DATE 02/12/2008

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000026743

APPLICANT CRAIG TIMBERAKE PHONE 352-472-6850

ADDRESS 25370 NW 8TH PLACE NEWBERRY FL 32669

OWNER VIC PATEL PHONE 386-288-4669

ADDRESS 592 SWEET BREEZE TRAIL LAKE CITY FL 32025

CONTRACTOR TIMBERLAKE ALUMINUM PHONE 352-472-6850

LOCATION OF PROPERTY 90 W, L SWEET BREEZE TERR (CYPRESS LAKE S/D),STAY TO THE RIGHT, ON THE R JUST BEFORE THE DIP ON TE ROAD

TYPE DEVELOPMENT SCREEN ENCLOSURE ESTIMATED COST OF CONSTRUCTION 4437.00

HEATED FLOOR AREA _____ TOTAL AREA _____ HEIGHT _____ STORIES _____

FOUNDATION _____ WALLS _____ 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 33-3S-16-02434-117 SUBDIVISION CYPRESS LAKE

LOT 17 BLOCK _____ PHASE 2 UNIT _____ TOTAL ACRES 0.95

_____ _____ SCG056710 Craig Timberlake

Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor

EXISTING X08-032 CS JH N

Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: NOC ON FILE,

Check # or Cash 1598

FOR BUILDING & ZONING DEPARTMENT ONLY

Temporary Power _____ date/app. by

Foundation _____ date/app. by

Monolithic _____ date/app. by (footer/Slab)

Under slab rough-in plumbing _____ date/app. by

Slab _____ date/app. by

Sheathing/Nailing _____ date/app. by

Framing _____ 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

Permanent power _____ date/app. by

C.O. Final _____ date/app. by

Culvert _____ date/app. by

M/H tie downs, blocking, electricity and plumbing _____ date/app. by

Pool _____ date/app. by

Reconnection _____ date/app. by

Pump pole _____ date/app. by

Utility Pole _____ date/app. by

M/H Pole _____ date/app. by

Travel Trailer _____ date/app. by

Re-roof _____ date/app. by

BUILDING PERMIT FEE $ 25.00 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** 75.00

INSPECTORS OFFICE _____ CLERKS OFFICE MSG

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 TO BE IN ACTIVE PROGESS WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS.

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

Columbia County Building Permit Application

For Office Use Only Application # 0802-05 Date Received 2/6 By JW Permit # 26743

Zoning Official [initials] Date 2/11/08 Flood Zone N/A FEMA Map # ____ Zoning RSF-2

Land Use RLD Elevation ____ MFE ____ River / ____ Plans Examiner OKJTH Date 2-6-8

Comments ____

□ NOC □ EH □ Deed or PA ☑ Site Plan □ State Road Info □ Parent Parcel # ____

□ Dev Permit # ____ □ In Floodway □ Letter of Authorization from Contractor

□ Unincorporated area □ Incorporated area □ Town of Fort White □ Town of Fort White Compliance letter

Septic Permit No. ____ Fax 352-472-6855

Name Authorized Person Signing Permit Craig Timberlake Phone 352-472-6850

Address 25370 NW 8th Place Newberry, FL 32669

Owners Name Vic Patel Phone 386-288-4669

911 Address 592 Sweet Breeze Trail

Contractors Name Timberlake Aluminum Const. - C. Helms Phone 352-472-6850

Address 25370 NW 8th Place Newberry, FL 32669

Fee Simple Owner Name & Address N/A

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address Lawrence Bennett PO Box 214368 South Daytona, FL 32121

Mortgage Lenders Name & Address N/A

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

Property ID Number 33-3S-16-02434-117HX Estimated Cost of Construction $4,437.00

Subdivision Name Cypress Lake Lot 17 Block ____ Unit ____ Phase 2

Driving Directions 90-W TO CYPRESS LAKE. S.D. @ SWEETBREEZE, TL STAY to the R. - HOME ON THE R. SIDE "(Just Before Dip on the road) start. Driveway @ 592"

Number of Existing Dwellings on Property ____

Construction of Screen enclosure Total Acreage .954 Lot Size ____

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height ____

Actual Distance of Structure from Property Lines - Front 44' Side 80' Side 28' Rear 70'

Number of Stories ____ Heated Floor Area ____ Total Floor Area 55 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 Left Message 2.11.08

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCMENT 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.

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.

OWNERS CERTIFICATION: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

_____
Owners Signature

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.

_____
Contractor's Signature (Permitee)

Contractor's License Number SCG056710
Columbia County
Competency Card Number_____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 4 **day of** Feb **20** 08

Personally known / **or Produced Identification**_____

_____ **SEAL:**
State of Florida Notary Signature (For the Contractor)

CRAIG C. TIMBERLAKE
MY COMMISSION # DD 289931
EXPIRES: April 12, 2008
Bonded Thru Notary Public Underwriters

NOTICE OF COMMENCEMENT

Inst:200812002301 Date:2/6/2008 Time:8:35 AM
DC,P.DeWitt Cason,Columbia County Page 1 of 1

Tax Parcel Identification Number 33-3S-16-02434-117-HX

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this **NOTICE OF COMMENCEMENT**.

1. Description of property *(legal description)*: Lot 17 Cypress Lake Phase 2. ORB 744-672-Pod 744-671,862-2129 890-1117, WD 1060-427
   a) Street *(job)* Address: 592 Sweet Breeze Trail Lake City, FL
2. General description of improvements: Screen enclosure.
3. Owner Information
   a) Name and address: Vic Patel 592 Sweetbreeze Trail, Lake City FL
   b) Name and address of fee simple titleholder (if other than owner) N/A
   c) Interest in property Owner
4. Contractor Information
   a) Name and address: Timberlake Aluminum Const. 25370 NW 8th Place Newberry, FL
   b) Telephone No.: 352-472-6850 Fax No. (Opt.)
5. Surety Information
   a) Name and address: N/A
   b) Amount of Bond:
   c) Telephone No.: Fax No. (Opt.)
6. Lender
   a) Name and address: N/A
   b) Phone No.
7. Identity of person within the State of Florida designated by owner upon whom notices or other documents may be served:
   a) Name and address:
   b) Telephone No.: Fax No. (Opt.)
8. In addition to himself, owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:
   a) Name and address:
   b) Telephone No.: Fax No. (Opt.)
9. Expiration date of Notice of Commencement **(the expiration date is one year from the date of recording unless a different date is specified)**:

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR 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 YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

STATE OF FLORIDA
COUNTY OF COLUMBIA

CRAIG C. TIMBERLAKE
MY COMMISSION # DD 289931
EXPIRES: April 12, 2008
Bonded Thru Notary Public Underwriters

10. _____
Signature of Owner or Owner's Authorized Office/Director/Partner/Manager

Vic Patel
Print Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 1 day of Feb, 20 08, by:

_____ as _____ **(type of authority, e.g. officer, trustee, attorney fact) for** _____ **(name of party on behalf of whom instrument was executed).**

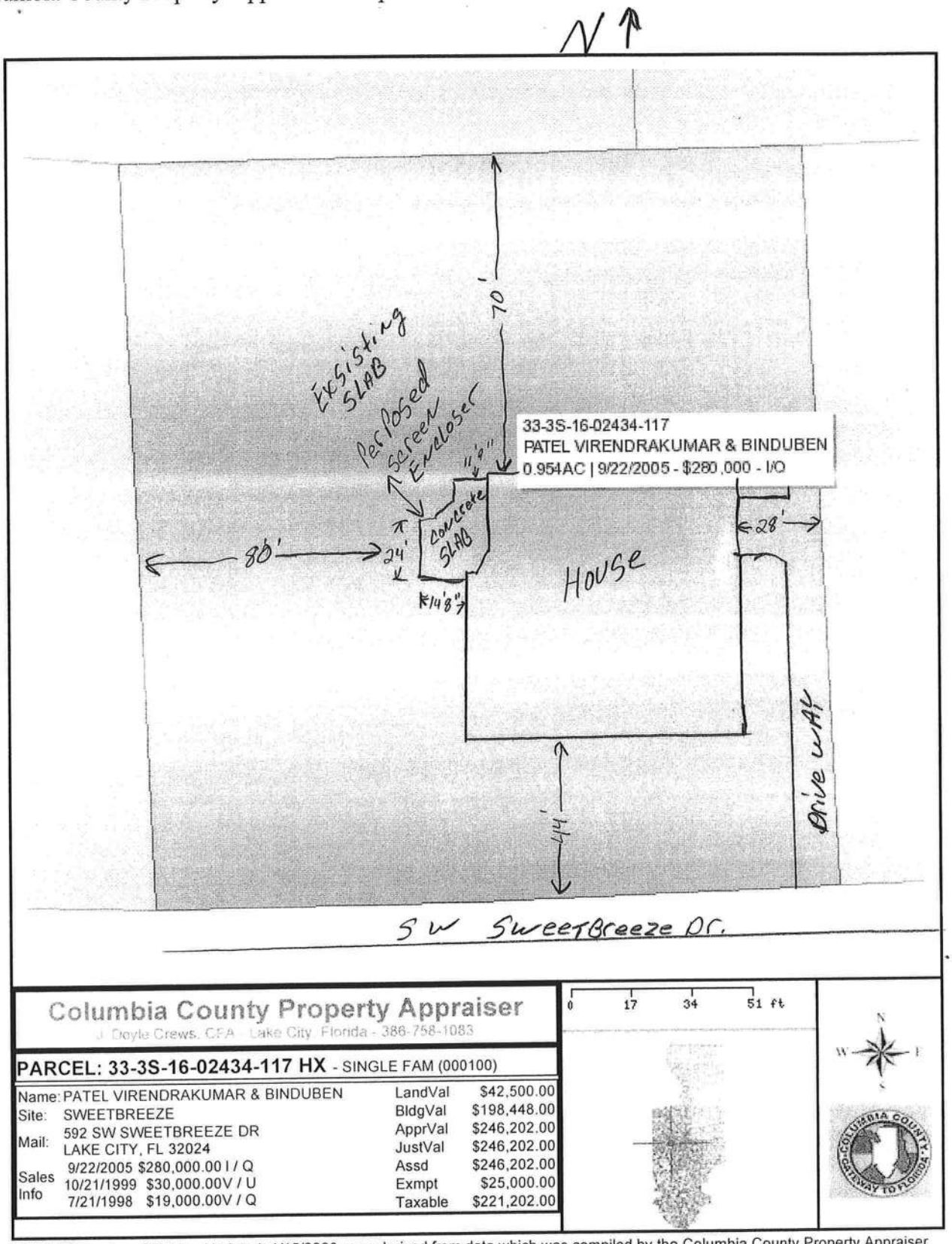
Personally Known ✓ OR Produced Identification ____ Type _____

