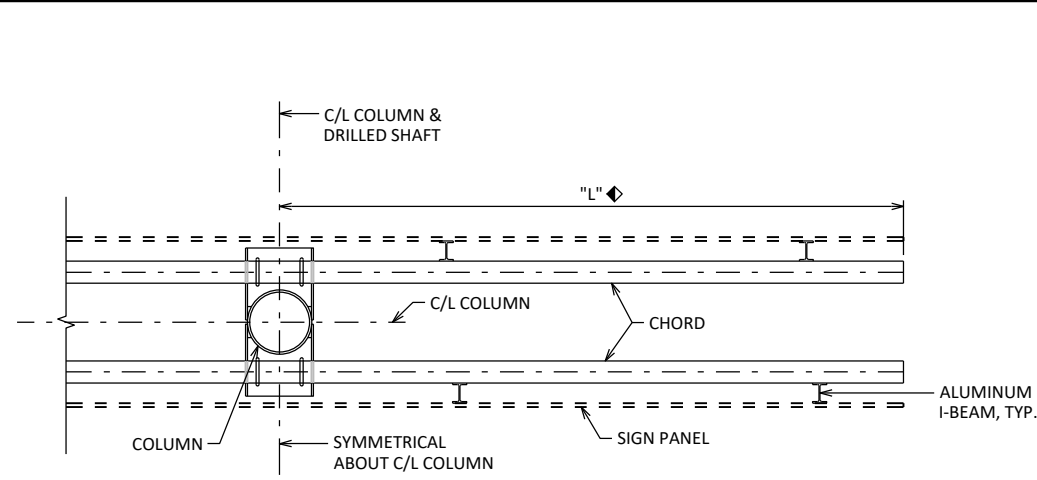
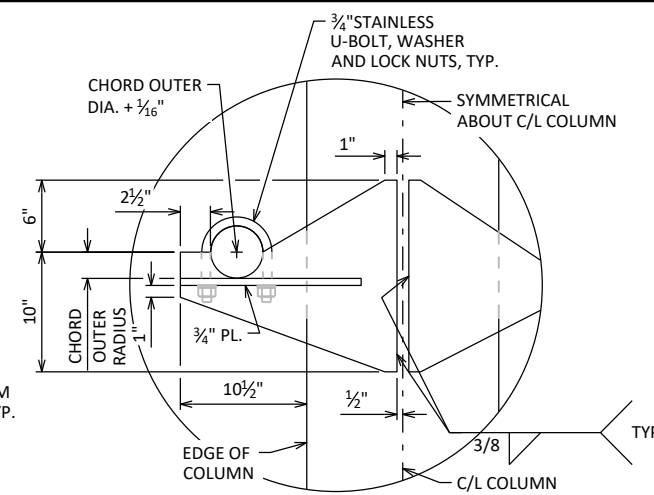


