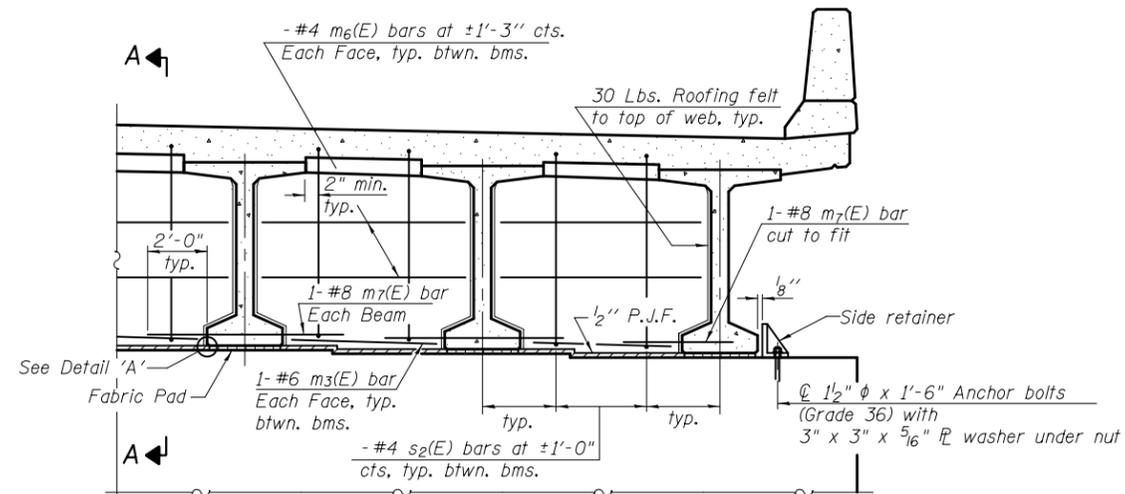


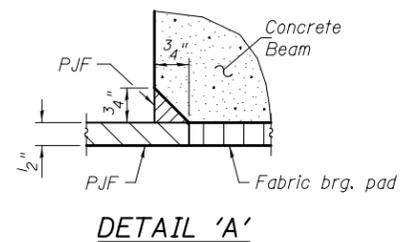
CELL / MODEL NAME	DESCRIPTION	DATE
DPBT-FP-0	Diaphragm Prestressed Bulb T-Beams; Fixed Pier; No skew	8/31/2012
DPBT-FP-L	Diaphragm Prestressed Bulb T-Beams; Fixed Pier; Left skew	8/31/2012
DPBT-FP-R	Diaphragm Prestressed Bulb T-Beams; Fixed Pier; Right skew	8/31/2012
DPBTI-0	Diaphragm Prestressed Bulb T-Beams; No Skew	8/31/2012
DPBTI-L	Diaphragm Prestressed Bulb T-Beams; Left skew	8/31/2012
DPBTI-R	Diaphragm Prestressed Bulb T-Beams; Right skew	8/31/2012
DPI-36-0	Diaphragm Prestressed I-Beams; Integral; 36 inch depth beams; No skew	8/31/2012
DPI-36-L	Diaphragm Prestressed I-Beams; Integral; 36 inch depth beams; Left skew	8/31/2012
DPI-36-R	Diaphragm Prestressed I-Beams; Integral; 36 inch depth beams; Right skew	8/31/2012
DPI-4254-0	Diaphragm Prestressed I-Beams; Integral; 42-54 inch depth beams; No skew	8/31/2012
DPI-4254-L	Diaphragm Prestressed I-Beams; Integral; 42-54 inch depth beams; Left skew	8/31/2012
DPI-4254-R	Diaphragm Prestressed I-Beams; Integral; 42-54 inch depth beams; Right skew	8/31/2012
DPI-FP-0	Diaphragm Prestressed I-Beams; Fixed Pier; No skew	8/31/2012
DPI-FP-L	Diaphragm Prestressed I-Beams; Fixed Pier; Left skew	8/31/2012
DPI-FP-R	Diaphragm Prestressed I-Beams; Fixed Pier; Right skew	8/31/2012
IL27-1830	27" Prestressed I-Bm. - 18" and 30" Flanges	1/28/2016
IL27-1830D	27" Prestressed I-Bm. - 18" and 30" Flanges - Detail Sheet	1/28/2016
IL36-2438	36" Prestressed I-Bm. - 24" and 38" Flanges	1/28/2016
IL36-2438D	36" Prestressed I-Bm. - 24" and 38" Flanges - Detail Sheet	1/28/2016
IL36-3838	36" Prestressed I-Bm. - 38" Flanges	1/28/2016
IL36-3838D	36" Prestressed I-Bm. - 38" Flanges - Detail Sheet	1/28/2016
IL45-2438	45" Prestressed I-Bm. - 24" and 38" Flanges	1/28/2016
IL45-2438D	45" Prestressed I-Bm. - 24" and 38" Flanges - Detail Sheet	1/28/2016
IL45-3838	45" Prestressed I-Bm. - 38" Flanges	1/28/2016
IL45-3838D	45" Prestressed I-Bm. - 38" Flanges - Detail Sheet	1/28/2016
IL54-2438	54" Prestressed I-Bm. - 24" & 38" Flanges	1/28/2016
IL54-2438D	54" Prestressed I-Bm. - 24" & 38" Flanges - Detail Sheet	1/28/2016
IL54-3838	54" Prestressed I-Bm. - 38" Flanges	1/28/2016
IL54-3838D	54" Prestressed I-Bm. - 38" Flanges - Detail Sheet	1/28/2016
IL63-2438	63" Prestressed I-Bm. - 24" & 38" Flanges	1/28/2016
IL63-2438D	63" Prestressed I-Bm. - 24" & 38" Flanges - Detail Sheet	1/28/2016
IL63-3838	63" Prestressed I-Bm. - 38" Flanges	1/28/2016
IL63-3838D	63" Prestressed I-Bm. - 38" Flanges - Detail Sheet	1/28/2016
IL72-2438	72" Prestressed I-Bm. - 24" & 38" Flanges	1/28/2016
IL72-2438D	72" Prestressed I-Bm. - 24" & 38" Flanges - Detail Sheet	1/28/2016
IL72-3838	72" Prestressed I-Bm. - 38" Flanges	1/28/2016

CELL / MODEL NAME	DESCRIPTION	DATE
IL72-3838D	72" Prestressed I-Bm. - 38" Flanges - Detail Sheet	1/28/2016
PBT-1-0 no skew	Super Plan & X-sect no skew (single span bulb-T beam bridge)	6/8/2015
PBT-1-L greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead left (single span bulb-T beam bridge)	6/8/2015
PBT-1-L less than 30 degrees	Super Plan & X-sect <30 degrees ahead left (single span bulb-T beam bridge)	6/8/2015
PBT-1-R greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead right (single span bulb-T beam bridge)	6/8/2015
PBT-1-R less than 30 degrees	Super Plan & X-sect < 30 degrees ahead right (single span bulb-T beam bridge)	6/8/2015
PBT-2-0 no skew	Super Plan & X-sect no skew (multi-span bulb-T beam bridge)	6/8/2015
PBT-2-L greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead left (multi-span bulb-T beam bridge)	6/8/2015
PBT-2-L less than 30 degrees	Super Plan & X-sect < 30 degrees ahead left (multi-span bulb-T beam bridge)	6/8/2015
PBT-2-R greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead right (multi-span bulb-T beam bridge)	6/8/2015
PBT-2-R less than 30 degrees	Super Plan & X-sect < 30 degrees ahead right (multi-span bulb-T beam bridge)	6/8/2015
PBT-2F	Diaphragm details for bulb T beams	1/27/2012
PBT-2J	Diaphragm details for bulb T beams	1/28/2011
PBT-4-63	63 inch PPC bulb T beam	1/28/2016
PBT-4-63D	63 inch PPC bulb T beam details	1/28/2016
PBT-4-72	72 inch PPC bulb T beam	1/28/2016
PBT-4-72D	72 inch PPC bulb T beam details	1/28/2016
PBT-D1	Superstructure details for Prestressed bulb T-beams (for stub abutment; Simple span projects)	6/8/2015
PBT-D2	Superstructure details for Prestressed bulb T-beams (for stub abutment; Multi span projects)	6/8/2015
PBTI-1-0	Super Plan & X-sect no skew (single span bulb-T beam bridge with integral abutments)	6/8/2015
PBTI-1-L	Super Plan & X-sect ahead left (single span bulb-T beam bridge with integral abutments)	6/8/2015
PBTI-1-R	Super Plan & X-sect ahead right (single span bulb-T beam bridge with integral abutments)	6/8/2015
PBTI-2-0	Super Plan & X-sect no skew (multi-span bulb-T beam bridge with integral abutments)	6/8/2015
PBTI-2-L	Super Plan & X-sect ahead left (multi-span bulb-T beam bridge with integral abutments)	6/8/2015
PBTI-2-R	Super Plan & X-sect ahead right (multi-span bulb-T beam bridge with integral abutments)	6/8/2015
PBTI-D1	Superstructure details for Prestressed bulb T-beams (for integral abutment; Simple span proj.)	6/8/2015
PBTI-D2	Superstructure details for Prestressed bulb T-beams (for integral abutment; Multi span proj.)	6/8/2015
PI-1-0 no skew	Super Plan & X-sect no skew (single span steel bridge)	6/8/2015
PI-1-L greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead left (single span I-beam bridge)	6/8/2015
PI-1-L less than 30 degrees	Super Plan & X-sect <30 degrees ahead left (single span I-beam bridge)	6/8/2015
PI-1-R greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead right (single span I-beam bridge)	6/8/2015
PI-1-R less than 30 degrees	Super Plan & X-sect < 30 degrees ahead right (single span I-beam bridge)	6/8/2015
PI-2-0 no skew	Super Plan & X-sect no skew (multi-span I-beam bridge)	6/8/2015
PI-2-L greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead left (multi-span I-beam bridge)	6/8/2015
PI-2-L less than 30 degrees	Super Plan & X-sect < 30 degrees ahead left (multi-span I-beam bridge)	6/8/2015
PI-2-R greater than 30 degrees	Super Plan & X-sect > 30 degrees ahead right (multi-span I-beam bridge)	6/8/2015

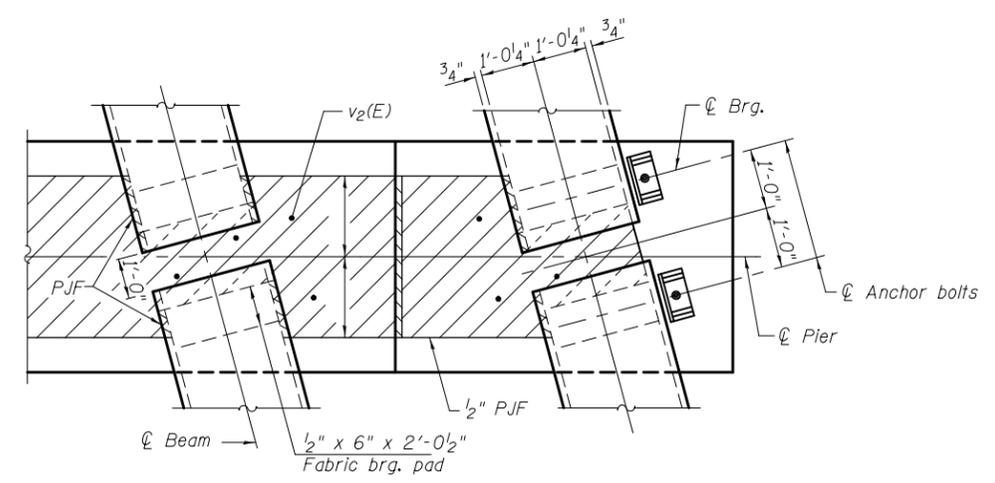
CELL / MODEL NAME	DESCRIPTION	DATE
PI-2-R less than 30 degrees	Super Plan & X-sect < 30 degrees ahead right (multi-span I-beam bridge)	6/8/2015
PI-2E-1	Type I elastomeric bearing	12/2/2015
PI-2E-2	Type II elastomeric bearing	12/2/2015
PI-2E-3	Type III elastomeric bearing	12/2/2015
PI-2F	Diaphragm details for PPC I beams	1/27/2012
PI-2FB	Fixed bearing	7/1/2010
PI-2J	Diaphragm details for PPC I beams	1/28/2011
PI-4-36	36 inch PPC I beam	1/28/2016
PI-4-36D	36 inch PPC I beam details	1/28/2016
PI-4-42	42 inch PPC I beam	1/28/2016
PI-4-42D	42 inch PPC I beam details	1/28/2016
PI-4-48	48 inch PPC I beam	1/28/2016
PI-4-48D	48 inch PPC I beam details	1/28/2016
PI-4-54	54 inch PPC I beam	1/28/2016
PI-4-54D	54 inch PPC I beam details	1/28/2016
PI-D1	Superstructure details for PPC I beams (for stub abutment; Simple span projects)	6/8/2015
PI-D2	Superstructure details for PPC I beams (for stub abutment; Multi span projects)	6/8/2015
PII-1-0	Super Plan & X-sect no skew (single span I-beam bridge with integral abutments)	6/8/2015
PII-1-L	Super Plan & X-sect ahead left (single span I-beam bridge with integral abutments)	6/8/2015
PII-1-R	Super Plan & X-sect ahead right (single span I-beam bridge with integral abutments)	6/8/2015
PII-2-0	Super Plan & X-sect no skew (multi-span I-beam bridge with integral abutments)	6/8/2015
PII-2-L	Super Plan & X-sect ahead left (multi-span I-beam bridge with integral abutments)	6/8/2015
PII-2-R	Super Plan & X-sect ahead right (multi-span I-beam bridge with integral abutments)	6/8/2015
PII-D1	Superstructure details for PPC I beams (for integral abutment; Simple span projects)	6/8/2015
PII-D2	Superstructure details for PPC I beams (for integral abutment; Multi span projects)	6/8/2015



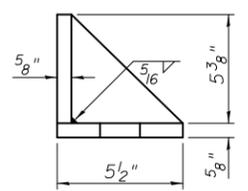
DIAPHRAGM AT PIER



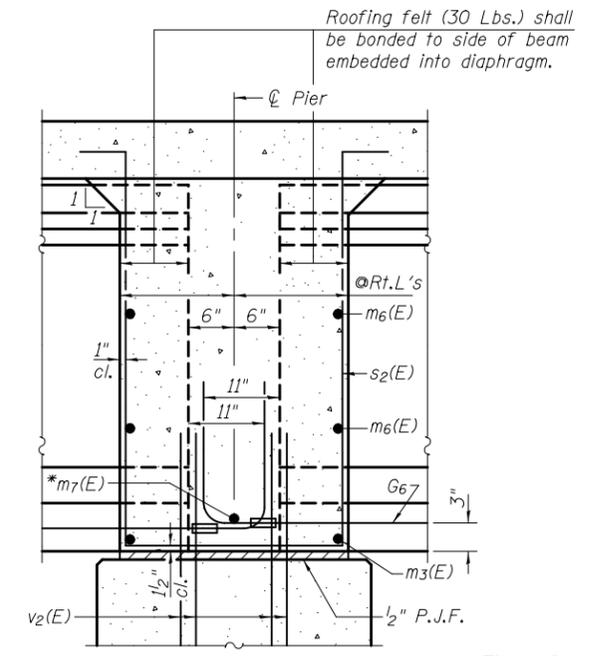
DETAIL 'A'



PLAN AT PIER
(Showing bearing pads and P.J.F. details)



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

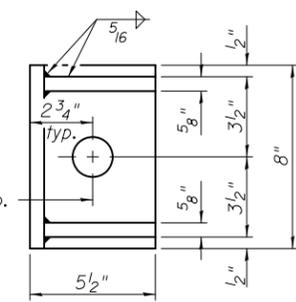


SECTION A-A

Dimensions along ϕ of beam, except as shown.

* Tightly fasten the #8 bars together with No. 9 wire ties.

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s₂(E) see sheet of .
 The s₂(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 Cost of 30 Lb. roofing felt is included with Concrete Superstructure. The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
 Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



ϕ 1 3/4" ϕ hole, typ.

DPBT-FP-L 8-31-12

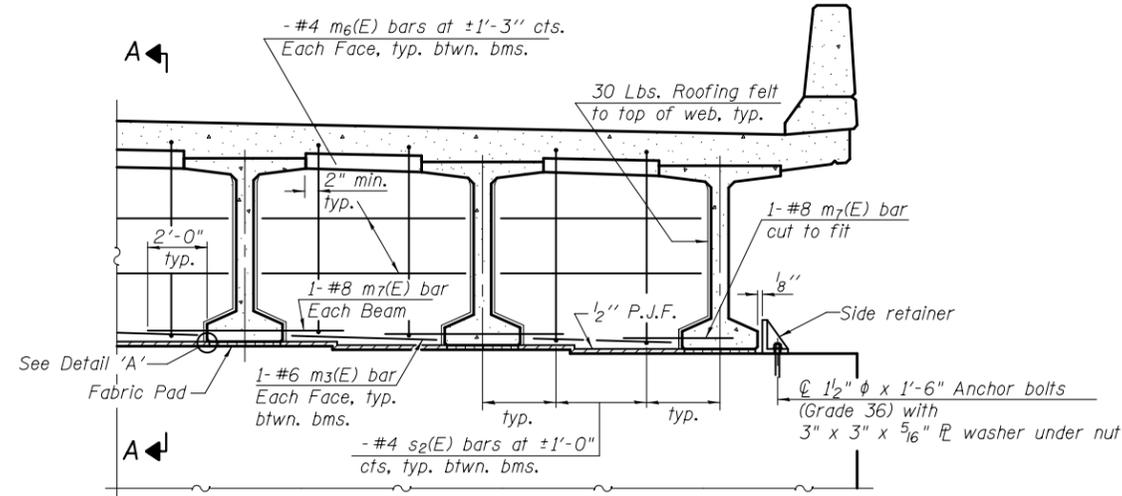
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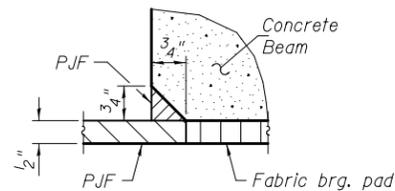
DIAPHRAGM DETAILS
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

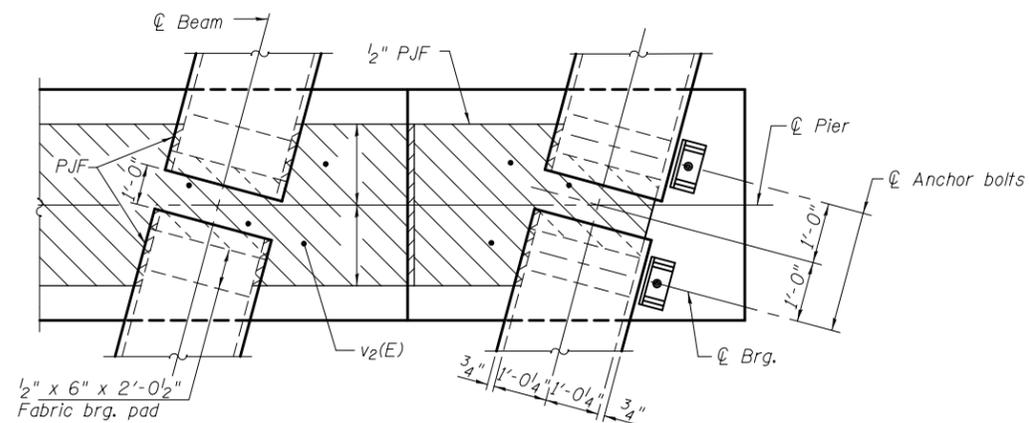
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DIAPHRAGM AT PIER

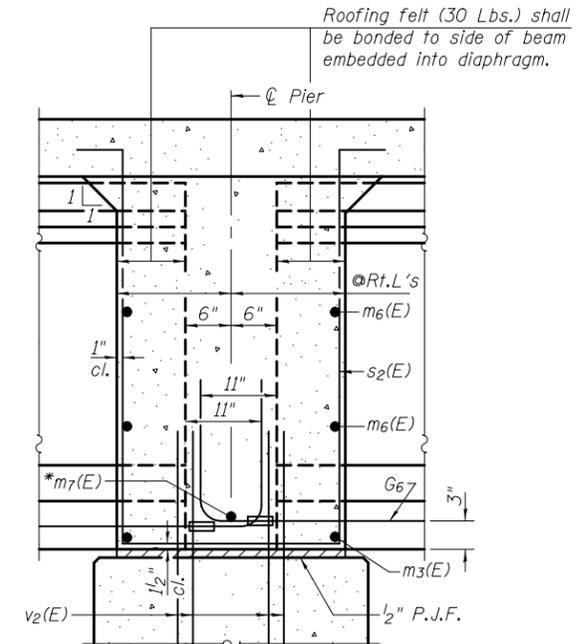


DETAIL 'A'



PLAN AT PIER

(Showing bearing pads and P.J.F. details)



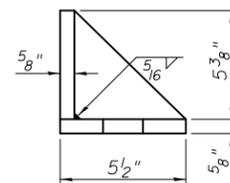
SECTION A-A

Dimensions along \perp of beam, except as shown.

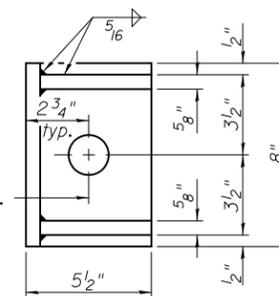
* Tightly fasten the #8 bars together with No. 9 wire ties.

Notes:

- Reinforcement bars in diaphragm are billed with superstructure on sheet of .
- Concrete in diaphragm is included with Concrete Superstructure on sheet of .
- For details of bars $s_2(E)$ see sheet of .
- The $s_2(E)$ bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- Cost of 30 Lb. roofing felt is included with Concrete Superstructure. The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
- Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



\perp 1 3/4" ϕ hole, typ.



SIDE RETAINER

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

DPBT-FP-R

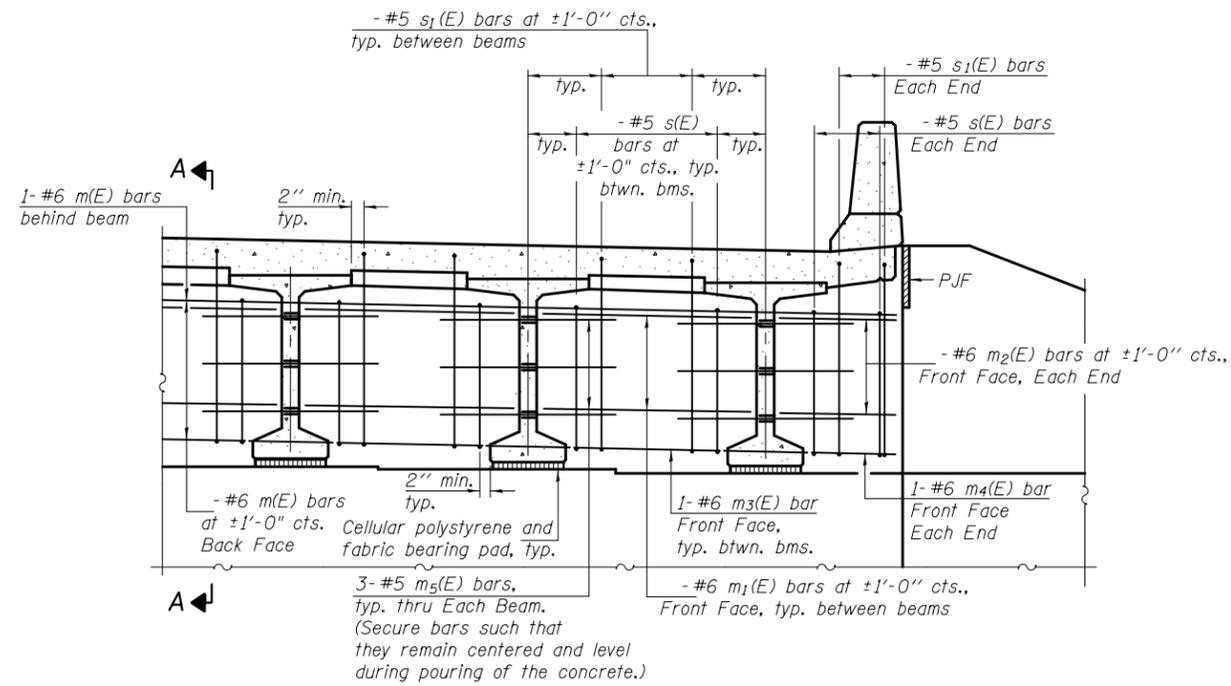
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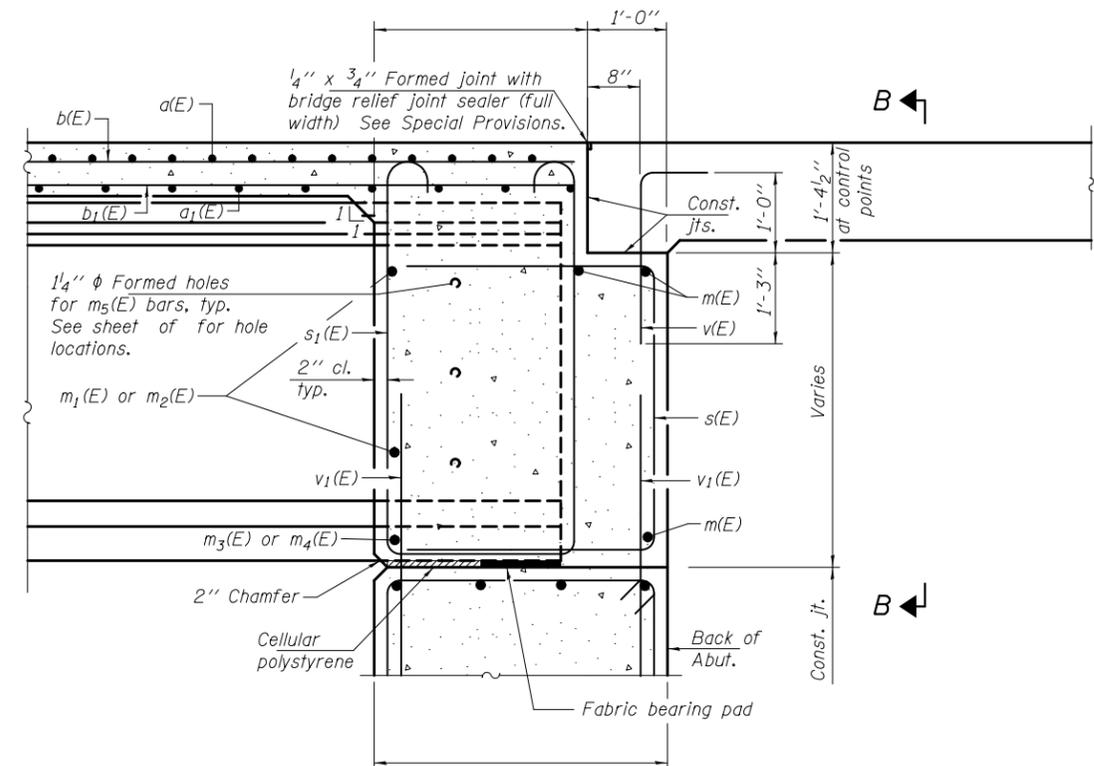
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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STRUCTURE NO.**

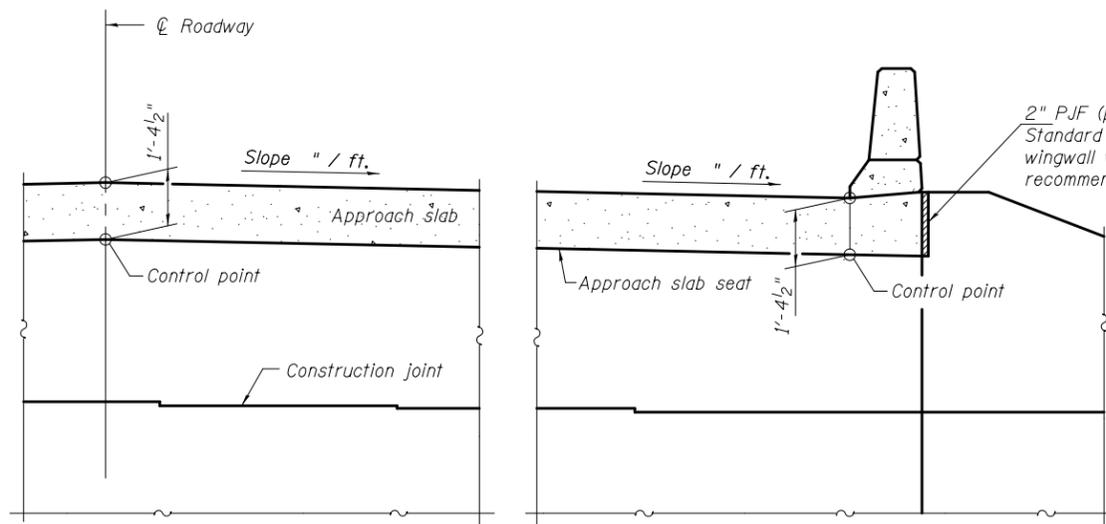
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



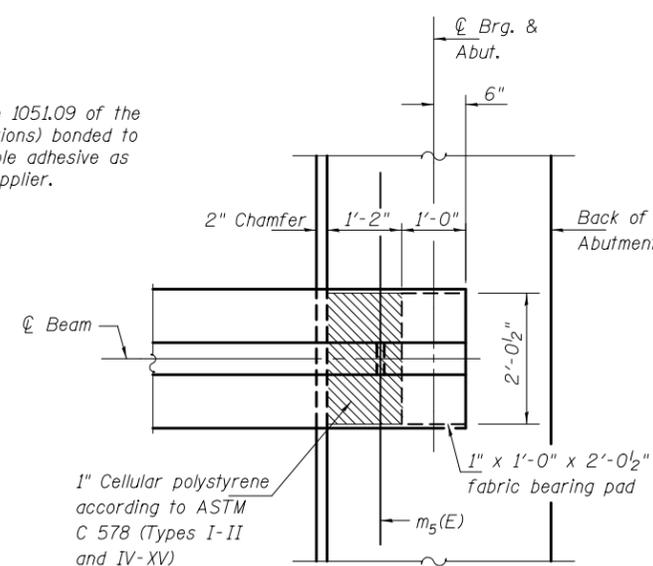
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s1(E) and v(E) see sheet of .
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPBTI-0

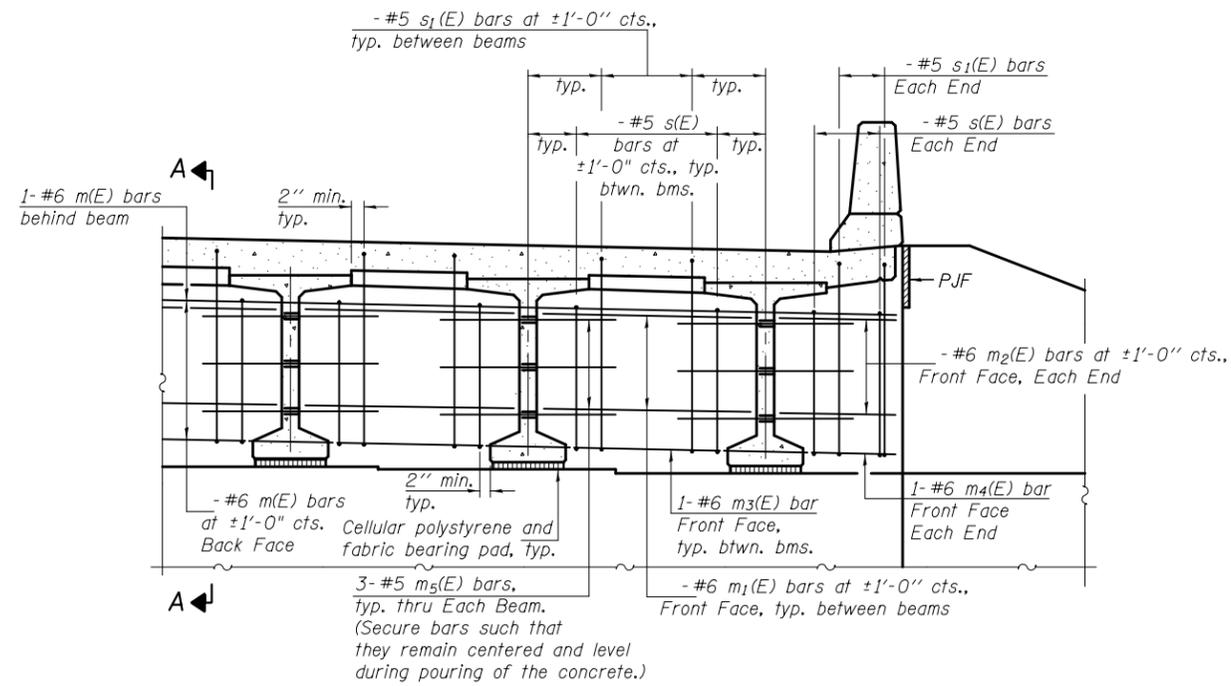
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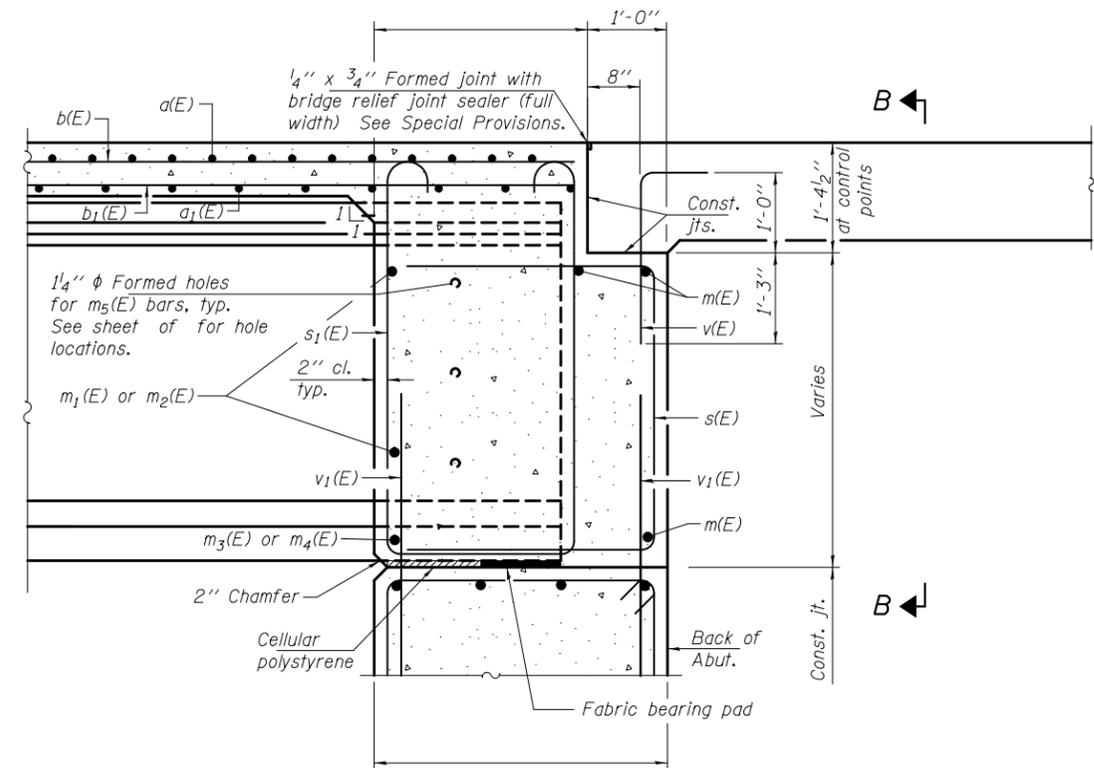
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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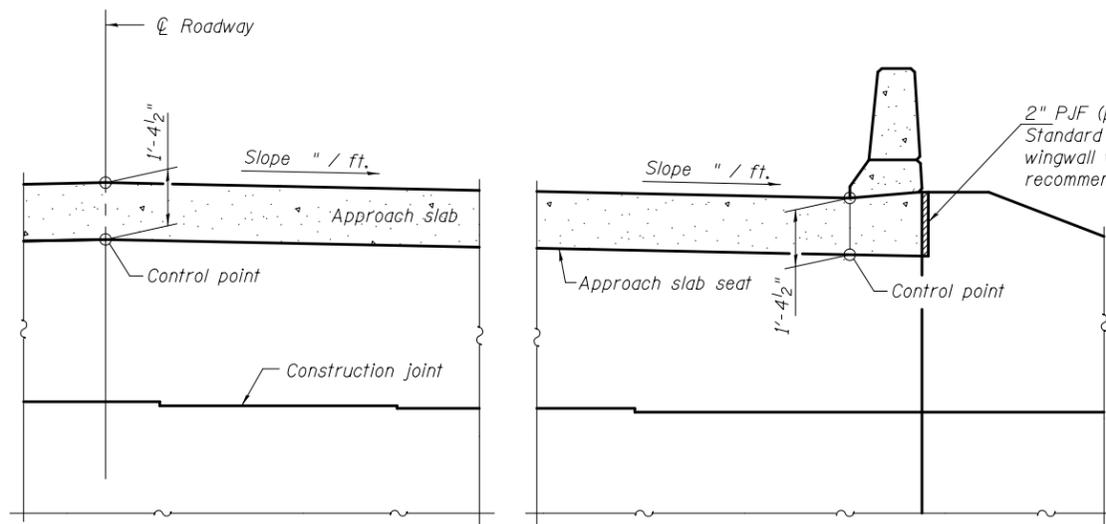
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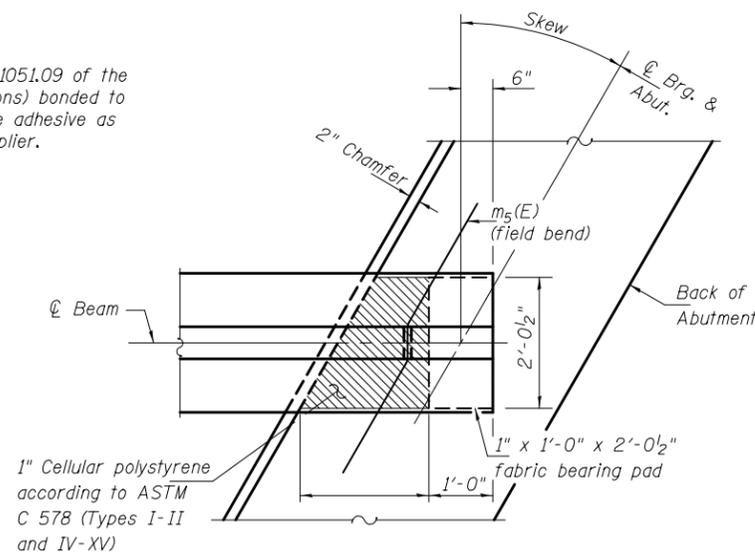
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A
(at Rt. L's)



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s1(E) and v(E) see sheet of .
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPBTI-L

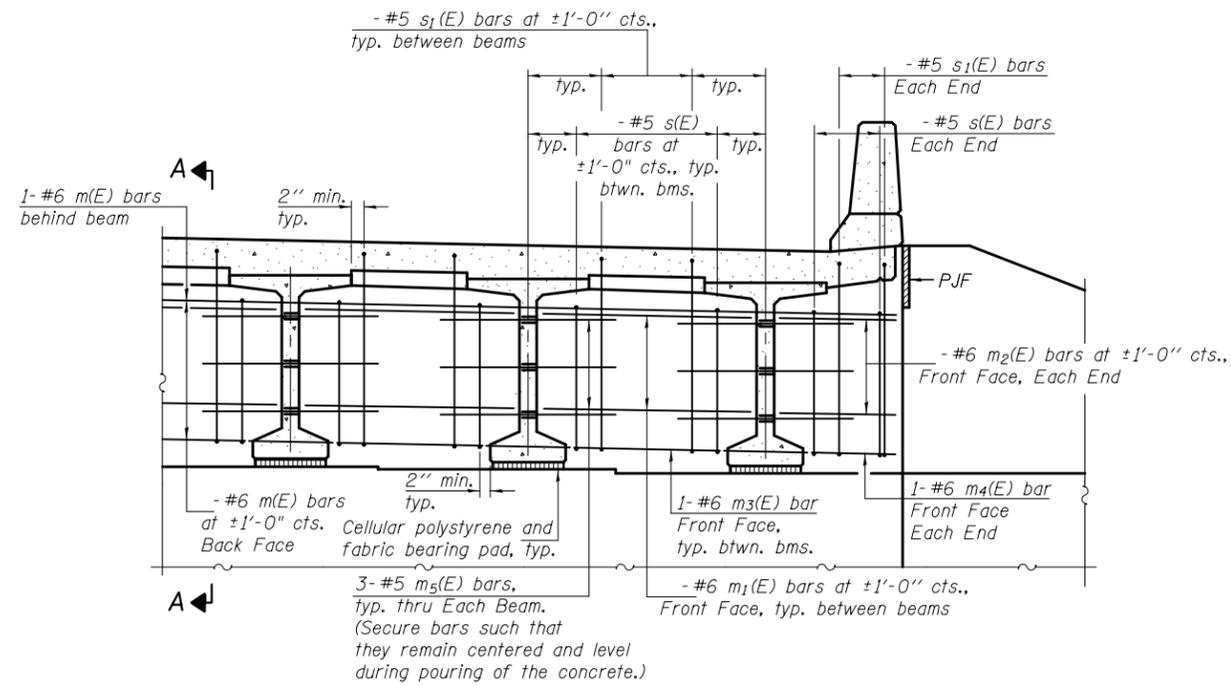
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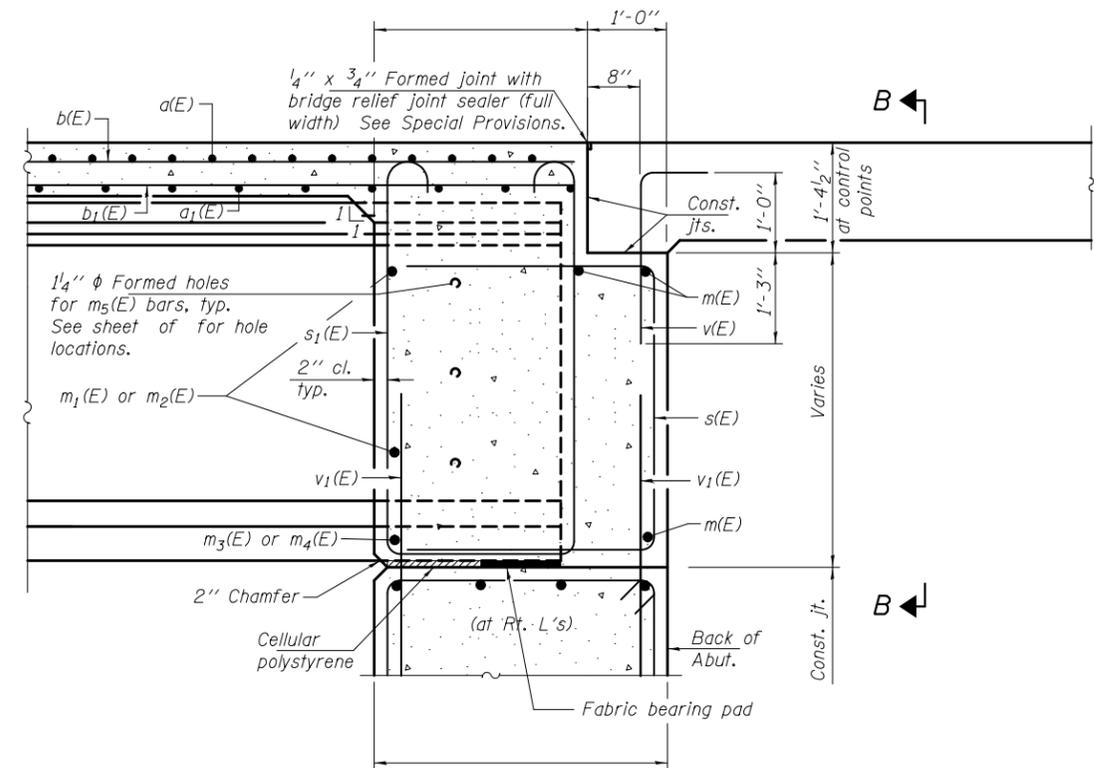
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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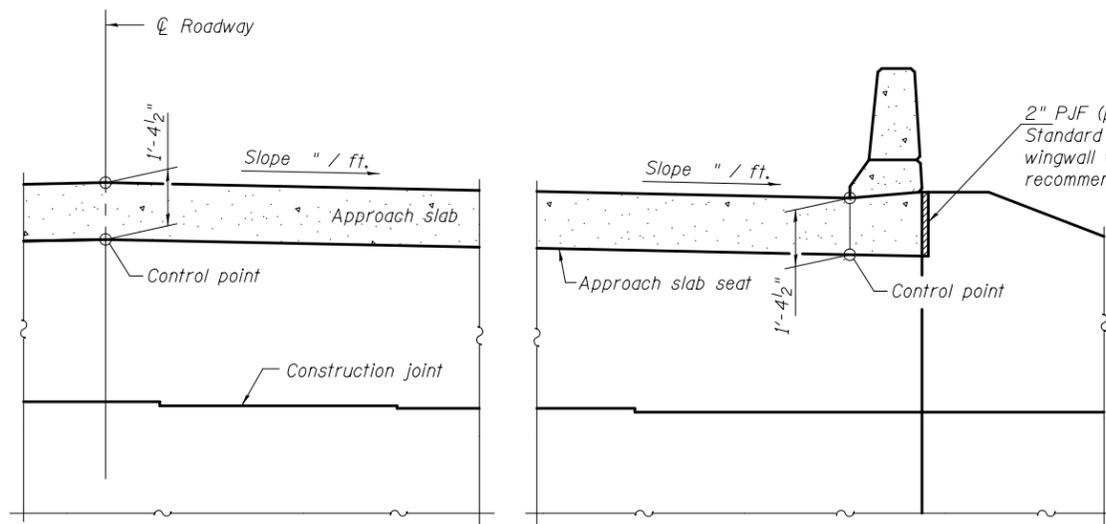
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CONTRACT NO.				
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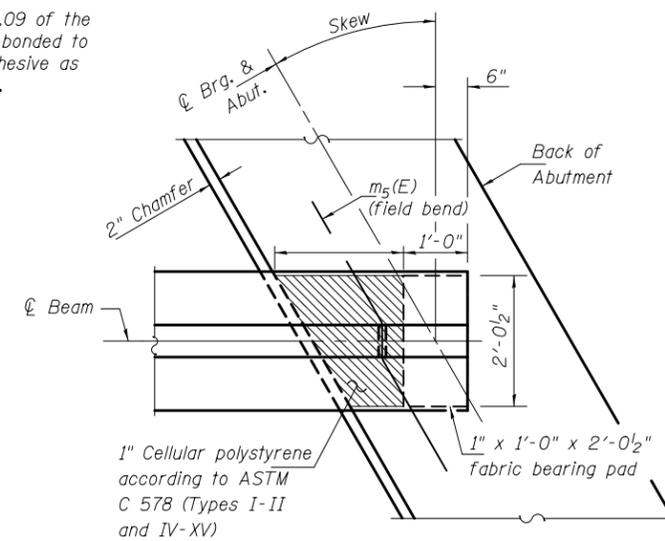
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A
(at Rt. L's)



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s1(E) and v(E) see sheet of .
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPBTI-R

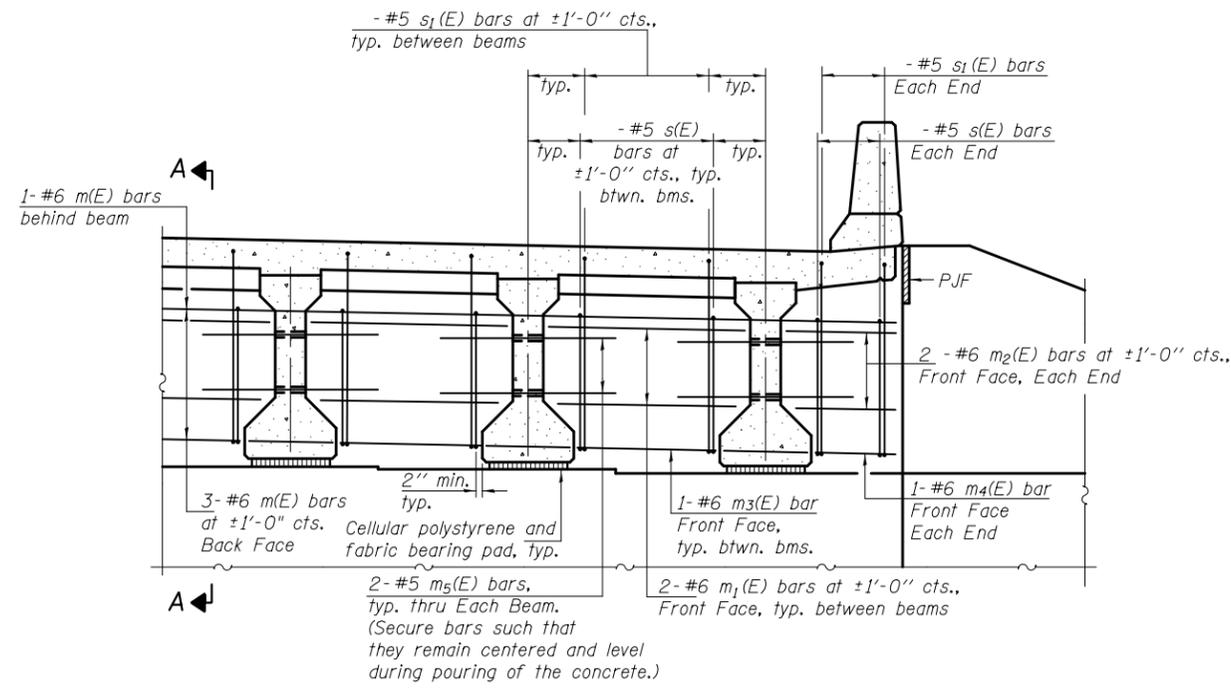
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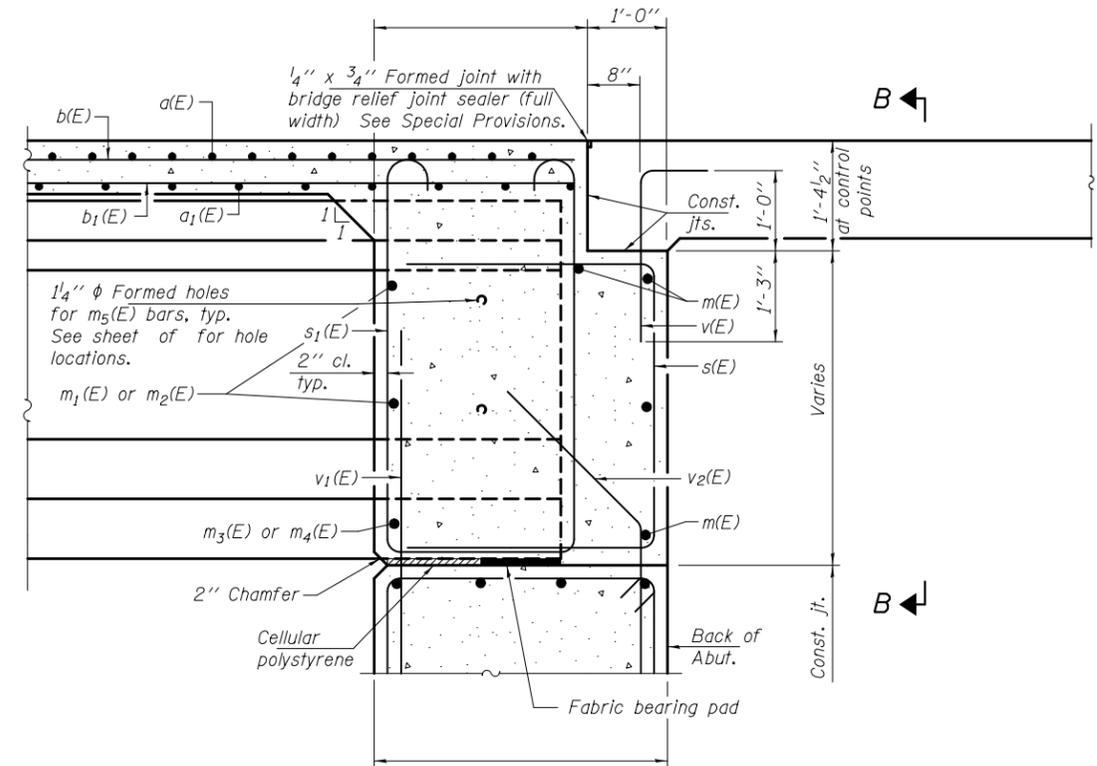
STATE OF ILLINOIS
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DIAPHRAGM DETAILS
STRUCTURE NO.

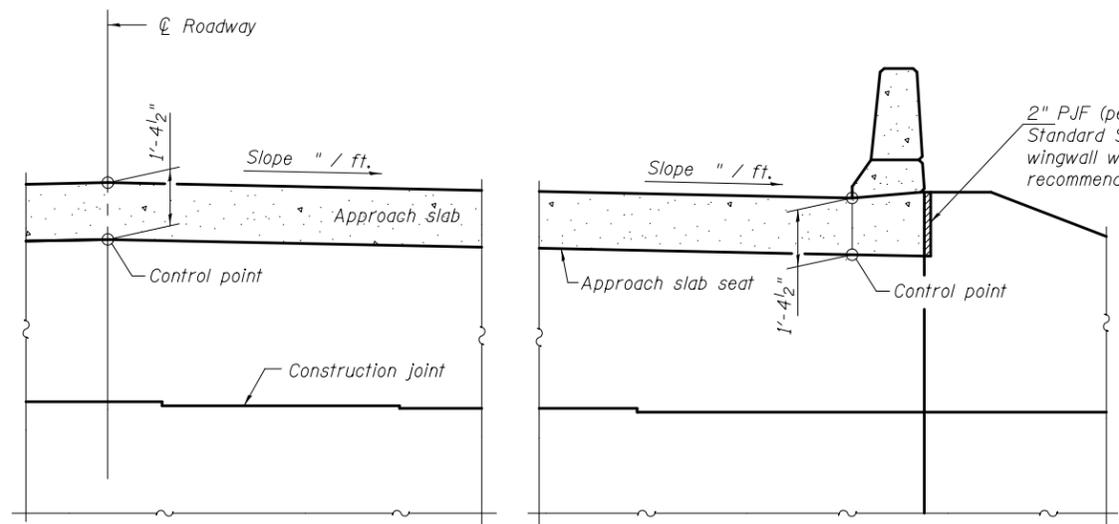
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



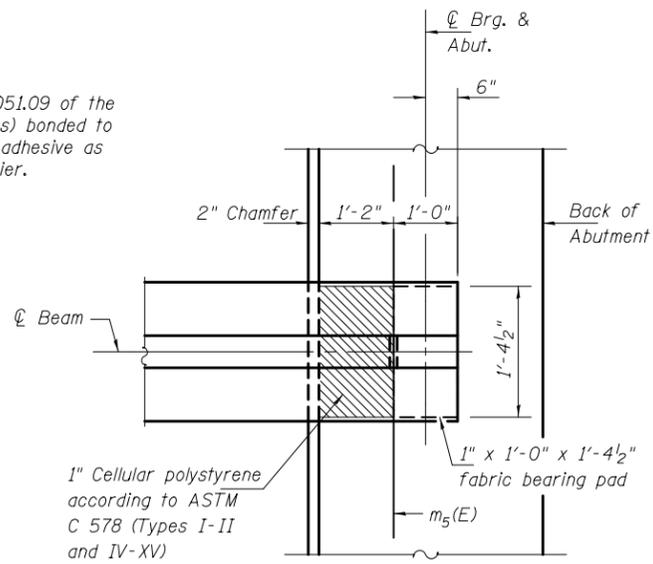
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s1(E) and v(E) see sheet of .
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPI-36-0

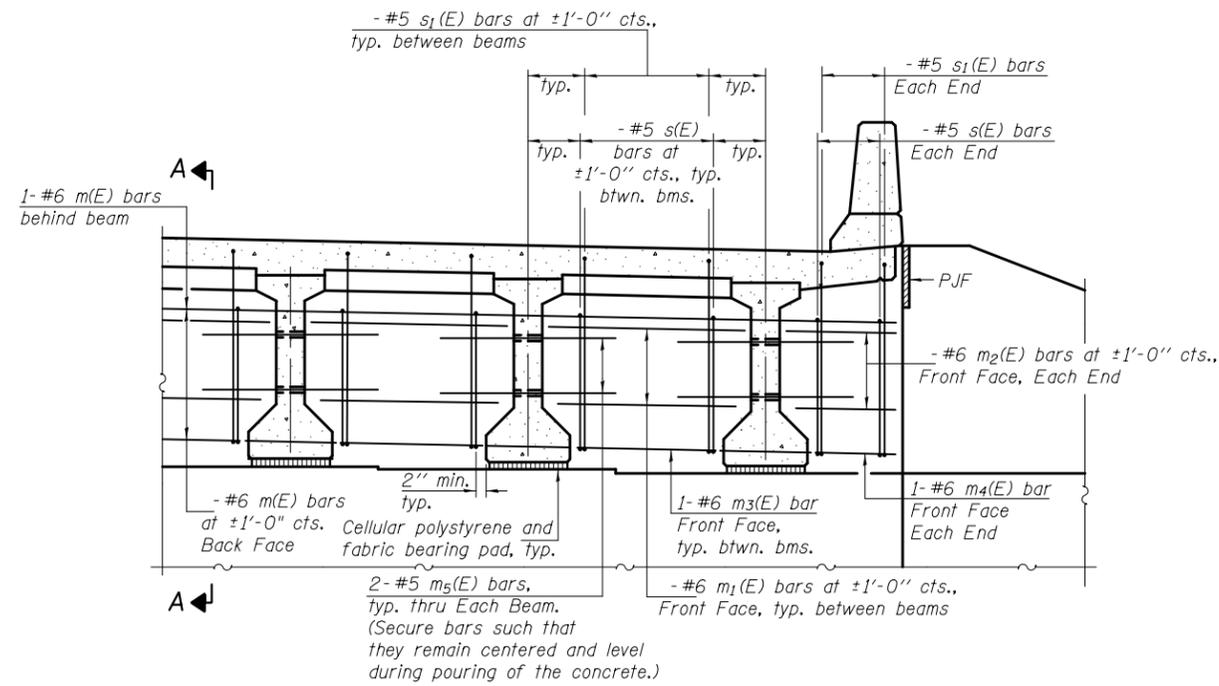
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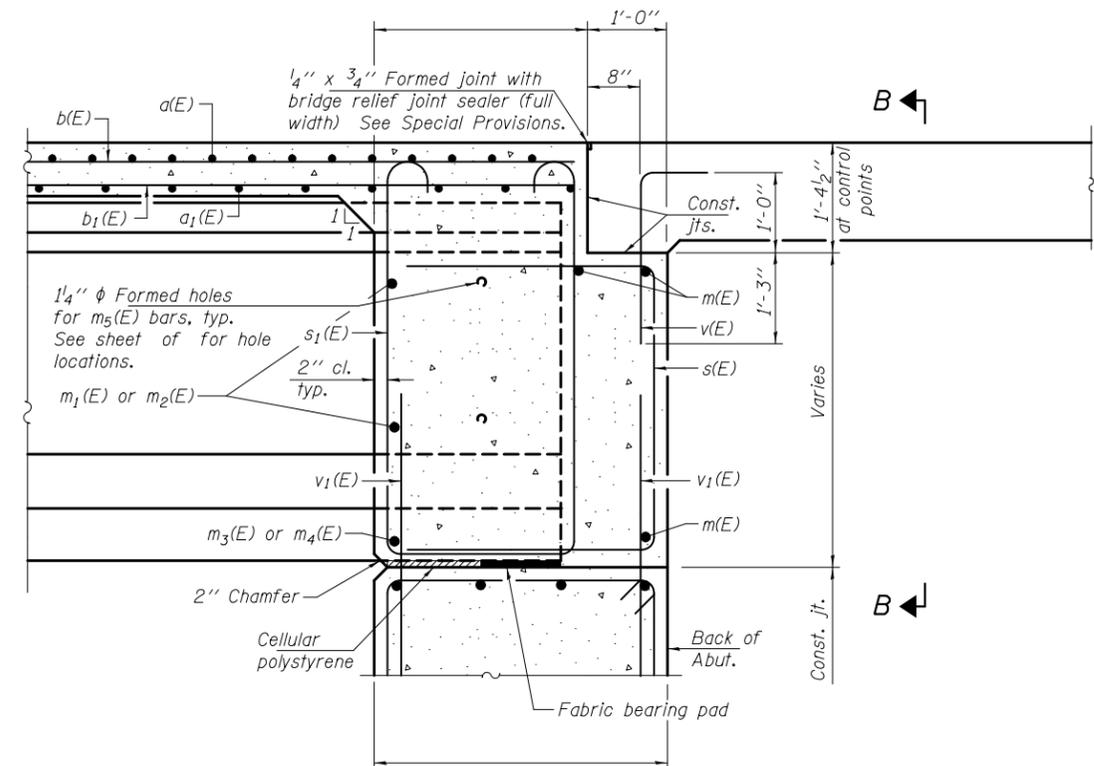
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DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
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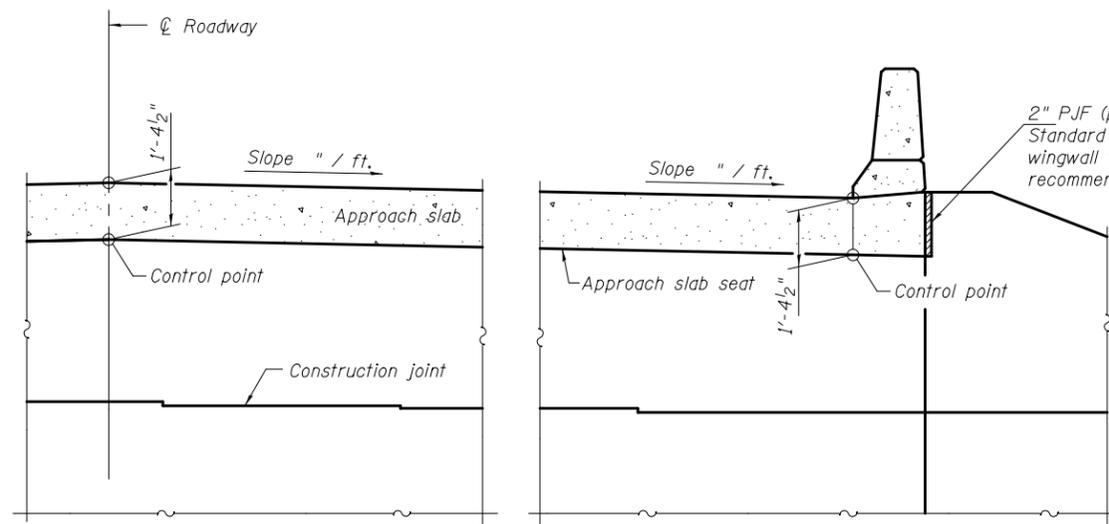
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



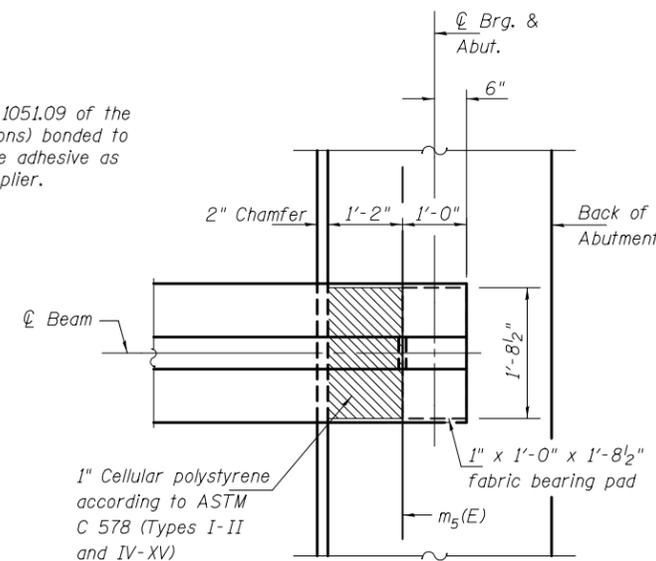
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A



SECTION B-B



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s₁(E) and v(E) see sheet of .
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPI-4254-0

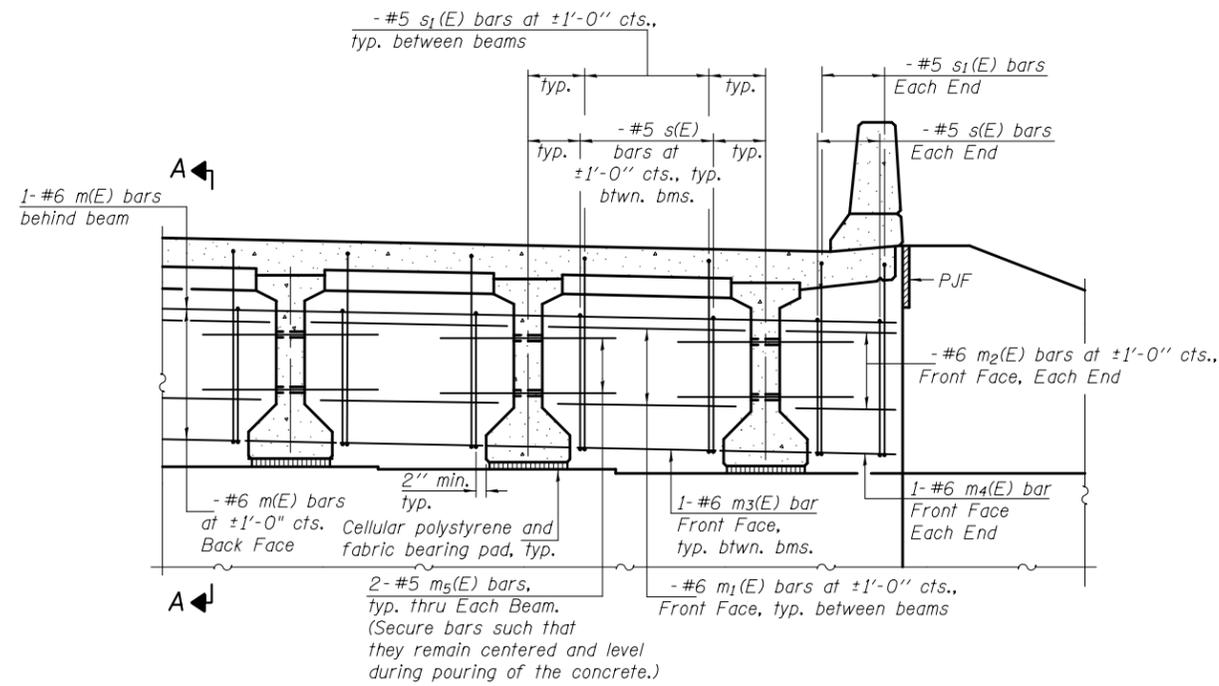
8-31-12

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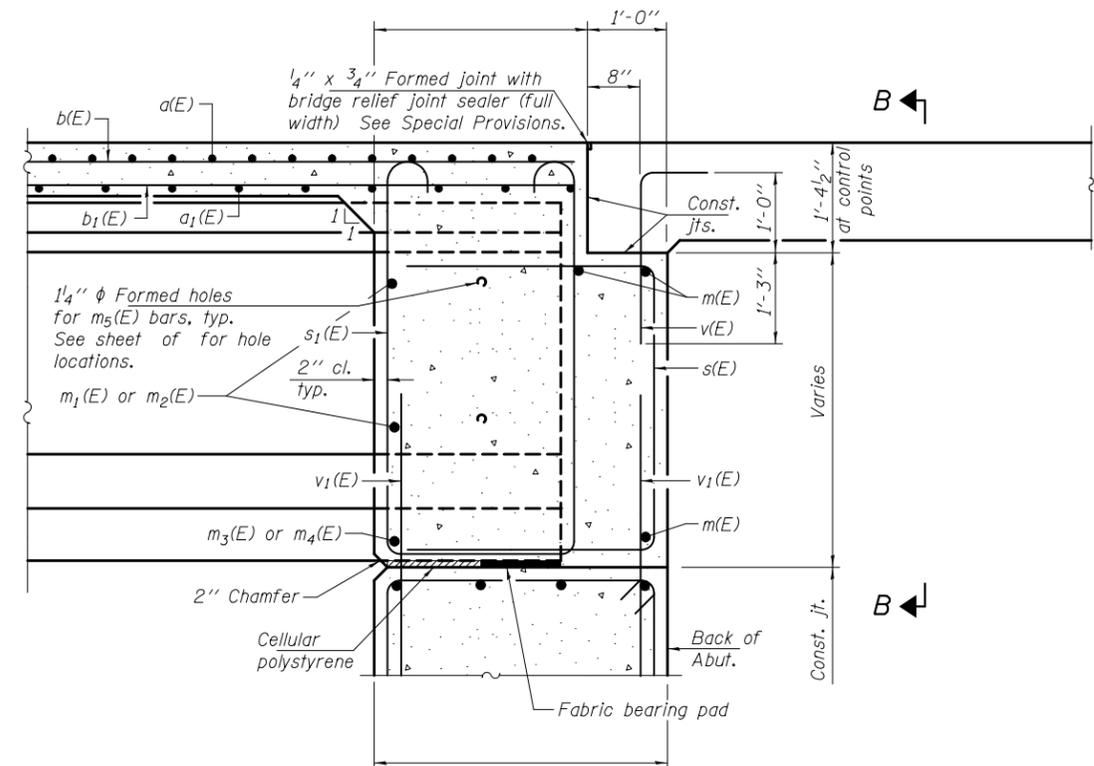
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DIAPHRAGM DETAILS
 STRUCTURE NO.**

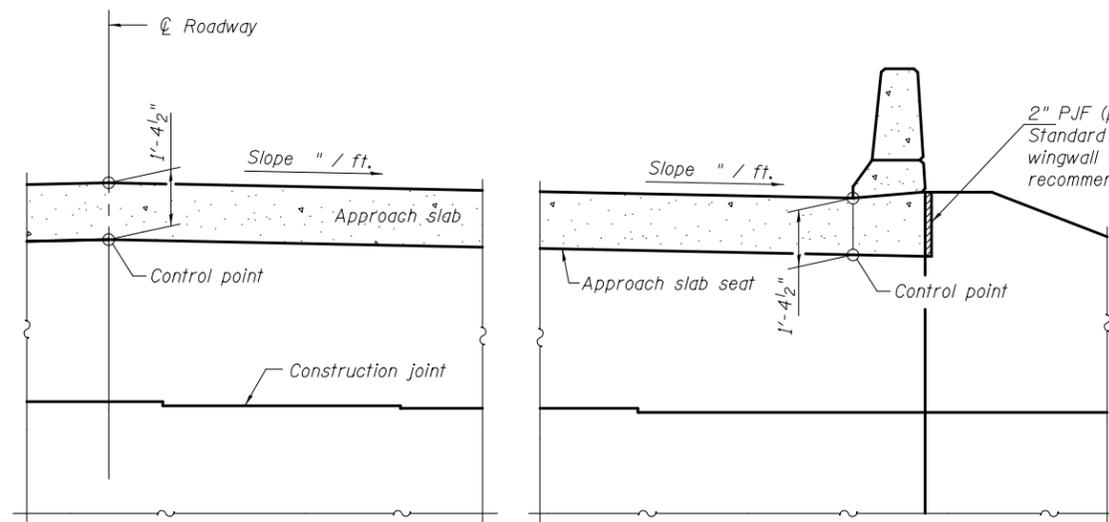
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



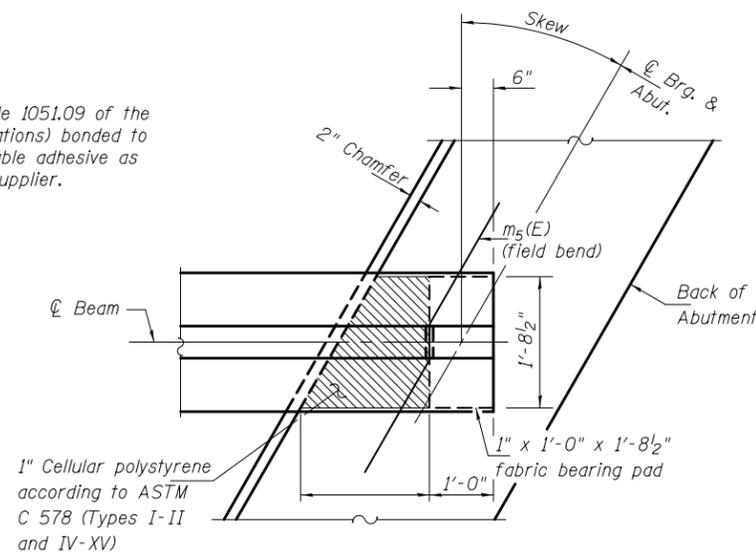
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A
(at Rt. L's)



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s1(E) and v(E) see sheet of .
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPI-4254-L

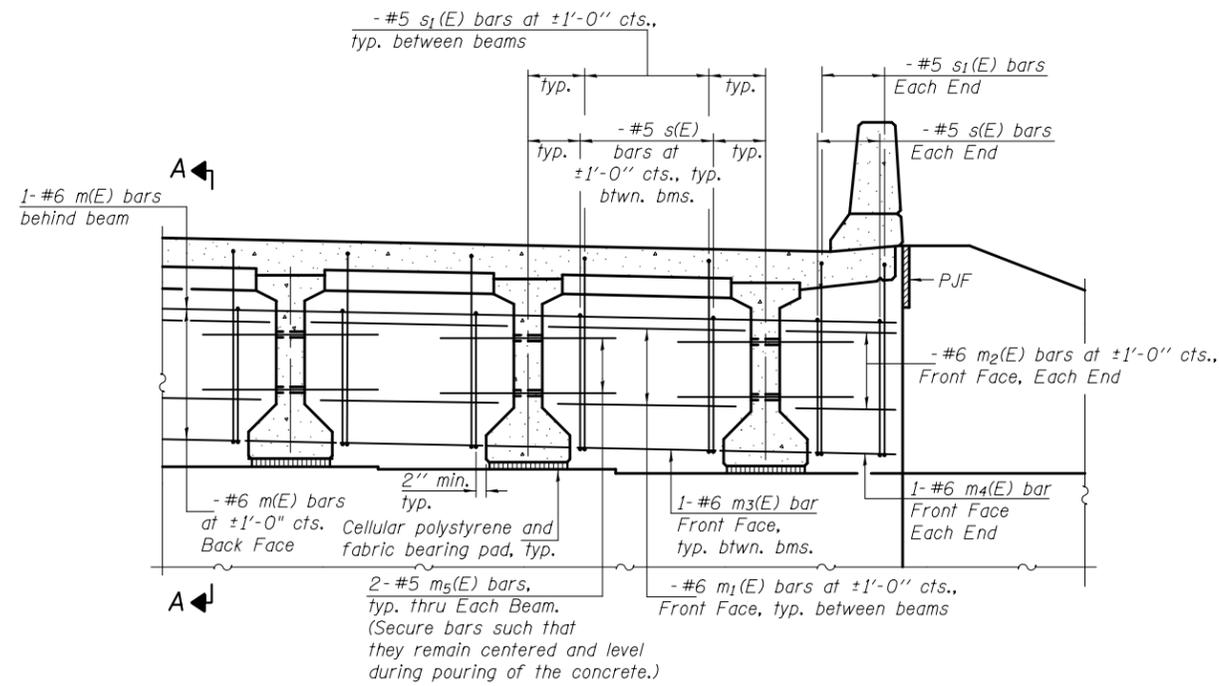
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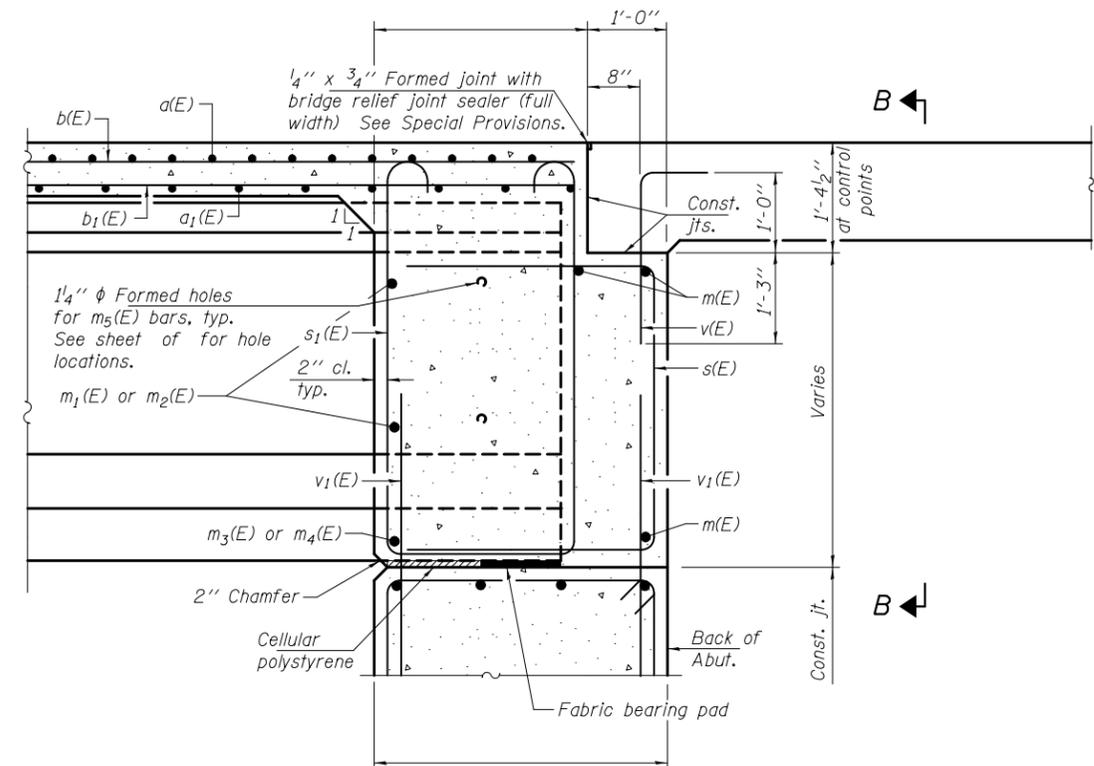
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
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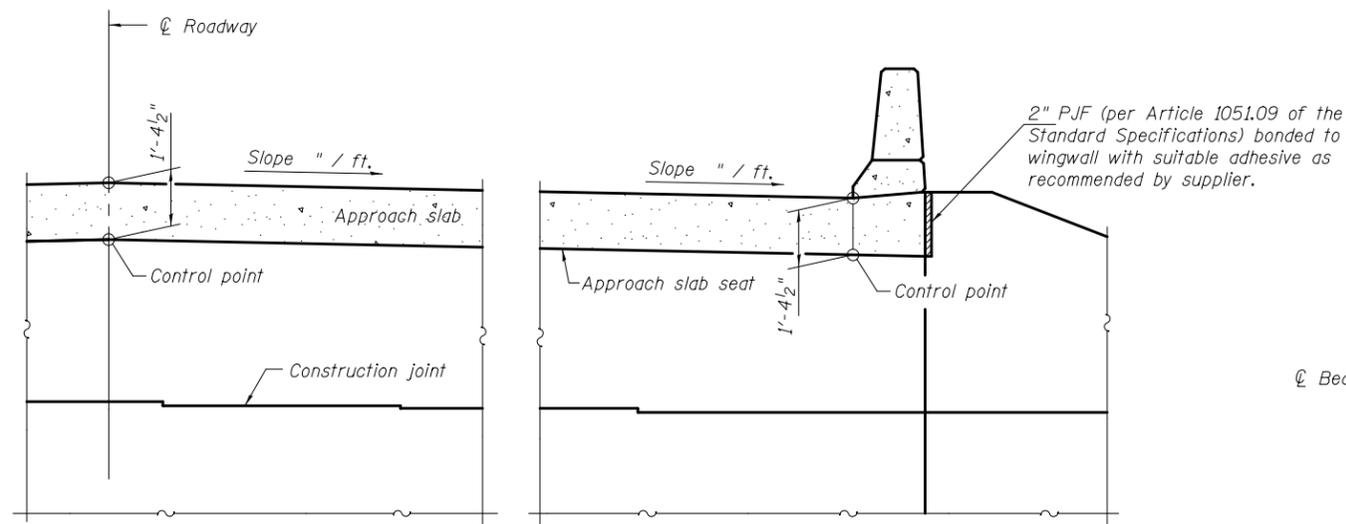
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



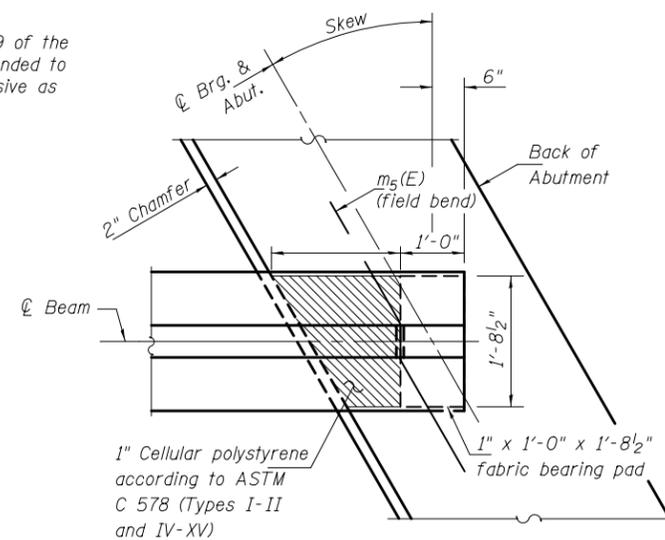
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A
(at Rt. L's)



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet of .
 Concrete in diaphragm is included with Concrete Superstructure on sheet of .
 For details of bars s(E), s1(E) and v(E) see sheet of .
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 The approach slab seat shall have a constant slope determined from the control points shown.
 Cost of cellular polystyrene is included with Concrete Superstructure.

