

2026 NAU ASCE STEEL BRIDGE

SENIOR DESIGN PROJECT BEYOND BRIDGES

PREPARED FOR:

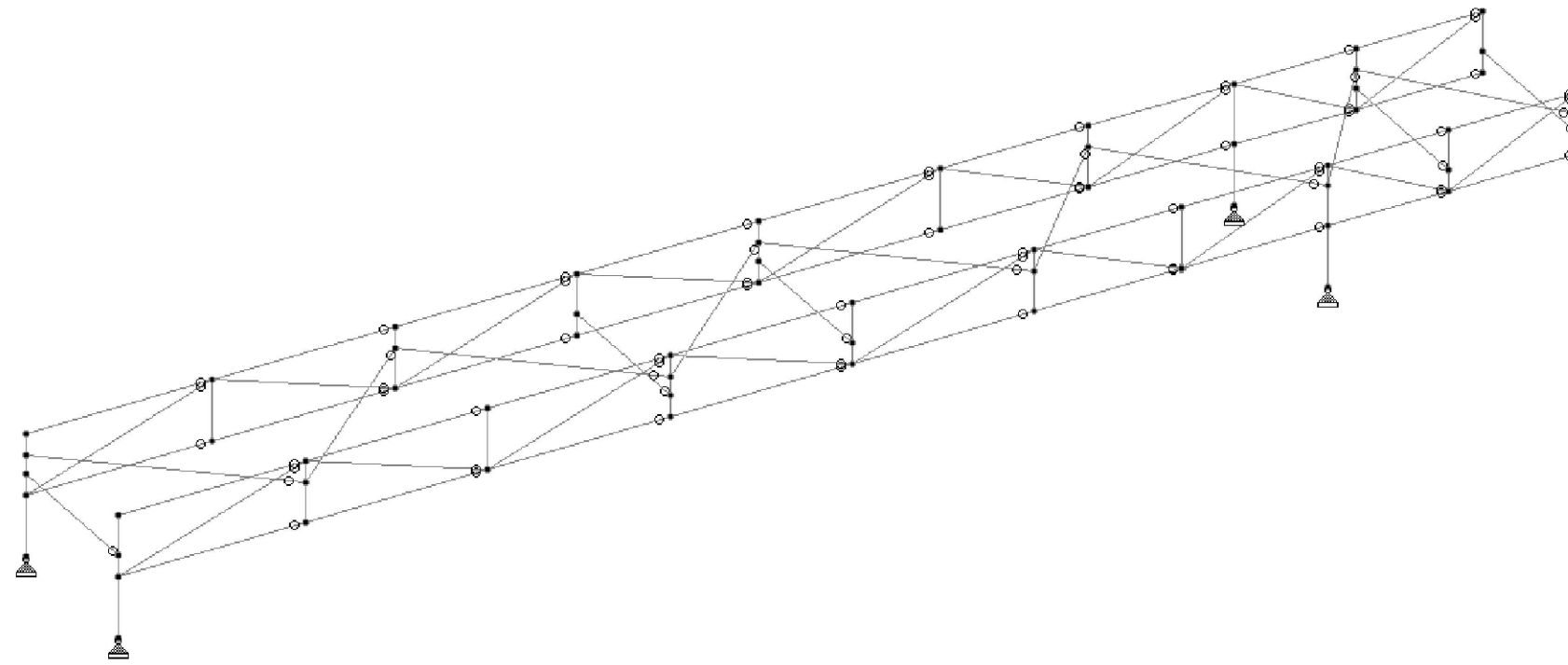
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LEGEND

- CONNECTION LABEL → [A]
- MEMBER LABEL → [AB]
- SECTION CUT LABEL → (B)
- SECTION CUT PAGE NO. → (4)
- WELD CONNECTION → [Hatched Box]
- HIDDEN LINES → [Dashed Line]

CONNECTION SCHEDULE			
CONNECTION	THICKNESS	SIZE	QUANTITY
A	1/4" PLATE	5" x 3 3/4"	6
0.5A	1/4" PLATE	3" x 3 3/4"	2
B	1/4" PLATE	9" x 3 3/4"	4
C	1/4" PLATE	5 1/4" x 3 3/4"	8
0.5C	1/4" PLATE	3" x 3 3/4"	2
D	1/4" PLATE	8 5/8" x 3 3/4"	4
E	1/4" PLATE	5 3/8" x 5 1/2"	2
F	1/4" PLATE	5 3/4" x 5 1/2"	2
G	1/4" PLATE	8" x 3 3/4"	2
H	1/4" PLATE	7 1/2" x 3 3/4"	2
I	1/4" PLATE	6 3/4" x 3 7/8"	2
J	1/4" PLATE	6 3/8" x 3 3/4"	2
K	1/4" PLATE	4 5/16" x 4 1/2"	2
L	1/4" PLATE	2" x 2 5/8"	10
M	1/4" ANGLE	2" x 1 1/4" x 3 1/2"	8
0.5M	1/4" ANGLE	2" x 2" x 1 3/4"	2
N	1/4" PLATE	4" x 2"	7

LATERAL BRACING MEMBER SCHEDULE				
MEMBER	MEMBER SIZE	CUT LENGTH	QUANTITY	TOTAL LENGTH
LL	HSS 2.0x1.0x0.12	2'-5 3/4"	5	12'-4 3/4"
MM1	HSS 2.0x1.0x0.12	3'-2 5/8"	1	3'-2 5/8"
MM2	HSS 2.0x1.0x0.12	3'-3 1/4"	1	3'-3 1/4"
MN1	HSS 2.0x1.0x0.12	1'-11 7/8"	1	1'-11 7/8"
MN2	HSS 2.0x1.0x0.12	1'-11 7/8"	1	1'-11 7/8"
MN3	HSS 2.0x1.0x0.12	1'-11 1/2"	4	7'-10"
MN4	HSS 2.0x1.0x0.12	1'-11 1/2"	4	7'-10"
MN5	HSS 2.0x1.0x0.12	1'-9"	2	3'-6"
MN6	HSS 2.0x1.0x0.12	1'-8 7/8"	2	3'-5 3/4"

TRUSS MEMBER SCHEDULE				
MEMBER	MEMBER SIZE	CUT LENGTH	QUANTITY	TOTAL LENGTH
AA	HSS 2.0x1.5x0.12	3'-0"	4	12'-0"
AH	HSS 2.0x1.5x0.12	2'-5"	2	4'-10"
AJ	HSS 2.0x1.5x0.12	2'-1"	2	4'-2"
AK	HSS 2.0x1.5x0.12	0'-8"	1	0'-8"
AK2	HSS 2.0x1.5x0.12	0'-8"	1	0'-8"
BA	HSS 2.0x1.5x0.12	0'-8"	4	5'-4"
BA2	HSS 2.0x1.5x0.12	0'-8"	4	5'-4"
BC	HSS 2.0x1.5x0.12	3'-0"	8	24'-0"
BC2	HSS 2.0x1.5x0.12	3'-1"	2	6'-2"
BD	HSS 2.0x1.5x0.12	2'-11"	10	29'-2"
CD	HSS 2.0x1.5x0.12	0'-8"	4	5'-4"
CD2	HSS 2.0x1.5x0.12	0'-8"	4	5'-4"
CE	HSS 2.0x1.5x0.12	0'-8"	1	0'-8"
CE2	HSS 2.0x1.5x0.12	0'-8"	1	0'-8"
CI	HSS 2.0x1.5x0.12	2'-0"	2	4'-0"
CK	HSS 2.0x1.5x0.12	2'-1"	2	4'-2"
DD	HSS 2.0x1.5x0.12	3'-0"	4	12'-0"
EA	HSS 2.0x1.5x0.12	3'-1"	2	6'-2"
EE	HSS 2.0x1.5x0.12	1'-0"	2	2'-0"
FF	HSS 2.0x1.5x0.12	1'-0"	2	2'-0"
FH	HSS 2.0x1.5x0.12	2'-5"	2	4'-10"
FJ	HSS 2.0x1.5x0.12	2'-0"	2	4'-0"
GH	HSS 2.0x1.5x0.12	2'-4 1/4"	4	9'-5"
GI	HSS 2.0x1.5x0.12	2'-5"	4	9'-8"
IJ	HSS 2.0x1.5x0.12	1'-11 5/8"	4	7'-7 1/2"



PROJECT: NAU 2025-2026 STEEL BRIDGE

PROJECT NOTES



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

DATE: MARCH 2026

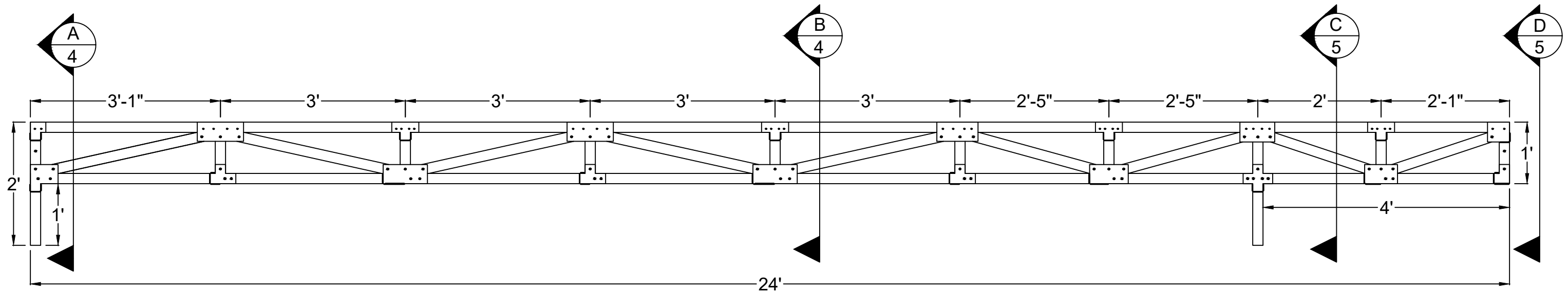
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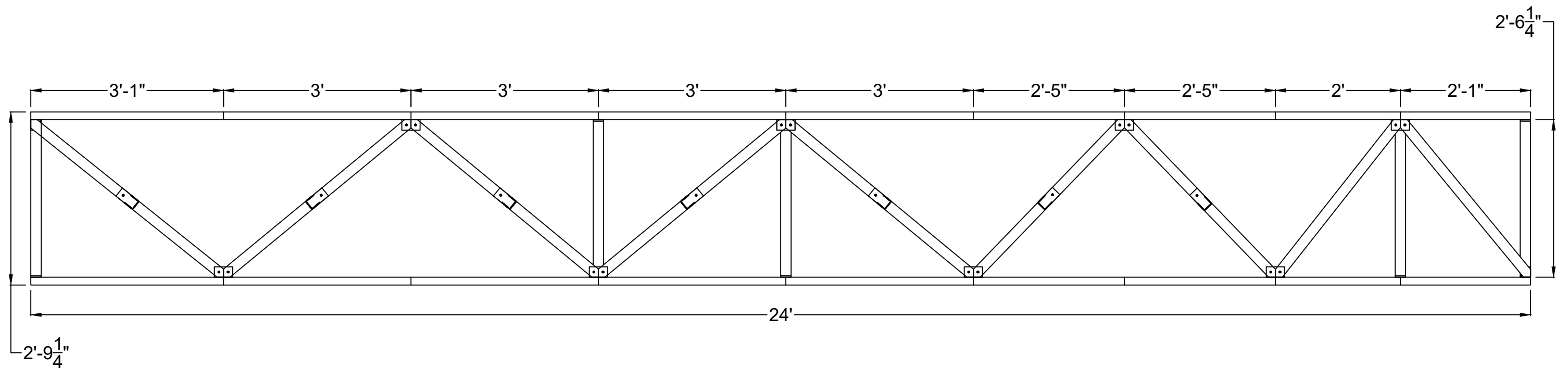
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OF:

34



ELEVATION VIEW

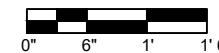


TOP VIEW



PROJECT: NAU 2025-2026 STEEL BRIDGE

ELEVATION AND TOP VIEW



SCALE: 5/8" = 1'

BY: MA

CHECKED BY: KJ, KF, & IK

DATE: MARCH 2026

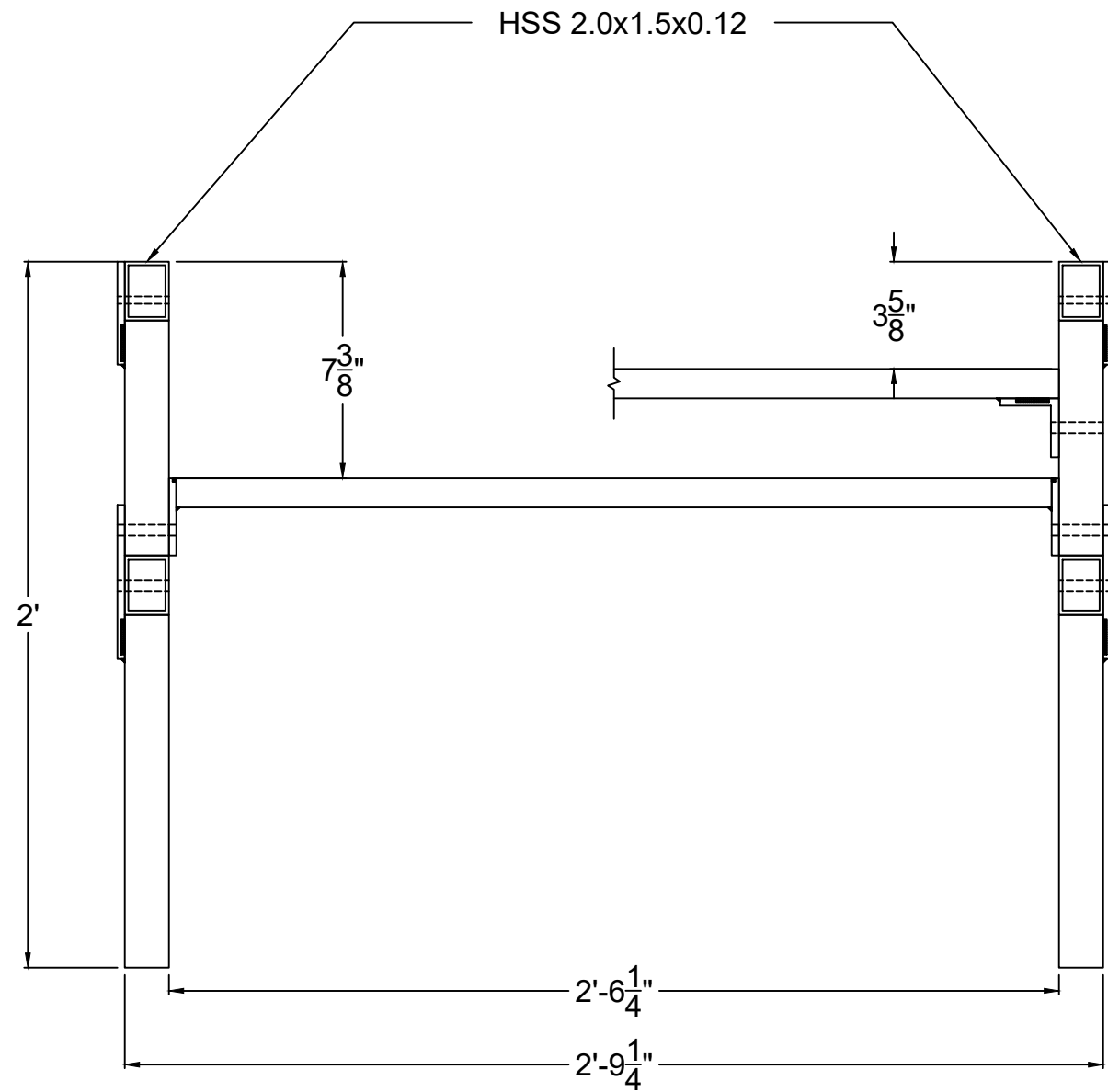
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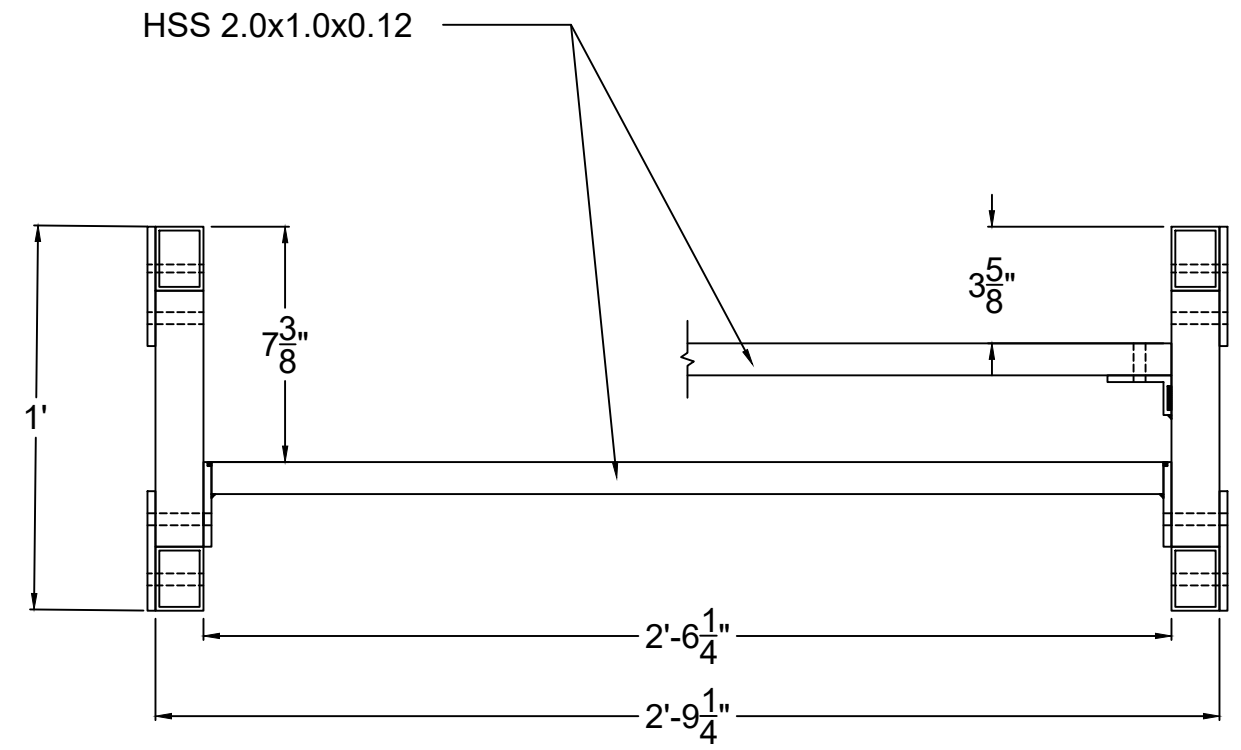
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OF:

34



SECTION CUT A



SECTION CUT B



PROJECT: NAU 2025-2026 STEEL BRIDGE

A & B SECTION CUTS



SCALE: 2" = 1'

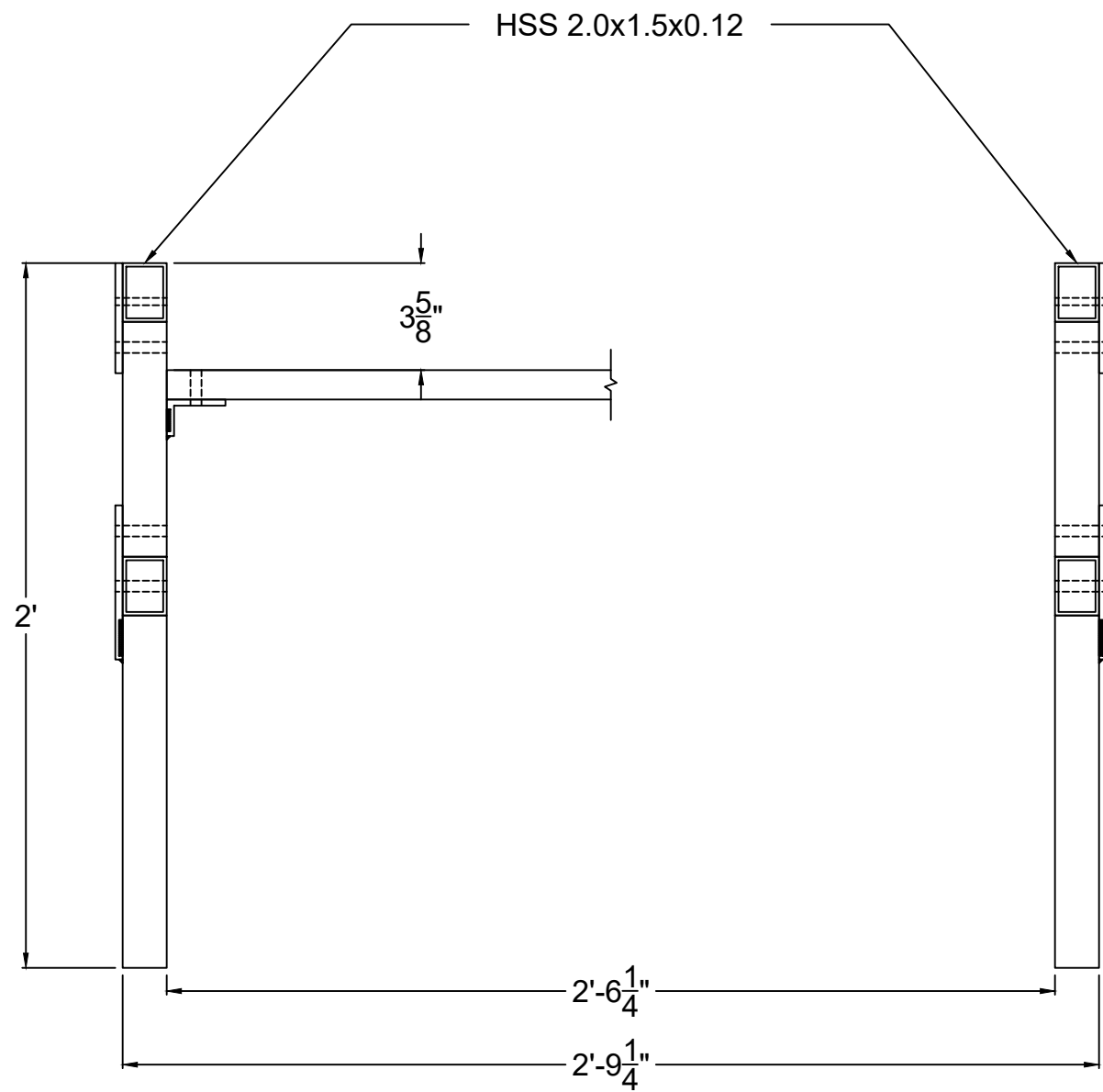
BY: MA

CHECKED BY: KJ, KF, & IK

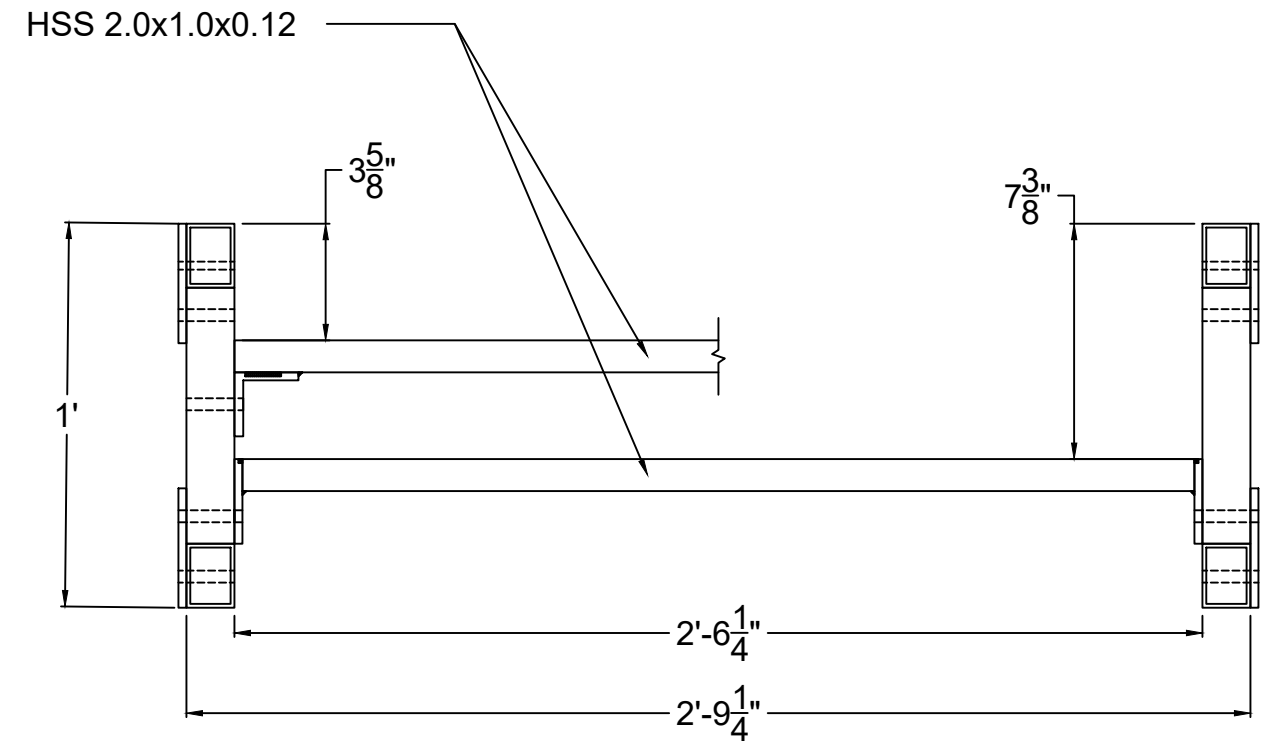
DATE: MARCH 2026

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SECTION CUT C



SECTION CUT D



PROJECT: NAU 2025-2026 STEEL BRIDGE

C & D SECTION CUTS



SCALE: 2" = 1'

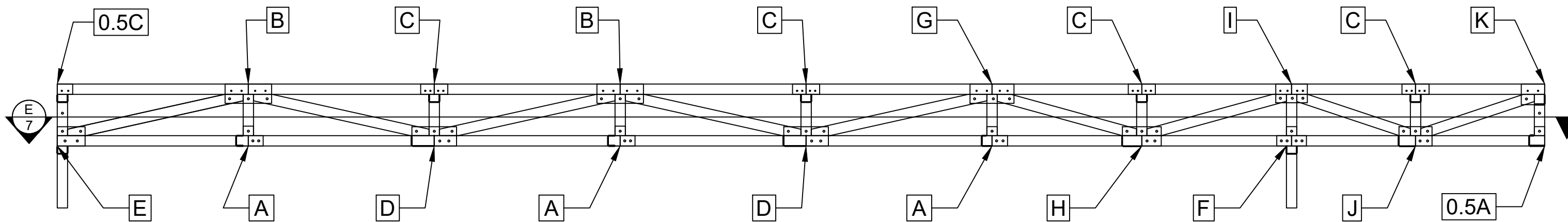
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CHECKED BY: KJ, KF, & IK

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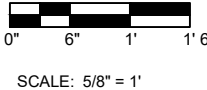


ELEVATION VIEW



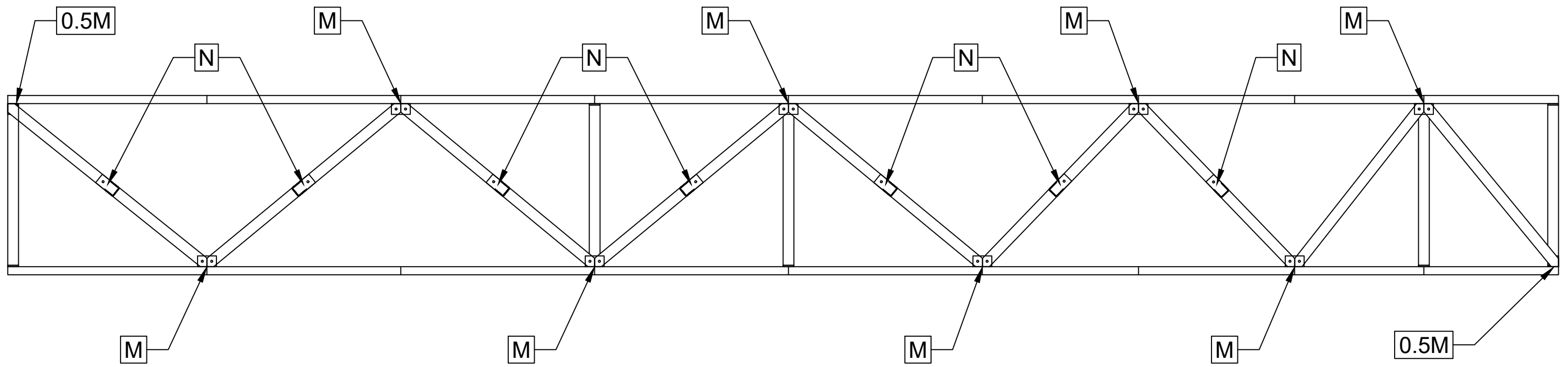
PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION KEY - ELEVATION

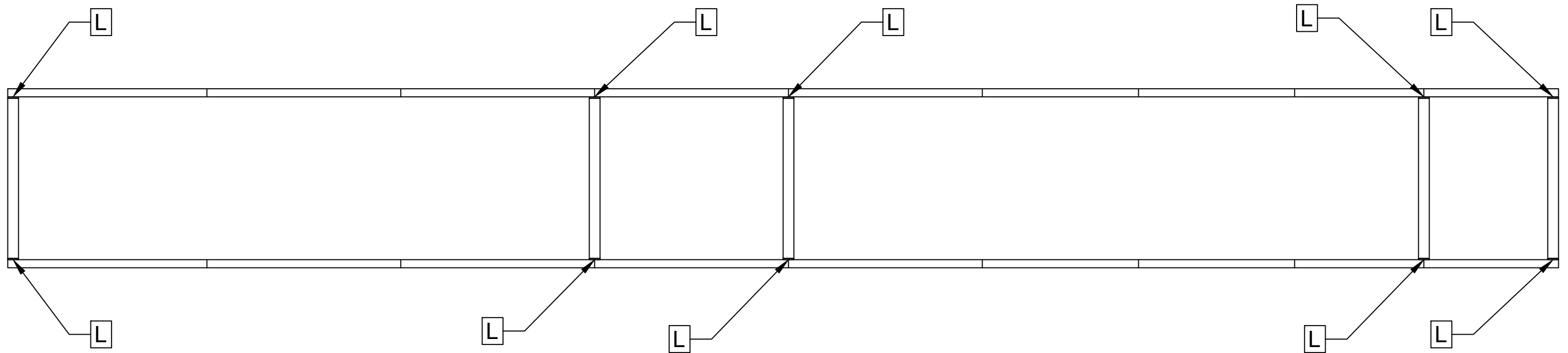


BY: MA
 CHECKED BY: KJ, KF, & IK
 DATE: MARCH 2026

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TOP VIEW



SECTION CUT E



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION KEY - TOP VIEW



SCALE: 5/8" = 1'