STANDARD

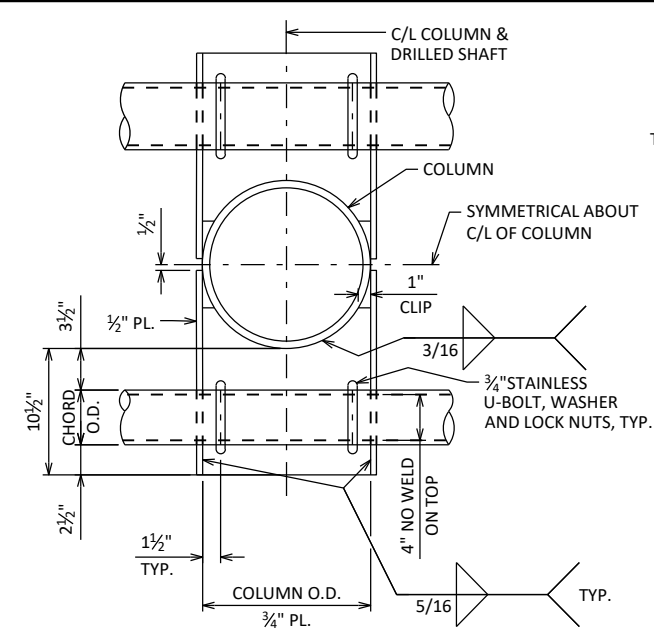


PLAN



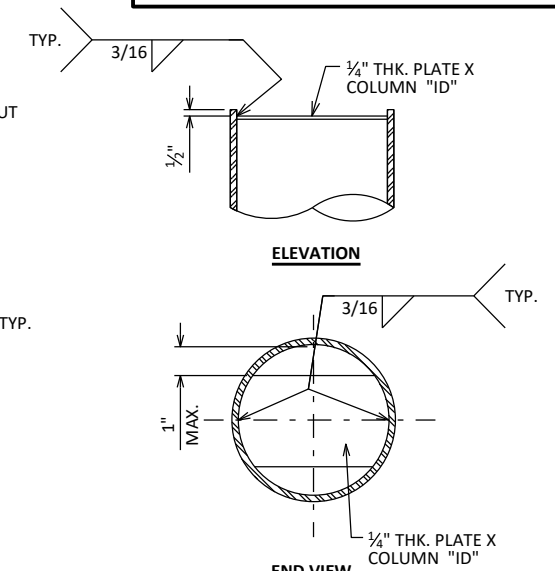
DETAIL A

FRONT BRACKET CONNECTION SHOWN
BACK BRACKET SIMILAR

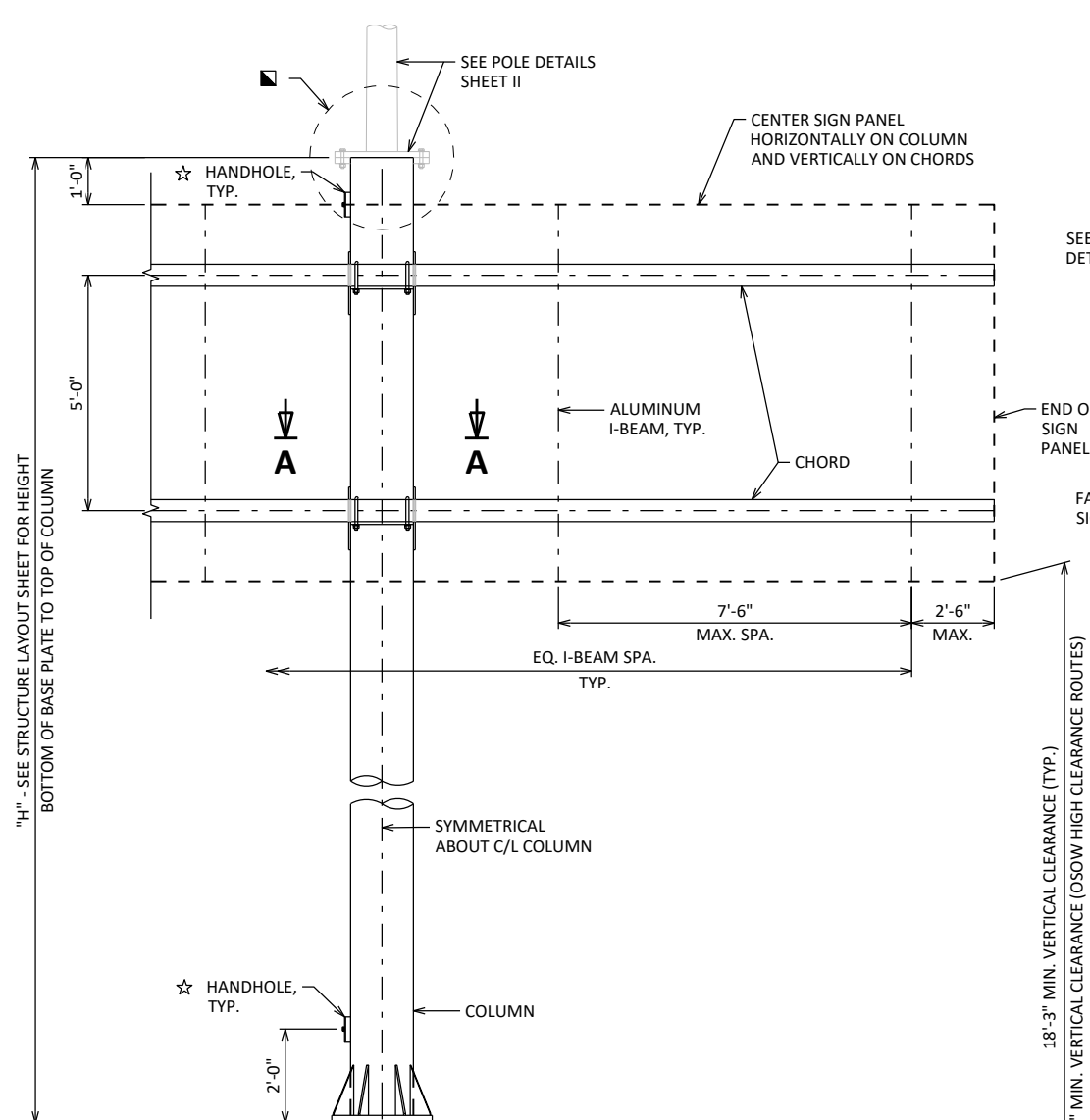


SECTION A-A

FRONT BRACKET CONNECTION SHOWN
BACK BRACKET SIMILAR
BRACKET FOR TOP CHORDS SIMILAR

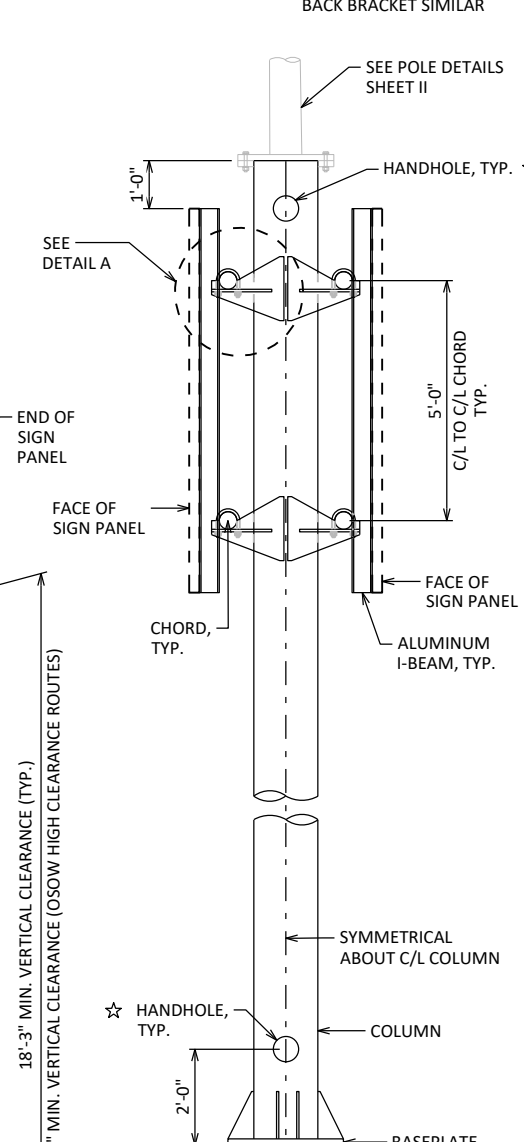


CHORD CAP DETAIL

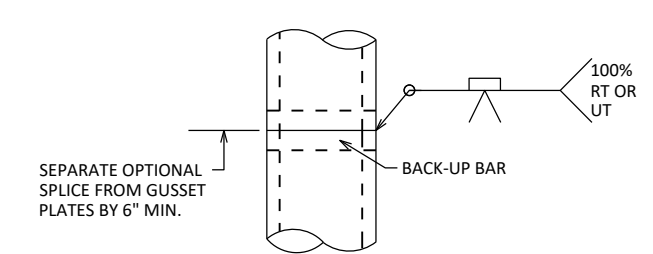


ELEVATION

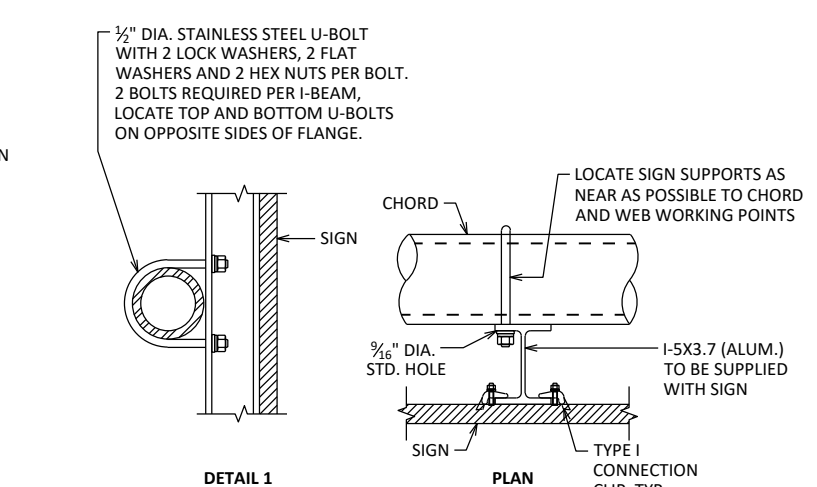
LOOKING AT F.F. OF BUTTERFLY



END VIEW



**OPTIONAL COLUMN
OR CHORD SPLICE**

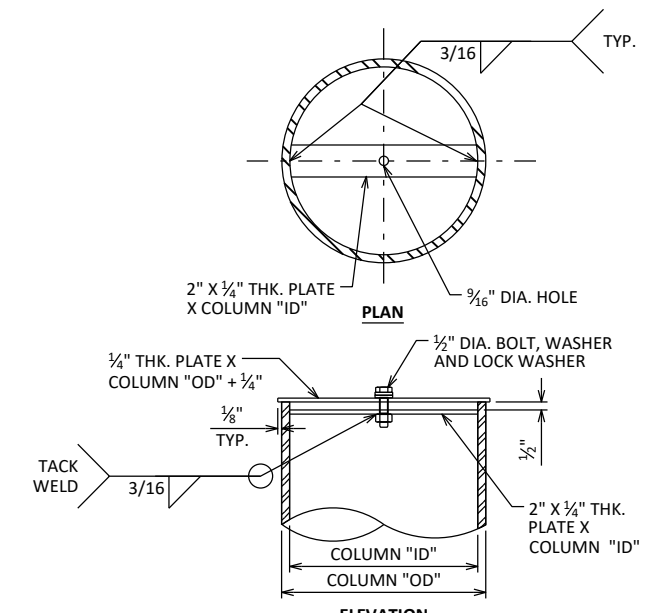


DETAIL 1

PLAN

TYPICAL SIGN CONNECTION

