



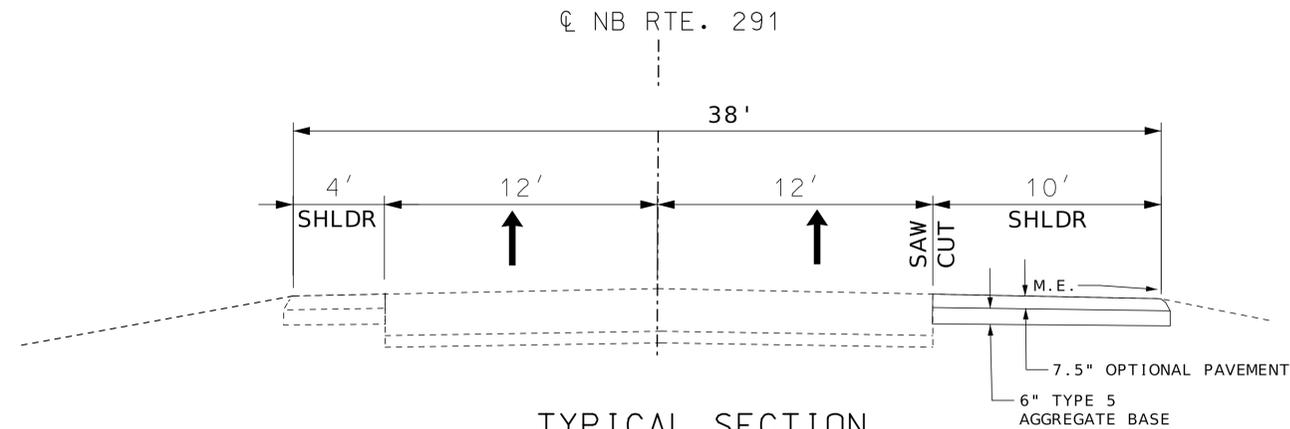
OPTIONAL PAVEMENT-SHOULDER	
BASE TYPE	CONCRETE PCCP 7.5" DESIGN
6" TYPE 5 BASE	7.5" JPCP WIDENED SLAB 1-1/4" DOWELS 15 FT. JOINT SPACING

OPTIONAL PAVEMENT-SHOULDER	
BASE TYPE	ASPHALT HMA 7.5" DESIGN
6" TYPE 5 BASE	2" BP-1 W/ PG 64-22 5.5" BIT. BASE W/ PG 64-22

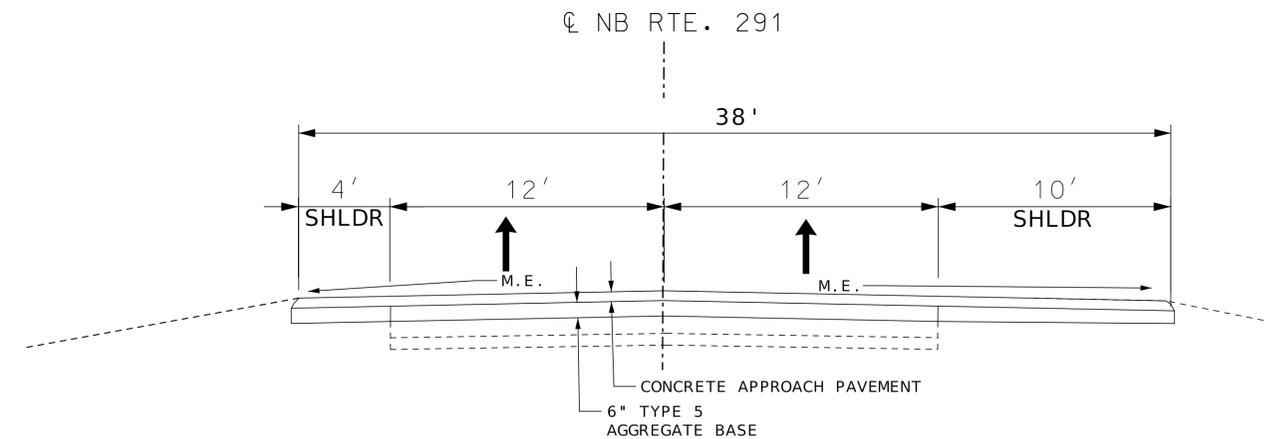
NOTES:

SEE BRIDGE PLANS FOR  
BRIDGE APPROACH SLAB  
NB LOG MI. 41.170 - LOG MI. 41.174  
NB LOG MI. 41.205 - LOG MI. 41.209

ANY EXCAVATION REQUIRED FOR THE  
INSTALLATION OF ROCK BLANKET IS  
INCIDENTAL AND NO DIRECT PAYMENT  
WILL BE MADE.

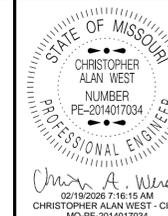


TYPICAL SECTION  
SHOULDER REBUILD  
NB LOG MI. 41.212 - LOG MI. 41.241



TYPICAL SECTION  
CONCRETE APPROACH PAVEMENT  
NB LOG MI. 41.167 - LOG MI. 41.170  
NB LOG MI. 41.209 - LOG MI. 41.212

EXCEPTIONS  
BRIDGE APPROACH SLAB  
NB LOG MI. 41.170 - LOG MI. 41.174  
NB. LOG MI. 41.205 - LOG MI. 41.209  
BR. NO. A2503  
NB LOG MI. 41.174 - LOG MI. 41.205



DATE PREPARED  
2/17/2026

ROUTE 291 STATE MO

DISTRICT KC SHEET NO. 2

COUNTY CLAY

JOB NO. JKU0125

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A2503

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)















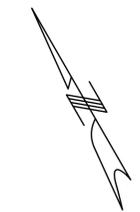


100' TAPER  
5 DEVICE  
MINIMUM

TOYTECHS

d Sales

MATCHLINE SHEET 4 OF 18



NOT TO SCALE



WO20-1

2

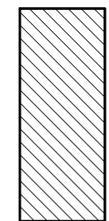
BRIDGE  
OR  
RAMP



TYPE 3 MOVABLE BARRICADE



CHANNELIZERS



WORK ZONE

LEFT LANE  
SHOULDER REBUILD  
TRAFFIC CONTROL  
SHEET 3 OF 18

CHRISTOPHER ALAN WEST  
NUMBER PE-2014017034  
PROFESSIONAL ENGINEER

*Christopher Alan West*  
02/19/2026 7:24:11 AM  
CHRISTOPHER ALAN WEST - CIVIL  
MO-PE-2014017034

DATE PREPARED		2/17/2026	
ROUTE	STATE	ROUTE	STATE
291	MO	291	MO
DISTRICT	SHEET NO.	DISTRICT	SHEET NO.
KC	7	KC	7
COUNTY			
CLAY			
JOB NO.			
JKU0125			
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO.			
A2503			

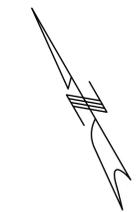
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)



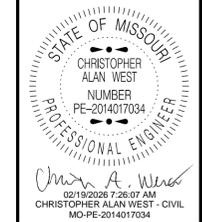




NOT TO SCALE



MATCHLINE SHEET 7 OF 18



DATE PREPARED  
2/17/2026

ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 10
COUNTY CLAY	
JOB NO. JKU0125	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A2503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

