September 04, 2020

GENERAL STEEL CORPORATION
BUILDER SERVICES GROUP
LITTLETON, CO 80127-4208

17-B-76846
JAMES FORCE
FORT WHITE, FL
30'0" x 50'0" x 10'0"

To Whom It May Concern:

This is to certify that materials for the subject structure have been designed in accordance with the order documents, specifically as shown per the attached Engineering Design Criteria Sheet.

Aspects of code compliance as related to use or occupancy, such as sprinkler requirements, are not addressed by these documents.

These materials, when properly erected on an adequate foundation in accordance with the erection drawings as supplied and using the components as furnished, will meet the attached loading requirements.

This certification does not cover field modifications or the design of materials not furnished by Star Building Systems.

The attached design criteria and calculations are to remain with and form part of this Letter of Certification.

The calculations and the metal building they represent are the product of Star Building Systems or a division of its affiliate Cornerstone Building Brands. The engineer whose seal appears hereon is employed by either Star Building Systems or a division of its affiliate Cornerstone Building Brands and is not the engineer of record for this project.

Cordially,

Star Building Systems
Materials for Metal Buildings
A Cornerstone Building Brands Company

This document has been digitally signed.

Anuradha Khanna, P.E.
Regional Engineer

Anuradha Khanna
2020-09-08 10:25:09

ANURADHA KHANNA
LICENSE
No. 81992
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

DESIGN PACKAGE

BUILDER: GENERAL STEEL CORPORATION
CUSTOMER: JAMES FORCE
JOB NUMBER: 17-B-76846

TABLE OF CONTENTS

Note to Detailing: Eds2Xds Drawings (Y)
Original Design Completed thru Change Order # 0
Date: 9/4/2020

Revision History

Rev #	Update Reactions?	Reason for Revision	Pages Revised	Date Revised	Eng.

Project Engineer: Adolfo Quesada Leon (Fairview)
Checking Engineer: Anu Khanna
Signing Engineer: Anu Khanna, P.E.

Job Number	17-B-76846
Builder	GENERAL STEEL CORPORATION
Jobsite Location	JAMES FORCE,FORT WHITE,FL

Building Code	FLORIDA BUILDING CODE, 6TH EDITION (2017)
Building Risk Category	Normal (Risk Category II)
Roof Dead Load	
Superimposed	2.42 psf
Collateral	6.00 psf
(4.00 psf Plaster Ceiling 2.00 psf Other)	
Roof Live Load	20.00 psf reduction allowed

Wind

Ultimate Wind Speed (Vult) ...	130.00 mph
Nominal Wind Speed (Vasd)	100 mph (IBC section 1609.3.1)
Serviceability Wind Speed	76 mph
Wind Exposure Category	C
Internal Pressure Coef (GCpi)	0.18/-0.18

Wall Loads for components not provided by building manufacturer

Corner Areas (within 3.00' of corner)	36.83 psf pressure -49.32 psf suction
Other Areas	36.83 psf pressure -39.95 psf suction

These values are the maximum values required based on a 10 sq ft area.
Components with larger areas may have lower wind loads.

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X-bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X-bracing conforms to ASTM A475 7 Strand Extra High-Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold-formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

All bolted joints with A325 Type 1 bolts are specified as snug-tightened joints in accordance with the most recent edition of the RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts. Pre-tensioning methods, including turn-of-nut, calibrated wrench, twist-off-type tension-control bolts or direct-tension-indicator are NOT required. Installation inspection requirements for Snug Tight Bolts (Specification for Structural Joints Section 9.1) is suggested.

Design criteria as noted is as given within order documents and is applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the metal building manufacturer nor the certifying engineer declares or attests that the loads as designated are proper for local provisions that may apply or for site specific parameters. The design criteria is supplied by the builder, project owner, or an Architect and/or Engineer of Record for the overall construction project.

This metal building system is designed as an Enclosed Building. Exterior and/or operable components including, but not limited to, doors, windows, vents, etc. ("Components") must be designed to withstand the required component and cladding wind pressures specified by the building code. In order to maintain the metal building system's Enclosed Building condition, all Components shall be closed when wind velocities reach half the designed wind load for the metal building system as shown on the drawings and design criteria documentation. Failure to maintain the metal building system's Enclosed Building condition will violate and void all warranties and certifications applicable to the material supplied by the metal building manufacturer.

Framed openings, walk doors, and open areas shall be located in the bay and elevation as shown in the erection drawings. The cutting or removal of girts shown on the erection drawings due to the addition of framed openings, walk doors, or open areas not shown may void the design certifications supplied by the metal building manufacturer.

Roof and wall panels have been designed in accordance with section 2222.4 of the Florida Building Code, 6TH EDITION (2017) Product approval numbers for the State of Florida, Department of Community Affairs per Product Rule 9B-72:

1. Panel Walls
   FL11917 PBR 26 gauge walls
2. Roofing Products
   FL11868 PBR 26 gauge roofs

This jobsite is located in a hurricane prone region with wind speeds of 130 mph or greater. In order to maintain the Enclosed Building classification and design for wind all doors, windows and wall mounted light transmitting panels (LTP) provided

by the metal building manufacturer shall be protected by impact resistant coverings. The material may include but is not limited to 7/16 structural wood panels as prescribed by the local building code. The customer's Design Professional, not metal building manufacturer engineer, is responsible for determining the adequacy of material acting as the impact resistant covering by others and attachment to the material provided by the metal building manufacturer. This structure has not been designed to withstand the additional internal pressure required by Code as a partially enclosed condition in the absence of impact resistant coverings.

The rigid frame at building A frame line 1 is designed as a non-expandable rigid frame. Corresponding frame reactions are calculated based upon actual tributary area.

Job Number.....: 17-B-76846
Builder.....: GENERAL STEEL CORPORATION
Jobsite Location.....: JAMES FORCE, FORT WHITE, FL

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

BUILDING DEFLECTION LIMITS.....: BLDG-A

Ceiling Type : Plaster

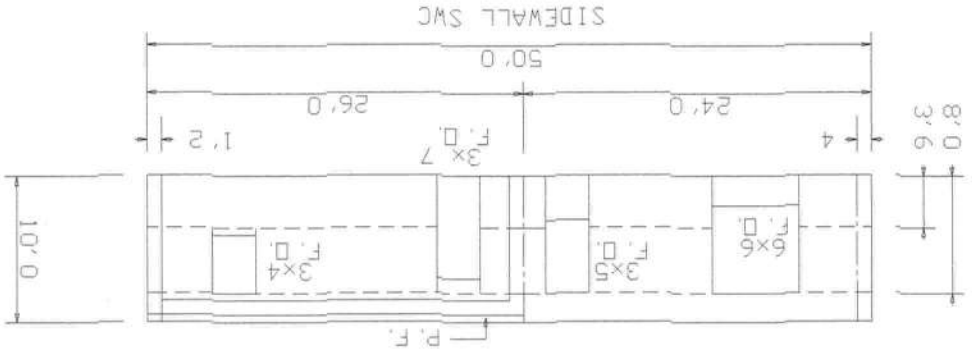
Roof Limits	Rafters	Purlins	Panels
Live: L/	360	360	60
Serviceability Wind: L/	360	360	60
Total Gravity: L/	240	240	60
Total Uplift: L/	N/A	N/A	60

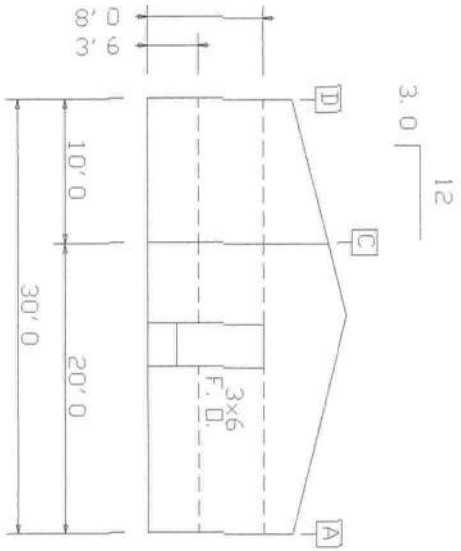
Frame Limits	Sidesway	Portal Frame Sidesway
Live: H/	60	
Serviceability Wind: H/	60	
Portal Serviceability Wind: H/	N/A	60
Total Gravity: H/	60	

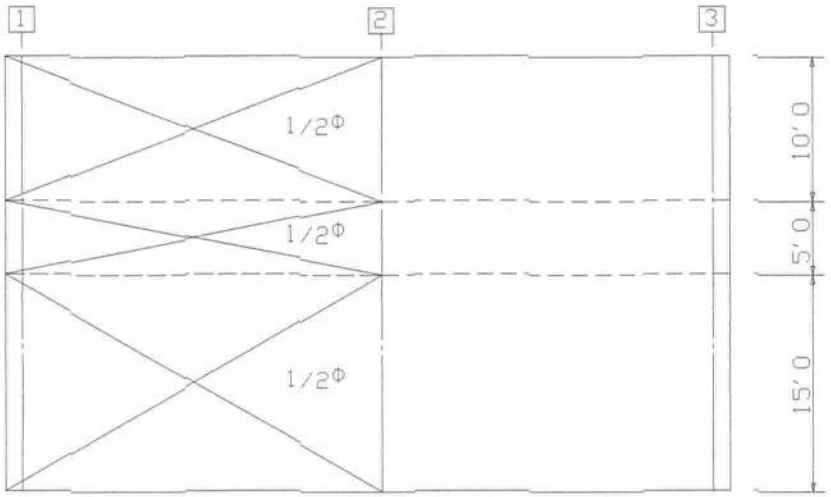
Wall Limits	Limit
Total Wind Panels: L/	60
Total Wind Girts: L/	90
Total Wind EW Columns: L/	120

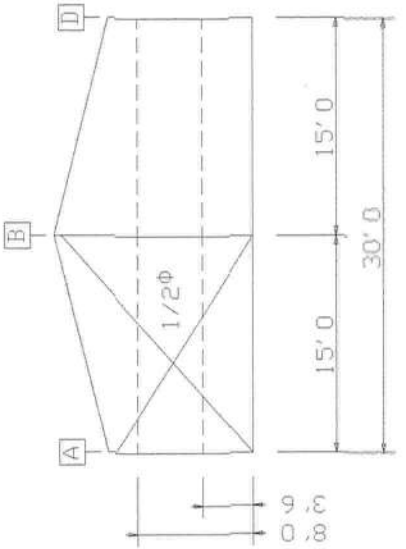
y Strut: x=double Z,
xx=triple Z,
o=pipe(FM)

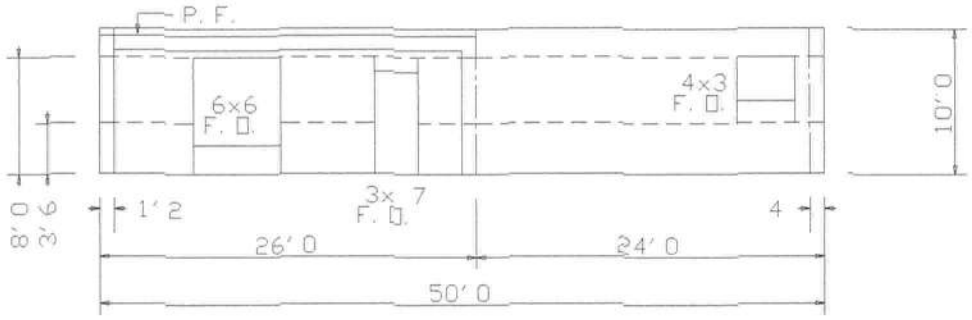
Builder :
GENERAL STEEL CORPORATIO
Job No: 76846A run01
Version: ver01-axquesada
Thu Sep 03 10:37:35 2020











ner :
AMES FORCE
ORT WHITE FL 32038
.O. M23998

B U I L D I N G - A - D E S I G N S U M M A R Y R E P O R T

All connections use ASTM A325N bolts, unless noted otherwise.
All anchor rods are checked according to ASTM F1554 Gr. 36 strengths.

