

DATE 10/06/2010

Columbia County Building Permit  
This Permit Must Be Prominently Posted on Premises During Construction

PERMIT  
000028919

APPLICANT VINCE RICHARDSON PHONE 755-5779  
ADDRESS 692 SW ARLINGTON BLVD LAKE CITY FL 32025  
OWNER MARY ELLEN HODSON STRINGFELLOW PHONE 623-0763  
ADDRESS 233 SW AIRPARK GLEN LAKE CITY FL 32025  
CONTRACTOR VINCE RICHARDSON PHONE 755-5779  
LOCATION OF PROPERTY 90W, TL ON SISTERS WELCOME RD, TL ON AIRPARK GLEN,  
1ST HOUSE ON LEFT PAST RUNWAY & BEHIND OFFICE  
TYPE DEVELOPMENT POOL ENCLOSURE ESTIMATED COST OF CONSTRUCTION 8800.00  
HEATED FLOOR AREA TOTAL AREA HEIGHT 12.00 STORIES 1  
FOUNDATION WALLS SCREEN ROOF PITCH FLOOR  
LAND USE & ZONING RSF-2 MAX. HEIGHT 35  
Minimum Set Back Requirments: STREET-FRONT 25.00 REAR 15.00 SIDE 10.00  
NO. EX.D.U. 1 FLOOD ZONE NA DEVELOPMENT PERMIT NO.

PARCEL ID 12-4S-16-02947-026 SUBDIVISION CANNON CREEK AIRPARK  
LOT 25/26 BLOCK PHASE UNIT 0 TOTAL ACRES

110  
Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor  
EXISTING X10-356 BK TC N  
Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: NOC ON FILE

Check # or Cash 2220

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power date/app. by Foundation date/app. by Monolithic date/app. by  
Under slab rough-in plumbing date/app. by Slab date/app. by Sheathing/Nailing date/app. by  
Framing date/app. by Insulation date/app. by  
Rough-in plumbing above slab and below wood floor date/app. by Electrical rough-in date/app. by  
Heat & Air Duct date/app. by Peri. beam (Lintel) date/app. by Pool date/app. by  
Permanent power date/app. by C.O. Final date/app. by Culvert date/app. by  
Pump pole date/app. by Utility Pole date/app. by M/H tie downs, blocking, electricity and plumbing date/app. by  
Reconnection date/app. by RV date/app. by Re-roof date/app. by

BUILDING PERMIT FEE \$ 45.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00  
MISC. FEES \$ 0.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$  
FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ CULVERT FEE \$ TOTAL FEE 95.00  
INSPECTORS OFFICE L. Hedden CLERKS OFFICE CH

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

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

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED NOT SUSPENDED, ABANDONED OR INVALID WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS OT THE PREVIOUS INSPECTION.

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

# NOTICE OF COMMENCEMENT

PERMIT NUMBER: \_\_\_\_\_

STATE OF: FLORIDA

COUNTY OF: Columbia

CITY OF: Lake City

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

## DESCRIPTION OF PROPERTY

LOT: \_\_\_\_\_ BLOCK: \_\_\_\_\_ SECTION: \_\_\_\_\_ TOWNSHIP: \_\_\_\_\_ RANGE: \_\_\_\_\_

TAX PARCEL NUMBER: 12-4S-16-02947

SUBDIVISION: Cannon Creek Air Park PLATBOOK: \_\_\_\_\_ MAP PAGE: \_\_\_\_\_

STREET ADDRESS: 233 SW Airpark Gln Lake City, Fla. 32025

## GENERAL DESCRIPTION OF IMPROVEMENTS

TO CONSTRUCT: Pool Enclosure

## OWNER INFORMATION

OWNER NAME: Mary Ellen Hodson Stringfellow

ADDRESS: 233 SW Airpark Gln

PHONE NUMBER: 386-623-0763

CITY: Lake City STATE: FL ZIP CODE: 32025

INTEREST IN PROPERTY: \_\_\_\_\_

FEE SIMPLE TITLEHOLDER NAME: \_\_\_\_\_

FEE SIMPLE TITLEHOLDER ADDRESS: \_\_\_\_\_

(if other than owner)

Inst. 201012016153 Date 10/6/2010 Time 2:19 PM

Doc. P DeWitt Cason, Columbia County Page 1 of 1 B.1202 P.1660

CONTRACTOR NAME: Vince Richardson / Richardson Aluminum LLC

ADDRESS: 692 SW Arlington Blvd

PHONE NUMBER: 386-755-5779

CITY: Lake City STATE: Fla ZIP CODE: 32025

BONDING COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

LENDER NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a) 7., Florida Statutes:

NAME: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

In addition to himself, Owner designates \_\_\_\_\_

of \_\_\_\_\_ to receive a copy of Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes.

Expiration date is one (1) year from date of recording unless a different date is specified.

SIGNATURE OF OWNER: [Signature]

SWORN to and subscribed before me this 20 day of Sept, A.D. 2004.

Notary Public: [Signature]

My commission Expires: \_\_\_\_\_



SANDRA H. TILLOTSON  
MY COMMISSION # DD 629530  
EXPIRES: January 31, 2011  
Bonded Thru Budget Notary Services



## Columbia County Building Permit Application

ck# 2220

APPL FEE



For Office Use Only Application # 1009-43 Date Received 9/21 By JW Permit # 28919  
Zoning Official BLK Date 28.09.10 Flood Zone N/A Land Use Res. Low Dens Zoning RSF-2  
FEMA Map # N/A Elevation N/A MFE N/A River N/A Plans Examiner T.C. Date 9-23-10  
Comments  
☒ NOC ☒ DEH ☒ Deed or PA ☒ Site Plan ☐ State Road Info ☐ Parent Parcel #  
☐ Dev Permit # ☐ In Floodway ☐ Letter of Auth. from Contractor ☐ F W Comp. letter  
IMPACT FEES: EMS ☐ Fire ☐ Corr ☐ Road/Code ☐  
School ☐ = TOTAL Accessory Structure

Septic Permit No. V-10-356 IN 2 1/2 Box. Fax \_\_\_\_\_  
Name Authorized Person Signing Permit Vince Richardson Phone 386-755-5779  
Address 692 S.W. Arlington Blvd. Lake City, FL 32025  
Owners Name Mary Ellen Hodson Stringfellow Phone 386-623-0763  
911 Address 233 SW Airpark GLN. Lake City, FL 32025  
Contractors Name Vince Richardson / Richardson Aluminum L.L.C. Phone 386-755-5779  
Address 692 SW Arlington Blvd. Lake City, FL 32025  
Fee Simple Owner Name & Address \_\_\_\_\_  
Bonding Co. Name & Address \_\_\_\_\_  
Architect/Engineer Name & Address LAWRENCE BENNETT, PE 315 HARBET ST. A. OAKLAND, CA 94612  
Mortgage Lenders Name & Address CASH 32129

Circle the correct power company - FL Power & Light Clay Elec. - Suwannee Valley Elec. - Progress Energy

Property ID Number 12-45-16-02947-026 Estimated Cost of Construction 8,800.00/x  
Subdivision Name Cannon Creek Air Park Lot 25/4 Block \_\_\_\_\_ Unit \_\_\_\_\_ Phase \_\_\_\_\_  
Driving Directions Sisters Welcome Rd south from Hwy 90. Turn L @ Airpark GLN. 1st house on Left behind office.

Number of Existing Dwellings on Property 1  
Construction of Pool Enclosure Total Acreage 1.239 Lot Size 209'x280'  
Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height 12 Ft  
Actual Distance of Structure from Property Lines - Front 60' Side 45' Side 105' Rear 199'  
Number of Stories \_\_\_\_\_ Heated Floor Area \_\_\_\_\_ Total Floor Area \_\_\_\_\_ Roof Pitch \_\_\_\_\_

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

"JW spoke w/audi 9.28.10"

## Columbia County Building Permit Application

**TIME LIMITATIONS OF APPLICATION :** An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

**TIME LIMITATIONS OF PERMITS:** Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

**FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment:** According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

**NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE:** **YOU ARE HEREBY NOTIFIED** as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

**WARNING TO OWNER:** YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

**OWNERS CERTIFICATION:** I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

**NOTICE TO OWNER:** There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. It may be to your advantage to check and see if your property is encumbered by any restrictions.

(Owners Must Sign All Applications Before Permit Issuance.)

  
Owners Signature

**\*OWNER BUILDERS MUST PERSONALLY APPEAR AND SIGN THE BUILDING PERMIT.**

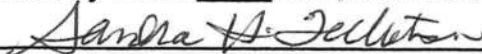
**CONTRACTORS AFFIDAVIT:** By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.

  
Contractor's Signature (Permitee)

Contractor's License Number \_\_\_\_\_  
Columbia County  
Competency Card Number 000110

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 20 day of Sept 2010.

Personally known ☒ or Produced Identification \_\_\_\_\_

  
State of Florida Notary Signature (For the Contractor)

SEAL:



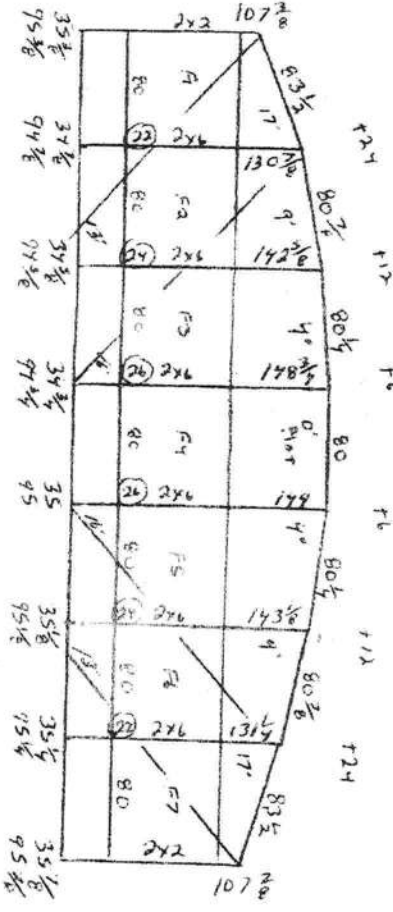
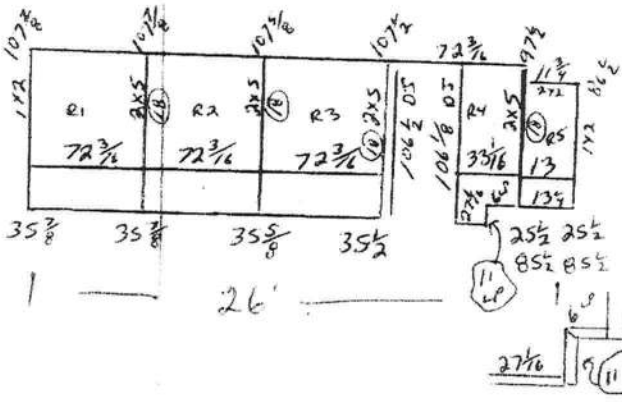
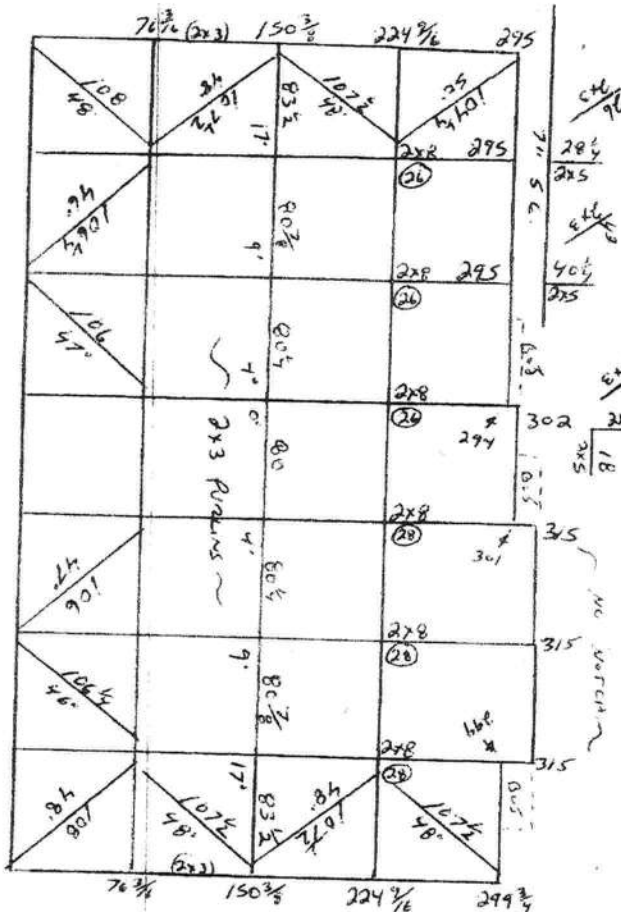
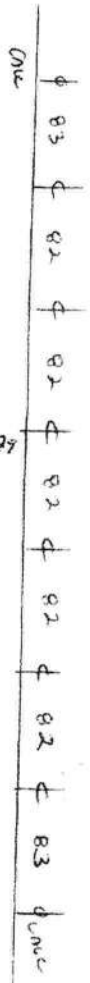
SANDRA H. TILLOTSON  
MY COMMISSION # DD 629530  
EXPIRES: January 31, 2011  
Bonded Thru Budget Notary Services



