

DATE 10/20/2006

Columbia County Building Permit

PERMIT
000025140

This Permit Expires One Year From the Date of Issue

APPLICANT PATRCK MUHLEISEN PHONE 561 445-3071

ADDRESS 206 NE OWL RUN WAY LAKE CITY FL 32055

OWNER PAT MUHLEISEN PHONE 561.432.5942

ADDRESS 206 NE OWL RUN WAY LAKE CITY FL 32055

CONTRACTOR PAT MUHLEISEN PHONE 561 445-3071

LOCATION OF PROPERTY 441N, TR ON DREW RD, TR ON OLWL RUN WAY, LAST DRIVEWAY ON RIGHT

TYPE DEVELOPMENT DECK/SCREEN ROOM ESTIMATED COST OF CONSTRUCTION 20000.00

HEATED FLOOR AREA TOTAL AREA HEIGHT STORIES

FOUNDATION WALLS ROOF PITCH FLOOR

LAND USE & ZONING A-3 MAX. HEIGHT

Minimum Set Back Requirments: STREET-FRONT 30.00 REAR 25.00 SIDE 25.00

NO. EX.D.U. 1 FLOOD ZONE NA DEVELOPMENT PERMIT NO.

PARCEL ID 01-2S-17-04659-043 SUBDIVISION

LOT BLOCK PHASE UNIT TOTAL ACRES

Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor

EXISTING X06-0354 BK JH

Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: NOC ON FILE

Check # or Cash 2279

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power Foundation Monolithic

 date/app. by date/app. by date/app. by

Under slab rough-in plumbing Slab Sheathing/Nailing

 date/app. by date/app. by date/app. by

Framing Rough-in plumbing above slab and below wood floor

 date/app. by date/app. by date/app. by

Electrical rough-in Heat & Air Duct Peri. beam (Lintel)

 date/app. by date/app. by date/app. by

Permanent power C.O. Final Culvert

 date/app. by date/app. by date/app. by

M/H tie downs, blocking, electricity and plumbing Pool

 date/app. by date/app. by date/app. by

Reconnection Pump pole Utility Pole

 date/app. by date/app. by date/app. by

M/H Pole Travel Trailer Re-roof

 date/app. by date/app. by date/app. by

BUILDING PERMIT FEE \$ 100.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00

MISC. FEES \$ 0.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$

FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ CULVERT FEE \$ TOTAL FEE 150.00

INSPECTORS OFFICE CLERKS OFFICE

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

This Permit Must Be Prominently Posted on Premises During Construction

PLEASE NOTIFY THE COLUMBIA COUNTY BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF EACH INSPECTION, IN ORDER THAT IT MAY BE MADE WITHOUT DELAY OR INCONVENIENCE, PHONE 758-1008. THIS PERMIT IS NOT VALID UNLESS THE WORK AUTHORIZED BY IT IS COMMENCED WITHIN 6 MONTHS AFTER ISSUANCE.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

Columbia County Building Permit Application

1/effmessag 10/13/06 GT

For Office Use Only Application # 0610-31 Date Received 10/10/06 By GT Permit # 25140
Application Approved by - Zoning Official BLK Date 10-10-06 Plans Examiner OKSH Date 10-10-06
Flood Zone N/A Development Permit N/A Zoning A-2 Land Use Plan Map Category A-2
Comments Section 2.31 Legal Non-conforming Lot of Record

Applicants Name Patrick Muhleisen Phone (561) 445-3071
Address 206 N.E. Owl Run Way Lake City 32055
Owners Name Patrick Muhleisen Phone (561) 445-3071
911 Address 206 N.E. Owl Run Way Lake City 32055
Contractors Name N/A Phone N/A
Address N/A
Fee Simple Owner Name & Address Patrick Muhleisen
Bonding Co. Name & Address N/A
Architect/Engineer Name & Address N/A
Mortgage Lenders Name & Address N/A
Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy
Property ID Number R04659-043 01-25-17 Estimated Cost of Construction \$20,000.00
Subdivision Name N/A Lot Block Unit Phase
Driving Directions Route 441 North to Drew Road, go east approx. 3 miles to N.E. Owl Run Way, make right turn, last driveway on right, then quick left.
Type of Construction Deck + Screen Room Number of Existing Dwellings on Property 1
Total Acreage 3 Lot Size Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive
Actual Distance of Structure from Property Lines - Front 189' Side 69' Side 165' Rear 210'
Total Building Height Number of Stories Heated Floor Area Roof Pitch

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

Patrick Muhleisen
Owner Builder or Agent (Including Contractor)

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me
this 3 day of October 20 06.
Personally known ✓ or Produced Identification

Contractor Signature
Contractors License Number
Competency Card Number
NOTARY STAMP/SEAL

Jessica Schrift
Notary Signature
NOTARY PUBLIC-STATE OF FLORIDA
Commission # DD485003
Expires: OCT. 23, 2009
Bonded Thru Atlantic Bonding Co., Inc.

NOTICE OF COMMENCEMENT FORM
COLUMBIA COUNTY, FLORIDA

*****THIS DOCUMENT MUST BE RECORDED AT THE COUNTY
CLERKS OFFICE BEFORE YOUR FIRST INSPECTION.*****

THE UNDERSIGNED hereby gives notice that Improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Tax Parcel ID Number R04659-043

PERMIT NUMBER _____

1. Description of property: (legal description of the property and street address or 911 address)

206 NE Owl Run Way

Part of Sec 1 T25 R 17E

Inst:2006024187 Date:10/10/2006 Time:13:58

DC,P.Dewitt Cason,Columbia County B:1098 P:1750

2. General description of Improvement: Decking and Screen room

3. Owner Name & Address Patrick Muhleisen

4147 2nd St. Lantana FL 33462

Interest In Property Owner

4. Name & Address of Fee Simple Owner (if other than owner): N/A

5. Contractor Name Owner

Address Same

Phone Number (561) 445-3071

6. Surety Holders Name N/A

Address N/A

Phone Number N/A

Amount of Bond N/A

7. Lender Name None

Address _____

Phone Number _____

8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:

Name _____

Address _____

Phone Number _____

9. In addition to himself/herself the owner designates _____

_____ to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -

(a) 7. Phone Number of the designee _____

10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, (Unless a different date is specified) One (1) year

NOTICE AS PER CHAPTER 713, Florida Statutes:

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

Patrick Muhleisen
Signature of Owner

Sworn to (or affirmed) and subscribed before
day of October 2, 2006

NOTARY STAMP/SEAL NOTARY PUBLIC-STATE OF FLORIDA
Jessica Schrift

Commission # DD485003

Expires: OCT. 23, 2009

Bonded Thru Atlantic Bonding Co., Inc.

Jessica Schrift
Signature of Notary

10/23/09

Prepared by and return to:
Mickie Salter

Home Town Title of North Florida
2744 US Highway 90 West
Lake City, FL 32055
386-754-7175
File Number: 2005-853
Will Call No.:

Inst:2005006808 Date:03/23/2005 Time:11:28
Doc Stamp-Deed : 112.00
DC, P. DeWitt Cason, Columbia County B:1041 P:1145

_____[Space Above This Line For Recording Data]_____

Warranty Deed

This Warranty Deed made this 18th day of March, 2005 between Linda Ross, a single person whose post office address is 881 N.E.Cheshire Lane, Lake City, FL 32055, grantor, and Patrick Muhleisen and Donna Muhleisen, husband and wife whose post office address is 4147 2nd Court, Lake Worth, FL 33462, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witneseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Columbia County, Florida to-wit:

COMMENCE AT THE SW CORNER OF THE NW 1/4 OF THE NE 1/4 OF SECTION 1, TOWNSHIP 2 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA AND RUN S 0°12' WEST, A DISTANCE OF 39.27 FEET, TO THE POINT OF BEGINNING; THENCE N 88°46'10" EAST, A DISTANCE OF 267 FEET; THENCE S 0°12' WEST, A DISTANCE OF 60.21 FEET; THENCE N 88°46'10" EAST 25.0 FEET; THENCE N 0°12' EAST, A DISTANCE OF 271.56 FEET; THENCE N 82°39'10" WEST, A DISTANCE OF 293.41 FEET; THENCE S 0°12' WEST, A DISTANCE OF 230.03 FEET TO THE POINT OF BEGINNING; SUBJECT TO A 5' EASEMENT FOR DRAINAGE PURPOSES OVER THE EAST AND NORTH SIDE OF THE ABOVE DESCRIBED LAND.

COMMENCE AT THE SW CORNER OF THE NW 1/4 OF THE NE 1/4 OF SECTION 1, TOWNSHIP 2 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA AND RUN N 0°12' EAST, ALONG THE WEST LINE OF SAID NE 1/4, A DISTANCE OF 190.32 FEET TO THE POINT OF BEGINNING; THENCE S 82°39'10" EAST, A DISTANCE OF 233.79 FEET; THENCE N 1°09'40" EAST, A DISTANCE OF 242.0 FEET; THENCE N 82°39'10" WEST, A DISTANCE OF 237.88 FEET; THENCE S 0°12' WEST, A DISTANCE OF 242.48 FEET, TO THE POINT OF BEGINNING; SUBJECT TO AN EASEMENT FOR ROAD RIGHT-OF-WAY AND UTILITY PURPOSES OVER THE NORTH 25 FEET THEREOF, AND SUBJECT TO A 5' EASEMENT FOR DRAINAGE PURPOSES OVER THE EAST SIDE OF THE ABOVE DESCRIBED LAND.

Parcel Identification Number: R04659-043

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

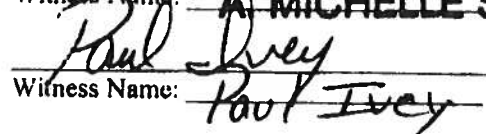
And the grantor hereby covenants with said grantee that the grantor is law fully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **December 31, 2004**.

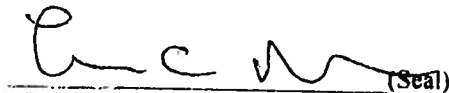
In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:



Witness Name: **A. MICHELLE SALTER**


Witness Name: **Paul Ivey**

 (Seal)
Linda Ross

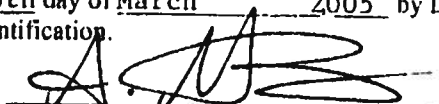
State of Florida
County of Columbia

The foregoing instrument was acknowledged before me this 18th day of March, 2005 by Linda Ross, who ☐ is personally known or ☒ has produced a driver's license as identification.

[Notary Seal]



A. MICHELLE SALTER
Notary Public, State of Florida
My comm. expires July 15, 2006
Comm No. DD 129450


Notary Public

Printed Name: **A. MICHELLE SALTER**

My Commission Expires: _____

NOTORIZED DISCLOSURE STATEMENT

FOR OWNER/BUILDER WHEN ACTING AS THEIR OWN CONTRACTOR AND CLAIMING EXEMPTION OF CONTRACTOR LICENSING REQUIREMENTS IN ACCORDANCE WITH FLORIDA STATUTES, ss. 489.103(7).

State law requires construction to be done by licensed contractors. You have applied for a permit under an exemption to that law. The exemption allows you, as the owner of your property, to act as your own contractor with certain restrictions even though you do not have a license. You must provide direct, onsite supervision of the construction yourself. You may build or improve a one-family or two-family residence or a farm outbuilding. You may also build or improve a commercial building, provided your costs do not exceed \$75,000. The building or residence must be for your own use or occupancy. It may not be built or substantially improved for sale or lease. If you sell or lease a building you have built or substantially improved yourself within 1 year after the construction is complete, the law will presume that you built or substantially improved it for sale or lease, which is a violation of this exemption. You may not hire an unlicensed person to act as your contractor or to supervise people working on your building. It is your responsibility to make sure that people employed by you have licenses required by state law and by county or municipal licensing ordinances. You may not delegate the responsibility for supervising work to a licensed contractor who is not licensed to perform the work being done. Any person working on your building who is not licensed must work under your direct supervision and must be employed by you, which means that you must deduct F.I.C.A. and withholding tax and provide workers' compensation for that employee, all as prescribed by law. Your construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.

TYPE OF CONSTRUCTION

- ☐ Single Family Dwelling
☐ Farm Outbuilding

☐ Two-Family Residence

☒ Other Decking

NEW CONSTRUCTION OR IMPROVEMENT

☐ New Construction

☒ Addition, Alteration, Modification or other Improvement

I Patrick Muhleisen, have been advised of the above disclosure statement for exemption from contractor licensing as an owner/builder. I agree to comply with all requirements provided for in Florida Statutes ss.489.103(7) allowing this exception for the construction permitted by Columbia County Building Permit Number _____

[Signature] 10/2/06
Owner Builder Signature Date

The above signer is personally known to me or
produced identification _____

NOTARY PUBLIC-STATE OF FLORIDA
 Jessica Schrift
Commission # DD485007
Expires: OCT. 23, 2008
Bonded Thru Atlantic Bonding Co., Inc.

Notary Signature [Signature] Date 10/3/06

(Stamp / Seal)

FOR BUILDING USE ONLY

I hereby certify that the above listed owner/builder has been notified of the disclosure statement in Florida Statutes ss 489.103(7).

Date _____ Building Official/Representative _____

PLANS FOR DECKS/SCREEN RM..

PAT MUHLEISEN
4147 2ND. COURT
LANATANA FL.33462

For Building Dept.

סמליות ומוטיווקציה

Block represents 5 feet and 1 inch = 50 feet.

**Title**

County Health Department

1000 HRS-H Form 4015 which may be used)
002-4015-0)

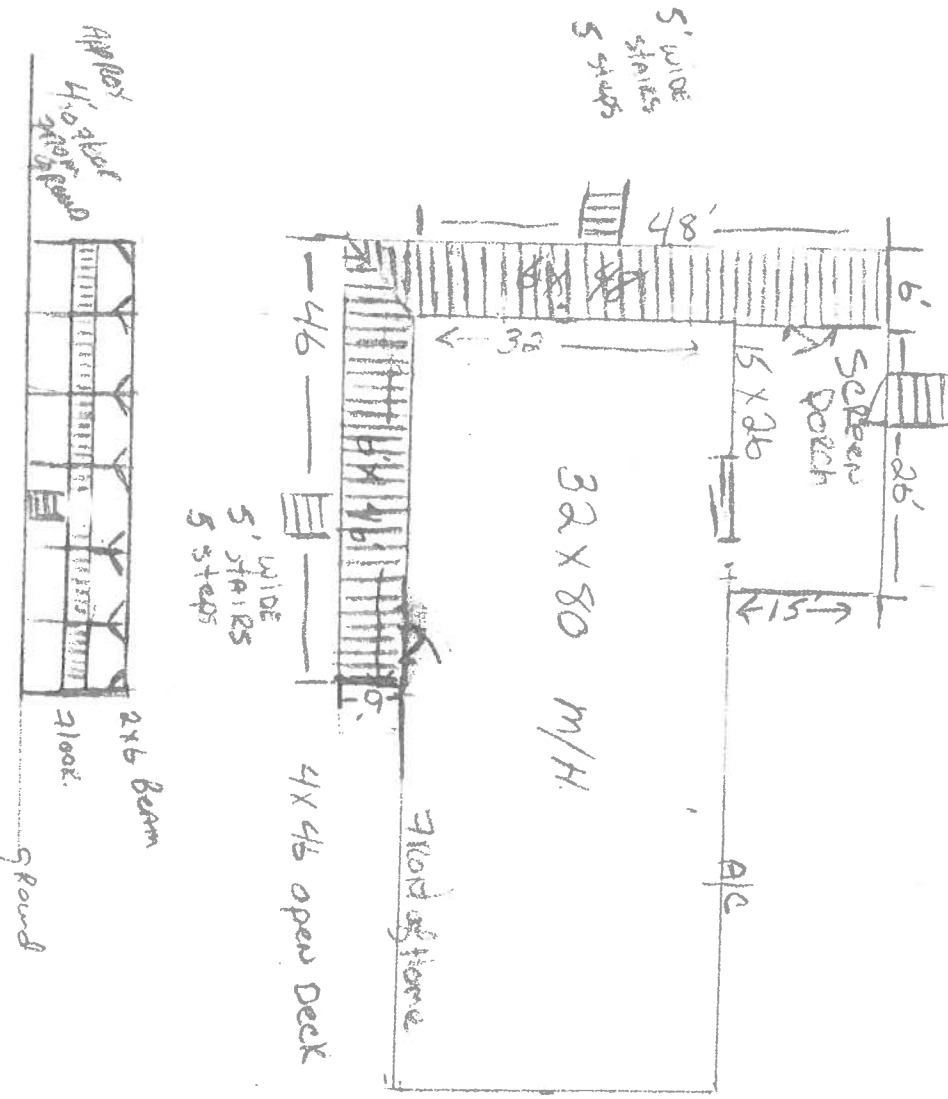
2-6'x48' Decks
 1-15'x26' Deck/Bronze Alum. Em.

4' wide stairs
 5 steps

Stairs Detail



7" Riser on stairs
 11" Tread on stairs
 36" Hand Rail on stairs



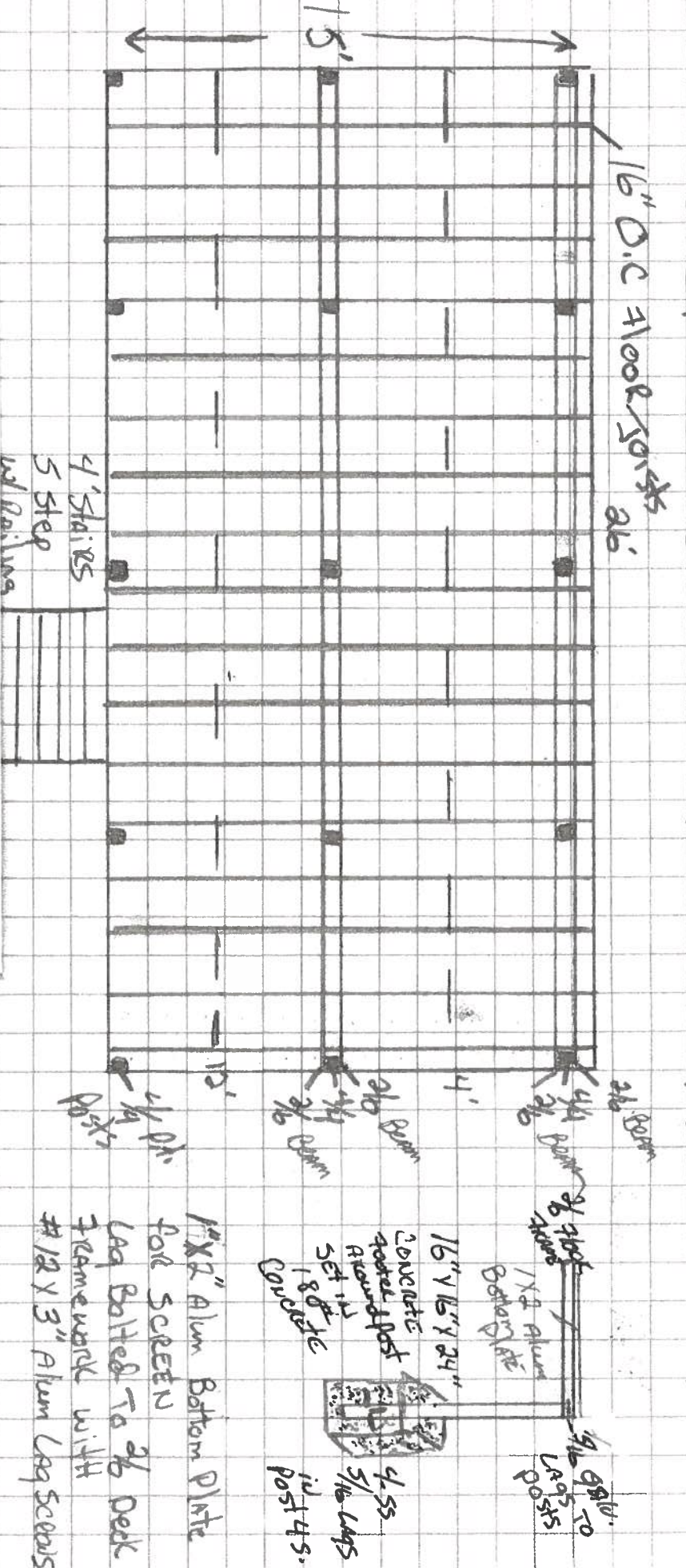
2 6' x46' DECKS

ALL 4X4'S SET IN 120# CONCRETE
 SPACED 8' OR LESS
 ALL frame work Tagged bolted to
 4x4 w/ 2- 5/16 galv. tags
 ALL floor joists set 16" o.c.
 5/4" deck bds. nailed w/ 3"
 galv. ringshank nails
 2 set stairs 5' wide
 w/ hand rails
 36" railings around decks
 w/ 2x2 balusters 3 1/2"
 apart

PAT MUHLEISEN
 4147 2ND. COURT
 LANTANA FL. 33462

Scale 1"=20'

DECK FOR SCREEN ROOM 15' X 26'



DECK FRAME IS ALL 2"X6" P.T. LUMBER
ALL 4X4 POSTS SET IN 180# CONCRETE
W/5/16 X4" LAG BOLTS SCREWED IN 2" INTO
4X4 POSTS 2X6

2X6 FRAME IS LAGGED BOLTED TO POSTS
W/ 2- 5/16" GALV. LAGS/ WASHER
ALL FLOOR JOIST SET 16" O.C. FASTEN
TO BEAM W/ SIMP. BUCKETS
2X4 BLOCKING IN BETWEEN FLOOR JOISTS AT
4'-8"-12'
3/4" P.T. PLYWOOD DECKING NAILED TO JOIST
W/ #8 GALV RINGSHANK NAILS 4" ON SEAMS
6" IN FIELD

PAT MUHLEISEN
4147 2ND. COURT
LANTANA FL. 33462

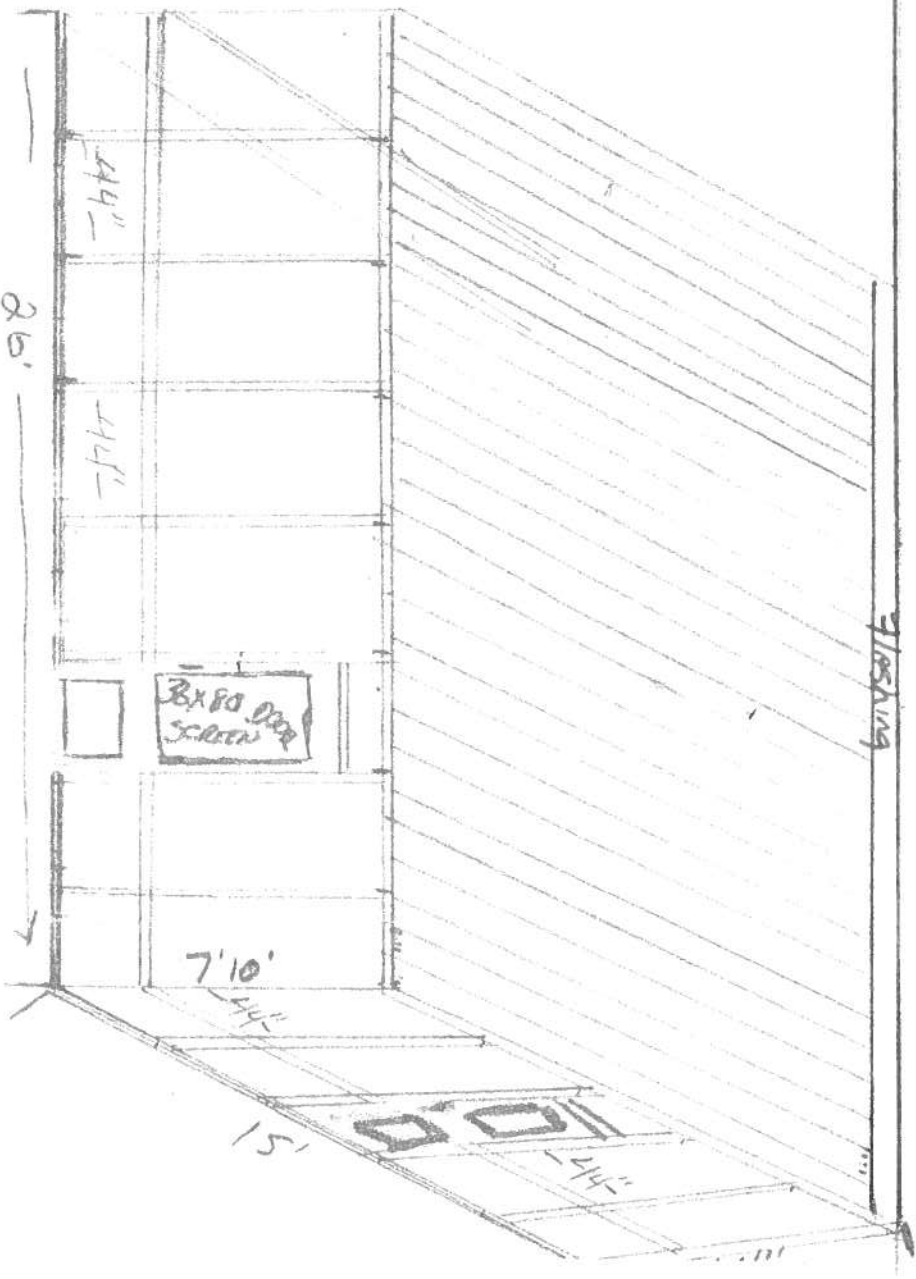
Typ. Post Frame to Ground

SCALE 1"=4'

[Signature]
9-19-00

15'x26' Alum SCREEN RM. ON WOOD DECK

32x80 m/H.



BRONZE ALUM. SCREEN RM.
ALL ALUM FRAMEWORK IS 2"X.
ALUM. TUBE SPACED 44" OR 1
2X2 PURLINS FOR 2" KNEEWALL
2" ALUM. KICKPLATE
1X2 ALUM. BOTTOM PLATE
FASTENED TO FLOOR EVERY
2' O.C. W/ #12X3" LAG SCRI
3" .030 ALUM. PANS W/ 1"
OVERHANGS ON 3 SIDES
1 PIECE GUTTER W/ 2 DW. SI
2-36" ALUM. SCREEN DRS.

PAT MUHLEISEN
4147 2ND. COURT
LANTANA FL. 33462

Scale 1"=5'

Design Check List for Screen / Vinyl Room (page 1 of 2)

1. Design Statement
- These plans have been designed in accordance with the Aluminum Structures Design Manual by Lawrence E. Bennett and comply with the Florida Building Code, 2004 Edition, Chapter 20 and ASCE 7-98, Table 6-2. Importance Factor 0.77; Exposure 'B' ☐ or 'C' ☐; 120 MPH or ☐ MPH for 3 second wind gust velocity load; Open Design pressures can be found on page 3-ii:
- a. 'B' exposure = ☐ PSF for Roofs & ☐ PSF for Walls
- b. 'C' exposure = ☐ PSF for Roofs & ☐ PSF for Walls
- Negative I.P.C. 0.00
- For 'C' exposure design loads, multiply 'B' exposure loads by 1.4.
2. Host Structure Adequacy Statement:
- I certify that I have inspected the host structure and it is in good repair and attachments made to the structure will be solid.

Contractor / Authorized Rep** Name (please print) _____ Phone: _____

Contractor Contractor / Authorized Rep** Signature _____ Date: _____

Note: Projection of room from host structure shall not exceed 16'.