BY: MA

CHECKED BY: KJ, KF, & IK

DATE: MARCH 2026

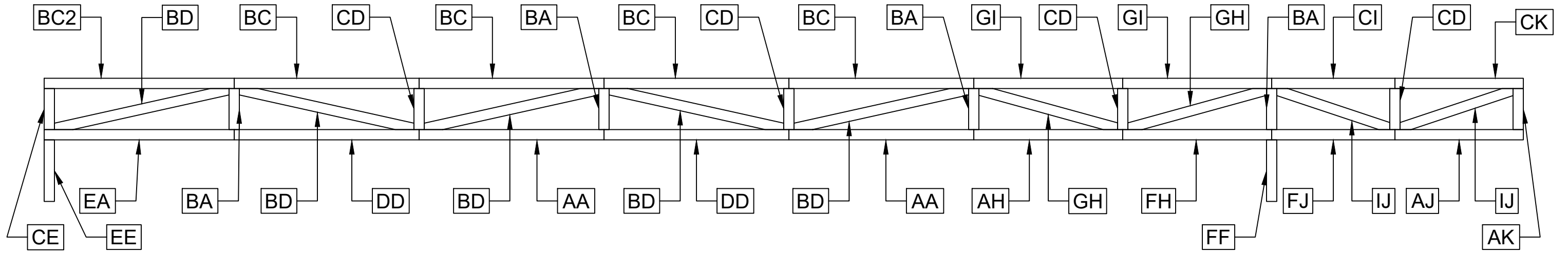
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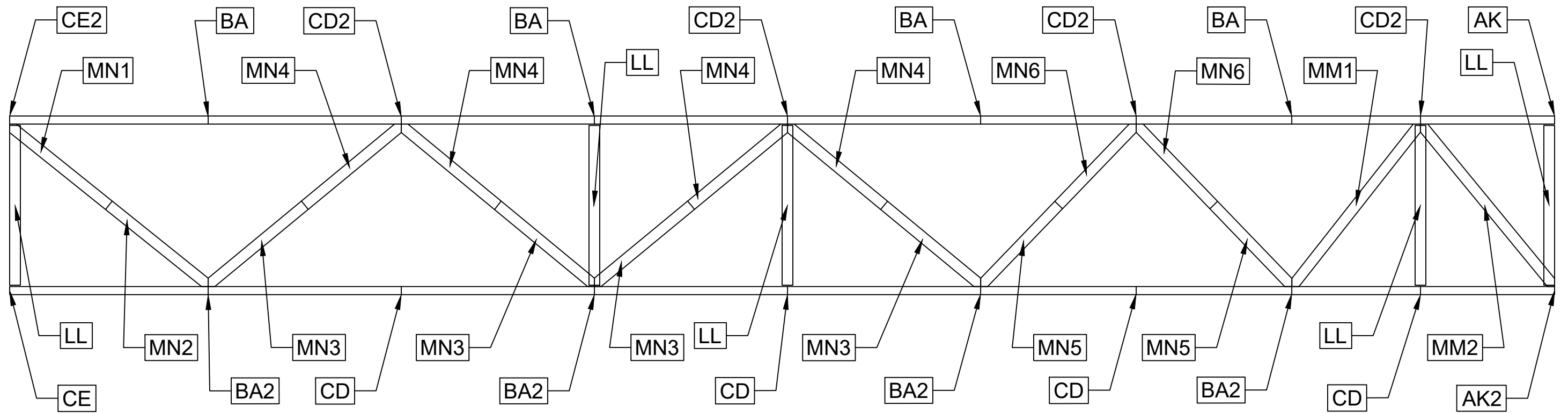
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OF:

34



ELEVATION VIEW

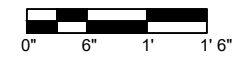


TOP VIEW



PROJECT: NAU 2025-2026 STEEL BRIDGE

MEMBER KEY



SCALE: 5/8" = 1'

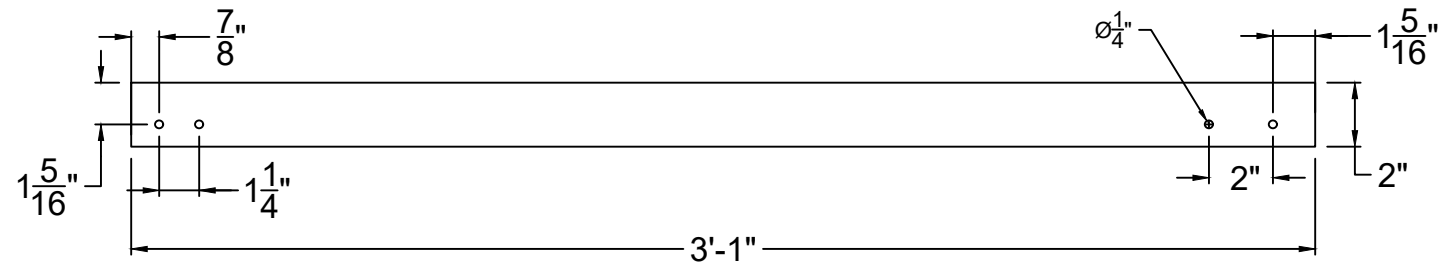
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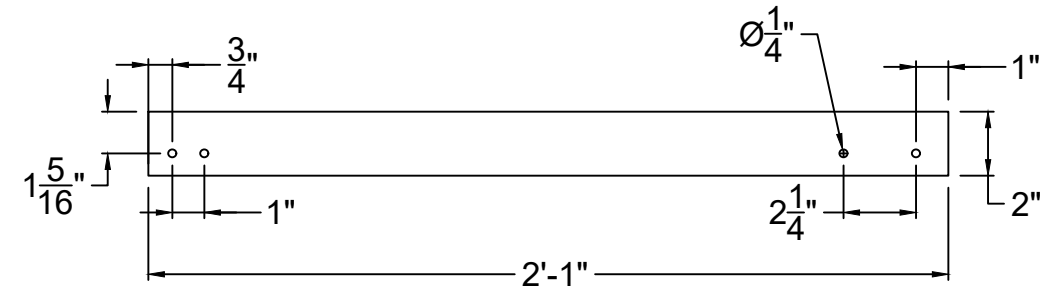
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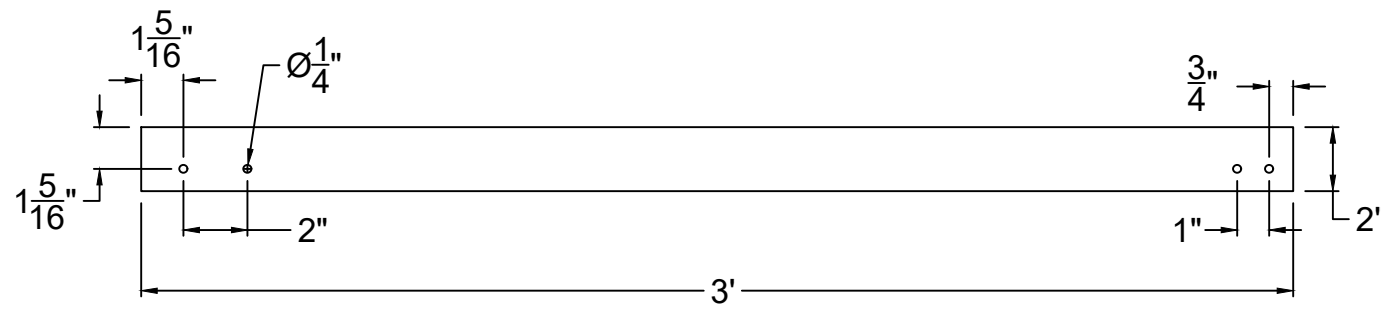
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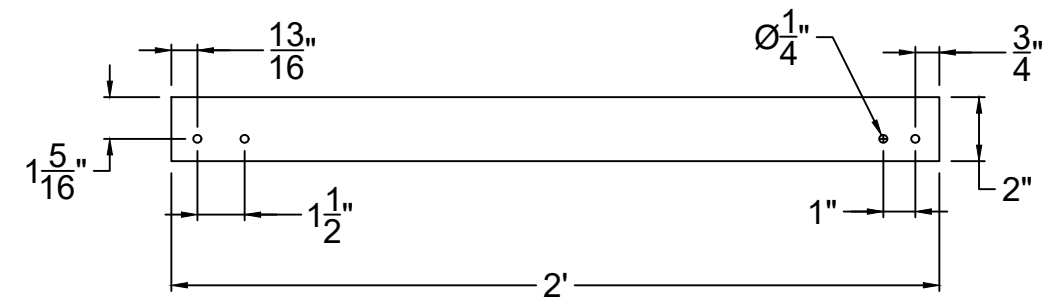
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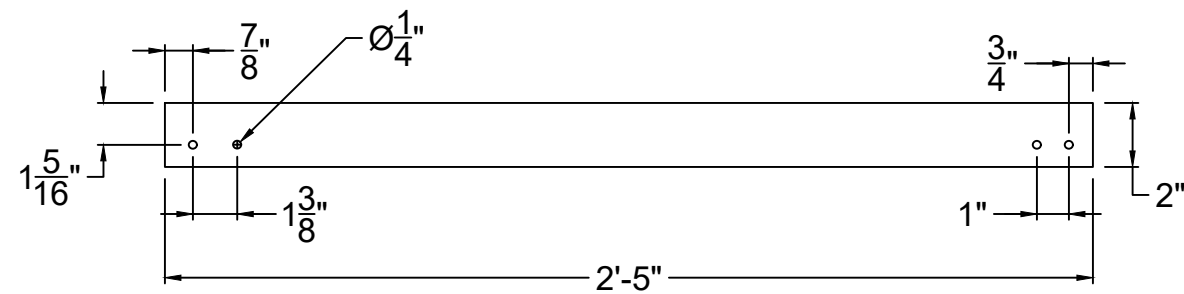
MEMBER CK



MEMBER BC



MEMBER CI

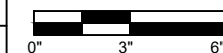


MEMBER GI



PROJECT: NAU 2025-2026 STEEL BRIDGE

TOP CHORD DETAILS



SCALE: 2" = 1'

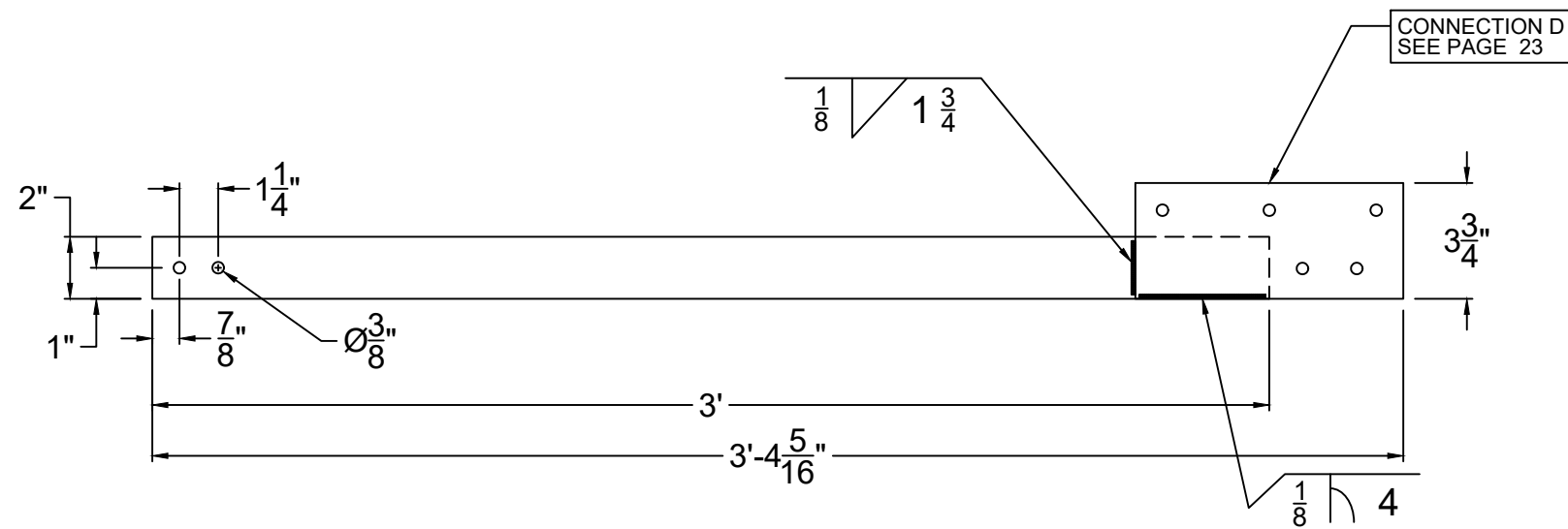
BY: MA

CHECKED BY: KJ, KF, & IK

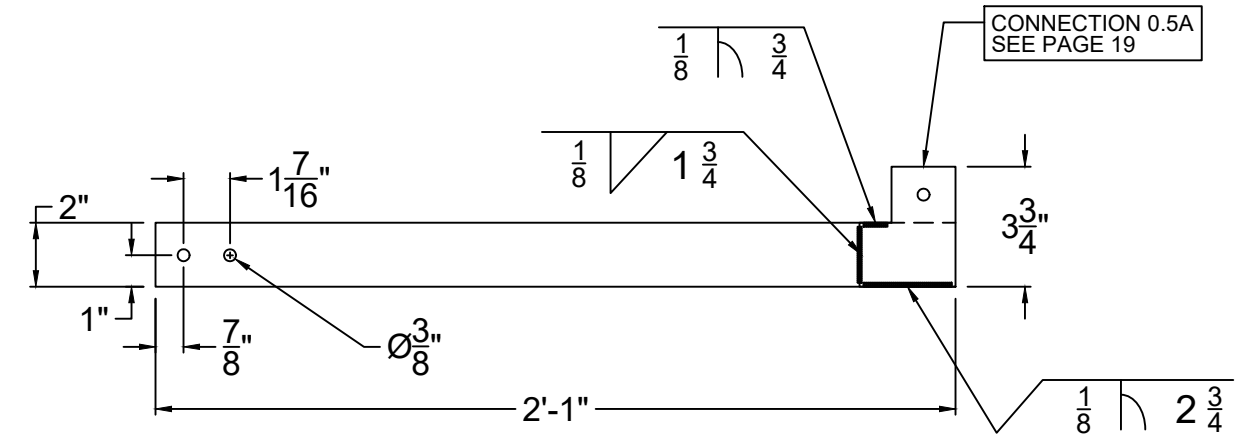
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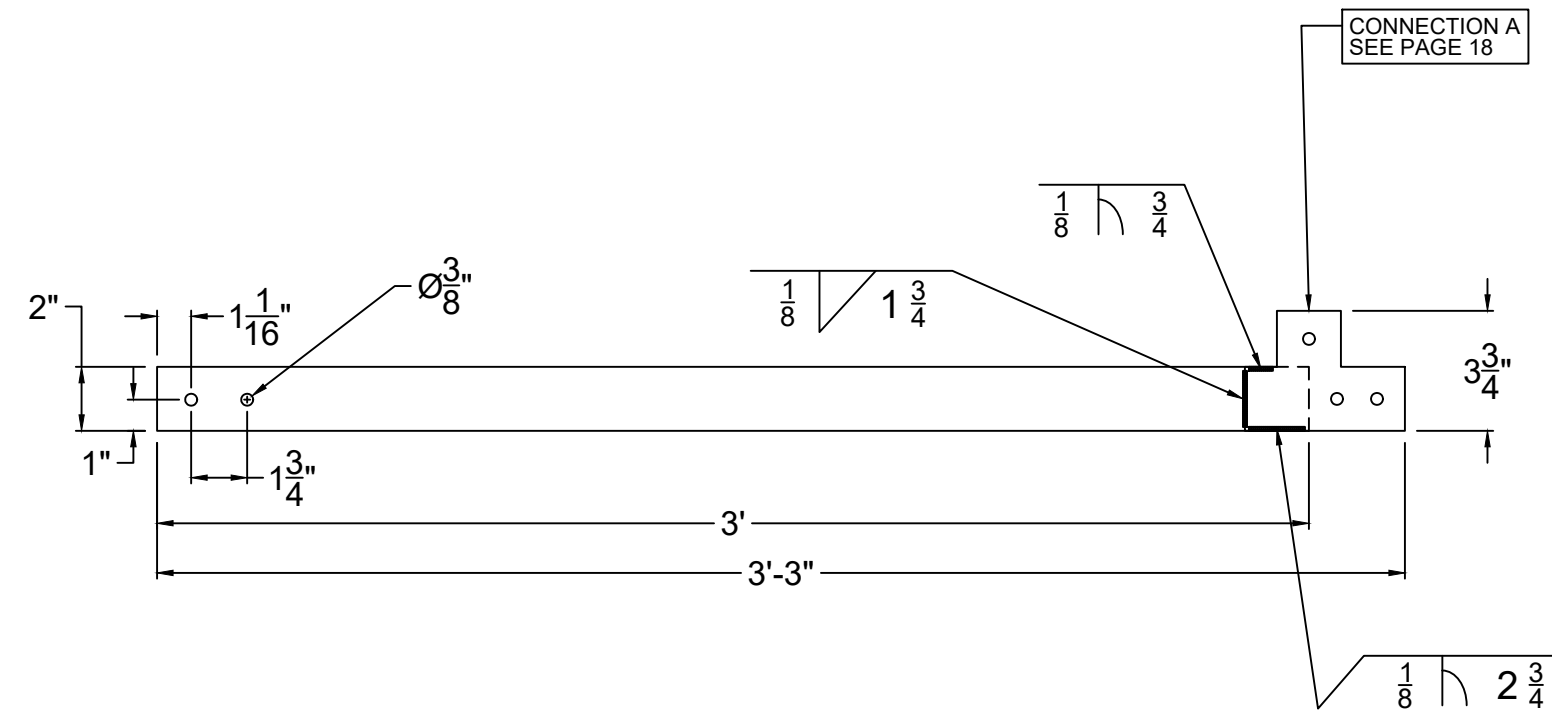
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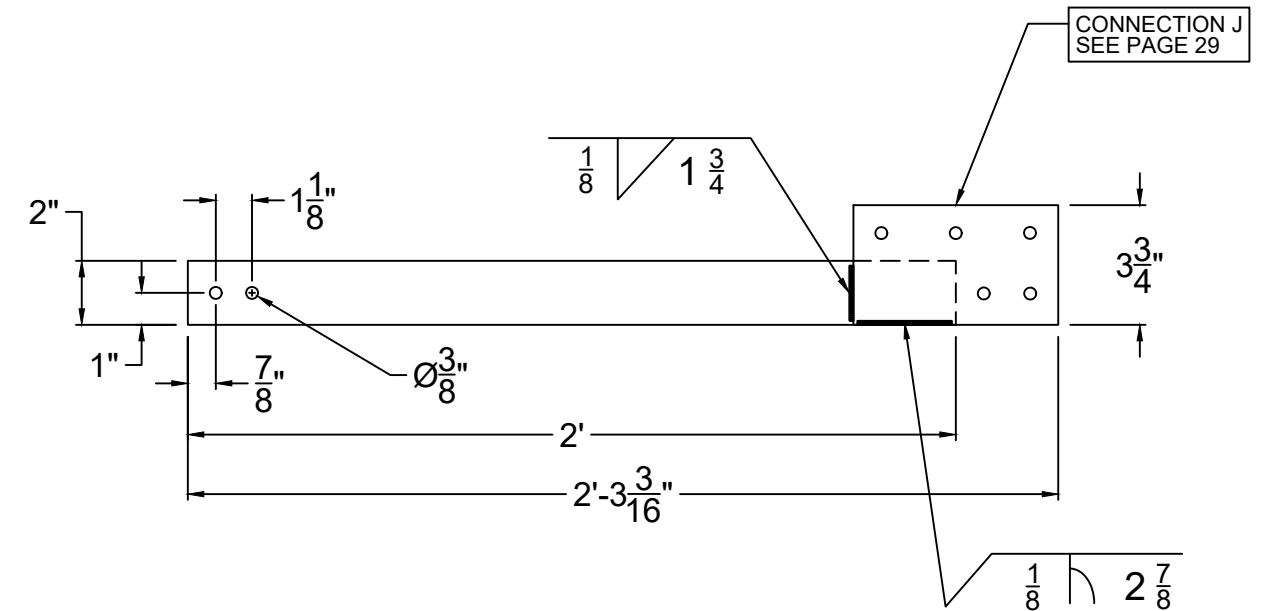
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MEMBER AJ



MEMBER AA

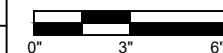


MEMBER FJ



PROJECT: NAU 2025-2026 STEEL BRIDGE

BOTTOM CHORD DETAIL



SCALE: 2" = 1'

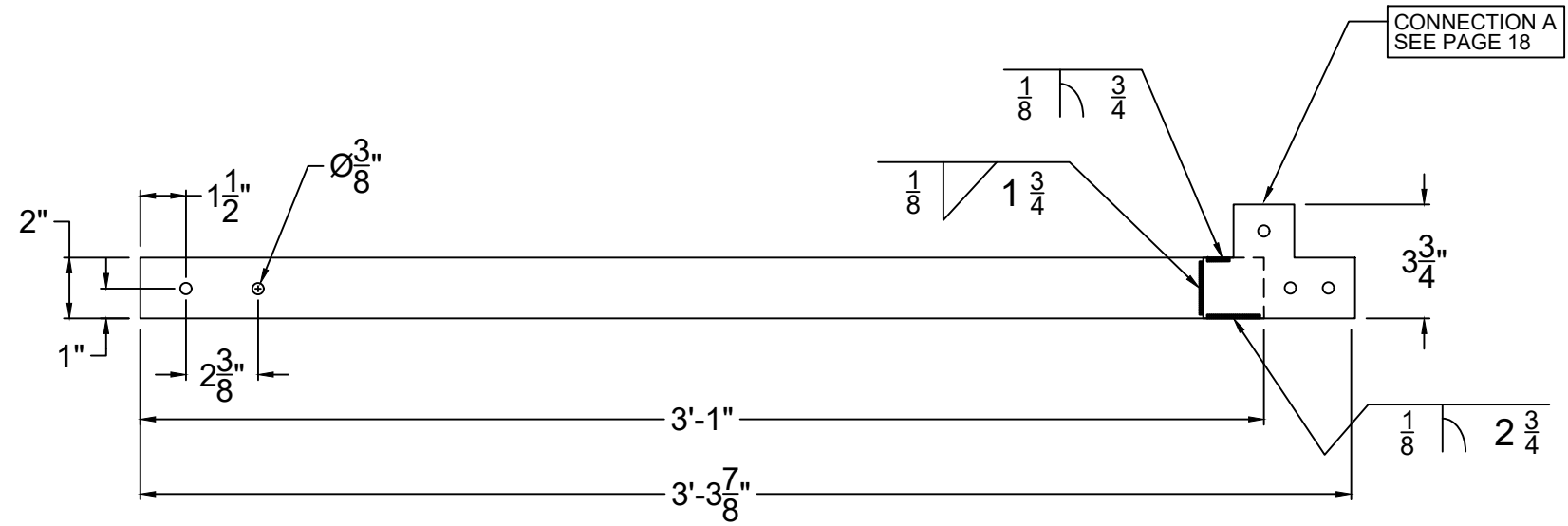
BY: MA

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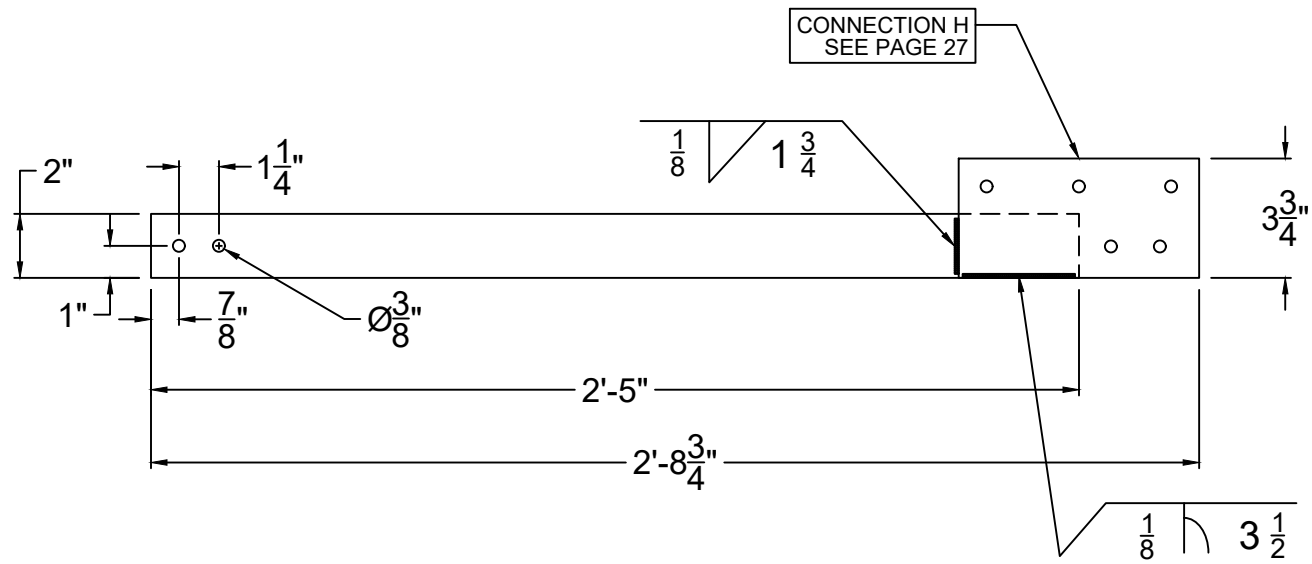
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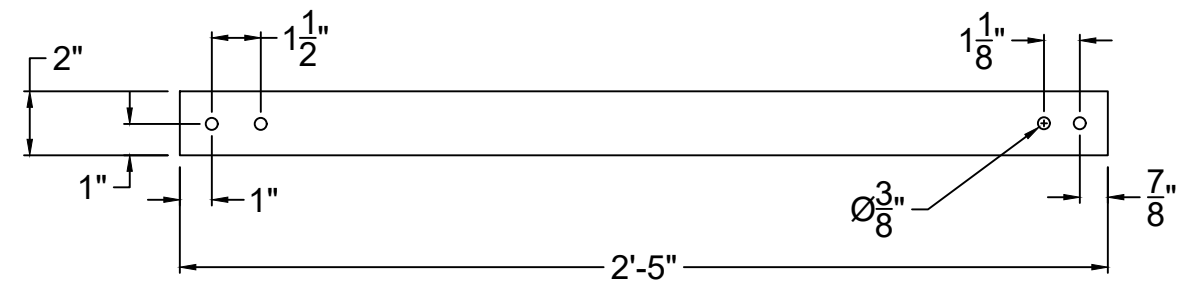
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MEMBER EA



MEMBER AH



MEMBER FH



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BOTTOM CHORD DETAIL



SCALE: 2" = 1'