MAIL LIST

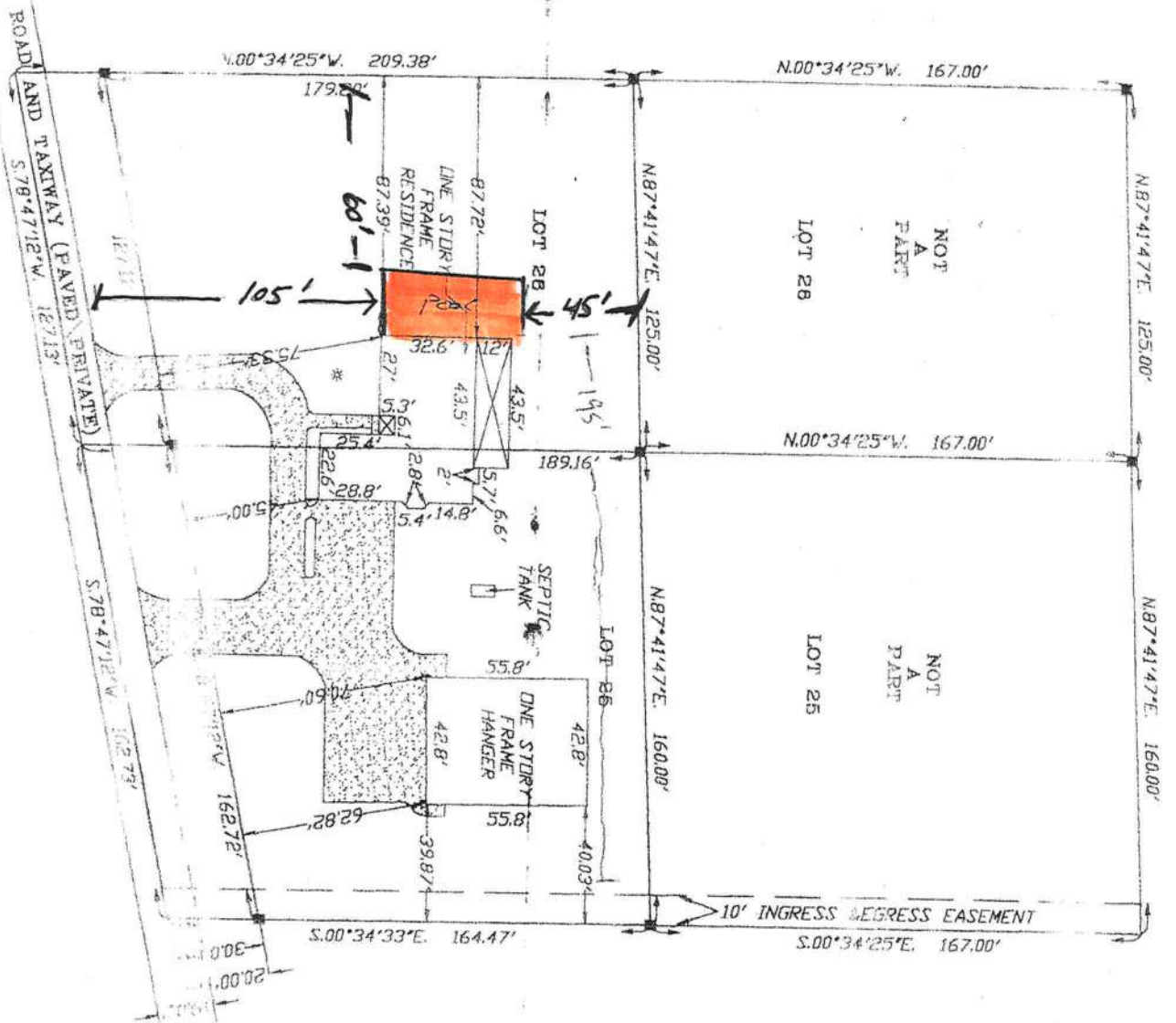
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6. knee  
6. knee  
6. knee



418

$\frac{1}{2}$



Existing Permit for  
Addition 35537



SCALE: 1" = 60'



DESCRIPTION:  
LOTS 25 AND 26 OF CANNON CREEK AIRPARK, A SUBD. THEREOF, RECORDED IN PLAT BOOK 5, PAGE 38 OF THE COUNTY, FLORIDA, LESS AND EXCEPT THE NORTH 167-1 EASEMENT OVER AND ACROSS THE SOUTH 30 FEET AND TOGETHER WITH THE RIGHTS OF INGRESS AND EGRESS OF LOT 25 AND THE WEST 50 FEET OF LOT 24, COULD BE DESCRIBED BY THE FOLLOWING:

1. THE ORIGINAL SURVEY FOR SAID PLAT OF RECORD BEARINGS ARE BASED ON SAID PLAT OF RECORD.
2. THIS PARCEL IS IN OTHER 5% AND IS DETERMINED PLAIN AS PER FLEED RATE MAP, DATED 6 JANUARY 1900 TO 0175 B. HOWEVER, THE FLEED INSURANCE DATE OF FIELD SURVEY AS SHOWN HEREON.
3. IF THEY EXIST, NO UNDERGROUND ENCROACHMENTS THIS SURVEY EXCEPT AS SHOWN HEREIN.
4. THIS SURVEY WAS COMPLETED WITHOUT THE 30% POLICY.

# Columbia County Property Appraiser

DB Last Updated: 8/5/2010

## 2009 Tax Roll Year

Parcel: 12-4S-16-02947-026

&lt;&lt; Next Lower Parcel    Next Higher Parcel &gt;&gt;

Tax Collector

Tax Estimator

Property Card

Parcel List Generator

Interactive GIS Map

Print

### Owner & Property Info

&lt;&lt; Prev    Search Result: 2 of 2

<b>Owner's Name</b>	STRINGFELLOW DONALD R &		
<b>Mailing Address</b>	MARY ELLEN HODSON STRINGFELLOW 233 SW AIRPARK GLN LAKE CITY, FL 32025		
<b>Site Address</b>	233 SW AIRPARK GLN		
<b>Use Desc. (code)</b>	SINGLE FAM (000100)		
<b>Tax District</b>	2 (County)	<b>Neighborhood</b>	12416
<b>Land Area</b>	1.239 ACRES	<b>Market Area</b>	06
<b>Description</b>	NOTE: This description is not to be used as the Legal Description for this parcel in any legal transaction.  LOTS 25 & 26 EX N 167 FT CANNON CREEK AIR PARK S/D. ORB 644-335, 685-195, 702-619, 896-063,		



### Property & Assessment Values

2009 Certified Values		
<b>Mkt Land Value</b>	cnt: (0)	\$51,435.00
<b>Ag Land Value</b>	cnt: (1)	\$0.00
<b>Building Value</b>	cnt: (1)	\$174,801.00
<b>XFOB Value</b>	cnt: (4)	\$31,931.00
<b>Total Appraised Value</b>		\$258,167.00
<b>Just Value</b>		\$258,167.00
<b>Class Value</b>		\$0.00
<b>Assessed Value</b>		\$212,906.00
<b>Exempt Value</b>	(code: HX)	\$50,000.00
<b>Total Taxable Value</b>	Cnty: \$162,906 Other: \$162,906   Schl: \$187,906	

### 2010 Working Values

#### NOTE:

2010 Working Values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

Show Working Values

### Sales History

Show Similar Sales within 1/2 mile

Sale Date	OR Book/Page	OR Code	Vacant / Improved	Qualified Sale	Sale RCode	Sale Price
1/27/2000	896/63	WD	I	Q		\$180,000.00
11/17/1989	702/619	WD	V	Q		\$19,000.00

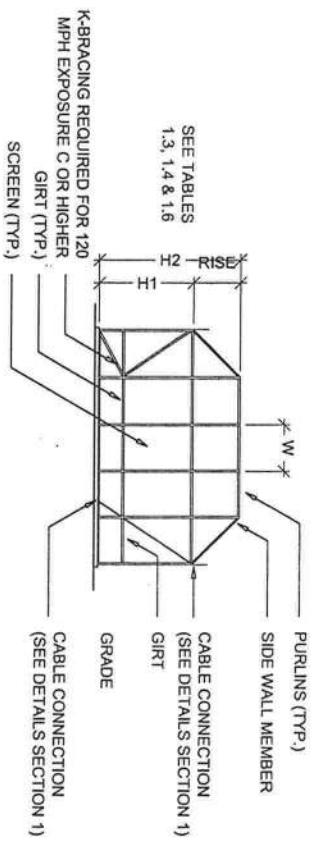
### Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
1	SINGLE FAM (000100)	1991	AVERAGE (05)	2616	5610	\$168,443.00
Note: All S.F. calculations are based on exterior building dimensions.						

### Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
0190	FPLC PF	0	\$1,200.00	0000001.000	0 x 0 x 0	(000.00)
0166	CONC,PAVMT	0	\$4,130.00	0005900.000	0 x 0 x 0	PD (050.00)
0280	POOL R/CON	2007	\$12,959.00	0000462.000	14 x 33 x 0	(000.00)
0282	POOL ENCL	2007	\$9,547.00	0001248.000	26 x 48 x 0	(000.00)

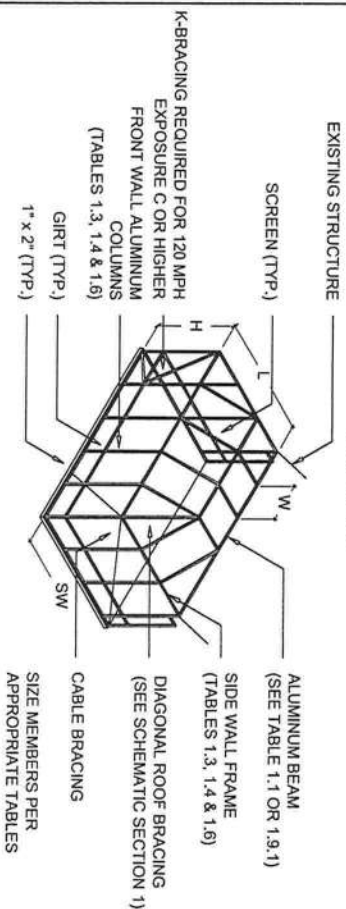




NOTE: USE H2 FOR CABLE AREA CALCULATION

### TYPICAL MANSARD ROOF - FRONT WALL ELEVATION

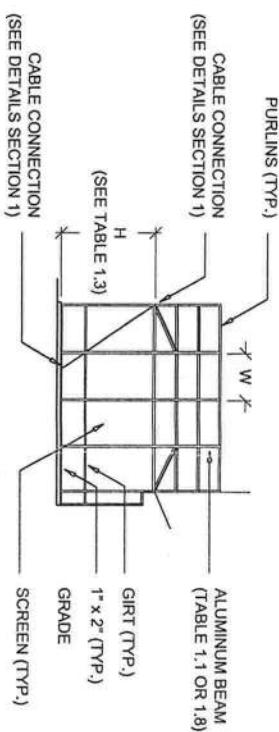
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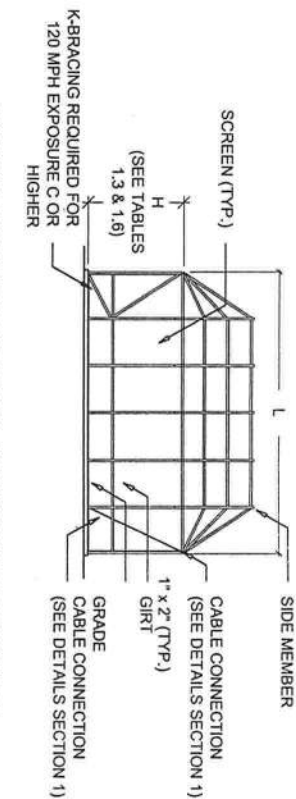
CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.

### TYPICAL MANSARD ROOF - ISOMETRIC

SCALE: N.T.S.

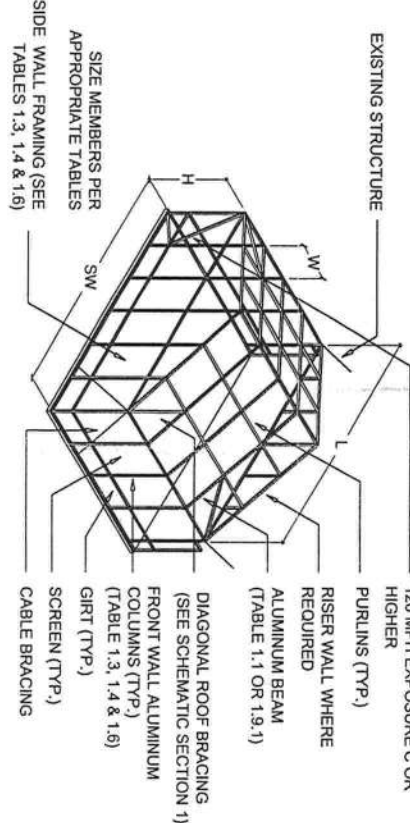


SCALE: N.T.S.



SCALE: N.T.S.

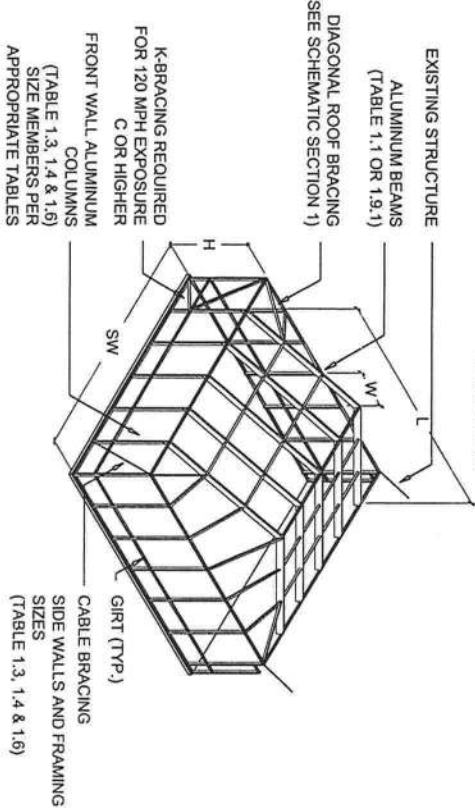
### TYPICAL MODIFIED HIP ROOF - FRONT WALL ELEVATION



CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.

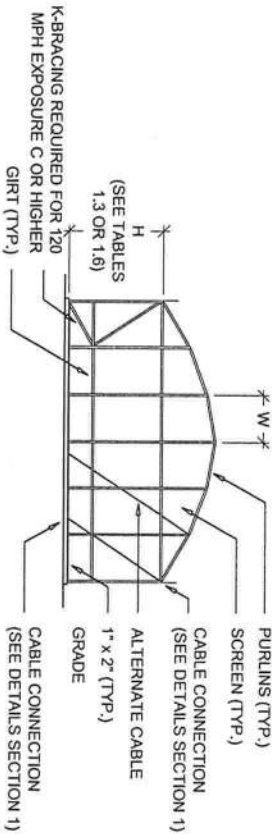
### TYPICAL GABLE ROOF - ISOMETRIC

SCALE: N.T.S.



