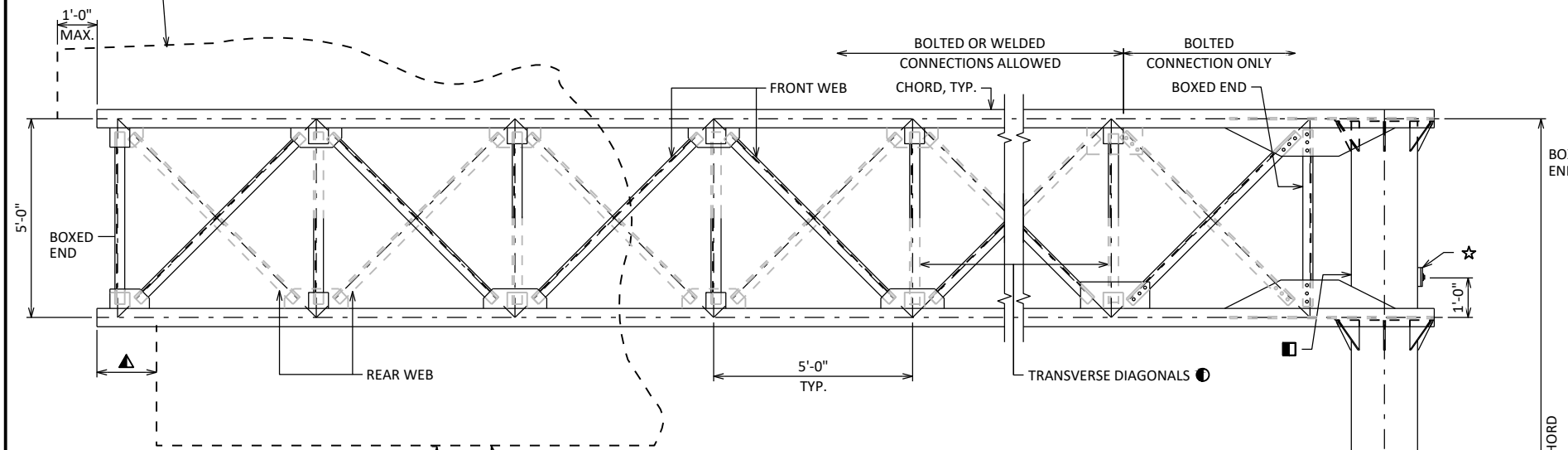
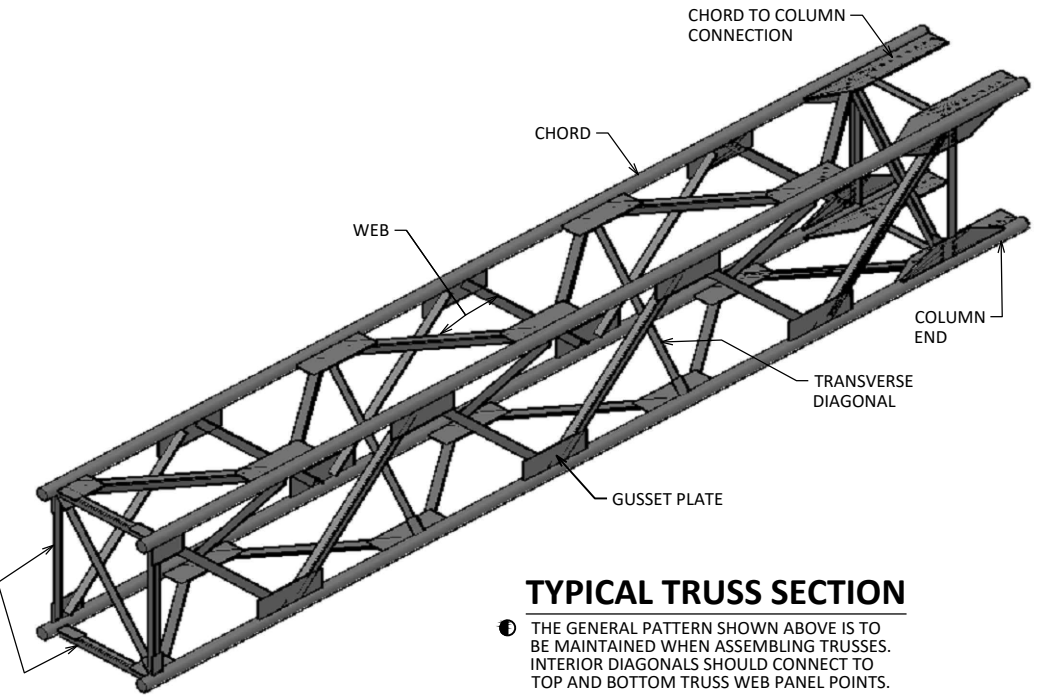


PLAN



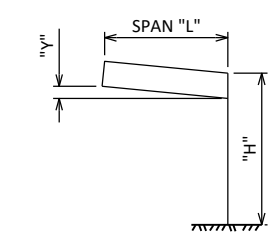
TRUSS ELEVATION

LOOKING AT F.F. OF TRUSS



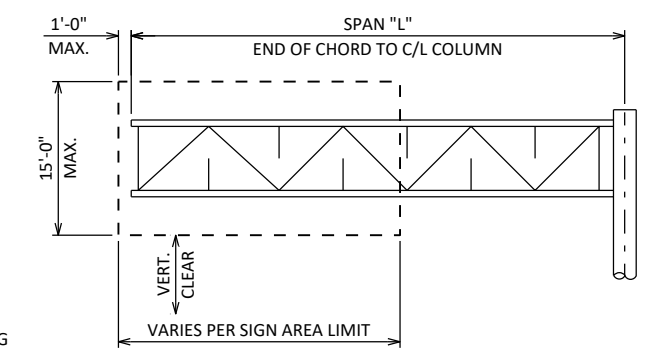
TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. INTERIOR DIAGONALS SHOULD CONNECT TO TOP AND BOTTOM TRUSS WEB PANEL POINTS.

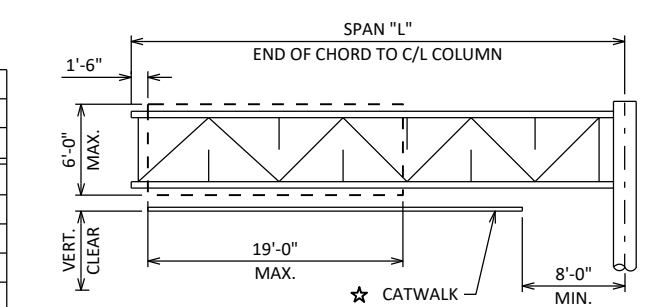


CAMBER DIAGRAM

CAMBER SHALL BE BUILT INTO THE TRUSS DURING FABRICATION. SHIM PLATES BETWEEN TRUSS SECTIONS TO CREATE CAMBER SHALL NOT BE ALLOWED.



TYPE I SIGN LIMITS



DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

CAMBER VALUES

SPAN "L"	"H"			
	30'-0"		38'-0"	
"H"	TYPE I	DMS	TYPE I	DMS
22'-0"	2 1/4"	3 1/2"	2 5/8"	4 1/8"
24'-0"	2 3/8"	3 7/8"	2 7/8"	4 1/2"
26'-0"	2 1/2"	4 1/8"	3 1/2"	4 1/8"
28'-0"	2 3/4"	4 1/2"	3 3/4"	5 1/4"
30'-0"	2 7/8"	4 3/4"	3 1/2"	5 5/8"

INTERPOLATE FOR VALUES NOT SHOWN. DMS VALUES INCLUDE DL OF CATWALK.

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AS SHOWN. SEE "CATWALK DETAILS" AND "ELECTRICAL DETAILS" SHEETS.

□ FOR OSS WITH DMS ONLY, DRILL AND TAP FOR 2 - 2" STD. PIPE THREADS. LOCATE CENTER OF BOTTOM HOLE 6" FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS. SEE "ELECTRICAL DETAILS" SHEET.

CANTILEVER 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TYPE	TYPE I SIGN AREA (SQ. FT.)	DMS AREA (SQ. FT.)	MAXIMUM SPAN "L"	MAXIMUM COLUMN HEIGHT "H"	DIM. "A"	COLUMN "OD" X THK.	CHORD "OD" X THK.	WEB W X D X THK.	BOXED END W X D X THK.	TRANSVERSE DIAGONAL W X D X THK.
I	264	114	30'-0"	30'-0"	1'-3"	20.00" X 0.500"	5.000" X 0.375"	L3 X 3 X 3/4	L3 X 3 X 3/4	L3 X 3 X 3/4
II	240	114	38'-0"	30'-0"	1'-4 1/2"	24.00" X 0.500"	5.563" X 0.375"	L3 X 3 X 3/16	L3 X 3 X 3/4	L3 X 3 X 3/4

▲ STATIC SIGNS TYPICALLY SET 1'-0" FROM END OF CHORD, BUT MAY EXTEND 1'-0" MAX. BEYOND END OF CHORD. DMS SHOULD BE 1'-6" FROM END OF CHORD.