ROOF PLANE ------- RPA
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AroofRPA_01.edf

Panel	PBR
Panel Width	36 in
Panel Gage	26 ga
Purlins	55.0 ksi Yield Strength
Eave Struts	55.0 ksi Yield Strength

PURLIN SPACING : 3@4.6378 1.0866

Bay #	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	26.000	10X2.5Z14	None	S 0.000	3.146 C
2	24.000	10X2.5Z14	None	C 3.146	0.000 S

Purlin Clip Use 2 A325 Bolts @ Level 2,3,4 @ Supports: 1,2,3

Purlin Stiffened Clips @ Level 2,4 @ Supports: 1,2,3
Purlin Backup Plate @ Level 2,4 @ Supports: 1,2,3

ROOF PLANE ------- RPC
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AroofRPC_01.edf

Panel	PBR
Panel Width	36 in
Panel Gage	26 ga
Purlins	55.0 ksi Yield Strength
Eave Struts	55.0 ksi Yield Strength

PURLIN SPACING : 3@4.6378 1.0866

Bay #	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	24.000	10X2.5Z14	None	S 0.000	3.146 C
2	26.000	10X2.5Z14	None	C 3.146	0.000 S

Purlin Clip Use 2 A325 Bolts @ Level 2,3,4 @ Supports: 3,2,1

Purlin Stiffened Clips @ Level 2,4 @ Supports: 3,2,1
Purlin Backup Plate @ Level 2,4 @ Supports: 3,2,1

```
RPC   Purlin Strut  @    10.000 (ft) :10X2.5Z14  Bays  1
RPC   Purlin Strut  @    15.000 (ft) :10X2.5Z14  Bays  1
RPC   Purlin Strut  @    10.000 (ft) :10X2.5Z14  Bays  2
RPC   Purlin Strut  @    15.000 (ft) :10X2.5Z14  Bays  2
SWA     Eave Strut  @    10.000 (ft) :10X3.5E13  Bays  1
SWA     Eave Strut  @    10.000 (ft) :10X3.5E13  Bays  2
SWC     Eave Strut  @    10.000 (ft) :10X3.5E13  Bays  1
SWC     Eave Strut  @    10.000 (ft) :10X3.5E13  Bays  2

Note: 1) All Purlin strut locations for all roof planes are measured from back
         sidewall.
      2) All purlin strut rows use the same lap lengths as the main purlin design.
Eave strut interior connection at SWA uses (2)-1/2" A325 bolts.
Eave strut interior connection at SWC uses (2)-1/2" A325 bolts.
Eave strut connection at end-frame uses (4)-1/2" A325 bolts.


BRACING ---- Roof: 1 bays Rod
             Plane SWA :Portal Frame
             Plane SWC :Portal Frame
             Plane EWB :End Frame
             Plane EWD : 1 bays Rod
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Star Building Systems, OKC, OK
Design Summary Program User: AXQuesada Job Number: 76846A
Design Summary Report Version: 8.08.2 run01 Date: 09/03/20
Start Time: 10:37:20
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SIDEWALL PLANE SWA -- (0.000" Inset columns)
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallSWA_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga
Girts ..... 55.0 ksi Yield Strength

GIRTS SPACINGS : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	24.833	8X2.5Z16	F.O.	S 0.000	0.000 S
2	3'6	23.667	8X2.5Z12	None	S 0.000	0.000 S
1	8'0	24.833	8X2.5C12	3 points	S 0.000	0.000 S
2	8'0	23.667	8X2.5C16	3 points	S 0.000	0.000 S

FRAMED OPENINGS:

Width	Height	Sill Ht	Jamb	Header/Sill	Bay	Distance
3'0	7'0	N/A	8X3.5C14	8X2.5C16	1	19'0
4'0	3'0	5'0	8X2.5C16	8'girt/8x2.5C16	2	18'0
6'0	6'0	2'0	8X2.5C16	8'girt/8x2.5C16	1	6'6

SIDEWALL PLANE SWC -- (0.000" Inset columns)
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallSWC_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga
Girts ..... 55.0 ksi Yield Strength

GIRTS SPACINGS : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	23.667	8X2.5Z16	F.O.	S 0.000	0.000 S
2	3'6	24.833	8X2.5Z14	F.O.	S 0.000	0.000 S
1	8'0	23.667	8X2.5C13	3 points	S 0.000	0.000 S
2	8'0	24.833	8X2.5C13	3 points	S 0.000	0.000 S

FRAMED OPENINGS:

Width	Height	Sill Ht	Jamb	Header/Sill	Bay	Distance
3'0	7'0	N/A	8X3.5C14	8X2.5C16	2	3'0
6'0	6'0	2'0	8X2.5C16	8'girt/8x2.5C16	1	5'0
3'0	5'0	3'0	8X2.5C16	8'girt/8x2.5C16	1	19'6
3'0	4'0	4'0	8X2.5C16	8'girt/8x2.5C16	2	18'6

Endwall Plane EWB Design ..... NON-EXPANDABLE FRAME
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallEWB_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga
Girts ..... 55.0 ksi Yield Strength

Girts Spacings : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	9.999	8X2.5Z16	None	S 0.000	0.000 S
2	3'6	19.999	8X2.5Z16	None	S 0.000	0.000 S
1	8'0	9.999	8X2.5C16	None	S 0.000	0.000 S
2	8'0	19.999	8X2.5C13	3 points	S 0.000	0.000 S

FRAMED OPENINGS:

Width	Height	Sill Ht	Jamb	Header/Sill	Bay Distance
3'0	6'0	2'0	8X2.5C16	8'girt/8x2.5C16	2 5'6

COLUMNS ----- (0.000" Flush columns)

Col #	Dist. from left	Description Member Size Ident.	Base Elev (ft)	Base plate design information Thickness & rods
1-C	10.000'	W8X10 50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36

ENDWALL COLUMN TO BRIDGE CHANNEL CONNECTIONS:

COL. NO.	STRUT-TO-COLUMN CLIP ENDWALL PLANE 1
PLANE SWC:	
1-C	BETWEEN PURLINS, USING TYPE 3 CONN.,(4)-1/2" A325N CF Brdg Channel (0.3750") (4)-3/4" A325N NO COLUMN EXTENSION 8X2.5C12 BRIDGE CHANNEL

Star Building Systems, OKC, OK
Design Summary Program User: AXQuesada Job Number: 76846A
Design Summary Report Version: 8.08.2 run01 Date: 09/03/20
Start Time: 10:37:20
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Endwall Plane EWD Design ..... BEARING FRAME