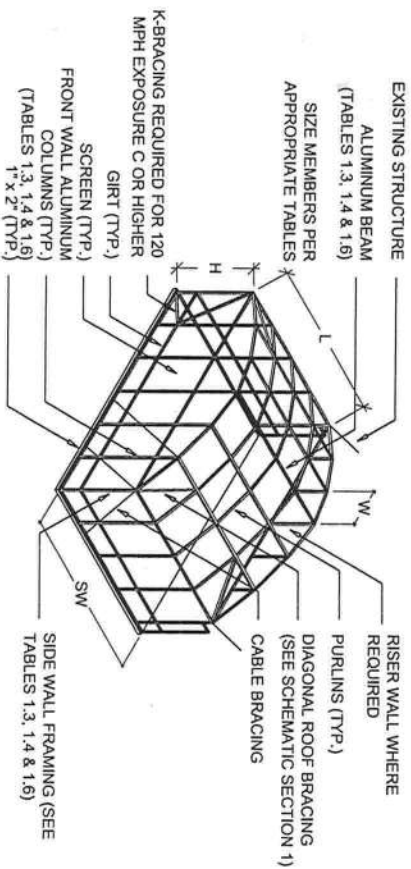
### TYPICAL MODIFIED HIP ROOF - ISOMETRIC

SCALE: N.T.S.



SCALE: N.T.S.

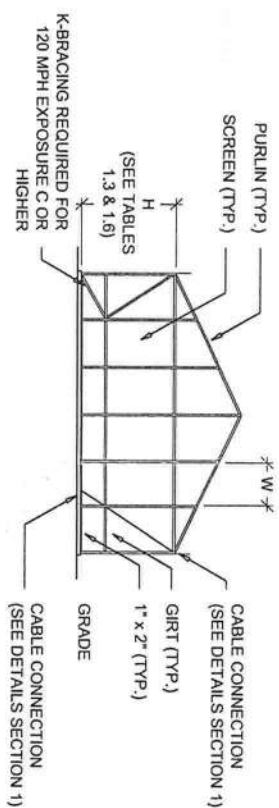
### TYPICAL DOME ROOF - FRONT WALL ELEVATION



CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.

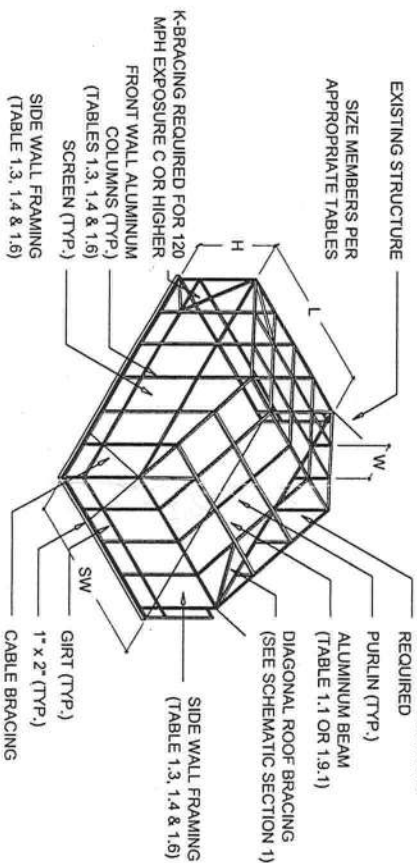
### TYPICAL DOME ROOF - ISOMETRIC

SCALE: N.T.S.



SCALE: N.T.S.

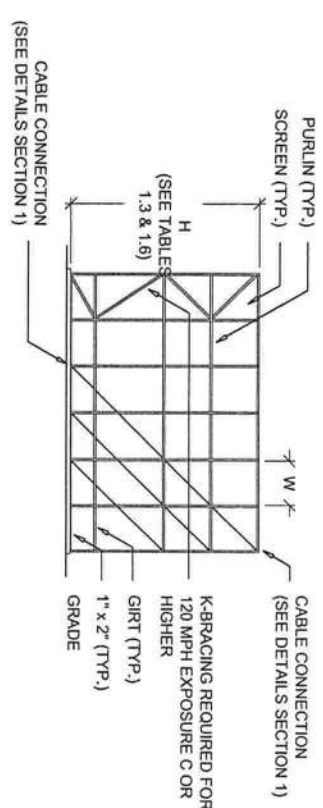
### TYPICAL TRANSVERSE GABLE ROOF - FRONT WALL ELEVATION



CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.

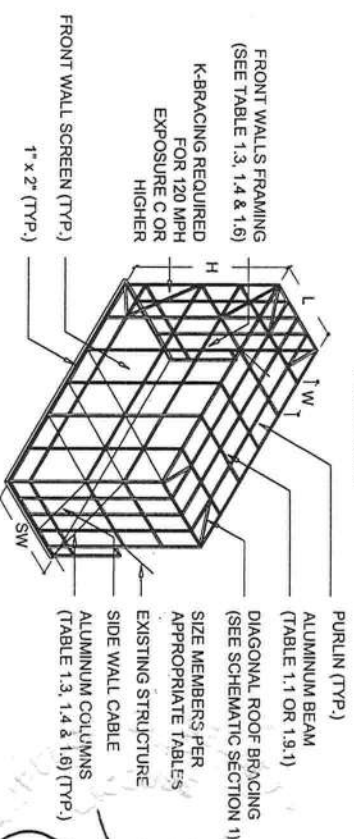
### TYPICAL TRANSVERSE STACKED GABLE ROOF - ISOMETRIC

SCALE: N.T.S.



SCALE: N.T.S.

### TYPICAL TWO STORY POOL ENCLOSURE - FRONT WALL ELEVATION



CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.

### TYPICAL TWO STORY POOL ENCLOSURE - ISOMETRIC

SCALE: N.T.S.

12-01-2009

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OF

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

ALUMINUM STRUCTURES DESIGN MANUAL  
SCREEN ENCLOSURES  
SECTION 1 DETAILS  
2007 FLORIDA BUILDING CODE  
WITH 2009 SUPPLEMENTS - 2009 EDITION

**John & Country**  
INDUSTRIES, INC.  
Wholesale Aluminum Distributors

400 W. McNAB ROAD, FORT LAUDERDALE, FLORIDA 33309 PHONE: (954) 970-9999  
1-800-432-5019 FAX: (954) 972-1338

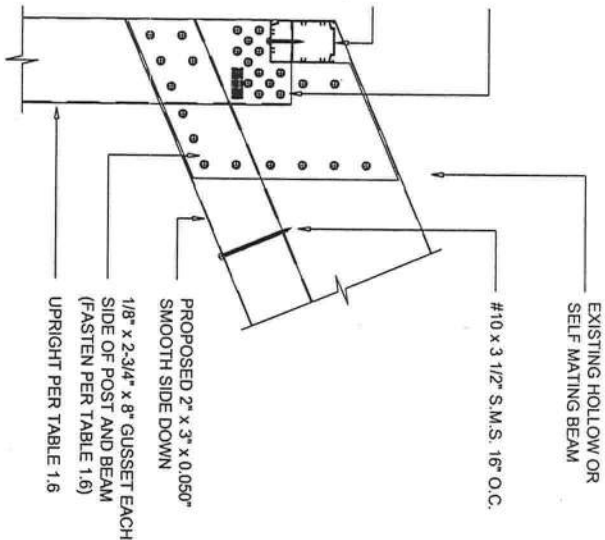


ADDITIONAL FASTENING,  
NUMBER OF FASTENERS PER  
TABLE 1.6 & 9.5 EXCEPT ALL  
SHADED LOCATIONS SHALL  
BE FILLED MINIMUM OF ALL  
OUTER LOCATIONS

(10) #8 x 1/2" S.M.S. EACH SIDE  
OF BEAM / POST

1" x 2" OPEN BACK ATTACH TO  
2" x 2" W/ #10 x 1-1/2" S.M.S. @  
24" O.C. OR CONTINUOUS  
2" x 3" (4) SPLINE GROOVE  
SECTION

CONNECT 2" x 2" OR 2" x 3" TO  
BEAM W/ MIN. OF (3)  
#10 x 1-1/2" S.M.S. INTO  
SCREW BOSSES



**ADDITION OF 2" x 3" TO EXISTING S.M.B.**  
SCALE: 2" = 1'-0"

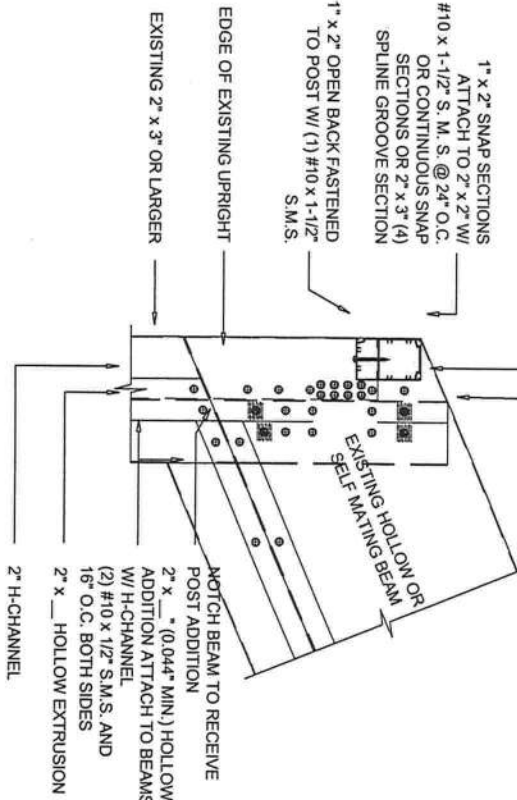
ADDITIONAL FASTENING,  
NUMBER OF FASTENERS PER  
TABLE 1.6 & 9.5 EXCEPT ALL  
SHADED LOCATIONS SHALL BE  
FILLED MINIMUM OF ALL  
OUTER LOCATIONS

NEW POST ADDITION INSIDE  
BEAM

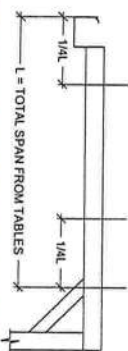
#8 x 3/4" WASHER HEADED  
CORROSIVE RESISTANT  
SCREWS AS SHOWN  
(SEE TABLE 1.6)

1" x 2" SNAP SECTIONS  
ATTACH TO 2" x 2" W/  
#10 x 1-1/2" S. M. S. @ 24" O.C.  
OR CONTINUOUS SNAP  
SECTIONS OR 2" x 3" (4)  
SPLINE GROOVE SECTION

1" x 2" OPEN BACK FASTENED  
TO POST W/ (1) #10 x 1-1/2"  
S.M.S.

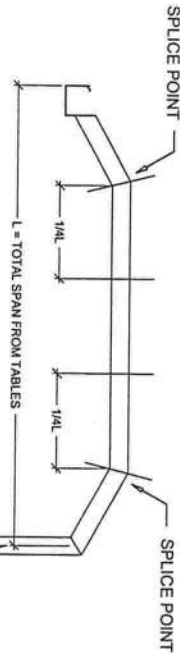


**ALTERNATE POST / BEAM ADDITION OF 2" x 3" TO EXISTING 2" x 3" S.M.B.**  
SCALE: 2" = 1'-0"

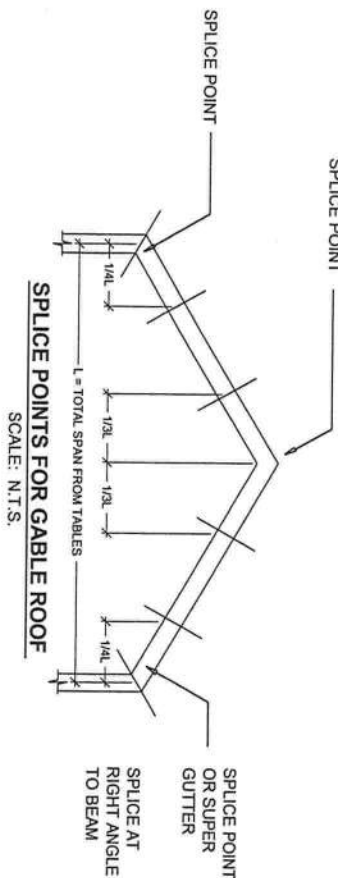


**SPlice POINTS FOR FLAT OR DOME ROOF**  
SCALE: N.T.S.

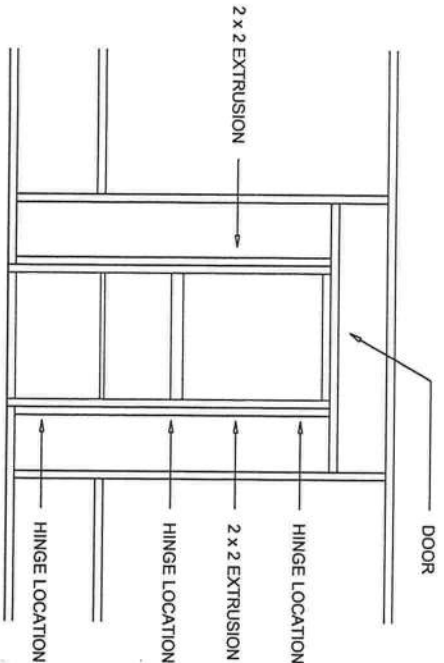
**No Splices**



**SPlice POINTS FOR FLAT OR DOME ROOF**  
SCALE: N.T.S.



**SPlice POINTS FOR GABLE ROOF**  
SCALE: N.T.S.



NOTES:

1. Door to be attached to structure with minimum two (2) hinges.
2. Each hinge to be attached to structure with minimum four (4) #12 x 3/4" S.M.S.
3. Each hinge to be attached to door with minimum three (3) #12 x 3/4" S.M.S.
4. Bottom hinge to be mounted between 10 inches and 20 inches from ground.
5. Top hinge to be mounted between 10 inches and 20 inches from top of door.
6. If door location is adjacent to upright a 1" x 2" x 0.044" may be fastened to upright with #12 x 1" S.M.S. at 12" on center and within 3" from end of upright.