3. Building Permit Application Package contains the following:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Project name & address on plans | ☐ | Yes | ☐ | No |
| B. Site plan or survey with enclosure location | ☐ | ☐ | ☐ | ☐ |
| C. Contractor's / Designer's name, address, phone number, & signature on plans | ☐ | ☐ | ☐ | ☐ |
| D. Notice of consumer rights attached and initiated by consumer | ☐ | ☐ | ☐ | ☐ |
| E. Proposed project layout drawing @ 1/8" or 1/10" scale with the following: | ☐ | ☐ | ☐ | ☐ |

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Plan view with host structure area of attachment, enclosure length, and projection from host structure | ☐ | ☐ | ☐ | ☐ |
| 2. Front and side elevation views with all dimensions & heights | ☐ | ☐ | ☐ | ☐ |
| 3. Beam span, spacing, & size (i.e. 2" x 8" x 0.072" x 0.224") | ☐ | ☐ | ☐ | ☐ |
| 4. Upright height, spacing, & size (i.e. 2" x 8" x 0.072" x 0.224") | ☐ | ☐ | ☐ | ☐ |
| 5. Chair rail or girts size, length, & spacing (i.e. 2" x 2" x 0.044" x 5'-0" @ 6'-0" O.C.) | ☐ | ☐ | ☐ | ☐ |
| 6. Knee braces length, location, & size (i.e. 2" x 3" x 0.045" for 2" x 8" x 0.072" x 0.224" s.m.b.) | ☐ | ☐ | ☐ | ☐ |

4. Highlight details from Aluminum Structures Design Manual:

- | | | | | |
|--|--------------------------|-----|--------------------------|----|
| A. Beam & purlin tables w/ sizes, thickness, spacing, & spans / lengths. Indicate Section 3 tables used: _____ | ☐ | Yes | ☐ | No |
|--|--------------------------|-----|--------------------------|----|

Beam allowable span conversions from 120 MPH wind zone, 'B' Exposure to _____ MPH wind zone and/or 'C' Exposure for load width _____

Look up span on 120 MPH table and apply the following formula:

Span / Height @ 120 MPH ☐ Required Span @ _____ MPH

$0.00 \text{ (b or d) x } 1.00 \text{ (b or d) x } 1.00 \text{ (b or d) = } \text{_____}$

Wind Zone Multiplier * ☐ Exposure Multiplier *

B. Upright tables w/ sizes, thickness, spacing, & heights (Tables 3A.2.1, 3A.2.2, or 3A.2.3) ☐ ☐

Upright or wall member allowable height / span conversions from 120 MPH wind zone, 'B' Exposure to _____ MPH wind zone and/or 'C' Exposure for load width _____

Look up span on 120 MPH table and apply the following formula:

Span / Height @ 120 MPH ☐ Required Span @ _____ MPH

$0.00 \text{ (b or d) x } 1.00 \text{ (b or d) x } 1.00 \text{ (b or d) = } \text{_____}$

Wind Zone Multiplier * ☐ Exposure Multiplier *

* Appropriate multiplier from page 3-ii.

** Must have attended Engineer's Continuing Education Class with in past two years.

b-6

Design Check List for Screen / Vinyl Room (page 2 of 2)

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| C. Table 3A.3 with beam & upright combination if applicable | ☐ | Yes | ☐ | No |
| D. Connection details to be used such as: | ☐ | ☐ | ☐ | ☐ |
| 1. Beam to upright | ☐ | ☐ | ☐ | ☐ |
| 2. Beam to wall | ☐ | ☐ | ☐ | ☐ |
| 3. Beam to beam | ☐ | ☐ | ☐ | ☐ |
| 4. Chair rail, purlins, & knee braces to beams & uprights | ☐ | ☐ | ☐ | ☐ |
| 5. Extruded gutter connection | ☐ | ☐ | ☐ | ☐ |
| 6. U-clip, angles and/or sole plate to deck | ☐ | ☐ | ☐ | ☐ |
| E. Foundation detail type & size | ☐ | ☐ | ☐ | ☐ |

Notes:

Lawrence E. Bennett, P.E.

Civil & STRUCTURAL ENGINEERING

P.O. Box 214368

South Daytona, FL 32121-4368

Phone (386) 767-4774 Fax (386) 767-6556

E-Mail: lebpe@bellsouth.net

Website: http://www.lebpe.com

SITE SPECIFIC JOB CHECK LIST

Date: _____

1. Job name and address:

205 N.E. Owl Run Way Lake City FL 32055

2. Your company name and address. You must include a physical address so we can send it back via UPS.

3. Briefly describe any information relevant to the job. _____

4. The drawings must have the following minimum standards:

a. Job name and address, your address **ON ALL PAGES OF PLAN**

b. Plan view with dimensions **TO SCALE**.

c. Section view or front and side elevations to 1/4" = 1' **SCALE**. (1/8" or 1/10" for pool enclosures.)

d. Provide attachment details on drawing.

e. Wall sections at typical wall and any beam bearing points.

f. Street map with job location.

g. Wind zone _____ m.p.h. and exposure category B _____ or C _____ (From Building Department.)

h. Complete Design Checklist. Copies are in the back of the manual.

1. The following structures are designed to be married to block and wood frame structures of adequate structural capacity. The contractor / home owner shall verify that the host structure is in good condition and of sufficient strength to hold the proposed addition.

- Section 3A Design Statement:**
- The structures designed for Section 3A are solid roofs with screen or vinyl walls and are considered part of an open structural system which is designed to be married to an existing structure.

The structures designed for Section 3A are solid roofs with screen or vinyl walls and are considered part of an open structural system which is designed to be married to an existing structure.

The design wind loads used for screen & vinyl rooms are from Chapter 20 of the 2004 Florida Building Code. The loads assume a mean roof height of less than 30', roof slope of 0° to 20°, $C_e = 0.77$. All loads are based on 20 / 20 screen or larger. All pressures shown in the below table are in PSF (#/SF). Negative internal pressure coefficient is 0.00 for open structures.

Anchors for composite panel roof systems were computed on a load width of 10' and 16' projection with a 2' overhang. Any greater load width shall be site specific.

Section 3A Design Loads

	Roof	Wall	Over Hang
			All Roofs
100 MPH	+10/-10	9	+20/-30
110 MPH	+10/-11	11	+20/-36
120 MPH	+10/-13	13	+20/-43
130 MPH	+10/-14	14	+20/-45
140A MPH	+10/-15	15	+20/-46
140B MPH	+30/-17	18	+30/-58
140B MPH	+30/-18	18	+30/-58
150 MPH	+30/-20	20	+30/-67

Note 1: Framing systems of screen, vinyl, and glass rooms are considered to be main frame resistance components. Wind loads are listed as minus loads for roofs and plus loads for walls. To convert above wind loads to "C" Exposure loads multiply by 1.4.

Wind Zone Conversions for Over Hangs

Wind Zone	Applied Load (ksi)	Deflection (in)	Bending (in)
100	30	1.13	1.20
110	36	1.06	1.09
120	43	1.00	1.00
123	45	0.98	0.98
130	50	0.95	0.93
140A	58	0.91	0.86
140B	58	0.91	0.86
150	67	0.86	0.80

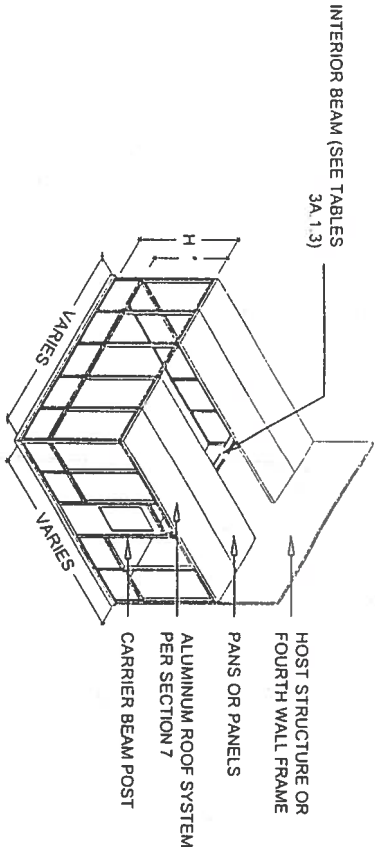
Conversion Table 3A-A Wind Zone Conversions for Screen & Vinyl Rooms

Wind Zone	Roofs			Walls		
	Applied Load #/SF	Deflection (d)	Bending (b)	Applied Load #/SF	Deflection (d)	Bending (b)
100	1	1.09	1.14	1	1.12	1.18
110	1	1.06	1.09	1.1	1.08	1.13
120	13	1.00	1.00	14	1.00	1.00
123	14	0.98	0.96	15	0.98	0.97
130	15	0.93	0.93	16	0.96	0.94
140A	17	0.91	0.87	18	0.92	0.88
140B	18	0.90	0.85	18	0.92	0.88
150	30	0.76	0.66	21	0.87	0.82

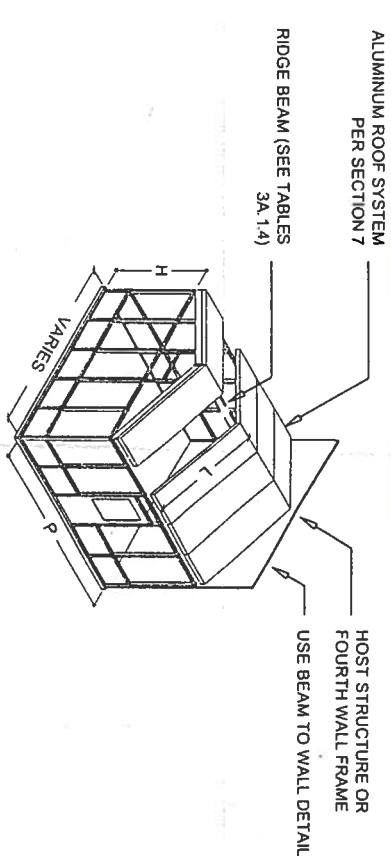
1408	18	0.90	0.85	
150	30	0.76	0.66	

Conversion Based on Mean Height of Host

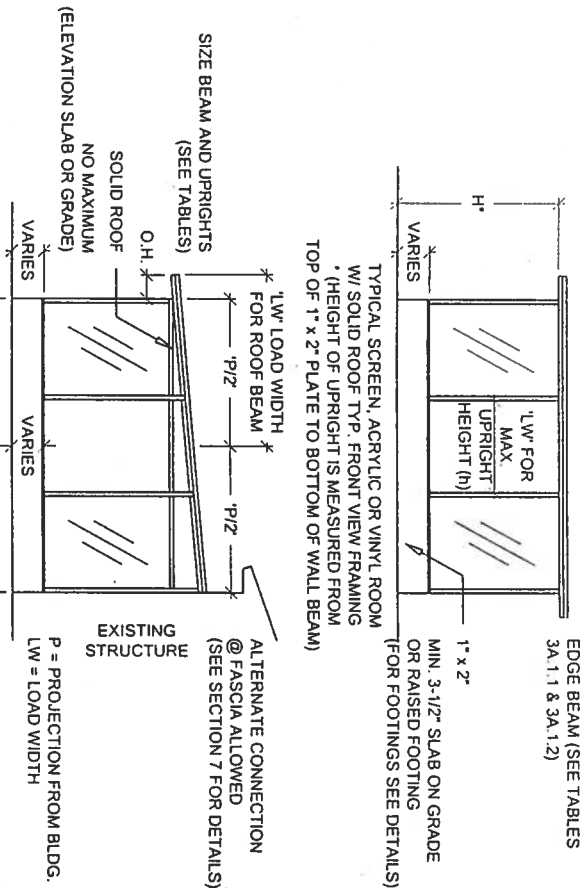
Mean Host Structure Height	Deflection (a)	Bending (b)
0 to 15'-0"	0.94	0.91
15'-0" to 20'-0"	0.92	0.88
20'-0" to 25'-0"	0.91	0.86
25'-0" to 30'-0"	0.89	0.85



TYPICAL SLOPED SOLID ROOF ENCLOSURE



TYPICAL GABLE SOLID ROOF ENCLOSURE



TYPICAL SCREEN ROOM

100-123	130	140	150
#8	#10	#12	#12

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

ANCHOR 1" x 2" OPEN BACK EXTRUSION W/ 1/4" x 2-1/4" CONCRETE FASTENER MAX. OF 2'-0" O.C. AND W/ IN 6" EACH SIDE OF UPRIGHT ANCHOR 1" x 2" TO WOOD WALL W/ #10 x 2-1/2" S.M.S. W/ WASHERS OR #10 x 2-1/2" WASHER HEADED SCREW 2'-0" O.C. ANCHOR ANGLE AND COLUMN INTERNALLY OR W/ ANCHOR CLIPS AND (2) #8 SCREWS W/ WASHERS @ EACH POINT OF CONNECTION.

SELECT FRONT WALL BEAM FROM TABLE USING LARGER LOAD WIDTH VALUE OF P/2 OR P/2 + 0.4 H.

SELECT SCREEN ROOM FORTH WALL BEAM FROM TABLES 3A.1.3

ANCHORS BASED ON 120 MPH WIND VELOCITY. FOR HIGHER WIND ZONES USE THE FOLLOWING CONVERSION:

THE DESIGNS AND SPANS SHOWN ON THESE DRAWINGS ARE
BASED ON THE LOAD REQUIREMENTS FOR THE FLORIDA
BUILDING CODE 2004 EDITION.

07-08-2004

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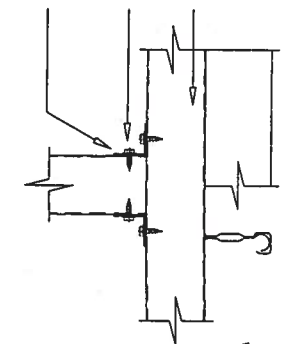
SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
2004 FLORIDA BUILDING CODE
MAY 2004 EDITION
SECTION 3A DETAILS

 **METALS USA™**
Building Products L.P.
7815 American Way, Groveland, FL 34736
TEL: (352) 787-7766 x202 FAX: (352) 429-2011
TOLL FREE: 1-800-342-9077
bkaufmann@metalsusa.com

PAN ROOF, COMPOSITE
PANEL OR HOST STRUCTURAL
FRAMING

(4) #8 x 1/2" S.M.S. EACH SIDE
OF POST

1" x 2" TOP RAIL FOR SIDE
WALLS ONLY OR MIN. FRONT
WALL 2" x 2" ATTACHED TO
POST W/ 1" x 1/2" ANGLE
CLIPS EACH SIDE OF POST

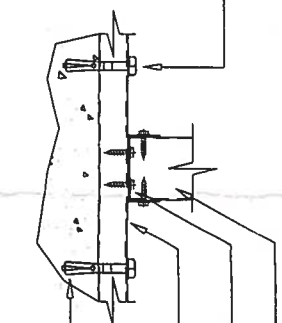


1" x 2" TOP RAILS FOR SIDE WALLS
WITH MAX. 3.5' LOAD WIDTH SHALL
HAVE A MAXIMUM UPRIGHT
SPACING AS FOLLOWS

WIND ZONE	MAX. UPRIGHT SPACING
100	7'-0"
110	6'-7"
120	6'-3"
123	6'-1"
130	5'-8"
140	5'-1"
150	4'-11"

ANCHOR RECEIVING CHANNEL
TO CONCRETE W/ FASTENER
(PER TABLE) WITHIN 6" OF
EACH SIDE OF EACH POST @
24" O.C. MAX.

MIN. 3-1/2" SLAB 2500 PSI
CONC. 6 x 6 - 10 x 10 W.W.M.
OR FIBER MESH



2" x 2" OR 2" x 3" POST

#8 x 9/16" TEK SCREWS BOTH
SIDES

1" x 2-1/8" x 1" U-CHANNEL OR
RECEIVING CHANNEL

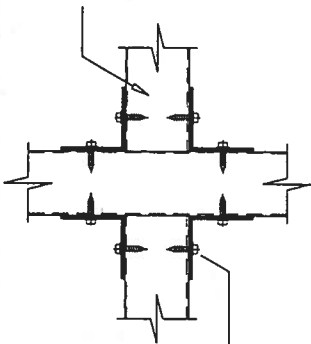
CONCRETE ANCHOR
(PER TABLE)

1-1/8" MIN. IN CONCRETE

ALTERNATE POST TO BASE CONNECTION - DETAIL 1

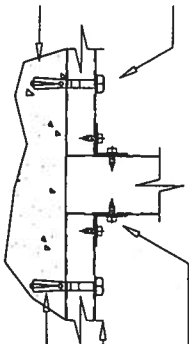
SCALE: 2" = 1'-0"

GIRT OR CHAIR RAIL AND KICK
PLATE 2" x 2" x 0.032" MIN.
HOLLOW RAIL



INTERNAL OR EXTERNAL
1" CLIP OR U-CHANNEL CHAIR
RAIL ATTACHED TO POST W/
MIN. (4) #10 S.M.S.

ANCHOR 1" x 2" PLATE TO
CONCRETE WITH 1/4" x 2-1/2"
CONCRETE ANCHORS WITHIN
6" OF EACH SIDE OF EACH
POST AT 24" O.C. MAX. OR
THROUGH ANGLE AT 24" O.C.
MAX.



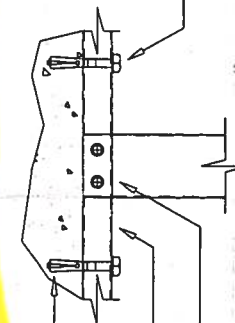
1" x 2 OR 2" x 2 ATTACHED TO
BOTTOM W/ 1" x 1" x 2" x 1/16"
0.045" ANGLE CLIPS EACH
SIDE AND MIN. (4) #10 x 1/2"
S.M.S.

1" x 2" x 0.032" MIN. OPEN BACK
EXTRUSION

1-1/8" MIN. IN CONCRETE

VAPOR BARRIER UNDER
CONCRETE

ANCHOR RECEIVING CHANNEL
TO CONCRETE W/ FASTENER
(PER TABLE) WITHIN 6" OF
EACH SIDE OF EACH POST @
24" O.C. MAX.



#8 x 9/16" TEK SCREWS BOTH
SIDES

1" x 2-1/8" x 1" U-CHANNEL OR
RECEIVING CHANNEL

CONCRETE ANCHOR
(PER TABLE)

1-1/8" MIN. EMBEDMENT INTO
CONCRETE

ALTERNATE POST TO BASE CONNECTION - DETAIL 2

SCALE: 2" = 1'-0"

ALTERNATE CONNECTION
DETAIL 1" x 2" WITH
(3) #10 x 1-1/2" S.M.S. INTO
SCREW BOSS

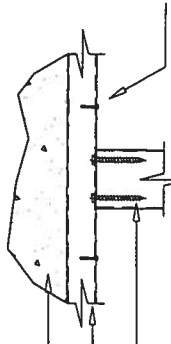


BEAM / HEADER

ANGLE CLIPS MAY BE
SUBSTITUTED FOR INTERNAL
SCREW SYSTEMS

(2) #10 x 1 1/2" S. M. S. INTO
SCREW BOSS

ANCHOR 1" x 2" PLATE TO
CONCRETE W/ 1/4" x 2-1/2"
CONCRETE ANCHORS WITHIN
6" OF EACH SIDE OF EACH
POST AND 24" O.C. MAX.



MIN. (3) #10 x 1 1/2" S.M.S.
INTO SCREW BOSS

1" x 2" EXTRUSION

1-1/8" MIN. IN CONCRETE

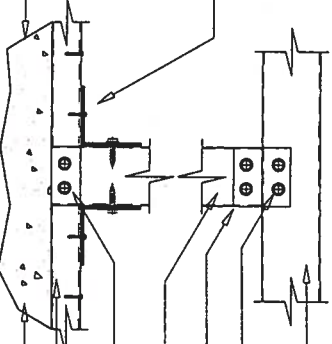
MIN. 3-1/2" SLAB 2500 PSI
CONC. 6 x 6 - 10 x 10 W.W.M.
OR FIBER MESH

VAPOR BARRIER UNDER
CONCRETE

ALTERNATE HOLLOW UPRIGHT TO BASE AND HOLLOW UPRIGHT TO BEAM DETAIL

SCALE: 2" = 1'-0"

ANCHOR 1" x 2" CHANNEL TO
CONCRETE WITH
1/4" x 2-1/4" CONCRETE
ANCHORS WITHIN 6" OF EACH
SIDE OF EACH POST AT 24"
O.C. MAX. OR THROUGH
ANGLE AT 24" O.C. MAX.



HEADER BEAM

(4) #10 x 1/2" S.M.S. EACH SIDE
OF POST

H-BAR OR GUSSET PLATE

2" x 2" OR 2" x 3" OR 2" S.M.B.
POST

MIN. (4) #10 x 1/2" S.M.S. @
EACH POST

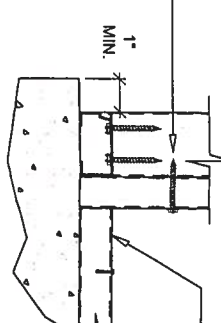
MIN. 3-1/2" SLAB 2500 PSI
CONC. 6x6-10x10 W.W.M. OR
FIBER MESH

VAPOR BARRIER UNDER
CONCRETE

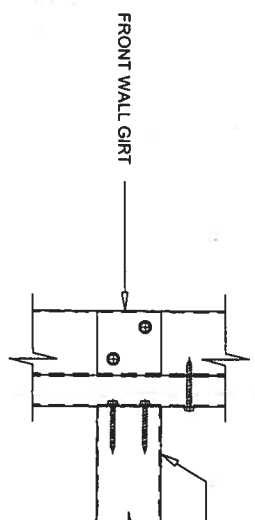
ALTERNATE PATIO SECTION TO UPRIGHT AND PATIO SECTION TO BEAM DETAIL

SCALE: 2" = 1'-0"

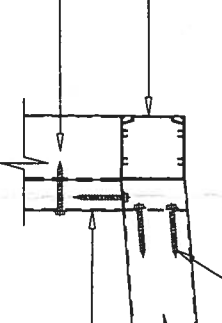
1" x 2" OPEN BACK ATTACHED
TO FRONT POST W/
#10 x 1-1/2" S.M.S. MAX. 6"
FROM EACH END OF POST
AND 24" O.C.



FRONT AND SIDE BOTTOM
RAILS ATTACHED TO
CONCRETE W/ 1/4" x 2-1/4"
CONCRETE / MASONRY
ANCHORS @ 6" FROM EACH
POST AND 24" O.C. MAX. AND
WALLS MIN. 1" FROM EDGE OF
CONCRETE



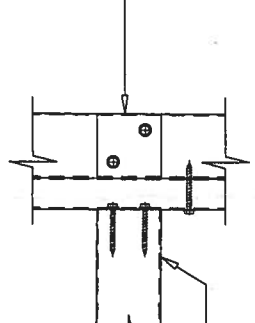
1" x 2" OPEN BACK ATTACHED
TO FRONT POST W/
#10 x 1-1/2" S.M.S. MAX. 6"
FROM EACH END OF POST
AND 24" O.C.



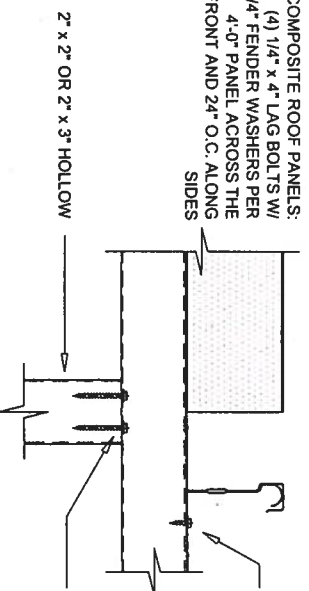
ALTERNATE CONNECTION:
(2) #10 x 1-1/2" S.M.S.
THROUGH SPLINE GROOVES

SIDE WALL HEADER
ATTACHED TO 1" x 2" OPEN
BACK W/ MIN. (2) #10 x 1-1/2"
S.M.S.

SIDE WALL GIRT ATTACHED TO
1" x 2" OPEN BACK W/ MIN. (3)
#10 x 1-1/2" S.M.S. IN SCREW
BOSSSES



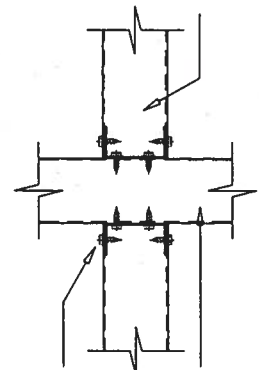
COMPOSITE ROOF PANELS:
(4) 1/4" x 4" LAG BOLTS W/
1-1/4" FENDER WASHERS PER
4'-0" PANEL ACROSS THE
FRONT AND 24" O.C. ALONG
SIDES



RISER PANELS ATTACHED PER
CHAPTER 7

HEADER ATTACHED TO POST
W/ MIN. (3) #10 x 1-1/2" S.M.S.
IN SCREW BOSSSES

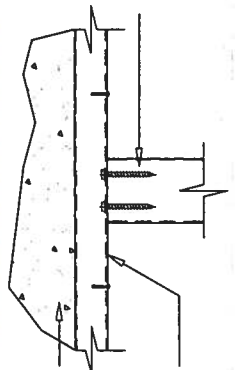
GIRT AND KICK PLATE 2" x 2"
HOLLOW RAIL



2" x 2", 2" x 3" OR 3" x 2"
HOLLOW (SEE SPAN TABLES)

FOR SNAP EXTRUSIONS GIRT
ATTACHED TO POST WITH
MIN. (3) #10 x 1/2" S.M.S. IN
SCREW BOSSSES

POST ATTACHED TO BOTTOM
W/ MIN. (3) #10 x 1-1/2"
S.M.S. IN SCREW BOSSSES

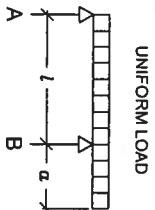


1" x 2" OPEN BACK BOTTOM
RAIL

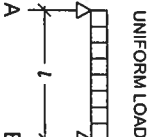
1/4" x 2-1/4" MASONRY
ANCHOR @ 6" FROM EACH
POST AND 24" O.C. (MAX.)

TYPICAL UPRIGHT DETAIL

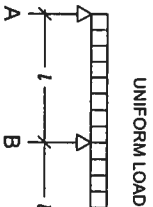
SCALE: 2" = 1'-0"



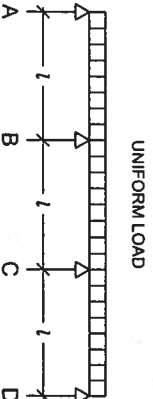
SINGLE SPAN CANTILEVER



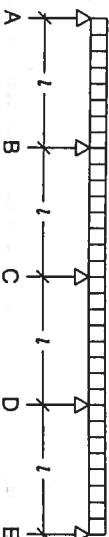
1 OR SINGLE SPAN



2 SPAN



3 SPAN

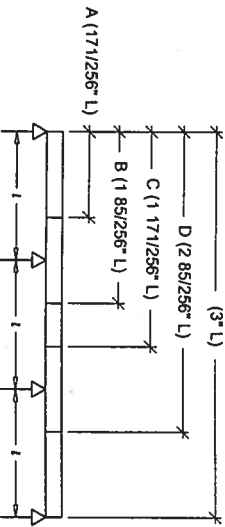


4 SPAN

- NOTES:**
- 1) L = Span Length
 - 2) All spans listed in the tables are for equally spaced distances between supports or anchor points.
 - 3) Hollow extrusions shall not be spliced.
 - 4) Single span beams shall only be spliced at the quarter points and splices shall be staggered.

SPAN EXAMPLES FOR SECTION 3 TABLES

SCALE: N.T.S.



ALLOWABLE BEAM SPICE LOCATIONS

SCALE: N.T.S.

SINGLE SPAN BEAM SPICE
@ 1/4 POINT OF BEAM SPAN
ALL SPLICES SHALL BE
STAGGERED ON EACH
SIDE OF SELF-MATING BEAM
PLATE TO BE SAME
THICKNESS AS BEAM WEB
PLATE CAN BE INSIDE OR
OUTSIDE BEAM OR LAP CUT
DENOTES SCREW PATTERN
NOT NUMBER OF SCREWS

d = HEIGHT OF BEAM
BEAM SPICE SHALL BE
MINIMUM $d - .50'$

HEIGHT $2 \times (d - .50')$ LENGTH

Screw Size	ds	Minimum Distance and Spacing of Screws	Gusset Plate Thickness
#8	0.16	Edge To Center 2ds (in.)	Center To Center 2-1/2ds (in.)
#10	0.19	3/8	3/2
#12	0.21	7/16	9/16
#14 or 1/4"	0.25	1/2	1
#16"	0.313	5/8	3/4

* Refers to each side of splice.