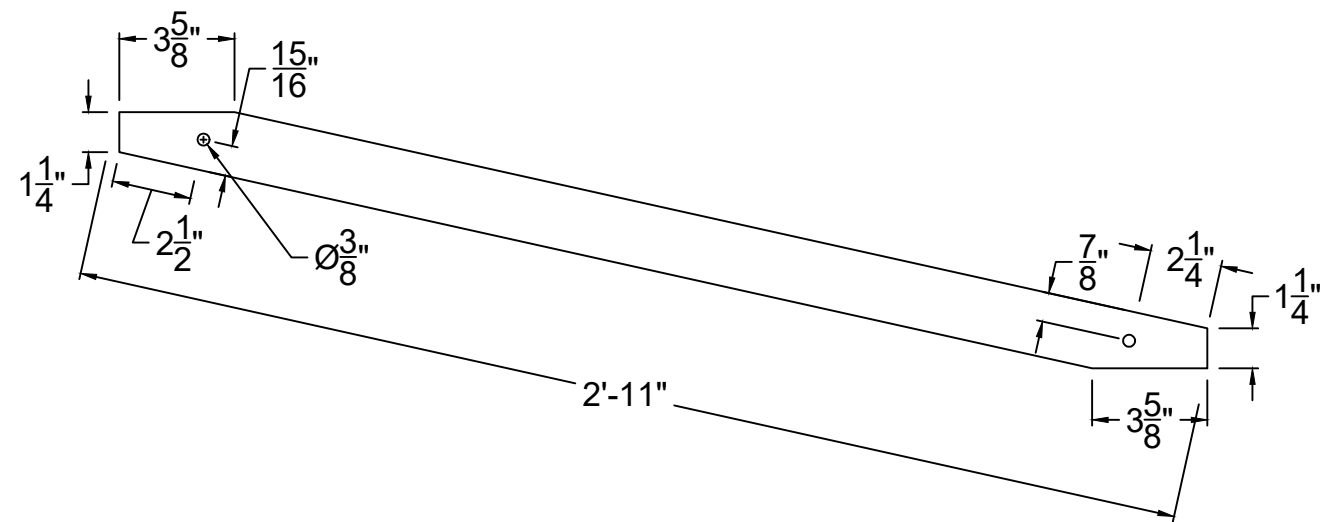
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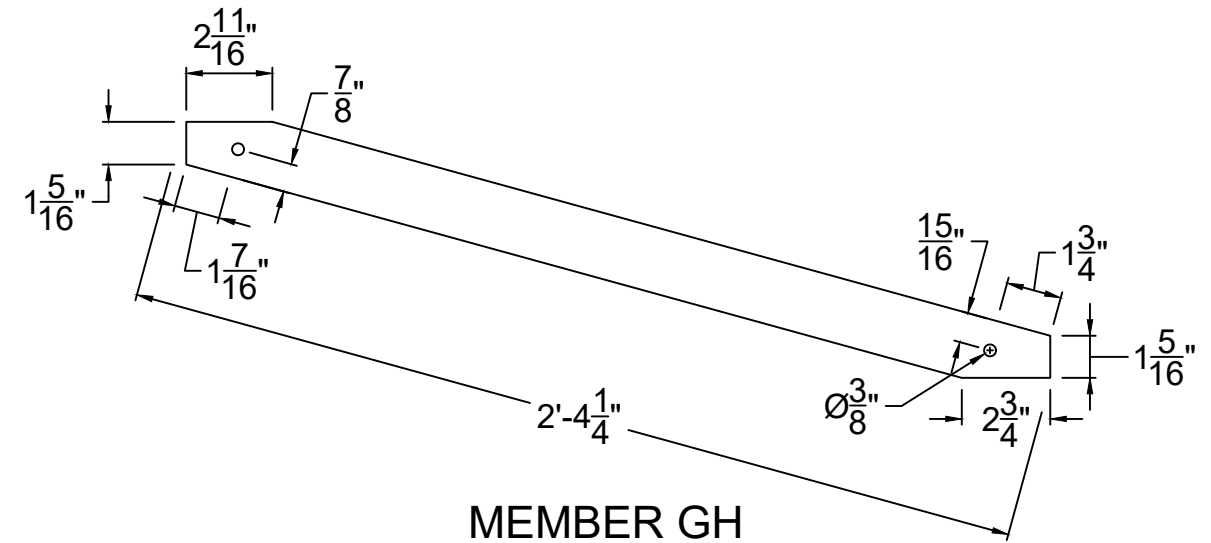
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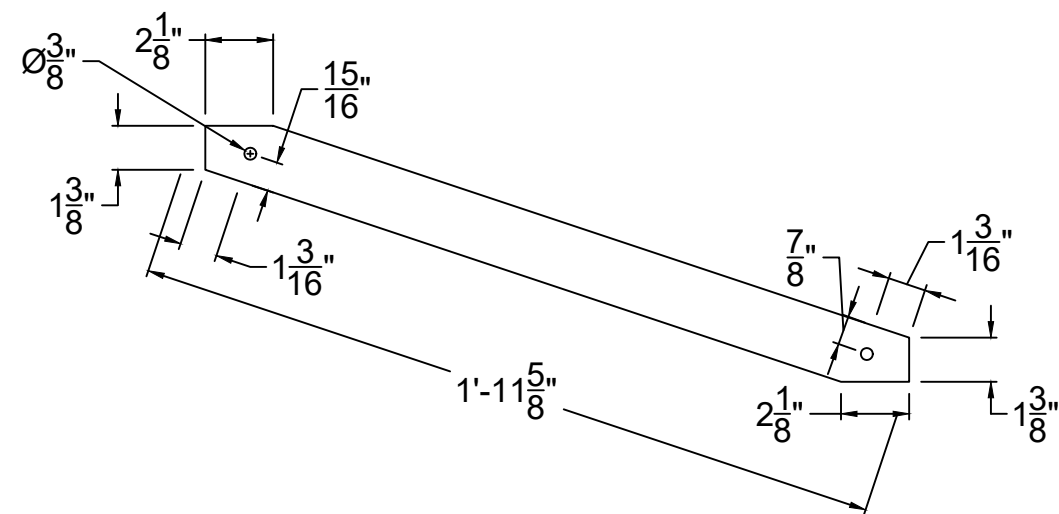
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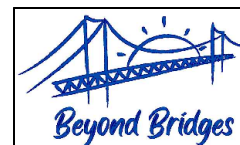
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MEMBER GH

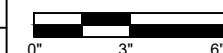


MEMBER IJ



PROJECT: NAU 2025-2026 STEEL BRIDGE

DIAGONAL MEMBER DETAILS



SCALE: 2" = 1'

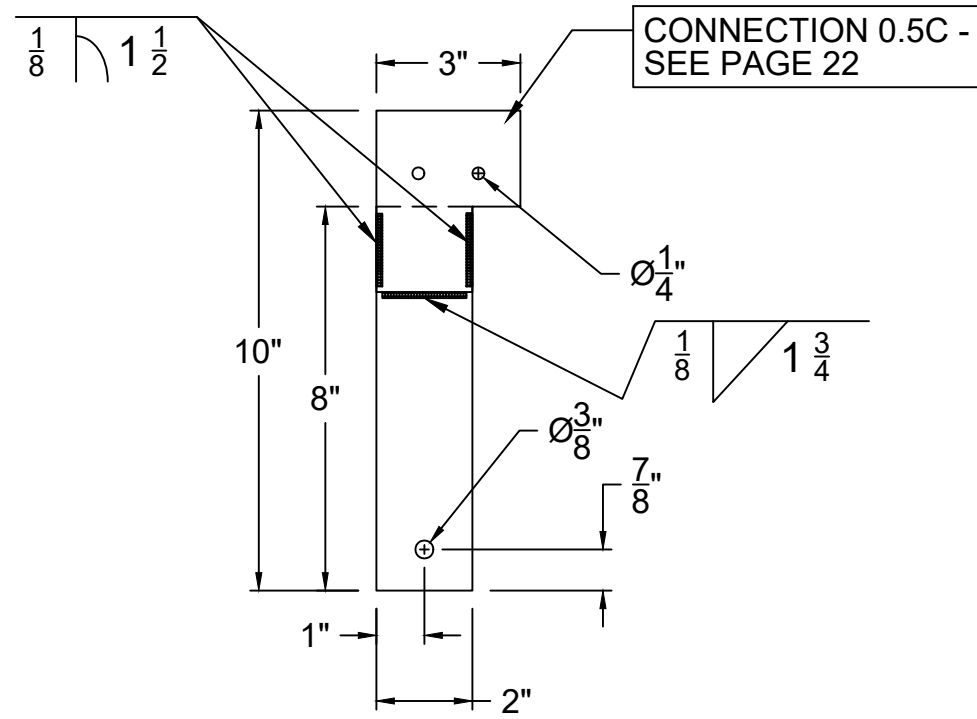
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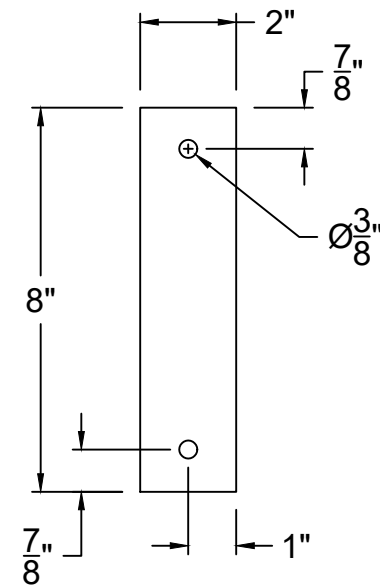
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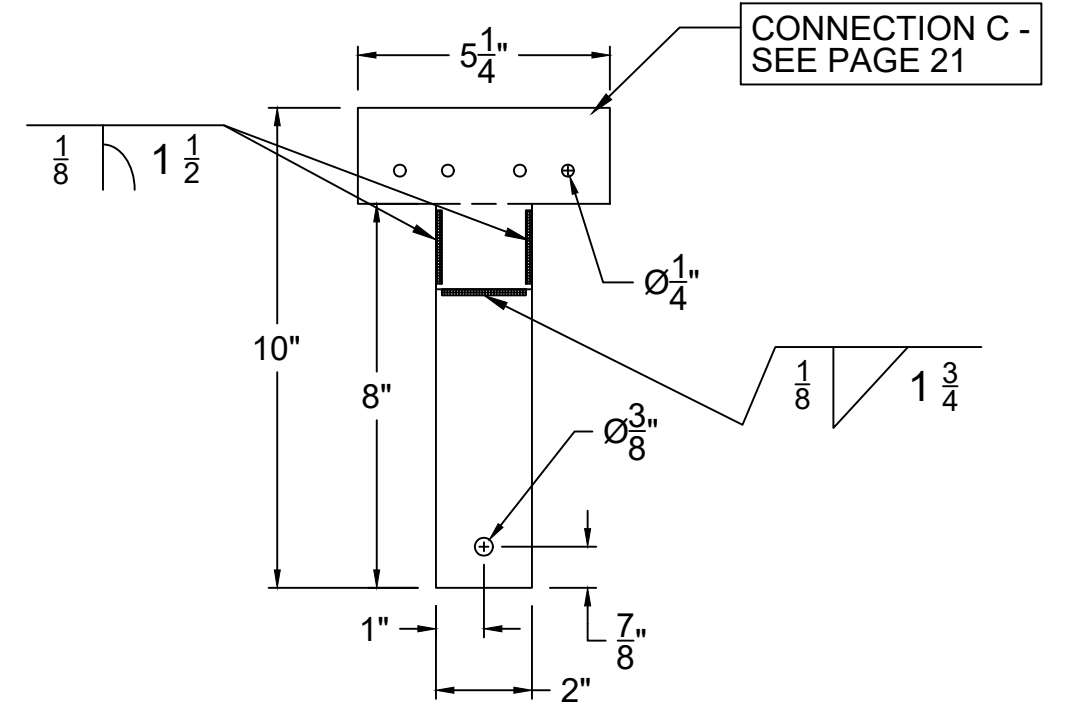
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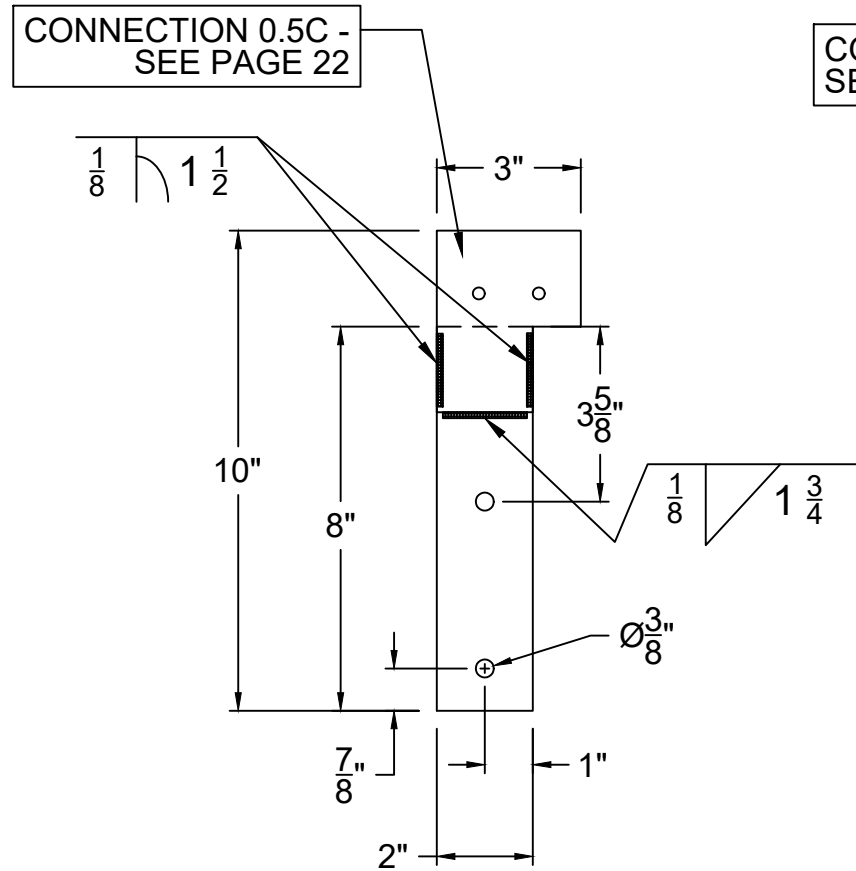
MEMBER CE



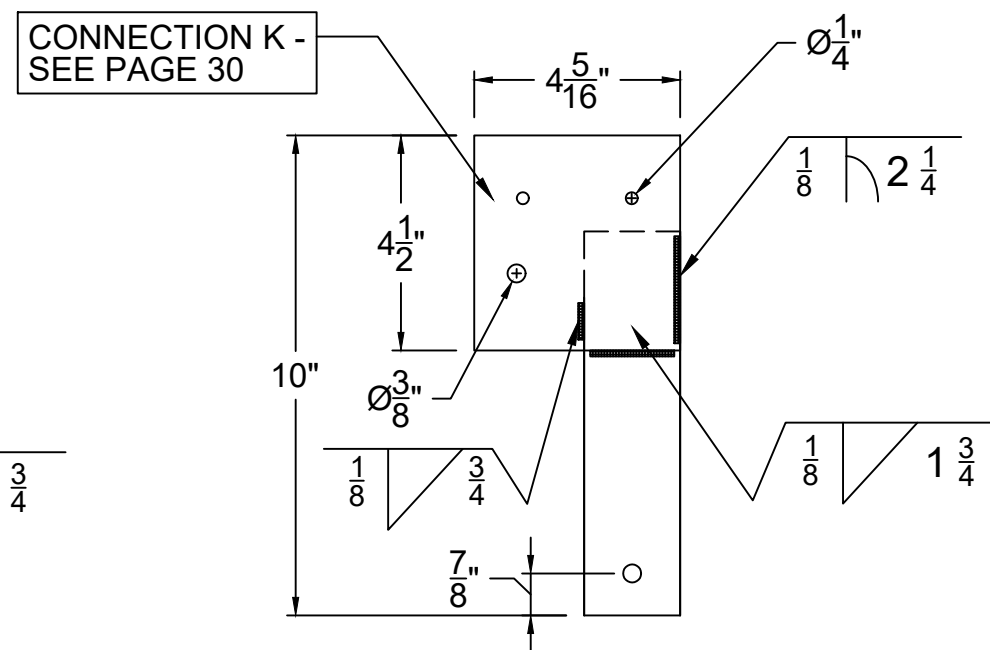
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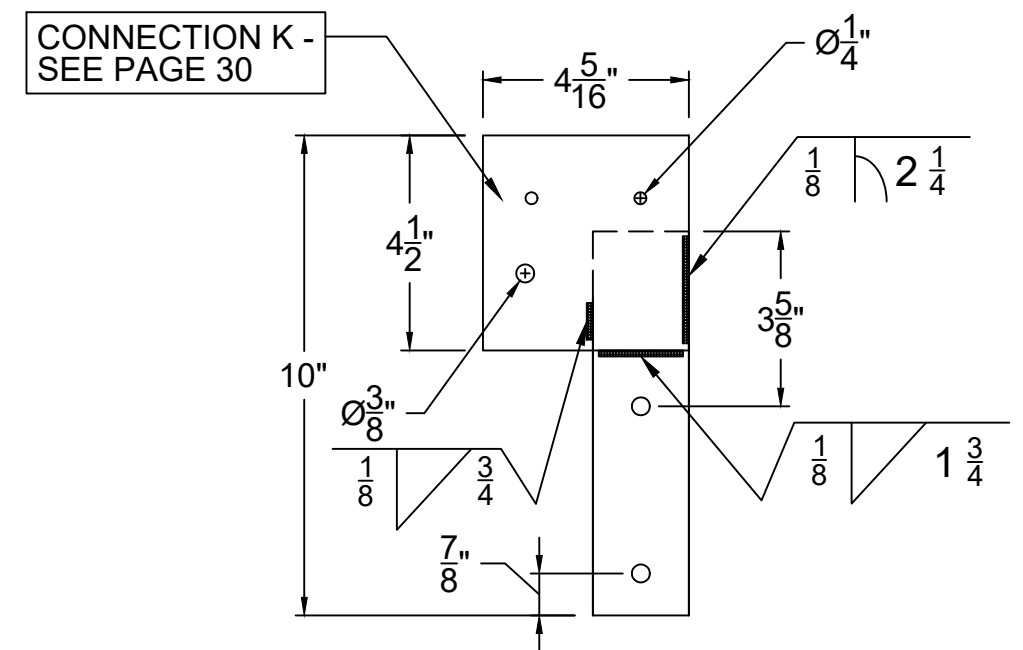
MEMBER CD



MEMBER CE2



MEMBER AK

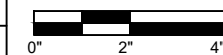


MEMBER AK2



PROJECT: NAU 2025-2026 STEEL BRIDGE

VERTICAL MEMBER DIMENSIONS



SCALE: 3" = 1'

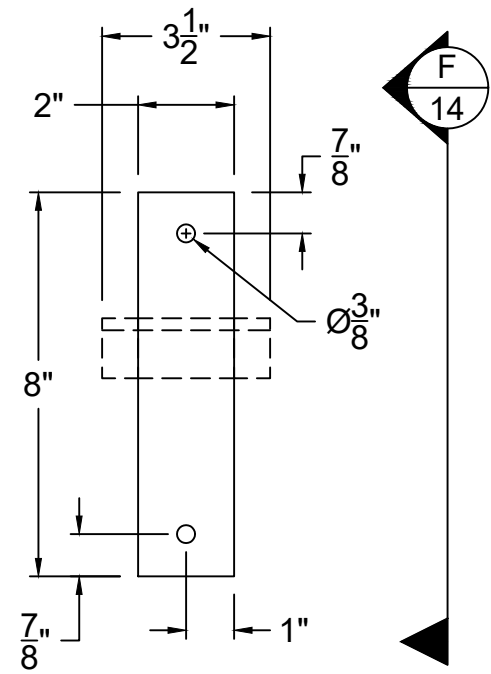
BY: MA

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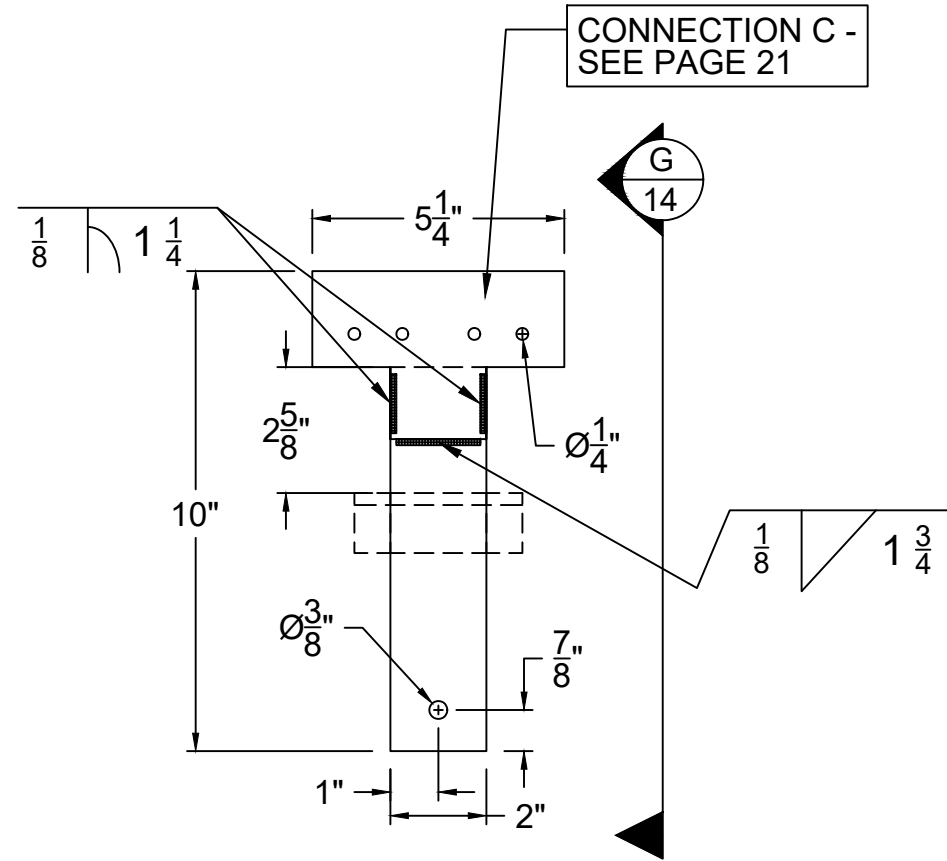
DATE: MARCH 2026

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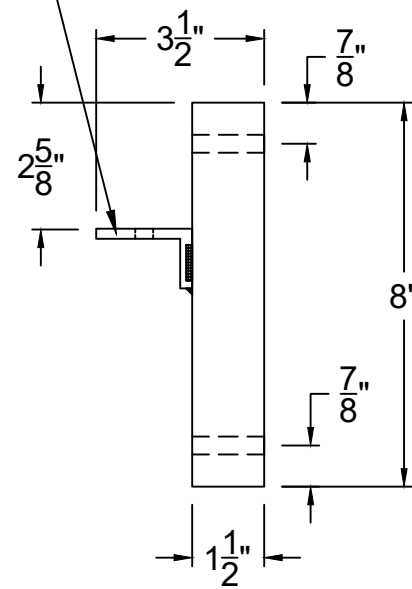


MEMBER BA2



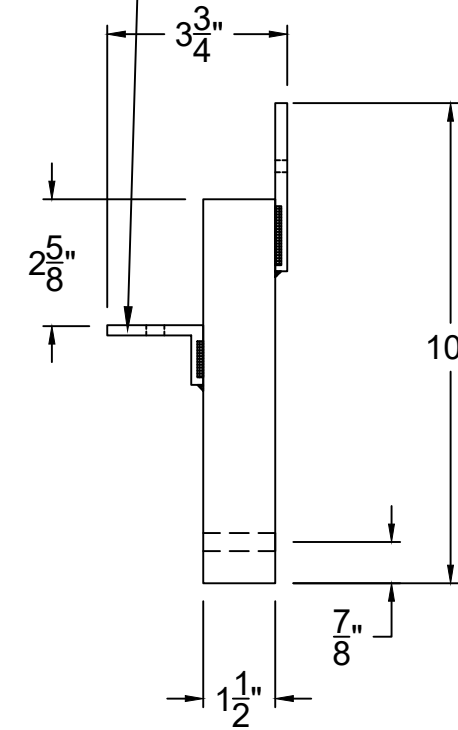
MEMBER CD2

CONNECTION M -
SEE PAGE 32



DETAIL E

CONNECTION M -
SEE PAGE 32

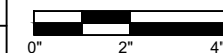


DETAIL F



PROJECT: NAU 2025-2026 STEEL BRIDGE

VERTICAL MEMBER DIMENSIONS



SCALE: 3" = 1'

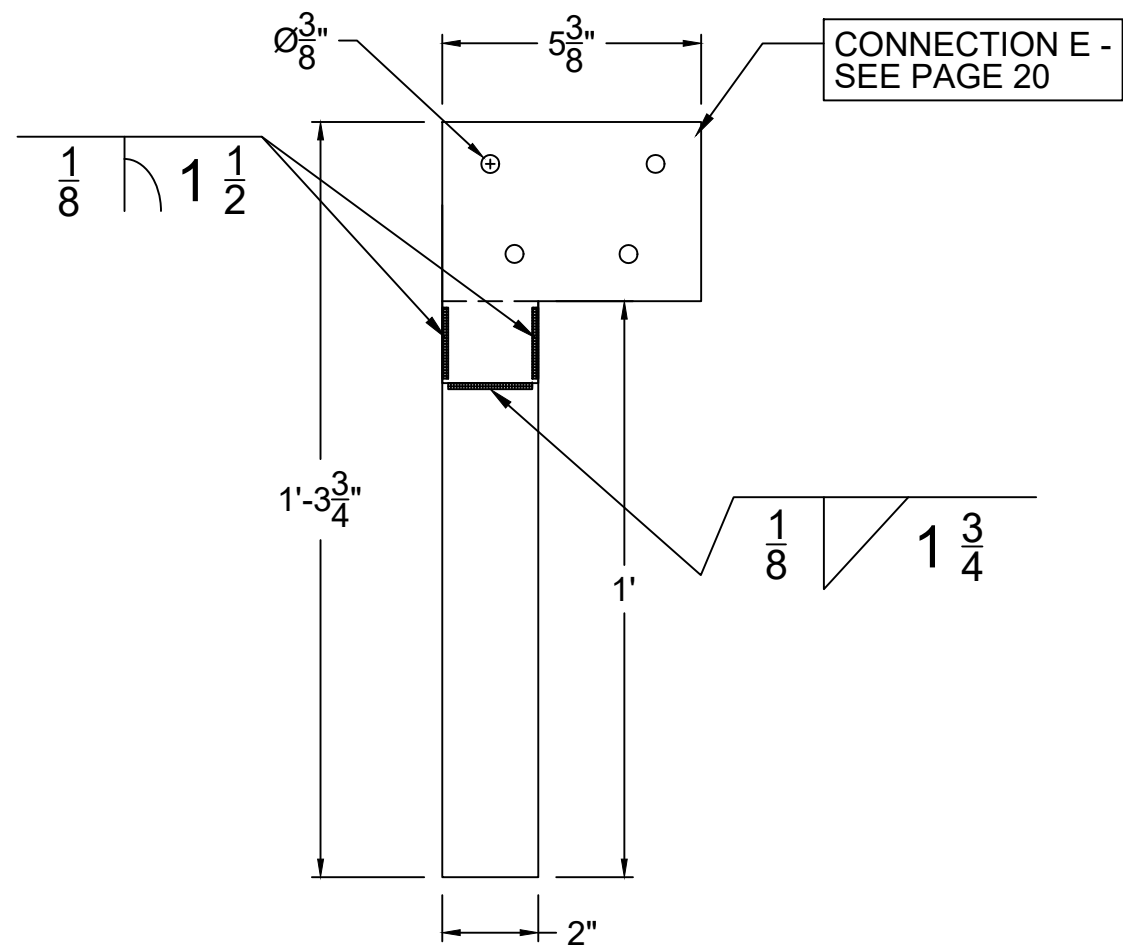
BY: MA

CHECKED BY: KJ, KF, & IK

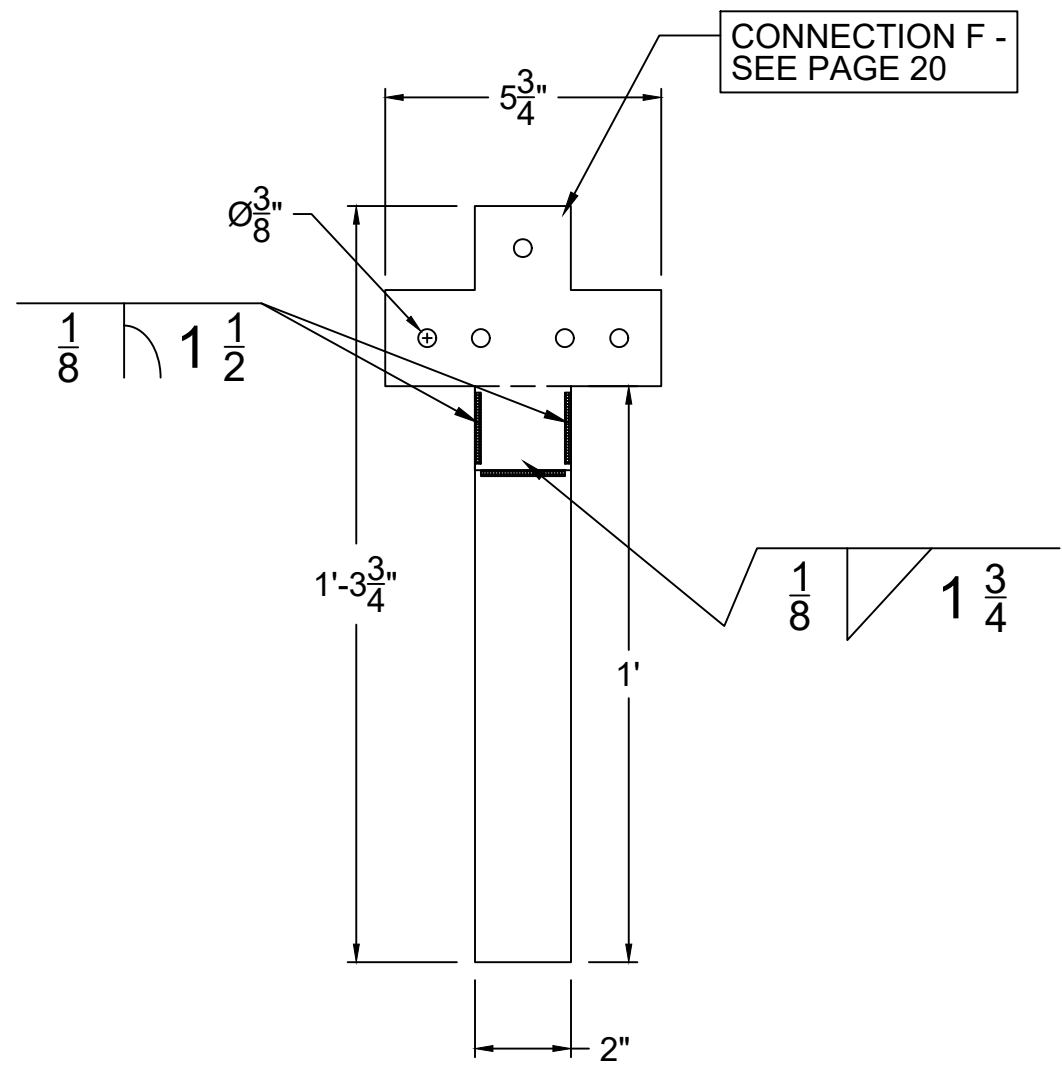
DATE: MARCH 2026

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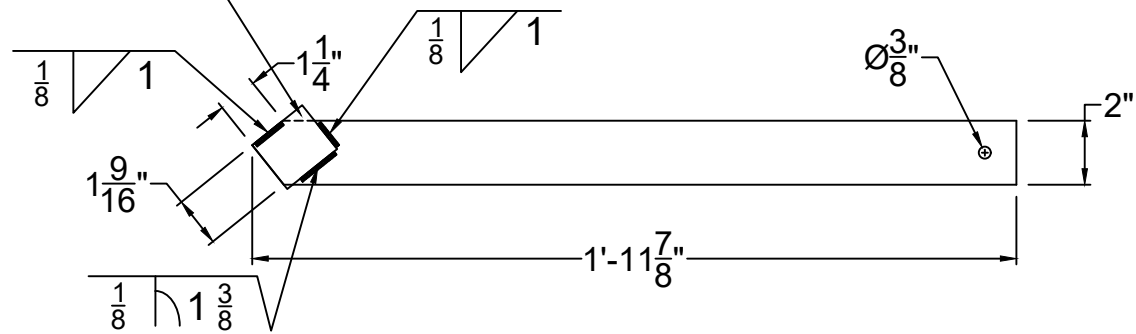


