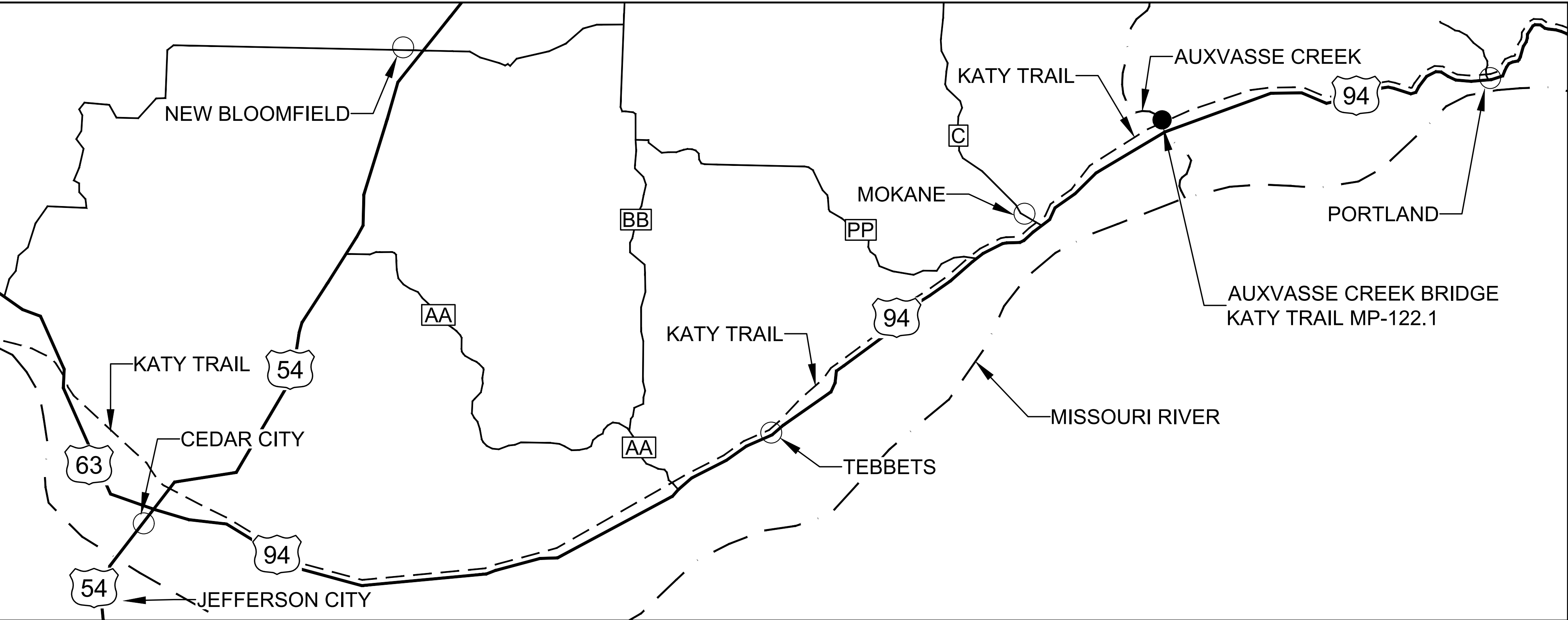


REPLACE AUXVASSE CREEK BRIDGE

KATY TRAIL STATE PARK

CALLAWAY, MISSOURI



OWNER:

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MISSOURI STATE PARKS

PROJECT
MANAGEMENT:

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION



LOCATION MAP



2001 W. Broadway
Columbia, MO 65203
573.814.1568 |
www.mecresults.com

MO CERTIFICATES OF
AUTHORITY
E-2006023253
S-2012009395
EXPIRES DEC. 31, 2024

DESIGNER:

McCLURE ENGINEERING COMPANY
CHAD W. MEYER, P.E.
CHAD.MEYER@MCCLUREVISION.COM

PROJECT NUMBER: X2408-02

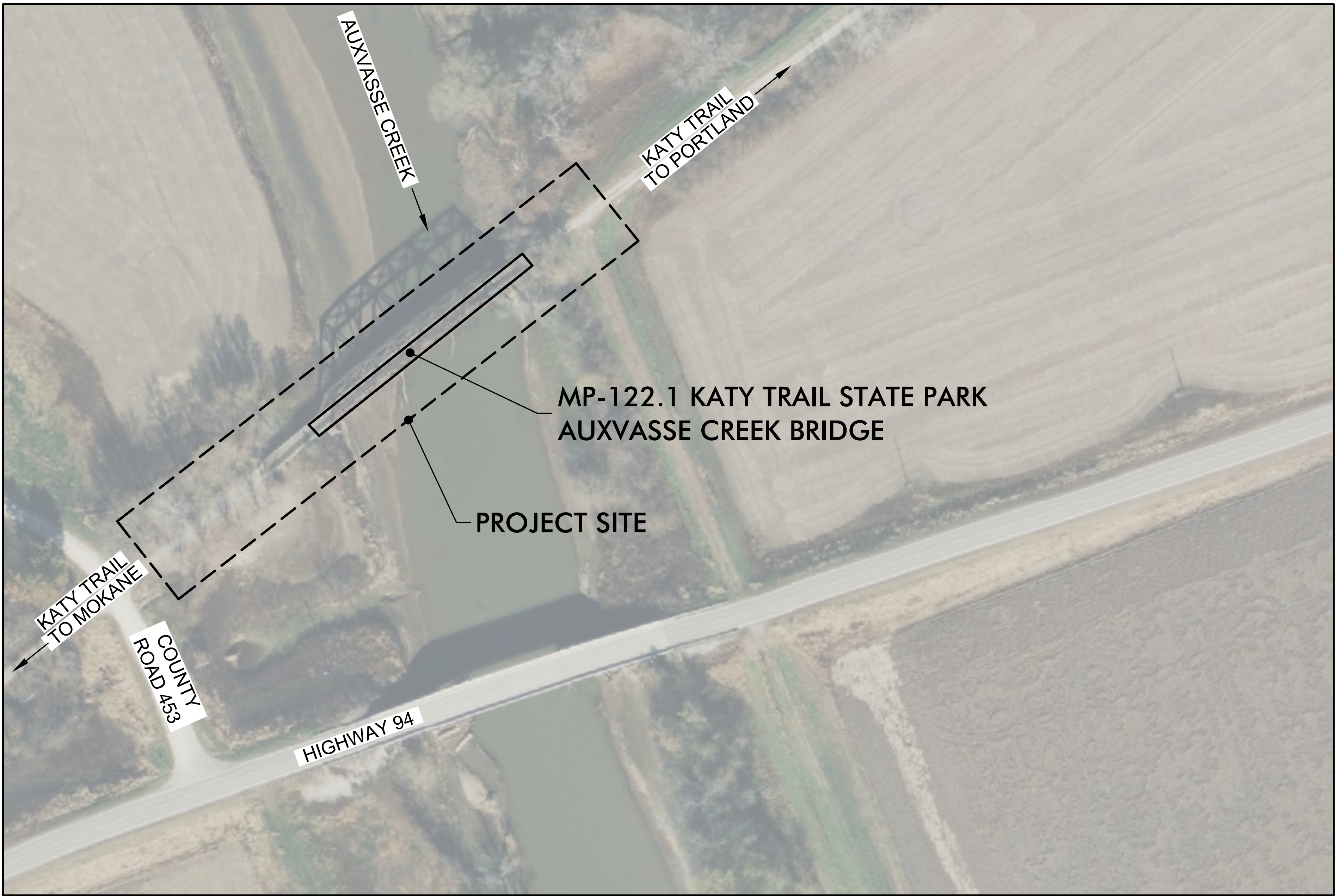
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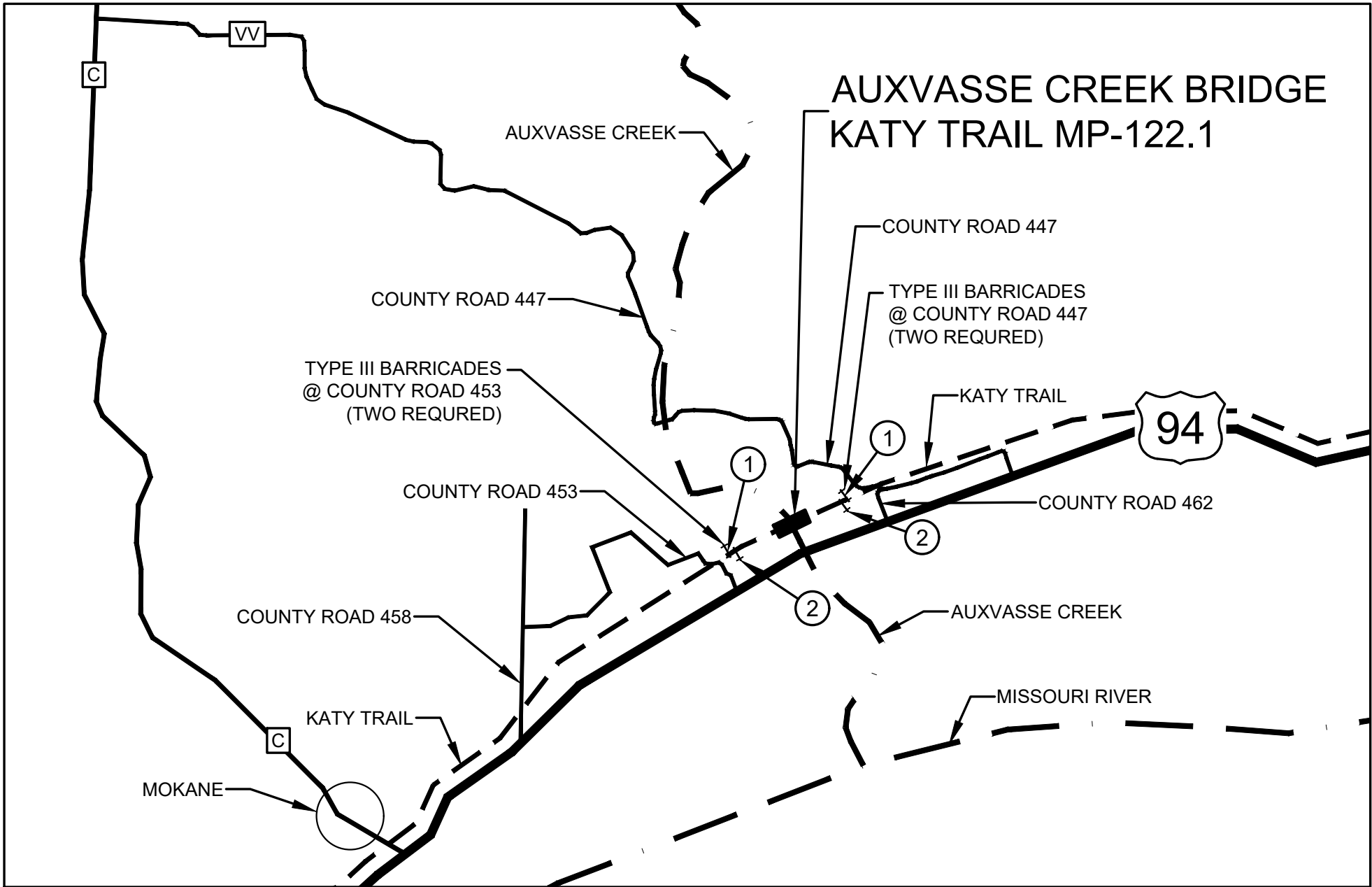
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G-001

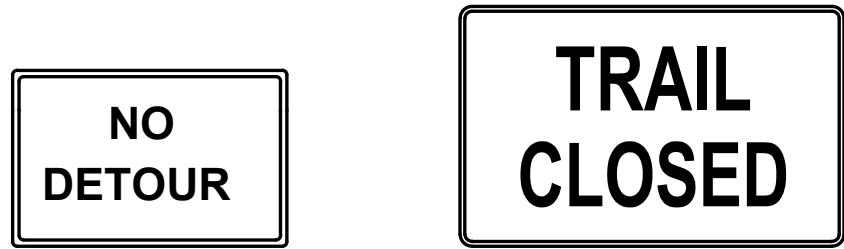
1 OF 16 SHEETS
DECEMBER 30, 2025



SITE LOCATION



TRAFFIC CONTROL PLAN - FOR BRIDGE INSTALLATION

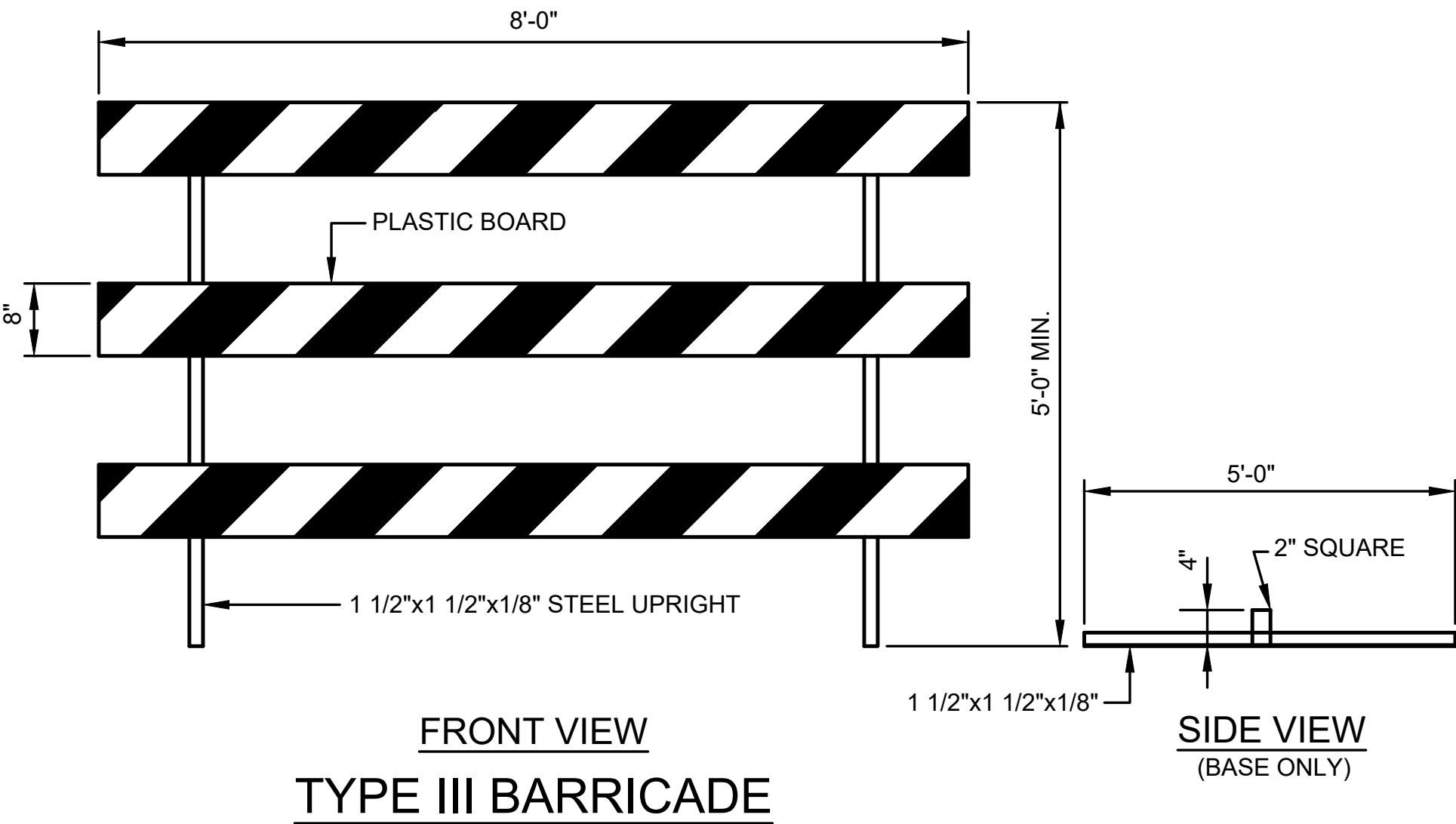


1

2

TRAFFIC CONTROL SIGNAGE

INDEX OF SHEETS		
SHEET NO.	TITLE	DESCRIPTION
1	G-001	COVER SHEET
2	G-002	LOCATION MAP
3	G-003	GENERAL NOTES & LEGENDS
4	CD-001	DEMOLITION PLAN
5	CD-002	EXISTING STEEL TRUSS DIAGRAM
6	C-101	PLAN AND PROFILE
7	C-102	EROSION CONTROL PLAN
8	C-103	TRAIL CROSS SECTIONS
9	S-201	END BENT PLANS & DETAILS
10	S-202	END BENT ELEVATION & SECTIONS
11	S-203	BILL OF REINFORCING
12	S-204	PRECAST PANEL PLAN
13	D-001	TYPICAL DETAILS
14	D-002	PRECAST DECK PANEL DETAILS
15	D-003	PEDESTRIAN FENCE DETAILS
16	D-004	BRIDGE APPROACH SLAB DETAILS



TRAFFIC CONTROL NOTES:

- CONTRACTOR SHALL PROVIDE TYPE III BARRICADES AT THE ENTRY POINTS OF THE KATY TRAIL THROUGH DURATION OF PROJECT AND PROVIDE ONE REPRESENTATIVE FOR A MINIMUM OF ONE WORKING DAY WHILE THE NEW BRIDGE STRUCTURE IS BEING INSTALLED ON THE BRIDGE END BENTS.
- LOCATION OF BARRICADES SHALL BE:
 - ALONG KATY TRAIL TRAVELED WAY 50' FROM CL OF INTERSECTION OF COUNTY ROAD 447/KATY TRAIL.
 - ALONG KATY TRAIL TRAVELED WAY 50' FROM CL OF INTERSECTION OF COUNTY ROAD 453/KATY TRAIL.
 - INSTALL BARRICADES TO BLOCK ENTIRE WIDTH OF KATY TRAIL TRAVELED WAY..
- BARRICADES SHALL INCLUDE R11-2 "TRAIL CLOSED" AND M4-8A "NO DETOUR" SIGNS.
- INSTALL M4-8a AND R11-2 SIGNS TO FRONT FACE OF TYPE III BARRICADES WITH TOP OF SIGN 48" ABOVE GRADE AND CENTERED ON BARRICADE.
- R11-2 SIGNS SHALL BE 48" WIDE BY 30" HEIGHT AND 0.10" THICK.
- M4-8a SIGNS SHALL BE 24" WIDE BY 18" HEIGHT AND 0.08" THICK.
- ALL SIGNS SHALL HAVE ASTM TYPE 4 WHITE BACKGROUND SHEETING WITH BLACK LEGENDS.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN & CONSTRUCTION

DEPARTMENT OF
NATURAL RESOURCES
DIVISION OF MISSOURI
STATE PARKS

REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-C-GNL-03
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

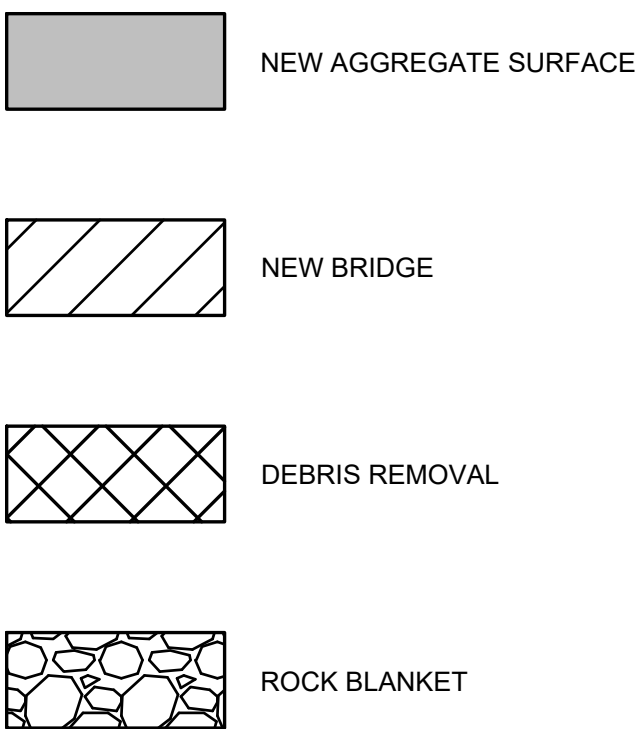
SHEET TITLE:
LOCATION MAP

SHEET NUMBER:

G-002

2 OF 16 SHEETS
DECEMBER 30, 2025

HATCH LEGEND



LINETYPE LEGEND

EXISTING / PROPOSED		
8"SS	8"SS	SANITARY SEWER MAIN
SS	SS	SANITARY SEWER SERVICE
FM	FM	SANITARY SEWER FORCE MAIN
8"ST	8"st	STORM SEWER MAIN OR CULVERT
		SECONDARY STORM SEWER MAIN
		SECONDARY STORM SEWER SERVICE
8"W	8"W	WATER MAIN
W	W	WATER SERVICE
UE	UE	UNDERGROUND ELECTRIC
OHE	OHE	OVERHEAD ELECTRIC
T	T	UNDERGROUND TELEPHONE
FO	FO	UNDERGROUND FIBER OPTIC
TV	TV	UNDERGROUND CABLE TV
G	G	GAS MAIN OR SERVICE
		CONTOUR LINES INTERMEDIATE
		CONTOUR LINES INDEX
		PROPERTY LINE / LOT LINE
		SECTION LINE
		EASEMENT
		GUARD RAIL
X	X	FIELD FENCE
o	o	CHAIN LINK FENCE
□	□	WOODEN FENCE
		ROAD CENTERLINE
		CONSTRUCTION LIMITS
		WATERWAY FLOWLINE
		TOP OF SLOPE
		BOTTOM OF SLOPE
x	x	SILT FENCE
		FEATURE REMOVAL
		UTILITY TO BE ABANDONED

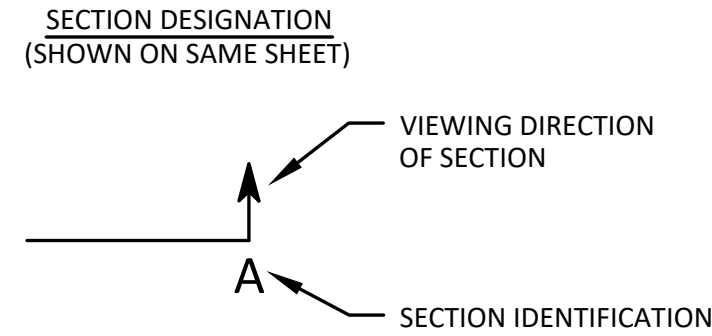
SYMBOL LEGEND

EXISTING / PROPOSED		
⊙	⊙	SANITARY SEWER MANHOLE
⊙	⊙	SANITARY SEWER CLEANOUT
⊙	⊙	AIR RELEASE MANHOLE/DRAIN MANHOLE
⊙	⊙	STORM SEWER MANHOLE
⊙	⊙	STORM SEWER CLEANOUT
⊙	⊙	STORM SEWER INTAKE
⊙	⊙	STORM SEWER BEEHIVE INTAKE
⊙	⊙	FLARED END SECTION
⊙	⊙	FIRE HYDRANT
⊙	⊙	WATER VALVE
⊙	⊙	WATER VALVE MANHOLE
⊙	⊙	WATER METER MANHOLE
⊙	⊙	YARD HYDRANT
⊙	⊙	ELECTRIC MANHOLE / VAULT
⊙	⊙	ELECTRIC PEDESTAL / TRANSFORMER
⊙	⊙	OUTDOOR ELECTRIC POWER OUTLET
⊙	⊙	POWER POLE
⊙	⊙	POWER POLE w/ STREET LIGHT
⊙	⊙	STREET LIGHT POLE
⊙	⊙	GUY WIRE
⊙	⊙	TRAFFIC SIGNAL
⊙	⊙	TRAFFIC SIGNAL BOX
⊙	⊙	TRAFFIC SIGNAL MANHOLE / VAULT
⊙	⊙	RAILROAD CROSSING SIGNAL
⊙	⊙	TELEPHONE MANHOLE / VAULT
⊙	⊙	TELEPHONE PEDESTAL
⊙	⊙	CABLE TV MANHOLE / VAULT
⊙	⊙	CABLE TV PEDESTAL
⊙	⊙	GAS VALVE
⊙	⊙	IRON PIN FOUND/PROPERTY PIN
⊙	⊙	BOLLARD (BUMPER POST)
⊙	⊙	MISCELLANEOUS SIGN
⊙	⊙	MAILBOX
⊙	⊙	WELL
⊙	⊙	DECIDUOUS TREE
⊙	⊙	EVERGREEN TREE
⊙	⊙	SHRUB OR BUSH
⊙	⊙	TREE OR SHRUB LINE
⊙	⊙	STUMP
⊙	⊙	SANITARY SERVICE
⊙	⊙	SOIL BORINGS
⊙	⊙	FLAG POLE
⊙	⊙	SLOPE INDICATORS
⊙	⊙	CONTROL POINT
⊙	⊙	BENCH MARK
⊙	⊙	IRON PIN SET
⊙	⊙	PROPERTY PIN

CIVIL ABBREVIATIONS

A.C.C.	ASPHALT CEMENT CONCRETE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
ASSY.	ASSEMBLY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BM	BENCH MARK
BOT	BOTTOM OF SLOPE
C	CUT
CP	CONTROL POINT
CL	CENTERLINE
DIP	DUCTILE IRON PIPE
EP	EDGE OF PAVEMENT
F	FILL
FES	FLARED END SECTION
FL	FLOWLINE
HMA	HOT MIX ASPHALT
MAX.	MAXIMUM
MIN.	MINIMUM
S	OFFSET
P.C.C.	PORTLAND CEMENT CONCRETE
PSI	PRESSURE PER SQUARE INCH
R.O.W.	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
R/R	RAILROAD
SQ.FT.	SQUARE FEET
SY	SQUARE YARD
TC	TOP OF CURB
T/S	TOP OF SLAB
TOS	TOP OF SLOPE
TYP.	TYPICAL
UPRR	UNION PACIFIC RAILROAD

CIVIL LEGENDS



DESIGN SPECIFICATIONS:

AASHTO LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION.
AASHTO LRFD SPECIFICATIONS 9TH EDITION AND APPLICABLE INTERIMS.
STATE OFFICE OF ADMINISTRATION DESIGN GUIDELINES.

DESIGN LOADING:

DEAD LOAD
UNIFORM LIVE LOAD OF 90 PSF
H20 DESIGN VEHICLE
LATERAL WIND LOAD OF 25 PSF ON PROJECTED AREA
20 PSF UPWARD WIND

DESIGN UNIT STRESSES:

CLASS B-2 CONCRETE $f'_c = 4,000$ PSI
REINFORCING STEEL (NON-EPOXY) (GRADE 60) $F_y = 60,000$ PSI
STEEL PILING = A709 GRADE 50, $F_b = 12,500$ PSI
STRUCTURAL STEEL = A709 GRADE 50W

NEOPRENE BEARINGS:

BEARINGS SHALL BE 60 DUROMETER PLAIN NEOPRENE PADS.

NEOPRENE PAD SHALL BE BONDED TO BEARING SEAT WITH AN EPOXY ADHESIVE AS APPROVED BY BEARING MANUFACTURER FOR BONDING NEOPRENE TO CONCRETE.

REINFORCING STEEL:

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 2", UNLESS OTHERWISE SHOWN.

PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED IN CONCRETE ITEMS.

STRUCTURAL STEEL:

CONTRACTOR SHALL UTILIZE A FABRICATOR THAT MEETS THE APPROPRIATE INSTITUTE OF STEEL CONSTRUCTION (AISC) CERTIFICATION.

STRUCTURAL STEEL: A709 GRADE 50W.

ALL WELDING OPERATIONS RELATED TO STRUCTURAL STEEL, INCLUDING MATERIAL AND PERSONNEL, SHALL MEET THE AMERICAN WELDING SOCIETY (AWS) SPECIFICATIONS FOR E70XX.

ALL BOLTS TO BE TYPE 3 A325.

GEOTECHNICAL INVESTIGATION:

REFER TO GEOTECHNICAL REPORT IN APPENDIX A OF THE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION. PROVIDE PILE DRIVING POINTS AT LOCATIONS SHOWN.

ALL PILES SHALL DRIVEN TO PRACTICAL REFUSAL. SEE SOIL INVESTIGATION REPORT IN PROJECT SPECIFICATIONS. (SEE APPX A)

ROCK BLANKET:

ROCK BLANKET SHALL BE PROVIDED AND PLACED AT EACH END BENT TO LIMITS SHOWN ON PLANS AND SHALL MATCH EXISTING GROUNDLINE AS CLOSE AS POSSIBLE. EXCAVATION REQUIRED TO PLACE ROCK BLANKET SHALL BE CONSIDERED INCIDENTAL.

MATERIAL FOR ROCK BLANKET SHALL BE DURABLE STONE CONTAINING A COMBINED TOTAL OF NO MORE THAN 10 PERCENT OF SOIL, SAND, SHALE OR NON-DURABLE ROCK.

MATERIAL SHALL CONTAIN A LARGE PERCENTAGE OF PIECES AS LARGE AS THE THICKNESS OF BLANKET WILL PERMIT, WITH ENOUGH SMALLER PIECES OF VARIOUS SIZES TO FILL THE LARGER VOIDS. FOR TYPE 2 ROCK BLANKET AT LEAST 60 PERCENT OF THE MASS SHALL BE PIECES HAVING A VOLUME OF 1 CUBIC FOOT OR MORE. ACCEPTANCE OF QUALITY AND SIZE OF MATERIAL WILL BE MADE BY VISUAL INSPECTION AT THE JOB SITE BY THE ENGINEER.

A TRENCH AT TOE OF ROCK SLOPE SHALL BE EXCAVATED TO A DEPTH OF 4 FEET. ROCK SHALL BE PLACED ON SLOPE TO SPECIFIED THICKNESS AND MANIPULATED SUCH THAT MOST FLAT SIDES ARE IN CONTACT WITH SUB-GRADE, THEREBY ELIMINATING LARGE VOIDS. FINISHED SURFACE OF BLANKET SHALL BE SET TO AN APPEARANCE FREE FROM SEGREGATION AND WITH A PROPORTIONATE QUANTITY OF LARGER PIECES SHOWING.

