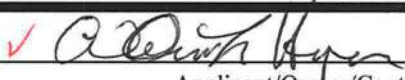


DATE 08/11/2010

Columbia County Building Permit**PERMIT****This Permit Must Be Prominently Posted on Premises During Construction****000028784**

APPLICANT WILLIAM HARPER PHONE 623-3873
ADDRESS 119 SW HOBBY PLACE LAKE CITY FL 32024
OWNER KENT & IRENE LOURCEY PHONE 758-9556
ADDRESS 659 NE CEMETARY LOOP LAKE CITY FL 32055
CONTRACTOR WILLIAM HARPER PHONE 623-3873
LOCATION OF PROPERTY 441N, TR CEMETERY LOOP, 1/2 MILE ON LEFT, DRIVE IN
FRONT OF EVANSTON LANE, CHAIN LINK FENCE
TYPE DEVELOPMENT MODULAR, UTILITY ESTIMATED COST OF CONSTRUCTION 0.00
HEATED FLOOR AREA TOTAL AREA HEIGHT STORIES
FOUNDATION WALLS ROOF PITCH FLOOR
LAND USE & ZONING A-3 MAX. HEIGHT
Minimum Set Back Requirements: STREET-FRONT 30.00 REAR 25.00 SIDE 25.00
NO. EX.D.U. 1 FLOOD ZONE X DEVELOPMENT PERMIT NO.

PARCEL ID 33-1S-17-04635-000 SUBDIVISION
LOT BLOCK PHASE UNIT 0 TOTAL ACRES 14.85

RR28281142 
Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor
EXISTING 10-366 BK TC N
Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: NOC ON FILECheck # or Cash 1069**FOR BUILDING & ZONING DEPARTMENT ONLY**

(footer/Slab)

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

BUILDING PERMIT FEE \$ 0.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00MISC. FEES \$ 350.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$ FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ 25.00 CULVERT FEE \$ **TOTAL FEE** 425.00INSPECTORS OFFICE  CLERKS OFFICE 

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.

OK# 1069

For Office Use Only Application # 1007-50 Date Received 1/28/10 By GP Permit # 68184C
Zoning Official BLK Date 03.09.10 Flood Zone X Land Use A-3 Zoning A-3
FEMA Map # N/A Elevation N/A MFE 1' above Rd River N/A Plans Examiner T.C. Date 8-2-10

☒ NOC ☒ EH ☐ 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 *N/A Replacing Existing* *14 VF*

UF/EH SPOKE to Bill
8/3/10

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.

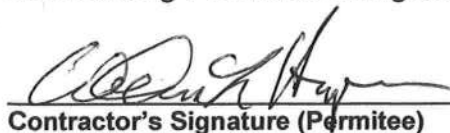
NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. It may be to your advantage to check and see if your property is encumbered by any restrictions.

(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)

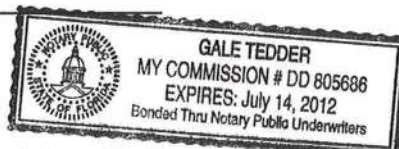
Contractor's License Number RR 282811402
Columbia County
Competency Card Number 000258

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 28th day of July 2010.

Personally known ☒ or Produced Identification ☐


State of Florida Notary Signature (For the Contractor)

SEAL:



SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER 10-0750 CONTRACTOR WL Harper PHONE _____
 THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County one permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

ELECTRICAL bk	Print Name <u>D&S Lighting, Inc</u> License #: <u>EC 13003800 (Ruddock)</u>	Signature <u>[Signature]</u> Phone #: <u>386-755-5255</u>
MECHANICAL/ A/C	Print Name _____ License #: _____	Signature _____ Phone #: _____
PLUMBING/ GAS	Print Name _____ License #: _____	Signature _____ Phone #: _____
ROOFING	Print Name _____ License #: _____	Signature _____ Phone #: _____
SHEET METAL	Print Name _____ License #: _____	Signature _____ Phone #: _____
FIRE SYSTEM/ SPRINKLER	Print Name _____ License #: _____	Signature _____ Phone #: _____
SOLAR	Print Name _____ License #: _____	Signature _____ Phone #: _____

Specialty License	License Number	Sub Contractors Printed Name	Sub Contractors Signature
MASON			
CONCRETE FINISHER			
FRAMING			
INSULATION			
STUCCO			
DRYWALL			
PLASTER			
CABINET INSTALLER			
PAINTING			
ACOUSTICAL CEILING			
GLASS			
CERAMIC TILE			
FLOOR COVERING			
ALUM/VINYL SIDING			
GARAGE DOOR			
METAL BLDG ERECTOR			

F. S. 440.103 Building permits; identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.

SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER _____ CONTRACTOR _____ PHONE _____

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County one permit will cover all trades doing work at the permitted site. It is **REQUIRED** that we have records of the subcontractors who actually did the trade specific work under the permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

ELECTRICAL	Print Name _____ License #: _____	Signature _____ Phone #: _____
MECHANICAL/ A/C <u>428</u>	Print Name <u>TOM BUCCHI</u> License #: <u>CAC058170</u>	Signature <u>[Signature]</u> Phone #: <u>386-497-2216</u>
PLUMBING/ GAS <u>714</u> <u>715</u>	Print Name <u>MARK BARRS</u> License #: <u>CFL057219</u>	Signature <u>[Signature]</u> Phone #: <u>732-8656</u>
ROOFING	Print Name _____ License #: _____	Signature _____ Phone #: _____
SHEET METAL	Print Name _____ License #: _____	Signature _____ Phone #: _____
FIRE SYSTEM/ SPRINKLER	Print Name _____ License #: _____	Signature _____ Phone #: _____
SOLAR	Print Name _____ License #: _____	Signature _____ Phone #: _____

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON <u>OK 620</u>		<u>BLANT STEVENS</u>	
CONCRETE FINISHER			
FRAMING			
INSULATION			
STUCCO			
DRYWALL			
PLASTER			
CABINET INSTALLER			
PAINTING			
ACOUSTICAL CEILING			
GLASS			
CERAMIC TILE			
FLOOR COVERING			
ALUM/VINYL SIDING			
GARAGE DOOR			
METAL BLDG ERECTOR			

F. S. 440.103 Building permits; identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.

SSO 201006081
SBC 7/30

10-03661



STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL
SYSTEM
APPLICATION FOR CONSTRUCTION PERMIT

PERMIT NO. 973911
DATE PAID: 7/28/10
FEE PAID: 320.00
RECEIPT #: 1484595

APPLICATION FOR:

[] New System [X] Existing System [] Holding Tank [] Innovative
[] Repair [] Abandonment [] Temporary [X] Modification

APPLICANT: KEN AND IRENE LOURCEY

AGENT: WILLIAM L. HARPER

TELEPHONE: 386-623-3873

MAILING ADDRESS: 119 SW HOBBS PL. LAKE CITY, FL. 32024

TO BE COMPLETED BY APPLICANT OR APPLICANT'S AUTHORIZED AGENT. SYSTEMS MUST BE CONSTRUCTED BY A PERSON LICENSED PURSUANT TO 489.105(3)(m) OR 489.552, FLORIDA STATUTES. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE DOCUMENTATION OF THE DATE THE LOT WAS CREATED OR PLATTED (MM/DD/YY) IF REQUESTING CONSIDERATION OF STATUTORY GRANDFATHER PROVISIONS.

PROPERTY INFORMATION

LOT: N/A BLOCK: N/A SUBDIVISION: N/A PLATTED: N/A

PROPERTY ID #: 33-15-17-04635-000 ZONING: Ag I/M OR EQUIVALENT: N

PROPERTY SIZE: 10 ACRES WATER SUPPLY: [X] PRIVATE PUBLIC [] <=2000GPD [] >2000GPD

IS SEWER AVAILABLE AS PER 381.0065, FS? [Y/N] DISTANCE TO SEWER: N/A FT

PROPERTY ADDRESS: 659 N.E. CEMETERY LOOP, LAKE CITY, FL. 32055

DIRECTIONS TO PROPERTY: GO US. HWY. 441 NORTH TO CEMETERY LOOP,
TURN RIGHT, GO THROUGH LEFT CURVE AND PROPERTY IS
APPROX. 100 yds ON LEFT.

BUILDING INFORMATION

[X] RESIDENTIAL

[] COMMERCIAL

Unit No	Type of Establishment	No. of Bedrooms	Building Area Sqft	Commercial/Institutional System Design Table 1, Chapter 64E-6, FAC
1	MODULAR HOME	3	2330	ORIGINAL ATTACHED
2				
3				
4				

[X] Floor/Equipment Drains [] Other (Specify)

SIGNATURE: William L. Harper

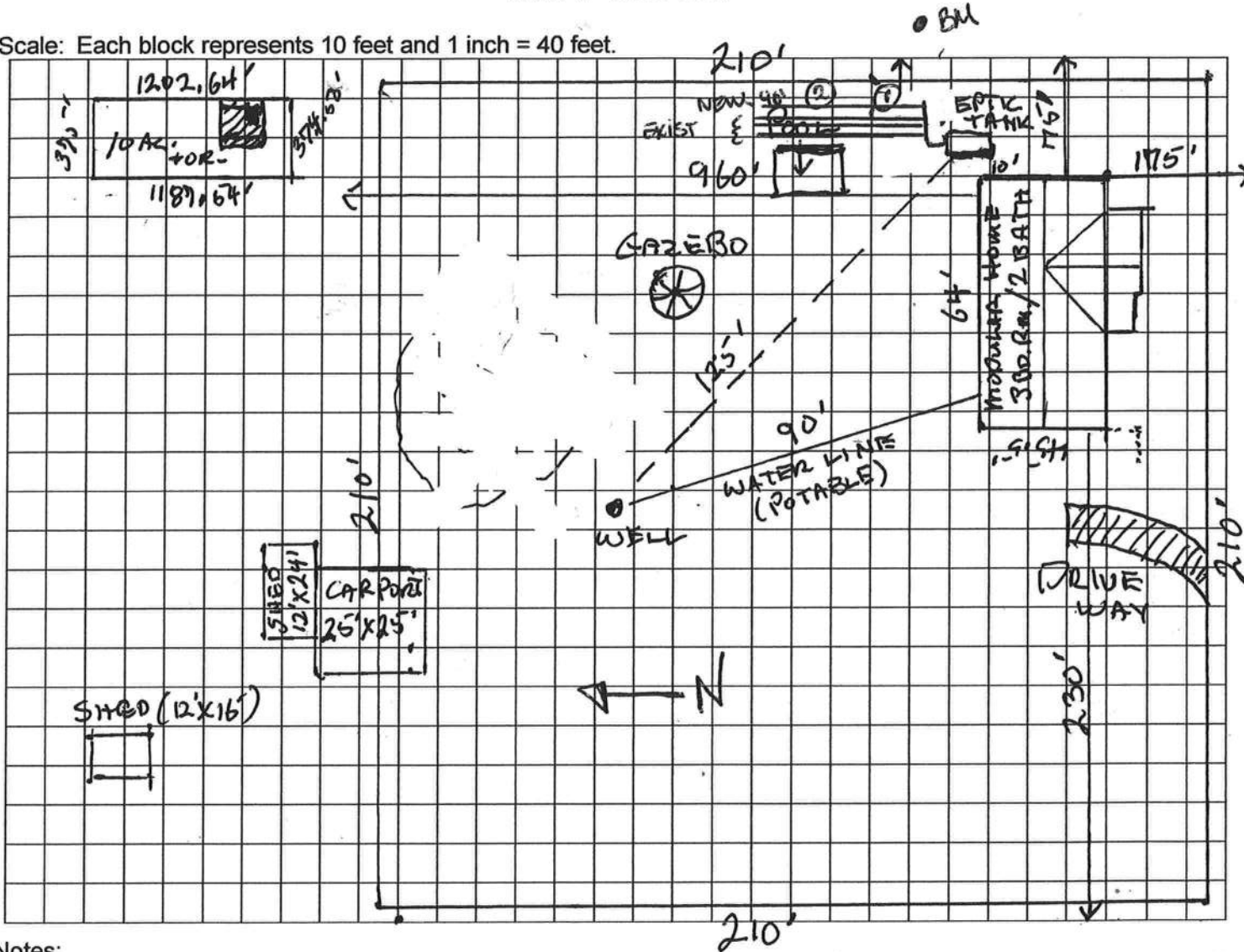
DATE: 7/28/2010

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 10-23666M

----- PART II - SITEPLAN -----

Scale: Each block represents 10 feet and 1 inch = 40 feet.



Notes:

Site Plan submitted by: WILLIAM L. HARPER

Plan Approved ☒ Not Approved ☐

By [Signature] County Health Department

7/28/2010

Date 8/4/10

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

SF

1007-50

NOTICE OF COMMENCEMENT

County Clerk's Office Stamp or Seal

Tax Parcel Identification Number 33-15-17-04635-000

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):

a) Street (job) Address: 659 N.E. CEMETERY LOOP, LAKE CITY, FL. 32053

2. General description of improvements: MODULAR HOME

3. Owner Information

a) Name and address: KEN AND IRENE LOURCEY, 659 NE CEMETERY LOOP
b) Name and address of fee simple titleholder (if other than owner) LAKE CITY, FL 32053
c) Interest in property _____

4. Contractor Information

a) Name and address: WILLIAM L. HARPER

b) Telephone No.: 386-623-3873 Fax No. (Opt.) _____

5. Surety Information

a) Name and address: N/A

b) Amount of Bond: N/A

c) Telephone No.: N/A Fax No. (Opt.) _____

6. Lender

a) Name and address: N/A

b) Phone No.: N/A

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: N/A

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: N/A

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

10. Irene Lourcey
Signature of Owner or Owner's Authorized Officer/Director/Partner/Manager

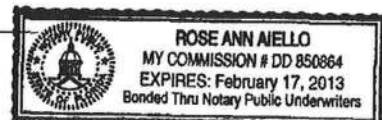
IRENE LOURCEY
Print Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 29 day of July, 2010, by:

Irene Lourcey as owner (type of authority, e.g. officer, trustee, attorney
fact) for same (name of party on behalf of whom instrument was executed).

Personally Known _____ OR Produced Identification ☒ Type FL DL

Notary Signature Rose Ann Aiello Notary Stamp or Seal:



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.

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

THIS INSTRUMENT PREPARED BY:

Tri-County Title Services of Lake City, Inc.
411 North Hernando Street
Lake City, Florida 32055

95-15610

RECORD AND RETURN TO:
Tri-County Title Services of Lake City, Inc.
411 North Hernando Street
Lake City, Florida 32055

RE PARCEL ID #: 33-15-17-04635-000
BUYER'S TIN: 264 56-3607

FOR RECORDER	
FILED	IN PUBLIC
RECORDS	CLERK OF COURTS
1995 DEC -1 11 4: 38	
CLERK OF COURTS	
COLUMBIA COUNTY, FLORIDA	
BY: <i>GRH</i> D.C.	

WARRANTY DEED

THIS WARRANTY DEED made this 1st day of December, 1995 by Dempsey B. Peel and his wife, Athena L. Peel, hereinafter called Grantor, and whose address is Rt. 1 Box 371, Myakka, Florida 34251 to Ken Lourcey and his wife, Irene Lourcey, hereinafter called Grantee and whose address is Rt. 1 Box 165-A, Lake City, Florida.

(Wherever used herein the term "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations.)

WITNESSETH:

THAT the Grantor, for and in consideration of the sum of Ten and NO/100 Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee, all that certain land situate, lying and being in Columbia County, Florida, viz:

A legal description showing a parcel of land in the SE 1/4 of Section 33, Township 1 South, Range 17 East, Columbia County, Florida.

Commence at the Northwest corner of the S 1/2 of the NW 1/4 of the SE 1/4, Section 33, Township 1 South, Range 17 East; run thence along the West side of said S 1/2 of the NW 1/4 of the SE 1/4, S 0° 22'56" West, 325.18 feet; run thence N 89° 52'36" East a distance of approximately 23.00 feet to a point on the East Right-of-Way line of U.S. 441.

Said point being the POINT OF BEGINNING. From the point of beginning continue N 89° 52'36" E approximately 1,202.64 feet to the West Right-of-Way line of a 40.0 foot County Maintained Road, from said point run thence along said West line S 0° 52'54" East, 374.50 feet to a point; run thence S 89°52'36" West, 1,187.54 feet to a point on the East Right-of-Way line of U.S. 441; run thence along a curve to the left having a radius of 3,869.72 feet an arc distance of 375.15 feet and a chord bearing of N 03° 11'19" West and a chord distance of 375.00 feet; said point lying on the Easterly Right-of-Way line of U.S. 441 and being the said POINT OF BEGINNING.

TOGETHER WITH A 1982 NOBI DOUBLEWIDE MOBILE HOME ID# N81818A AND N81818B

SEE SCHEDULE "A" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF

DOCUMENTARY STAMP 333 90
INTANGIBLE TAX
P. DEWITT CASON, CLERK OF
COURTS, COLUMBIA COUNTY
GRH

BY 0814 PG0877
OFFICIAL RECORDS

SUBJECT TO taxes accruing subsequent to December 31, 1995.
SUBJECT TO covenants, restrictions and easements of record, if any; however, this reference thereto shall not operate to reimpose same.

TOGETHER with all the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the same in fee simple forever.

AND the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land; that the Grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

EX 0814 PG 0878

Signed, sealed and delivered in our presence:

Mary Sandage
Witness Signature

MARY SANDAGE
Witness Printed Signature

Cynthia Jo Bickel
Witness Signature

CYNTHIA JO BICKEL
Witness Printed Signature

OFFICIAL RECORDS

Dempsey B. Peel
Dempsey B. Peel

Athena L. Peel
Athena L. Peel

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 1st day of December, 1995 by Dempsey B. Peel and his wife, Athena L. Peel. They are personally known to me or has produced DRIVERS LICENSE as identification.

