

AWRERS	DE	EXP	EXPANDED	DEK	DECKING	DEK	DECKING
AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
BA	BA	BA	BA	BA	BA	BA	BA
BB	BB	BB	BB	BB	BB	BB	BB
BC	BC	BC	BC	BC	BC	BC	BC
BD	BD	BD	BD	BD	BD	BD	BD
BE	BE	BE	BE	BE	BE	BE	BE
BF	BF	BF	BF	BF	BF	BF	BF
BG	BG	BG	BG	BG	BG	BG	BG
BH	BH	BH	BH	BH	BH	BH	BH
BI	BI	BI	BI	BI	BI	BI	BI
BJ	BJ	BJ	BJ	BJ	BJ	BJ	BJ
BK	BK	BK	BK	BK	BK	BK	BK
BL	BL	BL	BL	BL	BL	BL	BL
BM	BM	BM	BM	BM	BM	BM	BM
BN	BN	BN	BN	BN	BN	BN	BN
BO	BO	BO	BO	BO	BO	BO	BO
BP	BP	BP	BP	BP	BP	BP	BP
BQ	BQ	BQ	BQ	BQ	BQ	BQ	BQ
BR	BR	BR	BR	BR	BR	BR	BR
BS	BS	BS	BS	BS	BS	BS	BS
BT	BT	BT	BT	BT	BT	BT	BT
BU	BU	BU	BU	BU	BU	BU	BU
BV	BV	BV	BV	BV	BV	BV	BV
BW	BW	BW	BW	BW	BW	BW	BW
BX	BX	BX	BX	BX	BX	BX	BX
BY	BY	BY	BY	BY	BY	BY	BY
BZ	BZ	BZ	BZ	BZ	BZ	BZ	BZ
CA	CA	CA	CA	CA	CA	CA	CA
CB	CB	CB	CB	CB	CB	CB	CB
CC	CC	CC	CC	CC	CC	CC	CC
CD	CD	CD	CD	CD	CD	CD	CD
CE	CE	CE	CE	CE	CE	CE	CE
CF	CF	CF	CF	CF	CF	CF	CF
CG	CG	CG	CG	CG	CG	CG	CG
CH	CH	CH	CH	CH	CH	CH	CH
CI	CI	CI	CI	CI	CI	CI	CI
CJ	CJ	CJ	CJ	CJ	CJ	CJ	CJ
CK	CK	CK	CK	CK	CK	CK	CK
CL	CL	CL	CL	CL	CL	CL	CL
CM	CM	CM	CM	CM	CM	CM	CM
CN	CN	CN	CN	CN	CN	CN	CN
CO	CO	CO	CO	CO	CO	CO	CO
CP	CP	CP	CP	CP	CP	CP	CP
CQ	CQ	CQ	CQ	CQ	CQ	CQ	CQ
CR	CR	CR	CR	CR	CR	CR	CR
CS	CS	CS	CS	CS	CS	CS	CS
CT	CT	CT	CT	CT	CT	CT	CT
CU	CU	CU	CU	CU	CU	CU	CU
CV	CV	CV	CV	CV	CV	CV	CV
CW	CW	CW	CW	CW	CW	CW	CW
CX	CX	CX	CX	CX	CX	CX	CX
CY	CY	CY	CY	CY	CY	CY	CY
CZ	CZ	CZ	CZ	CZ	CZ	CZ	CZ
DA	DA	DA	DA	DA	DA	DA	DA
DB	DB	DB	DB	DB	DB	DB	DB
DC	DC	DC	DC	DC	DC	DC	DC
DD	DD	DD	DD	DD	DD	DD	DD
DE	DE	DE	DE	DE	DE	DE	DE
DF	DF	DF	DF	DF	DF	DF	DF
DG	DG	DG	DG	DG	DG	DG	DG
DH	DH	DH	DH	DH	DH	DH	DH
DI	DI	DI	DI	DI	DI	DI	DI
DJ	DJ	DJ	DJ	DJ	DJ	DJ	DJ
DK	DK	DK	DK	DK	DK	DK	DK
DL	DL	DL	DL	DL	DL	DL	DL
DM	DM	DM	DM	DM	DM	DM	DM
DN	DN	DN	DN	DN	DN	DN	DN
DO	DO	DO	DO	DO	DO	DO	DO
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DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
DR	DR	DR	DR	DR	DR	DR	DR
DS	DS	DS	DS	DS	DS	DS	DS
DT	DT	DT	DT	DT	DT	DT	DT
DU	DU	DU	DU	DU	DU	DU	DU
DV	DV	DV	DV	DV			

# Alum Rock

10818 Crothers  
Rd \\  
San Jose, CA  
95127



GEOTECHNICAL INVESTIGATION / SOIL REPORT - Attached

SPRINKLER PLAN - N/A? - Differed Submittal

TITLE 24 CALIFORNIA ENERGY CODE COMPLIANCE - N/A

ARBORIST

DUE TO THE SCOPE OF WORK FOR THIS PROJECT, NO ARBORIST REPORT HAS BEEN PREPARED. IN THE EVENT THAT PROJECT SCOPE CHANGES, CONTACT ARCHITECT & AUTHORITY HAVING JURISDICTION (AHJ) TO DETERMINE IF AN ARBORIST REPORT IS REQUIRED. NO WORK SHALL BE COMMENCED WITHIN THE DRIPLINE OF ANY TREE PROTECTED BY ANY AHJ PRIOR TO RETAINING A LICENSED ARBORIST.

## COORDINATION REQUIREMENTS

## COORDINATE WITH ARCHITECT

SEE CONSTRUCTION OBSERVATION NOTE ON THIS SHEET. PROVIDE ARCHITECT WITH MINIMUM 48 HOUR NOTICE OF MILESTONE REQUIRING CONSTRUCTION OBSERVATION. COPY ARCHITECT ON ALL CORRESPONDENCE WITH ALL PROJECT CONSULTANTS.



Print Date: 11/02/2022

Date: \_\_\_\_\_

## Building & Site Approval Application

Date: \_\_\_\_\_

<u>BUILDING AREA:</u>	
MAIN LEVEL	3500sq. ft
<hr/>	
TOTAL AREA:	3500sq. ft
<hr/>	
 <hr/>	
TOTAL PARCEL AREA:	6.58 Acres

GENERAL CONTRACTOR IS REQUIRED TO SCHEDULE & COORDINATE THE FOLLOWING MANDATORY CONSTRUCTION OBSERVATION SITE VISITS WITH ARCHITECT PRESENT. PROVIDE NOTICE TO ARCHITECT AT LEAST 48 HOURS PRIOR TO SUCH VISITS. PRIOR TO BEGINNING WORK, PROVIDE ARCHITECT & OWNER WITH A CRITICAL PATH SCHEDULE SHOWING THE FOLLOWING CONSTRUCTION MILESTONES:

INITIALS	REQD	SITE VISIT MILESTONE
_____	<input type="checkbox"/>	PRE CONSTRUCTION SITE MEETING
_____	<input checked="" type="checkbox"/>	AFTER FINISH REMOVAL, PRIOR TO STRUCTURAL DEMOLITION
_____	<input checked="" type="checkbox"/>	ROUGH FRAMING
_____	<input type="checkbox"/>	WINDOW SELECTION, PRIOR TO ORDERING WINDOWS
_____	<input type="checkbox"/>	ROUGH ELECTRICAL, MOUNTED BOXES PRIOR TO PULLING WIRE
_____	<input type="checkbox"/>	FRAMING & INSULATION, PRIOR TO COVERING FRAMING W/ FINISHES

ADDITIONALLY, CONTRACTOR SHALL SCHEDULE A MANDATORY WALKTHRU WITH ARCHITECT & OWNER PRESENT AT SUBSTANTIAL COMPLETION.

_____	<input checked="" type="checkbox"/>	SUBSTANTIAL COMPLETION PRIOR TO GRANTING OCCUPANCY
-------	-------------------------------------	--

ARCHITECT'S INITIALS ARE REQUIRED TO THE LEFT OF EACH SITE VISIT LISTED PRIOR TO PROCEEDING WITH SUBSEQUENT WORK & INDICATE ONLY THAT ARCHITECT WAS PRESENT & PROVIDED WITH THE OPPORTUNITY TO OBSERVE CONSTRUCTION AT THAT PHASE.

PROJECT ADDRESS:	10818 Crothers Rd. San Jose, CA
OWNER/MANAGER:	Mack Larson & Jothi Murali-Larson
APN:	612-44-033
ZONING:	Residential /Agricultural - RR-d1 (100%)
LOT AREA:	
BUILDING AREA:	Computed Size (GIS): 286,820 sq. ft. / 6.6 acres
STORIES:	See Area Calculations on this sheet 2
CONSTRUCTION TYPE:	1 Typ vA
FIRE SPRINKLERS:	Deferred Submittal
OCCUPANCY:	Group R-4
APPLICABLE CODES:	County of Santa Clara Municipal Code 2019 CA RESIDENTIAL BUILDING CODE 2019 CA Bldg Code, 2013 CA Res Bldg Code, 2013 CA Elec Code 2019 CA Mech Code, 2013 CA Plmbg Code, 2013 CA Energy Code 2019 CA Fire Code, 2013 CalGreen Code, 2013 CA Ref Stds Code All as amended by The State Of California and Local Jurisdiction(s).

	COVER SHEET		
SITE	SITE PLAN	S-29	RIGID FRAME DESIGN 3
B 1-2	ELEVATIONS // ISOMETRIC	S-30	RIGID FRAME LINE 1
A-3	FLOOR PLAN	S-31	RIGID FRAME LINE 4
S-1	LOAD WALL SPEC	S-32	RIGID FRAME 2 - 3
S-2	BOLT CONFIG	S-33	ROOF DESIGN LAYOUT
S-3	ISO BEAMS	S-34	ROOF FRAMING PLAN
S-4	WELD MAP	S-35	ROOF SHEETING PLAN
S-5	GENERAL WELD NOTES	S-36	ROOF DESIGN
S-6	DETAILS	S-37	ROOF DESIGN 2
S-7	RIDGE DETAILS	S-38	WALL DESIGN REAR
S-8	COLUMN WELDS	S-39	WALL DESIGN FRONT
S-9	BEAM WELDS	S-40	SIDEWALL SHEETING
S-10	BEAM WELDS	S-41	SIDEWALL SHEETING
S-10	BEAM WELDS	S-42	WIND FRAME LAYOUT
S-11	COLD FORM MEMBERS	S-1.1	FOUNDATION STRUCTURAL NOTES
S-12	FACIA/CANOPY	S1.2	TYP. CONCRETE DETAILS
S-13	TABLE OF CONTENTS	S2.0	FOUNDATION PLAN
S-14	CANOPY DETAIL	S3.0	FOUNDATION DETAILS
S-15	CANOPY DETAIL MAIN	C-6	CIVIL/GRADING PLAN
S-16	END WALL RAFTER		
S-17	BEAM LOCATION		
S-18	SIDING		
S-19	SIDING		
S-20	SIDING		
S-21	ISOMETRIC SIDING		
GN-1	GENERAL NOTES		
GN-2	GENERAL NOTES DEFLECTION		
S-22	FIELD TRIM PLAN		
SE-1	NORTH ELEVATION		
SE-2	SOUTH ELEVATION		
S-23	SHEETING PLAN		
S-24	FRAMING PLAN		
S-25	ISOMETRIC OVERHANG		
S-26	FRAME LAYOUT		
S-27	RIGID FRAME DESIGN		
S-28	RIGID FRAME DESIGN 2		

New 3500sq. ft Staging and Feed storage Barn

**OWNER/MANAGER**  
Mack Larson & Jothi Murali-  
Larson  
larsonmack@icloud.com

**DRAFTING FIRM**  
ECOSTRUCTION  
PO BOX 62  
Geyersville, CA 95441  
ecostruction@att.net  
831-588-0234

**GEOTECHNICAL  
ENGINEER**  
BUTANO  
GEOTECHNICAL  
213 Green Vally Rd, Suite E  
Freedom, CA 95019  
(831)724-2612  
www.butanogeotech.com

SURVEY  
CARROLL ENGINEERING  
1101 S. Winchester Blvd.  
#H-184  
San Jose, CA 95128  
(408) 261-9800  
philip@carroll-  
engineering.com

SEPTIC  
ENGINEER  
N/A

**BAYSIDE GEOLOGY  
BUTANO  
GEOTECHNICAL**  
213 Green Vally Rd. Suite E  
Freedom, CA 95019  
(831)724-2612  
[www.butanogeotech.com](http://www.butanogeotech.com)

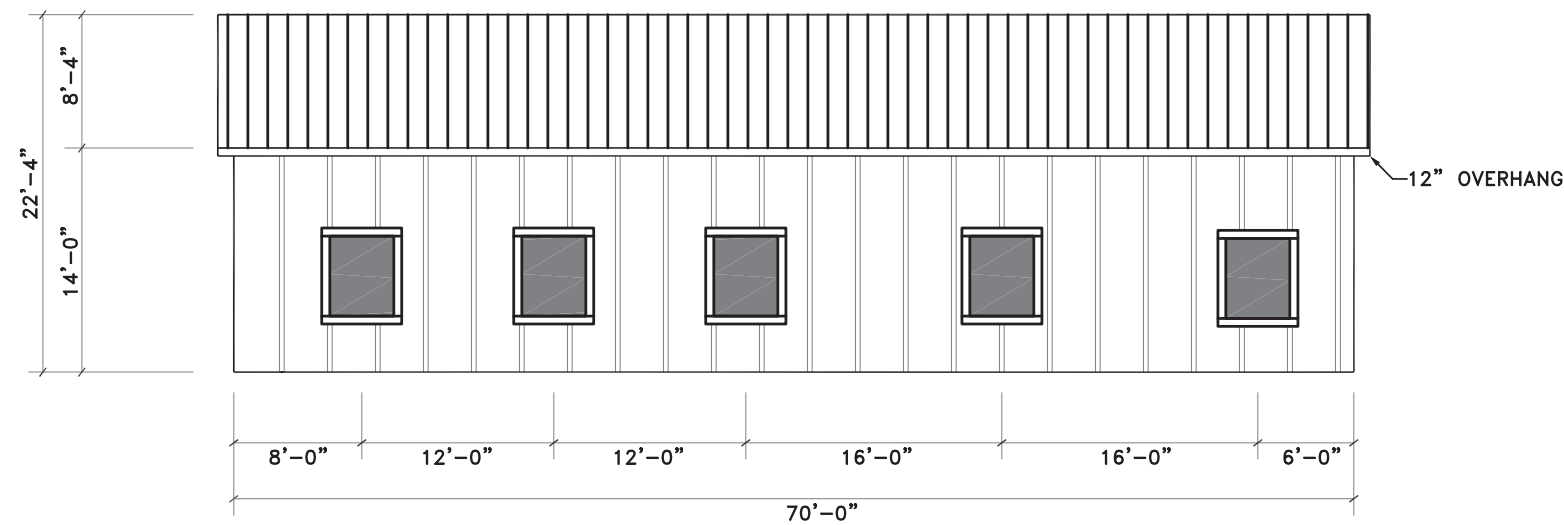
Please Note: Orientation of other plans within the set may vary from this Parcel Map

[illegible]

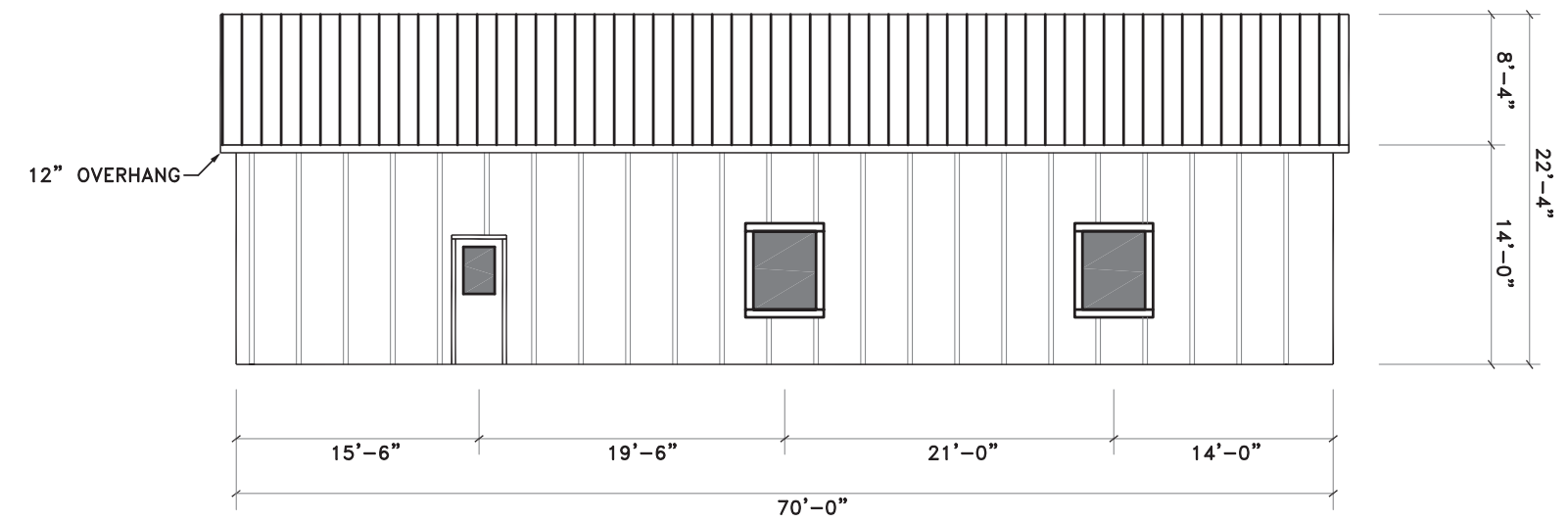
Please Note: Orientation of other plans within the set may vary from this Vicinity Map



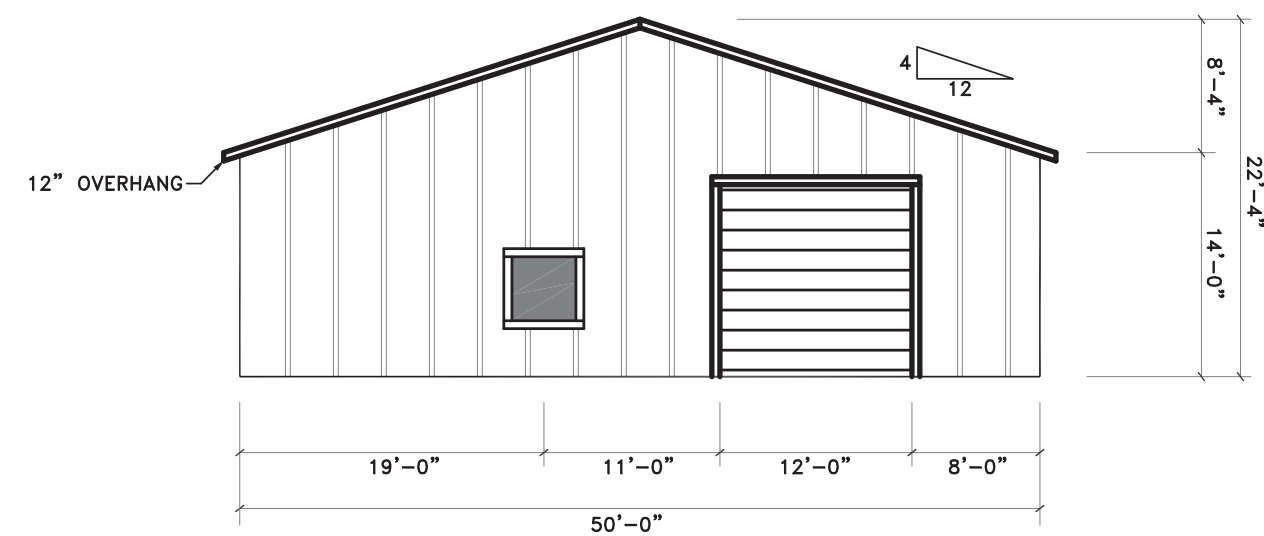




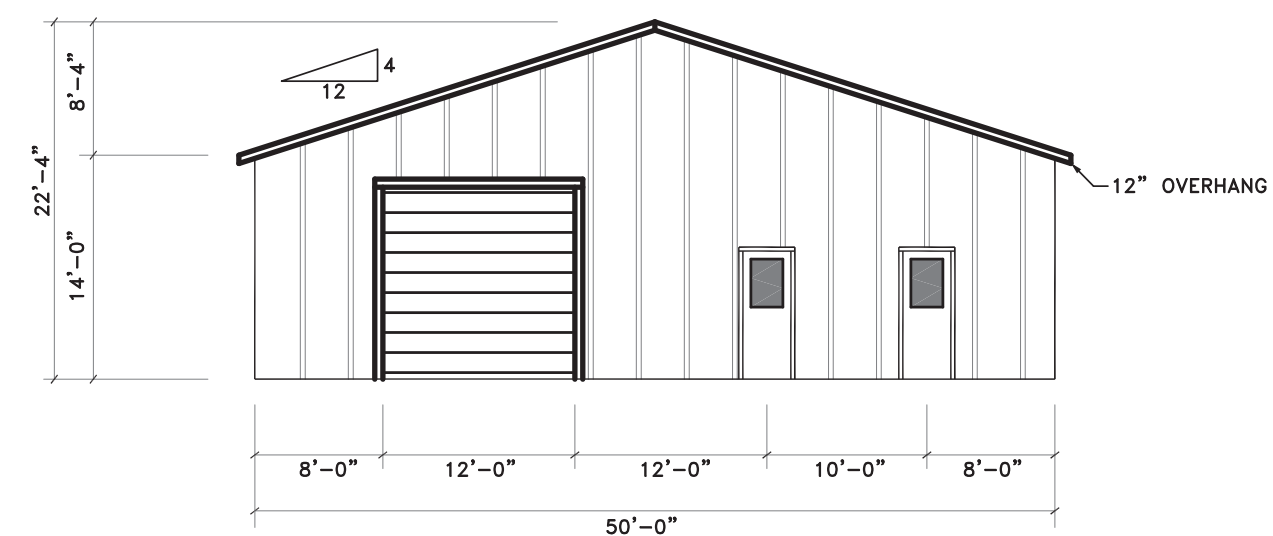
BARN – WEST ELEVATION  
SCALE 1/8" = 1'



BARN – EAST ELEVATION  
SCALE 1/8" = 1'



BARN – SOUTH ELEVATION  
SCALE 1/8" = 1'



BARN – NORTH ELEVATION  
SCALE 1/8" = 1'



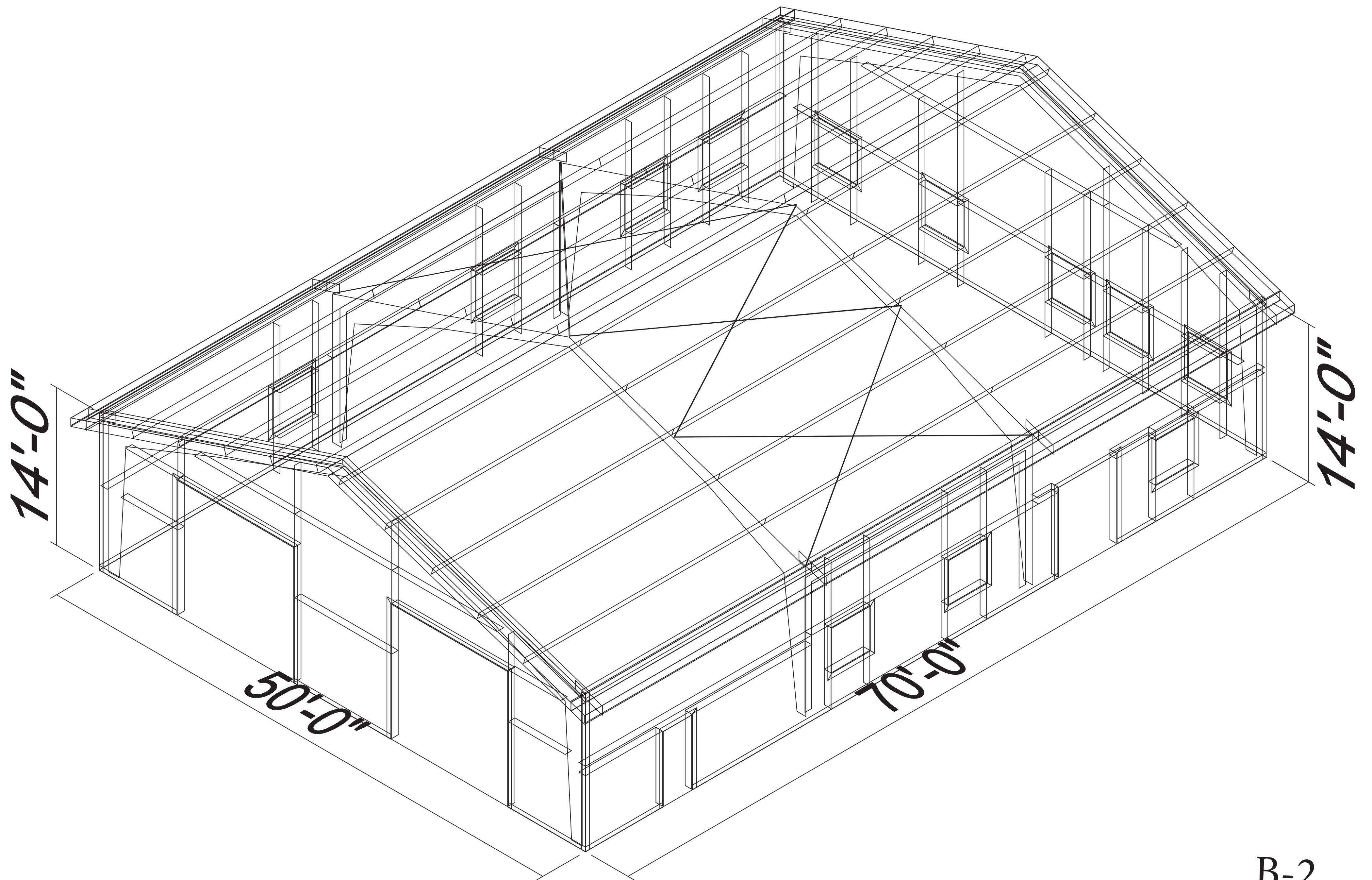
LARSON RESIDENCE  
10818 Crothers Road  
San Jose, CA 95127

BARN ELEVATIONS

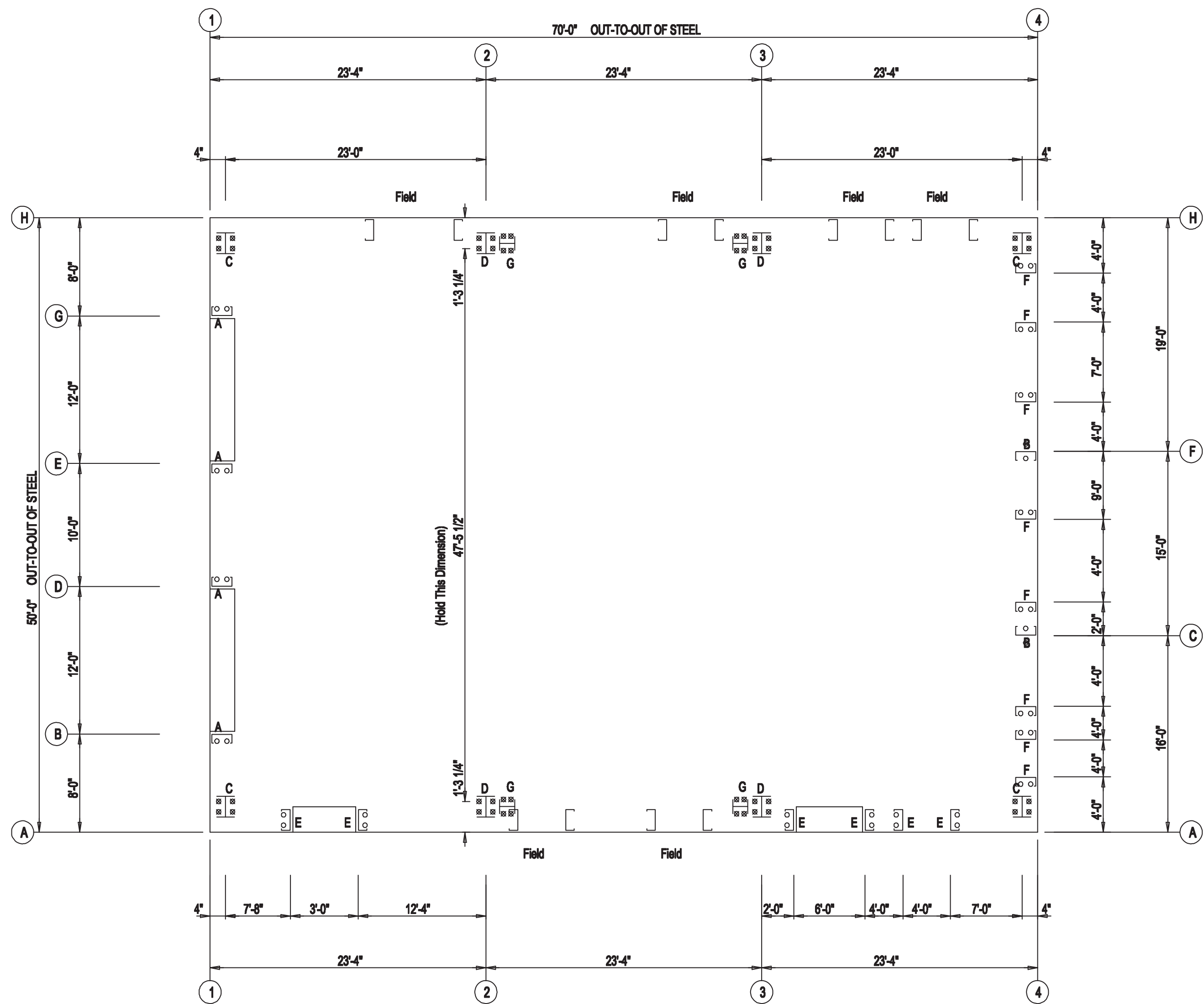
DRAWN: NN  
CHECKED: MS  
DATE: 1-6-23  
SCALE: 1/8"=1'

SHEET  
B1





B-2



ANCHOR BOLT PLAN

NOTE: ALL BASE PLATES @ 100.0' (U.N.)  
ASSUMED FINISH FLOOR @ 100.0' (U.N.)

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	4/12/22	FOR QUOTE			

HERITAGE

BUILDING SYSTEMS

2513 MCCAIN BLVD, STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

PROJECT:							
CUSTOMER:				OWNER:			
LOCATION:							
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/12/22	N.T.S.	1	A		F1	0

GENERAL NOTES

- 1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
- 2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE)
- A) A REACTION TABLE IS PROVIDED WITH REACTIONS FOR EACH LOAD GROUP
- B) RIGID FRAMES
- (1) SEE NOTE 3.
- C) ENDWALLS
- (1) SEE NOTE 3.
- D) X-BRACING
- 1) X-BRACING REACTIONS ARE INCLUDED IN VALUES SHOWN IN THE REACTION TABLES AS NOTED IN THE BRACING REACTIONS TABLE.
- 2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS DO NOT INCLUDE THE AMPLIFICATION FACTOR,  $\Omega_{ega0}$ .
- 3) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE ENDWALL, INDIVIDUAL TRANSVERSE SEISMIC LOADS DO NOT INCLUDE THE AMPLIFICATION FACTOR,  $\Omega_{ega0}$ .
- E) THE METAL BUILDING MANUFACTURER IS RESPONSIBLE ONLY FOR THE PORTION OF THE ANCHOR ROD DESIGN PERTAINING TO THE TRANSFER OF FORCES BETWEEN THE BASE PLATE BEARING AND THE ANCHOR ROD'S SHEAR AND TENSION. THE METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR THE ANCHOR ROD EMBEDMENT FOR TRANSFER OF FORCES TO THE FOUNDATION. THE METAL BUILDING MANUFACTURER DOES NOT DESIGN AND IS NOT RESPONSIBLE FOR THE DESIGN, MATERIAL, AND CONSTRUCTION OF THE FOUNDATION EMBEDMENT. THE END USE CUSTOMER SHALL ASSURE THAT ADEQUATE PROVISIONS ARE MADE TO THE FOUNDATION DESIGN FOR LOADS IMPOSED BY COLUMN REACTIONS OF THE BUILDING, OTHER IMPOSED LOADS, AND BEARING CAPACITY OF THE SOIL AND OTHER CONDITIONS OF THE BUILDING SITE. IT IS RECOMMENDED THAT THE ANCHORAGE AND FOUNDATION OF THE BUILDING BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER COMPETENT IN THE DESIGN OF SUCH STRUCTURES.
- I) (REF. APPENDIX A3 OF THE MBMA METAL BUILDING BUILDING SYSTEMS MANUAL)
- F) ANCHOR RODS ARE ASTM F1554 GR. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
- 3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN. THE FOUNDATION ENGINEER SHALL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS FOR PROPER FOUNDATION DESIGN.
- A) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC, 2015 IBC, OR FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FACTOR OF 1.0.
- B) FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE AT A STRENGTH LEVEL WITH A LOAD FACTOR OF 1.0, AND DO NOT CONTAIN THE RHO FACTOR.

THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

ENDWALL COLUMN:

ANCHOR BOLTS & BASE PLATES							
Frm Line	Col Line	Anc. Bolt Qty	Dia	Base Plate (in)		Thick	Grout (in)
1	G	2	0.625	3.500	8.000	0.250	0.0
1	E	2	0.625	3.500	8.000	0.250	0.0
1	D	2	0.625	3.500	8.000	0.250	0.0
1	B	2	0.625	3.500	8.000	0.250	0.0
4	C	2	0.625	7.000	8.000	0.250	0.0
4	F	2	0.625	7.000	8.000	0.250	0.0

NOTES FOR REACTIONS

BUILDING REACTIONS ARE BASED ON THE FOLLOWING BUILDING DATA:

WIDTH (FT)	= 50
LENGTH (FT)	= 70
EAVE HEIGHT (FT)	= 14 / 14
ROOF SLOPE (rise/run)	= 4.0:12 / 4.0:12
DEAD LOAD (psf)	= 2.500
COLLATERAL LOAD (psf)	= 6
ROOF LIVE LOAD (psf)	= 20.00
FRAME LIVE LOAD (psf)	= 20
ROOF SNOW LOAD (psf)	= 0
GROUND SNOW LOAD (psf)	= 0.00
WIND SPEED (MPH)	= 82
WIND CODE	= CBC 19
EXPOSURE	= C
CLOSED/OPEN	= Closed
IMPORTANCE - WIND	= 1.00
IMPORTANCE - SEISMIC	= 1.00
SEISMIC ZONE	= D

REACTION KEY:

WIND Left/Right 1 = (with +GCpl Internal Pressure)  
WIND Left/Right 2 = (with -GCpl Internal Pressure)  
Wind\_Long 1 = Wind Load Case B at Left EW  
Wind\_Long 2 = Wind Load Case B at Right EW  
MIN\_SNOW = Minimum Snow (Pm) per code  
EIRUNB\_SL\_L = Endwall Unbalanced Snow Left  
EIRUNB\_SL\_R = Endwall Unbalanced Snow Right  
FRUNB\_SL\_L = Rigid Frame Unbalanced Snow Left  
FRUNB\_SL\_R = Rigid Frame Unbalanced Snow Right

ANCHOR BOLT SUMMARY

Qty	Locate	Die (in)	Type	Proj (in)
○ 28	Jamb	5/8"	F1554	2.00
○ 12	Endwall	5/8"	F1554	2.00
⊗ 32	Frame	3/4"	F1554	2.50
⊗ 16	WindCol	3/4"	F1554	2.50

BUILDING BRACING REACTIONS

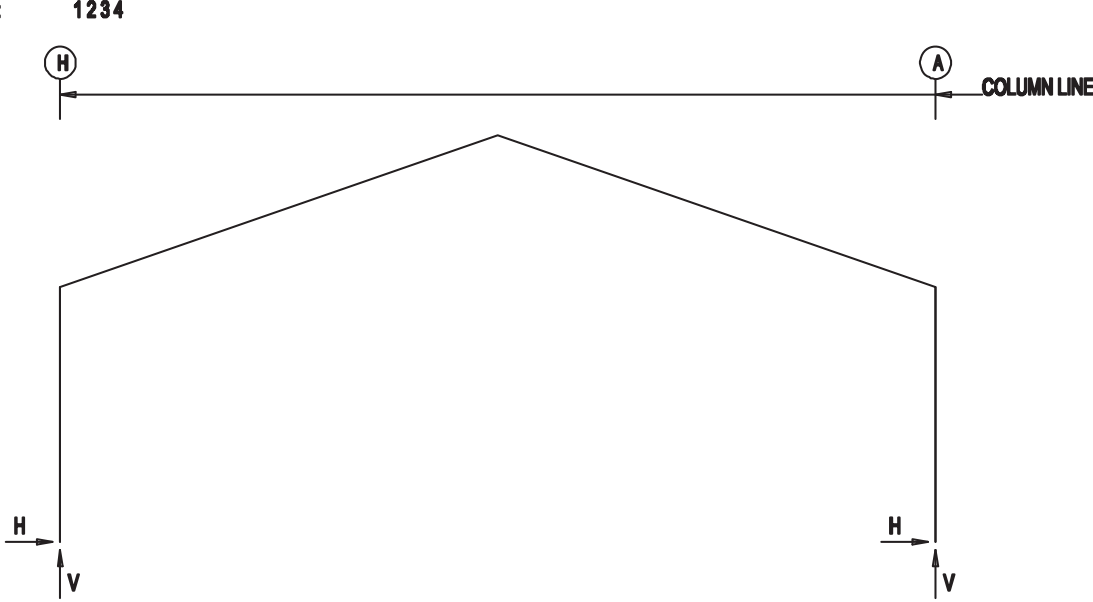
Wall		Col		Reactions in plane of wall ± Reactions(k)				Panel Shear (lb/ft)		Note
Loc	Line	Line		Wind	Seismic	Horz	Vert	Wind	Seis	
L_EW	1									(h)
F_SW	A	2,3								(h)
R_EW	4									(h)
B_SW	H	2,3								(e)

(e) Wind bent in bay  
(h) Rigid frame at endwall

WIND BENT REACTIONS

Wall		Col		Reactions Wind(k)				Bolt(in)		Base Plate(in)		Thick
Loc	Line	Line		Horz	Vert	Seismic(k)		Qty	Die	Width	Length	
F_SW	A	2	1.9	2.3	3.2	3.7		4	0.750	6.000	22.500	0.375
F_SW	A	3	1.9	2.3	3.2	3.7		4	0.750	6.000	22.500	0.375
B_SW	H	3	1.9	2.3	3.2	3.7		4	0.750	6.000	22.500	0.375
B_SW	H	2	1.9	2.3	3.2	3.7		4	0.750	6.000	22.500	0.375

FRAME LINES:



RIGID FRAME:

ANCHOR BOLTS & BASE PLATES							
Frm Line	Col Line	Anc. Bolt Qty	Dia	Base Plate (in)		Thick	Grout (in)
1	H	4	0.750	6.000	13.50	0.375	0.0
1	A	4	0.750	6.000	13.50	0.375	0.0

RIGID FRAME:

ANCHOR BOLTS & BASE PLATES							
Frm Line	Col Line	Anc. Bolt Qty	Dia	Base Plate (in)		Thick	Grout (in)
2*	H	4	0.750	6.000	11.50	0.375	0.0
2*	A	4	0.750	6.000	11.50	0.375	0.0

RIGID FRAME:

ANCHOR BOLTS & BASE PLATES							
Frm Line	Col Line	Anc. Bolt Qty	Dia	Base Plate (in)		Thick	Grout (in)
4	H	4	0.750	6.000	13.50	0.375	0.0
4	A	4	0.750	6.000	13.50	0.375	0.0

RIGID FRAME:

		BASIC COLUMN REACTIONS (k)													
Frame Line	Column Line	Dead		Collateral		Live		Wind_Left1		Wind_Right1		Wind_Left2			
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1	H	0.6	1.5	1.1	2.1	3.3	7.1	-4.0	-6.6	-0.2	-4.5	-3.9	-4.7		
1	A	-0.6	1.5	-1.1	2.1	-3.3	7.1	0.2	-4.5	4.0	-6.6	0.1	-2.5		
4	H	0.6	1.5	1.1	2.1	3.3	7.1	-4.0	-6.6	-0.2	-4.5	-3.9	-4.7		
4	A	-0.6	1.5	-1.1	2.1	-3.3	7.1	0.2	-4.5	4.0	-6.6	0.1	-2.5		
2*	H	1.0	2.2	1.9	3.7	6.1	12.3	-6.0	-9.2	0.6	-6.0	-6.1	-6.9		
2*	A	-1.0	2.2	-1.9	3.7	-6.1	12.3	-6.0	-9.2	6.0	-9.2	-6.5	-2.6		

Frame Line	Column Line	Wind_Right2		Wind_Long1		Wind_Long2		Seismic_Left		Seismic_Right	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1	H	-0.1	-2.5	-0.7	-5.2	-1.5	-4.5	-1.7	-0.9	1.7	0.9
1	A	3.9	-4.7	1.5	-4.5	0.7	-5.2	-1.7	0.9	1.7	-0.9
4	H	-0.1	-2.5	-0.7	-5.2	-1.5	-4.5	-1.7	-0.9	1.7	0.9
4	A	3.9	-4.7	1.5	-4.5	0.7	-5.2	-1.7	0.9	1.7	-0.9
2*	H	0.5	-2.6	-0.7	-7.1	-1.7	-6.3	-2.5	-1.3	2.5	1.3
2*	A	6.1	-6.9	1.7	-6.3	0.7	-7.1	-2.5	1.3	2.5	-1.3

ENDWALL COLUMN:

		BASIC COLUMN REACTIONS (k)			
Frm Line	Col Line	Dead Vert	Wind Press		Wind Suct Horz
			Horz	Vert	
1	G	0.1	-1.2		1.2
1	E	0.1	-1.7		1.8
1	D	0.1	-1.7		1.8
1	B	0.1	-1.2		1.2
4	C	0.1	-2.2		2.3
4	F	0.1	-2.5		2.7

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	4/12/22	FOR QUOTE			

HERITAGE  
BUILDING SYSTEMS

2513 MCCAIN BLVD. STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

PROJECT:

CUSTOMER:

OWNER:

LOCATION:

CAD

DATE

SCALE

PHASE

BUILDING ID

JOB NUMBER

SHEET NUMBER

ISSUE

4/12/22

N.T.S.