Notary Signature Craig C Timberlake Notary Stamp or Seal:

---AND---

11. Verification pursuant to Section 92.525, Florida Statutes. Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

_____
Signature of Natural Person Signing (in line #10 above.)



Columbia County Property Appraiser

J. Doyle Crews, CFA - Lake City, Florida - 386-758-1083

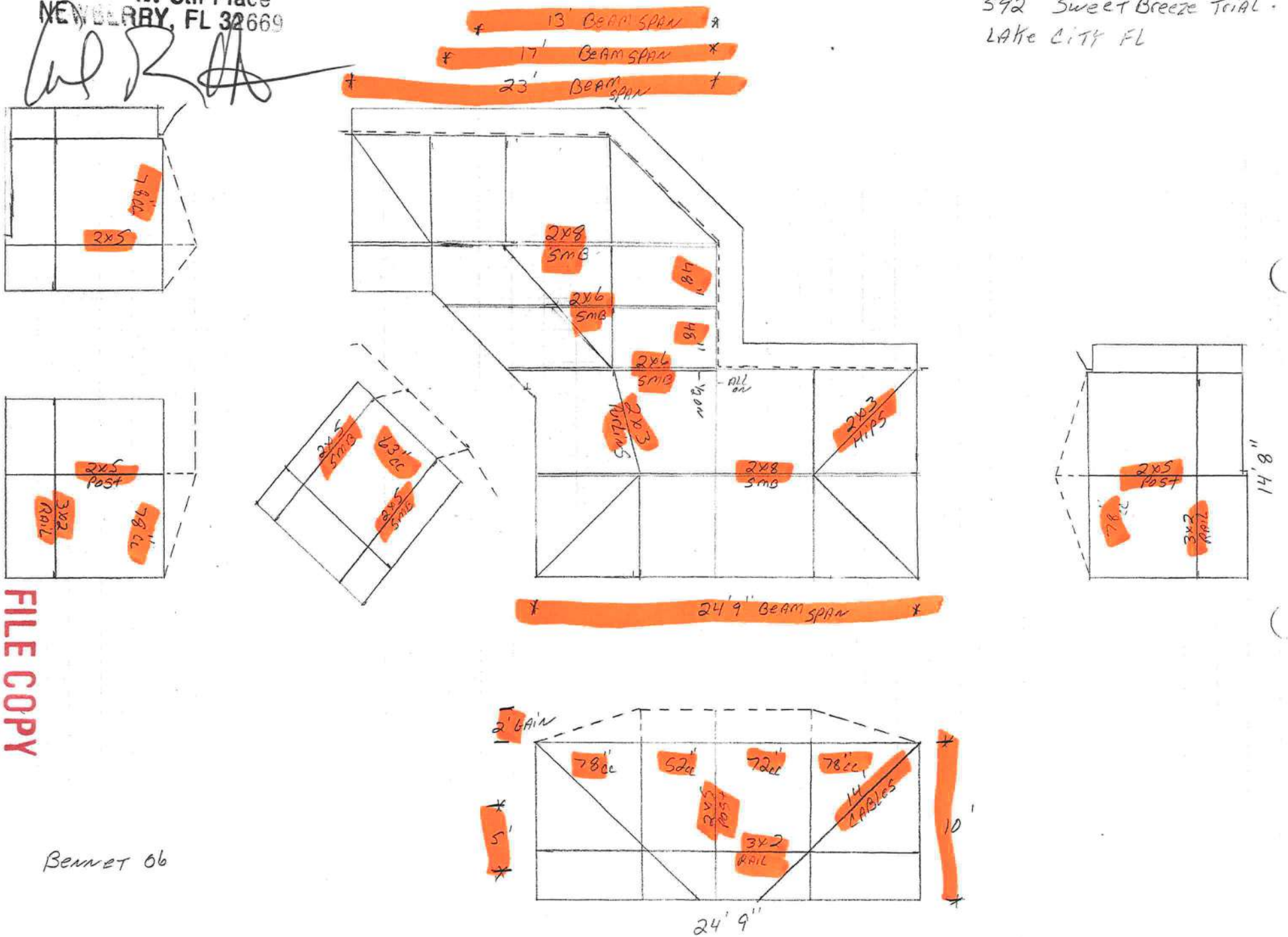
PARCEL: 33-3S-16-02434-117 HX - SINGLE FAM (000100)

Name:	PATEL VIRENDRAKUMAR & BINDUBEN	LandVal	$42,500.00
Site:	SWEETBREEZE	BldgVal	$198,448.00
Mail:	592 SW SWEETBREEZE DR LAKE CITY, FL 32024	ApprVal	$246,202.00
		JustVal	$246,202.00
Sales Info	9/22/2005 $280,000.00 I / Q	Assd	$246,202.00
	10/21/1999 $30,000.00V / U	Exmpt	$25,000.00
	7/21/1998 $19,000.00V / Q	Taxable	$221,202.00

This information, GIS Map Updated: 1/15/2008, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

TIMBERLAKE ALUMINUM
CONSTRUCTION, INC.
25[illegible] NW 8th Place
NEWBERRY, FL 32669

PATEL / TAC #181
592 Sweet Breeze Trial
Lake City FL



FILE COPY

Bennet 06

Design Check List for Pool Enclosures (Page 1 of 4)

I. Design Statement:

These plans have been designed in accordance with the Aluminum Structures Design Manual by Lawrence E. Bennett and are in compliance with the 2004 Florida Building Code Edition with 2006 Supplements, Chapter 20, ASM35 and The 2005 Aluminum Design Manual Part I-A & II-A; Exposure 'B'[✓] or 'C'[ ] or 'D'[ ]; Importance Factor 0.87 for 100 MPH and 0.77 for 110 MPH and higher; Negative I.P.C. 0.00; ___ MPH Wind Zone for 3 second wind gust; Basic Wind Pressure ____; Design pressures are ___ PSF for roofs & ___ PSF for walls. (see page 1ii for wind loads and design pressures) A 300 PLF point load is also considered for screen roof members.

Notes: Wind velocity zones and exposure category is determined by local code. Design pressures and conversion multipliers are on page 1-ii.

II. Host Structure Adequacy Statement:

I have inspected and verify that the host structure is in good repair and attachments made to the structure will be solid.

Carl R. Helms Phone: 352 - 472 - 6850
Contractor / Authorized Rep* Name (please print)

Date: 2 / 1 / 08
Contractor / Authorized Rep* Signature

PATEL / 592 SWEETBREEZE TRAIL
Job Name & Address

Note: If the total of beam span & upright height exceeds 50' or upright height exceeds 16', site specific engineering is required.

III. Building Permit Application Package contains the following:	**Yes**	**No**
A. Project name & address on plans	✓	
B. Site plan or survey with enclosure location	✓	
C. Contractor's / Designer's name, address, phone number, & signature on plans	✓	
D. Site exposure form completed	✓	
E. Enclosure layout drawing @ 1/8" or 1/10" scale with the following:	✓	
1. Plan view with host structure, enclosure length, projection from host structure, and all dimensions	✓	
2. Front and side elevation views with all dimensions & heights	✓	
Note: All mansard wall drawings shall include mansard panel at the top of the wall.		
3. Beam location (show in plan & elevation view) & size (Table 1.1 & 1.6)	✓	

Roof frame member allowable span conversions from 120 MPH wind zone, "B" Exposure to 120 MPH wind zone and / or[ ]"C" or[ ]"D" Exposure for load width of _____:

Note: Conversion factors do not apply to members subject to point load (P).

Look up span in appropriate 120 MPH span table and apply the following formula:

Span @ 120 MPH ——— Required Converted Span / Height

0.00 (b or d) x 1.00 (b or d) x 1.00 (b or d) = _____

Wind Zone Multiplier (see page 1ii) ——— Exposure Multiplier (see page 1ii)

4. Upright location (show in plan & elevation view) & size (Table 1.3 & 1.6)	✓	
5. Chair rail & girt size, length, & spacing (Table 1.4)	✓	
6. Eave rail size, length, spacing and stitching of (Table 1.2)	✓	

*** Must have attended Engineer's Continuing Education Class within the past two years.**

Design Check List for Pool Enclosures (Page 2 of 4)

Wall frame member allowable span conversions from 120 MPH wind zone, "B" Exposure to _____ MPH wind zone and / or ☐ "C" or ☐ "D" Exposure for load width of 1.00 :
Look up span in appropriate 120 MPH span table and apply the following formula:

Span / Height @ 120 MPH or ___ MPH → 7.91 (b or d) x 1.10 (b or d) x 1.00 (b or d) = 8.70 ← Required Converted Span / Height

Wind Zone Multiplier ** (1.10)

Exposure Multiplier (see page 1ii) (1.00)

	Yes	No
7. Enclosure roof diagonal bracing in plan view	☑	☐
8. Knee braces length, location, & size (Table 1.7)	☑	☐
9. Wall cables or K-bracing sizes shown in wall views	☑	☐
IV. Highlight details from the Aluminum Structures Design Manual:	**Yes**	**No**
A. Beam & purlin tables with size, thickness, spacing, & spans / lengths (Tables 1.1 & 1.2 or 1.9.1 & 1.9.2)	☑	☐
B. Upright & girt tables with size, thickness, spacing, & spans / lengths (Tables 1.3 & 1.4)	☑	☐
C. Table 1.6 with beam & upright combination	☑	☐
D. Connection details to be use such as:		
1. Beam to upright	☑	☐
2. Beam to wall	☑	☐
3. Beam to beam	☑	☐
4. Chair rail, purlins, & knee braces	☑	☐
5. Extruded gutter connections	☑	☐
6. Angle to deck and / or sole plate	☑	☐
7. Anchors go through pavers into concrete	☐	☑
8. Minimum footing and / or knee wall details	☑	☐
9. Cable or K- brace details Section 1	☑	☐

Wall area calculations for cables:
W = wall width, H = wall height, R = rise
W1 = width @ top of mansard, W2 = width @ top of wall

E. Select footing from examples in manual.

Example 1: Flat Roof

Front wall @ eave: _____ ft. (W) x _____ ft. (H) = 0.00 ft.² (a) @ 100% = ... 0.00 ft.²

Largest side wall: _____ ft. (W) x _____ ft. (H) = 0.00 ft.² (b) @ 50% = ... 0.00 ft.²

TOTAL = ... 0.00 ft.²

Total area / (233 ft.² / cable for 3/32") = 0 cable pairs
or
Total area / (445 ft.² / cable for 1/8") = 0 cable pairs

Side wall cable calculation: 0.00 ft.² (b) @ 100% = ... 0.00 ft.²

Side wall area / (233 ft.² / cable for 3/32") = 0 cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = 0 cable(s)

Design Check List for Pool Enclosures (Page 4 of 4)

