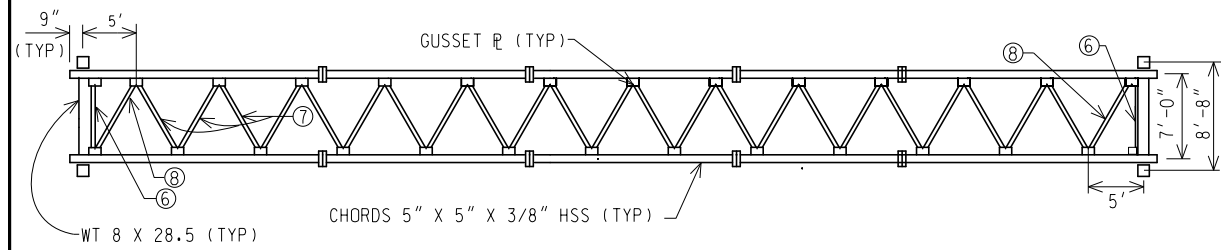


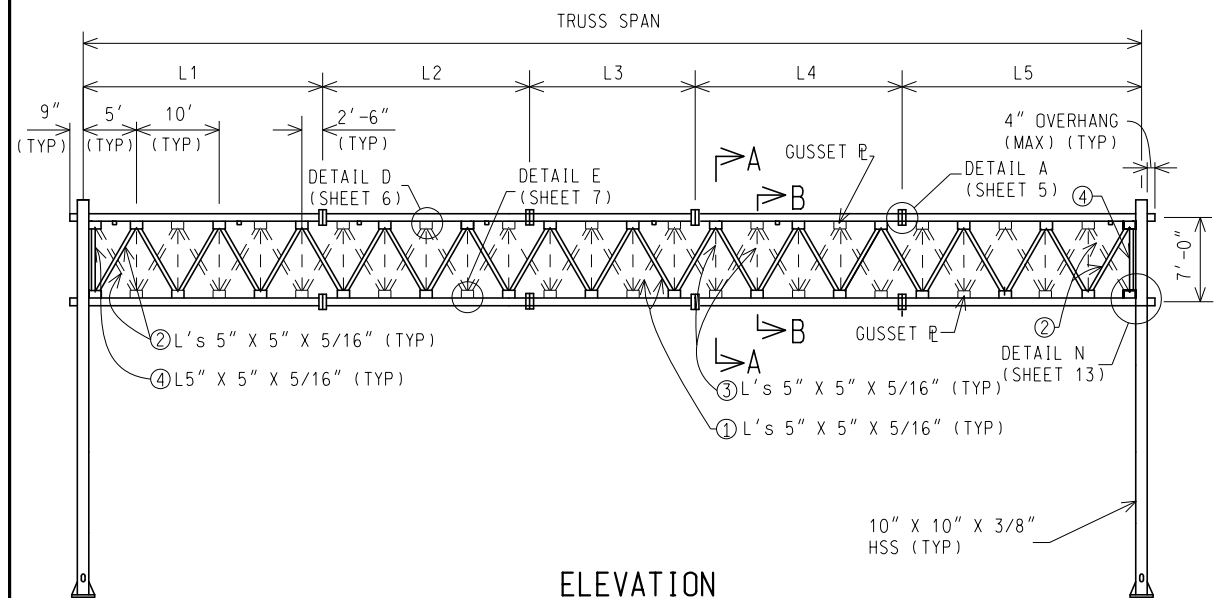
PLAN

TOP WIND BRACING LOOKING DOWN



PLAN

BOTTOM WIND BRACING LOOKING DOWN



ELEVATION

FACING TRAFFIC

TO BE USED FOR MAINTENANCE PURPOSES ONLY

<p>PREPARED BY DESIGN DIVISION</p> <p>DRAWN BY: _____</p> <p>CHECKED BY: _____</p>	<p>DEPARTMENT DIRECTOR Kirk T. Stuedle</p> <p>APPROVED BY: _____ DIRECTOR, BUREAU OF FIELD SERVICES</p>	<p>MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR</p> <p>STEEL TRUSS TYPE D (105 FT - 125 FT)</p>	
	<p>APPROVED BY: _____ DIRECTOR, BUREAU OF DEVELOPMENT</p>	<p>(SPECIAL DETAIL) F.H.W.A. APPROVAL</p> <p>PLAN DATE</p>	<p>SIGN-500-B</p>

TRUSS DATA								
TRUSS SPAN (FT)	L1 (FT)	L2 (FT)	L3 (FT)	L4 (FT)	L5 (FT)	CAMBER (IN)	BOX TRUSS	ESTIMATED WEIGHT (LBS/FT)
105	22.5	20	20	20	22.5	1 7/8	7'-0" x 7'-0"	206
110	22.5	20	25	20	22.5	2	7'-0" x 7'-0"	206
115	22.5	25	20	25	22.5	2 1/4	7'-0" x 7'-0"	206
120	27.5	20	25	20	27.5	2 1/2	7'-0" x 7'-0"	206
125	27.5	25	20	25	27.5	2 5/8	7'-0" x 7'-0"	206

THE CAMBER GIVEN IN THE ABOVE TABLE IS THE ORDINATE AT THE CENTER OF THE ASSEMBLED TRUSS PRIOR TO DEAD LOAD DEFLECTION. ALLOWABLE CAMBER TOLERANCE FOR TRUSS IS ±25%.

NOTES:

