Below spans are based on test results from a Florida approved test lab & analyzed by Lawrence E. Bennett & L/180

3", 4", 6" OR 8" 1.0# OR 2.0# DENSITY E.P.S. FOAM & 0.024" OR 0.030"
3105 H-14 OR H-25 ALUMINUM ALLOY SKIN
ELITE STATEWIDE APPROVAL # FL 5500 & FL7561
ELITE ALUMINUM CORPORATION
ELITE PANEL
SCALE: 2" = 1'-0" 48

SET WITH DEGASEL 2000 OR EQUAL CHAULK AND OR ADHESIVE ON TOP AND BOTTOM LOCK GROOVE

MANUFACTURERS PROPRIETARY PRODUCTS

Elite Aluminum Corporation Roof Panels Allowable Spans and Design whetary Products: Statewide Product Approval #FL1049

REQUIRED FOR ENGINEERING TO BE VALID FOR PERMITTING

Lawrence E. Bennett, P.E. FL # 16644 CIVIL & STRUCTURAL ENGINEERING 315 Herbert St., Port Orange, FI 32129 Telephone #: (386) 767-4774 Fax #: (386) 767-6556 http://www.lebpe.com/

ALUMINUM STRUCTURES DESIGN MANUAL SCREEN ROOF / SOLID ROOF COMBINATION SOLID ROOF PANEL PRODUCTS

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able 7.2.1 Elite Aluminum Corporation Roof Panels Allowable Spans and Design / Applied Loads* (#/SF)

3", 4", 6" OR 8" 1.0# OR 2.0# DENSITY E.P.S. FOAM & 0.024" OR 0.030"
3105 H-14 OR H-25 ALUMINUM ALLOY SKIN
ELITE STATEWIDE APPROVAL # FL 5500 & FL7561
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Below spans are based on test results from a Florida approved test lab & analyzed by Lawrence E. Bennett & L/180

