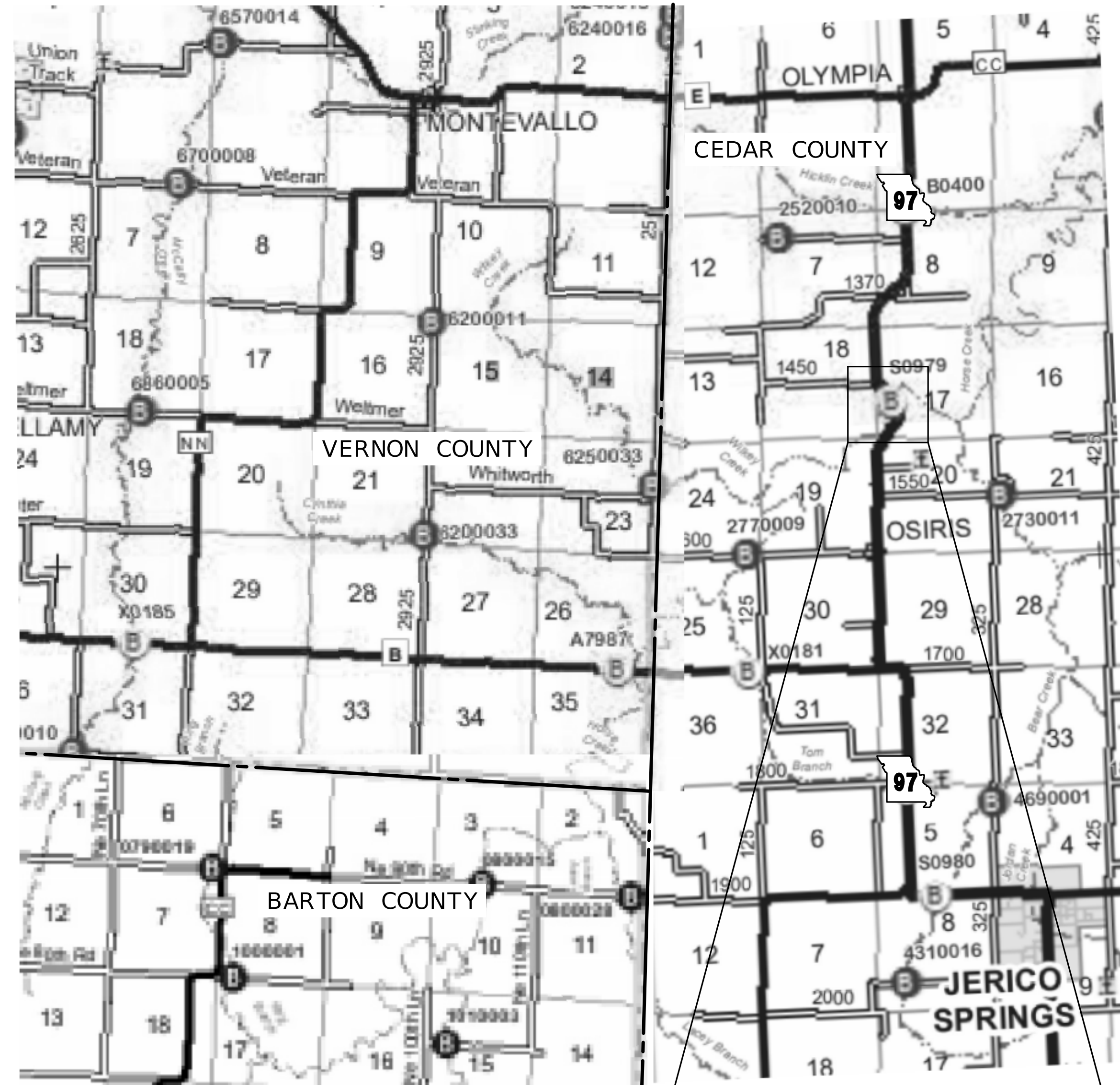
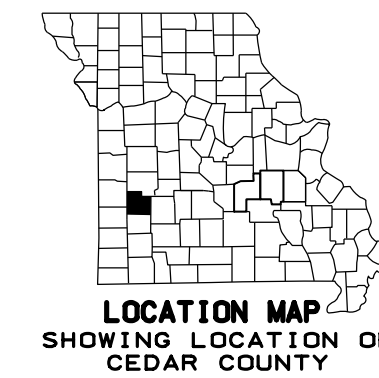


A.A.D.T. - 2023 = 773  
A.A.D.T. - 2045 = 1,110  
D.H.V. = XX%  
T = 16.14%  
V = 55 M.P.H.  
D = XX%

EXISTING ROW IS NORMAL ACCESS  
NO ADDITIONAL RIGHT OF WAY WILL  
BE ACQUIRED FOR THIS PROJECT

|                              | EXISTING | NEW     |
|------------------------------|----------|---------|
| BUILDINGS AND STRUCTURES     |          |         |
| GUARD RAIL                   |          |         |
| GUARD CABLE                  |          |         |
| CONCRETE RIGHT-OF-WAY MARKER |          |         |
| STEEL RIGHT-OF-WAY MARKER    |          |         |
| LOCATION SURVEY MARKER       |          |         |
| UTILITIES                    |          |         |
| FIBER OPTICS                 | — FO —   | — FO —  |
| OVERHEAD CABLE TV            | — OTV —  | — OTV — |
| UNDERGROUND CABLE TV         | — UTV —  | — UTV — |
| OVERHEAD TELEPHONE           | — OT —   | — OT —  |
| UNDERGROUND TELEPHONE        | — UT —   | — UT —  |
| OVERHEAD POWER               | — OE —   | — OE —  |
| UNDERGROUND POWER            | — UE —   | — UE —  |
| SANITARY SEWER               | — S —    | — S —   |
| STORM SEWER                  | — SS —   | — SS —  |
| GAS                          | — G —    | — G —   |
| WATER                        | — W —    | — W —   |
| MANHOLE                      |          |         |
| FIRE HYDRANT                 |          |         |
| WATER VALVE                  |          |         |
| WATER METER                  |          |         |
| DROP INLET                   |          |         |
| DITCH BLOCK                  |          |         |
| GROUND MOUNTED SIGN          |          |         |
| LIGHT POLE                   |          |         |
| H-FRAME POWER POLE           |          |         |
| TELEPHONE PEDESTAL           |          |         |
| FENCE                        |          |         |
| CHAIN LINK                   | — V —    | — V —   |
| WOVEN WIRE                   | — X —    | — X —   |
| GATE POST                    |          |         |
| BENCHMARK                    |          |         |

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
PLANS FOR PROPOSED  
STATE HIGHWAY  
CEDAR COUNTY



NOT TO SCALE

| DESCRIPTION                         | NUMBER |
|-------------------------------------|--------|
| TITLE SHEET -----                   | 1      |
| TYPICAL SECTIONS (TS) (XX SHEETS)-- | 2      |
| PLAN-PROFILE (PP)-----              | 3      |
| TRAFFIC CONTROL SHEETS (TC)-----    | 4-5    |
| EROSION CONTROL SHEETS (EC)-----    | 6      |
| BRIDGE SHEETS-----                  | 1-22   |

DATE PREPARED  
6/20/2025

|       |       |
|-------|-------|
| ROUTE | STATE |
| 97    | MO    |

|          |           |
|----------|-----------|
| DISTRICT | SHEET NO. |
| SW       | 1         |

COUNTY  
CEDAR

JOB NO.

CONTRACT ID.

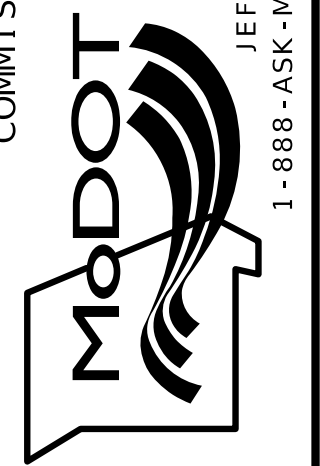
PROJECT NO.  
J7P3485

BRIDGE NO.  
A9710

DESCRIPTION

DATE \_\_\_\_\_

MISSOURI HIGHWAYS AND TRANSPORTATION



|                      |      |             |
|----------------------|------|-------------|
| BEGINNING OF PROJECT | STA. | 329 + 00.00 |
| END OF PROJECT       | STA. | 336 + 50.00 |

|                 |             |
|-----------------|-------------|
| APPARENT LENGTH | 750.00 FEET |
|-----------------|-------------|

EQUATIONS AND EXCEPTIONS:

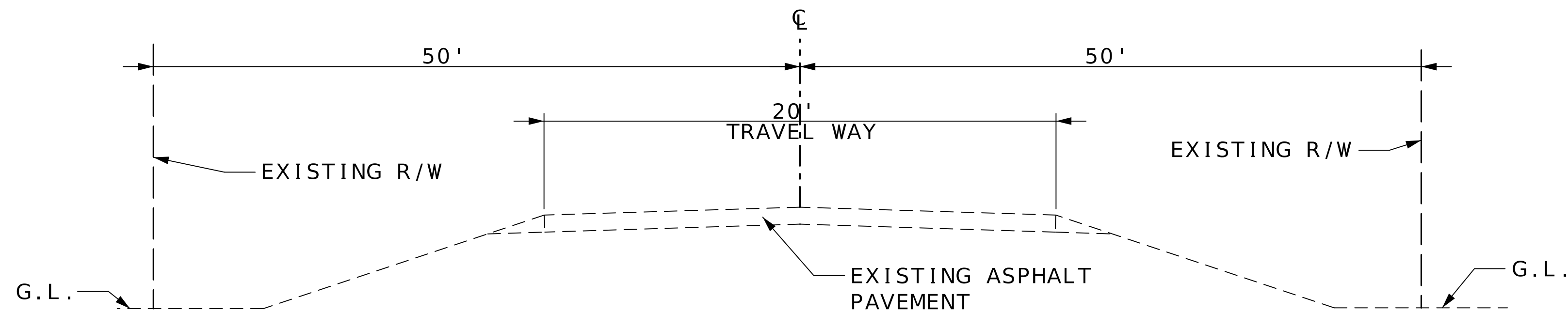
|                       |        |       |
|-----------------------|--------|-------|
| TOTAL CORRECTIONS     | 0.00   | FEET  |
| NET LENGTH OF PROJECT | 750.00 | FEET  |
| STATE LENGTH          | 0.14   | MILES |

|                           |        |
|---------------------------|--------|
| FOR INFORMATION ONLY      |        |
| ESTIMATED DISTURBED ACRES | 1 ACRE |

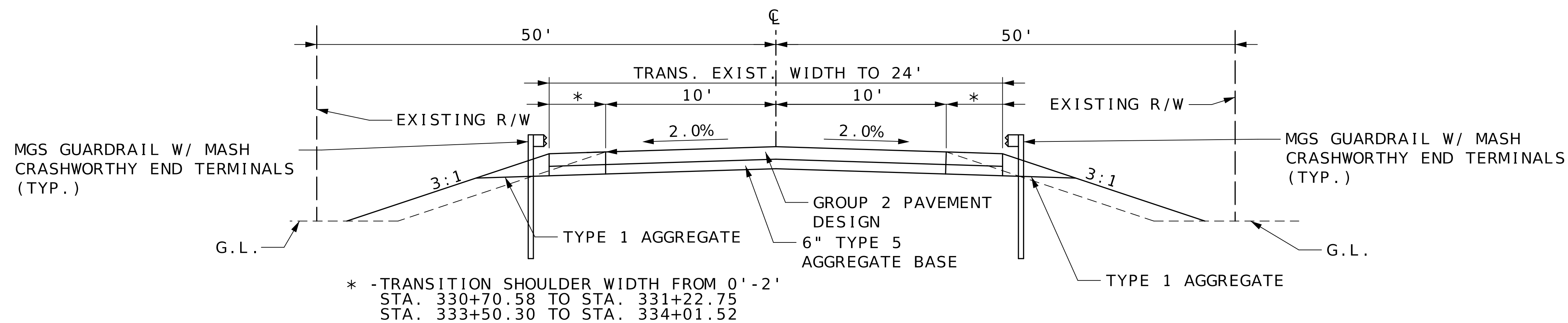
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EXISTING TYPICAL SECTION ON ROUTE 97  
STA. 329+00.00 TO STA. 336+50.00



ROUTE 97 PAVEMENT REPLACEMENT  
STA. 329+00.00 TO STA. 336+50.00

GROUP 2 PAVEMENT DESIGN

2" BP-1 (PG64-22) OVER  
8" BIT. BASE  
OR  
8" PCCP- 15' JT. SPACING  
W/ 1 1/4" DOWELS

Preliminary  
Plans -  
NOT FOR  
CONSTRUCTION

DATE PREPARED  
6/20/2025

ROUTE 97 STATE MO

DISTRICT SW SHEET NO. 2

COUNTY  
CEDAR

JOB NO.

CONTRACT ID.

PROJECT NO.  
J7P3485

BRIDGE NO.  
A9710

| DESCRIPTION | DATE |
|-------------|------|
|             |      |
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MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

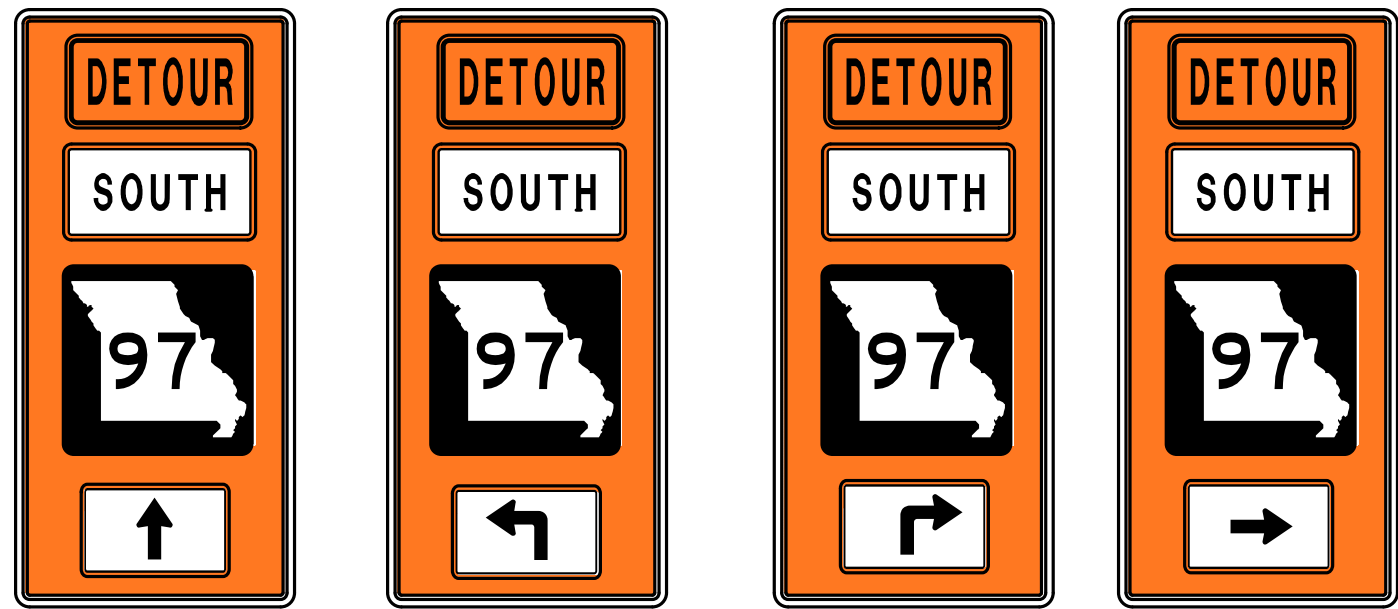
105 WEST CAPITOL  
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**MoDOT**

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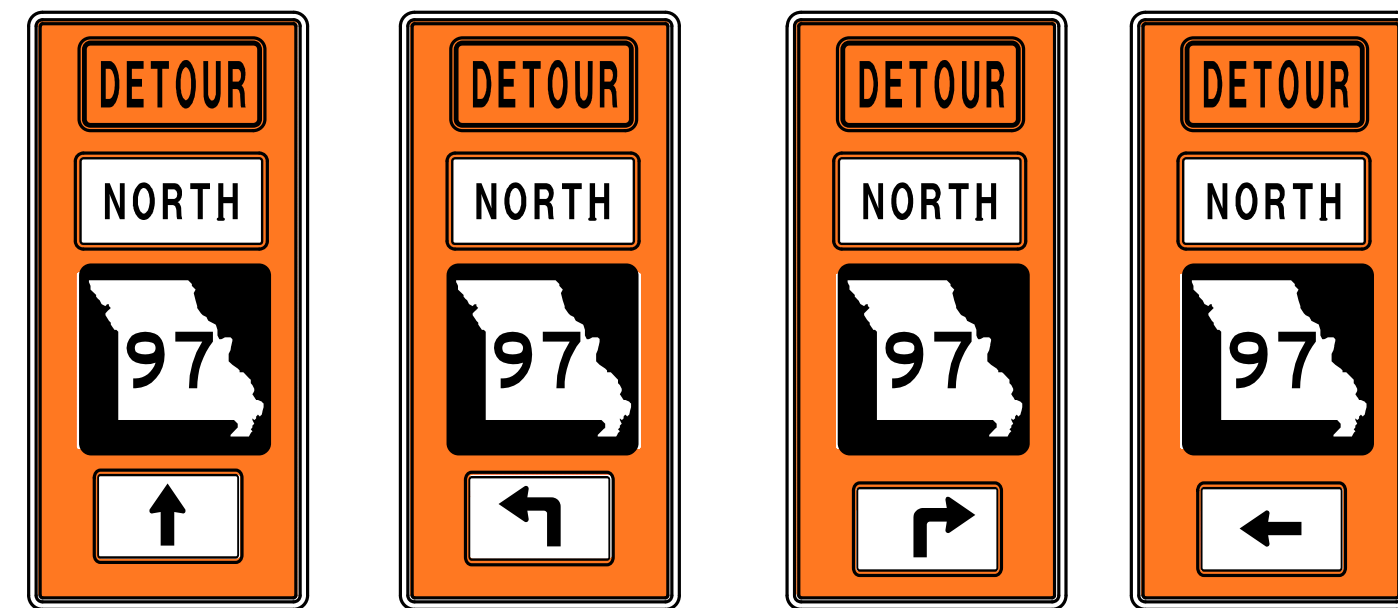


12A

12B

12C

12D



13A

13B

13C

13D



1



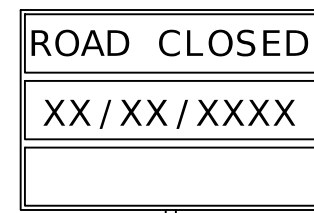
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2

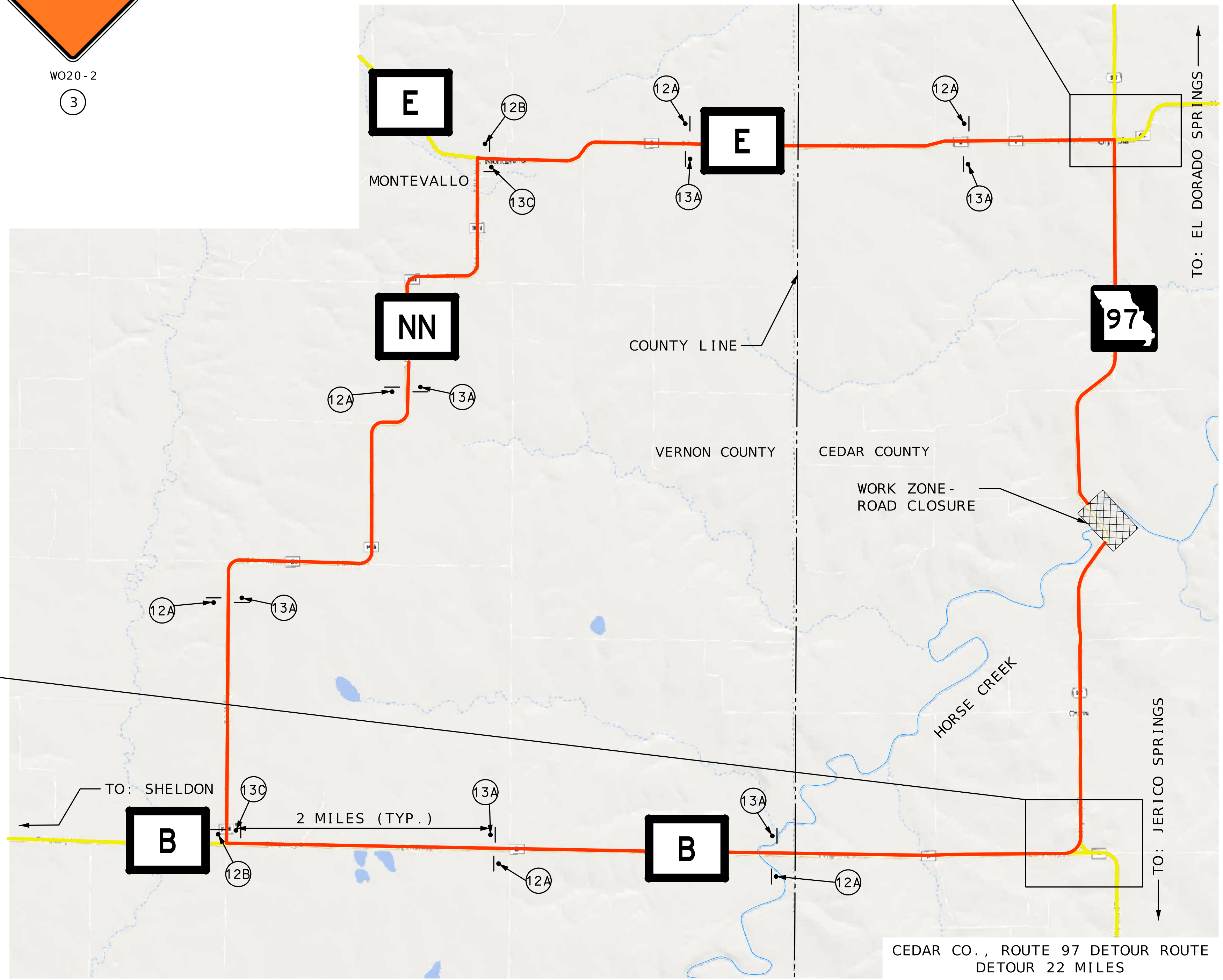
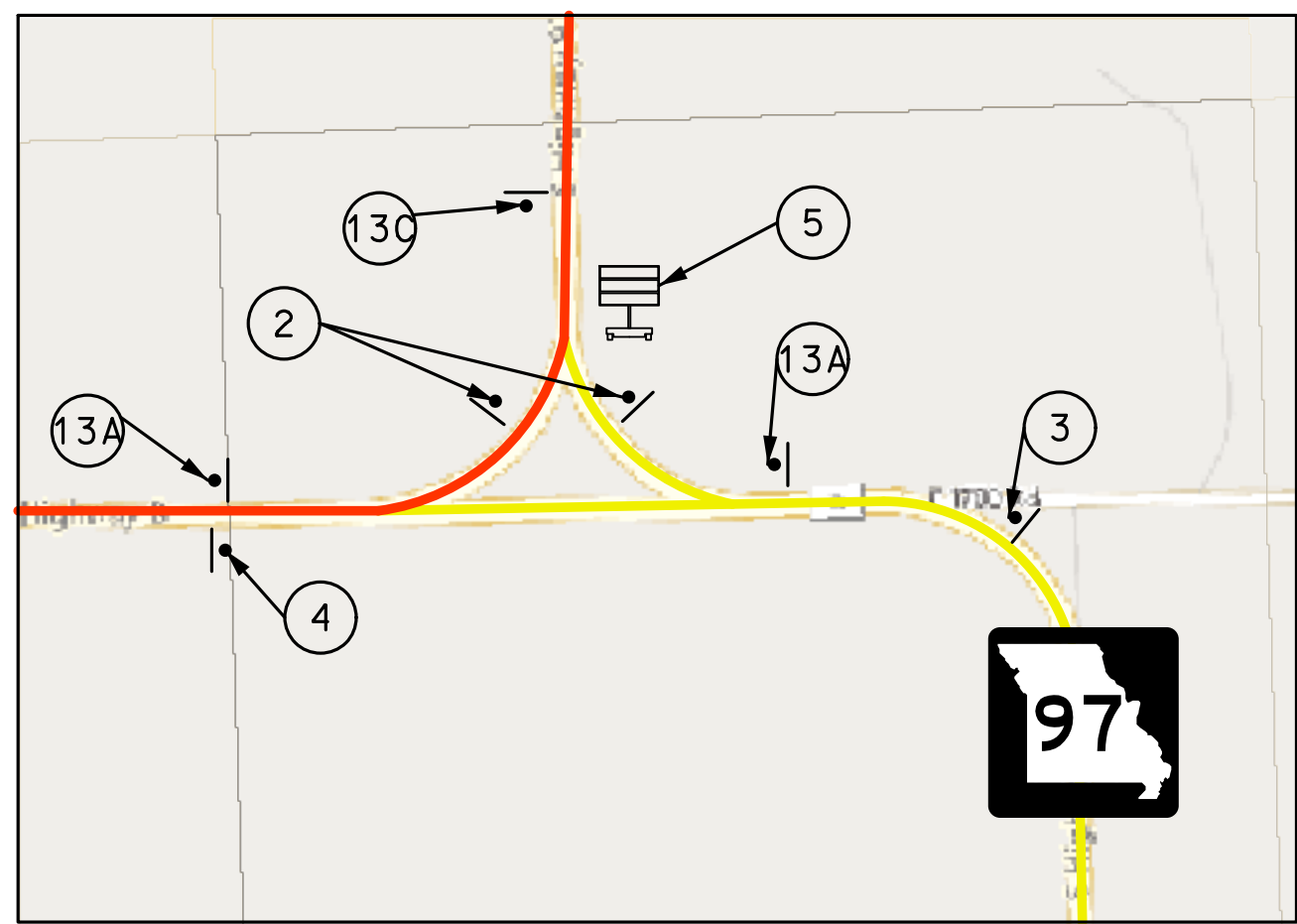
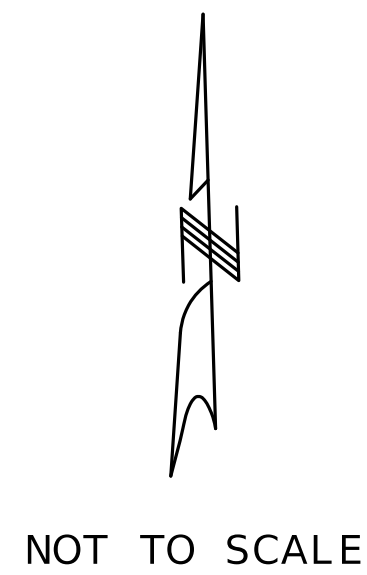
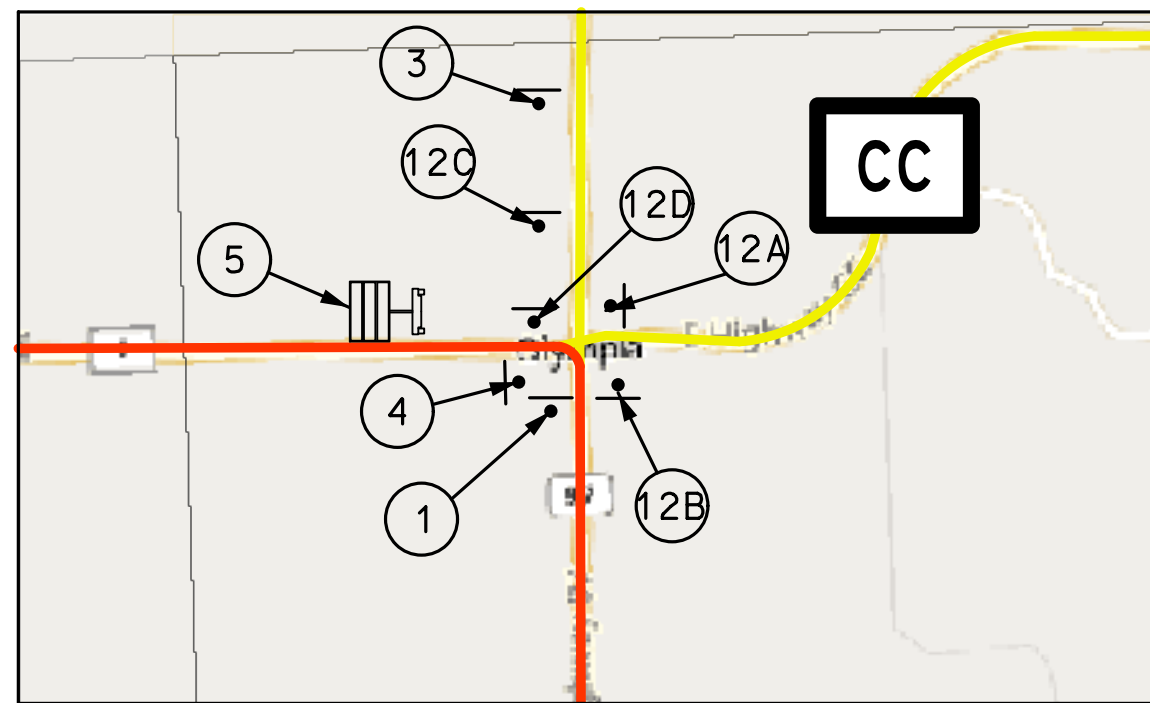


4



5

CHANGEABLE MESSAGE BOARD



CEDAR CO., ROUTE 97 DETOUR ROUTE  
DETOUR 22 MILES

Preliminary  
Plans -  
NOT FOR  
CONSTRUCTION

DATE PREPARED  
6/20/2025

ROUTE 97 STATE MO

DISTRICT SW SHEET NO. 4

COUNTY CEDAR  
JOB NO.

CONTRACT ID.

PROJECT NO.  
J7P3485

BRIDGE NO.  
A9710

| DESCRIPTION | DATE |
|-------------|------|
|             |      |
|             |      |
|             |      |
|             |      |
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|             |      |
|             |      |
|             |      |
|             |      |

MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

**MoDOT**

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Preliminary  
Plans -  
NOT FOR  
CONSTRUCTION

DATE PREPARED  
6/20/2025

|          |           |
|----------|-----------|
| ROUTE    | STATE     |
| 97       | MO        |
| DISTRICT | SHEET NO. |
| SW       | 5         |

|         |
|---------|
| COUNTY  |
| CEDAR   |
| JOB NO. |

CONTRACT ID.