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallEWD_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga

RAFTERS -----

Mem #	Description Member Size Identification	Length (ft)	Start (ft)	End (ft)
1	W8X10 50.0 ksi	14.945	0.000	14.945
Connections...	Left : Type-IV SEP 6.000" X 3/8" (2)-1/2" A325N Bolts			
	Right: Type-III SEP 6.000" X 3/8" (4)-1/2" A325N Bolts			
2	W8X10 50.0 ksi	14.945	14.945	29.890
Connections...	Left : Type-III SEP 6.000" X 3/8" (4)-1/2" A325N Bolts			
	Right: Type-IV SEP 6.000" X 3/8" (2)-1/2" A325N Bolts			

Flange Braces at following purlins (horizontal distance from eave) :
PLANE SWA: 9.276 FB Type C
PLANE SWC: 9.276 FB Type C

Girts ..... 55.0 ksi Yield Strength

Girts Spacings : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	14.999	8X2.5Z16	None	S 0.000	0.000 S
2	3'6	14.999	8X2.5Z16	None	S 0.000	0.000 S
1	8'0	14.999	8X2.5Z16	None	S 0.000	0.000 S
2	8'0	14.999	8X2.5Z16	None	S 0.000	0.000 S

Endwall D contd.
COLUMNS ----- (0.000" Flush columns)

Col #	Dist. from left	Description Member Size	Ident.	Base Elev (ft)	Base plate design information Thickness & rods
3-A	0.000'	W8X10	50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36
3-B	15.000'	W8X10	50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36
3-D	30.000'	W8X10	50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36

ENDWALL COLUMN TO BRIDGE CHANNEL CONNECTIONS:

COL. NO.	STRUT-TO-COLUMN CLIP ENDWALL PLANE 3 Column extension inside.
PLANE SWA:	
3-B	AT PEAK, TYPE 3 CONN.,(4)-1/2" A325N CF Brdg Channel (0.3750") (4)-3/4" A325N W8X10 COLUMN EXTENSION w/ 12.000 " LAP LENGTH; 8X2.5C12 BRIDGE CHANNEL

FRAMES -----	Type	Span	Live	Wind	Eave	Trib	Grid Labels
	CS	30.000	20.00/130.00		10.00/	24.25	2
	CS	30.000	20.00/130.00		10.00/	13.58	1

Note: Use square anchor rod layout.

Building: BLDG-A

CDS file name: 17-B-76846_BLDG-A_Eds2Xds.cds

Planes

Name	File
SWA	\ver01-axquesada\BLDG-A\run01\AwallSWA_01.edf
EWD	\ver01-axquesada\BLDG-A\run01\AwallEWD_01.edf
SWC	\ver01-axquesada\BLDG-A\run01\AwallSWC_01.edf
EWB	\ver01-axquesada\BLDG-A\run01\AwallEWB_01.edf
RPA	\ver01-axquesada\BLDG-A\run01\AroofRPA_01.edf
RPC	\ver01-axquesada\BLDG-A\run01\AroofRPC_01.edf

Frames

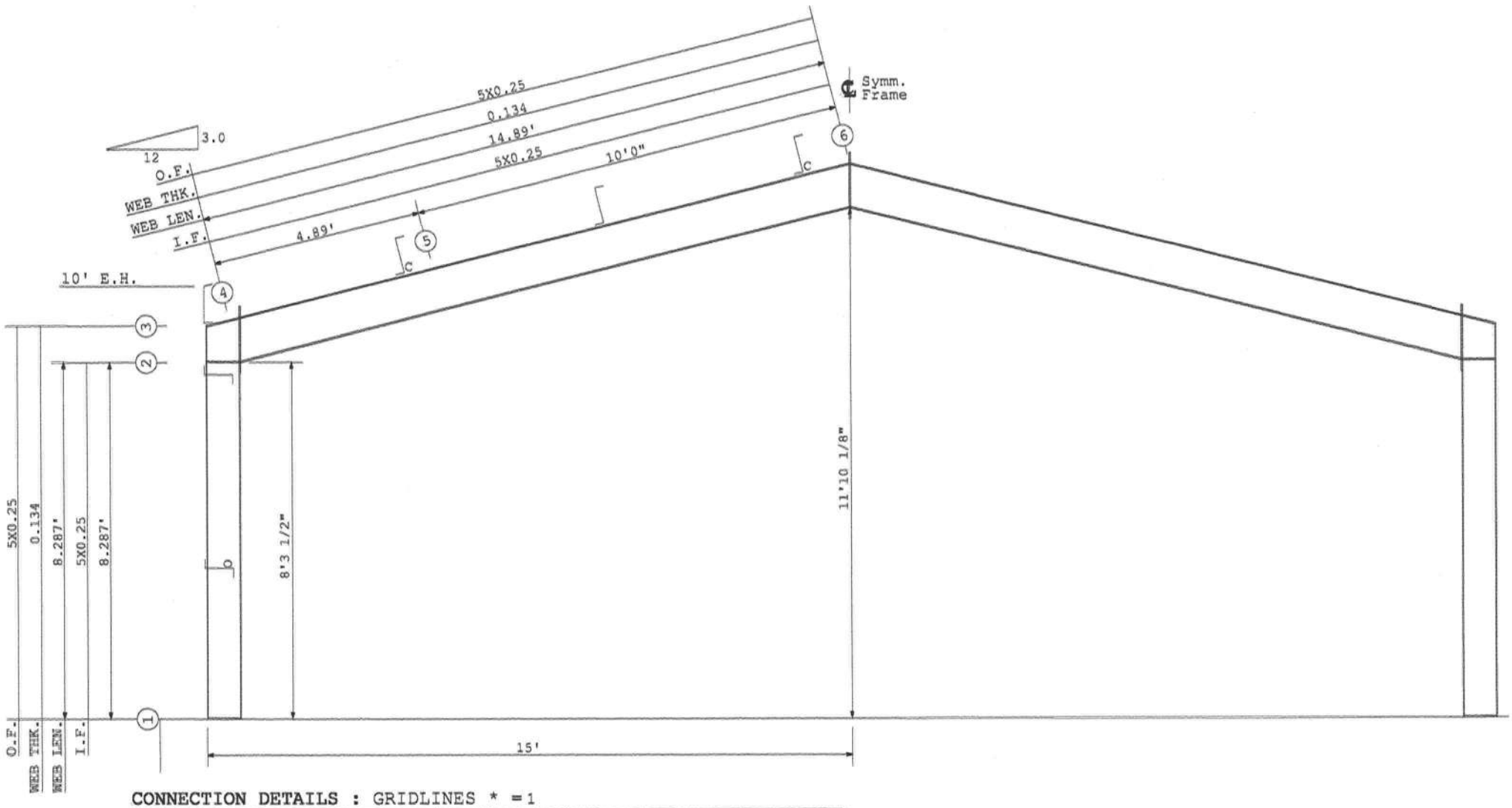
Frame Line	Left Frame	Left File	Right Frame	Right File
1	C	\ver01-axquesada\BLDG-A\Drftg\x02L	C	\ver01-axquesada\BLDG-A\Drftg\x02L
2	A	\ver01-axquesada\BLDG-A\Drftg\x01L	A	\ver01-axquesada\BLDG-A\Drftg\x01L

Portal Frames

Plane Name	Bay	Frame	File
SWA	1	D	\ver01-axquesada\BLDG-A\DRFTG\x03L
SWC	2	D	\ver01-axquesada\BLDG-A\DRFTG\x03L

LOCATION: Gridlines 1
DETAIL FILE: ctive\Eng\17-B-76846\ver01-axquesada\BLDG-A\Drftg\x02L
BOLTS:A325 SNUG TIGHT WEIGHT: 775 lbs
PURLINS(horz. from eave) :10"-Z 3@4'7 5/8"
GIRTS (vert. from floor): 8"-Z 3'6",4'6"(FLUSH)

(1) All sectional dimensions are in inches.
(2) All Flange lengths are measured along outer flange.

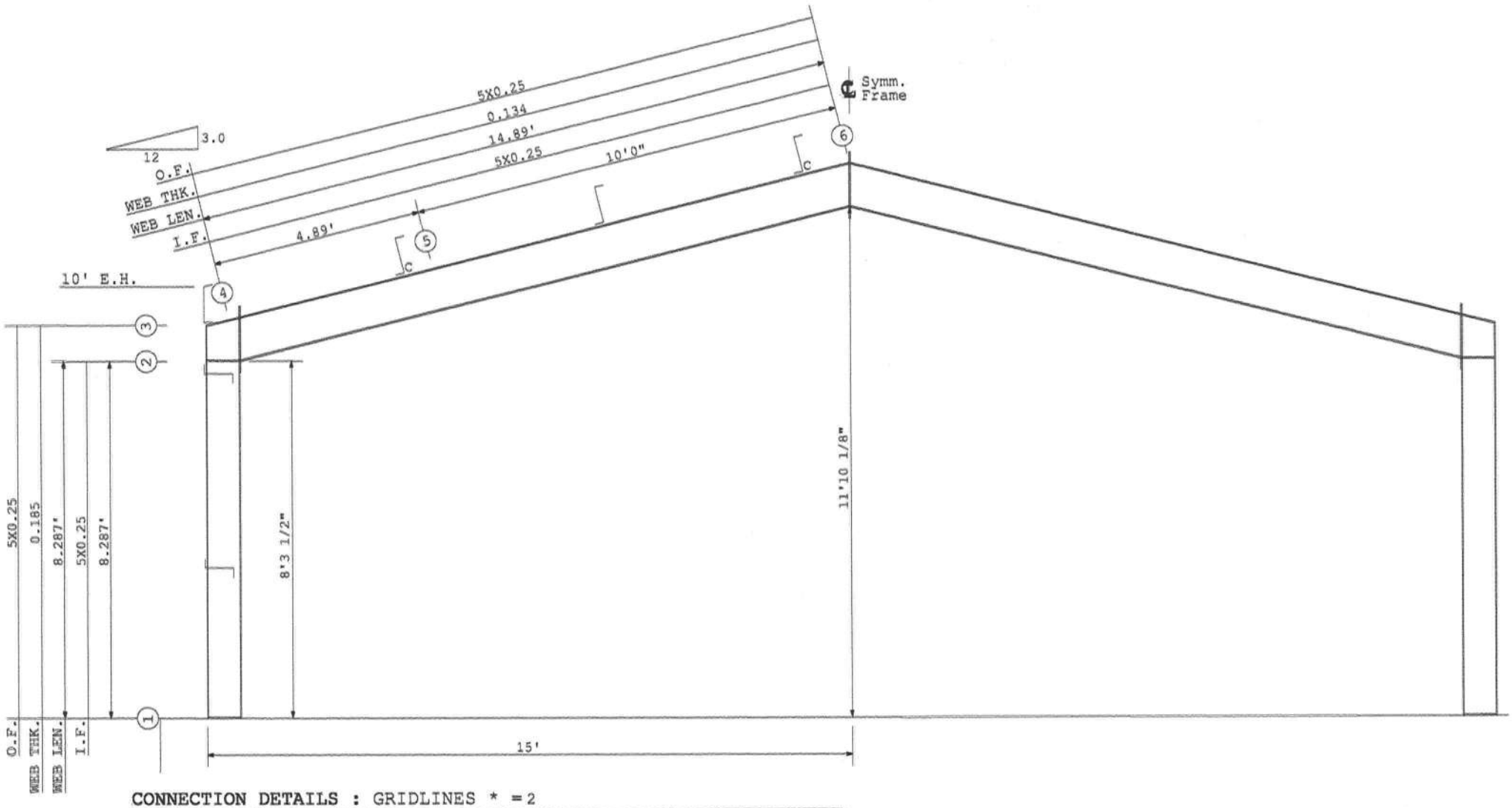


CONNECTION DETAILS : GRIDLINES * =1

Location	(1)*-D	(2)	(3)	(4)	(5)	(6)
Web Dep.	9.0	9.0	N/A	11.5	11.5	11.5
Type	BASE	HORZ STF	CAP (EXT)	2E/2E	SPLICE	2E/2E
Plate(DN)	6.0X0.375	2.25X0.25	5.0X0.25	6.0X0.375	N/A	6.0X0.375
Plate(UP)	N/A	N/A	N/A	6.0X0.375	N/A	6.0X0.375
Bolts	(4)-3/4	N/A	N/A	(8)-3/4	N/A	(8)-3/4

LOCATION: Gridlines 2
DETAIL FILE: ctive\Eng\17-B-76846\ver01-axquesada\BLDG-A\Drftg\x01L
BOLTS:A325 SNUG TIGHT WEIGHT: 803 lbs
PURLINS(horz. from eave) :10"-Z 3@4'7 5/8"
GIRTS (vert. from floor): 8"-Z 3'6",4'6"(FLUSH)

(1) All sectional dimensions are in inches.
(2) All Flange lengths are measured along outer flange.

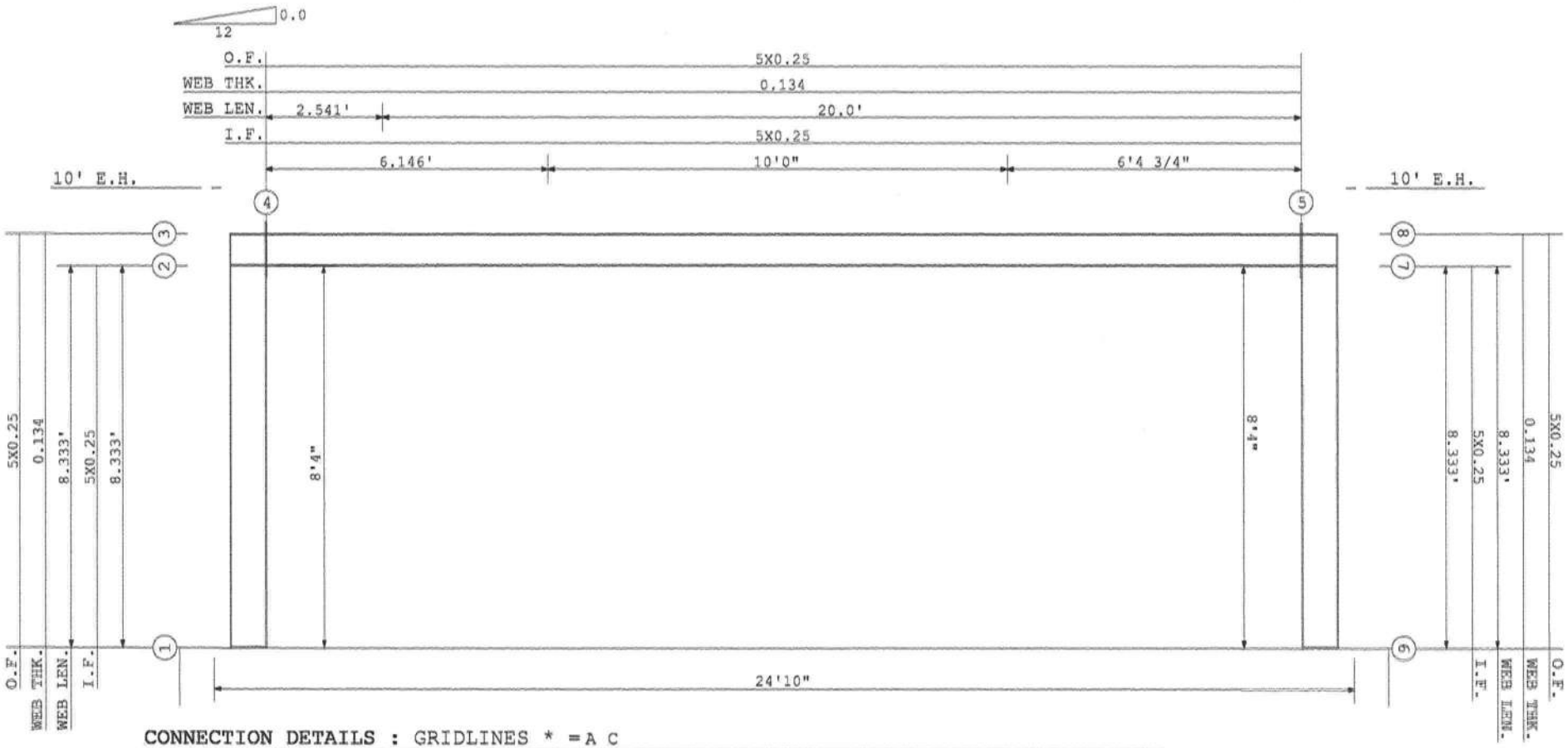


CONNECTION DETAILS : GRIDLINES * =2

Location	(1)*-D	(2)	(3)	(4)	(5)	(6)
Web Dep.	9.0	9.0	N/A	11.5	11.5	11.5
Type	BASE	HORZ STF	CAP (EXT)	2E/2E	SPLICE	2E/2E
Plate(DN)	6.0X0.375	2.25X0.25	5.0X0.25	6.0X0.375	N/A	6.0X0.375
Plate(UP)	N/A	N/A	N/A	6.0X0.375	N/A	6.0X0.375
Bolts	(4)-3/4	N/A	N/A	(8)-3/4	N/A	(8)-3/4

LOCATION: bays 1-(Gridline A) bays 2-(Gridline D)
DETAIL FILE: ctive\Eng\17-B-76846\ver01-axquesada\BLDG-A\Drftg\x03L
BOLTS:A325 SNUG TIGHT WEIGHT: 562 lbs
Rafter Offset : (11.50")
Column Offsets : (4.25")- LEFT COLUMN
(4.25")- RIGHT COLUMN

(1) All sectional dimensions are in inches.
(2) All Flange lengths are measured along outer flange.



CONNECTION DETAILS : GRIDLINES * =A C

Location	(1)*-1_2	(2)	(3)	(4)	(5)	(6)*-2_1	(7)	(8)
Web Dep.	9.0	9.0	N/A	8.0	8.0	9.0	9.0	N/A
Type	BASE	HORZ STF	CAP (EXT)	2E/2E	2E/2E	BASE	HORZ STF	CAP (EXT)
Plate(DN)	6.0X0.375	2.25X0.25	5.0X0.25	6.0X0.375 C	6.0X0.375 C	6.0X0.375	2.25X0.25	5.0X0.25
Plate(UP)	N/A	N/A	N/A	6.0X0.375 R	6.0X0.375 R	N/A	N/A	N/A
Bolts	(4)-3/4	N/A	N/A	(8)-3/4	(8)-3/4	(4)-3/4	N/A	N/A

REACTIONS

BUILDER: GENERAL STEEL CORPORATION
CUSTOMER: JAMES FORCE
JOB NUMBER: 17-B-76846

Notes

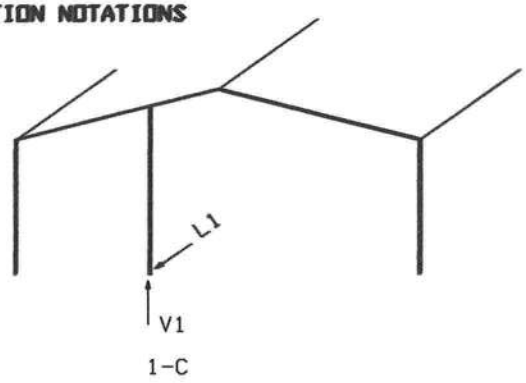
1) The reactions provided are based on the Order Documents at the time of mailing. Any changes to building loads or dimensions may change the reactions. The reactions will be superseded and voided by any future mailing.