Example 4: Mansard Roof

Front wall @ eave: 24.90 (W) ft. x 10.00 (H) ft. = 249.00 (a) ft.² @ 100% = ... 249.00 ft.²

Front mansard rise: 2.00 (R) ft. x 1/2(13.00 (W1) ft. + 24.90 (W2) ft.) = 37.90 (b) ft.² @ 100% = ... 37.90 ft.²

Largest side wall: 14.80 (W) ft. x 10.00 (H) = 148.00 (c) ft.² @ 50% = ... 74.00 ft.²

Largest side mansard rise: 2 (R) ft. x 1/2(7.00 (W1) ft. + 14.00 (W2) ft.) = 21.00 (d) ft.² @ 50% = ... 10.50 ft.²

TOTAL = ... 371.40 ft.²

Total area / (233 ft.² / cable for 3/32") = 2 cable pairs
or
Total area / (445 ft.² / cable for 1/8") = 1 cable pairs

Side wall cable calculation: 148.00 (c) ft.² + 21.00 (d) ft.² = 169.00 ft.² @ 100% = ... 169.00 ft.²

Side wall area / (233 ft.² / cable for 3/32") = 1 cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = 0 cable(s)

Example 5: Dome Roof

Front dome wall @ eave: ____ (W) ft. x ____ (H) ft. = 0.00 (a) ft. @ 100% = ... 0.00 ft.²

Front dome rise: ____ (R) ft. x 1/2(____ (W) ft.) = 0.00 (b) ft.² @ 100% = ... 0.00 ft.²

Largest side wall: ____ (W) ft. x ____ (H) = 0.00 (c) ft.² @ 50% = ... 0.00 ft.²

Largest side dome rise: ____ (R) ft. x ____ (W) ft. = 0.00 (d) ft.² @ 50% = ... 0.00 ft.²

TOTAL = ... 0.00 ft.²

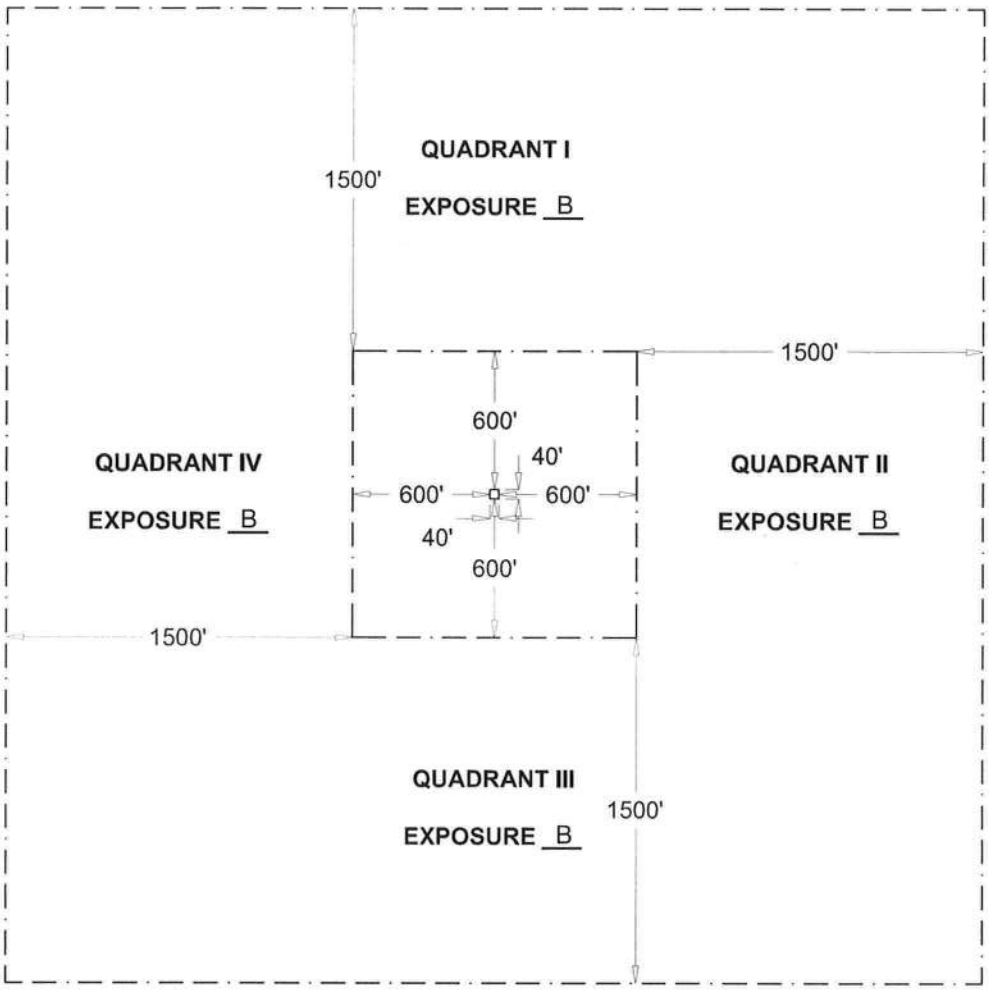
Total area / (233 ft.² / cable for 3/32") = 0 cable pairs
or
Total area / (445 ft.² / cable for 1/8") = 0 cable pairs

Side wall cable calculation: 0.00 (c) ft.² + 0.00 (d) ft.² = 0.00 ft.² @ 100% = ... 0.00 ft.²

Side wall area / (233 ft.² / cable for 3/32") = 0 cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = 0 cable(s)

Notes:

SITE EXPOSURE EVALUATION FORM



NOTE: ZONES ARE MEASURED FROM STRUCTURE OUTWARD

SITE

SCALE: 1" = 800'

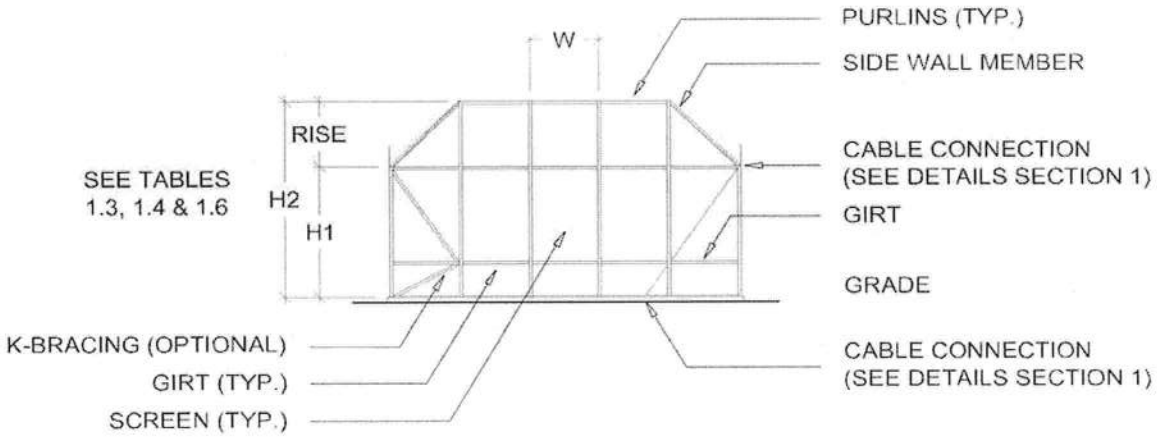
USING THE FOLLOWING CRITERIA, EVALUATE EACH QUADRANT AND MARK IT AS 'B', 'C', OR 'D' EXPOSURE. 'C' OR 'D' EXPOSURE IN ANY QUADRANT MAKE THE SITE THAT EXPOSURE.

EXPOSURE C:
1. OPEN TERRAIN FOR MORE THAN 1,500 FEET IN ANY QUADRANT.
2. ANY 'C' EXPOSURE FOR GREATER THAN 600 FEET IN ANY QUADRANT.
3. NO SHORT TERM CHANGES IN 'B', 2 YEARS BEFORE SITE EVALUATION AND BUILD OUT WITHIN 3 YEARS, SITE WILL BE 'B'.
4. FLAT, OPEN COUNTRY, GRASSLANDS, PONDS AND OCEAN OR SHORELINES IN ANY QUADRANT FOR GREATER THAN 1,500 FEET.

EXPOSURE D: FLAT, UNOBSTRUCTED AREAS THAT ARE 1,500 FT INLAND FROM THE SHORE LINE AND ARE EXPOSED TO WIND FLOWING OVER WATER FOR A DISTANCE OF AT LEAST 1 MILE.

SITE IS EXPOSURE: B EVALUATED BY: Carl R. Helms DATE: 2 / 1 / 08

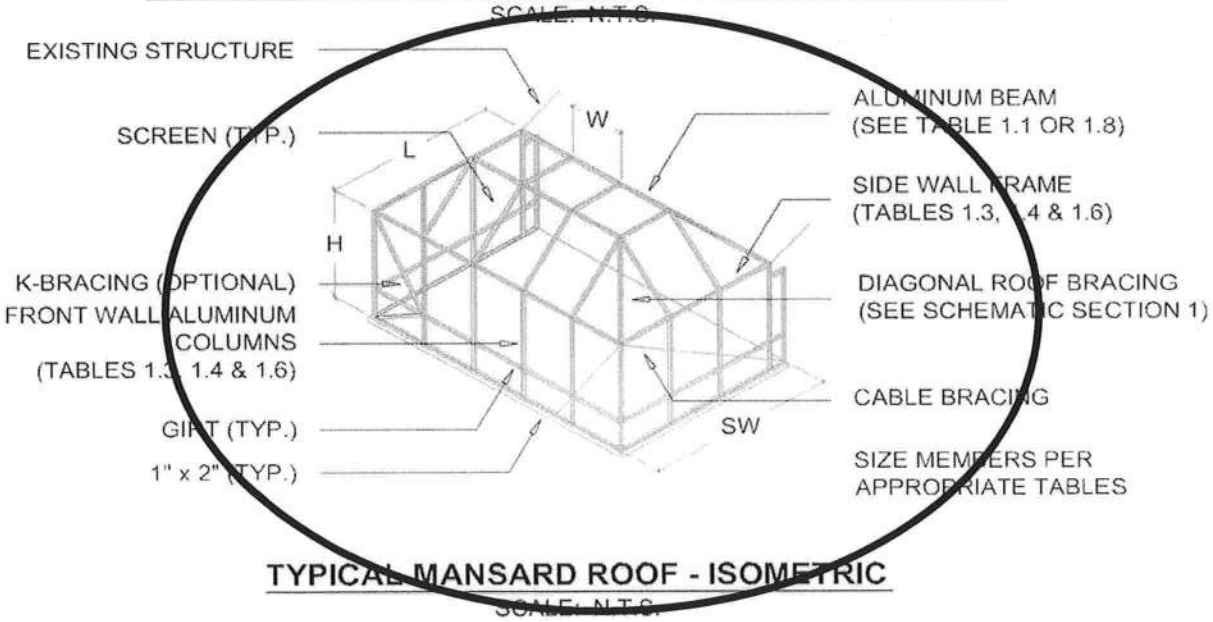
SIGNATURE: _____ LICENSE #: SCC056710



NOTE: USE H2 FOR CABLE AREA CALCULATION

TYPICAL MANSARD ROOF - FRONT WALL ELEVATION

SCALE: N.T.S.