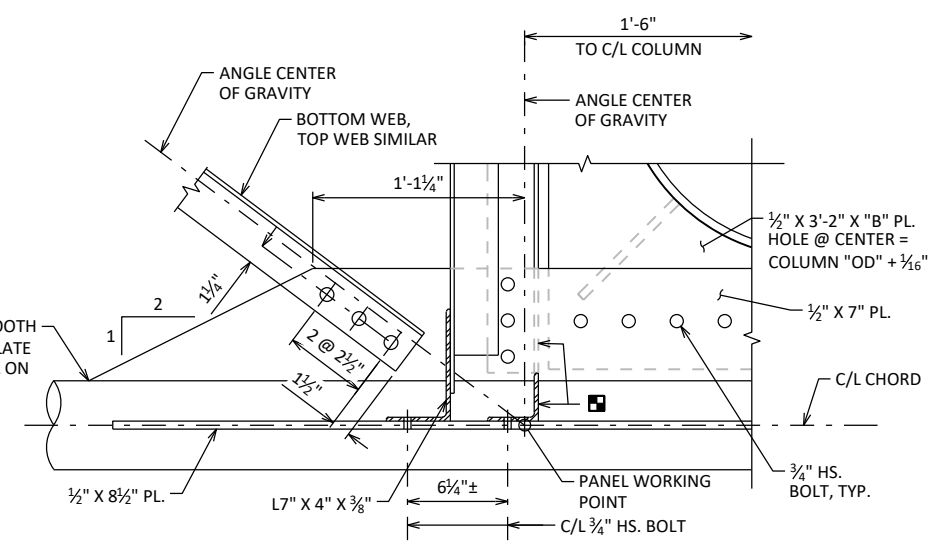
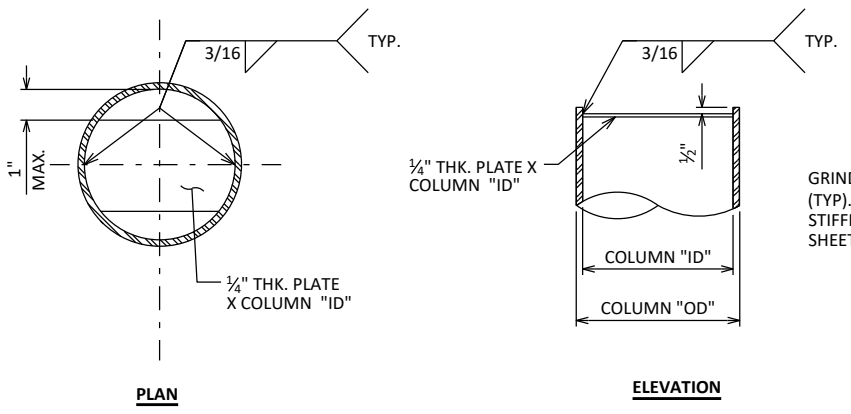
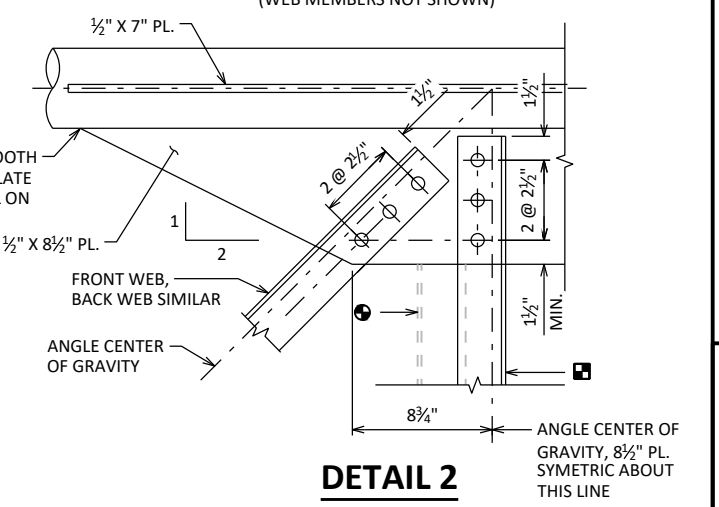
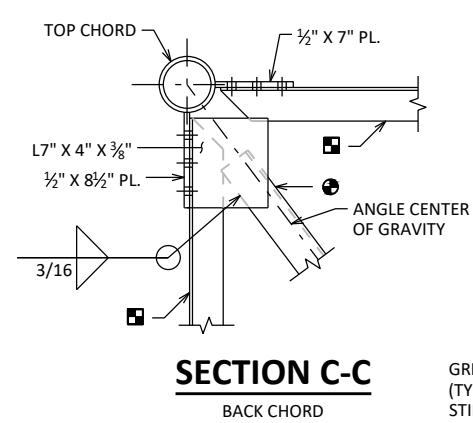
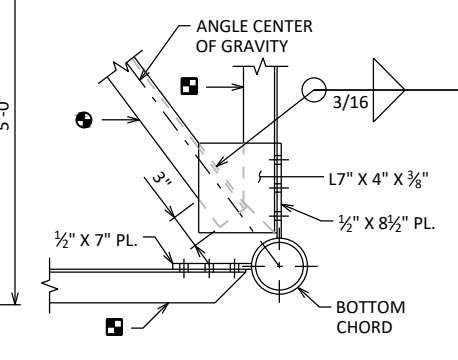
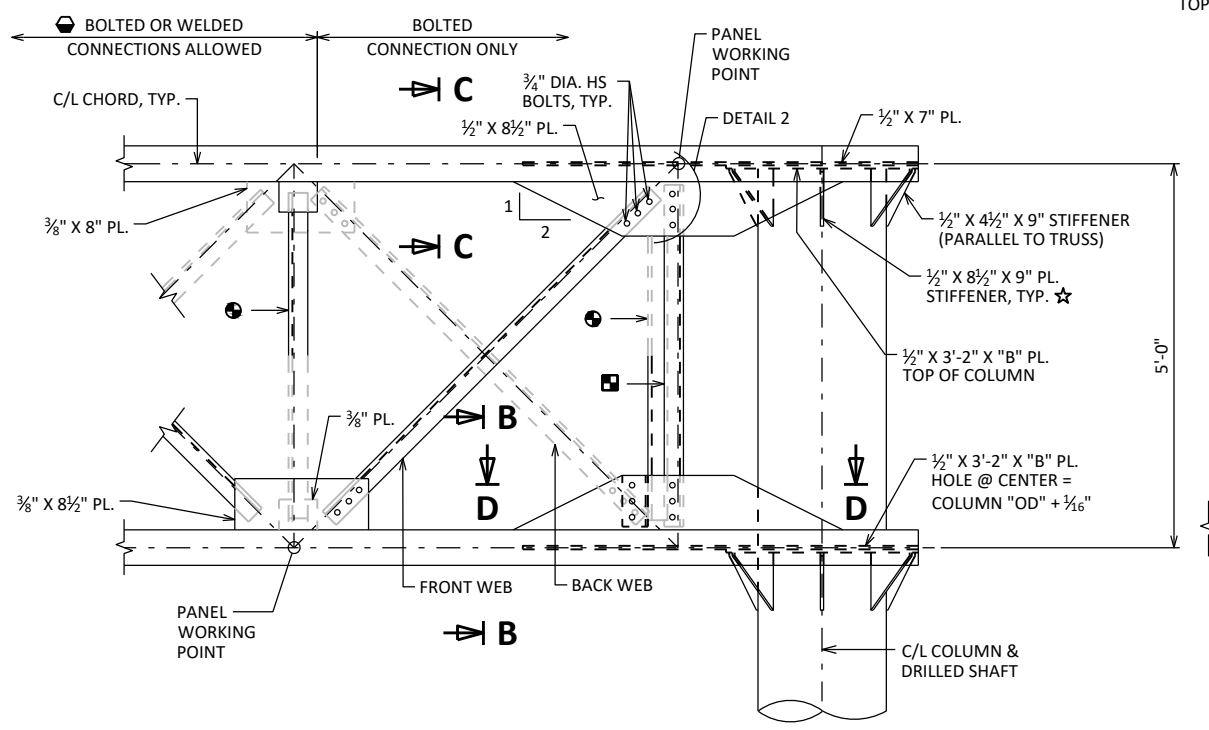
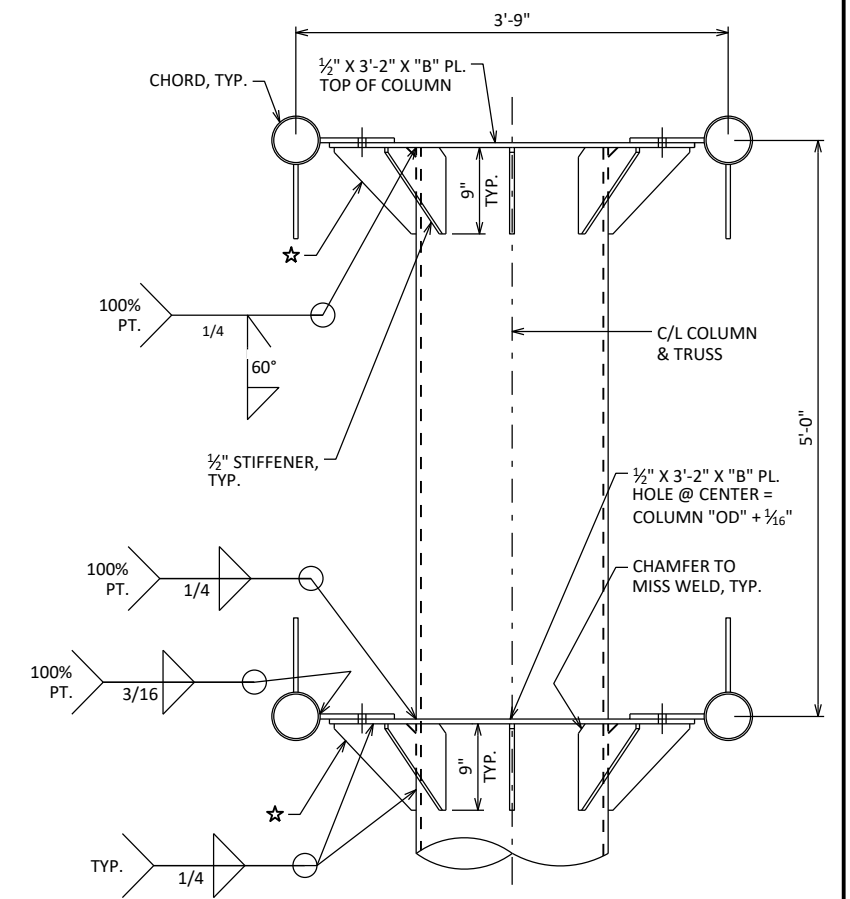
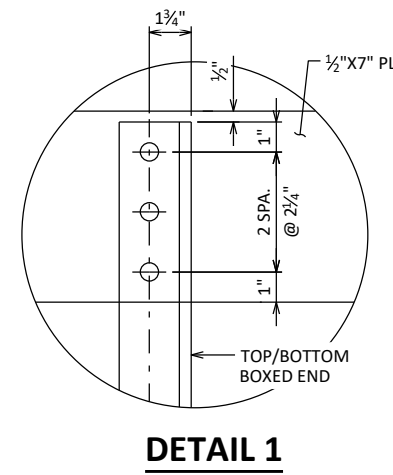
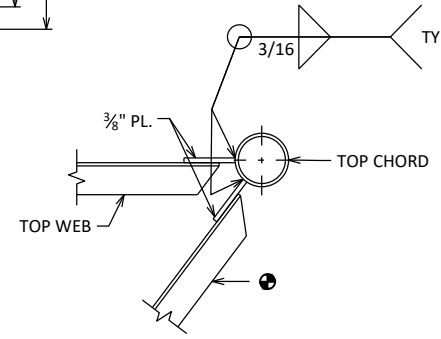
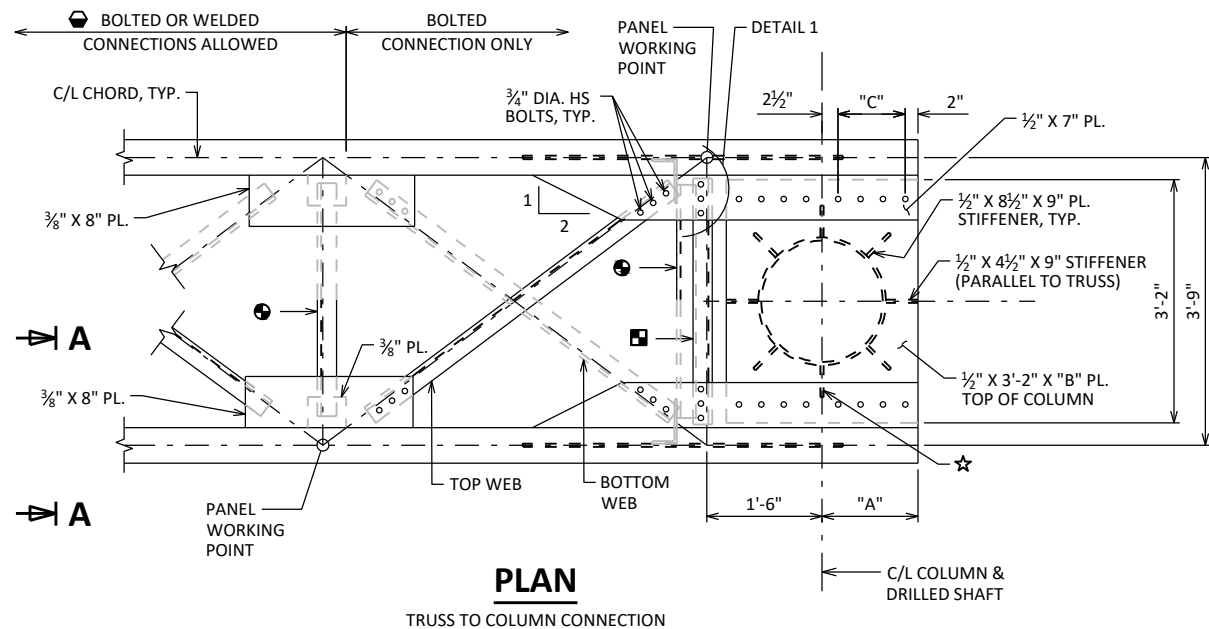
18'-3" MIN. VERTICAL CLEARANCE (TYP.)
20'-3" MIN. VERTICAL CLEARANCE (OSOW HIGH CLEARANCE ROUTES)
HIGH POINT OF PAVEMENT BELOW SIGN/CATWALK

