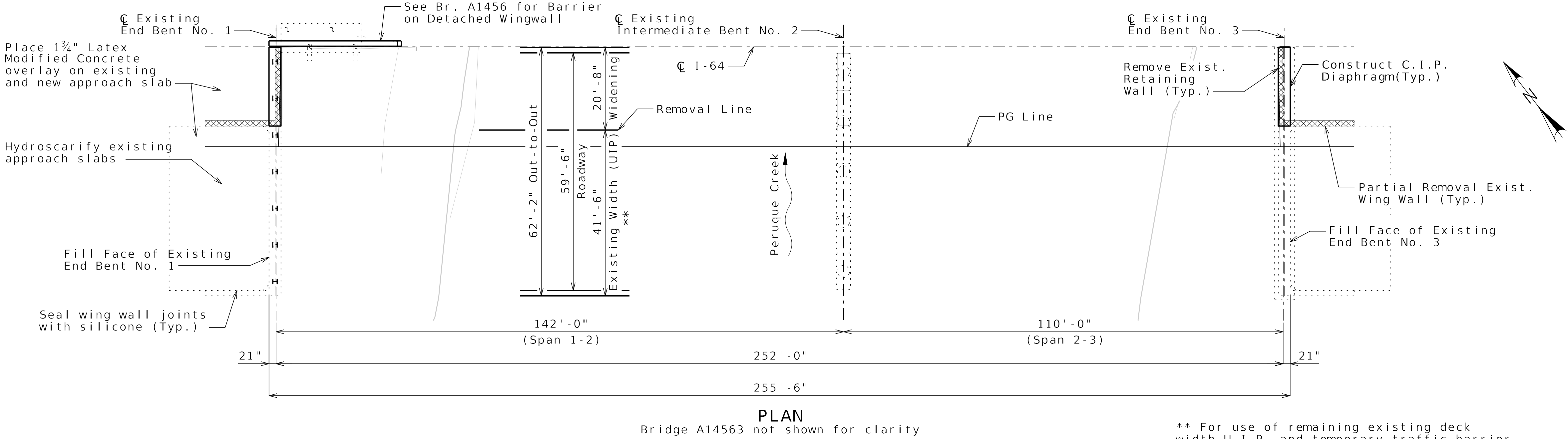
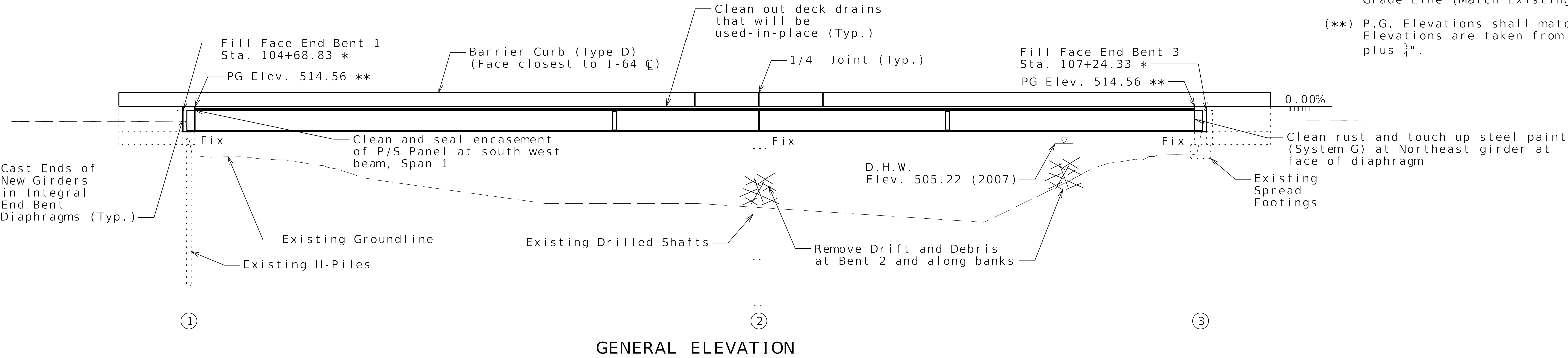


U.I.P. REHABILITATE & WIDEN EXISTING (142' - 110') - CONTINUOUS COMPOSITE PLATE GIRDER SPANS

(*) Approx. Stationing along Proposed Profile Grade Line (Match Existing).
(**) P.G. Elevations shall match existing. Elevations are taken from As-Built Plans plus $\frac{3}{4}$ ".



** For use of remaining existing deck width U.I.P. and temporary traffic barrier placement, see phasing in Maintenance of Traffic Plans.

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
MoDOT	
IMPROVE 70 ALLIANCE	
HNTB 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 PHONE 874333181 FAX 874333181 WWW.BARTLETTWEST.COM	
Bartlett & West 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 874333181 FAX 874333181 WWW.BARTLETTWEST.COM	

General Notes:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Seismic Performance Category A

Design Loading:

Vehicular = HS20 Modified & Military 24,000 lb Tandem Axle (1983) (Existing)
HL-93 (New Construction)
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf
Superstructure: Continuous, Non-Composite for Dead Load. Continuous Composite for live load.

Design Unit Stresses:

Class B-1 Concrete (Barrier) f'c = 4,000 psi
Class B-2 Concrete (Superstructure) f'c = 4,000 psi
Reinforcing Steel (ASTM A706 Grade 60) fy = 60,000 psi
Structural Steel (ASTM A709 Grade 50) fy = 50,000 psi

Neoprene Pads:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Fabricated Steel Connections:

Field connections shall be made with 3/4-inch diameter ASTM F3125 Grade A325 Type 1 bolts and 13/16-inch diameter holes, except as noted.

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.

MBS Refers to mechanical bar splices. Mechanical bar splices shall be in accordance with Sec 706 or 710

All new structural elements will contain epoxy coated reinforcing.

Structural Steel Protective Coatings:

Protective Coating: System G in accordance with Sec 1081.

Prime Coat: Use Organic Zinc Primer Per AAS #14

Field Coat: the color of the finish field coat shall be Gray (Federal Standard #26373).

At the option of the contractor, the intermediate and field finish coats may be applied in the shop. The contractor shall exercise extreme care during all phases of loading, hauling, handling, erection, and pouring of the slab to minimize damage and shall be fully responsible for all repairs and cleaning of the coating systems as required by the engineer.

Traffic Handling:

For traffic phasing during construction, see Maintenance of Traffic Plans.

General Notes (cont.):

Bridge Deck:

Method of forming the slab shall be as shown on the plans and 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 SC4 and a finish type I, II, or III.

Slab shall be cast-in-place. Precast prestressed panels will not be permitted in lieu of stay-in-place corrugated steel forms.

Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirements 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 girder 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. Drilling holes in the girder 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 falsework and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for girder loading.

Miscellaneous:

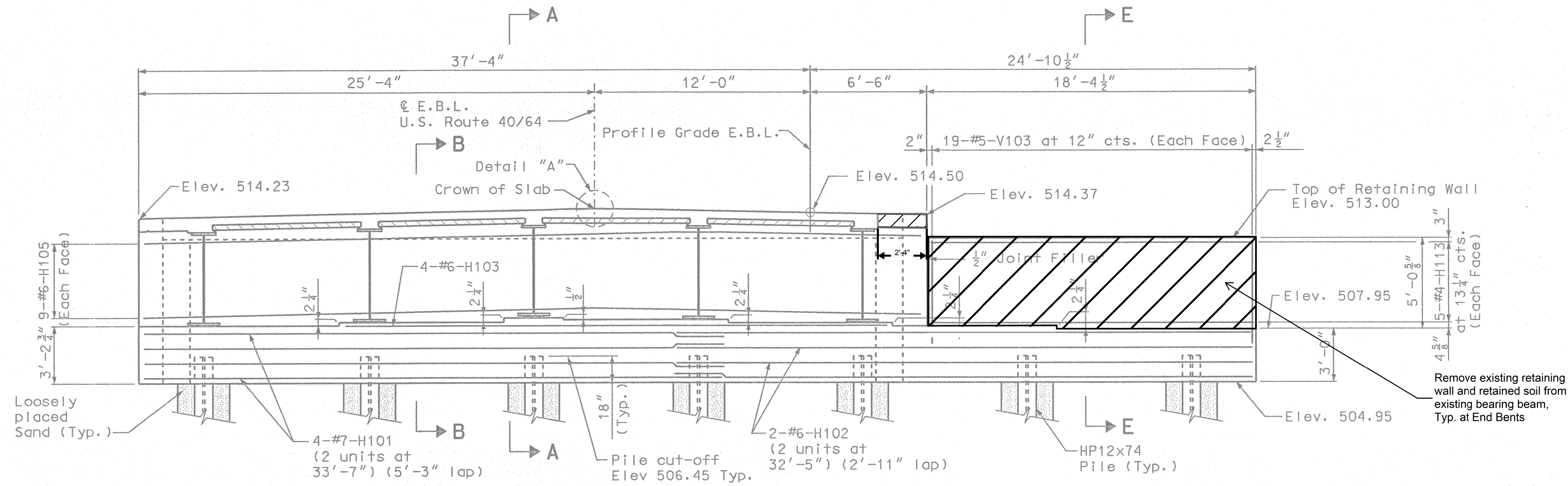
High strength bolts, nuts and washers will be sampled for quality assurance as specified in Sec 106.

Roadway surfacing adjacent to bridge ends shall match new bridge wearing surface (roadway item).

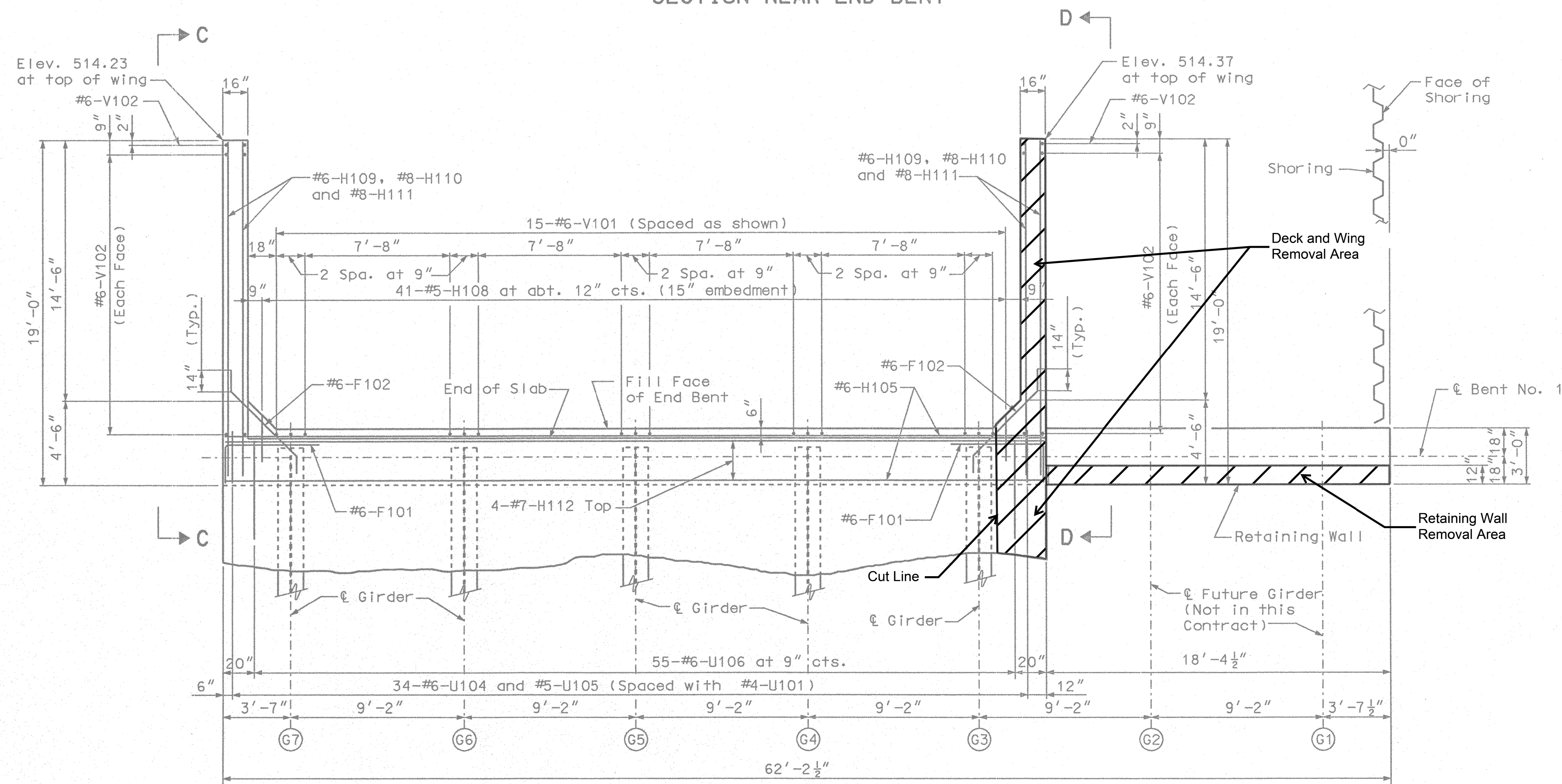
Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

Contractor shall verify all dimensions in field before ordering materials and finalizing shop drawings.

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.



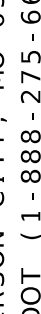
SECTION NEAR END BENT



PART PLAN

DATE PREPARED	
5/6/2025	
ROUTE	STATE
I - 64	MO
DISTRICT	SHEET NO.
BR	4
COUNTY	
ST. CHARLES	
JOB NO.	
J613033	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO. A67542

[illegible]

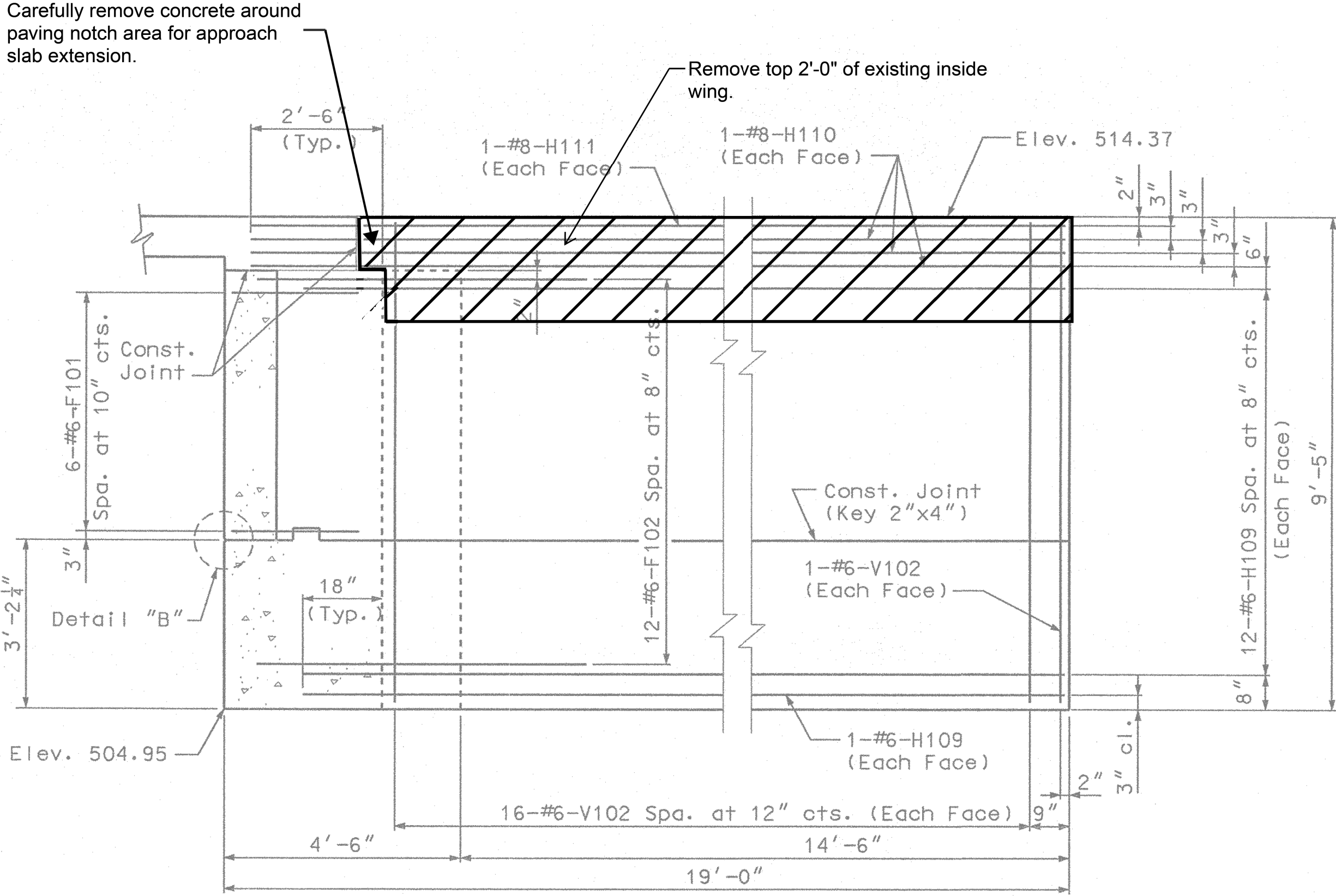
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



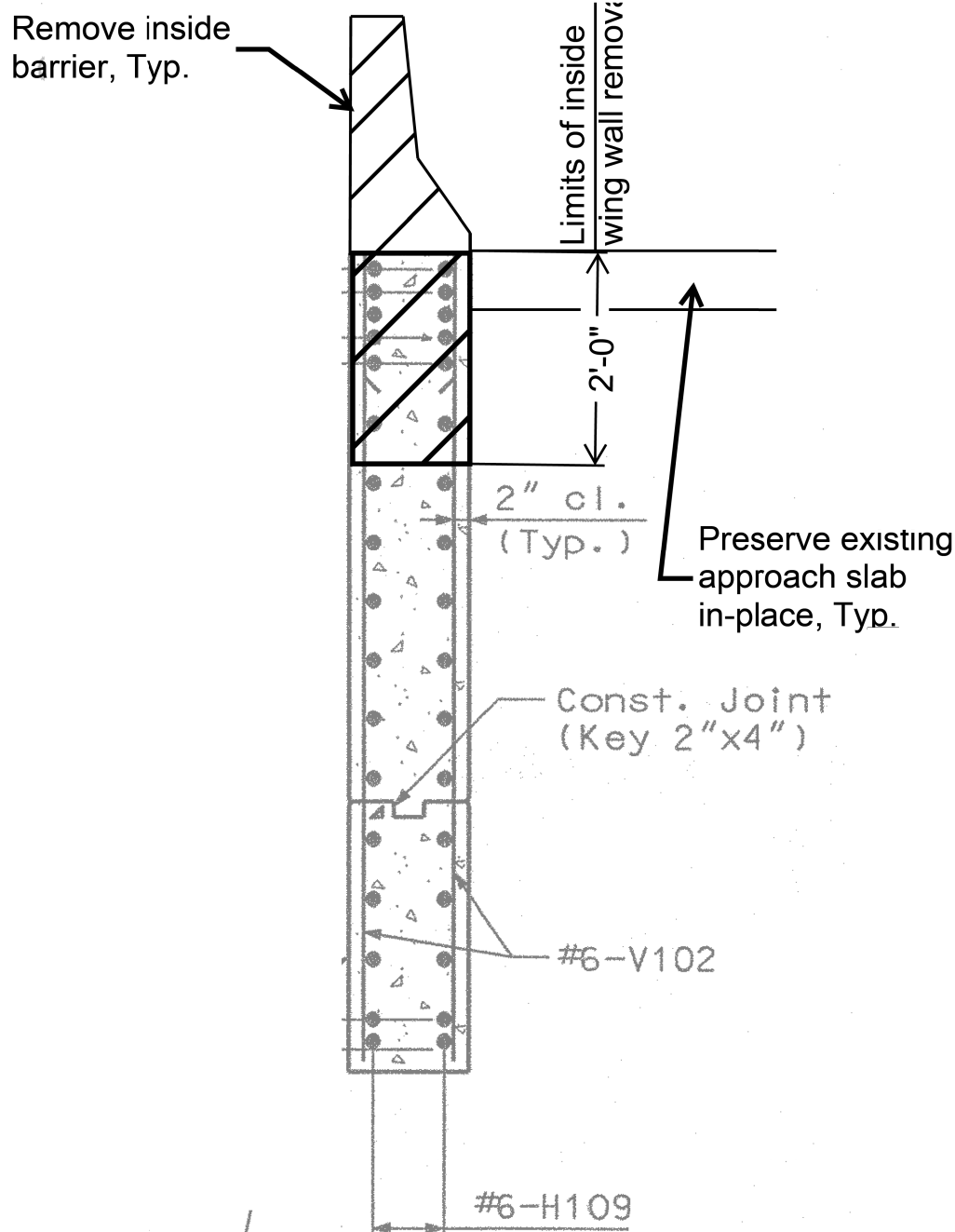
HNTB 715 KIRK DRIVE
KANSAS CITY, MO 64105-1310
CERTIFICATE OF AUTHORITY
NO. 001270

Bartlett & West
601 MONROE ST. SUITE 301 • JEFFERSON CITY, MO 65101
PHONE 572-942-5191
CERTIFICATE OF AUTHORITY NO. 000167 • ENGINEERING
WWW.BARTLETTWEST.COM



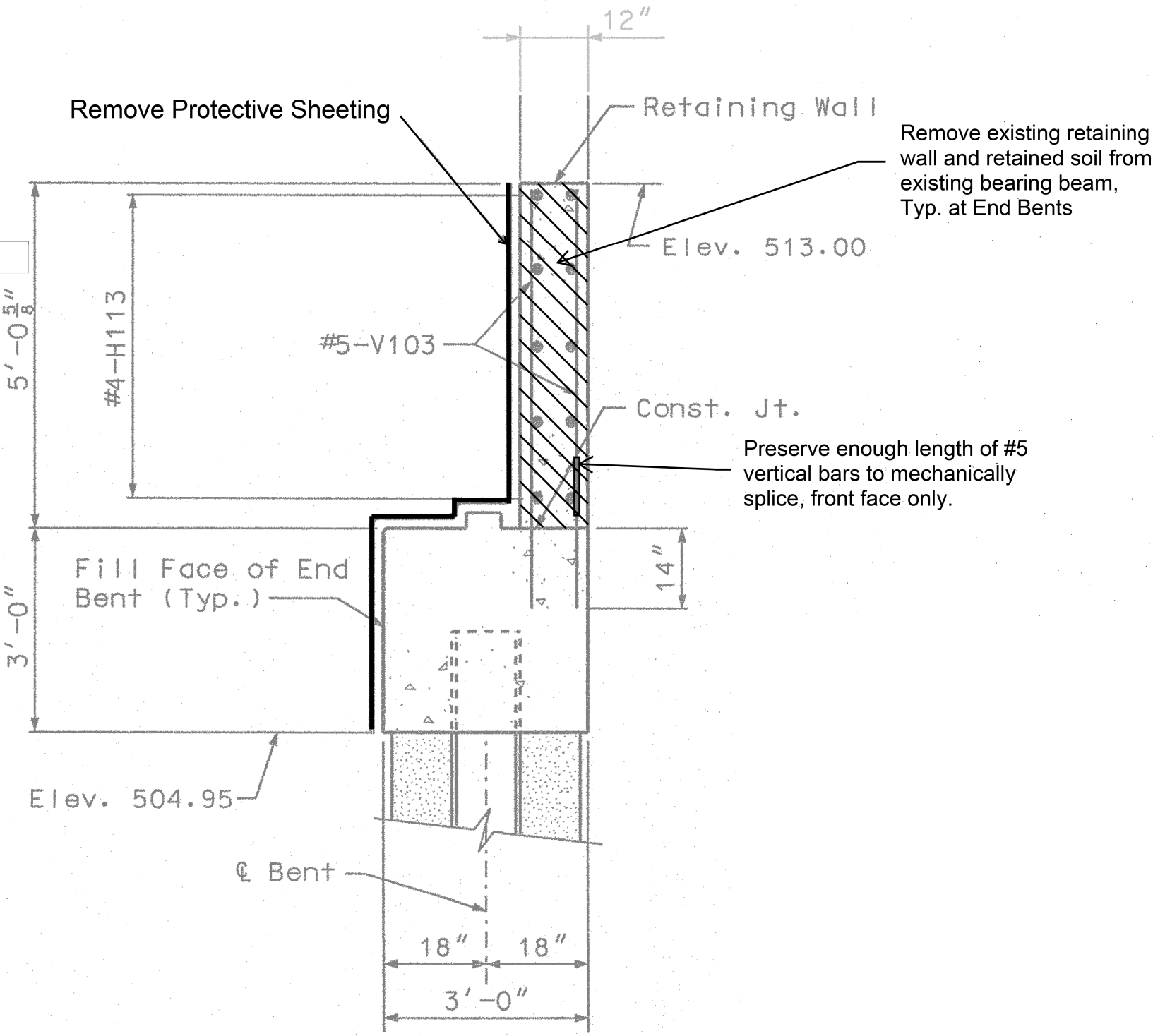
ELEVATION D-D

Note: Beam cap and wall reinforcing not shown.



Outside face of Wingwall

TYPICAL SECTION THRU WINGWALL



SECTION E-E

Note: Pile Cap reinforcing not shown.