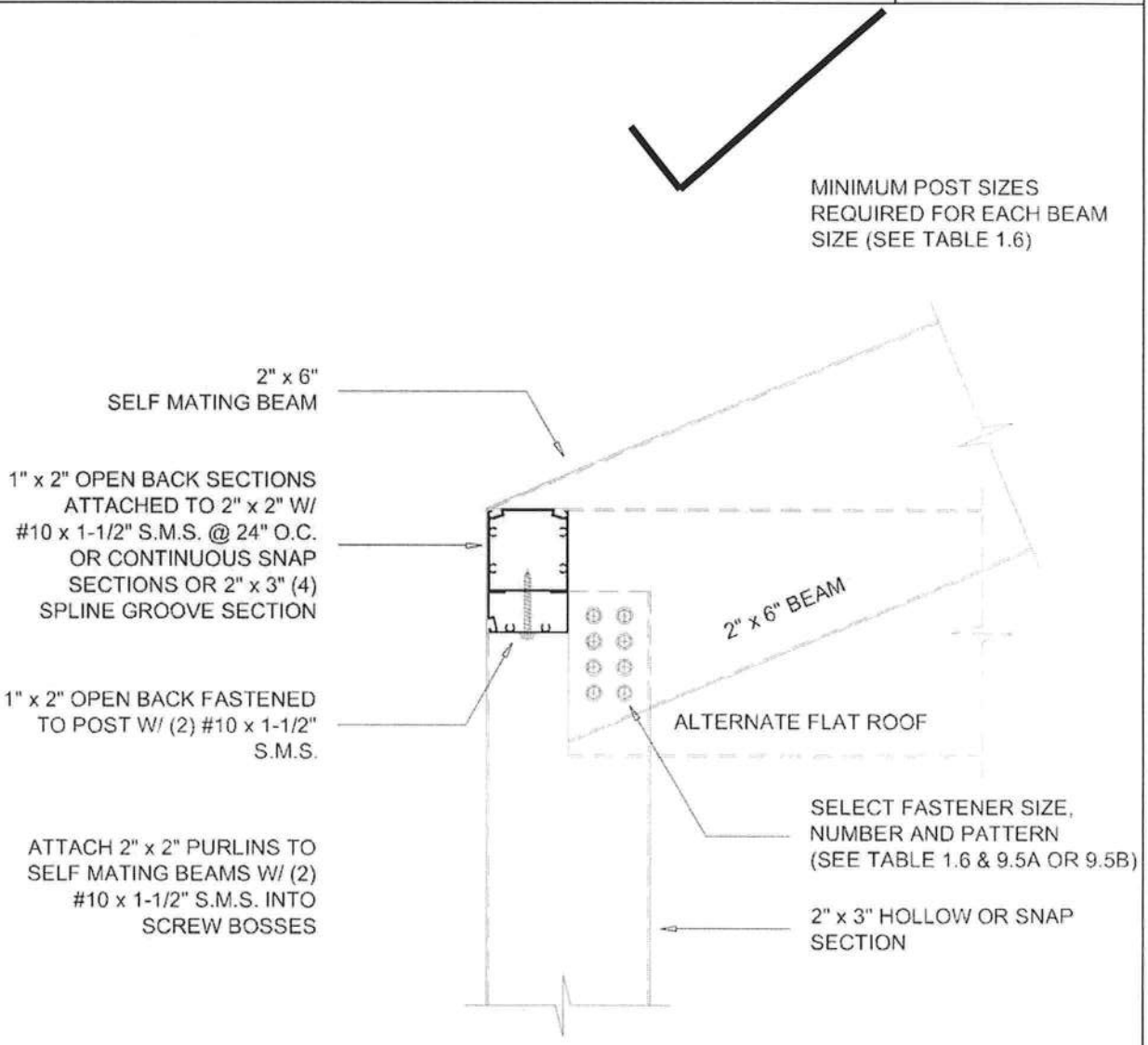


TYPICAL MANSARD ROOF - ISOMETRIC

SCALE: N.T.S.

CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.

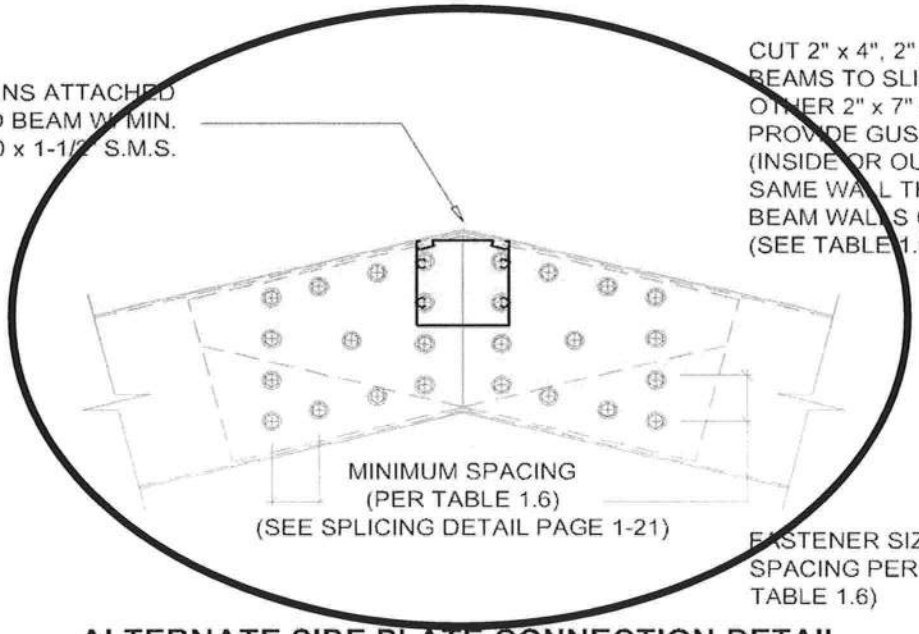
Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net



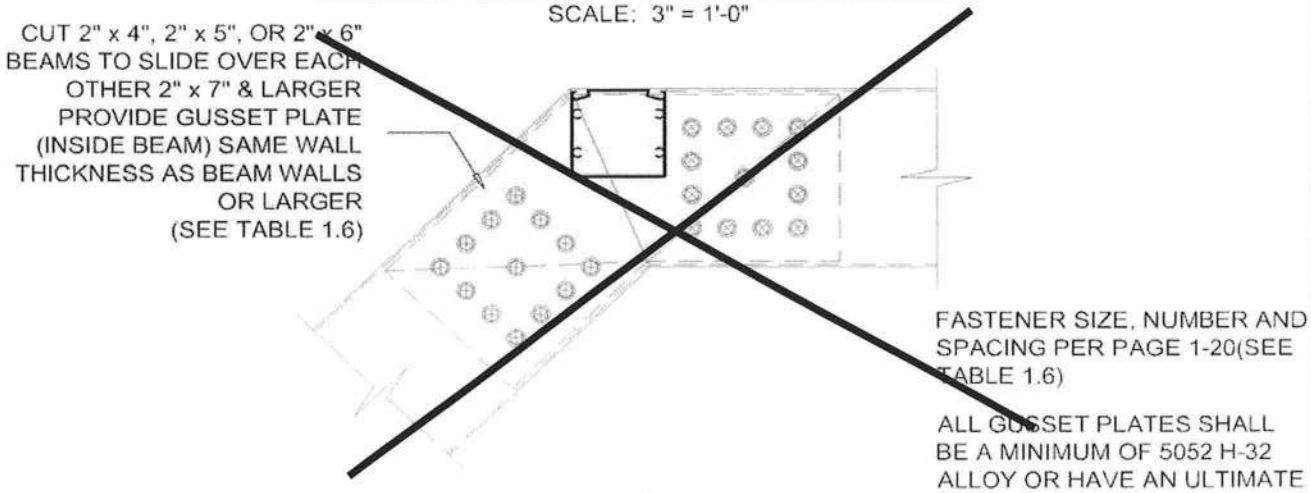
SLOPING BEAM TO UPRIGHT CONNECTION DETAIL (PARTIAL LAP)

SCALE: 3" = 1'-0"

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-5556
Email: lebpe@bellsouth.net



ALTERNATE SIDE PLATE CONNECTION DETAIL
GUSSET PLATE MOUNTED INTERNALLY
SCALE: 3" = 1'-0"



ALTERNATE SIDE PLATE CONNECTION DETAIL - MANSARD ROOF
GUSSET PLATE MOUNTED INTERNALLY
SCALE: 3" = 1'-0"