HANDHOLE, DMS ONLY, TYP. ☆
2'-6"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER DETAILS			SHEET 1

TRUSS TO COLUMN CONNECTION DATA

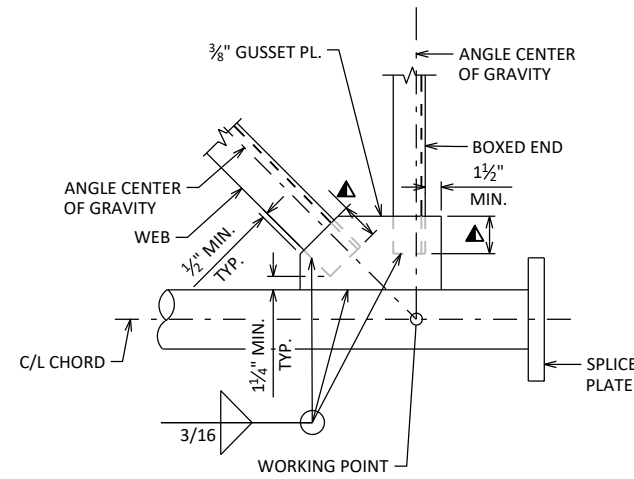
STANDARD DESIGN TYPE	"A"	"B"	"C"
I	1'-3"	2'-6"	3 SPA. @ 3 1/2"
II	1'-4 1/2"	2'-9"	4 SPA. @ 3"



LEGEND

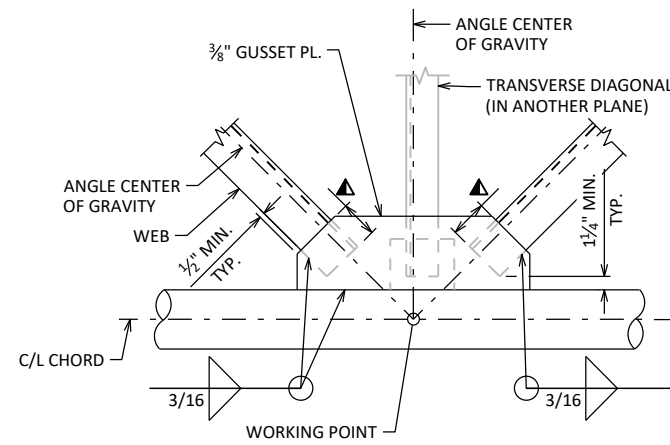
- TRANSVERSE DIAGONAL
- BOXED END AT SUPPORT
- WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE. FIRST BAY MUST BE BOLTED.
- ☆ 1/2" X 7" X 9" STIFFENER TYPE II STANDARD DESIGN ONLY. TYP. OPPOSITE SIDE.

NO.	DATE	REVISION	BY
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UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CONNECTIONS 1		SHEET II	