SET WITH DEGASEL 2000 OR EQUAL CHAULK AND OR ADHESIVE ON TOP AND BOTTOM LOCK GROOVE

MANUFACTURERS PROPRIETARY PRODUCTS

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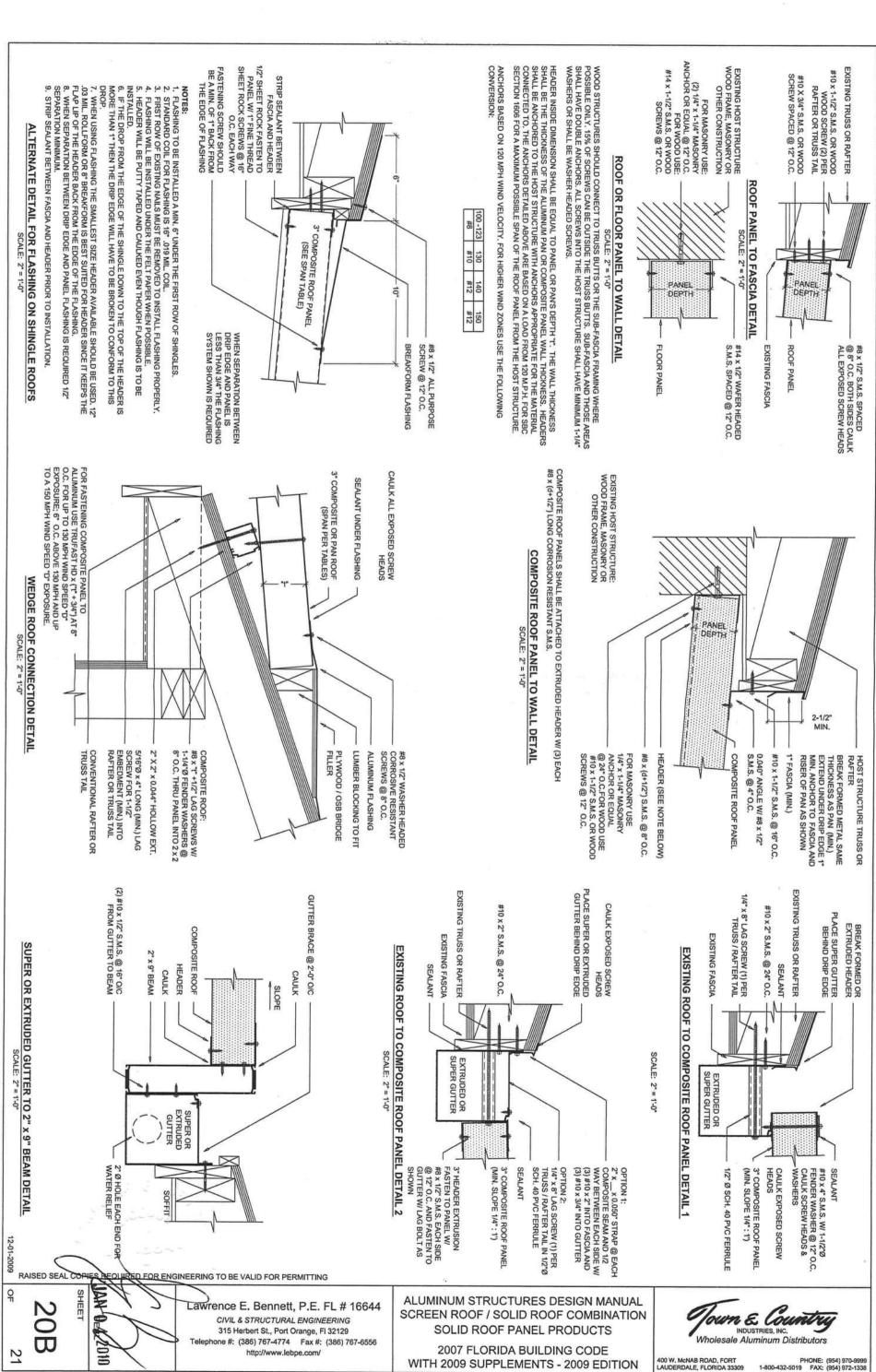
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Conversion Table 7A Load Conversion Factors Based on Mean Roof Height from Exposure "B" to "C" & "D"

Mean Roof Height*

Load

Span Multiplier

Bending Deflection 0.91 0.94 0.92 0.92 0.86 0.91 0.85 0.89 0.85 0.90

- GENERAL NOTES AND SPECIFICATONS

 Certain of the following structures are designed to be married to Site Built block, wood frame or DCA approved modular structures of adquate 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 the contractor / home owner has a question about the host structure, the owner (at his own expense) shall hire an architect, engineer or certified home inspection company to verify host structure capacity.
- When using TEK screws in lieu of S.M.S. longer screws must be used to compensate for drill

For high velocity hurricane zones the minimum live load shall be 30 PSF.

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.

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

Conversion Table 7B from Enclosed to Partially Enclosed Building Classification

Roll formed roof panels (pams) 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 determined at a deflection limit of L/180.

Interior walls & ceilings of composite panels may have 1/2" sheet rock added by securing the sheet rock w/ 1" fine thread sheet rock screws at 16" O.C. each wa vind zone criteria

sheet rock w/ 1* fine thread sheet rock screws at 16* O.C. each wa 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

14 All fascia gutter end caps shall have water relief ports.
All exposed screw heads through roof panels into the roof substructure shall be caulked w/
Silicon sealent. Panel area around screws and washers shall be cleaned with xylene (xylot) or
other solvent based cleaner prior to applying caulking.
All aluminum extrusions shall meet the strength requirements of ASTM B221 after powder

13.

10.

