(REFERENCE BEARING [illegible])

EAST 137.42'

1/2" IRF

0.6

0.3

0.5

1/2" IRF

0.4

15'-0"

15'-0"

15

10' U.E.

1.5

54.0

30'-0"

2.0'X10.2' STORAGE FRAME

PROPOSED SHOP 30'x50'x12'

15

PROPOSED SHOP 30x50x12

FOUNDATION

30'-0"

PROPOSED APRON

LOT 11

LOT 12

LOT 10

*=APPROXIMATE CONFIGURATION OF POOL AREA.

N3°19'29"E 260.44'

S3°19'29"W 260.44'

BUTANE TANK

*POOL

22.6

24.8

14.7

23.6

16.0

22.6

9.2

32.5

9.6

6.0

20.0

8.0

ONE STORY BRICK
1745
SUMMER LANE

37.0

35.8

22.4

1.5

27.5

4.1

5.3

2.6

3.0

1.5

25.6

75' B.L.

PROPOSED CONCRETE DRIVE

4" THK

10' X 236' X 4" THK

75.0

137.42' NTS

1/2" IRF

1/2" IRF

WEST 137.42'

1/2" IRF

15" CULVERT

10'

SUMMER LANE

8/21/13

ACCEPTED BY: Roy Abshier III

Lawanda Kay Abshier

N

0 40

NOTES

PER THE NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY PANEL NO. 48439C0080 K. THIS PROPERTY IS IN ZONE X. AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

LEGEND

O	POWER POLE	-X-	FENCE
	WOOD DECK	B. L.	BUILDING LINE
	CONCRETE	E. L.	EASEMENT LINE
	GRAVEL	IRF	IRON ROD FOUND
	BRICK	IRS	IRON ROD SET
	ASPHALT	P.W.L.	POWER LINE
	ROCK	P.B.	POWER BOX
	RAIL ROAD TIES	WPF	WATER PIPE FOUND
	COLUMN		ELECT. BOX
	COVERED AREA	CM	CONTROLLING MONUMENT
	FIRE HYDRANT	RRSS	RAILROAD SPIKE SET
	CABLE BOX		BUILDINGS
	PROPERTY LINE		

JIMMY W. POGUE, INC.

"Registered Professional Land Surveyors"

3510 Marvin D. Love Freeway
Dallas, Texas 75224

(214) 371-0666 Voice
(214) 371-9900 Fax

Jimmy W. Pogue RPLS 1722

I, Jimmilyn D. Woodard, Registered Professional Land Surveyor of the State of Texas, do certify that this Survey Plat is a true and correct representation of the property shown hereon as determined by a survey on the ground.

The plat hereon is a representation of the property, as determined by an on the ground survey, the lines and dimensions of said property being as indicated by the plat;
The size, location and type of above ground improvements are as shown.
Corner monuments are as shown on survey.
EXCEPT AS SHOWN ON SURVEY, THERE ARE NO ABOVE GROUND ENCROACHMENTS

CONSTRUCTION PACKAGE FOR COLD FORMED STEEL BUILDING
CREATED FOR JARON DULANEY
JOB NUMBER 99958339

HYPERSTEEL™
COLD-FORMED BUILDINGS

MUELLER, INC.
METAL BUILDINGS, ROOFING & COMPONENTS

TABLE OF CONTENTS

CONSTRUCTION PACKAGE NOTES

This construction package is to be used in conjunction with the created order for the job. All lengths and piece marks of materials in this package will correspond to an item in the order. For example, on the Sidewall A girt layout, there will likely be an item with a piece mark of SGA1. This will correspond to a line item in the order with the piece mark of SGA1. Products that do not include a piece mark will be marked with the product code.

All girt layout and sheeting layouts drawings in this construction package are exterior views, and in these illustrations, components are drawn as if viewed from the outside of the building.

All drawings in this construction package are for reference only, and are to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

CONSTRUCTION NOTIFICATIONS

The following items will require non-typical installation that will take extra time and care during the construction process. Please take precautions.

Some opening framing will need to be cut to length on site to properly install under endwall frames. Framing to be cut is indicated on girt layouts with a dashed line.

Some items in order will need to be cut to length on site. Please see 'Notes' column in order for full list of items to be cut and their lengths.

IMPORTANT

IN ADDITION TO THIS DOCUMENT, YOU SHOULD ALSO HAVE THE FOLLOWING BUILDING SPECIFIC DOCUMENTS FROM YOUR BUILDING REPRESENTATIVE:

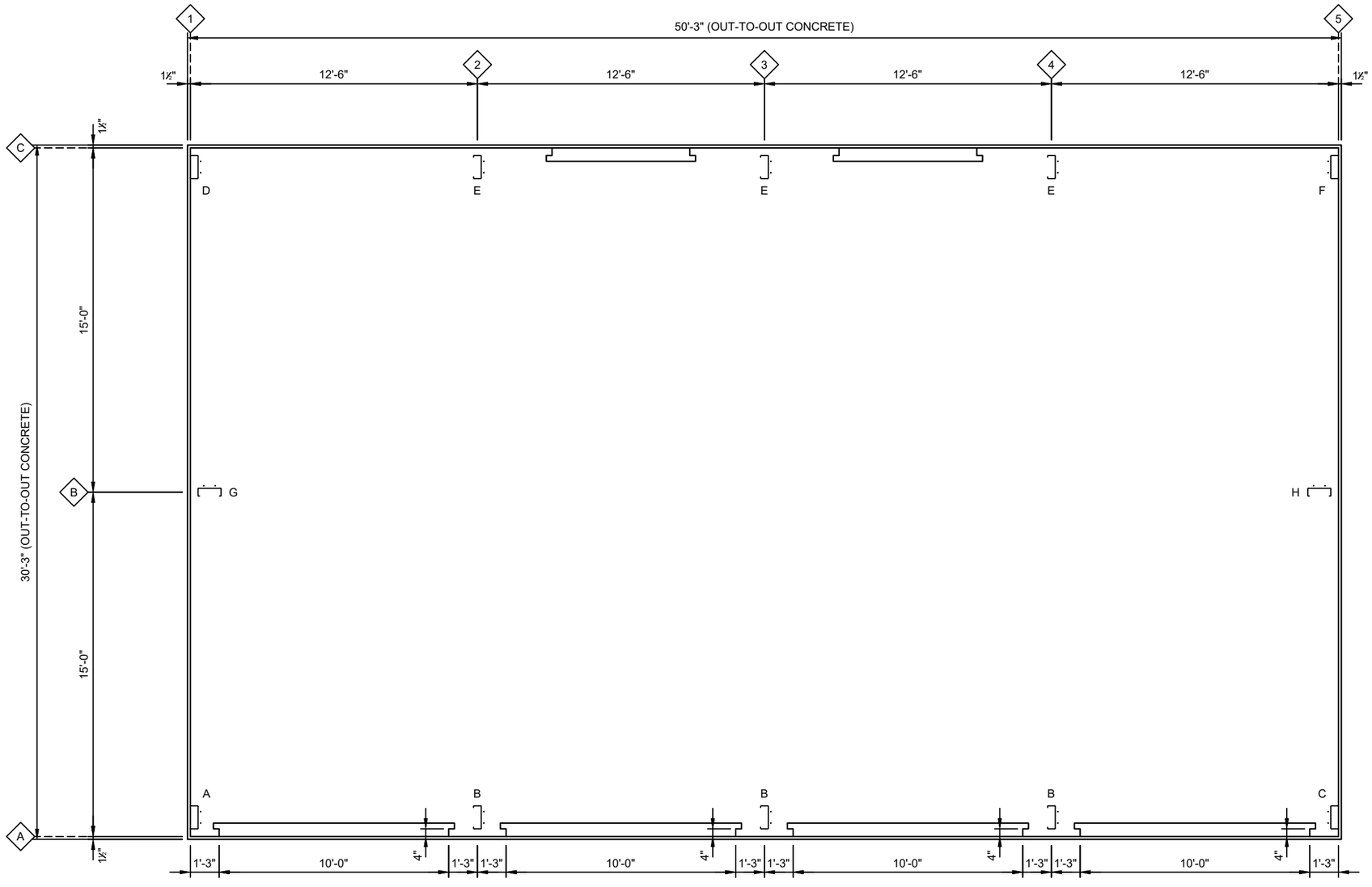
- ENGINEERING PLAN
- COPY OF THE ORDER

FOR MORE INFORMATION TO HELP MAKE COLD FORMED CONSTRUCTION EASIER, PLEASE SEE THE BELOW LINKS:

INSTALLATION MANUALS
http://bit.ly/ACTInstallManuals

CONSTRUCTION VIDEOS
http://bit.ly/ACTConstructionVids

HINTS AND TIPS
http://bit.ly/ACTConstructionTips



ANCHOR BOLTS		
QTY	LOCATION	DIA
20	SIDEWALL COLUMNS	1/2"
4	ENDWALL COLUMNS	1/2"
14	DOOR JAMB	1/2"
12	GIRT FLANGE BRACING	1/2"

These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

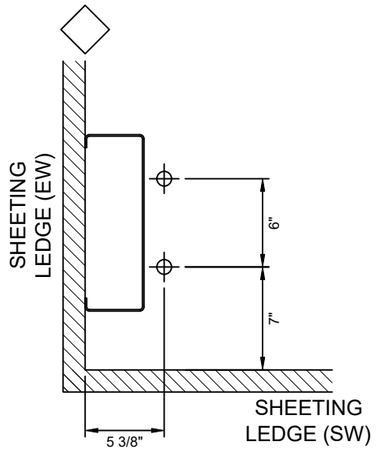
Building Layout Plan

HYPERSTEEL™ COLD-FORMED BUILDINGS

MUELLER, INC.

JOBNO TWAX99958339
SHEET 2 of 18

DATE 3/21/2025
SCALE 3/16" = 1'-0"



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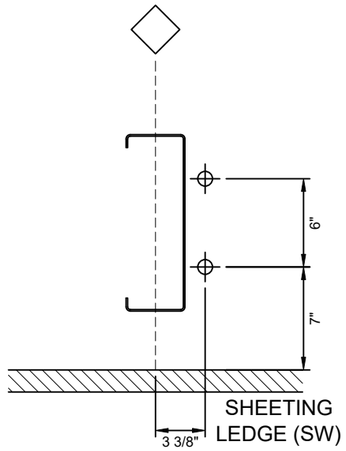

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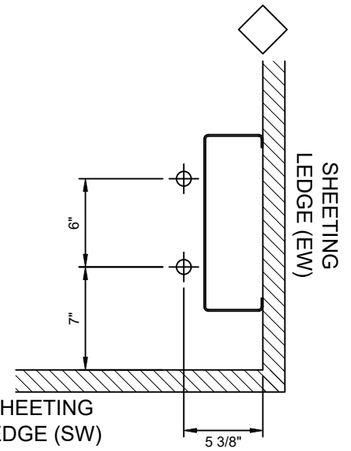

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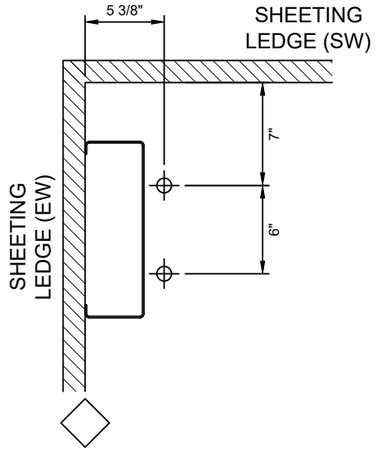

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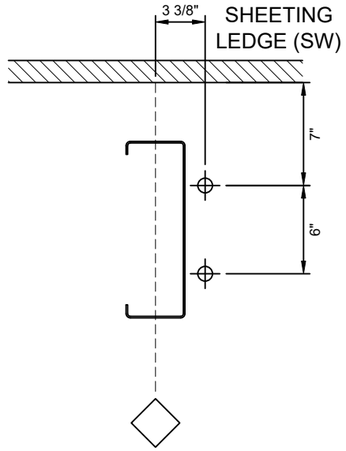

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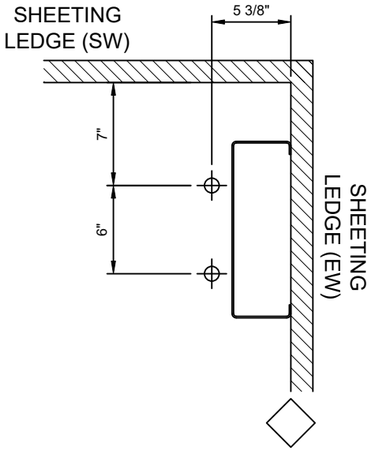
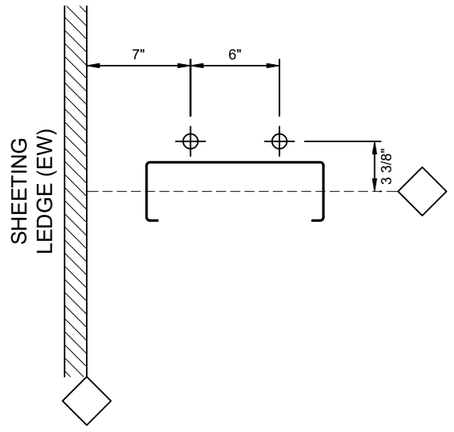


F

These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Anchor Bolt Details	HYPERSTEEL™ COLD-FORMED BUILDINGS / MUELLER, INC.	JOBNO TWAX99958339 SHEET 3 of 18	DATE 3/21/2025 SCALE N/A	ACT



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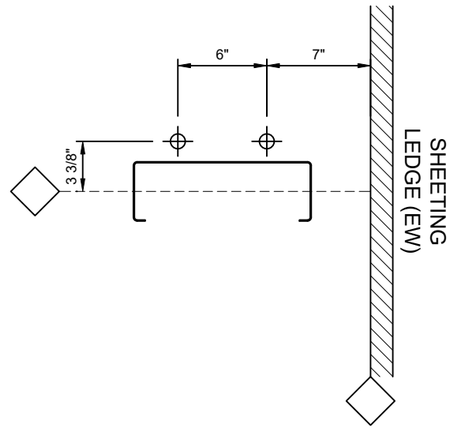

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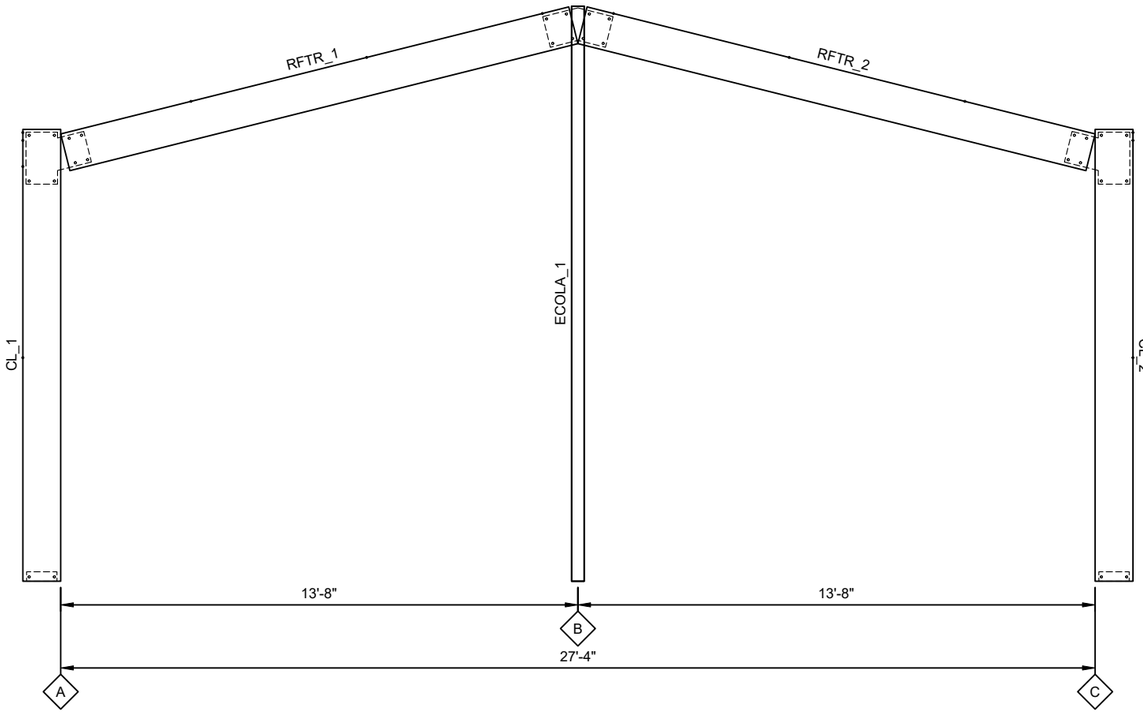
These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Anchor Bolt Details	HYPERSTEEL™ COLD-FORMED BUILDINGS	MUELLER, INC.	JOBNO	TWAX99958339	DATE	3/21/2025
			SHEET	4 of 18	SCALE	N/A

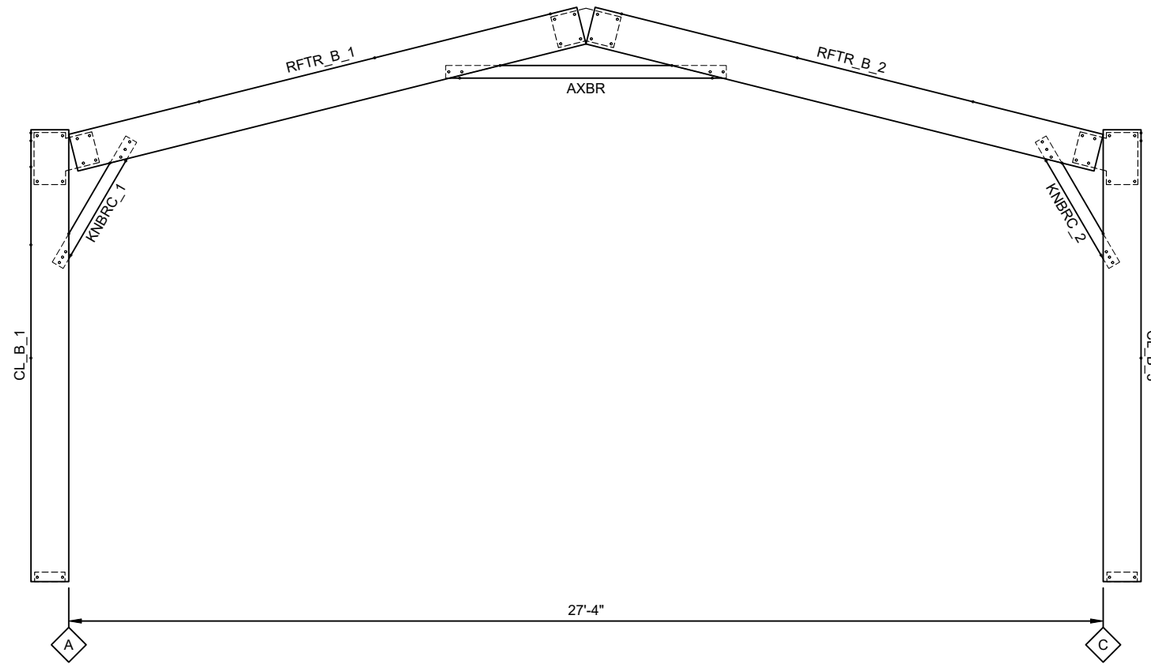
MEMBER TABLE		
Mark	Product	Length
AXBR	4" x 14ga. CEE	7' - 5"
CL_1	12" x 12ga. CEE	11' - 11 1/4"
CL_2	12" x 12ga. CEE	11' - 11 1/4"
CL_B_1	12" x 12ga. CEE	11' - 11 1/4"
CL_B_3	12" x 12ga. CEE	11' - 11 1/4"
ECOLA_1	12" x 14ga. CEE	15' - 2 5/16"
KNBRC_1	4" x 14ga. CEE	3' - 10 5/16"
KNBRC_2	4" x 14ga. CEE	3' - 10 5/16"
RFTR_1	12" x 12ga. CEE	13' - 10 1/16"
RFTR_2	12" x 12ga. CEE	13' - 10 1/16"
RFTR_B_1	12" x 12ga. CEE	13' - 10 1/16"
RFTR_B_2	12" x 12ga. CEE	13' - 10 1/16"



1/5 Portal Section

SCALE: 1/4" = 1'-0"

Frame Line 1



2/5 Portal Section

SCALE: 1/4" = 1'-0"

Frame Lines 2, 3

Portal Frame Sections

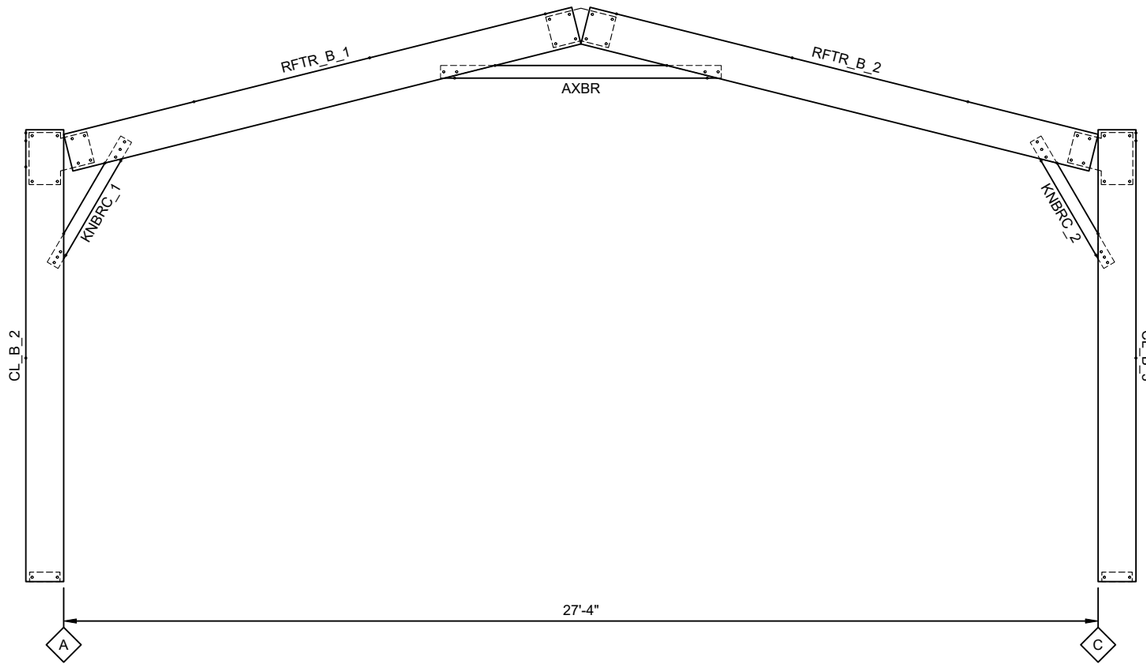
HYPERSTEEL™ COLD-FORMED BUILDINGS

MUELLER, INC.