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
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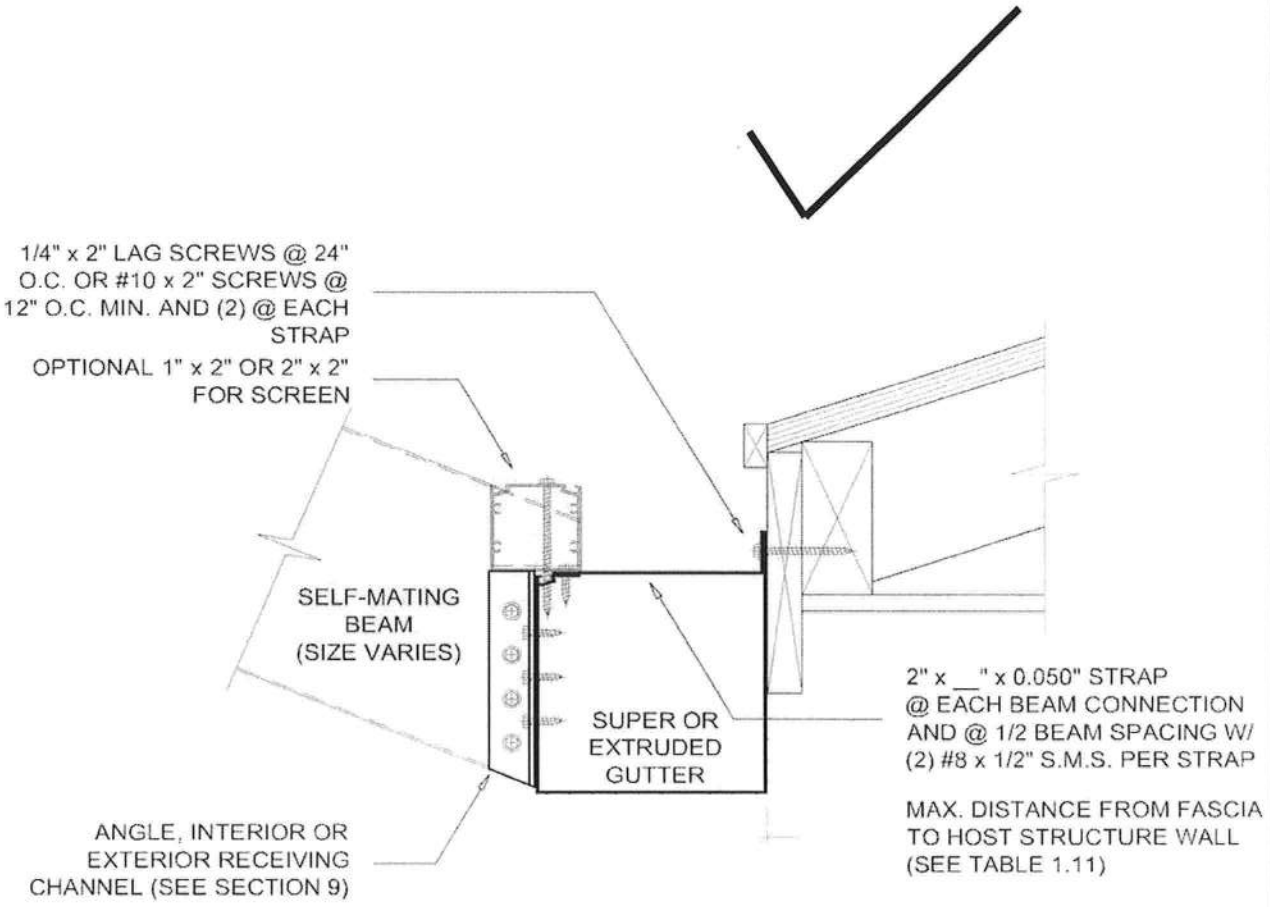

ALTERNATE SELF MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER

SCALE: 3" = 1'-0"

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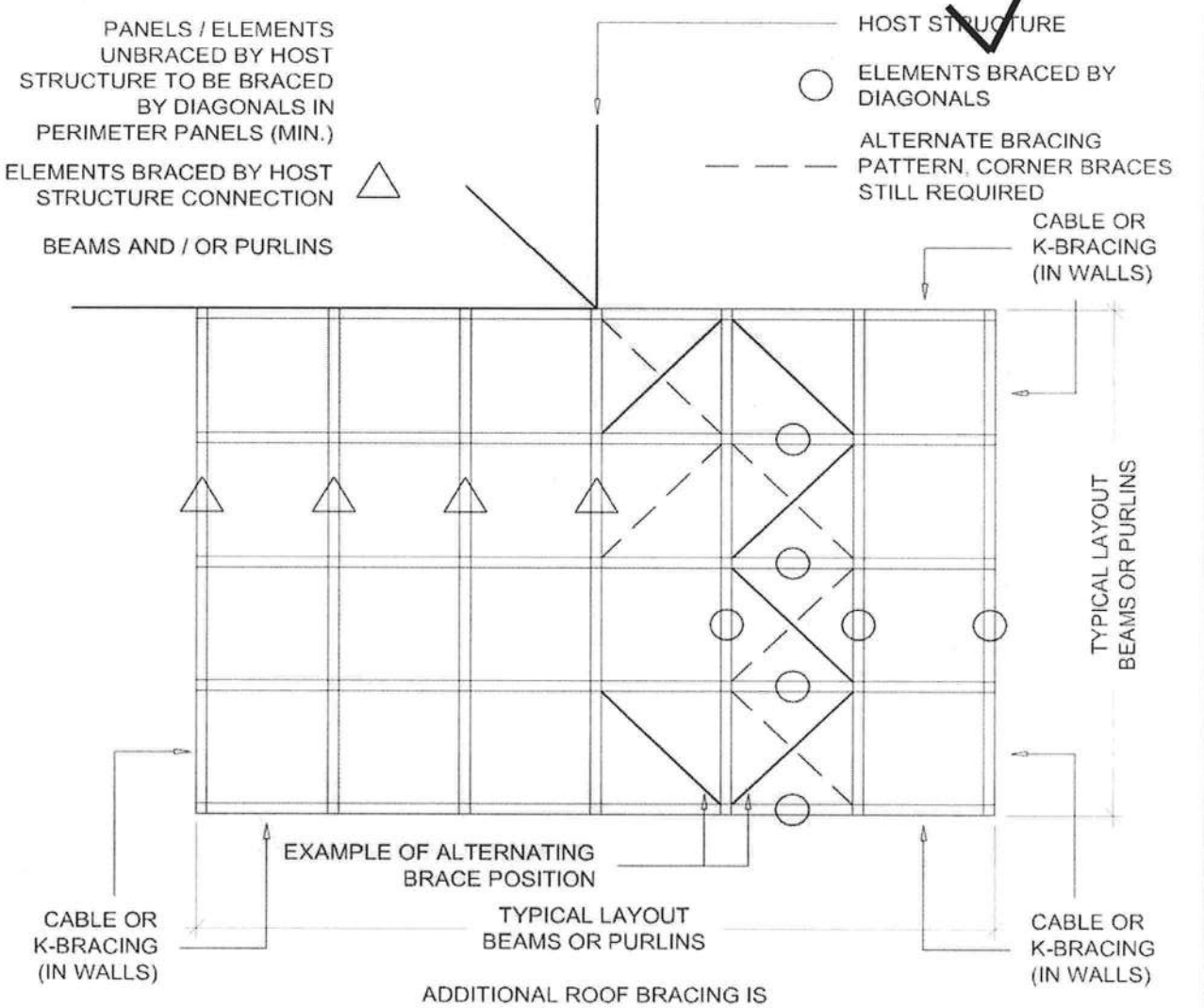
SECTION 1	SCREENED ENCLOSURES



EACH DIAGONAL TO BE FASTENED EACH END W/ (2) EACH #10 S.M.S. (MIN.)

ADDITIONAL ROOF BRACING IS REQUIRED FOR ALL SIDE WALLS LARGER THAN 4 PANELS. NUMBER OF PANELS SHOULD BE EVEN TO PERMIT POSITION OF BRACES ALTERNATING

2 x 2 (MIN) ROOF DIAGONAL, MEET WALL AT WALL BRACING AT CORNERS (TYP.)

(POOL ENCLOSURE SCREEN ROOF MAY BE FLAT, GABLE, MANSARD, DOME, OR HIP)

POOL ENCLOSURE DIAGONAL BRACING - SCHEMATIC PLAN VIEW

SCALE: 3/8" = 1'-0"

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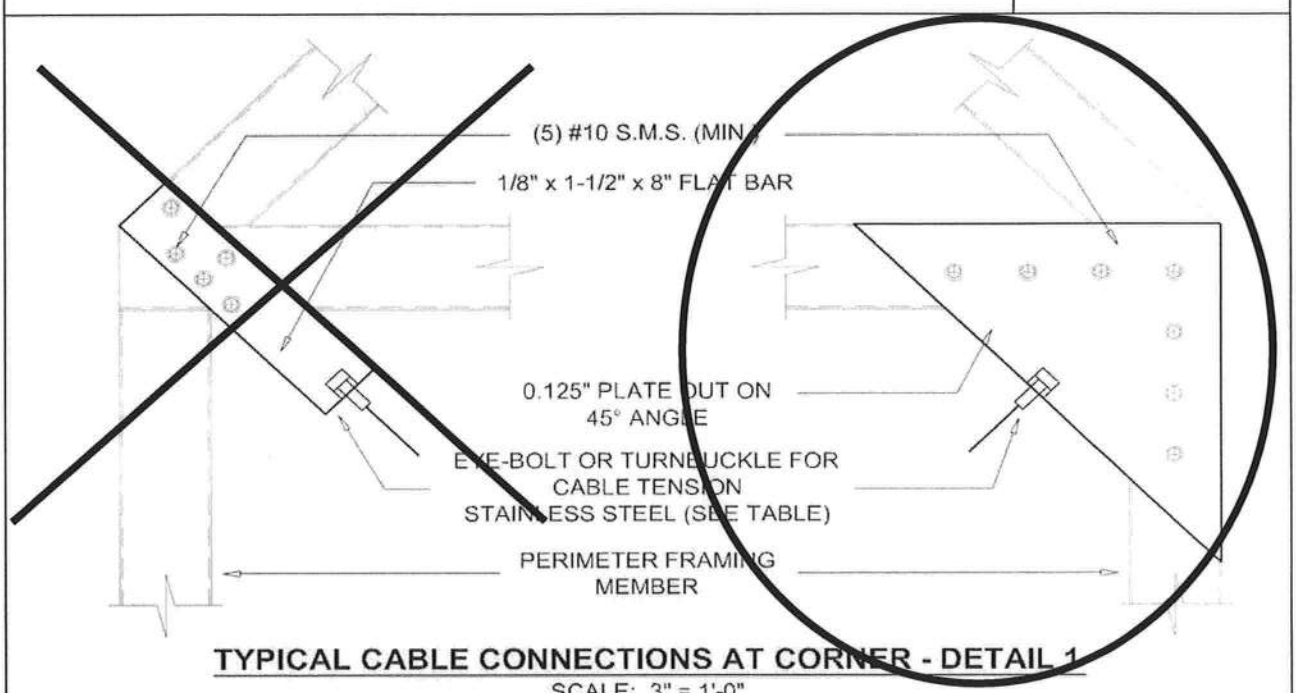
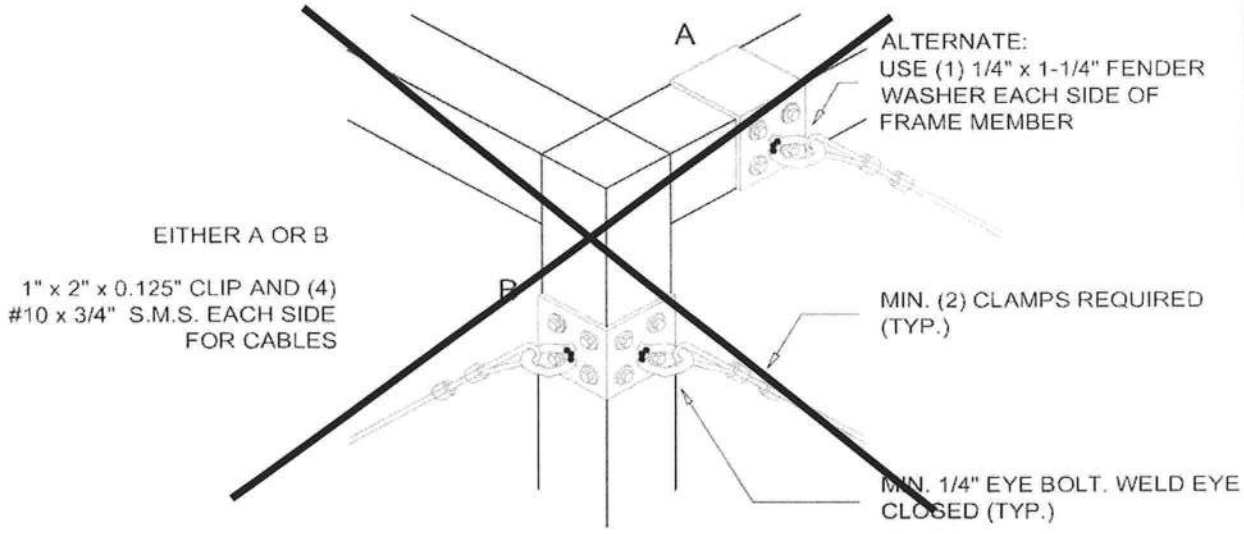


