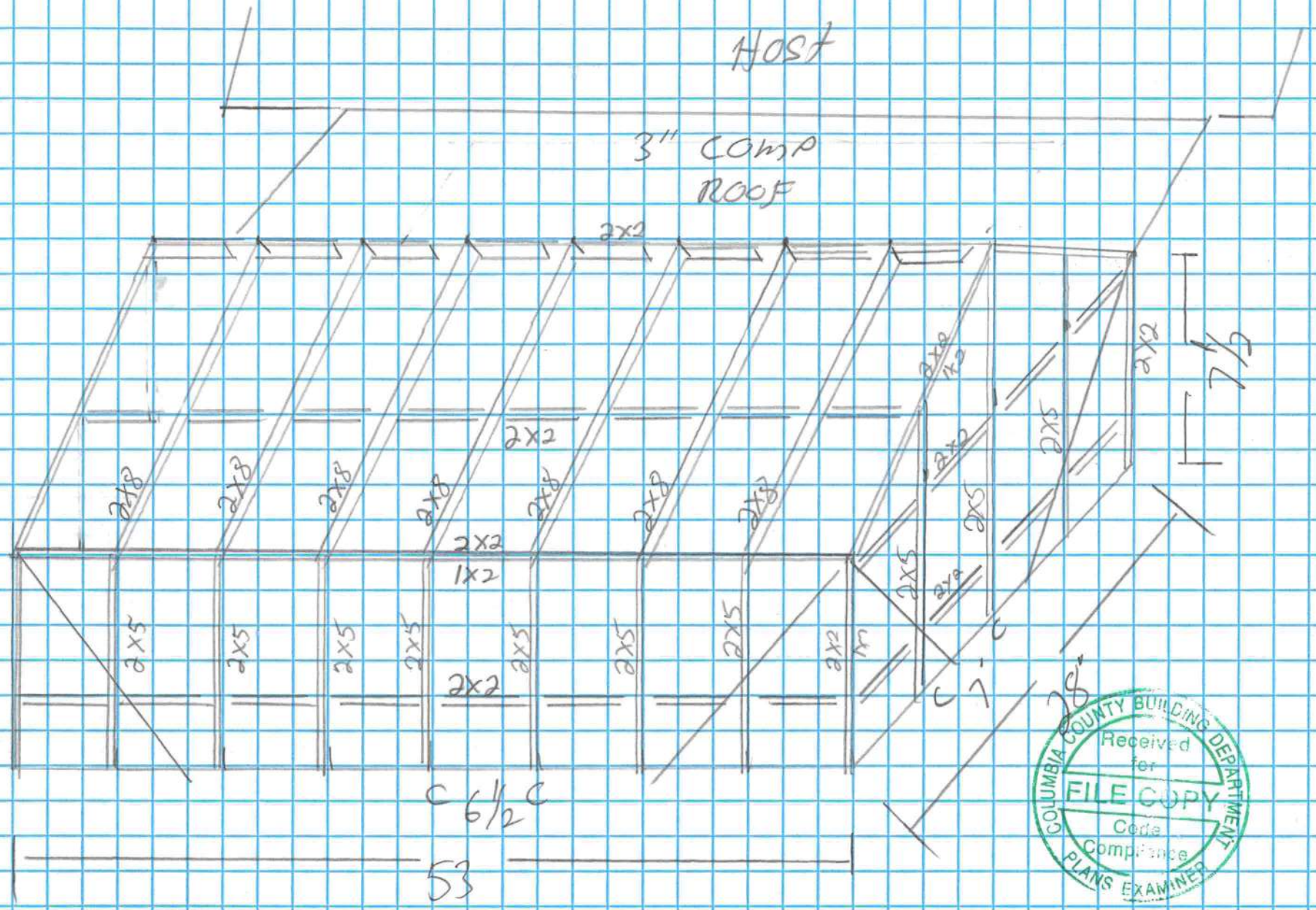


Screen Room, Covered Patio Room, and Pool Enclosure

"OPEN" Structures ONLY

Project Location _____
Project Name _____
County _____
Permit Number _____

DESIGN CRITERIA

Wind Velocity:	120 mph, 3 sec. gust 130 mph, 3 sec. gust
Risk Category:	I (FBC-2020 rev 7)
Enclosure Class.:	"OPEN" or "ENCLOSED"
Wind Exposure Type:	"B" or "C" (See tables)
Internal Pressure Coefficient:	+/- 0.0 (Open) +/- 0.18 (Enclosed)
Applicable Sunroom Categories:	I - Roof with screens II - Roof with enclosed walls (Non-conditioned) III - Roof with enclosed walls, forced entry protection, air-leakage and water resistant (Non-conditioned) IV - Type III + Conditioned **Type V Category is not applicable for these plans

All construction shall be provided in accordance with the current recognized versions of the Florida Building Code, OSHA, AISC, ACI and ASCE codes as well as all applicable local requirements.

Base connections shall be provided as shown and shall be field adjusted on the basis of the manufacturer's requirements for actual soil type.

All materials identified by manufacturer name may be substituted with comparable materials that exceed or equal the specifications for the original material.

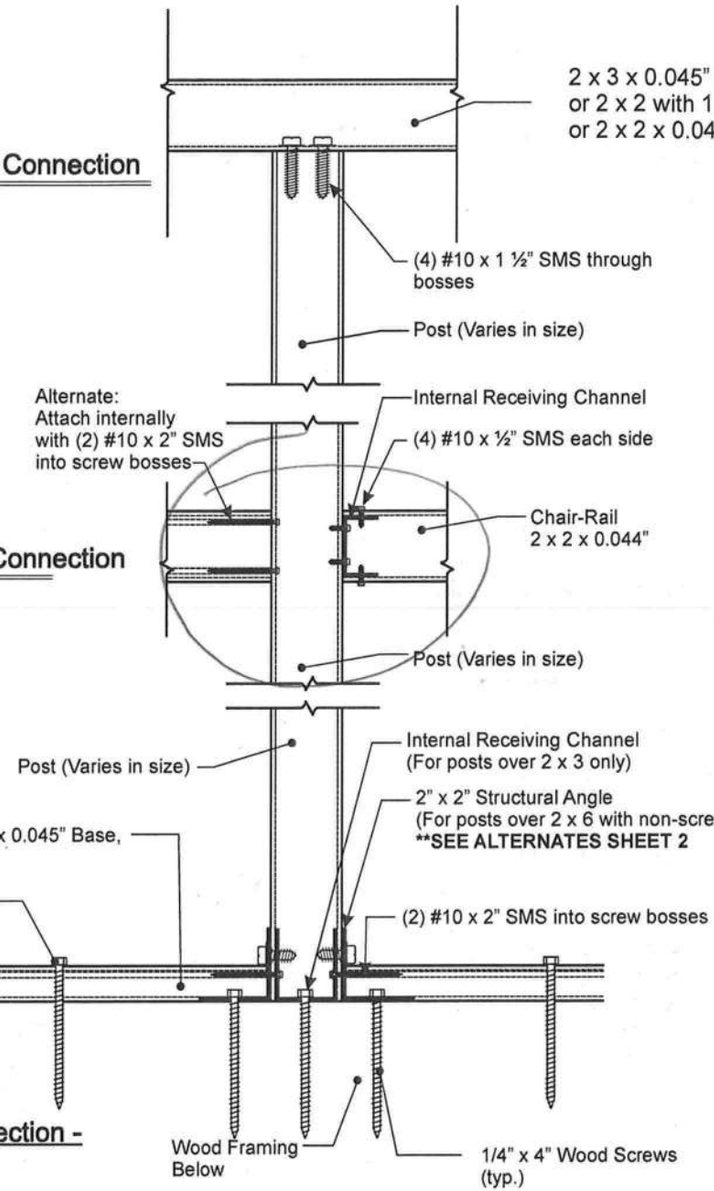
All field connections shall be #10 SMS or better, unless noted otherwise.

All Aluminum shall be Alloy 6065T5 and/or 6061T6 for horizontal and vertical framing members, except roof panels and Super Gutter, which are proprietary to the manufacturer.