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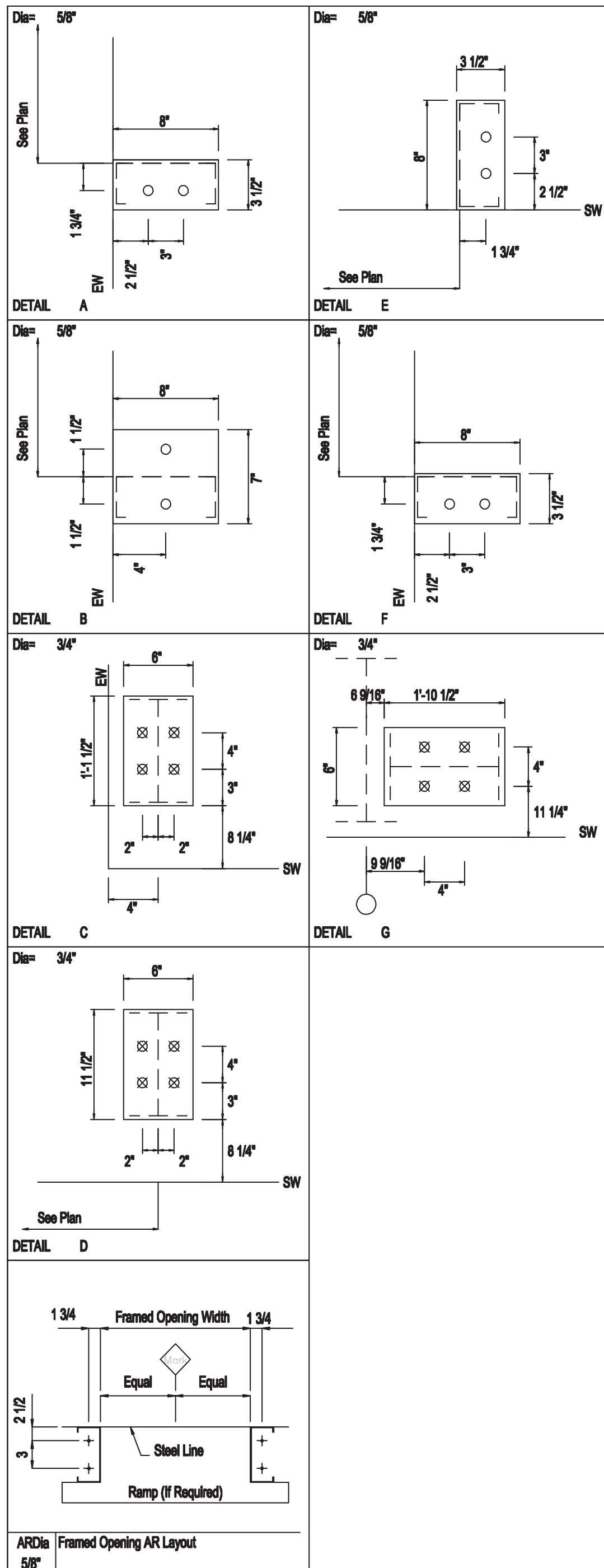
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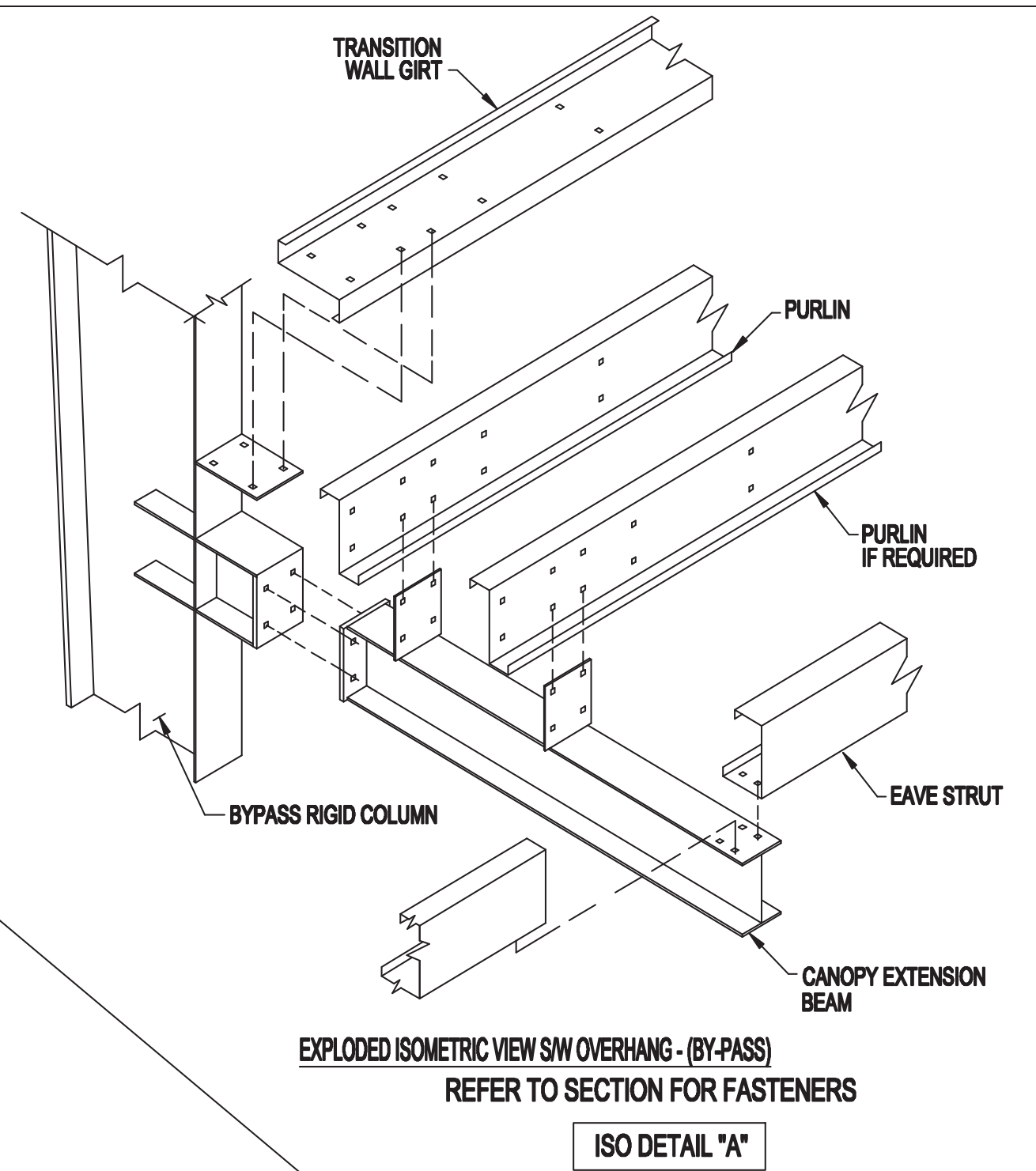
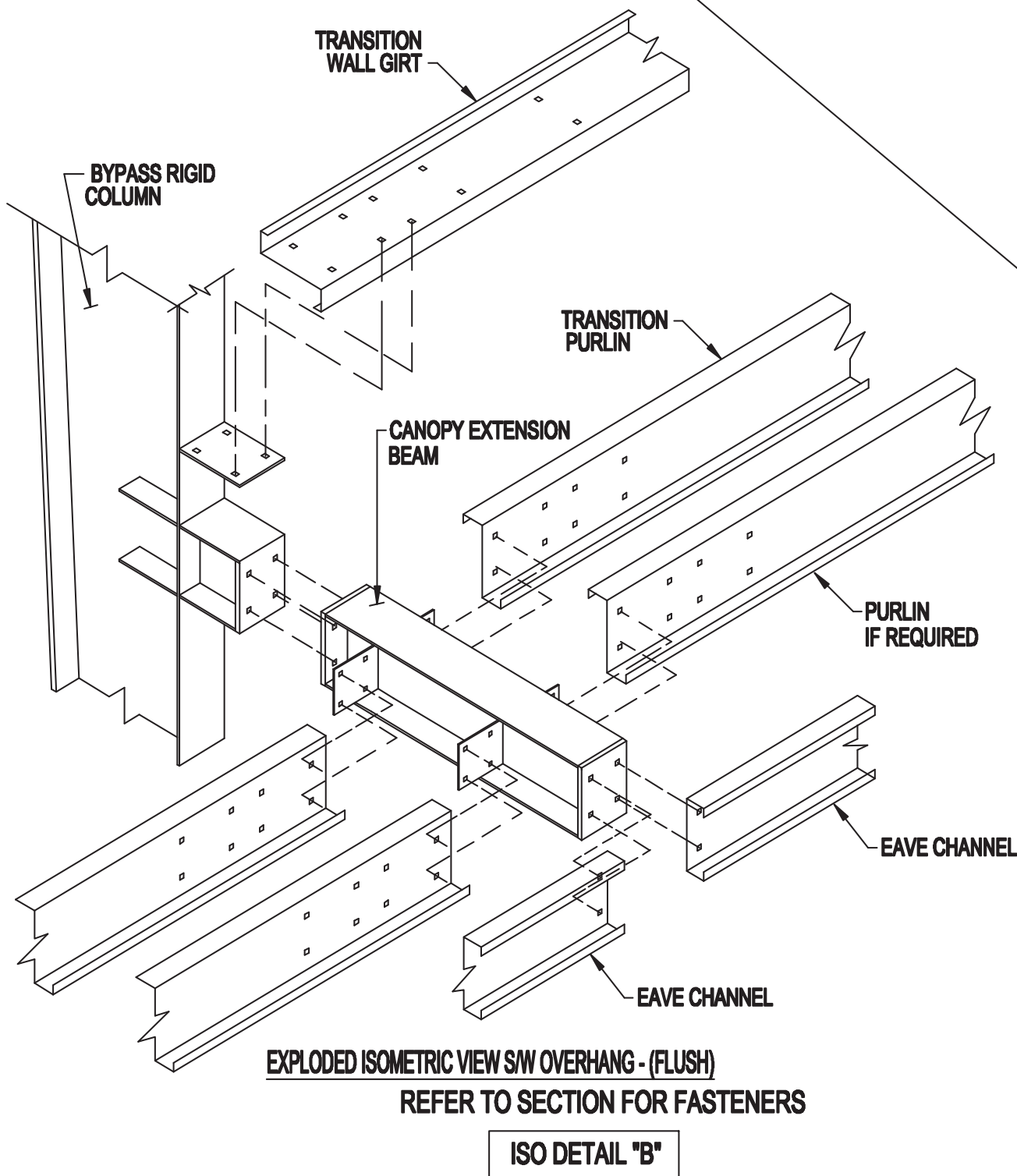
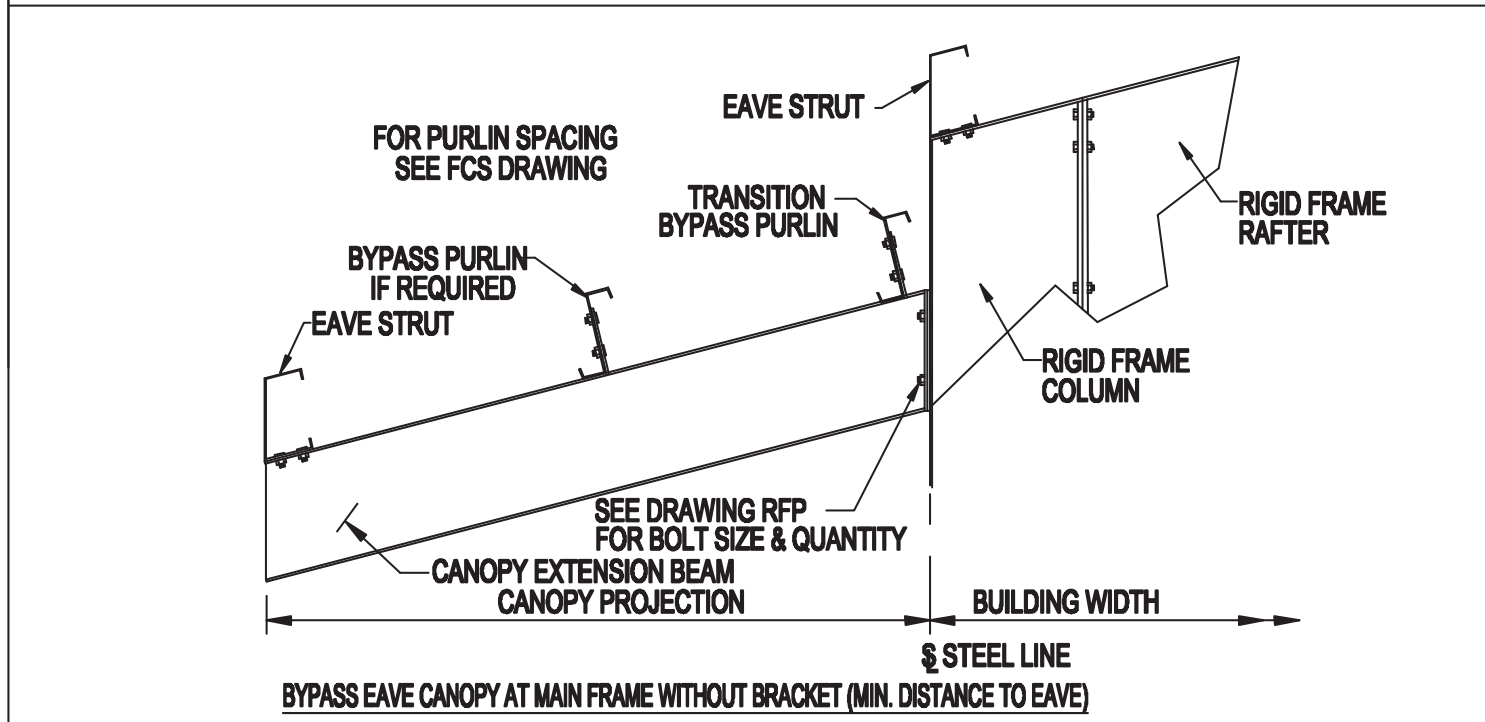
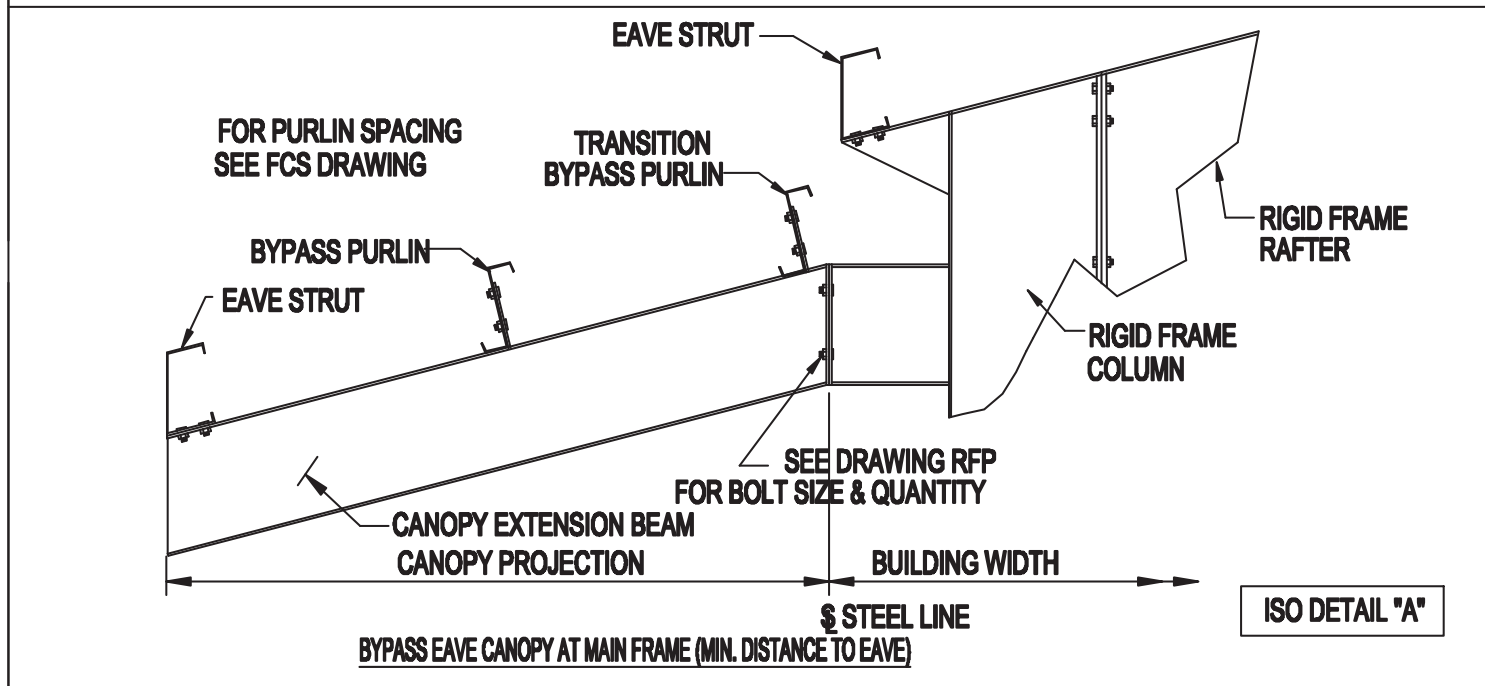
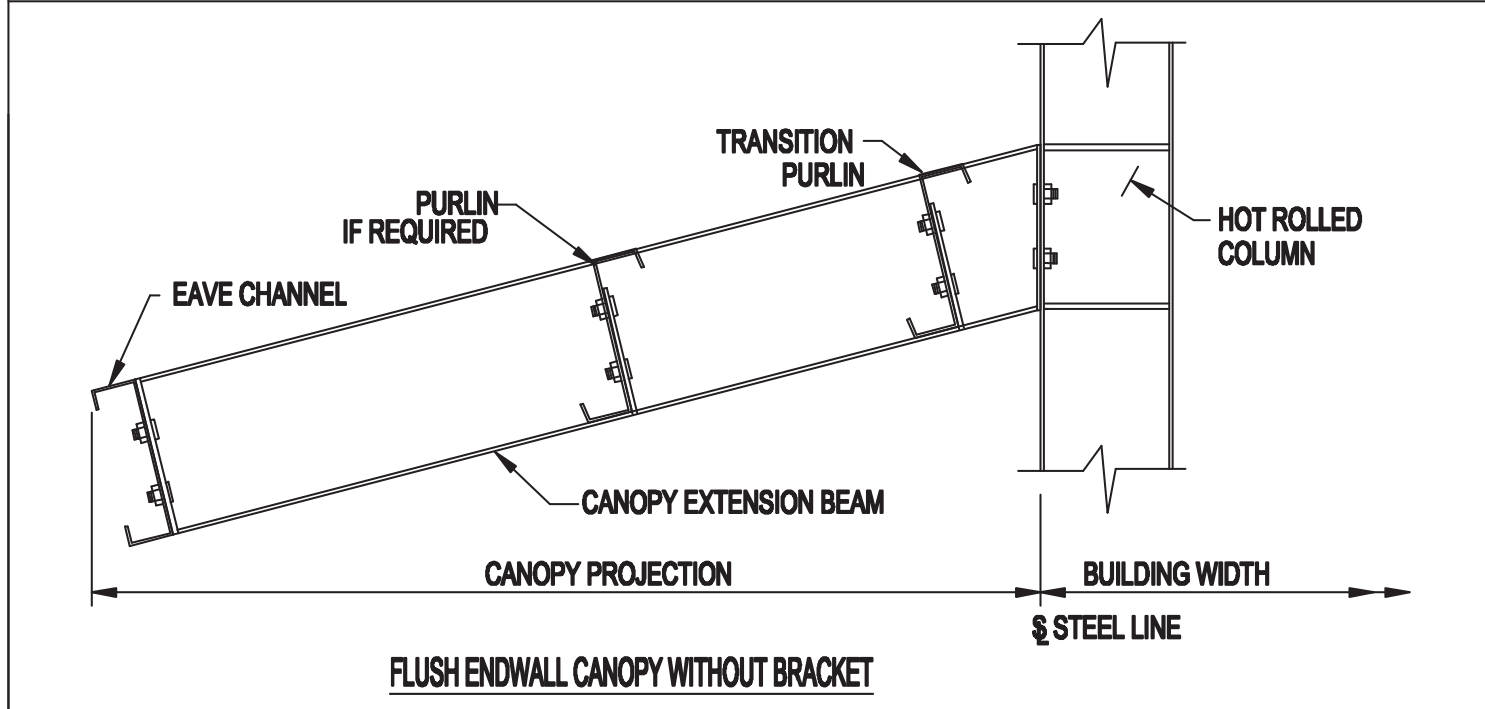
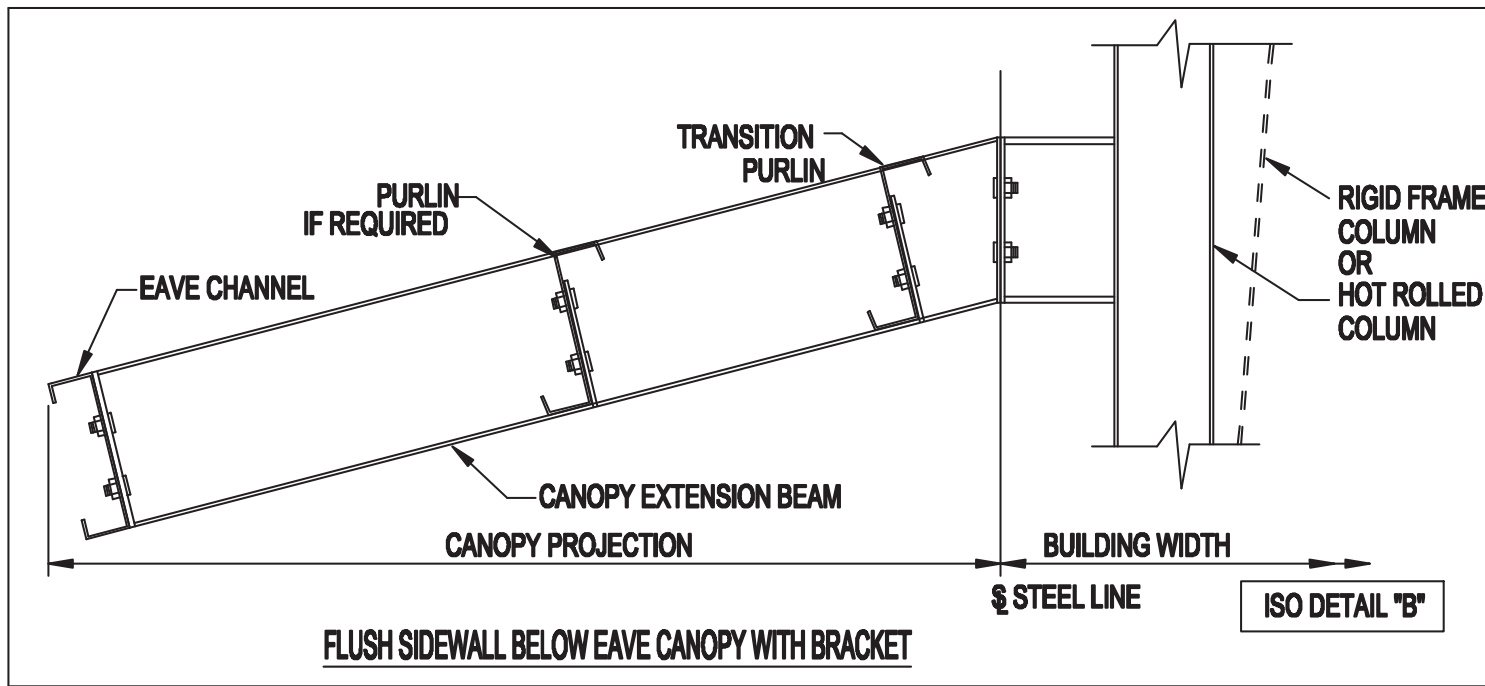
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S-1







ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	9/15/16	FOR ERECTOR INSTALLATION	X	X	X

PROJECT: X							
CUSTOMER: X				OWNER:			
LOCATION: X							
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	10/07/2016	N.T.S.	1	A	X		0



FLANGE THICK	FILLET S
1/4"	3/16"
5/16"	1/4"
3/8"	5/16"

FILLETS NOT ALLOWED ON CRANE BRACKETS EXCEPT AS NOTED ON WS6. USE DETAILS B2 AND B3 ON CRANE BRACKETS WHERE FILLET WELDS ARE NOT ALLOWED.

EXTENDED CONNECTION PLATE AND BRACKET TO FLANGE

FLUSH OR RECESSED CONNECTION PLATE AND BRACKET TO FLANGE

EXTENDED, FLUSH OR RECESSED CONNECTION PLATE AND BRACKET TO FLANGE

DETAIL B-1A GENERAL USAGE GUIDELINES		
CONDITION	LIMIT(S)	DETAIL TO USE
FLANGE TO CONNECTION PLATE	FLANGE THICKNESS LESS THAN OR EQUAL TO 3/8"	B1
	FLANGE THICKNESS LESS THAN OR EQUAL TO 3/8"	B2
	FLANGE THICKNESS GREATER THAN 3/8"	B3
CRANE BRACKET TO FLANGE	BRACKET FLANGE THICKNESS LESS THAN OR EQUAL TO 3/8"	B2
	BRACKET FLANGE THICKNESS GREATER THAN 3/8"	B3
NON-CRANE BRACKET TO FLANGE	NON-CRANE BRACKET FLANGE THICKNESS LESS THAN OR EQUAL TO 3/8"	B1
	NON-CRANE BRACKET FLANGE THICKNESS GREATER THAN 3/8"	B3
COLUMN FLANGE TO MOMENT BASE PLATE, STIFFENER TO CONNECTION PLATE OR ANY CONDITION CALLING FOR DETAIL B-1A BUT NOT MENTIONED ABOVE.	WELDED PLATE THICKNESS LESS THAN OR EQUAL TO 3/8"	B1
	WELDED PLATE THICKNESS LESS THAN OR EQUAL TO 3/8"	B2
	WELDED PLATE THICKNESS GREATER THAN 3/8"	B3

DETAIL B-1A

SEE NOTE C2 AND C3 IN DETAIL C-1A

FLANGE TO CONNECTION PLATE AND BRACKET TO FLANGE

BACK GOUGE

20°

WEB THIS SIDE OF PLATE FOR FLANGE SPLICE

3/8" OR LESS

BACK GOUGE

30° TO 1/2"

WEB THIS SIDE OF PLATE FOR FLANGE SPLICE

BACK GOUGE

30° TO 1/2"

WEB THIS SIDE OF PLATE FOR FLANGE SPLICE

BACK GOUGE

30° TO 1/2"

WEB THIS SIDE OF PLATE FOR FLANGE SPLICE

BACK GOUGE

30° TO 1/2"

WEB THIS SIDE OF PLATE FOR FLANGE SPLICE

BACK GOUGE

30° TO 1/2"

WEB THIS SIDE OF PLATE FOR FLANGE SPLICE

DETAIL C-1A

SPLICE WELDS

NOTES

C2 ANY PREQUALIFIED OR "PROCEDURE QUALIFIED" CJP WELD MAY ALSO BE USED FOR DETAILS B-1A AND C-1A, WITH A WRITTEN CBB APPROVED WPDS.

C3 SEE GENERAL NOTE 7 FOR RUN TAB REQUIREMENTS

TABLE 1 MIN. FILLET WELD SIZES							
THICKER PLATE	THINNER PLATE (USUALLY THE WEB)						
	< 1/4"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
UNDER 1/4	3/16"	-	-	-	-	-	-
1/4"	3/16"	3/16"	-	-	-	-	-
5/16 THRU 1/2	3/16"	3/16"	3/16"	3/16"	3/16"	-	-
5/8 THRU 3/4	3/16"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
OVER 3/4	3/16"	1/4"	5/16"	5/16"	5/16"	5/16"	5/16"

TABLE 2 GENERAL FILLET WELDS		
THINNER PLATE THICKNESS	ONE SIDE	BOTH SIDES
	FILLET SIZE	FILLET SIZE
UNDER 1/4	3/16"	3/16"
1/4"	1/4"	3/16"
5/16"	5/16"	1/4"
OVER 5/16	5/16"	5/16"

GENERAL NOTES

1. ALL SAW WEB TO FLANGE WELDS TO BE CONTINUOUS ONE SIDE ONLY UNLESS NOTED ON FABRICATION DOCUMENTS.

2. INCREASE FILLET SIZE BY 1/16 FOR EACH 1/16 OF GAP IF GAP AT ROOT IS GREATER THAN 1/16. MAXIMUM FILLET ROOT PERMITTED IS 3/16. SEE DETAIL D-1A ON THIS SHEET.

3. FILLET WELD SIZE IS NO GREATER THAN THE SHORTEST LEG SIZE.

4. FOLLOW APPROPRIATE WELDING PROCEDURE SPECIFICATIONS FOR ALL WELDS.

5. ALL CLIPS SHOULD BE WELDED AT 90-DEG TO THEIR SUPPORTING SURFACE UNLESS OTHERWISE NOTED IN THESE DRAWINGS OR THE PROJECT SHOP DRAWINGS.

6. SC2 AND SC280 FLANGE BRACE CLIPS SHOULD BE ALIGNED WITH THE PURLING/IRT CLIP ABOVE. REFER TO DETAIL ON SHEET WS-5. REFER TO DETAIL ON SHEET WS-4.

7. WELD RUN-TABS (RUN-ON AND RUN-OFF) SHALL BE USED ON ALL CJP CONNECTIONS, EXCEPT WHERE JOINT GEOMETRY AND/OR INTERFERENCE PREVENT THE PLACEMENT OF A WELD TAB. THIS SHALL BE DONE BY USE OF WELD TABS ALIGNED IN SUCH A MANNER TO PROVIDE AN EXTENSION OF THE JOINT PREPARATION FOR PURPOSE OF WELD PASS INITIATION AND TERMINATION. STIFFENER WELDS ENDING AT OR THE INSIDE CORNER OF THE STIFFENED MEMBER OR A CLIP NEAR THAT CORNER ARE EXAMPLES OF WELDS THAT CANNOT BE TERMINATED ON A WELD TAB. WELD RUN-TABS SHALL BE REMOVED UPON COMPLETION OF THE JOINT. ENDS OF WELDED BUT JOINTS SHALL BE FINISHED SO AS NOT TO REDUCE THE WIDTH BEYOND THE DETAILED WIDTH OR THE ACTUAL WIDTH FURNISHED, WHICHEVER IS THE GREATER, BY MORE THAN 1/8".

DETAIL A-1A

FILLET INCREASE AT SKEWED WELD JOINTS

THE FOLLOWING TABLES PROVIDE THE REQUIRED MODIFICATION TO THE REQUESTED/REQUIRED FILLET WELD BASED ON THE JOINT GEOMETRY.

NC - INDICATES THAT NO CHANGE TO THE REQUESTED/REQUIRED FILLET WELD IS REQUIRED.

CJP - INDICATES THE REQUESTED/REQUIRED FILLET WELD MUST BE REPLACED BY A CJP WELD.

+1/16 - INDICATES THE REQUESTED/REQUIRED FILLET WELD LEG SIZE MUST BE INCREASE BY 1/16" DUE TO THE SKEWED JOINT.

+1/8 - INDICATES THE REQUESTED/REQUIRED FILLET WELD LEG SIZE MUST BE INCREASE BY 1/8" DUE TO THE SKEWED JOINT.

+3/16 - INDICATES THE REQUESTED/REQUIRED FILLET WELD LEG SIZE MUST BE INCREASE BY 3/16" DUE TO THE SKEWED JOINT.

GENERAL NOTE 2 IS IN ADDITION TO ANY INCREASE SHOWN IN THE TABLES BELOW.

WHEN THE FILLET SIZE MUST BE INCREASED THE FINAL FILLET WELD SIZE SHALL NOT EXCEED 3/8". IF THE FINAL FILLET WELD SIZE EXCEEDS 3/8" THEN USE CJP.

ANGLE-A

ANGLE-B

TABLE D-4  
REQUIRED MODIFICATION TO FILLET WELD ON ANGLE-B SIDE OF PLATE

ANGLE-B (DEGREES)		ANGLE-B (DEGREES)		ANGLE-B (DEGREES)	
T (IN)	60 < ANGLE-B < 90	45 < ANGLE-B < 60	30 < ANGLE-B < 45	15 < ANGLE-B < 30	0 < ANGLE-B < 15
0.1340	NC	+1/16	CJP	-	-
0.1560	NC	+1/16	CJP	-	-
0.1850	NC	+1/16	CJP	-	-
3/16"	NC	+1/16	CJP	-	-
1/4"	NC	+1/16	CJP	-	-
> 5/16"	NC	+1/16	CJP	-	-

TABLE D-2  
REQUIRED MODIFICATION TO FILLET WELD ON ANGLE-A SIDE OF PLATE

ANGLE-A (DEGREES)

T (IN)	90	ANGLE-A < 90	96 < ANGLE-A < 106	106 < ANGLE-A < 119	119 < ANGLE-A < 125	125 < ANGLE-A < 135	ANGLE-A > 135
0.1340	NC	+1/16	+1/8	+1/8	+3/16	CJP	-
0.1560	NC	+1/16	+1/8	+1/8	+3/16	CJP	-
0.1850	NC	+1/16	+3/16	+3/16	+3/16	CJP	-
3/16"	NC	+1/16	+3/16	+3/16	+3/16	CJP	-
1/4"	NC	+1/8	+3/16	+3/16	CJP	CJP	-
5/16"	NC	+1/8	+3/16	CJP	CJP	CJP	-
3/8"	+1/16	+1/8	+3/16	CJP	CJP	CJP	-
1/2"	+1/16	+3/16	+3/16	CJP	CJP	CJP	-
> 5/8"	+1/8	+3/16	CJP	CJP	CJP	CJP	-

IDEAL FIT-UP

FIT-UP GAP

INCREASE FILLET BY AMOUNT OF GAP

THROAT

DESIGN FILLET SIZE

DESIGN FILLET SIZE

DESIGN FILLET SIZE

GAP

REQUIRED FILLET SIZE

REQUIRED FILLET SIZE

REQUIRED FILLET SIZE

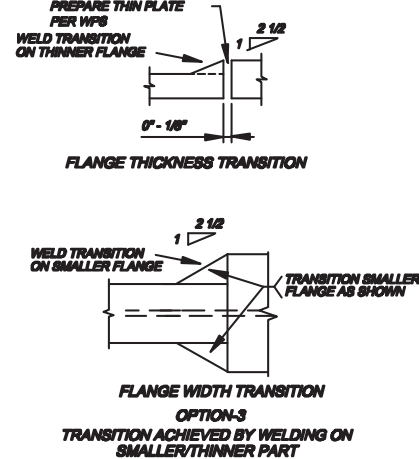
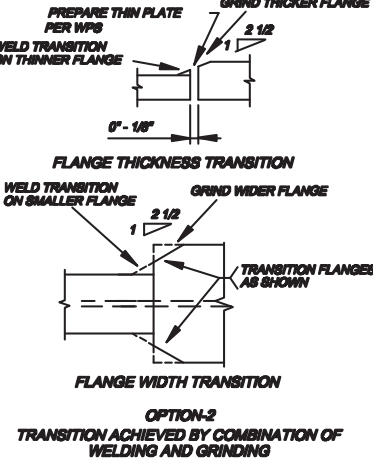
USE CJP

SEE NOTE 2

DETAIL D-1A FILLET INCREASE

## WS-1B Date Issued: July 31, 2020

**PREPARE THIN PLATE**  
**FROM MOLD**

**FOR CANADA JOBS ONLY**

TRANSITION CAN BE ACHIEVED BY WELDING ON THE THINNER/SMALLER PLATE (OPTION-2), BY GRINDING THE THICKER/WIDER PLATE (OPTION-1) OR BY A COMBINATION OF BOTH (OPTION-3) TO GET THE REQUIRED 1:2 1/2 TRANSITION. AT KNEE CONNECTION PLATES THIS TRANSITION MUST BE ACHIEVED BY USING OPTION-3. WELDING ON THE THINNER/SMALLER PLATE, DO NOT IMPLY THE KNEE CONNECTION PLATE TO GET THE REQUIRED 1:2 1/2 TRANSITION. FOR STEPPED THICKNESS, THINNER PLATE END PREPARATION MAY BE USED IF TRANSITION OF THICKER PLATE IS PREPARED PRIOR TO WELDING.

PARENT MARK PREFIX		DESCRIPTION		SHEE	DETAIL	SHEET	DETAIL		
BR*	(see note 1) Bracket	NA	WS-2	Below Eave Bracket					
	Crane End Stop	End Plate Weld Requirements must be provided by the design engineer.							
BR*	Beam OR Girder	WS-5	M-5 and L-5	WS-5	Detail D-5				
BM*	Mezzanine Beam	WS-5	M-5 and L-5	WS-5	Detail D-5				
BP*	Purlin, Post-tension Beam	WS-5	M-5 and L-5	WS-5	Detail D-5				
BR*	Roof Beam	WS-5	M-5 and L-5	WS-5	Detail D-5				
BS*	Spandrel Beam	WS-5	M-5 and L-5	WS-5	Detail D-5				
BW*	Wall Beam	WS-5	M-5 and L-5	WS-5	Detail D-5				
BE*	Underhung Crane Bracket Extension	NA	WS-6	Underhung Crane Bracket Extension					

**SEAL WELD NOTES:**

1. Refer to WS-2 for a teave canopy and lean-to brackets. Refer to WS-6 for crane brackets

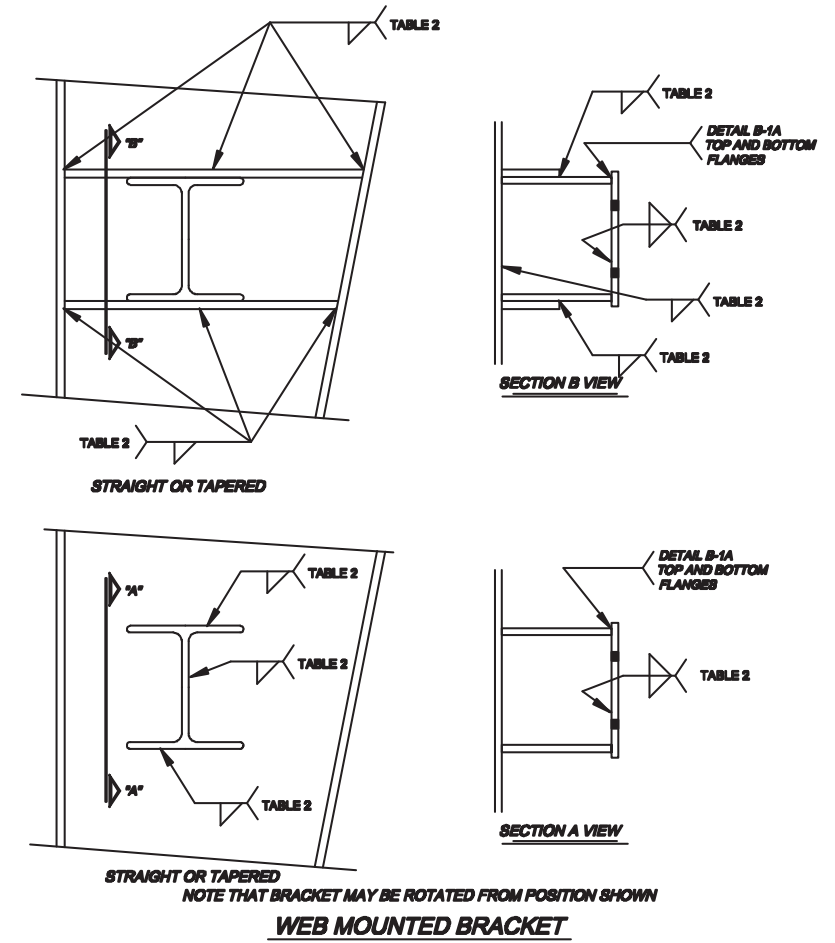
1. SEAL WELDS SHALL ONLY BE PROVIDED WHEN SPECIFICALLY REQUESTED ON THE SHOP DRAWINGS.
2. SEAMLESS PIPE SHALL BE THE SAME QUALITY MATERIAL AS REQUIRED BY THE REQUIREMENTS AS ANY OTHER WELD ON A MEMBER AND CRITERIA OF SECTION 1.5.8 OF THE CSB WELD MANUAL AND CLAUSE 5.4.10 OF CSA W59-13.
3. SEAL WELD SIZE SHALL BE PER TABLE 2 SHOWN ON THE WELD STANDARD DRAWINGS
4. FOR MEMBERS REQUIRING SEAL WELDS CSB WILL PROVIDE MEMBERS TO MEET CLASS 1 OR CLASS II CRITERIA AS DEFINED BY PERMANENT QUALITY MANAGEMENT SYSTEMS. THE QUALITY OF THE WELDS SHALL BE VERIFIED BY THE CUSTOMER, PROPER VENTING FOR OVERLAP/JOINT PARTS SHALL BE PROVIDED IN THE FORM OF UNWELDED PORTIONS OR HOLES PER TABLE SHOWN ON THIS SHEET FOR ALL MEMBERS TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.