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 5
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO. A67542

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

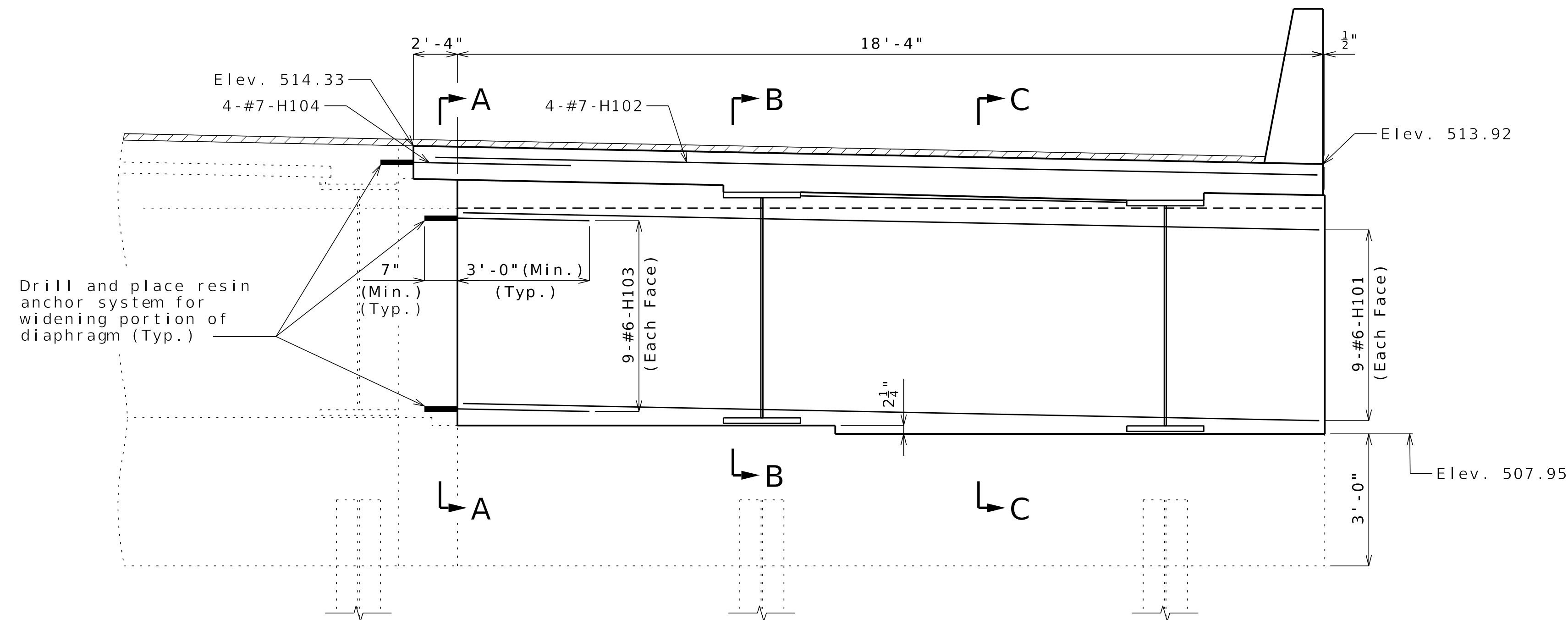
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

IMPROVE 70 ALLIANCE

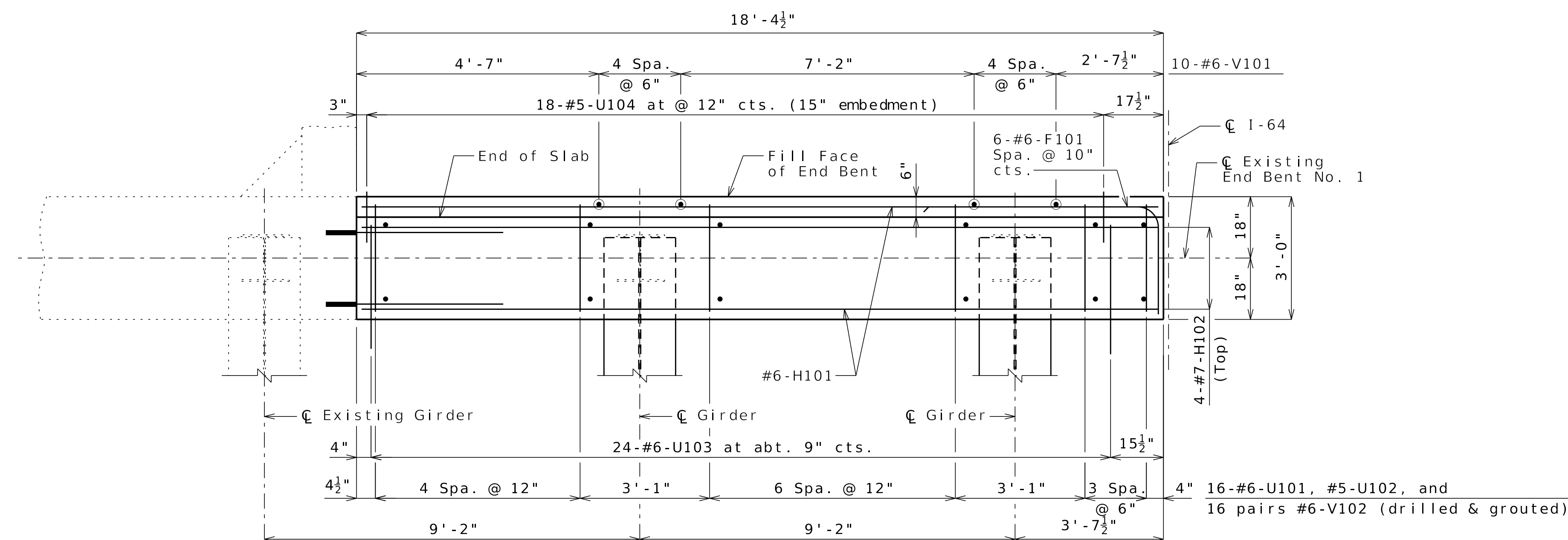
HNTB
715 KIRK DRIVE
KANSAS CITY, MO 64105-1310
CERTIFICATE OF AUTHORITY
NO. 001270

Bartlett & West
601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101
PHONE 572-633-3181
FAX 572-633-3181
WWW.BARTLETTWEST.COM



ELEVATION

Vertical bars and resin anchors not shown for clarity.



PLAN

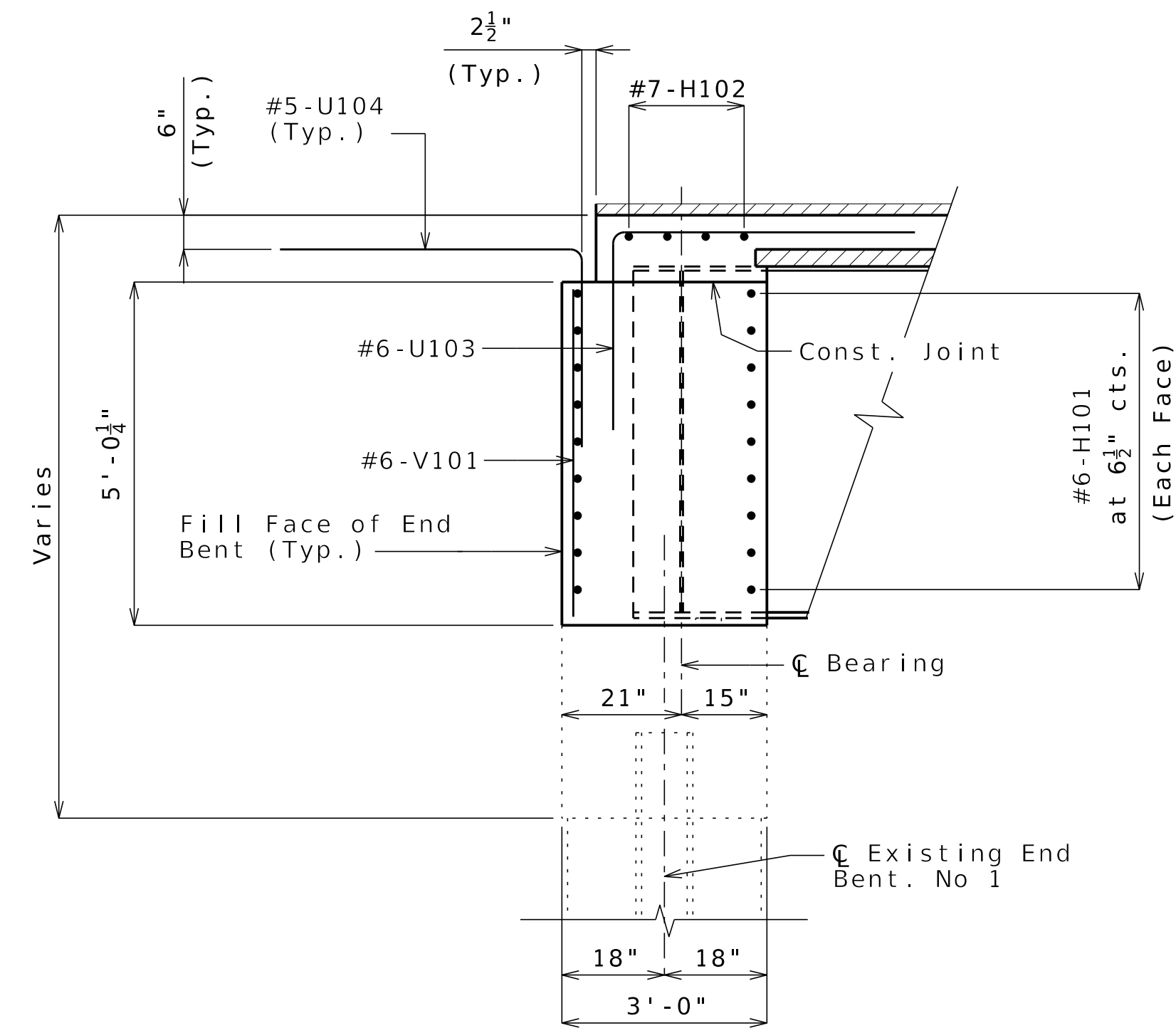
- NOTES:

Refer to Sheet No. 7 for cross sections
and detail of reinforcement

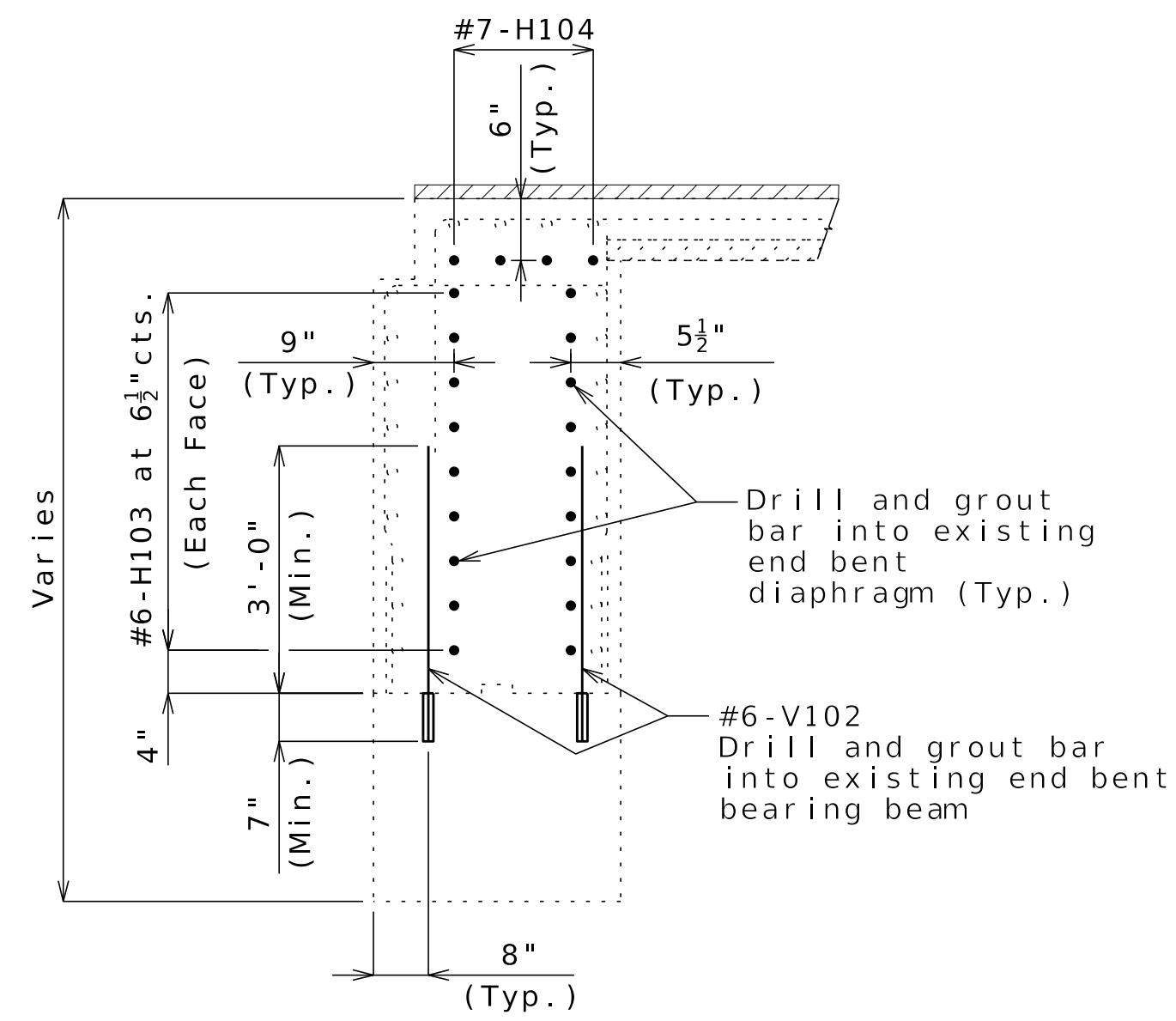
The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

The minimum embedment depth in concrete with $f'c = 4,000$ psi for the resin anchor systems shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

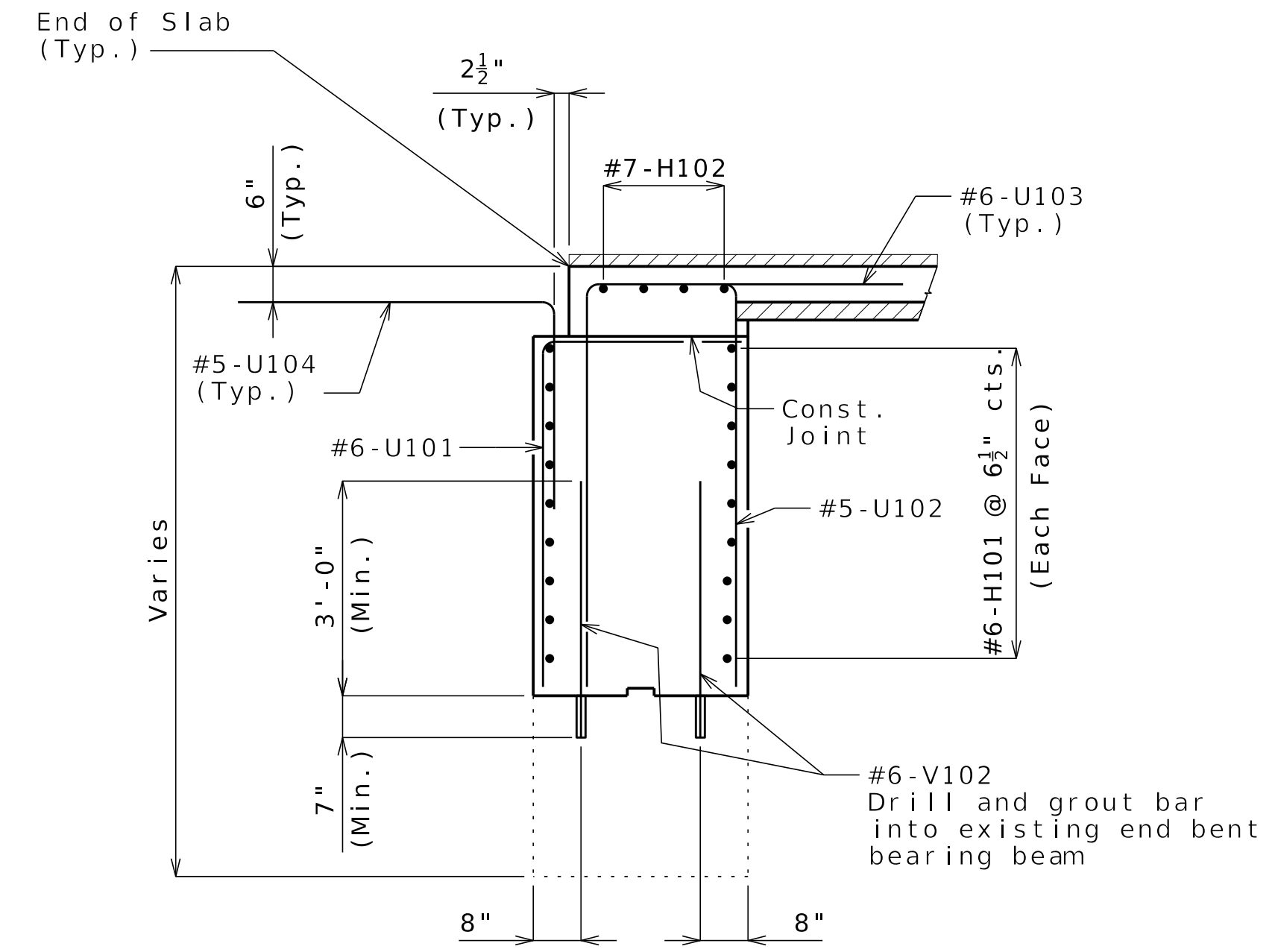
Embedment for drilled and grouted bars into existing concrete is calculated and shown at 9 times the bar diameter. Contractor shall adjust bar length to account for embedment changes per manufacturer's recommendation.



SECTION B-B

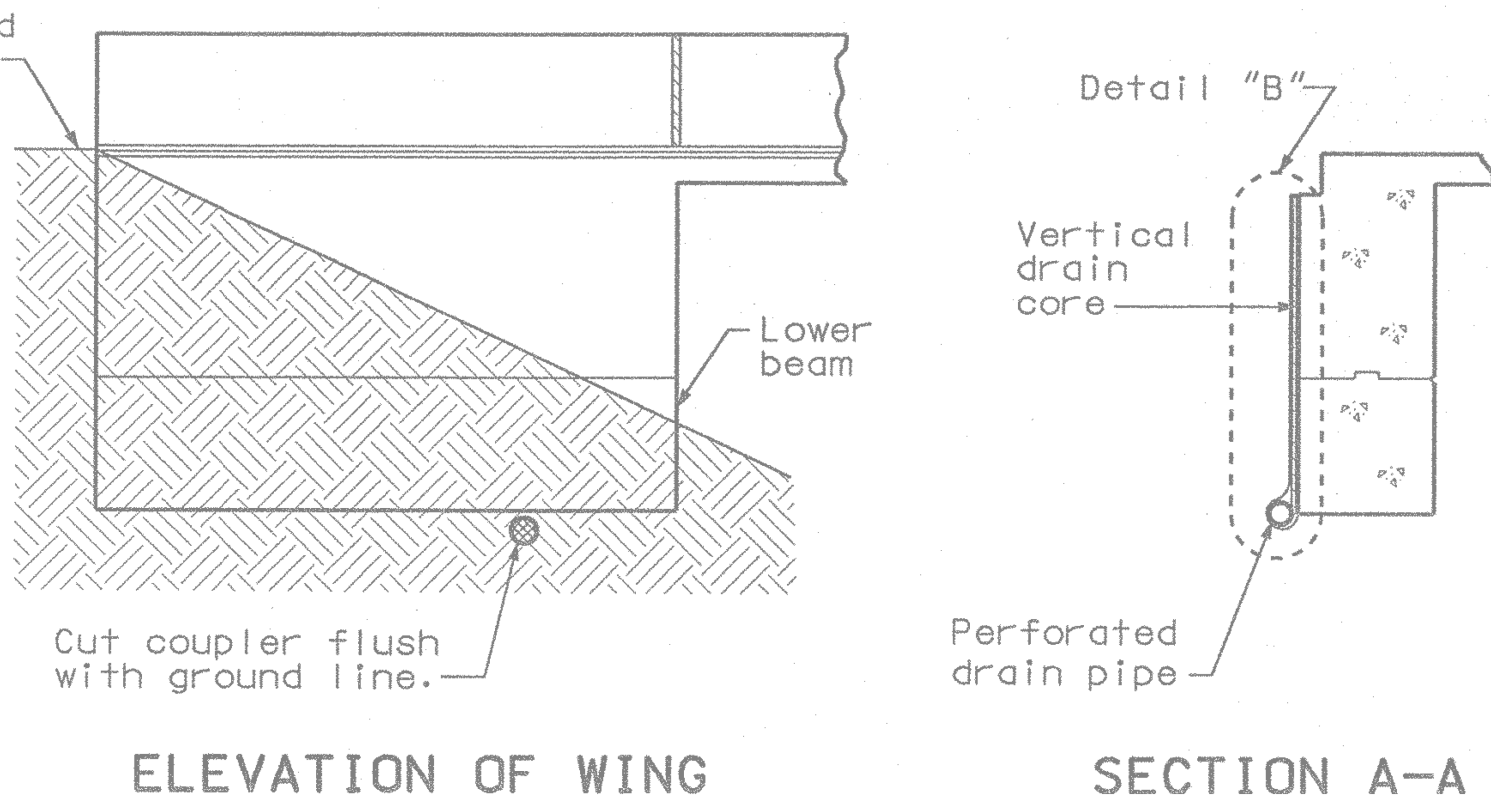
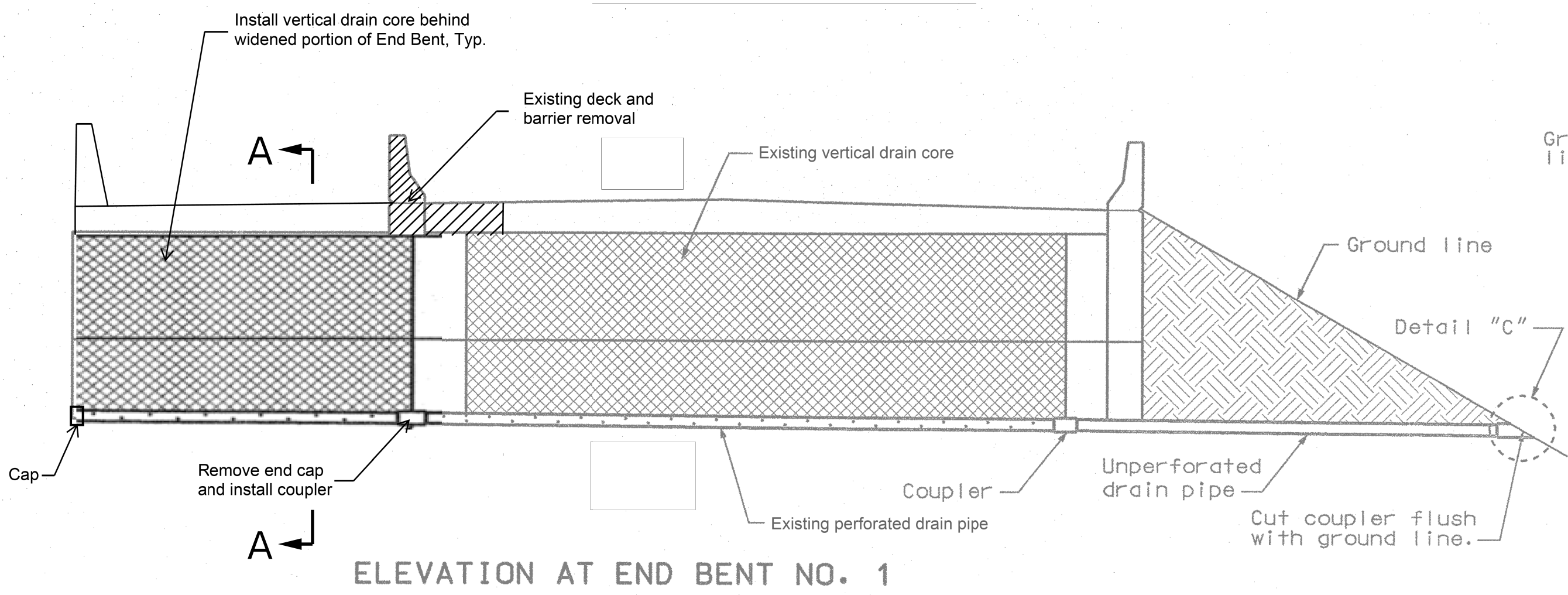