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

Post to Edge Purlin Connection

Scale: 3" = 12"



Post to Chair-Rail Connection

Scale: 3" = 12"

Post to Base Connection - Wood Decks

Scale: 3" = 1'-0"

***See alternates Sheet 2**

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelman@gmail.com

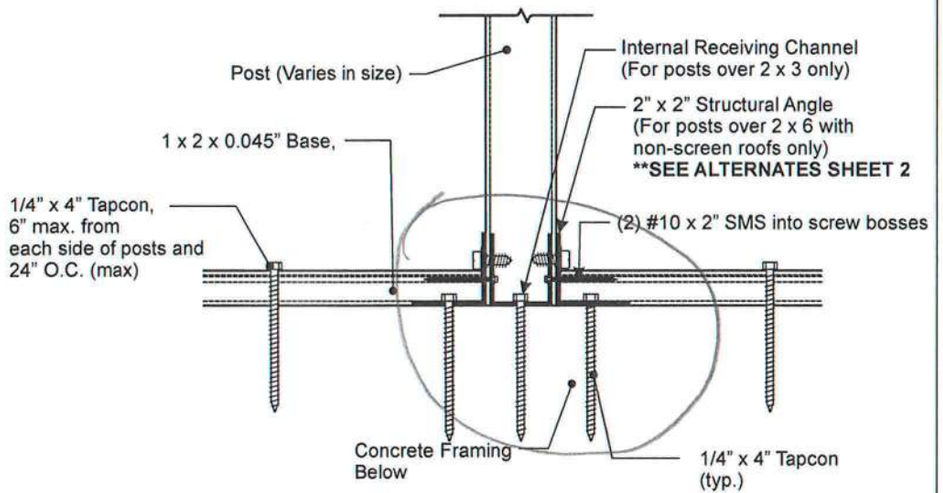
STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
SCALE: Varies
CLIENT:

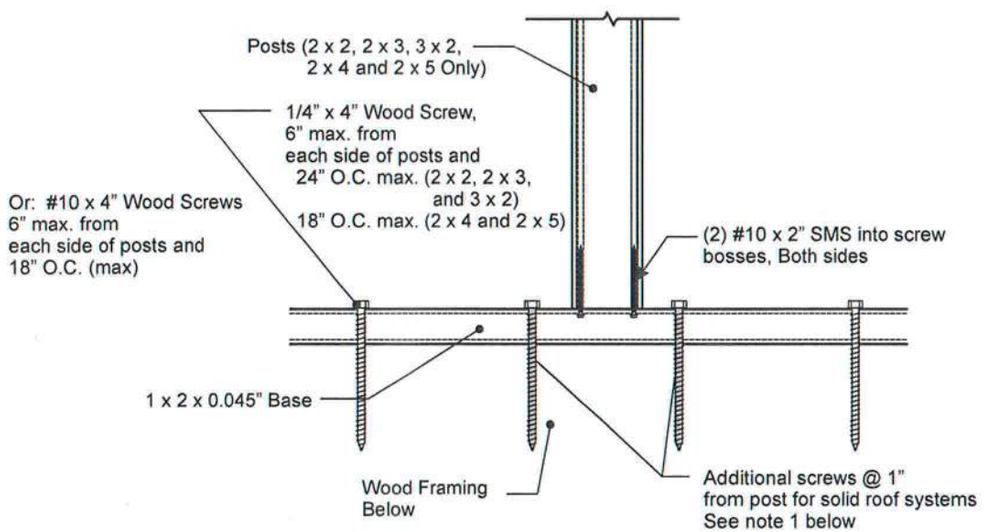
File Name:		Revision By:	
Designed:	TEB	Date:	
Drawn:	TEB	Description:	
Checked:	TEB		
Date:	5/5/21		

Sheet 1 of 6
No.



Alternate Post to Base Connection (Concrete Base)

Scale: 3" = 1'-0"



Alternate Post to Base Connection (Small post installation)

Scale: 3" = 1'-0"

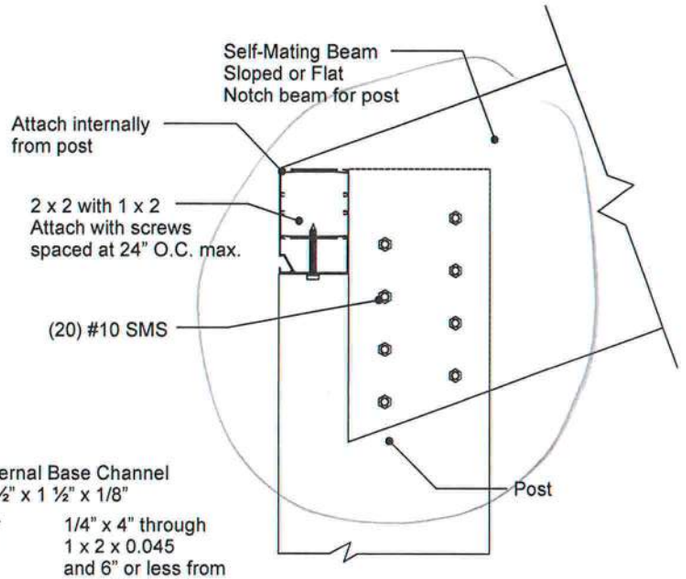
Notes:

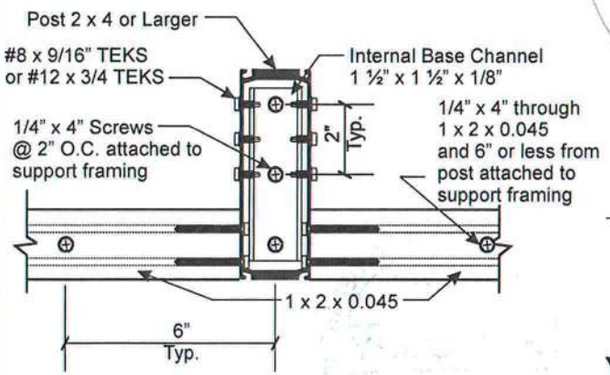
1 - Screen Roof Systems only, unless additional screws installed as noted above.

2 - Alternately for concrete base, substitute 1/4" x 4" Tapcon for wood screws with identical spacing requirements

Partial Lap Detail - Main Frame

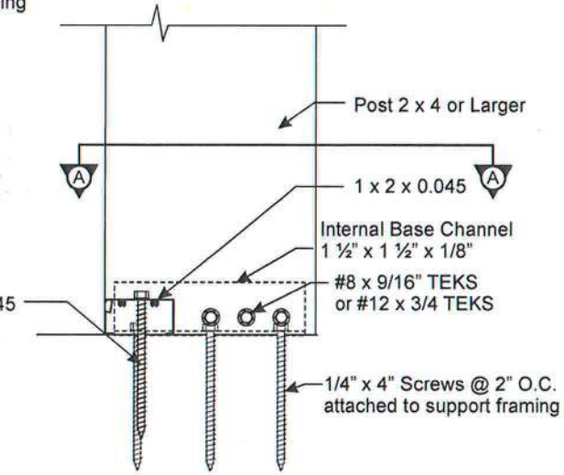
Scale: 3" = 1'-0"





Ⓐ Post Connections - Top Section

Scale: 3" = 12"



Post Connections - Side View

Scale: 3" = 12"

Minimum Post Size and Screw Quantity				
Beam Size	Post Size	#8	#10	#12
2 x 3	2 x 3	6	4	4
2 x 4	2 x 3	8	6	4
2 x 6	2 x 3	10	8	6
2 x 6	2 x 4	10	8	6
2 x 7	2 x 4	14	12	10
2 x 8	2 x 5	16	14	12
2 x 9	2 x 6	18	16	14
2 x 10	2 x 8	22	20	18

Screw Installation Requirements			
	#8	#10	#12
Minimum Spacing	5/8"	3/4"	1"
Minimum Edge Distance	5/16"	3/8"	½"

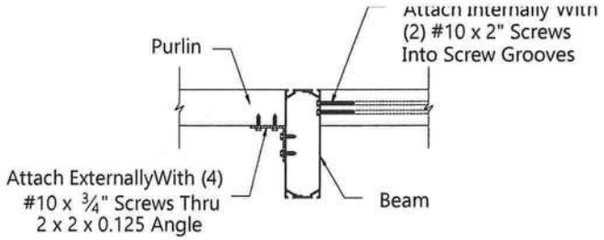
Minimum screw quantity refers to total quantity of equal number of screws on both sides of the beam into the post

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelman@gmail.com

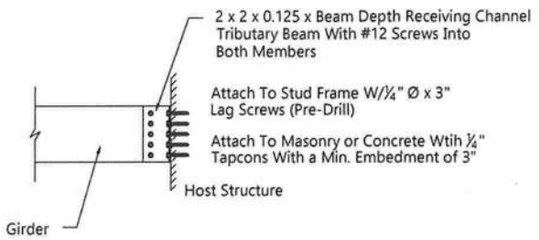
STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

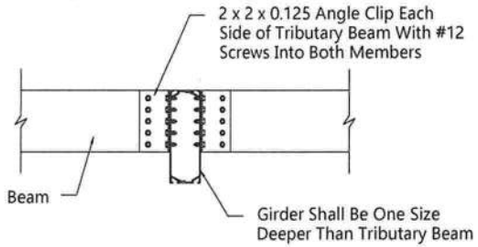
PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
CLIENT:
SCALE:
File Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21
Revisions By: Date: Description:
Sheet 2 of 8
No.



