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, 2001 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; ____ Partially Enclosed. 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

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.

_____ Phone:_____

Contractor Name (please print)

_____ Date:_____

Contractor Signature

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

3. Building Permit Application Package contains the following:	**Yes**	**No**
A. Project name & address on plans	___	___
B. Site plan or survey with enclosure location	___	___
C. Contractor's / Designer's name, address, phone number, & signature on plans	___	___
D. 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:	**Yes**	**No**
A. Beam & purlin tables w/ sizes, thickness, spacing, & spans / lengths. Indicate Section 3 tables used:_____	___	___

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

_____ (b or d) x ____ (b or d) x ____ (b or d) = _____

Wind Zone Multiplier * _____ _____ Exposure Multiplier *

B. Upright tables w/ sizes, thickness, spacing, & heights (Tables 3.2.1, 3.2.2, or 3.2.3)	___	___

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

_____ (b or d) x ____ (b or d) x ____ (b or d) = _____

Wind Zone Multiplier * _____ _____ Exposure Multiplier *

* Appropriate multiplier from page 3-ii.

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

	Yes	**No**
C. Table 3.3 with beam & upright combination if applicable.	___	___
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:

SITE SPECIFIC JOB CHECK LIST

Date: _____

1. Provide job name and address: _____

_____

_____

2. Your company name and address.

_____

_____

_____

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

The drawings must have the following minimum standards:

a. Plan view with dimensions TO SCALE.
b. Section view or front and side elevations TO SCALE.
c. The preferred scale is 1/4" = 1'.
d. Provide attachment details.
e. Street map with job location.
f. Wind zone and exposure category form Building Department.

General Notes and Specifications:

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.
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. The structures designed using this section shall be limited to a maximum projection of 16' from the host structure. Freestanding structures shall be limited to the maximum spans and size limits of component parts. Larger than these limits shall have site specific engineering.
4. 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 and inspection report along with addition plans for site specific review and seal by the engineer. This applies to all screen / glass rooms and / or structures to be attached.
   b. "Fourth wall construction" means the addition shall be free standing with only the roof flashing of the two units being attached. The most common "fourth wall construction" is a post & beam frame adjacent to the mobile / manufactured home. The same span tables can be used as for the front wall beam. For fourth wall beam use the carrier beam table. The post shall be sized according to this manual and/or as a minimum be a 2" x 3" x 0.050" with an 18" x 2" x 0.044" knee brace at each end of the beam.
   c. For mobile / manufactured homes built after 1994, structures may be attached, provided the project follows the plan provided in this manual. The contractor / owner shall provide verification that the structural system of the host structure is adequate for the addition to be attached.
   d. If the mobile / manufactured home manufacturer certifies in writing that the mobile home may be attached to, then a "fourth wall" is NOT required.
5. Section 7 contains span tables and the attachment details for pans and composite panels.
6. Screen walls between existing walls, floors, and ceilings are considered infills and shall be allowed and heights shall be selected from the same tables as for other screen walls.
7. When using TEK screws in lieu of S.M.S., longer screws must be used to compensated for drill head.
8. For high velocity hurricane zones the minimum live load / applied load shall be 30 PSF.
9. All specified anchors are based on an enclosed building with a 16' projection and a 2' over hang for up to a wind velocity of 120 MPH.
10. Spans may be interpolated between values but not extrapolated outside values.
11. When notes refer to screen rooms, they shall apply to acrylic / vinyl rooms also.

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 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°; I = 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.

General Notes and Specifications for Section 3A Tables:

Section 3A Design Loads for Screen, Acrylic & Vinyl Rooms

	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
123 MPH	+10 / -14	14	+20 / -45
130 MPH	+10 / -15	15	+20 / -50
140A 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.

Conversion Table 3A-A
Wind Zone Conversions for Screen & Vinyl Rooms
From 120 MPH Wind Zone to Others

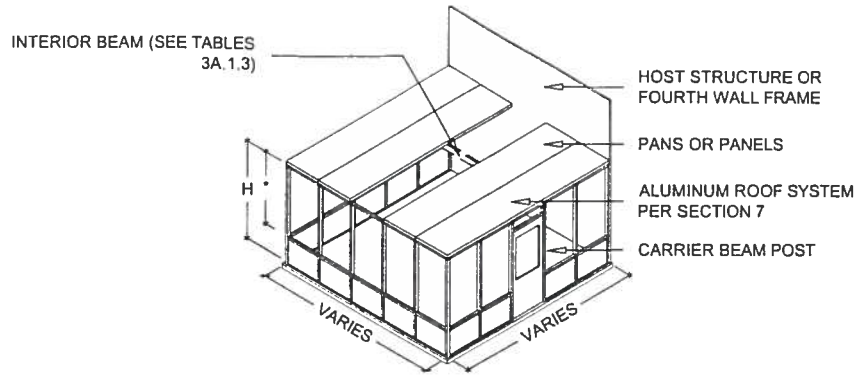
	Roofs			Walls		
Wind Zone MPH	Applied Load (#/SF)	Deflection (d)	Bending (b)	Applied Load (#/SF)	Deflection (d)	Bending (b)
100	10	1.09	1.14	10	1.12	1.18
110	11	1.06	1.09	11	1.08	1.13
120	13	1.00	1.00	14	1.00	1.00
123	14	0.98	0.96	15	0.98	0.97
130	15	0.95	0.93	16	0.96	0.94
140A	17	0.91	0.87	18	0.92	0.88
140B	18	0.90	0.85	18	0.92	0.88
150	30	0.76	0.66	21	0.87	0.82

Conversion Table 3A-B
Wind Zone Conversions for Over Hangs All Room Types
From 120 MPH Wind Zone to Others

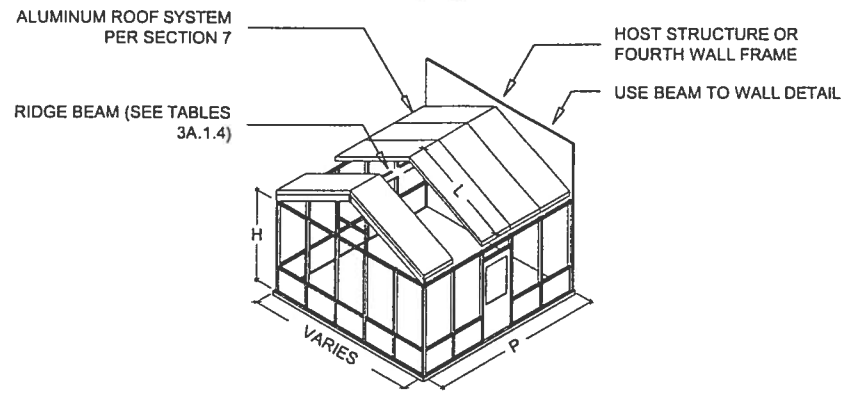
Wind Zone MPH	Applied Load (#/SF)	Deflection (d)	Bending (b)
100	30	1.13	1.20
110	36	1.06	1.09
120	43	1.00	1.00
123	45	0.98	0.98
130	50	0.95	0.93
140A	58	0.91	0.86
140B	58	0.91	0.86
150	67	0.86	0.80

Conversion Table 3C
Conversion Based on Mean Height of Host Structure for Open Structures w/ Solid Roofs
From exposure "B" to exposure "C"

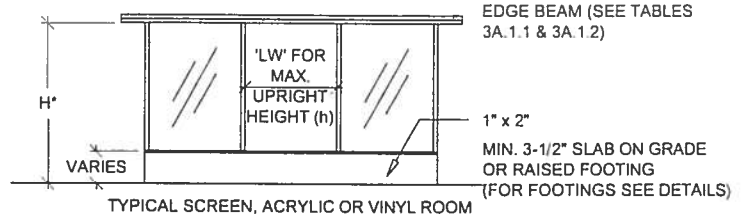
Mean Host Structure Height	Deflection (d)	Bending (b)
0 to 15'-0"	0.94	0.91
15'-0" to 20'-0"	0.92	0.88
20'-0" to 25'-0"	0.91	0.86
25'-0" to 30'-0"	0.89	0.85



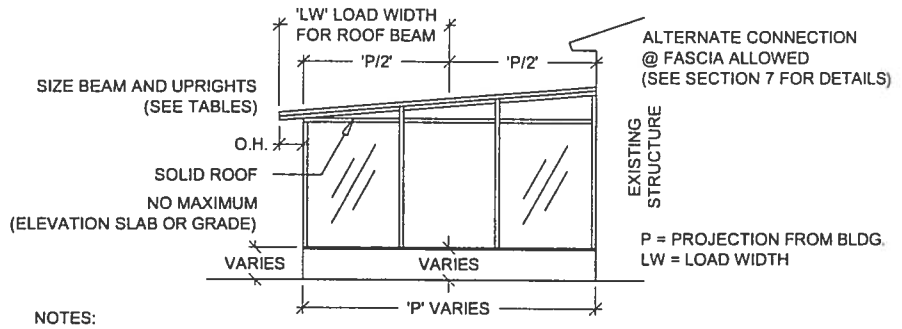
TYPICAL SLOPED SOLID ROOF ENCLOSURE
SCALE: N.T.S.



TYPICAL GABLE SOLID ROOF ENCLOSURE
SCALE: N.T.S.



TYPICAL SCREEN, ACRYLIC OR VINYL ROOM W/ SOLID ROOF TYP. FRONT VIEW FRAMING
* (HEIGHT OF UPRIGHT IS MEASURED FROM TOP OF 1" x 2" PLATE TO BOTTOM OF WALL BEAM)



NOTES:
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 BEAM 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 + O.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:

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

TYPICAL SCREEN ROOM
SCALE: 1/8" = 1'-0"

07-08-2004

PURSUANT TO PROVISIONS OF THE FLORIDA DEPARTMENT OF HIGHWAY SAFETY & MOTOR VEHICLES DIVISION OF MOTOR VEHICLES RULE 15C-2, THE SPAN TABLES, CONNECTION DETAILS, ANCHORING AND OTHER SPECIFICATIONS ARE DESIGNED TO BE MARRIED TO CONVENTIONALLY CONSTRUCTED HOMES AND / OR MANUFACTURED HOMES AND MOBILE HOMES CONSTRUCTED AFTER 1984.

THE DESIGNS AND SPANS SHOWN ON THESE DRAWINGS ARE BASED ON THE LOAD REQUIREMENTS FOR THE FLORIDA BUILDING CODE 2001 EDITION.

JOB NAME: _____

ADDRESS: _____

_____

_____

DRAWING FOR ONE PERMIT ONLY 2004

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

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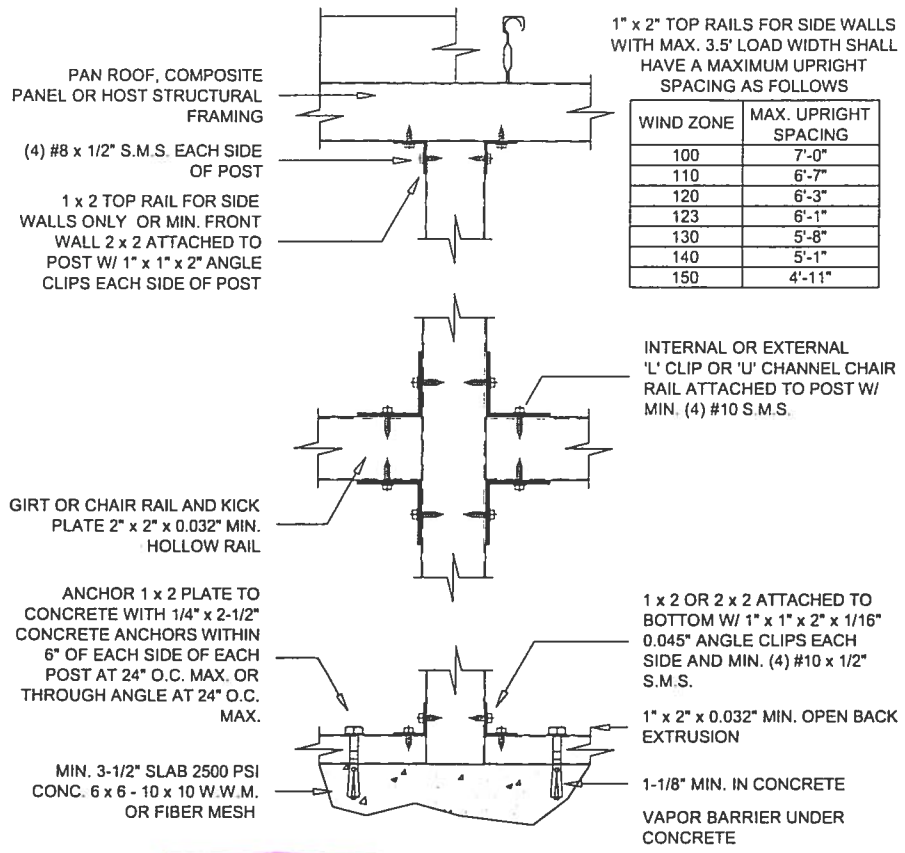
SEAL

JAN 01 2005

SHEET 1 OF 8

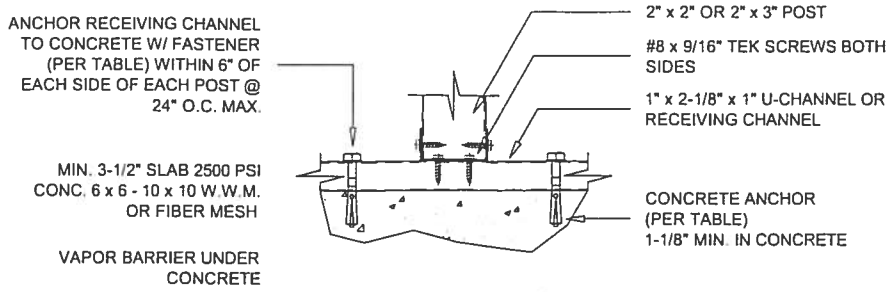


1" x 2" TOP RAILS FOR SIDE WALLS WITH MAX. 3.5' LOAD WIDTH SHALL HAVE A MAXIMUM UPRIGHT SPACING AS FOLLOWS

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"