DPI-4254-R

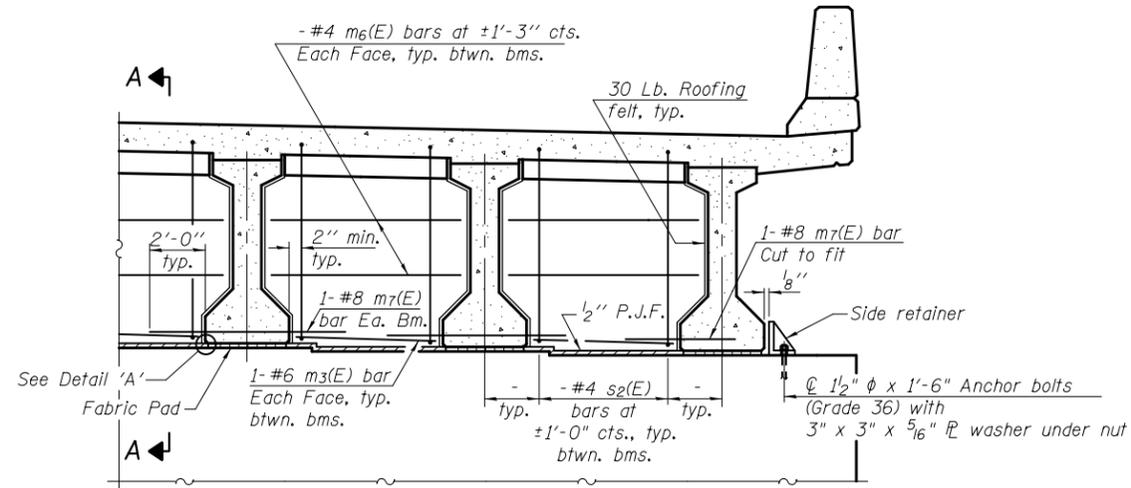
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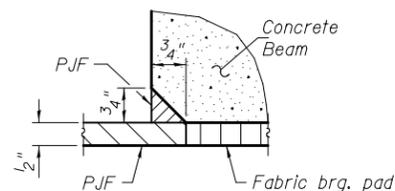
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO.

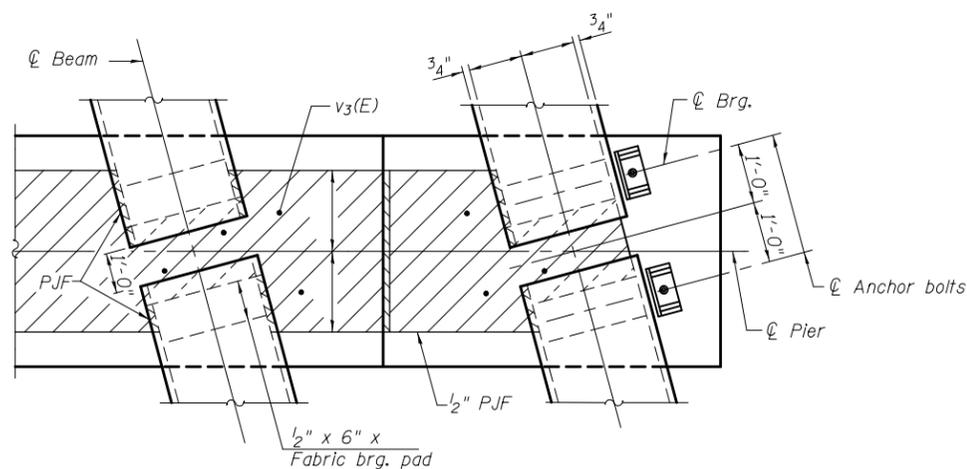
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



DIAPHRAGM AT PIER

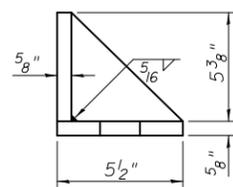


DETAIL 'A'



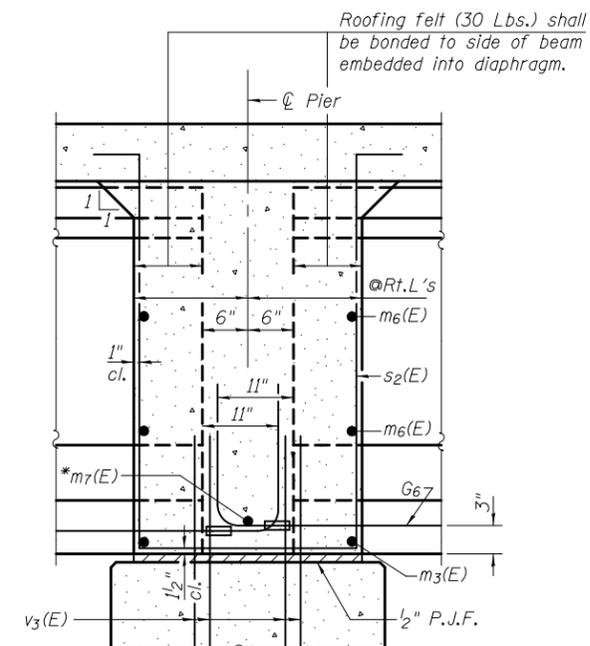
PLAN AT PIER

(Showing bearing pads and P.J.F. details)



SIDE RETAINER

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



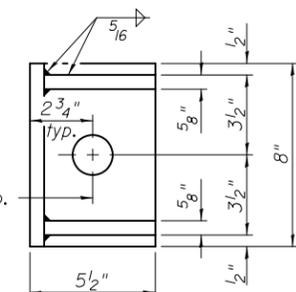
SECTION A-A

Dimensions along CL of beam, except as shown.

* Tightly fasten the #8 bars together
with No. 9 wire ties.

Notes:

- Reinforcement bars in diaphragm are billed with superstructure on sheet of .
- Concrete in diaphragm is included with Concrete Superstructure on sheet of .
- For details of bars s2(E) see sheet of .
- The s2(E) bars shall be placed parallel to the beams.
- Spacing for these bars shall be at right angles to the beams.
- Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
- The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
- Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



CL 1 3/4" φ hole, typ.

DPI-FP-L

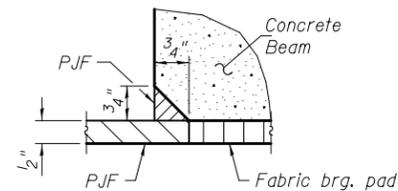
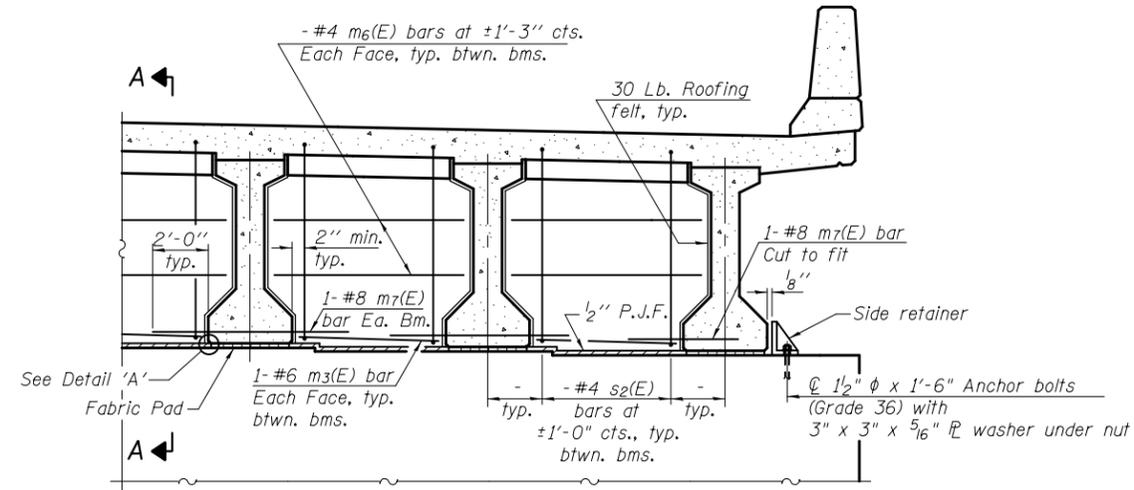
8-31-12

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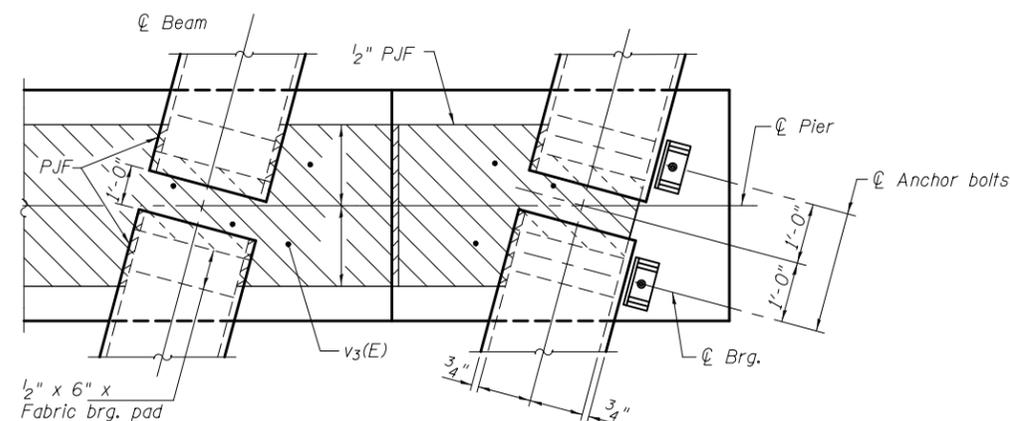
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DIAPHRAGM DETAILS
STRUCTURE NO.**

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

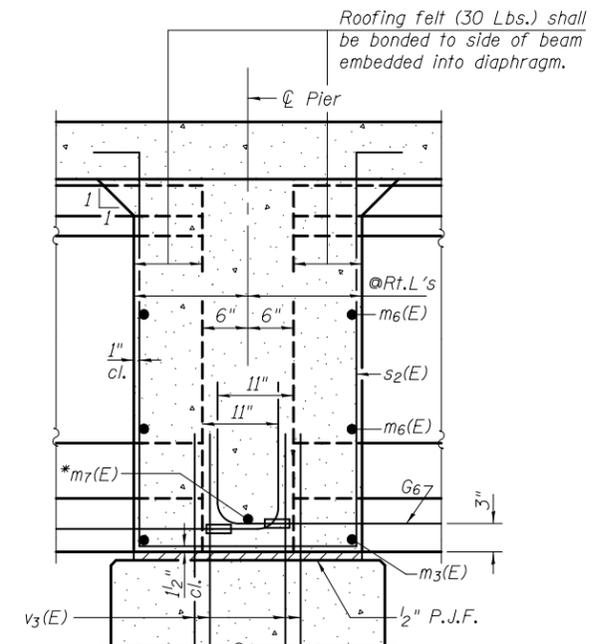


DETAIL 'A'



PLAN AT PIER

(Showing bearing pads and P.J.F. details)



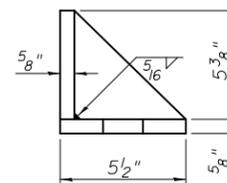
SECTION A-A

Dimensions along centerline of beam, except as shown.

* Tightly fasten the #8 bars together with No. 9 wire ties.

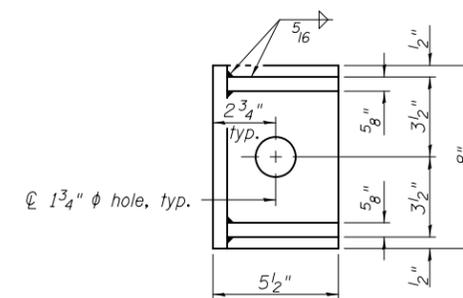
Notes:

- Reinforcement bars in diaphragm are billed with superstructure on sheet of .
- Concrete in diaphragm is included with Concrete Superstructure on sheet of .
- For details of bars s₂(E) see sheet of .
- The s₂(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- Cost of 30 Lb. roofing felt is included with Concrete Superstructure. The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
- Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



SIDE RETAINER

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



DPI-FP-R

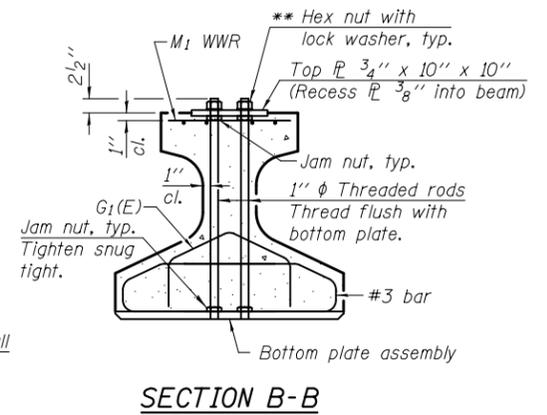
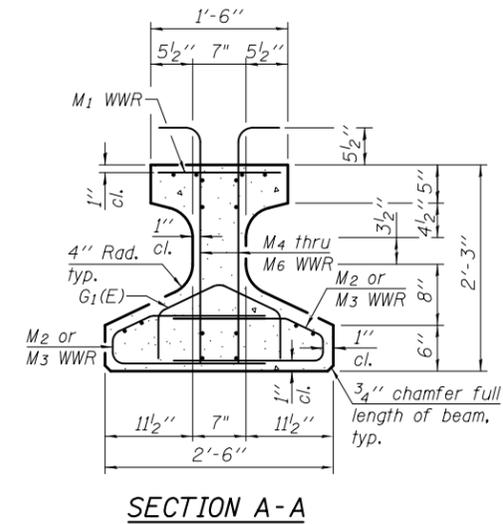
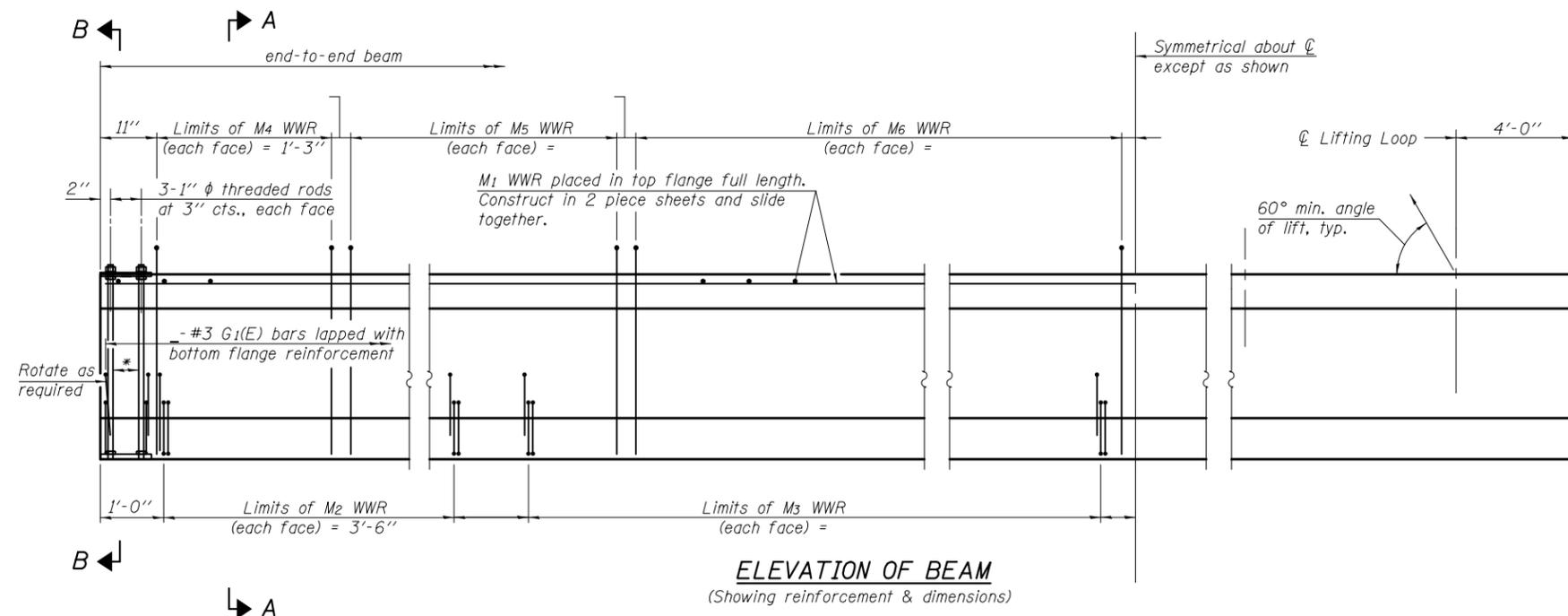
8-31-12

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

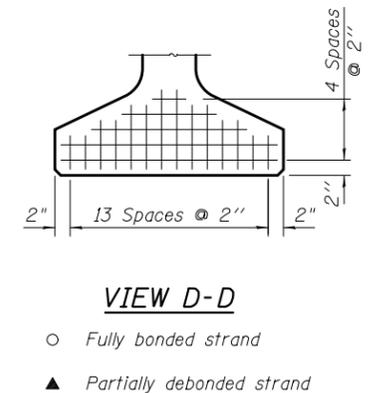
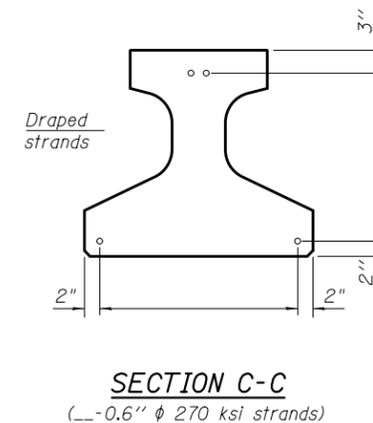
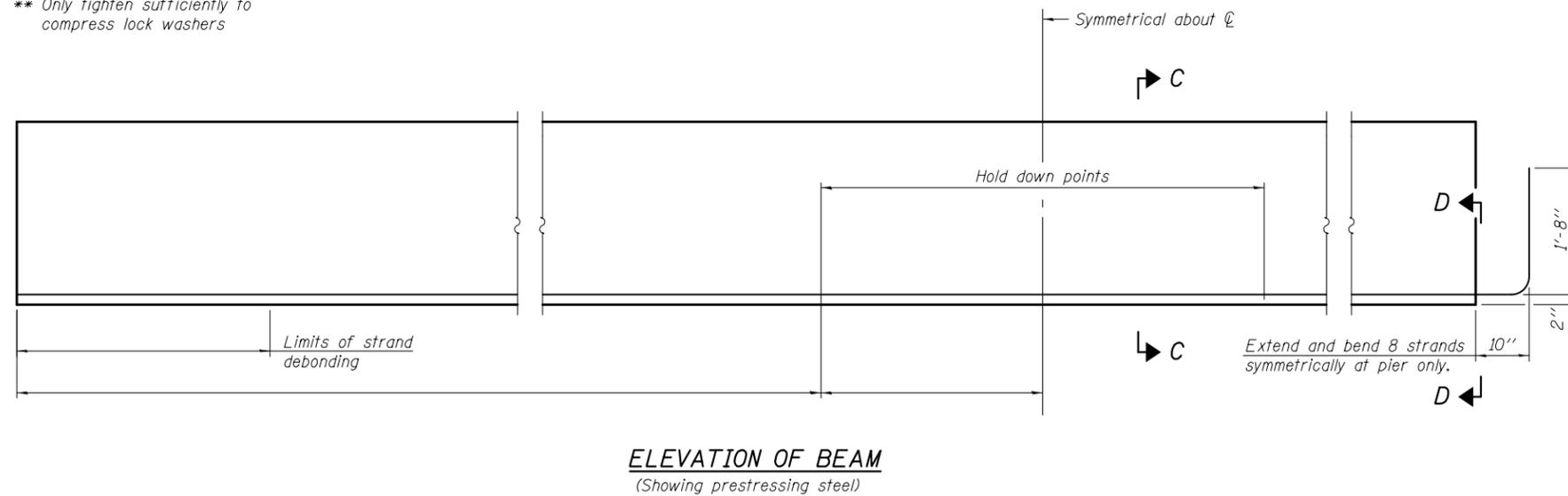
DIAPHRAGM DETAILS
 STRUCTURE NO.

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



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL27-1830

1-28-16

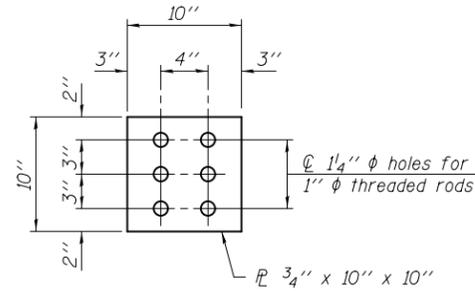
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

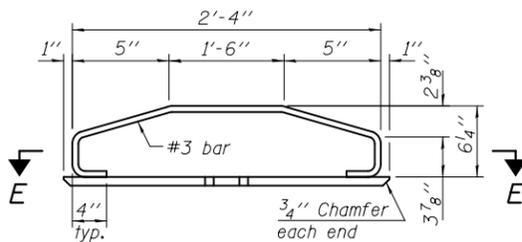
IL27N BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

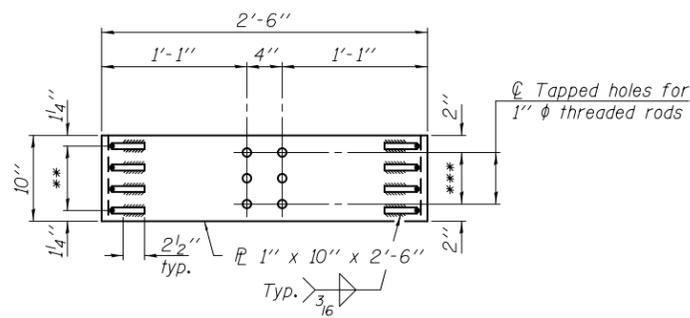
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE



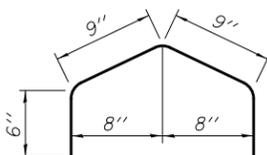
ELEVATION - BOTTOM PLATE ASSEMBLY



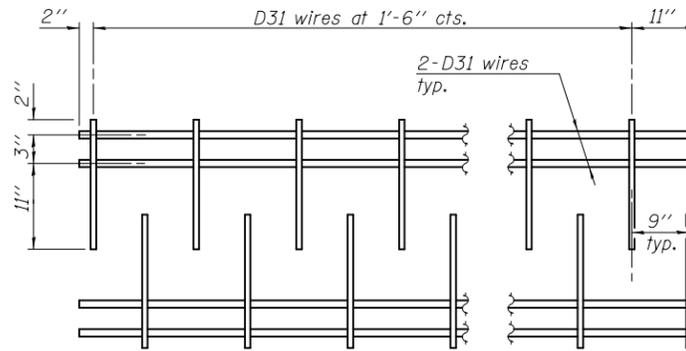
SECTION E-E

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

*** 2 Spaces at 3" = 6"

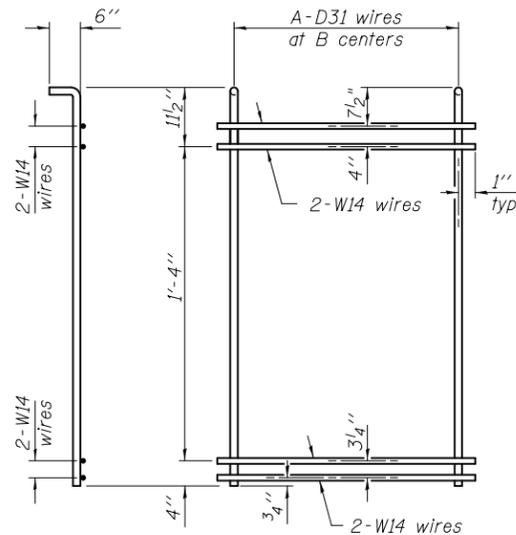


BAR G1(E)



M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M4 THRU M6 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

SPAN -

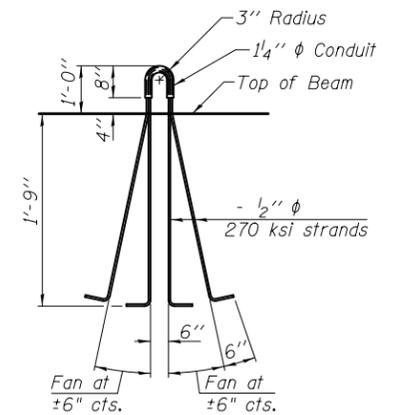
WWR	A	B
M2	15	3"
M3	-	1'-6"
M4	6	3"
M5	-	6"
M6	-	1'-0"

SPAN -

WWR	A	B
M2	15	3"
M3	-	1'-6"
M4	6	3"
M5	-	6"
M6	-	1'-0"

NOTES

Inserts for 3/4" diameter threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Beams shall not be released from the fabricator until they have attained 45 days of age or older. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL27N	Ft.	

IL27-1830D

1-28-16

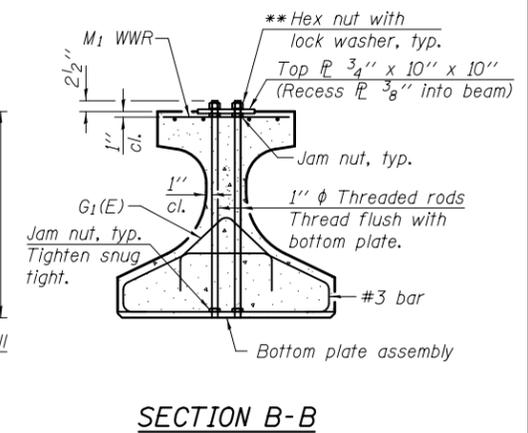
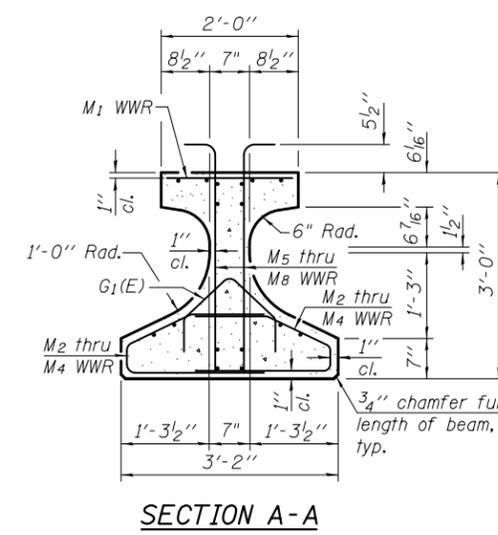
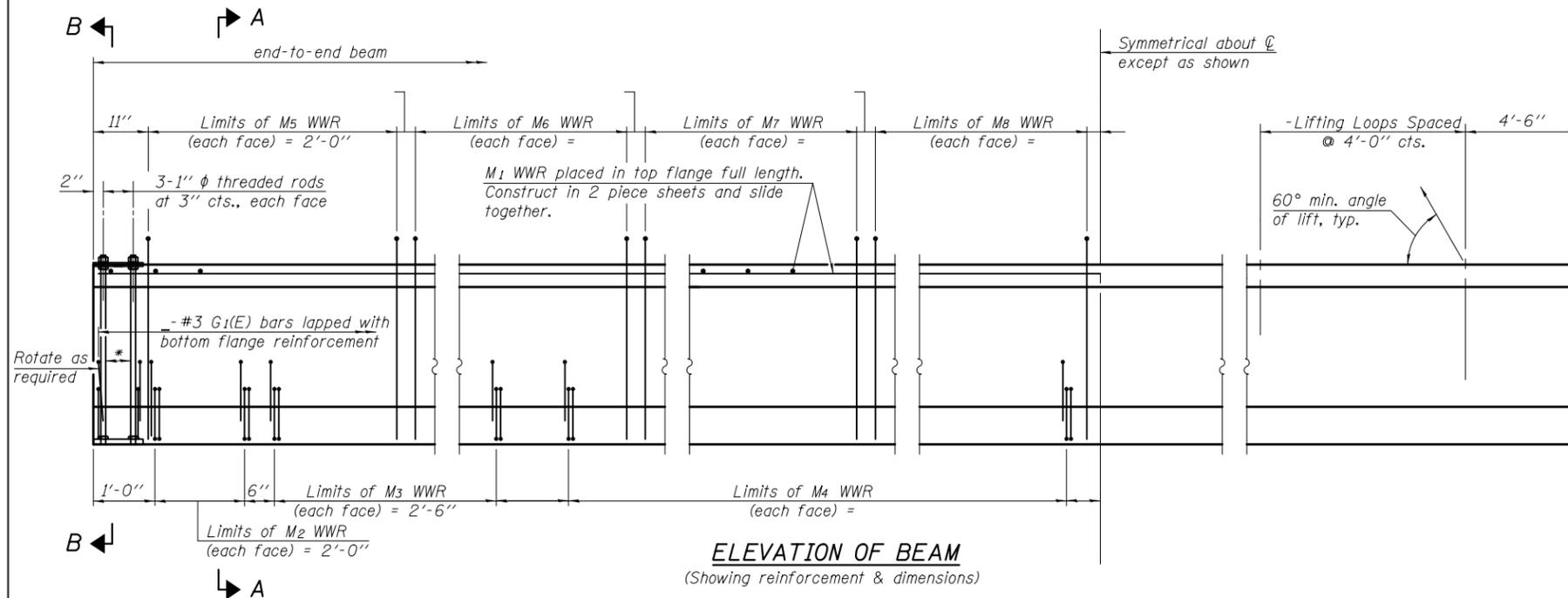
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL27N BEAM DETAILS
STRUCTURE NO.

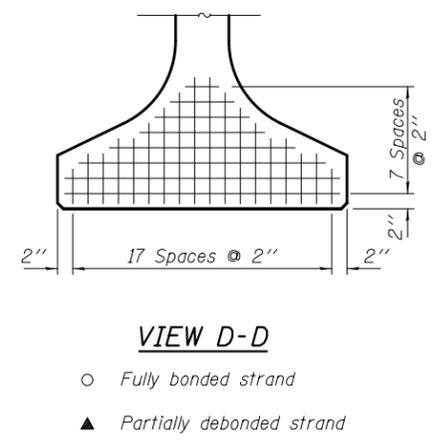
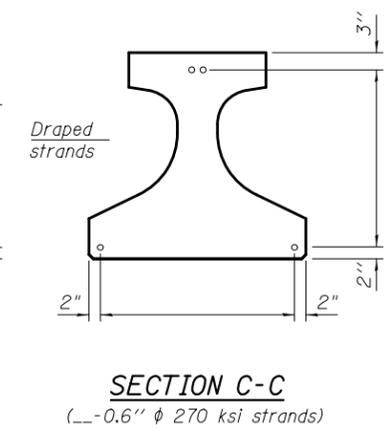
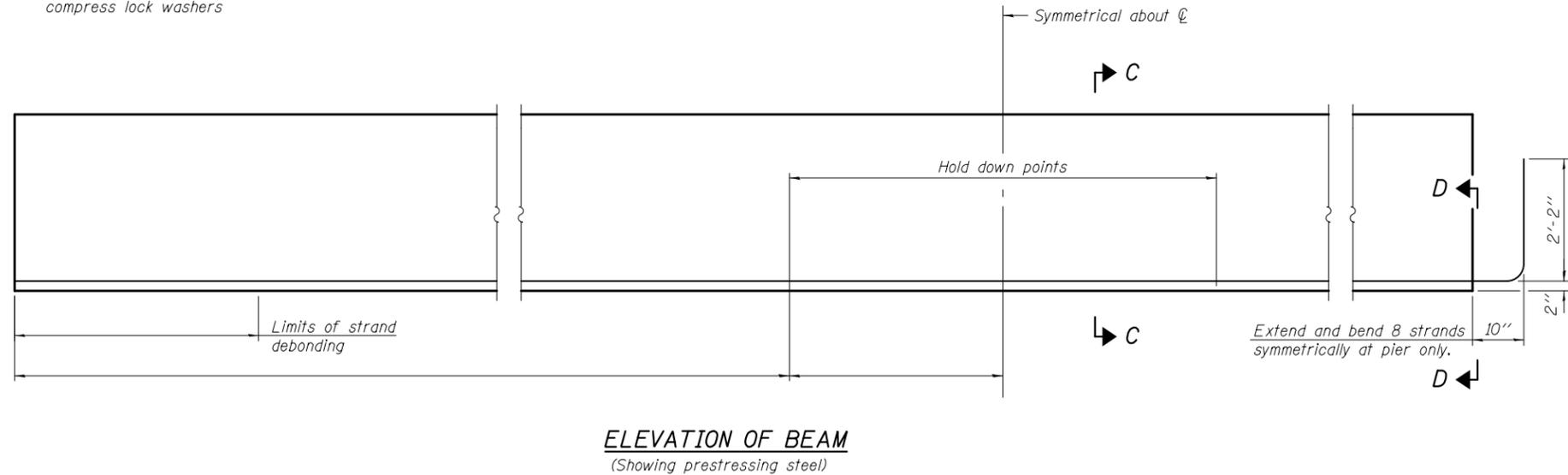
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL36-2438

1-28-16

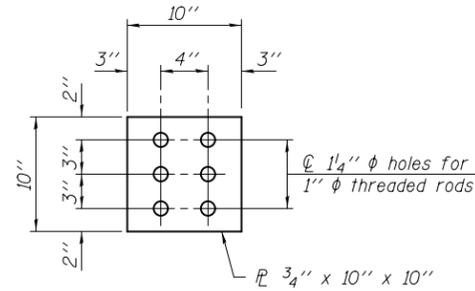
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

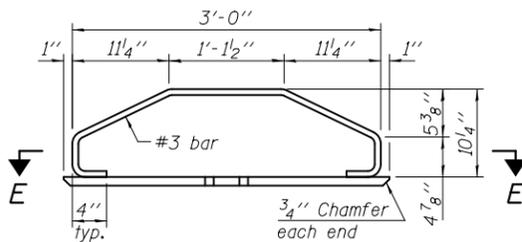
IL36N BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

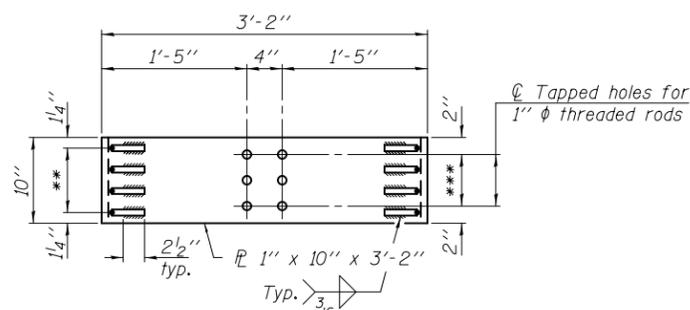
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE



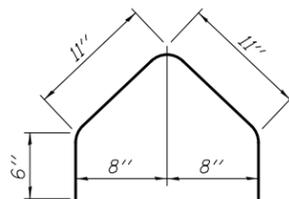
ELEVATION - BOTTOM PLATE ASSEMBLY



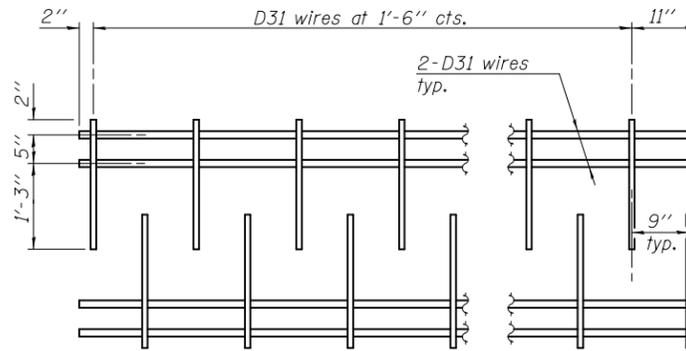
SECTION E-E

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

*** 2 Spaces at 3" = 6"

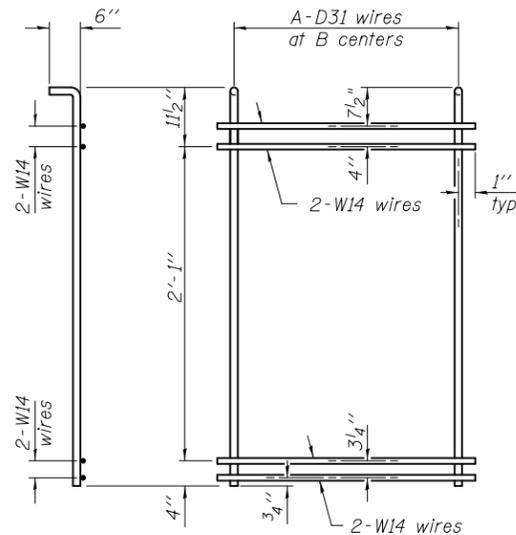


BAR G1(E)



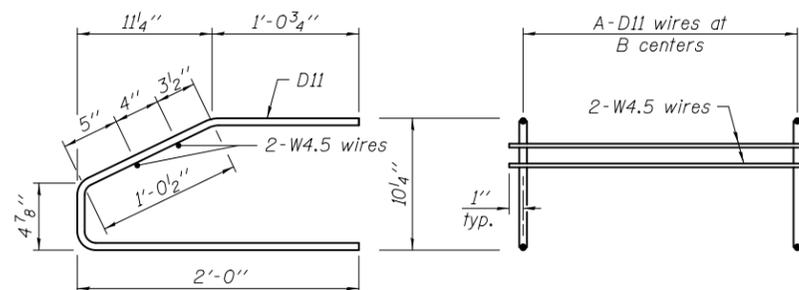
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

SPAN =

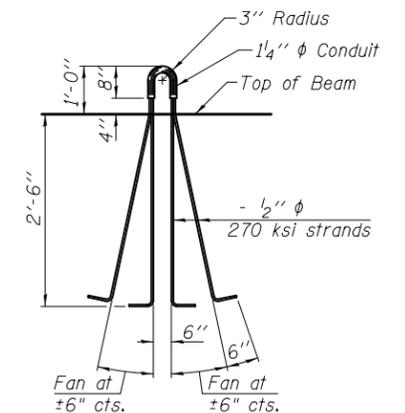
WWR	A	B
M2	9	3"
M3	6	6"
M4	-	1'-6"
M5	9	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN =

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

NOTES

Inserts for 3/4" diameter threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Beams shall not be released from the fabricator until they have attained 45 days of age or older. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL36N	Ft.	

IL36-2438D

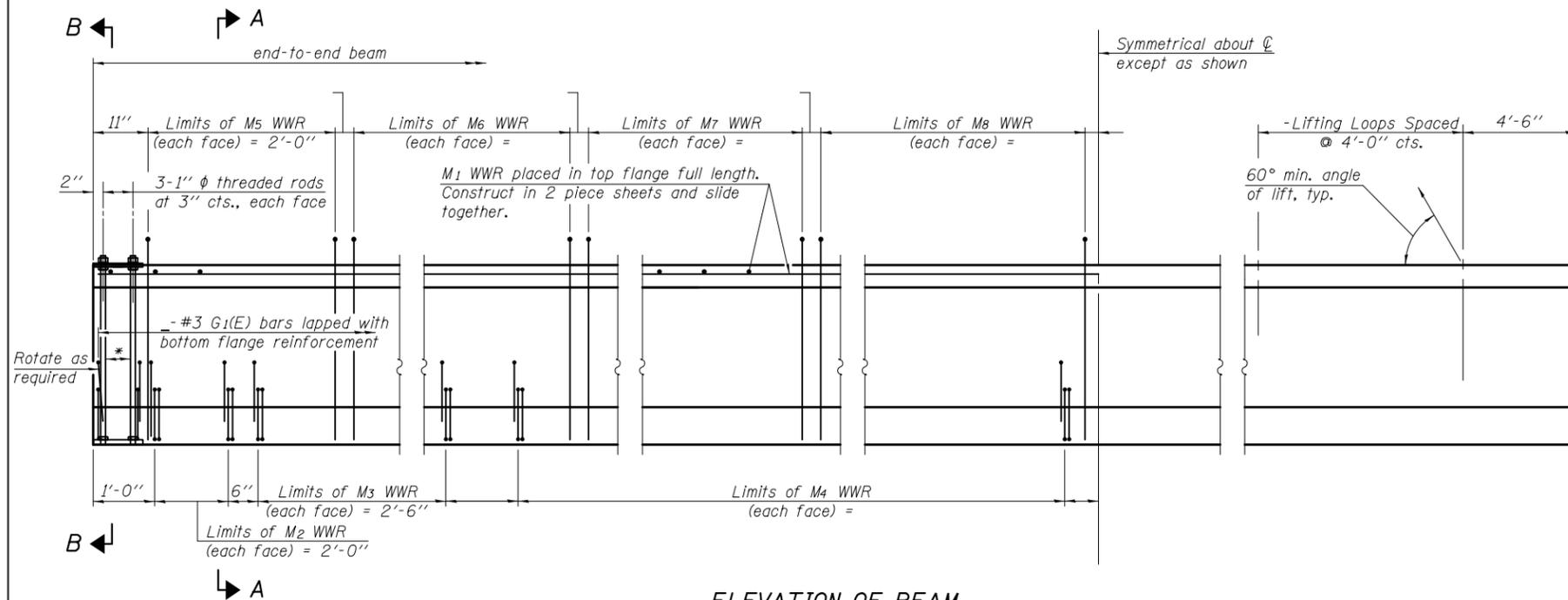
1-28-16

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

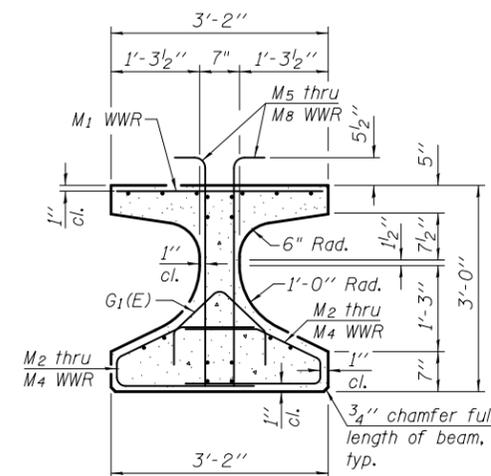
IL36N BEAM DETAILS
STRUCTURE NO.

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

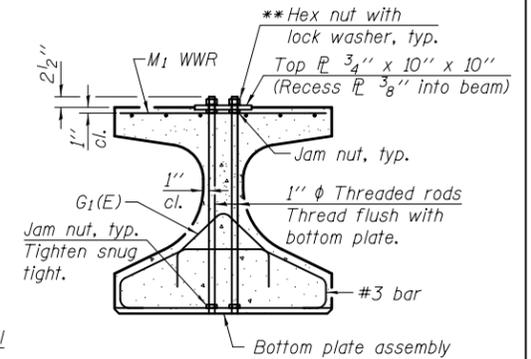


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

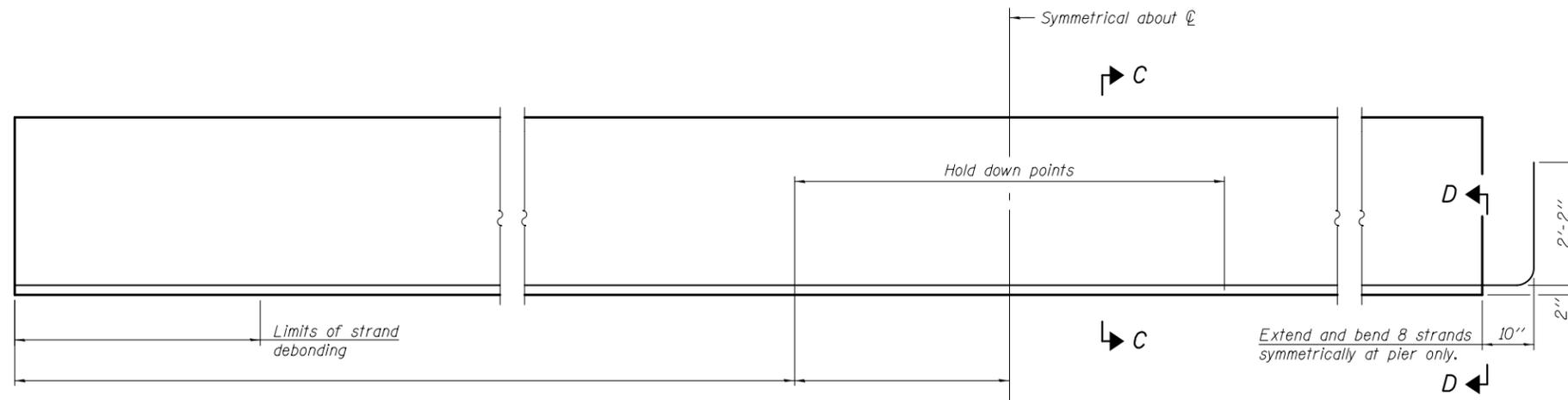
- * 4-3/4" diameter threaded dowel rods at 3" cts., Each Face
- ** Only tighten sufficiently to compress lock washers



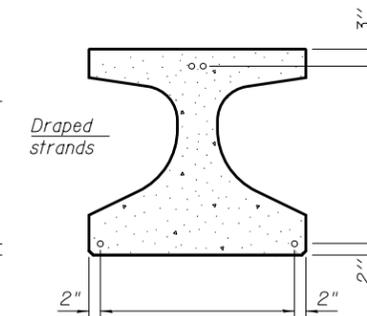
SECTION A-A



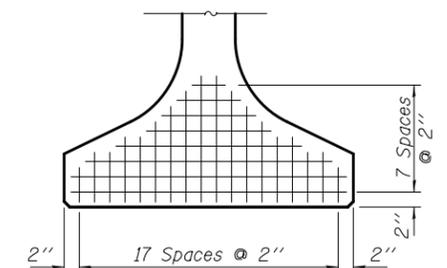
SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(--0.6" diameter 270 ksi strands)



VIEW D-D

- Fully bonded strand
- ▲ Partially debonded strand

Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL36-3838

1-28-16

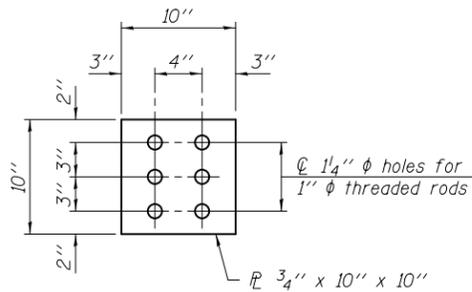
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

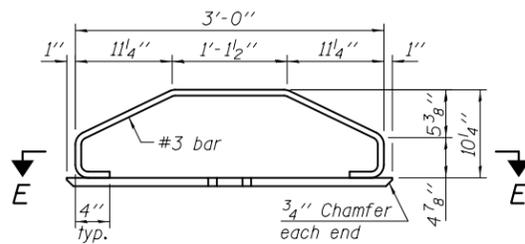
IL36 BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

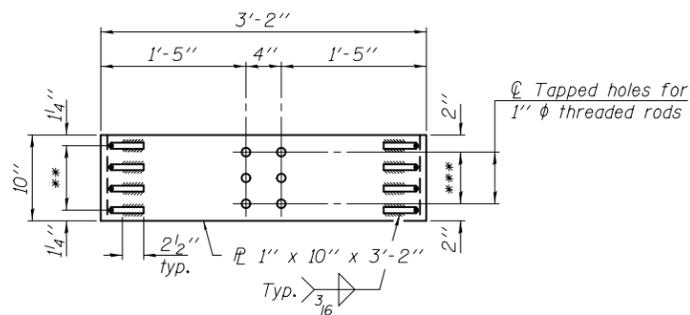
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

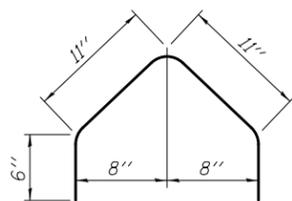


ELEVATION - BOTTOM PLATE ASSEMBLY

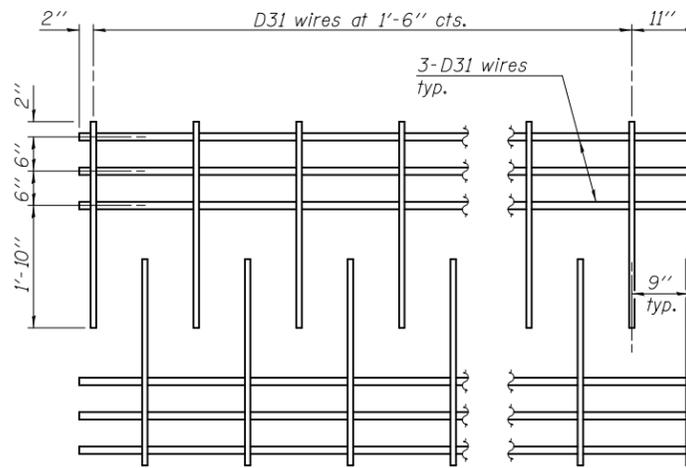


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

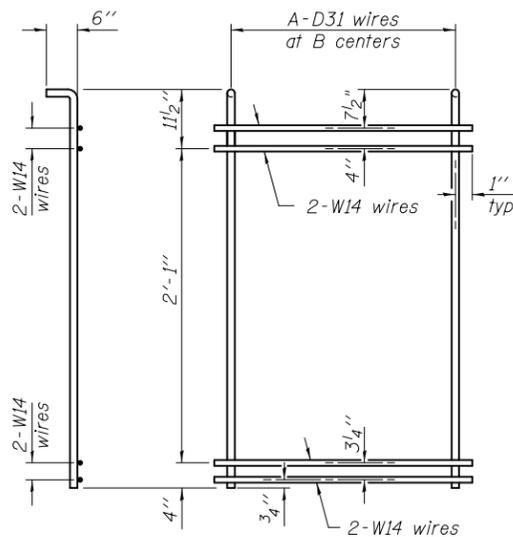


BAR G1(E)



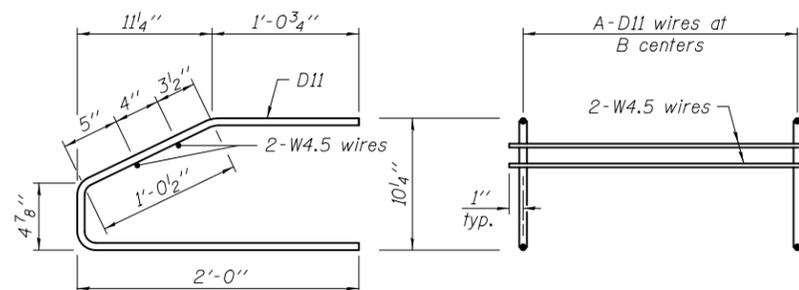
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

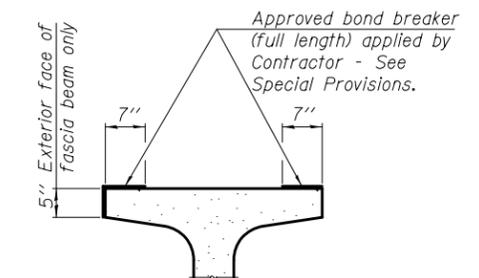
SPAN -

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

SPAN -

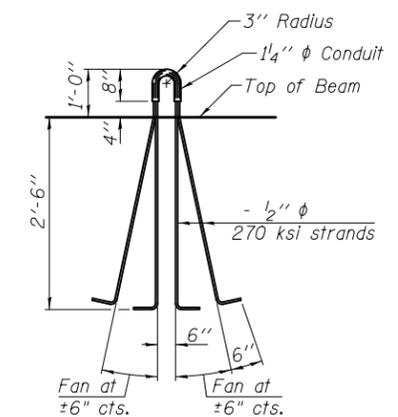
WWR	A	B
M2	9	3"
M3	6	6"
M4	-	1'-6"
M5	9	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

NOTES
 Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.
 The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi.
 A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm.
 The top and bottom plates shall be AASHTO M270 Grade 50.
 The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55.
 Beams shall not be released from the fabricator until they have attained 45 days of age or older.
 Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



SECTION THRU TOP FLANGE

(Showing limits of bond breaker)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL36	Ft.	

IL36-3838D

1-28-16

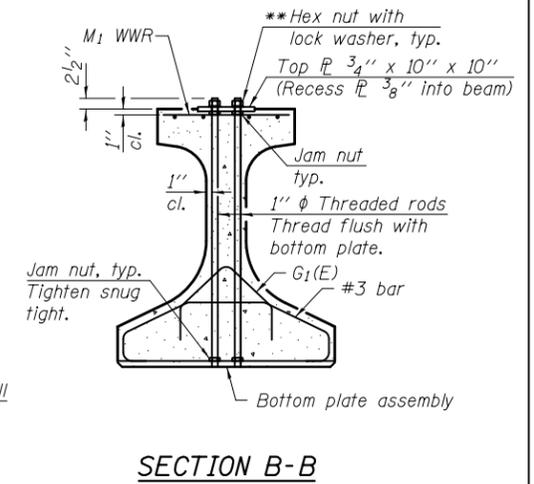
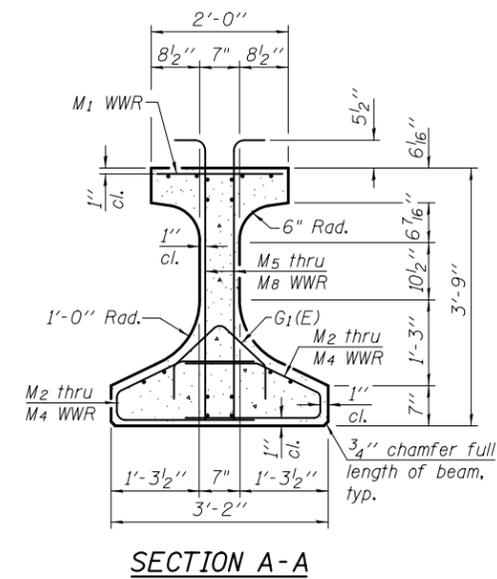
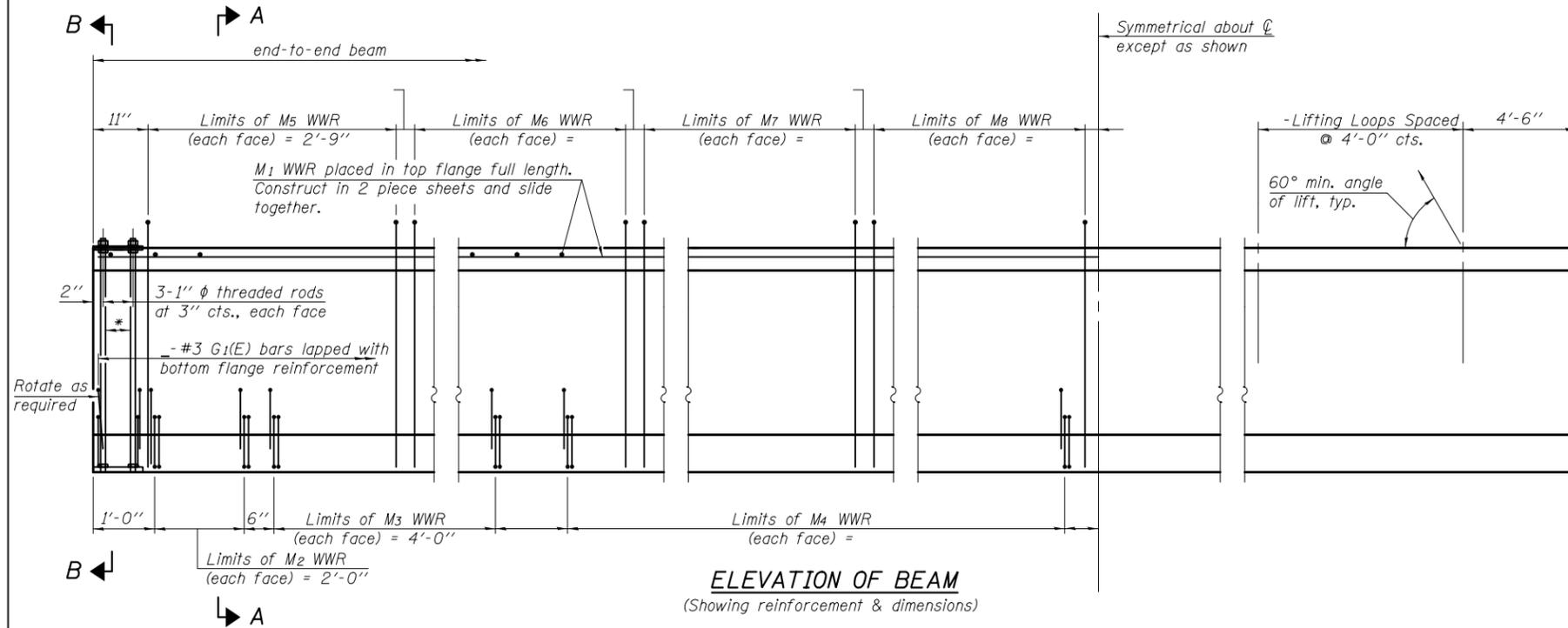
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	PLOT SCALE =	DRAWN -	REVISD -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL36 BEAM DETAILS
 STRUCTURE NO.

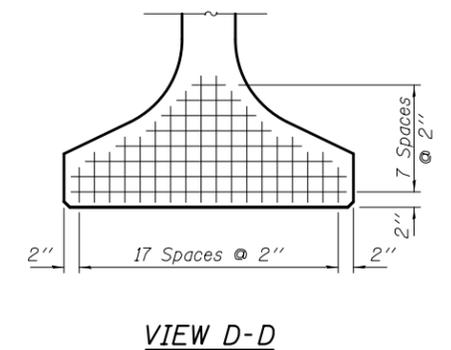
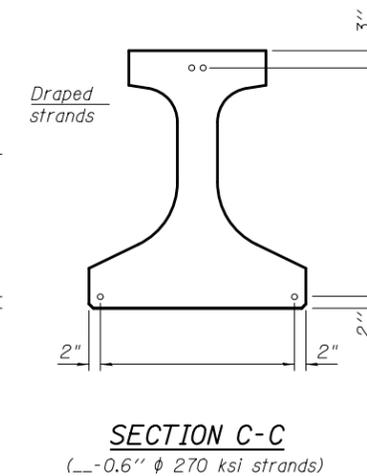
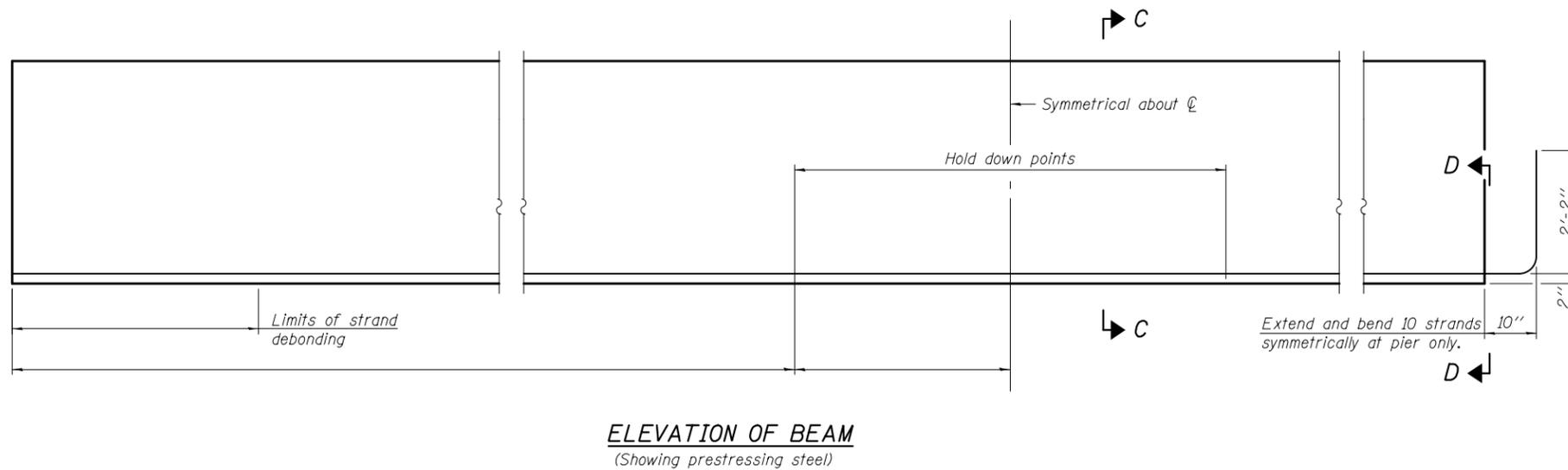
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



* 4-3/4" diameter threaded dowel rods at 3" centers, Each Face

** Only tighten sufficiently to compress lock washers



○ Fully bonded strand
▲ Partially debonded strand

Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL45-2438

1-28-16

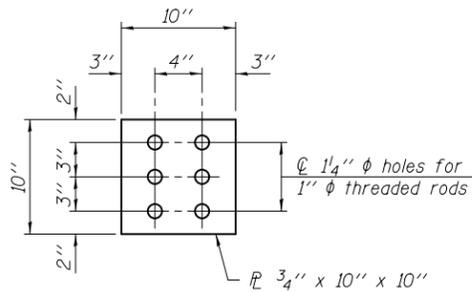
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

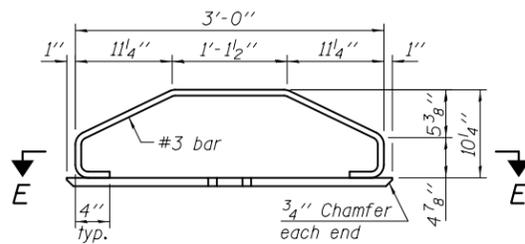
IL45N BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

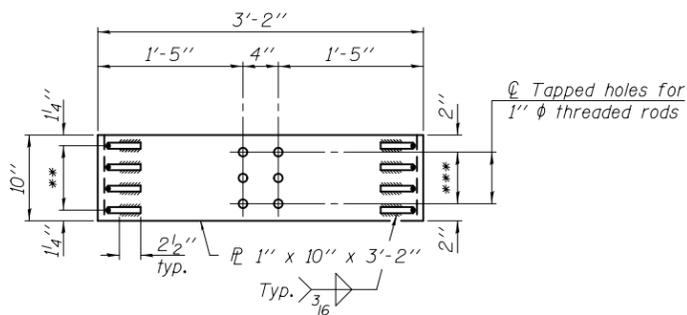
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

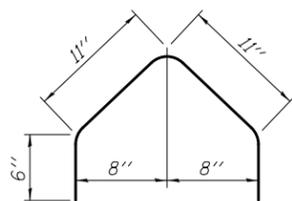


ELEVATION - BOTTOM PLATE ASSEMBLY

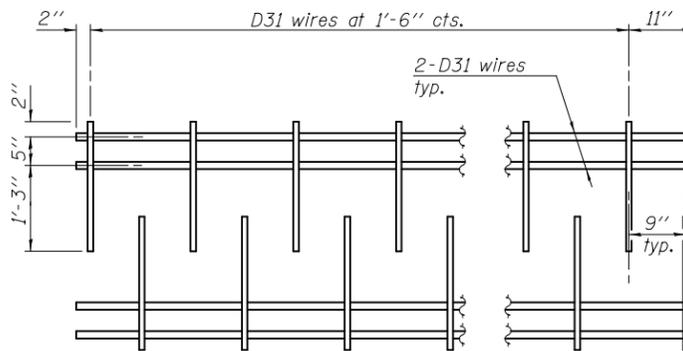


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

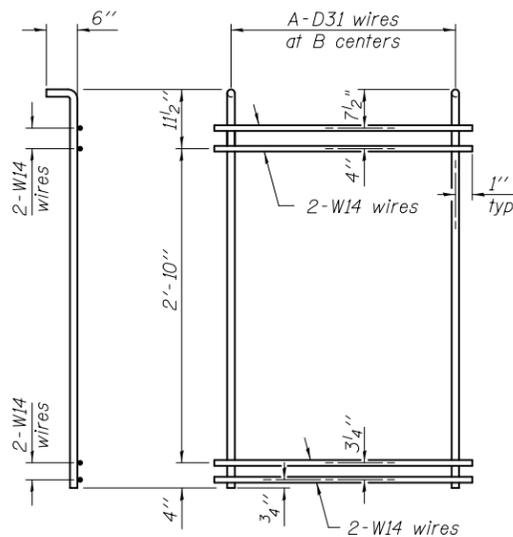


BAR G1(E)



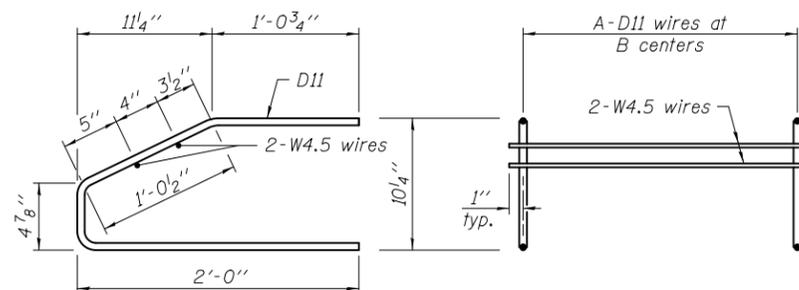
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

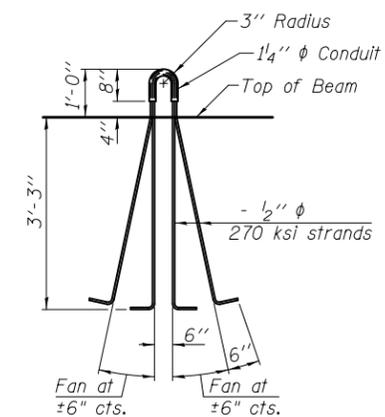
TABLE OF DIMENSIONS

SPAN -

WWR	A	B
M2	9	3"
M3	9	6"
M4	-	1'-6"
M5	12	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN -

WWR	A	B
M2	9	3"
M3	9	6"
M4	-	1'-6"
M5	12	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL45N	Ft.	

IL45-2438D

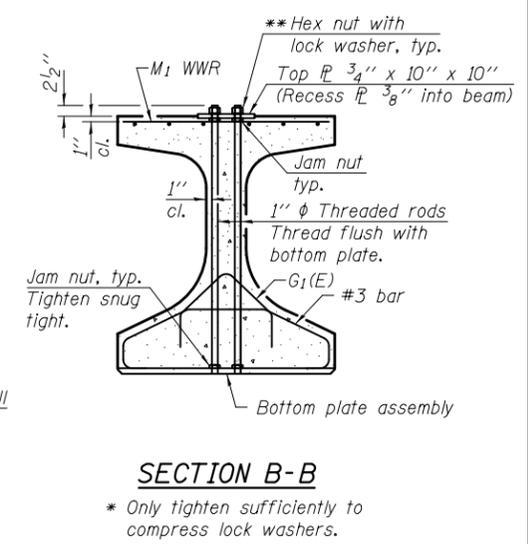
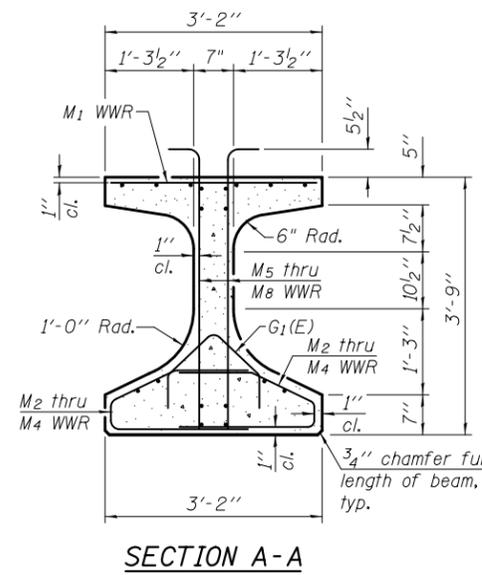
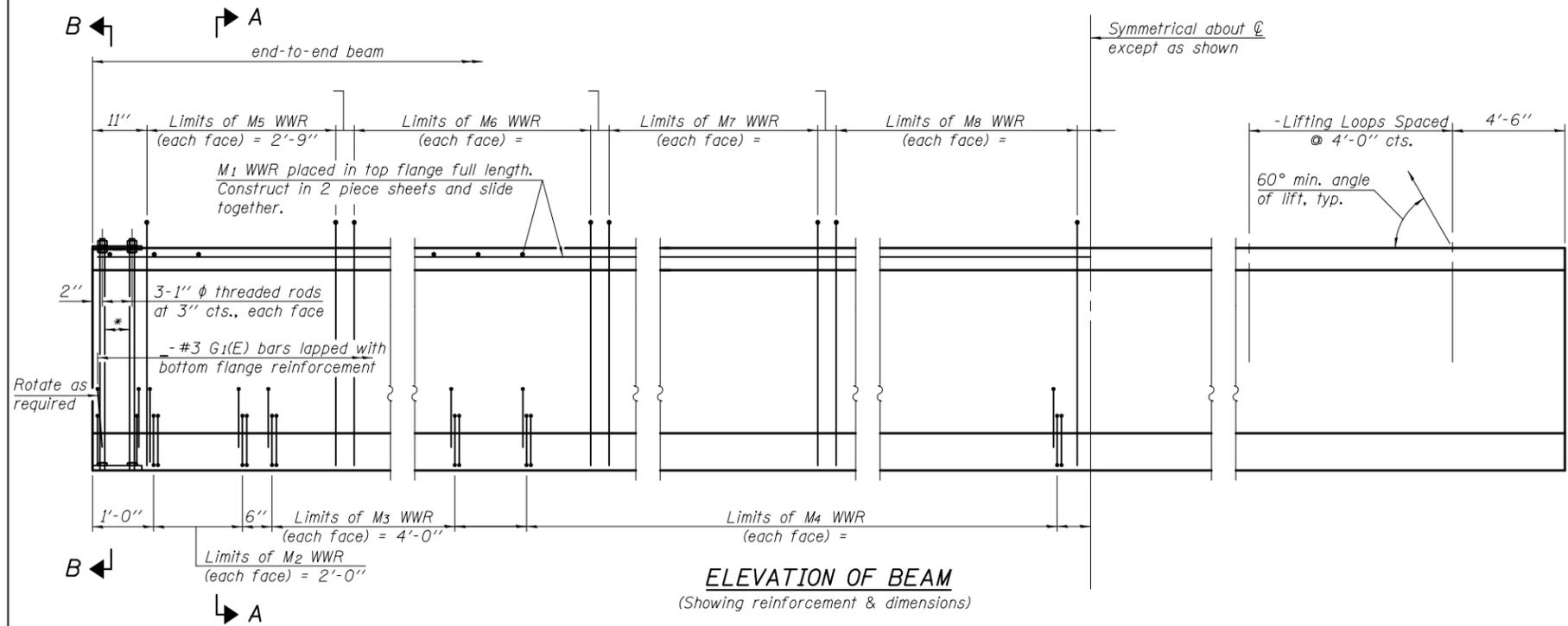
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
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	PLOT DATE =	CHECKED -	REVISD -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

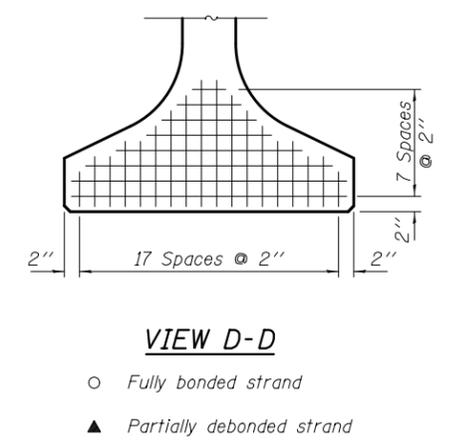
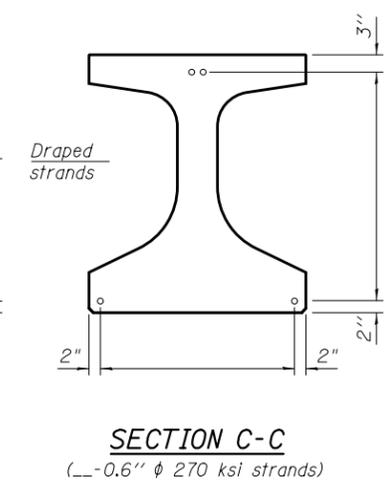
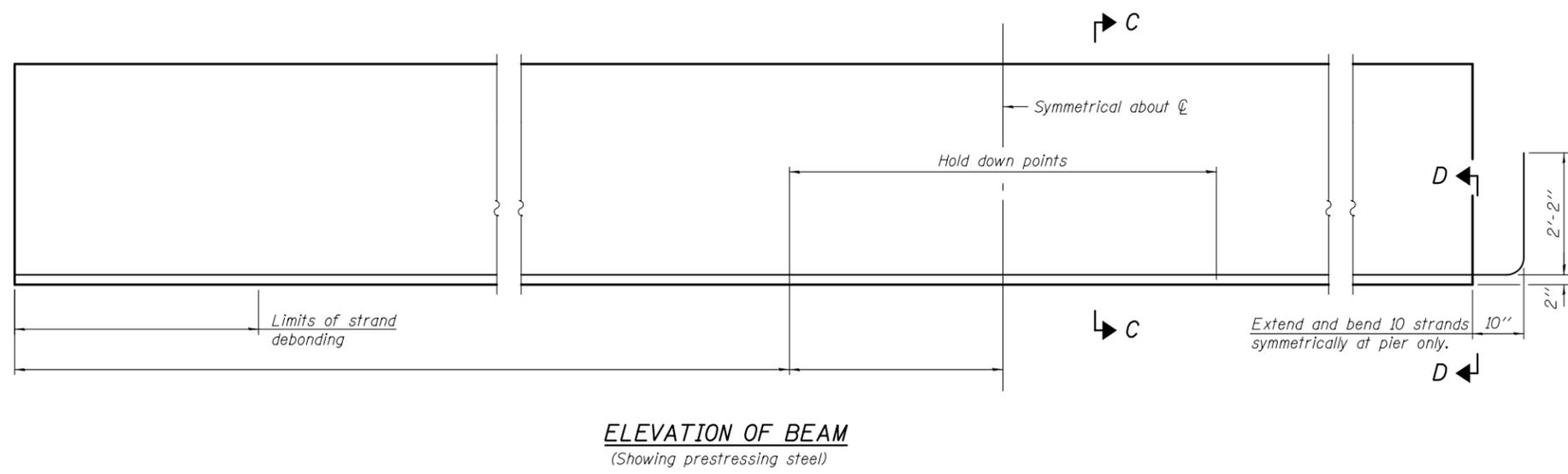
IL45N BEAM DETAILS
 STRUCTURE NO.