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



TOWER CAP DETAIL

■ USE ON STRUCTURES WITHOUT LIGHT POLE ATTACHEMENTS

LEGEND

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

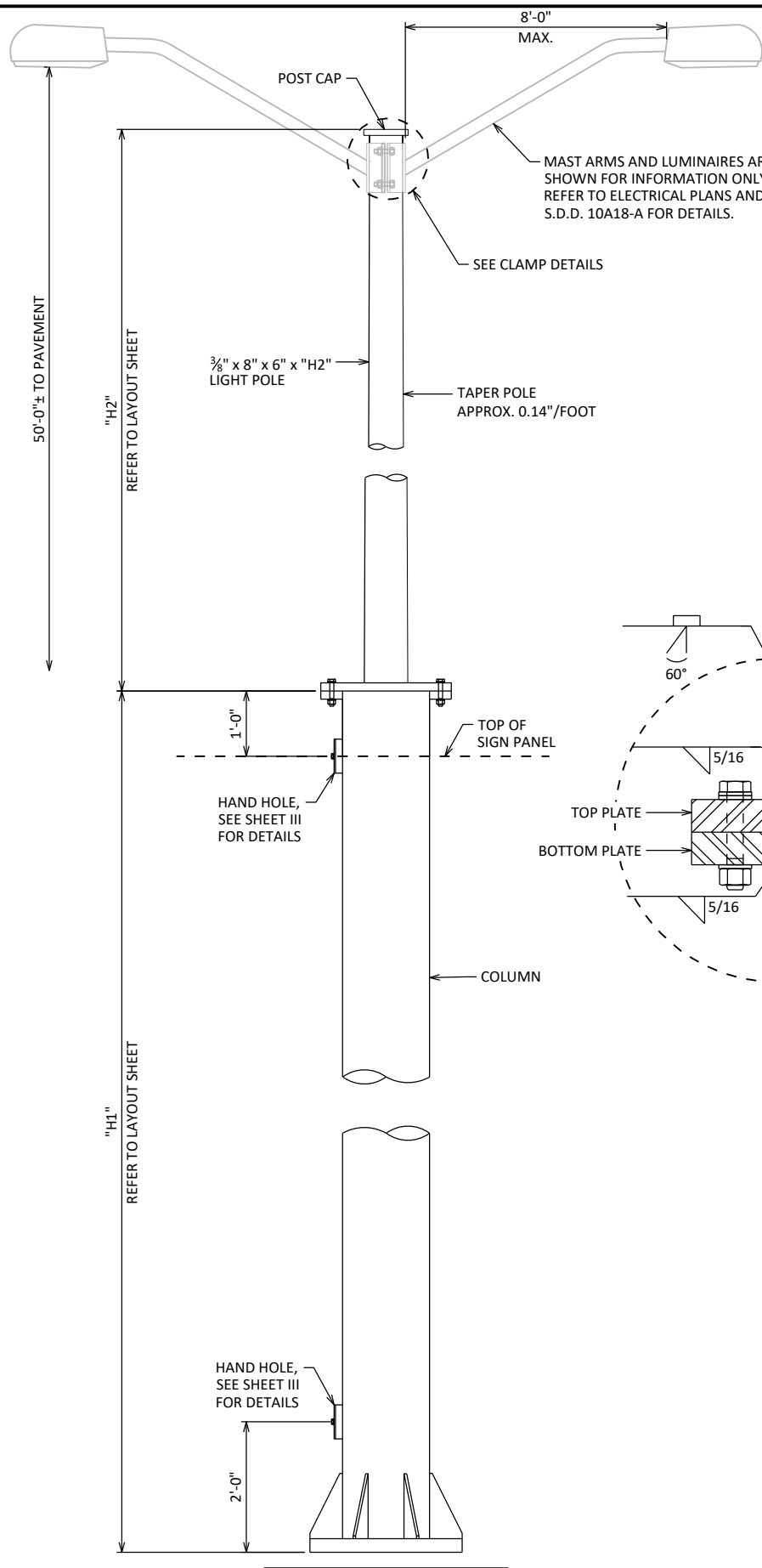
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
UPDATED: JAN. 2023			
DRAWN BY		BOS	PLANS CK'D BOS
2-CHORD BUTTERFLY DETAILS		SHEET I	

BUTTERFLY MEMBER TABLE

STANDARD DESIGN TYPE	TYPE I SIGN AREA (SQ. FT)	MAXIMUM SPAN "L" (ft)	MAXIMUM COLUMN HEIGHT "H" (ft)	COLUMN "OD" X THK.	CHORD "OD" X THK	ANCHOR ROD DIA.	BASE PLATE "THK"	"BC"	"PC"	"HOLE"
I	200	12'-6"	26'-0"	16" X 0.375"	4.500" X 0.375"	1 3/4"	1 1/2"	1'-10"	2'-4"	1 13/16"