2) The reactions provided have been created with the following layout (unless noted otherwise).
   a) A reaction table is provided with the reactions for each load group.
   b) Rigid Frames
      (1) See Note 3.
   c) Endwalls
      (1) See Note 3.
   d) X-Bracing
      (1) X- Bracing reactions are included in values shown in the reaction tables.
      (2) For IBC and UBC based building codes, when x-bracing is present in the sidewall, individual longitudinal seismic loads (RBUPEQ, RBDWEQ, E+, E- and LEQ) do **not** include the amplification factor, Ω_0.
      (3) For IBC and UBC based building codes, when x-bracing is present in the endwall, individual transverse seismic loads (EL & ER) do **not** include the amplification factor, Ω_0.
   e) The metal building manufacturer is responsible only for the portion of the anchor rod design pertaining to the transfer of forces between the base plate bearing and the anchor rod's shear and tension. The metal building manufacturer is not responsible for the anchor rod embedment for transfer of forces to the foundation. The metal building manufacturer does not design and is not responsible for the design, material, and construction of the foundation embedments. The end use customer shall assure that adequate provisions are made to the foundation design for loads imposed by column reactions of the building, other imposed loads, and bearing capacity of the soil and other conditions of the building site. It is recommended that the anchorage and foundation of the building be designed by a registered professional engineer competent in the design of such structures.
      i) (ref. Appendix A3 of the MBMA Metal Building Systems Manual)
   f) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise on the anchor rod layout drawing.
3) Reactions are provided as un-factored for each load group applied to the column. The factors applied to load groups for the steel column design may be different than the factors used in the foundation design. The foundation engineer shall apply the appropriate load factors and combine the reactions in accordance with the building code and design specifications for proper foundation design.
   a) For projects using ultimate design wind speeds such as 2012 IBC, 2015 IBC, or Florida building code, the wind load reactions are at a **strength** value with a load factor of 1.0.
   b) For IBC codes, the seismic reactions provided are at a **strength** level with a load factor of 1.0, and do not contain the rho factor.

   The manufacturer does not provide "maximum" load combination reactions. However, the individual load reactions provided may be used by the foundation engineer to determine the applicable load combinations for his/her design procedures and allow for an economical foundation design.

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.

TIME: 10:37:18

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

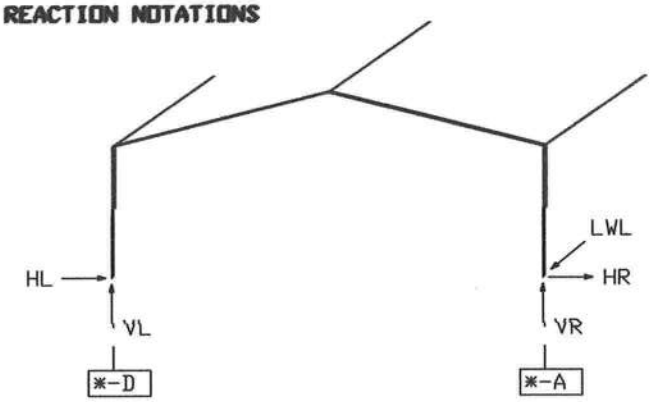
COLUMN	1-C		
LOAD GROUP	H1	V1	L1
D	0.	0.1	0.
W+	0.	0.	2.6
W-	0.	0.	-2.9

LOAD GROUP DESCRIPTION

D : DEAD LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W- : WIND LOAD AS AN OUTWARD ACTING SUCTION

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 1
NOTES: (1) All reactions are in kips and kip-ft. TIME: 16: 19: 33
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 1

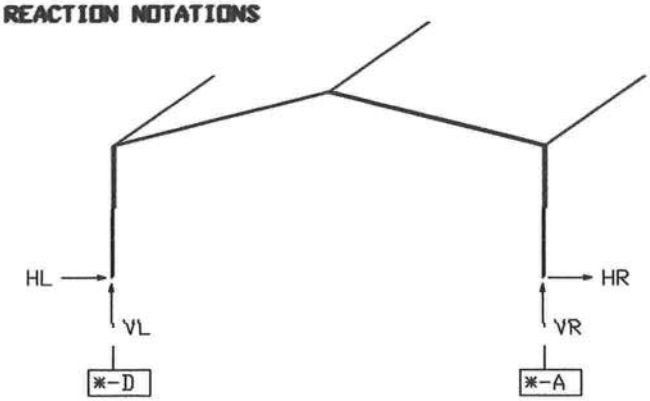
COLUMN	*-D			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0. 3	0. 8	0. 0	-0. 3	0. 8	0. 0
LL	1. 2	3. 2	0. 0	-1. 2	3. 2	0. 0
COLL	0. 5	1. 2	0. 0	-0. 5	1. 2	0. 0
WL1	-3. 8	-6. 8	0. 0	-0. 2	-4. 5	0. 0
WL2	-3. 7	-4. 5	0. 0	-0. 2	-2. 2	0. 0
LWL1	-0. 3	-5. 8	2. 665	1. 0	-4. 9	2. 665
LWL2	-1. 0	-4. 9	2. 665	0. 3	-5. 8	2. 665
LWL3	-0. 2	-3. 5	-2. 665	0. 9	-2. 6	-2. 665
LWL4	-0. 9	-2. 6	-2. 665	0. 2	-3. 5	-2. 665
WL3	0. 2	-4. 5	0. 0	3. 8	-6. 8	0. 0
WL4	0. 2	-2. 2	0. 0	3. 7	-4. 5	0. 0

LOAD GROUP DESCRIPTION

DL	:	Roof Dead Load
LL	:	Roof Live Load
COLL	:	Roof Collateral Load
WL1	:	Wind from Left to Right with +GCpi
WL2	:	Wind from Left to Right with -GCpi
LWL1	:	Windward Corner Left with +GCpi
LWL2	:	Windward Corner Right with +GCpi
LWL3	:	Windward Corner Left with -GCpi
LWL4	:	Windward Corner Right with -GCpi
WL3	:	Wind from Right to Left with +GCpi
WL4	:	Wind from Right to Left with -GCpi

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 2
NOTES: (1) All reactions are in kips and kip-ft. TIME: 10:50:53
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 2

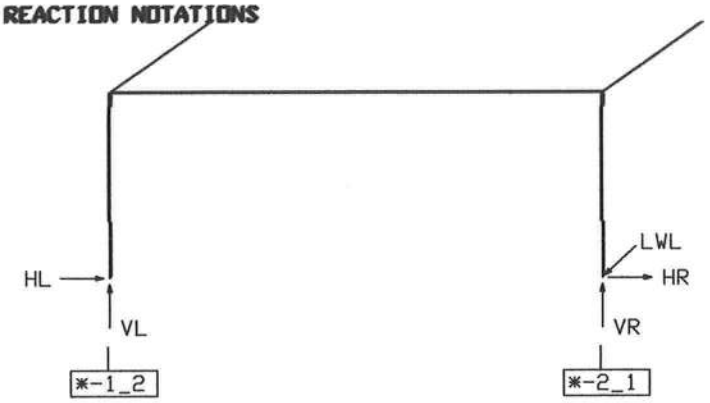
COLUMN	*-D			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.5	1.4	0.0	-0.5	1.4	0.0
LL	2.1	5.5	0.0	-2.1	5.5	0.0
COLL	1.1	2.7	0.0	-1.1	2.7	0.0
WL1	-6.2	-12.3	0.0	0.7	-8.9	0.0
WL2	-5.7	-7.2	0.0	0.1	-3.8	0.0
LWL1	-0.8	-10.8	0.0	2.0	-9.3	0.0
LWL2	-2.0	-9.3	0.0	0.8	-10.8	0.0
LWL3	-0.3	-5.7	0.0	1.4	-4.2	0.0
LWL4	-1.4	-4.2	0.0	0.3	-5.7	0.0
WL3	-0.7	-8.9	0.0	6.2	-12.3	0.0
WL4	-0.1	-3.8	0.0	5.7	-7.2	0.0

LOAD GROUP DESCRIPTION

DL	:	Roof Dead Load
LL	:	Roof Live Load