GEOTEXTILE/FILTER FABRIC:

GEOTEXTILE FOR FILTER FABRIC SHALL BE IN ACCORDANCE WITH PHYSICAL AND CHEMICAL REQUIREMENTS OF AASHTO M 288.

PERMANENT EROSION CONTROL GEOTEXTILE SHALL BE USED UNDER THE ROCK BLANKET. THE MINIMUM PERMITTIVITY SHALL BE 1.0 SEC-1. THE MATERIAL SHALL BE EITHER AASHTO CLASS 1 OR CLASS 2.

SUBSURFACE DRAINAGE GEOTEXTILE SHALL BE USED AS IN SUBSURFACE DRAINAGE AS A FILTER TO PROTECT DRAINAGE MEDIA FROM CLOGGING WITH FINES FROM ADJACENT SOIL SUCH AS WRAPPING OF DRAIN PIPES. MINIMUM PERMATIVITY SHALL BE 1.0 SEC-1. THE MATERIAL SHALL AASHTO CLASS 2.

SEPARATION GEOTEXTILE SHALL BE USED AS A SEPARATION MATERIAL TO PREVENT MIXING OF DISSIMILAR MATERIAL AND TO CONTROL MIGRATION OF BACKFILL MATERIAL. THE MINIMUM PERMITTIVITY SHALL BE 1.0 SEC-1. THE MATERIAL SHALL AASHTO CLASS01.

AGGREGATE BASE:

AGGREGATE BASE FOR CONSTRUCTION OF NEW TRAIL SHALL BE MISSOURI DEPARTMENT OF TRANSPORTATION TYPE 5 OR APPROVED EQUAL. THE AGGREGATE SHALL CONSIST OF CRUSHED STONE OR GRAVEL. THE AGGREGATE SHALL NOT CONTAIN MORE THAN 15 PERCENT DELETERIOUS ROCK AND SHALE. IF CRUSHED STONE IS USED, SAND MAY BE ADDED ONLY FOR THE PURPOSED OF REDUCING THE PLASTICITY INDEX OF THE FRACTION PASSING THE NO. 40 SIEVE IN THE FINISHED PRODUCT. THE FRACTION PASSING THE NO. 40 SIEVE SHALL HAVE A PLASTICITY INDEX NOT TO EXCEED SIX. AND SAND, SILT AND CLAY, AND DELETERIOUS ROCK AND SHALE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL. WHEN SAND AND GRAVEL AGGREGATE ARE USED, THE FRACTION PASSING THE NO. 200 SIEVE SHALL BE LESS THAN ONE HALF OF THAT FRACTION PASSING THE NO. 30 SIEVE. AGGREGATE BASE SHALL BE IN ACCORDANCE WITH THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE	PERCENT BY WEIGHT
1-INCH	100
1/2-INCH	60-90
NO. 4	35-60
NO. 30	10-35
NO. 200	0-15

FOUNDATION DATA		AUXVASSE CREEK BRIDGE			
LOAD BEARING PILES	LOCATION	END BENT 1	INTERMEDIATE BENT 1	INTERMEDIATE BENT 2	END BENT 2
	PILE TYPE AND SIZE	HP12x53	EXISTING MASONRY	EXISTING MASONRY	HP12x53
	NUMBER	3	-	-	3
	APPROXIMATE LENGTH (FT)	79	-	-	61
	DESIGN BEARING (TONS)	31	-	-	26
	ESTIMATED PILE TIP ELEV. (FT)	449.00	-	-	467.00
	MINIMUM PILE TIP ELEV. (FT)	449.00	-	-	467.00

GENERAL NOTES:

STATE OFFICE OF ADMINISTRATION DESIGN SPECIFICATIONS AND THE PROJECT SPECIFICATIONS SHALL GOVERN.

THE CONTRACTOR SHALL LOCATE ALL UTILITIES AROUND THE BRIDGE PROJECT LOCATION PRIOR TO EXCAVATION OR CONSTRUCTION.

REFER TO PROJECT SPECIFICATIONS FOR BRIDGE SUPPLIER AND BRIDGE STYLE ALTERNATIVES. RAILS AND PICKETS SHALL BE INCLUDED WITH THE PREFABRICATED BRIDGE (SEE SPECIFICATION SECTION 323413).

CONTRACTORS SCOPE OF WORK:

SHALL INCLUDE THE FOLLOWING TASKS AND THOSE ACTIVITIES INCIDENTAL TO THE FOLLOWING TASKS:

FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS.

SELECTION AND PURCHASE OF PREFABRICATED BRIDGE IN ACCORDANCE WITH PROJECT.

PROVIDE "H" STYLE BRIDGE CROSS SECTION.

DRIVE PILING AND CONSTRUCT BRIDGE END BENTS INCLUDING ALL REQUIRED INCIDENTAL CONCRETE WORK.

ASSEMBLY OF PREFABRICATED BRIDGE AND ITS ERECTION ON THE COMPLETED END BENTS AND EXISTING MASONRY INTERMEDIATE BENTS SHALL BE IN ACCORDANCE WITH BRIDGE MANUFACTURER'S RECOMMENDATION.

CONSTRUCTION OF CAST IN PLACE CONCRETE DECK ON BRIDGE ACCORDING TO MANUFACTURER'S RECOMMENDED DETAILS AND SPECIFICATIONS INCLUDING PROVIDING REBAR, RELATED MATERIALS AND CONCRETE CURING.

PURCHASE AND INSTALLATION OF ALL NECESSARY MATERIALS FOR INSTALLATION OF JOINT SEALS BETWEEN THE END BENT BACKWALL AND THE ENDS OF DECK AT EACH END BENT LOCATION.

PEDESTRIAN BRIDGE MANUFACTURER SHALL SPECIFY JOINT SEAL SYSTEM TO BE USED AND SHALL PROVIDE INSTALLATION INSTRUCTIONS.

FABRICATE AND INSTALL APPROACH HANDRAIL ON WINGWALLS AT END BENTS WHICH MATCHES RAILING ON BRIDGES.

CONTRACTOR SHALL SUBMIT SEALED PLANS AND CALCULATIONS BY A MISSOURI REGISTERED PROFESSIONAL ENGINEER FOR PREFABRICATED BRIDGE TO ENGINEER FOR REVIEW AND APPROVAL. PLANS SHALL CLEARLY IDENTIFY THE MANUFACTURER, STYLE, SECTION, REACTIONS, BEARING SEAT REQUIREMENTS, BEARING ASSEMBLY GEOMETRY AND JOINT SEAL DETAILS.

CONTRACTOR SHALL NOT BEGIN CONSTRUCTION OF BRIDGE END BENTS UNTIL THEY HAVE RECEIVED APPROVED SHOP DRAWINGS FOR PREFABRICATED BRIDGE.

PREFABRICATED BRIDGE MANUFACTURER IS RESPONSIBLE FOR DESIGN OF CONCRETE DECK AND DECK REINFORCING. CONTRACTOR SHALL SUPPLY DECK REINFORCING TO CONSTRUCT CONCRETE BRIDGE DECK IN ACCORDANCE WITH MANUFACTURER'S SUPPLIED DETAILS AND SPECIFICATIONS.

NON-SHRINK GROUT FOR ANCHOR BOLT INSTALLATION SHALL BE NON-METALLIC, PRE-PACKED GROUT CONFORMING TO ASTM C-1107 WITH A MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109.

CONCRETE BRIDGE DECK SHALL HAVE A BROOM FINISH.

SITE NOTES:

- THESE PLANS WERE GENERATED FROM AVAILABLE RECORDS OF EXISTING DESIGN DOCUMENTS AND FIELD SURVEYS CONDUCTED FOR THIS PROJECT. FIELD VERIFICATION OF ALL ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE PLANS SHOULD BE MADE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. McCLURE ENGINEERING COMPANY DOES NOT IMPLY OR GUARANTEE ACCURACY OF THE EXISTING INFORMATION REPRESENTED ON THE PLANS.
- NOTIFY ALL UTILITY COMPANIES KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS OF THE SCHEDULE PRIOR TO EACH STAGE OF CONSTRUCTION.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT CRITICAL LOCATIONS TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION.
- MISSOURI UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION STATUTE (RSMo CHAPTER 319) REQUIRES NOTICE TO MISSOURI ONE CALL 1-800-DIG-RITE (OR 811) NOT LESS THAN 72 HOURS OR MORE THAN 10 WORKING DAYS PRIOR TO BEGINNING EXCAVATION, EXCLUDING WEEKENDS AND HOLIDAYS. SEE WWW.MO1CALL.COM FOR ADDITIONAL DETAILS.
- THE MEANS AND METHODS OF SAFETY OF THE CONTRACTOR'S EMPLOYEES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- NO WORK SHALL BE PERFORMED BEYOND THE PROJECT LIMITS WITHOUT PRIOR AUTHORIZATION OF THE OWNER'S REPRESENTATIVE.
- PROTECT EXISTING UTILITIES DURING CONSTRUCTION.
- MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
- SITE CLEAN-UP SHALL BE PERFORMED ON A DAILY BASIS. SIDEWALKS, PARKING LOTS, ROADWAYS, ETC. SHALL BE KEPT CLEAN AT ALL TIMES.
- ALL OPEN EXCAVATIONS SHALL BE PROTECTED. ORANGE CONSTRUCTION FENCE AS A MINIMUM.
- REPLACE ANY PROPERTY MONUMENTS REMOVED, DISTURBED OR DESTROYED DURING CONSTRUCTION. MONUMENTS SHALL BE SET BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF MISSOURI.
- CONTROL DUST SPREADING FROM ALL WORK AND STAGING AREAS PER SPECIFICATION 024116.
- ANY WORK REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT BUT NOT SPECIFICALLY CALLED OUT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE COMPLETION OF THIS WORK.
- REPAIR OR REPLACE EXISTING FACILITIES (CURBS, PAVEMENT, UTILITIES, ETC.) TO REMAIN, AT NO ADDITIONAL EXPENSE TO THE OWNER.
- WORK THAT DOES NOT CONFORM TO THE REQUIREMENTS OF THE CONTRACT WILL BE CONSIDERED UNACCEPTABLE. UNACCEPTABLE WORK, WHETHER THE RESULT OF POOR WORKMANSHIP, USE OF DEFECTIVE MATERIALS, DAMAGE THROUGH CARELESSNESS OR ANY OTHER CAUSE, FOUND TO EXIST PRIOR TO THE FINAL ACCEPTANCE OF THE WORK SHALL BE REMOVED AND REPLACED IN AN ACCEPTABLE MANNER, AS REQUIRED BY McCLURE ENGINEERING COMPANY AT THE CONTRACTOR'S EXPENSE. WORK DONE CONTRARY TO THE DIRECTION OF McCLURE ENGINEERING COMPANY, WORK DONE BEYOND THE PROJECT LIMITS OR ANY EXTRA WORK DONE WITHOUT AUTHORIZATION WILL NOT BE PAID FOR.

MISSOURI DEPARTMENT OF NATURAL RESOURCES

LAND DISTURBANCE NOTE:

- THIS PROJECT DISTURBS LESS THAN ONE ACRE IN TOTAL, THEREFORE IS EXEMPT FROM NEEDING A LAND DISTURBANCE PERMIT FROM THE STATE OF MISSOURI OR LOCAL REGULATORS.

- NOTE:
- MINIMUM ENERGY REQUIREMENT OF HAMMER IS BASED ON PLAN LENGTH AND DESIGN BEARING VALUE OF PILES.
 - PILES SHALL BE DRIVEN TO PRACTICAL REFUSAL PER FHWA-MODIFIED GATES DYNAMIC FORMULA.
 - NO ADDITIONAL PAYMENT WILL BE MADE FOR PILE SPLICES.
 - EXCAVATION FOR STRUCTURES SHALL INCLUDE ALL CLASSES OF EXCAVATION. NO EXTRA PAYMENT WILL BE MADE FOR ROCK EXCAVATION IF ROCK IS ENCOUNTERED, REFER TO GEOTECHNICAL REPORT IN SPECIFICATION INDEX.

STATE OF MISSOURI

MIKE KEHOE,
GOVERNOR



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DIVISION OF FACILITIES
MANAGEMENT,
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DEPARTMENT OF
NATURAL RESOURCES
DIVISION OF MISSOURI
STATE PARKS

REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-C-GNL-04
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

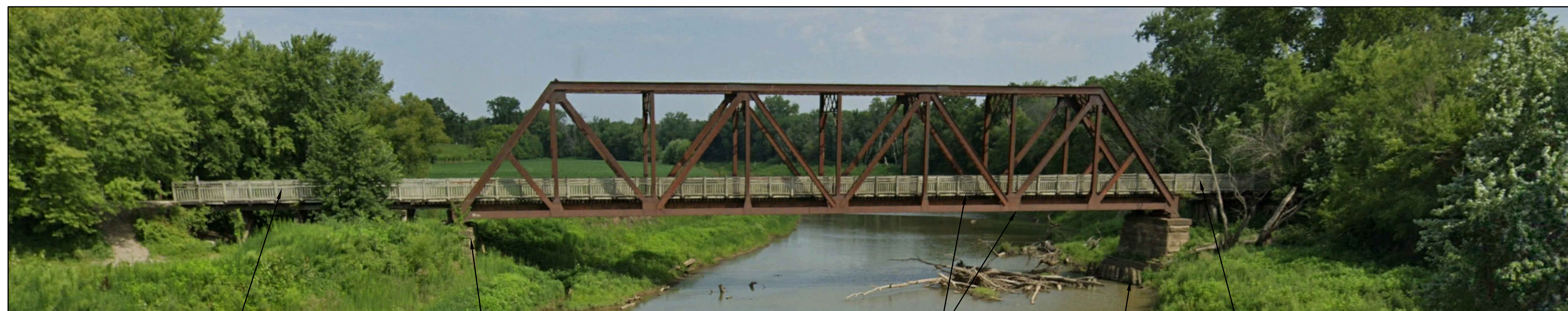
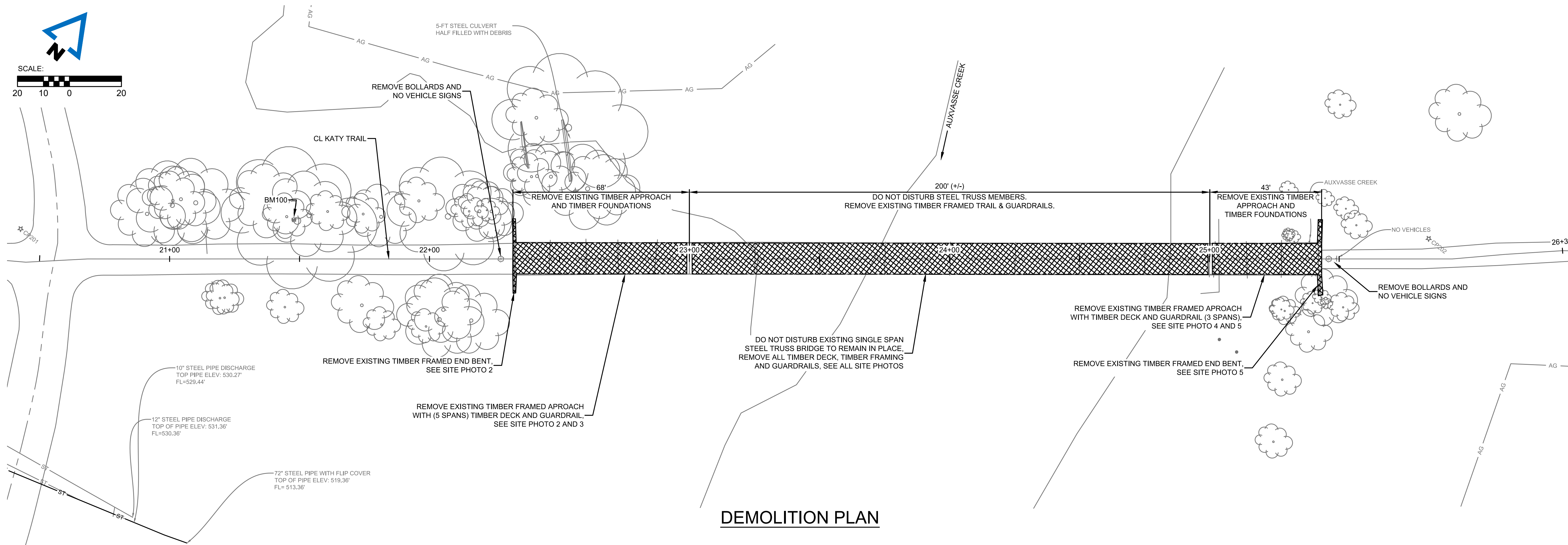
SHEET TITLE:

GENERAL NOTES &
LEGENDS

SHEET NUMBER:

G-003

3 OF 16 SHEETS
DECEMBER 30, 2025



REMOVE EXISTING APPROACH WITH
TIMBER FRAMING, PILING AND END
BENT AT END OF BRIDGE, DO NOT
DISTURB INTERMEDIATE MASONRY
BENT

DO NOT DISTURB
INTERMEDIATE MASONRY BENT

REMOVE ALL EXISTING TIMBER FRAMING, TIMBER DECK AND
TIMBER GUARDRAILS DO NOT DISTURB ANY STEEL TRUSS MEMBERS

DO NOT DISTURB
INTERMEDIATE MASONRY BENT

REMOVE EXISTING APPROACH WITH
TIMBER FRAMING, PILING AND END
BENT AT END OF BRIDGE, DO NOT
DISTURB INTERMEDIATE MASONRY
BENT

SITE PHOTO 1

NOT TO SCALE



REMOVE EXISTING APPROACH WITH
TIMBER FRAMING, PILING AND END
BENT AT END OF BRIDGE, DO NOT
DISTURB INTERMEDIATE MASONRY
BENT

SITE PHOTO 2

NOT TO SCALE



DO NOT DISTURB
INTERMEDIATE MASONRY PIER
OR STEEL TRUSS MEMBERS

SITE PHOTO 3

NOT TO SCALE



DO NOT DISTURB
INTERMEDIATE MASONRY PIE
OR STEEL TRUSS MEMBERS

SITE PHOTO 4

NOT TO SCALE



REMOVE EXISTING APPROACH WITH
TIMBER FRAMING, PILING AND END
BENT AT END OF BRIDGE, DO NOT
DISTURB INTERMEDIATE MASONRY
BENT

SITE PHOTO 5

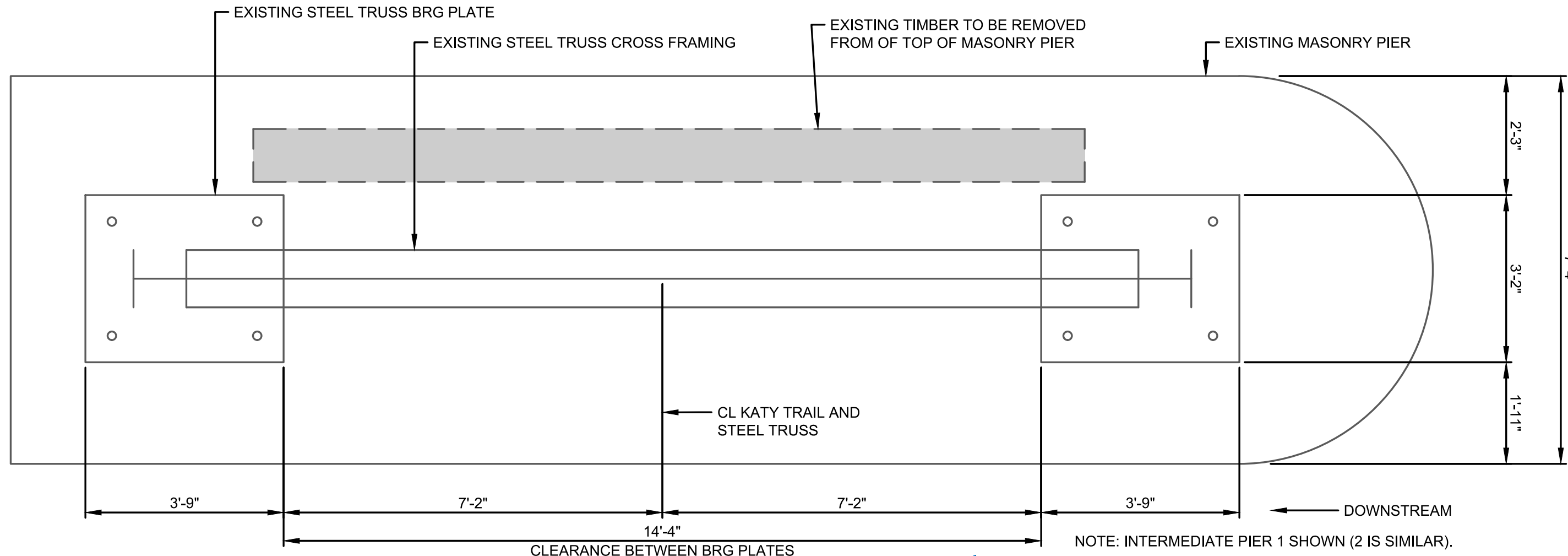
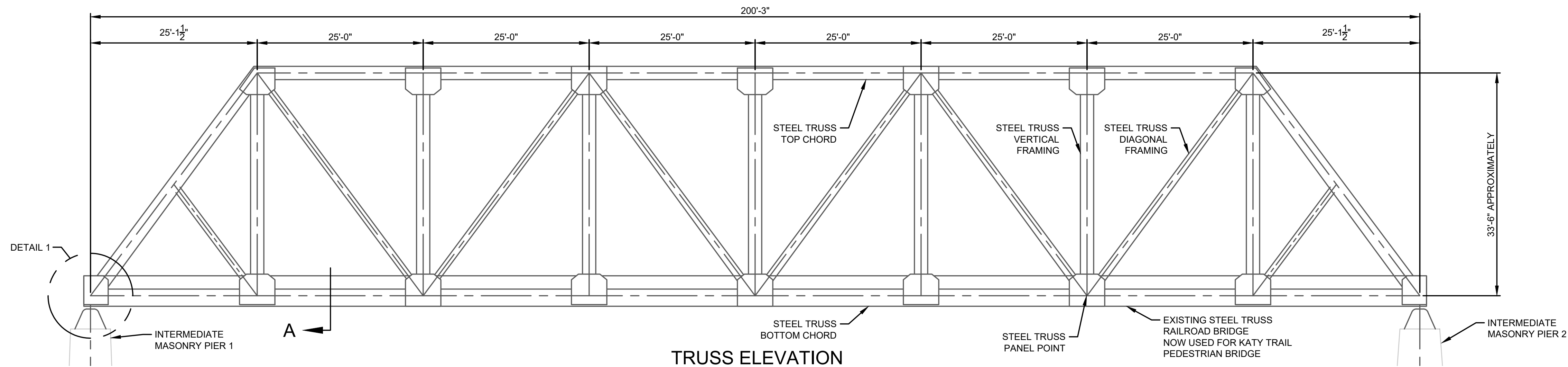
NOT TO SCALE

GENERAL NOTES:

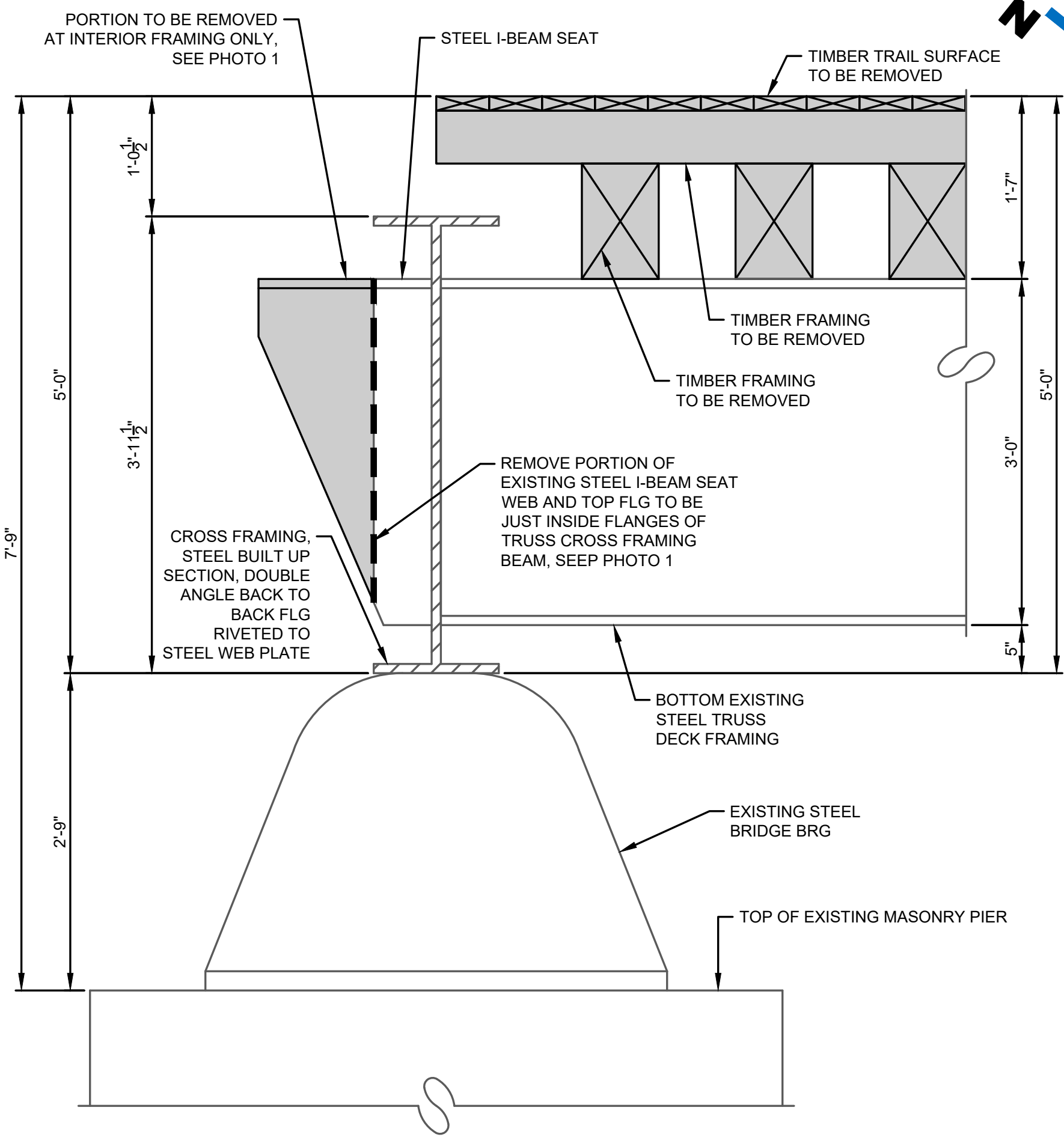
1. ALL EXISTING TIMBER BRIDGE MATERIALS AND FOUNDATIONS ARE TO BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF BY CONTRACTOR.
2. EXISTING WOOD PILE TO BE REMOVED TO A LIMIT OF 2' BELOW EXISTING GRADE.
3. ALL CONSTRUCTION ACTIVITY TO REMAIN WITHIN RIGHT OF WAY LIMIT STATIONS & OFFSETS SHOWN ON PLAN & PROFILE SHEET.
4. ALL EXCAVATED AREAS FOR DEMOLITION SHALL BE FILLED WITH SUITABLE MATERIAL AND APPROVED BY THE ENGINEER.
5. AVOID DISTURBING EXISTING OR ADJACENT SPAN STEEL TRUSS BRIDGE TO REMAIN IN PLACE.
6. DO NOT DISTURB EXISTING INTERMEDIATE MASONRY PIERS TO REMAIN IN PLACE.

TREE REMOVAL NOTES

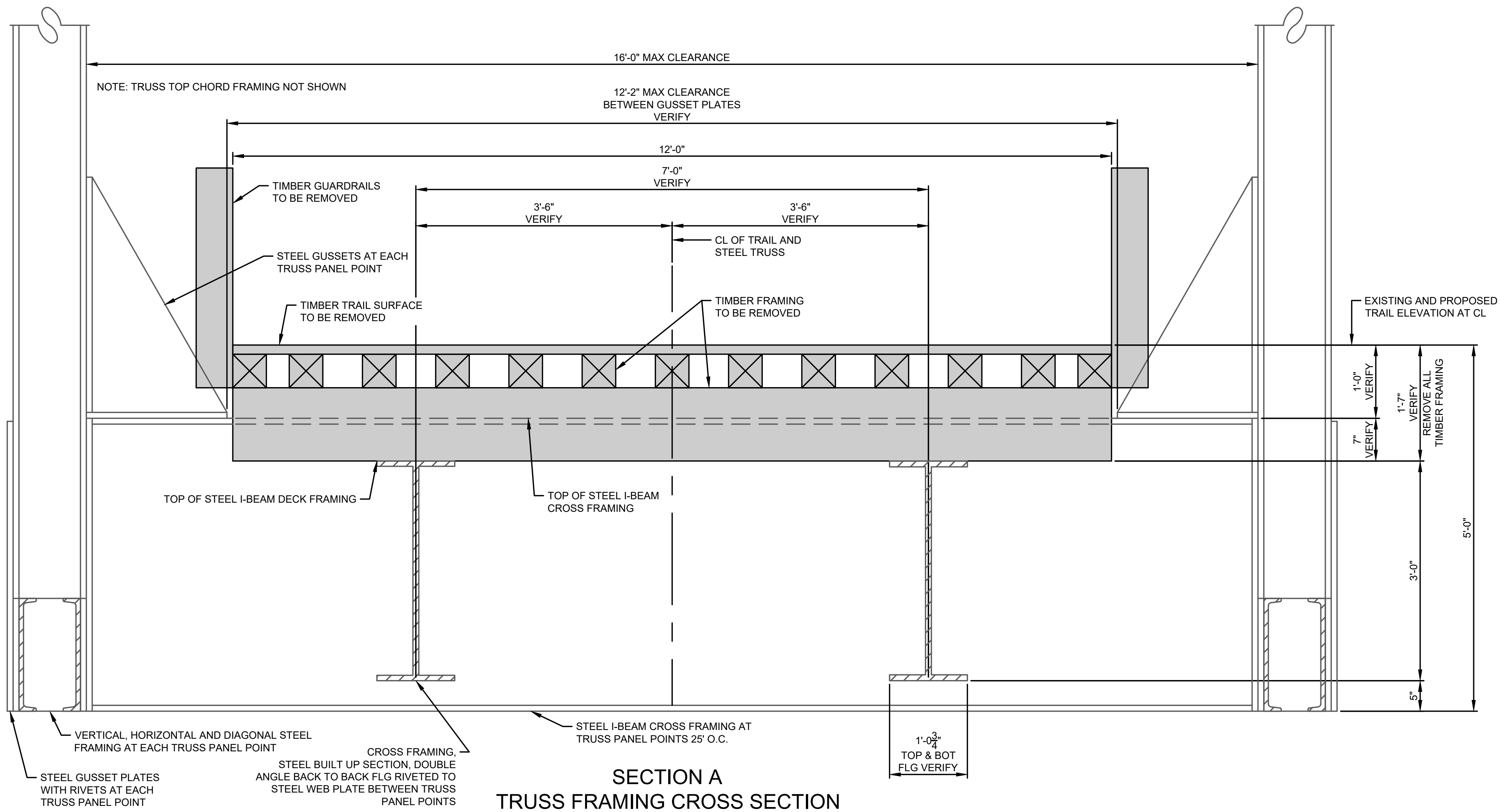
1. SOME TREES REPRESENTED IN THE PHOTOS ON THIS PAGE HAVE BEEN REMOVED BY THE OWNER.
2. TREES REMOVED WERE SELECTED TO ASSIST CONTRACTOR'S WORK. ANY ADDITIONAL TREE REMOVAL REQUIRED FOR CONTRACTOR'S MEANS AND METHODS TO BE APPROVED BY OWNER PRIOR TO REMOVAL.
3. TREES 4" IN DIAMETER AND SMALLER ARE INCIDENTAL AND DO NOT REQUIRE SPECIAL APPROVALS FOR REMOVAL.