Note: ** Use for $2' \times 4'$ and $2' \times 6'$ also

1. All gusset plates shall be a minimum 5052 H-32 Alloy or have a minimum yield of 23 ksi.

TYPICAL BEAM SPICE DETAIL

SCALE: 1" = 1'-0"

Table 3A.1.1-110 Allowable Edge Beam Spans - Hollow Extrusions
for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 110 MPH velocity; using design load of 11 #SF (16 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

Load Width (ft.)	2' x 2' x 0.044"				2' x 2' x 0.055"			
	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever
1 & 2 Span	5'-4" d	6'-7" d	6'-9" d	1'-1" d	5'-8" d	6'-11" d	7'-1" d	1'-2" d
3 Span	5'-0" d	6'-2" d	6'-4" d	1'-0" d	5'-4" d	6'-7" d	6'-8" d	1'-0" d
4 Span	4'-9" d	5'-11" d	6'-1" d	0'-11" d	5'-1" d	6'-3" d	6'-4" d	1'-0" d
5 Span	4'-7" d	5'-8" d	5'-7" d	0'-11" d	4'-10" d	5'-11" d	6'-1" d	0'-11" d
6 Span	4'-5" d	5'-5" d	5'-3" d	0'-10" d	4'-8" d	5'-9" d	5'-9" d	0'-11" d
7 Span	4'-3" d	5'-2" d	4'-11" d	0'-10" d	4'-6" d	5'-6" d	5'-5" d	0'-11" d
8 Span	4'-1" d	4'-11" d	4'-9" d	0'-10" d	4'-4" d	5'-4" d	5'-2" d	0'-10" d
9 Span	4'-0" d	4'-8" d	4'-7" d	0'-10" d	4'-3" d	5'-2" d	5'-1" d	0'-10" d
10 Span	3'-11" d	4'-6" d	4'-5" d	0'-10" d	4'-1" d	5'-0" d	4'-11" d	0'-10" d
11 Span	3'-11" d	4'-6" d	4'-5" d	0'-10" d	4'-1" d	5'-0" d	4'-11" d	0'-10" d
12 Span	3'-7" d	4'-4" d	4'-3" d	0'-10" d	3'-11" d	4'-9" d	4'-11" d	0'-10" d

- Notes:**
1. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 2. Spans may be interpolated.

Table 3A.1.1-120 Allowable Edge Beam Spans - Hollow Extrusions
For Screen or Vinyl Rooms

For 3 second wind gust at 120 MPH velocity; using design load of 13 #SF (43 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

Load Width (ft.)	2' x 2' x 0.044"				2' x 2' x 0.055"			
	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever
1 & 2 Span	5'-1" d	6'-3" d	6'-4" d	1'-0" d	5'-4" d	6'-7" d	6'-8" d	1'-1" d
3 Span	4'-9" d	5'-10" d	5'-11" d	0'-11" d	5'-0" d	6'-3" d	6'-4" d	1'-0" d
4 Span	4'-6" d	5'-7" d	5'-6" d	0'-11" d	4'-9" d	5'-11" d	5'-1" d	0'-11" d
5 Span	4'-4" d	5'-4" d	5'-1" d	0'-10" d	4'-7" d	5'-8" d	5'-7" d	0'-11" d
6 Span	4'-2" d	5'-1" d	4'-10" d	0'-10" d	4'-5" d	5'-5" d	5'-3" d	0'-10" d
7 Span	4'-0" d	4'-9" d	4'-7" d	0'-10" d	4'-3" d	5'-2" d	5'-0" d	0'-10" d
8 Span	3'-11" d	4'-6" d	4'-4" d	0'-9" d	4'-1" d	4'-11" d	4'-9" d	0'-10" d
9 Span	3'-9" d	4'-4" d	4'-2" d	0'-9" d	3'-11" d	4'-9" d	4'-7" d	0'-10" d
10 Span	3'-7" d	4'-2" d	4'-0" d	0'-9" d	3'-11" d	4'-9" d	4'-7" d	0'-10" d
11 Span	3'-7" d	4'-2" d	4'-0" d	0'-9" d	3'-11" d	4'-9" d	4'-7" d	0'-10" d
12 Span	3'-3" d	4'-0" d	3'-8" d	0'-9" d	3'-11" d	4'-9" d	4'-7" d	0'-10" d

- Notes:**
1. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 2. Spans may be interpolated.

Table 3A.1.1-130 Allowable Edge Beam Spans - Hollow Extrusions
for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 130 MPH velocity; using design load of 15 #SF (50 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

Load Width (ft.)	2' x 2' x 0.044"				2' x 2' x 0.055"			
	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever
1 & 2 Span	4'-10" d	5'-11" d	6'-0" d	0'-11" d	5'-1" d	6'-4" d	6'-5" d	1'-0" d
3 Span	4'-6" d	5'-7" d	5'-6" d	0'-11" d	4'-10" d	5'-11" d	6'-0" d	0'-11" d
4 Span	4'-4" d	5'-3" d	5'-1" d	0'-10" d	4'-7" d	5'-8" d	5'-7" d	0'-11" d
5 Span	4'-1" d	4'-11" d	4'-9" d	0'-10" d	4'-4" d	5'-5" d	5'-3" d	0'-10" d
6 Span	3'-11" d	4'-8" d	4'-6" d	0'-9" d	4'-2" d	5'-1" d	4'-11" d	0'-10" d
7 Span	3'-10" d	4'-5" d	4'-3" d	0'-9" d	4'-1" d	4'-10" d	4'-8" d	0'-10" d
8 Span	3'-8" d	4'-3" d	4'-1" d	0'-9" d	3'-11" d	4'-7" d	4'-5" d	0'-9" d
9 Span	3'-7" d	4'-0" d	3'-11" d	0'-9" d	3'-10" d	4'-5" d	4'-3" d	0'-9" d
10 Span	3'-7" d	4'-0" d	3'-11" d	0'-9" d	3'-10" d	4'-5" d	4'-3" d	0'-9" d
11 Span	3'-7" d	4'-0" d	3'-11" d	0'-9" d	3'-10" d	4'-5" d	4'-3" d	0'-9" d
12 Span	3'-3" d	4'-0" d	3'-11" d	0'-9" d	3'-10" d	4'-5" d	4'-3" d	0'-9" d

- Notes:**
1. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 2. Spans may be interpolated.

Table 3A.1.1-140A Allowable Edge Beam Spans - Hollow Extrusions
for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 140A MPH velocity; using design load of 17 #SF (58 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

Load Width (ft.)	2' x 2' x 0.044"				2' x 2' x 0.055"			
	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever	Max. Span U./l. (bending 'b' or deflection 'd')	Max. Cantilever
1 & 2 Span	4'-7" d	5'-8" d	5'-8" d	0'-11" d	4'-11" d	6'-0" d	6'-2" d	0'-11" d
3 Span	4'-4" d	5'-4" d	5'-2" d	0'-10" d	4'-7" d	5'-8" d	5'-8" d	0'-11" d
4 Span	4'-1" d	4'-11" d	4'-9" d	0'-10" d	4'-4" d	5'-5" d	5'-3" d	0'-10" d
5 Span	3'-11" d	4'-8" d	4'-6" d	0'-9" d	4'-2" d	5'-1" d	4'-11" d	0'-10" d
6 Span	3'-10" d	4'-4" d	4'-3" d	0'-9" d	4'-0" d	4'-9" d	4'-7" d	0'-9" d
7 Span	3'-8" d	4'-2" d	4'-0" d	0'-9" d	3'-11" d	4'-6" d	4'-5" d	0'-9" d
8 Span	3'-6" d	3'-11" d	3'-10" d	0'-8" d	3'-8" d	4'-2" d	4'-2" d	0'-9" d
9 Span	3'-5" d	3'-9" d	3'-8" d	0'-8" d	3'-8" d	4'-2" d	4'-2" d	0'-9" d
10 Span	3'-5" d	3'-9" d	3'-8" d	0'-8" d	3'-8" d	4'-2" d	4'-2" d	0'-9" d
11 Span	3'-5" d	3'-9" d	3'-8" d	0'-8" d	3'-8" d	4'-2" d	4'-2" d	0'-9" d
12 Span	3'-1" d	3'-7" d	3'-6" d	0'-8" d	3'-8" d	4'-2" d	4'-2" d	0'-9" d

- Notes:**
1. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 2. Spans may be interpolated.



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Table 3A.1.2-110 Allowable Edge Beam Spans - Snap Sections

for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 110 MPH velocity; using design load of 11 #SF (26 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

2" x 2" x 0.045" Snap Extrusion						2" x 3" x 0.045" Snap Extrusion					
Load	Max. Span L / (bending v _r or deflection d _r)	1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load	Max. Span L / (bending v _r or deflection d _r)	1 & 2 Span	3 Span	4 Span	Max. Cantilever
Width (ft.)						Width (ft.)					
5	6'-0" d	7'-5" d	7'-7" d	1'-2" d	1'-2" d	5	8'-1" d	10'-0" d	10'-2" d	1'-7" d	1'-7" d
6	5'-8" d	6'-11" d	7'-2" d	1'-2" d	1'-2" d	6	7'-7" d	9'-5" d	9'-7" d	1'-5" d	1'-5" d
7	5'-4" d	6'-8" d	6'-9" d	1'-1" d	1'-1" d	7	7'-3" d	8'-11" d	9'-1" d	1'-5" d	1'-5" d
8	5'-2" d	6'-4" d	6'-5" d	1'-0" d	1'-0" d	8	6'-11" d	8'-7" d	8'-6" d	1'-4" d	1'-4" d
9	4'-11" d	6'-1" d	6'-3" d	0'-11" d	0'-11" d	9	6'-8" d	8'-3" d	8'-0" d	1'-4" d	1'-4" d
10	4'-9" d	5'-11" d	5'-11" d	0'-11" d	0'-11" d	10	6'-5" d	7'-10" d	7'-7" d	1'-3" d	1'-3" d
11	4'-7" d	5'-8" d	5'-8" d	0'-11" d	0'-11" d	11	6'-3" d	7'-6" d	7'-3" d	1'-3" d	1'-3" d
12	4'-6" d	5'-7" d	5'-5" d	0'-11" d	0'-11" d	12	6'-1" d	7'-2" d	6'-11" d	1'-2" d	1'-2" d

2" x 4" x 0.045" Snap Extrusion					
Load	Max. Span L / (bending v _r or deflection d _r)	1 & 2 Span	3 Span	4 Span	Max. Cantilever
Width (ft.)					
5	10'-3" d	7'-5" d	7'-7" d	2'-0" d	2'-0" d
6	5'-8" d	7'-0" d	7'-2" d	1'-11" d	1'-11" d
7	5'-5" d	6'-8" d	6'-10" d	1'-10" d	1'-10" d
8	5'-2" d	6'-4" d	6'-5" d	1'-9" d	1'-9" d
9	4'-11" d	6'-2" d	6'-3" d	1'-8" d	1'-8" d
10	4'-9" d	5'-11" d	6'-0" d	1'-7" d	1'-7" d
11	4'-8" d	5'-9" d	5'-10" d	1'-7" d	1'-7" d
12	4'-6" d	5'-7" d	5'-8" d	1'-6" d	1'-6" d

Notes:

- Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
- Spans may be interpolated.

Table 3A.1.2-120 Allowable Edge Beam Spans - Snap Sections

for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 120 MPH velocity; using design load of 13 #SF (43 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

2" x 2" x 0.045" Snap Extrusion						2" x 3" x 0.045" Snap Extrusion					
Load	Max. Span L / (bending v _r or deflection d _r)	1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load	Max. Span L / (bending v _r or deflection d _r)	1 & 2 Span	3 Span	4 Span	Max. Cantilever
Width (ft.)						Width (ft.)					
5	5'-8" d	7'-0" d	7'-2" d	1'-2" d	1'-2" d	5	7'-8" d	9'-5" d	9'-8" d	1'-6" d	1'-6" d
6	5'-4" d	6'-7" d	6'-8" d	1'-1" d	1'-1" d	6	7'-2" d	8'-11" d	9'-0" d	1'-5" d	1'-5" d
7	5'-1" d	6'-3" d	6'-5" d	1'-0" d	1'-0" d	7	6'-10" d	8'-5" d	8'-4" d	1'-4" d	1'-4" d
8	4'-10" d	6'-0" d	6'-1" d	0'-11" d	0'-11" d	8	6'-7" d	8'-1" d	7'-10" d	1'-4" d	1'-4" d
9	4'-8" d	5'-9" d	5'-9" d	0'-11" d	0'-11" d	9	6'-4" d	7'-8" d	7'-4" d	1'-3" d	1'-3" d
10	4'-6" d	5'-7" d	5'-6" d	0'-11" d	0'-11" d	10	6'-1" d	7'-3" d	6'-11" d	1'-3" d	1'-3" d
11	4'-4" d	5'-5" d	5'-2" d	0'-10" d	0'-10" d	11	5'-11" d	6'-11" d	6'-8" d	1'-2" d	1'-2" d
12	4'-3" d	5'-2" d	4'-11" d	0'-10" d	0'-10" d	12	5'-9" d	6'-7" d	6'-5" d	1'-2" d	1'-2" d

2" x 4" x 0.045" Snap Extrusion					
Load	Max. Span L / (bending v _r or deflection d _r)	1 & 2 Span	3 Span	4 Span	Max. Cantilever
Width (ft.)					
5	9'-8" d	7'-1" d	7'-2" d	1'-11" d	1'-11" d
6	5'-4" d	6'-8" d	6'-9" d	1'-10" d	1'-10" d
7	5'-1" d	6'-4" d	6'-5" d	1'-9" d	1'-9" d
8	4'-11" d	6'-0" d	6'-2" d	1'-8" d	1'-8" d
9	4'-8" d	5'-10" d	5'-11" d	1'-7" d	1'-7" d
10	4'-6" d	5'-7" d	5'-8" d	1'-6" d	1'-6" d
11	4'-5" d	5'-5" d	5'-6" d	1'-5" d	1'-5" d
12	4'-3" d	5'-3" d	5'-4" d	1'-5" d	1'-5" d

Notes:

- Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
- Spans may be interpolated.

Table 3A.1.2-130 Allowable Edge Beam Spans - Snap Sections

for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 130 MPH velocity; using design load of 15 #SF (50 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

2" x 2" x 0.045" Snap Extrusion						2" x 3" x 0.045" Snap Extrusion					
Load Width (ft.)	Max. Span L / (bending v _r or deflection v _f)	1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span L / (bending v _r or deflection v _f)	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-5" d	6'-8" d	6'-10" d	1'-1" d	1'-1" d	5	7'-4" d	9'-0" d	9'-2" d	1'-5" d	1'-5" d
6	5'-1" d	6'-4" d	6'-5" d	1'-0" d	1'-0" d	6	6'-10" d	8'-6" d	8'-5" d	1'-4" d	1'-4" d
7	4'-10" d	5'-11" d	6'-1" d	0'-11" d	0'-11" d	7	6'-6" d	8'-1" d	7'-9" d	1'-4" d	1'-4" d
8	4'-8" d	5'-9" d	5'-8" d	0'-11" d	0'-11" d	8	6'-3" d	7'-6" d	7'-3" d	1'-3" d	1'-3" d
9	4'-5" d	5'-6" d	5'-4" d	0'-11" d	0'-11" d	9	6'-0" d	7'-1" d	6'-10" d	1'-2" d	1'-2" d
10	4'-4" d	5'-3" d	5'-1" d	0'-10" d	0'-10" d	10	5'-10" d	6'-9" d	6'-8" d	1'-2" d	1'-2" d
11	4'-2" d	5'-0" d	4'-10" d	0'-10" d	0'-10" d	11	5'-7" d	6'-5" d	6'-3" d	1'-1" d	1'-1" d
12	4'-1" d	4'-10" d	4'-8" d	0'-10" d	0'-10" d	12	5'-5" d	6'-2" d	5'-11" d	1'-1" d	1'-1" d

Notes:

- Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
- Spans may be interpolated.

Table 3A.1.2-140A Allowable Edge Beam Spans - Snap Sections

for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 140A MPH velocity; using design load of 17 #SF (58 #SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

2" x 2" x 0.044" Snap Extrusion						2" x 3" x 0.045" Snap Extrusion					
Load	Max. Span L / (bending v _r or deflection d _r)					Load	Max. Span L / (bending v _r or deflection d _r)				
Width (ft.)	1 & 2 Span	3 Span	4 Span	Cantilever	Max.	Width (ft.)	1 & 2 Span	3 Span	4 Span	Max.	
5	5'-2" d	6'-5" d	6'-7" d	1'-0" d	1'-0" d	5	7'-0" d	8'-8" d	8'-8" d	1'-5" d	
6	4'-11" d	6'-1" d	6'-2" d	0'-11" d	0'-11" d	6	6'-7" d	8'-2" d	7'-11" b	1'-4" d	
7	4'-8" d	5'-9" d	5'-8" d	0'-11" d	0'-11" d	7	6'-3" d	7'-7" b	7'-4" b	1'-3" d	
8	4'-5" d	5'-6" d	5'-4" d	0'-10" d	0'-10" d	8	5'-11" d	7'-1" b	6'-10" b	1'-2" d	
9	4'-3" d	5'-2" d	5'-0" b	0'-10" d	0'-10" d	9	5'-9" d	6'-8" b	6'-5" b	1'-2" d	
10	4'-2" d	4'-11" b	4'-9" b	0'-10" d	0'-10" d	10	5'-7" d	6'-4" b	6'-1" b	1'-1" d	
11	3'-11" d	4'-9" b	4'-7" b	0'-9" d	0'-9" d	11	5'-5" d	6'-0" b	5'-10" b	1'-1" d	
12	3'-11" d	4'-6" b	4'-4" b	0'-9" d	0'-9" d	12	5'-2" d	5'-9" b	5'-7" b	1'-0" d	

2" x 4" x 0.045" Snap Extrusion					
Load	Max. Span L / (bending v _r or deflection d _r)				
Width (ft.)	1 & 2 Span	3 Span	4 Span	Cantilever	Max.
5	8'-10" d	6'-5" d	6'-7" d	1'-9" d	1'-9" d
6	4'-8" d	6'-1" d	6'-2" d	1'-8" d	1'-8" d
7	4'-6" d	5'-9" d	5'-11" d	1'-7" d	1'-7" d
8	4'-6" d	5'-8" d	5'-7" d	1'-6" d	1'-6" d
9	4'-3" d	5'-4" d	5'-3" d	1'-5" d	1'-5" d
10	4'-2" d	5'-1" d	5'-3" d	1'-5" d	1'-5" d
11	4'-0" d	4'-11" d	5'-1" d	1'-4" d	1'-4" d
12	3'-11" d	4'-10" d	4'-11" d	1'-4" d	1'-4" d

Notes:

- Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
- Spans may be interpolated.



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Table 3A.1.3-110
Allowable Beam Spans for Miscellaneous Framing Beams for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 110 MPH velocity; using design load of 11 #/SF
 Aluminum Alloy 6063 T-6

Hollow and Single Self-Mating Beams		Tributary Load Width									
2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"
2" x 4" x 0.050" Hollow	12'-2" d	11'-6" d	10'-11" d	10'-5" d	10'-0" d	9'-6" d	9'-5" d	9'-1" d	8'-8" d	8'-6" d	8'-3" d
2" x 5" x 0.062" Hollow	15'-9" d	14'-10" d	14'-1" d	13'-6" d	12'-11" d	12'-6" d	12'-1" d	11'-5" d	11'-2" d	10'-11" d	10'-8" d
2" x 6" x 0.064" x 0.100"	13'-8" d	12'-10" d	12'-2" d	11'-8" d	11'-2" d	10'-10" d	10'-5" d	10'-2" d	9'-8" d	9'-5" d	9'-3" d
2" x 5" x 0.050" x 0.100"	16'-11" d	15'-11" d	15'-1" d	14'-6" d	13'-11" d	12'-11" d	12'-7" d	12'-3" d	11'-11" d	11'-9" d	11'-6" d
2" x 6" x 0.065" x 0.120"	19'-9" d	18'-7" d	16'-11" d	16'-3" d	15'-8" d	15'-2" d	14'-9" d	14'-5" d	14'-0" d	13'-9" d	13'-5" d
2" x 7" x 0.065" x 0.120"	22'-6" d	21'-2" d	20'-2" d	19'-3" d	18'-6" d	17'-10" d	17'-4" d	16'-10" d	16'-5" d	15'-7" d	15'-3" d
2" x 7" x 0.055" w/ insert	27'-3" d	25'-7" d	23'-3" d	22'-4" d	20'-11" d	20'-1" d	19'-9" d	19'-4" d	18'-10" d	18'-6" d	18'-5" d
2" x 8" x 0.072" x 0.224"	27'-11" d	26'-3" d	24'-11" d	23'-10" d	22'-11" d	22'-2" d	21'-5" d	20'-10" d	20'-4" d	19'-10" d	18'-11" d
2" x 8" x 0.072" x 0.224"	30'-7" d	28'-10" d	27'-4" d	26'-2" d	24'-8" d	23'-5" d	22'-10" d	22'-3" d	21'-9" d	21'-3" d	20'-8" d
2" x 9" x 0.082" x 0.306"	31'-9" d	29'-10" d	28'-4" d	27'-2" d	26'-1" d	24'-5" d	23'-1" d	22'-6" d	22'-0" d	21'-4" d	20'-9" d
2" x 10" x 0.092" x 0.369"	36'-2" d	35'-11" d	34'-1" d	32'-8" d	31'-5" d	30'-4" d	29'-4" d	28'-6" d	27'-9" d	27'-1" d	26'-11" d

- Note:
1. It is recommended that the engineer be consulted on any miscellaneous framing beam that spans more than 40'
 2. Spans are based on 110 M.P.H. wind load plus dead load for framing.
 3. Spans are measured from center of connection to fascia or wall connection.
 4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 5. Spans may be interpolated.

Table 3A.1.3-120
Allowable Beam Spans for Miscellaneous Framing Beams for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 120 MPH velocity; using design load of 13 #/SF
 Aluminum Alloy 6063 T-6

Hollow and Single Self-Mating Beams		Tributary Load Width									
2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"
2" x 4" x 0.050" Hollow	11'-7" d	10'-10" d	10'-4" d	9'-10" d	9'-6" d	9'-2" d	8'-11" d	8'-7" d	8'-2" d	8'-0" d	7'-10" d
2" x 5" x 0.062" Hollow	14'-11" d	14'-0" d	13'-4" d	12'-9" d	12'-3" d	11'-10" d	11'-5" d	11'-1" d	10'-10" d	10'-7" d	10'-4" d
2" x 6" x 0.064" x 0.100"	12'-11" d	12'-2" d	11'-6" d	11'-0" d	10'-7" d	10'-3" d	9'-11" d	9'-8" d	9'-2" d	8'-11" d	8'-1" d
2" x 5" x 0.050" x 0.100"	15'-11" d	15'-0" d	14'-3" d	13'-8" d	13'-2" d	12'-8" d	12'-3" d	11'-11" d	11'-7" d	11'-4" d	11'-0" d
2" x 6" x 0.065" x 0.120"	18'-8" d	17'-7" d	16'-9" d	16'-9" d	15-11" d	15-4" d	14-10" d	14-5" d	13-11" d	13-7" d	13-5" d
2" x 7" x 0.065" x 0.120"	21-4" d	20-1" d	19-0" d	18-3" d	17-6" d	16-11" d	16-5" d	15-11" d	15-1" d	14-9" d	14-5" d
2" x 7" x 0.055" w/ insert	26-9" d	24-3" d	23-0" d	22-0" d	21-2" d	20-5" d	19-9" d	18-9" d	18-3" d	17-10" d	17-6" d
2" x 8" x 0.072" x 0.224"	28-11" d	27-3" d	25-11" d	24-9" d	23-10" d	22-11" d	22-3" d	21-8" d	21-1" d	20-7" d	20-4" d
2" x 9" x 0.082" x 0.306"	30-0" d	28-3" d	26-10" d	25-8" d	24-6" d	23-10" d	23-1" d	22-5" d	21-10" d	21-4" d	20-10" d
2" x 10" x 0.092" x 0.369"	36-1" d	35-11" d	32-3" d	30-10" d	29-8" d	28-6" d	27-9" d	26-11" d	26-3" d	25-7" d	24-6" d

- Note:
1. It is recommended that the engineer be consulted on any miscellaneous framing beam that spans more than 40'
 2. Spans are based on 120 M.P.H. wind load plus dead load for framing.
 3. Spans are measured from center of connection to fascia or wall connection.
 4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 5. Spans may be interpolated.

Table 3A.1.3-130
Allowable Beam Spans for Miscellaneous Framing Beams for for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 130 MPH velocity; using design load of 15 #/SF
 Aluminum Alloy 6063 T-6

Hollow and Single Self-Mating Beams		Tributary Load Width									
2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"
2" x 4" x 0.050" Hollow	11'-0" d	10'-4" d	9'-10" d	9'-5" d	9'-1" d	8'-9" d	8'-6" d	8'-3" d	8'-0" d	7'-10" d	7'-6" d
2" x 5" x 0.062" Hollow	14-2" d	13-4" d	12-8" d	12-2" d	11-8" d	10-11" d	10-7" d	10-4" d	10-1" d	9-10" d	9-8" d
2" x 6" x 0.064" x 0.100"	12-4" d	11-7" d	10-11" d	10-6" d	10-1" d	9-9" d	9-5" d	9-2" d	8'-11" d	8'-8" d	8'-4" d
2" x 5" x 0.050" x 0.100"	15-3" d	14-4" d	13-7" d	13-0" d	12-6" d	12-1" d	11-9" d	11-5" d	11'-1" d	10-10" d	10-7" d
2" x 6" x 0.065" x 0.120"	17-10" d	16-9" d	15-11" d	15-3" d	14-8" d	14-2" d	13-9" d	13-4" d	12-11" d	12-8" d	12-4" d
2" x 7" x 0.065" x 0.120"	20-4" d	19-1" d	18-2" d	17-4" d	16-8" d	16-1" d	15-7" d	15-2" d	14-9" d	14-5" d	14-1" d
2" x 7" x 0.055" w/ insert	24-6" d	23-1" d	21-11" d	20-11" d	20-2" d	19-6" d	18-10" d	18-4" d	17-10" d	17-5" d	17-1" d
2" x 8" x 0.072" x 0.224"	26-2" d	25-8" d	22-6" d	21-6" d	20-8" d	19-11" d	19-4" d	18-10" d	18-4" d	17-10" d	17-1" d
2" x 8" x 0.072" x 0.224"	27-7" d	26-11" d	24-8" d	23-6" d	22-8" d	21-11" d	21-3" d	20-7" d	20-1" d	19-7" d	19-1" d
2" x 9" x 0.082" x 0.306"	28-7" d	26-11" d	25-7" d	24-6" d	23-6" d	22-9" d	22-0" d	21-5" d	20-10" d	20-4" d	19-5" d
2" x 10" x 0.092" x 0.369"	34-5" d	32-5" d	30-9" d	29-5" d	28-4" d	27-4" d	26-6" d	25-9" d	24-5" d	23-10" d	23-4" d

- Note:
1. It is recommended that the engineer be consulted on any miscellaneous framing beam that spans more than 40'
 2. Spans are based on 130 M.P.H. wind load plus dead load for framing.
 3. Spans are measured from center of connection to fascia or wall connection.
 4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 5. Spans may be interpolated.