Notary Public, State and County Aforesaid
Cynthia Jo Bickel

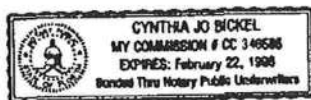
Notary Signature
CYNTHIA JO BICKEL

Notary Printed Signature

NOTARY PUBLIC STATE OF FLORIDA

(Title or Rank)
CC346585

(Serial No., if any)



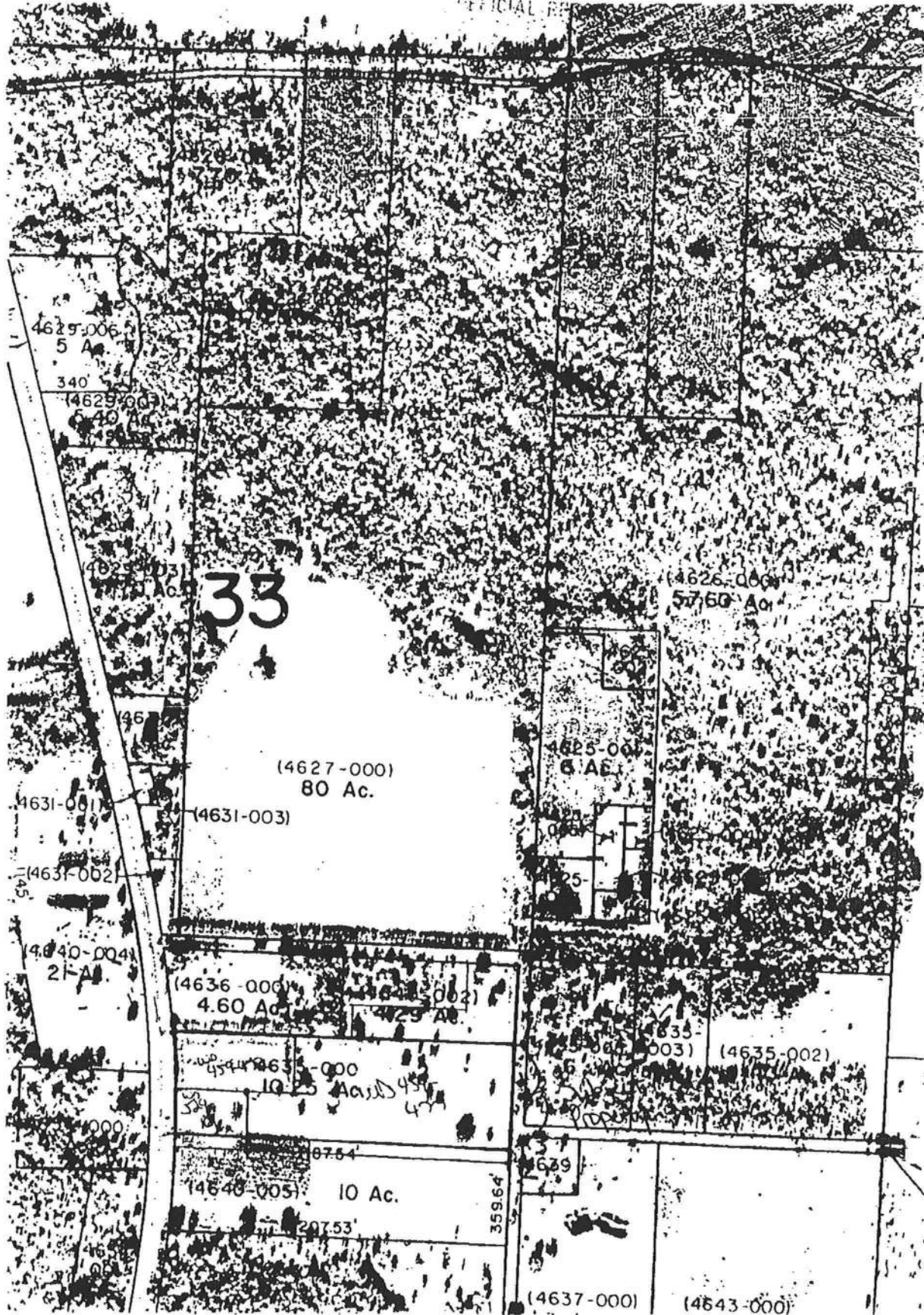
THIS ORIGINAL IS
OF POOR LEGIBILITY

SCHEDULE "A"

0814 160879

THIS IS NOT A SURVEY

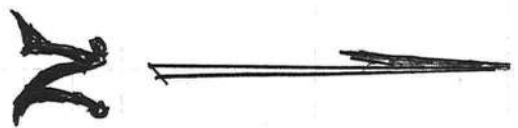
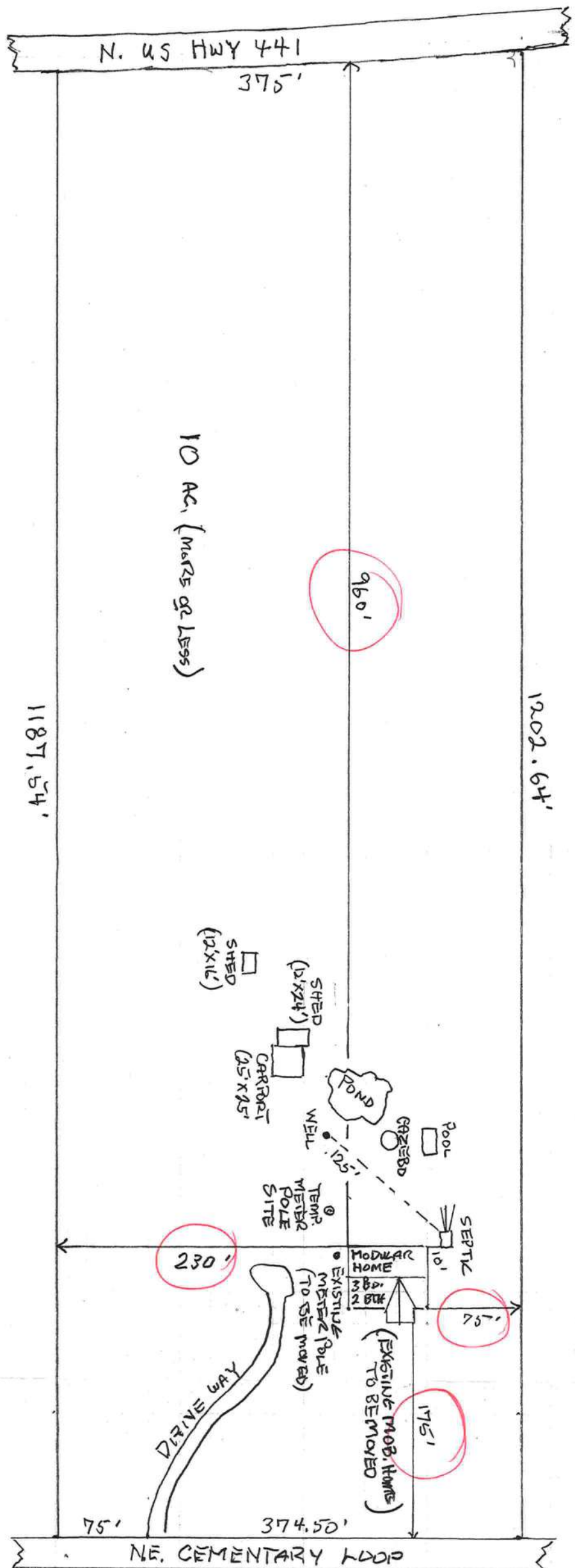
OFFICIAL RECORD



Site Plan

FOR: KEO AND IRENE LOURCEY
 6579 NE CEMENTARY LOOP
 LAKE CITY, FL. 32055
 DRAWN BY: WILLIAM L. HARPER
 SCALE: 1" = 100'

Parcel I.D. #: 33-15-17-04635-000



ITW Building Components Group, Inc.

1950 Marley Drive Haines City, FL 33844
Florida Engineering Certificate of Authorization Number: 0 278
Florida Certificate of Product Approval # FL1999
Page 1 of 1 Document ID: 1U3U8228Z0127145025



Truss Fabricator: Anderson Truss Company
Job Identification: 10-151--Fill in later BILL HARPER -- , **
Truss Count: 4
Model Code: Florida Building Code 2007 and 2009 Supplement
Truss Criteria: FBC2007Com/TPI-2002(STD)
Engineering Software: Alpine Software, Version 9.05.
Structural Engineer of Record: The identity of the structural EOR did not exist as of
Address: the seal date per section 61G15-31.003(5a) of the FAC
Minimum Design Loads: Roof - 45.0 PSF @ 1.25 Duration
Floor - N/A
Wind - 110 MPH ASCE 7-05 -Closed

Notes:

1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1
2. The drawing date shown on this index sheet must match the date shown on the individual truss component drawing.
3. As shown on attached drawings; the drawing number is preceded by: HCUSR8228

Details: A1101505-GBLLETIN-

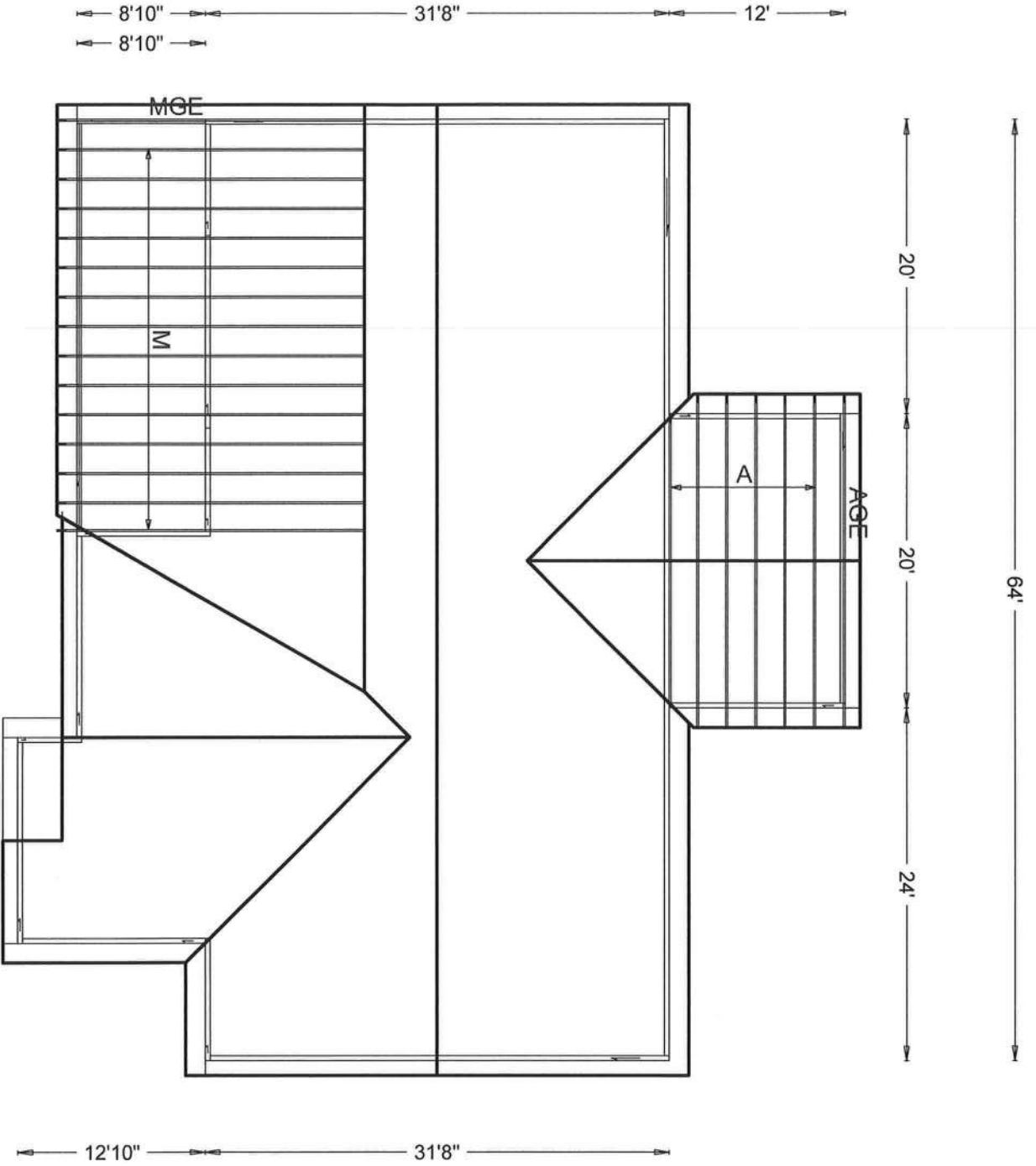
Seal Date: 07/27/2010

-Truss Design Engineer-
James F. Collins Jr.

Florida License Number: 52212
1950 Marley Drive
Haines City, FL 33844

#	Ref	Description	Drawing#	Date
1	76872--A		10208001	07/27/10
2	76873--AGE		10208002	07/27/10
3	76874--M		10208003	07/27/10
4	76875--MGE		10208004	07/27/10





BILL HARPER

JOB DESCRIPTION:: Fill in later /: BILL HARPER		
JOB NO: 10-151	PAGE NO: 1 OF 1	

	Top	chord	2x4	SP	#2	Dense
	Bot	chord	2x4	SP	#2	Dense
		webs	2x4	SP	#3	

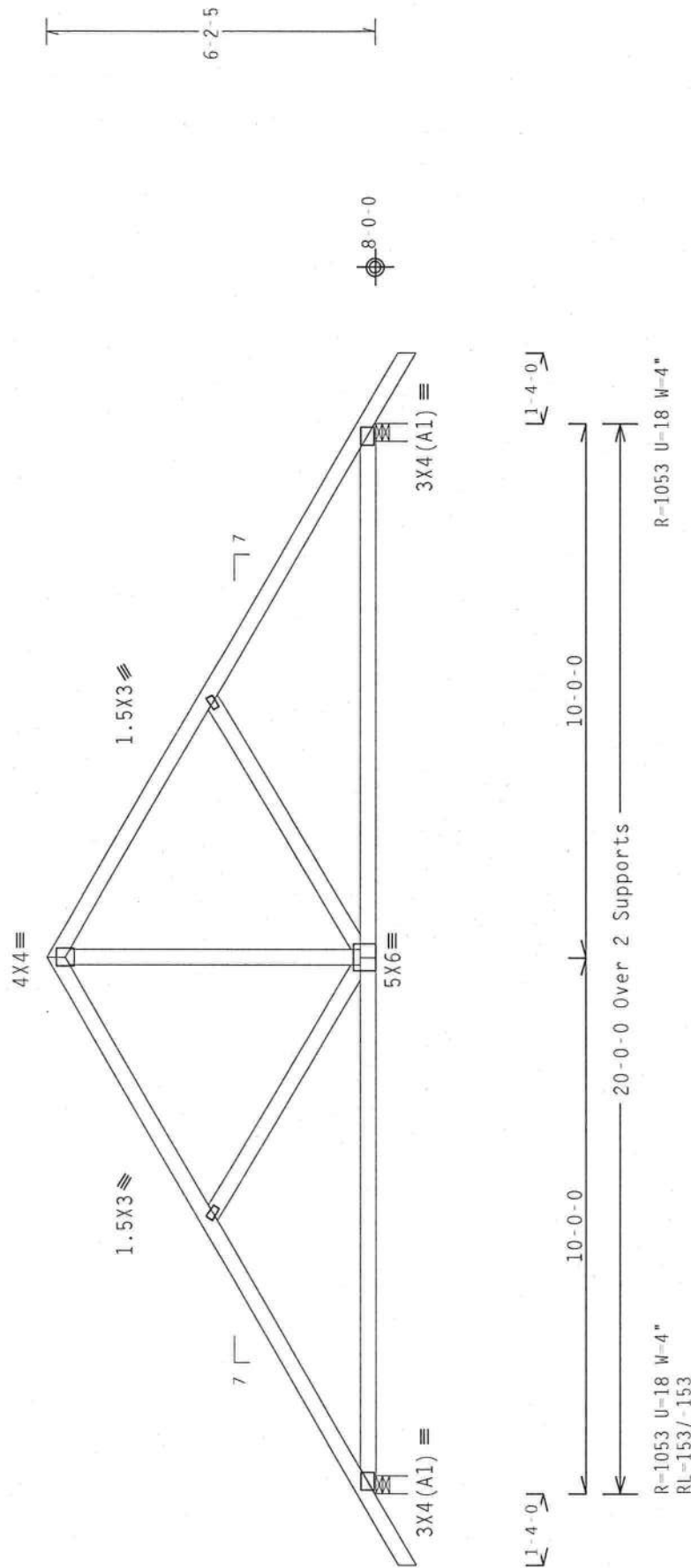
110 mph wind, 15.00 ft mean hgt., ASCE 7-05, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=7.5 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Roof overhang supports 2.00 psf soffit load.

Wind reactions based on MWFRS pressures.

Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load.



PLT TYP. Wave

Design Crit: FBC2007Com/TPI-2002(STD)
FT/RT=10%(0%)/0(0)

QTY:6 FL/-/4/-/-/R/-/
Scale = .3125" / Ft.

TC LL	20.0 PSF	REF	R8228- 76872
TC DL	15.0 PSF	DATE	07/27/10
BC DL	10.0 PSF	DRW	HCUSR8228 1020800
BC LL	0.0 PSF	HC-ENG	TCE/AP
TOT.LD.	45.0 PSF	SEQN-	129544
DUR.FAC.	1.25		

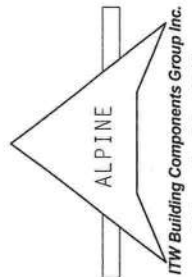


****WARNING**** READ AND FOLLOW ALL NOTES ON THIS SHEET.
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

****IMPORTANT****

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSP (Building Component Safety) Information, by IPT and MCA for safety and handling instructions. Trusses are designed to be installed with the top chord facing up. Trusses shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSP sections 103, 107 or B10, as applicable.

THE Building Components Group Inc. (BICG) shall not be responsible for any deviation from this design or any failure to build the truss in conformance with ANSI/PT 1, or for handling, shipping, installation & bracing of trusses. Apply plates to each face of truss and position as shown above and on the detail. Details, unless noted otherwise. Refer to drawings 1600-2 for standard plate positions. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the user.



Top chord	2x4	SP #2	Dense
Bot chord	2x4	SP #2	Dense
Webbs	2x4	SP #3	
:Stack	Chord	SC1	2x4 SP #2 Dense::Stack Chord SC2 2x4 SP #2 Dense:

Roof overhang supports 2.00 psf soffit load.

See DWGS A11015050109 & GBLLETIN0109 for more requirements.

Stacked top chord must NOT be notched or cut in area (NWL). Dropped top chord braced at 24" o.c. intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie plates 24" o.c. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.

The Building Designer is responsible for the design of the roof and ceiling diaphragms, gable end shear walls, and supporting shear walls. Shear walls must provide continuous lateral restraint to the gable end. All connections to be designed by the Building Designer.