VENT HOLES FOR OVERLAPPED AREAS FOR STEELS 1/2 IN. (12.75 mm) OR LESS IN THICKNESS		
OVERLAPPED AREA IN.2(cm2)	VENT HOLES	UNWELDED AREA
UNDER 16 (103)	NONE	NONE
16 (103) TO UNDER 64 (413)	ONE 3/8 IN. (1 cm)	1 in. (2.5 cm)
64 (413) TO UNDER 400 (2580)	ONE 1/2 IN. (1.25 cm)	2 in. (5.1 cm)
400 (2580) AND GREATER, EACH 400 (2580)	ONE 3/4 IN. (1.91 cm)	4 in. (10.2 cm)

VENT HOLES FOR OVERLAPPED AREAS FOR STEELS GREATER THAN 1/2 IN. (12.75 mm) IN THICKNESS		
OVERLAPPED AREA IN.2(cm2)	VENT HOLES	UNWELDED AREA
UNDER 16 (103)	NONE	NONE
16 (103) TO UNDER 64 (413)	NONE	NONE
64 (413) TO UNDER 400 (2580)	ONE 1/2 IN. (1.25 cm)	2 in. (5.1 cm)
400 (2580) AND GREATER, EACH 400 (2580)	ONE 3/4 IN. (1.91 cm)	4 in. (10.2 cm)

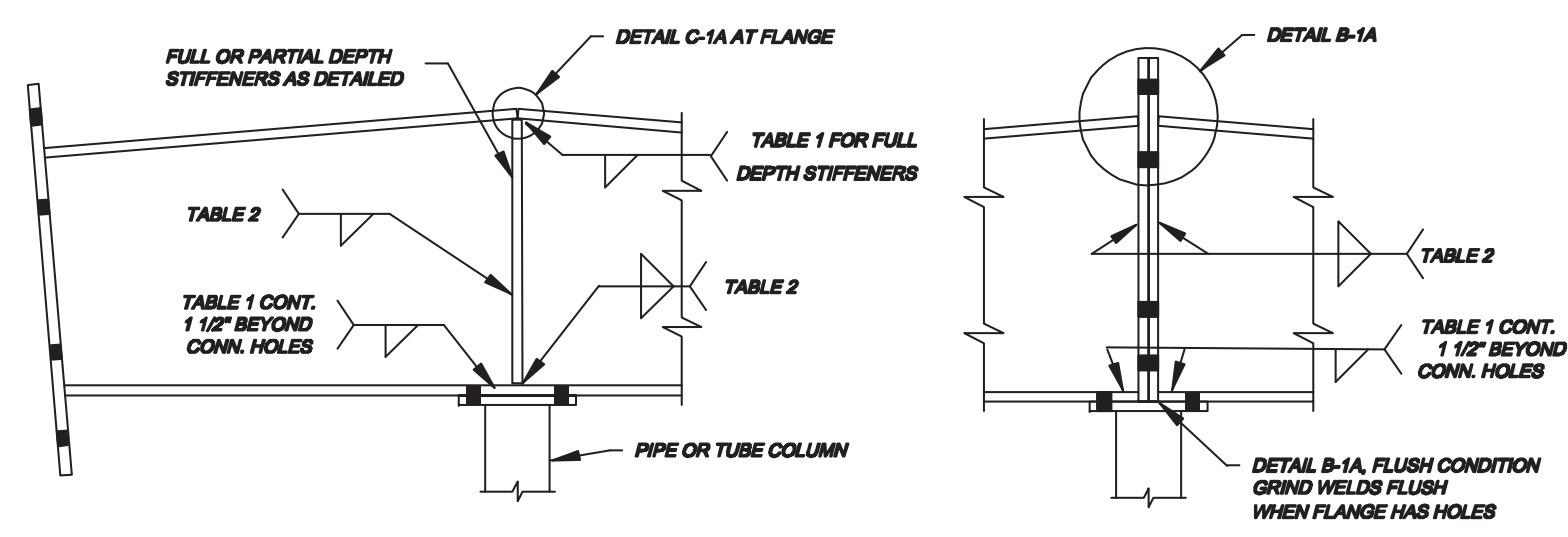
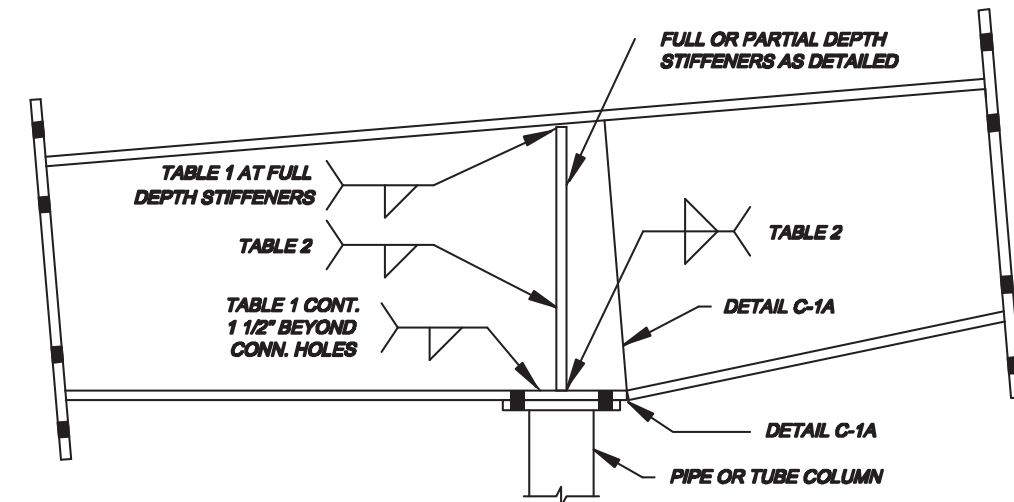
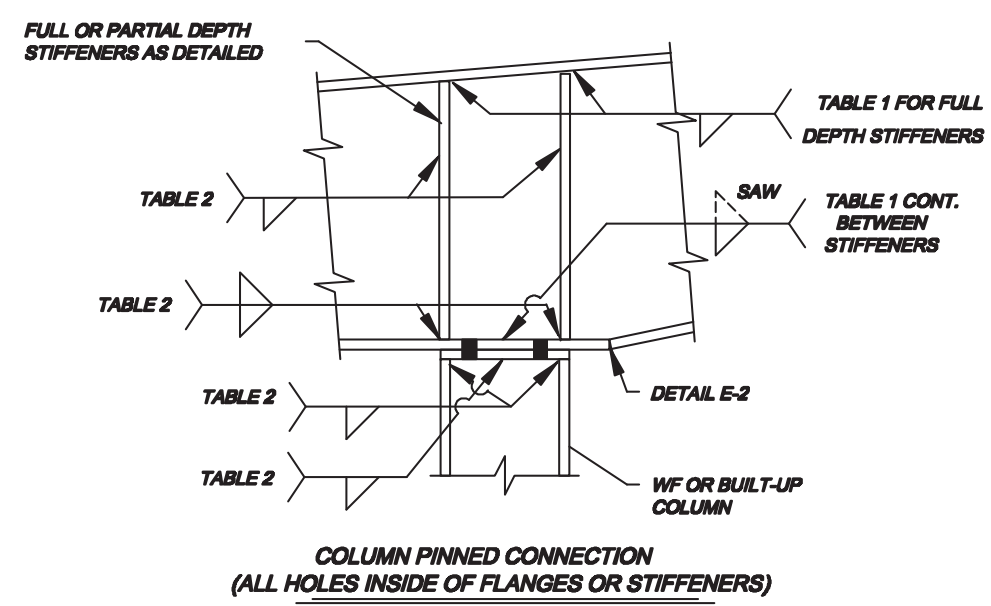
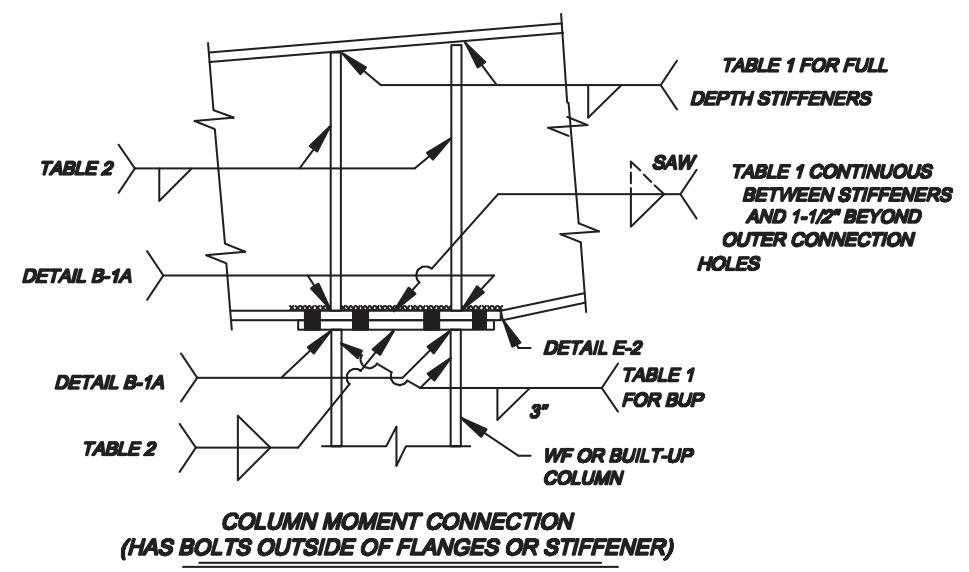
## SEAL WELDS



# S-5

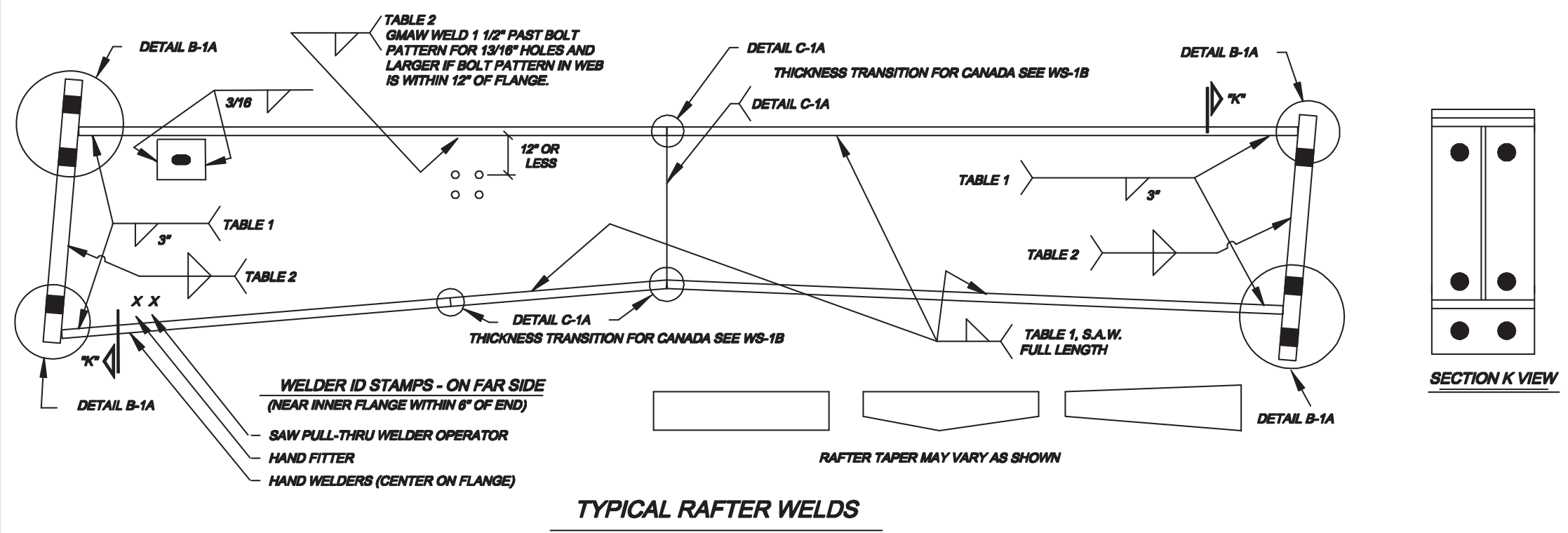




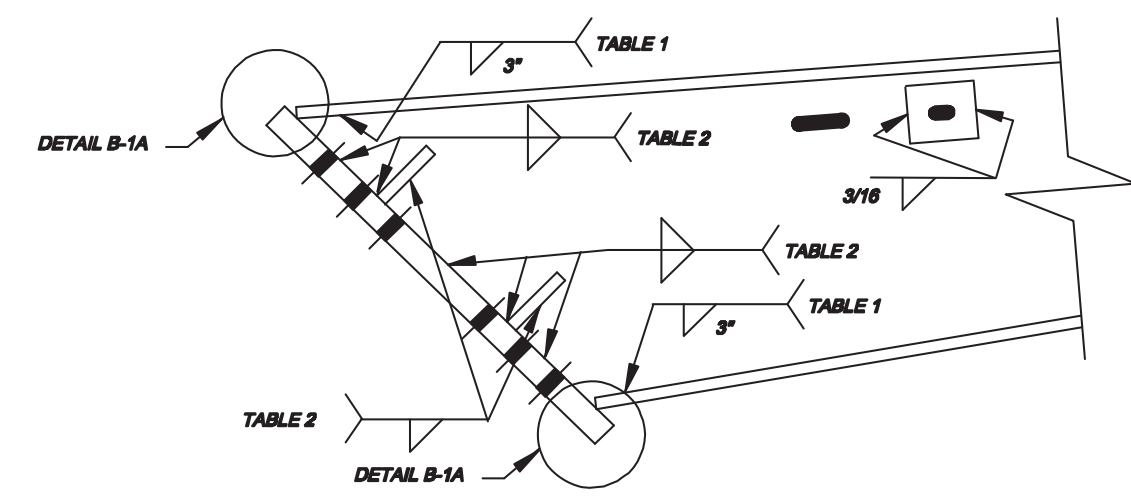
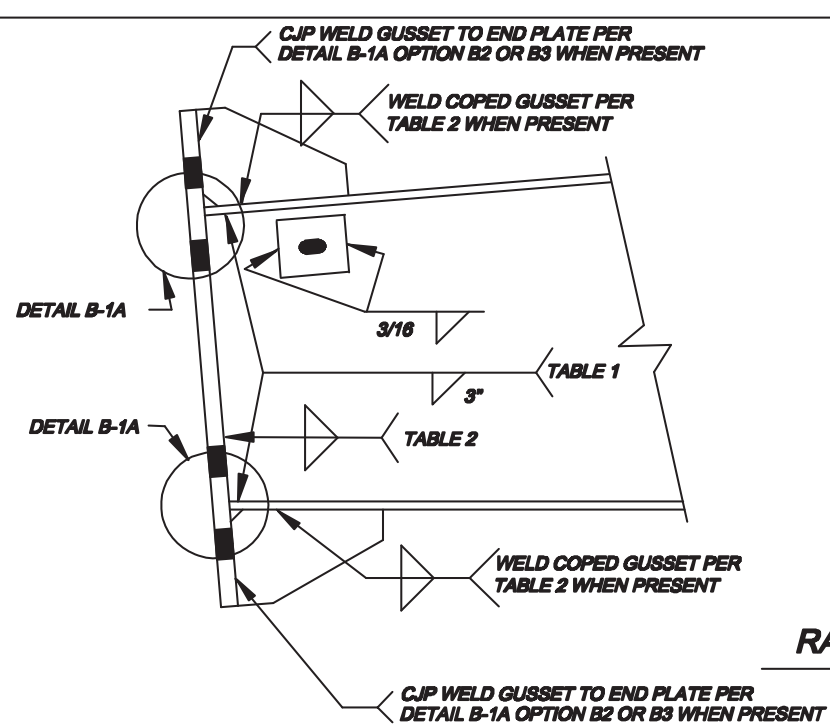


**RAFTER INTERIOR SUPPORTS**

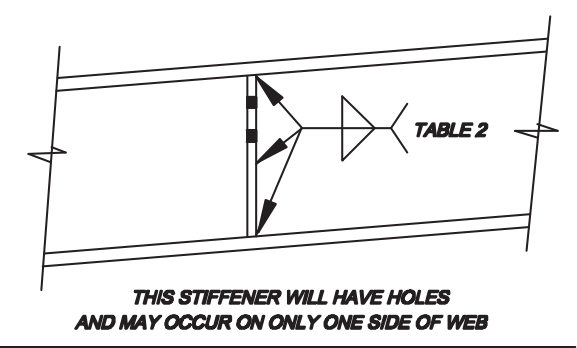
**RIGID FRAME RAFTERS**  
WS-3 Date Issued: July 31, 2020



**TYPICAL RAFTER WELDS**



**RAFTER MAY VARY AS SHOWN**

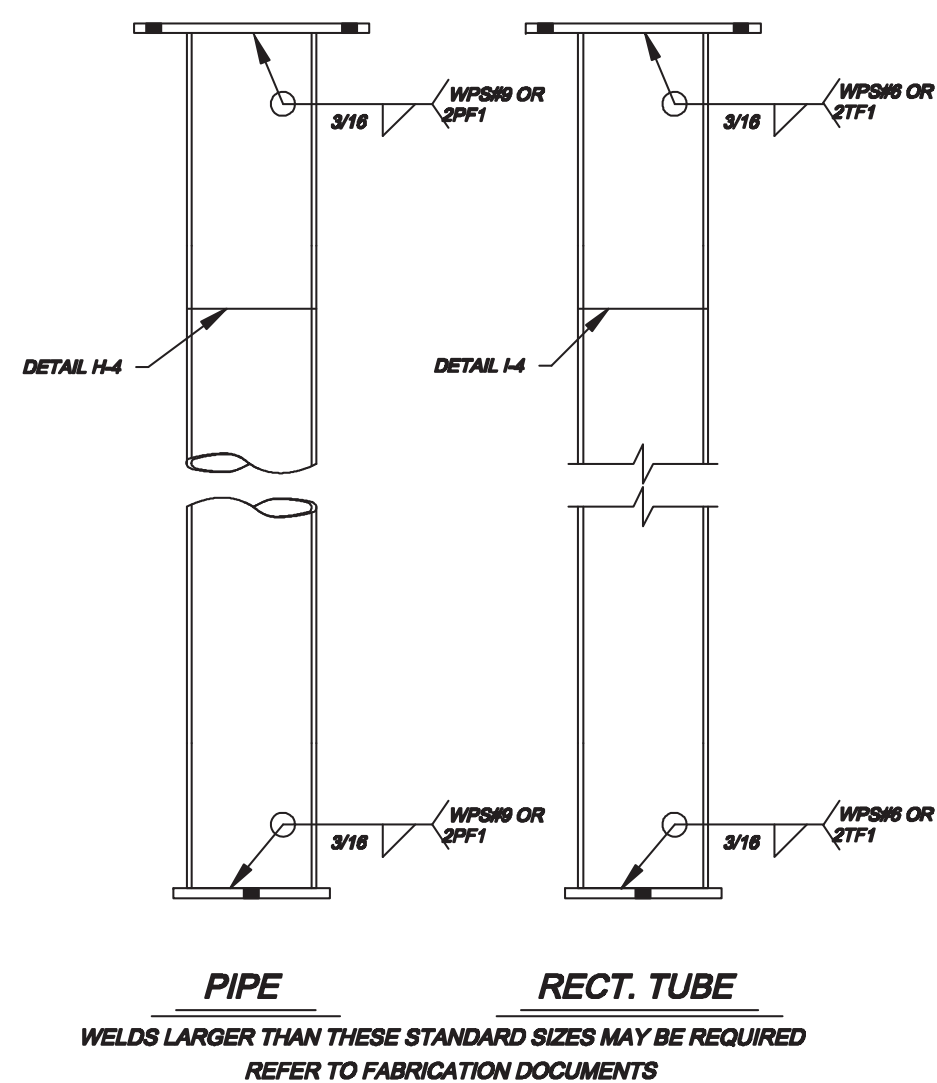
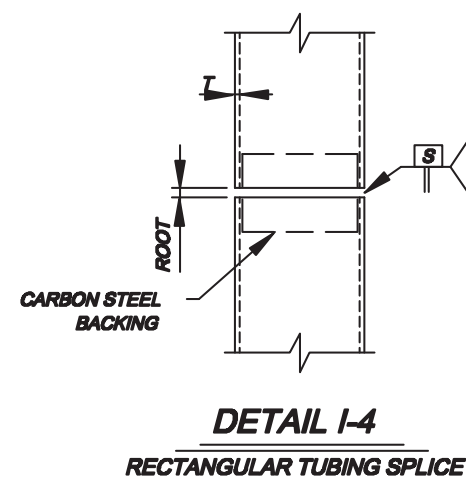
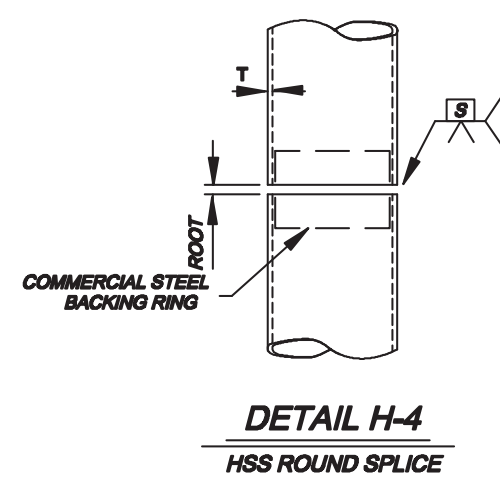
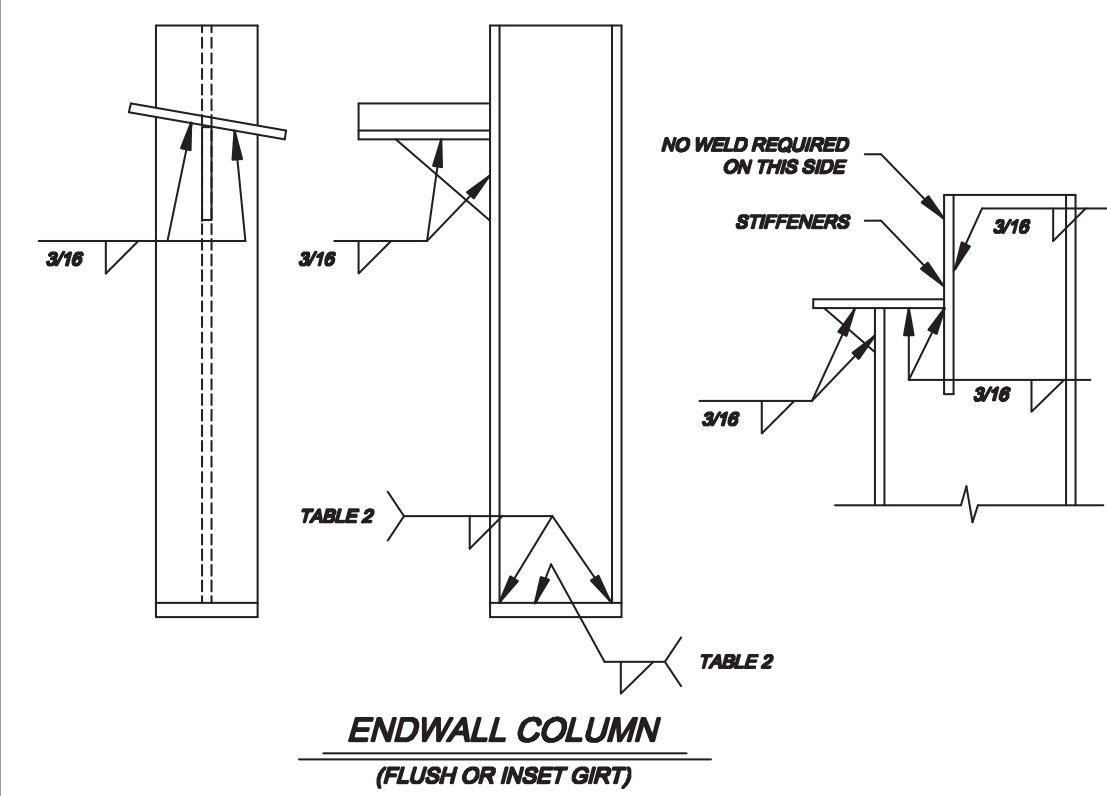
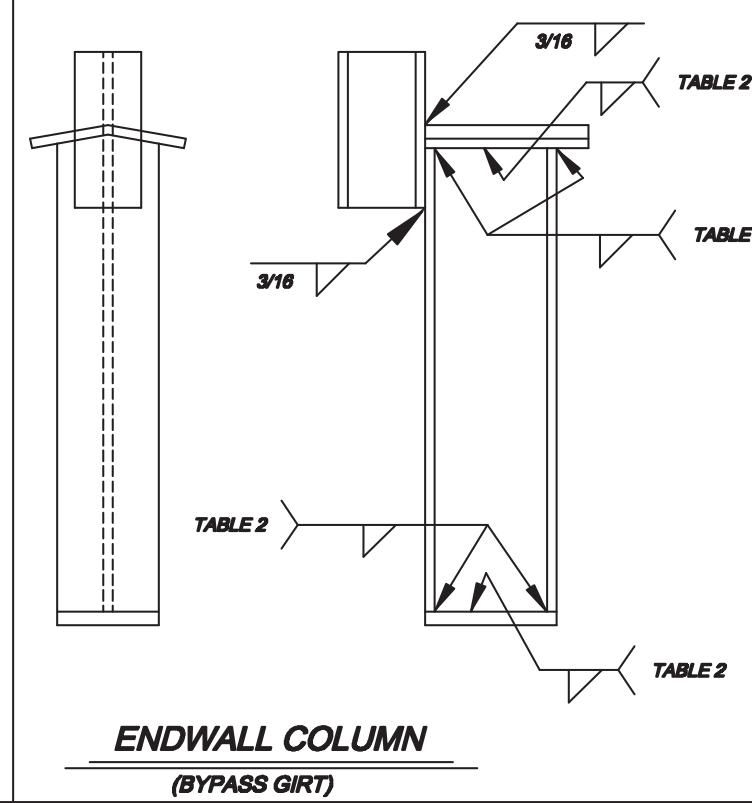
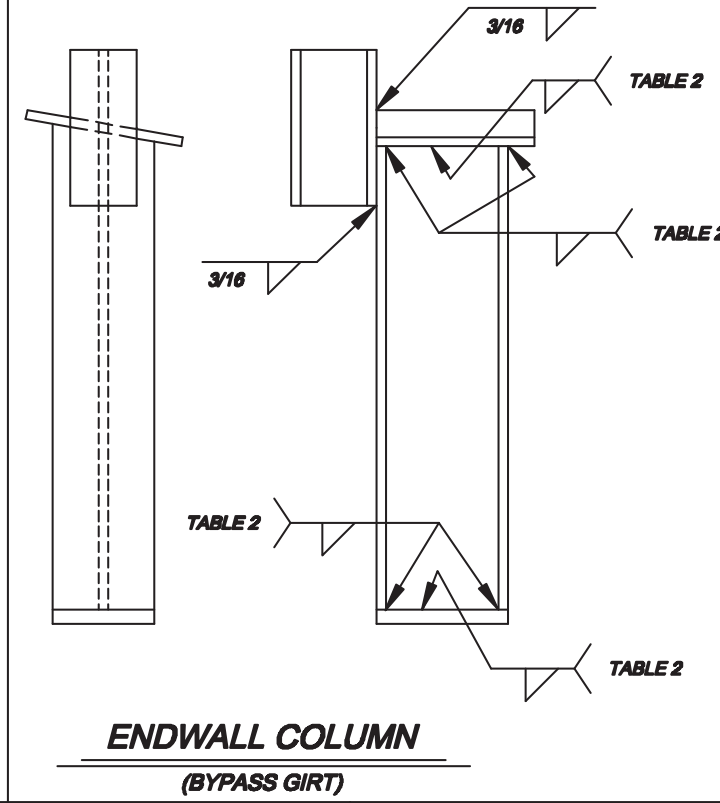
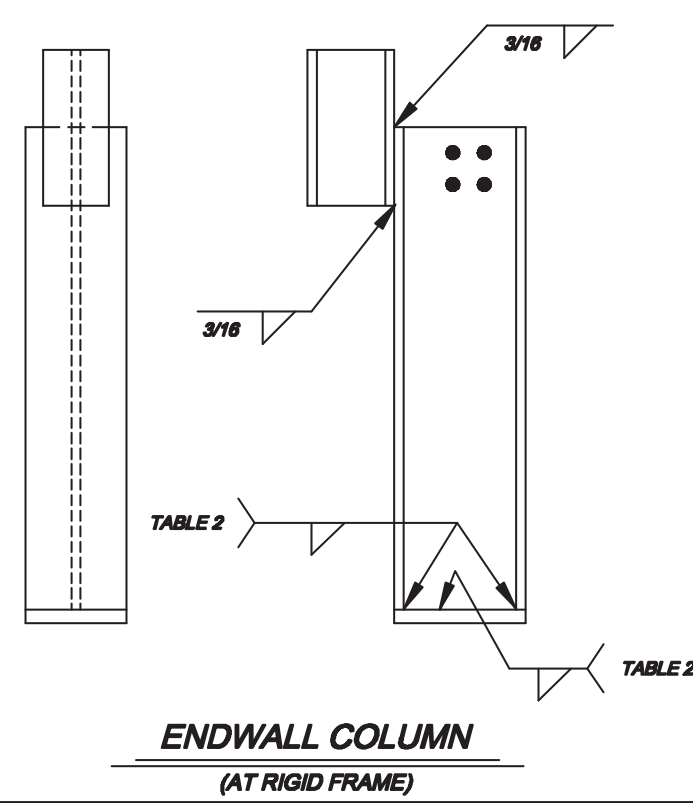
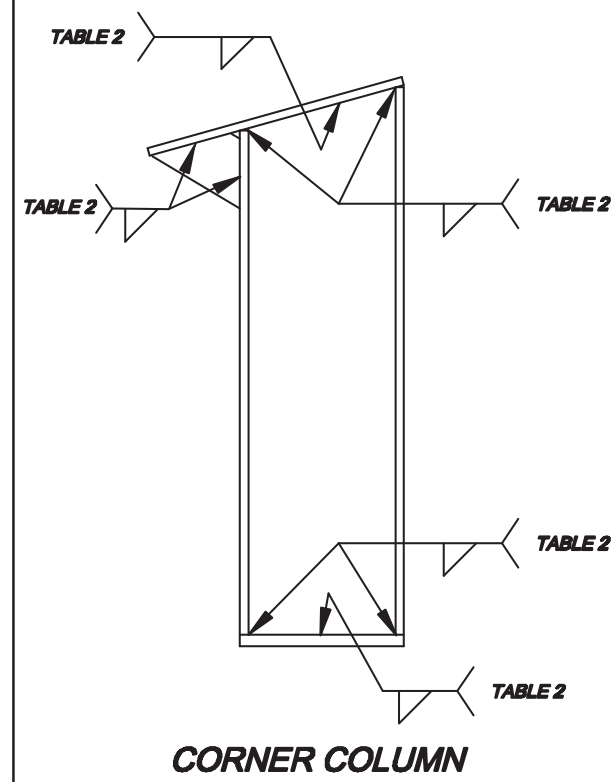


**HIP RAFTER STIFFENER**  
FOR SKEWED RAFTER SUPPORT

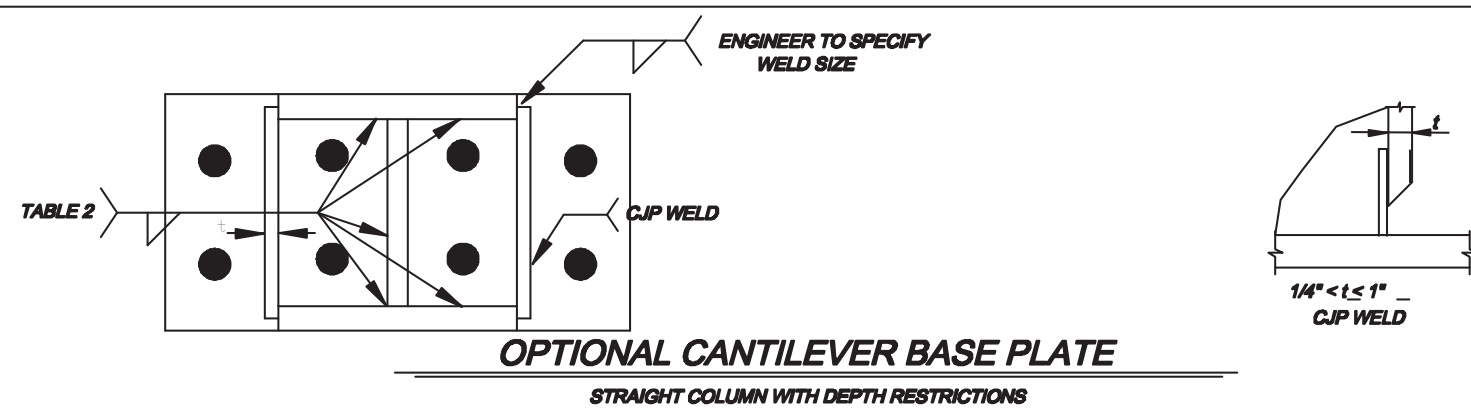
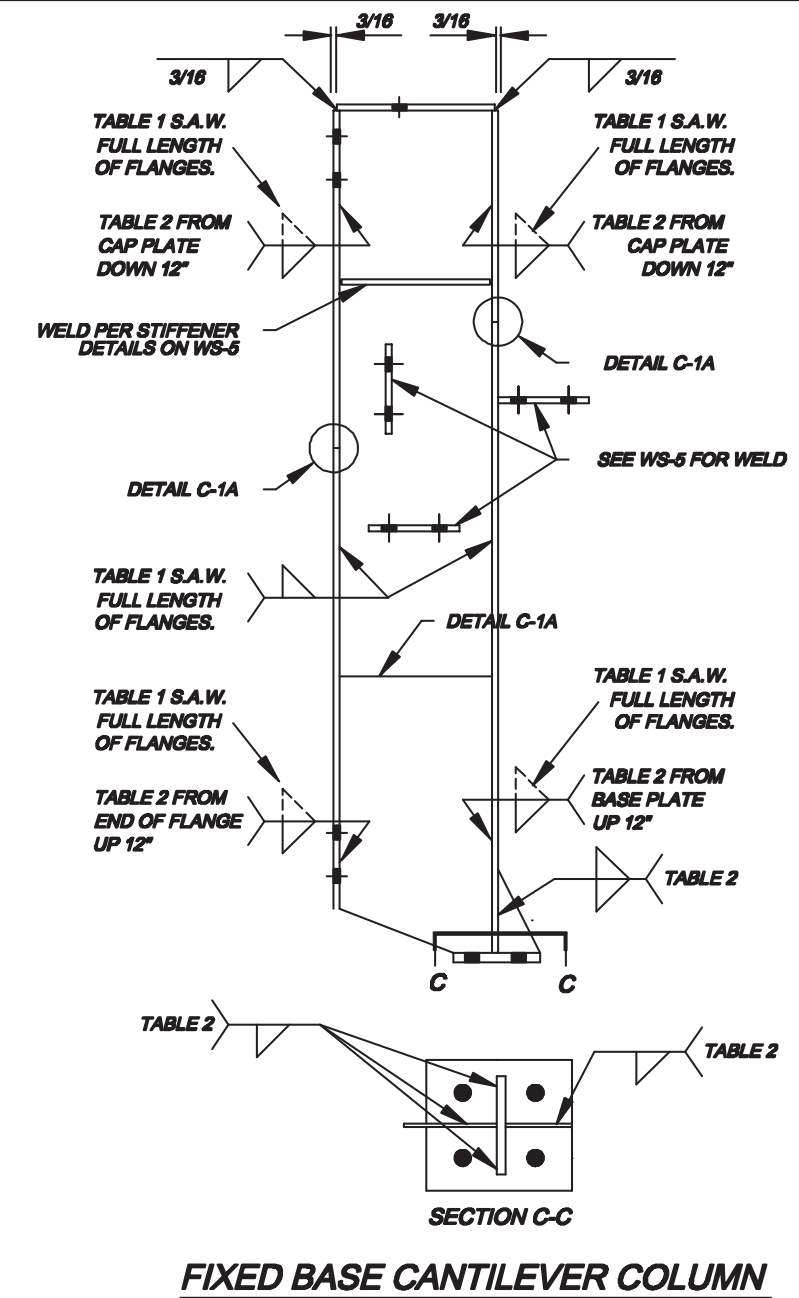
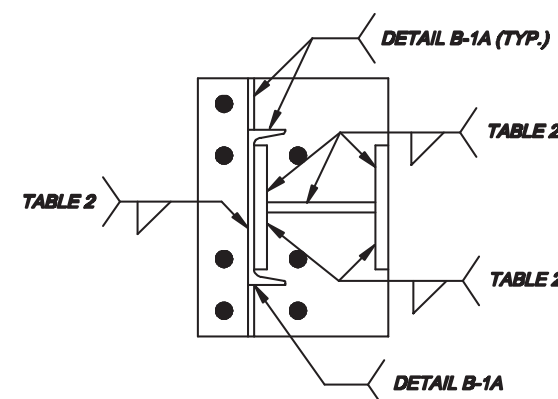
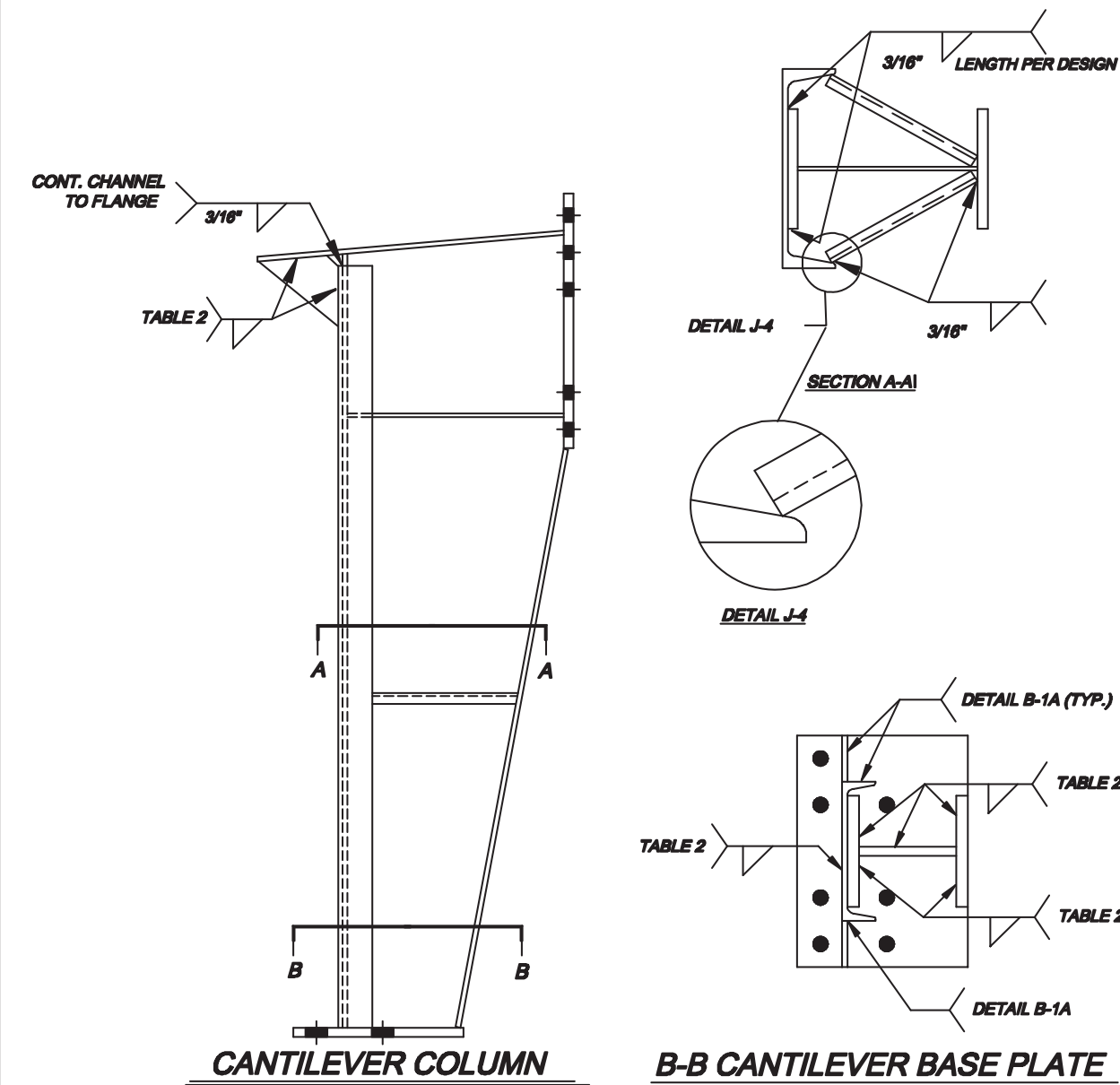
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						PROJECT:							
						CUSTOMER:				OWNER:			
						LOCATION:							
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**WS-4 Date Issued: July 31, 2020**



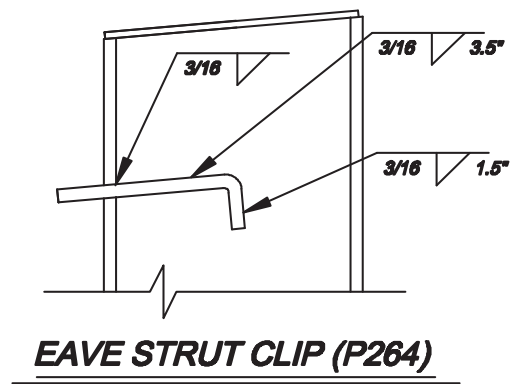
**ANY PREQUALIFIED OR "PROCEDURE QUALIFIED" FULL PEN WELD MAY ALSO BE USED WITH COMPANY APPROVED WPS.**

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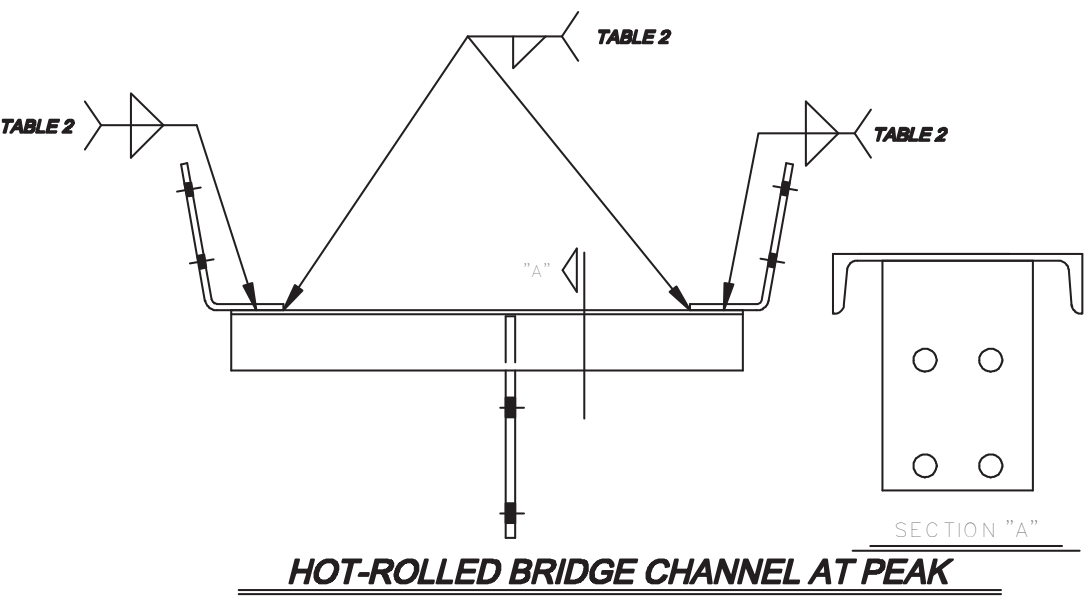
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CUSTOMER:					OWNER:		
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CAD	DATE	SCALE N.T.S.	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE







**BEAM WELDING-2**  
*WS-5A Date Issued: July 31, 2020*



ISSUE	DATE	DESCRIPTION	BY	CKD	DSN								
						PROJECT:							
						CUSTOMER:					OWNER:		
						LOCATION:							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
								N.T.S.					

**TYPICAL DOOR HEADER**

**COLD-FORMED MEMBERS**  
WS-8 Date Issued: July 31, 2020  
NOTE: REFER TO CBB WELD MANUAL FOR WPS's

**DOUBLE DOOR JAMBS / HEADER**

**TYPICAL SLOT REINFORCEMENT**

**TYPICAL COPING**

**BUTT JOINT**

**TYPICAL STITCH WELDS**

**SC2 TO RAFTER**

**TYPICAL COLD FORM BASE**

**SECTION A-A**

**TYPICAL GIRT/PURLIN CLIPS**

**COLD-FORM RAFTER WEB STIFFENER & COLUMN CLIP**

**RAFTER CONNECTION**

**TYPICAL COLUMN OR RIDGE-TIE**

**NESTED CHANNEL**

**ANTI-ROLL CLIP ON COLD FORM CEE**

**CLIPS AT END OF COLD FORM MEMBER**

**CLIP ANGLE**

**SUPPORT PLATE**

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN

PROJECT:

CUSTOMER:

LOCATION:

CAD

DATE

SCALE  
N.T.S.