COLL	:	Roof Collateral Load
WL1	:	Wind from Left to Right with +GCpi
WL2	:	Wind from Left to Right with -GCpi
LWL1	:	Windward Corner Left with +GCpi
LWL2	:	Windward Corner Right with +GCpi
LWL3	:	Windward Corner Left with -GCpi
LWL4	:	Windward Corner Right with -GCpi
WL3	:	Wind from Right to Left with +GCpi
WL4	:	Wind from Right to Left with -GCpi

SUPPORT REACTIONS FOR EACH LOAD GROUP
LOCATION: bays 1-(Gridline A) bays 2-(Gridline D)
NOTES: (1) All reactions are in kips and kip-ft. TIME: 17:05:25
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



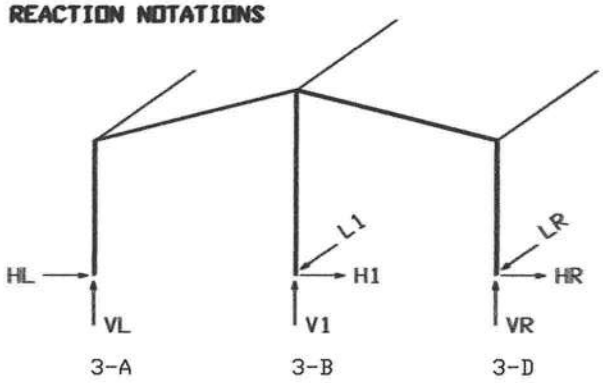
LOAD GROUP REACTION TABLE GRIDLINES * = A C

COLUMN	*-1_2			*-2_1		
LOAD GROUP	HL	VL	LWL	HR	VR	LWL
DL	0.1	0.3	0.0	-0.1	0.3	0.0
LWL1	-1.0	-0.7	2.132	-1.0	0.7	2.132
LWL2	1.0	0.7	2.132	1.0	-0.7	2.132

LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LWL1 : Wind from Left to Right with +GCpi
LWL2 : Wind from Right to Left with -GCpi

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	3-A			3-B			3-D		
LOAD GROUP	HL	VL	LL	H1	V1	L1	HR	VR	LR
D	0.0	0.4	0.	0.	0.7	0.	0.0	0.4	0.
C	0.0	0.6	0.	0.	1.1	0.	0.0	0.6	0.
L	0.1	1.9	0.	0.	3.5	0.0	-0.1	1.9	0.
W+	-0.1	-4.0	0.	0.	-7.4	2.9	0.1	-4.0	1.1
W-	-0.1	-4.0	0.	0.	-7.4	-3.2	0.1	-4.0	-1.4
WR	-0.1	-3.0	0.	1.5	-8.4	0.0	0.1	-4.0	0.
WL	-1.6	-5.3	0.	0.	-6.1	0.0	0.1	-4.0	0.

LOAD GROUP DESCRIPTION

D	:	DEAD LOAD
C	:	COLLATERAL LOAD
L	:	LIVE LOAD
W+	:	WIND LOAD AS AN INWARD ACTING PRESSURE
W-	:	WIND LOAD AS AN OUTWARD ACTING SUCTION
WR	:	WIND FORCE FROM THE RIGHT
WL	:	WIND FORCE FROM THE LEFT

by the metal building manufacturer shall be protected by impact resistant coverings. The material may include but is not limited to 7/16 structural wood panels as prescribed by the local building code. The customer's Design Professional, not metal building manufacturer engineer, is responsible for determining the adequacy of material acting as the impact resistant covering by others and attachment to the material provided by the metal building manufacturer. This structure has not been designed to withstand the additional internal pressure required by Code as a partially enclosed condition in the absence of impact resistant coverings.

The rigid frame at building A frame line 1 is designed as a non-expandable rigid frame. Corresponding frame reactions are calculated based upon actual tributary area.

Job Number.....: 17-B-76846
Builder.....: GENERAL STEEL CORPORATION
Jobsite Location.....: JAMES FORCE, FORT WHITE, FL

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

BUILDING DEFLECTION LIMITS.....: BLDG-A

Ceiling Type : Plaster

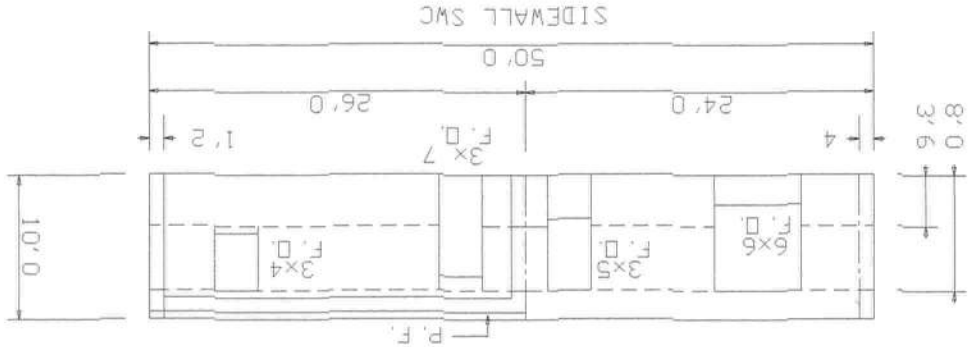
Roof Limits	Rafters	Purlins	Panels
Live: L/	360	360	60
Serviceability Wind: L/	360	360	60
Total Gravity: L/	240	240	60
Total Uplift: L/	N/A	N/A	60

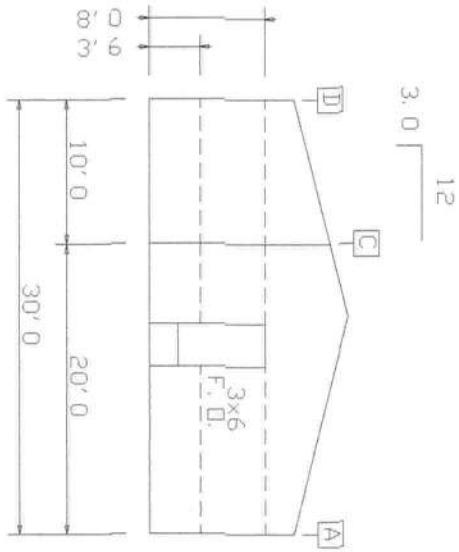
Frame Limits	Sidesway	Portal Frame Sidesway
Live: H/	60	
Serviceability Wind: H/	60	
Portal Serviceability Wind: H/	N/A	60
Total Gravity: H/	60	

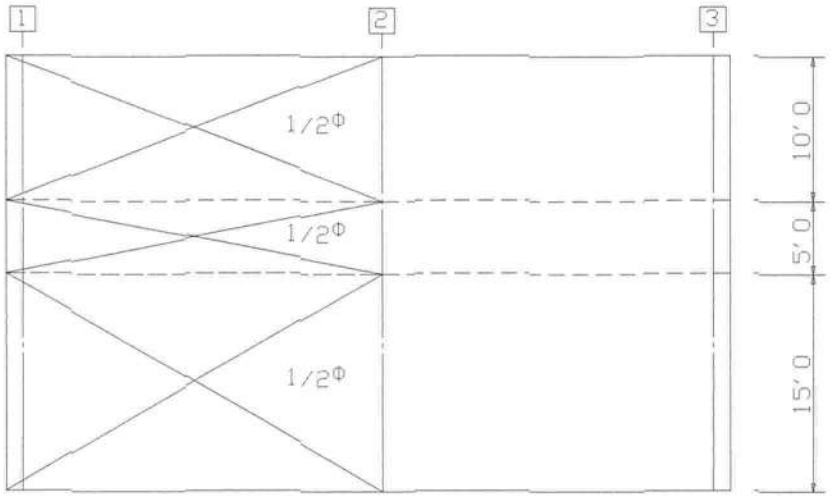
Wall Limits	Limit
Total Wind Panels: L/	60
Total Wind Girts: L/	90
Total Wind EW Columns: L/	120

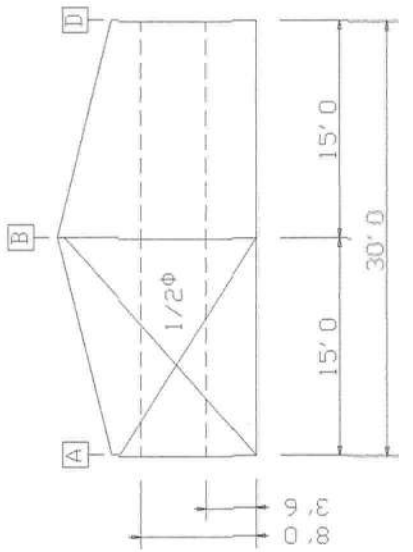
y Strut: x=double Z,
xx=triple Z,
o=pipe(FM)

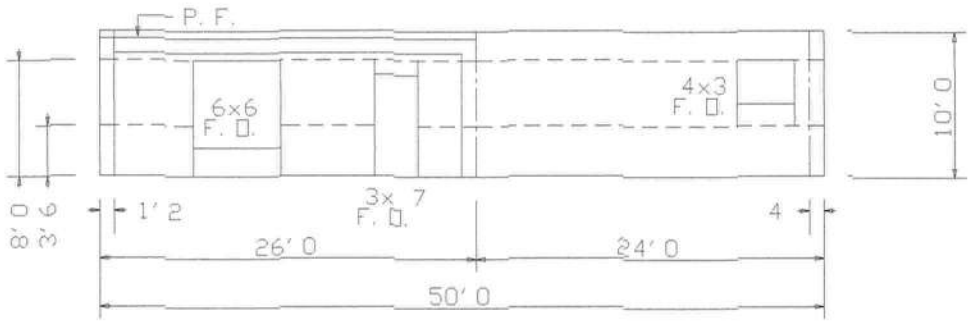
Builder :
GENERAL STEEL CORPORATIO
Job No: 76846A run01
Version: ver01-axquesada
Thu Sep 03 10:37:35 2020











ner :
AMES FORCE
JRT WHITE FL 32038
□. M23998

B U I L D I N G - A - D E S I G N S U M M A R Y R E P O R T

All connections use ASTM A325N bolts, unless noted otherwise.
All anchor rods are checked according to ASTM F1554 Gr. 36 strengths.

ROOF PLANE ------- RPA
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AroofRPA_01.edf

Panel	PBR
Panel Width	36 in
Panel Gage	26 ga
Purlins	55.0 ksi Yield Strength
Eave Struts	55.0 ksi Yield Strength

PURLIN SPACING : 3@4.6378 1.0866

Bay #	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	26.000	10X2.5Z14	None	S 0.000	3.146 C
2	24.000	10X2.5Z14	None	C 3.146	0.000 S

Purlin Clip Use 2 A325 Bolts @ Level 2,3,4 @ Supports: 1,2,3

Purlin Stiffened Clips @ Level 2,4 @ Supports: 1,2,3
Purlin Backup Plate @ Level 2,4 @ Supports: 1,2,3

ROOF PLANE ------- RPC
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AroofRPC_01.edf

Panel	PBR
Panel Width	36 in
Panel Gage	26 ga
Purlins	55.0 ksi Yield Strength
Eave Struts	55.0 ksi Yield Strength

PURLIN SPACING : 3@4.6378 1.0866

Bay #	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	24.000	10X2.5Z14	None	S 0.000	3.146 C
2	26.000	10X2.5Z14	None	C 3.146	0.000 S

Purlin Clip Use 2 A325 Bolts @ Level 2,3,4 @ Supports: 3,2,1

Purlin Stiffened Clips @ Level 2,4 @ Supports: 3,2,1
Purlin Backup Plate @ Level 2,4 @ Supports: 3,2,1

RPC	Purlin Strut	@	10.000 (ft)	:10X2.5Z14	Bays	1
RPC	Purlin Strut	@	15.000 (ft)	:10X2.5Z14	Bays	1
RPC	Purlin Strut	@	10.000 (ft)	:10X2.5Z14	Bays	2
RPC	Purlin Strut	@	15.000 (ft)	:10X2.5Z14	Bays	2
SWA	Eave Strut	@	10.000 (ft)	:10X3.5E13	Bays	1
SWA	Eave Strut	@	10.000 (ft)	:10X3.5E13	Bays	2
SWC	Eave Strut	@	10.000 (ft)	:10X3.5E13	Bays	1