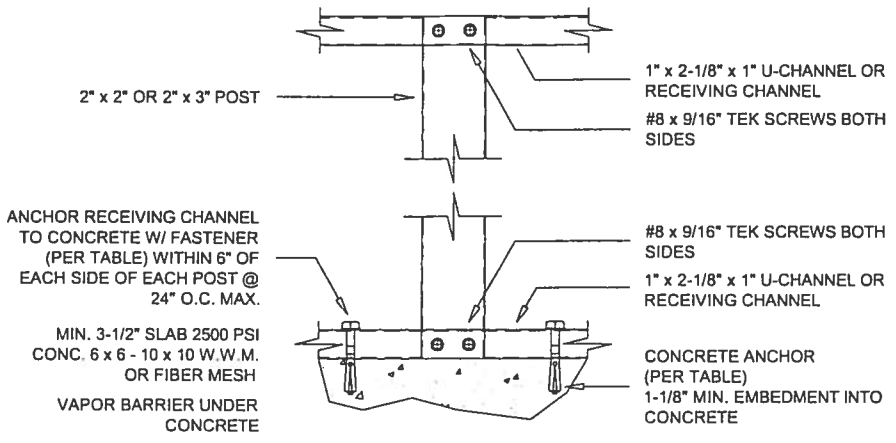
POST TO BASE, GIRT AND POST TO BEAM DETAIL

SCALE: 2" = 1'-0"



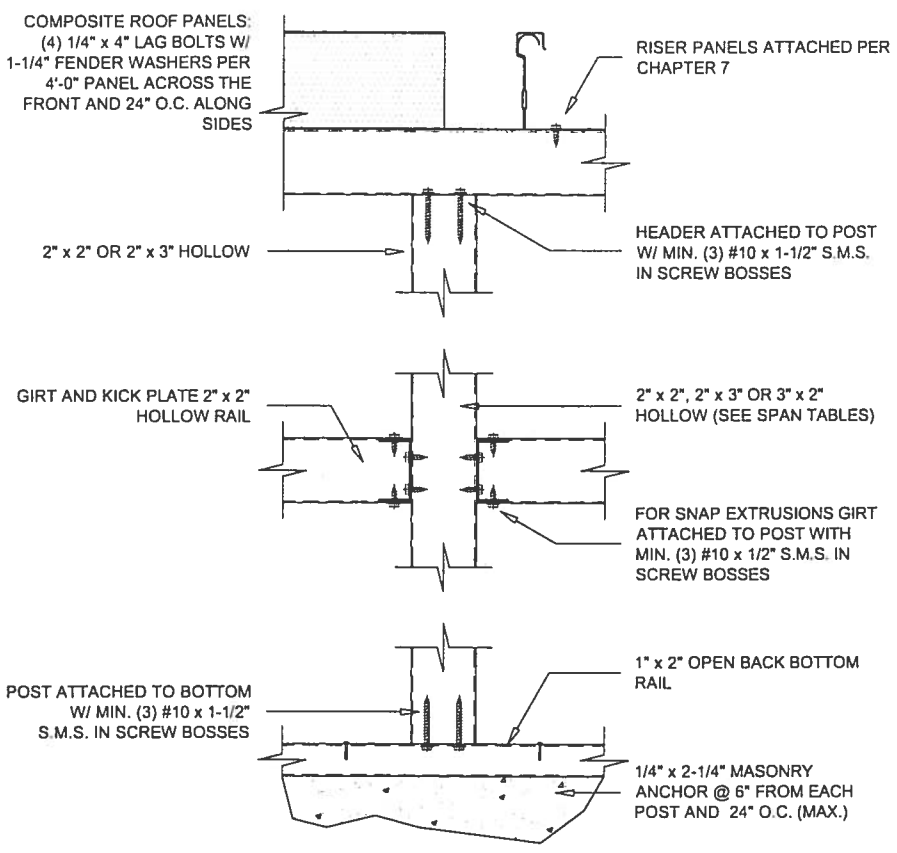
ALTERNATE POST TO BASE CONNECTION - DETAIL 1

SCALE: 2" = 1'-0"



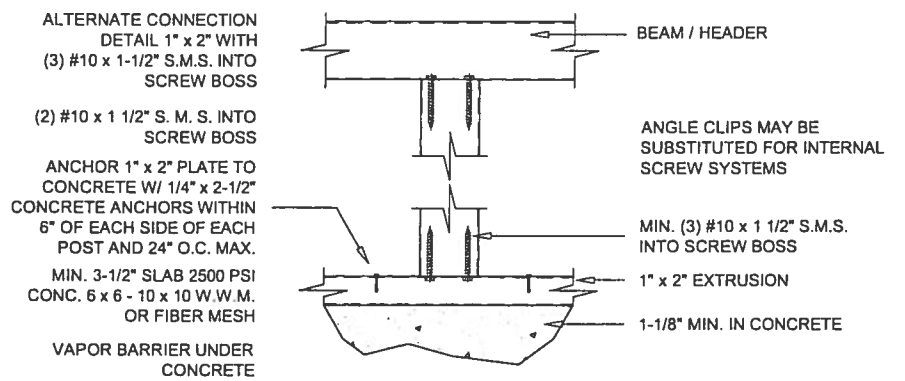
ALTERNATE POST TO BASE CONNECTION - DETAIL 2

SCALE: 2" = 1'-0"



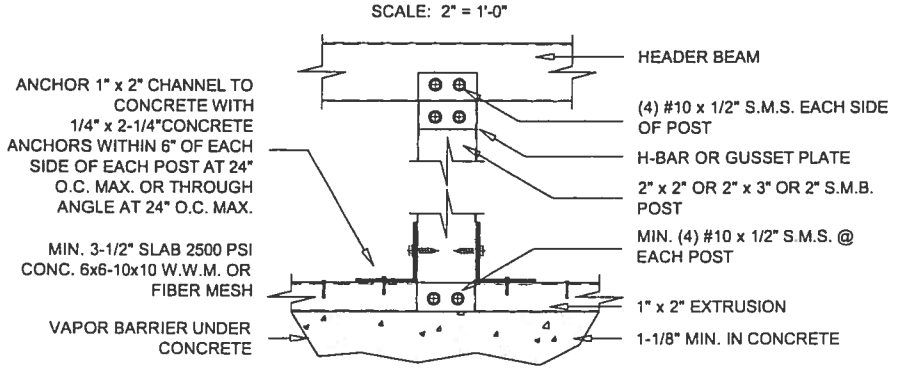
TYPICAL UPRIGHT DETAIL

SCALE: 2" = 1'-0"



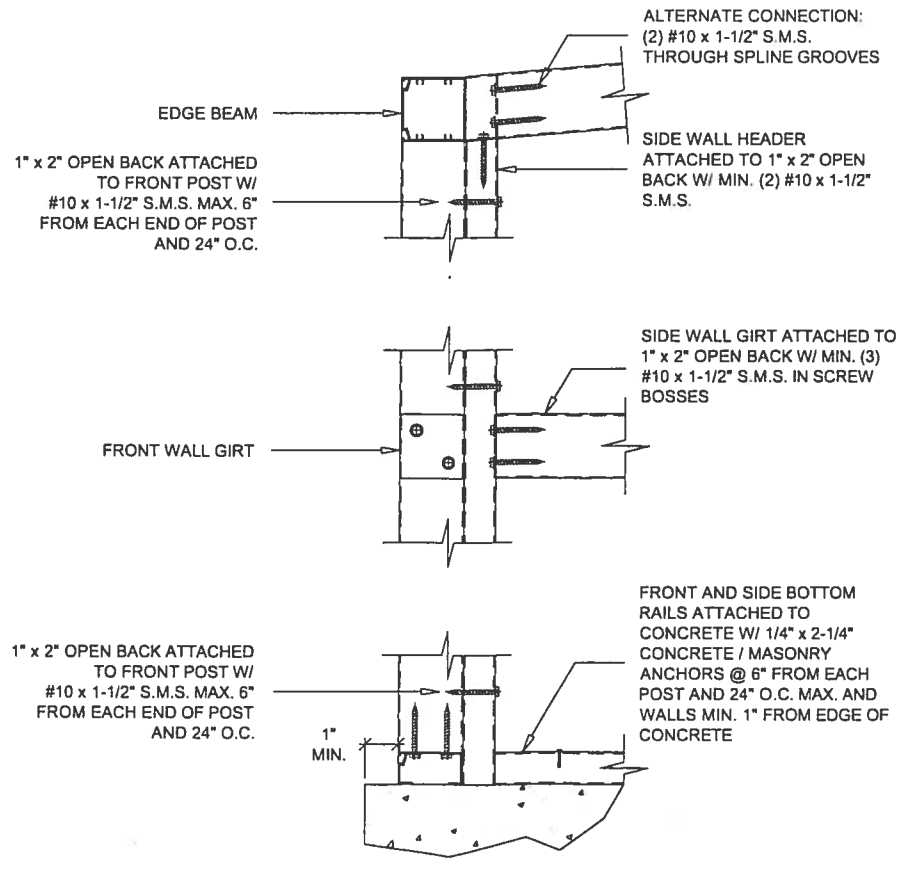
ALTERNATE HOLLOW UPRIGHT TO BASE AND HOLLOW UPRIGHT TO BEAM DETAIL

SCALE: 2" = 1'-0"



ALTERNATE PATIO SECTION TO UPRIGHT AND PATIO SECTION TO BEAM DETAIL

SCALE: 2" = 1'-0"



TYPICAL & ALTERNATE CORNER DETAIL

SCALE: 2" = 1'-0"

07-08-2004

SCREEN, ACRYLIC & VINYL ROOMS
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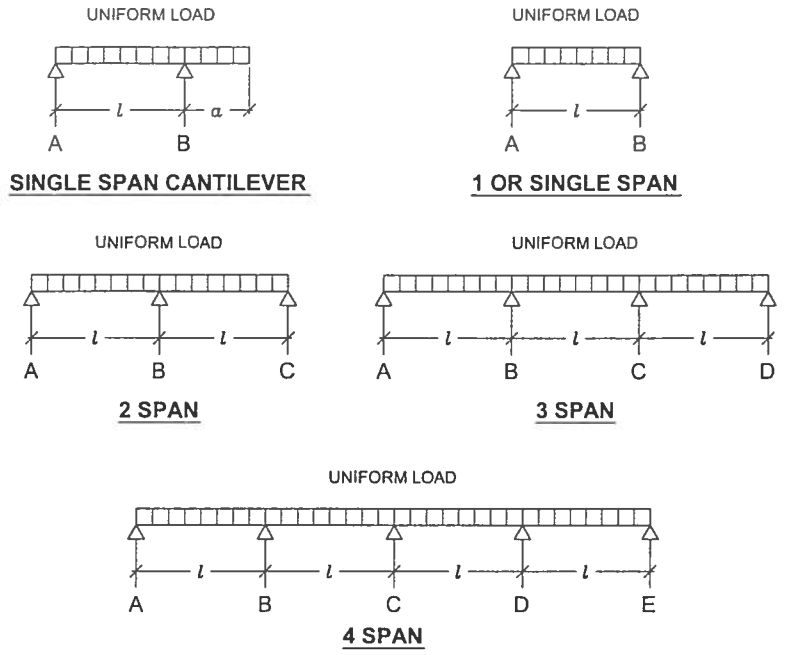
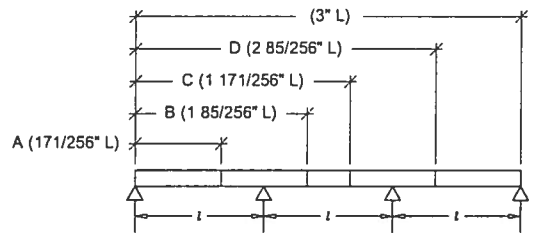


NOTES:

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) 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.

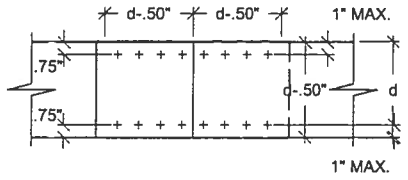


ALLOWABLE BEAM SPLICE LOCATIONS

SCALE: N.T.S.

SINGLE SPAN BEAM SPLICE @ 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 SPLICE SHALL BE MINIMUM d - .50"



HEIGHT 2 x (d - .50") LENGTH

Screw Size	ds (in.)	Minimum Distance and Spacing of Screws: Edge To Center 2ds (in.)	Center To Center 2-1/2ds (in.)	Gusset Plate Thickness: Beam Size	Thickness
#8	0.16	3/8	7/16	2" x 7" x 0.055" x 0.120" **	1/16" = 0.063"
#10	0.19	3/8	1/2	2" x 8" x 0.072" x 0.224"	1/8" = 0.125"
#12	0.21	7/16	9/16	2" x 9" x 0.072" x 0.224"	1/8" = 0.125"
#14 or 1/4"	0.25	1/2	5/8	2" x 9" x 0.082" x 0..306"	1/8" = 0.125"
5/16"	0.313	5/8	3/4	2" x 10" x 0.092" x 0.369"	1/4" = 0.25"

* Refers to each side of splice.
** Use for 2" x 4" and 2" x 6" also

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

TYPICAL BEAM SPLICE 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 (36 #/SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