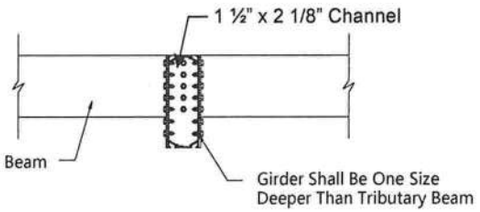
TYPICAL PURLIN AND BEAM DETAIL



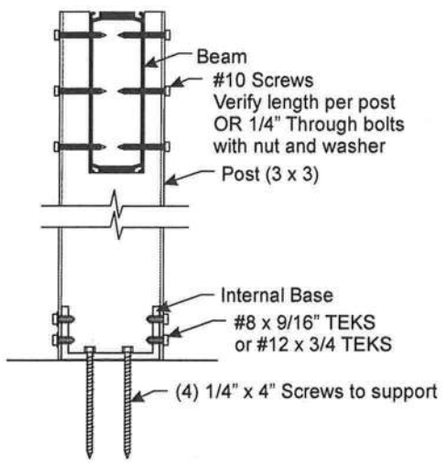
TYPICAL GIRDER DETAIL TO HOST WALL



TYPICAL BEAM AND GIRDER DETAIL

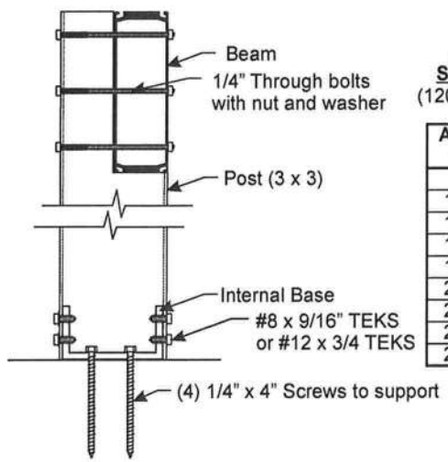


ALTERNATE TYPICAL BEAM AND GIRDER DETAIL



Post Connections - Saddled Beam

Scale:NTS

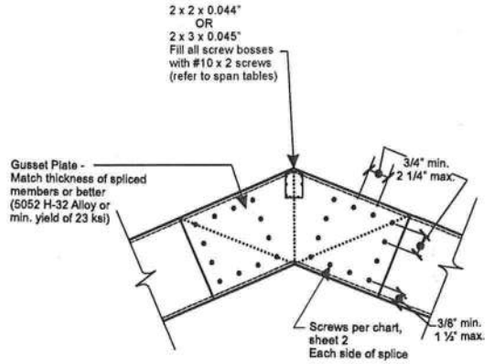


Post Connections - End Mount

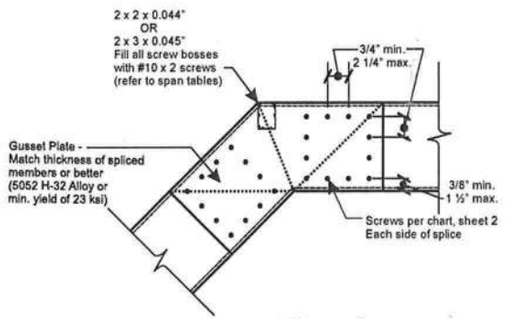
Scale: NTS

Allowable Post Heights For Square Posts (Screen Rooms)
(120 mph, 3 second gust wind loads)

Area ft²	Allowable Height	
	3x3x0.04	3x3x0.06
75	14'-9"	18'-2"
100	13'-3"	16'-11"
125	11'-11"	15'-9"
150	10'-9"	14'-8"
175	9'-8"	13'-8"
200	8'-8"	12'-9"
225	7'-10"	11'-11"
250	7'-0"	11'-1"
275	6'-4"	10'-4"



Scale: 1 ½" = 1'-0"



Typical Mansard Plate Connection
Scale: 1 ½" = 1'-0"

Typical Roof Peak Plate Connection

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelman@gmail.com

STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

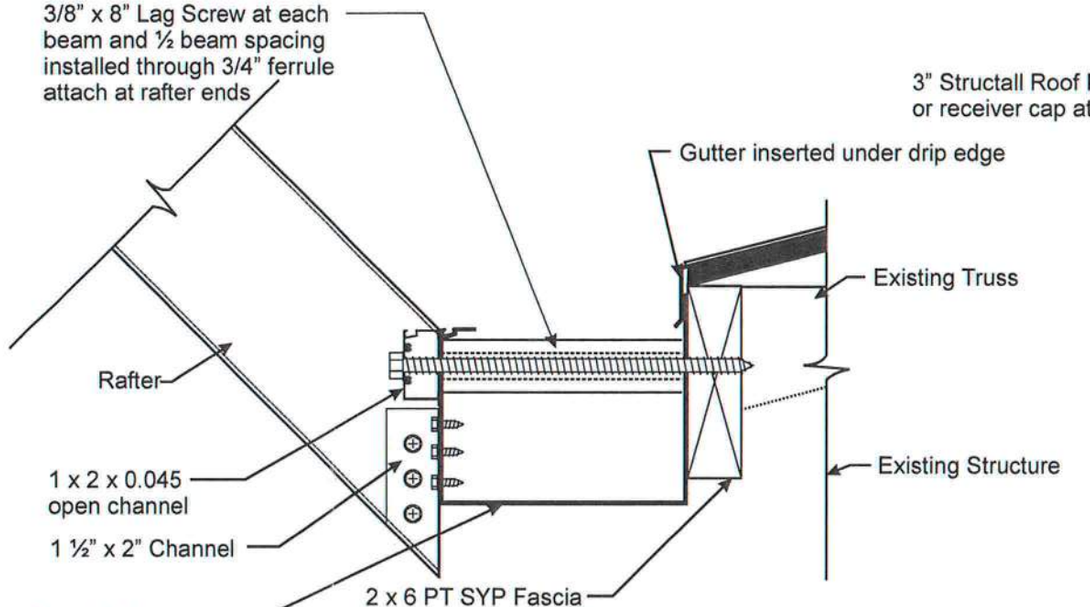
PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
SCALE: Varies
CLIENT:

No.	Description:	Date:	Revision By:

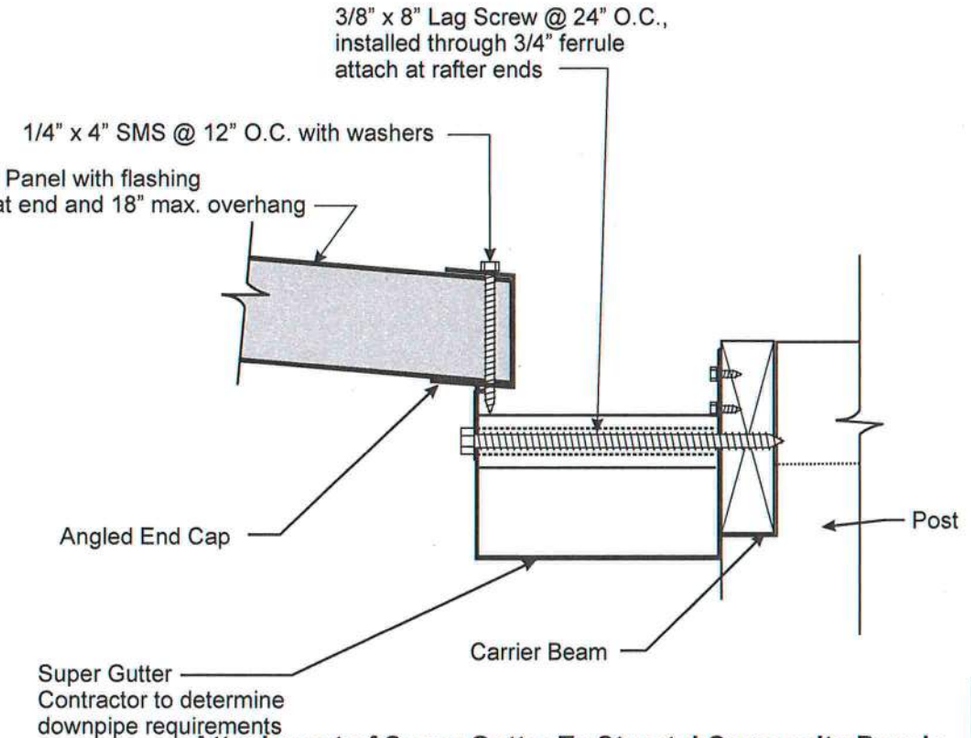
File Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21