JOBNO TWAX99958339
SHEET 5 of 18

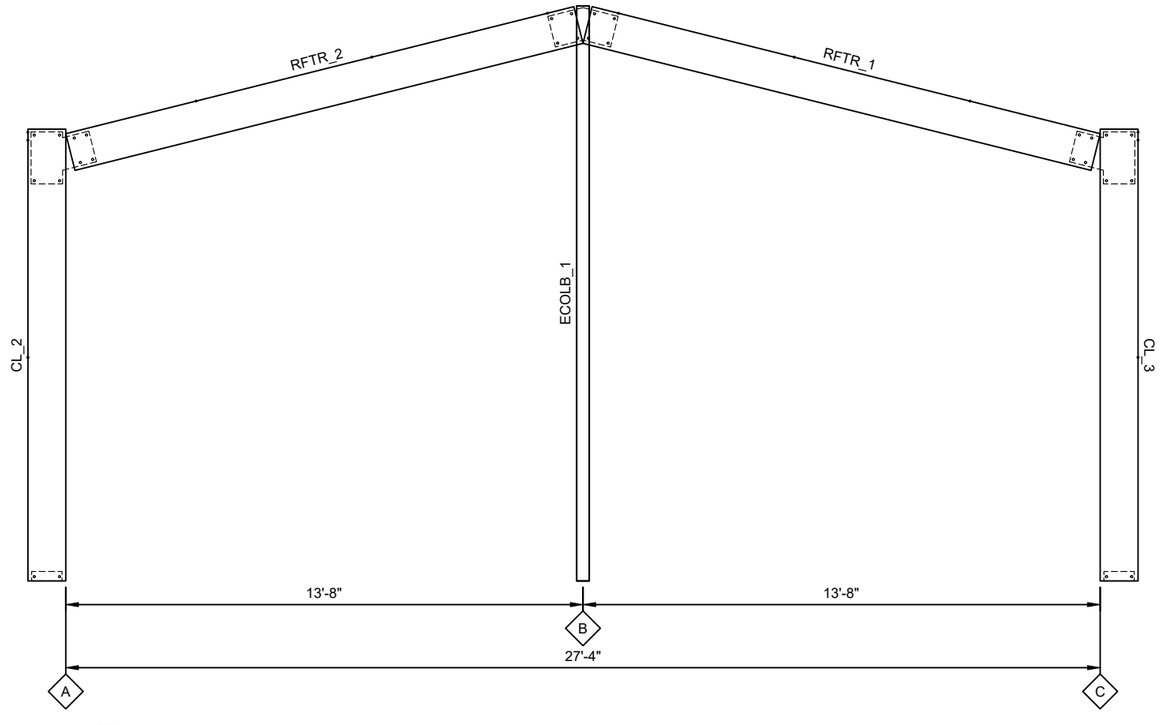
DATE 3/21/2025
SCALE 1/4" = 1'-0"

MEMBER TABLE		
Mark	Product	Length
AXBR	4" x 14ga. CEE	7' - 5"
CL_2	12" x 12ga. CEE	11' - 11 1/4"
CL_3	12" x 12ga. CEE	11' - 11 1/4"
CL_B_2	12" x 12ga. CEE	11' - 11 1/4"
CL_B_3	12" x 12ga. CEE	11' - 11 1/4"
ECOLB_1	12" x 14ga. CEE	15' - 2 5/16"
KNBRC_1	4" x 14ga. CEE	3' - 10 5/16"
KNBRC_2	4" x 14ga. CEE	3' - 10 5/16"
RFTR_1	12" x 12ga. CEE	13' - 10 1/16"
RFTR_2	12" x 12ga. CEE	13' - 10 1/16"
RFTR_B_1	12" x 12ga. CEE	13' - 10 1/16"
RFTR_B_2	12" x 12ga. CEE	13' - 10 1/16"



1/6 Portal Section

SCALE: 1/4" = 1'-0" Frame Line 4

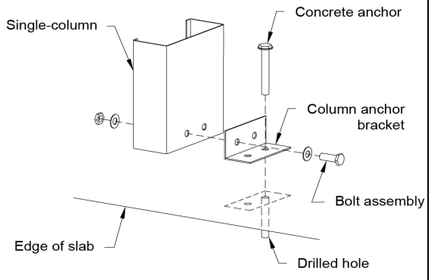


2/6 Portal Section

SCALE: 1/4" = 1'-0" Frame Line 5

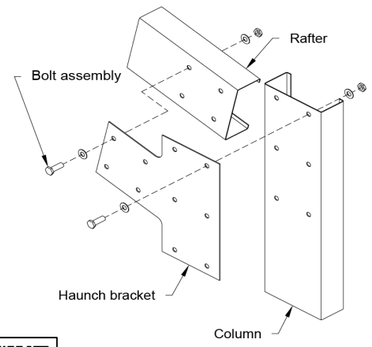
These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Portal Frame Sections	HYPERSTEEL COLD-FORMED BUILDINGS / MUELLER, INC.	JOBNO TWAX99958339 SHEET 6 of 18	DATE 3/21/2025 SCALE 1/4" = 1'-0"	ACT



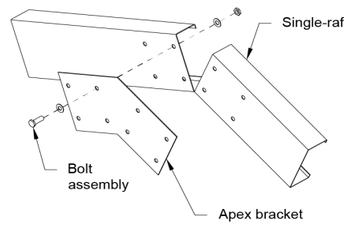
Single Base Bracket

https://r.actbs.com/g/abs525



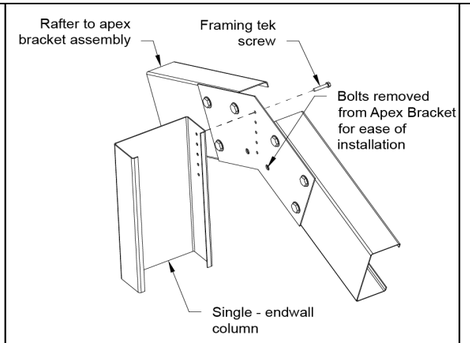
Single Haunch Bracket

https://r.actbs.com/g/abs265



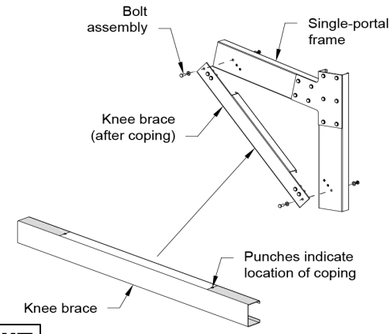
Single Apex Bracket

https://r.actbs.com/g/abs021



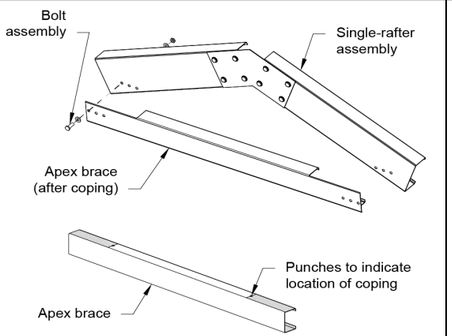
Endwall Column to Rafter Peak

https://r.actbs.com/g/abs181



Single Knee Brace

https://r.actbs.com/g/abs289



Single Apex Brace

https://r.actbs.com/g/abs009

These are generic construction details - your exact building details may vary from these details. For example, washers are shown on many of the bolted connections, however the actual requirement for washer use is specified in the Engineering Plans. These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

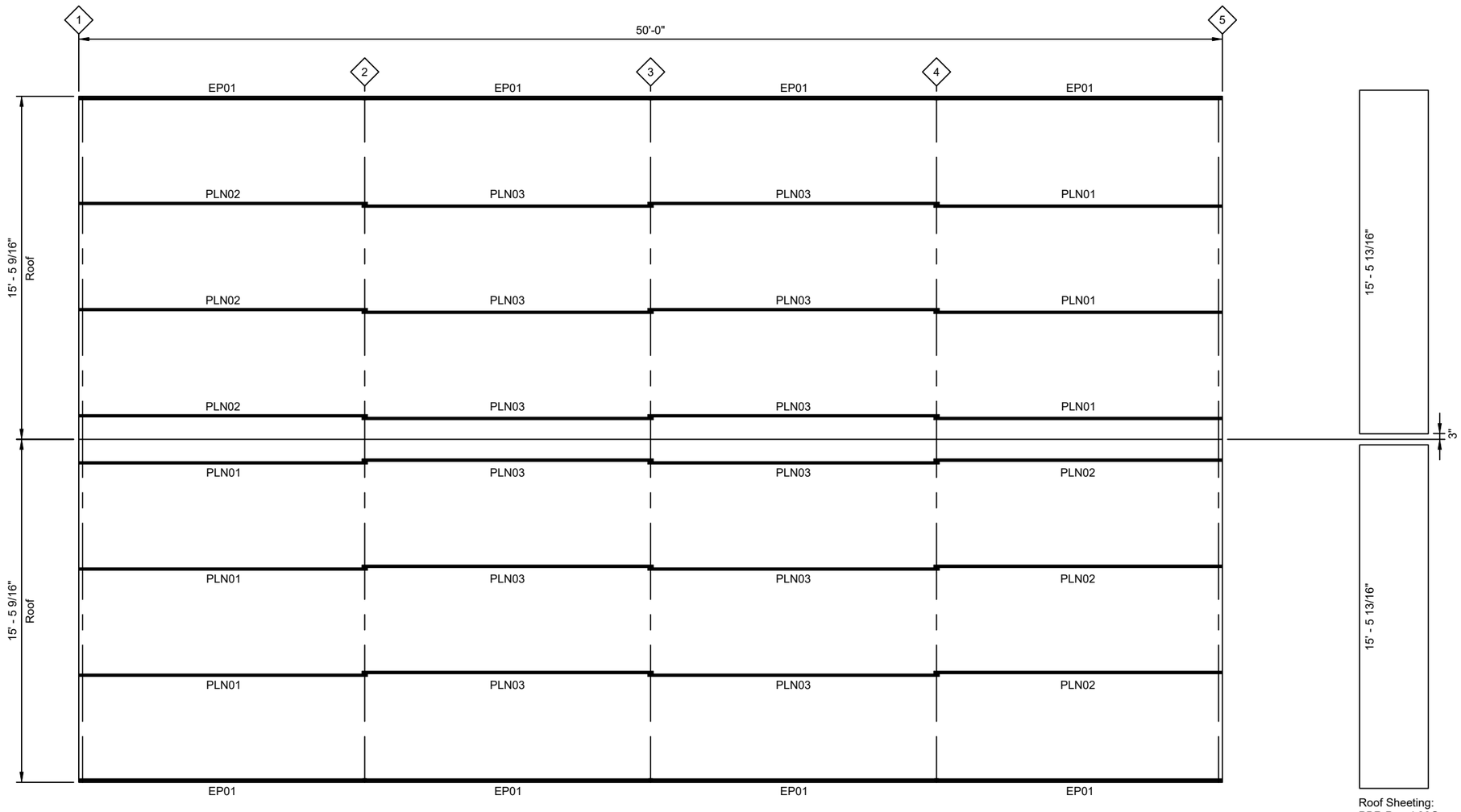
Portal Frame Details

HYPERSTEEL™ COLD-FORMED BUILDINGS

MULLER, INC.

JOBNO	TWAX99958339	DATE	3/21/2025
SHEET	7 of 18	SCALE	N/A

MEMBER TABLE		
Mark	Product	Length
EP01	6X2.5 14 EAVE	12' - 6"
PLN01	6" x 16ga. LGSI ZEE	12' - 7 1/2"
PLN02	6" x 16ga. LGSI ZEE	12' - 7 1/2"
PLN03	6" x 16ga. LGSI ZEE	12' - 9"



Roof Sheeting:
PBR Panel 26G
Matte Black

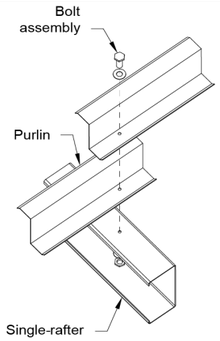
These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Roof Framing Plan

HYPERSTEEL™ COLD-FORMED BUILDINGS

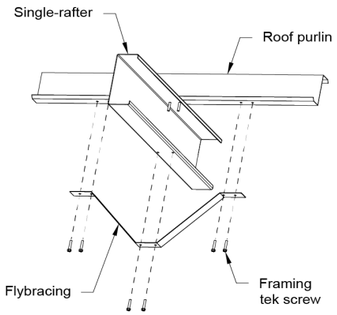
MUELLER INC.

JOBNO	TWAX99958339
SHEET	8 of 18
DATE	3/21/2025
SCALE	3/16" = 1'-0"



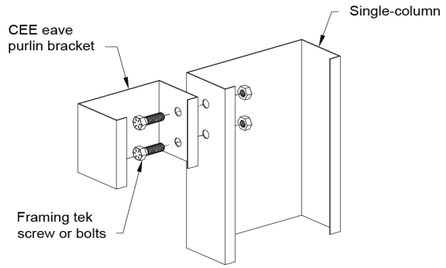
Purlin Rafter Single

https://r.actbs.com/g/abs453



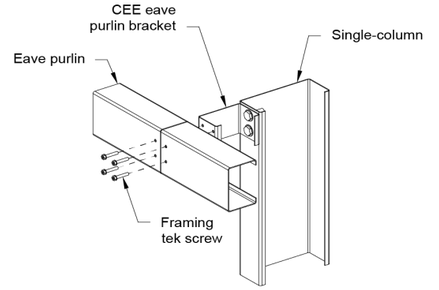
Flybrace Rafter Single

https://r.actbs.com/g/abs207



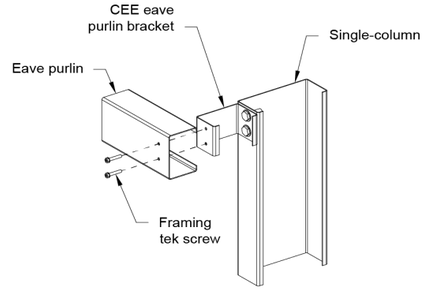
Eave Purlin Bracket Single CEE

https://r.actbs.com/g/abs085



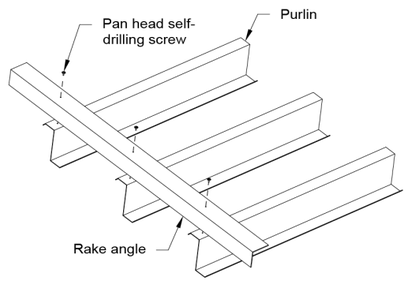
Eave Purlin Single CEE

https://r.actbs.com/g/abs076



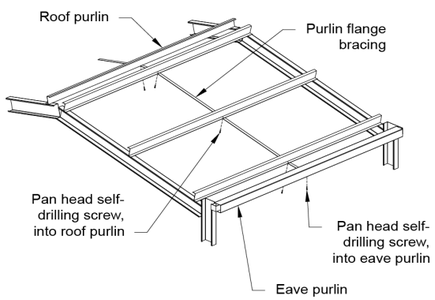
Eave Purlin End CEE

https://r.actbs.com/g/abs075



Rake Angle

https://r.actbs.com/g/abs465



Purlin Flange Bracing

https://r.actbs.com/g/abs441

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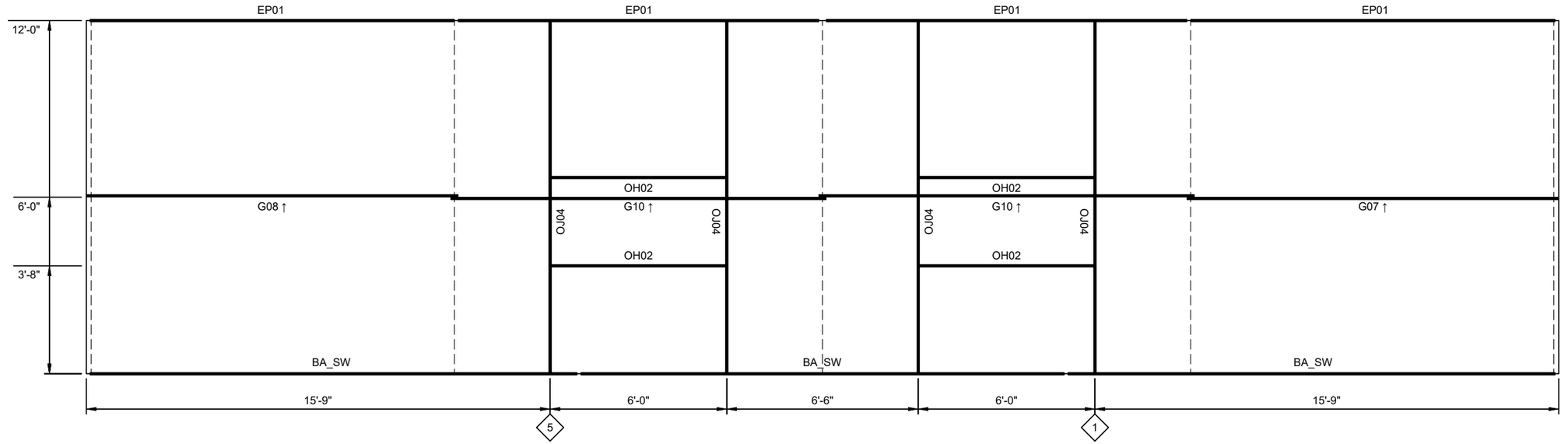
Roof Framing Details

HYPERSTEEL™ COLD-FORMED BUILDINGS

MULLER, INC.

JOBNO	TWAX99958339	DATE	3/21/2025
SHEET	9 of 18	SCALE	N/A

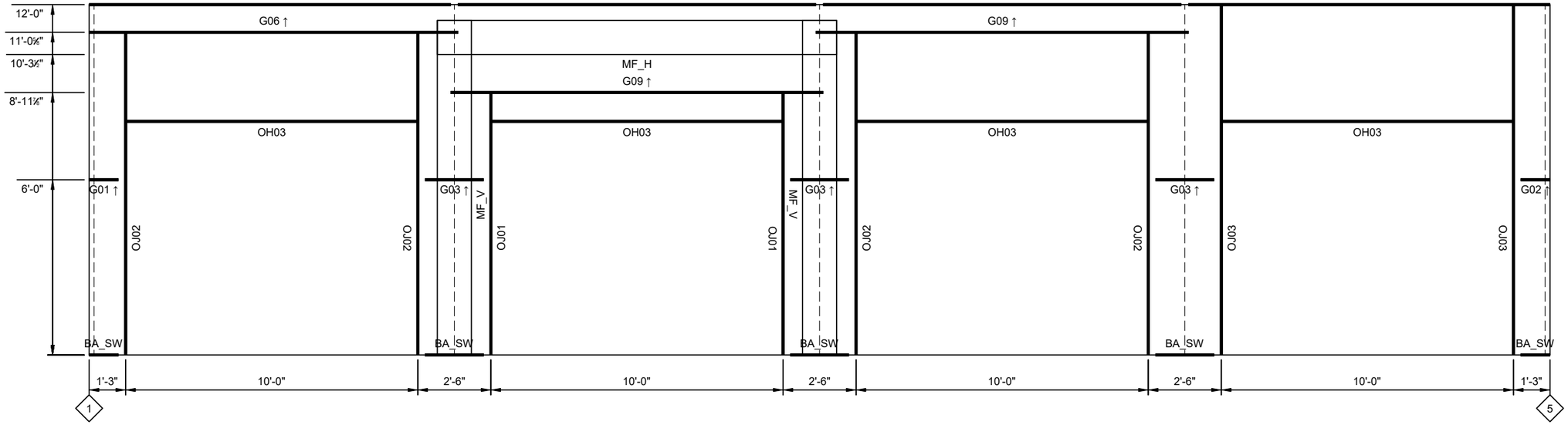


MEMBER TABLE		
Mark	Product	Length
BA_SW	2in x 4in Angle	Varies
EP01	6X2.5 14 EAVE	12' - 6"
G01	4" x 14ga. LGSI ZEE	1' - 0"
G02	4" x 14ga. LGSI ZEE	1' - 0"
G03	4" x 14ga. LGSI ZEE	2' - 0"
G06	4" x 14ga. LGSI ZEE	12' - 7 1/2"
G07	4" x 14ga. LGSI ZEE	12' - 7 1/2"
G08	4" x 14ga. LGSI ZEE	12' - 7 1/2"
G09	4" x 14ga. LGSI ZEE	12' - 9"
G10	4" x 14ga. LGSI ZEE	12' - 9"
MF_H	14" x 14ga. CEE	13' - 8"
MF_V	14" x 14ga. CEE	11' - 5 1/2"
OH02	4" x 16ga. CEE	5' - 11"
OH03	4" x 16ga. CEE	9' - 11"
OJ01	4" x 16ga. CEE	8' - 11 7/8"
OJ02	4" x 16ga. CEE	11' - 0 5/8"
OJ03	4" x 16ga. CEE	11' - 5 13/16"
OJ04	4" x 16ga. CEE	11' - 5 13/16"
↑ OUTSIDE FLANGE OF GIRT POINTS UP		
↓ OUTSIDE FLANGE OF GIRT POINTS DOWN		

2/10 Sidewall B Girt Layout

SCALE: 1/4" = 1'-0"

Frame Line C



1/10 Sidewall A Girt Layout

SCALE: 1/4" = 1'-0"

Frame Line A

Girt Layout

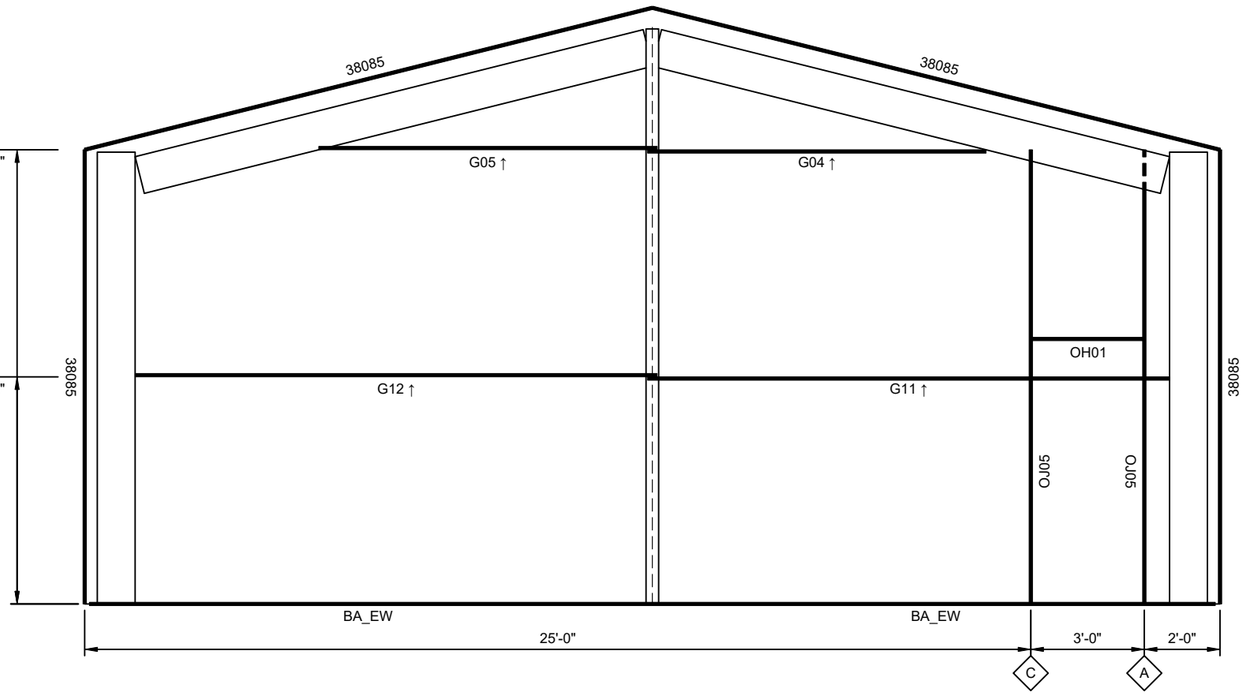
HYPERSTEEL™ COLD-FORMED BUILDINGS

MUELLER, INC.