2" x 2" x 0.044"					2" x 2" x 0.055"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-4" d	6'-7" d	6'-9" d	1'-1" d	5	5'-8" d	6'-11" d	7'-1" d	1'-2" d
6	5'-0" d	6'-2" d	6'-4" d	1'-0" d	6	5'-4" d	6'-7" d	6'-8" d	1'-1" d
7	4'-9" d	5'-11" d	5'-11" b	0'-11" d	7	5'-1" d	6'-3" d	6'-4" d	1'-0" d
8	4'-7" d	5'-8" d	5'-7" b	0'-11" d	8	4'-10" d	5'-11" d	6'-1" b	0'-11" d
9	4'-5" d	5'-5" d	5'-3" b	0'-10" d	9	4'-8" d	5'-9" d	5'-9" b	0'-11" d
10	4'-3" d	5'-2" b	4'-11" b	0'-10" d	10	4'-6" d	5'-6" d	5'-5" b	0'-11" d
11	4'-1" d	4'-11" b	4'-9" b	0'-10" d	11	4'-4" d	5'-4" d	5'-2" b	0'-10" d
12	3'-11" d	4'-8" b	4'-7" b	0'-10" d	12	4'-3" d	5'-2" b	4'-11" b	0'-10" d
3" x 2" x 0.045"					3" x 2" x 0.070"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	6'-0" d	7'-5" d	7'-7" d	1'-2" d	5	6'-9" d	8'-5" d	8'-7" d	1'-4" d
6	5'-8" d	7'-0" d	7'-2" d	1'-2" d	6	6'-5" d	7'-11" d	8'-0" d	1'-3" d
7	5'-5" d	6'-8" d	6'-10" d	1'-1" d	7	6'-1" d	7'-6" d	7'-8" d	1'-3" d
8	5'-2" d	6'-4" d	6'-6" d	1'-0" d	8	5'-10" d	7'-2" d	7'-4" d	1'-2" d
9	4'-11" d	6'-2" d	6'-3" d	0'-11" d	9	5'-7" d	6'-11" d	7'-0" d	1'-1" d
10	4'-9" d	5'-11" d	5'-11" b	0'-11" d	10	5'-5" d	6'-8" d	6'-9" d	1'-1" d
11	4'-8" d	5'-9" d	5'-8" b	0'-11" d	11	5'-3" d	6'-5" d	6'-7" d	1'-0" d
12	4'-6" d	5'-7" d	5'-5" b	0'-11" d	12	5'-1" d	6'-3" d	6'-5" d	1'-0" d
2" x 3" x 0.045"					2" x 4" x 0.050"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	7'-6" d	9'-3" d	9'-5" d	1'-6" d	5	9'-8" d	11'-11" d	12'-2" b	1'-11" d
6	7'-0" d	8'-8" d	8'-8" b	1'-5" d	6	9'-1" d	11'-3" d	11'-1" b	1'-10" d
7	6'-8" d	8'-3" d	8'-1" b	1'-4" d	7	8'-8" d	10'-8" b	10'-3" b	1'-9" d
8	6'-5" d	7'-9" b	7'-6" b	1'-3" d	8	8'-3" d	9'-11" b	9'-7" b	1'-8" d
9	6'-2" d	7'-4" b	7'-1" b	1'-3" d	9	7'-11" d	9'-5" b	9'-1" b	1'-7" d
10	5'-11" d	6'-11" b	6'-9" b	1'-2" d	10	7'-8" d	8'-11" b	8'-7" b	1'-6" d
11	5'-9" d	6'-8" b	6'-5" b	1'-2" d	11	7'-5" d	8'-6" b	8'-2" b	1'-6" d
12	5'-7" d	6'-4" b	6'-2" b	1'-1" d	12	7'-3" d	8'-1" b	7'-10" b	1'-5" 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

2" x 2" x 0.044"					2" x 2" x 0.055"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-1" d	6'-3" d	6'-4" d	1'-0" d	5	5'-4" d	6'-7" d	6'-9" d	1'-1" d
6	4'-9" d	5'-10" d	5'-11" b	0'-11" d	6	5'-0" d	6'-3" d	6'-4" d	1'-0" d
7	4'-6" d	5'-7" d	5'-6" b	0'-11" d	7	4'-9" d	5'-11" d	5'-11" b	0'-11" d
8	4'-4" d	5'-4" b	5'-1" b	0'-10" d	8	4'-7" d	5'-8" d	5'-7" b	0'-11" d
9	4'-2" d	5'-11" b	4'-10" b	0'-10" d	9	4'-5" d	5'-5" d	5'-3" b	0'-10" d
10	4'-0" d	4'-9" b	4'-7" b	0'-10" d	10	4'-3" d	5'-2" b	5'-0" b	0'-10" d
11	3'-11" d	4'-6" b	4'-4" b	0'-9" d	11	4'-1" d	4'-11" b	4'-9" b	0'-10" d
12	3'-9" d	4'-4" b	4'-2" b	0'-9" d	12	3'-11" d	4'-9" b	4'-7" b	0'-10" d
3" x 2" x 0.045"					3" x 2" x 0.070"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-8" d	7'-1" d	7'-2" d	1'-2" d	5	6'-5" d	7'-11" d	8'-1" d	1'-3" d
6	5'-4" d	6'-8" d	6'-9" d	1'-1" d	6	6'-0" d	7'-5" d	7'-7" d	1'-2" d
7	5'-1" d	6'-4" d	6'-5" d	1'-0" d	7	5'-9" d	7'-1" d	7'-3" d	1'-2" d
8	4'-11" d	6'-0" d	6'-2" b	0'-11" d	8	5'-6" d	6'-9" d	6'-11" d	1'-1" d
9	4'-8" d	5'-10" d	5'-9" b	0'-11" d	9	5'-3" d	6'-6" d	6'-8" d	1'-1" d
10	4'-6" d	5'-7" d	5'-6" b	0'-11" d	10	5'-1" d	6'-3" d	6'-5" d	1'-0" d
11	4'-5" d	5'-5" b	5'-3" b	0'-10" d	11	4'-11" d	6'-1" d	6'-3" d	0'-11" d
12	4'-3" d	5'-2" b	5'-0" b	0'-10" d	12	4'-9" d	5'-11" d	5'-11" b	0'-11" d
2" x 3" x 0.045"					2" x 4" x 0.050"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	7'-1" d	8'-9" d	8'-9" b	1'-5" d	5	9'-2" d	11'-4" d	11'-2" b	1'-10" d
6	6'-8" d	8'-3" d	7'-11" b	1'-4" d	6	8'-8" d	10'-7" b	10'-3" b	1'-9" d
7	6'-4" d	7'-8" b	7'-5" b	1'-3" d	7	8'-2" d	9'-9" b	9'-5" b	1'-8" d
8	6'-1" d	7'-2" b	6'-11" b	1'-2" d	8	7'-10" d	9'-2" b	8'-10" b	1'-7" d
9	5'-10" d	6'-9" b	6'-6" b	1'-2" d	9	7'-6" d	8'-8" b	8'-4" b	1'-6" d
10	5'-7" d	6'-5" b	6'-2" b	1'-1" d	10	7'-3" d	8'-2" b	7'-11" b	1'-5" d
11	5'-5" d	6'-1" b	5'-11" b	1'-1" d	11	6'-11" b	7'-10" b	7'-7" b	1'-5" d
12	5'-3" b	5'-10" b	5'-8" b	1'-1" d	12	6'-8" b	7'-6" b	7'-3" b	1'-4" 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

2" x 2" x 0.044"					2" x 2" x 0.055"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	4'-10" d	5'-11" d	6'-0" b	0'-11" d	5	5'-1" d	6'-4" d	6'-5" d	1'-0" d
6	4'-6" d	5'-7" d	5'-6" b	0'-11" d	6	4'-10" d	5'-11" d	6'-0" b	0'-11" d
7	4'-4" d	5'-3" b	5'-1" b	0'-10" d	7	4'-7" d	5'-8" d	5'-7" b	0'-11" d
8	4'-1" d	4'-11" b	4'-9" b	0'-10" d	8	4'-4" d	5'-5" d	5'-3" b	0'-10" d
9	3'-11" d	4'-8" b	4'-6" b	0'-9" d	9	4'-2" d	5'-1" b	4'-11" b	0'-10" d
10	3'-10" d	4'-5" b	4'-3" b	0'-9" d	10	4'-1" d	4'-10" b	4'-8" b	0'-10" d
11	3'-8" d	4'-3" b	4'-1" b	0'-9" d	11	3'-11" d	4'-7" b	4'-5" b	0'-9" d
12	3'-7" d	4'-0" b	3'-11" b	0'-9" d	12	3'-10" d	4'-5" b	4'-3" b	0'-9" d
3" x 2" x 0.045"					3" x 2" x 0.070"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-5" d	6'-9" d	6'-10" d	1'-1" d	5	6'-1" d	7'-7" d	7'-8" d	1'-3" d
6	5'-1" d	6'-4" d	6'-5" d	1'-0" d	6	5'-9" d	7'-1" d	7'-3" d	1'-2" d
7	4'-10" d	6'-0" d	6'-1" b	0'-11" d	7	5'-6" d	6'-9" d	6'-11" d	1'-1" d
8	4'-8" d	5'-9" d	5'-9" b	0'-11" d	8	5'-3" d	6'-5" d	6'-7" d	1'-0" d
9	4'-6" d	5'-6" d	5'-5" b	0'-11" d	9	5'-0" d	6'-3" d	6'-4" d	0'-11" d
10	4'-4" d	5'-3" b	5'-1" b	0'-10" d	10	4'-10" d	5'-11" d	6'-0" b	0'-11" d
11	4'-2" d	5'-1" b	4'-11" b	0'-10" d	11	4'-8" d	5'-10" d	5'-10" b	0'-11" d
12	4'-1" d	4'-10" b	4'-8" b	0'-10" d	12	4'-7" d	5'-8" d	5'-7" b	0'-11" d
2" x 3" x 0.045"					2" x 4" x 0.050"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	6'-9" d	8'-4" d	8'-2" b	1'-4" d	5	8'-9" d	10'-9" b	10'-5" b	1'-9" d
6	6'-4" d	7'-8" b	7'-5" b	1'-3" d	6	8'-3" d	9'-10" b	9'-6" b	1'-8" d
7	6'-0" d	7'-2" b	6'-11" b	1'-2" d	7	7'-10" d	9'-1" b	8'-10" b	1'-7" d
8	5'-9" d	6'-8" b	6'-5" b	1'-2" d	8	7'-6" d	8'-6" b	8'-3" b	1'-6" d
9	5'-7" d	6'-3" b	6'-1" b	1'-1" d	9	7'-2" d	8'-0" b	7'-9" b	1'-5" d
10	5'-4" b	5'-11" b	5'-9" b	1'-1" d	10	6'-10" b	7'-7" b	7'-4" b	1'-5" d
11	5'-1" b	5'-8" b	5'-6" b	1'-0" d	11	6'-6" b	7'-3" b	7'-0" b	1'-4" d
12	4'-10" b	5'-5" b	5'-3" b	0'-11" d	12	6'-3" b	6'-11" b	6'-9" b	1'-4" 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

2" x 2" x 0.044"					2" x 2" x 0.055"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	4'-7" d	5'-8" d	5'-8" b	0'-11" d	5	4'-11" d	6'-0" d	6'-2" d	0'-11" d
6	4'-4" d	5'-4" b	5'-2" b	0'-10" d	6	4'-7" d	5'-8" d	5'-8" b	0'-11" d
7	4'-1" d	4'-11" b	4'-9" b	0'-10" d	7	4'-4" d	5'-5" d	5'-3" b	0'-10" d
8	3'-11" d	4'-8" b	4'-6" b	0'-9" d	8	4'-2" d	5'-1" b	4'-11" b	0'-10" d
9	3'-10" d	4'-4" b	4'-3" b	0'-9" d	9	4'-0" d	4'-9" b	4'-7" b	0'-9" d
10	3'-8" d	4'-2" b	4'-0" b	0'-9" d	10	3'-11" d	4'-6" b	4'-5" b	0'-9" d
11	3'-6" b	3'-11" b	3'-10" b	0'-8" d	11	3'-9" d	4'-4" b	4'-2" b	0'-9" d
12	3'-5" b	3'-9" b	3'-8" b	0'-8" d	12	3'-8" d	4'-2" b	3'-11" b	0'-9" d
3" x 2" x 0.045"					3" x 2" x 0.070"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-3" d	6'-5" d	6'-7" d	1'-0" d	5	5'-10" d	7'-3" d	7'-5" d	1'-2" d
6	4'-11" d	6'-1" d	6'-2" d	0'-11" d	6	5'-6" d	6'-10" d	6'-11" d	1'-1" d
7	4'-8" d	5'-9" d	5'-9" b	0'-11" d	7	5'-3" d	6'-6" d	6'-7" d	1'-0" d
8	4'-6" d	5'-6" d	5'-4" b	0'-11" d	8	5'-0" d	6'-2" d	6'-4" d	0'-11" d
9	4'-3" d	5'-3" b	5'-1" b	0'-10" d	9	4'-10" d	5'-11" d	6'-0" b	0'-11" d
10	4'-2" d	4'-11" b	4'-10" b	0'-10" d	10	4'-8" d	5'-9" d	5'-9" b	0'-11" d
11	4'-0" d	4'-9" b	4'-7" b	0'-9" d	11	4'-6" d	5'-7" d	5'-5" b	0'-11" d
12	3'-11" d	4'-6" b	4'-5" b	0'-9" d	12	4'-5" d	5'-5" b	5'-3" b	0'-10" d
2" x 3" x 0.045"					2" x 4" x 0.050"				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever	Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd') 1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	6'-6" d	7'-11" b	7'-8" b	1'-3" d	5	8'-5" d	10'-1" b	9'-9" b	1'-8" d
6	6'-1" d	7'-3" b	6'-11" b	1'-2" d	6	7'-11" d	9'-3" b	8'-11" b	1'-7" d
7	5'-9" d	6'-8" b	6'-6" b	1'-2" d	7	7'-6" d	8'-7" b	8'-3" b	1'-6" d
8	5'-6" d	6'-3" b	6'-1" b	1'-1" d	8	7'-2" b	8'-0" b	7'-9" b	1'-5" d
9	5'-3" b	5'-11" b	5'-8" b	1'-1" d	9	6'-9" b	7'-7" b	7'-4" b	1'-4" d
10	5'-0" b	5'-7" b	5'-5" b	1'-0" d	10	6'-5" b	7'-2" b	6'-11" b	1'-4" d
11	4'-9" b	5'-4" b	5'-2" b	0'-11" d	11	6'-1" b	6'-10" b	6'-7" b	1'-3" d
12	4'-7" b	5'-1" b	4'-11" b	0'-11" d	12	5'-10" b	6'-6" b	6'-4" b	1'-3" 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.