RIGHT LANE  
SHOULDER REBUILD  
TRAFFIC CONTROL  
SHEET 6 OF 18







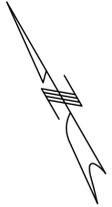




MATCHLINE SHEET 11 OF 18



MATCHLINE SHEET 13 OF 18



NOT TO SCALE



R3-7L

45



WO20-1

2



CHANNELIZERS

STAGE 1 CONSTRUCTION  
LEFT LANE CLOSURE  
TRAFFIC CONTROL  
SHEET 12 OF 18



CHRISTOPHER ALAN WEST  
NUMBER PE-2014017034  
PROFESSIONAL ENGINEER

DATE PREPARED 2/17/2026

ROUTE 291 STATE MO

DISTRICT KC SHEET NO. 16

COUNTY CLAY

JOB NO. JKU0125

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A2503

DESCRIPTION

DATE

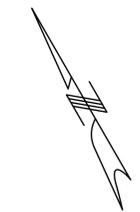
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

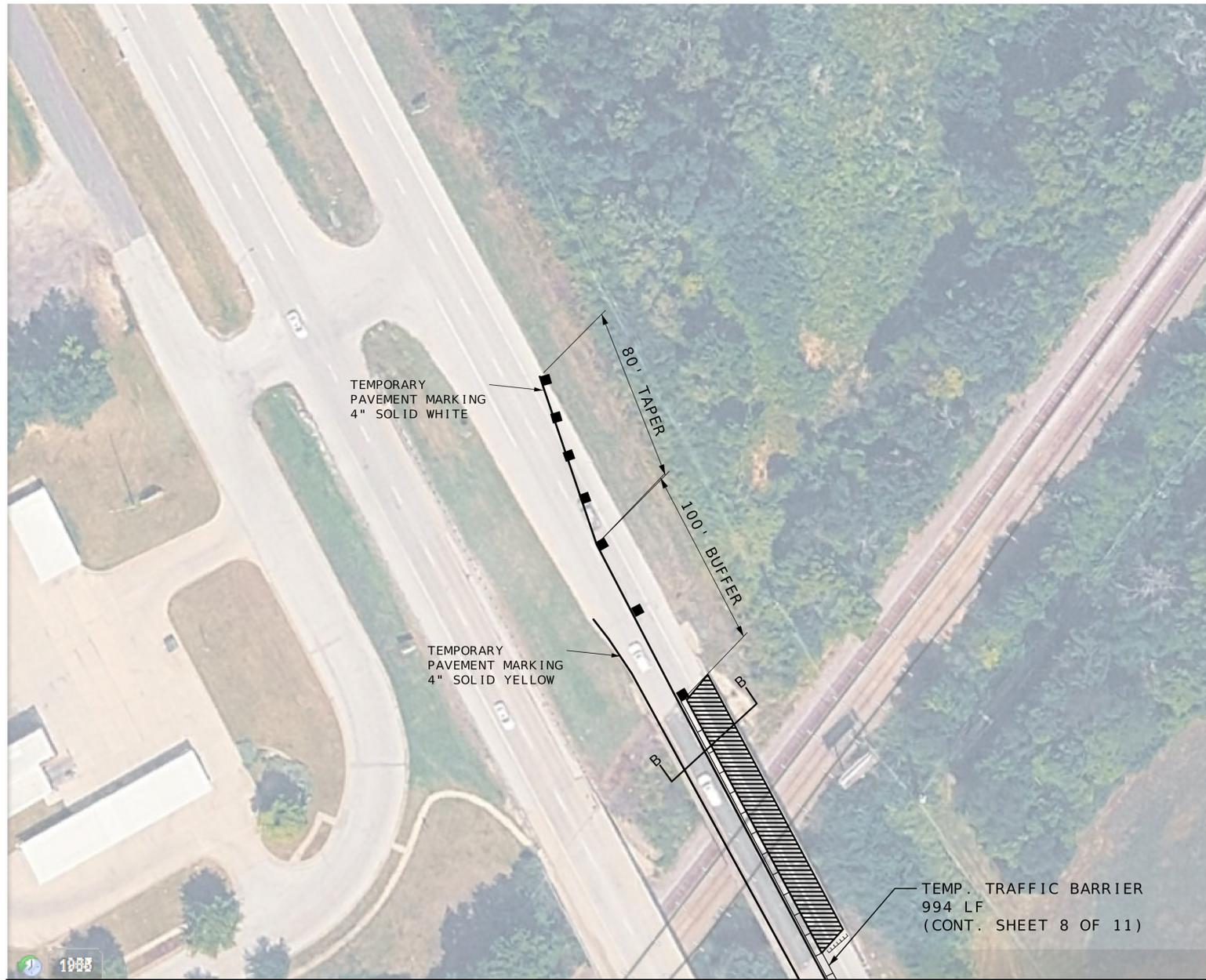
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

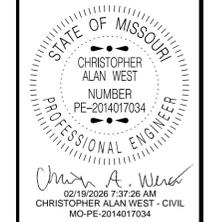
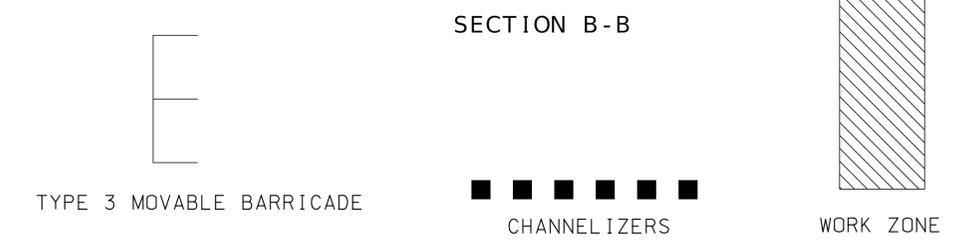
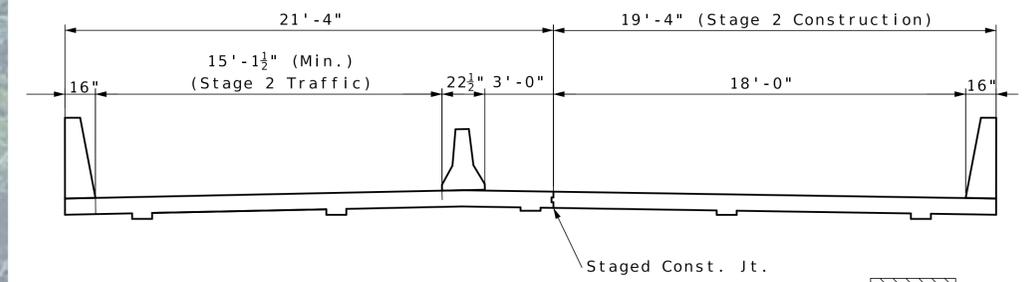




NOT TO SCALE



MATCHLINE SHEET 15 OF 18



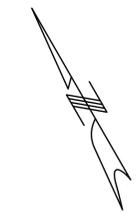
DATE PREPARED  
2/17/2026  
ROUTE 291 STATE MO  
DISTRICT KC SHEET NO. 18  
COUNTY CLAY  
JOB NO. JKU0125  
CONTRACT ID.  
PROJECT NO.  
BRIDGE NO. A2503

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)



STAGE 2 CONSTRUCTION  
RIGHT LANE CLOSURE  
TRAFFIC CONTROL  
SHEET 14 OF 18



NOT TO SCALE

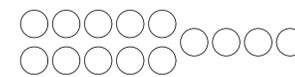


WO20-1  
②

BRIDGE  
OR  
RAMP



CHANNELIZERS



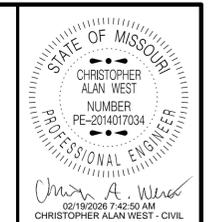
IMPACT ATTENUATOR (SAND BARRELS)