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



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL45-3838

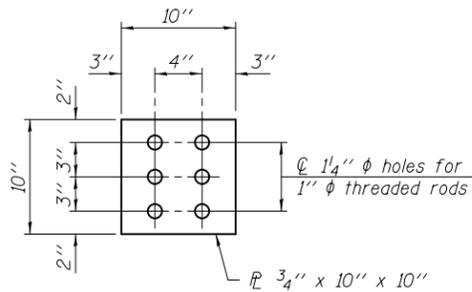
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
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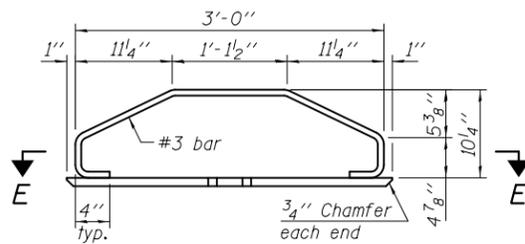
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL45 BEAM
STRUCTURE NO.

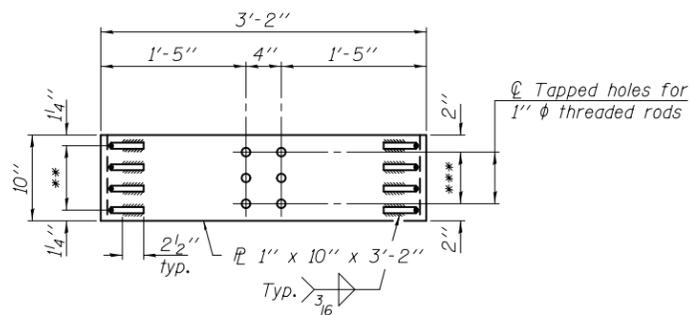
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



PLAN - TOP PLATE

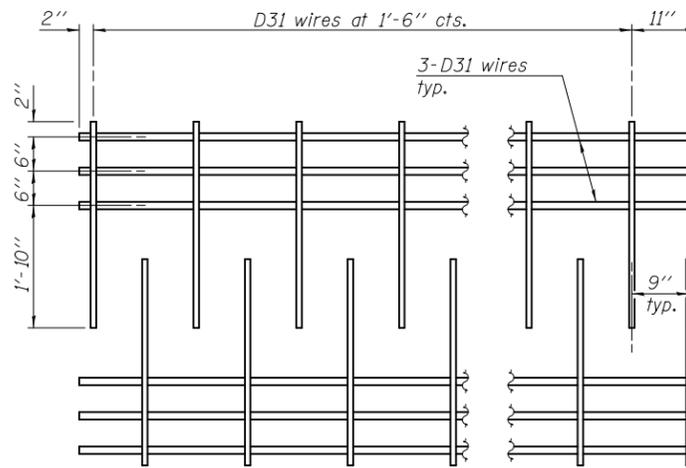


ELEVATION - BOTTOM PLATE ASSEMBLY



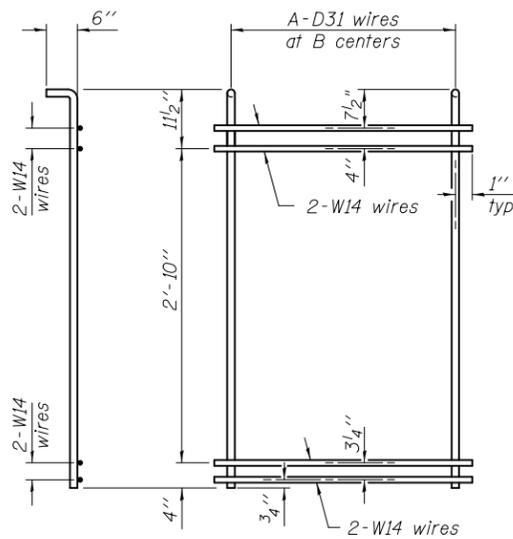
SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"



M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



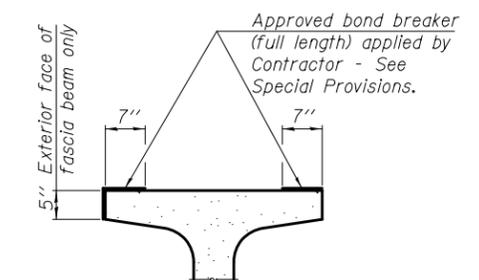
M5 THRU M8 WWR DETAIL

(See Table of Dimensions)

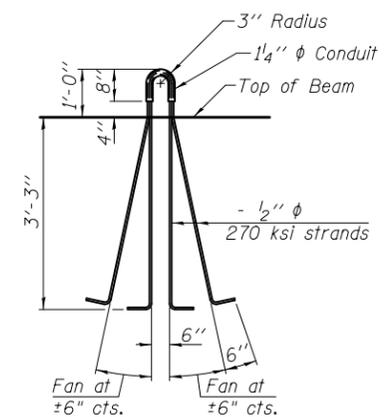
TABLE OF DIMENSIONS

SPAN -		
WWR	A	B
M2	9	3"
M3	9	6"
M4	-	1'-6"
M5	12	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

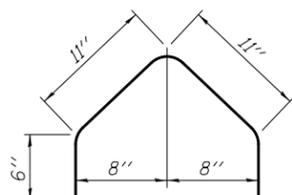
SPAN -		
WWR	A	B
M2	9	3"
M3	9	6"
M4	-	1'-6"
M5	12	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"



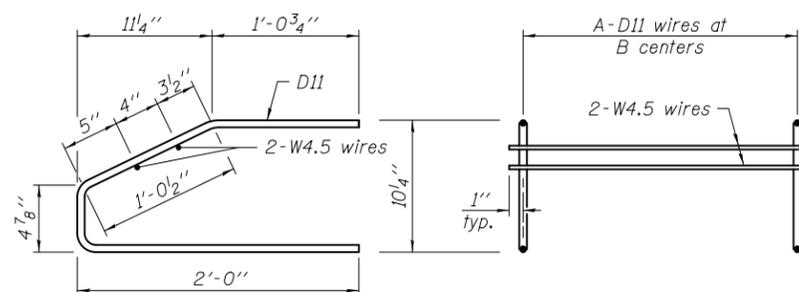
SECTION THRU TOP FLANGE
 (Showing limits of bond breaker)



LIFTING LOOP DETAIL



BAR G1(E)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL45	Ft.	

IL45-3838D

1-28-16

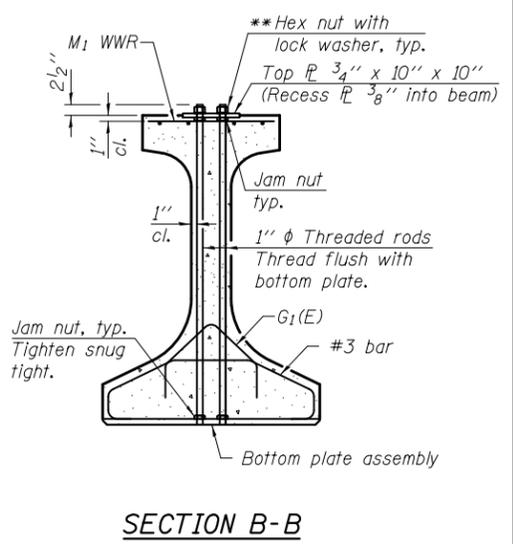
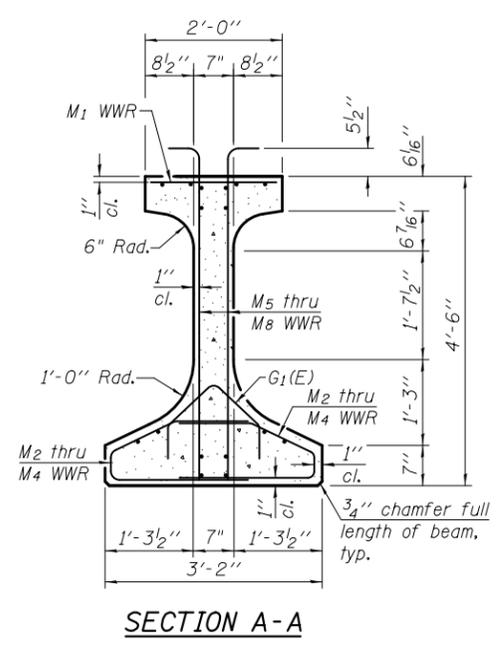
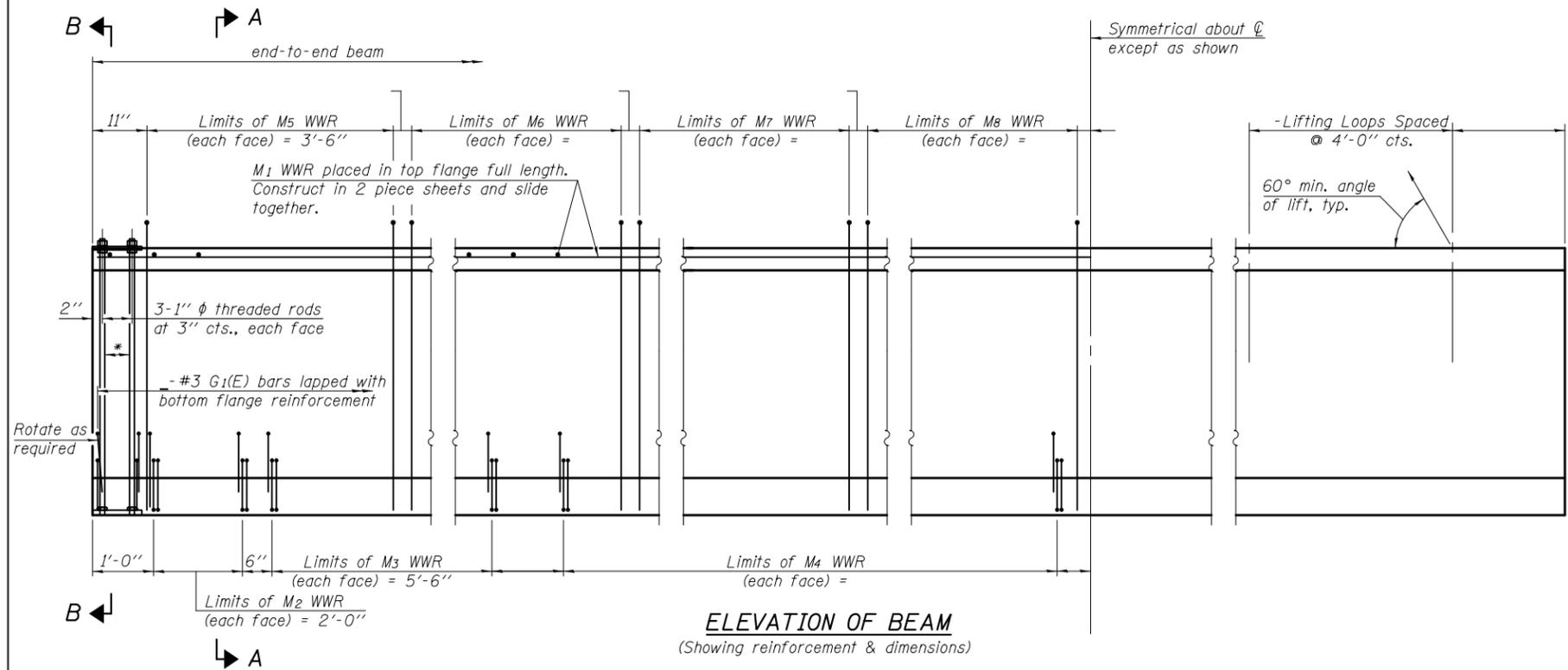
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL45 BEAM DETAILS
 STRUCTURE NO.

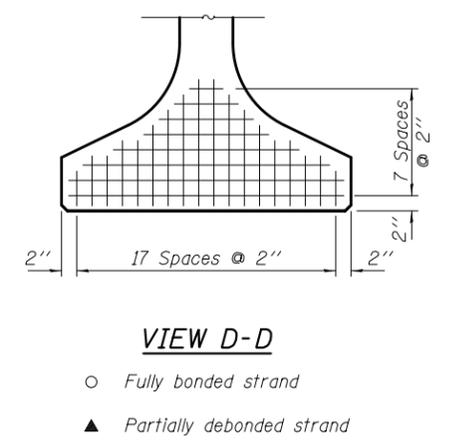
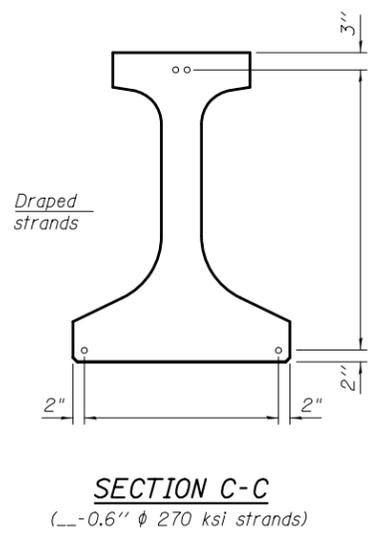
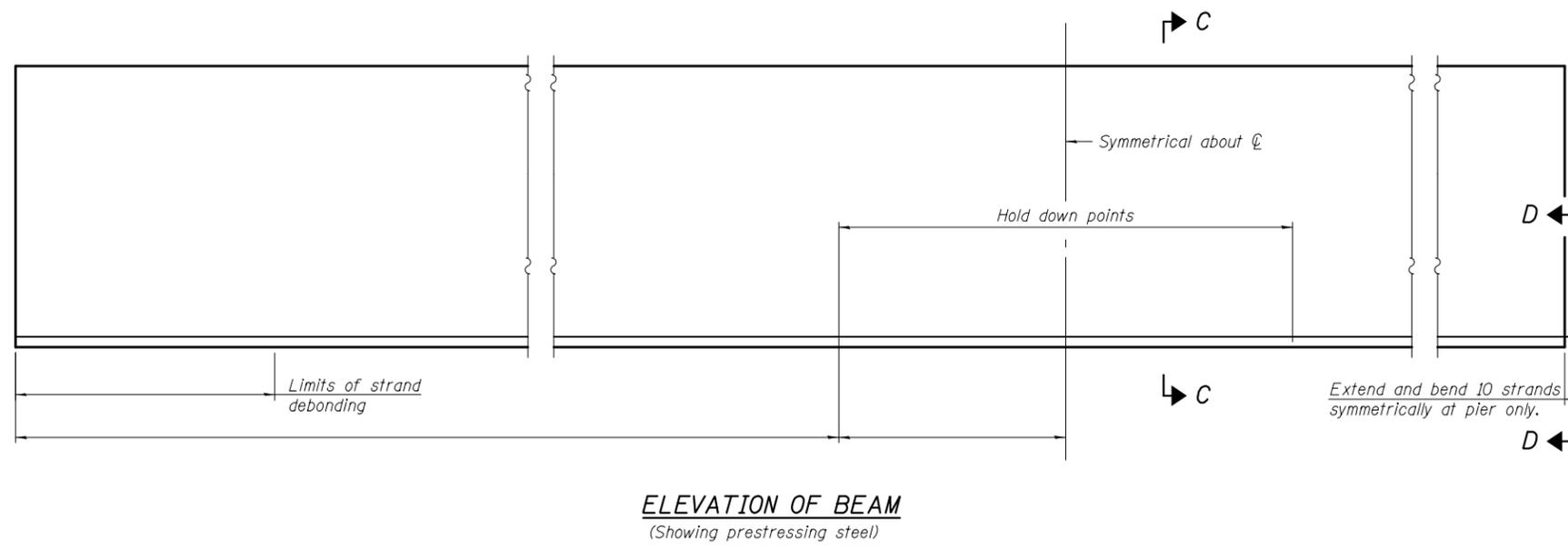
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL54-2438

1-28-16

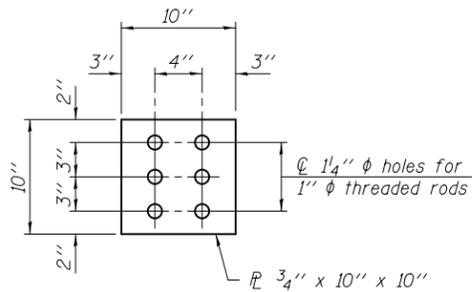
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	PLOT DATE =	CHECKED -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

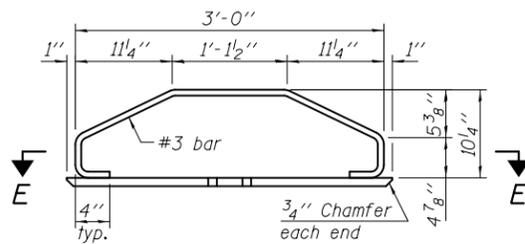
IL54N BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

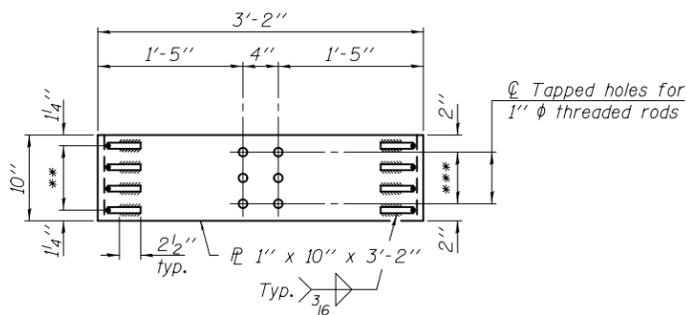
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

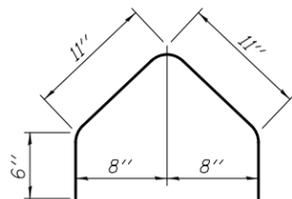


ELEVATION - BOTTOM PLATE ASSEMBLY

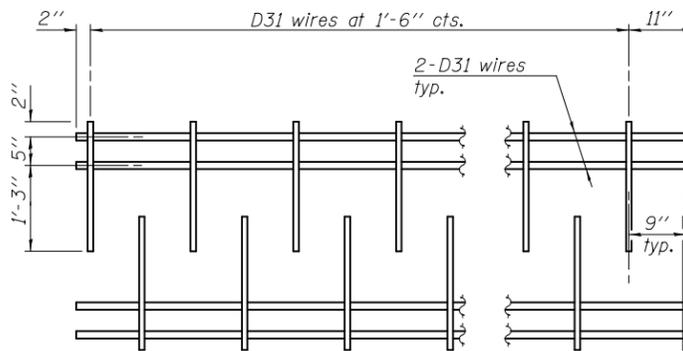


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

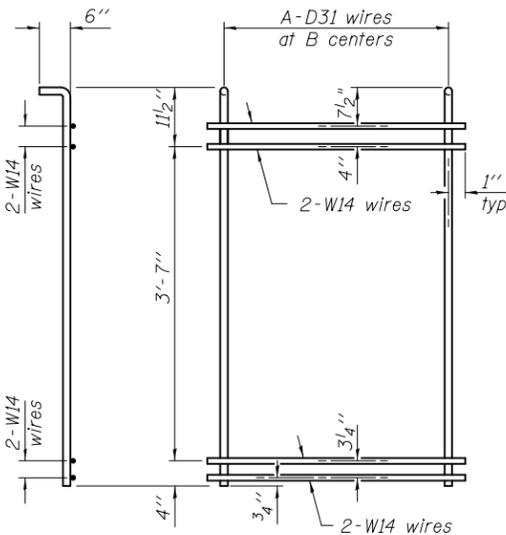


BAR G1(E)



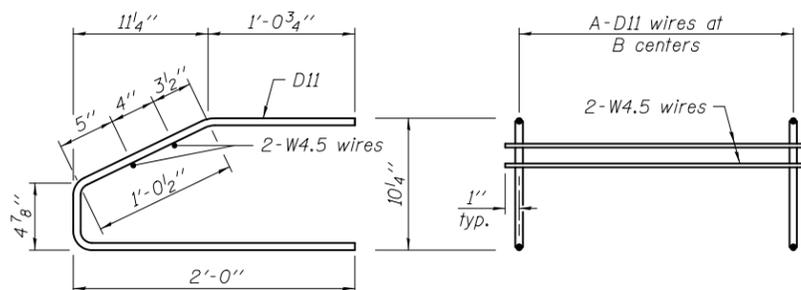
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

SPAN -

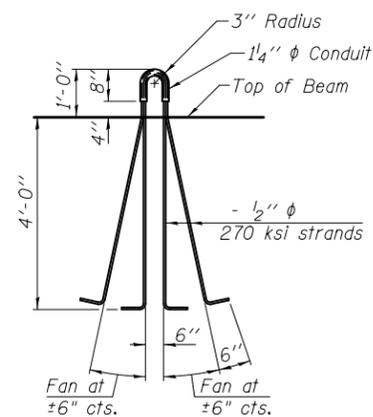
WWR	A	B
M2	9	3"
M3	12	6"
M4	-	1'-6"
M5	15	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN -

WWR	A	B
M2	9	3"
M3	12	6"
M4	-	1'-6"
M5	15	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, $f'c$, of 8500 psi and a release concrete compressive strength, $f'ci$, of 7000 psi. A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Beams shall not be released from the fabricator until they have attained 45 days of age or older. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL54N	Ft.	

IL54-2438D

1-28-16

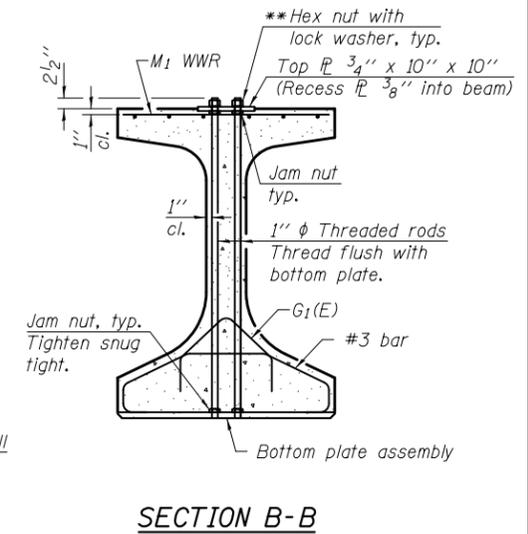
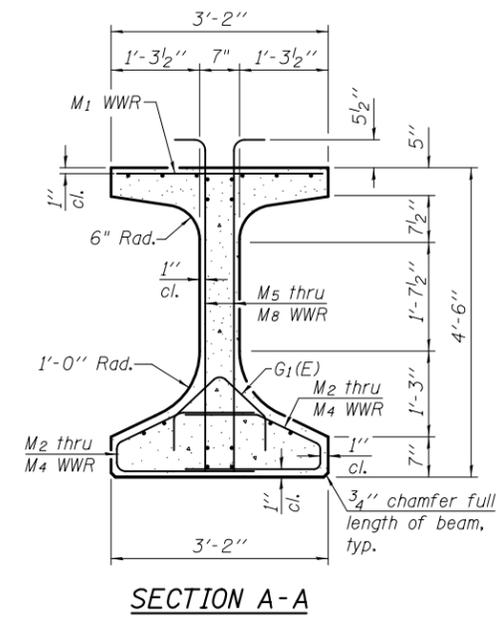
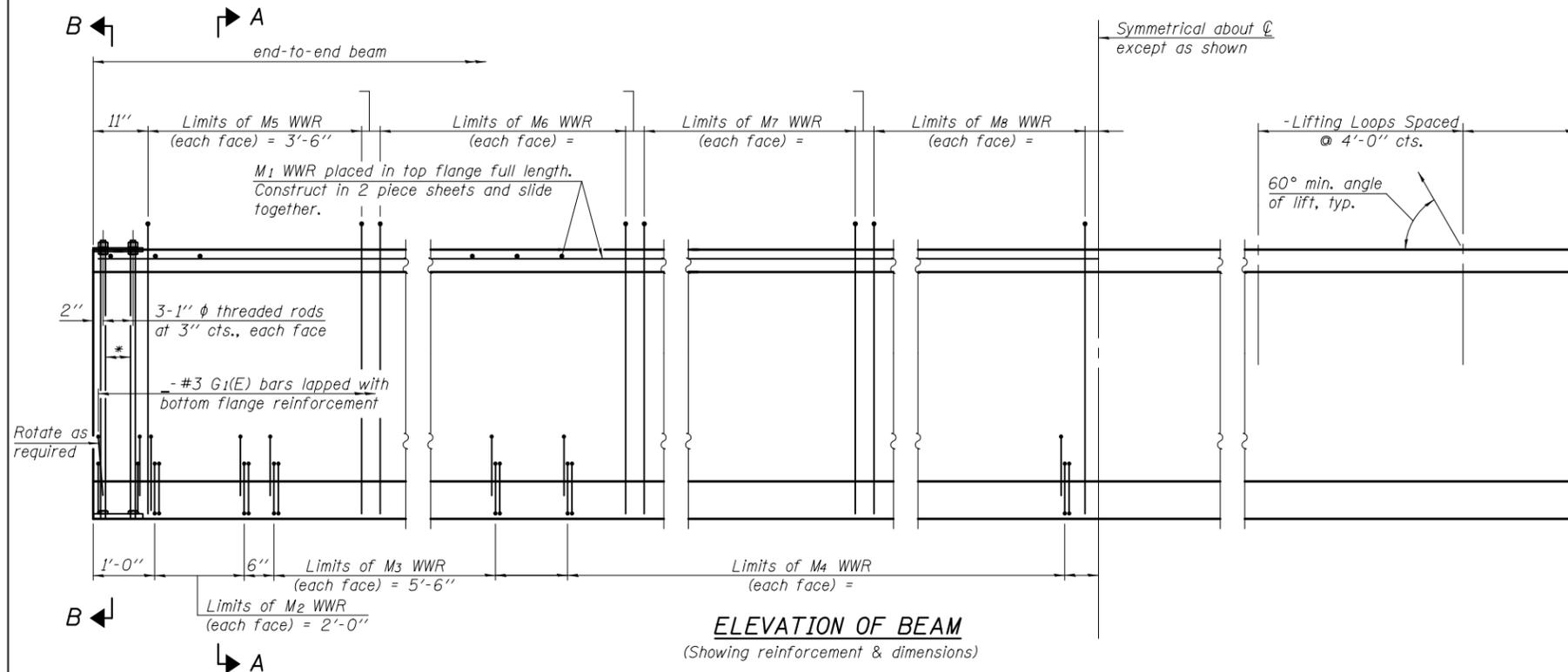
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL54N BEAM DETAILS
 STRUCTURE NO.

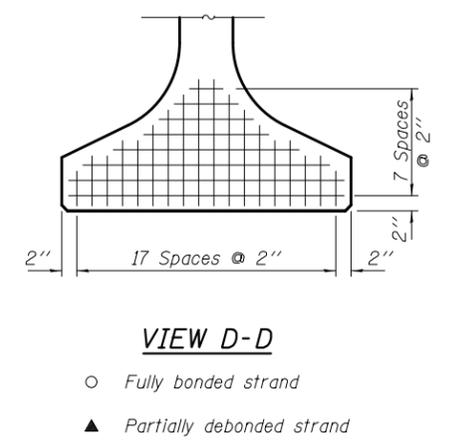
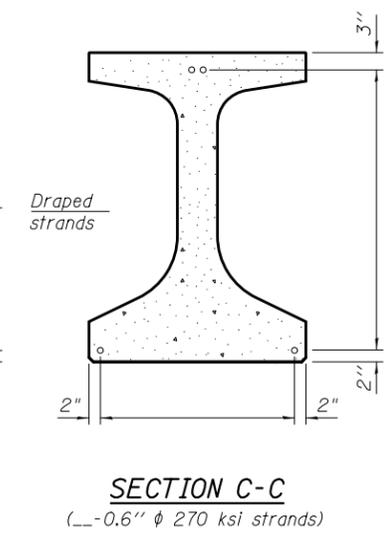
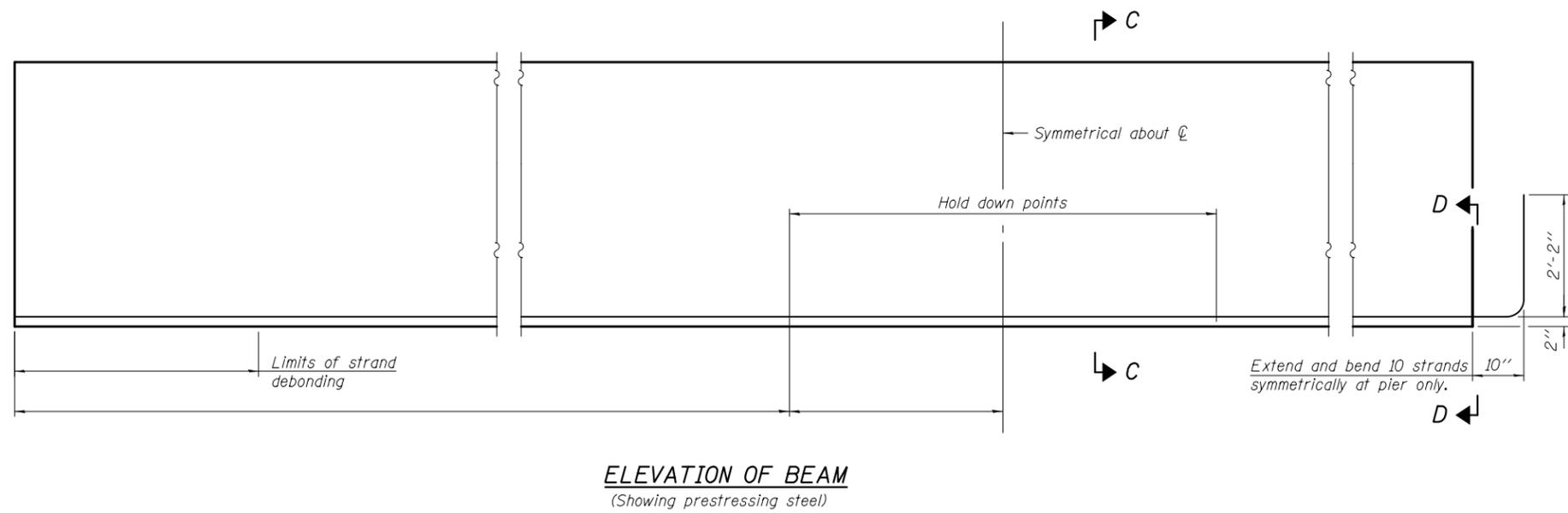
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL54-3838

1-28-16

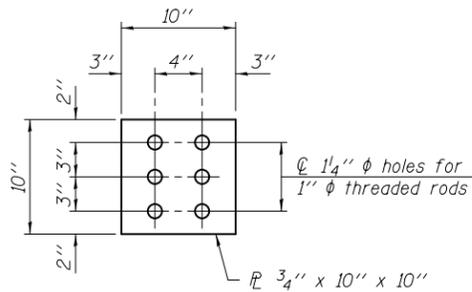
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

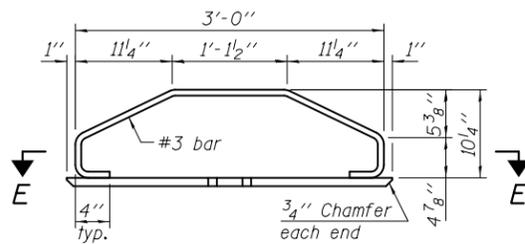
IL54 BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

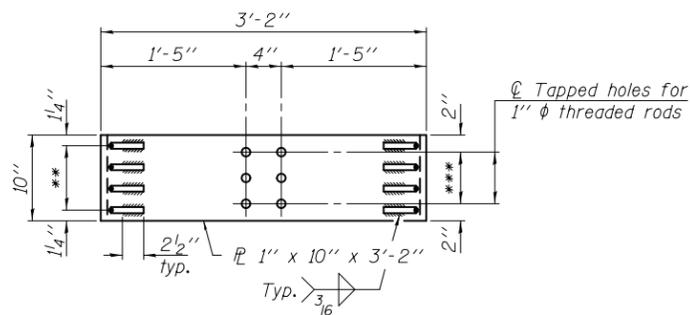
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

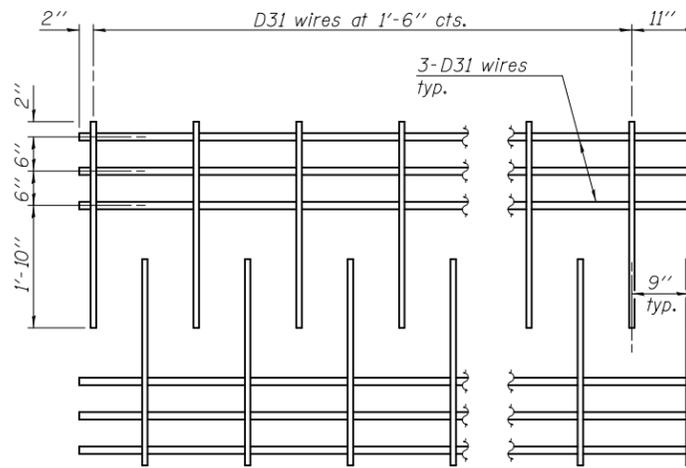


ELEVATION - BOTTOM PLATE ASSEMBLY



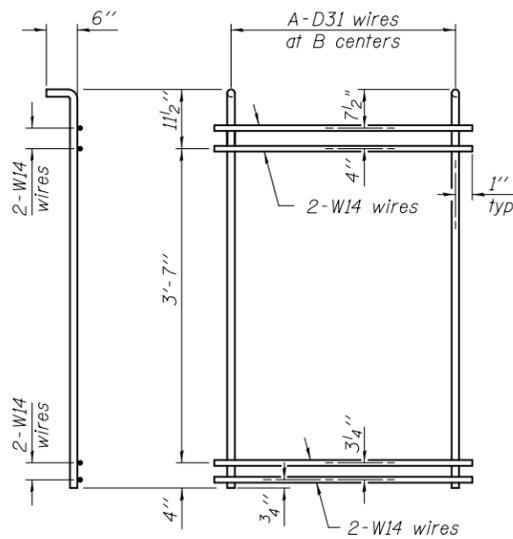
SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"



M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)

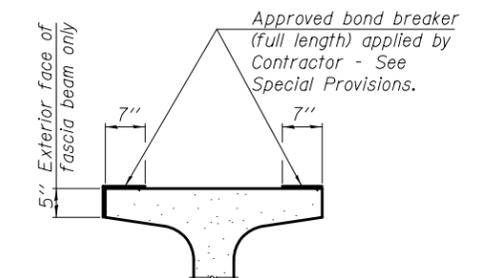
TABLE OF DIMENSIONS

SPAN -

WWR	A	B
M2	9	3"
M3	12	6"
M4	-	1'-6"
M5	15	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

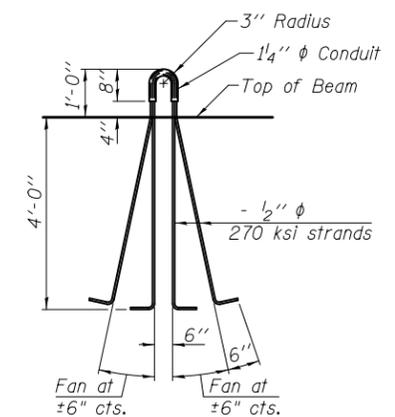
SPAN -

WWR	A	B
M2	9	3"
M3	12	6"
M4	-	1'-6"
M5	15	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

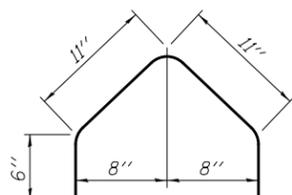


SECTION THRU TOP FLANGE

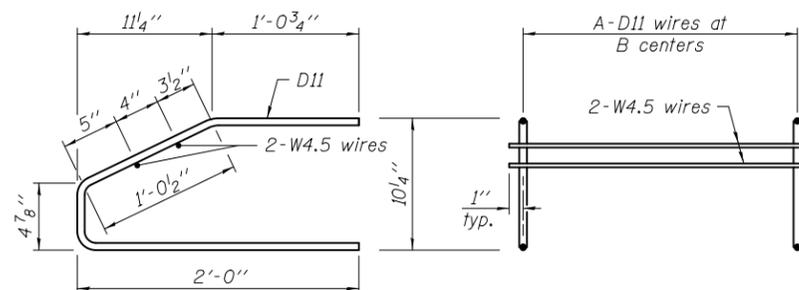
(Showing limits of bond breaker)



LIFTING LOOP DETAIL



BAR G1(E)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

NOTES
 Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.
 The beams shall have a final concrete compressive strength, $f'c$, of 8500 psi and a release concrete compressive strength, $f'ci$, of 7000 psi.
 A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm.
 The top and bottom plates shall be AASHTO M270 Grade 50.
 The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55.
 Beams shall not be released from the fabricator until they have attained 45 days of age or older.
 Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL54	Ft.	

IL54-3838D

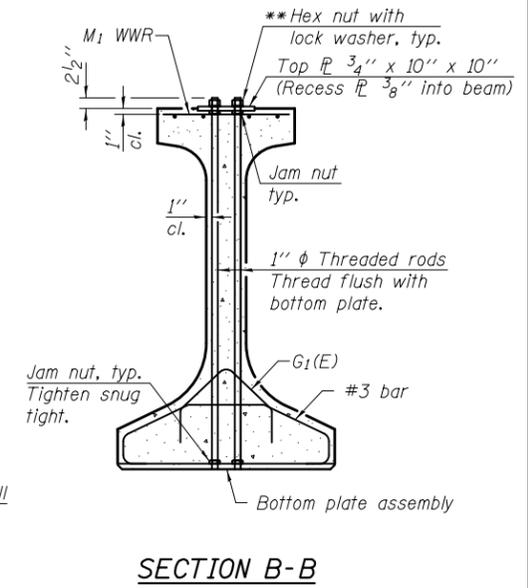
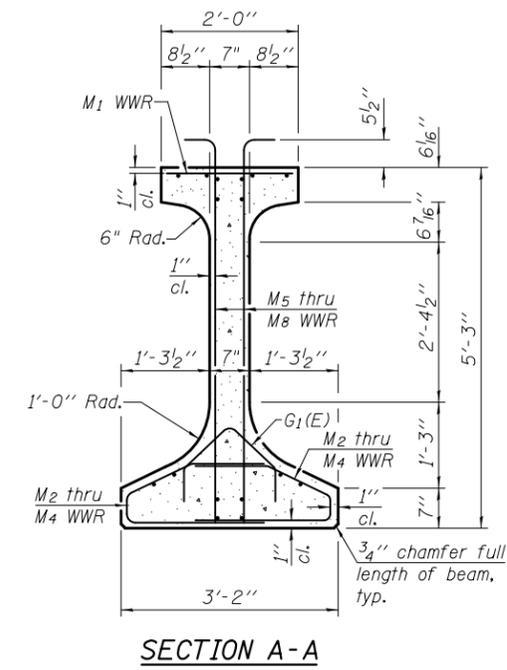
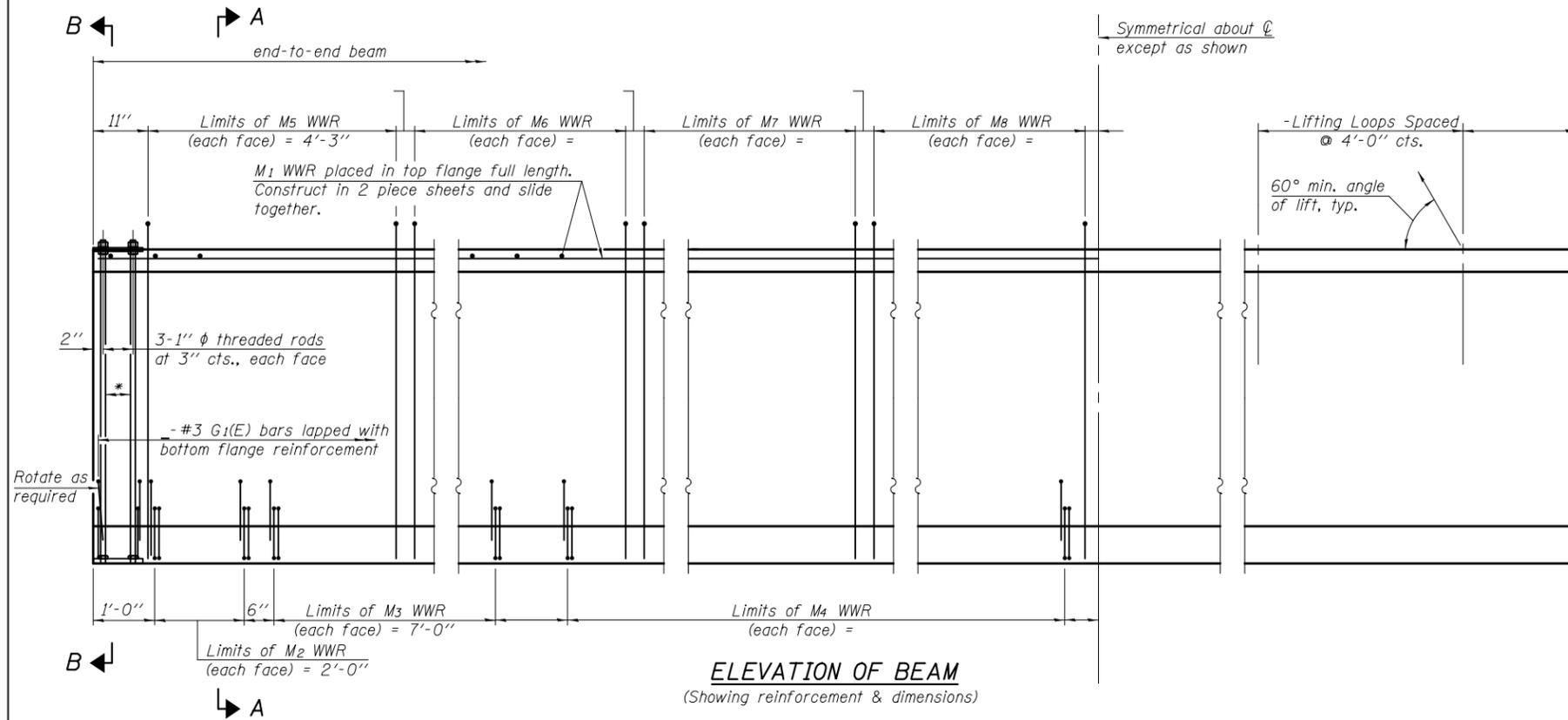
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

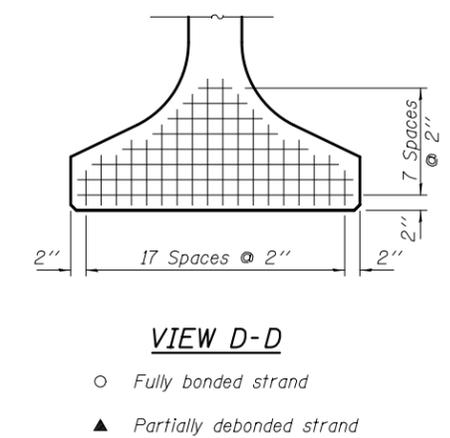
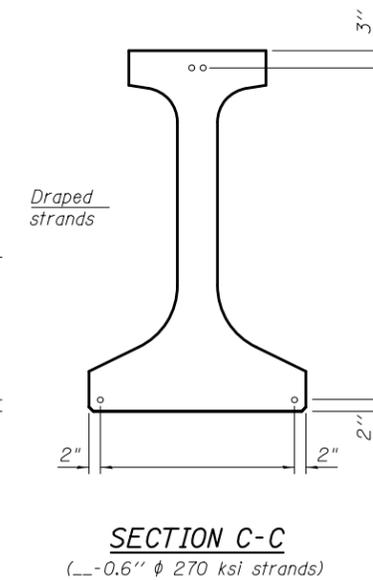
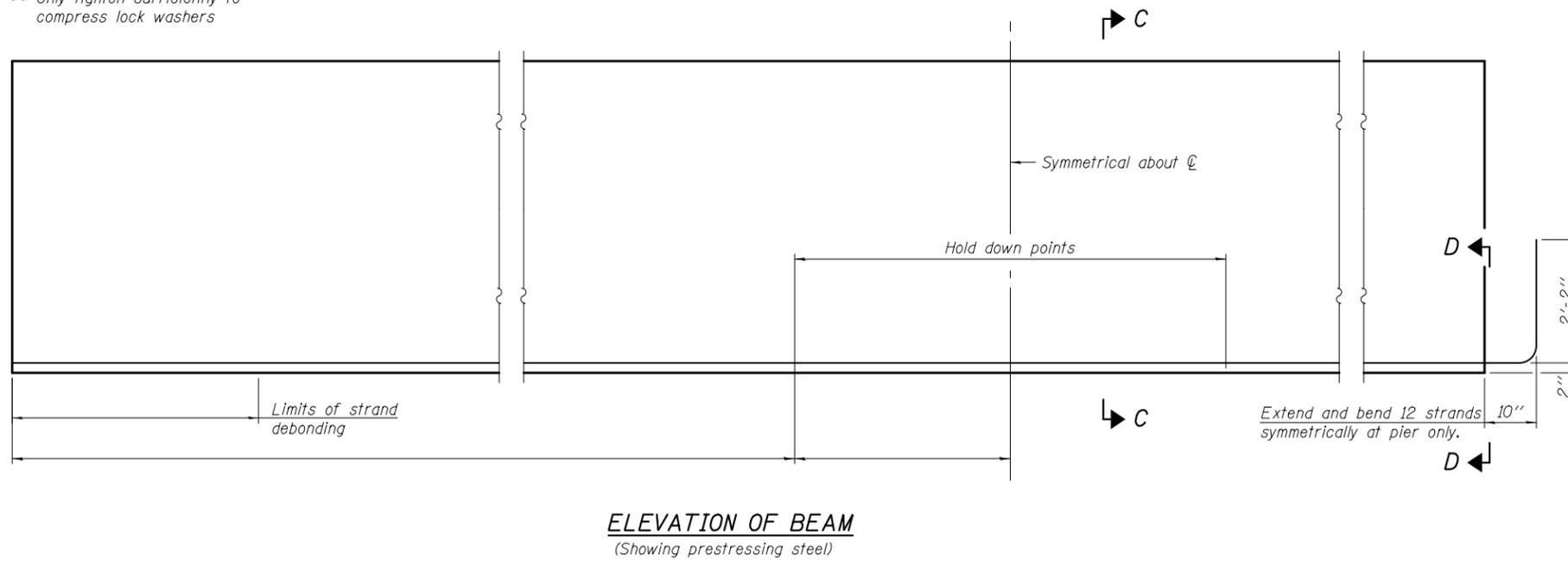
IL54 BEAM DETAILS
 STRUCTURE NO.

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



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL63-2438

1-28-16

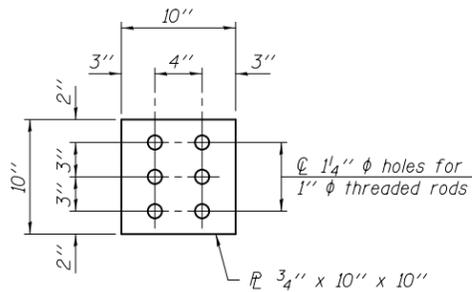
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

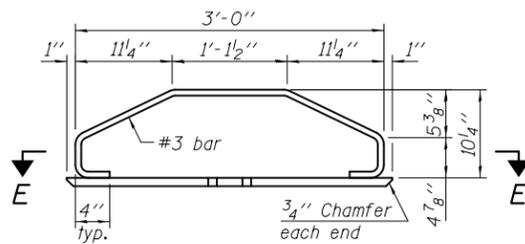
IL63N BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

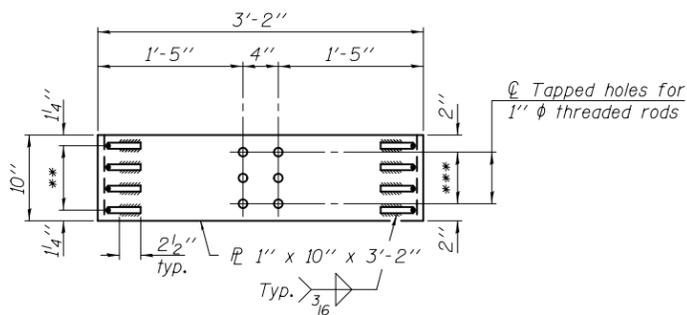
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

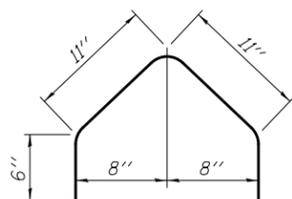


ELEVATION - BOTTOM PLATE ASSEMBLY

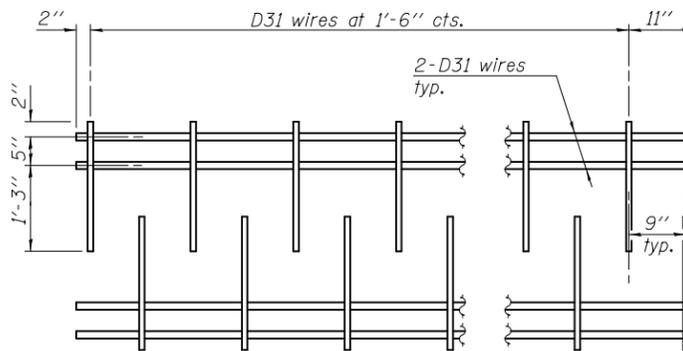


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

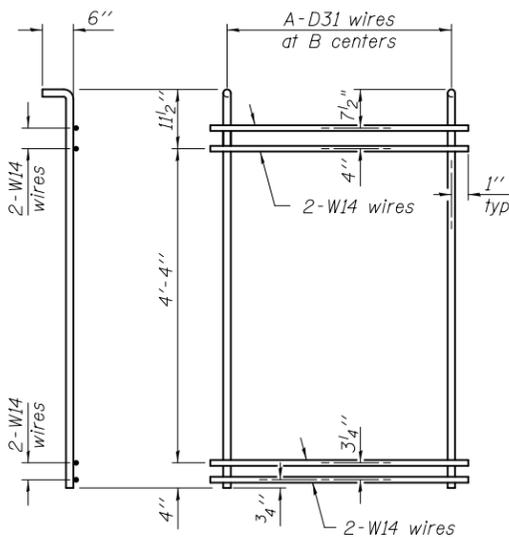


BAR G (E)



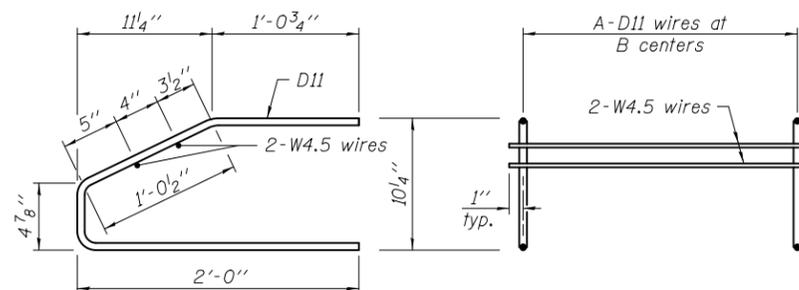
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

SPAN -

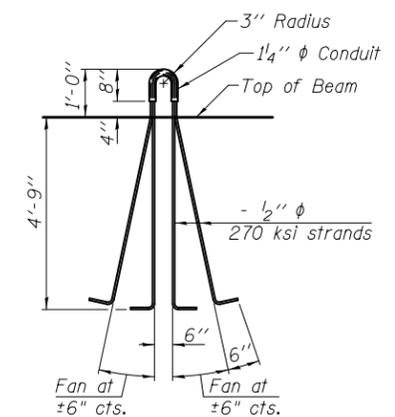
WWR	A	B
M2	9	3"
M3	15	6"
M4	-	1'-6"
M5	18	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN -

WWR	A	B
M2	9	3"
M3	15	6"
M4	-	1'-6"
M5	18	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi. A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Beams shall not be released from the fabricator until they have attained 45 days of age or older. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL63N	Ft.	

IL63-2438D

1-28-16

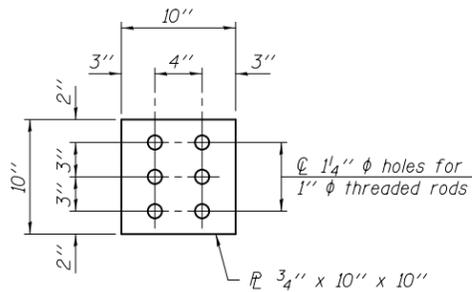
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

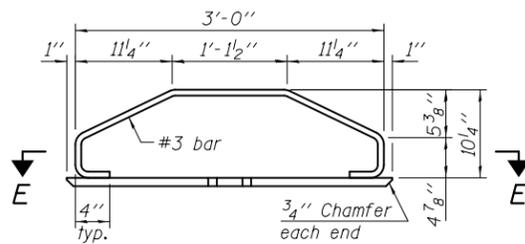
IL63N BEAM DETAILS
 STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

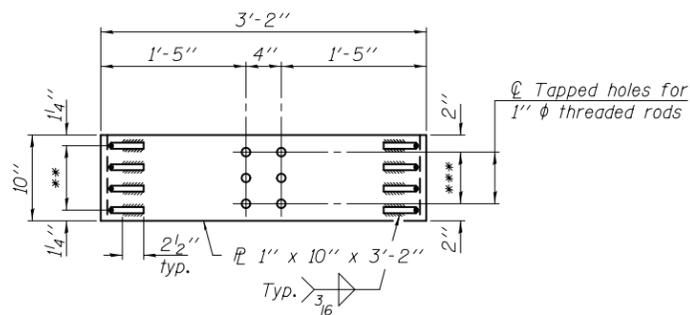
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

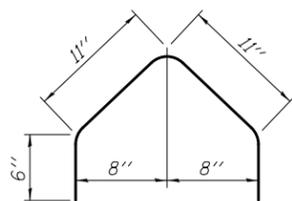


ELEVATION - BOTTOM PLATE ASSEMBLY

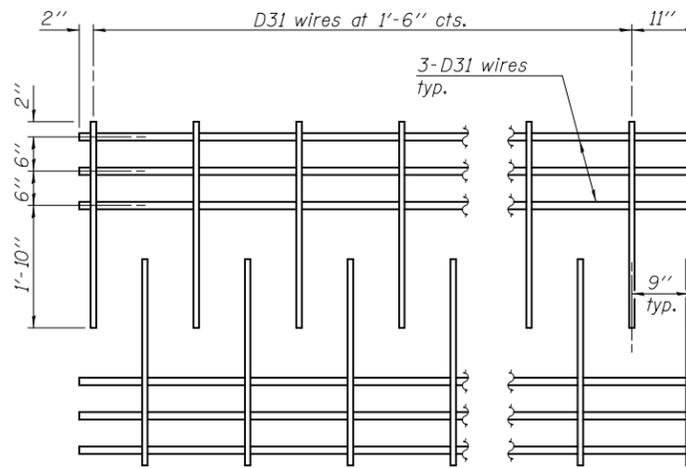


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

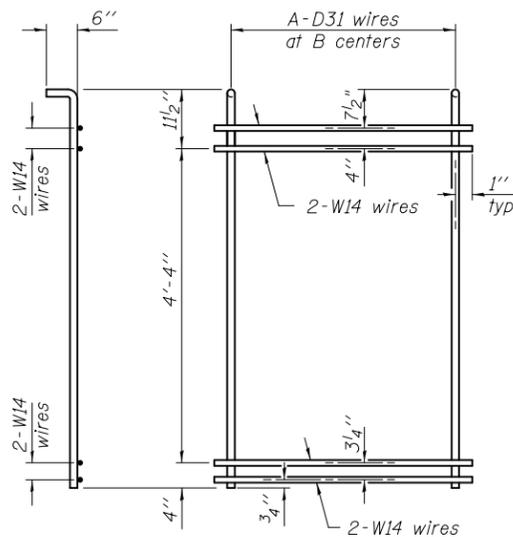


BAR G1(E)



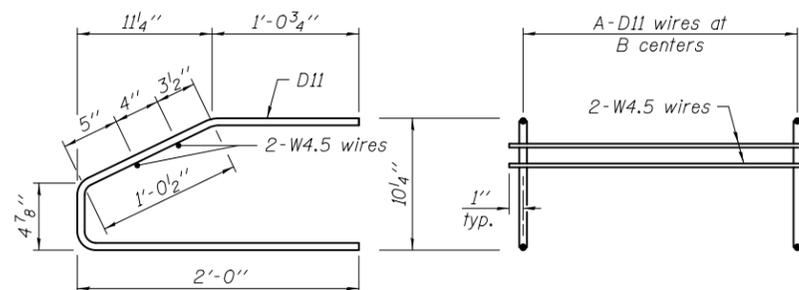
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

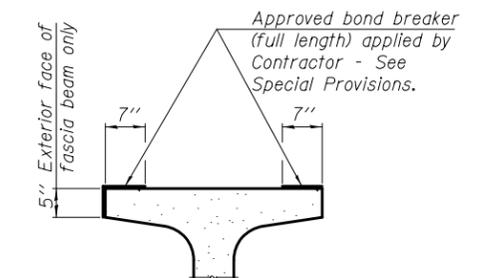
SPAN -

WWR	A	B
M2	9	3"
M3	15	6"
M4	-	1'-6"
M5	18	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN -

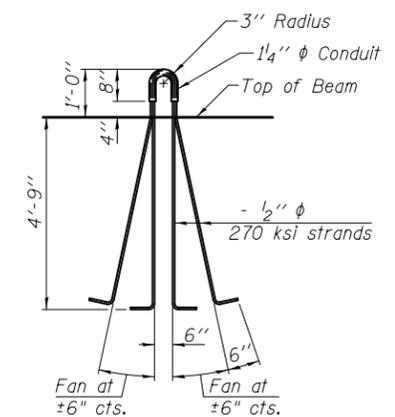
WWR	A	B
M2	9	3"
M3	15	6"
M4	-	1'-6"
M5	18	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

NOTES
 Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.
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 Beams shall not be released from the fabricator until they have attained 45 days of age or older.
 Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



SECTION THRU TOP FLANGE

(Showing limits of bond breaker)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL63	Ft.	

IL63-3838D

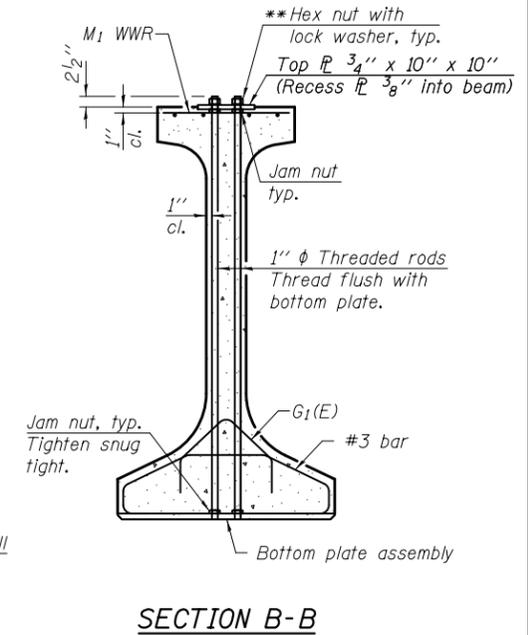
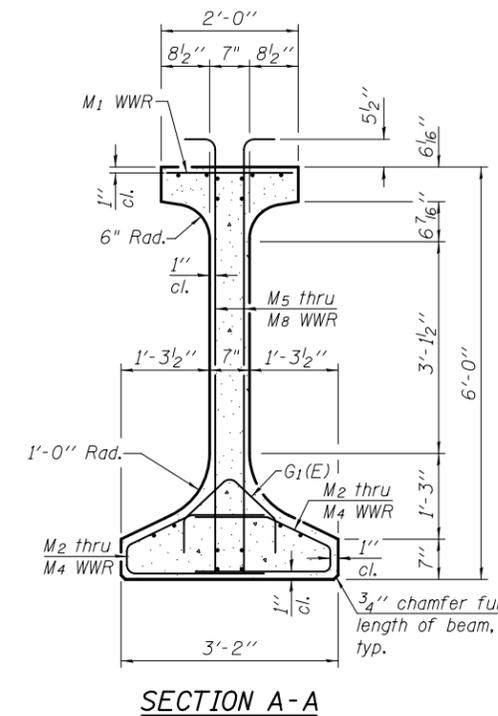
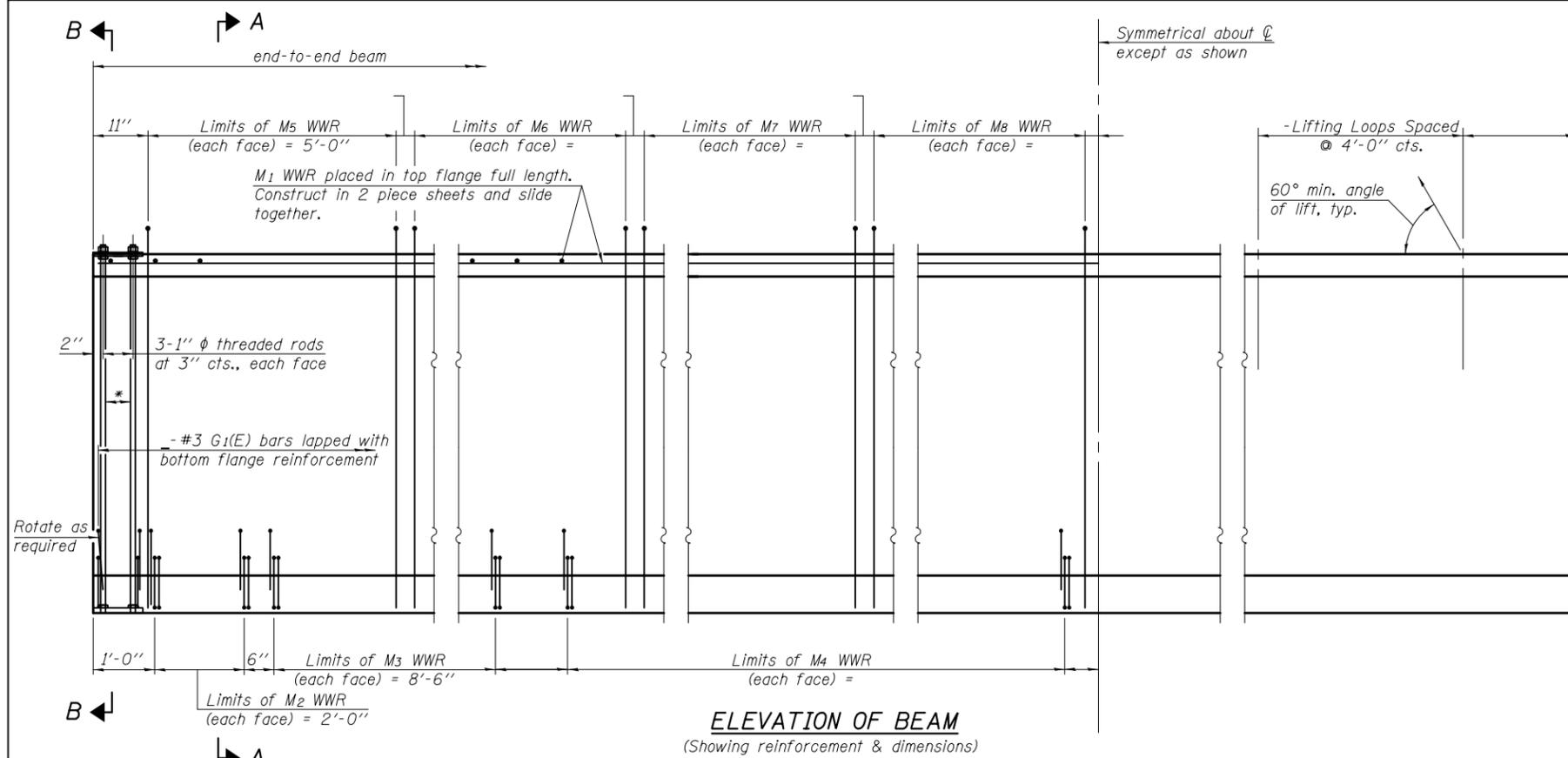
1-28-16

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

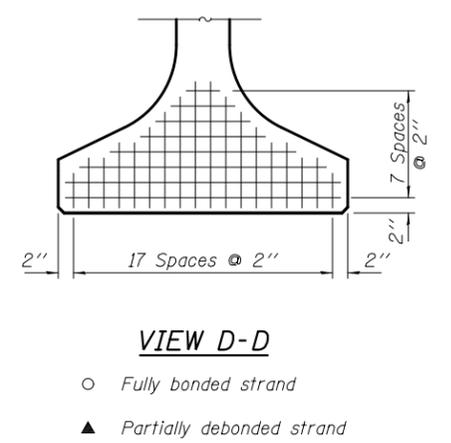
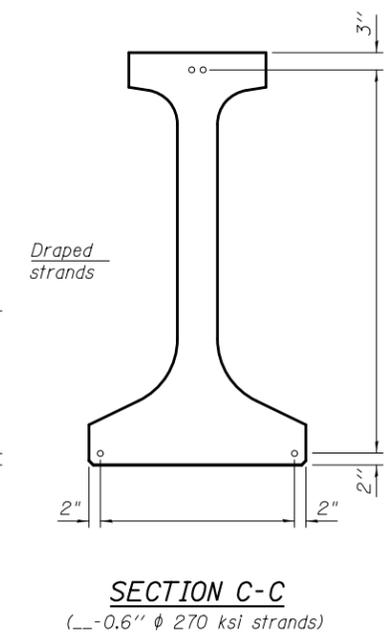
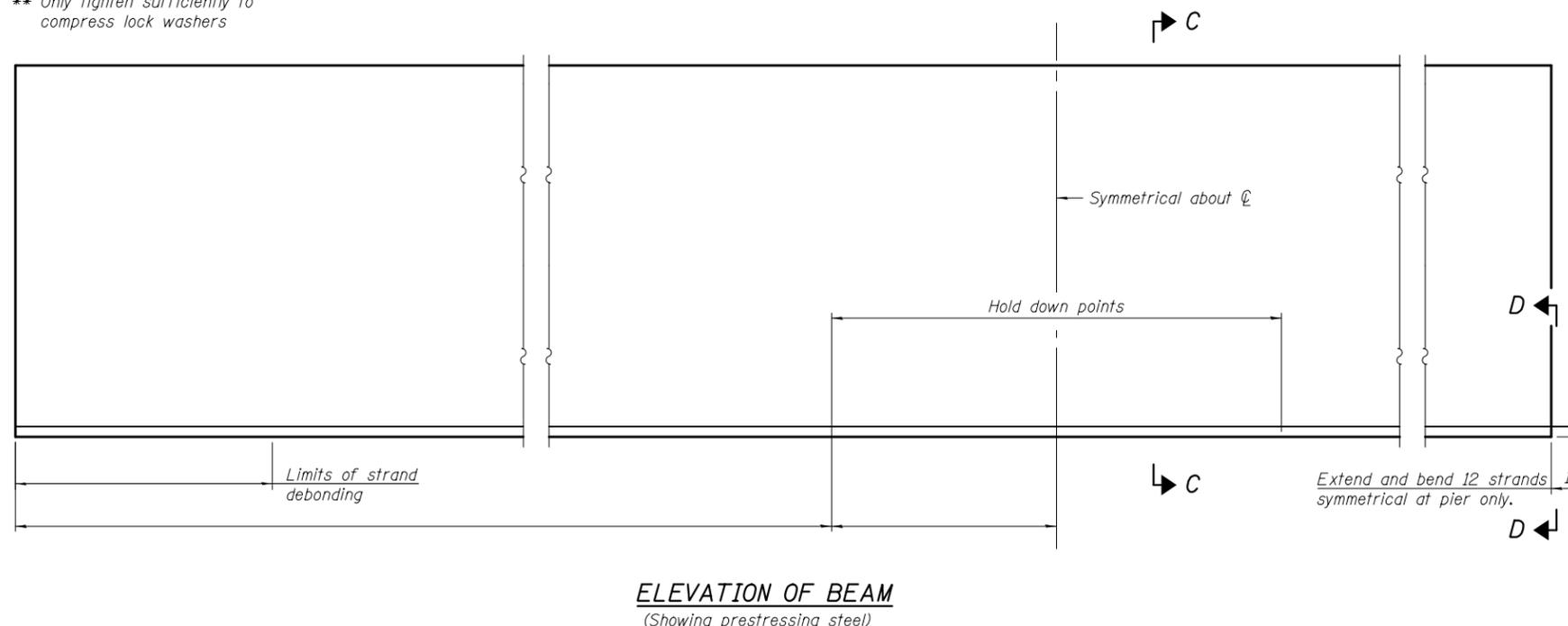
IL63 BEAM DETAILS
 STRUCTURE NO.

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



* 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL72-2438

1-28-16

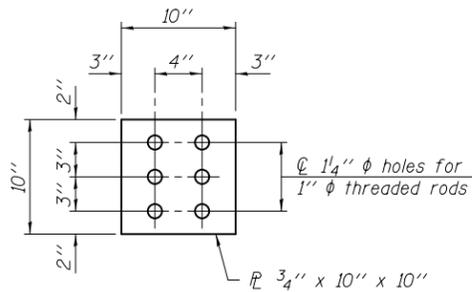
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

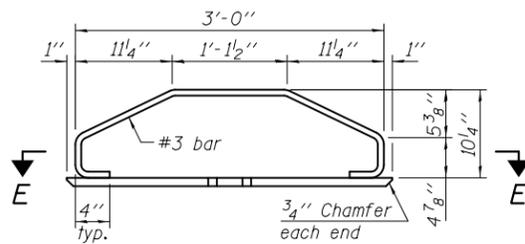
IL72N BEAM
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

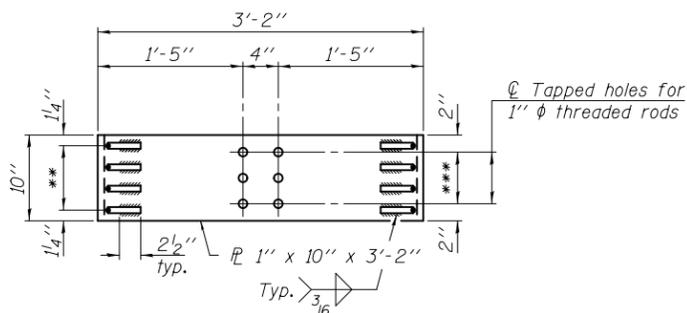
ILLINOIS FED. AID PROJECT



PLAN - TOP PLATE

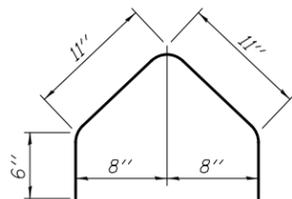


ELEVATION - BOTTOM PLATE ASSEMBLY

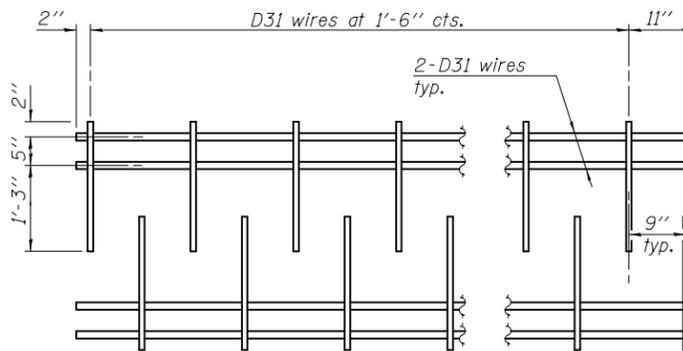


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

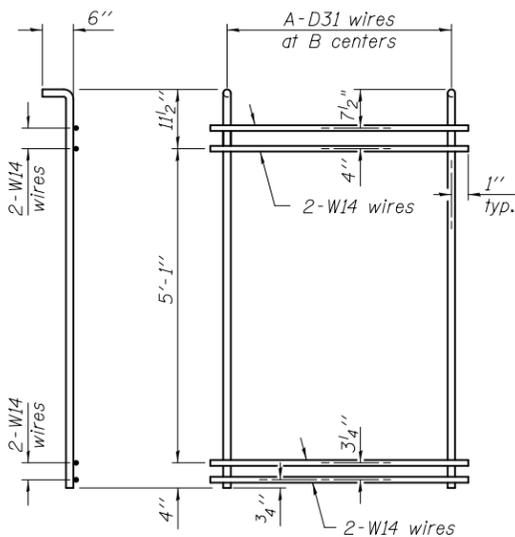


BAR G1(E)



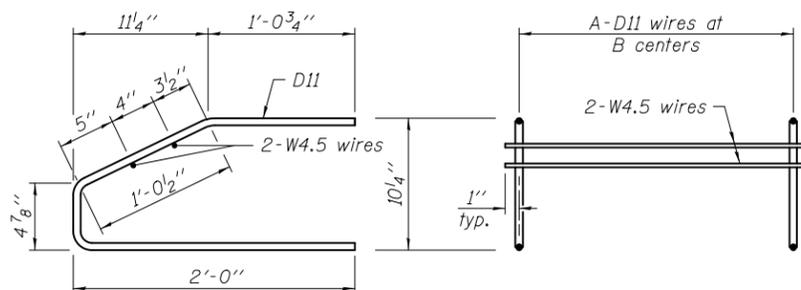
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

SPAN -

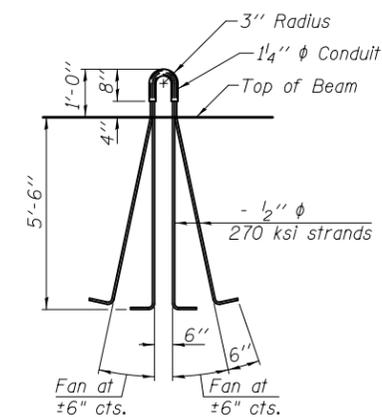
WWR	A	B
M2	9	3"
M3	18	6"
M4	-	1'-6"
M5	21	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN -

WWR	A	B
M2	9	3"
M3	18	6"
M4	-	1'-6"
M5	21	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

NOTES

Inserts for 3/4" diameter threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Beams shall not be released from the fabricator until they have attained 45 days of age or older. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL72N	Ft.	

IL72-2438D

1-28-16

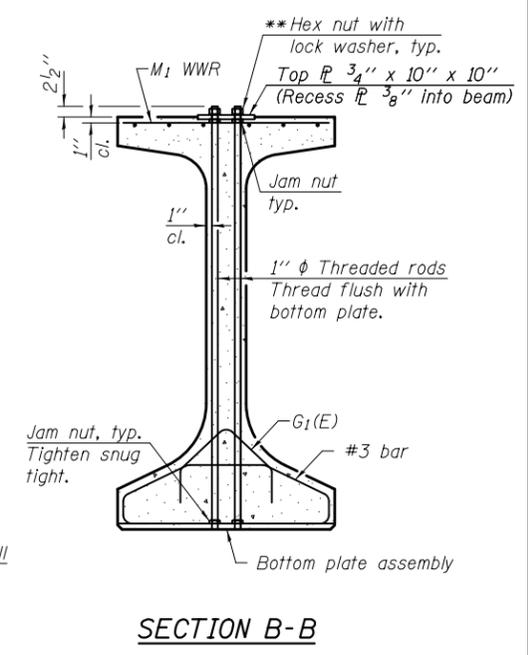
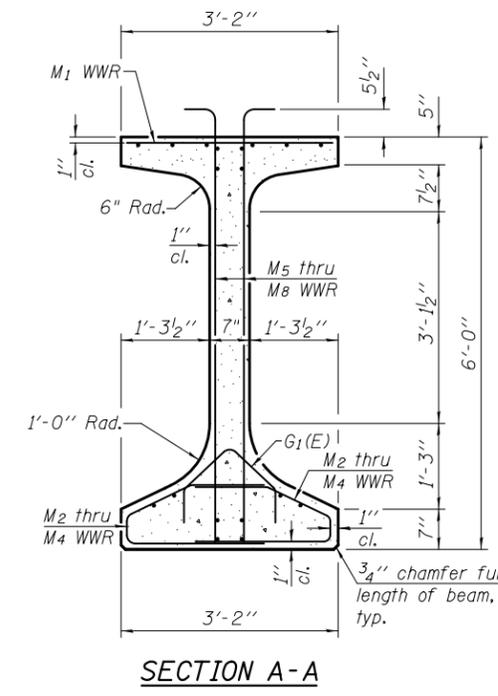
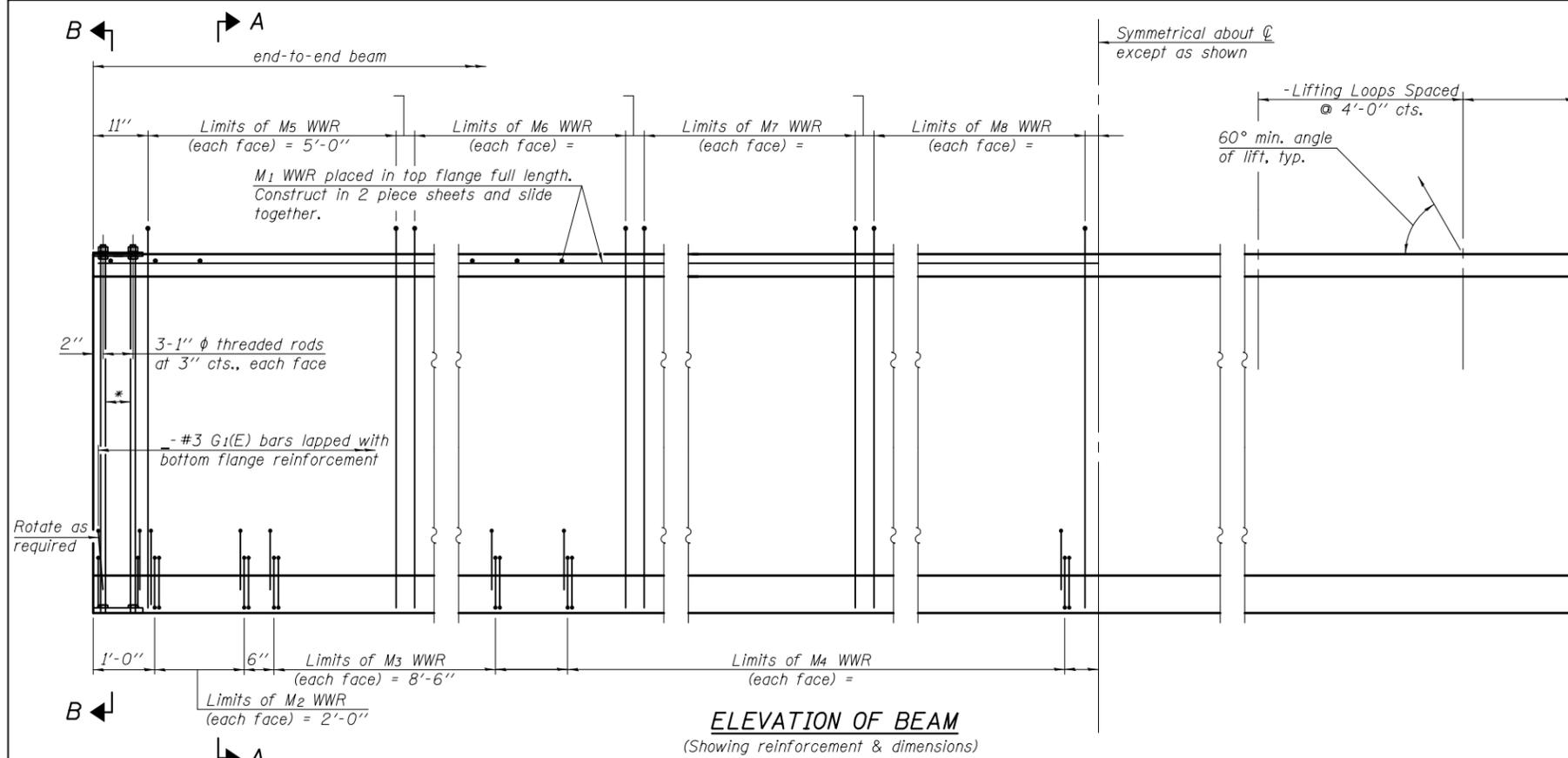
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	PLOT SCALE =	DRAWN -	REVISD -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL72N BEAM DETAILS
 STRUCTURE NO.