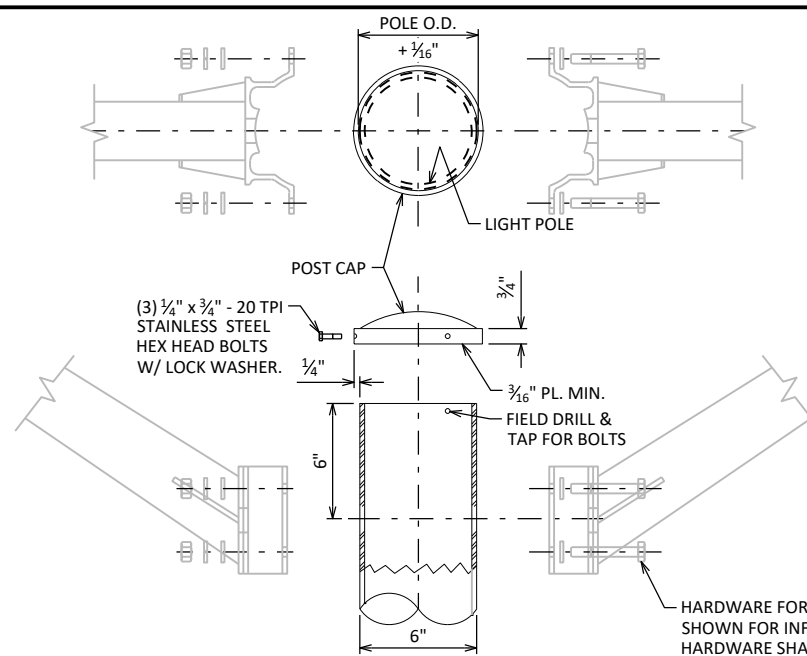
NOTES:

LUMINAIRE ARMS TO BE PARALLEL TO SIGN PANELS.
 LUMINAIRE LOADING FOR DESIGN WAS CALCULATED USING 50 LBS. AND 1.5 SQ. FT. FOR E.P.A. FOR EACH LUMINAIRE.
 SEE S.D.D. 10A18-A FOR LUMINAIRE ARM AND CLAMP DETAILS.



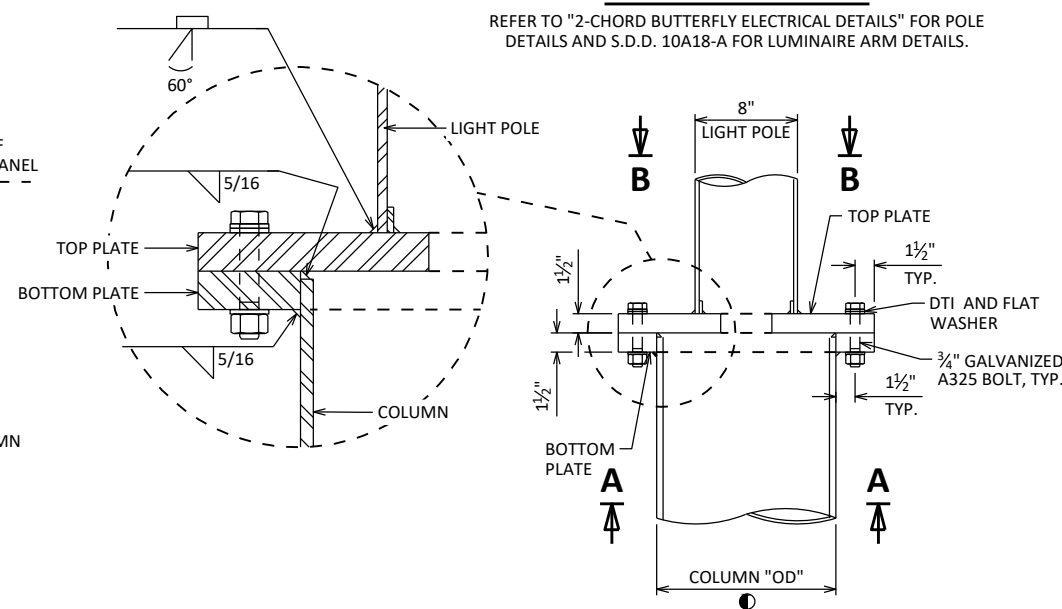
COLUMN & LIGHT POLE ELEVATION

CHORDS AND SIGN PANEL NOT SHOWN FOR CLARITY
 LOOKING AT F.F. OF STRUCTURE

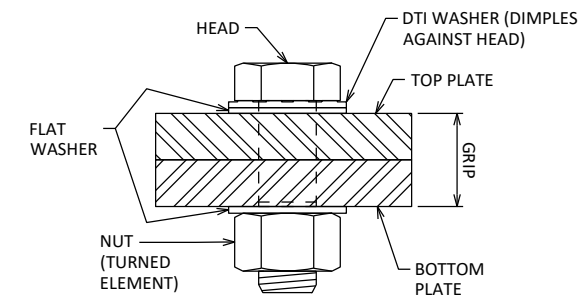


CLAMP DETAILS

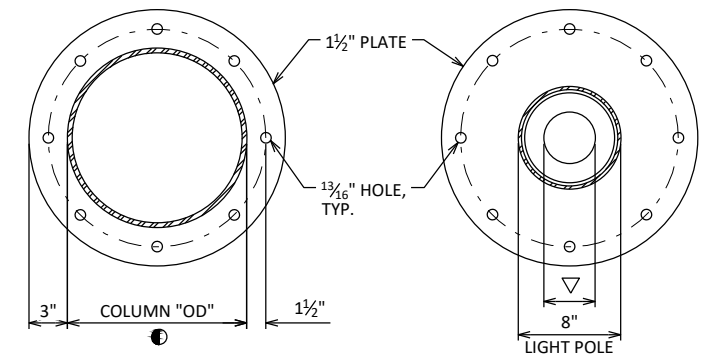
REFER TO "2-CHORD BUTTERFLY ELECTRICAL DETAILS" FOR POLE
 DETAILS AND S.D.D. 10A18-A FOR LUMINAIRE ARM DETAILS.