SWC	Eave Strut	@	10.000 (ft)	:10X3.5E13	Bays	2

Note: 1) All Purlin strut locations for all roof planes are measured from back sidewall.
2) All purlin strut rows use the same lap lengths as the main purlin design.
Eave strut interior connection at SWA uses (2)-1/2" A325 bolts.
Eave strut interior connection at SWC uses (2)-1/2" A325 bolts.
Eave strut connection at end-frame uses (4)-1/2" A325 bolts.

BRACING ---- Roof: 1 bays Rod
Plane SWA :Portal Frame
Plane SWC :Portal Frame
Plane EWB :End Frame
Plane EWD : 1 bays Rod

Star Building Systems, OKC, OK
Design Summary Program User: AXQuesada Job Number: 76846A
Design Summary Report Version: 8.08.2 run01 Date: 09/03/20
Start Time: 10:37:20
R:\..\17-B-76846\ver01-axquesada\BLDG-A\run01\76846A_bldg_A_01.cds

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SIDEWALL PLANE SWA -- (0.000" Inset columns)
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallSWA_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga
Girts ..... 55.0 ksi Yield Strength

GIRTS SPACINGS : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	24.833	8X2.5Z16	F.O.	S 0.000	0.000 S
2	3'6	23.667	8X2.5Z12	None	S 0.000	0.000 S
1	8'0	24.833	8X2.5C12	3 points	S 0.000	0.000 S
2	8'0	23.667	8X2.5C16	3 points	S 0.000	0.000 S

FRAMED OPENINGS:

Width	Height	Sill Ht	Jamb	Header/Sill	Bay Distance
3'0	7'0	N/A	8X3.5C14	8X2.5C16	1 19'0
4'0	3'0	5'0	8X2.5C16	8'girt/8x2.5C16	2 18'0
6'0	6'0	2'0	8X2.5C16	8'girt/8x2.5C16	1 6'6

SIDEWALL PLANE SWC -- (0.000" Inset columns)
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallSWC_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga
Girts ..... 55.0 ksi Yield Strength

GIRTS SPACINGS : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	23.667	8X2.5Z16	F.O.	S 0.000	0.000 S
2	3'6	24.833	8X2.5Z14	F.O.	S 0.000	0.000 S
1	8'0	23.667	8X2.5C13	3 points	S 0.000	0.000 S
2	8'0	24.833	8X2.5C13	3 points	S 0.000	0.000 S

FRAMED OPENINGS:

Width	Height	Sill Ht	Jamb	Header/Sill	Bay Distance
3'0	7'0	N/A	8X3.5C14	8X2.5C16	2 3'0
6'0	6'0	2'0	8X2.5C16	8'girt/8x2.5C16	1 5'0
3'0	5'0	3'0	8X2.5C16	8'girt/8x2.5C16	1 19'6
3'0	4'0	4'0	8X2.5C16	8'girt/8x2.5C16	2 18'6

Endwall Plane EWB Design ..... NON-EXPANDABLE FRAME
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallEWB_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga
Girts ..... 55.0 ksi Yield Strength

Girts Spacings : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	9.999	8X2.5Z16	None	S 0.000	0.000 S
2	3'6	19.999	8X2.5Z16	None	S 0.000	0.000 S
1	8'0	9.999	8X2.5C16	None	S 0.000	0.000 S
2	8'0	19.999	8X2.5C13	3 points	S 0.000	0.000 S

FRAMED OPENINGS:

Width	Height	Sill Ht	Jamb	Header/Sill	Bay Distance
3'0	6'0	2'0	8X2.5C16	8'girt/8x2.5C16	2 5'6

COLUMNS ----- (0.000" Flush columns)

Col #	Dist. from left	Description Member Size Ident.	Base Elev (ft)	Base plate design information Thickness & rods
1-C	10.000'	W8X10 50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36

ENDWALL COLUMN TO BRIDGE CHANNEL CONNECTIONS:

COL. NO.	STRUT-TO-COLUMN CLIP ENDWALL PLANE 1
PLANE SWC:	
1-C	BETWEEN PURLINS, USING TYPE 3 CONN.,(4)-1/2" A325N CF Brdg Channel (0.3750") (4)-3/4" A325N NO COLUMN EXTENSION 8X2.5C12 BRIDGE CHANNEL

Endwall Plane EWD Design ..... BEARING FRAME
R:\jobs\Active\Eng\17-B-76846\ver01-axquesada\BLDG-A\run01\AwallEWD_01.edf

Panel ..... PBR
Panel Width ..... 36 in
Panel Gage ..... 26 ga

RAFTERS -----

Mem #	Description Member Size Identification	Length (ft)	Start (ft)	End (ft)
1	W8X10 50.0 ksi	14.945	0.000	14.945
	Connections... Left : Type-IV SEP 6.000" X 3/8" (2)-1/2" A325N Bolts			
	Right: Type-III SEP 6.000" X 3/8" (4)-1/2" A325N Bolts			
2	W8X10 50.0 ksi	14.945	14.945	29.890
	Connections... Left : Type-III SEP 6.000" X 3/8" (4)-1/2" A325N Bolts			
	Right: Type-IV SEP 6.000" X 3/8" (2)-1/2" A325N Bolts			

Flange Braces at following purlins (horizontal distance from eave) :
PLANE SWA: 9.276 FB Type C
PLANE SWC: 9.276 FB Type C

Girts ..... 55.0 ksi Yield Strength

Girts Spacings : 3'6 4'6

Bay #	Elev. (ft-in)	Length (ft)	Member Size Identification	Brace Locations	L Lap Exten	R Lap Exten
1	3'6	14.999	8X2.5Z16	None	S 0.000	0.000 S
2	3'6	14.999	8X2.5Z16	None	S 0.000	0.000 S
1	8'0	14.999	8X2.5Z16	None	S 0.000	0.000 S
2	8'0	14.999	8X2.5Z16	None	S 0.000	0.000 S

Endwall D contd.
COLUMNS ----- (0.000" Flush columns)

Col #	Dist. from left	Description Member Size	Ident.	Base Elev (ft)	Base plate design information Thickness & rods
3-A	0.000'	W8X10	50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36
3-B	15.000'	W8X10	50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36
3-D	30.000'	W8X10	50.0 ksi	0.0000'	0.375" BP thk w/(4)-0.625" A36

ENDWALL COLUMN TO BRIDGE CHANNEL CONNECTIONS:

COL. NO.	STRUT-TO-COLUMN CLIP ENDWALL PLANE 3
	Column extension inside.
PLANE SWA:	
3-B	AT PEAK, TYPE 3 CONN.,(4)-1/2" A325N
	CF Brdg Channel (0.3750") (4)-3/4" A325N
	W8X10 COLUMN EXTENSION w/ 12.000 " LAP LENGTH;
	8X2.5C12 BRIDGE CHANNEL

FRAMES -----	Type	Span	Live	Wind	Eave	Trib	Grid Labels