JOBNO TWAX99958339
SHEET 10 of 18

DATE 3/21/2025
SCALE 1/4" = 1'-0"

MEMBER TABLE		
Mark	Product	Length
38085	2in x 4in Angle	Varies
BA_EW	2in x 4in Angle	15' - 0"
G04	4" x 14ga. LGSI ZEE	8' - 11 5/16"
G05	4" x 14ga. LGSI ZEE	8' - 11 5/16"
G11	4" x 14ga. LGSI ZEE	13' - 9 1/2"
G12	4" x 14ga. LGSI ZEE	13' - 9 1/2"
OH01	4" x 16ga. CEE	2' - 11"
OJ05	4" x 16ga. CEE	12' - 0"
↑ OUTSIDE FLANGE OF GIRT POINTS UP		
↓ OUTSIDE FLANGE OF GIRT POINTS DOWN		



1/11 Endwall A Girt Layout

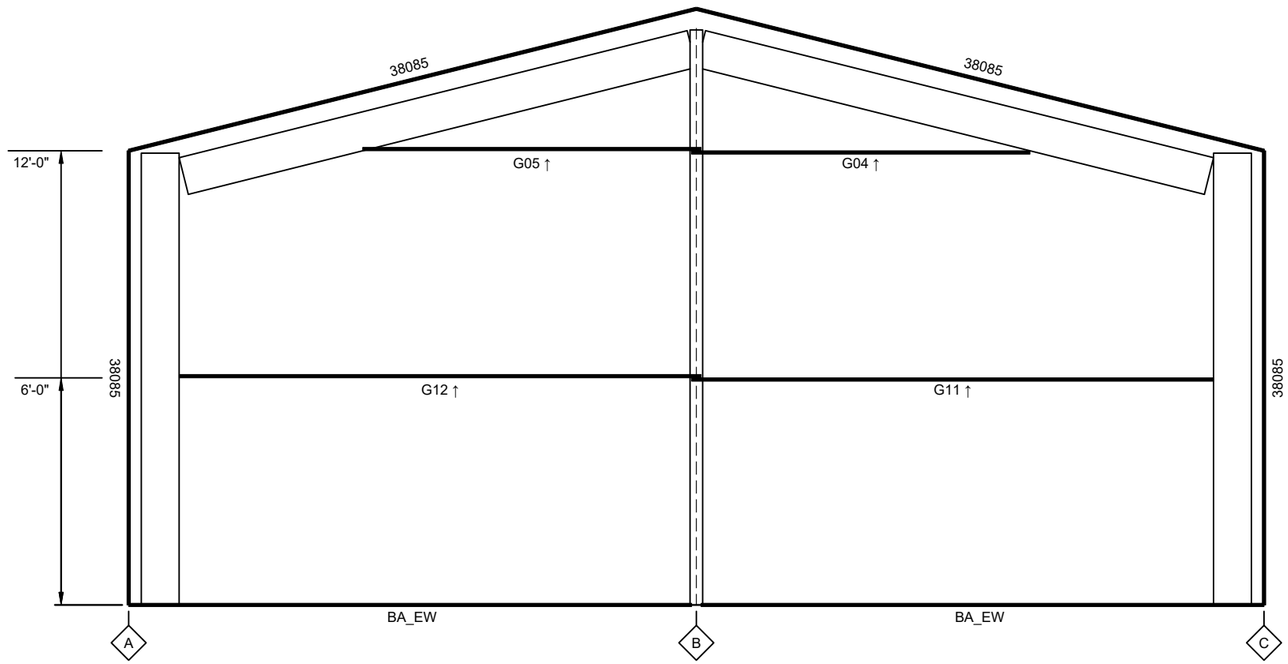
SCALE: 1/4" = 1'-0"

Frame Line 1

These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Girt Layout	HYPERSTEEL™ COLD-FORMED BUILDINGS / MUELLER, INC.	JOBNO TWAX99958339 SHEET 11 of 18	DATE 3/21/2025 SCALE 1/4" = 1'-0"	ACT

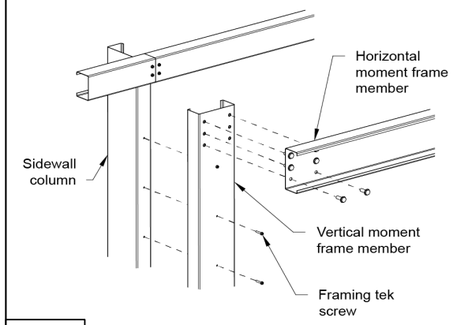
MEMBER TABLE		
Mark	Product	Length
38085	2in x 4in Angle	Varies
BA_EW	2in x 4in Angle	15' - 0"
G04	4" x 14ga. LGSI ZEE	8' - 11 5/16"
G05	4" x 14ga. LGSI ZEE	8' - 11 5/16"
G11	4" x 14ga. LGSI ZEE	13' - 9 1/2"
G12	4" x 14ga. LGSI ZEE	13' - 9 1/2"
↑ OUTSIDE FLANGE OF GIRT POINTS UP		
↓ OUTSIDE FLANGE OF GIRT POINTS DOWN		



1/12 Endwall B Girt Layout

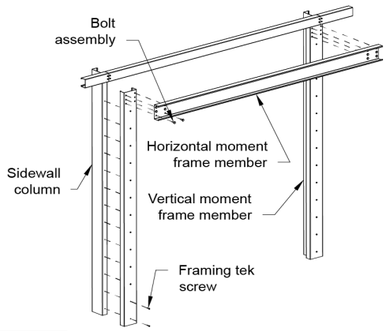
SCALE: 1/4" = 1'-0"

Frame Line 5



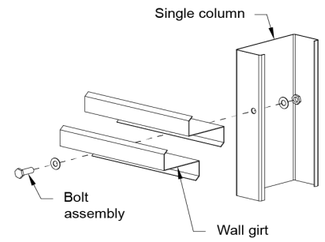
Moment Frame Vertical

https://r.actbs.com/g/abs385



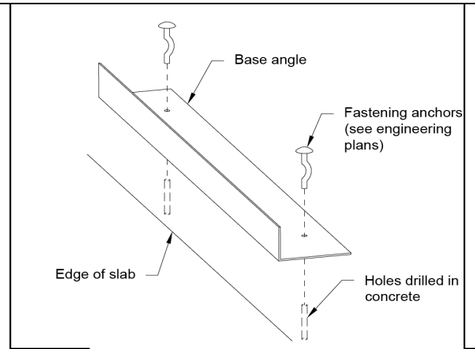
Moment Frame Horizontal

https://r.actbs.com/g/abs397



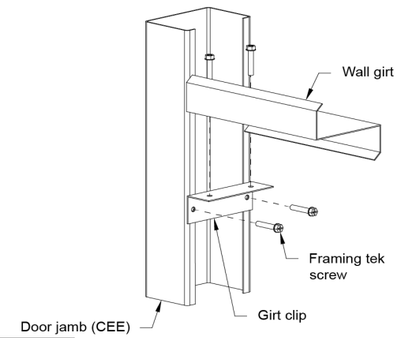
Girt Column Single

https://r.actbs.com/g/abs221



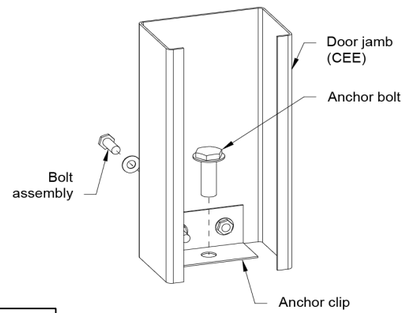
Base Angle

https://r.actbs.com/g/abs025



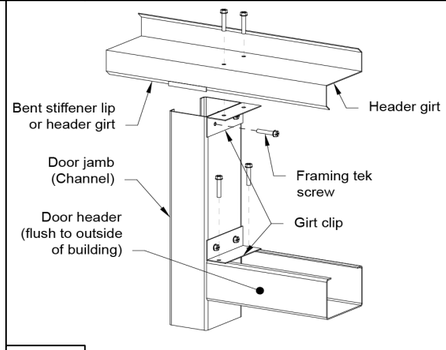
CEE Jamb Detail

https://r.actbs.com/g/abs485



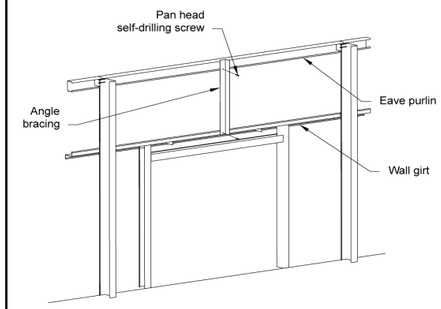
CEE Jamb Base Detail

https://r.actbs.com/g/abs489



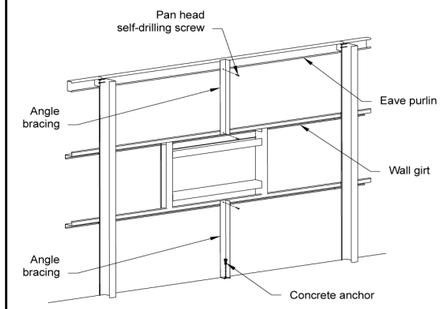
Jamb to Header Girt

https://r.actbs.com/g/abs517



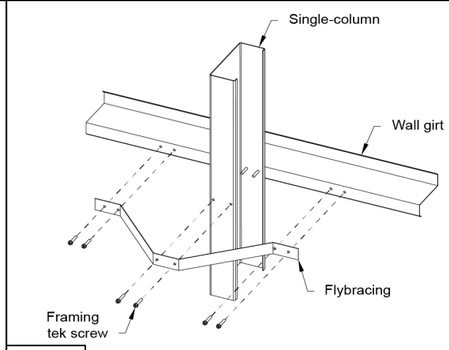
Door Opening with Bracing

https://r.actbs.com/g/abs435



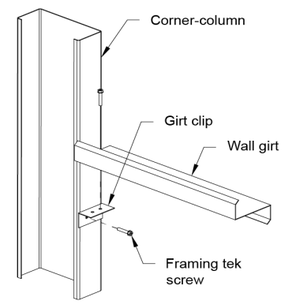
Window Opening with Bracing

https://r.actbs.com/g/abs435



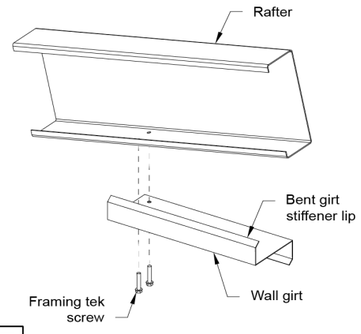
Flybrace Single

https://r.actbs.com/g/abs205



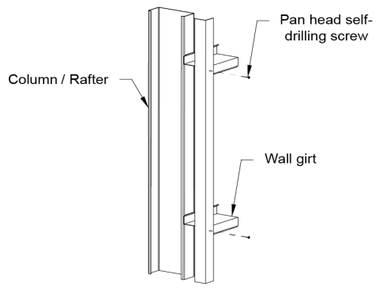
Endwall Girt To Column

https://r.actbs.com/g/abs241



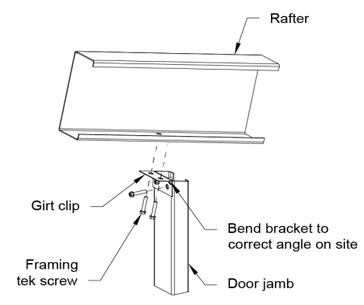
Endwall Girt To Rafter

https://r.actbs.com/g/abs233



Corner Angle

https://r.actbs.com/g/abs061



Jamb to Rafter

https://r.actbs.com/g/abs125

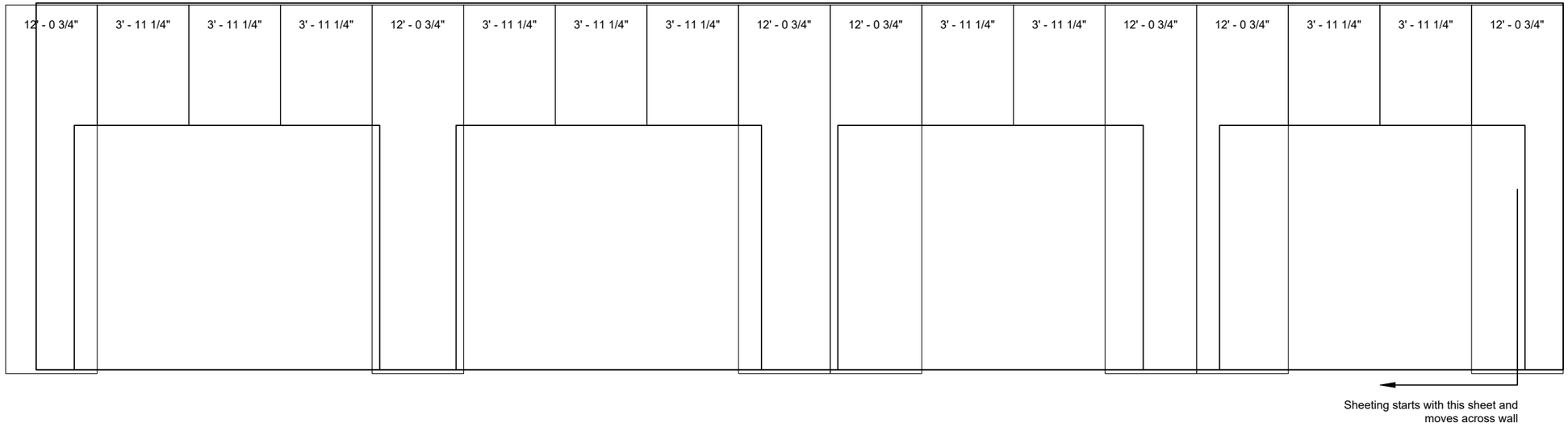
These are generic construction details - your exact building details may vary from these details. For example, washers are shown on many of the bolted connections, however the actual requirement for washer use is specified in the Engineering Plans. These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Girt Layout Details

HYPERSTEEL™ COLD-FORMED BUILDINGS

MUELLER, INC.

JOBNO	TWAX99958339	DATE	3/21/2025
SHEET	13 of 18	SCALE	N/A



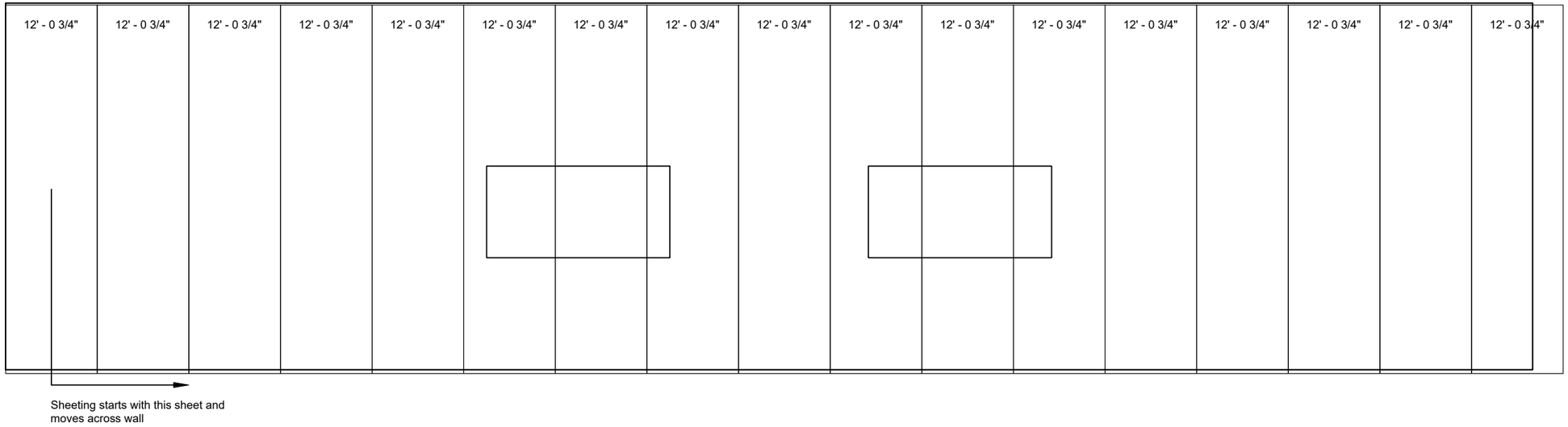
1/14 Sidewall A Sheeting Layout

SCALE: 1/4" = 1'-0"

Frame Line A

These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Sheeting Layout	HYPERSTEEL COLD-FORMED BUILDINGS / MUELLER INC.	JOBNO TWAX99958339 SHEET 14 of 18	DATE 3/21/2025 SCALE 1/4" = 1'-0"	ACT



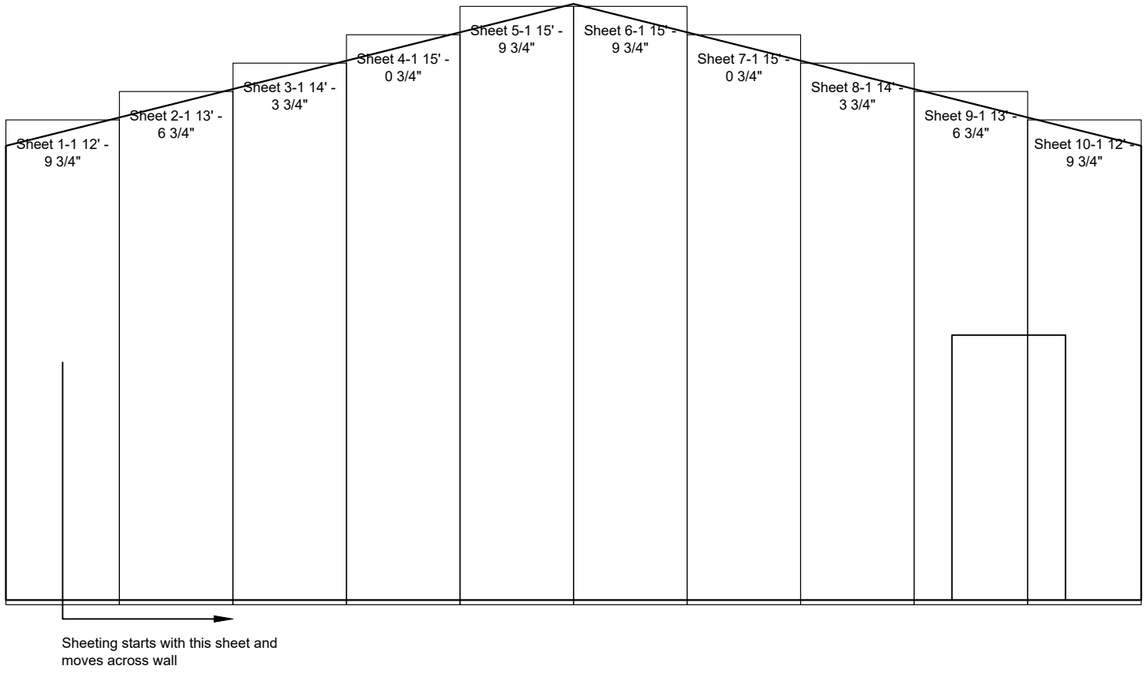
1/15 Sidewall B Sheeting Layout

SCALE: 1/4" = 1'-0"

Frame Line C

These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

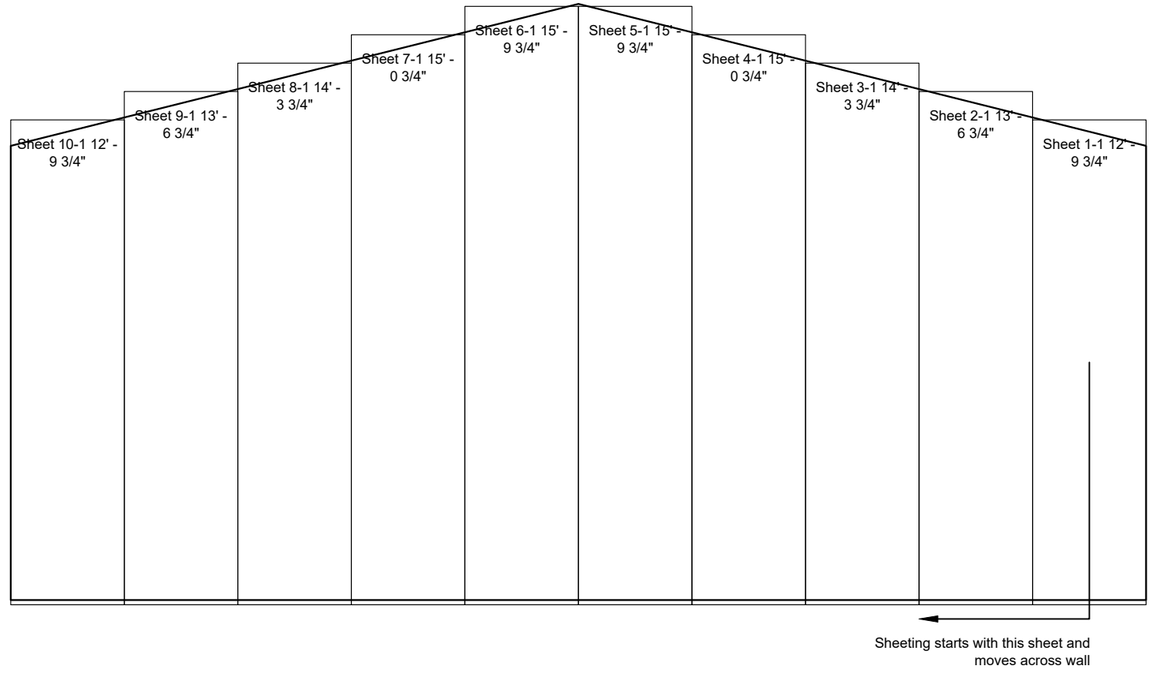
Sheeting Layout	HYPERSTEEL COLD-FORMED BUILDINGS / MUELLER, INC.	JOBNO TWAX99958339 SHEET 15 of 18	DATE 3/21/2025 SCALE 1/4" = 1'-0"



1/16 Endwall A Sheeting Layout

SCALE: 1/4" = 1'-0"

Frame Line 1



2/16 Endwall B Sheeting Layout

SCALE: 1/4" = 1'-0"

Frame Line 5

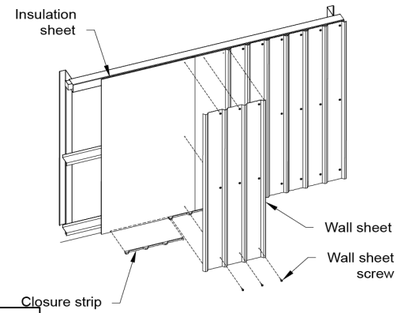
Sheeting Layout

HYPERSTEEL™ COLD-FORMED BUILDINGS

MUELLER, INC.