Sheet 3 of 8

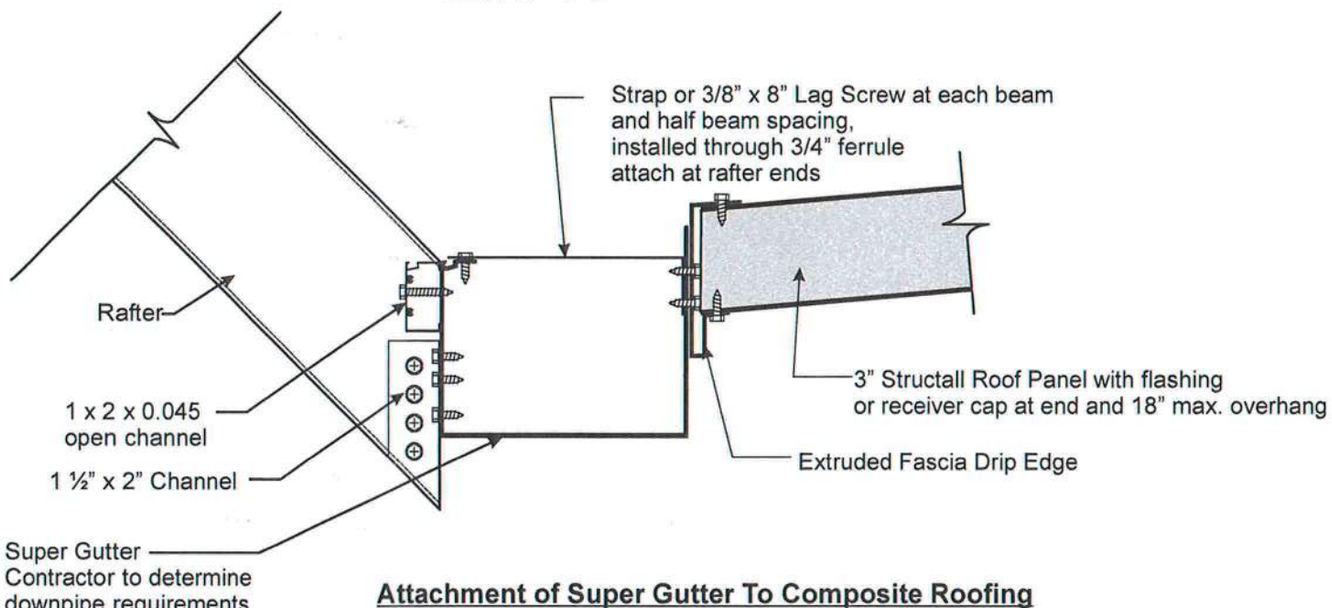
No.



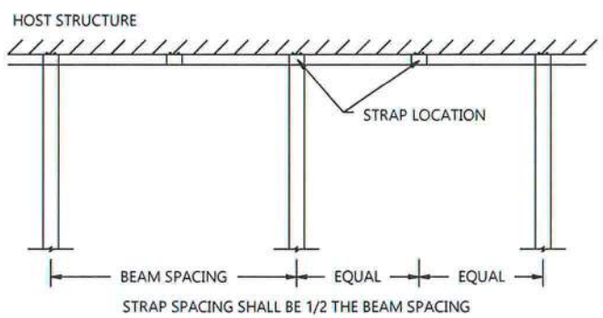
Attachment of Super Gutter To Existing Structure
Scale: 3" = 1'-0"



Attachment of Super Gutter To Structal Composite Panels
Scale: 3" = 1'-0"



Attachment of Super Gutter To Composite Roofing
Scale: 3" = 1'-0"



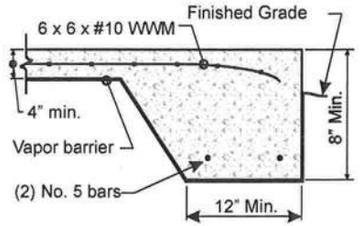
TYPICAL SUPER GUTTER ATTAHCMENT SCHEMATIC PLAN

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2026 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelmanj@gmail.com

STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
CLIENT:
SCALE: Varies
Revision By: | Date: | Description:
File Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21
Sheet 4 of 8
No.



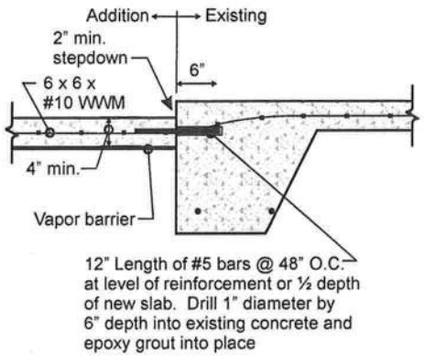
Typical Foundation Details

(When no expansive clays present)

N.T.S.

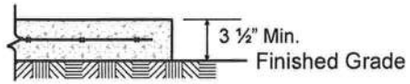
**Design based on assumed 1500 psf bearing capacity of soil*

***When expansive clays are shown to be present from soil boring logs, a specialty foundation is required to be designed by a professional engineer.*



Connection to Existing Foundation

N.T.S.



Typical Flat Slab Detail

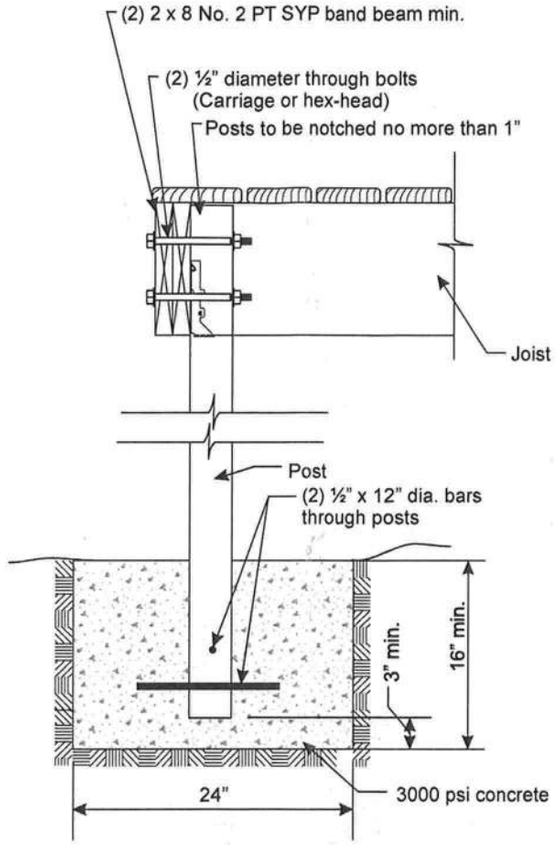
(When no expansive clays present)

N.T.S.

SCREEN ROOMS ONLY

Requirements for Flat Slab Detail:

1 - Concrete to be 2500 psi min.
2 - Reinforcement to be either 6 x 6 #10 WWM or Fiber-Mesh (must be verified for existing slabs on grade)
3 - Slope along perimeter of slab to be maximum of 1" per foot for the first 24" beyond the end of slab.
4 - Maximum projection of slab beyond host structure to be 20'-0" in 120 mph, 3 sec. wind zones.
5 - Local ordinances may require a minimum footing, verify with local authority.



Deck Post Support Requirements

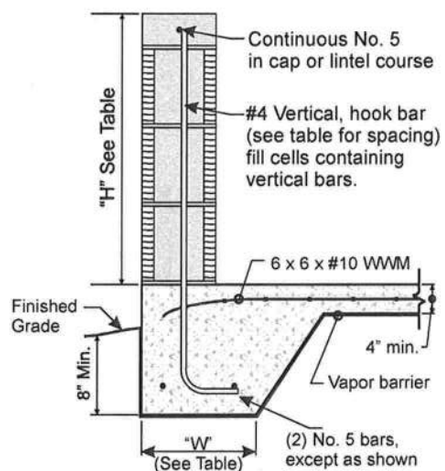
Scale: NTS

Notes:

Design assumes a minimum soil bearing strength = 1500 psf

Note: Use 4 x 4 Posts for clear heights up to 4'-0" above grade
Use 6 x 6 Posts for clear heights up to 8'-0" above grade
*****6 x 6 Posts over 6'-0" require 24" knee braces!***

Beam Size (Match Joist Size)	Beam Span/ Post Spacing (ft)	Maximum Joist Span
(2) 2 x 8	8	Up to 10'-0"
(2) 2 x 8	6	Up to 14'-0"
(2) 2 x 10	8	Up to 14'-0"
(2) 2 x 12	8	Up to 14'-0"

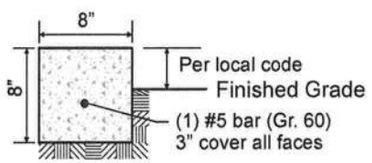


Typical Knee-Wall Detail

(When no expansive clays present)

N.T.S.