TYPICAL CABLE CONNECTIONS AT CORNER - DETAIL 1

SCALE: 3" = 1'-0"



ALTERNATE TOP CORNER OF CABLE CONNECTION - DETAIL 1A

SCALE: 3" = 1'-0"

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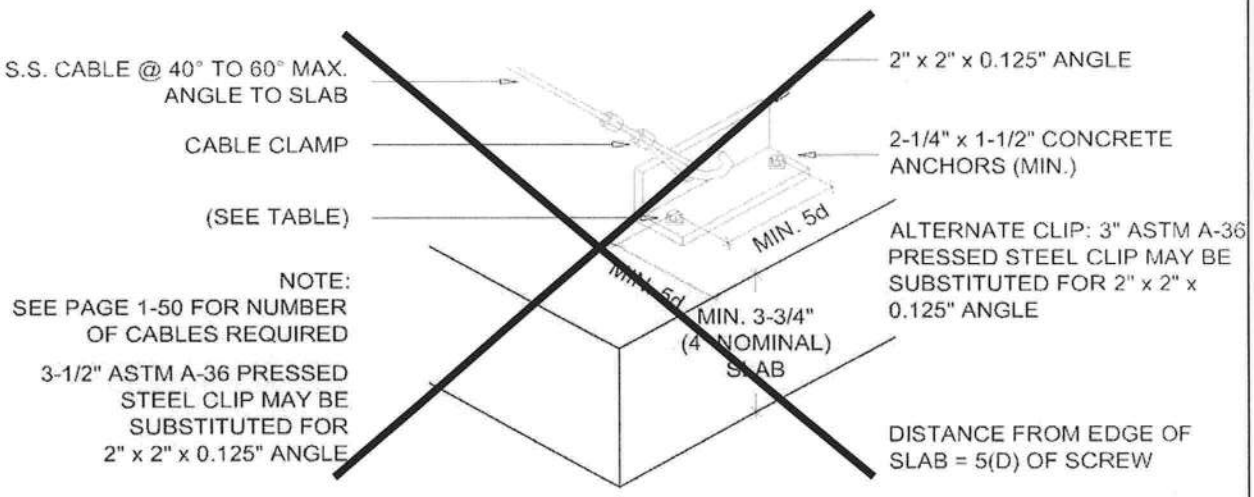
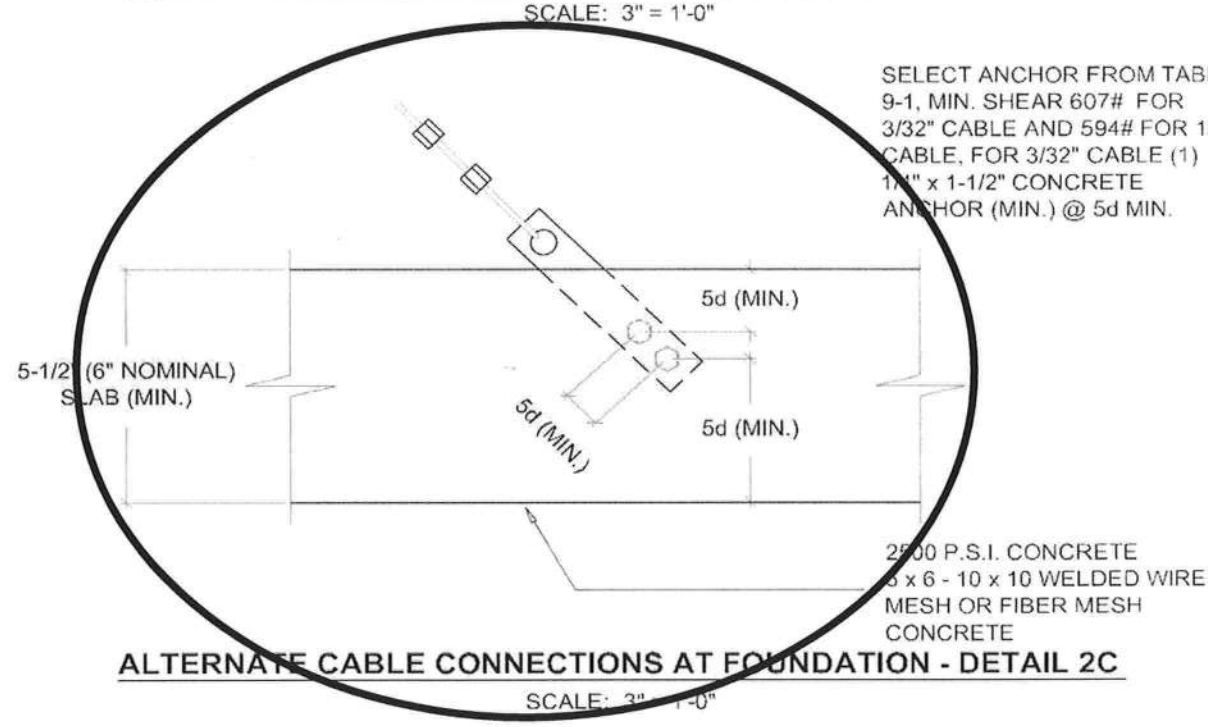


ALTERNATE CABLE CONNECTION AT SLAB DETAIL - DETAIL 2B

SCALE: 3" = 1'-0"



ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2C

SCALE: 3" = 1'-0"

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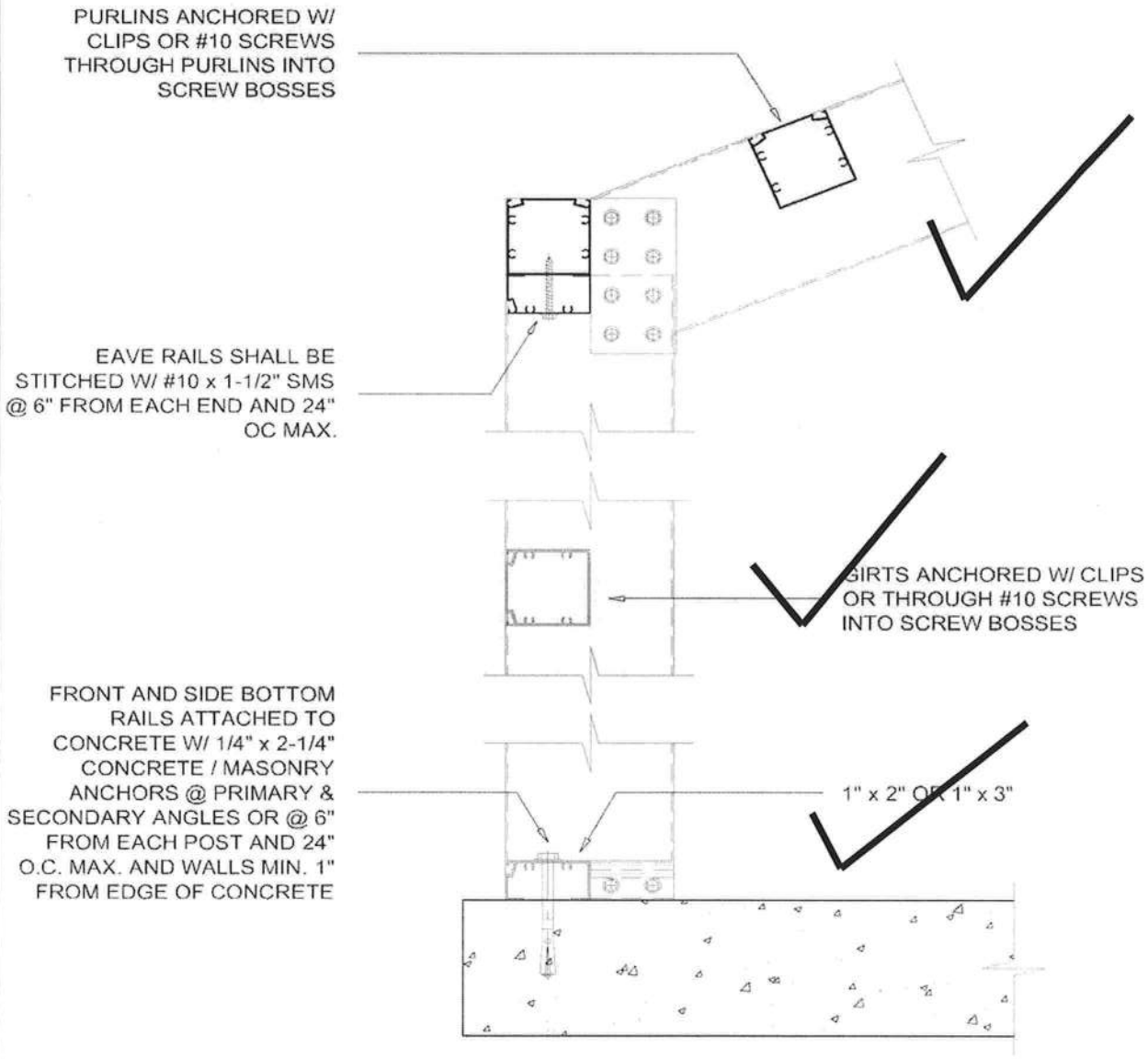

PURLIN & CHAIR RAIL DETAIL

SCALE: 3" = 1'-0"