PROJECT NO.  
J7P3485

BRIDGE NO.  
A9710

| DATE | DESCRIPTION |
|------|-------------|
|      |             |
|      |             |
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|      |             |
|      |             |

MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

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WO20-1  
(83)



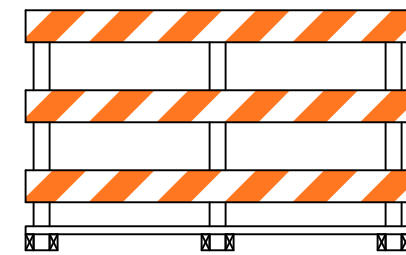
WO20-3  
(82)



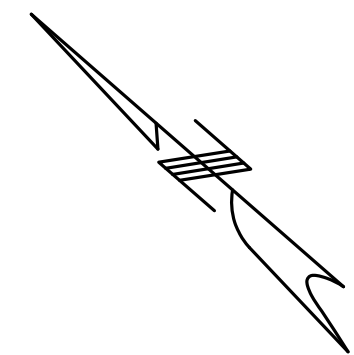
WO20-3  
(81)



(80)  
HARD CLOSURE



(85)  
SOFT CLOSURE



NOT TO SCALE





SEC/SUR 17 TWP 34N RGE 28W



## Notice and Disclaimer Regarding Boring Log Data

pw://bartwest-pw.bentley.com:bartwest-pw-04/Documents/19000/19421.J61 - Kaysinger Basin Bridge Bundle/OpenRoads Designer/plan sheets/A9710/B A9710 001 J7P3485 front sheet.dgn 6:47:25 PM 6/17/2025



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IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

| Estimated Quantities                       |             |         |           |        |
|--------------------------------------------|-------------|---------|-----------|--------|
| Item                                       |             | Substr. | Superstr. | Total  |
| Class 1 Excavation                         | cu. yard    | 100     |           | 100    |
| Removal of Bridges (S0979)                 | lump sum    |         |           | 1      |
| Bridge Approach Slab (Minor)               | sq. yard    |         | 108       | 108    |
| Drilled Shafts (4 ft. 0 in. Dia.)          | linear foot | 44      |           | 44     |
| Rock Sockets (3 ft. 6 in. Dia.)            | linear foot | 44      |           | 44     |
| Video Camera Inspection                    | each        | 4       |           | 4      |
| Foundation Inspection Holes                | linear foot | 84      |           | 84     |
| Sonic Logging Testing                      | each        | 4       |           | 4      |
| Galvanized Structural Steel Piles (12 in.) | linear foot | 184     |           | 184    |
| Pre-Bore for Piling                        | linear foot | 96      |           | 96     |
| Pile Point Reinforcement                   | each        | 8       |           | 8      |
| Class B Concrete (Substructure)            | cu. yard    | 101.2   |           | 101.2  |
| Type D Barrier                             | linear foot |         | 468       | 468    |
| Slab on Concrete NU-Girder                 | sq. yard    |         | 636       | 636    |
| NU 35, Prestressed Concrete NU-Girder      | linear foot |         | 629       | 629    |
| Reinforcing Steel (Bridges)                | pound       | 19,680  |           | 19,680 |
| Vertical Drain at End Bents                | each        |         |           | 2      |
| Laminated Neoprene Bearing Pad             | each        |         | 18        | 18     |
|                                            |             |         |           |        |
|                                            |             |         |           |        |
|                                            |             |         |           |        |
|                                            |             |         |           |        |

Notes:

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete NU-Girder.

| Foundation Data   |                                                                 |                |             |             |             |
|-------------------|-----------------------------------------------------------------|----------------|-------------|-------------|-------------|
| Type              | Design Data                                                     | Bent Number    |             |             |             |
|                   |                                                                 | 1              | 2           | 3           | 4           |
| Load Bearing Pile | Pile Type and Size                                              | HP 12x53       | -           | -           | HP 12x53    |
|                   | Number                                                          | ea 4           | -           | -           | 4           |
|                   | Approximate Length Per Each                                     | ft 31          | -           | -           | 15          |
|                   | Pile Point Reinforcement                                        | ea All         | -           | -           | All         |
|                   | Min. Galvanized Penetration                                     | ft Full Length | -           | -           | Full Length |
|                   | Pile Driving Verification Method                                | DF             | -           | -           | DF          |
|                   | Resistance Factor                                               | 0.40           | -           | -           | 0.40        |
|                   | Minimum Nominal Axial Compressive Resistance                    | kip 530        | -           | -           | 530         |
| Rock Socket       | Number                                                          | ea -           | 2           | 2           | -           |
|                   | Foundation Material                                             | -              | Strong Rock | Strong Rock | -           |
|                   | Elevation Range                                                 | ft -           | 819-795     | 828-795     | -           |
|                   | Minimum Nominal Axial Compressive Resistance (Side Resistance)  | ksf -          | 24.7        | 24.7        | -           |
|                   | Resistance Factor (Side Resistance)                             | -              | 0.54        | 0.54        | -           |
|                   | Allowable Nominal Axial Compressive Resistance (Tip Resistance) | ksf -          | 400         | 400         | -           |
|                   | Minimum Nominal Axial Compressive Resistance (Tip Resistance)   | ksf -          | 0           | 0           | -           |
|                   | Resistance Factor (Tip Resistance)                              | -              | 0.52        | 0.52        | -           |
|                   |                                                                 |                |             |             |             |
|                   |                                                                 |                |             |             |             |

DF = FHWA-modified Gates Dynamic Pile Formula

Driven Piles:  
Minimum Nominal Axial Compressive Resistance = Maximum Factored Loads/Resistance Factor

Prebore for piles to natural ground line at End Bt. No. 1 at End Bent No. 4 to elevation 836.

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

Rock Socket (Drilled Shafts):  
Minimum Nominal Axial Compressive Resistance (Side Resistance + Tip Resistance) = Maximum Factored Loads/Resistance Factors

The tip of casing shall not extend into the rock socket elevation range reported in the Foundation Data table without approval by the engineer.

### Estimated Quantities for Slab on Concrete NU-Girder

| Item                             | Total        |
|----------------------------------|--------------|
| Class B-2 Concrete               | cu. yard 234 |
| Reinforcing Steel (Epoxy Coated) | pound 60,050 |

The table of Estimated Quantities for Slab on Concrete NU-Girder 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 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 SC 4 and a finish type I, II or III.

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

### General Notes:

Design Specifications:  
2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)  
2023 AASHTO Guide Specifications for LRFD Seismic Bridge Design (3rd Ed.)  
Seismic Design Category = A (Nonseismic)

Design Loading:  
Vehicular = HL-93  
Future Wearing Surface = 35 lb/sf  
Earth = 120 lb/cf  
Equivalent Fluid Pressure = 45 lb/cf (Min.)  
Superstructure: Simply-Supported, Non-Composite for dead load, Continuous Composite for live load.

Design Unit Stresses:  
Class B Concrete (Substructure) f'c = 3,000 psi  
Class B-1 Concrete (Barrier) f'c = 4,000 psi  
Class B-2 Concrete (Drilled Shafts & Rock Sockets; Superstructure, except Prestressed Girders and Barrier) f'c = 4,000 psi  
Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi  
Structural Steel HP Pile (ASTM A709 Grade 50) fy = 50,000 psi

For prestressed girder stresses, see Sheets No. 9 and 10.

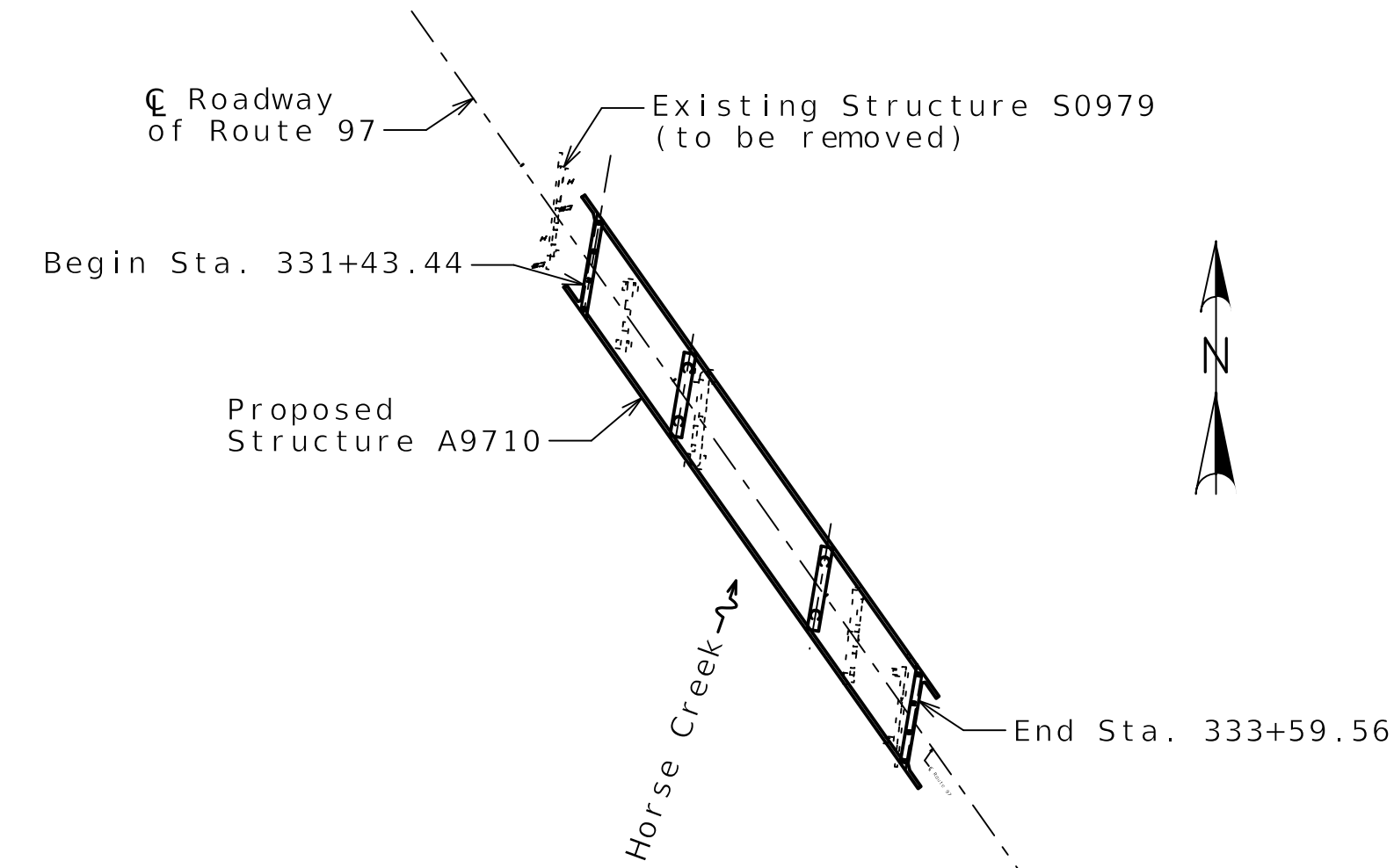
Neoprene Pads:  
Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

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.

Traffic Handling:  
Structure to remain closed during construction. Traffic to be maintained on other routes during construction. See roadway plans for traffic control.

| Hydrologic Data                          |
|------------------------------------------|
| Drainage Area = 141 mi <sup>2</sup>      |
| Design Flood Frequency = 50 years        |
| Design Flood Discharge = 18,779 cfs      |
| Design Flood (D.F.) Elevation = 852.6    |
| Base Flood (100-year)                    |
| Base Flood Elevation = 854.2             |
| Base Flood Discharge = 21,818 cfs        |
| Estimated Backwater = 0.9 ft             |
| Average Velocity thru Opening = 6.0 ft/s |
| Freeboard (50-year)                      |
| Freeboard = 0.0 ft                       |
| Roadway Overtopping                      |
| Overtopping Flood Discharge = 18,779 cfs |
| Overtopping Flood Frequency = 50 years   |
| 50-year Flood Elevation = 852.6          |



LOCATION SKETCH

Detailed June 2025  
Checked June 2025

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

Sheet No. 2 of 22

DATE PREPARED  
6/17/2025

ROUTE  
97

DISTRICT  
BR

COUNTY  
CEDAR

JOB NO.  
J7P3485

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
A9710

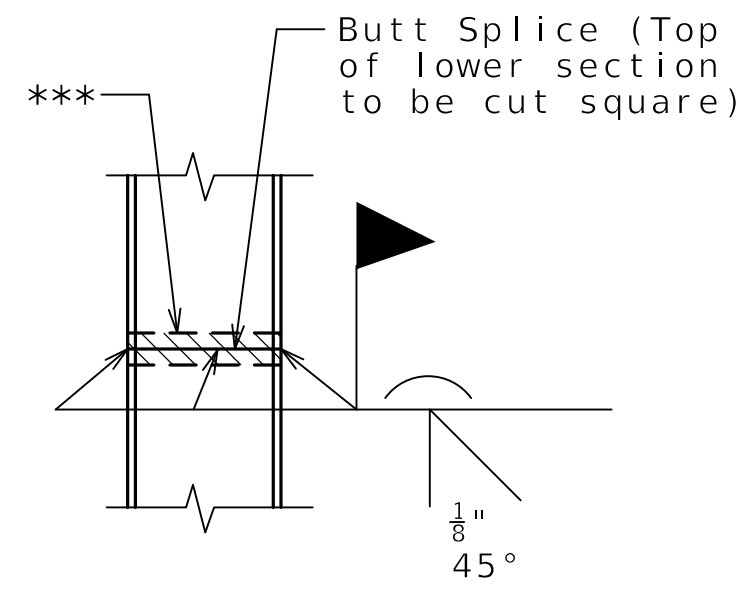
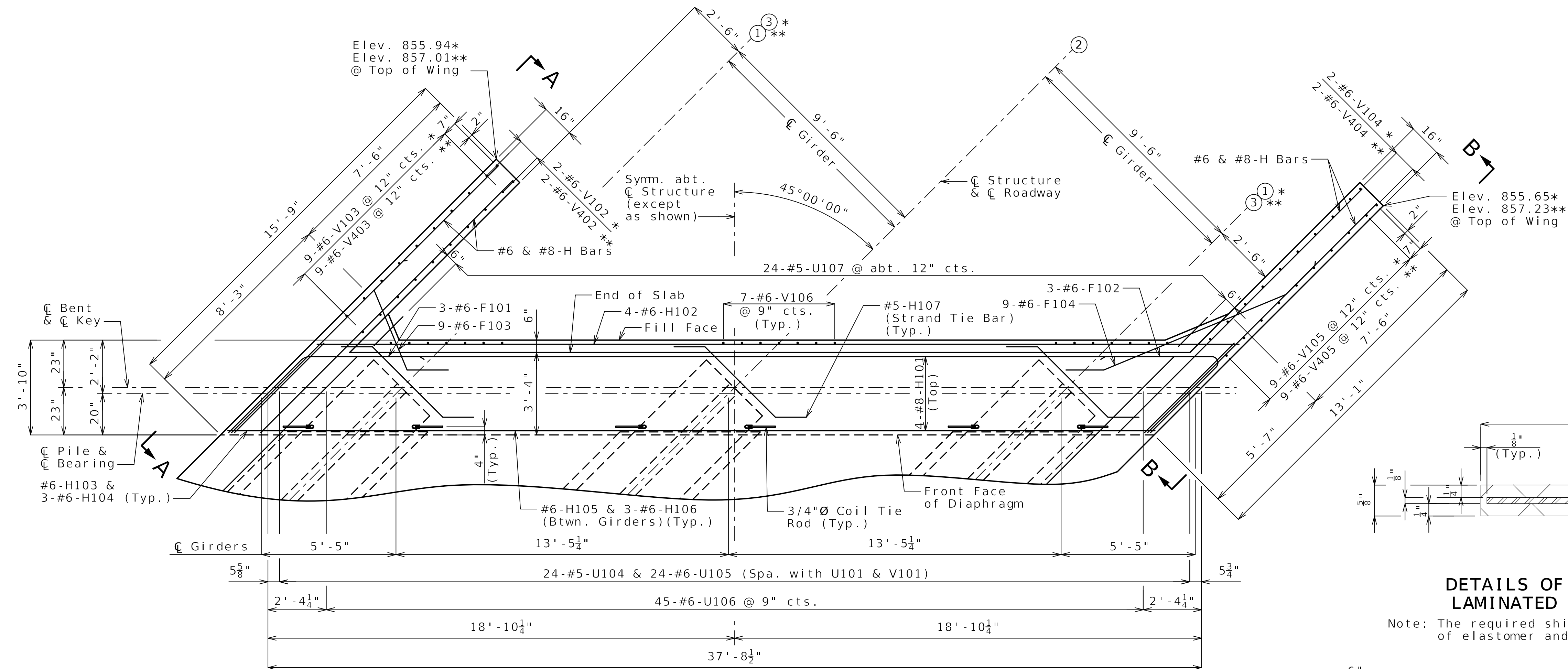
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

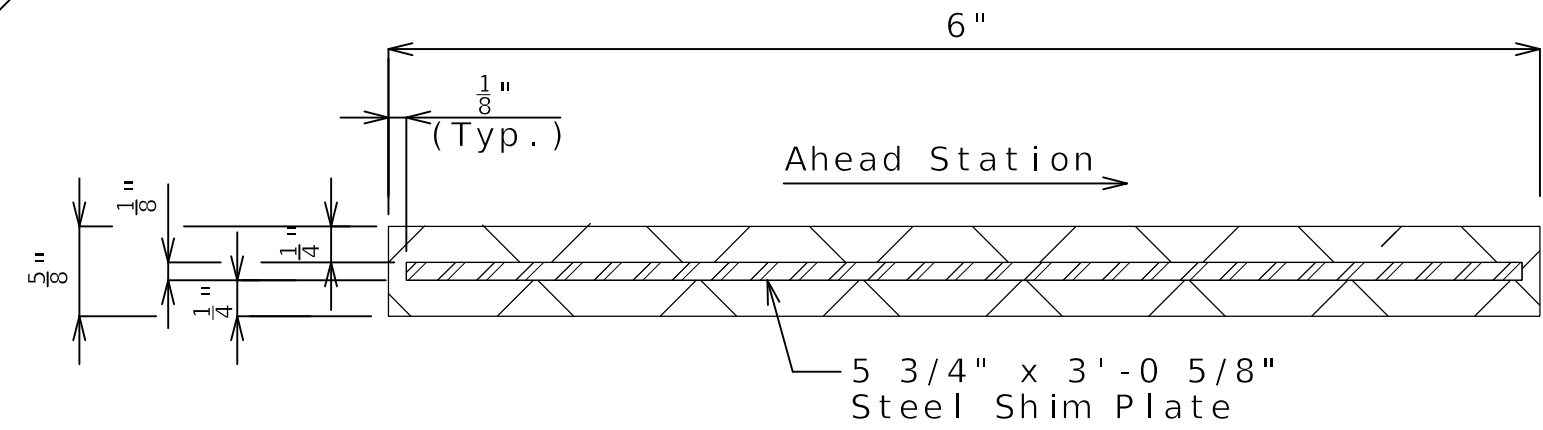
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CERTIFICATE OF AUTHORITY NO. 000167 - ENGINEERING  
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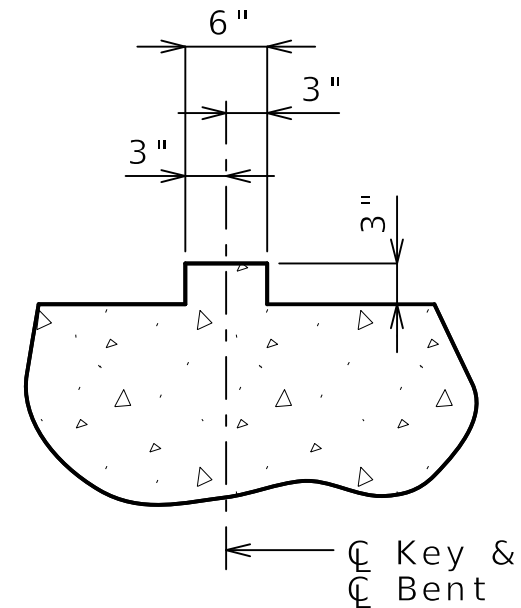
STEEL PILE SPLICE  
(If required)

\*\*\* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



DETAILS OF 6" x 3'-0 7/8" x 5/8" LAMINATED NEOPRENE BEARING PADS

Note: The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.



SECTION THRU KEY

General Notes:

For details at End Bent not shown, see Sheets No. 4 and 5.

#5-U107 bars shall be used for the concrete bridge approach slab, see Sheet No. 18.

Strands at end of the girders shall be field bent or, if necessary, cut in field to maintain 1 1/2" minimum clearance to fill face of end bent.

For location of #5-H107 (Strand Tie Bar), see Sheet No. 9.

For Elevations A-A and B-B, see Sheet No. 5.

For Section Near End Bent, see Sheet No. 4.

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

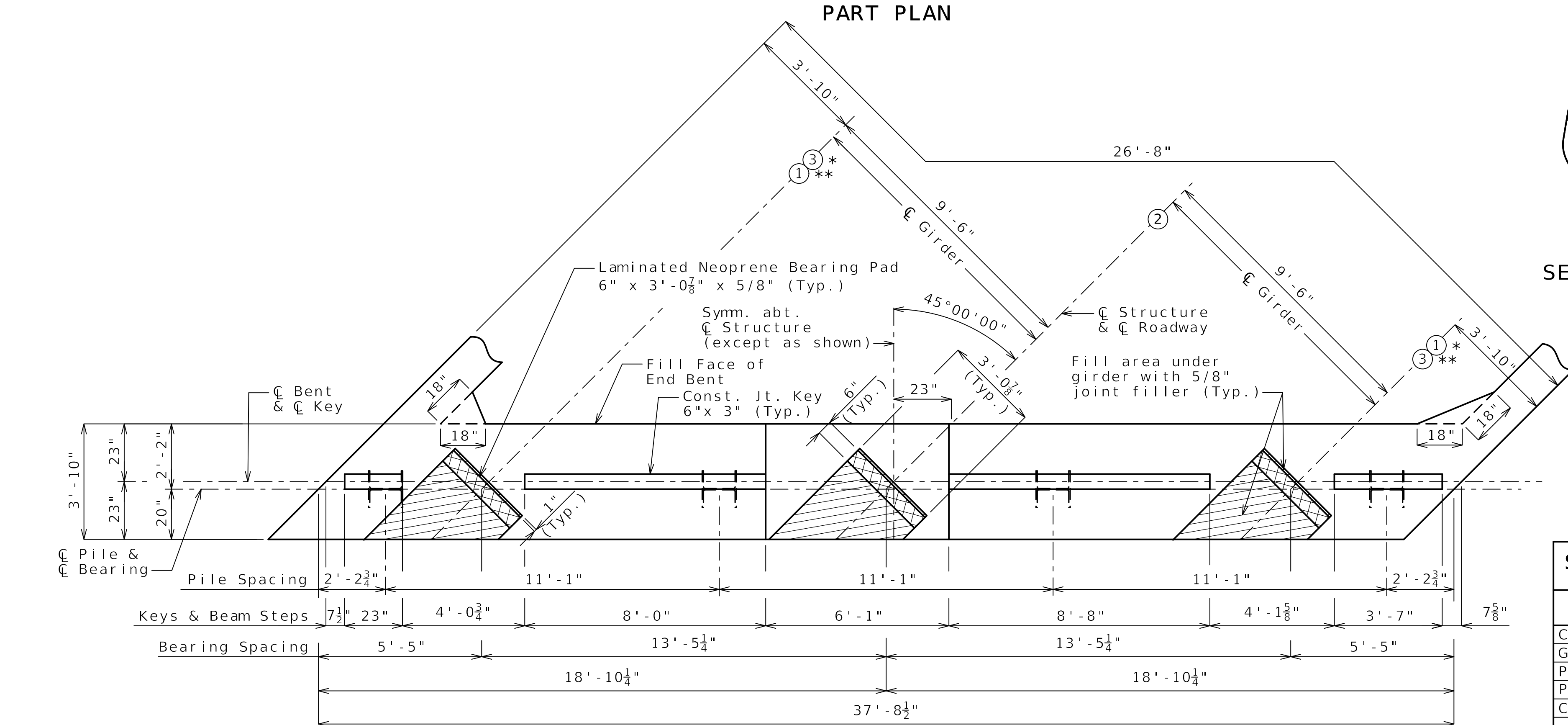
The U bars and #5-U107 bars shall be placed parallel to centerline of roadway.

Bend #6-F103 & #6-F104 in field to clear girders.

- \* End Bent No. 1
- \*\* End Bent No. 4

| Substructure Quantity Table for Bent No. 1 and No. 4 |             |                |                |
|------------------------------------------------------|-------------|----------------|----------------|
| Item                                                 |             | End Bent No. 1 | End Bent No. 4 |
| Class 1 Excavation                                   | cu. yard    | 50             | 50             |
| Galvanized Structural Steel Piles (12 in.)           | linear foot | 124            | 60             |
| Pre-Bore for Piling                                  | linear foot | 36             | 60             |
| Pile Point Reinforcement (H-Pile)                    | each        | 4              | 4              |
| Class B Concrete (Substructure)                      | cu. yard    | 28.0           | 34.4           |

Note: These quantities are included in the Estimated Quantities table on Sheet No. 2.



PLAN OF BEAM  
DETAILS OF END BENTS NO. 1 AND NO. 4

Note: This drawing is not to scale. Follow dimensions. Sheet No. 3 of 22

Detailed June 2025  
Checked June 2025

DATE PREPARED  
6/17/2025

ROUTE  
97

DISTRICT  
BR

COUNTY  
CEDAR

JOB NO.  
J7P3485

PROJECT NO.

BRIDGE NO.  
A9710

DESCRIPTION

DATE

STATE  
MO

SHEET NO.  
3

CONTRACT ID.

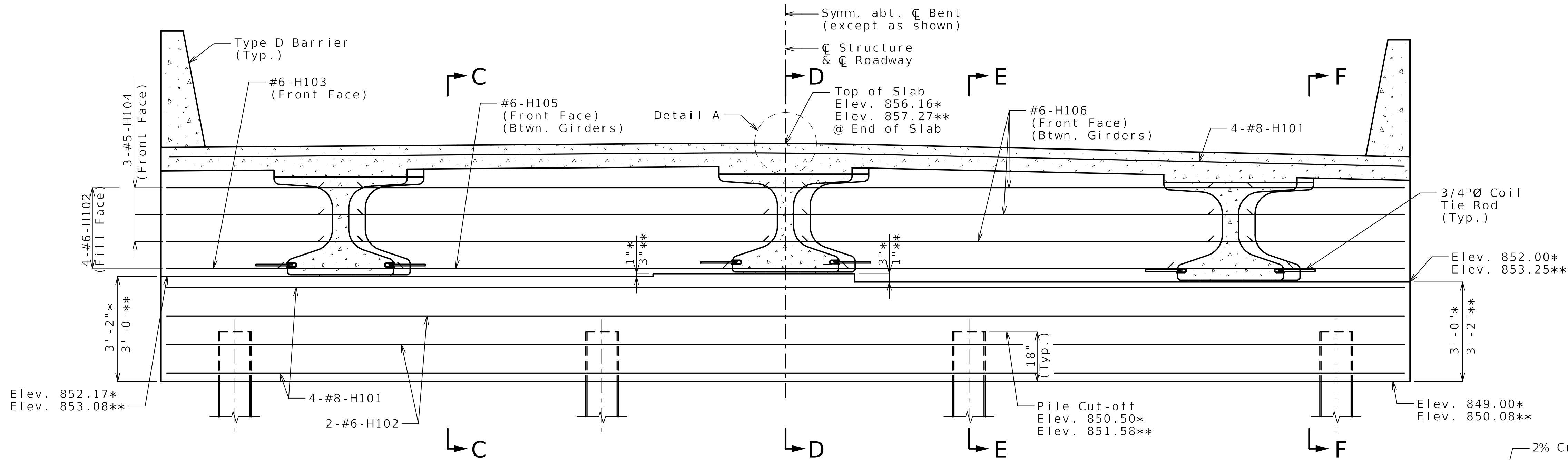
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**Bartlett & West**

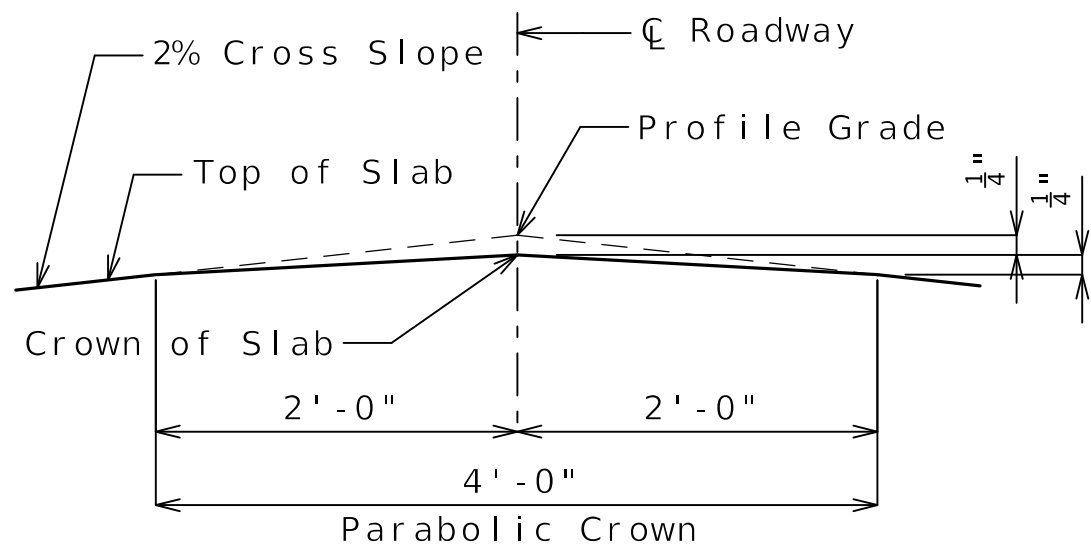
601 MONROE STREET, SUITE 201 - JEFFERSON CITY, MO 65101  
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CERTIFICATE OF AUTHORITY NO. 000167 - ENGINEERING  
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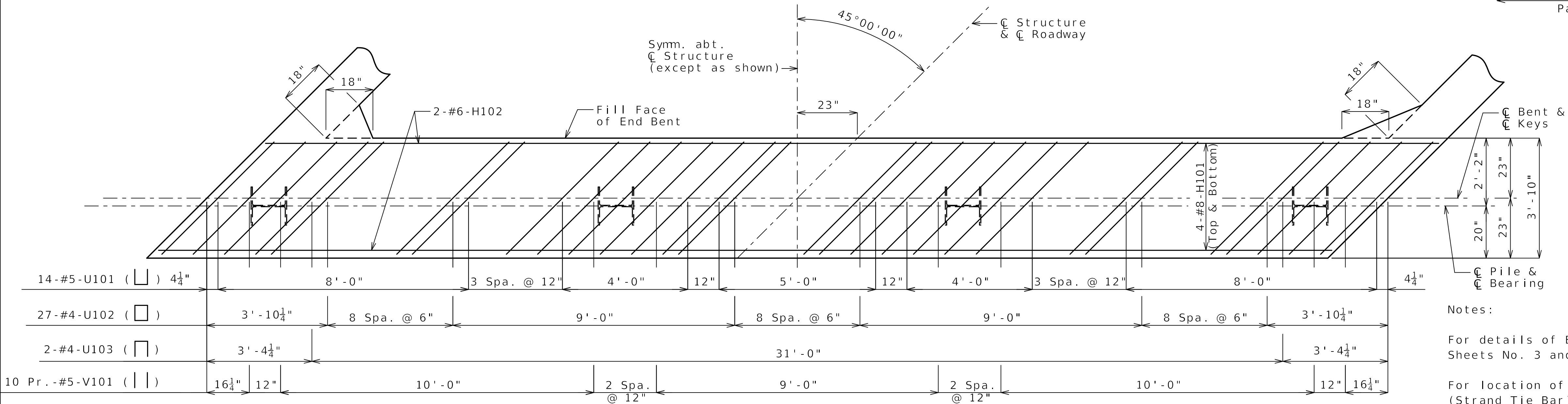


SECTION NEAR END BENT

Note: Keys not shown for clarity.



DETAIL A



PLAN OF BEAM

Notes:

For details of End Bents not shown, see Sheets No. 3 and 5.

For location of Coil Tie Rods and #5-H107 (Strand Tie Bar), see Sheets No. 9 and 10.

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

For Sections C-C thru F-F, see Sheet No. 5.

For details of Bridge Approach Slab, see Sheet No. 18.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

The U bars and pairs of V101 bars shall be placed parallel to centerline of roadway.