**TYPICAL SCREEN DOOR CONNECTION DETAIL**  
SCALE: N.T.S.

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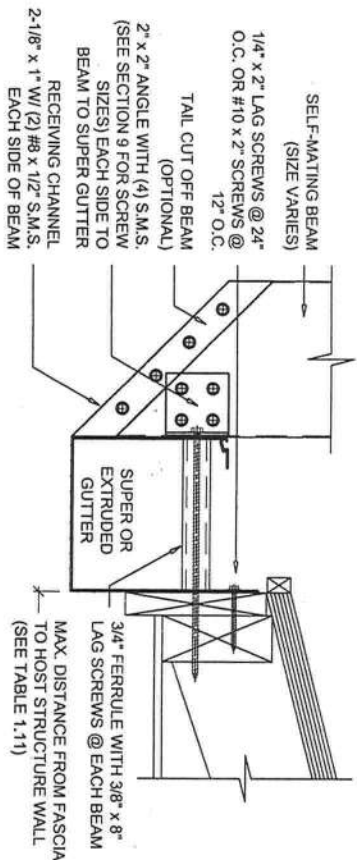
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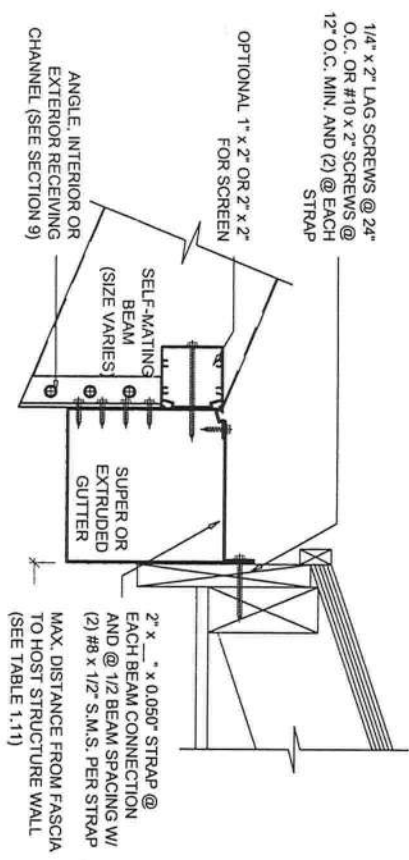
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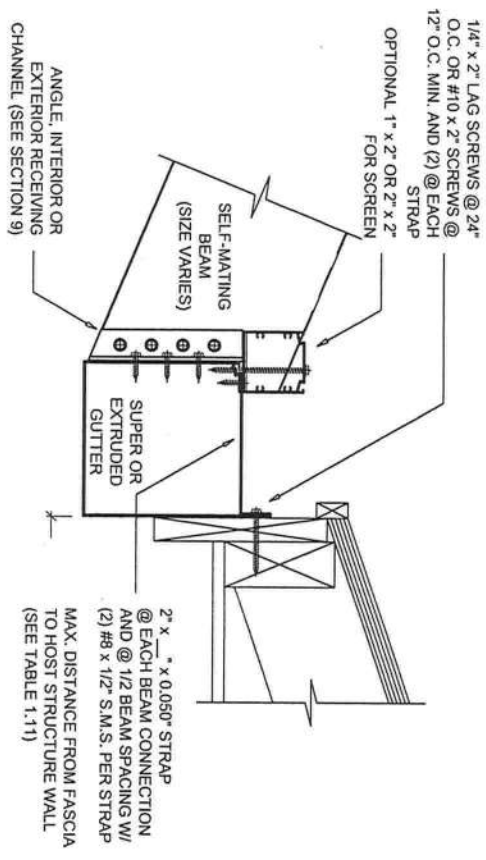




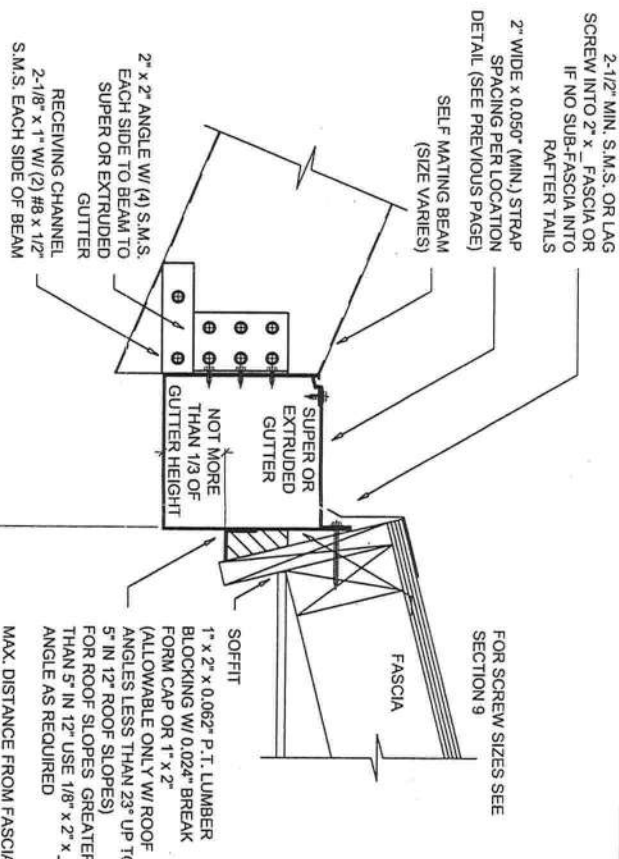
**SELF MATING BEAM AND SUPER OR EXTRUDED GUTTER CONNECTION**  
SCALE: 2" = 1'-0"



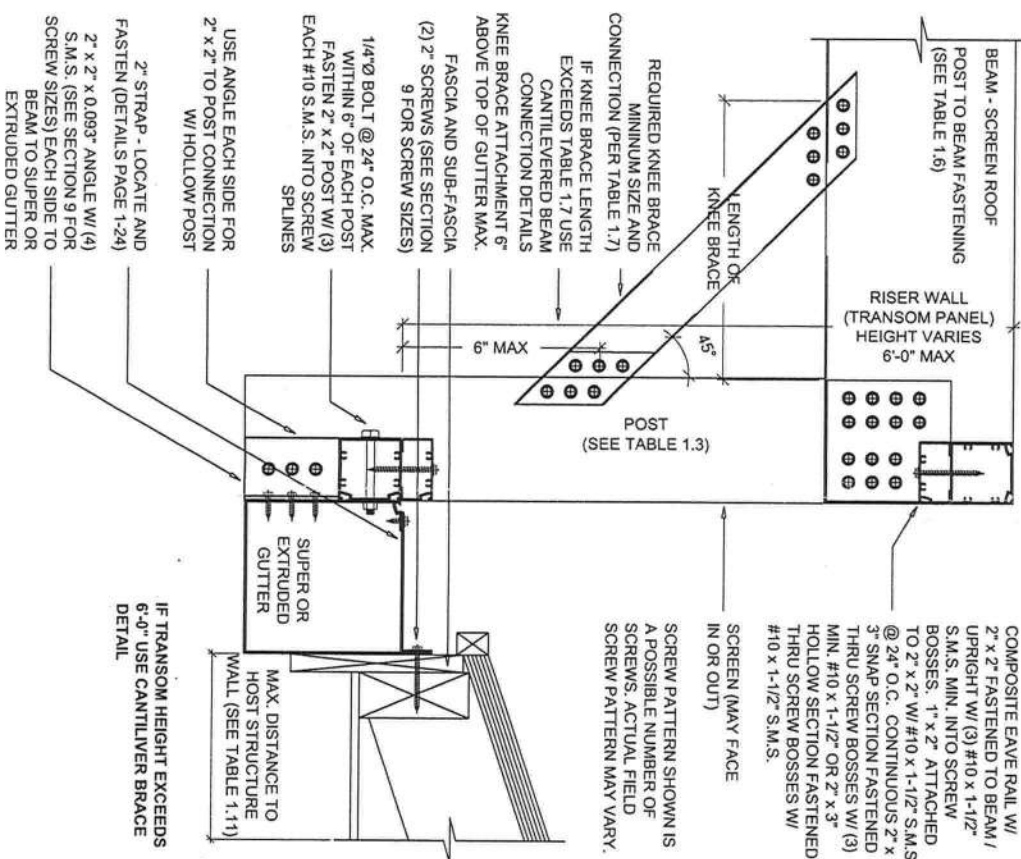
**SELF MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER**  
SCALE: 2" = 1'-0"



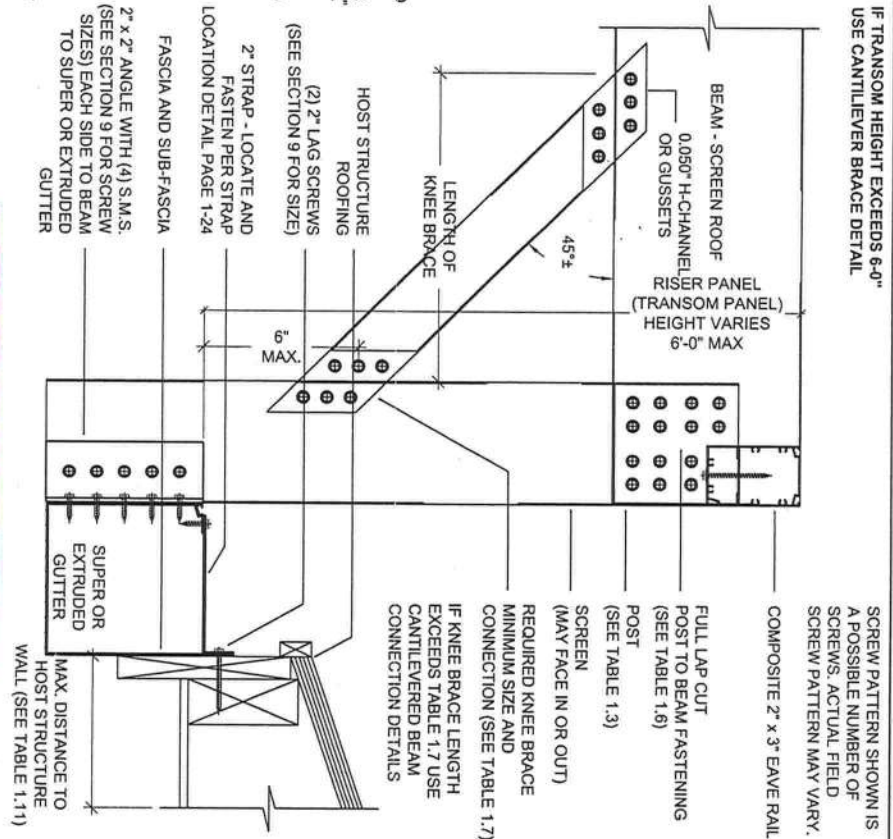
**ALTERNATE SELF MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER**  
SCALE: 2" = 1'-0"



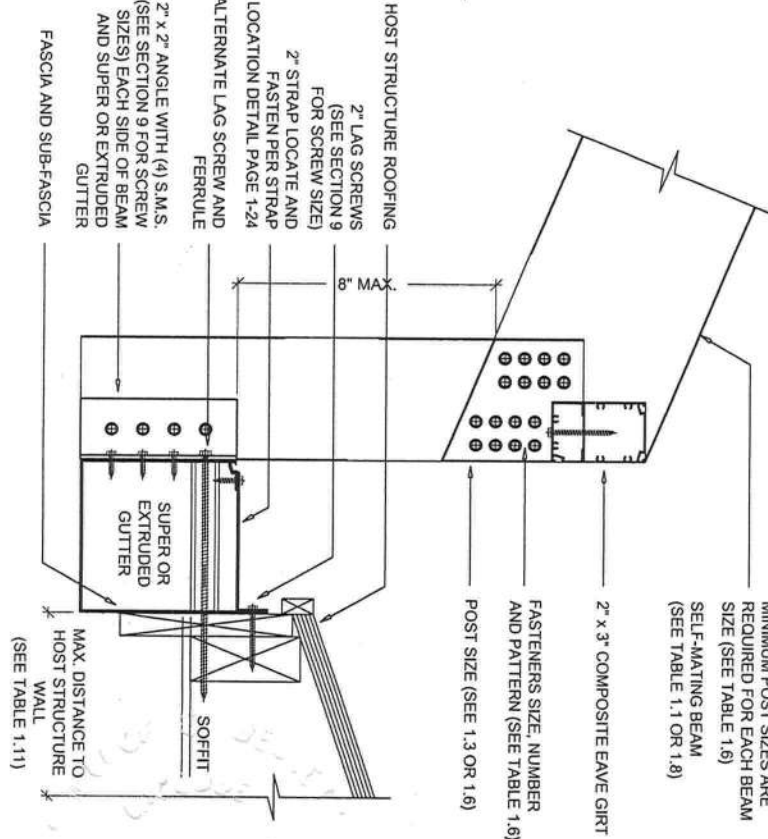
**TYPICAL SELF MATING BEAM AND SUPER OR EXTRUDED GUTTER CONNECTION**  
SCALE: 2" = 1'-0"



**SUPER OR EXTRUDED GUTTER RISER (OR TRANSOM) WALL AT FASCIA - DETAIL 1**  
SCALE: 3" = 1'-0"



**SUPER OR EXTRUDED GUTTER RISER (OR TRANSOM) WALL AT FASCIA - DETAIL 2**  
SCALE: 3" = 1'-0"



**SUPER OR EXTRUDED GUTTER RISER (OR TRANSOM) WALL AT FASCIA - DETAIL 3**  
SCALE: 3" = 1'-0"

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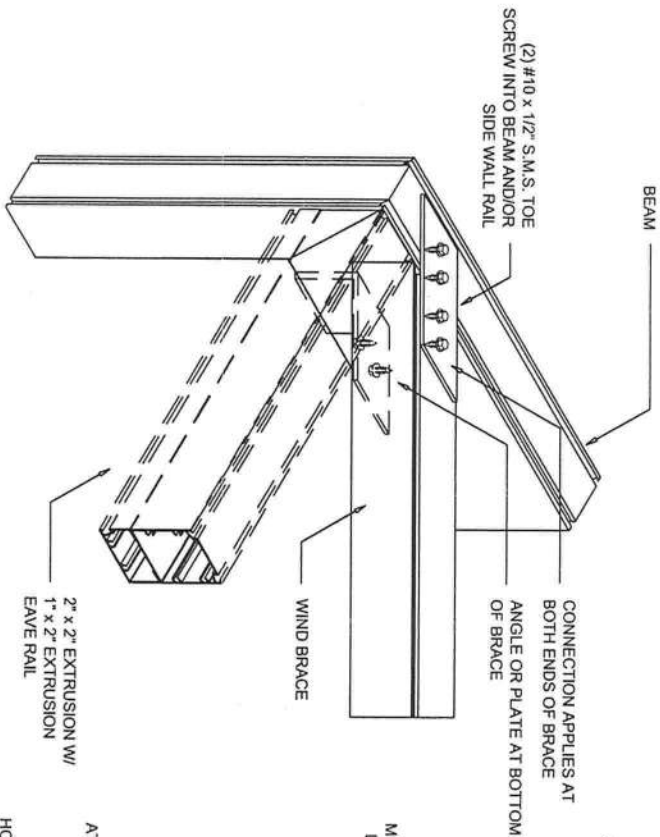
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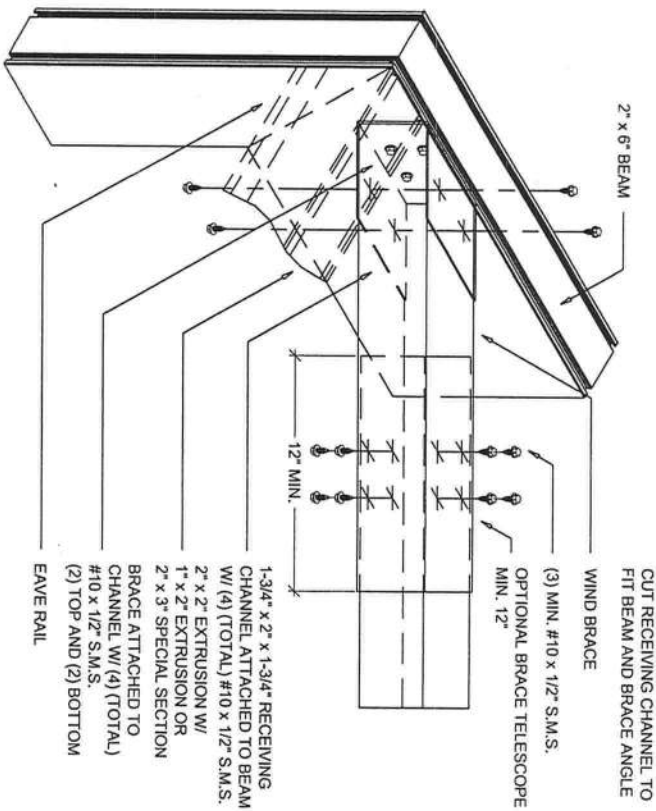