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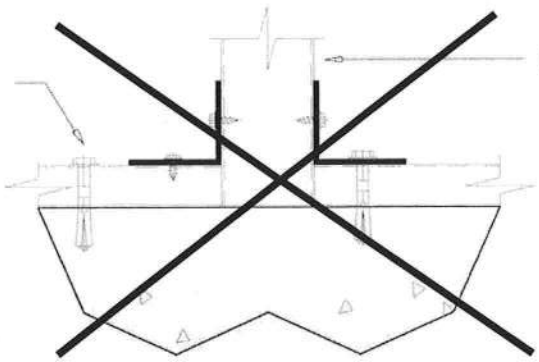
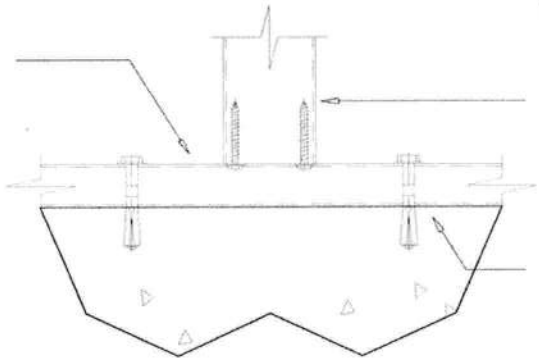


SIDE WALL POST TO PLATE TO CONCRETE DETAIL

SCALE: 3" = 1'-0"



SIDE WALL HOLLOW POST TO BASE DETAIL

SCALE: 3" = 1'-0"

POOL ENCLOSURE UPRIGHT TO DECK ANCHOR REQUIREMENTS

General Notes and Specifications:

1. The uplift load on a pool enclosure upright is calculated as 1/2 the beam span x the beam spacing x the screen load of 7# / Sq. Ft.
   EXAMPLE:
   FOR A 2" x 6" BEAM WITH A SPAN OF 23' AND A BEAM & UPRIGHT SPACING OF 7' USE: 1/2 x 17'-11" x 7' x 10# / Sq. Ft. = 627.2# UPLIFT
2. Table 1.6 of this manual uses the worst case loads for all cases.
3. In all cases there must be a primary anchor within 6" of each side of the upright.
4. For attachment to wood deck (min. 2" nominal thickness) use wood anchors with details shown above (min. 1-3/8" embedment).

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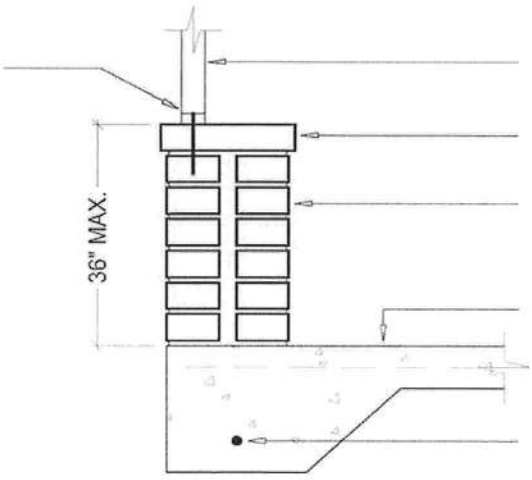
1/4" x 6" RAWL TAPPER THROUGH 1" x 2" AND ROWLOCK INTO FIRST COURSE OF BRICKS

ALTERNATE CONNECTION OF SCREENED ENCLOSURE FOR BRICK OR OTHER NON-STRUCTURAL KNEE WALL
1" WIDE x 0.063" THICK STRAP @ EACH POST FROM POST TO FOOTING W/ (2) #10 x 3/4" S.M.S. STRAP TO POST AND (1) 1/4" x 1-3/4" CONCRETE ANCHOR TO SLAB OR FOOTING



ALUMINUM FRAME SCREEN WALL

CAP BRICK

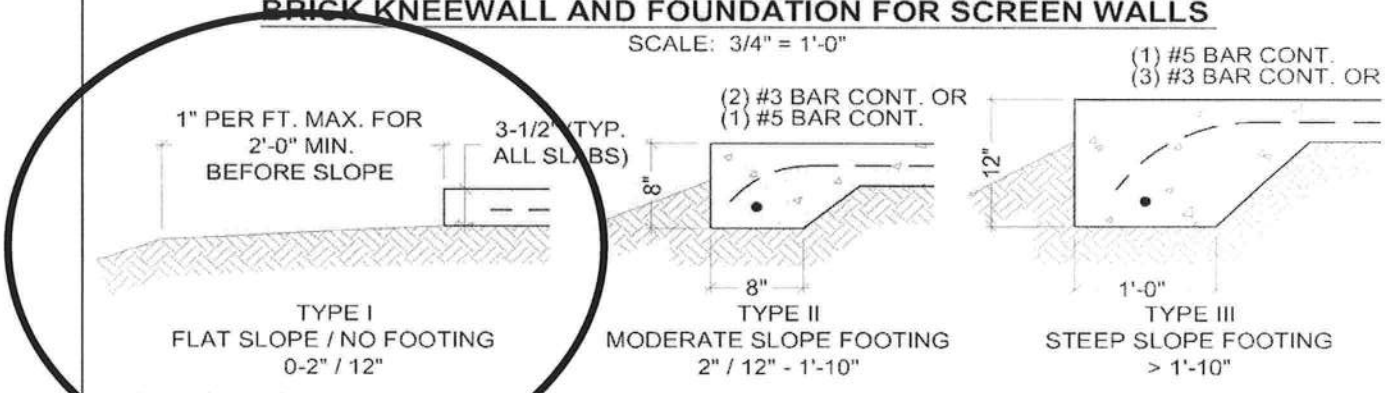
BRICK KNEEWALL TYPE 'S' MORTAR REQUIRED FOR LOAD BEARING BRICK WALL

4" (NOMINAL) PATIO CONCRETE SLAB (SEE NOTES CONCERNING FIBER MESH)

(3) #3Ø BARS OR (1) #5Ø BAR W/ 2-1/2" COVER (TYP.)

BRICK KNEEWALL AND FOUNDATION FOR SCREEN WALLS

SCALE: 3/4" = 1'-0"



TYPE I
FLAT SLOPE / NO FOOTING
0-2" / 12"

TYPE II
MODERATE SLOPE FOOTING
2" / 12" - 1'-10"

TYPE III
STEEP SLOPE FOOTING
> 1'-10"

Notes for all foundation types:

1. The foundations shown are based on a minimum soil bearing pressure of 1,500 PSF. Bearing capacity of soil shall be verified prior to placing slab by field soil test (soil penetrometer) or a soil testing lab.
2. The slab / foundation shall be cleared of debris, roots and compacted prior to placement of concrete.
3. No footing is required except when addressing erosion until the slab width in the direction of the primary beams exceeds the span per table on page 1-69, then a type II slab is required under the load bearing wall only unless the side wall exceeds 16' in height or the enclosure is in a "C" exposure catagory in which case a type II footing is required.
4. Monolithic slabs and footings shall be minimum 2,500 psi concrete with 6 x 6 - 10 x 10 welded wire mesh or crack control fiber mesh; Fibermesh® Mesh, InForce™ e3™ (Formerly Fibermesh MD) per manufacturer's specification may be used in lieu of wire mesh. All slabs / footings shall be allowed to cure for 7 days before installing anchors.
5. If local codes require a minimum footing use Type II footing or footing section required by local code. Local codes govern.

SLAB-FOOTING DETAILS

SCALE: 3/4" = 1'-0"

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Table 1.1 120 Allowable Spans for Primary Screen Roof Frame Members

Aluminum Alloy 6063 T-6

For Wind Zones up to 120 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													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044"	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb
2" x 2" x 0.050"	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb
2" x 2" x 0.090"	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb
2" x 3" x 0.045"	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb
2" x 4" x 0.050"	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb
2" x 5" x 0.062"	20'-5"	Pb	20'-5"	Pb	20'-5"	Pb	20'-4"	Ud	19'-4"	Ud	18'-6"	Ud	17'-9"	Ud

Self Mating Sections	Tributary Load Width 'W' = Beam Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 4" x 0.044 x 0.100"	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd
2" x 5" x 0.050" x 0.100"	16'-1"	Pd	16'-1"	Pd	16'-1"	Pd	16'-1"	Pd	16'-1"	Pd	15'-9"	Ud	15'-1"	Ud
2" x 6" x 0.050" x 0.120"	20'-4"	Pd	20'-4"	Pd	20'-4"	Pd	20'-3"	Ud	19'-3"	Ud	18'-5"	Ud	17'-8"	Ud
2" x 7" x 0.055" x 0.120"	24'-9"	Pd	24'-9"	Pd	24'-6"	Ud	23'-1"	Ud	21'-11"	Ud	20'-11"	Ud	20'-2"	Ud
2" x 8" x 0.072" x 0.224"	34'-2"	Pd	32'-9"	Ud	30'-5"	Ud	28'-7"	Ud	27'-2"	Ud	25'-11"	Ud	24'-11"	Ud
2" x 9" x 0.072" x 0.224"	39'-3"	Pd	35'-11"	Ud	33'-4"	Ud	31'-5"	Ud	29'-10"	Ud	28'-6"	Ud	27'-5"	Ud
2" x 9" x 0.082" x 0.310"	42'-5"	Ud	38'-7"	Ud	35'-10"	Ud	33'-8"	Ud	31'-11"	Ud	30'-7"	Ud	29'-5"	Ud
2" x 10" x 0.092" x 0.369"	49'-3"	Ud	44'-9"	Ud	41'-7"	Ud	39'-1"	Ud	37'-2"	Ud	35'-6"	Ud	34'-2"	Ud

Snap Sections	Tributary Load Width 'W' = Beam Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044"	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd
2" x 3" x 0.045"	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd
2" x 4" x 0.045"	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd
2" x 6" x 0.062"	22'-2"	Pd	22'-2"	Pd	22'-2"	Pd	21'-5"	Ud	20'-5"	Ud	19'-6"	Ud	18'-9"	Ud
2" x 7" x 0.062"	26'-8"	Pd	26'-8"	Pd	25'-9"	Ud	24'-3"	Ud	23'-0"	Ud	22'-0"	Ud	21'-2"	Ud

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. Other conditions may offer better spans w/ enclosure site specific engineering.
6. Spans may be interpolated.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

Example: Max. 'L' for 2" x 4" x 0.050" hollow section with 'W' = 5'-0" = 9'-1"

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Table 1.2 120 Allowable Spans for Secondary Screen Roof Frame Members

Aluminum Alloy 6063 T-6

For Wind Zones up to 120 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

A. Sections Fastened To Beams With Clips

Hollow Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044"	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb
2" x 2" x 0.050"	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb
2" x 2" x 0.090"	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd
3" x 2" x 0.045"	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb
3" x 2" x 0.070"	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd
2" x 3" x 0.045"	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd
2" x 4" x 0.050"	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb
2" x 5" x 0.062"	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd

Snap Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb
2" x 3" x 0.045"	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd
2" x 4" x 0.045"	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd

B. Sections Fastened Through Beam Webs Into Screw Bosses

Hollow Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 3" x 0.050"	11'-5"	Pb	11'-5"	Pb	11'-5"	Pb	11'-4"	Ud	10'-11"	Ud	10'-8"	Ud	10'-3"	Ud
2" x 4" x 0.050"	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb
2" x 5" x 0.062"	22'-4"	Pd	22'-4"	Pd	22'-4"	Pd	21'-7"	Ud	20'-11"	Ud	20'-4"	Ud	19'-7"	Ud

Snap Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044"	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb

Notes:

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. Other conditions may offer better spans w/ enclosure site specific engineering.
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 page 1-ii.