\* End Bent No. 1  
\*\* End Bent No. 4

DETAILS OF END BENTS NO. 1 AND NO. 4

Detailed June 2025  
Checked June 2025

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

Sheet No. 4 of 22

|                            |                |
|----------------------------|----------------|
| DATE PREPARED<br>6/17/2025 |                |
| ROUTE<br>97                | STATE<br>MO    |
| DISTRICT<br>BR             | SHEET NO.<br>4 |

|                    |
|--------------------|
| COUNTY<br>CEDAR    |
| JOB NO.<br>J7P3485 |
| CONTRACT ID.       |

|             |
|-------------|
| PROJECT NO. |
|-------------|

|                     |
|---------------------|
| BRIDGE NO.<br>A9710 |
|---------------------|

| DESCRIPTION | DATE |
|-------------|------|
|             |      |
|             |      |
|             |      |
|             |      |
|             |      |

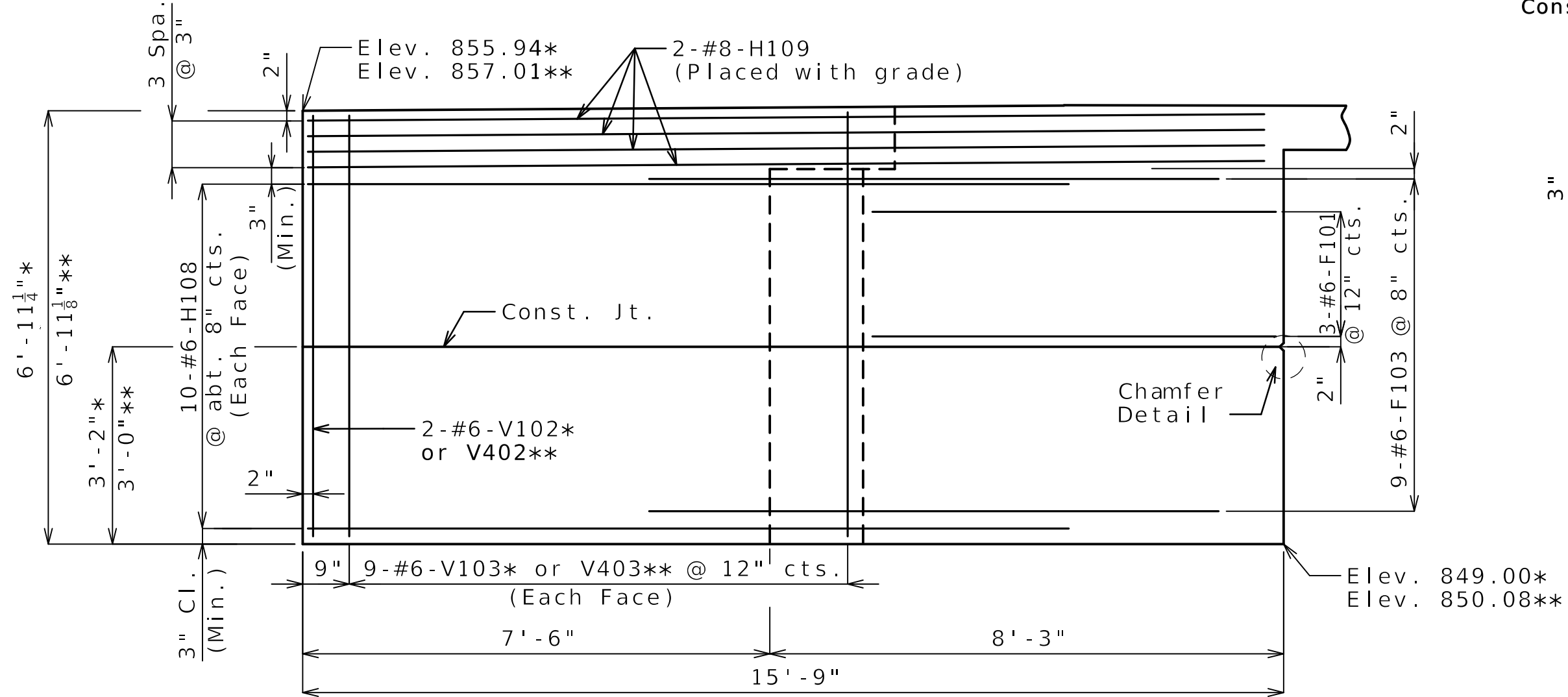
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

**MoDOT**

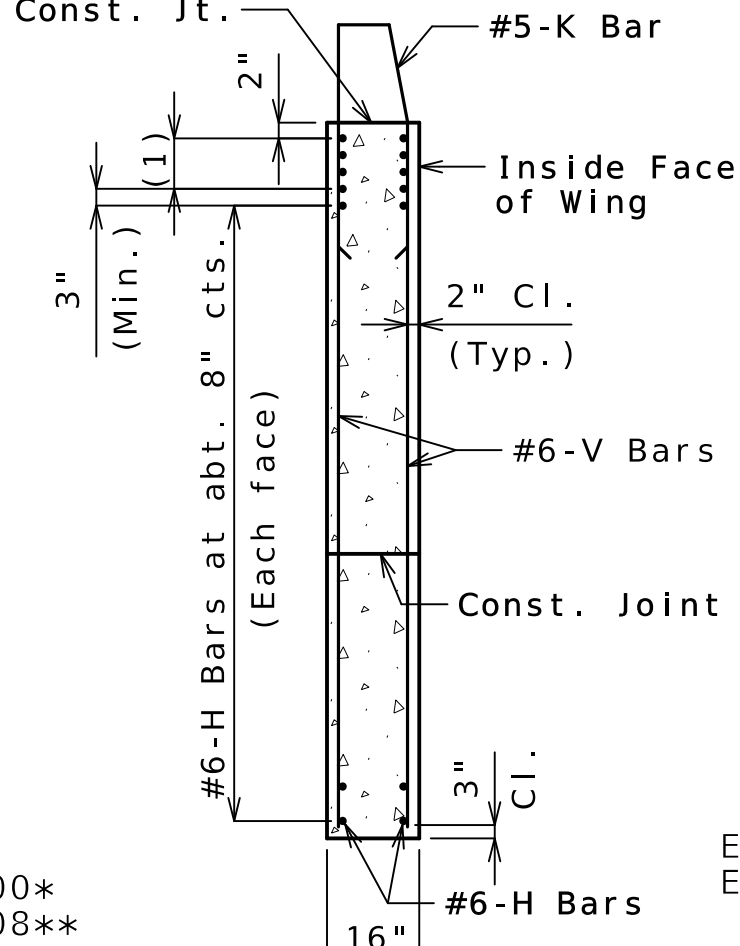
105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

**Bartlett & West**

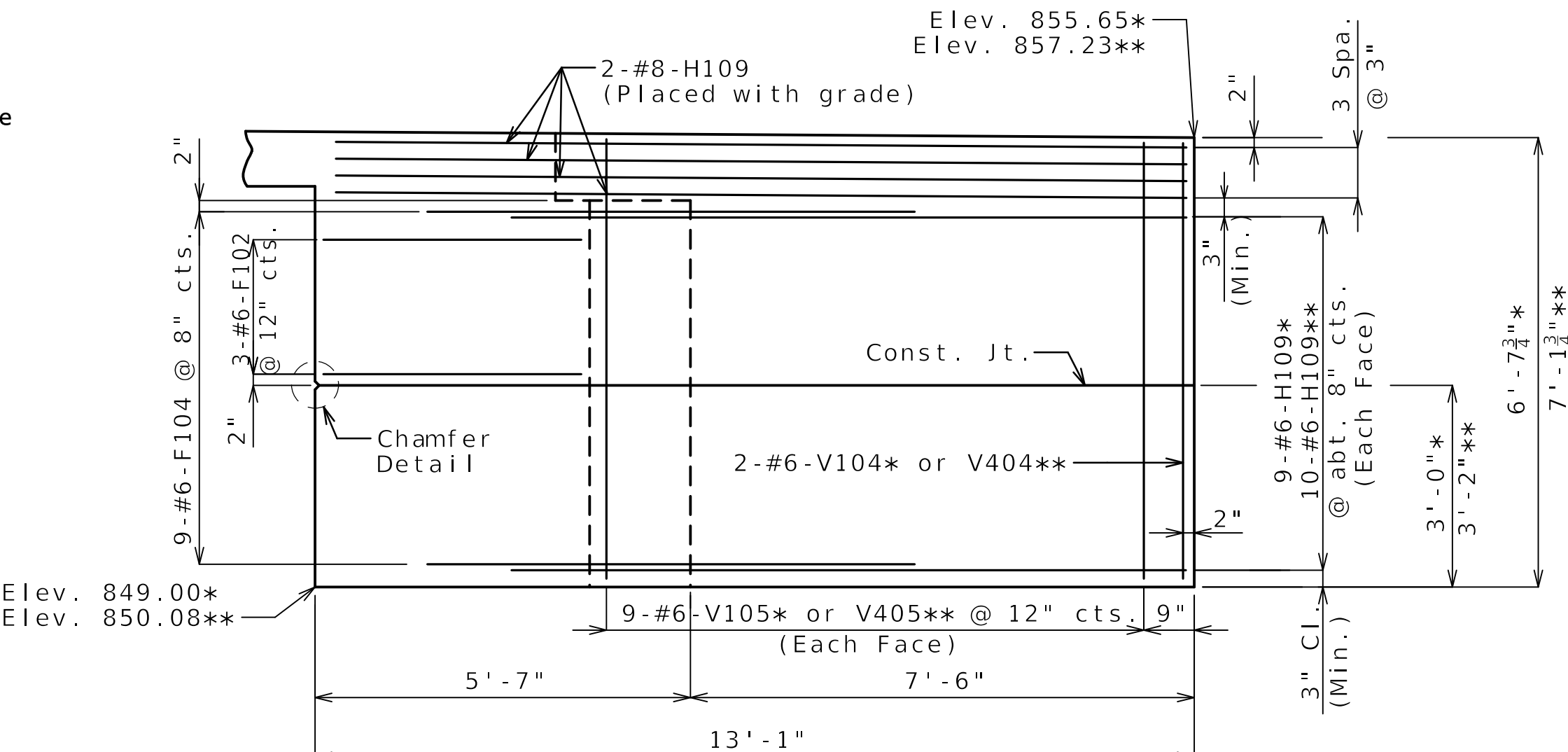
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PHONE 573-634-3161 FAX 573-634-7904  
CERTIFICATE OF AUTHORITY NO. 000167 - ENGINEERING  
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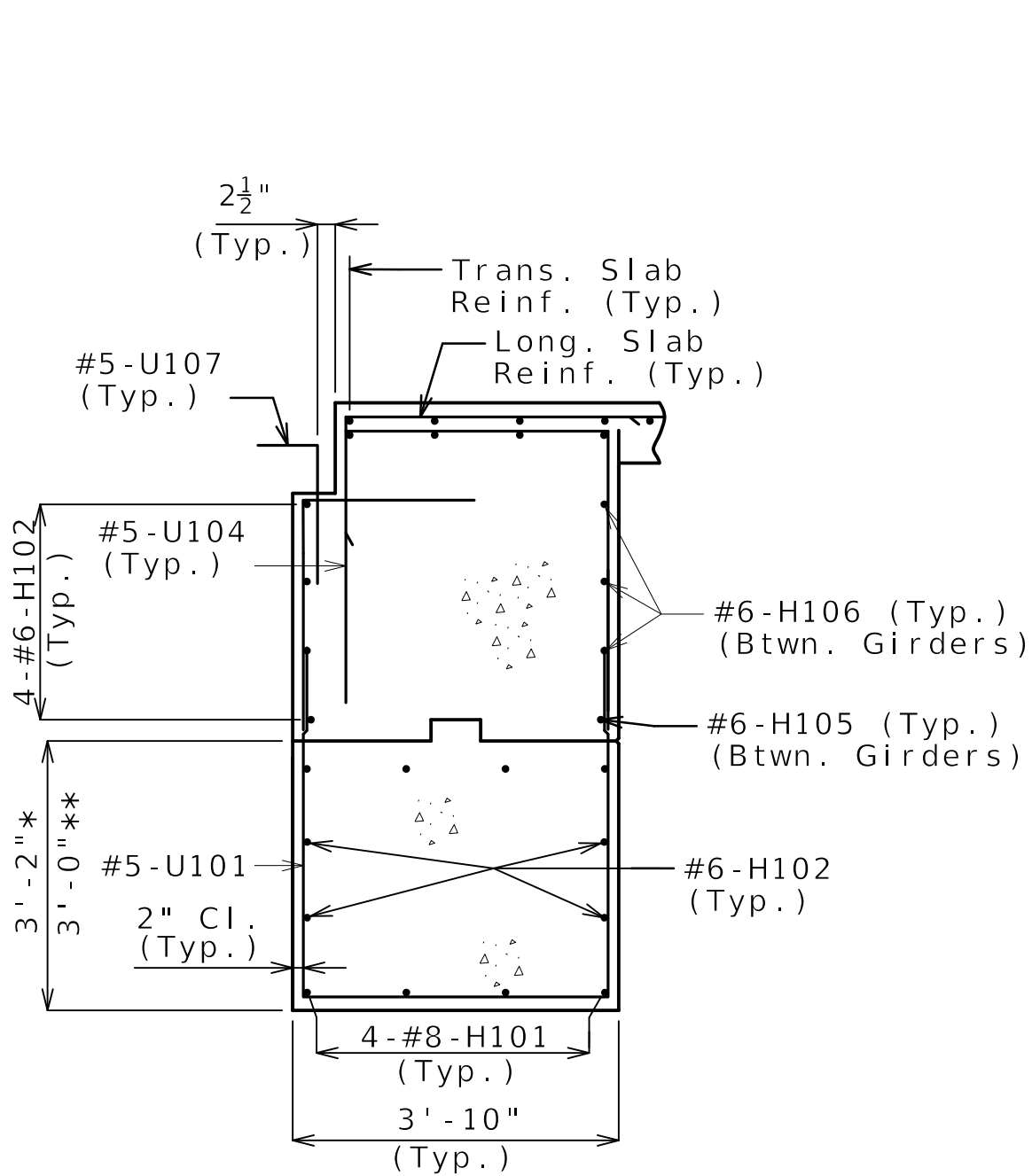
ELEVATION A-A



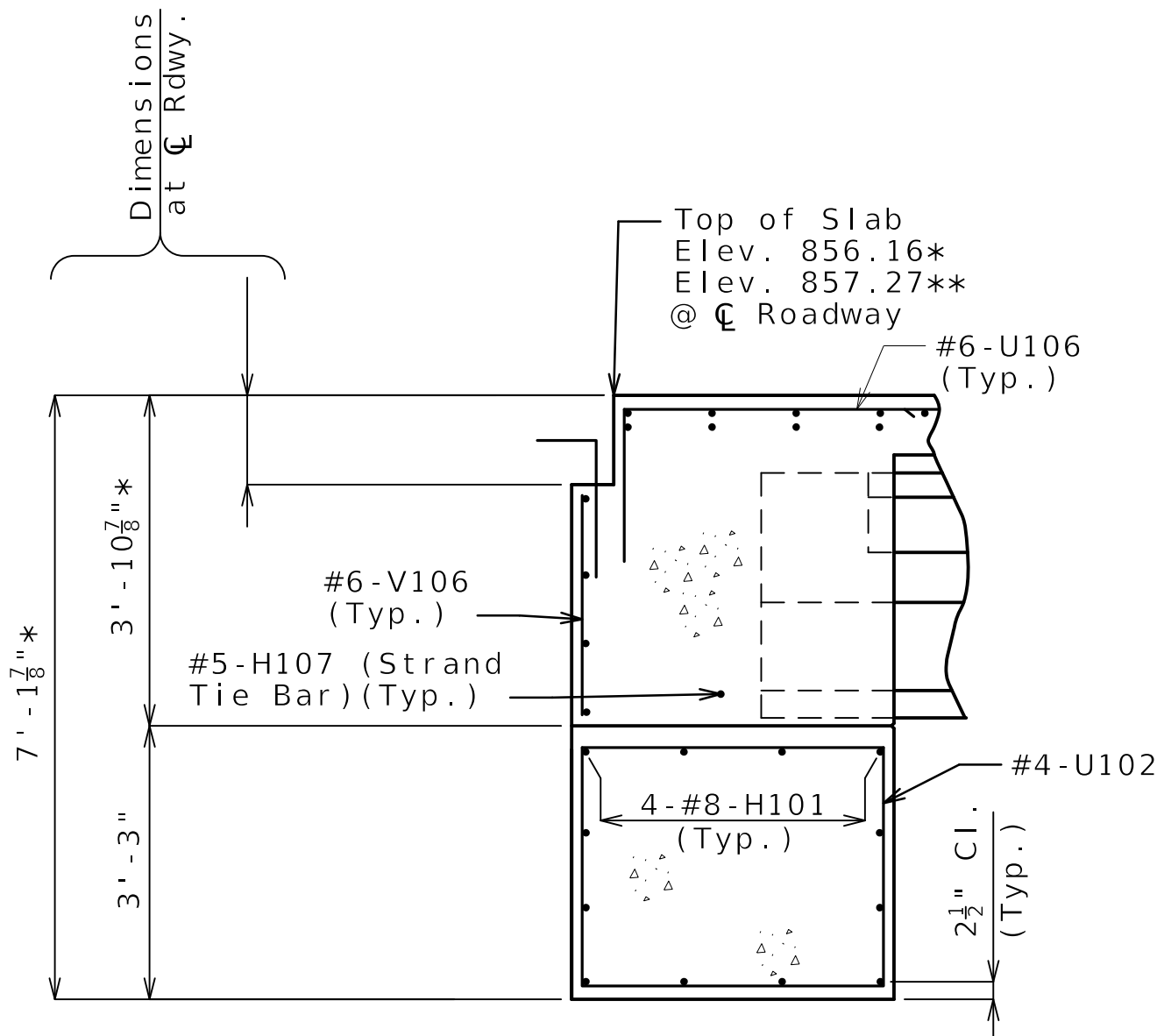
TYPICAL SECTION THRU WING  
(1) #8-H Bars at 3" cts. (Each face) (Place with grade)



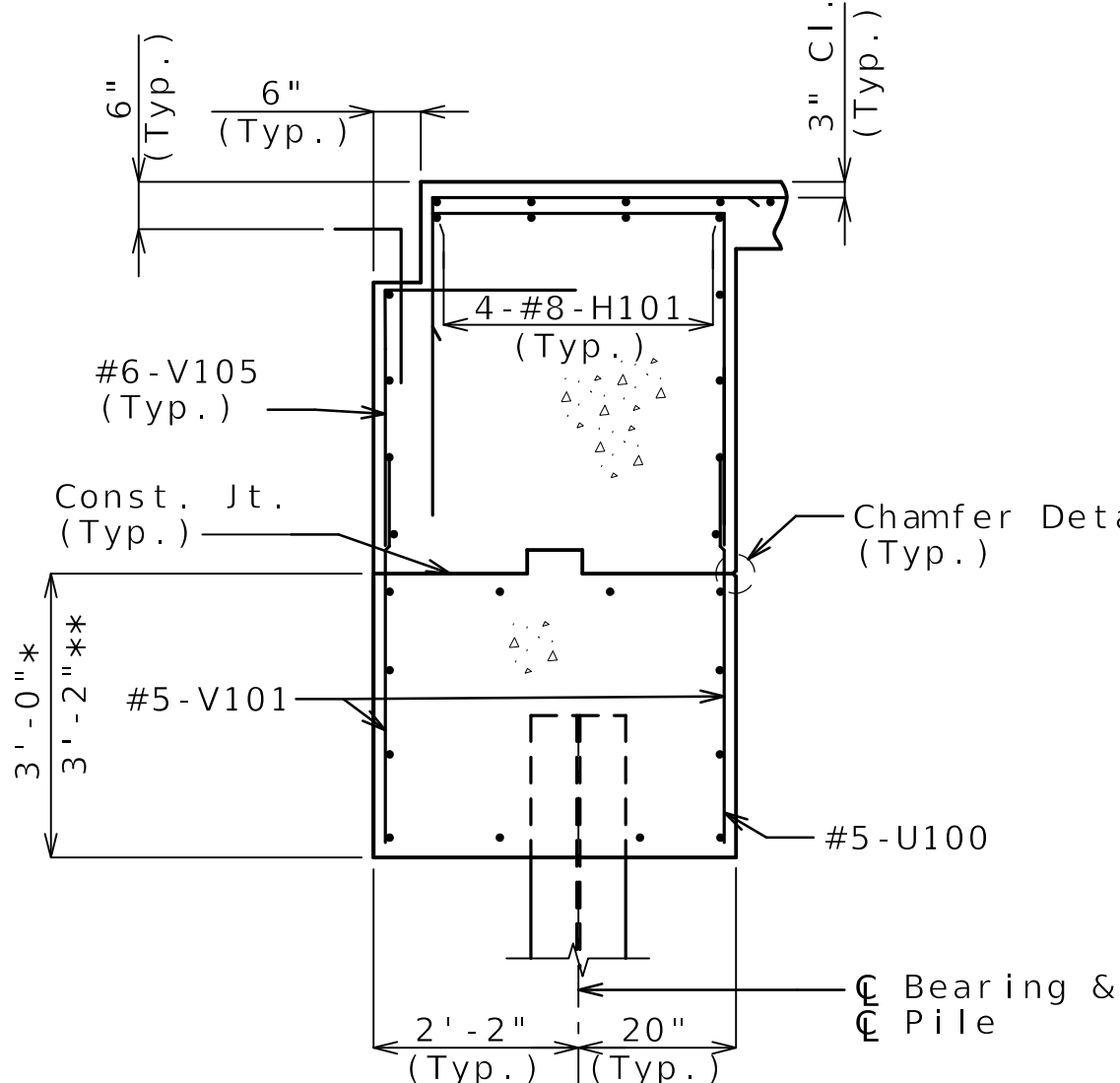
ELEVATION B-B



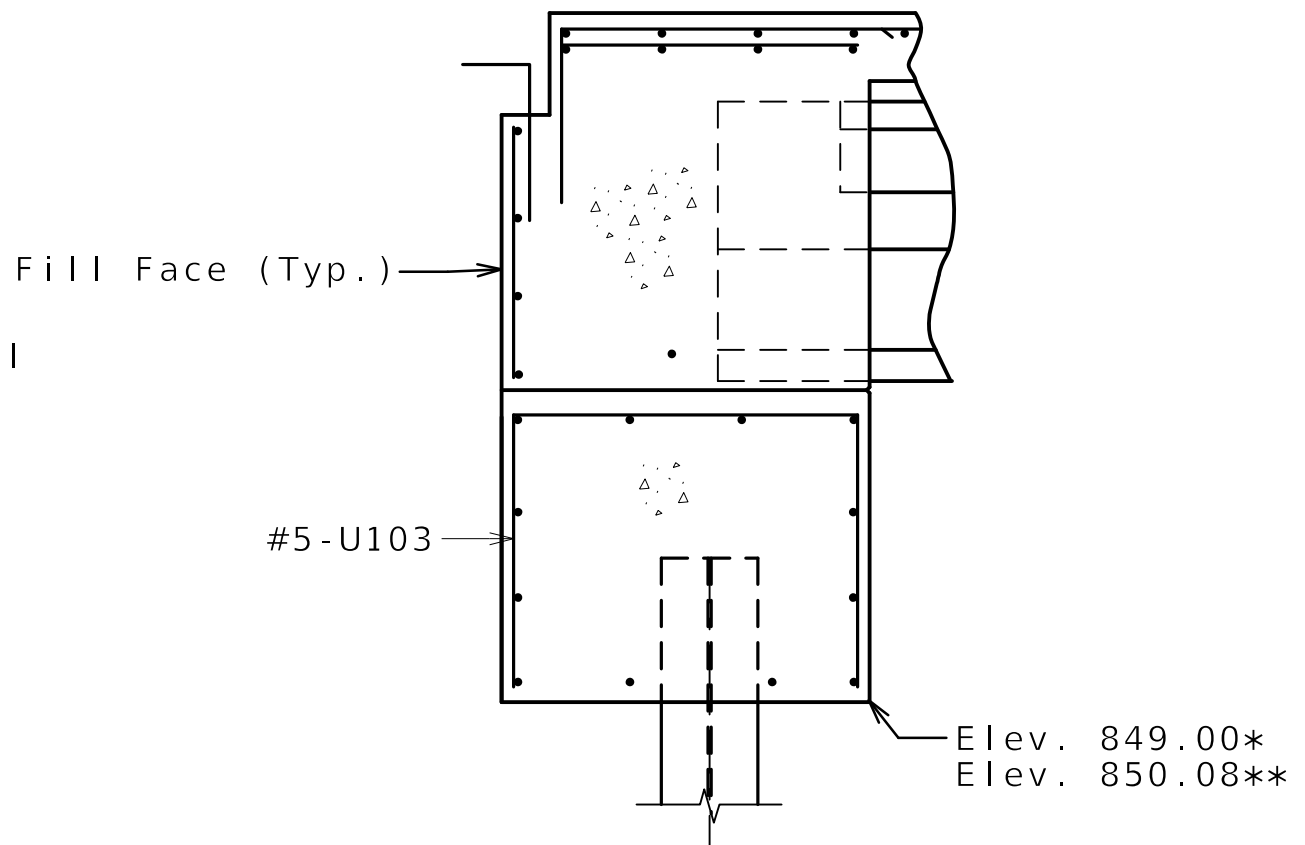
SECTION C-C



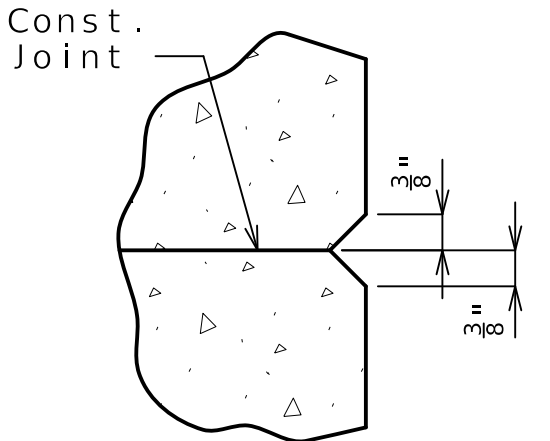
SECTION D-D



SECTION E-E



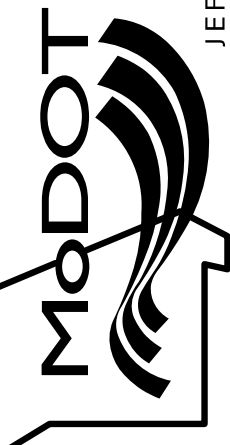
SECTION F-F



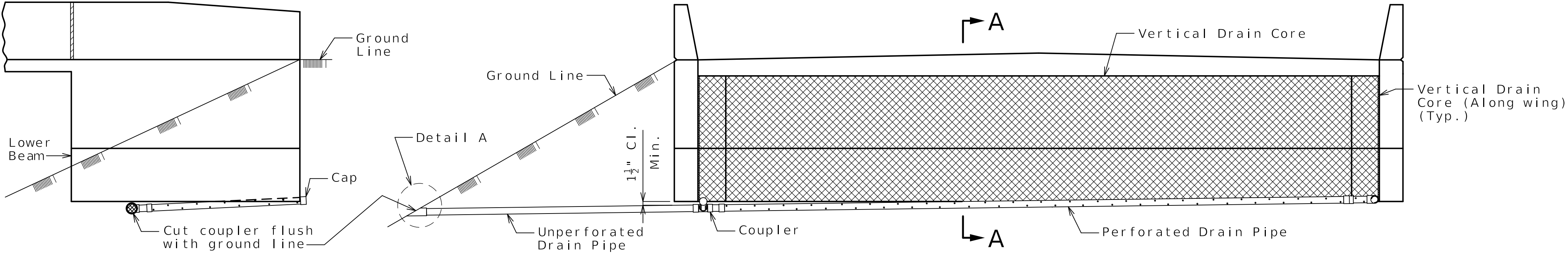
CHAMFER DETAIL

DETAILS OF END BENTS NO. 1 AND NO. 4

Notes:  
For reinforcement of the Type D Barrier not shown, see Sheet No. 17.  
For details of Vertical Drain at End Bents, see Sheet No. 6.  
For details of End Bents not shown, see Sheets No. 3 and 4.  
For details of Bridge Approach Slab, see Sheet No. 18.  
\* End Bent No. 1  
\*\* End Bent No. 4

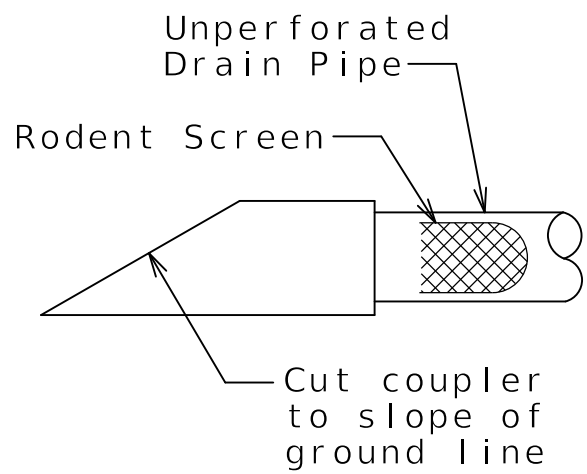
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| DATE PREPARED<br>6/17/2025                                                                                                                                                                            |                |
| ROUTE<br>97                                                                                                                                                                                           | STATE<br>MO    |
| DISTRICT<br>BR                                                                                                                                                                                        | SHEET NO.<br>5 |
| COUNTY<br>CEDAR                                                                                                                                                                                       |                |
| JOB NO.<br>J7P3485                                                                                                                                                                                    |                |
| CONTRACT ID.                                                                                                                                                                                          |                |
| PROJECT NO.                                                                                                                                                                                           |                |
| BRIDGE NO.<br>A9710                                                                                                                                                                                   |                |
| DESCRIPTION                                                                                                                                                                                           | DATE           |
|                                                                                                                                                                                                       |                |
|                                                                                                                                                                                                       |                |
|                                                                                                                                                                                                       |                |
|                                                                                                                                                                                                       |                |
|                                                                                                                                                                                                       |                |
| MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION                                                                                                                                                       |                |
|                                                                                                                  |                |
| 105 WEST CAPITOL<br>JEFFERSON CITY, MO 65102<br>1-888-ASK-MODOT (1-888-275-6636)                                                                                                                      |                |
| <b>Bartlett &amp; West</b><br>601 MONROE STREET, SUITE 201 - JEFFERSON CITY, MO 65101<br>PHONE 573-634-3181 FAX 573-634-7904<br>CERTIFICATE OF AUTHORITY NO. 000167 - ENGINEERING<br>WWW.BARTWEST.COM |                |

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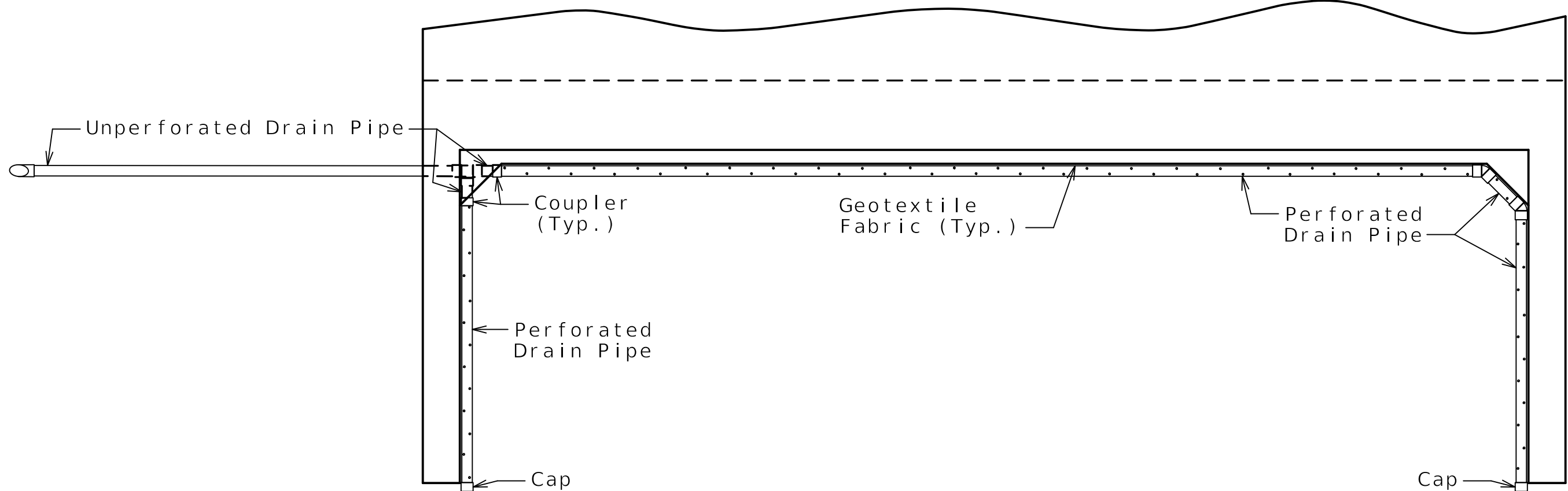


