesive included with Furnishing Structural Steel, Lump Sum.*
4. *Drip plate shall be installed using a two component epoxy suitable for structural steel under prolonged exposure.*
5. *Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.*

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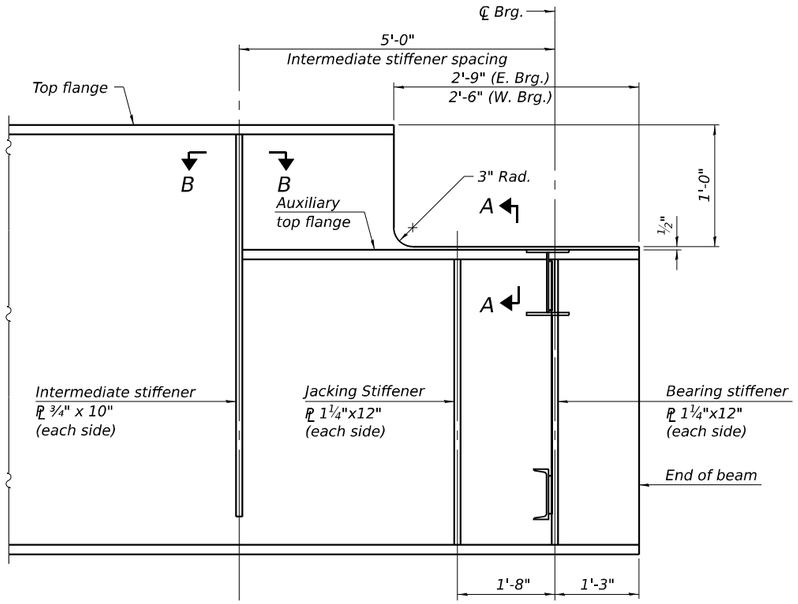
USER NAME = USSJ696614	DESIGNED - KB	REVISED -	
	CHECKED - LAS	REVISED -	
PLOT SCALE = 0:2 ':' / in.	DRAWN - KB	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - LAS/PSK	REVISED -	

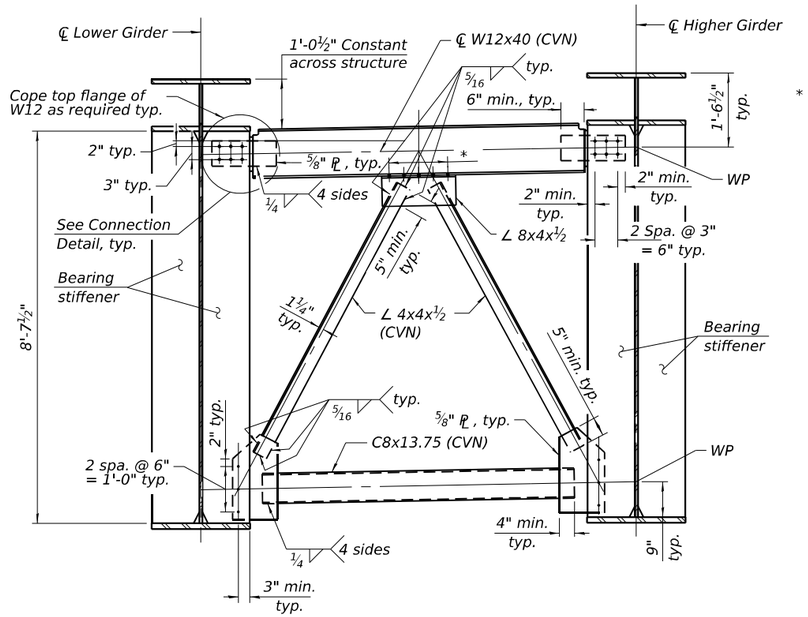
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STIFFENER DETAILS - UNIT 2 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB
SHEET S-218 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	799
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		



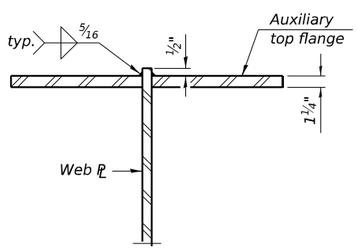
TYPICAL BEAM END DETAIL A



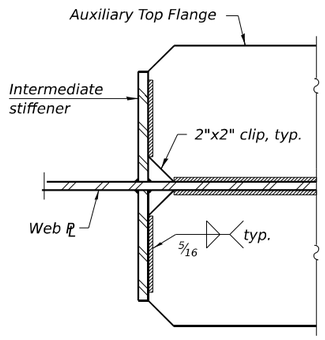
* 4 Spa. @ 3" = 12", with 2" min. edge distance

TYPICAL END CROSS-FRAME

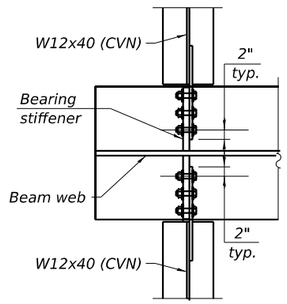
At Piers 2 & 5
(CF-1 - 14 Required EB, 14 Required WB)



SECTION A-A



SECTION B-S



CONNECTION DETAIL

NOTES:

1. *All steel for the cross frames and connection plates shall conform to the requirements of AASHTO M270 Grade 50W, unless otherwise noted.*
2. *All steel for the bearing stiffeners, jacking stiffeners and transverse stiffeners shall conform to the requirements of AASHTO M270 Grade 50W.*
3. *For location of cross frames, see sheets S-207 to S-212.*
4. *All bolted cross frame connections shall be ASTM F3125, Grade A325 Type 1, $\frac{7}{8}$"Ø bolts in $1\frac{1}{16}$"Ø holes, unless otherwise noted.*
5. *Two hardened washers required for each oversized hole.*
6. *Class B contact surface, for slip resistance, shall be provided for all crossframes.*
7. *All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor bolts.*
8. *Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirement, Zone 2.*

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USER NAME = USSJ696614	DESIGNED - KB	REVISED -	
	CHECKED - LAS	REVISED -	
PLOT SCALE = 0:2 ':' / in.	DRAWN - GM	REVISED -	
PLOT DATE = 11/5/2025	CHECKED - PSK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR JOINT STEEL DETAILS - UNIT 2 WB & EB
STRUCTURE NUMBER 099-8309 WB AND 099-8325 EB

SHEET S-219 OF S-333 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	FAI 80 21 STRUCTURE 2	WILL	1230	800
		CONTRACT NO. 62R23		
	ILLINOIS	FED. AID PROJECT		