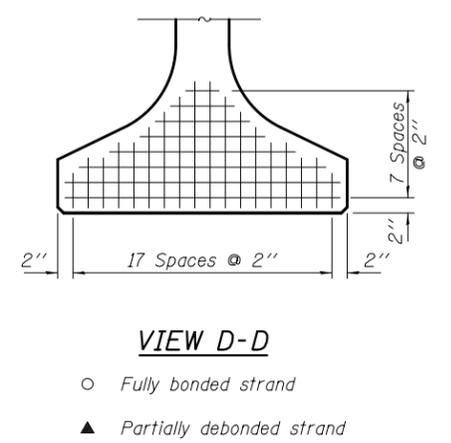
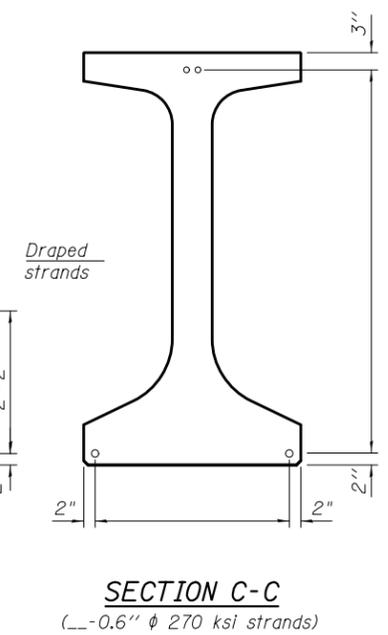
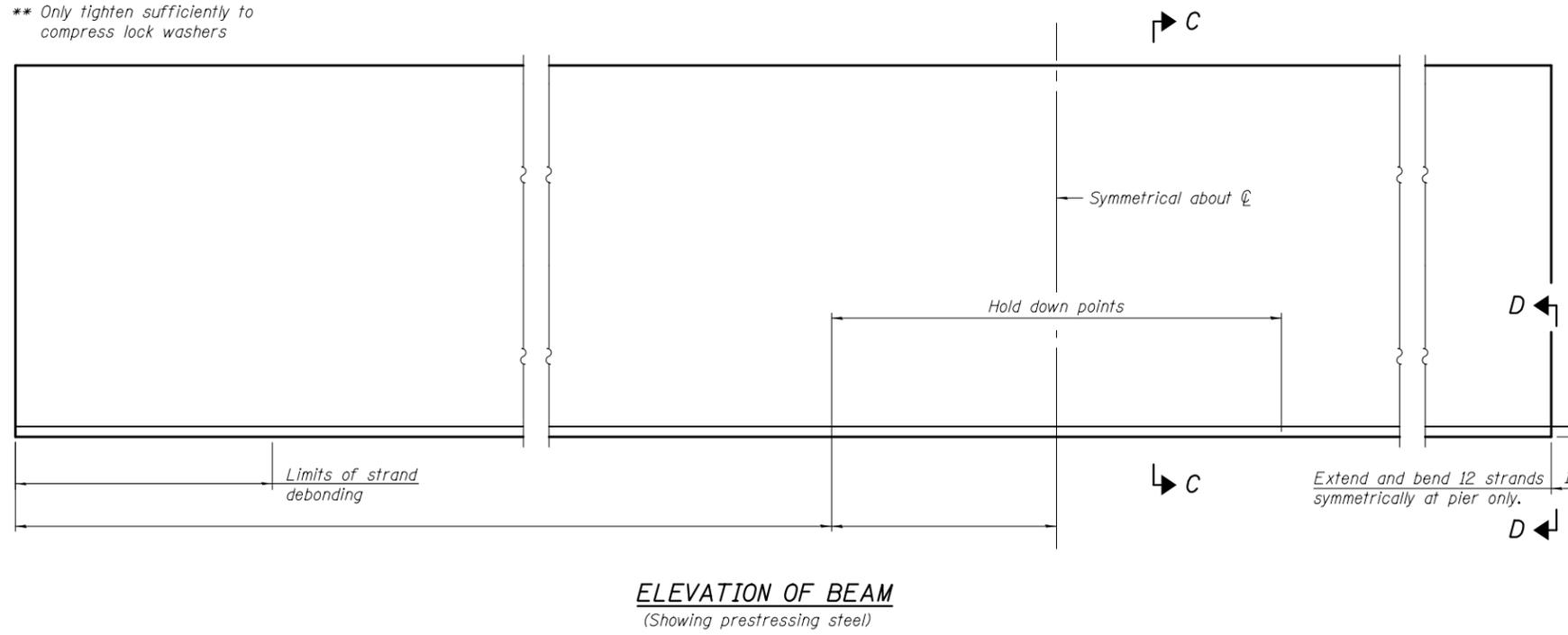
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



* 4-3/4" diameter threaded dowel rods at 3" centers, Each Face

** Only tighten sufficiently to compress lock washers



Note:
See sheet ___ of ___ for additional details and Bill of Material.

IL72-3838

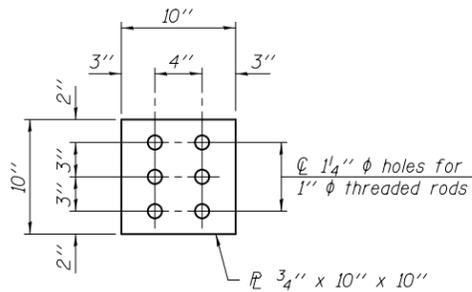
1-28-16

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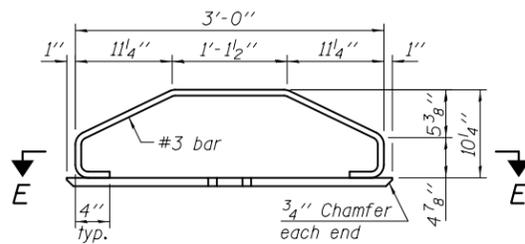
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL72 BEAM
STRUCTURE NO.

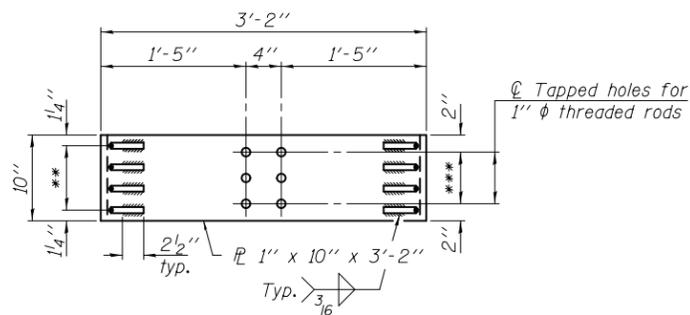
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CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



PLAN - TOP PLATE

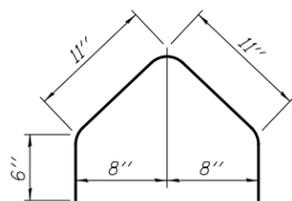


ELEVATION - BOTTOM PLATE ASSEMBLY

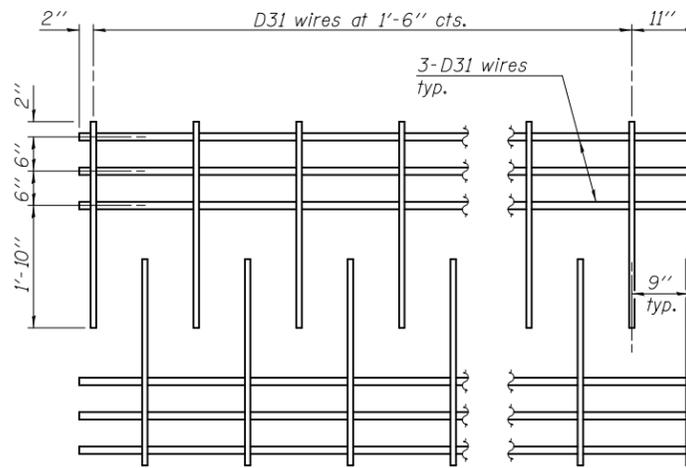


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
 *** 2 Spaces at 3" = 6"

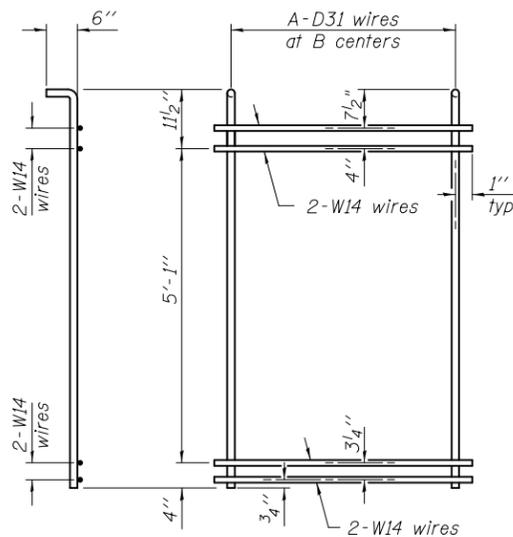


BAR G1(E)



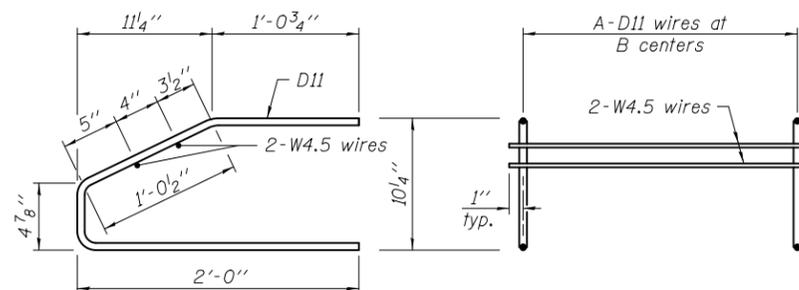
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (4'-6" long) shall be used to splice the longitudinal D31 wires together.



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

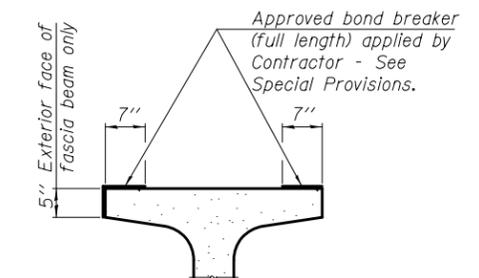
SPAN -

WWR	A	B
M2	9	3"
M3	18	6"
M4	-	1'-6"
M5	21	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

SPAN -

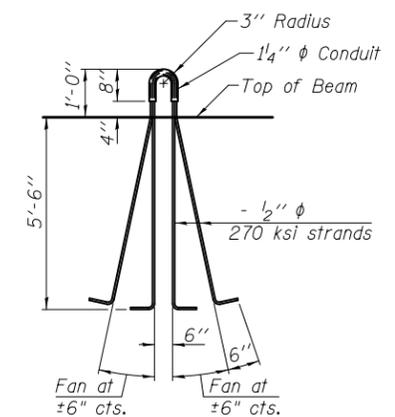
WWR	A	B
M2	9	3"
M3	18	6"
M4	-	1'-6"
M5	21	3"
M6	-	6"
M7	-	1'-0"
M8	-	2'-0"

NOTES
 Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.
 The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi.
 A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1/2" clearance inside the pier diaphragm.
 The top and bottom plates shall be AASHTO M270 Grade 50.
 The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55.
 Beams shall not be released from the fabricator until they have attained 45 days of age or older.
 Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.



SECTION THRU TOP FLANGE

(Showing limits of bond breaker)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL72	Ft.	

IL72-3838D

1-28-16

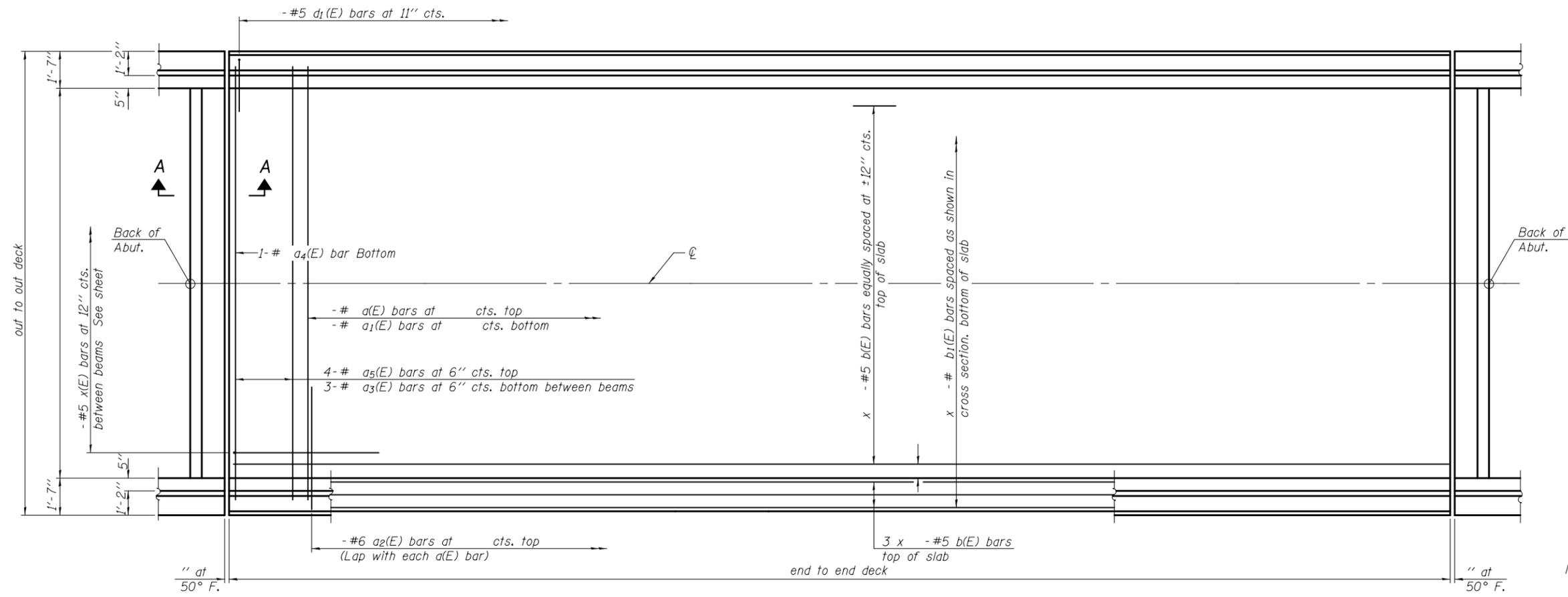
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		CHECKED -	REVISD -
	PLOT SCALE =	DRAWN -	REVISD -
	PLOT DATE =	CHECKED -	REVISD -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL72 BEAM DETAILS
 STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

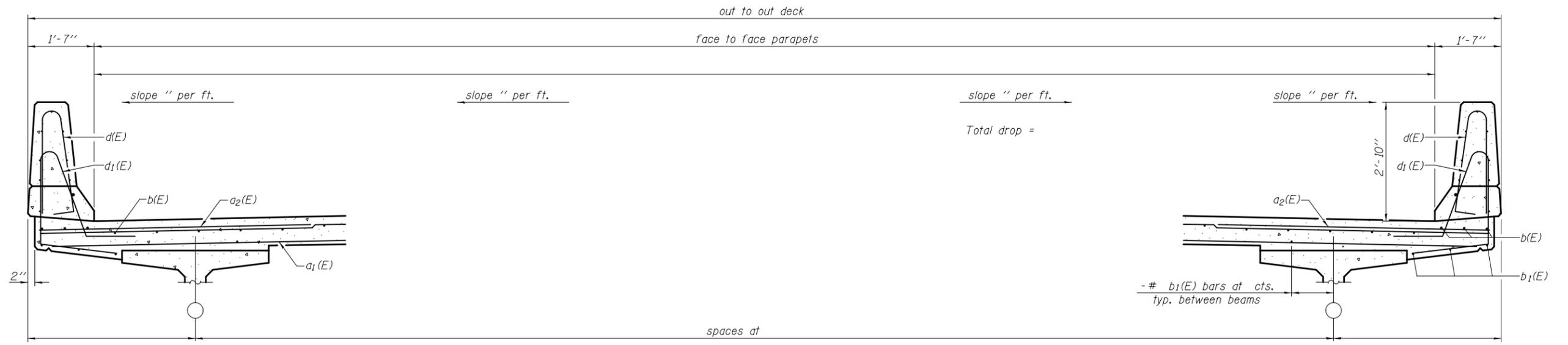


PLAN

Notes:
 See sheet of for superstructure details and Bill of Material.
 For Section A-A and diaphragm details see sheet of .
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



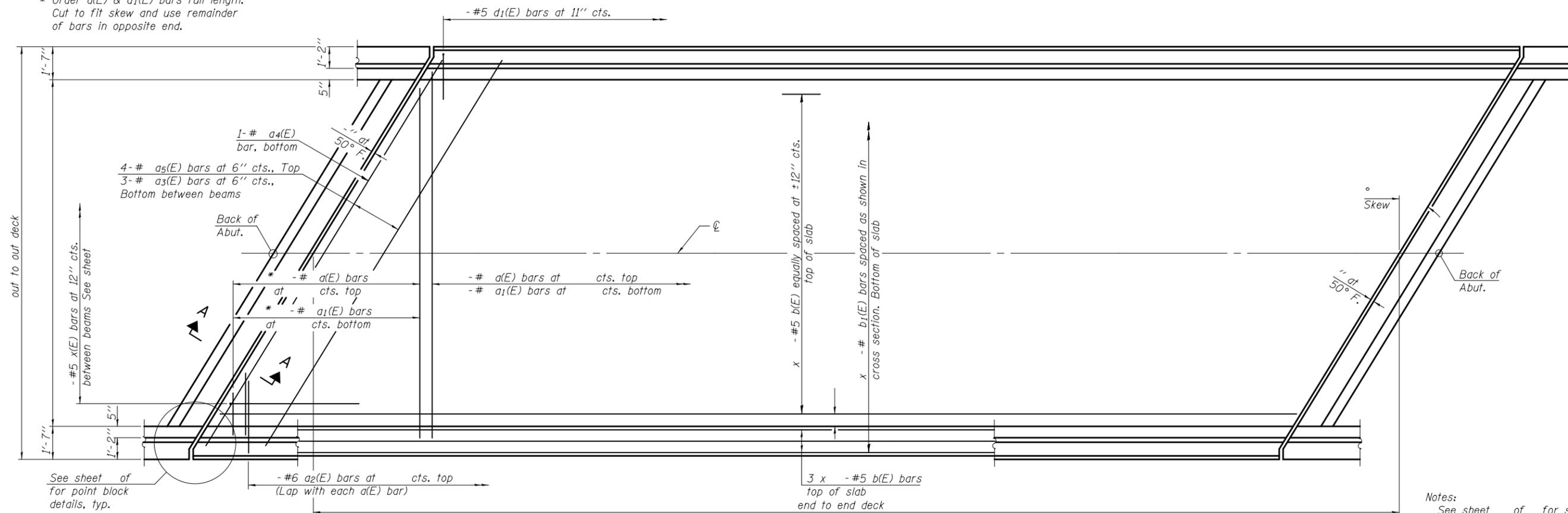
CROSS SECTION
(Looking)

PBT-1-0

6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE STRUCTURE NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISD -								
		DRAWN -	REVISD -			CONTRACT NO.					
		CHECKED -	REVISD -			ILLINOIS FED. AID PROJECT					

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



CROSS SECTION
(Looking)

PBT-1-L(>30°)

6-8-15

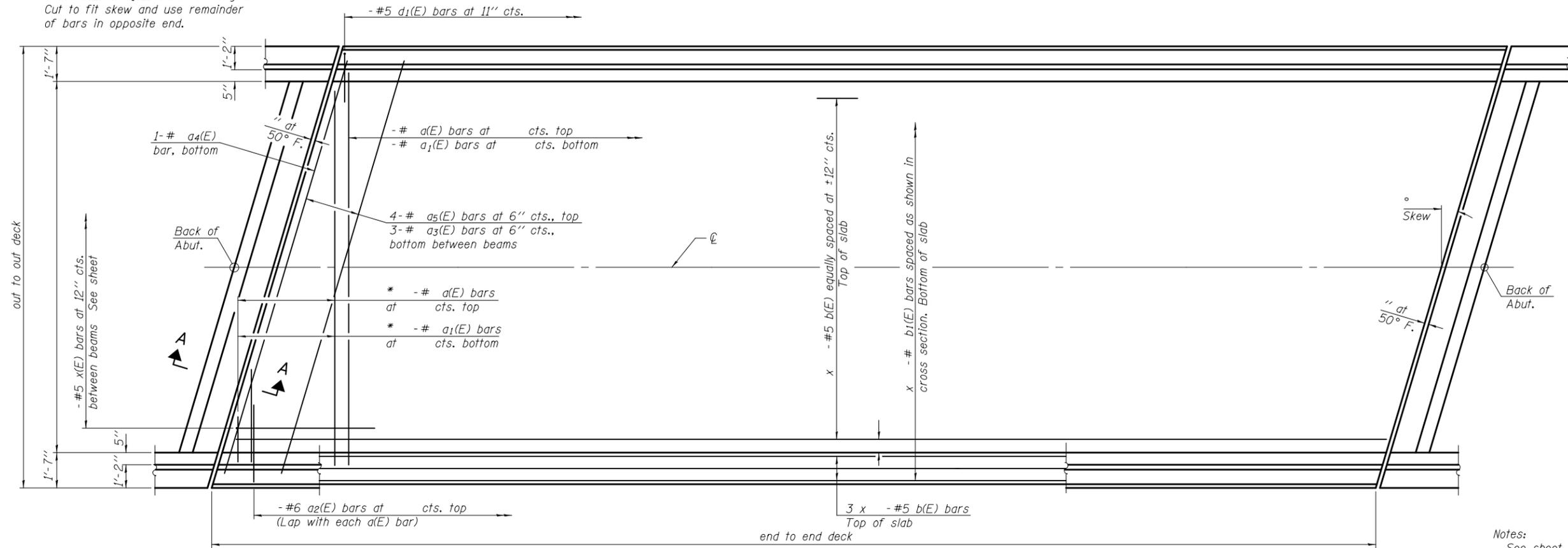
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) & a₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

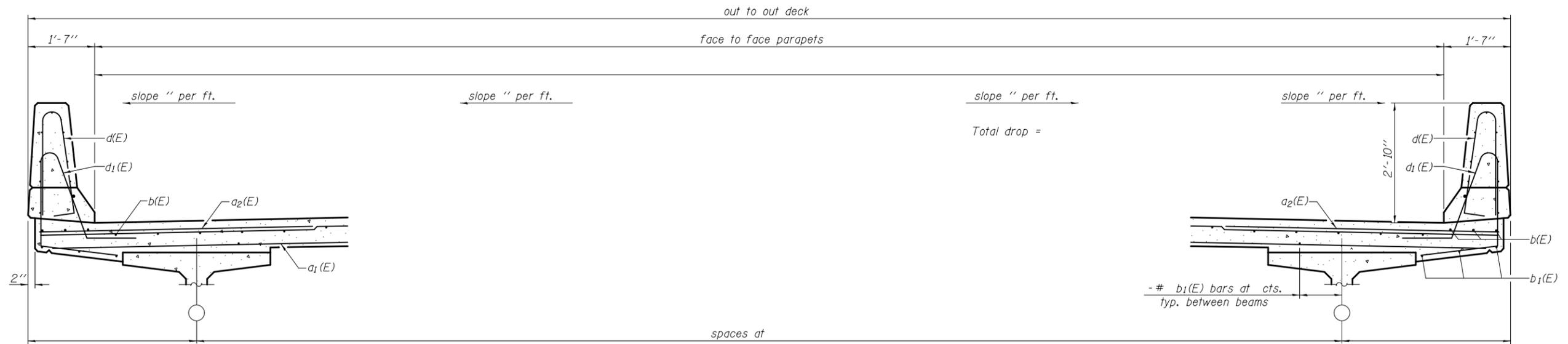


PLAN

Notes:
 See sheet of for superstructure details and Bill of Material.
 For Section A-A and diaphragm details see sheet of .
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



CROSS SECTION
(Looking)

PBT-1-L(<30°)

6-8-15

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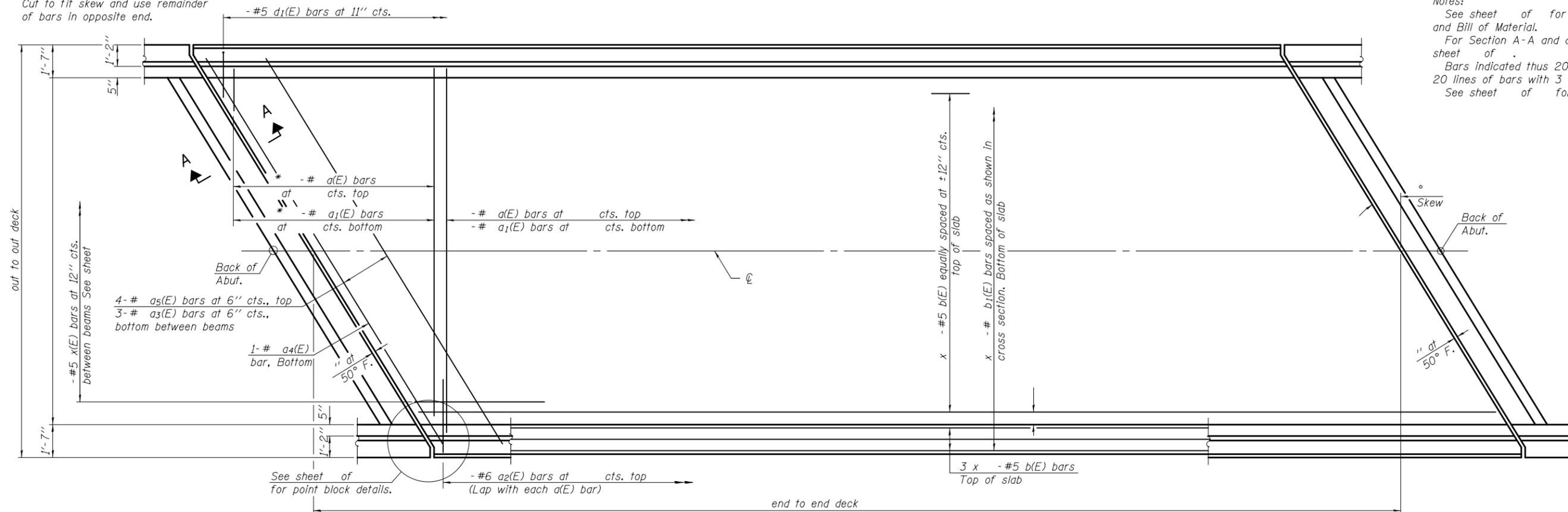
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN



CROSS SECTION
(Looking)

PBT-1-R(>30°)

6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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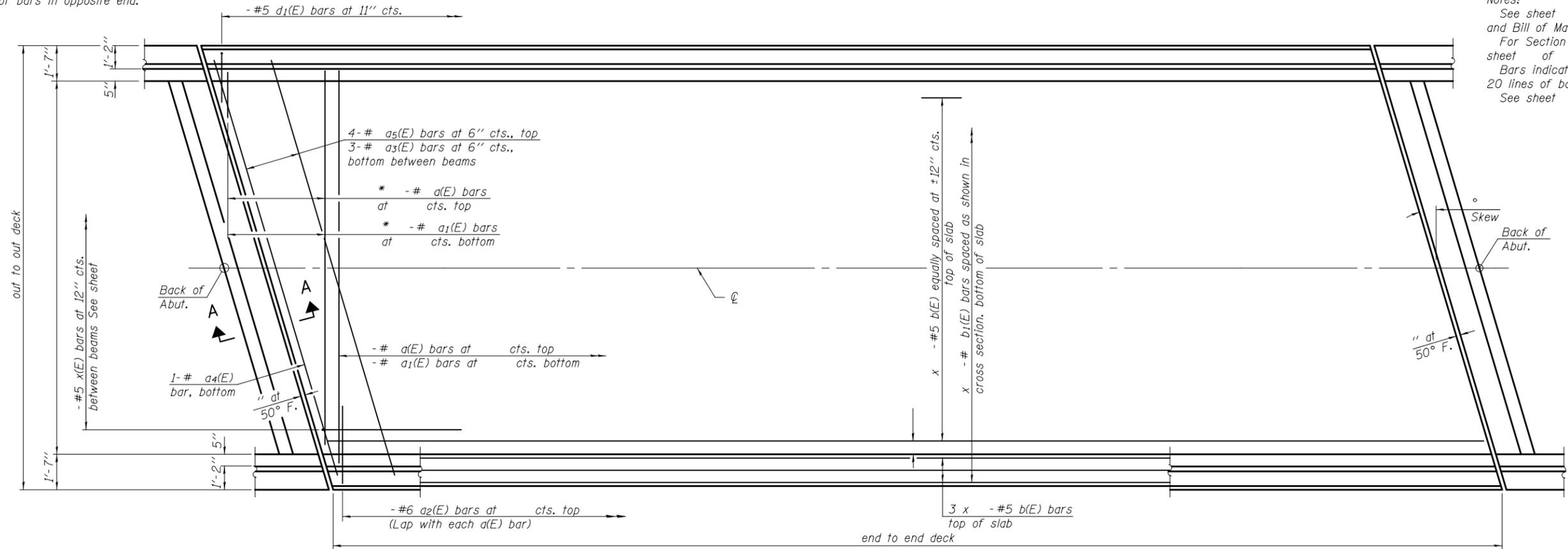
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order $a(E)$ & $a_1(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

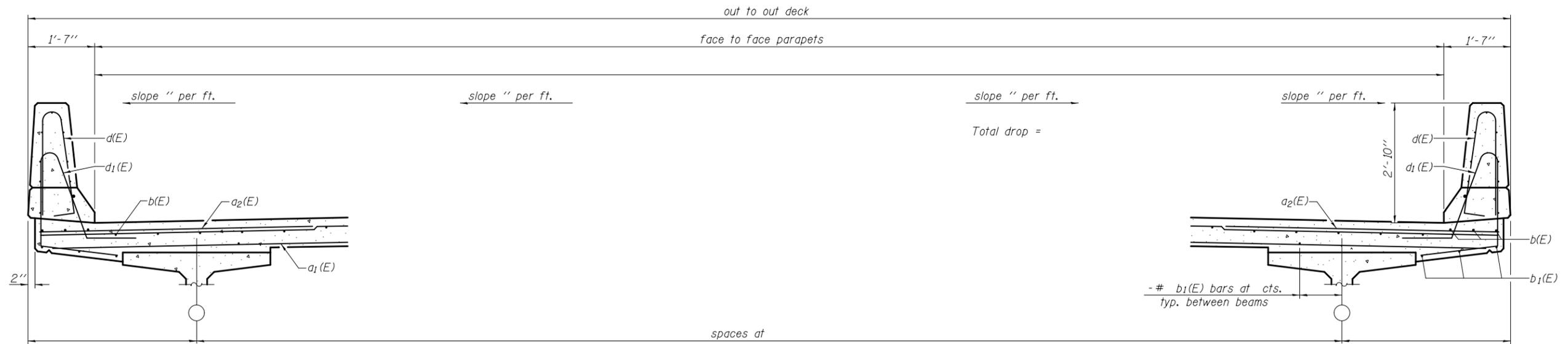
Notes:
See sheet of for superstructure details
and Bill of Material.
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sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN



CROSS SECTION
(Looking)

PBT-1-R(<30°)

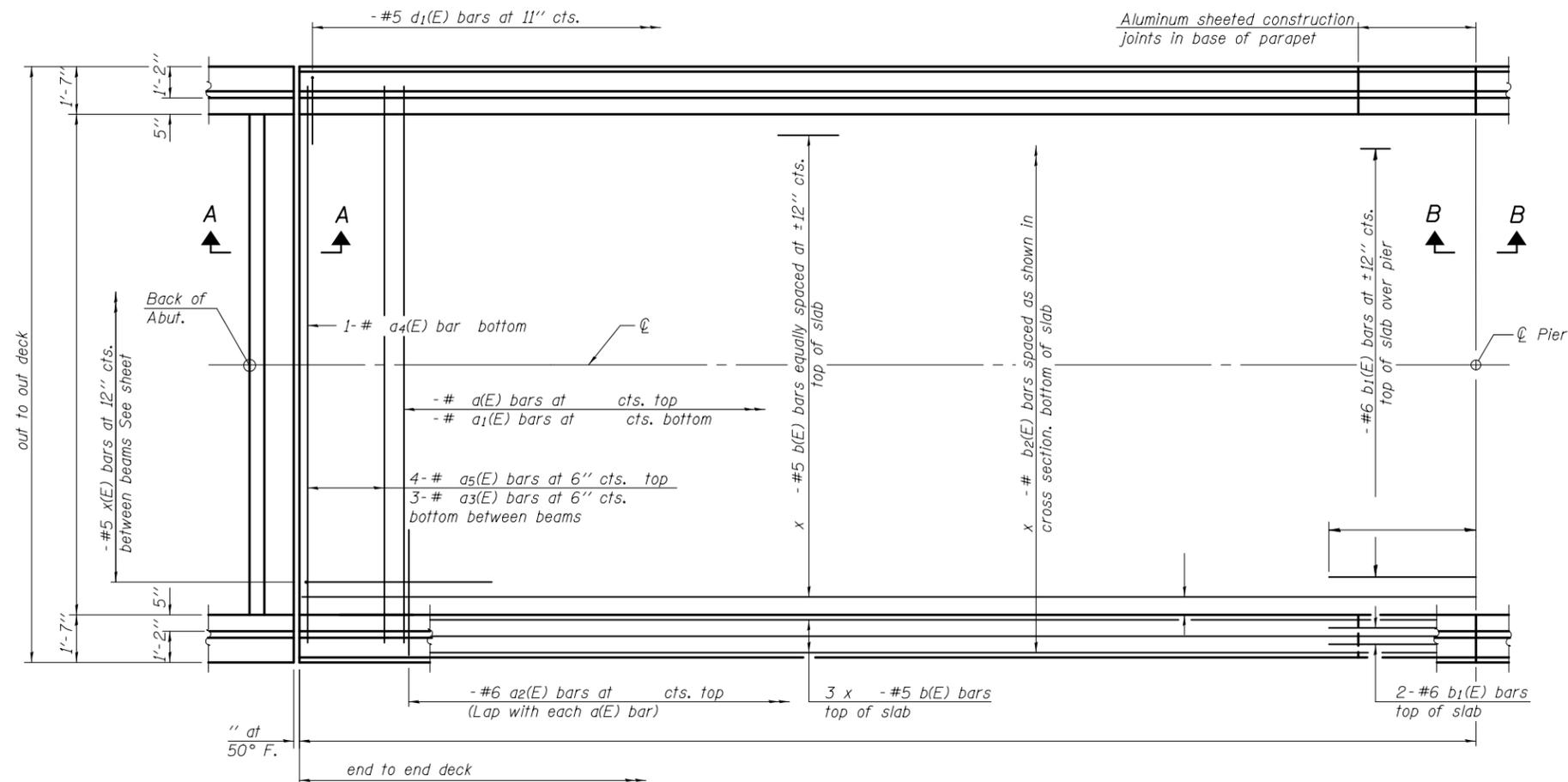
6-8-15

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

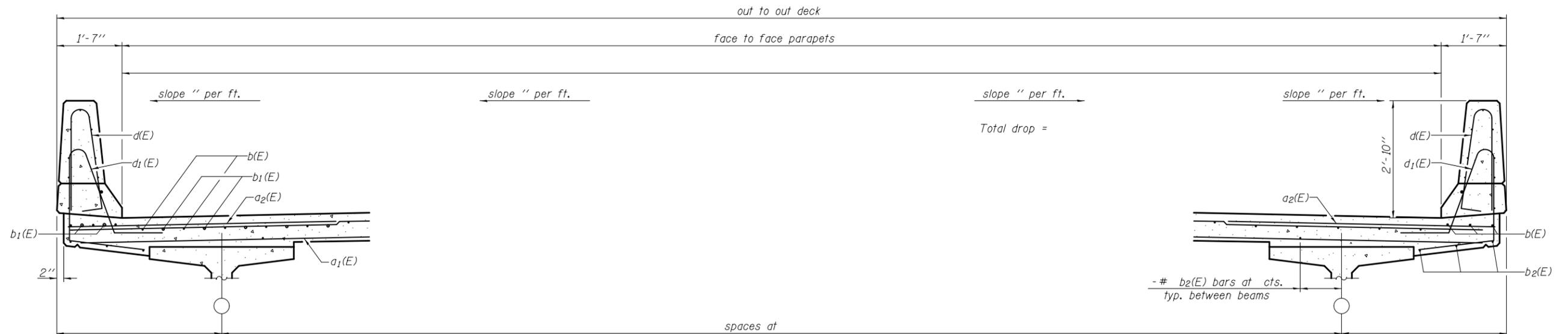
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



HALF PLAN

MINIMUM BAR LAP
#5 bar = 3'-6"

Notes:
See sheet of for superstructure details and Bill of Material.
For Sections A-A and B-B and diaphragm details see sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking)

PBT-2-0

6-8-15

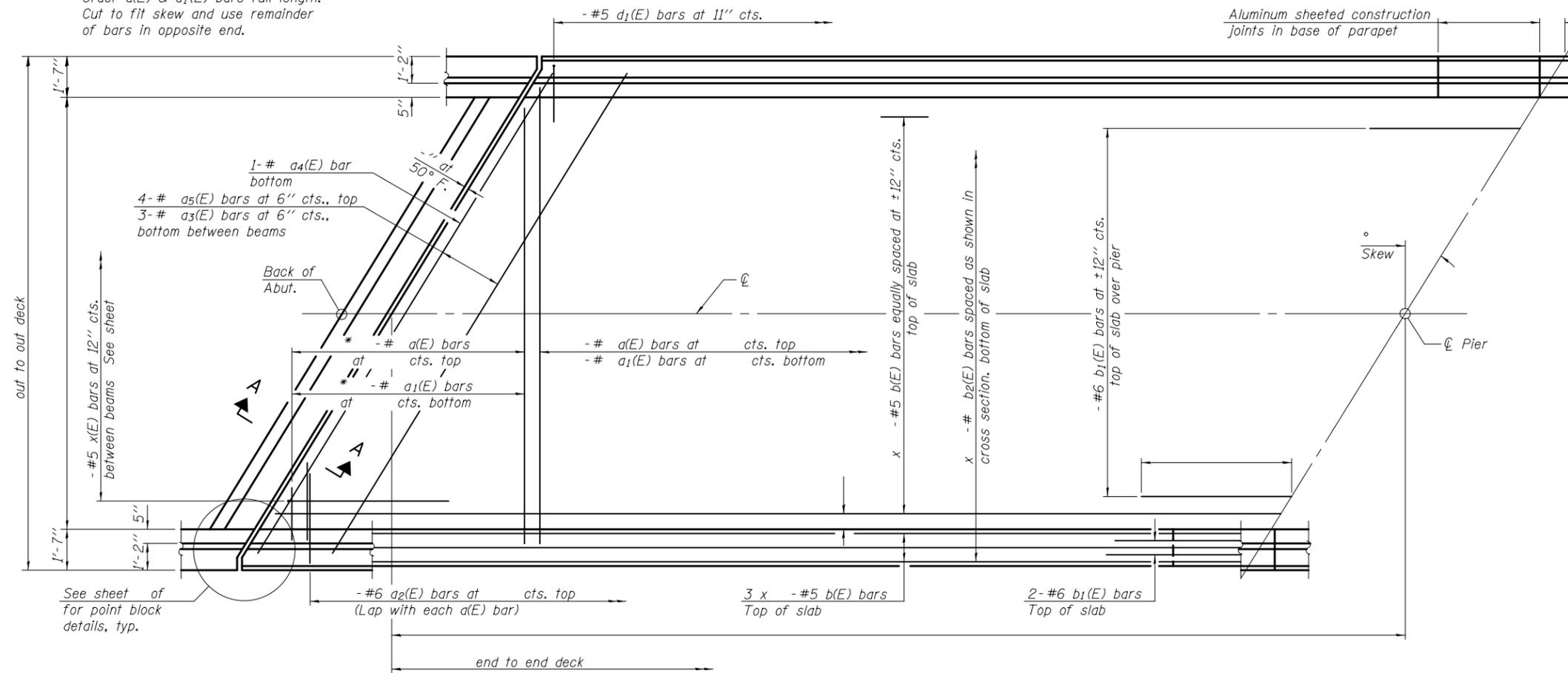
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

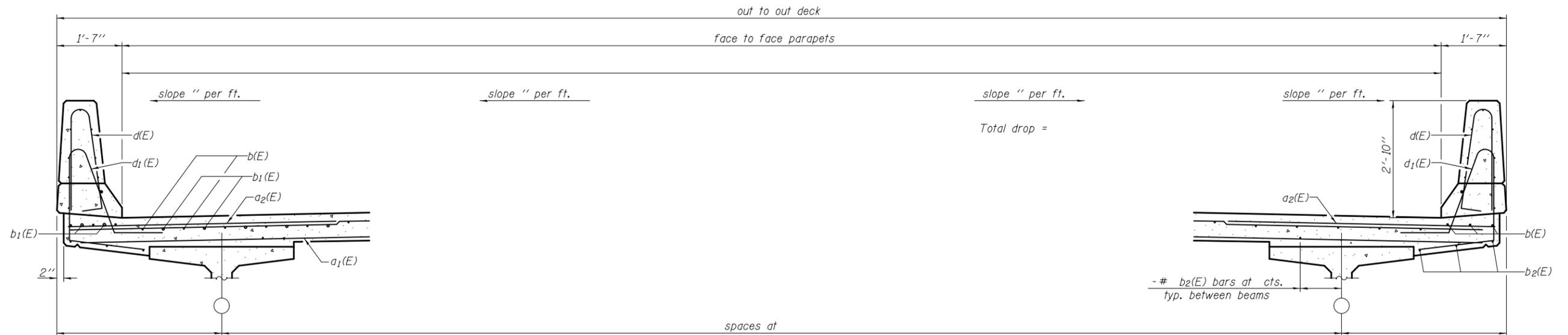


HALF PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking)

PBT-2-L(>30°)

6-8-15

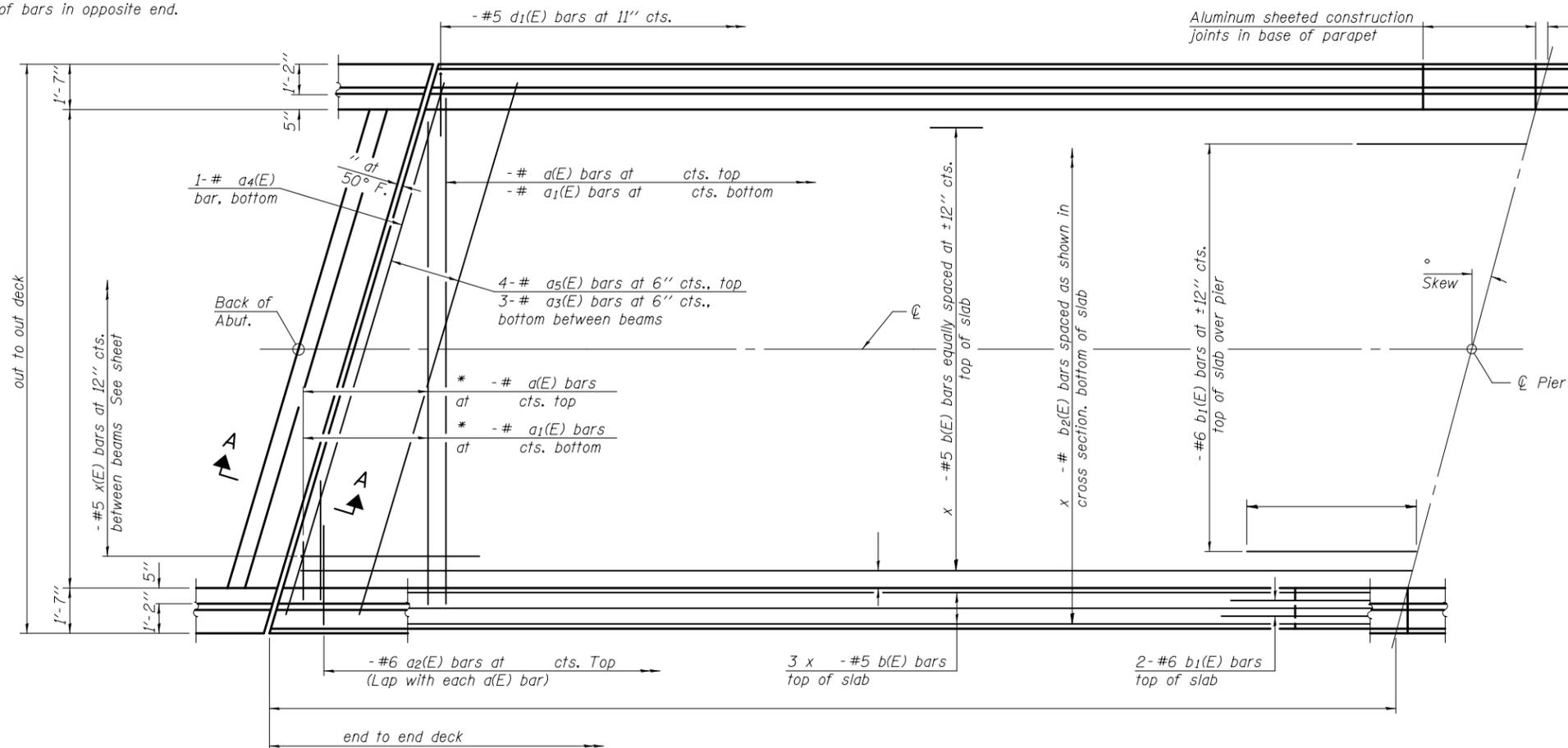
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

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

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

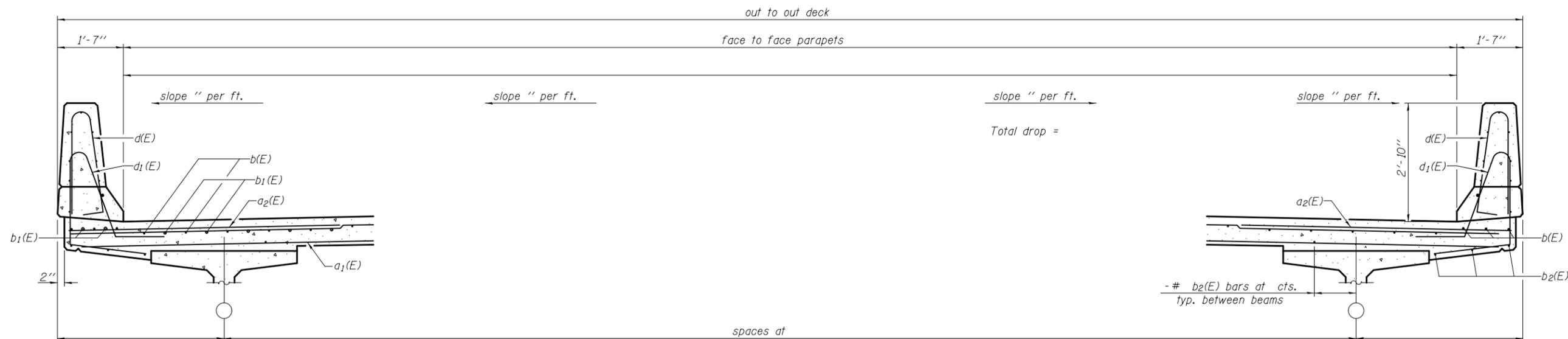


HALF PLAN

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking)

PBT-2-L(30°) 6-8-15

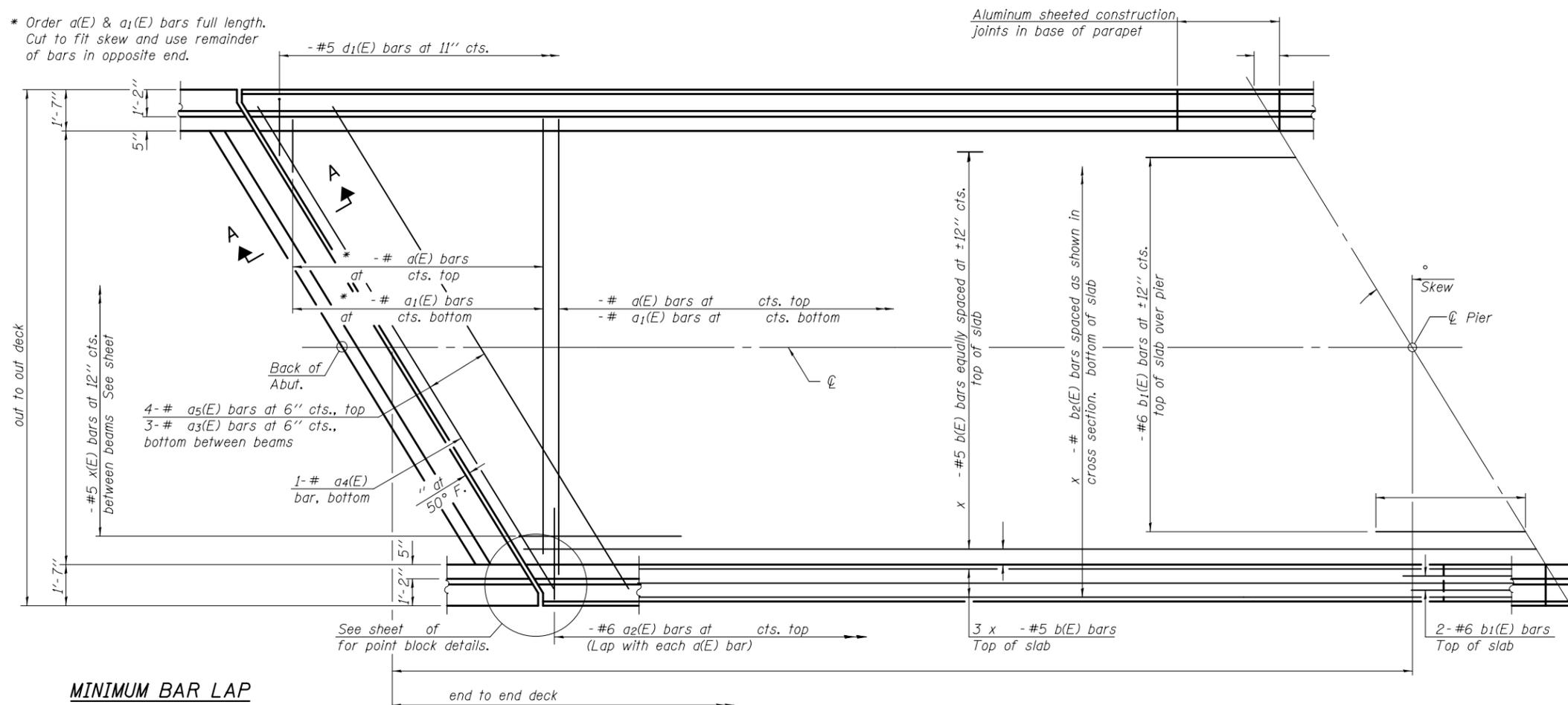
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		CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

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

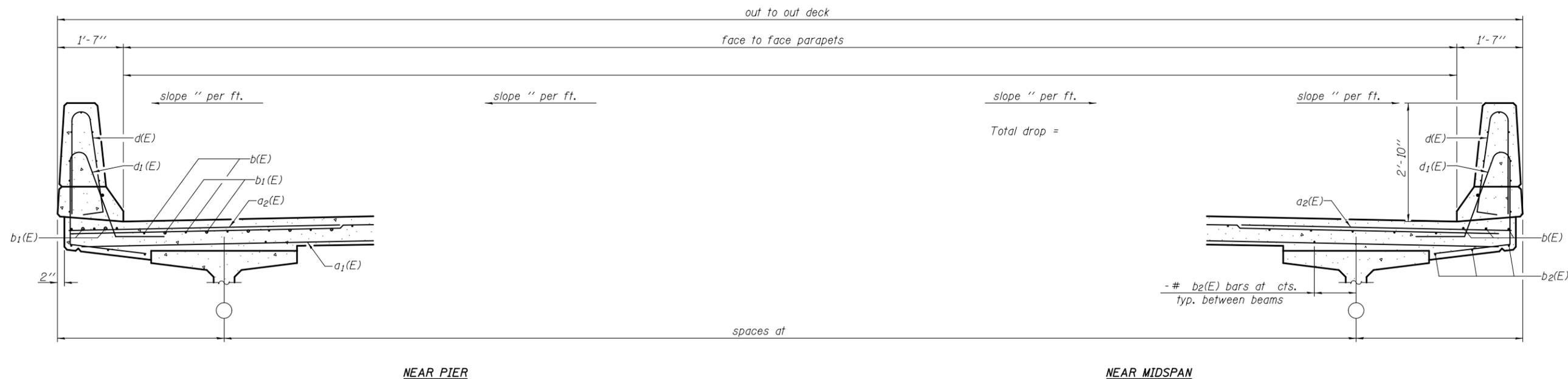
* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



HALF PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"



CROSS SECTION
(Looking)

PBT-2-R(>30°) 6-8-15

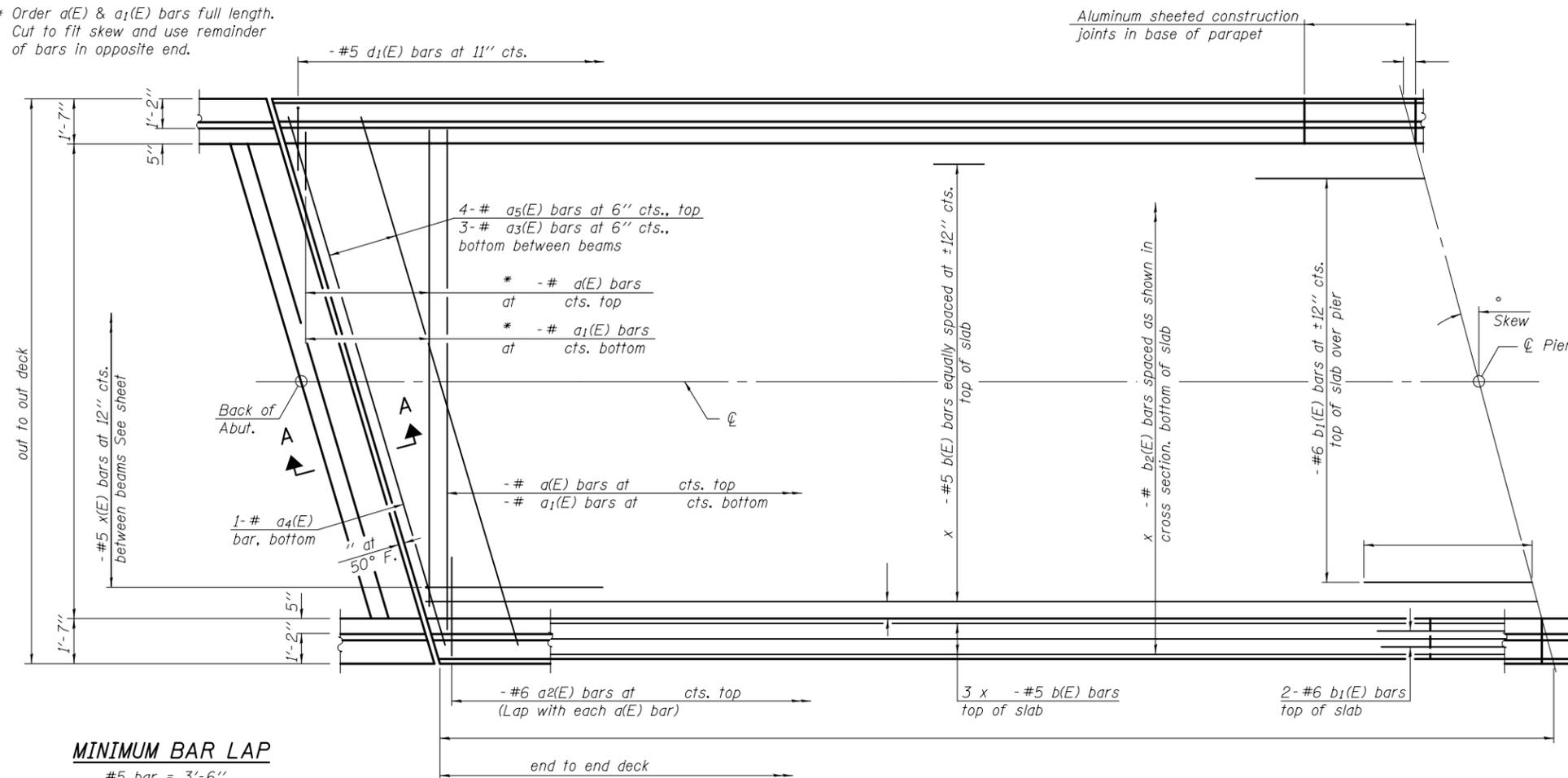
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

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

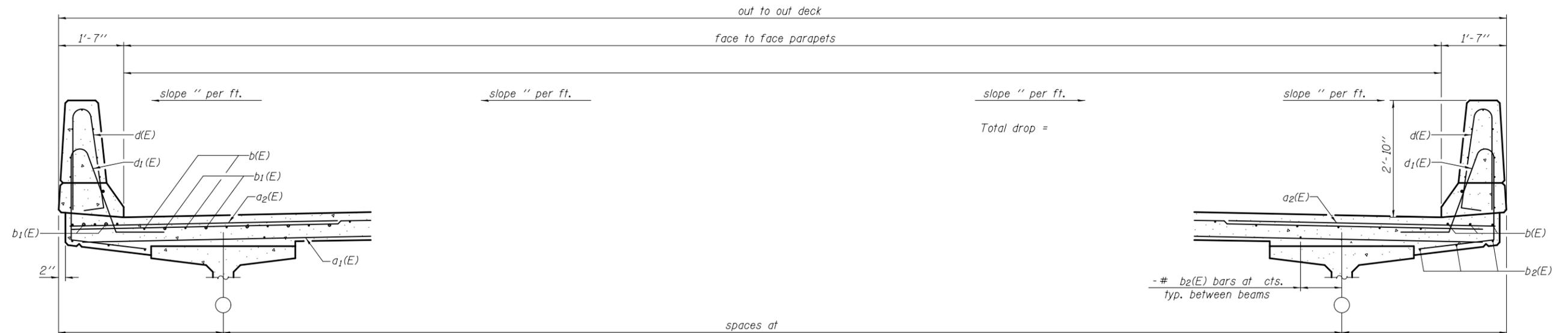
* Order $a(E)$ & $a_1(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



MINIMUM BAR LAP
#5 bar = 3'-6"

HALF PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking)

PBT-2-R(K30°) 6-8-15

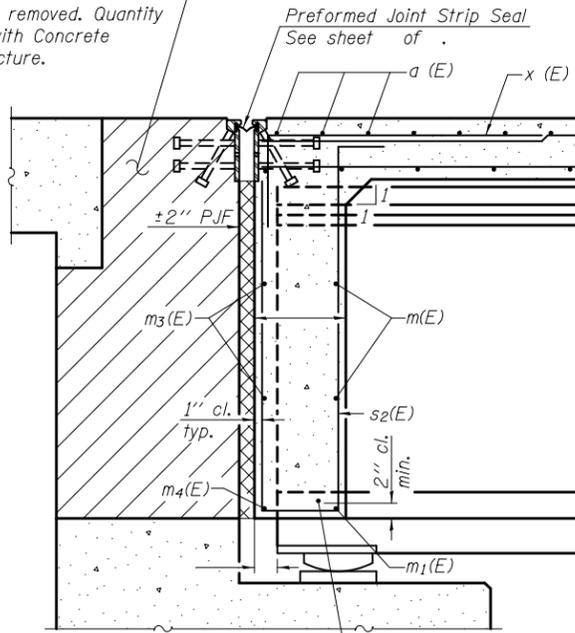
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

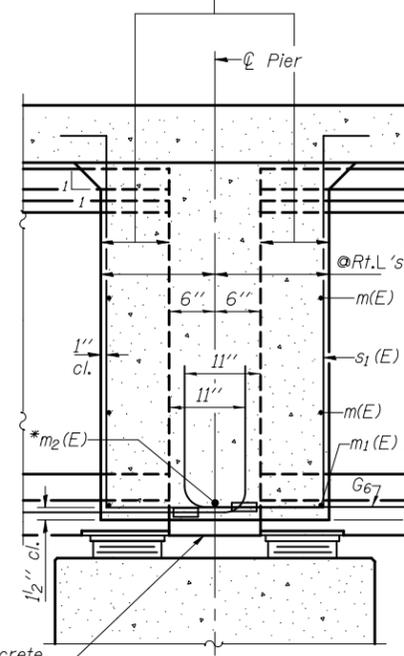
Hatched area to be poured after superstructure forms have been removed. Quantity included with Concrete Superstructure.



**SECTION A-A
AT ABUTMENT**
(at Rt. Ls)

3/4" φ x 2'-0" Threaded Dowel Rods. Space inserts to miss strands. For location see sheet of .

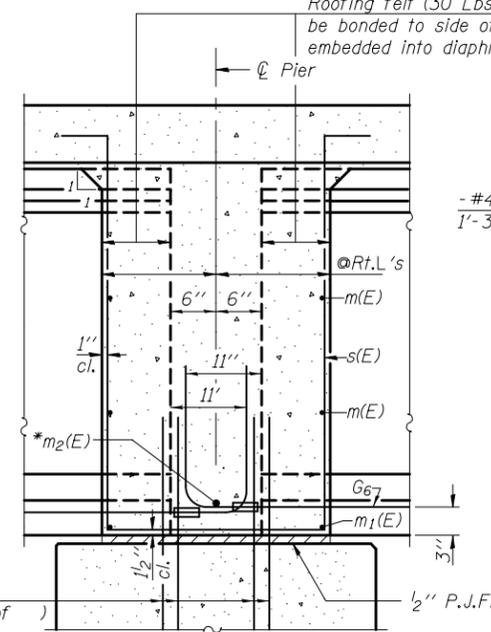
Roofing felt (30 Lbs.) shall be bonded to side of beam embedded into diaphragm.



**SECTION B-B
AT PIER**
(Expansion)

Bott. of concrete at beam ends.

Roofing felt (30 Lbs.) shall be bonded to side of beam embedded into diaphragm.

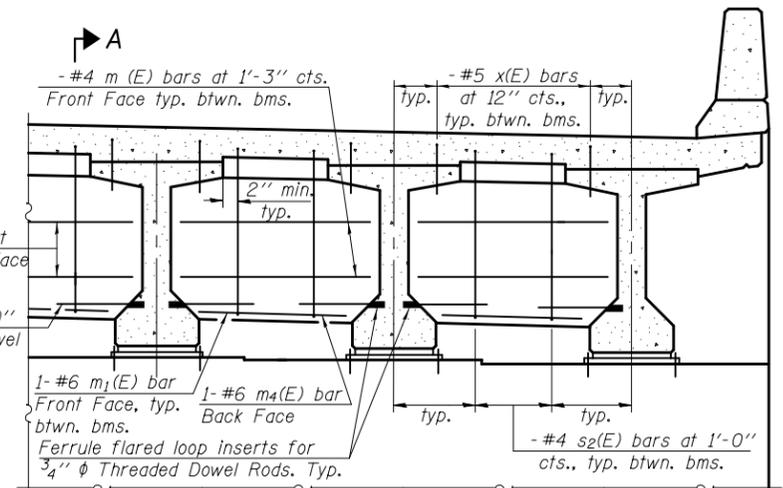


**SECTION C-C
AT PIER**
(Fixed)

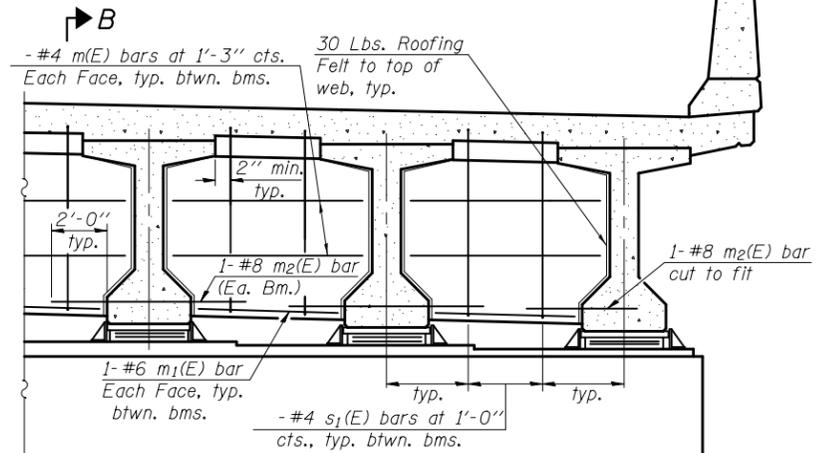
v(E) bars (See sht. of)

-#4 m3(E) bars at 1'-3" cts. Back Face

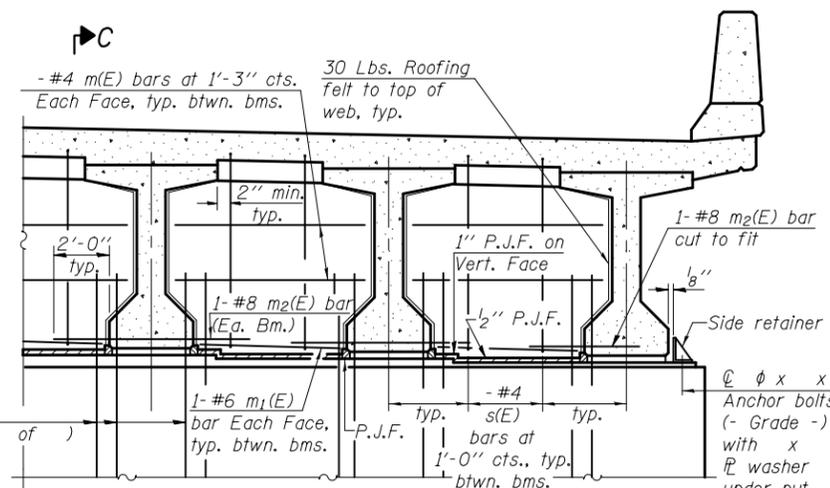
3/4" φ x 2'-0" Threaded Dowel Rods, typ.



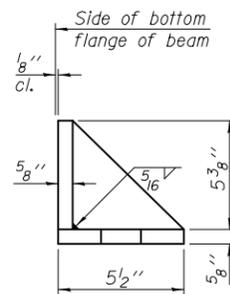
DIAPHRAGM AT ABUTMENT



DIAPHRAGM AT PIER
(Expansion)

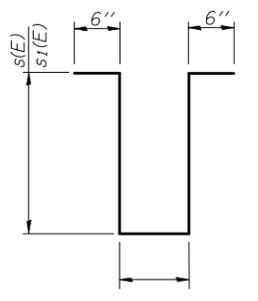
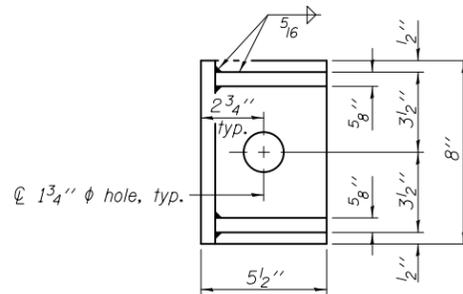


DIAPHRAGM AT PIER
(Fixed)

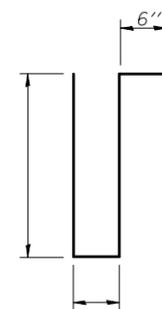


SIDE RETAINER

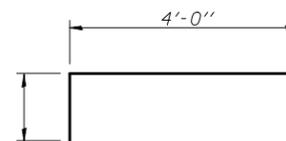
(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BARS s(E) & s1(E)



BAR s2(E)



BAR x (E)

*Tightly fasten the #8 bars together with No. 9 wire ties.

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet of .
Concrete in diaphragm is included with Concrete Superstructure on sheet of .
The s(E), s1(E), s2(E) and x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
Horizontal dimensions for Sec. B-B and Sec. C-C are along ϕ of beam unless otherwise noted.
The side retainer shall be galvanized after shop fabrication according to AASHTO M111.
See sheet - of - for anchor bolt information.

PBT-2F

1-27-12

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

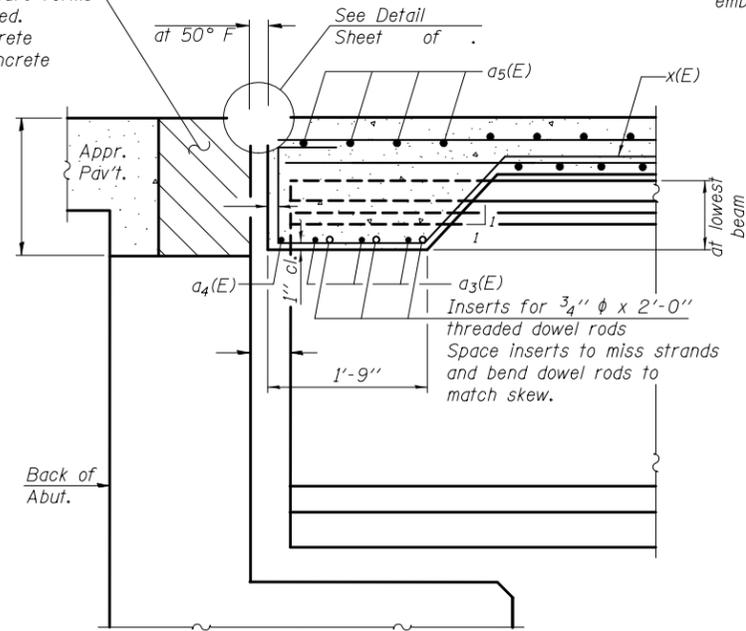
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

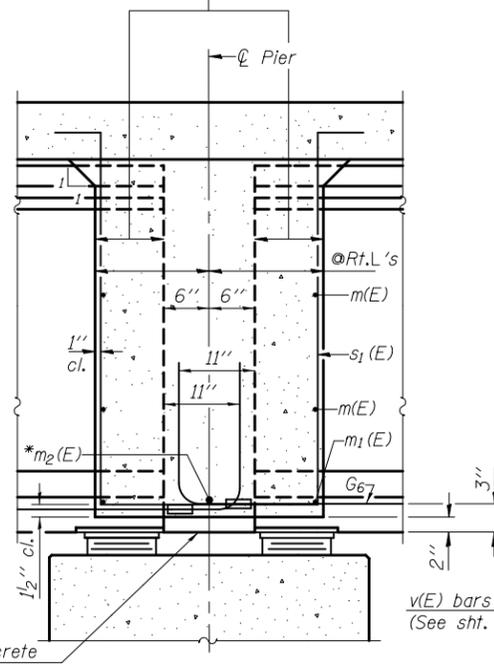
ILLINOIS FED. AID PROJECT

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



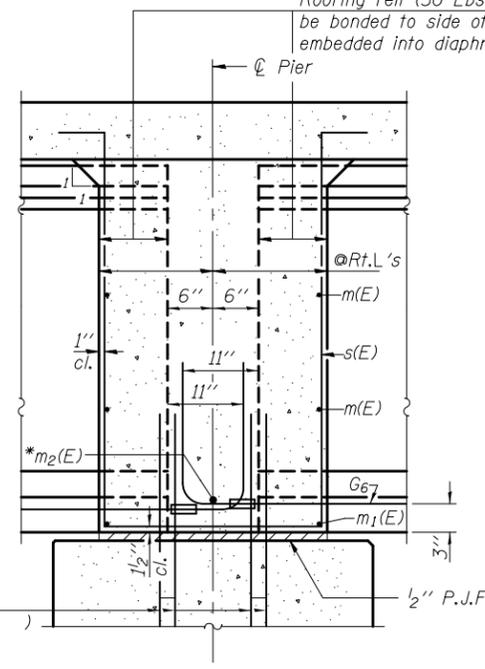
**SECTION A-A
AT ABUTMENT**
(at Rt. Ls)

Roofing felt (30 Lbs.) shall be bonded to side of beam embedded into diaphragm.



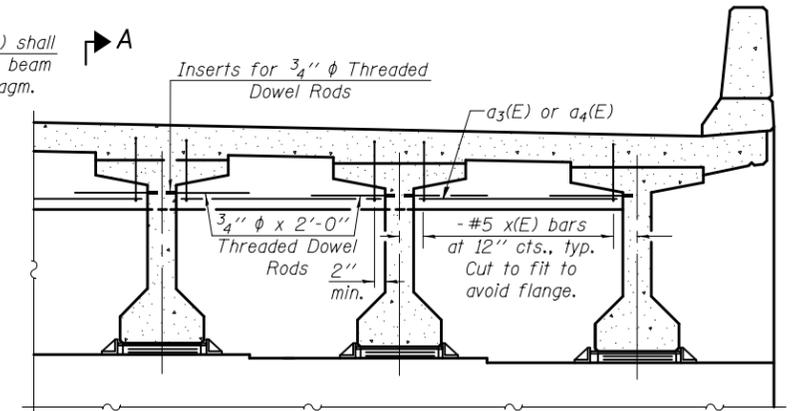
**SECTION B-B
AT PIER**
(Expansion)

Roofing felt (30 Lbs.) shall be bonded to side of beam embedded into diaphragm.

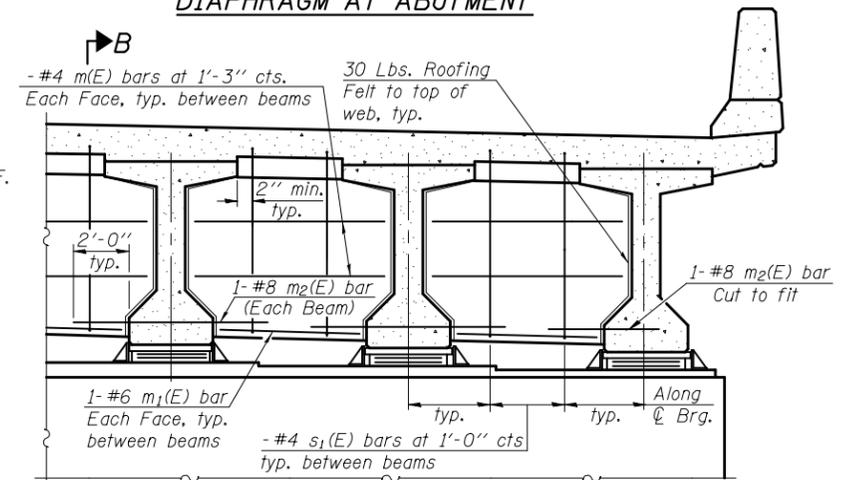


**SECTION C-C
AT PIER**
(Fixed)

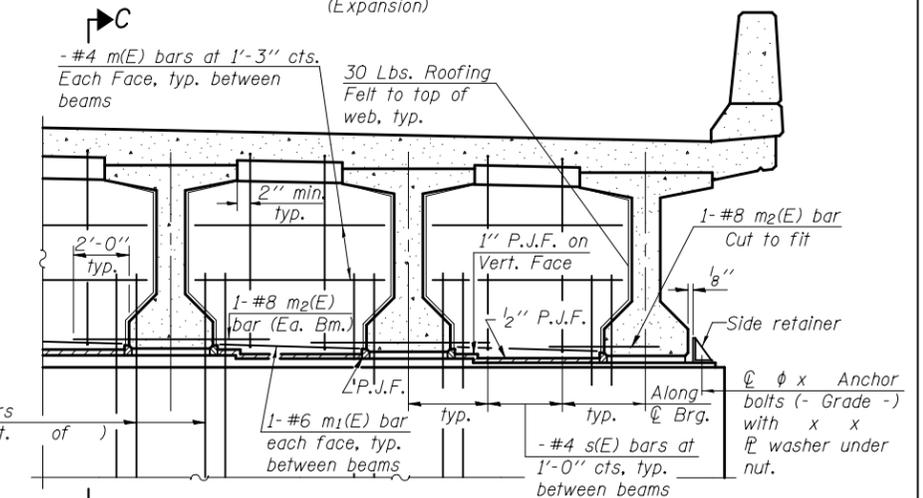
*Tightly fasten the #8 bars together with No. 9 wire ties.