WIND BRACE CONNECTION DETAIL

SCALE: 2" = 1'-0"

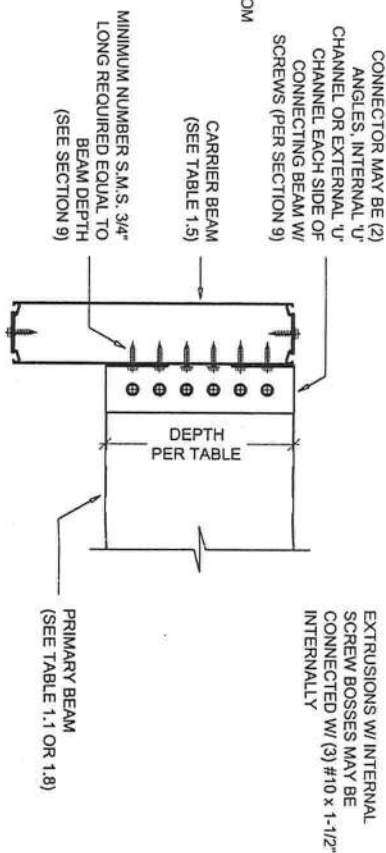
- NOTES:
1. Wind bracing shall be provided at each side wall panel when enclosure projects more than (4) panels from host structure.



TELESCOPING WIND BRACE CONNECTION DETAIL

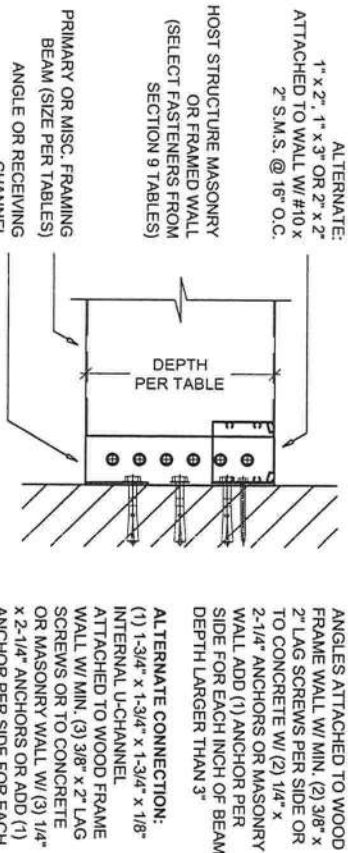
SCALE: 2" = 1'-0"

- NOTES:
1. Wind bracing shall be provided at each side wall panel when enclosure projects more than three panels from host structure. Structures of four or more panels shall be spaced for even number of panels for opposing wind bracing.
  2. Cut brace parts with min. 12" lap of larger and smaller brace.
  3. Cut receiving channel with angle.



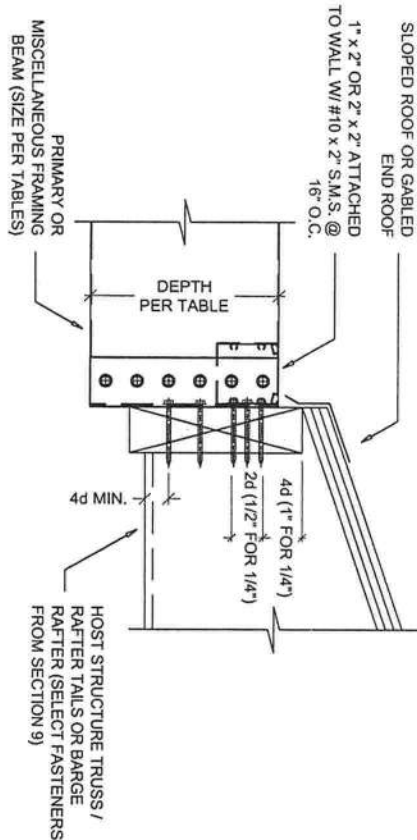
CARRIER BEAM TO BEAM CONNECTION DETAIL

SCALE: 2" = 1'-0"



BEAM TO WALL CONNECTION DETAIL

SCALE: 2" = 1'-0"



BEAM TO FASCIA CONNECTION DETAIL

SCALE: 2" = 1'-0"

CALCULATE THE NUMBER OF SCREWS REQUIRED BY SOLVING THE FOLLOWING EQUATION:

$$\left[ \frac{\text{ROOF WIND LOAD} \times \text{BEAM SPACING} \times \left( \frac{\text{BEAM SPAN}}{2} \right) }{\text{ANCHOR ALLOWABLE LOAD}} \right] = \# \text{ OF ANCHORS}$$

\* FIND ROOF WIND LOAD IN DESIGN SPECIFICATIONS ON PAGE 3

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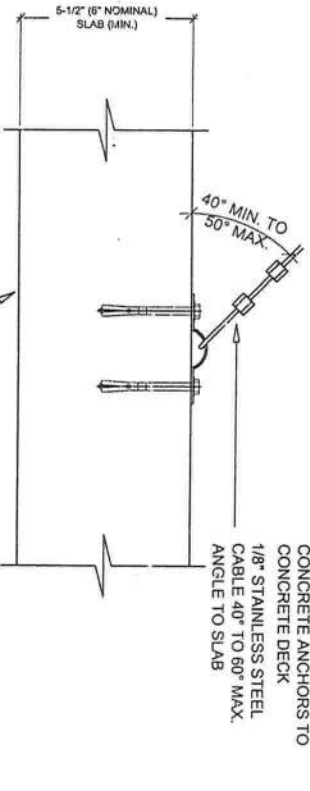
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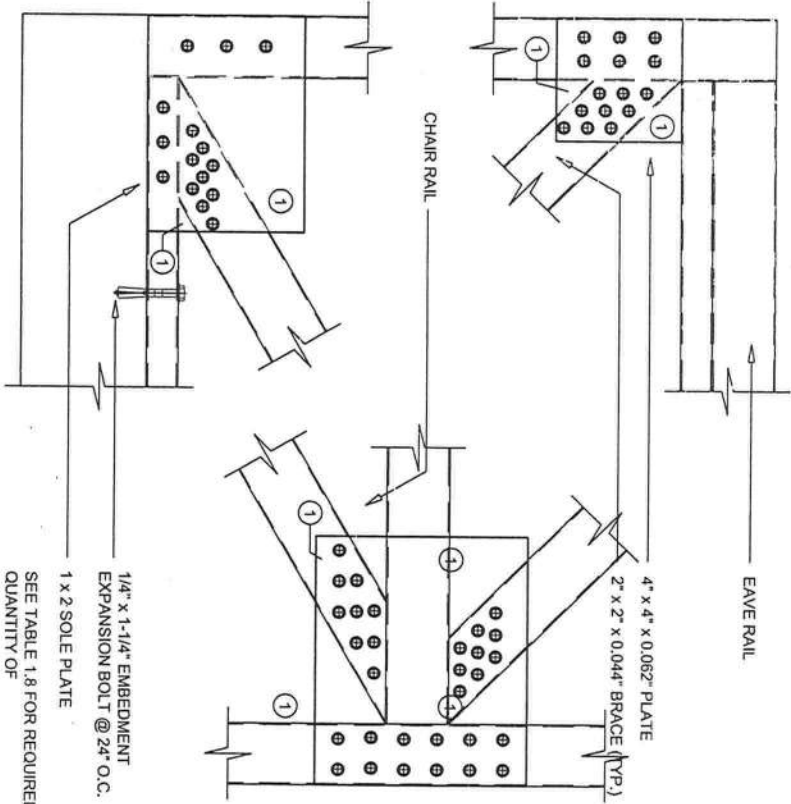




NOTE:  
CLIP MAY ALSO BE MOUNTED TO SIDE OF SLAB, MAINTAIN 2" EDGE DISTANCE

ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2D

SCALE: 2" = 1'-0"



NOTES:  
1. Can trim plate this area.  
2. Alternate connections use 1/4" bar cut to fit connections.

K-BRACING CONNECTION DETAILS

SCALE: 2" = 1'-0"

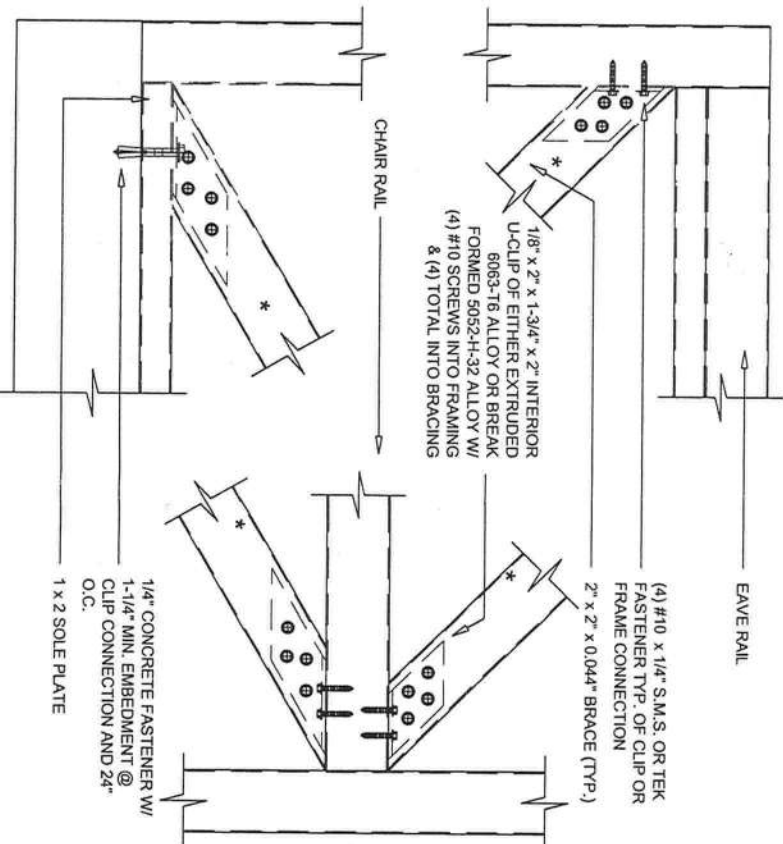
# K-BRACING

## General Notes and Specifications:

- The following shall apply to the installation of K-bracing as additional bracing to diagonal wind bracing for pool enclosures:
- FRONT WALL K-BRACING - ONE SET FOR EACH 800 SF OF TOTAL WALL AREA  
TOTAL WALL AREA = 100% OF FRONT WALL + 50% OF ONE SIDE WALL  
EXAMPLE: FRONT WALL AREA @ 100% (8' x 32') = 256 Sq. Ft.  
SIDE WALL AREA @ 50% (8' x 20') = 80 Sq. Ft.  
TOTAL WALL AREA = 336 Sq. Ft.  
800 SF > 336 SF THUS ONE SET OF FRONT WALL K-BRACING IS REQUIRED.
- SIDE WALL K-BRACING - ONE SET FOR 233 SF TO 800 SF OF WALL.  
To calculate the required pair of K-bracing for free standing pool enclosures use 100% of each wall area & 50% of the area of one adjacent wall.

## NOTES:

- K-bracing shall be used for all wind zones of 120 MPH EXPOSURE "C" and higher.
- Side walls do not require K-bracing until the side wall area is greater than 233 SF.
- Standard rounding off rules apply, i.e. if the number of K-bracing sets calculated is less than 1.5 sets use one set of K-braces; if the number of K-braces calculated is 1.5 sets or greater use 2 sets of K-bracing.