INTERMEDIATE PIER PLAN



DETAIL 1
TRUSS BEARING SIDE VIEW



SECTION A
TRUSS FRAMING CROSS SECTION

GENERAL NOTES:

1. THIS DRAWING IS NOT TO SCALE.
2. DIMENSIONS SHOWN ARE APPROXIMATE.
3. DO NOT DAMAGE ANY EXISTING STEEL TRUSS MEMBERS.
4. REMOVE ALL EXISTING TIMBER TRAIL AND GUARDRAIL FRAMING.
5. AFTER REMOVAL OF ALL TIMBER FRAMING CONTRACTOR TO COORDINATE TIME FOR INSPECTION OF ALL EXISTING STEEL FRAMING AND INTERMEDIATE PIER CONDITIONS WITH OWNER AND ENGINEER.
6. ALL EXISTING STEEL AND MASONRY DESIGN AND DOCUMENTATION OF EXISTING CONDITIONS AND INSPECTIONS SHALL BE THE OWNERS RESPONSIBILITY.
7. DIMENSIONS SHOWN WITH "VERIFY" NOTED SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AND PRESENT ALL DISCREPANCIES TO ENGINEER AND OWNER FOR COORDINATION OF ANY REQUIRED CHANGES.

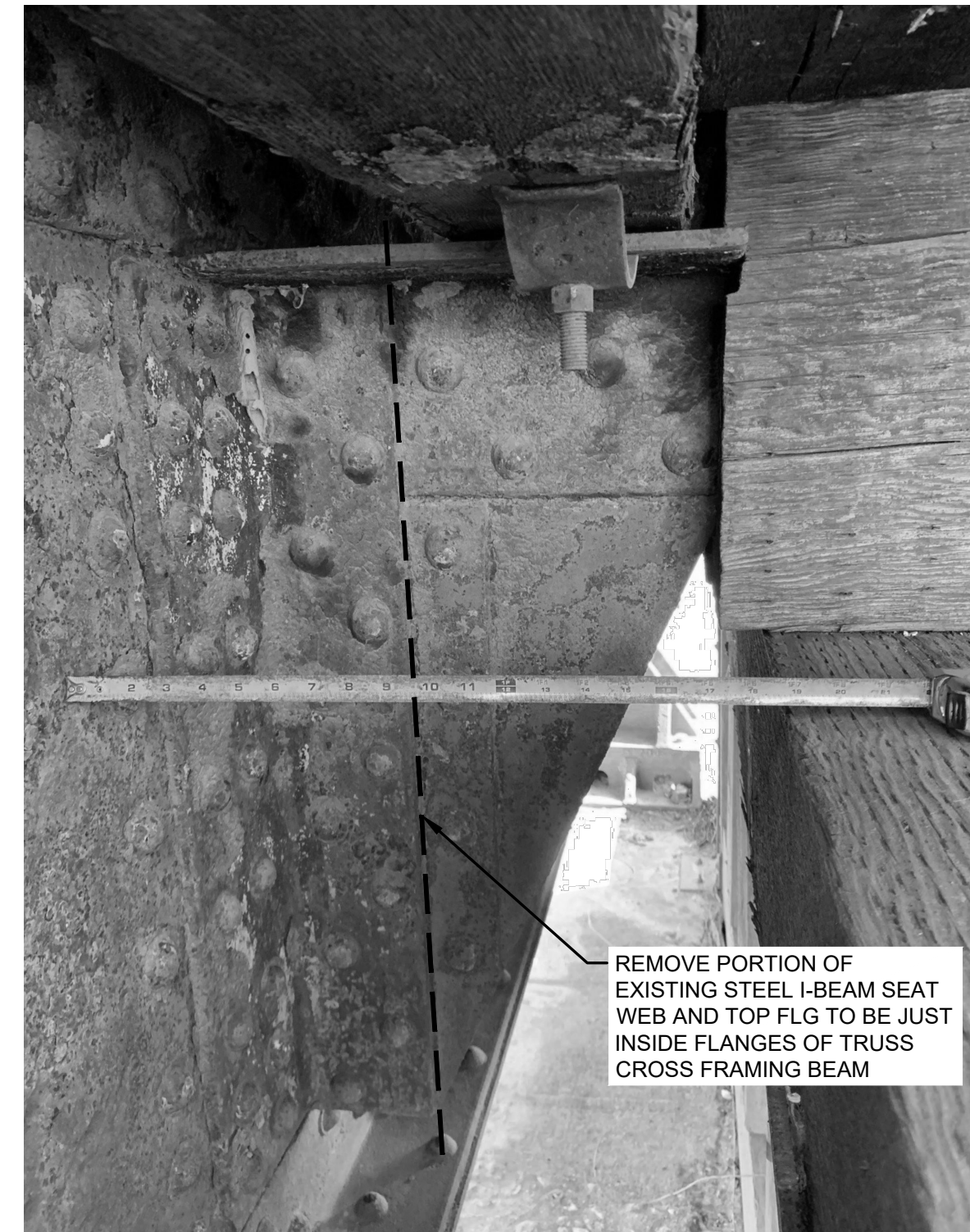
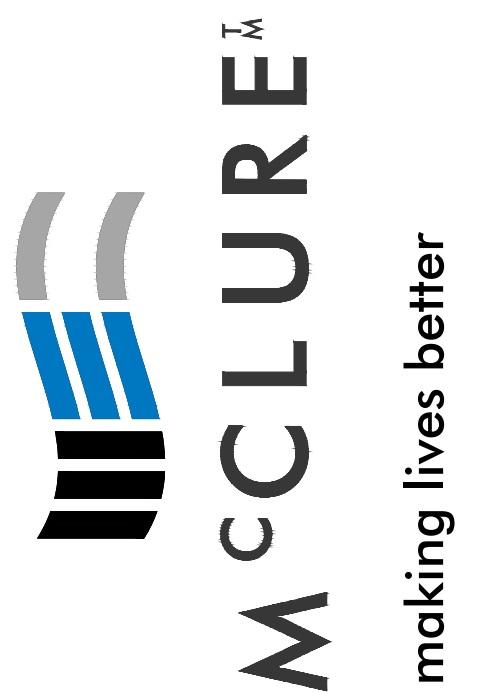


PHOTO 1

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DIVISION OF MISSOURI
STATE PARKS

REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

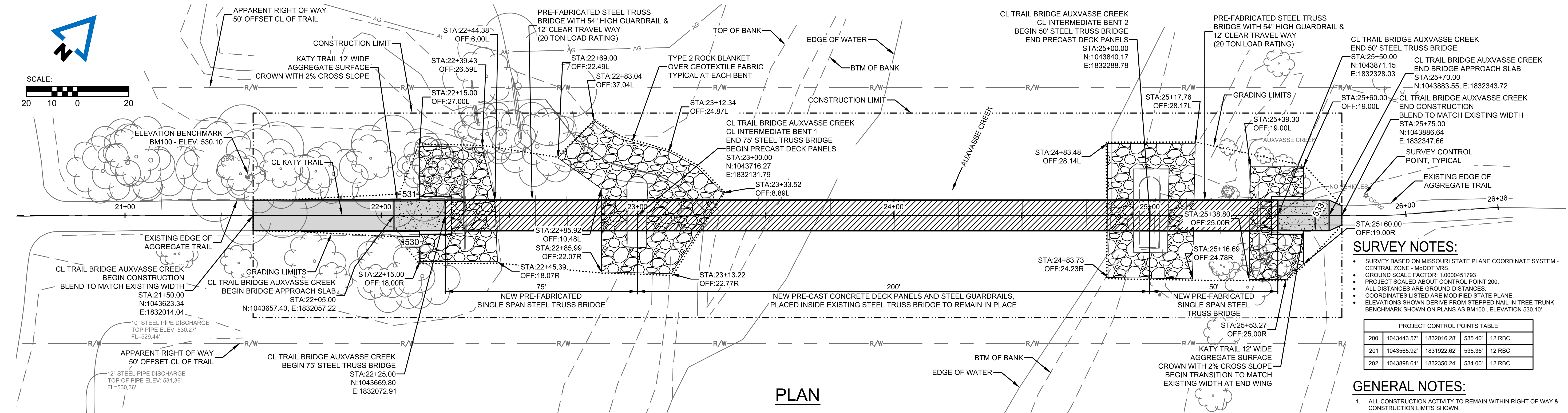
PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-C-BAS-02-X
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:
EXISTING STEEL
TRUSS DIAGRAM

SHEET NUMBER:
CD-002
5 OF 16 SHEETS
DECEMBER 30, 2025



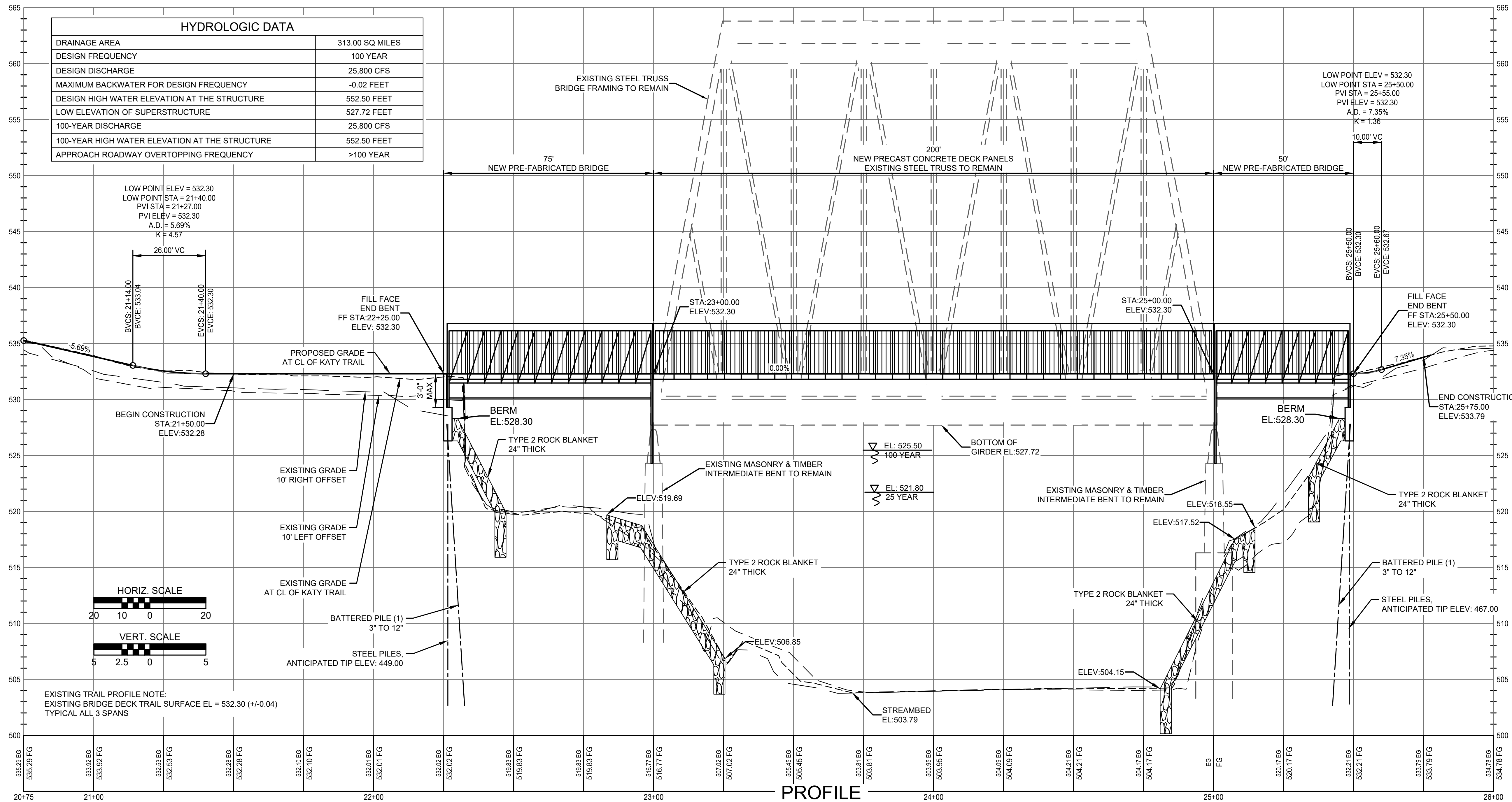
SURVEY NOTES:

- SURVEY BASED ON MISSOURI STATE PLANE COORDINATE SYSTEM - CENTRAL ZONE - MDCOT VRS
- GROUND SCALE FACTOR: 1.000451793
- PROJECT SCALED ABOUT CONTROL POINT 200
- ALL DISTANCES ARE GROUND DISTANCES
- COORDINATES LISTED ARE MODIFIED STATE PLANE
- ELEVATIONS SHOWN DERIVE FROM STEPPED NAIL IN TREE TRUNK BENCHMARK SHOWN ON PLANS AS BM100, ELEVATION 530.10'

PROJECT CONTROL POINTS TABLE					
200	1043443.57	1832016.28	535.40	12	RBC
201	1043565.92	1831922.62	535.35	12	RBC
202	1043898.61	1832350.24	534.00	12	RBC

GENERAL NOTES:

1. ALL CONSTRUCTION ACTIVITY TO REMAIN WITHIN RIGHT OF WAY & CONSTRUCTION LIMITS SHOWN.



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REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

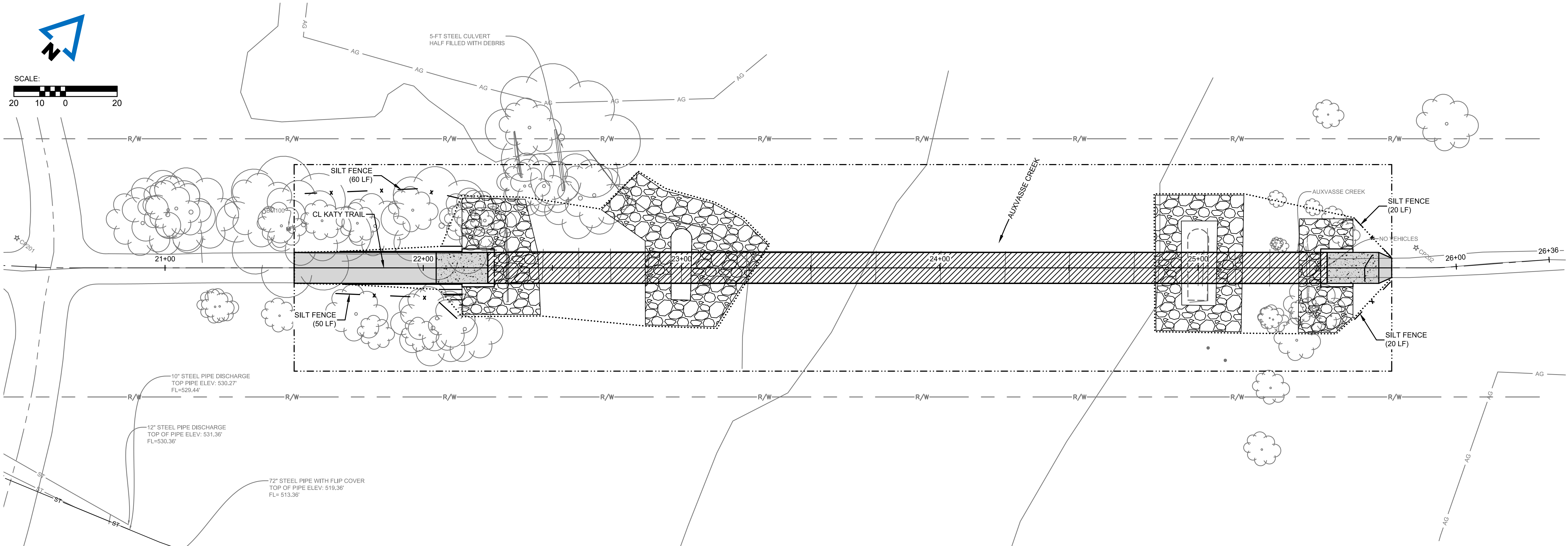
PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-C-PLN-02
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:
PLAN AND PROFILE

SHEET NUMBER:
C-101
6 OF 16 SHEETS
DECEMBER 30, 2025

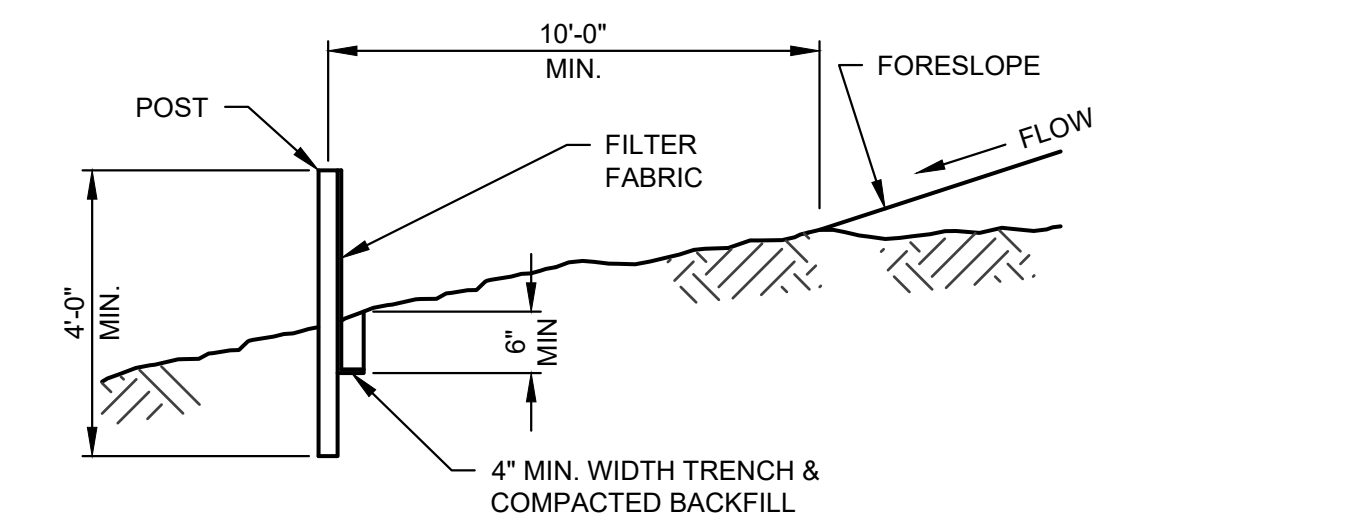


EROSION CONTROL PLAN

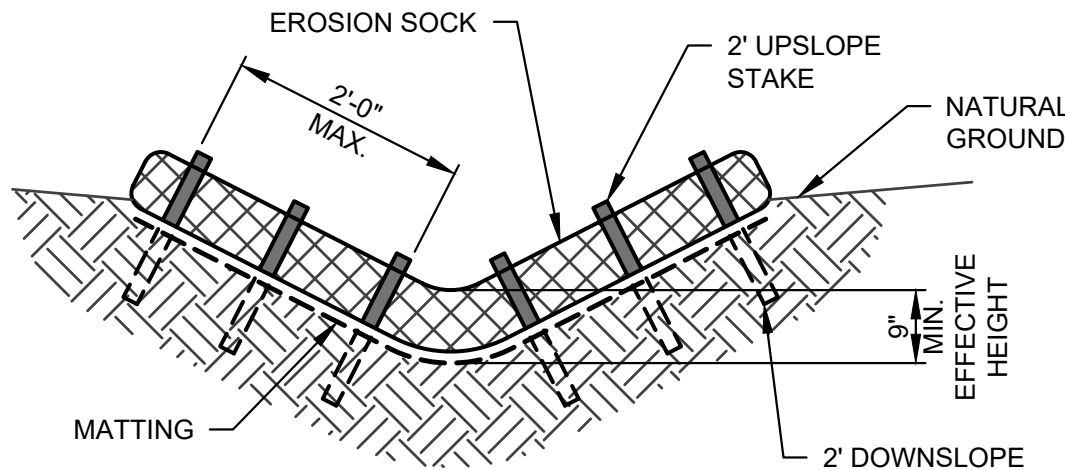
GENERAL NOTES:

- PLAN NOTE:
1. EROSION CONTROL SHOWN PROVIDES FINISH GRADE EROSION CONTROL UNTIL VEGETATION IS ESTABLISHED INSIDE GRADING LIMITS. PAYMENT FOR ADDITIONAL EROSION CONTROL REQUIRED DURING CONSTRUCTION OPERATIONS IS INCIDENTAL TO OTHER BID ITEMS.

1. ALL CONSTRUCTION ACTIVITY TO REMAIN WITHIN RIGHT OF WAY & CONSTRUCTION LIMITS SHOWN.

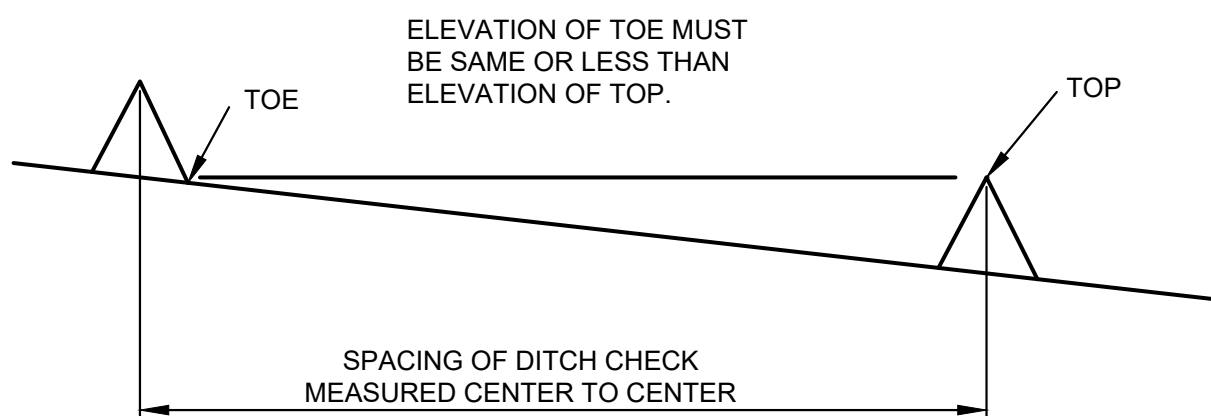


SECTION A-A



TYPICAL SECTION VEE DITCH

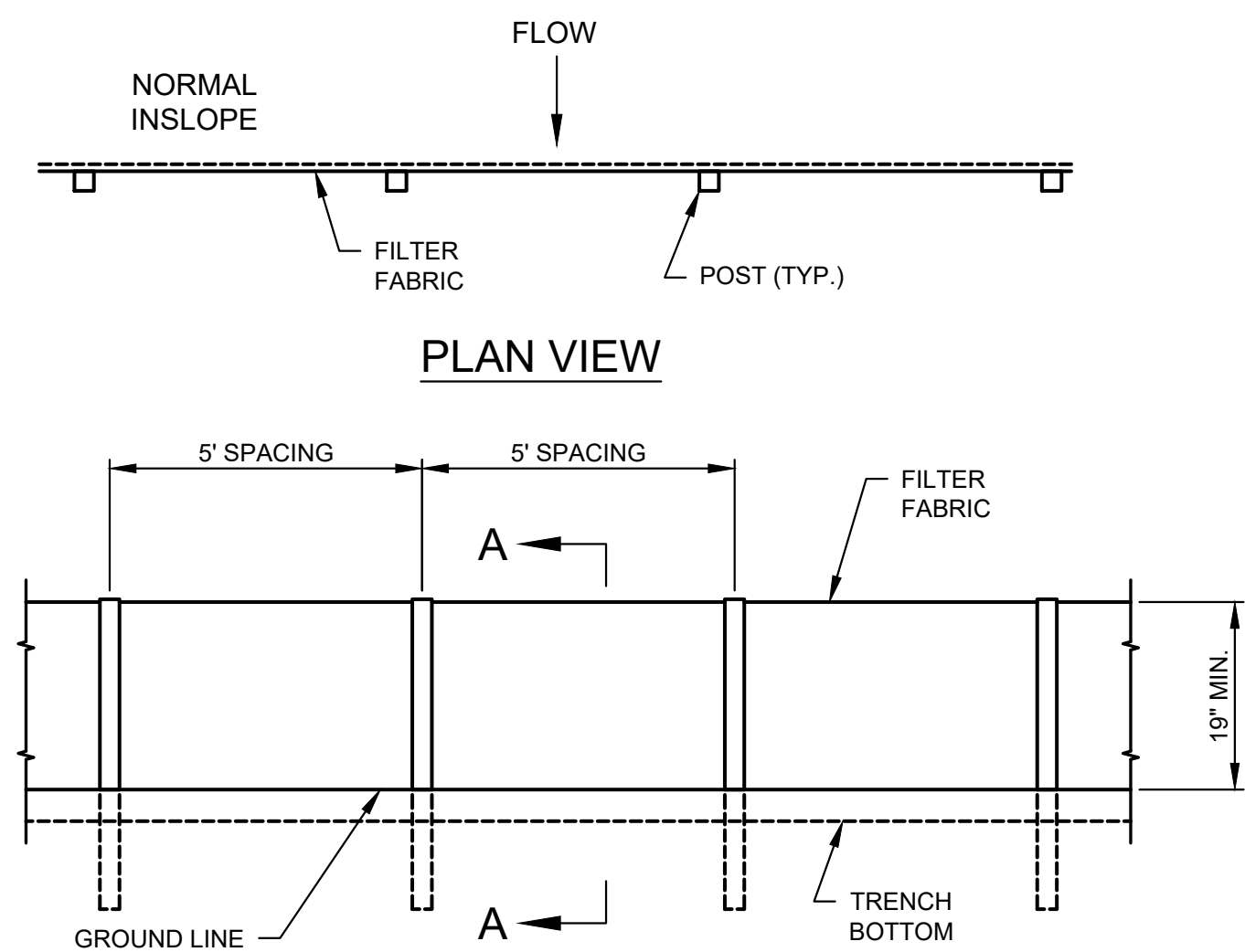
NOT TO SCALE



MINIMUM DITCH CHECK SPACING

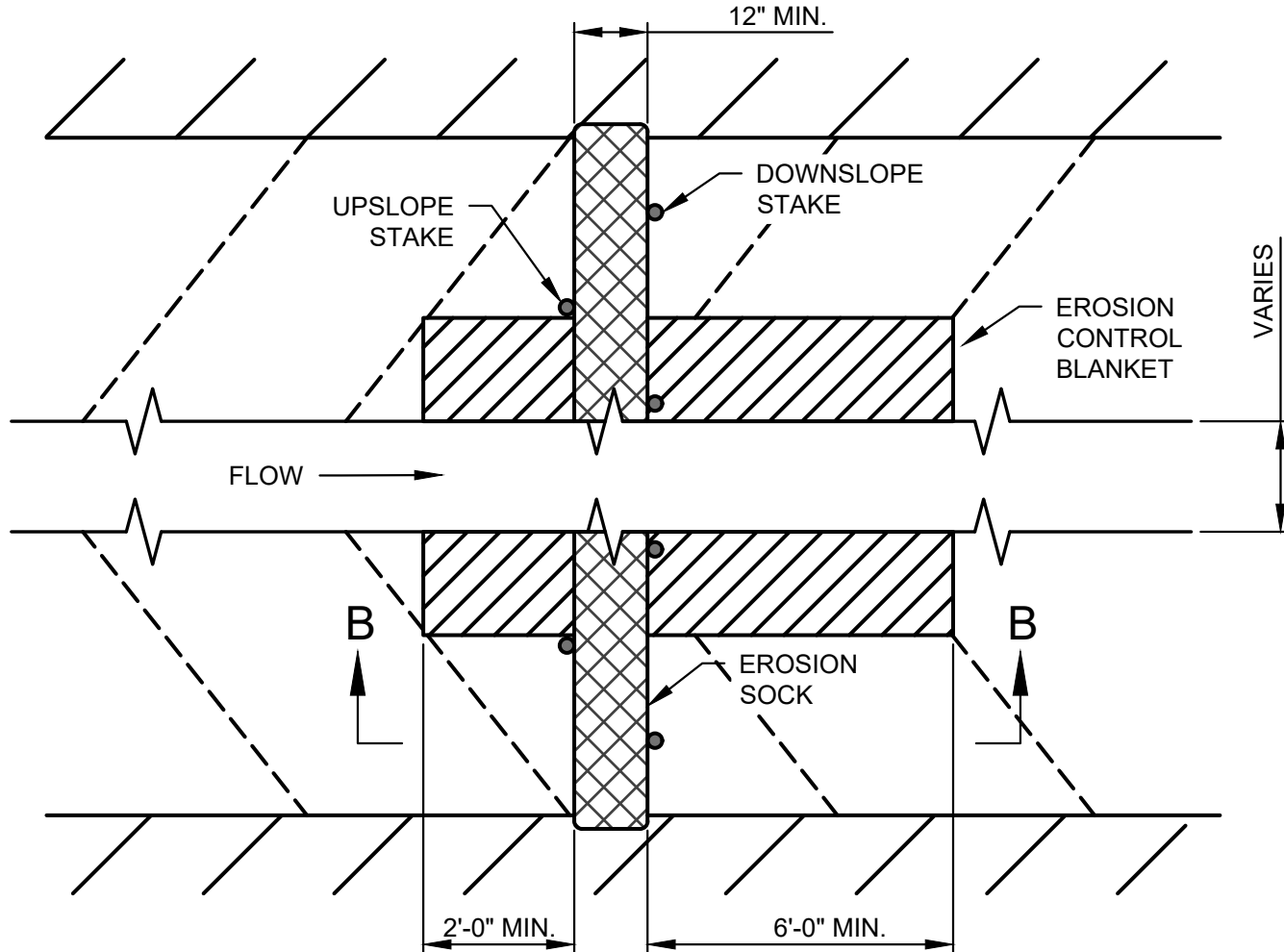
NOT TO SCALE

- GENERAL NOTES:
1. USE MINIMUM 12 IN. DIAMETER LOG/SOCK.
 2. USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 3. INSTALL LOG/SOCK TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND LOG/SOCK AND SCOUR DITCH SLOPES OR AS DIRECTED BY ENGINEER.
 4. INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE LOG/SOCK TO BOTTOM OF DITCH.
 5. EROSION CONTROL BLANKET SHALL BE ANCHORED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 6. OTHER PROPRIETARY DITCH CHECKS MAY BE SUBSTITUTED AS DIRECTED BY THE ENGINEER.
 7. INSTALLATION OF PROPRIETARY DITCH CHECKS SHALL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.