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5. Disimilar metals: Aluminum metals that will come in contact with ferrous metal surfaces or to be coaled with protective paint.

concrete /masonry products or pressure treated wood shall be coated w/ protective paint or bituminous materials that are placed between the materials listed above. The protective materials shall be as listed in section 2003.8.4.3 through 2003.8.4.6 of the Florida Bulkling Code or Corobound Cold Galvanizing Primer and Finisher.

Fasteners or aluminum parts shall be corrosive resistance materials such as non magnetic stainless steel grade 304 or 316; Ceramic coated double zinc coated or powder coated steel fasteners only tasteners that are warrantled as corrosive resistant shall be used; Unprotected steel fasteners shall not be used.

SECTION 7 DESIGN STATEMENT

pressures shown are in PSF. Freestanding structures with mono-sloped roofs have a minimum live load of 10 PSF. The design wind loads are those for an open structure and are reduced by the ASCE 7-05 open mono-sloped

For live loads use a minimum live load of 20 PSF or 30 PSF for 140B and 150 MPH zones. Wind loads are from ASCE 7-05 Section 6.5, Analytical Procedure for glass and modular rooms For partially enclosed structures calculate spans by multiplying Glass and Modular room spans for roll formed roof panels by 0.93 and composite panels by 0.89.

The roof systems are main force resisting systems and components and cladding in conformance with The 2007 Florida Building Code with 2009 Supplements. Such systems must be designed using loads for components and cladding. Section 7 uses ASCE 7-05 Section 6.5, Analytical Procedure for Components and Cladding Loads. The procedure assumes mean roof height less than 30°; roof slope 0 to 20°; I = 0.87 for 100 MPH and 0.77 for 110 MPH or higher wind loads for Atlached Carports and Screen Rooms and I = 1.00 for Glass and Modular Enclosed Rooms. Negative Internal pressures are 0.00 for open structures, 0.18 for enclosed structures, and 0.55 for partially enclosed structures. All

Attached covers such as carports, patio covers, gabled carports and screen rooms have a minimum live load of 10 PSF for 100 to 140-1 MPH wind zones and 30 PSF for 140-2 to 150 MPH wind zones. The design wind loads used are for open and enclosed structures.

Glass room roof design loads use a minimum live load of 20 PSF for 100 to 140-1 MPH wind zones and 30 PSF for 140-2 to 150 MPH wind zones and wind loads are from ASCE 7-05 for glass

Design Loads for Roof Panels (PSF)

I = 0.87 for 90 to 100 MPH I = 0.77 for 100 to 150 MPH KCpl = 0.00 Zone 2

I = 0.87 for 90 to 100 MPH I = 0.77 for 100 to 150 MPH KCpI = 0.00 Zone 2

I=1.00 KCpI = 0.18 Zone 2 Glass & Modular Enclosed Rooms & Roof Overs

I = 1.00 KCpl = 0.18 Zone 3

В	Basic Wind	Effe	Effective.	Area	Basic Wind	Effe	ective	Area	Basic Wind	Eff	Effective	Area	Basic Wind	Effect	ctive	Area
	Pressure	50	20	10	Pressure	50	20	10	Pressure	50	20	10	Pressure	50	20	10
100 MPH	13	13	16	25	17	20	23	26	17	23	27	30	17	27	38	45
110 MPH	14	14	17	20	18	21	25	28	18	27	32	36	18	33	46	55
120 MPH	17	17	20	23	22	25	30	33	22	32	39	43	22	39	2	65
123 MPH	18	17	21	24	23	26	32	35	23	34	41	45	23	41	57	60
130 MPH	20	20	23	27	26	29	35	39	26	38	45	54	36	46	R	77
MAN-1 MPH	22	22	27	2	20	24	3	40	30		3	5	200	3	: !	:
	200	200		9	00	4	40	40	00	1	00	25	30	00	14	80
100	23*	23	27	31	30	34	40	46	30	4	53	59	30	54	74	89
HAM Z-OPH	200	26	32	36	34	39	46	52	3A	51	68	88	34	61	28	103

3" x 3" x 0.090" COLUMN

To convert from the Exposure "B" loads above to Exposure "C" or "D" see Table 7A on the this page.