ELEVATION OF WING

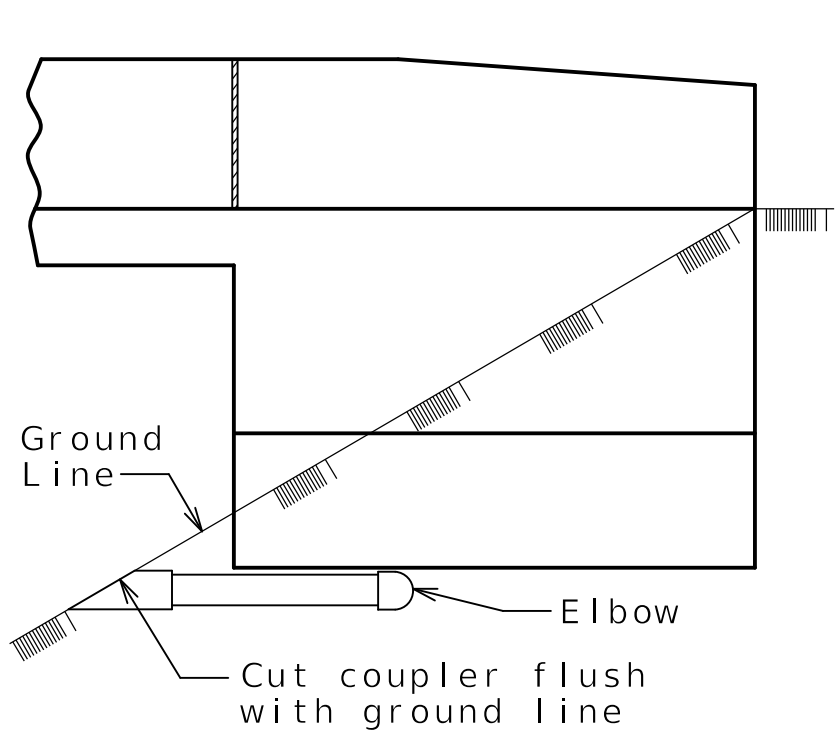
ELEVATION OF END BENT



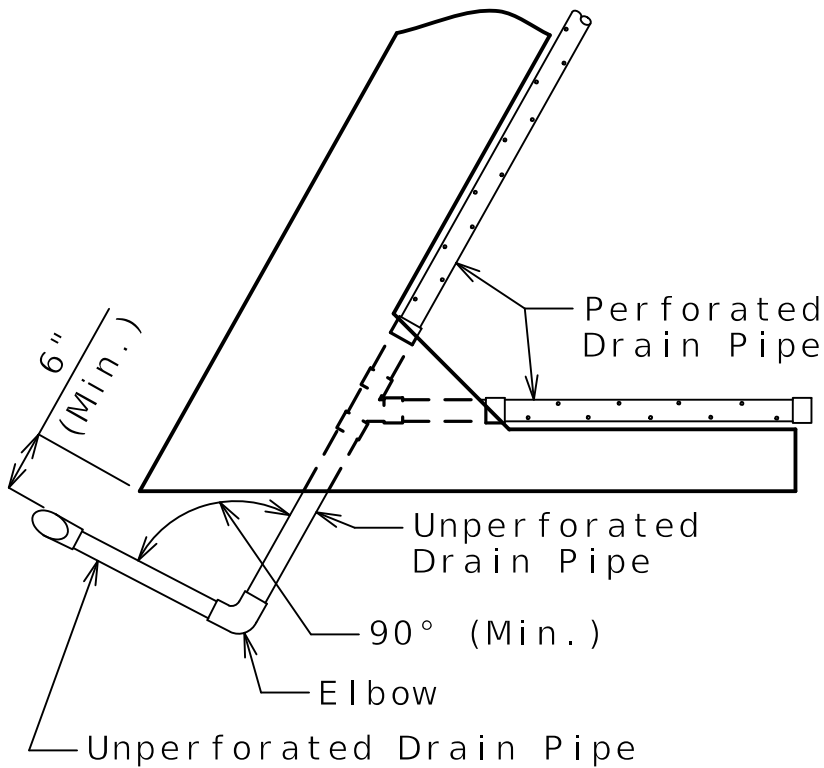
DETAIL A



PLAN OF END BENT



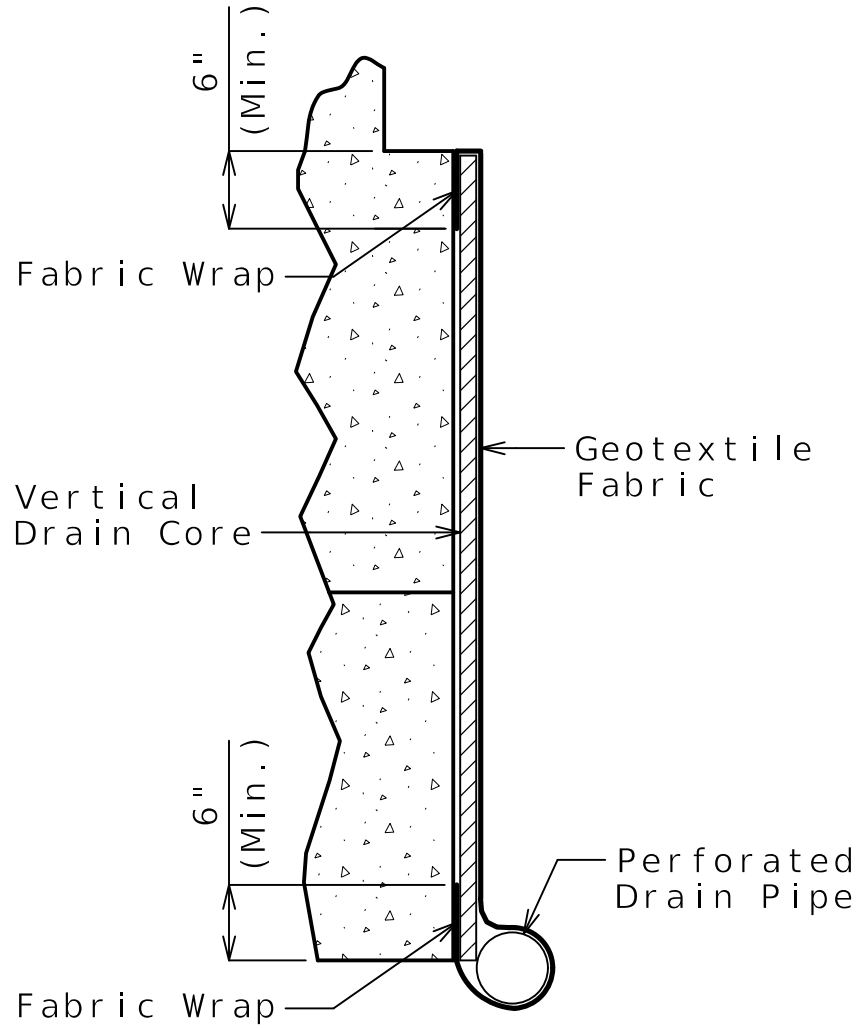
ELEVATION OF WING



PART PLAN

OPTIONAL TURNED DRAIN

(Use only when straight drain is not practical.)



PART SECTION A-A  
(Section thru wing similar)

General Notes:

All drain pipe shall be sloped 1 to 2 percent.

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

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

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

|                            |                |
|----------------------------|----------------|
| DATE PREPARED<br>6/17/2025 |                |
| ROUTE<br>97                | STATE<br>MO    |
| DISTRICT<br>BR             | SHEET NO.<br>6 |
| COUNTY<br>CEDAR            |                |
| JOB NO.<br>J7P3485         |                |
| CONTRACT ID.               |                |
| PROJECT NO.                |                |
| BRIDGE NO.<br>A9710        |                |
| DESCRIPTION                |                |
| DATE                       |                |

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

**MoDOT**

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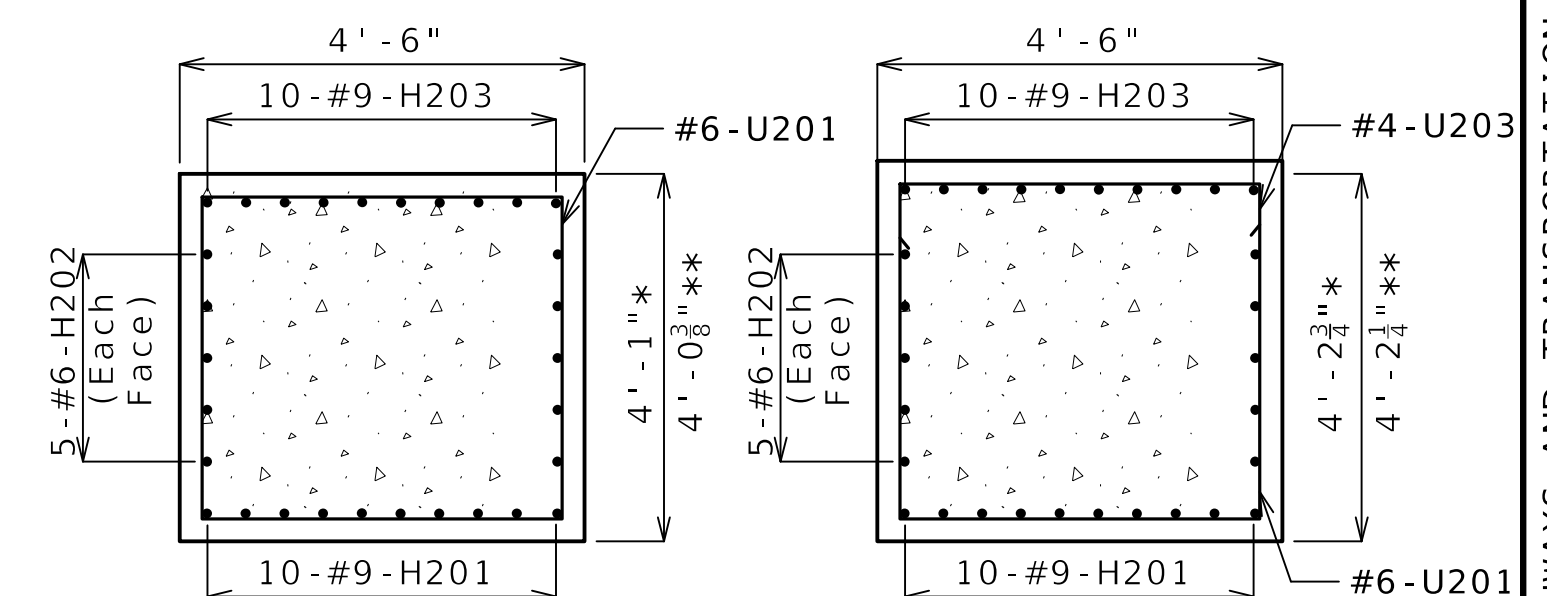
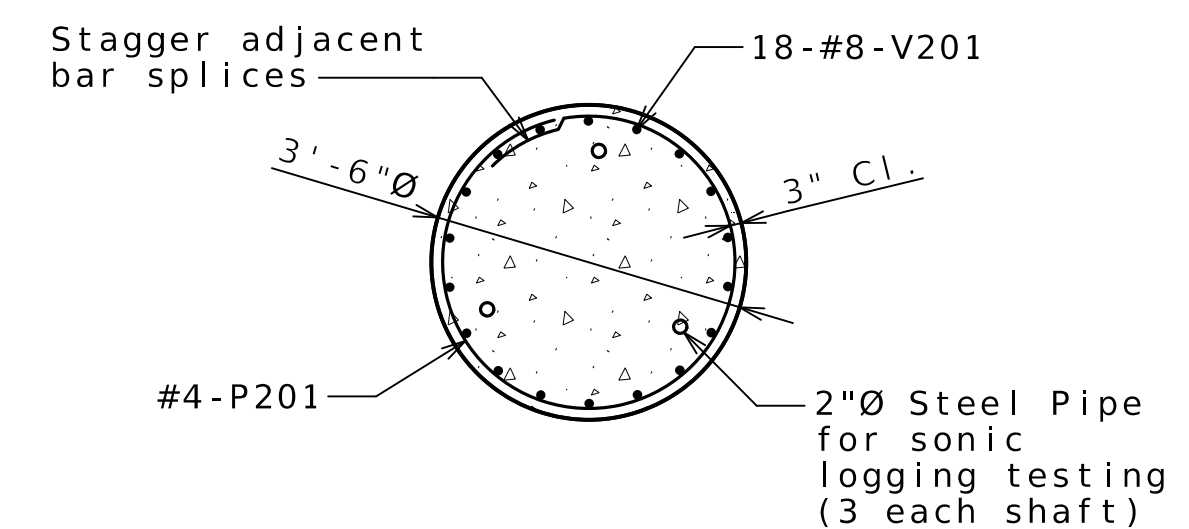
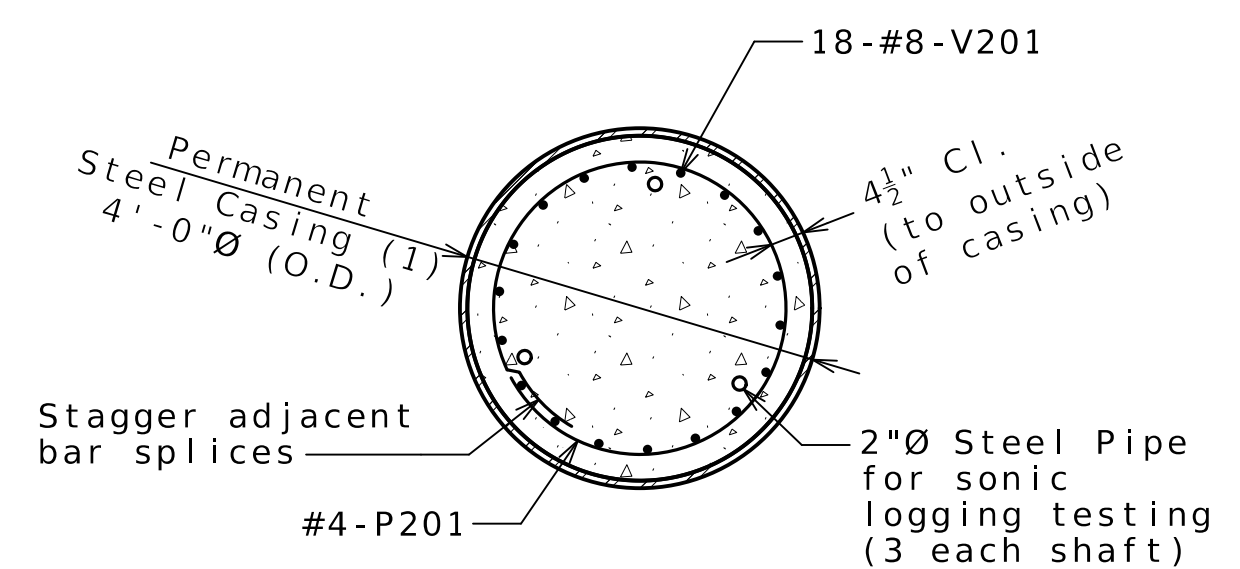
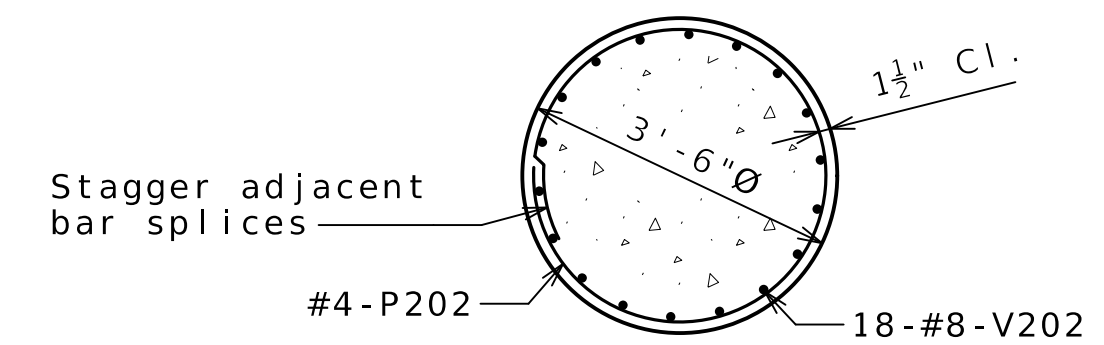
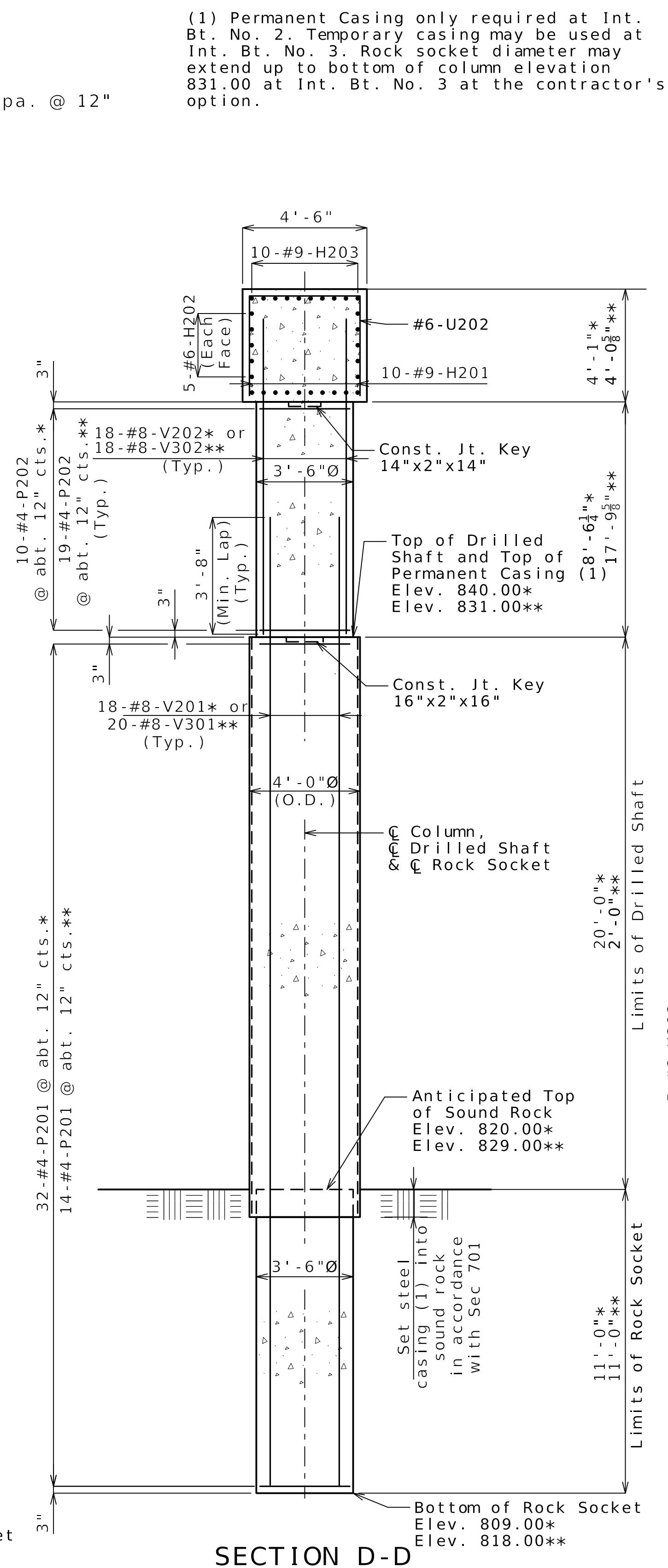
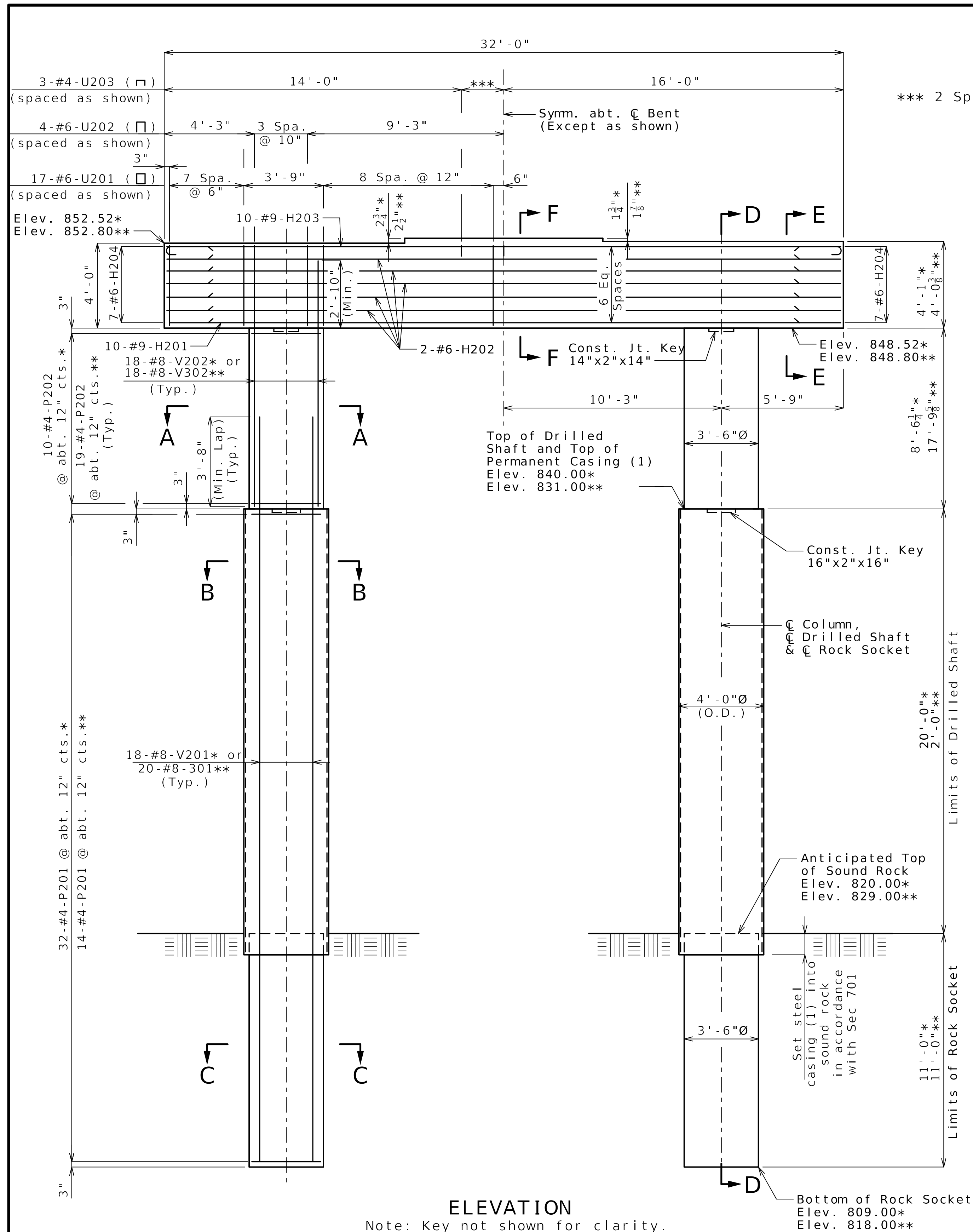
VERTICAL DRAIN AT END BENTS  
(Squared end bent shown, skewed end bent similar)

Detailed June 2025  
Checked June 2025

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

Sheet No. 6 of 22

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



Notes:

Work this sheet with Sheet No. 8.

An additional 4 feet has been added to the V201 bar length and four additional #4-P201 bars have been added per shaft in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6" cts.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

Thickness of permanent steel casing shall be in accordance with Sec 701.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

\* - Intermediate Bent No. 2  
\*\* - Intermediate Bent No. 3

### DETAILS OF INTERMEDIATE BENTS NO. 2 & 3

Detailed June 2025  
Checked June 2025

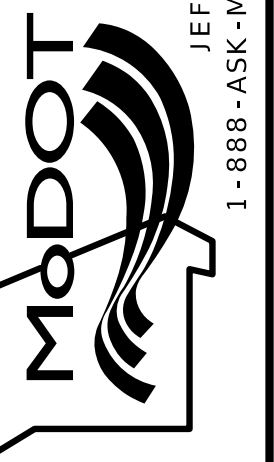
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 22

pw://bartwest-pw.bentley.com/bartwest-pw-04/Documents/19000/19421.J61 - Kaysinger Basin Bridge Bundle/OpenRoads Designer/plan sheets/A9710/B A9710\_007 J7P3485 int bt 01.dgn 6:49:11 PM 6/17/2025

|               |           |
|---------------|-----------|
| DATE PREPARED |           |
| 6/17/2025     |           |
| ROUTE         | STATE     |
| 97            | MO        |
| DISTRICT      | SHEET NO. |
| BR            | 7         |
| COUNTY        |           |
| CEDAR         |           |
| JOB NO.       |           |
| J7P3485       |           |
| CONTRACT ID.  |           |

|                     |
|---------------------|
| PROJECT NO.         |
| BRIDGE NO.<br>A9710 |

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

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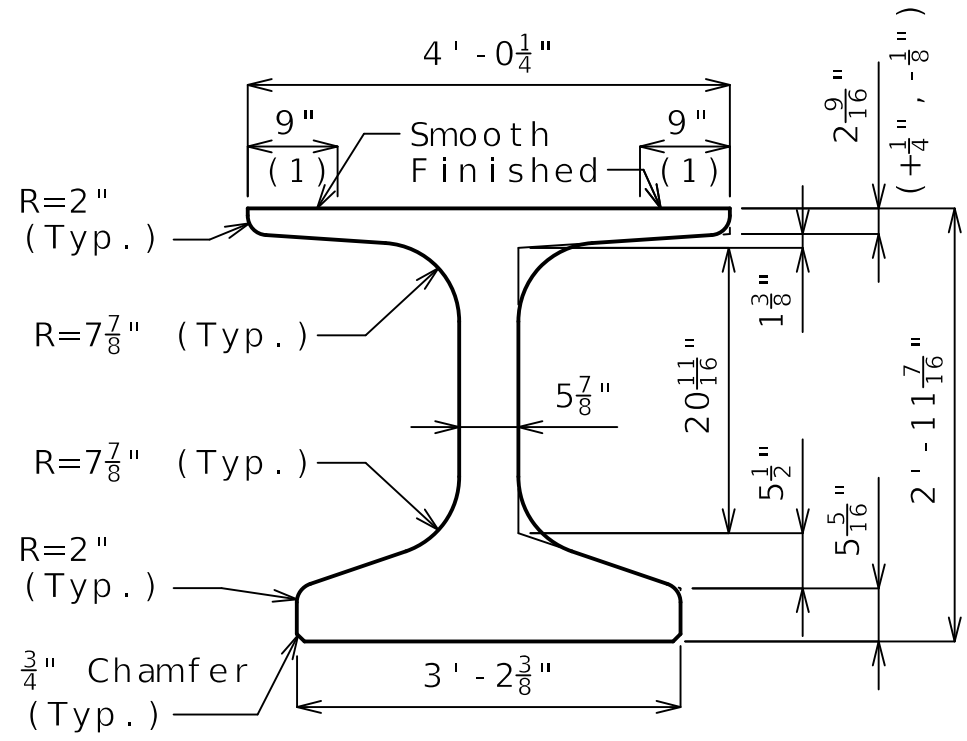
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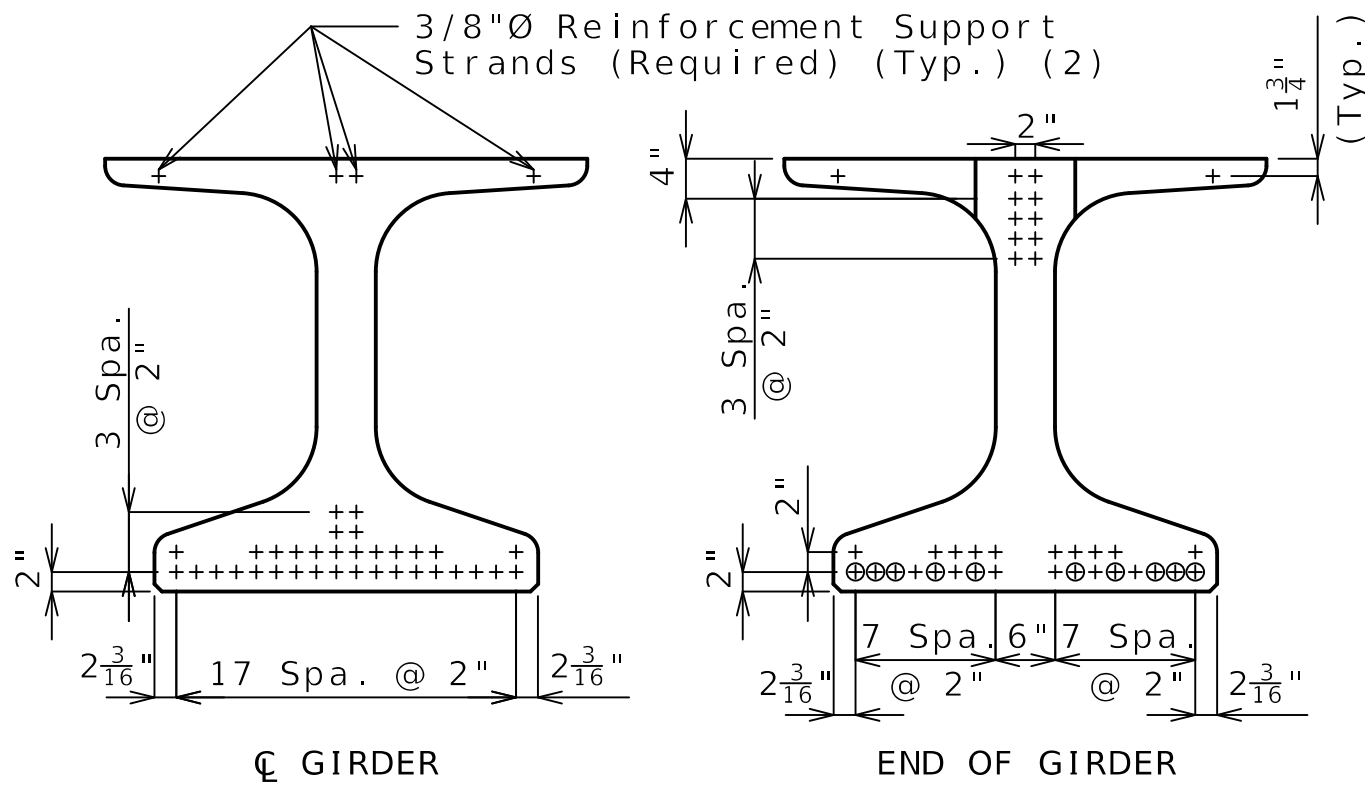




- (1) Fabricator shall apply a bond breaker to this region.
- (2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about  $\bar{C}$  Girder. May be moved laterally in pairs.