SECTION A-A



SECTION C-C

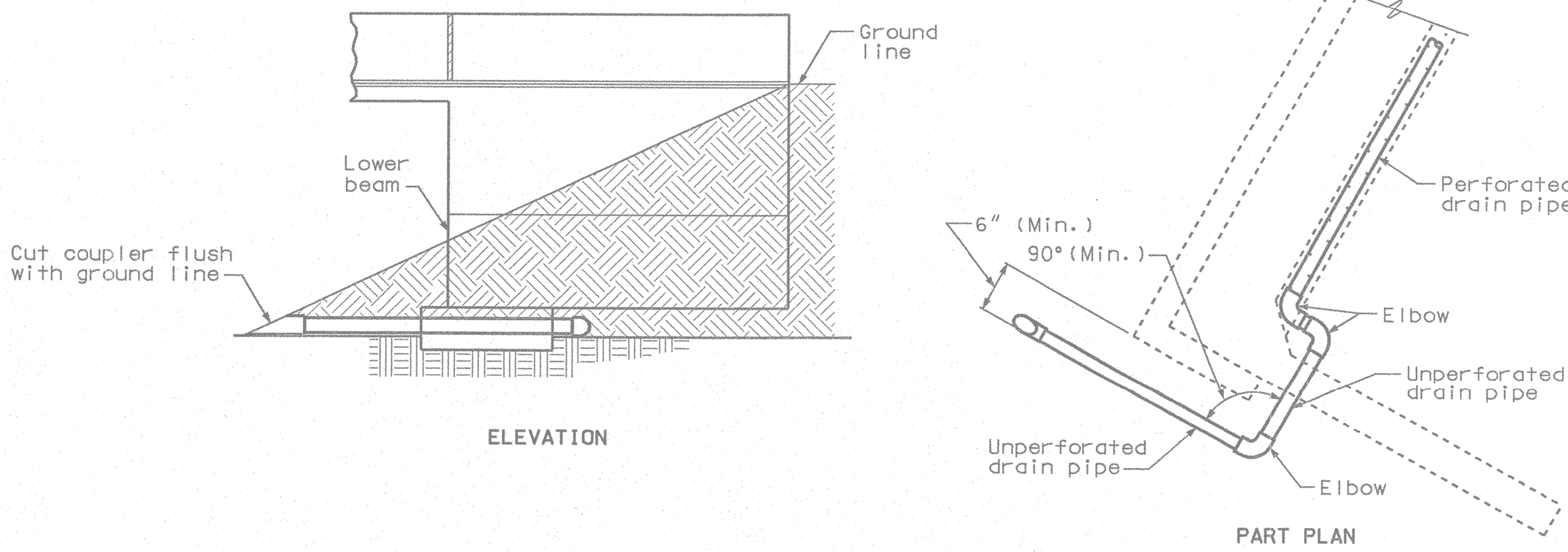
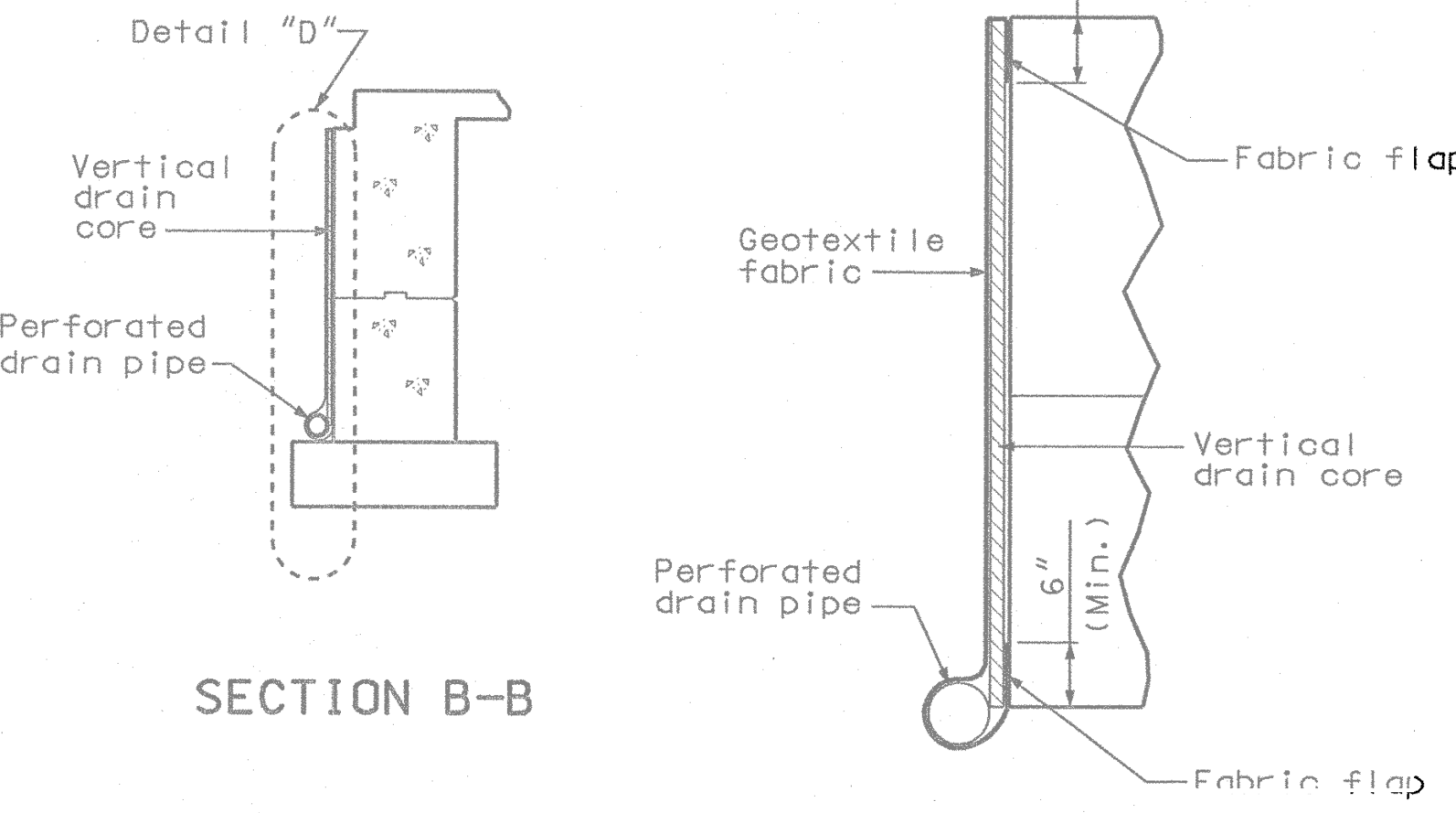
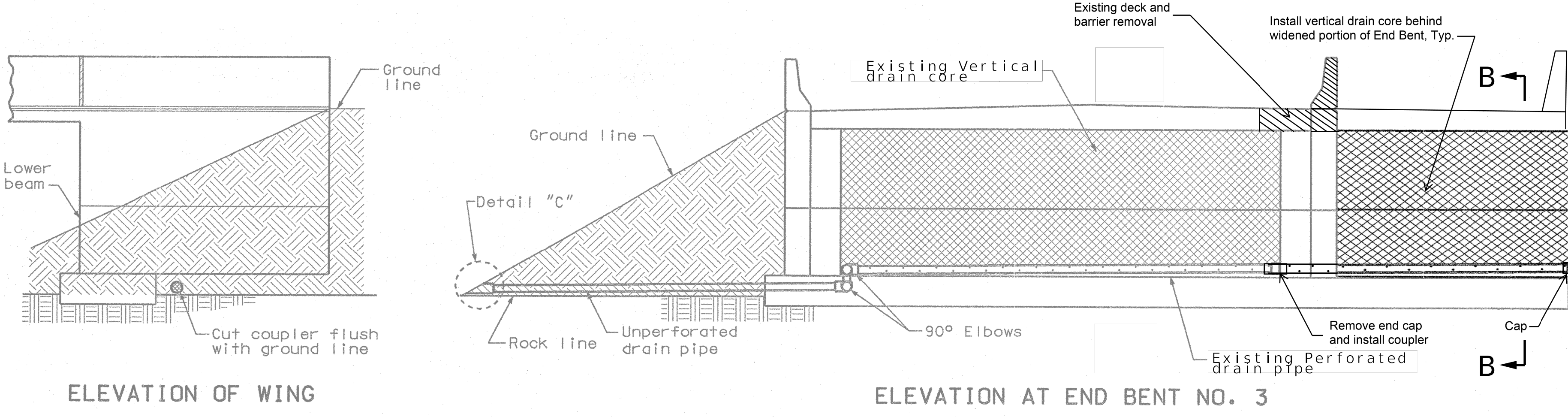
DATE PREPARED 5/6/2025	
ROUTE I - 64	STATE MO
DISTRICT BR	SHEET NO. 7
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
HNTB	
Bartlett & West 601 MONROE ST. SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 314-343-3181 FAX 314-343-3182 CERTIFICATE OF AUTHORITY NO. 0001270 WWW.BARTLETTWEST.COM	



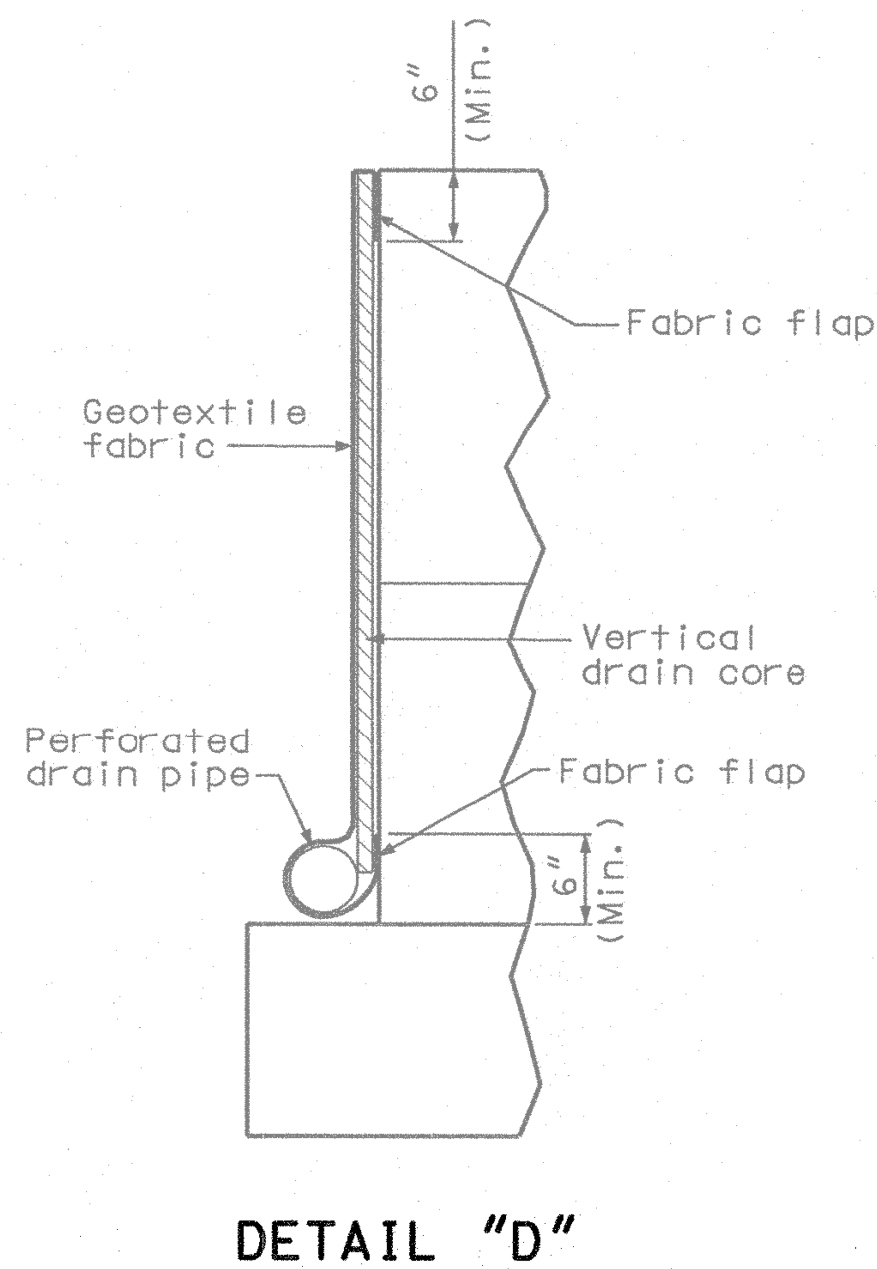
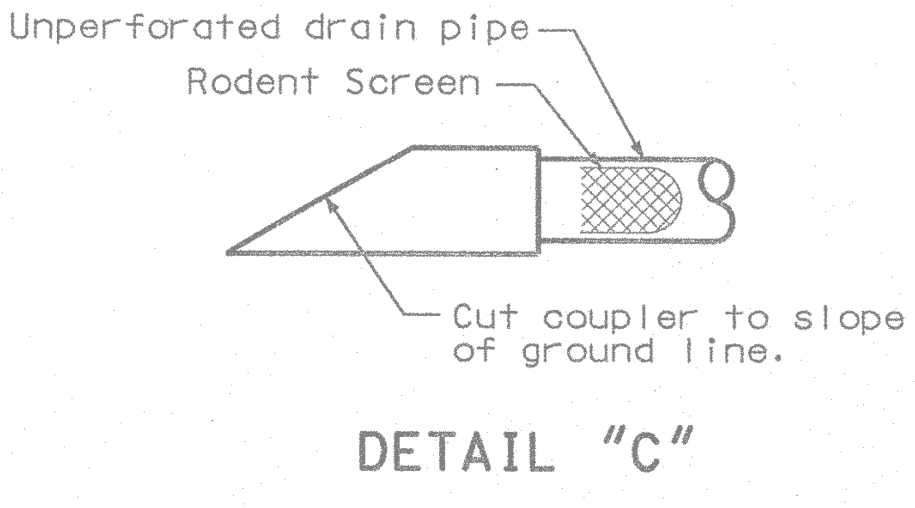
Notes:
Drain pipe may be either 6" diameter corrugated metallic-coated steel pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

Place drain pipe at fill face of end bent and slope to lowest grade of ground line, also missing the lower beam of end bent by 1 1/2". (See elevation at end bent.)

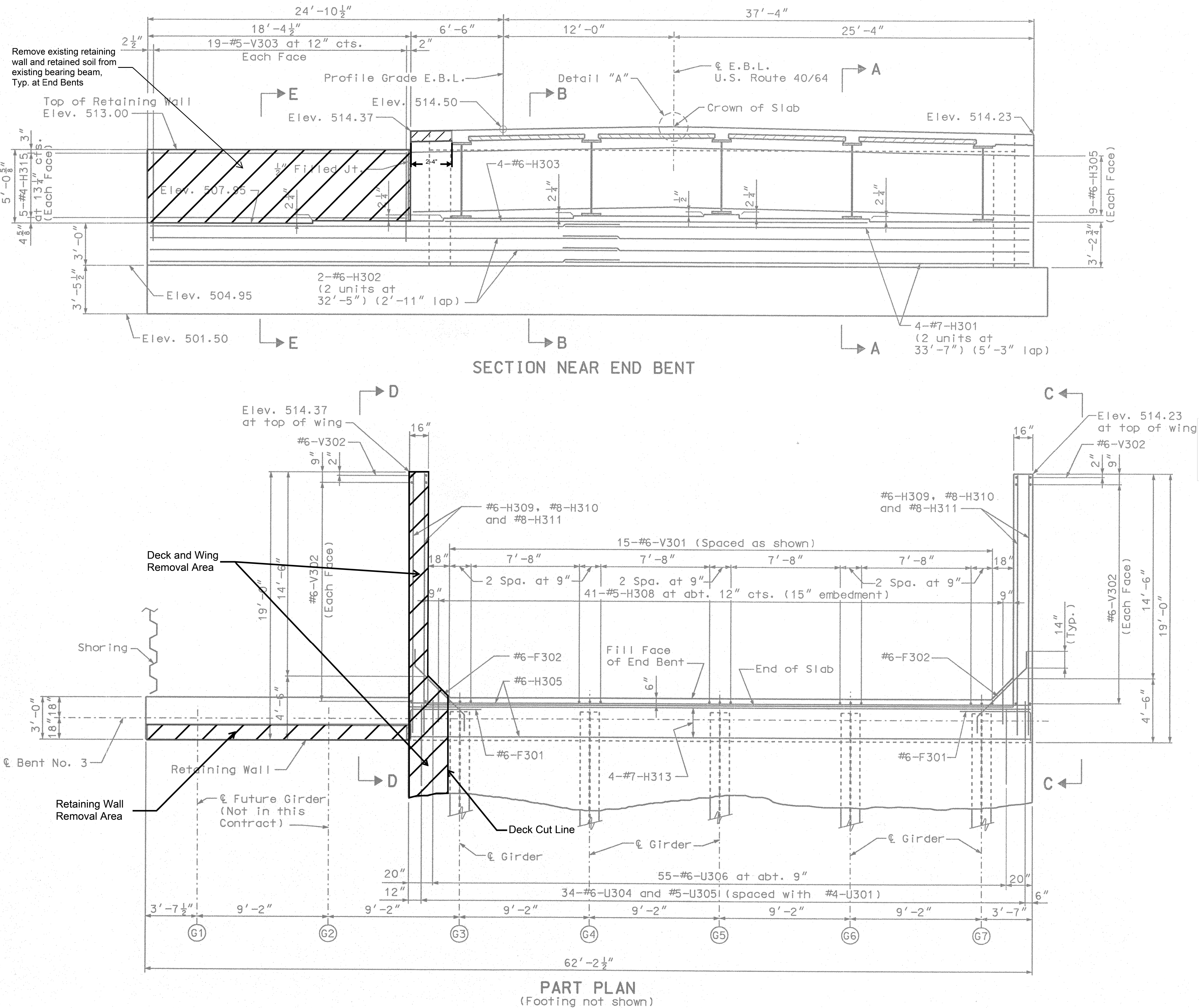
Perforated pipe shall be placed at fill face side at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



OPTIONAL BENT DRAIN FOR END BENT NO. 3 (*)
(*) Only if rock is encountered at outside of wing.



DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 8
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
715 WIRK DRIVE KANSAS CITY, MO 64105-1310 PHONE 874-3331 FAX 874-3331 WWW.BARTLETTWEST.COM	

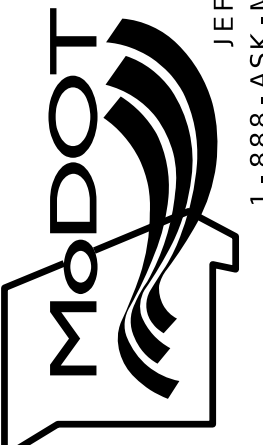


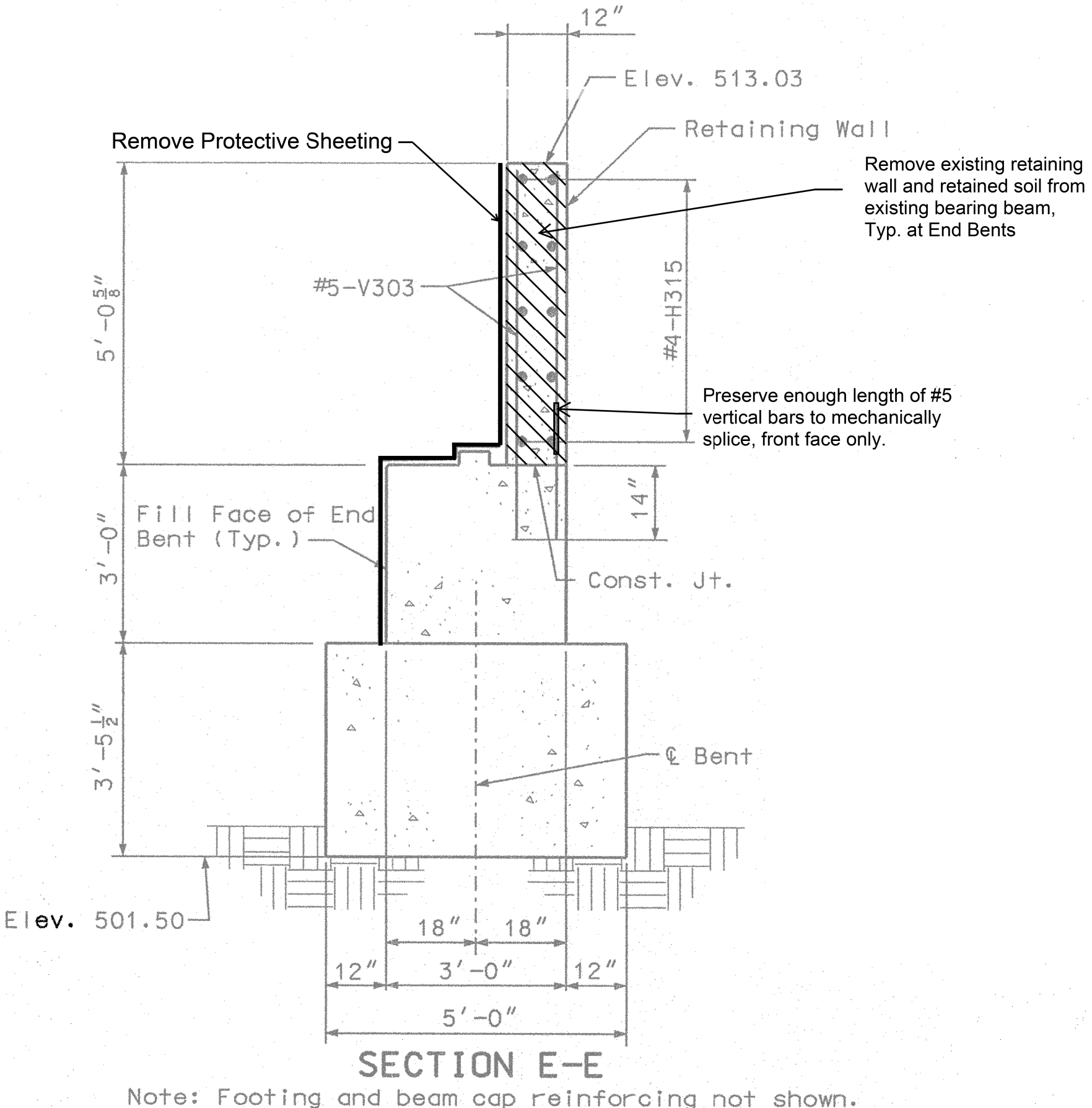
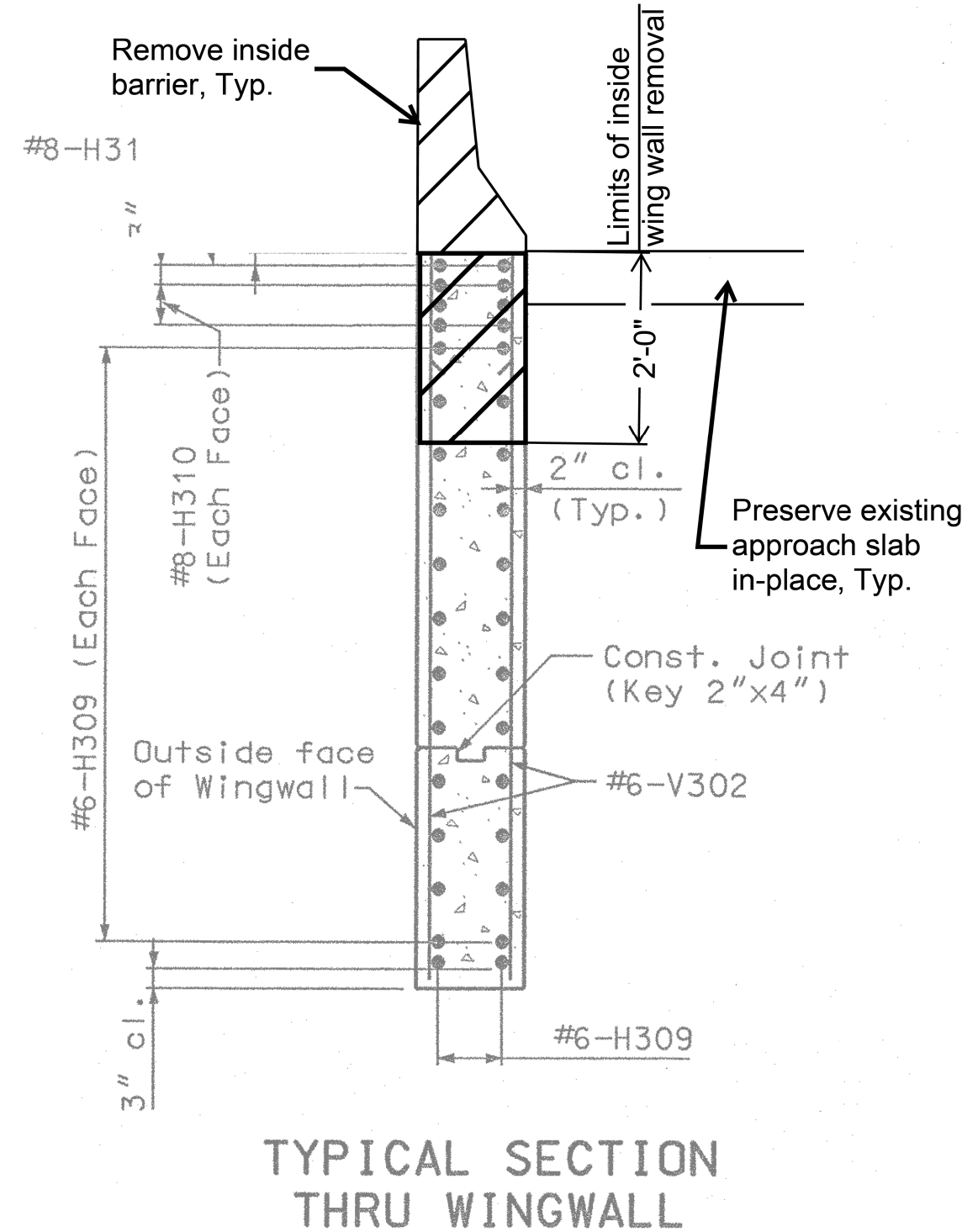
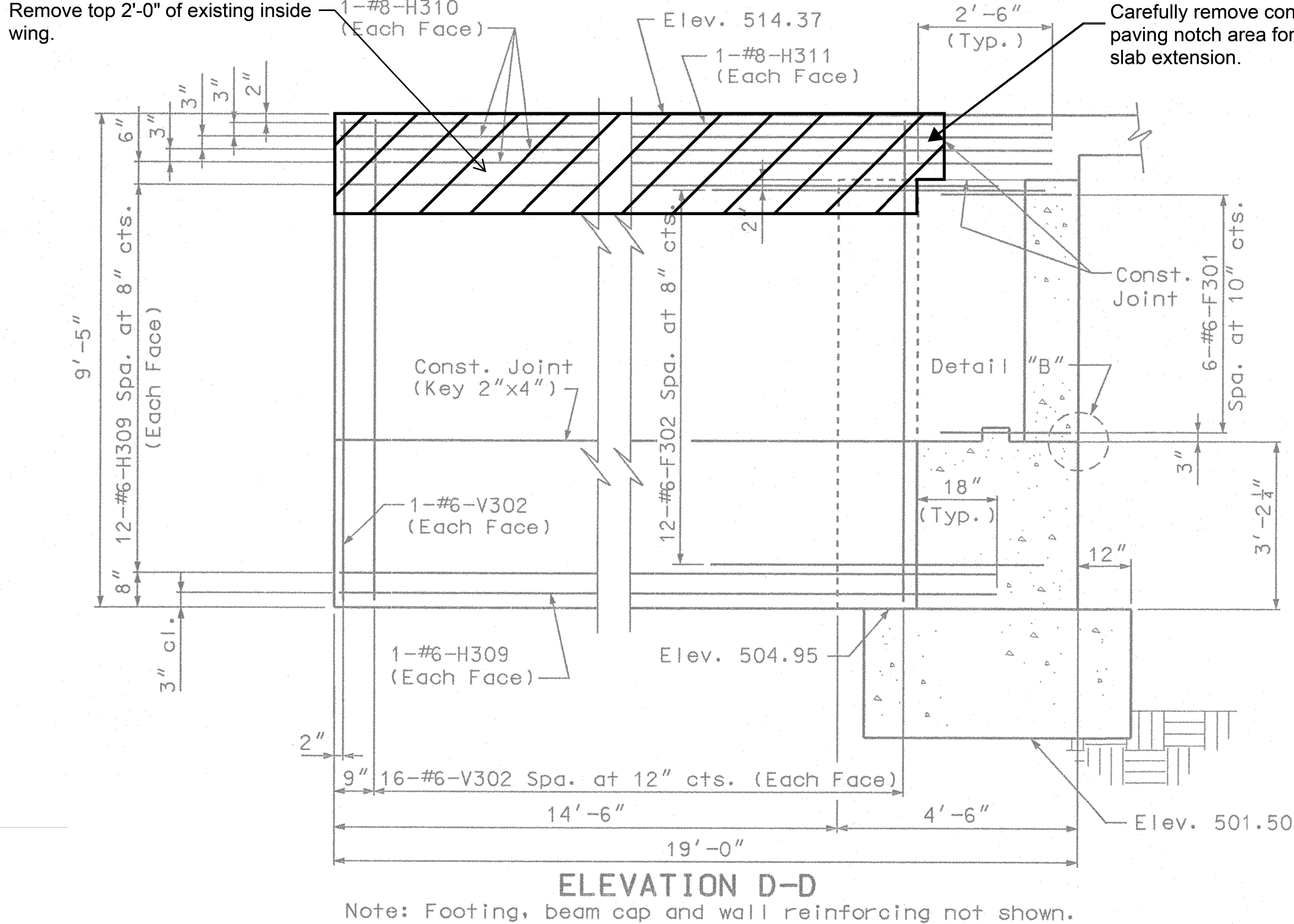
Detailed APR 2025
Checked APR 2025

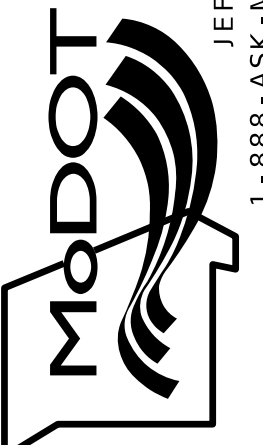
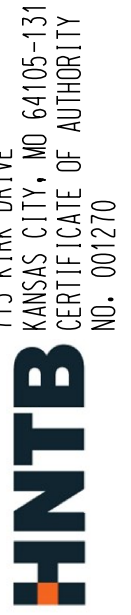
Note: This drawing is not to scale. Follow dimensions.