TYPE 3 MOVABLE BARRICADE



WORK ZONE



DATE PREPARED  
2/17/2026

ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 19
COUNTY CLAY	
JOB NO. JKU0125	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A2503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

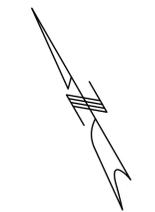
105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

STAGE 2 CONSTRUCTION  
RIGHT LANE CLOSURE  
TRAFFIC CONTROL  
SHEET 15 OF 18

MATCHLINE SHEET 15 OF 18



MATCHLINE SHEET 17 OF 18

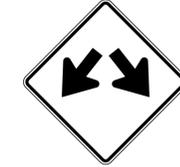


NOT TO SCALE



R3-7R

(45)



WO12-1

(61)

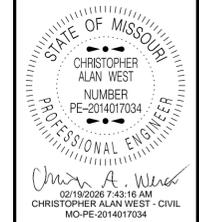


WO20-1

(2)



CHANNELIZERS



DATE PREPARED 2/17/2026	
ROUTE 291	STATE MO
DISTRICT KC	SHEET NO. 20
COUNTY CLAY	
JOB NO. JKU0125	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A2503	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

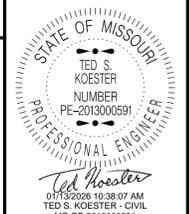
105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

STAGE 2 CONSTRUCTION  
RIGHT LANE CLOSURE  
TRAFFIC CONTROL  
SHEET 16 OF 18







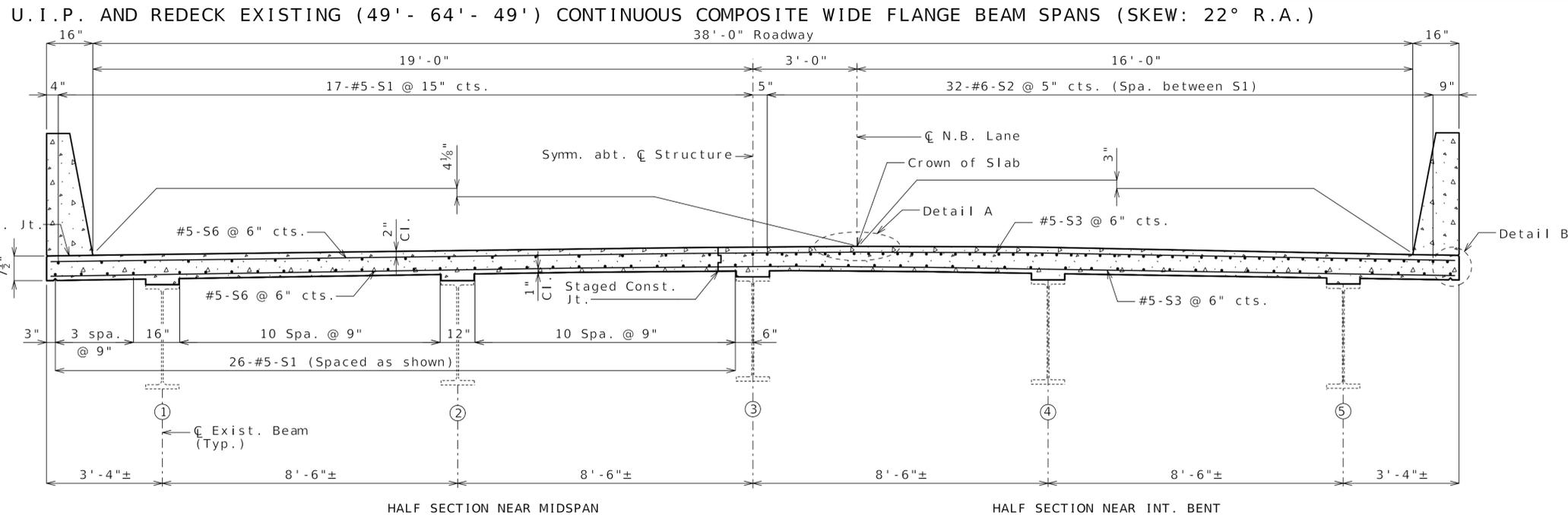


DATE PREPARED 1/13/2026	
ROUTE 291	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY CLAY	
JOB NO. JKU0125	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A25033	

Int. Bent No. 2		Int. Bent No. 3	
Span 1	Span 2	Span 2	Span 3
18'-9"	19'-9"	19'-9"	18'-9"

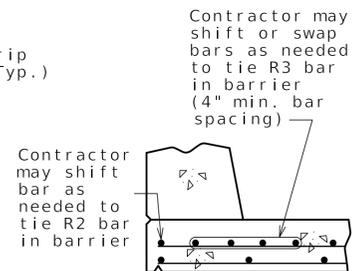
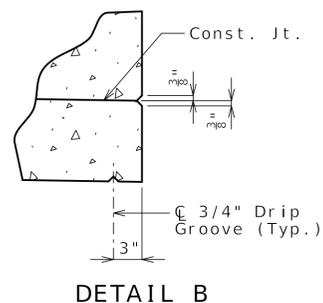
Bar Size	Splice Length
4	2'-7"
5	3'-3"
6	3'-10"
7	4'-11"

\*\* Unless otherwise shown.



**General Notes:**

- Design Specifications:**  
 2002 AASHTO LFD (17th Ed.) Standard Specifications  
 Seismic Performance Category A
- Design Loading:**  
 HS20-44 (1969) (Existing)  
 HS20-44 (New Construction)  
 35 lb/sf Future Wearing Surface  
 Earth - 120 lb/cf, Equivalent Fluid Pressure 45 lb/cf  
 Fatigue Stress - Case I
- Design Unit Stresses:**  
 Class B-1 Concrete (Barrier)  $f'c = 4,000$  psi  
 Class B-2 Concrete (End Bents & Superstructure, except Barrier)  $f'c = 4,000$  psi  
 Reinforcing Steel (ASTM A615 Grade 60)  $f_y = 60,000$  psi  
 Structural Steel (ASTM A709 Grade 36)  $f_y = 36,000$  psi
- Joint Filler:**  
 All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.
- Reinforcing Steel:**  
 Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.
- Miscellaneous:**  
 Protective coating for concrete bents and piers (Epoxy) shall be applied as shown on the bridge plans and in accordance with Sec 711.  
 Bars bonded in existing concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, existing bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.  
 Roadway surfacing adjacent to bridge ends shall match new bridge slab surface. (Roadway item)  
 Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.  
 Contractor shall verify all dimensions in field before finalizing the shop drawings.  
 The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.  
 Rubblized concrete from the existing bridge deck that qualifies as clean fill may be placed on spill slopes at end bents. (Roadway item).  
 For adjusted girder deflection due to the weight of the new deck and barriers, see Bridge Electronic Deliverables.
- Traffic Handling:**  
 Traffic to be maintained on structure during construction. See roadway plans for traffic control and Sheet No. 3 for staged construction details.