Table 3A.1.3-140A
Allowable Beam Spans for Miscellaneous Framing Beams for for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 140A MPH velocity; using design load of 17 #/SF
 Aluminum Alloy 6063 T-6

Hollow and Single Self-Mating Beams		Tributary Load Width									
2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"
2" x 4" x 0.050" Hollow	10'-7" d	9'-11" d	9'-5" d	9'-0" d	8'-6" d	8'-5" d	8'-1" d	7'-11" d	7'-8" d	7'-6" d	7'-2" d
2" x 5" x 0.062" Hollow	13-7" d	12-10" d	12-2" d	11-8" d	11-2" d	10-10" d	10-6" d	10-2" d	9-11" d	9-8" d	9-3" d
2" x 6" x 0.064" x 0.100"	11-9" d	11-1" d	10-6" d	10-1" d	9'-8" d	9'-4" d	9'-1" d	8'-10" d	8'-7" d	8'-4" d	8'-0" d
2" x 5" x 0.050" x 0.100"	14-7" d	13-9" d	13-1" d	12-6" d	12-0" d	11-7" d	11-3" d	10-11" d	10-8" d	10-4" d	10-2" d
2" x 6" x 0.065" x 0.120"	17-11" d	16-4" d	15-3" d	14-7" d	14-1" d	13-7" d	13-2" d	12-9" d	12-5" d	12-2" d	11-10" d
2" x 7" x 0.065" x 0.120"	19-6" d	18-1" d	17-5" d	16-8" d	16-0" d	15-6" d	15-1" d	14-7" d	14-2" d	13-10" d	13-3" d
2" x 7" x 0.055" w/ insert	23-6" d	22-2" d	21-0" d	20-6" d	19-4" d	18-8" d	18-1" d	17-7" d	17-1" d	16-8" d	16-4" d
2" x 8" x 0.072" x 0.224"	24-2" d	22-8" d	21-7" d	20-8" d	19-10" d	19-2" d	18-7" d	18-0" d	17-7" d	17-1" d	16-5" d
2" x 8" x 0.072" x 0.224"	26-6" d	25-10" d	23-8" d	22-8" d	21-9" d	21-0" d	20-4" d	19-9" d	19-3" d	18-4" d	18-5" d
2" x 9" x 0.082" x 0.306"	27-5" d	26-10" d	24-6" d	23-6" d	22-7" d	21-9" d	21-1" d	20-6" d	19-11" d	19-6" d	18-8" d
2" x 10" x 0.092" x 0.369"	33-0" d	31-1" d	29-6" d	28-3" d	27-2" d	26-2" d	25-5" d	24-8" d	23-5" d	22-11" d	22-5" d

- Note:
1. It is recommended that the engineer be consulted on any miscellaneous framing beam that spans more than 40'
 2. Spans are based on 140A M.P.H. wind load plus dead load for framing.
 3. Spans are measured from center of connection to fascia or wall connection.
 4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 5. Spans may be interpolated.

Table 3A.1.4-110
Allowable Spans for Ridge Beams with Self Mating Beams for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 110 MPH velocity; using design load of 11 #/SF

Self Mating Sections		Tributary Load Width W' = Purfin Spacing									
5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
2" x 4" x 0.044" x 0.100"	14'-6" d	13'-6" d	12'-6" d	11'-9" d	11'-0" d	10'-5" d	9'-11" d	9'-6" d	9'-6" d	9'-6" d	9'-6" d
2" x 5" x 0.050" x 0.100"	17-11" d	16-8" d	15-6" d	14-9" d	13-7" d	12-11" d	12-4" d	11-9" d	11-9" d	11-9" d	11-9" d
2" x 6" x 0.060" x 0.120"	21-0" d	19-3" d	17-10" d	16-8" d	15-9" d	14-11" d	14-3" d	13-8" d	13-8" d	13-8" d	13-8" d
2" x 7" x 0.065" x 0.120"	23-9" d	21-9" d	20-1" d	18-10" d	17-9" d	16-10" d	16-0" d	15-4" d	15-4" d	15-4" d	15-4" d
2" x 7" x 0.055" w/ insert	28-11" d	27-3" d	25-11" d	24-9" d	23-7" d	22-5" d	21-4" d	20-5" d	20-5" d	20-5" d	20-5" d
2" x 8" x 0.072" x 0.224"	29-4" d	27-11" d	26-1" d	24-4" d	22-11" d	21-9" d	20-9" d	19-10" d	19-10" d	19-10" d	19-10" d
2" x 9" x 0.082" x 0.306"	32-7" d	30-5" d	28-2" d	26-4" d	24-10" d	23-7" d	22-6" d	21-6" d	21-6" d	21-6" d	21-6" d
2" x 10" x 0.092" x 0.369"	33-9" d	31-9" d	30-2" d	28-10" d	27-3" d	26-10" d	25-10" d	24-6" d	24-6" d	24-6" d	24-6" d

- Note:
1. Tables assume extrusion oriented with longer extrusion dimension parallel to applied load.
 2. Spans may be interpolated.

Table 3A.1.4-120
Allowable Spans for Ridge Beams with Self Mating Beams for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 120 MPH velocity; using design load of 13 #/SF

Self Mating Sections		Tributary Load Width W' = Purfin Spacing									
5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
2" x 4" x 0.044" x 0.100"	13-7" d	12-5" d	11-6" d	10-9" d	10-3" d	9'-7" d	9'-2" d	8'-9" d	8'-9" d	8'-9" d	8'-9" d
2" x 5" x 0.050" x 0.100"	16-10" d	15-4" d	14-2" d	13-3" d	12-6" d	11-11" d	11-4" d	10-10" d	10-10" d	10-10" d	10-10" d
2" x 6" x 0.060" x 0.120"	19-5" d	17-9" d	16-5" d	15-4" d	14-6" d	13-9" d	13-4" d	12-7" d	12-7" d	12-7" d	12-7" d
2" x 7" x 0.065" x 0.120"	21-11" d	19-11" d	18-6" d	17-4" d	16-4" d	15-6" d	14-9" d	14-2" d	14-2" d	14-2" d	14-2" d
2" x 7" x 0.055" w/ insert	27-5" d	25-9" d	24-6" d	23-0" d	21-8" d	20-7" d	19-8" d	18-10" d	18-10" d	18-10" d	18-10" d
2" x 8" x 0.072" x 0.224"	28-1" d	25-10" d	23-11" d	22-4" d	21-1" d	19-11" d	19-1" d	18-3" d	18-3" d	18-3" d	18-3" d
2" x 9" x 0.082" x 0.306"	31-11" d	30-1" d	28-5" d	26-7" d	25-1" d	23-9" d	23-9" d	22-8" d	22-8" d	22-8" d	22-8" d
2" x 10" x 0.092" x 0.369"	36-5" d	36-2" d	34-2" d	31-11" d	30-2" d	28-7" d	27-3" d	26-1" d	26-1" d	26-1" d	26-1" d

- Note:
1. Tables assume extrusion oriented with longer extrusion dimension parallel to applied load.
 2. Spans may be interpolated.

Table 3A.1.4-130
Allowable Spans for Ridge Beams with Self Mating Beams for Screen, Acrylic or Vinyl Rooms
 For 3 second wind gust at 130 MPH velocity; using design load of 15 #/SF

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Table 3A.2.1 Allowable Upright Heights, Chair Rail Spans or Header Spans for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 110 MPH velocity; using design load of 11 #/SF												
Sections	Tributary Load Width "W" = Purlin Spacing											
	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"
2" x 2" x 0.044" Hollow	9'-5" b	8'-9" b	8'-2" b	7'-8" b	7'-4" b	6'-11" b	6'-8" b	6'-5" b	6'-2" b	5'-11" b	5'-8" b	5'-5" b
2" x 2" x 0.055" Hollow	10'-3" b	9'-6" b	8'-9" b	8'-5" b	8'-1" b	7'-7" b	7'-3" b	7'-1" b	6'-9" b	6'-6" b	6'-3" b	6'-0" b
3" x 2" x 0.045" Hollow	11'-3" b	10'-5" b	9'-9" b	9'-3" b	8'-9" b	8'-4" b	7'-11" b	7'-8" b	7'-5" b	7'-2" b	6'-9" b	6'-6" b
3" x 2" x 0.070" Hollow	12'-9" d	12'-2" d	11'-7" d	10'-11" d	10'-5" d	9'-11" d	9'-6" d	9'-2" d	8'-10" d	8'-6" d	8'-3" d	8'-0" d
2" x 3" x 0.045" Hollow	12'-9" b	11'-9" b	11'-0" b	10'-5" b	9'-10" b	9'-5" b	8'-11" b	8'-8" b	8'-4" b	8'-1" b	7'-10" b	7'-7" b
2" x 4" x 0.050" Hollow	16'-3" b	15'-1" b	14'-1" b	13'-3" b	12'-7" b	12'-0" b	11'-6" b	11'-0" b	10'-8" b	10'-3" b	9'-11" b	9'-8" b
2" x 4" x 0.046" S.M.B.	16'-1" b	17'-8" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b	16'-6" b
2" x 4" x 0.050" S.M.B.	23'-7" b	21'-10" b	20'-5" b	19'-3" b	18'-3" b	17'-5" b	16'-8" b	16'-0" b	15'-5" b	14'-11" b	13'-10" b	12'-10" b
2" x 5" x 0.050" S.M.B.	28'-1" b	24'-2" b	22'-7" b	21'-3" b	20'-2" b	19'-3" b	18'-3" b	17'-5" b	17'-1" b	16'-6" b	15'-11" b	14'-11" b
2" x 5" x 0.044" Snap	11'-3" b	10'-5" b	9'-9" b	9'-2" b	8'-8" b	8'-3" b	7'-11" b	7'-7" b	7'-4" b	7'-1" b	6'-9" b	6'-6" b
2" x 3" x 0.045" Snap	14'-4" b	13'-4" b	12'-5" b	11'-9" b	11'-2" b	10'-7" b	10'-2" b	9'-9" b	9'-6" b	9'-1" b	8'-7" b	8'-4" b
2" x 4" x 0.045" Snap	17'-7" b	16'-3" b	15'-3" b	14'-4" b	13'-7" b	12'-11" b	12'-5" b	11'-11" b	11'-6" b	11'-1" b	10'-7" b	10'-3" b

Notes:
1. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
2. Spans may be interpolated.

Table 3A.2.2 Allowable Upright Heights, Chair Rail Spans or Header Spans for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 130 MPH velocity; using design load of 15 #/SF												
Sections	Tributary Load Width "W" = Purlin Spacing											
	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"
2" x 2" x 0.044" Hollow	8'-1" b	7'-6" b	6'-11" b	6'-7" b	6'-3" b	5'-11" b	5'-8" b	5'-3" b	5'-1" b	5'-1" b	5'-1" b	5'-1" b
2" x 2" x 0.055" Hollow	8'-10" b	8'-2" b	7'-7" b	7'-2" b	6'-10" b	6'-6" b	6'-3" b	5'-11" b	5'-9" b	5'-7" b	5'-7" b	5'-7" b
3" x 2" x 0.045" Hollow	9'-8" b	8'-11" b	8'-4" b	7'-11" b	7'-5" b	6'-10" b	6'-6" b	6'-10" b	6'-4" b	6'-1" b	6'-1" b	6'-1" b
3" x 2" x 0.070" Hollow	11'-6" b	10'-8" b	9'-11" b	9'-5" b	8'-11" b	8'-6" b	8'-2" b	7'-10" b	7'-6" b	7'-3" b	7'-3" b	7'-3" b
2" x 3" x 0.045" Hollow	10'-11" b	10'-1" b	9'-5" b	8'-11" b	8'-5" b	8'-1" b	7'-8" b	7'-5" b	7'-2" b	6'-11" b	6'-11" b	6'-11" b
2" x 4" x 0.050" Hollow	13'-11" b	12'-11" b	12'-1" b	11'-4" b	10'-8" b	10'-3" b	9'-10" b	9'-5" b	9'-1" b	8'-10" b	8'-10" b	8'-10" b
2" x 4" x 0.046" S.M.B.	16'-4" b	15'-1" b	14'-2" b	13'-4" b	12'-8" b	12'-1" b	11'-6" b	11'-1" b	10'-8" b	10'-4" b	10'-4" b	10'-4" b
2" x 5" x 0.050" S.M.B.	20'-2" b	18'-8" b	17'-6" b	16'-6" b	15'-8" b	14'-11" b	14'-3" b	13'-9" b	13'-3" b	12'-9" b	12'-9" b	12'-9" b
2" x 6" x 0.050" S.M.B.	22'-4" b	20'-8" b	19'-4" b	18'-3" b	17'-3" b	16'-6" b	15'-9" b	15'-2" b	14'-7" b	14'-1" b	14'-1" b	14'-1" b
2" x 2" x 0.044" Snap	9'-7" b	8'-11" b	8'-4" b	7'-10" b	7'-5" b	7'-1" b	6'-9" b	6'-3" b	6'-3" b	6'-1" b	6'-1" b	6'-1" b
2" x 3" x 0.045" Snap	12'-4" b	11'-5" b	10'-8" b	10'-1" b	9'-5" b	9'-1" b	8'-8" b	8'-4" b	8'-1" b	7'-9" b	7'-9" b	7'-9" b
2" x 4" x 0.045" Snap	15'-1" b	13'-11" b	13'-0" b	12'-4" b	11'-8" b	11'-1" b	10'-8" b	10'-3" b	9'-10" b	9'-6" b	9'-6" b	9'-6" b

Notes:
1. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
2. Spans may be interpolated.

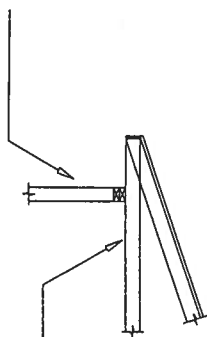
Table 3A.3 Schedule of Post to Beam Size and Number of Thru Bolts Required

Beam Size	Minimum Post Size	Alternate Post Size	# Thru-Bolts @ L=2'-0"		Minimum Knee Brace	Min. # Knee Brace Screws
			1/4" ø	3/8" ø		
2" x 4" x 0.050" Hollow	3" x 3" x 0.093"	2" x 3" x 0.050"	2	-	2" x 3" x 0.050"	(3) #8
Self-Mating Beams						
2" x 4" x 0.040" x 0.100"	3" x 3" x 0.093"	2" x 3" x 0.050"	2	-	2" x 3" x 0.050"	(3) #8
2" x 5" x 0.050" x 0.100"	3" x 3" x 0.093"	2" x 3" x 0.050"	2	-	2" x 3" x 0.050"	(3) #10
2" x 6" x 0.050" x 0.120"	3" x 3" x 0.093"	2" x 3" x 0.050"	2	-	2" x 3" x 0.050"	(3) #10
2" x 7" x 0.055" w/ Inset	3" x 3" x 0.093"	2" x 3" x 0.050"	2	-	2" x 3" x 0.050"	(3) #10
2" x 8" x 0.072" x 0.224"	3" x 3" x 0.093"	2" x 4" x 0.050"	3	2	2" x 4" x 0.050"	(3) #12
2" x 8" x 0.082" x 0.206"	3" x 3" x 0.125"	2" x 6" x 0.050" x 0.120"	4	3	2" x 6" x 0.050" x 0.120"	(4) #14
2" x 10" x 0.092" x 0.369"	3" x 3" x 0.125"	2" x 7" x 0.055" x 0.120"	5	4	2" x 7" x 0.055" x 0.120"	(6) #14
Double Self-Mating Beams						
(2) 2" x 8" x 0.072" x 0.224"	2" x 5" x 0.050" x 0.100"	-	-	6	2" x 4" x 0.044" x 0.100"	(8) #14
(2) 2" x 9" x 0.072" x 0.224"	2" x 6" x 0.050" x 0.120"	-	-	6	2" x 5" x 0.050" x 0.120"	(8) #14
(2) 2" x 10" x 0.082" x 0.369"	2" x 7" x 0.055" x 0.120"	-	-	8	2" x 6" x 0.050" x 0.120"	(8) #14
(2) 2" x 10" x 0.092" x 0.369"	2" x 8" x 0.072" x 0.224"	-	-	10	2" x 7" x 0.055" x 0.120"	(10) #14

The minimum number of thru bolts is (2)
Minimum post / beam may be used as minimum knee brace

REMOVE VINYL SIDING AND SOFFIT ON THE WALL AND INSTALL SIMPSON CS-16 COIL STRAP OR EQUAL FROM TRUSS / RAFTER TO BOTTOM OF DOUBLE TOP PLATE JOIST @ EACH TRUSS / RAFTER

THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME



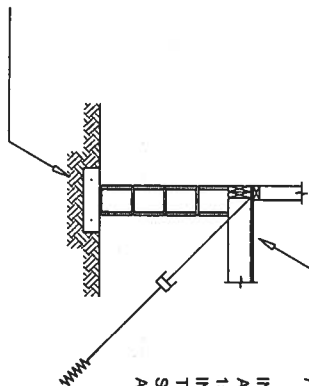
THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

NAIL STRAP W/ 16d COMMON @ TRUSS RAFTER AND PERIMETER JOIST
SCREW COIL STRAP TO SHEATHING W/ #8 x 1" DECK SCREWS @ 16" O.C. VERTICALLY
REPLACE VINYL SIDING

THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

INSTALL NEW 48" OR 60" AUGER ANCHOR PER RULE 15C @ EACH NEW PIER. INSTALL 1/2" CARRIAGE BOLT THRU PERIMETER JOIST AND STRAP TO NEW AUGER ANCHOR

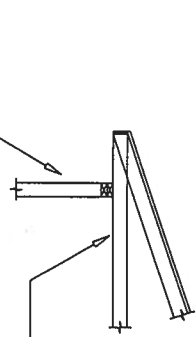
PROVIDE NEW 4", 6" OR 8" x 16" CMU PIER AND SOLID FOUNDATION BLOCK @ 5'-0" MAX. O.C. ALONG ATTACHMENT WALL



TYPICAL WALL SECTION FOR ATTACHMENT TO MOBILE / MANUFACTURED HOME

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

REMOVE VINYL SIDING AND SOFFIT ON THE WALL AND INSTALL SIMPSON CS-16 COIL STRAP OR EQUAL FROM TRUSS / RAFTER TO BOTTOM OF DOUBLE TOP PLATE JOIST @ EACH TRUSS / RAFTER



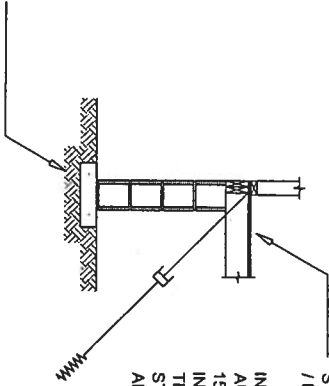
THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

NAIL STRAP W/ 16d COMMON @ TRUSS RAFTER AND PERIMETER JOIST
SCREW COIL STRAP TO SHEATHING W/ #8 x 1" DECK SCREWS @ 16" O.C. VERTICALLY
REPLACE VINYL SIDING

THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

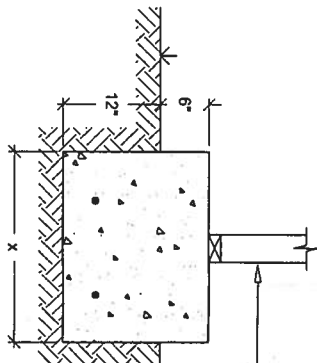
INSTALL NEW 48" OR 60" AUGER ANCHOR PER RULE 15C @ EACH NEW PIER. INSTALL 1/2" CARRIAGE BOLT THRU PERIMETER JOIST AND STRAP TO NEW AUGER ANCHOR

ALTERNATE:
4" x 4" P.T.P. POST W/ SIMPSON 4" x 4" POST BUCKET INSTALLED PER MANUFACTURERS SPECIFICATIONS TOP & BOTTOM



ALTERNATE WALL SECTION FOR ATTACHMENT TO MOBILE / MANUFACTURED HOME

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



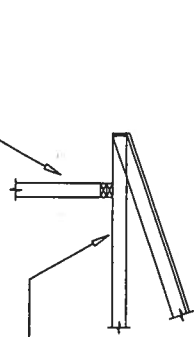
RIBBON FOOTING

SCALE: 1/2" = 1'-0"

Wind Zone	# / Sq. Ft.	x	Post Anchor @ 48" O.C.	Stud Anchors
100 - 123	+ 10 - 14	1'-0"	ABU 44	SP1 @ 32" O.C.
130 - 140A	+ 30 - 17	1'-0"	ABU 44	SP1 @ 32" O.C.
140B - 150	+ 30 - 20	1'-3"	ABU 44	SPH @ 48" O.C.

Maximum 16" projection from host structure.
* For stud walls use 1/2" x 6" L-Boats @ 48" O.C. and 2" square washers to attach sole plate to footing. Stud anchors shall be at the sole plate only and can strap shall lap over the top plate on to the studs anchors and straps shall be per manufacturers specifications.

REMOVE VINYL SIDING AND SOFFIT ON THE WALL AND INSTALL SIMPSON CS-16 COIL STRAP OR EQUAL FROM TRUSS / RAFTER TO BOTTOM OF DOUBLE TOP PLATE JOIST @ EACH TRUSS / RAFTER



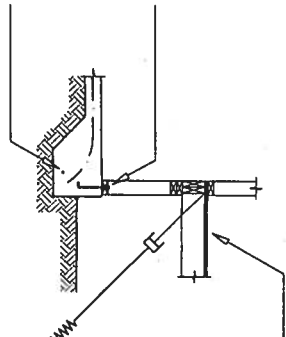
THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

NAIL STRAP W/ 16d COMMON @ TRUSS RAFTER AND PERIMETER JOIST
SCREW COIL STRAP TO SHEATHING W/ #8 x 1" DECK SCREWS @ 16" O.C. VERTICALLY
REPLACE VINYL SIDING

THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

INSTALL NEW 48" OR 60" AUGER ANCHOR PER RULE 15C @ EACH NEW PIER. INSTALL 1/2" CARRIAGE BOLT THRU PERIMETER JOIST AND STRAP TO NEW AUGER ANCHOR

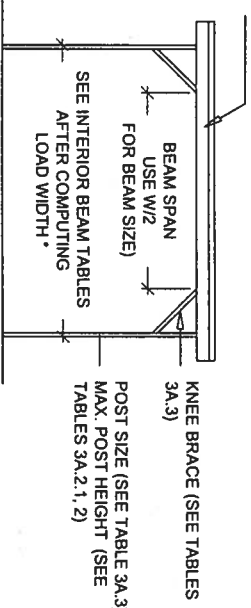
TYPE III FOOTING OR 16" x 24" RIBBON FOOTING W/ (2) #50 BARS, 2,500 PSI CONCRETE



ALTERNATE WALL SECTION FOR ATTACHMENT TO MOBILE / MANUFACTURED HOME

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

INTERIOR BEAM (SEE TABLES 3A.1, 3)



TYPICAL SECTION "FOURTH" WALL FOR ADDITIONS ADJACENT TO A MOBILE / MANUFACTURED HOME

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

Upright Size	Max. Beam Size	Knee Brace
2" x 2" x 0.035"	2" x 4"	2" x 2" x 0.035"
3" x 2" x 0.050"	2" x 4"	2" x 3" x 0.050"
3" x 3" x 0.060"	2" x 6" S.M.B.	2" x 3" x 0.050"
3" x 3" x 0.090"	2" x 8" S.M.B.	2" x 3" x 0.050"
3" x 3" x 0.125"	2" x 9" S.M.B.	3" x 3" x 0.090"
4" x 4" x 0.125"	2" x 10" S.M.B.	3" x 3" x 0.125"

Extrusion Sizing Table:

Lawrence E. Bennett, P.E.
FL # 16644
CIVIL ENGINEER - DEVELOPMENT CONSULTANT
P.O. BOX 214368, SOUTH DAYTONA, FL 32121
TELEPHONE: (386) 767-4774
FAX: (386) 767-6556

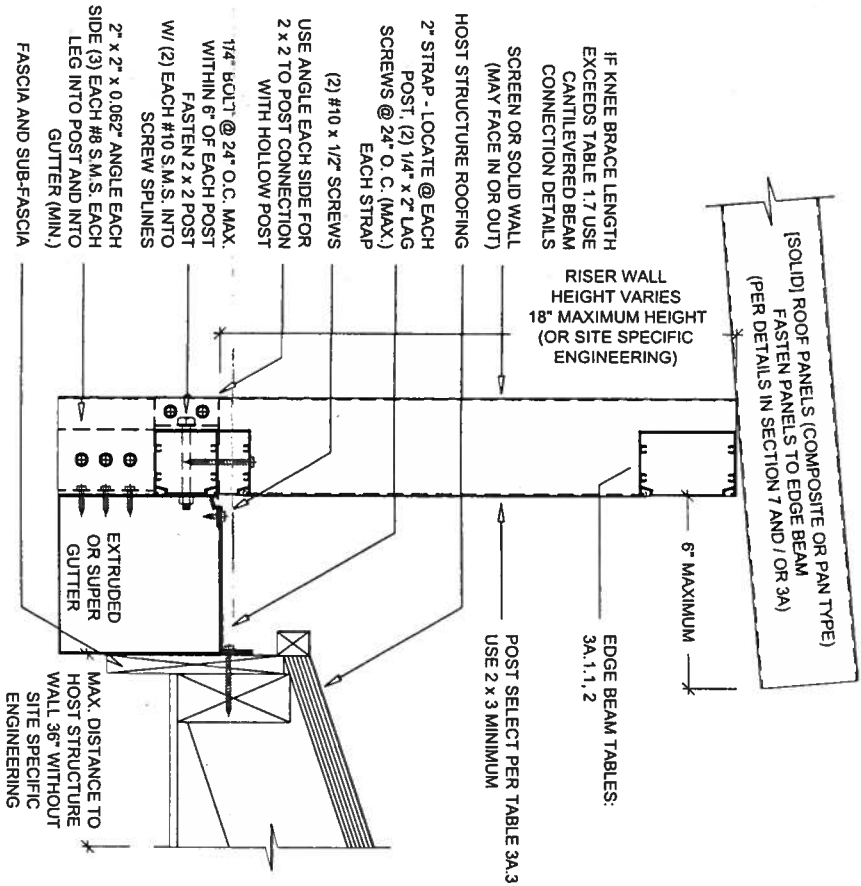
SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
2004 FLORIDA BUILDING CODE
MAY 2004 EDITION
SECTION 3A DETAILS

METALS USA™
Building Products L.P.
7815 American Way, Groveland, FL 34736
TEL: (352) 787-7766 x202 FAX: (352) 429-2011
TOLL FREE: 1-800-342-9077
bkaufmann@metalsusa.com

09-15-2004

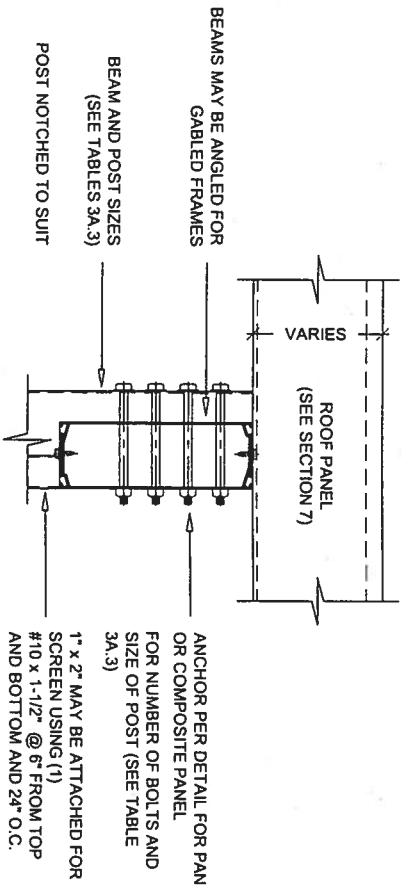
OF

8



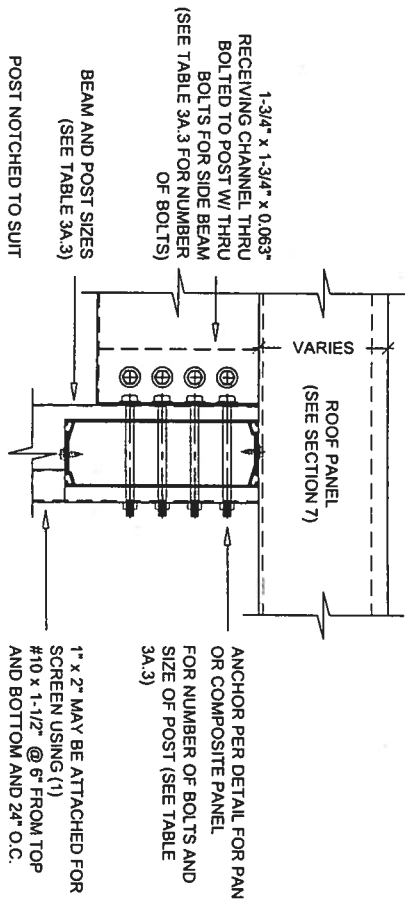
**EXTRUDED OR SUPER GUTTER / RISER
(OR TRANSOM) WALL @ FASCIA (WITH SOLID ROOF)**

SCALE: 2" = 1'-0"



SIDE NOTCH POST TO CARRIER BEAM CONNECTION

SCALE: 2" = 1'-0"



CENTER NOTCH POST TO CARRIER BEAM CONNECTION

SCALE: 2" = 1'-0"

General Notes and Specifications:

1. The following attachments are designed to be married to block and wood frame structures of adequate structural capacity. The contractor / home owner shall verify that the host structure is in good condition and of sufficient strength to hold the proposed addition.
2. If there is a question about the host structure, the owner (at his own expense) shall hire an architect, engineer, or a certified home inspection company to verify host structure capacity.
3. Roll formed roof panels (pans) are designed for uniform loads and can not be walked on unless plywood is laid across the ribs. Pans have been tested and perform better in wind uplift loads than dead load + live loads. Spans for pans are based on deflection of L/80 for high wind zone criteria.
4. Composite panels can be loaded as walk on or uniform loads and have, when tested performed well in either test. The composite panel tables are based on bending properties determined at a deflection limit of L/180.
5. The following rules apply to attachments involving mobile and manufactured homes:
 - a. Structures to be placed adjacent to a mobile / manufactured home built prior to 1994 shall use "fourth wall construction" or shall provide detailed plans of the mobile / manufactured home along with additional plans for site specific review and seal by the engineer. This applies to all screen / glass rooms, and / or other structures to be attached.
 - b. For mobile / manufactured homes built after 1994, structures may be attached provided the project follows the plan for attachment of this manual. The contractor / home owner shall provide verification of the structural system used to build the host structure.
6. The shapes and capacities of pans and composite panels are from "Industry Standard" shapes, except for manufacturers proprietary shapes. Unless the manufacturer of the product is known, use the "Industry Standard" Tables for allowable spans.
7. When converting a screen room to a glass room or a carport to a garage, the roof must be checked and reinforced for the enclosed building requirements.
8. When using TEK screws in lieu of S.M.S. longer screws must be used to compensate for drill head.
9. For high velocity hurricane zones the minimum live load / applied load shall be 30 PSF.
10. Interior walls & ceilings of composite panels may have 1/2" steel rock added by securing the steel rock w/ 1" fine thread sheet rock screws at 16" O.C. each way.
11. All fascia gutter end caps shall have water relief ports.
12. Spans may be interpolated between values but not extrapolated outside values.
13. Design Check List and Inspection Guides for Solid Roof Panel Systems are included in inspection guides for sections 2, 3A & B, 4 & 5. Use section 2 inspection guide for solid roof in Section 1.
14. All exposed screw heads through roof panels into the roof sub structure shall be caulked w/ silicon sealant.