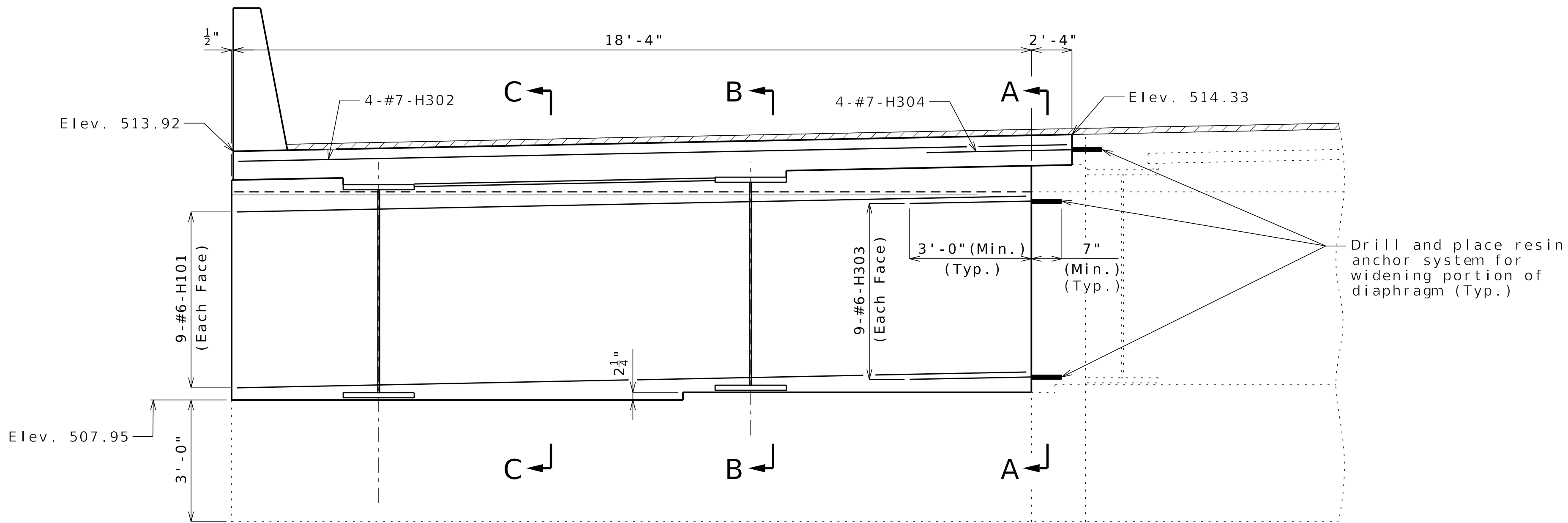
Sheet 9 of 25

REMOVAL DETAILS END BENT NO. 3

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 9
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
	
Bartlett & West 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 572-633181 CERTIFICATE OF AUTHORITY NO. 001270	

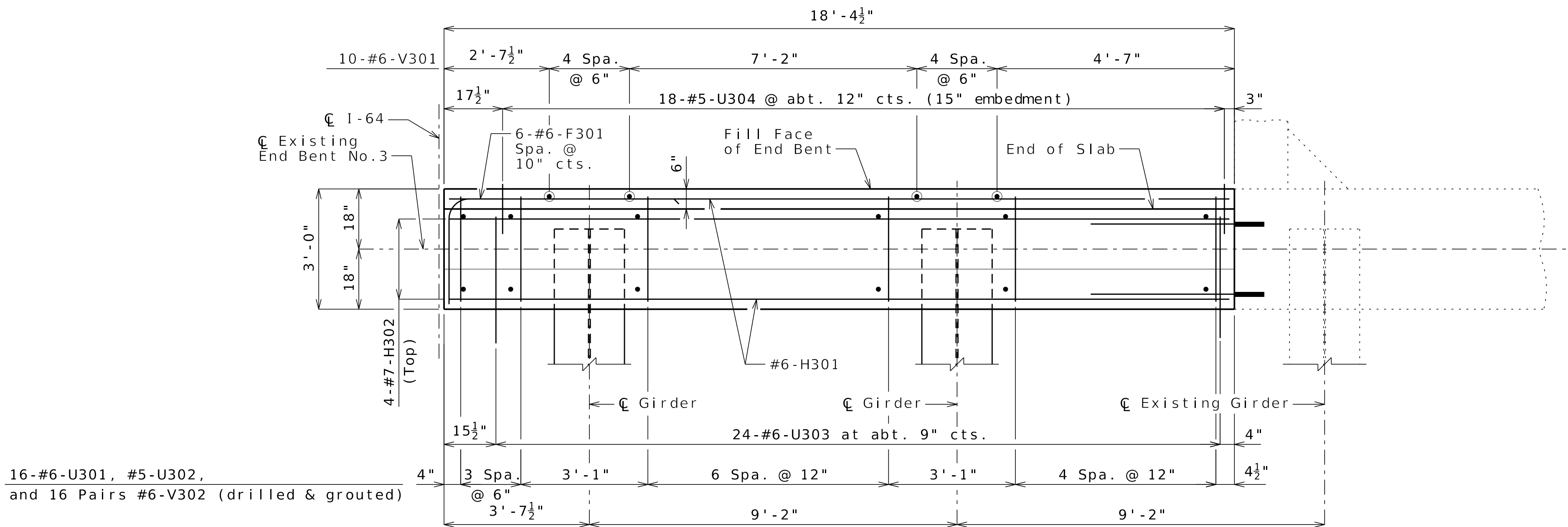


DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 10
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 872-630-3181 WWW.BARTLETTWEST.COM	



ELEVATION

Vertical bars and resin anchors not shown for clarity.



PLAN

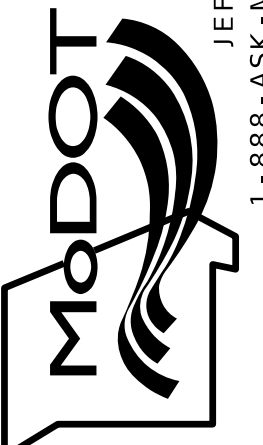
Notes:

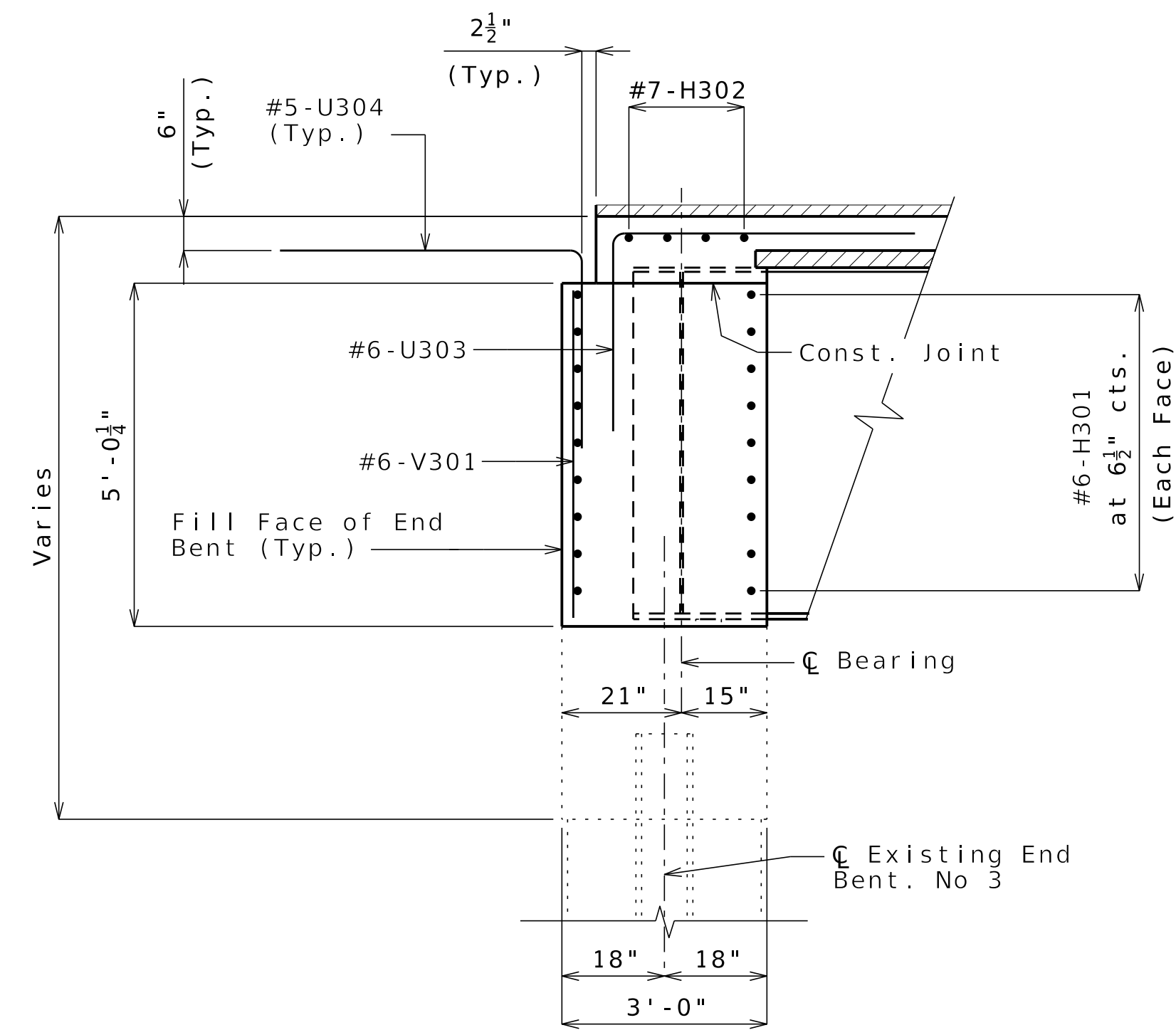
Refer to Sheet No. 7 for cross sections and detail of reinforcement

The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

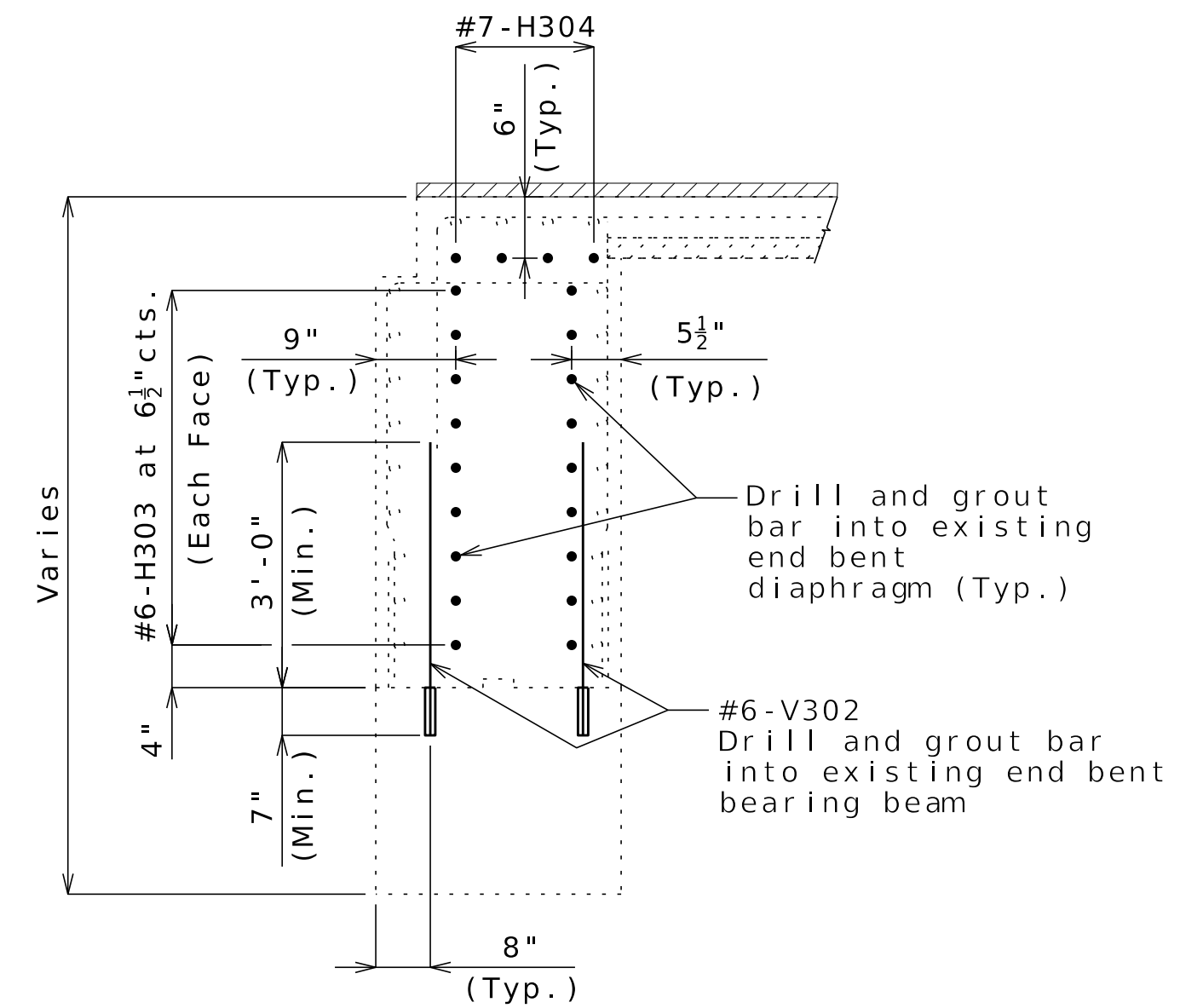
The minimum embedment depth in concrete with $f'c = 4,000$ psi for the resin anchor systems shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

Embedment for drilled and grouted bars into existing concrete is calculated and shown at 9 times the bar diameter. Contractor shall adjust bar length to account for embedment changes per manufacturer's recommendation.

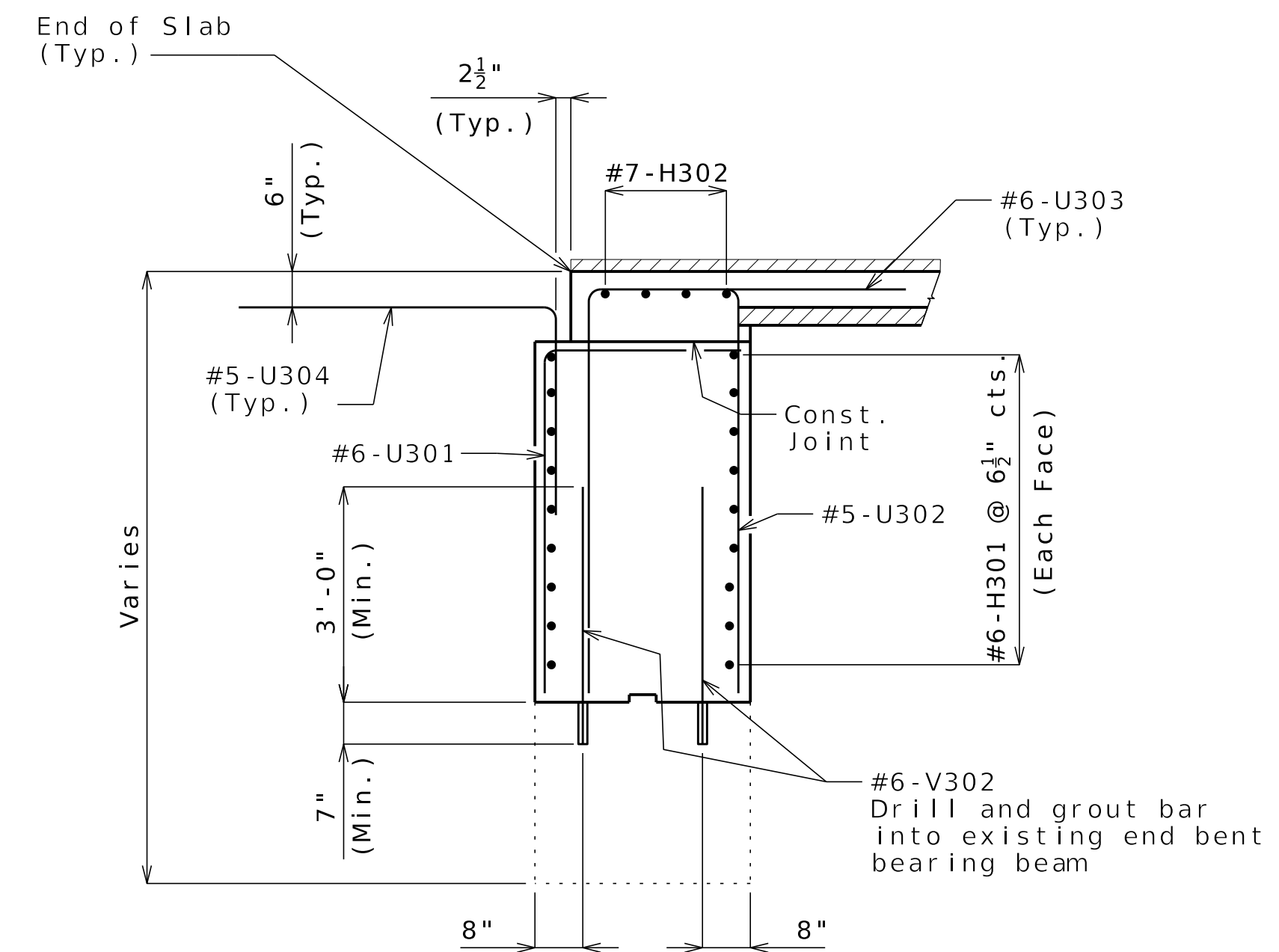
DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 11
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
	
	



SECTION B-B

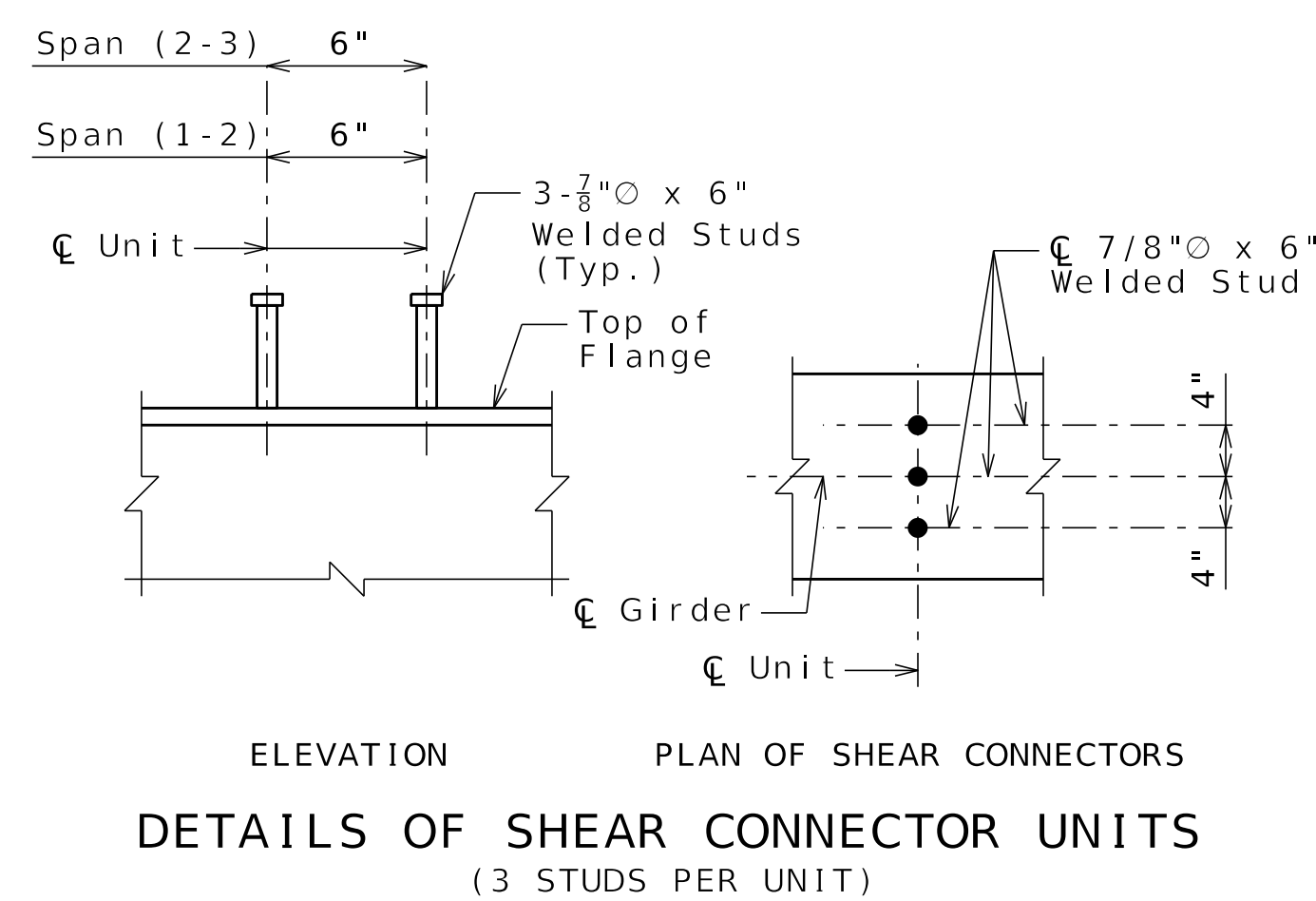
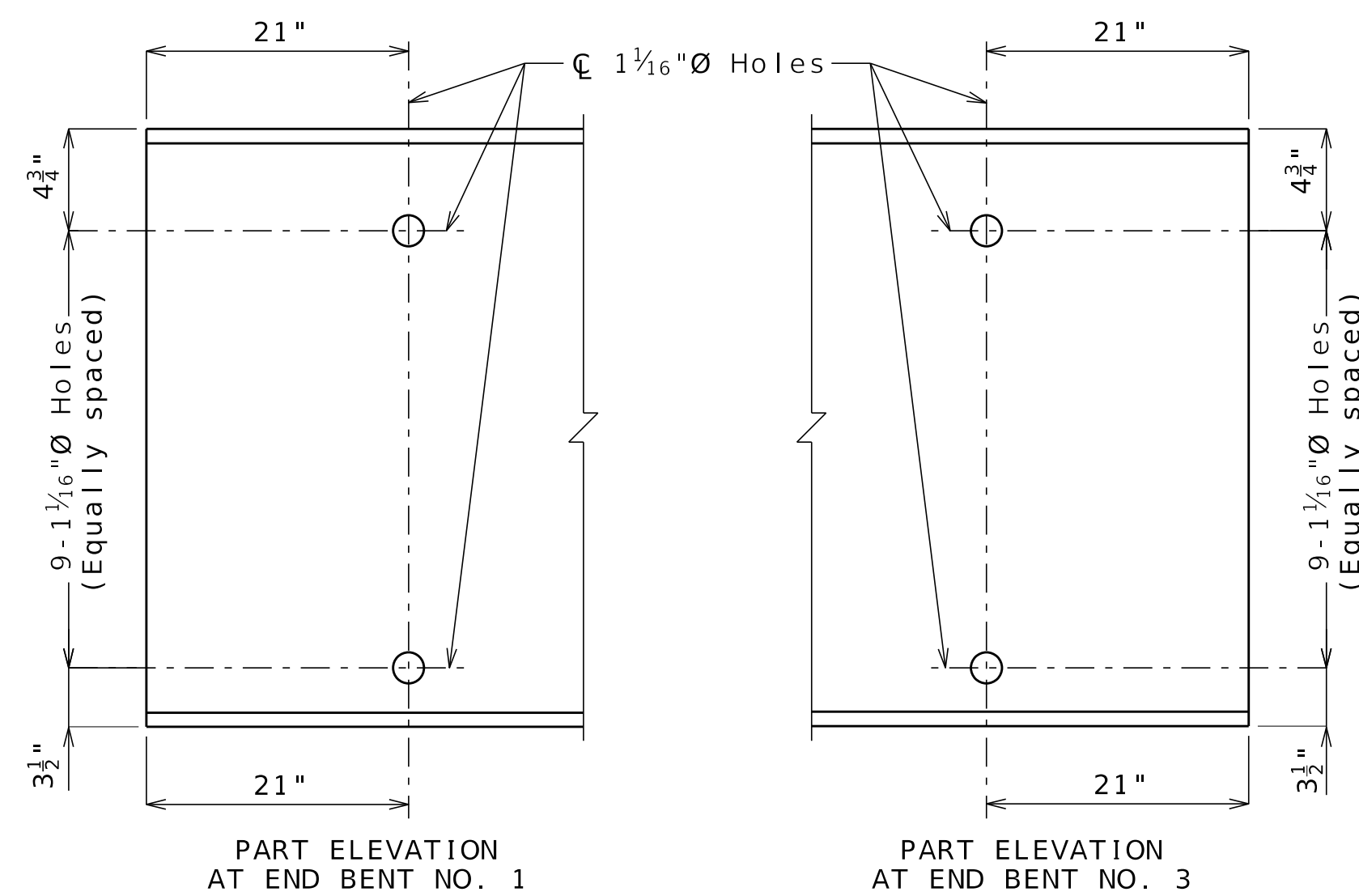
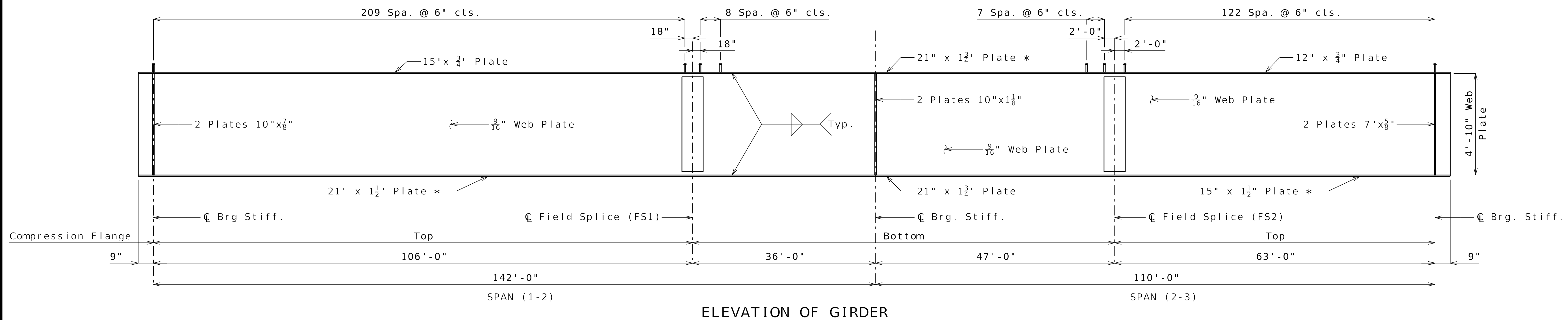
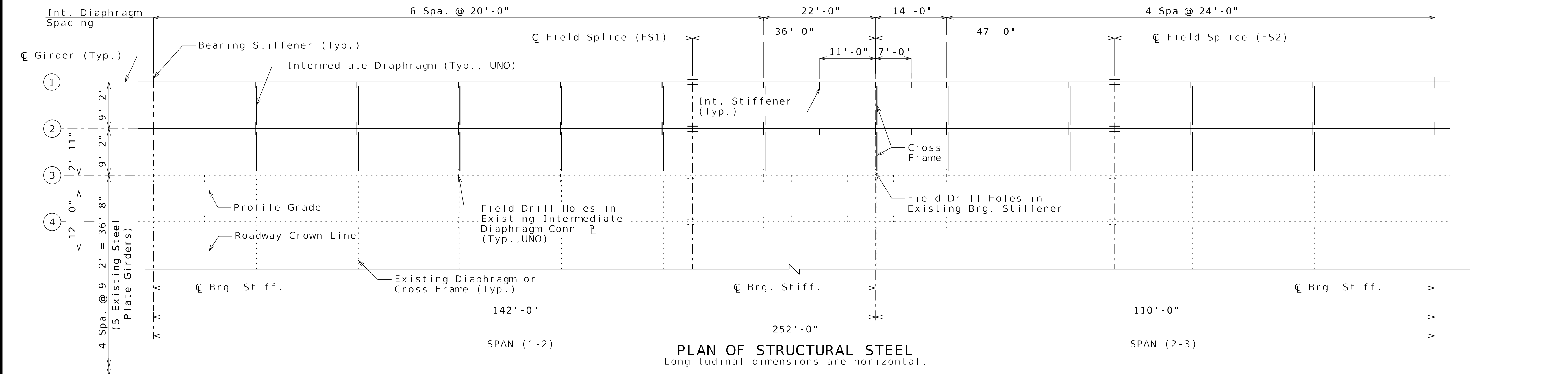


SECTION A-A



SECTION C-C

DATE PREPARED 5/6/2025	
ROUTE I - 64	STATE MO
DISTRICT BR	SHEET NO. 12
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
 105 WEST CAPITAL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
 601 MONROE ST. SUITE 201 • JEFFERSON CITY, MO 65101 PHONE 572-3434-3181 • FAX 572-3434-3187 • ENGINEERING CERTIFICATE OF AUTHORITY NO. 00000001 WWW.BARTLETTWEST.COM	



Notes:

* Indicates flange plate subject to notch toughness requirements.
All web plates shall be subject to notch toughness requirements.