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

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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 (36 #/SF for Max. Cantilever)

Aluminum Alloy 6063 T-6

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

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

2" x 4" x 0.045" Snap Extrusion				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd')			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	10'-3" d	7'-5" d	7'-7" d	2'-0" d
6	5'-8" d	7'-0" d	7'-2" d	1'-11" d
7	5'-5" d	6'-8" d	6'-10" d	1'-10" d
8	5'-2" d	6'-4" d	6'-6" d	1'-9" d
9	4'-11" d	6'-2" d	6'-3" d	1'-8" d
10	4'-9" d	5'-11" d	6'-0" d	1'-7" d
11	4'-8" d	5'-9" d	5'-10" d	1'-7" d
12	4'-6" d	5'-7" d	5'-8" d	1'-6" 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.1.2-120 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 0.044" Snap Extrusion				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd')			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-8" d	7'-0" d	7'-2" d	1'-2" d
6	5'-4" d	6'-7" d	6'-9" d	1'-1" d
7	5'-1" d	6'-3" d	6'-5" d	1'-0" d
8	4'-10" d	6'-0" d	6'-1" b	0'-11" d
9	4'-8" d	5'-9" d	5'-9" b	0'-11" d
10	4'-6" d	5'-7" d	5'-6" b	0'-11" d
11	4'-4" d	5'-5" b	5'-2" b	0'-10" d
12	4'-3" d	5'-2" b	4'-11" b	0'-10" d

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

2" x 4" x 0.045" Snap Extrusion				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd')			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	9'-8" d	7'-1" d	7'-2" d	1'-11" d
6	5'-4" d	6'-8" d	6'-9" d	1'-10" d
7	5'-1" d	6'-4" d	6'-5" d	1'-9" d
8	4'-11" d	6'-0" d	6'-2" d	1'-8" d
9	4'-8" d	5'-10" d	5'-11" d	1'-7" d
10	4'-6" d	5'-7" d	5'-8" d	1'-6" d
11	4'-5" d	5'-5" d	5'-6" d	1'-6" d
12	4'-3" d	5'-3" d	5'-4" d	1'-5" 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.1.2-130 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 0.044" Snap Extrusion				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd')			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-5" d	6'-8" d	6'-10" d	1'-1" d
6	5'-1" d	6'-4" d	6'-5" d	1'-0" d
7	4'-10" d	5'-11" d	6'-1" b	0'-11" d
8	4'-8" d	5'-9" d	5'-8" b	0'-11" d
9	4'-5" d	5'-6" d	5'-4" b	0'-11" d
10	4'-4" d	5'-3" b	5'-1" b	0'-10" d
11	4'-2" d	5'-0" b	4'-10" b	0'-10" d
12	4'-1" d	4'-10" b	4'-8" b	0'-10" d

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

2" x 4" x 0.045" Snap Extrusion				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd')			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	9'-3" d	6'-9" d	6'-10" d	1'-10" d
6	5'-1" d	6'-4" d	6'-5" d	1'-9" d
7	4'-10" d	6'-0" d	6'-2" d	1'-8" d
8	4'-8" d	5'-9" d	5'-10" d	1'-7" d
9	4'-6" d	5'-6" d	5'-8" d	1'-6" d
10	4'-4" d	5'-4" d	5'-5" d	1'-5" d
11	4'-2" d	5'-2" d	5'-3" d	1'-5" d
12	4'-1" d	5'-0" d	5'-1" d	1'-4" 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.1.2-140A 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				
Load Width (ft.)	Max. Span 'L' / (bending 'b' or deflection 'd')			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-2" d	6'-5" d	6'-7" d	1'-0" d
6	4'-11" d	6'-1" d	6'-2" b	0'-11" d
7	4'-8" d	5'-9" d	5'-8" b	0'-11" d
8	4'-5" d	5'-6" d	5'-4" b	0'-10" d
9	4'-3" d	5'-2" b	5'-0" b	0'-10" d
10	4'-2" d	4'-11" b	4'-9" b	0'-10" d
11	3'-11" d	4'-9" b	4'-7" b	0'-9" d
12	3'-11" d	4'-6" b	4'-4" b	0'-9" d

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

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

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

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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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
2" x 4" x 0.050" Hollow	12'-2" d	11'-6" d	10'-11" d	10'-5" d	10'-0" d	9'-8" d	9'-5" d	9'-1" d	8'-11" 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'-9" d	11'-5" d	11'-2" d	10'-11" d	10'-8" d
2" x 4" x 0.044" x 0.100"	13'-8" 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'-5" d	9'-3" d
2" x 5" x 0.050" x 0.100"	16'-11" d	15'-11" d	15'-1" d	14'-5" d	13'-11" d	13'-5" d	12'-11" d	12'-7" d	12'-3" d	11'-11" d	11'-9" d	11'-6" d
2" x 6" x 0.050" x 0.120"	19'-9" d	18'-7" d	17'-8" 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 0.055" 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'-11" d	15'-7" d	15'-3" d
2" x 7" x 0.055" w/ insert	27'-3" d	25'-7" d	24'-4" d	23'-3" d	22'-4" d	21'-7" d	20'-11" d	20'-4" d	19'-9" d	19'-4" d	18'-10" d	18'-6" 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	19'-4" d	18'-11" d
2" x 9" x 0.072" x 0.224"	30'-7" d	28'-10" d	27'-4" d	26'-2" d	25'-2" d	24'-4" d	23'-7" d	22'-10" d	22'-3" d	21'-9" d	21'-3" d	20'-9" 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	25'-2" d	24'-5" d	23'-8" d	23'-1" d	22'-6" d	22'-0" d	21'-6" d
2" x 10" x 0.092" x 0.369"	38'-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'-6" d	25'-11" d

Double 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
2" x 8" x 0.072" x 0.224"	35'-2" d	33'-1" d	31'-5" d	30'-1" d	28'-11" d	27'-11" d	27'-0" d	26'-3" d	25'-7" d	24'-11" d	24'-5" d	23'-10" d
2" x 9" x 0.072" x 0.224"	38'-7" d	36'-4" d	34'-6" d	32'-11" d	31'-9" d	30'-7" d	29'-8" d	28'-10" d	28'-1" d	27'-4" d	26'-9" d	26'-2" d
2" x 9" x 0.082" x 0.306"	41'-1" d	38'-8" d	36'-8" d	35'-1" d	33'-9" d	32'-7" d	31'-7" d	30'-8" d	29'-10" d	29'-1" d	28'-6" d	27'-10" d
2" x 10" x 0.092" x 0.369"	48'-1" d	45'-3" d	42'-11" d	41'-1" d	39'-6" d	38'-2" d	36'-11" d	35'-11" d	34'-11" d	34'-1" d	33'-4" d	32'-8" 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. Span is 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
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'-5" 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	10'-1" d
2" x 4" x 0.044" 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'-5" d	9'-2" d	8'-11" d	8'-9" 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'-1" d	10'-10" d
2" x 6" x 0.050" x 0.120"	18'-8" d	17'-7" d	16'-9" d	15'-11" d	15'-4" d	14'-10" d	14'-5" d	13'-11" d	13'-7" d	13'-3" d	12'-11" d	12'-8" d
2" x 7" x 0.055" 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'-6" d	15'-1" d	14'-9" d	14'-5" d
2" x 7" x 0.055" w/ insert	25'-9" d	24'-3" d	23'-0" d	22'-0" d	21'-2" d	20'-5" d	19'-9" d	19'-3" d	18'-9" d	18'-3" d	17'-10" d	17'-6" d
2" x 8" x 0.072" x 0.224"	26'-5" d	24'-10" d	23'-7" d	22'-7" d	21'-8" d	20'-11" d	20'-4" d	19'-9" d	19'-2" d	18'-9" d	18'-4" d	17'-11" d
2" x 9" 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'-1" d	19'-8" d
2" x 9" x 0.082" x 0.306"	30'-0" d	28'-3" d	26'-10" d	25'-8" d	24'-8" d	23'-10" d	23'-1" d	22'-5" d	21'-10" d	21'-4" d	20'-10" d	20'-4" d
2" x 10" x 0.092" x 0.369"	36'-1" d	33'-11" d	32'-3" d	30'-10" d	29'-8" d	28'-8" d	27'-9" d	26'-11" d	26'-3" d	25'-7" d	25'-0" d	24'-6" d

Double 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
2" x 8" x 0.072" x 0.224"	33'-3" d	31'-4" d	29'-9" d	28'-5" d	27'-4" d	26'-5" d	25'-7" d	24'-10" d	24'-2" d	23'-7" d	23'-1" d	22'-7" d
2" x 9" x 0.072" x 0.224"	36'-6" d	34'-4" d	32'-7" d	31'-2" d	29'-11" d	28'-11" d	28'-1" d	27'-3" d	26'-6" d	25'-11" d	25'-4" d	24'-9" d
2" x 9" x 0.082" x 0.306"	38'-10" d	36'-6" d	34'-8" d	33'-2" d	31'-11" d	30'-10" d	29'-10" d	28'-11" d	28'-3" d	27'-7" d	26'-11" d	26'-4" d
2" x 10" x 0.092" x 0.369"	45'-6" d	42'-10" d	40'-8" d	38'-11" d	37'-5" d	36'-1" d	34'-11" d	33'-11" d	33'-1" d	32'-3" d	31'-6" d	30'-10" 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. Span is 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
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'-8" d	7'-6" d
2" x 5" x 0.050" Hollow	14'-2" d	13'-4" d	12'-8" d	12'-2" d	11'-8" d	11'-3" d	10'-11" d	10'-7" d	10'-4" d	10'-1" d	9'-10" d	9'-8" d
2" x 4" x 0.044" 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'-9" d	8'-6" d	8'-4" d
2" x 5" x 0.062" 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	10'-4" d
2" x 6" x 0.050" 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	12'-1" d
2" x 7" x 0.055" 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	13'-9" 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'-0" d	16'-8" d
2" x 8" x 0.072" x 0.224"	25'-2" d	23'-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'-5" d	17'-1" d
2" x 9" x 0.072" x 0.224"	27'-7" d	25'-11" d	24'-8" d	23'-7" d	22'-8" d	21'-11" d	21'-3" d	20'-7" d	20'-1" d	19'-7" d	19'-2" d	18'-9" 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'-10" 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	25'-0" d	24'-5" d	23'-10" d	23'-4" d

Double 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
2" x 8" x 0.072" x 0.224"	31'-8" d	29'-10" d	28'-4" d	27'-1" d	26'-1" d	25'-2" d	24'-5" d	23'-8" d	23'-1" d	22'-6" d	21'-11" d	21'-6" d
2" x 9" x 0.072" x 0.224"	34'-9" d	32'-9" d	31'-1" d	29'-9" d	28'-7" d	27'-7" d	26'-9" d	25'-11" d	25'-4" d	24'-8" d	24'-1" d	23'-7" d
2" x 9" x 0.082" x 0.306"	37'-0" d	34'-10" d	33'-1" d	31'-8" d	30'-5" d	29'-5" d	28'-6" d	27'-8" d	26'-11" d	26'-3" d	25'-8" d	25'-1" d
2" x 10" x 0.092" x 0.369"	43'-4" d	40'-10" d	38'-9" d	37'-1" d	35'-8" d	34'-5" d	33'-4" d	32'-5" d	31'-6" d	30'-9" d	30'-1" d	29'-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 130 M.P.H. wind load plus dead load for framing.
3. Span is 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
2" x 4" x 0.050" Hollow	10'-7" d	9'-11" d	9'-5" d	9'-0" d	8'-8" d	8'-5" d	8'-1" d	7'-11" d	7'-8" d	7'-6" d	7'-4" d	7'-2" b
2" x 5" x 0.050" 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'-5" d	9'-3" d
2" x 4" x 0.044" 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'-2" d	8'-0" d
2" x 5" x 0.062" 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	9'-11" d
2" x 6" x 0.050" x 0.120"	17'-1" d	16'-1" 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	11'-7" d
2" x 7" x 0.055" x 0.120"	19'-6" d	18'-4" d	17'-5" d	16'-8" d	16'-0" d	15'-6" d	14'-11" d	14'-7" d	14'-2" d	13'-10" d	13'-6" d	13'-3" d
2" x 7" x 0.055" w/ insert	23'-6" d	22'-2" d	21'-0" d	20'-1" d	19'-4" d	18'-8" d	18'-1" d	17'-7" d	17'-1" d	16'-8" d	16'-4" d	15'-11" d
2" x 8" x 0.072" x 0.224"	24'-2" d	22'-9" 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'-9" d	16'-5" d
2" x 9" x 0.072" x 0.224"	26'-6" d	24'-11" d	23'-8" d	22'-8" d	21'-9" d	21'-0" d	20'-4" d	19'-9" d	19'-3" d	18'-9" d	18'-4" d	17'-11" d
2" x 9" x 0.082" x 0.306"	27'-5" d	25'-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	19'-0" 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	24'-0" d	23'-5" d	22'-11" d	22'-5" d

Double 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"
	Allowable Span 'L' / bending 'b' or deflection 'd'											
2" x 8" x 0.072" x 0.224"	30'-5" d	28'-7" d	27'-2" d	25'-11" d	24'-11" d	24'-2" d	23'-5" d	22'-9" d	22'-1" d	21'-7" d	21'-1" d	20'-8" d
2" x 9" x 0.072" x 0.224"	33'-4" d	31'-5" d	29'-10" d	28'-6" d	27'-5" d	26'-6" d	25'-8" d	24'-11" d	24'-3" d	23'-8" d	23'-2" d	22'-8" d
2" x 9" x 0.082" x 0.306"	35'-6" d	33'-5" d	31'-9" d	30'-4" d	29'-2" d	28'-2" d	27'-4" d	26'-6" d	25'-10" d	25'-2" d	24'-7" d	24'-1" d
2" x 10" x 0.092" x 0.369"	41'-7" d	39'-2" d	37'-2" d	35'-7" d	34'-2" d	33'-0" d	31'-11" d	31'-1" d	30'-3" d	29'-6" d	28'-10" d	28'-3" 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. Span is 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' = Purlin Spacing						
	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
	Allowable Span 'L' / bending 'b' or deflection 'd'							
2" x 4" x 0.044 x 0.100"	14'-6" b	13'-6" b	12'-6" b	11'-8" b	11'-0" b	10'-5" b	9'-11" b	9'-6" b
2" x 5" x 0.050" x 0.100"	17'-11" d	16'-8" b	15'-5" b	14'-5" b	13'-7" b	12'-11" b	12'-4" b	11'-9" b
2" x 6" x 0.050" x 0.120"	21'-0" d	19'-3" b	17'-10" b	16'-8" b	15'-9" b	14'-11" b	14'-3" b	13'-8" b
2" x 7" x 0.055" x 0.120"	23'-9" b	21'-9" b	20'-1" b	18'-10" b	17'-9" b	16'-10" b	16'-0" b	15'-4" b
2" x 7" x 0.055" w/ insert	28'-11" d	27'-3" d	25'-11" d	24'-9" d	23'-7" b	22'-5" b	21'-4" b	20'-5" b
2" x 8" x 0.072" x 0.224"	29'-8" d	27'-11" d	25'-11" b	24'-4" b	22'-11" b	21'-9" b	20'-9" b	19'-10" b
2" x 9" x 0.072" x 0.224"	32'-7" d	30'-5" b	28'-2" b	26'-4" b	24'-10" b	23'-7" b	22'-6" b	21'-6" b
2" x 9" x 0.082" x 0.310"	33'-9" d	31'-9" d	30'-2" d	28'-10" d	27'-3" b	25'-10" b	24'-8" b	23'-7" b
2" x 10" x 0.092" x 0.369"	40'-7" d	38'-3" d	36'-4" d	34'-9" d	32'-9" b	31'-1" b	29'-8" b	28'-5" b