	CS	30.000	20.00/130.00		10.00/	24.25	2
	CS	30.000	20.00/130.00		10.00/	13.58	1

Note: Use square anchor rod layout.

Building: BLDG-A

CDS file name: 17-B-76846_BLDG-A_Eds2Xds.cds

Planes

Name	File
SWA	\ver01-axquesada\BLDG-A\run01\AwallSWA_01.edf
EWD	\ver01-axquesada\BLDG-A\run01\AwallEWD_01.edf
SWC	\ver01-axquesada\BLDG-A\run01\AwallSWC_01.edf
EWB	\ver01-axquesada\BLDG-A\run01\AwallEWB_01.edf
RPA	\ver01-axquesada\BLDG-A\run01\AroofRPA_01.edf
RPC	\ver01-axquesada\BLDG-A\run01\AroofRPC_01.edf

Frames

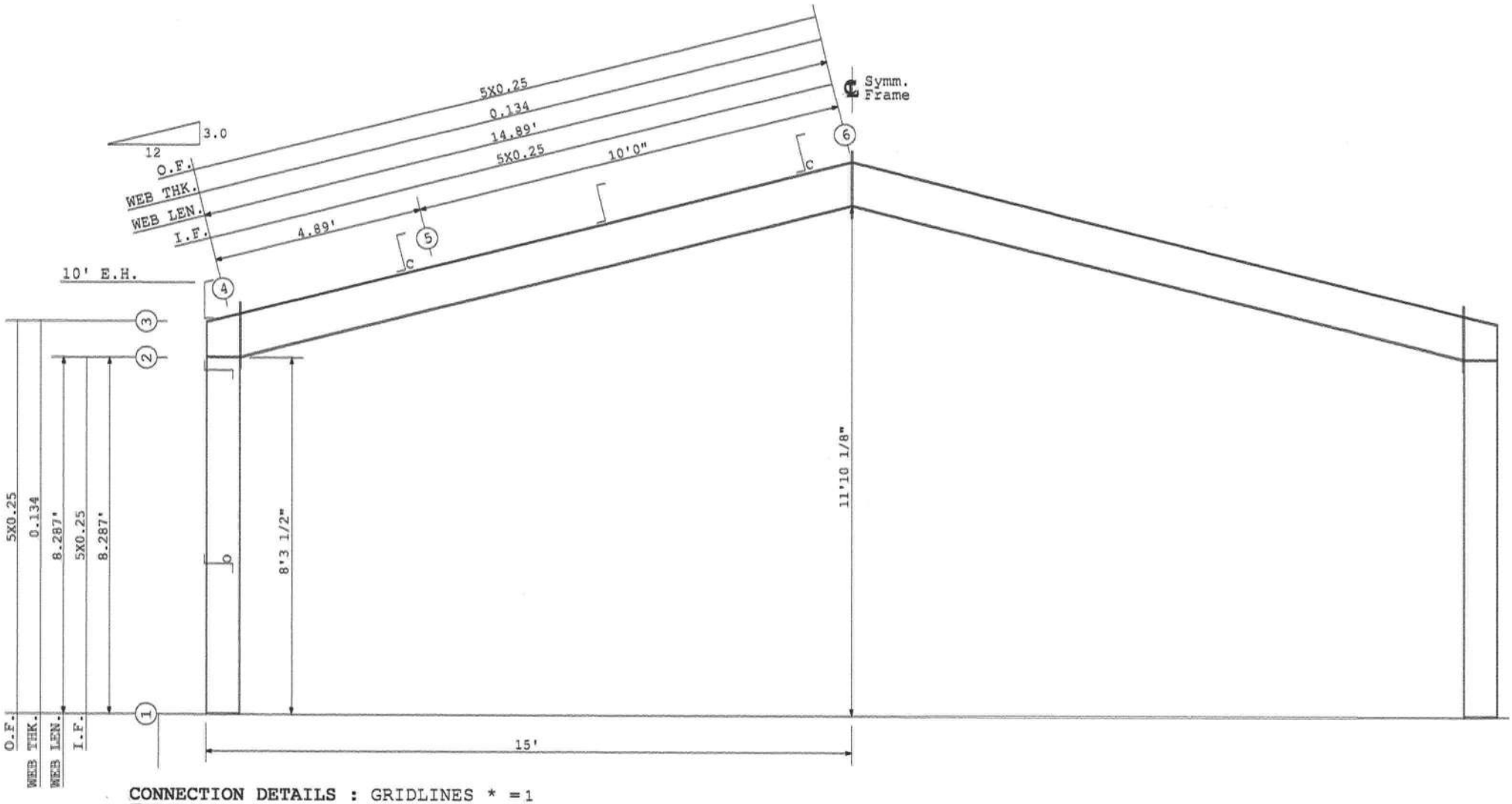
Frame Line	Left Frame	Left File	Right Frame	Right File
1	C	\ver01-axquesada\BLDG-A\Drftg\x02L	C	\ver01-axquesada\BLDG-A\Drftg\x02L
2	A	\ver01-axquesada\BLDG-A\Drftg\x01L	A	\ver01-axquesada\BLDG-A\Drftg\x01L

Portal Frames

Plane Name	Bay	Frame	File
SWA	1	D	\ver01-axquesada\BLDG-A\DRFTG\x03L
SWC	2	D	\ver01-axquesada\BLDG-A\DRFTG\x03L

LOCATION: Gridlines 1
DETAIL FILE: ctive\Eng\17-B-76846\ver01-axquesada\BLDG-A\Drftg\x02L
BOLTS:A325 SNUG TIGHT WEIGHT: 775 lbs
PURLINS(horz. from eave) :10"-Z 3@4'7 5/8"
GIRTS (vert. from floor): 8"-Z 3'6",4'6"(FLUSH)

(1) All sectional dimensions are in inches.
(2) All Flange lengths are measured along outer flange.



CONNECTION DETAILS : GRIDLINES * =1

Location	(1)*-D	(2)	(3)	(4)	(5)	(6)
Web Dep.	9.0	9.0	N/A	11.5	11.5	11.5
Type	BASE	HORZ STF	CAP (EXT)	2E/2E	SPLICE	2E/2E
Plate(DN)	6.0X0.375	2.25X0.25	5.0X0.25	6.0X0.375	N/A	6.0X0.375
Plate(UP)	N/A	N/A	N/A	6.0X0.375	N/A	6.0X0.375
Bolts	(4)-3/4	N/A	N/A	(8)-3/4	N/A	(8)-3/4

Star Building Systems
8600 S. I-35, Oklahoma City, OK 73149

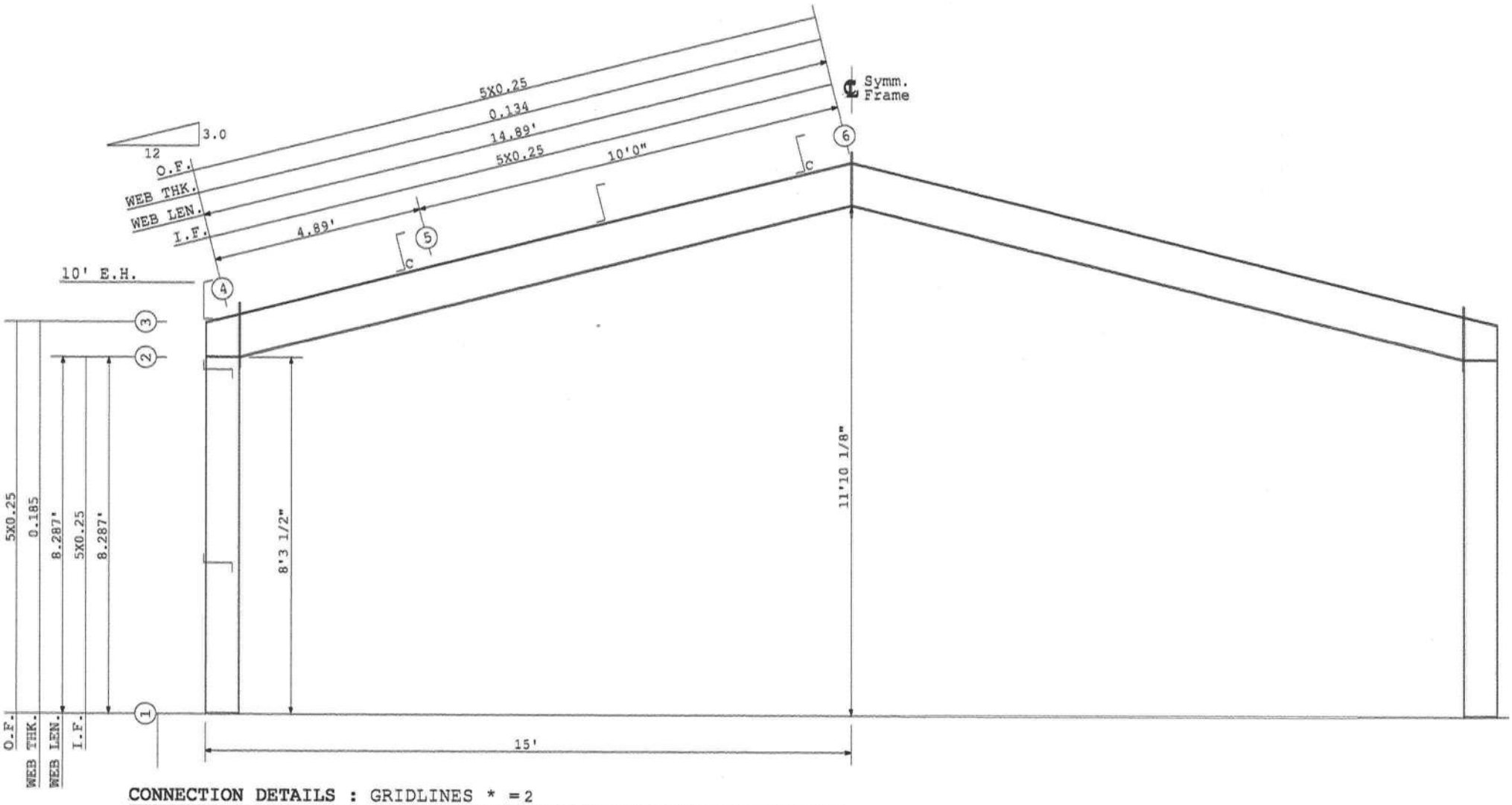
FRAME ID #1
cs 30./10./30.312 20./130./0.

USER NAME:AXQuesada
JOB NAME:76846A

DATE: 9/ 3/20 TIME:10:50:53 PAGE: 1 -1
FILE:frame_2.fra

LOCATION: Gridlines 2
DETAIL FILE: ctive\Eng\17-B-76846\ver01-axquesada\BLDG-A\Drftg\x01L
BOLTS:A325 SNUG TIGHT WEIGHT: 803 lbs
PURLINS(horz. from eave) :10"-Z 3@4'7 5/8"
GIRTS (vert. from floor): 8"-Z 3'6",4'6"(FLUSH)

(1) All sectional dimensions are in inches.
(2) All Flange lengths are measured along outer flange.

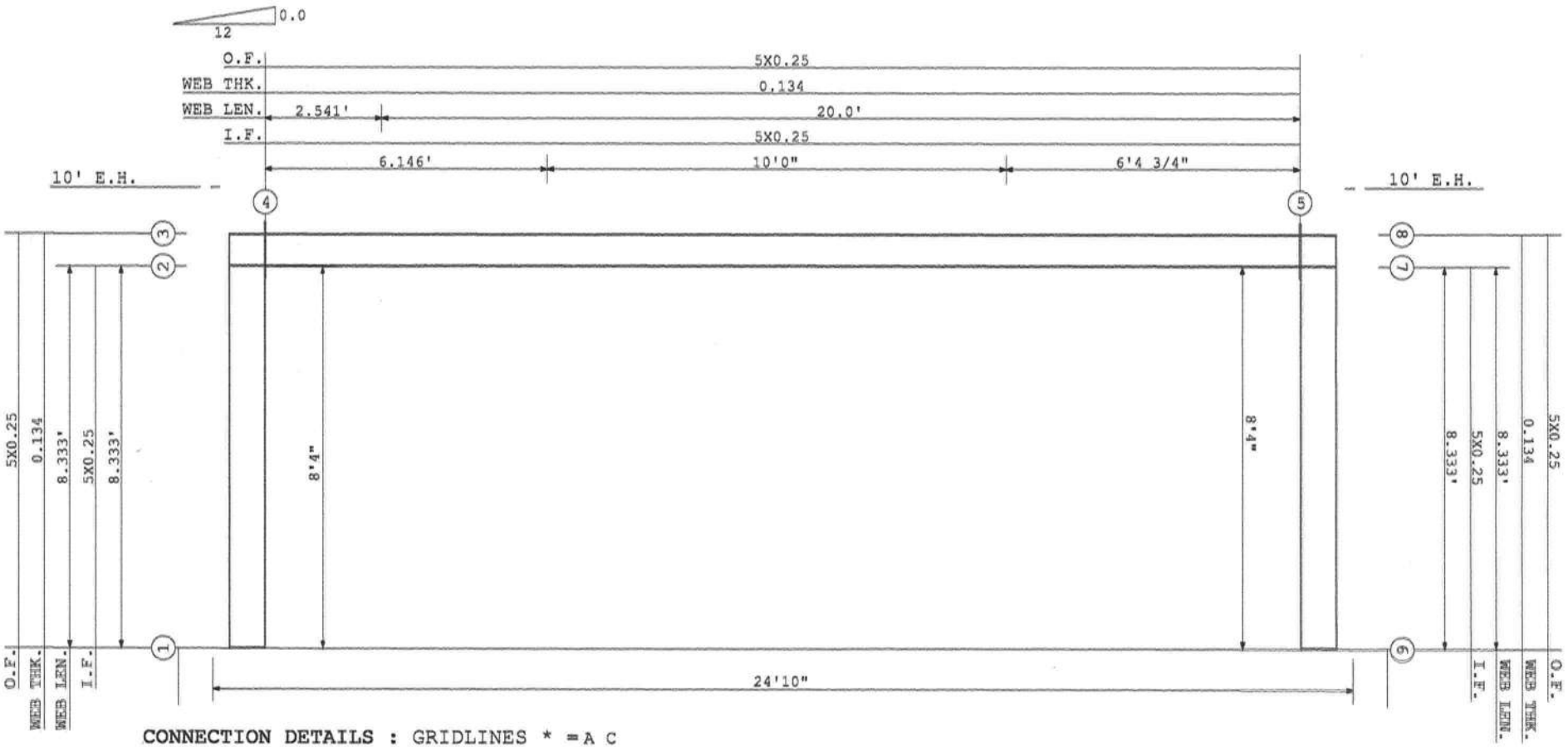


CONNECTION DETAILS : GRIDLINES * =2

Location	(1)*-D	(2)	(3)	(4)	(5)	(6)
Web Dep.	9.0	9.0	N/A	11.5	11.5	11.5
Type	BASE	HORZ STF	CAP (EXT)	2E/2E	SPLICE	2E/2E
Plate(DN)	6.0X0.375	2.25X0.25	5.0X0.25	6.0X0.375	N/A	6.0X0.375
Plate(UP)	N/A	N/A	N/A	6.0X0.375	N/A	6.0X0.375
Bolts	(4)-3/4	N/A	N/A	(8)-3/4	N/A	(8)-3/4

LOCATION: bays 1-(Gridline A) bays 2-(Gridline D)
DETAIL FILE: ctive\Eng\17-B-76846\ver01-axquesada\BLDG-A\Drftg\x03L
BOLTS:A325 SNUG TIGHT WEIGHT: 562 lbs
Rafter Offset : (11.50")
Column Offsets : (4.25")- LEFT COLUMN
(4.25")- RIGHT COLUMN

(1) All sectional dimensions are in inches.
(2) All Flange lengths are measured along outer flange.



CONNECTION DETAILS : GRIDLINES * =A C

Location	(1)*-1_2	(2)	(3)	(4)	(5)	(6)*-2_1	(7)	(8)
Web Dep.	9.0	9.0	N/A	8.0	8.0	9.0	9.0	N/A
Type	BASE	HORZ STF	CAP (EXT)	2E/2E	2E/2E	BASE	HORZ STF	CAP (EXT)
Plate(DN)	6.0X0.375	2.25X0.25	5.0X0.25	6.0X0.375 C	6.0X0.375 C	6.0X0.375	2.25X0.25	5.0X0.25
Plate(UP)	N/A	N/A	N/A	6.0X0.375 R	6.0X0.375 R	N/A	N/A	N/A
Bolts	(4)-3/4	N/A	N/A	(8)-3/4	(8)-3/4	(4)-3/4	N/A	N/A

REACTIONS

BUILDER: GENERAL STEEL CORPORATION
CUSTOMER: JAMES FORCE
JOB NUMBER: 17-B-76846

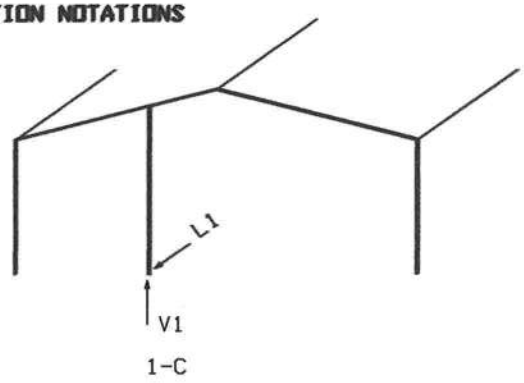
Notes

1) The reactions provided are based on the Order Documents at the time of mailing. Any changes to building loads or dimensions may change the reactions. The reactions will be superseded and voided by any future mailing.
2) The reactions provided have been created with the following layout (unless noted otherwise).
   a) A reaction table is provided with the reactions for each load group.
   b) Rigid Frames
      (1) See Note 3.
   c) Endwalls
      (1) See Note 3.
   d) X-Bracing
      (1) X- Bracing reactions are included in values shown in the reaction tables.
      (2) For IBC and UBC based building codes, when x-bracing is present in the sidewall, individual longitudinal seismic loads (RBUPEQ, RBDWEQ, E+, E- and LEQ) do **not** include the amplification factor, Ω_0.
      (3) For IBC and UBC based building codes, when x-bracing is present in the endwall, individual transverse seismic loads (EL & ER) do **not** include the amplification factor, Ω_0.
   e) The metal building manufacturer is responsible only for the portion of the anchor rod design pertaining to the transfer of forces between the base plate bearing and the anchor rod's shear and tension. The metal building manufacturer is not responsible for the anchor rod embedment for transfer of forces to the foundation. The metal building manufacturer does not design and is not responsible for the design, material, and construction of the foundation embedments. The end use customer shall assure that adequate provisions are made to the foundation design for loads imposed by column reactions of the building, other imposed loads, and bearing capacity of the soil and other conditions of the building site. It is recommended that the anchorage and foundation of the building be designed by a registered professional engineer competent in the design of such structures.