MEMBER EE



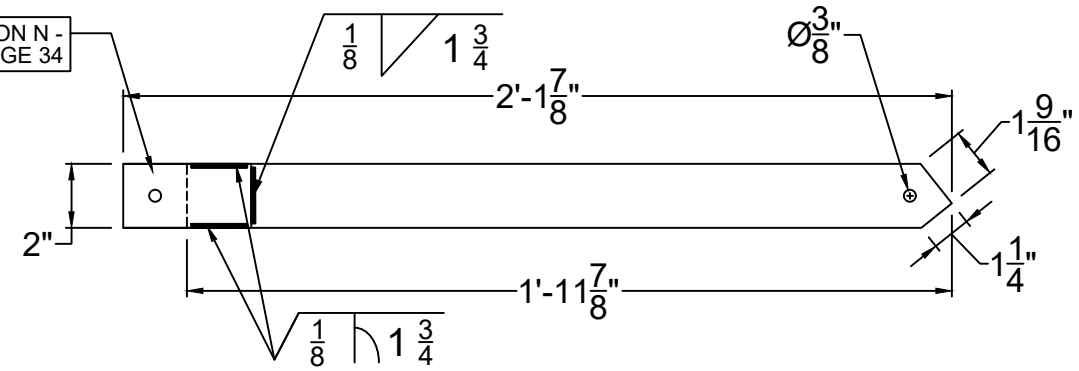
MEMBER FF

CONNECTION 0.5M -
SEE PAGE 33



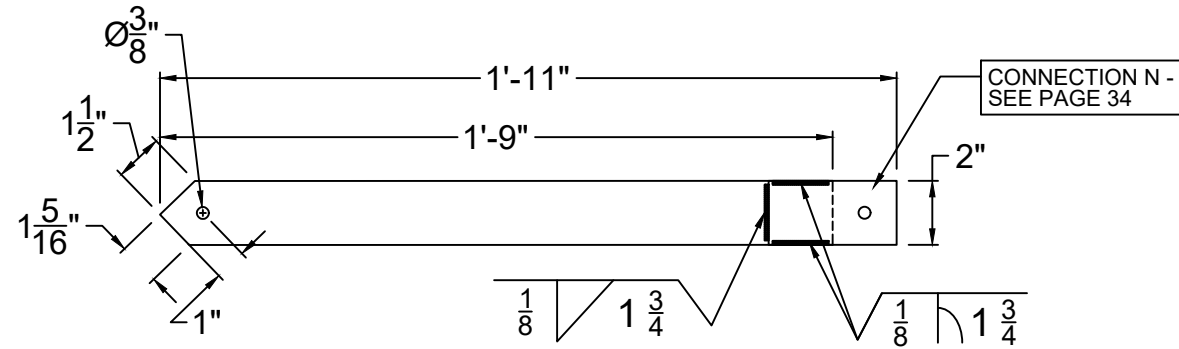
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CONNECTION N -
SEE PAGE 34

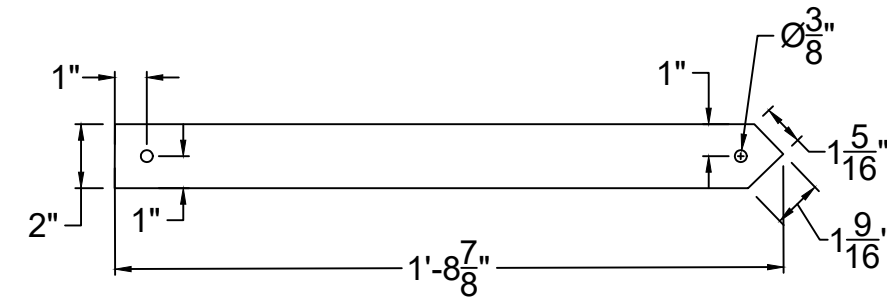


MEMBER MN2

CONNECTION N -
SEE PAGE 34

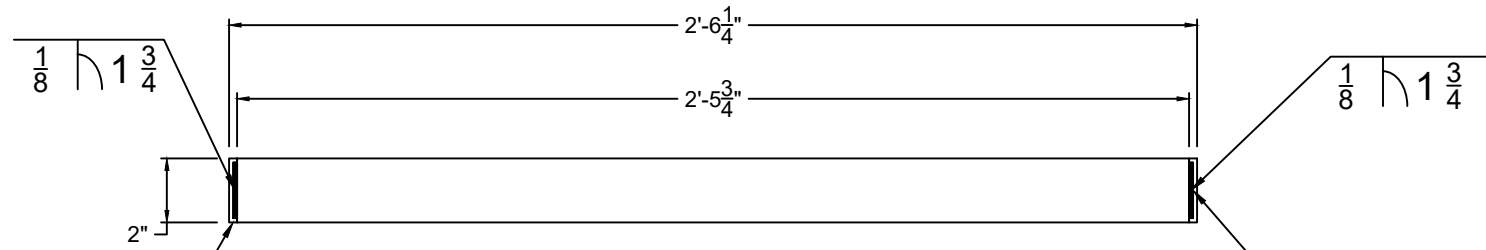


MEMBER MN5



MEMBER MN6

CONNECTION L -
SEE PAGE 31



MEMBER LL

CONNECTION L -
SEE PAGE 31



PROJECT: NAU 2025-2026 STEEL BRIDGE

LATERAL BRACING MEMBERS



SCALE: 2" = 1'

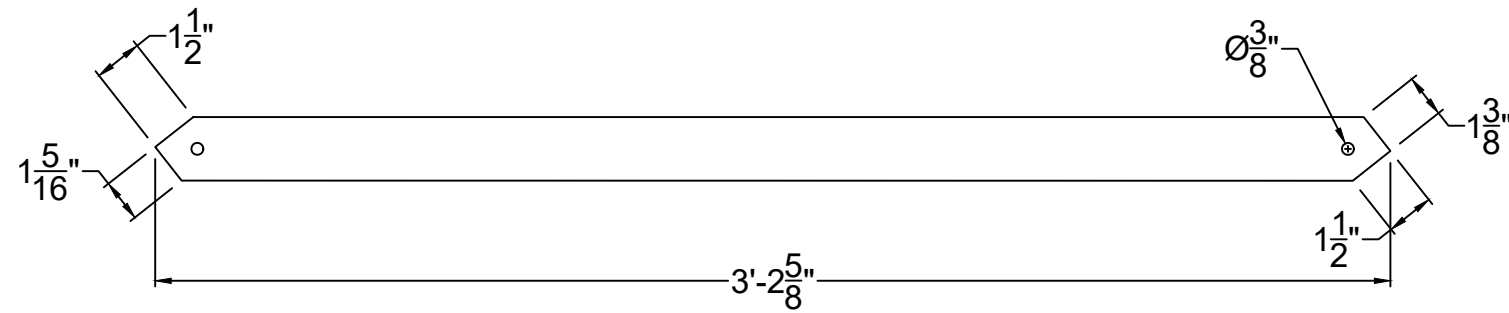
BY: MA

CHECKED BY: KJ, KF, & IK

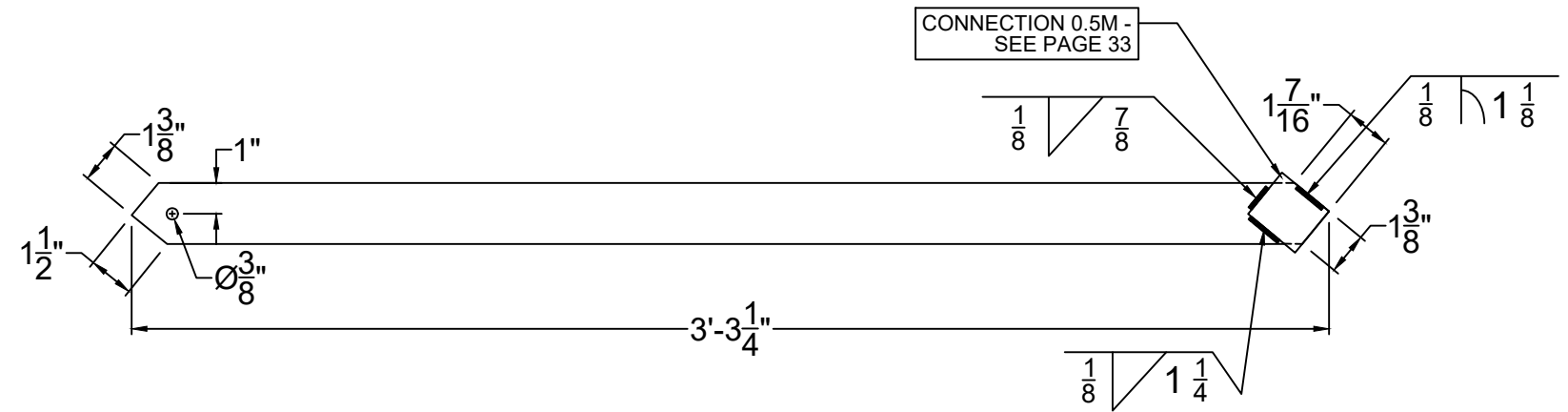
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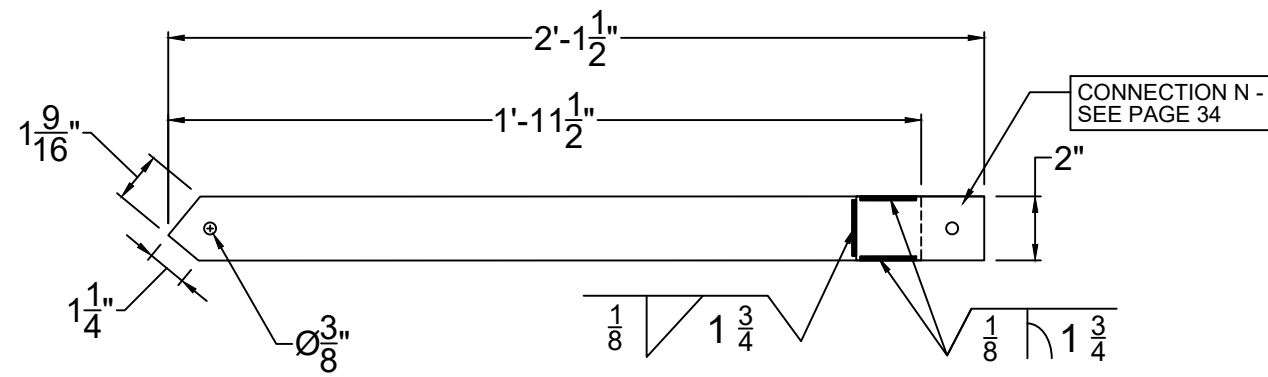
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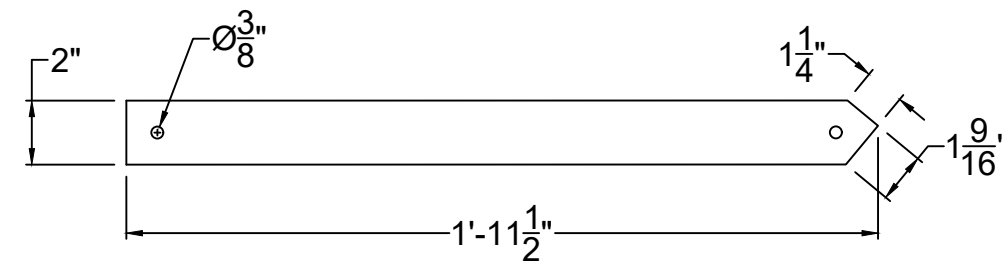
MEMBER MM1



MEMBER MM2



MEMBER MN3

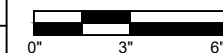


MEMBER MN4



PROJECT: NAU 2025-2026 STEEL BRIDGE

LATERAL BRACING MEMBERS



SCALE: 2" = 1'

BY: MA

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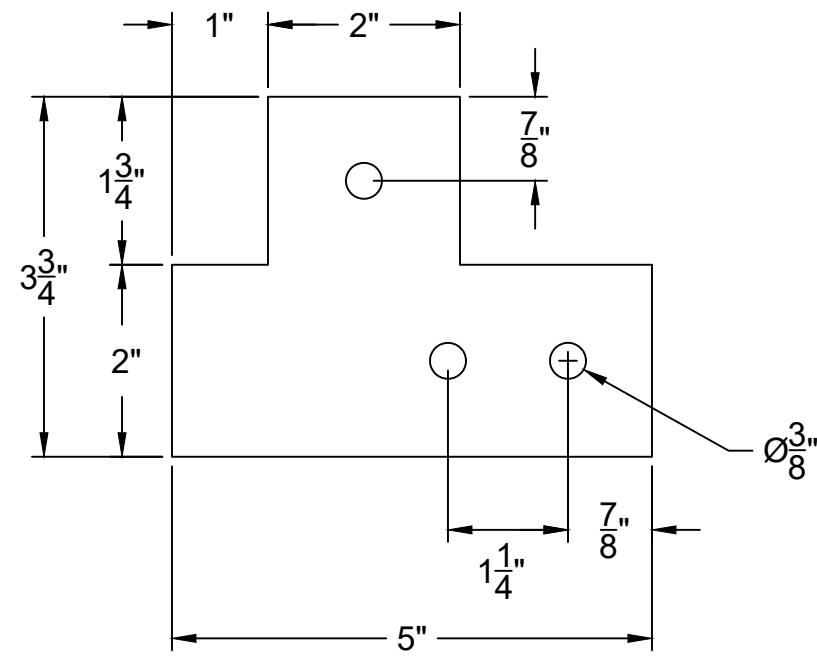
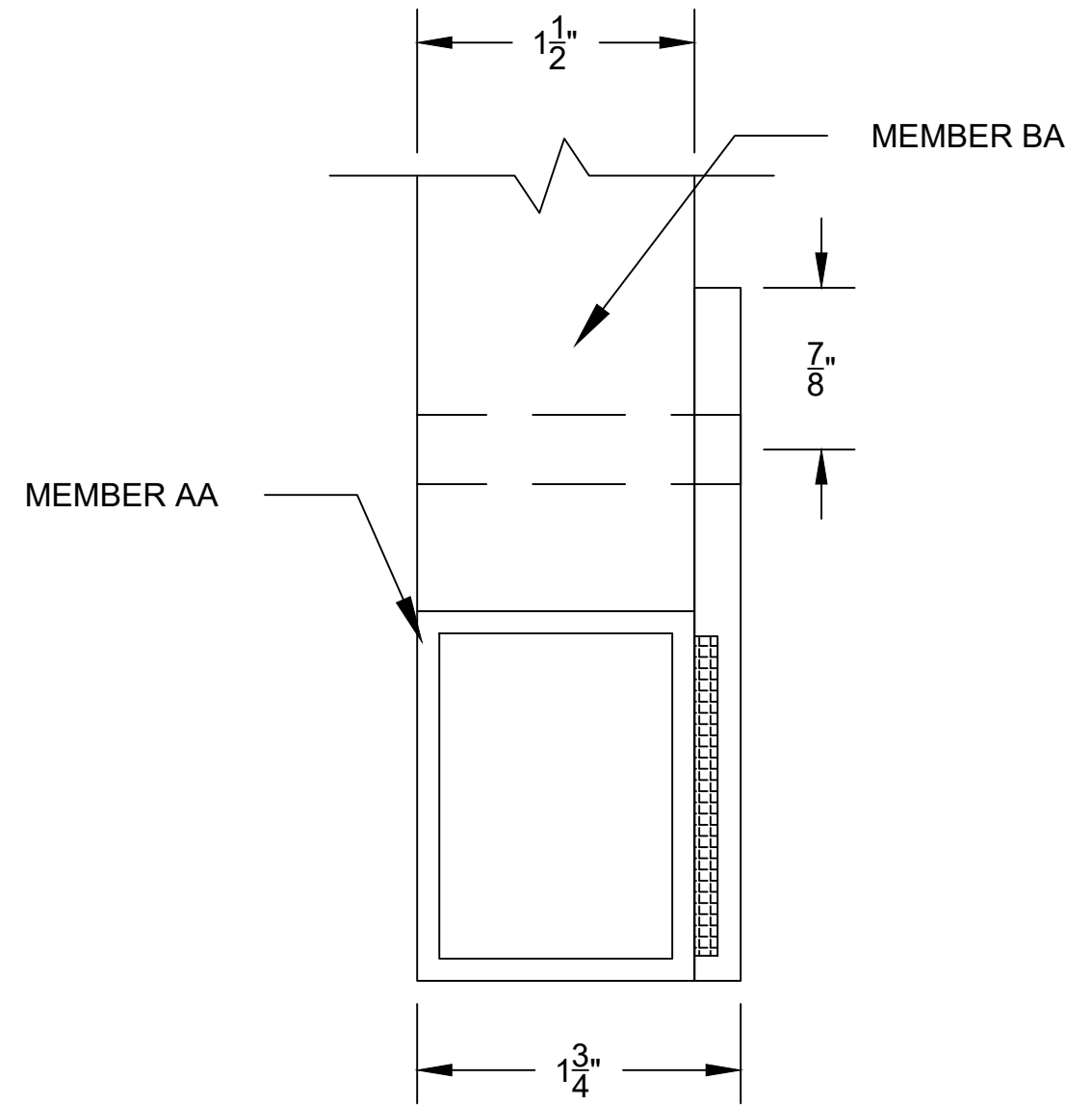
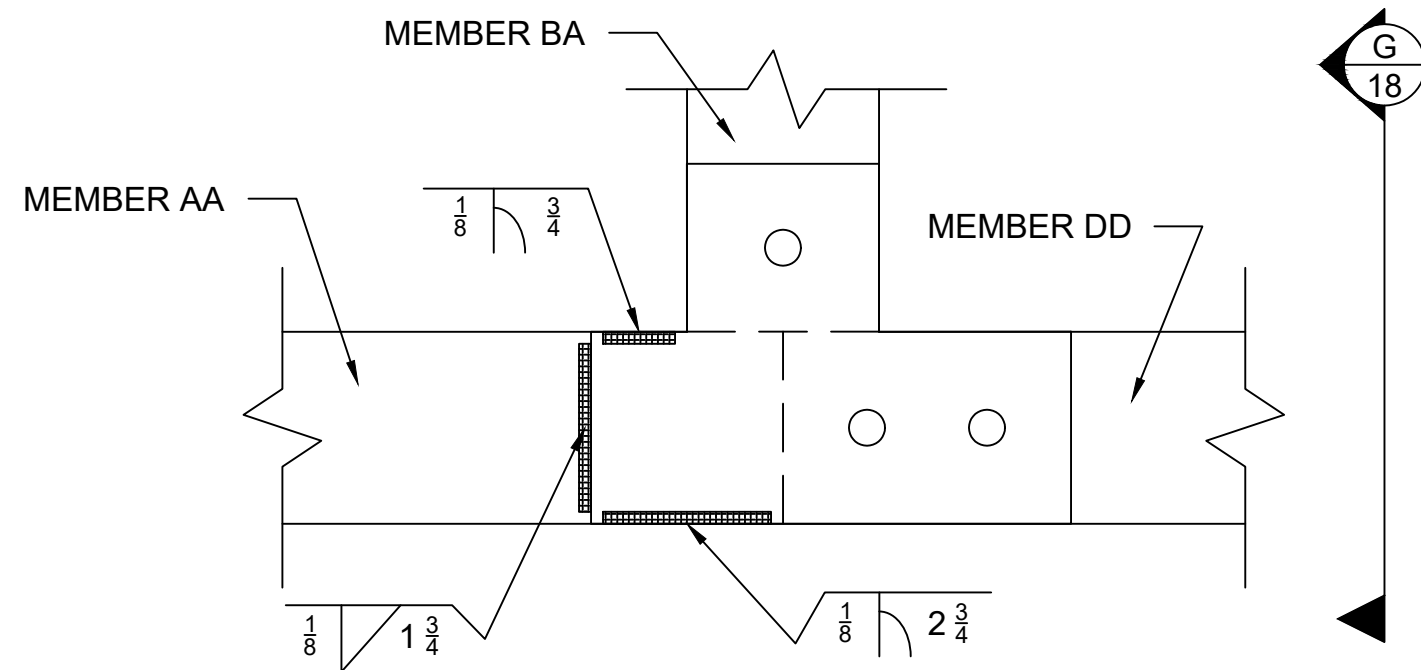


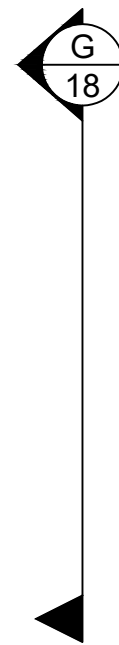
PLATE DIMENSION - CONNECTION A
SCALE: 6" = 1'



DETAIL G
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION A
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL A



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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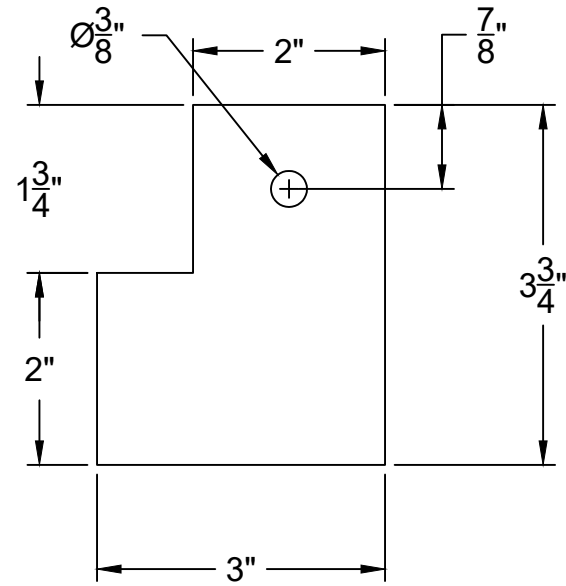
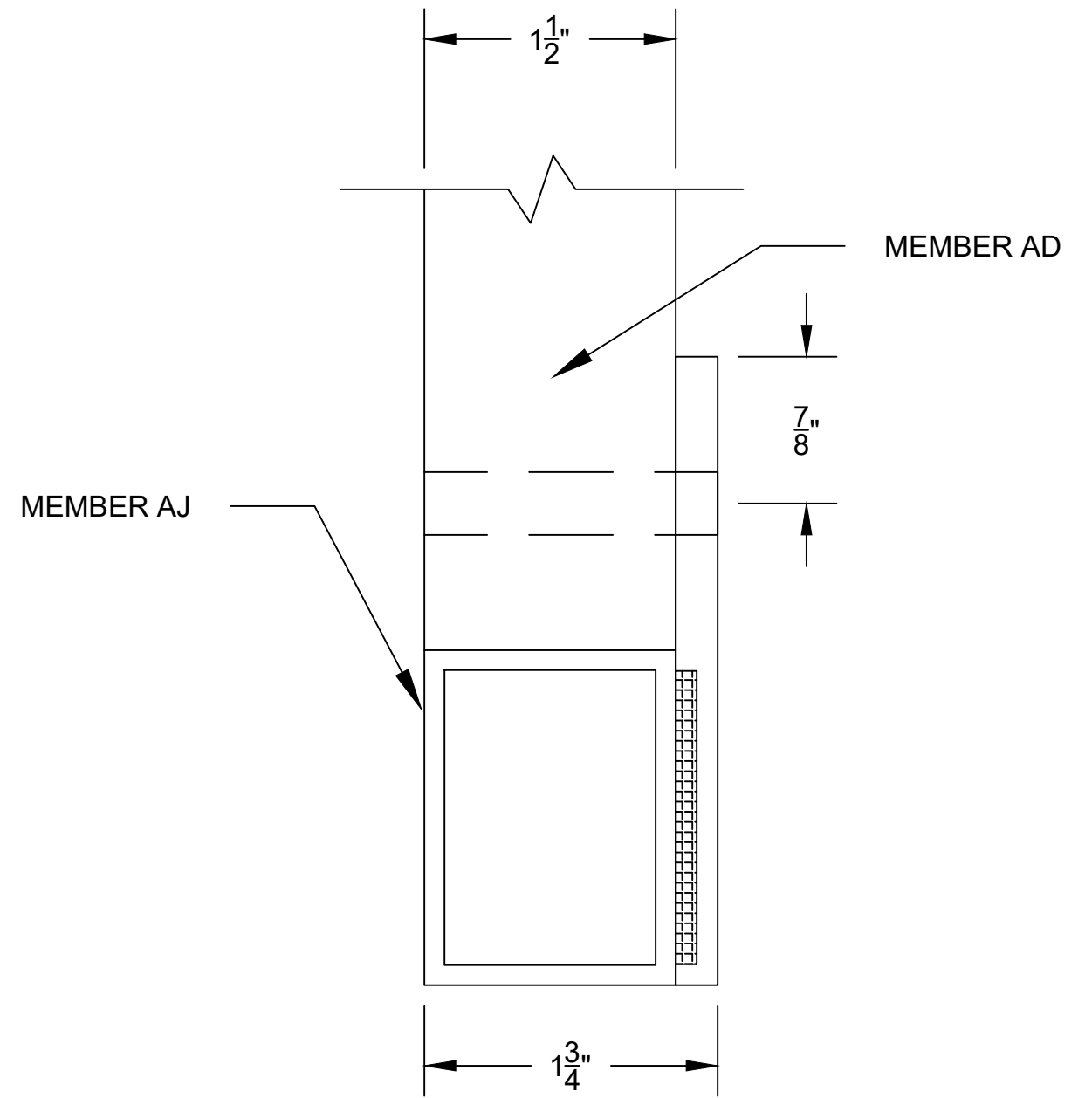
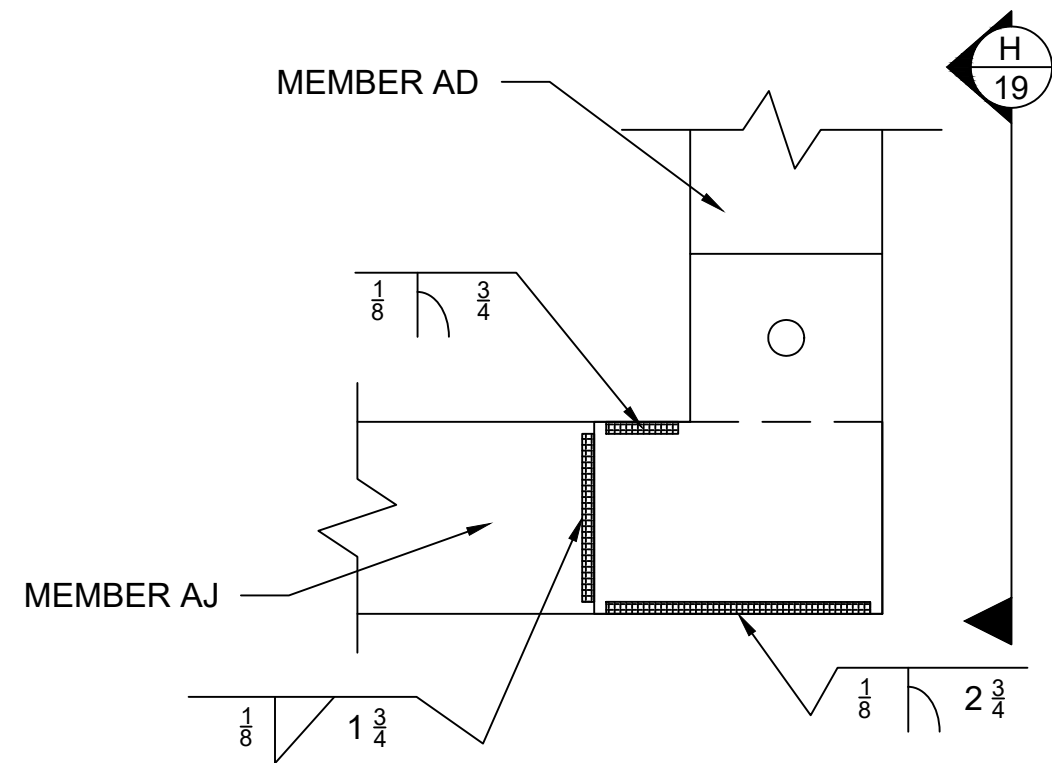


PLATE DIMENSION - CONNECTION 0.5A
SCALE: 6" = 1'



DETAIL H
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION 0.5A
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL 0.5A