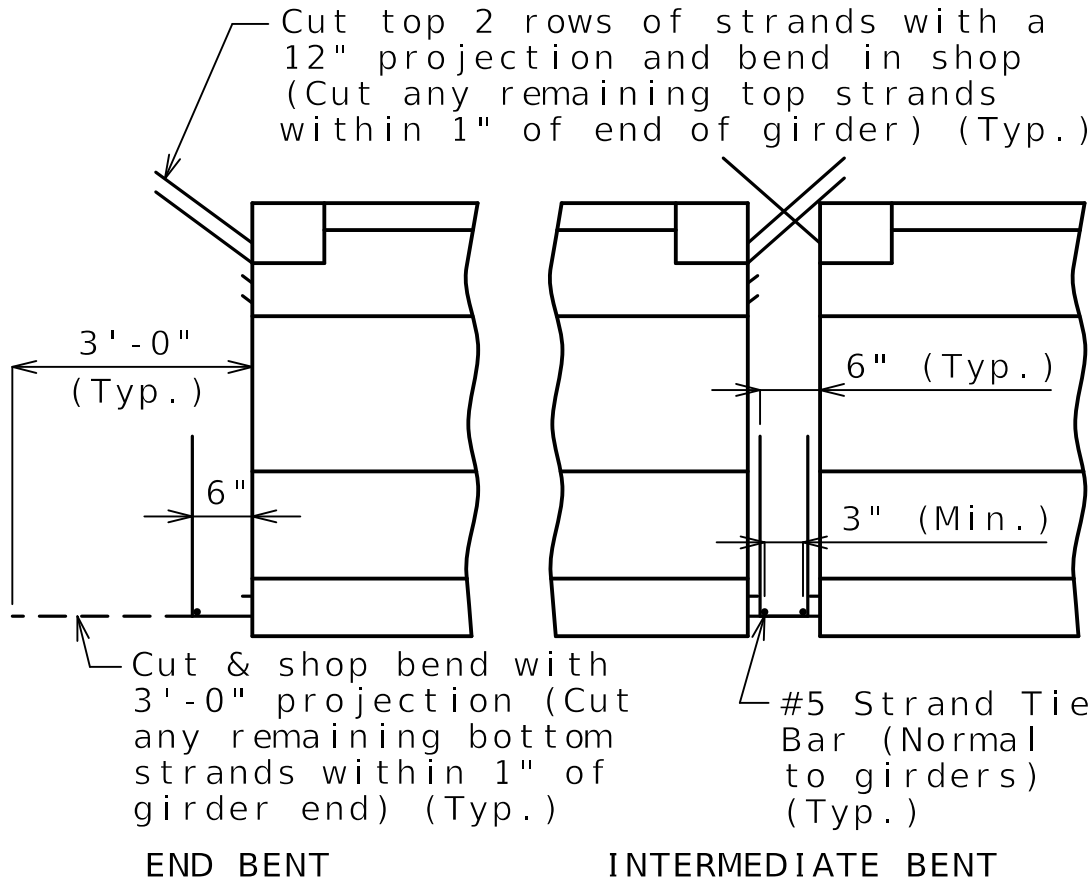


DIMENSIONS

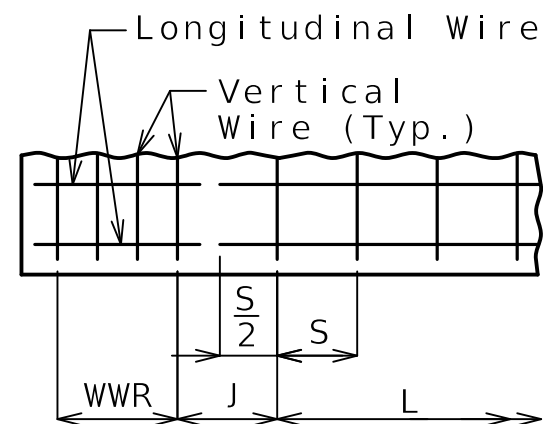


+ Indicates prestressing strand.      o Indicates cut & shop bend with 3'-0" projection.

$\bar{C}$  GIRDER  
STRAND ARRANGEMENT



END BENT  
INTERMEDIATE BENT  
STRANDS AT GIRDER ENDS

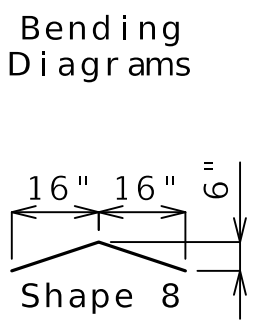


WELDED WIRE  
PLACEMENT

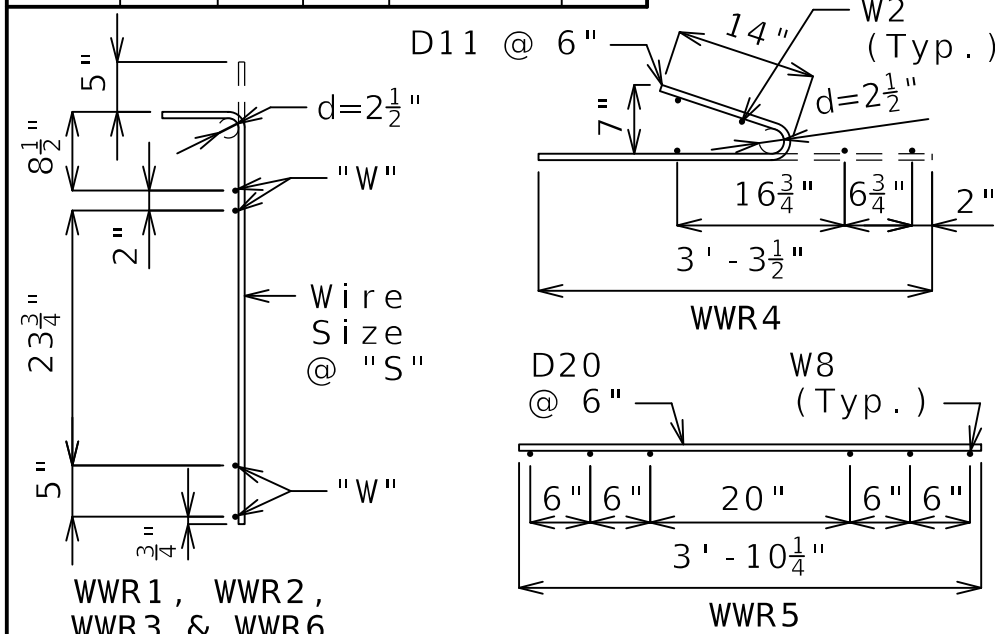
S = Vertical wire spacing  
L = Length of WWR mats  
J = Distance between WWR mats

Bill of Reinforcing Steel

| Bars Each Girder |           |        |       |  |
|------------------|-----------|--------|-------|--|
| No.              | Size/Mark | Length | Shape |  |
| 110              | 3 G1      | 2'-10" | 8     |  |
| 2                | 4 G3      | 5'-5"  | 20    |  |
| 2                | 4 G4      | 2'-3"  | 20    |  |
| 2                | 4 G5      | 3'-9"  | 20    |  |
| 14               | 4 G6      | Varies | 20    |  |



| Welded Wire Each Girder |      |     |     |        |
|-------------------------|------|-----|-----|--------|
| Mark                    | Size | S   | W   | L      |
| WWR1                    | D20  | 4"  | W8  | 14'-0" |
| WWR2                    | D20  | 8"  | W8  | 8'-8"  |
| WWR3                    | D20  | 12" | W8  | 38'-0" |
| WWR6                    | D31  | 2"  | W12 | 16"    |



All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual bar lengths are measured along centerline of bar to the nearest inch.

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

All bar reinforcement shall be Grade 60.

WWR shall not be epoxy coated.

G4 and G5 not required for interior girders. G3 and G6 not required for exterior girders of intermediate spans. Half no. of G3, G4, G5 and G6 not required for ext. girders of end spans.

General Notes:

Concrete for prestressed beams shall be Class A-1 with  $f'c = 8000$  psi and  $f'ci = 6500$  psi.

Use 34 strands, 0.6"Ø Grade 270, with an initial prestress force of 1494 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

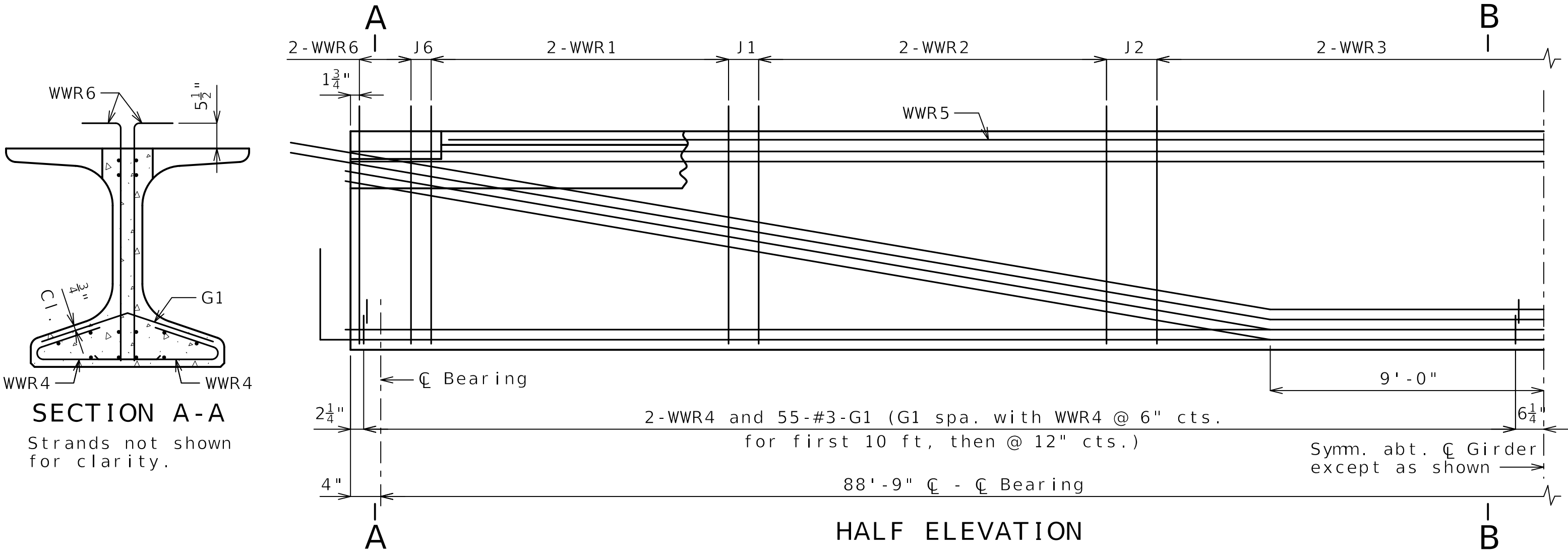
Exterior and interior girders are the same except: coil ties, top flange blackout, application of bond breaker, coil inserts for slab drains.

The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No. 13.

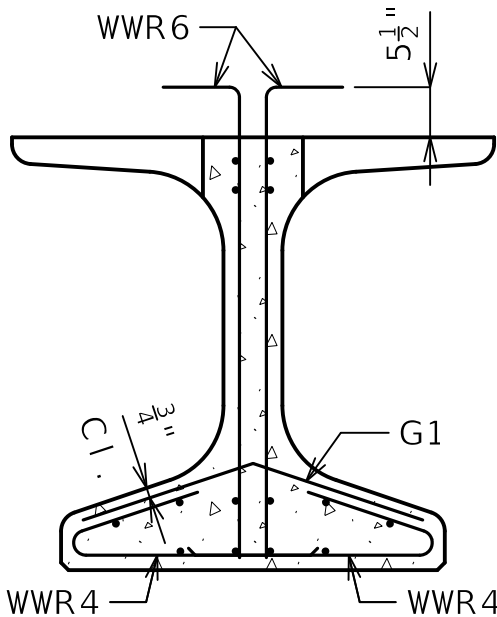
For location of coil inserts at slab drains, see Sheet No. 12.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 4 and 11.

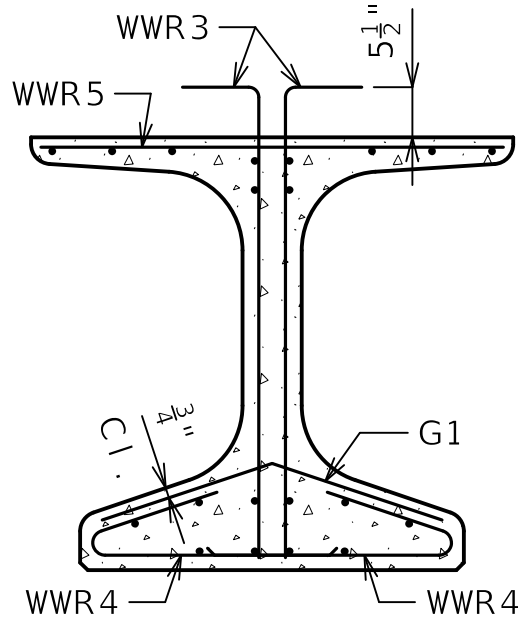


HALF ELEVATION

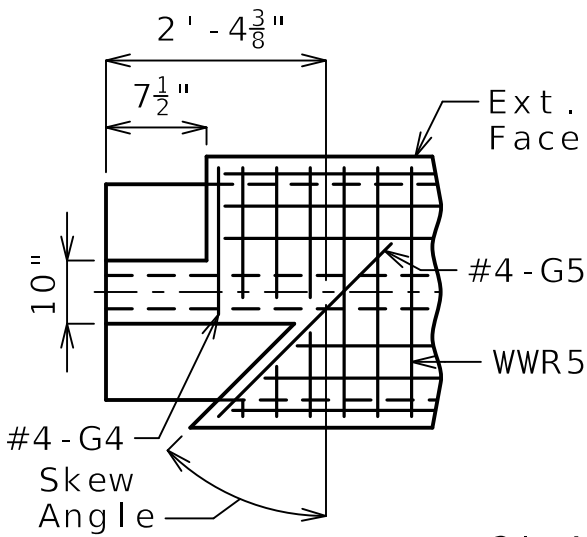
Reinforcement support strands not shown for clarity.



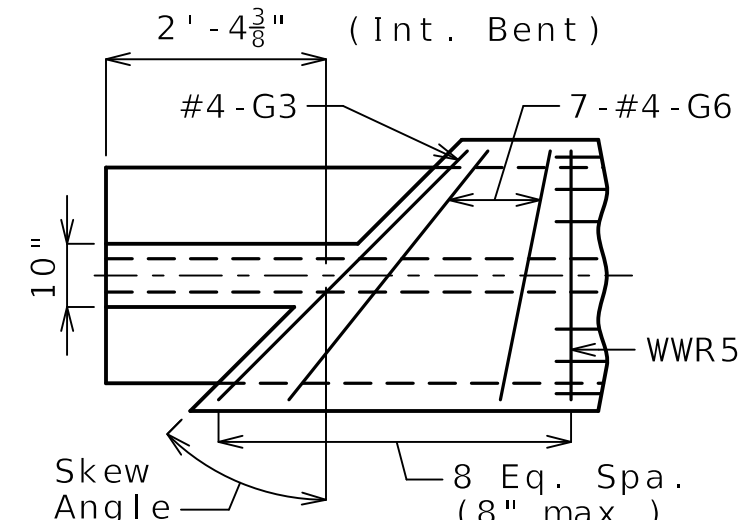
SECTION A-A  
Strands not shown for clarity.



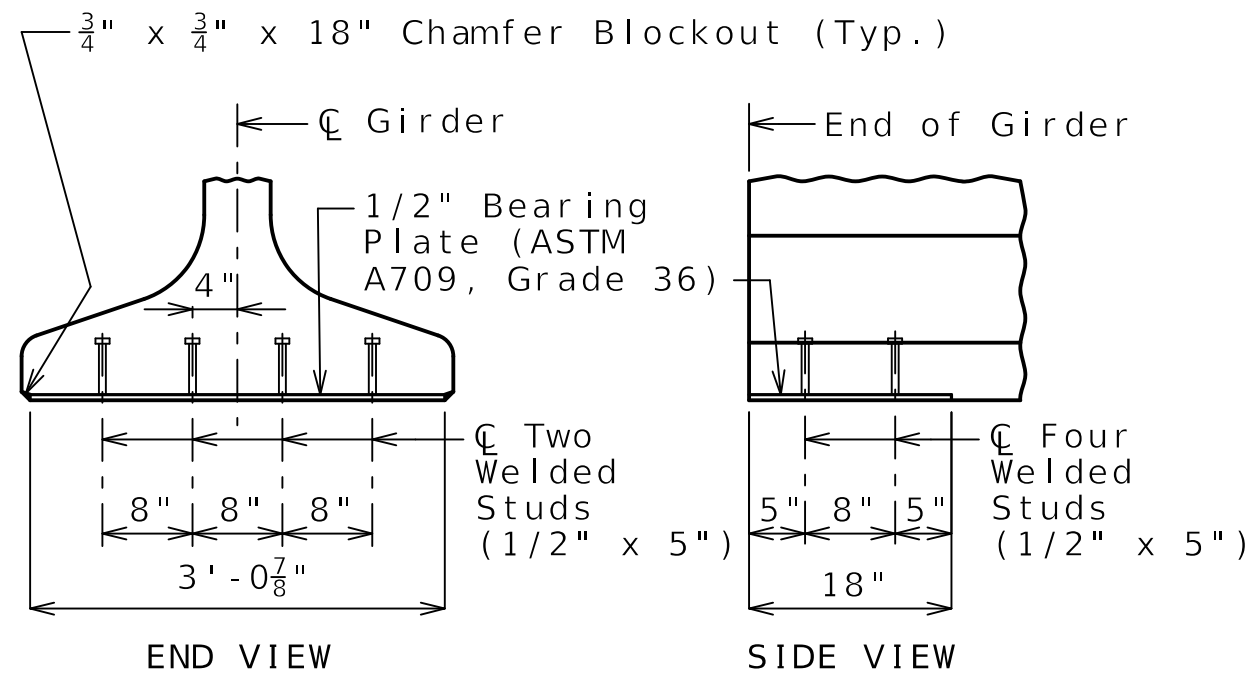
SECTION B-B  
Strands not shown for clarity.



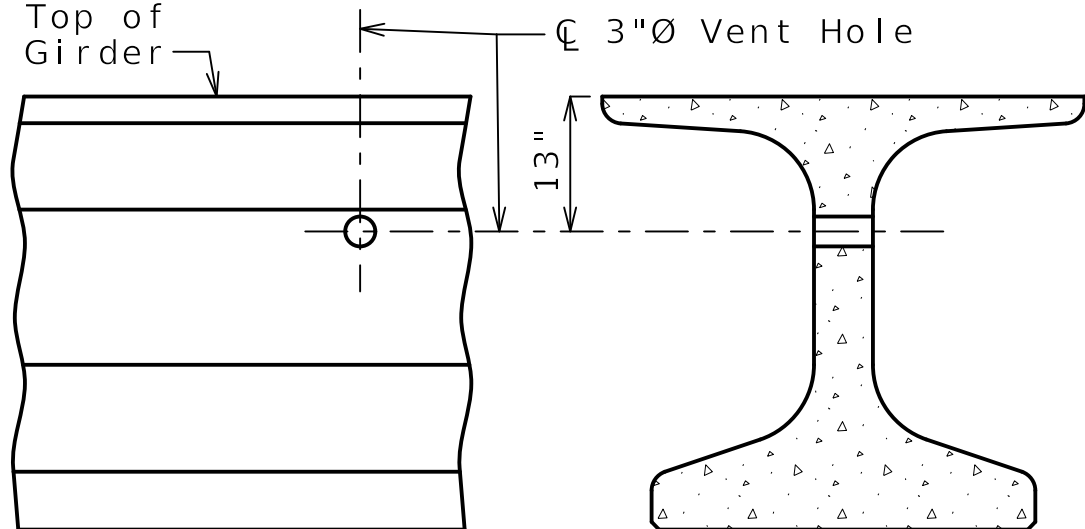
LEFT EXTERIOR GIRDER  
AT INTERMEDIATE BENT  
Rotate 180° for right ext.



INTERIOR GIRDER AT ALL BENTS  
& EXTERIOR GIRDER AT END BENT  
TOP FLANGE BLOCKOUT  
Mirror for right advanced.



BEARING PLATE

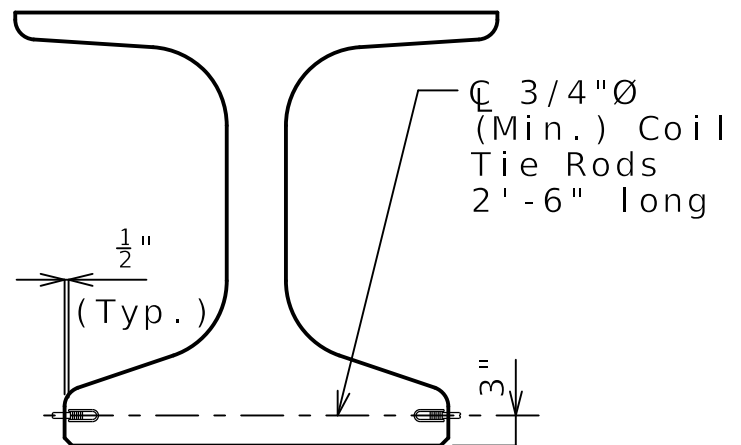


PART ELEVATION

PART SECTION

VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



CLOSED DIAPHRAGMS  
AND INTEGRAL BENTS

COIL TIES

Exclude coil tie at exterior face of exterior girders.

NU-GIRDERS - SPAN (2-3)

Detailed June 2025  
Checked June 2025

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

Sheet No. 10 of 22

DATE PREPARED  
6/17/2025

ROUTE  
97

DISTRICT  
BR

COUNTY  
CEDAR

JOB NO.  
J7P3485

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
A9710

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

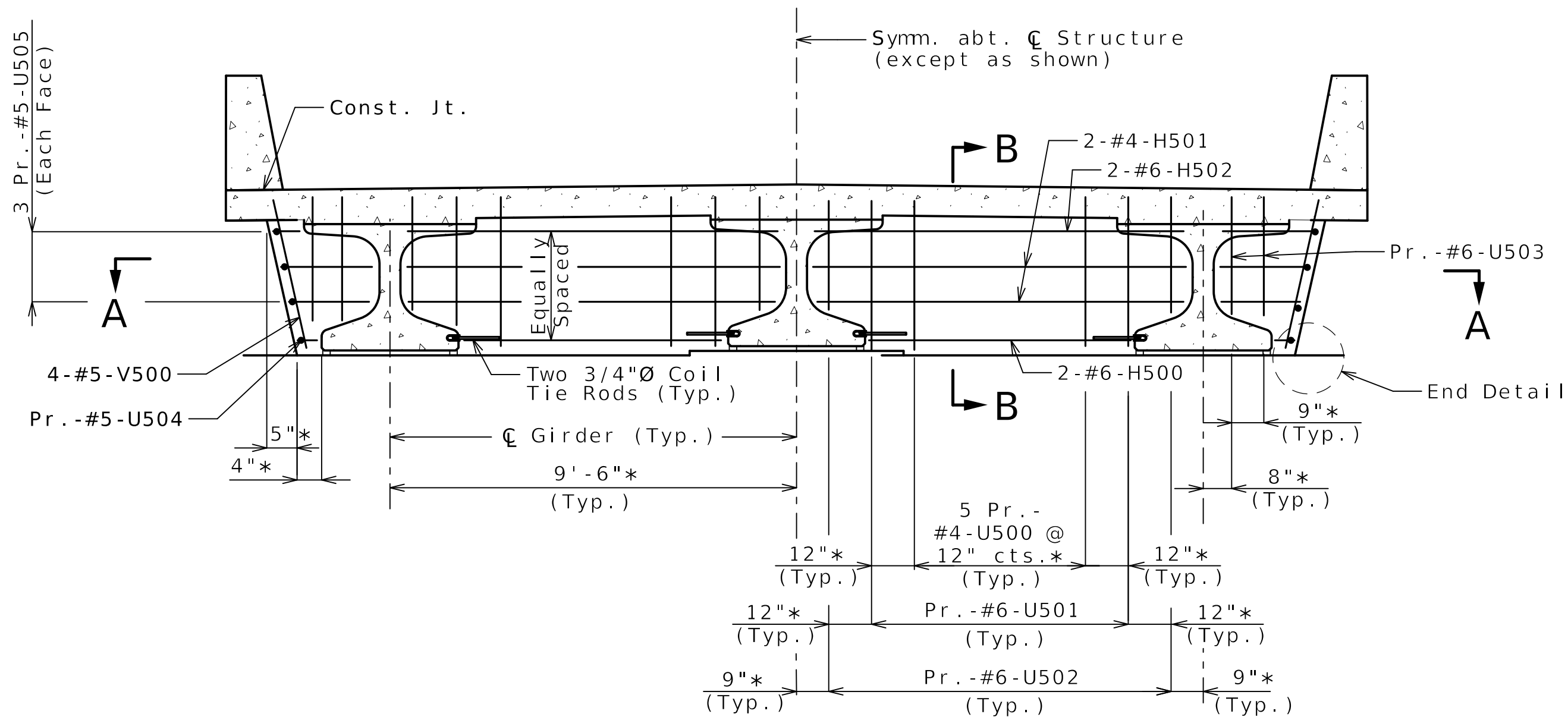
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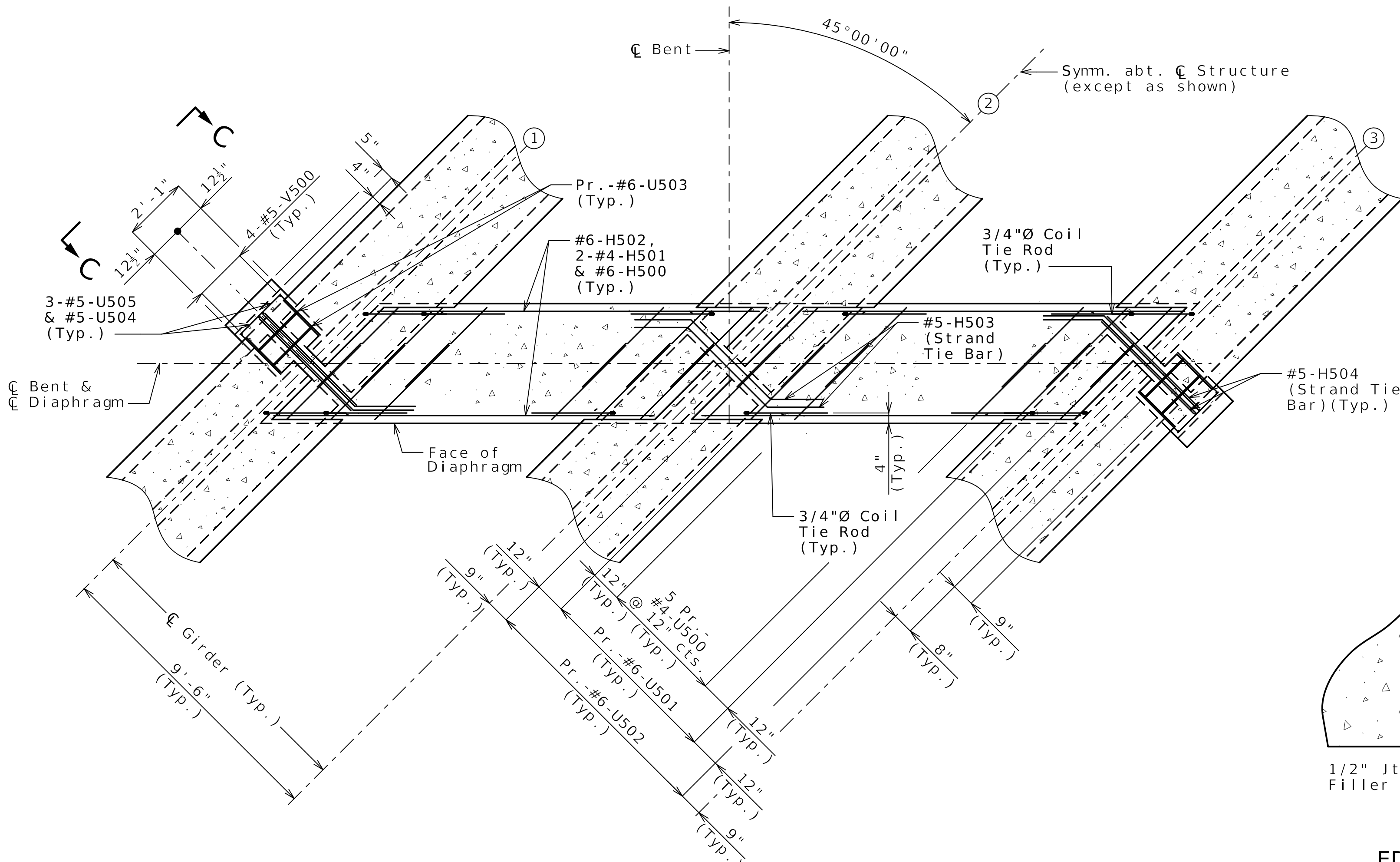
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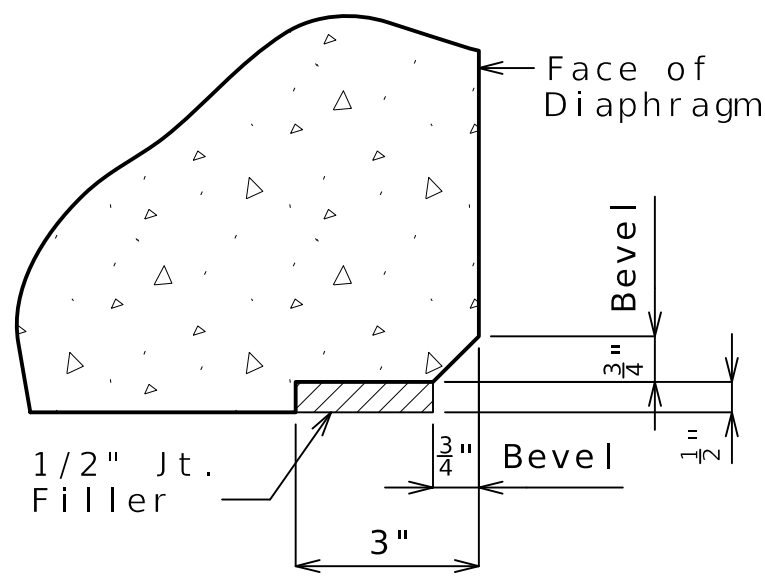
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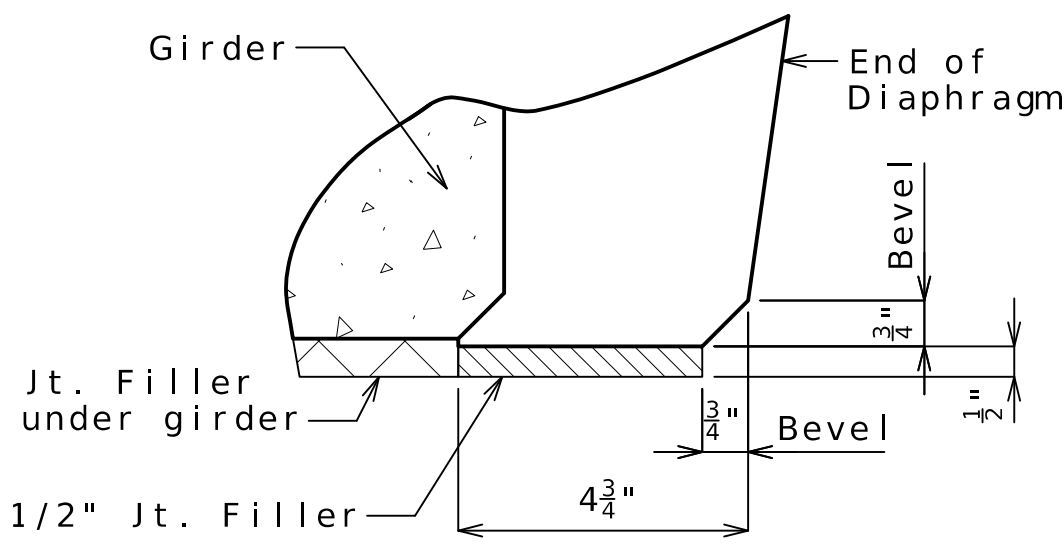
SECTION NEAR INTERMEDIATE BENT  
\* Normal to centerline of girders.  
Note: Keys not shown for clarity.