Item	Unit	Total
Class B-2 Concrete	cu. yard	200.9
Reinforcing Steel (Epoxy Coated)	pound	59,610

The table of Estimated Quantities for Slab on Steel represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

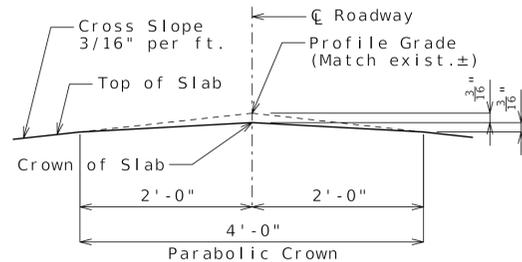
Method of forming the slab shall be in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness Class SC 4 and a finish Type I, II or III.

Slab shall be cast-in-place with conventional forming or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

For Optional Stay-In-Place Form Details, see Sheet No. 2.

Item	Unit	Total
Removal of Miscellaneous ACM (Non-Friable)	sq. foot	16
Class 1 Excavation	cu. yard	90
Temporary Shoring	lump sum	1
Removal of Existing Bridge Deck	sq. foot	6690
Bridge Approach Slab (Major)	sq. yard	171
Slab on Steel	sq. yard	739
Type D Barrier	linear foot	364
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1
Strengthening Existing Beams	lump sum	1
Slab Drain	each	20
Surface Preparation for Applying Epoxy-Mastic Primer	lump sum	1
Gray Epoxy-Mastic Primer	lump sum	1
Non-Destructive Testing	linear foot	51
* Girder Chair Repair	each	10
Vertical Drain at End Bents	each	2

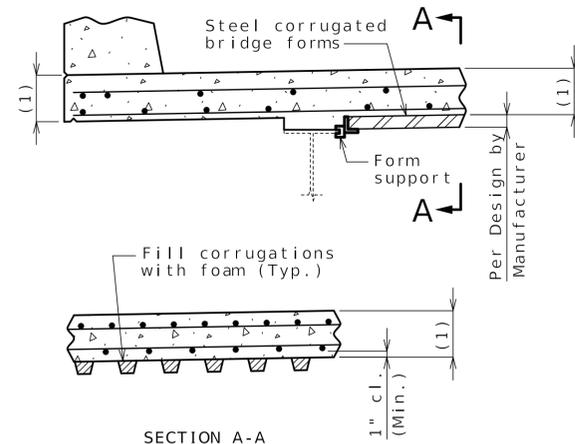
\* Girder chair repairs may be required after the concrete diaphragm is removed. Payment for all girder chair repairs will be considered completely covered by the contract unit price for Girder Chair Repair.



DETAIL A

**REPAIRS TO BRIDGE:**  
**ROUTE 291 NB OVER CPKC R.R**  
 ROUTE 291 NB FROM ROUTE 210 TO ROUTE 1-35  
 ABOUT 3.4 MILES SOUTHEAST OF ROUTE 1-35  
 BEGINNING STATION 651+97.12± (MATCH EXISTING)

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
 105 WEST CAPITOL JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)



**OPTIONAL STAY-IN-PLACE FORM DETAILS**

**General Notes:**

**Stay-In-Place Forms:**

Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of beam flanges. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the flange. Welding on or drilling holes in the beam flanges will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for beam loading.

The contractor shall provide a method of preventing the direct contact of the stay-in-place forms and connection components with uncoated weathering steel members that is approved by the engineer.

**Pouring and Finishing Slab:**

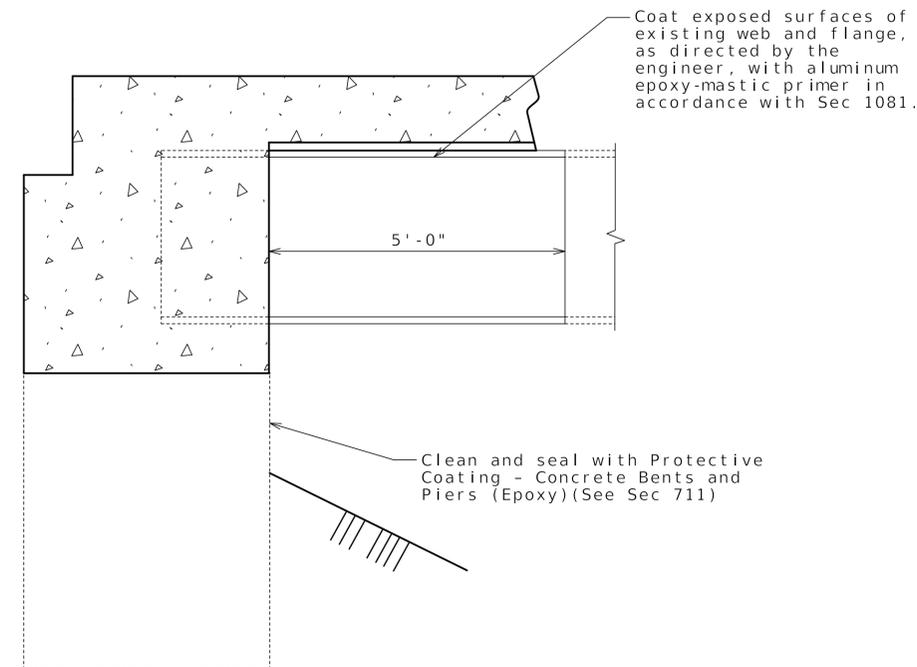
The contractor shall provide bracing necessary for lateral and torsional stability of the beams during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the beams. The cost for furnishing, installing, and removing bracing will be considered completely covered by the contract unit price for Slab on Steel.

Slab shall be poured upgrade from end to end at a minimum rate of 25 cubic yards per hour.

Alternate pour sequences may be submitted to the engineer for approval. Keyed construction joints shall be provided between pours.

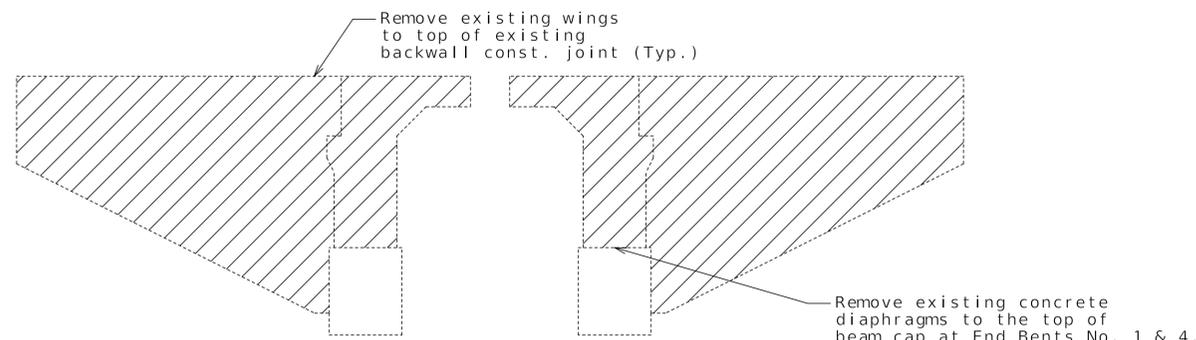
**Haunching:**

(1) Slab is to be considered a uniform thickness as shown on the plans. Haunching will vary. See front sheet for slab thickness.

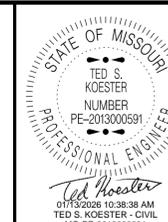


**PART ELEVATION OF END BENTS NO. 1 & 4 SHOWING RECOATING OF STRUCTURAL STEEL**

Exposed surfaces of the existing structural steel, as directed by the engineer, and all end bent bearings shall be recoated with one 6-mil thickness of gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the gray epoxy-mastic primer and bituminous coating will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.