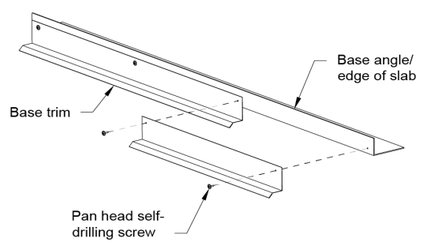
JOBNO TWAX99958339
SHEET 16 of 18

DATE 3/21/2025
SCALE 1/4" = 1'-0"



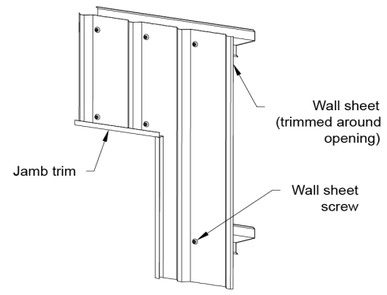
Wall Sheeting Overview

https://r.actbs.com/g/abs537



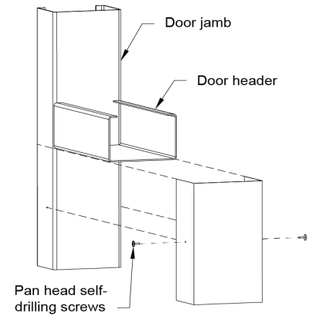
Base Trim

https://r.actbs.com/g/abs029



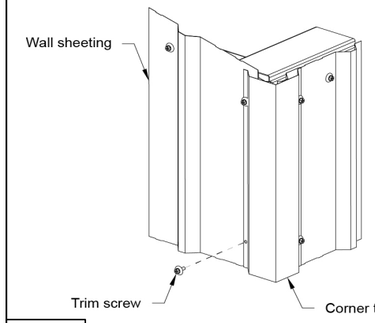
Wall Sheeting Openings

https://r.actbs.com/g/abs533



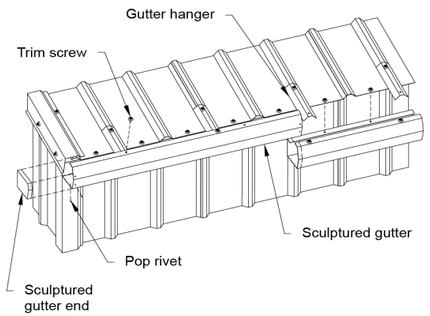
Door Jamb Cover

https://r.actbs.com/g/abs069



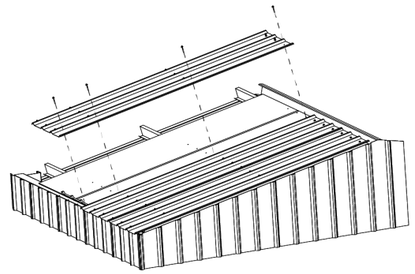
Corner Trim

https://r.actbs.com/g/abs065



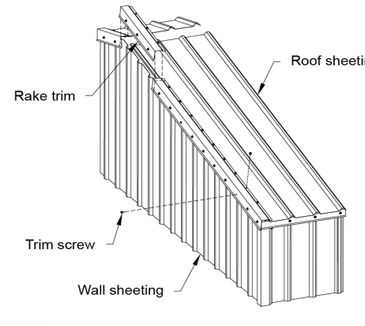
Gutters

https://r.actbs.com/g/abs261



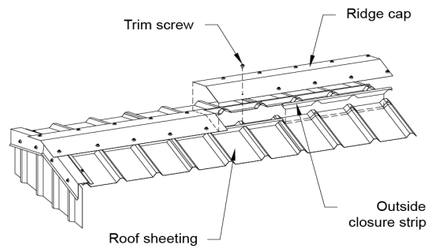
Roof Sheeting

https://r.actbs.com/g/abs477



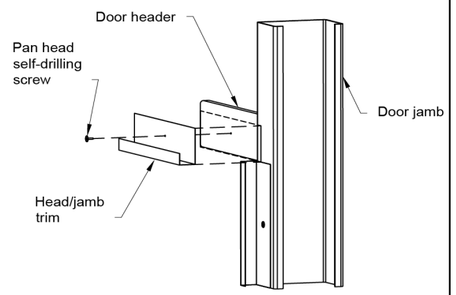
Rake Trim

https://r.actbs.com/g/abs209



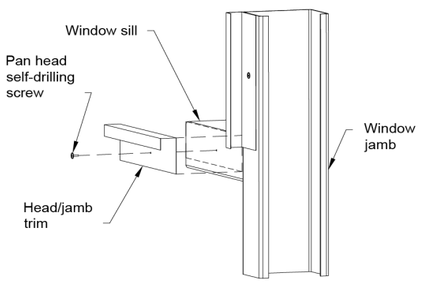
Ridge Cap

https://r.actbs.com/g/abs469



Jamb Trim Top

https://r.actbs.com/g/abs277



Jamb Trim Bottom

https://r.actbs.com/g/abs273

These are generic construction details - your exact building details may vary from these details. For example, washers are shown on many of the bolted connections, however the actual requirement for washer use is specified in the Engineering Plans. These illustrations are for reference only, and is to be used to supplement the engineering drawings. If any discrepancies occur, the engineering plans will always take precedence.

Sheeting Layout Details

HYPERSTEEL™ COLD-FORMED BUILDINGS

MUELLER, INC.

JOBNO	TWAX99958339
SHEET	17 of 18
DATE	3/21/2025
SCALE	N/A

Generic Temporary Bracing Information

The installation of temporary bracing is critical to avoid building collapse or damaging structural movement during construction. This collapse can occur with no notice and as such the installation of appropriate temporary bracing is critical to avoid damage, injury, and possible death. Determination, procurement, and correct installation of temporary bracing is the responsibility of the builder / primary contractor / installer.

Bracing Materials

The constructor / installer is to supply suitably sized materials for temporary bracing. These materials are generally capable of tension, but in some circumstances will need to be capable of tension and compression. Load rated ratchet strapping of an appropriate size can be used to temporarily 'x-brace' bays in both directions, until the final bracing systems are fullyinstalled. This is especially critical for buildings where X Bracing is not required in the final structure due to the use of moment frames or diaphragm bracing.

Temporary Bracing Location

The location of Temporary bracing will depend on the installation method used. Installation should be completed in accordance with the Construction Package, Engineering Plans, and Instruction Manuals. If the Frame First Method (most common) is used, then the use of tension only bracing and creating temporarily braced bays as per Fig 1 and Fig 2. can be used. As a basic guide, a minimum of every 4th bay should have temporary bracing installed as per Fig 2.

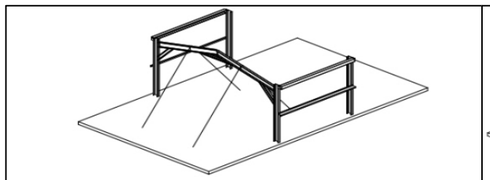


Fig 1. Frame First Temporary Bracing on First Rafter Installed

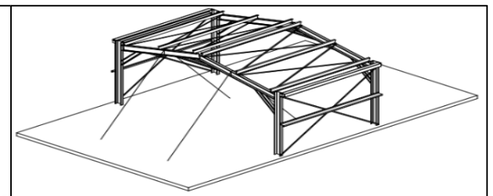


Fig 2. Temporary Bracing Installed as X Bracing

If the Tilt Up Method Is used (where walls are constructed on the ground And then tilted into place), then the tops of columns are braced with a tension and compression brace in the same direction Fig 3. Then rafters and purlins can be installed with temporary bracing holding rafters in place (similar to Fig 1) until final bracing of diaphragm sheeting is installed.

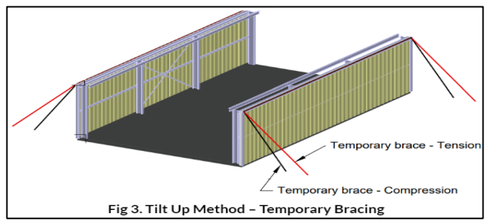


Fig 3. Tilt Up Method – Temporary Bracing

Typically, braces should be positioned diagonally across the structure from the top to the bottom, intersecting near the midpoint to provide stability, optimally at a 45-degree angle but no less than a 20-degree angle. The connection strength of temporary bracing is a critical consideration and these connections must be capable of resisting the potentially substantial temporary bracing loads – whether this connection point be to the building, the foundations or to the ground. Dependent upon building size this may include heavy angles and post installed concrete anchors. The temporary bracing methods used must be capable of fully stabilising the structure during the construction process.

Additional Temporary Bracing

The temporary bracing described is a minimum requirement for a standard-sized building in average conditions. Additional consideration should be given to larger building spans and/or challenging site conditions. There may also be an increased risk in relation to partially completed buildings and exposed sites. It is recommended that extra temporary bracing is utilized if moderate wind speeds are expected on site. Additional support elements, such as steel cables may need to be introduced that can be attached to the building's framework and anchored to the ground or other stable structures to provide extra stability. The frame should remain rigid throughout and such responsibility lies with the constructor. Buildings should not be left in a partially completed state longer than necessary.

Bracing Removal

The temporary bracing should not be removed until all purlins, girts and permanent cross bracing, diaphragm bracing or moment frames where used are installed. The temporary bracing is to remain in place where possible, until the roof and wall cladding is fully installed. If you need any further information regarding the installation of temporary bracing or are at all unsure of the necessary requirements for this specific building, there are guides available through various industry bodies:

https://www.aisc.org/ https://www.metal-buildings-institute.org/
Support is also available at [redacted]

THE ABOVE INFORMATION REGARDING TEMPORARY BRACING DOES NOT FORM PART OF THE ENGINEERING CERTIFICATION FOR THIS DESIGN AND IS PROVIDED AS A GUIDE TO AID INSTALLATION ONLY.

5700 Lionfish Way
Fort Worth, TX 76131

WHITWORTH ENGINEERING
DIAMOND JW INC

FOUNDATION MOISTURE MAINTENANCE

PROPERTY OWNER of this address: _____

Structures built on ground supported concrete foundations depend not only on proper design and construction, but also on proper foundation environment maintenance performed by the occupant or owner of the property. A properly designed and constructed foundation may still experience distress if the surrounding soils are not being properly cared for. Active soils are any type of soil that, when exposed to certain conditions, will undergo shrinking and swelling. In areas such as Dallas/Fort Worth, where soils are present, excessive moisture or too little moisture can affect the condition of the foundation. ***The objective of a proper maintenance program is to maintain as near constant moisture, as possible, for the soil under the foundation.***

The following is a list of items to be considered when planning proper foundation maintenance:

1. **Drainage:**
   - Never allow water to pond near or against foundation slabs.
   - Maintain positive drainage away from the foundation. The minimum slope shall be 5% for a distance of 10 feet from the edge of the foundation. (5% equals a 6-inch drop in 10 feet)
   - Where a horizontal distance of 10 feet is not possible, a berm or swale shall be constructed which provides a minimum 1% slope conveying the water to an acceptable outfall.
   - The installation and maintenance of gutters and downspouts are highly recommended, they should be kept clear and discharge water away from the foundation.
2. **Landscaping:**
   - There should be a minimum distance of 6 inches between the top of the slab and the ground.
   - Landscape beds must also maintain the minimum positive slope of 5% away from the foundation.
   - Where landscape beds are placed adjacent to the foundation, they should be equipped with a moisture barrier and/or area drains which convey water by means of buried pipe to an acceptable outfall.
   - Area drains must be checked periodically to ensure that they remain functional.
   - Trees remove moisture from the ground in order to survive and should therefore be watered regularly.
   - Trees should be placed at a distance no closer to the foundation than the full height of the mature tree.
   - If existing tree removal is not an acceptable option a root guard system should be constructed around the foundation in the area of the tree(s). Replace and compact any loose fill adjacent to the foundation with native soil. Water is conveyed quickly through sand or granular materials. These materials should not be used adjacent to the foundation unless accompanied by an appropriate drain system.
3. **Seasonal Changes:**
   - Avoid excessive drying around the perimeter of the foundation. When soil pulls away from foundation, it is too dry.
   - Excessive moisture is also a problem. Therefore, avoid over watering, even during the dry seasons.
4. **Swimming Pools, Pipe Systems, and Sprinkler Lines:**
   - Routinely check for leaks.

All property owners should conduct a yearly survey of their foundation and perform any maintenance necessary to improve drainage and prevent the ponding of water adjacent to the structures. ***This is especially important during the first ten (10) years after construction, because this is usually the time when the most severe adjustment between the new foundation and its supporting soil occurs.***

Sincerely,

Russell J. Whitworth, P.E.

Owner's Signature

: 817-236-6106 : 817-236-6184 : plans@rjwe.com

MUELLER, INC.
METAL BUILDINGS, ROOFING & COMPONENTS

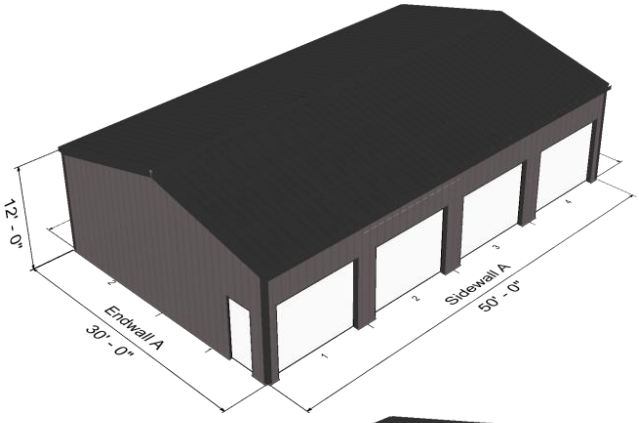
2325 South Hwy 287 Bypass Waxahachie TX 75165 **Phone:** (800) 272-9920

CUSTOMER: Jaron Dulaney
ADDRESS: 1745 Summer Ln
Keller, TX 76262

DATE	3/18/2025
QUOTE #	99958339
SALES	WAX - Taylor Jones

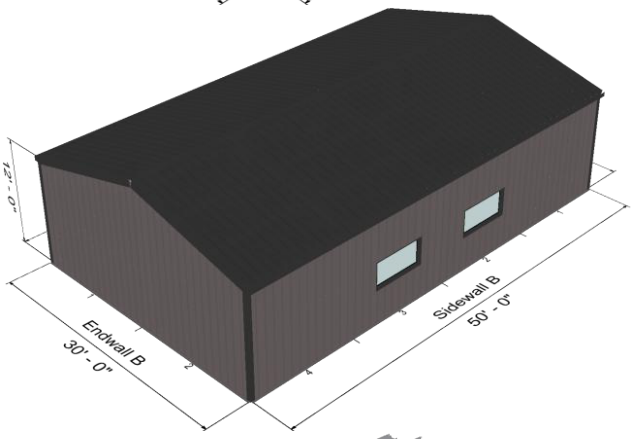
BUILDING TYPE

30' - 0" wide x 50' - 0" long x 12' - 0" high building with roof pitch of 3:12



BUILDING OPTIONS

(4) Sectional door openings
(1) Personnel door opening
(2) Window openings
Frame Finish: Galvanized
Roof Finish: 26G painted
Wall Finish: 26G painted

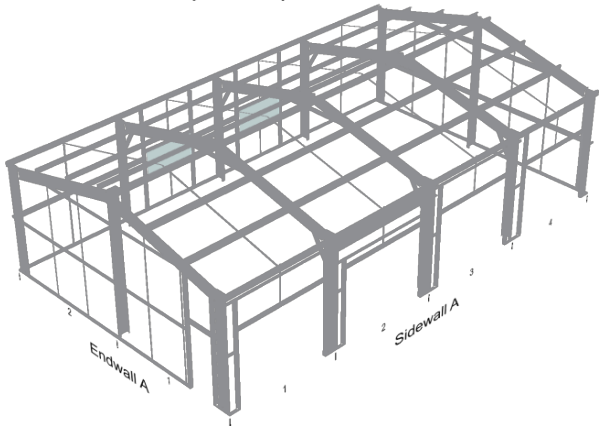


STAMPED ENGINEERING PLANS

Building Layout Plans
5 psf ground snow load
110 mph wind speed, exposure 'C'
2018 IBC

TOTAL PRICE

$21,557.15
Tax and Delivery NOT Included



- Quoted prices will be honored for 14 days unless specified otherwise by Mueller.
- Any Change Orders issued or incurred by Customer may delay Mueller's performance and will incur price adjustments.
- Order pricing will be subject to price of steel increases if Customer delays Mueller's performance by 30 days or if Customer does not take receipt of the materials within 30 days of the ready-to-ship or pick-up date.
- Pricing will not be affected if delivery schedule cannot be met by Mueller.
- Concrete slab & foundation engineering are the customer's responsibility; please check local codes and/or ordinances for project requirements, if any.

MUELLER, INC.
METAL BUILDINGS, ROOFING & COMPONENTS

BUILDING SPECIFICATIONS

Building Site Address:

1745 Summer Ln, Keller, TX, 76262

Building Site Details:
Ground Snow Load: 5 psf
Wind Load/Exposure: 110 mph C
Building Code: 2018 IBC
Building Occupancy Category: II

Building Dimensions:
Width: 30' - 0" Length: 50' - 0"
Eave Height: 12' - 0" Roof Pitch: 3:12
Sidewall Bays: 4 # Endwall Bays: 2

Leanto A Details:
Span: N/A Bays: N/A
Drop: N/A Roof Pitch: N/A
Eave Height: N/A

Leanto B Details:
Span: N/A Bays: N/A
Drop: N/A Roof Pitch: N/A
Eave Height: N/A

Mezzanine Details:
Floor Height: N/A Bays: N/A
Live Load: N/A Joist Spacing: N/A

Sheeting and Trim Details:
Roof Type: PBR 26GA MBL AK #1 3.22 RUN
Roof Color: Matte Black
Wall Type: PBR 26GA CHR AK #1 3.22 RUN
Wall Color: Charcoal
Eave Trim/Gutter Type: Utility Gutter #0500
Trim Color: Matte Black

Opening Details:
Personnel doors: None
Drive Doors: None
Windows: None
Framed Openings: (4) Four - 10'x8' framed openings for Sectional Door
(1) One - 3'x7' framed opening for Personnel Door
(2) Two - 6'x3' framed openings for Window
Open Bays: None
Skylights: None

Insulation Details:
None

Extra Options:
N/A

Purchaser: Jaron Dulaney
Mailing Address: 1745 Summer Ln
Keller, TX, 76262
Phone: 214-356-5515
Email: [redacted]

Total Contract Price: $21,557.15
Estimated Delivery: $350.00
Estimated Tax: $1,807.34

FINAL Total Price: $23,714.49

Down Payment: $5,928.62 (due at signing)
Final Balance: $17,785.87 (due at or prior to delivery)

Purchaser approves the Design Specifications contained in this Purchase Agreement and the Construction Package drawings provided:

Signature & Date

TERMS AND CONDITIONS

1) **Mueller**: When the word "Mueller" is used in this document, it shall be construed to mean Mueller, Inc.

2) **Mueller's Scope of Work:** Mueller is a manufacturer and the supplier of the materials contained in this Order Document. Mueller Is not the General or Prime Contractor of any work performed and does not provide any installation or erection services. If an Engineer of Record is needed for the project, Buyer understands that Mueller is not the Engineer of Record or Design Professional in Charge responsible for Buyer's project.

3) **Hypersteel Buildings:** Mueller has contracted with ACT Building Systems for the design of buildings primarily constructed from cold formed members. ACT Building Systems has retained the services of professional engineers as independent contractors who are responsible for the structural design of the building as detailed on the engineer sealed drawings provided through ACT. Neither Mueller, ACT Building Systems, nor the independent-contractor engineer providing the engineer seal drawings is the Engineer of Record or Design Professional in Charge responsible for Buyer's Project.

4) **Storage Buildings:** For engineered storage buildings, Mueller may use independent, third-party, professional engineers who are responsible for all engineering services including, but not limited to, the steel design and engineer sealed drawings. Neither Mueller nor any such third-party engineer is the Engineer of Record or Design Professional in Charge responsible for Buyer's Project.

5) **Material To Be Furnished**: This Order Document covers only items specifically set out in this document. In the event of conflict between drawings, specifications, and this document, only material listed herein will be furnished. All materials furnished are to be governed by Mueller specifications. All other material furnished will be at extra charge. Due to a program of continuing improvement, product literature and specifications are subject to change without notice.

6) **Taxes**: Except as otherwise expressly provided herein, all excise, privilege, occupation, sales, use, personal property, and other taxes applicable to the sale, purchase, construction, use or ownership of any of Mueller's products and/or work provided herein, and for which Mueller shall be liable to collect or pay, shall be added to the Order Document and shall be paid by Buyer. Buyer further agrees to indemnify and hold harmless Mueller if Mueller is found responsible for any state or federal taxes owed by Buyer.

7) **Freight:** Freight is "F.O.B. Jobsite". Delivery as scheduled, as much as practical, at the convenience of the Buyer. Buyer assumes full responsibility for furnishing Mueller adequate access to construction site, if in the opinion of the driver, it is impractical to reach the Project site to off load, the point of delivery shall be that place where, in the opinion of the driver, off loading may reasonably proceed. If driver decides it is impractical or unsafe to reach the Project site, Mueller will contact Buyer in a timely fashion to coordinate an alternative solution.

8) **Inspection, Shortages, and Damages**: Buyer shall have two (2) weeks following Buyer's receipt of the materials to inspect and report to Mueller in writing any defective or missing materials. Following this inspection period, Buyer is deemed to have accepted all materials not rejected or reported missing. Buyer's acceptance does not affect Mueller's obligations under Mueller's Standard Warranties and does not apply to materials later found to have latent defects, defined as defects unable to be identified by visual inspection during the inspection period. It is agreed that claims for errors, shortages, imperfections, and deficiencies will not be entertained by Mueller unless made in writing to the appropriate sales department of Mueller within two (2) weeks after receipt of goods, and Mueller shall not in any event be liable for labor charges or consequential damages from any claimed defective materials. Buyer agrees that no back charges or offsets of any kind will be taken without Mueller's written consent.

9) **WARRANTY. TO THE FULLEST EXTENT ALLOWED BY LAW MUELLER MAKES NO WARRANTIES EXCEPT THE WARRANTIES CONTAINED IN MUELLER'S STANDARD WARRANTIES. MUELLER'S STANDARD WARRANTIES ARE FOUND ON MUELLER'S WEBSITE. THE APPLICABLE WARRANTIES ARE THOSE IN EFFECT AT THE TIME OF THIS AGREEMENT. MUELLER'S LIABILITY IS LIMITED AS SET FORTH ON ITS STANDARD WARRANTIES, AND UNDER NO CIRCUMSTANCES SHALL MUELLER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. MUELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF WORKMANSHIP, MERCHANTABILITY, SUITABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY DISCLAIMED BY MUELLER AND WAIVED BY BUYER. MUELLER MAY DELIVER, BY SEPARATE DOCUMENT, CERTAIN LIMITED WARRANTIES TO BUYER, WHICH LIMITED WARRANTIES MUST BE SIGNED BY BOTH MUELLER AND BUYER PRIOR TO OR AT THE TIME OF DELIVERY TO BUYER TO BE EFFECTIVE.**

10) **Delay by Mueller**: Mueller shall not be liable for any direct, consequential, or liquidated damages including loss of use which Buyer may suffer by reason of Mueller's delays in the performance of this agreement resulting from circumstances beyond Mueller's reasonable control.

11) **Delay by Buyer:** In the event Buyer delays delivery or otherwise delays Mueller's performance by more than thirty (30) days, Mueller may re-price the materials to current market conditions to account for any price increases in materials. In the event Buyer delays delivery or fails to take possession of the materials by the agreed upon date, Buyer agrees that material stored at Mueller is subject to deterioration due to the effects of weather and such deterioration is not cause for rejection.

12) **Change Orders:** In the event Buyer issues or incurs any change orders, Buyer understands and agrees that Mueller's performance may be delayed and the price may increase.

13) **Force Majeure Event:** Neither Mueller nor the Buyer shall be liable for any delay in or inability to complete the performance of the Agreement because of unforeseen circumstances beyond their respective control, such as acts of God, industrial conflicts (including without limitation strikes, lockouts, and work interruptions), government rules, regulations, suspensions or requisitions of any kind, fires, casualties or accidents. Either party affected by a Force Majeure event shall promptly upon learning of such event give notice to the other party, stating the nature of the Force Majeure event, its anticipated duration, and all actions being taken to avoid or minimize its effect.

14) **Insurance:** Mueller agrees to carry Workman's Compensation insurance as required by the laws of the State where Mueller's work is performed. Mueller agrees to carry Workman's Compensation insurance and Comprehensive General Liability insurance, including Property Damage, and Automobile Liability, covering the work performed by Mueller. Certificates of insurance coverage will be forwarded upon request. All other forms of insurance for the Project will be carried by Buyer or Buyer's contractor/s, unless otherwise agreed in writing.

15) **INDEMNITY: TO THE FULLEST EXTENT ALLOWED BY LAW, BUYER AGREES TO DEFEND AND INDEMNIFY MUELLER FROM AND AGAINST ANY AND ALL CLAIMS, INCLUDING CLAIMS FOR THE LOSS OF PROPERTY, DAMAGE TO PROPERTY, OR PERSONAL INJURY, INCLUDING CLAIMS FOR WRONGFUL DEATH, ARISING FROM BUYER'S REAL OR ALLEGED NEGLIGENCE, GROSS NEGLIGENCE, OR BREACH OF THIS AGREEMENT. THIS OBLIGATION TO DEFEND AND INDEMNIFY APPLIES REGARDLESS OF WHETHER IT IS CLAIMED THE DAMAGES WERE CAUSED BY THE COMPARATIVE NEGLIGENCE OF MUELLER.**

16) **Limitation of Liability:** In no event shall either party, Mueller or Buyer, be liable to the other party for any indirect, consequential, special, incidental, punitive or any other damages, or for any lost profits or business interruption of any kind or nature whatsoever. If Buyer's project involves retrofit materials or materials extending any existing structures and/or labor are supplied hereunder, Mueller's negligence shall not include anything which results from transfer of any load to the existing structure.