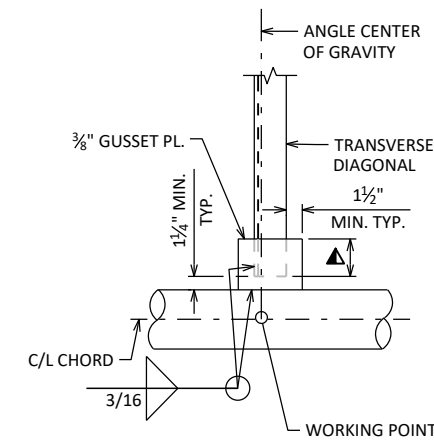


WELDED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR

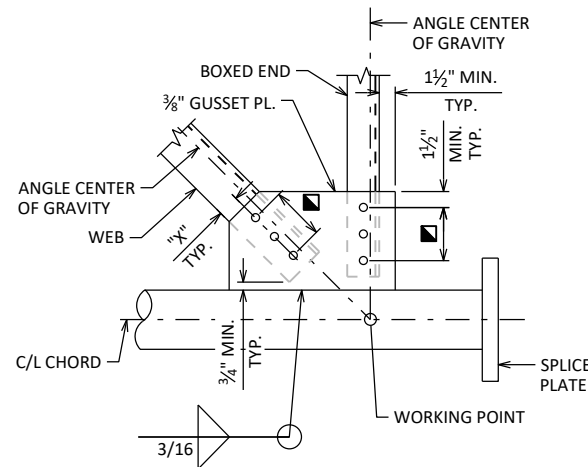


WELDED PANEL CONNECTION



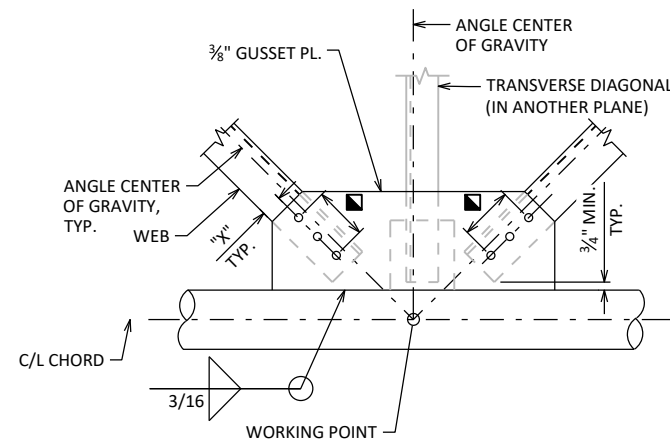
WELDED TRANSVERSE DIAGONAL CONNECTION

WEB MEMBERS NOT SHOWN FOR CLARITY

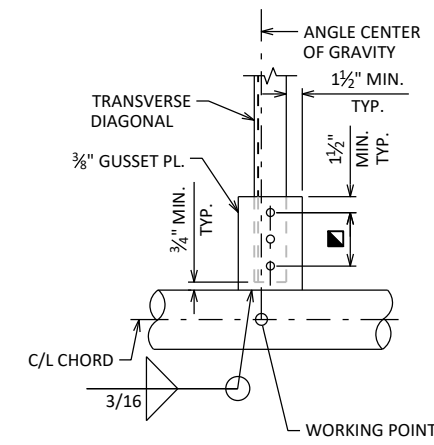


BOLTED BOXED END CONNECTION

CONNECTION SHOWN AT CHORD SPLICE,
CONNECTION AT COLUMN END SIMILAR

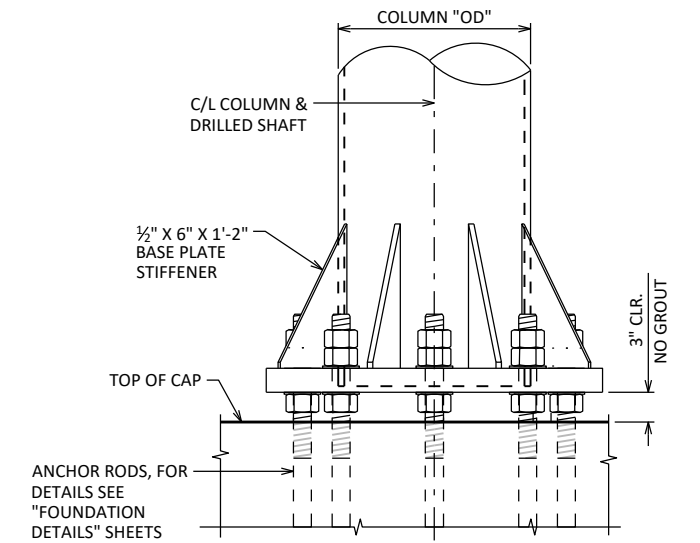


BOLTED PANEL CONNECTION



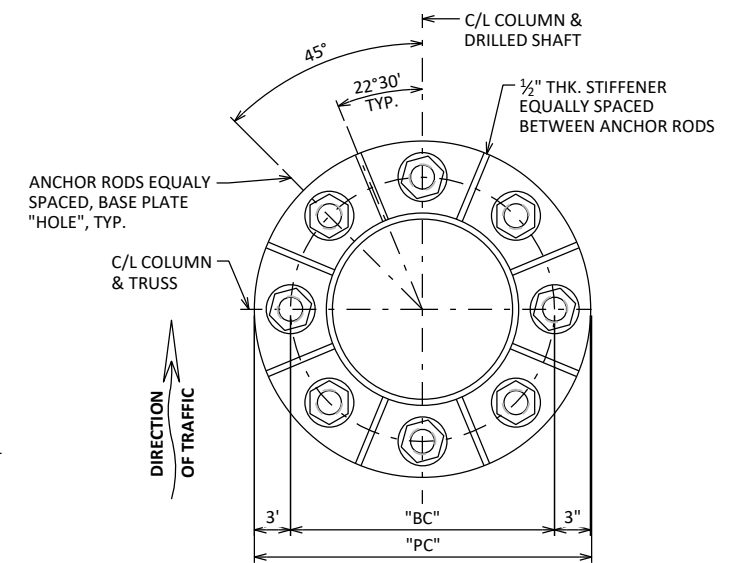
BOLTED TRANSVERSE DIAGONAL CONNECTION

WEB MEMBERS NOT SHOWN FOR CLARITY



BASE PLATE & COLUMN DETAIL

LOOKING AT F.F. OF STRUCTURE



BASE PLATE

PLAN

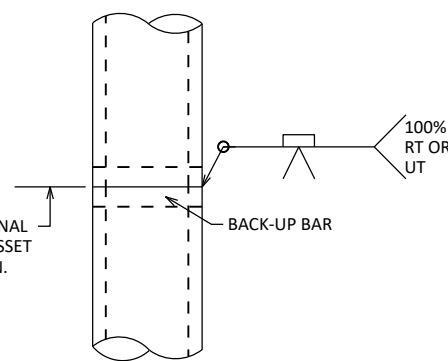
CANTILEVER 4-CHORD COLUMN DATA

STANDARD DESIGN TYPE	COLUMN "OD" X THK	BASE PLATE				
		"THK"	"T _{w1} "	"HOLE"	"BC"	"PC"
I	20.00" X 0.500"	2"	5/16"	2 3/4"	2'-2"	2'-8"
II	24.00" X 0.500"	2 1/2"	5/16"	2 3/4"	2'-6"	3'-0"

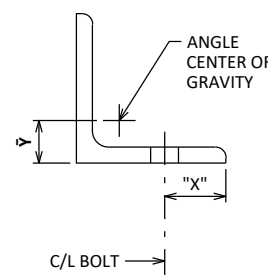
MEMBER CONNECTION DATA

STANDARD DESIGN TYPE	WELD LEG MIN. LENGTH	NO. OF BOLTS
	I	3"
II	3"	3

FOR ALL ANGLE TO GUSSET CONNECTIONS,
BOLT SPACING = 2 1/2"

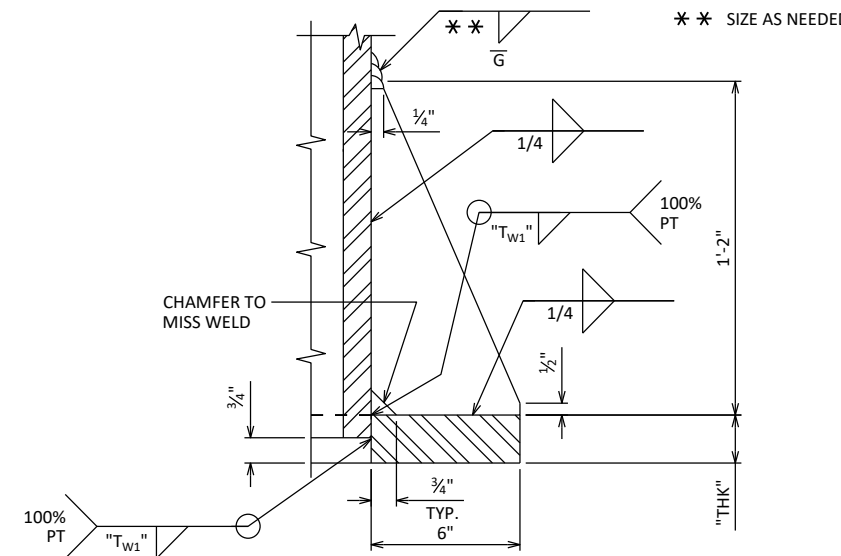


OPTIONAL COLUMN OR CHORD SPLICE DETAIL



ANGLE DATA

ANGLE SIZE	γ	"X"
L3 X 3 X 3/4	0.84"	1 1/4"
L3 X 3 X 5/16	0.86"	1 1/4"

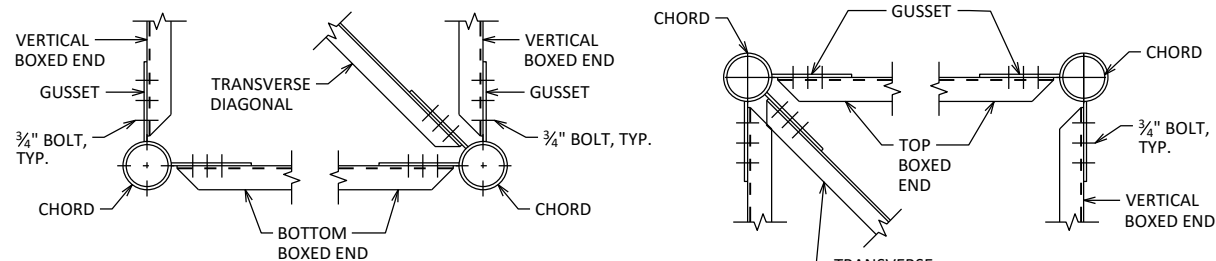


BASE PLATE STIFFENER DETAIL

NOTE:

FABRICATOR HAS THE OPTION TO USE NON-MITERED RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN IN THESE DETAILS.

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4-CHORD TRUSS CANTILEVER CONNECTIONS 2		SHEET III	

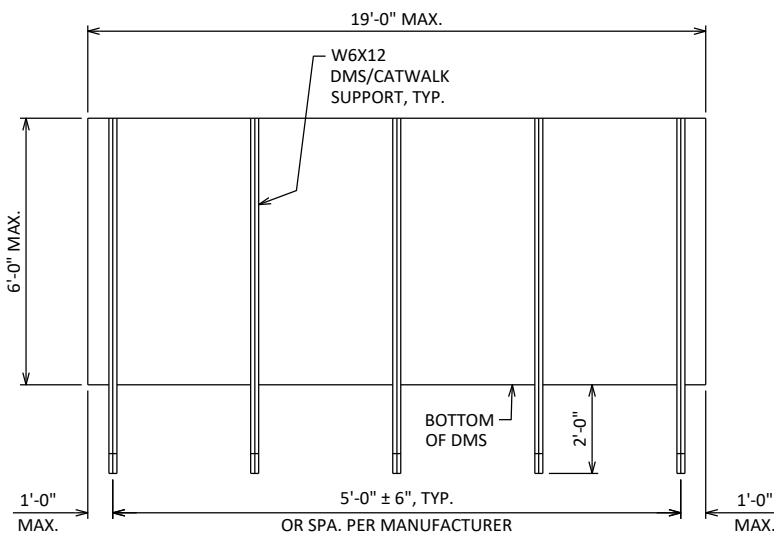


END VIEW 1

END VIEW 2

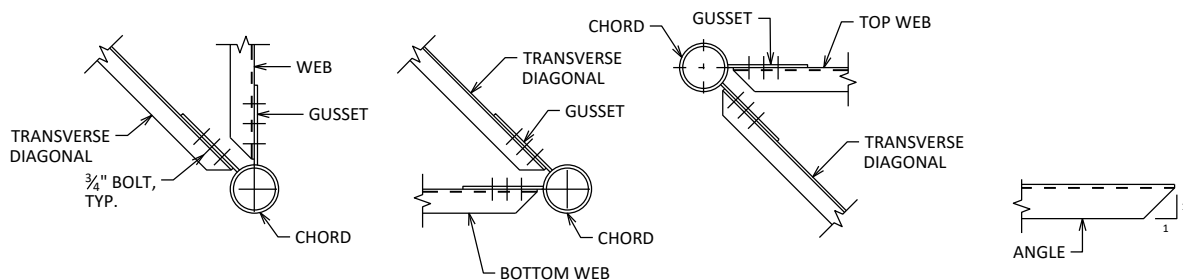
END VIEW 3

END VIEW 4



DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF SPACING CONFLICTS WITH GUSSET PLATES OF TRUSS WITHIN TOLERANCES NOTED.



END VIEW 5

END VIEW 6

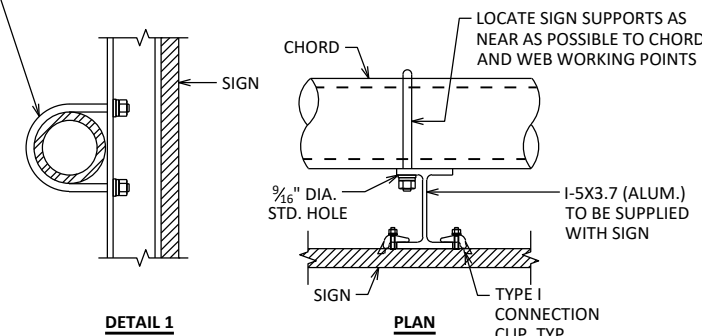
END VIEW 7

CLIP DETAIL

TRUSS CONNECTION DETAILS

1/2" DIA. STAINLESS STEEL U-BOLT WITH 2 LOCK WASHERS, 2 FLAT WASHERS AND 2 HEX NUTS PER BOLT. 2 BOLTS REQUIRED PER I-BEAM. LOCATE TOP AND BOTTOM U-BOLTS ON OPPOSITE SIDES OF FLANGE.