**DETAILS OF CONCRETE REMOVAL OF WINGS @ END BENTS NO. 1 & 4**



DATE PREPARED  
1/13/2026

ROUTE 291 STATE MO

DISTRICT BR SHEET NO. 2

COUNTY CLAY

JOB NO. JKU0125

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A25033

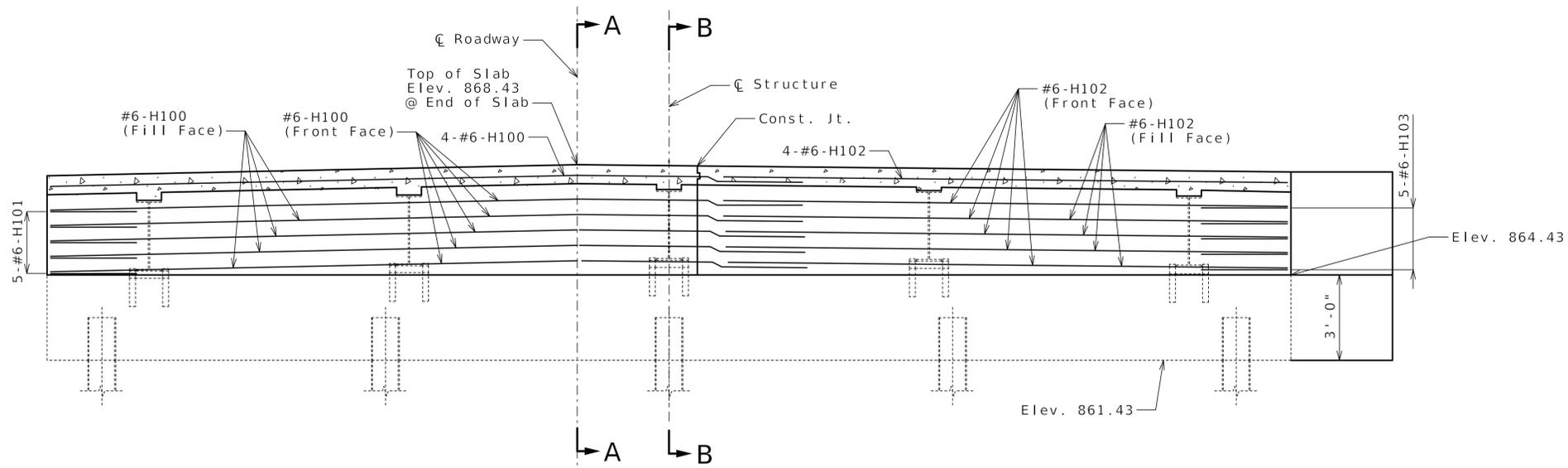
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)







Notes:

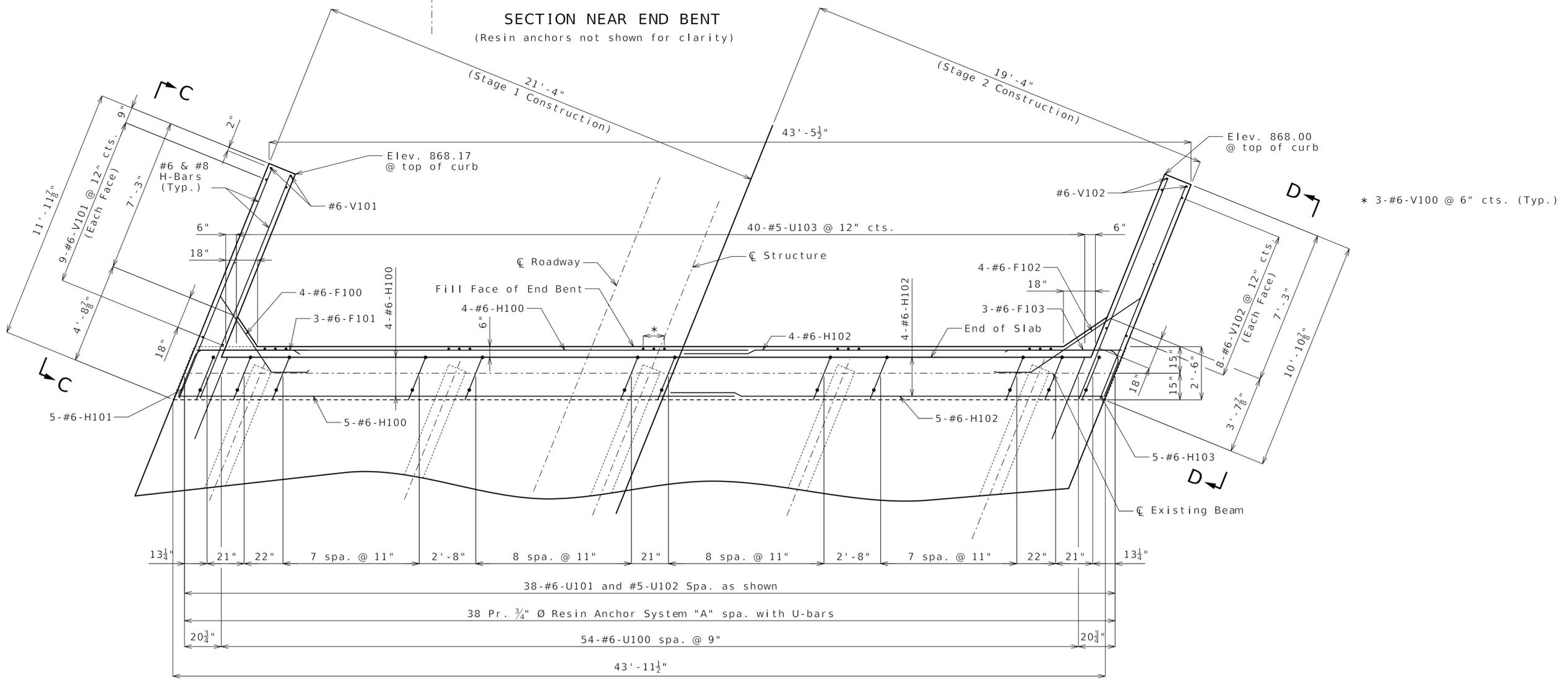
For Sections A-A & B-B, and Elevations C-C & D-D, see Sheet No. 6

The #6-F100 and #6-F102 bars shall be bent in the field to clear beams/girders.

The U bars and pairs of V bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

The exposed and accessible surfaces of the existing structural steel and girder chairs that will be encased in concrete shall be cleaned with a minimum of SSPC-SP-3 surface preparation and coated with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry film thickness of not less than 3 mils before concrete is poured. The surface preparation and coating for girders shall extend a minimum of one foot outside the face of the girder encasement. Payment for cleaning and coating steel to be encased in concrete will be considered completely covered by the contract unit price for Slab on Steel.



