



Design Report
SBS 10.4 sp2
88097

Casey Civil, LLC
Project ID:
1080 Old Spanish Trail, STE 8
Slidell, LA, 70458

Order

Release: SBS 10.4 sp2
Service Rep: Neal Norman
District Manager: Other
Purchaser:

Shipping Point: Houston, TX
Sec. to Pri. Connection: Bolted Clips
Est. Date: 8/22/2012
Project ID:

BUILDING CODE

Project Use Category: Governmental
Building Code: 2012 IBC

Jobsite State: LA
Jobsite County: Morehouse
Jobsite City: Bastrop

Live/Wind

Live Load: 20.000 psf
Reduction: Yes

Wind Exposure: Exposure B
Hurricane Coastline: Yes

Wind Category: N/A
Miles From Coastline: N/A
Rain Intensity: 8.0000 in/hr

Snow

Ground Snow Load: 5.000 psf
Min Roof Snow Load: 0.000 psf
Thermal Condition: N/A

Snow Exposure: Partially Exposed
Rain Load: N/A
Elevation Above Sea Level: N/A

Seismic

Spectral Response(Ss): 17.20 %
Spectral Response(Sh): N/A
Spectral Response(S1): 9.20 %
Spectral Response(S2): N/A
Velocity Coefficient(Aa): N/A
Accelerated Coefficient(Av): N/A

% of Snow Load for Seismic: Normal
Seismic Zone: N/A
Near Source Factor: N/A
Design Seismic For Schools: N/A
Soil Type: (D) Stiff Soil



BUILDING A - Bastrop

SPACINGS:

Bay Spacing (EWB-EWD): 20'-0", 20'-0", 20'-0"

EWB COL. Spacing (SWC-SWA): 15'-0", 15'-0"

EWD COL. Spacing (SWA-SWC): 15'-0", 15'-0"

EWB COL. Recesses (SWC-SWA): 0", 0", 0"

EWD COL. Recesses (SWA-SWC): 0", 0", 0"

*** Note - Negative column recess raises the base of the column above the finished floor.**

SWA Girt Locations (Base to Eave): 7'-4", 11'-7"

SWC Girt Locations (Base to Eave): 7'-4", 11'-7"

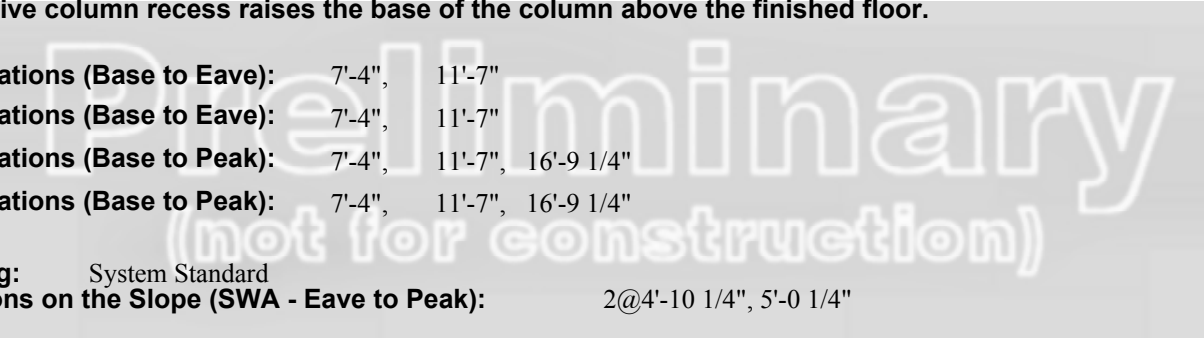
EWB Girt Locations (Base to Peak): 7'-4", 11'-7", 16'-9 1/4"

EWD Girt Locations (Base to Peak): 7'-4", 11'-7", 16'-9 1/4"

Purlin Spacing: System Standard

Purlin Locations on the Slope (SWA - Eave to Peak): 2@4'-10 1/4", 5'-0 1/4"

Purlin Locations on the Slope (SWC - Eave to Peak): 2@4'-10 1/4", 5'-0 1/4"