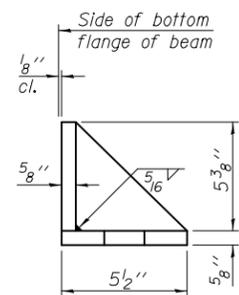
DIAPHRAGM AT ABUTMENT



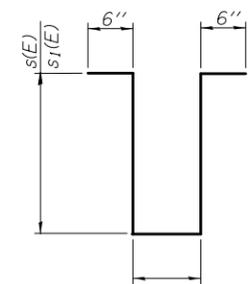
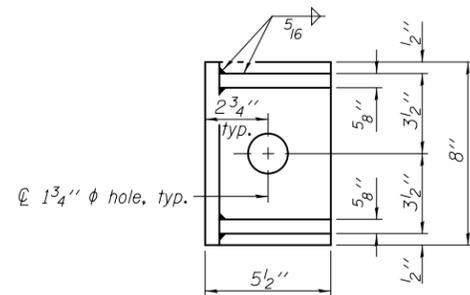
DIAPHRAGM AT PIER
(Expansion)



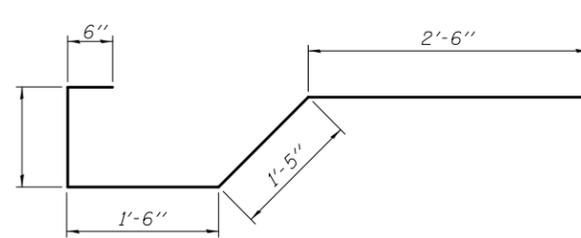
DIAPHRAGM AT PIER
(Fixed)



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



BARS s(E) & s1(E)



BAR x(E)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet of .
Concrete in diaphragm is included with Concrete Superstructure on sheet of .
The s(E), s1(E) and x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
Horizontal dimensions for Sec. C-C and Sec. D-D are along ϕ of beam unless otherwise noted.
The side retainer shall be galvanized after shop fabrication according to AASHTO M111.
See sheet - of - for anchor bolt information.

PBT-2J

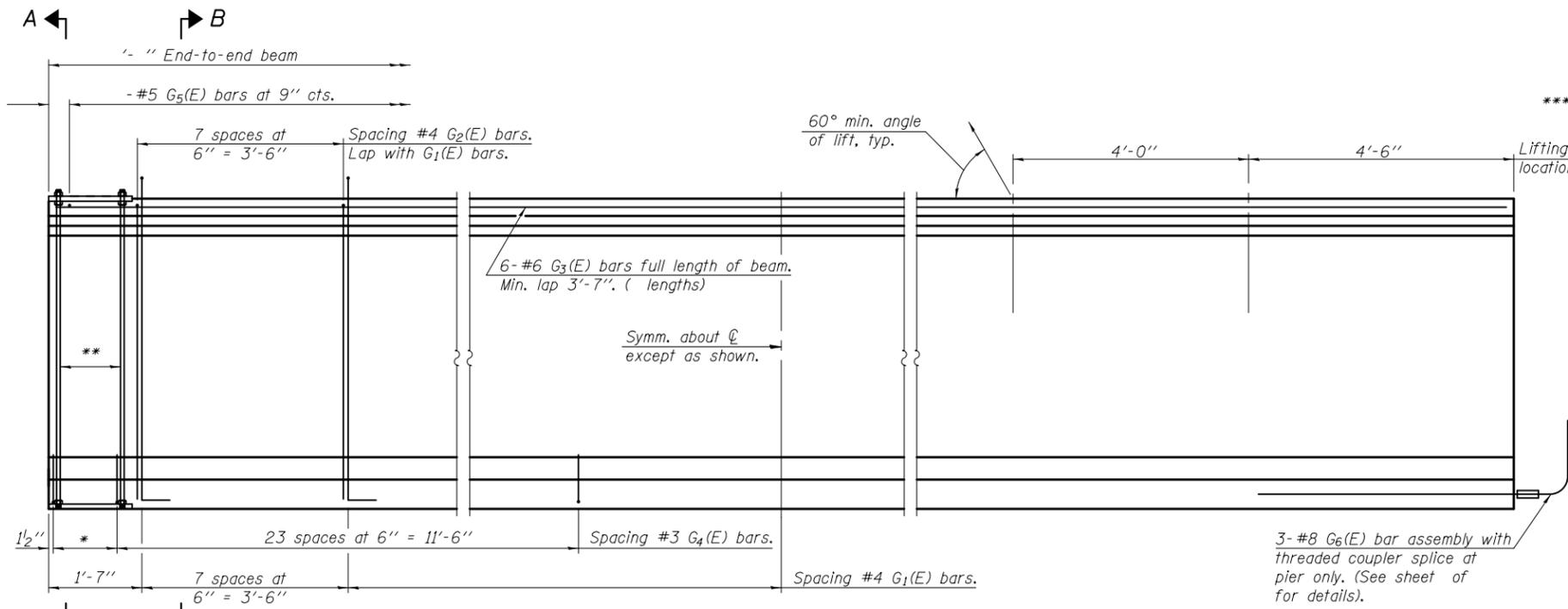
1-28-11

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

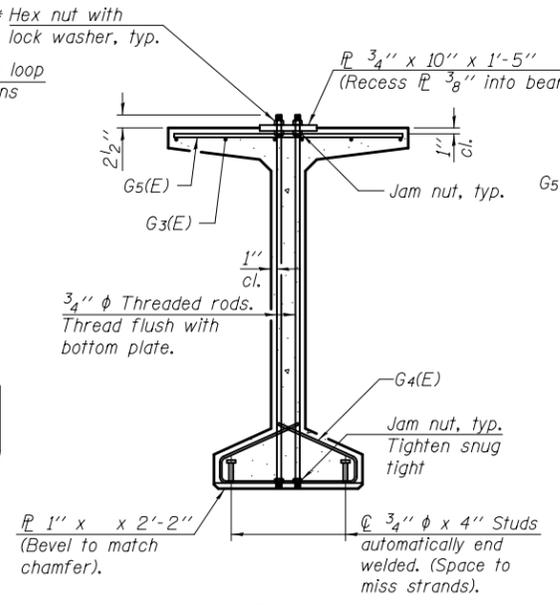
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DIAPHRAGM DETAILS
STRUCTURE NO.**

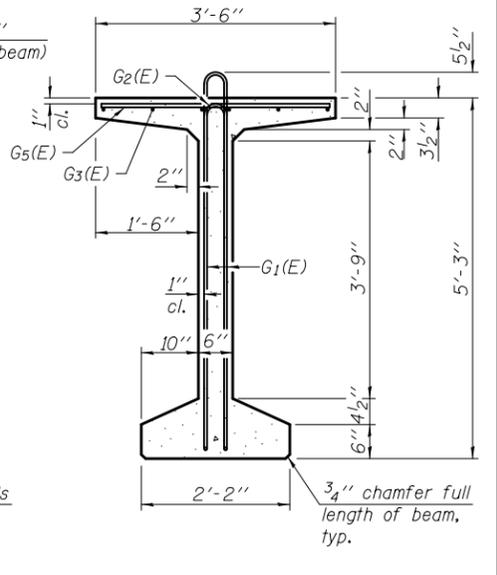
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



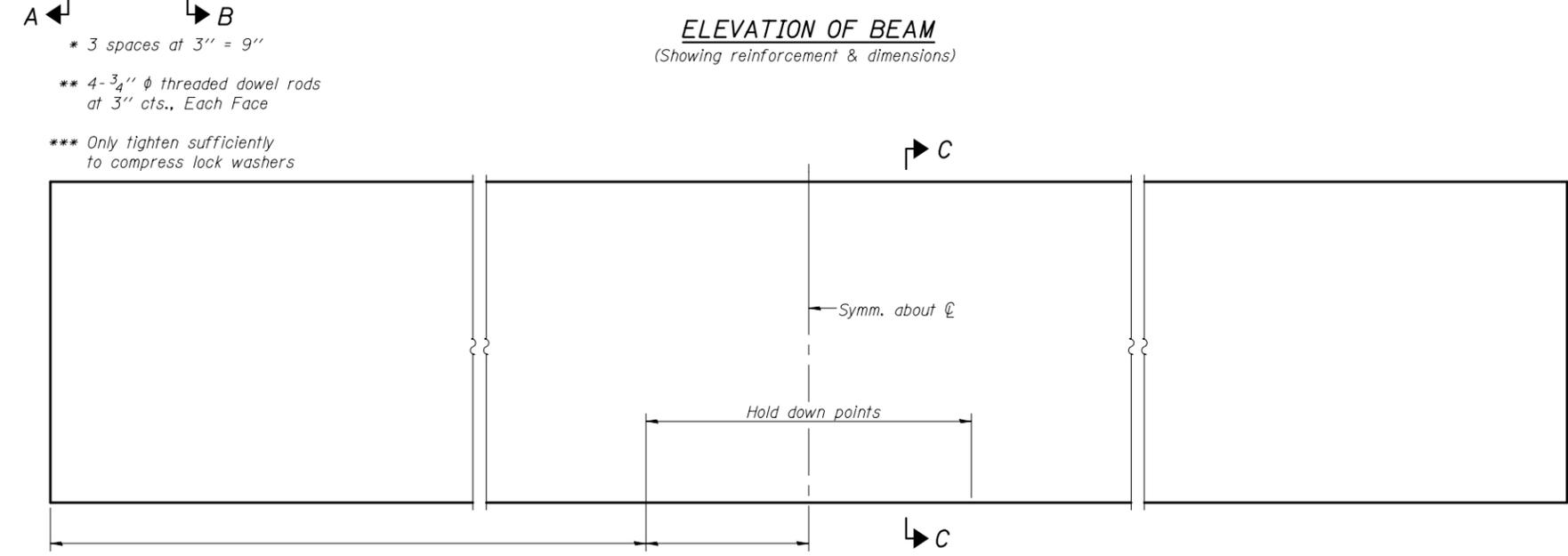
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



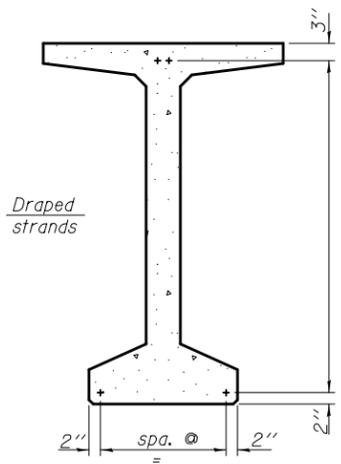
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)

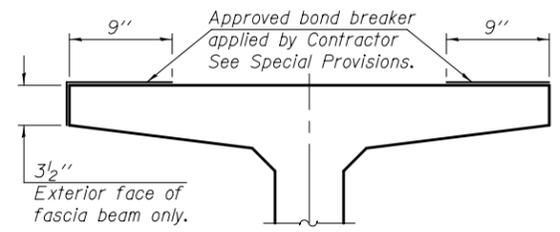


SECTION C-C
(-1/2" phi 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)		#4	12'-1"	∩L
G ₂ (E)		#4	10'-2"	∩
G ₃ (E)		#6		∩
G ₄ (E)		#3	4'-11"	∩
G ₅ (E)		#5	3'-4"	∩
G ₆ (E)		#8	6'-6"	∩

Notes:
See sheet of for additional details and Bill of Material.



SECTION THRU TOP FLANGE
(Showing limits of bond breaker)

PBT-4-63

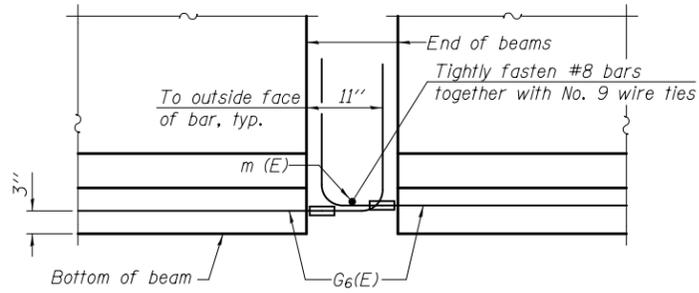
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
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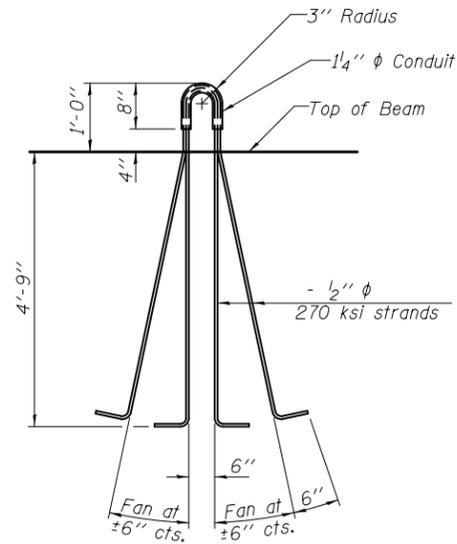
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

63" PPC BULB T-BEAM
STRUCTURE NO.

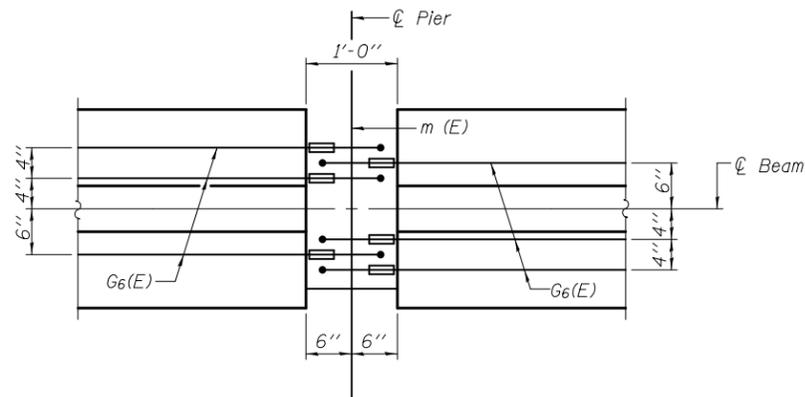
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



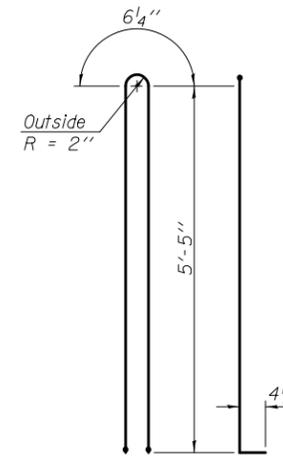
ELEVATION OF BEAM AT PIER



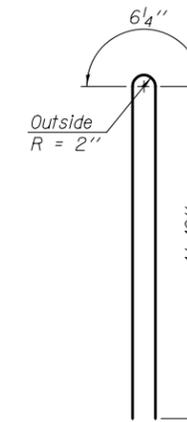
LIFTING LOOP DETAIL



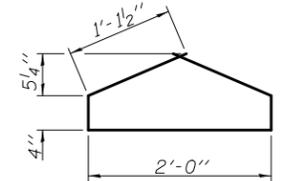
PLAN OF BEAM AT PIER



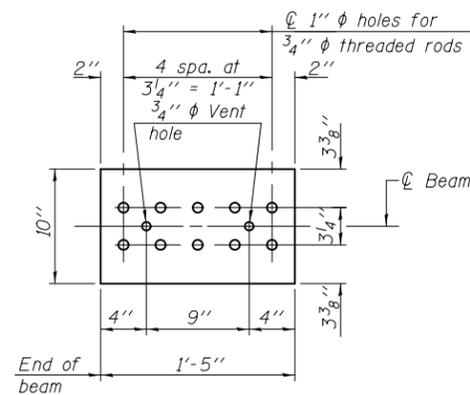
BAR G1(E)



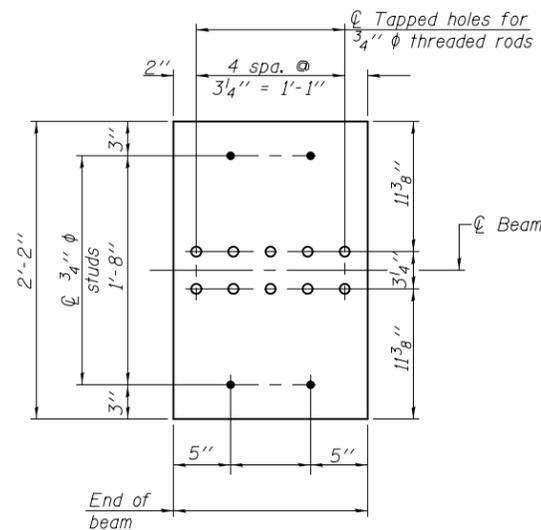
BAR G2(E)



BAR G4(E)

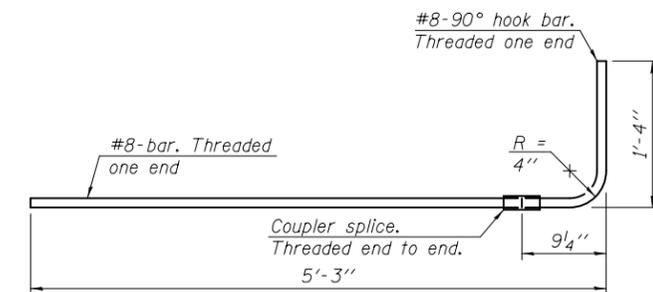


TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.



G6(E) BAR ASSEMBLY

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'_c , of psi and a release concrete compressive strength, f'_{ci} , of psi.

A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.

Tilt $G_6(E)$ bars when necessary to maintain 1 1/2" clearance.

The top and bottom plates shall be AASHTO M270 Grade 50. The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55. The $G_6(E)$ bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

Beams shall not be released from the fabricator until they have attained 45 days of age or older.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63"	Ft.	

PBT-4-63D

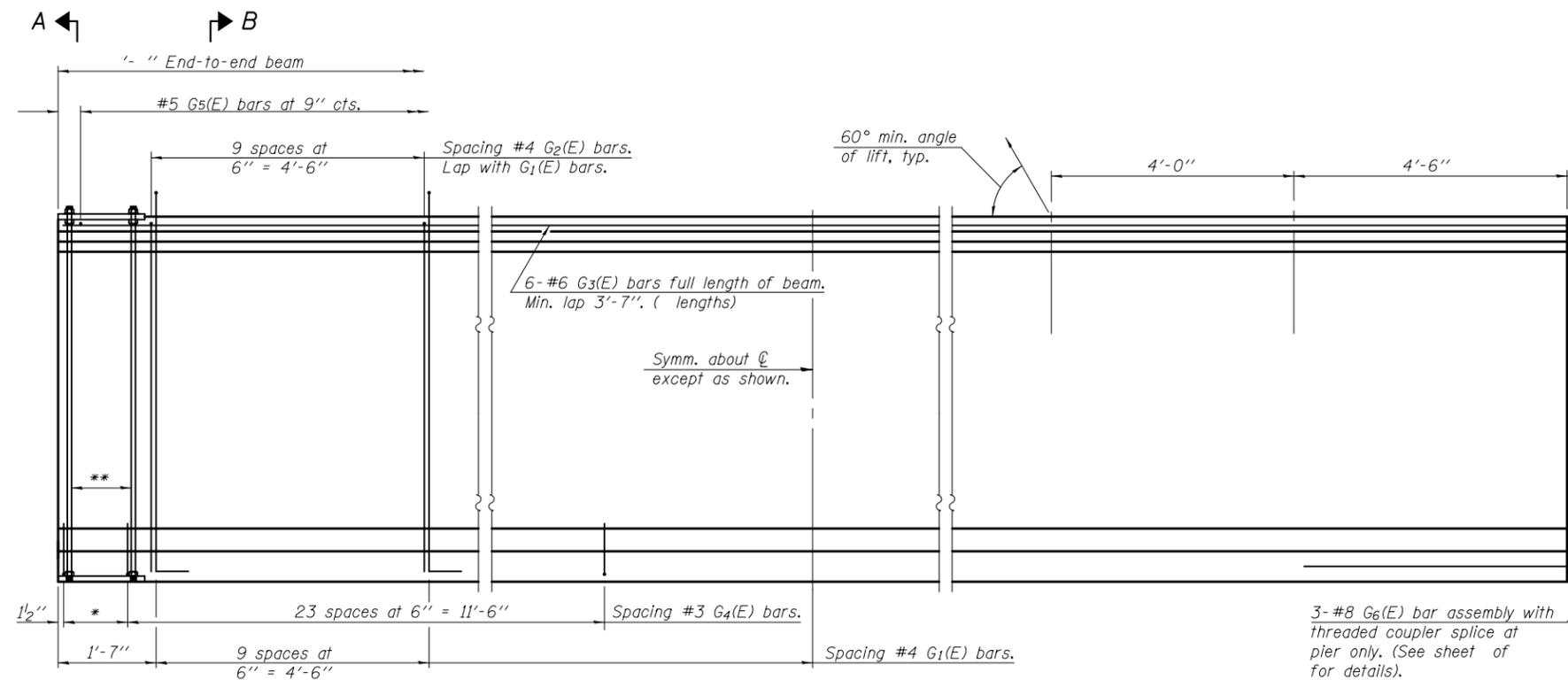
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

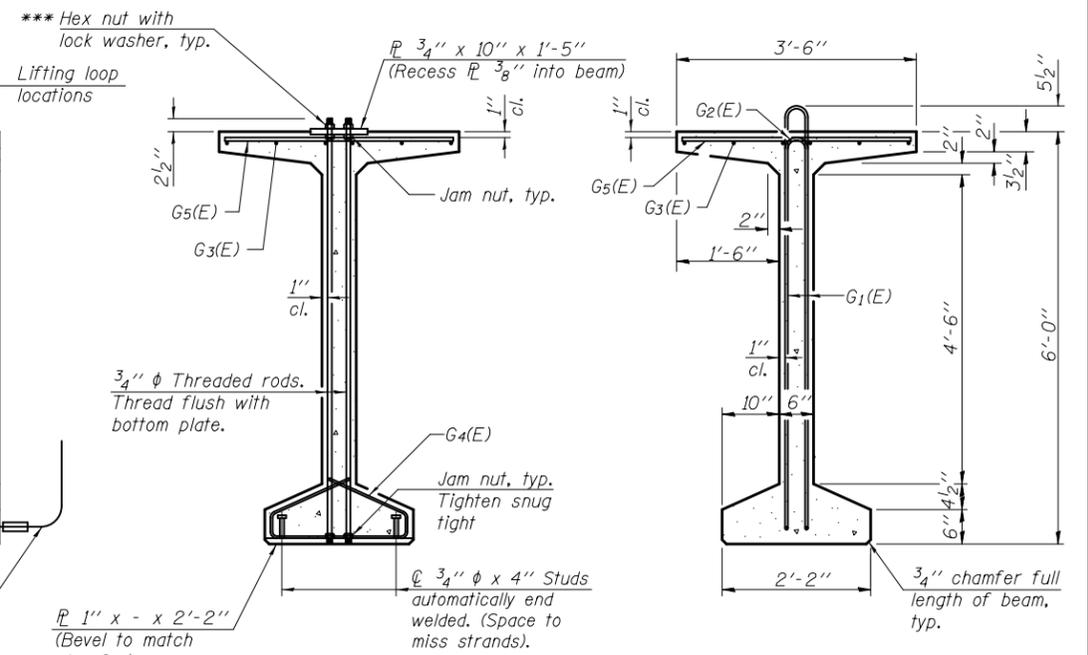
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**63" PPC BULB T-BEAM DETAILS
STRUCTURE NO.**

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

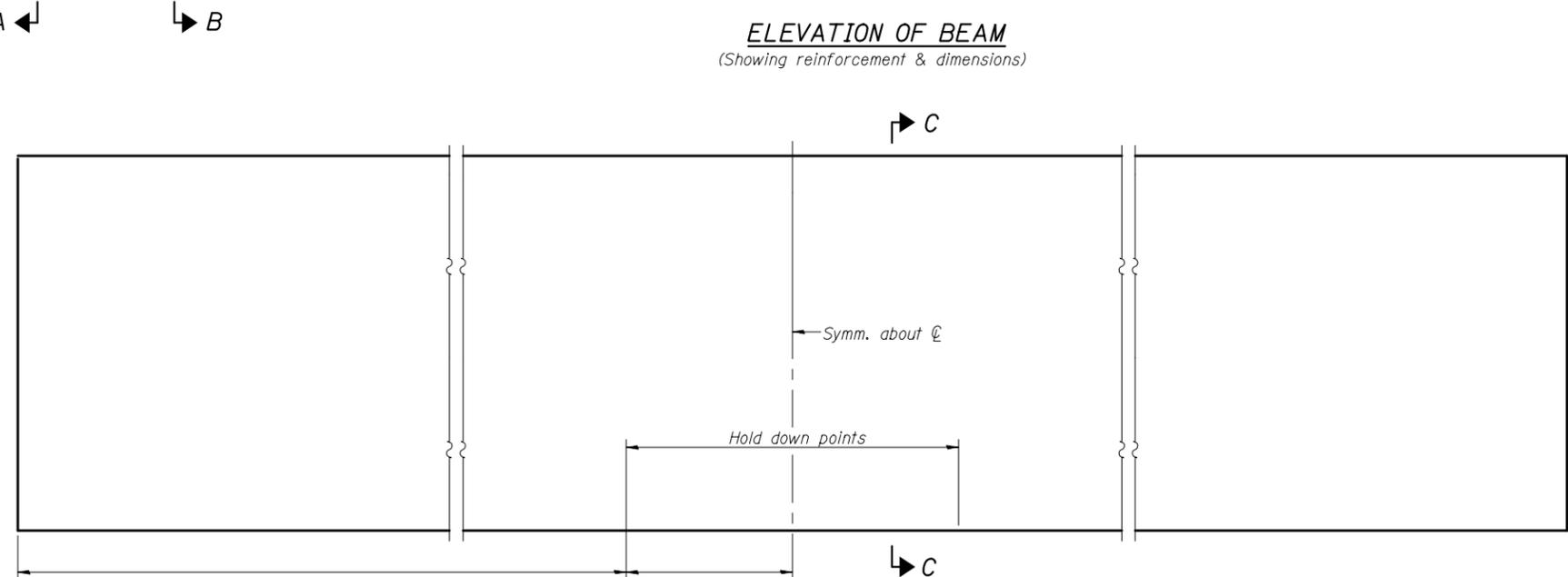


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

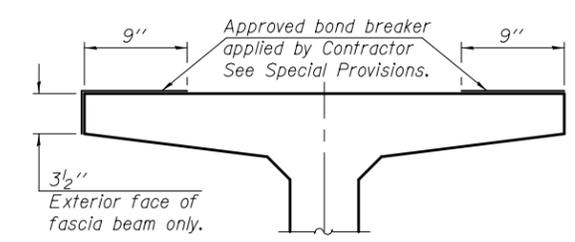


SECTION A-A

SECTION B-B

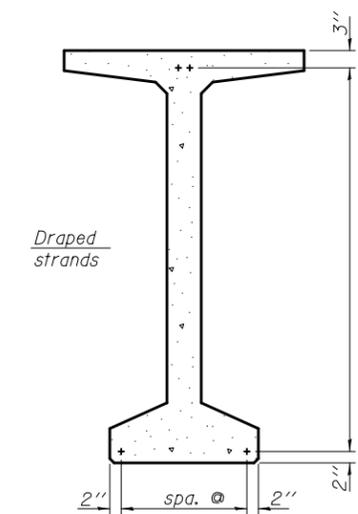


ELEVATION OF BEAM
(Showing prestressing steel)



SECTION THRU TOP FLANGE
(Showing limits of bond breaker)

- * 3 spaces at 3" = 9"
- ** 4-3/4" φ threaded dowel rods at 3" cts., Each Face
- *** Only tighten sufficiently to compress lock washers



SECTION C-C
(- 1/2" φ 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)		#4	13'-7"	∩ L
G ₂ (E)		#4	11'-8"	∩
G ₃ (E)		#6		∩
G ₄ (E)		#3	4'-11"	∩
G ₅ (E)		#5	3'-4"	∩
G ₆ (E)		#8	6'-6"	U

Notes:
See sheet of for additional details and Bill of Material.

PBT-4-72

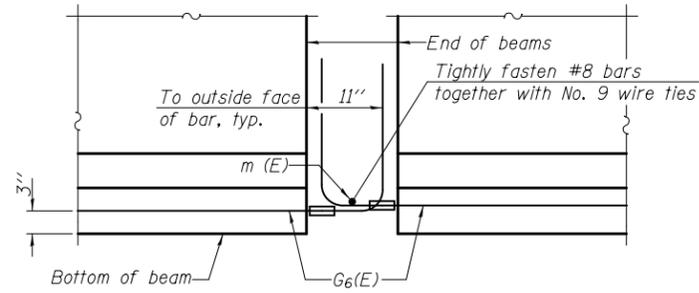
1-28-16

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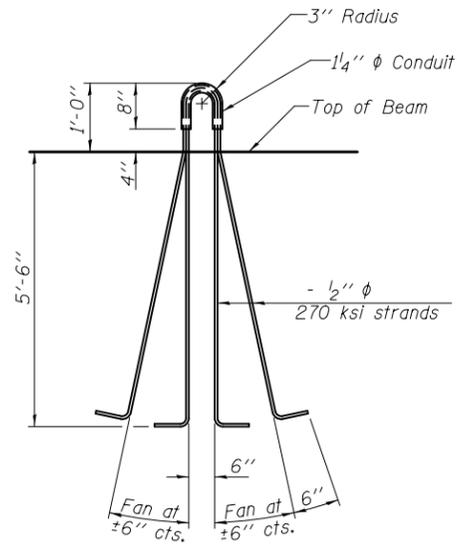
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

72" PPC BULB T-BEAM
STRUCTURE NO.

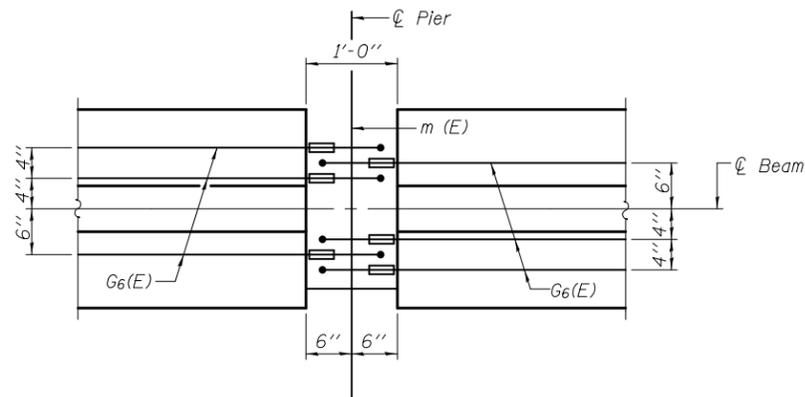
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



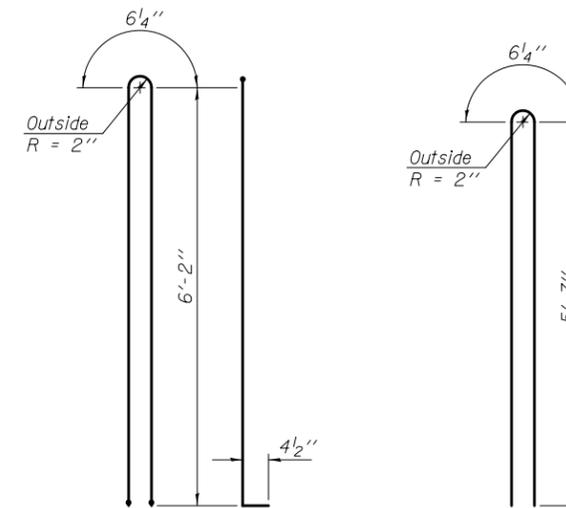
ELEVATION OF BEAM AT PIER



LIFTING LOOP DETAIL

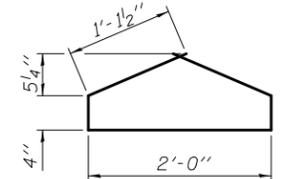


PLAN OF BEAM AT PIER

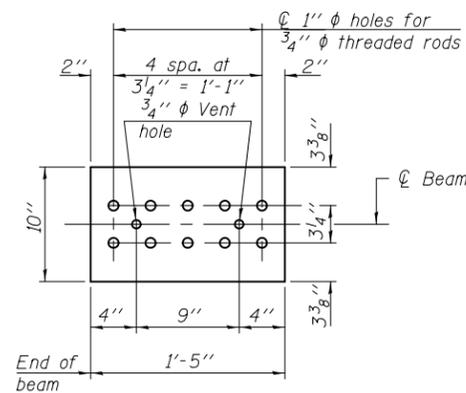


BAR G1(E)

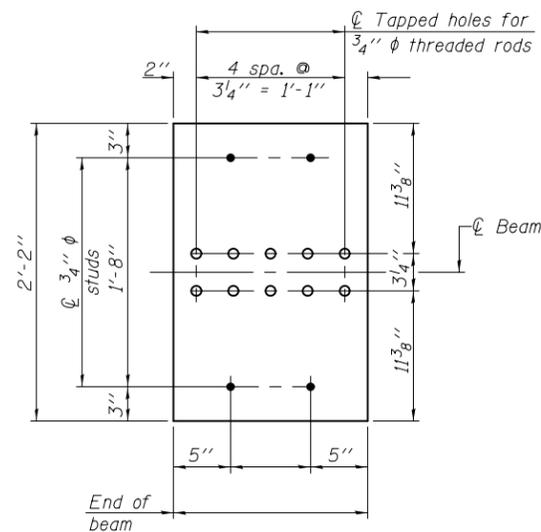
BAR G2(E)



BAR G4(E)

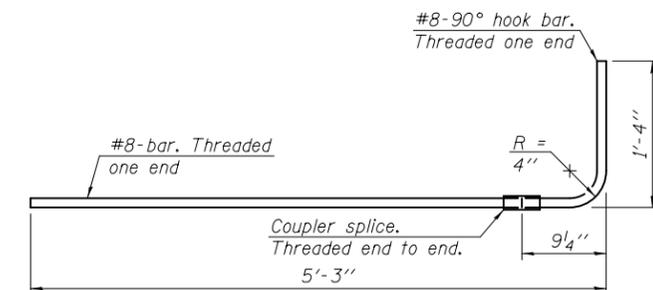


TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.



G6(E) BAR ASSEMBLY

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, $f'c$, of psi and a release concrete compressive strength, $f'ci$, of psi.

A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt G6(E) bars when necessary to maintain 1 1/2" clearance.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

The G6(E) bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

Beams shall not be released from the fabricator until they have attained 45 days of age or older.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 72"	Ft.	

PBT-4-72D

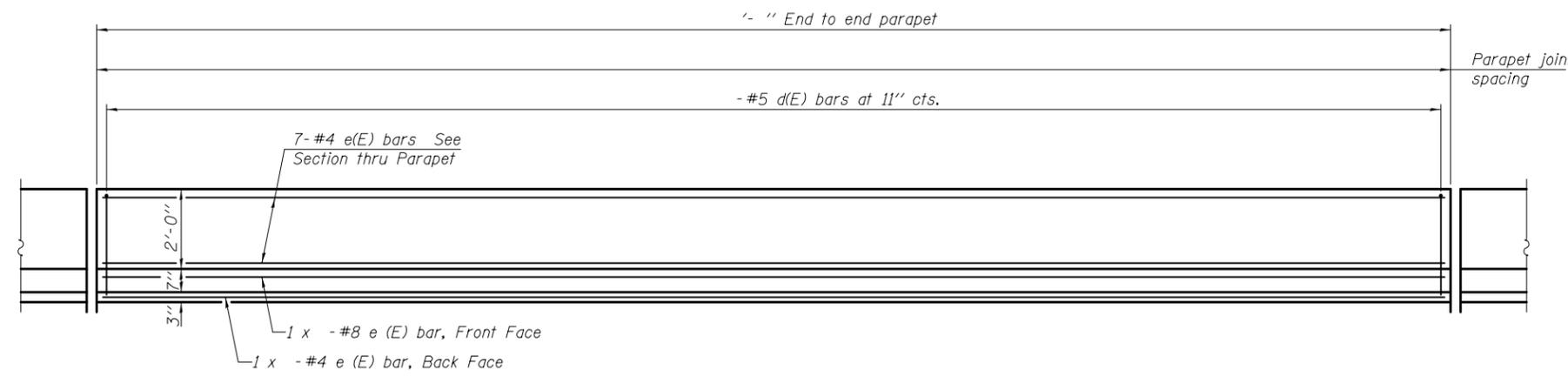
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
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	PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

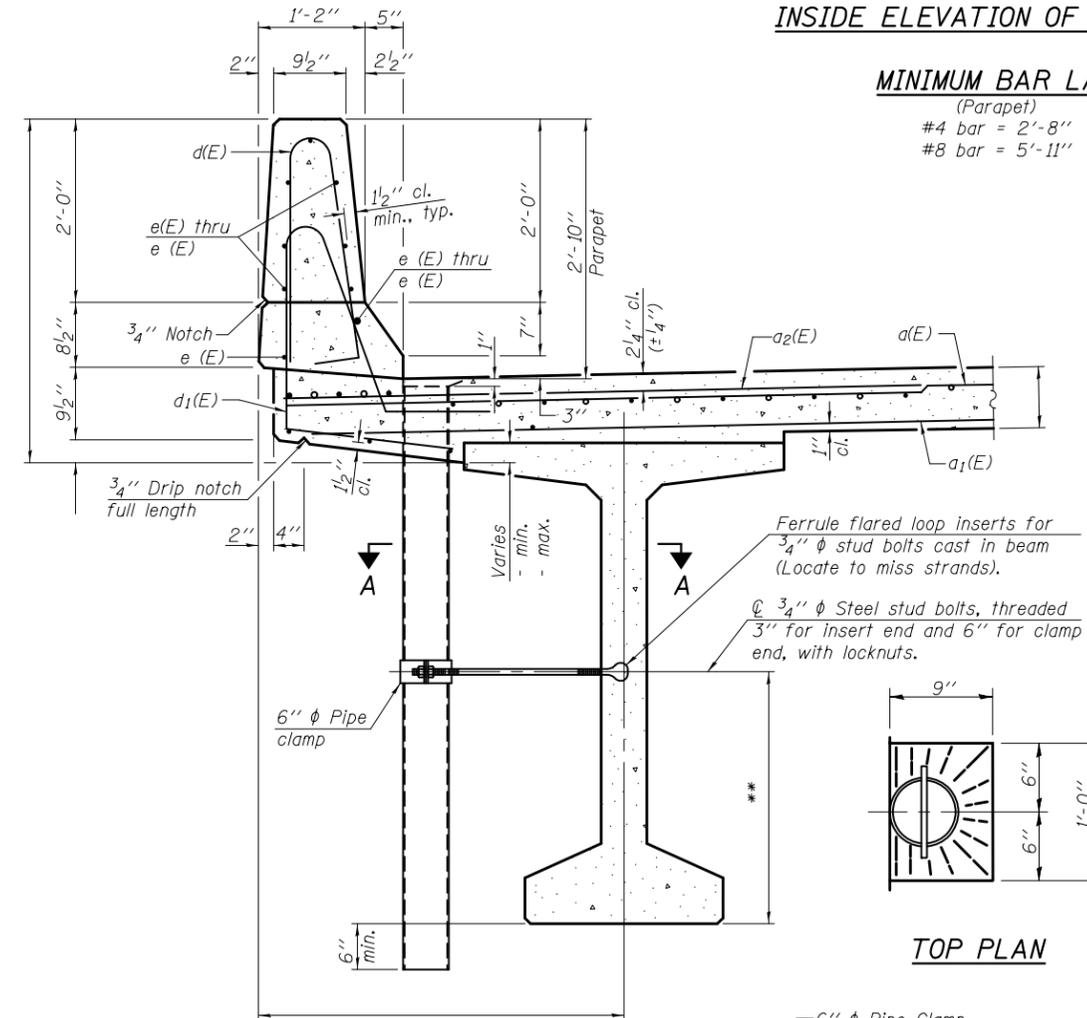
**72" PPC BULB T-BEAM DETAILS
STRUCTURE NO.**

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



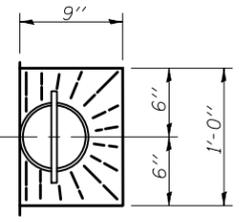
INSIDE ELEVATION OF PARAPET

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

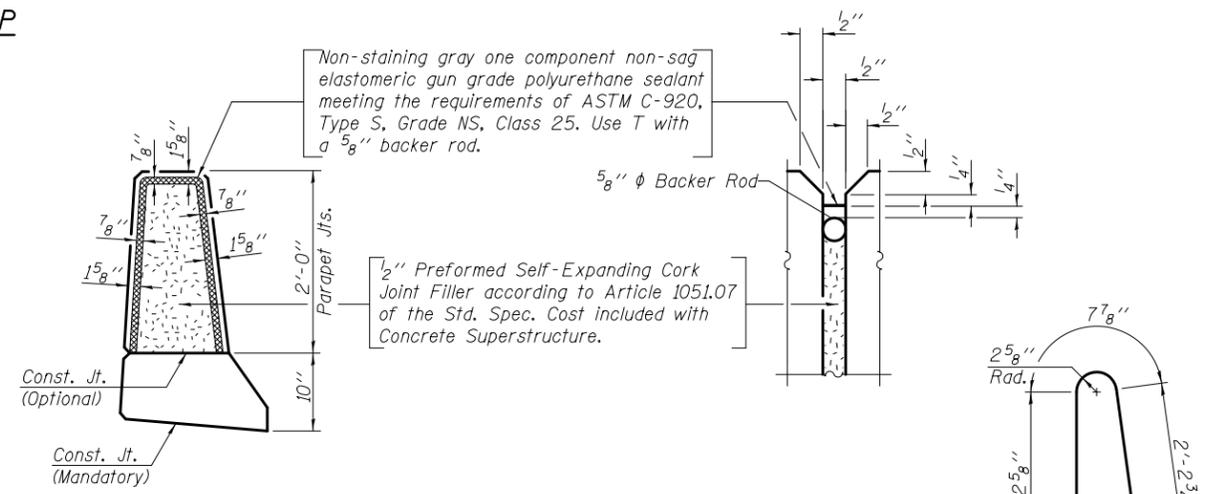
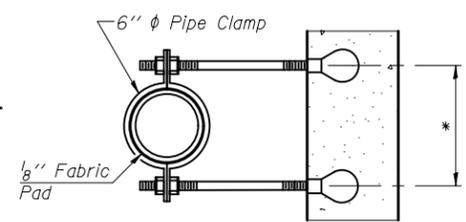


SECTION THRU PARAPET
**For insert locations See sheet of

TOP PLAN



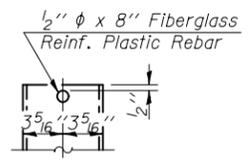
SECTION A-A
*Dimension as required by Pipe Clamp



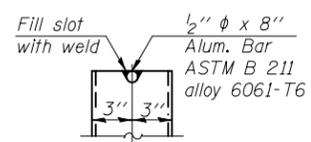
PARAPET JOINT DETAILS

Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.

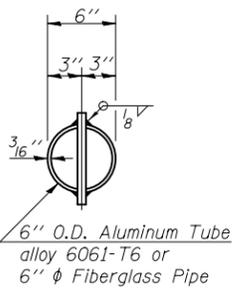
FIBERGLASS PIPE



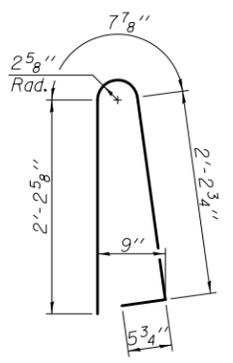
ALUMINUM TUBE



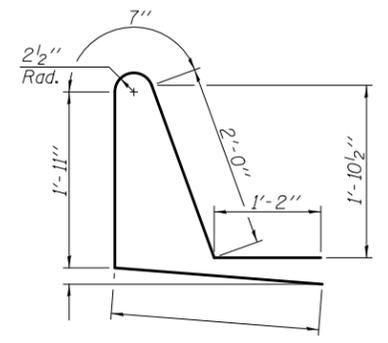
TOP PLAN



BAR d(E)



BAR d1(E)



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)				
a1(E)				
a2(E)	#6		6'-6"	
a3(E)				
a4(E)				
a5(E)				
b(E)	#5			
b1(E)	#6			
b2(E)				
d(E)	#5		5'-7"	
d1(E)	#5			
e(E)	#4			
e1(E)	#4			
m(E)	#4			
m1(E)	#6			
s(E)	#4			
x(E)				
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PBT-D1

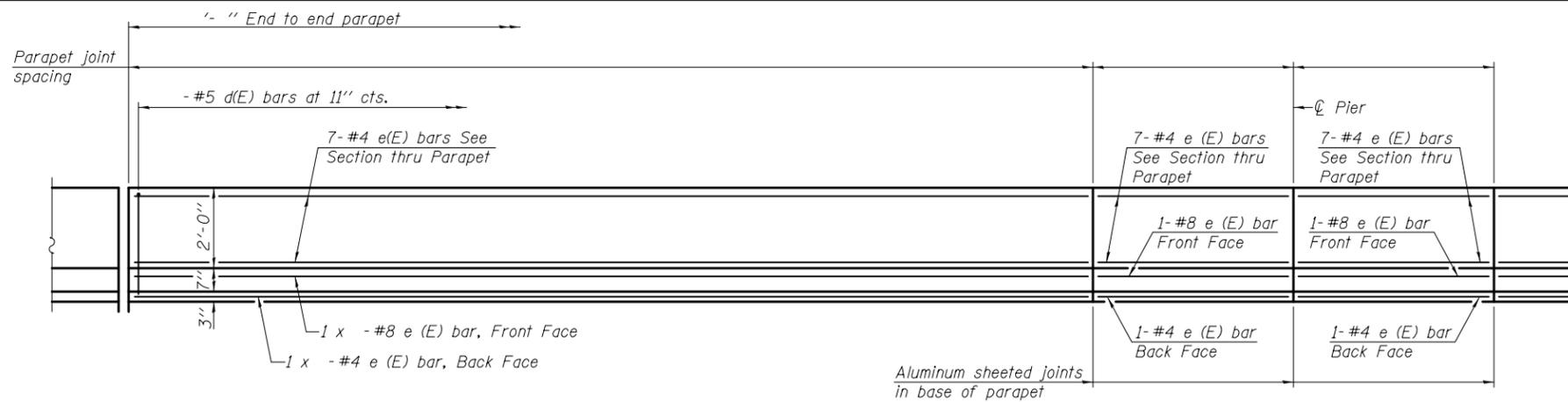
6-8-15

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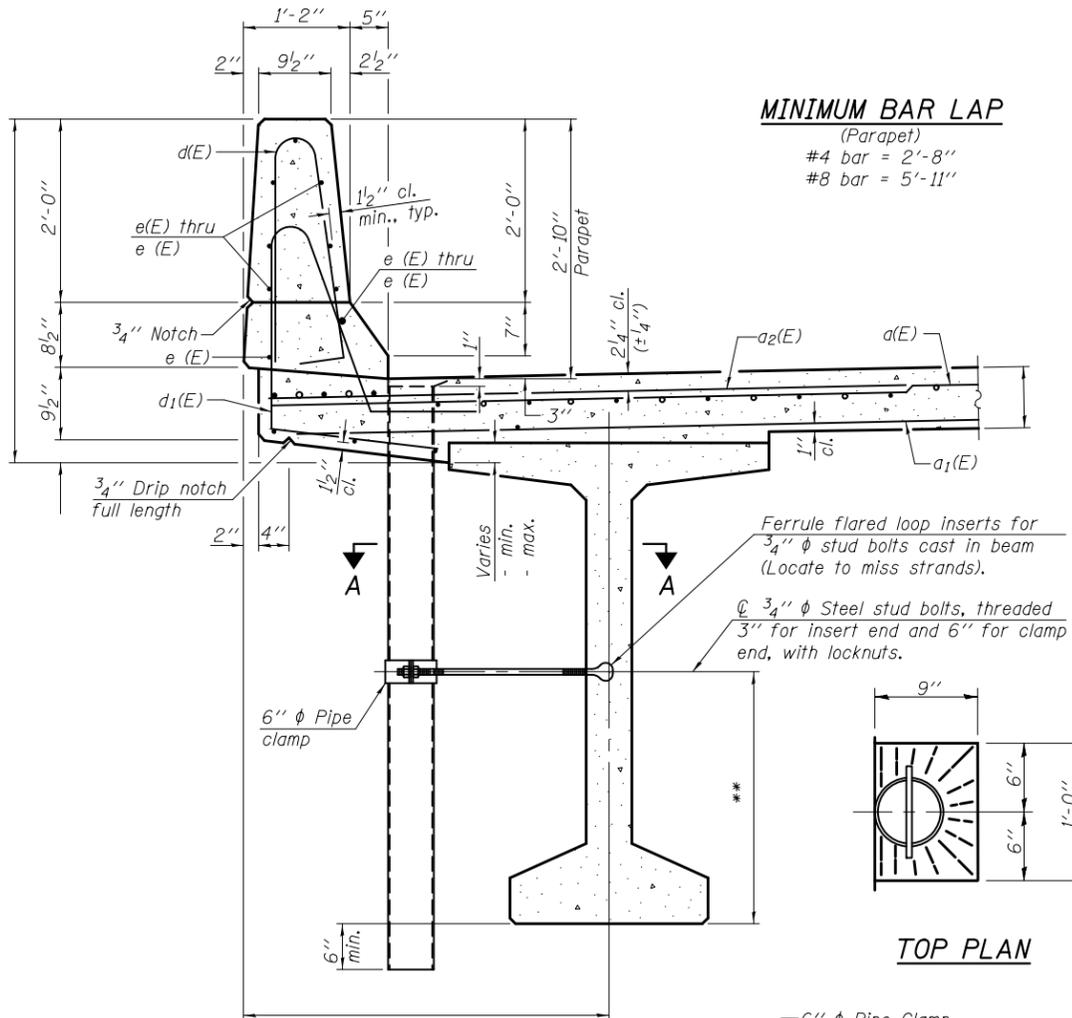
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO.**

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



INSIDE ELEVATION OF PARAPET

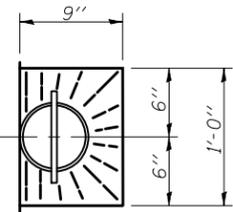


SECTION THRU PARAPET

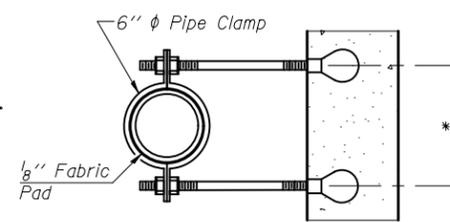
**For insert locations See sheet of

MINIMUM BAR LAP

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

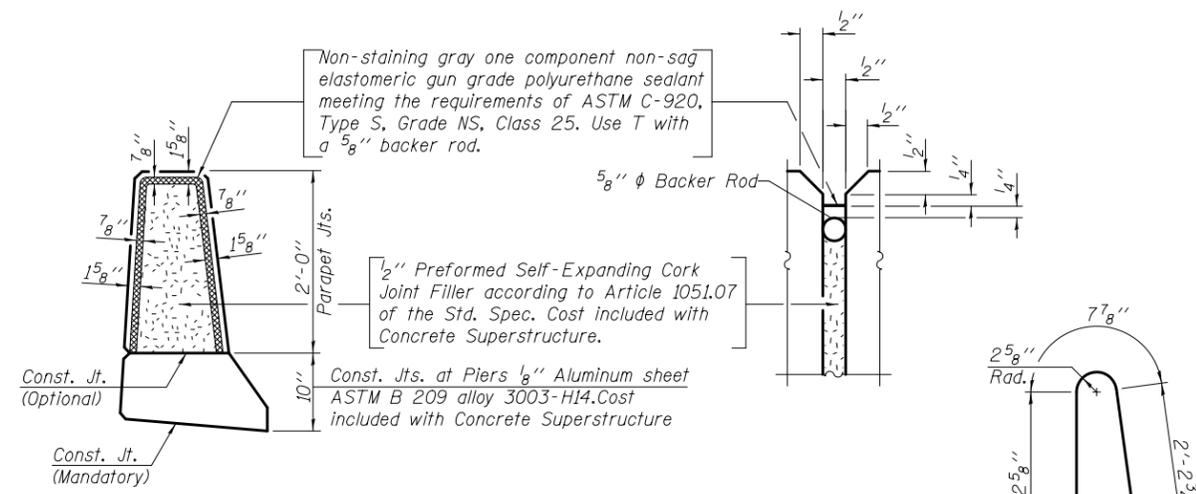


TOP PLAN



SECTION A-A

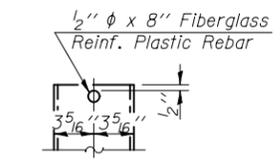
*Dimension as required by Pipe Clamp



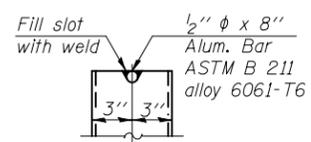
PARAPET JOINT DETAILS

Notes:

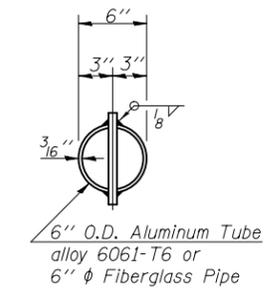
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
 The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.



FIBERGLASS PIPE

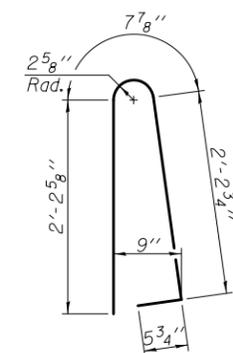


ALUMINUM TUBE

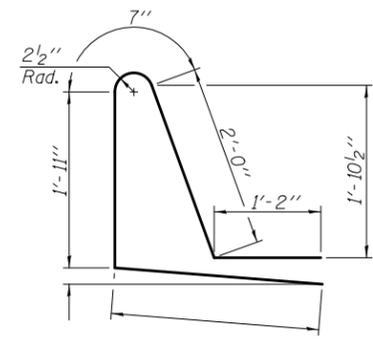


TOP PLAN

(Showing Aluminum Tube)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)				
a1(E)				
a2(E)	#6	6'-6"		
a3(E)				
a4(E)				
a5(E)				
b(E)	#5			
b1(E)	#6			
b2(E)				
d(E)	#5	5'-7"		
d1(E)	#5			
e(E)	#4			
e1(E)	#4			
m(E)	#4			
m1(E)	#6			
m2(E)	#8			
s(E)	#4			
x(E)				
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PBT-D2

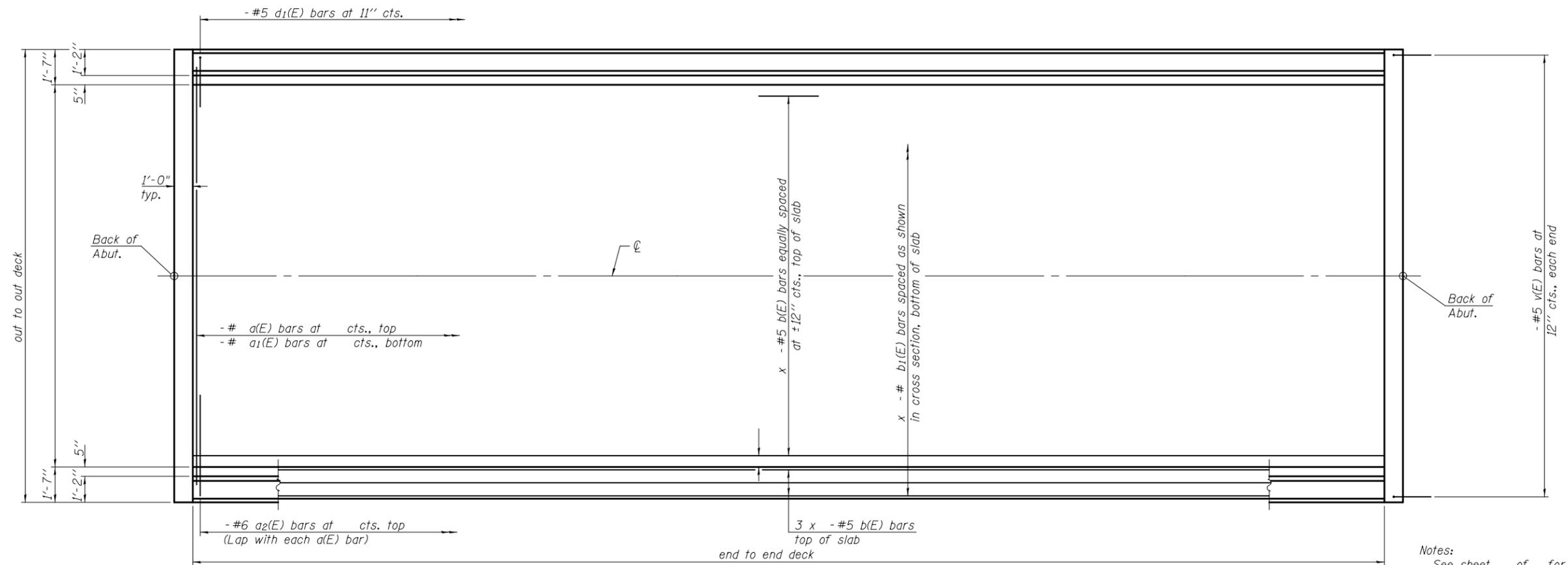
6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISIONS -
		CHECKED -	REVISIONS -
		DRAWN -	REVISIONS -
		CHECKED -	REVISIONS -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
 STRUCTURE NO.**

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

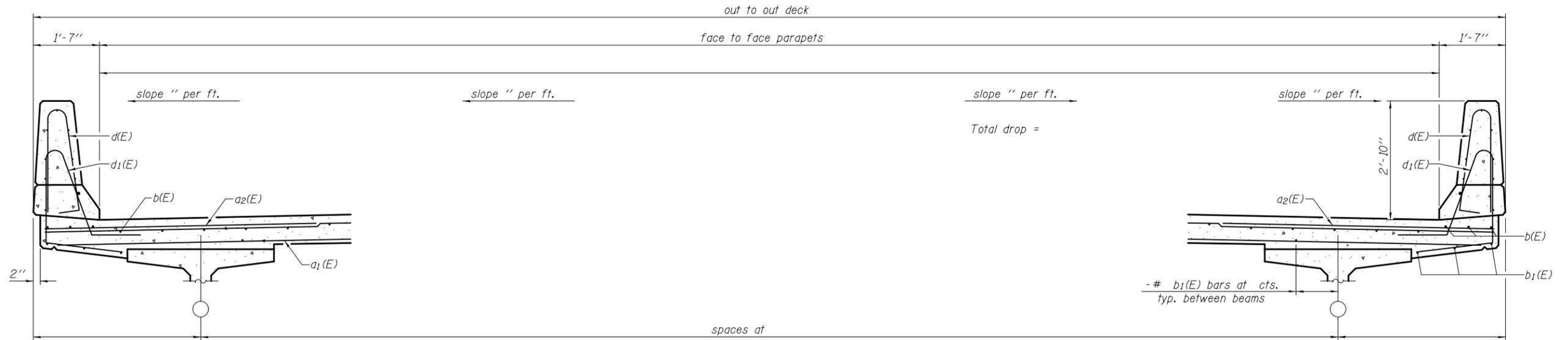


MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN

Notes:
See sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



CROSS SECTION

(Looking)

PBTI-1-0

6-8-15

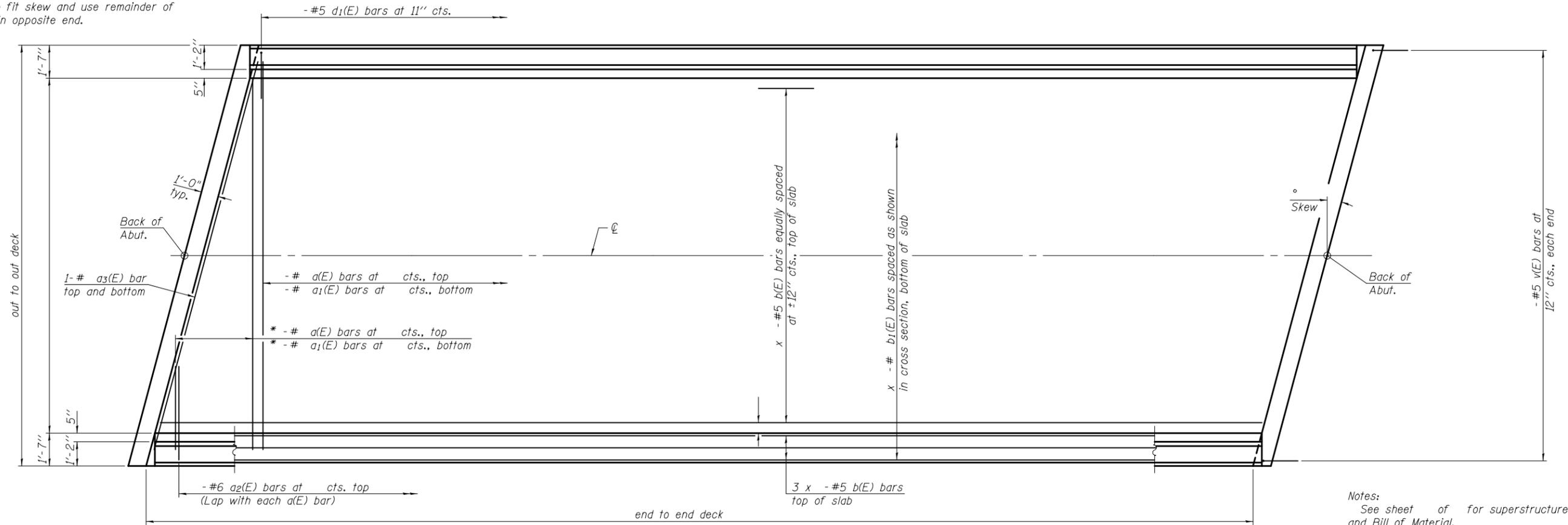
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) and a₁(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.



Notes:
See sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"

PLAN



CROSS SECTION
(Looking)

PBTI-1-L

6-8-15

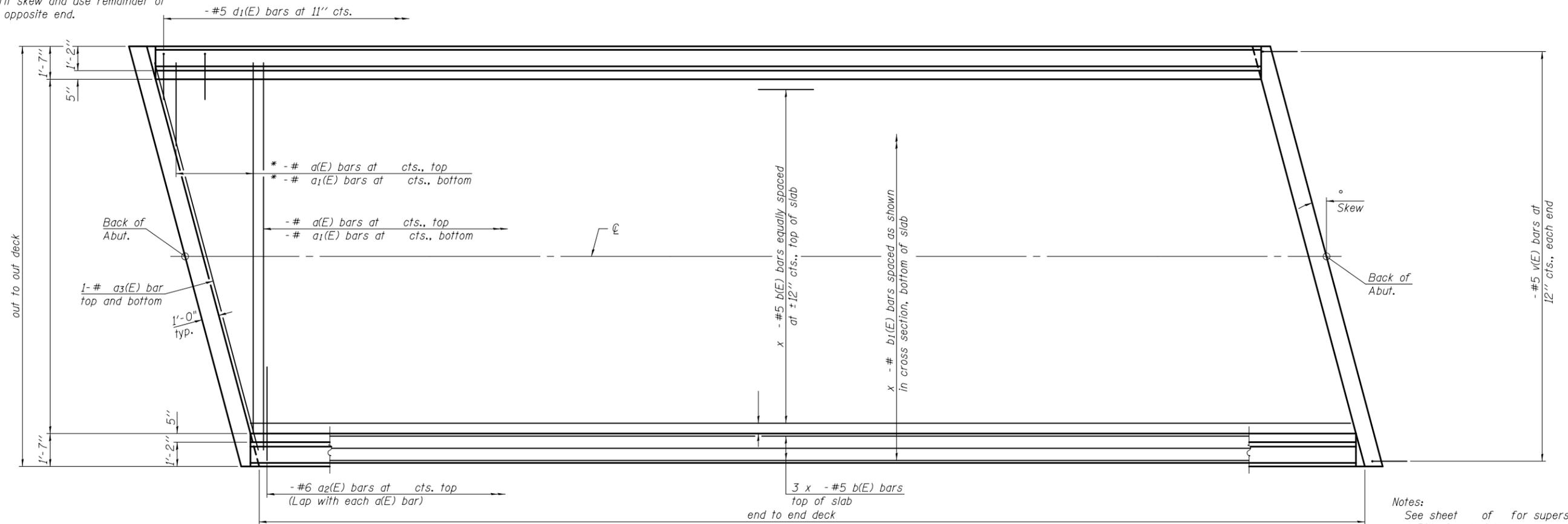
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) and a₁(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.



MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN

Notes:
See sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



CROSS SECTION
(Looking)

PBTI-1-R

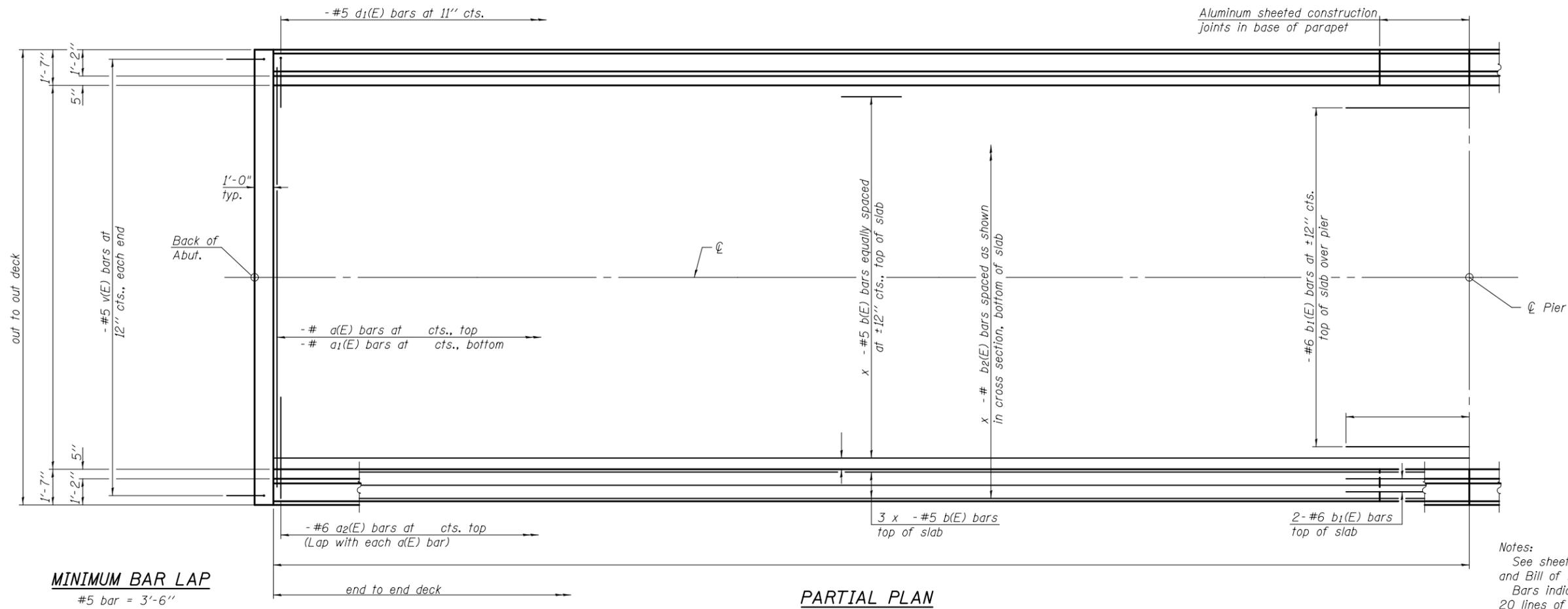
6-8-15

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

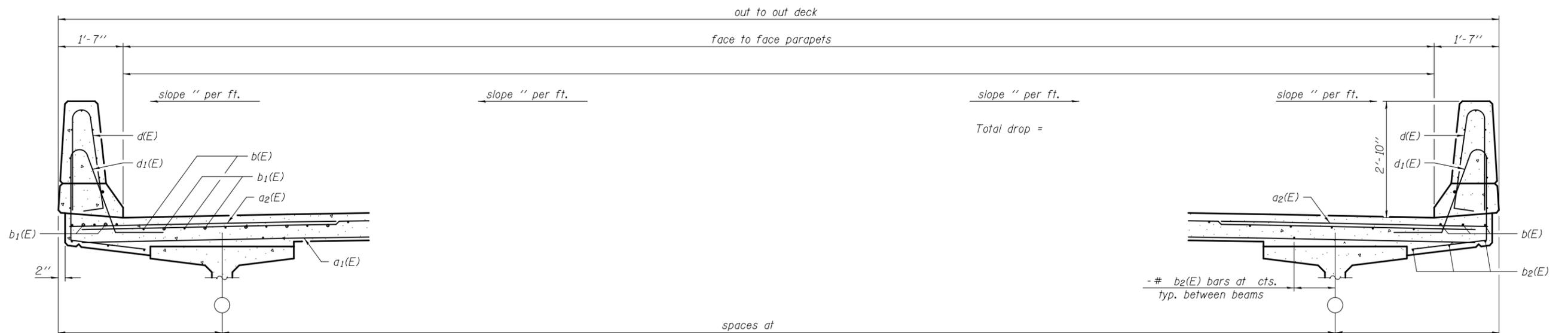
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



MINIMUM BAR LAP
#5 bar = 3'-6"

PARTIAL PLAN

Notes:
See sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking)

PBTI-2-0

6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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	PLOT SCALE =	DRAWN -	REVISED -
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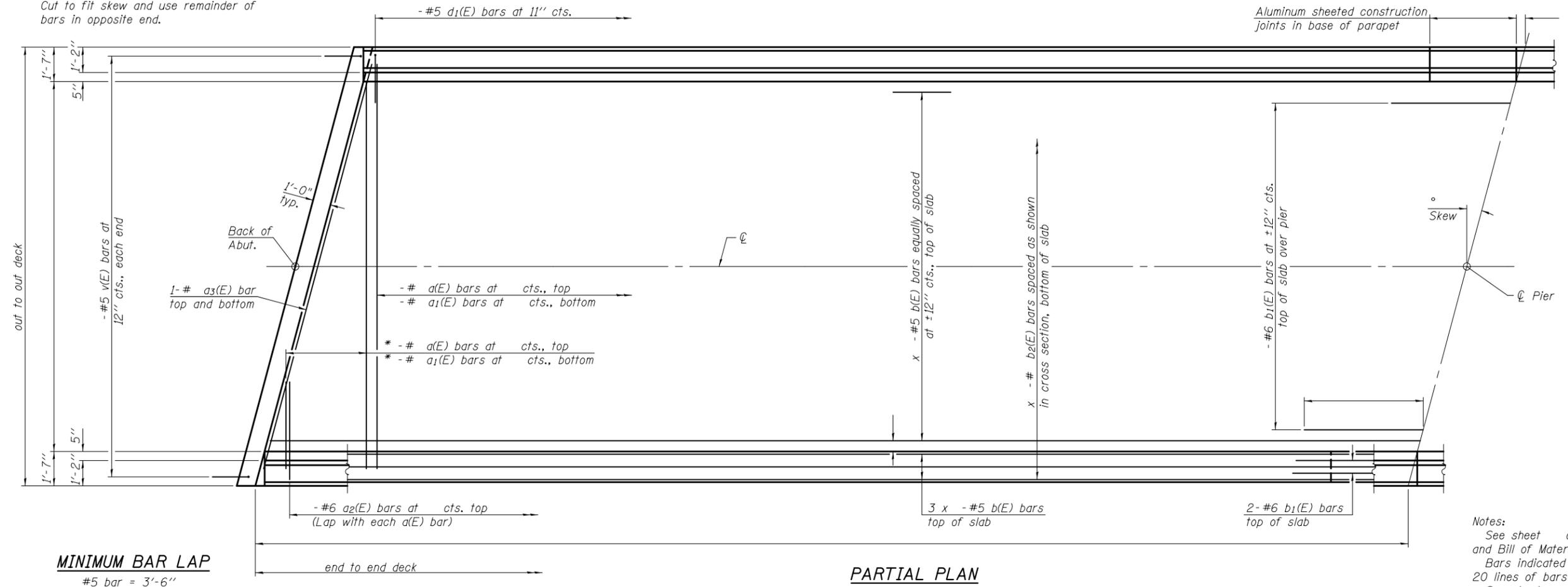
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

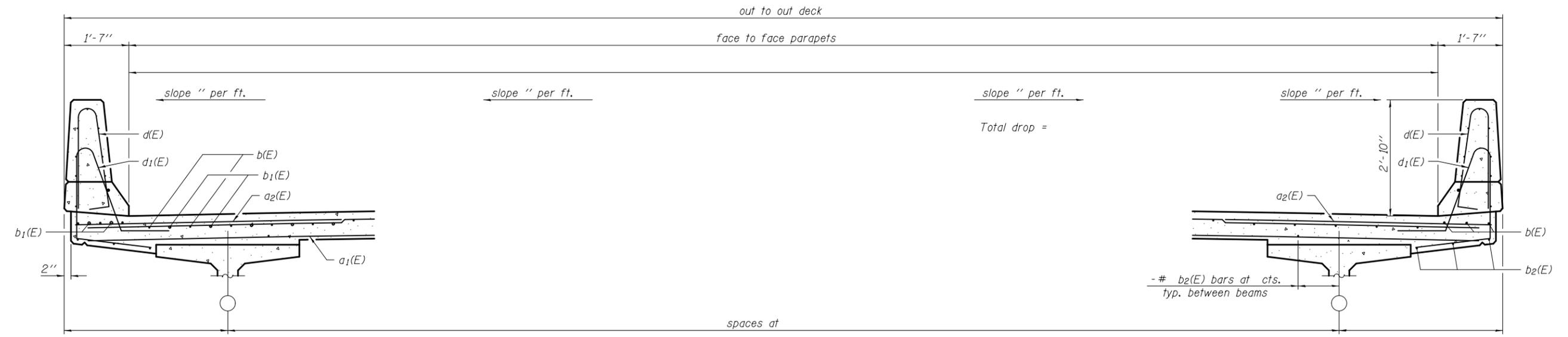
* Order $a(E)$ and $a_1(E)$ bars full length.
Cut to fit skew and use remainder of
bars in opposite end.



MINIMUM BAR LAP
#5 bar = 3'-6"

PARTIAL PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking)

PBTI-2-L

6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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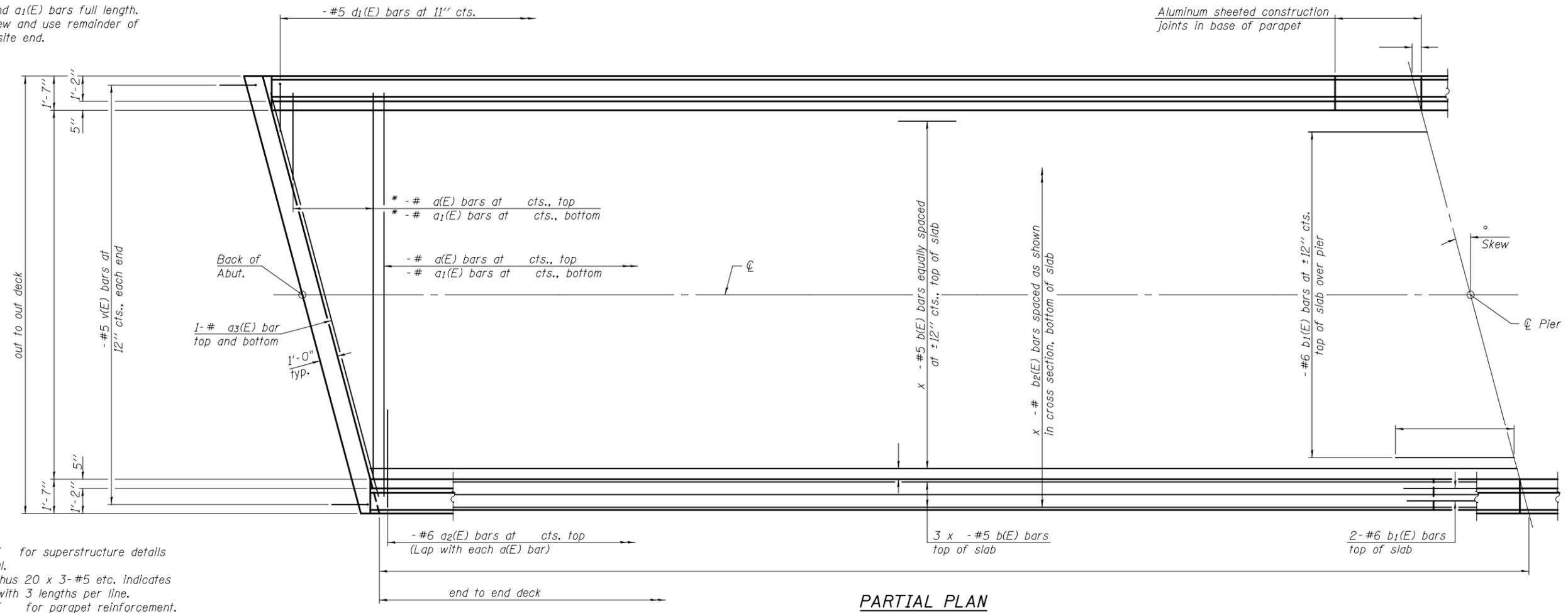
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

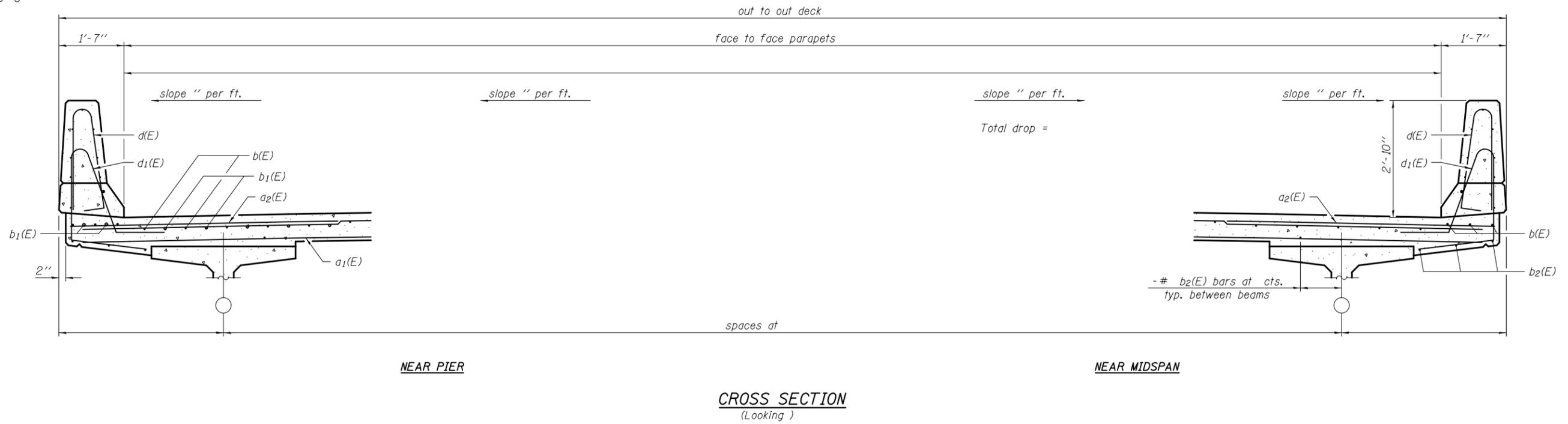
* Order $a(E)$ and $a_1(E)$ bars full length.
Cut to fit skew and use remainder of bars in opposite end.



