

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.

Contractor Name (please print) _____ Phone: _____

Contractor Signature _____ Date: _____

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:

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

Wind Zone Multiplier * _____ (b or d) x _____ (b or d) = _____ 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

Wind Zone Multiplier * _____ (b or d) x _____ (b or d) = _____ 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:

- Plan view with dimensions TO SCALE.
- Section view or front and side elevations TO SCALE.
- The preferred scale is 1/4" = 1'.
- Provide attachment details.
- Street map with job location.
- 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 piers 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 compensate 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' overhang 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°; 1 = 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

Wind Zone	Roof	Wall	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-B
Wind Zone Conversions for Overhangs

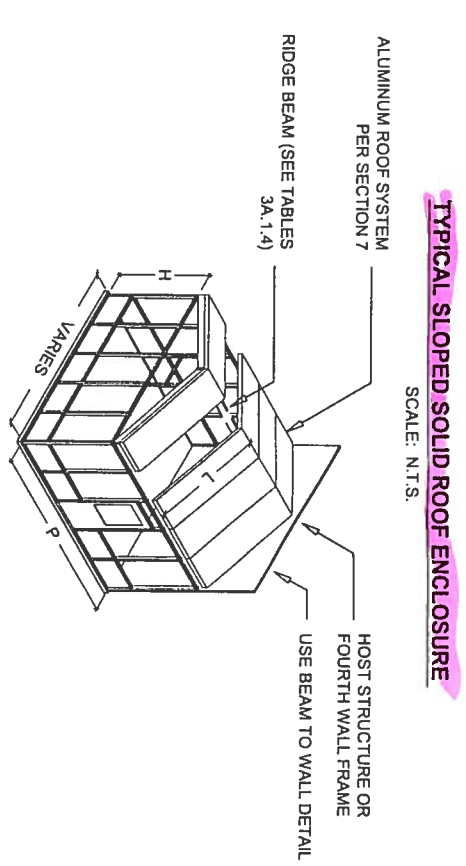
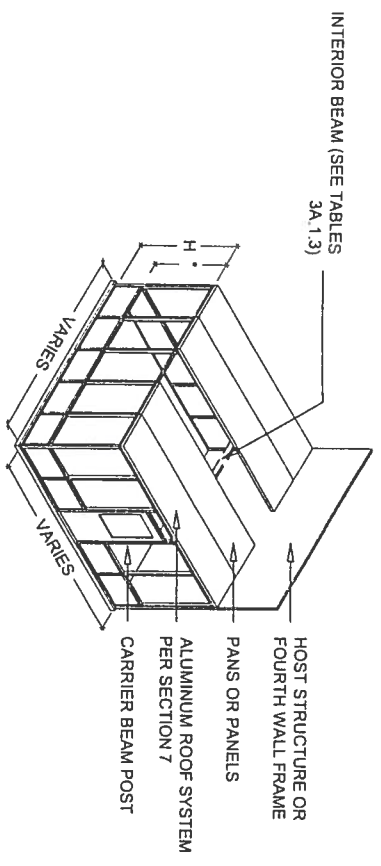
Wind Zone	Applied Load	Deflection	Bending
100 MPH	30	1.13	1.20
110 MPH	36	1.06	1.09
120 MPH	43	1.00	1.00
123 MPH	45	0.98	0.98
130 MPH	50	0.95	0.93
140A MPH	58	0.91	0.88
140B MPH	58	0.91	0.88
150 MPH	67	0.86	0.80

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

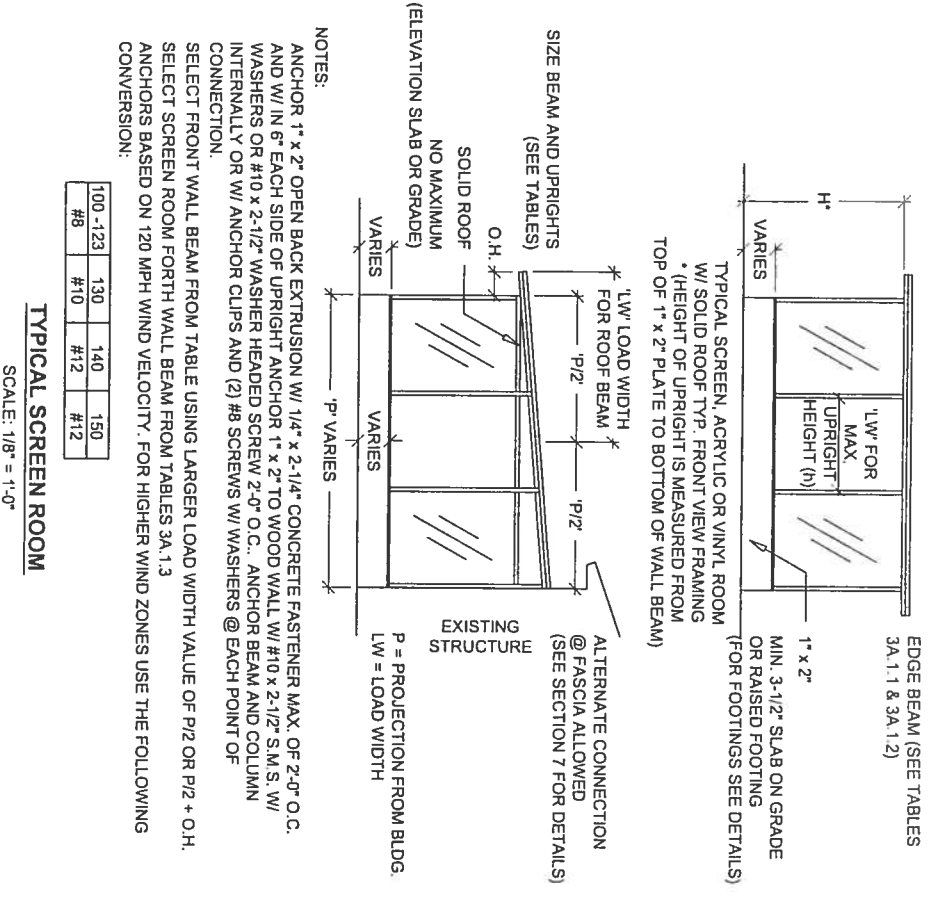
Wind Zone	Roofs			Walls		
	Applied Load (#SF)	Deflection (d)	Bending (b)	Applied Load (#SF)	Deflection (d)	Bending (b)
100 MPH	10	1.09	1.14	10	1.12	1.18
110 MPH	11	1.06	1.09	11	1.08	1.13
120 MPH	13	1.00	1.00	14	1.00	1.00
123 MPH	14	0.98	0.98	15	0.98	0.97
130 MPH	15	0.95	0.93	16	0.96	0.94
140A MPH	17	0.91	0.87	18	0.92	0.88
140B MPH	18	0.90	0.85	18	0.92	0.88
150 MPH	20	0.76	0.66	21	0.87	0.82

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	Bending
0 to 15'-0"	0.94	0.91	0.88
15'-0" to 20'-0"	0.92	0.88	0.85
20'-0" to 25'-0"	0.91	0.86	0.83
25'-0" to 30'-0"	0.89	0.85	0.82



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



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

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 1994.

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

07-08-2004

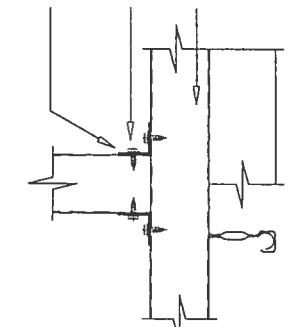
JOB NAME: _____
ADDRESS: _____

DRAWING FOR ONE PERMIT ONLY

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



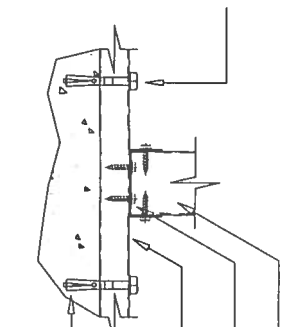
1" x 2" TOP RAILS FOR SIDE WALLS WITH MAX. 3.5' LOAD WIDTH SHALL HAVE A MAXIMUM UPRIGHT SPACING AS FOLLOWS

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

VAPOR BARRIER UNDER CONCRETE



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

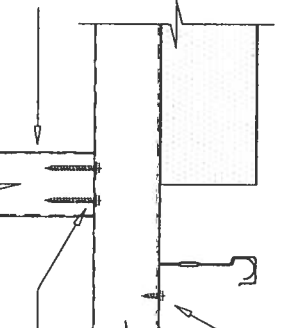
CONCRETE ANCHOR (PER TABLE)

1-1/8" MIN. IN CONCRETE

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

2" x 2" OR 2" x 3" HOLLOW



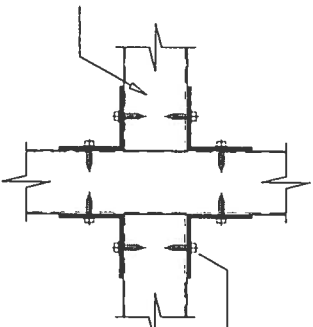
RISER PANELS ATTACHED PER CHAPTER 7

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

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

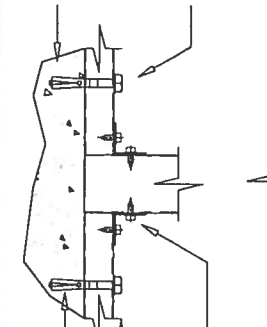
FOR SNAP EXTRUSIONS GIRT ATTACHED TO POST WITH MIN. (3) #10 x 1/2" S.M.S. IN SCREW BOSSES

INTERNAL OR EXTERNAL U-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.

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



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

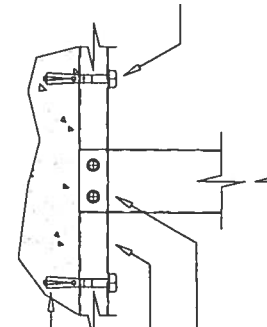
1-1/8" MIN. IN CONCRETE

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.

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

VAPOR BARRIER UNDER CONCRETE



#8 x 9/16" TEK SCREWS BOTH SIDES

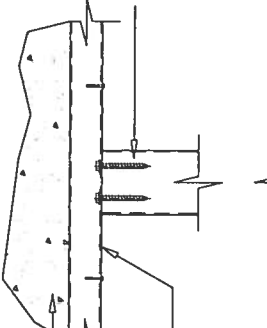
1" x 2-1/8" x 1" U-CHANNEL OR RECEIVING CHANNEL

CONCRETE ANCHOR (PER TABLE)

1-1/8" MIN. EMBEDMENT INTO CONCRETE

GIRT AND KICK PLATE 2" x 2" HOLLOW RAIL

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



1" x 2" OPEN BACK BOTTOM RAIL

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

POST TO BASE, GIRT AND POST TO BEAM DETAIL

SCALE: 2" = 1'-0"

ALTERNATE POST TO BASE CONNECTION - DETAIL 2

SCALE: 2" = 1'-0"

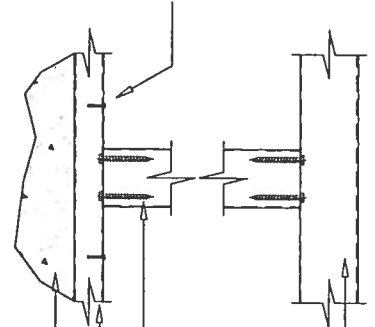
ALTERNATE CONNECTION DETAIL 1" x 2" WITH (3) #10 x 1-1/2" S.M.S. INTO SCREW BOSS

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

VAPOR BARRIER UNDER CONCRETE



BEAM / HEADER

ANGLE CLIPS MAY BE SUBSTITUTED FOR INTERNAL SCREW SYSTEMS

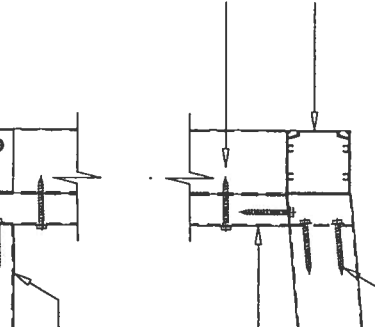
MIN. (3) #10 x 1 1/2" S.M.S. INTO SCREW BOSS

1" x 2" EXTRUSION

1-1/8" MIN. IN 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.

EDGE BEAM



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.

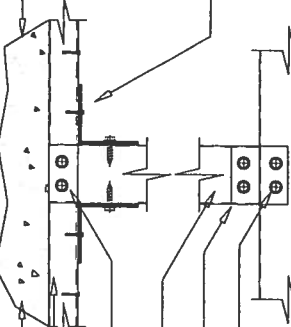
ALTERNATE HOLLOW UPRIGHT TO BASE AND HOLLOW UPRIGHT TO BEAM DETAIL

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.

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

VAPOR BARRIER UNDER CONCRETE



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

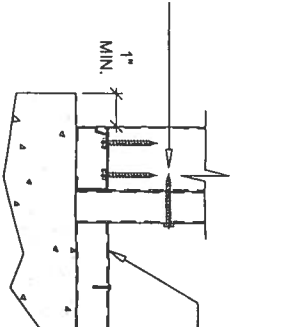
MIN. (4) #10 x 1/2" S.M.S. @ EACH POST

1" x 2" EXTRUSION

1-1/8" MIN. IN 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.

FRONT WALL GIRT



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

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

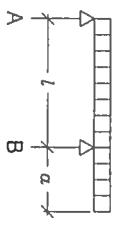
ALTERNATE PATIO SECTION TO UPRIGHT AND PATIO SECTION TO BEAM DETAIL

SCALE: 2" = 1'-0"

TYPICAL & ALTERNATE CORNER DETAIL

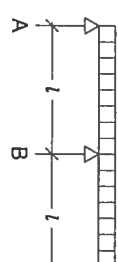
SCALE: 2" = 1'-0"

UNIFORM LOAD



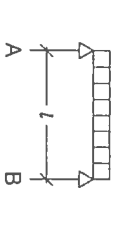
SINGLE SPAN CANTILEVER

UNIFORM LOAD



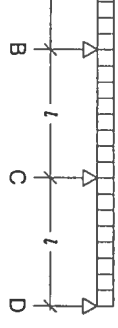
2 SPAN

UNIFORM LOAD

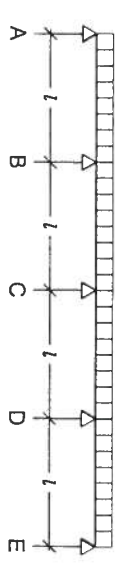


1 OR SINGLE SPAN

UNIFORM LOAD



3 SPAN

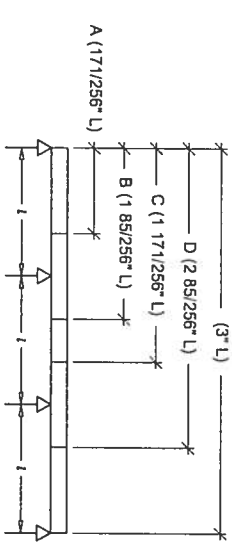


4 SPAN

- 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) 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"

1" MAX.
1" MAX.
7/8"

HEIGHT 2 x (d - 50)" LENGTH

Screw Size	dk	Minimum Distance and Spacing of Screws	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	7/16	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 #14*	0.25	1/2	5/8	2" x 9" x 0.082" x 0.306"	1/8" = 0.125"
#16 or #16*	0.313	5/8	3/4	2" x 10" x 0.092" x 0.389"	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 3 second wind gust at 110 MPH velocity; using design load of 11 #SF (36 #SF for Max. Cantilever)

Load Width (ft.)	2" x 2" x 0.044"				2" x 2" x 0.055"				2" x 2" x 0.070"				2" x 2" x 0.092"			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5.0'	6.2'	6.2'	1.0'	5.0'	6.2'	6.2'	1.0'	5.0'	6.2'	6.2'	1.0'	5.0'	6.2'	6.2'	1.0'
6	5.0'	6.2'	6.2'	1.0'	5.0'	6.2'	6.2'	1.0'	5.0'	6.2'	6.2'	1.0'	5.0'	6.2'	6.2'	1.0'
7	4.9'	5.1'	5.1'	0.11'	4.9'	5.1'	5.1'	0.11'	4.9'	5.1'	5.1'	0.11'	4.9'	5.1'	5.1'	0.11'
8	4.7'	5.8'	5.8'	0.11'	4.7'	5.8'	5.8'	0.11'	4.7'	5.8'	5.8'	0.11'	4.7'	5.8'	5.8'	0.11'
9	4.5'	5.5'	5.5'	0.10'	4.5'	5.5'	5.5'	0.10'	4.5'	5.5'	5.5'	0.10'	4.5'	5.5'	5.5'	0.10'
10	4.3'	5.2'	5.2'	0.10'	4.3'	5.2'	5.2'	0.10'	4.3'	5.2'	5.2'	0.10'	4.3'	5.2'	5.2'	0.10'
11	4.1'	4.9'	4.9'	0.10'	4.1'	4.9'	4.9'	0.10'	4.1'	4.9'	4.9'	0.10'	4.1'	4.9'	4.9'	0.10'
12	3.1'	4.8'	4.8'	0.10'	3.1'	4.8'	4.8'	0.10'	3.1'	4.8'	4.8'	0.10'	3.1'	4.8'	4.8'	0.10'