110 mph wind, 15.00 ft mean hgt, ASCE 7-05, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=7.5 psf, wind BC DL=5.0 psf, $I_w=1.00$ GCpi(+/-)=0.18

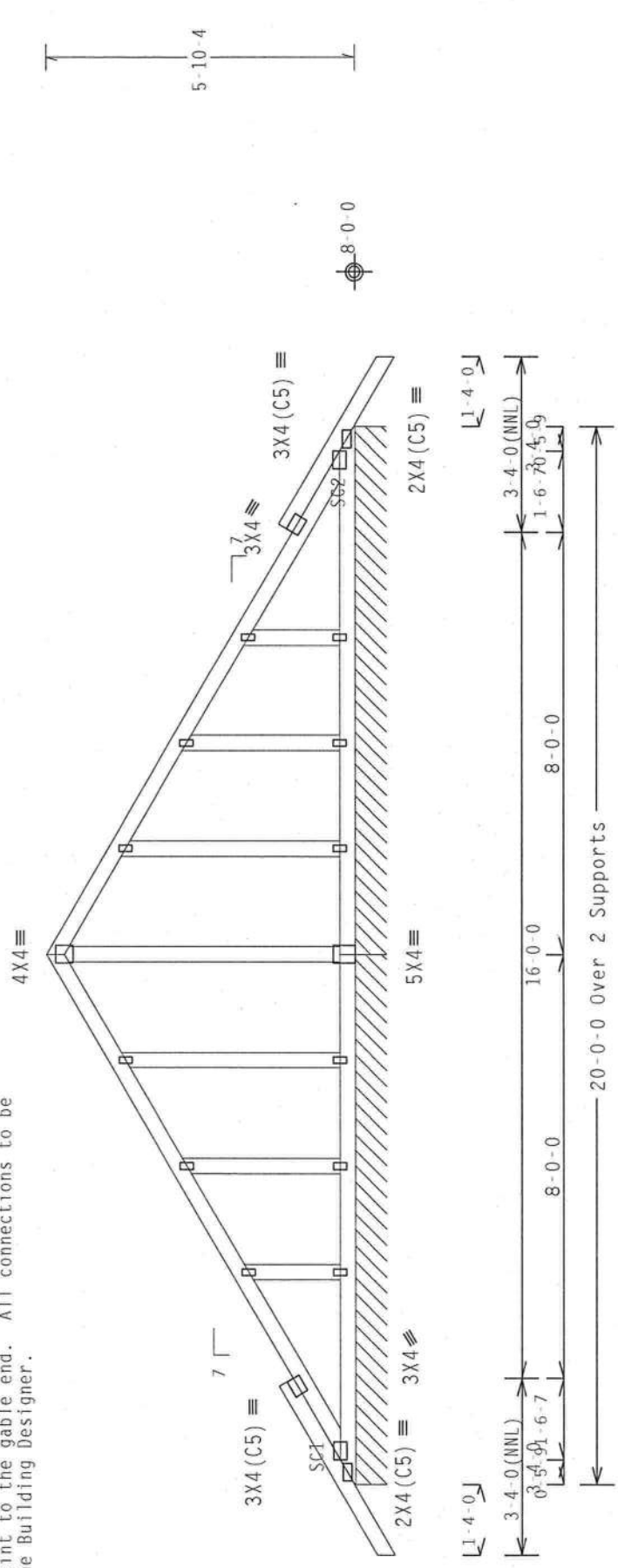
Wind reactions based on MWFRS pressures.

Truss spaced at 24.0" OC designed to support 1-0-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

In lieu of structural panels use purlins to brace TC @ 24" OC.

Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/180 total load.



R-153 PLF U-1 PLF W-10-0-0
RL-17/-17 PLF

R=121 PLF U=10 PLF W=10-0-0

Note: All Plates Are 1.5X3 Except As Shown.

Design Crit: FBC2007Com/TPI-2002 (STD)
FT/RT=10%(0%)/0(0)

Scale = .3125"/Ft.

QTY:1 FL/-/4/-/-/R/-/-

~~03~~

9.05

(0) 0 / (0%)

FT/RT=10%

you can:

Desi

1

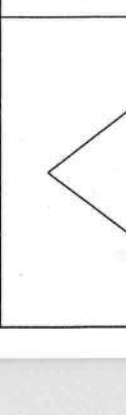
e

T TYP. Wav

PLT

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS SHEET!
FURNISH THIS DESIGN TO ALL CONTRACTORS INCLUDING INSTALLERS.

****IMPORTANT**** Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of RCSI Building Component, Safety Information, by IPT and MPCA for safety practices prior to performing these functions. Installers shall provide temporary bracing per RCSI. Unless noted otherwise, Top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations for permanent lateral restraint of webs shall have bracing installed per RCSI sections B3, B7B and B10, as applicable.



ITW Building Components, Group Inc. (ITWBCG) shall not be responsible for any deviation from this design, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses. Apply plates to each face of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings, link-2 for standard plate positions. A seal on this drawing or cover page fixturing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the building designer per ANSI/TPI 1 Sec.2. For more information see: This job's

ALPINE

ITW Building Components Group Inc.

10000 N. 10th Ave. • Suite 100 • Denver, CO 80231 • 303.440.1000 • Fax 303.440.1001 • www.alpineinc.com

(10-151--Fill in later BILL HARPER -- ** - M)

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

110 mph wind, 15.00 ft mean hgt, ASCE 7-05, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=7.5 psf, wind BC DL=5.0 psf. 1w-1.00 GCpi(+/-)-0.18

Roof overhang supports 2.00 psf soffit load.

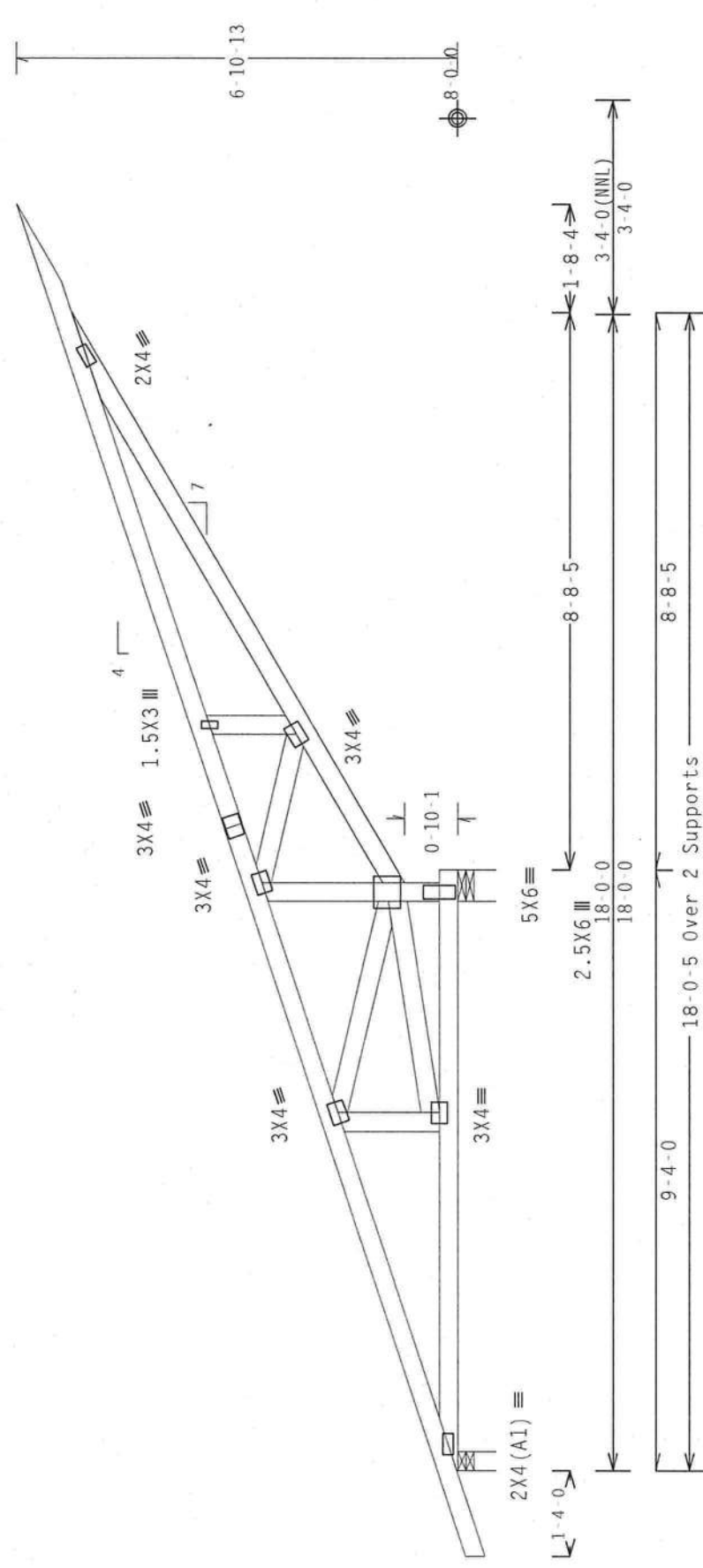
Wind reactions based on MWFRS pressures.

Bottom chord checked for 10.00 psf non-concurrent live load.

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" o.c. intervals. Attach stacked top chord (SC) to dropped top chord in noticable area using 3x4 tie-plates 24" o.c. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in noticable area using 3x6.

Deflection meets L/240 live and L/180 total load.

Shim all supports to solid bearing.



R=1 R_w=180 U=127 W=3.5"
RL=202/-31

R=1861 U=139 W=6"

PLT TYP. Wave

ITW Building Components Group Inc.

Design Crit: FBC2007Com/TPI-2002 (STD)
FT/RT=10%(0%)/0(0)

9.05.03.00
9.05.03.00

QTY:14 FL/-/4/-/R/-

Scale = .375"/Ft.

TC LL	20.0 PSF	REF R8228- 76874
TC DL	15.0 PSF	DATE 07/27/10
BC DL	10.0 PSF	DRW HCUR8228 10208003
BC LL	0.0 PSF	HC-ENG TCE/AP
TOT.LD.	45.0 PSF	SEQN- 129706
DUR.FAC.	1.25	

AMER. CO. INC. JR.

LICENSE

No. 52212

STATE OF FLORIDA

PROFESSIONAL ENGINEER

WARNING READ AND FOLLOW ALL NOTES ON THIS SHEET

IMPORTANT FURNISH THIS DESIGN TO ALL CONTRACTORS, INCLUDING INSTALLERS.

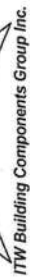
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and MGA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

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Shim all supports to solid bearing.



Scale = .375" / Ft.



GABLE STUD REINFORCEMENT DETAIL

ASCE 7-05: 110 MPH WIND SPEED, 15' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C, Kzt = 1.00

MAX GABLE VERTICAL LENGTH		BRACE		(1) 1X4 "L" BRACE		(2) 2X4 "L" BRACE		(1) 2X6 "L" BRACE		(2) 2X6 "L" BRACE	
		SPACING	GRADE	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B
24" O.C.	SPF	3' 10"	#1 / #2	6' 8"	6' 10"	7' 11"	8' 1"	9' 5"	9' 8"	12' 5"	12' 9"
	HF	3' 9"	#3	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 4"	12' 4"
	STANDARD	3' 9"	STUD	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 3"	12' 3"
	STANDARD	3' 9"	STUD	5' 2"	5' 2"	6' 9"	6' 9"	9' 1"	9' 1"	10' 7"	10' 7"
24" O.C.	SP	4' 3"	#1	6' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"
	HF	4' 2"	#2	6' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"
	STANDARD	4' 0"	#3	6' 1"	6' 2"	7' 11"	8' 1"	9' 5"	9' 11"	12' 5"	12' 8"
	STANDARD	3' 10"	STUD	5' 3"	5' 3"	6' 11"	6' 11"	9' 4"	9' 4"	10' 10"	10' 10"
16" O.C.	SPF	4' 5"	#1 / #2	7' 8"	7' 10"	9' 1"	9' 4"	10' 10"	11' 1"	14' 0"	14' 0"
	HF	4' 4"	#3	7' 4"	7' 4"	9' 1"	9' 1"	10' 10"	10' 10"	14' 0"	14' 0"
	STANDARD	4' 4"	STUD	6' 4"	6' 4"	8' 4"	8' 4"	10' 10"	10' 10"	12' 11"	12' 11"
	STANDARD	4' 10"	#1	7' 8"	8' 3"	9' 1"	9' 9"	10' 10"	11' 8"	14' 0"	14' 0"
12" O.C.	SP	4' 9"	#2	7' 8"	8' 3"	9' 1"	9' 9"	10' 10"	11' 8"	14' 0"	14' 0"
	HF	4' 6"	#3	7' 7"	7' 7"	9' 1"	9' 6"	10' 10"	11' 4"	14' 0"	14' 0"
	STANDARD	4' 6"	STUD	6' 6"	7' 6"	9' 1"	9' 6"	10' 10"	11' 4"	14' 0"	14' 0"
	STANDARD	4' 5"	#1 / #2	6' 5"	6' 5"	8' 6"	8' 6"	10' 10"	11' 1"	13' 3"	13' 3"
12" O.C.	SPF	4' 9"	#3	8' 5"	8' 5"	10' 0"	10' 0"	11' 11"	11' 11"	14' 0"	14' 0"
	HF	4' 9"	STUD	8' 5"	8' 5"	10' 0"	10' 0"	11' 11"	11' 11"	14' 0"	14' 0"
	STANDARD	4' 9"	#1	7' 3"	7' 3"	9' 7"	9' 7"	11' 11"	11' 11"	14' 0"	14' 0"
	STANDARD	5' 4"	#2	8' 5"	9' 1"	10' 0"	10' 9"	11' 11"	12' 10"	14' 0"	14' 0"
12" O.C.	SP	5' 3"	#3	8' 5"	8' 5"	10' 0"	10' 0"	11' 11"	11' 11"	14' 0"	14' 0"
	HF	5' 0"	STUD	8' 5"	8' 5"	10' 0"	10' 6"	11' 11"	12' 6"	14' 0"	14' 0"
	STANDARD	4' 11"	STANDARD	7' 5"	7' 5"	9' 10"	9' 10"	11' 11"	12' 3"	14' 0"	14' 0"

BRACING GROUP SPECIES AND GRADES:

GROUP A:

SPRUCE-PINE-FIR	HEM-FIR
#1 / #2	#2
STUD	STUD
#3	STANDARD

DOUGLAS FIR-LARCH

#3	SOUTHERN PINE
STUD	STUD
STANDARD	STANDARD

GROUP B:

HEM-FIR	DOUGLAS FIR-LARCH
#1 & BTR	#1
#1	#2

SOUTHERN PINE

#1	DOUGLAS FIR-LARCH
#2	#1
#2	#2

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 80 PLF OVER CONTINUOUS BEARING (5 PSF TC DEAD LOAD).

GABLE END SUPPORTS LOAD FROM 4' 0"

OUTLOOKERS WITH 2' 0" OVERHANG, OR 12" PLYWOOD OVERHANG.

ATTACH EACH "L" BRACE WITH 10d NAILS.

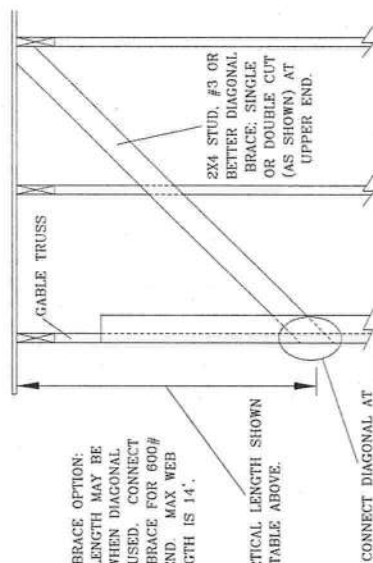
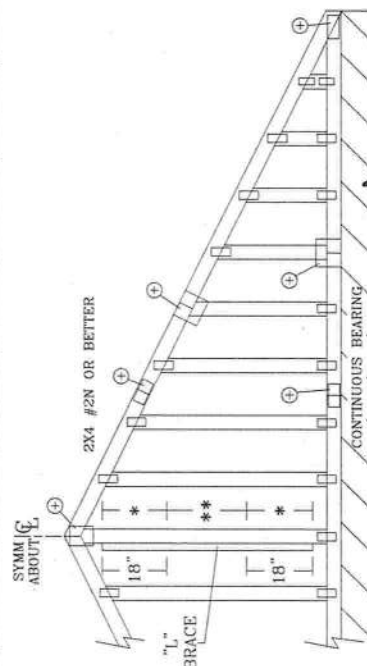
* FOR (1) "L" BRACE: SPACE NAILS AT 2" O.C. IN 18" END ZONES AND 4" O.C. BETWEEN ZONES.

** FOR (2) "L" BRACES: SPACE NAILS AT 3" O.C. IN 18" END ZONES AND 6" O.C. BETWEEN ZONES.

"L" BRACING MUST BE A MINIMUM OF 80% OF WEB MEMBER LENGTH.

GABLE VERTICAL PLATE SIZES	
VERTICAL LENGTH	NO SPLICE
LESS THAN 4' 0"	1X4 OR 2X3
GREATER THAN 4' 0", BUT LESS THAN 11' 6"	2.5X4
GREATER THAN 11' 6"	3X4

+ REFER TO COMMON TRUSS DESIGN FOR PEAK, SPLICE, AND HEEL PLATES.



DIAGONAL BRACE OPTION:
VERTICAL LENGTH MAY BE DOUBLED WHEN DIAGONAL BRACE IS USED. CONNECT DIAGONAL BRACE FOR 600# AT EACH END. MAX WEB TOTAL LENGTH IS 14'.

VERTICAL LENGTH SHOWN IN TABLE ABOVE.

CONNECT DIAGONAL AT MIDPOINT OF VERTICAL WEB.

REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

WARNING READ AND FOLLOW ALL NOTES ON THIS SHEET. Trusses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to and follow BCSI (Building Component Safety Information, by TPI and WCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, to chord shall have properly attached structural panels and bottom chord shall have a properly attached rapid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3 & B7. See this job's general notes page for more information.

IMPORTANT FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design, any failure to build the truss in conformance with TPI, or fabricating, handling, shipping, installing & bracing of trusses. ITWBCG connector plates are made of 2018/18CA (W/H/S/K) ASTM A653 grade 37/40/60 (K/W/H/S) galv. steel. Apply plates to each face of truss, positioned as shown above and on Joint Details. A seal on this drawing or cover page indicates acceptance and professional engineering responsibility solely for the truss component design shown. The liability and use of this component for any building is the responsibility of the building owner. ITW-BCG: www.itwbcg.com; TPI: www.tpiand.com; WCA: www.wcaindustry.com; ICC: www.iccsafe.org



Building Components Group Inc.