17) **Credit:** Reasonable doubt on the part of Mueller of Buyer's financial responsibility shall entitle Mueller to stop operations, decline shipment, withhold delivery of any material in transit, or to exercise any other rights or remedies Mueller possesses in law and/or equity, without liability whatsoever to Mueller, until Buyer has paid for all material referred to in this proposal, or satisfied Mueller of its financial responsibility. It is further agreed that Buyer will pay all costs of collecting, securing, or attempting to collect or secure any indebtedness which may be hereunder, including reasonable attorney's fee, whether the same be collected or secured by suit or otherwise. Should Buyer fail to make payment upon terms designated by Mueller, a penalty of 1 ½ percent per month shall be levied, based on the balance of any invoice resulting from this Order Document or approved change orders. If state law prohibits this rate, the interest charged in the annual percentage rate will be the maximum allowed by state law. Payment for all materials delivered shall become due immediately upon delivery in accordance with the terms stated within this Order Document. In the event payment terms are not stated within this Order document, payment for all material becomes due on delivery.

18) **Code Compliance:** Buyer agrees that it will be Buyer's responsibility to ensure that any building ordered from Mueller meets the local codes or applicable regulations. Mueller only warrants that the buildings will meet specific loads outlined in the Order Document. Buyer understands that Mueller's engineer is not the Engineer of Record. Mueller reserves the right to change design or make structural substitutions of material which do not materially affect the strength or structural integrity of the building(s) purchased under this proposal. The "Design Practice" section of the MBMA Manual, 2012 edition (or most recent edition at the time of the contract), may be used as a general reference guide for clarification and interpretation of design load application.

19) **Acceptance and Cancellation:** Upon Buyer's signature, this proposal will become a Contract and final expression of agreement between Buyer and Mueller relating to the materials and/or work herein proposed to be sold. This Order Document cannot be modified except in writing signed by both parties. In the event of modification of this Order Document, any such modification shall be deemed to include all provisions of this Order Document.

20) **Assignment:** Neither party shall assign this Order Document or sublet it as a whole without written consent of both parties.

21) **Enforcement:** In the event that any one or more of the provisions contained herein shall for any reason be held to be unenforceable in any reason be held to be unenforceable in any respect, such unenforceability shall not affect any of the provisions of this agreement, but this agreement shall be construed as if such unenforceable provisions have never been contained herein. All questions of enforceability and interpretation which may arise under this agreement hall be construed in accordance with and determined by the provisions of the Uniform Commercial Code.

22) **Entire Agreement:** This writing is intended by the parties as a final expression of their agreement, and it is intended also as a complete and exclusive statement of terms of their agreement and replaces any prior written or verbal agreement. No purchase order issued in conjunction with this order shall be binding unless specifically agreed to in writing by a Mueller Manager.

23) **Special Inspection:** Proposal and Contract contains no provision for third-party inspections by outside parties. If a third-party fabrication inspection is requested by Buyer, Mueller must be notified a minimum of four (4) weeks prior to the scheduled delivery date so that the inspection can be accommodated. Field Inspections of any nature are not within the scope of work of this order.

24) **Governing Laws and Venue:** The Order Document shall be governed by and construed in accordance with the laws of the State of Texas. Each party, acting for itself and its successors and assigns, hereby expressly and irrevocably consents and agrees as follows:

a. **For products purchased within the State of Texas:** i) Any claims or controversies under or related to this Order Document, or any other agreement related hereto (including any action for the confirmation and enforcement of any arbitration award or for any litigation which may arise out of or be related to the Order Document) shall be exclusively determined in the state court located in Tom Green County, Texas, ii) the parties consent to jurisdiction in Tom Green County, Texas; and iii) that venue is proper only in this forum, and no other.
b. **For products purchased outside the State of Texas:** i) Any claims or controversies under or related to this Order Document, or any other agreement related hereto (including any action for the confirmation and enforcement of any arbitration award or for any litigation which may arise out of or be related to the Order Document) shall be exclusively determined in the state court located in Tom Green County, Texas or the United States District Court for the Northern District of Texas; ii) consents to the jurisdiction of Tom Green County, Texas or the United States District Court for the Northern District of Texas; and iii) that venue is proper only in those two forums, and no other.

End of Terms & Conditions

Buyer understands that by signing below, it accepts this Agreement, and its terms and conditions become legally binding on Buyer at the time of Seller's acceptance. Prior to accepting this Agreement, Seller encourages Buyer to carefully review this Agreement and, if desired, consult professional legal counsel. Prior to Buyer's acceptance of this Agreement, Sell also encourages Buyer to contest and negotiate with Seller and terms or conditions of this Agreement that Buyer deems objectionable or unacceptable.

This agreement entered into as of the day and year first written above by:

BUYER:

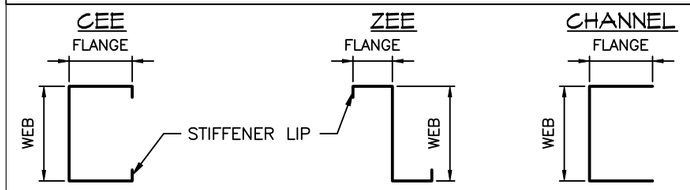
Jaron Dulaney

Signature & Date

Printed Name & Date

House Sqft = 3500
Shop Sqft (Proposed) = 1500
Driveway sqft (Proposed) = 2500
Pool sqft = 500
Other Accs buliding = 120
Current Driveway = 1000
Total Sqft (Proposed) = 9120
Lot size Sqft = 38,000(est)

COMPONENT DIAGRAM



TYP. = TYPICAL U.N.O. = UNLESS NOTED OTHERWISE

WALL OPENING SCHEDULE

DOOR	WIDTH	HEIGHT	OPENING TYPE	HEADER GIRT	OPENING JAMBS
1	10'-0"	8'-0"	SECTIONAL DOOR	SEE NOTE #4	C4X3X16
2 - 4	10'-0"	8'-0"	SECTIONAL DOOR	SINGLE	C4X3X16
5	3'-0"	7'-0"	PERSONNEL DOOR	SINGLE	C4X3X16
6 - 7	6'-0"	3'-0"	WINDOW	SEE NOTE #4	C4X3X16

NOTES:
1) JAMB MEMBERS SHOWN AS "C" ARE CEE MEMBERS WITH STIFFENER LIPS. FIRST NUMBER IS WEB DEPTH IN INCHES, SECOND NUMBER IS FLANGE WIDTH IN INCHES, AND THIRD NUMBER IS MATERIAL THICKNESS (GAUGE).
2) SEE DETAILS J/7 AND K/7 FOR OPENING FRAMING INFORMATION.
3) SIZE OF HEADER GIRT MEMBER TO BE SAME AS SIDEWALL OR ENDWALL GIRT, AS APPROPRIATE, PER ELEVATIONS. AT WINDOWS, INSTALL HEADER GIRT SPECIFIED ABOVE AND BELOW WINDOWS, U.N.O.
4) AT OPENINGS NOTED, INSTEAD OF ATTACHING DOOR JAMBS TO HEADER GIRT PER DETAIL L1/8 ATTACH DOOR JAMBS TO UNDERSIDE OF ENDWALL RAFTER OR EAVE PURLIN PER DETAIL L2/8.
5) ALL OPENINGS AND ACCESSORIES SHALL BE CAPABLE OF SUPPORTING ALL WIND PRESSURES PERPENDICULAR TO THE SURFACE (GENERATED BY WINDS AT THE SPEED AND EXPOSURE INDICATED ABOVE) BY SPANNING BETWEEN THE JAMBS.

DEFLECTION LIMITS

PURLINS:	L/150 (STD)
GIRTS:	L/90 (STD)
EW WIND COLUMNS:	L/120 (STD)
WALL PANEL:	L/60 (STD)

IMPORTANT: IN ADDITION TO THESE PLANS (WHICH ALWAYS TAKE PRECEDENCE), YOU SHOULD HAVE THE FOLLOWING FROM ACT BUILDING SYSTEMS:

- CONSTRUCTION PACKAGE
- INSTALLATION MANUALS
- CONSTRUCTION VIDEOS

PLEASE CONTACT YOUR SALES REP IF YOU HAVE NOT RECEIVED THESE PRIOR TO STARTING CONSTRUCTION.

PROJECT DESIGN CRITERIA

GOVERNING CODE: IBC 2021
RISK CATEGORY: II
ROOF DEAD LOAD: 3 psf
ROOF COLLATERAL LOAD: 3 psf
GROUND SNOW LOAD: 5 psf Ct = 1.2
ROOF SNOW LOAD: 4.2 psf
ROOF LIVE LOAD: 20 psf (REDUCIBLE)
WIND ENCLOSURE: ENCLOSED
WIND SPEED: 110 mph
WIND EXPOSURE: C
Ss: 0.103 Sds: 0.110
S1: 0.054 Sd1: 0.086
SEISMIC DESIGN CATEGORY: B
R transverse: 3.0 R longitudinal: 3.0

WIND DESIGN OF LATERAL FORCE-RESISTING SYSTEMS IS BASED ON THE DIRECTIONAL DESIGN PROCEDURE OF ASCE 7-16, CHAPTER 27

SEISMIC DESIGN OF LATERAL FORCE-RESISTING SYSTEMS ARE AS FOLLOWS:
-- TRANSVERSE: ORDINARY STEEL MOMENT FRAME (SEISMIC DESIGN IS BASED ON ASCE 07-16, SECTIONS 12.1 - 12.13)
-- LONGITUDINAL: ORDINARY STEEL BRACED FRAME. (SEISMIC DESIGN IS PERFORMED USING THE SIMPLIFIED DESIGN PROCEDURE (ASCE 07-16, SECTION 12.14).

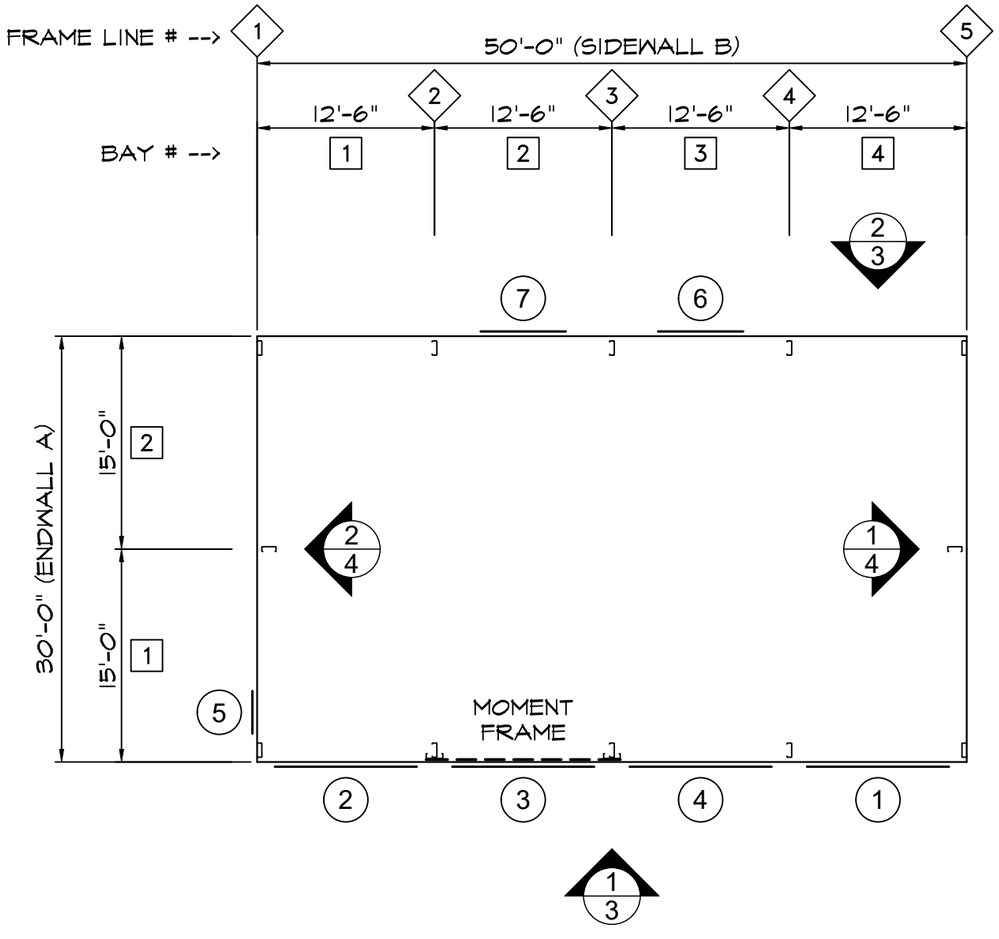
F-22881
STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED
PROFESSIONAL ENGINEER
3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Fairfield, OH ST 29864

ACTBUILDING SYSTEMS®

DISTRIBUTOR:
JOB NAME: Mueller Inc. Waxahachie
Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln
Keller, TX 76262

DRAWN
CHECKED
DATE 3/20/2025
JOB NO. TWAX99958339
SHEET 1 OF 12



1/2 BUILDING LAYOUT PLAN

SCALE: 3/32" = 1'-0"

NOTE : DESIGN OF CONCRETE FOUNDATION TO SUPPORT BUILDING SHOWN IS TO BE PROVIDED BY OTHERS.

BRAND, TYPE, AND EMBEDMENT OF ANCHORAGE OF BUILDING COMPONENTS TO CONCRETE REFER TO COLUMN BASE DETAILS FOR ANCHOR LOCATIONS AND DIAMETER

NOTE: SEE "TYP. FRAME CROSS-SECTION" DETAIL ON SHEET 4 FOR SPECIFIC FRAME DETAIL INFORMATION.

NOTE: EXCEPT AT DOOR OPENINGS, INSTALL L4x2x14G ANGLE TO FOUNDATION (FOR ATTACHMENT OF BOTTOM OF WALL SIDING) WITH 1/4 X 1 1/2 DRIVE Pin ANCHORS AT 48" O.C. (6" MAX. FROM ANY END).

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STATE OF TEXAS
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PROFESSIONAL ENGINEER
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Fairfield, OH 45014

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DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

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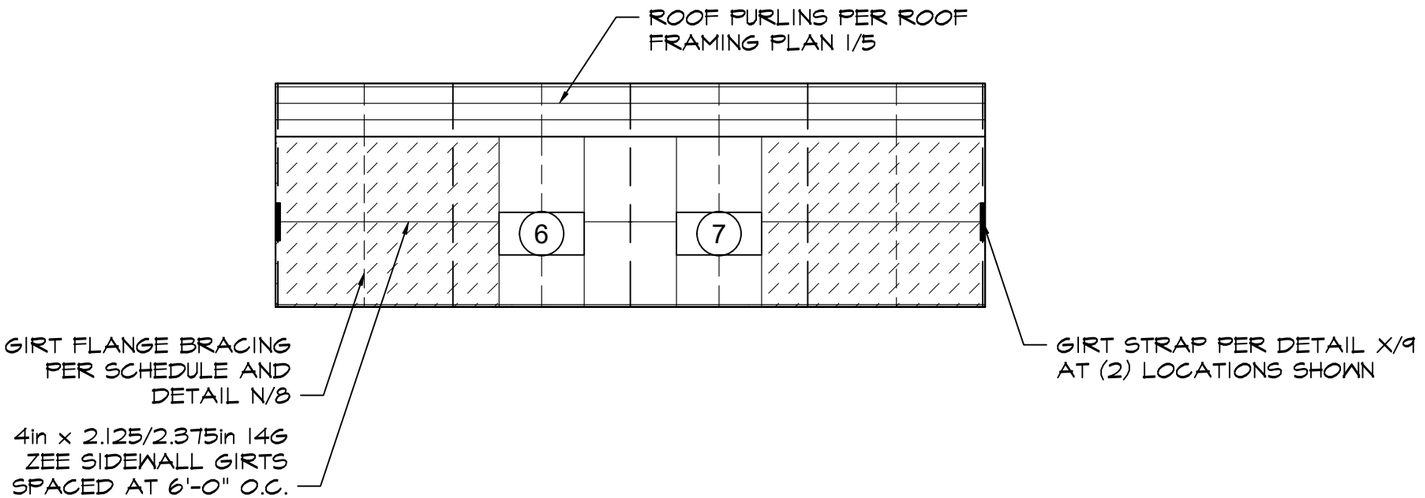
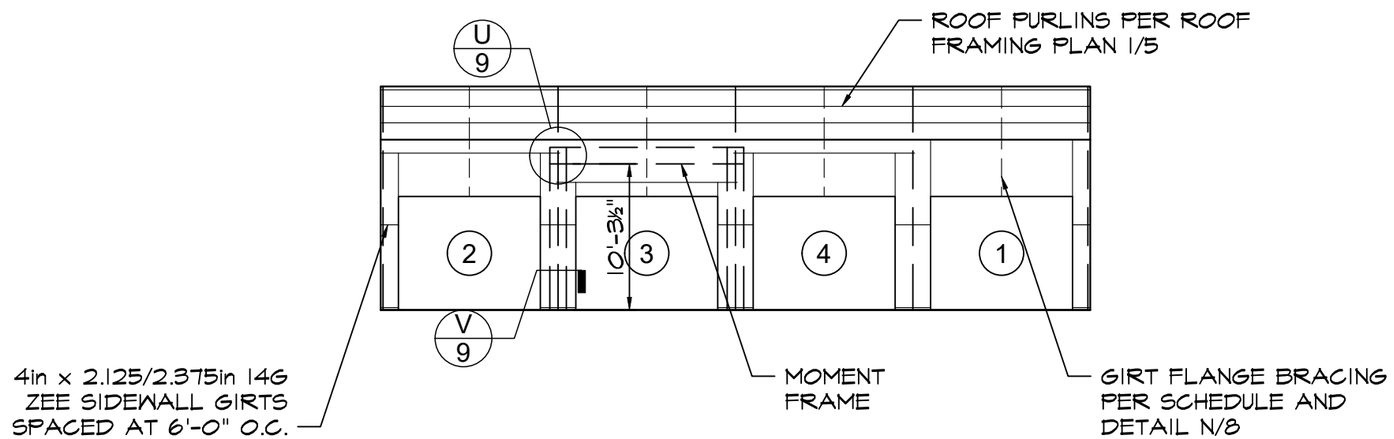
JOB NO. TWAX99958339

SHEET 2 OF 12



2/3 SIDEWALL 'B' EXTERIOR ELEVATION

SCALE: 3/32" = 1'-0"



1/3 SIDEWALL 'A' EXTERIOR ELEVATION

SCALE: 3/32" = 1'-0"

DIAPHRAGM SCHEDULE

SHEETING IN DIAPHRAGM SECTIONS (SHOWN AS HATCHED AREA ON ELEVATIONS) NOT TO BE CUT UNDER ANY CIRCUMSTANCES

WALL	DISTANCE FROM WALL EDGE
Sidewall 'B'	0.0'-15.8' 34.3'-50.0'

GIRT FLANGE BRACING SCHEDULE

	BAY #1	BAY #2	BAY #3	BAY #4
Sidewall 'A'	M/S	M/S	M/S	M/S
Sidewall 'B'	M/S	M/S	M/S	M/S

M/S = MIDSPAN

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
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LICENSED
PROFESSIONAL ENGINEER

3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Fairfield, OH 45014

ACTBUILDING SYSTEMS®

DISTRIBUTOR:
Mueller Inc. Waxahachie
JOB NAME:
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JOB ADDRESS:
1745 Summer Ln
Keller, TX 76262

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JOB NO.
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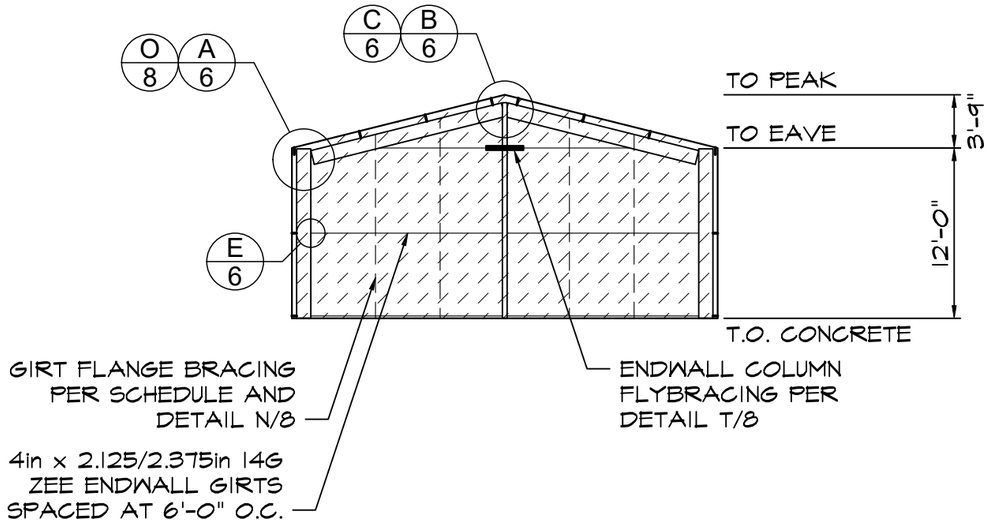
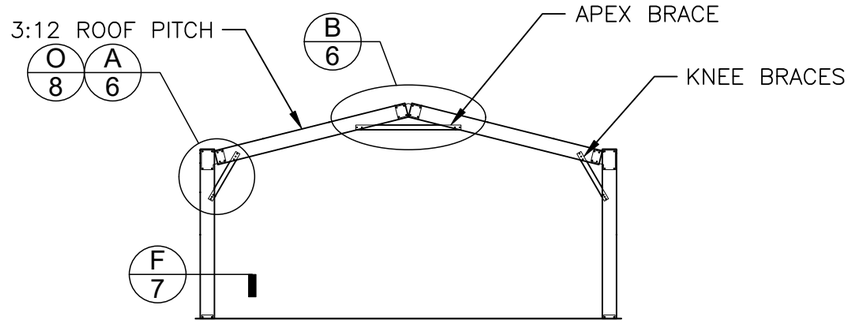
SHEET
3
OF
12



1/4 ENDWALL 'B' INTERIOR ELEVATION

SCALE: 3/32" = 1'-0" FRAME #5



3/4 TYP. FRAME CROSS-SECTION

SCALE: 3/32" = 1'-0" FRAMES 2-4

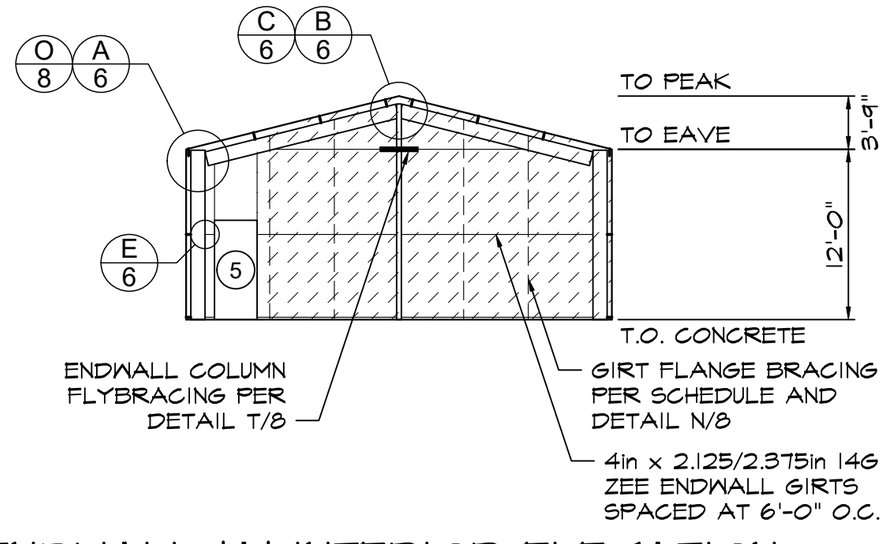
GIRT FLANGE BRACING SCHEDULE

	BAY #1	BAY #2
Endwall 'A'	1/3 PTS.	1/3 PTS.
Endwall 'B'	1/3 PTS.	1/3 PTS.