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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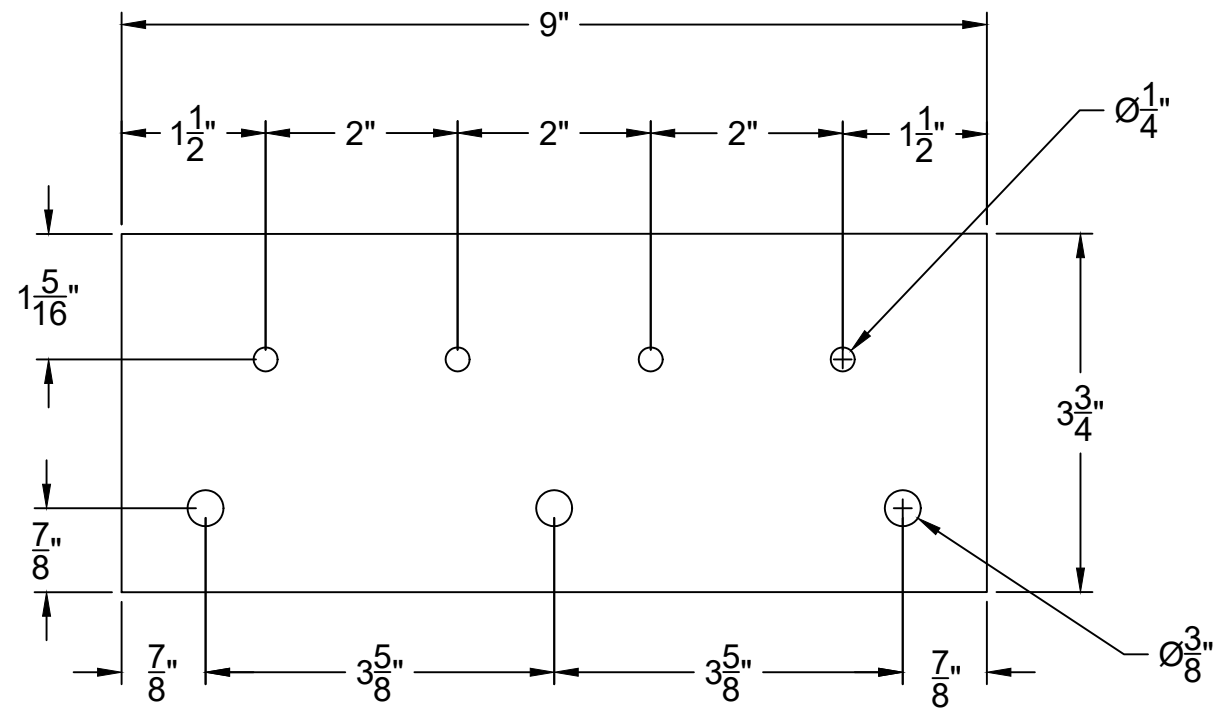
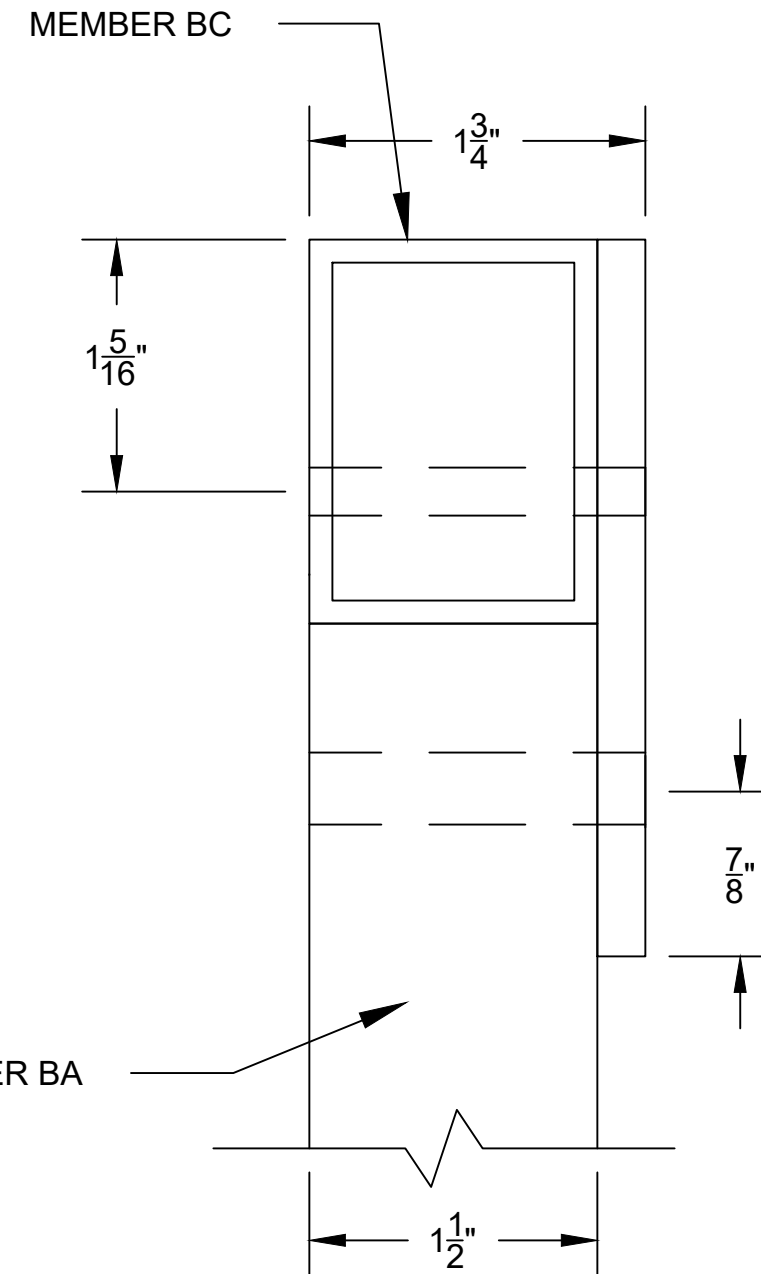
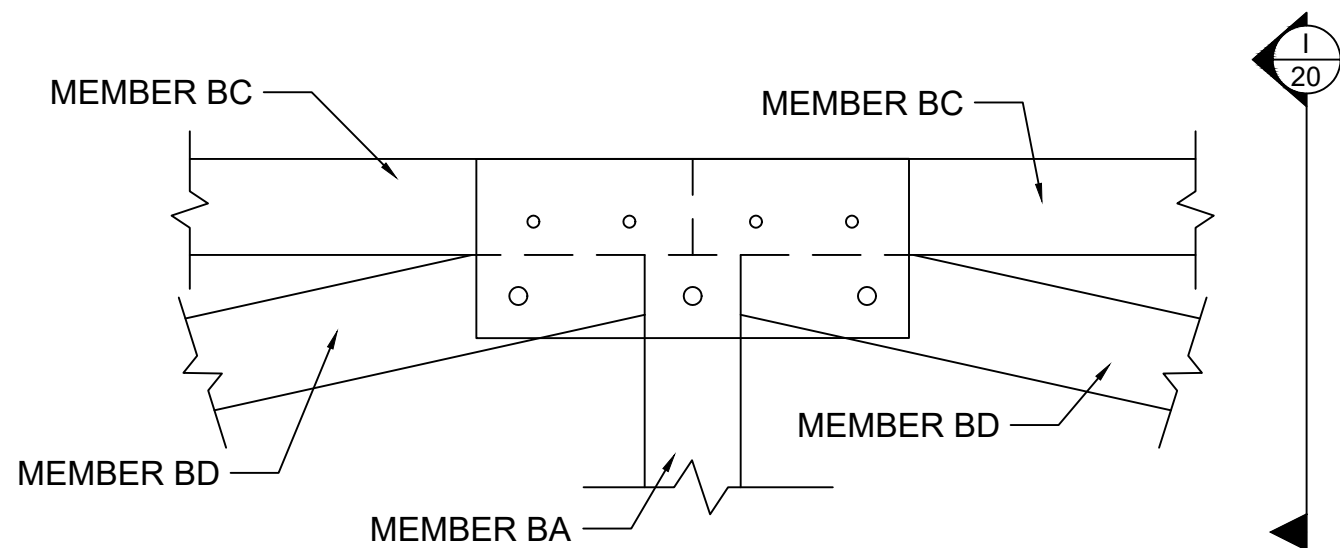


PLATE DIMENSION - CONNECTION B
SCALE: 6" = 1'



DETAIL I
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION B
SCALE: 3" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL B



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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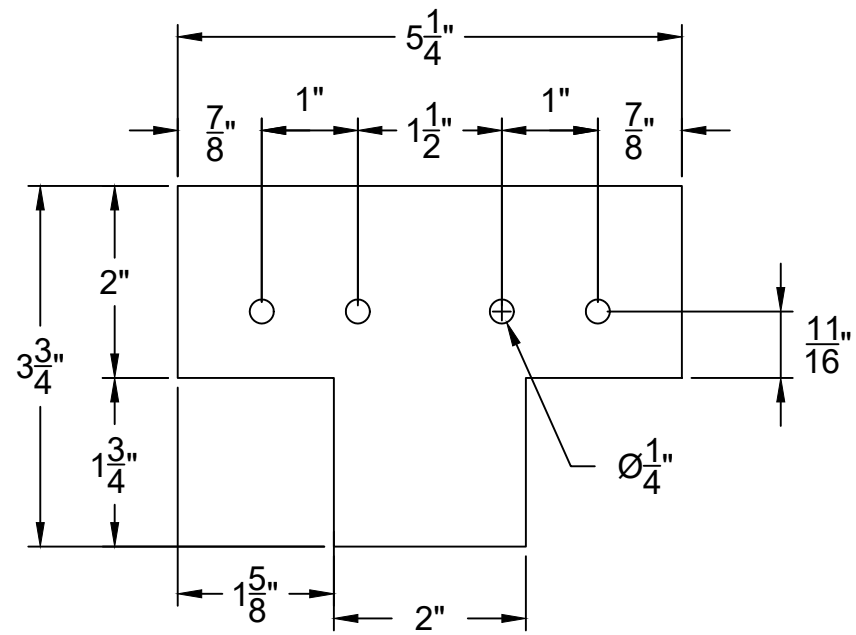
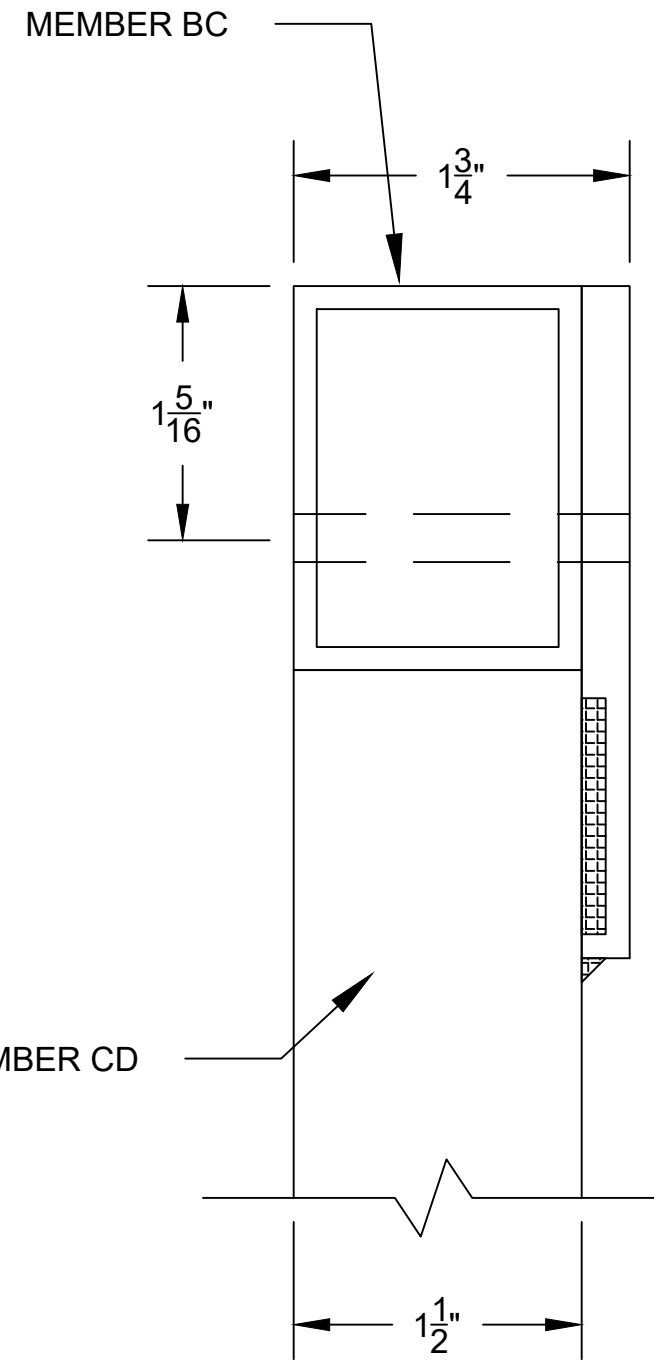
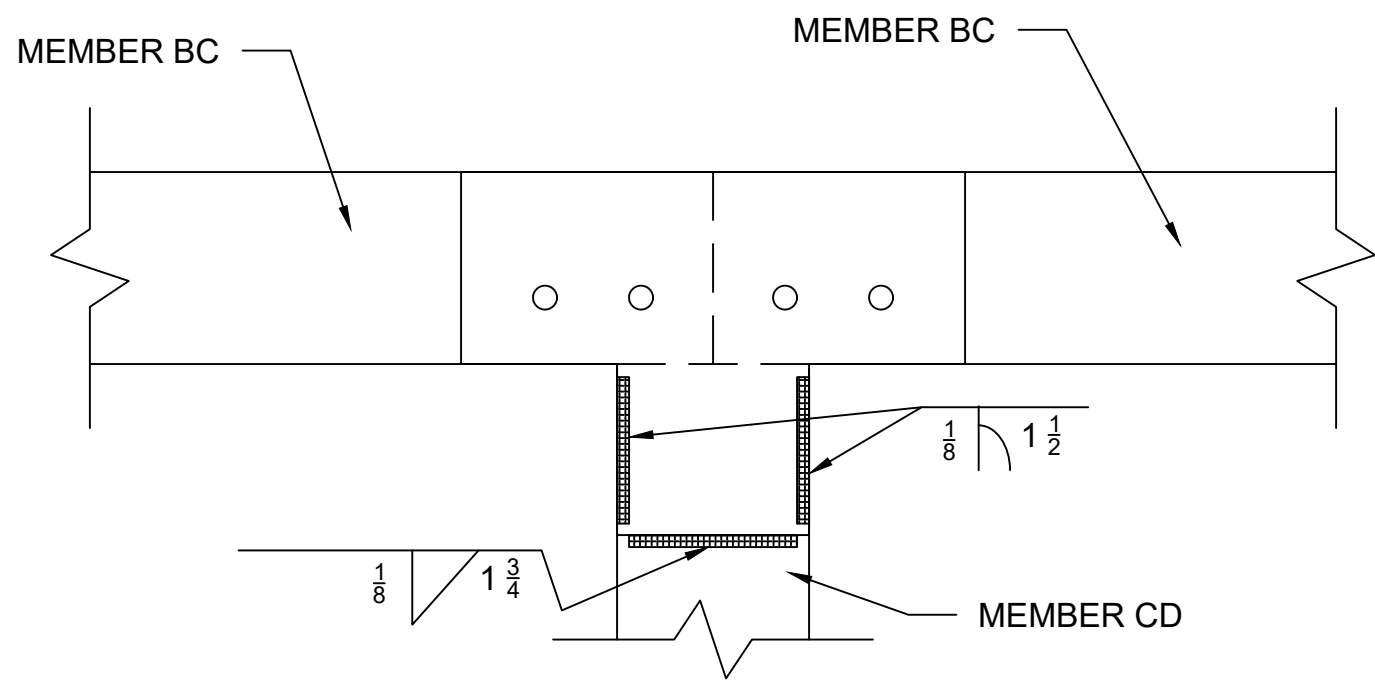


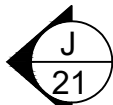
PLATE DIMENSION - CONNECTION C
SCALE: 6" = 1'



DETAIL J
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION C
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL C



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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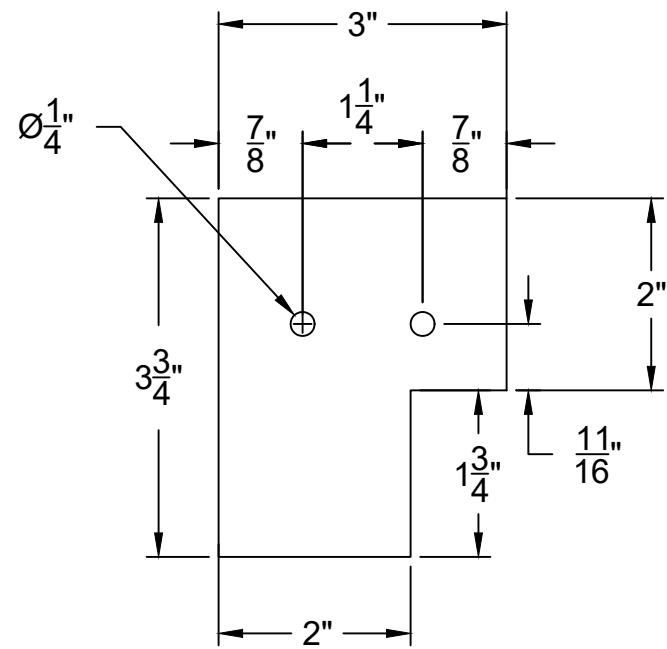
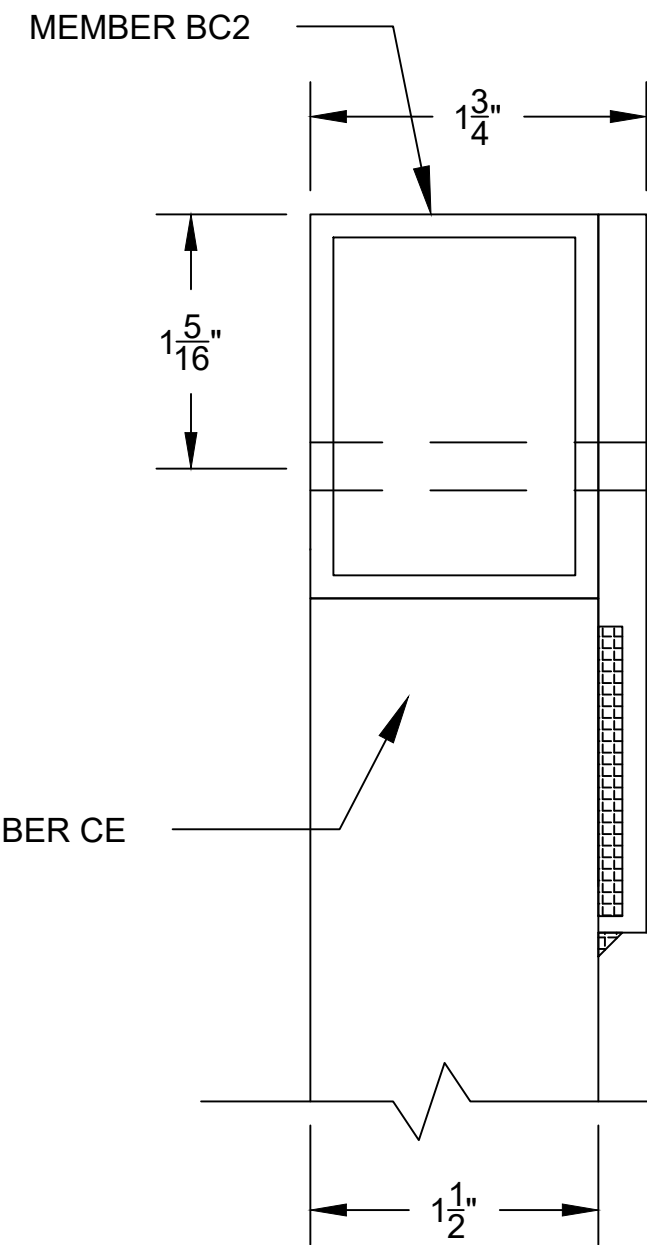
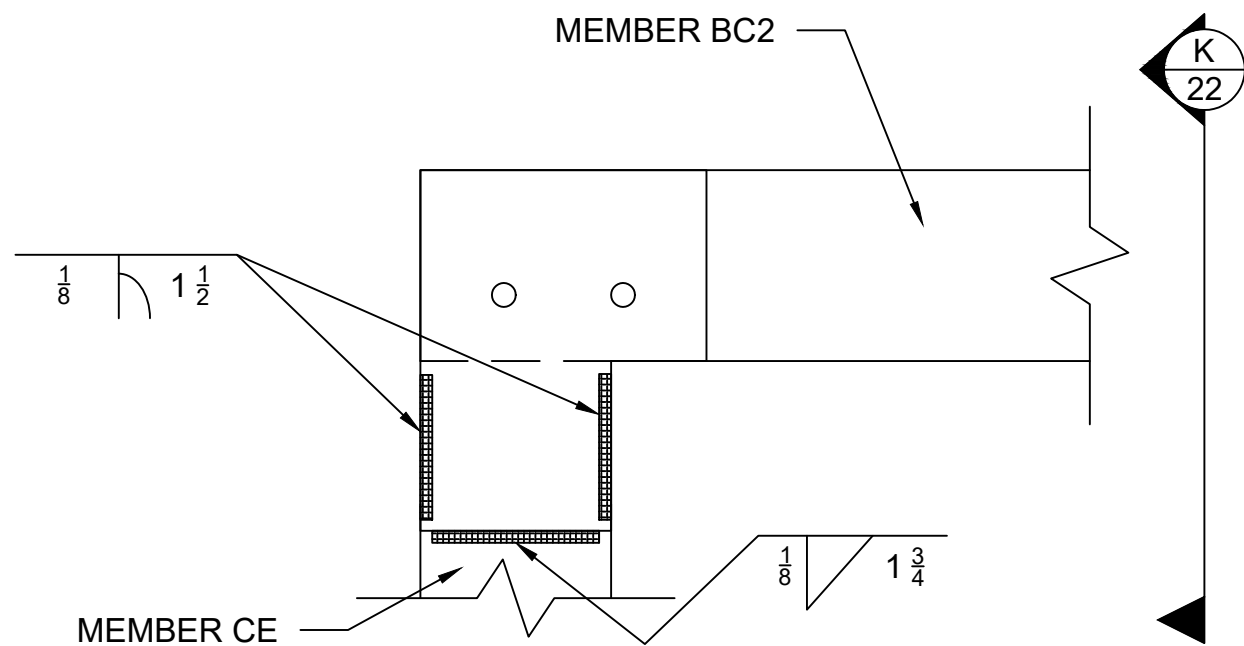


PLATE DIMENSION - CONNECTION 0.5C
SCALE: 6" = 1'



DETAIL K
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION 0.5C
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL 0.5C



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

DATE: MARCH 2026

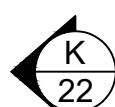
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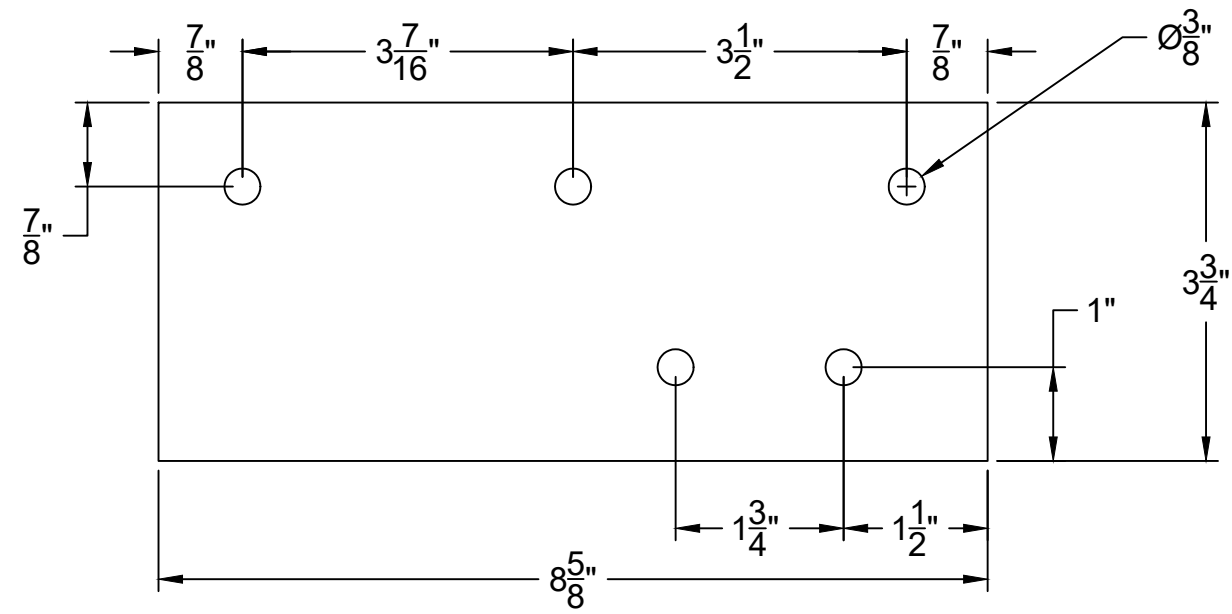
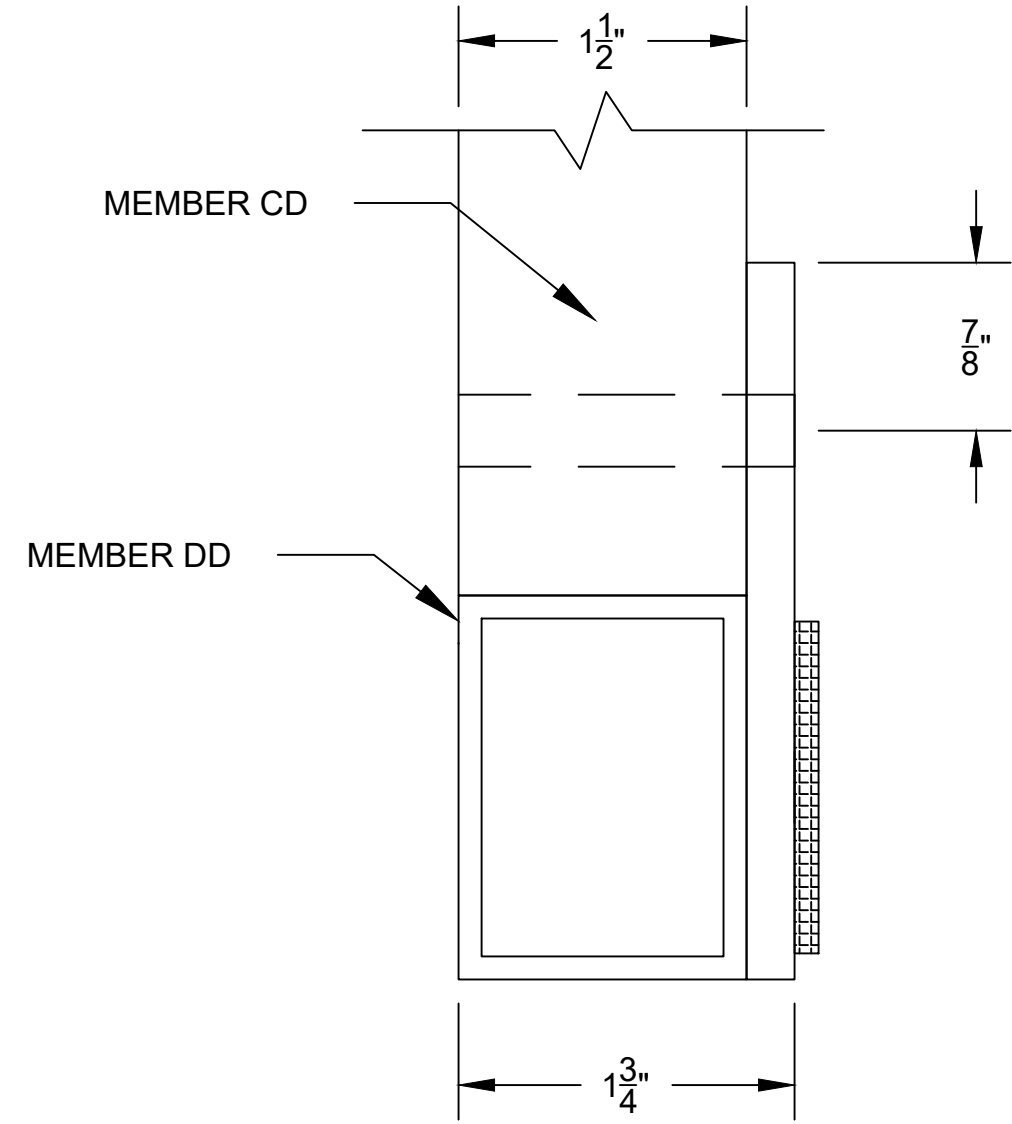


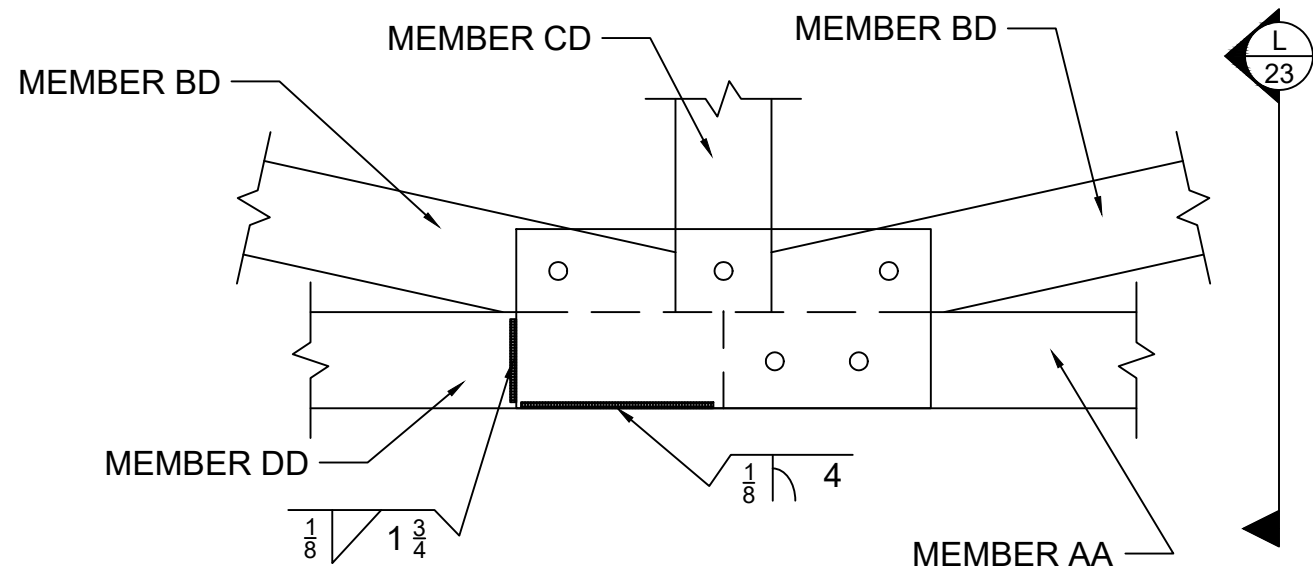
PLATE DIMENSION - CONNECTION D

SCALE: 6" = 1'



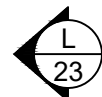
DETAIL L

SCALE: 1" = 1'