"H" (in.)	"W" (in.)	Vertical Bar Spacing
40	12	8'-0"
56	18	4'-0"
64	24	2'-8"



Typical 8" x 8" Ribbon Footing

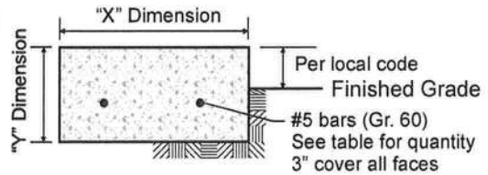
(When no expansive clays present)

N.T.S.

SCREEN ROOMS ONLY

Requirements for 8" x 8" Ribbon Footing:

1 - Concrete to be 2500 psi min.
2 - Slope along perimeter of footing to be maximum of 2" per foot for the first 24" beyond the end of slab.
3 - Maximum projection of slab beyond host structure to be 16'-0" in 120 mph, 3 sec. wind zones.



Typical Alternate Ribbon Footing

(When no expansive clays present)

N.T.S.

SCREEN ROOMS ONLY

Requirements for Alternate Ribbon Footing:

1 - Concrete to be 2500 psi min.
2 - Applicable where slope and or span exceed flat slab and 8" x 8" allowables.
3 - See table below for allowable room spans in wind zones up to 120 mph, 3 sec. gust winds.

"X" (in.)	"Y" (in.)	No. bars	Max. Projection (ft.)
8	12	1	22'-6"
12	8	1	24'-0"
12	12	2	24'-8"
16	12	2	38'-10"
18	12	2	38'-0"
24	12	3	48'-4"

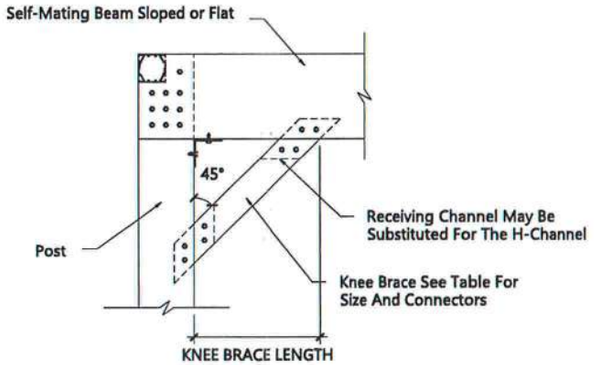
Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelman@gmail.com

STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
SCALE: Varies
CLIENT:
Revision Hx: | Date: | Description:
File Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21

Sheet 5 of 8
No.

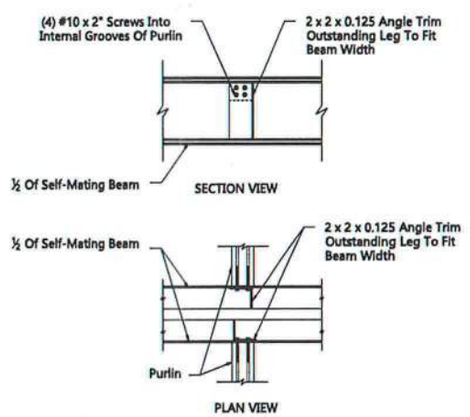


TYPICAL KNEE BRACE DETAIL AND SCHEDULE

NOTE: KNEE BRACES ARE NOT REQUIRED FOR THE TABLUATED SPANS.

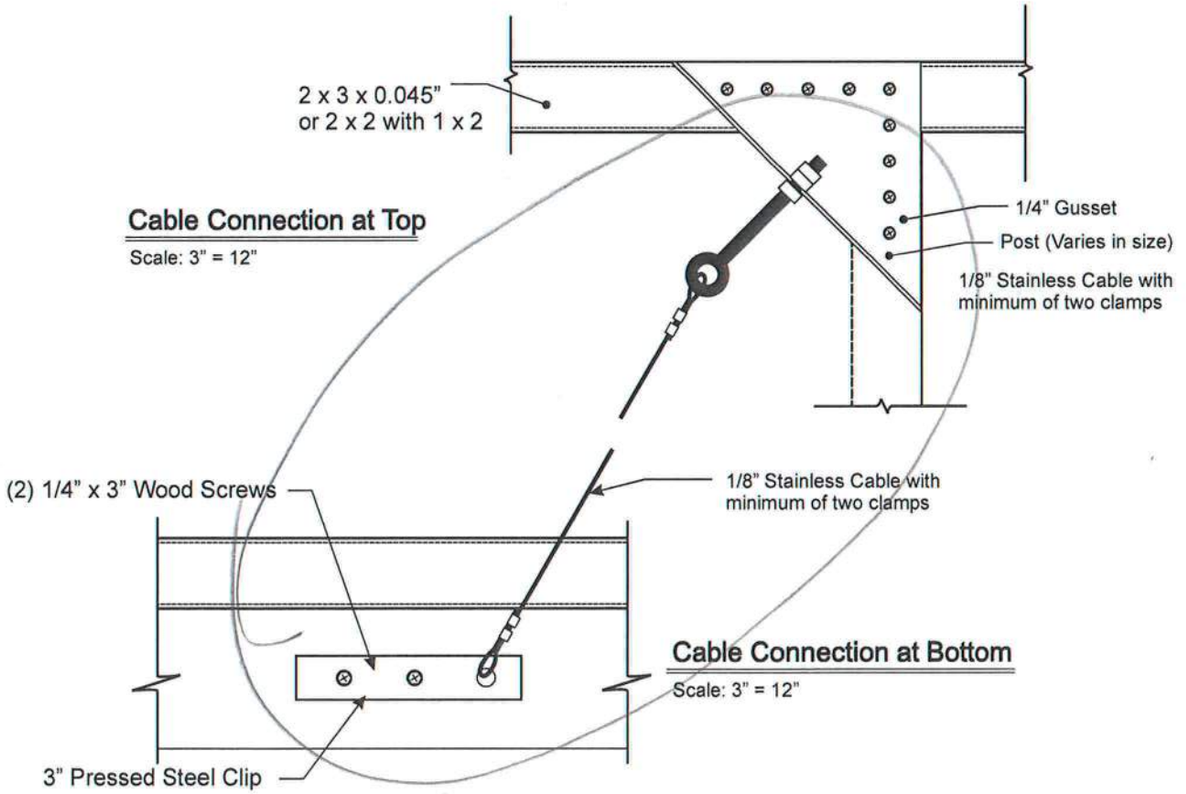
MINIMUM SIZE KNEE BRACE AND CONNECTION		
BRACE LENGTH	EXTRUSION	CONNECTION
0" TO 2'-0"	2 x 2 x 0.044	2" H-Channel w/ (3) #10 Each Side
2'-0" TO 3'-0"	2 x 3 x 0.050	2" H-Channel w/ (3) #10 Each Side
3'-0" TO 4'-6"	2 x 4 x 0.044	Notch Extrusion Over Beam And Post And Attach w/ (4) #10 Each Side

NOTE: ALLOWABLE ROOF BEAM SPANS MAY BE INCREASED BY THE KNEE BRACE LENGTH IF BRACES ARE ON BOTH ENDS OF THE SPAN. FOR KNEE BRACE ON ONE END ONLY, AN INCREASE OF ½ THE KNEE BRACE LENGTH IS ALLOWED.