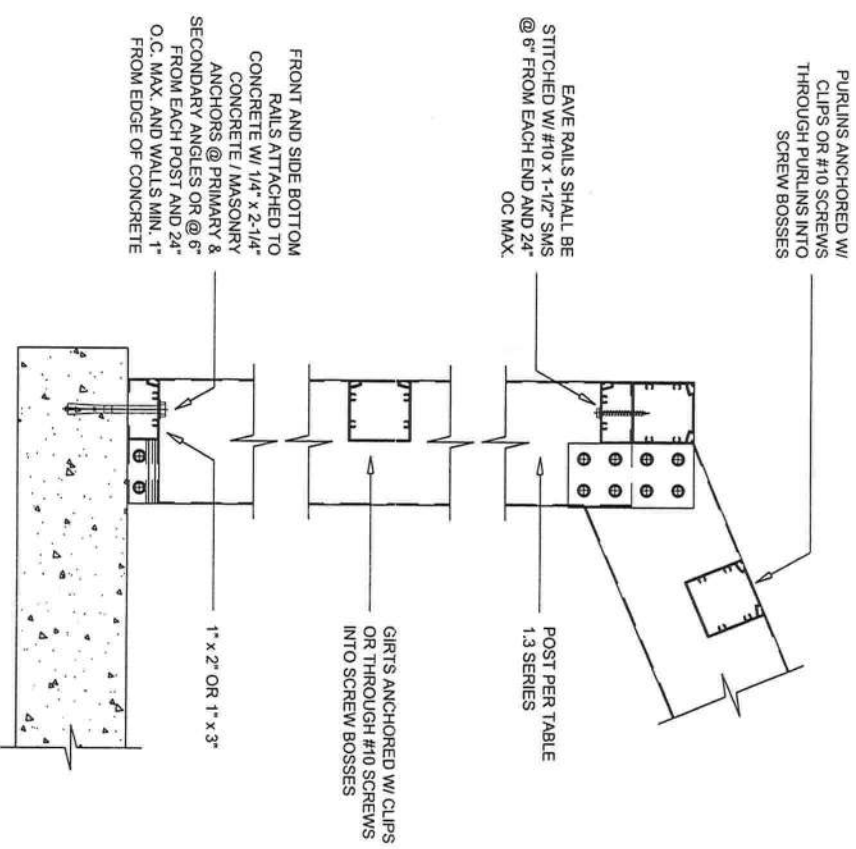


## TELESCOPING BRACE SYSTEM

ALTERNATE K-BRACING CONNECTION DETAILS

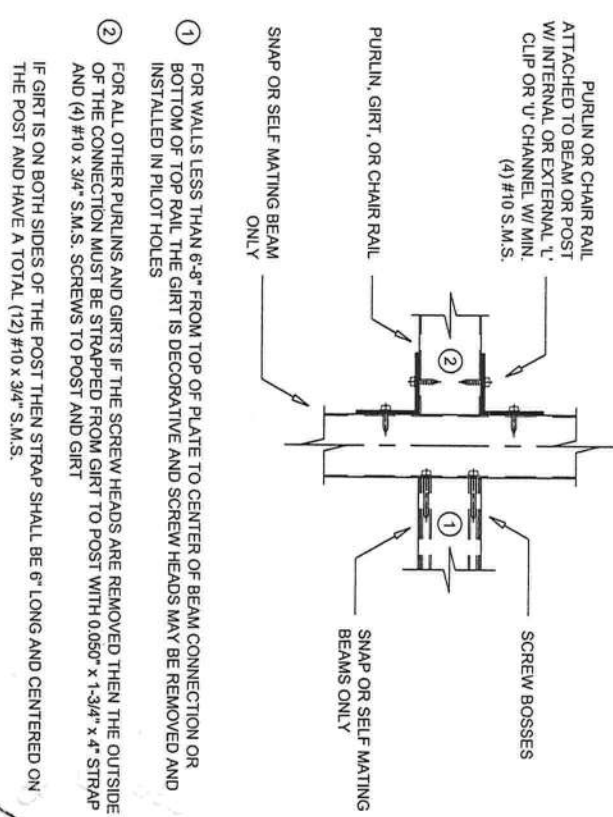
SCALE: 2" = 1'-0"

NOTE:  
Alternate connections use 1/4" bar cut to fit connections.



PURLIN & CHAIR RAIL DETAIL

SCALE: 2" = 1'-0"



PURLIN TO BEAM OR GIRTS TO POST DETAIL

SCALE: 2" = 1'-0"

- FOR WALLS LESS THAN 6'-8" FROM TOP OF PLATE TO CENTER OF BEAM CONNECTION OR BOTTOM OF TOP RAIL, THE GIRTS IS DECORATIVE AND SCREW HEADS MAY BE REMOVED AND INSTALLED IN PILOT HOLES
- FOR ALL OTHER PURLINS AND GIRTS IF THE SCREW HEADS ARE REMOVED THEN THE OUTSIDE OF THE CONNECTION MUST BE STRAPPED FROM GIRTS TO POST WITH 0.050" x 1-3/4" x 4" STRAP AND (4) #10 x 3/4" S.M.S. SCREWS TO POST AND GIRTS

IF GIRTS IS ON BOTH SIDES OF THE POST THEN STRAP SHALL BE 6" LONG AND CENTERED ON THE POST AND HAVE A TOTAL (12) #10 x 3/4" S.M.S.

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Table 1.1 110 Allowable Beam Spans  
Town & Country Industries, Inc.  
Aluminum Alloy 6005 T-5

For Wind Zones up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)

Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Hollow Sections		Tributary Load Width "W" = Beam Spacing		Tributary Load Width "W" = Beam Spacing	
3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2" x 2" x 0.044"	5'-9"	5'-9"	5'-9"	5'-9"	5'-9"
2" x 2" x 0.045"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"
2" x 3" x 0.045"	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"
2" x 3" x 0.060"	11'-1"	11'-1"	11'-1"	11'-1"	11'-1"
2" x 4" x 0.050"	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"
2" x 5" x 0.062"	20'-6"	20'-6"	20'-6"	20'-6"	20'-6"
B. Sections Fastened Through Beam Webs into Screw Bosses					
Hollow Sections		Tributary Load Width "W" = Beam Spacing		Tributary Load Width "W" = Beam Spacing	
3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2" x 2" x 0.044"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"
2" x 2" x 0.045"	22'-9"	22'-9"	22'-9"	22'-9"	22'-9"
2" x 3" x 0.045"	28'-10"	28'-10"	28'-10"	28'-10"	28'-10"
2" x 3" x 0.060"	35'-3"	35'-3"	35'-3"	35'-3"	35'-3"
2" x 4" x 0.050"	43'-11"	43'-11"	43'-11"	43'-11"	43'-11"
2" x 5" x 0.062"	53'-5"	53'-5"	53'-5"	53'-5"	53'-5"
2" x 10" x 0.092" x 0.374"	57'-4"	57'-4"	57'-4"	57'-4"	57'-4"

- Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
  2. The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
  3. Span is measured from center of beam and upright 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. Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
  6. Spans may be interpolated.
  7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.2 110 Allowable Purlin Spans  
Town & Country Industries, Inc.  
Aluminum Alloy 6005 T-5

For Wind Zones up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)

Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Hollow Sections		Tributary Load Width "W" = Purlin Spacing		Tributary Load Width "W" = Purlin Spacing	
3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
2" x 2" x 0.044"	5'-9"	5'-9"	5'-9"	5'-9"	5'-9"
3" x 2" x 0.045"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"
2" x 3" x 0.045"	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"
2" x 3" x 0.060"	11'-1"	11'-1"	11'-1"	11'-1"	11'-1"
2" x 4" x 0.050"	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"
2" x 5" x 0.062"	20'-6"	20'-6"	20'-6"	20'-6"	20'-6"
B. Sections Fastened Through Beam Webs into Screw Bosses					
Hollow Sections		Tributary Load Width "W" = Purlin Spacing		Tributary Load Width "W" = Purlin Spacing	
3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
2" x 2" x 0.044"	7'-3"	7'-3"	7'-3"	7'-3"	7'-3"
3" x 2" x 0.045"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"
2" x 3" x 0.045"	13'-6"	13'-6"	13'-6"	13'-6"	13'-6"
2" x 3" x 0.060"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"
2" x 4" x 0.050"	21'-2"	21'-2"	21'-2"	21'-2"	21'-2"
2" x 5" x 0.062"	30'-9"	30'-9"	30'-9"	30'-9"	30'-9"

- Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
  2. Span is measured from center of beam and upright connection to fascia or wall connection.
  3. Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
  4. Spans may be interpolated.
  5. 2" x 4" & 2" x 5" Hollow Girts shall be connected w/ an internal or external 1-1/2" x 1-1/2" x 0.044" angle.
  6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.3 110 Allowable Post / Upright Heights  
Town & Country Industries, Inc.  
Aluminum Alloy 6005 T-5

For 3 second wind gust at a velocity of 110 MPH, Exposure "B" or an applied load of 13 #/sq. ft.

Hollow Sections		Tributary Load Width "W" = Upright Spacing		Tributary Load Width "W" = Upright Spacing	
3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2" x 2" x 0.044"	7'-5"	7'-5"	7'-5"	7'-5"	7'-5"
2" x 2" x 0.045"	10'-4"	10'-4"	10'-4"	10'-4"	10'-4"
2" x 3" x 0.045"	11'-6"	11'-6"	11'-6"	11'-6"	11'-6"
2" x 3" x 0.060"	13'-8"	13'-8"	13'-8"	13'-8"	13'-8"
2" x 4" x 0.050"	17'-4"	17'-4"	17'-4"	17'-4"	17'-4"
2" x 5" x 0.062"	27'-3"	27'-3"	27'-3"	27'-3"	27'-3"
B. Sections Fastened Through Beam Webs into Screw Bosses					
Hollow Sections		Tributary Load Width "W" = Upright Spacing		Tributary Load Width "W" = Upright Spacing	
3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
2" x 4" x 0.046" x 0.100"	14'-11"	14'-11"	14'-11"	14'-11"	14'-11"
2" x 5" x 0.050" x 0.086"	18'-6"	18'-6"	18'-6"	18'-6"	18'-6"
2" x 6" x 0.050" x 0.120"	21'-9"	21'-9"	21'-9"	21'-9"	21'-9"
2" x 7" x 0.057" x 0.135"	24'-10"	24'-10"	24'-10"	24'-10"	24'-10"
2" x 8" x 0.072" x 0.224"	30'-7"	30'-7"	30'-7"	30'-7"	30'-7"
2" x 9" x 0.072" x 0.224"	33'-8"	33'-8"	33'-8"	33'-8"	33'-8"
2" x 9" x 0.082" x 0.206"	36'-1"	36'-1"	36'-1"	36'-1"	36'-1"
2" x 10" x 0.092" x 0.374"	41'-10"	41'-10"	41'-10"	41'-10"	41'-10"

- Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
  2. Using screen panel width "W" select upright height "H".
  3. Above heights do not include length of knee brace. Add vertical distance from upright to center of brace to beam connection to the above spans for total beam spans.
  4. Site specific engineering required for post enclosures over 30' in mean roof height.
  5. Height is to be measured from center of beam and upright connection to fascia or wall connection.
  6. Chair rails of 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential guardrails provided they are attached with min. (3) #10 x 1-1/2" S.M.S. into the screw bosses and do not exceed 6'-0" in span.
  7. Max. beam size for 2" x 5" is 2" x 7" x 0.055" x 0.120"
  8. Spans may be interpolated.
  9. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.4 110 Allowable Post / Girt / Chair Rail / Header Spans & Upright Heights  
Town & Country Industries, Inc.  
Aluminum Alloy 6005 T-5

For 3 second wind gust at a velocity of 110 MPH, Exposure "B" or an applied load of 13 #/sq. ft.

A. Sections As Horizontal Members Fastened to Posts With Clips

Hollow Sections		Tributary Load Width "W" = Member Spacing		Tributary Load Width "W" = Member Spacing	
3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
2" x 2" x 0.044"	7'-1"	7'-1"	7'-1"	7'-1"	7'-1"
2" x 2" x 0.045"	9'-10"	9'-10"	9'-10"	9'-10"	9'-10"
2" x 3" x 0.045"	10'-11"	10'-11"	10'-11"	10'-11"	10'-11"
2" x 3" x 0.060"	12'-10"	12'-10"	12'-10"	12'-10"	12'-10"
2" x 4" x 0.050"	15'-5"	15'-5"	15'-5"	15'-5"	15'-5"
2" x 5" x 0.062"	18'-3"	18'-3"	18'-3"	18'-3"	18'-3"
B. Sections As Horizontal Members Fastened to Posts Through Slotted into Screw Bosses					
Hollow Sections		Tributary Load Width "W" = Member Spacing		Tributary Load Width "W" = Member Spacing	
3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
2" x 2" x 0.044"	6'-6"	6'-6"	6'-6"	6'-6"	6'-6"
2" x 2" x 0.045"	8'-4"	8'-4"	8'-4"	8'-4"	8'-4"
2" x 3" x 0.045"	11'-3"	11'-3"	11'-3"	11'-3"	11'-3"
2" x 3" x 0.060"	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"
2" x 4" x 0.050"	14'-11"	14'-11"	14'-11"	14'-11"	14'-11"
2" x 5" x 0.062"	18'-3"	18'-3"	18'-3"	18'-3"	18'-3"

- Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
  2. Using screen panel width "W" select girt lengths.
  3. Site specific engineering required for post enclosures over 30' in mean roof height.
  4. Spanheight is to be measured from center of beam and upright connection to fascia or wall connection.
  5. Chair rails of 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential guardrails provided they are attached with min. (3) #10 x 1-1/2" S.M.S. into the screw bosses and do not exceed 6'-0" o.c.
  6. Girt spacing shall not exceed 6'-0".
  7. Max. beam size for 2" x 5" is 2" x 7" x 0.055" x 0.120"
  8. 2" x 4" & 2" x 5" hollow girts shall be connected w/ an internal or external 1-1/2" x 1-1/2" x 0.044" angle.
  9. Spanheights may be interpolated.
  10. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.5 110 Town & Country Industries, Inc.  
Aluminum Alloy 6005 T-5

For Areas with Wind Loads up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)

Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams		Tributary Load Width		Tributary Load Width	
10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"
2" x 4" x 0.046" x 0.100"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"
2" x 5" x 0.050" x 0.096"	21'-4"	21'-4"	21'-4"	21'-4"	21'-4"
2" x 6" x 0.060" x 0.120"	24'-3"	24'-3"	24'-3"	24'-3"	24'-3"
2" x 8" x 0.080" x 0.120"	28'-4"	28'-4"	28'-4"	28'-4"	28'-4"
2" x 8" x 0.072" x 0.224"	30'-4"	30'-4"	30'-4"	30'-4"	30'-4"
2" x 9" x 0.072" x 0.224"	33'-5"	33'-5"	33'-5"	33'-5"	33'-5"
2" x 9" x 0.082" x 0.206"	35'-9"	35'-9"	35'-9"	35'-9"	35'-9"
2" x 10" x 0.092" x 0.374"	41'-6"	41'-6"	41'-6"	41'-6"	41'-6"
Double Self-Mating Beams					
10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"
(2) 2" x 8" x 0.072" x 0.224"	51'-4"	51'-4"	51'-4"	51'-4"	51'-4"
(2) 2" x 9" x 0.072" x 0.224"	55'-9"	55'-9"	55'-9"	55'-9"	55'-9"
(2) 2" x 9" x 0.082" x 0.206"	61'-11"	61'-11"	61'-11"	61'-11"	61'-11"
(2) 2" x 10" x 0.092" x 0.374"	73'-4"	73'-4"	73'-4"	73'-4"	73'-4"

- Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
  2. Span is measured from center of connection to fascia or wall connection.
  3. 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.
  4. Spans may be interpolated.
  5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Example: The Maximum "L" for a 2" x 4" x 0.046" x 0.100" Single Self-Mating Beam with Tributary Load Width = 22'-0" is 11'-2"

Table 1.5.2 110 T Town & Country Industries, Inc.  
Aluminum Alloy 6005 T-5

for Areas with Wind Loads up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)

Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams		Tributary Load Width		Tributary Load Width	
10'-0"	14'-0"	18'-0"	22'-0"	26'-0"	30'-0"
2" x 4" x 0.046" x 0.100"	12'-11"	12'-11"	12'-11"	12'-11"	12'-11"
2" x 5" x 0.050" x 0.116"	15'-9"	15'-9"	15'-9"	15'-9"	15'-9"
2" x 6" x 0.060" x 0.120"	18'-5"	18'-5"	18'-5"	18'-5"	18'-5"
2" x 7" x 0.055" x 0.120"	20'-11"	20'-11"	20'-11"	20'-11"	20'-11"
2" x 8" x 0.070" x 0.224"	25'-4"	25'-4"	25'-4"	25'-4"	25'-4"
2" x 9" x 0.070" x 0.204"	27'-3"	27'-3"	27'-3"	27'-3"	27'-3"
2" x 8" x 0.080" x 0.228"	29'-3"	29'-3"	29'-3"	29'-3"	29'-3"
2" x 10" x 0.090" x 0.374"	34'-2"	34'-2"	34'-2"	34'-2"	34'-2"

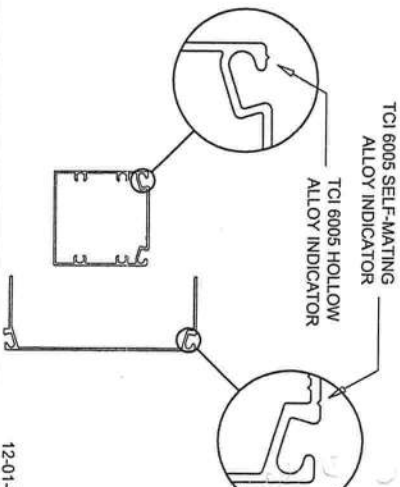
- Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
  2. Span is measured from center of connection to fascia or wall connection.
  3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
  4. Spans may be interpolated.
  5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Town & Country 6005 Indicator Mark  
(Instructions For Permit Purposes)

To: Plans Examiners and Building Inspectors.