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

Load Width (ft.)	2" x 2" x 0.044"				2" x 2" x 0.055"				2" x 2" x 0.070"				2" x 2" x 0.092"			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5.1'	6.3'	6.3'	1.0'	5.1'	6.3'	6.3'	1.0'	5.1'	6.3'	6.3'	1.0'	5.1'	6.3'	6.3'	1.0'
6	4.9'	5.10'	5.10'	0.11'	4.9'	5.10'	5.10'	0.11'	4.9'	5.10'	5.10'	0.11'	4.9'	5.10'	5.10'	0.11'
7	4.6'	5.7'	5.7'	0.11'	4.6'	5.7'	5.7'	0.11'	4.6'	5.7'	5.7'	0.11'	4.6'	5.7'	5.7'	0.11'
8	4.2'	5.4'	5.4'	0.10'	4.2'	5.4'	5.4'	0.10'	4.2'	5.4'	5.4'	0.10'	4.2'	5.4'	5.4'	0.10'
9	4.0'	5.11'	5.11'	0.10'	4.0'	5.11'	5.11'	0.10'	4.0'	5.11'	5.11'	0.10'	4.0'	5.11'	5.11'	0.10'
10	4.0'	4.9'	4.9'	0.09'	4.0'	4.9'	4.9'	0.09'	4.0'	4.9'	4.9'	0.09'	4.0'	4.9'	4.9'	0.09'
11	3.11'	4.6'	4.6'	0.09'	3.11'	4.6'	4.6'	0.09'	3.11'	4.6'	4.6'	0.09'	3.11'	4.6'	4.6'	0.09'
12	3.9'	4.4'	4.4'	0.09'	3.9'	4.4'	4.4'	0.09'	3.9'	4.4'	4.4'	0.09'	3.9'	4.4'	4.4'	0.09'

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

Load Width (ft.)	2" x 2" x 0.044"				2" x 2" x 0.055"				2" x 2" x 0.070"				2" x 2" x 0.092"			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	4.10'	5.1'	5.1'	0.11'	4.10'	5.1'	5.1'	0.11'	4.10'	5.1'	5.1'	0.11'	4.10'	5.1'	5.1'	0.11'
6	4.6'	5.7'	5.7'	0.11'	4.6'	5.7'	5.7'	0.11'	4.6'	5.7'	5.7'	0.11'	4.6'	5.7'	5.7'	0.11'
7	4.4'	5.3'	5.3'	0.10'	4.4'	5.3'	5.3'	0.10'	4.4'	5.3'	5.3'	0.10'	4.4'	5.3'	5.3'	0.10'
8	4.1'	5.0'	5.0'	0.09'	4.1'	5.0'	5.0'	0.09'	4.1'	5.0'	5.0'	0.09'	4.1'	5.0'	5.0'	0.09'
9	3.11'	4.8'	4.8'	0.09'	3.11'	4.8'	4.8'	0.09'	3.11'	4.8'	4.8'	0.09'	3.11'	4.8'	4.8'	0.09'
10	3.10'	4.5'	4.5'	0.09'	3.10'	4.5'	4.5'	0.09'	3.10'	4.5'	4.5'	0.09'	3.10'	4.5'	4.5'	0.09'
11	3.8'	4.3'	4.3'	0.09'	3.8'	4.3'	4.3'	0.09'	3.8'	4.3'	4.3'	0.09'	3.8'	4.3'	4.3'	0.09'
12	3.7'	4.0'	4.0'	0.09'	3.7'	4.0'	4.0'	0.09'	3.7'	4.0'	4.0'	0.09'	3.7'	4.0'	4.0'	0.09'

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

Load Width (ft.)	2" x 2" x 0.044"				2" x 2" x 0.055"				2" x 2" x 0.070"				2" x 2" x 0.092"			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	4.7'	5.8'	5.8'	1.0'	4.7'	5.8'	5.8'	1.0'	4.7'	5.8'	5.8'	1.0'	4.7'	5.8'	5.8'	1.0'
6	4.4'	5.4'	5.4'	0.10'	4.4'	5.4'	5.4'	0.10'	4.4'	5.4'	5.4'	0.10'	4.4'	5.4'	5.4'	0.10'
7	4.1'	5.1'	5.1'	0.10'	4.1'	5.1'	5.1'	0.10'	4.1'	5.1'	5.1'	0.10'	4.1'	5.1'	5.1'	0.10'
8	3.10'	4.8'	4.8'	0.09'	3.10'	4.8'	4.8'	0.09'	3.10'	4.8'	4.8'	0.09'	3.10'	4.8'	4.8'	0.09'
9	3.6'	4.5'	4.5'	0.09'	3.6'	4.5'	4.5'	0.09'	3.6'	4.5'	4.5'	0.09'	3.6'	4.5'	4.5'	0.09'
10	3.5'	4.2'	4.2'	0.09'	3.5'	4.2'	4.2'	0.09'	3.5'	4.2'	4.2'	0.09'	3.5'	4.2'	4.2'	0.09'
11	3.5'	3.9'	3.9'	0.08'	3.5'	3.9'	3.9'	0.08'	3.5'	3.9'	3.9'	0.08'	3.5'	3.9'	3.9'	0.08'
12	3.11'	3.6'	3.6'	0.08'	3.11'	3.6'	3.6'	0.08'	3.11'	3.6'	3.6'	0.08'	3.11'	3.6'	3.6'	0.08'

- 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.1.2-110 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 (3# #/SF for Max. Cantilever)
Aluminum Alloy 6063 T-6

Load Width (ft.)	2" x 2" x 0.045" Snap Extrusion				2" x 3" x 0.045" Snap Extrusion			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	6'-0" d	7'-5" d	7'-7" d	1'-2" d	5	8'-1" d	10'-0" d	10'-2" d
6	5'-8" d	6'-11" d	7'-2" d	1'-2" d	6	7'-7" d	9'-5" d	9'-7" d
7	5'-4" d	6'-8" d	6'-9" d	1'-0" d	7	7'-3" d	8'-11" d	8'-5" d
8	5'-2" d	6'-4" d	6'-5" d	1'-0" d	8	6'-11" d	8'-7" d	8'-6" d
9	4'-11" d	6'-1" d	6'-3" d	0'-11" d	9	6'-8" d	8'-3" d	8'-0" d
10	4'-9" d	5'-11" d	6'-1" d	0'-11" d	10	6'-5" d	7'-10" d	7'-7" d
11	4'-7" d	5'-8" d	5'-8" d	0'-11" d	11	6'-3" d	7'-6" d	7'-3" d
12	4'-5" d	5'-7" d	5'-5" d	0'-11" d	12	6'-1" d	7'-2" d	6'-11" 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 (4# #/SF for Max. Cantilever)
Aluminum Alloy 6063 T-6

Load Width (ft.)	2" x 2" x 0.045" Snap Extrusion				2" x 3" x 0.045" Snap Extrusion			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-8" d	7'-0" d	7'-2" d	1'-2" d	5	7'-8" d	9'-5" d	9'-8" d
6	5'-4" d	6'-7" d	6'-9" d	1'-1" d	6	7'-2" d	8'-11" d	8'-0" d
7	5'-1" d	6'-3" d	6'-5" d	1'-0" d	7	6'-10" d	8'-5" d	8'-4" d
8	4'-10" d	6'-0" d	6'-1" d	0'-11" d	8	6'-7" d	8'-1" d	7'-10" d
9	4'-8" d	5'-9" d	5'-9" d	0'-11" d	9	6'-4" d	7'-8" d	7'-4" d
10	4'-6" d	5'-7" d	5'-6" d	0'-11" d	10	6'-1" d	7'-3" d	6'-11" d
11	4'-4" d	5'-5" d	5'-2" d	0'-10" d	11	5'-11" d	6'-11" d	6'-8" d
12	4'-3" d	5'-2" d	4'-11" d	0'-10" d	12	5'-9" d	6'-7" d	6'-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 (5# #/SF for Max. Cantilever)
Aluminum Alloy 6063 T-6

Load Width (ft.)	2" x 2" x 0.045" Snap Extrusion				2" x 3" x 0.045" Snap Extrusion			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-5" d	6'-8" d	6'-10" d	1'-1" d	5	7'-4" d	9'-0" d	9'-2" d
6	5'-1" d	6'-4" d	6'-5" d	1'-0" d	6	6'-10" d	8'-6" d	8'-5" d
7	4'-10" d	5'-11" d	6'-1" d	0'-11" d	7	6'-6" d	8'-1" d	7'-9" d
8	4'-8" d	5'-9" d	5'-8" d	0'-11" d	8	6'-3" d	7'-6" d	7'-3" d
9	4'-5" d	5'-6" d	5'-4" d	0'-11" d	9	6'-0" d	7'-1" d	6'-10" d
10	4'-4" d	5'-3" d	5'-1" d	0'-10" d	10	5'-10" d	6'-5" d	6'-6" d
11	4'-2" d	5'-0" d	4'-10" d	0'-10" d	11	5'-7" d	6'-5" d	6'-3" d
12	4'-1" d	4'-10" d	4'-8" d	0'-10" d	12	5'-5" d	6'-2" d	5'-11" 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 (5# #/SF for Max. Cantilever)
Aluminum Alloy 6063 T-6

Load Width (ft.)	2" x 2" x 0.045" Snap Extrusion				2" x 3" x 0.045" Snap Extrusion			
	1 & 2 Span	3 Span	4 Span	Max. Cantilever	1 & 2 Span	3 Span	4 Span	Max. Cantilever
5	5'-2" d	6'-5" d	6'-7" d	1'-0" d	5	7'-0" d	8'-8" d	8'-6" d
6	4'-11" d	6'-1" d	6'-2" d	0'-11" d	6	6'-7" d	8'-2" d	7'-11" d
7	4'-9" d	5'-9" d	5'-8" d	0'-11" d	7	6'-3" d	7'-7" d	7'-4" d
8	4'-5" d	5'-6" d	5'-4" d	0'-10" d	8	5'-11" d	7'-1" d	6'-10" d
9	4'-3" d	5'-2" d	5'-0" d	0'-10" d	9	5'-9" d	6'-8" d	6'-5" d
10	4'-2" d	4'-11" d	4'-9" d	0'-10" d	10	5'-7" d	6'-4" d	6'-1" d
11	3'-11" d	4'-9" d	4'-7" d	0'-9" d	11	5'-5" d	6'-0" d	5'-10" d
12	3'-11" d	4'-8" d	4'-4" d	0'-9" d	12	5'-2" d	5'-9" d	5'-7" 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.1.3-110 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"
2" x 4" x 0.050" Hollow	12'-2"	11'-6"	10'-11"	10'-0"	9'-5"	9'-1"	8'-5"	8'-1"	7'-6"	7'-2"
2" x 5" x 0.062" Hollow	15'-9"	14'-10"	14'-1"	13'-5"	12'-11"	12'-1"	11'-5"	11'-2"	10'-11"	10'-8"
2" x 6" x 0.069" x 0.100"	16'-11"	15'-11"	15'-1"	14'-5"	13'-5"	13'-1"	12'-5"	12'-1"	11'-11"	11'-6"
2" x 7" x 0.055" w/insert	22'-6"	21'-2"	20'-2"	19'-5"	18'-6"	17'-10"	16'-5"	15'-11"	14'-5"	13'-5"
2" x 8" x 0.072" x 0.224"	27'-11"	26'-3"	24'-4"	22'-4"	20'-4"	18'-4"	16'-4"	14'-4"	12'-4"	10'-4"
2" x 9" x 0.082" x 0.306"	31'-9"	29'-10"	28'-4"	26'-2"	24'-5"	22'-10"	20'-10"	18'-9"	16'-9"	14'-9"
2" x 10" x 0.092" x 0.389"	38'-2"	35'-11"	34'-1"	32'-9"	30'-4"	28'-6"	26'-6"	24'-6"	22'-6"	20'-6"

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 MPH 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"
2" x 4" x 0.050" Hollow	11'-7"	10'-10"	10'-4"	9'-10"	9'-5"	9-2"	8'-11"	8'-7"	8'-5"	8'-2"
2" x 5" x 0.062" Hollow	14'-11"	14'-0"	13'-4"	12'-9"	12'-3"	11'-10"	11'-5"	11'-1"	10'-10"	10'-7"
2" x 6" x 0.069" x 0.100"	15'-11"	15'-0"	14'-3"	13'-8"	13'-2"	12'-9"	12'-3"	11'-11"	11'-7"	11'-4"
2" x 7" x 0.055" w/insert	21'-4"	20'-1"	19'-0"	18'-3"	17-6"	16-11"	16-5"	15-11"	14-9"	14-5"
2" x 8" x 0.072" x 0.224"	26-5"	24-10"	23-7"	22-7"	21-8"	20-5"	19-5"	18-9"	18-3"	17-11"
2" x 9" x 0.082" x 0.306"	30-0"	28-3"	26-10"	24-9"	23-11"	22-3"	21-8"	21-1"	20-7"	19-8"
2" x 10" x 0.092" x 0.389"	36-1"	33-11"	32-3"	30-10"	29-8"	28-8"	27-9"	26-11"	25-7"	24-6"

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 MPH 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 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"
2" x 4" x 0.050" Hollow	11'-0"	10'-4"	9'-10"	9'-5"	9'-1"	8'-9"	8'-5"	8'-3"	8'-0"	7'-8"
2" x 5" x 0.062" Hollow	14'-2"	13'-4"	12-6"	12-2"	11-6"	11-3"	10-11"	10-7"	10-4"	10-1"
2" x 6" x 0.069" x 0.100"	15-3"	14-4"	13-7"	13-0"	12-6"	12-1"	11-9"	11-5"	11-1"	10-10"
2" x 7" x 0.055" w/insert	20-4"	19-1"	18-2"	17-4"	16-8"	16-1"	15-7"	15-2"	14-9"	14-1"
2" x 8" x 0.072" x 0.224"	25-2"	23-1"	21-1"	20-2"	19-6"	18-4"	17-10"	17-5"	17-0"	16-8"
2" x 9" x 0.082" x 0.306"	28-7"	26-11"	24-6"	23-7"	22-8"	21-11"	21-3"	20-1"	19-2"	18-9"
2" x 10" x 0.092" x 0.389"	34-5"	32-5"	30-9"	29-5"	28-4"	27-4"	26-6"	25-9"	24-5"	23-4"

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 MPH 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 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"
2" x 4" x 0.050" Hollow	10'-7"	9'-11"	9'-5"	9'-0"	8'-5"	8'-1"	7'-11"	7'-8"	7'-6"	7-2"
2" x 5" x 0.062" Hollow	13-7"	12-10"	12-2"	11-8"	11-2"	10-10"	10-5"	10-2"	9-11"	9-3"
2" x 6" x 0.069" x 0.100"	11-9"	11-1"	10-5"	10-1"	9-8"	9-4"	8-10"	8-7"	8-4"	8-0"
2" x 7" x 0.055" w/insert	17-1"	16-1"	15-3"	14-7"	14-1"	13-7"	13-2"	12-9"	12-2"	11-7"
2" x 8" x 0.072" x 0.224"	24-2"	22-9"	21-7"	20-8"	19-10"	19-2"	18-7"	18-0"	17-7"	17-1"
2" x 9" x 0.082" x 0.306"	27-5"	25-10"	23-6"	22-8"	21-9"	21-0"	20-4"	19-9"	19-3"	18-9"
2" x 10" x 0.092" x 0.389"	33-0"	31-1"	29-6"	28-3"	27-2"	26-2"	25-5"	24-8"	24-0"	22-5"

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 MPH 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 = Purlin Spacing									
	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2" x 4" x 0.044 x 0.100"	13-7"	12-5"	11-5"	10-9"	10-1"	9-7"	9-1"	8-5"	8-2"	7-8"
2" x 5" x 0.050" x 0.100"	16-10"	15-4"	14-2"	13-3"	12-6"	11-11"	11-4"	10-10"	10-1"	9-6"
2" x 6" x 0.059" x 0.120"	19-5"	17-9"	16-5"	15-4"	14-6"	13-9"	13-1"	12-7"	12-1"	11-6"
2" x 7" x 0.055" w/insert	27-5"	25-9"	24-6"	23-0"	21-8"	20-7"	19-6"	18-10"	17-6"	16-5"
2" x 8" x 0.072" x 0.224"	28-1"	26-10"	25-11"	24-4"	23-1"	21-9"	20-9"	19-10"	18-5"	17-4"
2" x 9" x 0.082" x 0.306"	30-8"	27-11"	25-11"	24-3"	22-10"	21-8"	20-8"	19-9"	18-9"	17-9"
2" x 10" x 0.092" x 0.389"	33-9"	31-9"	30-2"	28-10"	27-3"	25-10"	24-6"	23-7"	22-6"	21-6"

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 = Purlin Spacing									
	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
2" x 4" x 0.044 x 0.100"	13-7"	12-5"	11-5"	10-9"	10-1"	9-7"	9-1"	8-5"	8-2"	7-8"
2" x 5" x 0.050" x 0.100"	16-10"	15-4"	14-2"	13-3"	12-6"	11-11"	11-4"	10-10"	10-1"	9-6"
2" x 6" x 0.059" x 0.120"	19-5"	17-9"	16-5"	15-4"	14-6"	13-9"	13-1"	12-7"	12-1"	11-6"
2" x 7" x 0.055" w/insert	27-5"	25-9"	24-6"	23-0"	21-8"	20-7"	19-6"	18-10"	17-6"	16-5"
2" x 8" x 0.072" x 0.224"	28-1"	26-10"	25-11"	24-4"	23-1"	21-9"	20-9"	19-10"	18-5"	17-4"
2" x 9" x 0.082" x 0.306"	30-8"	27-11"	25-11"	24-3"	22-10"	21-8"	20-8"	19-9"	18-9"	17-9"
2" x 10" x 0.092" x 0.389"	33-9"	31-9"	30-2"	28-10"	27-3"	25-10"	24-6"	23-7"	22-6"	21-6"