- THE DESIGN OF THIS STRUCTURE IS BASED ON THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, CURRENT EDITION.
- WELDING MUST BE IN CONFORMANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1:2010, STRUCTURAL WELDING CODE-STEEL (AS MODIFIED BY THE CURRENT 12SP-707A - STRUCTURAL STEEL AND ALUMINUM CONSTRUCTION), HEREAFTER CALLED AWS D1.1.
- MAXIMUM SIGN AREA IS 500 SQUARE FEET FOR NO MORE THAN THREE SIGNS. MAXIMUM 6 FOOT SIGN PROJECTION ABOVE THE TOP CHORD.
- HOT-DIP GALVANIZE (HDG) ALL TRUSS COMPONENTS PER ASTM A123 PRIOR TO BOLTED ASSEMBLY. HDG ALL FASTENER COMPONENTS PER ASTM A153. BLAST CLEAN BASE PLATES, STIFFENERS, AND ALL WELDMENTS PRIOR TO GALVANIZING.
- PROVIDE 13/16" Ø HOLES FOR 3/4" Ø HIGH STRENGTH (HS) BOLTS FOR ALL CONNECTIONS UNLESS OTHERWISE STATED. PROVIDE HIGH STRENGTH BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SUBSECTION 906.07 OF THE MDT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- TIGHTEN ALL HIGH STRENGTH BOLTS BY THE TURN OF NUT METHOD PER SUBSECTION 707.03.D OF THE MDT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- DO NOT LIFT THE TRUSS BY THE WEB MEMBERS.
- THE CAMBERING MUST BE PROVIDED IN THE FABRICATION SO THAT THE FLANGES ARE CORRECTLY SLOPED TO ASSURE OBTAINING FULL CONTACT IN THE RELAXED ASSEMBLED POSITION PRIOR TO SNUGGING UP THE FLANGE BOLTS. THE FLANGE BOLTS MUST NOT BE TIGHTENED IN AN ATTEMPT TO CLOSE ANY FLANGE MISALIGNMENT.
- THE TRUSS SECTION LENGTHS TABULATED MAY BE INCREASED IN 5 FOOT INCREMENTS TO REDUCE THE NUMBER OF FIELD SPLICES.
- THE MAXIMUM SECTION LENGTH MUST NOT EXCEED 40 FEET. ANY DEVIATION FROM THE DETAILS SHOWN ON THESE STANDARDS WILL REQUIRE APPROVED SHOP DRAWINGS BEFORE FABRICATION.
- ALL WELDS MUST BE 100 PERCENT VISUAL TEST (VT) INSPECTED BY AN AWS CERTIFIED WELDING INSPECTOR (CWI). ALL FILLET WELDS (EXCEPT END CAP AND COLUMN CAP WELDS) MUST BE 25 PERCENT MAGNETIC PARTICLE TEST (MT) INSPECTED BY A TECHNICIAN QUALIFIED IN ACCORDANCE WITH AMERICAN SOCIETY OF NONDESTRUCTIVE TESTING (ASNT) LEVEL II. ALL COMPLETE JOINT PENETRATION (CJP) WELDS MUST BE 100 PERCENT ULTRASONIC TEST (UT) INSPECTED BY A TECHNICIAN QUALIFIED IN ACCORDANCE WITH ASNT LEVEL II.
- SEE CURRENT MDT SIGN SUPPORT TYPICAL PLAN SIGN-600-SERIES FOR SIGN FOUNDATION.
- SEE CURRENT MDT SIGN SUPPORT TYPICAL PLAN SIGN-700-SERIES FOR SIGN CONNECTION.
- BASE PLATE (P) WARPAGE MUST NOT EXCEED 1/16 INCH PER FOOT.
- HSS DENOTES HOLLOW STRUCTURAL SHAPE.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	(SPECIAL DETAIL) F.H.W.A. APPROVAL	PLAN DATE	SIGN-500-B	SHEET 2 OF 14
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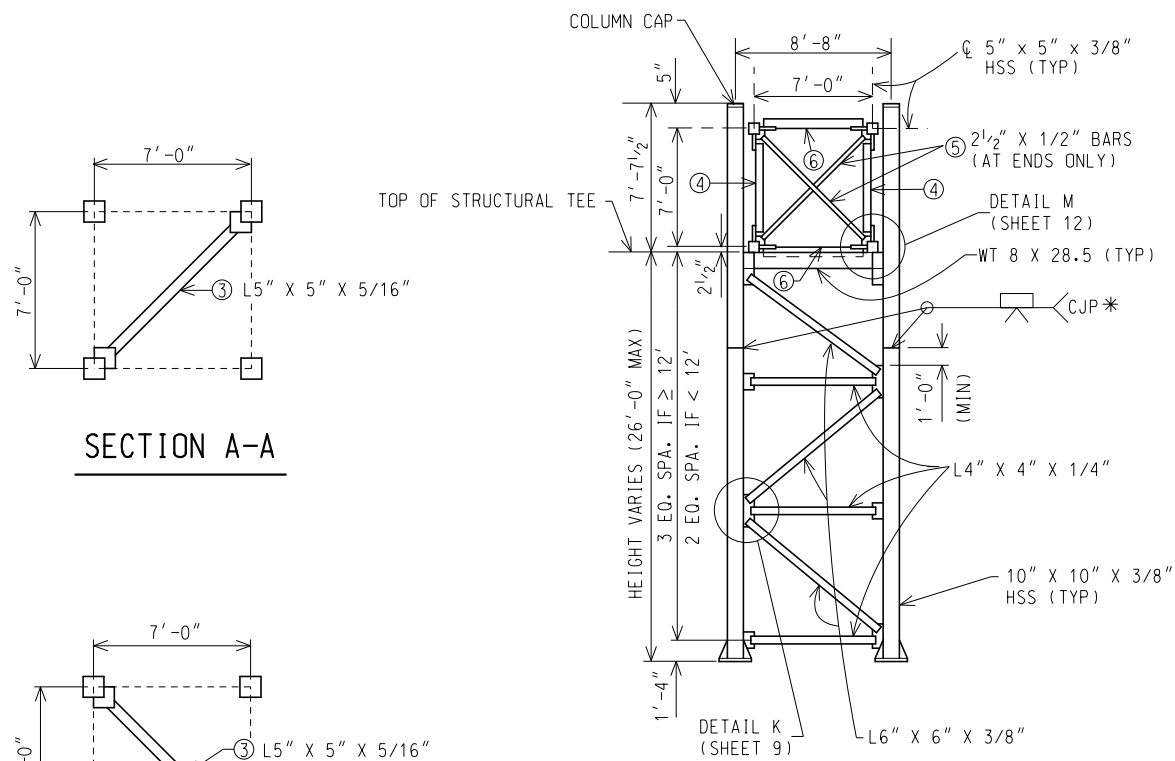
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AS-LET PLAN REVISIONS

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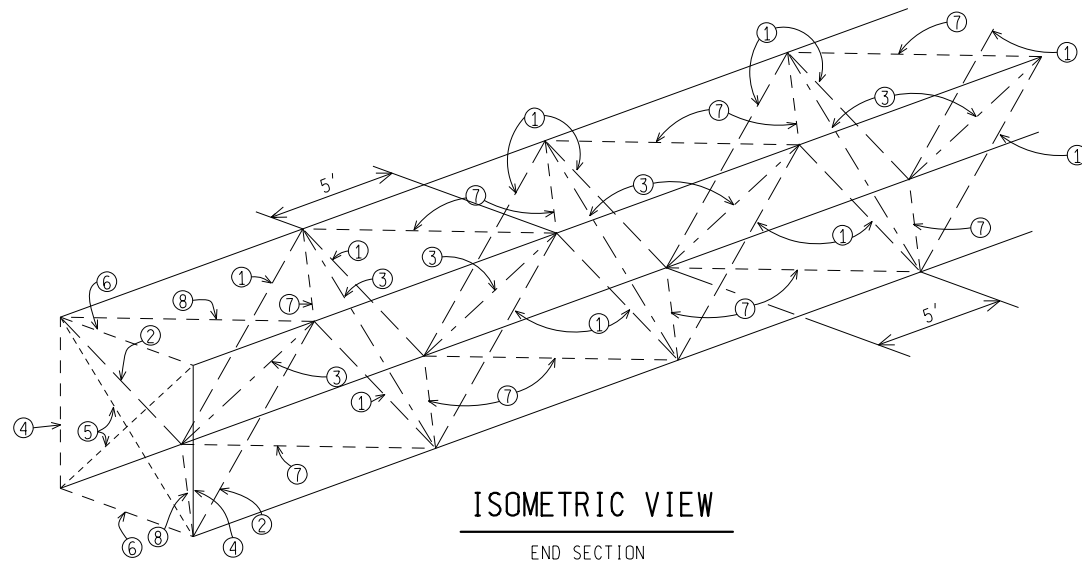


SECTION A-A

SECTION B-B

END ELEVATION

*OPTIONAL SPLICE



ISOMETRIC VIEW

END SECTION

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

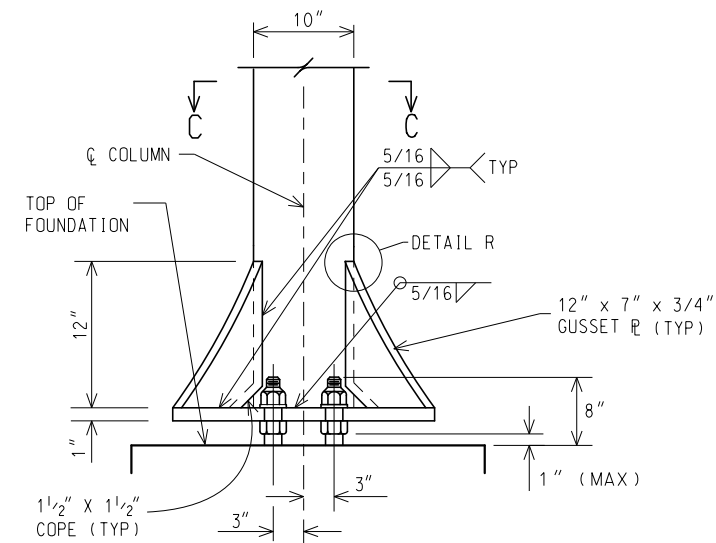
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F.H.W.A. APPROVAL