MEMBER ORIENTATION FOR BOLTED CONNECTIONS SHOWN, WELDED CONNECTIONS SIMILAR

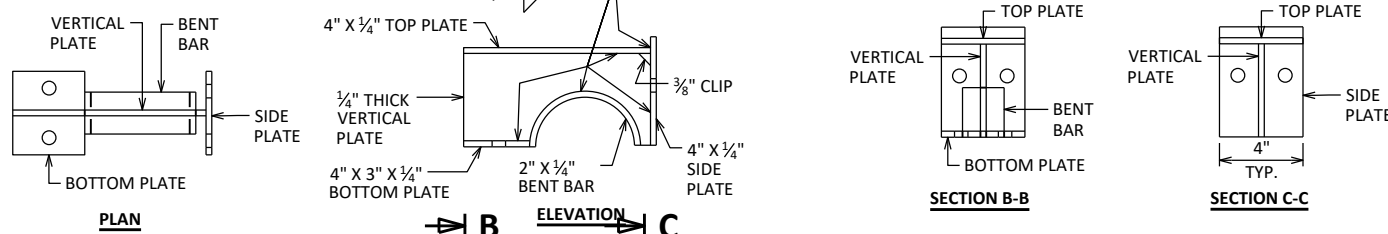


DETAIL 1

PLAN

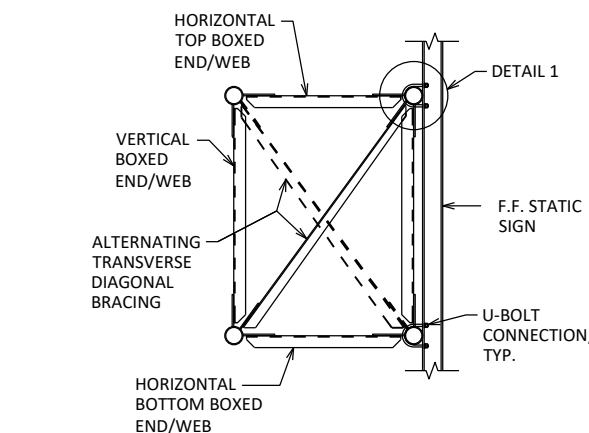
TYPICAL SIGN CONNECTION

USE FOR TYPE I AND II SIGNS, TYPE I SIGN SHOWN. SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.



DMS WELDED PLATE CONNECTION DETAILS

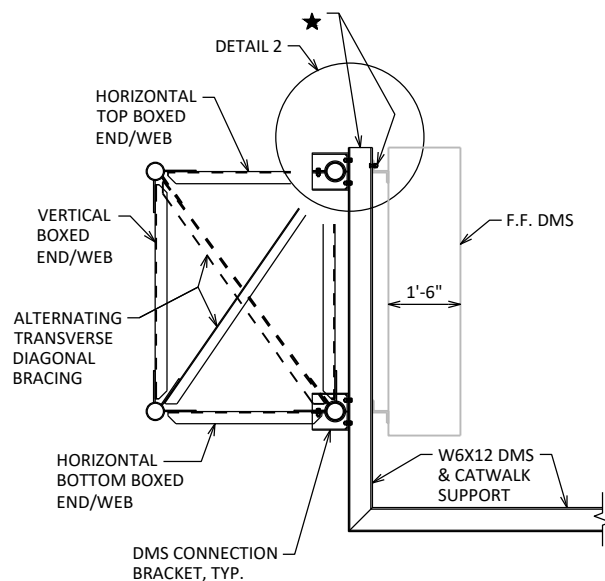
TOP HALF OF BRACKET SHOWN, BOTTOM HALF SIMILAR.



SECTION THRU TRUSS - STATIC SIGN

FOR SIGN CONNECTION

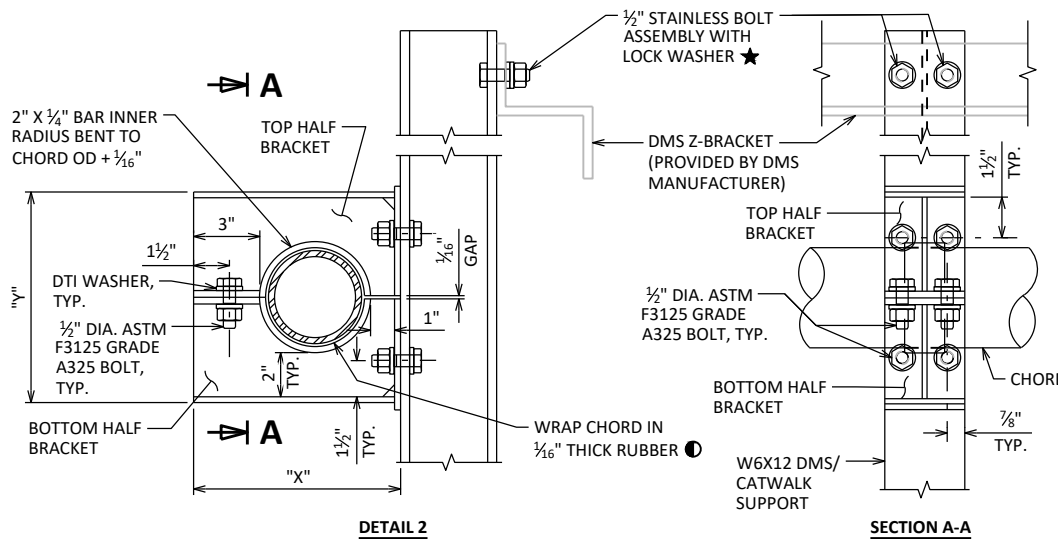
ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL. HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



SECTION THRU TRUSS - DMS

FOR DMS/CATWALK CONNECTIONS

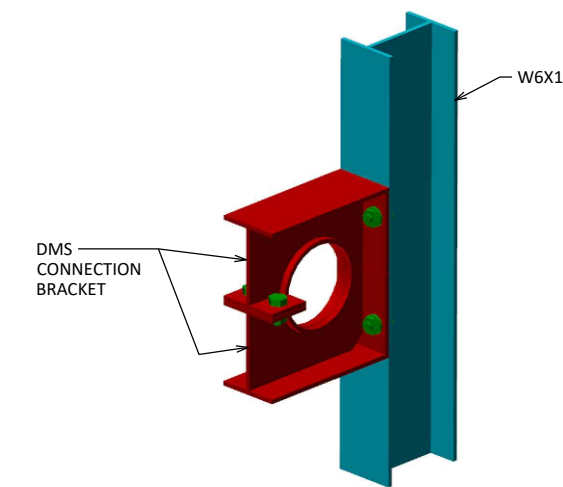
★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12. FIELD DRILLED HOLES IN STEEL SUPPORTS MUST BE COLD GALVANIZED



TYPICAL DMS CONNECTION

● NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD. SPEC. 506.2.6.1

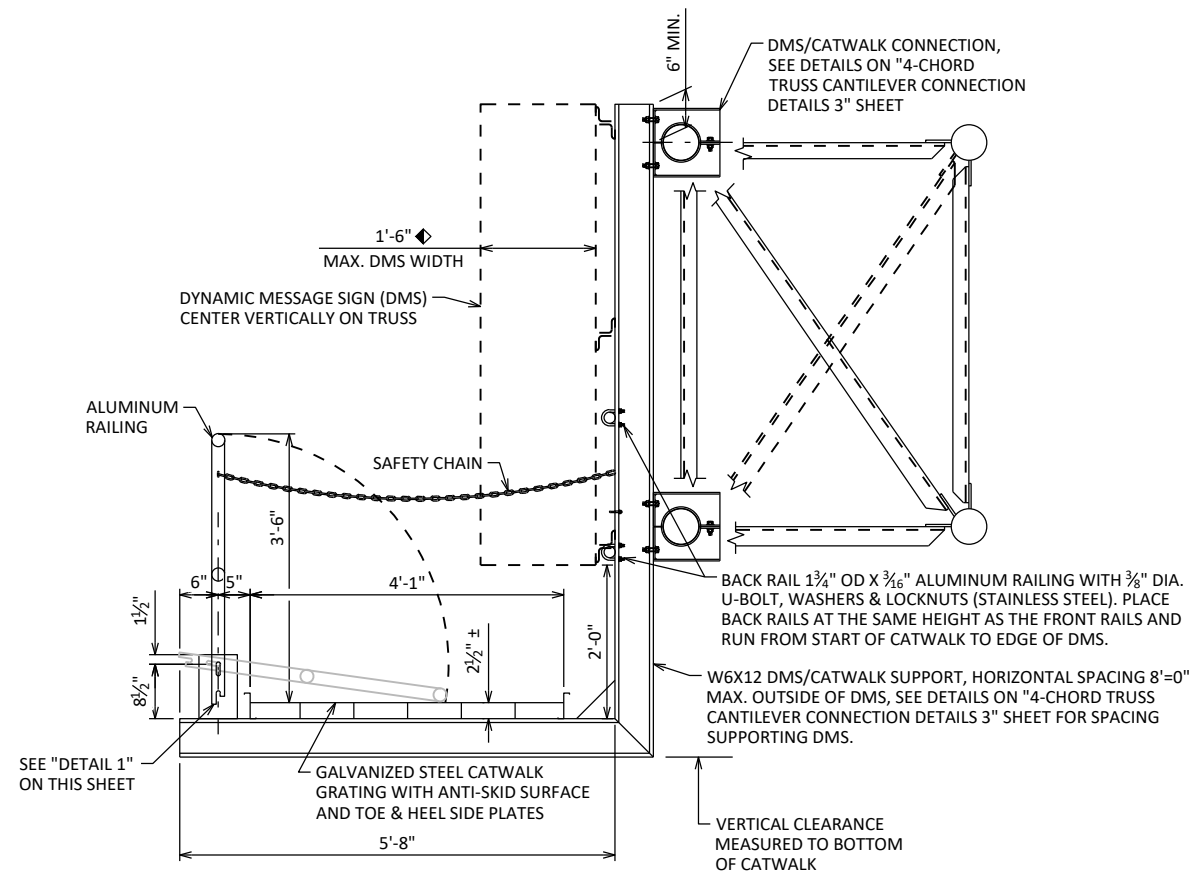
CHORD "OD"	"X"	"Y"
5.000"	9 ¹³ / ₁₆ "	10 ¹ / ₁₆ "
5.563"	10 ³ / ₈ "	10 ⁵ / ₈ "



3-D VIEW OF DMS CONNECTION

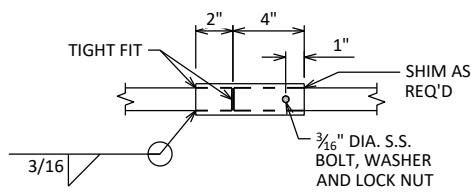
CHORD NOT SHOW FOR CLARITY

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UPDATED: JAN. 2023			
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4-CHORD TRUSS CANTILEVER CONNECTIONS 3			SHEET IV



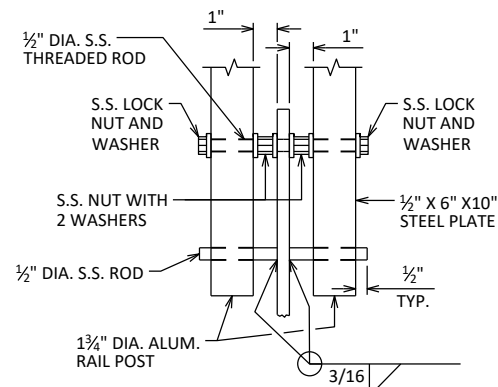
SECTION THRU WALKWAY

DMS MAY BE RECTANGULAR OR TRAPEZOIDAL. IF DMS HAS A TRAPEZOIDAL SHAPE, THIS DIMENSION REPRESENTS THE AVERAGE WIDTH.