Notes:

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' = Purlin Spacing						
	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
	Allowable Span 'L' / bending 'b' or deflection 'd'							
2" x 4" x 0.044 x 0.100"	13'-7" b	12'-5" b	11'-6" b	10'-9" b	10'-1" b	9'-7" b	9'-2" b	8'-9" b
2" x 5" x 0.050" x 0.100"	16'-10" b	15'-4" b	14'-2" b	13'-3" b	12'-6" b	11'-11" b	11'-4" b	10'-10" b
2" x 6" x 0.050" x 0.120"	19'-5" b	17'-9" b	16'-5" b	15'-4" b	14'-6" b	13'-9" b	13'-1" b	12'-7" b
2" x 7" x 0.055" x 0.120"	21'-11" b	19'-11" b	18'-6" b	17'-4" b	16'-4" b	15'-6" b	14'-9" b	14'-2" b
2" x 7" x 0.055" w/ insert	27'-5" d	25'-9" d	24'-6" d	23'-0" b	21'-8" b	20'-7" b	19'-8" b	18'-10" b
2" x 8" x 0.072" x 0.224"	28'-1" d	25'-10" b	23'-11" b	22'-4" b	21'-1" b	19'-11" b	19'-1" b	18'-3" b
2" x 9" x 0.072" x 0.224"	30'-8" b	27'-11" b	25'-11" b	24'-3" b	22'-10" b	21'-8" b	20'-8" b	19'-9" b
2" x 9" x 0.082" x 0.310"	31'-11" d	30'-1" d	28'-5" b	26'-7" b	25'-1" b	23'-9" b	22'-8" b	21'-9" b
2" x 10" x 0.092" x 0.369"	38'-5" d	36'-2" d	34'-2" b	31'-11" b	30'-2" b	28'-7" b	27'-3" b	26'-1" b

Notes:

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

Self Mating Sections	Tributary Load Width 'W' = Purlin Spacing						
	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
	Allowable Span 'L' / bending 'b' or deflection 'd'							
2" x 4" x 0.044 x 0.100"	12'-8" b	11'-6" b	10'-8" b	9'-11" b	9'-5" b	8'-11" b	8'-6" b	8'-2" b
2" x 5" x 0.050" x 0.100"	15'-8" b	14'-3" b	13'-3" b	12'-4" b	11'-8" b	11'-1" b	10'-7" b	10'-1" b
2" x 6" x 0.050" x 0.120"	18'-1" b	16'-6" b	15'-4" b	14'-4" b	13'-6" b	12'-10" b	12'-2" b	11'-8" b
2" x 7" x 0.055" x 0.120"	20'-4" b	18'-7" b	17'-3" b	16'-1" b	15'-2" b	14'-5" b	13'-9" b	13'-2" b
2" x 7" x 0.055" w/ insert	26'-1" d	24'-7" d	22'-11" b	21'-5" b	20'-2" b	19'-2" b	18'-3" b	17'-6" b
2" x 8" x 0.072" x 0.224"	26'-4" b	24'-0" b	22'-3" b	20'-10" b	19'-7" b	18'-7" b	17'-9" b	16'-11" b
2" x 9" x 0.072" x 0.224"	28'-6" b	26'-1" b	24'-1" b	22'-7" b	21'-3" b	20'-2" b	19'-3" b	18'-5" b
2" x 9" x 0.082" x 0.310"	30'-5" d	28'-7" b	26'-6" b	24'-9" b	23'-4" b	22'-2" b	21'-1" b	20'-3" b
2" x 10" x 0.092" x 0.369"	36'-7" d	34'-4" b	31'-10" b	29'-9" b	28'-1" b	26'-7" b	25'-5" b	24'-4" b

Notes:

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

Table 3A.1.4-140A Allowable Spans for Ridge Beams with Self Mating Beams for Screen, Acrylic or Vinyl Rooms

For 3 second wind gust at 140A MPH velocity; using design load of 17 #/SF

Self Mating Sections	Tributary Load Width 'W' = Purlin Spacing						
	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
	Allowable Span 'L' / bending 'b' or deflection 'd'							
2" x 4" x 0.044 x 0.100"	11'-11" b	10'-10" b	10'-0" b	9'-5" b	8'-10" b	8'-5" b	8'-0" b	7'-8" b
2" x 5" x 0.050" x 0.100"	14'-8" b	13'-5" b	12'-5" b	11'-7" b	10'-11" b	10'-5" b	9'-11" b	9'-6" b
2" x 6" x 0.050" x 0.120"	16'-11" b	15'-6" b	14'-4" b	13'-5" b	12'-8" b	12'-0" b	11'-6" b	10'-11" b
2" x 7" x 0.055" x 0.120"	19'-2" b	17'-6" b	16'-2" b	15'-2" b	14'-3" b	13'-6" b	12'-11" b	12'-4" b
2" x 7" x 0.055" w/ insert	25'-0" d	23'-3" b	21'-6" b	20'-2" b	18'-11" b	18'-0" b	17'-2" b	16'-5" b
2" x 8" x 0.072" x 0.224"	24'-9" b	22'-7" b	20'-11" b	19'-7" b	18'-5" b	17'-6" b	16'-8" b	15'-11" b
2" x 9" x 0.072" x 0.224"	26'-10" b	24'-6" b	22'-8" b	21'-2" b	19'-11" b	18'-11" b	18'-1" b	17'-4" b
2" x 9" x 0.082" x 0.310"	29'-2" d	26'-10" b	24'-10" b	23'-3" b	21'-11" b	20'-10" b	19'-10" b	18'-11" b
2" x 10" x 0.092" x 0.369"	35'-2" d	32'-3" b	29'-11" b	27'-11" b	26'-4" b	25'-0" b	23'-10" b	22'-10" b

Notes:

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

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

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

Aluminum Alloy 6063 T-6

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"
		Allowable Height 'H' / bending 'b' or deflection 'd'									
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
2" x 2" x 0.055"	Hollow	10'-3" b	9'-6" b	8'-11" b	8'-5" b	7'-11" b	7'-7" b	7'-3" b	6'-11" b	6'-9" b	6'-6" 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
3" x 2" x 0.070"	Hollow	12'-9" d	12'-2" d	11'-7" d	10'-11" b	10'-5" b	9'-11" b	9'-6" b	9'-2" b	8'-10" b	8'-6" b
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
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
2" x 4" x 0.046"	S.M.B.	19'-1" b	17'-8" b	16'-6" b	15'-7" b	14'-9" b	14'-1" b	13'-6" b	12'-11" b	12'-6" b	12'-1" b
2" x 5" 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
2" x 6" x 0.050"	S.M.B.	26'-1" b	24'-2" b	22'-7" b	21'-3" b	20'-2" b	19'-3" b	18'-5" b	17'-9" b	17'-1" b	16'-6" b
2" x 2" 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
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'-5" b	9'-1" 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

For 3 second wind gust at 120 MPH velocity; using design load of 13 #/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"
		Allowable Height 'H' / bending 'b' or deflection 'd'									
2" x 2" x 0.044"	Hollow	8'-8" b	8'-0" b	7'-6" b	7'-1" b	6'-8" b	6'-5" b	6'-1" b	5'-11" b	5'-8" b	5'-6" b
2" x 2" x 0.055"	Hollow	9'-5" b	8'-9" b	8'-2" b	7'-9" b	7'-4" b	6'-11" b	6'-8" b	6'-5" b	6'-2" b	5'-11" b
3" x 2" x 0.045"	Hollow	10'-5" b	9'-7" b	8'-11" b	8'-6" b	8'-0" b	7'-8" b	7'-4" b	7'-1" b	6'-10" b	6'-7" b
3" x 2" x 0.070"	Hollow	12'-1" d	11'-5" b	10'-8" b	10'-1" b	9'-7" b	9'-2" b	8'-9" b	8'-5" b	8'-1" b	7'-10" b
2" x 3" x 0.045"	Hollow	12'-10" b	11'-11" b	11'-2" b	10'-6" b	9'-11" b	9'-6" b	9'-1" b	8'-9" b	8'-5" b	8'-2" b
2" x 4" x 0.050"	Hollow	14'-11" b	13'-10" b	12'-11" b	12'-2" b	11'-7" b	11'-0" b	10'-7" b	10'-2" b	9'-9" b	9'-5" b
2" x 4" x 0.046"	S.M.B.	17'-6" b	16'-3" b	15'-2" b	14'-4" b	13'-7" b	12'-11" b	12'-5" b	11'-11" b	11'-6" b	11'-1" b
2" x 5" x 0.050"	S.M.B.	21'-8" b	20'-1" b	18'-9" b	17'-9" b	16'-10" b	16'-0" b	15'-4" b	14'-9" b	14'-2" b	13'-9" b
2" x 6" x 0.050"	S.M.B.	23'-11" b	22'-2" b	20'-9" b	19'-7" b	18'-7" b	17'-9" b	16'-11" b	16'-3" b	15'-8" b	15'-2" b
2" x 2" x 0.044"	Snap	10'-4" b	9'-7" b	8'-11" b	8'-5" b	7'-11" b	7'-7" b	7'-4" b	7'-0" b	6'-9" b	6'-6" b
2" x 3" x 0.045"	Snap	13'-3" b	12'-3" b	11'-5" b	10'-9" b	10'-3" b	9'-9" b	9'-4" b	8'-11" b	8'-8" b	8'-4" b
2" x 4" x 0.045"	Snap	16'-2" b	14'-11" b	14'-0" b	13'-2" b	12'-6" b	11'-11" b	11'-5" b	10'-11" 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

Aluminum Alloy 6063 T-6

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"
		Allowable Height 'H' / bending 'b' or deflection 'd'									
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'-6" b	5'-3" 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
3" x 2" x 0.045"	Hollow	9'-8" b	8'-11" b	8'-4" b	7'-11" b	7'-6" b	7'-2" b	6'-10" b	6'-7" b	6'-4" 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
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
2" x 4" x 0.050"	Hollow	13'-11" b	12'-11" b	12'-1" b	11'-4" b	10'-9" b	10'-3" b	9'-10" b	9'-5" b	9'-1" 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
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
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
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'-6" b	6'-3" b	6'-1" b
2" x 3" x 0.045"	Snap	12'-4" b	11'-5" b	10'-8" b	10'-1" b	9'-6" b	9'-1" b	8'-8" b	8'-4" b	8'-1" 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

For 3 second wind gust at 140A MPH velocity; using design load of 17 #/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"
		Allowable Height 'H' / bending 'b' or deflection 'd'									
2" x 2" x 0.044"	Hollow	7'-7" b	7'-0" b	6'-7" b	6'-2" b	5'-10" b	5'-7" b	5'-4" b	5'-2" b	4'-11" b	4'-9" b
2" x 2" x 0.055"	Hollow	8'-3" b	7'-8" b	7'-2" b	6'-9" b	6'-5" b	6'-1" b	5'-10" b	5'-7" b	5'-5" b	5'-3" b
3" x 2" x 0.045"	Hollow	9'-1" b	8'-5" b	7'-10" b	7'-5" b	7'-0" b	6'-8" b	6'-5" b	6'-2" b	5'-11" b	5'-9" b
3" x 2" x 0.070"	Hollow	10'-10" b	10'-0" b	9'-4" b	8'-10" b	8'-5" b	7'-11" b	7'-8" b	7'-4" b	7'-1" b	6'-10" b
2" x 3" x 0.045"	Hollow	11'-3" b	10'-5" b	9'-9" b	9'-2" b	8'-8" b	8'-4" b	7'-11" b	7'-8" b	7'-4" b	7'-1" b
2" x 4" x 0.050"	Hollow	13'-1" b	12'-1" b	11'-4" b	10'-8" b	10'-1" b	9'-8" b	9'-3" b	8'-11" b	8'-7" b	8'-3" b
2" x 4" x 0.046"	S.M.B.	15'-4" b	14'-2" b	13'-3" b	12'-6" b	11'-11" b	11'-4" b	10'-10" b	10'-5" b	10'-0" b	9'-8" b
2" x 5" x 0.050"	S.M.B.	18'-11" b	17'-7" b	16'-5" b	15'-6" b	14'-8" b	14'-0" b	13'-5" b	12'-11" b	12'-5" b	11'-11" b
2" x 6" x 0.050"	S.M.B.	20'-11" b	19'-5" b	18'-2" b	17'-1" b	16'-3" b	15'-6" b	14'-10" b	14'-3" b	13'-9" b	13'-3" b
2" x 2" x 0.044"	Snap	9'-0" b	8'-4" b	7'-10" b	7'-4" b	6'-11" b	6'-8" b	6'-5" b	6'-2" b	5'-11" b	5'-8" b
2" x 3" x 0.045"	Snap	11'-7" b	10'-8" b	10'-0" b	9'-5" b	8'-11" b	8'-6" b	8'-2" b	7'-10" b	7'-7" b	7'-4" b
2" x 4" x 0.045"	Snap	14'-2" b	13'-1" b	12'-3" b	11'-7" b	10'-11" b	10'-5" b	10'-0" b	9'-7" b	9'-3" b	8'-11" 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

Aluminum Alloy 6063 T-6

Beam Size	Minimum Post Size	Alternate Post Size	# Thru-Bolts @ L=D+1/2"		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) #8
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" x 0.120"	3" x 3" x 0.093"	2" x 3" x 0.050"	2	2	2" x 3" x 0.050"	(3) #10
2" x 7" x 0.055" w/ insert	3" x 3" x 0.093"	2" x 3" x 0.050"	2	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 9" x 0.072" x 0.224"	3" x 3" x 0.093"	2" x 5" x 0.050" x 0.100"	3	3	2" x 5" x 0.050" x 0.100"	(3) #14
2" x 9" x 0.082" x 0.306"	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	4	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	4	2" x 6" x 0.050" x 0.120"	(8) #14
(2) 2" x 9" x 0.082" x 0.306"	2" x 7" x 0.055" x 0.120"	- -	8	6	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	8	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

SCREEN, ACRYLIC & VINYL ROOMS
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MAY 2004 EDITION
SECTION 3A TABLES

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SEAL

SHEET 4 OF 8

07-08-2004

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"

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

8" 'L' BOLT @ 32" O.C.