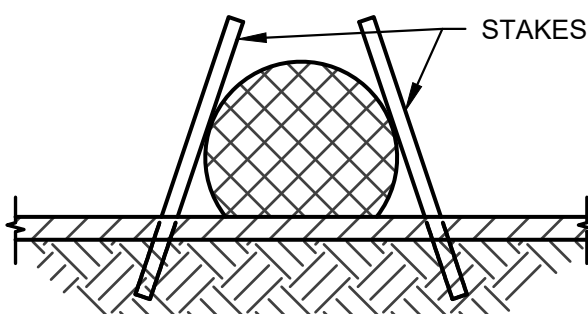
FABRIC SILT FENCE

NOT TO SCALE



DITCH CHECK
PLAN VIEW

NOT TO SCALE



SECTION B-B

NOT TO SCALE

EXAMPLE DITCH CHECK SPACING FOR STANDARD HEIGHTS (FT.)		
DITCH CL SLOPE %	SPACING FOR 9" EFFECTIVE HEIGHT	SPACING FOR 18" EFFECTIVE HEIGHT
0.5	150	300
1.0	75	150
1.5	50	100
2.0	37	75
2.5	30	60
3.0	25	50
3.5	21	43
4.0	19	38
4.5	16	33
5.0	15	30
5.5	13	27
6.0	12	25
6.5	11	23
7.0	10	21
7.5	10	20
8.0	9	19
8.5	9	18
9.0	8	17
9.5	8	16
10.0	7	15

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REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 12/30/2025

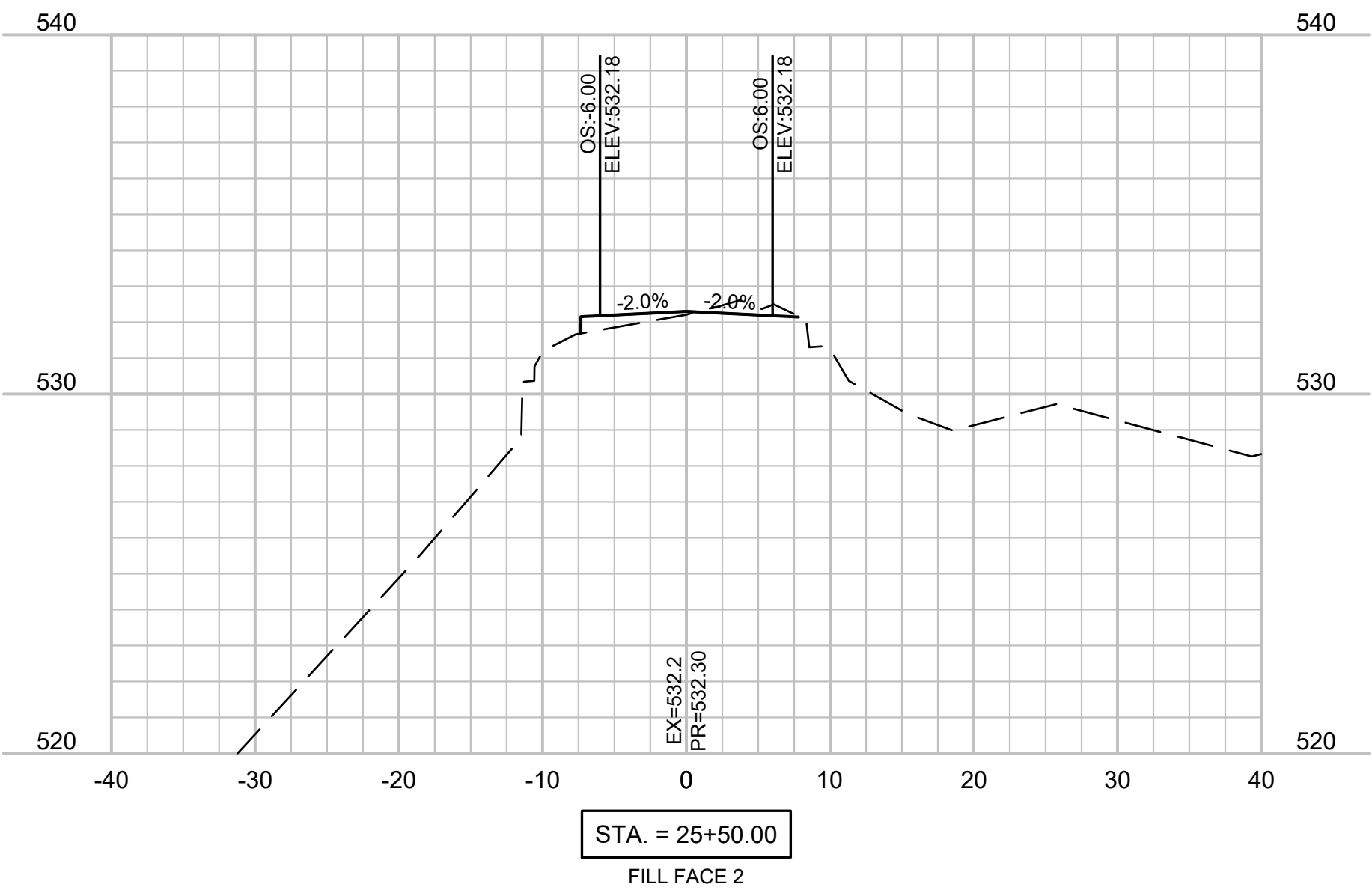
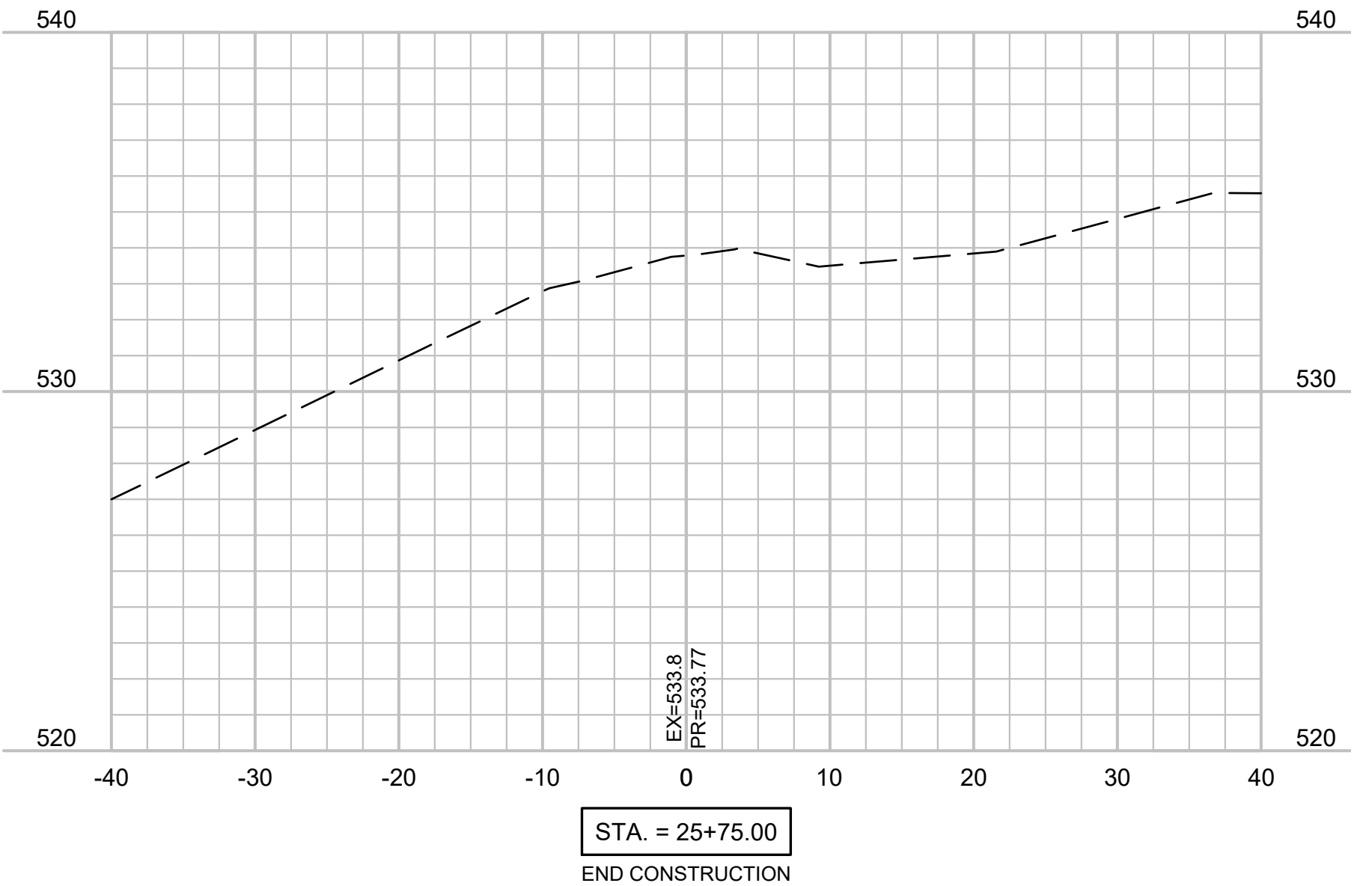
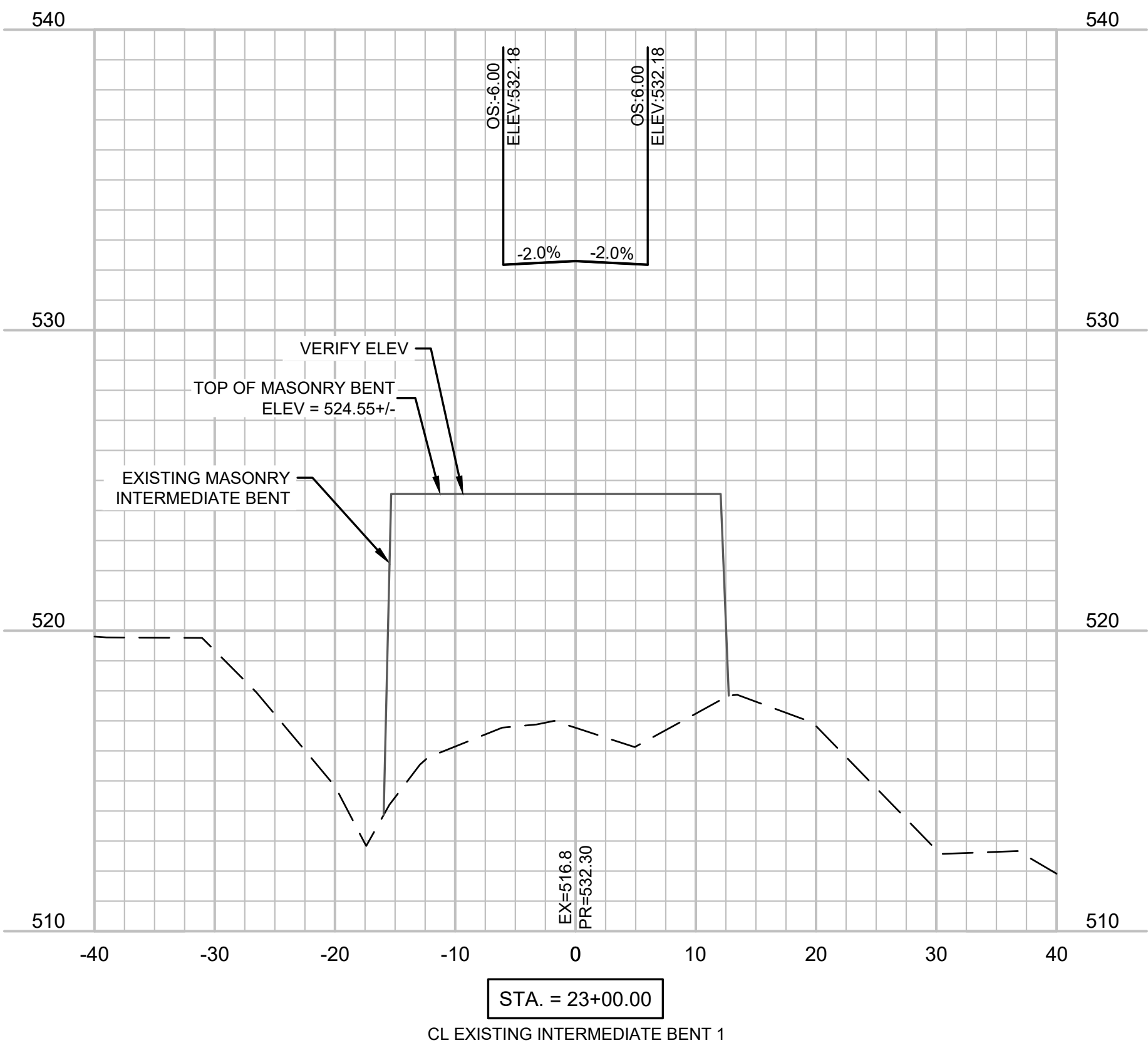
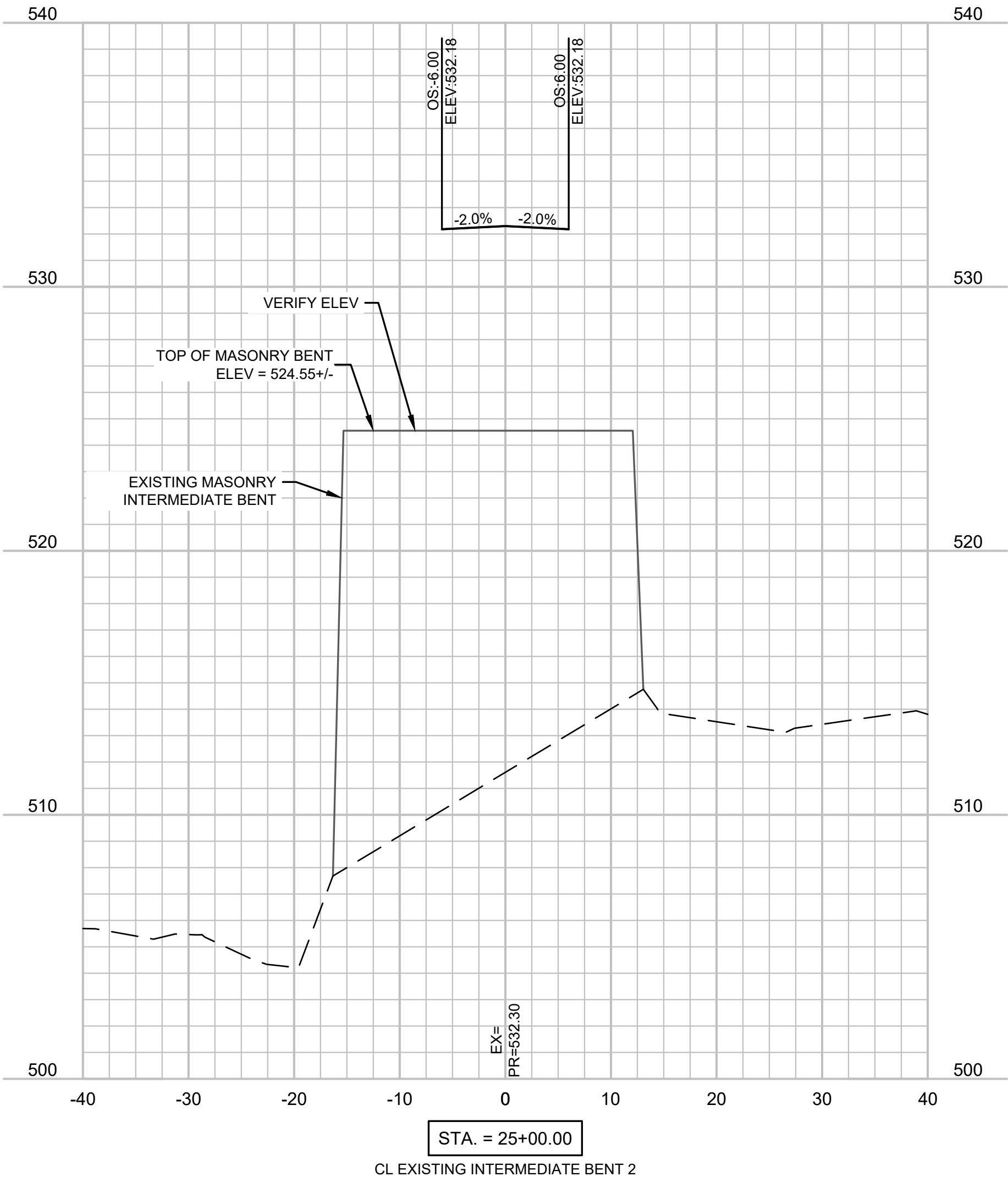
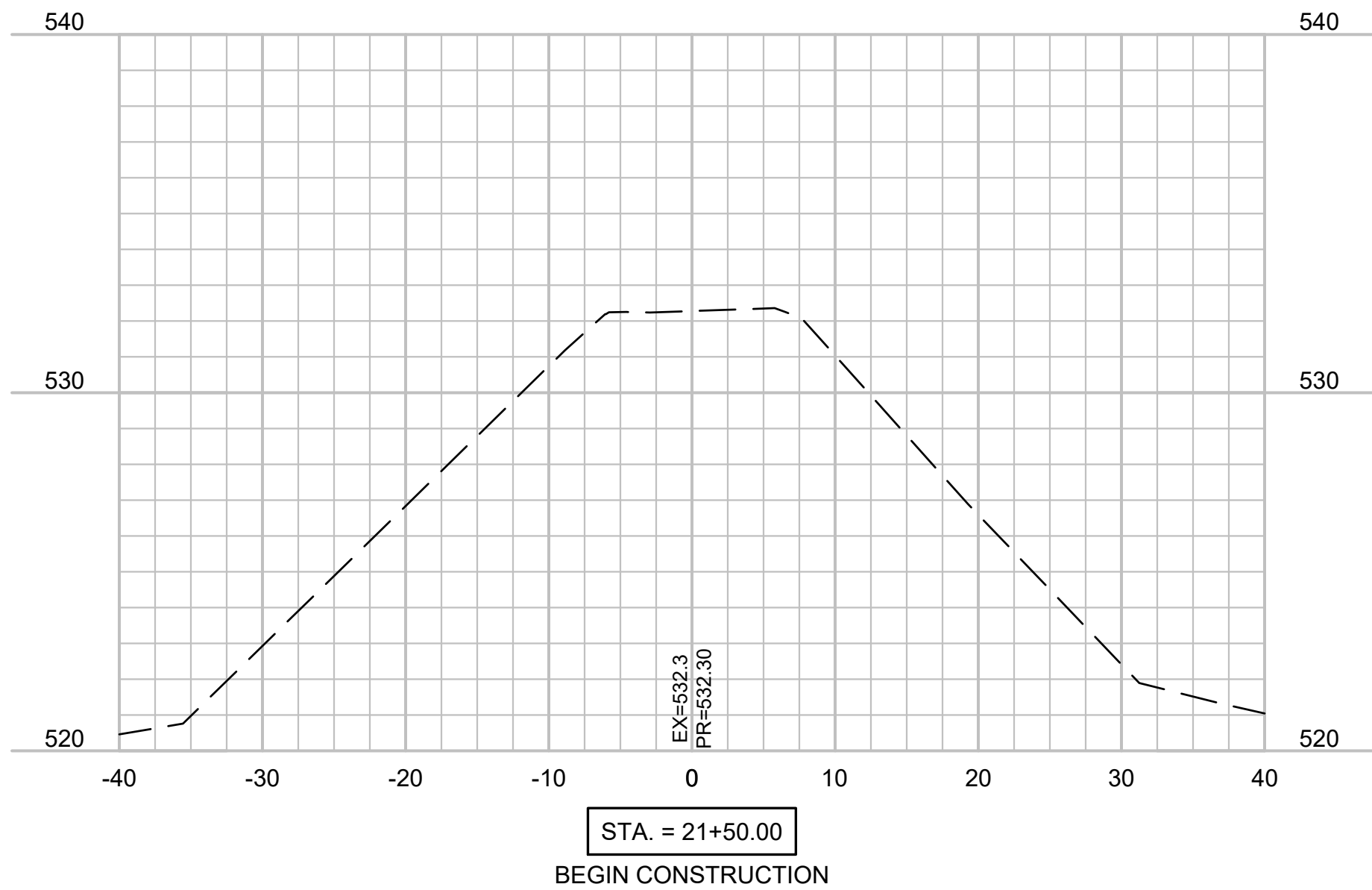
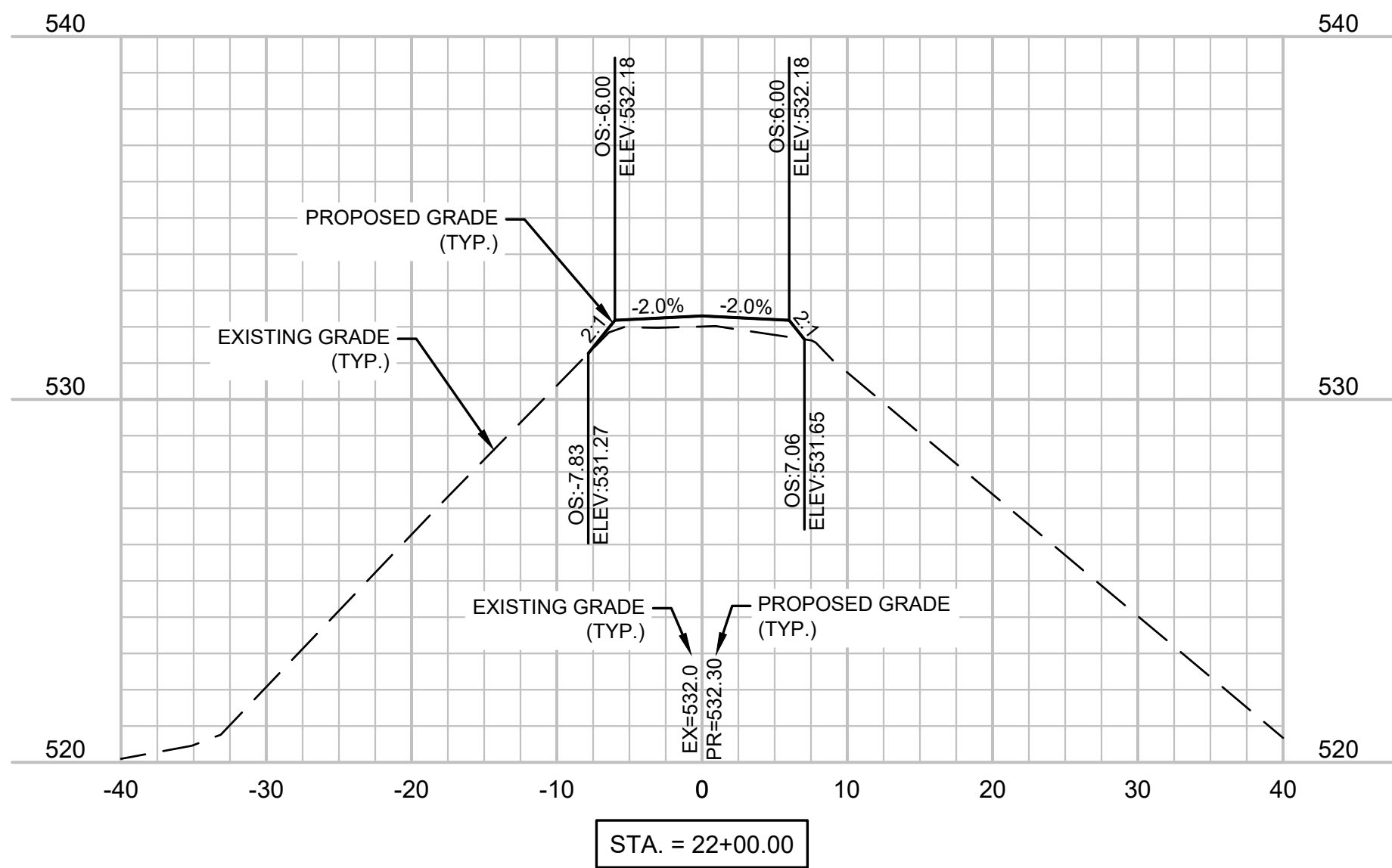
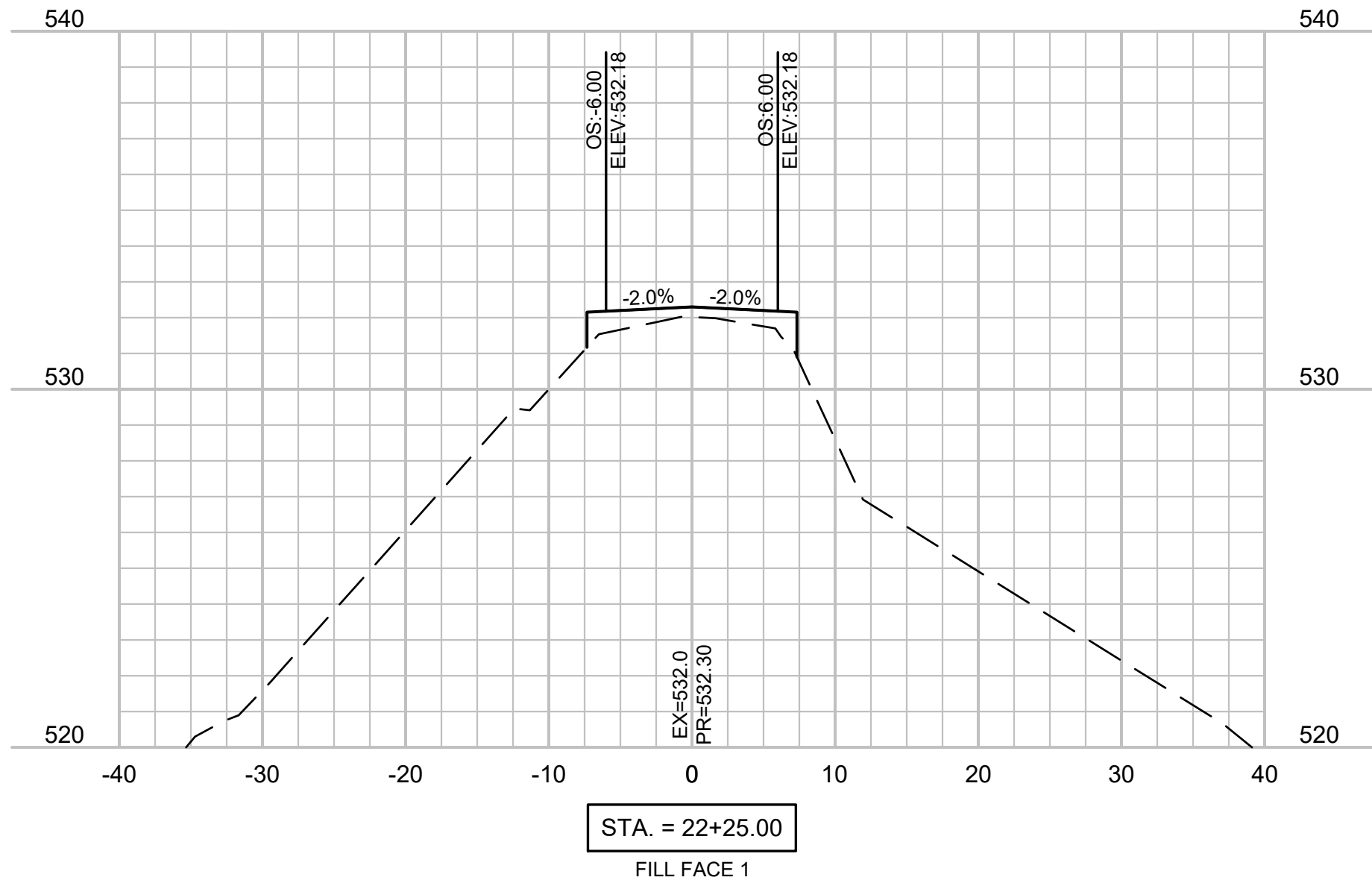
CAD DWG FILE: X2408-02-C-ERC-02
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:
EROSION CONTROL
PLAN

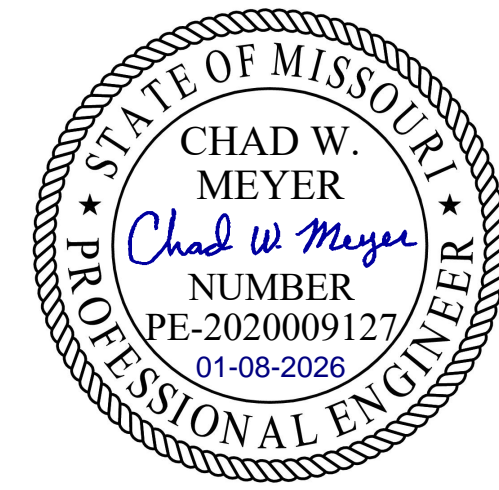
SHEET NUMBER:

C-102

7 OF 16 SHEETS
DECEMBER 30, 2025



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STATE PARKS

REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-C-FGR-02
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

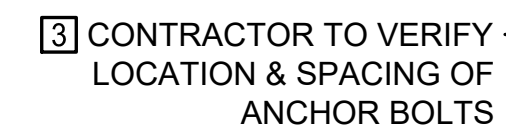
SHEET TITLE:

TRAIL CROSS
SECTIONS

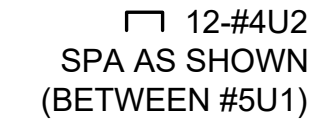
SHEET NUMBER:

C-103

8 OF 16 SHEETS
DECEMBER 30, 2025



SCALE: $\frac{1}{2}" = 1'-0"$



SCALE: $\frac{1}{2}" = 1'-0"$



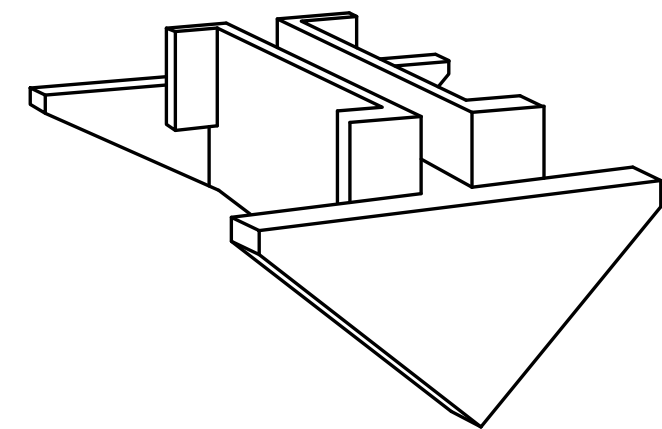
SCALE: $\frac{1}{2}" = 1'-0"$

1. SEE SHEET NO. 10 FOR ELEVATION, SECTIONS AND KEY NOTES.
2. CONTRACTOR SHALL VERIFY BEAM SEAT ELEVATION AT EACH BENT WITH REQUIREMENTS OF OF SELECTED PREFABRICATED BRIDGE SUPPLIER AND SHALL ADJUST THE BRIDGE SEAT ELEVATIONS AS REQUIRED TO ACCOMMODATE THE BRIDGE MANUFACTURER. IT MAY BE NECESSARY TO ADJUST LENGTHS OF STEEL REINFORCING STIRRUPS TO ACCOMMODATE AN ADJUSTED SEAT ELEVATION. ALL NECESSARY ADJUSTMENTS SHALL BE MADE PRIOR TO ORDERING OF REINFORCEMENT AND SHALL BE MADE AT NO ADDITIONAL COST.
3. CONTRACTOR SHALL COORDINATE LOCATION OF ANCHOR BOLTS WITH REQUIREMENTS OF SELECTED PREFABRICATED BRIDGE AND COORDINATE LOCATION OF ANCHOR BOLTS WITH REINFORCEMENT IN END BENTS AND SHIFT REINFORCEMENT AS REQUIRED TO INSTALL ANCHOR BOLTS.
4. SEE BILL OF REINFORCING SHEET NO. 11 FOR ESTIMATED STEEL REINFORCEMENT PIECE SIZES & DIMENSIONS.
5. CONTRACTOR SHALL LOCATE NEW PILING AS NECESSARY TO MISS ANY EXISTING TIMBER PILING THAT MAY REMAIN BELOW GRADE. NOTIFY ENGINEER IF PILE IS MOVED 6" OR MORE FROM LOCATION SHOWN ON THE PLANS.