PART PLAN  
 DETAILS OF END BENT NO. 1



DATE PREPARED  
 1/13/2026

ROUTE 291 STATE MO  
 DISTRICT BR SHEET NO. 5

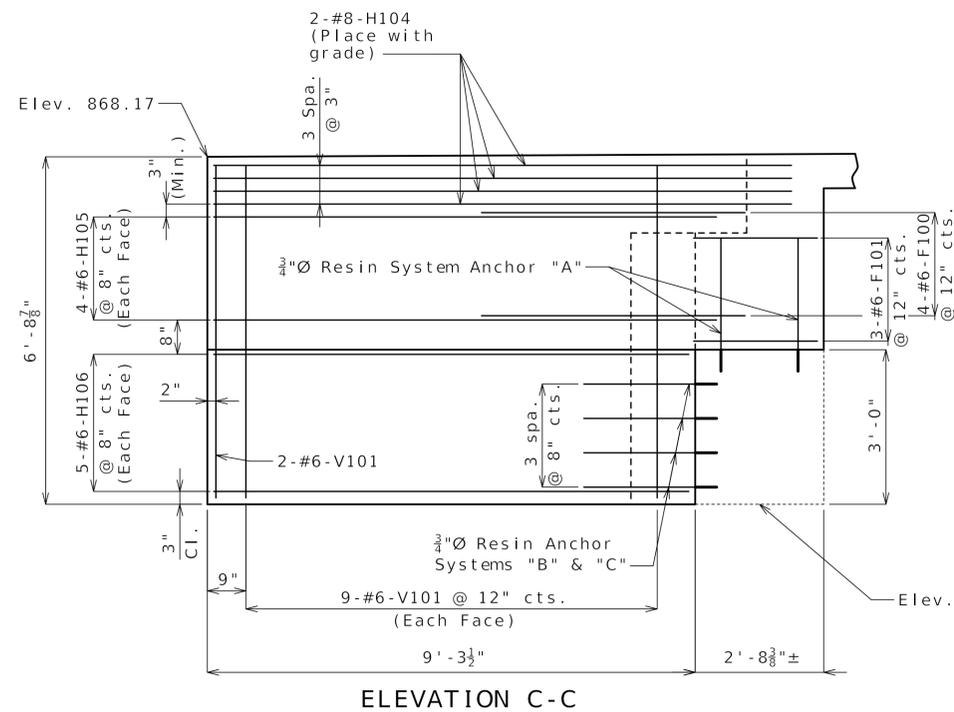
COUNTY CLAY  
 JOB NO. JKU0125  
 CONTRACT ID.

PROJECT NO.  
 BRIDGE NO. A25033

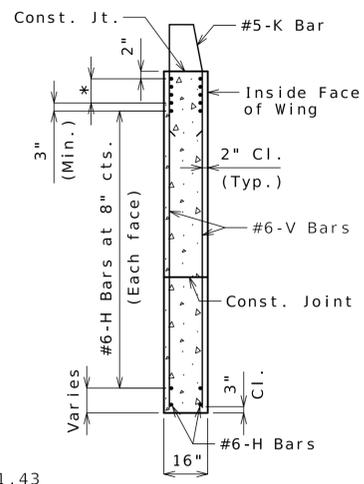
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
 JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)

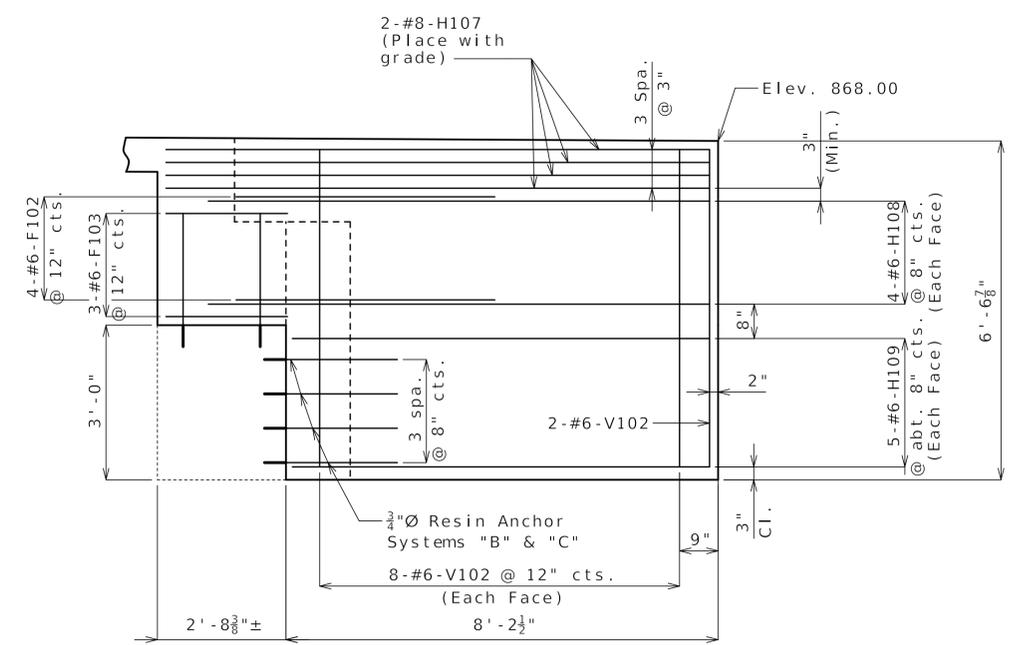


ELEVATION C-C

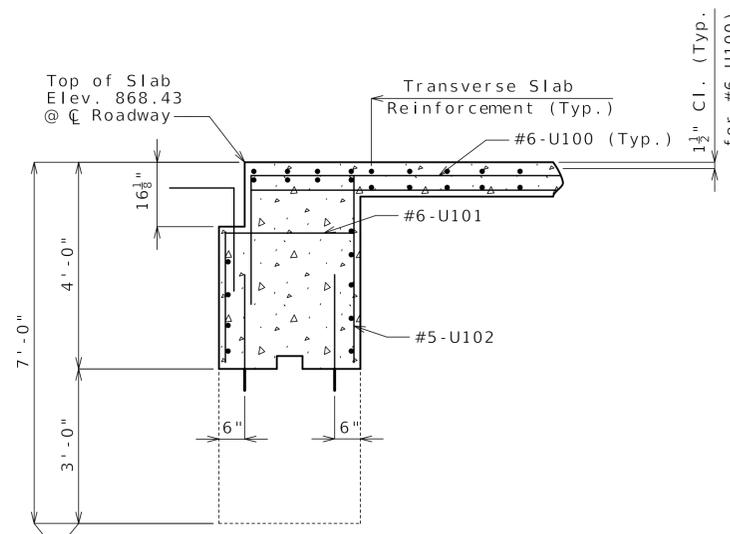


TYPICAL SECTION THRU WING

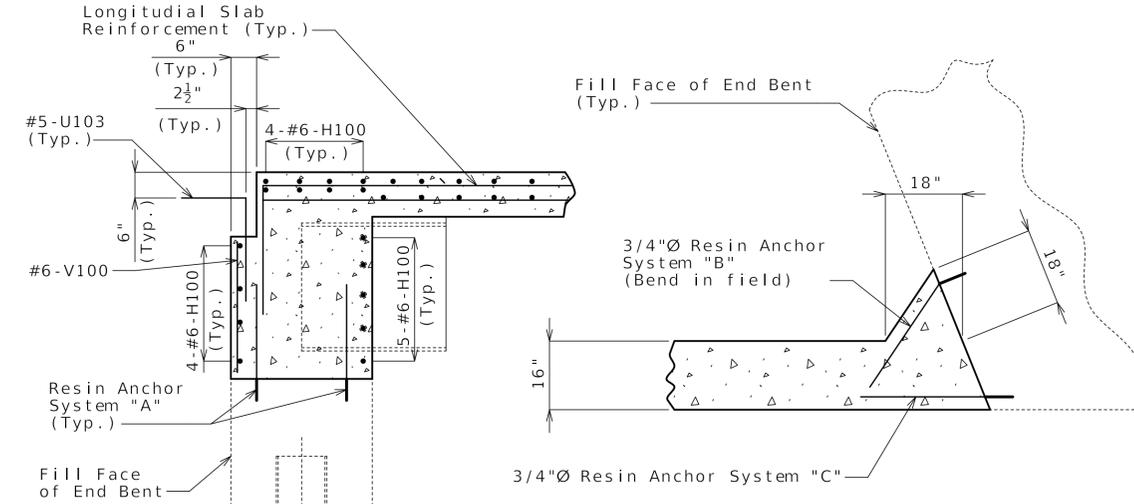
\* #8-H Bars at 3" cts. (Each face)(Place with grade)