Earth City, MO 63045

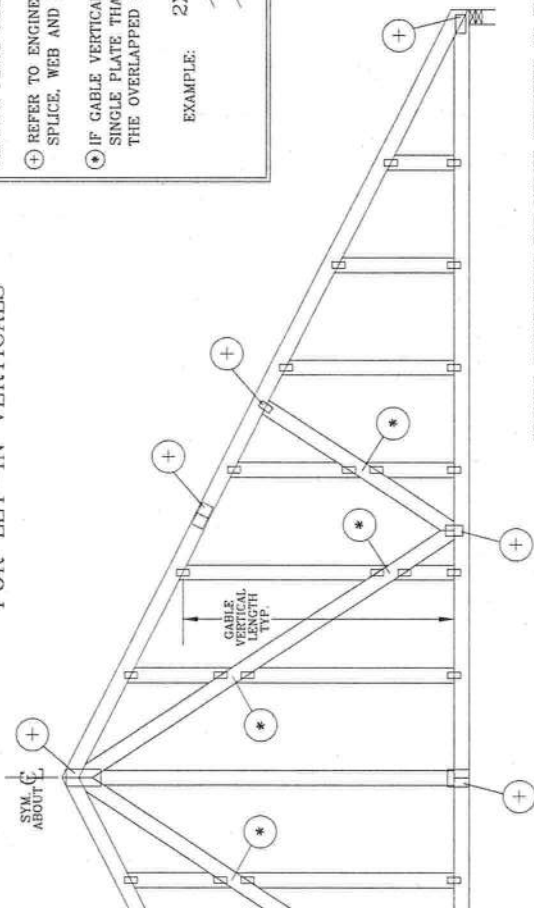
REF	ASCE7-05-GAB1015
DATE	1/1/09
DRWG	A11015050109

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"



GABLE DETAIL FOR LET-IN VERTICALS



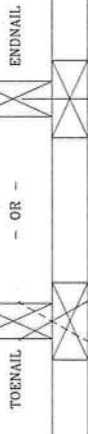
GABLE TRUSS PLATE SIZES

- REFER TO APPROPRIATE ITW GABLE DETAIL FOR MINIMUM PLATE SIZES FOR VERTICAL STUDS.
- REFER TO ENGINEERED TRUSS DESIGN FOR PEAK, SPICE, WEB AND HEEL PLATES.
- IF GABLE VERTICAL PLATES OVERLAP, USE A SINGLE PLATE THAT COVERS THE TOTAL AREA OF THE OVERLAPPED PLATES TO SPAN THE WEB.

EXAMPLE:



"T" REINFORCEMENT ATTACHMENT DETAIL
"T" REINFORCING MEMBER



TO CONVERT FROM "L" TO "T" REINFORCING MEMBERS, MULTIPLY "T" INCREASE BY LENGTH (BASED ON APPROPRIATE ITW GABLE DETAIL).

MAXIMUM ALLOWABLE "T" REINFORCED GABLE VERTICAL LENGTH IS 14' FROM TOP TO BOTTOM CHORD.

WEB LENGTH INCREASE W/ "T" BRACE

WIND SPEED AND MRH	"T" REINF. MBR. SIZE	"T" INCREASE
140 MPH	2x4	10 %
15 FT	2x6	50 %
140 MPH	2x4	10 %
30 FT	2x6	50 %
130 MPH	2x4	10 %
15 FT	2x6	50 %
130 MPH	2x4	10 %
30 FT	2x6	50 %
120 MPH	2x4	10 %
15 FT	2x6	50 %
120 MPH	2x4	10 %
30 FT	2x6	40 %
110 MPH	2x4	10 %
15 FT	2x6	40 %
110 MPH	2x4	10 %
30 FT	2x6	50 %
100 MPH	2x4	20 %
15 FT	2x6	30 %
100 MPH	2x4	10 %
30 FT	2x6	40 %
90 MPH	2x4	20 %
15 FT	2x6	20 %
90 MPH	2x4	20 %
30 FT	2x6	30 %

EXAMPLE:

ASCE WIND SPEED = 100 MPH
MEAN ROOF HEIGHT = 30 FT, $K_{zt} = 1.00$
GABLE VERTICAL = 24" O.C. SP #3
"T" REINFORCING MEMBER SIZE = 2X4
"T" BRACE INCREASE (FROM ABOVE) = 10% = 1.10
(1) 2X4 "L" BRACE LENGTH = 6' 7"
MAXIMUM "T" REINFORCED GABLE VERTICAL LENGTH
1.10 x 6' 7" = 7' 3"

PROVIDE CONNECTIONS FOR UPLIFT SPECIFIED ON THE ENGINEERED TRUSS DESIGN.

ATTACH EACH "T" REINFORCING MEMBER WITH

END DRIVEN NAILS:

- 10d COMMON (0.148" x 3" MIN) NAILS AT 4" O.C. PLUS
- (4) NAILS IN TOP AND BOTTOM CHORD.

TOENAILED NAILS:

- 10d COMMON (0.148" x 3" MIN) TOENAILS AT 4" O.C. PLUS
- (4) TOENAILS IN TOP AND BOTTOM CHORD.

THIS DETAIL TO BE USED WITH THE APPROPRIATE ITW GABLE DETAIL FOR ASCE

WIND LOAD.

ASCE 7-98 GABLE DETAIL DRAWINGS

- A13015980109, A12015980109, A11015980109, A10015980109,
- A13030980109, A12030980109, A11030980109, A10030980109

ASCE 7-02 GABLE DETAIL DRAWINGS

- A13015020109, A12015020109, A11015020109, A10015020109,
- A13030020109, A12030020109, A11030020109, A10030020109

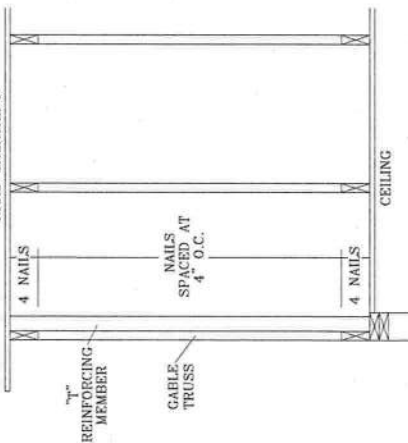
ASCE 7-05 GABLE DETAIL DRAWINGS

- A13015050109, A12015050109, A11015050109, A10015050109,
- A13030050109, A12030050109, A11030050109, A10030050109

SEE APPROPRIATE ITW GABLE DETAIL FOR MAXIMUM

UNREINFORCED GABLE VERTICAL LENGTH.

RIGID SHEATHING



WARNING READ AND FOLLOW ALL NOTES ON THIS SHEET

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ITW-BCG: www.itwbcg.com; TPI: www.tpiusa.com; WCA: www.wcaindustry.com; ICC: www.iccsafe.org

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Building Components Group Inc.

Earth City, MO 63045

REF LET-IN VERT

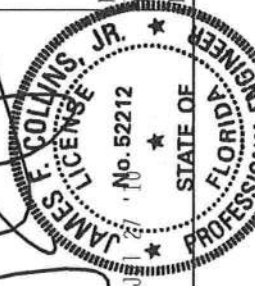
DATE 1/1/09

DRWG GBLLETIN0109

MAX TOT. LD. 60 PSF

DUR. FAC. ANY

MAX SPACING 24.0"



Product Approval Specification Form

Affinity Building Systems, LLC

Model Name or # ABS-1122



As required by Florida Statute 553.842 and Florida Administrative Code 96-72, provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product approval supplier for any of the applicable listed products.

Category / Subcategory	Manufacturer	Product Description	Approval Number(s)
1. Exterior Doors			
A. Swinging	EAGLE	Ext. Door	FL 8562.9 FL 8562.12
B. Sliding			
C. Sectional			
D. Roll Up			
E. Automatic			
2. Windows			
A. Single Hung	SHWINCO	VINYL	FL. 4882.1, FL. 4882.2, FL. 8153.1
B. Horizontal Slider			
C. Casement			
D. Double Hung			
E. Fixed			
F. Awning			
G. Pass Through			
H. Projected			
I. Mullion			
J. Wind Breaker			
K. Dual Action			
L. Other			
3. Panel Wall			
A. Siding- Hardi	James Hardi	Hardi Siding	FL. 13192.2
B. Soffits- Hardi	James Hardi	Hardi Soffit	FL. 13265.1
A-1. Vinyl Siding Lap	Style Crest, Inc.	Vinyl Siding Lap	FL. 12231.1
B-1. Vinyl Siding Vertical	Style Crest, Inc.	Vinyl Siding Vertical	FL. 12231.2
C. Eifs			
D. Storefronts			
E. Curtain Walls			
F. Wall Louver			
G. Glass Block			
H. Membrane			
I. Greenhouse			
J. Other			
4. Roofing Products			
A. Asphalt Shingles	TAMKO	Asphalt Shingles	FL. 1956.3
B. Underlayments	TAMKO	Self-adhering Membrane	FL. 3664.1
C.			
D. Non-Structural Metal Roofing			
E. Wood Shingles and Shakes			
F. Roofing Tiles			
G. Roofing Insulation	Owens Corning	Insulation	FL. 1925
H. Waterproofing			
I. Built Up Roofing Roof Systems			

NDI
"APPROVED"
DOCUMENT

Date 7/16/10 Plan No. ABS-1122
Approved By R. Bullock
Richard L. Bullock
Modular Building Plans Examiner Florida Certificate SMP 003

Affinity Building Systems, LLC
Model Name or # ABS-1122

Category / Subcategory	Manufacturer	Product Description	Approval Number(s)
J. Modified Bitumen			
K. Single Ply Roof System			
L. Roofing Slate			
M. Cements / Adhesives Coatings			
N. Liquid Applied Roof Systems			
O. Roof Tile Adhesive			
P. Spray Applied Polyurethane Roof			
Q. Other			
5. Shutters			
A. Accordion			
B. Bahama			
C. Storm Panels			
D. Colonial			
E. Roll-up			
F. Equipment			
G. Others			
6. Skylights			
A. Skylight			
B. Other			
7. Structural Components			
A. Wood Connectors / Anchors	Simpson	LSTA12 & LSTA18	FL. 10852.4
A. Wood Connectors / Anchors	Simpson	LTS16 TWIST STRAP	FL. 474.217
B. Truss Plates			
C. Engineered Lumber	Weyerhaeuser	LVL Beam	FL. 1630.2
D. Railing			
E. Coolers - Freezers			
F. Concrete Admixtures			
G. Material			
H. Insulation Forms			
I. Plastics			
J. Deck-Roof			
K. Wall			
L. Sheds			
M. Other			

NDI
"APPROVED"
DOCUMENT

Date 7/16/10 Plan No. ABS-1122
Approved By R. Bullock
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The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the job site: 1.) copy of the product approval, 2.) the performer characteristics which the product was tested and certified to comply with, 3.) copy of the applicable manufacturer's installation requirements. Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Kurt Larson
Applicant Signature

7-5-10
Date

AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: CALCULATION INDEX

CRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910

THIS IS AN INDEX OF CALCULATIONS FOR:

ABS-1122

ITEM DESCRIPTION

COLUMN
WALL CONNECTION TO TRUSS
WALL STUD
DIAPHRAGM & SHEARWALL DESIGN
RIDGEBEAM
HEADER

PAGE NO.

1, 2, & 3
4
5
6
7, 8, & 9
10, 11, & 12



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: WALL STUD CALCULATION

CRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910

STANDARD STUD CALCULATION OF LMBR BASED ON 97 / 2001 NDS ROOF / ATTIC = 50 PSF
ROOF TRIB WIDTH = 6.50 FT DEAD LOAD = 15 PSF
BUILDING CODE REFERENCE- 2007 FBC -WINDSPEED-140 MPH, EXP.C

CALC IS AN ANALYSIS OF LUMBER IN AN AS USED CONDITION - STD WALL STUD

ROOF TRIB LENGTH= 4 FT CONC LOAD(P)= 1690.0 LBS
UNIFORM LOAD TO RIDGEBEAM= 422.5 PLF (FROM RIDGEBEAM CALC)
ABS-1102

LUMBER TYPE SGL #2 SYP 2 X 4 STUD HEIGHT= 105 IN
 $l_o = 5.36 \text{ IN}^4$ MOE = $1.6 \text{ E}+6 \text{ PSI}$ $F_c|| = 1650 \text{ PSI}$
 $S_x = 3.06 \text{ IN}^3$ Fb = 1500 PSI d = 3.5 IN
A = 5.25 IN^2 Fv = 90 PSI
 $H/d = 30.000$ CD = 1.250 (snow) 1.6 (wind)
CF com = 1 CF bend = 1
 $F_cE/F_c^* = 0.2586$ c = 0.8 Cr = 1
KcE = 0.3
 $(1 + F_cE/F_c^*)/2c = 0.7866$ $F_c^* = F_c|| \times CD \times CF = 2062.50 \text{ PSI}$
 $F_cE = KcE(E')/(H/d)^2 = 533.33 \text{ PSI}$
 $C_p = (1 + F_cE/F_c^*)/2c - [(1 + F_cE/F_c^*)/2c]^2 - F_cE/F_c^* / c^{0.5} = 0.2430$
 $F_c' = F_c|| \times C_p \times CF \times CD = 501.2 \text{ PSI}$

TOTAL CAPACITY PER SGL 2 x 4 STUD (#2 SYP) COLUMN= $F_c' \times A = 2631.1 \text{ LBS}$

WIND UPLIFT REACTION = 780 LBS - FT = 148.57 PSI - OK FOR #2 SYP - 2x 4



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: WALL STUD CALCULATION

CRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910

STANDARD STUD CALCULATION OF LMBR BASED ON 97 / 2001 NDS ROOF / ATTIC = 50 PSF
ROOF TRIB WIDTH = 6.50 FT DEAD LOAD = 15 PSF
BUILDING CODE REFERENCE- 2007 FBC -WINDSPEED-140 MPH, EXP.C

CALC IS AN ANALYSIS OF LUMBER IN AN AS USED CONDITION - STD WALL STUD

ROOF TRIB LENGTH= 10 FT CONC LOAD(P)= 4225.0 LBS
UNIFORM LOAD TO RIDGEBEAM= 422.5 PLF (FROM RIDGEBEAM CALC)
ABS-1122

LUMBER TYPE DBL #2 SYP 2 X 4 STUD HEIGHT= 105 IN
lo = 10.72 IN⁴ MOE = 1.6E+6 PSI Fc|| = 1650 PSI
Sx = 6.13 IN³ Fb = 1500 PSI d = 3.5 IN
A = 10.5 IN² Fv = 90 PSI
H/d = 30.000 CD = 1.250 (snow) 1.6 (wind)
CF com = 1 CF bend = 1
FcE/Fc* = 0.2586 c = 0.8 Cr = 1
KcE = 0.3
(1 + FcE/Fc*)/2c = 0.7866 Fc* = Fc|| x CD x CF = 2062.50 PSI
FcE = KcE(E')/(H/d)² = 533.33 PSI
Cp = (1 + FcE/Fc*)/2c - [(1 + FcE/Fc*)/2c]² - FcE/Fc*/c² = 0.2430
Fc' = Fc|| x Cp x CF x CD = 501.2 PSI

TOTAL CAPACITY PER DBL 2 x 4 STUD (#2 SYP) COLUMN=Fc' x A = 5262.2 LBS

WIND UPLIFT REACTION = 1950 LBS - FT = 185.71 PSI - OK FOR #2 SYP - 2x 4



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: WALL STUD CALCULATION

CRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910

STANDARD STUD CALCULATION OF LMBR BASED ON 97 / 2001 NDS ROOF / ATTIC = 50 PSF
ROOF TRIB WIDTH = 6.50 FT DEAD LOAD = 15 PSF
BUILDING CODE REFERENCE- 2007 FBC -WINDSPEED-140 MPH, EXP.C

CALC IS AN ANALYSIS OF LUMBER IN AN AS USED CONDITION - STD WALL STUD

ROOF TRIB LENGTH= 15 FT CONC LOAD(P)= 6337.5 LBS
UNIFORM LOAD TO RIDGEBEAM= 422.5 PLF (FROM RIDGEBEAM CALC)
ABS-1122

LUMBER TYPE TRIPL #2 SYP 2 X 4 STUD HEIGHT= 105 IN
lo = 16.08 IN⁴ MOE = 1.6E+6 PSI Fc|| = 1650 PSI
Sx = 9.19 IN³ Fb = 1500 PSI d = 3.5 IN
A = 15.75 IN² Fv = 90 PSI

H/d = 30.000 CD = 1.250 (snow) 1.6 (wind)
CF com = 1 CF bend = 1
FcE/Fc* = 0.2586 c = 0.8 Cr = 1
KcE = 0.3
(1 + FcE/Fc*)/2c = 0.7866 .Fc* = Fc|| x CD x CF = 2062.50 PSI
FcE = KcE(E')/(H/d)² = 533.33 PSI

Cp = (1 + FcE/Fc*)/2c - [(1 + FcE/Fc*)/2c]² - FcE/Fc*/c² 0.5 = 0.2430
Fc' = Fc|| x Cp x CF x CD = 501.2 PSI

TOTAL CAPACITY PER TRIP 2 x 4 STUD (#2 SYP) COLUMN=Fc' x A = 7893.3 LBS

WIND UPLIFT REACTION = 2925 LBS - FT = 185.71 PSI - OK FOR #2 SYP - 2x 4



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: WALL CONNECTION TO TRUSS

CRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910

THIS CALCULATION IS OF A ROOF TRUSS CONNECTION TO THE TOP PLATE PER ASCE 7-2002

REF: 2007 FL BUILDING CODE

REF: ABS-1122

WIND SPEED = V = 140 MPH EXP. C

$$qz = 0.00256Kz(Kzt)V^2I$$

$qz = 42.6496$ OH FACTOR - 1.8

ROOF DL = 8 PSF

ROOF COEFFICIENTS (GCp) (interpolation w/endzone)

WORST CASE INTERIOR PRESSURE
0.63 0.18

TTL ROOF PRESS. = $qz \times (\text{WINDWARD/LEEWARD WORST CASE} + \text{INT PRESS})$
= 34.546 PSF