FRAME GROUPS

Group Number: 1
Frame Lines: 2, 3

SWA

Column: Tapered Allowed
Unbraced: No
Max Col. Web Depth: 60.00"
Max Raf. Web Depth: 60.00"
Ext Col. Elevation: At Finished Floor

SWC

Column: Tapered Allowed
Unbraced: No
Max Col. Web Depth: 60.00"
Max Raf. Web Depth: 60.00"
Ext Col. Elevation: At Finished Floor



Building A - Bastrop

LOADS, WIND ENCLOSURE, DEFLECTIONS & SIDESWAY

Building Loads

Roof Snow Load By Design: 3.850 psf
Risk Factor: II - Normal
Thermal Condition: Above Freezing
Seismic Design Category: C

Wind Speed: 115.00 mph
Designed Snow Exposure: Partially Exposed

Wind Enclosure

Wind Enclosure: Calculated - Enclosed
Are framed openings enclosed with materials that are designed to withstand the wind load and wind borne debris (if applicable): Yes
Are all Open Areas for Other enclosed with materials designed to resist the wind load and wind borne debris (if applicable): Yes
Open Building Condition: Clear (unobstructed) flow

Uniform Collateral Loads

Ceiling Load: 0.000 psf
Plaster/Sheetrock Ceiling: No
Brittle Wall/Dryvit: No
Other: 0.500 psf

Deflections

Purlins Live: L/150 - Default
Purlins Snow: L/180 - Default
Purlins Wind: L/180 - Default
Purlins Total Gravity: L/120 - Default
Purlins Total Uplift: N/A - Default
Rafters Live: L/180 - Default
Rafters Snow: L/180 - Default
Rafters Wind: L/180 - Default
Rafters Total Gravity: L/120 - Default
Rafters Total Uplift: N/A - Default

Girts: L/90 - Default
Endwall Columns: L/120 - Default

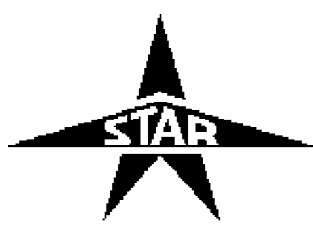
Sidesway

Portal Frame Wind: H/60 - Default
Portal Frame Seismic: H/50 - Default
Crane: H/100 - Default

Frame Live: H/60 - Default
Frame Snow: H/60 - Default
Frame Wind: H/60 - Default
Frame Total Gravity: H/60 - Default
Frame Total Wind: H/60 - Default
Frame Total Seismic: H/50 - Default

*** Note - It is the responsibility of the Builder to interpret all aspects of the End Customer's specifications and incorporate the appropriate specifications, design criteria, and design loads into the Order Documents submitted to Star Building Systems.**

*** Note - The material supplied by Star has been designed with the following minimum deflection criteria. The actual deflection may be less depending on actual load and member length. The frame sidesway for wind loading is based on ASCE 7 commentary equation CC-3 of 0.7W.**



BUILDING A - Bastrop

BRACING

SWA	Full Height Portal Frame	(EWB to EWD) @ Bays:	3
Roof:	Rod	(EWB to EWD) @ Bays:	2
SWC:	1 Tier Rod	(EWD to EWB) @ Bays:	2
EWB:	Diaphragm Action	(SWC to SWA) @ Bays:	No Bays
EWD:	Diaphragm Action	(SWA to SWC) @ Bays:	No Bays
Purlin:	Angles		
Girt:	Angles		
Rafter Flange Braces:	Standard		
Column Flange Braces:	Standard		

Portal Frames:

SWA

Rod Tiers Above:	N/A
Max Column Web Depth:	72.00"
Max Rafter Web Depth:	72.00"

SWC

Rod Tiers Above:	N/A
Max Column Web Depth:	72.00"
Max Rafter Web Depth:	72.00"



ROOF PANEL (2,506 sqft)

Type:	Double-Lok
Gauge:	24
Thickness:	N/A
Color:	Galvalume Plus
Finish Warranty:	N/A
Perforation Guarantee:	No
Interior Panel:	N/A
R Value:	N/A