KNEE WALL W/ 2 x 4 P.T.P. BOTTOM PLATE, STUDS & DOUBLE TOP PLATE NAIL PER TABLE 2306.1 FLORIDA BUILDING CODE EACH STUD SHALL HAVE A SIMPSON SP-1 OR EQUAL

SHEATH W/ 1/2" P.T. PLYWOOD NAILED W/ #8 COMMON 6" O.C. EDGES AND 12" O.C. FIELD OR STRUCTURAL GRADE THERMAL PLY FASTENED PER THE MANUFACTURERS SPECIFICATIONS STRAP SIMPSON COIL STRAP OVER SHEATHING

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

ALTERNATE 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

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

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

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

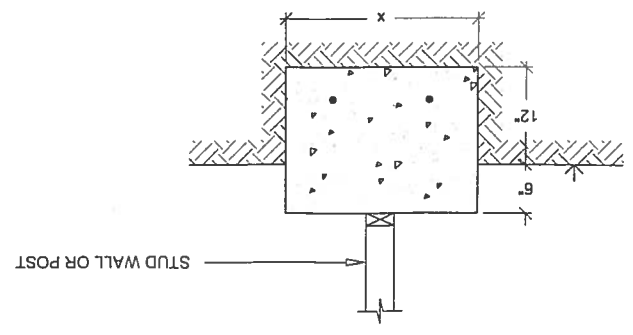
THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

TYPICAL WALL SECTION FOR ATTACHMENT TO MOBILE / MANUFACTURED HOME

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

RIBBON FOOTING

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



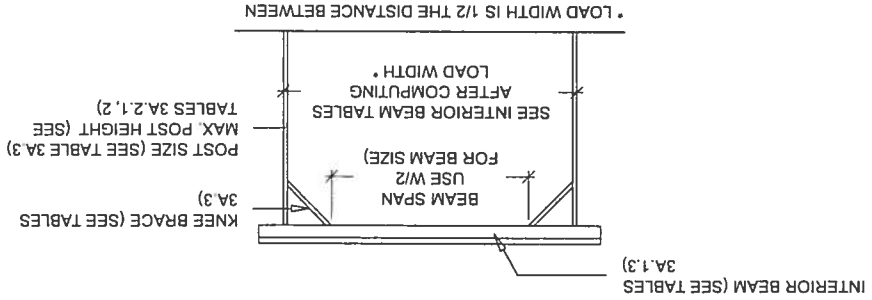
Minimum Ribbon Footing

Wind Zone	Sg. 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	SPH4 @ 48" O.C.

* Maximum 16' projection from host structure
* For stud walls use 1/2" x 8" L-Bolts @ 48" O.C. and 2" square washers to attach sole plate to footing. Stud anchors shall be at the sole plate only and coil strap shall lap over the top plate on to the studs anchors and straps shall be per manufacturers specifications

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

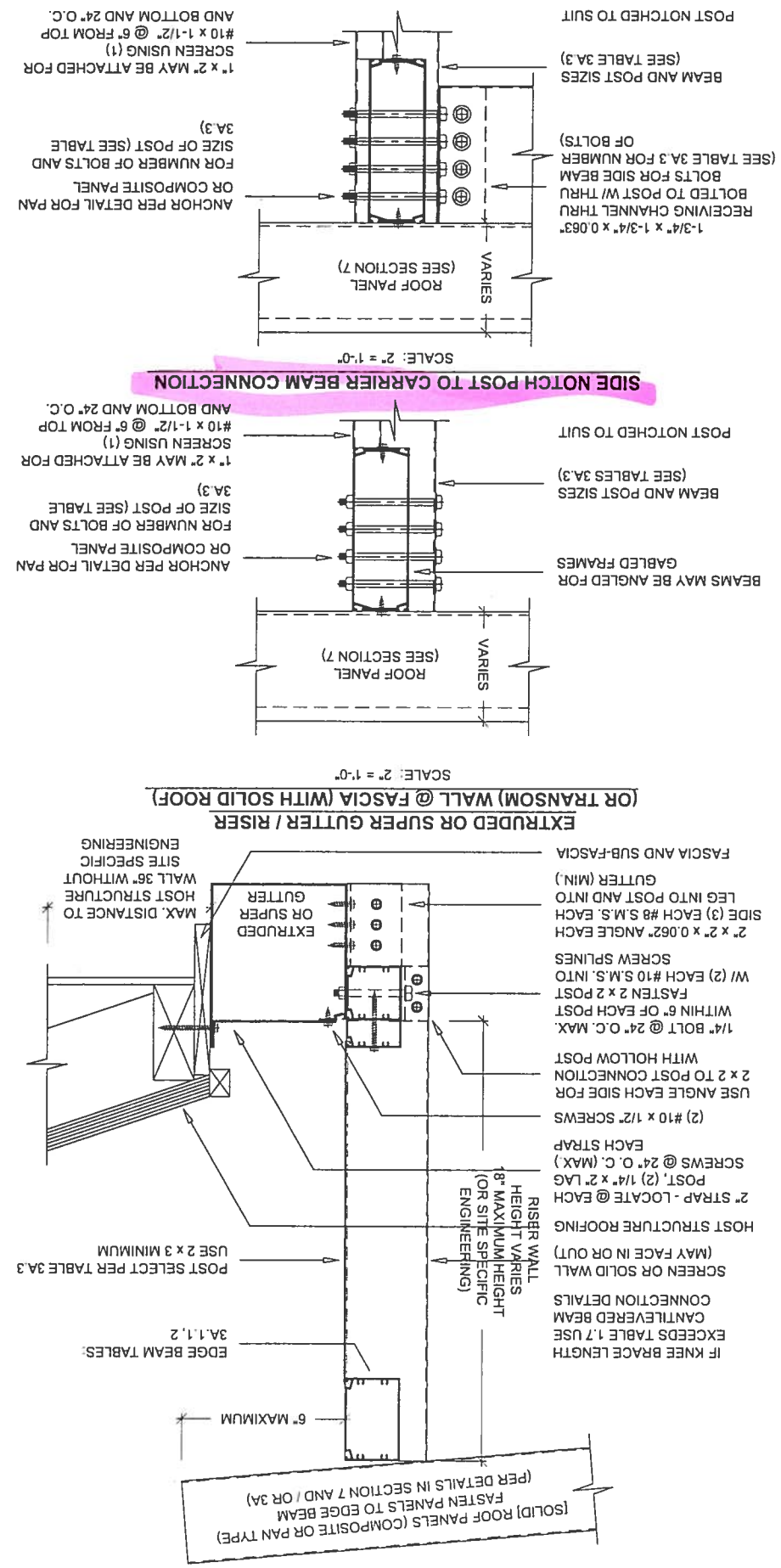
SCALE: 1/8" = 1'-0"



* LOAD WIDTH IS 1/2 THE DISTANCE BETWEEN SUPPORTS ON EITHER SIDE OF THE BEAM OR SUPPORT BEING CONSIDERED

Extrusion Sizing Table:

Upright Size	Max. Beam Size	Knee Brace
2" x 2" x 0.036"	2" x 4"	2" x 2" x 0.036"
3" x 2" x 0.050"	2" x 4"	2" x 3" x 0.050"
3" x 3" x 0.050"	2" x 6" S.M.B.	2" x 3" x 0.050"
3" x 3" x 0.093"	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 0.093"
4" x 4" x 0.125"	2" x 10" S.M.B.	3" x 3" x 0.125"



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8 OF 8

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2004 FLORIDA BUILDING CODE
MAY 2004 EDITION
SECTION 3A DETAILS

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 addition 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" sheet rock added by securing the sheet 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 ispection 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 sealent.

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 2' overhang. Any greater load width shall be site specific.

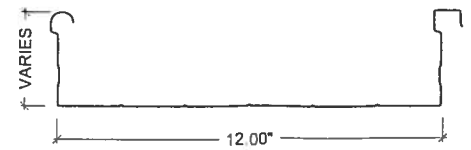
Conversion Table 7A
Load Coversion Factors Based on Mean Roof Height of Host Structure For All Components
Exposure "B" to "C"

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

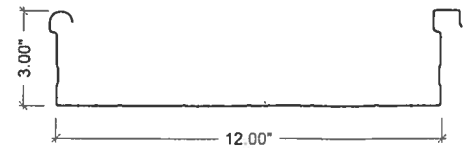
Conversion Table 7B
Conversion Based on Mean Height of Host Structure for Solid Roof Systems
From Exposure 'B' to 'C'

Mean Host Structure Height	Load Multiplier	Span Multiplier	
		Pans	Composite Panels
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

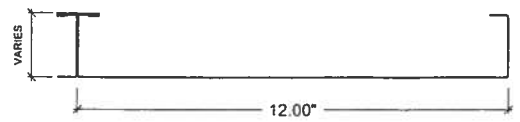
INDUSTRY STANDARD ROOF PANELS



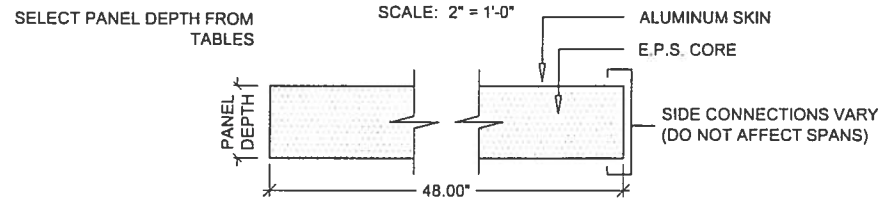
12" WIDE x VARIOUS HEIGHT RISER ROOF PANEL
SCALE: 2" = 1'-0"



12" WIDE x 3" RISER INTERLOCKING ROOF PANEL
SCALE: 2" = 1'-0"

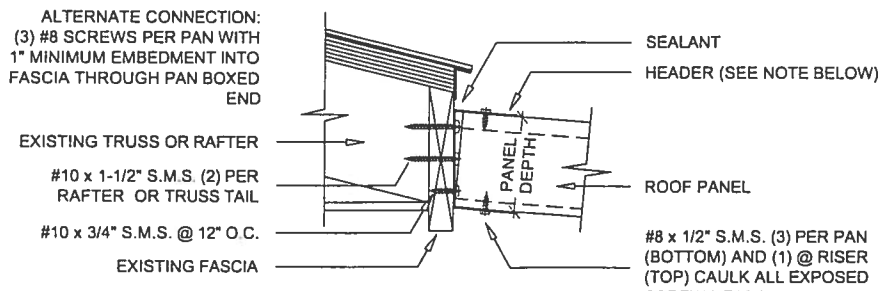


CLEATED ROOF PANEL
SCALE: 2" = 1'-0"

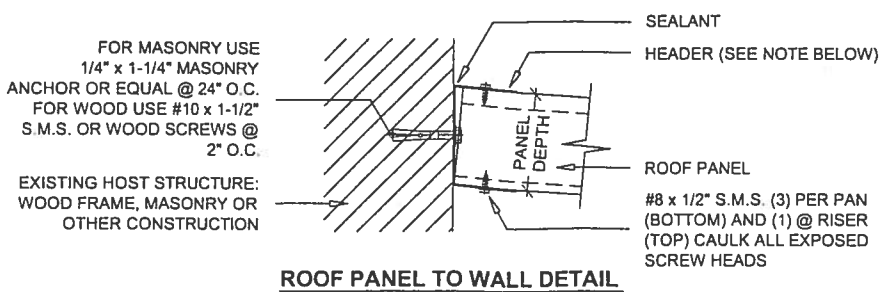


COMPOSITE ROOF PANEL [INDUSTRY STANDARD]
SCALE: 2" = 1'-0"

PAN ROOF ANCHORING DETAILS

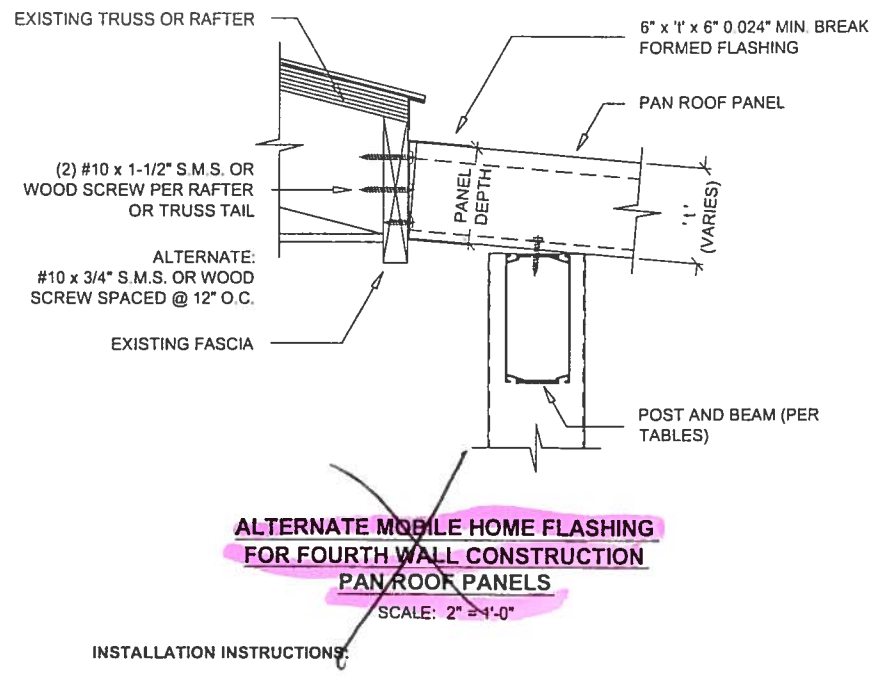


ROOF PANEL TO FASCIA DETAIL
SCALE: 2" = 1'-0"



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

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.



ALTERNATE MOBILE HOME FLASHING FOR FOURTH WALL CONSTRUCTION PAN ROOF PANELS
SCALE: 2" = 1'-0"

INSTALLATION INSTRUCTIONS:

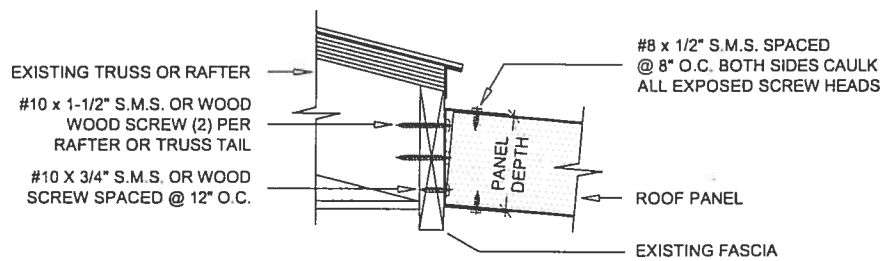
A. PLACE (2) BEADS OF CAULKING ON BACK SIDE OF HEADER BEFORE INSTALLING.

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.