Note:
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"	13'-0"	14'-0"
2" x 4" x 0.044 x 0.100"	11-11"	10-10"	9-5"	8-10"	8-5"	8-1"	7-11"	7-8"	7-6"	7-2"
2" x 5" x 0.050" x 0.100"	14-6"	13-5"	12-5"	11-7"	10-11"	10-5"	9-11"	9-6"	9-1"	8-6"
2" x 6" x 0.059" x 0.120"	18-11"	17-6"	16-2"	15-2"	14-3"	13-6"	12-11"	12-4"	12-1"	11-6"
2" x 7" x 0.055" w/insert	25-0"	23-3"	22-7"	20-11"	19-7"	18-5"	17-2"	16-5"	15-1"	14-4"
2" x 8" x 0.072" x 0.224"	24-9"	22-7"	22-7"	20-11"	19-7"	18-5"	17-6"	16-8"	15-11"	14-4"
2" x 9" x 0.082" x 0.306"	28-10"	24-9"	24-9"	22-8"	21-2"	19-11"	18-11"	17-4"	16-4"	15-4"
2" x 10" x 0.092" x 0.389"	35-2"	32-3"	32-3"	29-11"	28-4"	26-10"	25-10"	24-10"	23-10"	22-10"

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

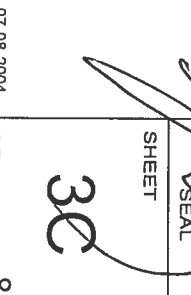


Table 3A.2.1 Allowable Upright Heights, Chair Rail Spans or Header Spans for Screen, Acrylic or Vinyl Rooms
Aluminum Alloy 6063 T-6

For 3 second wind gust at 110 MPH velocity; using design load of 11 #/SF

Sections	Tributary Load Width W _r = Purlin Spacing										
	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-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
2" x 2" x 0.055"	Hollow	10'-3" b	9-6" b	8-11" b	7-8" b	7-1" b	6-11" b	6-8" b	6-5" b	6-2" b	5-11" b
3" x 2" x 0.045"	Hollow	11'-3" b	10'-5" b	9-9" b	9-3" b	8-4" b	7-11" b	7-8" b	7-5" b	7-2" b	6-6" b
3" x 2" x 0.070"	Hollow	12'-9" d	12-2" d	11-0" d	10-11" b	10-5" b	9-11" b	9-2" b	8-10" b	8-6" b	8-1" b
2" x 3" x 0.045"	Hollow	12'-9" b	11-9" b	11-0" b	10-5" b	9-11" b	8-5" b	8-11" b	8-4" b	8-1" b	7-11" 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	10-3" b	10-3" b
2" x 4" x 0.046"	S.M.B.	19-1" b	17-8" b	16-5" 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.	35-1" b	34-2" b	32-7" b	31-3" b	30-2" b	29-3" b	28-5" b	27-9" b	27-1" b	26-6" b
2" x 2" x 0.044"	Snap	11-3" b	10-5" b	10-5" b	9-9" b	9-2" 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 _r = Purlin Spacing										
	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	
2" x 2" x 0.044"	Hollow	8'-8" b	8'-0" b	7-6" b	7-1" b	6-8" b	6-3" 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	9-2" b	8-6" b	8-0" b	7-4" b	7-1" b	6-10" b	6-7" 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	9-1" b	8-9" b	8-9" b	8-5" 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	18-11" b	17-5" b	16-3" b	15-9" 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	6-9" 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

For 3 second wind gust at 130 MPH velocity; using design load of 15 #/SF

Sections	Tributary Load Width W _r = Purlin Spacing										
	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-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	5-6" b	5-3" 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	5-7" b	5-7" b
3" x 2" x 0.045"	Hollow	9-8" b	8-11" b	8-4" b	7-11" b	7-6" 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	7-6" 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	10-6" b	10-4" b
2" x 5" x 0.050"	S.M.B.	20-2" b	18-8" b	17-6" b	16-8" b	16-3" b	15-8" b	15-3" b	14-3" b	13-9" 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	16-5" 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 _r = Purlin Spacing										
	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	
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	9-3" b	8-11" b	8-7" b	8-3" 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		Minimum Knee Brace	Min. # Knee Brace Screws
			@ L=0'-2"	@ L=0'-3"		
2" x 4" x 0.050" Hollow	3" x 3" x 0.093"	2" x 3" x 0.050"	2	2	2" x 3" x 0.050"	(3) #8
2" x 4" x 0.040" x 0.100"	3" x 3" x 0.093"	2" x 3" x 0.050"	2	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	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	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 3" x 0.050"	2	2	2" x 3" x 0.050"	(3) #12
2" x 9" x 0.072" x 0.224"	3" x 3" x 0.093"	2" x 3" x 0.050"	2	2	2" x 3" x 0.050"	(3) #12
2" x 10" x 0.082" x 0.224"	3" x 3" x 0.125"	2" x 3" x 0.050"	3	3	2" x 5" x 0.050" x 0.100"	(4) #14
2" x 10" x 0.092" x 0.256"	3" x 3" x 0.125"	2" x 3" x 0.050"	4	4	2" x 6" x 0.050" x 0.120"	(4) #14
Double Self Mating Beams	2" x 5" x 0.050" x 0.100"	-	6	4	2" x 4" x 0.044" x 0.100"	(6) #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"	(6) #14
(2) 2" x 9" x 0.082" x 0.256"	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 0.256"	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

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.

07-08-2004

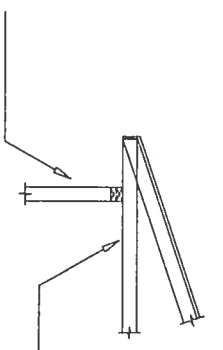
SHEET 30 OF 8

BEAL

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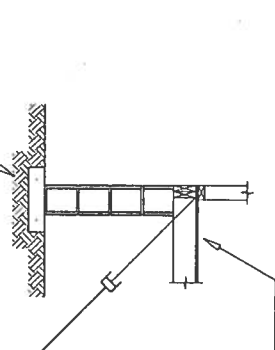
SCREEN, ACRYLIC & VINYL ROOMS
ALUMINUM STRUCTURES DESIGN MANUAL
2004 FLORIDA BUILDING CODE
MAY 2004 EDITION
SECTION 3A TABLES

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



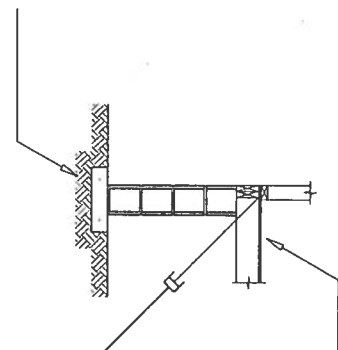
THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

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

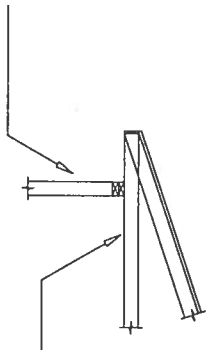
PROVIDE NEW 4" x 6" OR 8" x 16" CMU PIER AND SOLID FOUNDATION BLOCK @ 5'-0" MAX. O.C. ALONG ATTACHMENT WALL



TYPICAL WALL SECTION FOR ATTACHMENT TO MOBILE / MANUFACTURED HOME

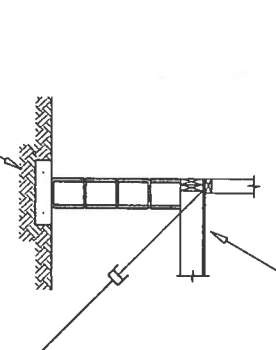
SCALE: 1/4" = 1'-0"

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



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

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



RIBBON FOOTING

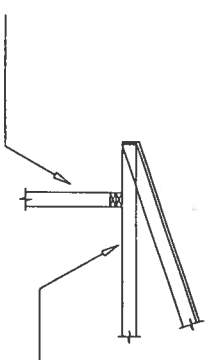
SCALE: 1/2" = 1'-0"

Minimum Ribbon Footing

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.

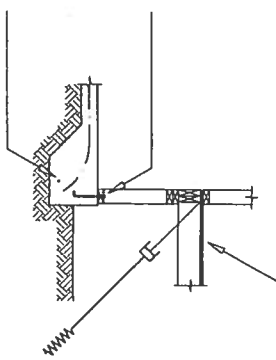
Maximum 16" projection from host structure.
For stud walls use 1/2" x 6" L-bolts @ 48" O.C. and 2" square washers to attach sole plate to footing. Stud anchors shall be at the sole plate only and coil strap shall top over the top plate on to the studs and straps shall be per manufacturer's specifications.

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



ALTERNATE WALL SECTION FOR ATTACHMENT TO MOBILE / MANUFACTURED HOME

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

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

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

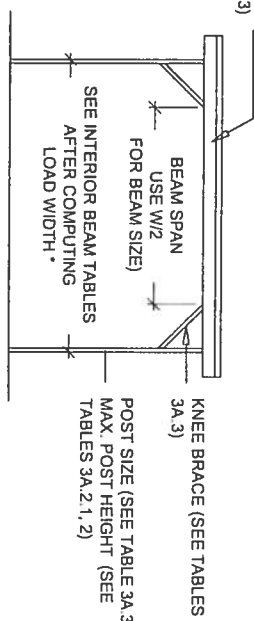
THE FLOOR, WALL, AND ROOF SYSTEM ARE THAT OF MOBILE / MANUFACTURED HOME

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

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

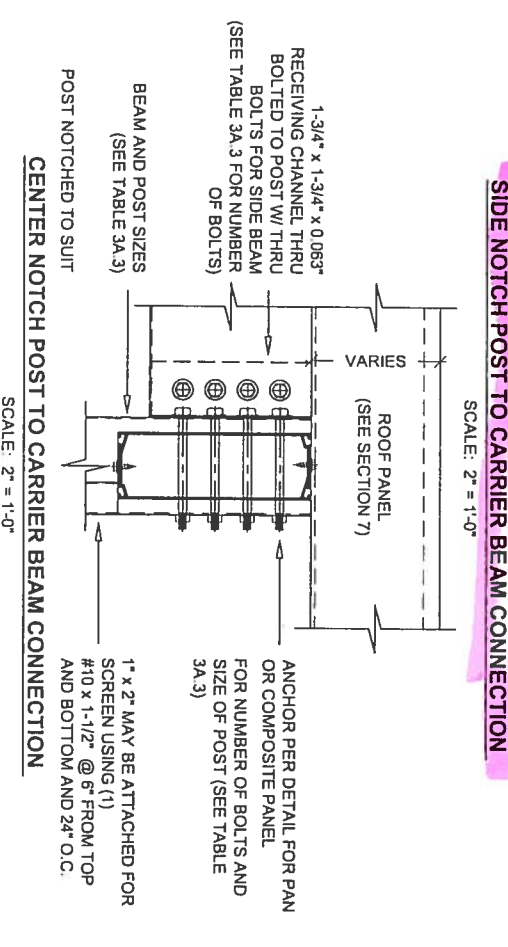
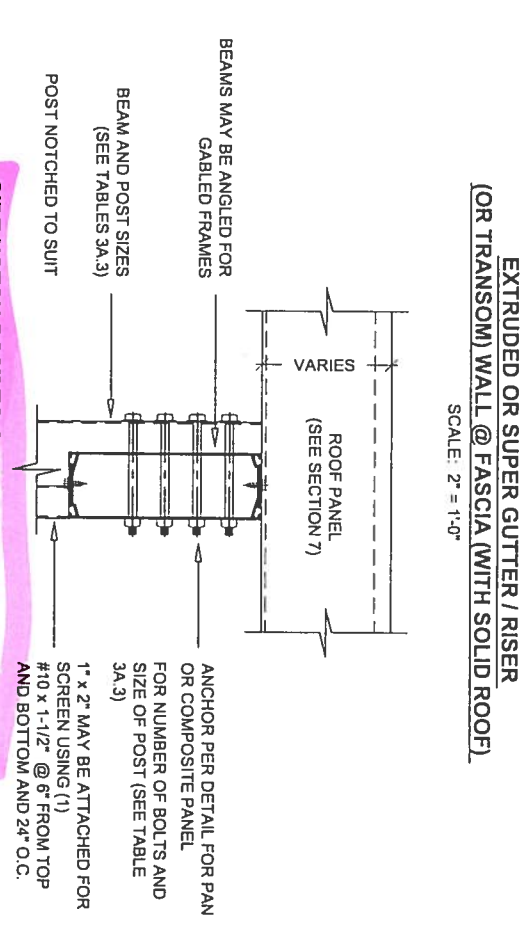
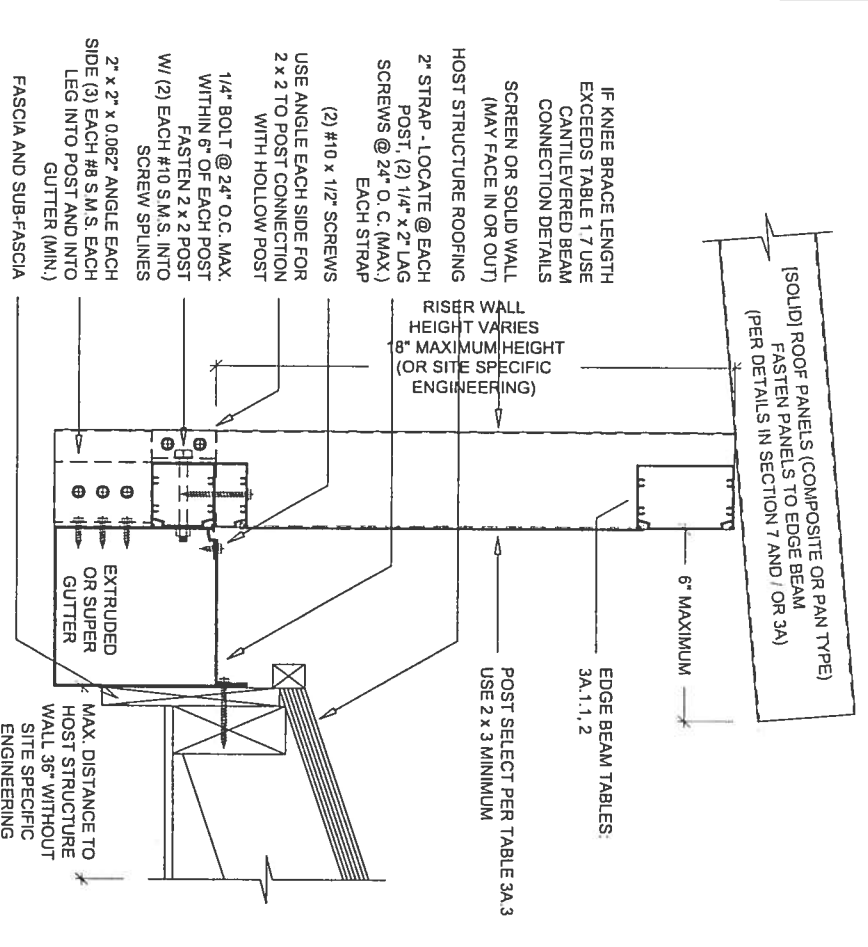
SCALE: 1/8" = 1'-0"

* 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 0.035"	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 0.093"	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"



07-08-2004

SEAL
SHEET
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8

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

JAN 01 2005

General Notes and Specifications:

- 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.
- 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.
- 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.
- 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.
- The following rules apply to attachments involving mobile and manufactured homes:
 - 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.
 - 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.
- 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.
- 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.
- When using TEK screws in lieu of S.M.S., longer screws must be used to compensate for drill head.
- For high velocity hurricane zones the minimum live load / applied load shall be 30 PSF.
- Interior walls & ceilings of composite panels may have 1/2" sheat rock added by securing the sheat rock w/ 1" fine thread sheat rock screws at 18" O.C. each way.
- All fascia guller end caps shall have water relief ports.
- Spans may be interpolated between values but not extrapolated outside values.
- 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.
- 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).