Options

SS Clip Type:	High Sliding (Up to 6" Blkt. Insulation)
Thermal Blocks:	3/8" Thick
Non-Handed Erection:	N/A
Direction:	N/A
UL90:	Yes
UL Letter:	Yes
Ridge Pan:	N/A
Alignment Strip:	N/A
Eave Panel Extension:	No

Fastener Information

Type:	Self-Drilling
Head Finish:	Long-Life
Length:	Standard

WALL PANEL (2,670 sqft)

Type:	DuraRib
Gauge:	26
Color:	SIG - 300 TBD*
Thickness:	N/A
Finish Warranty:	No
Interior Panel:	N/A
R Value:	N/A

Options

Reverse Rolled:	No
Washers:	Yes
Concrete Notch:	No

Fastener Information

Type:	Self-Drilling
Head Finish:	Standard
Length:	1-1/2"

BASE CONDITION

Framing:	Angle	Closure:	Foam Strip
Trim:	NB3		



BUILDING A - Bastrop

TRIM

SWA Options

Trim Type: Gutters and Downspouts
Downspout Drops: 3
Include Elbow: Yes
Downspout Height: 16'-0"

EWB Options

Trim Type: Gable Trim

Color Selections

Eave: Polar White
Gable: Polar White
Corner: SIG - 300 TBD*
Base: SIG - 300 TBD*
All Other: SIG - 300 TBD*
Gutters: Polar White
Downspouts: SIG - 300 TBD*
Roof to Roof: N/A
Roof to Wall: N/A

SWC Options

Trim Type: Gutters and Downspouts
Downspout Drops: 3
Include Elbow: Yes
Downspout Height: 16'-0"

EWD Options

Trim Type: Gable Trim

Trim Profile:

Contoured
Trim is 26 gauge unless noted otherwise.
(*)Denotes Signature 300 color.
Trim for roof system with Sig 300 color is 24 gauge.



BUILDING A - Bastrop

DESIGN DATA FRAME(S): PORTAL - BAY 3

Inside Clearance: 17'-5 1/2" Peak Clearance: 13'-10"
 Peak Rafter Depth: 12.00"

Column 1 (Portal) Elevation: A

Column Depth

Base: 8.50"
 Knee: 8.50"

Knee

Rafter Depth: 12.00"
 Clearance: 13'-10"

Anchor Rods

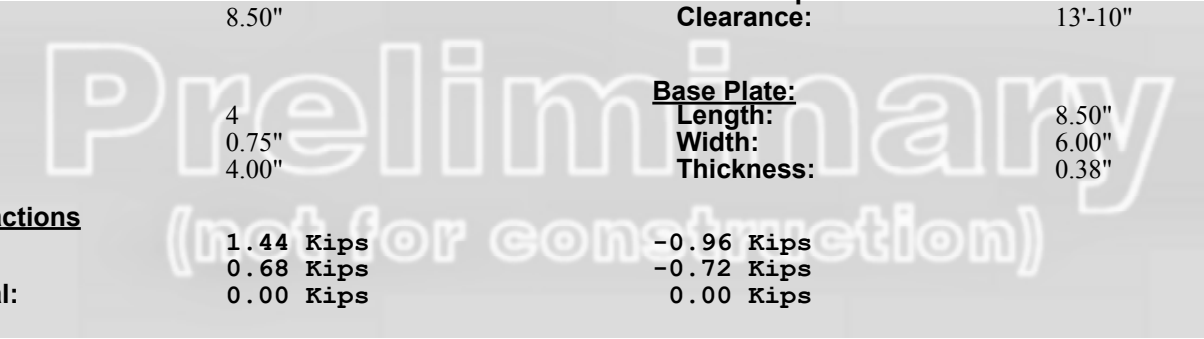
Quantity: 4
 Diameter: 0.75"
 Gauge: 4.00"

Base Plate:

Length: 8.50"
 Width: 6.00"
 Thickness: 0.38"

Maximum Reactions

Vertical: 1.44 Kips -0.96 Kips
 Horizontal: 0.68 Kips -0.72 Kips
 Longitudinal: 0.00 Kips 0.00 Kips