BACKRAIL SPLICE

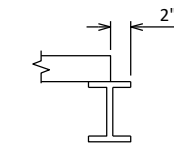
ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



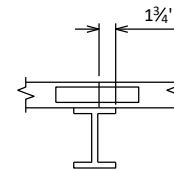
TYPICAL FRONT RAILING DETAILS

S.S. - STAINLESS STEEL

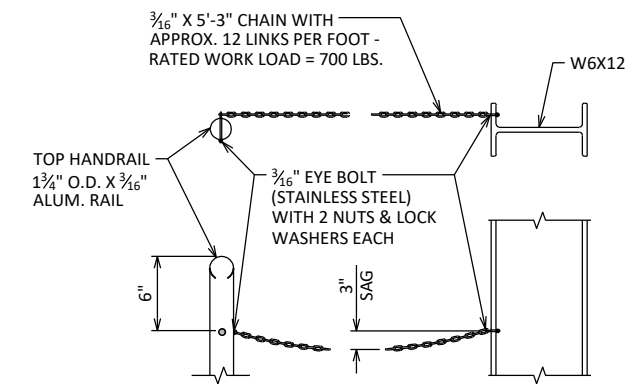
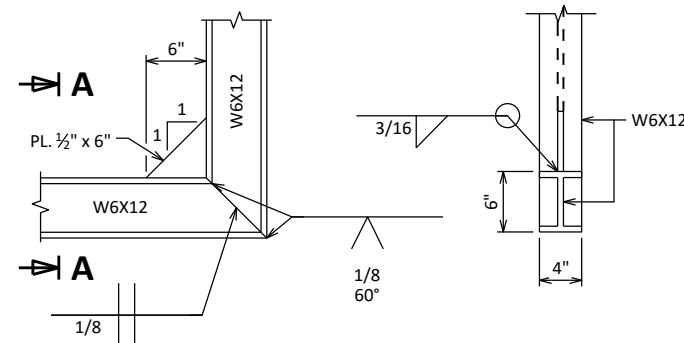
CATWALK TERMINATION DETAIL



CATWALK SPLICE LOCATION DETAIL



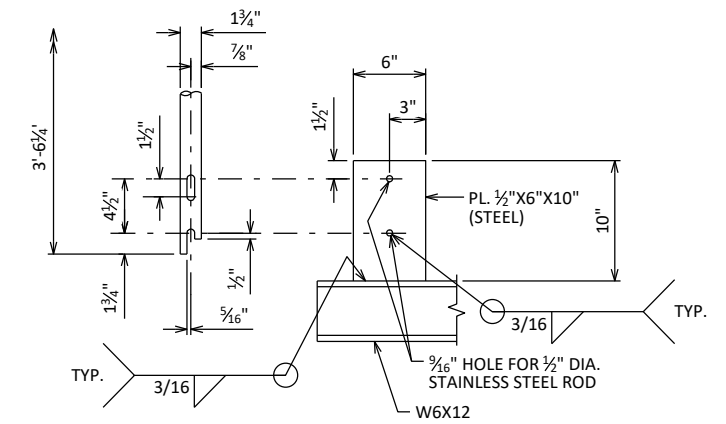
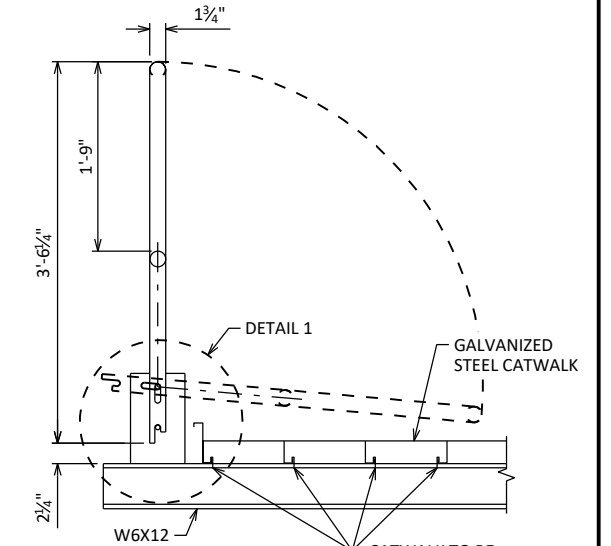
CATWALK BRACKET DETAIL



SAFETY CHAIN DETAIL

PROVIDE SAFETY CHAIN AT EACH END OF CATWALK

RAIL POST DETAIL

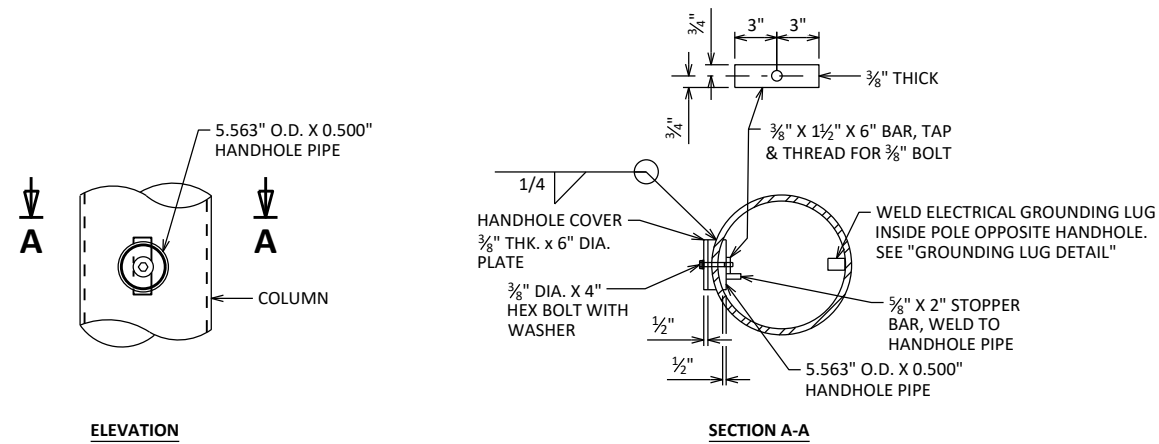


DETAIL 1

CATWALK LOADING DIAGRAM

NOTE: CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" WITH 500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX. SPAN IS 8'-0". CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

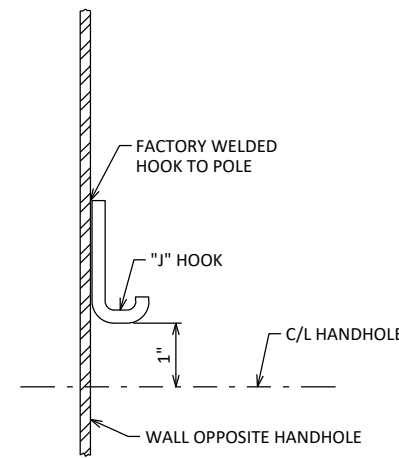
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER CATWALK DETAILS		SHEET V	



HANDHOLE DETAILS

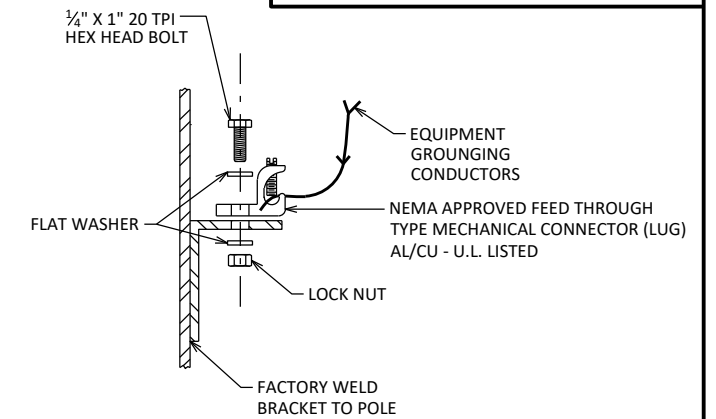
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS OTHERWISE NOTED, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



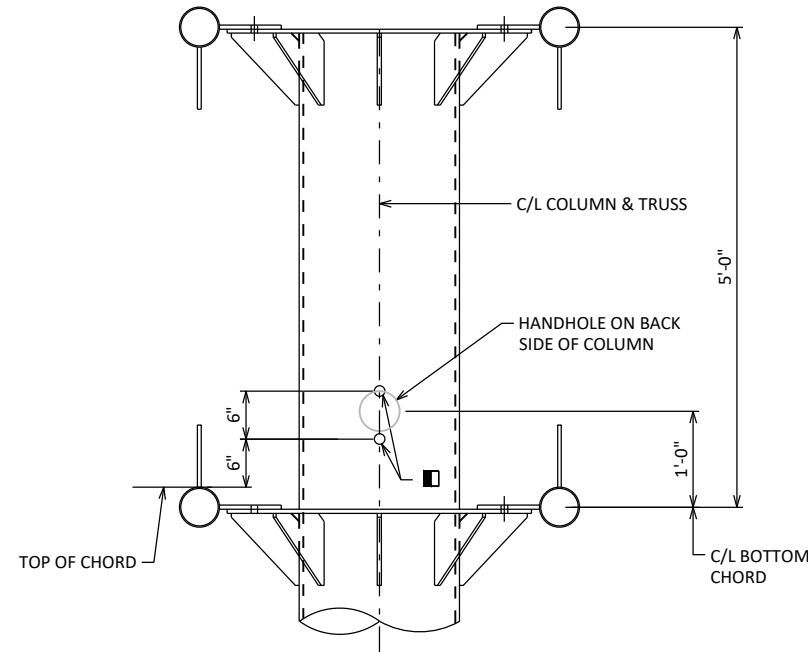
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