Section 7 Design Statement:

The roof systems designed for section 7 are Main Wind Force Resisting Systems and Components and Cladding. In conformance with the 2004 Florida Building Code such systems must be designed using loads for components & cladding. Thus, Section 7 uses several different categories of these loads as described below. All pressures shown in the table below are in PSF (#SF).

1. Free-standing Structures with Mono-sloped Roofs with a minimum live load of 10 PSF except for 140B and 150 MPH loads which are 30 PSF. The design wind loads used are from ASCE 7-98 Section 6.5, Analytical Procedure. The loads assume a mean roof height of less than 30'; roof slope of 0° to 10°; $I = 0.77$ for open structures & 1.00 for all others. Negative internal pressure coefficient is 0.18 for enclosed and 0.55 for partially enclosed structures.
2. Attached Covers such as carports, patio covers, gabled carports, and screen rooms with a minimum live load of 10 PSF except for 140B and 150 MPH loads which are 30 PSF. The design wind loads used are from ASCE 7-98 Section 6.5, Analytical Procedure. Roof slope of 0° to 25° (+/- 10°), $I = 1.00$. Negative internal pressure coefficient is 0.18 for enclosed and 0.55 for partially enclosed structures.
3. Glass & Modular Rooms design loads use a minimum live load of 20 PSF and wind loads are from ASCE 7-98 Section 6.5, Analytical Procedure and the 2004 Florida Building Code. The loads assume a mean roof height of less than 30'; roof slope of 20° to 30° (+/- 10°), $I = 1.00$.
 - a. Enclosed structural systems use a negative internal pressure coefficient = +/- 0.18.
 - b. Partially Enclosed structural systems use a negative internal pressure coefficient = +/- 0.55.
4. Overhangs use a minimum live load of 20 PSF except for 140B and 150 MPH loads which are 30 PSF. Wind loads are from ASCE 7-98 Section 6.5, Analytical Procedure for Components & Cladding for Enclosed or Partially Enclosed Structural Systems. The loads assume a mean roof height of less than 30'; roof slope of 20° to 30° (+/- 10°), $I = 1.0$. Negative internal pressure coefficient is 0.18 for enclosed and 0.55 for partially enclosed structures.
5. Anchors for composite panel roof systems were computed on a load width of 10' and 16' projection with a Z overhang. Any greater load width shall be site specific.

Conversion Table 7A
Load Conversion Factors Based on
Mean Roof Height of Host Structure
For All Components

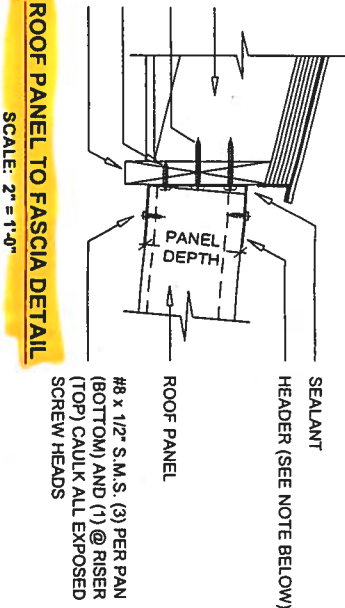
Exposure "B" to "C"	Pans	Composite Panels
Mean Host Structure Height		
0 - 15'	0.91	0.94
15 - 20'	0.88	0.92
20' - 25'	0.86	0.91
25' - 30'	0.85	0.89

Conversion Table 7B
Conversion Based on Mean Height of Host
Structure for Solid Roof Systems
From Exposure "B" to "C"

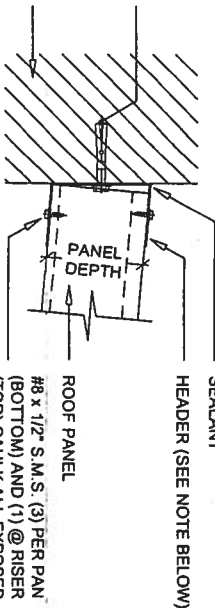
Mean Host Structure Height	Load Multiplier	Pans	Span Multiplier
0 - 15'	1.21	0.94	0.91
15' - 20'	1.29	0.92	0.88
20' - 25'	1.34	0.91	0.86
25' - 30'	1.40	0.89	0.85

ALTERNATE CONNECTION:
(3) #8 SCREWS PER PAN WITH
1" MINIMUM EMBEDMENT INTO
FASCIA THROUGH PAN BOXED
END

EXISTING TRUSS OR RAFTER
#10 x 1-1/2" S.M.S. (2) PER
RAFTER OR TRUSS TAIL
#10 x 3/4" S.M.S. @ 12" O.C.
EXISTING FASCIA

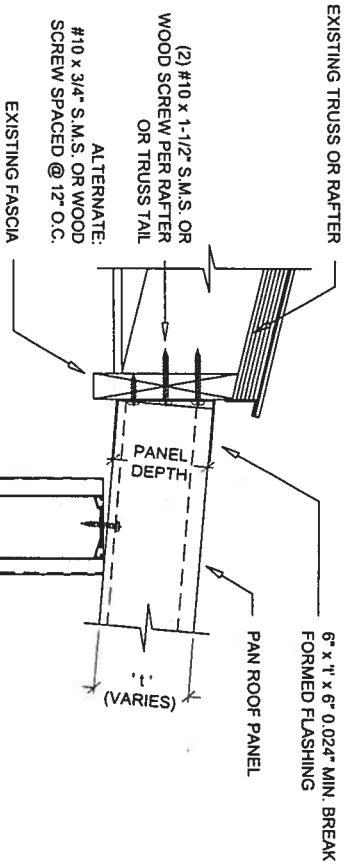


FOR MASONRY USE
1/4" x 1-1/4" MASONRY
ANCHOR OR EQUAL @ 24" O.C.
FOR WOOD USE #10 x 1-1/2"
S.M.S. OR WOOD SCREWS @
2" O.C.



ROOF PANELS SHALL BE ATTACHED TO THE HEADER WITH (3) EACH #8 x 1/2" LONG CORROSION
RESISTANT SHEET METAL SCREWS WITH 1/2" WASHERS. ALL SCREW HEADS SHALL BE CAULKED OR
SHALL HAVE NEOPRENE GASKET BETWEEN THE WASHER AND THE PAN. PAN RIBS SHALL RECEIVE (1)
EACH #8 x 1/2" SCREW EACH. THE PANS MAY BE ANCHORED THROUGH BOXED PAN WITH (3) EACH #8 x 1"
OF THE ABOVE SCREW TYPES AND THE ABOVE SPECIFIED RIZER SCREW. #8 x 9/16" TEK SCREWS ARE
ALLOWED AS A SUBSTITUTE FOR #8 x 1/2" S.M.S.

ROOF PANEL TO WALL DETAIL
SCALE: 2" = 1'-0"



ALTERNATE MOBILE HOME FLASHING
FOR FOURTH WALL CONSTRUCTION
PAN ROOF PANELS

SCALE: 2" = 1'-0"

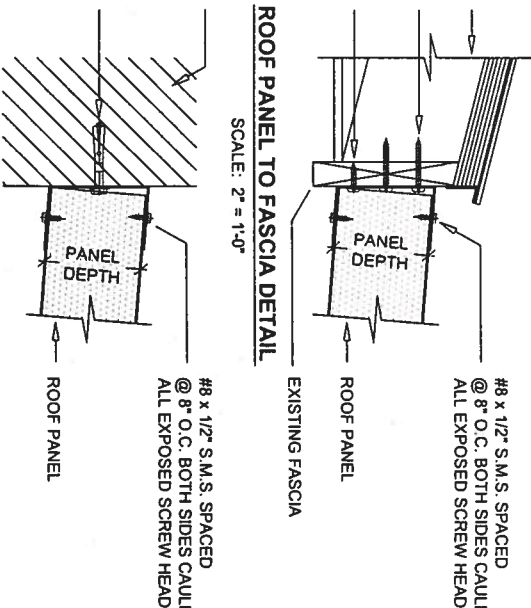
INSTALLATION INSTRUCTIONS:

- A. PLACE (2) BEADS OF CAULKING ON BACK SIDE OF HEADER BEFORE INSTALLING.
- B. SLIDE 1" TAB AT TOP OF HEADER UNDER DRIP EDGE. DO NOT PUSH DRIP EDGE UP. DRIP EDGE MUST MAINTAIN SAME PLANE AS SLOPE OF ROOF.
- C. FASTEN HEADER TO FASCIA BOARD WITH #10 x 1" SCREWS @ 6" O.C. STAGGERED TOP AND BOTTOM (SEE DETAIL ABOVE)
- D. PLACE PAN ROOF PANEL INTO HEADER AND ATTACH TO 4TH WALL POST AND BEAM SYSTEM ONLY. DO NOT ATTACH TO HEADER. HEADER IS USED AS FLASHING ONLY.

COMPOSITE ROOF ANCHORING DETAILS

EXISTING TRUSS OR RAFTER
#10 x 1-1/2" S.M.S. OR WOOD
WOOD SCREW (2) PER
RAFTER OR TRUSS TAIL
#10 x 3/4" S.M.S. OR WOOD
SCREW SPACED @ 12" O.C.

EXISTING HOST STRUCTURE
WOOD FRAME, MASONRY OR
OTHER CONSTRUCTION
FOR MASONRY USE
1/4" x 1-1/4" MASONRY
ANCHOR OR EQUAL @ 24" O.C.
FOR WOOD USE #10 x 1-1/2"
S.M.S. OR WOOD SCREWS @
12" O.C.

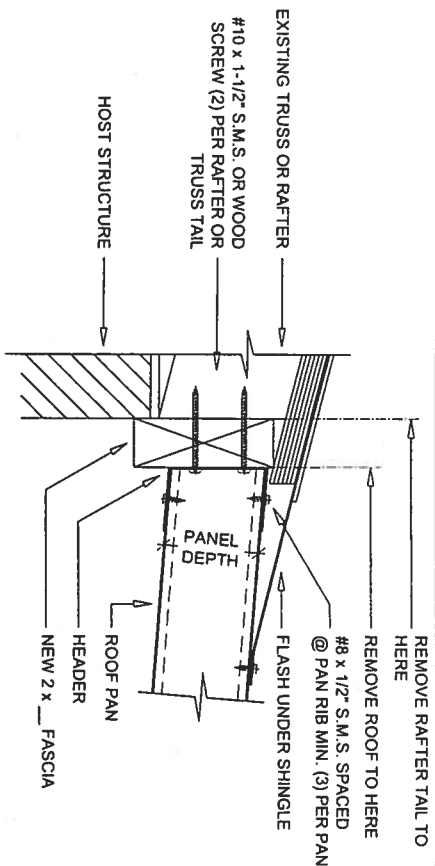


ROOF PANEL TO WALL DETAIL
SCALE: 2" = 1'-0"

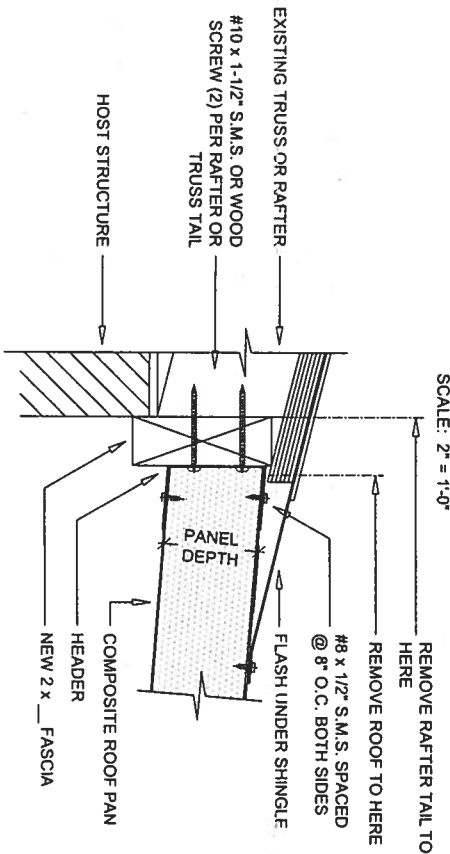
WOOD STRUCTURES SHOULD CONNECT TO TRUSS BUTTS OR THE SUB-FASCIA FRAMING WHERE
POSSIBLE ONLY. 15% OF SCREWS CAN BE OUTSIDE THE TRUSS BUTTS. SUB-FASCIA AND THOSE AREAS
SHALL HAVE DOUBLE ANCHORS. ALL SCREWS INTO THE HOST STRUCTURE SHALL HAVE MINIMUM 1-1/4"
WASHERS OR SHALL BE WASHER HEADED SCREWS.

HEADER INSIDE DIMENSION SHALL BE EQUAL TO PANEL OR PANS DEPTH "+". THE WALL THICKNESS
SHALL BE THE THICKNESS OF THE ALUMINUM PAN OR COMPOSITE PANEL WALL THICKNESS. HEADERS
SHALL BE ANCHORED TO THE HOST STRUCTURE WITH ANCHORS APPROPRIATE FOR THE MATERIAL
CONNECTED TO. THE ANCHORS DETAILED ABOVE ARE BASED ON A LOAD FROM 120 M.P.H. FOR SBC
SECTION 1606 FOR A MAXIMUM POSSIBLE SPAN OF THE ROOF PANEL FROM THE HOST STRUCTURE.
ANCHORS BASED ON 120 MPH WIND VELOCITY. FOR HIGHER WIND ZONES USE THE FOLLOWING
CONVERSION:

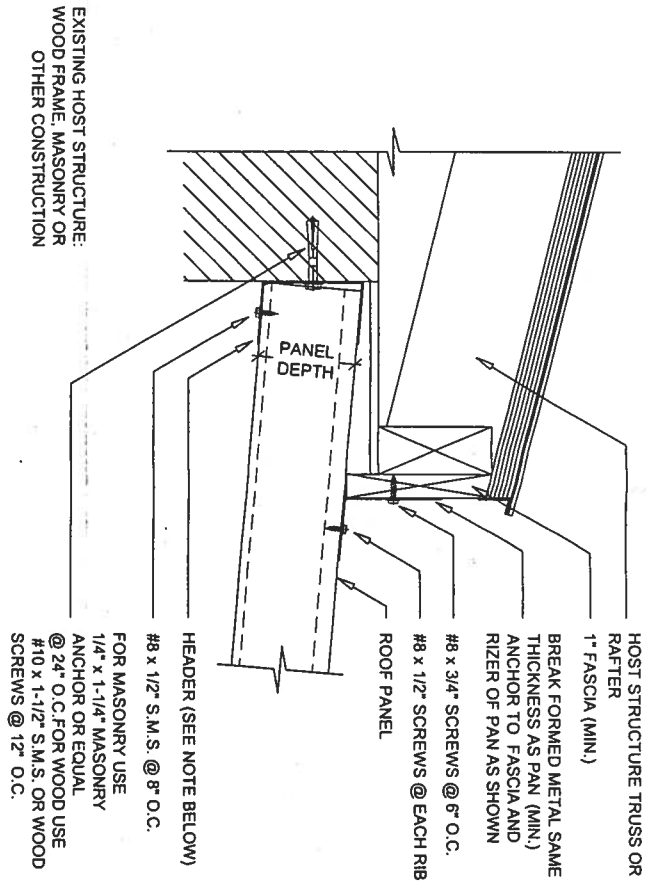
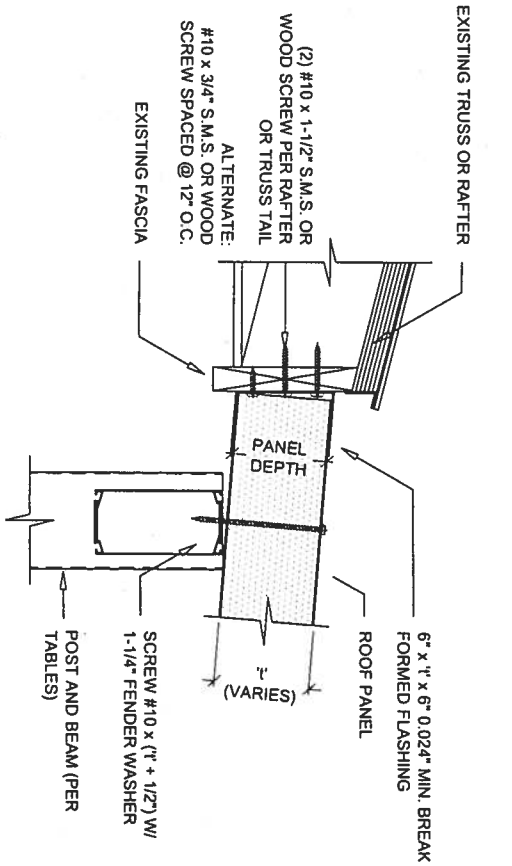
100-123	130	140	150
#8	#10	#12	#12



REMOVED RAFTER TAIL ROOF PAN TO FASCIA DETAIL

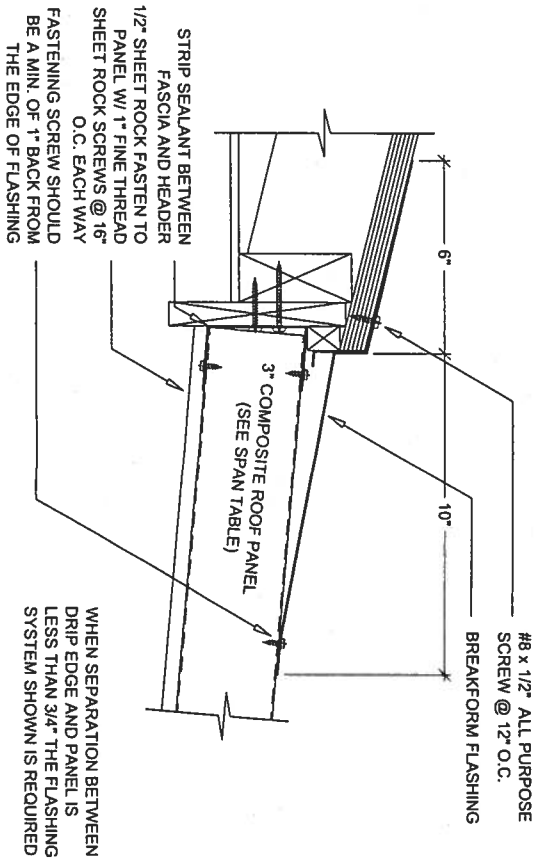


REMOVED RAFTER TAIL COMPOSITE ROOF PANEL TO WALL DETAIL



ALTERNATE ROOF PANEL TO WALL DETAIL

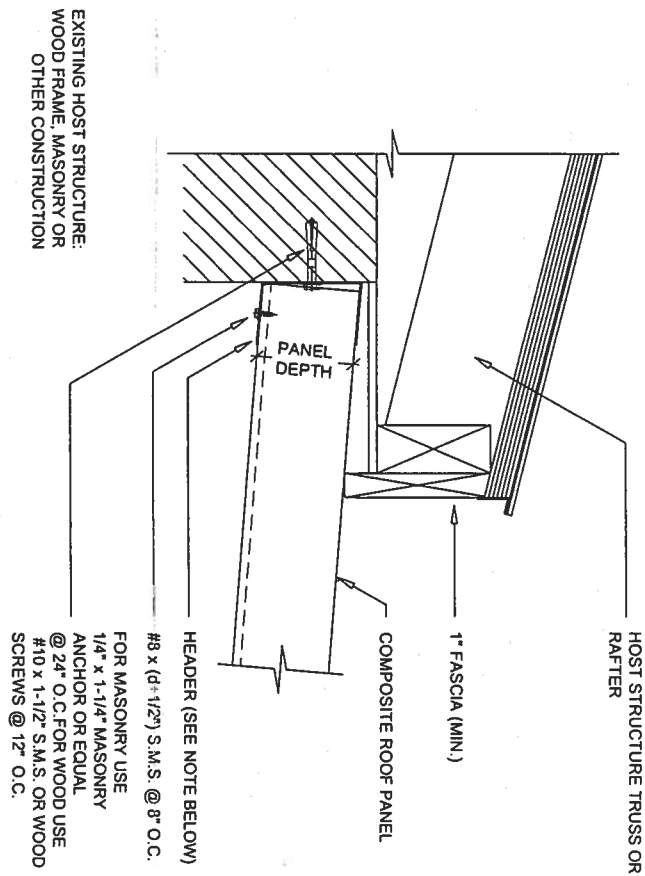
ROOF PANELS SHALL BE ATTACHED TO THE HEADER W/ (3) EACH #8 x 1/2" LONG CORROSION RESISTANT S.M.S. W/ 1/2" WASHERS. ALL SCREW HEADS SHALL BE CAULKED OR SHALL HAVE NEOPRENE GASKET BETWEEN THE WASHER AND THE PAN. PAN RIBS SHALL RECEIVE (1) EACH #8 x 1/2" SCREW EACH. THE PANS MAY BE ANCHORED THROUGH BOXED PAN W/ (3) EACH #8 x 1" OF THE ABOVE SCREW TYPES AND THE ABOVE SPECIFIED RIB SCREW.



ALTERNATE DETAIL FOR FLASHING ON SHINGLE ROOFS

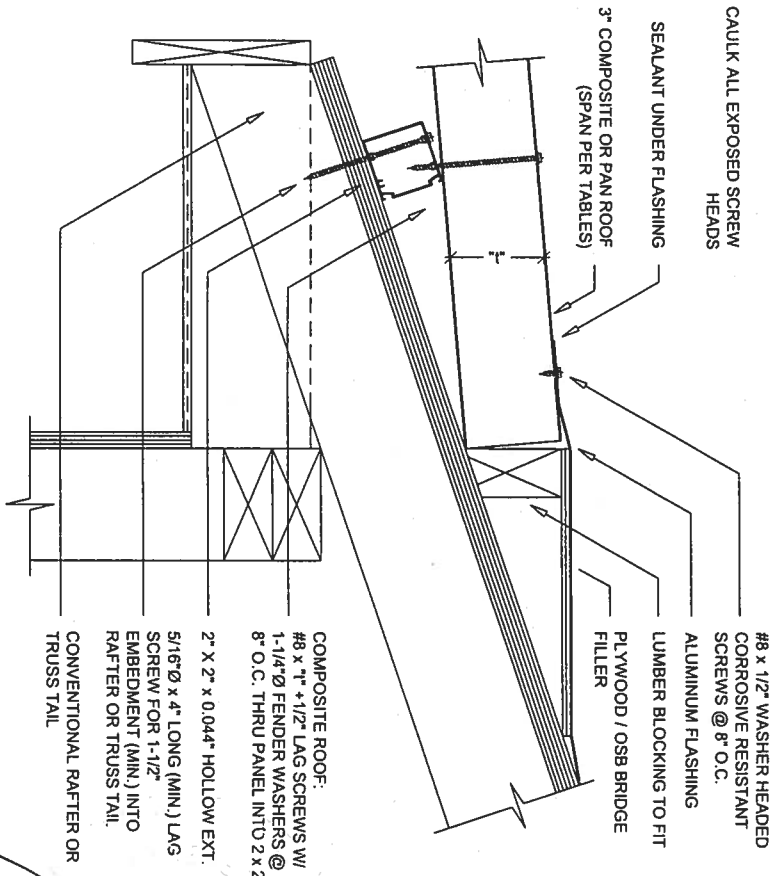
- INSTALLATION INSTRUCTIONS:**
- PLACE (2) BEADS OF CAULKING ON BACK SIDE OF HEADER BEFORE INSTALLING.
 - SLIDE 1" TAB AT TOP OF HEADER UNDER DRIP EDGE. DO NOT PUSH DRIP EDGE UP. DRIP EDGE MUST MAINTAIN SAME PLANE AS SLOPE OF ROOF.
 - FASTEN HEADER TO FASCIA BOARD WITH #10 x 1" SCREWS @ 6" O.C. STAGGERED TOP AND BOTTOM (SEE DETAIL ABOVE)
 - PLACE COMPOSITE ROOF PANEL INTO HEADER AND ATTACH TO 4TH WALL POST AND BEAM SYSTEM ONLY. DO NOT ATTACH TO HEADER. HEADER IS USED AS FLASHING ONLY.