ELEVATION D-D

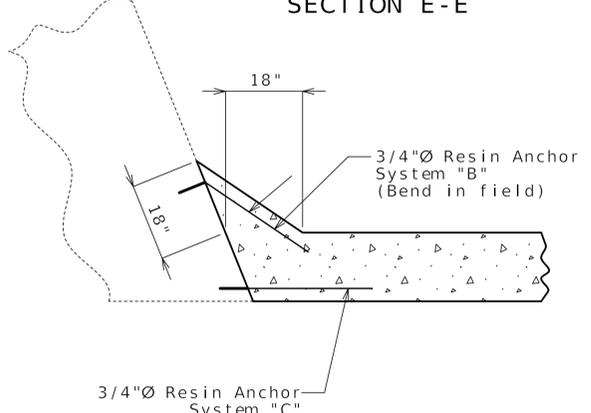


SECTION A-A



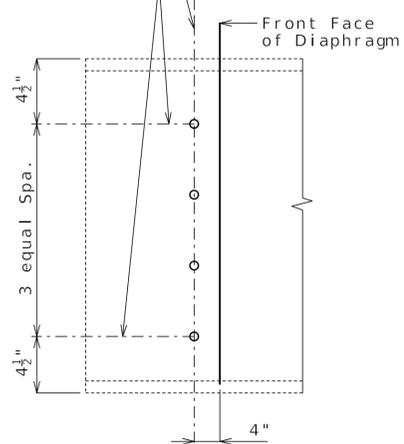
SECTION B-B

SECTION E-E

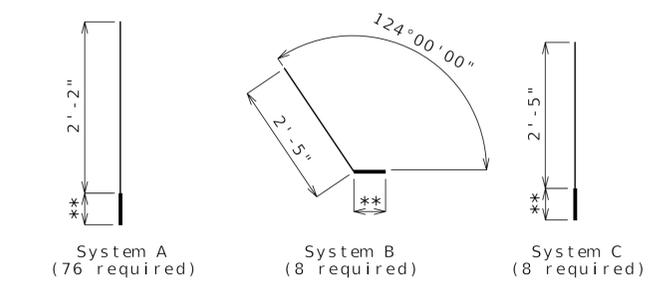


SECTION F-F

1 1/8" holes in each stringer. Cost of field drilling holes in existing webs will be considered completely covered by the contract unit price for Slab on Steel.



DETAIL OF WEB HOLES



DETAILS OF RESIN ANCHORS

\*\* Use manufacturer's embedment length. (5" minimum embedment length) Note:

For location of Resin Anchors, see Sheet No. 5.

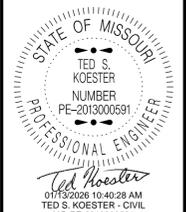
DETAILS OF END BENT NO. 1

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 15

Notes:

For location of Elevations D-D & C-C, and Sections A-A & B-B, see Sheet No. 5. For reinforcement of the barrier, see Sheet No. 12.



DATE PREPARED	
1/13/2026	STATE
ROUTE 291	MO
DISTRICT BR	SHEET NO. 6
COUNTY CLAY	
JOB NO. JKU0125	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A25033	

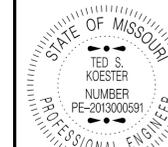
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)







Ted Koester  
 01/13/2026 10:41:42 AM  
 TED S. KOESTER - CIVIL  
 MO-PE-2013000591

DATE PREPARED  
 1/13/2026

ROUTE 291 STATE MO

DISTRICT BR SHEET NO. 9

COUNTY CLAY

JOB NO. JKU0125

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A25033

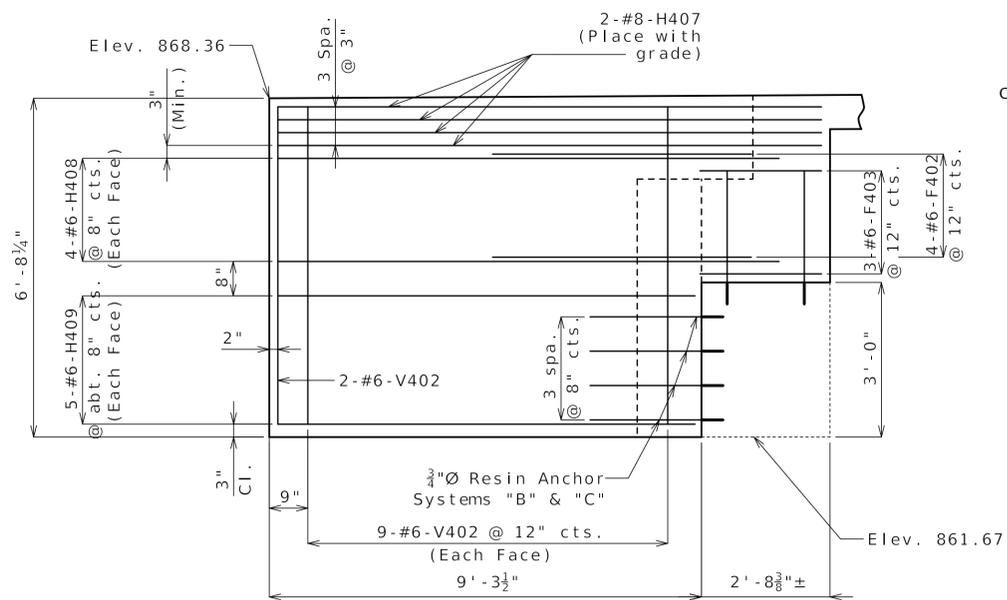
DESCRIPTION

DATE

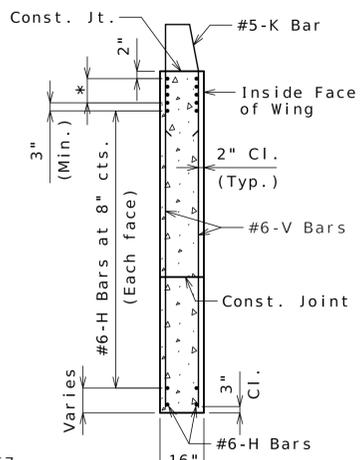
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