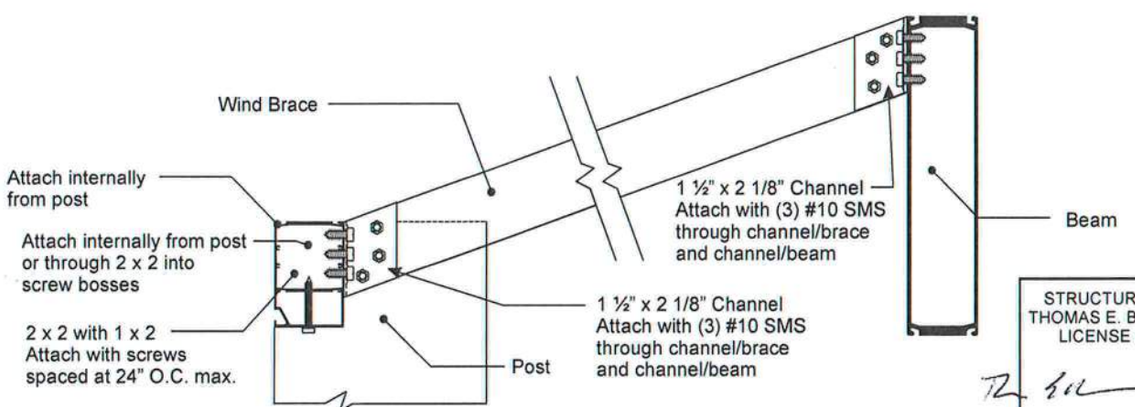


TYPICAL INTERNAL STIFFENING DETAIL FOR SPANS GREATER THAN 39'-0"

NOTE: STIFFENING ANGLES SHALL BE INSTALLED AT EACH PURLIN LOCATION ALONG THE BEAM/GRIDER.



*Install cables in pairs per 200 SF tributary area of walls, when wall area exceeds 200 SF



Typical Wind Brace Detail at Roof Framing

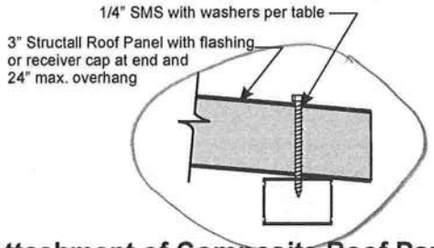
Required for rooms extending beyond 12'-0" from host structure

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelman@gmail.com

STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

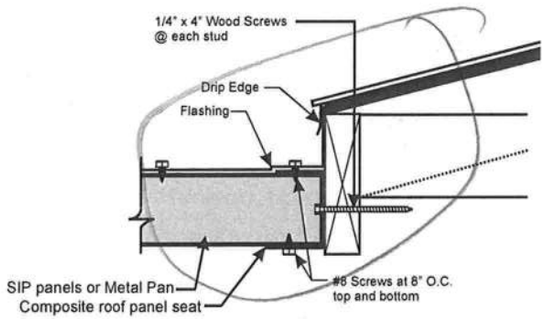
5/5/2021

PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
SCALE: Varies
CLIENT:
Revision Nbr. | Date: | Description:
Plt. Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21
Sheet 6 of 8
No.



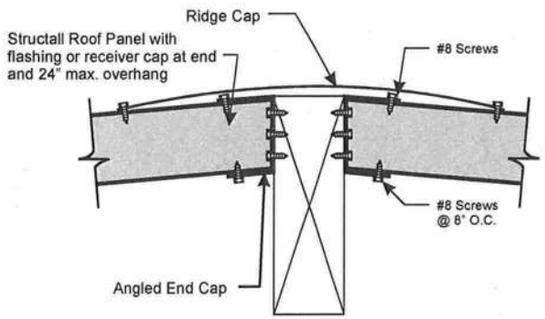
Attachment of Composite Roof Panel To Aluminum

Scale: 2" = 1'-0"



Attachment of Composite Roof Panel To Existing Structure

Scale: 2" = 1'-0"



Attachment of Structal Composite Panels at Ridge

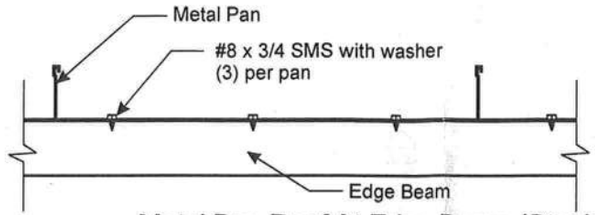
Scale: 3" = 1'-0"

120 mph, 3 Sec. Gust, Exposure "B"		
Panel Thickness	**Max. Span**	**Fastener Spacing**
3" x 0.240	16'-7"	10"
3" x 0.030	19'-6"	9"
3" x 26 Ga.	19'-6"	8"
4" x 0.240	18'-2"	10"
4" x 0.030	20'-11"	9"
4" x 26 Ga.	21'-5"	8"
6" x 0.240	22'-7"	10"
6" x 0.030	26'-1"	9"
6" x 26 Ga.	26'-9"	8"

130 mph, 3 Sec. Gust, Exposure "B"		
Panel Thickness	**Max. Span**	**Fastener Spacing**
3" x 0.240	16'-2"	8"
3" x 0.030	18'-11"	7 ½"
3" x 26 Ga.	19'-0"	6 ½"
4" x 0.240	16'-9"	8"
4" x 0.030	19'-4"	7 ½"
4" x 26 Ga.	19'-9"	6 ½"
6" x 0.240	20'-10"	8"
6" x 0.030	23'-11"	7 ½"
6" x 26 Ga.	24'-8"	6 ½"

Span Tables and Fastener Spacing Specifications
APPLICABLE TO STRUCTALL SNAP N LOCK SYSTEM ONLY

Notes:
1 - Min. Roof Slope per FBC-2020 Rev 7
2 - Span is measured from center to center of supporting members
2 - 24" max. overhang beyond support framing
3 - Fasteners must be installed a minimum of 2 ½" from end of panel and include 1 ½" diameter x 0.4" thick washers



Metal Pan Roof At Edge Beam (Steel Pans)

Scale: NTS

Allowable Spans For 3" Rib Riser Metal Pans "Screen Rooms Only"
(120 mph, 3 second gust wind loads)

	Exposure Category B	Exposure Category C
0.024" Thickness	13'-1"	11'-1"
0.030" Thickness	14'-1"	11'-11"

Allowable Spans For 3" Rib Riser Metal Pans "Screen Rooms Only"
(130 mph, 3 second gust wind loads)

	Exposure Category B	Exposure Category C
0.024" Thickness	12'-6"	10'-7"
0.030" Thickness	13'-6"	11'-5"

Allowable Spans For 3" Rib Riser Metal Pans "Open Structures Only"
(120 mph, 3 second gust wind loads)

	Exposure Category B	Exposure Category C
0.024" Thickness	14'-6"	12'-3"
0.030" Thickness	15'-8"	13'-3"

Allowable Spans For 3" Rib Riser Metal Pans "Open Structures Only"
(130 mph, 3 second gust wind loads)

	Exposure Category B	Exposure Category C
0.024" Thickness	13'-8"	11'-7"
0.030" Thickness	14'-9"	12'-6"

STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-6750 - beitelman@gmail.com

PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
SCALE: Varies
CLIENT:
File Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21
Revision By: Date: Description:
Sheet 7 of 8
No.

Allowable Spans for Screen Enclosure Gable, Hip and Half Mansard Roof Beams

*For half-mansard roofs increase table span by 10%, for full-mansard roofs increase table span by 20%
**For 18 x 14 x 0.013 Screen, spans are permitted to be increased by 5%

120 mph, 3 Sec. Gust, Exposure "B"

	Post Spacing				
Self-Mating Beams	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2 x 4 x 0.046 x 0.100	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
2 x 5 x 0.050 x 0.116	15'-3"	15'-3"	14'-3"	13'-9"	13'-3"
2 x 6 x 0.050 x 0.120	19'-0"	17'-9"	17'-3"	17'-3"	17'-0"
2 x 7 x 0.055 x 0.120	22'-0"	20'-9"	20'-9"	20'-3"	19'-3"
2 x 8 x 0.072 x 0.224	30'-0"	30'-0"	29'-9"	27'-9"	26'-3"
2 x 9 x 0.072 x 0.224	34'-3"	32'-3"	30'-6"	29'-3"	28'-0"
2 x 9 x 0.082 x 0.306	34'-3"	32'-3"	30'-6"	29'-3"	28'-0"
2 x 10 x 0.092 x 0.374	40'-0"	40'-0"	40'-0"	39'-0"	37'-3"
Snap					
2 x 2 x 0.044 x 0.044	4'-3"	4'-3"	4'-3"	4'-3"	4'-3"
2 x 3 x 0.045 x 0.045	6'-6"	6'-6"	6'-6"	6'-6"	6'-6"

130 mph, 3 Sec. Gust, Exposure "B"