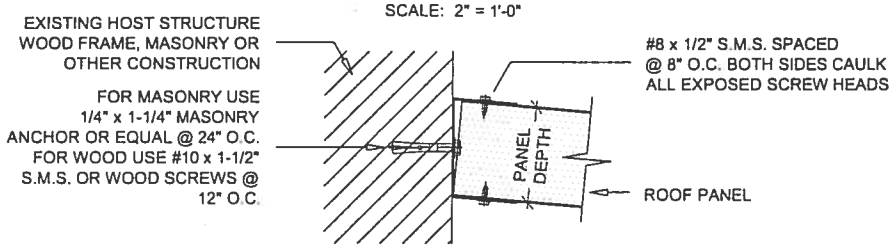
C. FASTEN HEADER TO FASCIA BOARD WITH #10 x 1" SCREWS @ 6" O.C. STAGGERED TOP AND BOTTOM (SEE DETAIL ABOVE)

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



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



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 PAN'S DEPTH "t". 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

07-08-2004

SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
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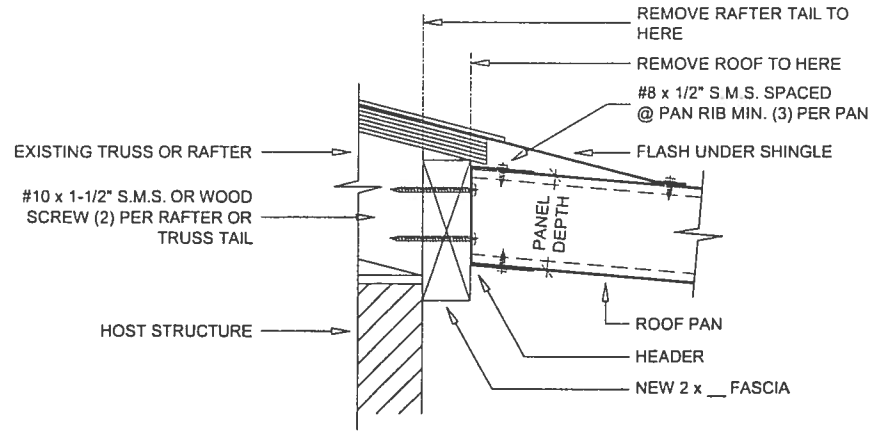
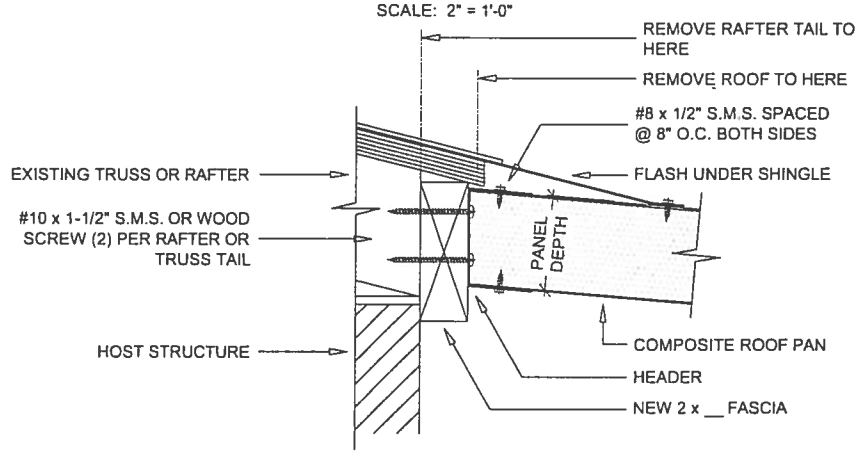


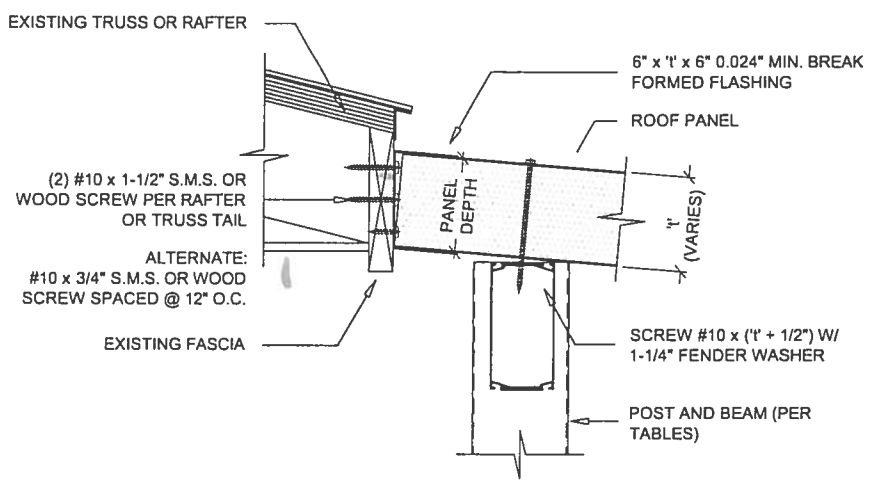
REMOVED RAFTER TAIL ROOF PAN TO FASCIA DETAIL

SCALE: 2" = 1'-0"



REMOVED RAFTER TAIL COMPOSITE ROOF PANEL TO WALL DETAIL

SCALE: 2" = 1'-0"



ALTERNATE MOBILE HOME FLASHING FOR FOURTH WALL CONSTRUCTION COMPOSITE ROOF PANELS

SCALE: 2" = 1'-0"

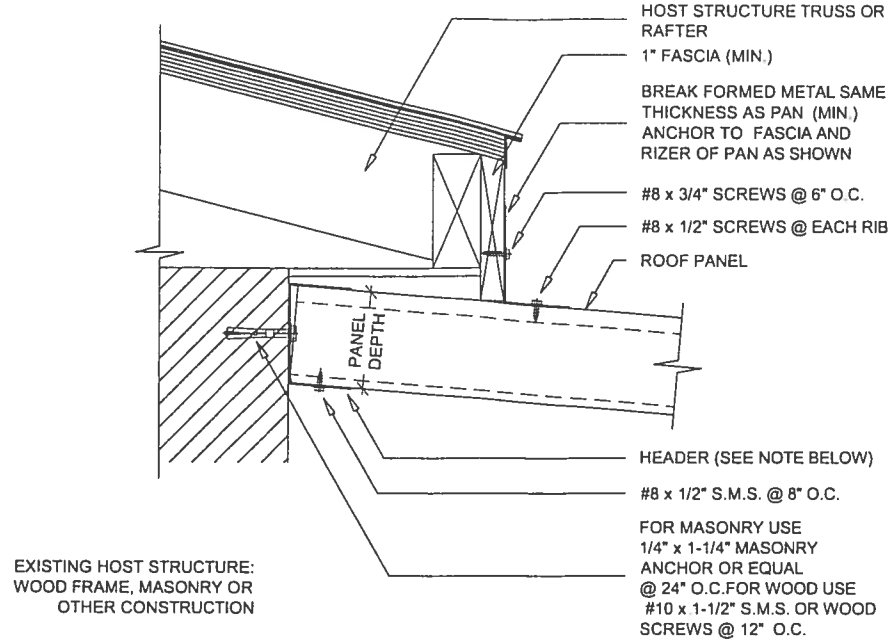
INSTALLATION INSTRUCTIONS:

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)

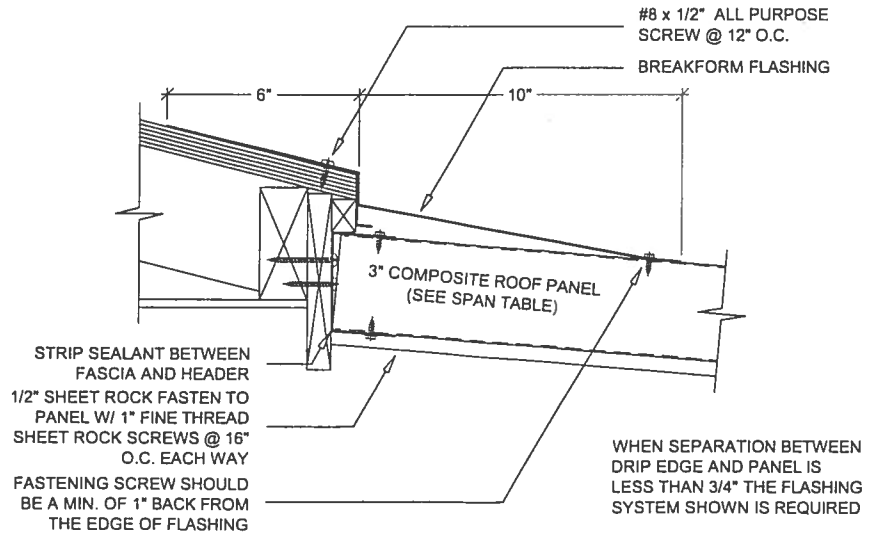
D. PLACE COMPOSITE ROOF PANEL INTO HEADER AND ATTACH TO 4TH WALL POST AND BEAM SYSTEM ONLY. DO NOT ATTACH TO HEADER. HEADER IS USED AS FLASHING ONLY.



ALTERNATE ROOF PANEL TO WALL DETAIL

SCALE: 2" = 1'-0"

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.

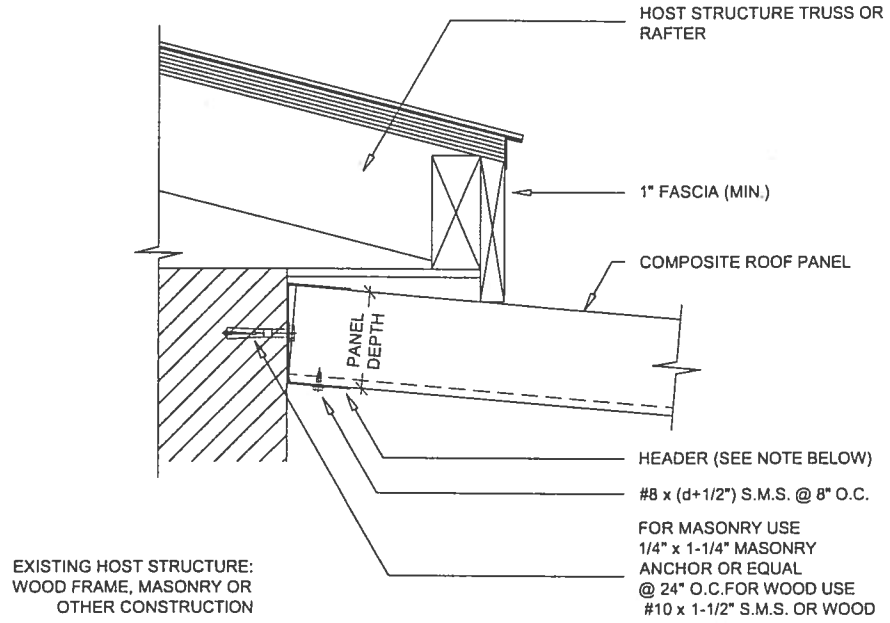


ALTERNATE DETAIL FOR FLASHING ON SHINGLE ROOFS

SCALE: 2" = 1'-0"

NOTES:

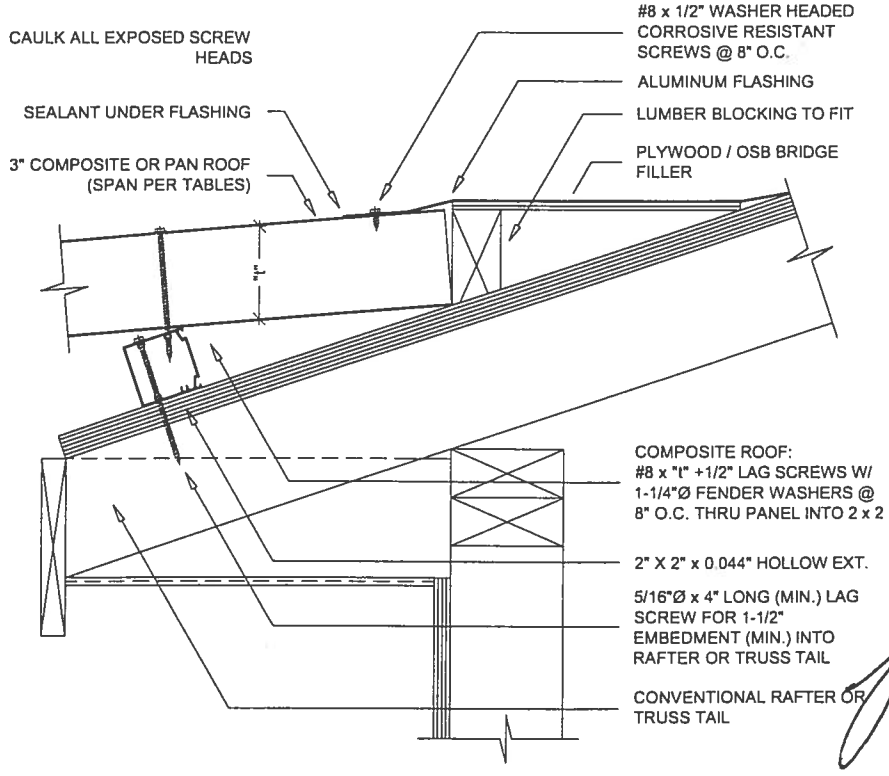
1. FLASHING TO BE INSTALLED A MIN. 6" UNDER THE FIRST ROW OF SHINGLES.
2. STANDARD COIL FOR FLASHING IS 16" .019 MIL. COIL.
3. FIRST ROW OF EXISTING NAILS MUST BE REMOVED TO INSTALL FLASHING PROPERLY.
4. FLASHING WILL BE INSTALLED UNDER THE FELT PAPER WHEN POSSIBLE.
5. HEADER WILL BE PUTTY TAPED AND CAULKED EVEN THOUGH FLASHING IS TO BE INSTALLED.
6. 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.
7. 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 LIP OF THE HEADER BACK FROM THE EDGE OF THE FLASHING.
8. WHEN SEPARATION BETWEEN DRIP EDGE AND PANEL FLASHING IS REQUIRED 1/2" SEPARATION MINIMUM.
9. STRIP SEALANT BETWEEN FASCIA AND HEADER PRIOR TO INSTALLATION.