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.

TRUFAST HD x ("t" + 1/2") FASTENER @ 8" O.C. FOR UP TO 130 MPH 5" SUPER GUTTER BRACKET 6" WIDE AT EACH BEAM AND MID-SPAN 1/4" x 1-1/2" S.M.S. SIDE OF BEAM & 24" O.C. 3" COMPOSITE PANEL WIND SPEED; 6" O.C. FOR ABOVE 130 MPH AND UP TO 150 0.95" BEAM GUTTER #14 TEK SCREWS (4) EACH BRACKET 1" x 2" x 0.040" PATIO EXTRUSION MPH WIND SPEED 2" x __ S.M.B. SUPER 0 0 0 0 2" x 2" x 0.125" ANGLES W/ (3) 1/4" THRU-BOLTS THROUGH ROOF BEAM AND(3) #14 TEK SCREWS TO GUTTER (EACH SIDE)

Notes:

1. Beam may be attached to super gutter and solid roof to self-mating bear ferrule is provided at each beam.

2. Can not be used in conjunction with moment connection.

3. All solid roofs shall drain to gutter and away from host structure.

m if a strap or 1/2" P.V.C. or equal

SUPER OR EXTRUDED GUTTER - SOLID ROC

OF / SCREEN ROOF COMBINATION

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21

2" x 3" x 0.125" ANGLE EACH SIDE W/ 3/8" THRU-BOLTS & WASHERS TO GUTTER AND 3/8" THRU-BOLTS TO POST

(PER TABLE 2.3)

FOR ALLOWABLE SPANS OF SUPER OR EXTRUDED GUTTER AND CARRIER BEAM (SEE TABLE 1.10)

otes:

Can not be used in conjunction with moment connection.

All solid roofs shall drain to gutter and away from host structure.

ALTERNATE SELF-MATING BEAM CONNECTION TO SUPER GUTTER

COMPOSITE PANELS SHALL BE THRU SCREWED THRU THE ENDCAP AND INTO THE GUTTER SUPPORTING (PER TABLES) FASTENER TRUFAST HD SIPS 2" WIDE × 0.050" (MIN.) STRAP SPACING PER LOCATION DETAIL PAGE 1-24 #10 × 1/2" TEK SCREWS @ 8" O.C. Variations of Super Gutter attachments may be modified to atta Caulk all exposed screw heads. Can not be used in conjuntion with moment connection. All solid roofs shall drain to gutter and away from host structure WITHOUT SITE SPECIFIC ENGINEERING Notes: CONNECTION TO SUPER OR EXTRUDED GUTTER WITH COMPOSITE PANEL 0 Φ Φ Φ 0 EXTRUDED OR SUPER GUTTER ALTERNATE RECEIVING CHANNEL 2-10° x 1° W/ (2) #8 x 112° S.M.S. EACH SIDE OF BEAM AND BEAM TAIL REMOVED SUPER OR EXTRUDED GUTTER ATTACHED TO BEAM WITH 2-1/2" LONG S.M.S. SELECTED FROM SECTION 9 FOR BEAM SIZE SPACED AT 24" O.C. SELF-MATING BEAM SIZE VARIES ANGLE OR RECEIVING CHANNEL (SEE TABLES SECTION 9) SOLID COVER ATTACHED (PER SECTION 7) (2) #10 x 1/2" S.M.S. 24" MAX VARIES -24" MAX" 1-1/2" x 3" x 1-1/2" X 0.050" RECEIVING CHANNEL W/ (1) #10x1/2" TEK SCREW @ 6" O.C. 1-1/2" x 1-1/2" x 1/4" ANGLE W/ (2) #10x1/2" TEK SCREWS @ 8" O.C. POST SUPPORTING BEAM (PER TABLES) (PER TABLE 2.3) TRUFAST HD SIPS FASTENER (PER TABLES SECTION 7) nth n ALUMINUM BREAK FORMED 0.040" X2" Z STRAP OR STANDARD L STRAP W1 (2) #10 x 34" S.M.S. OR 1/4" THRUBOLT AND 1/2" PVC OR EQUAL FERRULE @ 24" O.C. BREAK FORMED OR EXTRUDED END CAP W/ INSULATED PAN ROOF OR COMPOSITE ROOF PANEL. OPEN WITH PAN ROOF.