Notes:
See sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



PBTI-2-R

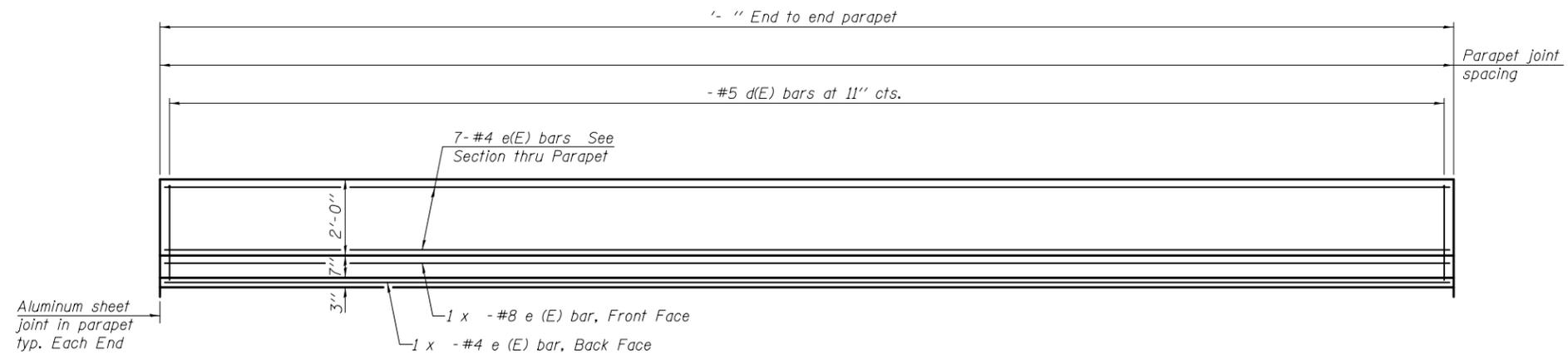
6-8-15

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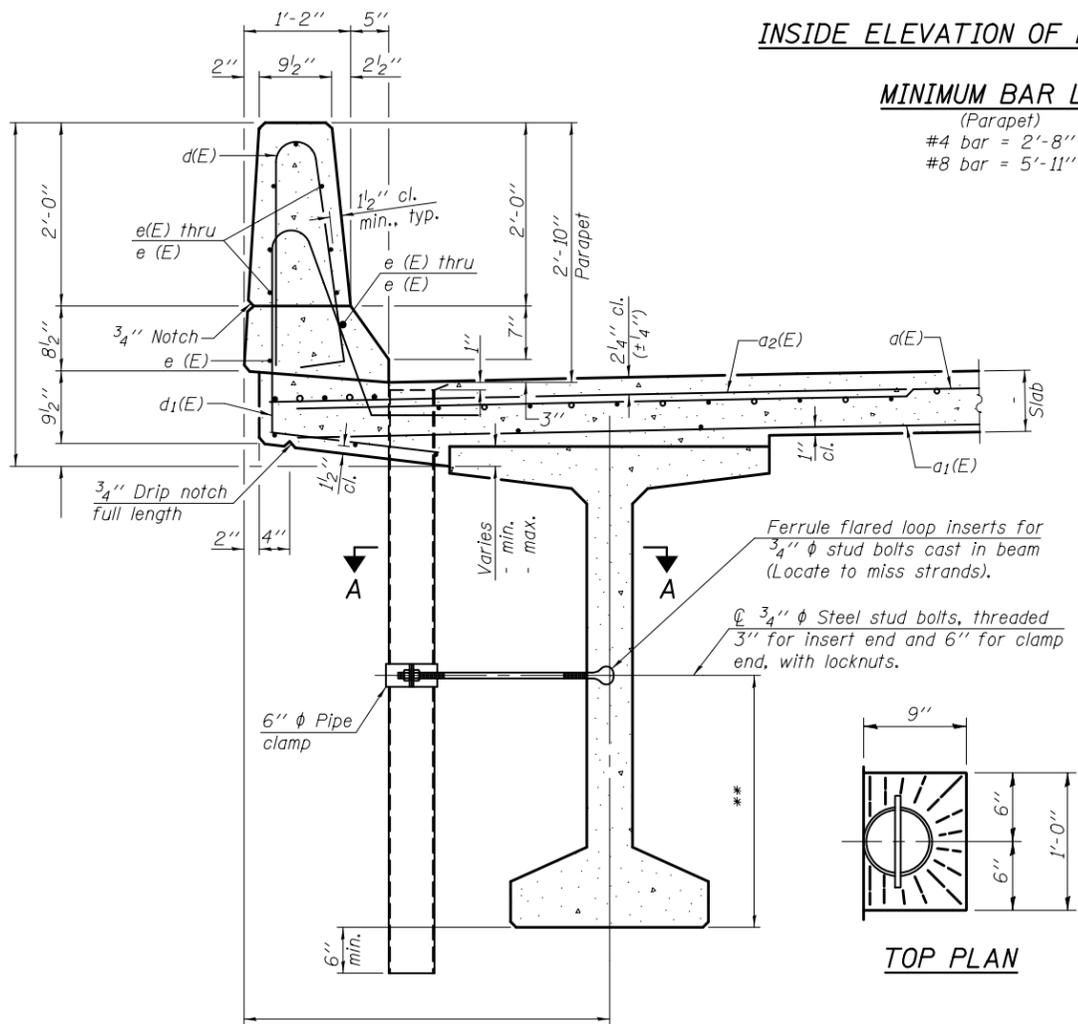
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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



INSIDE ELEVATION OF PARAPET



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)				
a1(E)				
a2(E)	#6		6'-6"	
a3(E)				
b(E)	#5			
b1(E)	#6			
b2(E)				
d(E)	#5		5'-7"	
d1(E)	#5			
e(E)	#4			
e1(E)	#4			
m(E)	#6			
m1(E)	#6			
m2(E)	#6			
m3(E)	#6			
m4(E)	#6			
m5(E)	#5		4'-0"	
s(E)	#5			
s1(E)	#5			
v(E)	#5		3'-1"	
Reinforcement Bars, Epoxy Coated		Lbs.		
Concrete Superstructure		Cu. Yds.		

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PBTI-D1

6-8-15

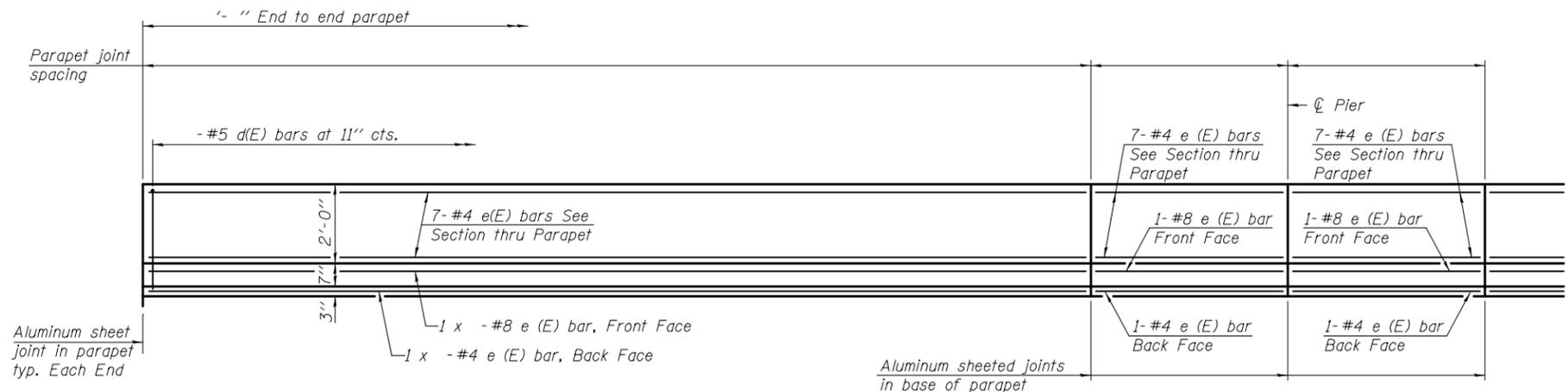
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

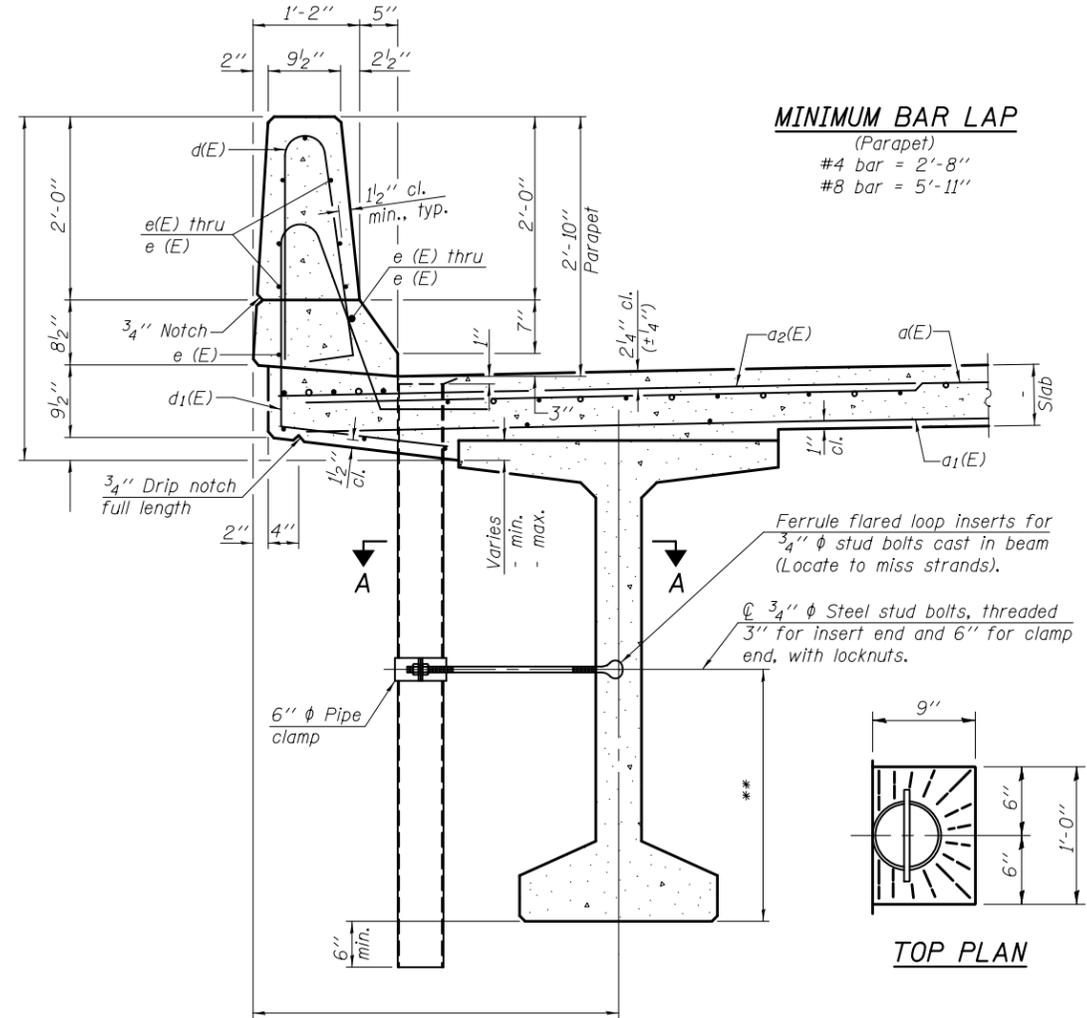
SUPERSTRUCTURE DETAILS
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



INSIDE ELEVATION OF PARAPET

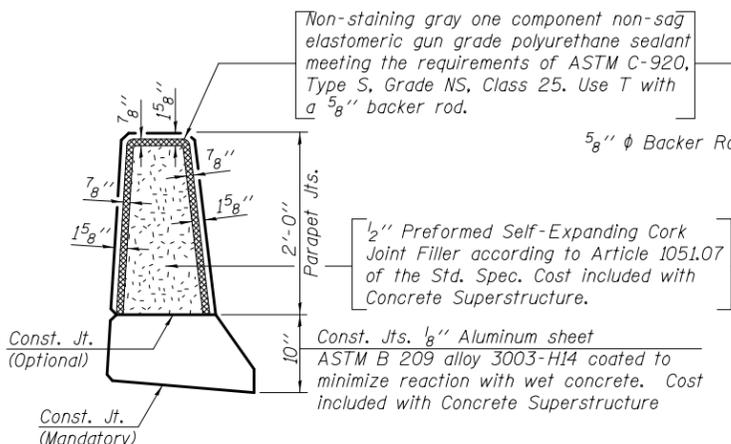


SECTION THRU PARAPET

**For insert locations See sheet of

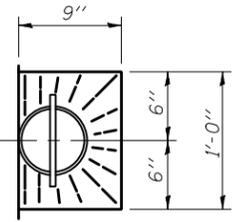
MINIMUM BAR LAP

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

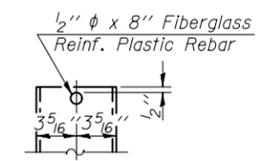


PARAPET JOINT DETAILS

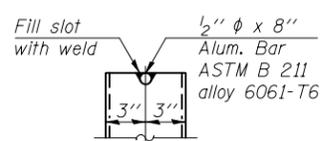
Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
 The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.



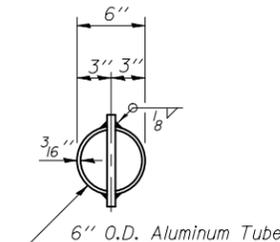
TOP PLAN



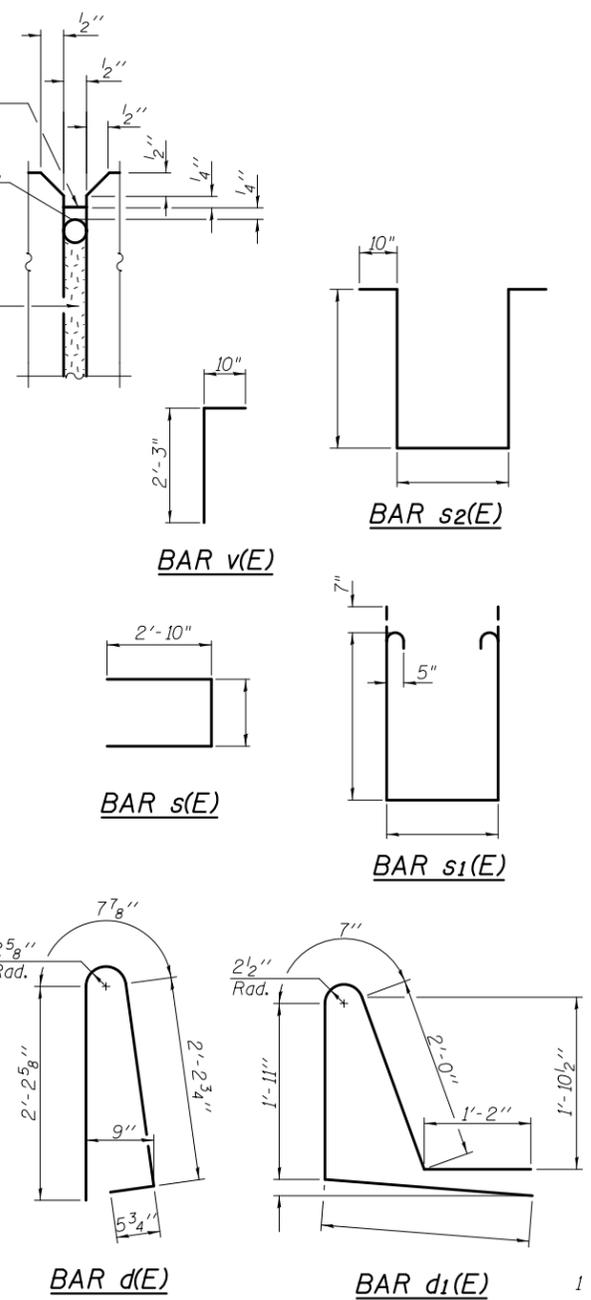
FIBERGLASS PIPE



ALUMINUM TUBE



TOP PLAN (Showing Aluminum Tube)



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)				
a ₁ (E)				
a ₂ (E)	#6		6'-6"	
a ₃ (E)				
b(E)	#5			
b ₁ (E)	#6			
b ₂ (E)				
d(E)	#5		5'-7"	
d ₁ (E)	#5			
e(E)	#4			
e ₁ (E)	#4			
m(E)	#6			
m ₁ (E)	#6			
m ₂ (E)	#6			
m ₃ (E)	#6			
m ₄ (E)	#6			
m ₅ (E)	#5		4'-0"	
m ₆ (E)	#4			
m ₇ (E)	#8			
s(E)	#5			
s ₁ (E)	#5			
s ₂ (E)	#4			
v(E)	#5		3'-1"	
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PBTI-D2

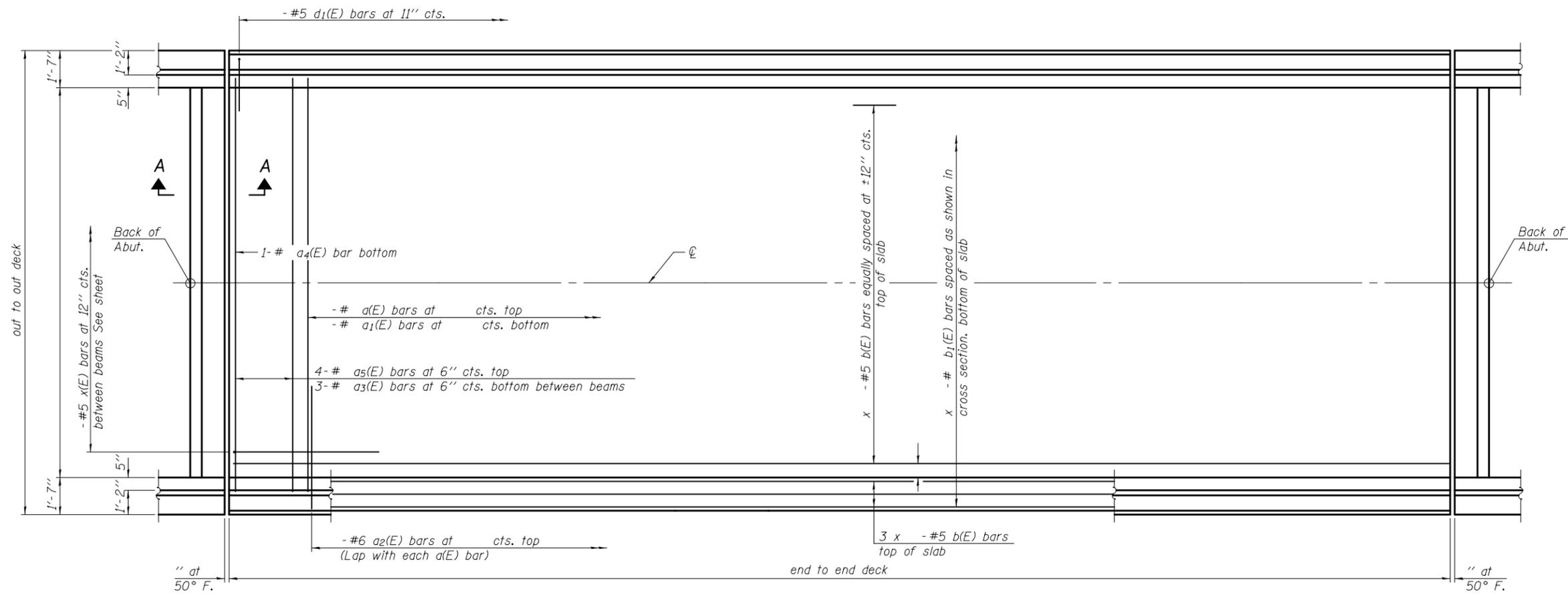
6-8-15

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		CHECKED -	REVISD -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
 STRUCTURE NO.

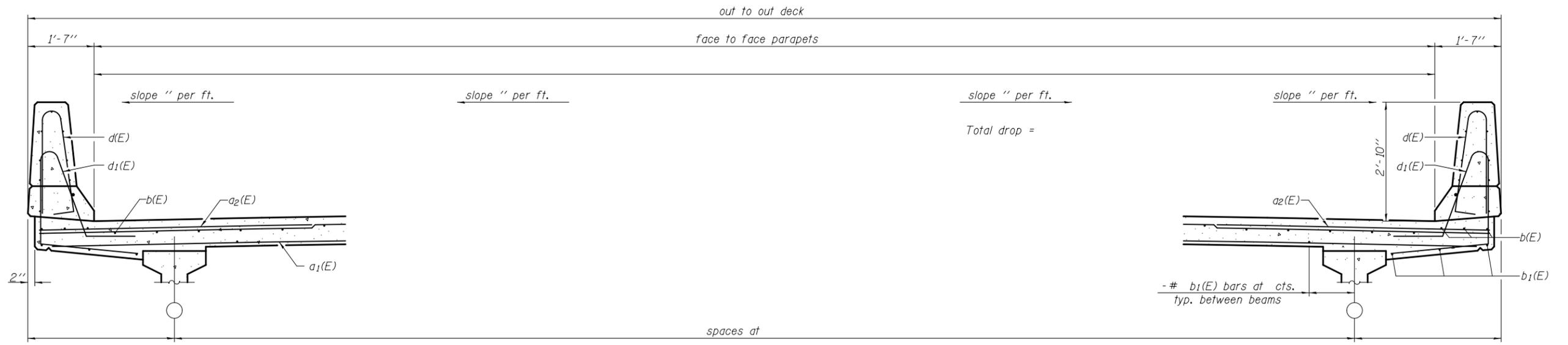
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



PLAN

Notes:
 See sheet of for superstructure details and Bill of Material.
 For Section A-A and diaphragm details see sheet of .
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See sheet of for parapet reinforcement.

MINIMUM BAR LAP
 #5 bar = 3'-6"



CROSS SECTION
 (Looking)

PI-1-0

6-8-15

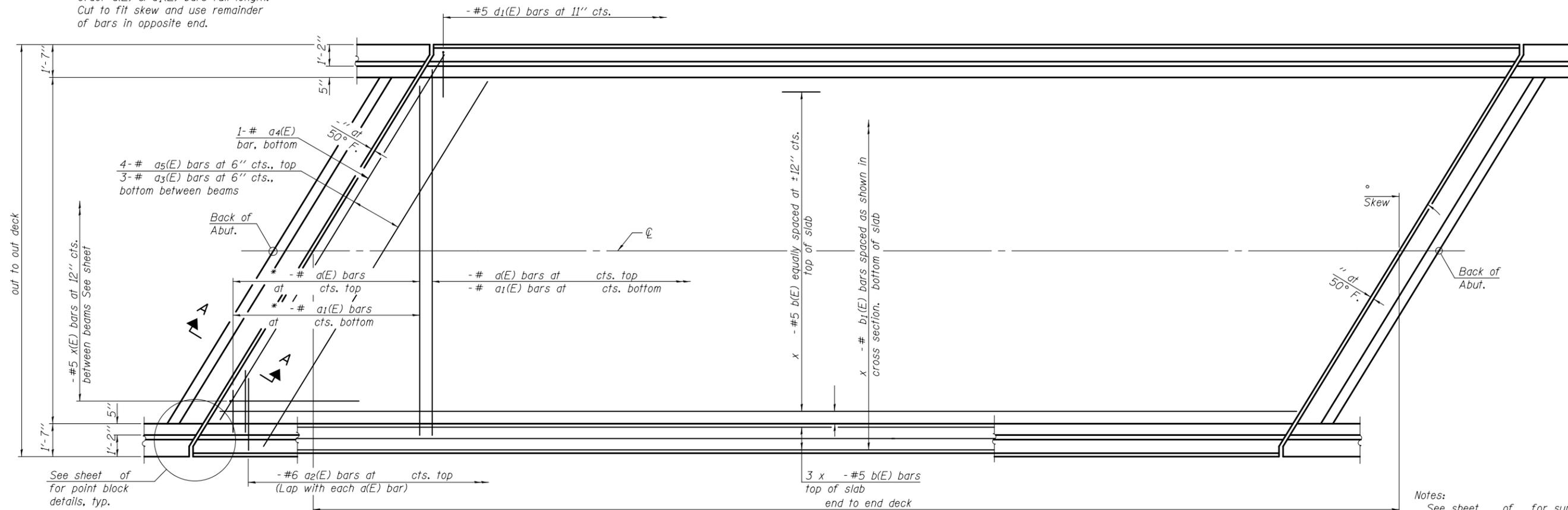
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STATE OF ILLINOIS
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SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

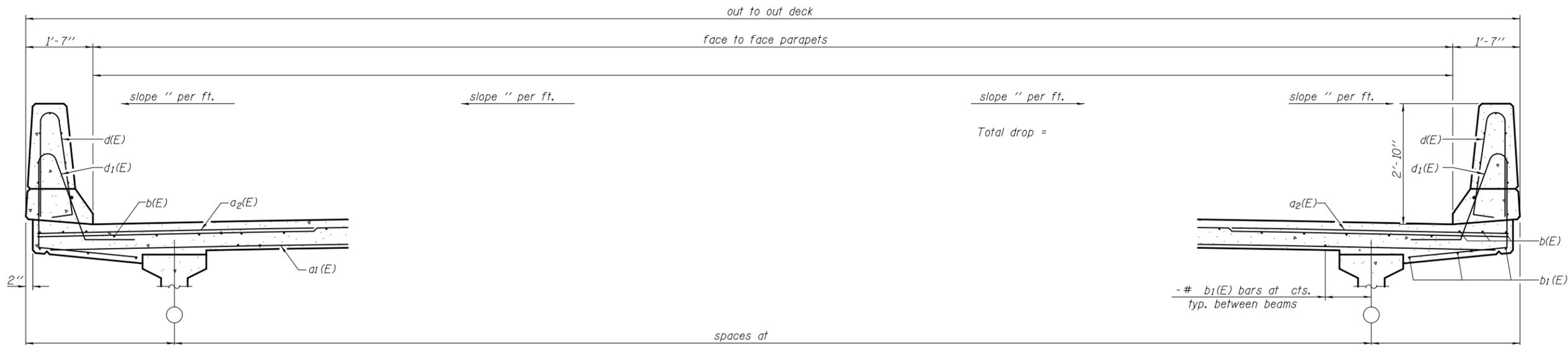


PLAN

Notes:
See sheet of for superstructure details
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For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



CROSS SECTION

(Looking)

PI-1-L(>30°)

6-8-15

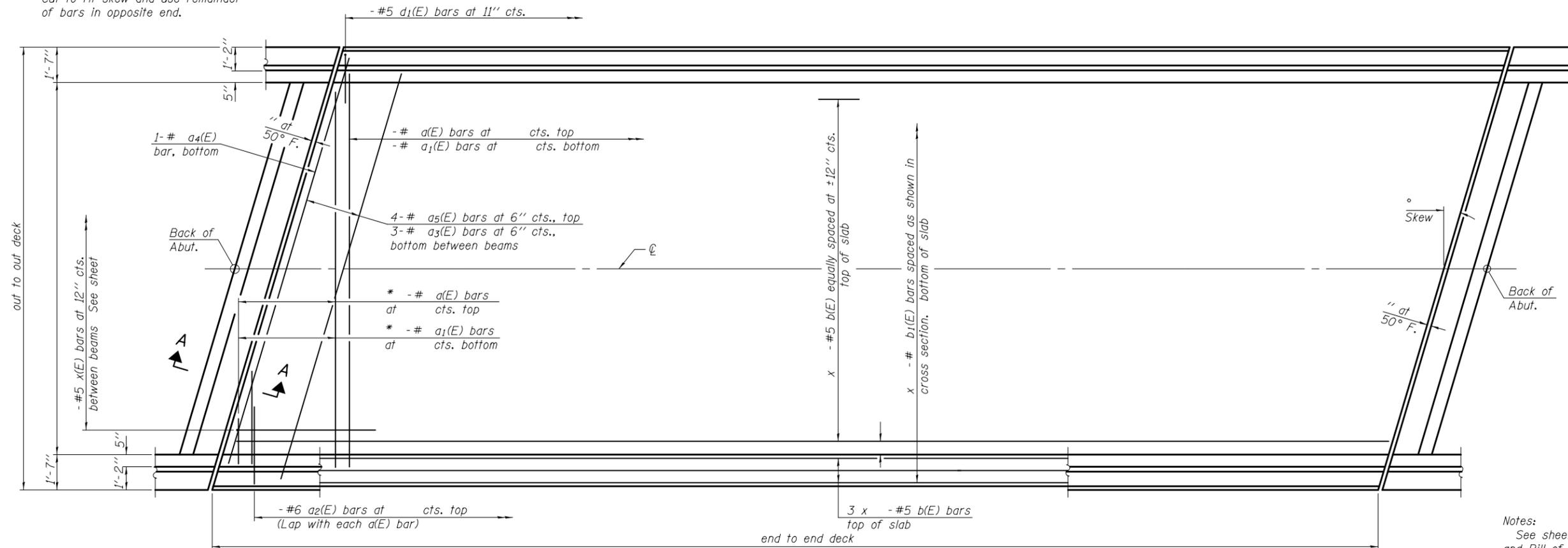
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

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

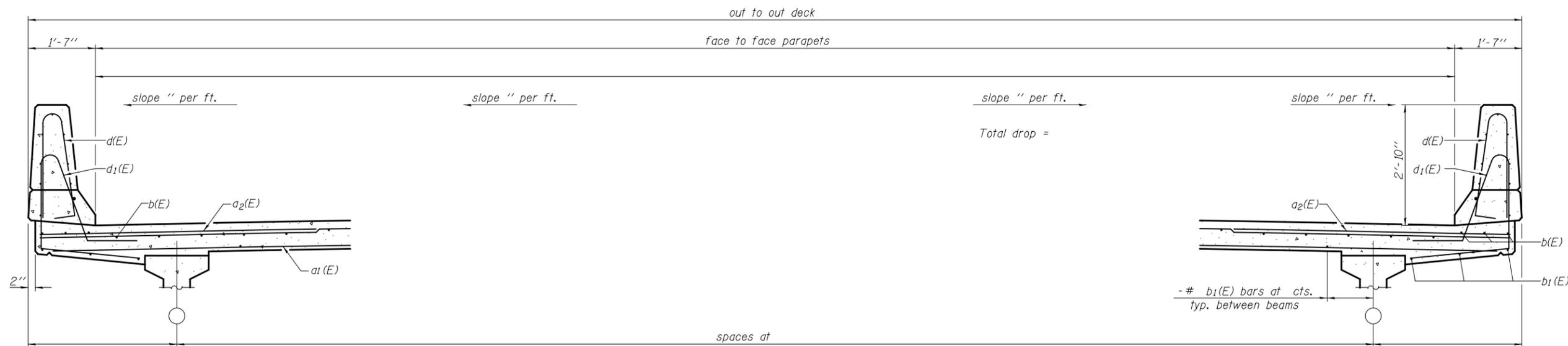
* Order $a(E)$ & $a_1(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"



CROSS SECTION
(Looking)

PI-1-L(30°)

6-8-15

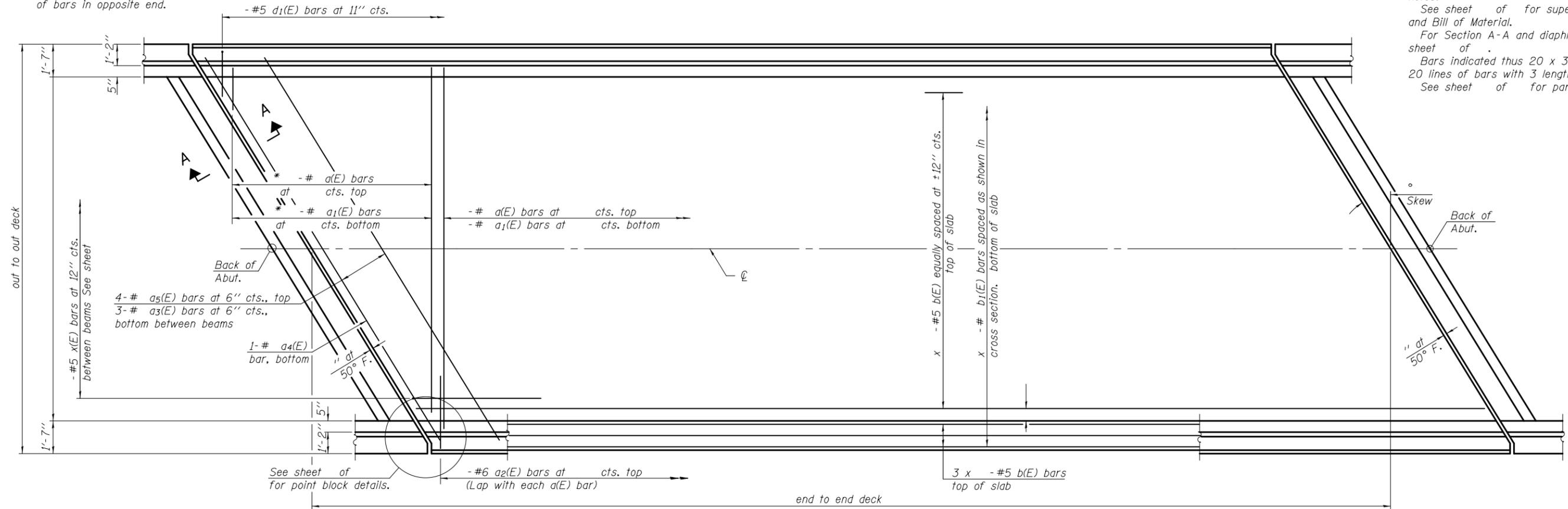
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

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

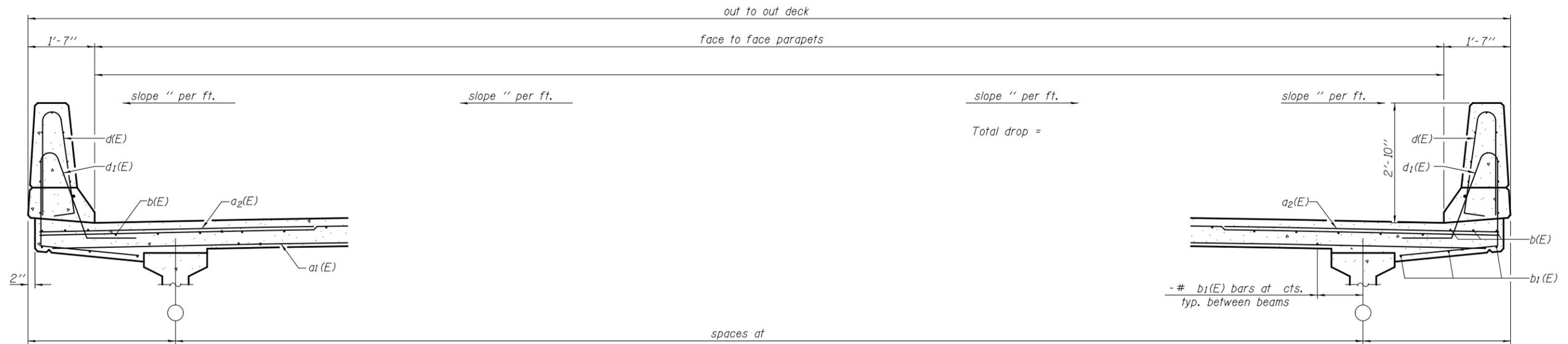
* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"

PLAN



CROSS SECTION
(Looking)

PI-1-R(>30°)

6-8-15

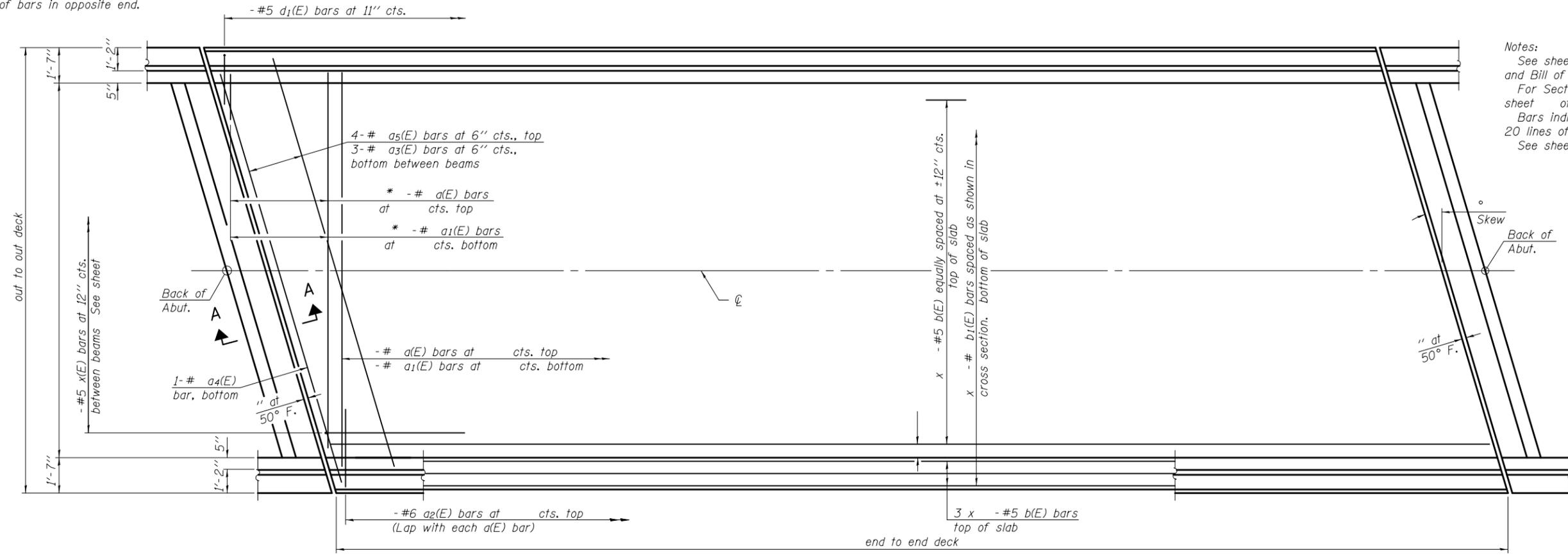
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"

PLAN



CROSS SECTION
(Looking)

PI-1-R(30°)

6-8-15

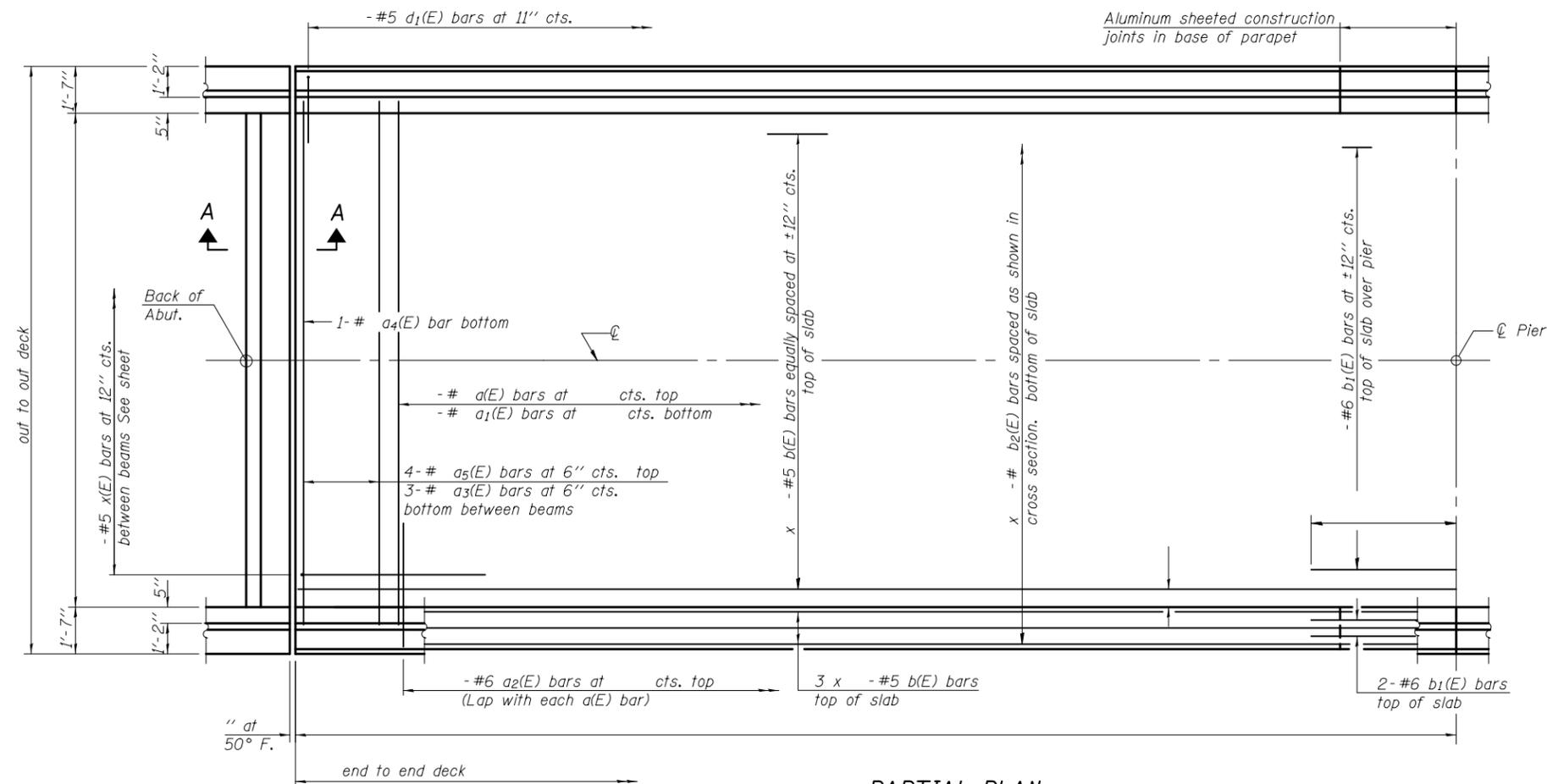
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

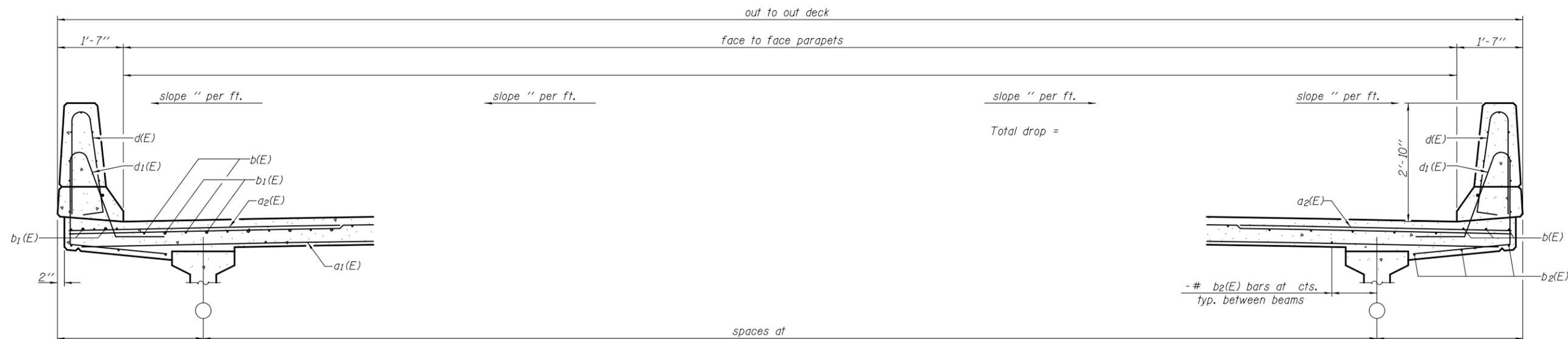


PARTIAL PLAN

Notes:
 See sheet of for superstructure details and Bill of Material.
 For Section A-A and diaphragm details see sheet of .
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See sheet of for parapet reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-6"



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking)

PI-2-0

6-8-15

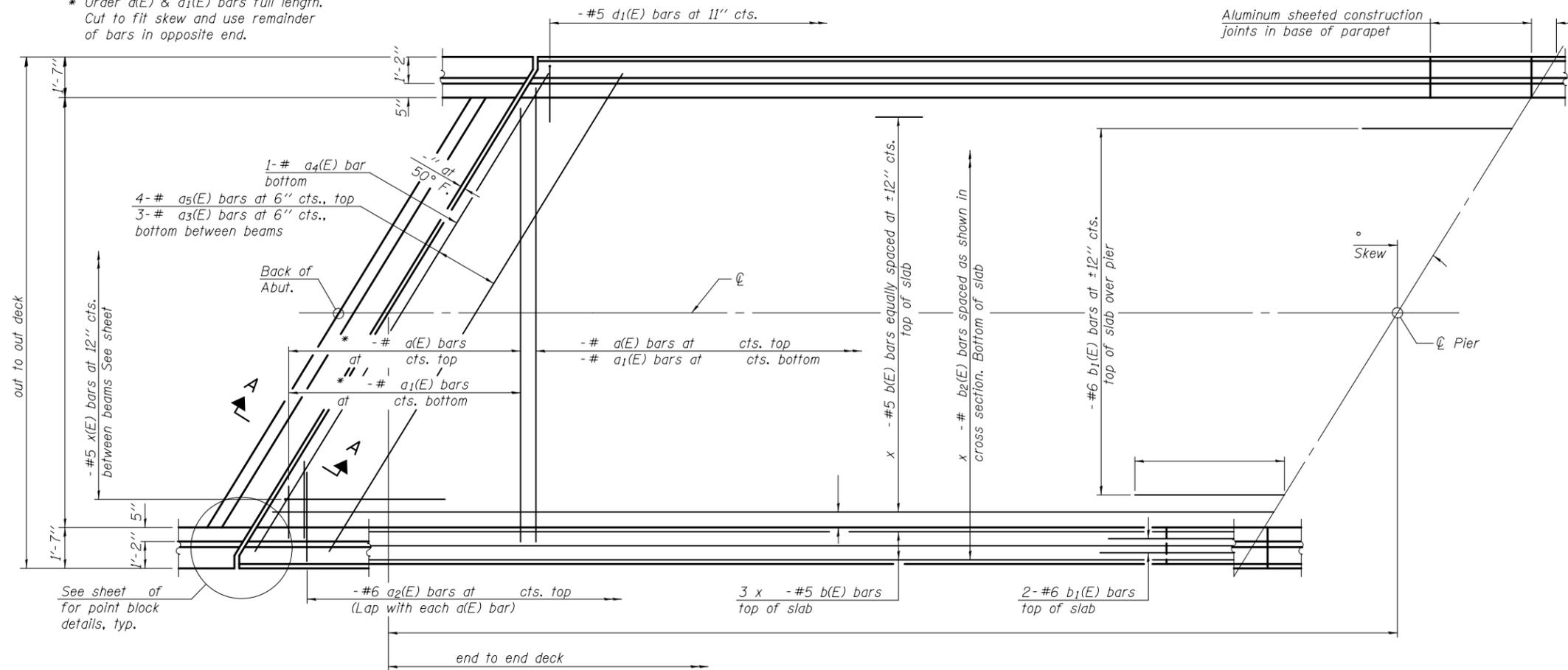
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	PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
 STRUCTURE NO.**

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

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

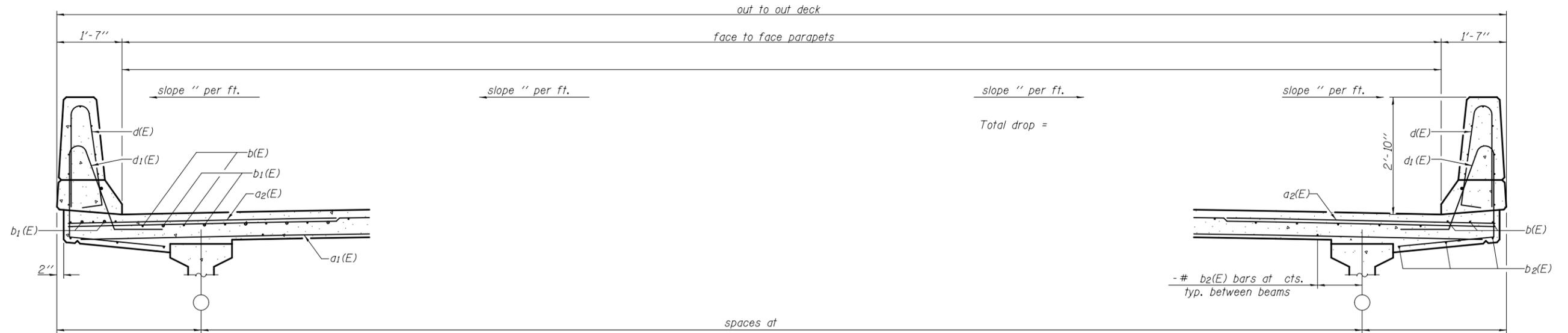


PARTIAL PLAN

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking)

PI-2-L(>30°)

6-8-15

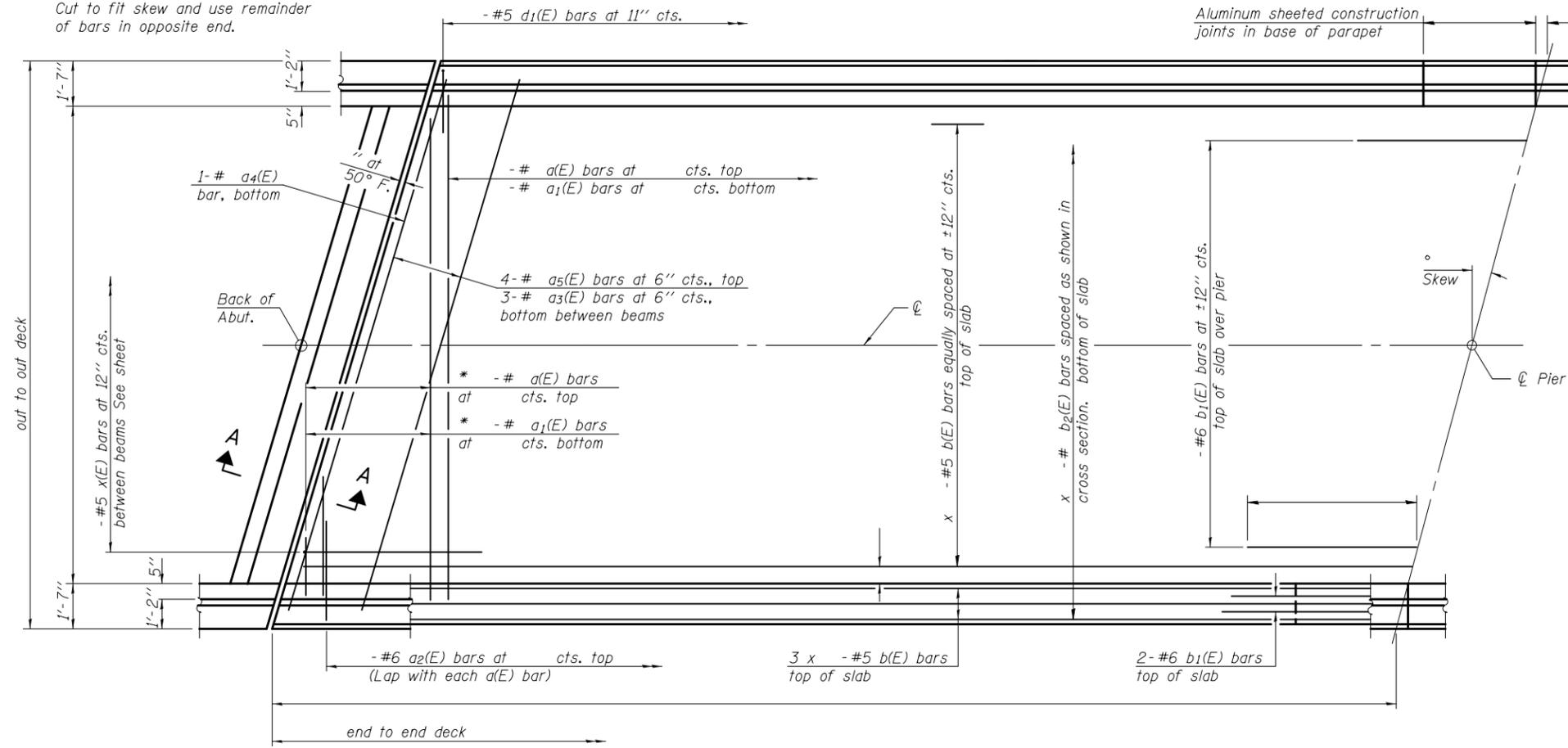
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

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

* Order $a(E)$ & $a_1(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

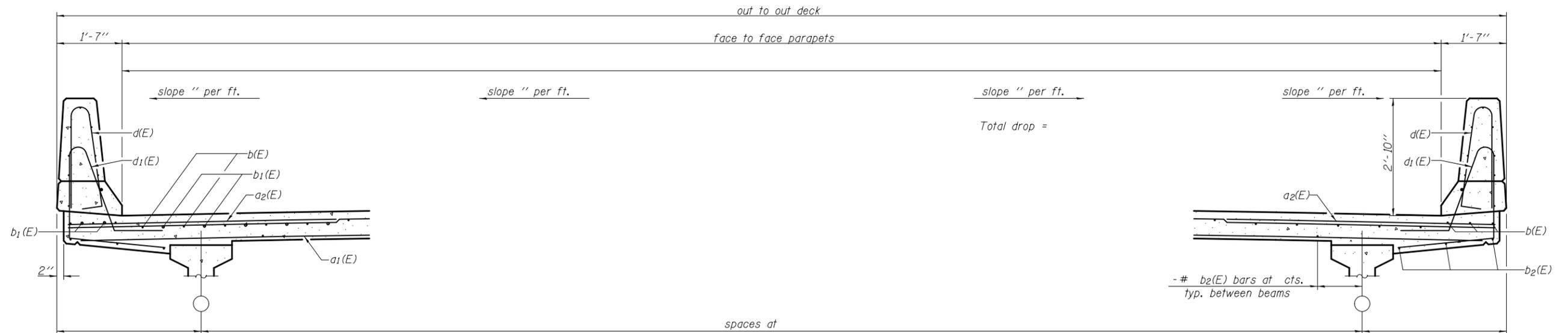


PARTIAL PLAN

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking)

PI-2-L($\leq 30^\circ$)

6-8-15

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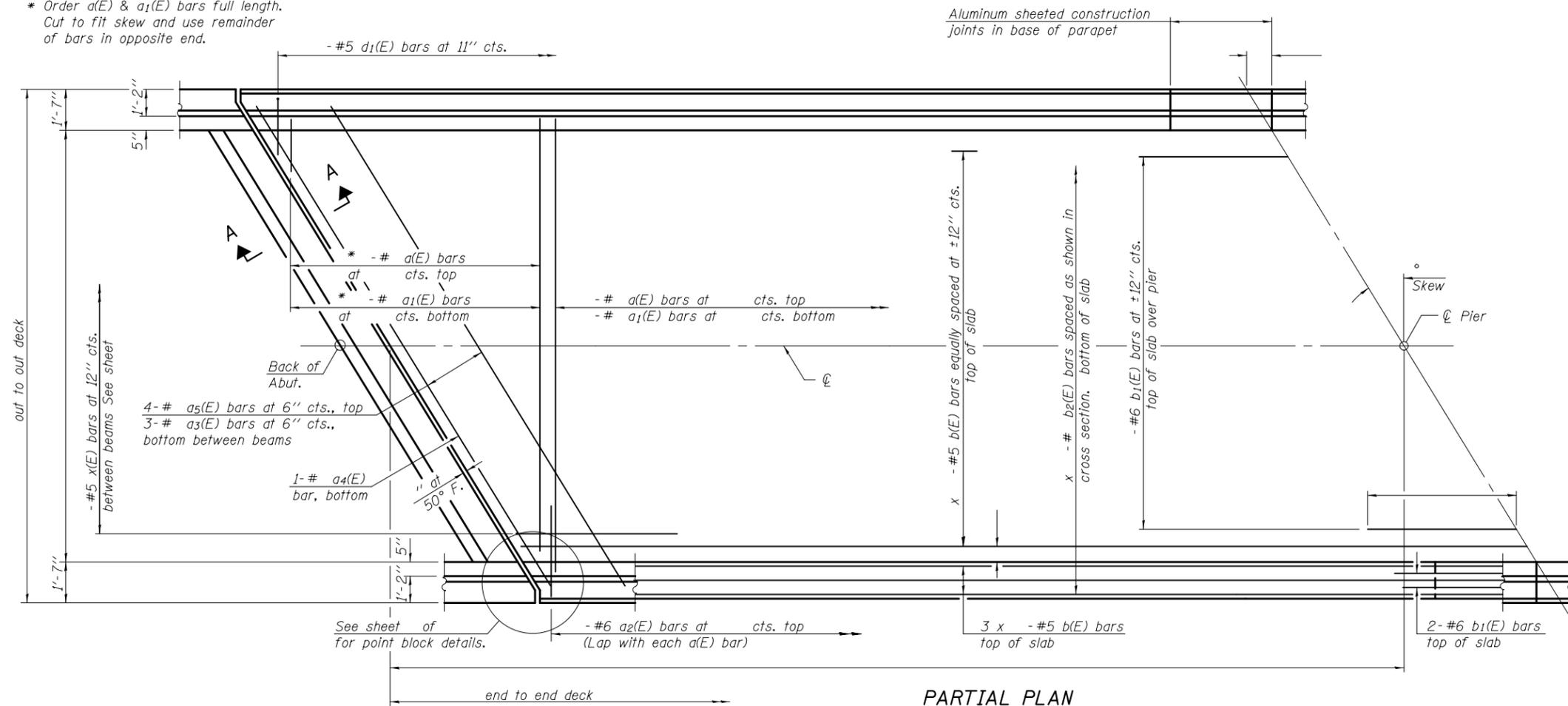
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

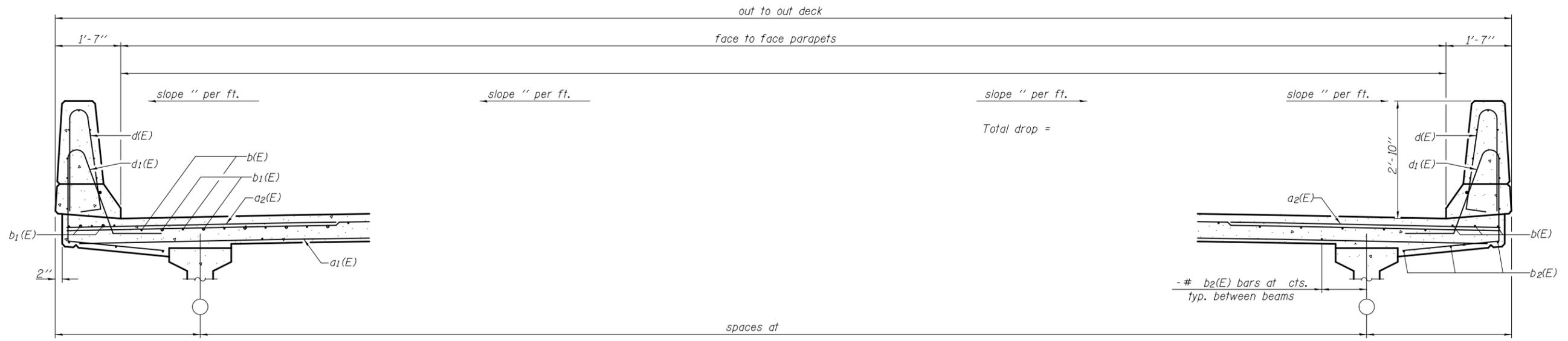
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

* Order $a(E)$ & $a_1(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.



PI-2-R(>30°)

6-8-15

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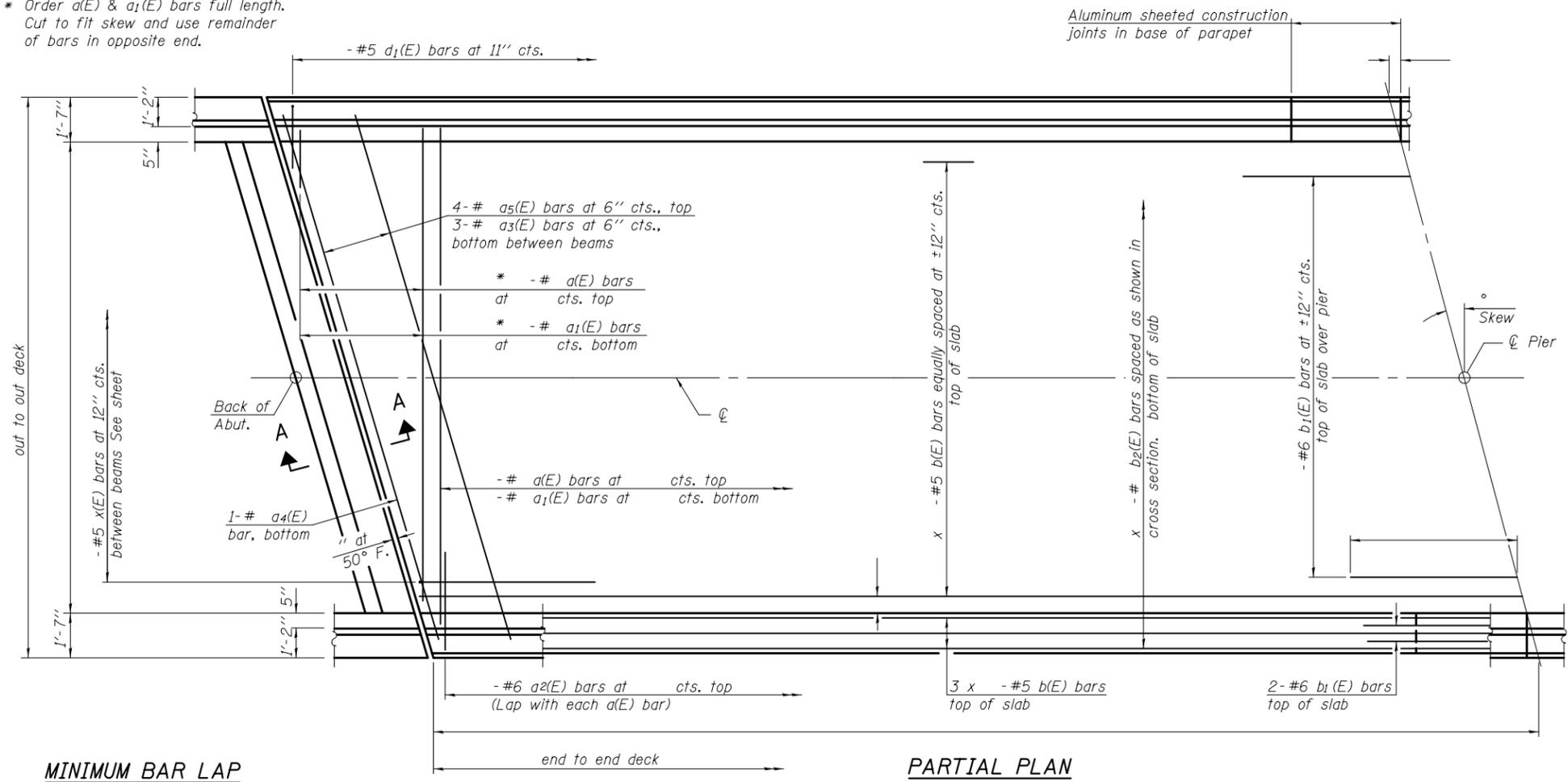
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

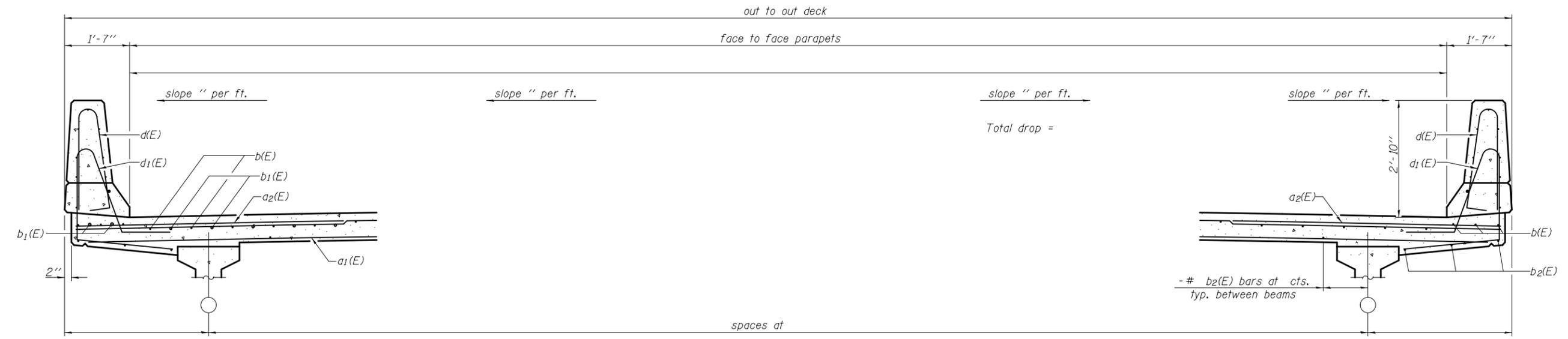
* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



PARTIAL PLAN

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"



CROSS SECTION
(Looking)

PI-2-R(30°)

6-8-15

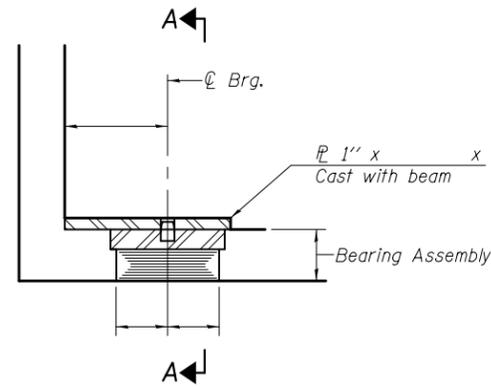
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

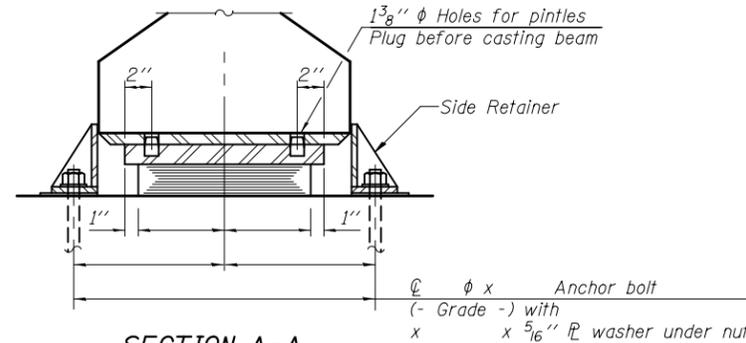
SUPERSTRUCTURE
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

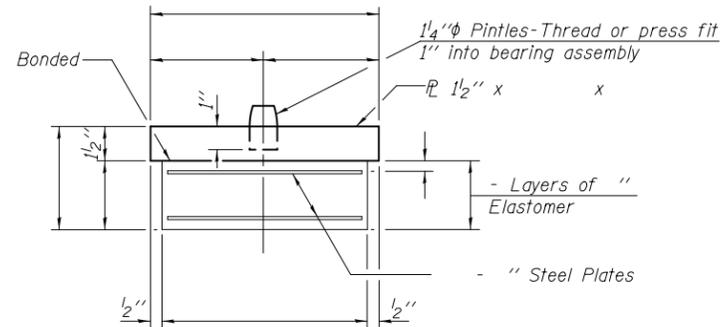


SECTION AT ABUT.

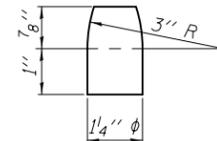


SECTION A-A

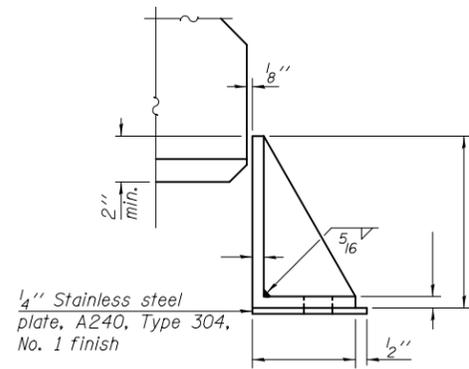
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

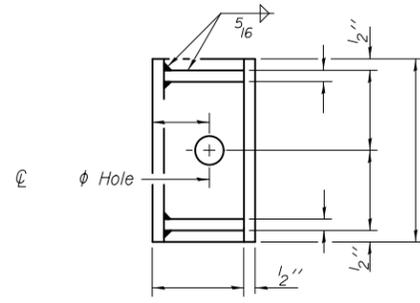


PINTLE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
 See sheet of for additional details of plate cast with beam.
 Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
 Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	
Anchor Bolts	Each	

PI-2E-1

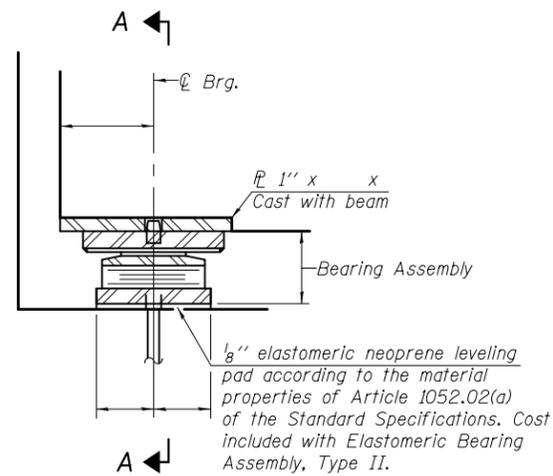
12-2-15

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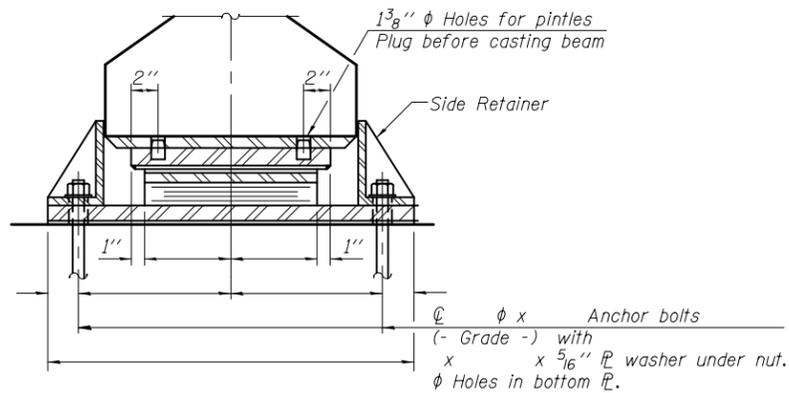
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS
 STRUCTURE NO.**

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

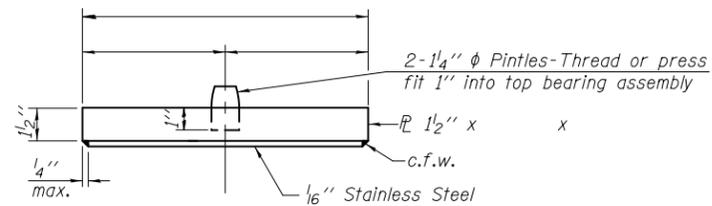


SECTION AT ABUT.

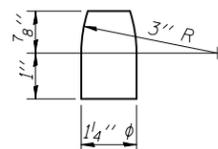


SECTION A-A

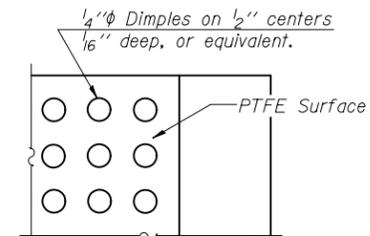
TYPE II ELASTOMERIC EXP. BRG.



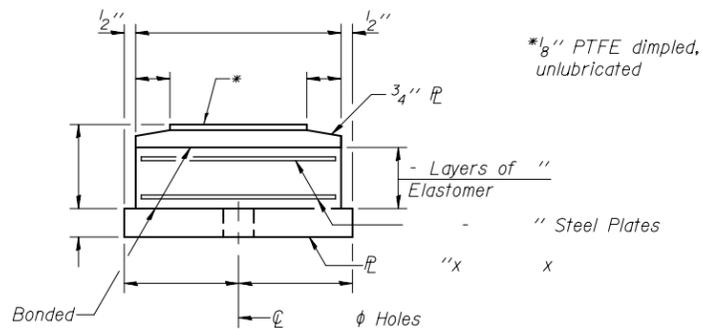
TOP BEARING ASSEMBLY



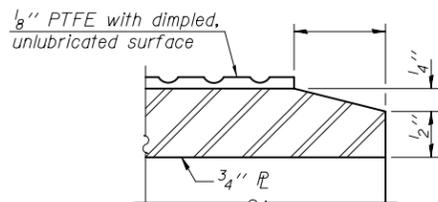
PINTLE



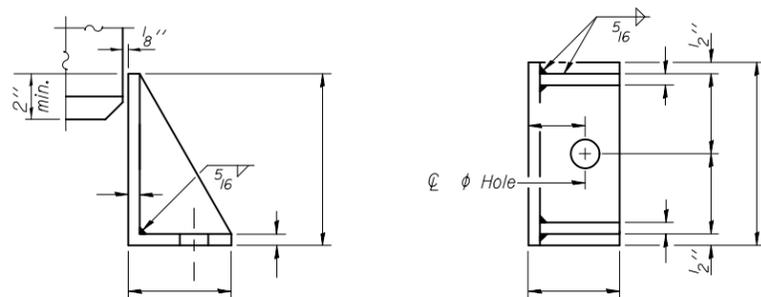
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

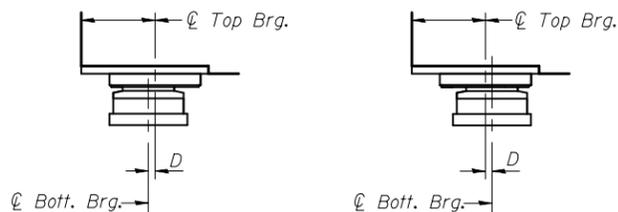


SECTION THRU PTFE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50°F.

ABOVE 50°F.

D = 1/8 inch per each 100 feet of expansion for every 15 degrees temperature change from the normal temperature of 50 degrees Fahrenheit.

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8 inch PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8 inch PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

See sheet of for additional details of plate cast with beam.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured. Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	
Anchor Bolts	Each	

PI-2E-2

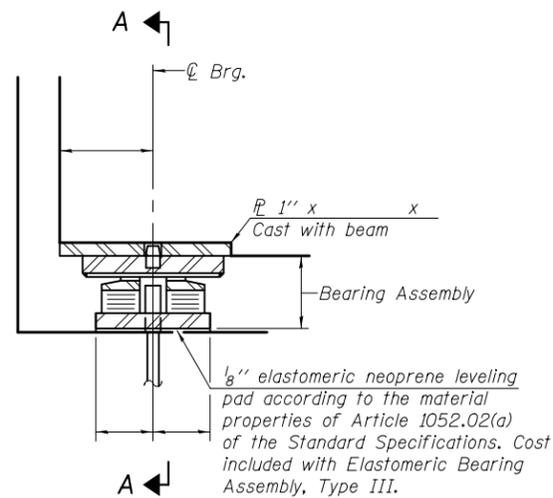
12-2-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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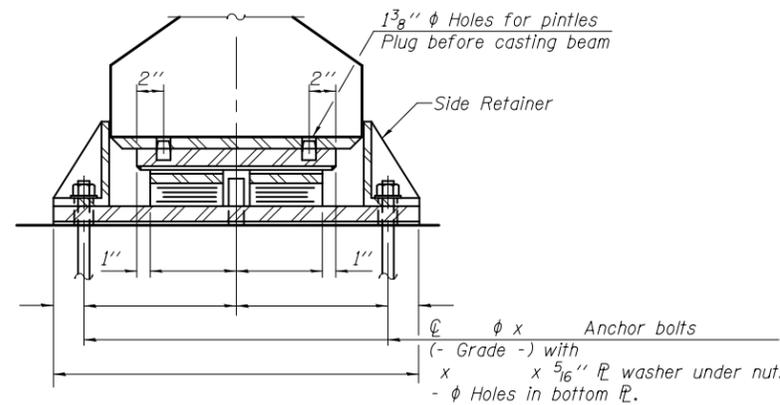
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO.

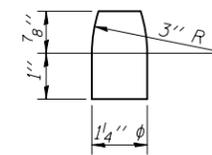
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



SECTION AT ABUT.

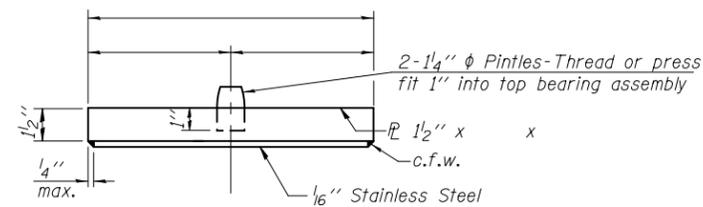


SECTION A-A

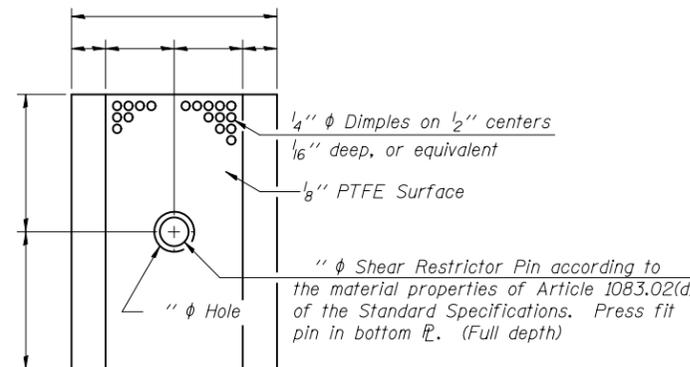


PINTLE

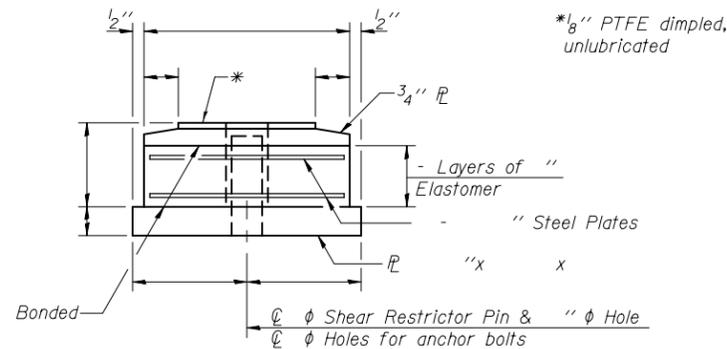
TYPE III ELASTOMERIC EXP. BRG.