Weight of 2,415 pounds of shear connectors is included in the weight of Fabricated Structural Low Alloy Steel (Plate Girder) A709, Grade 50.

Shear connectors shall be in accordance with Sec 712, 1037 & 1080.

Plate girders shall be fabricated in accordance with the camber diagram shown on Sheet No. 15.

For details of bolted field splices and Part Longitudinal Section, see Sheet No. 16.

For details of intermediate diaphragms, cross frames, stiffeners and connection plates, see Sheet No. 17.

For location of slab drain attachment holes, see Sheet No. 18.

Girder flanges and web plates shall be ASTM A709, Grade 50. All other structural steel components shall be ASTM A709, Grade 36 unless noted otherwise.

Longitudinal dimensions are horizontal from ζ bearing to ζ bearing.

Contractor shall verify as-built dimensions of the existing structure prior to fabrication of structural members to be attached to the existing structure.

UNO denotes Unless Noted Otherwise.

 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 000270						MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION		105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		601 HONORE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 572-624-3181 FAX 572-624-3182 CERTIFICATE OF AUTHORITY NO. 000270 www.bartlettwest.com							

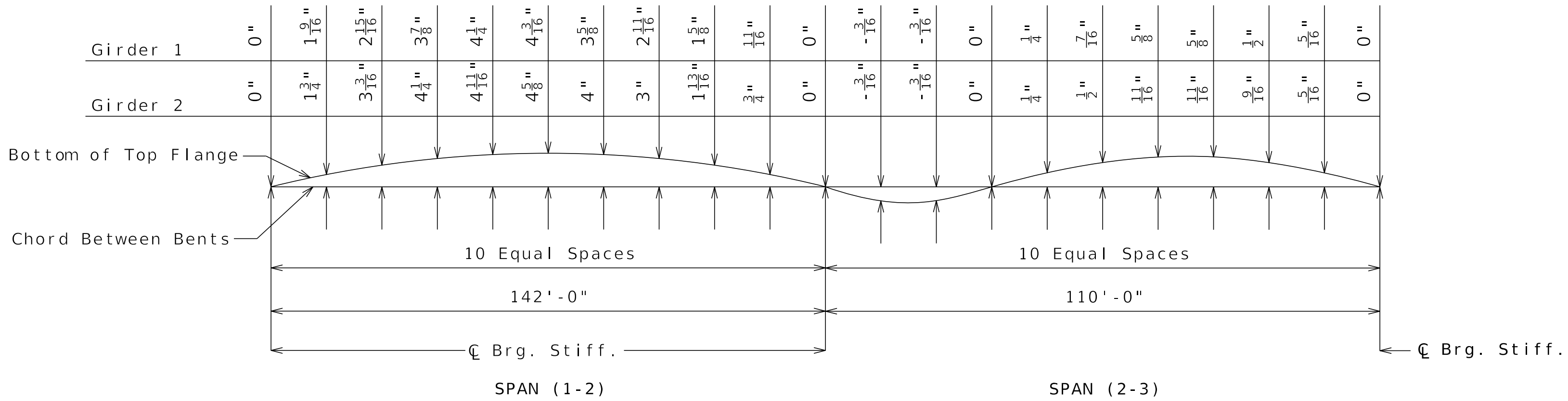


PLATE GIRDER CAMBER DIAGRAM

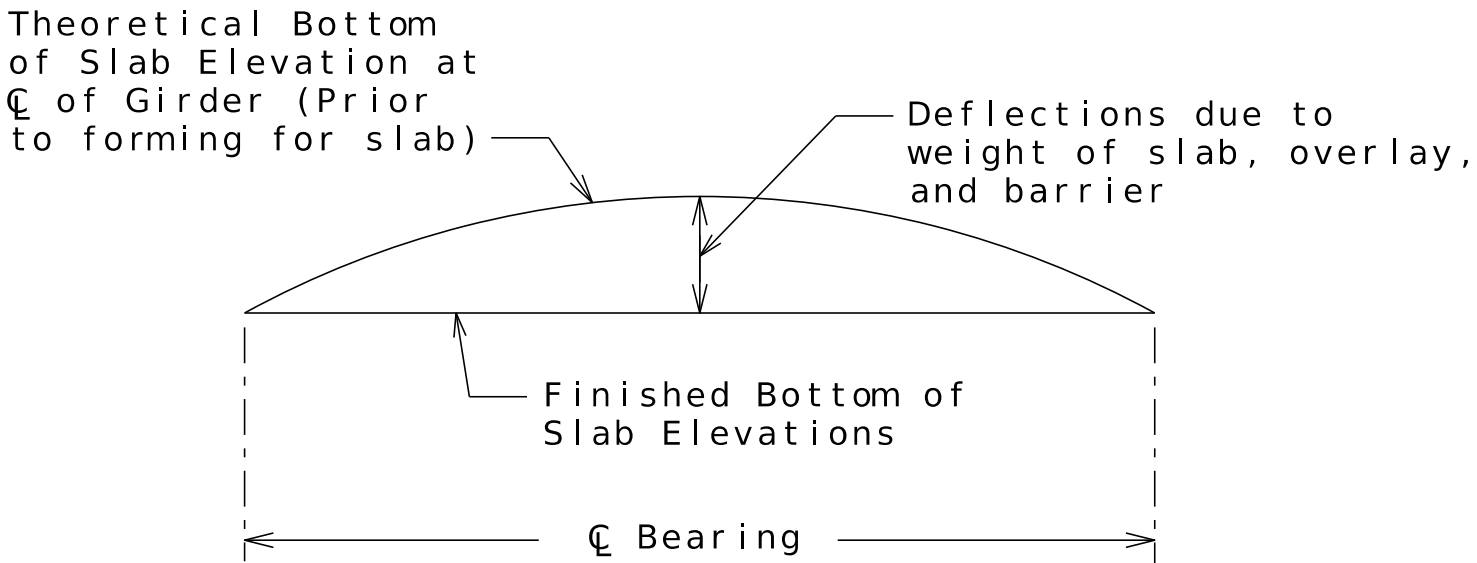
Camber includes allowance for dead load deflection due to concrete slab (including deck forms), barrier, overlay, and structural steel.

Due to straight grade on bridge, total dead load deflection = camber.

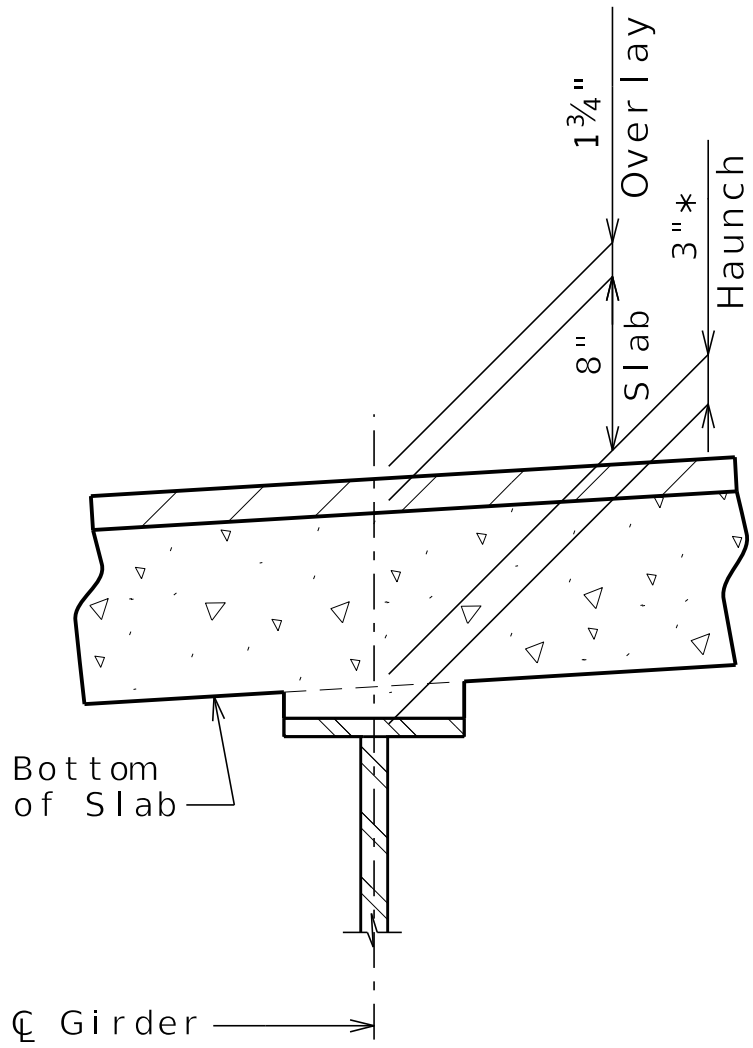
21% of dead load deflection is due to the weight of structural steel.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (142'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	513.32	513.42	513.51	513.57	513.60	513.59	513.56	513.50	513.43	513.37	513.32
2	513.51	513.62	513.72	513.79	513.81	513.81	513.77	513.70	513.63	513.56	513.51
Girder Number	Span (2-3) (110'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	513.32	513.31	513.31	513.32	513.34	513.35	513.37	513.36	513.36	513.34	513.32
2	513.51	513.49	513.49	513.51	513.52	513.54	513.55	513.55	513.54	513.53	513.51

Elevations are based on a constant slab thickness of 8" and overlay thickness of 1 3/4" and include allowance for theoretical dead load deflections due to weight of slab (including deck forms), overlay and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM



THEORETICAL SLAB HAUNCH

* Dimension (bottom of slab to top of web) may vary if girder camber after erection differs from plan camber by more than the % of Dead Load Deflection due to weight of structural steel.

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 15

COUNTY ST. CHARLES
JOB NO. J613033
CONTRACT ID.

PROJECT NO.
BRIDGE NO. A67542

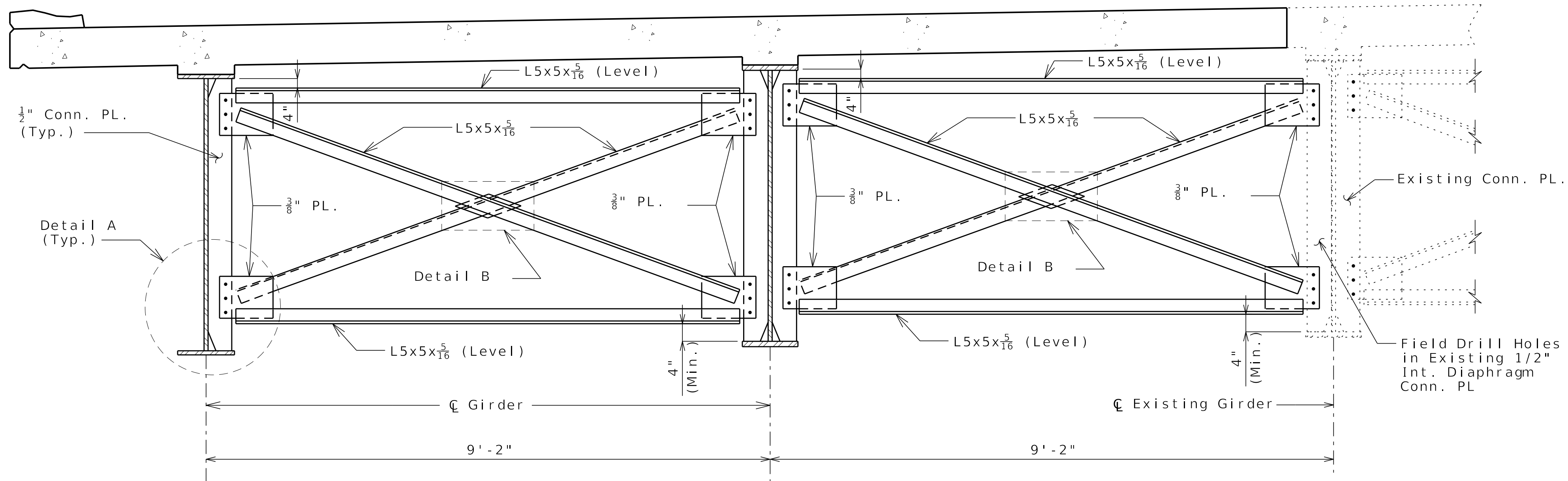
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

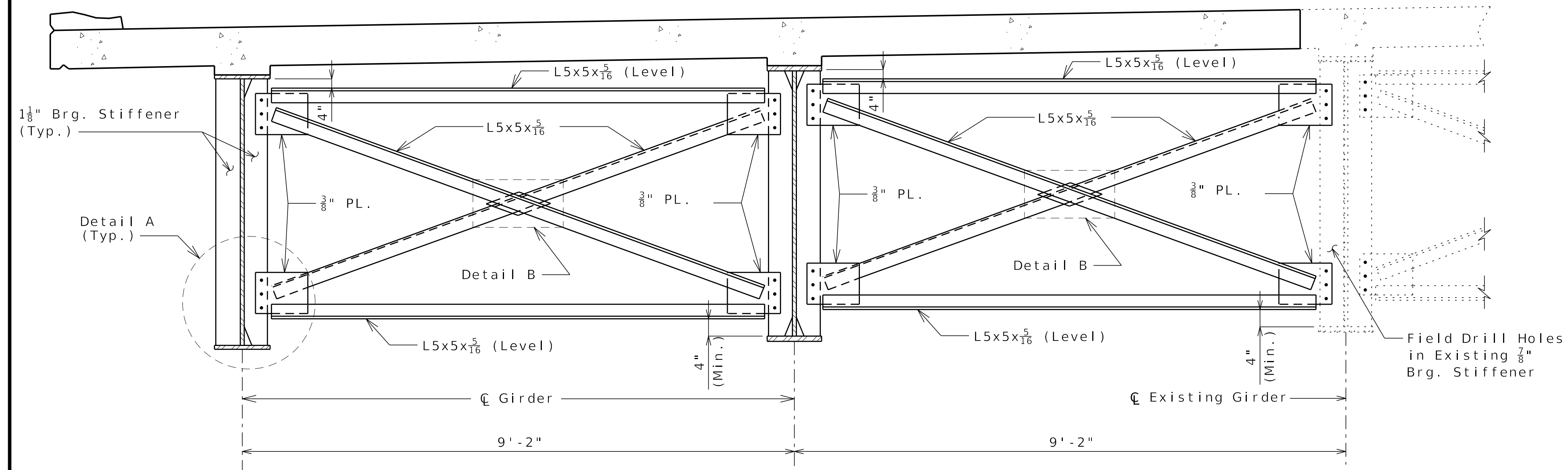
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

715 KIRK DRIVE
KANSAS CITY, MO 64105-1310
CERTIFICATE OF AUTHORITY
NO. 001270

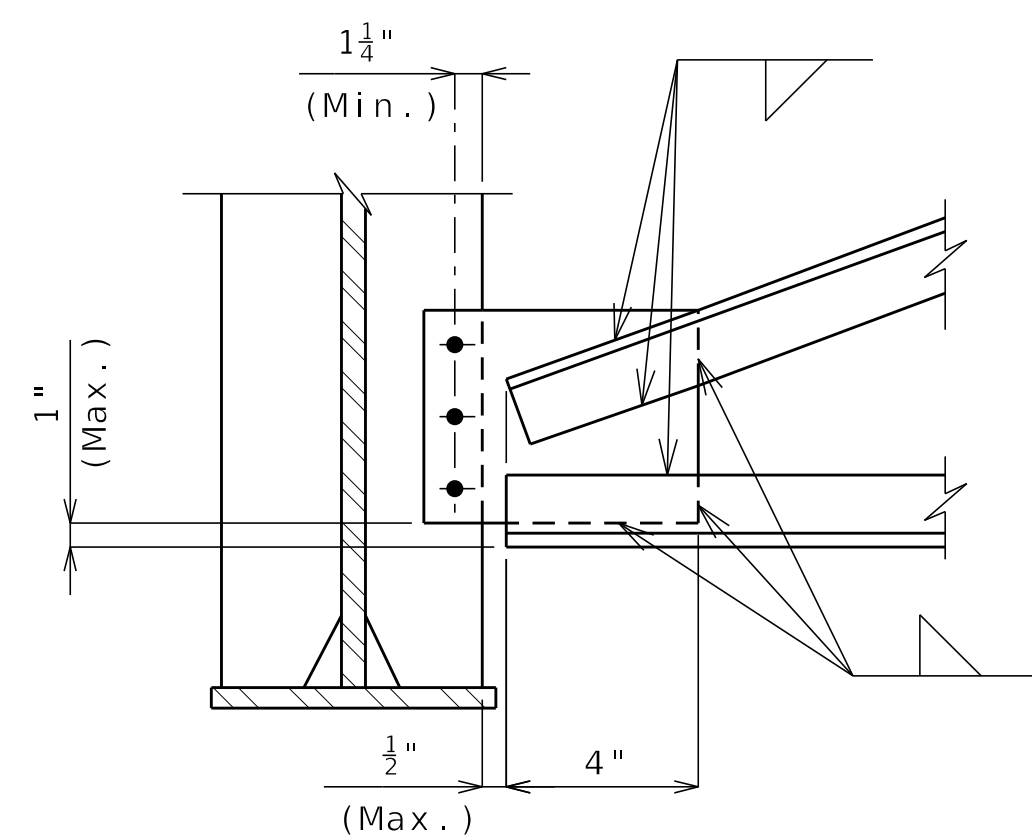
601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101
CERTIFICATE OF AUTHORITY
WWW.BARTLETTWEST.COM



INTERMEDIATE DIAPHRAGM

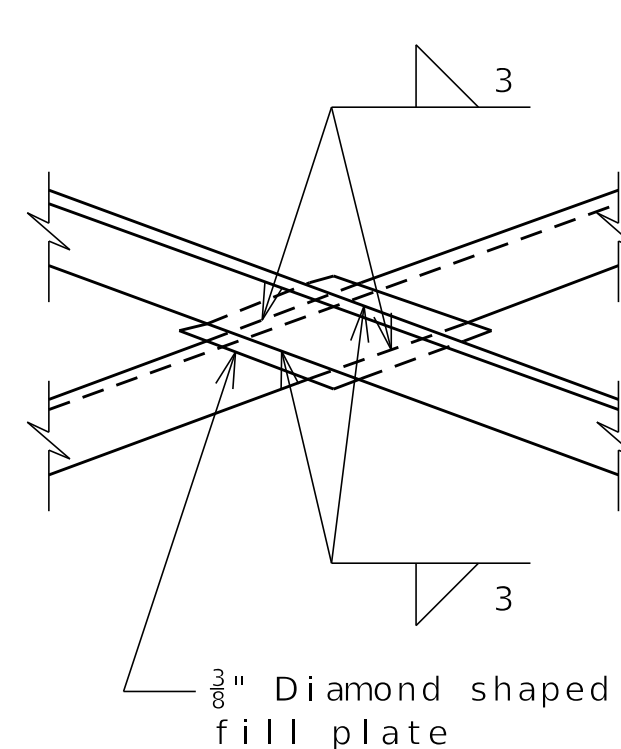


CROSS FRAME AT INTER. BENT NO. 2

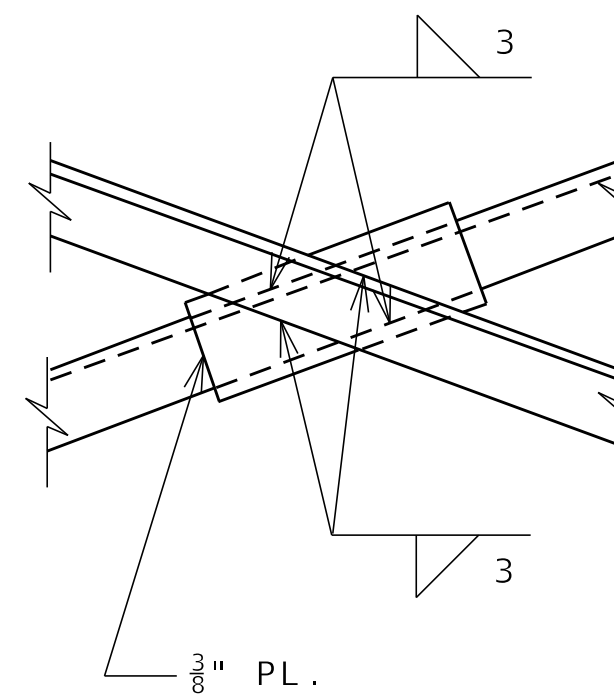


DETAIL A

(Bottom flange shown,
top flange similar.)