- 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.
- 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.
- 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 = 1.0. Negative internal pressure coefficient is 0.18 for enclosed and 0.55 for partially enclosed structures.
- 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.
- 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 Conversion Factors Based on Mean Roof Height of Host Structure For All Components

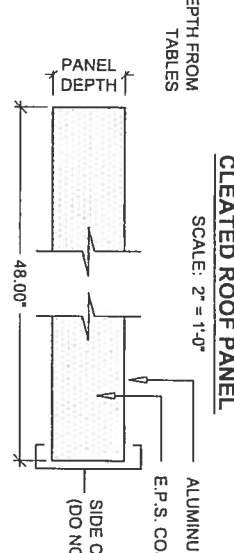
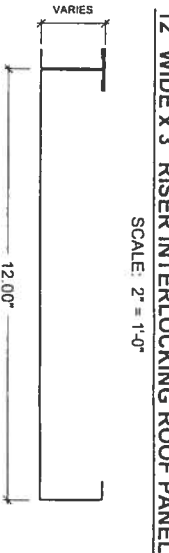
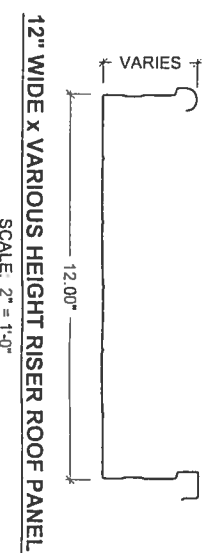
Exposure "B" to "C"	Pans	Composite Panels
Mean Host Structure Height		
0 - 15'	0.91	0.94
15 - 20'	0.88	0.92
20' - 25'	0.86	0.91
25' - 30'	0.85	0.89

Conversion Table 7B

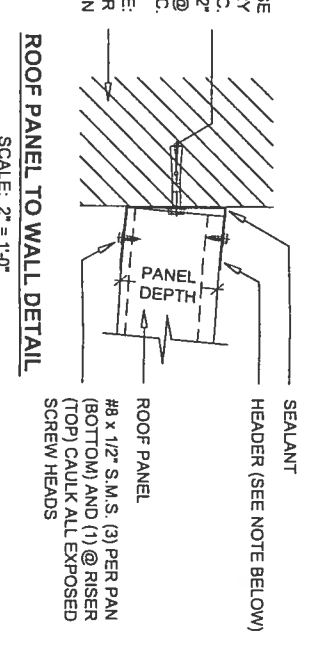
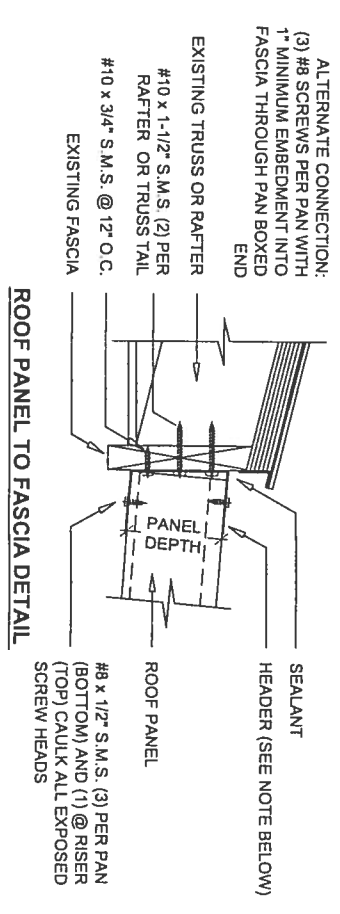
Conversion Based on Mean Height of Host Structure for Solid Roof Systems

From Exposure "B" to "C"	Load Multiplier	Pans	Composite Panels
Mean Host Structure Height			
0 - 15'	1.21	0.94	0.88
15 - 20'	1.29	0.92	0.86
20' - 25'	1.34	0.91	0.85
25' - 30'	1.40	0.89	0.85

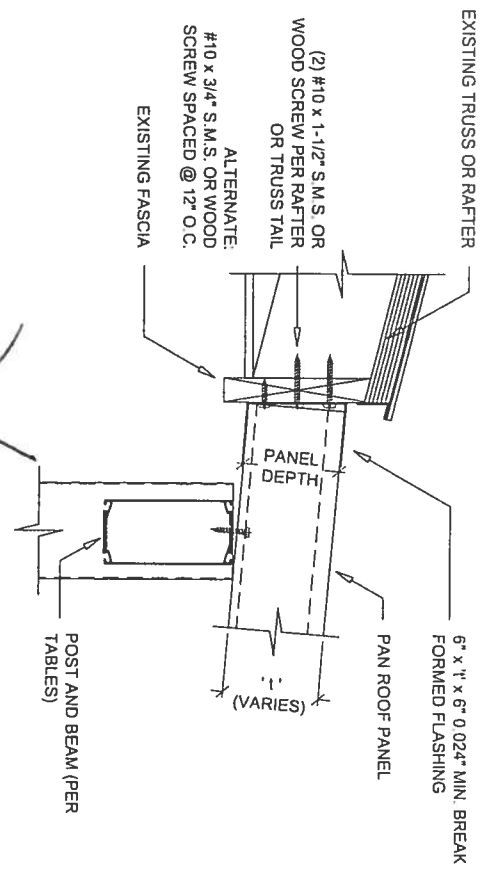
INDUSTRY STANDARD ROOF PANELS



PAN ROOF ANCHORING DETAILS

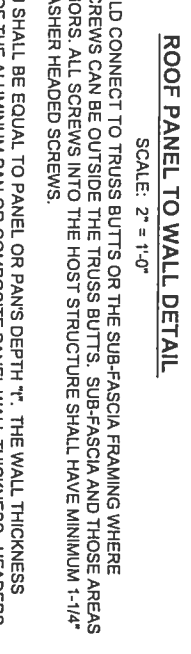
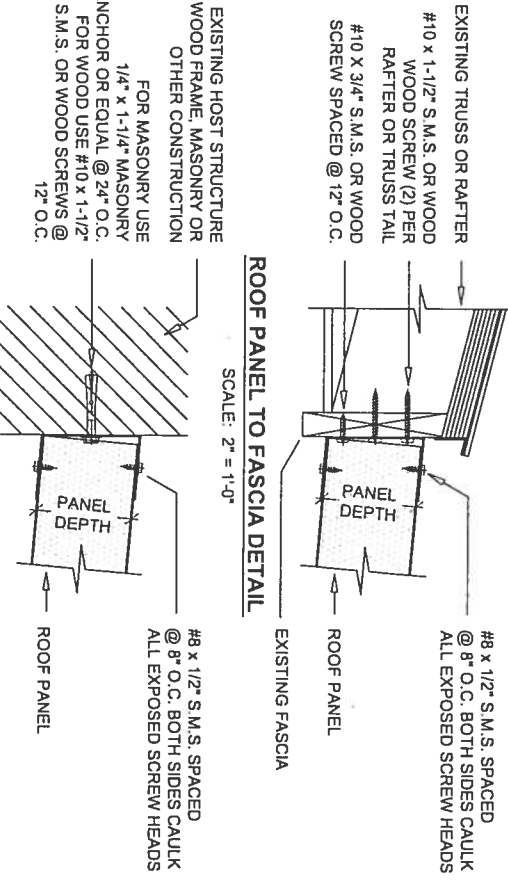


ROOF PANELS SHALL BE ATTACHED TO THE HEADER WITH (3) EACH #8 x 1/2" LONG CORROSION RESISTANT SHEET METAL SCREWS WITH 1/2" WASHERS. ALL SCREW HEADS SHALL BE CAULKED OR SHALL HAVE NEOPRENE GASKET BETWEEN THE WASHER AND THE PAN. PAN RIBS SHALL RECEIVE (1) EACH #8 x 1/2" SCREW EACH. THE PANS MAY BE ANCHORED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



- 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 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

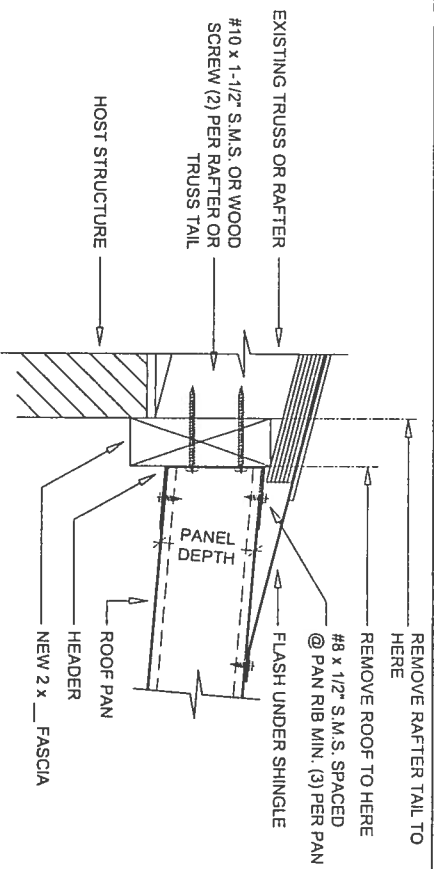


#8	#10	#12	#150
100-123	130	140	150

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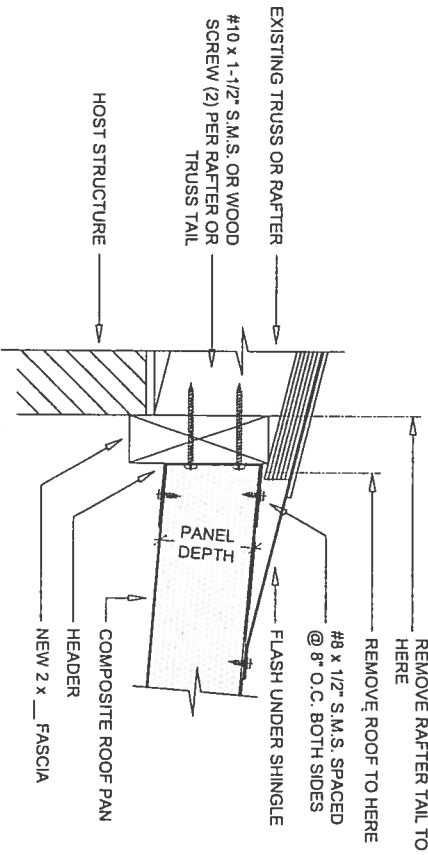
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SHEET
6A
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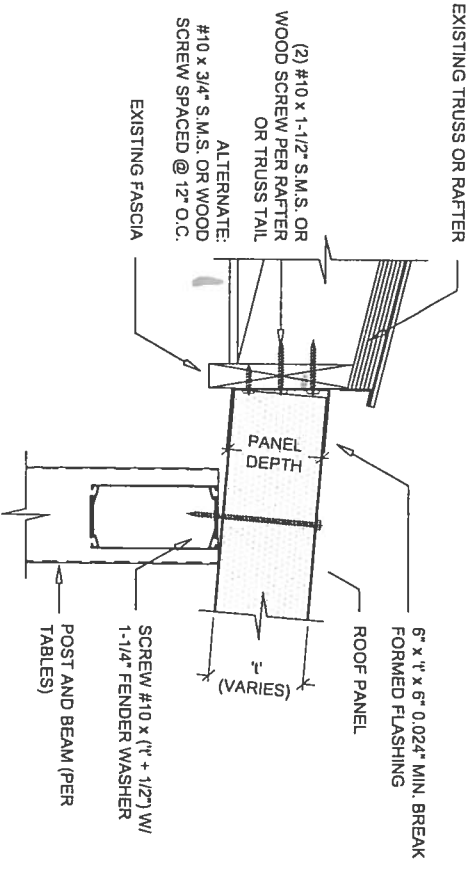
REMOVED RAFTER TAIL ROOF PAN TO FASCIA DETAIL

SCALE: 2" = 1'-0"



REMOVED RAFTER TAIL COMPOSITE ROOF PANEL TO WALL DETAIL

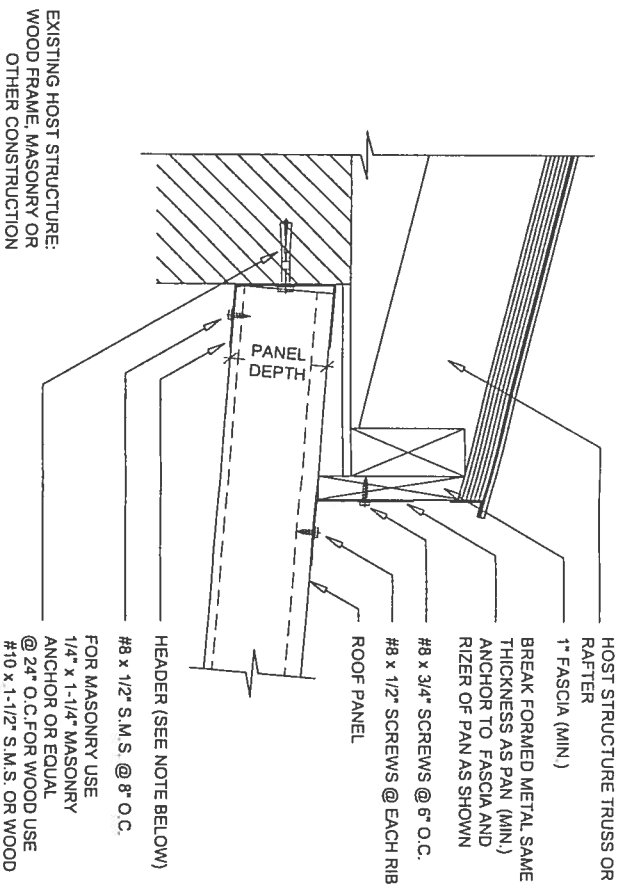
SCALE: 2" = 1'-0"



ALTERNATE MOBILE HOME FLASHING FOR FOURTH WALL CONSTRUCTION COMPOSITE ROOF PANELS

SCALE: 2" = 1'-0"

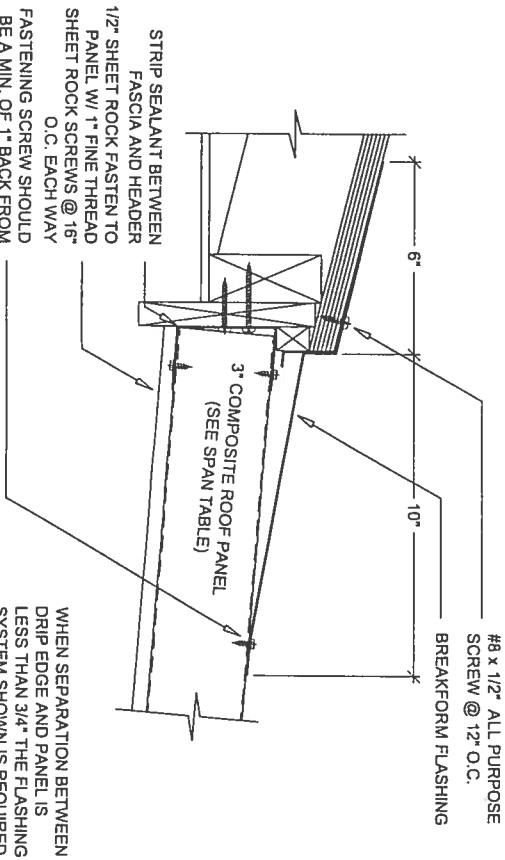
- INSTALLATION INSTRUCTIONS:**
- PLACE (2) BEADS OF CAULKING ON BACK SIDE OF HEADER BEFORE INSTALLING.
 - SLIDE 1" TAB AT TOP OF HEADER UNDER DRIP EDGE. DO NOT PUSH DRIP EDGE UP. DRIP EDGE MUST MAINTAIN SAME PLANE AS SLOPE OF ROOF.
 - FASTEN HEADER TO FASCIA BOARD WITH #10 x 1" SCREWS @ 6" O.C. STAGGERED 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.



ALTERNATE ROOF PANEL TO WALL DETAIL

SCALE: 2" = 1'-0"

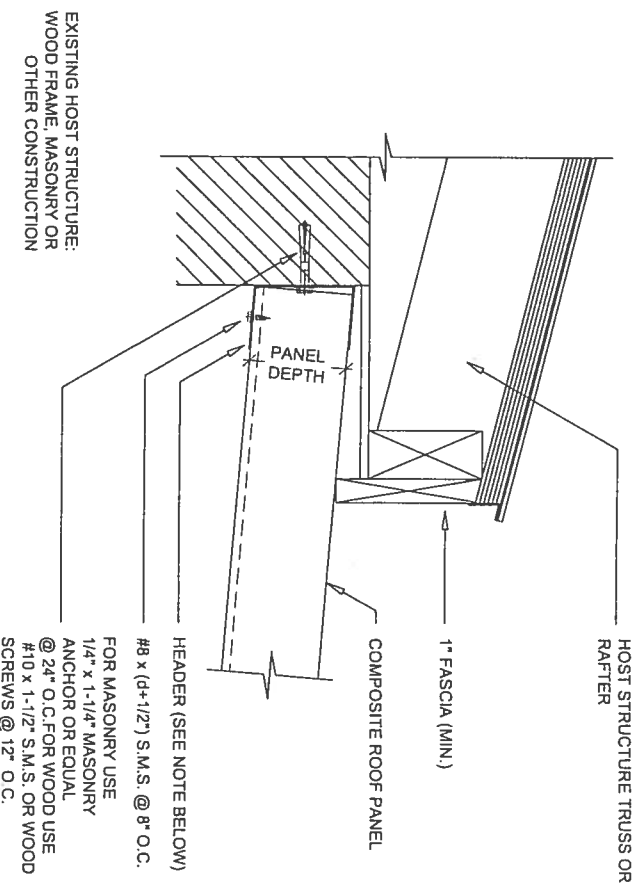
ROOF PANELS SHALL BE ATTACHED TO THE HEADER W/ (3) EACH #8 x 1/2" LONG CORROSION RESISTANT S.M.S. W/ 1/2" WASHERS. ALL SCREW HEADS SHALL BE CAULKED OR SHALL HAVE NEOPRENE GASKET BETWEEN THE WASHER AND THE PAN. PAN RIBS SHALL RECEIVE (1) EACH #8 x 1/2" SCREW EACH. THE PANS MAY BE ANCHORED THROUGH BOXED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

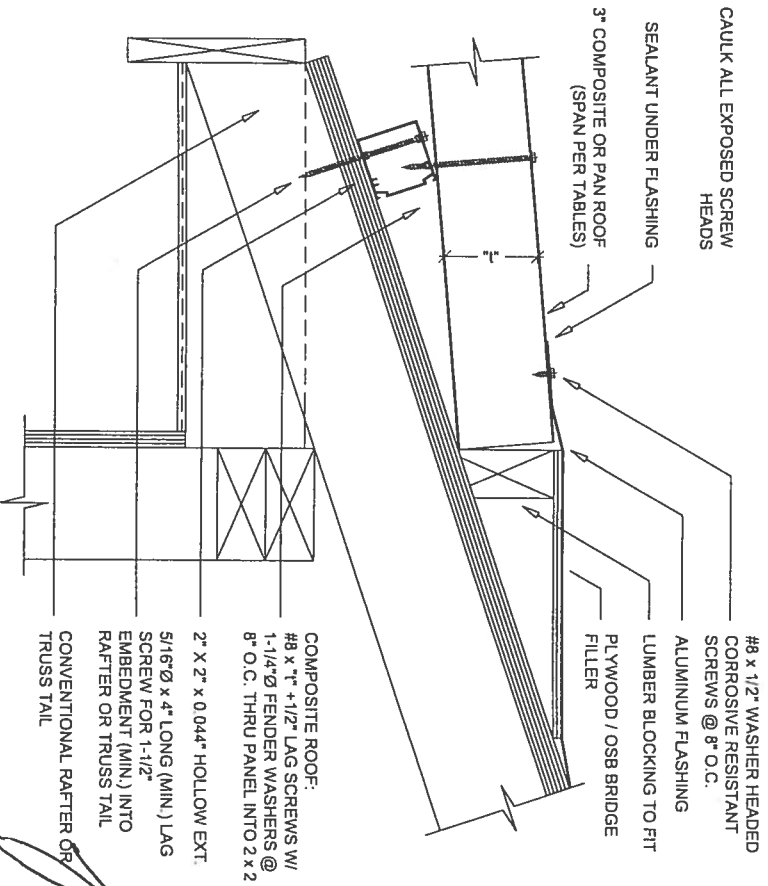
- NOTES:**
- FLASHING TO BE INSTALLED A MIN. 6" UNDER THE FIRST ROW OF SHINGLES.
 - STANDARD COIL FOR FLASHING IS 16" .019 MIL. COIL.
 - FIRST ROW OF EXISTING NAILS MUST BE REMOVED TO INSTALL FLASHING PROPERLY.
 - FLASHING WILL BE INSTALLED UNDER THE FELT PAPER WHEN POSSIBLE.
 - HEADER WILL BE PUTTY 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

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.