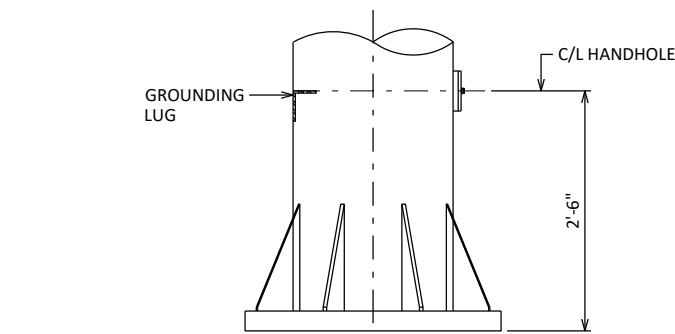
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



CONDUIT HOLE LOCATIONS

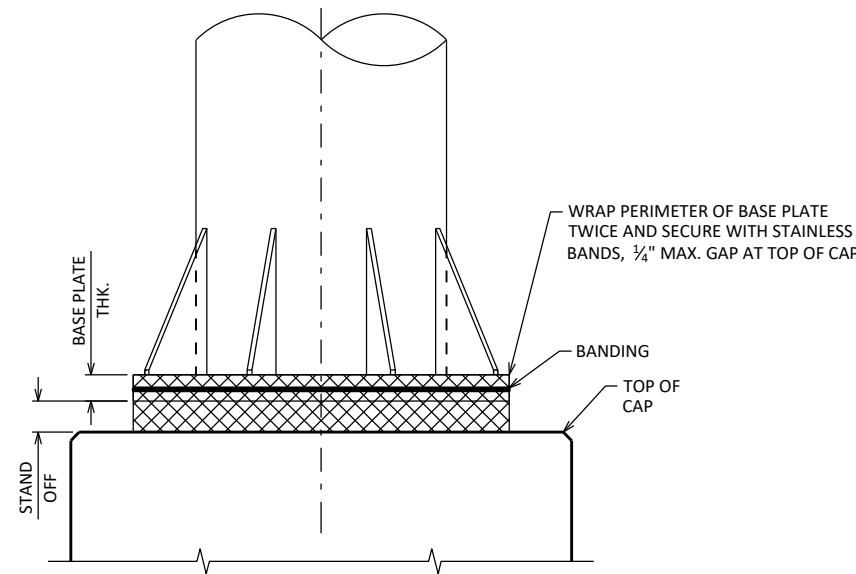
LOOKING AT INSIDE FACE OF COLUMN

2" HOLE WITH STANDARD PIPE THREADS, USE THREADED CONDUIT PLUG FOR UNUSED HOLES



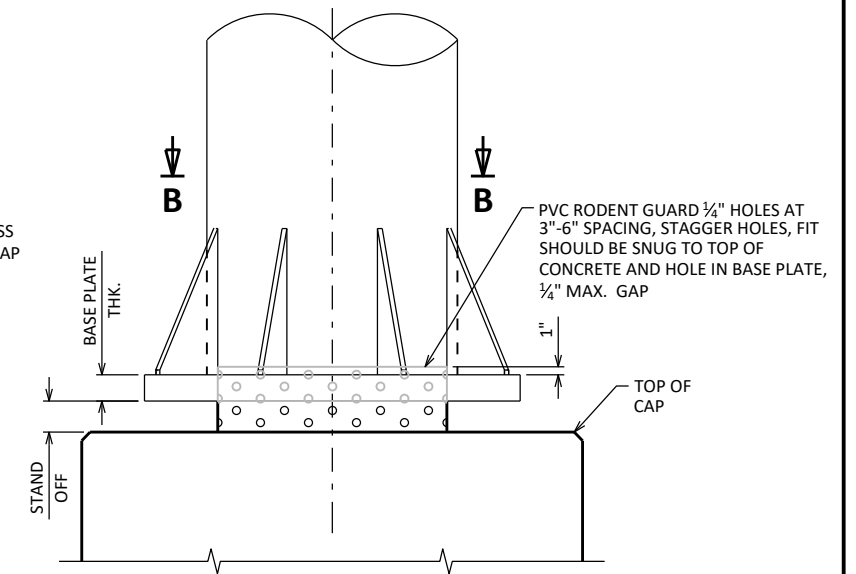
GROUNDING LUG LOCATION

LOOKING AT INSIDE F.F. OF STRUCTURE



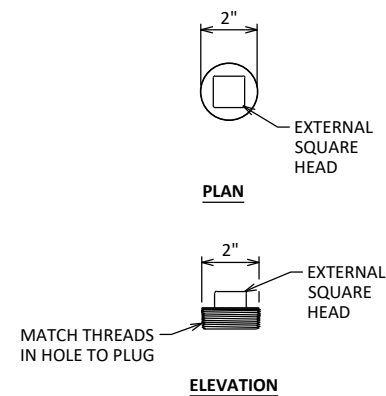
RODENT SCREEN

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT ANCHOR RODS NOT SHOWN

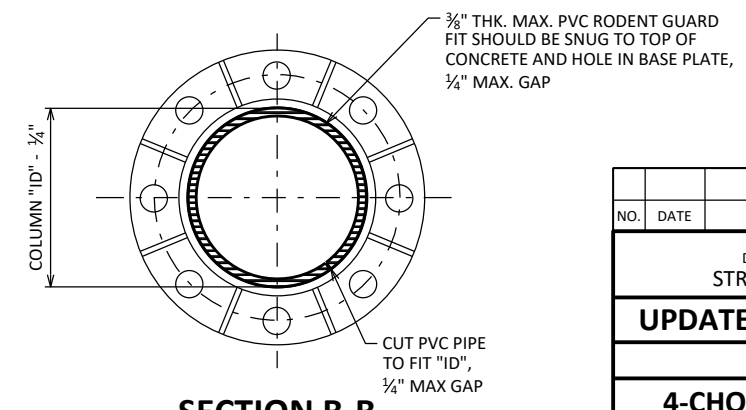


RODENT SCREEN - ALTERNATE

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT ANCHOR RODS NOT SHOWN

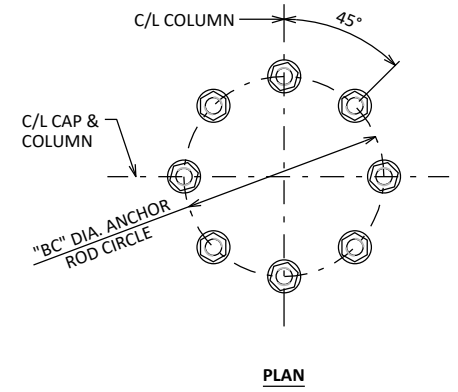
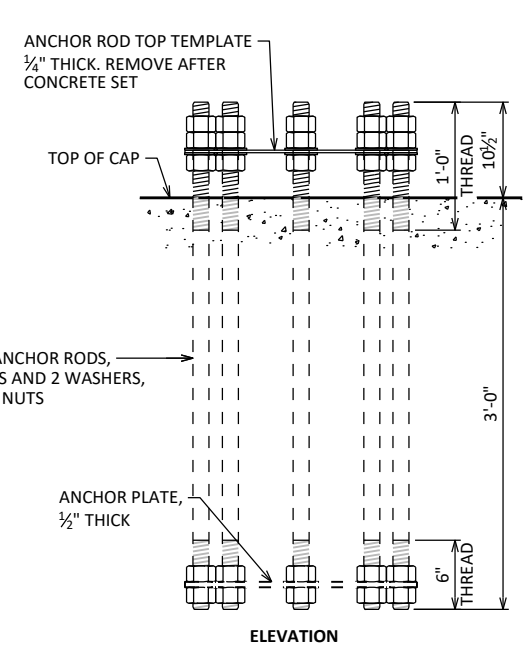
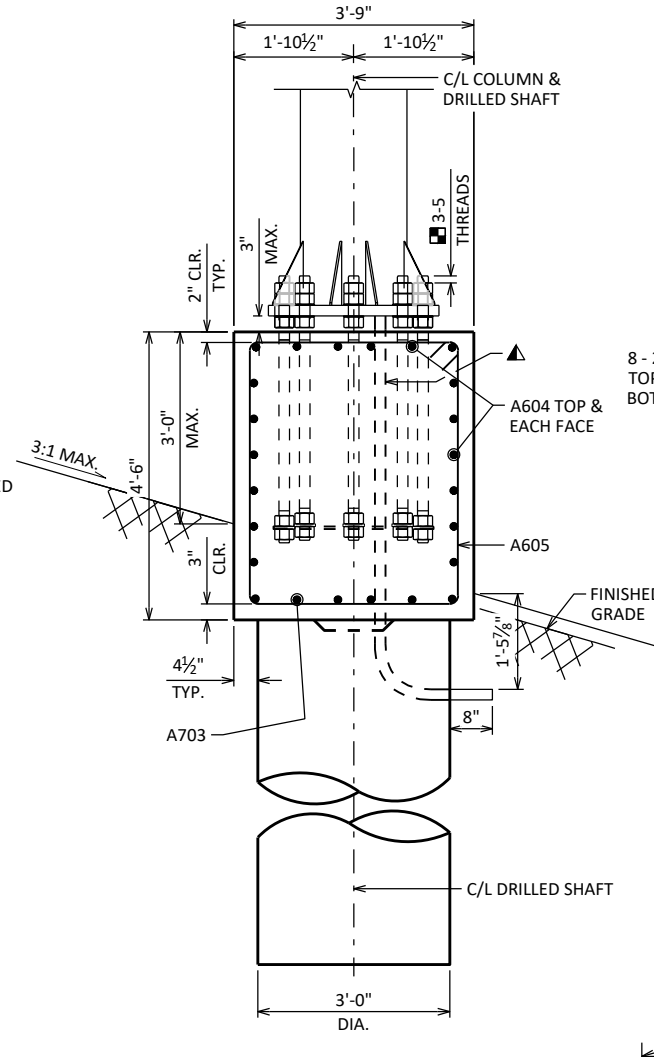
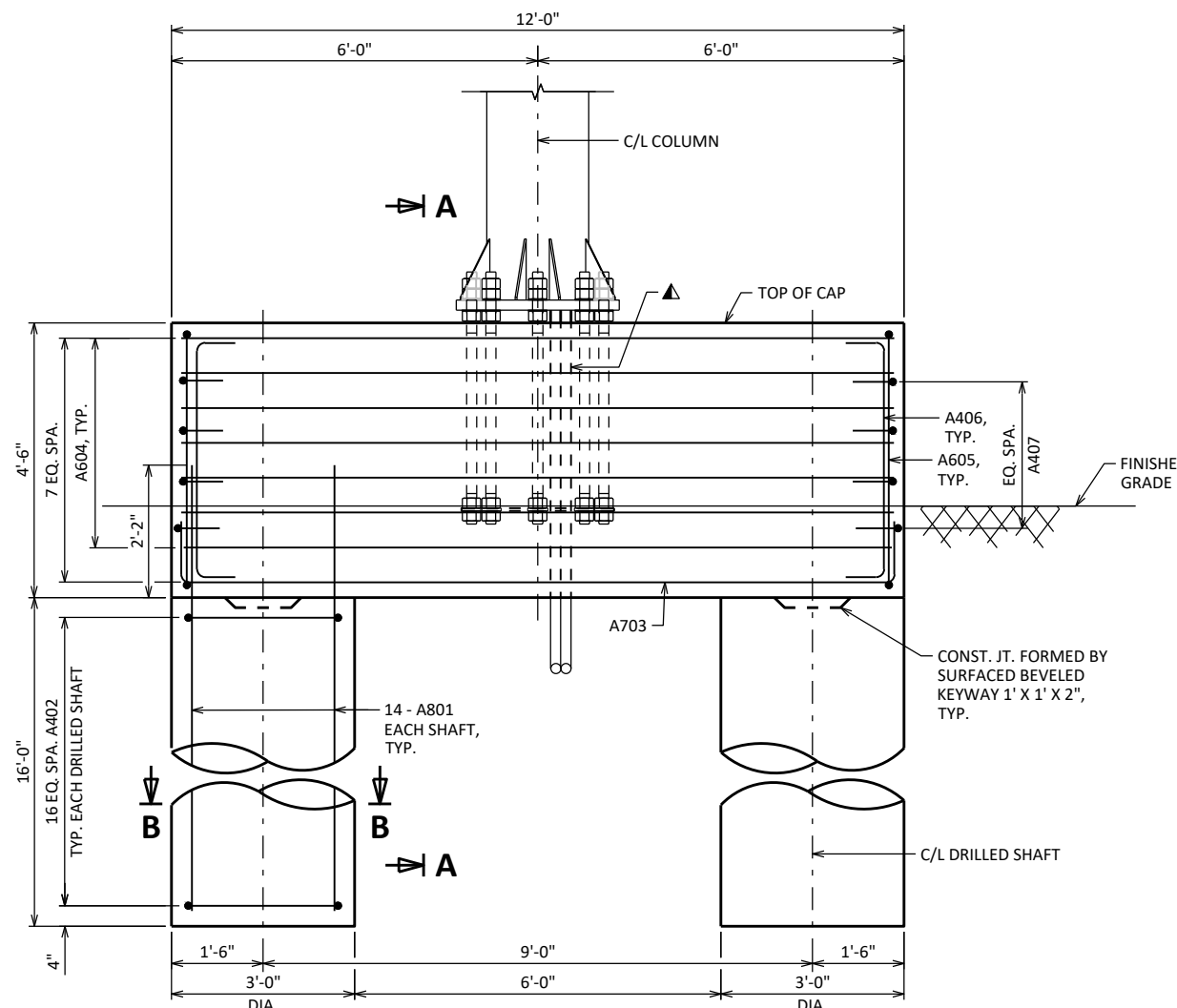


CONDUIT PLUG DETAILS



SECTION B-B

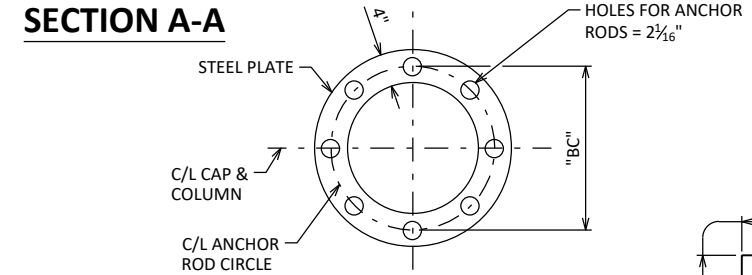
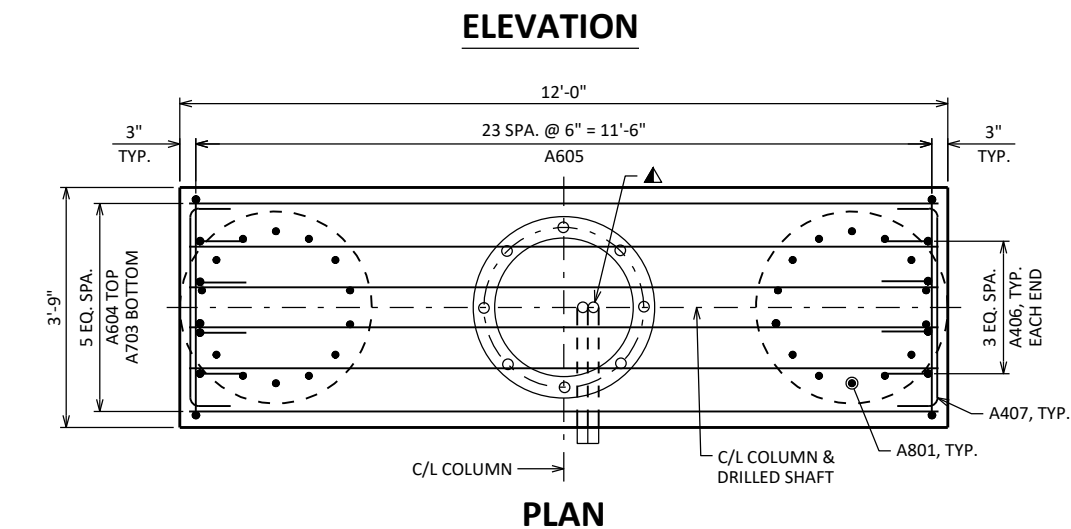
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY BOS		PLANS CK'D BOS	
4-CHORD TRUSS CANTILEVER ELECTRICAL DETAILS			SHEET VI



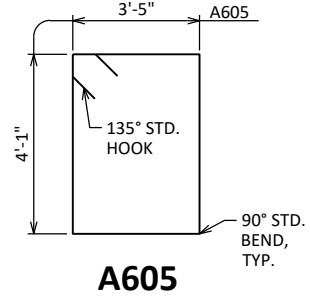
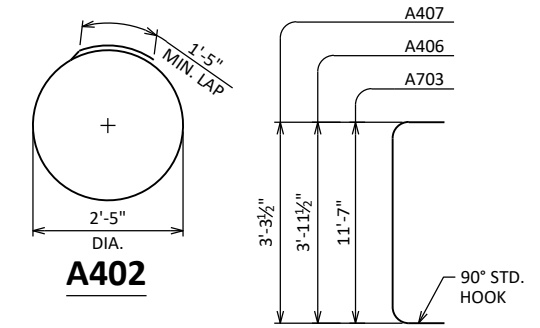
ANCHOR ROD ASSEMBLY DETAILS

SINGLE ANCHOR ASSEMBLY SHOWN, 8 ANCHOR RODS PER ASSEMBLY

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.