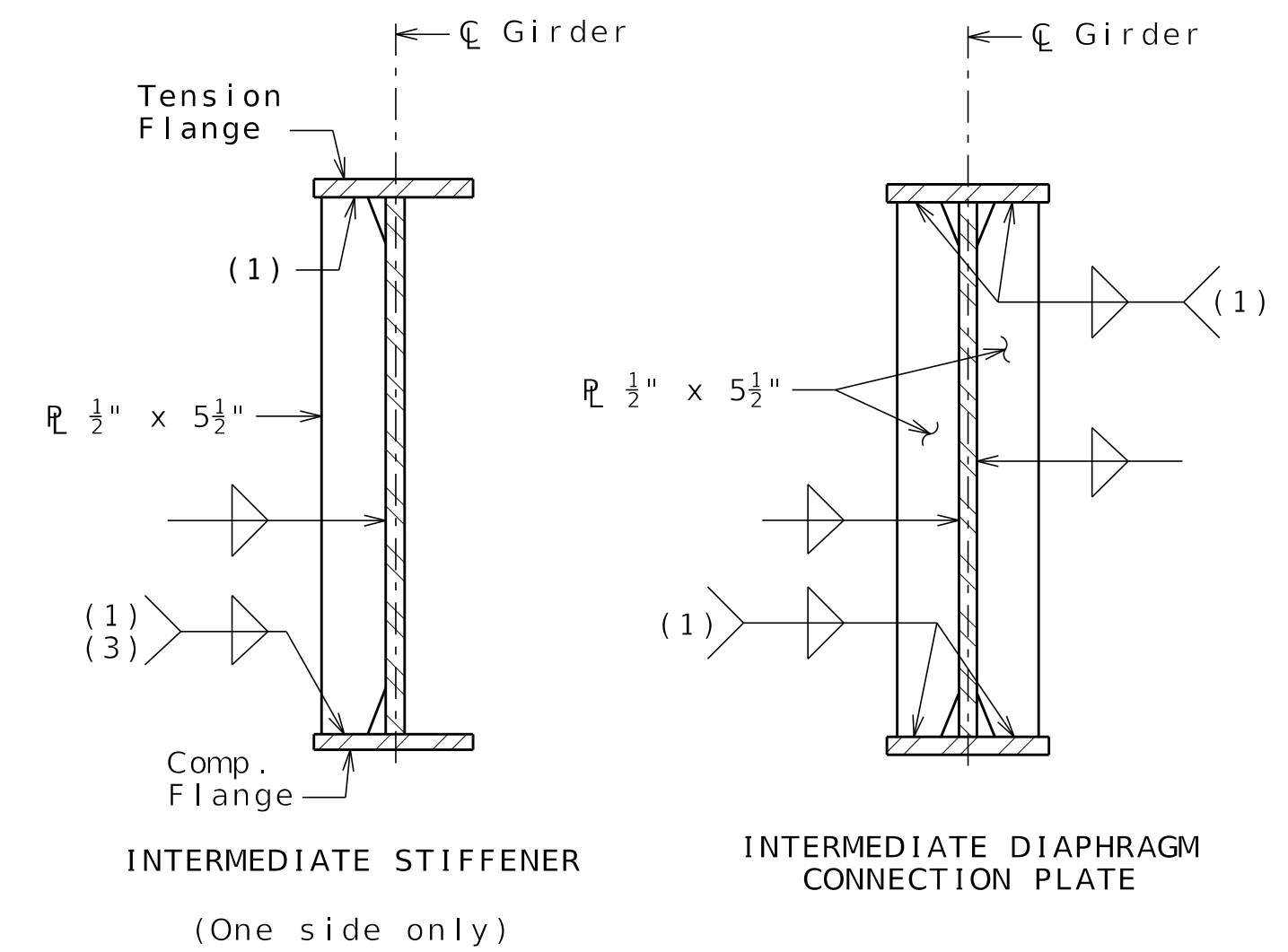


DETAIL B



OPTIONAL
DETAIL B

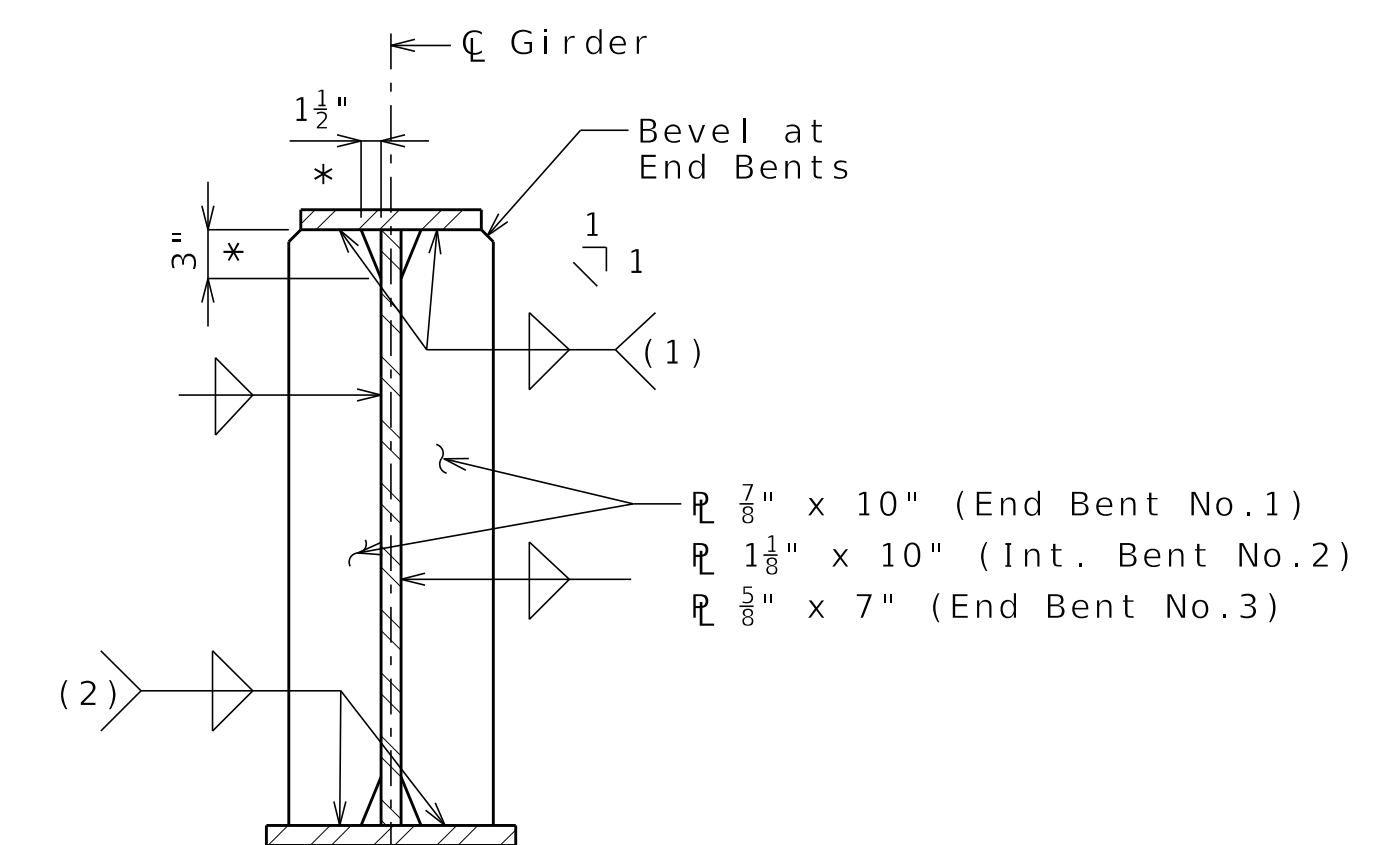
Note: This drawing is not to scale. Follow dimensions.



INTERMEDIATE STIFFENER

(One side only)

INTERMEDIATE DIAPHRAGM
CONNECTION PLATE



BEARING STIFFENER

WELDING DETAILS

- (1) Tight fit
- (2) Grind or mill to bear.
- (3) Weld to compression flange as located on Elevation of Girder.

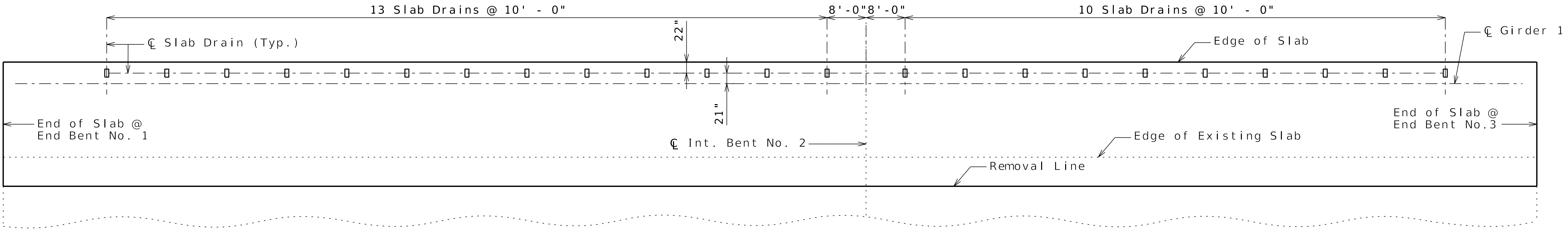
* Typical for all intermediate stiffeners, intermediate diaphragm connection plates and bearing stiffeners.

Notes :

Bolts on new intermediate diaphragms or cross frames that connect new girders to existing girders shall be installed snug tight, then tightened after slab pour is complete.

Bolts shall be 3/4" $\varnothing$ high strength ASTM F3125 Grade A325 Type 1 in 13/16" $\varnothing$ holes.

STEEL DIAPHRAGMS



PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS

General Notes:

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Contractor shall clean out existing slab drains left in place.

Slab drain bracket assembly shall be ASTM A709 Grade 36 steel.

Locate drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drains.

The bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

All 1/2-inch diameter bolts shall be ASTM A307, except as shown.

Shop drawings will not be required for the slab drains and the bracket assembly.

The bolt hole for the bracket assembly attachment shall be located on the plate girder shop drawings.

Notes for Steel Drain:

Slab drains may be fabricated of either 1/4-inch welded sheets of ASTM A709 Grade 36 steel or from 1/4-inch structural steel tubing ASTM A500 or A501.

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

Drains shall be machine filament-wound thermosetting resin tubing meeting the requirements of ASTM D2996 with the following exceptions:

Shape of drains shall be rectangular with outside nominal dimensions of 8" x 4".

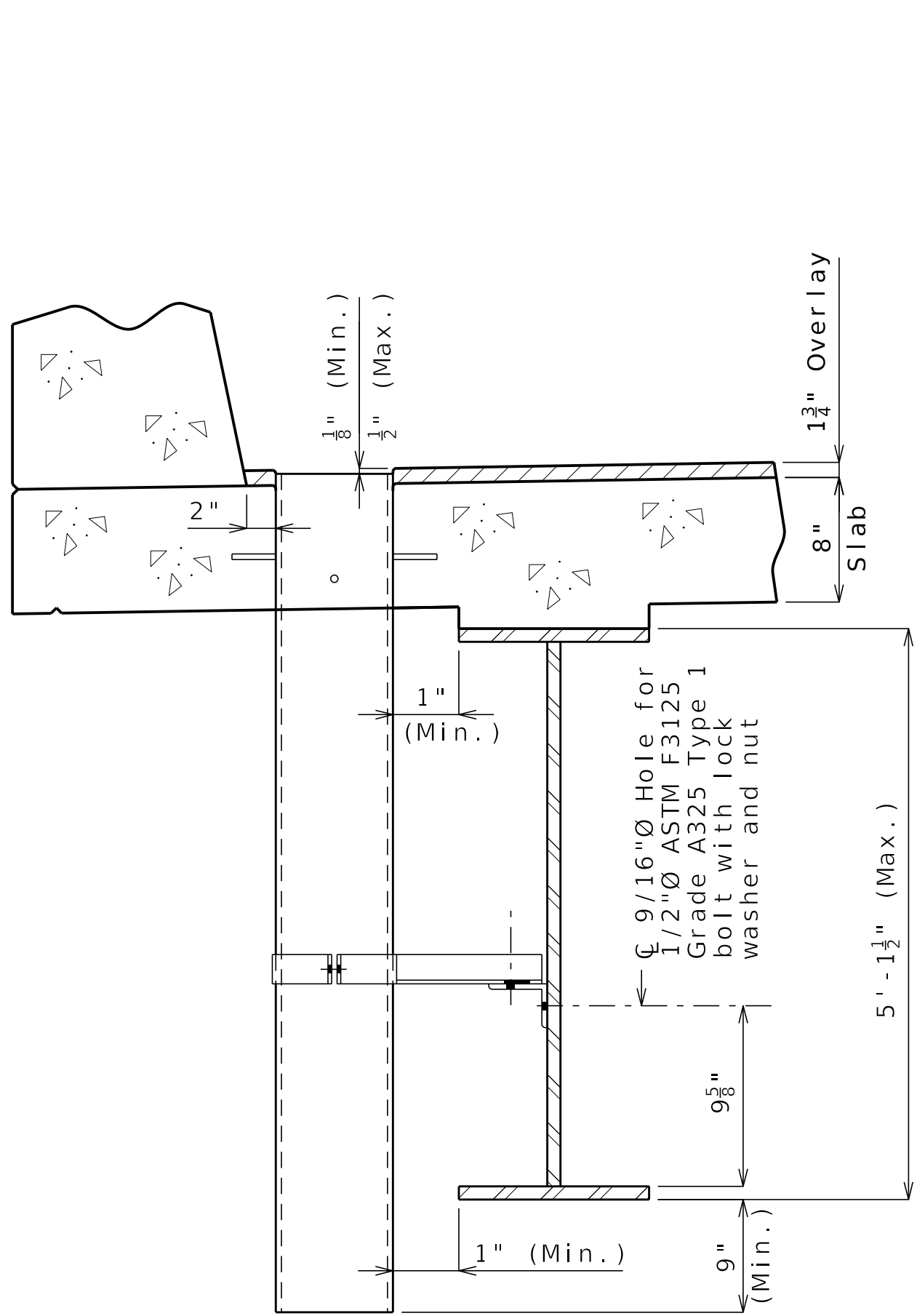
Minimum reinforced wall thickness shall be 1/4 inch.

The resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed throughout. Drains may have an exterior coating for additional UV resistance.

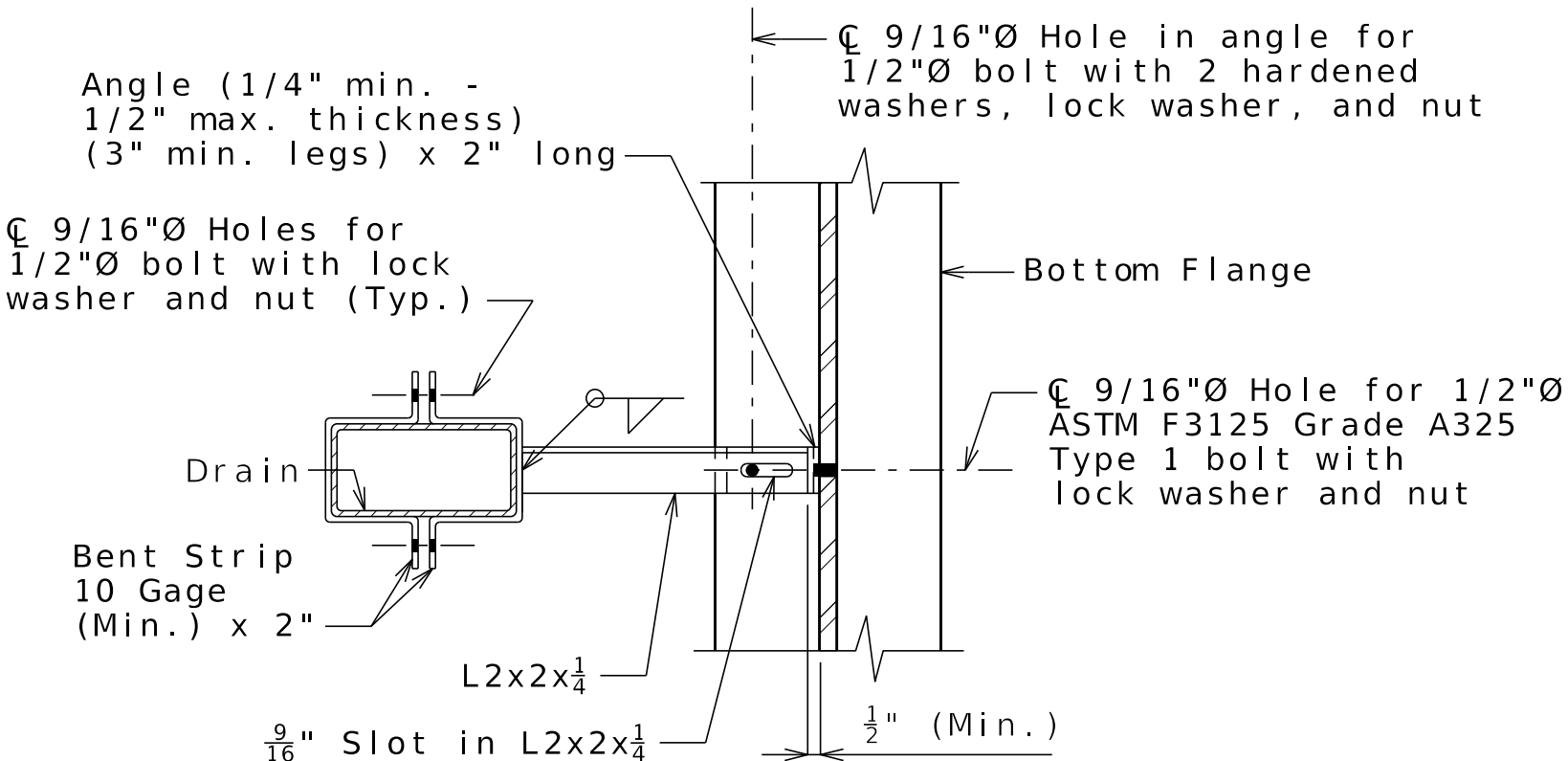
The color of the slab drain shall be gray (Federal Standard #26373). The color shall be uniform throughout the resin and any coating used.

The combination of materials used in the manufacture of the drains shall be tested for UV resistance in accordance with ASTM D4329 Cycle A. The representative material shall withstand at least 500 hours of testing with only minor discoloration and without any physical deterioration. The contractor shall furnish the results of the required ultraviolet testing prior to acceptance of the slab drains.

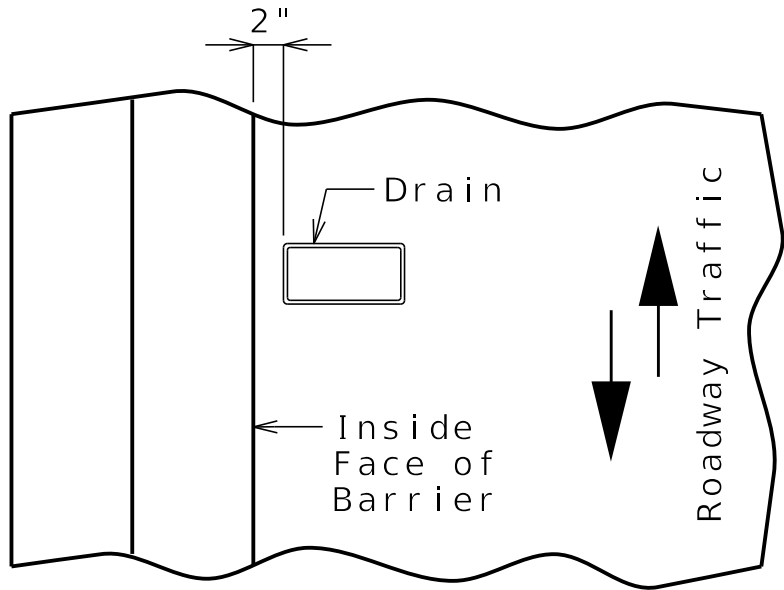
At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be as recommended by the manufacturer to ensure a smooth, chip free cut.



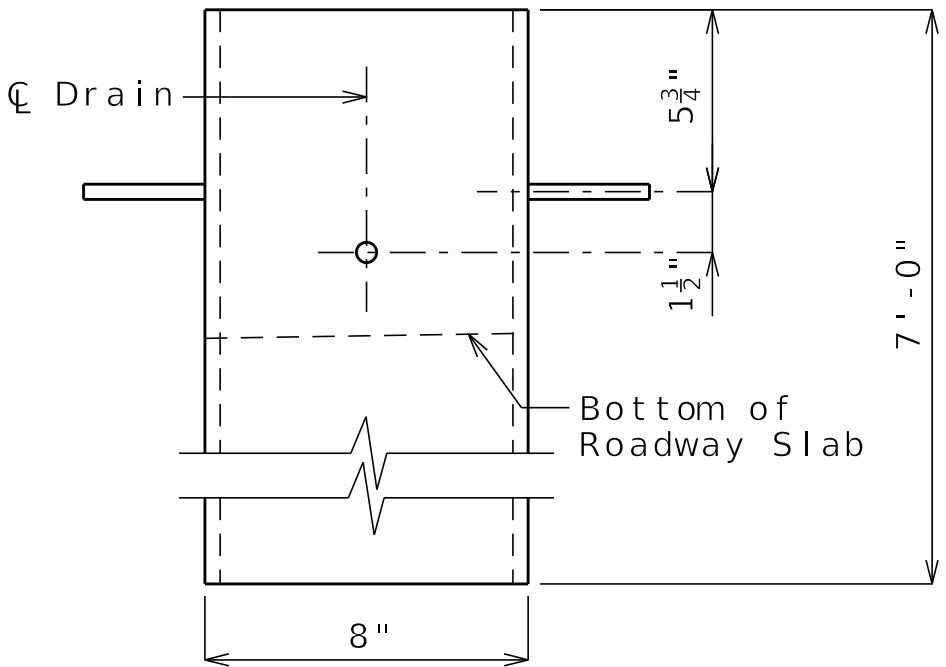
PART SECTION NEAR DRAIN



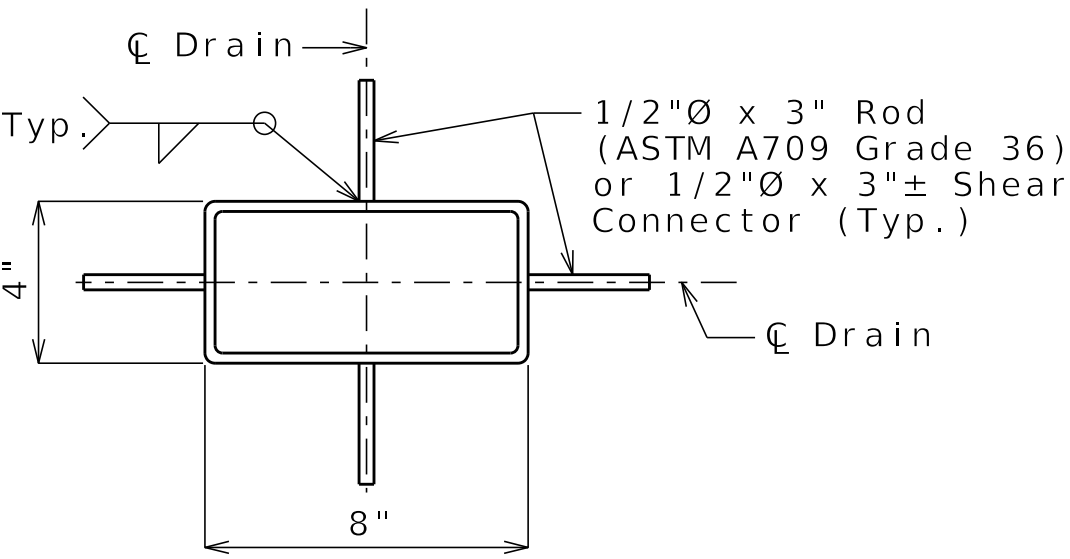
PART SECTION SHOWING BRACKET ASSEMBLY



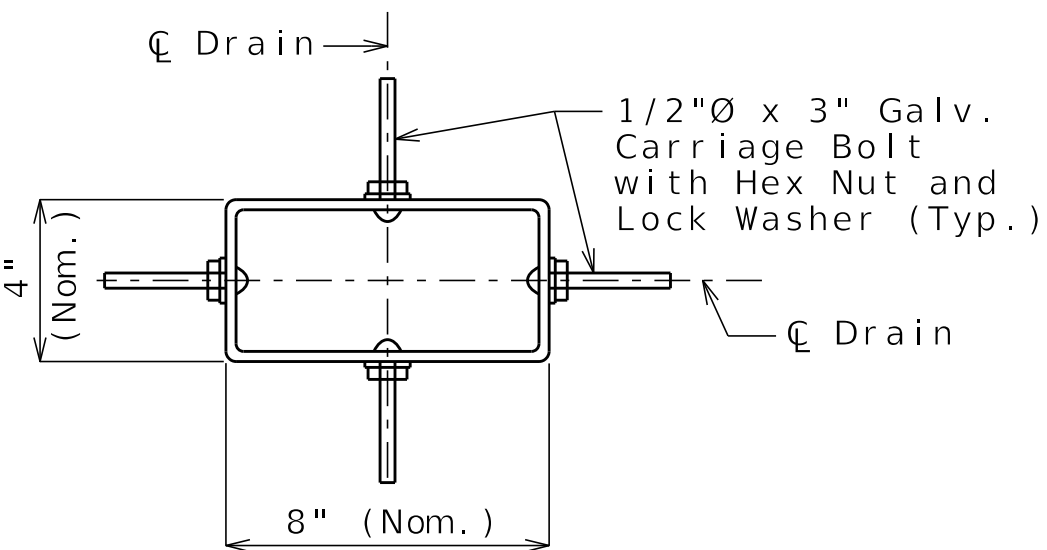
PART PLAN OF SLAB AT DRAIN



ELEVATION OF DRAIN



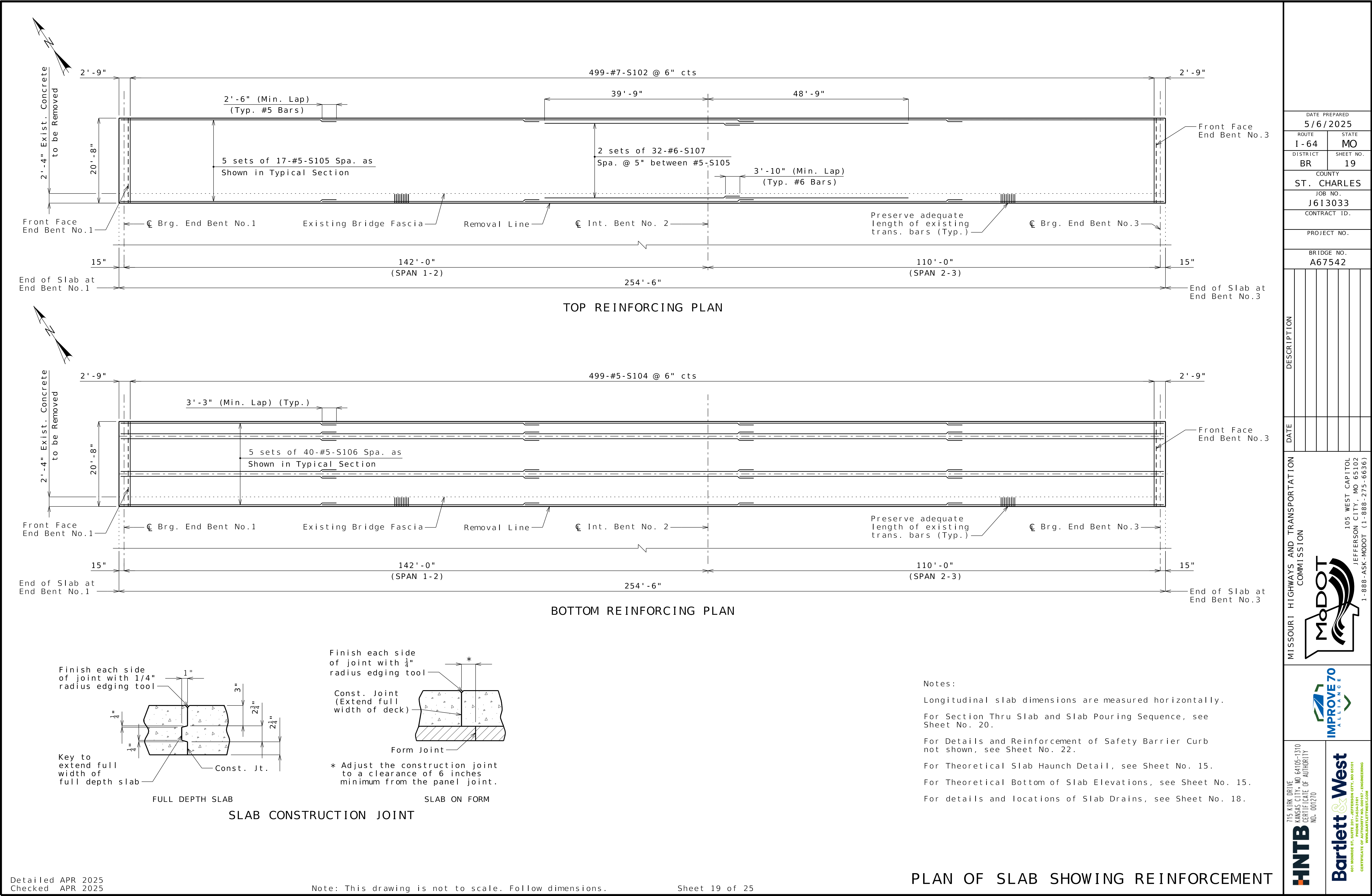
PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