PLAN DATE

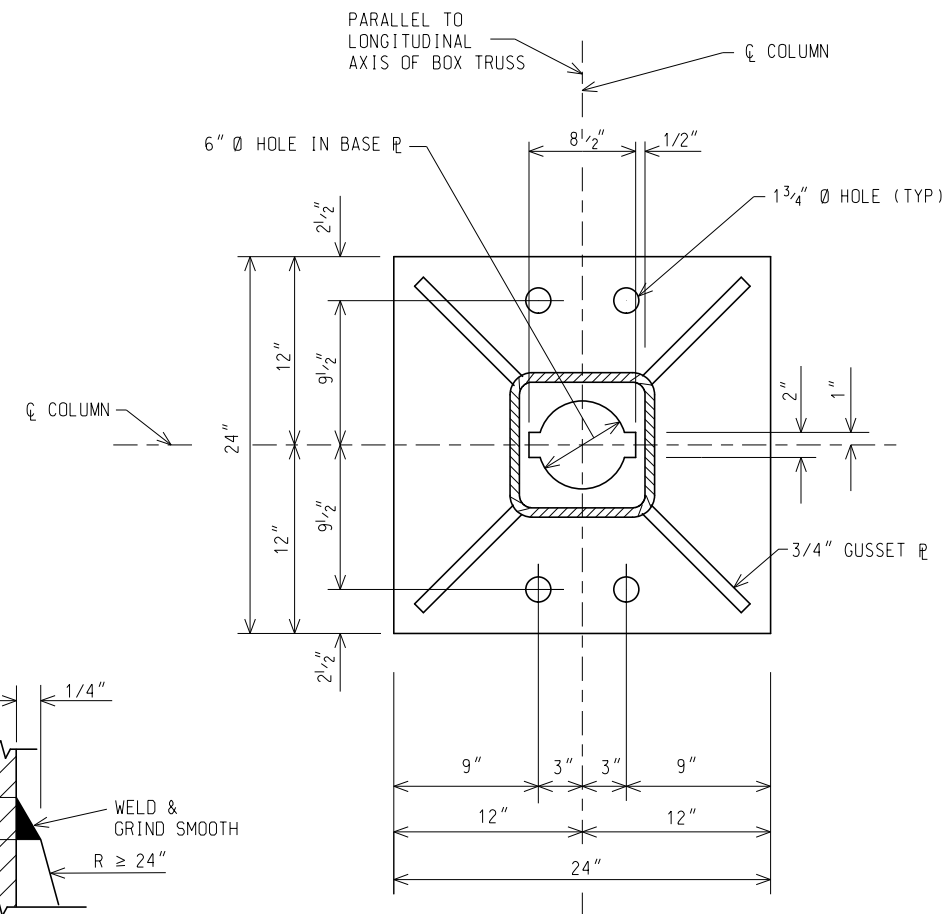
SIGN-500-B

SHEET
3 OF 14

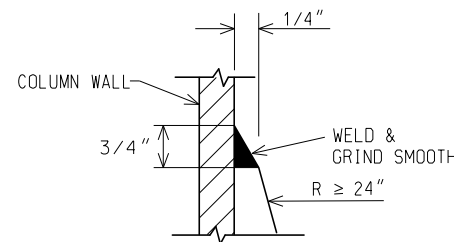
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COLUMN ELEVATION



SECTION C-C



DETAIL R

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BUREAU OF DEVELOPMENT STANDARD PLAN

(SPECIAL DETAIL)
F.H.W.A. APPROVAL

PLAN DATE

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4 OF 14

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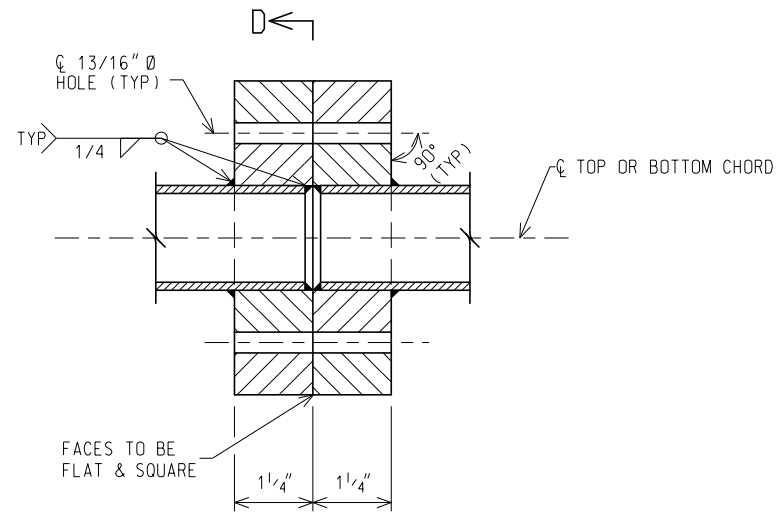
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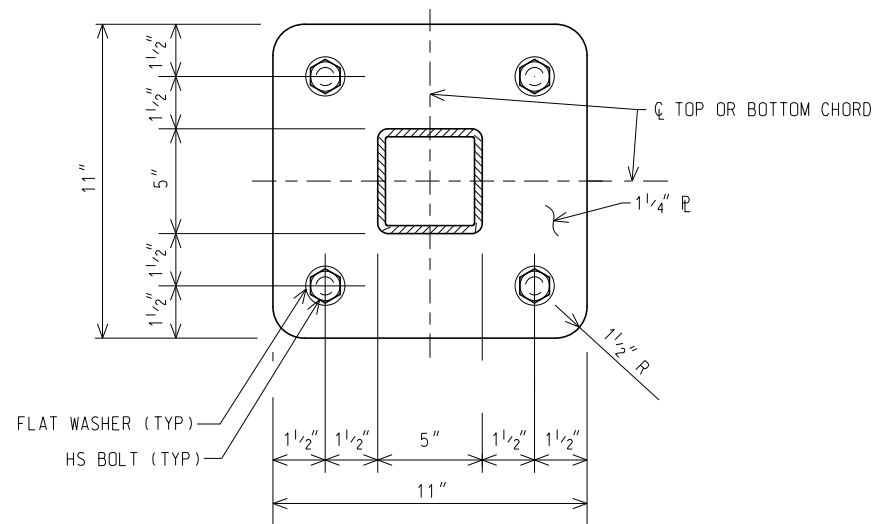