- NOTES:**
- FLASHING TO BE INSTALLED A MIN. 6" UNDER THE FIRST ROW OF SHINGLES.
 - STANDARD COIL FOR FLASHING IS 16" .019 MIL. COIL.
 - FIRST ROW OF EXISTING NAILS MUST BE REMOVED TO INSTALL FLASHING PROPERLY.
 - FLASHING WILL BE INSTALLED UNDER THE FELT PAPER WHEN POSSIBLE.
 - HEADER WILL BE PUTTY TAPED AND CAULKED EVEN THOUGH FLASHING IS TO BE INSTALLED.
 - IF THE DROP FROM THE EDGE OF THE SHINGLE DOWN TO THE TOP OF THE HEADER IS MORE THAN 1" THEN THE DRIP EDGE WILL HAVE TO BE BROKEN TO CONFORM TO THIS DROP.
 - WHEN USING FLASHING THE SMALLEST SIZE HEADER AVAILABLE SHOULD BE USED. 12" .03 MIL. ROLLFORM OR 8" BREAKFORM IS BEST SUITED FOR HEADER SINCE IT KEEPS THE FLAP UP OF THE HEADER BACK FROM THE EDGE OF THE FLASHING.
 - WHEN SEPARATION BETWEEN DRIP EDGE AND PANEL FLASHING IS REQUIRED 1/2" SEPARATION MINIMUM.
 - STRIP SEALANT BETWEEN FASCIA AND HEADER PRIOR TO INSTALLATION



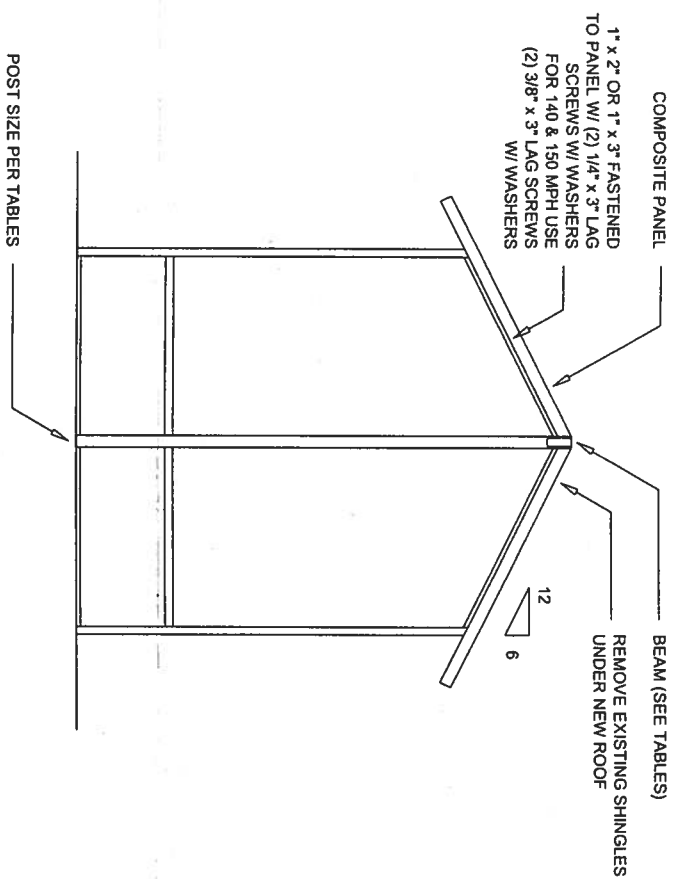
ALTERNATE COMPOSITE ROOF PANEL TO WALL DETAIL

COMPOSITE ROOF PANELS SHALL BE ATTACHED TO EXTRUDED HEADER W/ (3) EACH #8 x (d+1/2") LONG CORROSION RESISTANT S.M.S.

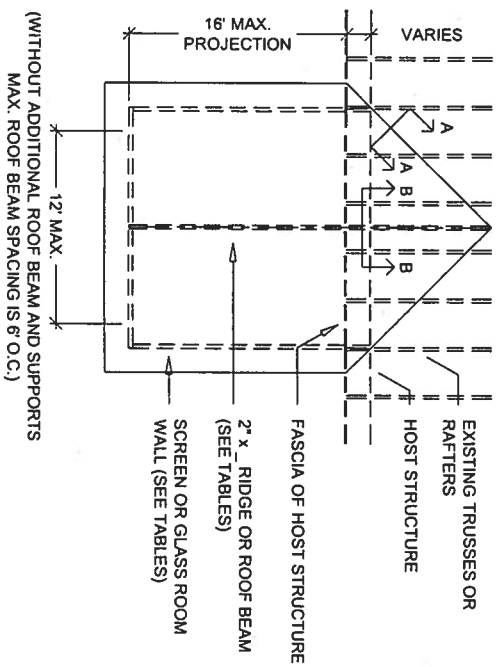


WEDGE ROOF CONNECTION DETAIL

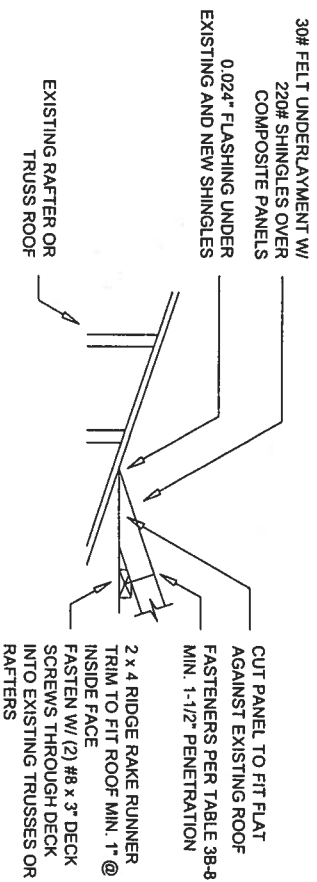
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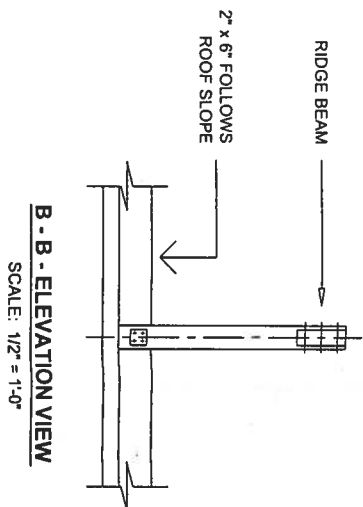
SCREEN OR SOLID WALL ROOM VALLEY CONNECTION
FRONT WALL ELEVATION VIEW



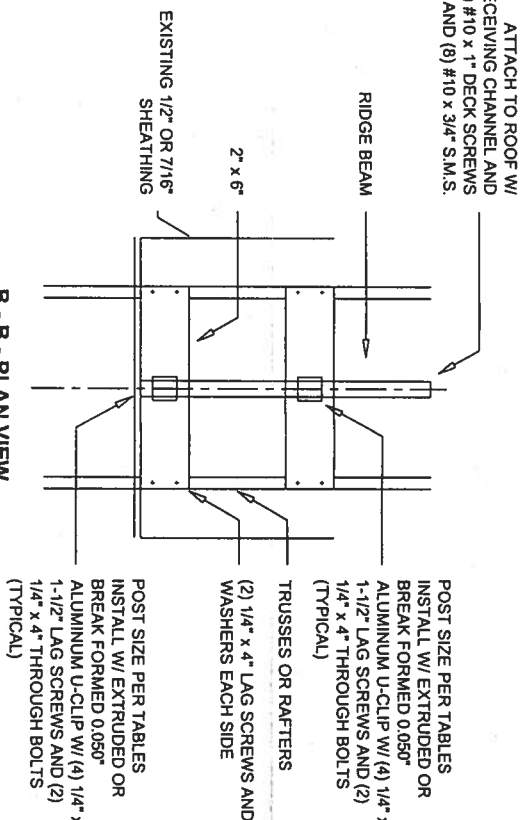
SCREEN OR SOLID WALL ROOM VALLEY CONNECTION



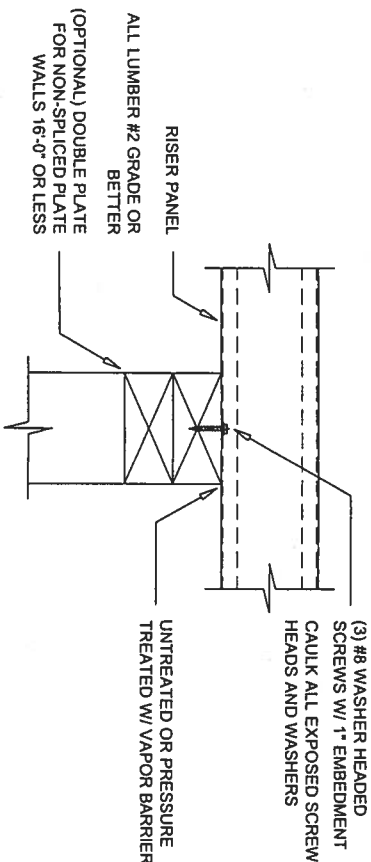
A-A-SECTION VIEW



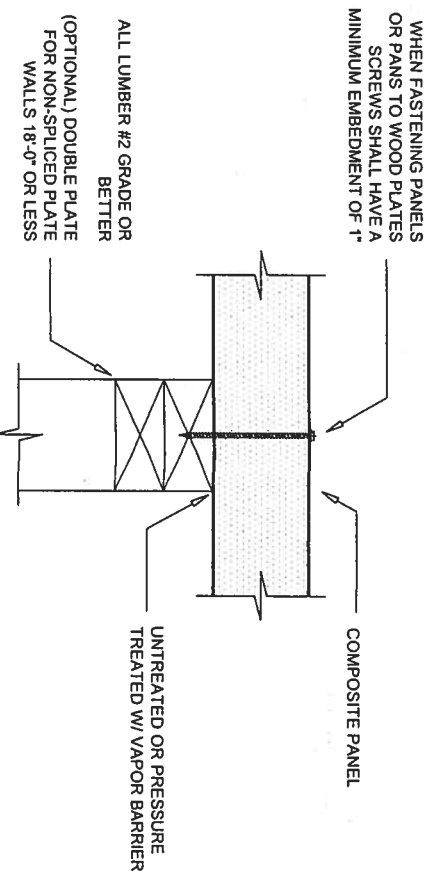
B - B - ELEVATION VIEW



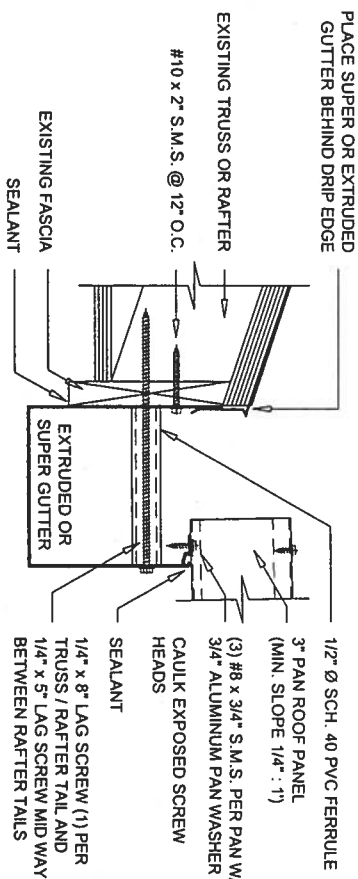
B-B-PLAN VIEW



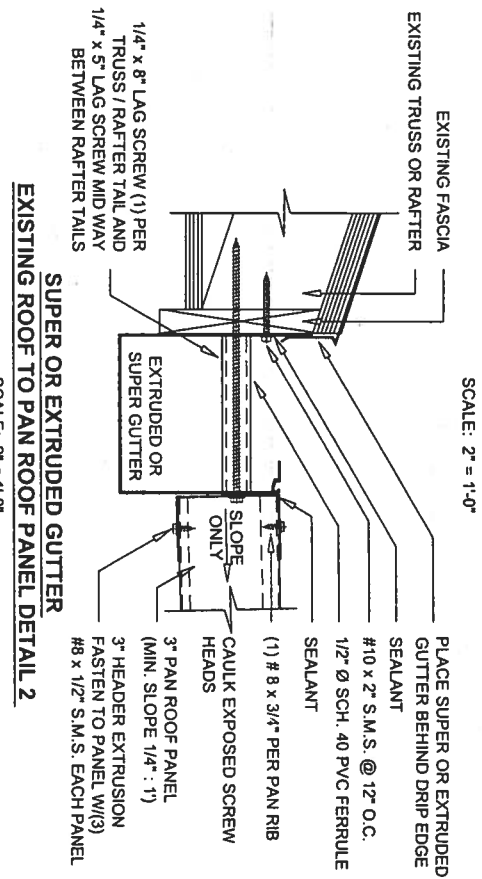
PANTO WOOD FRAME DETAIL



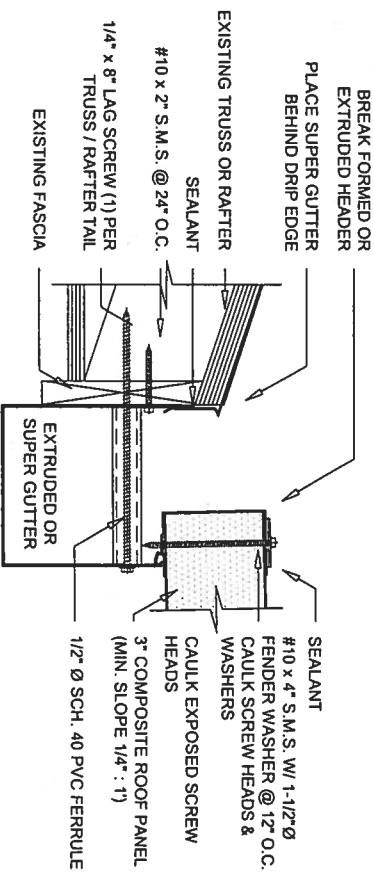
COMPOSITE PANEL TO WOOD FRAME DETAIL



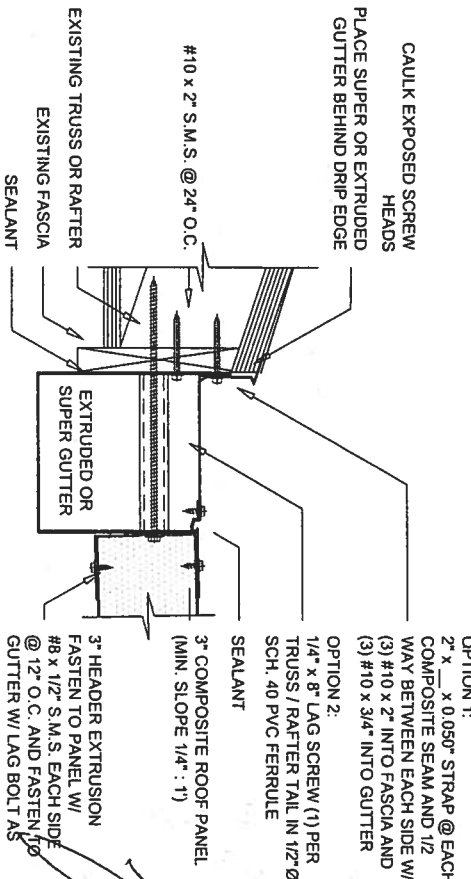
SUPER OR EXTRUDED GUTTER
EXISTING ROOF TO PAN ROOF PANEL DETAIL 1



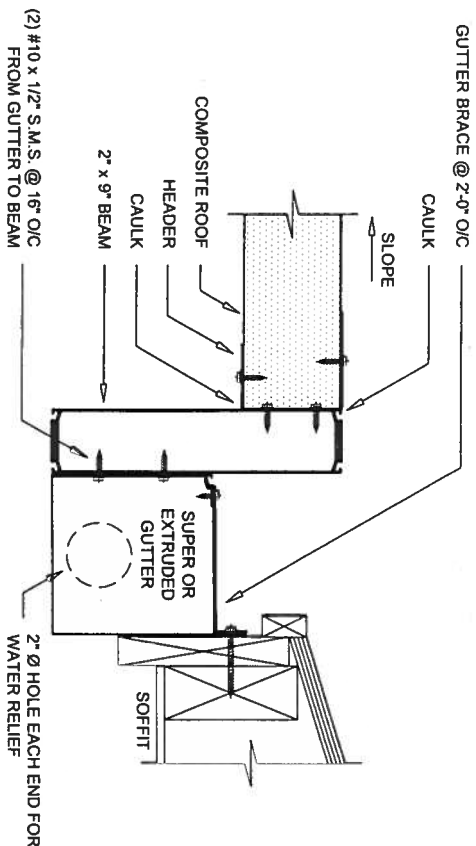
SUPER OR EXTRUDED GUTTER
EXISTING ROOF TO PAN ROOF PANEL DETAIL 2



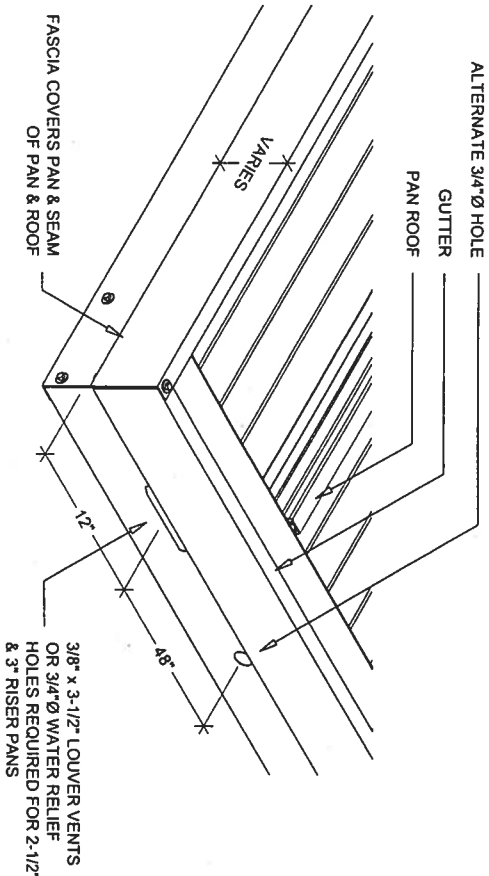
EXISTING ROOF TO COMPOSITE ROOF PANEL DETAIL 1



EXISTING ROOF TO COMPOSITE ROOF PANEL DETAIL 2

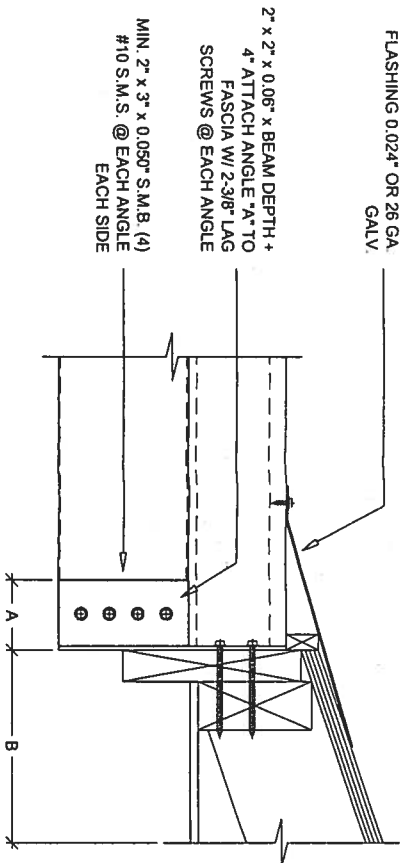


SUPER OR EXTRUDED GUTTER TO 2" x 9" BEAM DETAIL
SCALE: 2" = 1'-0"

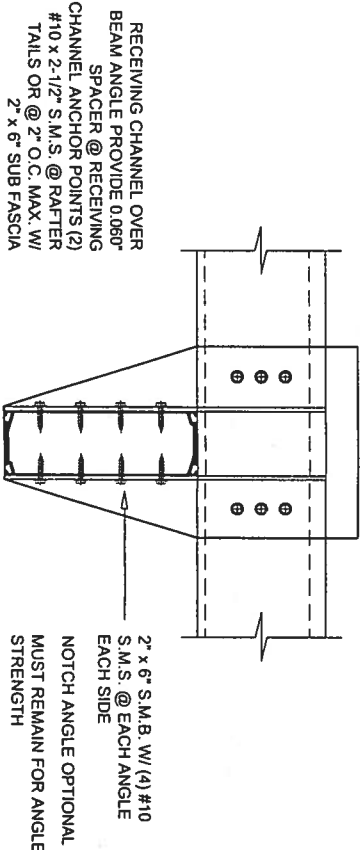


GUTTERS FOR 2-1/2" AND LARGER PANS SHALL HAVE A 3/4" Ø HOLE OR A 3/8" x 4" LOUVER @ 12" FROM EACH END AND 48" O.C. BELOW THE PAN RISE BREAK TO PREVENT WATER BUILD-UP ON THE ROOF. THIS WATER RELIEF SYSTEM IS RECOMMENDED FOR PANS SMALLER THAN 2-1/2" ALSO

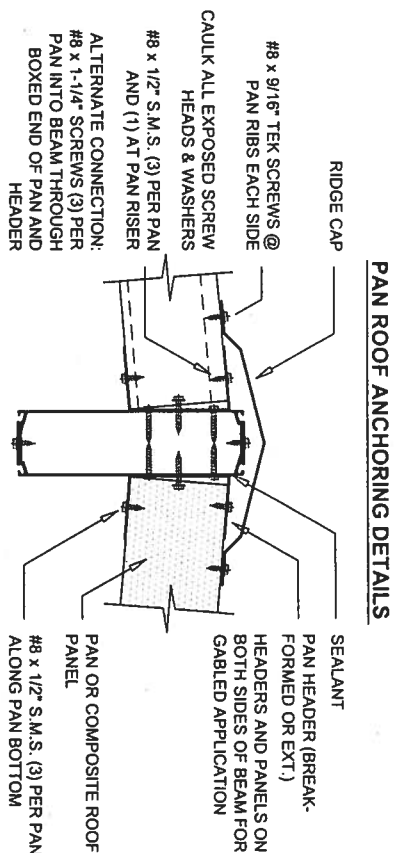
PAN FASCIA & GUTTER END CAP WATER RELIEF DETAIL
SCALE: 2" = 1'-0"



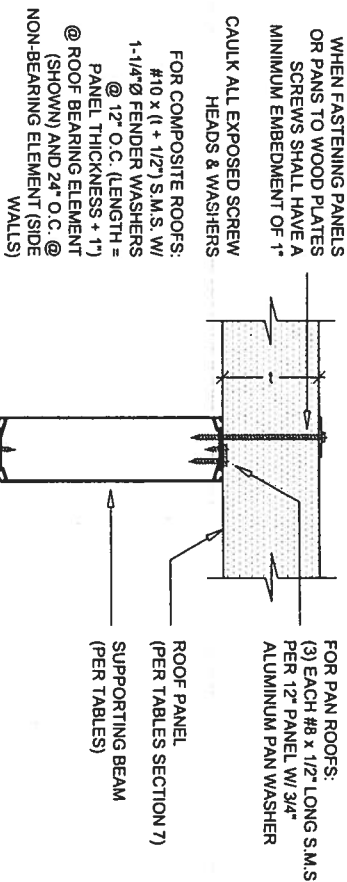
CANTILEVERED BEAM CONNECTION TO FASCIA DETAIL
SCALE: 2" = 1'-0"



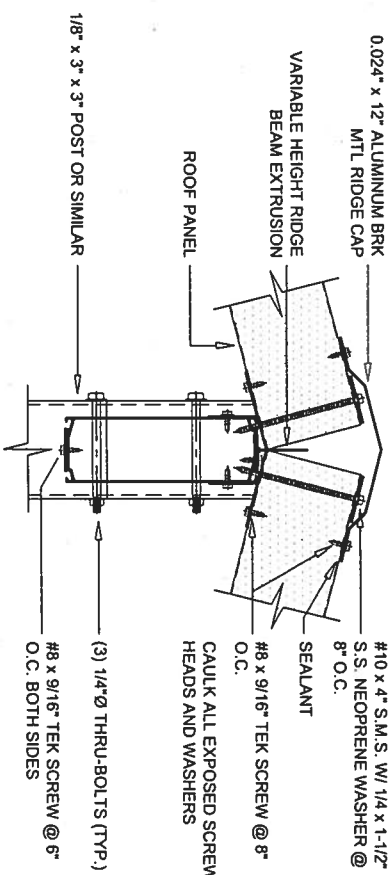
CANTILEVERED BEAM CONNECTION AT FASCIA (END VIEW)
SCALE: 2" = 1'-0"



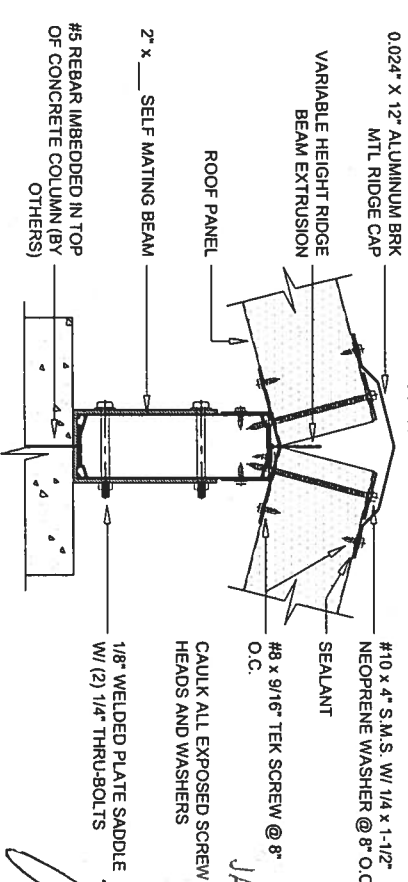
ROOF PANEL TO BEAM DETAIL
SCALE: 2" = 1'-0"



ROOF PANEL TO BEAM FASTENING DETAIL
SCALE: 2" = 1'-0"



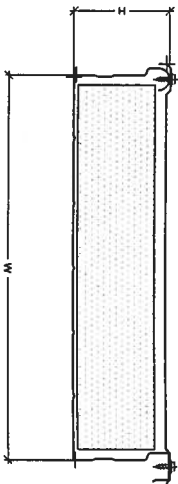
PANEL ROOF TO RIDGE BEAM @ POST DETAIL
SCALE: 2" = 1'-0"



PANEL ROOF TO RIDGE BEAM @ CONCRETE POST DETAIL
SCALE: 2" = 1'-0"

0.024" ALUMINUM COVER PAN
OR CONTINUOUS ALUMINUM
SHEET

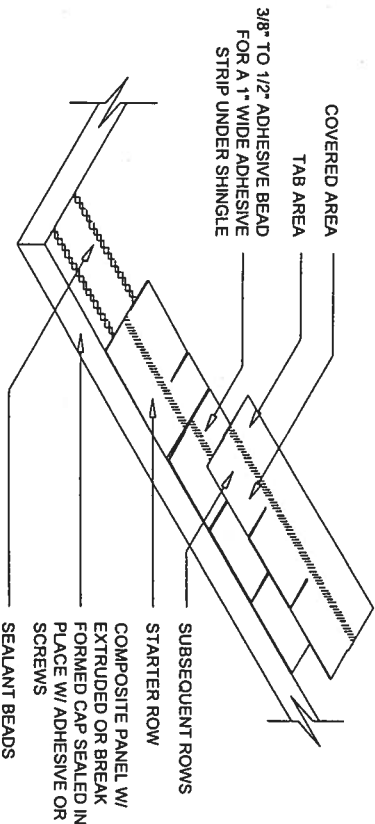
#8 x 1/2" CORROSION
RESISTIVE WASHER HEADED
SCREWS @ 24" O.C.
ALTERNATE #8 x 1/2" S.M.S.
W/ 1/2" Ø WASHER.



TYPICAL INSULATED PANEL

SCALE: 2" = 1'-0"

- NOTES:
1. INSTALL RIGID FOAM INSULATION INTO ALUMINUM ROOF PAN.
 2. COVER INSULATION WITH 0.024" PROTECTOR PANEL WITH OVERLAPPING SEAMS.
 3. INSULATION PANEL SHALL BE CLOSED WITH ALUMINUM END CAP TO SECURE PLACEMENT AND TO DISCOURAGE THE NESTING OF WILDLIFE AND OR INSECTS.
 4. PROTECTOR PANEL WILL BE SECURED BY #8 x 5/8" CORROSION RESISTIVE WASHER HEADED SCREWS.
 5. SCREW PATTERN WILL BE 12" ON ALL PERIMETERS AND 24" O.C. FIELD ON EACH PANEL.
 6. ALUMINUM END CAP WILL BE ATTACHED WITH (3) #8 x 1/2" CORROSION RESISTIVE WASHER HEADED SCREWS.
- NOTE: FOR PANEL SPANS W/ 0.024" ALUMINUM PROTECTIVE COVER MULTIPLY SPANS IN SECTION 5 OR 7 BY 1.28 FOR H-28 METAL & 1.20 FOR H-14 OR H-25 METAL.



PROFAB COMPOSITE ROOF PANEL WITH SHINGLE FINISH DETAIL

SCALE: N.T.S.

ATTACH SHINGLES TO COMPOSITE ROOF PANELS WITH INDUSTRIAL ADHESIVE. APPLY ADHESIVE IN A CONTINUOUS BEAD 3/8" TO 1/2" DIAMETER SO THAT THERE IS A 1" WIDE STRIP OF ADHESIVE WHEN THE SHINGLE IS PUT IN PLACE.