- 3 FIELD DRILL AND INSTALL ANCHOR BOLTS AFTER BRIDGE IS IN FINAL POSITION. ANCHOR BOLTS SHALL BE INSTALLED ACCORDING TO BRIDGE MANUFACTURER'S SPECIFICATIONS INCLUDING LOCATION, EMBEDMENT AND PROJECTION.

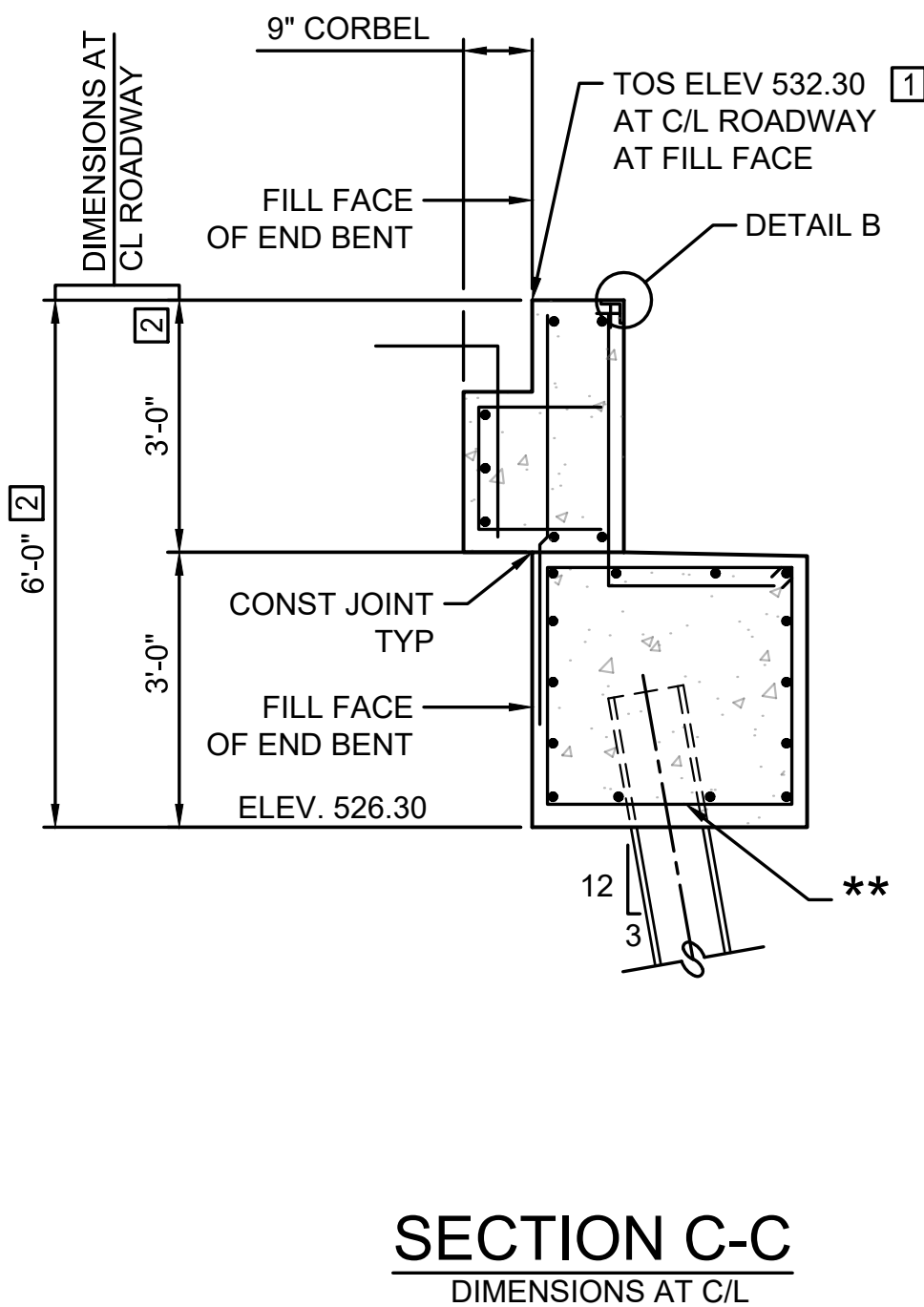
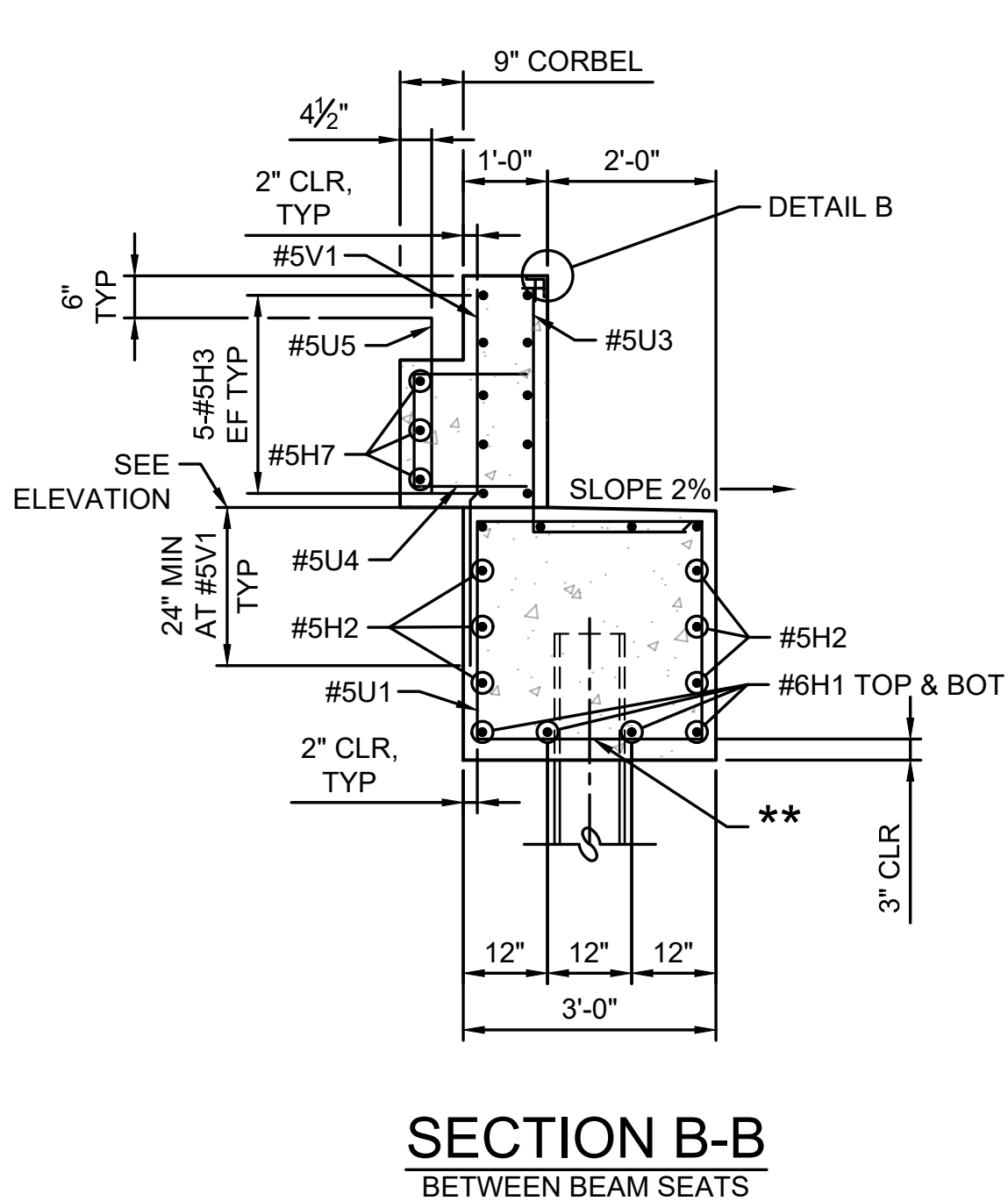
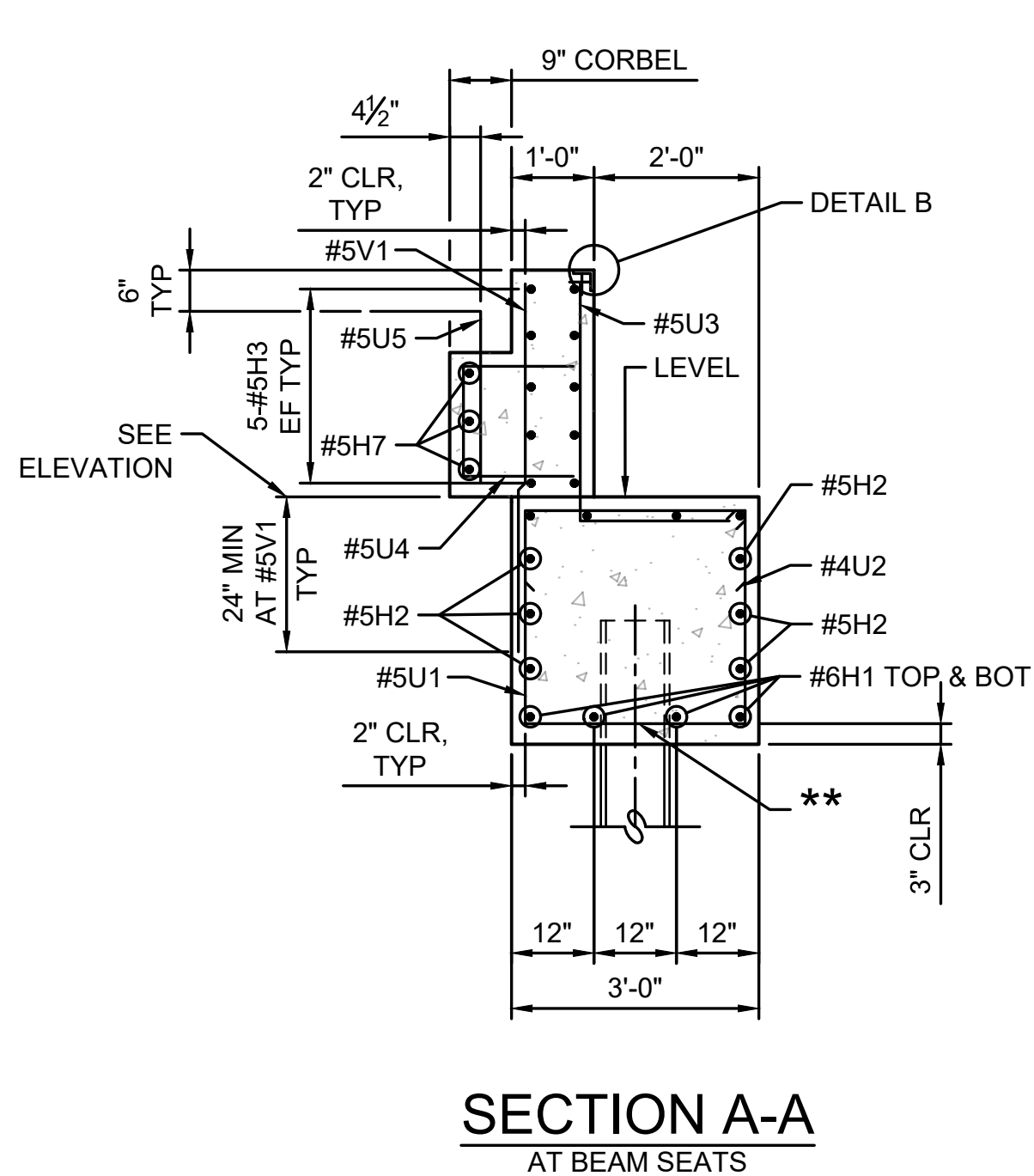
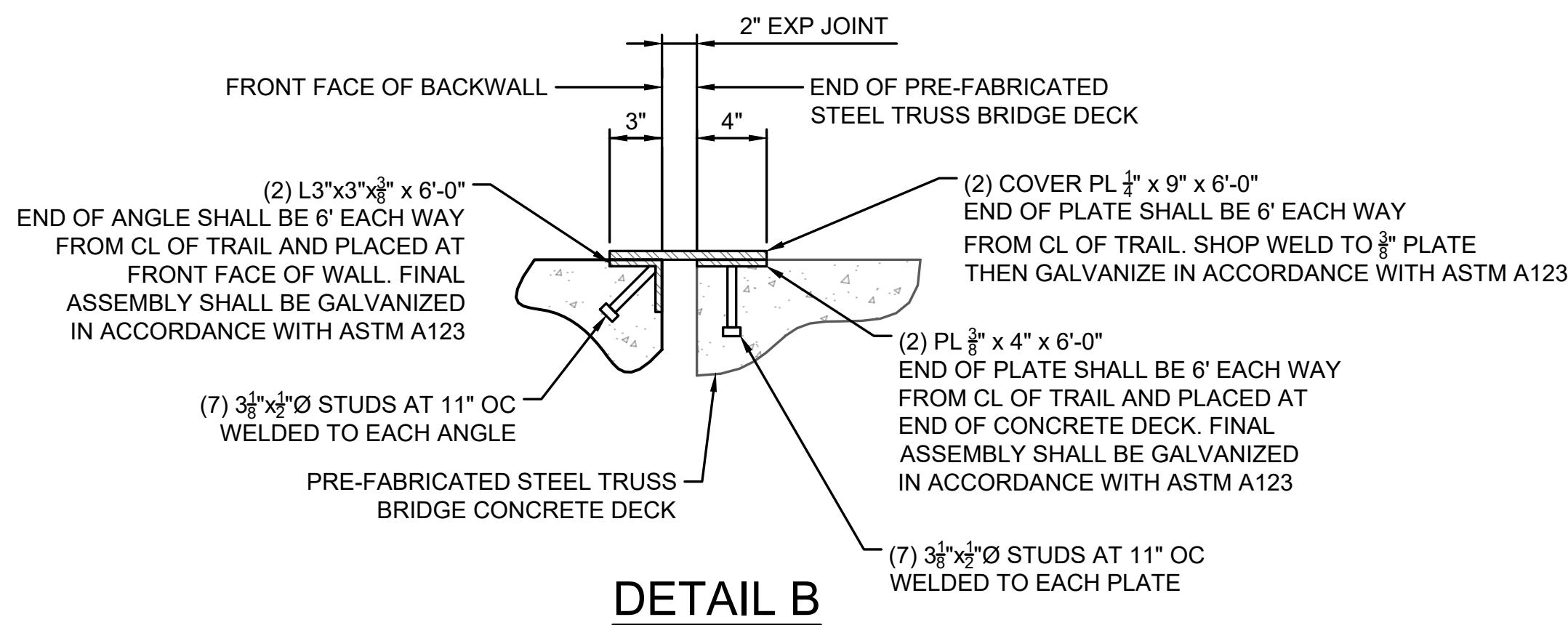
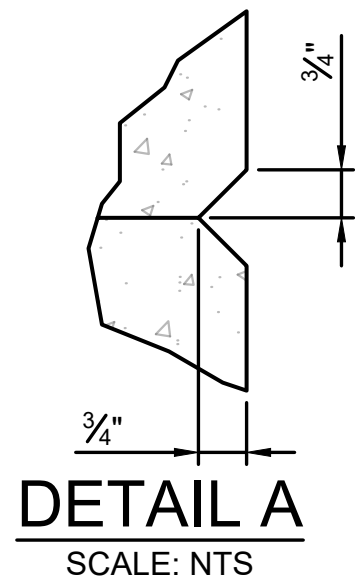
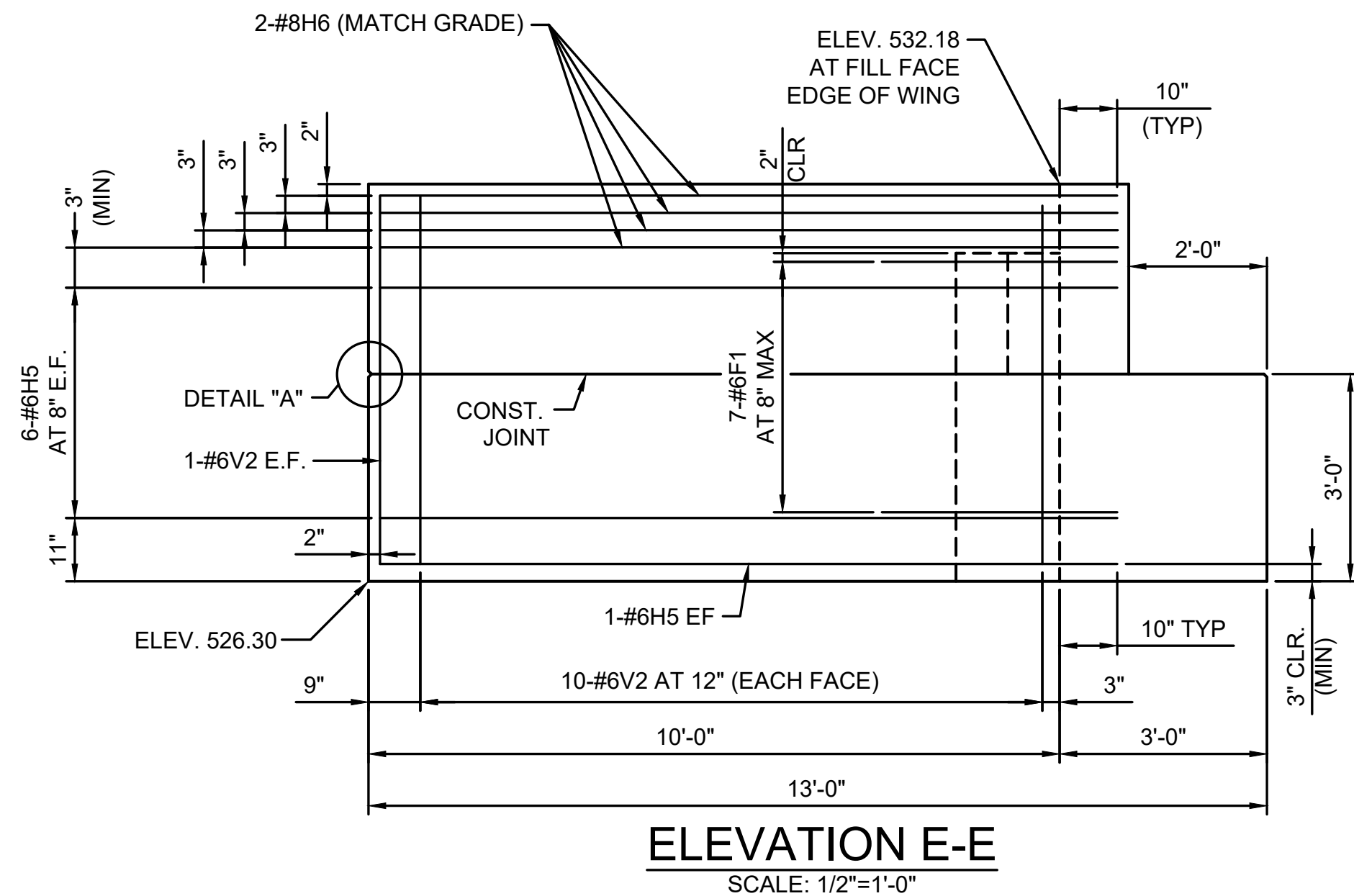
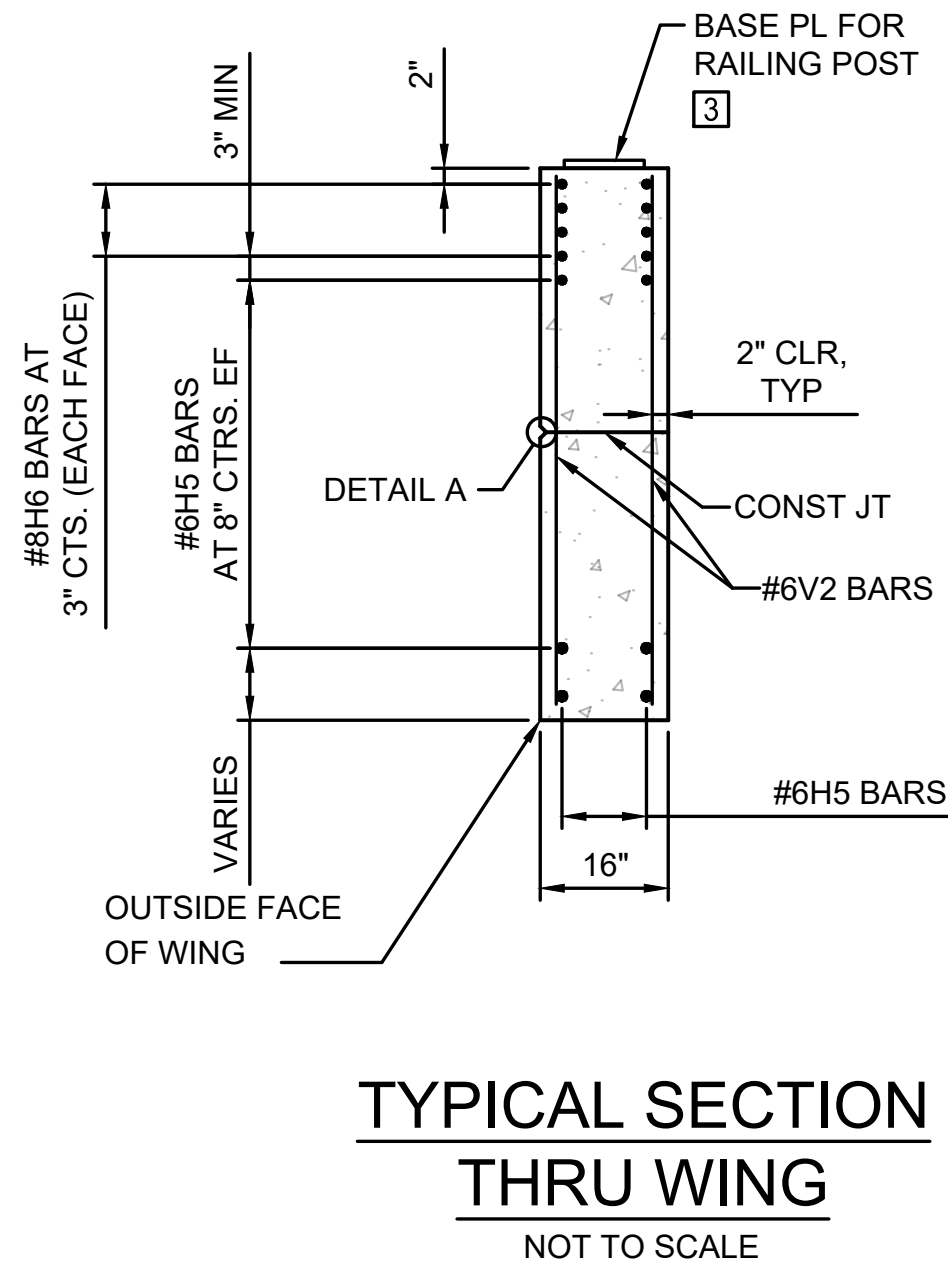
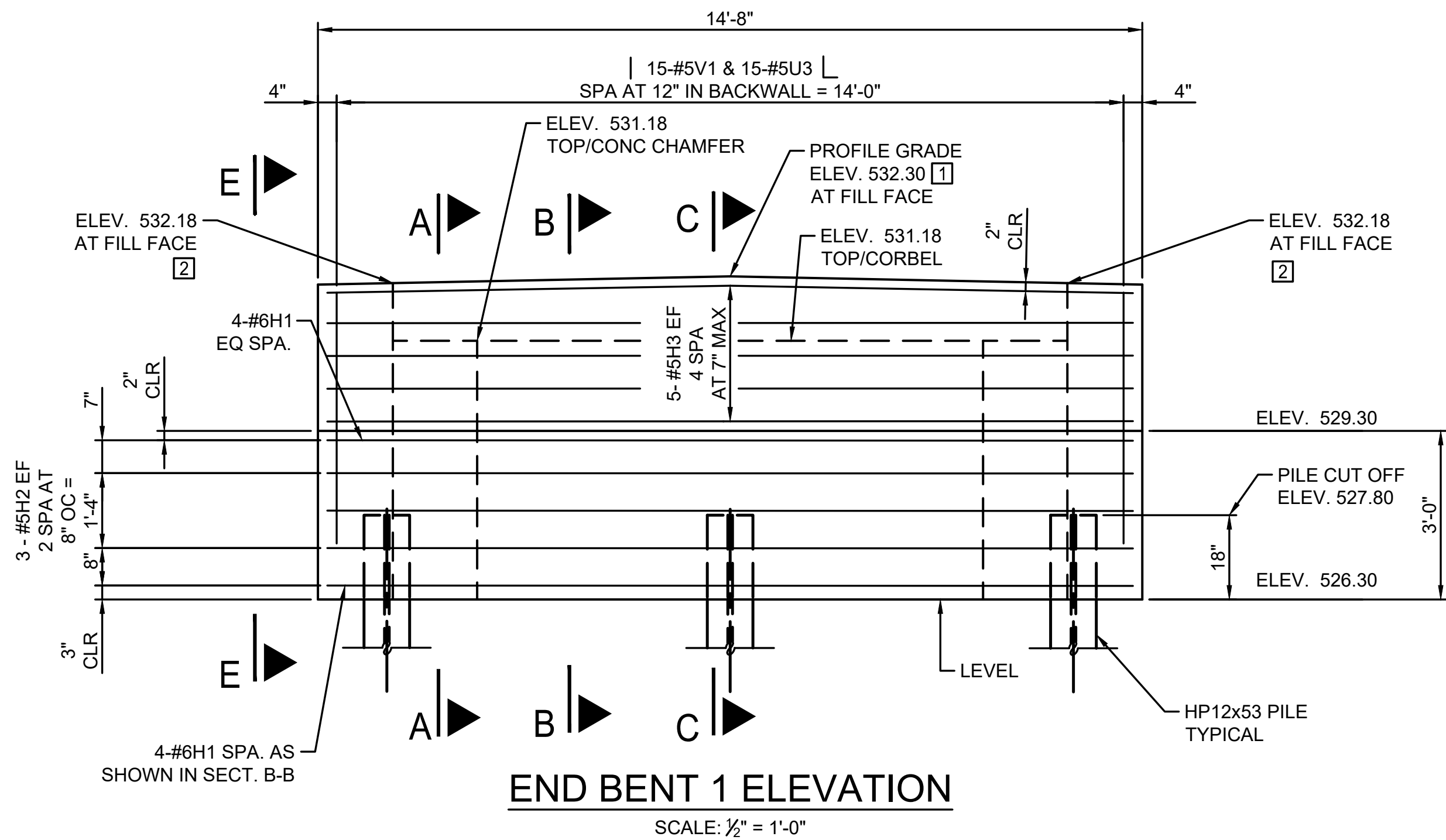


GALVANIZING MATERIAL SHALL BE OMITTED OR REMOVED
ONE INCH CLEAR OF WELD LOCATIONS IN ACCORDANCE
WITH SPECIFICATION SECTION 316216 IF APPLICABLE.