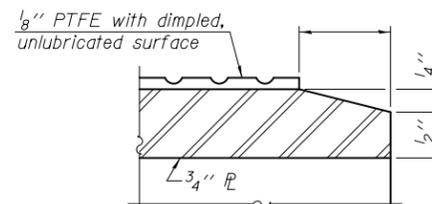
TOP BEARING ASSEMBLY



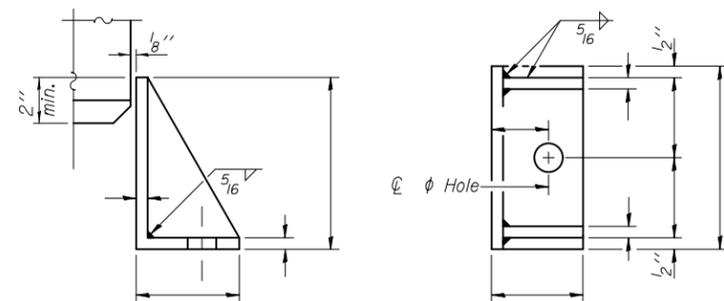
PLAN-PTFE ELASTOMERIC BRG.



BOTTOM BEARING ASSEMBLY

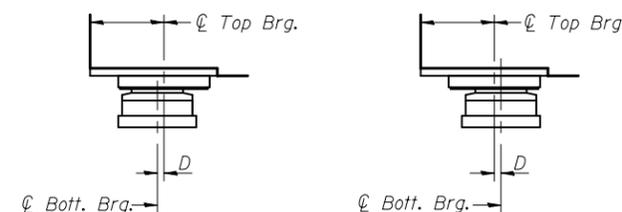


SECTION THRU PTFE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50°F.

ABOVE 50°F.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

See sheet of for additional details of plate cast with beam.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type III	Each	
Anchor Bolts	Each	

PI-2E-3

12-2-15

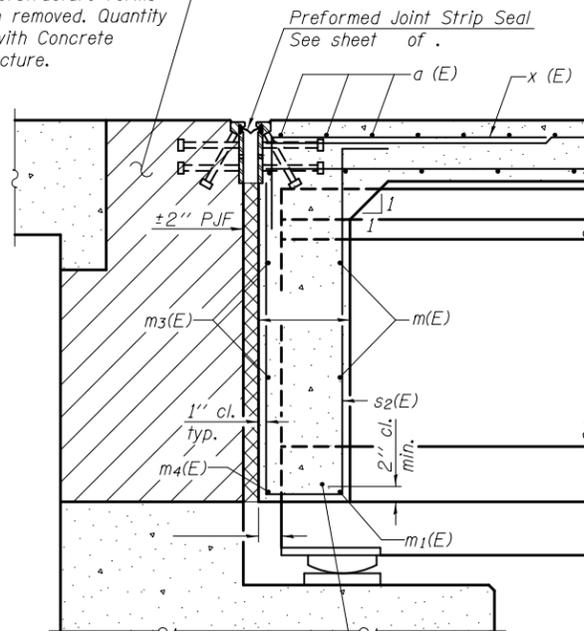
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS
STRUCTURE NO.**

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

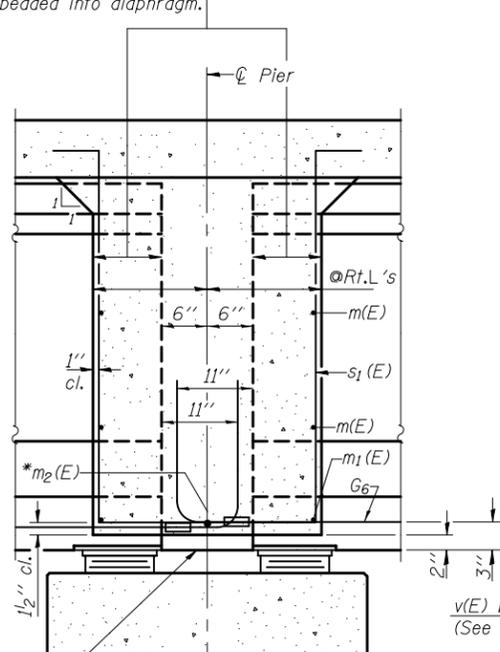
Hatched area to be poured after superstructure forms have been removed. Quantity included with Concrete Superstructure.



**SECTION A-A
AT ABUTMENT**
(at Rt. Ls)

3/4" φ x 2'-0" Threaded Dowel Rods. Space inserts to miss strands. For location see sheet of

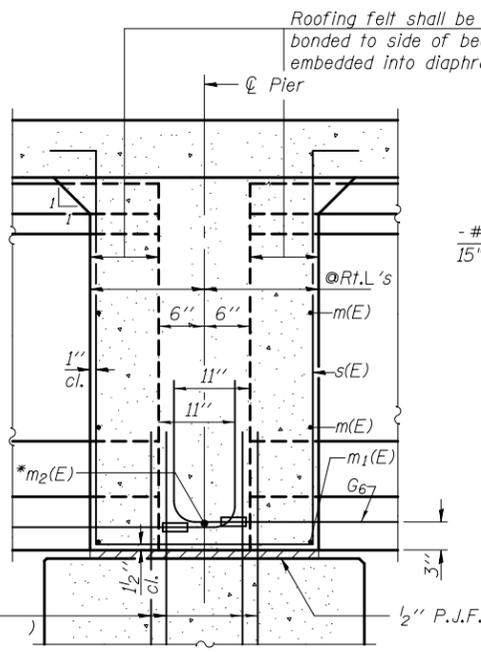
Roofing felt shall be bonded to side of beam embedded into diaphragm.



**SECTION B-B
AT PIER**
(Expansion)

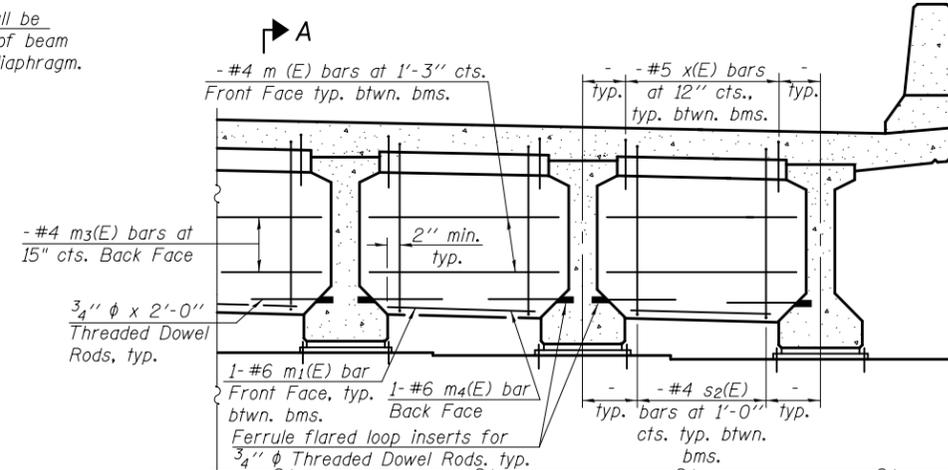
Bott. of concrete at beam ends.

Roofing felt shall be bonded to side of beam embedded into diaphragm.

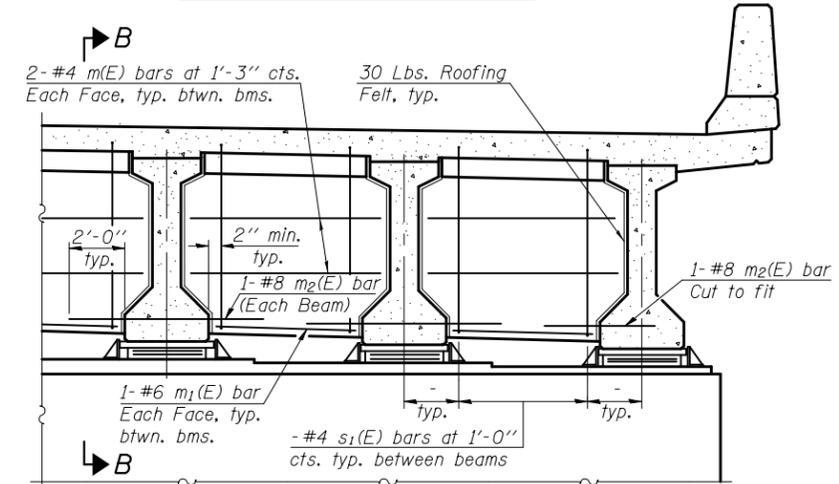


**SECTION C-C
AT PIER**
(Fixed)

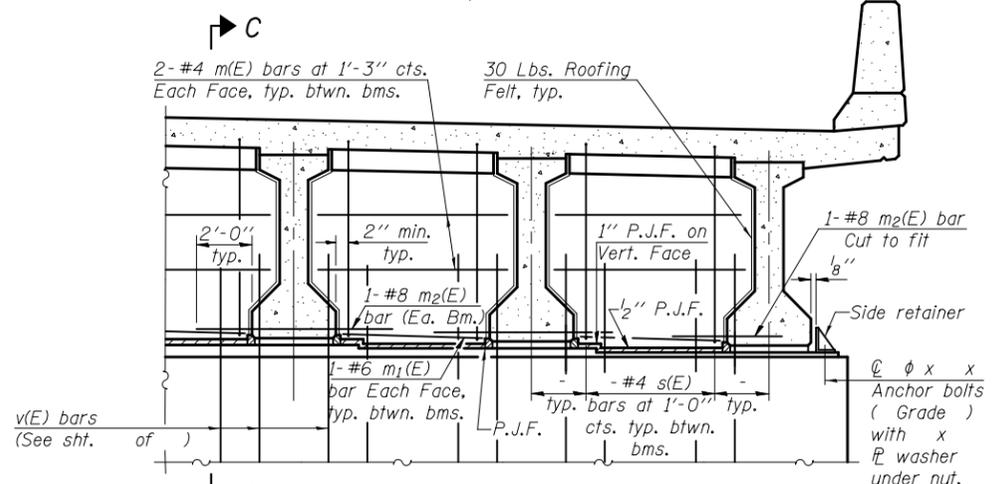
*Tightly fasten the #8 bars together with No. 9 wire ties.



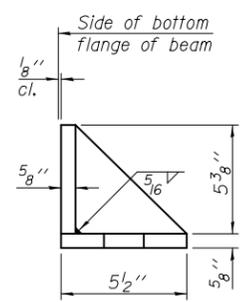
DIAPHRAGM AT ABUTMENT



DIAPHRAGM AT PIER
(Expansion)

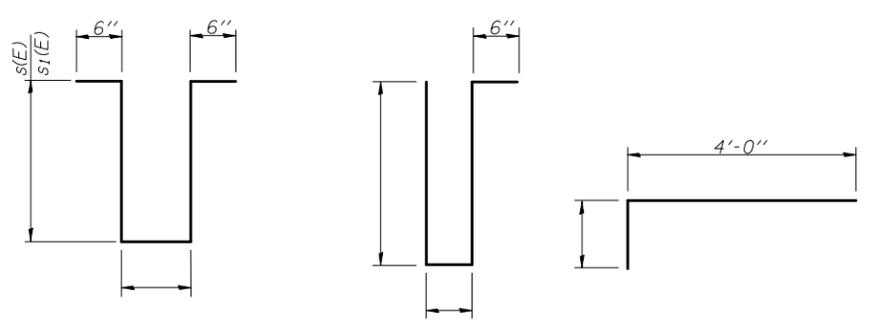
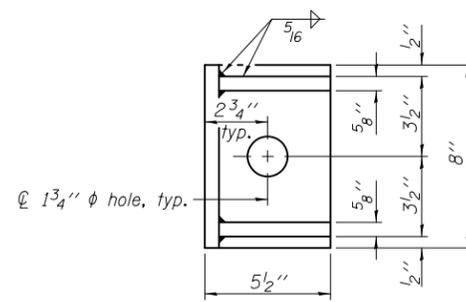


DIAPHRAGM AT PIER
(Fixed)



SIDE RETAINER

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



BARS s(E) & s1(E) BAR s2(E) BAR x(E)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet of .
Concrete in diaphragm is included with Concrete Superstructure on sheet of .
The s(E), s1(E), s2(E) and x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
Horizontal dimensions for Sec. B-B and Sec. C-C are along ϕ of beam unless otherwise noted.
The side retainer shall be galvanized after shop fabrication according to AASHTO M111.
See sheet of for anchor bolt information.

PI-2F

1-27-12

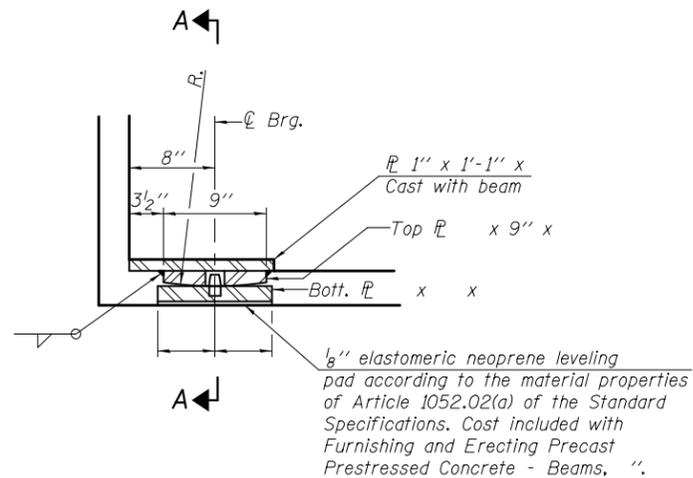
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

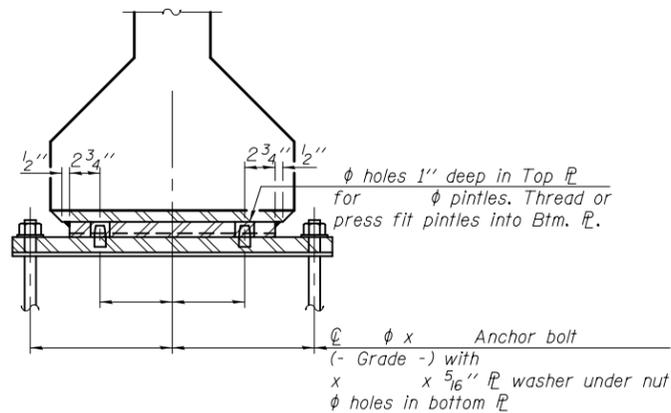
**DIAPHRAGM DETAILS
STRUCTURE NO.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

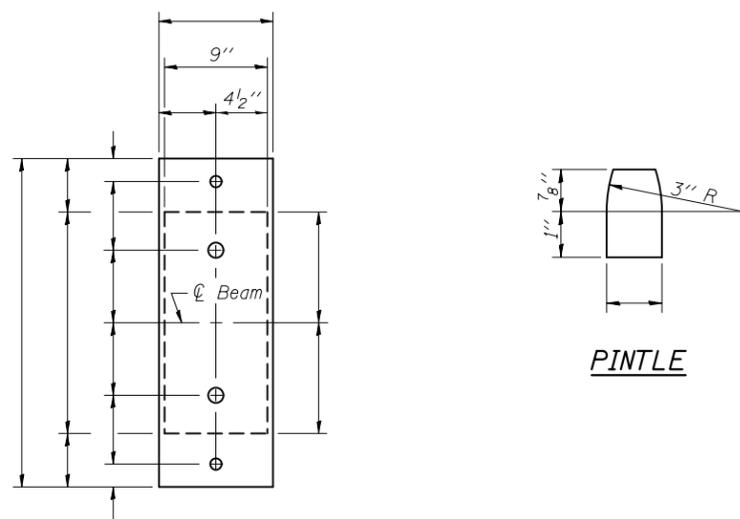


SECTION AT ABUT.



SECTION A-A

FIXED BEARING



PLAN OF TOP & BOTTOM PLATES

PINTLE

Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place and prior to pouring the deck.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 See sheet of for additional details of plate cast with beam.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts ϕ	Each	

PI-2FB

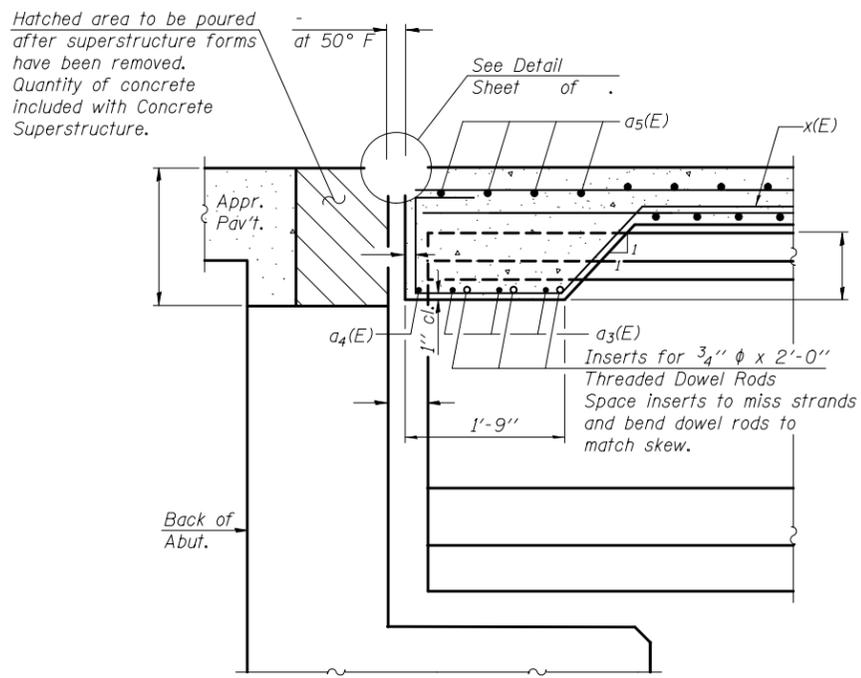
7-1-10

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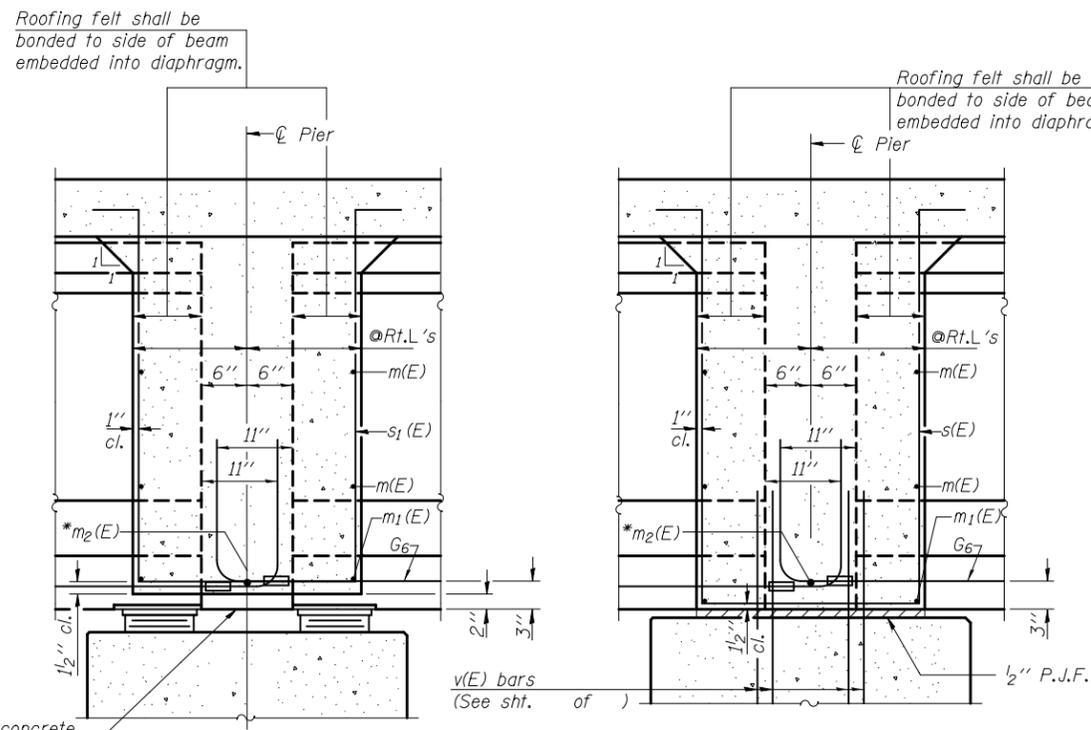
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO.

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



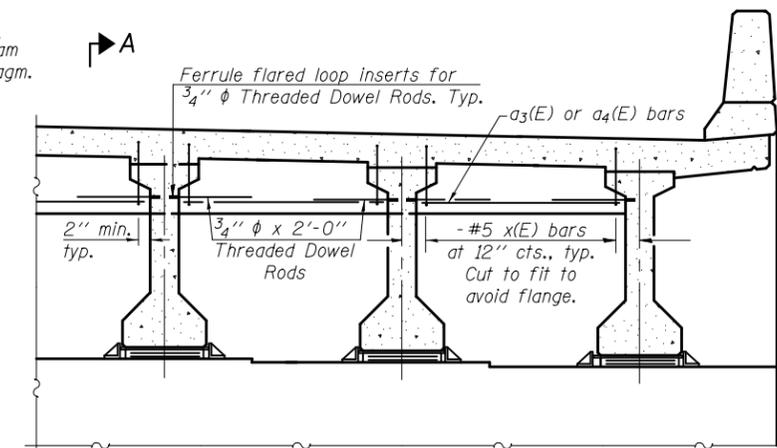
**SECTION A-A
AT ABUTMENT**
(at Rt. Ls)



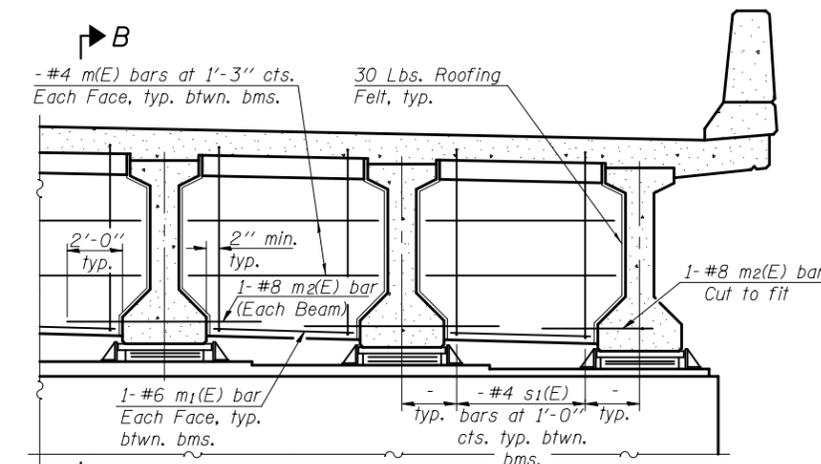
**SECTION B-B
AT PIER**
(Expansion)

**SECTION C-C
AT PIER**
(Fixed)

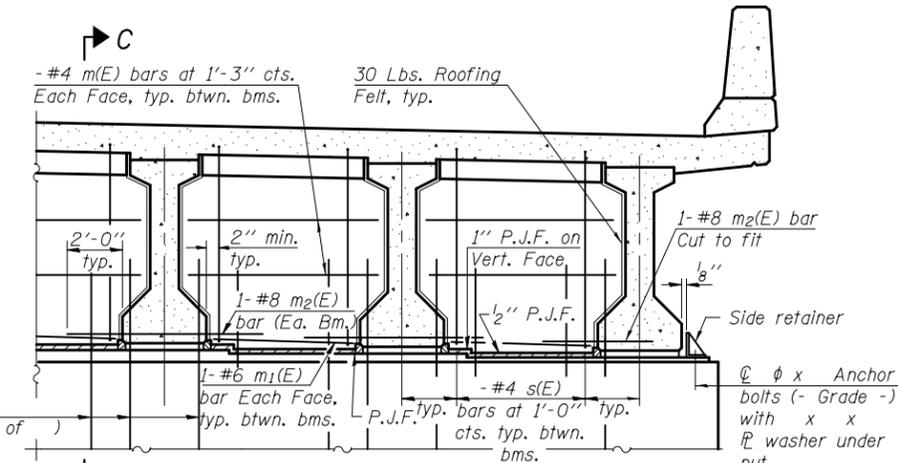
*Tightly fasten the #8 bars together with No. 9 wire ties.



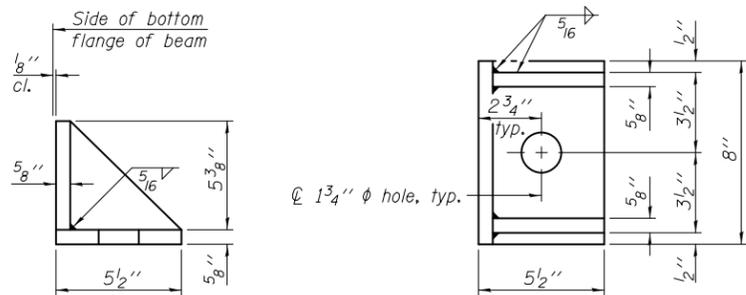
DIAPHRAGM AT ABUTMENT



DIAPHRAGM AT PIER
(Expansion)

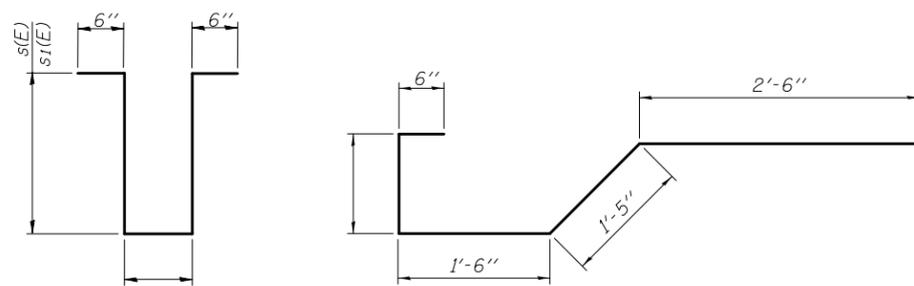


DIAPHRAGM AT PIER
(Fixed)



SIDE RETAINER

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



BARS s(E) & s1(E)

BAR x(E)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet of .
Concrete in diaphragm is included with Concrete Superstructure on sheet of .
The s(E), s1(E) and x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
Horizontal dimensions for Sec. B-B and Sec. C-C are along \mathcal{C} of beam unless otherwise noted.
The side retainer shall be galvanized after shop fabrication according to AASHTO M111.
See sheet of for anchor bolt information.

PI-2J

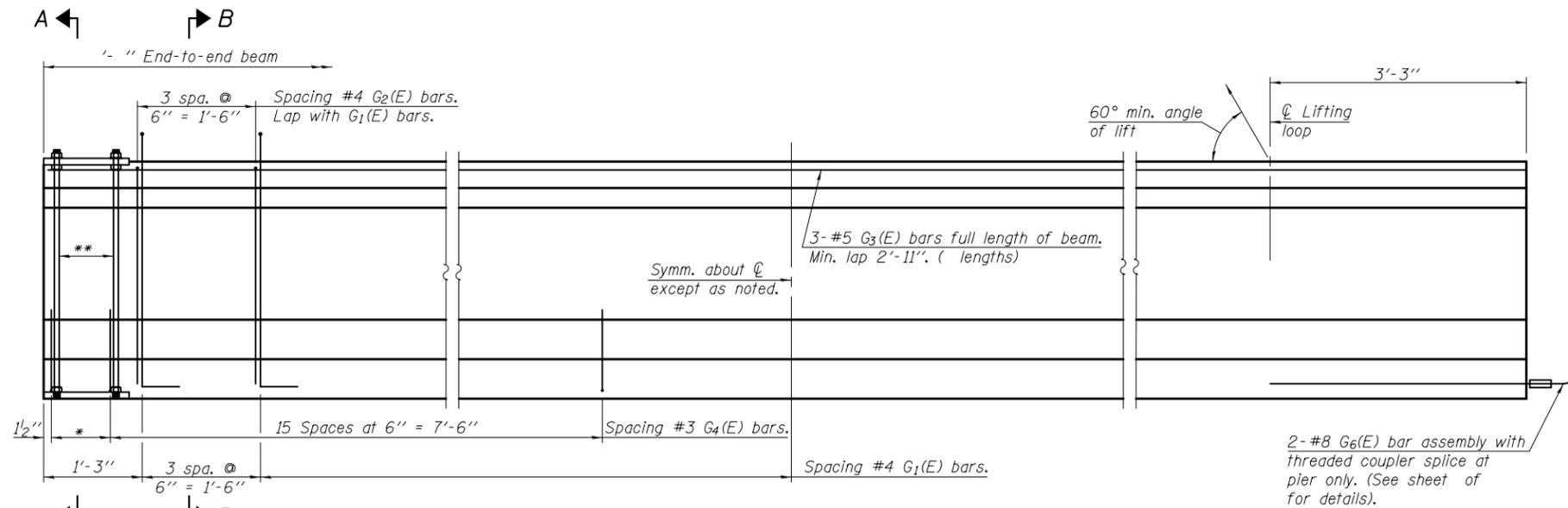
1-28-11

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

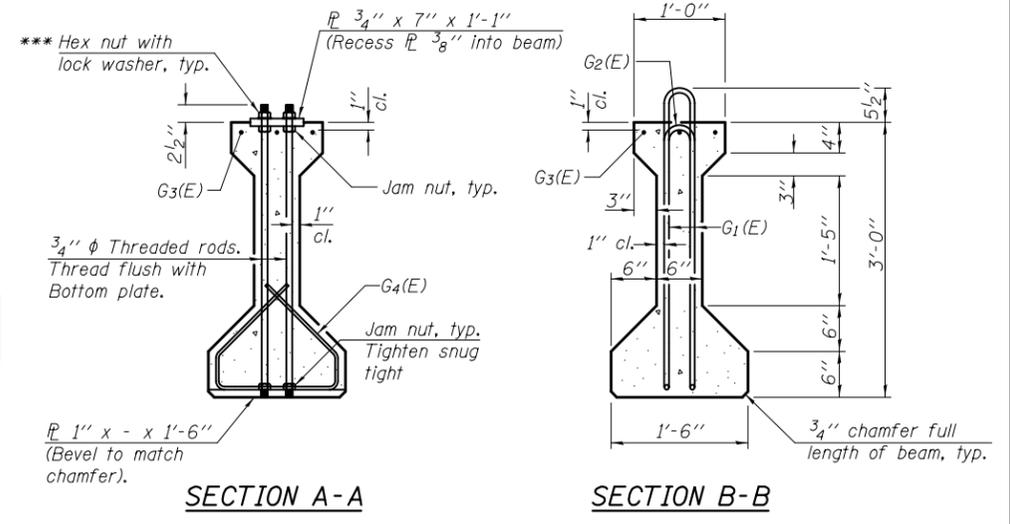
**DIAPHRAGM DETAILS
STRUCTURE NO.**

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



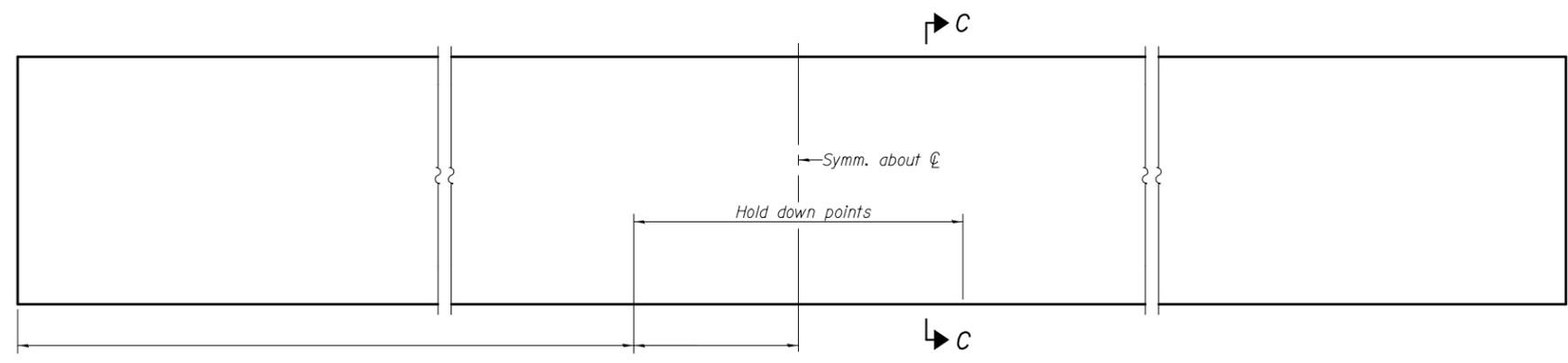
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

- * 3 spaces at 3" = 9"
- ** 4-3/4" φ threaded dowel rods at 3" cts., Each Face
- *** Only tighten sufficiently to compress lock washers

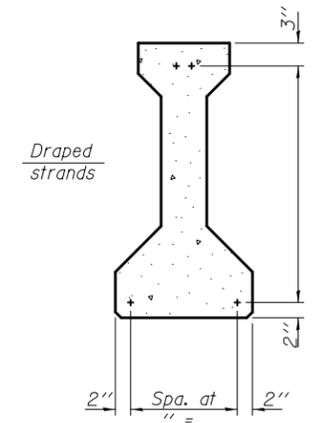


SECTION A-A

SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(1/2" φ 270 ksi strands)

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)		#4	7'-7"	⊏
G ₂ (E)		#4	5'-8"	⊏
G ₃ (E)		#5		⊏
G ₄ (E)		#3	4'-1"	⊏
G ₆ (E)		#8	6'-6"	⊏

Notes:
See sheet of for additional details and Bill of Material.

PI-4-36

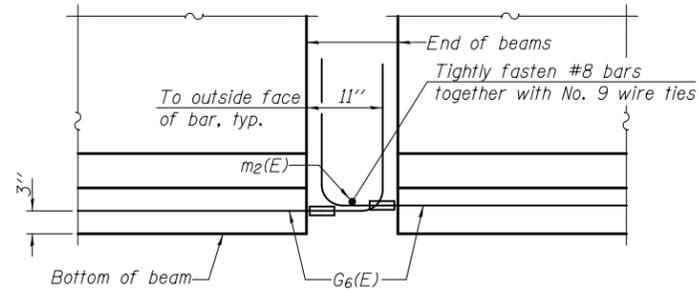
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

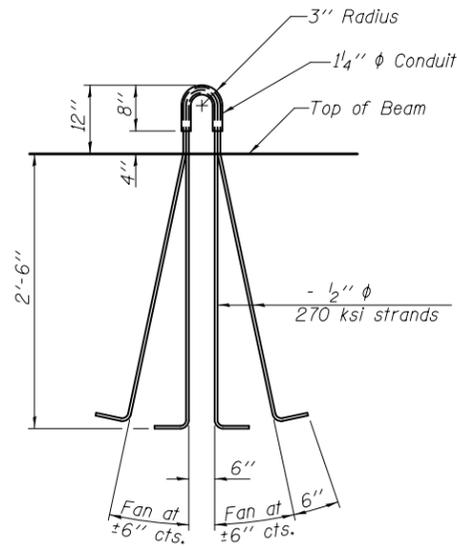
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

36" PPC I-BEAM
STRUCTURE NO.

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



ELEVATION OF BEAM AT PIER



LIFTING LOOP DETAIL

NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, $f'c$, of _____ psi and a release concrete compressive strength, $f'ci$, of _____ psi.

A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt $G_6(E)$ bars when necessary to maintain $1\frac{1}{2}$ " clearance.

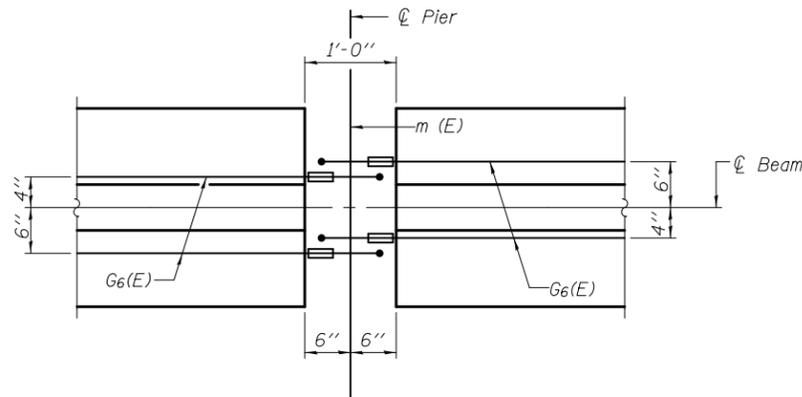
The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

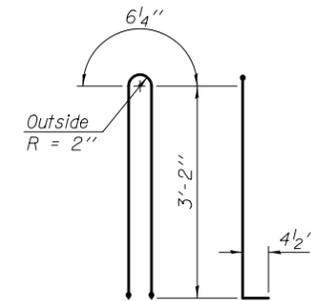
Threaded rods shall be ASTM F 1554 Grade 55.

The $G_6(E)$ bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

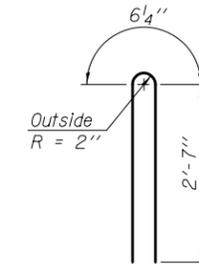
Beams shall not be released from the fabricator until they have attained 45 days of age or older.



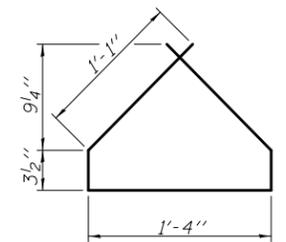
PLAN OF BEAM AT PIER



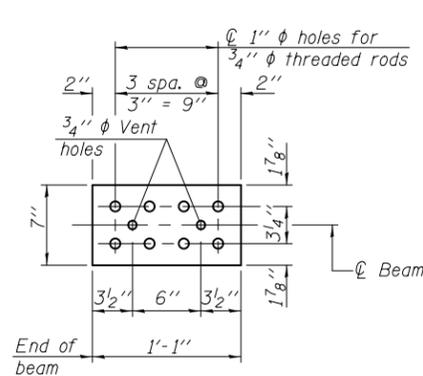
BAR G1(E)



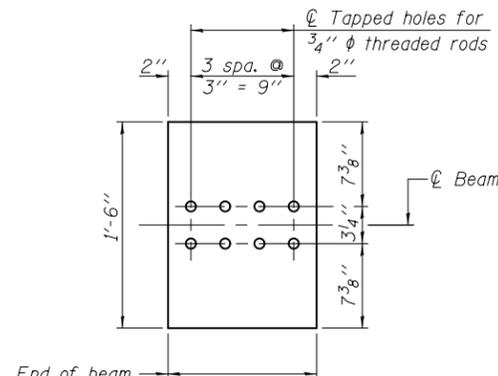
BAR G2(E)



BAR G4(E)

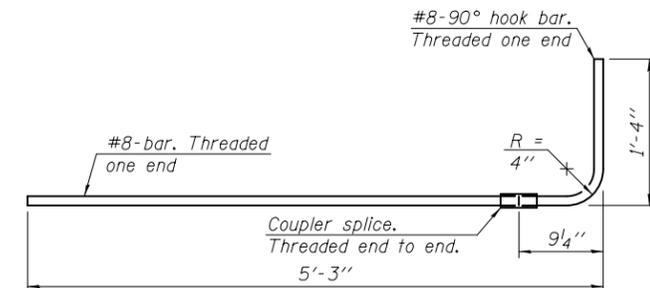


TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.



G6(E) BAR ASSEMBLY

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	

PI-4-36D

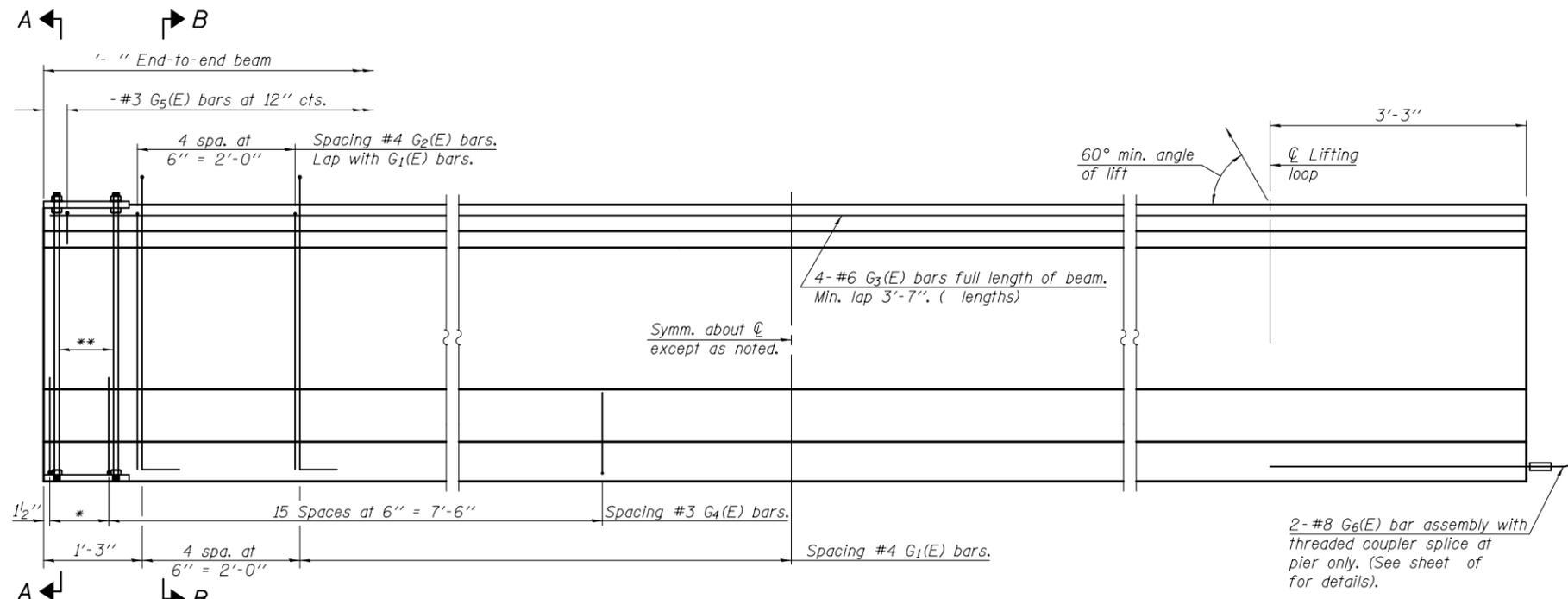
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

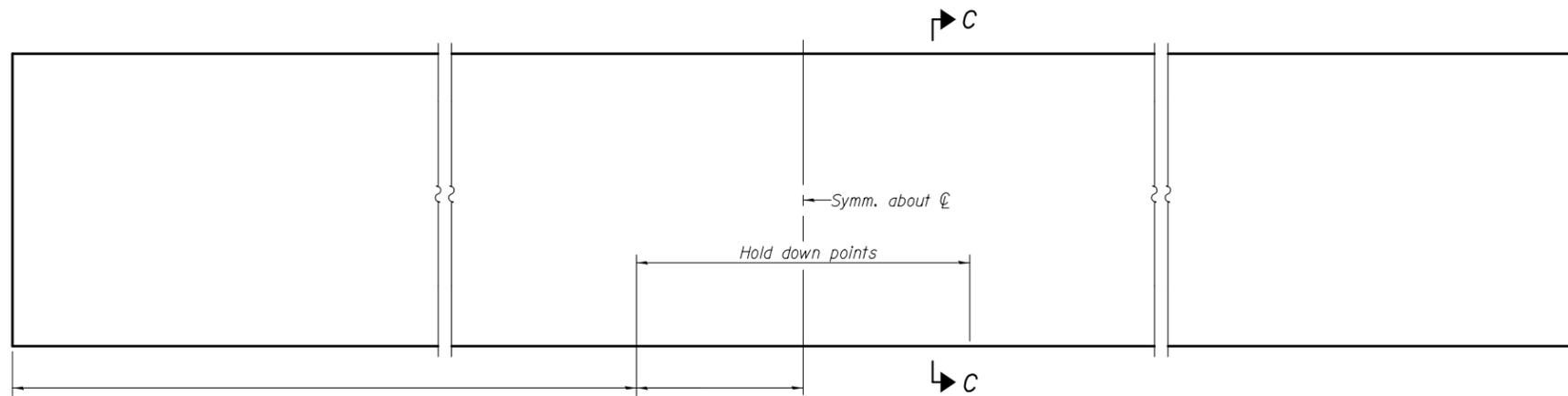
**36" PPC I-BEAM DETAILS
STRUCTURE NO.**

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

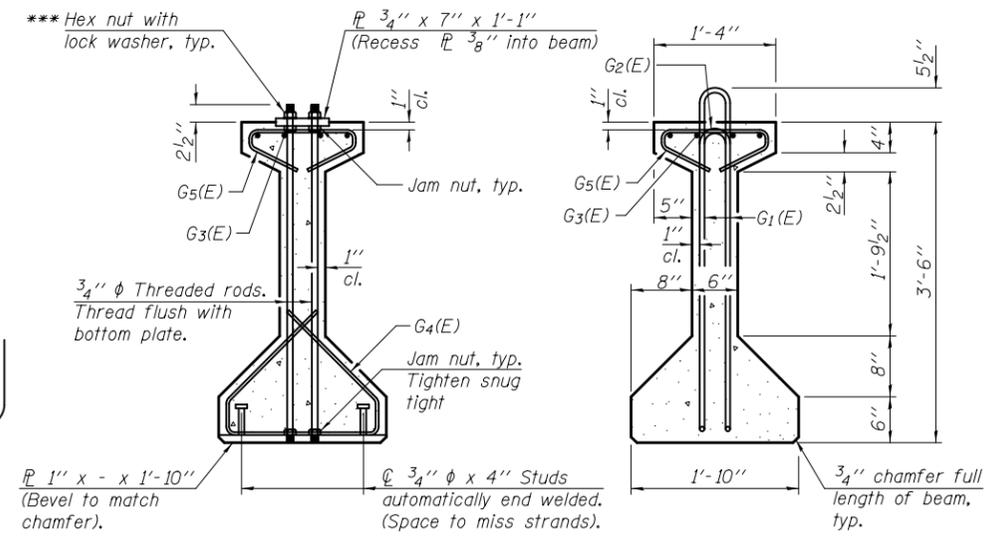


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

- * 3 spaces at 3" = 9"
- ** 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face
- *** Only tighten sufficiently to compress lock washers



ELEVATION OF BEAM
(Showing prestressing steel)



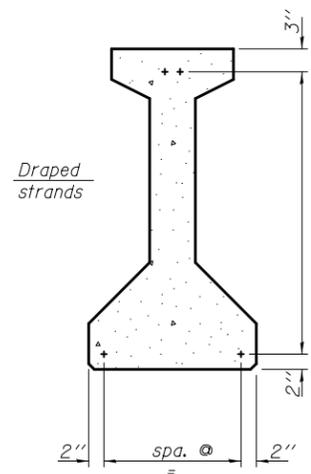
SECTION A-A

SECTION B-B

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)		#4	8'-7"	⌢
G ₂ (E)		#4	6'-8"	⌢
G ₃ (E)		#6		⌢
G ₄ (E)		#3	4'-11"	⌢
G ₅ (E)		#3	2'-6"	⌢
G ₆ (E)		#8	6'-6"	⌢

Notes:
See sheet of for additional details and Bill of Material.



SECTION C-C
(-1/2" ϕ 270 ksi strands)

PI-4-42

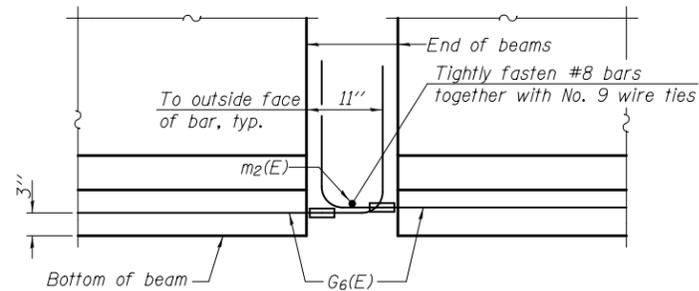
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

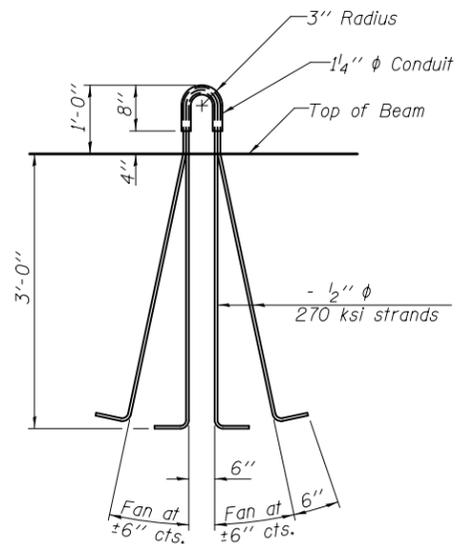
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

42" PPC I-BEAM
STRUCTURE NO.

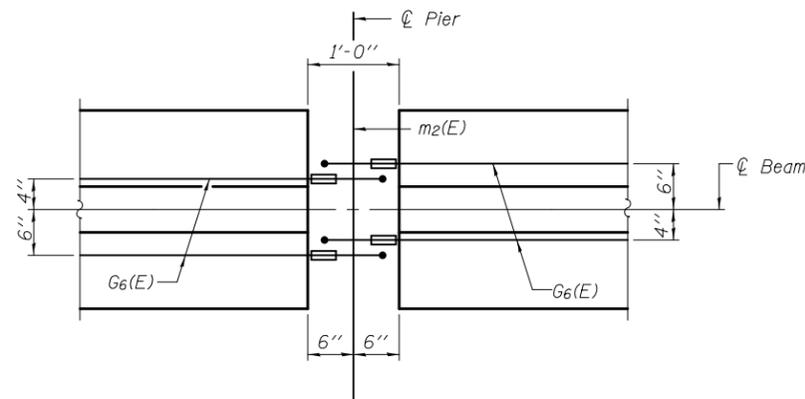
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



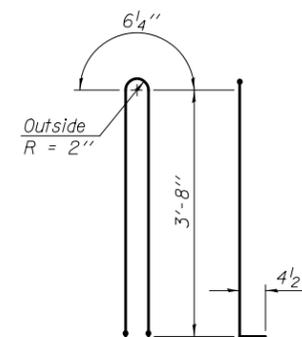
ELEVATION OF BEAM AT PIER



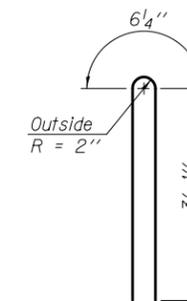
LIFTING LOOP DETAIL



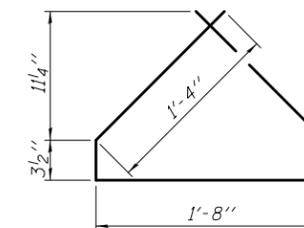
PLAN OF BEAM AT PIER



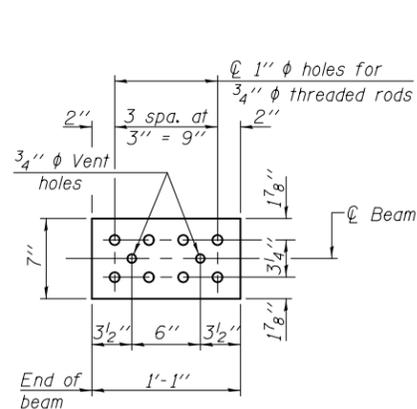
BAR G1(E)



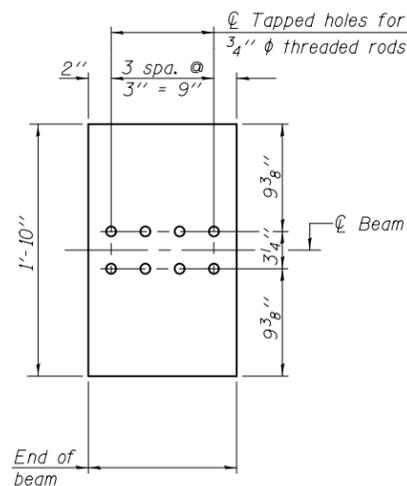
BAR G2(E)



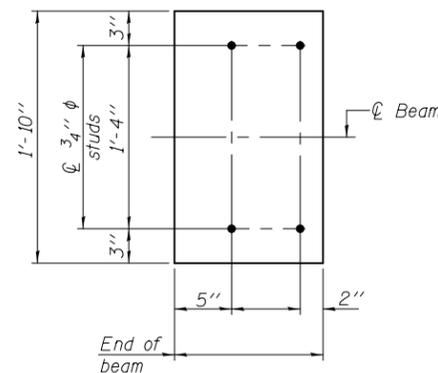
BAR G4(E)



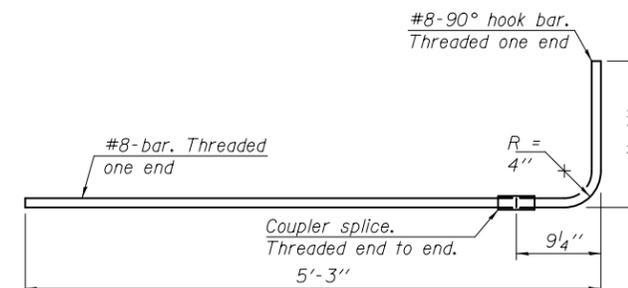
TOP PLATE



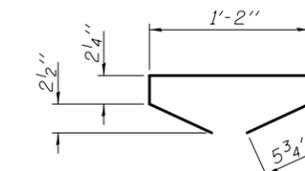
**BOTTOM PLATE
(Showing threaded rods)**



**BOTTOM PLATE
(Showing studs)**



G6(E) BAR ASSEMBLY



BAR G5(E)

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, $f'c$, of psi and a release concrete compressive strength, $f'ci$, of psi.

A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt $G_6(E)$ bars when necessary to maintain 1 1/2" clearance.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

The $G_6(E)$ bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

Beams shall not be released from the fabricator until they have attained 45 days of age or older.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	

PI-4-42D

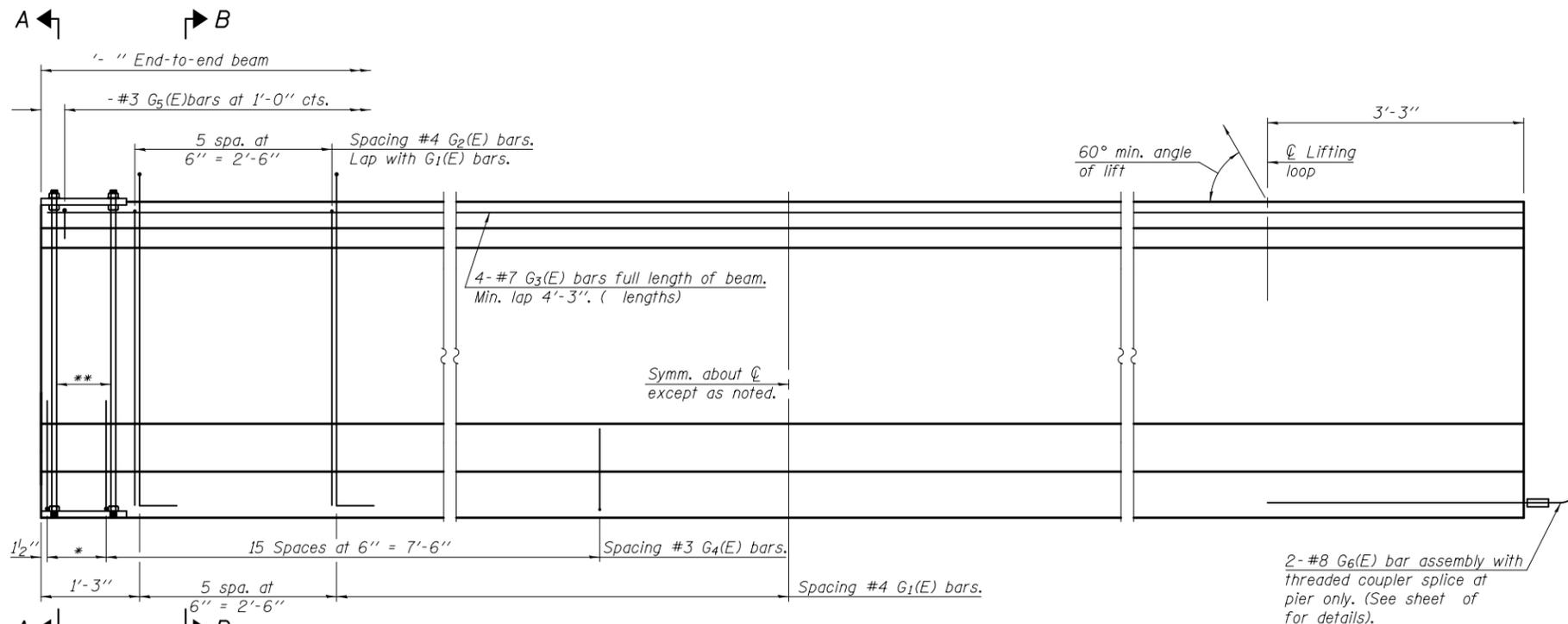
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**42" PPC I-BEAM DETAILS
STRUCTURE NO.**

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

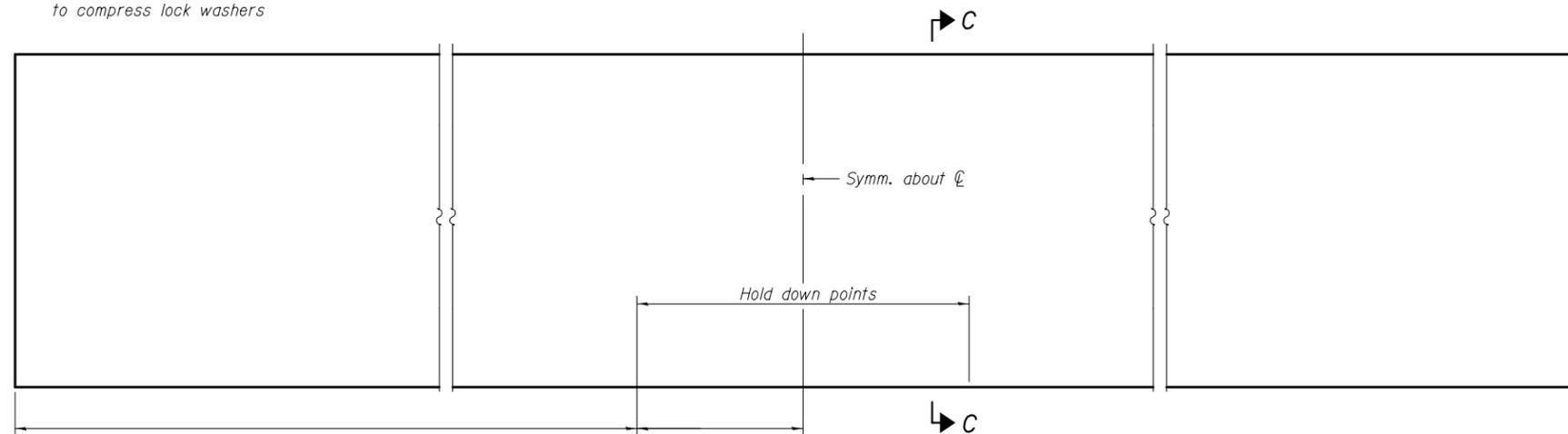


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

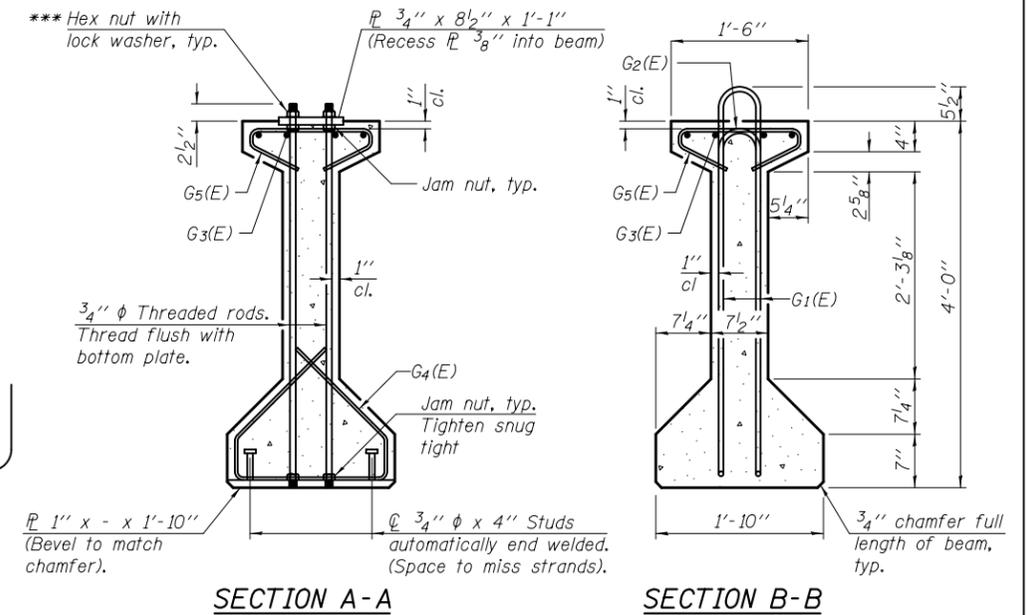
* 3 spaces at 3" = 9"

** 4-3/4" φ threaded dowel rods at 3" cts., Each Face

*** Only tighten sufficiently to compress lock washers



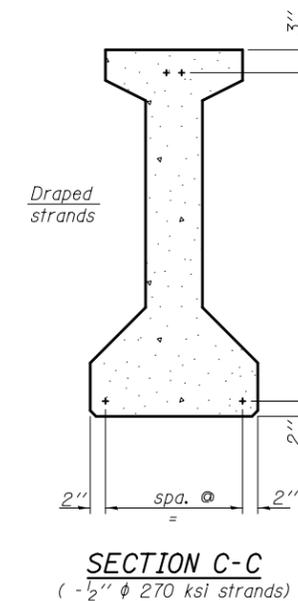
ELEVATION OF BEAM
(Showing prestressing steel)



BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)		#4	9'-8"	⊏
G ₂ (E)		#4	7'-11"	⊏
G ₃ (E)		#7		⊏
G ₄ (E)		#3	5'-3"	⊏
G ₅ (E)		#3	2'-9"	⊏
G ₆ (E)		#8	6'-6"	⊏

Notes:
See sheet of for additional details and Bill of Material.



PI-4-48

1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

48" PPC I-BEAM
STRUCTURE NO.

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

NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

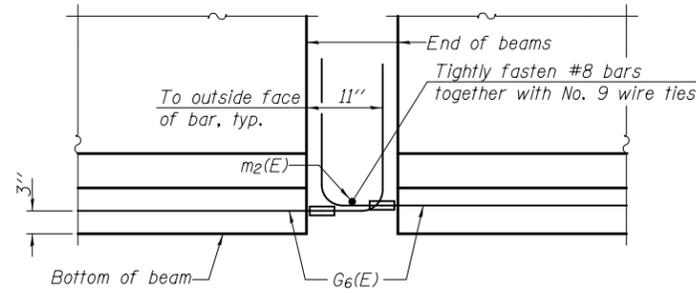
The beams shall have a final concrete compressive strength, $f'c$, of _____ psi and a release concrete compressive strength, $f'ci$, of _____ psi.

A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt $G_6(E)$ bars when necessary to maintain $1\frac{1}{2}$ " clearance.

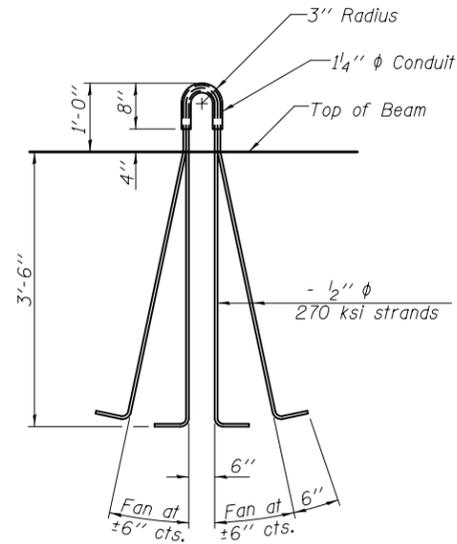
The top and bottom plates shall be AASHTO M270 Grade 50. The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55.

The $G_6(E)$ bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

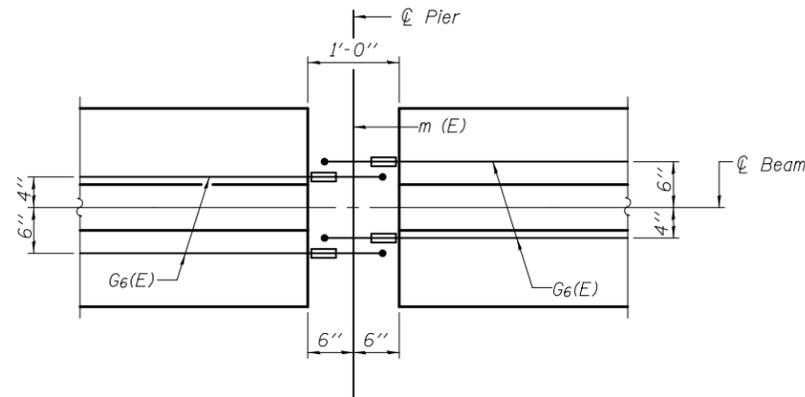
Beams shall not be released from the fabricator until they have attained 45 days of age or older.



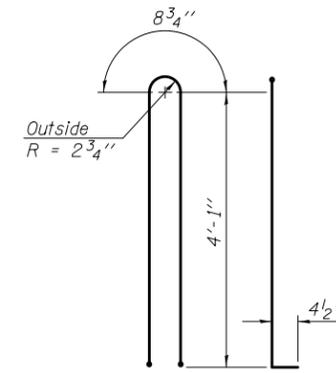
ELEVATION OF BEAM AT PIER



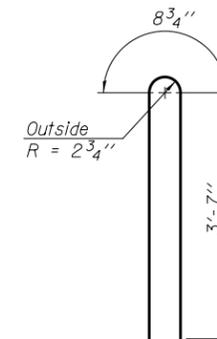
LIFTING LOOP DETAIL



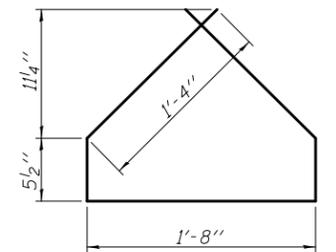
PLAN OF BEAM AT PIER



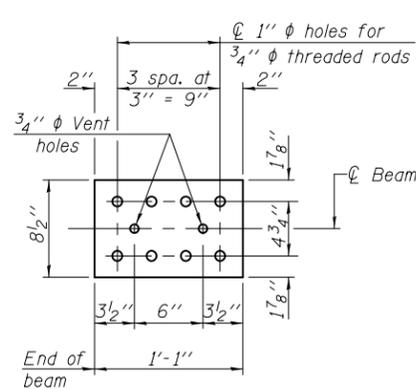
BAR G1(E)



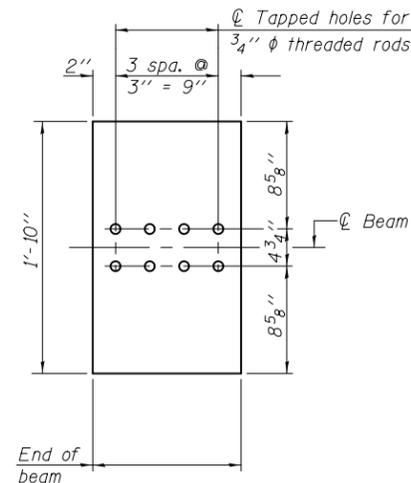
BAR G2(E)



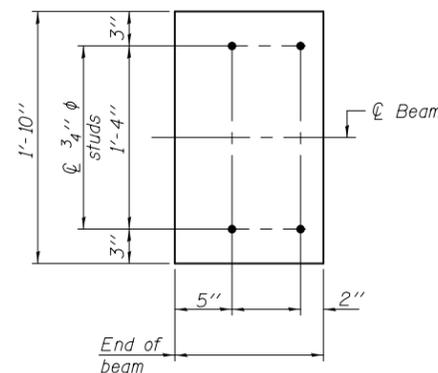
BAR G4(E)



TOP PLATE

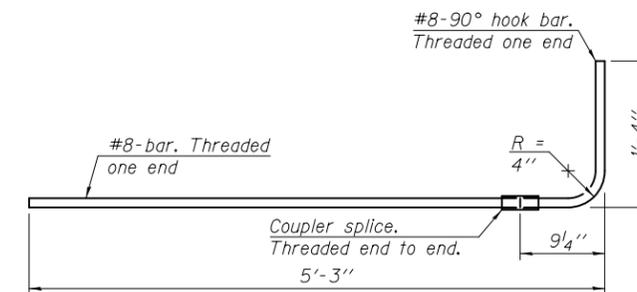


BOTTOM PLATE
(Showing threaded rods)

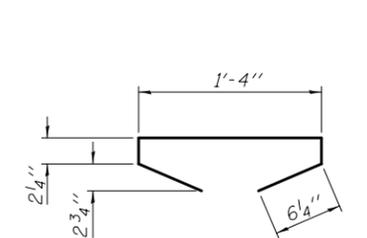


BOTTOM PLATE
(Showing studs)

See bearing details for pintle hole locations when required.



G6(E) BAR ASSEMBLY



BAR G5(E)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	

PI-4-48D

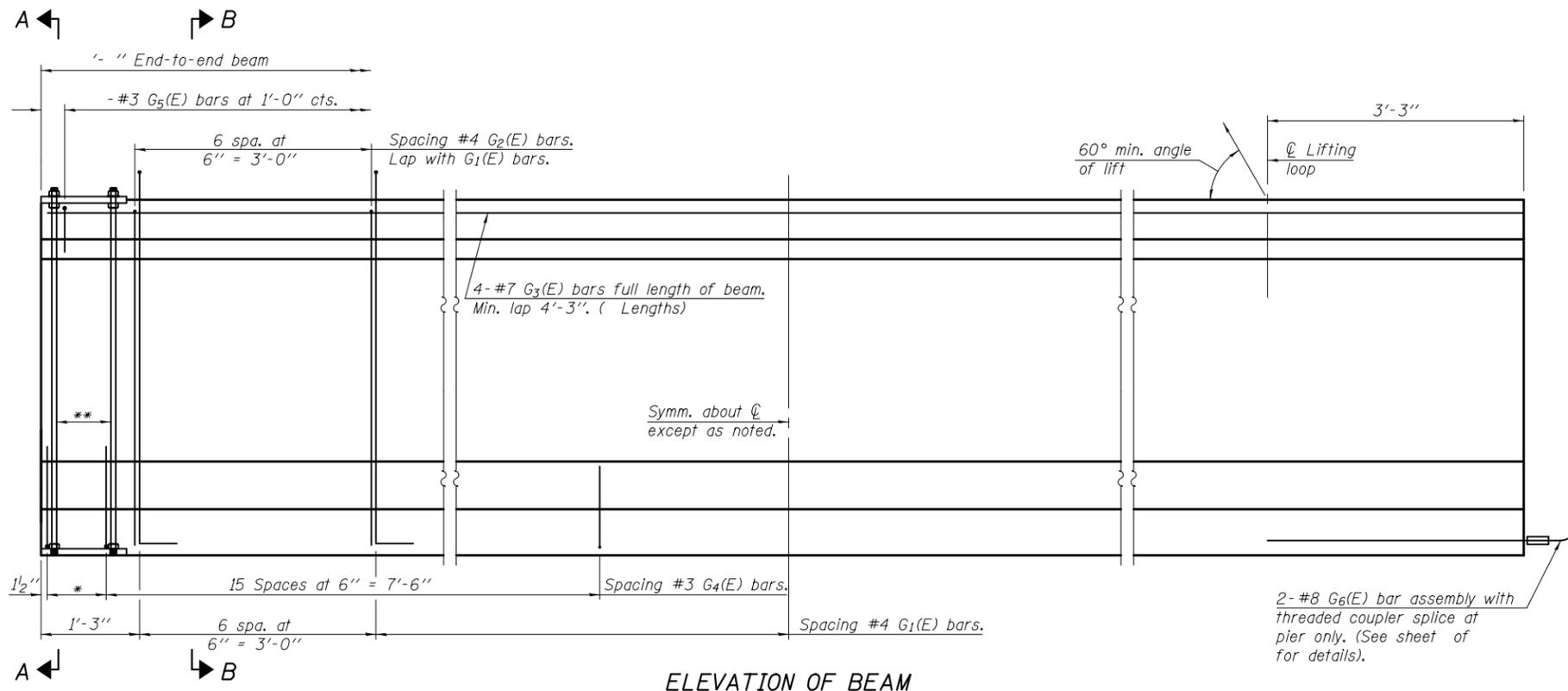
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

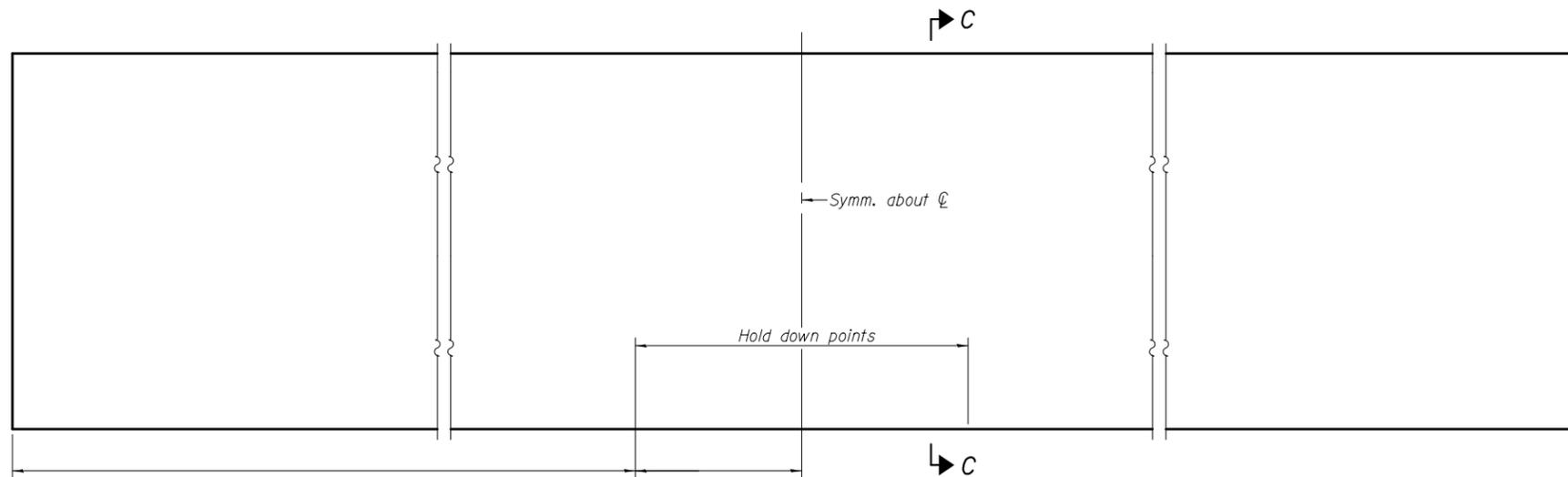
48" PPC I-BEAM DETAILS
STRUCTURE NO.

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

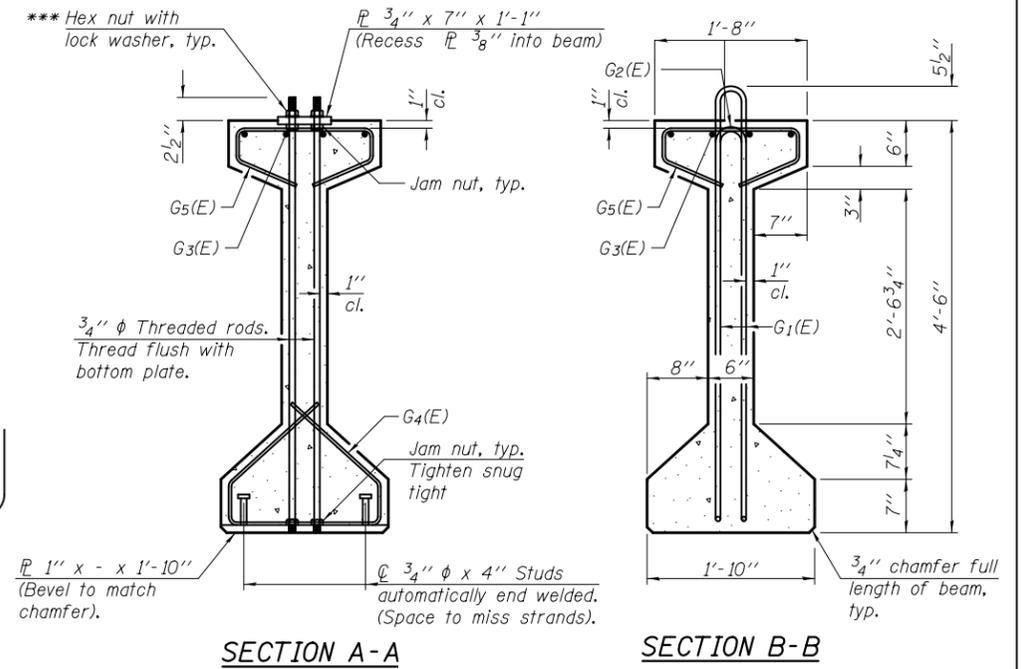


ELEVATION OF BEAM
(Showing reinforcement & dimensions)

- * 3 spaces at 3" = 9"
- ** 4-3/4" ϕ threaded dowel rods at 3" cts., Each Face
- *** Only tighten sufficiently to compress lock washers



ELEVATION OF BEAM
(Showing prestressing steel)



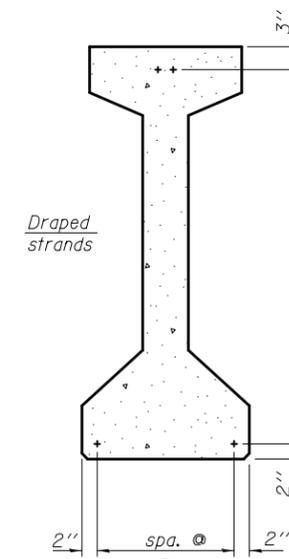
SECTION A-A

SECTION B-B

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G ₁ (E)		#4	10'-7"	∩L
G ₂ (E)		#4	8'-8"	∩
G ₃ (E)		#7		—
G ₄ (E)		#3	4'-11"	∩
G ₅ (E)		#3	3'-5"	∩
G ₆ (E)		#8	6'-6"	U

Notes:
See sheet of for additional details and Bill of Material.