PHASE

BUILDING ID

JOB NUMBER

SHEET NUMBER

ISSUE

OWNER:



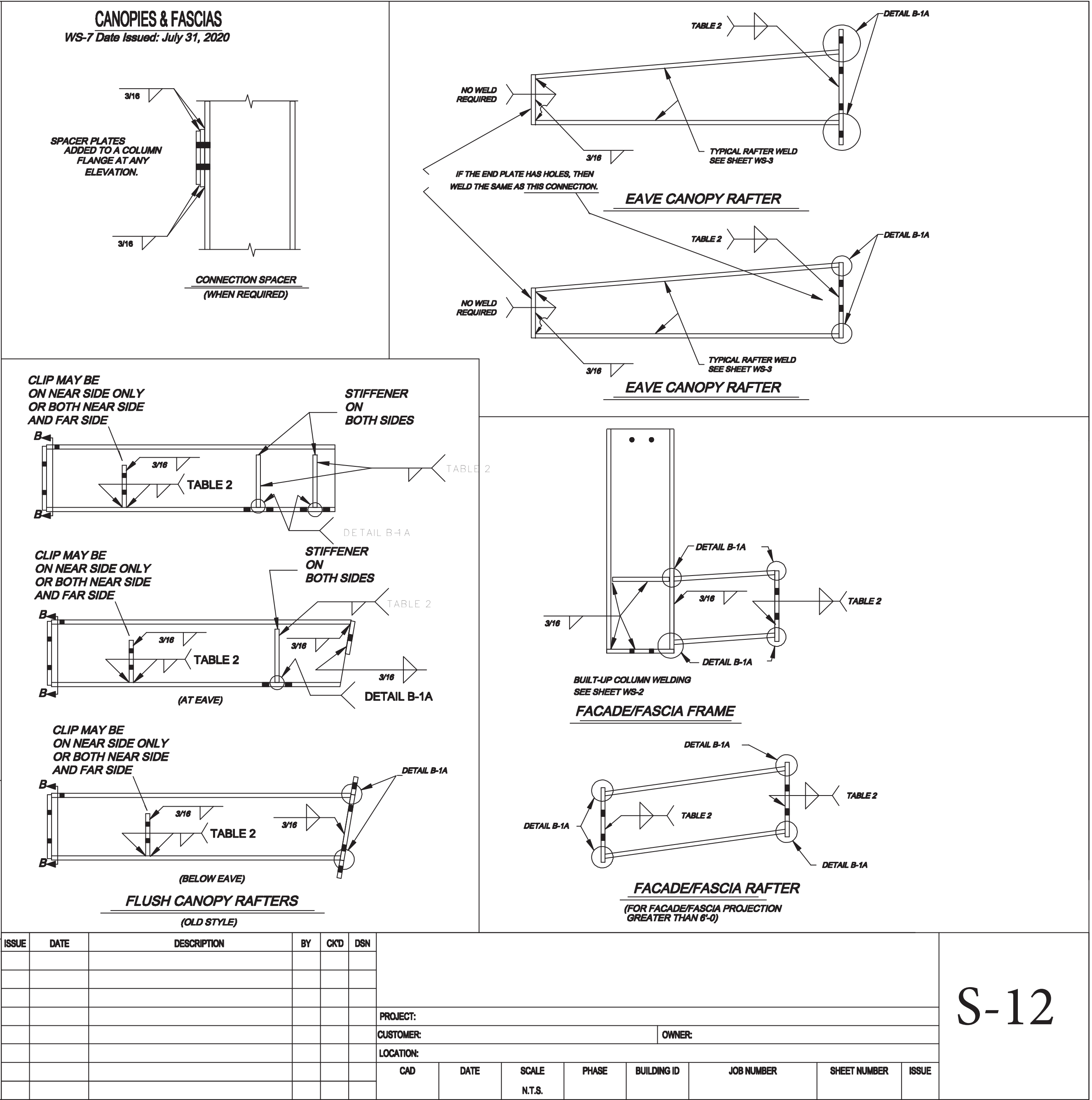
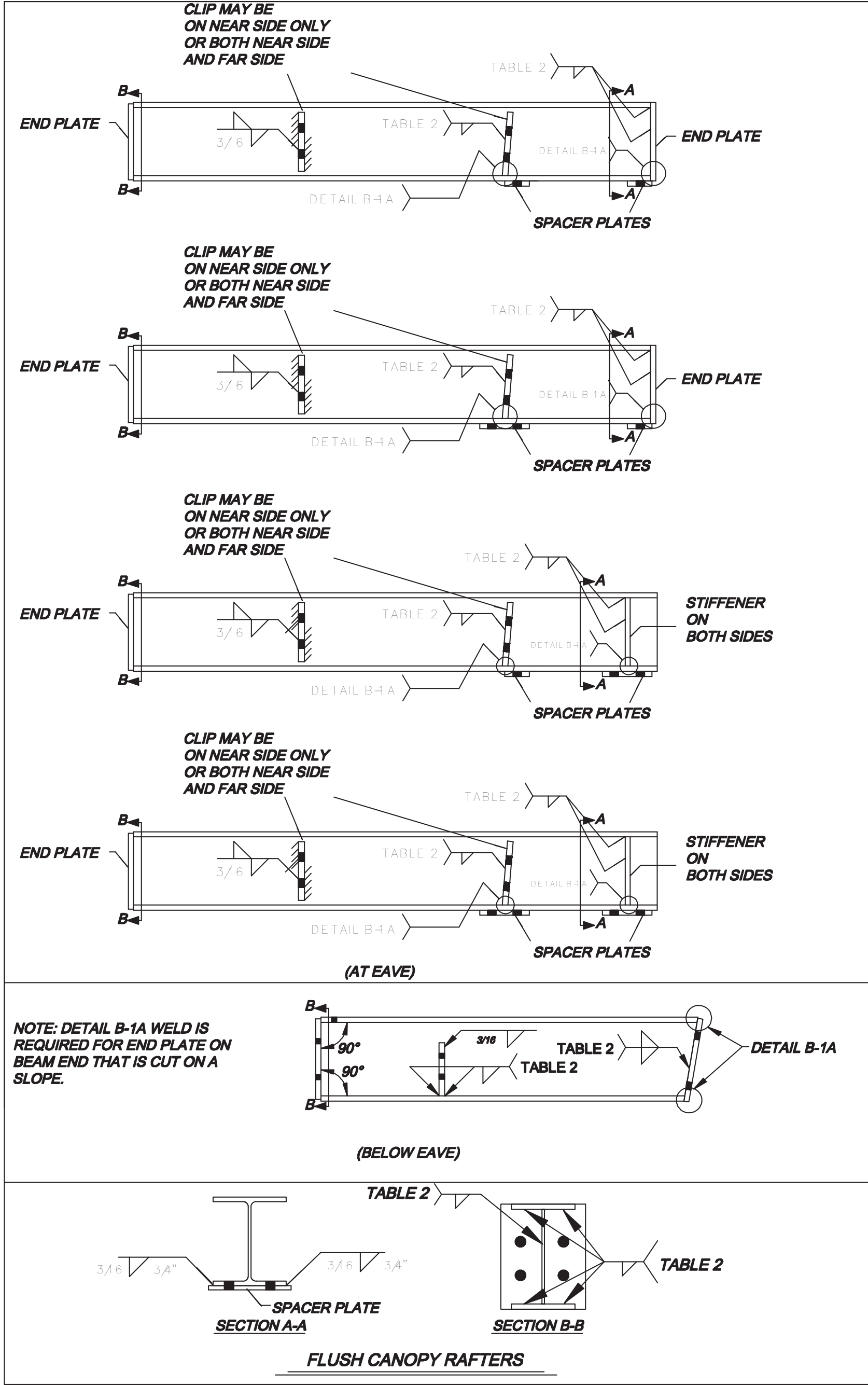


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- Standard Purlin/Girt Clip weld detail (K-5)
- Brace Rod welding for clevis attachment
- General stiffener weld details
- Wing Plate weld to rafter and pipe strut
- Single Plate Connections
- HSS Tube end plate welds
- Wind Strut

WS-5A –Beams-2

- Eave Strut Clip (P264)
- Hot-Rolled Bridge Channel at Peak

WS-6 –Cranes

- Standard/Non-Standard Seated Crane Brackets
- Hanging Bracket to rafter
- Underhung Bracket Extension
- Hammer-Head (Stepped) Crane Column
- Crane Beam Cap Channel
- Crane Beam Clips
- Crane Support Column
- Crane Support Column Bracket
- Crane Beam Stiffener

WS-7 –Canopies/Facades/Parapets

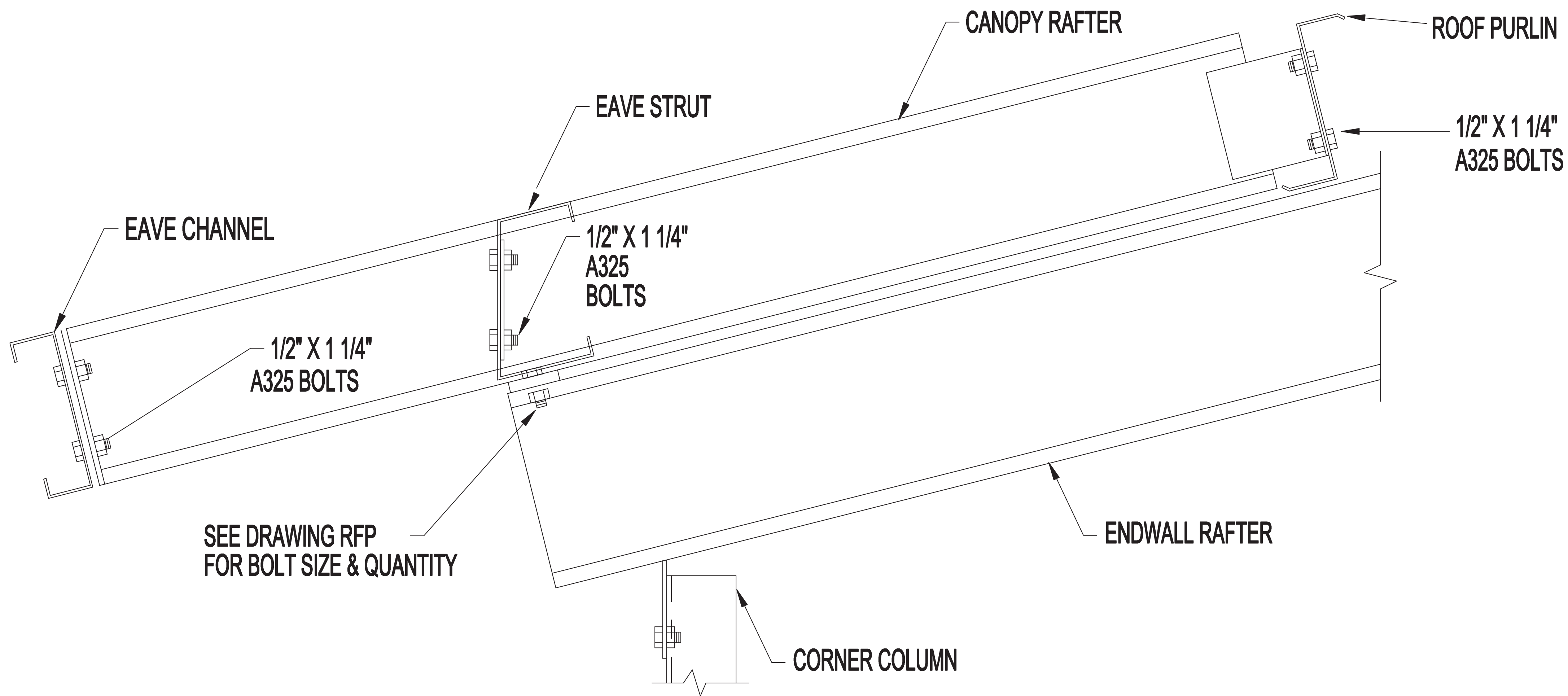
WS-8 –Cold-Formed Members

- Door Header Clip attachment
- Double Jamb/Header
- Slot Reinforcement
- Various Clip to cold-formed member welds

WS-9 –Long Bay Purlins

WS-10 –Long Bay Purlins (continued)

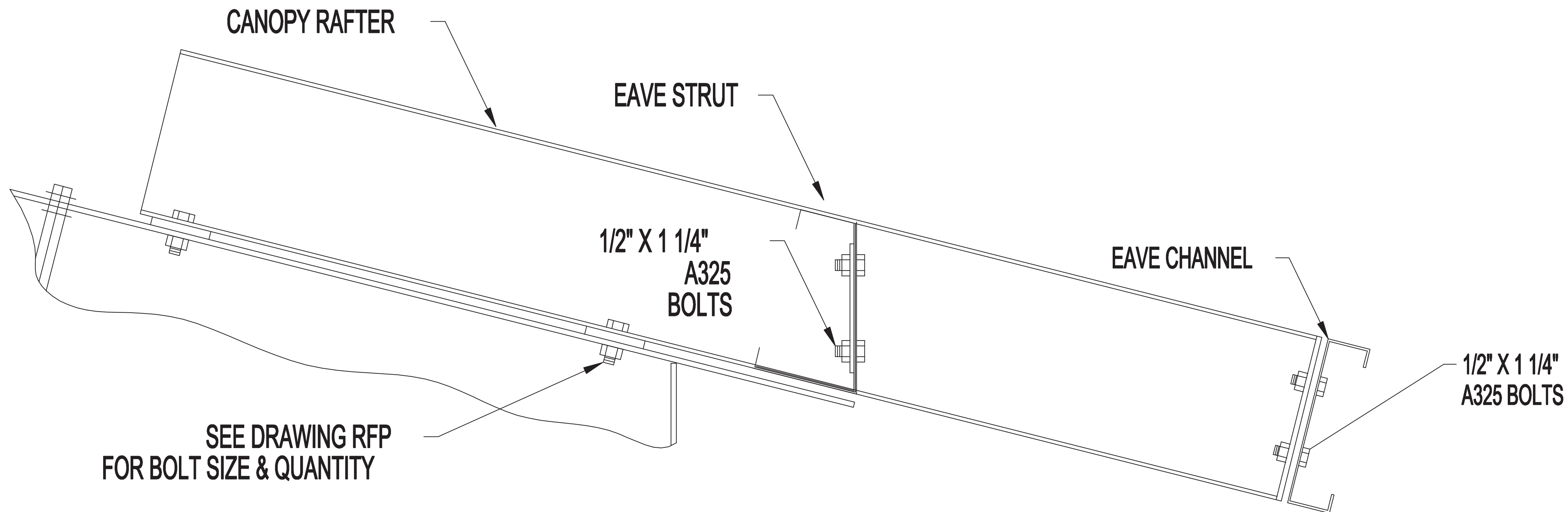
ISSUE	DATE	DESCRIPTION	BY	CKD	DSN								
						PROJECT:							
						CUSTOMER:				OWNER:			
						LOCATION:							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
								N.T.S.					



EAVE CANOPY AT "C" ENDWALL RAFTER

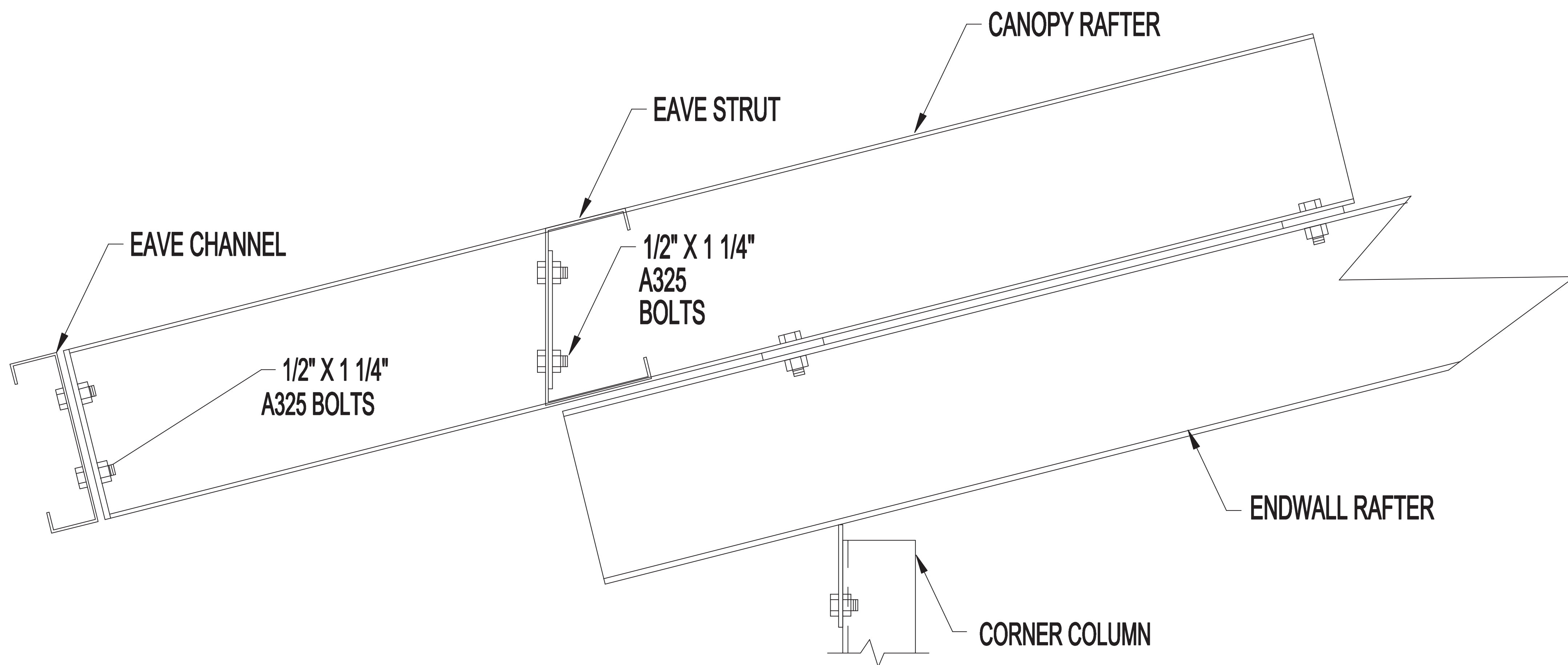
X2





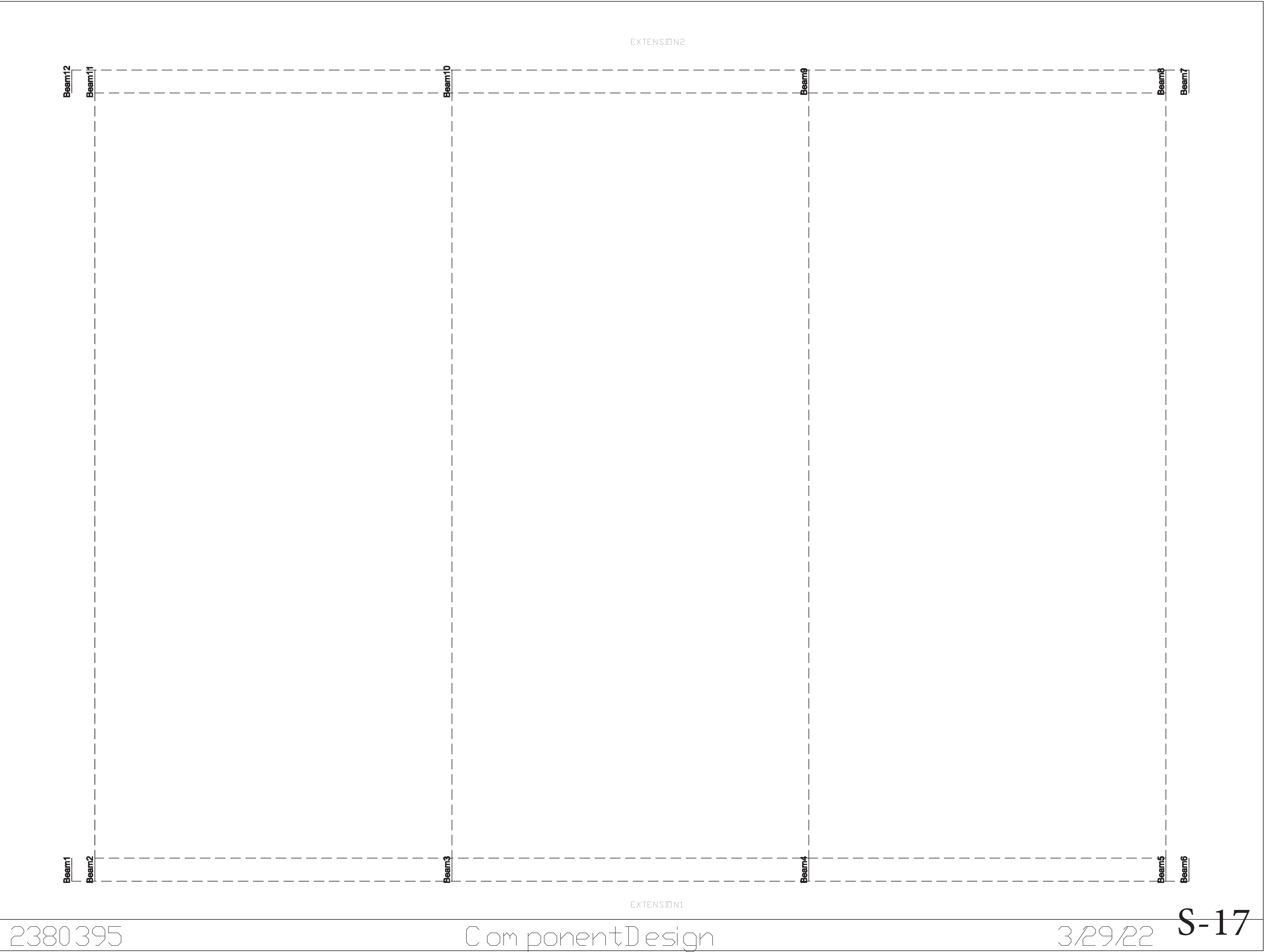
EAVE CANOPY AT MAIN FRAME

X3

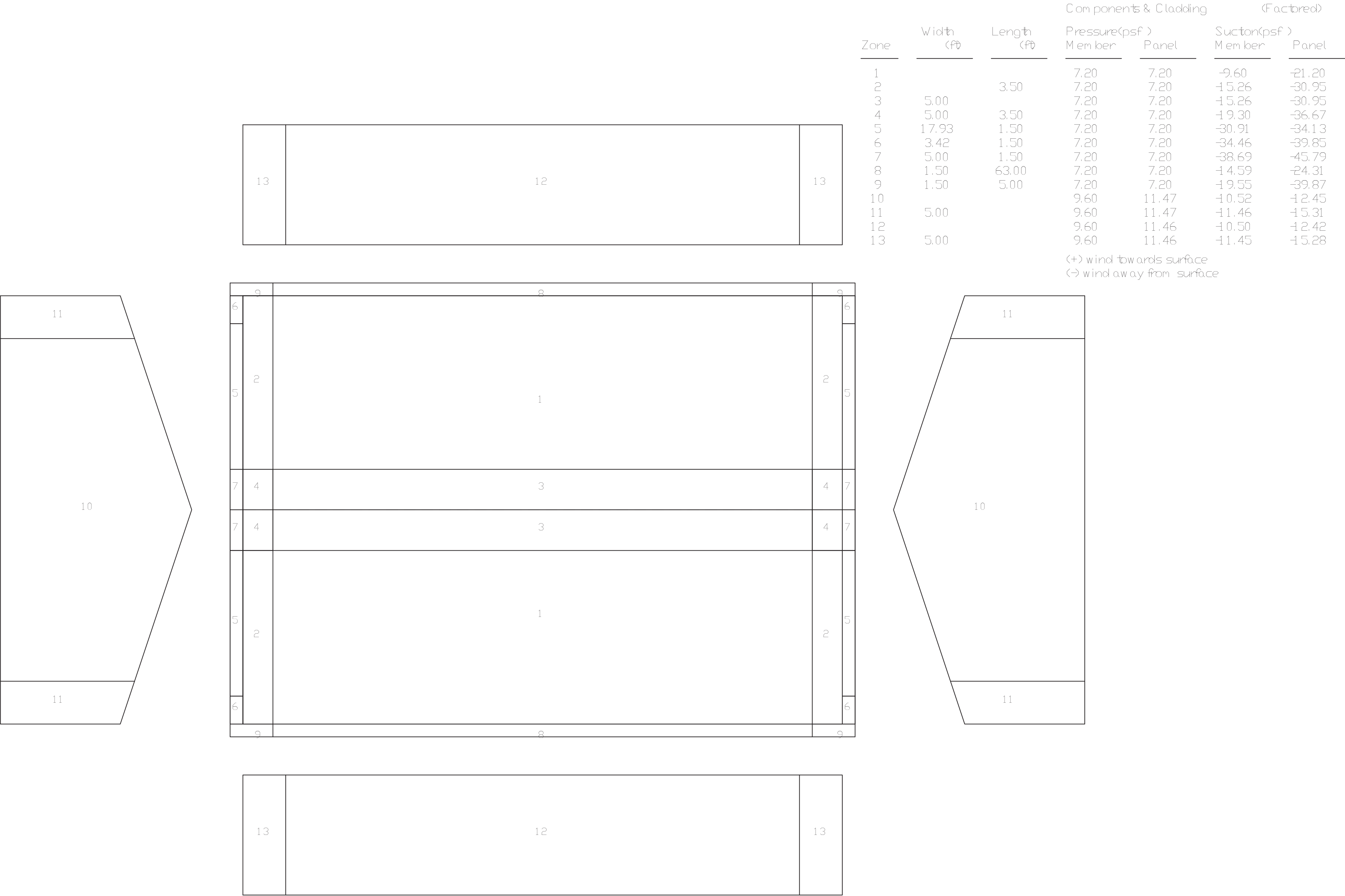


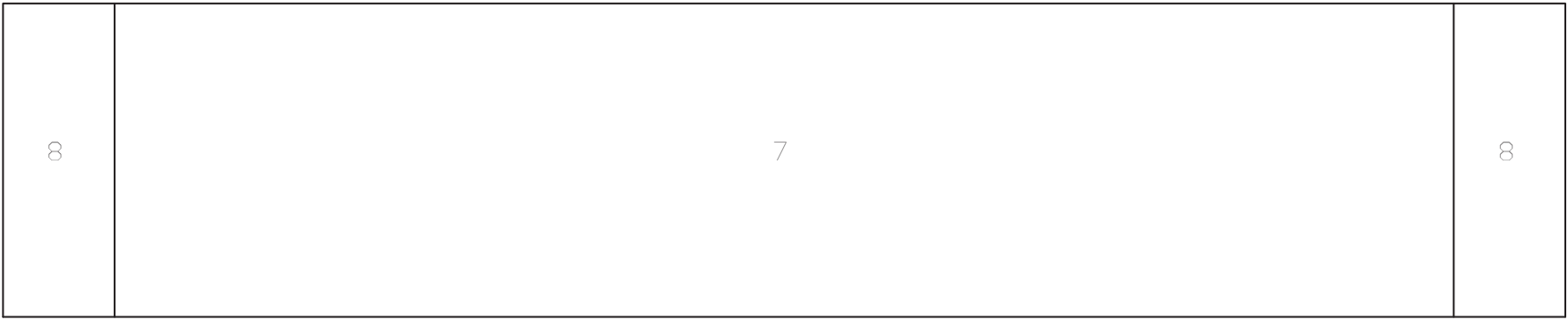
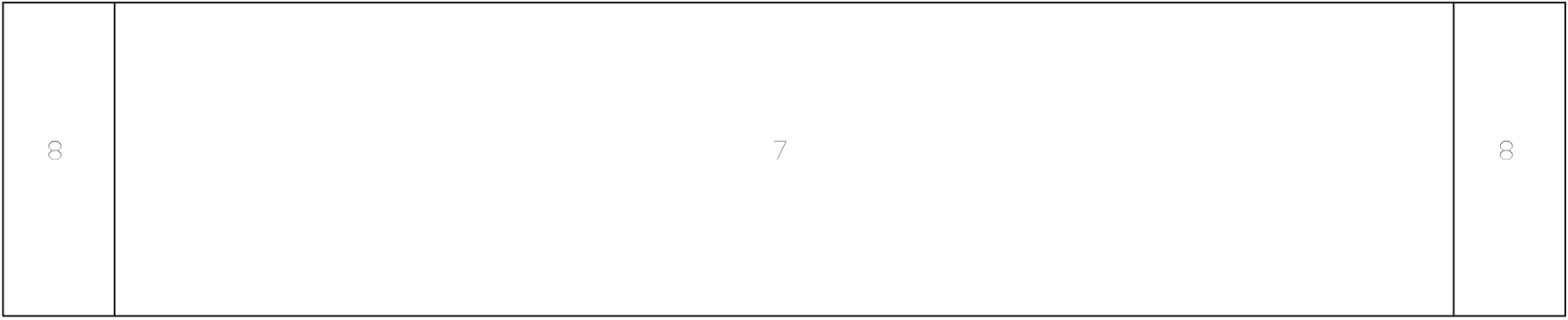
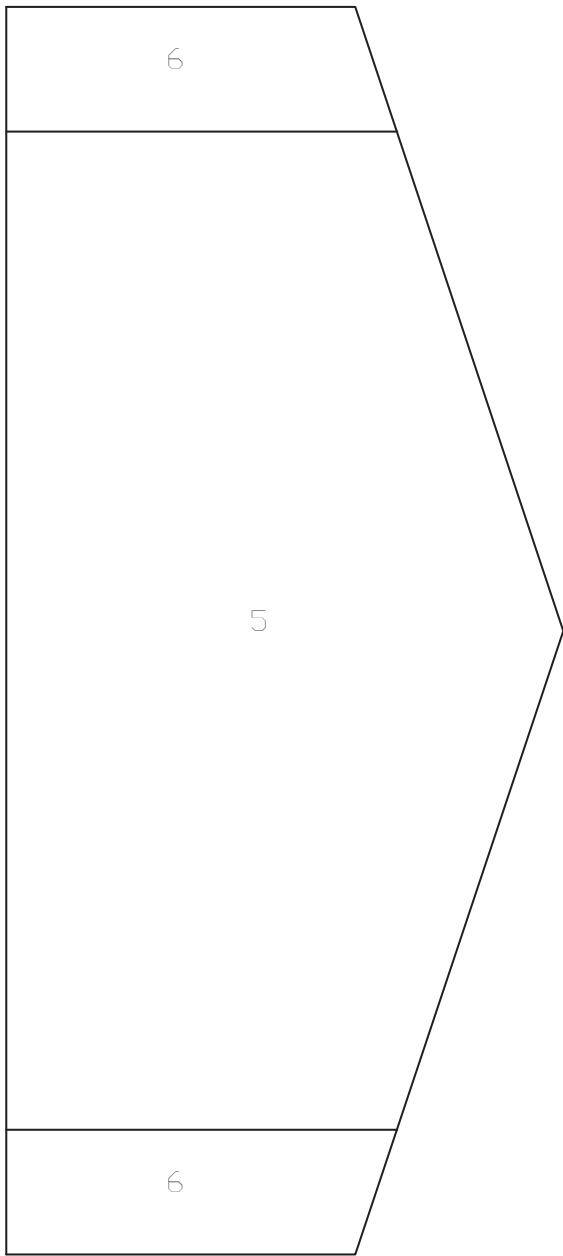
EAVE CANOPY AT HOT ROLLED ENDWALL RAFTER

X4



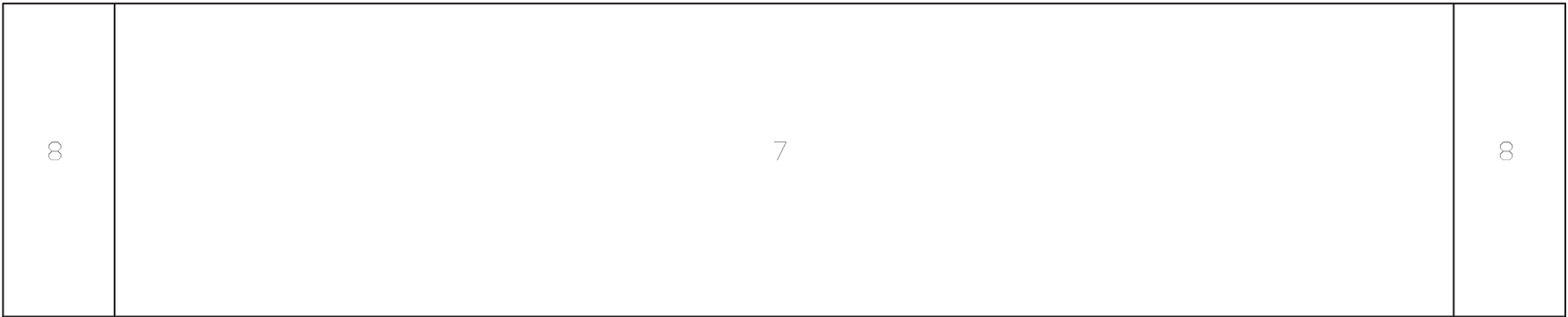
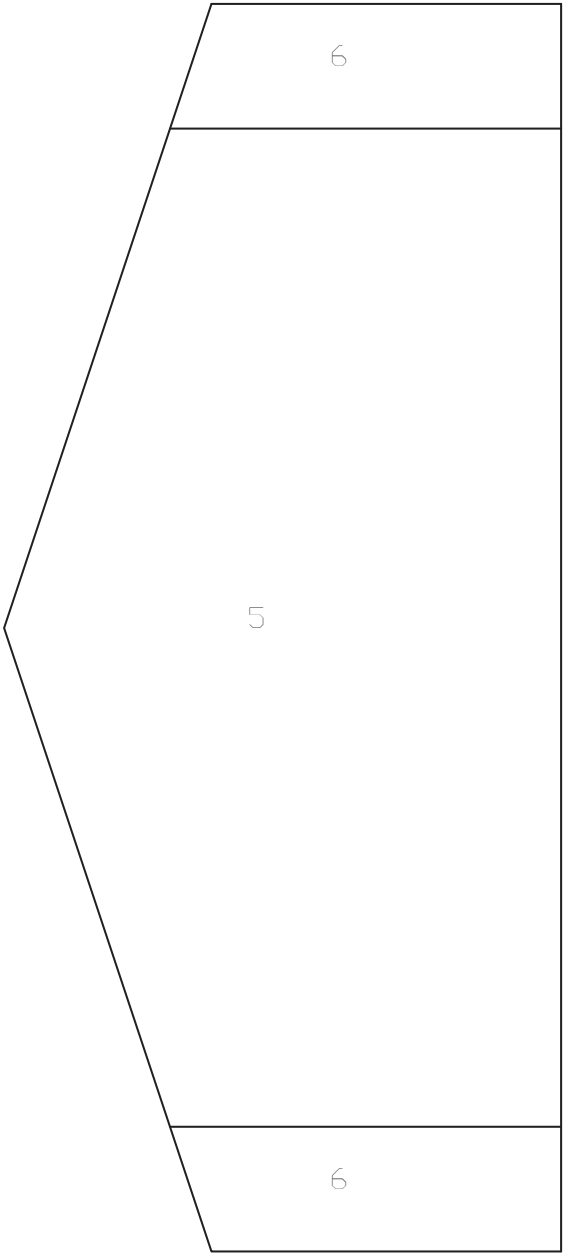
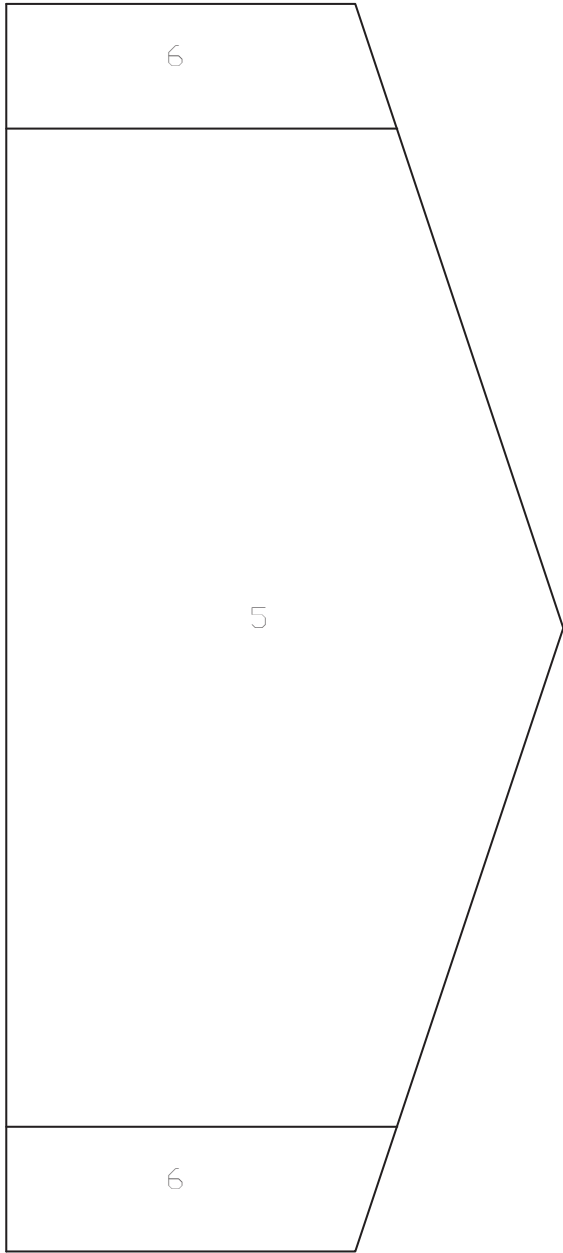






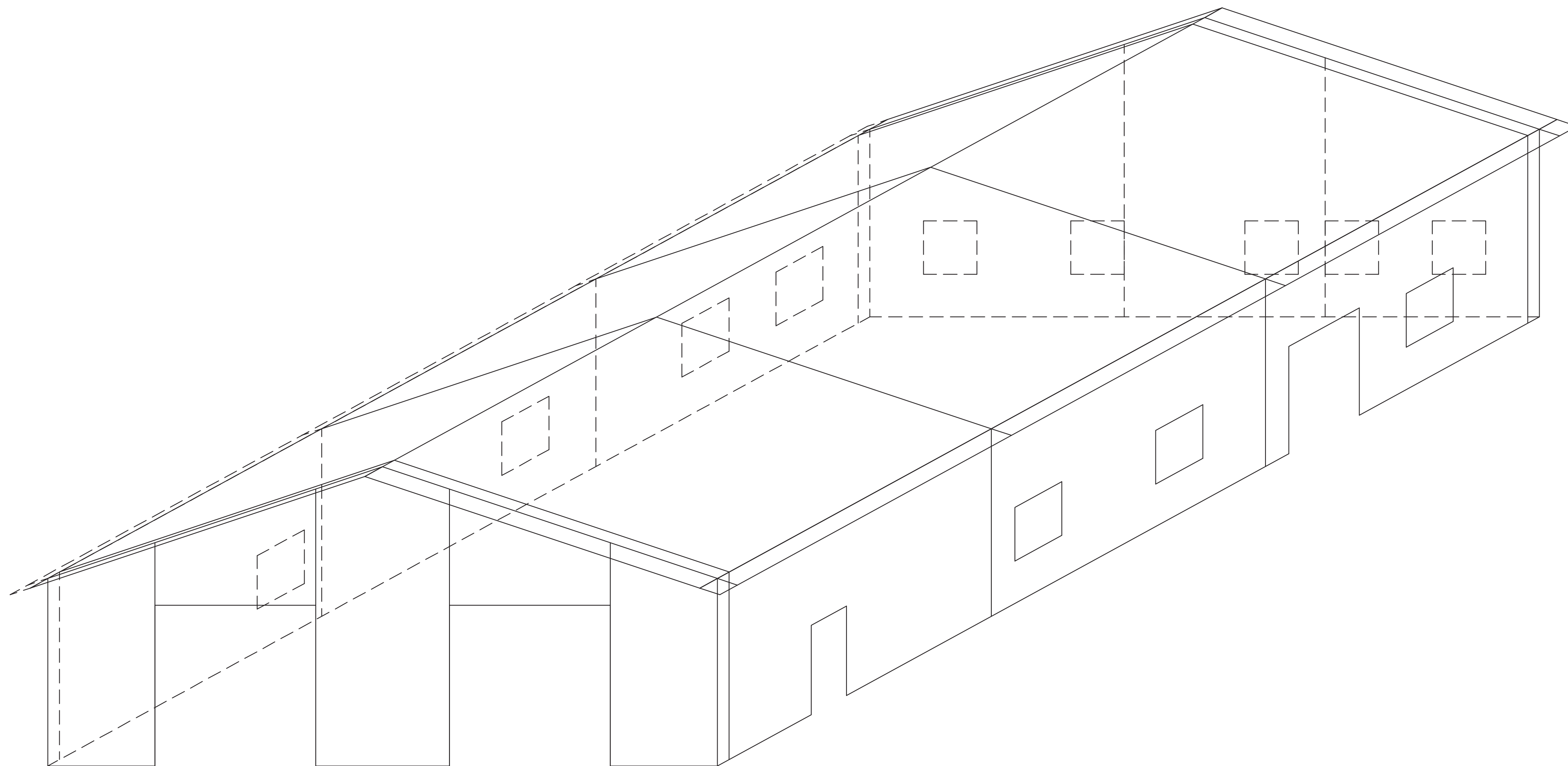
Components & Cladding		(Factored)	
Pressure(psf )	Suction(psf )		
Mem ber	Panel	Mem ber	Panel
1	7.20	-9.60	-21.20
2	0.00	0.00	0.00
3	7.20	-14.59	-24.31
4	7.20	-19.55	-39.87
5	9.60	-10.52	-12.45
6	9.60	-11.46	-15.31
7	9.60	-10.50	-12.42
8	9.60	-11.45	-15.28

(+) wind towards surface  
(-) wind away from surface



			Com ponents & Cladding		(Factored)	
Zone	Width (ft)	Length (ft)	Pressure(psf )		Suction(psf )	
			Mem ber	Panel	Mem ber	Panel
1			0.00	0.00	-9.60	0.00
2	26.35		0.00	0.00	0.00	0.00
3	1.50	63.00	7.20	7.20	-14.59	-24.31
4	1.50	5.00	7.20	7.20	-19.55	-39.87
5			9.60	11.47	-10.52	-12.45
6	5.00		9.60	11.47	-11.46	-15.31
7			9.60	11.46	-10.50	-12.42
8	5.00		9.60	11.46	-11.45	-15.28
(+) wind towards surface						
(-) wind away from surface						





# HERITAGE BUILDING SYSTEMS



## BUILDER/CONTRACTOR RESPONSIBILITIES

**Drawing Validity** –These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

**Builder Acceptance of Drawings** –Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice APR 10 Section 4.4.1)

**Code Official Approval** –It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

**Builder is responsible for State, Federal and OSHA safety compliance** –The Builder/Contractor is responsible for applying and observing all pertinent safety rules and regulations and OSHA standards as applicable.

**Building Erection** –The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector. (AISC Code of Standard Practice APR 10 Section 7.10.3)

**Discrepancies** –Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice APR 10 Section 3.3)

**Materials by Others** –All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

**Modification of the Metal Building from Plans** –The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

**Foundation Design** –The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA MBSM Chapter 4 Section 3.2.2 and Section A3)



Download panel installation manuals from:  
[www.cornerstonebuildingbrands.com/installationmanuals/](http://www.cornerstonebuildingbrands.com/installationmanuals/)

Descargue los manuales de instalación del panel desde:  
[www.cornerstonebuildingbrands.com/installationmanuals/](http://www.cornerstonebuildingbrands.com/installationmanuals/)

1/2"Ø A325 BOLT GRIP TABLE (UNLESS NOTED)			
GRIP	LENGTH		NOTE: FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.  WASHER REQUIRED ONLY WHEN SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/82" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.
Ø TO 9/16"	1 1/4" F.T.		
Over 9/16" TO 1 1/16"	1 3/4" F.T.		
Over 1 1/16" TO 1 5/16"	2"		
Over 1 5/16" TO 1 9/16"	2 1/4"		
Over 1 9/16" TO 1 13/16"	2 1/2"		
Over 1 13/16" TO 2 1/16"	2 3/4"		
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS			
F.T. DENOTES FULLY THREADED			

## PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X-bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X-bracing conforms to ASTM A475 7 Strand Extra High-Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold-formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield.

The manufacturer does not assume any responsibility for the erection nor field supervision of the structure and or any special inspections that may be required by the local building authority during erection (including inspection of the high strength bolts or field welds) as required during erection. The coordination and the costs associated for setting up and Special Inspections are the responsibility of the Erector, Owner, Architect, or Engineer of Record.

Design is based upon the more severe loading of either the roof snow load or the roof live load.

Loads, as noted, are given within order documents and are applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the manufacture nor the certifying engineer declares or attests that the loads as designated are proper for the local provisions that may apply or for site specific parameters. The manufacturer's Engineer's certification is limited to design loads supplied by an Architect and/or engineer of record for the overall construction project.

This project is designed using manufacture's standard serviceability standards. Generally this means that all stresses and deflections are within typical performance limits for normal occupancy and standard metal building products. If special requirements for deflections and vibrations must be adhered to, then they must be clearly stated in the contract documents.

This metal building system is designed as enclosed. All exterior components (i.e. doors, windows, vents, etc.) must be designed to withstand the specified wind loading for the design of components and cladding in accordance with the specified building code. Doors are to be closed when a maximum of 50% of design wind velocity is reached.

Unless otherwise noted, special inspection of fabricated items is not required. Per IBC section 1704.2.5.1, The fabricator is approved to perform such work without special inspection through maintenance of IAS AC 472 certification MB-436

## DEFLECTION CRITERIA

The material supplied by the manufacturer has been designed with the following minimum deflection criteria. The actual deflection may be less depending on actual load and actual member length.

BUILDING DEFLECTION LIMITS...: Building A

Roof Limits	Rafters	Purlins	Panels			
Live L/	@ F360	@ F354	@ F357			
Snow L/	@ F360	@ F354	@ F357			
Wind L/	@ F360	@ F355	@ F358			
Total Gravity L/	@ F360	@ F354	@ F357			
Frame Limits	Sidesway	Portal Frame	Sidesway			
Live H/	@ F359					
Snow H/	@ F359					
Wind H/	@ F359					
Seismic H/	@ F363					
Crane H/	@ F362					
Total Gravity H/	@ F359					
Total Wind H/	@ F359	@ F361				
Total Seismic H/	@ F363	@ F364				
Wall Limits	Limit					
Total Wind Panels L/	@ F356					
Total Wind Girts L/	@ F353					
Total Wind EW Columns L/	@ F350					

The Service Seismic limit as shown here is at service level loads.

## ENGINEERING DESIGN CRITERIA

Building Code..... @ F324  
Building Risk Category..... @ U619

Roof Dead Load  
Superimposed..... @ F301 psf  
Collateral..... @ F305 psf (Total)  
(0.00 psf Ceiling @ F305 psf Other)  
Roof Live Load..... @ F302 psf @ F304 reduction

Snow  
Ground Snow Load (Pg)..... @ U600 psf  
Snow Load Importance Factor (Is) @ U614  
Snow Exposure Factor (Ce)..... @ U615  
Thermal Factor (Ct)..... @ U612  
Flat Roof Snow Load (Pf)..... @ F303 psf  
Minimum Roof Snow Load (Pm).... @ U648 psf

Wind  
Ultimate Wind Speed (Vult)..... @ F307 mph  
Nominal Wind Speed (Vasd)..... @ U636 mph  
Serviceability Wind Speed..... @ U646 mph  
Ground Elevation Factor..... @ U654( @ U6ASL)  
Wind Exposure Category..... @ F309  
Internal Pressure Coefficient (GCP) @ U623 /@ U624  
Loads for components not provided by building manufacturer.  
Wall Edge Zones (within @ U653 ' of corner)  
@ U620 psf pressure  
@ U622 psf suction  
Other Wall Zones @ U620 psf pressure  
@ U621 psf suction

These values are the maximum values required based on a 10 square foot area.  
Components with larger areas may have lower wind loads.  
Zones per ASCE 7-16; FIG. 30.3-4  
Zones pressures shown are Un-Factored

Seismic  
Seismic Importance Factor (Ie)..... @ F315  
Seismic Design Category..... @ F311  
Soil Site Class..... @ U647  
Ss..... @ U601 g Sds..... @ U607 g  
S1..... @ U602 g Sd1..... @ U608 g  
Analysis Procedure..... Equivalent Lateral Force

Location... Int RF Front SW Back SW Left EW Right EW  
System..... @ J190 @ J191 @ J192 @ J193 @ J194  
R..... @ F368 @ F374 @ F376 @ F370 @ F372  
Cs..... @ F369 @ F375 @ F377 @ F371 @ F373

Design Base Shear in kips (V) Transverse @ F366  
Design Base Shear in kips (V) Longitudinal @ F365

System –Basic Force Resisting System  
H –Steel System not Specifically Detailed for Seismic Resistance  
C4 –Steel Ordinary Moment Frames  
B3 –Steel Ordinary Concentric Braced Frames  
G2 –Steel Ordinary Cantilevered Column Systems  
R –Response Modification Coefficient  
Cs –Seismic Response Coefficient  
Transverse –Direction Parallel to the Rigid Frames  
Longitudinal –Direction Perpendicular to the Rigid Frames

Building Descriptions				
Building ID	Width(ft)	Length(ft)	Height(ft)	Slope
Building A	@ F201	@ F202	@ F204	@ F206

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN	<div><div>HERITAGE BUILDING SYSTEMS</div><div>2513 MCCAIN BLVD, STE 2 #385 NORTH LITTLE ROCK, AR 72116-7606 1-800-643-6555</div></div>							
@J024	@DATE	FOR @J041	@J012	@J014	@J011								
						PROJECT: @J007							
						CUSTOMER: @J004				OWNER: @J038			
						LOCATION: @J008							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
							@DATE	N.T.S.	1	A	@J010	C1	@J024

## Drawing Index

Page	Description
C1	COVER SHEET
F1	ANCHOR BOLT PLAN
F2	ANCHOR BOLT REACTIONS
F3	ANCHOR BOLT DETAILS
E1	ROOF FRAMING PLAN
E2	ROOF SHEETING PLAN
E3	FRONT SIDEWALL
E4	BACK SIDEWALL
E5	LEFT ENDWALL
E6	RIGHT ENDWALL
E7	FRAME CROSS SECTION
DET 1-10	STANDARD DETAILS
R1-R3	INSTALLATION SHEETS

## DRAWING STATUS

### FOR APPROVAL

These drawings, being For Approval, are by definition not final, and are for conceptual representation only. Their purpose is to confirm proper interpretation of the project documents. Only drawings issued "For Erector Installation" can be considered as complete.

### FOR CONSTRUCTION PERMIT

These drawings, being for Permit, are by definition not final. Only drawings issued "For Erector Installation" can be considered as complete.

### FOR ERECTOR INSTALLATION

Final drawings for construction.

For questions or assistance  
Concerning Erection call or Email:

1-844-840-4603

Monday-Friday 7:30am to 5:00pm

FIELD.SERVICE@CORNERSTONE-BB.COM

## ENGINEERING SEAL

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

# GN-1

# HERITAGE BUILDING SYSTEMS



## BUILDER/CONTRACTOR RESPONSIBILITIES

**Drawing Validity** –These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

**Builder Acceptance of Drawings** –Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice APR 10 Section 4.4.1)

**Code Official Approval** –It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

**Builder is responsible for State, Federal and OSHA safety compliance** –The Builder/Contractor is responsible for applying and observing all pertinent safety rules and regulations and OSHA standards as applicable.