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DETAIL A



SECTION D-D
TOP AND BOTTOM CHORD CONNECTION DETAILS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

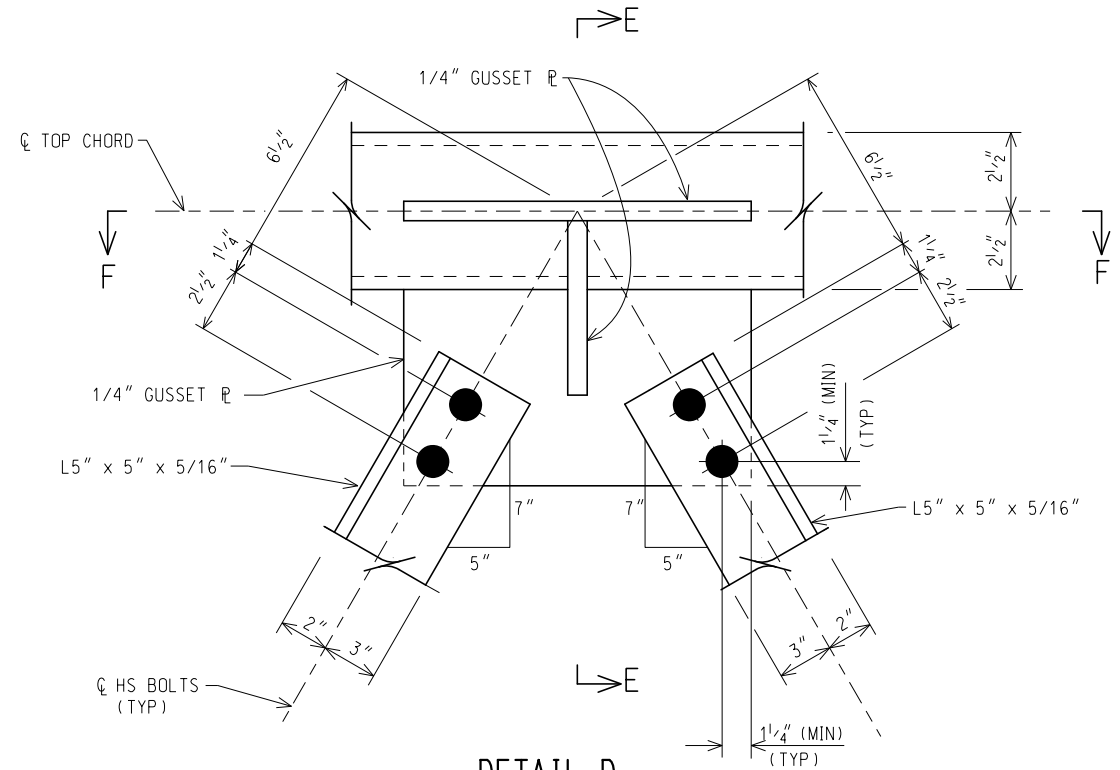
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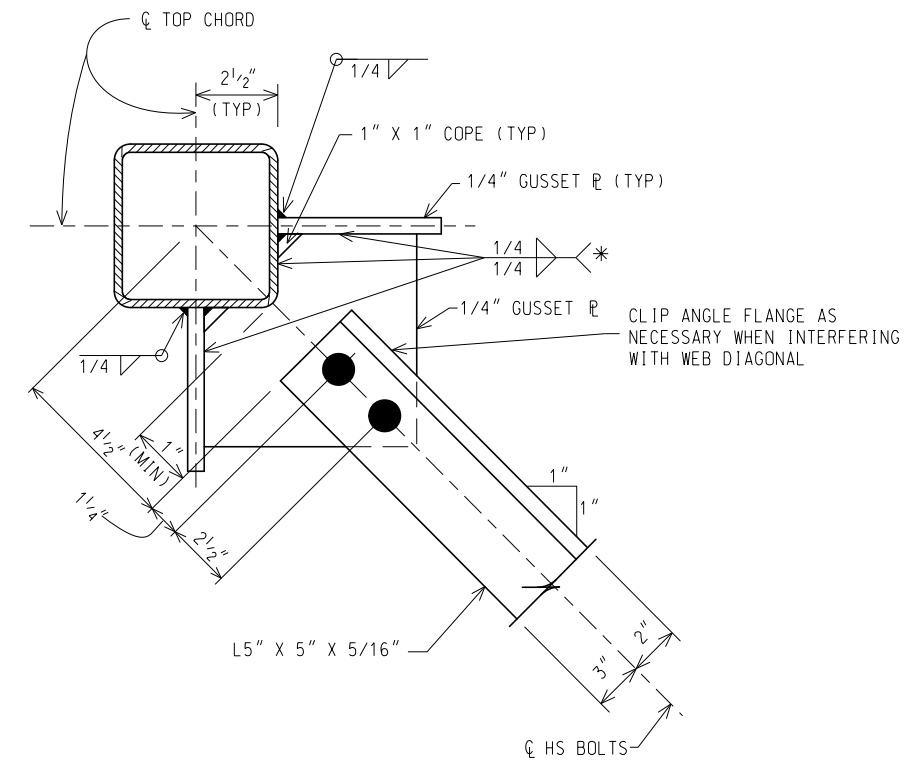
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5 OF 14

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DETAIL D
TOP CHORD TO DIAGONAL CONNECTION DETAIL



SECTION E-E

WRAP WELD AROUND ENDS AND STOP 1/4" SHORT OF CLIP.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

(SPECIAL DETAIL)
F.H.W.A. APPROVAL

PLAN DATE

SIGN-500-B

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6 OF 14

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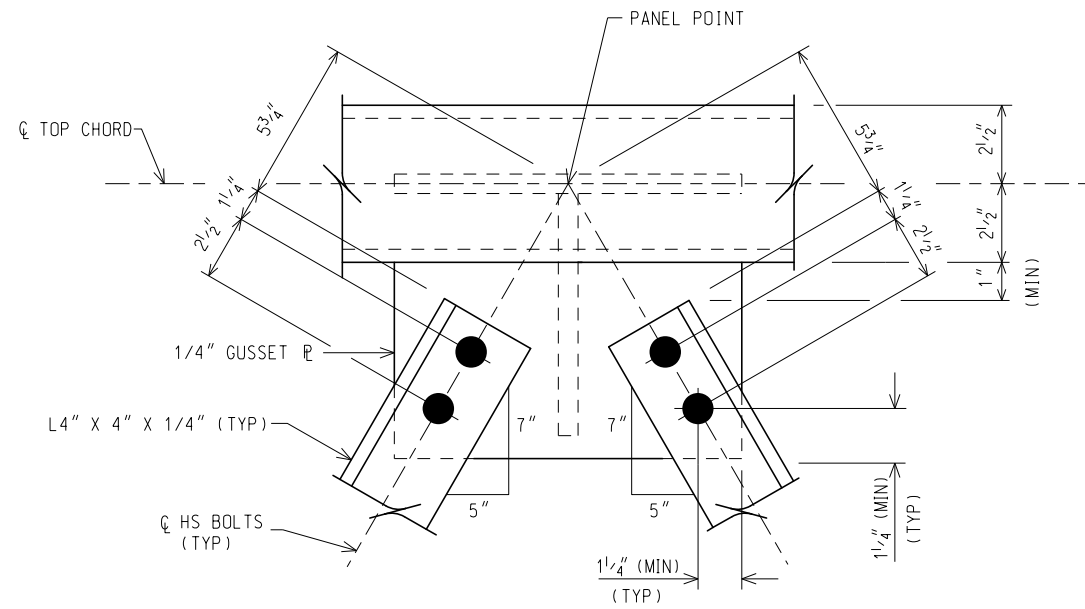
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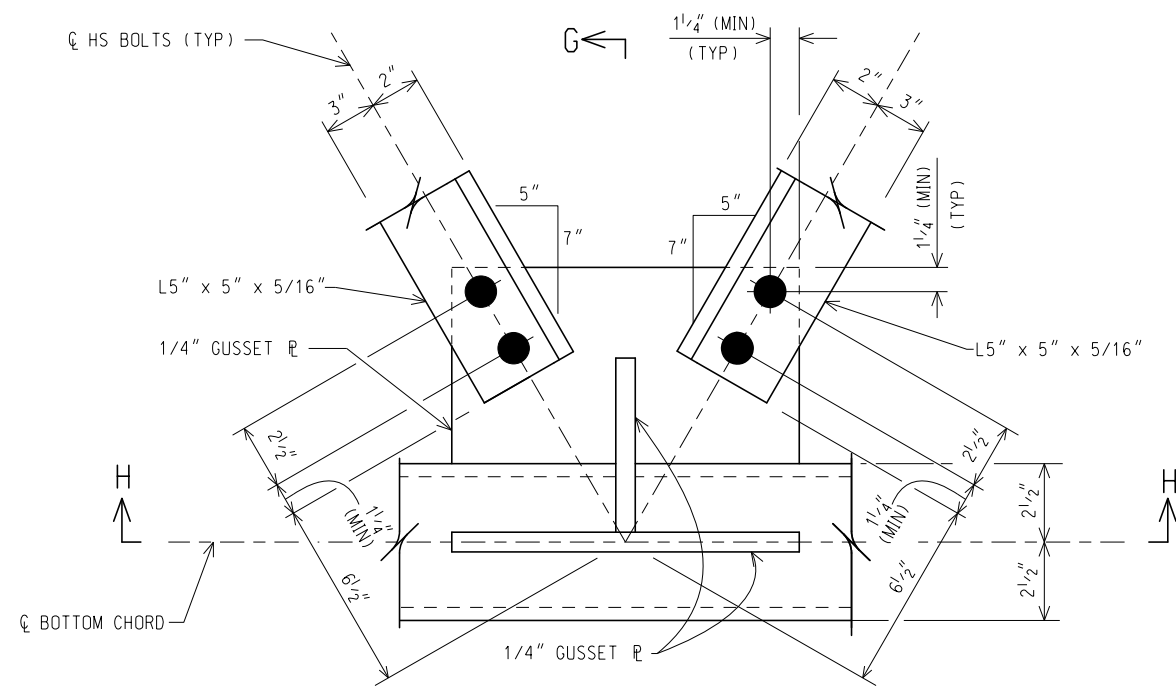