SLAB DRAINS

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 18
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 872-633181 CERTIFICATE OF PROFESSIONAL ENGINEERING WWW.BARTLETTWEST.COM	



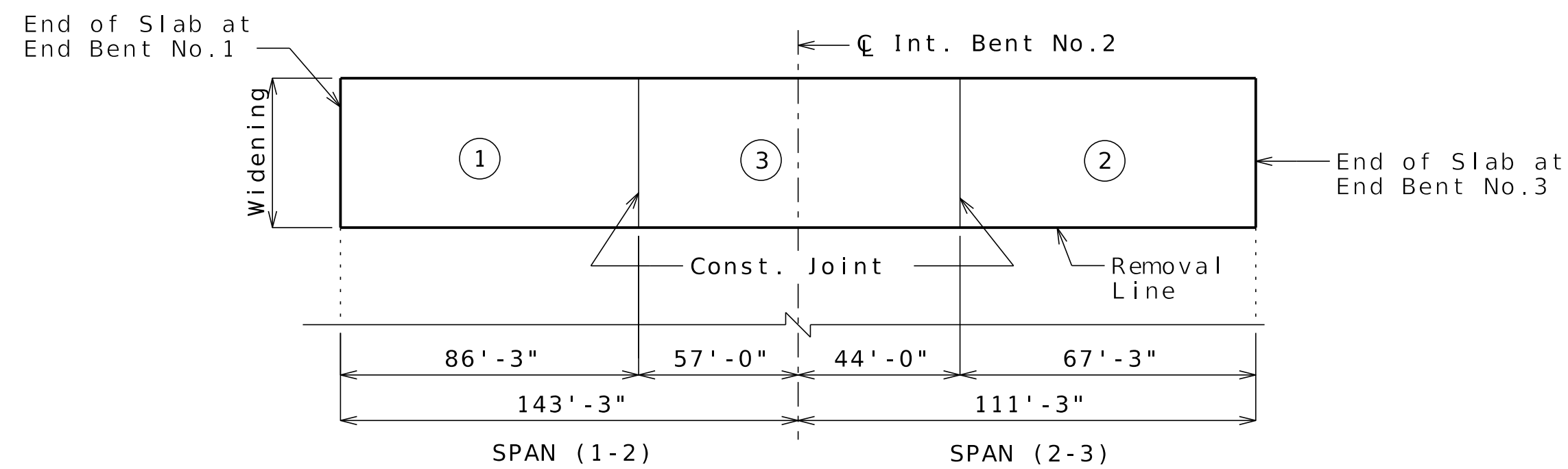
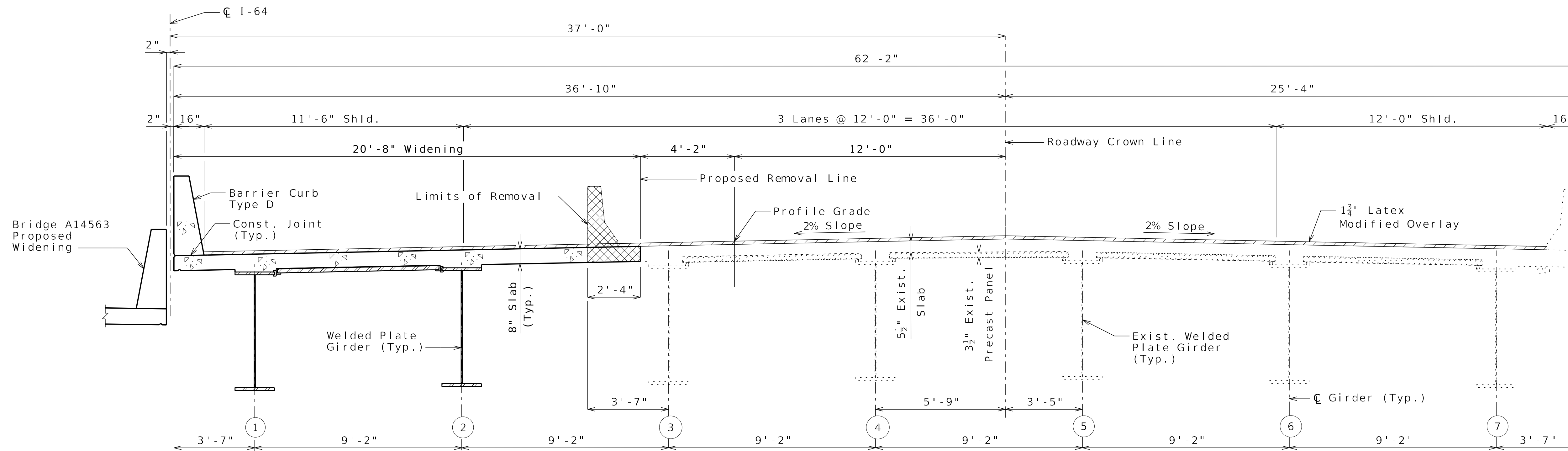
Detailed APR 2025
Checked APR 2025

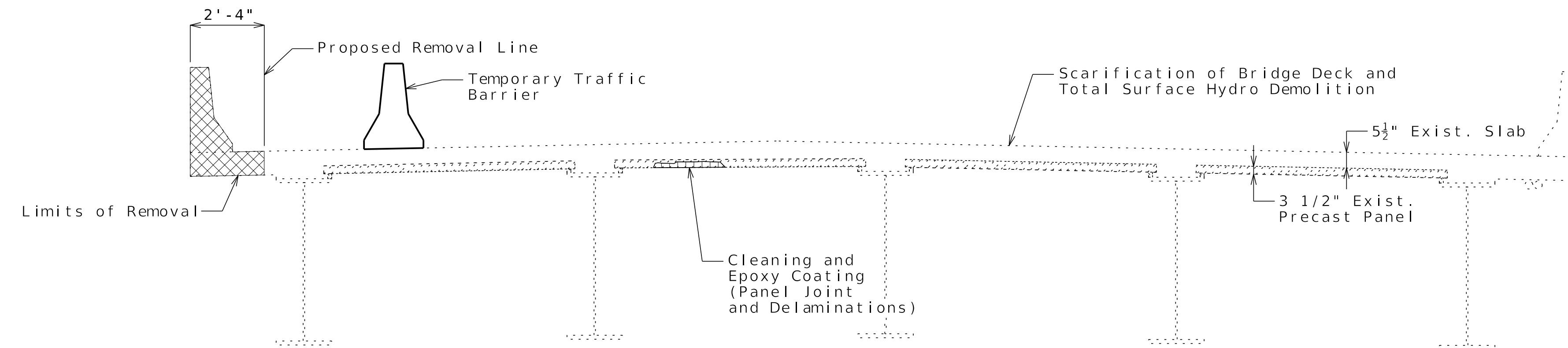
Note: This drawing is not to scale. Follow dimensions.

Sheet 19 of 25

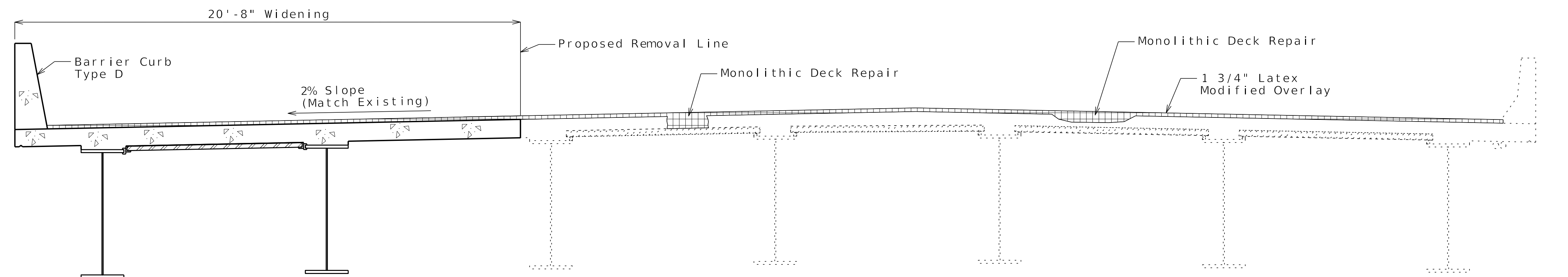
PLAN OF SLAB SHOWING REINFORCEMENT

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 19
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)
IMPROVE 70 ALLIANCE	
HNTB 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 PHONE 8743333181 FAX 8743333181 WWW.BARTLETTWEST.COM	
Bartlett & West 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 8743333181 FAX 8743333181 WWW.BARTLETTWEST.COM	

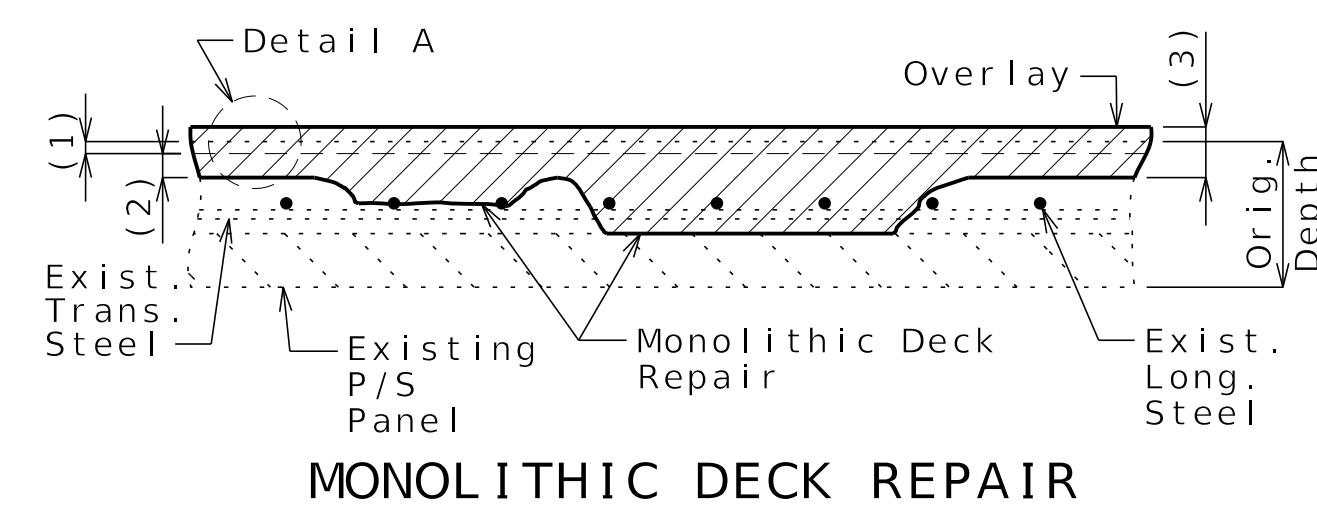




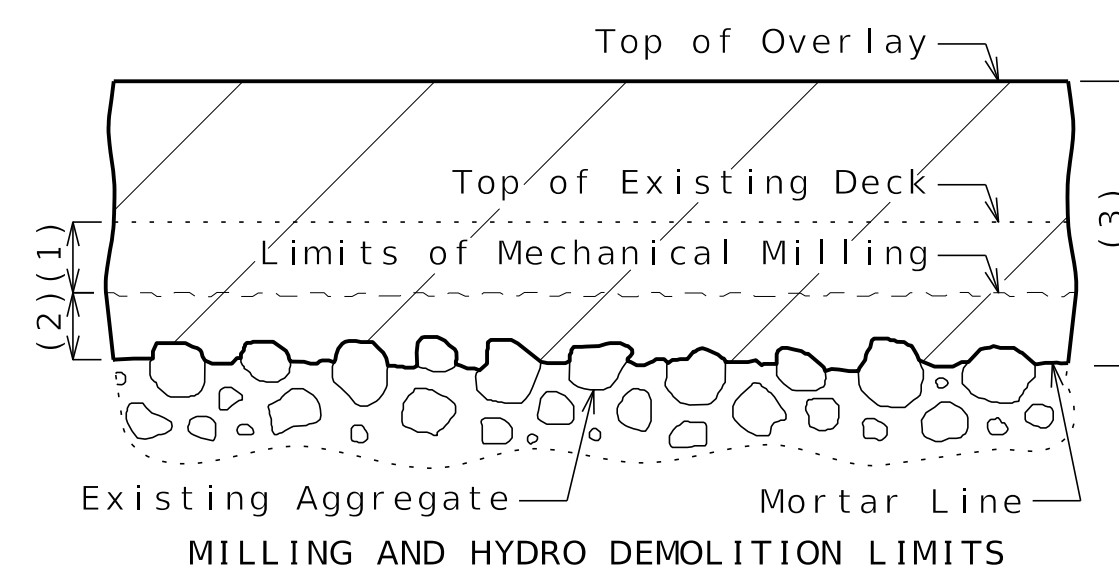
EXISTING TYPICAL SECTION SHOWING REMOVAL



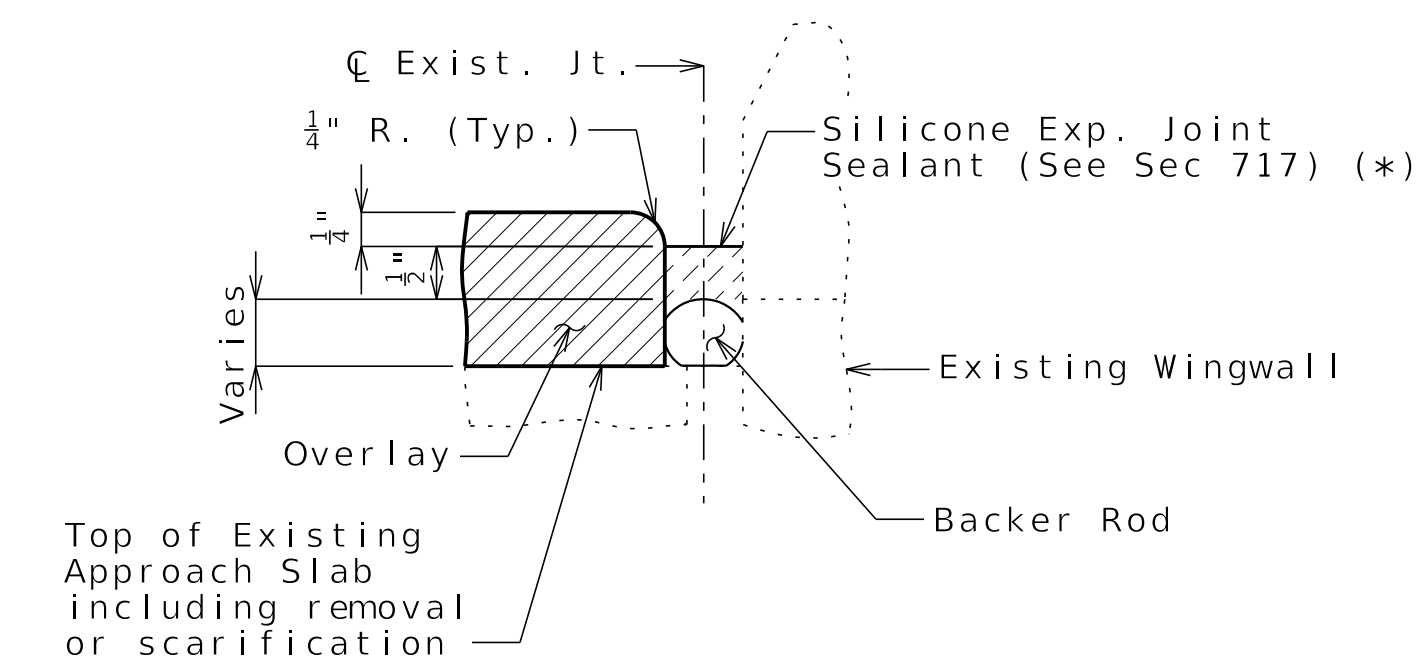
TYPICAL SECTION SHOWING WIDENING



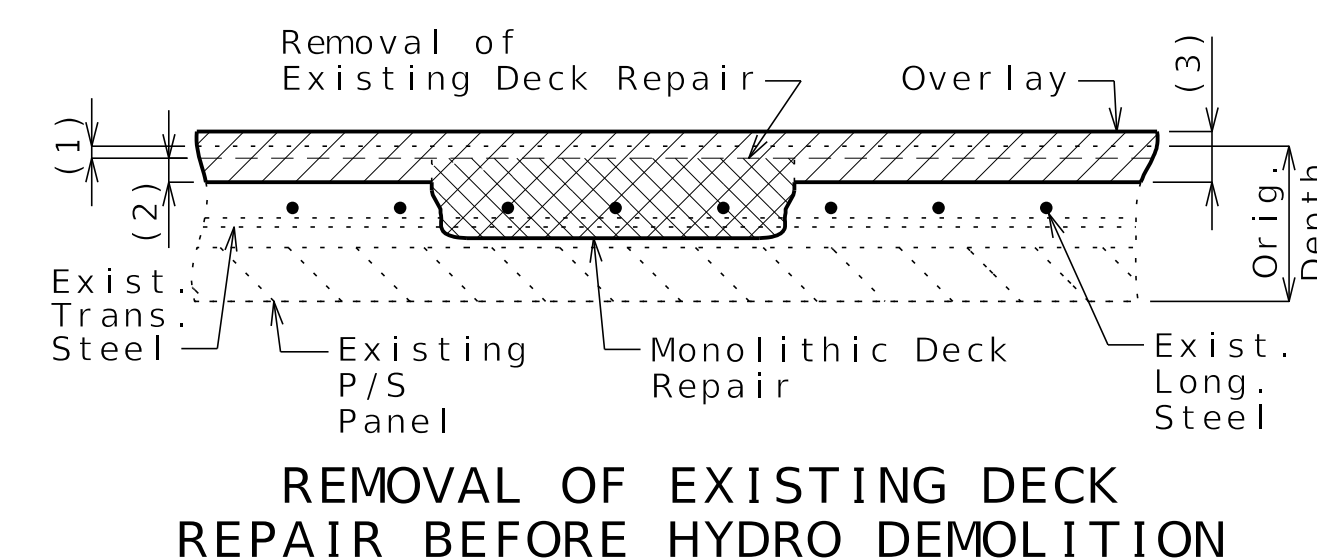
MONOLITHIC DECK REPAIR



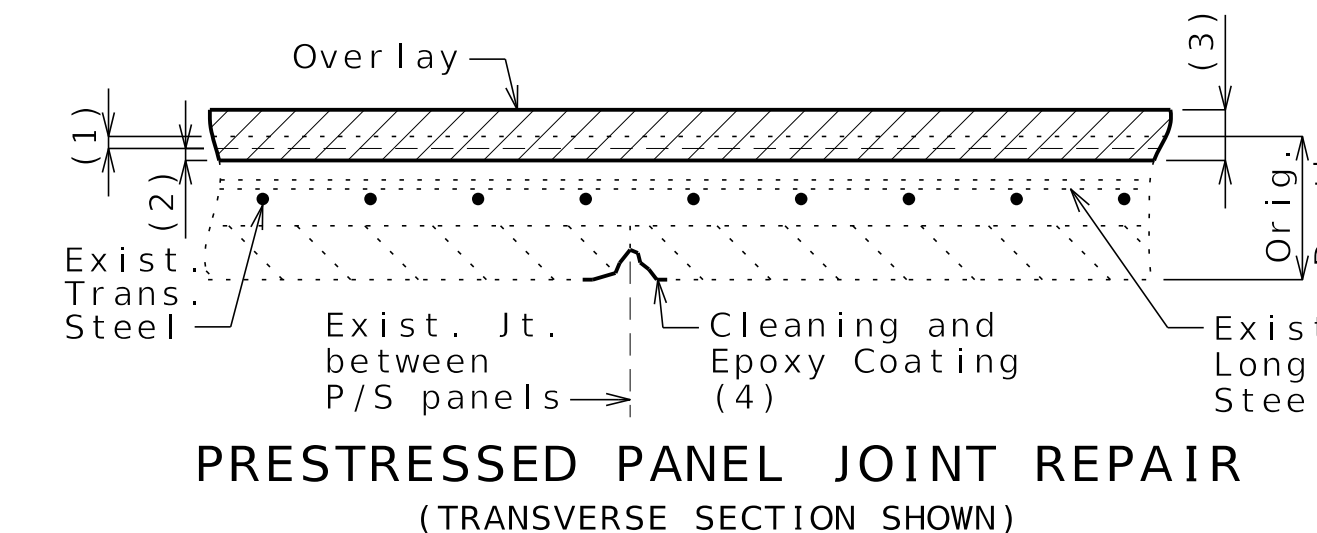
DETAIL A



SECTION THRU JOINT BETWEEN
WING & APPROACH SLAB



REMOVAL OF EXISTING DECK REPAIR BEFORE HYDRO DEMOLITION



PRESTRESSED PANEL JOINT REPAIR (TRANSVERSE SECTION SHOWN)

DATE PREPARED	
5/6/2025	
ROUTE	STATE
I - 64	MO
DISTRICT	SHEET NO.
BR	21
COUNTY	
ST. CHARLES	
JOB NO.	
J613033	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO. A67542

[illegible]

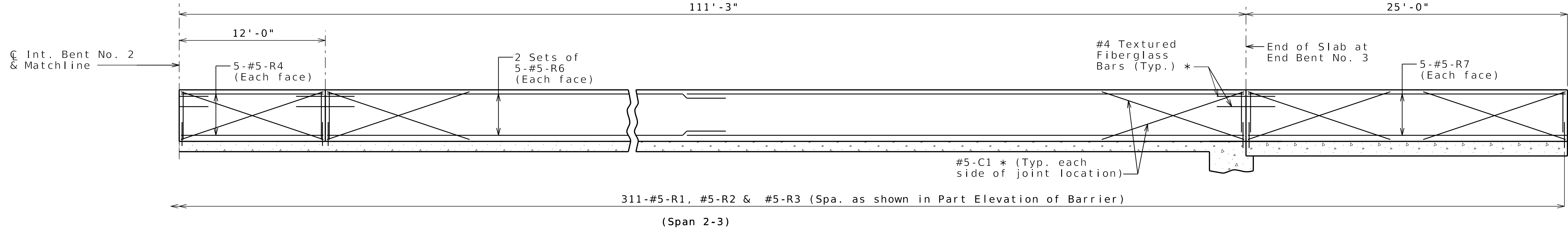
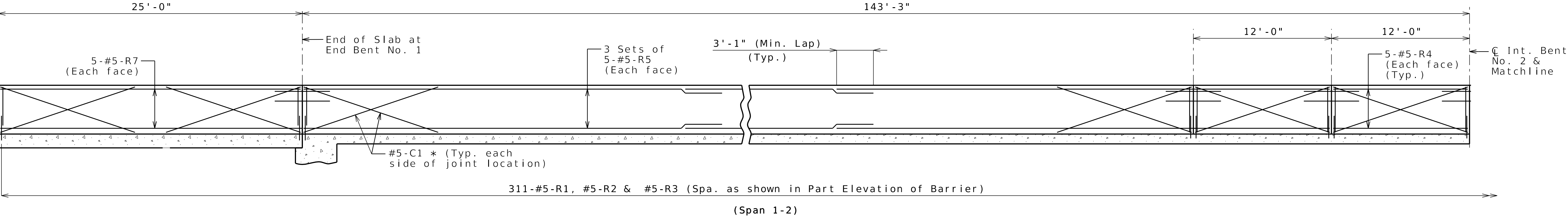
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