**Building Erection** –The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector. (AISC Code of Standard Practice APR 10 Section 7.10.3)

**Discrepancies** –Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice APR 10 Section 3.3)

**Materials by Others** –All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

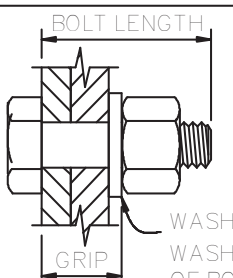
**Modification of the Metal Building from Plans** –The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

**Foundation Design** –The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA MBSM Chapter 4 Section 3.2.2 and Section A3)



Download panel installation manuals from:  
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Descargue los manuales de instalación del panel desde:  
[www.cornerstonebuildingbrands.com/installationmanuals/](http://www.cornerstonebuildingbrands.com/installationmanuals/)

1/2"Ø A325 BOLT GRIP TABLE (UNLESS NOTED)		
GRIP	LENGTH	
Ø TO 9/16"	1 1/4" F.T.	
Over 9/16" TO 1 1/16"	1 3/4" F.T.	
Over 1 1/16" TO 1 5/16"	2"	
Over 1 5/16" TO 1 9/16"	2 1/4"	
Over 1 9/16" TO 1 13/16"	2 1/2"	
Over 1 13/16" TO 2 1/16"	2 3/4"	
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS		
F.T. DENOTES FULLY THREADED		

NOTE:  
FULL THREAD ENGAGEMENT IS  
DEEMED TO HAVE BEEN MET  
WHEN THE END OF THE BOLT  
IS FLUSH WITH THE FACE OF  
THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED.  
WASHER MAY BE LOCATED UNDER HEAD  
OF BOLT, UNDER NUT, OR AT BOTH  
LOCATIONS NOTED ON ERECTION DRAWINGS.  
ADD 5/32" FOR EACH WASHER TO MATERIAL  
THICKNESS TO DETERMINE GRIP.

NOTE:  
FULL THREAD ENGAGEMENT IS  
DEEMED TO HAVE BEEN MET  
WHEN THE END OF THE BOLT  
IS FLUSH WITH THE FACE OF  
THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED.  
WASHER MAY BE LOCATED UNDER HEAD  
OF BOLT, UNDER NUT, OR AT BOTH AT  
LOCATIONS NOTED ON ERECTION DRAWINGS.  
ADD 5/82" FOR EACH WASHER TO MATERIAL  
THICKNESS TO DETERMINE GRIP.

## PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X-bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X-bracing conforms to ASTM A475 7 Strand Extra High-Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold-formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield.

The manufacturer does not assume any responsibility for the erection nor field supervision of the structure and or any special inspections that may be required by the local building authority during erection (including inspection of the high strength bolts or field welds) as required during erection. The coordination and the costs associated for setting up and Special Inspections are the responsibility of the Erector, Owner, Architect, or Engineer of Record.

Design is based upon the more severe loading of either the roof snow load or the roof live load.

Loads, as noted, are given within order documents and are applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the manufacture nor the certifying engineer declares or attests that the loads as designated are proper for the local provisions that may apply or for site specific parameters. The manufacturer's Engineer's certification is limited to design loads supplied by an Architect and/or engineer of record for the overall construction project.

This project is designed using manufacture's standard serviceability standards. Generally this means that all stresses and deflections are within typical performance limits for normal occupancy and standard metal building products. If special requirements for deflections and vibrations must be adhered to, then they must be clearly stated in the contract documents.

This metal building system is designed as enclosed. All exterior components (i.e. doors, windows, vents, etc.) must be designed to withstand the specified wind loading for the design of components and cladding in accordance with the specified building code. Doors are to be closed when a maximum of 50% of design wind velocity is reached.

Unless otherwise noted, special inspection of fabricated items is not required. Per IBC section 1704.2.5.1, The fabricator is approved to perform such work without special inspection through maintenance of IAS AC 472 certification MB-436

## DEFLECTION CRITERIA

The material supplied by the manufacturer has been designed with the following minimum deflection criteria. The actual deflection may be less depending on actual load and actual member length.

BUILDING DEFLECTION LIMITS...: Building A

Roof Limits	Rafters	Purlins	Panels		
Live L/	180	180	60		
Snow L/	180	180	60		
Wind L/	180	180	60		
Total Gravity L/	180	180	60		
Frame Limits	Sidesway	Portal Frame	Sidesway		
Live H/	60				
Snow H/	60				
Wind H/	60				
Seismic H/	195				
Crane H/	100				
Total Gravity H/	60				
Total Wind H/	60	60			
Total Seismic H/	195	195			
Wall Limits	Limit				
Total Wind Panels L/	60				
Total Wind Girts L/	90				
Total Wind EW Columns L/	120				

The Service Seismic limit as shown here is at service level loads.

## ENGINEERING DESIGN CRITERIA

Building Code..... CBC 19  
Building Risk Category..... II –Normal

Roof Dead Load  
Superimposed..... 2,500 psf  
Collateral..... 6 psf (Total)  
(0.00 psf Ceiling 6 psf Other)  
Roof Live Load.....20.00 psf No reduction

Snow  
Ground Snow Load (Pg)..... 0.00 psf  
Snow Load Importance Factor (Is)..... 1.00  
Snow Exposure Factor (Ce)..... 1.00  
Thermal Factor (Ct)..... 1.00  
Flat Roof Snow Load (Pf)..... 0 psf  
Minimum Roof Snow Load (Pm)..... 0.00 psf

Wind  
Ultimate Wind Speed (Vult)..... 92 mph  
Nominal Wind Speed (Vasd)..... 71 mph  
Serviceability Wind Speed..... 64 mph  
Ground Elevation Factor..... 1.00 (53.64 ASL)  
Wind Exposure Category..... C

Internal Pressure Coefficient (GCP) 0.18 +/-0.18  
Loads for components not provided by building manufacturer.

Wall Edge Zones (within 5.00' of corner)  
19.12 psf pressure

-25.61 psf suction  
Other Wall Zones 19.12 psf pressure  
-20.75 psf suction

These values are the maximum values required based on a 10 square foot area.

Components with larger areas may have lower wind loads.

Zones per ASCE 7-16; FIG. 30.3-4

Zones pressures shown are Un-Factored

Seismic  
Seismic Importance Factor (Ie)..... 1.00  
Seismic Design Category..... D  
Soil Site Class..... D  
Ss..... 1,500 g Sds..... 1,000 g  
S1..... 0,600 g Sd1..... 0,680 g  
Analysis Procedure..... Equivalent Lateral Force

Location... Int RF Front SW Back SW Left EW Right EW  
System..... C4 C4 C4 C4 C4  
R..... 3.5 3.5 3.5 3.5 3.5  
Cs..... 0.286 0.286 0.286 0.286 0.286

Design Base Shear in kips (V) Transverse 12.74  
Design Base Shear in kips (V) Longitudinal 12.76

System –Basic Force Resisting System

H –Steel System not Specifically Detailed for Seismic Resistance

C4 –Steel Ordinary Moment Frames

B3 –Steel Ordinary Concentric Braced Frames

G2 –Steel Ordinary Cantilevered Column Systems

R –Response Modification Coefficient

Cs –Seismic Response Coefficient

Transverse –Direction Parallel to the Rigid Frames

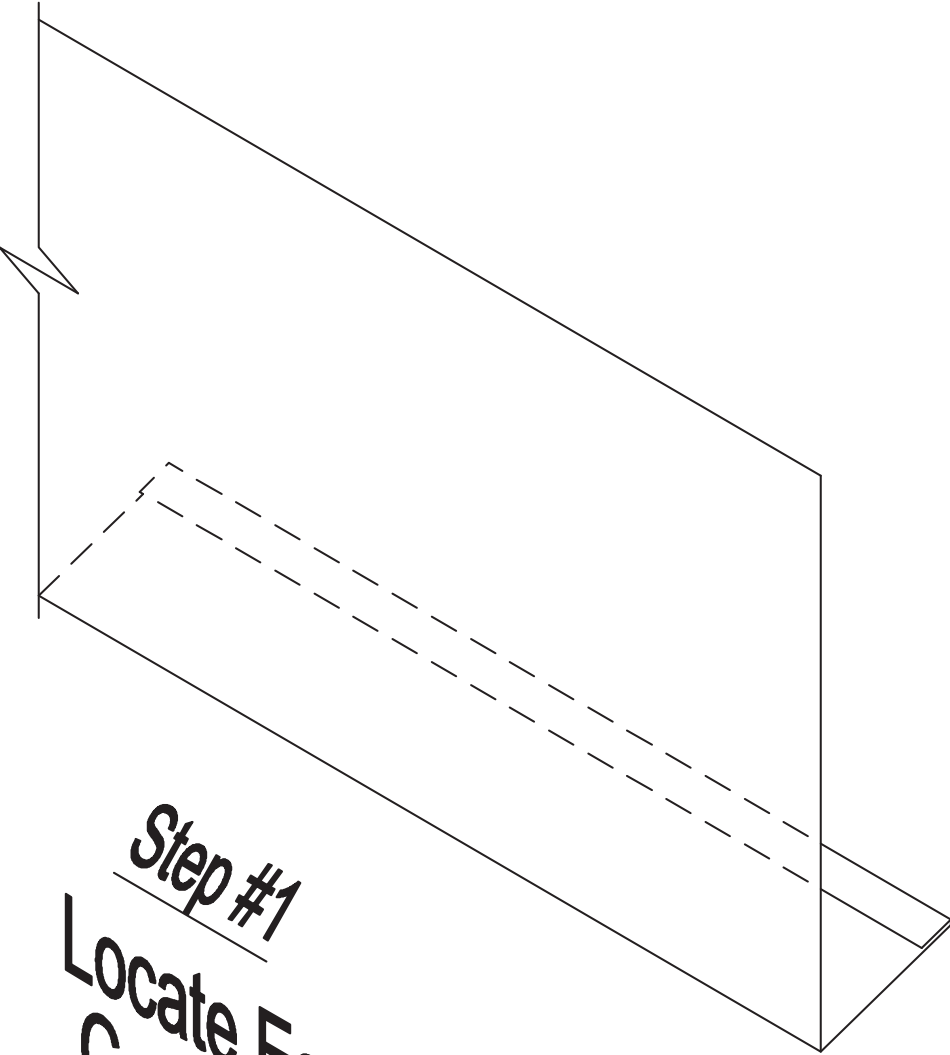
Longitudinal –Direction Perpendicular to the Rigid Frames

Building Descriptions				
Building ID	Width(ft)	Length(ft)	Height(ft)	Slope
Building A	50	70	14	4.0:12

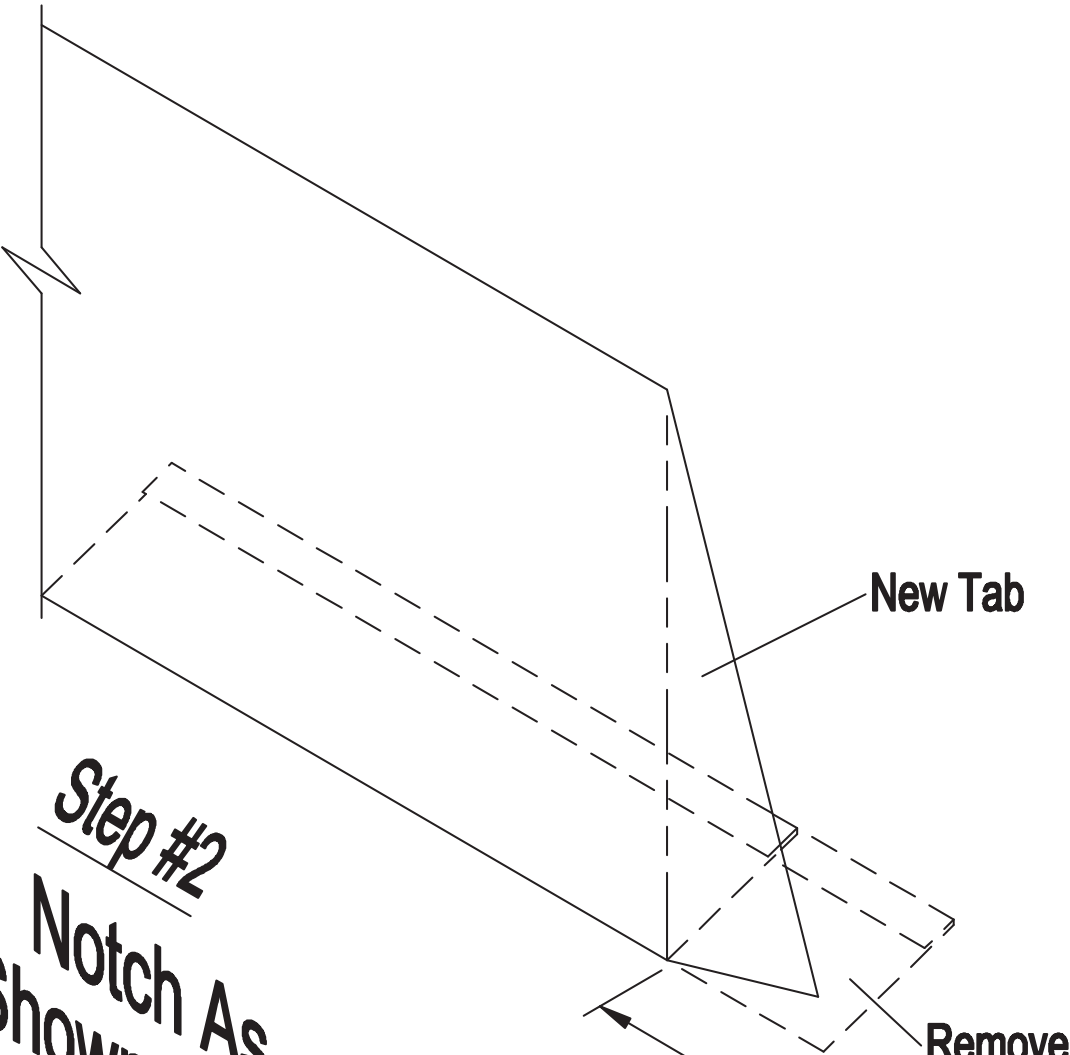
ISSUE	DATE	DESCRIPTION	BY	CKD	DSN	<div><div>HERITAGE</div><div>BUILDING SYSTEMS</div></div> <div>2513 MCCAIN BLVD, STE 2 #385 NORTH LITTLE ROCK, AR 72116-7606 1-800-643-6555</div>							
0	4/12/22	FOR QUOTE											
						PROJECT:							
						CUSTOMER:				OWNER:			
						LOCATION:							
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
							4/12/22	N.T.S.	1	A		C1	0



Cut To Roof Pitch		
Roof Pitch	"H" =	"W" =
1:12	--	9/16"
2:12	3/16"	1 1/8"
3:12	7/16"	1 11/16"
4:12	11/16"	2 1/8"
5:12	1 1/16"	2 1/2"
6:12	1 7/16"	2 7/8"

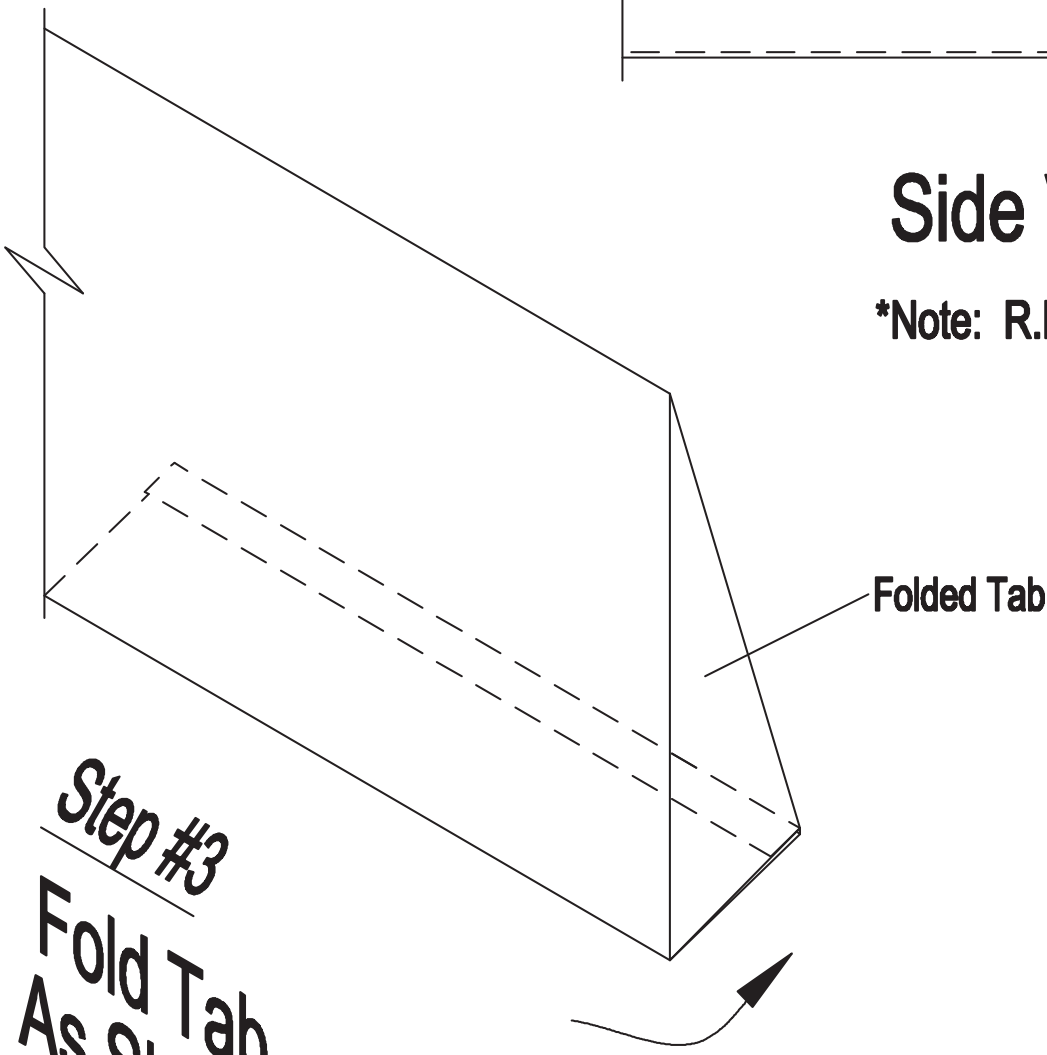


**Step #1**  
Locate Eave  
Cover Trim



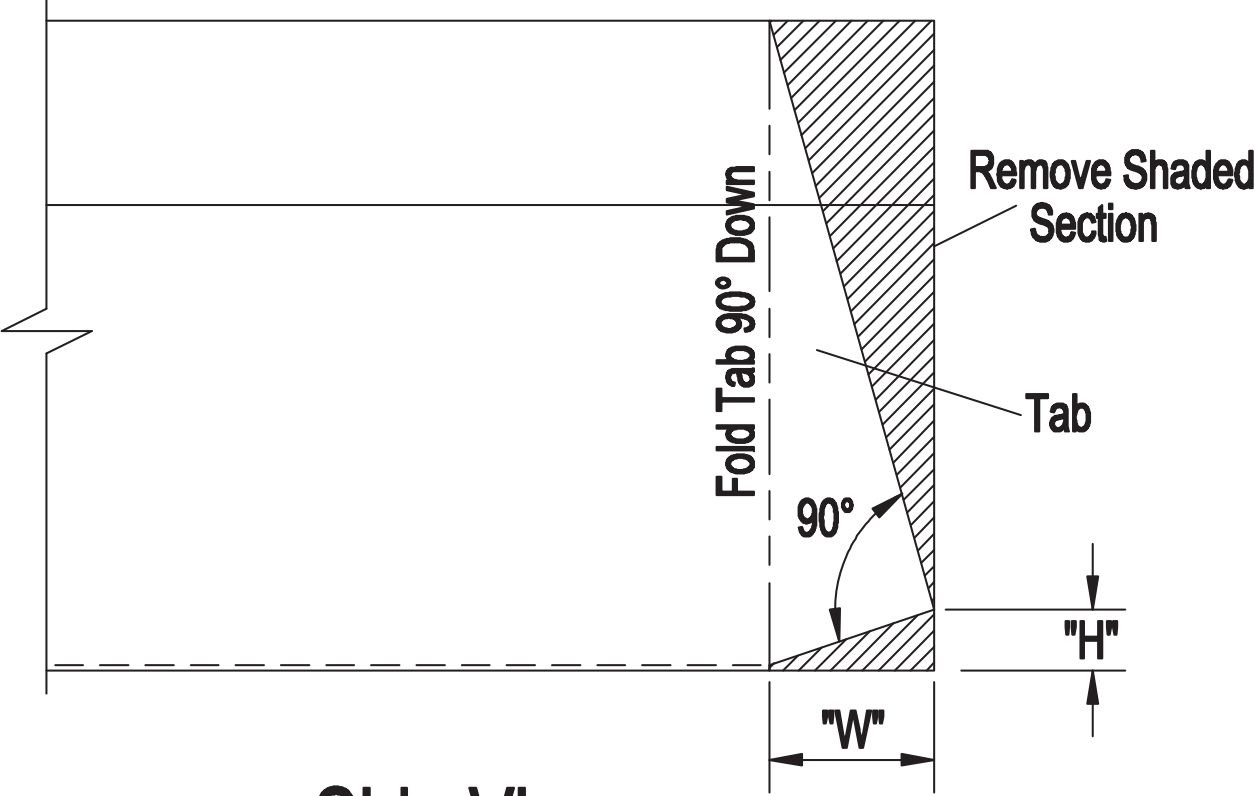
**Step #2**  
Notch As  
Shown Below

Cut Away  
Bottom Flange  
(Ref. "W" Dim.)



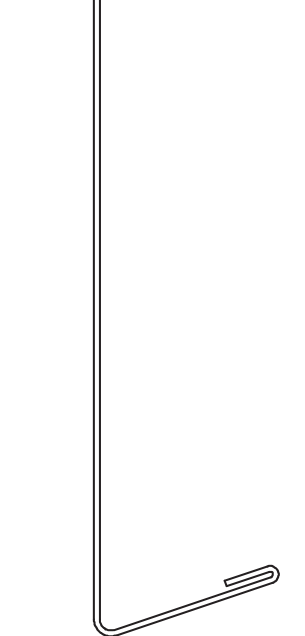
**Step #3**  
Fold Tab  
As Shown

Fold Tab Back  
As Shown



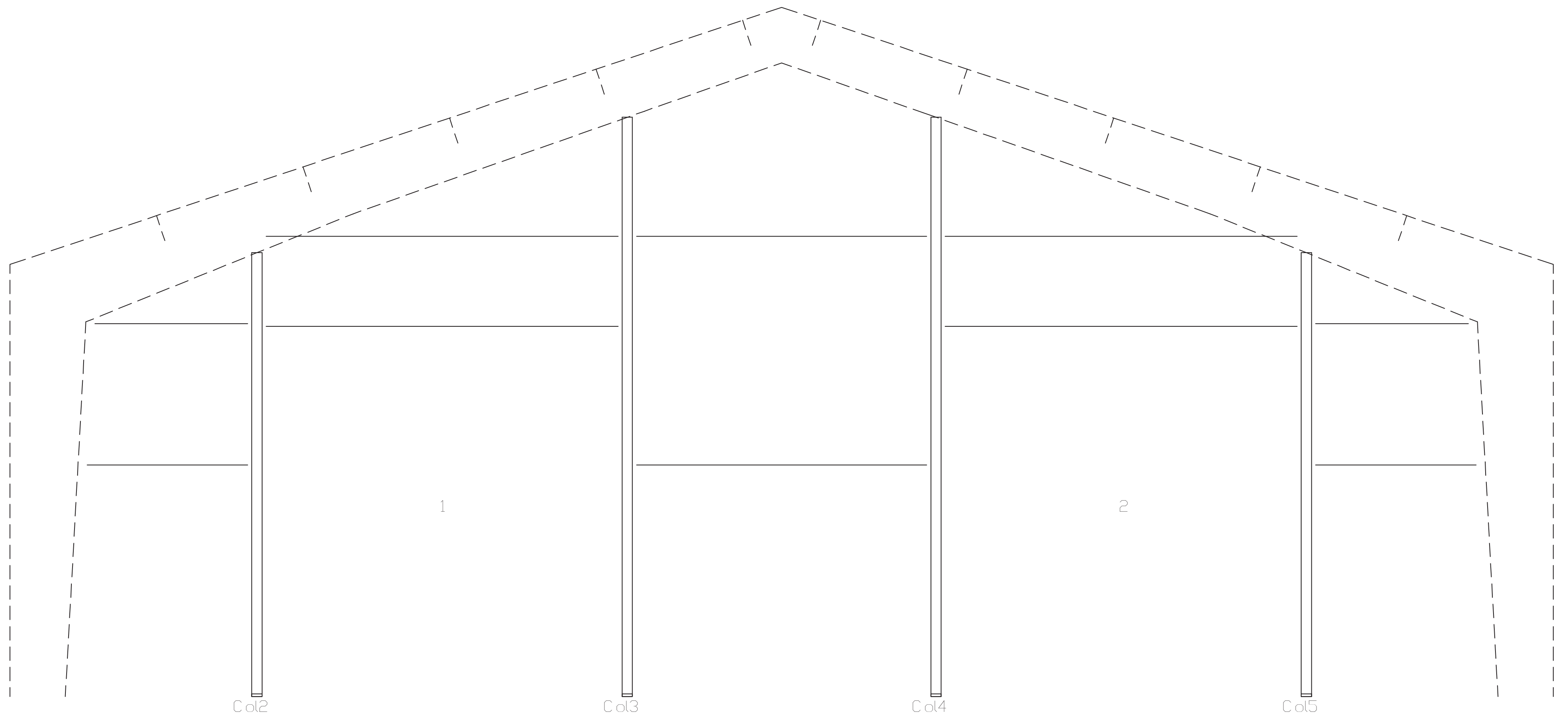
**Side View**

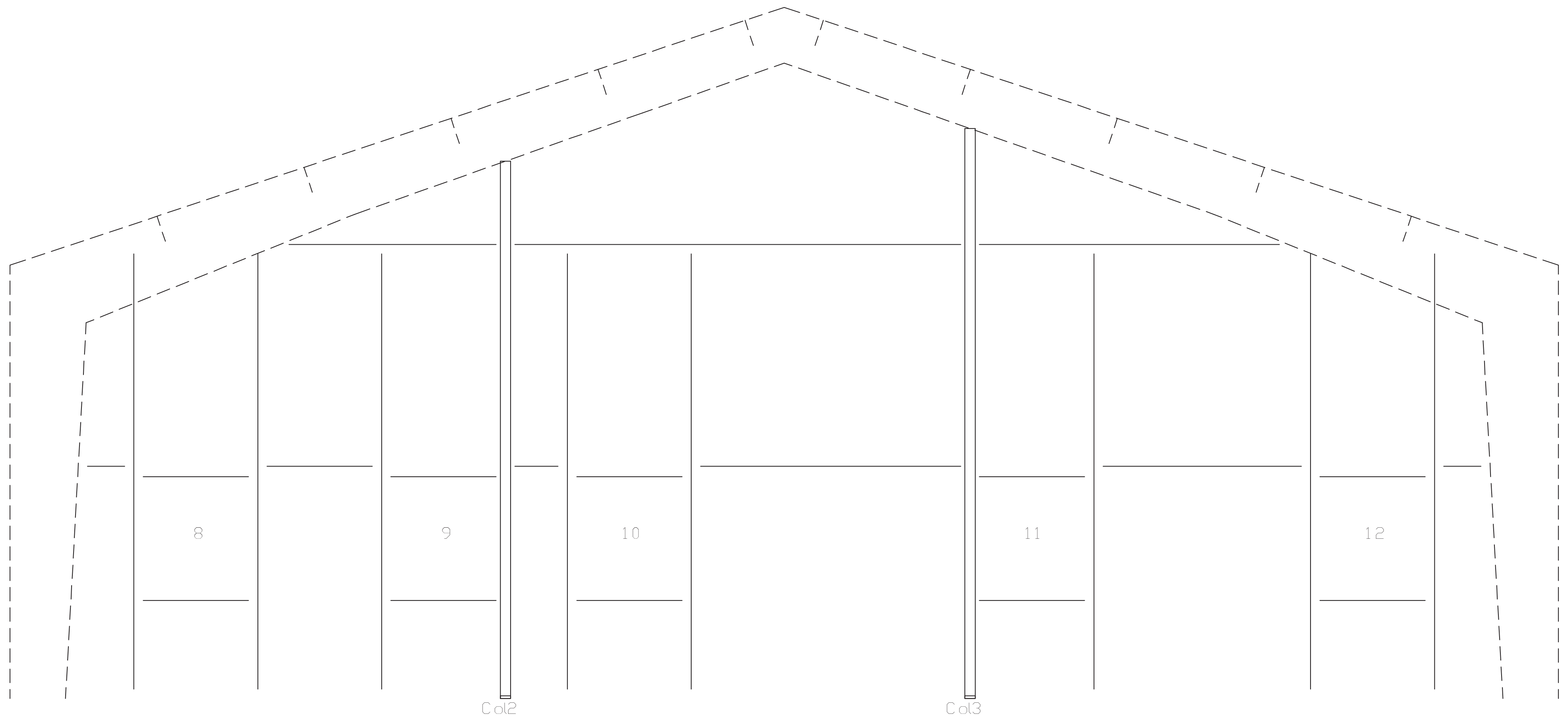
\*Note: R.H. Shown  
L.H. Opposite

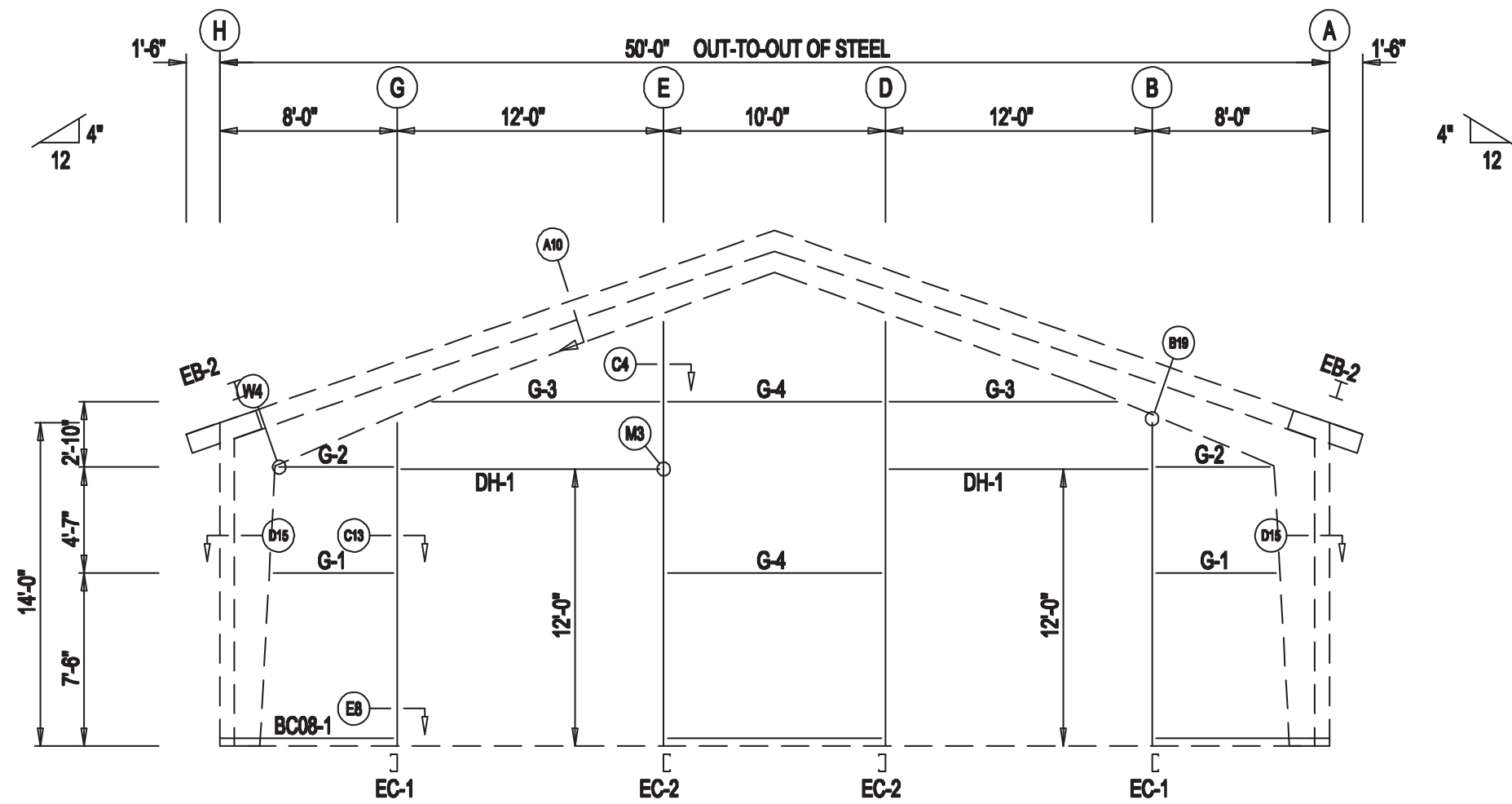


**End View**

Instructions: Field Trimmed Tab For Extension Cover Trim



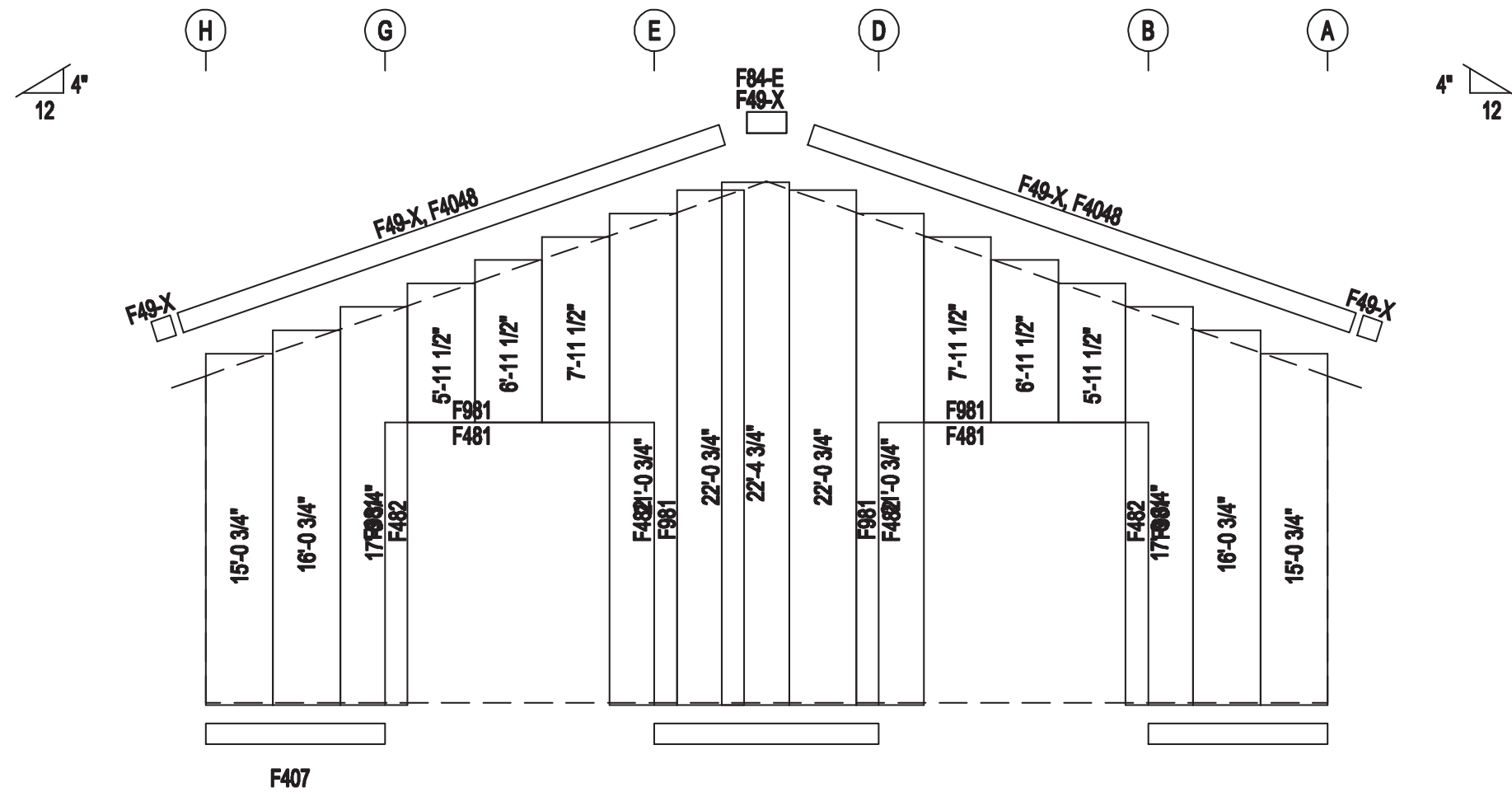




BEARING FRAME ONLY!  
WASHER TO BE USED AT ENDWALL COLUMN TO ENDWALL RAFTER CONNECTION. USE ONE WASHER ON COLUMN SIDE. WASHER NOT NEEDED ON CLIP SIDE.

BOLT TABLE				
FRAME LINE 1				
LOCATION	QUAN	TYPE	DIA	LENGTH
Columns/Raf	2	A325	1/2"	1 1/4"

ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Gauge PBR - Light Stone

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	4/12/22	FOR QUOTE			

HERITAGE  
BUILDING SYSTEMS

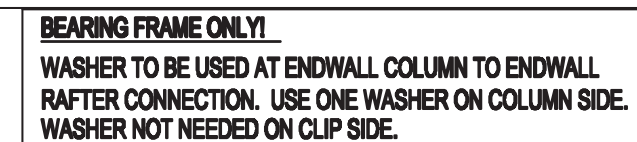
2513 MCCAIN BLVD, STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

PROJECT:							
CUSTOMER:				OWNER:			
LOCATION:							
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/12/22	N.T.S.	1	A		E5	0

GENERAL NOTES:  
1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.  
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.  
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.  
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

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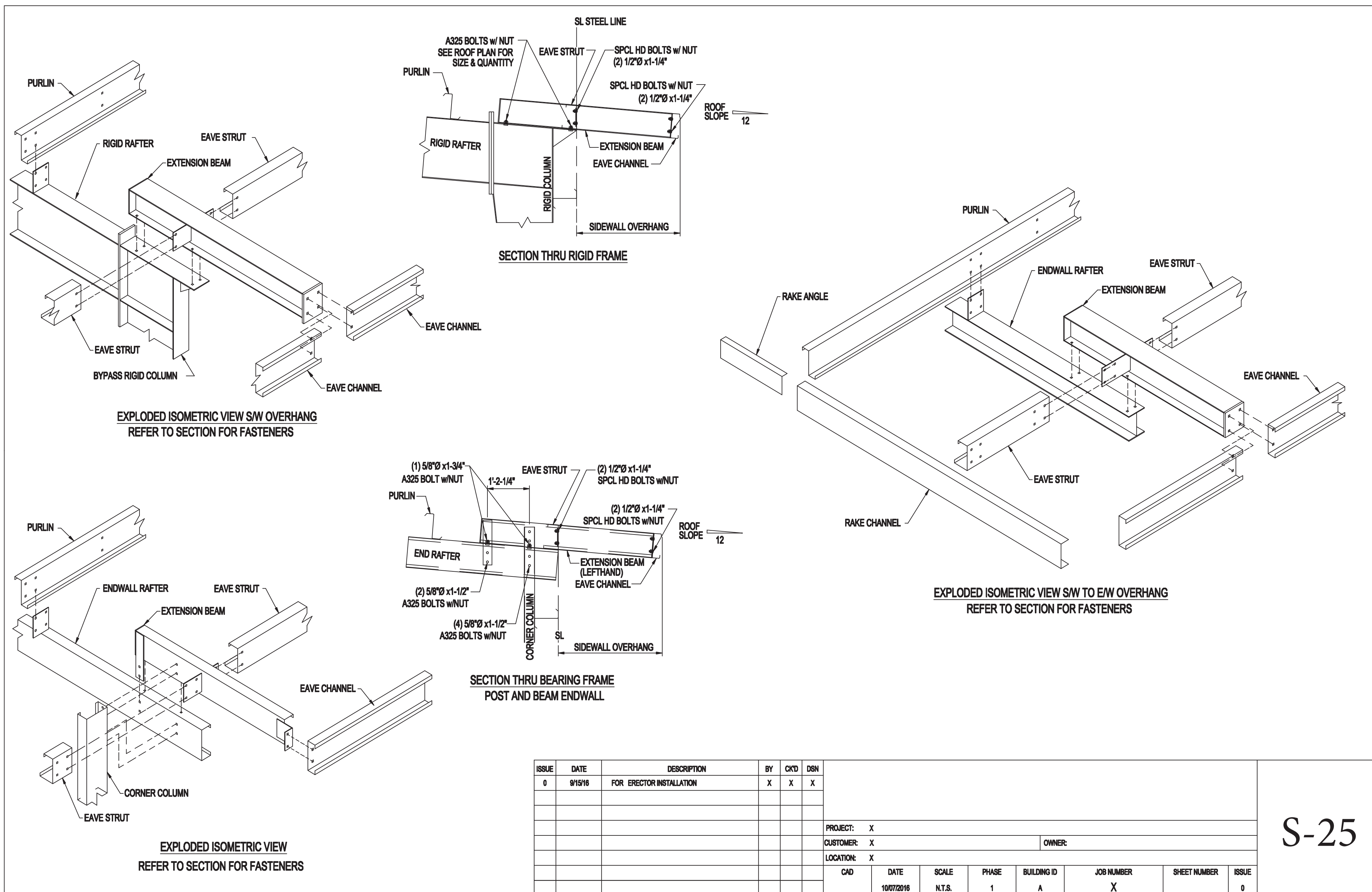
BOLT TABLE				
FRAME LINE 4				
LOCATION	QUAN	TYPE	DIA	LENGTH
Columns/Raf	2	A325	1/2"	1 1/4"