DESIGN LOAD (AFTER SUBTRACTING DL) = 26.546 PSF

TRUSS SPACING = 2 FT O.C.
 $I = 1$
 $Kz = 0.85$
 $Kzt = 1$

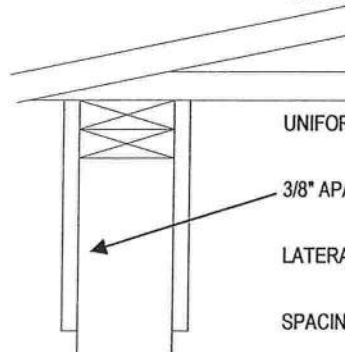
RESULTANT UPLIFT REACTION = 440.7 LBS - NOTE - TESTED TRUSS REACTION
= 491 LBS - OK FOR DESIGN HEREIN

UPLIFT CAPACITY OF CLIP = 661 LBS

UPLIFT CAPACITY OF #8 TOE-SCREW- PENETRATION = 1.5 IN
LATERAL CAP. = $Z' = 115 \text{ LBS} \times 1.6 \text{ LDF} =$

WITHDRAWAL CAPACITY OF #8 SCREW $W_p = 82 \times 1.5" \times 1.6 \text{ LDF} =$

$Z'a = (W_p)Z' / ((W_p) \sin^2 a + Z' \cos^2 a) = 187.04 \text{ LBS}$ - THEREFORE, 2 TOE-SCREWS AND ONE CLIP FOR ADEQUATE TIEDOWN

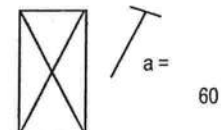
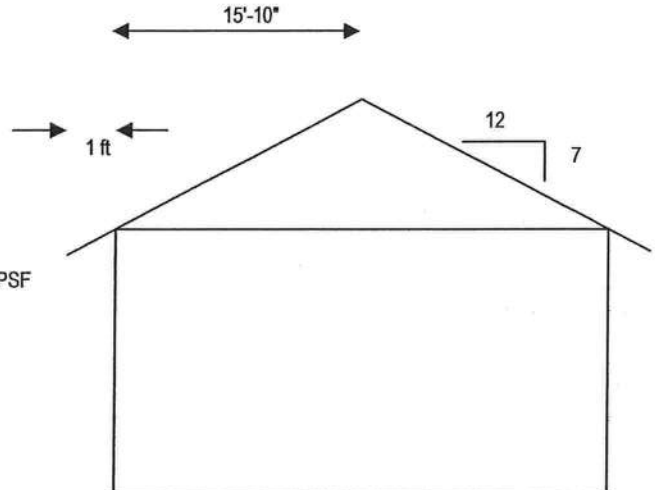


UNIFORM UPLIFT LOAD FROM TOP PLATE TO STUD =

3/8" APA RATED SHEATHING - 990 PLF

LATERAL CAP. OF 15 GA. STAPLE = $64 \times 1.25 \times 1.3 = 106.4 \text{ LBS}$

SPACING OF STAPLES = 5.8 OK TO USE 4" O.C. STAPLES OR 8d NAILS - 4" O.C.



184 LBS

196.8 LBS



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: WALL STUD CALC

CRAIG E. GUNDERSON, P.E. # 060102
 703 CAPE CORAL PARKWAY W. STE 201
 CAPE CORAL, FLORIDA 33914
 CERTIFICATE OF AUTHORIZATION #9910

STANDARD STUD CALCULATION

ROOF TRIB WIDTH = 5.67 FT

BUILDING CODE REFERENCE-

ROOF / ATTIC LOAD =

50 PSF

DEAD LOAD =

15 PSF

2007 FBC

CALC IS AN ANALYSIS OF LUMBER IN AN AS USED CONDITION - STD WALL STUD

ROOF TRIB LENGTH= 1.33 FT

CONC LOAD(P)=

490.2 LBS

REFERENCE: ABS-1122

LUMBER TYPE #2 SYP 2 X 4

STUD HEIGHT = L =

103.5 IN

lo = 5.36 IN⁴ MOE = 1.6E+6 PSI Fc|| = 1650 PSI
 Sx = 3.06 IN³ Fb = 1500 PSI d = 3.5 IN
 A = 5.25 IN² Fv = 90 PSI

H/d = 29.571 CD = 1.150 (snow) 1.6 (wind)
 CF com = 1 CF bend = 1
 FcE/Fc* = 0.2893 c = 0.8 Cr = 1.15
 KcE = 0.3
 (1 + FcE/Fc*)/2c = 0.8058 Fc* = Fc|| x CD x CF = 1897.50 PSI
 FcE = KcE(E')/(H/d)² = 548.90 PSI

Cp = (1 + FcE/Fc*)/2c - [(1 + FcE/Fc*)/2c]² - FcE/Fc*/c^{0.5} = 0.2694

Fc' = Fc|| x Cp x CF x CD = 511.2 PSI

TOTAL CAPACITY PER 2 x 4 STUD (#2 SYP) = Fc' x A = 2683.8 LBS

BENDING - WIND PRESSURE @ 150 MPH, EXPC =

37.69 psf TRIB =

16 IN

TOTAL FACTORS = 1.25
 TOTAL WIND LOAD = 47.12 PSF

WIND LOAD = W = 5.24 PLI fb = WH²/8 x (Sx) = 2288.9 psi Fb' = Fb x Cr x CF x CD =

2760

INTERACTION EQUATION: fc = P/2A = 46.683 PSI fc/Fc = 0.0913

(fc/Fc)² + fb/[Fb'(1-fc/FcE)] = 0.9148 OK

SHEAR - fv = 1.5V/2A = 72.17 PSI

DEFLECTION = 5WL⁴/384EI = 0.6385 IN VS L/120 = OK



THIS CALCULATION IS A DIAPHRAGM - SHEARWALL SYSTEM THE DESIGN IS BASED ON ASCE 7-2002

MODEL: ABS-1122

ANGLE=

REF: 2007 FL BC

30.3°

WIND SPEED = V = 140 MPH

$$q_z = 0.00256K_z(K_{zt})V^2$$

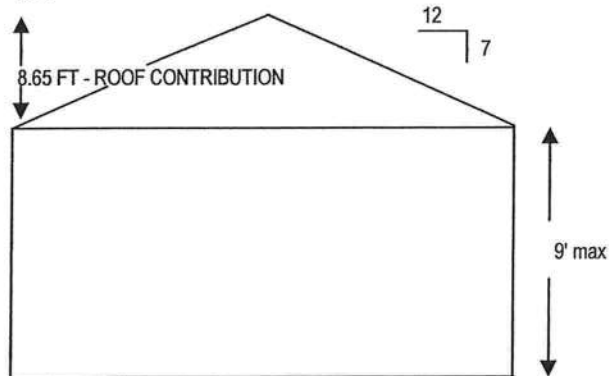
$$q_z = 37.889 \text{ PSF}$$

WALL COEFFICIENTS (GCp) (interpolation w/endzone)

WINDWARD	LEEWARD
0.5	0.42

TOTAL WALL PRESS. = $q_z \times (\text{WINDWARD} + \text{LEEWARD})$

$$= 34.858 \text{ PSF}$$



I =	1
K _z =	0.85
K _{zt} =	1

ROOF COEFFICIENTS (GCp) (interpolation w/endzone)

WINDWARD	LEEWARD	CONVERT WINDWARD TO HORIZONTAL
0.5	0.42	0.6004

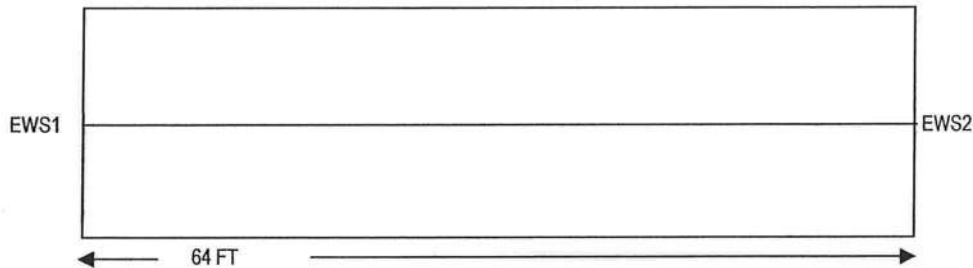
HORIZONTAL ROOF PRESSURE
 20.93 PSF

TOTAL ROOF LOAD ON ROOF DIAPHRAGM = WALL PRESSURE x WALL (2ND FLR HT/2) +
 HOR. ROOF PRESS. x ROOF PROJECTION
 462.94 PLF

TOTAL HORIZONTAL
 COMPONENT
 1.1004



RESULTANT DIAPHRAGM SHEAR = 379.85 PLF - 7/16" OSB - ROOF DIAPHRAGM
 & 1/2" GYPSUM ON INSIDE & ATTIC FLOOR DECK



SW	LENGTH	SPAN/2	TO ACCOUNT FOR ROOF PROJECTION AT PORCH AREA	RESULTANT PLF
EWS1 =	36 FT	32 FT		411.50 - 15/32 APA RATED SHEATHING & 1/2" GYP. ON INSIDE
EWS2 =	35.5 FT	32 FT		417.30 - 15/32 APA RATED SHEATHING - & 1/2" GYP. ON INSIDE

AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: LVL RIDGEBEAM DESIGN
2001 NDS

CRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910

THIS CALCULATION IS AN ANALYSIS/DESIGN OF A HEADER. ALL PARAMETERS
OF THE DESIGN ARE INDICATED AS SUCH. PROGRAM DETERMINES THE
MAXIMUM CLEAR SPAN (L) 2007 FL BUILDING CODE

REF: ABS-1122

SITE CONDITIONS-

ROOF LIVE LOAD=	20 PSF	TOTAL ROOF TRIB WIDTH =	80.0 IN
ROOF DEAD LOAD=	12 PSF	TOTAL ATTIC TRIB WIDTH =	80.0 IN
ATTIC LIVE LOAD=	30 PSF		
ATTIC DEAD LOAD=	10 PSF		
WALL DEAD LOAD=	50 PLF		

UNIFORM LOAD = (ROOF LIVE + DEAD LOADS + ATTIC LOAD) ROOF TRIB WIDTH LIVE LOAD) = W
= 480 plf = 40 pli

MATERIAL & PHYSICAL PROPERTIES -

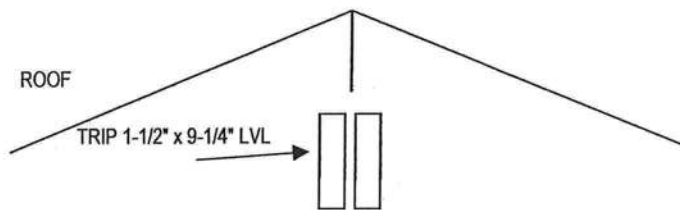
TRIP 1-1/2" x 9-1/4"
LVL
ON EDGE

t (in) = 4.50 in
d (in) = 9.250 in
I_o (in⁴) = 296.79
S_x (in³) = 64.17
b (in) = 1.5
A (in²) = 41.6
AC (in²) = 6.8
E (psi) = 2.00E+06
F_b (psi) = 2800
F_v (psi) = 285
F_{perp}(psi) = 750
CD = 1.25

CF = 1.029045
Cr = 1

LL ONLY W' = 25.0 pli

CENTER LINE OF
MATE LINE



WIND UPLIFT - 140 MPH, EXP. C

NET UPLIFT = 22 PSF @ 1.6 LDF

VS. GRAVITY LOAD OF 20 PSF + 12 PSF @ 1.25 LDF

THEREFORE GRAVITY LOADING CONDITION CONTROLS

ALLOWABLE SPAN BASED ON BENDING

F_b' = F_b x CD x Cr x CF
f_b = WL²/(8 x (S_x))
L = [8 x (S_x) x F_b'/W]^{0.5}

ALLOWABLE SPAN BASED ON DEFLECTION

LL deflection = 5W²L⁴/384EI L/ 240
L = [384EI/1200W]^{0.333}

DL & LL deflect. = 5WL⁴/384EI L/ 180
L = [384EI/900W]^{0.333}

ALLOWABLE SPAN BASED ON SHEAR

F_v' = F_v x CD
f_v = 1.5W(L-2d)/(2 x A)
L = F_v' x (2 x A)/(1.5W) + 2d

MAXIMUM SPANS BASED ON ABOVE CONDITIONS-

	BENDING L (in)	SHEAR L (in)	DEFLECTION (in) LL ONLY	DL	LEAST CONTROL
TRIP					
1-1/2" x 9-1/4" LVL	215	512.92	196.5	184.92	184.9 IN - OK



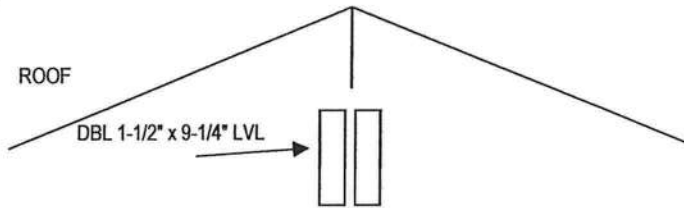
AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: LVL RIDGEBEAM DESIGN
2001 NDSCRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910THIS CALCULATION IS AN ANALYSIS/DESIGN OF A HEADER. ALL PARAMETERS
OF THE DESIGN ARE INDICATED AS SUCH. PROGRAM DETERMINES THE
MAXIMUM CLEAR SPAN (L) 2007 FL BUILDING CODE

REF: ABS-1122

SITE CONDITIONS-ROOF LIVE LOAD= 20 PSF
ROOF DEAD LOAD= 12 PSF
ATTIC LIVE LOAD= 30 PSF
ATTIC DEAD LOAD= 10 PSF
WALL DEAD LOAD= 50 PLFTOTAL ROOF TRIB WIDTH = 80.0 IN
TOTAL ATTIC TRIB WIDTH = 80.0 INUNIFORM LOAD = (ROOF LIVE + DEAD LOADS + ATTIC LOAD) ROOF TRIB WIDTH LIVE LOAD) = W
= 480 plf = 40 pli

LL ONLY W' = 25.0 pli

MATERIAL & PHYSICAL PROPERTIES -DBL 1-1/2" x 9-1/4"
LVL
ON EDGECENTER LINE OF
MATE LINEt (in) = 3.00 in
d (in) = 9.250 in
I_o (in⁴) = 197.86
S_x (in³) = 42.78
b (in) = 1.5
A (in²) = 27.8
AC (in²) = 4.5
E (psi) = 2.00E+06
F_b (psi) = 2800
F_v (psi) = 285
F_{cper} (psi) = 750
CD = 1.25CF = 1.029045
Cr = 1

WIND UPLIFT - 140 MPH, EXP. C

NET UPLIFT = 22 PSF @ 1.6 LDF

VS. GRAVITY LOAD OF 20 PSF + 12 PSF @ 1.25 LDF

THEREFORE GRAVITY LOADING CONDITION CONTROLS

ALLOWABLE SPAN BASED ON BENDING $F_b' = F_b \times CD \times Cr \times CF$ $f_b = WL^2 / (8 \times S_x)$ $L = [8 \times S_x \times F_b' / W]^{0.5}$ ALLOWABLE SPAN BASED ON SHEAR $F_v' = F_v \times CD$ $f_v = 1.5W(L - 2d) / (2 \times A)$ $L = F_v' \times (2 \times A) / (1.5W) + 2d$ ALLOWABLE SPAN BASED ON DEFLECTIONLL deflection = $5WL^4 / 384EI$ L/ 240 $L = [384EI / 1200W]^{0.333}$ DL & LL deflect. = $5WL^4 / 384EI$ L/ 180 $L = [384EI / 900W]^{0.333}$ MAXIMUM SPANS BASED ON ABOVE CONDITIONS-

	BENDING L (in)	SHEAR L (in)	DEFLECTION (in) LL ONLY	DL	LEAST CONTROL
DBL 1-1/2" x 9-1/4" LVL	175.6	348.114	171.66	161.54	161.5 IN - OK



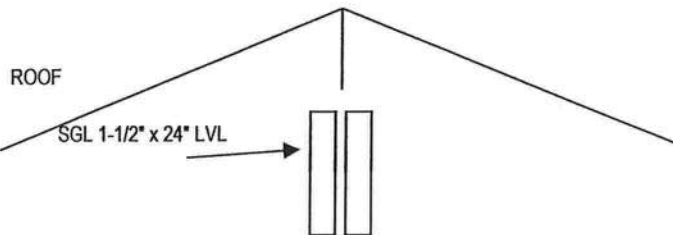
AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: LVL RIDGEBEAM DESIGN
2001 NDSCRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910THIS CALCULATION IS AN ANALYSIS/DESIGN OF A HEADER. ALL PARAMETERS
OF THE DESIGN ARE INDICATED AS SUCH. PROGRAM DETERMINES THE
MAXIMUM CLEAR SPAN (L) 2007 FL BUILDING CODE

REF: ABS-1122

SITE CONDITIONS-ROOF LIVE LOAD= 20 PSF
ROOF DEAD LOAD= 12 PSF
ATTIC LIVE LOAD= 30 PSF
ATTIC DEAD LOAD= 10 PSF
WALL DEAD LOAD= 50 PLFTOTAL ROOF TRIB WIDTH = 80.0 IN
TOTAL ATTIC TRIB WIDTH = 80.0 INUNIFORM LOAD = (ROOF LIVE + DEAD LOADS + ATTIC LOAD) ROOF TRIB WIDTH LIVE LOAD) = W
= 480 plf = 40 pli

LL ONLY W' = 25.0 pli

MATERIAL & PHYSICAL PROPERTIES -SGL 1-1/2" x 24"
LVL
ON EDGECENTER LINE OF
MATE LINEt (in) = 1.50 in
d (in) = 24.000 in
I_o (in⁴) = 1728
S_x (in³) = 144
b (in) = 1.5
A (in²) = 36
AC (in²) = 2.3
E (psi) = 2.00E+06
F_b (psi) = 2800
F_v (psi) = 285
F_{cper} (psi) = 750
CD = 1.25CF = 0.926588
Cr = 1

WIND UPLIFT - 140 MPH, EXP. C

NET UPLIFT = 22 PSF @ 1.6 LDF

VS. GRAVITY LOAD OF 20 PSF + 12 PSF @ 1.25 LDF
THEREFORE GRAVITY LOADING CONDITION CONTROLSALLOWABLE SPAN BASED ON BENDINGF_b' = F_b x CD x Cr x CF
f_b = WL²/(8 x (S_x))
L = [8 x (S_x) x F_b'/W]^{0.5}ALLOWABLE SPAN BASED ON SHEARF_v' = F_v x CD
f_v = 1.5W(L-2d)/(2 x A)
L = F_v' x (2 x A)/(1.5W) + 2dALLOWABLE SPAN BASED ON DEFLECTIONLL deflection = 5WL⁴/384EI L/ 240
L = [384EI/1200W]^{0.333}DL & LL deflect. = 5WL⁴/384EI L/ 180
L = [384EI/900W]^{0.333}MAXIMUM SPANS BASED ON ABOVE CONDITIONS-