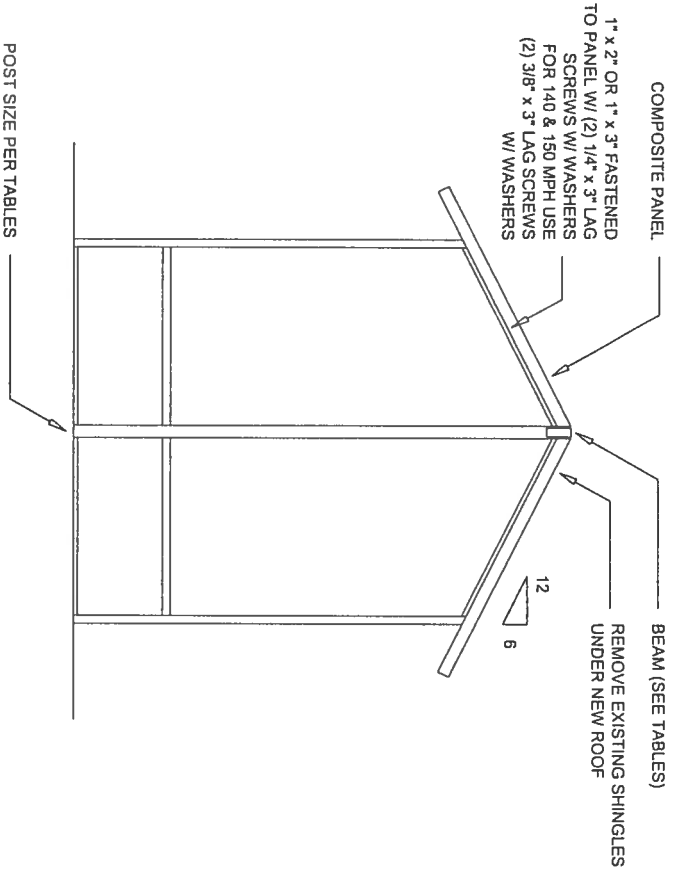


WEDGE ROOF CONNECTION DETAIL

SCALE: 2" = 1'-0"

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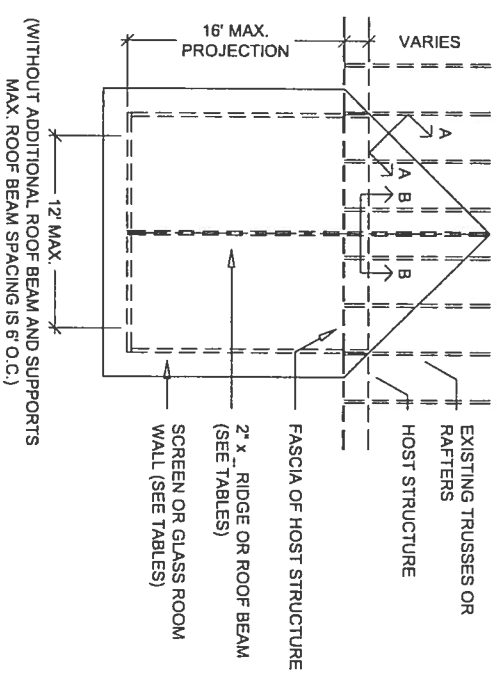
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COMPOSITE PANEL
 1" x 2" OR 1" x 3" FASTENED TO PANEL W/ (2) 1/4" x 3" LAG SCREWS W/ WASHERS FOR 140 & 150 MPH USE (2) 3/8" x 3" LAG SCREWS W/ WASHERS

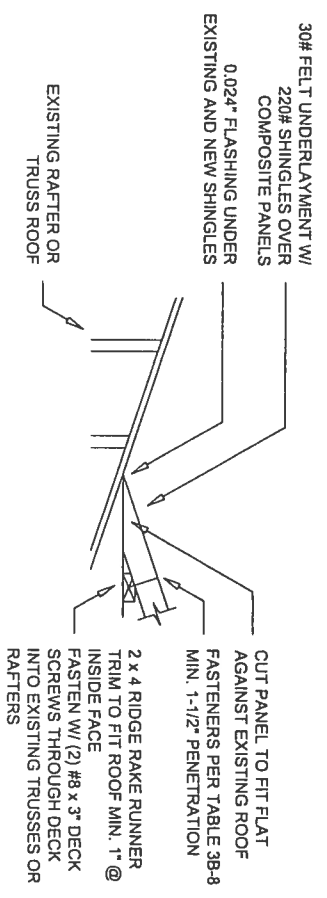
REMOVE EXISTING SHINGLES UNDER NEW ROOF

SCREEN OR SOLID WALL ROOM VALLEY CONNECTION
FRONT WALL ELEVATION VIEW
 SCALE: 1/4" = 1'-0"



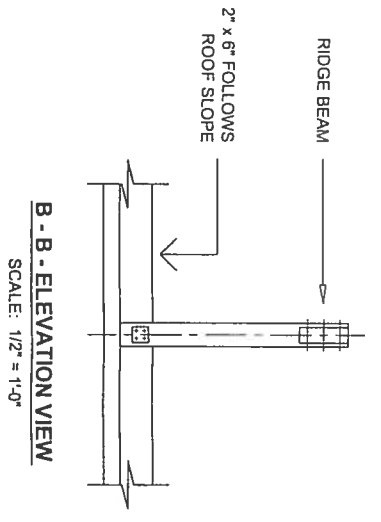
EXISTING TRUSSES OR RAFTERS
 HOST STRUCTURE
 FASCIA OF HOST STRUCTURE
 2" x . RIDGE OR ROOF BEAM (SEE TABLES)
 SCREEN OR GLASS ROOM WALL (SEE TABLES)

SCREEN OR SOLID WALL ROOM VALLEY CONNECTION
PLAN VIEW
 SCALE: 1/8" = 1'-0"



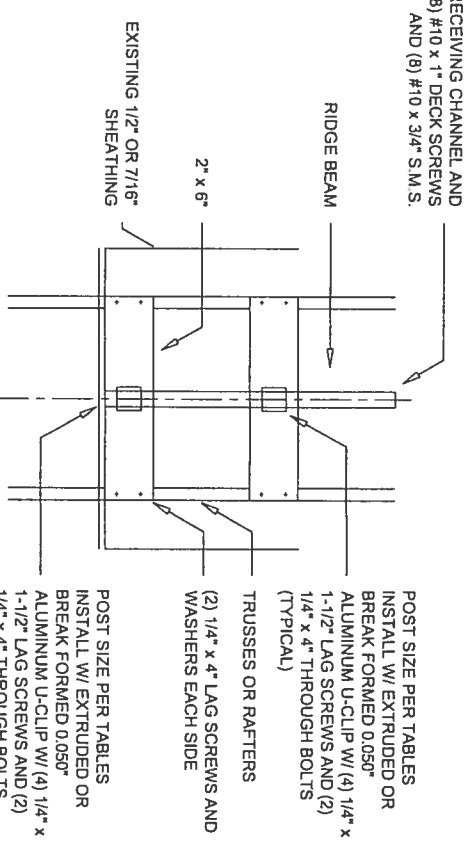
30# FELT UNDERLAYMENT W/ 220# SHINGLES OVER COMPOSITE PANELS
 0.024" FLASHING UNDER EXISTING AND NEW SHINGLES
 CUT PANEL TO FIT FLAT AGAINST EXISTING ROOF FASTENERS PER TABLE 3B-4 MIN. 1-1/2" PENETRATION
 2 x 4 RIDGE RAKE RUNNER TRIM TO FIT ROOF MIN. 1" @ INSIDE FACE
 FASTEN W/ (2) #8 x 3" DECK SCREWS THROUGH DECK INTO EXISTING TRUSSES OR RAFTERS

A-A - SECTION VIEW
 SCALE: 1/2" = 1'-0"



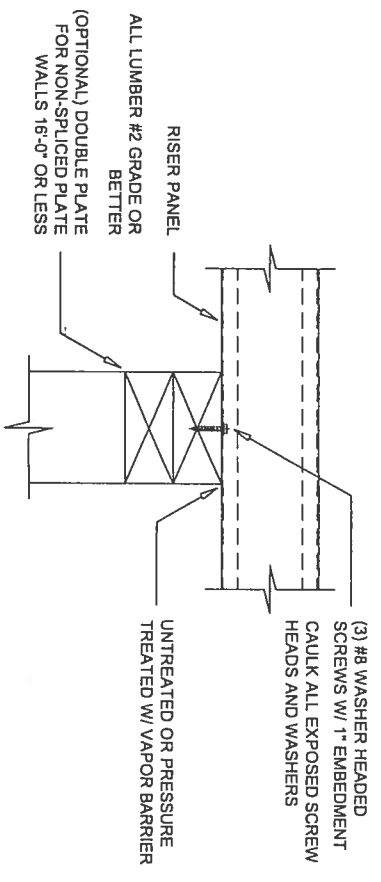
RIDGE BEAM
 2" x 6" FOLLOWS ROOF SLOPE
 ATTACH TO ROOF W/ RECEIVING CHANNEL AND (8) #10 x 1" DECK SCREWS AND (8) #10 x 3/4" S.M.S.

B - B - ELEVATION VIEW
 SCALE: 1/2" = 1'-0"



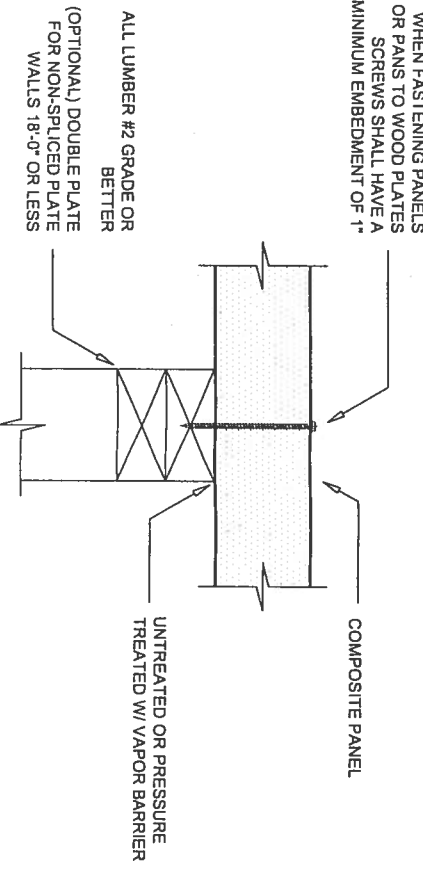
POST SIZE PER TABLES
 INSTALL W/ EXTRUDED OR BREAK FORMED 0.050" ALUMINUM U-CLIP W/ (4) 1/4" x 1-1/2" LAG SCREWS AND (2) 1/4" x 4" THROUGH BOLTS (TYPICAL)
 TRUSSES OR RAFTERS
 (2) 1/4" x 4" LAG SCREWS AND WASHERS EACH SIDE
 EXISTING 1/2" OR 7/16" SHEATHING
 2" x 6"

B - B - PLAN VIEW
 SCALE: 1/2" = 1'-0"



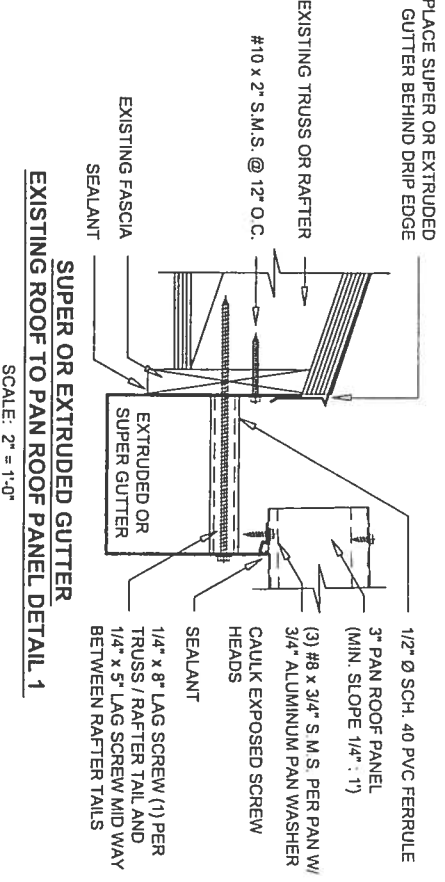
UNTREATED OR PRESSURE TREATED W/ VAPOR BARRIER
 RISER PANEL
 ALL LUMBER #2 GRADE OR BETTER
 (OPTIONAL) DOUBLE PLATE FOR NON-SPLICED PLATE WALLS 16'-0" OR LESS
 (3) #8 WASHER HEADED SCREWS W/ 1" EMBEDMENT CAULK ALL EXPOSED SCREW HEADS AND WASHERS
 1/4" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL
 UNTREATED OR PRESSURE TREATED W/ VAPOR BARRIER

PAN TO WOOD FRAME DETAIL
 SCALE: 2" = 1'-0"



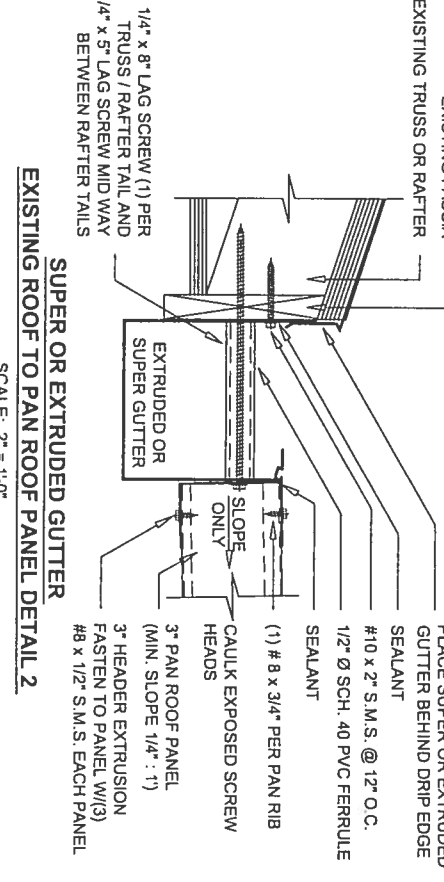
WHEN FASTENING PANELS OR PANS TO WOOD PLATES SCREWS SHALL HAVE A MINIMUM EMBEDMENT OF 1"
 ALL LUMBER #2 GRADE OR BETTER
 (OPTIONAL) DOUBLE PLATE FOR NON-SPLICED PLATE WALLS 18'-0" OR LESS
 UNTREATED OR PRESSURE TREATED W/ VAPOR BARRIER
 COMPOSITE PANEL

COMPOSITE PANEL TO WOOD FRAME DETAIL
 SCALE: 2" = 1'-0"