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SECTION F-F

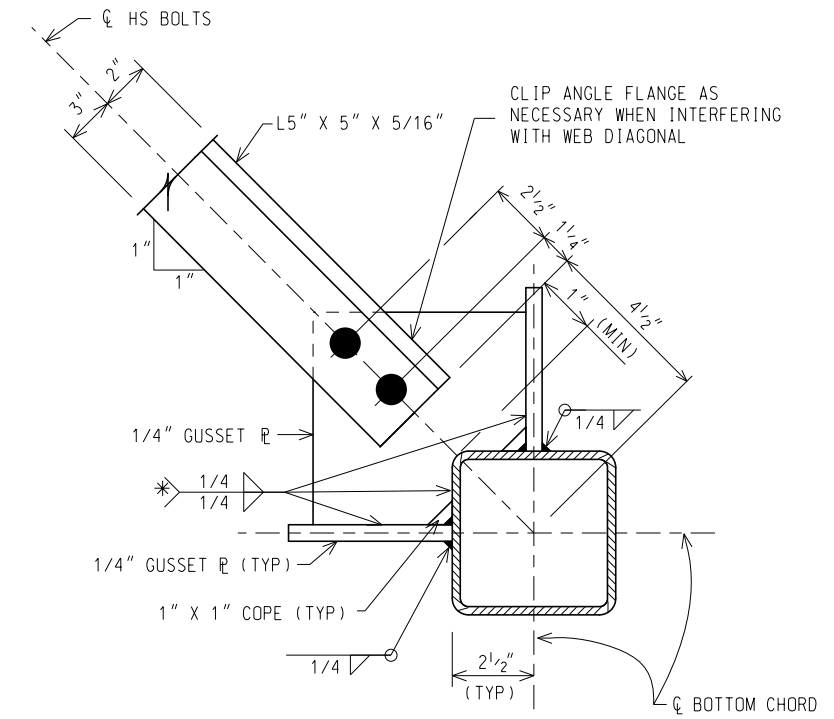


DETAIL E
BOTTOM CHORD TO DIAGONAL CONNECTION DETAIL

NOT TO SCALE

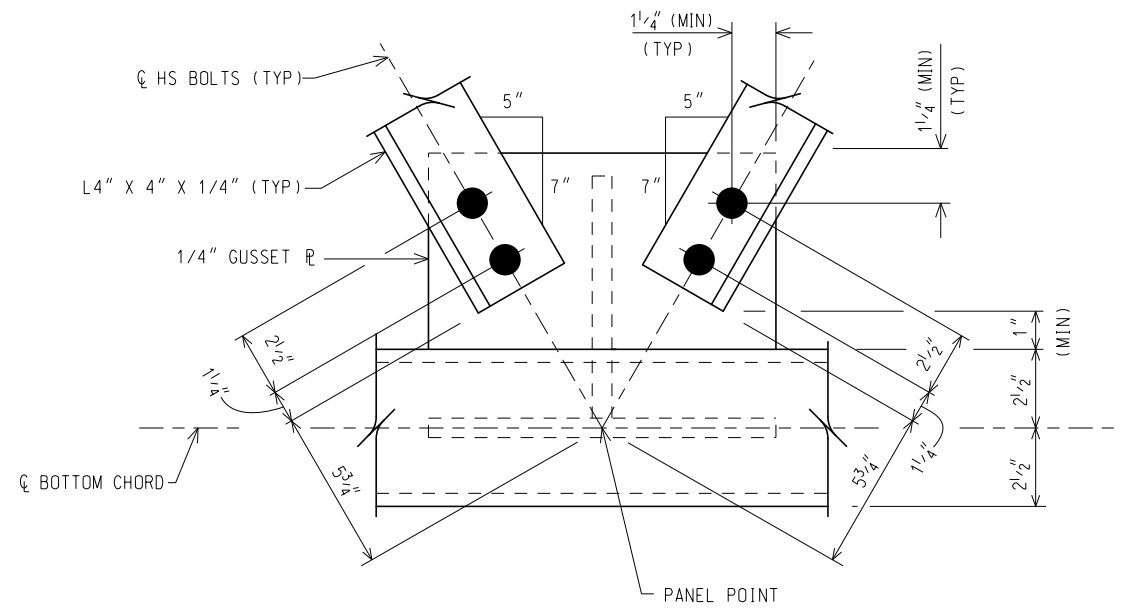
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SECTION G-G

* WRAP WELD AROUND ENDS AND STOP 1/4" SHORT OF CLIP.