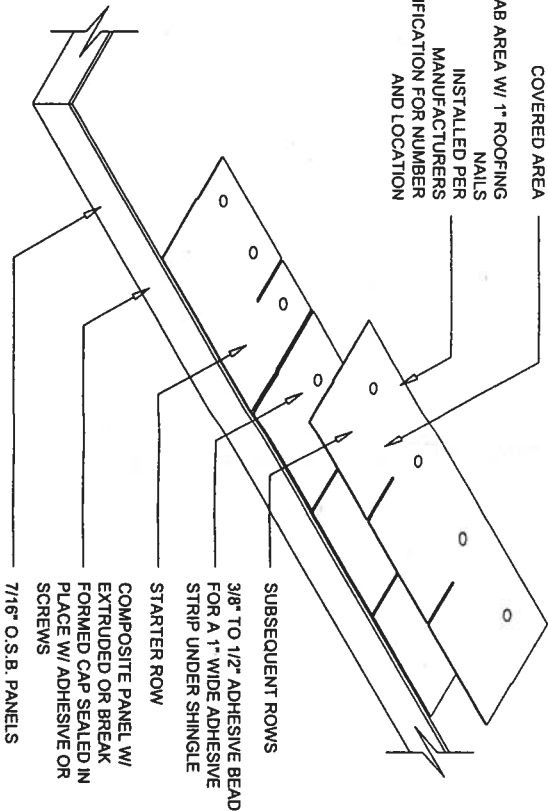
FOR AREAS UP TO 120 M.P.H. WIND ZONE:

- 1) STARTER ROWS OF SHINGLES SHALL HAVE ONE STRIP OF ADHESIVE UNDER THE SHINGLE AT MID COVERED AREA AND ONE UNDER THE SHINGLE AT MID TAB AREA. STARTER SHINGLE ROW INSTALLED WITH THE TABS FACING IN THE UPWARD DIRECTION OF THE ROOF SLOPE.
 - 2) SUBSEQUENT ROWS OF SHINGLES INSTALLED WITH THE TABS FACING IN THE DOWNWARD DIRECTION OF THE ROOF SLOPE WITH ONE STRIP OF ADHESIVE UNDER THE SHINGLE AT MID COVERED AREA.
- FOR AREAS ABOVE 120 M.P.H. WIND ZONE:
- 1) STARTER ROWS OF SHINGLES SHALL HAVE TWO STRIPS OF ADHESIVE UNDER THE SHINGLE AT MID COVERED AREA AND TWO STRIPS AT MID TAB AREA. SHINGLE ROW INSTALLED WITH THE TABS FACING IN THE UPWARD DIRECTION OF THE ROOF SLOPE.
 - 2) SUBSEQUENT ROWS OF SHINGLES INSTALLED PER PREVIOUS SPECIFICATION WITH TWO STRIPS OF ADHESIVE AT MID COVERED AREA.

• ADHESIVE: CHEM REX - PL PREMIUM 948 URETHANE ADHESIVE OR OSI - RF-140

MINIMUM ROOF SLOPE: 2" IN 12"

COVERED AREA
TAB AREA W/ 1" ROOFING
NAILS
INSTALLED PER
MANUFACTURERS
SPECIFICATION FOR NUMBER
AND LOCATION



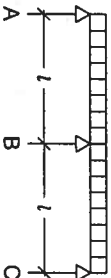
PROFAB COMPOSITE ROOF PANEL WITH O.S.B.
AND STANDARD SHINGLE FINISH DETAIL

SCALE: N.T.S.

- SPECIFICATIONS FOR APPLYING O.S.B. AND SHINGLES FOR ROOF SLOPES OF 3:12 AND GREATER
1. INSTALL PRO-FAB PANELS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 2. SEAL ALL SEAMS WITH PRO 2000 CHEMREX 948 URETHANE AND CLEAN THE ROOF OF ANY DIRT, GREASE, WATER OR OIL.
 3. APPLY 16 MILS OF MORTON 652 GLUE TO THE PANELS AND INSTALL 7/16" O.S.B. OVER THE GLUE AND PANELS.
 4. INSTALL 15# FELT PAPER IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2001 EDITION, SECTION 1507.38.
 5. INSTALL SHINGLES IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2001 EDITION, SECTION 1507.3.

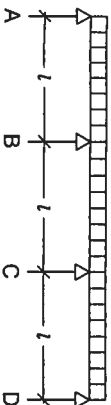
SINGLE SPAN CANTILEVER

UNIFORM LOAD



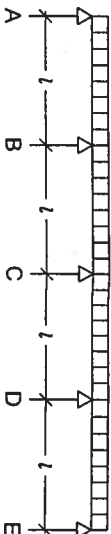
1 OR SINGLE SPAN

UNIFORM LOAD



2 SPAN

UNIFORM LOAD



4 SPAN

NOTES:

1. L = Span Length
 - a = Overhang Length
2. All spans listed in the tables are for equally spaced distances between supports or anchor points.
3. Panels shall not be spliced except at supports.

SPAN EXAMPLES FOR SECTION 7 TABLES

SCALE: N.T.S.

SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
2004 FLORIDA BUILDING CODE
MAY 2004 EDITION
SECTION 7 DETAILS

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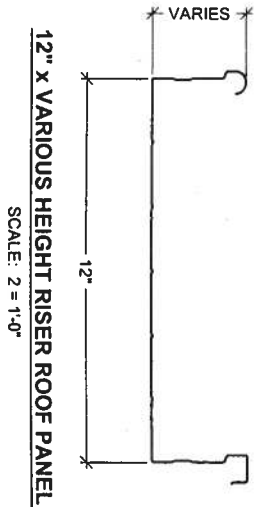
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12" x VARIOUS HEIGHT RISER ROOF PANEL

SCALE: 2" = 1'-0"

Table 7.3.1 Allowable Spans for Riser Panels for Various Loads

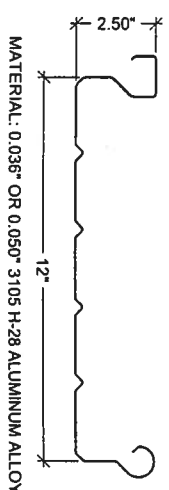
Metals USA Building Products L.P.
Manufacturers Proprietary Products: Aluminum Alloy 3105 H-28

Wind Region	Open Structures Mono-Sloped Roof				Screen Rooms & Attached Covers				Glass & Modular Rooms Enclosed				Overhang / Cantilever
	1&2	3	4	1&2	3	4	1&2	3	4	1&2	3	4	
100 MPH	14'-7"	17'-11"	18'-4"	13'-8"	17'-5"	17'-8"	11'-2"	14'-3"	14'-7"	13'-5"	13'-9"	13'-7"	4'-0"
110 MPH	14'-1"	17'-11"	18'-4"	12'-8"	15'-9"	16'-0"	10'-6"	13'-5"	13'-9"	12'-7"	12'-10"	12'-6"	3'-9"
120 MPH	13'-4"	17'-5"	17'-9"	11'-9"	15'-1"	15'-5"	9'-9"	12'-5"	12'-8"	11'-3"	11'-10"	11'-3"	3'-7"
130 MPH	13'-2"	16'-3"	17'-4"	11'-7"	14'-10"	15'-1"	9'-5"	11'-8"	11'-9"	11'-3"	11'-10"	11'-3"	3'-4"
140 MPH	12'-9"	15'-8"	16'-0"	11'-2"	14'-3"	14'-7"	8'-5"	11'-8"	11'-9"	11'-3"	11'-10"	11'-3"	3'-3"
150 MPH	10'-1"	12'-8"	12'-9"	10'-1"	12'-6"	12'-9"	8'-6"	10'-5"	10'-9"	10'-5"	10'-9"	10'-5"	3'-3"

3" x 12" x 0.030" 2 or 5 Rib Riser Panels

Wind Region	Open Structures Mono-Sloped Roof				Screen Rooms & Attached Covers				Glass & Modular Rooms Enclosed				Overhang / Cantilever
	1&2	3	4	1&2	3	4	1&2	3	4	1&2	3	4	
100 MPH	15'-9"	19'-5"	19'-10"	14'-10"	18'-10"	19'-2"	12'-6"	15'-5"	15'-9"	14'-7"	14'-10"	14'-7"	4'-0"
110 MPH	15'-3"	19'-5"	19'-10"	13'-9"	17'-10"	18'-2"	11'-3"	14'-6"	14'-10"	13'-11"	13'-11"	13'-11"	4'-0"
120 MPH	14'-5"	18'-10"	18'-10"	13'-2"	16'-3"	16'-7"	10'-8"	13'-7"	13'-11"	13'-11"	13'-11"	13'-11"	4'-0"
130 MPH	14'-2"	18'-4"	18'-8"	12'-11"	15'-11"	16'-4"	10'-6"	13'-5"	13'-8"	13'-8"	13'-8"	13'-8"	3'-10"
140 MPH	10'-11"	13'-6"	13'-9"	10'-11"	13'-6"	13'-9"	9'-8"	12'-4"	12'-7"	12'-7"	12'-7"	12'-7"	3'-8"
150 MPH	10'-11"	13'-6"	13'-9"	10'-11"	13'-6"	13'-9"	9'-2"	11'-4"	11'-7"	11'-7"	11'-7"	11'-7"	3'-6"

Note: Total roof panel width = room width + wall width + overhang.



12.00" x 2.50" SUPER PAN® ROOF PANELS (PATENT # 4,918,898)

SCALE: 2" = 1'-0"

Table 7.3.2 Allowable Spans for SUPER PAN® Panels for Various Loads

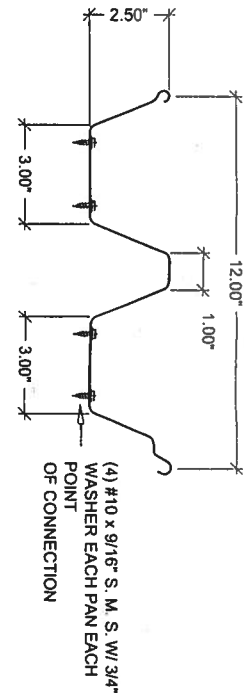
Metals USA Building Products L.P.
Manufacturers Proprietary Products: Aluminum Alloy 3105 H-28

Wind Region	Open Structures Mono-Sloped Roof				Screen Rooms & Attached Covers				Glass & Modular Rooms Enclosed				Overhang / Cantilever
	1&2	3	4	1&2	3	4	1&2	3	4	1&2	3	4	
100 MPH	15'-10"	19'-6"	19'-11"	14'-11"	18'-11"	19'-4"	12'-7"	15'-6"	15'-10"	14'-7"	14'-11"	14'-7"	4'-0"
110 MPH	15'-4"	19'-6"	19'-11"	13'-10"	17'-11"	18'-3"	11'-4"	14'-7"	14'-11"	13'-8"	13'-11"	13'-8"	4'-0"
120 MPH	14'-6"	18'-11"	19'-4"	13'-3"	16'-4"	17'-5"	10'-7"	13'-8"	13'-11"	13'-8"	13'-11"	13'-8"	4'-0"
130 MPH	14'-3"	18'-5"	18'-10"	13'-0"	16'-1"	16'-5"	10'-7"	13'-8"	13'-11"	13'-8"	13'-11"	13'-8"	4'-0"
140 MPH	10'-11"	13'-7"	13'-10"	10'-11"	13'-7"	13'-10"	9'-9"	12'-5"	12'-8"	12'-5"	12'-8"	12'-5"	3'-8"
150 MPH	10'-11"	13'-7"	13'-10"	10'-11"	13'-7"	13'-10"	9'-3"	11'-5"	11'-8"	11'-5"	11'-8"	11'-5"	3'-6"

2-1/2" x 12" x 0.028" Super Pan

Wind Region	Open Structures Mono-Sloped Roof				Screen Rooms & Attached Covers				Glass & Modular Rooms Enclosed				Overhang / Cantilever
	1&2	3	4	1&2	3	4	1&2	3	4	1&2	3	4	
100 MPH	16'-2"	19'-11"	20'-5"	15'-3"	19'-4"	19'-9"	12'-10"	15'-10"	16'-2"	14'-9"	14'-11"	14'-9"	4'-0"
110 MPH	15'-8"	19'-11"	20'-5"	14'-2"	18'-4"	18'-8"	11'-7"	14'-11"	15'-3"	14'-0"	14'-11"	14'-0"	4'-0"
120 MPH	14'-10"	19'-4"	19'-9"	13'-7"	17'-6"	17'-10"	10'-11"	14'-0"	14'-4"	13'-9"	14'-1"	13'-9"	4'-0"
130 MPH	14'-2"	18'-10"	18'-3"	13'-4"	16'-6"	17'-6"	10'-10"	13'-9"	13'-7"	13'-4"	13'-7"	13'-4"	3'-11"
140 MPH	11'-3"	13'-10"	14'-2"	11'-3"	13'-10"	14'-2"	9'-11"	12'-8"	12'-11"	12'-8"	12'-11"	12'-8"	3'-9"
150 MPH	11'-3"	13'-10"	14'-2"	11'-3"	13'-10"	14'-2"	9'-6"	11'-8"	12'-4"	11'-8"	12'-4"	11'-8"	3'-7"

Note: Total roof panel width = room width + wall width + overhang.



MATERIAL: 0.028 OR 0.034" 3105 H-28 ALUMINUM ALLOY
12.00" x 2.50" W" PANEL

SCALE: 2" = 1'-0"

Table 7.3.3 Allowable Spans for SUPER PAN® Panels for Various Loads

Metals USA Building Products L.P.
Manufacturers Proprietary Products: Aluminum Alloy 3105 H-28

Wind Region	Open Structures Mono-Sloped Roof				Screen Rooms & Attached Covers				Glass & Modular Rooms Enclosed				Overhang / Cantilever
	1&2	3	4	1&2	3	4	1&2	3	4	1&2	3	4	
100 MPH	17'-3"	21'-3"	21'-6"	16'-3"	20'-7"	21'-0"	13'-8"	17'-6"	17'-10"	16'-3"	17'-10"	16'-3"	4'-0"
110 MPH	16'-8"	21'-3"	21'-6"	15'-1"	19'-5"	19'-8"	12'-10"	15'-11"	16'-3"	14'-11"	15'-11"	14'-11"	4'-0"
120 MPH	15'-9"	20'-7"	21'-0"	14'-5"	18'-7"	18'-11"	11'-8"	14'-11"	15'-3"	13'-3"	14'-11"	13'-3"	4'-0"
130 MPH	15'-7"	20'-1"	20'-6"	14'-2"	18'-3"	18'-7"	11'-6"	14'-8"	14'-11"	13'-3"	14'-11"	13'-3"	4'-0"
140 MPH	11'-11"	14'-9"	15'-1"	11'-11"	14'-9"	15'-1"	10'-7"	13'-6"	13'-10"	13'-2"	13'-10"	13'-2"	3'-11"
150 MPH	11'-11"	14'-9"	15'-1"	11'-11"	14'-9"	15'-1"	10'-1"	12'-11"	13'-2"	13'-2"	13'-2"	13'-2"	3'-10"

2-1/2" x 12" x 0.036" Super Pan

Wind Region	Open Structures Mono-Sloped Roof				Screen Rooms & Attached Covers				Glass & Modular Rooms Enclosed				Overhang / Cantilever
	1&2	3	4	1&2	3	4	1&2	3	4	1&2	3	4	
100 MPH	19'-5"	23'-11"	24'-6"	18'-10"	23'-3"	23'-8"	15'-5"	19'-9"	20'-1"	17'-4"	17'-8"	17'-4"	4'-0"
110 MPH	19'-5"	23'-11"	24'-6"	17'-9"	21'-11"	22'-5"	14'-6"	18'-9"	19'-1"	17'-4"	17'-8"	17'-4"	4'-0"
120 MPH	18'-10"	23'-3"	23'-8"	16'-3"	20'-11"	21'-4"	13'-7"	17'-8"	18'-0"	16'-3"	17'-8"	16'-3"	4'-0"
130 MPH	18'-4"	22'-8"	23'-1"	15'-11"	20'-7"	20'-11"	13'-5"	17'-4"	17'-8"	16'-3"	17'-8"	16'-3"	4'-0"
140 MPH	17'-4"	21'-5"	21'-10"	15'-5"	19'-9"	20'-1"	12'-11"	15'-11"	16'-3"	15'-7"	16'-3"	15'-7"	4'-0"
150 MPH	13'-5"	16'-8"	16'-11"	13'-5"	16'-8"	16'-11"	11'-4"	14'-6"	14'-10"	14'-6"	14'-10"	14'-6"	4'-0"

Note: Total roof panel width = room width + wall width + overhang.



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SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
2004 FLORIDA BUILDING CODE
MAY 2004 EDITION
SECTION 7 TABLES

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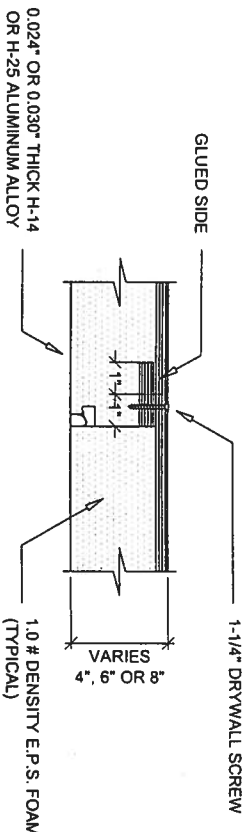
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MANUFACTURERS PROPRIETARY PRODUCTS



METALS USA BUILDING PRODUCTS L.P. PRO-FAB 716" O.S.B. & 0.024" ALUMINUM COMPOSITE PANEL

SCALE: 2" = 1'-0"

- Notes:
1. Total roof panel width = room width + wall width + overhang.
 2. Spans may be interpolated between values but not extrapolated outside values.

Table 7.3.4

Allowable Spans for W Panels for Various Loads
Metals USA Building Products L.P.
Manufacturers Proprietary Products: Aluminum Alloy 3105 H-28

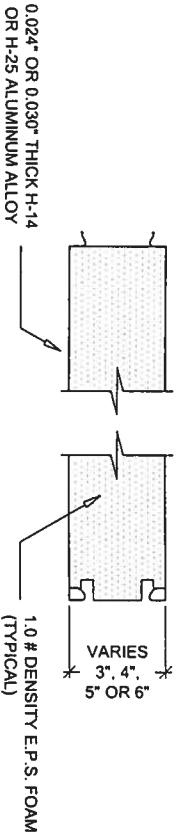
2-1/2" x 12" x 0.028" W Panels											
Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	11'-5"	15'-1"	15'-5"	11'-5"	14'-1"	14'-5"	10'-3"	13'-1"	13'-4"	All	All
110 MPH	10'-11"	14'-1"	14'-5"	10'-9"	13'-4"	13'-7"	9'-7"	12'-4"	12'-7"	3'-10"	3'-10"
120 MPH	10'-3"	13'-4"	13'-7"	10'-1"	12'-6"	12'-9"	9'-1"	11'-2"	11'-5"	3'-8"	3'-8"
123 MPH	10'-2"	13'-1"	13'-5"	9'-11"	12'-4"	12'-7"	8'-11"	11'-0"	11'-3"	3'-5"	3'-5"
130 MPH	9'-10"	12'-8"	12'-11"	9'-7"	11'-10"	12'-1"	8'-8"	10'-8"	10'-11"	3'-3"	3'-3"
140 MPH	9'-4"	11'-7"	11'-10"	9'-2"	11'-4"	11'-7"	8'-3"	10'-2"	10'-4"	3'-1"	3'-1"
150 MPH	8'-11"	10'-11"	11'-2"	8'-9"	10'-9"	10'-11"	7'-10"	9'-9"	9'-10"	2'-11"	2'-11"

2-1/2" x 12" x 0.034" W Panels

Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	13'-1"	16'-2"	16'-6"	12'-3"	15'-1"	15'-5"	10'-11"	14'-0"	14'-4"	4'-0"	4'-0"
110 MPH	11'-9"	15'-1"	15'-5"	11'-7"	14'-3"	14'-7"	10'-3"	13'-2"	13'-6"	3'-11"	3'-11"
120 MPH	10'-11"	14'-3"	14'-7"	10'-10"	13'-5"	13'-8"	9'-8"	12'-5"	12'-8"	3'-8"	3'-8"
123 MPH	10'-10"	14'-1"	14'-4"	10'-8"	13'-2"	13'-5"	9'-7"	11'-10"	12'-5"	3'-7"	3'-7"
130 MPH	10'-6"	13'-7"	13'-10"	10'-3"	12'-8"	12'-11"	9'-3"	11'-5"	11'-8"	3'-6"	3'-6"
140 MPH	10'-0"	12'-10"	13'-1"	9'-10"	12'-1"	12'-4"	8'-10"	10'-10"	11'-1"	3'-4"	3'-4"
150 MPH	9'-6"	12'-3"	12'-6"	9'-4"	11'-6"	11'-9"	8'-4"	10'-4"	10'-7"	3'-2"	3'-2"

Note: Total roof panel width = room width + wall width + overhang.

MANUFACTURERS PROPRIETARY PRODUCTS



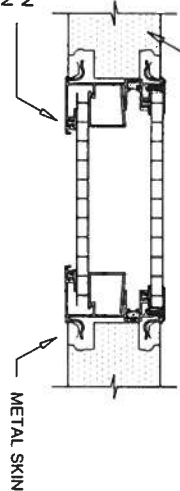
METALS USA BUILDING PRODUCTS L.P. PRO-FAB COMPOSITE PANEL W/ EZ-LOCK

SCALE: 2" = 1'-0"

- Notes:
- 1) Total roof panel width = room width + wall width + overhang.
 - 2) Spans may be interpolated between values but not extrapolated outside values.
 - 3) The Sun Ray roof panel system is designed to span from support to support mated to a full 48" PRO-FAB panel between Sun Ray panels or between (2) 24" solid panels. Reference Table 7.3.5 or 7.3.7 for allowed spans of the Sun Ray roof panel system.

FOAM CORE

THERMALLY BROKEN
ALUMINUM EXTRUSION



SUN RAY ROOF PANEL 3" x 24" - TWIN WALL FULL LENGTH SYSTEM

SCALE: 2" = 1'-0"

Table 7.3.5 Allowable Spans for 0.024" PRO-FAB 716" O.S.B. & 0.024" Aluminum Composite Panels w/ EZ-LOCK for Various Loads

Manufacturers Proprietary Products: Aluminum Alloy 3105 H-14 or H-25 Foam Core E.P.S. #1 Density Metals USA Building Products L.P.

4" x 48" x 0.024" Roof Panel (R Value = 18.74)											
Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	All	All
110 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	4'-0"	4'-0"
120 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	4'-0"	4'-0"
123 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	4'-0"	4'-0"
130 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	4'-0"	4'-0"
140 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	4'-0"	4'-0"
150 MPH	17'-5"	19'-5"	19'-9"	15'-11"	18'-6"	17'-11"	12'-4"	13'-9"	13'-3"	4'-0"	4'-0"

6" x 48" x 0.024" Roof Panel (R Value = 23.74)

Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"
110 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"
120 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"
123 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"
130 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"
140 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"
150 MPH	24'-9"	27'-8"	28'-9"	23'-7"	26'-5"	25'-6"	18'-6"	20'-8"	19'-11"	4'-0"	4'-0"

8" x 48" x 0.024" Roof Panel (R Value = 28.74)

Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"
110 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"
120 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"
123 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"
130 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"
140 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"
150 MPH	26'-9"	29'-11"	28'-11"	25'-6"	28'-6"	27'-7"	19'-11"	22'-3"	21'-6"	4'-0"	4'-0"

Note: Total roof panel width = room width + wall width + overhang

Table 7.3.7 Allowable Spans for 0.030" PRO-FAB Composite Panels w/ EZ-LOCK for Various Loads

Manufacturers Proprietary Products: Aluminum Alloy 3105 H-14 or H-25 Foam Core E.P.S. #1 Density Metals USA Building Products L.P.

3" x 48" x 0.030" Roof Panel w/ EZ-LOCK											
Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"
110 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"
120 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"
123 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"
130 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"
140 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"
150 MPH	24'-11"	27'-11"	27'-0"	23'-10"	26'-6"	25'-9"	18'-8"	20'-10"	20'-2"	4'-0"	4'-0"

4" x 48" x 0.030" Roof Panel w/ EZ-LOCK

Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
110 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
120 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
123 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
130 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
140 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
150 MPH	27'-9"	30'-11"	29'-11"	25'-5"	28'-6"	28'-7"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"

5" x 48" x 0.030" Roof Panel w/ EZ-LOCK

Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	31'-3"	34'-11"	33'-9"	29'-9"	33'-3"	32'-2"	23'-3"	26'-0"	25'-2"	4'-0"	4'-0"
110 MPH	31'-3"	34'-11"	33'-9"	29'-9"	33'-3"	32'-2"	23'-3"	26'-0"	25'-2"	4'-0"	4'-0"
120 MPH	29'-9"	33'-3"	32'-2"	29'-6"	32'-6"	31'-5"	22'-5"	25'-2"	24'-4"	4'-0"	4'-0"
123 MPH	28'-7"	31'-11"	30'-11"	24'-9"	27'-8"	26'-9"	19'-2"	21'-5"	20'-9"	4'-0"	4'-0"
130 MPH	28'-7"	31'-11"	30'-11"	24'-9"	27'-8"	26'-9"	19'-2"	21'-5"	20'-9"	4'-0"	4'-0"
140 MPH	28'-7"	31'-11"	30'-11"	24'-9"	27'-8"	26'-9"	19'-2"	21'-5"	20'-9"	4'-0"	4'-0"
150 MPH	28'-7"	31'-11"	30'-11"	24'-9"	27'-8"	26'-9"	19'-2"	21'-5"	20'-9"	4'-0"	4'-0"

6" x 48" x 0.030" Roof Panel w/ EZ-LOCK

Wind Region	Open Structures Mono-Sloped Roof			Screen Rooms & Attached Covers			Glass & Modular Rooms Enclosed			Overhang/Canilever	
	162	3	4	162	3	4	162	3	4	162	3
100 MPH	32'-8"	36'-7"	35'-4"	31'-2"	34'-10"	33'-8"	24'-4"	27'-3"	26'-4"	4'-0"	4'-0"
110 MPH	32'-8"	36'-7"	35'-4"	31'-2"	34'-10"	33'-8"	24'-4"	27'-3"	26'-4"	4'-0"	4'-0"
120 MPH	31'-2"	34'-10"	33'-8"	28'-8"	32'-1"	30'-11"	22'-7"	25'-3"	24'-5"	4'-0"	4'-0"
123 MPH	29'-11"	33'-6"	32'-5"	25'-11"	28'-11"	28'-0"	20'-8"	23'-1"	22'-4"	4'-0"	4'-0"
130 MPH	27'-8"	30'-11"	29'-10"	24'-4"	27'-3"	26'-4"	18'-11"	21'-1"	20'-5"	4'-0"	4'-0"
140 MPH	18'-11"	21'-1"	20'-5"	18'-11"	21'-1"	20'-5"	17'-6"	19'-7"	18'-11"	4'-0"	4'-0"
150 MPH	18'-11"	21'-1"	20'-5"	18'-11"	21'-1"	20'-5"	17'-6"	19'-7"	18'-11"	4'-0"	4'-0"

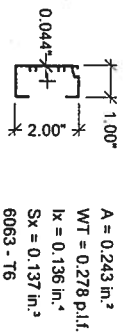
Note: Total roof panel width = room width + wall width + overhang

Table 7.3.6 Allowable Spans for 0.024" PRO-FAB Composite Panels w/ EZ-LOCK for Various Loads

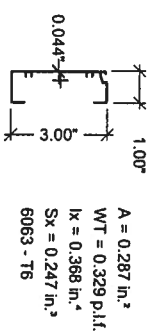
Manufacturers Proprietary Products: Aluminum Alloy 3105 H-14 or H

General Notes and Specifications:

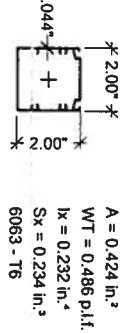
The following extrusions are considered to be "Industry Standard" shapes. The properties are based on die drawings furnished by Florida Extruders International, Inc..