	BENDING L (in)	SHEAR L (in)	DEFLECTION (in) LL ONLY	DL	LEAST CONTROL
SGL 1-1/2" x 24" LVL	305.7	475.607	353.49	332.65	305.7 IN - OK



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: HEADER CALC

97 / 2001 NDS

CRAIG E. GUNDERSON, P.E. # 060102

703 CAPE CORAL PARKWAY W. STE 201

CAPE CORAL, FLORIDA 33914

CERTIFICATE OF AUTHORIZATION #9910

THIS CALCULATION IS AN ANALYSIS/DESIGN OF A SIDE WALL HEADER. ALL PARAMETERS OF THE DESIGN ARE INDICATED AS SUCH. PROGRAM DETERMINES THE MAXIMUM CLEAR SPAN (L)

2007 FL BUILDING CODE

REF: ABS-1122

SITE CONDITIONS-

ROOF-ATTIC LIVE LOAD = 50 PSF

TRIBUTARY WIDTH FROM ROOF = 90 IN

ROOF DEAD LOAD = 15 PSF

$$\text{UNIFORM LOAD} = (\text{LIVE} + \text{DEAD}) \times \text{UNIT WIDTH} = W = 487.5 \text{ plf} = 40.63 \text{ pli}$$

$$\text{LL ONLY } W' = 31.3 \text{ pli}$$

MATERIAL & PHYSICAL PROPERTIES-

DBL #2

GR. 2 x 8 SYP

ON EDGE

t (in) = 3.0 in

d (in) = 7.25 in

I_o (in⁴) = 95.27S_x (in³) = 26.28

b (in) = 1.5

A (in²) = 21.8AC (in²) = 2.3

E (psi) = 1.60E+06

F_b (psi) = 1200F_v (psi) = 90F_{cper} (psi) = 565

CD = 1.25

CF = 1

Cr = 1

ALLOWABLE SPAN BASED ON BENDING

$$F_b' = F_b \times CD \times Cr \times CF$$

$$f_b = WL^2 / (8 \times S_x)$$

$$L = [8 \times S_x \times F_b' / W]^{0.5}$$

ALLOWABLE SPAN BASED ON DEFLECTION

$$\text{LL deflection} = 5WL^4 / 384EI \quad L/240$$

$$L = [384EI / 1200W]^{0.333}$$

$$\text{DL \& LL deflect.} = 5WL^4 / 384EI \quad L/180$$

$$L = [384EI / 900W]^{0.333}$$

ALLOWABLE SPAN BASED ON SHEAR

$$F_v' = F_v \times CD$$

$$f_v = 1.5W(L - 2d) / (2 \times A)$$

$$L = F_v' \times (2 \times A) / (1.5W) + 2d$$

ALLOWABLE SPAN BASED ON COMPRESSION

$$C_b = (b + 0.375) / b = 1.250$$

$$f_{cper} = WL / (2 \times A_c)$$

$$L = F_c \times C_b \times A_c \times 2 / W$$

MAXIMUM SPANS BASED ON ABOVE CONDITIONS-

	BENDING L (in)	SHEAR L (in)	DEFLECTION (in) LL ONLY	DL	COMPRESSION (in)	LEAST CONTROL
DBL #2-2 x 8 SYP	88.1	94.808	115.94	116.93	78.23077	78.2 IN - OK



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: HEADER CALC
97 / 2001 NDSCRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910THIS CALCULATION IS AN ANALYSIS/DESIGN OF A SIDE WALL HEADER. ALL PARAMETERS
OF THE DESIGN ARE INDICATED AS SUCH. PROGRAM DETERMINES THE
MAXIMUM CLEAR SPAN (L) 2007 FL BUILDING CODE

REF: ABS-1122

SITE CONDITIONS-

ROOF-ATTIC LIVE LOAD = 50 PSF
ROOF DEAD LOAD = 15 PSF

TRIBUTARY WIDTH FROM ROOF = 92 IN

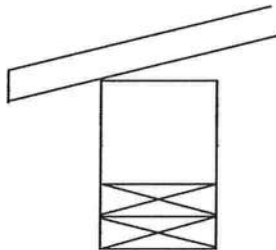
$$\text{UNIFORM LOAD} = (\text{LIVE} + \text{DEAD}) \times \text{UNIT WIDTH} = W = 498.3 \text{ plf} = 41.53 \text{ pli}$$

$$\text{LL ONLY } W' = 31.9 \text{ pli}$$

MATERIAL & PHYSICAL PROPERTIES -

DBL #2
GR. 2 x 4 SYP
FLATE

$t \text{ (in)} = 3.5 \text{ in}$
 $d \text{ (in)} = 3.00 \text{ in}$
 $I_o \text{ (in}^4\text{)} = 7.88$
 $S_x \text{ (in}^3\text{)} = 5.25$
 $b \text{ (in)} = 1.5$
 $A \text{ (in}^2\text{)} = 10.5$
 $AC \text{ (in}^2\text{)} = 2.6$
 $E \text{ (psi)} = 1.60\text{E}+06$
 $F_b \text{ (psi)} = 1500$
 $F_v \text{ (psi)} = 90$
 $F_{cper} \text{ (psi)} = 565$
 $CD = 1.25$



$CF = 1$
 $Cr = 1$

ALLOWABLE SPAN BASED ON BENDING

$$F_b' = F_b \times CD \times Cr \times CF$$

$$f_b = WL^2 / (8 \times S_x)$$

$$L = [8 \times S_x \times F_b' / W]^{0.5}$$

ALLOWABLE SPAN BASED ON DEFLECTION

$$LL \text{ deflection} = 5WL^4 / 384EI \quad L/240$$

$$L = [384EI / 1200W]^{0.333}$$

$$DL \text{ \& } LL \text{ deflect.} = 5WL^4 / 384EI \quad L/180$$

$$L = [384EI / 900W]^{0.333}$$

ALLOWABLE SPAN BASED ON SHEAR

$$F_v' = F_v \times CD$$

$$f_v = 1.5W(L - 2d) / (2 \times A)$$

$$L = F_v' \times (2 \times A) / (1.5W) + 2d$$

ALLOWABLE SPAN BASED ON COMPRESSION

$$C_b = (b + 0.375) / b = 1.250$$

$$f_{cper} = WL / (2 \times A_c)$$

$$L = F_c \times C_b \times A_c \times 2 / W$$

MAXIMUM SPANS BASED ON ABOVE CONDITIONS-

	BENDING L (in)	SHEAR L (in)	DEFLECTION (in) LL ONLY	DL	COMPRESSION (in)	LEAST CONTROL
DBL #2-2 x 4 SYP	43.5	43.926	50.14	50.57	89.28512	43.5 IN - OK



AFFINITY BUILDING SYSTEMS, LLC

SUBJECT: HEADER CALC
97 / 2001 NDSCRAIG E. GUNDERSON, P.E. # 060102
703 CAPE CORAL PARKWAY W. STE 201
CAPE CORAL, FLORIDA 33914
CERTIFICATE OF AUTHORIZATION #9910THIS CALCULATION IS AN ANALYSIS/DESIGN OF A MATE WALL OR SIDE WALL HEADER. ALL PARAMETERS
OF THE DESIGN ARE INDICATED AS SUCH. PROGRAM DETERMINES THE
MAXIMUM CLEAR SPAN (L) 2007 FL BUILDING CODE

REF: ABS-1122

SITE CONDITIONS-ROOF-ATTIC LIVE LOAD = 50 PSF
ROOF DEAD LOAD = 15 PSF

TRIBUTARY WIDTH FROM ROOF = 80 IN

UNIFORM LOAD = (LIVE + DEAD) x UNIT WIDTH = W = 433.3plf = 36.11 pli
LL ONLY W' = 27.8 pliMATERIAL & PHYSICAL PROPERTIES -

SGL #2

GR. 2 x 6 SYP

ON EDGEt (in) = 1.5 in
d (in) = 5.50 in
I_o (in⁴) = 20.8
S_x (in³) = 7.56
b (in) = 1.5
A (in²) = 8.3
AC (in²) = 1.1
E (psi) = 1.60E+06
F_b (psi) = 1200
F_v (psi) = 90
F_{cp} (psi) = 565
CD = 1.25CF = 1
Cr = 1ALLOWABLE SPAN BASED ON BENDINGF_b' = F_b x CD x Cr x CF
f_b = WL²/(8 x (S_x))
L = [8 x (S_x) x F_b'/W]^{0.5}ALLOWABLE SPAN BASED ON SHEARF_v' = F_v x CD
f_v = 1.5W(L-2d)/(2 x A)
L = F_v' x (2 x A)/(1.5W) + 2dALLOWABLE SPAN BASED ON DEFLECTIONLL deflection = 5WL⁴/384EI L/ 240
L = [384EI/1200W]^{0.333}
DL & LL deflect. = 5WL⁴/384EI L/ 180
L = [384EI/900W]^{0.333}ALLOWABLE SPAN BASED ON COMPRESSIONC_b = (b + 0.375)/b = 1.250
f_{cp} = WL/(2 x A_c)
L = F_c x C_b x A_c x 2/WMAXIMUM SPANS BASED ON ABOVE CONDITIONS-

	BENDING L (in)	SHEAR L (in)	DEFLECTION (in) LL ONLY	DL	COMPRESSION (in)	LEAST CONTROL
SGL #2-2 x 6 SYP	50.1	45.269	72.61	73.23	44.00481	44.0 IN - OK



FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Performance Method A

Project Name: ABS-1122 (NORTH) Street: Anyplace City, State, Zip: Tallahassee, FL, 32801- Owner: Design Location: FL, Tallahassee	Builder Name: Permit Office: Permit Number: Jurisdiction:
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1. New construction or existing New (From Plans) 2. Single family or multiple family Single-family 3. Number of units, if multiple family 1 4. Number of Bedrooms 3 5. Is this a worst case? No 6. Conditioned floor area (ft²) 2330 7. Windows (226.5 sqft.) Description Area a. U-Factor: Sgl, U=0.35 226.50 ft² SHGC: SHGC=0.33 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: d. U-Factor: N/A ft² SHGC: e. U-Factor: N/A ft² SHGC: 8. Floor Types (2330.0 sqft.) Insulation Area a. Crawlspace R=19.0 2330.00 ft² b. N/A R= ft² c. N/A R= ft² Date: <u>7/16/10</u> Plan No. <u>ABS1122</u> Approved By: <u>R. Bullock</u>	9. Wall Types (1953.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=24.0 1953.00 ft² b. N/A R= ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (2330.0 sqft.) Insulation Area a. Under Attic (Vented) R=49.0 2330.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts a. Sup: Interior Ret: Interior AH: Interior Sup. R= 8, 600 ft² 12. Cooling systems a. Central Unit Cap: 42.0 kBtu/hr SEER: 13 13. Heating systems a. Electric Heat Pump Cap: 42.0 kBtu/hr HSPF: 12 14. Hot water systems a. Electric Cap: 50 gallons EF: 0.9 b. Conservation features None 15. Credits None
--	---

Glass/Floor Area: <u>0.097</u> Modular Building Plans Examiner Florida Certificate <u>Richard L. Bullock</u>	Total As-Built Modified Loads: 30.44 Total Baseline Loads: 57.52	PASS
---	---	-------------

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>[Signature]</u> DATE: <u>7-7-2010</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: _____ DATE: _____	Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes. BUILDING OFFICIAL: _____ DATE: _____
---	---



- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with N1110.A.3.
- Compliance requires an air distribution system test report, by a Florida Class 1 Rater, confirming system leakage to outdoors is not greater than 70 cfm at 25 pascals pressure difference in accordance with N1110.A.2.
- Compliance requires a roof absorptance test in accordance with N1104.A.4.

PROJECT

Title: ABS-1122 (NORTH)	Bedrooms: 3	Address Type: Street Address
Building Type: FLAsBuilt	Conditioned Area: 2330	Lot #
Owner:	Total Stories: 1	Block/SubDivision:
# of Units: 1	Worst Case: No	PlatBook:
Builder Name:	Rotate Angle: 0	Street: Anyplace
Permit Office:	Cross Ventilation: No	County: Leon
Jurisdiction:	Whole House Fan: No	City, State, Zip: Tallahassee , FL , 32801-
Family Type: Single-family		
New/Existing: New (From Plans)		
Comment:		

CLIMATE

✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
✓	FL, Tallahassee	FL_TALLAHASSEE_REG	2	28	94	75	70	1545	46	Medium

FLOORS

✓	#	Floor Type	Exposed Perimeter	Wall Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
✓	1	Crawlspace	172 ft	0	2330 ft²	19	0.2	0	0.8

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	Tested	Deck Insul.	Pitch
✓	1	Gable or shed	Composition shingles	2699 ft²	680 ft²	White	0.75	Yes	0	30.3 deg

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
✓	1	Full attic	Vented	300	2330 ft²	N	N

CEILING

✓	#	Ceiling Type	R-Value	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	49	2330 ft²	0.11	Wood

WALLS

✓	#	Omt	Adjacent To	Wall Type	Cavity R-Value	Area	Sheathing R-Value	Framing Fraction	Solar Absor.
✓	1	N	Exterior	Frame - Wood	24	576 ft²	0	0.23	0.75
✓	2	E	Exterior	Frame - Wood	24	400.5 ft²	0	0.23	0.75
✓	3	S	Exterior	Frame - Wood	24	576 ft²	0	0.23	0.75
✓	4	W	Exterior	Frame - Wood	24	400.5 ft²	0	0.23	0.75

DOORS

✓	#	Omt	Door Type	Storms	U-Value	Area
✓	1	N	Insulated	None	0.4	33.33333
✓	2	S	Insulated	None	0.4	20 ft²
✓	3	W	Insulated	None	0.4	20 ft²

WINDOWS

Orientation shown is the entered, asBuilt orientation.

✓	#	Omt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang		Int Shade	Screening
										Depth	Separation		
✓	1	N	Vinyl	Low-E Single	Yes	0.35	0.33	N	66 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
✓	2	N	Vinyl	Low-E Single	Yes	0.35	0.33	N	7.5 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
✓	3	E	Vinyl	Low-E Single	Yes	0.35	0.33	N	33 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
✓	4	S	Vinyl	Low-E Single	Yes	0.35	0.33	N	99 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
✓	5	S	Vinyl	Low-E Single	Yes	0.35	0.33	N	15 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
✓	6	W	Vinyl	Low-E Single	Yes	0.35	0.33	N	6 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None

INFILTRATION & VENTING

✓	Method	SLA	CFM 50	ACH 50	ELA	EqLA	— Forced Ventilation —		Run Time	Fan
							Supply CFM	Exhaust CFM	Fraction	Watts
✓	Default	0.00036	2200	6.30	120.8	227.2	0 cfm	0 cfm	0	0

GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
✓	1	384 ft²	384 ft²	64 ft	8 ft	11

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts
✓	1	Central Unit	Split	SEER: 13	42 kBtu/hr	1260 cfm	0.6	sys#1

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Ducts
✓	1	Electric Heat Pump	None	HSPF: 12	42 kBtu/hr	sys#1

HOT WATER SYSTEM

✓	#	System Type	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	0.9	50 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

✓	FSEC	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
	Cert #						
✓	None	None			ft²		

DUCTS

✓	#	— Supply —			— Return —		Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF
		Location	R-Value	Area	Location	Area						
—	1	Interior	8	600 ft²	Interior	420 ft²	Prop. Leak Free	Interior	69.90 cfm	5.55 %	0.03	0.50

TEMPERATURES

Programable Thermostat: N						Ceiling Fans: N							
Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec	
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec	
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec	
Thermostat Schedule: HERS 2006 Reference													
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
Heating (WEH)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Anyplace
Tallahassee, FL, 32801-

PERMIT #:

INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.1.2	Penetrations/openings > 1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	N1106.AB.1.2	Between walls & ceilings; penetrations of ceiling plane to top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	N1106.AB.1.2	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	N1106.AB.1.2	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.ABC.3 Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings-Min. R-19. Common walls-frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Performance Method A

Project Name: ABS-1122 (CENTRAL) Street: Anyplace City, State, Zip: Orlando, FL, 32801- Owner: Design Location: FL, Orlando		Builder Name: Permit Office: Permit Number: Jurisdiction:	
---	--	--	--

1. New construction or existing New (From Plans) 2. Single family or multiple family Single-family 3. Number of units, if multiple family 1 4. Number of Bedrooms 3 5. Is this a worst case? No 6. Conditioned floor area (ft²) 2330 7. Windows (226.5 sqft.) Description Area a. U-Factor: Sgl, U=0.35 226.50 ft² SHGC: SHGC=0.33 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: d. U-Factor: N/A ft² SHGC: e. U-Factor: N/A ft² SHGC: 8. Floor Types (2330.0 sqft.) Insulation Area a. Crawlspace R=19.0 2330.00 ft² b. N/A R= ft² c. N/A R= ft²	9. Wall Types (1953.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=24.0 1953.00 ft² b. N/A R= ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (2330.0 sqft.) Insulation Area a. Under Attic (Vented) R=49.0 2330.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts a. Sup: Interior Ret: Interior AH: Interior Sup. R= 8, 600 ft² 12. Cooling systems a. Central Unit Cap: 42.0 kBtu/hr SEER: 13 13. Heating systems a. Electric Heat Pump Cap: 42.0 kBtu/hr HSPF: 12 14. Hot water systems a. Electric Cap: 50 gallons EF: 0.9 b. Conservation features None 15. Credits None
--	---

Date: 7/16/10 Plan No. ABS1122

Approved by: R. Bullock

Glass/Floor Area: 6,097 Total As-Built Modified Loads: 34.74
 Modular Building Plans Examiner Florida Certificate 2009 Total Baseline Loads: 58.23

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.


PREPARED BY: [Signature]
 DATE: 7-7-2010

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____
 DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____
 DATE: _____



GREAT SEAL OF THE STATE OF FLORIDA
IN GOD WE TRUST

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with N1110.A.3.
- Compliance requires an air distribution system test report, by a Florida Class 1 Rater, confirming system leakage to outdoors is not greater than 70 cfm at 25 pascals pressure difference in accordance with N1110.A.2.
- Compliance requires a roof absorptance test in accordance with N1104.A.4.