COLUMN & LIGHT POLE CONNECTION



BOLT DETAIL WITH DTI

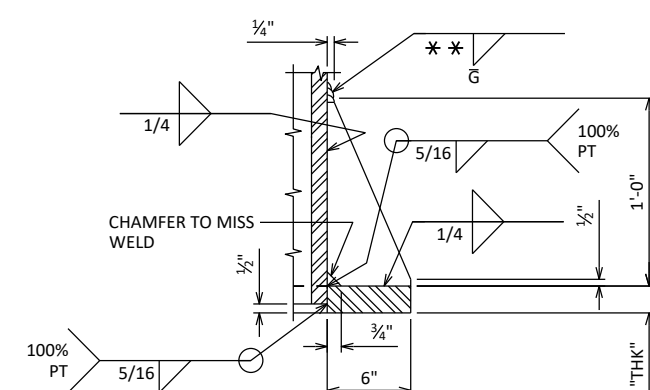


SECTION A-A

BOTTOM PLATE TO COLUMN

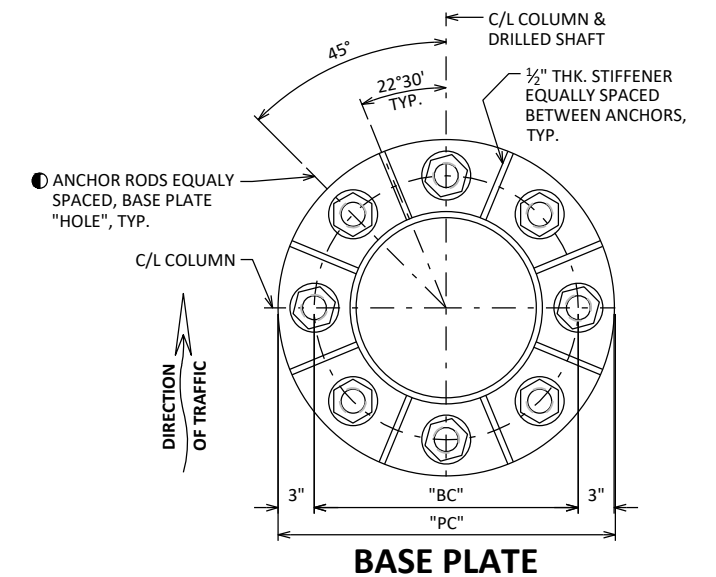
SECTION B-B

TOP PLATE TO LIGHT POLE
 4\"/>

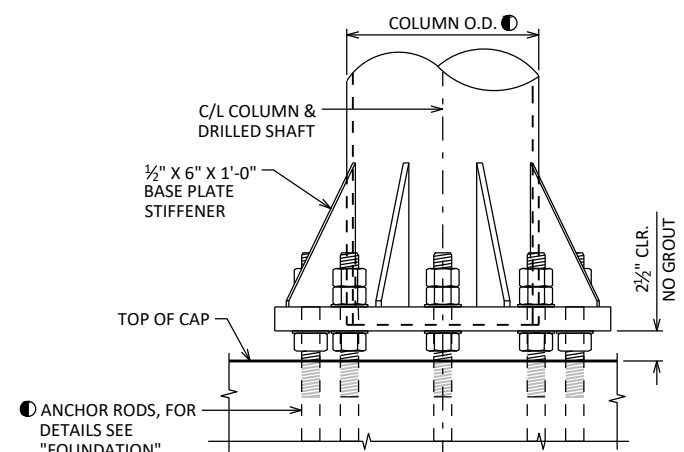


BASE PLATE STIFFENER DETAIL

** SIZE AS NEEDED



BASE PLATE

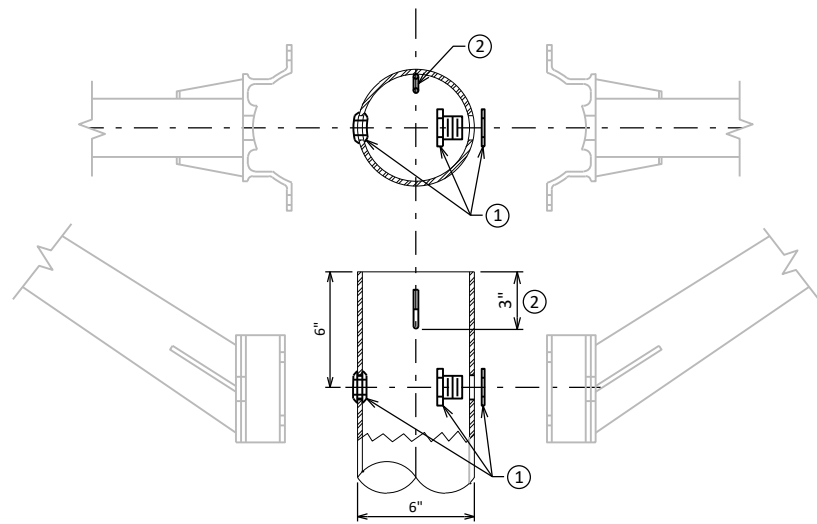


BASE PLATE & COLUMN DETAIL

LOOKING AT F.F. OF STRUCTURE

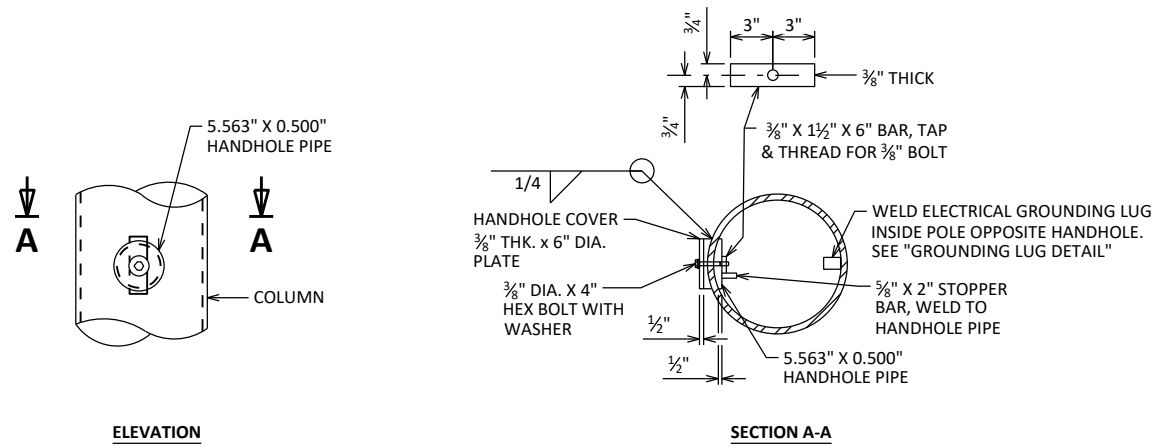
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2-CHORD BUTTERFLY POLE DETAILS			SHEET II

SEE TABLE ON "2-CHORD BUTTERFLY DETAILS" SHEET FOR DIMENSIONS



LIGHT POLE DETAILS

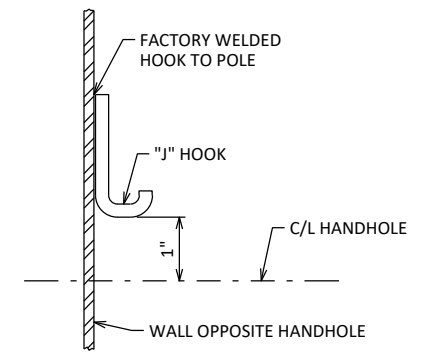
- ① 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.
- ② FACTORY WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.