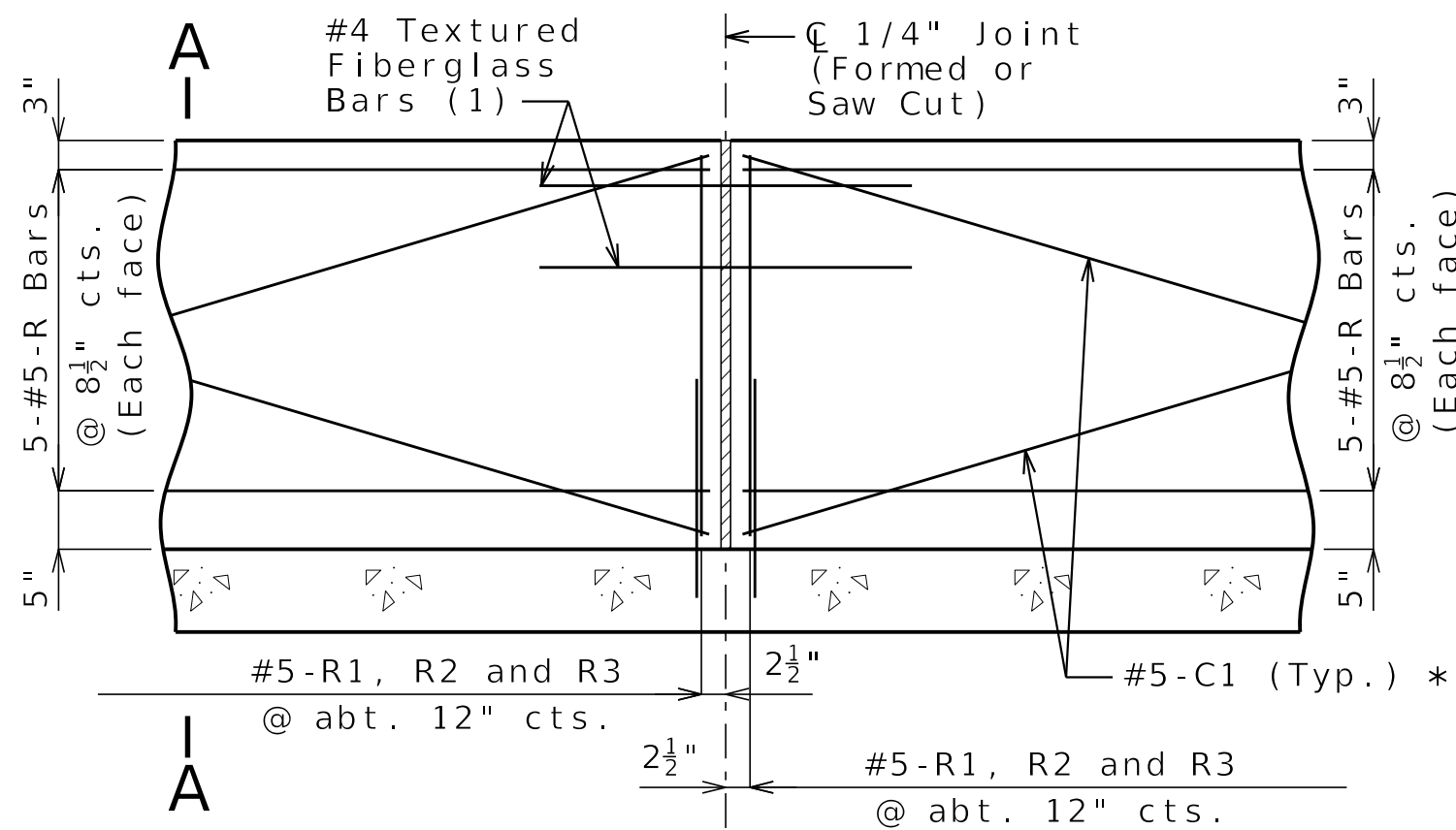
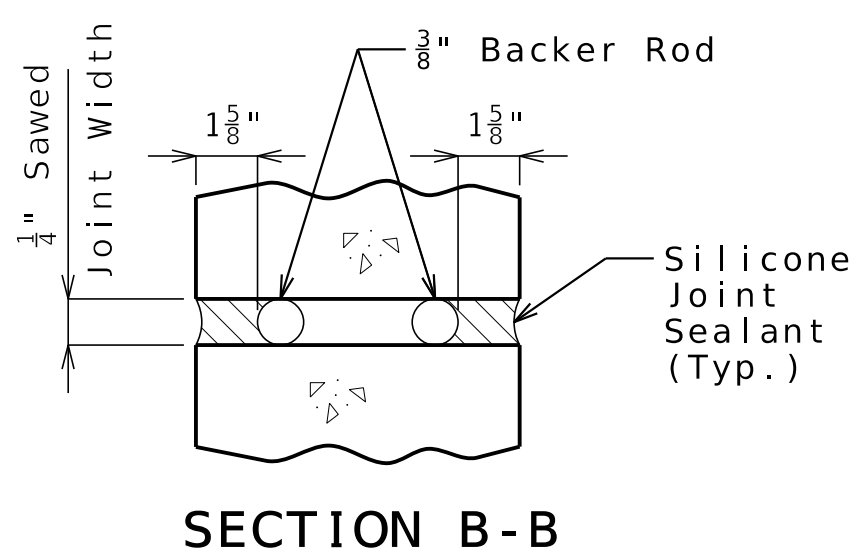
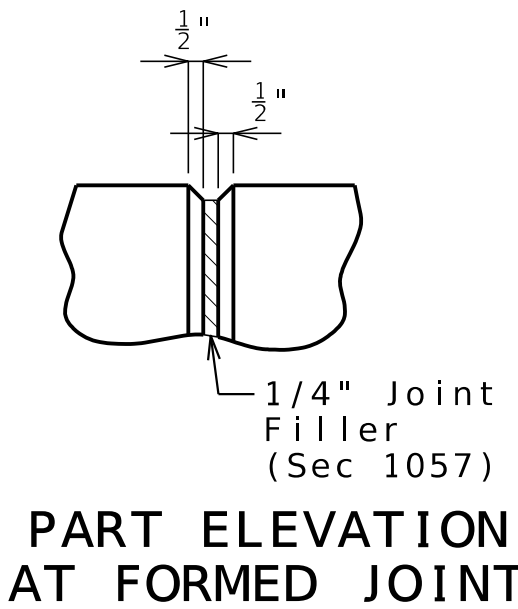
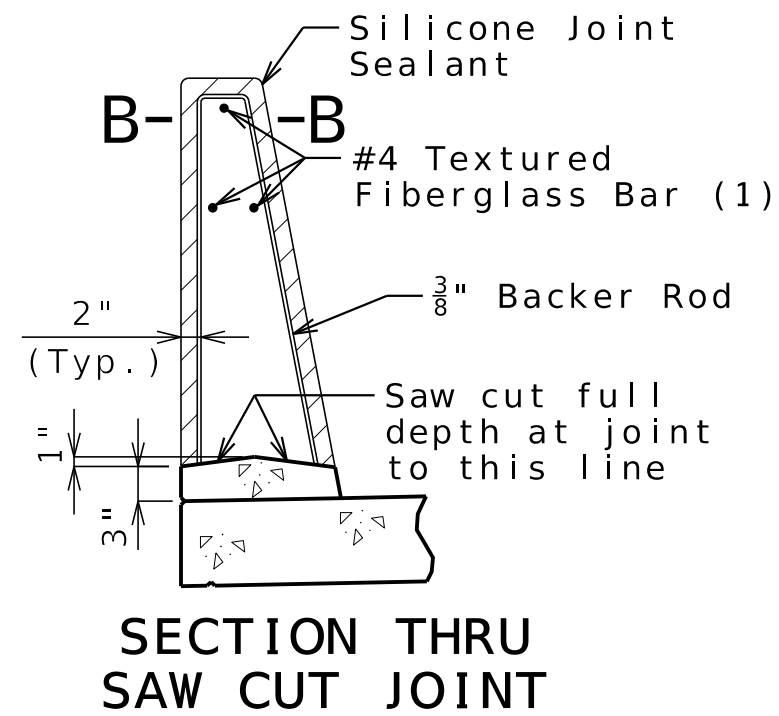


HNTB 715 KIRK DRIVE
KANSAS CITY, MO 64105-1310
CERTIFICATE OF AUTHORITY
NO. 001270

Bartlett & West
601 MOHORE ST, SUITE 201 • JEFFERSON CITY, MO 65101
PHONE 913-465-9187 • FAX 913-465-9187 • ENGINEERING@WWW.BARTLETTWEST.COM
WWW.BARTLETTWEST.COM

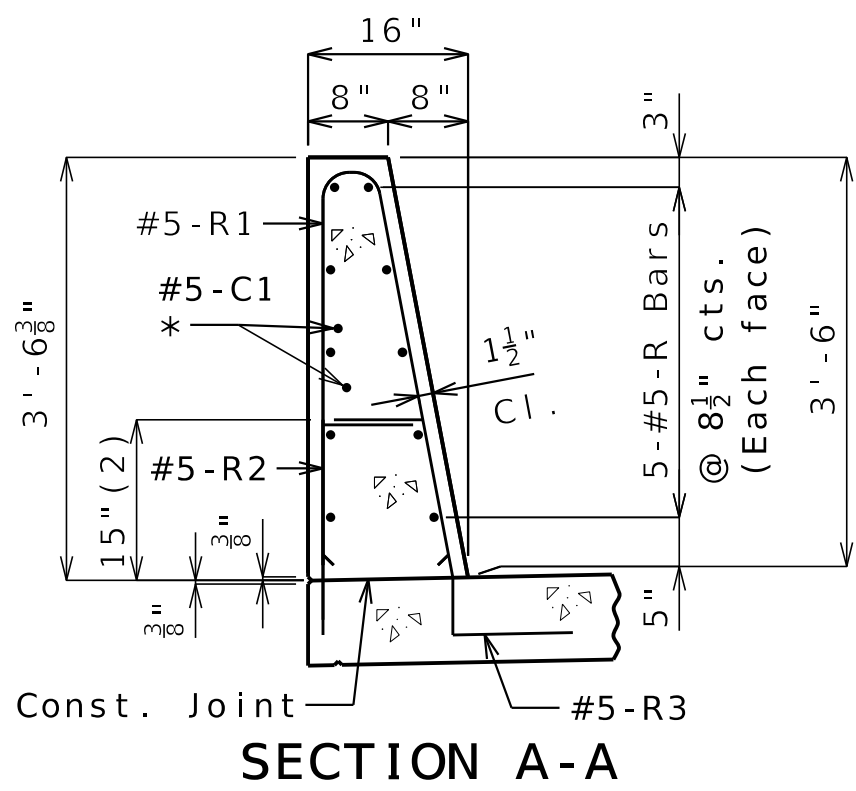


ELEVATION OF LEFT BARRIER
Longitudinal dimensions are horizontal.



PART ELEVATION OF BARRIER

(1) Four feet long, centered on joint, slip-formed option only

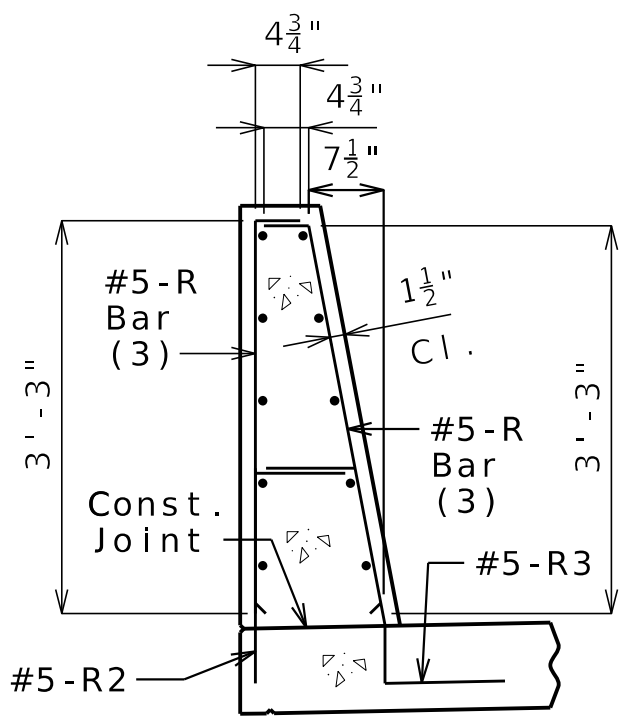


SECTION A-A

Use a minimum lap of 3'-1" for #5 horizontal barrier bars.

The cross-sectional area above the slab is 3.52 square feet.

(2) To top of bar



R-BAR PERMISSIBLE ALTERNATE SHAPE

(3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)

General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints normal to grade.

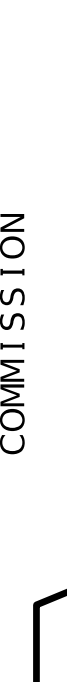
All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Concrete in barrier shall be Class B-1.

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

DATE PREPARED 5/6/2025	
ROUTE I - 64	STATE MO
DISTRICT BR	SHEET NO.. 22
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)
	
 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 007270	 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 572-3331 FAX 572-3332 CERTIFICATE OF AUTHORITY WWW.BARTLETTWEST.COM

General Notes:

All concrete for the bridge approach slab and sleeper slab shall be in accordance with Sec 503 ($f'c = 4,000$ psi).

The reinforcing steel in the bridge approach slab and the sleeper slab shall be epoxy coated Grade 60 with $f_y = 60,000$ psi.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 29 inches for #5 bars and 44 inches for #6 bars, or by mechanical bar splice.

Mechanical bar splices shall be in accordance with Sec 710. Estimated 45 splices required (per approach slab).

All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

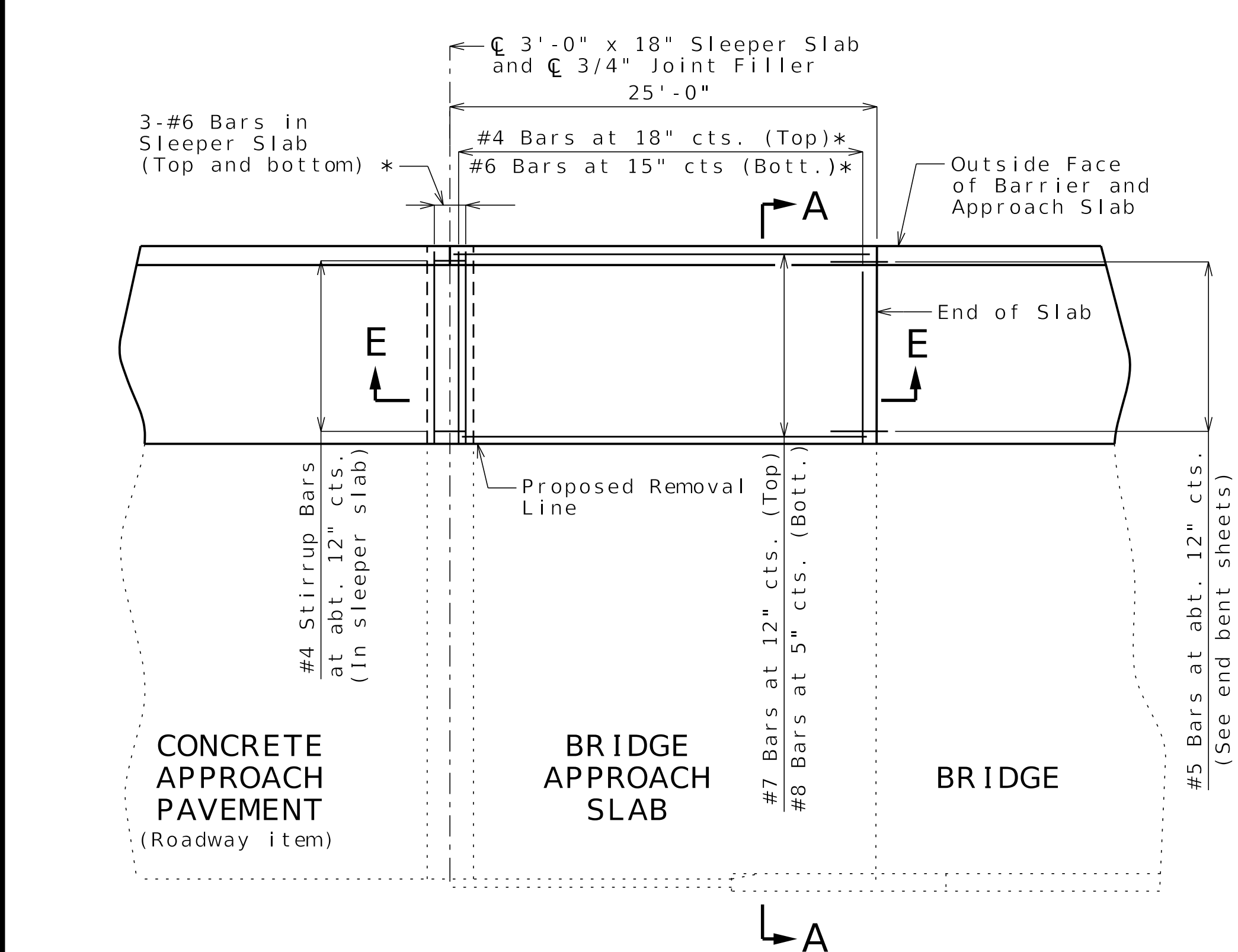
Longitudinal construction joints in approach slab and sleeper slab shall be aligned with longitudinal construction joints in bridge slab.

For concrete approach pavement details, see roadway plans.

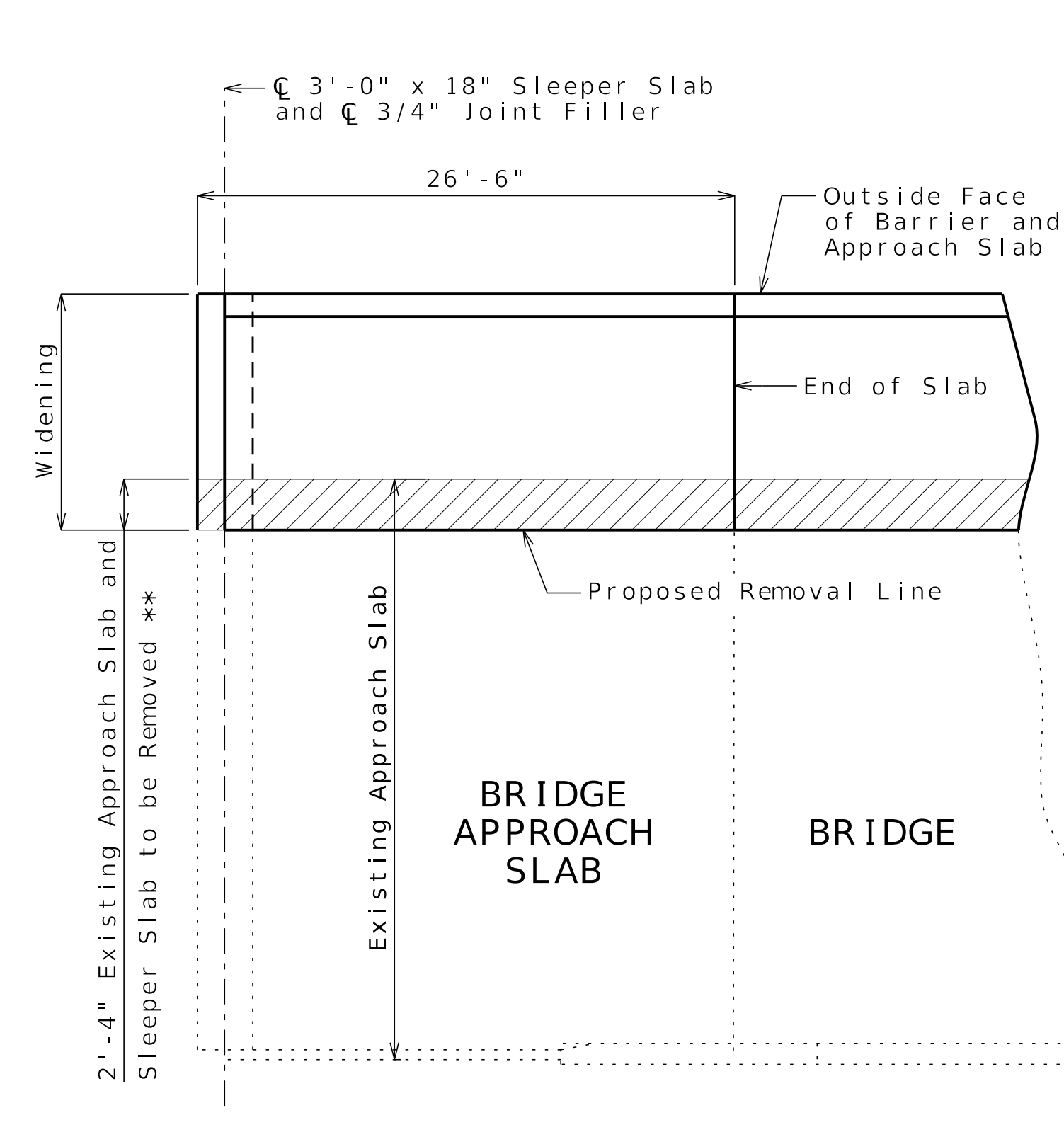
For scarification of approach slab, total surface hydro demolition and approach slab repair details, see Sheet No. 21.

* Mechanical Bar Splice to existing reinforcing at proposed removal line.

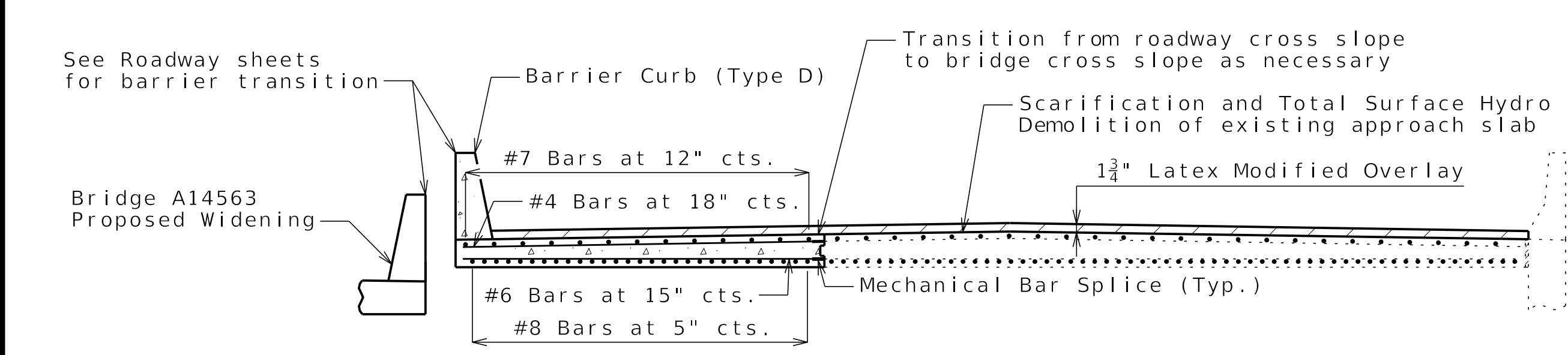
** Adequate length of existing reinforcement shall be retained for mechanical bar splices. All concrete and pack rust to be removed prior to splicing to new reinforcement.



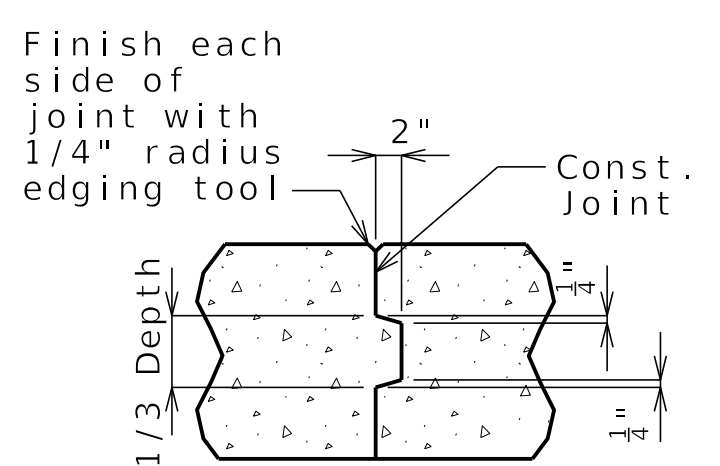
PART PLAN SHOWING REINFORCEMENT



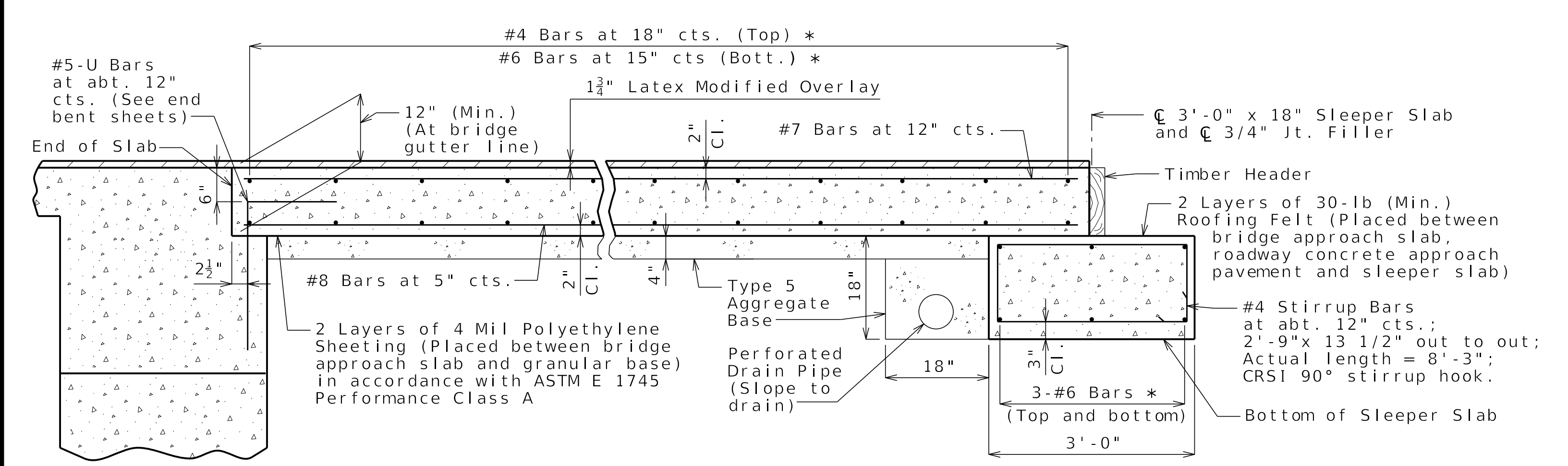
PART PLAN SHOWING REMOVAL



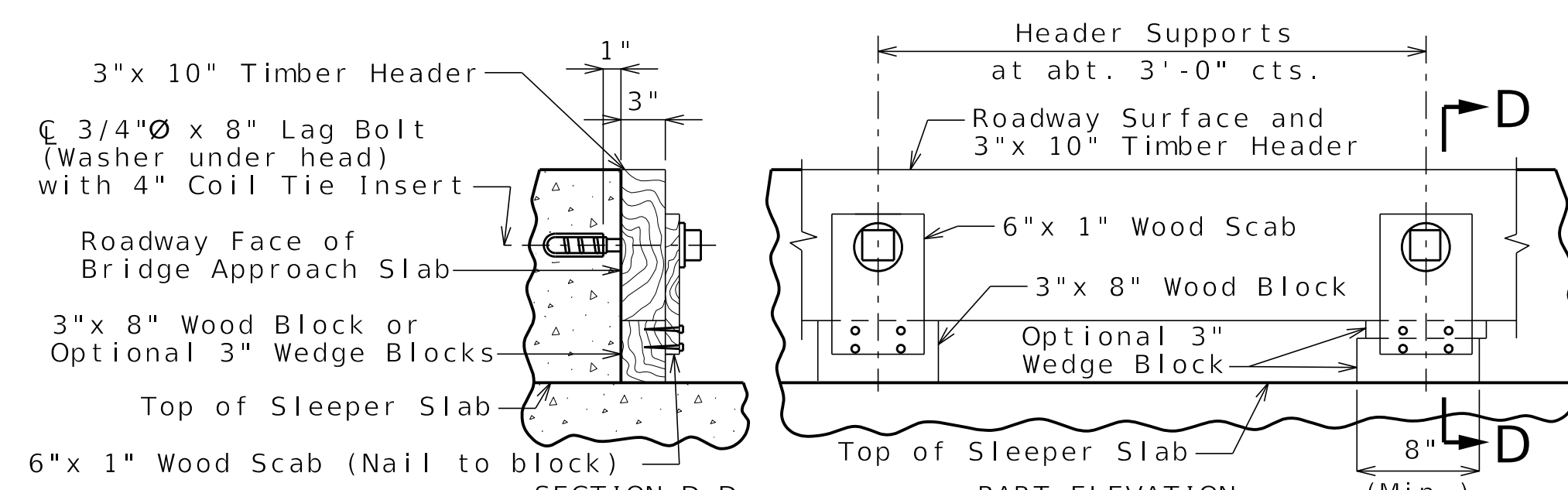
SECTION A-A



CONSTRUCTION JOINT DETAIL



SECTION E-E



DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.

BRIDGE APPROACH SLAB (MAJOR)

Detailed APR 2025
Checked APR 2025

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

Sheet 23 of 25

DATE PREPARED 5/6/2025	
ROUTE 1-64	STATE MO
DISTRICT BR	SHEET NO. 23
COUNTY ST. CHARLES	
JOB NO. J613033	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A67542	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
IMPROVE 70 ALLIANCE	
HNTB	
Bartlett & West	
715 WIRK DRIVE KANSAS CITY, MO 64105-1310 PHONE 872-633-3181 FAX 872-633-3181 WWW.BARTLETTWEST.COM	

(1) Shall be a deformed or plain spiral bar or wire.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