Column 2 (Portal) Elevation: A

Column Depth

Base: 8.50"
 Knee: 8.50"

Knee

Rafter Depth: 12.00"
 Clearance: 13'-10"

Anchor Rods

Quantity: 4
 Diameter: 0.75"
 Gauge: 4.00"

Base Plate:

Length: 8.50"
 Width: 6.00"
 Thickness: 0.38"

Maximum Reactions

Vertical: 1.44 Kips -0.96 Kips
 Horizontal: 0.72 Kips -0.68 Kips
 Longitudinal: 0.00 Kips 0.00 Kips

 * These reactions control the design of the anchor rods. The load combinations of these *
 * reactions may not be the controlling combinations required for the design of the produced *
 * foundation. It is the responsibility of the foundation engineer to determine the load *
 * combinations which are required for the design of the foundation. *
 * Anchor rods are not supplied by Manufacturer. *

DESIGN DATA FRAME(S): 2

Inside Clearance: 26'-6" Peak Clearance: 19'-2 1/4"
 Peak Rafter Depth: 12.00"

Column 1 (SWC)

Column Depth

Base: 12.00"
 Knee: 12.00"

Knee

Rafter Depth: 12.00"
 Clearance: 14'-9 1/8"

Anchor Rods

Quantity: 4
 Diameter: 0.75"
 Gauge: 4.00"

Base Plate:

Length: 12.00"
 Width: 6.00"
 Thickness: 0.38"



BUILDING A - Bastrop

Column 1 (Sidewall)

Maximum Reactions

Vertical:	7.29 Kips	-4.11 Kips
Horizontal:	1.64 Kips	-2.00 Kips
Longitudinal:	0.00 Kips	-1.37 Kips

Column 2 (SWA)

Column Depth

Base:	12.00"
Knee:	12.00"

Knee

Rafter Depth:	12.00"
Clearance:	14'-9 1/8"

Anchor Rods

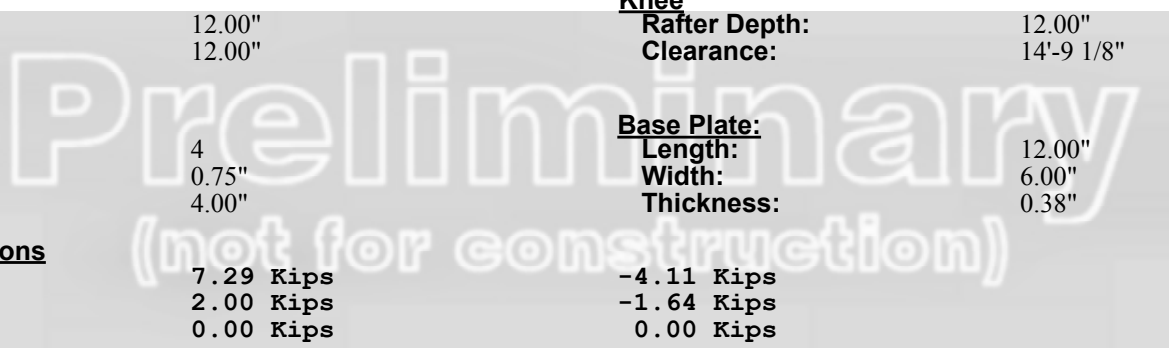
Quantity:	4
Diameter:	0.75"
Gauge:	4.00"

Base Plate:

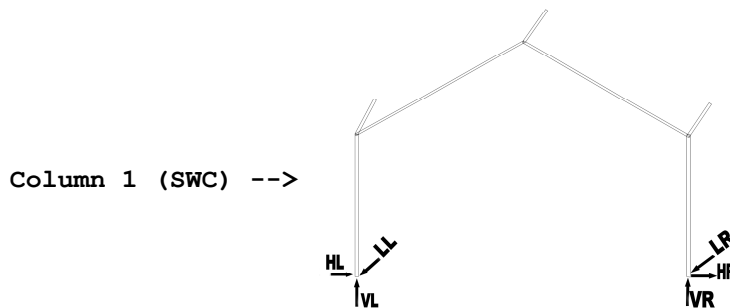
Length:	12.00"
Width:	6.00"
Thickness:	0.38"