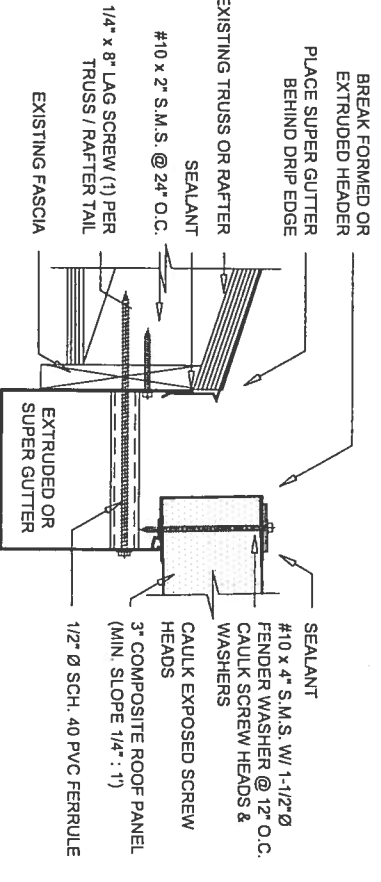
1/2" Ø SCH. 40 PVC FERRULE
 3" PAN ROOF PANEL (MIN. SLOPE 1/4" : 1")
 (3) #8 x 3/4" S.M.S. PER PAN W/ 3/4" ALUMINUM PAN WASHER CAULK EXPOSED SCREW HEADS
 SEALANT
 1/4" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL AND 1/4" x 5" LAG SCREW MID WAY BETWEEN RAFTER TAILS
 EXISTING FASCIA SEALANT
 EXISTING TRUSS OR RAFTER
 #10 x 2" S.M.S. @ 12" O.C.
 EXISTING TRUSS OR RAFTER
 PLACE SUPER OR EXTRUDED GUTTER BEHIND DRIP EDGE

SUPER OR EXTRUDED GUTTER
EXISTING ROOF TO PAN ROOF PANEL DETAIL 1
 SCALE: 2" = 1'-0"



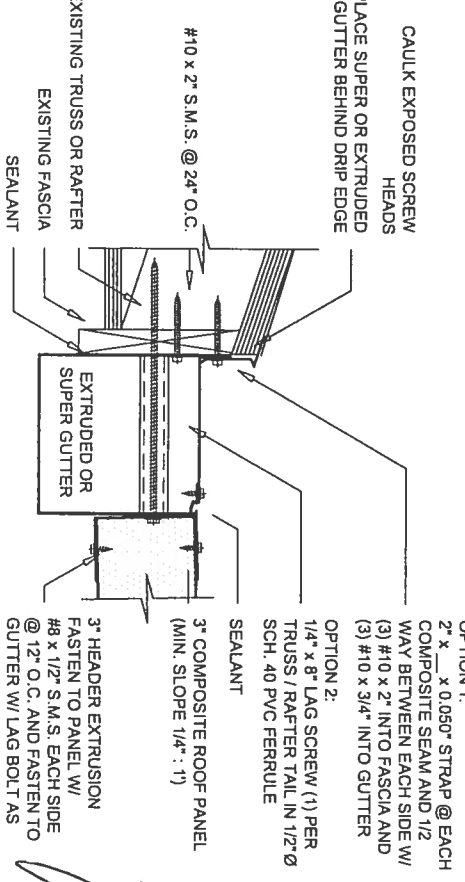
1/2" Ø SCH. 40 PVC FERRULE
 3" PAN ROOF PANEL (MIN. SLOPE 1/4" : 1")
 (3) #8 x 3/4" S.M.S. PER PAN W/ 3/4" ALUMINUM PAN WASHER CAULK EXPOSED SCREW HEADS
 SEALANT
 1/4" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL AND 1/4" x 5" LAG SCREW MID WAY BETWEEN RAFTER TAILS
 EXISTING FASCIA SEALANT
 EXISTING TRUSS OR RAFTER
 #10 x 2" S.M.S. @ 12" O.C.
 EXISTING TRUSS OR RAFTER
 PLACE SUPER OR EXTRUDED GUTTER BEHIND DRIP EDGE
 BREAK FORMED OR EXTRUDED HEADER
 PLACE SUPER GUTTER BEHIND DRIP EDGE
 EXISTING TRUSS OR RAFTER
 SEALANT
 #10 x 2" S.M.S. @ 24" O.C.
 1/4" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL
 EXISTING FASCIA
 EXTRUDED OR SUPER GUTTER
 1/2" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL AND 1/4" x 5" LAG SCREW MID WAY BETWEEN RAFTER TAILS
 SEALANT
 #10 x 4" S.M.S. W/ 1-1/2" Ø FENDER WASHER @ 12" O.C. CAULK SCREW HEADS & WASHERS
 CAULK EXPOSED SCREW HEADS
 3" COMPOSITE ROOF PANEL (MIN. SLOPE 1/4" : 1")
 1/2" Ø SCH. 40 PVC FERRULE

SUPER OR EXTRUDED GUTTER
EXISTING ROOF TO PAN ROOF PANEL DETAIL 2
 SCALE: 2" = 1'-0"



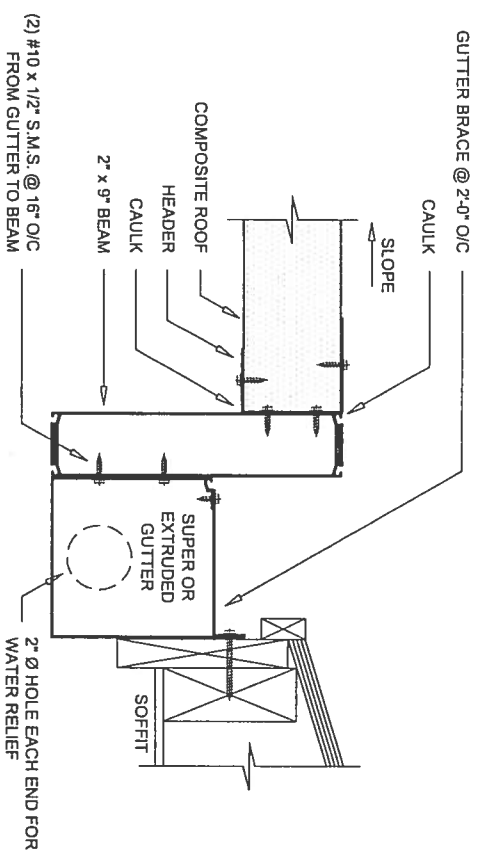
OPTION 1:
 2" x . x 0.050" STRAP @ EACH COMPOSITE SEAM AND 1/2" WAY BETWEEN EACH SIDE W/ (3) #10 x 2" INTO FASCIA AND (3) #10 x 3/4" INTO GUTTER
 OPTION 2:
 1/4" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL IN 1/2" Ø SCH. 40 PVC FERRULE
 SEALANT
 3" COMPOSITE ROOF PANEL (MIN. SLOPE 1/4" : 1")
 1/2" Ø SCH. 40 PVC FERRULE
 SEALANT
 #10 x 4" S.M.S. W/ 1-1/2" Ø FENDER WASHER @ 12" O.C. CAULK SCREW HEADS & WASHERS
 CAULK EXPOSED SCREW HEADS
 3" COMPOSITE ROOF PANEL (MIN. SLOPE 1/4" : 1")
 1/2" Ø SCH. 40 PVC FERRULE

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

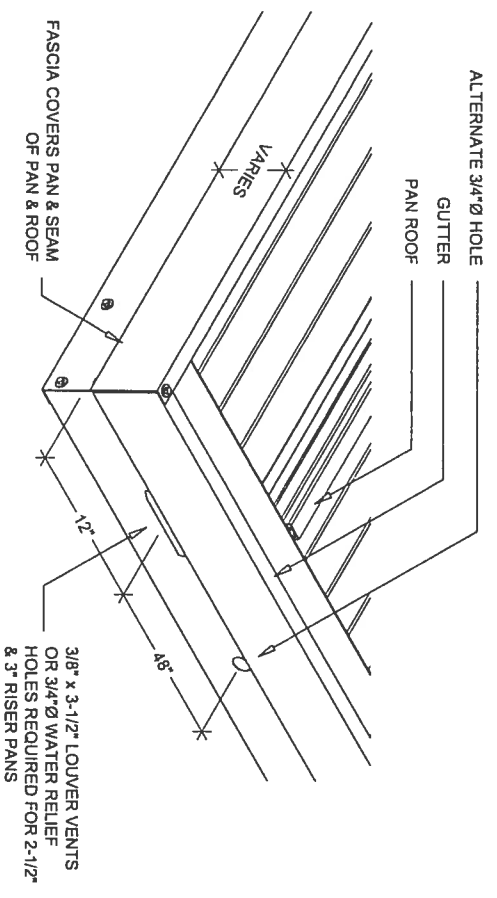


OPTION 1:
 2" x . x 0.050" STRAP @ EACH COMPOSITE SEAM AND 1/2" WAY BETWEEN EACH SIDE W/ (3) #10 x 2" INTO FASCIA AND (3) #10 x 3/4" INTO GUTTER
 OPTION 2:
 1/4" x 8" LAG SCREW (1) PER TRUSS / RAFTER TAIL IN 1/2" Ø SCH. 40 PVC FERRULE
 SEALANT
 3" COMPOSITE ROOF PANEL (MIN. SLOPE 1/4" : 1")
 1/2" Ø SCH. 40 PVC FERRULE
 SEALANT
 #10 x 4" S.M.S. W/ 1-1/2" Ø FENDER WASHER @ 12" O.C. CAULK SCREW HEADS & WASHERS
 CAULK EXPOSED SCREW HEADS
 3" COMPOSITE ROOF PANEL (MIN. SLOPE 1/4" : 1")
 1/2" Ø SCH. 40 PVC FERRULE
 EXISTING TRUSS OR RAFTER
 EXISTING FASCIA SEALANT
 EXTRUDED OR SUPER GUTTER
 3" HEADER EXTRUSION FASTEN TO PANEL W/ #8 x 1/2" S.M.S. EACH SIDE @ 12" O.C. AND FASTEN TO GUTTER W/ LAG BOLT AS SHOWN

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

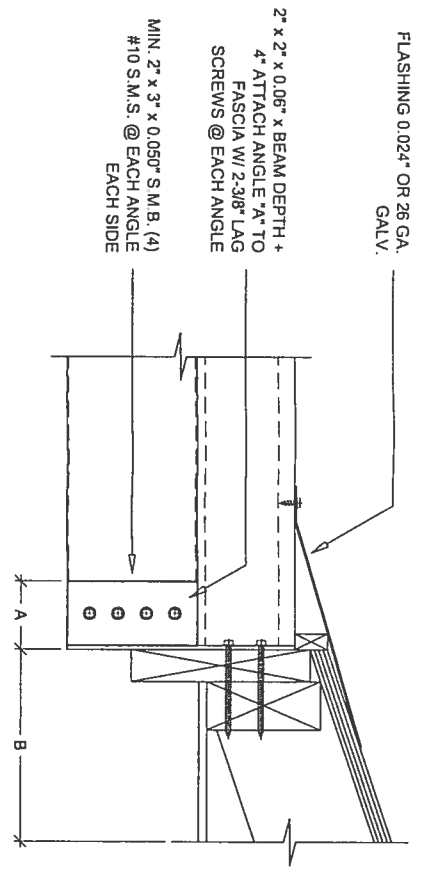


SUPER OR EXTRUDED GUTTER TO 2" x 9" BEAM DETAIL
SCALE: 2" = 1'-0"

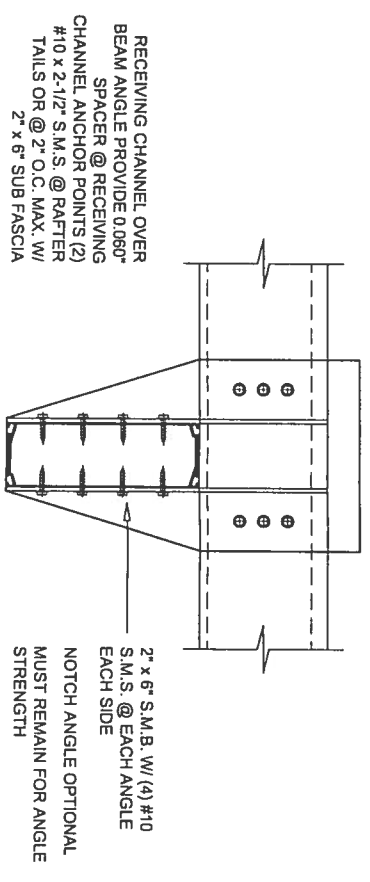


ALTERNATE 3/4" Ø HOLE
SCALE: 2" = 1'-0"

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

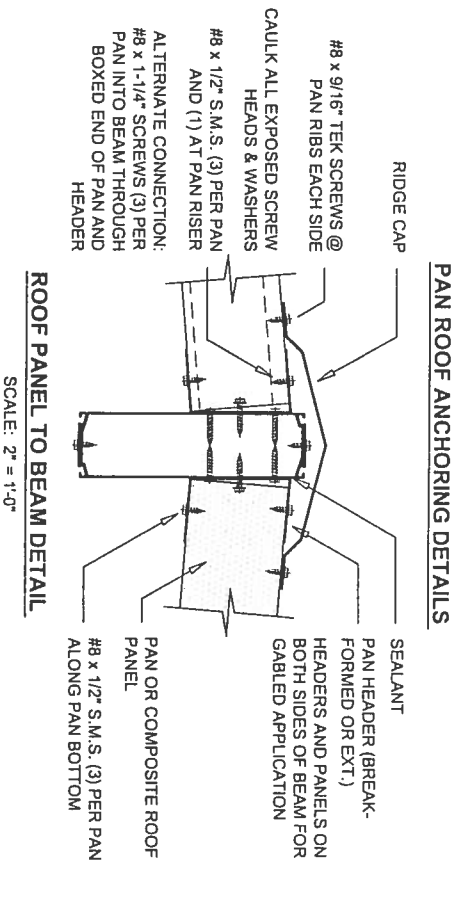


CANTILEVERED BEAM CONNECTION TO FASCIA DETAIL
SCALE: 2" = 1'-0"

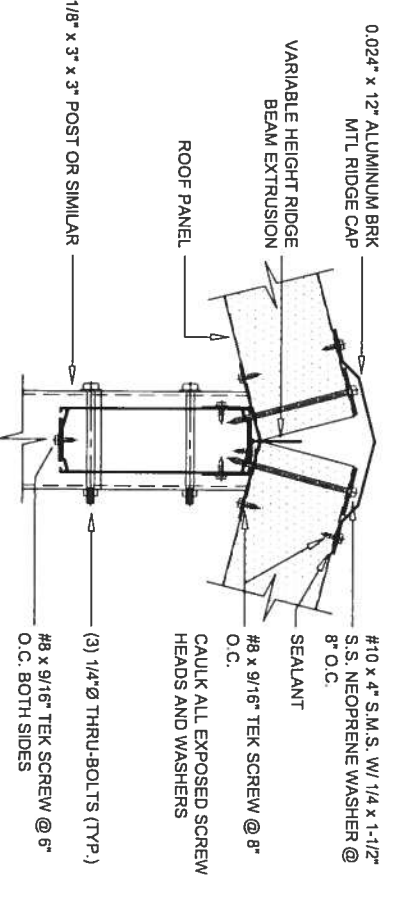
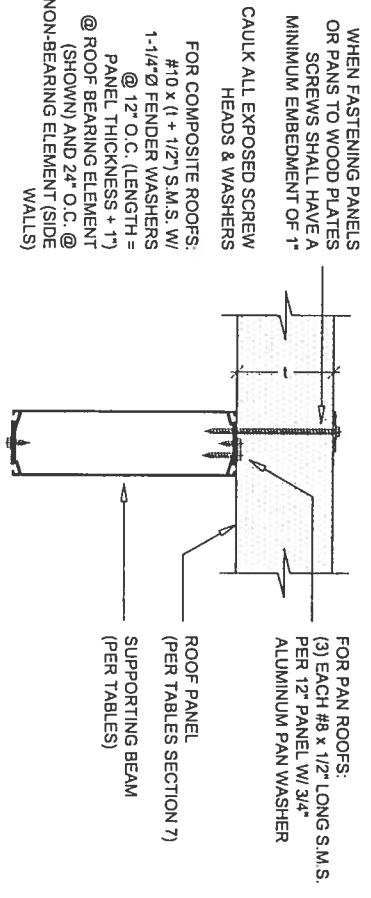


CANTILEVERED BEAM CONNECTION AT FASCIA (END VIEW)
SCALE: 2" = 1'-0"

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

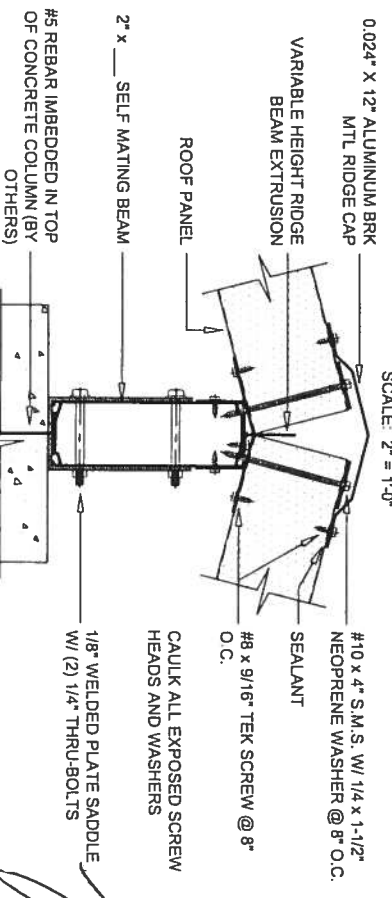


PAN ROOF ANCHORING DETAILS
SCALE: 2" = 1'-0"



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

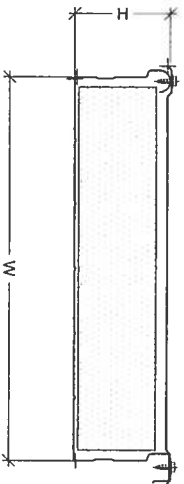
ROOF PANEL TO RIDGE BEAM @ POST DETAIL
SCALE: 2" = 1'-0"



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.