7/7/2010 9:23 AM

EnergyGauge® USA - FlaRes2008

Page 1 of 5

CRAIG E. GUNDERSON, P.E. #060102 DATE JUL 09 2010

PROJECT

Title: ABS-1122 (CENTRAL)	Bedrooms: 3	Address Type: Street Address
Building Type: FLAsBuilt	Conditioned Area: 2330	Lot #
Owner:	Total Stories: 1	Block/SubDivision:
# of Units: 1	Worst Case: No	PlatBook:
Builder Name:	Rotate Angle: 0	Street: Anyplace
Permit Office:	Cross Ventilation: No	County: Orange
Jurisdiction:	Whole House Fan: No	City, State, Zip: Orlando ,
Family Type: Single-family		FL , 32801-
New/Existing: New (From Plans)		
Comment:		

CLIMATE

✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Orlando	FL_ORLANDO_INTL_AR	2	41	91	75	70	526	44	Medium

FLOORS

✓	#	Floor Type	Exposed Perimeter	Wall Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
_____	1	Crawlspace	172 ft	0	2330 ft²	19	0.2	0	0.8

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	Tested	Deck Insul.	Pitch
_____	1	Gable or shed	Composition shingles	2699 ft²	680 ft²	White	0.75	Yes	0	30.3 deg

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2330 ft²	N	N

CEILING

✓	#	Ceiling Type	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	49	2330 ft²	0.11	Wood

WALLS

✓	#	Omt	Adjacent To	Wall Type	Cavity R-Value	Area	Sheathing R-Value	Framing Fraction	Solar Absor.
_____	1	N	Exterior	Frame - Wood	24	576 ft²	0	0.23	0.75
_____	2	E	Exterior	Frame - Wood	24	400.5 ft²	0	0.23	0.75
_____	3	S	Exterior	Frame - Wood	24	576 ft²	0	0.23	0.75
_____	4	W	Exterior	Frame - Wood	24	400.5 ft²	0	0.23	0.75

DOORS													
✓	#	Omt	Door Type		Storms		U-Value		Area				
—	1	N	Insulated		None		0.4		33.33333				
—	2	S	Insulated		None		0.4		20 ft²				
—	3	W	Insulated		None		0.4		20 ft²				
WINDOWS													
Orientation shown is the entered, asBuilt orientation.													
✓	#	Omt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth Separation		Int Shade	Screening
—	1	N	Vinyl	Low-E Single	Yes	0.35	0.33	N	66 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
—	2	N	Vinyl	Low-E Single	Yes	0.35	0.33	N	7.5 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
—	3	E	Vinyl	Low-E Single	Yes	0.35	0.33	N	33 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
—	4	S	Vinyl	Low-E Single	Yes	0.35	0.33	N	99 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
—	5	S	Vinyl	Low-E Single	Yes	0.35	0.33	N	15 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
—	6	W	Vinyl	Low-E Single	Yes	0.35	0.33	N	6 ft²	1 ft 4 in	0 ft 0 in	HERS 2006	None
INFILTRATION & VENTING													
✓	Method	SLA	CFM 50	ACH 50	ELA	EqLA	— Forced Ventilation — Supply CFM Exhaust CFM		Run Time Fraction	Fan Watts			
—	Default	0.00036	2200	6.30	120.8	227.2	0 cfm 0 cfm		0	0			
GARAGE													
✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation							
—	1	384 ft²	384 ft²	64 ft	8 ft	11							
COOLING SYSTEM													
✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts					
—	1	Central Unit	Split	SEER: 13	42 kBtu/hr	1260 cfm	0.6	sys#1					
HEATING SYSTEM													
✓	#	System Type	Subtype	Efficiency	Capacity	Ducts							
—	1	Electric Heat Pump	None	HSPF: 12	42 kBtu/hr	sys#1							
HOT WATER SYSTEM													
✓	#	System Type	EF	Cap	Use	SetPnt	Conservation						
—	1	Electric	0.9	50 gal	60 gal	120 deg	None						
SOLAR HOT WATER SYSTEM													
✓	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF						
—	None	None			ft²								

DUCTS

✓	#	— Supply — Location	R-Value	Area	— Return — Location	Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF
	1	Interior	8	600 ft²	Interior	420 ft²	Prop. Leak Free	Interior	69.90 cfm	5.55 %	0.03	0.50

TEMPERATURES

Programable Thermostat: N

Ceiling Fans: N

Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec

Thermostat Schedule: HERS 2006 Reference

Hours

Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
Heating (WEH)	AM	68	68	68	68	68	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Anyplace
Orlando, FL, 32801-

PERMIT #:

INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.1.2	Penetrations/openings > 1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	N1106.AB.1.2	Between walls & ceilings; penetrations of ceiling plane to top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	N1106.AB.1.2	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	N1106.AB.1.2	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.ABC.3 Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings-Min. R-19. Common walls-frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Performance Method A

Project Name: ABS-1122 (SOUTH)
 Street: Anyplace
 City, State, Zip: Naples, FL, 32801-
 Owner:
 Design Location: FL, NAPLES MUNICIPAL

Builder Name:
 Permit Office:
 Permit Number:
 Jurisdiction:

- | | |
|--|------------------|
| 1. New construction or existing | New (From Plans) |
| 2. Single family or multiple family | Single-family |
| 3. Number of units, if multiple family | 1 |
| 4. Number of Bedrooms | 3 |
| 5. Is this a worst case? | No |
| 6. Conditioned floor area (ft ²) | 2330 |

- | | | |
|--------------------------|-------------|------------------------|
| 7. Windows (226.5 sqft.) | Description | Area |
| a. U-Factor: | Sgl, U=0.35 | 226.50 ft ² |
| | SHGC: | SHGC=0.33 |
| b. U-Factor: | N/A | ft ² |
| | SHGC: | |
| c. U-Factor: | N/A | ft ² |
| | SHGC: | |
| d. U-Factor: | N/A | ft ² |
| | SHGC: | |
| e. U-Factor: | N/A | ft ² |
| | SHGC: | |

- | | | |
|-------------------------------|------------|-------------------------|
| 8. Floor Types (2330.0 sqft.) | Insulation | Area |
| a. Crawlspace | R=19.0 | 2330.00 ft ² |
| b. N/A | R= | ft ² |
| c. N/A | R= | ft ² |

- | | | |
|------------------------------|------------|-------------------------|
| 9. Wall Types (1953.0 sqft.) | Insulation | Area |
| a. Frame - Wood, Exterior | R=24.0 | 1953.00 ft ² |
| b. N/A | R= | ft ² |
| c. N/A | R= | ft ² |
| d. N/A | R= | ft ² |

- | | | |
|----------------------------------|------------|-------------------------|
| 10. Ceiling Types (2330.0 sqft.) | Insulation | Area |
| a. Under Attic (Vented) | R=49.0 | 2330.00 ft ² |
| b. N/A | R= | ft ² |
| c. N/A | R= | ft ² |

11. Ducts
 a. Sup: Interior Ret: Interior AH: Interior Sup. R= 8, 600 ft²

12. Cooling systems
 a. Central Unit Cap: 42.0 kBtu/hr
 SEER: 13

13. Heating systems
 a. Electric Heat Pump Cap: 42.0 kBtu/hr
 HSPF: 12

14. Hot water systems
 a. Electric Cap: 50 gallons
 EF: 0.9

- b. Conservation features
 None

15. Credits None

Date: 7/16/10 Plan No. ABS 1122

Approved By: R. Bullock
 Glass/Floor Area: 0.097
 Richard L. Bullock

Total As-Built Modified Loads: 36.85
 Total Baseline Loads: 63.35

PASS

Model Building Plans Examiner Florida Certificate 2222 002

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: [Signature]
 DATE: 7-7-2010

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT:
 DATE:

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.



BUILDING OFFICIAL:
 DATE:

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with N1110.A.3.
- Compliance requires an air distribution system test report, by a Florida Class 1 Rater, confirming system leakage to outdoors is not greater than 70 cfm at 25 pascals pressure difference in accordance with N1110.A.2.
- Compliance requires a roof absorptance test in accordance with N1104.A.4.

PROJECT

Title:	ABS-1122 (SOUTH)	Bedrooms:	3	Address Type:	Street Address
Building Type:	FLAsBuilt	Conditioned Area:	2330	Lot #	
Owner:		Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	Anyplace
Permit Office:		Cross Ventilation:	No	County:	Collier
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Naples , FL , 32801-
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	Design Temp 2.5 %	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, NAPLES_MUNICIPAL	FL_NAPLES_MUNICIPAL	2	46	90	75	70	288.5	58	Medium

FLOORS

✓	#	Floor Type	Exposed Perimeter	Wall Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
_____	1	Crawlspace	172 ft	0	2330 ft²	19	0.2	0	0.8

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	Tested	Deck Insul.	Pitch
_____	1	Gable or shed	Composition shingles	2699 ft²	680 ft²	White	0.75	Yes	0	30.3 deg

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2330 ft²	N	N

CEILING

✓	#	Ceiling Type	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	49	2330 ft²	0.11	Wood

WALLS

✓	#	Ornt	Adjacent To	Wall Type	Cavity R-Value	Area	Sheathing R-Value	Framing Fraction	Solar Absor.
_____	1	N	Exterior	Frame - Wood	24	576 ft²	0	0.23	0.75
_____	2	E	Exterior	Frame - Wood	24	400.5 ft²	0	0.23	0.75
_____	3	S	Exterior	Frame - Wood	24	576 ft²	0	0.23	0.75
_____	4	W	Exterior	Frame - Wood	24	400.5 ft²	0	0.23	0.75

DOORS

✓	#	Omt	Door Type	Storms	U-Value	Area
✓	1	N	Insulated	None	0.4	33.33333
✓	2	S	Insulated	None	0.4	20 ft²
✓	3	W	Insulated	None	0.4	20 ft²

WINDOWS

Orientation shown is the entered, asBuilt orientation.

✓	#	Omt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth Separation	Int Shade	Screening
✓	1	N	Vinyl	Low-E Single	Yes	0.35	0.33	N	66 ft²	1 ft 4 in 0 ft 0 in	HERS 2006	None
✓	2	N	Vinyl	Low-E Single	Yes	0.35	0.33	N	7.5 ft²	1 ft 4 in 0 ft 0 in	HERS 2006	None
✓	3	E	Vinyl	Low-E Single	Yes	0.35	0.33	N	33 ft²	1 ft 4 in 0 ft 0 in	HERS 2006	None
✓	4	S	Vinyl	Low-E Single	Yes	0.35	0.33	N	99 ft²	1 ft 4 in 0 ft 0 in	HERS 2006	None
✓	5	S	Vinyl	Low-E Single	Yes	0.35	0.33	N	15 ft²	1 ft 4 in 0 ft 0 in	HERS 2006	None
✓	6	W	Vinyl	Low-E Single	Yes	0.35	0.33	N	6 ft²	1 ft 4 in 0 ft 0 in	HERS 2006	None

INFILTRATION & VENTING

✓	Method	SLA	CFM 50	ACH 50	ELA	EqLA	— Forced Ventilation — Supply CFM Exhaust CFM	Run Time Fraction	Fan Watts
✓	Default	0.00036	2200	6.30	120.8	227.2	0 cfm 0 cfm	0	0

GARAGE

✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
✓	1	384 ft²	384 ft²	64 ft	8 ft	11

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts
✓	1	Central Unit	Split	SEER: 13	42 kBtu/hr	1260 cfm	0.6	sys#1

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Ducts
✓	1	Electric Heat Pump	None	HSPF: 12	42 kBtu/hr	sys#1

HOT WATER SYSTEM

✓	#	System Type	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	0.9	50 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

✓	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	None	None			ft²		

DUCTS

✓	#	Location	Supply R-Value	Area	Location	Return Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF
	1	Interior	8	600 ft²	Interior	420 ft²	Prop. Leak Free	Interior	69.90 cfm	5.55 %	0.03	0.50

TEMPERATURES

Programable Thermostat: N						Ceiling Fans: N						
Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Thermostat Schedule: HERS 2006 Reference												
Schedule Type	Hours											
	1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM 78	78	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	PM 78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM 68	68	68	68	68	68	68	68	68	68	68	68
Heating (WEH)	PM 68	68	68	68	68	68	68	68	68	68	68	68

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Anyplace
Naples, FL, 32801-

PERMIT #:

INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	N1106.AB.1.2	Penetrations/openings > 1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	N1106.AB.1.2	Between walls & ceilings; penetrations of ceiling plane to top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	N1106.AB.1.2	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	N1106.AB.1.2	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	N1106.AB.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.ABC.3 Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	N1112.AB.2.3	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	N1104.AB.1 N1102.B.1.1	Ceilings-Min. R-19. Common walls-frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	



**COLUMBIA COUNTY BUILDING DEPARTMENT
RESIDENTIAL CHECK LIST REQUIREMENTS**

6-25-09

**MINIMUM PLAN REQUIREMENTS FOR THE
FLORIDA BUILDING CODE RESIDENTIAL 2007 EFFECTIVE 1 MARCH 2009 & 2009
SUPPLEMENTS EFFECTIVE 1 MARCH 2009, ONE (1) AND TWO (2) FAMILY DWELLINGS
with Supplements and Revision, OF THE NATIONAL ELECTRICAL 2008**

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

**ALL BUILDING PLANS MUST INDICATE COMPLIANCE with the Current 2007
FLORIDA BUILDING CODES RESIDENTIAL EFFECTIVE 1 MARCH 2009 & 2009
SUPPLEMENTS EFFECTIVE 1 MARCH 2009. ALL PLANS OR DRAWINGS SHALL
PROVIDE CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND
SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE
STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE
STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY
DWELLINGS.**

**FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEEDS ARE PER
FIGURE R301.2(4) of the FLORIDA BUILDING CODES RESIDENTIAL (Florida Wind
speed map) SHALL BE USED.**

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ----- 100 MPH
ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE -----110 MPH
NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

**GENERAL REQUIREMENTS:
APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL**

Items to Include-
Each Box shall be
Circled as
Applicable

			Yes	No	N/A
1	Two (2) complete sets of plans containing the following:		✓		
2	All drawings must be clear, concise, drawn to scale, details that are not used shall be marked void		✓		
3	Condition space (Sq. Ft.) 2330	Total (Sq. Ft.) under roof 2794			

Designers name and signature shall be on all documents and a licensed architect or engineer, signature and official embossed seal shall be affixed to the plans and documents as per the FLORIDA BUILDING CODES RESIDENTIAL R101.2.1

Site Plan information including:

4	Dimensions of lot or parcel of land	✓		
5	Dimensions of all building set backs	✓		
6	Location of all other structures (include square footage of structures) on parcel, existing or proposed well and septic tank and all utility easements.	✓		
7	Provide a full legal description of property.	✓		

Wind-load Engineering Summary, calculations and any details required

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL		Items to Include- Each Box shall be Circled as Applicable		
8	Plans or specifications must show compliance with FBCR Chapter 3			
		YES	NO	N/A
9	Basic wind speed (3-second gust), miles per hour	✓		
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	✓		
11	Wind importance factor and nature of occupancy	✓		
12	The applicable internal pressure coefficient, Components and Cladding	✓		
13	The design wind pressure in terms of psf (kN/m ²), to be used for the design of exterior component, cladding materials not specifiably designed by the registered design professional.	✓		

Elevations Drawing including:

14	All side views of the structure	✓		
15	Roof pitch	✓		
16	Overhang dimensions and detail with attic ventilation	✓		
17	Location, size and height above roof of chimneys		✓	
18	Location and size of skylights with Florida Product Approval			✓
18	Number of stories	✓		
20A	Building height from the established grade to the roofs highest peak			✓

Floor Plan including:

20	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	✓		
21	Raised floor surfaces located more than 30 inches above the floor or grade			✓
22	All exterior and interior shear walls indicated	✓		
23	Shear wall opening shown (Windows, Doors and Garage doors)	✓		
24	Show compliance with Section FBCR 310 Emergency escape and rescue opening shown in each bedroom (net clear opening shown) and Show compliance with Section FBCR 613.2 where the opening of an operable window is located more than 72 inches above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches above the finished floor of the room in which the window is located. Glazing between the floor and 24 inches shall be fixed or have openings through which a 4-inch-diameter sphere cannot pass.	✓		
25	Safety glazing of glass where needed	✓		
26	Fireplaces types (gas appliance) (vented or non-vented) or wood burning with Hearth (see chapter 10 of FBCR)	✓		
27	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails			✓
28	Identify accessibility of bathroom (see FBCR SECTION 322)	✓		

All materials placed within opening or onto/into exterior walls, soffits or roofs shall have Florida product approval number and mfg. installation information submitted with the plan: (see Florida product approval form)

<p align="center">GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</p>	<p align="center">Items to Include- Each Box shall be Circled as Applicable</p>
--	---

FBCR 403: Foundation Plans

		YES	NO	N/A
29	Location of all load-bearing walls footings indicated as standard, monolithic, dimensions, size and type of reinforcing.	✓		
30	All posts and/or column footing including size and reinforcing	✓		
31	Any special support required by soil analysis such as piling.			✓
32	Assumed load-bearing value of soil <u>2000</u> Pound Per Square Foot	✓		
33	Location of horizontal and vertical steel, for foundation or walls (include # size and type) For structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	✓		

FBCR 506: CONCRETE SLAB ON GRADE

34	Show Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)	✓		
35	Show control joints, synthetic fiber reinforcement or welded fire fabric reinforcement and Supports	✓		

FBCR 320: PROTECTION AGAINST TERMITES

36	Indicate on the foundation plan if soil treatment is used for subterranean termite prevention or Sub mit other approved termite protection methods. Protection shall be provided by registered termiticides	✓		
----	--	---	--	--

FBCR 606: Masonry Walls and Stem walls (load bearing & shear Walls)

37	Show all materials making up walls, wall height, and Block size, mortar type	✓		
38	Show all Lintel sizes, type, spans and tie-beam sizes and spacing of reinforcement	✓		

Metal frame shear wall and roof systems shall be designed, signed and sealed by Florida Prof. Engineer or Architect

Floor Framing System: First and/or second story

39	Floor truss package shall including layout and details, signed and sealed by Florida Registered Professional Engineer	✓		
40	Show conventional floor joist type, size, span, spacing and attachment to load bearing walls, stem walls and/or piers	✓		
41	Girder type, size and spacing to load bearing walls, stem wall and/or piers	✓		
42	Attachment of joist to girder	✓		
43	Wind load requirements where applicable	✓		
44	Show required under-floor crawl space	✓		