DIAPHRAGM SCHEDULE

SHEETING IN DIAPHRAGM SECTIONS (SHOWN AS HATCHED AREA ON ELEVATIONS) NOT TO BE CUT UNDER ANY CIRCUMSTANCES

WALL	DISTANCE FROM WALL EDGE
Endwall 'A'	5.0'-30.0'
Endwall 'B'	0.0'-30.0'



2/4 ENDWALL 'A' INTERIOR ELEVATION

SCALE: 3/32" = 1'-0" FRAME #1

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED
PROFESSIONAL ENGINEER

3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Expiration on: 12/31/26

ACTBUILDING SYSTEMS®

DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
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SHEET 4 OF 12

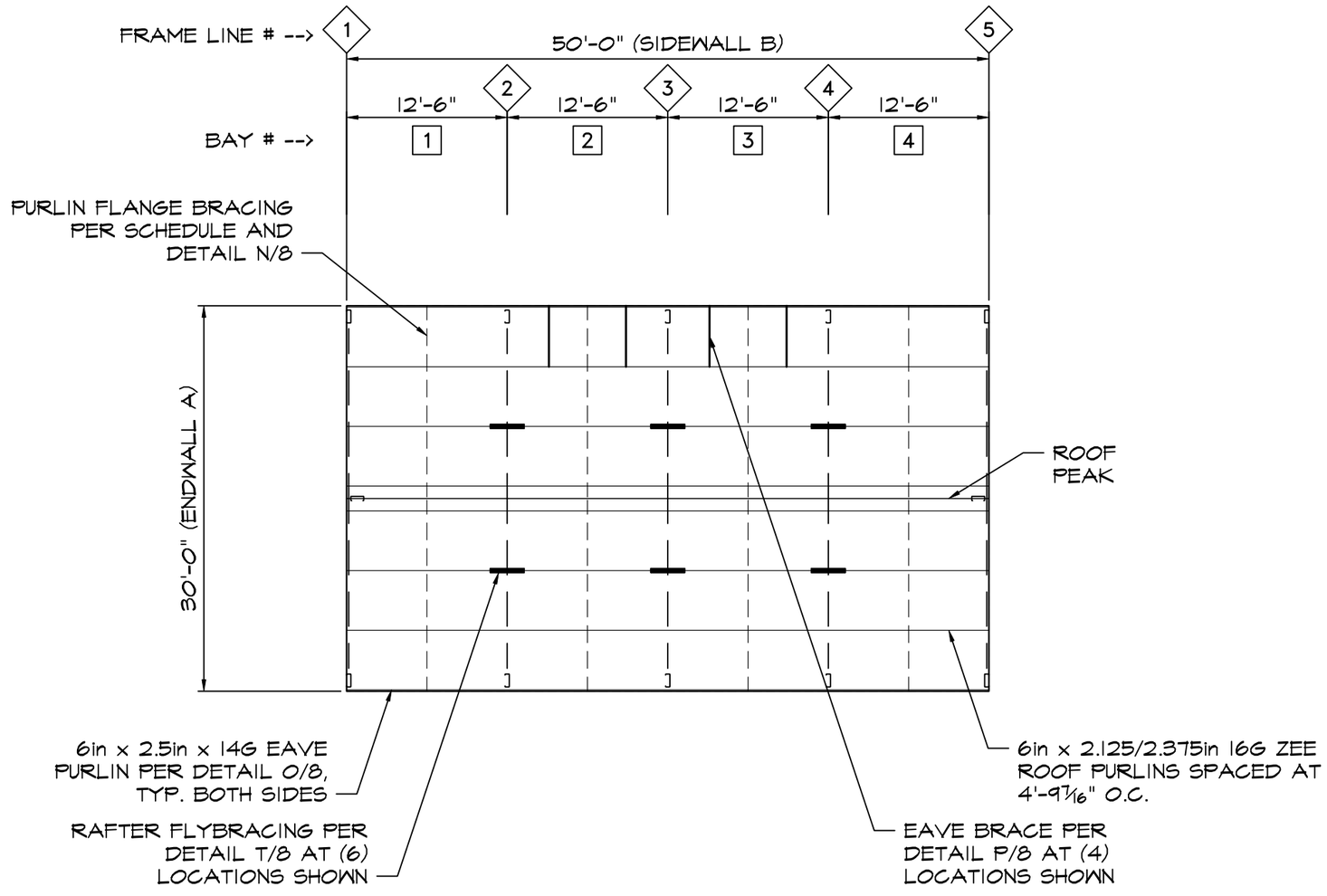
PURLIN FLANGE BRACING SCHEDULE

	BAY #1	BAY #2	BAY #3	BAY #4
Main Roof	M/S	M/S	M/S	M/S

M/S = MIDSPAN

ROOF DIAPHRAGM NOTE

ROOF SHEETING IS USED AS DIAPHRAGM TO BRACE THE BUILDING AND IS NOT TO BE CUT UNDER ANY CIRCUMSTANCES



1/5 ROOF FRAMING PLAN

SCALE: 3/32" = 1'-0"

Structural Engineering by:
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Fairfield, OH ST 29864

ACTBUILDING SYSTEMS®

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JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

DRAWN
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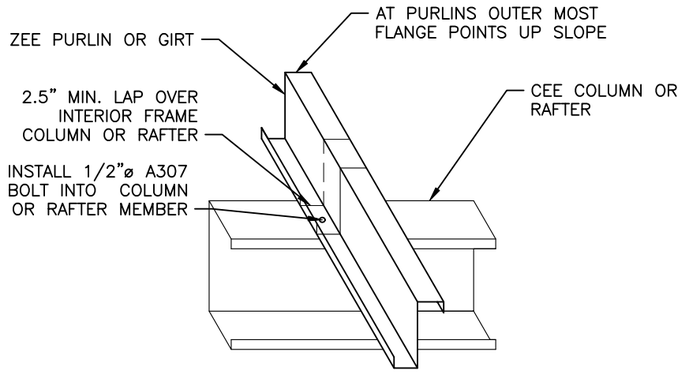
SHEET 5 OF 12

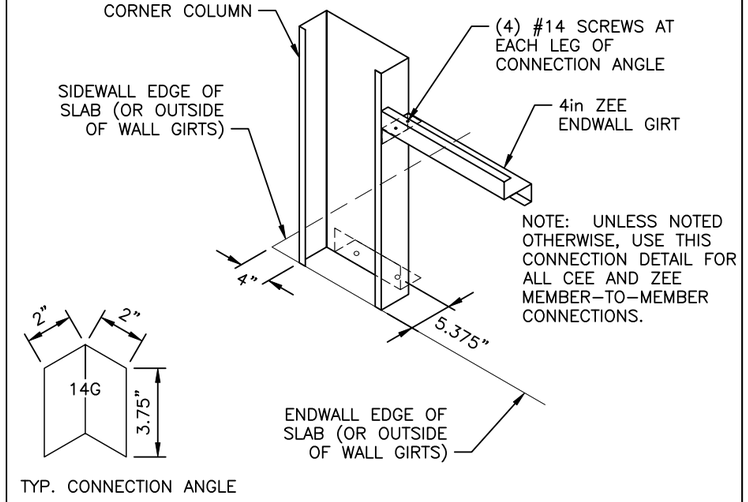
F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED
PROFESSIONAL ENGINEER

3/20/2025

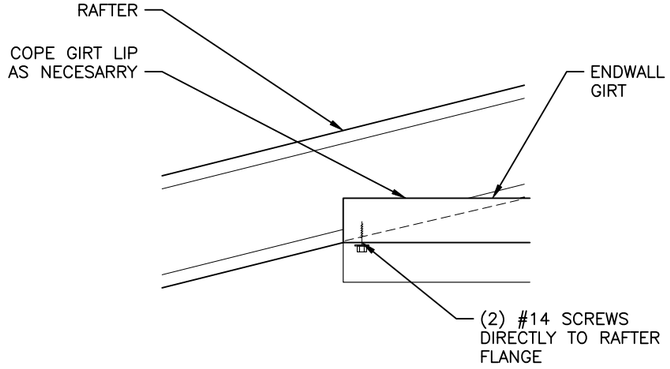


D ZEE PURLIN/GIRT CONNECTION

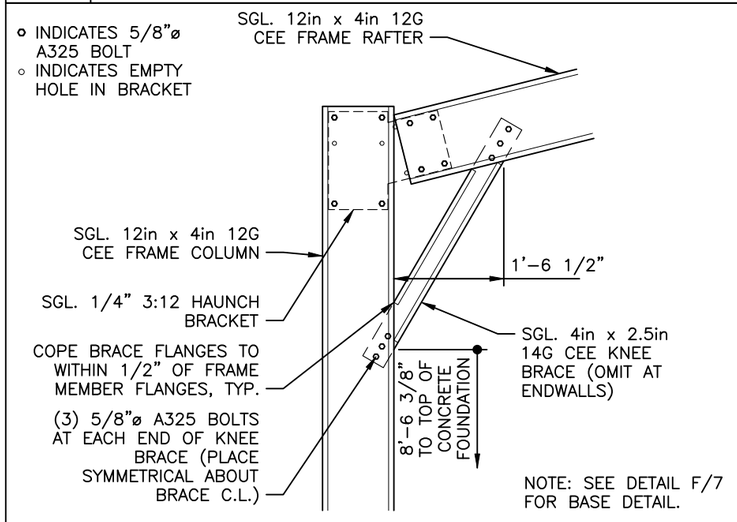


TYP. CONNECTION ANGLE

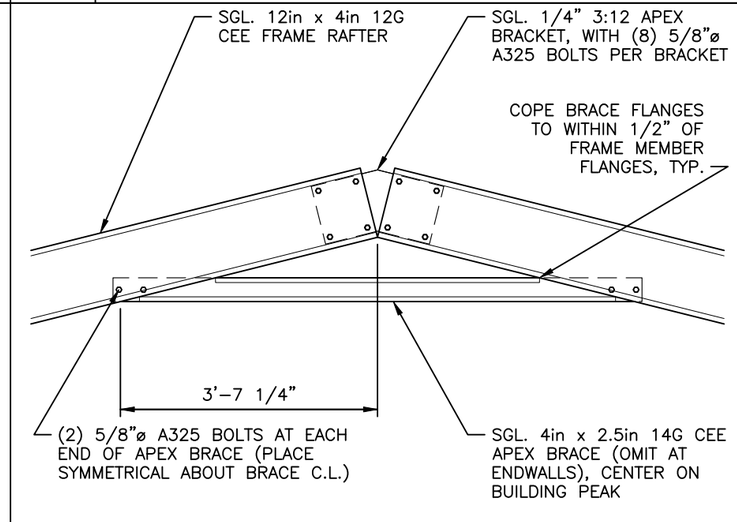
E ENDWALL GIRT AT CORNER COLUMN



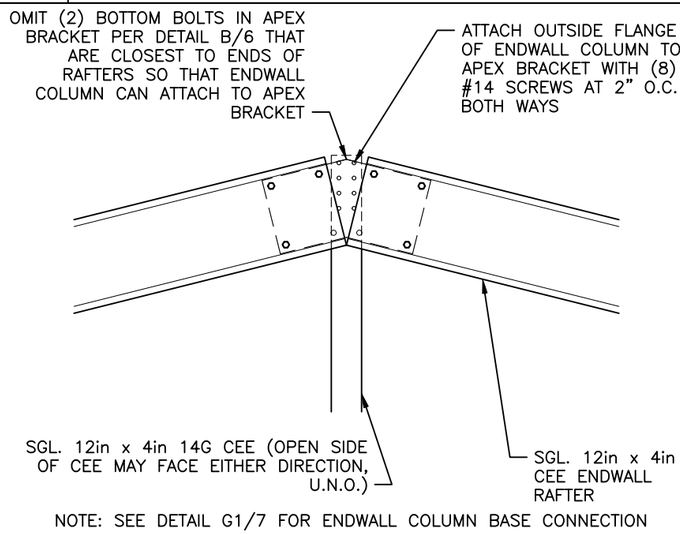
E2 END GIRT TO RAFTER



A HAUNCH CONNECTION



B APEX CONNECTION



NOTE: SEE DETAIL G1/7 FOR ENDWALL COLUMN BASE CONNECTION

C ENDWALL COLUMN TO RAFTER PEAK CONDITION

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
PROFESSIONAL LICENSED STRUCTURAL ENGINEER

3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Fairfield, OH ST 29864

ACTBUILDING SYSTEMS®

DISTRIBUTOR:
JOB NAME: Mueller Inc. Waxahachie
Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

DRAWN

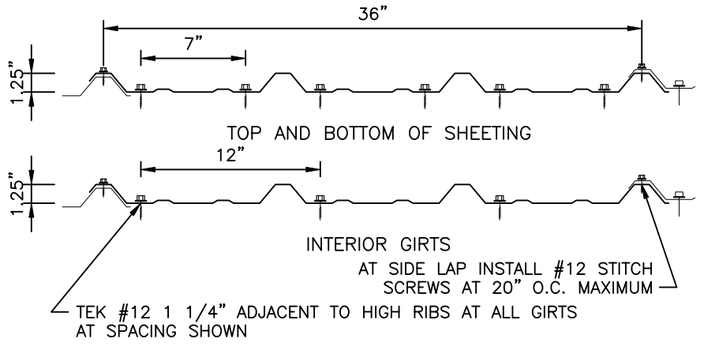
CHECKED

DATE 3/20/2025

JOB NO. TWAX99958339

SHEET 6 OF 12

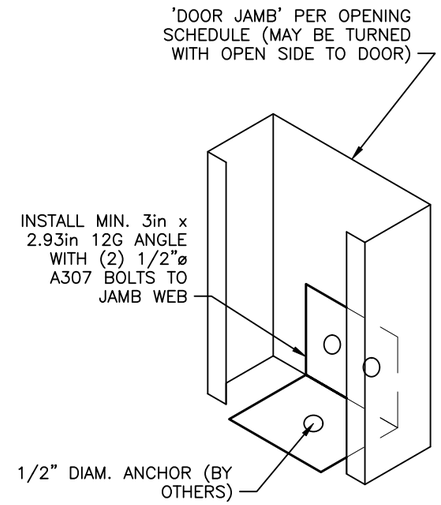
NOTE: ONLY STRUCTURAL INFORMATION IS INCLUDED IN THIS DETAIL. CONSULT PANEL MANUFACTURER FOR ADDT'L WEATHERTIGHTNESS RECOMMENDATIONS.



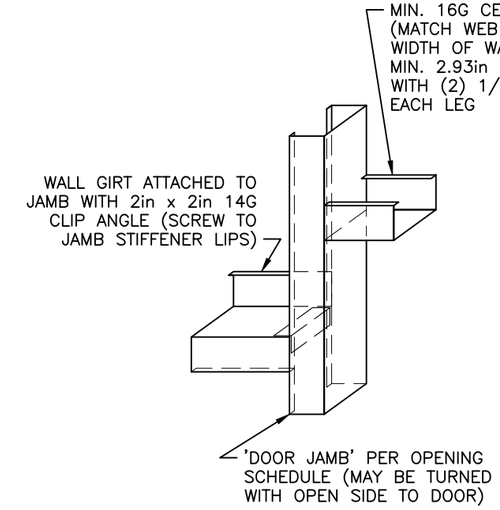
Mueller, Inc.
PBR Panel 26G

Ix(t) = 0.0382 In^4/ft
Sx(t) = 0.0381 In^3/ft
Fy = 80 ksi
Ix(b) = 0.0309 In^4/ft
Sx(b) = 0.0449 In^3/ft

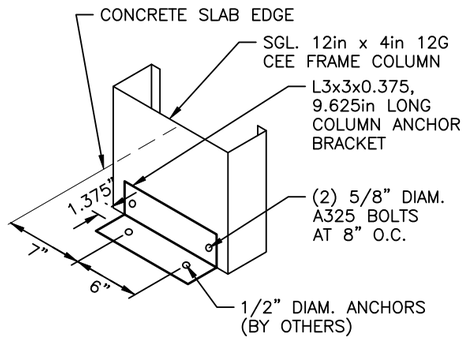
I WALL SHEETING



J OPENING JAMB BASE CONNECTION

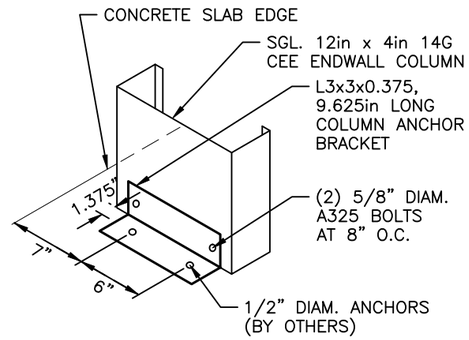


K OPENING JAMB GIRT CONNECTION



NOTE: CENTER ALL BOLTS ON COLUMN ANCHOR BRACKET LENGTHS. BRACKET MAY BE PLACED ON EITHER SIDE OF COLUMN. EXCEPT AT CORNER COLUMN, BRACKET MUST BE INSTALLED ON SIDE OF COLUMN FURTHEST FROM SLAB EDGE.

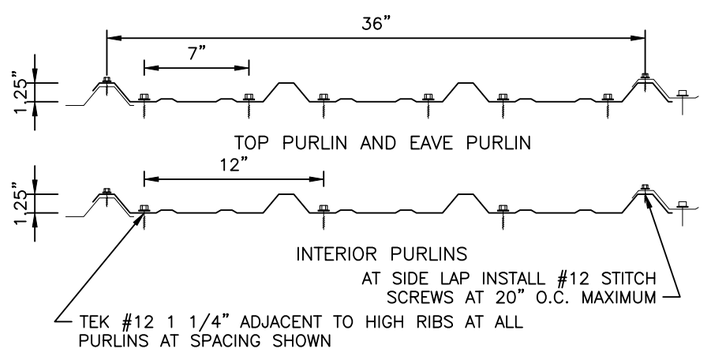
F FRAME COLUMN BASE DETAIL



NOTE: CENTER ALL BOLTS ON COLUMN ANCHOR BRACKET LENGTHS. BRACKET MAY BE PLACED ON EITHER SIDE OF COLUMN.

G1 ENDWALL COLUMN BASE DETAIL

NOTE: ONLY STRUCTURAL INFORMATION IS INCLUDED IN THIS DETAIL. CONSULT PANEL MANUFACTURER FOR ADDT'L WEATHERTIGHTNESS RECOMMENDATIONS.



Mueller, Inc.
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Ix(t) = 0.0382 In^4/ft
Sx(t) = 0.0381 In^3/ft
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Ix(b) = 0.0309 In^4/ft
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H ROOF SHEETING

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED PROFESSIONAL ENGINEER

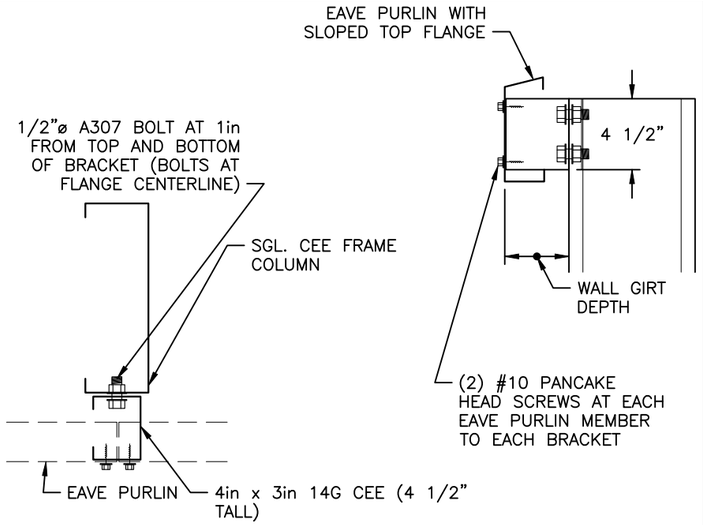
3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Expires on: 12/31/2026

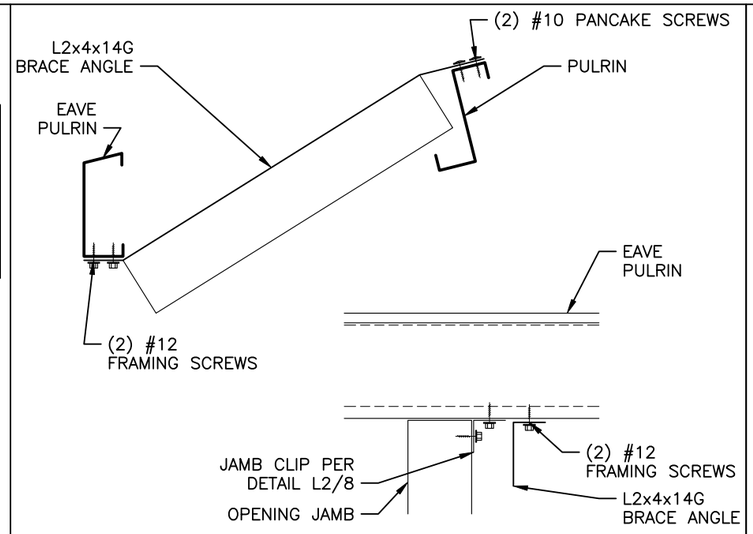
ACTBUILDING SYSTEMS®

DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

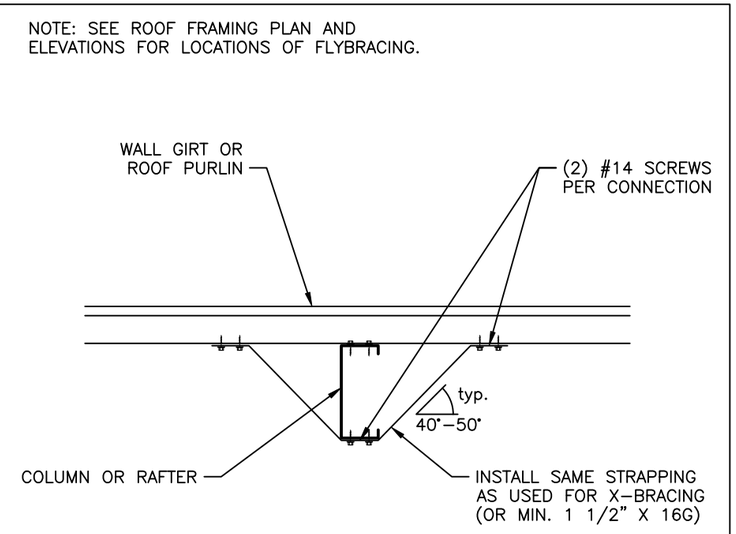
DRAWN
CHECKED
DATE 3/20/2025
JOB NO. TWAX99958339
SHEET 7 OF 12