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TRUFAST SIP HD FASTENERS
W/1-1/4"9 FENDER WASHERS
@ 8" O.C. UP TO 130 "D"
@ 6" O.C. 130 "D" AND UP TO
150 MPH "D" EXPOSURES
(LENGTH = PANEL THICKNESS
+1") @ ROOF BEARING
ELEMENT (SHOWN) AND
24" O.C. @ NON BEARING
ELEMENT (SIDE WALLS)

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SCREEN ROOF BEAM

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SHEET

SEAL

(2) 3/4" CORROSION RESISTIVE AND WASHER HEADED SCREWS (PER SECTION 9)

NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF LAWRENCE E. BENNETT, P.E.

Table 3A.2 130 6005 TCI or 3 second wind gust at 140 MPH Above spans do not include length of knee brace. Add horizontal for total beam spans.
 Spans may be interpolated. Table 3A.2 120 6005 TCI total beam spans. Spans may be interpolated. or 3 second wind gust at 120 MPH velocity; using design Town & Country Industries, Inc.
Allowable Upright Heights, Chair Rail Spans or Header Spans for Screen, Acrylic or Vinyl Rooms
Aluminum Alloy 6005 T-5 Allowable Upright Heights, Chair Rail Spans or Header Spans Under Solid Roof Town & Country Industries, Inc. Aluminum Alloy 605 T-5 Allowable Upright Heights, Chair Rall Spans or Header Spans Under Solid Roof
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5 Town & Country Industries, Inc.
Allowable Upright Heights, Chair Rall Spans or Header Spans
for Screen, Acrylic or Vinyl Rooms
Aluminum Alloy 6005 T-5
Industry; using design load of 21.0 #ISF CONCRETE SLAB OR FOOTING • FOR POST CONNECTIONS TO WOOD DECKS (2" NOMINAL LUMBER) USE THESE DETAILS W/ WOOD FASTENERS (1-3/8" EMBEDMENT) ANCHORS (SEE SECTION 9) POST TO CONCRETE CONNECTION
INTERNAL OR EXTERNAL RECEIVING CHANNEL 'U' CHANNEL
(SEE SECTION 9 FOR
CONNECTIONS) MAX. CONCRETE ANCHORS (SEE TABLE NEXT PAGE)* ALUMINUM/STEEL COLUMN CORROSION RESISTIVE STEEL
THRU BOLT PER SCHEDULE ATTACHMENT DETAILS SHOWN REQUIRE DIAGONAL BRACING FOR FREE-STANDING COVERS CONCRETE SLAB OR FOOTING CONCRETE SLAB OR FOOTING CORROSION RESISTIVE STEEL
THRU BOLT PER SCHEDULE ATTACHMENT DETAILS SHOWN REQUIRE DIAGONAL BRACING FOR FREE-STANDING COVERS, CONCRETE SLAB OR FOOTING Angles or U-Channels shall be a minimum of 2-1/8" in height and shall be 0.125" 6063 T-6 extruded alloy or 0.125" 5052 H-32 break formed alloy. * FOR POST CONNECTIONS TO WOOD DECKS (2" NOMINAL LUMBER) USE THESE DETAILS W/ WOOD FASTENERS (1-3/8" EMBEDMENT) ANCHORS (SEE SECTION 9) * FOR POST TO WOOD DECK (MIN. 2" NOMINAL LUMBER) USE THESE DETAILS W/ WOOD FASTENERS NOTE: ALL BASE PLATES SHALL BE A MINIMUM OF 2-1/8" IN HEIGHT AND SHALL BE 0.125" 6063 T-6 EXTRUDED ALLOY OR 0.125" 5052 H-32 BREAK FORMED ALLOY BREAK FORMED COLUMN TYPE I POST TO nections that require more than eight boits use the "super taser, ex. Allowable load on 14" x 2-112" Wedge Bolt or Equiv. @ 5d is 878#. Implie for Base Connection; # of anchors = area over post * applied load / wable load on anchor and the provided of anchors of the super post * 120 MPH wind zone, "B" exposure the load the on the front wall is:

1 2-1 2" = 10", assume posts are at 10" O.C. then area = 100 SF and the applied load is 1 PSF x 100 SF = 2.110# for a 3"x"3"x0.050" post.

2 1 2 2" = 10", assume posts are at 10" O.C. then area = 100 SF and the applied load is 1 PSF x 100 SF = 2.110# for a 3"x"3"x0.050" post. mber of Wedge Bolts (POW TYPE II POST TO POST TO CONCRETE CONNECTION INTERNAL OR EXTERNAL ANGLE CLIPS 2-1/8" LEG MIN. LEG ٠4. BASE SCHEMATIC EXTERNAL BASE CONCRETE CONNECTION

SCHEMATIC INTERNAL BASE *(4) MAX. 1/4" X 2-1/2" WEDGE BOLT OR EO. (SEE TABLE BELOW FOR NUMBER OF BOLTS * (8) MAX. 1/4" X 2-1/2" WEDGE BOLT OR EQ. (SEE TABLE BELOW FOR NUMBER OF BOLTS) INTERNAL EXTRUDED ALUMINUM BASE OR BREAK FORMED U-CLIP ALUMINUM / STEEL COLUMN MAX. CONCRETE ANCHORS (SEE TABLE NEXT PAGE)* 2" x 2" WITH WALL THICKNESS EQUAL TO OR GREATER THAN COLUMN WALL ALUMINUM / STEEL COLUMN EXTERNAL BREAK FORMED ALUMINUM BASE OR BREAK FORMED U-CLIP ALUMINUM / STEEL COLUMN 12-01-2009 RAISED SEAL COPIES REQUIRED FOR ENGINEERING TO BE VALID FOR PERMITTING SHEET OF ALUMINUM STRUCTURES DESIGN MANUAL . B Lawrence E. Bennett, P.E. FL # 16644 90 SCREEN ROOF / SOLID ROOF COMBINATION CIVIL & STRUCTURAL ENGINEERING **COMPONENT TABLES** 315 Herbert St., Port Orange, FI 32129 Wholesale Aluminum Distributors one #: (386) 767-4774 Fax #: (386) 767-6556

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2" x ___ x 0.050" STRAP @ EACH BRACE CONNECTION AND @ 1/2 BEAM SPAN W/ (2) #8 x 1/2" S.M.S. PER STRAP FASTEN THRU MEMBER INTO SCREW BOSSES W/ (4) #10 × 1-1/2" S.M.S. RECEIVING CHANNEL 2-1/8" x 1" WITH (2) #8 x 1/2" S.M.S. EACH SIDE OF CHANNEL TO 2" x 2" NON-STRUCTURAL BRACE CONNECTION TO SUPER OR EXTRUDED GUTTER

SCALE: 2" = 1:0" (2) 2" SCREWS (SEE SECTION 9 FOR SIZES) BRACE MAX. DISTANCE TO HOST STRUCTURE WALL (SEE TABLE 1.11)

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ALUMINUM STRUCTURES DESIGN MANUAL SCREEN ENCLOSURES SECTION 1 DETAILS

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