PROFILE VIEW - CONNECTION D

SCALE: 3" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL D



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

DATE: MARCH 2026

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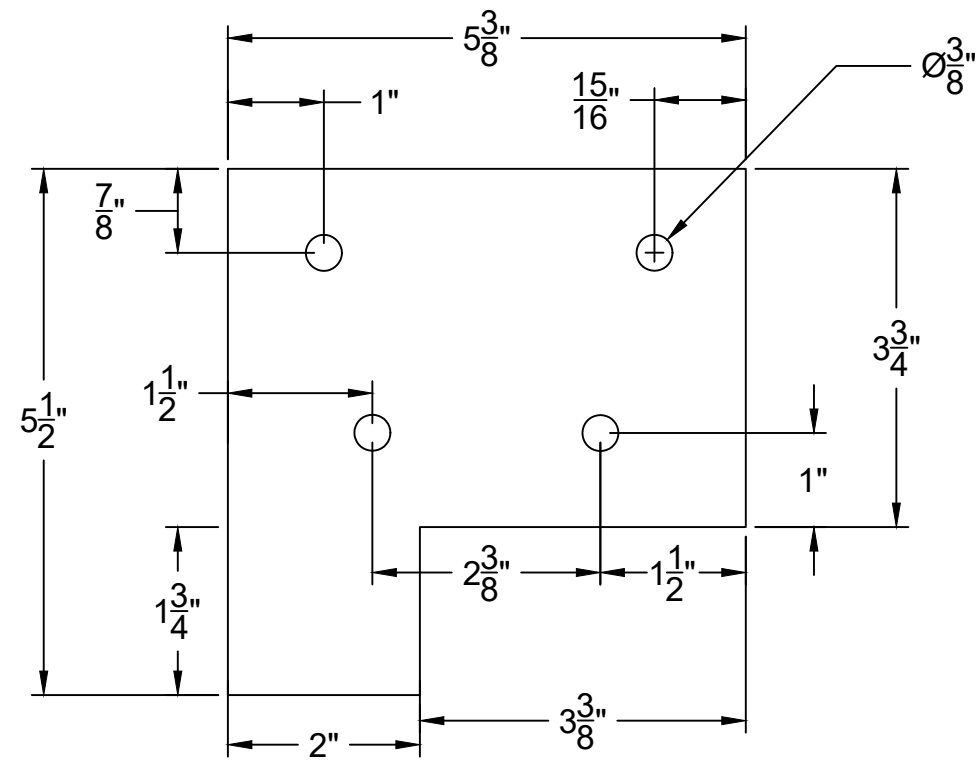
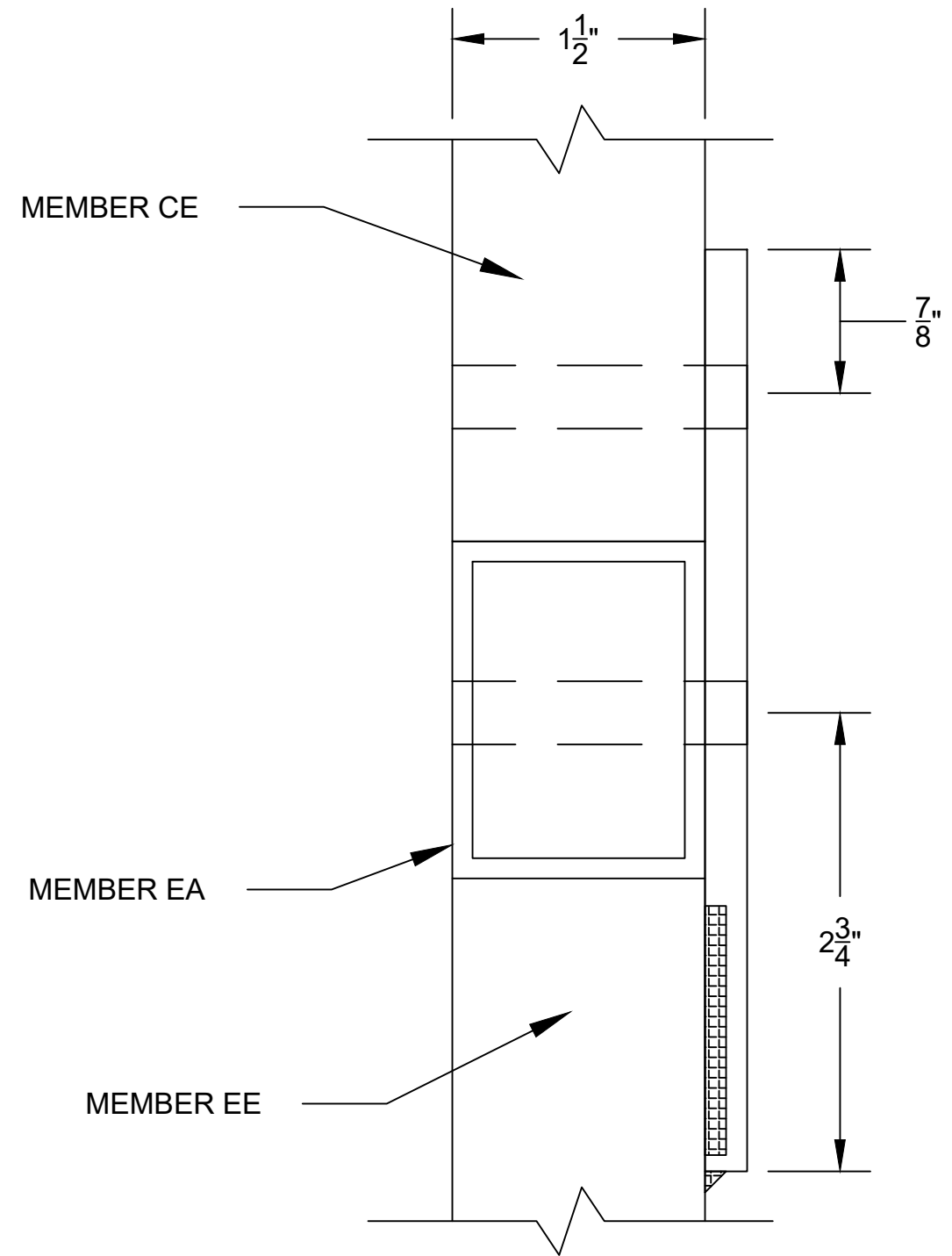
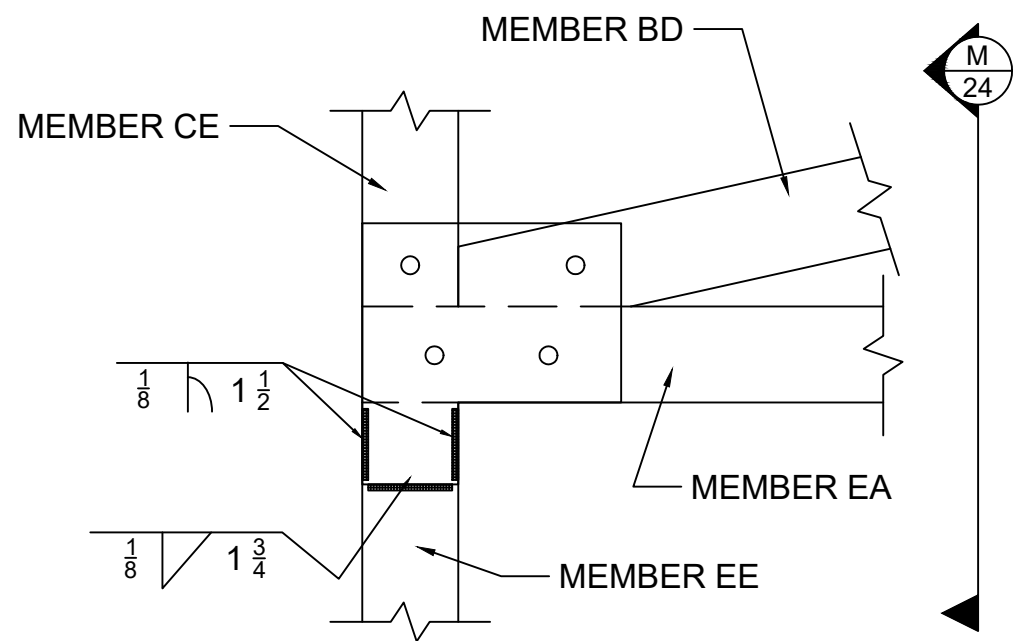


PLATE DIMENSION - CONNECTION E
SCALE: 6" = 1'



DETAIL M
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION E
SCALE: 3" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL E



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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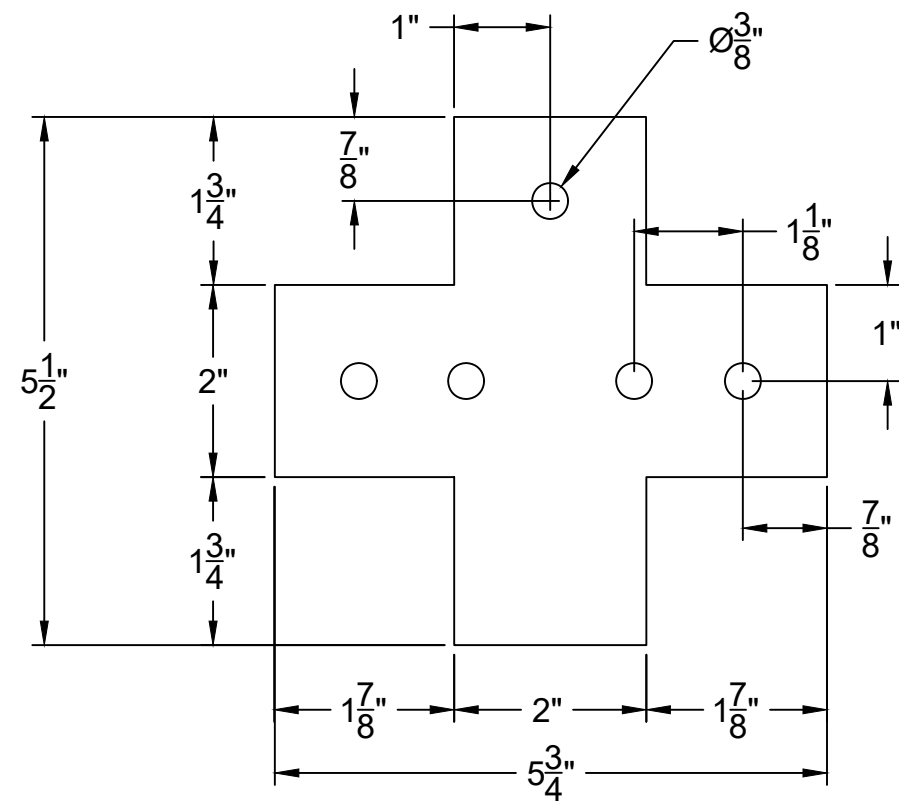
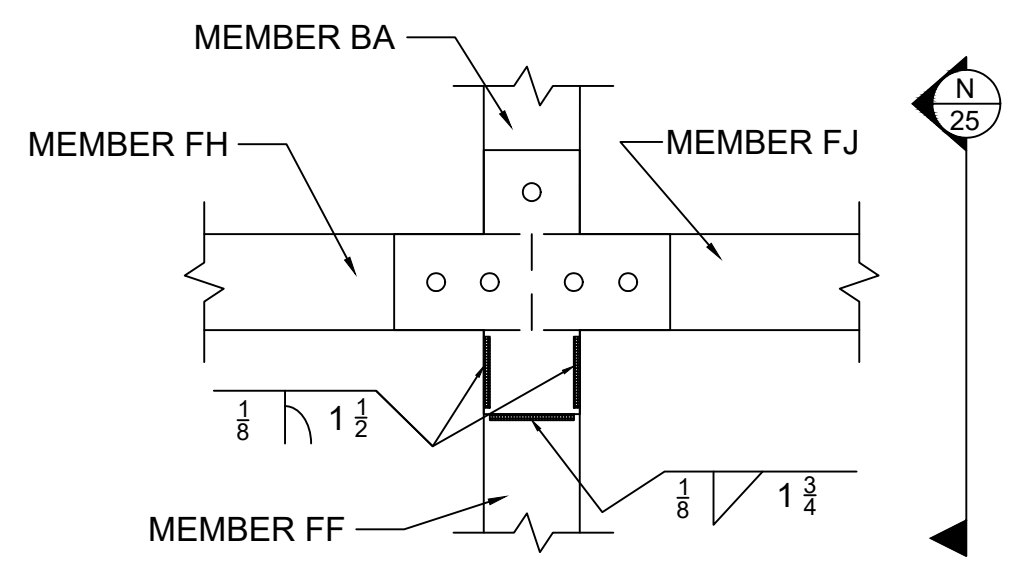
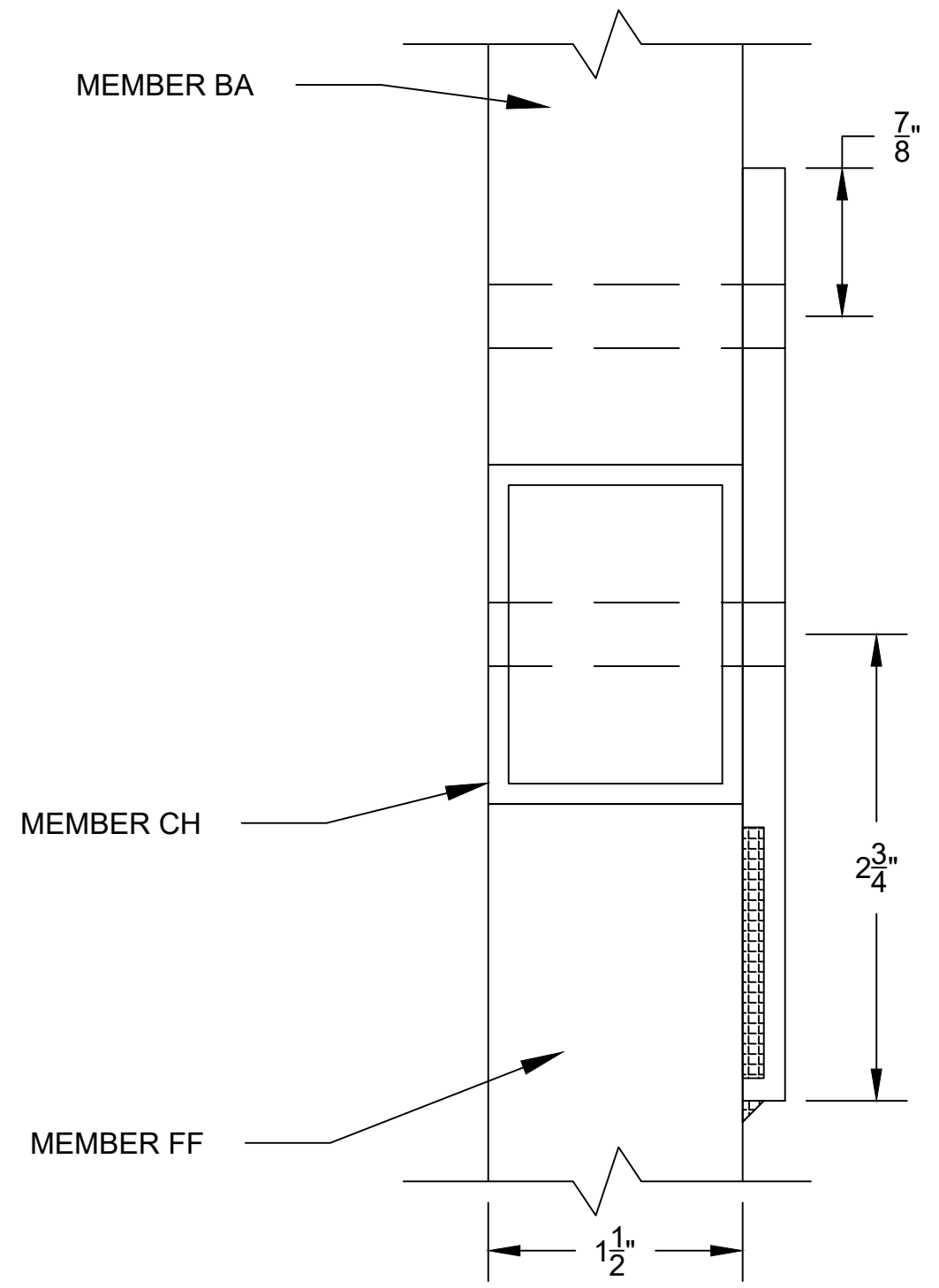


PLATE DIMENSION- CONNECTION F
SCALE: 6" = 1'



PROFILE VIEW - CONNECTION F
SCALE: 3" = 1'



DETAIL N
SCALE: 1" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE
CONNECTION DETAIL F

SCALE: N/A

BY: KJ
CHECKED BY: MA, KF, & IK
DATE: MARCH 2026

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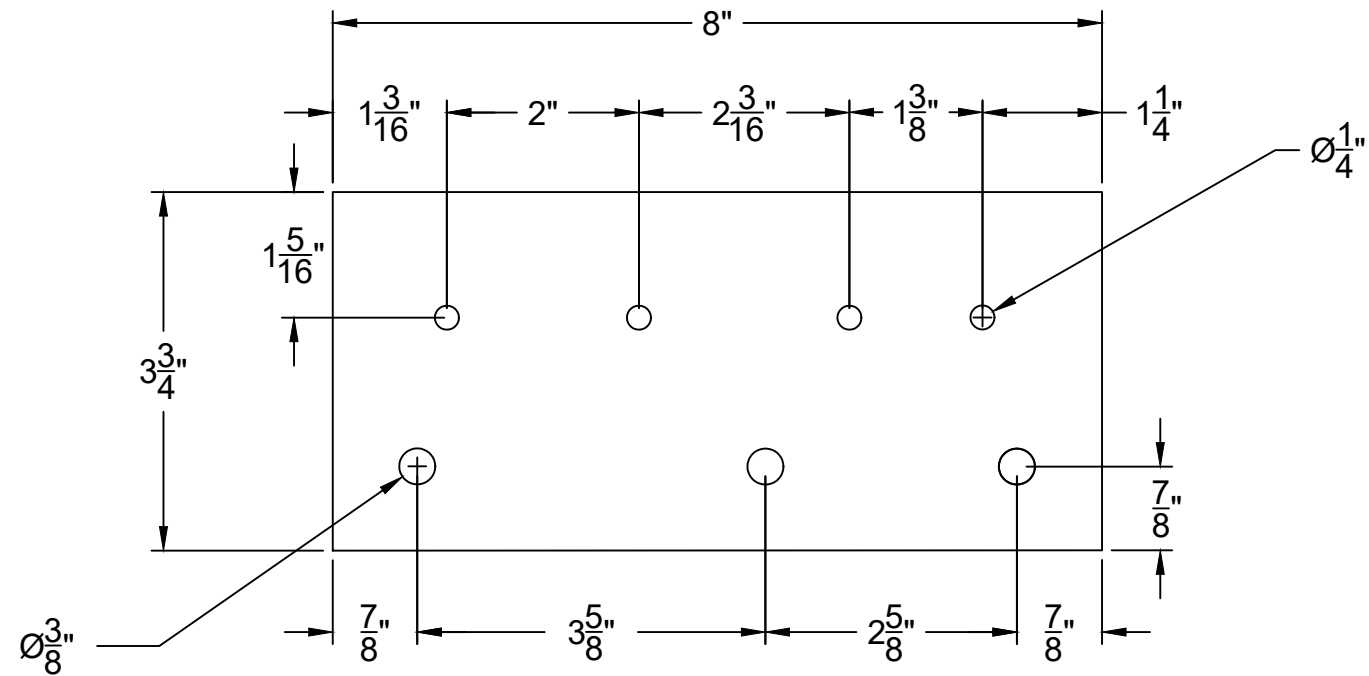
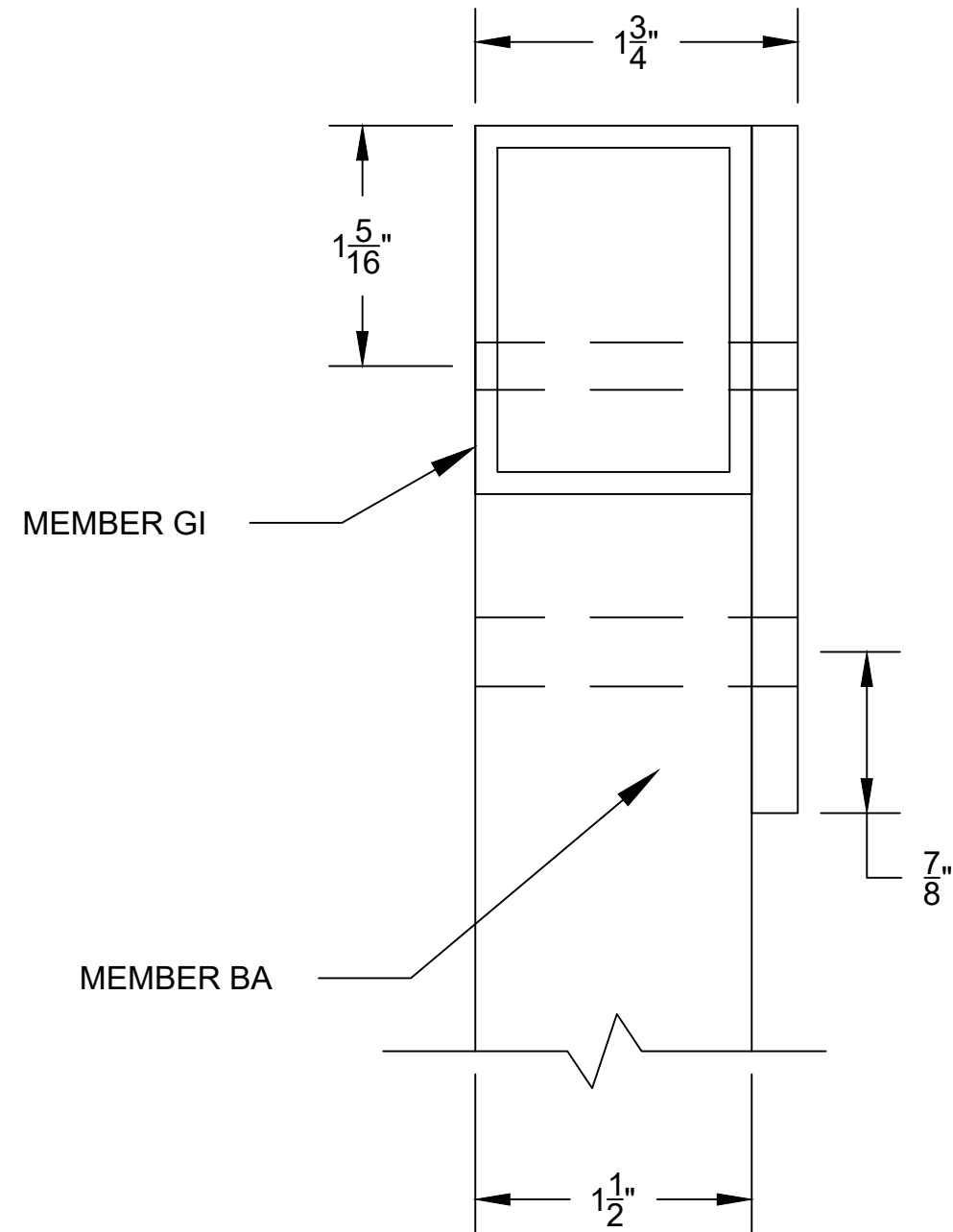
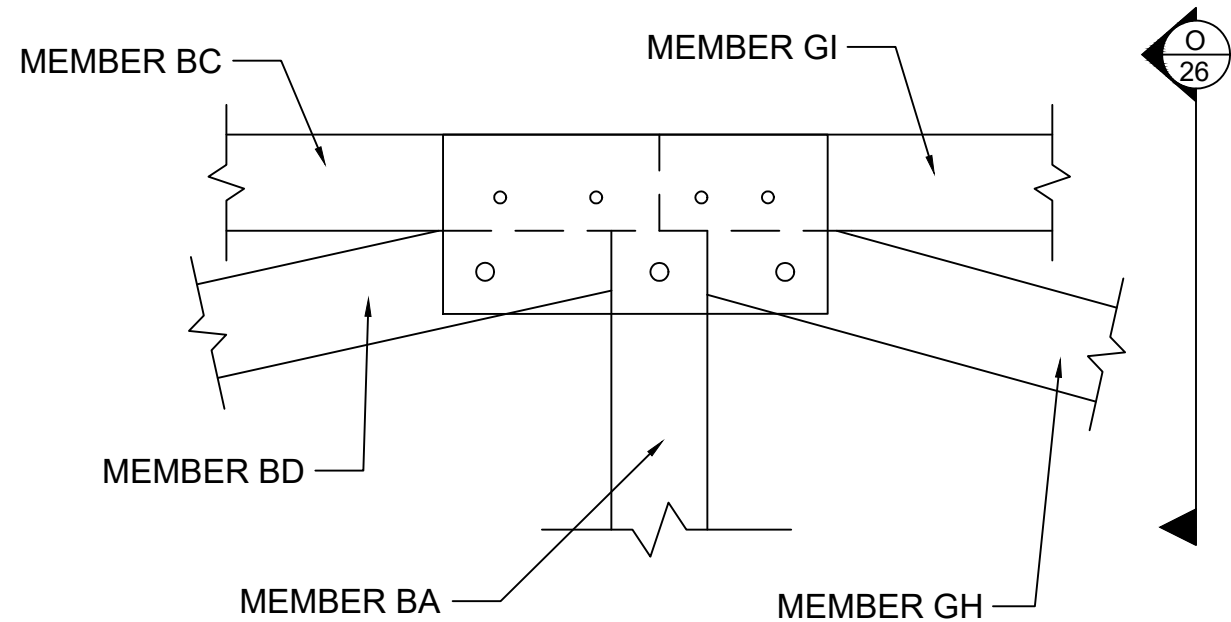


PLATE DIMENSION - CONNECTION G
SCALE: 6" = 1'



DETAIL O
SCALE: 1" = 1'



PROFILE VIEW- CONNECTION G
SCALE: 3" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL G



SCALE: N/A

BY: KJ

CHECKED BY: MA, KF, & IK

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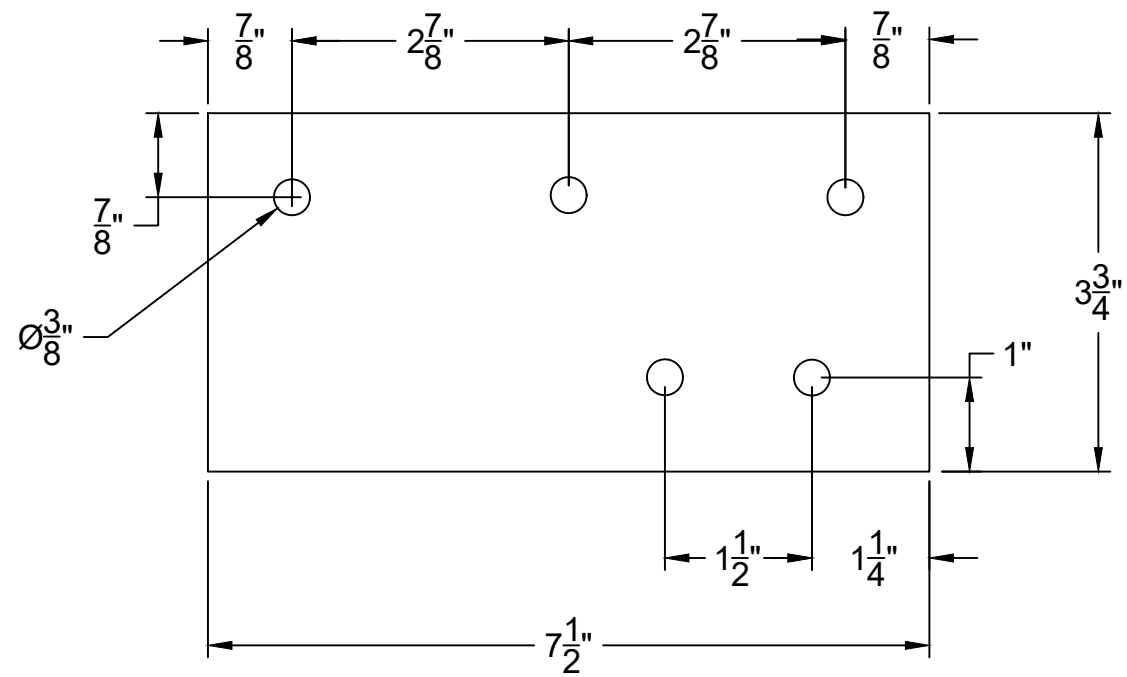
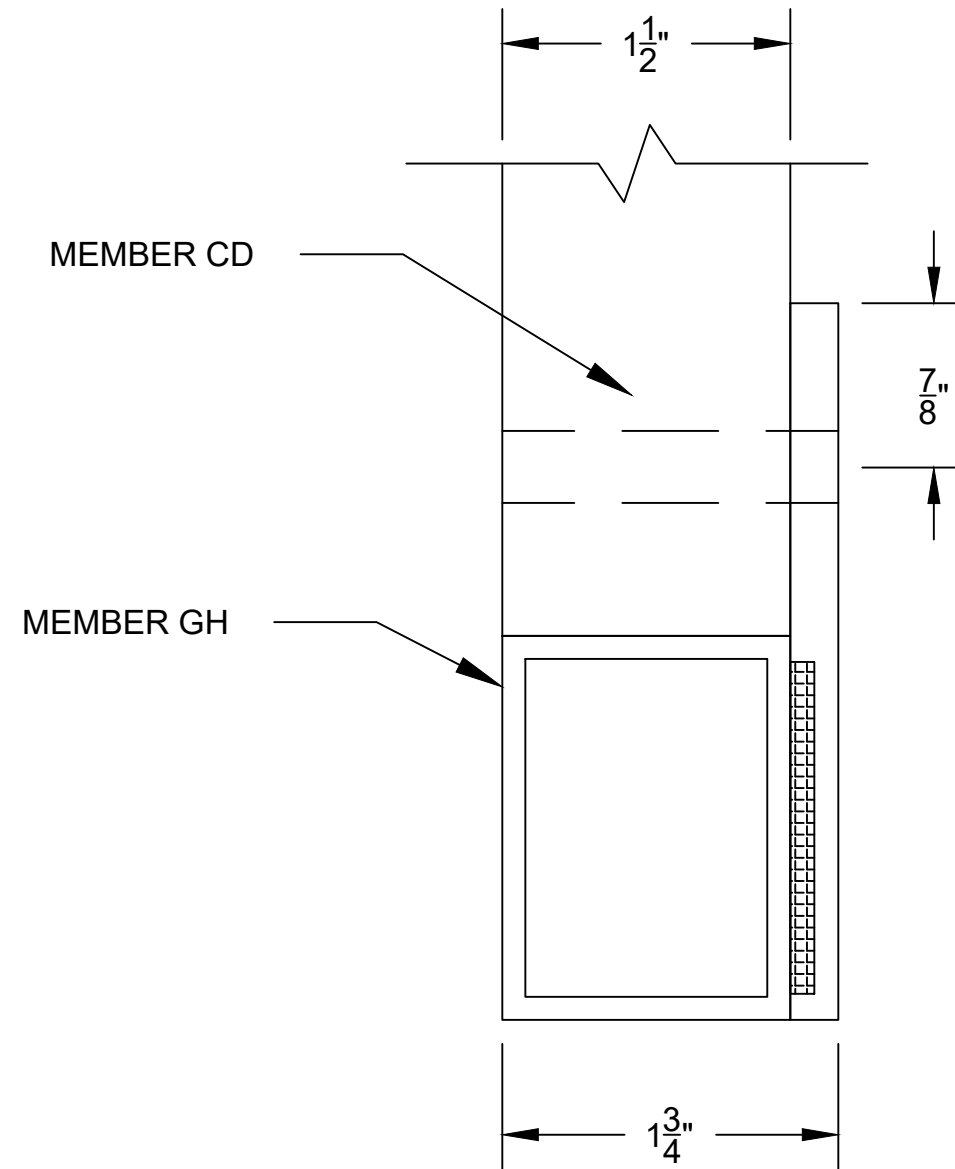