CHECK TABLE 1.6 FOR MINIMUM UPRIGHT SIZE FOR BEAMS.

Example: Max. 'L' for 2" x 4" x 0.050" hollow section fastened to beam with clips with 'W' = 5'-0" = 9'-1"

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Table 1.3 110 Allowable Post / Upright Heights for Primary Screen Wall Frame Members

Aluminum Alloy 6063 T-6

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													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 2" x 0.044"	7'-5"	d	6'-5"	b	5'-8"	b	5'-1"	b	4'-8"	b	4'-3"	b	3'-11"	b
2" x 2" x 0.050"	7'-10"	d	7'-1"	b	6'-3"	b	5'-8"	b	5'-2"	b	4'-9"	b	4'-5"	b
2" x 2" x 0.090"	8'-11"	d	8'-2"	d	7'-10"	d	7'-1"	b	6'-7"	b	6'-1"	b	5'-9"	b
2" x 3" x 0.045"	8'-4"	d	7'-7"	d	7'-9"	d	6'-11"	d	6'-5"	d	5'-11"	b	5'-6"	b
2" x 4" x 0.050"	11'-2"	b	9'-7"	b	8'-6"	b	7'-9"	b	7'-1"	b	6'-7"	b	6'-1"	b
2" x 5" x 0.062"	17'-3"	b	14'-10"	b	13'-2"	b	11'-11"	b	11'-0"	b	10'-3"	b	9'-7"	b

Self Mating Sections	Tributary Load Width 'W' = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 4" x 0.044 x 0.100"	11'-11"	d	10'-10"	d	10'-0"	d	9'-5"	b	8'-8"	b	8'-0"	b	7'-6"	b
2" x 5" x 0.050" x 0.100"	14'-9"	d	13'-5"	d	12'-5"	d	11'-7"	b	10'-8"	b	9'-11"	b	9'-4"	b
2" x 6" x 0.050" x 0.120"	17'-3"	d	15'-8"	d	14'-4"	b	13'-1"	b	12'-0"	b	11'-3"	b	10'-6"	b
2" x 7" x 0.055" x 0.120"	19'-8"	d	17'-6"	b	15'-7"	b	14'-2"	b	13'-1"	b	12'-2"	b	11'-5"	b
2" x 8" x 0.072" x 0.224"	24'-4"	d	22'-1"	d	20'-6"	d	19'-4"	d	18'-4"	d	17'-6"	d	16'-10"	d
2" x 9" x 0.072" x 0.224"	26'-8"	d	24'-3"	d	22'-6"	d	21'-2"	d	20'-1"	d	19'-3"	d	18'-2"	b
2" x 9" x 0.082" x 0.310"	28'-8"	d	26'-0"	d	24'-2"	d	22'-9"	d	21'-7"	d	20'-8"	d	19'-10"	d
2" x 10" x 0.092" x 0.369"	33'-3"	d	30'-3"	d	28'-1"	d	26'-5"	d	25'-1"	d	23'-11"	d	23'-1"	d

Snap Sections	Tributary Load Width 'W'= Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 2" x 0.044"	6'-7"	d	5'-11"	d	5'-7"	d	5'-3"	d	4'-10"	b	4'-5"	b	4'-1"	b
2" x 3" x 0.045"	8'-10"	d	8'-1"	d	7'-6"	d	6'-11"	b	6'-3"	b	5'-9"	b	5'-3"	b
2" x 4" x 0.045"	11'-2"	d	10'-2"	d	9'-2"	b	8'-2"	b	7'-5"	b	6'-9"	b	6'-2"	b
2" x 6" x 0.062"	18'-3"	d	16'-7"	d	15'-5"	d	14'-6"	d	13'-9"	d	13'-2"	d	12'-8"	d
2" x 7" x 0.062"	20'-7"	d	18'-9"	d	17'-5"	d	16'-4"	d	15'-7"	d	14'-10"	d	14'-2"	b

Notes:

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 length '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 pool 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 8'-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 page 1-ii.

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Table 1.4 110 Allowable Post / Girt / Chair Rail Spans, Header Spans & Upright Heights for Secondary Screen Wall Frame Members

Aluminum Alloy 6063 T-6

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

A. Sections As Horizontals Fastened To Posts With Clips

Hollow Sections	Tributary Load Width 'W' = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	7'-5"	d	6'-5"	b	5'-8"	b	5'-1"	b	4'-8"	b	4'-3"	b	3'-11"	b
2" x 2" x 0.050"	7'-10"	d	7'-1"	b	6'-3"	b	5'-8"	b	5'-2"	b	4'-9"	b	4'-5"	b
2" x 2" x 0.090"	8'-11"	d	8'-2"	d	7'-10"	d	7'-1"	b	6'-7"	b	6'-1"	b	5'-9"	b
3" x 2" x 0.045"	8'-4"	d	7'-4"	b	6'-6"	b	5'-10"	b	5'-4"	b	4'-11"	b	4'-7"	b
3" x 2" x 0.070"	9'-5"	d	8'-6"	d	7'-9"	b	7'-0"	b	6'-5"	b	5'-11"	b	5'-7"	b
2" x 3" x 0.045"	8'-4"	d	7'-7"	d	7'-9"	d	6'-11"	d	6'-5"	d	5'-11"	b	5'-6"	b
2" x 4" x 0.050"	11'-2"	b	9'-7"	b	8'-6"	b	7'-9"	b	7'-1"	b	6'-7"	b	6'-1"	b
2" x 5" x 0.062"	17'-3"	b	14'-10"	b	13'-2"	b	11'-11"	b	11'-0"	b	10'-3"	b	9'-7"	b

Snap Sections	Tributary Load Width 'W'= Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	6'-7"	d	5'-11"	d	5'-7"	d	5'-3"	d	4'-10"	b	4'-5"	b	4'-1"	b

B. Sections As Horizontals Fastened To Posts Through Side Into Screw Bosses

Hollow Sections	Tributary Load Width 'W' = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	8'-4"	b	7'-2"	b	6'-4"	b	5'-8"	b	5'-2"	b	4'-9"	b	4'-5"	b
3" x 2" x 0.045"	9'-7"	b	8'-3"	b	7'-3"	b	6'-6"	b	5'-11"	b	5'-6"	b	5'-1"	b
3" x 2" x 0.070"	11'-5"	b	9'-10"	b	8'-8"	b	7'-10"	b	7'-2"	b	6'-8"	b	6'-3"	b
2" x 3" x 0.045"	11'-2"	d	9'-9"	b	8'-8"	b	7'-10"	b	7'-2"	b	6'-8"	b	6'-2"	b
2" x 4" x 0.050"	12'-6"	b	10'-9"	b	9'-6"	b	8'-7"	b	7'-11"	b	7'-4"	b	6'-10"	b
2" x 5" x 0.062"	19'-3"	b	16'-7"	b	14'-9"	b	13'-5"	b	12'-4"	b	11'-6"	b	10'-9"	b

Snap Sections	Tributary Load Width 'W'= Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	8'-10"	d	7'-8"	b	6'-9"	b	6'-0"	b	5'-5"	b	4'-11"	b	4'-7"	b

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 pool enclosures over 30' in mean roof height.
4. Span/height 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 gardrails provided they are attached with min. (3) #10 x 1-1/2" s.m.s. into the screw bosses and do not exceed 8'-0" o.c.
6. Girt spacing shall not exceed 6'-8".
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. Spans/heights may be interpolated.
10. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

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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

Beam/Upright or Post	Upright or Post/Beam	Minimum Purlin, Girt & Knee Brace Size	Notes	Minimum Number of Screws*			Beam Stitching Screw at 24" OC
				#8 x ½"	#10 x ½"	#12 x ½"	
2 x 4 SMB	2 x 3 SMB or H	2" x 2" x 0.044"	Partial Lap	8	6	4	#10
2 x 5 SMB	2 x 3 SMB or H	2" x 2" x 0.044"	Partial Lap	8	6	4	#8
2 x 6 SMB	2 x 3 SMB or H	2" x 2" x 0.044"	Partial Lap	10	8	6	#10
2 x 7 SMB	2 x 4 SMB or H	2" x 3" x 0.044"	Full Lap	14	12	10	#12
2 x 8 SMB	2 x 5 SMB or H	2" x 3" x 0.044"	Full Lap	16	14	12	#14
2 x 9 SMB	2 x 6 SMB	2" x 3" x 0.045"	Full Lap	18	16	14	#14**
2 x 9 SMB *	2 x 7 SMB	2" x 4" x 0.050"	Full Lap	20	18	16	#14**
2 x 10 SMB	2 x 8 SMB	2" x 5" x 0.050"	Full Lap	20	18	16	#14**

Screw Size	Minimum Distance and Spacing of Screws	
	Edge To Center	Center To Center
#8	5/16"	5/8"
#10	3/8"	3/4"
#12	1/2"	1"
#14 or 1/4"	3/4"	1-1/2"
5/16"	7/8"	1-3/4"
3/8"	1"	2"

Gusset Plate Thickness	
Beam Size	Thickness
2" x 7" x 0.055" x 0.120"	0.063"
2" x 8" x 0.072" x 0.224"	0.125"
2" x 9" x 0.072" x 0.224"	0.125"
2" x 9" x 0.082" x 0..306"	0.190"
2" x 10" x 0.092" x 0.369"	0.250"

* 0.082" wall thickness, 0.310" flange thickness

** (1) Stitching screw at 16" O.C. max.

Connection Example:

2" x 7" beam & 2" x 5" at beam & gusset plate, (14) #8 x 1/2" sms & upright & gusset plate (14) #8 x 1/2" sms ea. side of beam & upright.

Note:

1. Connection of 2" x 6" to 2" x 4" shall use a full lap cut or 1/16" gusset plate.
2. 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.
3. The number of screws is based on the maximum allowable moment of the beam.
4. The number of deck anchors is based on RAWL R Tapper allowable load data for 2,500 psi concrete and / or equal anchors may be used. The number shown is the total use 1/2 per side.
5. Hollow splice connections can be made provided the connection is approved by the engineer.
6. 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.
7. The side wall upright shall have a minimum beam size as shown above, ie., a 2" x 4" upright shall have a 2" x 3" beam.
8. 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 0.224" s.m.b. w/ 2" x 6" x 0.050 x 0.120" s.m.b. upright requires a 2" x 3" x 0.045" girt / chair rail.)

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