SECTION C-C
(-1/2" ϕ 270 ksi strands)

PI-4-54

1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

54" PPC I-BEAM
STRUCTURE NO.

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

NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'_c , of psi and a release concrete compressive strength, f'_{ci} , of psi.

A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt $G_6(E)$ bars when necessary to maintain $1\frac{1}{2}$ " clearance.

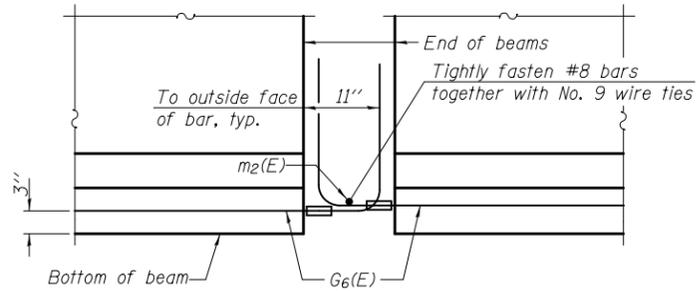
The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

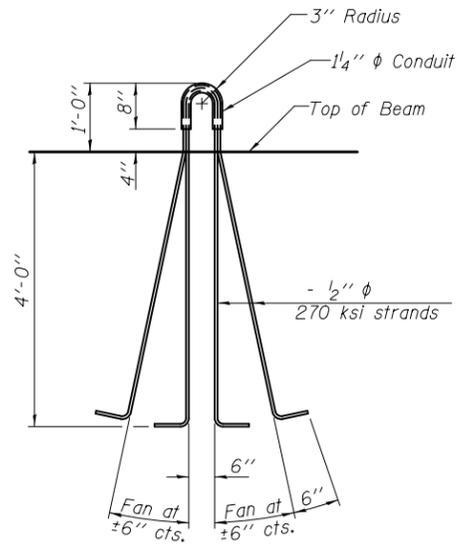
Threaded rods shall be ASTM F 1554 Grade 55.

The $G_6(E)$ bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

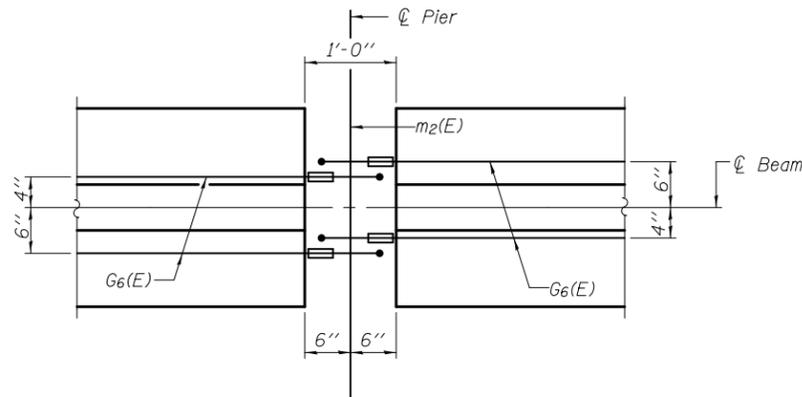
Beams shall not be released from the fabricator until they have attained 45 days of age or older.



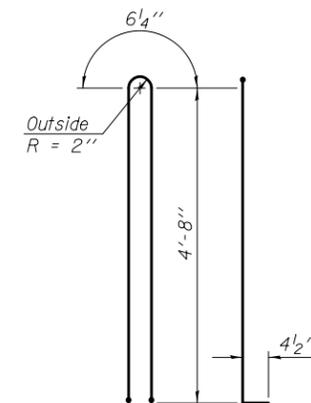
ELEVATION OF BEAM AT PIER



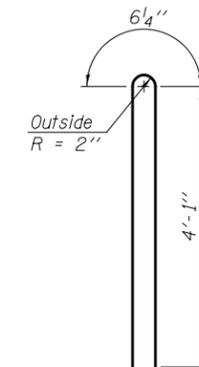
LIFTING LOOP DETAIL



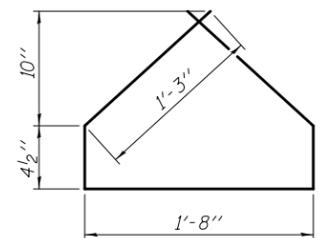
PLAN OF BEAM AT PIER



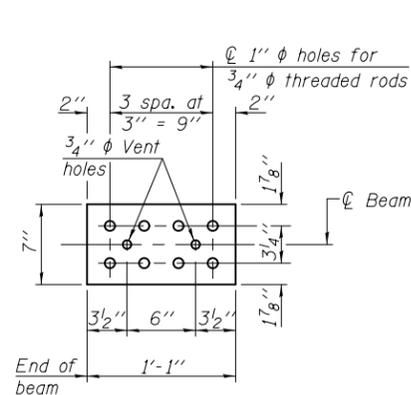
BAR G1(E)



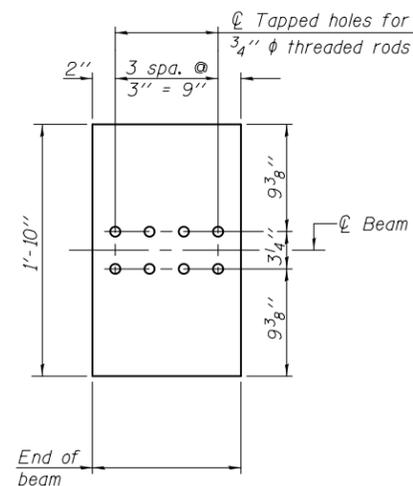
BAR G2(E)



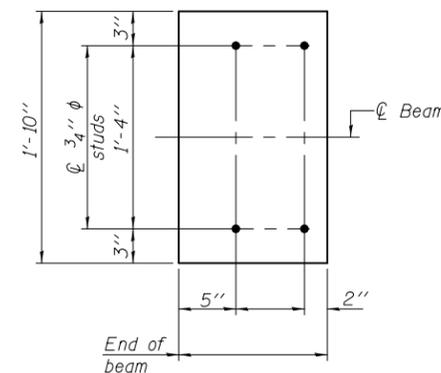
BAR G4(E)



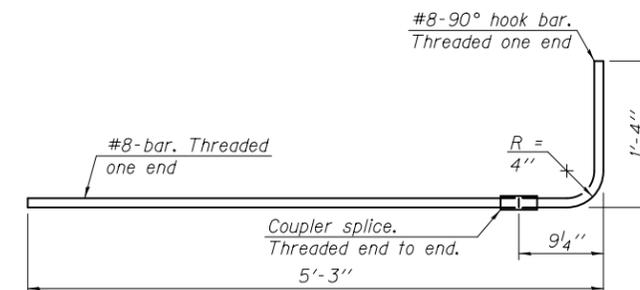
TOP PLATE



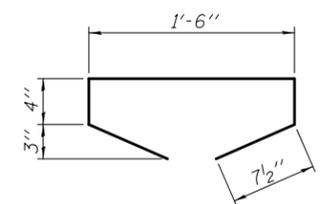
BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



G6(E) BAR ASSEMBLY



BAR G5(E)

See bearing details for pintle hole locations when required.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	

PI-4-54D

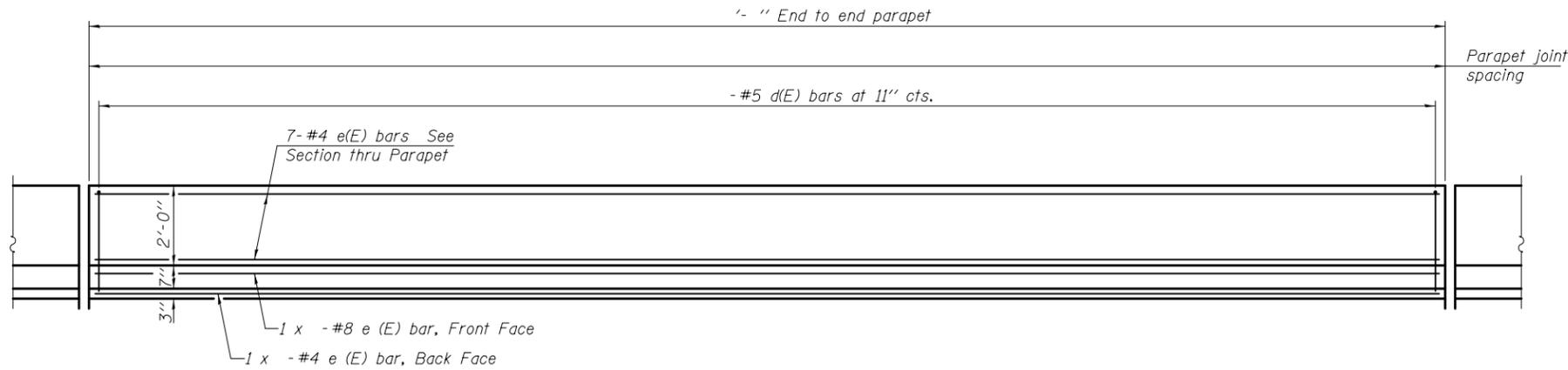
1-28-16

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
		CHECKED -	REVISD -
	PLOT SCALE =	DRAWN -	REVISD -
	PLOT DATE =	CHECKED -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

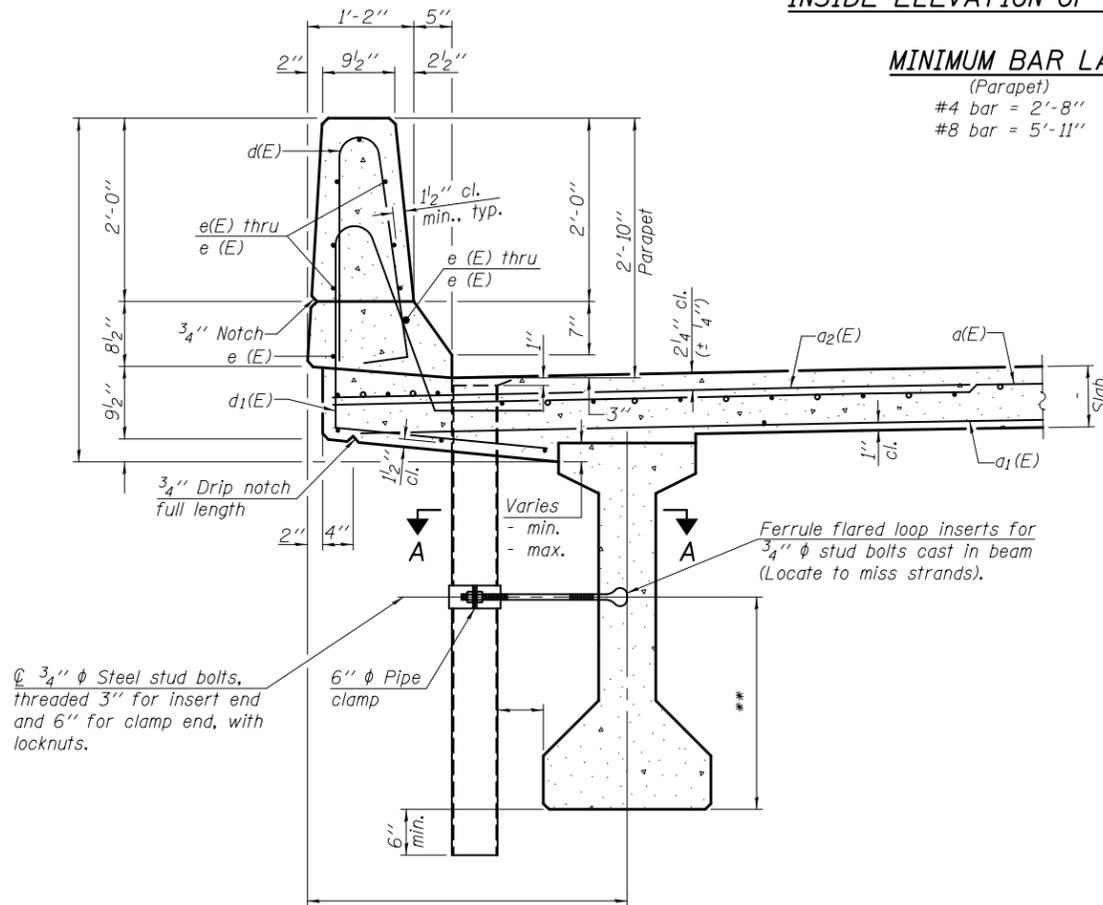
**54" PPC I-BEAM DETAILS
STRUCTURE NO.**

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



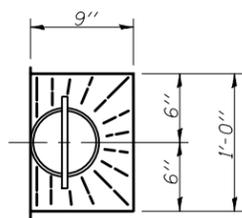
INSIDE ELEVATION OF PARAPET

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

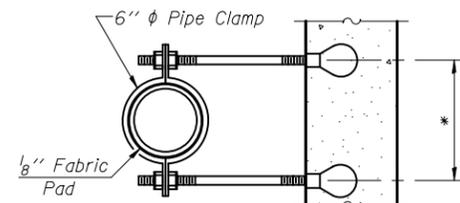


SECTION THRU PARAPET

**For insert locations See sheet of

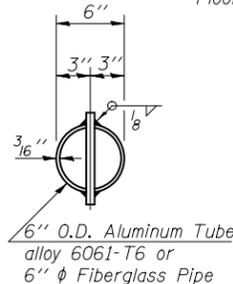


TOP PLAN



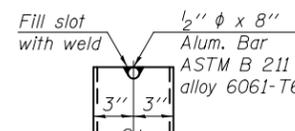
SECTION A-A

*Dimension as required by Pipe Clamp

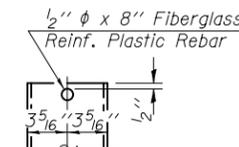


TOP PLAN

(Showing Aluminum Tube)

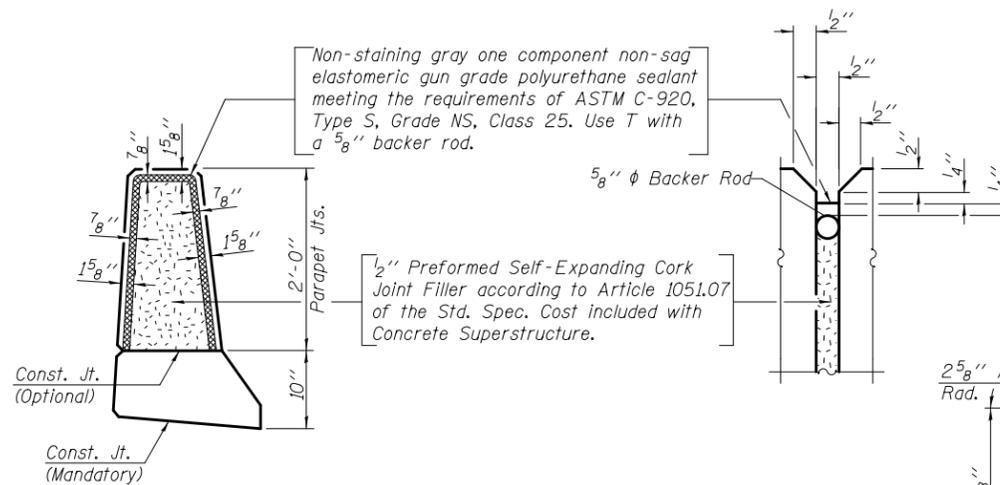


ALUMINUM TUBE

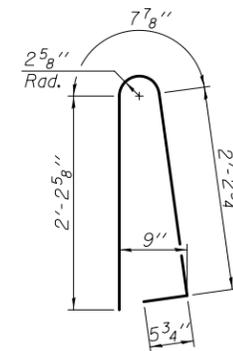


FIBERGLASS PIPE

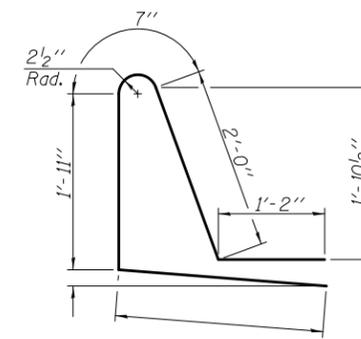
Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
 The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.



PARAPET JOINT DETAILS



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)				
a1(E)				
a2(E)		#6	6'-6"	
a3(E)				
a4(E)				
a5(E)				
b(E)		#5		
b1(E)		#6		
b2(E)				
d(E)		#5	5'-7"	
d1(E)		#5		
e(E)		#4		
e1(E)		#4		
m(E)		#4		
m1(E)		#6		
s(E)		#4		
x(E)				
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PI-D1

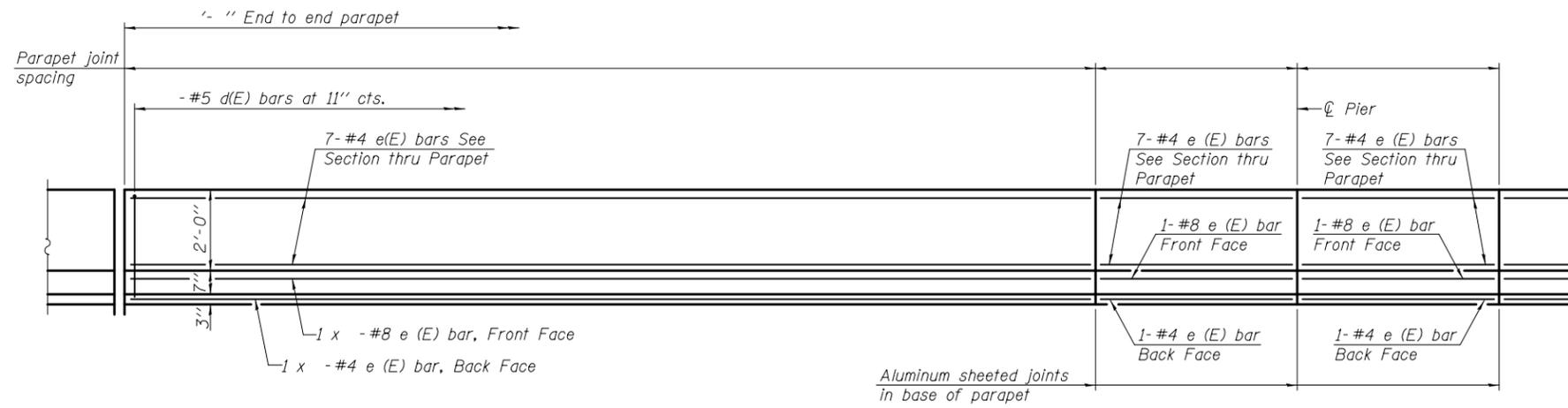
6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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	PLOT DATE =	CHECKED -	REVISED -

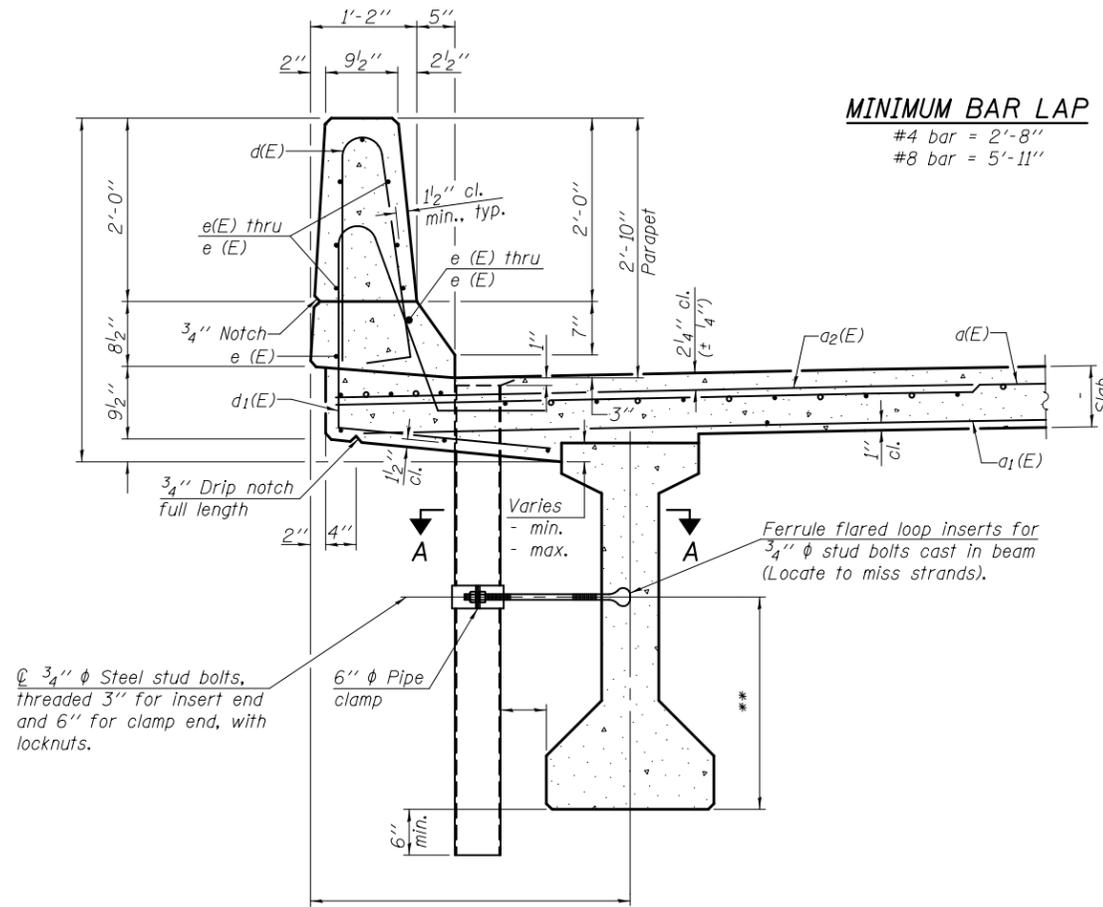
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
 STRUCTURE NO.

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

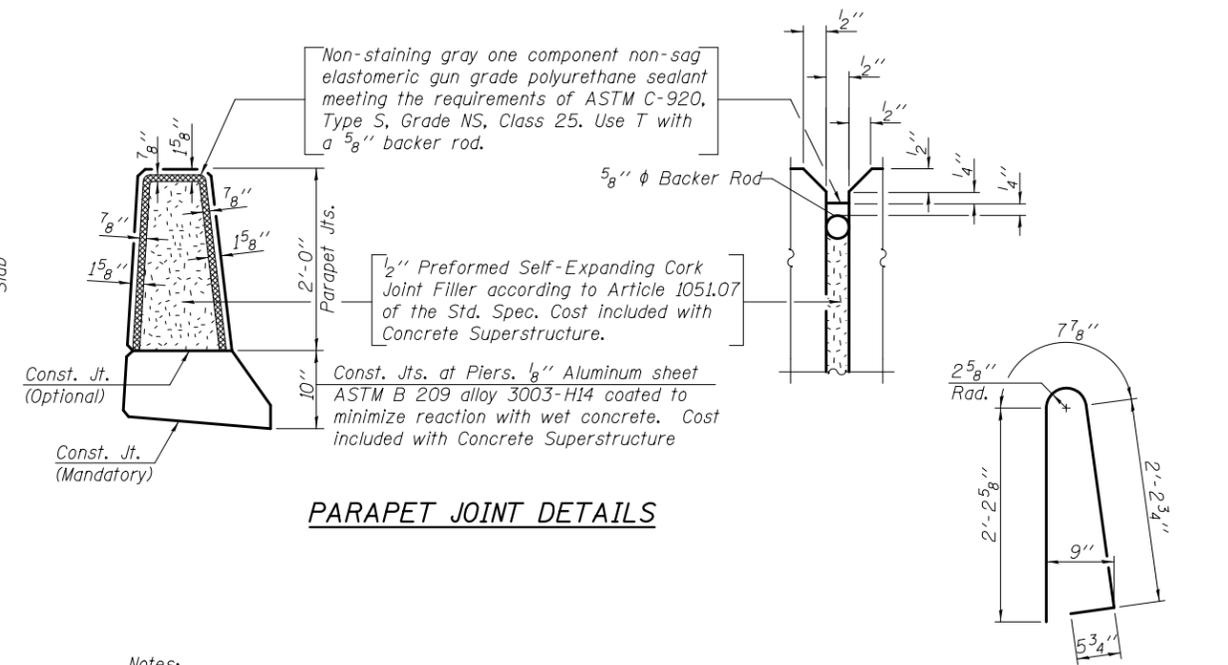


INSIDE ELEVATION OF PARAPET



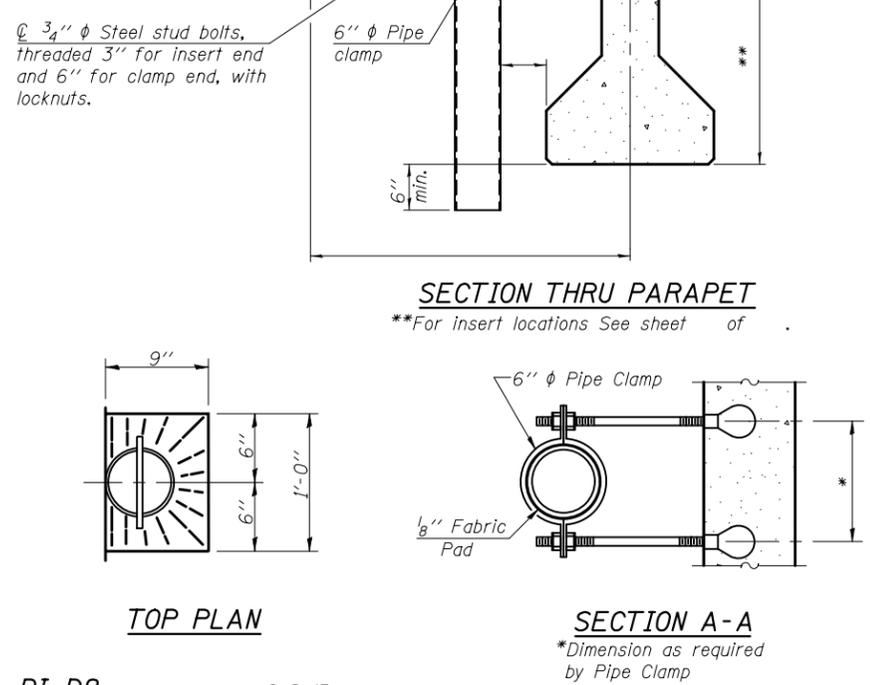
SECTION THRU PARAPET

**For insert locations See sheet of



PARAPET JOINT DETAILS

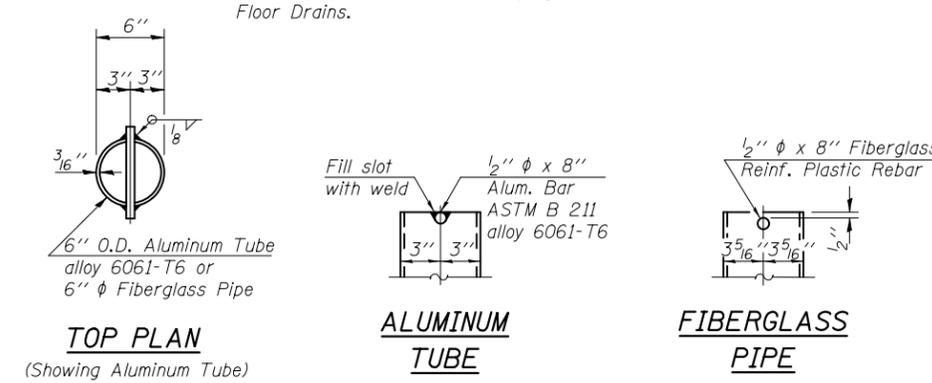
Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
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 The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.



TOP PLAN

SECTION A-A

*Dimension as required by Pipe Clamp

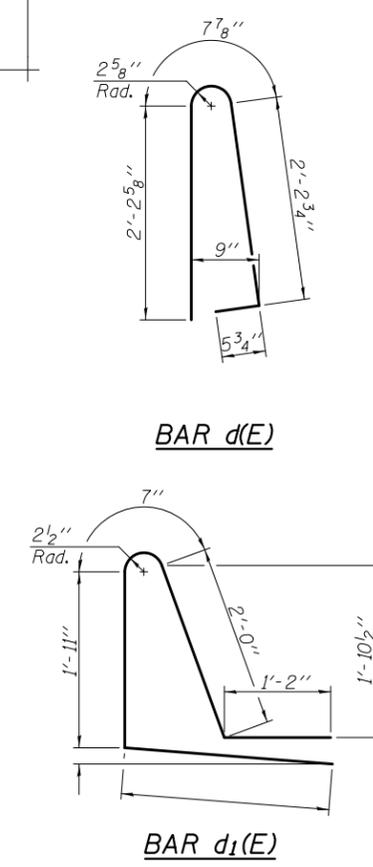


TOP PLAN

(Showing Aluminum Tube)

ALUMINUM TUBE

FIBERGLASS PIPE



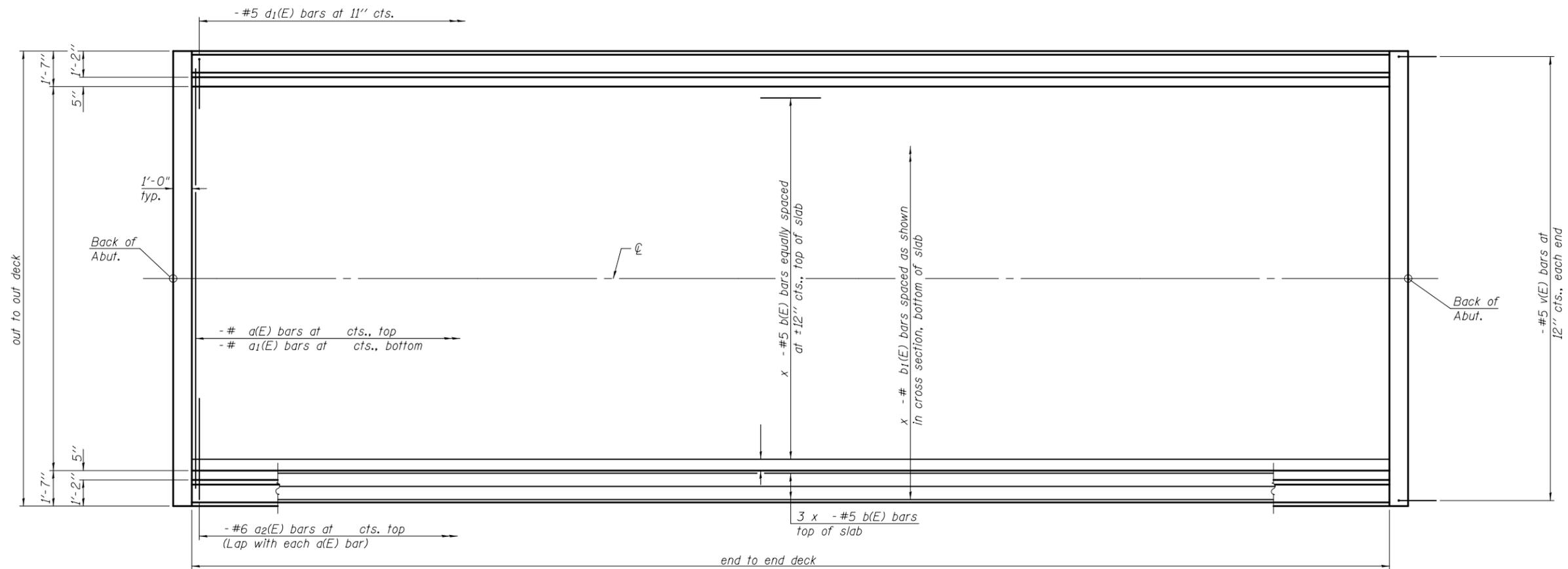
BAR d(E)

BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)				
a1(E)				
a2(E)		#6	6'-6"	
a3(E)				
a4(E)				
a5(E)				
b(E)		#5		
b1(E)		#6		
b2(E)				
c(E)				
d(E)		#5	5'-7"	
d1(E)		#5		
e(E)		#4		
e1(E)		#4		
f(E)				
g(E)				
h(E)				
m(E)		#4		
m1(E)		#6		
m2(E)		#8		
n(E)				
s(E)		#4		
t(E)				
x(E)				
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

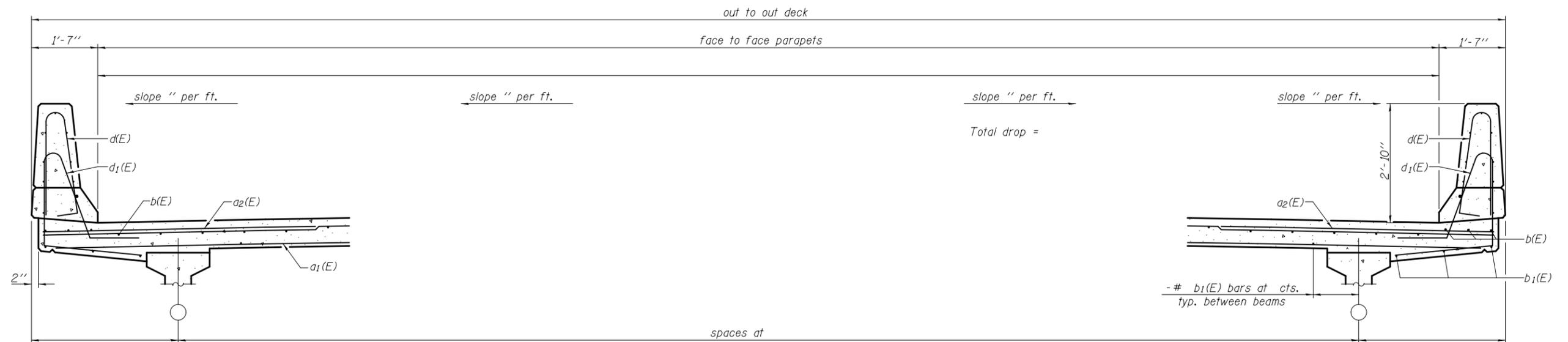


MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN

Notes:
 See Sheet of for superstructure details and Bill of Material.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet of for parapet reinforcement.



CROSS SECTION

(Looking)

PII-1-0

6-8-15

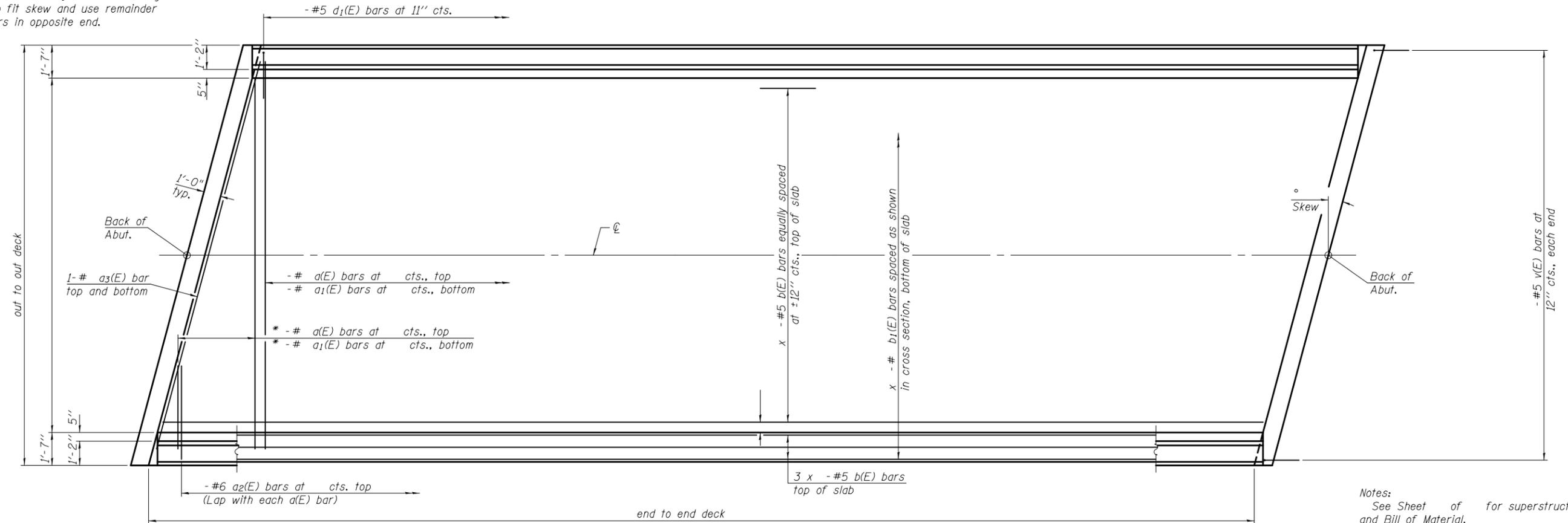
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
 STRUCTURE NO.**

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

* Order a(E) and a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



Notes:
See Sheet of for superstructure details
and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See Sheet of for parapet reinforcement.

MINIMUM BAR LAP
#5 bar = 3'-6"

PLAN



CROSS SECTION
(Looking)

PII-1-L

6-8-15

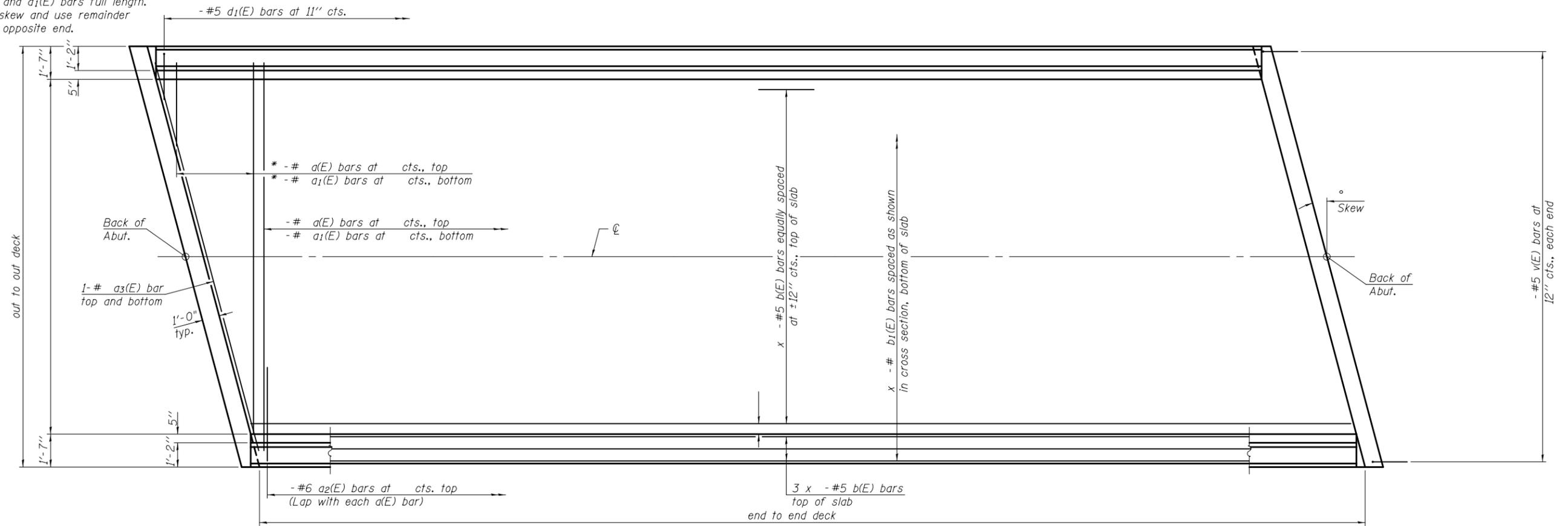
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	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

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

* Order a(E) and a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

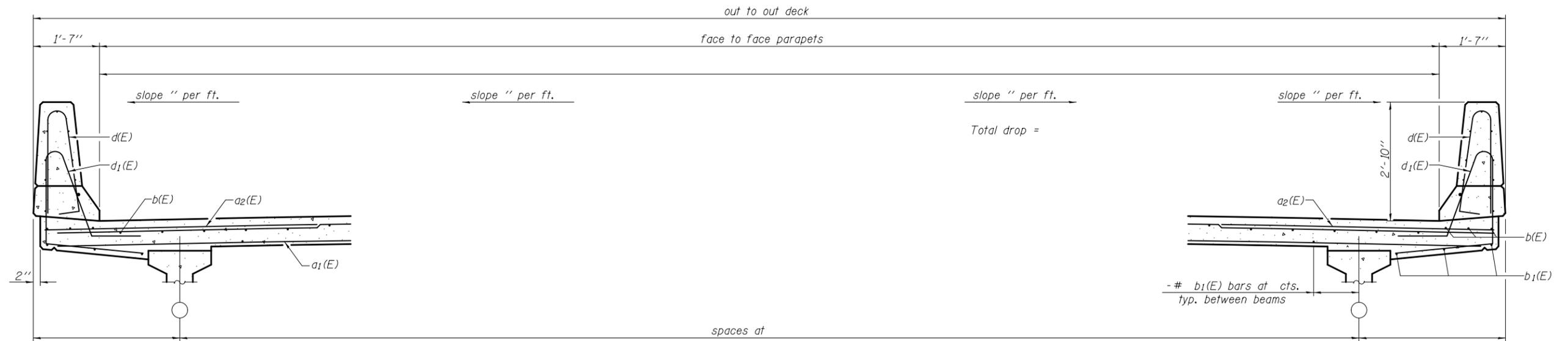


MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN

Notes:
See Sheet of for superstructure details
and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See Sheet of for parapet reinforcement.



CROSS SECTION

(Looking)

PII-1-R

6-8-15

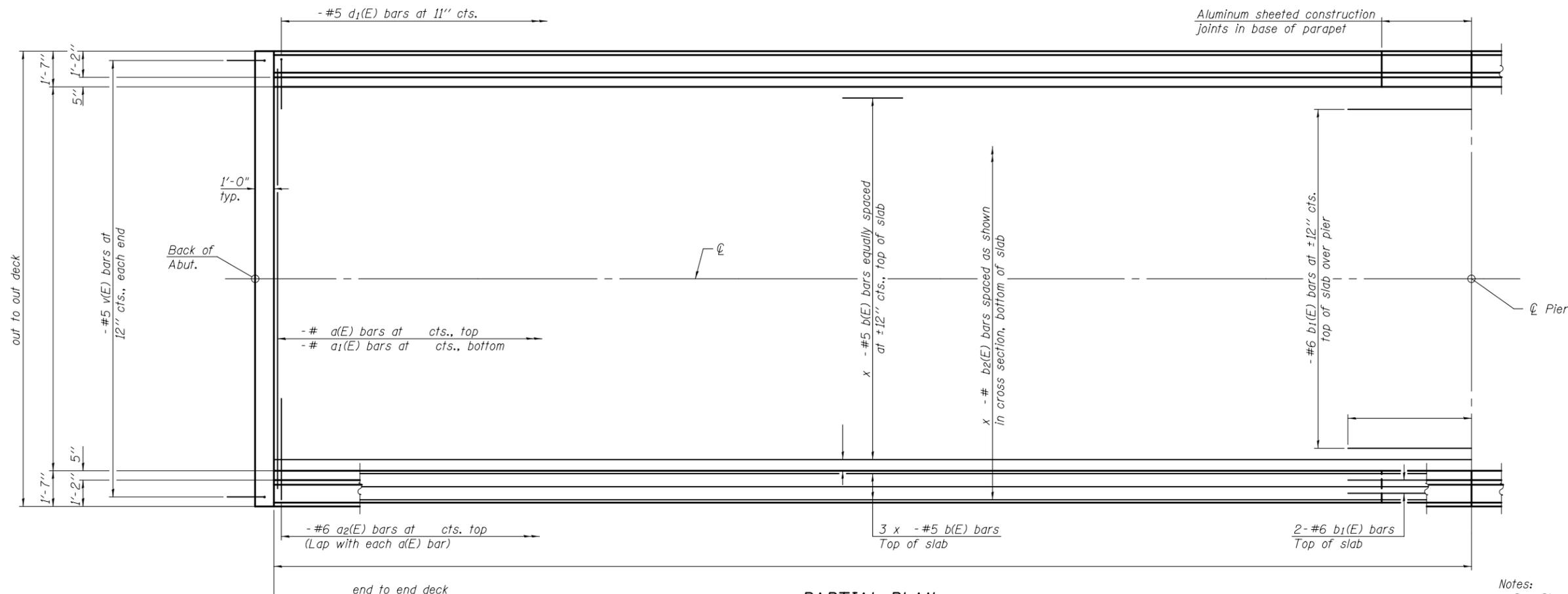
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

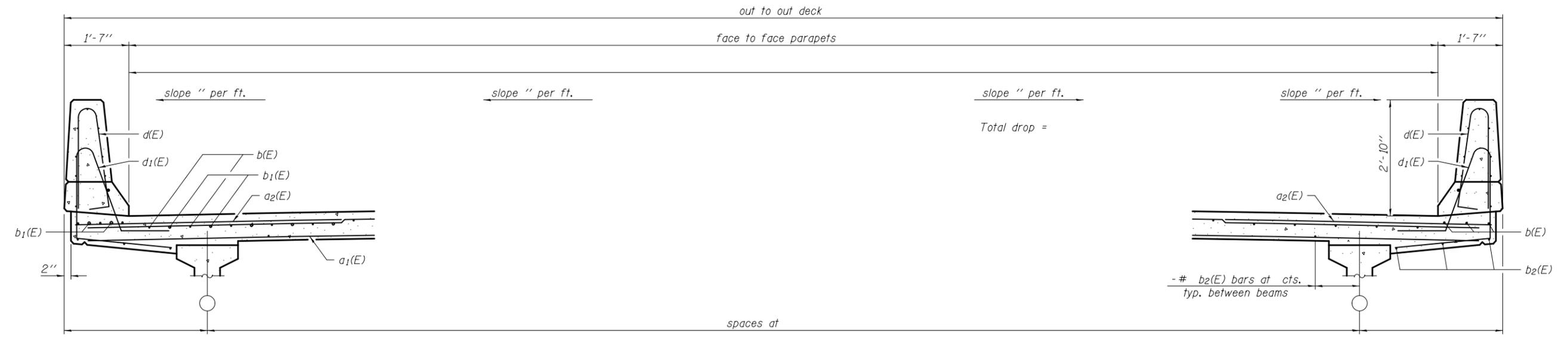
ILLINOIS FED. AID PROJECT



MINIMUM BAR LAP
#5 bar = 3'-6"

PARTIAL PLAN

Notes:
See Sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking)

P11-2-0

6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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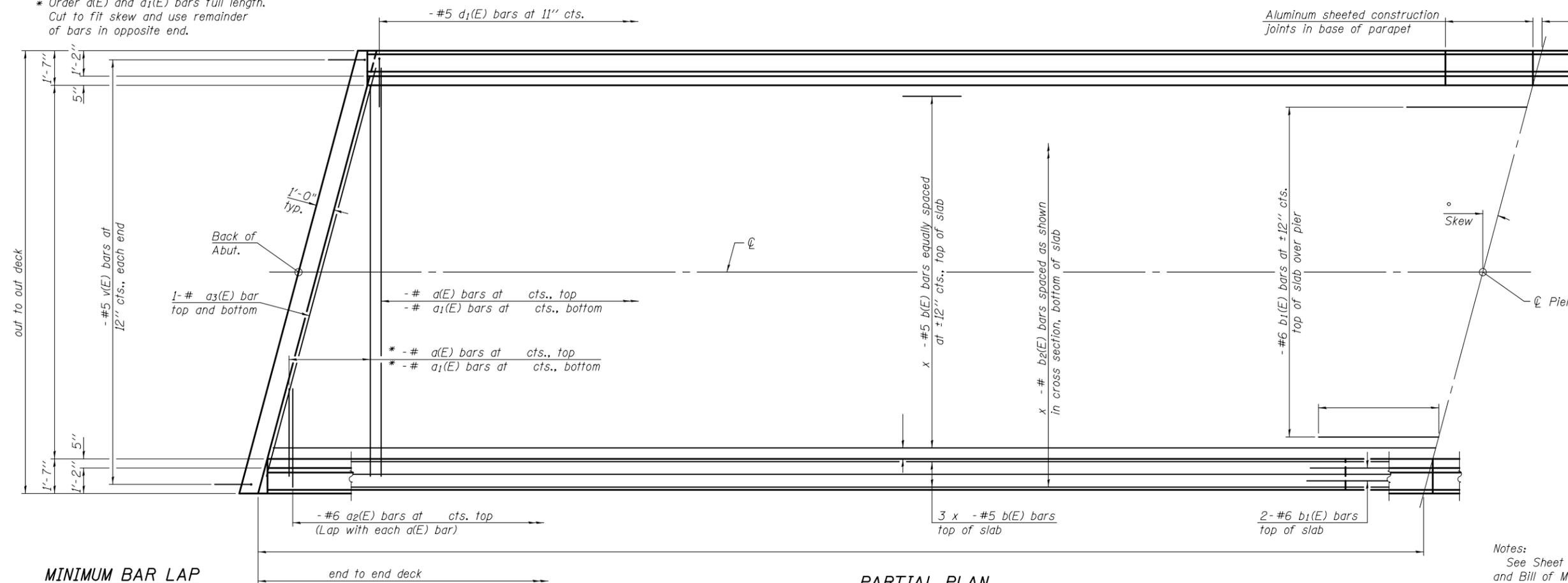
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

* Order a(E) and a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

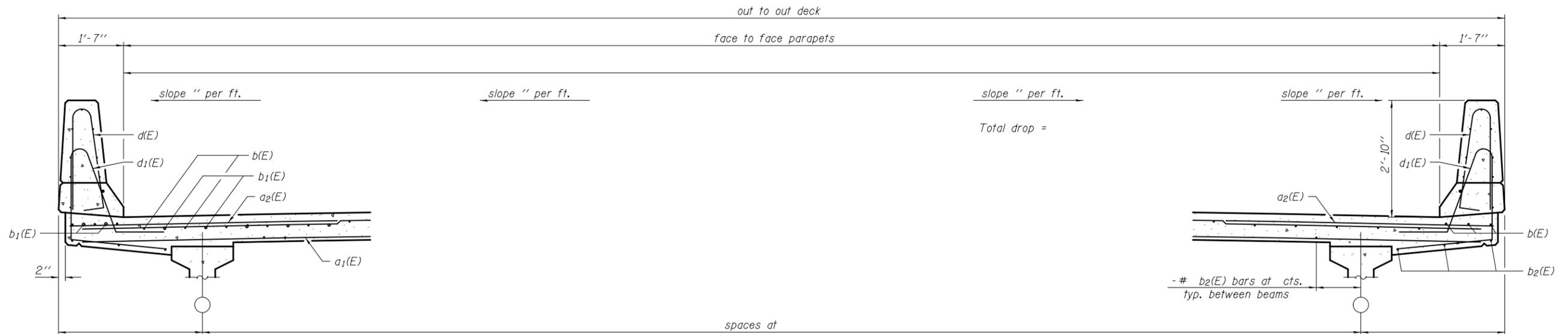


MINIMUM BAR LAP

#5 bar = 3'-6"

PARTIAL PLAN

Notes:
See Sheet of for superstructure details
and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See Sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking)

P11-2-L

6-8-15

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

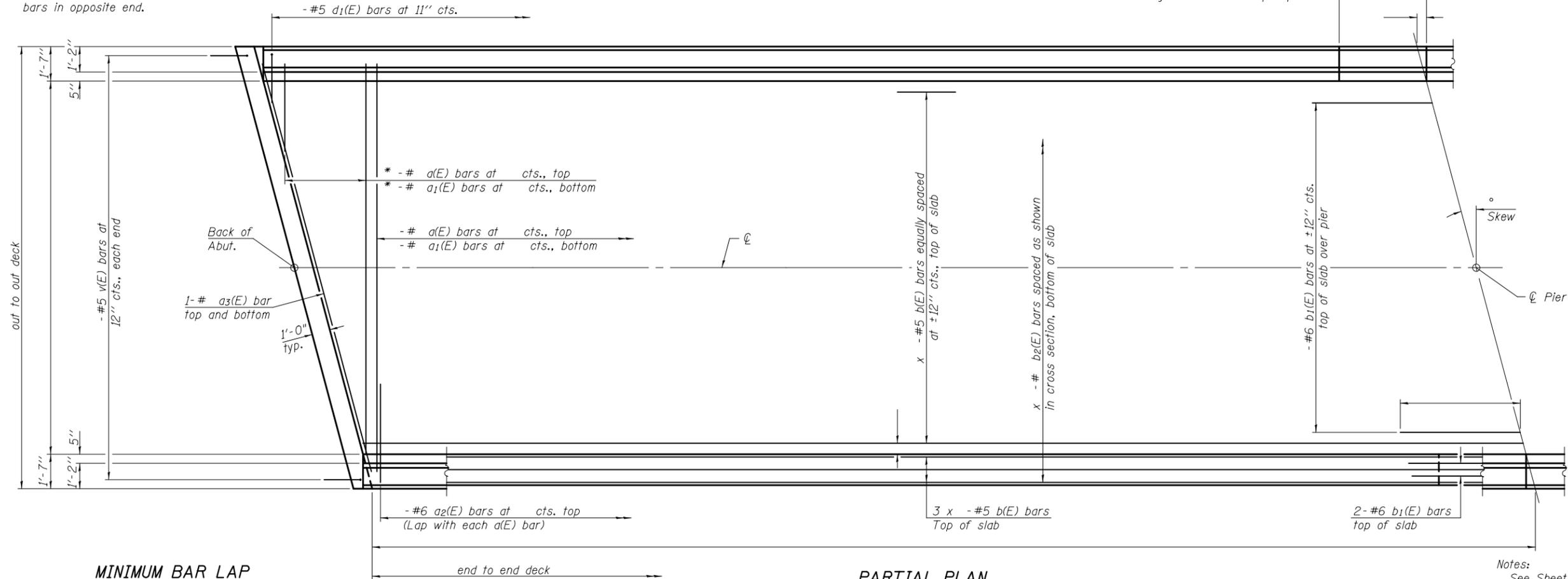
**SUPERSTRUCTURE
STRUCTURE NO.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT

* Order $a(E)$ and $a_1(E)$ bars full length.
Cut to fit skew and use remainder of bars in opposite end.

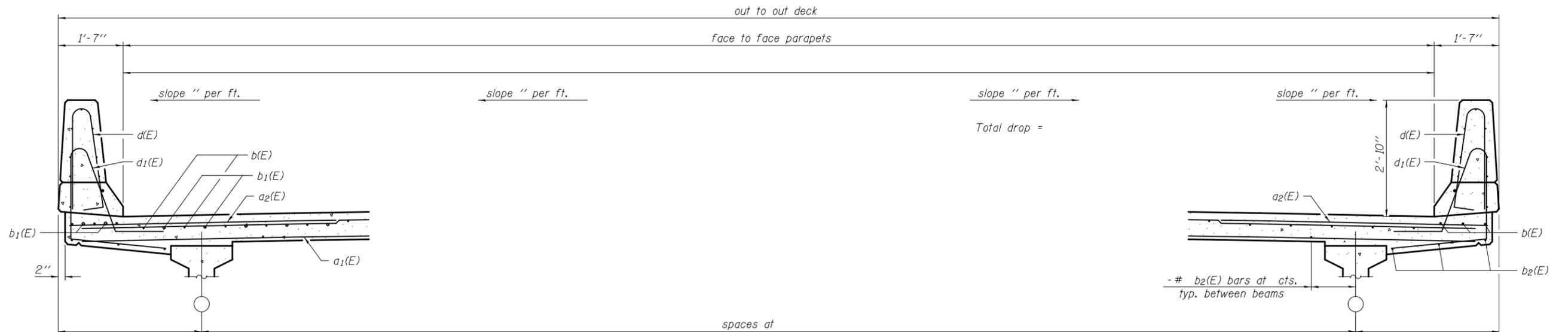
Aluminum sheeted construction
joints in base of parapet



MINIMUM BAR LAP
#5 bar = 3'-6"

PARTIAL PLAN

Notes:
See Sheet of for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet of for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking)

P11-2-R

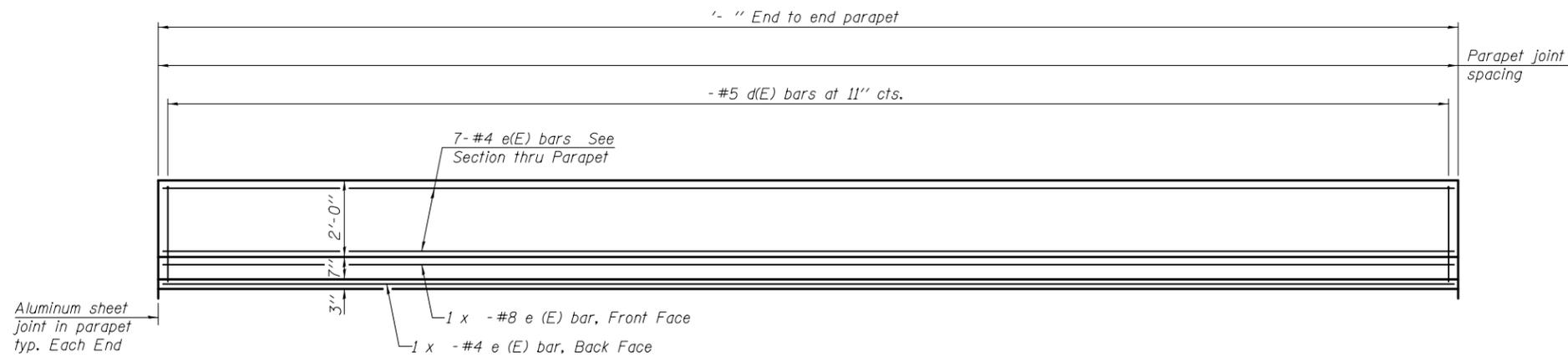
6-8-15

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO.

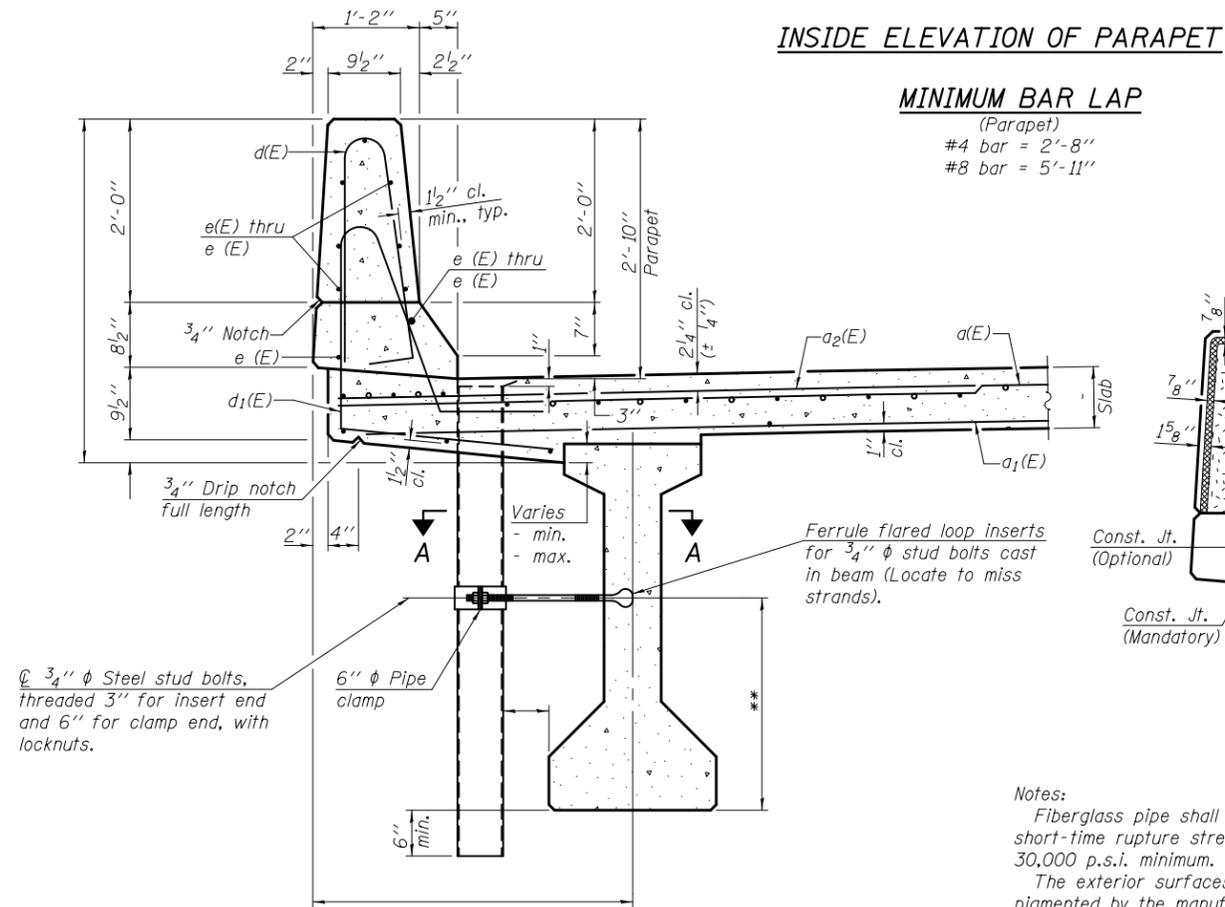
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF PARAPET

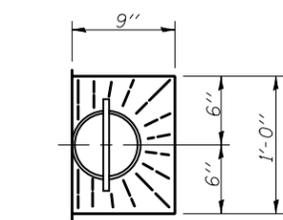
MINIMUM BAR LAP

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

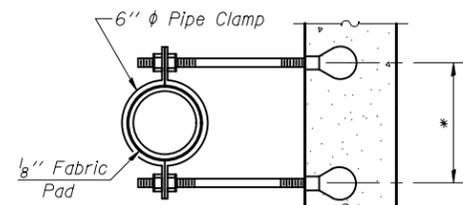


SECTION THRU PARAPET

**For insert locations See sheet of

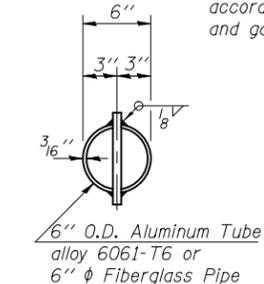


TOP PLAN



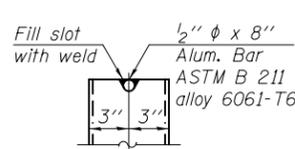
SECTION A-A

*Dimension as required by Pipe Clamp

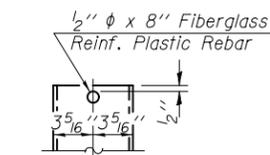


TOP PLAN

(Showing Aluminum Tube)

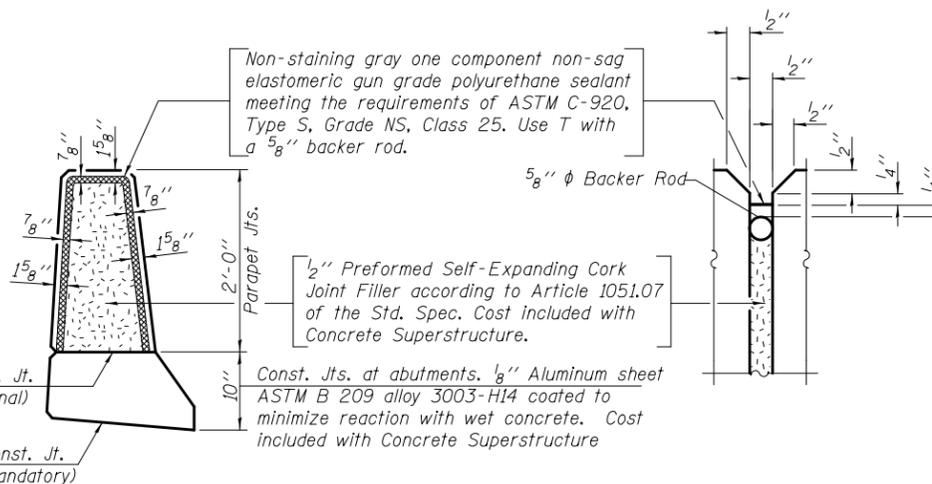


ALUMINUM TUBE

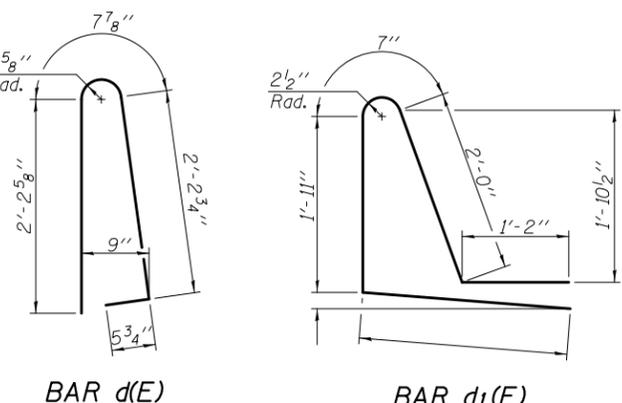
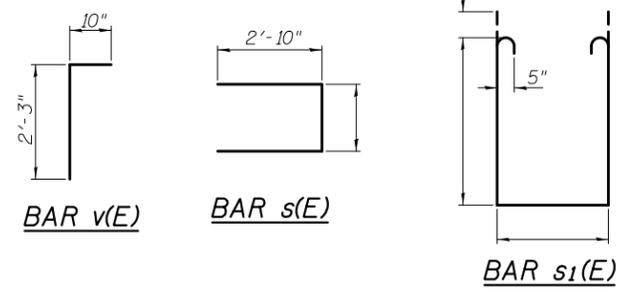


FIBERGLASS PIPE

Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the floor drains shall be pigmented by the manufacturer with a color that matches the concrete.
 The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and galvanizing included with Floor Drains.



PARAPET JOINT DETAILS



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)				—
a1(E)				—
a2(E)		#6	6'-6"	—
a3(E)				—
b(E)		#5		—
b1(E)		#6		—
b2(E)				—
d(E)		#5	5'-7"	┌
d1(E)		#5		┌
e(E)		#4		—
e1(E)		#4		—
m(E)		#6		—
m1(E)		#6		—
m2(E)		#6		—
m3(E)		#6		—
m4(E)		#6		—
m5(E)		#5	4'-0"	—
s(E)		#5		┐
s1(E)		#5		┐
v(E)		#5	3'-1"	└
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PII-D1

6-8-15

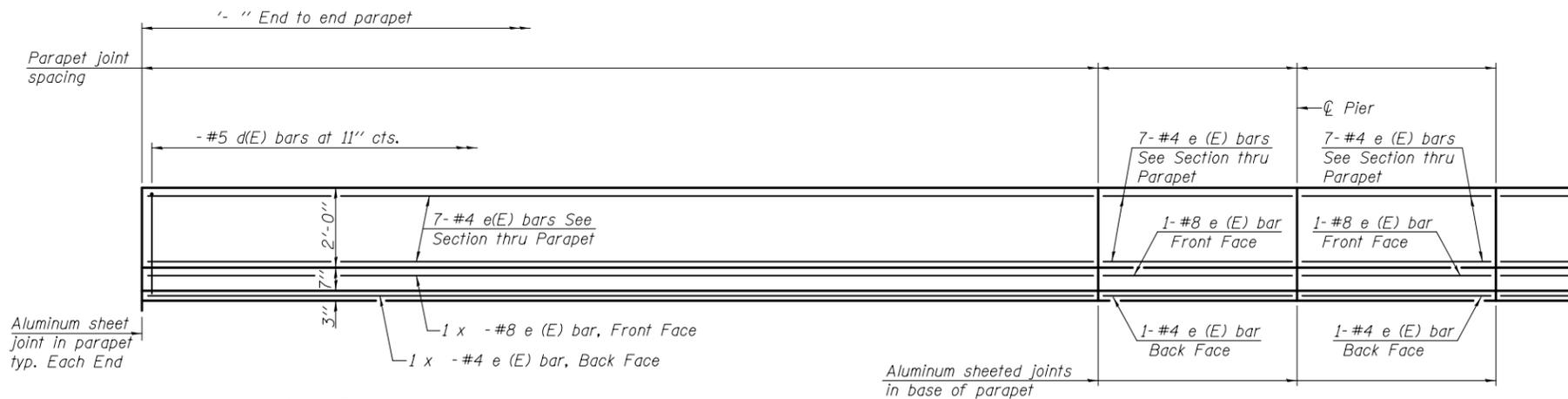
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		CHECKED -	REVISD -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

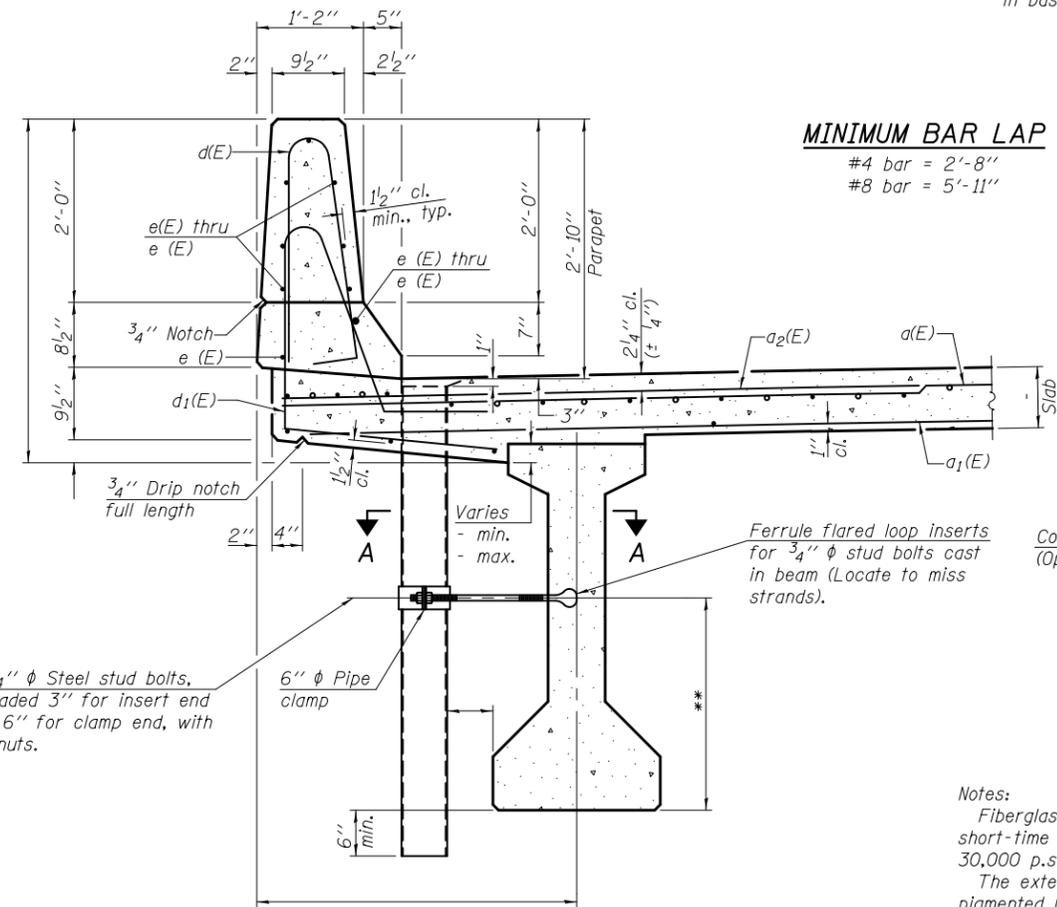
**SUPERSTRUCTURE DETAILS
 STRUCTURE NO.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



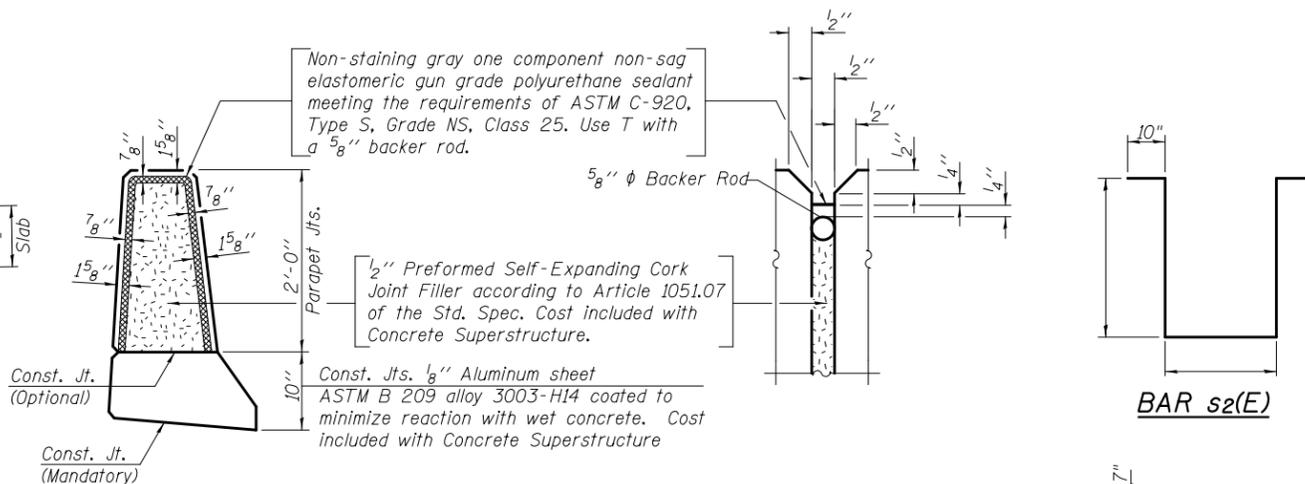
INSIDE ELEVATION OF PARAPET



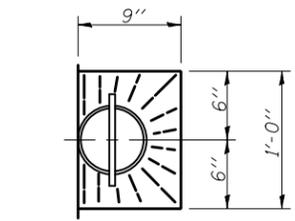
SECTION THRU PARAPET

**For insert locations See sheet of

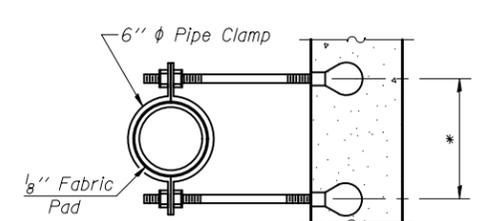
MINIMUM BAR LAP
 #4 bar = 2'-8"
 #8 bar = 5'-11"



PARAPET JOINT DETAILS

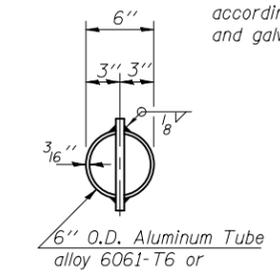


TOP PLAN



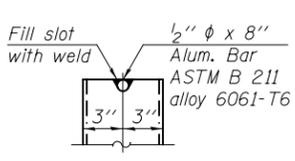
SECTION A-A

*Dimension as required by Pipe Clamp

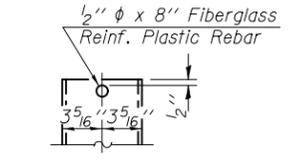


TOP PLAN

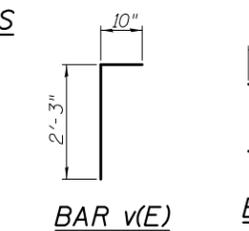
(Showing Aluminum Tube)



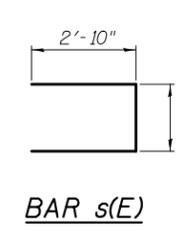
ALUMINUM TUBE



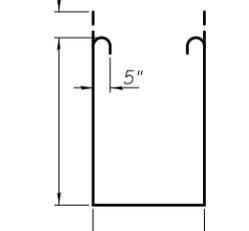
FIBERGLASS PIPE



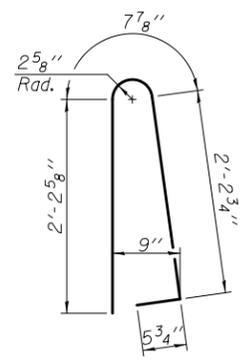
BAR v(E)



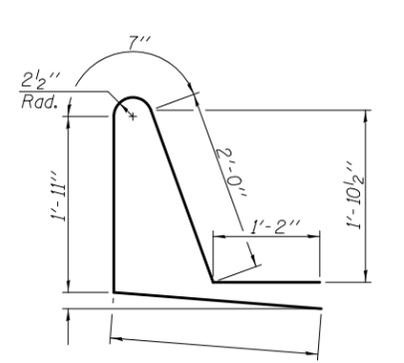
BAR s(E)



BAR s1(E)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)				
a1(E)				
a2(E)		#6	6'-6"	
a3(E)				
b(E)		#5		
b1(E)		#6		
b2(E)				
d(E)		#5	5'-7"	
d1(E)		#5		
e(E)		#4		
e1(E)		#4		
m(E)		#6		
m1(E)		#6		
m2(E)		#6		
m3(E)		#6		
m4(E)		#6		
m5(E)		#5	4'-0"	
m6(E)		#4		
m7(E)		#8		
s(E)		#5		
s1(E)		#5		
s2(E)		#4		
v(E)		#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

PII-D2

6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO.**

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