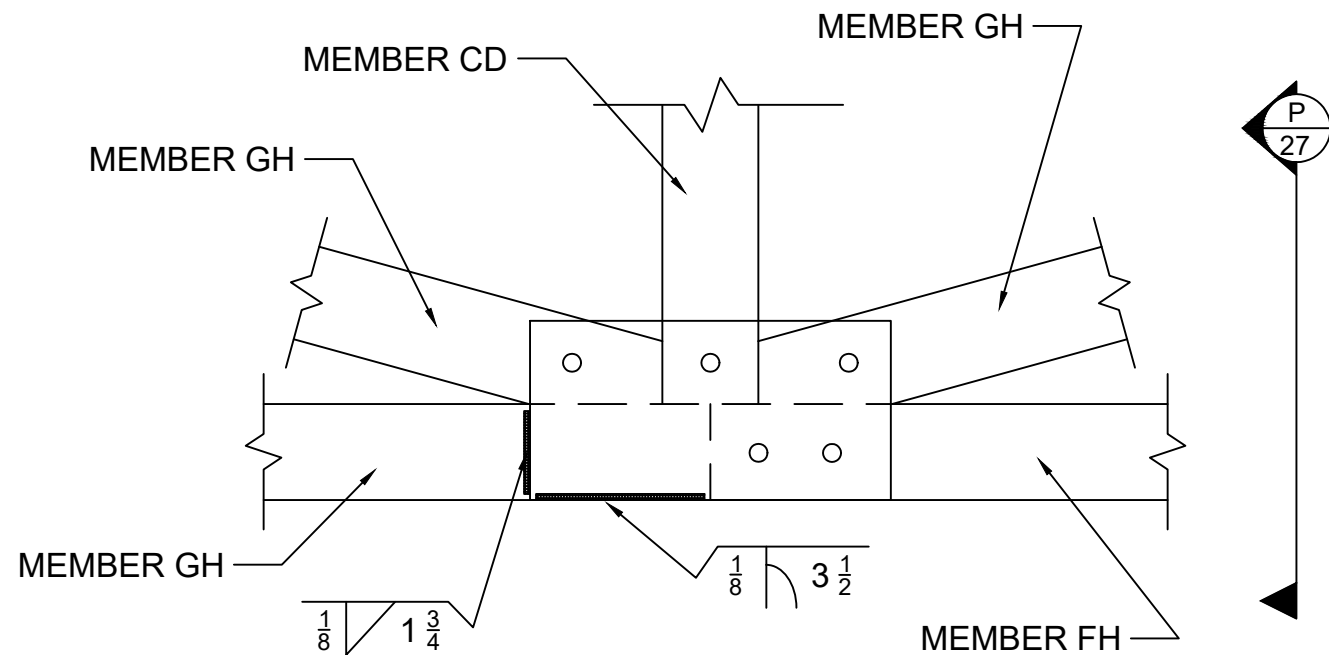
PLATE DIMENSION - CONNECTION H

SCALE: 6" = 1'



DETAIL P

SCALE: 1" = 1'



PROFILE VIEW - CONNECTION H

SCALE: 3" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL H



SCALE: N/A

BY: KJ

CHECKED BY: MA, KF, & IK

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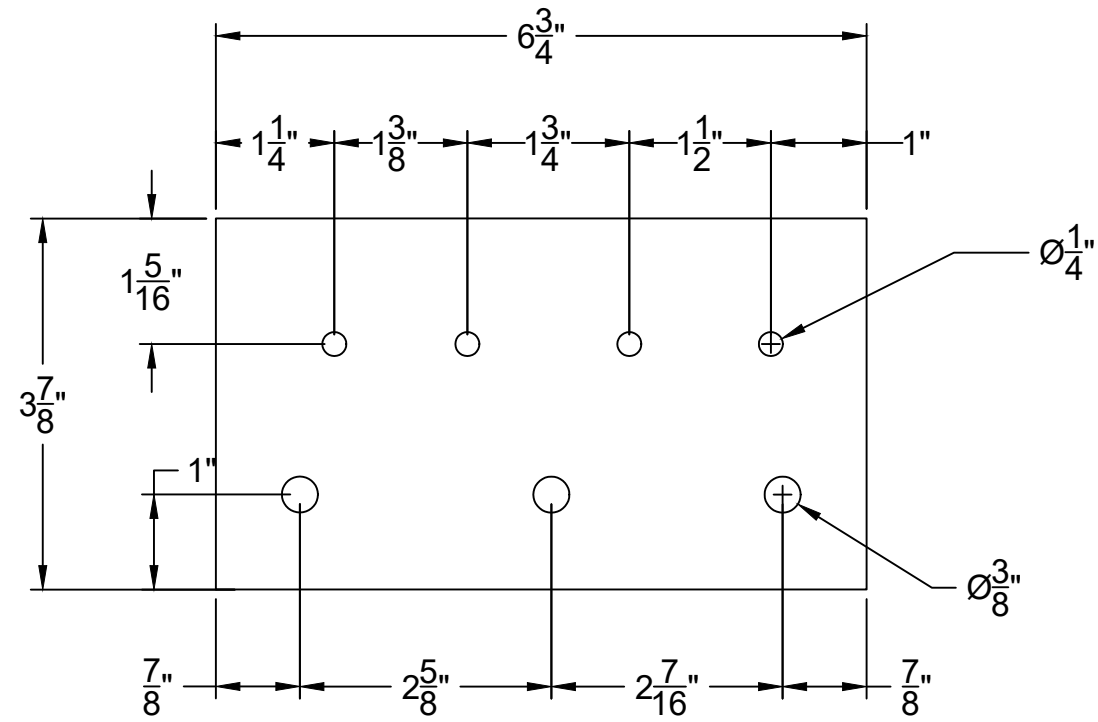
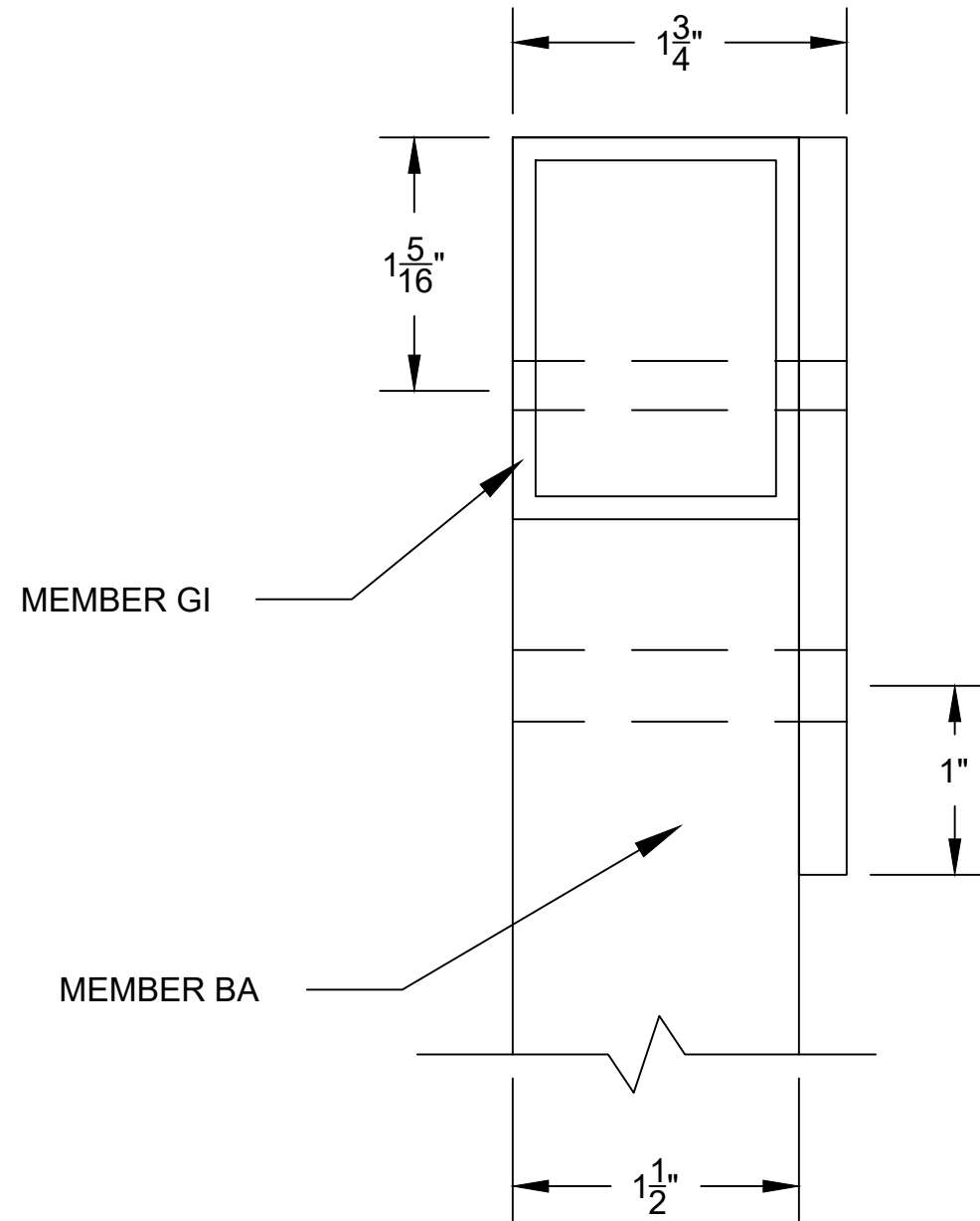
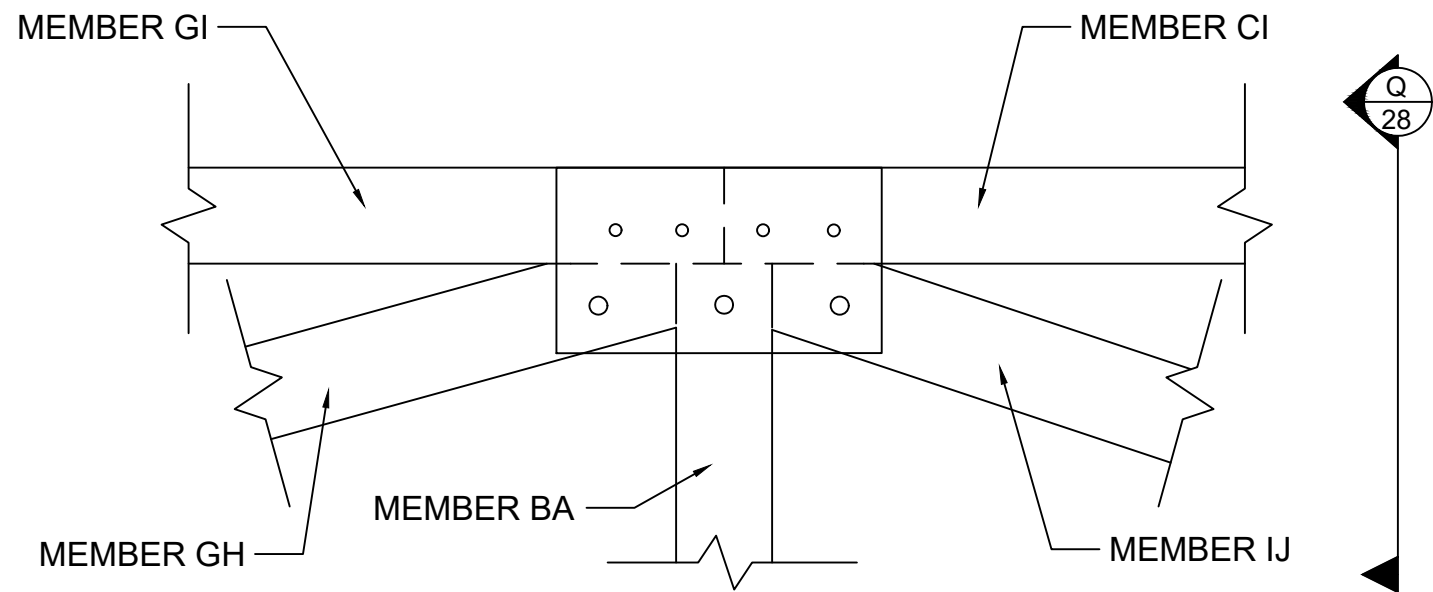


PLATE DIMENSION - CONNECTION I
SCALE: 6" = 1'



DETAIL Q
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION I
SCALE: 3" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL I



SCALE: N/A

BY: KJ

CHECKED BY: MA, KF, & IK

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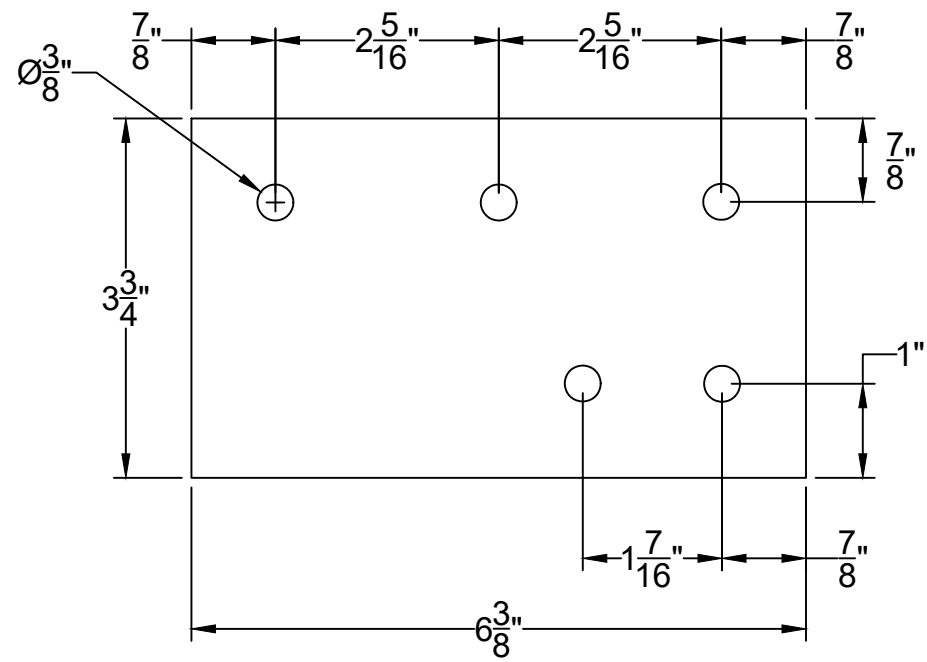
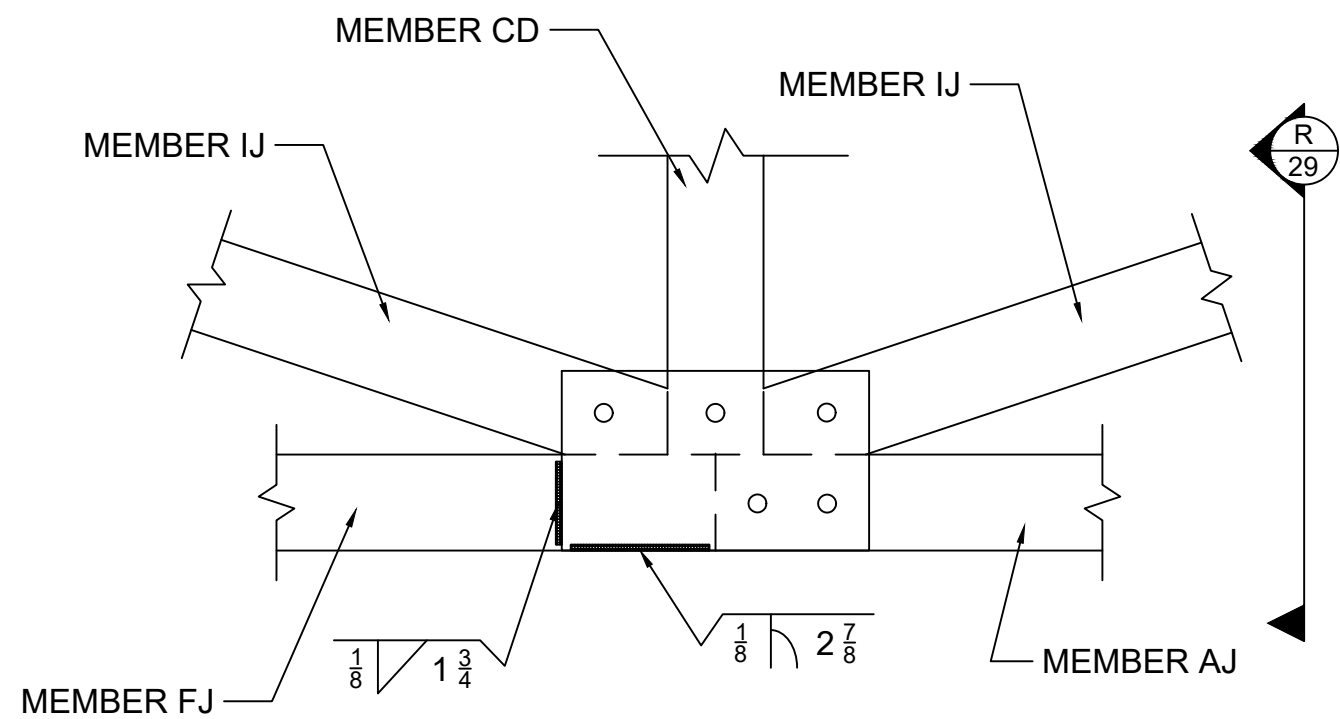
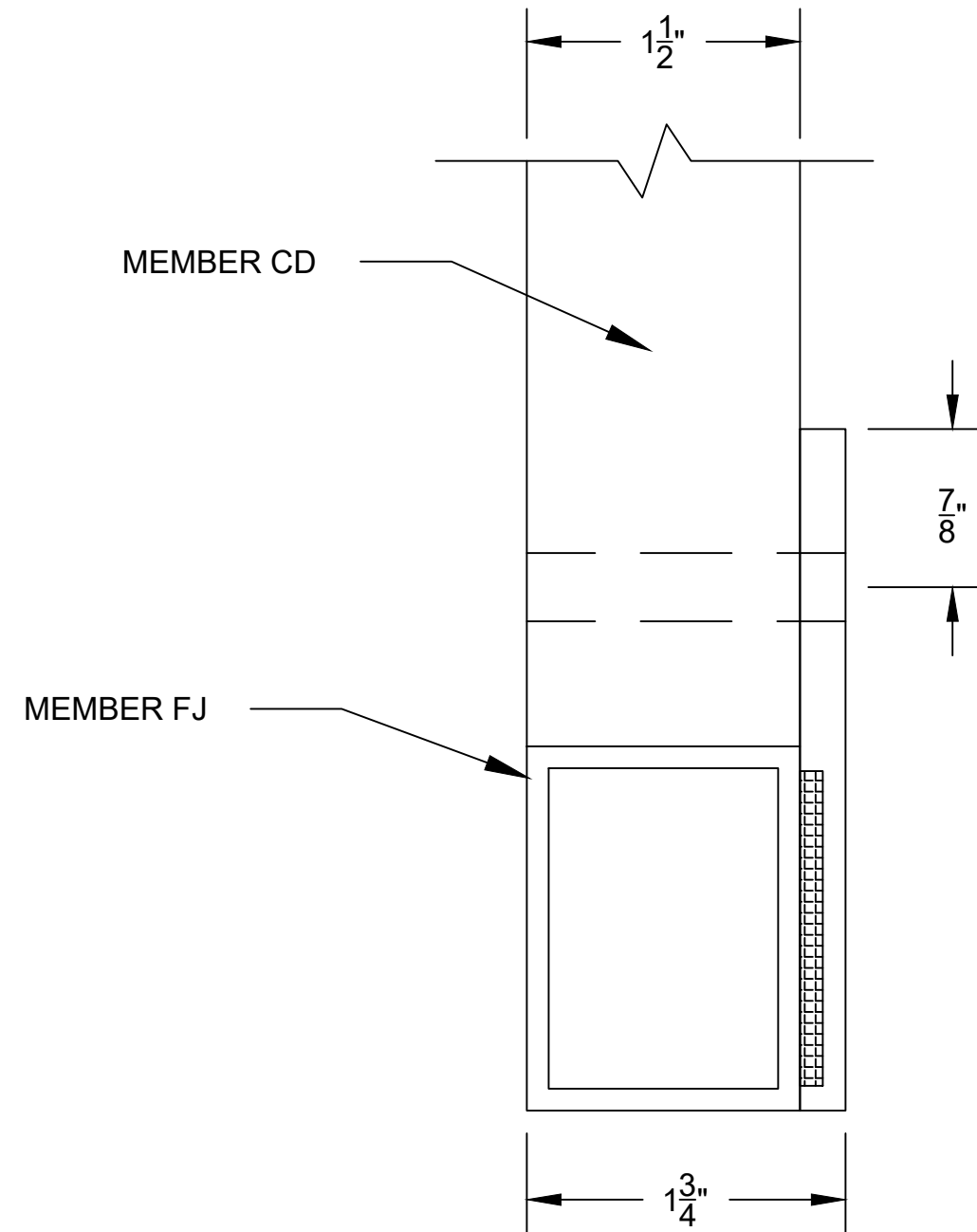


PLATE DIMENSION - CONNECTION J
SCALE: 6" = 1'



PROFILE VIEW - CONNECTION J
SCALE: 3" = 1'



DETAIL R
SCALE: 1" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL J



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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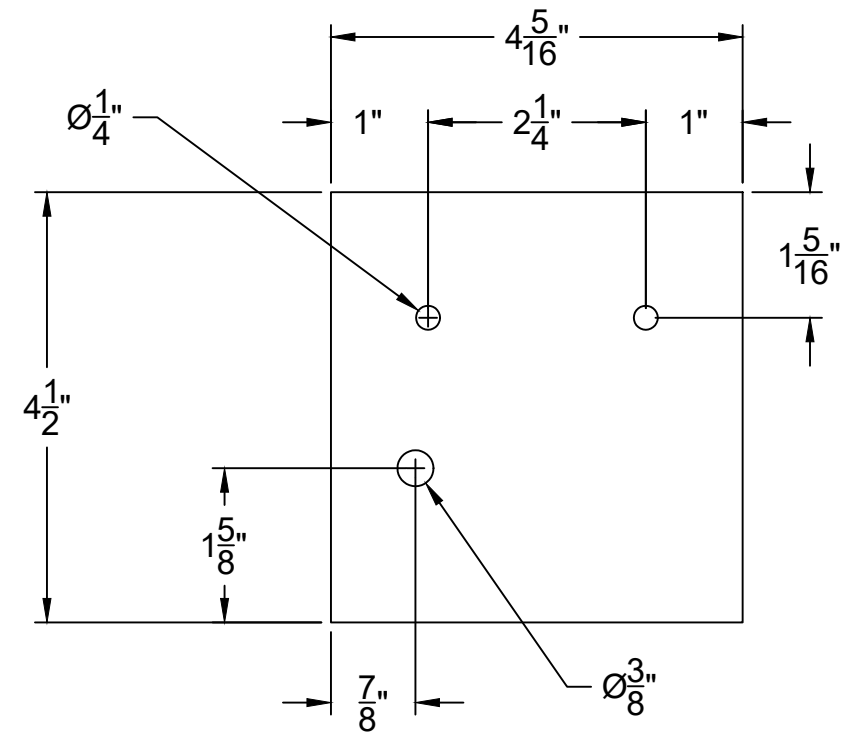
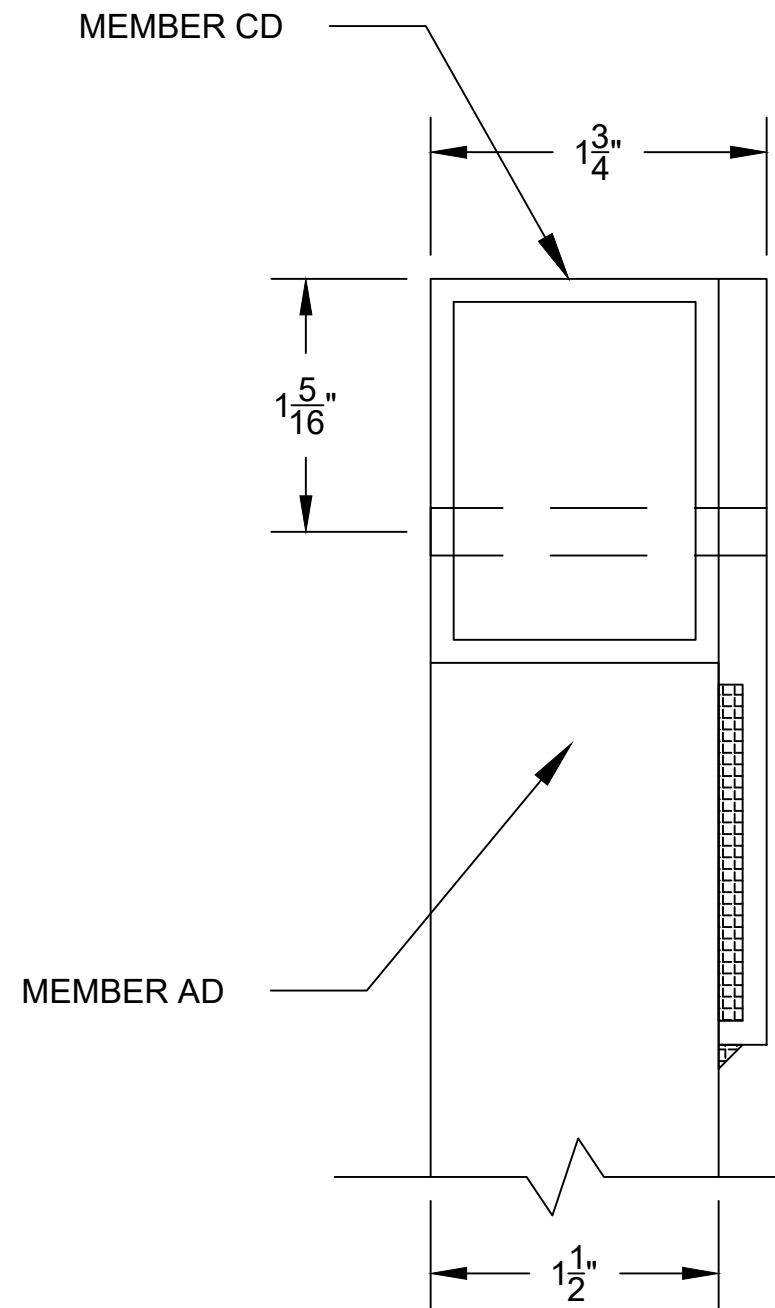
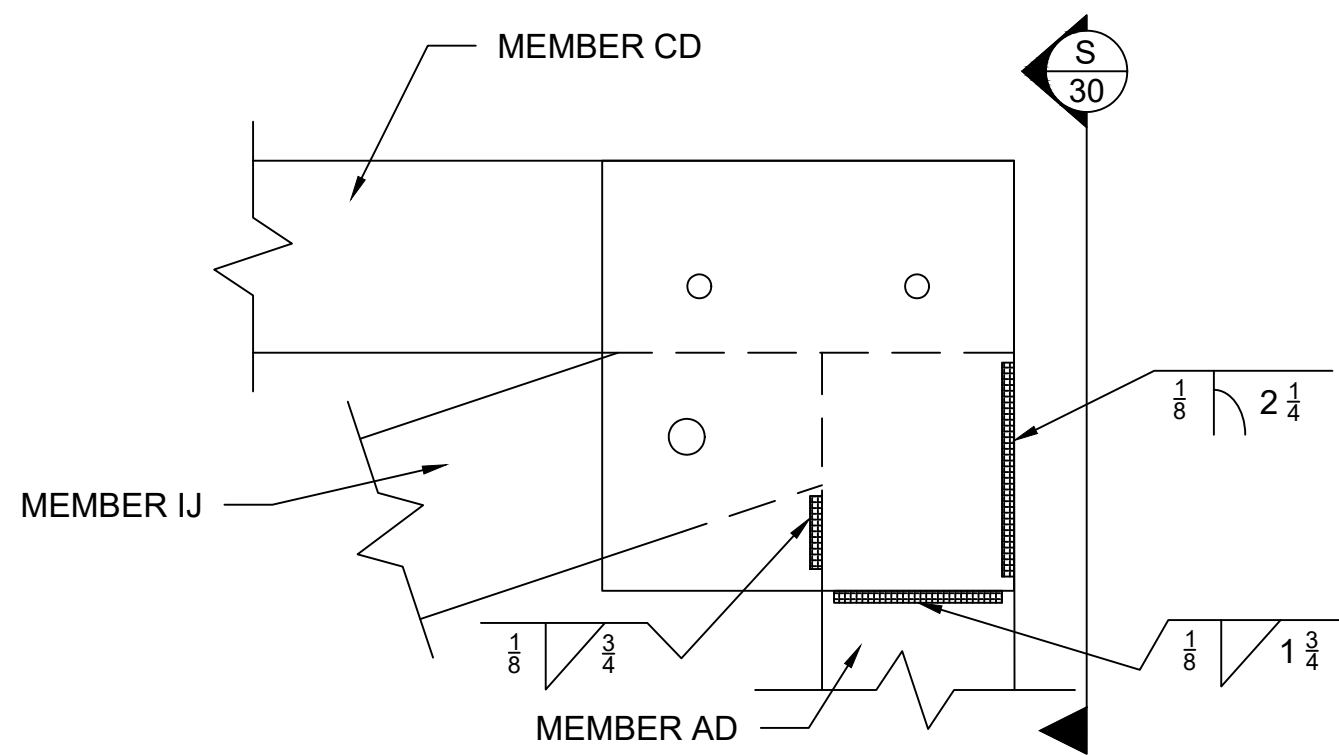