ALTERNATE COMPOSITE ROOF PANEL TO WALL DETAIL

SCALE: 2" = 1'-0"

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

SCALE: 2" = 1'-0"

07-08-2004

SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
2004 FLORIDA BUILDING CODE
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SHEET 6B OF 8

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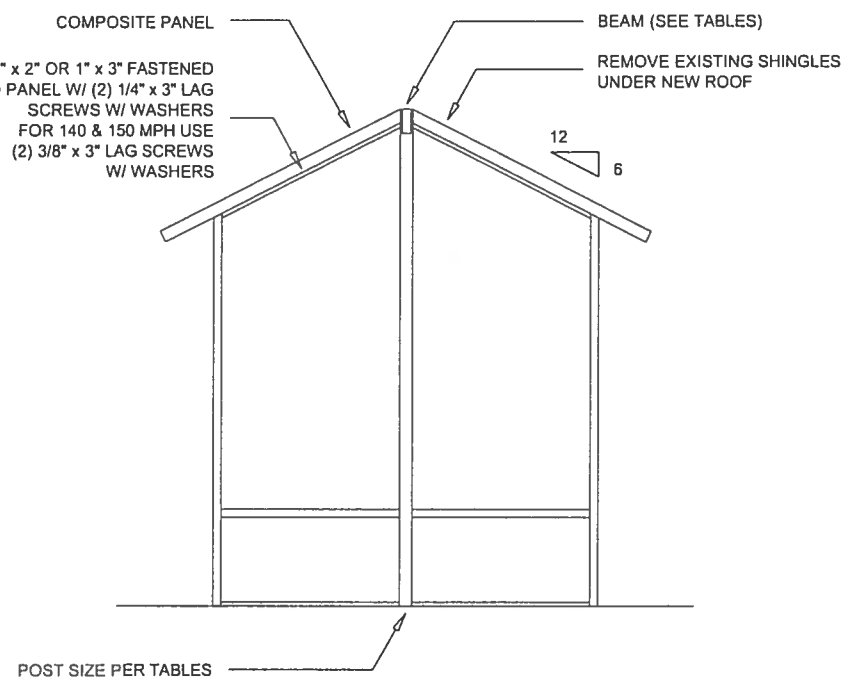
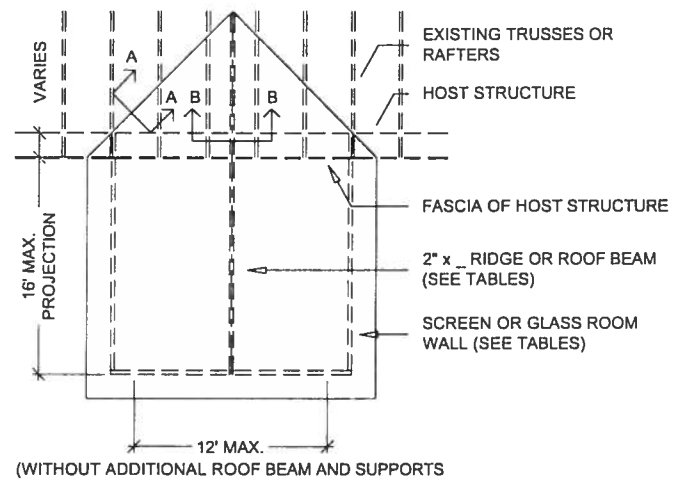


SCREEN OR SOLID WALL ROOM VALLEY CONNECTION
FRONT WALL ELEVATION VIEW

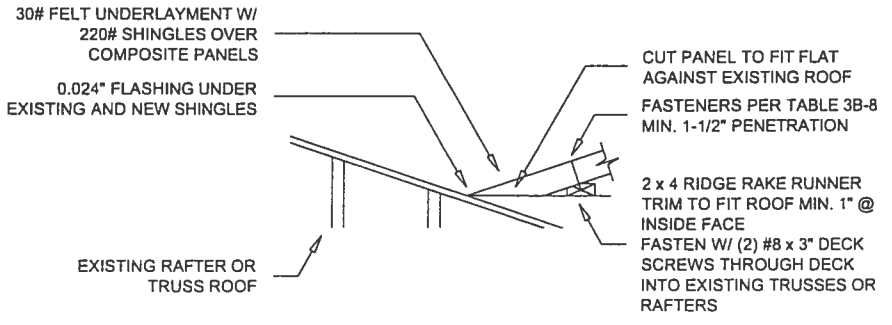
SCALE: 1/4" = 1'-0"



(WITHOUT ADDITIONAL ROOF BEAM AND SUPPORTS MAX. ROOF BEAM SPACING IS 6' O.C.)

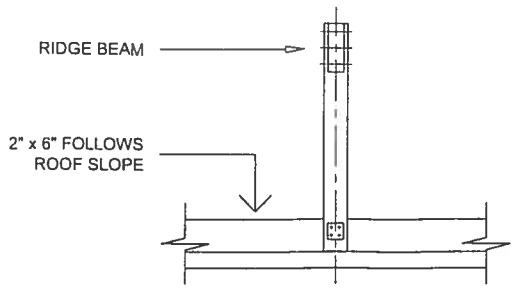
SCREEN OR SOLID WALL ROOM VALLEY CONNECTION
PLAN VIEW

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



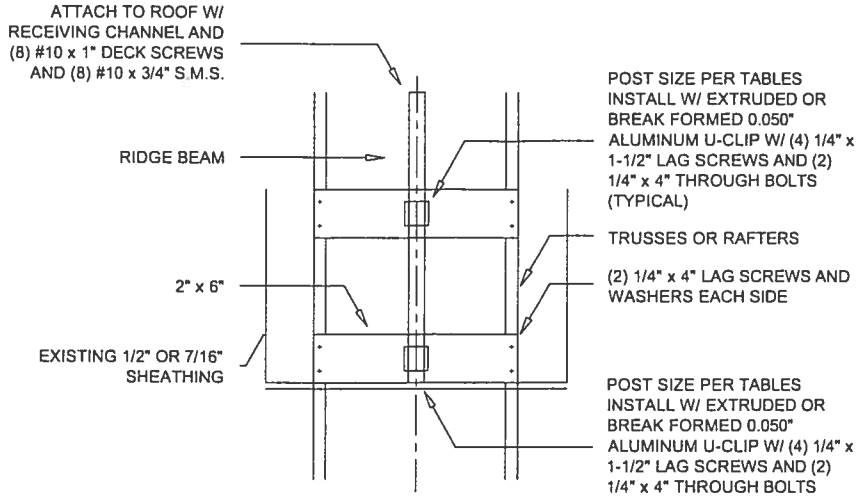
A - A - SECTION VIEW

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



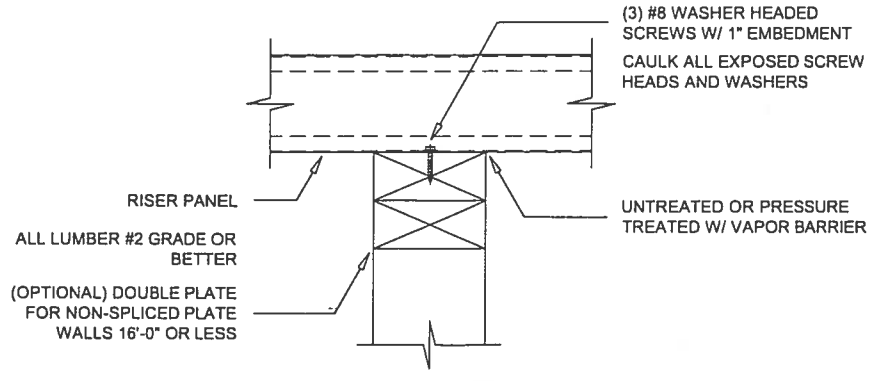
B - B - ELEVATION VIEW

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



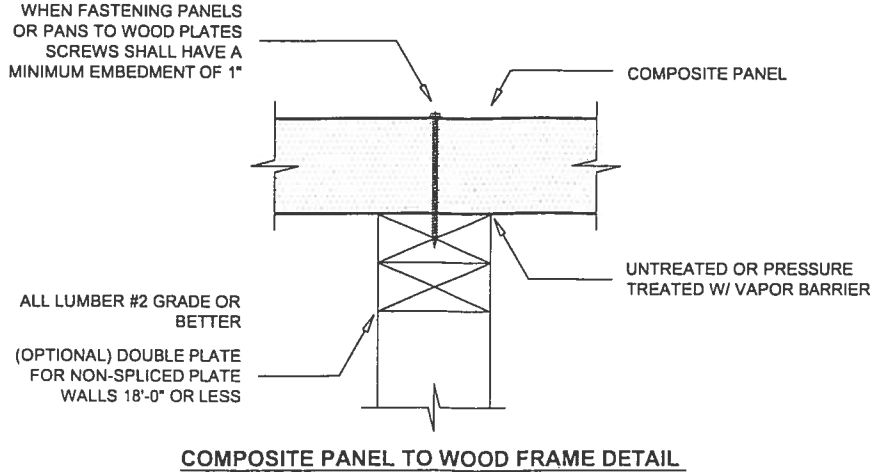
B - B - PLAN VIEW

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



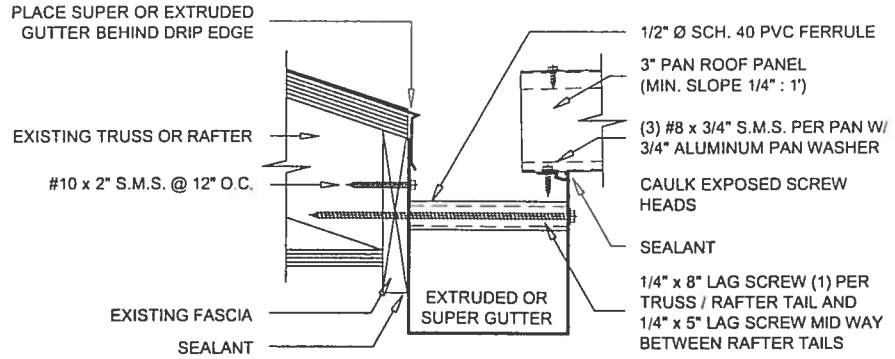
PAN TO WOOD FRAME DETAIL

SCALE: 2" = 1'-0"



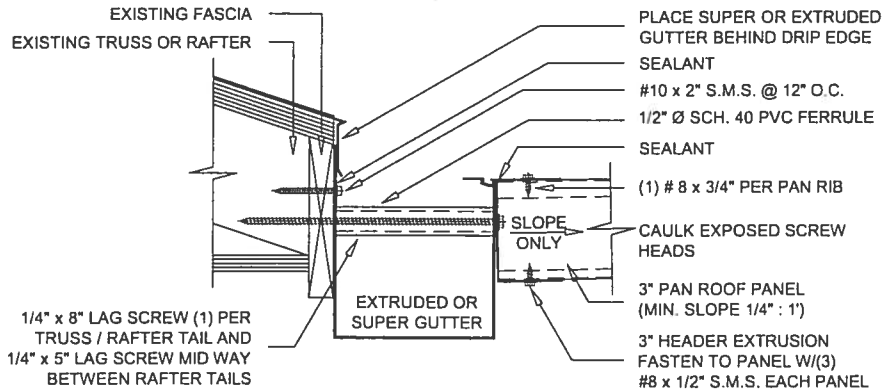
COMPOSITE PANEL TO WOOD FRAME DETAIL

SCALE: 2" = 1'-0"



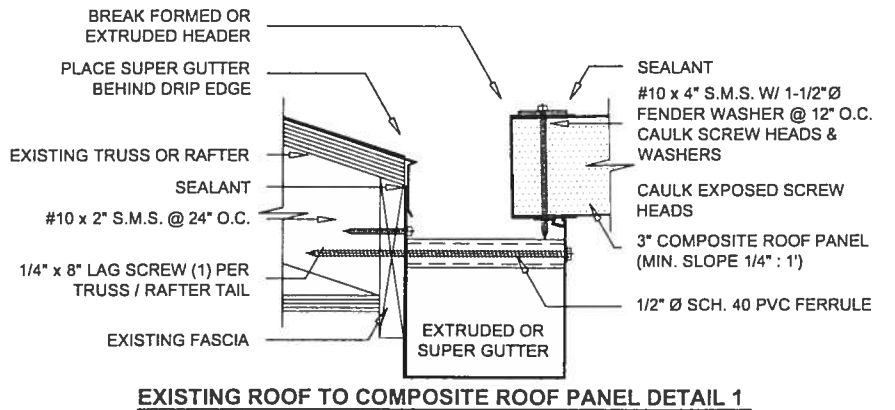
SUPER OR EXTRUDED GUTTER
EXISTING ROOF TO PAN ROOF PANEL DETAIL 1

SCALE: 2" = 1'-0"



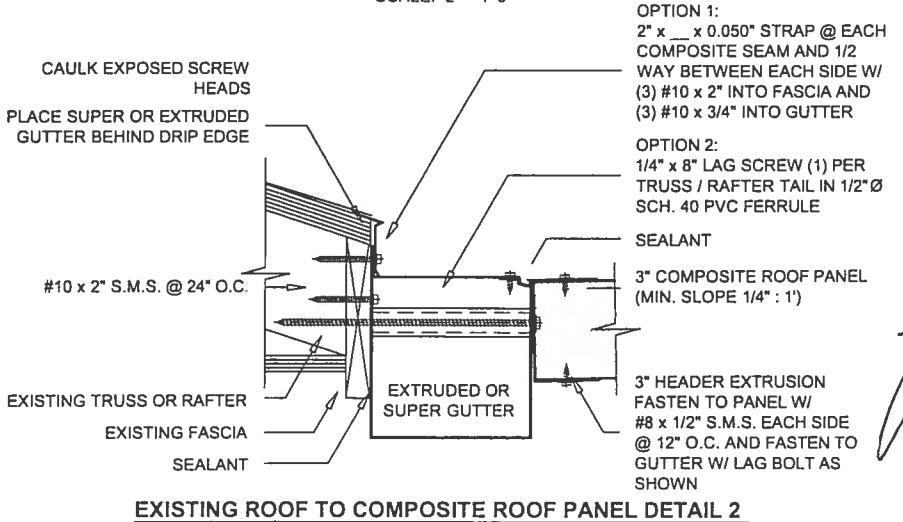
SUPER OR EXTRUDED GUTTER
EXISTING ROOF TO PAN ROOF PANEL DETAIL 2

SCALE: 2" = 1'-0"



EXISTING ROOF TO COMPOSITE ROOF PANEL DETAIL 1

SCALE: 2" = 1'-0"



EXISTING ROOF TO COMPOSITE ROOF PANEL DETAIL 2

SCALE: 2" = 1'-0"

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SHEET 6C OF 8