SECTION A-A  
DETAILS OF CONCRETE DIAPHRAGMS AT INTERMEDIATE BENTS NO. 2 & 3

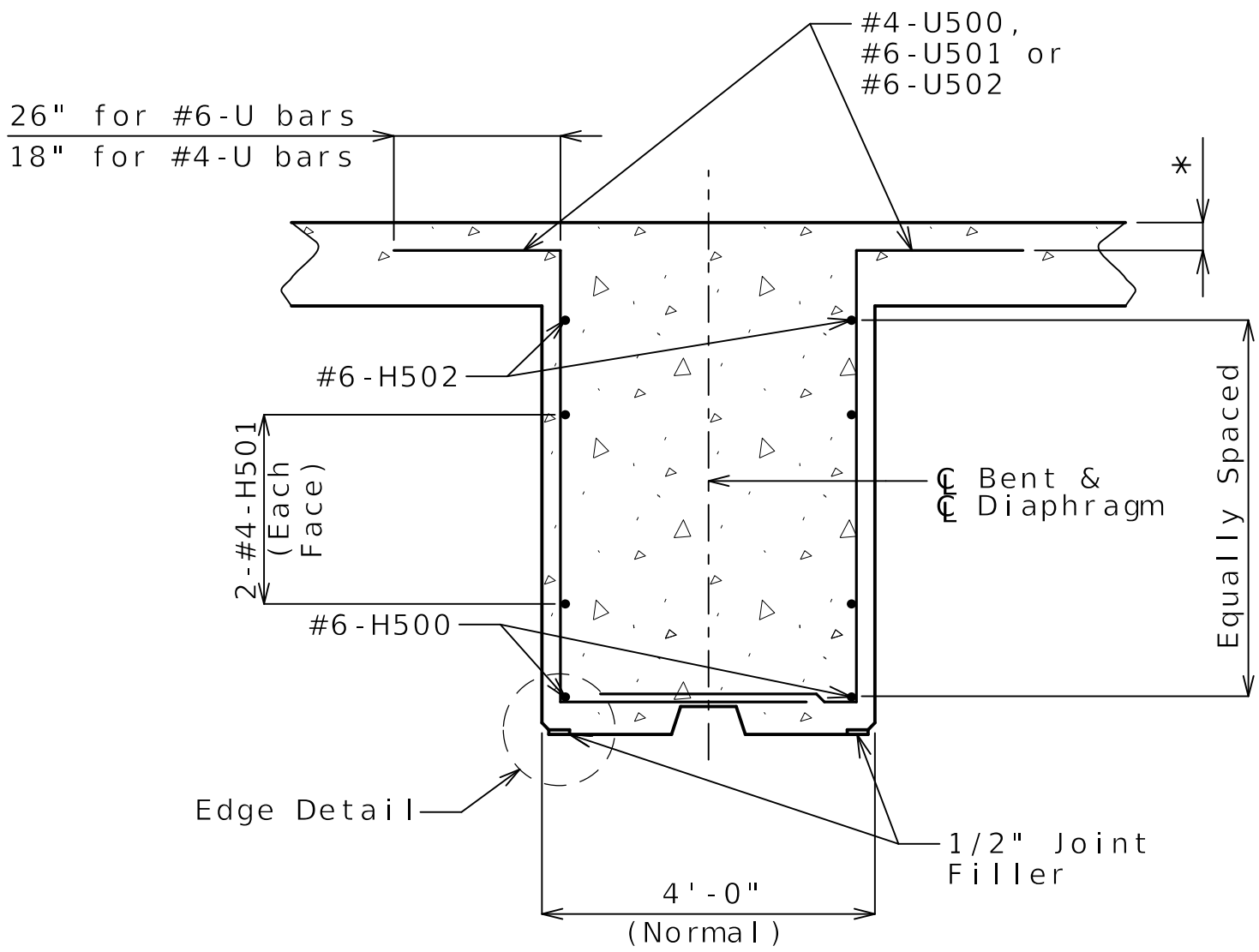


EDGE DETAIL

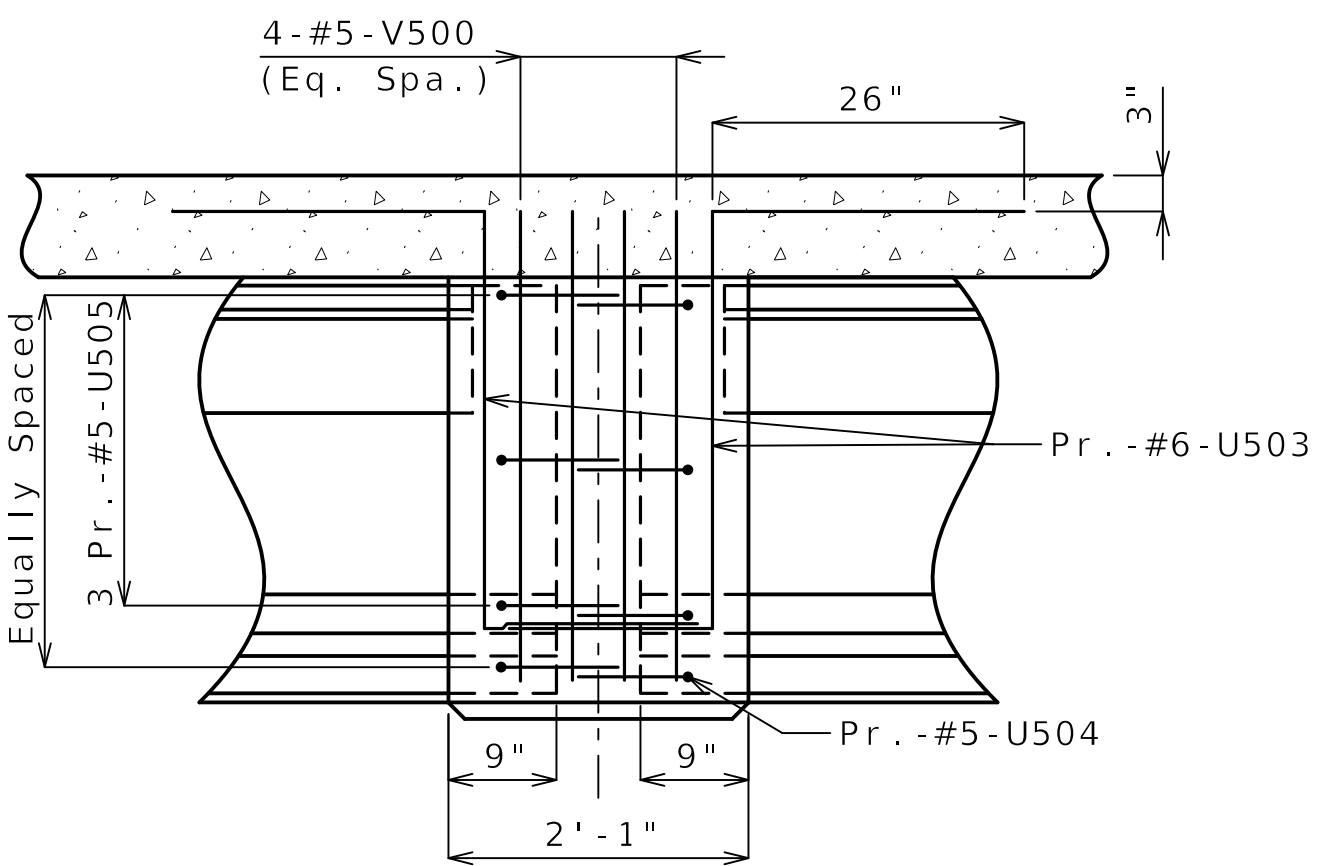


END DETAIL

Notes:  
For location of Strand Tie Bars, see Sheets No. 9 and 10.  
For location and details of Coil Tie Rods, see Sheets No. 9 and 10.  
Diaphragms at intermediate bents shall be built vertical.  
All U-bars in diaphragms are to be placed parallel to  $\text{C}$  Girders.



(\*) 3" cl. for #6-U bars  
3 1/4" cl. for #4-U bars  
SECTION B-B



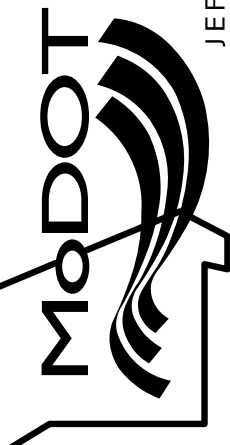
ELEVATION C-C

Detailed June 2025  
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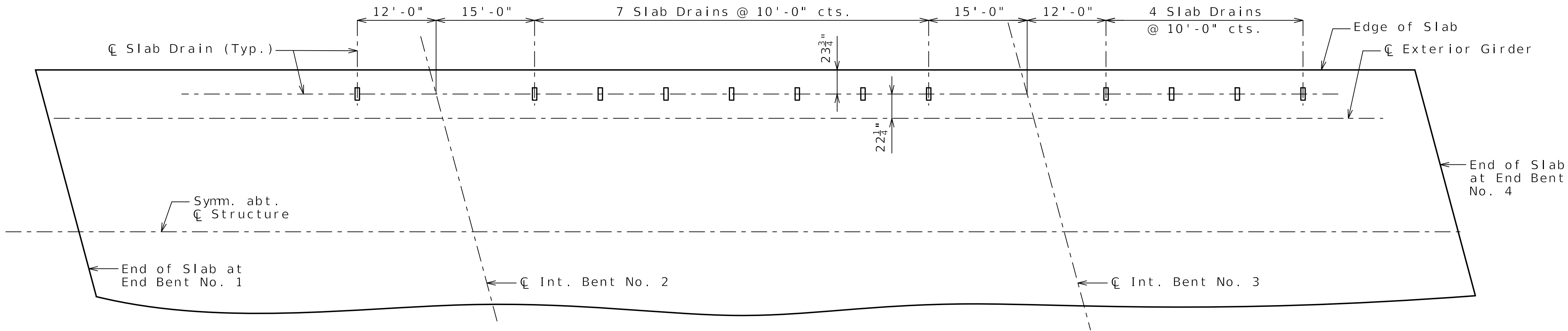
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 11 of 22

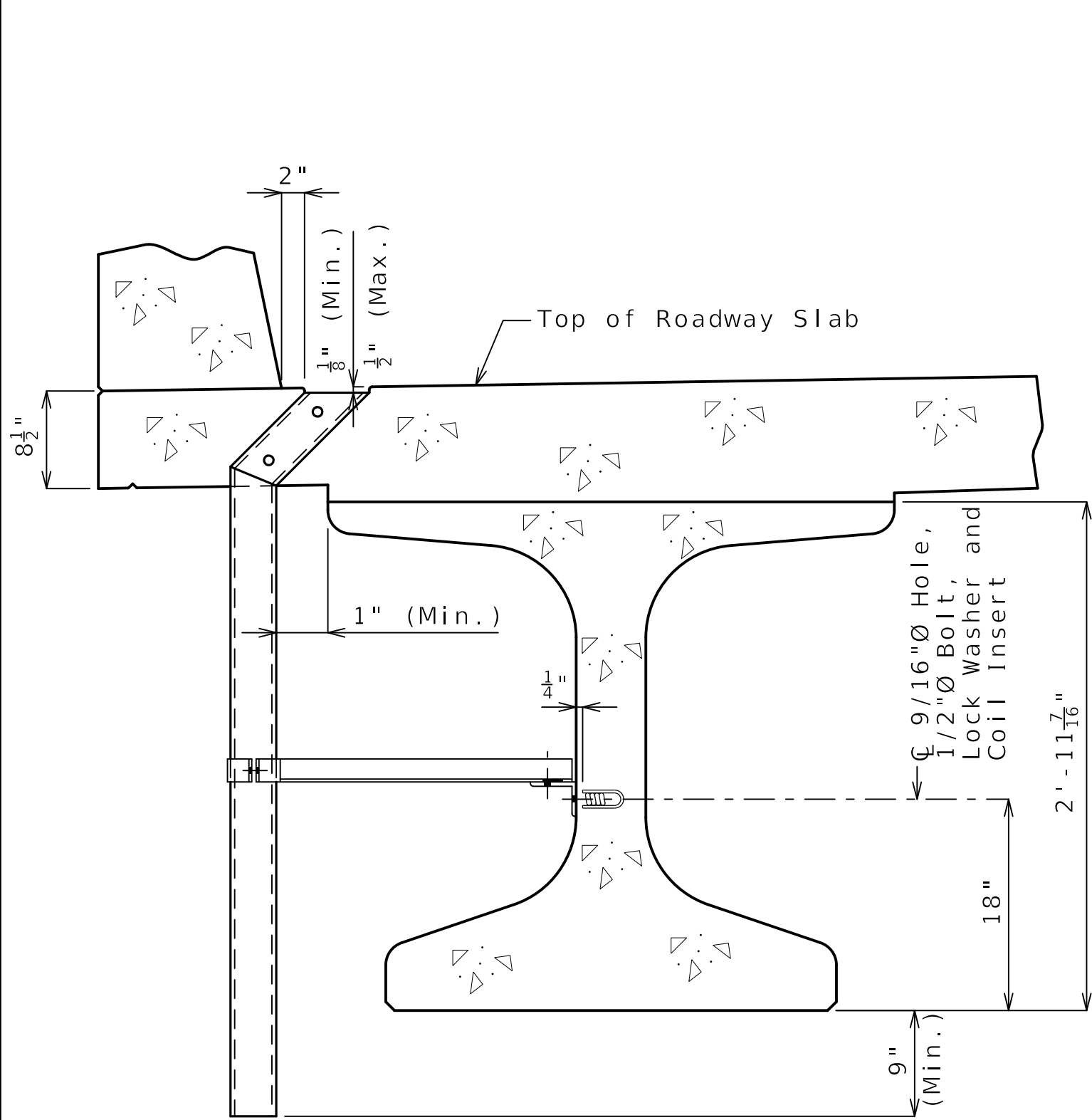
pw://bartwest-pw.bentley.com:bartwest-pw-04/Documents/19000/19421.J61 - Kaysinger Basin Bridge Bundle/OpenRoads Designer/plan\_sheets/A9710/B\_A9710\_011\_17P3485\_int\_dia\_01.dgn 6:50:14 PM 6/17/2025

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| DATE PREPARED<br>6/17/2025                                                                                                                                                                            |                 |
| ROUTE<br>97                                                                                                                                                                                           | STATE<br>MO     |
| DISTRICT<br>BR                                                                                                                                                                                        | SHEET NO.<br>11 |
| COUNTY<br>CEDAR                                                                                                                                                                                       |                 |
| JOB NO.<br>J7P3485                                                                                                                                                                                    |                 |
| CONTRACT ID.                                                                                                                                                                                          |                 |
| PROJECT NO.                                                                                                                                                                                           |                 |
| BRIDGE NO.<br>A9710                                                                                                                                                                                   |                 |
| DESCRIPTION                                                                                                                                                                                           |                 |
| DATE                                                                                                                                                                                                  |                 |
| MISSOURI HIGHWAYS AND TRANSPORTATION<br>COMMISSION                                                                                                                                                    |                 |
|                                                                                                                  |                 |
| 105 WEST CAPITOL<br>JEFFERSON CITY, MO 65102<br>1-888-ASK-MODOT (1-888-275-6636)                                                                                                                      |                 |
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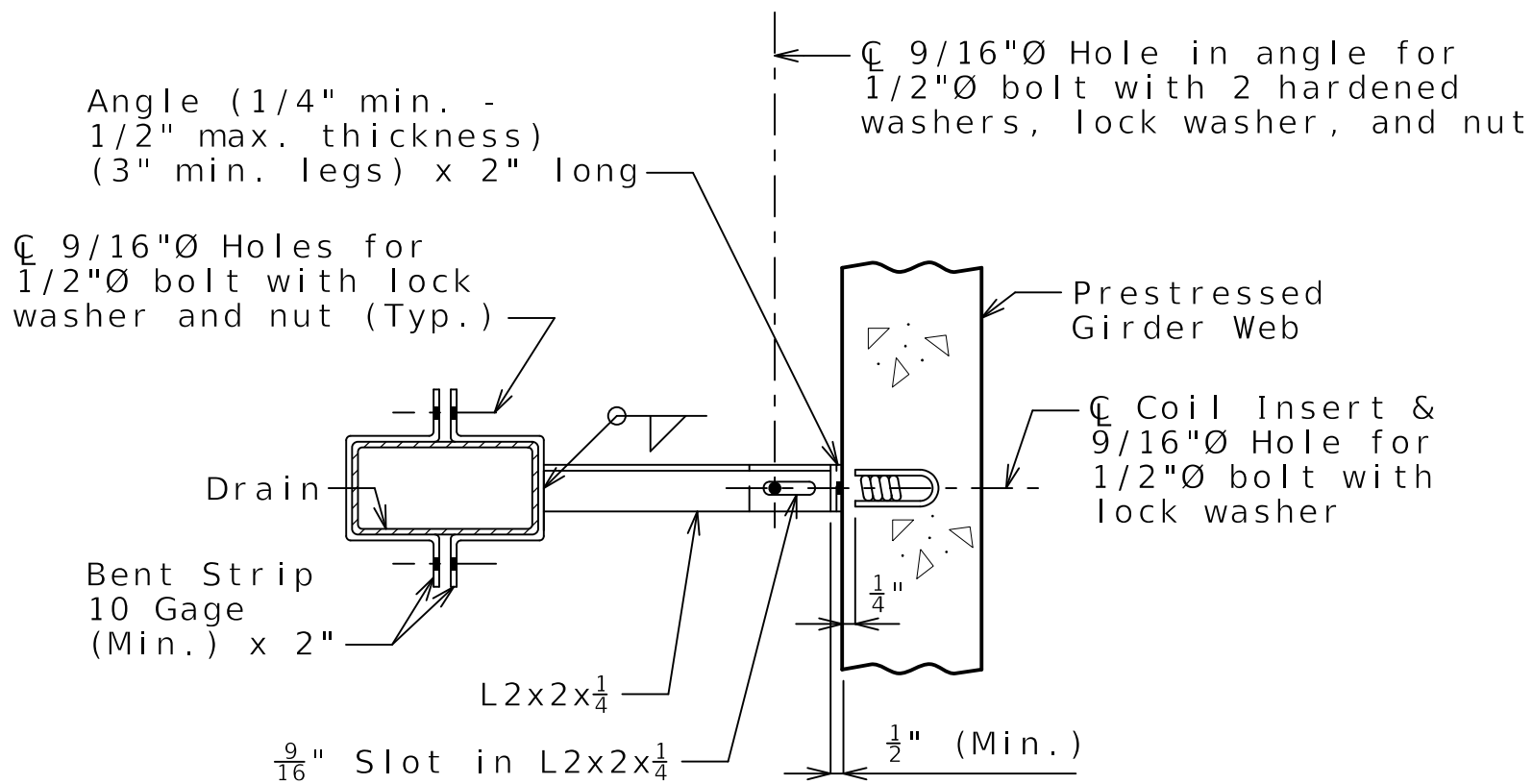
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



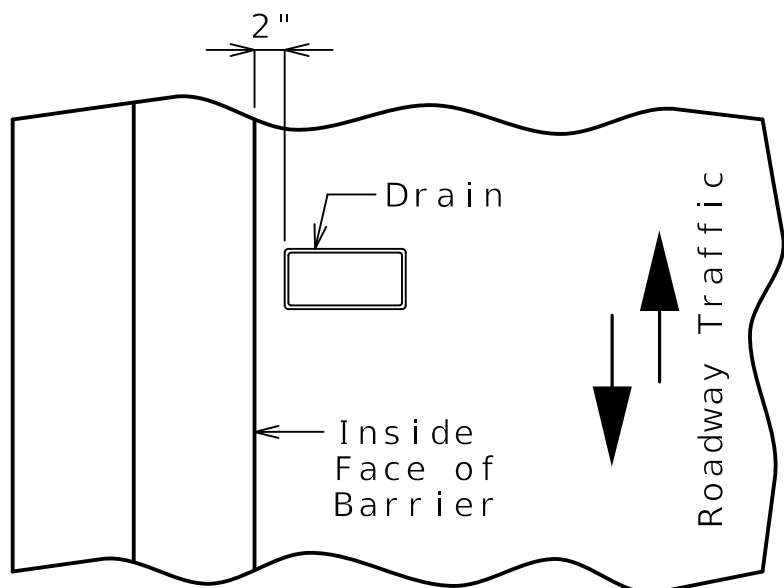
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



PART SECTION NEAR DRAIN

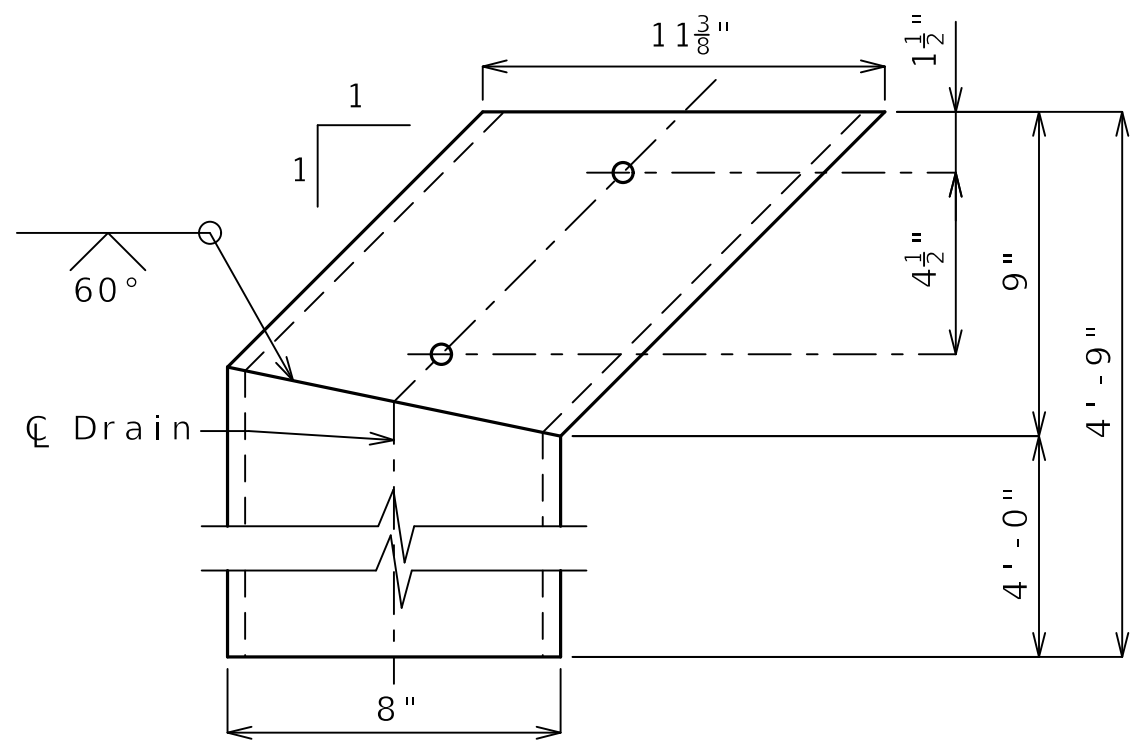


PART SECTION SHOWING BRACKET ASSEMBLY

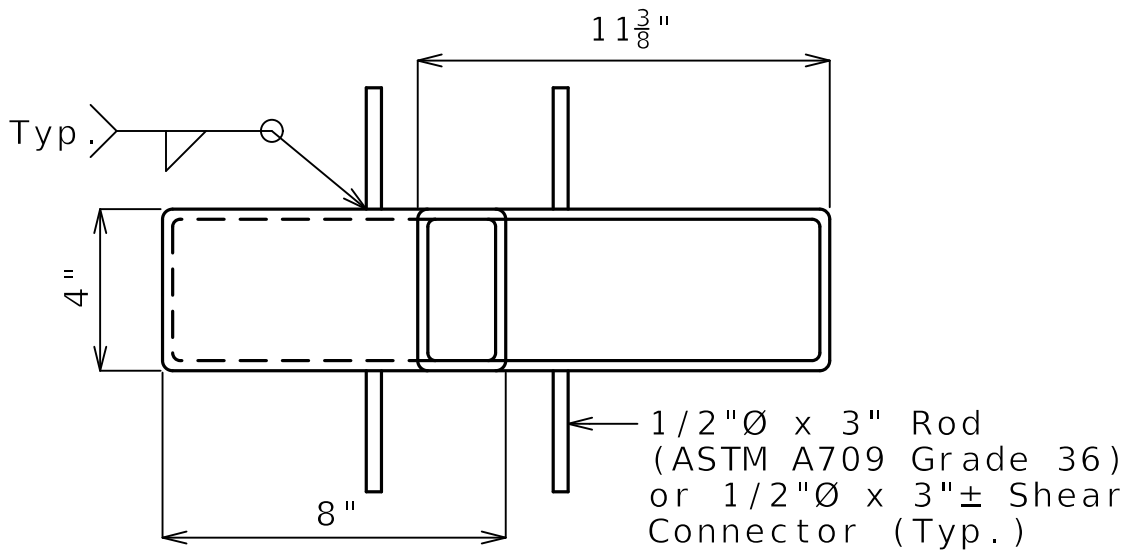


PART PLAN OF SLAB AT DRAIN

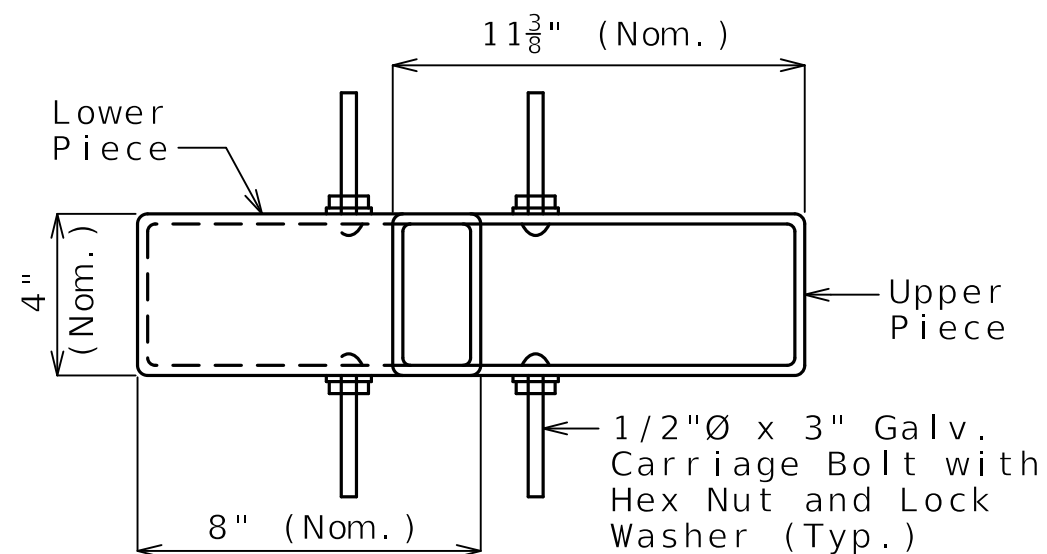
SLAB DRAINS



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

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

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 coil inserts and 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"  $\varnothing$  bolts shall be ASTM A307.

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

The coil insert required for the bracket assembly attachment shall be located on the prestressed girder shop drawings.

Coil inserts shall have a concrete pull-out strength (ultimate load) of at least 2,500 pounds in 5,000 psi concrete.

The bolt required to attach the slab drain bracket assembly to the prestressed girder web shall be supplied by the prestressed girder fabricator.

Notes for Steel Drain:

Slab drains may be fabricated of either 1/4" welded sheets of ASTM A709 Grade 36 steel or from 1/4" 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.

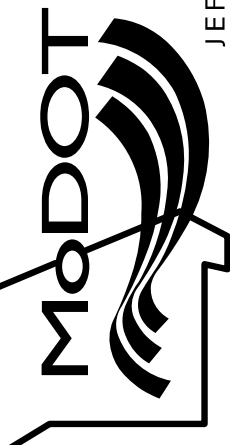
The resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed throughout. Drains may have an exterior coating for additional UV resistance.

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.

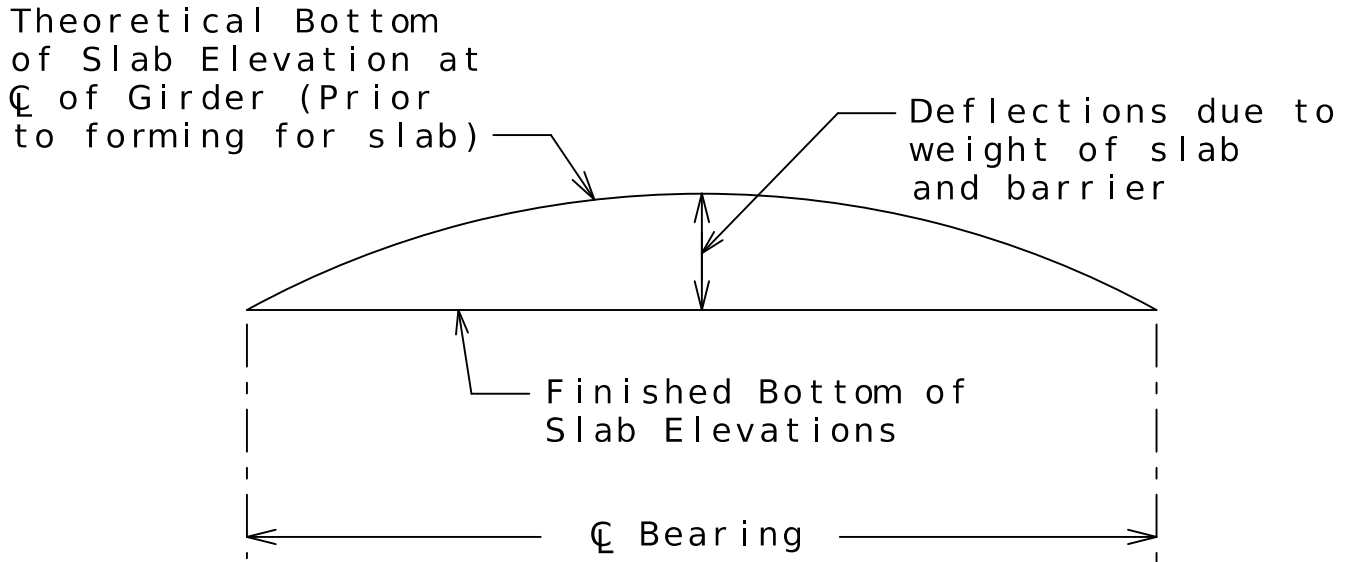
At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be as recommended by the manufacturer to ensure a smooth, chip free cut.

Both upper and lower drain pieces shall be rigidly connected to each other. Drain flow shall not be obstructed. Approval of the engineer is required.