Maximum Reactions

Vertical:	7.29 Kips	-4.11 Kips
Horizontal:	2.00 Kips	-1.64 Kips
Longitudinal:	0.00 Kips	0.00 Kips



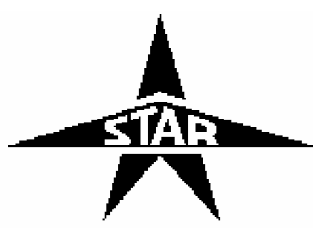
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 * combinations which are required for the design of the foundation. *
 * Anchor rods are not supplied by Manufacturer. *



Individual Loads - Unfactored

Column 1 (SWC)

	Vertical	Horizontal	Longitudinal
Brace Downward forces due to Longitudinal Wind	1.848 Kips	-0.010 Kips	-0.000 Kips
Brace Downward forces due to Seismic	0.323 Kips	-0.002 Kips	-0.000 Kips
Brace Upward forces due to Longitudinal Wind	-1.848 Kips	0.015 Kips	-2.289 Kips
Brace Upward forces due to Seismic	-0.323 Kips	0.003 Kips	-0.400 Kips
Lateral Primary Wind Load 1	-8.506 Kips	-2.686 Kips	-0.000 Kips
Lateral Primary Wind Load 2	-6.346 Kips	-3.457 Kips	-0.000 Kips
Lateral Primary Wind Load 3	-3.586 Kips	2.398 Kips	-0.000 Kips



DESIGN DATA FRAME(S): 3

Inside Clearance:	26'-6"	Peak Clearance:	19'-2 1/4"
		Peak Rafter Depth:	12.00"

Column 1 (SWC)

Column Depth

Base: 12.00"
Knee: 12.00"

Knee

Rafter Depth: 12.00"
Clearance: 14'-9 1/8"

Anchor Rods

Quantity: 4
Diameter: 0.75"
Gauge: 4.00"

Base Plate:

Length: 12.00"
Width: 6.00"
Thickness: 0.38"

Maximum Reactions

Vertical:	7.29 Kips	-4.11 Kips
Horizontal:	1.64 Kips	-2.00 Kips
Longitudinal:	0.00 Kips	-1.37 Kips



Column 2 (SWA)

Column Depth

Base: 12.00"
Knee: 12.00"

Knee

Rafter Depth: 12.00"
Clearance: 14'-9 1/8"

Anchor Rods

Quantity: 4
Diameter: 0.75"
Gauge: 4.00"

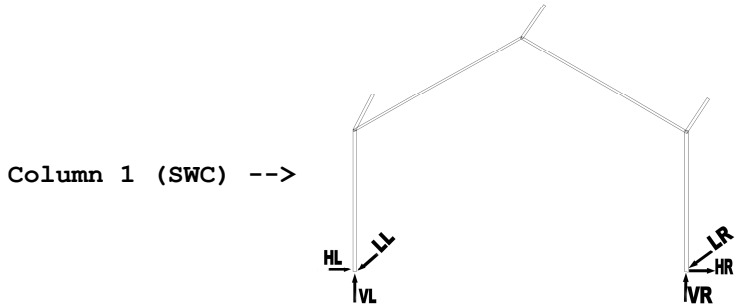
Base Plate:

Length: 12.00"
Width: 6.00"
Thickness: 0.38"

Maximum Reactions

Vertical:	7.29 Kips	-4.11 Kips
Horizontal:	2.00 Kips	-1.64 Kips
Longitudinal:	0.00 Kips	0.00 Kips

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 * foundation. It is the responsibility of the foundation engineer to determine the load *
 * combinations which are required for the design of the foundation. *
 * Anchor rods are not supplied by Manufacturer. *





BUILDING A - Bastrop

DESIGN DATA ENDWALL(s): EWB

Column 1 (Hot Rolled)