PLATE DIMENSION - CONNECTION K
SCALE: 6" = 1'



DETAIL S
SCALE: 1" = 1'



PROFILE VIEW - CONNECTION K
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL K



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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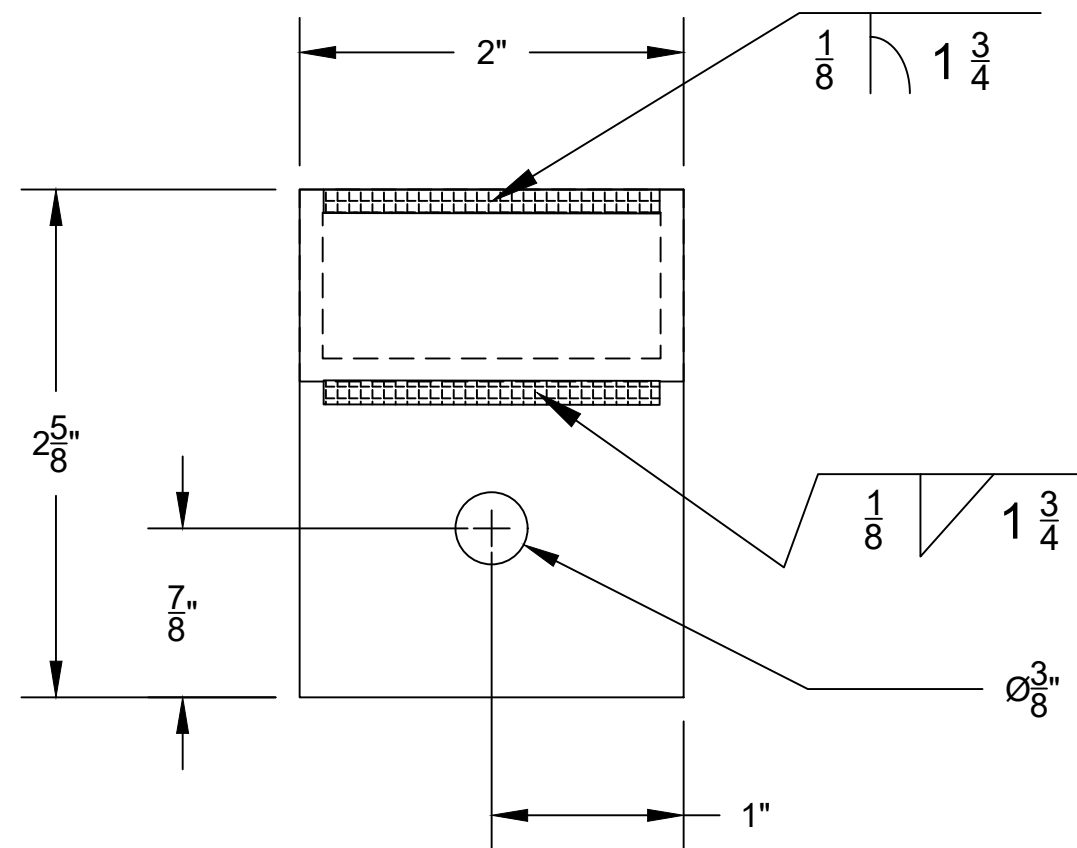
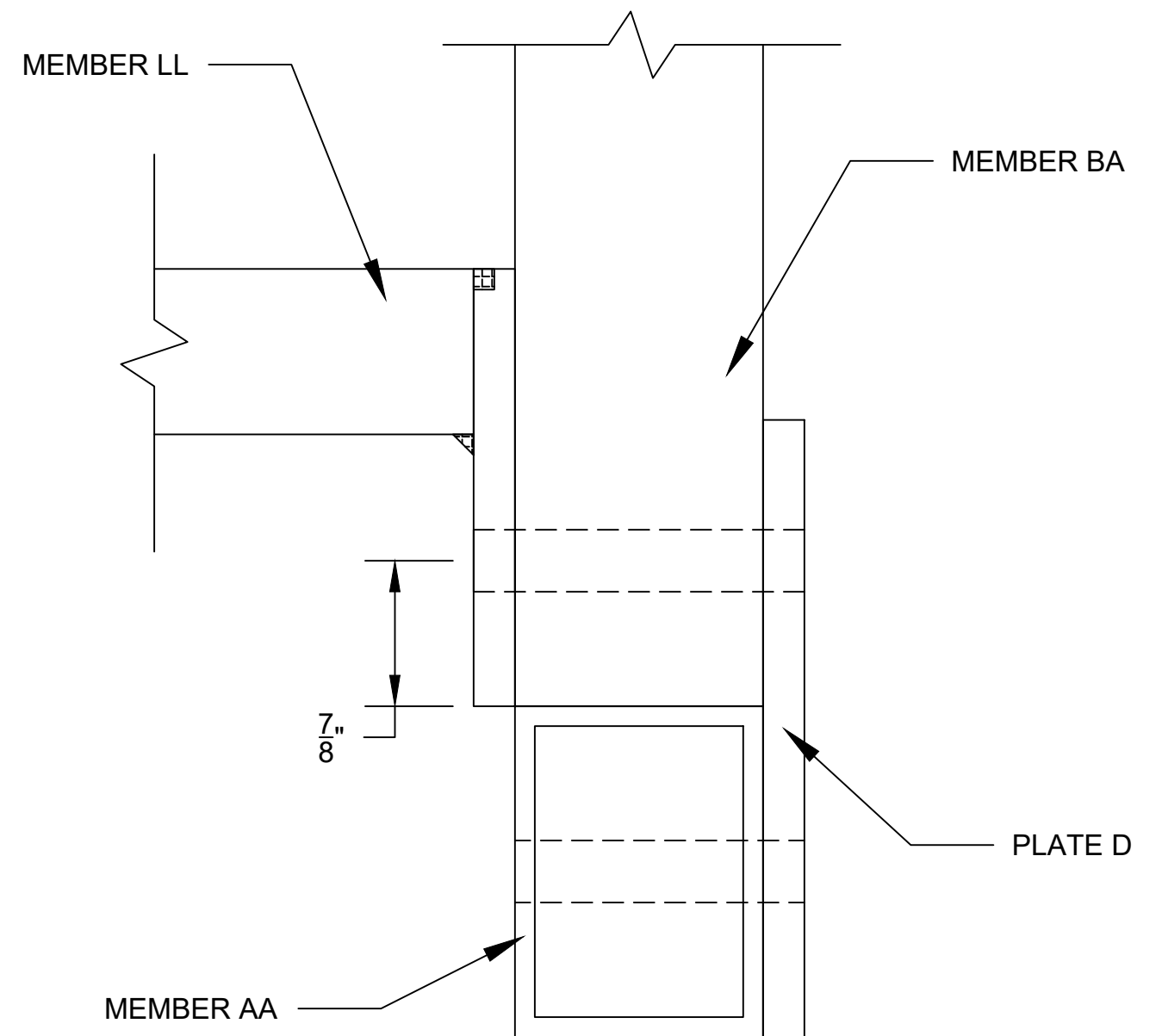


PLATE DIMENSION - CONNECTION L
SCALE: 1" = 1'



FRONT VIEW - CONNECTION L
SCALE: 1" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL L



SCALE: N/A

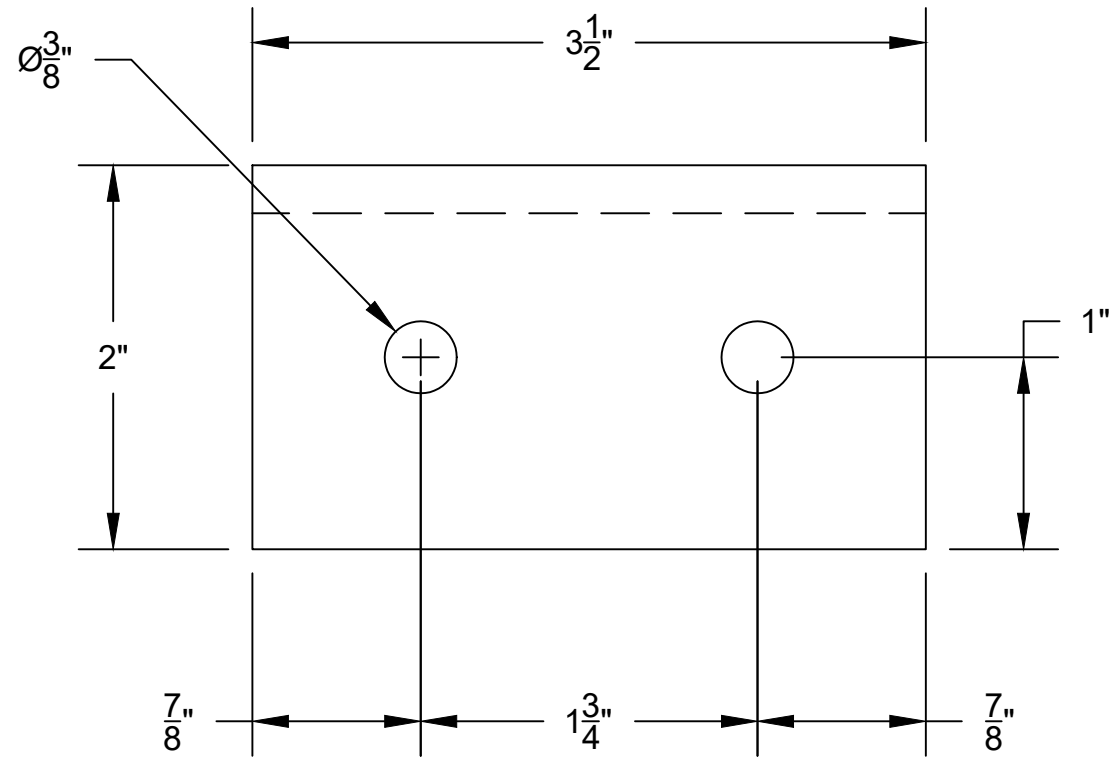
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CHECKED BY: KJ, KF, & IK

DATE: MARCH 2026

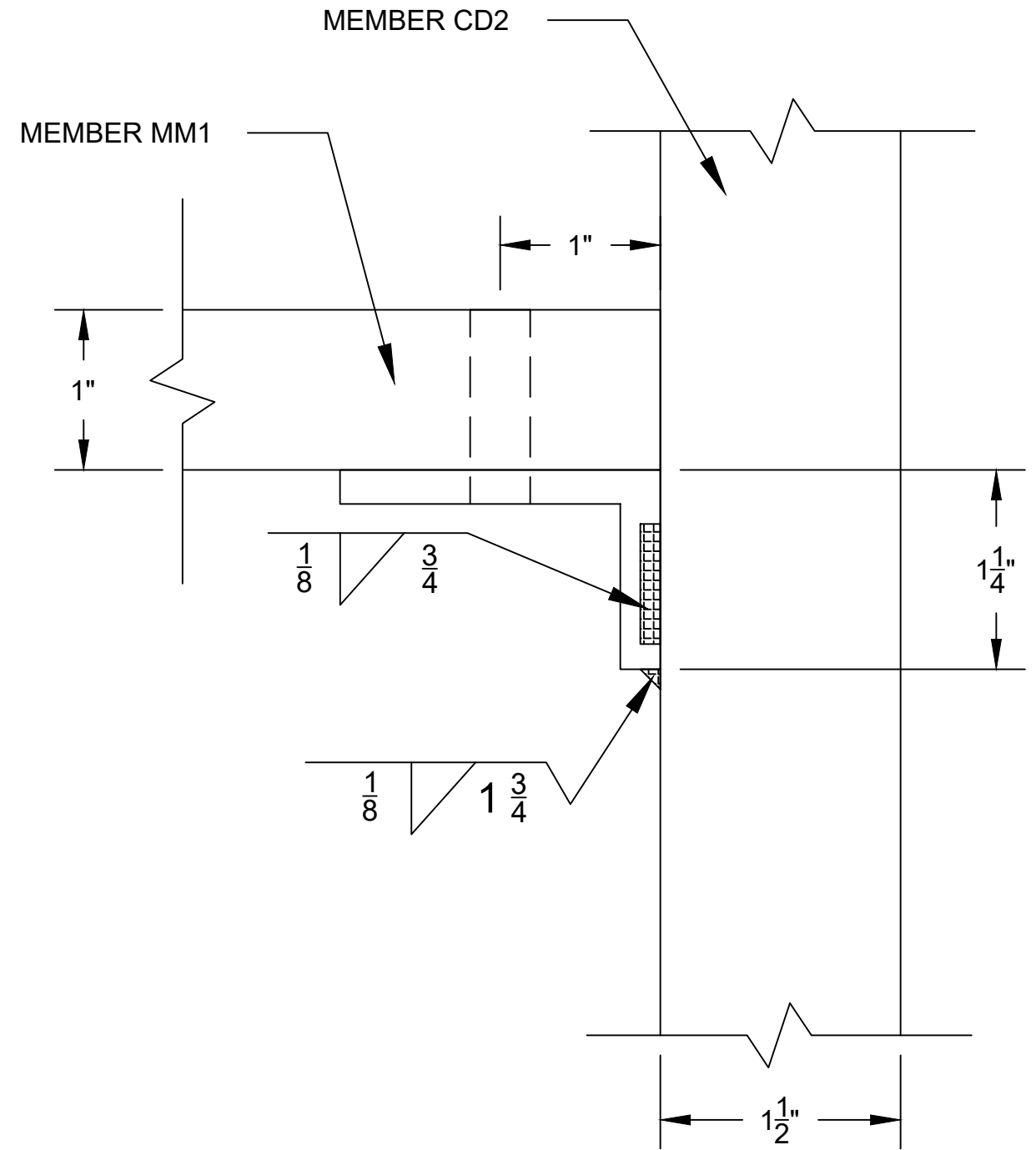
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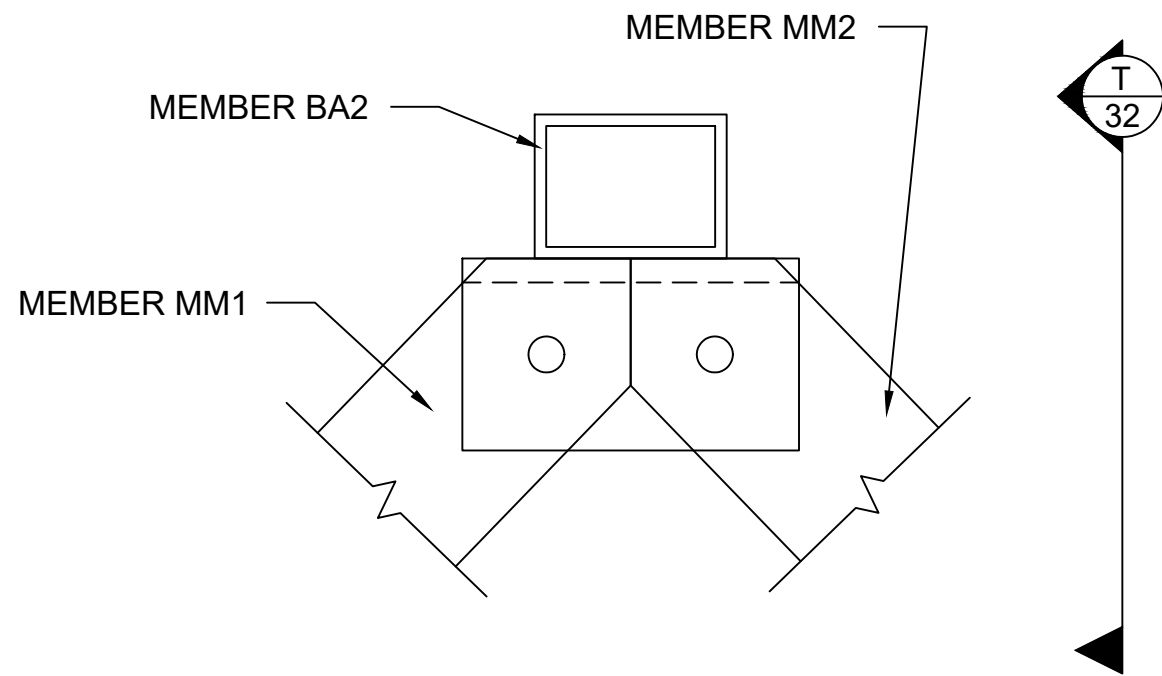
TOP VIEW - CONNECTION M

SCALE: 1" = 1'



DETAIL T

SCALE: 1" = 1'



TOP VIEW - CONNECTION M

SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL M



SCALE: N/A

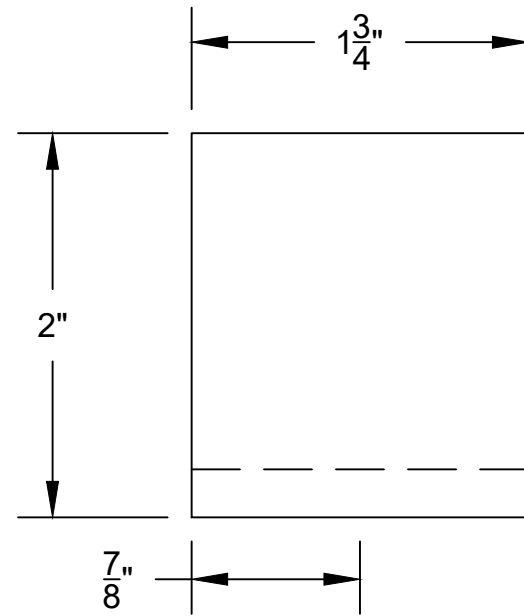
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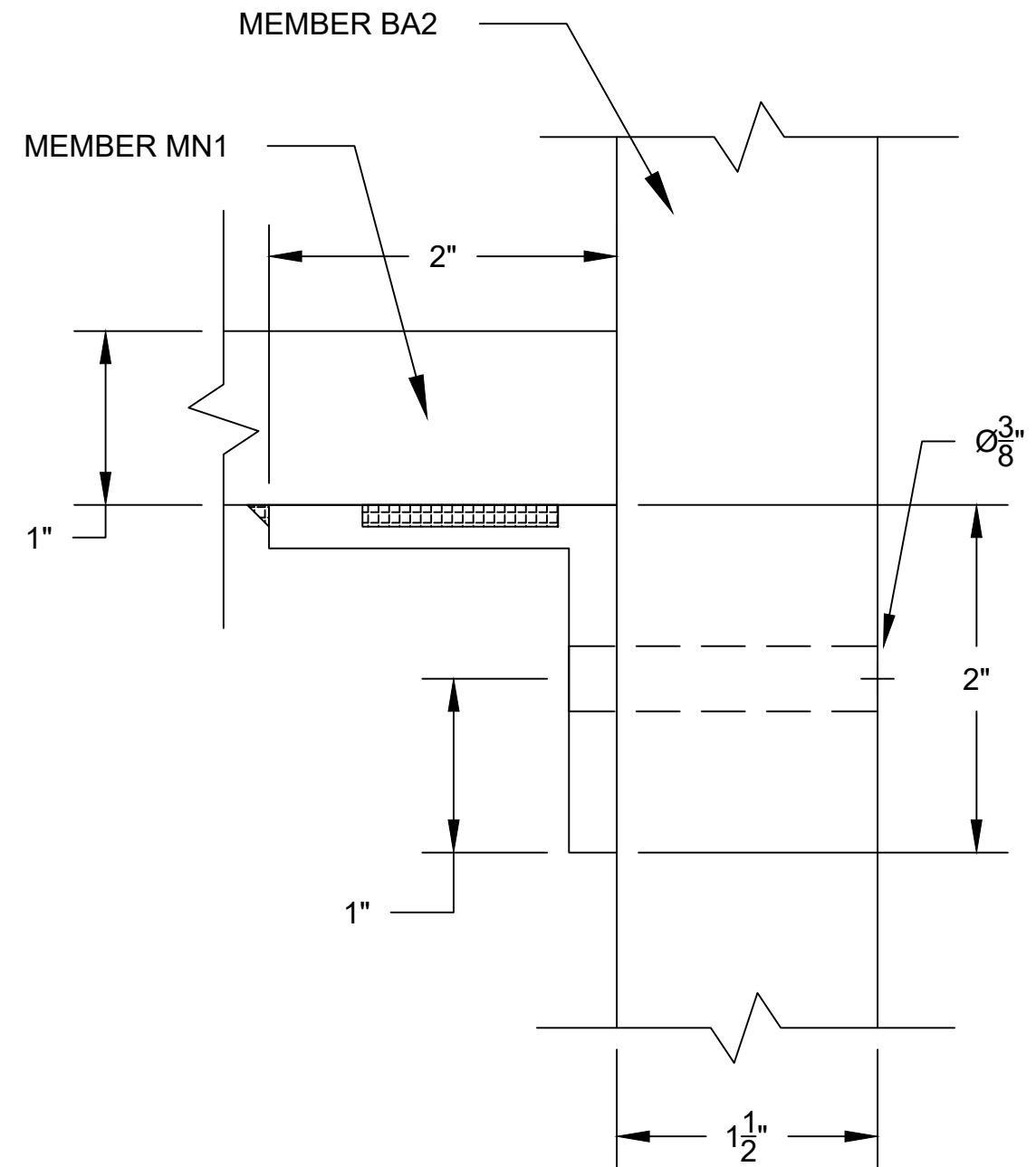
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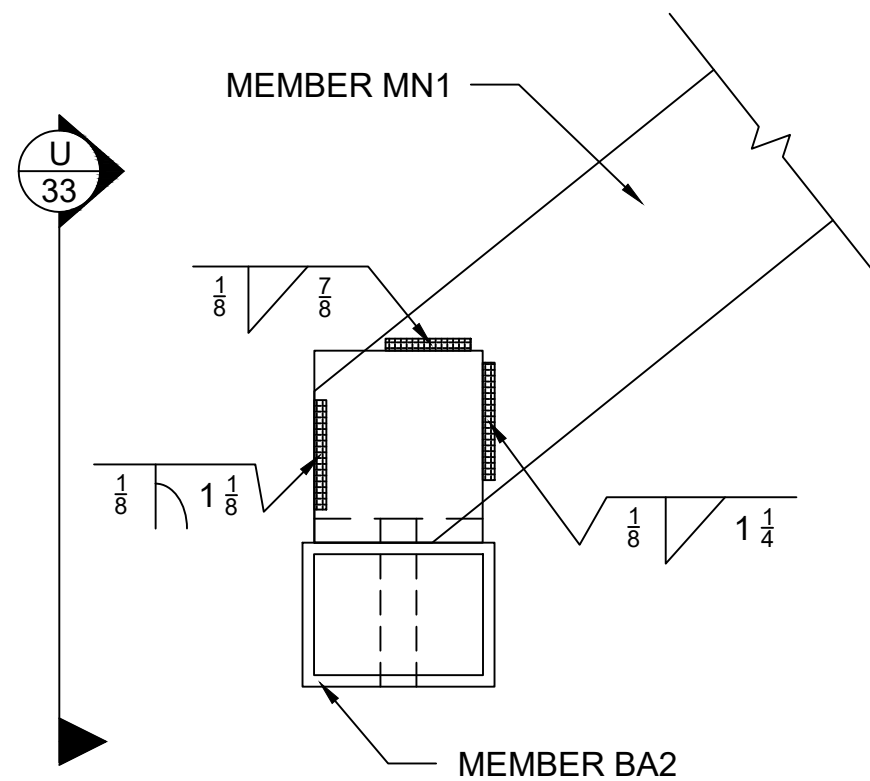
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TOP VIEW - CONNECTION 0.5M
SCALE: 1" = 1'



DETAIL U
SCALE: 1" = 1'



TOP VIEW - CONNECTION M
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL 0.5M



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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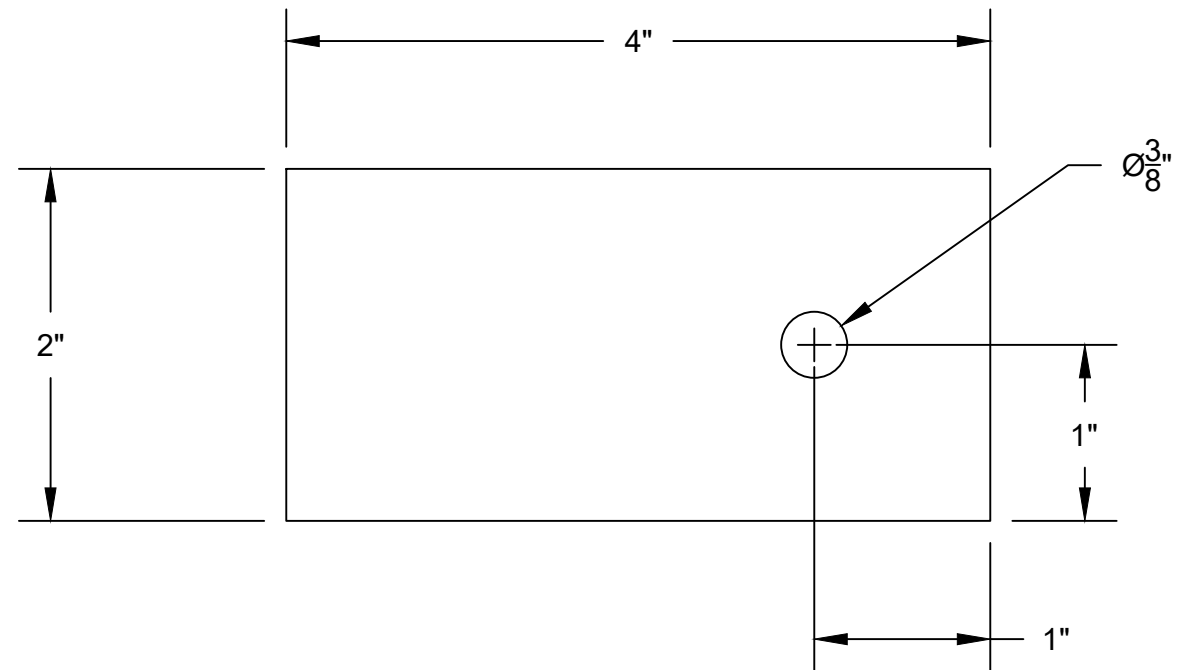
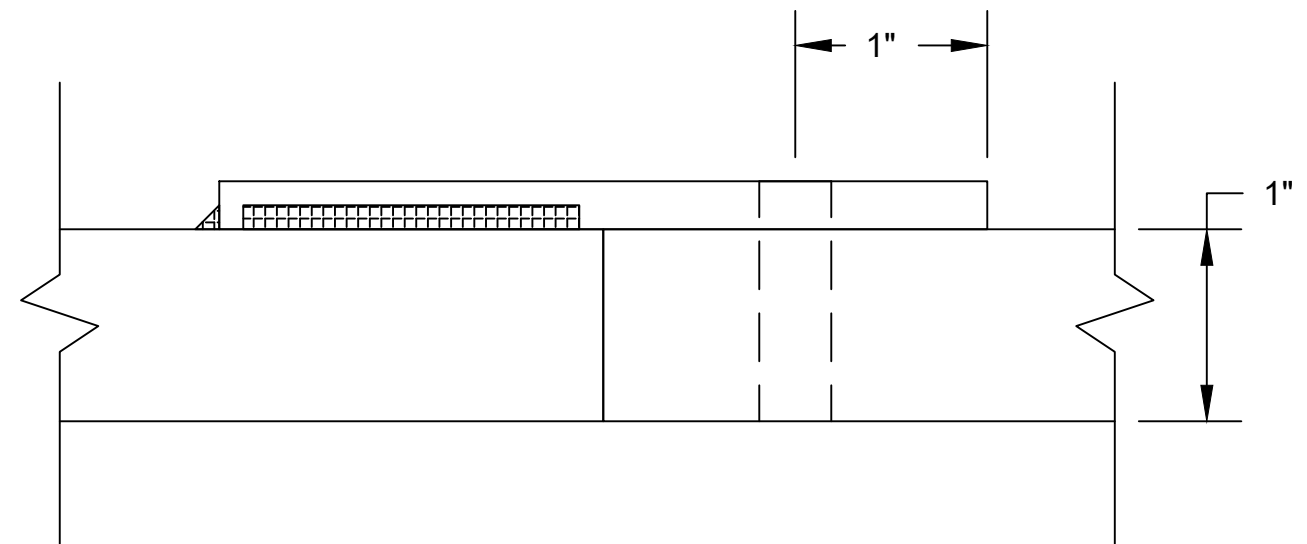
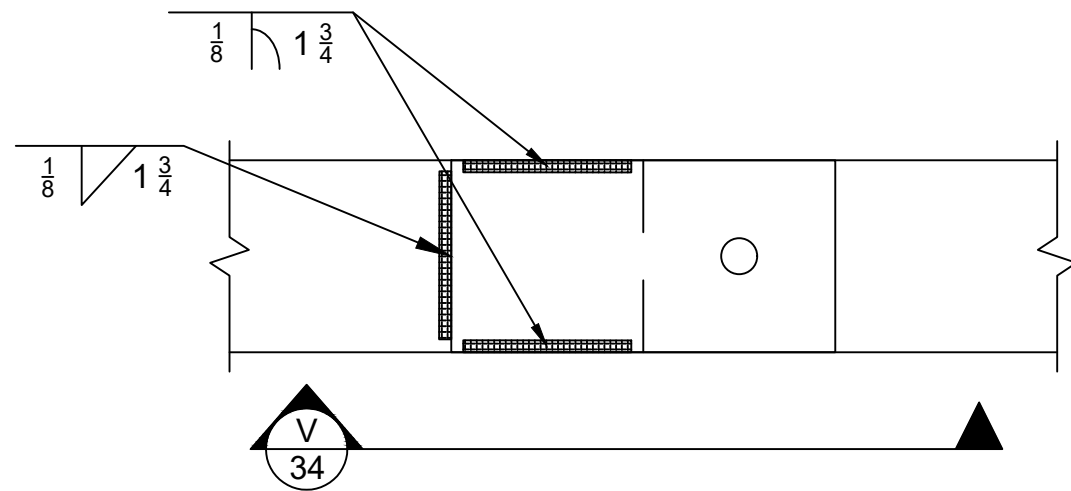


PLATE DIMENSION - CONNECTION N
SCALE: 1" = 1'



DETAIL V
SCALE: 1" = 1'



TOP VIEW - CONNECTION N
SCALE: 6" = 1'



PROJECT: NAU 2025-2026 STEEL BRIDGE

CONNECTION DETAIL N



SCALE: N/A

BY: MA

CHECKED BY: KJ, KF, & IK

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