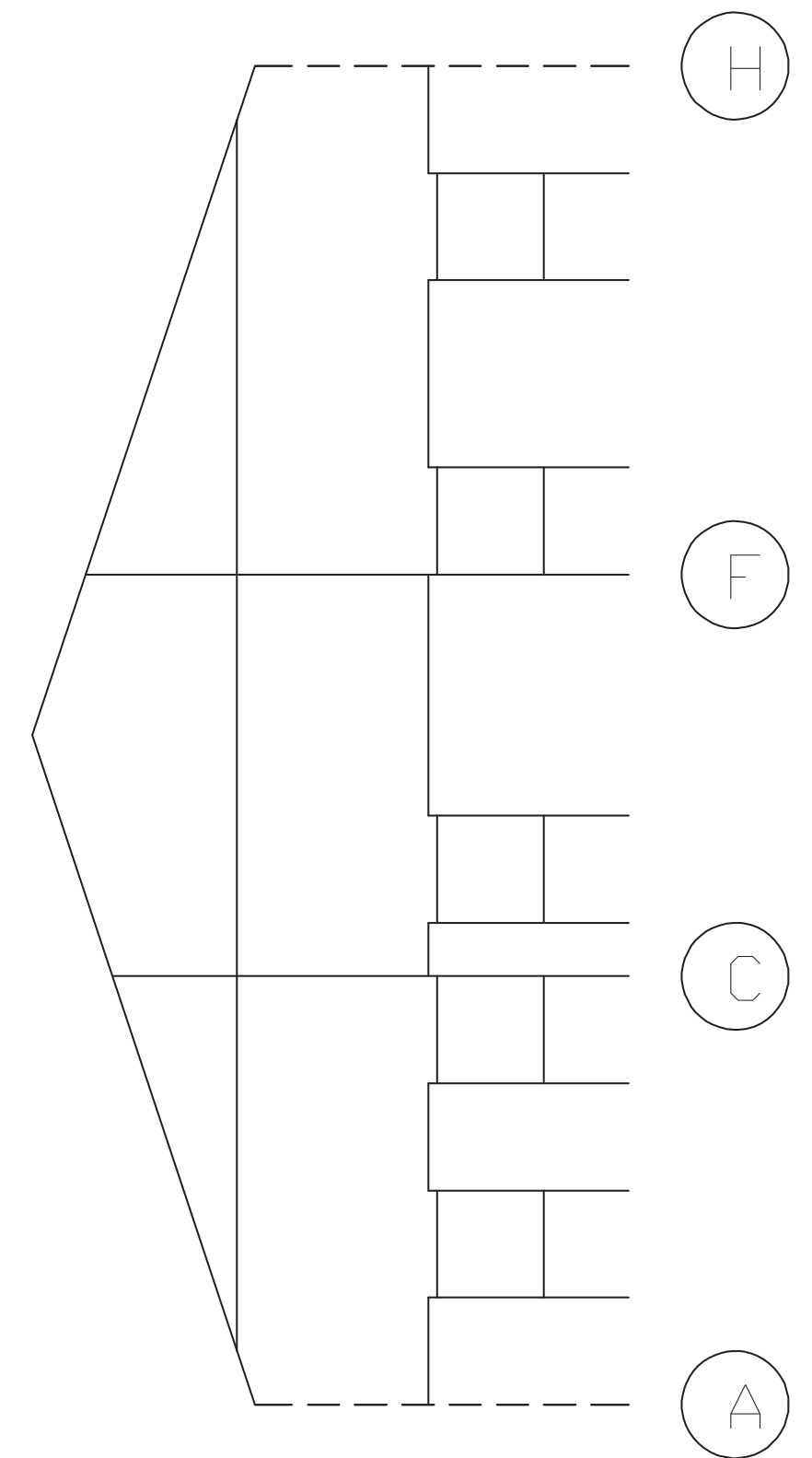
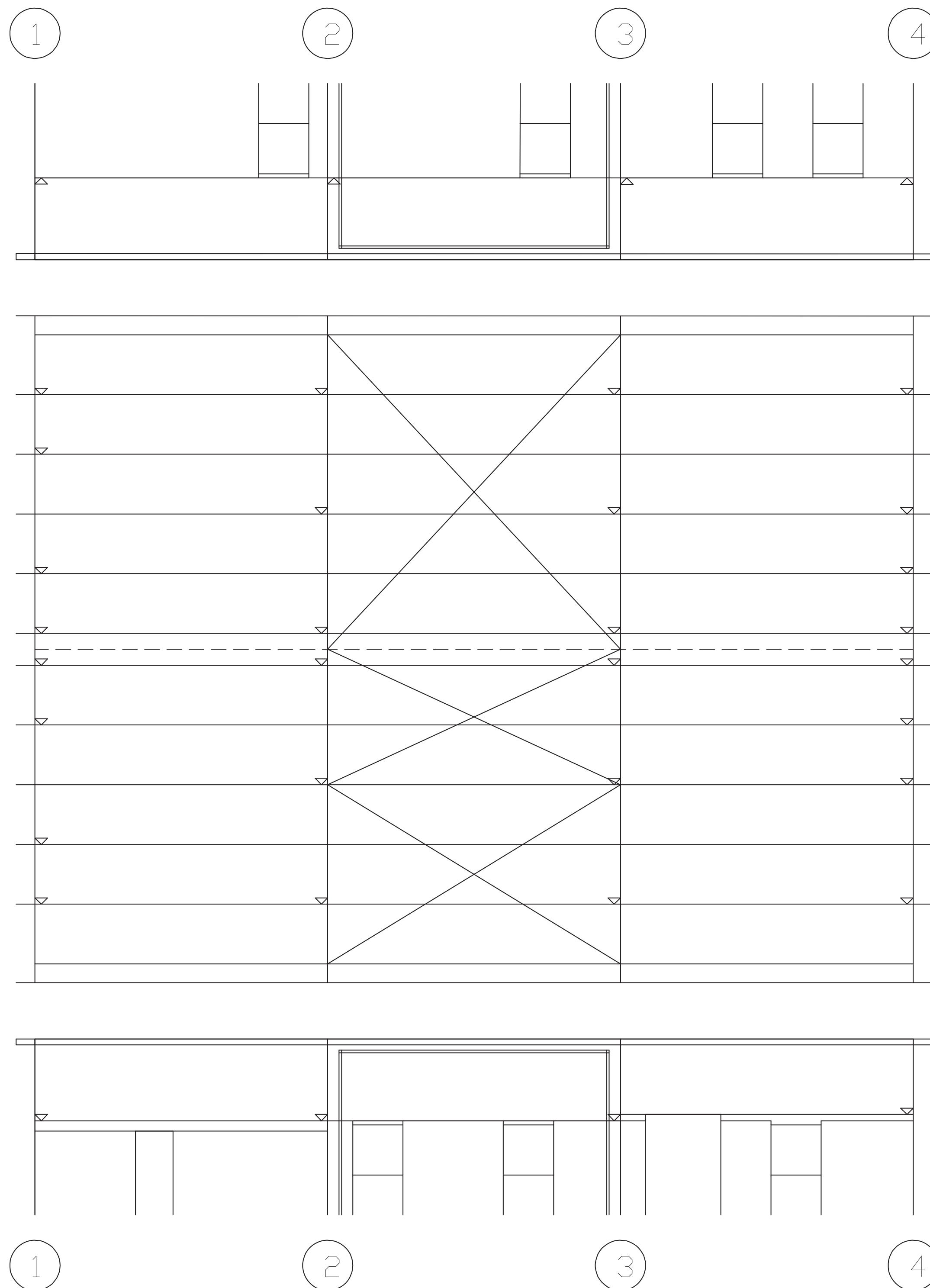
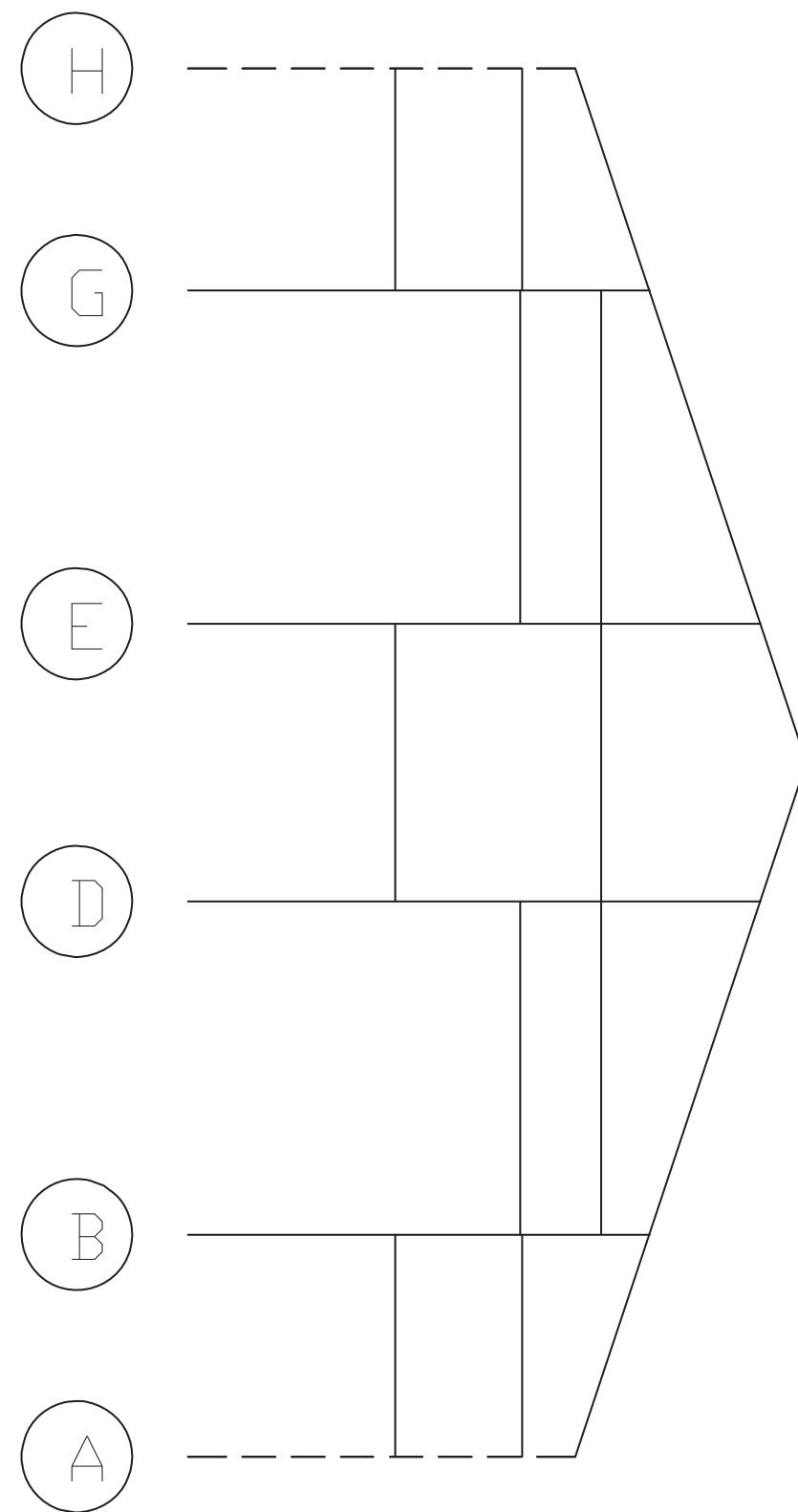
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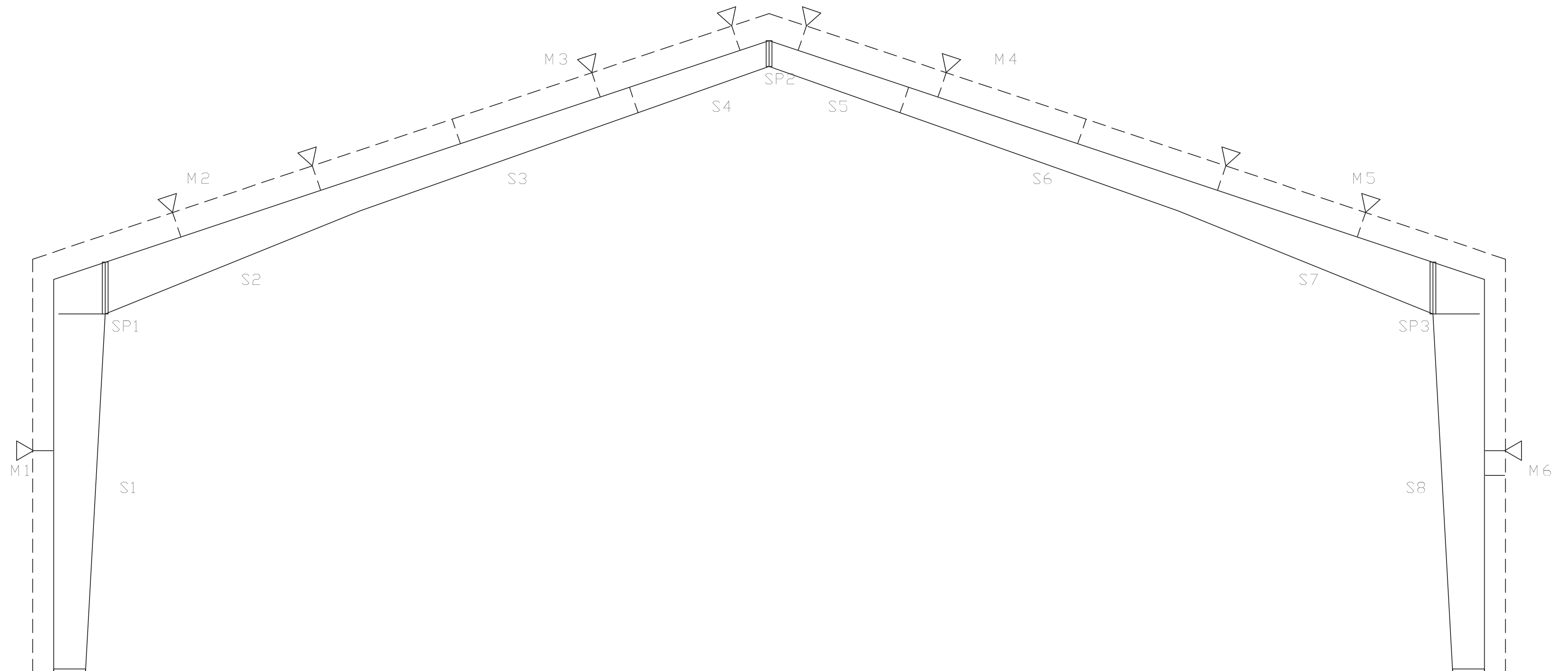
**HERITAGE**  
BUILDING SYSTEMS

PROJECT:							
CUSTOMER:					OWNER:		
LOCATION:							
CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/12/22	N.T.S.	1	A		E6	0

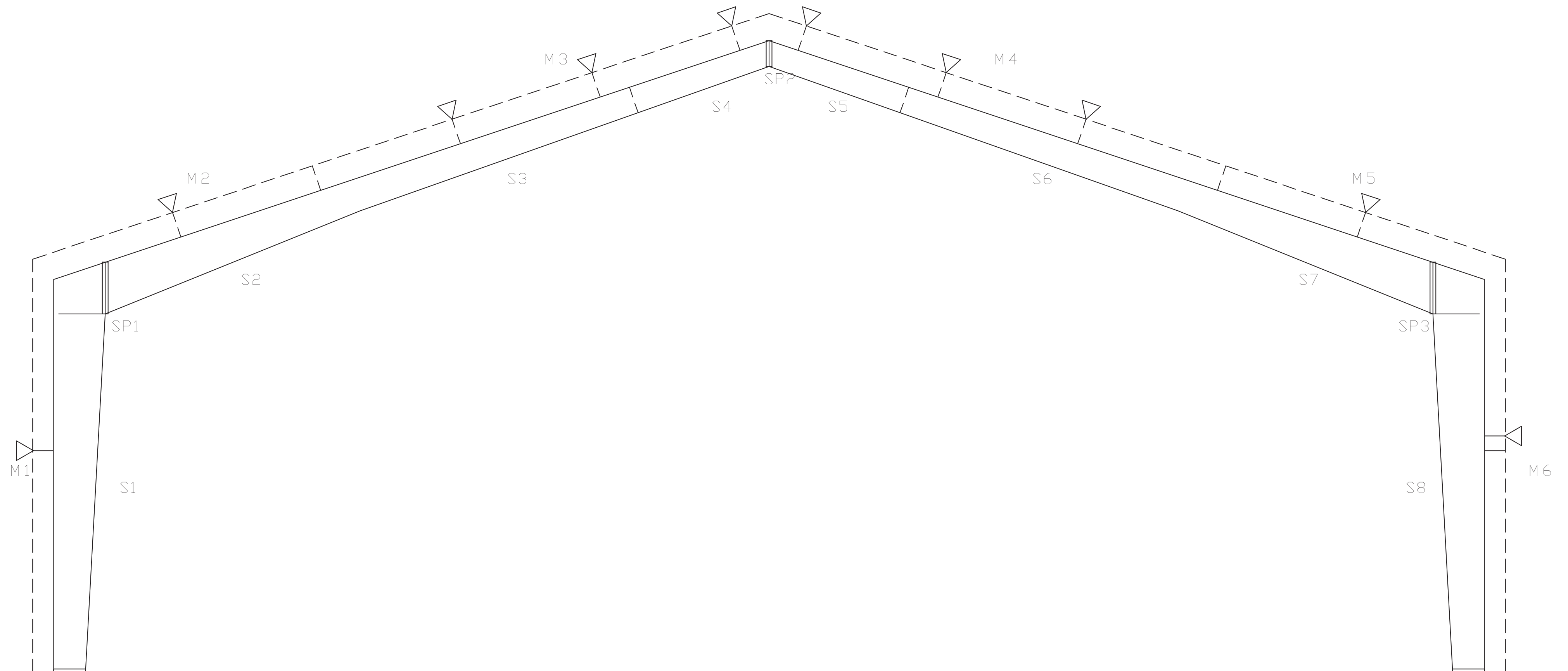
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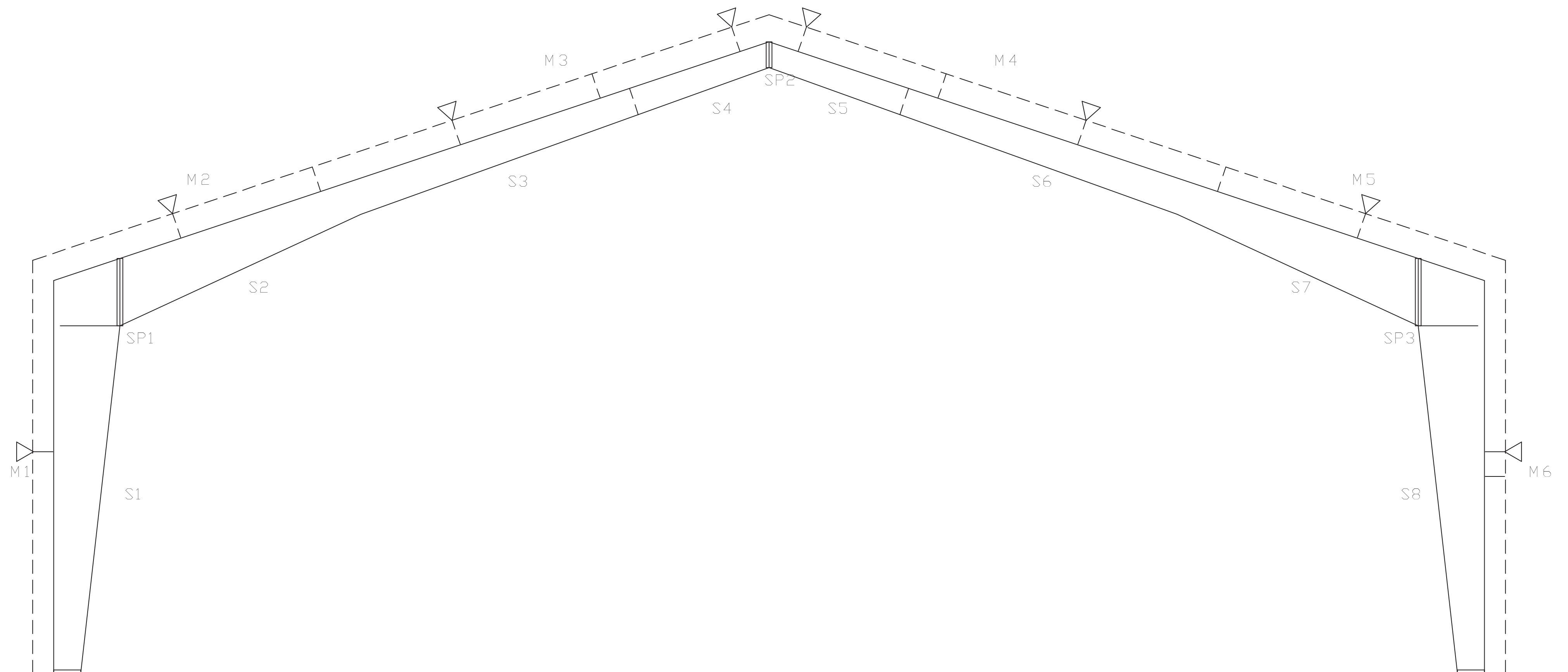










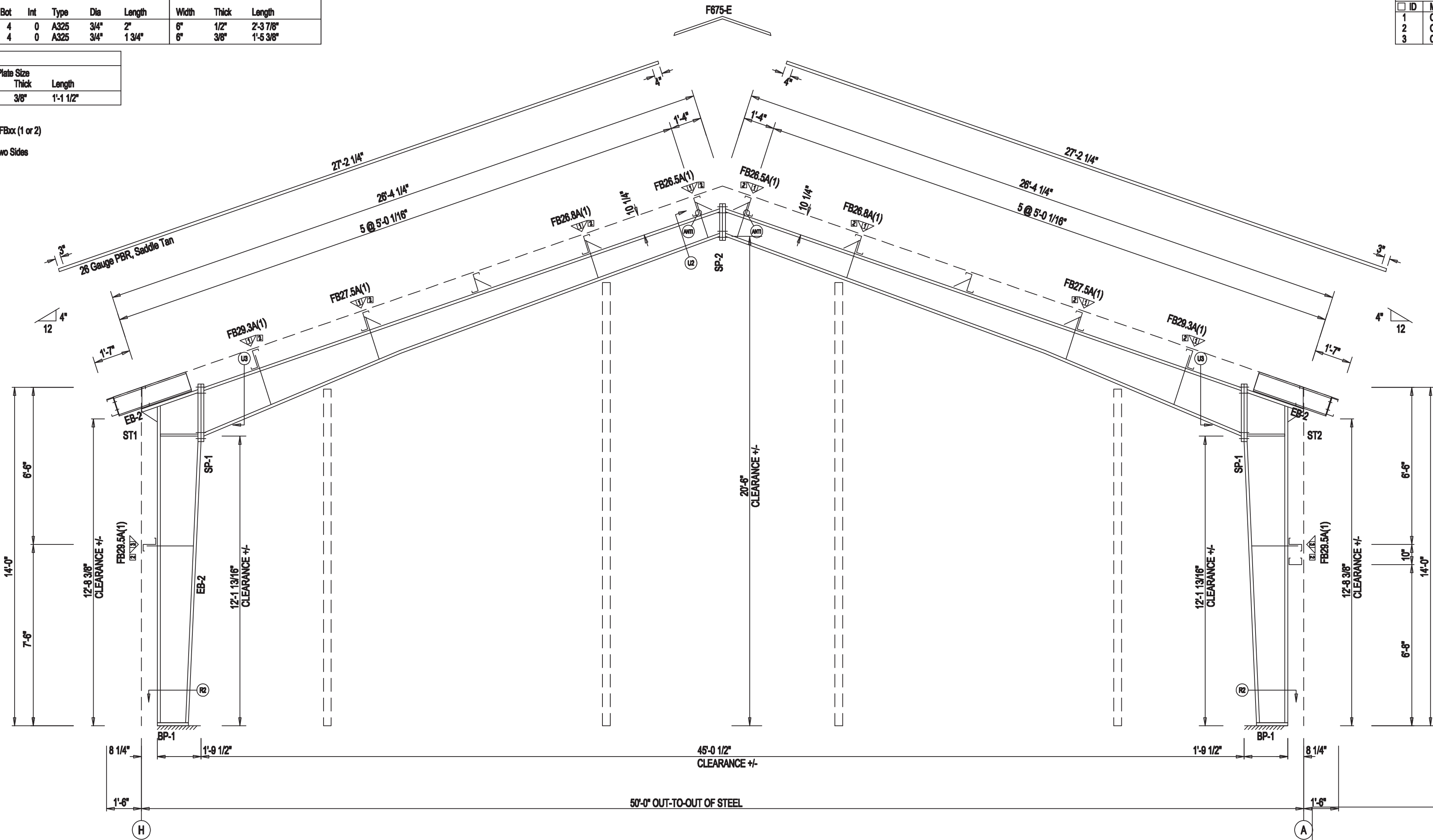


SPLICE PLATE & BOLT TABLE									
Mark	Qty	Top	Bot	Int	Type	Dia	Length	Width	Thick
SP-1	4	4	0	0	A325	3/4"	2"	6"	1/2"
SP-2	4	4	0	0	A325	3/4"	1 3/4"	6"	3/8"

BASE PLATE TABLE			
Col	Plate Size		Length
Mark	Width	Thick	Length
BP-1	6"	3/8"	1'-1 1/2"

▽ FLANGE BRACES: FBxx (1 or 2)  
xx=length(in)  
(1) One Side; (2) Two Sides  
A - L2X2X14G

CONNECTION PLATES	
ID	Mark/Part
1	CL197
2	CL199
3	CL198



RIGID FRAME ELEVATION: FRAME LINE 1

GENERAL NOTES:									
1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.									
2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.									
3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.									
ISSUE	DATE	DESCRIPTION	BY	CKD	DSN	PROJECT:			
0	4/12/22	FOR QUOTE				CUSTOMER:			
						OWNER:			
						LOCATION:			
						CAD	DATE	SCALE	PHASE
							4/12/22	N.T.S.	1
						BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
						A		E7	0

HERITAGE  
BUILDING SYSTEMS

2513 MCCAIN BLVD, STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

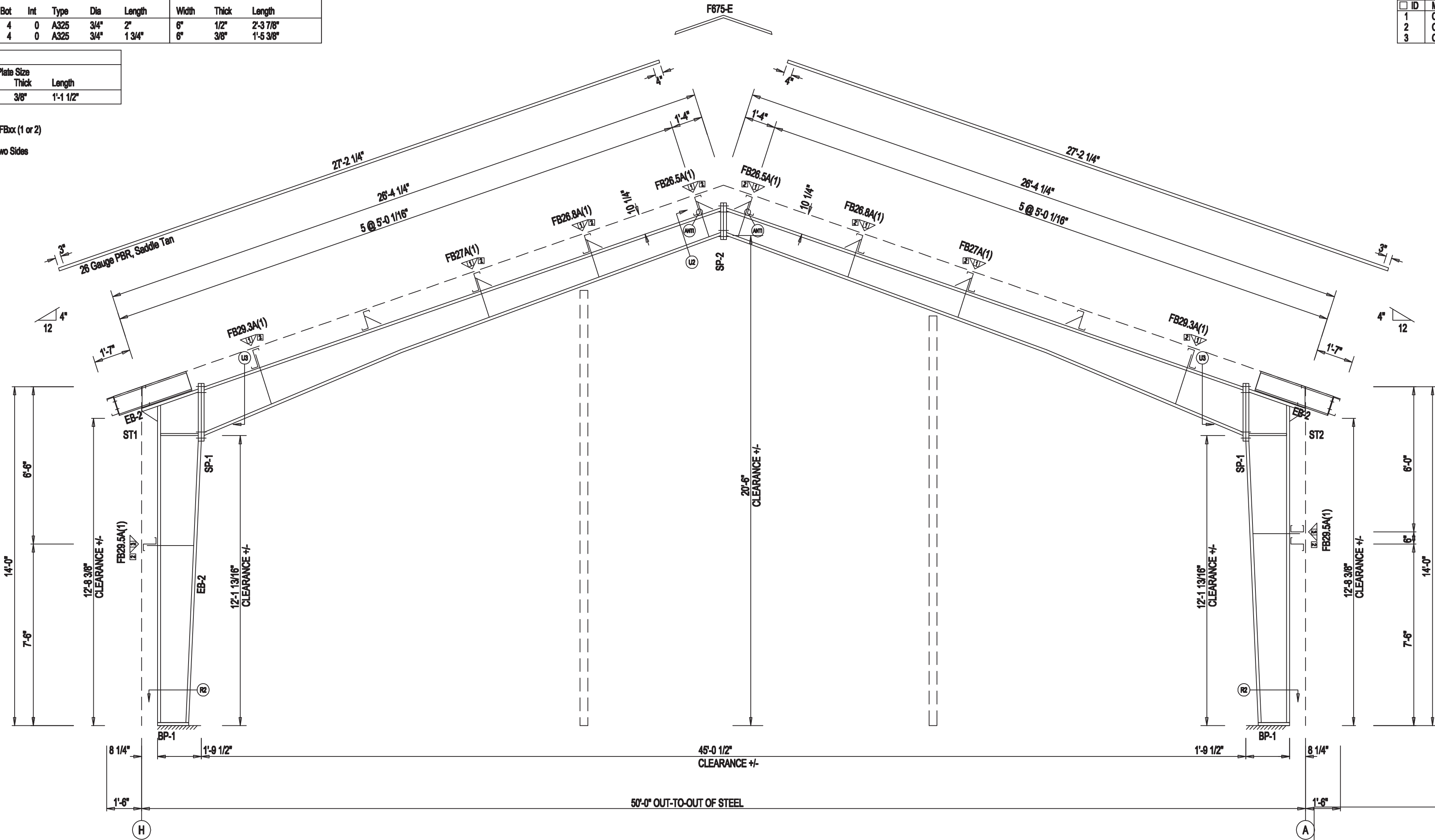
S-30

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	3/4"	2"	6"	1/2"	2'-3 7/8"
SP-2	4	4	0	A325	3/4"	1 3/4"	6"	3/8"	1'-5 3/8"

BASE PLATE TABLE			
Col Mark	Plate Size		Length
	Width	Thick	
BP-1	6"	3/8"	1'-1 1/2"

▽ FLANGE BRACES: FBxx (1 or 2)  
xx=length(in)  
(1) One Side; (2) Two Sides  
A - L2X2X14G

CONNECTION PLATES	
ID	Mark/Part
1	CL197
2	CL199
3	CL198



RIGID FRAME ELEVATION: FRAME LINE 4

GENERAL NOTES:														ISSUE	DATE	DESCRIPTION	BY	CKD	DSN	<div>HERITAGE BUILDING SYSTEMS</div> <div>2513 MCCAIN BLVD, STE 2 #385 NORTH LITTLE ROCK, AR 72116-7606 1-800-643-5555</div>		
1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.																						
2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.														PROJECT:								
3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.															CUSTOMER:	OWNER:						
														LOCATION:								
															CAD	DATE	SCALE	PHASE	BUILDING ID		JOB NUMBER	SHEET NUMBER
														4/12/22								

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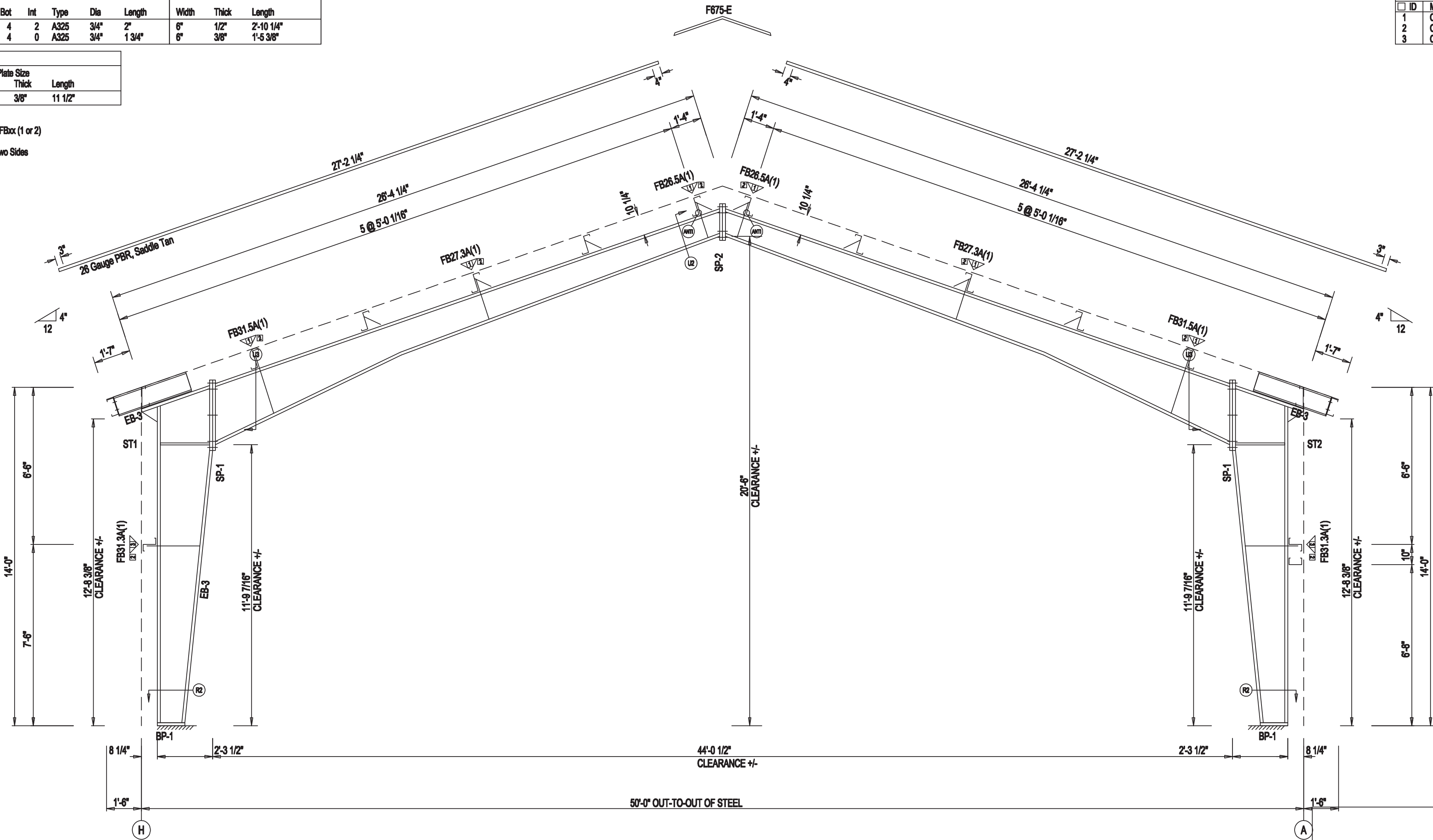


SPLICE PLATE & BOLT TABLE									
Mark	Qty	Top	Bot	Int	Type	Dia	Length	Width	Thick
SP-1	4	4	4	2	A325	3/4"	2"	6"	1/2"
SP-2	4	4	4	0	A325	3/4"	1 3/4"	6"	3/8"

BASE PLATE TABLE			
Col	Plate Size		Length
Mark	Width	Thick	
BP-1	6"	3/8"	11 1/2"

▽ FLANGE BRACES: FBxx (1 or 2)  
xx=length(in)  
(1) One Side; (2) Two Sides  
A - L2X2X14G

CONNECTION PLATES	
ID	Mark/Part
1	CL197
2	CL198
3	CL196



RIGID FRAME ELEVATION: FRAME LINE 2 3

**GENERAL NOTES:**  
1. BOLT TIGHTENING - ALL BOLTED JOINTS WITH A325 TYPE 1 BOLTS ARE SPECIFIED AS SNUG-TIGHTENED JOINTS IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. ACCORDANCE WITH THE MOST RECENT EDITION OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRE-TENSIONING METHODS, INCLUDING TURN-OF-NUT, CALIBRATED WRENCH, TWIST-OFF-TYPE TENSION-CONTROL BOLTS OR DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS DIRECT-TENSION-INDICATOR ARE NOT REQUIRED. INSTALLATION INSPECTION REQUIREMENTS FOR SNUG TIGHT BOLTS (SPECIFICATION FOR STRUCTURAL JOINTS SECTION 9.1) IS SUGGESTED.  
2. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A325 BOLTS.  
3. INSTALL ALL FLANGE BRACES ON COLUMN AND RAFTER AS SHOWN.

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	4/12/22	FOR QUOTE			

**HERITAGE**  
BUILDING SYSTEMS

2513 MCCAIN BLVD, STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

PROJECT:

CUSTOMER:

LOCATION:

CAD

DATE  
4/12/22

SCALE  
N.T.S.

PHASE  
1

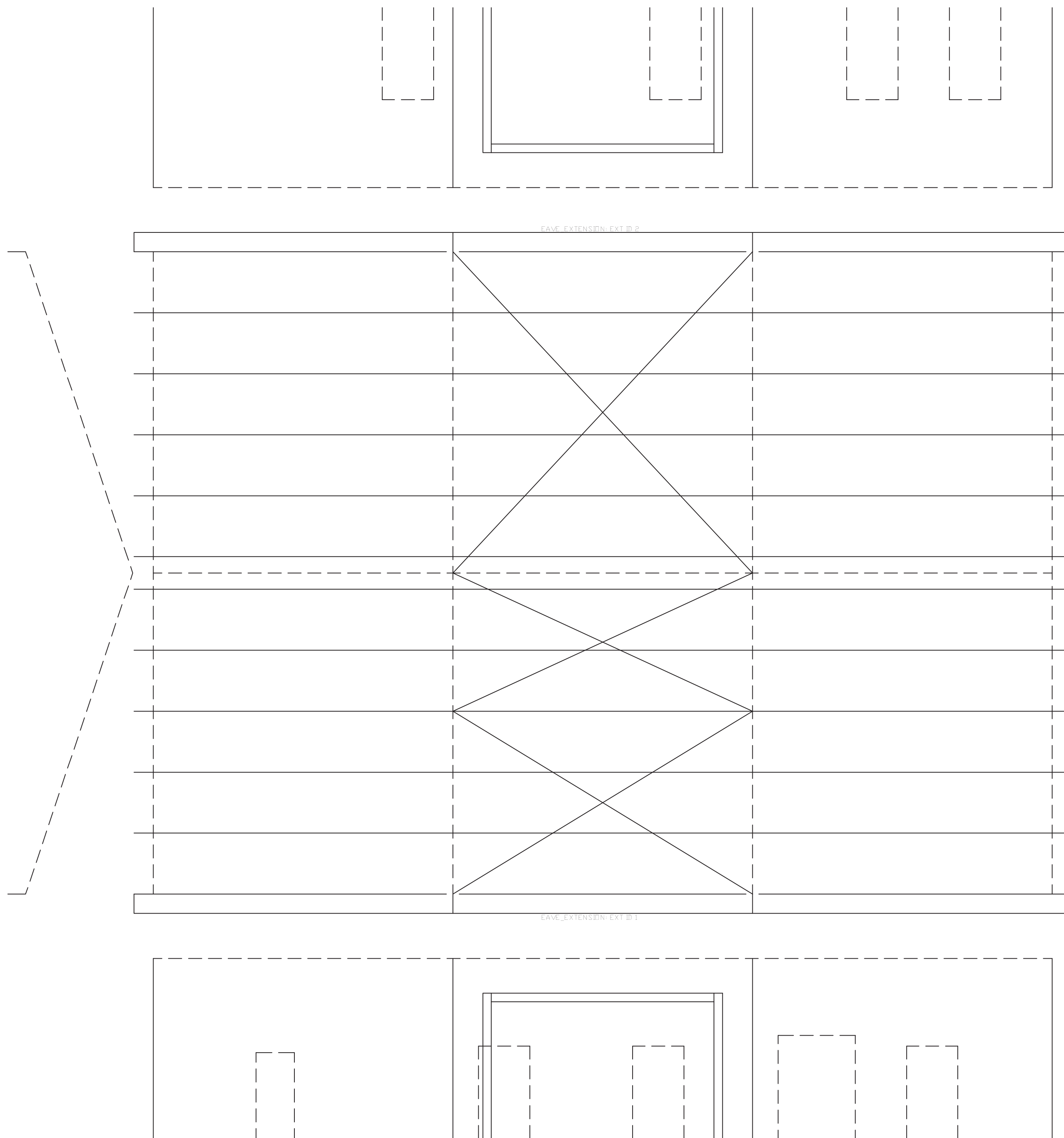
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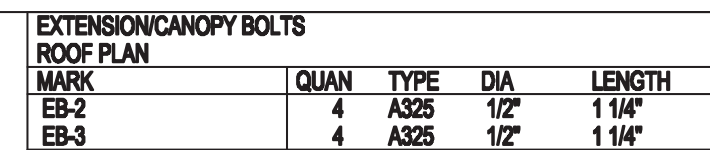
JOB NUMBER

SHEET NUMBER  
E9

ISSUE  
0

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1. INSTALL ALL PURLIN AND FLANGE BRACES (FB) AS SHOWN.
2. ROOF PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. STRUT PURLINS, IF PROVIDED, MUST BE INSTALLED AND FASTENED TO ROOF SHEETING PER "RBR" PANEL ROOF DETAIL.
4. DO NOT ADD ANY ADDITIONAL ROOF OPENINGS WITHOUT BUILDING MANUFACTURER APPROVAL OR PROFESSIONAL ENGINEER APPROVAL.
5. DO NOT STACK SHEET BUNDLES ON ROOF. ONLY RAISE INDIVIDUAL SHEETS AS NEEDED.
6. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

[illegible]

**HERITAGE**  
BUILDING SYSTEMS

PROJECT:	
----------	--

**CUSTOMER:**

LOCATION:

**CAD**

DATE \_\_\_\_\_

4/12/22

**SCALE**

**N.T.S.**

PHA

1

BUILDING ID

A

**JOB NUMBER**

**SHEET NUMBER**

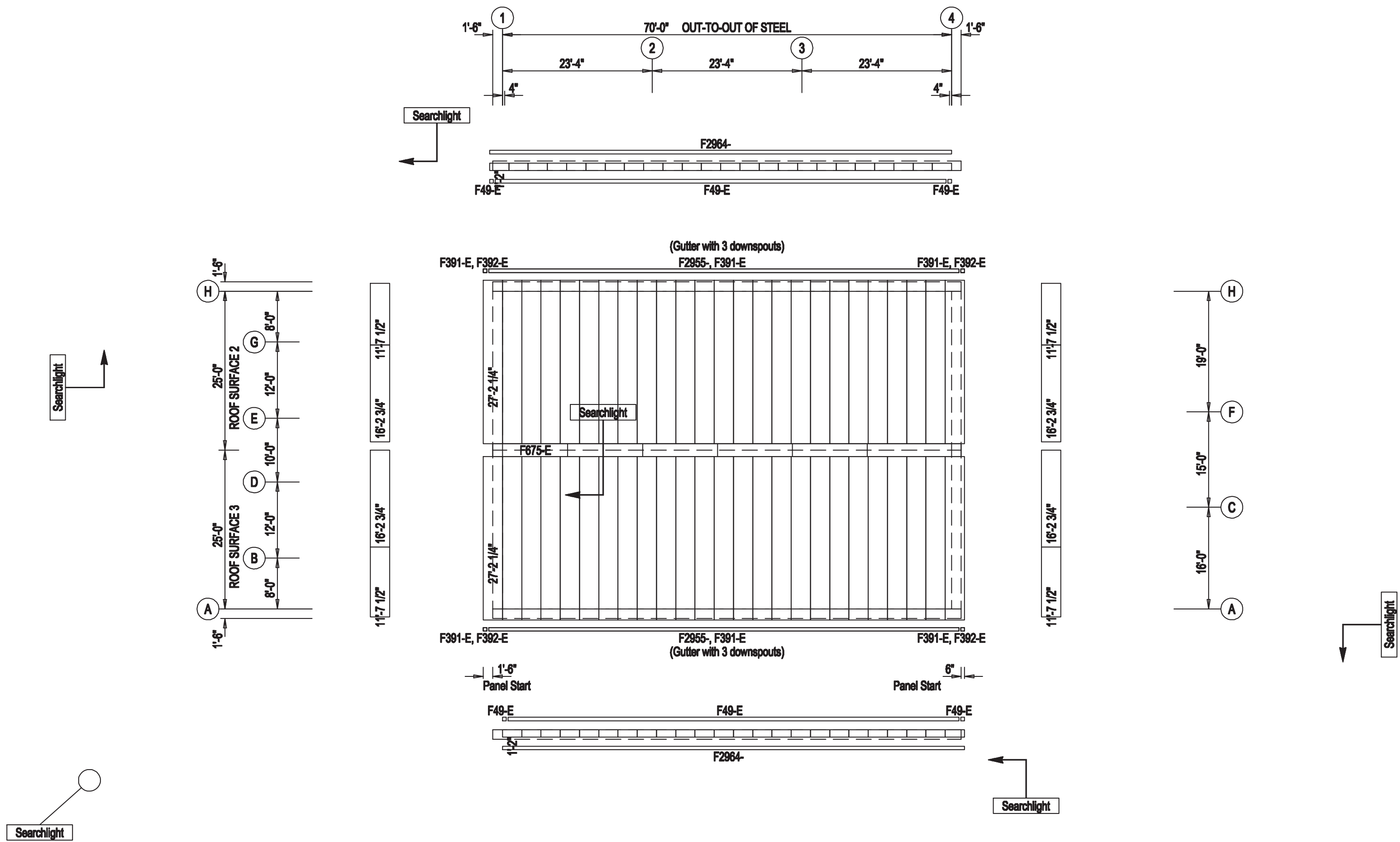
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	<b>ISSUE</b>
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0

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PBR ROOF SHEETING NOTE:  
PBR ROOF PANELS ARE TO BE FIELD CUT IF THE PANELS EXTEND  
OUTSIDE OF THE ROOF PLANE, PANELS ARE NOT TO BE BACK LAPPED.