Anchor Rods:	4	Base Plate Width:	6.00"
Anchor Rods Diameter:	0.63"	Base Plate Length:	8.00"
Column Depth:	7.89"	Base Plate Thickness:	0.38"
Flange Width:	3.94"		

Column 2 (Hot Rolled)

Anchor Rods:	4	Base Plate Width:	6.00"
Anchor Rods Diameter:	0.63"	Base Plate Length:	8.00"
Column Depth:	7.89"	Base Plate Thickness:	0.38"
Flange Width:	3.94"		

Column 3 (Hot Rolled)

Anchor Rods:	4	Base Plate Width:	6.00"
Anchor Rods Diameter:	0.63"	Base Plate Length:	8.00"
Column Depth:	7.89"	Base Plate Thickness:	0.38"
Flange Width:	3.94"		

Individual Loads - Unfactored

	Vertical	Horizontal	Longitudinal
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Column 1

Balanced Roof Snow	0.348 Kips	0.007 Kips	0.000 Kips
Collateral Load	0.041 Kips	0.001 Kips	0.000 Kips
Dead Load	0.816 Kips	-0.043 Kips	0.000 Kips
Live Load	2.859 Kips	-0.124 Kips	0.000 Kips
Snow Load	0.550 Kips	-0.024 Kips	0.000 Kips
SUL	0.306 Kips	-0.029 Kips	0.000 Kips
SUR	0.446 Kips	-0.001 Kips	0.000 Kips
Wind Force Left	-2.886 Kips	-0.061 Kips	0.000 Kips
Wind Force Right	-2.886 Kips	-0.061 Kips	0.000 Kips
Wind Load as Inward Pressure	-2.514 Kips	-0.124 Kips	0.000 Kips
Wind Load as Outward Pressure	-2.886 Kips	-0.061 Kips	0.000 Kips

Column 2

Balanced Roof Snow	0.592 Kips	0.000 Kips	0.002 Kips
Collateral Load	0.070 Kips	0.000 Kips	0.000 Kips
Dead Load	0.778 Kips	0.000 Kips	0.002 Kips
Live Load	3.080 Kips	0.000 Kips	0.012 Kips
Snow Load	0.592 Kips	0.000 Kips	0.002 Kips
SUL	0.625 Kips	0.000 Kips	0.002 Kips
SUR	0.625 Kips	0.000 Kips	0.002 Kips
Wind Force Left	-4.670 Kips	0.000 Kips	-0.018 Kips
Wind Force Right	-4.670 Kips	0.000 Kips	-0.018 Kips
Wind Load as Inward Pressure	-4.670 Kips	0.000 Kips	2.794 Kips
Wind Load as Outward Pressure	-4.670 Kips	0.000 Kips	-3.136 Kips

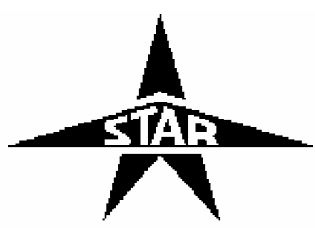
Column 3

Balanced Roof Snow	0.348 Kips	-0.007 Kips	0.000 Kips
Collateral Load	0.041 Kips	-0.001 Kips	0.000 Kips
Dead Load	0.816 Kips	0.043 Kips	0.000 Kips
Live Load	2.859 Kips	0.124 Kips	0.000 Kips
Snow Load	0.554 Kips	0.025 Kips	0.000 Kips
SUL	0.446 Kips	0.001 Kips	0.000 Kips
SUR	0.306 Kips	0.029 Kips	0.000 Kips
Wind Force Left	-2.886 Kips	0.061 Kips	0.000 Kips
Wind Force Right	-2.886 Kips	0.061 Kips	0.000 Kips
Wind Load as Inward Pressure	-2.514 Kips	0.128 Kips	0.000 Kips
Wind Load as Outward Pressure	-2.886 Kips	0.061 Kips	0.000 Kips

Rafter Type

Rafter Depth

1	Hot Rolled	7.68"
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**Design Report
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88097**