	Post Spacing				
Self-Mating Beams	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2 x 4 x 0.046 x 0.100	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
2 x 5 x 0.050 x 0.116	13'-9"	13'-9"	13'-9"	13'-9"	13'-9"
2 x 6 x 0.050 x 0.120	17'-3"	17'-3"	17'-3"	17'-3"	17'-0"
2 x 7 x 0.055 x 0.120	20'-9"	20'-9"	20'-9"	20'-3"	19'-3"
2 x 8 x 0.072 x 0.224	28'-0"	27'-6"	26'-3"	25'-0"	24'-0"
2 x 9 x 0.072 x 0.224	32'-0"	30'-3"	28'-9"	27'-6"	26'-3"
2 x 9 x 0.082 x 0.306	34'-3"	32'-3"	30'-6"	29'-3"	28'-0"
2 x 10 x 0.092 x 0.374	39'-9"	37'-6"	35'-6"	34'-0"	32'-9"
Snap					
2 x 2 x 0.044 x 0.044	4'-3"	4'-3"	4'-3"	4'-3"	4'-3"
2 x 3 x 0.045 x 0.045	6'-6"	6'-6"	6'-6"	6'-6"	6'-6"

Allowable Spans For Screen Enclosure Posts with Wind Speeds up to 120 mph, 3 sec. Gust and Exposure "B"

	Post Spacing				
Self-Mating	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2 x 4 x 0.046 x 0.100	12'-0"	11'-0"	10'-0"	9'-3"	8'-6"
2 x 5 x 0.050 x 0.116	14'-6"	13'-0"	12'-0"	11'-0"	10'-0"
2 x 6 x 0.050 x 0.120	15'-0"	13'-6"	12'-6"	11'-6"	10'-6"
2 x 7 x 0.055 x 0.120	16'-0"	14'-6"	13'-6"	12'-6"	11'-6"
2 x 8 x 0.072 x 0.224	17'-0"	15'-9"	14'-6"	13'-6"	12'-6"
2 x 9 x 0.082 x 0.306	18'-0"	16'-9"	15'-6"	14'-6"	13'-6"
2 x 10 x 0.092 x 0.389	19'-0"	17'-9"	16'-6"	15'-6"	14'-6"
Snap					
2 x 2 x 0.044	7'-0"	6'-6"	6'-0"	5'-6"	5'-0"
2 x 3 x 0.05 x 0.05	8'-0"	7'-6"	6'-9"	6'-3"	5'-6"
2 x 4 x 0.05 x 0.05	9'-0"	8'-0"	7'-3"	6'-6"	5'-9"

Allowable Spans For Screen Enclosure Posts with Wind Speeds up to 130 mph, 3 sec. Gust and Exposure "B"

	Post Spacing				
Self-Mating	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2 x 4 x 0.046 x 0.100	11'-3"	10'-0"	9'-0"	8'-6"	8'-0"
2 x 5 x 0.050 x 0.116	13'-6"	12'-0"	11'-0"	10'-0"	9'-0"
2 x 6 x 0.050 x 0.120	14'-0"	12'-6"	11'-6"	10'-6"	9'-6"
2 x 7 x 0.055 x 0.120	15'-0"	13'-6"	12'-6"	11'-6"	10'-6"
2 x 8 x 0.072 x 0.224	16'-0"	14'-6"	13'-6"	12'-6"	11'-6"
2 x 9 x 0.082 x 0.306	17'-0"	15'-6"	14'-6"	13'-6"	12'-6"
2 x 10 x 0.092 x 0.389	18'-0"	16'-6"	15'-6"	14'-6"	13'-6"
Snap					
2 x 2 x 0.044	6'-9"	6'-0"	5'-3"	5'-0"	4'-6"
2 x 3 x 0.05 x 0.05	7'-6"	6'-9"	6'-0"	5'-6"	5'-0"
2 x 4 x 0.05 x 0.05	8'-0"	7'-3"	6'-6"	6'-0"	5'-6"

Sections as Horizontals Fastened to Posts - 120 mph, 3 Sec. gust, Exposure B

	Tributary Load Width						
Hollow	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"
2 x 2 x 0.044	7'-3"	7'-0"	6'-9"	6'-6"	6'-6"	6'-3"	6'-0"
2 x 2 x 0.055	7'-9"	7'-6"	7'-3"	7'-0"	6'-9"	6'-6"	6'-6"
3 x 2 x 0.045	8'-3"	8'-0"	7'-9"	7'-6"	7'-3"	7'-0"	6'-9"
2 x 3 x 0.045	10'-3"	9'-9"	9'-6"	9'-3"	9'-0"	8'-9"	8'-6"
2 x 4 x 0.050	13'-3"	12'-9"	12'-3"	12'-0"	11'-9"	11'-6"	11'-0"
Snap							
2 x 2 x 0.044	8'-3"	8'-0"	7'-6"	7'-6"	7'-3"	7'-0"	6'-9"

Sections as Horizontals Fastened to Posts - 120 mph, 3 Sec. gust, Exposure C

	Tributary Load Width						
Hollow	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"
2 x 2 x 0.044	6'-9"	6'-6"	6'-3"	6'-0"	5'-9"	5'-9"	6'-0"
2 x 2 x 0.055	7'-0"	6'-9"	6'-6"	6'-6"	6'-6"		6'-6"
3 x 2 x 0.045	7'-6"	7'-3"	7'-0"	6'-9"	6'-9"		6'-9"
2 x 3 x 0.045	9'-6"	9'-0"	8'-9"	8'-6"	8'-3"		8'-6"
2 x 4 x 0.050	12'-3"	11'-9"	11'-6"	11'-0"	10'-9"		11'-0"
Snap							
2 x 2 x 0.044	7'-6"	7'-3"	7'-0"	6'-9"	6'-6"		6'-9"

Allowable Spans For SCREEN Enclosure Carrier Beams - 120 mph and 130 mph, 3 sec. gust, Exposure B

	Tributary Load Width										
Single Self-Mating Beams	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"	34'-0"	38'-0"	42'-0"	46'-0"	50'-0"
2 x 4 x 0.046 x 0.100	10'-0"	9'-9"	9'-0"	8'-6"	8'-0"	7'-9"	7'-3"	7'-0"	6'-9"	6'-9"	6'-6"
2 x 5 x 0.050 x 0.116	13'-6"	12'-3"	11'-3"	10'-6"	10'-0"	9'-6"	9'-0"	8'-9"	8'-6"	8'-3"	8'-0"
2 x 6 x 0.050 x 0.120	15'-9"	14'-3"	13'-3"	12'-3"	11'-9"	11'-3"	10'-9"	10'-3"	10'-0"	9'-9"	9'-6"
2 x 7 x 0.055 x 0.120	18'-0"	16'-3"	15'-0"	14'-0"	13'-3"	12'-9"	12'-3"	11'-9"	11'-3"	11'-0"	10'-9"
2 x 8 x 0.072 x 0.224	22'-6"	20'-3"	18'-6"	17'-6"	16'-6"	15'-9"	15'-0"	14'-6"	14'-0"	13'-9"	13'-3"
2 x 9 x 0.072 x 0.224	24'-6"	22'-0"	20'-6"	19'-3"	18'-0"	17'-3"	16'-6"	16'-0"	15'-6"	15'-0"	14'-6"
2 x 9 x 0.082 x 0.306	26'-3"	23'-6"	21'-9"	20'-3"	19'-3"	18'-6"	17'-9"	17'-0"	16'-6"	16'-0"	15'-6"
2 x 10 x 0.092 x 0.374	30'-6"	27'-6"	25'-6"	23'-9"	22'-6"	21'-6"	20'-9"	20'-0"	19'-3"	18'-9"	18'-3"
Double Self-Mating Beams											
2 x 8 x 0.072 x 0.224	28'-0"	25'-3"	23'-3"	21'-9"	20'-9"	19'-9"	19'-0"	18'-3"	17'-9"	17'-3"	16'-9"
2 x 9 x 0.072 x 0.224	30'-6"	27'-6"	25'-6"	24'-0"	22'-9"	21'-9"	20'-9"	20'-0"	19'-6"	19'-0"	18'-6"
2 x 9 x 0.082 x 0.306	32'-3"	29'-3"	27'-0"	25'-6"	24'-3"	23'-0"	22'-3"	21'-6"	20'-9"	20'-0"	19'-6"
2 x 10 x 0.092 x 0.374	37'-6"	34'-0"	31'-6"	29'-9"	28'-3"	27'-0"	25'-9"	25'-0"	24'-3"	23'-6"	22'-9"

Allowable Spans For SCREEN Enclosure Carrier Beams - 120 mph, 3 sec. gust, Exposure C