These alloy identification marks have been provided to contractors and yourself for permitting purposes. The details below illustrate the alloy identification marks and the location of such marks. These alloy marks are used solely for our 6005 extrusions. It is ultimately the contractors responsibility that they receive and use only 6005 alloy shapes when using this engineering. We are providing this document to simplify the identification of our 6005 alloy materials to be used in conjunction with our 6005 engineering.

A separate signed and sealed document from Town & Country will be provided to our pre-approved contractors once the materials are purchased.



RAISED SEAL COPIES REQUIRED FOR ENGINEERING TO BE VALID FOR PERMITTING

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CIVIL & STRUCTURAL ENGINEERING  
315 Herbert St., Port Orange, FL 32129  
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ALUMINUM STRUCTURES DESIGN MANUAL  
SCREEN ENCLOSURES  
110 MPH ROOF & WALL MEMBER SPANS  
2007 FLORIDA BUILDING CODE  
WITH 2009 SUPPLEMENTS - 2009 EDITION

Town & Country INDUSTRIES, INC.  
Wholesale Aluminum Distributors  
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Table 1.6

Minimum Upright Sizes and Number of Screws for Connection of Roof Beams To Wall Uprights or Beam Splicing  
 \*Upright, purlins, and girts in this table are based on minimum size requirements for the beams.  
 Tables 1.3 and 1.4 must be checked to verify member spans.

Beam Size	Minimum Upright / Column Size	Minimum Purlin Size	Minimum Girt & Knee Brace Size	Minimum Number of Screws Each Side	Beam Splicing Screws & Spacing
2" x 3" x 0.045" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 4" x 0.050" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 5" x 0.062" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 6" x 0.046" x 0.100" SMB	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 5" x 0.050" x 0.116" SMB	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	6	6 @ 24" O.C.
2" x 6" x 0.055" x 0.120" SMB	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	6	6 @ 24" O.C.
2" x 7" x 0.055" x 0.130" SMB	2" x 4" Hollow or SMB	2" x 3" x 0.044" Hollow	2" x 2" x 0.044" Hollow	10	10 @ 24" O.C.
2" x 8" x 0.072" x 0.224" SMB	2" x 5" Hollow or SMB	2" x 3" x 0.044" Hollow	2" x 2" x 0.044" Hollow	12	12 @ 24" O.C.
2" x 9" x 0.072" x 0.224" SMB	2" x 6" x 0.050" x 0.120" SMB	2" x 4" x 0.045" Hollow	2" x 2" x 0.044" Hollow	16	16 @ 18" O.C.
2" x 9" x 0.082" x 0.306" SMB	2" x 7" x 0.050" x 0.120" SMB	2" x 4" x 0.050" Hollow or SMB	2" x 3" x 0.045" Hollow	18	18 @ 18" O.C.
2" x 10" x 0.092" x 0.374" SMB	2" x 8" x 0.072" x 0.224" SMB	2" x 5" x 0.060" Hollow or SMB	2" x 4" x 0.050" Hollow or SMB	20	20 @ 18" O.C.
2" x 10" x 0.092" x 0.374" SMB	2" x 8" x 0.072" x 0.224" SMB	2" x 5" x 0.060" Hollow or SMB	2" x 4" x 0.050" Hollow or SMB	20	20 @ 18" O.C.
Screw Size					
#8	Edge To Center	Center To Center	Center To Center	5/8"	
#10				3/4"	
#12				1"	
#14 or 1/4"				1-1/2"	
5/16"				1-3/4"	
3/8"				2"	
Guest Plate Thickness					
Beam Size	Thickness				
2" x 7" x 0.055" x 0.120" SMB	0.063"				
2" x 8" x 0.072" x 0.224" SMB	0.125"				
2" x 9" x 0.072" x 0.224" SMB	0.125"				
2" x 9" x 0.082" x 0.306" SMB	0.190"				
2" x 10" x 0.092" x 0.374" SMB	0.250"				

Connection Example:

2" x 7" Beam & 2" x 4" upright & gusset plate, (14) #8 x 1/2" sms & upright & gusset plate (14) #8 x 1/2" sms ea. side of beam & upright.

Note:

- All connections shall use a full lap cut or 1/16" interior gusset plate with # of fasteners per table.
- For beam splice connections the number of screws shown is the total for each splice with 1/2 the screws on each side of the cut.
- The number of deck anchors is based on R4W1, R Taper allowable load data for 2,500 psi concrete and / or equal anchors may be used.
- Hollow splice connections can be made provided the connection is approved by the engineer.
- If a larger than minimum upright is used the number of screws is the same for each splice with 1/2 the screws on each side of the cut.
- The side wall upright shall have a minimum beam size as shown above, i.e., a 2" x 4" upright shall have a 2" x 3" beam.
- For minimum girt size read upright size as a beam and purlin size is minimum girt size, (i.e. 2" x 9" x 0.072" x 0.219" s.m.b. w/ 2" x 6" x 0.050 x 0.135 s.m.b. upright requires a 2" x 3 x 0.045 girt / chair rail.)

Table 1.7 Minimum Size Screen Enclosure Knee Braces and Anchoring Required

Aluminum 6005 T-5

Brace Length*	Extension	Anchoring System
0' -2'-0"	2" x 2" x 0.044"	2" H-Channel W/In (3) #10 x 1/2" each leg of channel
To 3'-0"	2" x 3" x 0.045"	2" H-Channel W/In (3) #10 x 1/2" each leg of channel
Up to 6'-0"	2" x 4" x 0.046" x 0.100"	2" H-Channel W/In (4) #10 x 1/2" each leg of channel

\* Knee brace length shall be the horizontal and vertical length @ a 45° angle from the center of the connection to the face of the beam or upright.

Note:

- For required knee braces greater than 4'-6" contact engineer for specifications and details.
- Cantilever beam detail shown on page 1-40 shall be used for transom wall to host structure attachment when knee brace length exceeds 6'-0".

Table 1.8 K-Bracing Fastening Schedule

Number of #10 x 3/4" S.M.S. Required				
Maximum Wall Width =	Corner Post @ Top	Diagonal (K) Post @ Chair Rail	Intermediate Post @ Bottom	Plate to Sole Plate
20'-0"	2	2	4	2
30'-0"	2	2	4	2
40'-0"	3	4	6	2
50'-0"	4	5	8	3
60'-0"	6	7	12	3

\* Use screw sizes specified in the table below.

Use front wall width when determining number of s.m.s. for the front end / or back wall K-bracing.

Wind Zone	Screw Size
30 MPH	#10
100 MPH	#10
110 MPH	#10
120 MPH	#10
130 MPH	#12
140-162 MPH	#14
150 MPH	#14

Table 1.11 Maximum Overhang for Rafter / Truss Tails when Connected to Screen Roof

20' Max. Enclosure Span						Wind Zone ("B" Exp)				Wind Pressure (#SF)				Rafter / Truss Tail #2 Span / bending (b) or deflection (d)																							
Wind Zone ("B" Exp)						Wind Pressure (#SF)				2x4				2x6				2x8				2x10				2x12											
100-110						4				2'-2" b				5'-4" b				9'-3" b				15'-0" b				22'-3" b											
120						4				2'-2" b				5'-4" b				9'-3" b				15'-0" b				22'-3" b											
123						4.3				2'-2" b				4'-11" b				8'-7" b				13'-10" b				20'-8" b											
130						5				1'-9" b				4'-3" b				7'-5" b				12'-0" b				17'-10" b											
140						6				1'-5" b				3'-7" b				6'-2" b				10'-0" b				14'-10" b											
150						7				1'-3" b				3'-0" b				5'-3" b				8'-7" b				12'-9" b											
30' Max. Enclosure Span						Wind Zone ("B" Exp)				Wind Pressure (#SF)				Rafter / Truss Tail #2 Span / bending (b) or deflection (d)				2x4				2x6				2x8				2x10				2x12			
100-110						4				1'-5" b				3'-7" b				6'-2" b				10'-0" b				14'-10" b				22'-3" b							
120						4				1'-5" b				3'-7" b				6'-2" b				10'-0" b				14'-10" b				22'-3" b							
123						4.3				1'-4" b				3'-4" b				5'-9" b				9'-4" b				13'-10" b				20'-8" b							
130						5				1'-2" b				2'-10" b				4'-11" b				8'-7" b				13'-10" b				20'-8" b							
140						6				0'-11" b				2'-4" b				4'-1" b				6'-8" b				9'-11" b				20'-8" b							
150						7				0'-10" b				2'-0" b				3'-6" b				5'-9" b				8'-6" b				20'-8" b							
40' Max. Enclosure Span						Wind Zone ("B" Exp)				Wind Pressure (#SF)				Rafter / Truss Tail #2 Span / bending (b) or deflection (d)				2x4				2x6				2x8				2x10				2x12			
100-110						4				1'-1" b				2'-8" b				4'-7" b				7'-6" b				11'-1" b				18'-3" b							
120						4				1'-1" b				2'-8" b				4'-7" b				7'-6" b				11'-1" b				18'-3" b							
123						4.3				1'-0" b				2'-6" b				4'-4" b				6'-11" b				10'-4" b				16'-6" b							
130						5				0'-10" b				2'-2" b				3'-8" b				6'-0" b				9'-11" b				15'-6" b							
140						6				0'-9" b				1'-9" b				3'-1" b				5'-0" b				8'-7" b				14'-6" b							
150						7				0'-7" b				1'-6" b				2'-8" b				4'-4" b				7'-5" b				13'-6" b							

Note:

- For overhangs with spans that exceed those listed above site specific engineering is required.
- If truss bottom cord extends more than 24" over the wall site specific engineering is required.
- To convert from exposure "B" spans to "C" or "D" exposure spans see multipliers and example Table 1B on pages.

Example:

For a pod enclosure with 20' max. beam span, in a 123 MPH wind zone, "B" exposure. For 2 x 6 rafter / truss the max overhand from the wall of the host structure to the sub-fascia is 3'-4".

Table 1.9.1 Allowable Beam Spans Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

For Areas in Wind Zones up to 130 M.P.H., Exposure "B", and Latitudes North 30°-30'-00" North (Jacksonville, FL) Uniform Load = 15 #/SF, a Point Load of 300 #/SF over (1') linear ft. is also considered

Hollow Sections		Tributary Load Width "W" = Beam Spacing	
3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.040"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	5'-5"	5'-5"
5'-6"	Pb 5'-6"	Pb 5'-5"	Pb 5'-2"
6'-6"	Pb 6'-3"	Pb 6'-0"	Pb 5'-2"
3" x 2" x 0.045"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	7'-10"	7'-4"
9'-6"	Pb 8'-11"	Pb 8'-4"	Pb 7'-10"
2" x 3" x 0.045"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	10'-11"	10'-11"
12'-11"	Pb 11'-5"	Pb 10'-10"	Pb 10'-3"
2" x 4" x 0.050"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	12'-6"	11'-5"
2" x 5" x 0.062"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	14'-11"	13'-10"
15'-6"	Pb 14'-11"	Pb 13'-10"	Pb 12'-6"
Self-Mating Sections			
3'-0"	4'-0"	5'-0"	6'-0"
2" x 4" x 0.046" x 0.100"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	6'-0"	7'-0"
14'-6"	Pb 12'-11"	Pb 11'-8"	Pb 10'-8"
2" x 5" x 0.050" x 0.086"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	7'-6"	8'-0"
20'-6"	Pb 17'-9"	Pb 16'-4"	Pb 14'-3"
2" x 6" x 0.060" x 0.120"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	12'-10"	11'-10"
24'-2"	Pb 19'-11"	Pb 17'-8"	Pb 15'-9"
2" x 8" x 0.072" x 0.224"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	16'-0"	14'-9"
29'-2"	Pb 26'-6"	Pb 24'-8"	Pb 23'-2"
2" x 9" x 0.072" x 0.224"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	18'-11"	17'-9"
32'-1"	Pb 28'-2"	Pb 27'-1"	Pb 24'-8"
2" x 9" x 0.082" x 0.206"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	20'-9"	19'-11"
34'-5"	Pb 31'-3"	Pb 29'-0"	Pb 27'-4"
2" x 10" x 0.092" x 0.374"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	22'-11"	21'-2"
39'-11"	Pb 36'-3"	Pb 33'-8"	Pb 30'-1"

Note:

- Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
- The structures Uniformed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
- Span is measured from center of beam and upright connection to fascia or wall connection.
- 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.
- Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
- Spans may be interpolated.
- To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.
- Example: Max. "L" for 2" x 4" x 0.050" hollow section with "W" = 6'-0" = 10'-10"

Table 1.9.2

Allowable Purlin Spans Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

for Areas in Wind Zones up to 130 M.P.H., Exp. "B" and Latitudes North of 30°-30'-00" North (Jacksonville, FL) Uniform Load = 15 #/SF, a Point Load of 300 #/SF over (1') linear ft. is also considered