**Casey Civil, LLC
Project ID:**

BUILDING A - Bastrop

#	Rafter Type	Rafter Depth
2	Hot Rolled	7.68"

Preliminary
(not for construction)



DESIGN DATA ENDWALL(s): EWD

Column 1 (Hot Rolled)

Anchor Rods:	4	Base Plate Width:	6.00"
Anchor Rods Diameter:	0.63"	Base Plate Length:	8.00"
Column Depth:	7.89"	Base Plate Thickness:	0.38"
Flange Width:	3.94"		

Column 2 (Hot Rolled)

Anchor Rods:	4	Base Plate Width:	6.00"
Anchor Rods Diameter:	0.63"	Base Plate Length:	8.00"
Column Depth:	7.89"	Base Plate Thickness:	0.38"
Flange Width:	3.94"		

Column 3 (Hot Rolled)

Anchor Rods:	4	Base Plate Width:	6.00"
Anchor Rods Diameter:	0.63"	Base Plate Length:	8.00"
Column Depth:	7.89"	Base Plate Thickness:	0.38"
Flange Width:	3.94"		

Individual Loads - Unfactored

	Vertical	Horizontal	Longitudinal
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Column 1

Balanced Roof Snow	0.348 Kips	0.007 Kips	0.000 Kips
Collateral Load	0.041 Kips	0.001 Kips	0.000 Kips
Dead Load	0.816 Kips	-0.043 Kips	0.000 Kips
Live Load	2.859 Kips	-0.124 Kips	0.000 Kips
Snow Load	0.550 Kips	-0.024 Kips	0.000 Kips
SUL	0.165 Kips	-0.007 Kips	0.000 Kips
SUR	0.587 Kips	-0.023 Kips	0.000 Kips
Wind Force Left	-2.886 Kips	-0.061 Kips	0.000 Kips
Wind Force Right	-2.886 Kips	-0.061 Kips	0.000 Kips
Wind Load as Inward Pressure	-2.514 Kips	-0.124 Kips	0.000 Kips
Wind Load as Outward Pressure	-2.886 Kips	-0.061 Kips	0.000 Kips

Column 2

Balanced Roof Snow	0.592 Kips	0.000 Kips	0.002 Kips
Collateral Load	0.070 Kips	0.000 Kips	0.000 Kips
Dead Load	0.778 Kips	0.000 Kips	0.002 Kips
Live Load	3.080 Kips	0.000 Kips	0.012 Kips
Snow Load	0.592 Kips	0.000 Kips	0.002 Kips
SUL	0.625 Kips	0.000 Kips	0.002 Kips
SUR	0.625 Kips	0.000 Kips	0.002 Kips
Wind Force Left	-4.670 Kips	0.000 Kips	-0.018 Kips
Wind Force Right	-4.670 Kips	0.000 Kips	-0.018 Kips
Wind Load as Inward Pressure	-4.670 Kips	0.000 Kips	2.794 Kips
Wind Load as Outward Pressure	-4.670 Kips	0.000 Kips	-3.136 Kips

Column 3

Balanced Roof Snow	0.348 Kips	-0.007 Kips	0.000 Kips
Collateral Load	0.041 Kips	-0.001 Kips	0.000 Kips
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Live Load	2.859 Kips	0.124 Kips	0.000 Kips
Snow Load	0.554 Kips	0.025 Kips	0.000 Kips
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SUR	0.165 Kips	0.007 Kips	0.000 Kips
Wind Force Left	-2.886 Kips	0.061 Kips	0.000 Kips
Wind Force Right	-2.886 Kips	0.061 Kips	0.000 Kips
Wind Load as Inward Pressure	-2.514 Kips	0.128 Kips	0.000 Kips
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Rafter Type

Rafter Depth

1	Hot Rolled	7.68"
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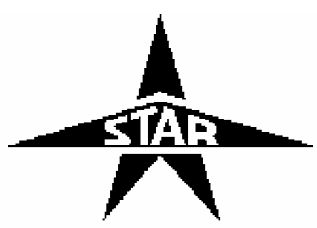


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#	Rafter Type	Rafter Depth
2	Hot Rolled	7.68"

Preliminary
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Design Notes