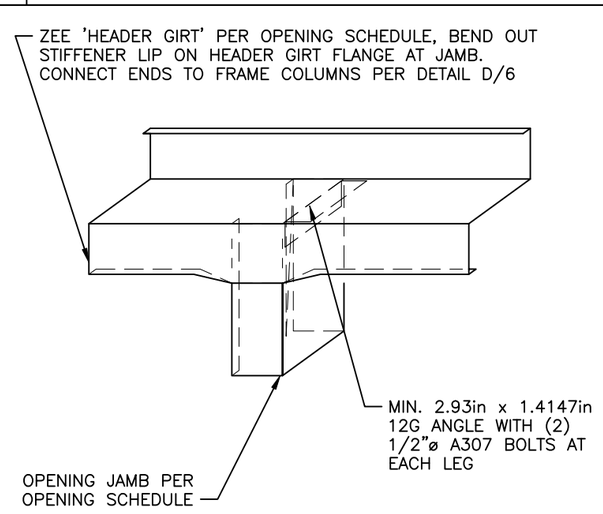
O EAVE PURLIN BRACKET



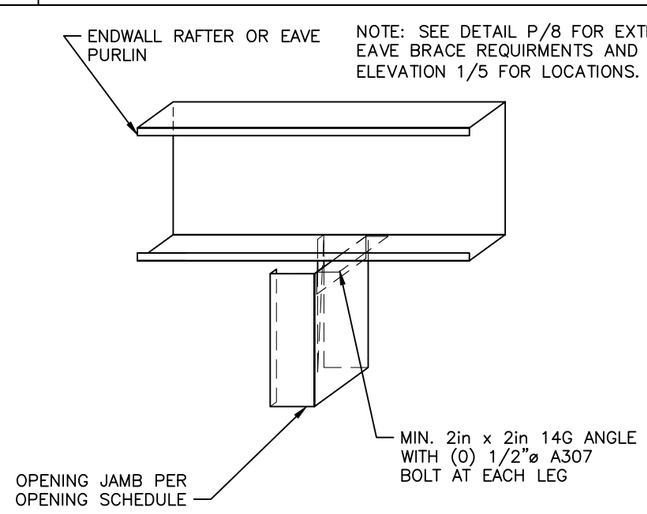
P EAVE PURLIN BRACE



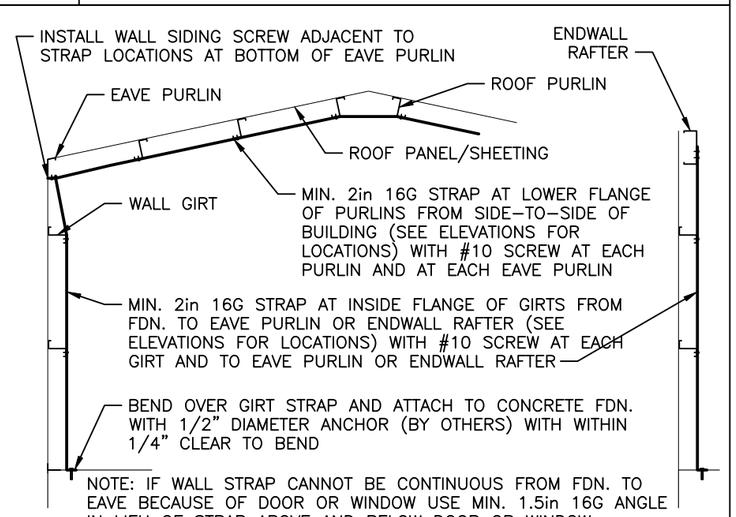
T FLYBRACING CONNECTION



L1 JAMB TO HEADER GIRT CONNECTION



L2 JAMB TO CEE CONNECTION



N PURLIN AND GIRT FLANGE BRACING

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED
PROFESSIONAL ENGINEER

3/20/2025

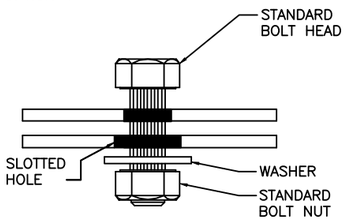
Structural Engineering by:
Metal Building Engineering, LLC
Fairfield, TX 75840

ACTBUILDING SYSTEMS®

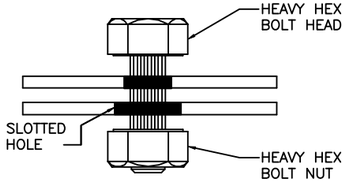
DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

DRAWN
CHECKED
DATE 3/20/2025
JOB NO. TWAX99958339
SHEET 8 OF 12

OPTION 1

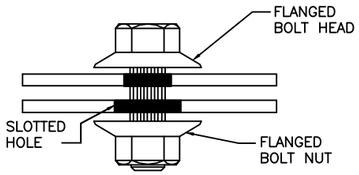


OPTION 2



NOTE: NO ADDITIONAL WASHER REQUIRED

OPTION 3



NOTE: NO ADDITIONAL WASHER REQUIRED

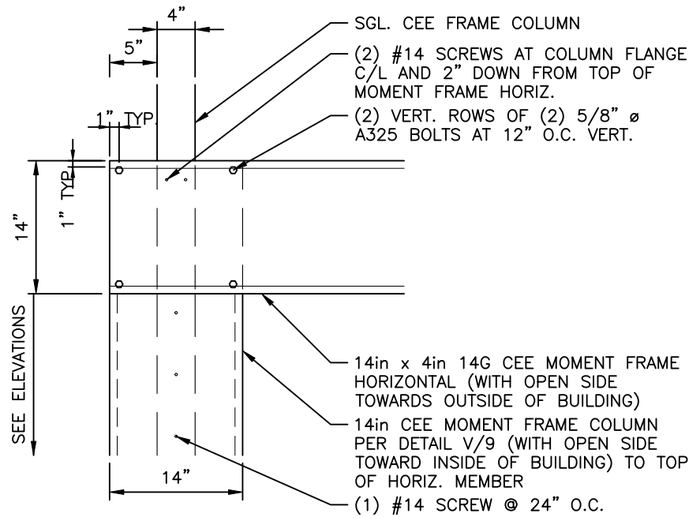
NOTES

1. AT HOLE–TO–HOLE CONNECTIONS, NO WASHER IS REQUIRED FOR ANY SPECIFIED BOLT ASSEMBLY WHERE SLOTS ARE NOT USED.

2. WHERE ANY CONNECTION USES A SLOTTED HOLE/S ANY ONE OF THE THREE BOLT ASSEMBLY OPTIONS SHOWN IN THIS DETAIL ARE REQUIRED TO BE USED OVER THE SLOTTED HOLE SIDE OF THE CONNECTION.

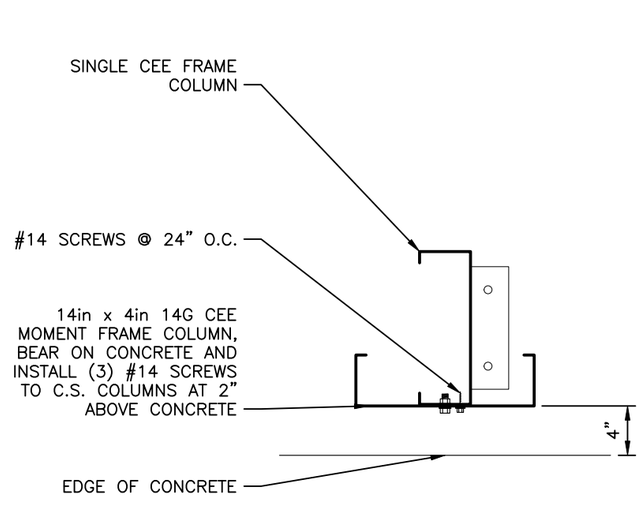
Y

BOLT OPTIONS



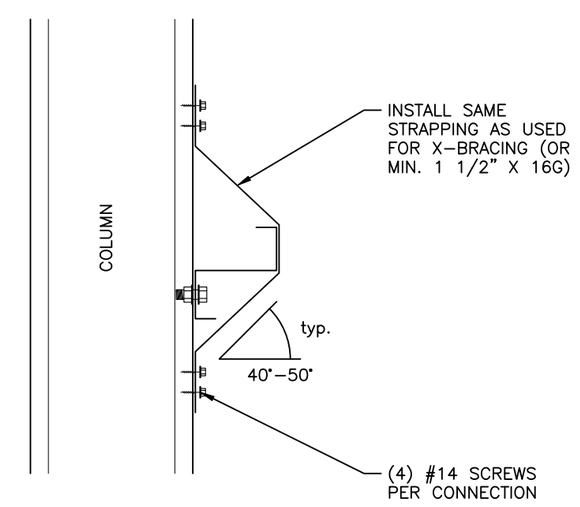
U

TOP OF MOMENT FRAME COLUMN



V

BASE OF MOMENT FRAME COLUMN



X

DIAPHRAGM GIRT STRAP CONNECTION

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED
PROFESSIONAL ENGINEER

3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Fairfield, TX 75840

ACTBUILDING SYSTEMS®

DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

DRAWN
CHECKED
DATE 3/20/2025
JOB NO. TWAX99958339
SHEET 9 OF 12

STRUCTURAL GENERAL NOTES

1. DRAWING USAGE:
ENGINEERING SEAL IS VALID FOR THE CONSTRUCTION OF A SINGLE BUILDING AT THE JOB ADDRESS SHOWN IN DRAWING TITLEBLOCK. ANY OTHER USE OF THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM MUELLER, INC. (MLR) AND N/A IS PROHIBITED.

2. DRAWING SEAL REQUIREMENTS:
THESE DRAWINGS ARE NOT VALID UNLESS USED AS ORIGINALLY PROCURRED FROM MUELLER, INC. USING ACT BUILDING SYSTEMS PLAN GENERATOR. ANY MODIFICATIONS MADE TO THESE PLANS WILL RENDER THEM AND THE ENGINEERS SEAL INVALID. LOADS, AS NOTED, ARE APPLIED IN GENERAL ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE MODEL CODE AND/OR SPECIFICATION INDICATED. NEITHER THE MANUFACTURER 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 REQUIREMENTS. THE MANUFACTURER'S ENGINEER'S CERTIFICCATION IS LIMITED TO DESIGN LOADS SUPPLIED BY AN ARCHITECT, ENGINEER OF RECORD, AND/OR THE END OWNER OF THE OVERALL CONSTRUCTION PROJCET, UPON ORDERING THE ENGINEERING.

3. CONTRACTOR RESPONSIBILITIES:
CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND DIMENSIONS. N/A (ENGINEER) SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS PRIOR TO START OF WORK.
CONTRACTOR MUST SUBMIT IN WRITING ANY REQUEST FOR MODIFICATION TO THE PLANS AND/OR SPECIFICATIONS AND NO STRUCTURAL CHANGES FROM THE APPROVED PLANS SHALL BE MADE IN THE FIELD UNLESS, PRIOR TO MAKING CHANGES, WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. SHOP DRAWINGS SUBMITTED TO THE ENGINEER FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE LEGAL AND FINANCIAL RESPONSIBILITY OF THE CONTRACTOR OR SUB-CONTRACTORS INVOLVED AND IT SHALL BE THEIR FULL RESPONSIBILITY TO REPLACE OR REPAIR THE CONDITION AS DIRECTED BY THE ENGINEER.
CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING ERECTION. THESE TEMPORARY PROVISIONS SHALL REMAIN IN PLACE UNTIL SUFFICIENT PERMANENT MEMBERS ARE ERECTED TO INSURE THE SAFETY OF PARTIALLY ERECTED STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR MEETING ALL LAWS REGULATING THE ERECTION OF STEEL BUILDINGS.
THESE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. BUILDING IS NOT CONSIDERED COMPLETE UNTIL THE INSTALLATION OF ALL COMPONENTS AND DETAILS SHOWN HEREIN ARE INSTALLED ACCORDING TO THE DRAWINGS.

4. ENGINEERING:
THIS METAL BUILDING SHOWN ON THESE PLANS HAS BEEN REVIEWED BY N/A FOR CONFORMITY ONLY TO THE STRUCTURAL DESIGN PORTIONS OF THE GOVERNING CODE, ONLY ENGINEERED TO THE CODE AND NO KNOWLEDGE OF ADDITIONAL ITEMS ADDED..... THE BUILDING OWNER IS RESPONSIBLE TO SEEK PROFESSIONAL ADVICE OR ADDITIONAL LICENSED PROFESSIONALS IN ADDRESSING ANY OTHER CODE REQUIREMENTS (INCLUDING, BUT NOT LIMITED TO, FIRE AND LIFE SAFETY, ENVIRONMENTAL, ACCESSIBILITY, HVAC, PLUMBING, OR ELECTRICAL) THAT MAY APPLY TO THIS PROJECT. AS THESE ADDITIONAL REQUIREMENTS FALL OUTSIDE THE STRUCTURAL DESIGN, N/A SHALL NOT ACT AS THE ENGINEER OR ARCHITECT OF RECORD OR THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR THE ENTIRETY OF THE PROJECT.
DRAWINGS SCALES INDICATED ON DRAWINGS ARE APPROXIMATE AND INTENDED TO BE USED FOR REFERENCE ONLY. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES.
THESE DOCUMENTS ARE STAMPED ONLY AS TO THE COMPONENTS FURNISHED BY MLR. IT IS THE RESPONSIBILITY OF THE PURCHASER TO COORDINATE DRAWINGS PROVIDED BY N/A WITH OTHER PLANS AND/OR OTHER COMPONENTS THAT ARE PART OF THE OVERALL PROJECT. IN CASES OF DISCREPANCIES, DRAWINGS PROVIDED BY N/A SHALL GOVERN. THE UNDERSIGNED ENGINEER WILL NOT SUPERVISE THE FABRICATION OR ERECTION OF THIS STRUCTURE

5. INSPECTIONS:
ALL PROJECT INSPECTIONS AND TESTING REQUESTED BY BUILDING DEPARTMENT SHALL BE AT OWNER'S EXPENSE. THE INSPECTION AND/OR TESTING AGENCIES SHALL BE ACCREDITED AND APPROVED BY THE BUILDING DEPARTMENT. N/A SHALL NOT BE ONSITE NOR INVOLVED IN THE PROJECT INSPECTIONS, OTHER THAN BEING FURNISHED THE INSPECTION / TESTING REPORTS WHEN IT WILL IMPACT THE CURRENT BUILDING DESIGN.

6. SOIL REQUIREMENTS:
ALLOWABLE SOIL BEARING VALUE INDICATED ON DRAWING SHEET 1 OCCURS AT 12" BELOW FINISH GRADE, OR EXISTING NATURAL GRADE, OR AT FROST DEPTH SPECIFIED BY BUILDING DEPARTMENT, WHICHEVER IS THE LOWEST ELEVATION. FOUNDATION DESIGN SHOWN ASSUMES BOTTOM OF FOOTING BEARS ON NATIVE SOILS.
FOUNDATION DESIGN SHOWN DOES NOT ACCOUNT FOR EXPANSIVE SOIL CONDITIONS OR FOR CONCRETE THAT WILL BE EXPOSED TO SULFATE CONTAINING SOLUTIONS OR CHLORIDES. OWNER SHALL CONTACT ENGINEER PRIOR TO CONSTRUCTION IF ANY OF THESE CONDITIONS EXIST.

7. CONCRETE REQUIREMENTS:
MLR AND & N/A ARE NOT RESPONSIBLE FOR PROJECT FOUNDATION DESIGN. THE FOUNDATION DESIGN IS THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER. THIS IS NOT DETERMINED OR COORDINATED BY MLR AND N/A, AS THE FOUNDATION DESIGN FOR THIS PROJECT IS 'BY OTHERS'. IT IS THE RESPONSIBILITY OF THE FOUNDATION ENGINEER TO VERIFY THAT SUFFICIENT EDGE DISTANCE IS PROVIDED FOR ALL ANCHORS.

8. STRUCTURAL STEEL REQUIREMENTS:
ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 (Fy MIN. OF 36000 psi), U.N.O. ALL BOLTS SHALL CONFORM TO ASTM A325, U.N.O. BOLT HOLE DIAMETERS SHALL BE 1/16" LARGER THAN NOMINAL BOLT DIAMETER. ALL INSTALLATION SHALL BE IN ACCORDANCE WITH AISC "CODE OF STANDARD PRACTICE".
NO WELDING IS REQUIRED ON THIS JOB.

9. LIGHT GAUGE STRUCTURAL STEEL REQUIREMENTS:
ALL LIGHT GAUGE STEEL FRAMING MATERIAL AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".
ALL LIGHT GAUGE STEEL MATERIAL SHALL CONFORM TO ASTM A653 HAVING A MINIMUM YIELD STRENGTH OF 55000 psi. THE GRADE AND ASTM SPECIFICATION NUMBER SHALL BE INDICATED BY PAINTING, DECAL, TAGGING, OR OTHER SUITABLE MEANS, ON EACH LIFT OR BUNDLE OF FABRICATED ELEMENTS.
UNLESS NOTED OTHERWISE, CEE, ZEE, AND CHANNEL MEMBERS' WEB AND FLANGE DIMENSIONS (IN INCHES) SHALL BE AS NOTED IN DETAILS IN THE FOLLOWING FORMAT: [WEB DEPTH]in x [FLANGE WIDTH]in [GAUGE]G. FOR ZEES WITH UNEQUAL FLANGES, THE WIDTHS FOR BOTH FLANGES WILL BE LISTED, SEPARATED BY A " /". MIN. FLANGE STIFFENER LIPS SHALL BE 0.885" FOR 12G CEES, 0.800" FOR 14G CEES, 0.773" FOR 16G CEES, 1.000" FOR 12G ZEES, 1.000" FOR 14G ZEES, AND 1.000" FOR 16G ZEES. ALL BEND RADIUSES SHALL BE .1875". FOR ANGLES, THE FIRST TWO NUMBERS ARE THE LEG DIMENSIONS.
DECIMAL THICKNESS OF THE DELIVERED LIGHT GAUGE STEEL MATERIAL, ACCORDING TO NOMINAL GAUGES, SHALL MEET OR EXCEED 95% THE FOLLOWING DESIGN VALUES

GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.
10	0.135	14	0.070	18	0.048
12	0.105	16	0.059	20	0.036

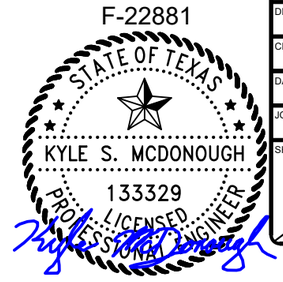
EXCEPT AS SHOWN ON DRAWINGS, CEE COLUMN AND RAFTER MEMBERS SHALL NOT BE DRILLED OR NOTCHED WITHOUT PRIOR APPROVAL OF THE ENGINEER. DOOR JAMB, ROOF PURLIN, AND WALL GIRT ENDS MAY HAVE FLANGES COPED 3" MAX. IF CONNECTION IS MADE TO PERPENDICULAR MEMBER PER DETAIL E/6. ROUND HOLES MAY BE DRILLED THROUGH ANY GIRT OR PURLIN MEMBER WITHIN THE MIDDLE THIRD OF THE DEPTH OF THAT MEMBER AND NOT WITHIN 24" OF MEMBER END (FIELD-DRILLED BOLT HOLES INDICATED AT ENDS OF KNEE OR APEX BRACE WEBS AND SHOP-PUNCHED HOLES IN BRACE FLANGES EXCEPTED).
ALL BOLTS USED TO CONNECT LIGHT GAUGE MATERIAL SHALL CONFORM TO ASTM A325. BOLTS TO BE SNUG TIGHT PER THE RCSC AND AISC SPECIFICATIONS, UNLESS SPECIFICALLY NOTED OTHEREWISE. BOLTS SHALL BE SPACED NO LESS THAN 3 BOLT DIAMETERS BETWEEN CENTERS. DISTANCE FROM BOLT CENTER TO THE END OR EDGE OF ANY LIGHT GAUGE MEMBER SHALL BE A MIN. OF 1.5 BOLT DIAMETERS. ALL SCREWS USED TO CONNECT LIGHT GAUGE MATERIAL SHALL BE SELF-DRILLING SCREWS AND SHALL HAVE A MIN. TENSILE BREAKING STRENGTH OF 100,000 psi. SCREWS SHALL BE SPACED NO LESS THAN 1" O.C. AND EDGE OR END DISTANCE SHALL NOT BE LESS THAN 1". UNLESS NOTED OTHERWISE, ALL REFERENCES TO 'SCREWS' CONNECTING MATERIAL THICKER THAN 20 ga. SHALL BE MIN. #12 SCREWS AND SHALL HAVE MIN. 14 THREADS PER INCH.
SCREW ROOT DIAMETERS SHALL NOT BE LESS THAN: #14 SCREW: .200" #12 SCREW: .177" #10 SCREW: .153"

10. STEEL ROOF AND WALL PANELS (CLADDING):
LIGHT GAUGE STEEL ROOF AND WALL PANELS SHALL CONFORM TO ASTM A653 AND THE STEEL DECK INSTITUTE SPECIFICATIONS AND HAVE A MIN. YIELD STRENGTH OF 80000 psi.
DECIMAL THICKNESSES, ACCORDING TO NOMINAL GAUGES, SHALL MEET OR EXCEED THE FOLLOWING:

GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.	GAUGE NO.	DECIMAL THICKNESS, IN.
22	0.0299	26	0.0179	29	0.0134
24	0.0239	28	0.0149	30	0.0120

SEE DETAILS H/7 AND I/7 FOR ROOF AND WALL PANEL FASTENER TYPES AND SPACINGS.

F-22881



3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Expires on: 12/31/2026

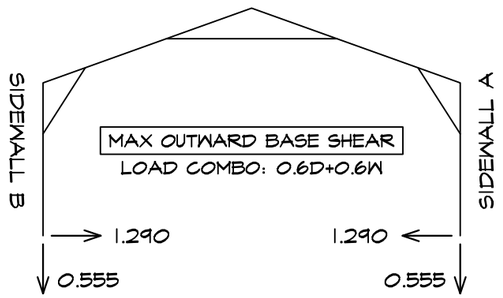
ACTBUILDING SYSTEMS®

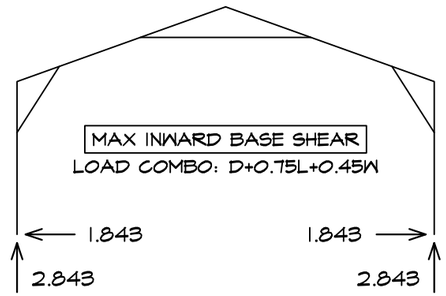
DISTRIBUTOR:
JOB NAME: Mueller Inc. Waxahachie
Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln
Keller, TX 76262

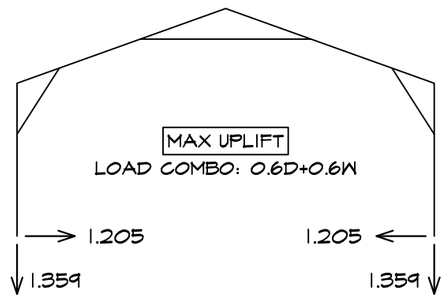
DRAWN
CHECKED
DATE 3/20/2025
JOB NO. TWAX99958339
SHEET 10 OF 12

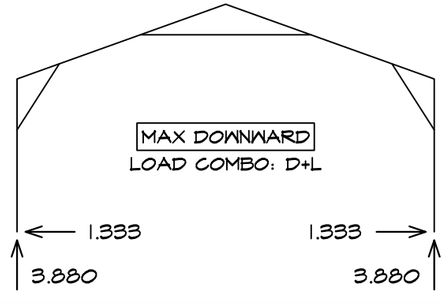
COLUMN BASE REACTIONS (ASD) AT CLEAR SPAN FRAMES (KIPS)

F.L. 2-4



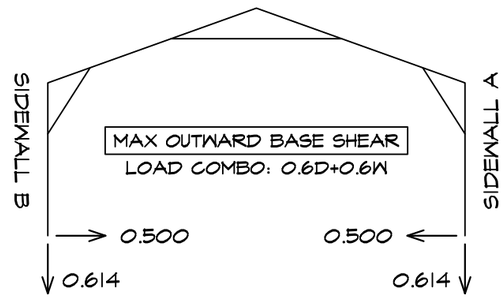


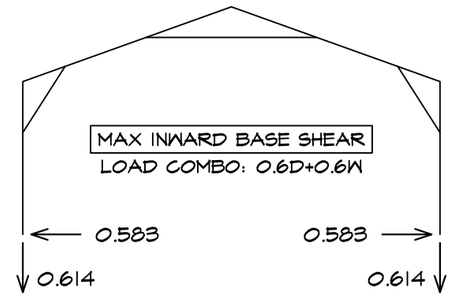


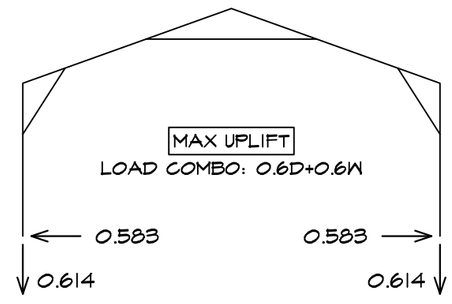


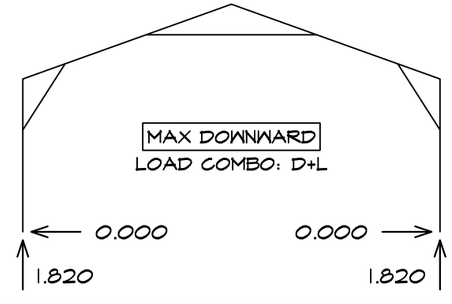
COLUMN BASE REACTIONS (ASD) AT ENDWALL FRAMES (KIPS)

F.L. 1, 5









WALL BRACING REACTIONS (UNFACTORED) (KIPS)

REACTIONS OCCUR AT EACH X-BRACE LOCATION ON THE APPLICABLE PLANE

ENDWALL A	WIND	EQ
HORZ:	*	*
VERT:	*	*

* PANEL SHEAR

SIDEWALL A	WIND	EQ
HORZ:	*	*
VERT:	*	*

* MOMENT FRAME

ENDWALL B	WIND	EQ
HORZ:	*	*
VERT:	*	*

* PANEL SHEAR

SIDEWALL B	WIND	EQ
HORZ:	*	*
VERT:	*	*

* PANEL SHEAR

COLUMN BASE REACTIONS (ASD) AT INTERIOR ENDWALL COLUMNS (KIPS)

MAX DOWNWARD:	1.088
MAX UPWARD:	2.934
MAX BASE SHEAR (INWARD):	1.328
MAX BASE SHEAR (OUTWARD):	1.469

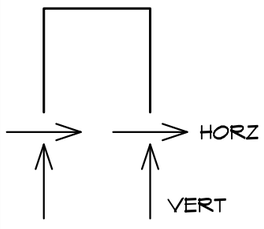
GENERAL REACTION NOTES

1. THESE REACTIONS ARE ONLY VALID FOR THE BUILDING SPECIFIED ON THESE SEALED ENGINEERING PLANS, AND ARE NOT APPLICABLE FOR ANY SUBSEQUENT OR PREVIOUS ENGINEERING PLANS.
2. THE METAL BUILDING PLANS SPECIFY THE ANTICIPATED ANCHOR DIAMETER AND QUANTITY TO TRANSFER FORCES FROM THE METAL COMPONENTS TO THE FOUNDATION. THE FOUNDATION DESIGN, AND ANCHOR SPECIFICATIONS, ARE THE RESPONSIBILITY OF THE END OWNER AND/OR THE REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE FOUNDATION DESIGN.
3. THE REACTIONS PROVIDED MAY BE SPECIFIED AS "MAXIMUM" LOAD COMBINATION REACTIONS, UNFACTORED REACTIONS, OR OTHERWISE. PLEASE REFER TO NOTES ACCOMPANYING REACTIONS FOR PROPER USE AND UNDERSTANDING OF INFORMATION BEING PROVIDED.