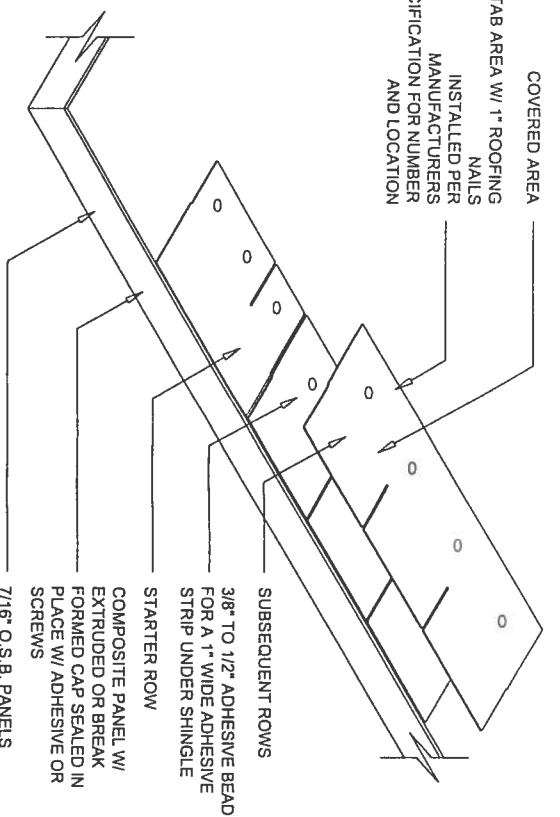
TYPICAL INSULATED PANEL

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.

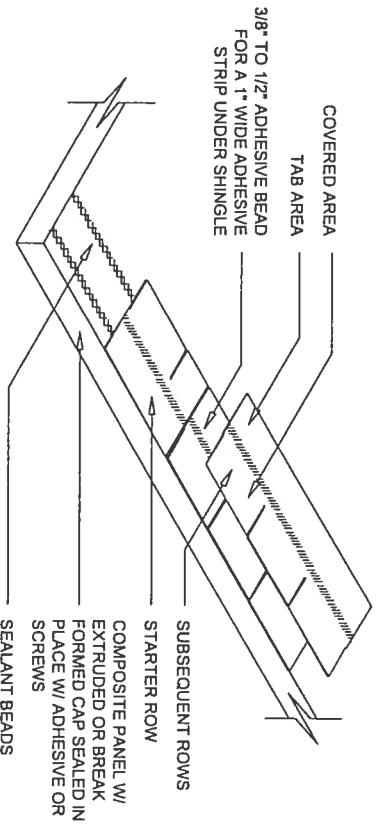
COVERED AREA
TAB AREA W/ 1" ROOFING
NAILS
INSTALLED PER
MANUFACTURERS
SPECIFICATION FOR NUMBER
AND LOCATION



**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 PROFAB 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.



PROFAB COMPOSITE ROOF PANEL WITH SHINGLE FINISH DETAIL

SCALE: N.T.S.

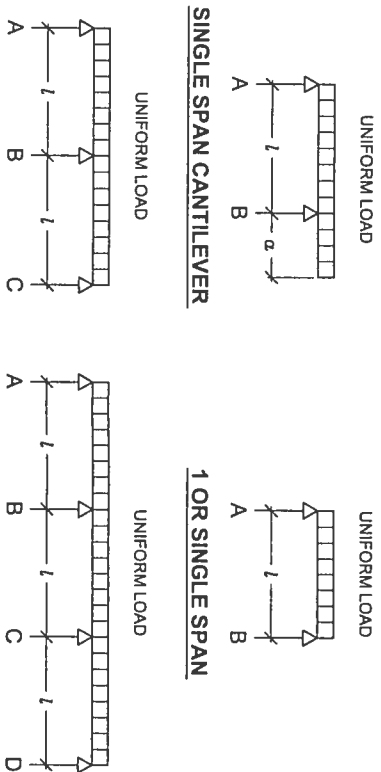
ATTACH SHINGLES TO COMPOSITE ROOF PANELS WITH INDUSTRIAL ADHESIVE. APPLY ADHESIVE IN A CONTINUOUS BEAD 3/8" TO 1/2" DIAMETER SO THAT THERE IS A 1" WIDE STRIP OF ADHESIVE WHEN THE SHINGLE IS PUT IN PLACE.

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.

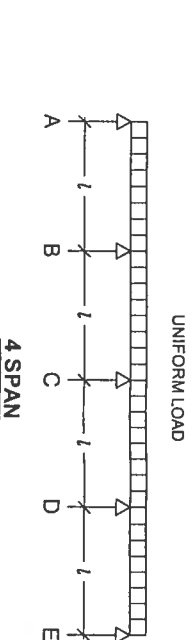
* ADHESIVE: CHEM REX - PL PREMIUM 948 URETHANE ADHESIVE OR OSI - RF-140

MINIMUM ROOF SLOPE: 2" IN 12"



SINGLE SPAN CANTILEVER

1 OR SINGLE SPAN



2 SPAN

3 SPAN

4 SPAN

NOTES:

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

SPAN EXAMPLES FOR SECTION 7 TABLES

SCALE: N.T.S.

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FL # 16644
CIVIL ENGINEER - DEVELOPMENT CONSULTANT
P.O. BOX 214388, SOUTH DAYTONA, FL 32121
TELEPHONE: (386) 767-4774
FAX: (386) 767-6556

SEAL

SHEET

6E

OF

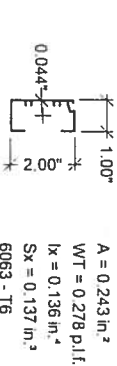
8

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07-08-2004

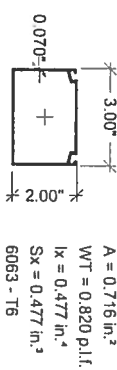
General Notes and Specifications:

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



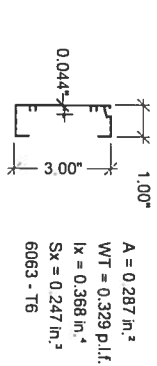
A = 0.243 in.²
WT = 0.278 p.l.f.
Ix = 0.136 in.⁴
Sx = 0.137 in.³
6063 - T6

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



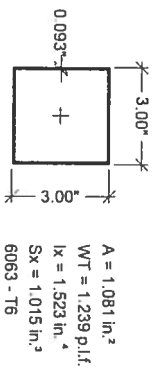
A = 0.716 in.²
WT = 0.820 p.l.f.
Ix = 0.477 in.⁴
Sx = 0.477 in.³
6063 - T6

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



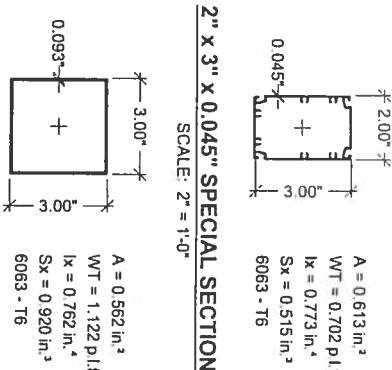
A = 0.287 in.²
WT = 0.329 p.l.f.
Ix = 0.368 in.⁴
Sx = 0.247 in.³
6063 - T6

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



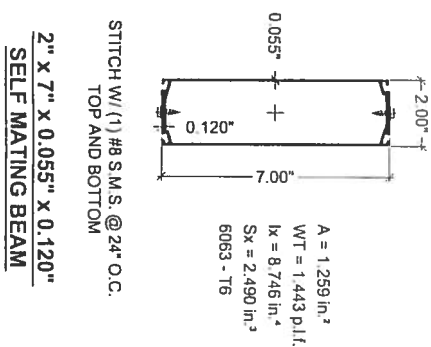
A = 1.081 in.²
WT = 1.239 p.l.f.
Ix = 1.523 in.⁴
Sx = 1.015 in.³
6063 - T6

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



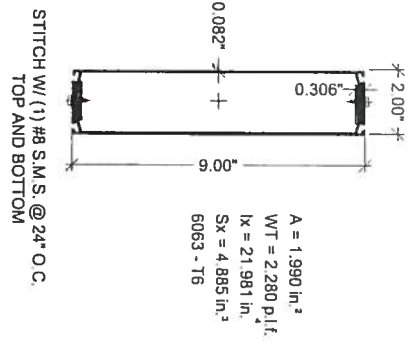
A = 0.613 in.²
WT = 0.702 p.l.f.
Ix = 0.773 in.⁴
Sx = 0.515 in.³
6063 - T6

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



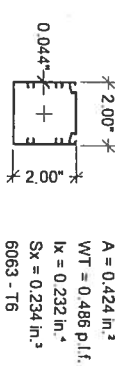
A = 1.259 in.²
WT = 1.443 p.l.f.
Ix = 8.746 in.⁴
Sx = 2.490 in.³
6063 - T6

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



A = 1.990 in.²
WT = 2.280 p.l.f.
Ix = 21.981 in.⁴
Sx = 4.885 in.³
6063 - T6

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



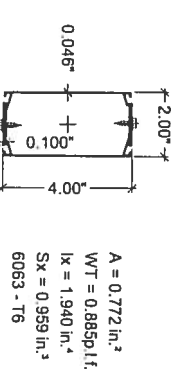
A = 0.424 in.²
WT = 0.486 p.l.f.
Ix = 0.232 in.⁴
Sx = 0.234 in.³
6063 - T6

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



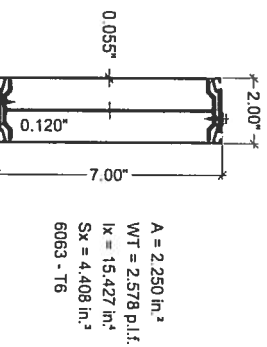
A = 1.438 in.²
WT = 1.648 p.l.f.
Ix = 1.984 in.⁴
Sx = 1.323 in.³
6063 - T6

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



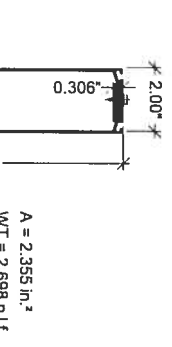
A = 0.772 in.²
WT = 0.885 p.l.f.
Ix = 1.940 in.⁴
Sx = 0.959 in.³
6063 - T6

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



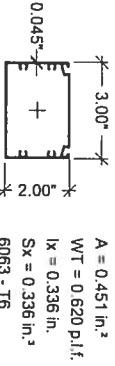
A = 2.250 in.²
WT = 2.578 p.l.f.
Ix = 15.427 in.⁴
Sx = 4.408 in.³
6063 - T6

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



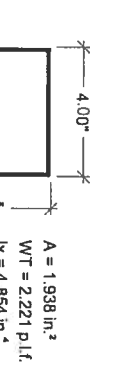
A = 2.355 in.²
WT = 2.698 p.l.f.
Ix = 26.481 in.⁴
Sx = 5.885 in.³
6063 - T6

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



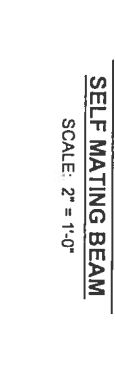
A = 0.451 in.²
WT = 0.620 p.l.f.
Ix = 0.336 in.⁴
Sx = 0.336 in.³
6063 - T6

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



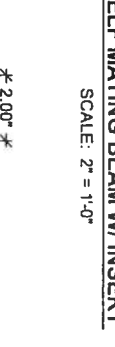
A = 1.938 in.²
WT = 2.221 p.l.f.
Ix = 4.854 in.⁴
Sx = 2.427 in.³
6063 - T6

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



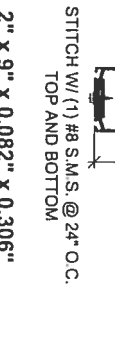
A = 0.964 in.²
WT = 1.105 p.l.f.
Ix = 3.691 in.⁴
Sx = 1.468 in.³
6063 - T6

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



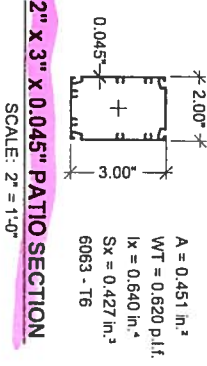
A = 1.853 in.²
WT = 2.123 p.l.f.
Ix = 16.638 in.⁴
Sx = 4.157 in.³
6063 - T6

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



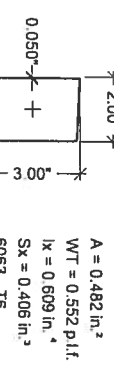
A = 3.032 in.²
WT = 3.474 p.l.f.
Ix = 42.583 in.⁴
Sx = 8.504 in.³
6063 - T6

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



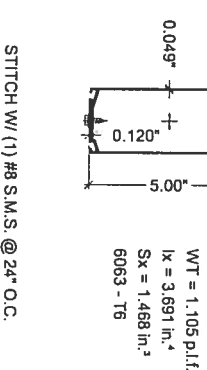
A = 0.685 in.²
WT = 0.795 p.l.f.
Ix = 1.393 in.⁴
Sx = 0.697 in.³
6063 - T6

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



A = 0.482 in.²
WT = 0.552 p.l.f.
Ix = 0.609 in.⁴
Sx = 0.406 in.³
6063 - T6

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



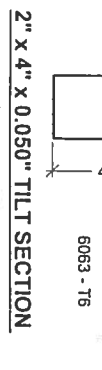
A = 0.582 in.²
WT = 0.667 p.l.f.
Ix = 1.228 in.⁴
Sx = 0.614 in.³
6063 - T6

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



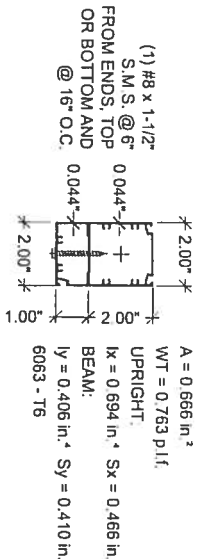
A = 0.685 in.²
WT = 0.795 p.l.f.
Ix = 1.393 in.⁴
Sx = 0.697 in.³
6063 - T6

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



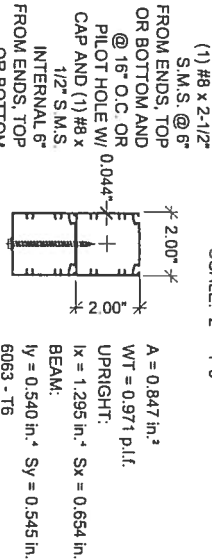
A = 0.954 in.²
WT = 1.093 p.l.f.
Ix = 2.987 in.⁴
Sx = 1.195 in.³
6063 - T6

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



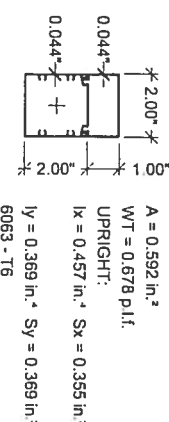
A = 0.666 in.²
WT = 0.763 p.l.f.
Ix = 0.694 in.⁴
Sx = 0.466 in.³
Iy = 0.406 in.⁴
Sy = 0.410 in.³
6063 - T6

1" x 2" x 0.044" OPEN BACK SECTION WITH UP-RIGHT BEAM
SCALE: 2" = 1'-0"



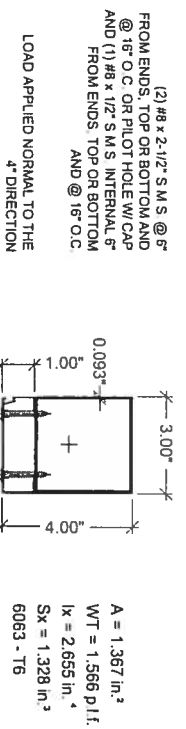
A = 0.847 in.²
WT = 0.971 p.l.f.
Ix = 1.295 in.⁴
Sx = 0.654 in.³
Iy = 0.540 in.⁴
Sy = 0.545 in.³
6063 - T6

2" x 2" x 0.044" PATIO SECTION WITH UP-RIGHT BEAM
SCALE: 2" = 1'-0"

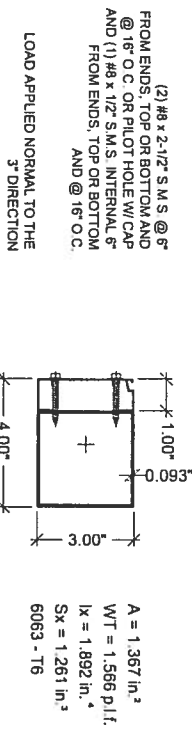


A = 0.592 in.²
WT = 0.678 p.l.f.
Ix = 0.457 in.⁴
Sx = 0.355 in.³
Iy = 0.369 in.⁴
Sy = 0.369 in.³
6063 - T6

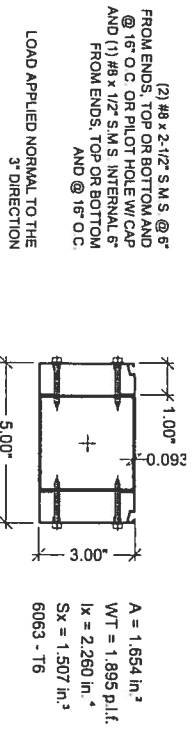
1" x 2" x 0.044" SNAP CAP SECTION WITH UP-RIGHT BEAM
SCALE: 2" = 1'-0"