SECTION H-H

NOT TO SCALE

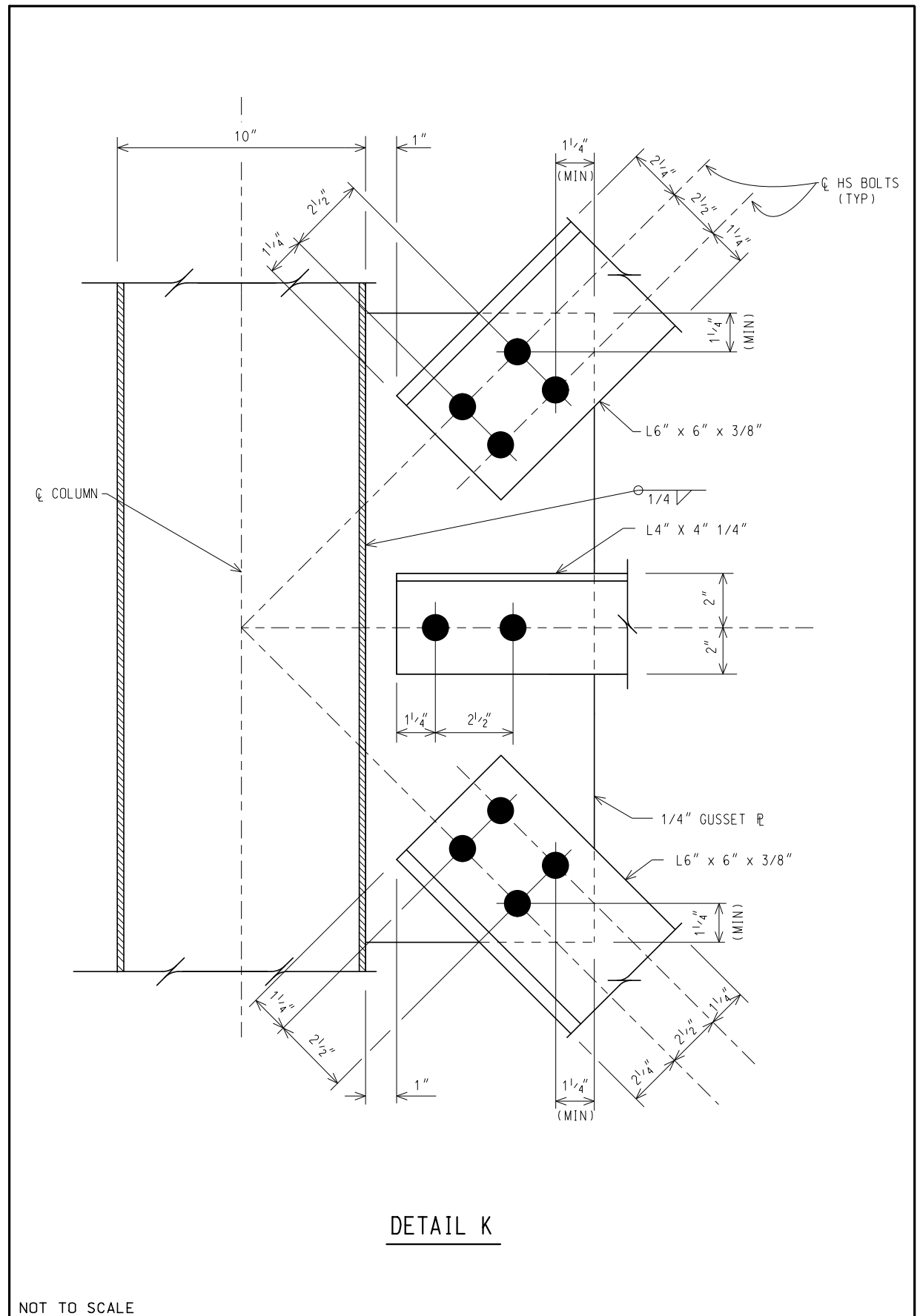
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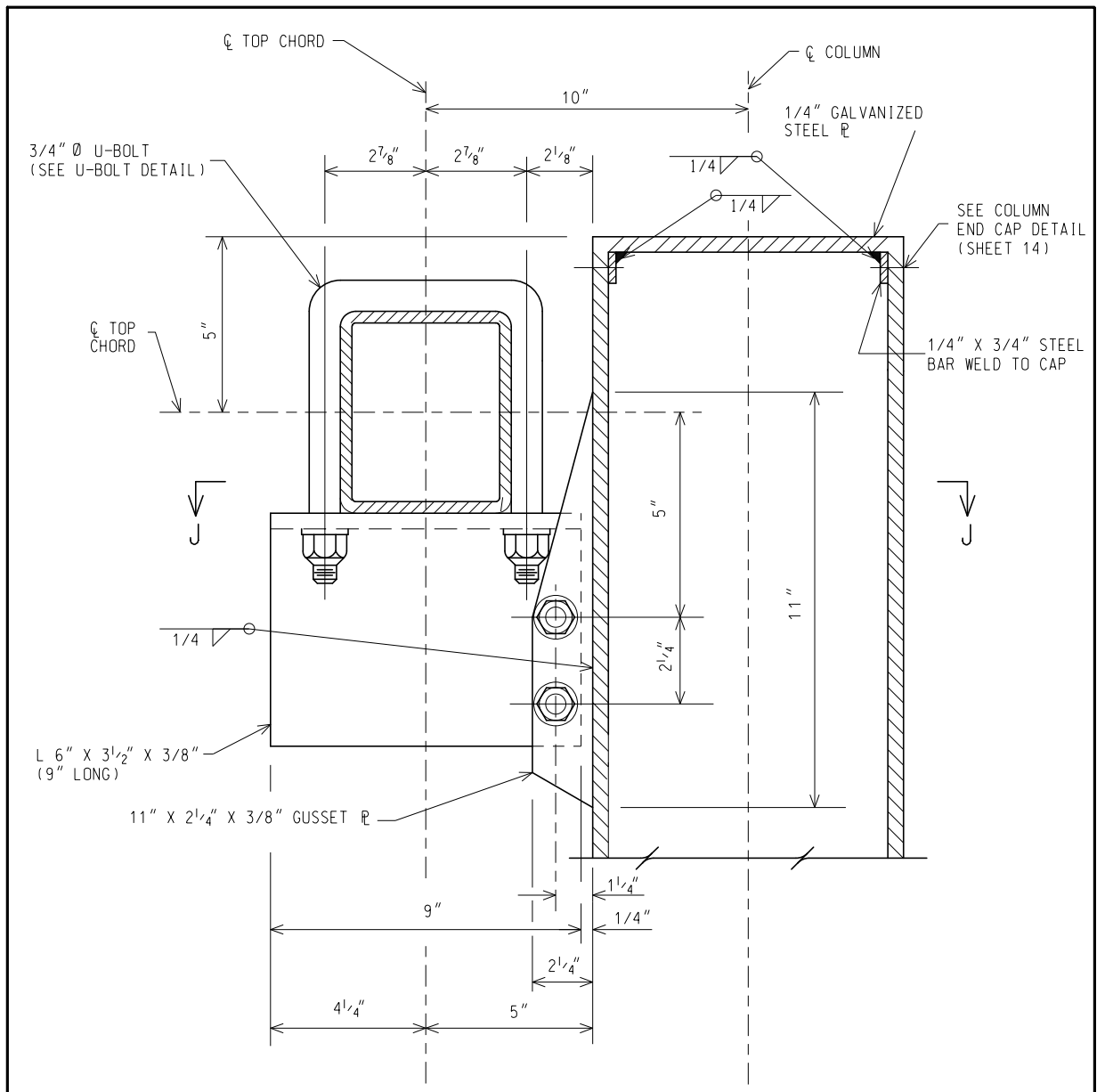


DETAIL K

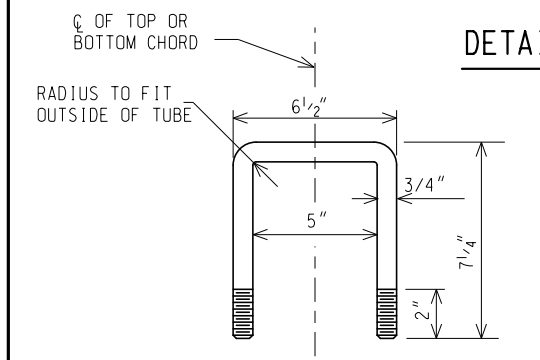
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DETAIL OF UPPER CLAMP



U-BOLT DETAIL

(12 REQUIRED)

3/4" Ø STAINLESS STEEL BOLT WITH FLAT 3/16" Ø THICK WASHER AND 3/4" Ø NYLON INSERT LOCKNUT (TYP)