	Tributary Load Width										
Single Self-Mating Beams	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"	34'-0"	38'-0"	42'-0"	46'-0"	50'-0"
2 x 4 x 0.046 x 0.100	10'-0"	9'-0"	8'-3"	7'-9"	7'-3"	7'-0"	6'-9"	6'-6"	6'-3"	6'-0"	5'-9"
2 x 5 x 0.050 x 0.116	12'-3"	11'-0"	10'-3"	9'-6"	9'-0"	8'-9"	8'-3"	8'-0"	7'-9"	7'-6"	7'-3"
2 x 6 x 0.050 x 0.120	14'-6"	13'-0"	12'-0"	11'-3"	10'-6"	10'-0"	9'-9"	9'-3"	9'-0"	8'-9"	8'-6"
2 x 7 x 0.055 x 0.120	16'-6"	14'-9"	13'-9"	12'-9"	12'-0"	11'-6"	11'-0"	10'-9"	10'-3"	10'-0"	9'-9"
2 x 8 x 0.072 x 0.224	20'-6"	18'-6"	17'-0"	15'-9"	15'-0"	14'-3"	13'-9"	13'-3"	12'-9"	12'-6"	12'-0"
2 x 9 x 0.072 x 0.224	22'-6"	20'-3"	18'-6"	17'-6"	16'-6"	15'-9"	15'-0"	14'-6"	14'-0"	13'-9"	13'-3"
2 x 9 x 0.082 x 0.306	24'-0"	21'-6"	19'-9"	18'-6"	17'-6"	16'-9"	16'-0"	15'-6"	15'-0"	14'-6"	14'-3"
2 x 10 x 0.092 x 0.374	28'-0"	25'-0"	23'-3"	21'-9"	20'-6"	19'-6"	18'-9"	18'-3"	17'-6"	17'-0"	16'-6"
Double Self-Mating Beams											
2 x 8 x 0.072 x 0.224	25'-6"	23'-0"	21'-3"	20'-0"	19'-0"	18'-0"	17'-3"	16'-9"	16'-3"	15'-9"	15'-3"
2 x 9 x 0.072 x 0.224	28'-0"	25'-3"	23'-3"	21'-9"	20'-9"	19'-9"	19'-0"	18'-3"	17'-9"	17'-3"	16'-9"
2 x 9 x 0.082 x 0.306	29'-9"	26'-9"	24'-9"	23'-3"	22'-0"	21'-0"	20'-3"	19'-6"	18'-9"	18'-3"	17'-9"
2 x 10 x 0.092 x 0.374	34'-6"	31'-3"	28'-9"	27'-0"	25'-9"	24'-6"	23'-6"	22'-9"	22'-0"	21'-6"	20'-9"

Allowable Spans For SCREEN Enclosure Carrier Beams - 130 mph, 3 sec. gust, Exposure C

	Tributary Load Width										
Single Self-Mating Beams	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"	34'-0"	38'-0"	42'-0"	46'-0"	50'-0"
2 x 4 x 0.046 x 0.100	9'-6"	8'-6"	8'-0"	7'-6"	7'-0"	6'-9"	6'-6"	6'-3"	6'-0"	5'-9"	5'-6"
2 x 5 x 0.050 x 0.116	12'-0"	10'-9"	9'-9"	9'-3"	8'-9"	8'-3"	8'-0"	7'-9"	7'-6"	7'-3"	7'-0"
2 x 6 x 0.050 x 0.120	14'-0"	12'-6"	11'-6"	10'-9"	10'-3"	9'-9"	9'-3"	9'-0"	8'-9"	8'-6"	8'-3"
2 x 7 x 0.055 x 0.120	16'-0"	14'-3"	13'-3"	12'-3"	11'-9"	11'-0"	10'-9"	10'-3"	10'-0"	9'-9"	9'-6"
2 x 8 x 0.072 x 0.224	19'-9"	17'-9"	16'-3"	15'-3"	14'-6"	13'-9"	13'-3"	12'-9"	12'-3"	12'-0"	11'-9"
2 x 9 x 0.072 x 0.224	21'-9"	19'-6"	18'-0"	16'-9"	15'-9"	15'-3"	14'-6"	14'-0"	13'-6"	13'-3"	12'-9"
2 x 9 x 0.082 x 0.306	23'-0"	20'-9"	19'-0"	17'-9"	17'-0"	16'-0"	15'-6"	15'-0"	14'-6"	14'-0"	13'-6"
2 x 10 x 0.092 x 0.374	27'-0"	24'-3"	22'-3"	21'-0"	19'-9"	19'-0"	18'-0"	17'-6"	17'-0"	16'-6"	16'-0"
Double Self-Mating Beams											
2 x 8 x 0.072 x 0.224	24'-9"	22'-3"	20'-6"	19'-3"	18'-3"	17'-3"	16'-9"	16'-0"	15'-6"	15'-0"	14'-9"
2 x 9 x 0.072 x 0.224	27'-0"	24'-3"	22'-6"	21'-0"	20'-0"	19'-0"	18'-3"	17'-6"	17'-0"	16'-6"	16'-0"
2 x 9 x 0.082 x 0.306	28'-9"	25'-9"	23'-9"	22'-3"	21'-3"	20'-3"	19'-6"	18'-9"	18'-3"	17'-6"	17'-0"
2 x 10 x 0.092 x 0.374	33'-3"	30'-0"	27'-9"	26'-0"	24'-9"	23'-9"	22'-9"	22'-0"	21'-3"	20'-6"	20'-0"

Allowable Spans For SOLID ROOF Enclosure Carrier Beams - 120 mph and 130 mph, 3 sec. gust, Exposure B

	Tributary Load Width										
Single Self-Mating Beams	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"	34'-0"	38'-0"	42'-0"	46'-0"	50'-0"
2 x 4 x 0.046 x 0.100	6'-3"	5'-6"	5'-0"	4'-9"	4'-6"	4'-3"	4'-0"	4'-0"	3'-9"	3'-9"	3'-6"
2 x 5 x 0.050 x 0.116	7'-9"	7'-0"	6'-3"	6'-0"	5'-6"	5'-3"	5'-0"	5'-0"	4'-9"	4'-6"	4'-6"
2 x 6 x 0.050 x 0.120	9'-0"	8'-0"	7'-6"	7'-0"	6'-6"	6'-3"	6'-0"	5'-9"	5'-6"	5'-6"	5'-3"
2 x 7 x 0.055 x 0.120	10'-3"	9'-3"	8'-6"	8'-0"	7'-6"	7'-3"	6'-9"	6'-6"	6'-6"	6'-3"	6'-0"
2 x 8 x 0.072 x 0.224	12'-9"	11'-6"	10'-6"	10'-0"	9'-3"	9'-0"	8'-6"	8'-3"	8'-0"	7'-9"	7'-6"
2 x 9 x 0.072 x 0.224	14'-0"	12'-9"	11'-6"	10'-9"	10'-3"	9'-9"	9'-6"	9'-0"	8'-9"	8'-6"	8'-3"
2 x 9 x 0.082 x 0.306	15'-0"	13'-6"	12'-3"	11'-6"	11'-0"	10'-6"	10'-0"	9'-6"	9'-3"	9'-0"	8'-9"
2 x 10 x 0.092 x 0.374	17'-6"	15'-9"	14'-6"	13'-6"	12'-9"	12'-3"	11'-9"	11'-3"	11'-0"	10'-6"	10'-3"
Double Self-Mating Beams											
2 x 8 x 0.072 x 0.224	16'-3"	14'-6"	13'-3"	12'-6"	11'-9"	11'-3"	10'-9"	10'-6"	10'-0"	9'-6"	9'-6"
2 x 9 x 0.072 x 0.224	17'-9"	16'-0"	14'-9"	13'-9"	13'-0"	12'-3"	11'-9"	11'-6"	11'-0"	10'-9"	10'-6"
2 x 9 x 0.082 x 0.306	19'-0"	17'-0"	15'-6"	14'-6"	13'-9"	13'-3"	12'-6"	12'-3"	11'-9"	11'-6"	11'-0"
2 x 10 x 0.092 x 0.374	22'-0"	19'-9"	18'-3"	17'-0"	16'-3"	15'-6"	14'-9"	14'-3"	13'-9"	13'-3"	13'-0"

Thomas E. Beitelman, PE
Florida PE #51870, SI #2060
2626 E. Park Ave., Unit 4303, Tallahassee, FL 32301
(321) 543-0750 - beitelman@gmail.com

STRUCTURAL ONLY
THOMAS E. BEITELMAN
LICENSE #51870

5/5/2021

PROJECT: Aluminum Screen Enclosures - General Drawings
TITLE: Details
SCALE: Varies
CLIENT:
Revision By: | Date: | Description:
File Name:
Designed: TEB
Drawn: TEB
Checked: TEB
Date: 5/5/21
Sheet 8 of 8
No.