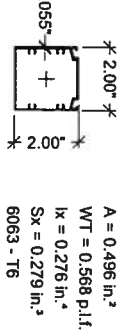
1" x 2" x 0.044" OPEN BACK SECTION
SCALE: 2" = 1'-0"



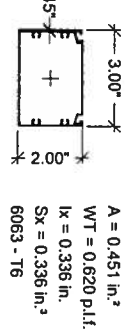
1" x 3" x 0.044" OPEN BACK SECTION
SCALE: 2" = 1'-0"



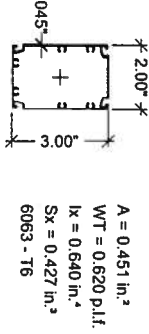
2" x 2" x 0.044" PATIO SECTION
SCALE: 2" = 1'-0"



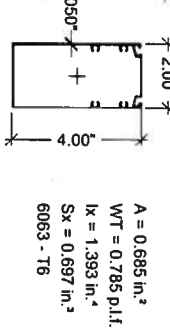
2" x 2" x 0.055" PATIO SECTION
SCALE: 2" = 1'-0"



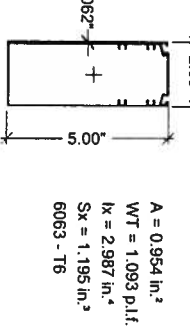
3" x 2" x 0.045" PATIO SECTION
SCALE: 2" = 1'-0"



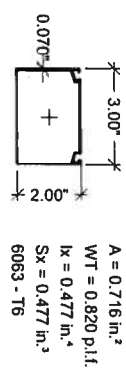
2" x 3" x 0.045" PATIO SECTION
SCALE: 2" = 1'-0"



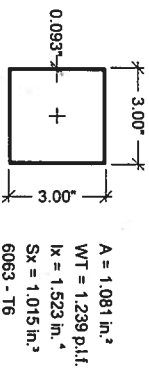
2" x 4" x 0.050" PATIO SECTION
SCALE: 2" = 1'-0"



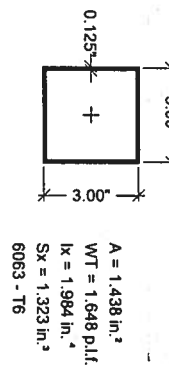
2" x 5" x 0.062" PATIO SECTION
SCALE: 2" = 1'-0"



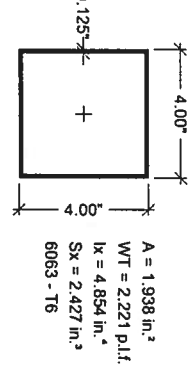
3" x 2" x 0.070" PATIO SECTION
SCALE: 2" = 1'-0"



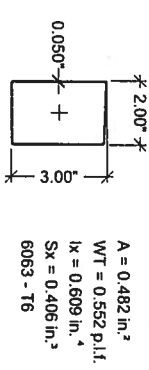
3" x 3" x 0.093" PATIO SECTION
SCALE: 2" = 1'-0"



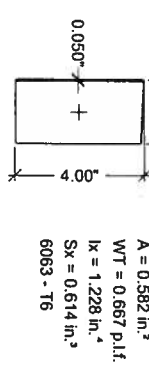
3" x 3" x 0.125" PATIO SECTION
SCALE: 2" = 1'-0"



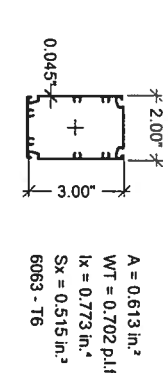
4" x 4" x 0.125" PATIO SECTION
SCALE: 2" = 1'-0"



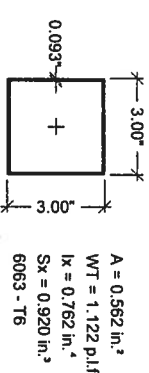
2" x 3" x 0.050" TILT SECTION
SCALE: 2" = 1'-0"



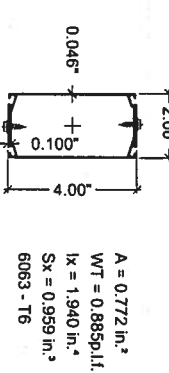
2" x 4" x 0.050" TILT SECTION
SCALE: 2" = 1'-0"



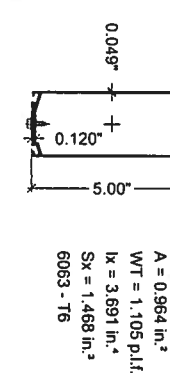
2" x 3" x 0.045" SPECIAL SECTION
SCALE: 2" = 1'-0"



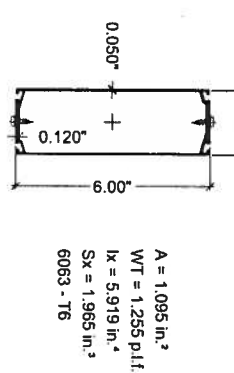
3" x 3" x 0.045" FLUTED SECTION
SCALE: 2" = 1'-0"



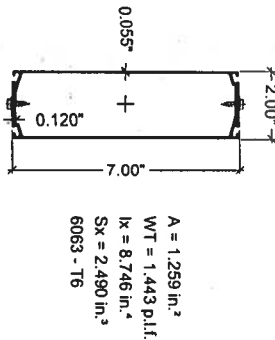
2" x 4" x 0.046" x 0.100" SELF MATING BEAM
SCALE: 2" = 1'-0"



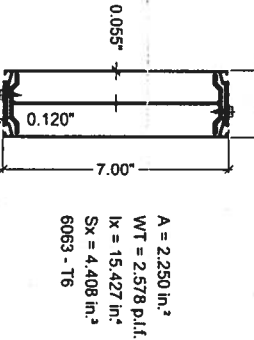
2" x 5" x 0.050" x 0.120" SELF MATING BEAM
SCALE: 2" = 1'-0"



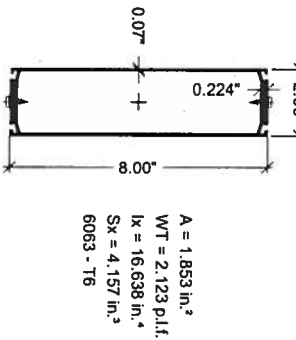
2" x 6" x 0.050" x 0.120" SELF MATING BEAM
SCALE: 2" = 1'-0"



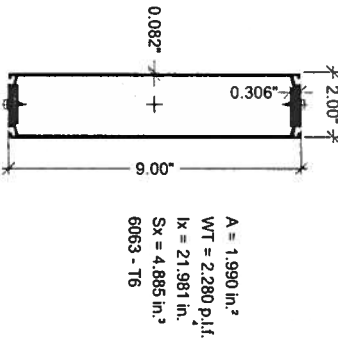
2" x 7" x 0.055" x 0.120" SELF MATING BEAM
SCALE: 2" = 1'-0"



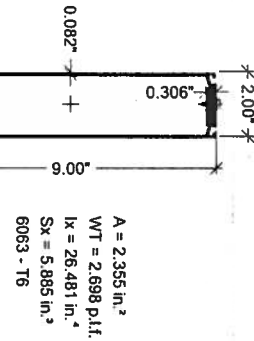
2" x 7" x 0.055" x 0.120" SELF MATING BEAM W/ INSERT
SCALE: 2" = 1'-0"



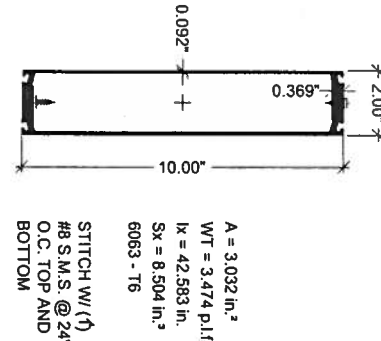
2" x 8" x 0.072" x 0.224" SELF MATING BEAM
SCALE: 2" = 1'-0"



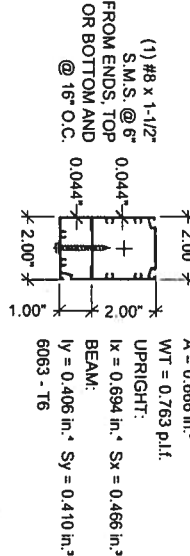
2" x 9" x 0.072" x 0.224" SELF MATING BEAM
SCALE: 2" = 1'-0"



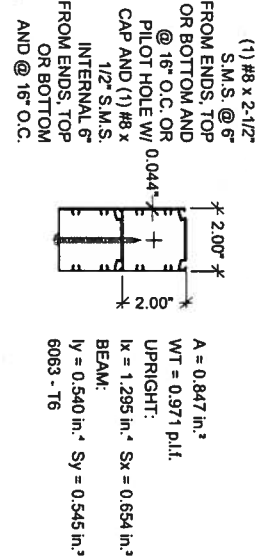
2" x 9" x 0.082" x 0.306" SELF MATING BEAM
SCALE: 2" = 1'-0"



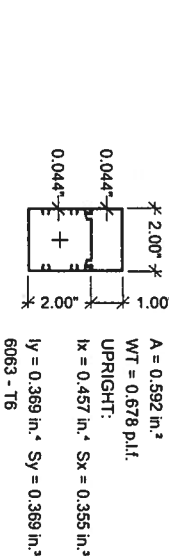
2" x 10" x 0.092" x 0.369" SELF MATING BEAM
SCALE: 2" = 1'-0"



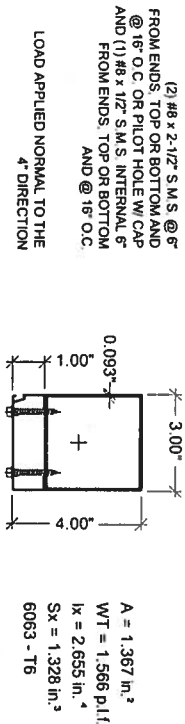
1" x 2" x 0.044" OPEN BACK SECTION WITH 1/2" S.M.S. @ 6" O.C.
SCALE: 2" = 1'-0"



2" x 2" x 0.044" PATIO SECTION WITH 1/2" S.M.S. @ 6" O.C.
SCALE: 2" = 1'-0"

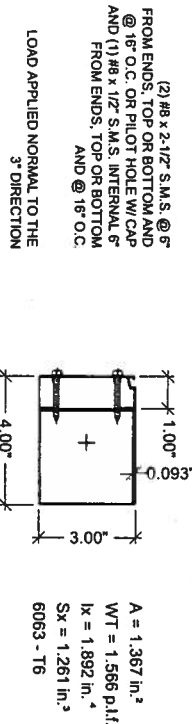


2" x 2" x 0.044" SNAP CAP SECTION WITH 1/2" S.M.S. @ 6" O.C.
SCALE: 2" = 1'-0"



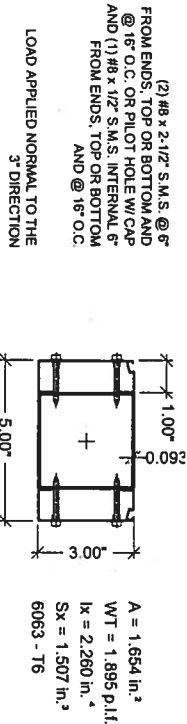
**1" x 3" x 0.044" OPEN BACK SECTION WITH
3" x 3" x 0.093" PATIO SECTION CORNER POST**

SCALE: 2" = 1'-0"



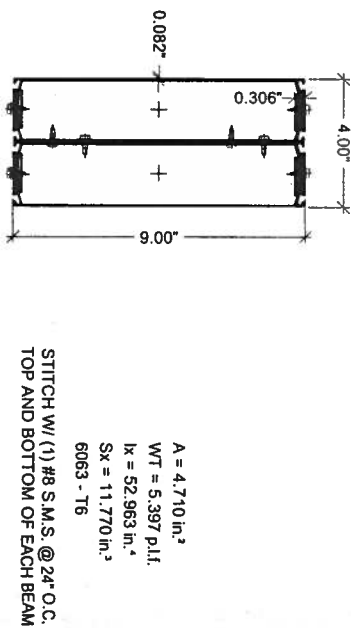
**1" x 3" x 0.044" OPEN BACK SECTION WITH
3" x 3" x 0.093" PATIO SECTION WALL POST**

SCALE: 2" = 1'-0"



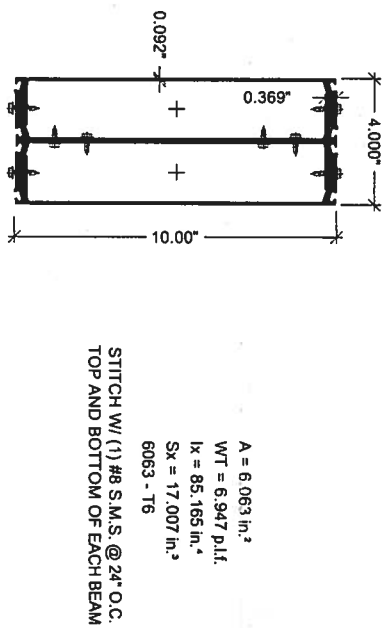
**(2) 1" x 3" x 0.044" OPEN BACK SECTION WITH
3" x 3" x 0.093" PATIO SECTION WALL POST**

SCALE: 2" = 1'-0"



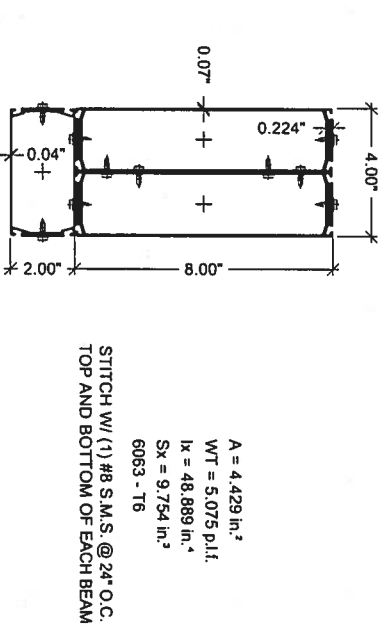
(2) 2" x 9" x 0.082" x 0.306" SELF MATING BEAMS

SCALE: 2" = 1'-0"



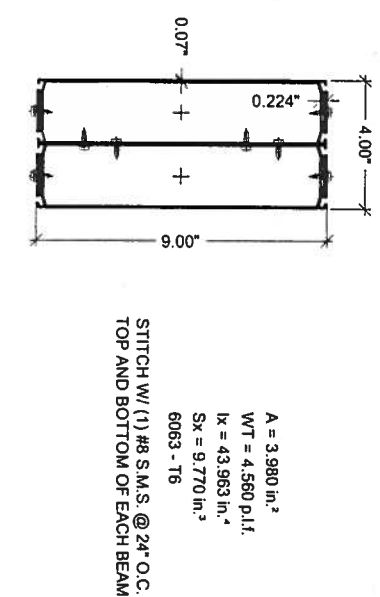
(2) 2" x 10" x 0.092" x 0.369" SELF MATING BEAMS

SCALE: 2" = 1'-0"



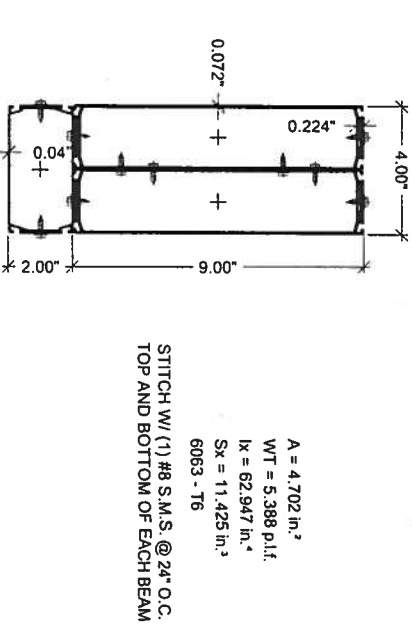
(2) 2" x 8" x 0.072" x 0.224" SELF MATING BEAMS

SCALE: 2" = 1'-0"



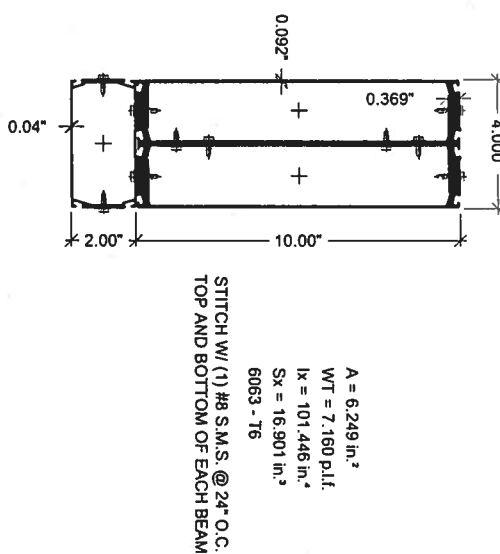
(2) 2" x 9" x 0.072" x 0.224" SELF MATING BEAMS

SCALE: 2" = 1'-0"



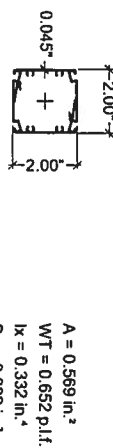
(2) 2" x 9" x 0.072" x 0.224" SELF MATING BEAMS W/ 2" x 4" x 0.038"

SCALE: 2" = 1'-0"



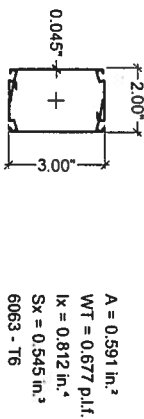
**(2) 2" x 10" x 0.092" x 0.369" SELF MATING BEAMS
WITH 2" x 4" x 0.038"**

SCALE: 2" = 1'-0"



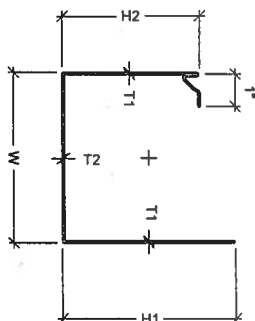
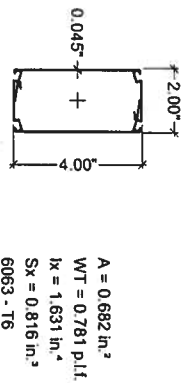
2" x 2" x 0.045" SNAP EXTRUSION

SCALE: 2" = 1'-0"



2" x 3" x 0.045" SNAP EXTRUSION

SCALE: 2" = 1'-0"



2" x 4" x 0.045" SNAP EXTRUSION

SCALE: 2" = 1'-0"

Section Alloy	W	H	t1	t2	A	Ix	Iy	Sx	Sy	Rx	Ry
6063 T-5	4	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Gutter Edge	6063 T-5	5	in.	in.	in.	in.	in.	in.	in.	in.	in.

Table 9.1 Allowable Loads for Concrete Anchors

Screw Size	Embedment Depth (in.)	Min. Edge Dist. & Anchor Spacing (in.)	Allowable Tension	Allowable Shear
ZAMAC NAILIN (Drive Anchors)				
1/4"	1-1/2"	1-1/4"	273#	236#
	2"	1-1/4"	316#	266#
TAPPER (Concrete Screws)				
3/16"	1-1/4"	15/16"	288#	167#
	1-3/4"	15/16"	371#	259#
1/4"	1-1/4"	1-1/4"	427#	200#
	1-3/4"	1-1/4"	544#	216#
3/8"	1-1/2"	1-7/8"	511#	402#
	1-3/4"	3-3/8"	703#	456#
POWER BOLT (Expansion Bolt)				
1/4"	2"	1-1/4"	624#	267#
5/16"	3"	1-7/8"	936#	751#
3/8"	3-1/2"	1-7/8"	1,575#	1,425#
1/2"	5"	2-1/2"	2,332#	2,220#
POWER STUD (Wedge Anchor)				
1/4"	2-3/4"	1-1/4"	812#	326#
3/8"	4-1/4"	1-7/8"	1,358#	921#
1/2"	6"	2-1/2"	2,271#	1,718#
5/8"	7"	2-1/4"	3,288#	2,202#

- Notes:
- Concrete screws are limited to 2" embedment by manufacturers.
 - Values listed are allowed loads with a safety factor of 4 applied.
 - Products equal to rawl may be substituted.
 - Anchors receiving loads perpendicular to the diameter are in tension.
 - Allowable loads are increased by 1,000 for wind load.
 - Minimum edge distance and center to center spacing shall be 5d.
 - Anchors receiving loads parallel to the diameter are shear loads.
 - A 133% increase has been applied because wind uplift is only load

Example:
Determine the number of concrete anchors required for a pool enclosure by dividing the uplift load by the anchor allowed load
For a 2" x 6" beam with spacing = 7'-0" O.C.,
allowed span = 20'-5" (Table 1.1)
UPLIFT LOAD = (1/2)BEAM SPAN) x BEAM & UPRIGHT SPACING

NUMBER OF ANCHORS = 1/2(20.42) x 7 x 10# / Sq. Ft.

ALLOWED LOAD ON ANCHOR
NUMBER OF ANCHORS = 714.70# = 1.67

Therefore, use 2 anchors, one (1) on each side of upright.

Table is based on Rawl Products allowable loads for 2,500 p.s.i. concrete.

Table 9.2 Wood & Concrete Fasteners for Open or Enclosed Buildings

Loads and Areas for Screws in Tension Only
Maximum Allowable - Load and Attributable Roof Area for 120 MPH Wind Zone (27.42 #/SF)
(For Wind Regions other than 120 MPH, Use Conversion Table at Bottom of this page)

CONNECTING TO: WOOD FOR OPEN OR ENCLOSED BUILDINGS				
Fastener Diameter	Length of Embedment	Number of Fasteners		
		1	2	3
1/4"	1-1/2"	264# - 10 SF 396# - 14 SF 660# - 24 SF 312# - 11 SF	528# - 19 SF 792# - 29 SF 1320# - 48 SF 624# - 23 SF	1056# - 39 SF 1584# - 58 SF 2640# - 96 SF 1248# - 46 SF
5/16"	1-1/2"	468# - 17 SF 760# - 28 SF 1560# - 57 SF	936# - 34 SF 1504# - 51 SF 2904# - 95 SF	1872# - 68 SF 3170# - 114 SF 5808# - 174 SF
3/8"	1-1/2"	356# - 13 SF 534# - 19 SF 890# - 32 SF	712# - 26 SF 1068# - 39 SF 1780# - 65 SF	1424# - 52 SF 2136# - 78 SF 3560# - 130 SF
CONNECTING TO: CONCRETE (Min. 2,500 psi) for PARTIALLY ENCLOSED BUILDINGS				
Fastener Diameter	Length of Embedment	Number of Fasteners		
		1	2	3
1/4"	1-1/2"	233# - 8 SF 270# - 10 SF	466# - 17 SF 540# - 20 SF	699# - 25 SF 810# - 30 SF
TYPE OF FASTENER = "Quick Set" Concrete Screw (Rawl Zamac Nailin or Equivalent)				
3/16"	1-1/2"	264# - 9 SF 317# - 12 SF	492# - 18 SF 634# - 23 SF	738# - 27 SF 951# - 33 SF
1/4"	1-1/2"	366# - 13 SF 468# - 17 SF	732# - 27 SF 936# - 34 SF	1098# - 46 SF 1404# - 51 SF
5/16"	1-1/2"	468# - 17 SF 601# - 22 SF	936# - 34 SF 1202# - 44 SF	1404# - 51 SF 1804# - 66 SF
TYPE OF FASTENER = Expansion Bolt (Rawl Power Bolt or Equivalent)				
3/8"	2-1/2"	1205# - 44 SF 1303# - 48 SF	2410# - 88 SF 2606# - 95 SF	3615# - 132 SF 3909# - 143 SF
1/2"	3"	1806# - 66 SF 1993# - 73 SF	3612# - 132 SF 3986# - 145 SF	5418# - 198 SF 5978# - 218 SF

Note:
1. The minimum distance from the edge of the concrete to the concrete anchor and spacing between anchors shall not be less than 5d where d is the anchor diameter.

2. Allowable loads have been increased by 1.33 for wind loading.
3. Allowable roof areas are based on loads for Glass / Enclosed Rooms (MWFRS), L = 1.00.
4. For partially enclosed buildings use a multiplier to roof area of 0.77.
5. For section 1 & 2 multiply roof areas by 1.30.

WIND LOAD CONVERSION TABLE: (Tables Shown), multiply allowable loads and roof areas by the conversion factor.			
WIND REGION	APPLIED LOAD	CONVERSION FACTOR	
100	19	1.19	
110	23	1.08	
120	27	1.00	
130	29	0.97	
140	37	0.92	
150	43	0.79	

Table 9.3 Wood & Concrete Fasteners for Partially Enclosed Buildings

Loads and Areas for Screws in Tension Only
Maximum Allowable - Load and Attributable Roof Area for 120 MPH Wind Zone (35.53 #/SF)
(For Wind Regions other than 120 MPH, Use Conversion Table at Bottom of this page)

CONNECTING TO: WOOD FOR PARTIALLY ENCLOSED BUILDINGS				
Fastener Diameter	Length of Embedment	Number of Fasteners		
		1	2	3
1/4"	1-1/2"	264# - 7 SF 396# - 11 SF 660# - 19 SF	528# - 15 SF 792# - 22 SF 1320# - 37 SF	1056# - 30 SF 1584# - 45 SF 2640# - 74 SF
5/16"	1-1/2"	312# - 9 SF 468# - 13 SF	624# - 18 SF 936# - 26 SF	1248# - 36 SF 1872# - 53 SF
3/8"	1-1/2"	468# - 17 SF 760# - 28 SF	936# - 34 SF 1504# - 51 SF	1404# - 51 SF 2136# - 78 SF
CONNECTING TO: CONCRETE (Min. 2,500 psi) for PARTIALLY ENCLOSED BUILDINGS				
Fastener Diameter	Length of Embedment	Number of Fasteners		
		1	2	3
1/4"	1-1/2"	233# - 8 SF 270# - 10 SF	466# - 17 SF 540# - 20 SF	699# - 25 SF 810# - 30 SF
TYPE OF FASTENER = "Quick Set" Concrete Screw (Rawl Zamac Nailin or Equivalent)				
3/16"	1-1/2"	264# - 7 SF 317# - 9 SF	492# - 14 SF 634# - 18 SF	738# - 21 SF 951# - 27 SF
1/4"	1-1/2"	366# - 10 SF 468# - 13 SF	732# - 21 SF 936# - 26 SF	1098# - 31 SF 1404# - 33 SF
5/16"	1-1/2"	437# - 12 SF 601# - 17 SF	874# - 23 SF 1202# - 34 SF	1311# - 37 SF 1804# - 51 SF
TYPE OF FASTENER = Expansion Bolt (Rawl Power Bolt or Equivalent)				
3/8"	2-1/2"	1205# - 34 SF 1303# - 37 SF	2410# - 68 SF 2606# - 73 SF	3615# - 102 SF 3909# - 110 SF
1/2"	3"	1806# - 51 SF 1993# - 56 SF	3612# - 102 SF 3986# - 112 SF	5418# - 152 SF 5978# - 168 SF

Notes:
1. The minimum distance from the edge of the concrete to the concrete anchor and spacing between anchors shall not be less than 5d where d is the anchor diameter.

2. Allowable loads have been increased by 1.33 for wind loading.

3. Allowable roof areas are based on loads for Glass / Partially Enclosed Rooms (MWFRS), L = 1.00.

4. a. For Glass / Enclosed Rooms and Sections 1 & 2 use a multiplier to roof area of 1.30.

WIND LOAD CONVERSION TABLE: (Tables Shown), multiply allowable loads and roof areas by the conversion factor.			
WIND REGION	APPLIED LOAD	CONVERSION FACTOR	
100	25	1.22	
110	30	1.11	
120	35	1.03	
130	37	1.00	
140	42	0.94	
150	56	0.81	

Table 9.4 Maximum Allowable Fastener Loads

for SAE Grade 5 Steel Fasteners into 6063 T-6 Alloy Aluminum Framing
(As Recommended by Manufacturers)
Self-Tapping and Machine Screws Allowable Loads Tensile
Strength 55,000 psi; Shear 24,000 psi

Screw Size	Nd	Allowable Tensile Loads on Screws for Nominal Wall Thickness (") (lbs.)									
		0.044"	0.050"	0.055"	0.072"	0.082"	0.092"	0.125"			
#8	0.164"	182	207	228	298	340	381	-			
#10	0.190"	211	240	264	345	393	441	-			
#12	0.210"	233	265	292	382	435	488	-			
#14	0.250"	278	318	347	455	518	581	-			
#16	0.300"	267	303	330	430	497	558	758			
#18	0.3125"	347	395	433	534	568	647	756	966		
#20	0.375"	417	473	521	652	726	776	1,184			
#22	0.50"	556	631	694	859	1,035	1,162	1,578			