      i) (ref. Appendix A3 of the MBMA Metal Building Systems Manual)
   f) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise on the anchor rod layout drawing.
3) Reactions are provided as un-factored for each load group applied to the column. The factors applied to load groups for the steel column design may be different than the factors used in the foundation design. The foundation engineer shall apply the appropriate load factors and combine the reactions in accordance with the building code and design specifications for proper foundation design.
   a) For projects using ultimate design wind speeds such as 2012 IBC, 2015 IBC, or Florida building code, the wind load reactions are at a **strength** value with a load factor of 1.0.
   b) For IBC codes, the seismic reactions provided are at a **strength** level with a load factor of 1.0, and do not contain the rho factor.

   The manufacturer does not provide "maximum" load combination reactions. However, the individual load reactions provided may be used by the foundation engineer to determine the applicable load combinations for his/her design procedures and allow for an economical foundation design.

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.

REACTION NOTATIONS



1-C

LOAD GROUP REACTION TABLE

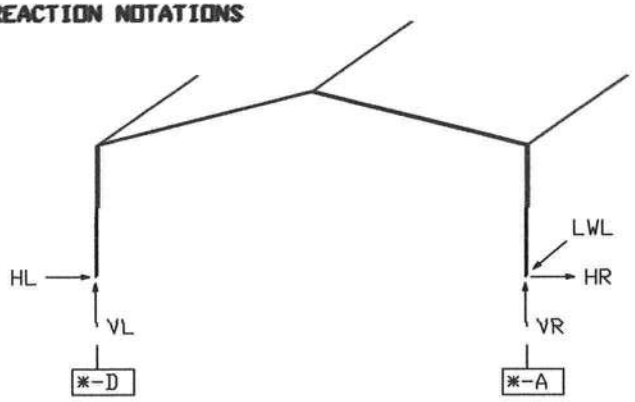
COLUMN	1-C		
LOAD GROUP	H1	V1	L1
D	0.	0.1	0.
W+	0.	0.	2.6
W-	0.	0.	-2.9

LOAD GROUP DESCRIPTION

D : DEAD LOAD
W+ : WIND LOAD AS AN INWARD ACTING PRESSURE
W- : WIND LOAD AS AN OUTWARD ACTING SUCTION

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 1
NOTES: (1) All reactions are in kips and kip-ft. TIME: 16:19:33
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 1

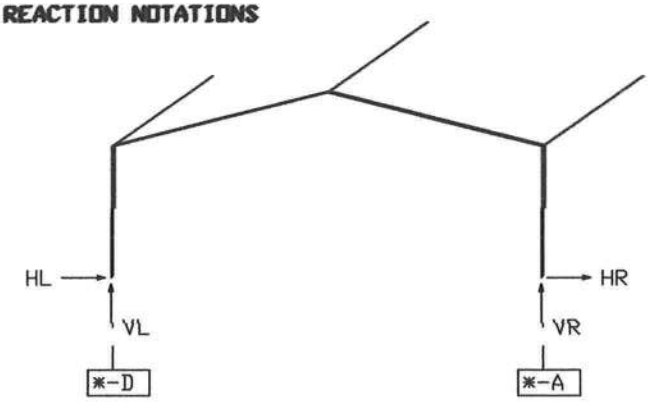
COLUMN	*-D			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.3	0.8	0.0	-0.3	0.8	0.0
LL	1.2	3.2	0.0	-1.2	3.2	0.0
COLL	0.5	1.2	0.0	-0.5	1.2	0.0
WL1	-3.8	-6.8	0.0	-0.2	-4.5	0.0
WL2	-3.7	-4.5	0.0	-0.2	-2.2	0.0
LWL1	-0.3	-5.8	2.665	1.0	-4.9	2.665
LWL2	-1.0	-4.9	2.665	0.3	-5.8	2.665
LWL3	-0.2	-3.5	-2.665	0.9	-2.6	-2.665
LWL4	-0.9	-2.6	-2.665	0.2	-3.5	-2.665
WL3	0.2	-4.5	0.0	3.8	-6.8	0.0
WL4	0.2	-2.2	0.0	3.7	-4.5	0.0

LOAD GROUP DESCRIPTION

DL	:	Roof Dead Load
LL	:	Roof Live Load
COLL	:	Roof Collateral Load
WL1	:	Wind from Left to Right with +GCpi
WL2	:	Wind from Left to Right with -GCpi
LWL1	:	Windward Corner Left with +GCpi
LWL2	:	Windward Corner Right with +GCpi
LWL3	:	Windward Corner Left with -GCpi
LWL4	:	Windward Corner Right with -GCpi
WL3	:	Wind from Right to Left with +GCpi
WL4	:	Wind from Right to Left with -GCpi

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 2
NOTES: (1) All reactions are in kips and kip-ft. TIME: 10:50:53
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 2

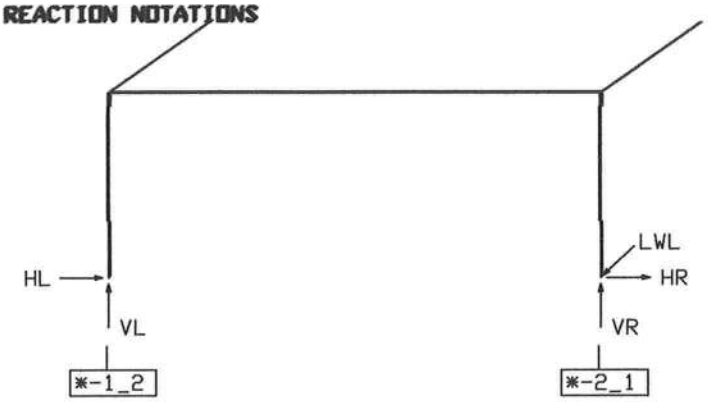
COLUMN	*-D			*-A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.5	1.4	0.0	-0.5	1.4	0.0
LL	2.1	5.5	0.0	-2.1	5.5	0.0
COLL	1.1	2.7	0.0	-1.1	2.7	0.0
WL1	-6.2	-12.3	0.0	0.7	-8.9	0.0
WL2	-5.7	-7.2	0.0	0.1	-3.8	0.0
LWL1	-0.8	-10.8	0.0	2.0	-9.3	0.0
LWL2	-2.0	-9.3	0.0	0.8	-10.8	0.0
LWL3	-0.3	-5.7	0.0	1.4	-4.2	0.0
LWL4	-1.4	-4.2	0.0	0.3	-5.7	0.0
WL3	-0.7	-8.9	0.0	6.2	-12.3	0.0
WL4	-0.1	-3.8	0.0	5.7	-7.2	0.0

LOAD GROUP DESCRIPTION

DL	:	Roof Dead Load
LL	:	Roof Live Load
COLL	:	Roof Collateral Load
WL1	:	Wind from Left to Right with +GCpi
WL2	:	Wind from Left to Right with -GCpi
LWL1	:	Windward Corner Left with +GCpi
LWL2	:	Windward Corner Right with +GCpi
LWL3	:	Windward Corner Left with -GCpi
LWL4	:	Windward Corner Right with -GCpi
WL3	:	Wind from Right to Left with +GCpi
WL4	:	Wind from Right to Left with -GCpi

SUPPORT REACTIONS FOR EACH LOAD GROUP
LOCATION: bays 1-(Gridline A) bays 2-(Gridline D)
NOTES: (1) All reactions are in kips and kip-ft. TIME: 17:05:25
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = A C

COLUMN	*-1_2			*-2_1		
LOAD GROUP	HL	VL	LWL	HR	VR	LWL
DL	0.1	0.3	0.0	-0.1	0.3	0.0
LWL1	-1.0	-0.7	2.132	-1.0	0.7	2.132
LWL2	1.0	0.7	2.132	1.0	-0.7	2.132

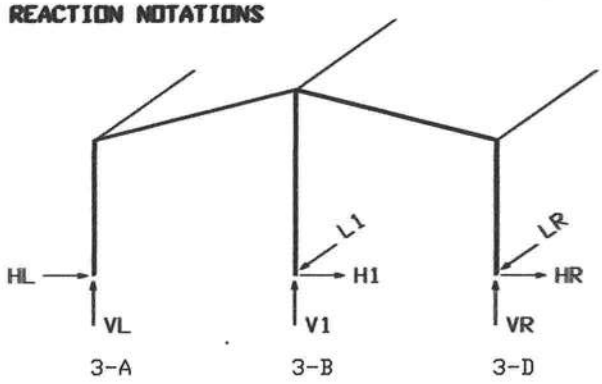
LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LWL1 : Wind from Left to Right with +GCpi
LWL2 : Wind from Right to Left with -GCpi

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft.

TIME: 10:41:38

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	3-A			3-B			3-D		
LOAD GROUP	HL	VL	LL	H1	V1	L1	HR	VR	LR
D	0.0	0.4	0.	0.	0.7	0.	0.0	0.4	0.
C	0.0	0.6	0.	0.	1.1	0.	0.0	0.6	0.
L	0.1	1.9	0.	0.	3.5	0.0	-0.1	1.9	0.
W+	-0.1	-4.0	0.	0.	-7.4	2.9	0.1	-4.0	1.1
W-	-0.1	-4.0	0.	0.	-7.4	-3.2	0.1	-4.0	-1.4
WR	-0.1	-3.0	0.	1.5	-8.4	0.0	0.1	-4.0	0.
WL	-1.6	-5.3	0.	0.	-6.1	0.0	0.1	-4.0	0.

LOAD GROUP DESCRIPTION

D	:	DEAD LOAD
C	:	COLLATERAL LOAD
L	:	LIVE LOAD
W+	:	WIND LOAD AS AN INWARD ACTING PRESSURE
W-	:	WIND LOAD AS AN OUTWARD ACTING SUCTION
WR	:	WIND FORCE FROM THE RIGHT
WL	:	WIND FORCE FROM THE LEFT