ROOF SHEETING PLAN  
PANELS: 26 Gauge PBR - Saddle Tan

GENERAL NOTES:

1. INSTALL ALL PURLIN AND FLANGE BRACES (FB) AS SHOWN.
2. ROOF PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.
3. STRUT PURLINS, IF PROVIDED, MUST BE INSTALLED AND FASTENED TO ROOF SHEETING PER "PBR" PANEL ROOF DETAIL.
4. DO NOT ADD ANY ADDITIONAL ROOF OPENINGS WITHOUT BUILDING MANUFACTURER APPROVAL OR PROFESSIONAL ENGINEER APPROVAL.
5. DO NOT STACK SHEET BUNDLES ON ROOF. ONLY RAISE INDIVIDUAL SHEETS AS NEEDED.
6. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	4/12/22	FOR QUOTE			

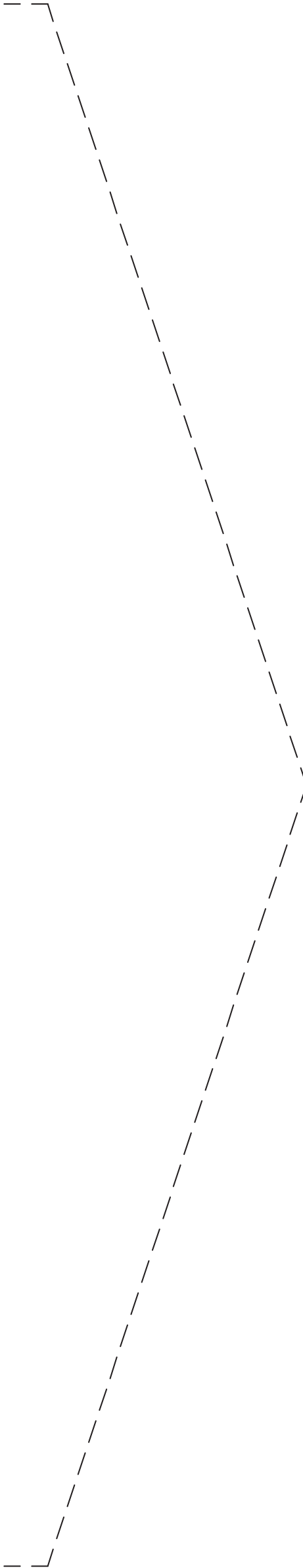
HERITAGE  
BUILDING SYSTEMS

2513 MCCAIN BLVD., STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

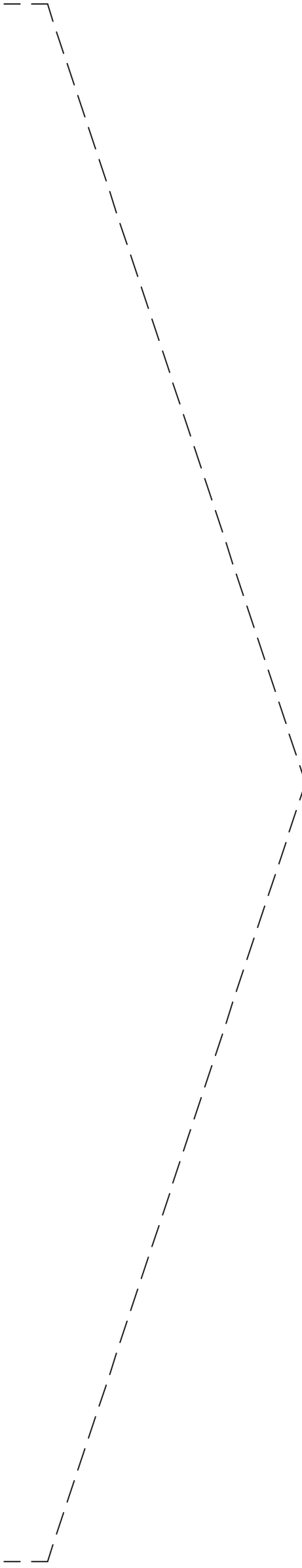
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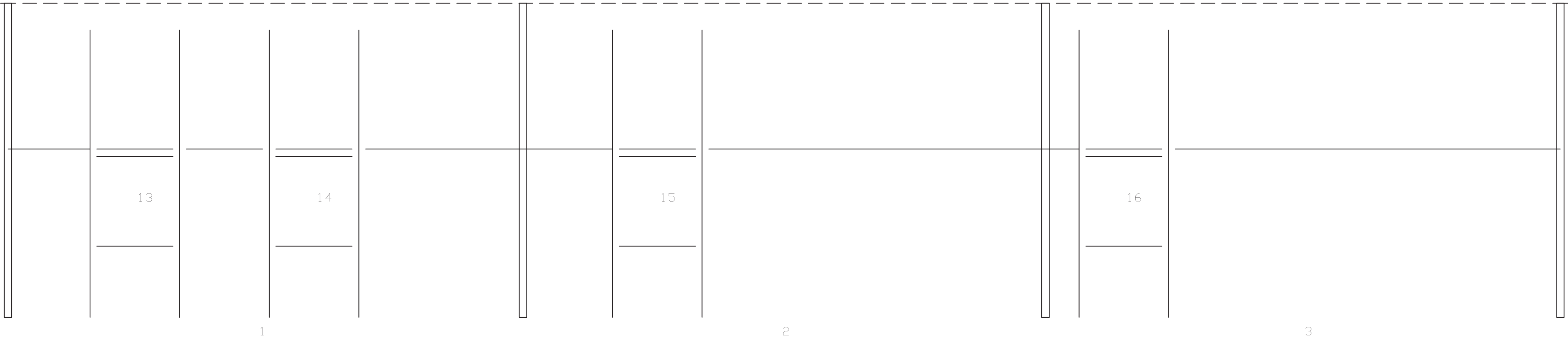


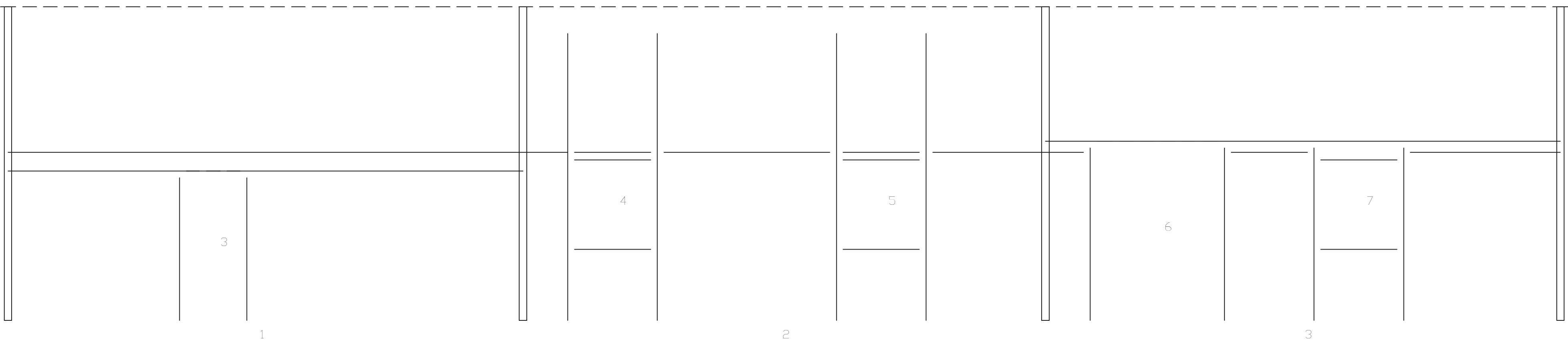


17						20
16	3		1		5	19
18	10		6		9	21
17	7		4		8	20
16	3		1		5	19
18						21

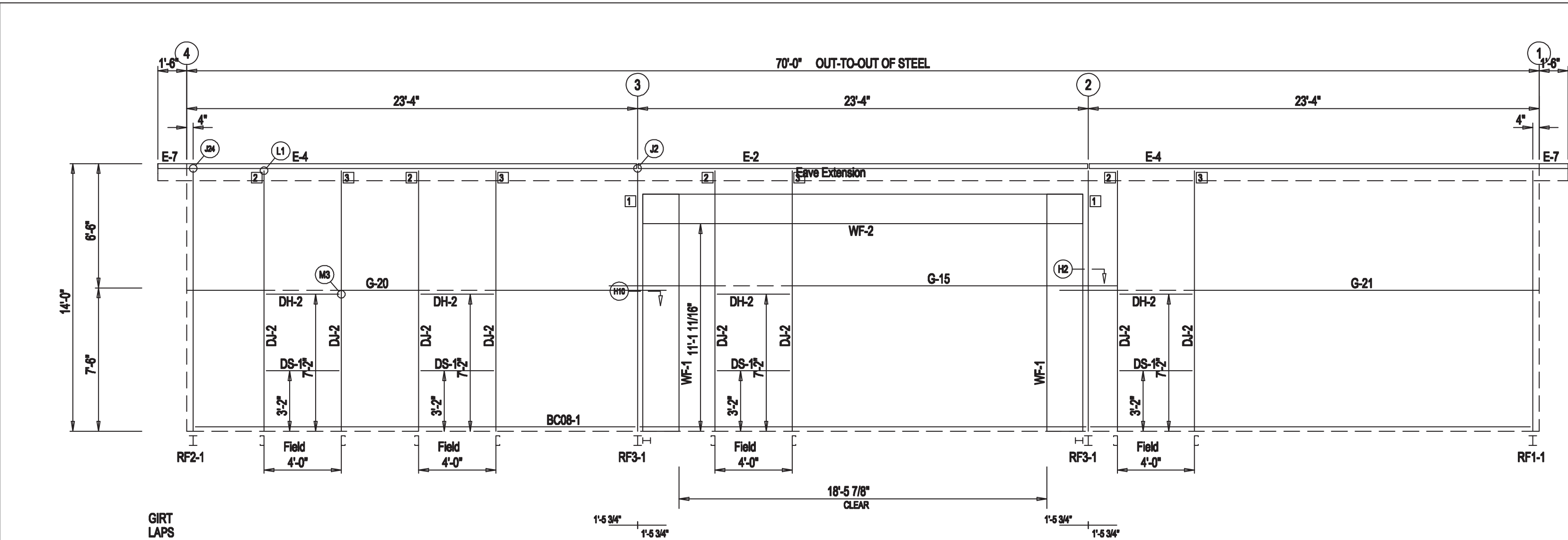


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16		1		19

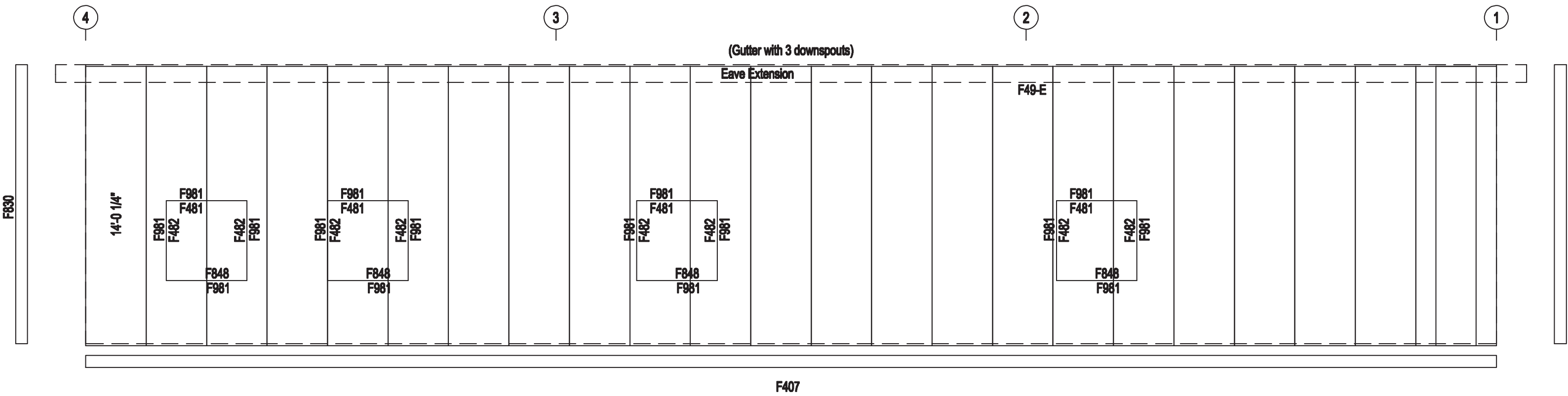








SIDEWALL FRAMING: FRAME LINE H



SIDEWALL SHEETING & TRIM: FRAME LINE H

PANELS: 26 Gauge PBR - Light Stone

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN
0	4/12/22	FOR QUOTE			

HERITAGE

BUILDING SYSTEMS

2513 MCCAIN BLVD., STE 2 #385  
NORTH LITTLE ROCK, AR 72116-7606  
1-800-643-5555

PROJECT:

CUSTOMER:

OWNER:

LOCATION:

CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE
	4/12/22	N.T.S.	1	A		E4	0

GENERAL NOTES:

1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.

2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.

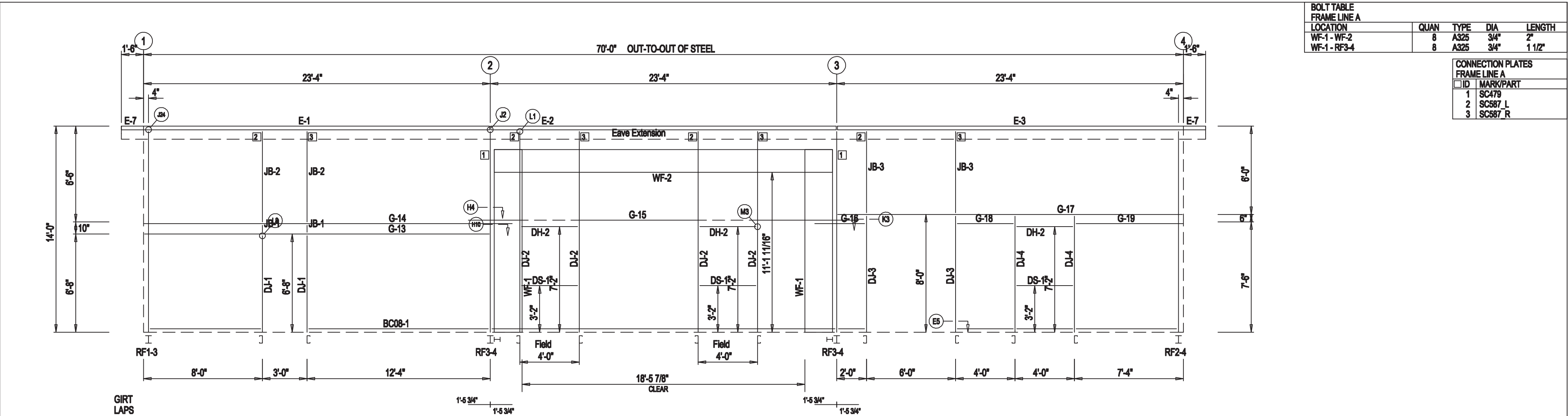
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.

4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.

BOLT TABLE				
FRAME LINE H				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 - WF-2	8	A325	3/4"	2"
WF-1 - RF3-1	8	A325	3/4"	1 1/2"

CONNECTION PLATES	
FRAME LINE H	
ID	MARK/PART
1	SC478
2	SC587_L
3	SC587_R

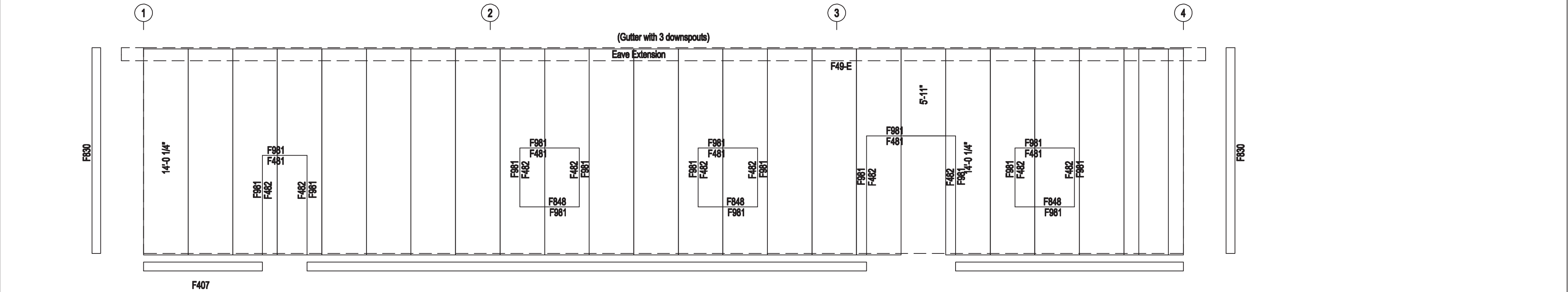
S-40



BOLT TABLE				
FRAME LINE A				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 - WF-2	8	A325	3/4"	2"
WF-1 - RF3-4	8	A325	3/4"	1 1/2"

CONNECTION PLATES	
FRAME LINE A	
ID	MARK/PART
1	SC478
2	SC587_L
3	SC587_R

SIDEWALL FRAMING: FRAME LINE A



SIDEWALL SHEETING & TRIM: FRAME LINE A

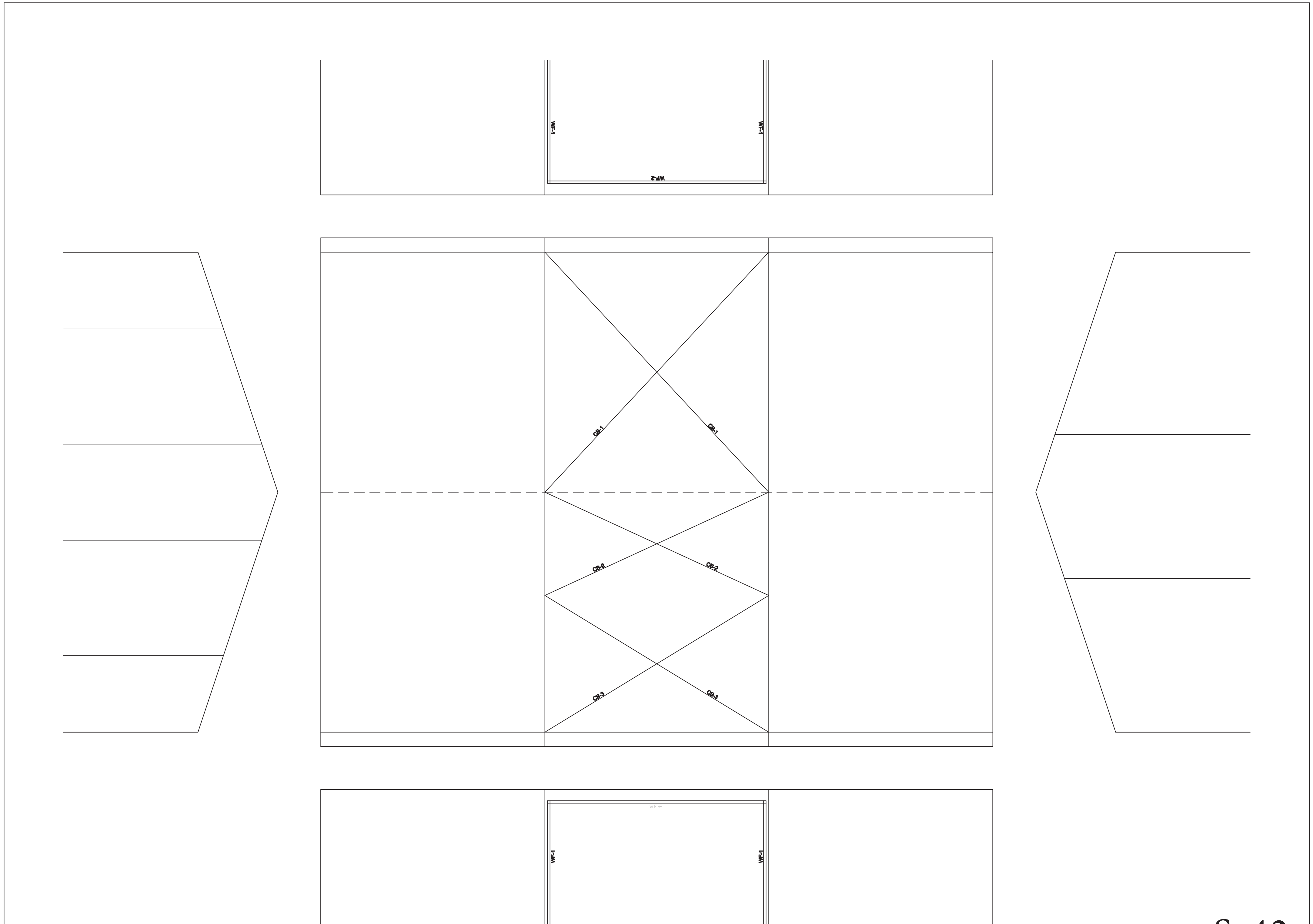
PANELS: 26 Gauge PBR - Light Stone

DOWNSPOUT SPACING LOCATIONS	
DOWNSPOUTS ARE TO BE PLACED AT A SPACING NOT TO EXCEED ?? FT. WITH A DOWNSPOUT WITHIN ?? FT. OF EACH END OF THE GUTTER RUN. GUTTER STRAPS TO BE 2'-0" ON CENTER.	

GENERAL NOTES:	
1. INSTALL ALL GIRTS AND FLANGE BRACES (FB) AS SHOWN.	
2. WALL PANEL PROVIDES STRUCTURAL STABILITY TO THE BUILDING.	
3. OTHER THAN FOR WALK DOORS AND WINDOWS SHOWN ON THE CONTRACT, DO NOT ADD ADDITIONAL WALL OPENINGS WITHOUT APPROVAL OF BUILDING MANUFACTURER OR PROFESSIONAL ENGINEER.	
4. AFTER INSTALLATION, WIPE ALL PANELS CLEAN OF METAL SHAVINGS CAUSED BY DRILLING.	

ISSUE	DATE	DESCRIPTION	BY	CKD	DSN	<div><div>HERITAGE</div><div>BUILDING SYSTEMS</div></div> <div>2513 MCCAIN BLVD. STE 2 #385 NORTH LITTLE ROCK, AR 72116-7606 1-800-643-5555</div>									
0	4/12/22	FOR QUOTE													
						PROJECT:									
						CUSTOMER:					OWNER:				
						LOCATION:									
						CAD	DATE	SCALE	PHASE	BUILDING ID	JOB NUMBER	SHEET NUMBER	ISSUE		
							4/12/22	N.T.S.	1	A		E3	0		

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## STRUCTURAL GENERAL NOTES

## STRUCTURAL OBSERVATIONS

3. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH CITY OF SAN JOSE ORDINANCES. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM. SIGNIFICANT STRUCTURAL DEFLECTIONS OR ALTERED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.
2. THE OWNER SHALL EMPLOY A CIVIL OR STRUCTURAL ENGINEER OR ARCHITECT TO PERFORM THE STRUCTURAL OBSERVATION. THE ENGINEER OR ARCHITECT SHALL BE REGISTERED OR LICENSED IN THE STATE OF CALIFORNIA. THE DEPARTMENT OF BUILDING & SAFETY RECOMMENDS THE USE OF THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN WHEN THEY ARE INDEPENDENT OF THE CONTRACTOR.
3. THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER. A LETTER FROM THE OWNER OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT. THE STRUCTURAL OBSERVER SHALL ALSO INFORM THE OWNER OF THE REQUIREMENTS FOR A PRE-CONSTRUCTION MEETING AND SHALL PRESIDE OVER THAT MEETING.
4. THE OWNER OR OWNER'S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTOR AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT AND SUBMITTED TO THE BUILDING INSPECTOR.
5. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTITUTION OF MATERIAL OR UNDERCUT OF EXISTING MEMBERS. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL ENGINEER.

STRUCTURAL OBSERVATION & DESIGNATION OF THE STRUCTURAL OBSERVER				
PROJECT ADDRESS: 10818 CROTHERS ROAD, SAN JOSE, CA 95127			PERMIT APPL. NO. :	
DESCRIPTION OF WORK: PROPOSED NEW BARN				
OWNER: LARSON BARN		ARCHITECT: ECO-STRUCTON		ENGINEER: THANG LE, SE
STRUCTURAL OBSERVATION (ONLY CHECKED ITEMS ARE REQUIRED)				
FIRM OR INDIVIDUAL TO BE RESPONSIBLE FOR THE STRUCTURAL OBSERVATIONS: THANG LE, S.E.				
NAME: <u>THANG LE</u>		PHONE: 626-731-1539		CALIF. REGISTRATION: 54978
FOUNDATION		WALL		FRAME
<input checked="" type="checkbox"/> FTG., STEM WALLS, PIERS	<input type="checkbox"/> CONCRETE	<input type="checkbox"/> STL. MMNT. FRM.	<input type="checkbox"/> DIAPHRAGM	
<input type="checkbox"/> MAT FOUNDATION	<input type="checkbox"/> MASONRY	<input type="checkbox"/> STL. BRACED FRM.	<input type="checkbox"/> CONCRETE	
<input type="checkbox"/> CAISSON, PILES, GRD. BMS.	<input type="checkbox"/> WOOD SHEAR WALL GREATER THAN 350 PLF	<input type="checkbox"/> CONC. MMNT. FRM.	<input type="checkbox"/> STEEL DECK	
<input type="checkbox"/> STEPPED FTG./RETAINING FND. HILLSIDE SPECIAL ANCHORS	<input type="checkbox"/> MAS. WALL FRM.	<input type="checkbox"/> WOOD		
<input type="checkbox"/> OTHERS:	<input type="checkbox"/> RASTRA	<input type="checkbox"/> OTHERS:		

6. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT ON THE DEPARTMENT FORM BS 261 FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED. THE ORIGINAL OF THE OBSERVATION REPORT SHALL BE SENT TO THE INSPECTOR'S OFFICE. THE SHOWN DEFICIENCIES (NOTED BY THE WET STAMPED) BY THE RESPONSIBLE STRUCTURAL OBSERVER, ONE COPY OF THE OBSERVATION REPORT SHALL BE ATTACHED TO THE APPROVED PLANS. COPIES OF THE REPORT SHALL ALSO BE GIVEN TO THE OWNER, CONTRACTOR AND DEPUTY INSPECTOR.
7. A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE BUILDING DEPARTMENT WILL REVIEW THE FINAL STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THE CORRECTION OF SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING AND DEPUTY INSPECTION.
8. WHEN THE OWNER ELECTS TO CHANGE THE STRUCTURAL OBSERVER OF RECORD, THE OWNER SHALL:
  - a) NOTIFY THE BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION;
  - b) CALL AN ADDITIONAL PRE-CONSTRUCTION MEETING AND
  - c) REPLACE THE STRUCTURAL OBSERVER WITH A COPY OF ALL PREVIOUS OBSERVATION REPORTS.
9. THE REPLACEMENT STRUCTURAL OBSERVER SHALL APPROVE THE CORRECTION OF THE ORIGINAL OBSERVED DEFICIENCIES UNLESS OTHERWISE APPROVED BY PLAN CHECK SUPERVISION. THE DEFICIENCIES OF THE DEPARTMENT SHALL BE TO CORRECT ANY PROPERLY NOTED DEFICIENCIES WITHOUT CONSIDERATION OF THEIR SOURCE.
10. THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOPE ALL CHANGES RELATIN TO THE STRUCTURAL SYSTEMS. THE BUILDING DEPARTMENT SHALL REVIEW AND APPROVE ALL CHANGES TO THE APPROVED PLANS AND SPECIFICATIONS.

- ## STRUCTURAL STEEL
1. PROVIDE STRUCTURAL STEEL COMPLYING WITH THE 2020 LABC CHAPTER 22 AND THE FOLLOWING ASTM STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED:
    - a. ALL STRUCTURAL STEEL UNLESS OTHERWISE NOTED BELOW ..... ASTM A36
    - b. ANCHOR BOLTS OR UNFINISHED MACHINE BOLTS ..... ASTM A307
    - c. PIPES ..... ASTM A53, GRADE B (35 KSI)
    - d. TUBES ..... ASTM A500, GRADE B (46 KSI)
    - e. W SHAPES ..... ASTM A992 (50 KSI)
    - f. THREADED ROD STOCK ..... ASTM A36
    - g. REINFORCING STEEL ..... SEE REINFORCING STEEL SECTION
  2. HIGH STRENGTH BOLTS
    - a. PROVIDE HIGH STRENGTH BOLTS, NUTS, AND WASHERS COMPLYING WITH ASTM A325 UNLESS OTHERWISE NOTED. ALL HIGH STRENGTH BOLTS SHALL BE BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE (A325-N), UNLESS OTHERWISE NOTED. PROVIDE SLIP-CRITICAL HIGH STRENGTH BOLTS (A325-SC) ONLY WHERE SPECIFICALLY INDICATED ON PLANS.
    - b. ASSEMBLE HIGH STRENGTH BOLTS IN COMPLIANCE WITH "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 FOR A490 BOLTS" AND THE IBC STANDARD 27-1 AND 27-7.
  3. FABRICATE AND ERECT STRUCTURAL STEEL IN COMPLIANCE WITH THE LATEST EDITION OF AISC "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
  4. WELD STRUCTURAL STEEL IN COMPLIANCE WITH ANSI / AWS D1.1 AND AISC "SPECIFICATIONS", CHAPTER J.
    - a. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY
    - b. WELDING SHALL BE DONE BY ELECTRONIC ARC PROCESS USING E70XX ELECTRODES UNLESS OTHERWISE NOTED.
    - c. WELDING MAY BE PERFORMED USING SUBMERGED ARC PROCESS WITH AUTOMATIC WELDING (SAW-1).
    - d. PERFORM SHOP WELDING AND BY A FABRICATOR APPROVED BY GOVERNING CODE AUTHORITY.
    - f. PROVIDE SPECIAL INSPECTION FOR ALL FIELD WELDING.
  5. FIELD WELDING TO BE DONE IN WELDERS CERTIFIED BY THE LADBS FOR STRUCTURAL STEEL, REINFORCING STEEL AND LIGHT GAGE STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
  6. SHOP WELDS MUST BE PERFORMED IN THE LADBS LICENSED FABRICATOR SHOP.
  7. LADBS LICENSED FABRICATOR IS REQUIRED FOR STRUCTURAL STEEL.
  - C. METAL STUD – LIGHT GAUGE STEEL (ICC-ES ESR-1538)
  1. ALL WORK SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS:
    - a. AMERICAN IRON AND STEEL INSTITUTE (AISI) DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
    - a. AMERICAN WELDING SOCIETY (AWS) D1.1 AND D1.3 SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURE.
    - c. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
  2. ALL STUD AND TRACK MATERIAL TO CONFORM TO THE FOLLOWING:
    - a. 16 GAUGE AND HEAVIER:
      - + 50 KSI MINIMUM YIELD, 65 KSI MINIMUM TENSILE STRENGTH
      - + PAINTED STEEL ..... ASTM A570 – GRADE 50
      - + GALVANIZED STEEL ..... ASTM A653 – GRADE 50
    - b. 18 GAUGE AND LIGHTER:
      - + 33 KSI MINIMUM YIELD, 45 KSI MINIMUM TENSILE STRENGTH
      - + PAINTED STEEL ..... ASTM A611 – GRADE C
      - + GALVANIZED STEEL ..... ASTM A653 – GRADE 33
  3. ALL WELDING TO BE PERFORMED BY CERTIFIED LIGHT GAUGE WELDERS CERTIFIED FOR ALL APPROPRIATE DIRECTION COMPLYING WITH AWS D1.2.
  4. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR ON AN ANGLE SUCH AS BRACING TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.
  5. LOW VELOCITY FASTENERS (SHOTPINS) WHERE CALLED OUT ON PLAN SHALL BE RAMSET 1500 SERIES INSTALLED IN ACCORD LOCAL BUILDING CODE OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL. LOW VELOCITY FASTENERS SHALL BE 0.14" DIAMETER WITH 1-1/4" MINIMUM EMBEDMENT, UNLESS OTHERWISE NOTED.
  6. EXPANSION ANCHOR SHALL BE RAMSET/REDHEAD TRUBOLTS INSTALLED IN ACCORD WITH BUILDING DEPARTMENT OR OTHER LISTED MAKE, APPROVE BY BUILDING OFFICIAL.
  7. SCREWS SHALL BE "DART" BRAND SELF DRILLING/SELF-TAPPING STEEL SCREWS/ INSTALL ED IN ACCORD WITH BUILDING DEPARTMENT. SCREWS SHALL BE SUFFICIENT LENGTH TO ENSURE PENETRATION INTO STEEL STUD BY AT LEAST 2 FULL DIAMETER THREADS.

## STATEMENT OF SPECIAL INSPECTIONS

1. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTION DURING CONSTRUCTION. THE SPECIAL INSPECTOR(S) SHALL BE QUALIFIED TO THE SATISFACTION OF THE BUILDING OFFICIAL TO INSPECT THE KIND OF CONSTRUCTION BEING EMPLOYED IN THE PROJECT. THE SPECIAL INSPECTOR SHALL SUBMIT REPORTS INDICATING RESULTS AND OBSERVATIONS OF TESTS AND INSPECTIONS AND STATING COMPLIANCE OR NONCOMPLIANCE WITH CONTRACT DOCUMENTS TO STRUCTURAL ENGINEER AND TO GOVERNING CODE AUTHORITY.
2. TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTION, COMPLYING WITH LABC SECTION 1701 (UNLESS OTHERWISE NOTED), FOR THE FOLLOWING:
  - A. EPOXY ANCHORS
  - B. BOLTS INSTALLED IN CONCRETE
  - C. CONCRETE STRENGTH  $f'_c > 2,500$  PSI
  - D. SHEATHED SHEAR WALL WHEN SHEAR EXCEEDS 350 POUNDS PER LINEAR FOOT WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.
3. CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTIONS" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LABDS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SECTION 1704.4.
4. CONTINUOUS SPECIAL INSPECTOR BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, POST-INSTALLED ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INSTALLED TO RESIST STANDING TENSION LOADS, SHOTCRETE PLACEMENT, CONCRETE STRENGTH  $f'_c > 2,500$  PSI, HIGH STRENGTH BOLTS, SPRAYED FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, PRE-STRESSED CONCRETE, HIGH LOAD DIAPHRAGMS, SPECIAL MOMENT-RESISTING CONCRETE FRAMES, AND HELICAL PILE FOUNDATIONS.
5. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.

- FOUNDATION

  - PERFORM FOUNDATION WORK COMPLYING WITH REPORT AND ADDENDA.  
GEOTECHNICAL REPORT AND ADDENDA HEREBY BECOME PART OF THESE CONTRACT DOCUMENTS AND SHALL BE KEPT ON JOB SITE AT ALL TIMES.  
  
FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS OF  
BUTANO GEOTECHNICAL ENGINEERING, INC.  
231 GREEN VALLEY ROAD, SUITE E  
FREEDOM, CALIFORNIA 95019  
REPORT NO. 19-150-SCL  
DATED MAY 8, 2020  
  
ALLOWABLE SOIL BEARING = 1,500 PSF  
MAXIMUM SOIL BEARING = 3,000 PSF  
MINIMUM FOOTING DEPTH = 24 INCHES  
MINIMUM FOOTING WIDTH = 12 INCHES FOR CONTINUOUS FOOTINGS  
= 24 INCHES FOR PAD FOOTINGS
  - FOUNDATION EXCAVATIONS ARE TO BE OBSERVED BY AND ACCEPTABLE TO A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE PRIOR TO PLACEMENT OF FILL, REINFORCING STEEL, OR CONCRETE.
  - PERFORM FILLING, BACKFILLING, COMPACTION, ETC... AS INDICATED IN GEOTECHNICAL REPORT AND ONLY UNDER SUPERVISION OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.
  - DO NOT PLACE BACKFILL BEHIND RETAINING WALLS PRIOR TO COMPLETION AND INSPECTION OF WATERPROOFING. ADEQUATELY SHORE RETAINING WALLS DURING BACKFILL OPERATION. UNSURE ADEQUATELY SHORED, DO NOT PLACE BACKFILL BEHIND BUILDING STRUCTURE RETAINING WALLS, EXCLUDING SITE RETAINING WALLS, UNTIL CONCRETE AT ELEVATED FLOOR LEVELS ADJACENT TO WALLS ARE COMPLETELY POURED AND HAVED CURED FOR AT LEAST 5 DAYS.
  - THE APPROVED SOBS REPORT SHALL BE A PART OF THE PLANS AND SHALL BE KEPT AT THE JOB SITE AT ALL TIMES.

C. REINFORCING STEEL

  - REINFORCING STEEL COMPLYING WITH ASTM A615, GRADE 60 DEFORMED BARS, EXCEPT #3 BAR CAN BE GRADE 40 OR STRONGER.
  - WELDED REINFORCING STEEL COMPLYING WITH ASTM A706, GRACE 60 DEFORMED BARS.
  - SMOOTH WELDED WIRE FABRIC COMPLYING WITH ASTM A185. LAP FABRIC 1-1/2 SPACES (12" MINIMUM). PROVIDE DEFORMED WIRE STIRRUPS, SIZE D4 AND LARGER ONLY, COMPLYING WITH ASTM 497.
  - SPLICE REINFORCING STEEL WHERE INDICATED. IF SPLICE LOCATIONS ARE NOT SPECIFICALLY SHOWN OR INDICATED, VERIFY SPLICE LOCATIONS WITH ARCHITECT/ENGINEER PRIOR TO DEVELOPING REINFORCING STEEL SHOP DRAWINGS.
  - LAP REINFORCING STEEL AT SPLICES TO THE FOLLOWING MINIMUM LENGTHS, UNLESS OTHERWISE NOTED, (APPLICABLE TO 3,000 PSI OR HIGHER, NORMAL WEIGHT CONCRETE ONLY):

BAR SIZE	TOP BARS	OTHER BARS	BAR SIZE	TOP BARS	OTHER BARS
#3	1'-9"	1'-4"	#8	6'-10"	5'-3"
#4	2'-4"	1'-10"	#9	8'-8"	6'-8"
#5	2'-11"	2'-3"	#10	11'-0"	8'-6"
#6	3'-10"	2'-11"	#11	13'-6"	10'-6"
#7	5'-3"	4'-0"			

TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW REBAR.


OTHER BARS ARE HORIZONTAL BARS WITH LESS THAN 12 INCHES OF CONCRETE CAST BELOW BARS AND ALL VERTICAL BARS.

  - MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL, INCLUDING SPLICED REINFORCING STEEL, SHALL BE 1 INCH OR 1 BAR DIAMETER, WHICHEVER IS GREATER. FOR BUNDLED BARS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLED BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.
  - MAINTAIN THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE UNLESS OTHERWISE NOTED:
    - SLAB-ON-GRADE ..... C/L OF SLAB
    - CONCRETE BELOW GRADE, FORMED ..... 2 INCHES
    - CONCRETE BELOW GRADE, UNFORMED ..... 3 INCHES
    - WALLS ABOVE GRADE, EXPOSED TO WEATHER ..... 2 INCHES
    - WALL ABOVE GRADE, NOTE EXPOSED TO WEATHER ..... 1 INCHES
    - COLUMNS, CLEAR TO FACE OF TIES ..... 1-1/2 INCHES
    - BEAMS, CLEAR TO FACE OF TIES ..... 1-1/2 INCHES
  - BEND REINFORCING STEEL COLD UNLESS OTHERWISE ACCEPTED BY ARCHITECT OR ENGINEER.
  - CHAIRS OR SPACERS FOR REINFORCING SHALL BE PLASTIC OR PLASTIC COATED WHEN RESTING ON EXPOSED SURFACES.
  - WELD REINFORCING STEEL COMPLYING WITH AWS D1.4. DO NOT WELD REINFORCING STEEL OTHER THAN THOSE CONFORMING TO ASTM A706.
  - SECURELY TIE ANCHOR BOLTS, REINFORCING STEEL, INSERTS, ETC... IN PLACE PRIOR TO PLACING CONCRETE OR GROUT.
  - SUBMIT REINFORCING STEEL SHOP DRAWINGS INDICATING REINFORCING PLACEMENT, INCLUDING SPLICE LOCATIONS AND LENGTHS, TO ARCHITECT/ENGINEER FOR REVIEW AND ACCEPTANCE.

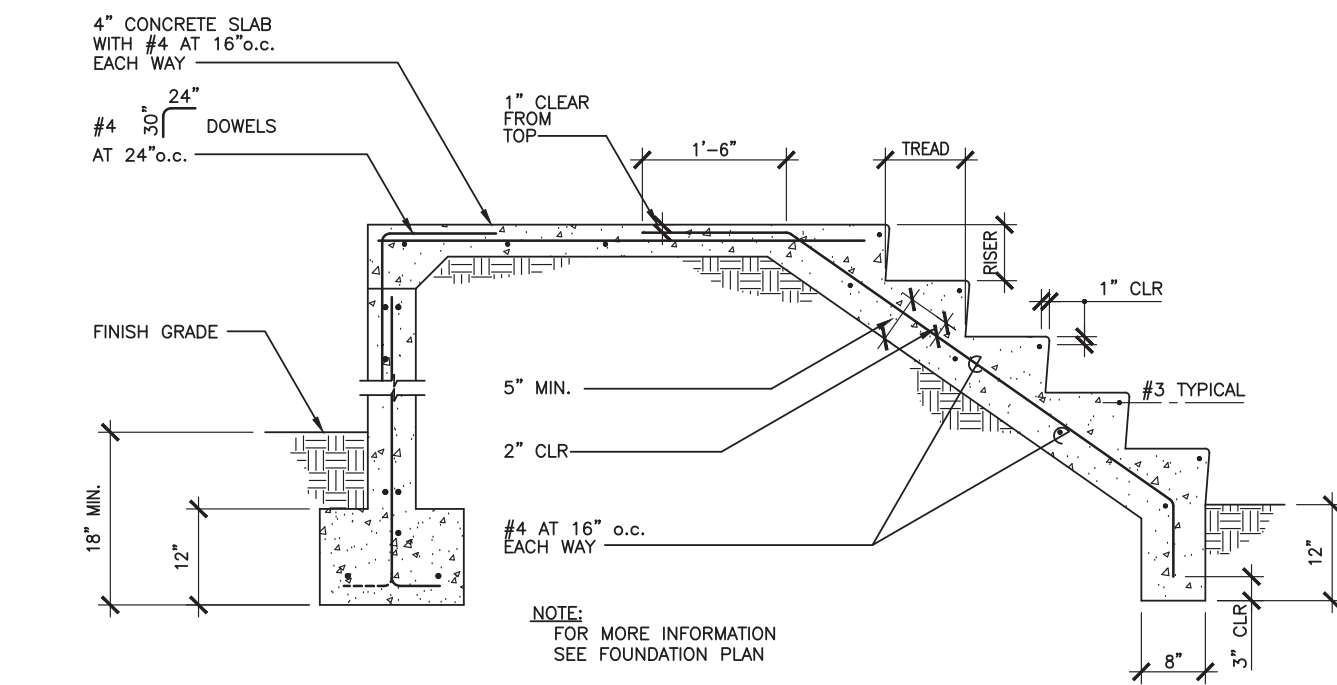
D. CAST-IN-PLACE CONCRETE

  - NORMAL WEIGHT AGGREGATES OF NATURAL SAND AND ROCK COMPLYING WITH ASTM C33.
  - PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE II.
  - NORMAL WEIGHT CONCRETE (145 PCF), WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.05%, ATTAINING MINIMUM COMPRESSIVE STRENGTHS (f'c) AT 28 DAYS AS FOLLOWS:  
FOUNDATIONS ..... 3,000 PSI  
CONCRETE WALLS ..... 3,000 PSI  
SLAB-ON-GRADE ..... 3,000 PSI  
UNLESS OTHERWISE NOTED ..... 3,000 PSI
  - SLUMP NOT TO EXCEED 4 INCHES.
  - DO NOT USE CONCRETE OR GROUT CONTAINING CHLORIDES
  - DO NOT EMBED CONDUITS, PIPES, OR SLEEVES OTHER THAN ELECTRICAL CONDUITS 1 INCH DIAMETER AND SMALLER IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY DETAILED OR ACCEPTED BY ARCHITECT OR ENGINEER.
  - FORM EXPOSED CORNERS OF COLUMNS, BEAMS, WALLS, ETC... WITH 3/4 INCH CHAMFERS UNLESS OTHERWISE DETAILED.
  - PROVIDE KEYS IN CONSTRUCTION JOINTS UNLESS OTHERWISE DETAILED.
  - ROUGHED CONCRETE SURFACE TO FULL AMPITUDE OF 1/16 INCH WHERE MASONRY WALLS INTERSECT CONCRETE.