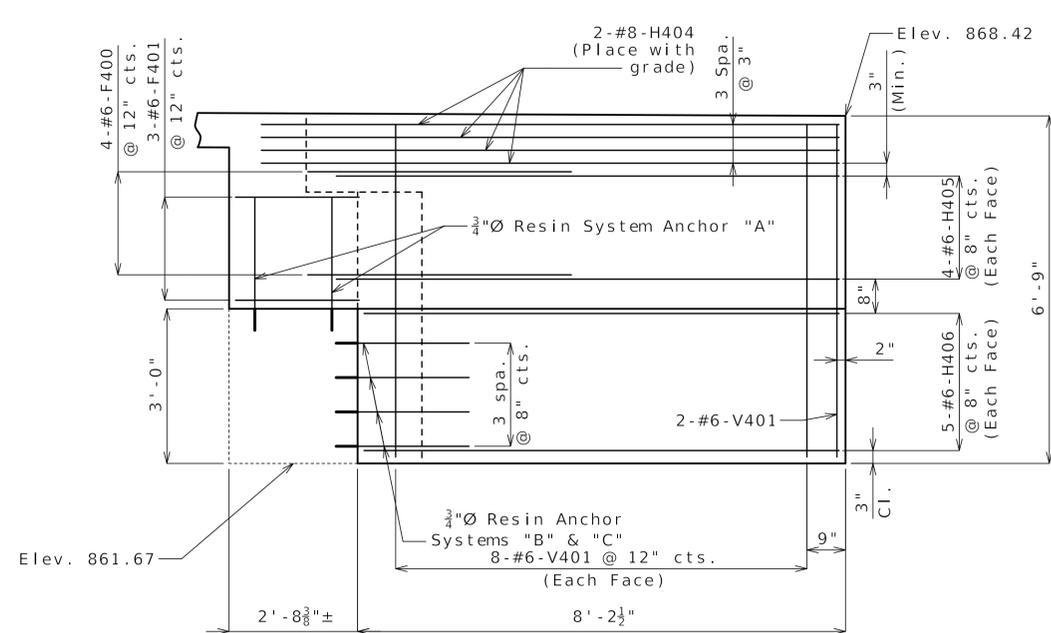


ELEVATION C-C



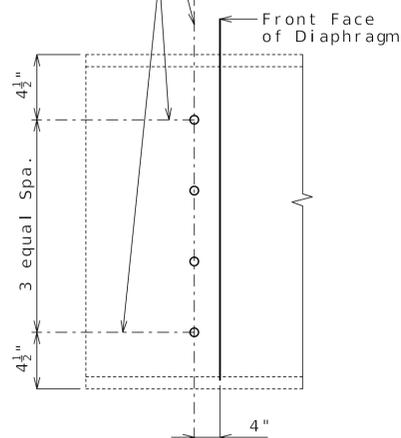
TYPICAL SECTION THRU WING

\* #8-H Bars at 3" cts. (Each face) (Place with grade)

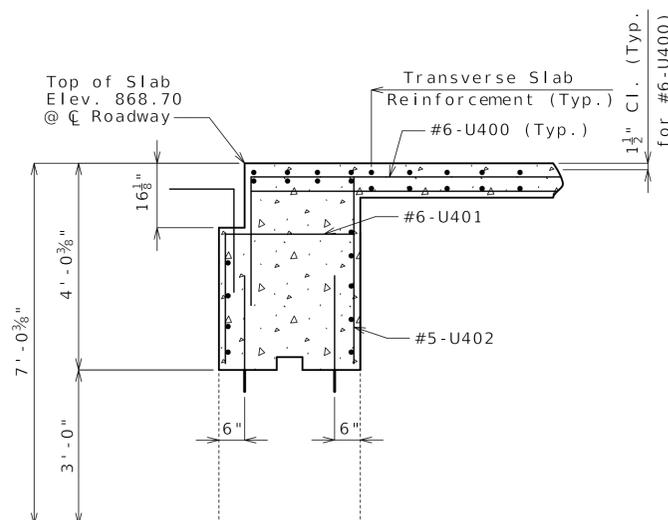


ELEVATION D-D

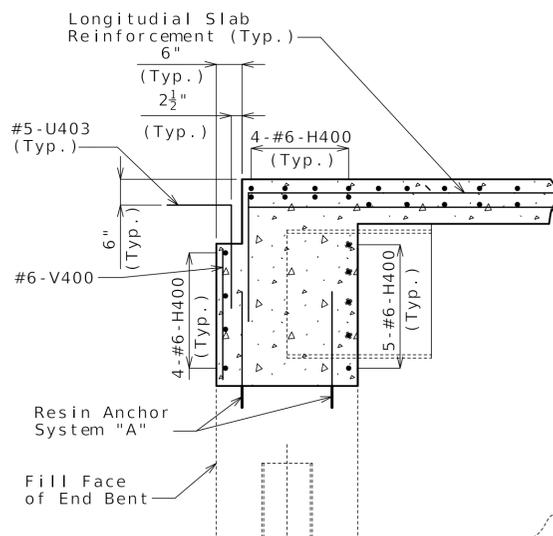
1 1/8" diameter holes in each stringer. Cost of field drilling holes in existing webs will be considered completely covered by the contract unit price for Slab on Steel.



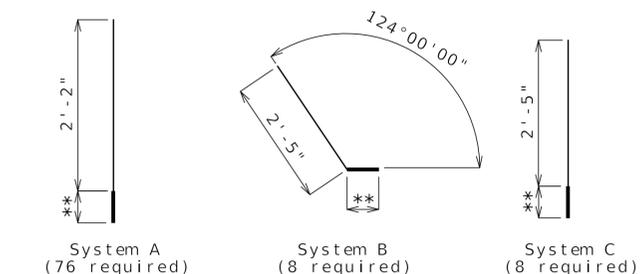
DETAIL OF WEB HOLES



SECTION A-A



SECTION B-B

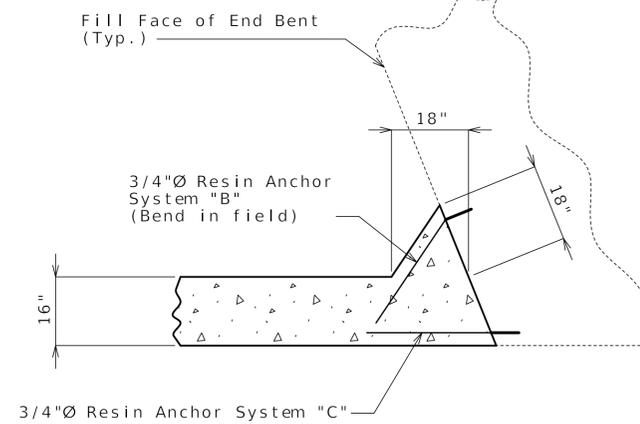


\*\* Use manufacturer's embedment length. (5" minimum embedment length)  
 Note:

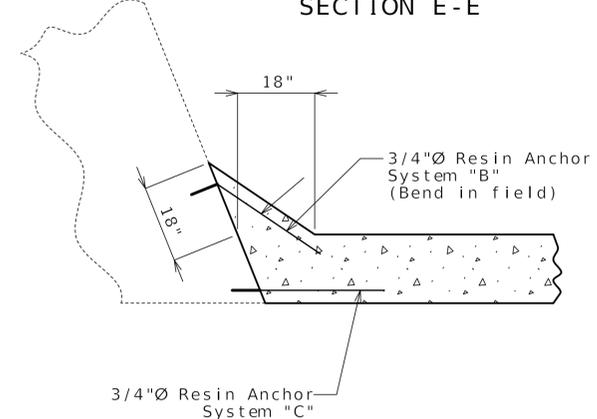
For location of Resin Anchors, see Sheet No. 8.

DETAILS OF RESIN ANCHORS

DETAILS OF END BENT NO. 4



SECTION E-E



SECTION F-F

Notes:

For location of Elevations D-D & C-C,

and Sections A-A & B-B, see Sheet No. 8.

For reinforcement of the barrier, see Sheet No. 12.