NOT TO SCALE

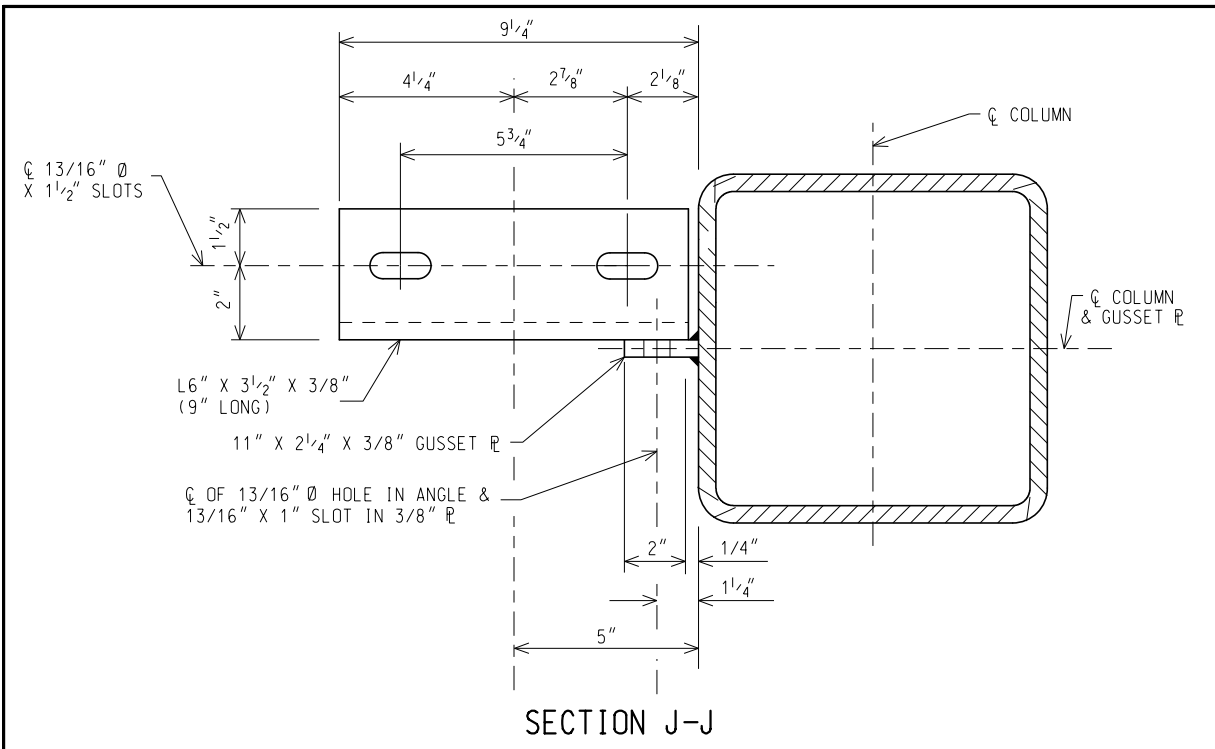
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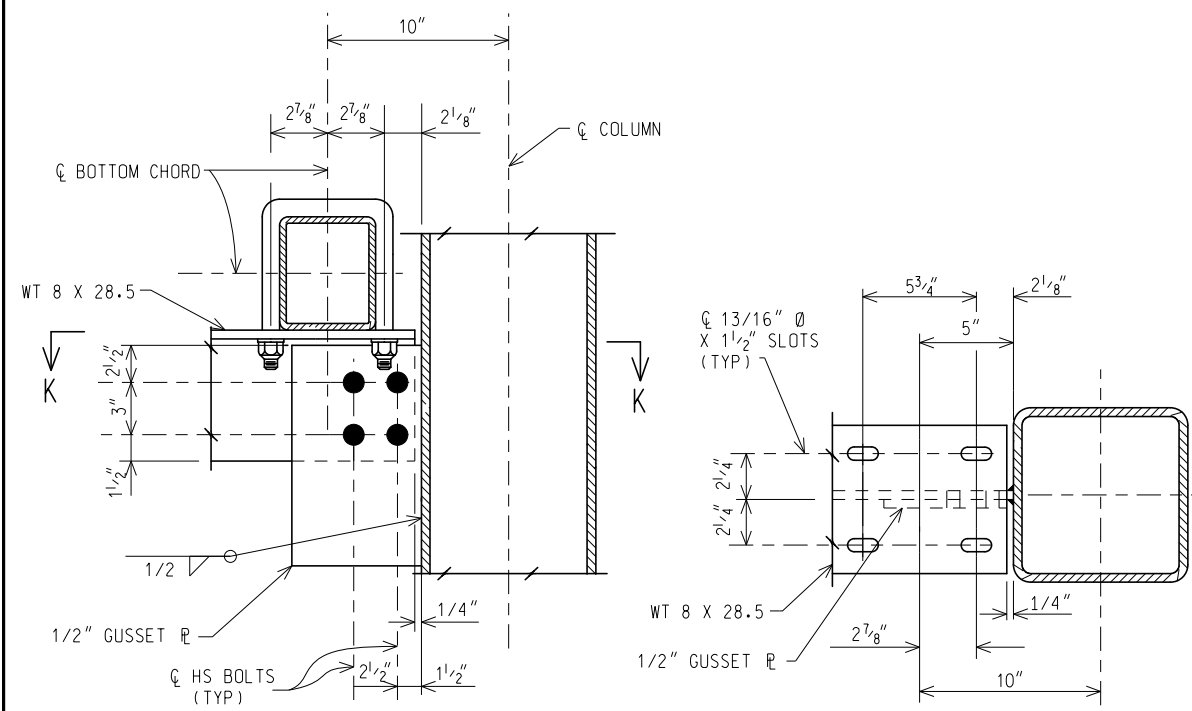
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SECTION J-J



SECTION K-K

SEAT DETAIL
DIAGONAL ANGLE NOT SHOWN FOR CLARITY
(SEE SHEET 12 FOR DIMENSIONS OF DIAGONAL ANGLE)