THE PILE POINT SHALL BE A ONE-PIECE UNIT OF CAST STEEL. THE CUTTING EDGES SHALL BE HARDENED. THE PILE POINT SHALL BE DESIGNED TO PENETRATE BOULDERS WITHOUT INJURY TO THE PILE. THE PILE POINTS SHALL BE WELDED, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, TO EACH STEEL PILE AT THE ABUTMENTS BEFORE DRIVING. TOTAL OF 3 REQUIRED EACH BENT, TOTAL OF 6 FOR HIGHWAY AA BRIDGE ONLY. TIPS NOT REQUIRED AT AUXVASSE CREEK BRIDGE.

NOT TO SCALE



KEY NOTES:

- TOP OF END BENT BACKWALL AND SLOPE OF BACKWALL MUST MATCH TOP OF CONCRETE BRIDGE DECK. SEE "CROWN DETAIL" ON D-001
- HEIGHT OF BACKWALL AND TOP OF CONCRETE AT BRIDGE SEAT ARE BASED ON PRELIMINARY BRIDGE INFORMATION. THE CONTRACTOR SHALL BASE THEIR BID ON THE DIMENSIONS SHOWN AND ALLOW FOR POSSIBLE VARIATION IN THE BACKWALL HEIGHT AND BEAM SEAT ELEVATION TO ACCOMMODATE THE REQUIREMENTS OF THE ACTUAL PREFABRICATED BRIDGE TO BE SUPPLIED. THE BRIDGE MANUFACTURER AND CONTRACTOR SHALL PROVIDE EXACT HEIGHT REQUIREMENTS WITH FINAL BRIDGE DETAILS AND DESIGN TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- SIZE AND PLACEMENT OF THE BASE PLATES SHALL ACCOMMODATE THE SEPARATE 10'-0" LONG HANDRAIL SECTION PROVIDED BY THE PEDESTRIAN BRIDGE MANUFACTURER THAT IS MOUNTED TO THE TOP OF THE END BENT WING WALL. THE ATTACHMENT METHOD OF THE HANDRAIL SHALL BE DETERMINED AND PROVIDED BY THE BRIDGE MANUFACTURER. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE ATTACHMENT METHOD TO THE CONCRETE WINGWALL TO BE APPROVED BY THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT BID.

NOTE:
** : CUT BOTTOM LEG OF STIRRUP (2" MAX CLEARANCE) AT PILE LOCATIONS.

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REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-S-ABE-02
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:
END BENT ELEVATION
& SECTIONS

SHEET NUMBER:

S-202

10 OF 16 SHEETS
DECEMBER 30, 2025



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MP122.1
KATY TRAIL STATE PARK

ISSUE DATE: 12/30/2025

SHEET TITLE:

SHEET NUMBER:

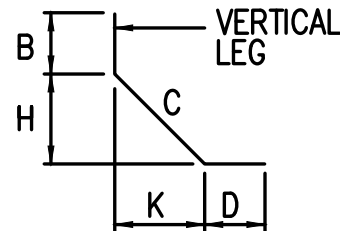
11 OF 16 SHEETS
DECEMBER 30, 2025

NOTES:

- ABBREVIATIONS:

S = STIRRUP.

NO. EA. = NUMBER OF BARS OF EACH LENGTH.



SHAPE 25

BENDING DIAGRAMS

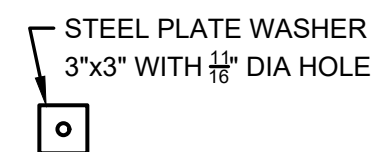
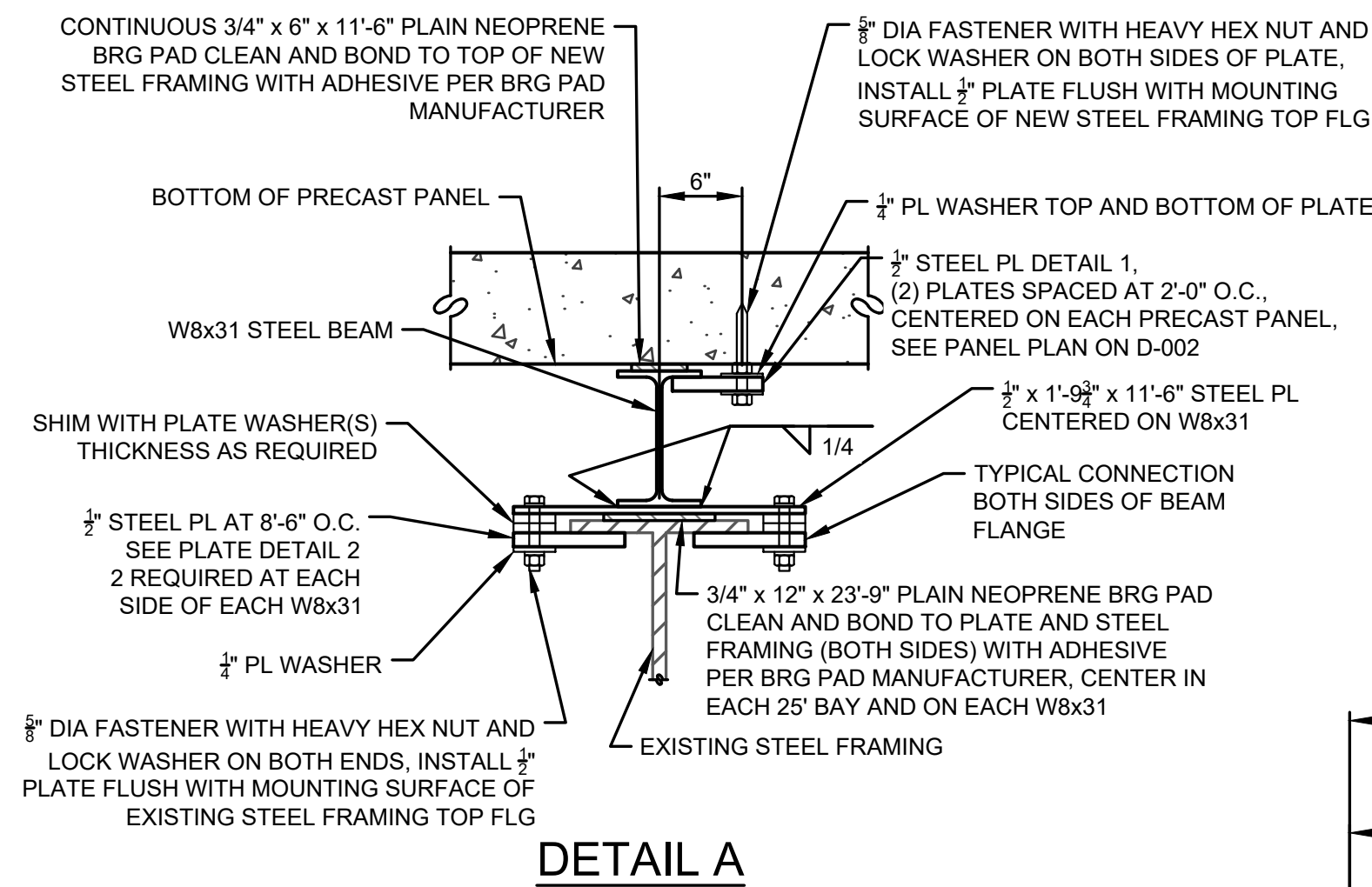
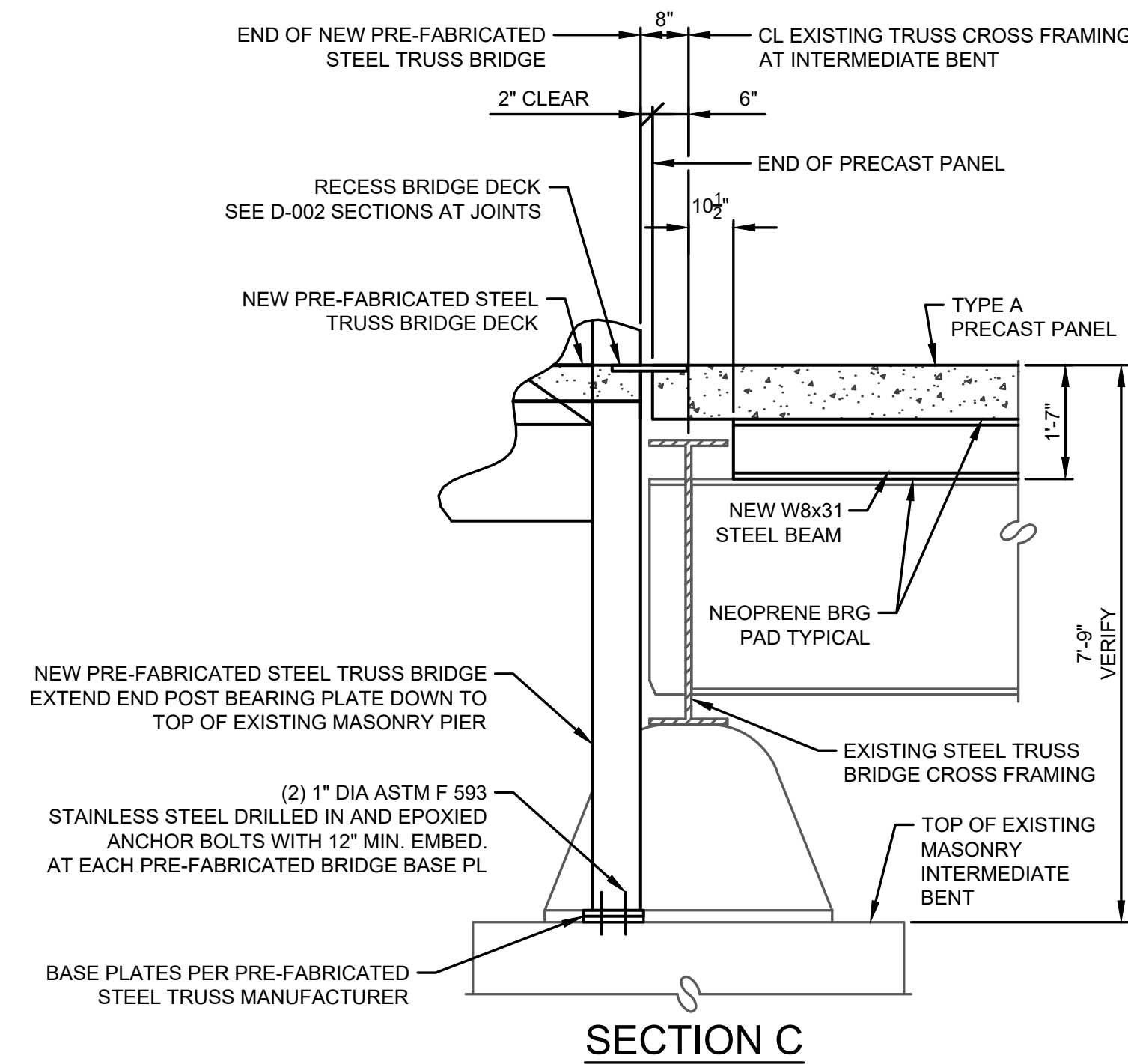
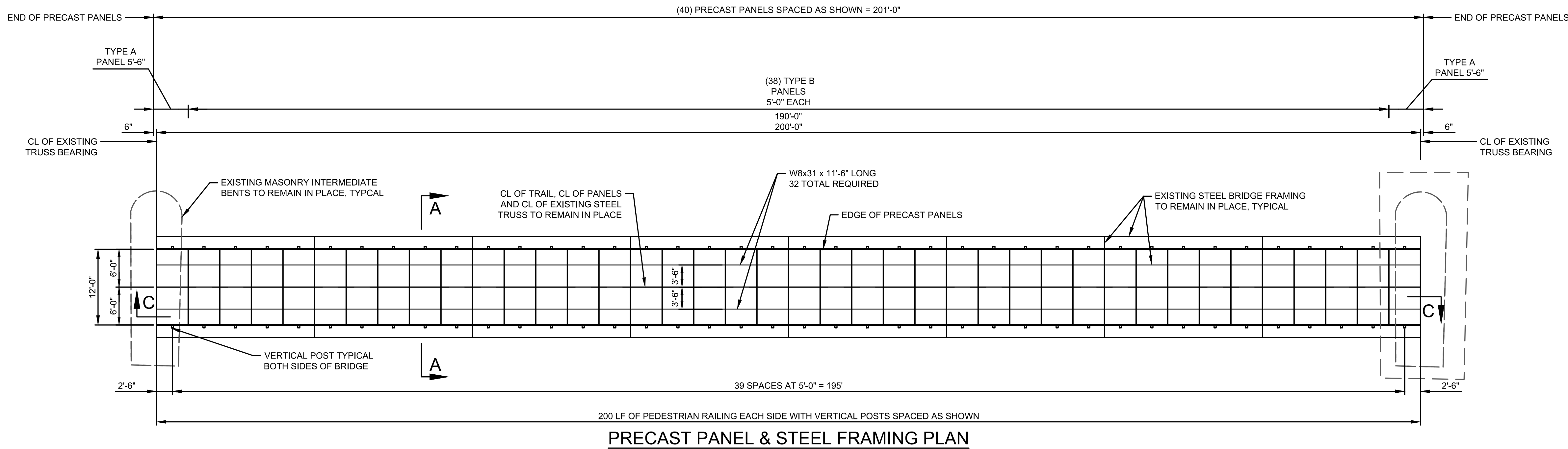
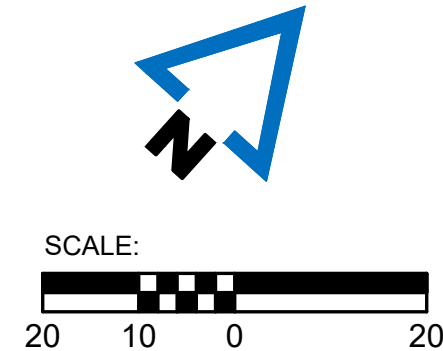
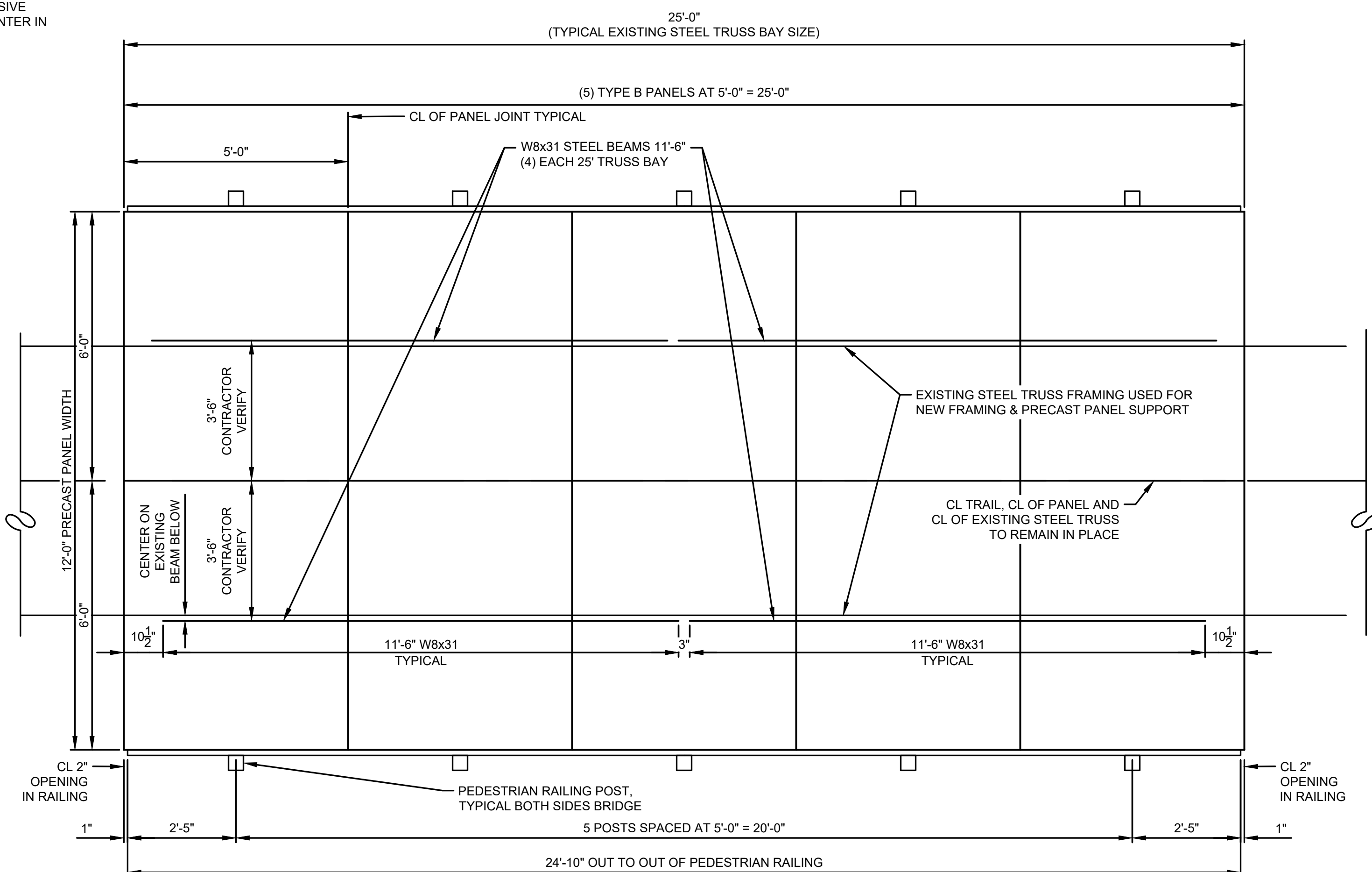
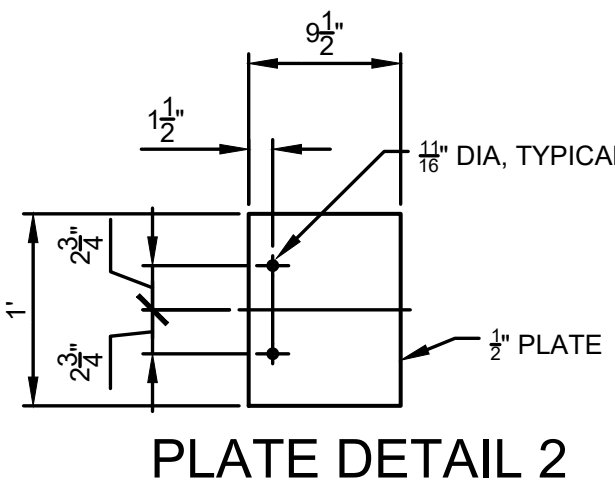
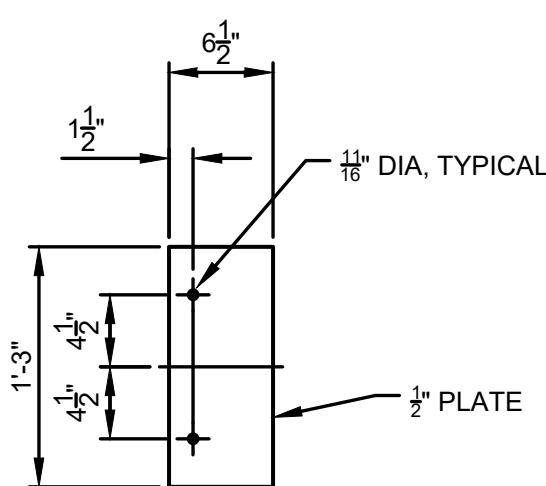


PLATE WASHER DETAIL



GENERAL NOTES:

1. PRECAST PANELS AND STEEL BEAMS MAY REQUIRE TO BE SET IN PLACE BY FORK LIFT EQUIPMENT.
2. VERY LIMITED OVERHEAD CRANE ACCESS DUE TO EXISTING STEEL OVERHEAD TRUSS FRAMING TO REMAIN IN PLACE.
3. DO NOT DAMAGE ANY EXISTING STEEL TRUSS FRAMING DURING PRECAST PANEL OR STEEL BEAM INSTALLATION. ANY ACCIDENTAL DAMAGES SHALL BE REPORTED TO OWNER/ENGINEER IMMEDIATELY UPON OCCURRENCE.
4. TYPE 3 A325 BOLTS
5. 60 DUROMETER NEOPRENE BEARING PADS

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REPLACE
AUXVASSE CREEK BRIDGE

MP122.1
KATY TRAIL STATE PARK

PROJECT NO. X2408-02
SITE NO. 5501
ASSET NO. 7815501013

REVISION: _____
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DATE: _____

ISSUE DATE: 12/30/2025

CAD DWG FILE: X2408-02-S-PLN-02
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:

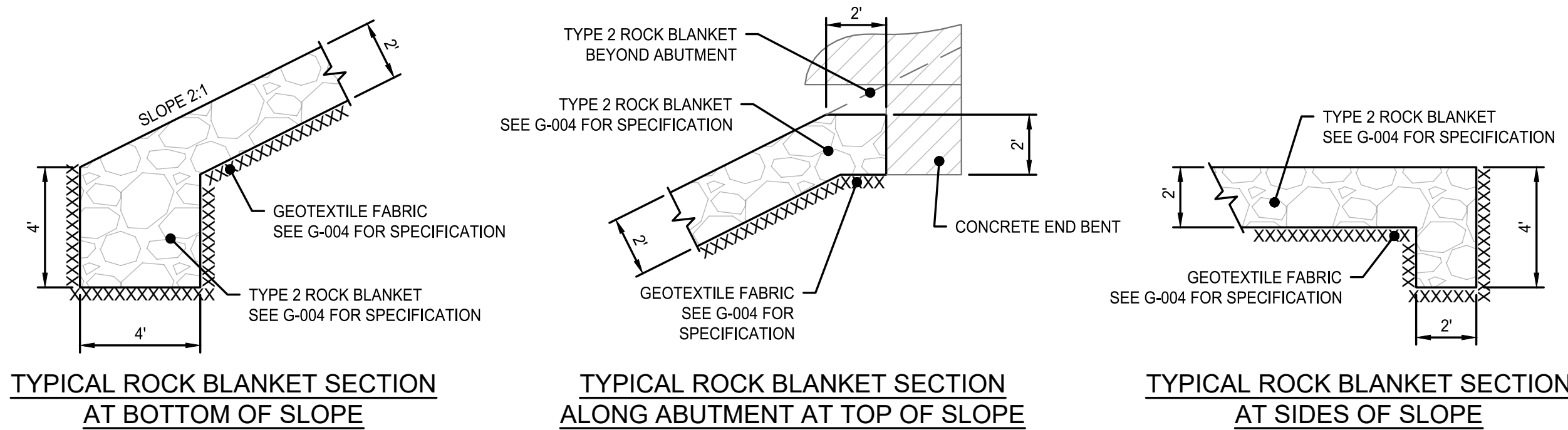
PRECAST PANEL
PLAN

SHEET NUMBER:

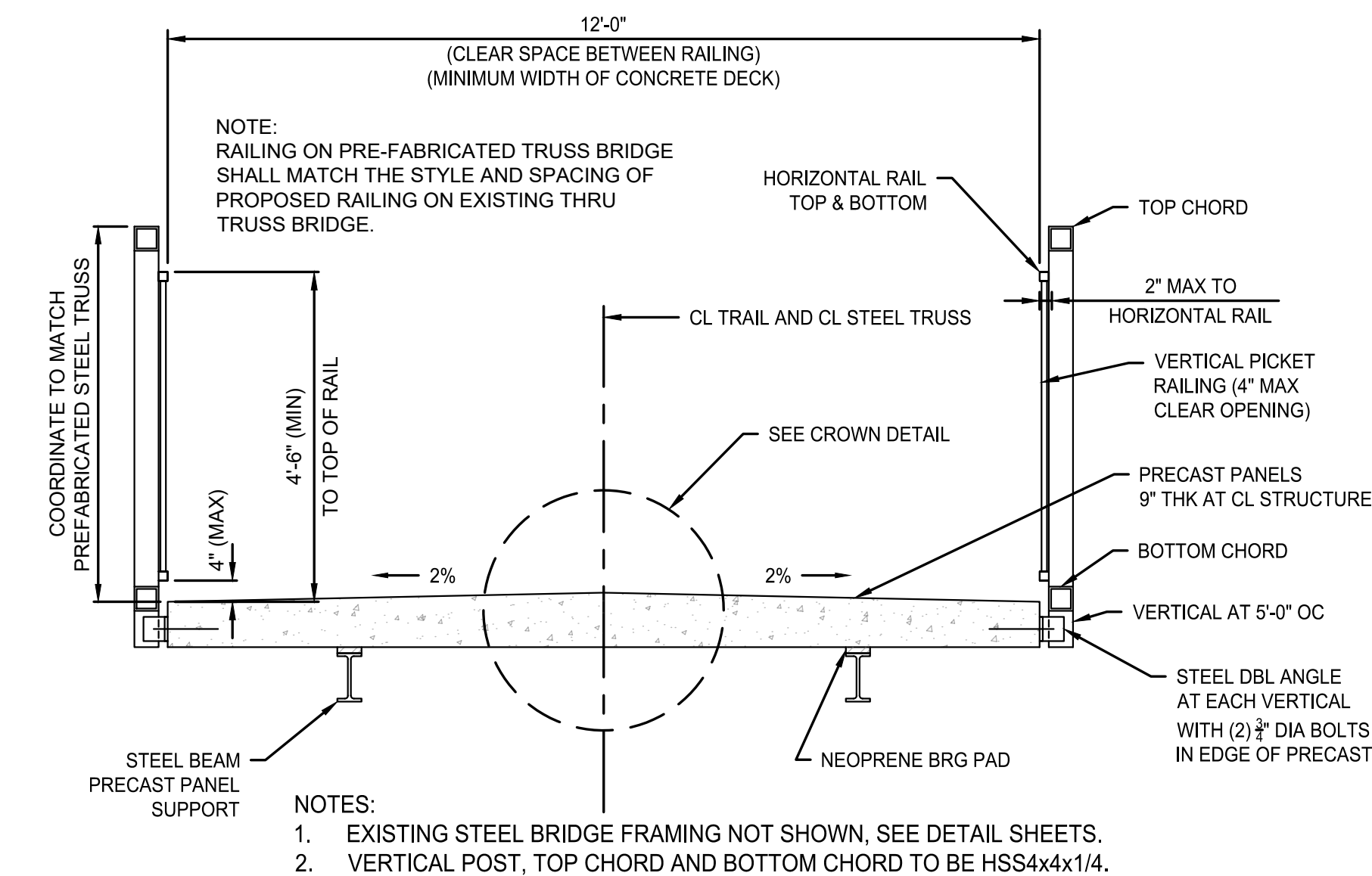
S-204

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DECEMBER 30, 2025

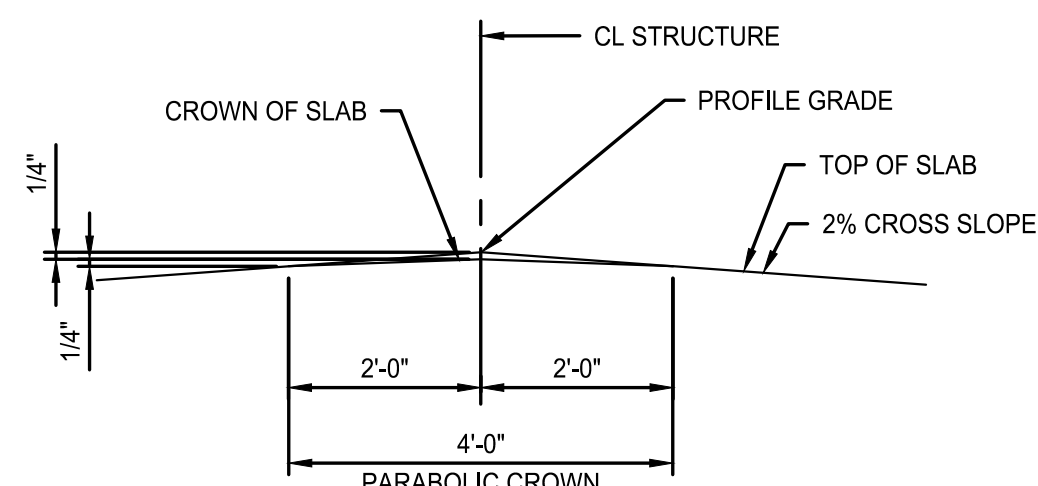
SECTION A-A
PRECAST PANEL & STEEL FRAMING