- GENERAL
1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CALIFORNIA BUILDING CODE 2019 EDITION (CBC 2019), REFERENCED STANDARDS OF CHAPTER 35 AND ALL APPLICABLE CODES AND ORDINANCES.
- BASIS OF DESIGN:
- a. SEISMIC LOADS
- + IMPORTANCE FACTOR,  $I_e = 1.0$
  - +  $S_s = 2.356g$
  - +  $S_1 = 0.911g$
  - + SITE CLASS: C
  - +  $S_{ds} = 1.885g$
  - +  $S_{d1} = 0.850g$
  - +  $Rho = 1.3$  (REDUNDANCY FACTOR)
  - + SEISMIC DESIGN CATEGORY: E
  - + BASIC SEISMIC-FORCE-RESISTING SYSTEM: SHEATHED SHEAR BEARING WALLS
  - + SEISMIC RESPONSE COEFFICIENT,  $C_s = 0.290$  (STRENGTH) = 0.207 (SERVICE)
  - + RESPONSE MODIFICATION FACTOR,  $R = 6.5$
  - + ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE
- b. WIND LOAD
- + BASIC WIND SPEED = 110 MPH (ULTIMATE)
  - + EXPOSURE C
  - + IMPORTANCE FACTOR,  $I_w = 1.0$
  - + INTERNAL PRESSURE COEFFICIENT = 0.18
  - + DESIGN WIND PRESSURE = 27.5 PSF
  - + COMPONENTS AND CLADDING WIND PRESSURE = 39 PSF
- c. LIVE LOADS
- + ROOF = 20 PSF
  - + FLOOR = 40 PSF
  - + DECK/BALCONY = 60 PSF
- d. DEAD LOADS
- + ROOF = 18 PSF
  - + FLOOR = 18 PSF
2. AISC – SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING.
3. ACI-318 – BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
4. ALL ASTM SPECIFICATIONS NOTED ON THESE DRAWINGS SHALL BE OF THE LATEST REVISION.
5. WRITTEN INFORMATION AND DIMENSIONS SHALL TAKE PRECEDENCE OVER GRAPHIC INFORMATION. DO NOT SCALE DRAWINGS.
6. ALL DIMENSIONS ARE TO TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, ELEVATIONS, SECTIONS, AND DETAILS.
7. ANY DISCREPANCIES ON THE PLANS OR ANY DEVIATIONS FROM THE PLANS WHICH ARE NECESSITATED BY FIELD CONDITIONS OR ANY CONDITION DIFFERENT FROM THOSE INDICATES ON THE PLANS, SHALL BE CALLED TO THE ATTENTION OF THANG LE, S.E. PRIOR TO CONTINUING CONSTRUCTION. ALL WORK IS TO BE COORDINATED SO THAT COOPERATION BETWEEN THE TRADES WHERE REQUIRED, IS ACCOMPLISHED.
8. SEE ARCHITECTURAL DRAWING FOR KINDS OF FLOOR FINISH, DEPRESSION IN SLAB, OPENINGS IN WALLS AND ROOF REQUIRED BY DOOR, WINDOWS, DUCTS, VENTS, HATCHES, PLUMBING, ETC...; ALL TYPE OF FLASHING, INSERTS, ANCHORS, HANGERS, ETC... EMBEDDED OR ATTACHED TO CONCRETE STRUCTURE; PAVING, WALKS, STAIRS, RAMPS, CURBS, PARAPETS, TERRACES, ETC...; EXTERIOR GRADES; ROOF SLABS, CRICKETS AND DRAINS.
9. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS AS TO LAYOUT DIMENSIONS AND ELEVATIONS. ALL DISCREPANCIES SHALL BE REPORTED TO THANG LE, S.E. AND THE OWNER FOR PROPER ADJUSTMENT BEFORE PROCEEDING WITH THE WORK.
10. IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE THE GENERAL NOTES, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR CONDITIONS THAT ARE SHOWN OR CALLED FOR.
11. THE BUILDER SHALL TAKE FULL AND FINAL RESPONSIBILITY FOR CONSTRUCTING A FINAL PRODUCT OF APPROPRIATE QUALITY AND SERVICEABILITY CONSISTENT WITH THE INFORMATION AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION DOCUMENTS OR REASONABLY INFERRABLE THEREFROM, AND/OR CONTAINED IN THE REQUIREMENTS OF ANY GOVERNMENTAL ENTITY WITH JURISDICTION OVER THE PROJECT.
12. THE BUILDER SHALL TAKE FULL RESPONSIBILITY FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES INCLUDING WITHOUT LIMITATION DEMOLITION, EXCAVATION AND ERECTION PROCEDURES.
13. STRUCTURAL OBSERVATION VISITS TO SITE BY REPRESENTATIVES OF THANG LE, S.E. DO NOT INCLUDE INSPECTIONS OF CONSTRUCTION MEANS AND METHODS. OBSERVATIONS PERFORMED BY ENGINEER DURING CONSTRUCTION ARE NOT CONTINUOUS AND DETAILED INSPECTION SERVICES WHICH ARE PERFORMED BY OTHERS. OBSERVATIONS PERFORMED BY ENGINEER ARE PERFORMED SOLELY FOR THE PURPOSE OF DETERMINING IF THE CONTRACTOR UNDERSTAND DESIGN INTENT CONVEYED IN CONTRACT DOCUMENTS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND ARE NOT TO BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
14. MODIFICATIONS OR SUBSTITUTIONS: DESIGN, MATERIALS, EQUIPMENT AND PRODUCTS OTHER THAN THOSE INDICATED OR SPECIFIED MAY BE CONSIDERED FOR USE PROVIDED A WRITTEN REQUEST, SUBJECT TO REVIEW, IS SUBMITTED TO OWNER, ARCHITECT, ENGINEER AND SHOPPING CODE AUTHORITY PRIOR TO ITS USE OR INCLUSION ON ANY GROUND DRAWING.
15. BRACE PIPING AND DUCTS COMPLYING WITH LATEST ADDITION OF GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
16. INSTALL AND ANCHOR MECHANICAL AND ELECTRICAL EQUIPMENT TO STRUCTURE COMPLYING ASCE/SEI 7-05, CHAPTER 13, AS MODIFIED BY CBC 1614.1.11 THROUGH 1614.1.16. ISOLATORS, FASTENERS AND ANY OTHER ELEMENT PROVIDING STABILITY FOR EQUIPMENT SHALL BE APPROVED BY ICC-ES OR EQUIVALENT TESTING PROCEDURE. PROVIDE SUSPENDED EQUIPMENT WITH APPROVED LATERAL OR SWAY BRACING.

S1.1	GENERAL NOTES	LARSON BARN	10818 CROTHERS ROAD SAN JOSE, CALIFORNIA 95127	 10.15.2022	<b>THANG LE &amp; ASSOCIATES</b> <b>STRUCTURAL ENGINEERS, INC.</b>							DATE ISSUED	10-15-2022	No.	DATE	REVISION DESCRIPTION	BUILDING DEPARTMENT	SUBMITTAL	
												DRAWN BY	ML						
												CHECKED BY	TL						

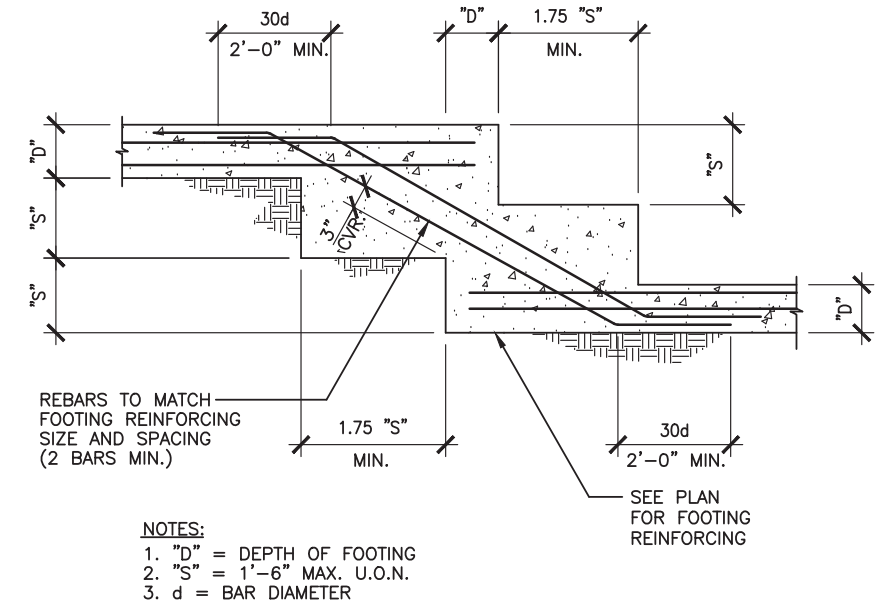




TYPICAL STAIR ON GRADE

3/4"-1"

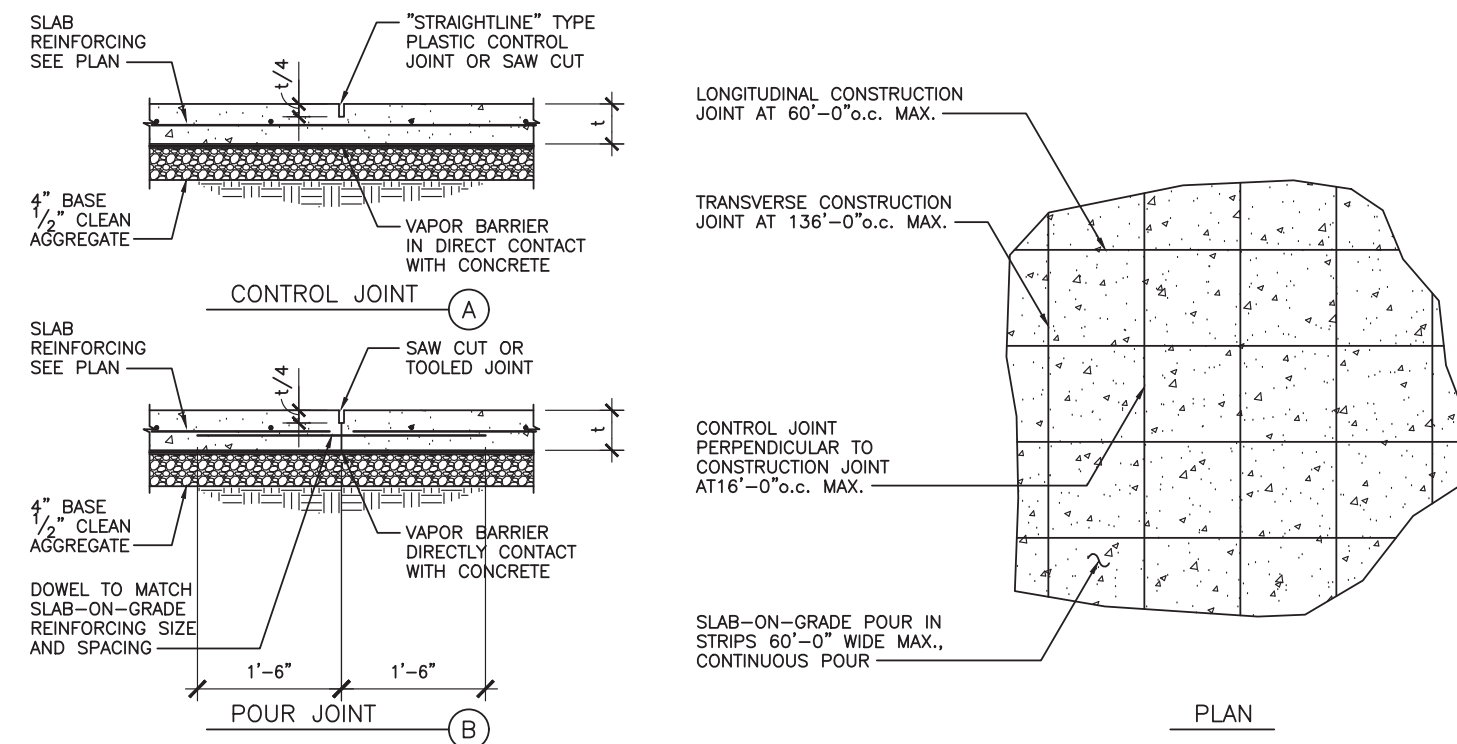
6



TYPICAL STEPPED FOOTING

3/4"-1"

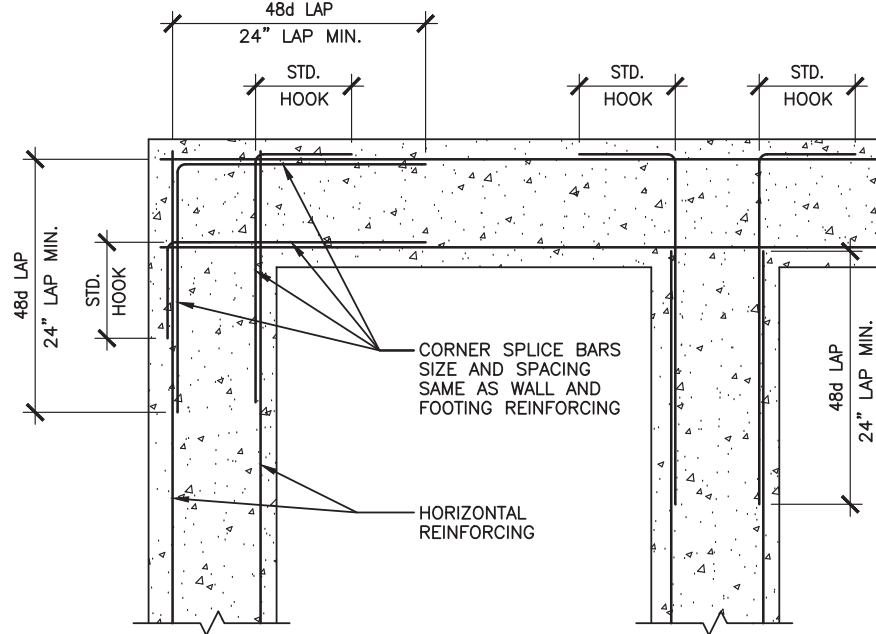
3



TYPICAL SLAB-ON-GRADE DETAIL

3/4"-1"

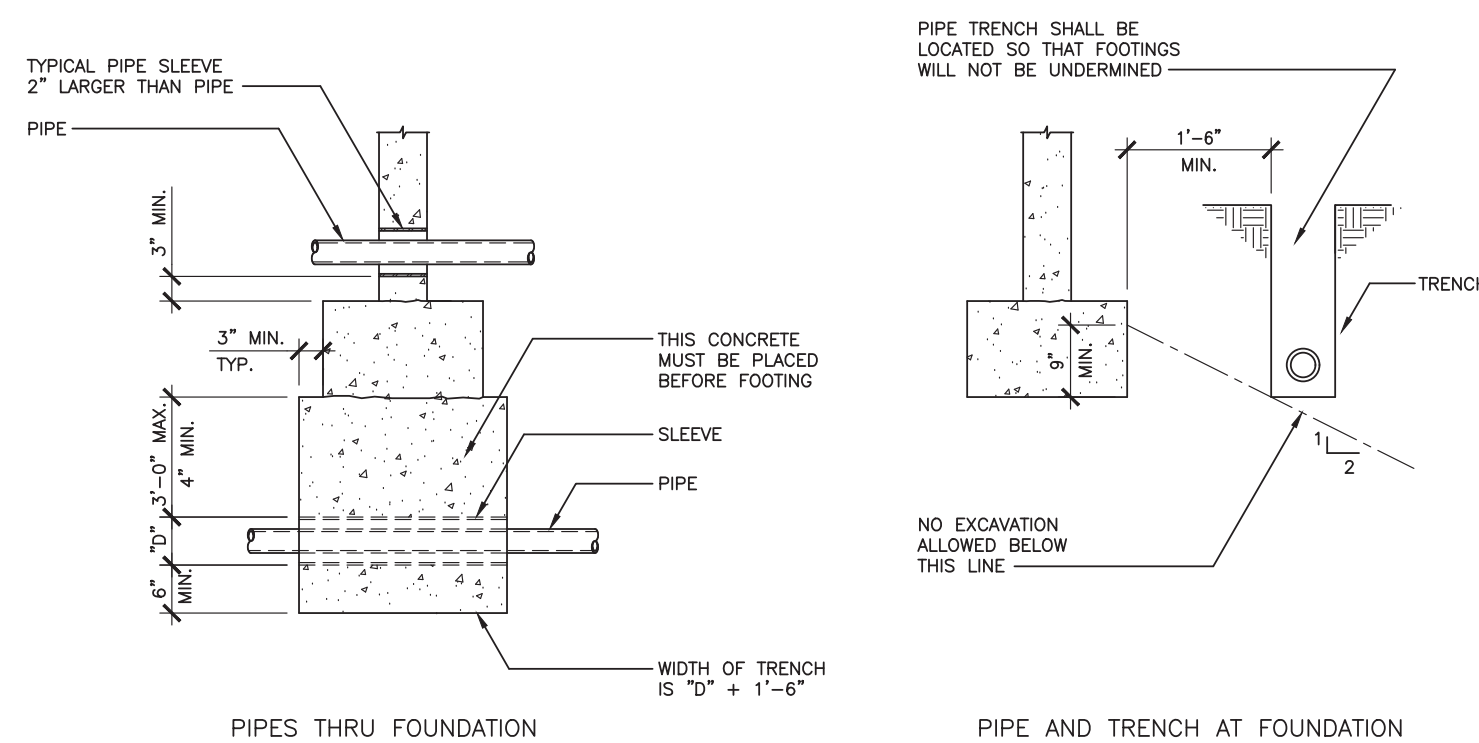
5



TYPICAL FOOTING/WALL CORNER REINFORCING

3/4"-1"

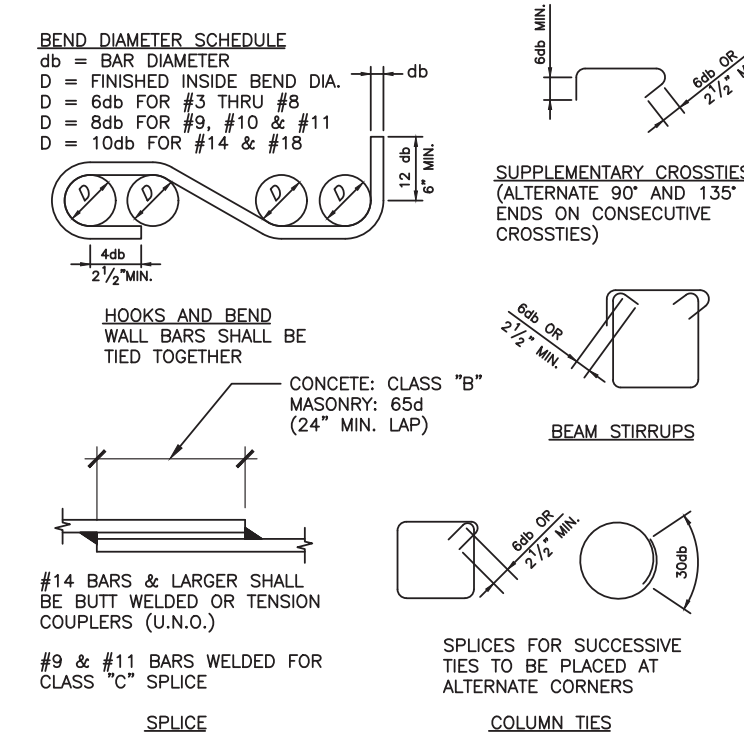
2



TYPICAL PIPE AT FOOTING

3/4"-1"

4



TYPICAL REBAR BENT

3/4"-1"

1

REVISION DESCRIPTION	BUILDING DEPARTMENT SUBMITTAL
DATE	10-15-2022
DATE ISSUED	10-15-2022
DRAWN BY	ML
CHECKED BY	TL

**THANG LE & ASSOCIATES, INC.**  
STRUCTURAL ENGINEERS, INC.  
319 E. FOOTHILL BLVD., SUITE C  
ARCADIA, CALIFORNIA 91006  
PHONE: (626) 731-1539

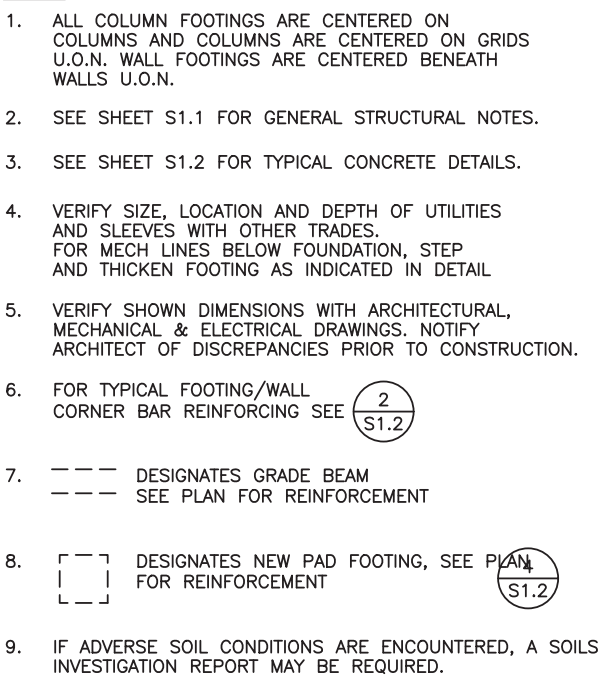
REGISTERED PROFESSIONAL ENGINEER  
THANG H. LE  
S 4978  
EXP 06/30/24  
STATE OF CALIFORNIA

10.15.2022

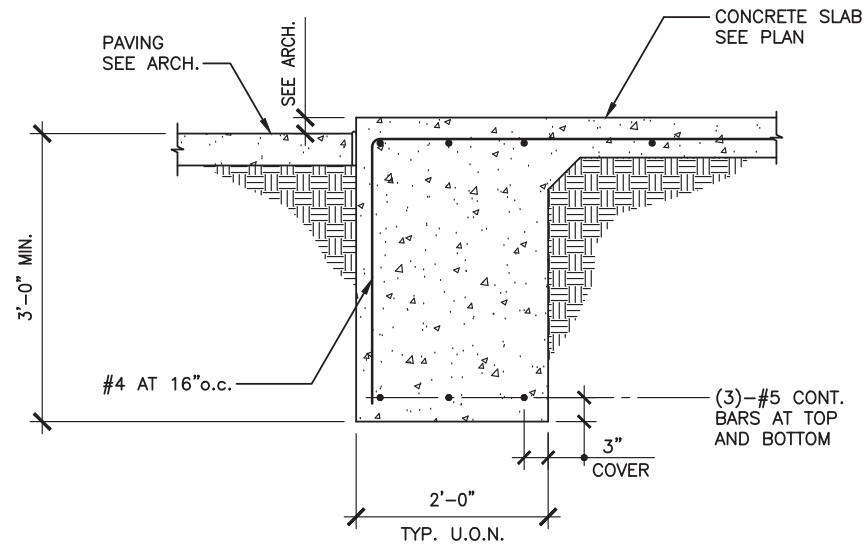
**LARSON BARN**  
10818 CROTHERS ROAD  
SAN JOSE, CALIFORNIA 95127

**TYPICAL CONCRETE DETAILS**

**S1.2**



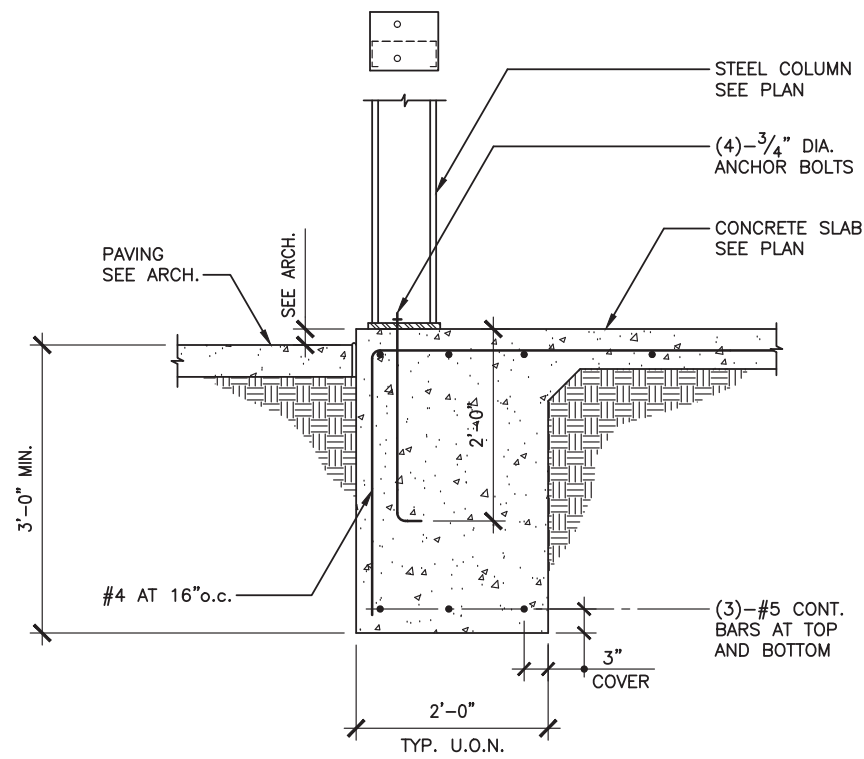
## S2.0



THICKENED SLAB EDGE

3/4"-1"

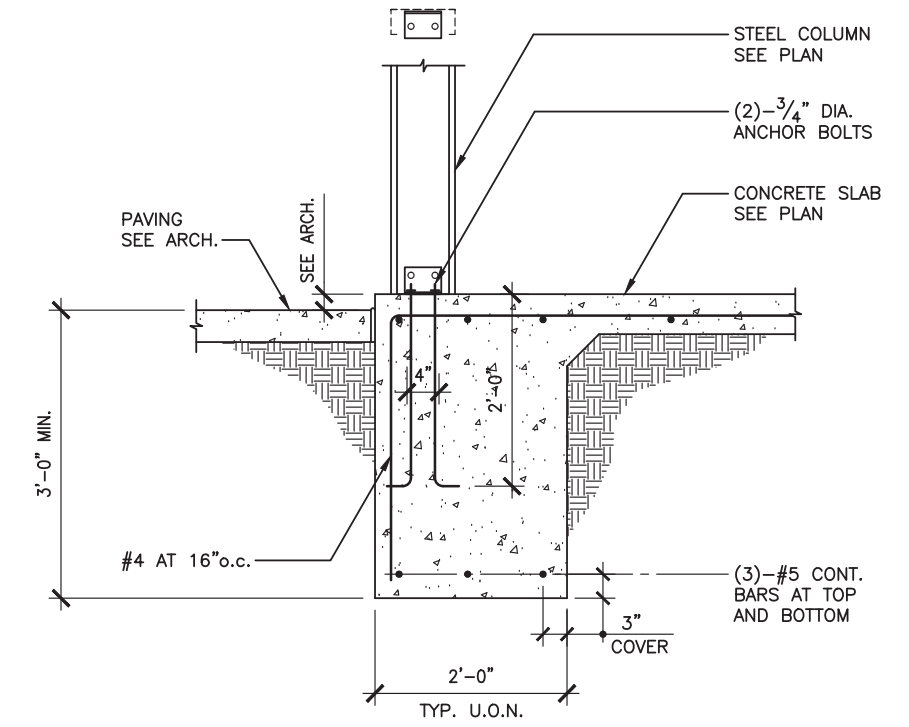
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THICKENED SLAB EDGE

3/4"-1"

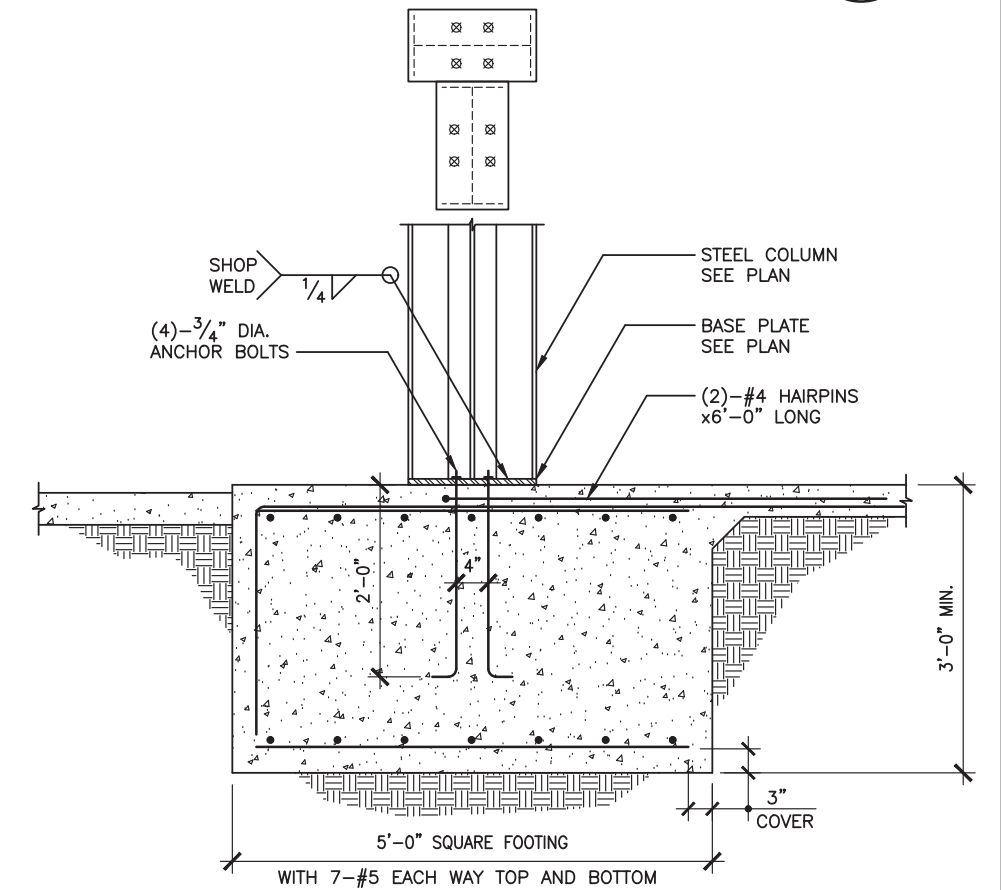
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THICKENED SLAB EDGE

3/4"-1"

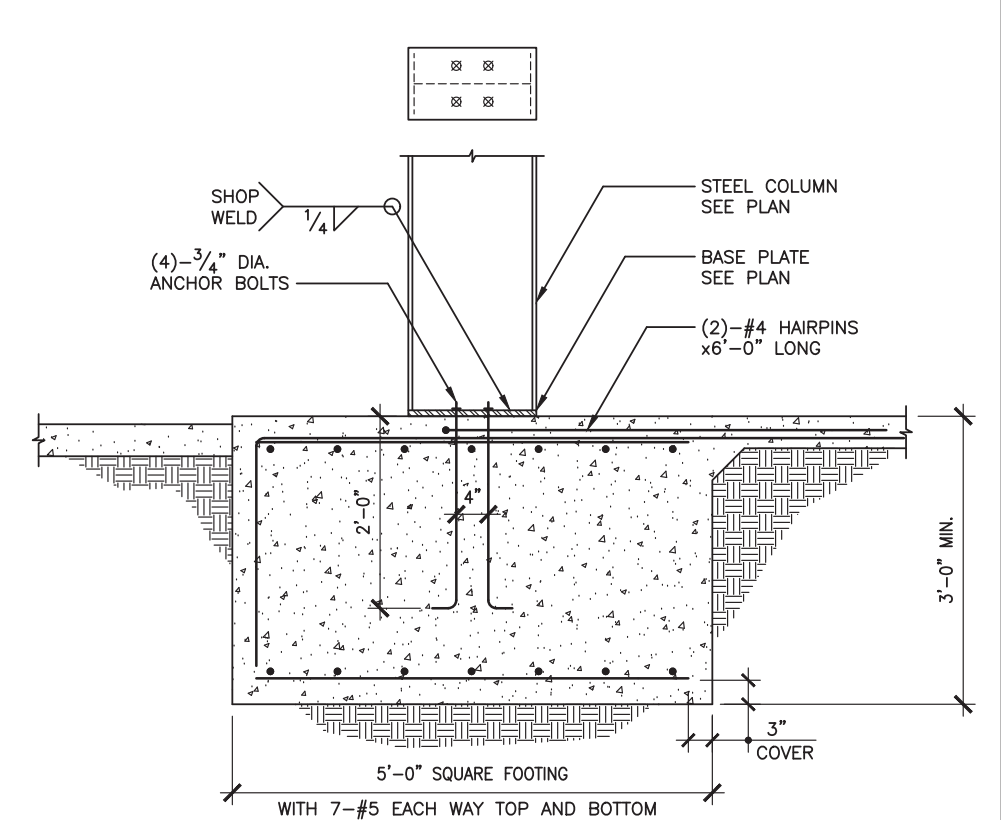
3



STEEL COLUMN TO FTG

3/4"-1"

2



STEEL COLUMN TO FTG

3/4"-1"

1

REVISION DESCRIPTION

DATE

NO.

DATE ISSUED

DRAWN BY

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LARSON BARN

10818 CROTHERS ROAD

SAN JOSE, CALIFORNIA 95127

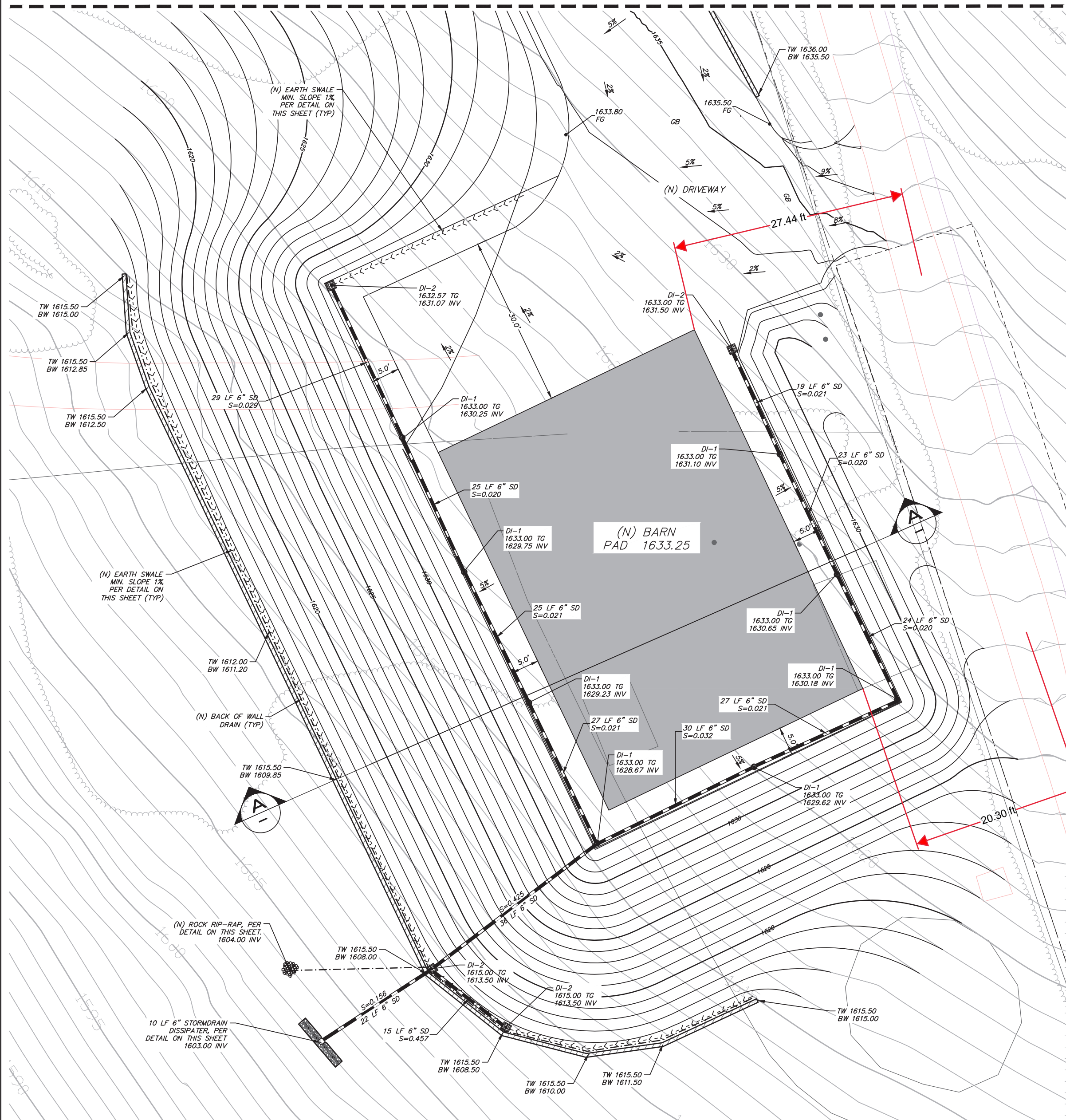
FOUNDATION DETAILS

S3.0



MATCH LINE SEE SHEET C7

MATCH LINE SEE SHEET C7

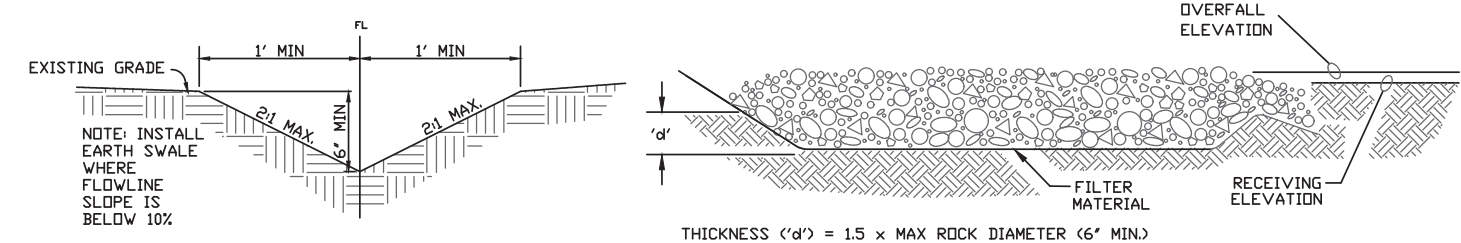
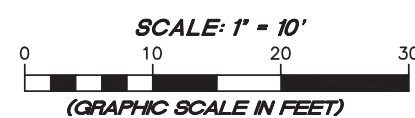


## EARTHWORK:

	CUT	FILL	NET
BARN	10 CY	5520 CY	5510 CY FILL
TOTAL	10 CY	5520 CY	5510 CY FILL <IMPORT>

NOTE: NO DEDUCTION FOR PAD/CONCRETE WAS ASSUMED.




## BARN ROUGH GRADING PLAN



## EARTH SWALE

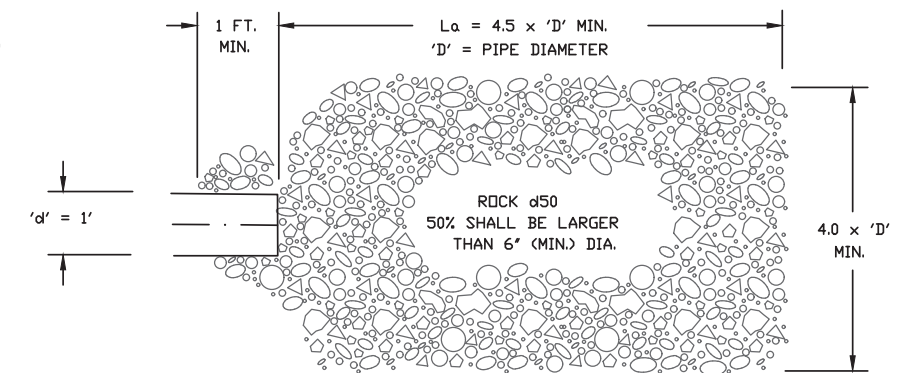
NOT TO SCALE

### DRAINAGE SCHEDULE

- DI-1:  6" ROUND ATRIUM GRATE  
(OR APPROVED EQUAL)
- DI-2:  12"x12" OLDCASTLE PRECAST CONCRETE INLET  
(OR APPROVED EQUAL)
- TD-1:  TRAFFIC RATTED TRENCH DRAIN  
(OR APPROVED EQUAL)

ALL 6" STORM DRAIN PIPE TO BE HDPE DUAL WALL.  
ALL 4" STORM DRAIN AND ROOF LEADER DRAIN PIPE TO BE  
PVC SCHEDULE 40.

## SECTION



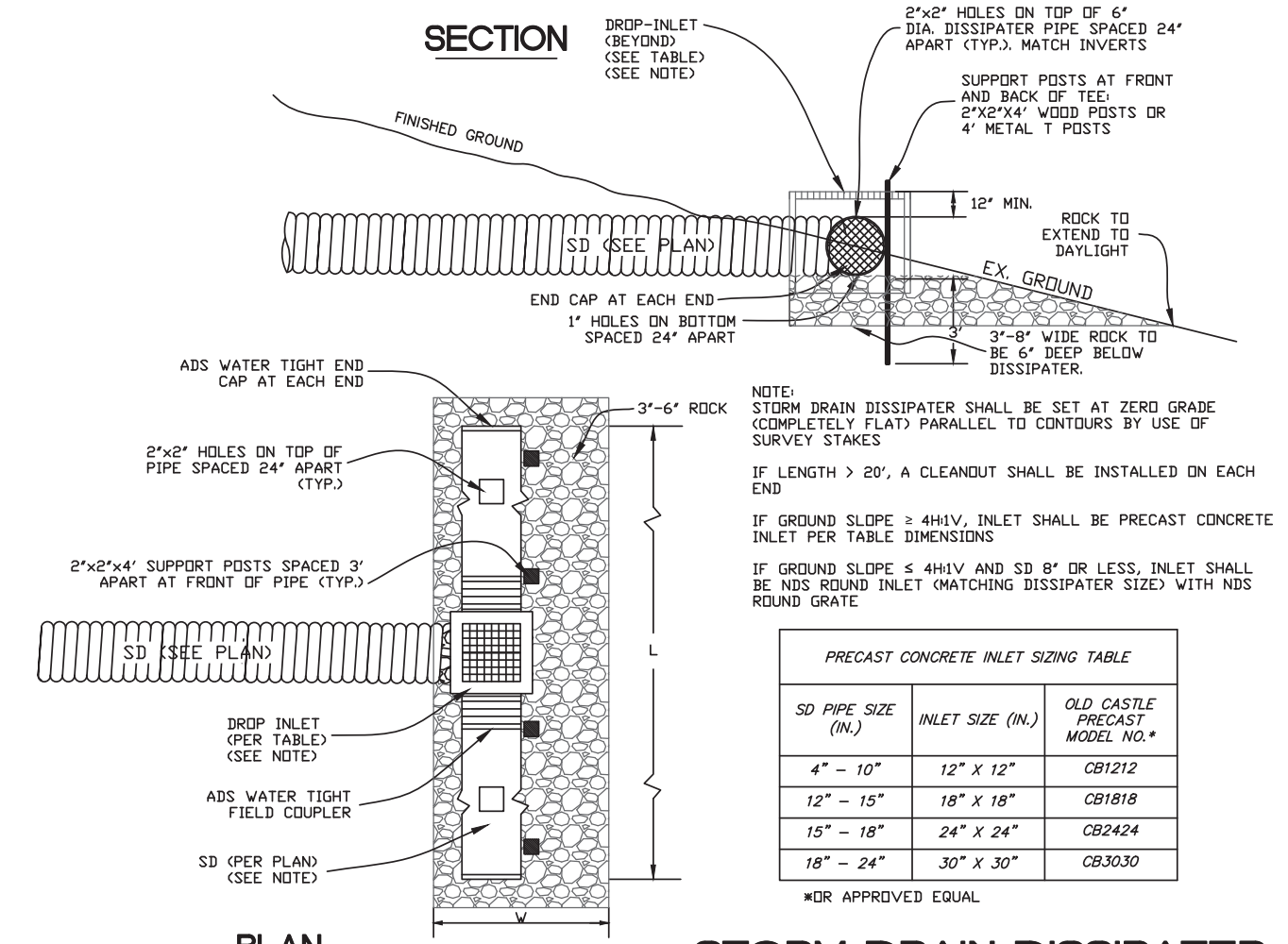
## PLAN

- NOTES:
1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
  2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
  3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK (MIN) GRADED GRAVEL LAYER.

ROCK OUTLET FOR BACK OF WALL DRAIN

NOT TO SCALE

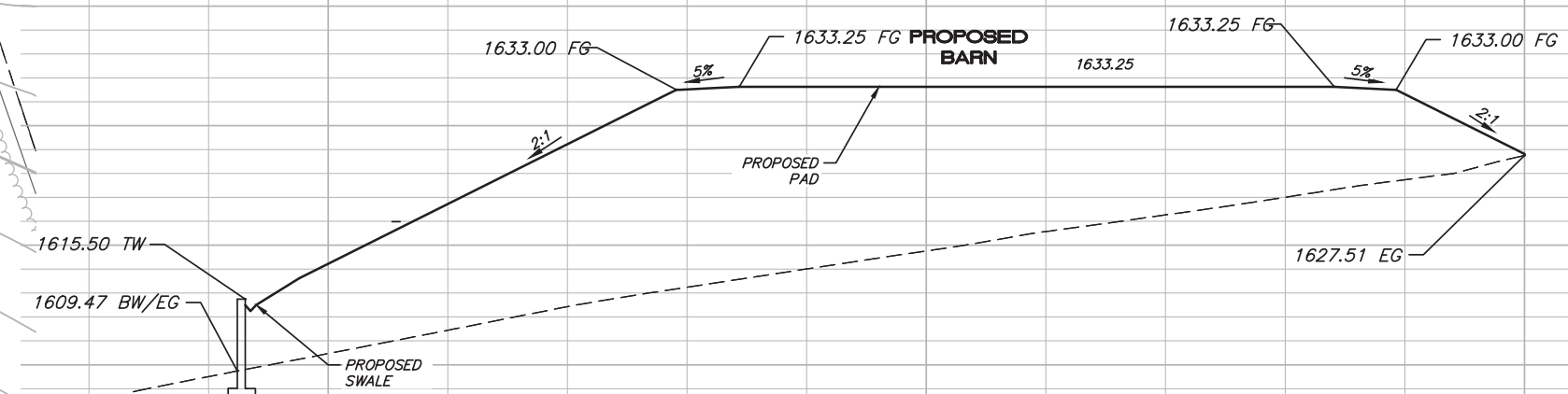
## SECTION



## PLAN

## STORM DRAIN DISSIPATER

NOT TO SCALE



### PROFILE A-A'

1" = 10' HORIZONTAL  
1" = 10' VERTICAL

SD PIPE SIZE (IN.)	INLET SIZE (IN.)	OLD CASTLE PRECAST MODEL NO.*
4" - 10"	12" X 12"	CB1212
12" - 15"	18" X 18"	CB1818
15" - 18"	24" X 24"	CB2424
18" - 24"	30" X 30"	CB3030

\*OR APPROVED EQUAL