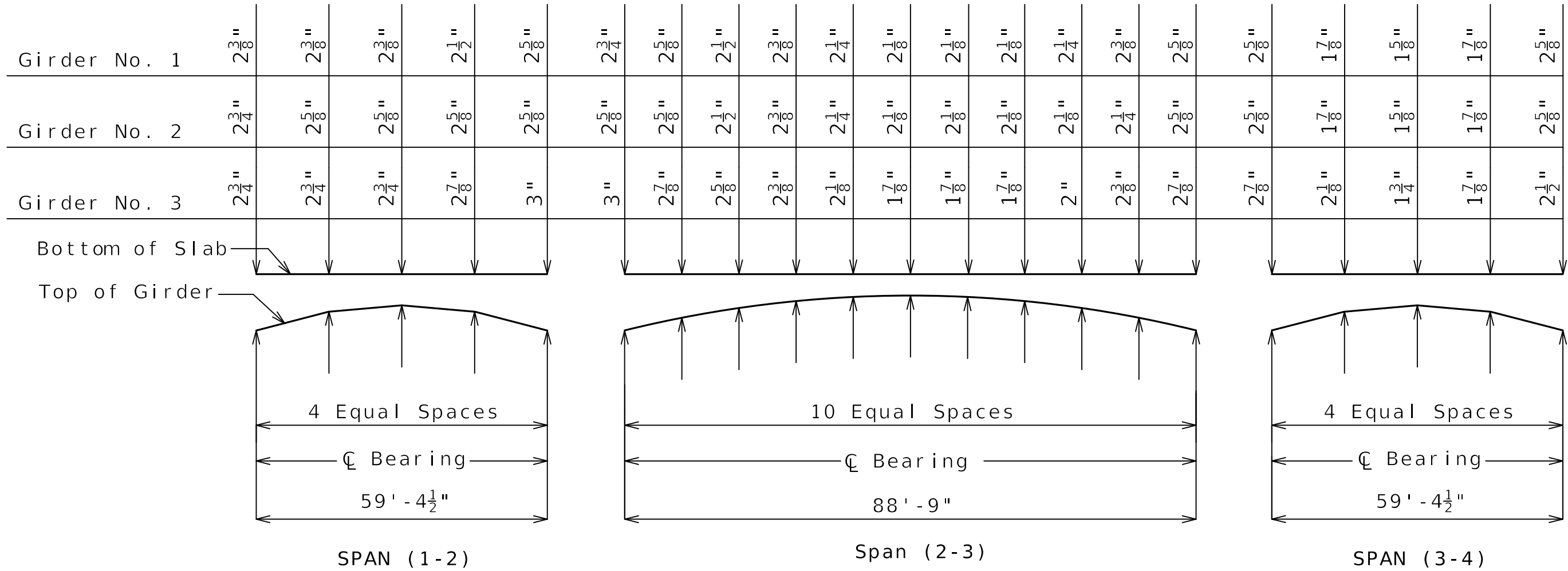
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| ROUTE<br>97                                                                                                                                                                                               | STATE<br>MO     |
| DISTRICT<br>BR                                                                                                                                                                                            | SHEET NO.<br>12 |
| COUNTY<br>CEDAR                                                                                                                                                                                           |                 |
| JOB NO.<br>J7P3485                                                                                                                                                                                        |                 |
| CONTRACT ID.                                                                                                                                                                                              |                 |
| PROJECT NO.                                                                                                                                                                                               |                 |
| BRIDGE NO.<br>A9710                                                                                                                                                                                       |                 |
| DESCRIPTION                                                                                                                                                                                               |                 |
| DATE                                                                                                                                                                                                      |                 |
| MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION                                                                                                                                                           |                 |
|                                                                                                                      |                 |
| 105 WEST CAPITOL<br>JEFFERSON CITY, MO 65102<br>1-888-ASK-MODOT (1-888-275-6636)                                                                                                                          |                 |
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| Theoretical Bottom of Slab Elevations at C of Girder<br>(Prior to Forming for Slab)** |                                         |        |        |        |        |        |        |        |        |        |        |
|---------------------------------------------------------------------------------------|-----------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                       | Span (1-2) (59'-4 1/2" C Brg. - C Brg.) |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | C Brg.                                  | 0.25   | 0.5    | 0.75   | C Brg. |        |        |        |        |        |        |
| Girder No. 1                                                                          | 855.20                                  | 855.39 | 855.55 | 855.66 | 855.74 |        |        |        |        |        |        |
| Girder No. 2                                                                          | 855.47                                  | 855.66 | 855.81 | 855.90 | 855.96 |        |        |        |        |        |        |
| Girder No. 3                                                                          | 855.40                                  | 855.57 | 855.71 | 855.79 | 855.85 |        |        |        |        |        |        |
|                                                                                       |                                         |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | Span (2-3) (88'-9" C Brg. - C Brg.)     |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | C Brg.                                  | 0.1    | 0.2    | 0.3    | 0.4    | 0.5    | 0.6    | 0.7    | 0.8    | 0.9    | C Brg. |
| Girder No. 1                                                                          | 855.75                                  | 855.87 | 855.97 | 856.06 | 856.12 | 856.16 | 856.17 | 856.15 | 856.11 | 856.07 | 856.01 |
| Girder No. 2                                                                          | 855.97                                  | 856.09 | 856.20 | 856.28 | 856.34 | 856.37 | 856.37 | 856.35 | 856.31 | 856.26 | 856.21 |
| Girder No. 3                                                                          | 855.85                                  | 855.96 | 856.05 | 856.12 | 856.17 | 856.19 | 856.19 | 856.17 | 856.14 | 856.11 | 856.07 |
|                                                                                       | Span (3-4) (59'-4 1/2" C Brg. - C Brg.) |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | C Brg.                                  | 0.25   | 0.5    | 0.75   | C Brg. |        |        |        |        |        |        |
| Girder No. 1                                                                          | 856.02                                  | 856.09 | 856.16 | 856.23 | 856.30 |        |        |        |        |        |        |
| Girder No. 2                                                                          | 856.21                                  | 856.30 | 856.39 | 856.47 | 856.54 |        |        |        |        |        |        |
| Girder No. 3                                                                          | 856.07                                  | 856.17 | 856.27 | 856.36 | 856.46 |        |        |        |        |        |        |
|                                                                                       |                                         |        |        |        |        |        |        |        |        |        |        |

\*\* Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab, stay-in-place forms and barrier.



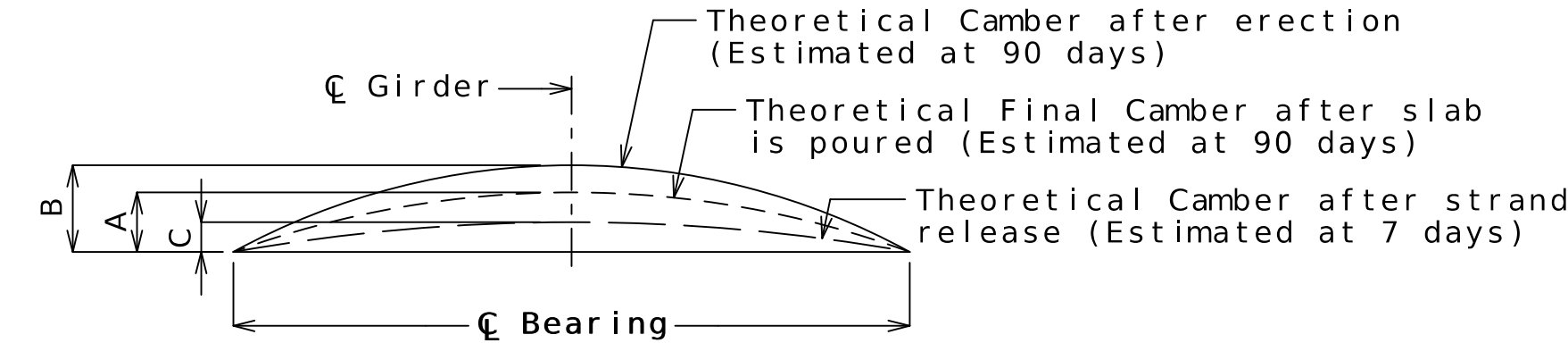
TYPICAL SLAB ELEVATIONS DIAGRAM



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.



| Girder   | Span (1-2) & (3-4) |        |      | Span (2-3) |        |        |
|----------|--------------------|--------|------|------------|--------|--------|
|          | A                  | B      | C    | A          | B      | C      |
| Exterior | 1/2"               | 1 1/8" | 3/4" | 1 1/4"     | 3 3/4" | 2 1/2" |
| Interior | 1/2"               |        |      | 1"         |        |        |

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.  
0.2 pt. = 0.593 x 0.5 pt.  
0.3 pt. = 0.813 x 0.5 pt.  
0.4 pt. = 0.952 x 0.5 pt.

0.25 pt. = 0.7125 x 0.5 pt.

CAMBER AND HAUNCH

DATE PREPARED  
6/17/2025

ROUTE  
97

DISTRICT  
BR

STATE  
MO

SHEET NO.  
13

COUNTY  
CEDAR

JOB NO.  
J7P3485

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
A9710

DESCRIPTION

DATE

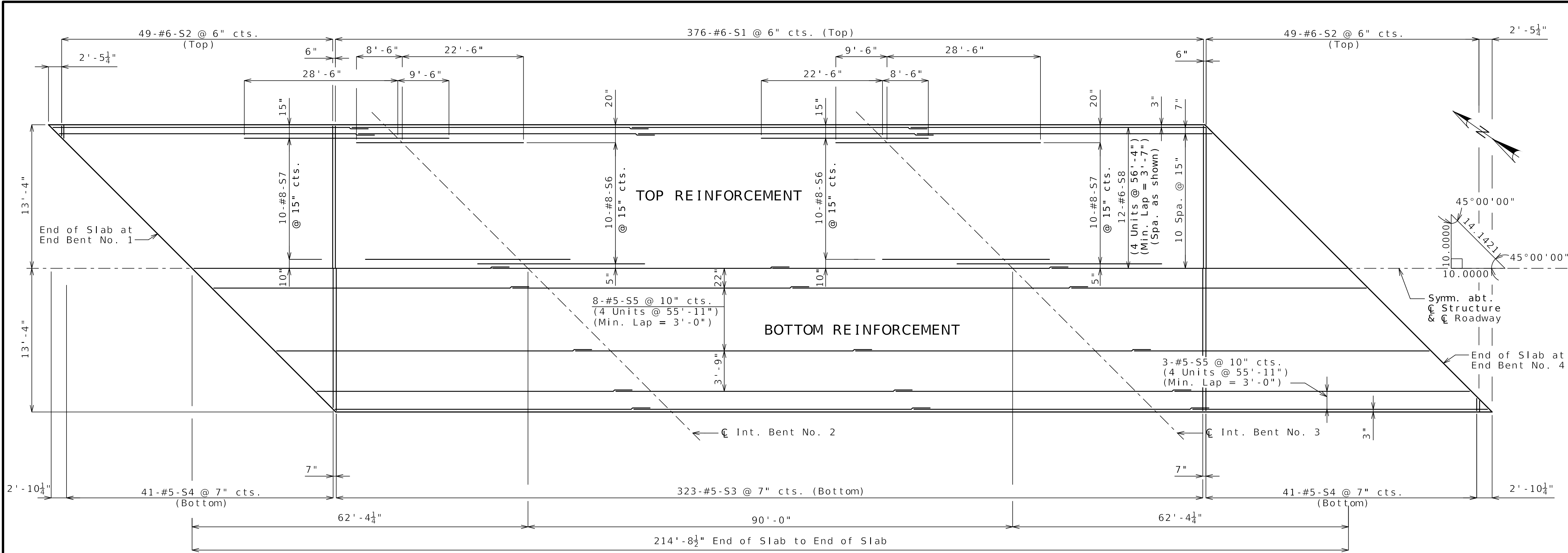
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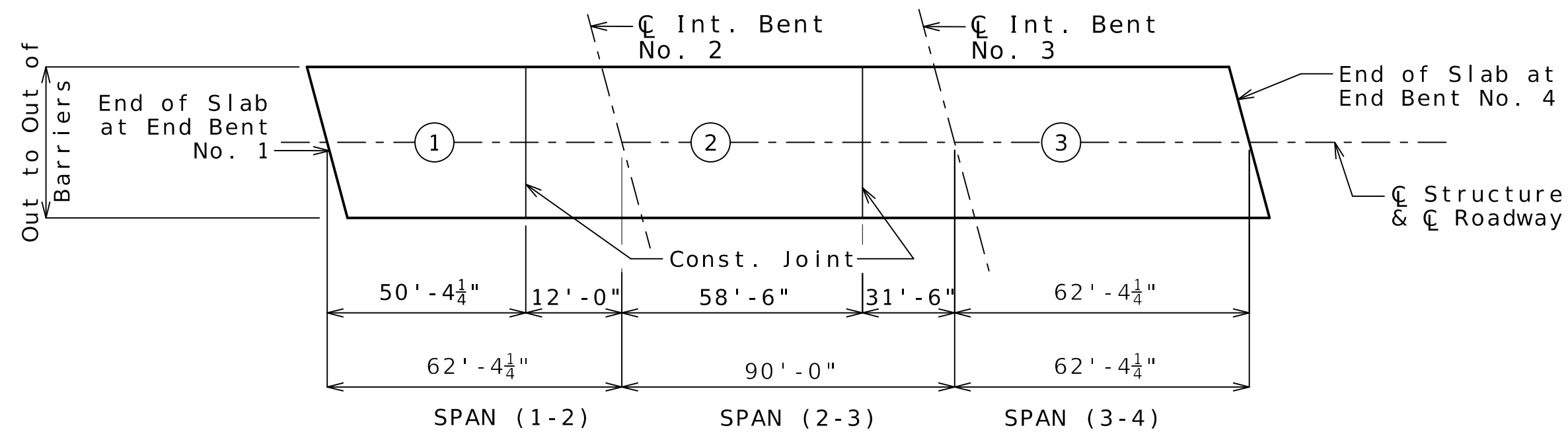
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PLAN OF SLAB SHOWING REINFORCEMENT



|                                                                                                                  | Sequence of Pours                                                 |        |          | Min. Rate of Pour<br>Cu. Yds./Hr. |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------|----------|-----------------------------------|
|                                                                                                                  | Direction<br>(Up grade from End Bent No. 1 toward End Bent No. 4) |        |          | With Retarder                     |
| Basic<br>Sequence                                                                                                | 1                                                                 | 2      | 3        | 25                                |
|                                                                                                                  | End to 2                                                          | 1 to 3 | 2 to End |                                   |
| Alternate pours to the basic sequence are subject to the approval of the engineer<br>in accordance with Sec 703. |                                                                   |        |          |                                   |
| Alternate A<br>Pours                                                                                             | 1 + 2                                                             |        | 3        | 25                                |
|                                                                                                                  | End to 3                                                          |        | 2 to End |                                   |
| Alternate B<br>Pours                                                                                             | 1 + 2 + 3                                                         |        |          | 25                                |
|                                                                                                                  | End Bent No. 1 to End Bent No. 4                                  |        |          |                                   |

The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

SLAB POURING SEQUENCE

Notes:

Longitudinal slab dimensions are measured horizontally.

For Section Thru Slab and Slab Construction Joint Details, see Sheet No. 15.

For Theoretical Bottom of Slab Elevations, Theoretical Slab Haunching Diagram and Girder Camber Diagram, see Sheet No. 13.

For details and reinforcement of Type D Barrier not shown, see Sheets No. 16 and 17.

Detailed June 2025  
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Note: This drawing is not to scale. Follow dimensions.

Sheet No. 14 of 22

pw://bartwest-pw.bentley.com:bartwest-pw-04/Documents/19000/19421.J61 - Kaysinger Basin Bridge Bundle/OpenRoads Designer/plan\_sheets/A9710/B\_A9710\_014\_J7P3485\_slab\_plan.dgn 6:51:03 PM 6/17/2025

DATE PREPARED  
6/17/2025

ROUTE  
97

DISTRICT  
BR

COUNTY  
CEDAR

JOB NO.  
J7P3485

PROJECT NO.

BRIDGE NO.  
A9710

DESCRIPTION

DATE

STATE  
MO

SHEET NO.  
14

CONTRACT ID.

SYMM. abt.  
Structure  
&  
Roadway

End of Slab at  
End Bent No. 4

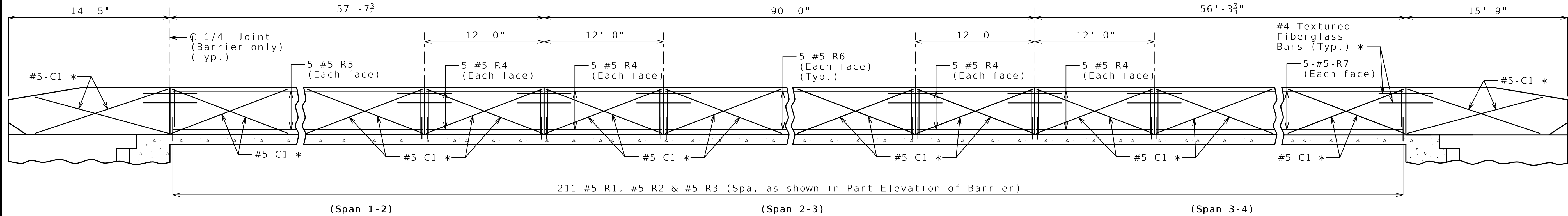
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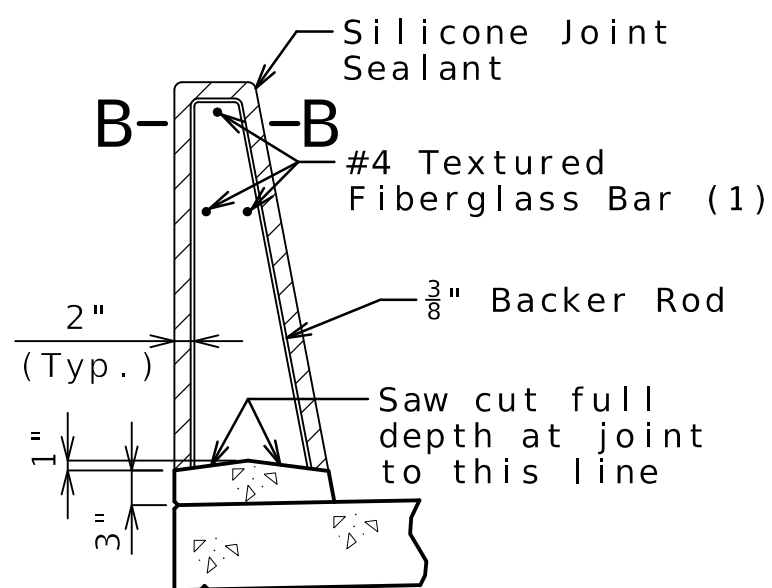
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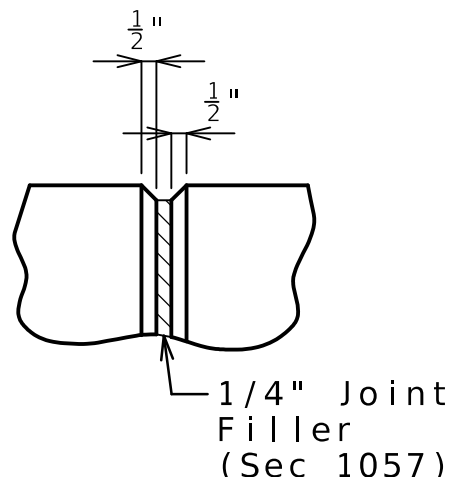




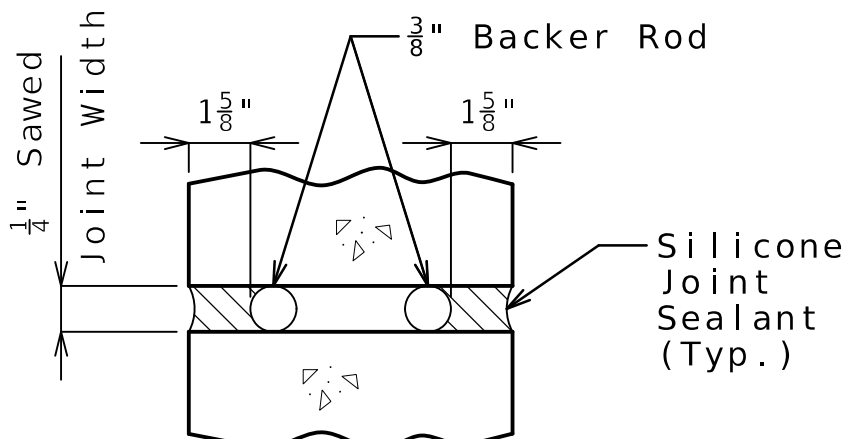
ELEVATION OF BARRIER  
(Left barrier shown, right barrier similar by 180° rotation)  
Longitudinal dimensions are horizontal.



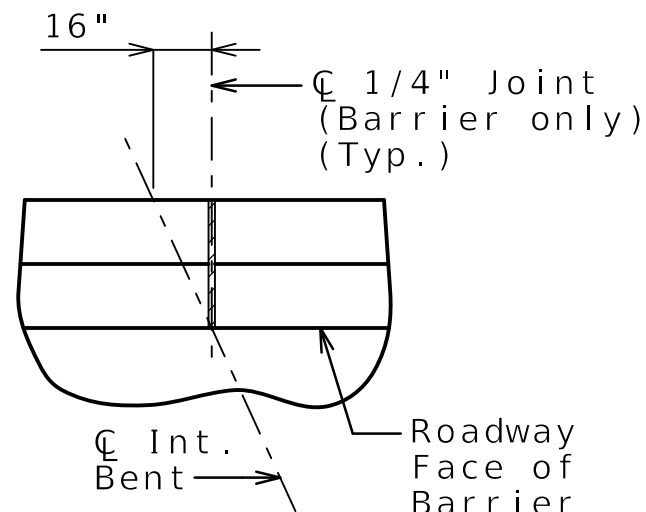
SECTION THRU  
SAW CUT JOINT



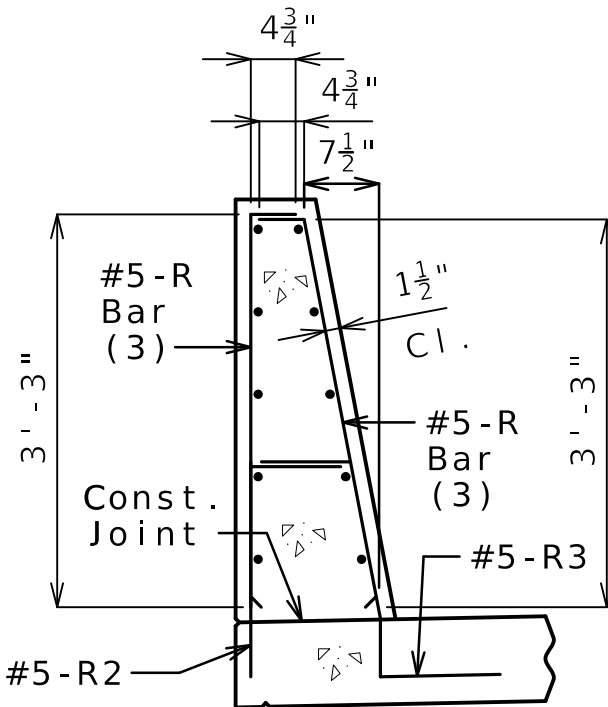
PART ELEVATION  
AT FORMED JOINT



SECTION B-B

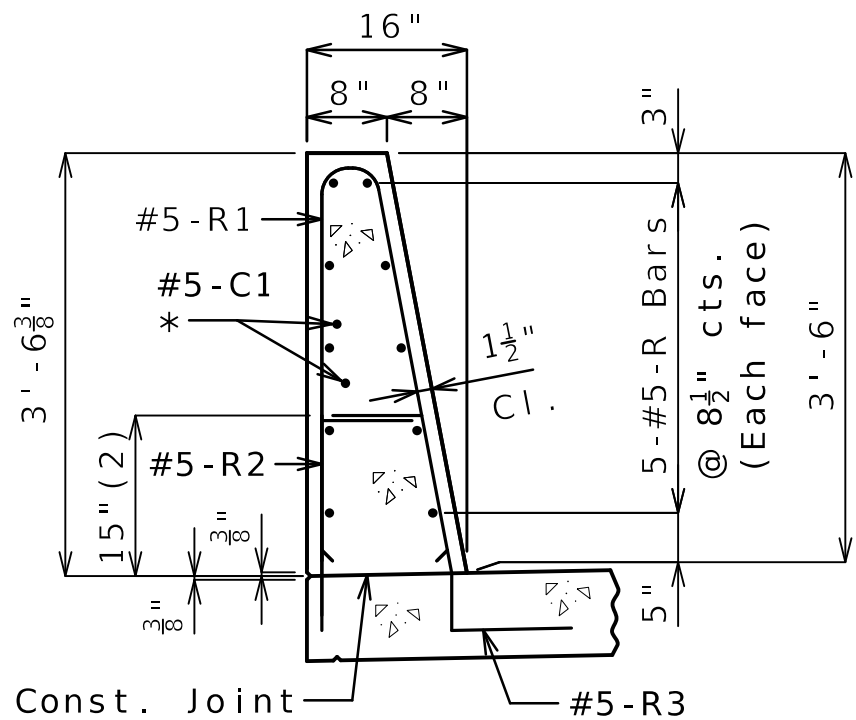


PART PLAN SHOWING  
JOINT LOCATION



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.)

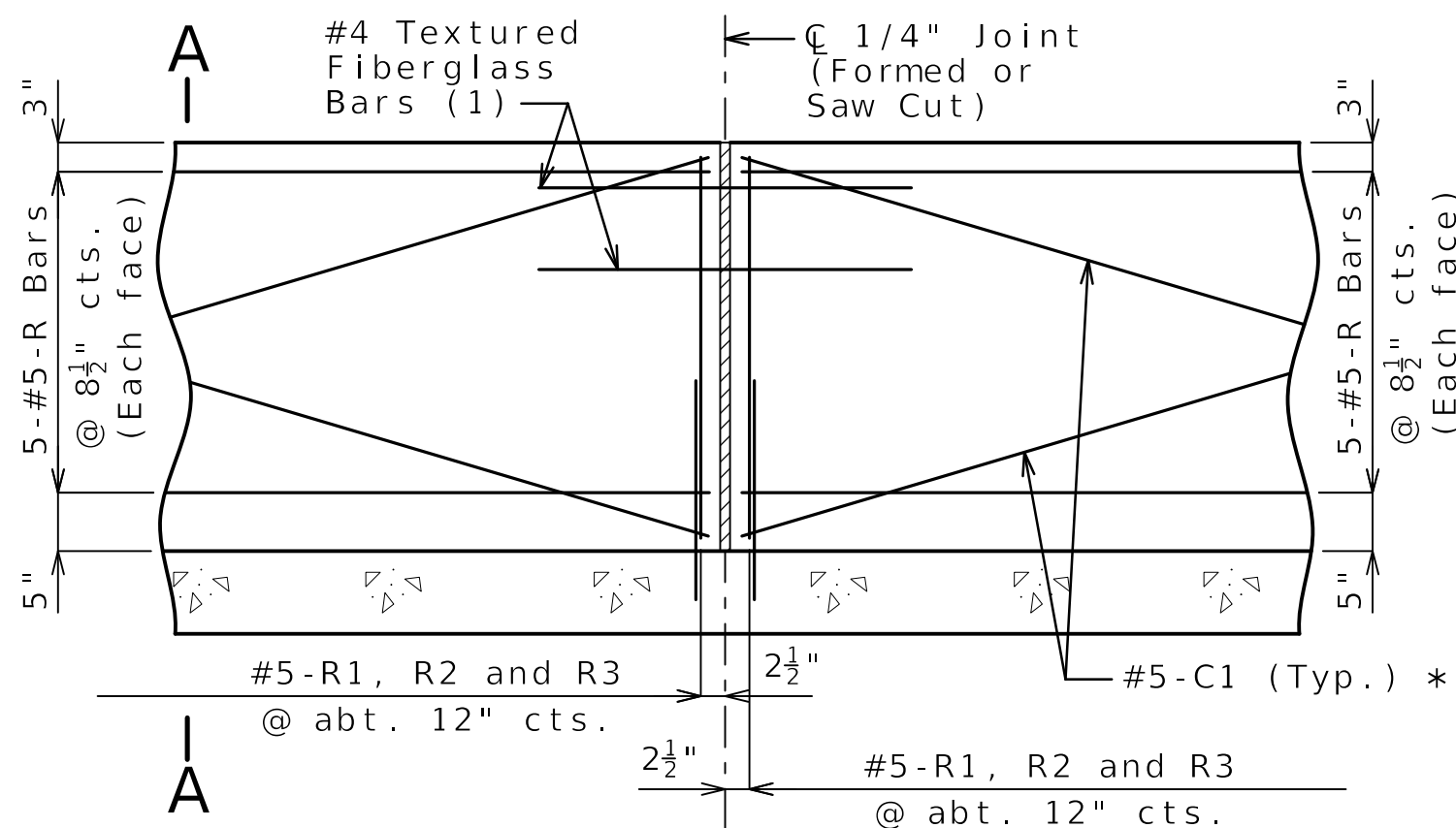


SECTION A-A

Use a minimum lap of 2'-6" for #5 horizontal barrier bars.

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

(2) To top of bar



PART ELEVATION OF BARRIER

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

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 (except at end bents) 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.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

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. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

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

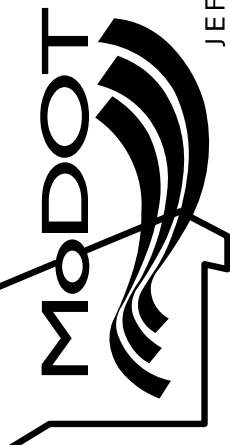
For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

TYPE D BARRIER

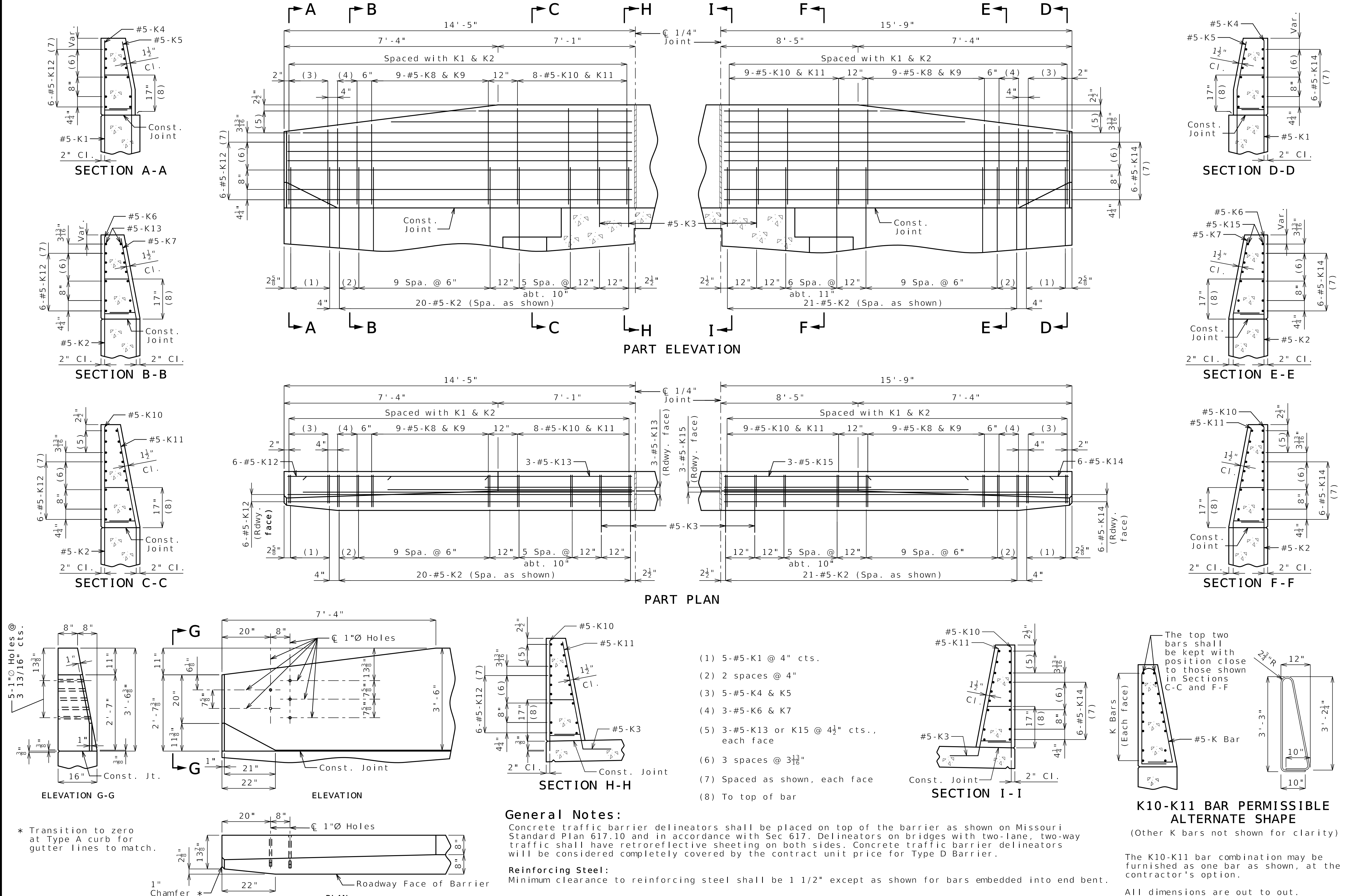
Detailed June 2025  
Checked June 2025

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

Sheet No. 16 of 22

|                                                                                                                                                                                                        |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| DATE PREPARED<br>6/17/2025                                                                                                                                                                             |                 |
| ROUTE<br>97                                                                                                                                                                                            | STATE<br>MO     |
| DISTRICT<br>BR                                                                                                                                                                                         | SHEET NO.<br>16 |
| COUNTY<br>CEDAR                                                                                                                                                                                        |                 |
| JOB NO.<br>J7P3485                                                                                                                                                                                     |                 |
| CONTRACT ID.                                                                                                                                                                                           |                 |
| PROJECT NO.                                                                                                                                                                                            |                 |
| BRIDGE NO.<br>A9710                                                                                                                                                                                    |                 |
| DESCRIPTION                                                                                                                                                                                            |                 |
| DATE                                                                                                                                                                                                   |                 |
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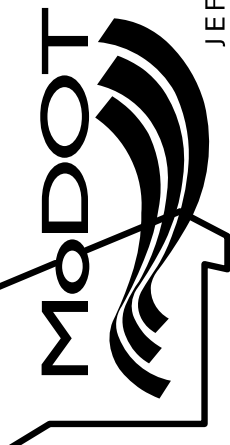
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Sheet No. 17 of 22