HANDHOLE DETAILS

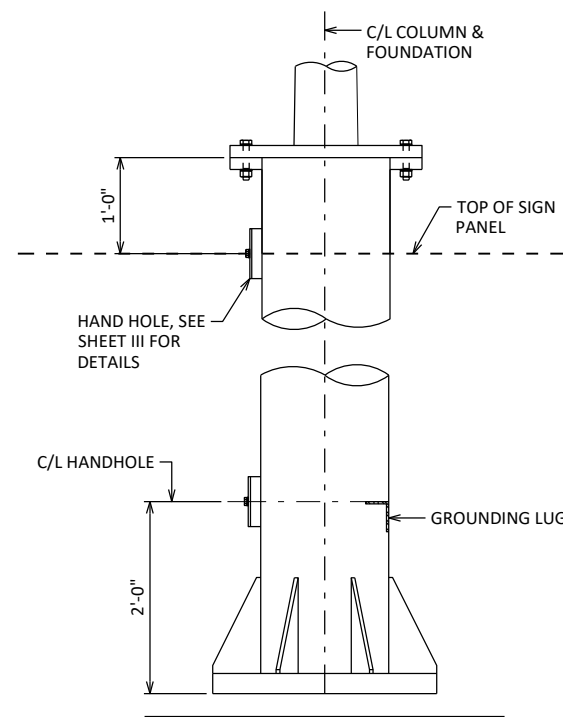
HAND HOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HAND HOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC 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 HAND HOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



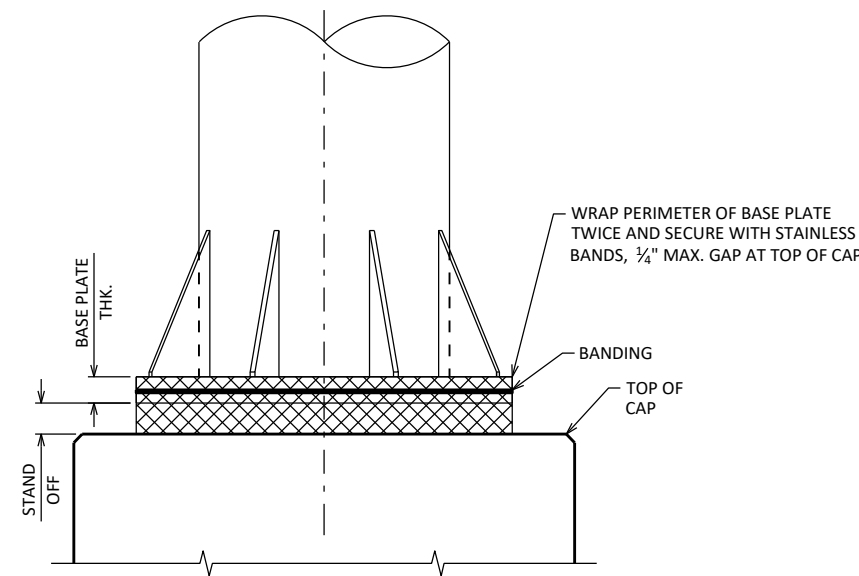
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF THE COLUMN 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.