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

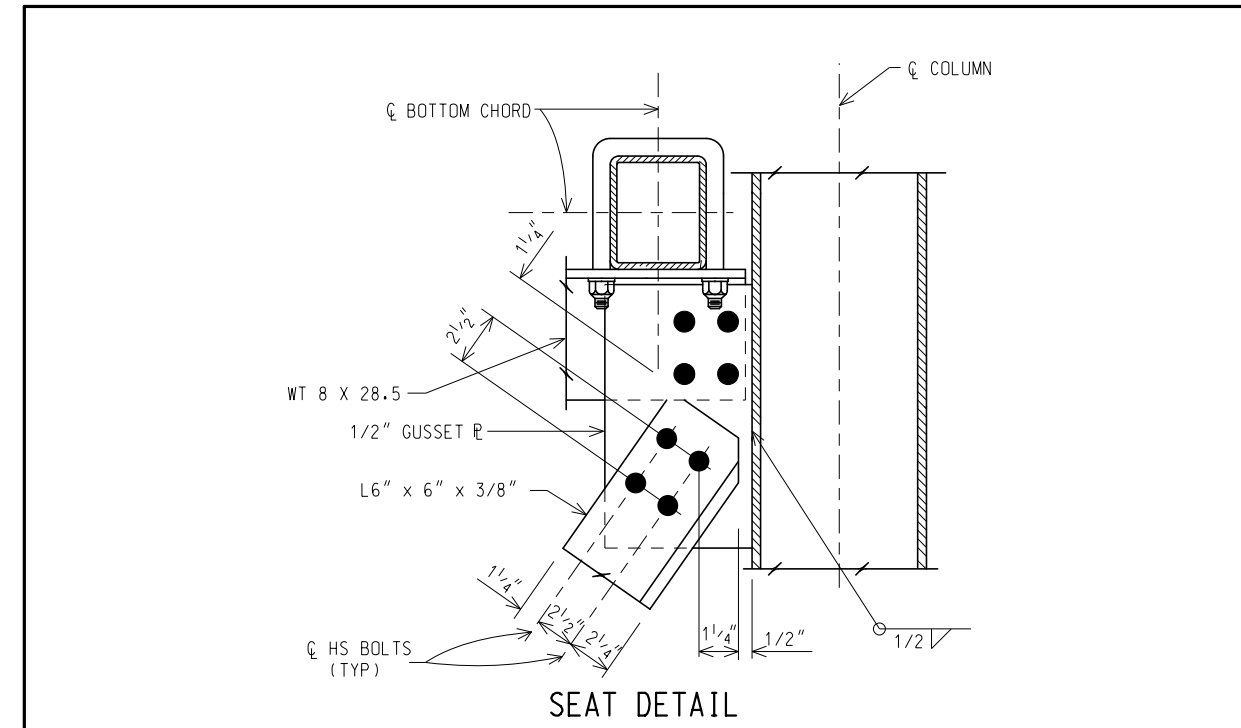
(SPECIAL DETAIL)
F.H.W.A. APPROVAL

PLAN DATE

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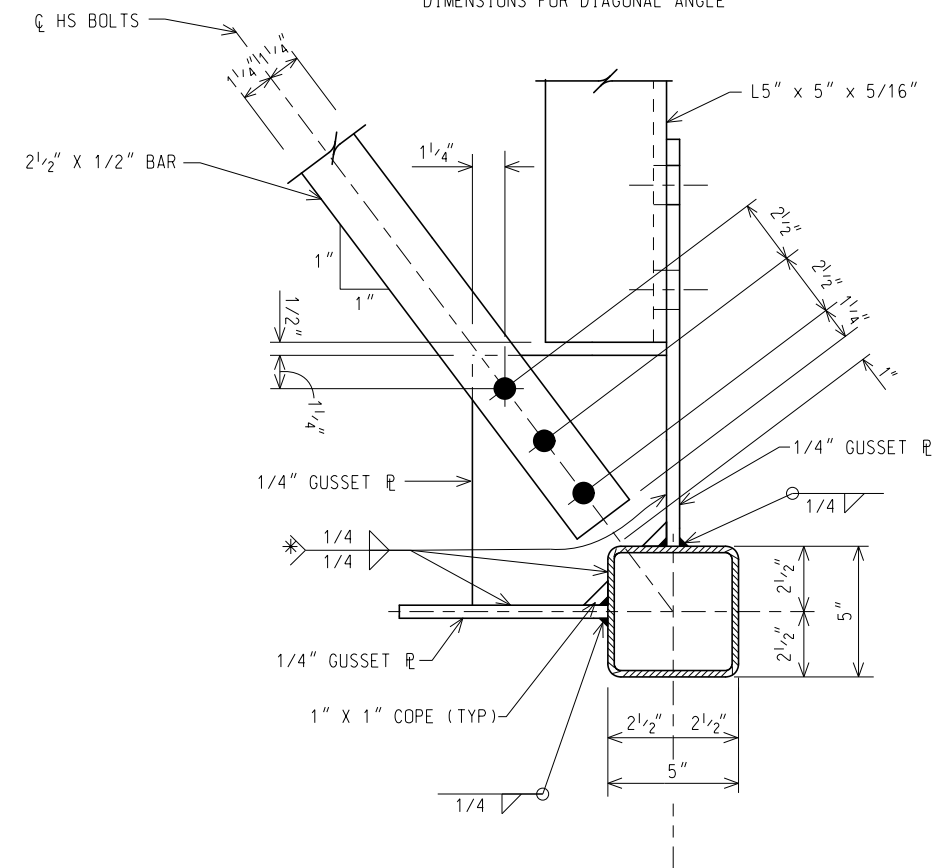
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SEAT DETAIL

DIMENSIONS FOR DIAGONAL ANGLE



DETAIL M

* WRAP WELD AROUND ENDS AND STOP 1/4" SHORT OF CLIP.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN

(SPECIAL DETAIL)
F.H.W.A. APPROVAL

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12 OF 14

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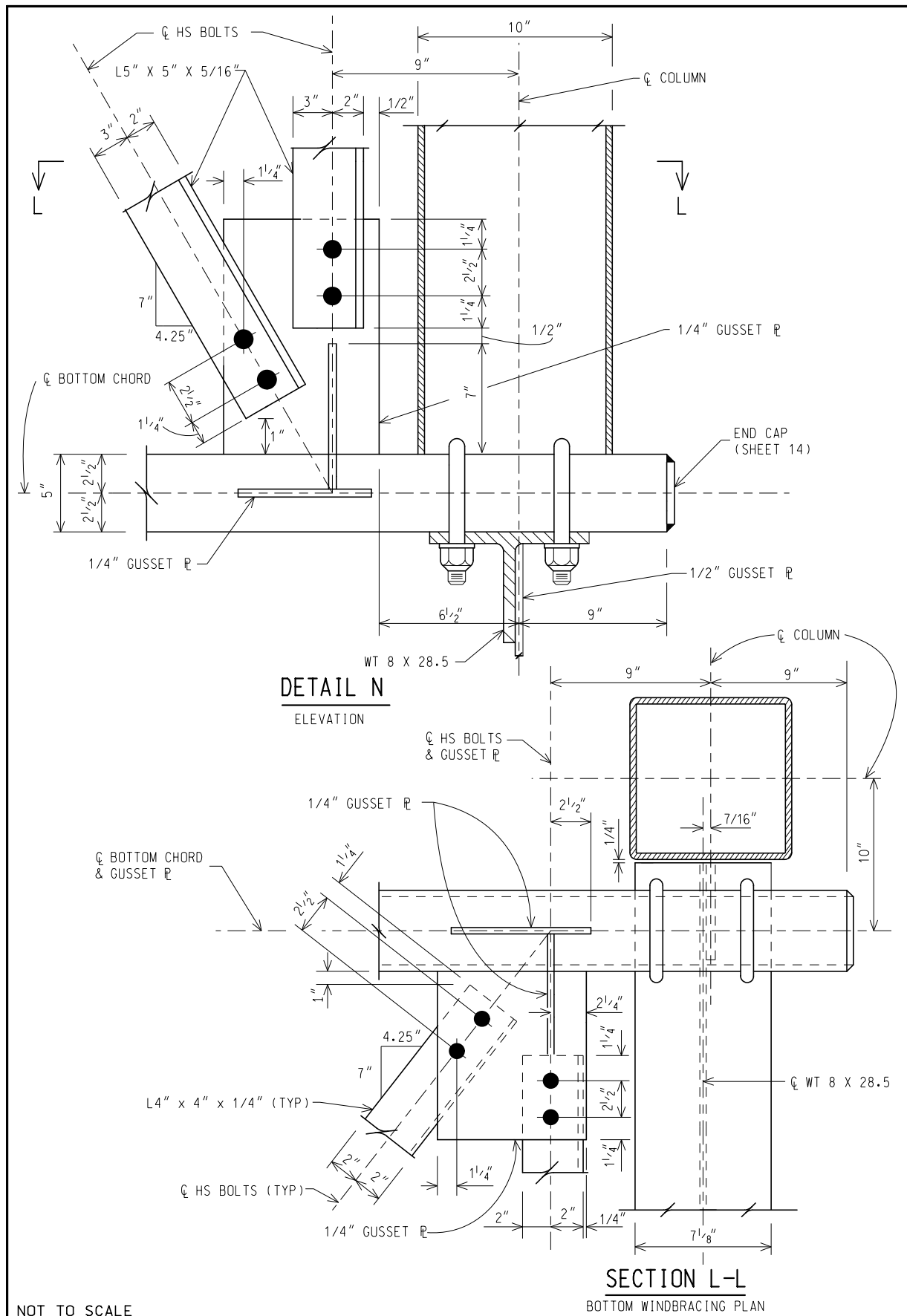
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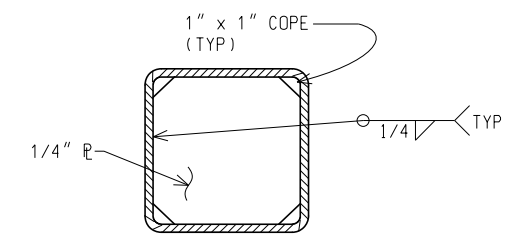
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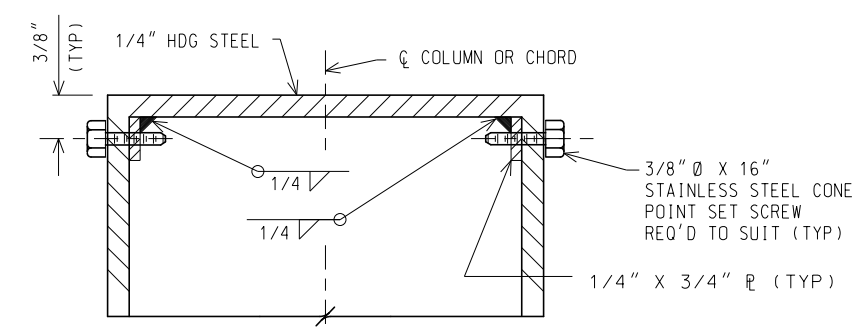
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END CAP DETAIL

SEAL END OF CHORD WITH 1/4" R (WELD BEFORE GALVANIZING)
OPTIONAL: CAP WITH SET SCREWS MAY BE USED AS END CAP (SEE COLUMN END CAP DETAILS)



COLUMN CAP DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN				(SPECIAL DETAIL) F.H.W.A. APPROVAL	PLAN DATE	SIGN-500-B	SHEET 14 OF 14
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AS-LET PLAN REVISIONS							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



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