1 **TYPICAL ROCK BLANKET SECTIONS**
NOT TO SCALE

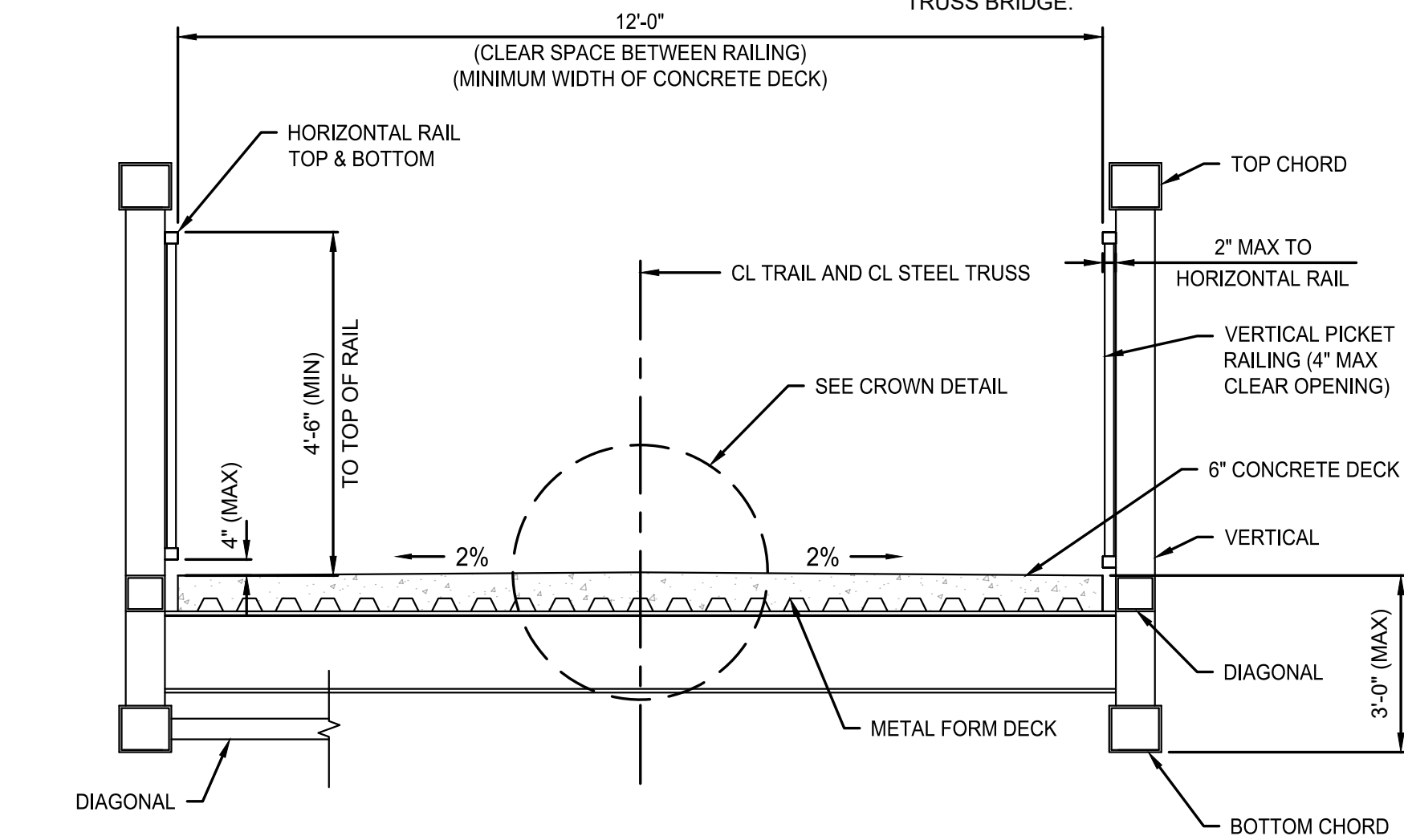


3 **TYPICAL PRECAST PANEL BRIDGE SECTION**
NOT TO SCALE

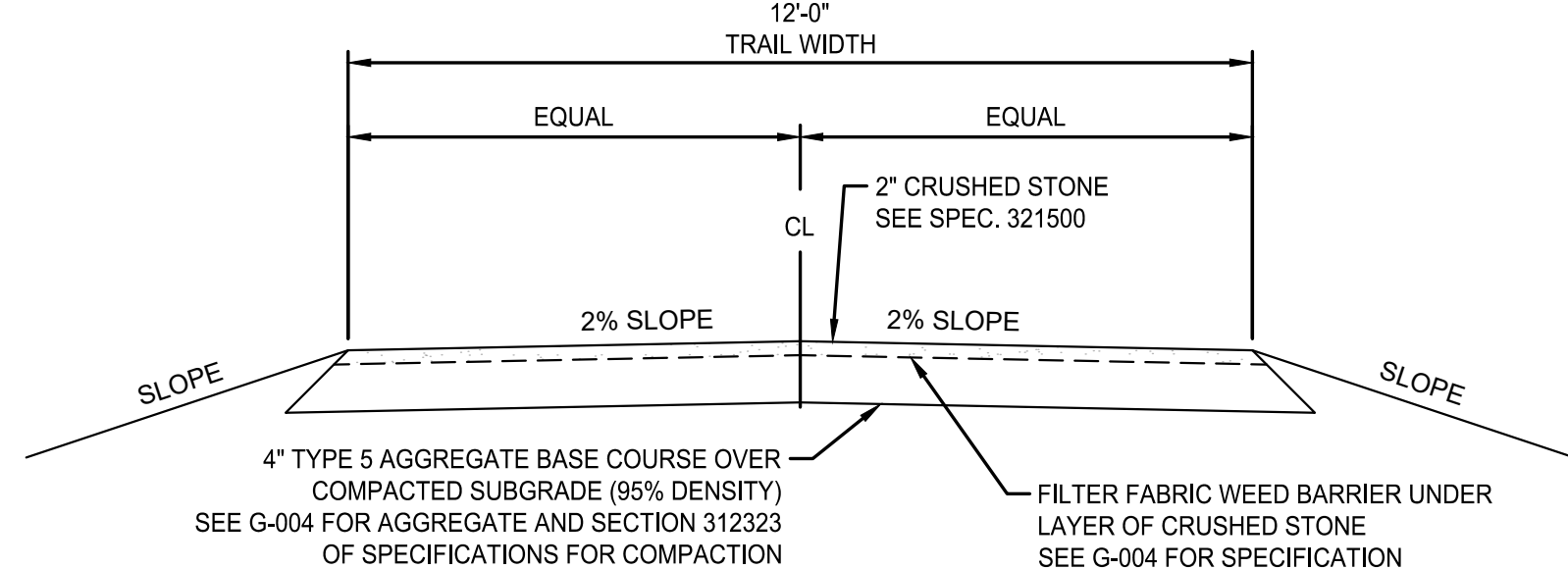


CROWN DETAIL

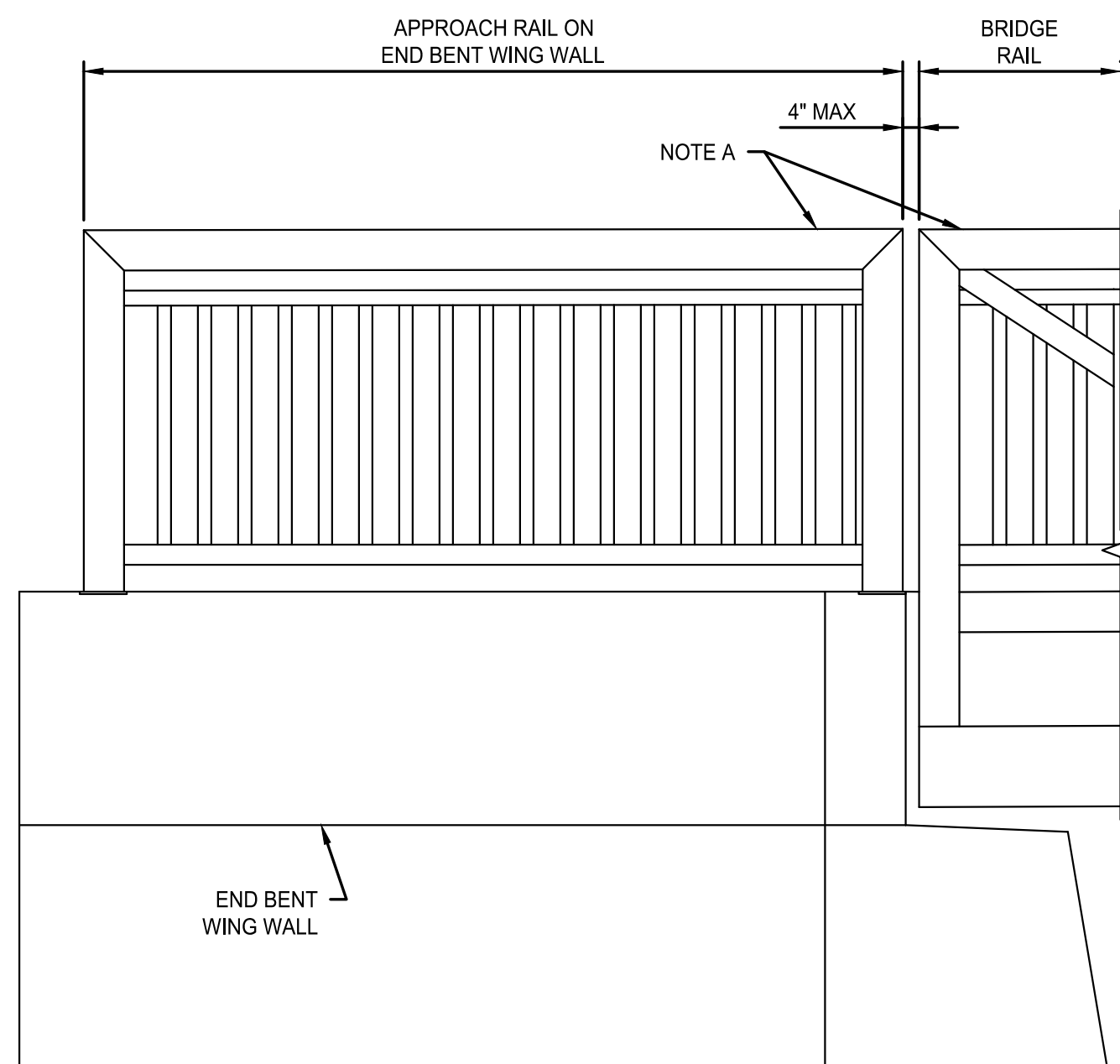
NOTE: RAILING ON PRE-FABRICATED TRUSS BRIDGE SHALL MATCH THE STYLE AND SPACING OF PROPOSED RAILING ON EXISTING THRU TRUSS BRIDGE.



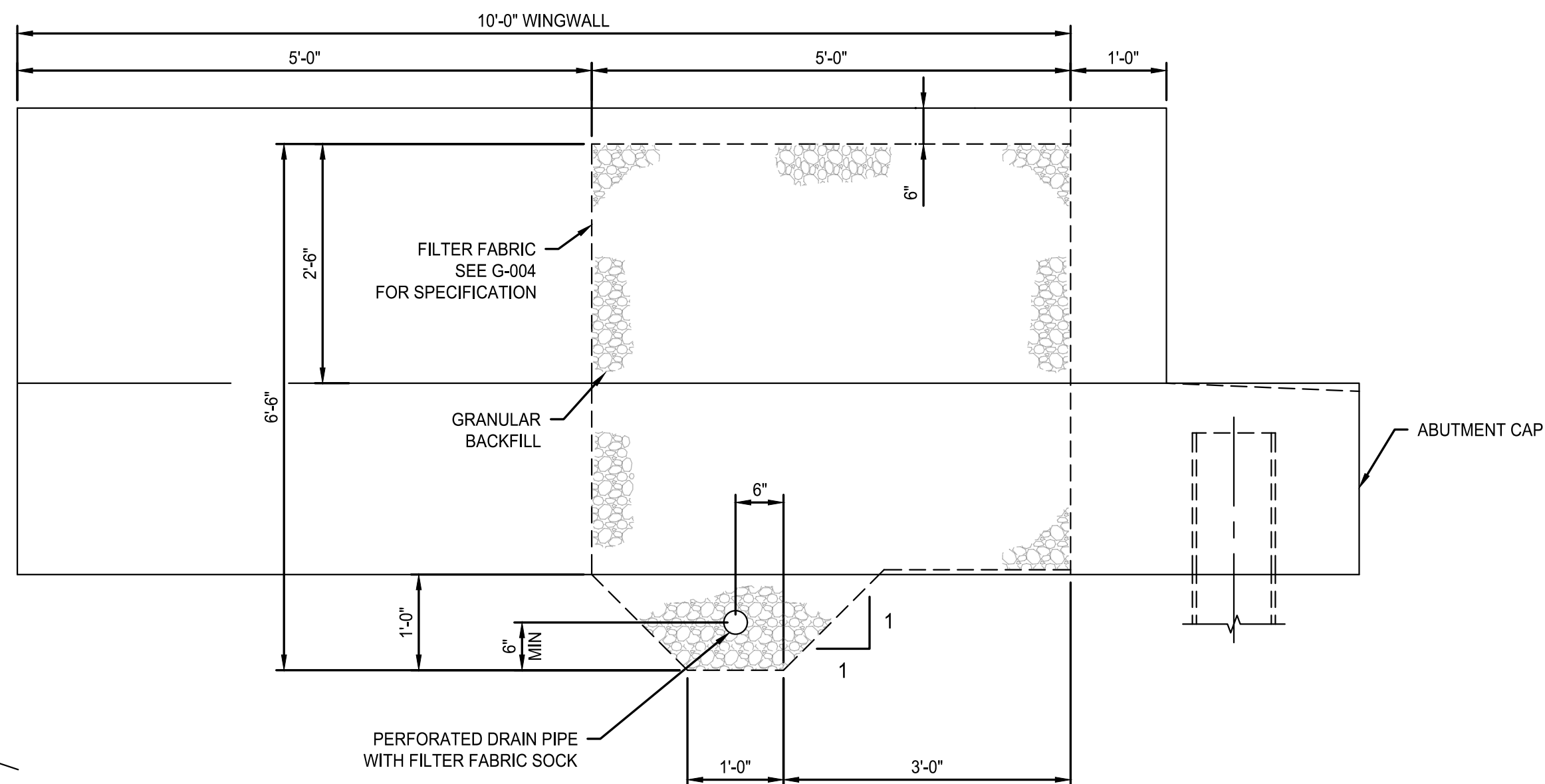
4 **TYPICAL PREFABRICATED STEEL TRUSS BRIDGE SECTION**
NOT TO SCALE



2 **TYPICAL TRAIL SECTION**
NOT TO SCALE



5 **END BENT APPROACH RAIL ELEVATION VIEW**
NOT TO SCALE



6 **ABUTMENT DRAIN PIPE ELEVATION**
NOT TO SCALE

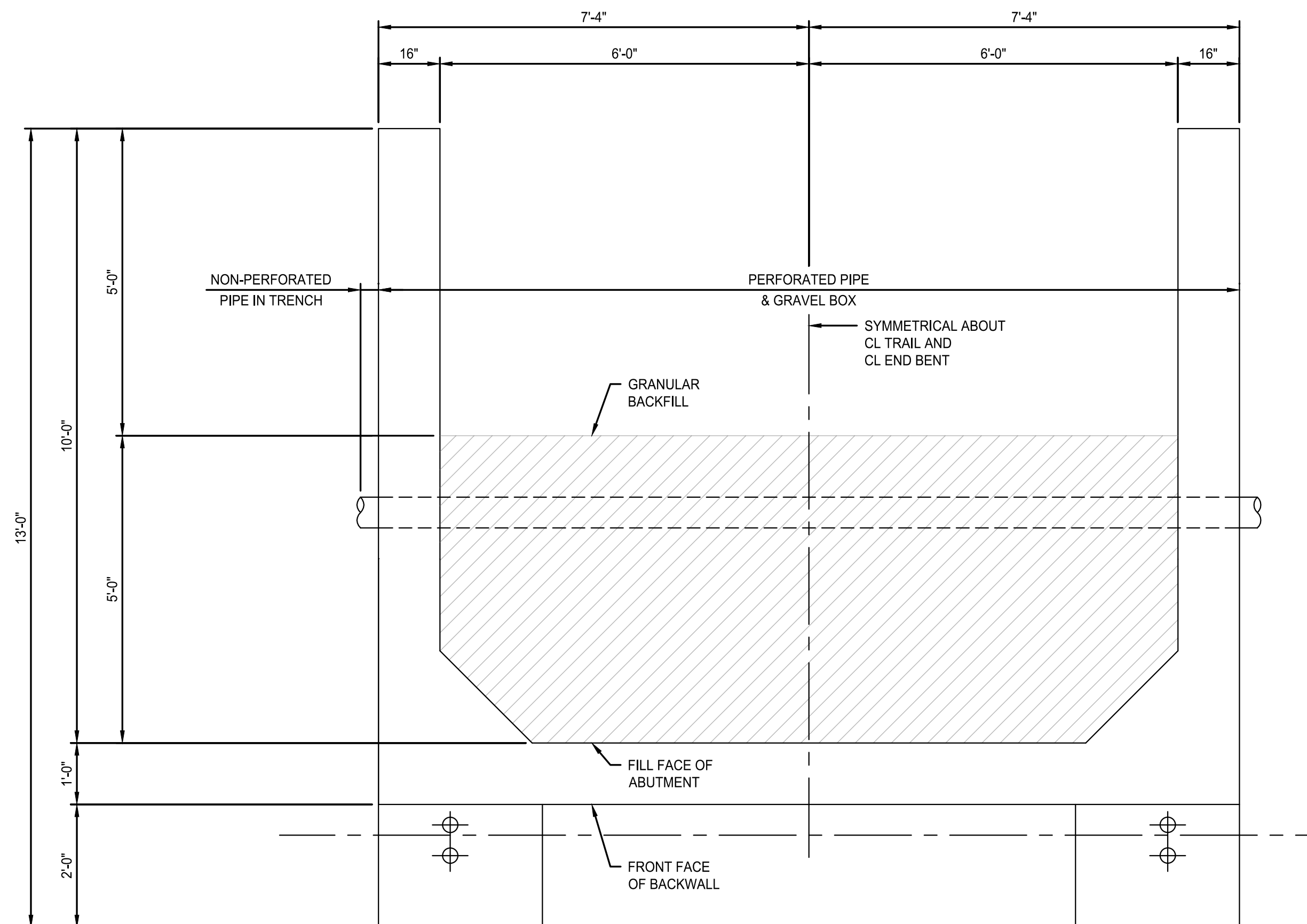
NOTE A: DRAIN PIPE MAY BE EITHER 4" DIAMETER CORRUGATED POLYVINYL CHLORIDE (PVC) DRAIN PIPE, OR 4" DIAMETER CORRUGATED POLYETHYLENE (PE) DRAIN PIPE WITH FILTER FABRIC SOCK.

PLACE DRAIN PIPE BEHIND CAP AS SHOWN AND SLOPE TO LOWEST GRADE OF GROUND LINE BEYOND LIMITS OF END BENT AND ROCK BLANKET.

PERFORATED DRAIN PIPE SHALL BE USED BEHIND CAP WITHIN LIMITS OF END BENT. PLAIN PIPE SHALL BE USED OUTSIDE LIMITS OF END BENT TO EXIT AT GROUND LINE.

GRANULAR BACKFILL
THE GRANULAR BACKFILL SHALL BE GRAVEL, CRUSHED STONE, OR OTHER APPROVED MATERIAL, IN ACCORDANCE WITH THE FOLLOWING GRADATION REQUIREMENTS:

GRANULAR BACKFILL REQUIREMENTS	
SIEVE SIZE	PERCENT BY WEIGHT (MASS)
1-INCH	100
3/4-INCH	90-100
3/8-INCH	20-55
NO. 4	0-10
NO. 8	0-5



7 **ABUTMENT DRAIN PIPE PLAN**
NOT TO SCALE

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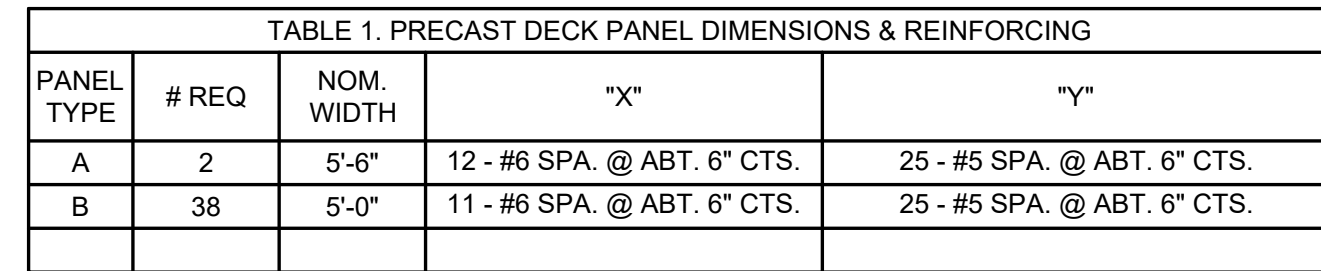
CAD DWG FILE: X2408-02-C-DTL-01
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:
TYPICAL DETAILS

SHEET NUMBER:

D-001

13 OF 16 SHEETS
DECEMBER 30, 2025



SHOWING REINFORCING

12'-0"

CL PANEL & CL STRUCTURE

2.0%

#5

#6

1" CL

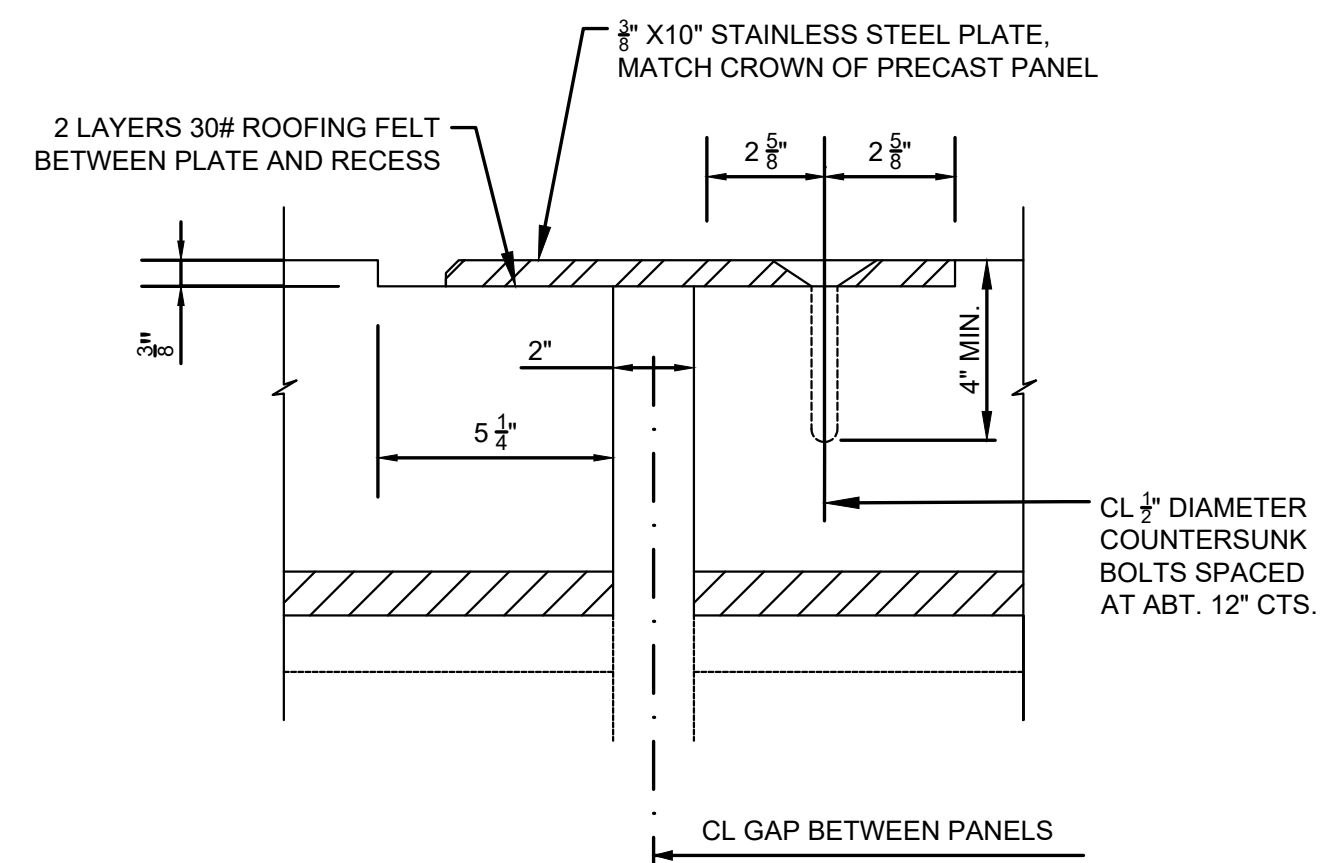
2" CL

SEE SHEET NO D-003 FOR DETAIL OF FENCE BASEPLATE

(2) CAST-IN-PLACE 3/4" DIA x 18" ANCHOR BOLTS AT EACH FENCE POST LOCATION (TYP.), OPTIONAL 3/4" DIA THREADED EMBEDS MAY BE CAST-IN-PLACE

DETAIL C (TYP.)

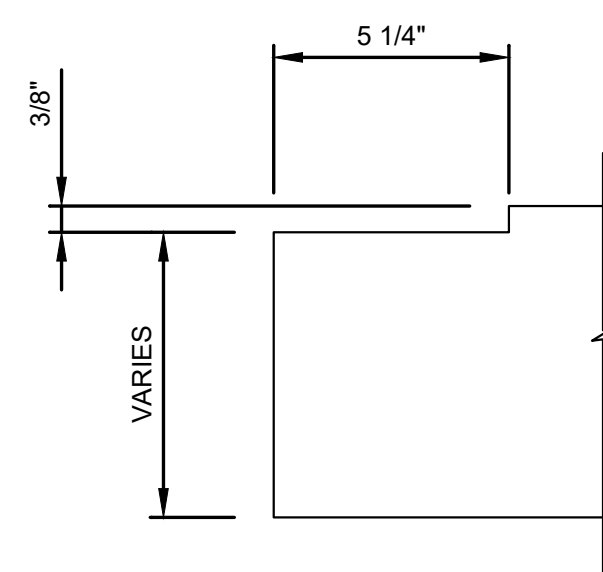
— CAST IN PLACE THREADED INSERT
AT CLAMP TO FLANGE OF W8x31
(TYP.) SEE SHEET NO. S-205
FOR DETAILS OF EMBEDDED ANCHORS



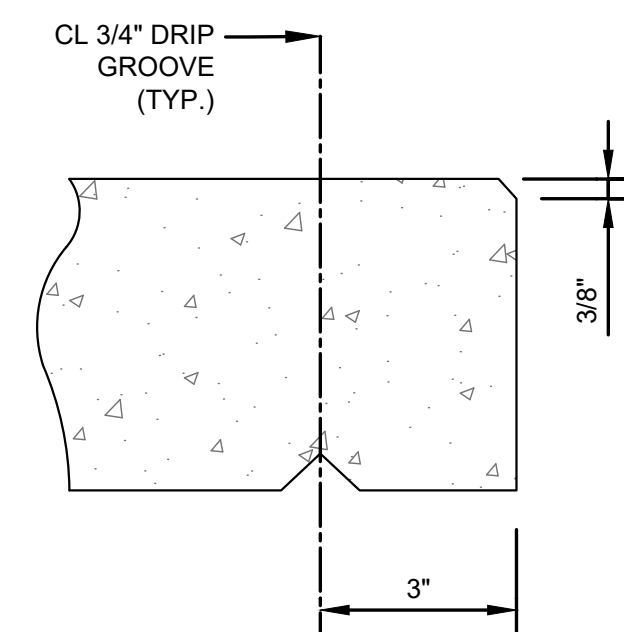
TYPICAL EXPANSION JOINT
(SEE DETAIL B)

NOTES:

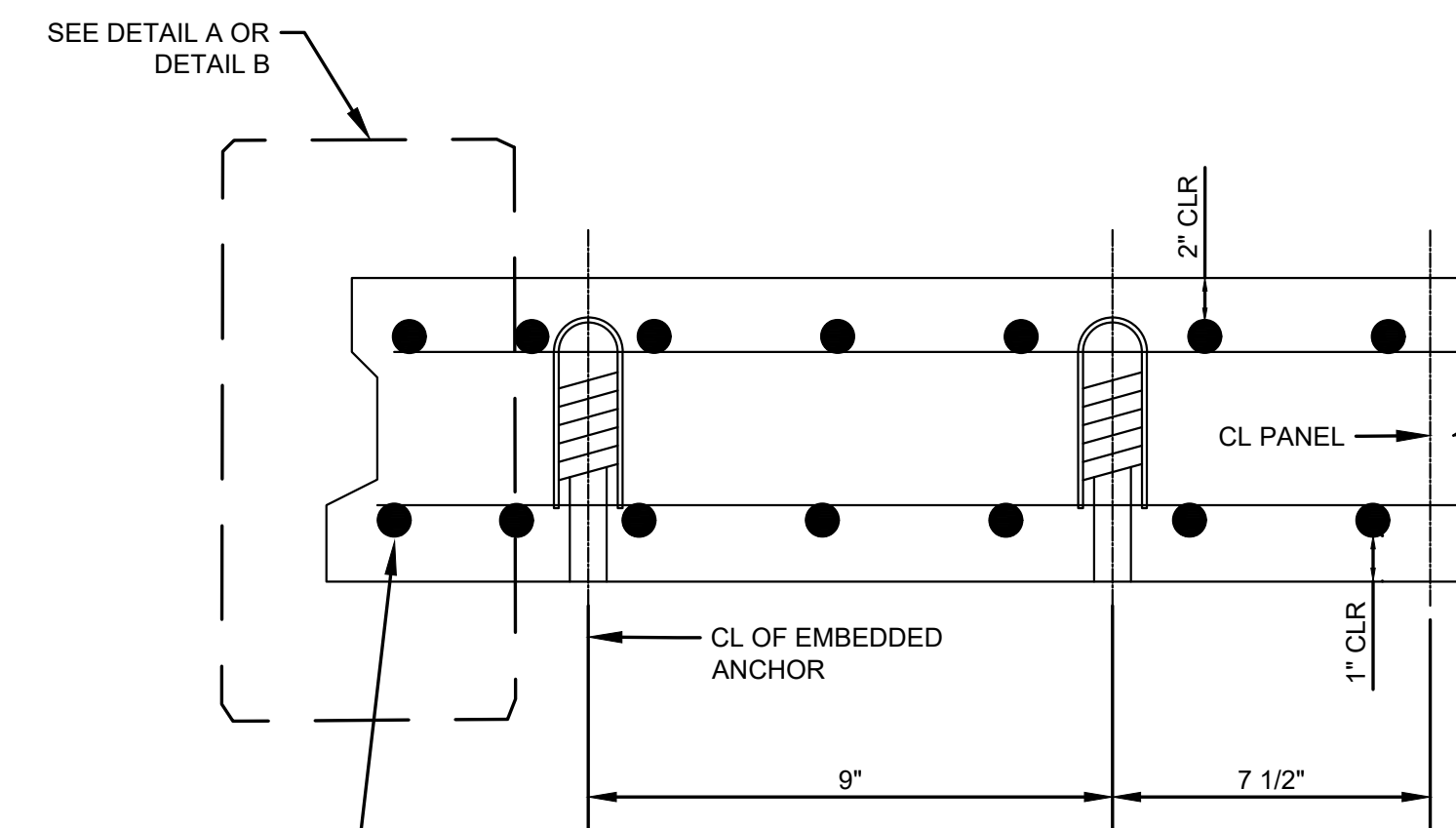
1. NOMINAL WIDTH SHALL BE MEASURED FROM THE CENTERLINE GAPS OF GROUTED KEY ON ADJACENT PANELS, OR TO EXTERIOR FACE OF PANELS AT JOINT LOCATIONS. CONTRACTOR TO VERIFY REQUIRED PANEL DIMENSIONS.
2. FABRICATOR SHALL DESIGN AND PROVIDE LIFTING LOOPS FOR EACH PRECAST CONCRETE DECK PANEL.
3. AFTER DECK PLACEMENT, LIFTING LOOPS SHALL BE CUT OFF AND ANY CAVITIES BE GROUTED FLUSH WITH SURFACE OF DECK PATTERN.
4. FOR DETAILS OF PANEL PADS AND CONNECTION PLATES SEE SHEET S-205.
5. TOP OF SLAB SHALL HAVE A BROOMED FINISH.
6. OPTIONAL THREADED INSERTS AT FENCE POST ANCHOR BOLTS MUST BE OF EQUIVALENT STRENGTH AS ANCHOR BOLTS SHOWN.
7. SHOP DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR FOR REVIEW AND APPROVAL OF THE ENGINEER.