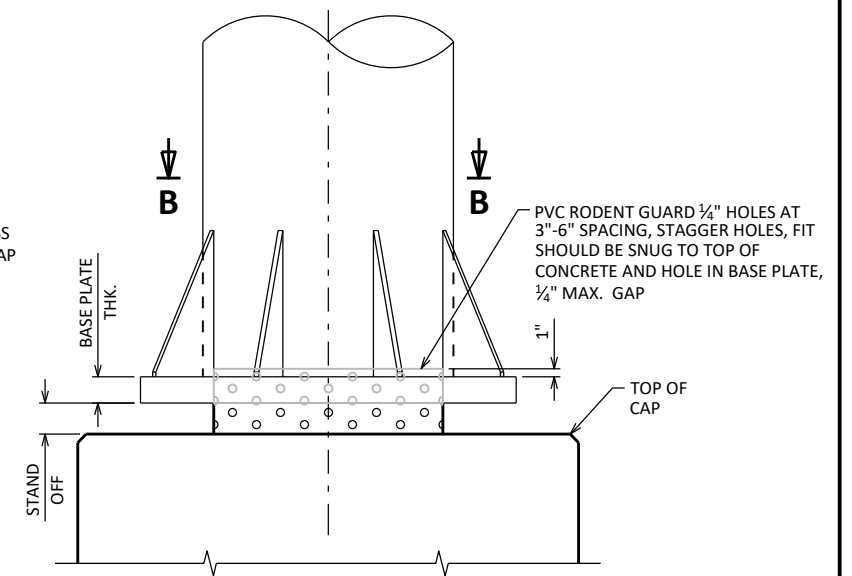
GROUNDING LUG LOCATION

LOOKING ATF.F. OF STRUCTURE



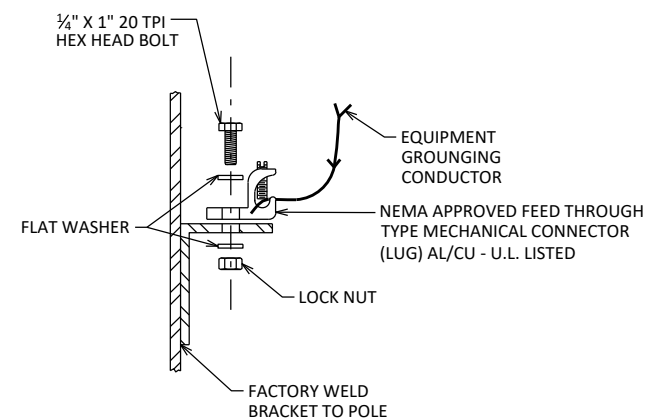
RODENT SCREEN

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



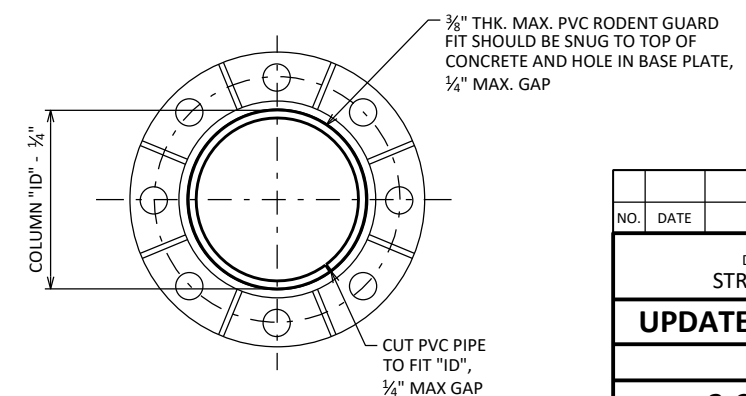
RODENT SCREEN - ALTERNATE

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



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SECTION B-B

NO.	DATE	REVISION	BY
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2-CHORD BUTTERFLY ELECTRICAL DETAILS			SHEET III

BILL OF BARS

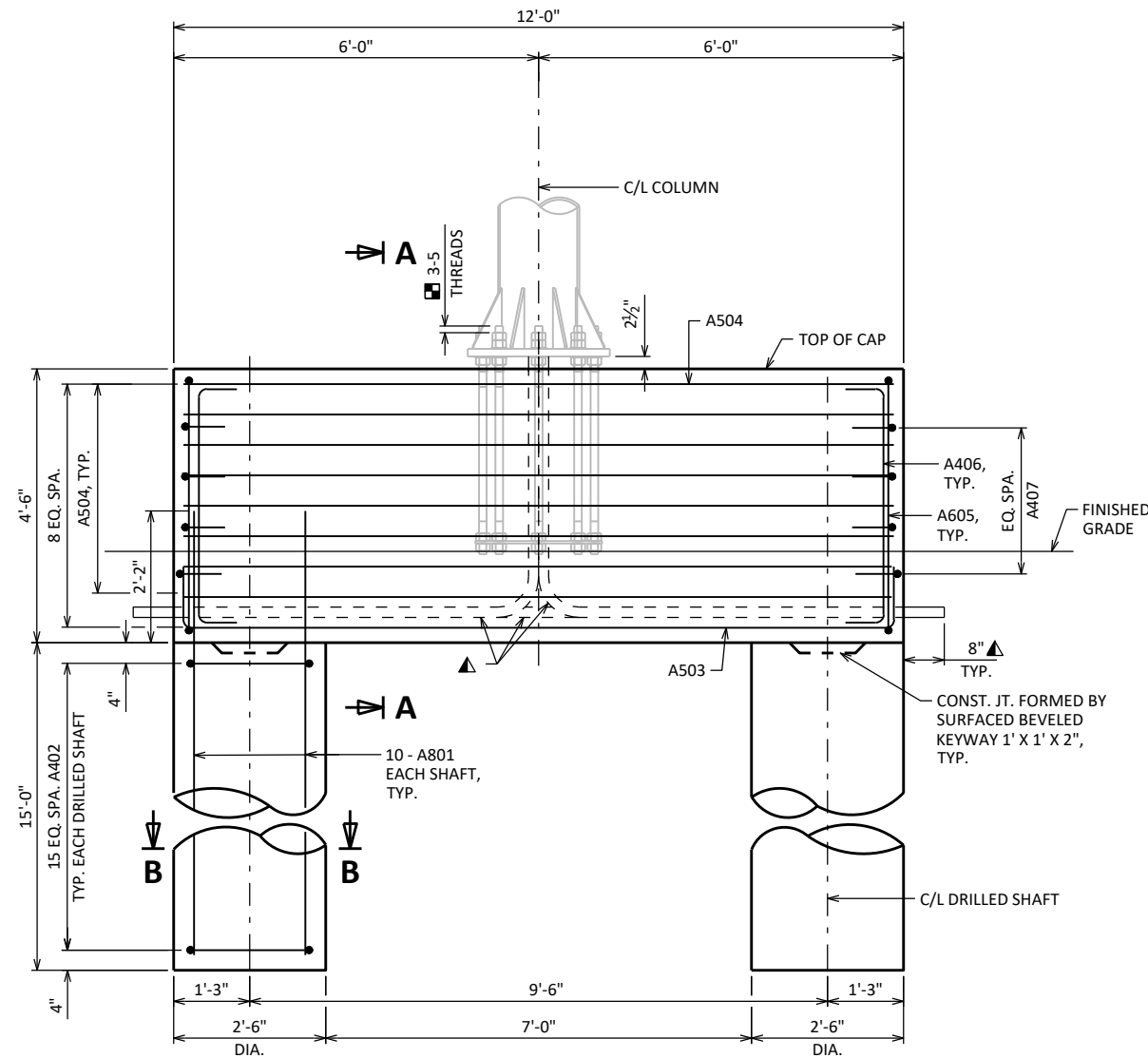
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		20	17'-2"			DRILLED SHAFT - VERTICAL
A402		32	7'-5"	X		DRILLED SHAFT - HORIZONTAL
A503	X	5	12'-7"	X		CAP - LONGITUDINAL - BOTTOM
A504	X	19	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	24	14'-11"	X		CAP - STIRRUP
A406	X	8	4'-9"	X		CAP - VERTICAL - EACH END
A407	X	8	5'-11"	X		CAP - HORIZONTAL - EACH END