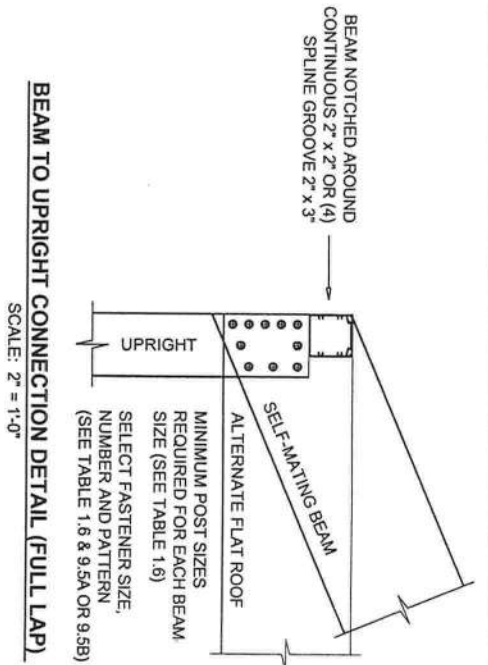
A. Sections Fastened To Beams With Clips

Hollow Sections		Tributary Load Width "W" = Purlin Spacing	
3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	5'-5"	5'-5"
5'-6"	Pb 5'-6"	Pb 5'-5"	Pb 5'-2"
6'-6"	Pb 6'-3"	Pb 6'-0"	Pb 5'-2"
2" x 3" x 0.045"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	7'-10"	7'-4"
9'-6"	Pb 8'-11"	Pb 8'-4"	Pb 7'-10"
2" x 4" x 0.050"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	10'-11"	10'-11"
12'-11"	Pb 11'-5"	Pb 10'-10"	Pb 10'-3"
2" x 5" x 0.062"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	14'-11"	13'-10"
15'-6"	Pb 14'-11"	Pb 13'-10"	Pb 12'-6"
B. Sections Fastened Through Beam Webs Into Screw Bosses			
3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	5'-5"	5'-5"
7'-3"	Pb 7'-3"	Pb 6'-11"	Pb 6'-11"
2" x 3" x 0.045"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	7'-10"	7'-4"
10'-9"	Pb 10'-11"	Pb 9'-6"	Pb 8'-10"
2" x 4" x 0.050"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	12'-4"	11'-4"
13'-11"	Pb 13'-11"	Pb 12'-2"	Pb 10'-10"
2" x 5" x 0.062"	Allowable Span "L" / Point Load (P) or Uniform Load (U)	16'-10"	14'-8"
18'-10"	Pb 18'-10"	Pb 16'-10"	Pb 14'-8"

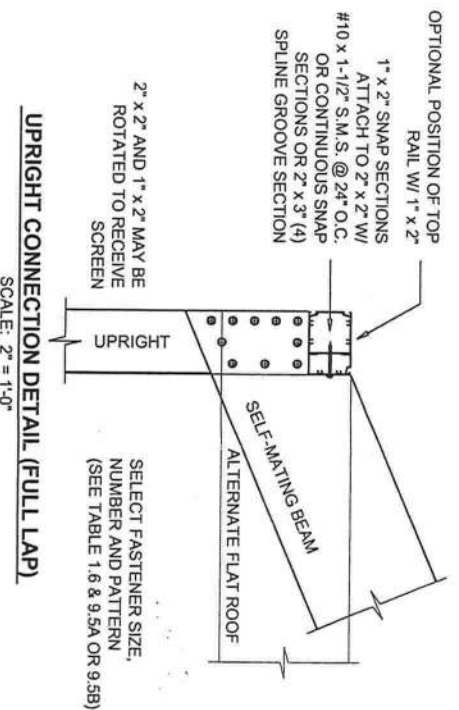
Note:

- Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
- The structures Uniformed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
- Span is measured from center of beam and upright connection to fascia or wall connection.
- 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.
- Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
- Spans may be interpolated.
- To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.
- Example: Max. "L" for 2" x 4" x 0.050" hollow section with "W" = 5'-0" = 9'-10"

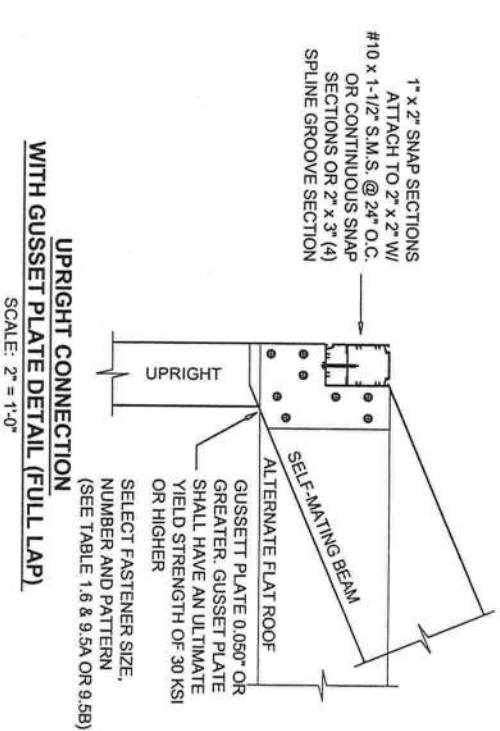




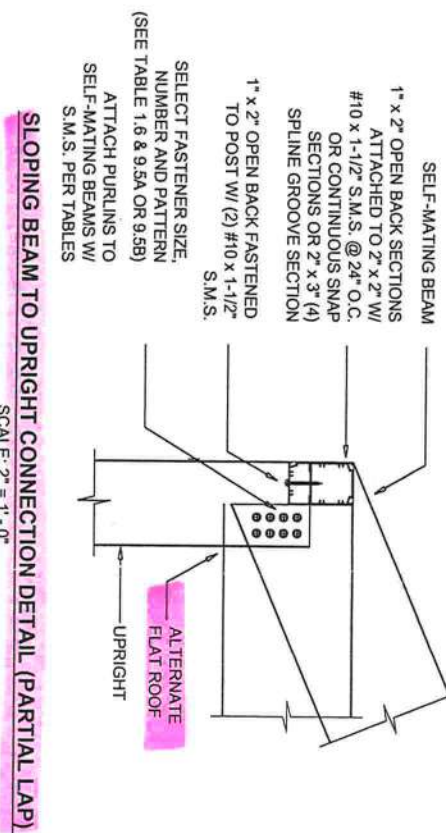
**BEAM TO UPRIGHT CONNECTION DETAIL (FULL LAP)**  
SCALE: 2" = 1'-0"



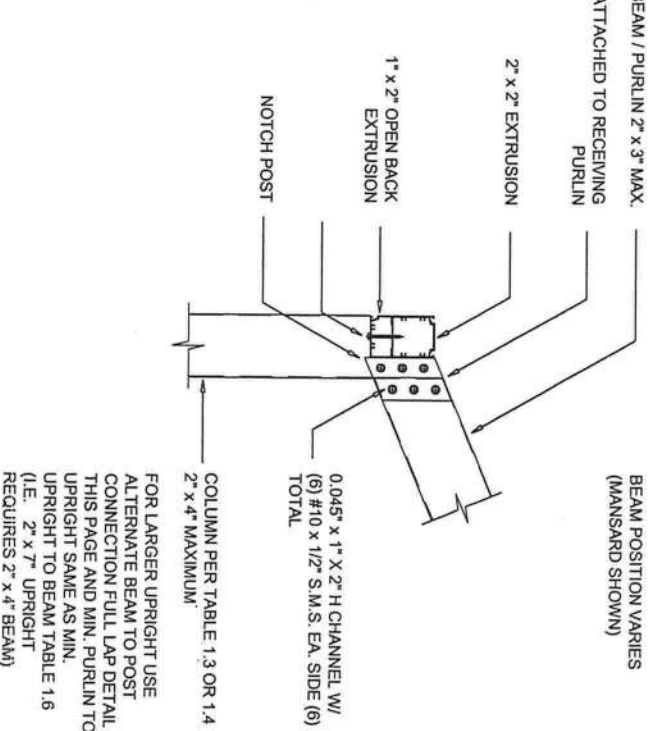
**UPRIGHT CONNECTION DETAIL (FULL LAP)**  
SCALE: 2" = 1'-0"



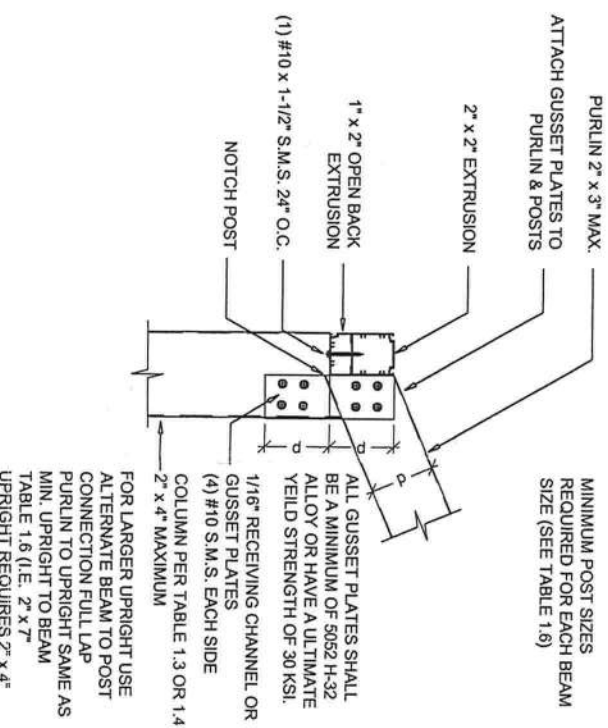
**UPRIGHT CONNECTION DETAIL (FULL LAP) WITH GUSSET PLATE**  
SCALE: 2" = 1'-0"



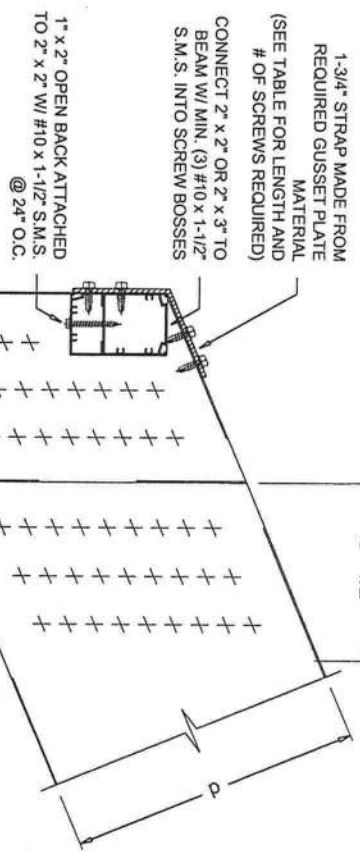
**SLOPING BEAM TO UPRIGHT CONNECTION DETAIL (PARTIAL LAP)**  
SCALE: 2" = 1'-0"



**BEAM TO POST CONNECTION**  
SCALE: 2" = 1'-0"



**SIDE WALL TO PURLIN DETAIL**  
SCALE: 2" = 1'-0"

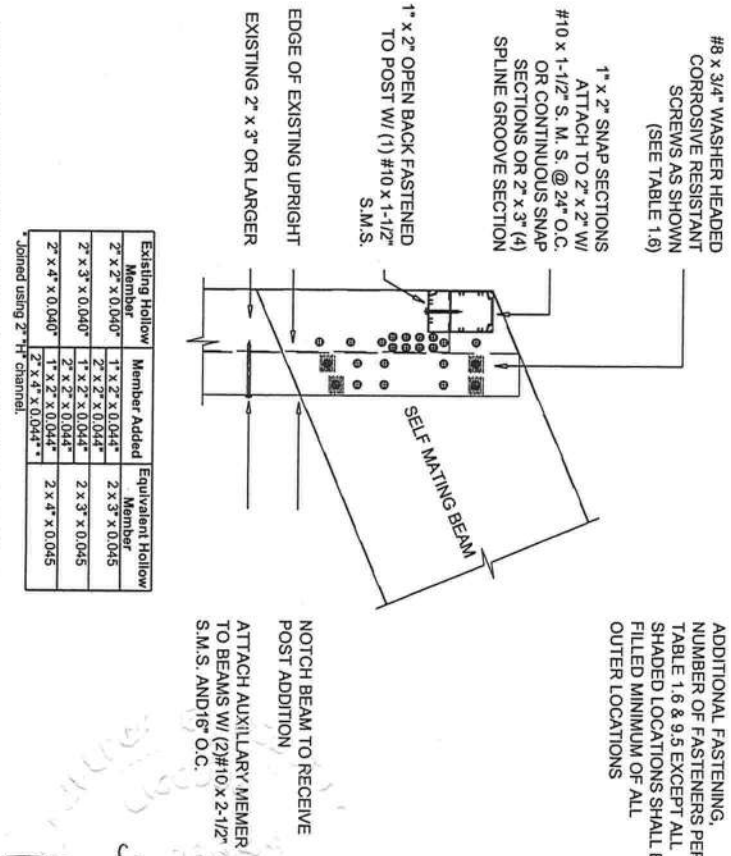


**BEAM CUT TO ACCEPT WALL**  
SCALE: 3\"/>

Beam Size	Strap Size	Strap Length
2' x 2'	(4) #12	2-3/4"
2' x 3'	(4) #14	3-1/4"
2' x 4'	(4) #14	3-1/4"
2' x 6'	(5) #14	4-1/2"

- Notes:**
- 1) Fill outer screw positions first until required number of screws is achieved.
  - 2) See Table 1.6 for screw sizes and number.
  - 3) Screw pattern layout with spacing between screws greater than minimum is allowed so that equal spacing is achieved.
  - 4) 2' x 8\"/>

**ALTERNATE BEAM TO POST CONNECTION (FULL LAP)**



**COMPOSITE BEAM W/ ADDITION OF AUXILIARY MEMBER TO EXISTING HOLLOW MEMBER FOR EQUIVALENT HOLLOW MEMBER**  
SCALE: 3\"/>

Existing Hollow Member	Member Added	Equivalent Hollow Member
2' x 2' x 0.040"	1' x 2' x 0.044"	2' x 3' x 0.045"
2' x 3' x 0.040"	1' x 2' x 0.044"	2' x 3' x 0.045"
2' x 4' x 0.040"	1' x 2' x 0.044"	2' x 4' x 0.045"
2' x 6' x 0.040"	1' x 2' x 0.044"	2' x 6' x 0.045"