|                                                                                                                                                                                                       |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| DATE PREPARED<br>6/17/2025                                                                                                                                                                            |                 |
| ROUTE<br>97                                                                                                                                                                                           | STATE<br>MO     |
| DISTRICT<br>BR                                                                                                                                                                                        | SHEET NO.<br>17 |
| COUNTY<br>CEDAR                                                                                                                                                                                       |                 |
| JOB NO.<br>J7P3485                                                                                                                                                                                    |                 |
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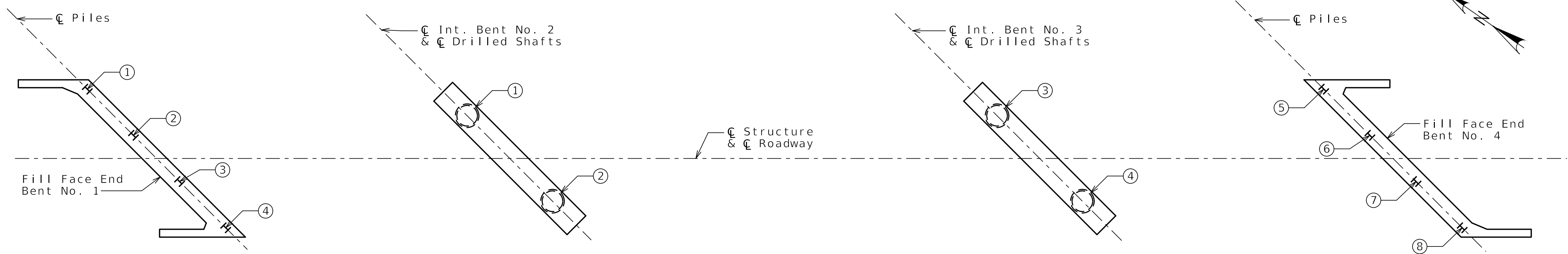
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



| BILL OF REINFORCING STEEL |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
|---------------------------|--------|----------|-------------|-----------|-----------|-------------|-------------|------------|----------|------------|--------|--------|--------|--------|--------|--------|----------------|---------------|--------|-----|-----|------|-----|
| NO.                       | REQ'D. | MARK NO. | LOCATION    | EPOXY (E) | SHAPE NO. | STIRRUP (S) | SUBSTR. (X) | VARIES (V) | NO. EACH | DIMENSIONS |        |        |        |        |        |        | NOMINAL LENGTH | ACTUAL LENGTH | WEIGHT |     |     |      |     |
|                           |        |          |             |           |           |             |             |            |          | B          | C      | D      | E      | F      | H      | K      |                |               |        |     |     |      |     |
|                           |        |          |             |           |           |             |             |            |          | FT.        | IN.    | FT.    | IN.    | FT.    | IN.    | FT.    | IN.            | FT.           | IN.    | FT. | IN. | FT.  | IN. |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
|                           |        |          | INT. BT 2   |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 12                        | 6      | D201     | BEAM        |           | 20        | X           |             |            |          | 2          | 6.000  |        |        |        |        |        | 2              | 6             | 2      | 6   | 45  |      |     |
| 10                        | 9      | H201     | BEAM        |           | 20        | X           |             |            |          | 31         | 9.000  |        |        |        |        |        |                | 31            | 9      | 31  | 9   | 1080 |     |
| 10                        | 6      | H202     | BEAM        |           | 20        | X           |             |            |          | 31         | 9.000  |        |        |        |        |        |                | 31            | 9      | 31  | 9   | 477  |     |
| 10                        | 9      | H203     | BEAM        |           | 18        | X           |             |            |          | 31         | 9.000  |        |        |        |        |        |                | 34            | 3      | 34  | 3   | 1165 |     |
| 14                        | 6      | H204     | BEAM        |           | 10        | S           | X           |            |          |            |        | 22.000 | 4      | 1.500  |        |        |                | 7             | 10     | 7   | 6   | 158  |     |
| 72                        | 6      | P201     | SHAFT       |           | 16        | X           |             |            |          | 3          | 0.000  | 2      | 0.000  |        |        |        |                | 11            | 6      | 11  | 6   | 1244 |     |
| 20                        | 4      | P202     | COLUMN      |           | 16        | X           |             |            |          | 3          | 3.000  | 2      | 0.000  |        |        |        |                | 12            | 3      | 12  | 3   | 164  |     |
| 34                        | 6      | U201     | BEAM        |           | 13        | S           | X           |            |          | 4          | 3.000  | 3      | 9.000  | 4      | 3.000  | 3      | 9.000          |               | 17     | 4   | 16  | 10   | 860 |
| 8                         | 6      | U202     | BEAM        |           | 10        | S           | X           |            |          |            |        | 3      | 9.000  | 4      | 3.000  |        |                | 11            | 9      | 11  | 5   | 137  |     |
| 5                         | 4      | U203     | BEAM        |           | 10        | S           | X           |            |          |            |        | 6.000  | 4      | 3.000  |        |        |                | 5             | 3      | 5   | 1   | 17   |     |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 36                        | 8      | V201     | SHAFT       |           | 20        | X           |             |            |          | 38         | 8.000  |        |        |        |        |        |                | 38            | 8      | 38  | 8   | 3717 |     |
| 36                        | 8      | V202     | COLUMN      |           | 20        | X           |             |            |          | 11         | 4.000  |        |        |        |        |        |                | 11            | 4      | 11  | 4   | 1089 |     |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
|                           |        |          | INT. BT 3   |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 12                        | 6      | D201     | BEAM        |           | 20        | X           |             |            |          | 2          | 6.000  |        |        |        |        |        |                | 2             | 6      | 2   | 6   | 45   |     |
| 10                        | 9      | H201     | BEAM        |           | 20        | X           |             |            |          | 31         | 9.000  |        |        |        |        |        |                | 31            | 9      | 31  | 9   | 1080 |     |
| 10                        | 6      | H202     | BEAM        |           | 20        | X           |             |            |          | 31         | 9.000  |        |        |        |        |        |                | 31            | 9      | 31  | 9   | 477  |     |
| 10                        | 9      | H203     | BEAM        |           | 18        | X           |             |            |          | 31         | 9.000  |        |        |        |        |        |                | 34            | 3      | 34  | 3   | 1165 |     |
| 14                        | 6      | H204     | BEAM        |           | 10        | S           | X           |            |          |            |        | 22.000 | 4      | 1.500  |        |        |                | 7             | 10     | 7   | 6   | 158  |     |
| 72                        | 6      | P201     | SHAFT       |           | 16        | X           |             |            |          | 3          | 0.000  | 2      | 0.000  |        |        |        |                | 11            | 6      | 11  | 6   | 1244 |     |
| 20                        | 4      | P202     | COLUMN      |           | 16        | X           |             |            |          | 3          | 3.000  | 2      | 0.000  |        |        |        |                | 12            | 3      | 12  | 3   | 164  |     |
| 34                        | 6      | U201     | BEAM        |           | 13        | S           | X           |            |          | 4          | 3.000  | 3      | 9.000  | 4      | 3.000  | 3      | 9.000          |               | 17     | 4   | 16  | 10   | 860 |
| 8                         | 6      | U202     | BEAM        |           | 10        | S           | X           |            |          |            |        | 3      | 9.000  | 4      | 3.000  |        |                | 11            | 9      | 11  | 5   | 137  |     |
| 5                         | 4      | U203     | BEAM        |           | 10        | S           | X           |            |          |            |        | 6.000  | 4      | 3.000  |        |        |                | 5             | 3      | 5   | 1   | 17   |     |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 36                        | 8      | V301     | SHAFT       |           | 20        | X           |             |            |          | 20         | 8.000  |        |        |        |        |        |                | 20            | 8      | 20  | 8   | 1986 |     |
| 40                        | 8      | V302     | COLUMN      |           | 20        | X           |             |            |          | 20         | 7.000  |        |        |        |        |        |                | 20            | 7      | 20  | 7   | 2198 |     |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
|                           |        |          | END BENT 1  |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 3                         | 6      | F101     | WING BRACE  | E         | 15        |             |             |            |          | 6          | 10.000 | 4      | 4.375  |        |        | 4      | 10.000         | 11            | 2      | 11  | 2   | 50   |     |
| 3                         | 6      | F102     | DIAPH.      | E         | 21        |             |             |            |          | 6          | 10.000 | 4      | 4.375  |        |        | 4      | 10.000         | 11            | 2      | 10  | 6   | 47   |     |
| 9                         | 6      | F103     | WING BRACE  | E         | 15        | S           |             |            |          | 20.000     | 3      | 6.000  | 20.000 | 18.500 | 7.625  | 18.500 | 7.625          | 6             | 10     | 6   | 8   | 90   |     |
| 9                         | 6      | F104     | DIAPH.      | E         | 15        | S           |             |            |          | 20.000     | 7      | 11.000 | 20.000 | 7.625  | 18.500 | 7.625  | 18.500         | 11            | 3      | 11  | 3   | 152  |     |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 12                        | 8      | H101     | BEAM/DIAPH. | E         | 20        |             |             |            |          | 37         | 4.000  |        |        |        |        |        |                | 37            | 4      | 37  | 4   | 1196 |     |
| 8                         | 6      | H102     | BEAM/DIAPH. | E         | 20        |             |             |            |          | 37         | 4.000  |        |        |        |        |        |                | 37            | 4      | 37  | 4   | 449  |     |
| 2                         | 6      | H103     | DIAPHRAGM   | E         | 20        |             |             |            |          | 2          | 9.000  |        |        |        |        |        |                | 2             | 9      | 2   | 9   | 8    |     |
| 6                         | 6      | H104     | DIAPHRAGM   | E         | 20        |             |             |            |          | 4          | 5.000  |        |        |        |        |        |                | 4             | 5      | 4   | 5   | 40   |     |
| 2                         | 6      | H105     | DIAPHRAGM   | E         | 20        |             |             |            |          | 8          | 6.000  |        |        |        |        |        |                | 8             | 6      | 8   | 6   | 26   |     |
| 6                         | 6      | H106     | DIAPHRAGM   | E         | 20        |             |             |            |          | 11         | 10.000 |        |        |        |        |        |                | 11            | 10     | 11  | 10  | 107  |     |
| 3                         | 5      | H107     | STRAND TIE  | E         | 23        | S           |             |            |          | 15.000     | 3      | 3.000  | 15.000 | 10.625 | 10.625 | 10.625 | 10.625         | 5             | 9      | 5   | 8   | 18   |     |
| 38                        | 6      | H108     | WING        | E         | 20        |             |             |            |          | 10         | 1.000  |        |        |        |        |        |                | 10            | 1      | 10  | 1   | 576  |     |
| 16                        | 8      | H109     | WING        | E         | 20        |             |             |            |          | 11         | 6.000  |        |        |        |        |        |                | 11            | 6      | 11  | 6   | 491  |     |
|                           |        |          |             |           |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |     |      |     |
| 14                        | 5      | U101     | BEAM        | E         | 10        | S           |             |            |          |            | 5      | 5.000  | 4      | 11.375 |        |        |                | 15            | 9      | 15  | 7   | 228  |     |
| 27                        | 4      | U102     | BEAM        | E         | 13        | S           |             |            |          | 4          | 11.375 | 2      | 8.000  | 4      | 11.375 | 2      | 8.000          |               | 16     | 0   | 15  | 9    | 284 |
| 2                         | 4      | U103     | BEAM        | E         | 10        | S           |             |            |          |            | 2      | 8.000  | 4      | 11.375 |        |        |                | 10            | 3      | 10  | 1   | 13   |     |
| 24                        | 5      | U104     | DIAPHRAGM   | E         | 10        | S           |             |            |          |            | 3      | 5.000  | 4      | 2.875  |        |        |                | 11            | 1      | 10  | 10  | 271  |     |

| NO. | REQ'D. | MARK NO. | SIZE | MARK | LOCATION    | EPOXY | (E) | SHAPE NO. | STIRRUP (S) | SUBSTR. (X) | VARIES (V) | NO. EACH | DIMENSIONS |        |        |        |        |        |        | NOMINAL LENGTH | ACTUAL LENGTH | WEIGHT |     |        |     |      |     |     |     |
|-----|--------|----------|------|------|-------------|-------|-----|-----------|-------------|-------------|------------|----------|------------|--------|--------|--------|--------|--------|--------|----------------|---------------|--------|-----|--------|-----|------|-----|-----|-----|
|     |        |          |      |      |             |       |     |           |             |             |            |          | B          | C      | D      | E      | F      | H      | K      |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          | FT.        | IN.    | FT.    | IN.    | FT.    | IN.    | FT.    |                |               |        | IN. | FT.    | IN. | FT.  | IN. | FT. | IN. |
| 24  | 6      | U105     |      |      | DIAPHRAGM   | E     | 19  | S         |             |             |            |          | 2          | 3.000  | 4      | 2.000  |        |        |        |                |               | 6      | 5   | 6      | 3   | 225  |     |     |     |
| 45  | 6      | U106     |      |      | DIAPHRAGM   | E     | 19  | S         |             |             |            |          | 3          | 0.000  | 6      | 4.000  |        |        |        |                |               | 9      | 4   | 9      | 2   | 620  |     |     |     |
| 24  | 5      | U107     |      |      | DIAPHRAGM   | E     | 19  | S         |             |             |            |          | 2          | 0.000  | 15.000 |        |        |        |        |                |               | 3      | 3   | 3      | 2   | 79   |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 20  | 5      | V101     |      |      | BEAM        | E     | 20  |           |             |             |            |          | 5          | 5.000  |        |        |        |        |        |                |               | 5      | 5   | 5      | 5   | 113  |     |     |     |
| 2   | 6      | V102     |      |      | WING        | E     | 20  |           |             |             |            |          | 6          | 8.000  |        |        |        |        |        |                |               | 6      | 8   | 6      | 8   | 20   |     |     |     |
| 18  | 6      | V103     |      |      | WING        | E     | 20  |           |             | V           | 2          |          | 6          | 8.000  |        |        |        |        |        |                |               | 6      | 8   | 6      | 8   |      |     |     |     |
|     |        |          |      |      | INCREMENT = |       |     |           |             |             |            |          | 6          | 9.000  |        |        |        |        |        |                |               | 6      | 9   | 6      | 9   | 181  |     |     |     |
|     |        |          |      |      | 0.125 INCH  |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 2   | 6      | V104     |      |      | WING        | E     | 20  |           |             |             |            |          | 6          | 4.000  |        |        |        |        |        |                |               | 6      | 4   | 6      | 4   | 19   |     |     |     |
| 18  | 6      | V105     |      |      | WING        | E     | 20  |           |             | V           | 2          |          | 6          | 5.000  |        |        |        |        |        |                |               | 6      | 5   | 6      | 5   |      |     |     |     |
|     |        |          |      |      | INCREMENT = |       |     |           |             |             |            |          | 6          | 6.000  |        |        |        |        |        |                |               | 6      | 6   | 6      | 6   | 175  |     |     |     |
|     |        |          |      |      | 0.125 INCH  |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 21  | 6      | V106     |      |      | DIAPHRAGM   | E     | 20  |           |             |             |            |          | 2          | 3.000  |        |        |        |        |        |                |               | 2      | 3   | 2      | 3   | 71   |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      | END BENT 4  |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 3   | 6      | F101     |      |      | WING BRACE  | E     | 15  |           |             |             |            |          | 6          | 10.000 | 4      | 4.375  |        |        |        |                | 4             | 10.000 | 4   | 10.000 | 11  | 2    | 11  | 2   | 50  |
| 3   | 6      | F102     |      |      | DIAPH.      | E     | 21  |           |             |             |            |          | 6          | 10.000 | 4      | 4.375  |        |        |        |                | 4             | 10.000 | 4   | 10.000 | 11  | 2    | 10  | 6   | 47  |
| 9   | 6      | F103     |      |      | WING BRACE  | E     | 15  | S         |             |             |            |          | 20.000     | 3      | 6.000  | 20.000 | 18.500 | 7.625  | 18.500 | 7.625          | 6             | 10     | 6   | 8      | 90  |      |     |     |     |
| 9   | 6      | F104     |      |      | DIAPH.      | E     | 15  | S         |             |             |            |          | 20.000     | 7      | 11.000 | 20.000 | 7.625  | 18.500 | 7.625  | 18.500         | 11            | 3      | 11  | 3      | 152 |      |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 12  | 8      | H101     |      |      | BEAM/DIAPH. | E     | 20  |           |             |             |            |          | 37         | 4.000  |        |        |        |        |        |                |               | 37     | 4   | 37     | 4   | 1196 |     |     |     |
| 8   | 6      | H102     |      |      | BEAM/DIAPH. | E     | 20  |           |             |             |            |          | 37         | 4.000  |        |        |        |        |        |                |               | 37     | 4   | 37     | 4   | 449  |     |     |     |
| 2   | 6      | H103     |      |      | DIAPHRAGM   | E     | 20  |           |             |             |            |          | 2          | 9.000  |        |        |        |        |        |                |               | 2      | 9   | 2      | 9   | 8    |     |     |     |
| 6   | 6      | H104     |      |      | DIAPHRAGM   | E     | 20  |           |             |             |            |          | 4          | 5.000  |        |        |        |        |        |                |               | 4      | 5   | 4      | 5   | 40   |     |     |     |
| 2   | 6      | H105     |      |      | DIAPHRAGM   | E     | 20  |           |             |             |            |          | 8          | 6.000  |        |        |        |        |        |                |               | 8      | 6   | 8      | 6   | 26   |     |     |     |
| 6   | 6      | H106     |      |      | DIAPHRAGM   | E     | 20  |           |             |             |            |          | 11         | 10.000 |        |        |        |        |        |                |               | 11     | 10  | 11     | 10  | 107  |     |     |     |
| 3   | 5      | H107     |      |      | STRAND TIE  | E     | 23  | S         |             |             |            |          | 15.000     | 3      | 3.000  | 15.000 | 10.625 | 10.625 | 10.625 | 10.625         | 5             | 9      | 5   | 8      | 18  |      |     |     |     |
| 38  | 6      | H108     |      |      | WING        | E     | 20  |           |             |             |            |          | 10         | 1.000  |        |        |        |        |        |                |               | 10     | 1   | 10     | 1   | 576  |     |     |     |
| 16  | 8      | H109     |      |      | WING        | E     | 20  |           |             |             |            |          | 11         | 6.000  |        |        |        |        |        |                |               | 11     | 6   | 11     | 6   | 491  |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 14  | 5      | U101     |      |      | BEAM        | E     | 10  | S         |             |             |            |          |            | 5      | 5.000  | 4      | 11.375 |        |        |                |               | 15     | 9   | 15     | 7   | 228  |     |     |     |
| 27  | 4      | U102     |      |      | BEAM        | E     | 13  | S         |             |             |            |          | 4          | 11.375 | 2      | 8.000  | 4      | 11.375 | 2      | 8.000          |               | 16     | 0   | 15     | 9   | 284  |     |     |     |
| 2   | 4      | U103     |      |      | BEAM        | E     | 10  | S         |             |             |            |          |            | 2      | 8.000  | 4      | 11.375 |        |        |                |               | 10     | 3   | 10     | 1   | 13   |     |     |     |
| 24  | 5      | U104     |      |      | DIAPHRAGM   | E     | 10  | S         |             |             |            |          |            | 3      | 5.000  | 4      | 2.875  |        |        |                |               | 11     | 1   | 10     | 10  | 271  |     |     |     |
| 24  | 6      | U105     |      |      | DIAPHRAGM   | E     | 19  | S         |             |             |            |          | 2          | 3.000  | 4      | 2.000  |        |        |        |                |               | 6      | 5   | 6      | 3   | 225  |     |     |     |
| 45  | 6      | U106     |      |      | DIAPHRAGM   | E     | 19  | S         |             |             |            |          | 3          | 0.000  | 6      | 4.000  |        |        |        |                |               | 9      | 4   | 9      | 2   | 620  |     |     |     |
| 24  | 5      | U107     |      |      | DIAPHRAGM   | E     | 19  | S         |             |             |            |          | 2          | 0.000  | 15.000 |        |        |        |        |                |               | 3      | 3   | 3      | 2   | 79   |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 20  | 5      | V101     |      |      | BEAM        | E     | 20  |           |             |             |            |          | 5          | 5.000  |        |        |        |        |        |                |               | 5      | 5   | 5      | 5   | 113  |     |     |     |
| 2   | 6      | V402     |      |      | WING        | E     | 20  |           |             |             |            |          | 6          | 8.000  |        |        |        |        |        |                |               | 6      | 8   | 6      | 8   | 20   |     |     |     |
| 18  | 6      | V403     |      |      | WING        | E     | 20  |           |             | V           | 2          |          | 6          | 8.000  |        |        |        |        |        |                |               | 6      | 8   | 6      | 8   |      |     |     |     |
|     |        |          |      |      | INCREMENT = |       |     |           |             |             |            |          | 6          | 7.000  |        |        |        |        |        |                |               | 6      | 7   | 6      | 7   | 179  |     |     |     |
|     |        |          |      |      | 0.125 INCH  |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 2   | 6      | V404     |      |      | WING        | E     | 20  |           |             |             |            |          | 6          | 10.000 |        |        |        |        |        |                |               | 6      | 10  | 6      | 10  | 21   |     |     |     |
| 18  | 6      | V405     |      |      | WING        | E     | 20  |           |             |             |            |          | 6          | 10.000 |        |        |        |        |        |                |               | 6      | 10  | 6      | 10  | 185  |     |     |     |
| 21  | 6      | V106     |      |      | DIAPHRAGM   | E     | 20  |           |             |             |            |          | 2          | 3.000  |        |        |        |        |        |                |               | 2      | 3   | 2      | 3   | 71   |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      | INT. DIAPH. |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      | BT. 2 & 3   |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
| 8   | 6      | H500     |      |      | DIAPH.      | E     | 20  |           |             |             |            |          | 8          | 6.000  |        |        |        |        |        |                |               | 8      | 6   | 8      | 6   | 102  |     |     |     |
| 16  | 4      | H501     |      |      | DIAPH.      | E     | 20  |           |             |             |            |          | 11         | 10.000 |        |        |        |        |        |                |               | 11     | 10  | 11     | 10  | 126  |     |     |     |
| 8   | 6      | H502     |      |      | DIAPH.      | E     | 20  |           |             |             |            |          | 11         | 10.000 |        |        |        |        |        |                |               | 11     | 10  | 11     | 10  | 142  |     |     |     |
| 4   | 5      | H503     |      |      | STRAND TIE  | E     | 23  | S         |             |             |            |          | 15.000     | 3      | 3.000  |        |        |        | 10.625 | 10.625         | 4             | 6      | 4   | 6      | 19  |      |     |     |     |
| 8   | 5      | H504     |      |      | STRAND TIE  | E     | 15  | S         |             |             |            |          | 15.000     | 4      | 4.000  |        |        |        | 10.625 | 10.625         | 5             | 7      | 5   | 7      | 47  |      |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |
|     |        |          |      |      |             |       |     |           |             |             |            |          |            |        |        |        |        |        |        |                |               |        |     |        |     |      |     |     |     |





PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE AND DRILLED SHAFT DATA

| As-Built Pile Data |                      |                                                      |                |
|--------------------|----------------------|------------------------------------------------------|----------------|
| Pile No.           | Length in Place (ft) | Computed Nominal Axial Compressive Resistance (kips) | Remarks        |
|                    |                      |                                                      | End Bent No. 1 |
| 1                  |                      |                                                      |                |
| 2                  |                      |                                                      |                |
| 3                  |                      |                                                      |                |
| 4                  |                      |                                                      |                |
|                    |                      |                                                      | End Bent No. 4 |
| 5                  |                      |                                                      |                |
| 6                  |                      |                                                      |                |
| 7                  |                      |                                                      |                |
| 8                  |                      |                                                      |                |
|                    |                      |                                                      |                |
|                    |                      |                                                      |                |
|                    |                      |                                                      |                |

| As-Built Drilled Shaft Data |                           |                       |                               |                 |
|-----------------------------|---------------------------|-----------------------|-------------------------------|-----------------|
| Shaft No.                   | Top of Sound Rock (Elev.) | Tip of Casing (Elev.) | Bottom of Rock Socket (Elev.) | Remarks         |
|                             |                           |                       |                               | Int. Bent No. 2 |
| 1                           |                           |                       |                               |                 |
| 2                           |                           |                       |                               |                 |
|                             |                           |                       |                               | Int. Bent No. 3 |
| 3                           |                           |                       |                               |                 |
| 4                           |                           |                       |                               |                 |
|                             |                           |                       |                               |                 |
|                             |                           |                       |                               |                 |

Note:  
Indicate in remarks column:  
A. Pile type and grade  
B. Batter  
C. Driven to practical refusal  
  
This sheet to be completed by MoDOT construction personnel.

DATE PREPARED  
6/17/2025

ROUTE  
97

DISTRICT  
BR

COUNTY  
CEDAR

JOB NO.  
J7P3485

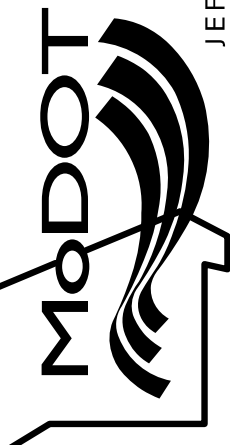
CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
A9710

|             |  |  |  |  |  |
|-------------|--|--|--|--|--|
| DESCRIPTION |  |  |  |  |  |
| DATE        |  |  |  |  |  |

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

**Bartlett & West**

601 MONROE STREET, SUITE 201 - JEFFERSON CITY, MO 65101  
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BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2025  
Checked June 2025

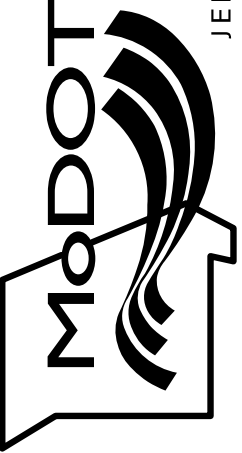
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 22 of 22

**Bartlett & West**

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COMMISSION



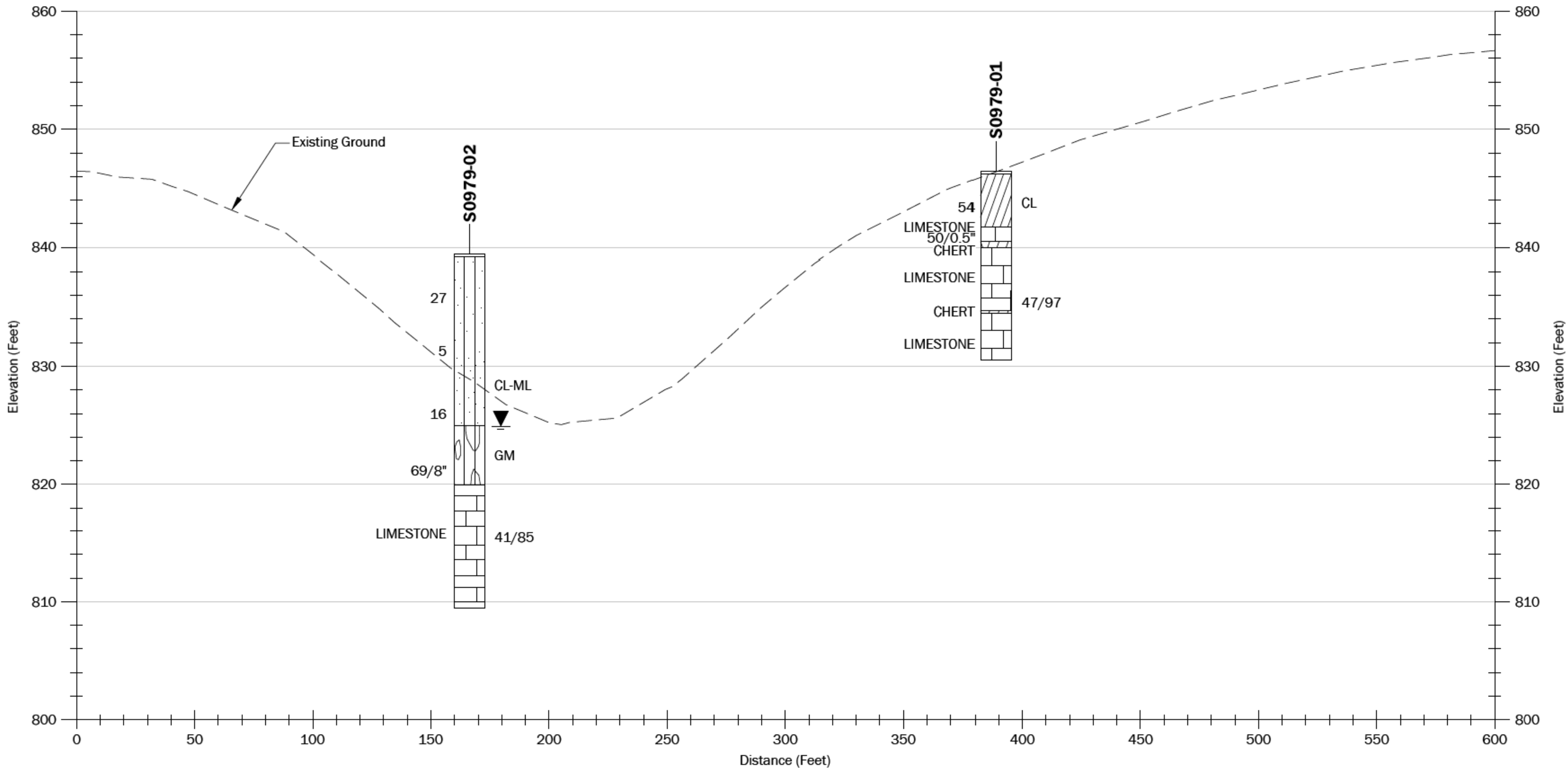
105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

| DATE | DESCRIPTION |
|------|-------------|
|      |             |
|      |             |
|      |             |
|      |             |
|      |             |
|      |             |

|                            |                 |
|----------------------------|-----------------|
| DATE PREPARED<br>6/17/2025 |                 |
| ROUTE<br>97                | STATE<br>MO     |
| DISTRICT<br>BR             | SHEET NO.<br>22 |
| COUNTY<br>CEDAR            |                 |
| JOB NO.<br>J7P3485         |                 |
| CONTRACT ID.               |                 |
| PROJECT NO.                |                 |
| BRIDGE NO.<br>A9710        |                 |

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P:\15\15273034\CAD\00\Geotech\Week 5\1527303400\_F02-F03\_S0979.dwg 3 Date Exported:10/9/2024 11:41 AM -by TJ Byrd



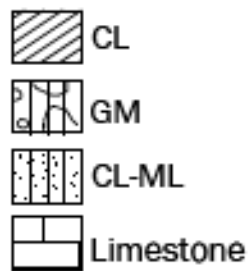
Note(s):

- The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.

Datum: NAVD88

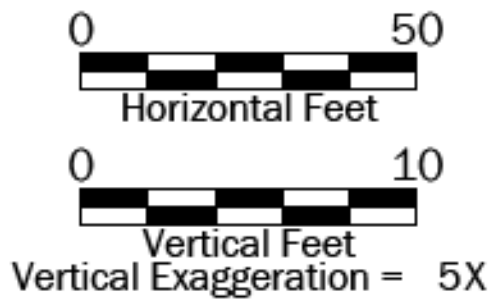
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Soil Classification



Legend

|              |              |
|--------------|--------------|
| SPT N        | TYPE OF SOIL |
| TYPE OF ROCK | RQD/REC%     |



Subsurface Diagram S0979

MoDOT - Kaysinger Basin Bridge Bundle  
Bridge #S0979  
Cedar County, Missouri



Figure 3

BORING DATA

Note: For locations of borings, see Sheet No. 1.

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

Sheet No. 22 of 22

Detailed June 2025  
Checked June 2025

|                                                                                                                                                                                                           |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| DATE PREPARED<br>6/17/2025                                                                                                                                                                                |                 |
| ROUTE<br>97                                                                                                                                                                                               | STATE<br>MO     |
| DISTRICT<br>BR                                                                                                                                                                                            | SHEET NO.<br>22 |
| COUNTY<br>CEDAR                                                                                                                                                                                           |                 |
| JOB NO.<br>J7P3485                                                                                                                                                                                        |                 |
| CONTRACT ID.                                                                                                                                                                                              |                 |
| PROJECT NO.                                                                                                                                                                                               |                 |
| BRIDGE NO.<br>A9710                                                                                                                                                                                       |                 |
| DESCRIPTION                                                                                                                                                                                               | DATE            |
|                                                                                                                                                                                                           |                 |
|                                                                                                                                                                                                           |                 |
|                                                                                                                                                                                                           |                 |
|                                                                                                                                                                                                           |                 |
| MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION                                                                                                                                                           |                 |
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