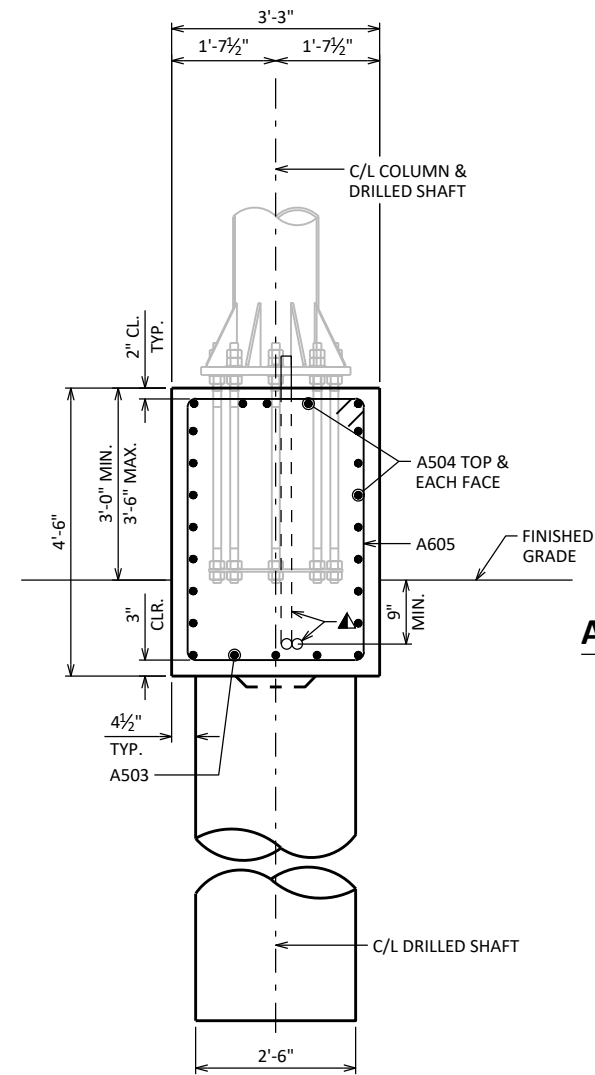
ESTIMATED QUANTITIES - FOUNDATION

CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 1.5-INCH (EACH)	FOUNDATION DRILLING 30" DIA. (LF)
12	1,080	890	1	30

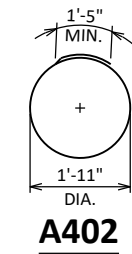
** QUANTITIES ARE FOR INFORMATION ONLY. **



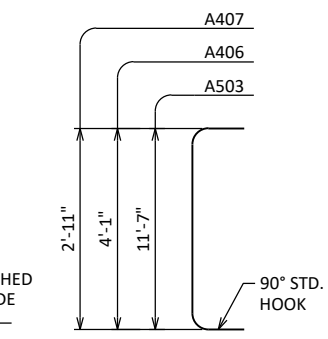
ELEVATION



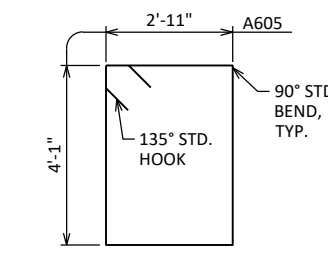
SECTION A-A



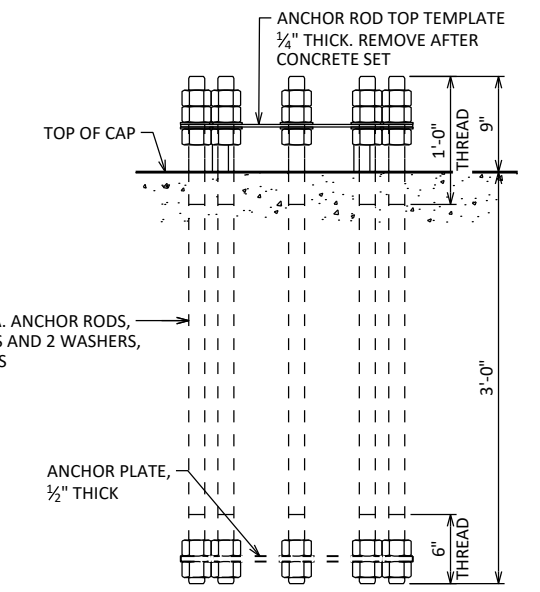
A402



A503, A406, A407



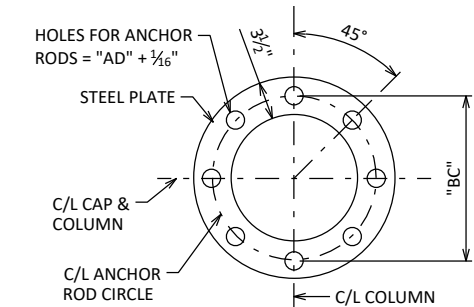
A605



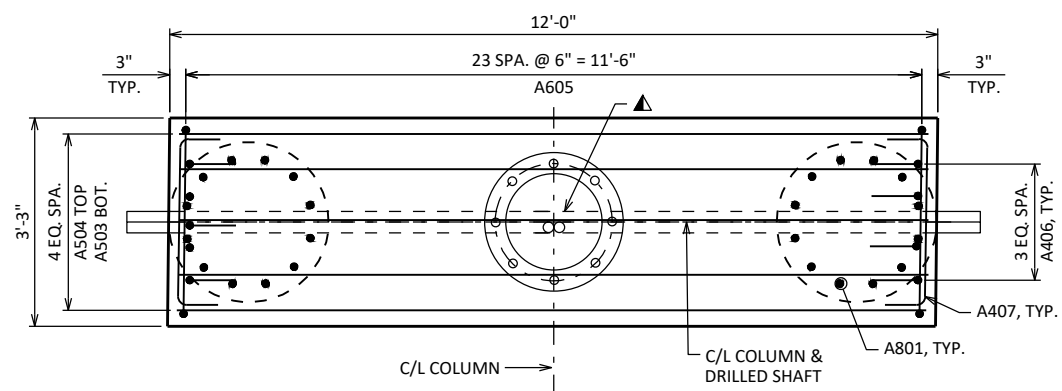
ELEVATION

ANCHOR ROD ASSEMBLY DETAILS

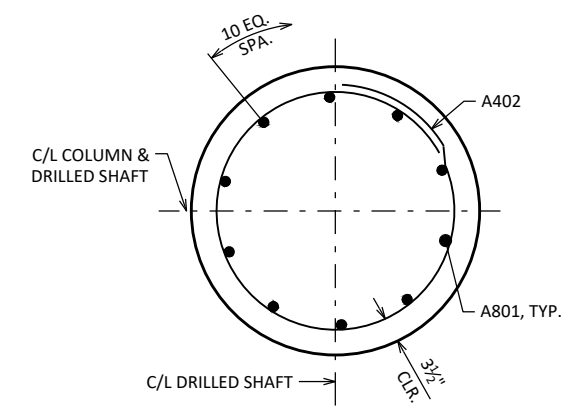
SINGLE ANCHOR ASSEMBLY SHOWN, 8 ANCHOR RODS PER ASSEMBLY
 CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHORS.



ANCHOR PLATE & TOP TEMPLATE



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

LEGEND

- ▲ 3 - 2" DIA. NON-METALLIC CONDUITS. INSTALL AND EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. 1 CONDUIT TO RUN STRAIGHT THROUGH FOUNDATION. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.
- 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.

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2-CHORD BUTTERFLY FOUNDATION DETAILS		SHEET IV	