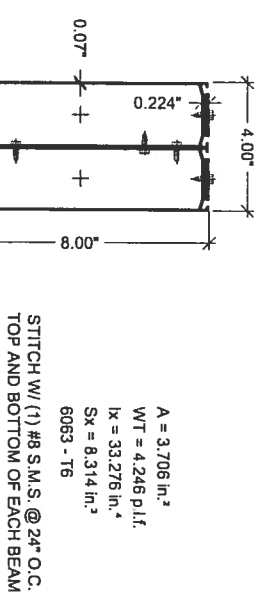
1" x 3" x 0.044" OPEN BACK SECTION WITH 3" x 3" x 0.093" PATIO SECTION CORNER POST
SCALE: 2" = 1'-0"



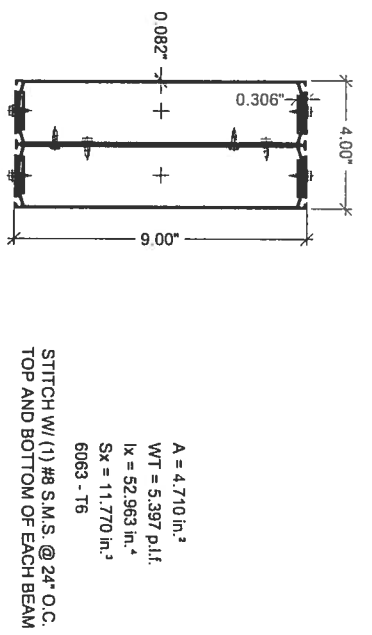
1" x 3" x 0.044" OPEN BACK SECTION WITH 3" x 3" x 0.093" PATIO SECTION WALL POST
SCALE: 2" = 1'-0"



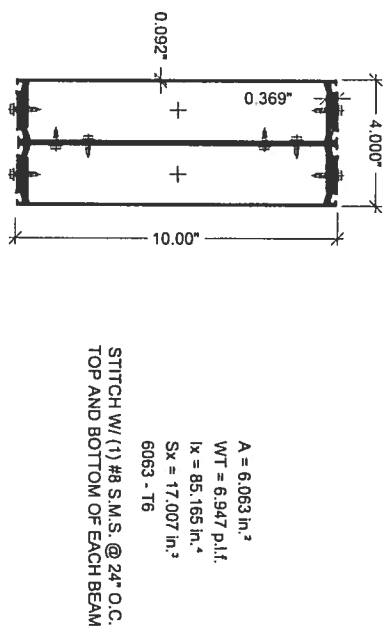
(2) 1" x 3" x 0.044" OPEN BACK SECTION WITH 3" x 3" x 0.093" PATIO SECTION WALL POST
SCALE: 2" = 1'-0"



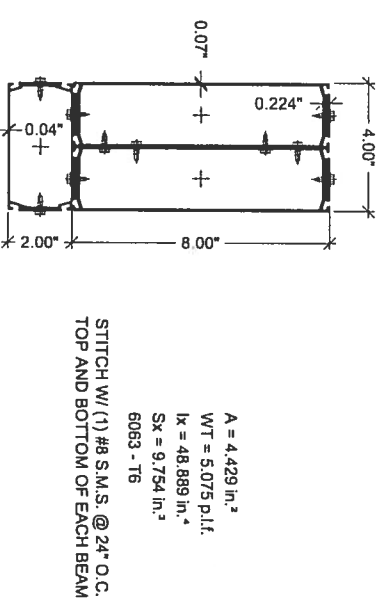
(2) 2" x 8" x 0.072" x 0.224" SELF MATING BEAMS
SCALE: 2" = 1'-0"



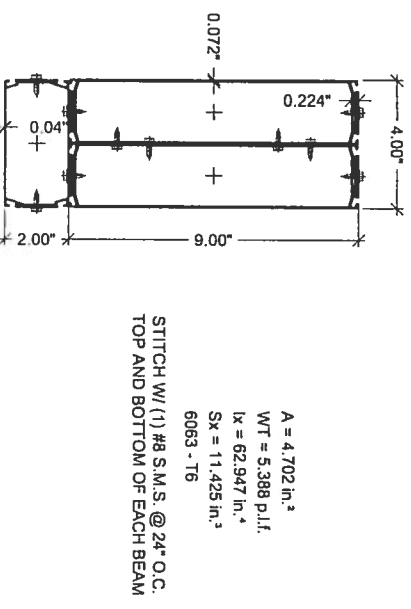
(2) 2" x 9" x 0.082" x 0.306" SELF MATING BEAMS
SCALE: 2" = 1'-0"



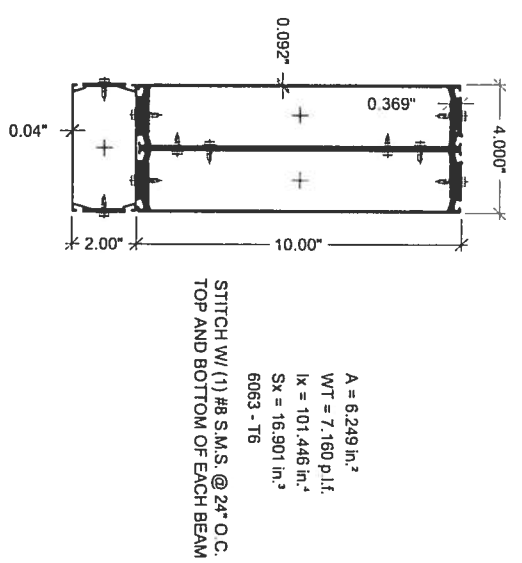
(2) 2" x 10" x 0.092" x 0.369" SELF MATING BEAMS
SCALE: 2" = 1'-0"



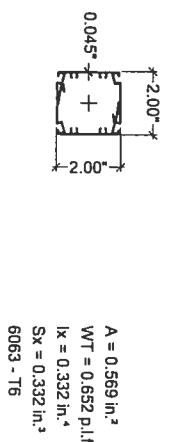
(2) 2" x 8" x 0.072" x 0.224" SELF MATING BEAMS W/ 2" x 4" x 0.038"
SCALE: 2" = 1'-0"



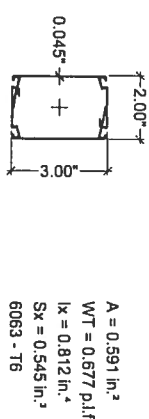
(2) 2" x 9" x 0.072" x 0.224" SELF MATING BEAMS W/ 2" x 9" x 0.224" SELF MATING BEAMS
SCALE: 2" = 1'-0"



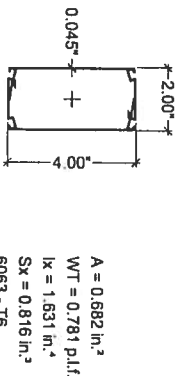
(2) 2" x 10" x 0.092" x 0.369" SELF MATING BEAMS WITH 2" x 2" x 0.038"
SCALE: 2" = 1'-0"



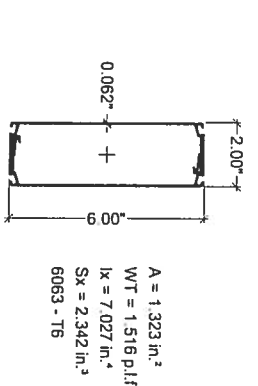
2" x 2" x 0.045" SNAP EXTRUSION
SCALE: 2" = 1'-0"



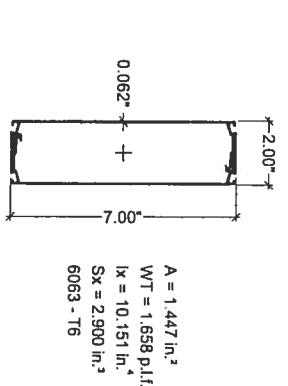
2" x 3" x 0.045" SNAP EXTRUSION
SCALE: 2" = 1'-0"



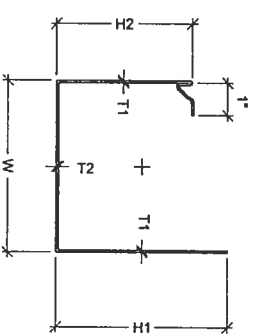
2" x 4" x 0.045" SNAP EXTRUSION
SCALE: 2" = 1'-0"



2" x 6" x 0.062" SNAP EXTRUSION
SCALE: 2" = 1'-0"



2" x 7" x 0.062" 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	Gutter Edge	6063-T-5	
													5	4
													H1 S	H2 S
													0.065	0.065
													0.96	2.45
													4.43	0.73 (T)
													1.89 (B)	1.80 (L)
													1.59	2.14
													1.74 (B)	1.74 (B)

Table 9.1 Allowable Loads for Concrete Anchors

Screw Size d = diameter	Embedment Depth (in.)	Min. Edge Dist. & Anchor Spacing 5d (in.)	Allowable Loads Tension	Shear
1/4"	1-1/2"	2 1/4"	273#	236#
	2"	1-1/4"	316#	236#
3/16"	1-3/4"	15/16"	288#	167#
	1-1/2"	15/16"	317#	259#
1/4"	1-1/4"	15/16"	427#	200#
	1-3/4"	1-1/4"	544#	216#
3/8"	1-1/2"	1-7/8"	511#	402#
	1-3/4"	1-3/8"	703#	455#
POWER BOLT (Expansion Bolt)				
1/4"	2"	1-1/4"	624#	251#
	3"	1-7/8"	939#	1425#
3/8"	3-1/2"	1-7/8"	1575#	1425#
	5"	2-1/2"	2,332#	2,220#
POWER STUD (Wedge Anchor)				
1/4"	2-3/4"	1-1/4"	812#	326#
	4-1/4"	1-7/8"	1,358#	921#
3/8"	5"	2-1/2"	2,271#	1,218#
	7"	2-1/4"	3,288#	2,202#

Notes:
1. Concrete screws are limited to 2" embedment by manufacturers.
2. Values listed are allowed loads with a safety factor of 4 applied.
3. Products equal to raw may be substituted.
4. Anchors receiving loads perpendicular to the diameter are in tension.
5. Allowable loads are increased by 1.00 for wind load.
6. Minimum edge distance and center to center spacing shall be 5d.
7. Anchors receiving loads parallel to the diameter are shear loads.
8. A 133% increase has been applied because wind uplift is only load.

Edge Distance	Tension	Shear	Allowable Load Conversion Multipliers	
			For Edge Distances More Than 5d	For Edge Distances 5d
5d	1.00	1.00	1.00	1.00
6d	1.04	1.20	1.00	1.00
7d	1.08	1.40	1.00	1.00
8d	1.11	1.60	1.00	1.00
9d	1.14	1.80	1.00	1.00
10d	1.18	2.00	1.00	1.00
11d	1.21	-	1.00	1.00
12d	1.25	-	1.00	1.00

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 = 122(BEAM SPAN) x BEAM x UPRIGHT SPACING
NUMBER OF ANCHORS = 122(20.42) x 7 x 10# / Sq Ft
ALLOWED LOAD ON ANCHOR
NUMBER OF ANCHORS = 427#
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

Fastener Diameter	Length of Embedment	Number of Fasteners			
		1	2	3	4
1/4"	1-1/2"	264# - 10 SF	528# - 19 SF	792# - 29 SF	1056# - 39 SF
	2-1/2"	366# - 14 SF	732# - 29 SF	1098# - 43 SF	1464# - 58 SF
5/16"	1-1/2"	660# - 24 SF	1320# - 48 SF	1980# - 72 SF	2640# - 96 SF
	2-1/2"	924# - 36 SF	1848# - 72 SF	2772# - 108 SF	3696# - 144 SF
3/8"	1-1/2"	1488# - 48 SF	2976# - 96 SF	4464# - 144 SF	5952# - 192 SF
	2-1/2"	2076# - 66 SF	4152# - 132 SF	6228# - 204 SF	8304# - 276 SF

CONNECTING TO: CONCRETE (Min. 2,500 psi) for PARTIALLY ENCLOSED BUILDINGS
CONNECTING TO: WOOD for OPEN or ENCLOSED BUILDINGS

TYPE OF FASTENER = Concrete Screw (Rawl Zmax or Equivalent)
TYPE OF FASTENER = "Quick Set" Concrete Screw (Rawl Zmax or Equivalent)
TYPE OF FASTENER = Concrete Screw (Rawl Tapcon or Equivalent)

TYPE OF FASTENER = Concrete (Rawl Tapcon or Equivalent)
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Table 9.3 Wood & Concrete Fasteners for Partially Enclosed Buildings

Fastener Diameter	Length of Embedment	Number of Fasteners			
		1	2	3	4
1/4"	1-1/2"	264# - 10 SF	528# - 19 SF	792# - 29 SF	1056# - 39 SF
	2-1/2"	366# - 14 SF	732# - 29 SF	1098# - 43 SF	1464# - 58 SF
5/16"	1-1/2"	660# - 24 SF	1320# - 48 SF	1980# - 72 SF	2640# - 96 SF
	2-1/2"	924# - 36 SF	1848# - 72 SF	2772# - 108 SF	3696# - 144 SF
3/8"	1-1/2"	1488# - 48 SF	2976# - 96 SF	4464# - 144 SF	5952# - 192 SF
	2-1/2"	2076# - 66 SF	4152# - 132 SF	6228# - 204 SF	8304# - 276 SF

CONNECTING TO: CONCRETE (Min. 2,500 psi) for PARTIALLY ENCLOSED BUILDINGS
CONNECTING TO: WOOD for PARTIALLY ENCLOSED BUILDINGS

TYPE OF FASTENER = Concrete Screw (Rawl Zmax or Equivalent)
TYPE OF FASTENER = "Quick Set" Concrete Screw (Rawl Zmax or Equivalent)
TYPE OF FASTENER = Concrete Screw (Rawl Tapcon or Equivalent)

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Table 9.5A Allowable Loads & Roof Areas Over Posts

Fastener Diameter	min. edge distance	min. cir. to cir.	No. of Fasteners / Roof Area (SF)			
			1/Area	2/Area	3/Area	4/Area
1/4"	1/2"	5/8"	1,454 - 53	2,908 - 106	4,362 - 159	5,819 - 212
			1,894 - 69	3,788 - 138	5,682 - 207	7,576 - 276
3/8"	3/4"	7/8"	2,272 - 82	4,544 - 166	6,816 - 249	9,088 - 331
			3,030 - 110	6,060 - 221	9,090 - 332	12,120 - 442

Notes for Table 9.5 A, B:
1. Tables 9.5 A & B are based on a second wind gust at 120 MPH. Exposure "B", I = 1.0. For parapets & screen rooms multiply the Glass / Partially Enclosed loads & roof areas above by 1.3.
2. Minimum spacing is 2-1/2" O.C. for screws & bolts and 3" O.C. for rivets.
3. Minimum edge distance is 2d for screws, bolts, and rivets.

Fastener	min. edge distance	min. cir. to cir.	Allowable Load Conversion Multipliers for Edge Distances More Than 5d			
			For Edge Distances More Than 5d	For Edge Distances 5d	For Edge Distances 5d	For Edge Distances 5d
1/4"	1/2"	5/8"	1.00	1.00	1.00	1.00
			1.04	1.18	1.32	1.46
3/8"	3/4"	7/8"	1.00	1.00	1.00	1.00
			1.04	1.18	1.32	1.46

Table 9.5B Allowable Loads & Roof Areas Over Posts
Partially Enclosed Structures @ 35.53 #SF

Table 9.6 Maximum Allowable Fastener Loads for Metal Plate to Wood Support

Screw Diameter	1/2" x 4 ply		5/8" x 4 ply		3/4" x 4 ply	
	Shear (lbs.)	Pull Out (lbs.)	Shear (lbs.)	Pull Out (lbs.)	Shear (lbs.)	Pull Out (lbs.)
#8	59	48	113	59	134	71
#10	100	55	120	67	143	94
#12	116	71	131	78	143	94
#14	132	70	145	88	157	105

Table 9.7 Aluminum Rivets with Aluminum or Steel Mandrel

Rivet Diameter	Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)
1/8"	129	176	210	325
5/32"	167	253	340	490
3/16"	262	375	445	720

Table 9.8 Alternative Angle and Anchor Systems for Beams Anchored to Walls, Uprights, or Carrier Beams

Extrusion Type	Size Description	Maximum Screw / Anchor Size	
		To Wall	Upright / Beam
Angle	1" x 1" x 0.045"	3/16"	#10
Angle	1" x 1" x 1/16" (0.063")	3/16"	#12
Angle	1" x 1" x 1/8" (0.125")	3/16"	#12
Angle	1-1/2" x 1-1/2" x 1/16" (0.063")	3/16"	#12
Angle	1-1/2" x 1-1/2" x 1/8" (0.125")	1/4"	#14
Angle	1-1/2" x 1-1/2" x 1/8" (0.125")	1/4"	#14
Angle	1-3/4" x 1-3/4" x 1/8" (0.125")	1/4"	#14
Angle	2" x 2" x 0.093"	3/8"	#16
Angle	2" x 2" x 1/16" (0.125")	3/8"	#16
Angle	2" x 2" x 3/16" (0.187")	1/2"	#12
U-channel	1-3/4" x 1-3/4" x 1/8"	3/8"	#14
U-channel	1" x 2-1/8" x 1" x 0.050"	5/16"	#16
U-channel	1-1/2" x 2-1/8" x		