STANDARD DESIGN TYPE	"BC"
I	2'-2"
II	2'-6"



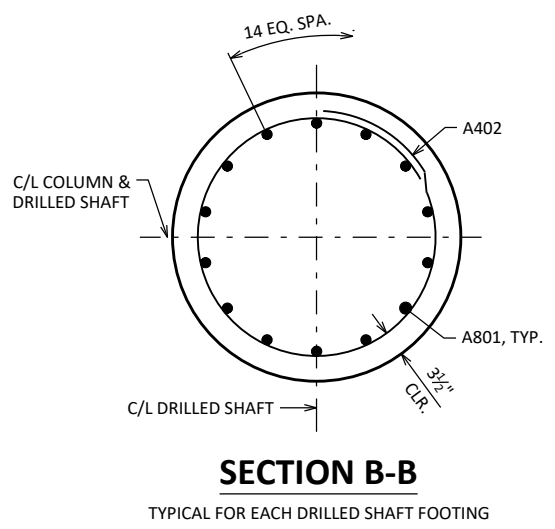
LEGEND

- ANCHOR ROD STICK OUT IN FINAL CONDITION. EXCESSIVE STICK OUT BEYOND DIMENSION SHOWN TO BE CUT OFF AFTER PLACING STRUCTURE. ANCHORS TO BE ULTRASONIC TESTED TO DETERMINE EMBEDDED LENGTH MEETS REQUIREMENTS PRIOR TO CUTTING. NOTE REMAINING LENGTH ON AS-BUILT.
- 2 - 2" DIA. NON-METALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

BILL OF BARS - STANDARD DESIGN TYPE I OR II

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		28	18'-2"			DRILLED SHAFT - VERTICAL
A402		34	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A703	X	6	13'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	18	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	24	15'-10"	X		CAP - STIRRUP
A406	X	8	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	8	3'-11"	X		CAP - HORIZONTAL - EACH END



ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY	STEEL REINFORCEMENT HS	STEEL REINFORCEMENT HS COATED	ANCHOR ASSEMBLY 2-INCH	FOUNDATION DRILLING 36" DIA.
	(CY)	(LBS)	(LBS)	(EACH)	(LF)
I/II	16	1,160	1,090	1	32

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS.

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DRAWN BY		PLANS CK'D	BOS
4-CHORD TRUSS CANTILEVER FOUNDATIONS		SHEET VII	