LOAD CASES

DEAD (D)
COLLATERAL (C)
SNOW (S)
LIVE (L)
WIND (W)
EARTHQUAKE (E)
FLOOR DEAD (FD)
FLOOR LIVE (FL)

SIDEWALL MOMENT FRAME REACTIONS (UNFACTORED) (KIPS)



SIDEWALL A	WIND	EQ
HORZ:	1.123	0.143
VERT:	1.955	0.250

SIDEWALL B	WIND	EQ
HORZ:	*	*
VERT:	*	*

* PANEL SHEAR

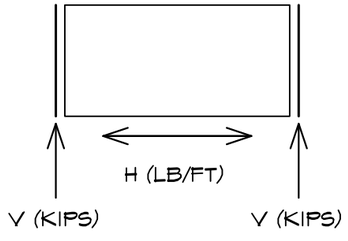
Structural Engineering by:
Metal Building Engineering, LLC
Eastland, TX 76448

ACTBUILDING SYSTEMS®

DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

DRAWN
CHECKED
DATE 3/20/2025
JOB NO. TWAX99958339
SHEET 11 OF 12

MAX DIAPHRAGM PANEL SHEAR REACTIONS (UNFACTORED)



ENDWALL A	WIND	EQ
HORZ:	48	3
VERT:	0.580	0.035

SIDEWALL A	WIND	EQ
HORZ:	*	*
VERT:	*	*

* MOMENT FRAME

ENDWALL B	WIND	EQ
HORZ:	40	2
VERT:	0.483	0.029

SIDEWALL B	WIND	EQ
HORZ:	71	7
VERT:	0.856	0.084

F-22881

STATE OF TEXAS
KYLE S. MCDONOUGH
133329
LICENSED
PROFESSIONAL ENGINEER

3/20/2025

Structural Engineering by:
Metal Building Engineering, LLC
Fairfield, OH 45014

ACTBUILDING SYSTEMS®

DISTRIBUTOR: Mueller Inc. Waxahachie
JOB NAME: Jaron Dulaney
JOB ADDRESS: 1745 Summer Ln Keller, TX 76262

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DATE 3/20/2025

JOB NO. TWAX99958339

SHEET 12 OF 12

Generic Temporary Bracing Information

The installation of temporary bracing is critical to avoid building collapse or damaging structural movement during construction. This collapse can occur with no notice and as such the installation of appropriate temporary bracing is critical to avoid damage, injury, and possible death. Determination, procurement, and correct installation of temporary bracing is the responsibility of the builder / primary contractor / installer.

Bracing Materials

The constructor / installer is to supply suitably sized materials for temporary bracing. These materials are generally capable of tension, but in some circumstances will need to be capable of tension and compression. Load rated ratchet strapping of an appropriate size can be used to temporarily 'x-brace' bays in both directions, until the final bracing systems are fullyinstalled. This is especially critical for buildings where X Bracing is not required in the final structure due to the use of moment frames or diaphragm bracing.

Temporary Bracing Location

The location of Temporary bracing will depend on the installation method used. Installation should be completed in accordance with the Construction Package, Engineering Plans, and Instruction Manuals. If the Frame First Method (most common) is used, then the use of tension only bracing and creating temporarily braced bays as per Fig 1 and Fig 2. can be used. As a basic guide, a minimum of every 4th bay should have temporary bracing installed as per Fig 2.

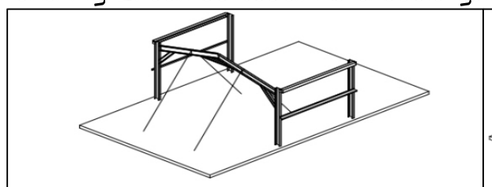


Fig 1. Frame First Temporary Bracing on First Rafter Installed

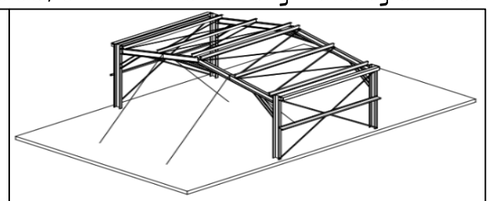


Fig 2. Temporary Bracing Installed as X Bracing

If the Tilt Up Method is used (where walls are constructed on the ground And then tilted into place), then the tops of columns are braced with a tension and compression brace in the same direction Fig 3. Then rafters and purlins can be installed with temporary bracing holding rafters in place (similar to Fig 1) until final bracing of diaphragm sheeting is installed

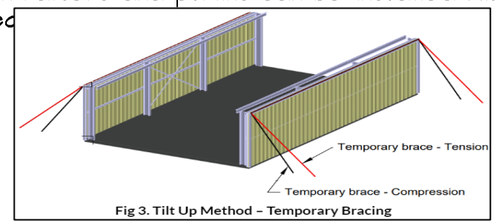


Fig 3. Tilt Up Method – Temporary Bracing

Typically, braces should be positioned diagonally across the structure from the top to the bottom, intersecting near the midpoint to provide stability, optimally at a 45-degree angle but no less than a 20-degree angle. The connection strength of temporary bracing is a critical consideration and these connections must be capable of resisting the potentially substantial temporary bracing loads ? whether this connection point be to the building, the foundations or to the ground. Dependent upon building size this may include heavy angles and post installed concrete anchors. The temporary bracing methods used must be capable of fully stabilising the structure during the construction process.

Additional Temporary Bracing

The temporary bracing described is a minimum requirement for a standard-sized building in average conditions. Additional consideration should be given to larger building spans and/or challenging site conditions. There may also be an increased risk in relation to partially completed buildings and exposed sites. It is recommended that extra temporary bracing is utilized if moderate wind speeds are expected on site. Additional support elements, such as steel cables may need to be introduced that can be attached to the building's framework and anchored to the ground or other stable structures to provide extra stability. The frame should remain rigid throughout and such responsibility lies with the constructor. Buildings should not be left in a partially completed state longer than necessary.

Bracing Removal

The temporary bracing should not be removed until all purlins, girts and permanent cross bracing, diaphragm bracing or moment frames where used are installed. The temporary bracing is to remain in place where possible, until the roof and wall cladding is fully installed. If you need any further information regarding the installation of temporary bracing or are at all unsure of the necessary requirements for this specific building, there are guides available through various industry bodies:

https://www.aisc.org/ https://www.metal-buildings-institute.org/

Support is also available at support@actbuildingsystems.com.

THE ABOVE INFORMATION REGARDING TEMPORARY BRACING DOES NOT FORM PART OF THE ENGINEERING CERTIFICATION FOR THIS DESIGN AND IS PROVIDED AS A GUIDE TO AID INSTALLATION ONLY.

5700 Lionfish Way
Fort Worth, TX 76131

WHITWORTH ENGINEERING
DIAMOND JW INC

APRIL 18, 2025

DAVID JONES

GENTLEMEN,

THE FOUNDATION PLANS, ACCOMPANIED BY THIS LETTER, AS DESIGNATED BY RUSSELL J. WHITWORTH, P.E., ARE AUTHORIZED FOR USE ONLY UPON THE PROPERTY DESCRIBED BELOW:

DESCRIPTION:	SINGLE FAMILY RESIDENCE - METAL BUILDING
LOT/BLOCK:	11/1
SUBDIVISION:	SUMMER RIDGE ESTATES ADDITION
ADDRESS:	1745 SUMMER LANE KELLER, TEXAS
JOB NO.:	WE009197

FOUNDATION DESIGN CRITERIA WAS FORMULATED BASED ON MODIFICATIONS OF RECOMMENDATIONS AS SET FORTH IN CRITERIA FOR SELECTION AND DESIGN OF SLAB-ON-GROUND (BRAB AND/OR WRI REPORT), ACI 318-99, IRC 2015, IRC 2018, IRC 2021, AND RECOGNIZED ENGINEERING PRACTICES.

NOTE: ACCOMPANYING "OWNER MOISTURE MAINTENANCE LETTER" IS TO BE TRANSMITTED TO OWNER, WITH OWNER'S RECEIPT ACKNOWLEDGED TO BUILDER/CONTRACTOR.

SINCERELY,

RUSSELL J. WHITWORTH, P.E.

The seal appearing on this document was authorized by Russell J. Whitworth, P.E.
82117
Whitworth Engineering
F-3973

: 817-236-6106 : 817-236-6184 : plans@rjwe.com

GENERAL NOTES:

1. THE CONSTRUCTION OF THE FOUNDATION SHALL CONFORM TO THE FOLLOWING STANDARDS AS APPLICABLE:
   A) INTERNATIONAL RESIDENTIAL CODE IRC 2015, 2018 AND 2021 (OR OTHER PREVAILING REFERENCE CODE).
   B) LOCAL BUILDING STANDARDS.
2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE FOR WATER AWAY FROM THE FOUNDATION, DURING AND AFTER CONSTRUCTION.
3. THE GENERAL CONTRACTOR SHALL VERIFY ALL EDGE FORM SETTING DIMENSIONS AS WELL AS THE LOCATION OF ELEVATION CHANGES, OFF-SETS, BRICK LEDGES, AND BLOCK-OUTS WITH THE ARCHITECTURAL DRAWINGS AND NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES THAT MAY EXIST ON THE FOUNDATION DESIGN DRAWINGS PRIOR TO COMMENCING CONSTRUCTION.
4. THE GENERAL CONTRACTOR SHALL COORDINATE THE LOCATION OF ANCHOR BOLTS, HOLD DOWN DEVICES, MECHANICAL AND PLUMBING SLEEVES, AND OTHER RELATED ITEMS REQUIRED TO COMPLETE THE FOUNDATION AND NOTIFY THE DESIGN ENGINEER SHOULD CONFLICTS EXIST WITH THE INFORMATION CONTAINED IN THE FOUNDATION DESIGN DRAWINGS.

II. MATERIALS

1. FILL MATERIAL USED SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION CONCERNING TYPE, COMPACTION, LIFT THICKNESS, AND PLACEMENT REQUIREMENTS (MOISTURE CONTENT, ETC.).
2. CONVENTIONAL REINFORCEMENT SHALL BE GRADE 60.
3. CEMENT SHALL BE TYPE I OR TYPE II UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT. USE NORMAL WEIGHT AGGREGATES HAVING A MAXIMUM AGGREGATE SIZE OF 1-1/2 IN. CONCRETE SHALL OBTAIN A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. THE WATER/ CEMENTITIOUS MATERIAL RATIO SHALL NOT EXCEED 0.50 AND THE SLUMP SHALL NOT EXCEED 6 IN. UNLESS SPECIFIC HIGH RANGE WATER REDUCERS AND OTHER ADDITIVES ARE USED. ADDITIVES CONTAINING CALCIUM CHLORIDES ARE PROHIBITED. FLY ASH MAY BE USED PROVIDED NO MORE THAN 20% OF THE CEMENT IS REPLACED. AIR ENTRAINMENT MAY BE REQUIRED FOR COLD WEATHER CONCRETE. SPECIAL CONCRETE MAY BE REQUIRED FOR FOUNDATIONS CAST ON SOILS WITH HIGH LEVELS OF WATER-SOLUBLE SULFATES.

III. CONSTRUCTION

1. A LEVELING SAND BASE IS TO BE PLACED ON TOP OF THE PREPARED SUBGRADE.
2. CONCRETE COVER REQUIREMENTS:
   RIBS: TOP 2 IN. SLABS:
   BOTTOM 3 IN. TOP 2 IN.
   SIDES 3 IN. BOTTOM 1 1/ 2 IN.
3. REBAR SHALL BE ADEQUATELY SUPPORTED TO PREVENT BOTH VERTICAL AND HORIZONTAL MOVEMENT DURING CONCRETE PLACEMENT.
4. CONCRETE PLACEMENT OPERATION SHALL BE COMPLETED IN ONE CONTINUOUS OPERATION UNLESS OTHERWISE SPECIFIED ON THE FOUNDATION DESIGN DRAWINGS.
5. CONCRETE SHALL BE PROPERLY CONSOLIDATED.

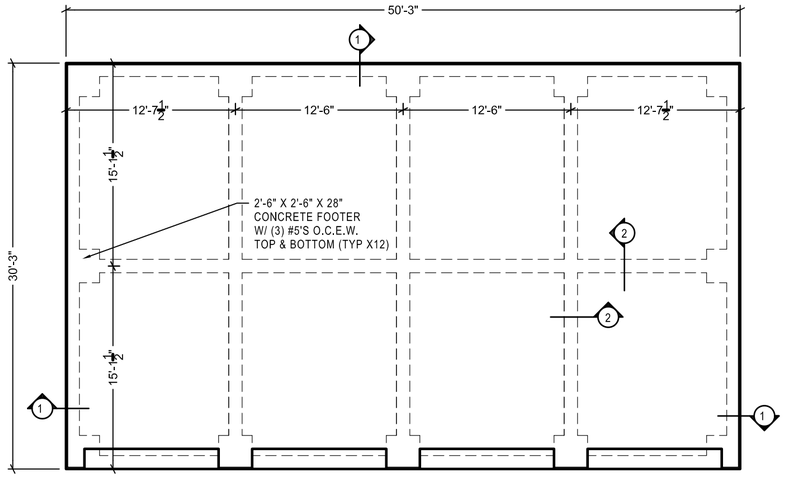
IV. INSPECTION

INSPECTIONS SHALL BE CARRIED OUT BY AN INDEPENDENT INSPECTION AGENCY OR A REPRESENTATIVE OF THE DESIGN ENGINEER. THE INSPECTIONS SHALL CONSIST OF;

1. PRIOR TO CONCRETE PLACEMENT:
   A) RIB SIZE AND SPACING
   B) SLAB THICKNESS
   C) REBAR SIZE, GRADE, NUMBER OF BARS, AND SPACING
   D) ADEQUATE COVER OVER REINFORCEMENT
2. DURING CONCRETE PLACEMENT:
   A) THE PROPER MIX DESIGN IS SUPPLIED AND THAT EXCESS WATER IS NOT ADDED AT THE SITE
   B) THE REINFORCEMENT IS NOT DISPLACED
   C) CORRECT CONSOLIDATION PROCEDURES ARE FOLLOWED

V. SPECIAL CONSIDERATIONS FOR SLAB-ON-GROUND CONSTRUCTION

1. TREES OR OTHER VEGETATION TALLER THAN 6 FT. OR OF THE TYPE THAT REQUIRES EXCESSIVE AMOUNTS OF WATER SHOULD NOT BE PLANTED WITHIN 20 FT. OF THE FOUNDATION.
2. WHEN EXCAVATIONS FOR SWIMMING POOLS ARE CLOSER THAN 10 FEET TO THE FOUNDATION, SPECIAL DRAINAGE FEATURES SHALL BE PUT IN PLACE (SEE POOL PERIMETER DETAIL). ALL LANDSCAPING ADJACENT TO THE FOUNDATION, INCLUDING PLANTERS, SHALL BE DESIGNED IN SUCH A WAY THAT EXCESS IRRIGATION, BEYOND WHAT IS REQUIRED TO MAINTAIN PLANT LIFE AND CONSISTENT MOISTURE ADJACENT TO THE FOUNDATION, WILL DRAIN AWAY FROM AROUND THE FOUNDATION.
3. IT IS IMPORTANT TO UNDERSTAND THAT THE PERFORMANCE OF THE FOUNDATION IS LINKED DIRECTLY TO THE CONSISTENCY OF THE MOISTURE CONTENT IN THE SOIL AND THAT POSITIVE DRAINAGE SHOULD BE MAINTAINED DURING AND AFTER CONSTRUCTION.



LEGEND

"*" DIMENSION TO BE VERIFIED

xx" FINISH FLOOR ELEVATION CHANGE

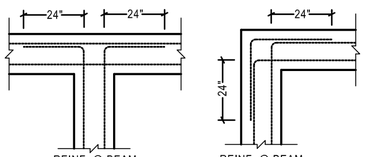
PLAN NOTES:

1. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE BEGINNING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCY IN DIMENSIONS OR ELEVATIONS OCCURS.
2. FOR FIREPLACES, A PAD SHOULD BE BUILT BENEATH HEARTH TO A MIN. DEPTH OF 12" WITH #5 REBAR @ 12 INCHES O.C.E.W. ON BOTTOM.
3. THIS DESIGN IS APPLICABLE TO THE SPECIFIC PROJECT AND LOCATION LISTED ON THIS SHEET. USE OF THIS DRAWING FOR OTHER PROJECTS AND/OR LOCATIONS IS PROHIBITED.
4. USE THE ARCHITECT'S PLANS TO LAY OUT FORMS.
5. CHECK THE ARCHITECT'S PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF SHOWERS.
6. MODIFICATION OF THESE PLANS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER WILL VOID THIS DESIGN.
7. VAPOR BARRIER: (SLAB, PADS) VAPOR BARRIER IS NOT REQUIRED BELOW GARAGES AND PORCHES PER IRC 506,2.3 NOTE: WHITWORTH ENGINEERING SUGGESTS CUTTING THE VAPOR BARRIER IN BEAM BOTTOMS TO AVOID POCKETS OR VOIDS BELOW THE BARRIER.
8. FOUNDATION FILL NOTES: (WHERE FILL IS REQUIRED) SELECT FILL SHALL HAVE A PLASTICITY INDEX BETWEEN 5 AND 20, MINIMUM COMPACTION TO BE 95% STANDARD PROCTOR, (ASTM D698); AT A MOISTURE CONTENT BETWEEN -2% AND +4% OF OPTIMUM MOISTURE.

4" THICK CONCRETE SLAB
W/#3 REBAR @ 16" O.C.E.W.
GRADE BEAMS:
DEPTH H = 28"
WIDTH B = 12"
ALL BEAMS NOT SUPPORTED BY PIERS MUST BE FOUNDED IN 12" MINIMUM OF UNDISTURBED SOIL

VERIFY ALL DIMENSIONS WITH ARCHITECT'S PLANS PRIOR TO CONSTRUCTION. WHITWORTH ENGINEERING IS NOT RESPONSIBLE FOR PROVIDING DIMENSIONS FOR CONSTRUCTION

NOTES:
* ADD OR SUBTRACT PROGRESSIVE LAYERS OF REINFORCING STEEL AS REQUIRED PER DEPTH OF BEAM.
* SEE DEEP BEAM DETAIL FOR PROPER STEEL REINFORCMENT REQUIRED IN ALL EXTERIOR AND INTERIOR BEAMS LOCATED IN AREAS OF FILL MATERIAL AND OR TREE / ROOT REMOVAL. ALL BEAMS ARE TO BE A MINIMUM OF 12" INTO UNDISTURBED SOIL.

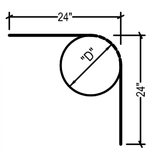


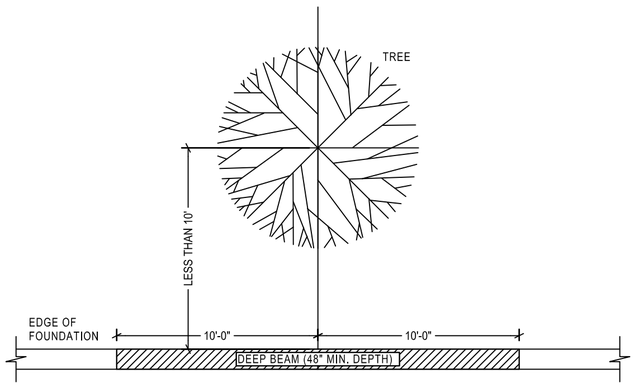
DETAIL 1

NOTE: DO NOT TIE REINFORCING BARS TO POST TENSIONED CABLES

1. THE MINIMUM REINF. BEND DIAMETER SHALL BE AS FOLLOWS:

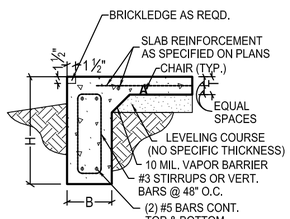
BAR SIZE	BAR DIAMETER	"D"
#3	3/8"	2 1/4"
#4	1/2"	3"
#5	5/8"	3 3/4"
#6	3/4"	4 1/2"



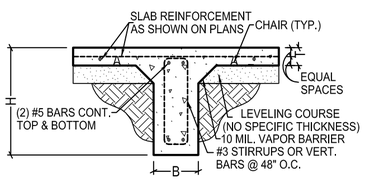


TREE DETAIL

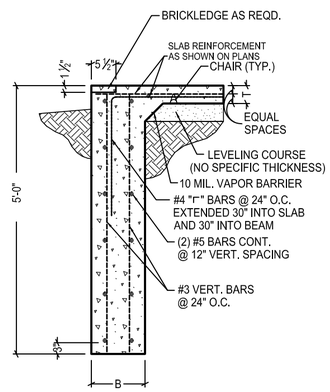
NOT TO SCALE



1 SECTION



2 SECTION



DEEP BEAM DETAIL

5'-0" MAX. DEPTH

STATE OF TEXAS
RUSSELL J. WHITWORTH
82117
REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by

RUSSELL J. WHITWORTH, P.E.
82117
on April 17, 2025
Whitworth Engineering
F-3973

SLAB-ON-GRADE FOUNDATION PLAN

SCALE: 1/8"= 1'-0"

DAVID JONES

1745 SUMMER LANE; LOT 11; BLK 1
SUMMER RIDGE ESTATES ADDITION; KELLER, TEXAS

WHITWORTH ENGINEERING
DIAMOND JW INC
5700 LIONFISH WAY
FORT WORTH, TX 76131
(817)236-6106, (817)236-6184 FAX

DRAWN BY: *RMG*

PROJECT NO. *WE009197-13761*

SLAB AREA: *1520 SF*

SHEET: *1 OF 1*