DETAIL B



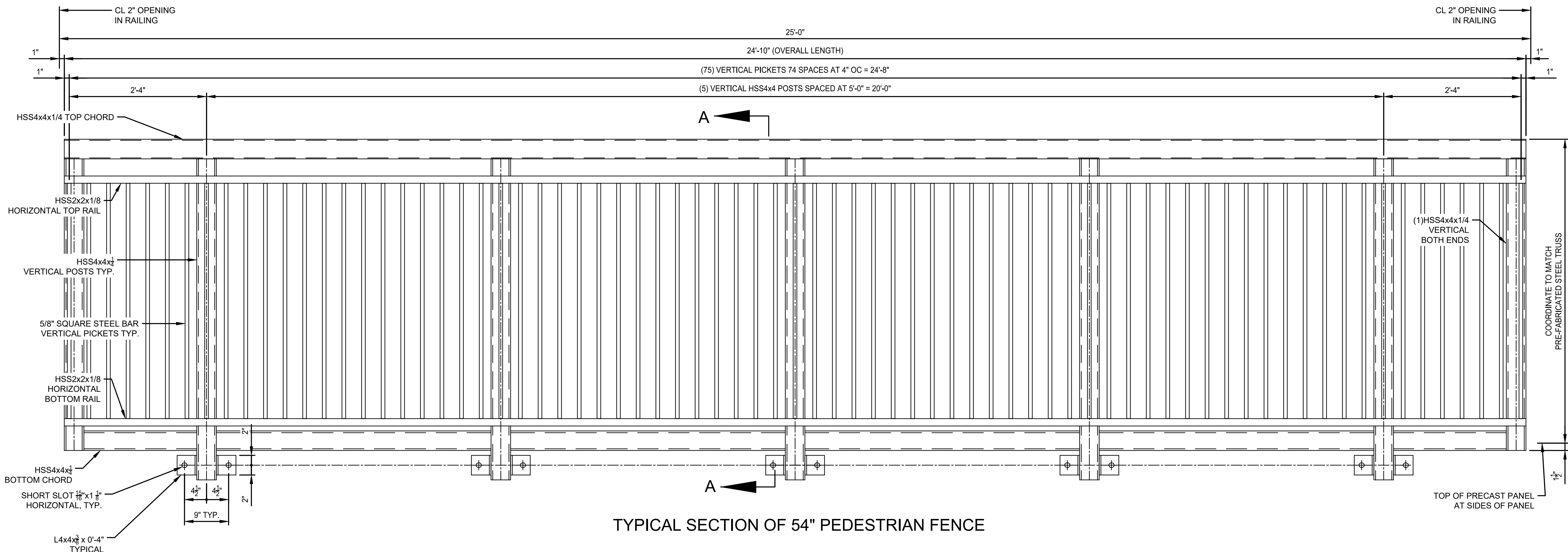
DETAIL C



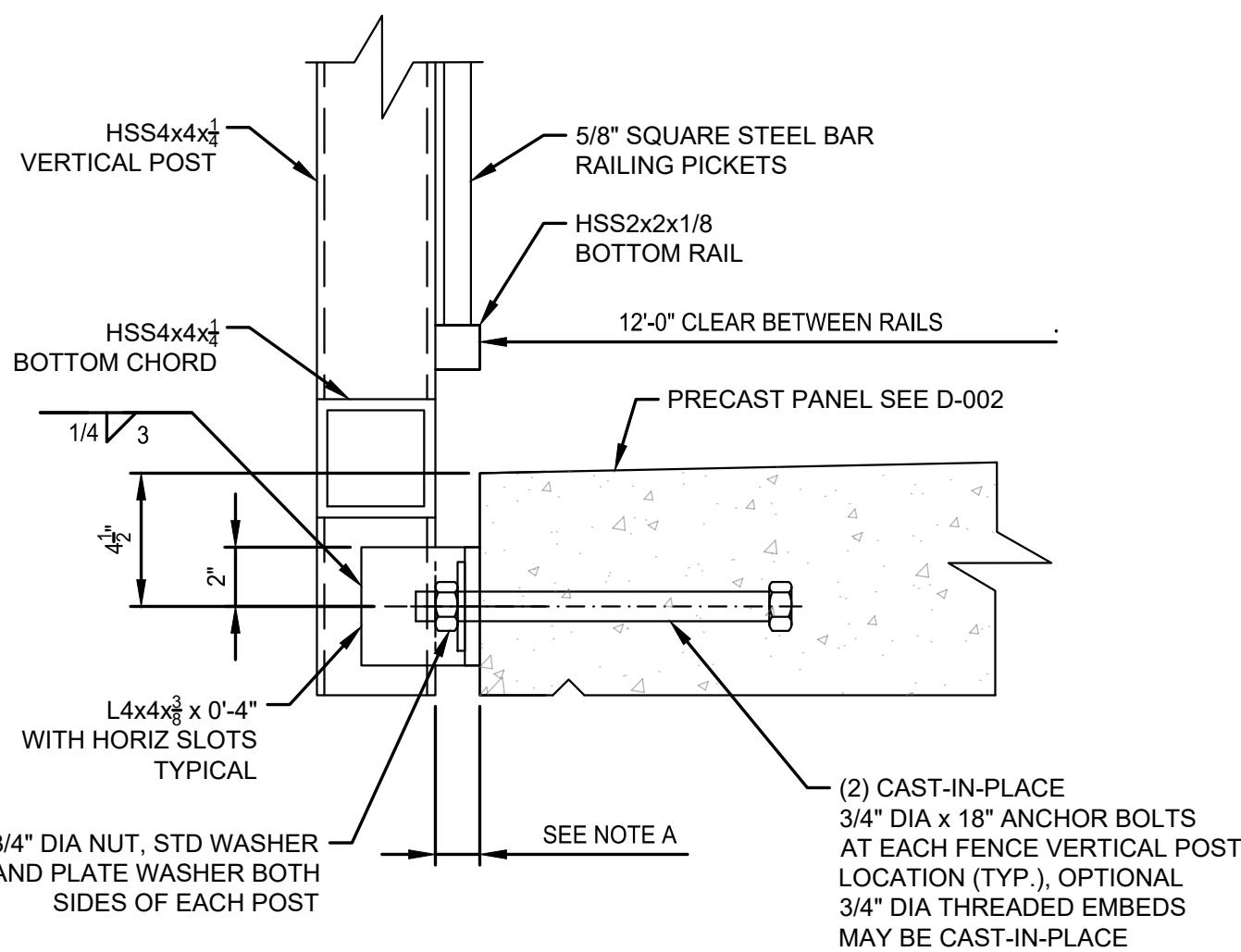
SECTION B-B
SYMMETRIC ABOUT CL OF PANE

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS

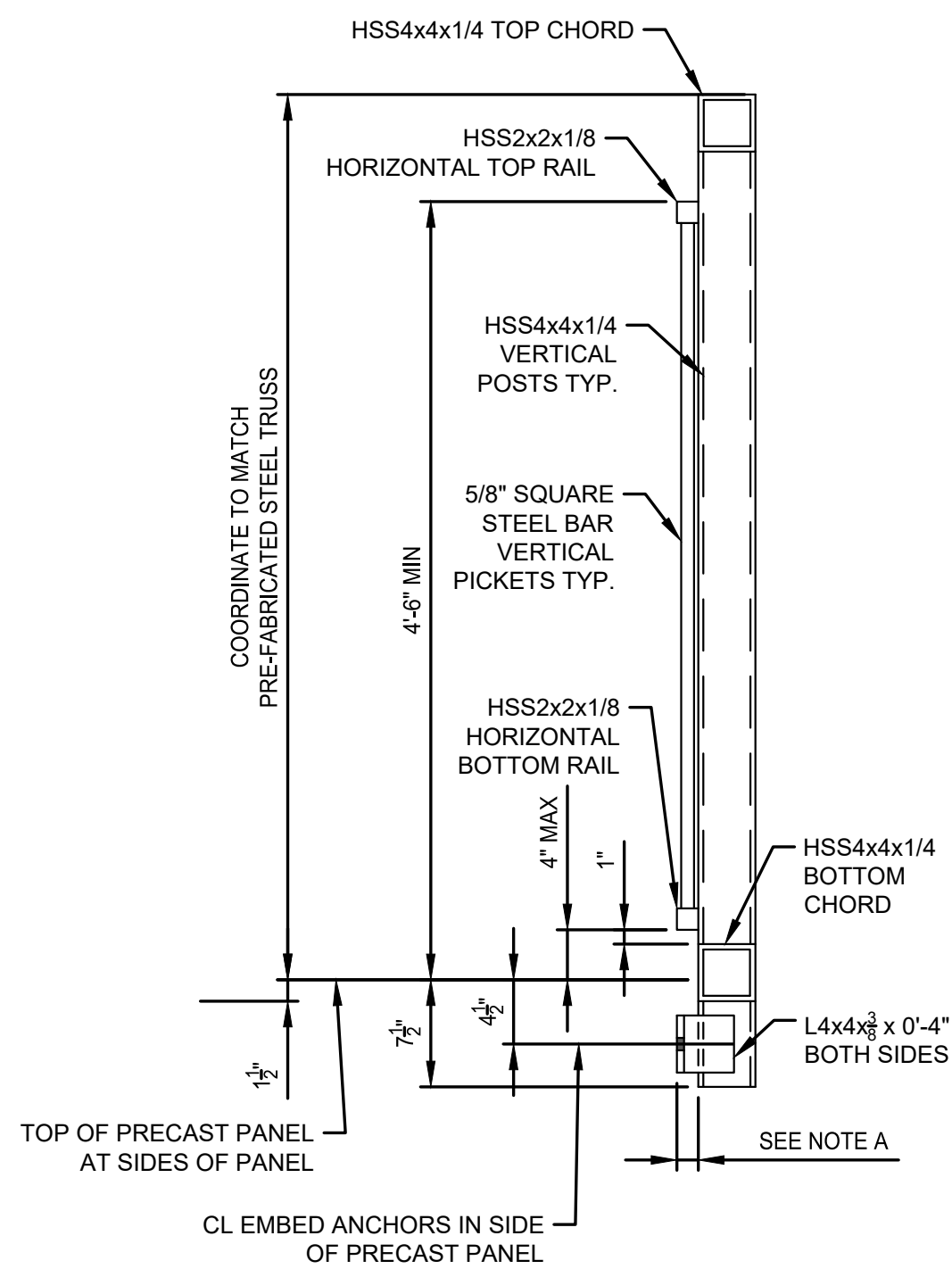
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.



TYPICAL SECTION OF 54" PEDESTRIAN FENCE



BASEPLATE CONNECTION DETAIL



SECTION A-A

NOTE A: COORDINATE DIMENSION FOR TOP AND BOTTOM RAIL TO PROVIDE 12'-0\"/>

NOTES:
FOR LOCATIONS OF FENCE POSTS SEE SHEET
NO S-205.

FOR ROLLED STRUCTURAL SHAPES, PLATES AND
SOLID BARS USE ASTM A588, GRADE 50W STEEL

FOR HSS SHAPES USE ASTM A847, GRADE 50W STEEL

ALL WELDS SHALL HAVE CORROSION RESISTANCE
AND WEATHERING CHARACTERISTICS COMPATIBLE
WITH THE BASE MATERIAL.

AT END BAYS EXTEND TOP AND BOTTOM RAILS AND
PICKETS TO PROVIDE 4\"/>

CONTRACTOR TO COORDINATE ALL REQUIRED
DIMENSIONS TO PROVIDE FLUSH FIT OF RAILS WITH
RAILS ON PRE-FABRICATED STEEL TRUSS BRIDGE.

CAP BOTH ENDS OF ALL HORIZONTAL MEMBERS
WITH 1/8\"/>

PROVIDE 1/8\"/>

PROVIDE FLARE-BEVEL-GROOVE WELD FOR ALL HSS
TO HSS MEMBER CONNECTIONS.

PROVIDE VENT HOLES IN ALL CLOSED HSS MEMBERS
AT 10' O.C. MAXIMUM.

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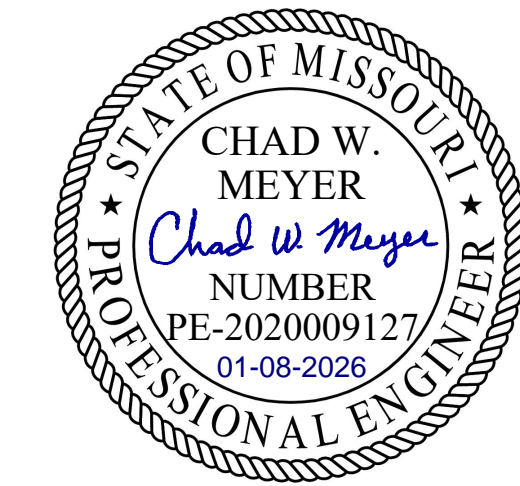
CAD DWG FILE: X2408-02-C-DTL-03
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:
**PEDESTRIAN
FENCE DETAILS**

SHEET NUMBER:

D-003

15 OF 16 SHEETS
DECEMBER 30, 2025



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CAD DWG FILE: X2408-02-C-DTL-04
DRAWN BY: JJB
CHECKED BY: CWM
DESIGNED BY: ADM

SHEET TITLE:

BRIDGE APPROACH
SLAB DETAILS

SHEET NUMBER:

D-004

16 OF 16 SHEETS
DECEMBER 30, 2025

GENERAL NOTES

All concrete for the modified bridge approach slab shall be in accordance with Sec 503 ($f_c = 4,000$ psi).

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

The reinforcing steel in the modified bridge approach slab shall be Grade 60 with $F_y = 60,000$ psi, except as shown.

Minimum clearance to reinforcing steel shall be $1\frac{1}{2}$ ", unless otherwise shown.

The reinforcing steel in the modified bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by lap splicing the bars 23" min.

Plain or deformed welded wire fabric of some strength and area per foot of slab may be substituted with the approval of the engineer. Sheets of WWF shall be lapped in accordance with CRSI.

Mechanical bar splices shall be in accordance with Sec 706.

The contractor shall pour and satisfactorily finish the bridge backwall before pouring the bridge approach slabs.

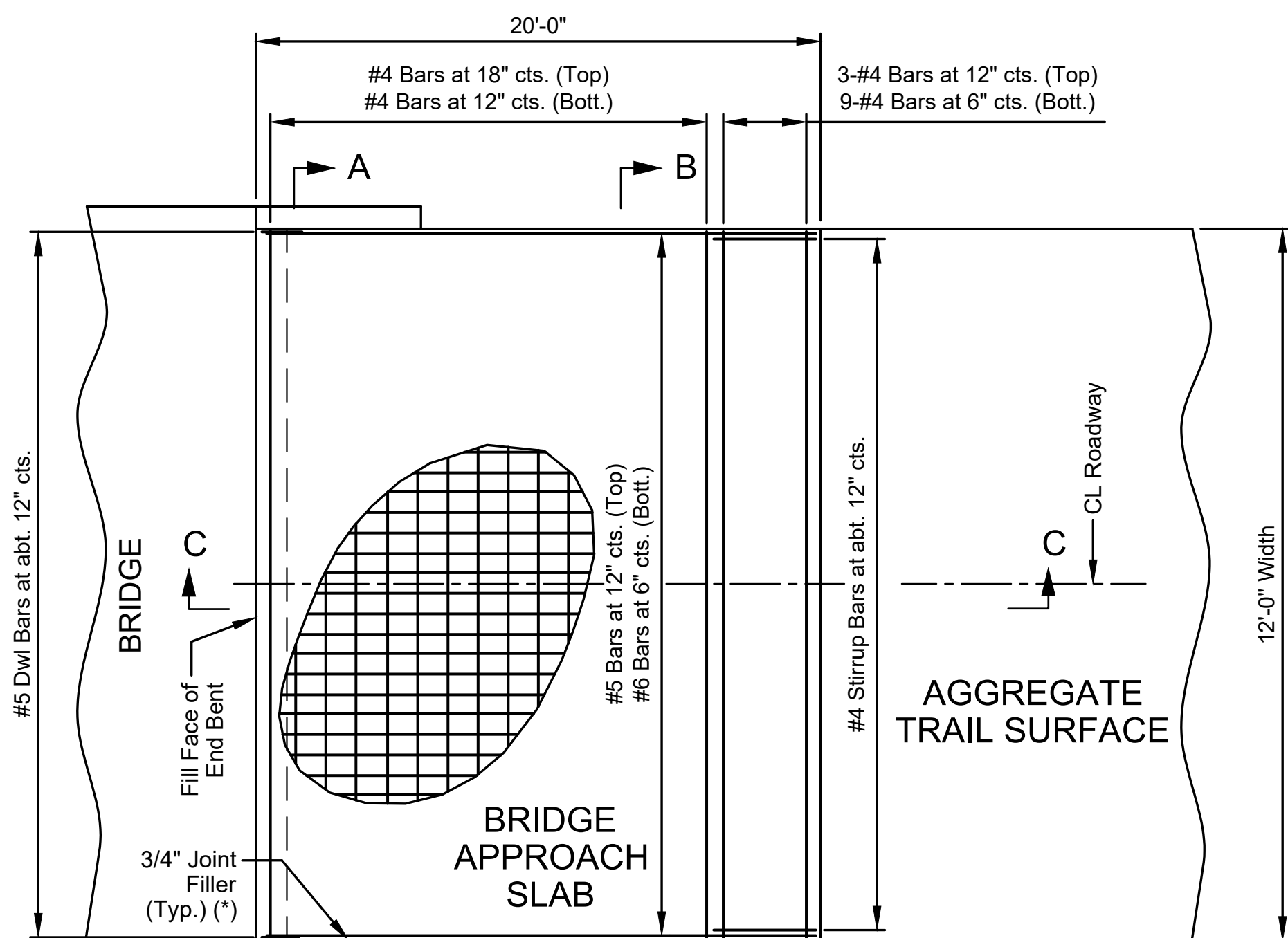
Longitudinal construction joints in approach slab shall be aligned with longitudinal construction joints in bridge or semi-deep slab.

At the contractor's option, Grade 40 reinforcement may be substituted for the Grade 60 #5 dowel bars connecting the modified bridge approach slab to the bridge abutment. No additional payment will be made for this substitution.

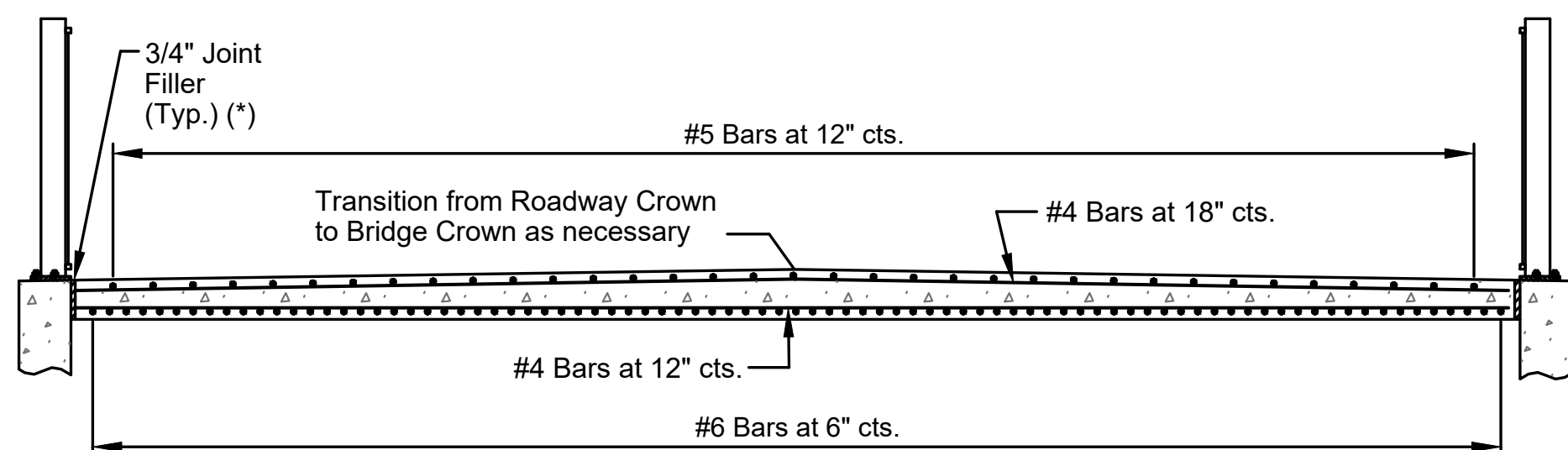
When Grade 40 reinforcement is substituted for the Grade 60 #5 dowel bars connecting the modified bridge approach slab to the bridge abutment, the reinforcement may be bent up to 90 degrees with a 2" minimum radius near the abutment to allow compaction of the backfill material near the abutment. Damage to epoxy coating shall be repaired in accordance with Sec 710.

* Seal joint between vertical face of modified bridge approach slab and wing with "Silicone Joint Sealant for Saw Cut and Formed Joints" in accordance with Sec 717.

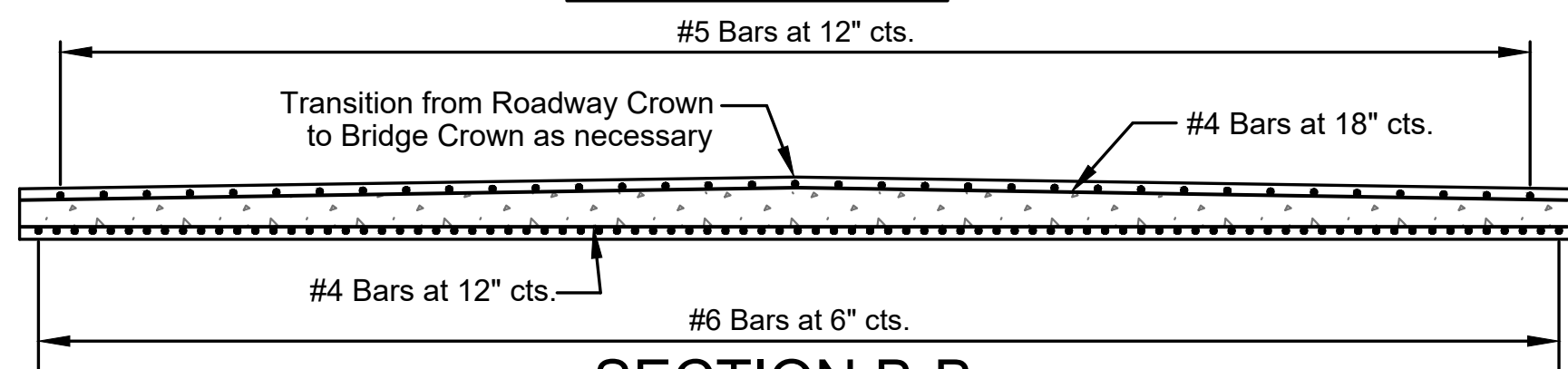
Reinforcement, Type 5 Aggregate base and other necessary items for installation shall be included in the installation of the "Bridge Approach Slab".



PART PLAN SHOWING REINFORCEMENT

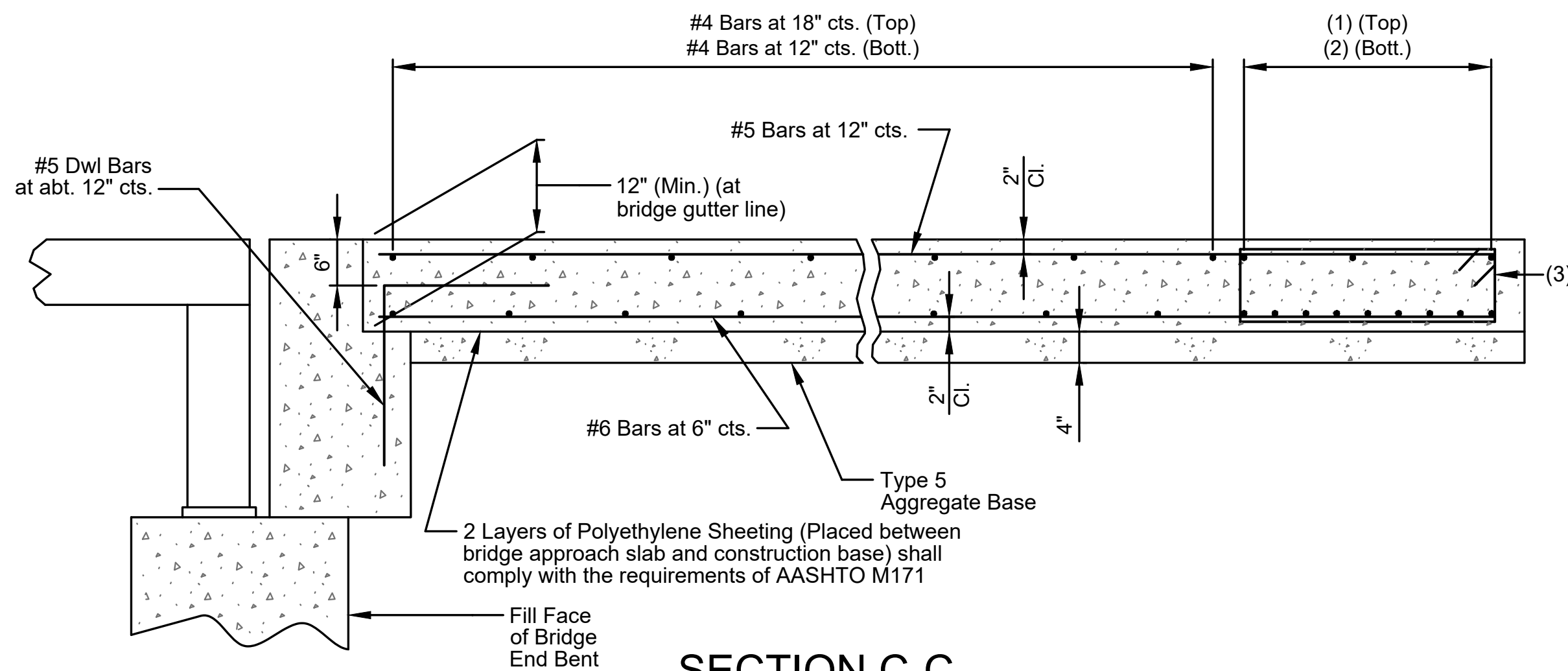


SECTION A-A

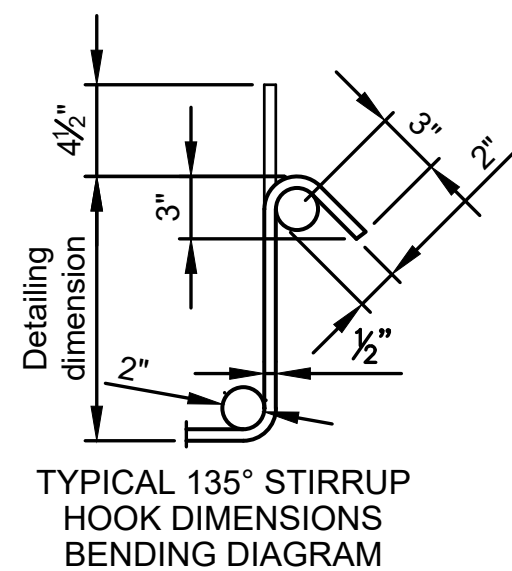
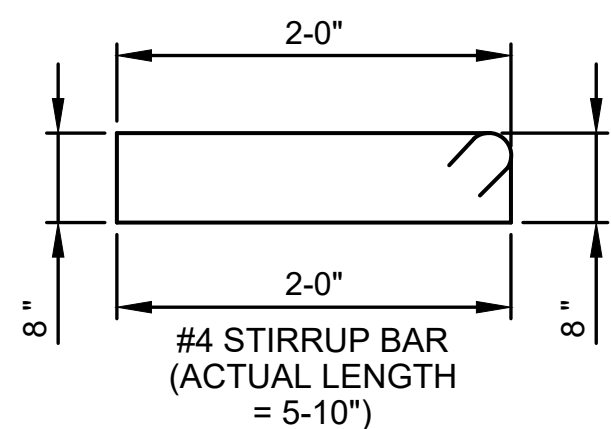


SECTION B-B

Note: With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION C-C



Note: Nominal lengths are based on out to out dimensions shown in bending diagram and are listed for fabricators use (nearest inch).

- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) #4 Stirrup Bars at abt. 12" cts.; Stirrup height (8") and actual length may vary due to crown.

NOTE: THIS IS A STANDARD MoDOT DRAWING. CERTAIN PORTIONS OF THIS SHEET MAY NOT MATCH ACTUAL PROJECT CONDITIONS.

BRIDGE APPROACH SLAB

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