45	Show required amount of ventilation opening for under-floor spaces	✓		
46	Show required covering of ventilation opening	✓		
47	Show the required access opening to access to under-floor spaces	✓		
48	Show the sub-floor structural panel sheathing type, thickness and fastener schedule on the edges & interior of the areas structural panel sheathing	✓		
49	Show Draftstopping, Fire caulking and Fire blocking	✓		
50	Show fireproofing requirements for garages attached to living spaces, per FBCR section 309			✓
51	Provide live and dead load rating of floor framing systems (psf).	✓		

FBCR CHAPTER 6 WOOD WALL FRAMING CONSTRUCTION

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL		Items to Include- Each Box shall be Circled as Applicable		
		YES	NO	N/A
52	Stud type, grade, size, wall height and oc spacing for all load bearing or shear walls	✓		
53	Fastener schedule for structural members per table FBCR 602.3 are to be shown	✓		
54	Show Wood structural panel's sheathing attachment to studs, joist, trusses, rafters and structural members, showing fastener schedule attachment on the edges & intermediate of the areas structural panel sheathing	✓		
55	Show all required connectors with a max uplift rating and required number of connectors and oc spacing for continuous connection of structural walls to foundation and roof trusses or rafter systems	✓		
56	Show sizes, type, span lengths and required number of support jack studs, king studs for shear wall opening and girder or header per FBCR Table 502.5 (1)	✓		
57	Indicate where pressure treated wood will be placed	✓		
58	Show all wall structural panel sheathing, grade, thickness and show fastener schedule for structural panel sheathing edges & intermediate areas	✓		
59	A detail showing gable truss bracing, wall balloon framing details or/ and wall hinge bracing detail	✓		

FBCR :ROOF SYSTEMS:

60	Truss design drawing shall meet section FBCR 802.10 Wood trusses	✓		
61	Include a layout and truss details, signed and sealed by Florida Professional Engineer	✓		
62	Show types of connector's assemblies' and resistance uplift rating for all trusses and rafters	✓		
63	Show gable ends with rake beams showing reinforcement or gable truss and wall bracing details	✓		
64	Provide dead load rating of trusses	✓		

FBCR 802:Conventional Roof Framing Layout

65	Rafter and ridge beams sizes, span, species and spacing	✓		
66	Connectors to wall assemblies' include assemblies' resistance to uplift rating	✓		
67	Valley framing and support details	✓		
68	Provide dead load rating of rafter system	✓		

FBCR Table 602.3(2) & FBCR 803 ROOF SHEATHING

69	Include all materials which will make up the roof decking, identification of structural panel sheathing, grade, thickness	✓		
70	Show fastener Size and schedule for structural panel sheathing on the edges & intermediate areas	✓		

FBCR ROOF ASSEMBLIES FRC Chapter 9

71	Include all materials which will make up the roof assemblies covering	✓		
72	Submit Florida Product Approval numbers for each component of the roof assemblies covering	✓		

FBCR Chapter 11 Energy Efficiency Code for residential building

Residential construction shall comply with this code by using the following compliance methods in the FBCR chapter 11 Residential buildings compliance methods. **Two of the required forms are to be submitted, N1100.1.1.1 As an alternative to the computerized Compliance Method A, the Alternate Residential Point System Method hand calculation, Alternate Form 600A, may be used. All requirements specific to this calculation are located in Sub appendix C to Appendix G. Buildings complying by this alternative shall meet all mandatory requirements of this chapter. Computerized versions of the Alternate Residential Point System Method shall not be acceptable for code compliance.**

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL		Items to Include- Each Box shall be Circled as Applicable		
		YES	NO	N/A
73	Show the insulation R value for the following areas of the structure			
74	Attic space	✓		
75	Exterior wall cavity	✓		
76	Crawl space	✓		

HVAC information

77	Submit two copies of a Manual J sizing equipment or equivalent computation study	✓		
78	Exhaust fans shown in bathrooms Mechanical exhaust capacity of 50 cfm intermittent or 20 cfm continuous required	✓		
79	Show clothes dryer route and total run of exhaust duct	✓		

Plumbing Fixture layout shown

80	All fixtures waste water lines shall be shown on the foundation plan	✓		
81	Show the location of water heater	✓		

Private Potable Water

82	Pump motor horse power	✓		
83	Reservoir pressure tank gallon capacity	✓		
84	Rating of cycle stop valve if used			✓

Electrical layout shown including

85	Show Switches, receptacles outlets, lighting fixtures and Ceiling fans	✓		
86	Show all 120-volt, single phase, 15- and 20-ampere branch circuits outlets required to be protected by Ground-Fault Circuit Interrupter (GFCI) Article 210.8 A	✓		
87	Show the location of smoke detectors & Carbon monoxide detectors	✓		
88	Show service panel, sub-panel, location(s) and total ampere ratings	✓		
89	On the electrical plans identify the electrical service overcurrent protection device for the main electrical service. This device shall be installed on the exterior of structures to serve as a disconnecting means for the utility company electrical service. Conductors used from the exterior disconnecting means to a panel or sub panel shall have four-wire conductors, of which one conductor shall be used as an equipment ground. Indicate if the utility company service entrance cable will be of the overhead or underground type. For structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an Grounding electrode system. Per the National Electrical Code article 250.52.3	✓		
90	Appliances and HVAC equipment and disconnects	✓		
91	Show all 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed Combination arc-fault circuit interrupter , Protection device.	✓		

Disclosure Statement for Owner Builders *If you as the applicant will be acting as an owner/builder under section 489.103(7) of the Florida Statutes, submit the required owner builder disclosure statement form.*

Notice Of Commencement

A notice of commencement form **recorded** in the Columbia County Clerk Office is required to be filed with the building department Before Any Inspections can be preformed.

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Circled as Applicable
--	--

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS

		YES	NO	N/A
92	Building Permit Application A current Building Permit Application form is to be completed and submitted for all residential projects	✓		
93	Parcel Number The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested	✓		
94	Environmental Health Permit or Sewer Tap Approval A copy of a approved Columbia County Environmental Health (386) 758-1058			
95	City of Lake City A permit showing an approved waste water sewer tap			
96	Toilet facilities shall be provided for all construction sites	✓		
97	Town of Fort White (386) 497-2321 If the parcel in the application for building permit is within the Corporate city limits of Fort White an approval land use development letter issued by the Town of Fort is required to be submitted with the application for a building permit.			

98	Flood Information: All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting a application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.5.2 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.5.3 of the Columbia County Land Development Regulations			✓
99	CERTIFIED FINISHED FLOOR ELEVATIONS will be required on any project where the base flood elevation (100 year flood) has been established			✓
100	A development permit will also be required. Development permit cost is \$50.00			✓
101	Driveway Connection: If the property does not have an existing access to a public road, then an application for a culvert permit (\$25.00) must be made. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (\$50.00). All culvert waivers are sent to the Columbia County Public Works Department for approval or denial.			✓
102	911 Address: If the project is located in an area where a 911 address has not been issued, then application for a 911 address must be applied for and received through the Columbia County Emergency Management Office of 911 Addressing Department (386) 758-1125			✓

Section R101.2.1 of the Florida Building Code Residential:

The provisions of Chapter 1, Florida Building Code, Building shall govern the administration and enforcement of the Florida Building Code, Residential.

Section 105 of the Florida Building Code defines the:

Time limitation 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.

Single-family residential dwelling.

Section 105.3.4 A building permit for a single-family residential dwelling must be issued within 30 working days of application therefor unless unusual circumstances require a longer time for processing the application or unless the permit application fails to satisfy the Florida Building Code or the enforcing agency's laws or ordinances.

Permit intent.

Section 105.4.1: A permit issued shall be constructed to be a license to proceed with the work and not as authority to violate, cancel, alter or set aside any of the provisions of the technical codes, nor shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall become invalid unless the work authorized by such permit is commenced within six months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of six months after the time the work is commenced.

CERTIFICATE OF OCCUPANCY

OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.

Parcel Number 33-1S-17-04635-000

Building permit No. 000028784

Use Classification MODULAR, UTILITY

Fire: 109.98

Permit Holder WILLIAM HARPER

Waste: 150.75

Owner of Building KENT & IRENE LOURCEY

Total: 260.73

Location: 659 NE CEMTERY LOOP

Date: 01/10/2011

Ray Lee

Building Inspector



POST IN A CONSPICUOUS PLACE
(Business Places Only)

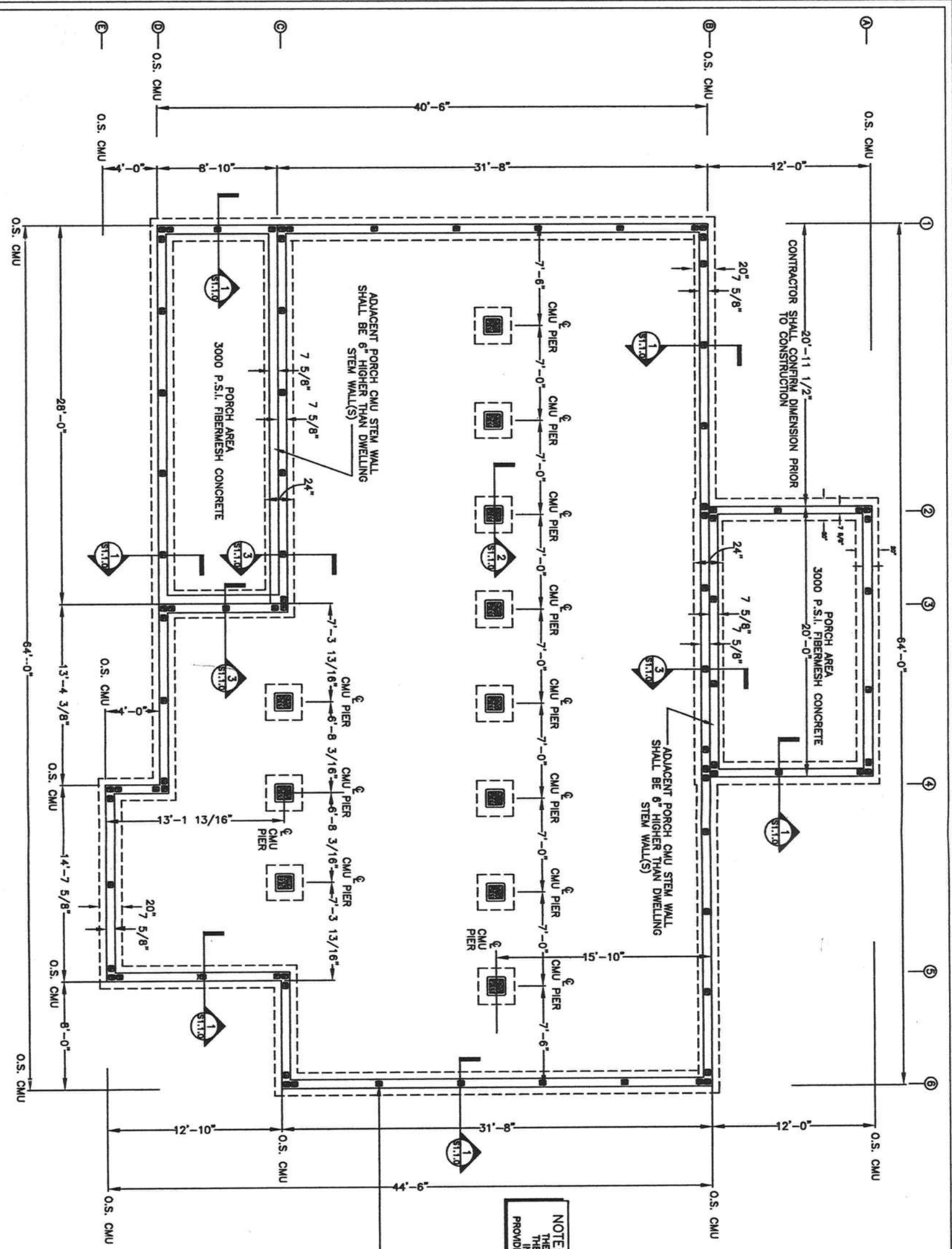
SCALE NOTE:
PLAN VIEW: 1/8"=1'-0"

NOTE: CONTRACTOR SHALL PROVIDE A MINIMUM OF 15.63 S.F. OF CRAWL SPACE VENTILATION W/ INSECT & VERMIN SCREENING

NOTE: CONTRACTOR SHALL PROVIDE A MINIMUM OF 1" - 24" X 18" (MINIMUM) ACCESS W/ W/ INSECT & VERMIN PROOF COVER

NOTE: PRESCRIPTIVE REQUIREMENTS DETAILED ON THESE PLANS ARE SPECIFIC TO THE CONDITIONS FOR THIS SITE AND APPLICATION. USE OF THE REQUIREMENTS INDICATED IN THESE PLANS FOR ALTERNATE CONDITIONS OR SITES WILL NOT PROVIDE COMPLIANCE W/ APPLICABLE SECTION OF THE INTERNATIONAL BUILDING CODE.

FILL CORES AS ILLUSTRATED W/ 1" - #5 REINFORCEMENT ROD, CONTINUOUS FROM FOOTING TO UNTEL. COURSE W/ STANDARD 6" BENDS @ EACH END. MINIMUM 25" LAPS @ ALL SPLICES & 3000 P.S.I. PEA GRAVEL MIX CONCRETE - SEE DETAILS & SECTIONS



CERTIFICATION:
THESE PLANS FOR THE LOURLEY RESIDENCE, COLUMBIA COUNTY, FLORIDA, WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. I CERTIFY THAT I AM A QUALIFIED PERSON TO PREPARE THESE PLANS AND THAT I AM NOT PROVIDING ANY SERVICES OUTSIDE THE SCOPE OF MY LICENSE. I AM NOT PROVIDING ANY SERVICES OUTSIDE THE SCOPE OF MY LICENSE. I AM NOT PROVIDING ANY SERVICES OUTSIDE THE SCOPE OF MY LICENSE.

COMPONENTS/CLADDING ROOF = - 42.02 PSF
+ 12.55 PSF
COMPONENTS/CLADDING WALLS = - 18.80 PSF
+ 16.42 PSF

1 FOUNDATION SYSTEM PLAN VIEW
SCALE: 1/8"=1'-0"

PROJECT No. LOURLEY-S1.0.0.DWG
SHEET No. S1.0.0
DATE 07/12/10
DIMENSIONED FOUNDATION SYSTEM PLAN VIEW
MISC. NOTES, REFERENCES & INSTRUCTIONS
© 2010 KEEN ENGINEERING & SURVEYING, INC.
COLUMBIA COUNTY, FLORIDA
KEEN ENGINEERING & SURVEYING, INC.
9263 CR 417
OAK, FLORIDA 32060
386-362-4787
ENG. LIC. EB 3761

CONCRETE & RELATED REQUIREMENTS

- CONCRETE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318," & "MANUAL CONCRETE PRACTICE, PART 1 ACI 305 & ACI 306," & MANUAL OF CONCRETE PRACTICE, PART 1 ACI 305 & 306" LATEST EDITION
- CEMENT FOR CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C 150
- AGGREGATES FOR CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C 33
- WATER FOR CONCRETE SHALL BE POTABLE WATER FROM MUNICIPAL MAINS OR PRIVATE WELLS.
- OPTIONAL: TEST CONCRETE FOR COMPRESSION WITH 1 SET OF 3 CYLINDERS FOR EACH 50 CUBIC YARDS OF CONCRETE PLACED ON A GIVEN DAY. BREAK 1 CYLINDER @ 7 DAYS AND THE OTHERS @ 28 DAYS. TESTING WILL BE PAID FOR BY OWNER.
- CONCRETE SHALL HAVE STRENGTHS AND CHARACTERISTICS AS INDICATED ELSEWHERE THESE PLANS
- SAVED JOINTS MUST BE SAVED WITHIN 24 HOURS OF PLACEMENT OF CONCRETE
- REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615 GR 60 UNLESS OTHERWISE NOTED
- SLAB REINFORCING SHALL BE IN TOP 1/2 OF SLAB OR AS ILLUSTRATED
- VIBRATE OR SCREEN ALL CONCRETE THOROUGHLY INTO PLACE
- MINIMUM COVER OF REINFORCEMENT SHALL BE AS REQUIRED BY CODE
- MOIST CURE CONCRETE FOR 7 DAYS AFTER PLACING
- PROVIDE VAPOR BARRIER OF POLYETHYLENE UNDER SLAB(S)
- PLACE CONTROL JOINTS IN SLAB TO PROVIDE MAXIMUM SLAB SIZE OF 600 SQUARE FEET
- CONCRETE TEMPERATURE SHALL NOT EXCEED 90 DEGREES F DURING PLACEMENT
- CONCRETE SHALL BE PLACED IN A MANNER TO PREVENT SEGREGATION
- CONCRETE SHALL NOT BE ALLOWED TO FREE FALL MORE THAN 60 INCHES
- AREAS TO RECEIVE CONCRETE SHALL BE CLEAR OF ANY DEBRIS AND SHALL HAVE REINFORCING STEEL PROPERLY POSITIONED PRIOR TO CONCRETE PLACEMENT
- FOR LOCATION OF CONTROL OR CONSTRUCTION JOINTS OTHER THAN THOSE ILLUSTRATED VERIFY W/ ENGINEER
- ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A 307
- ANCHOR BOLTS SHALL BE SET IN SUCH A MANNER THAT THEIR FULL EMBEDDED LENGTH SHALL BE COVERED WITH CONCRETE
- LAP SPLICES SHALL BE 40 BAR DIAMETERS OR AS SHOWN OR NOTED ELSEWHERE THESE PLANS
- DETAILING, FABRICATION AND PLACEMENT OF REINFORCEMENT STEEL SHALL CONFORM TO CURRENT CRSI AND ACI SPECIFICATIONS
- REINFORCING STEEL SHALL BE FREE OF LOOSE RUST, MIL SCALE AND COATINGS THAT WOULD REDUCE OR DESTROY BOND
- REINFORCING BARS SHALL NOT BE REDUCED IN SECTION, KINKED OR BENT OTHER THAN INDICATED
- SUPPORT REINFORCING STEEL IN CHAIRS
- KEEP ONE SET OF CONCRETE CYLINDERS ON SITE AT ALL TIMES TO MAKE SAMPLES IN CASE CONCRETE CHARACTER CHANGES

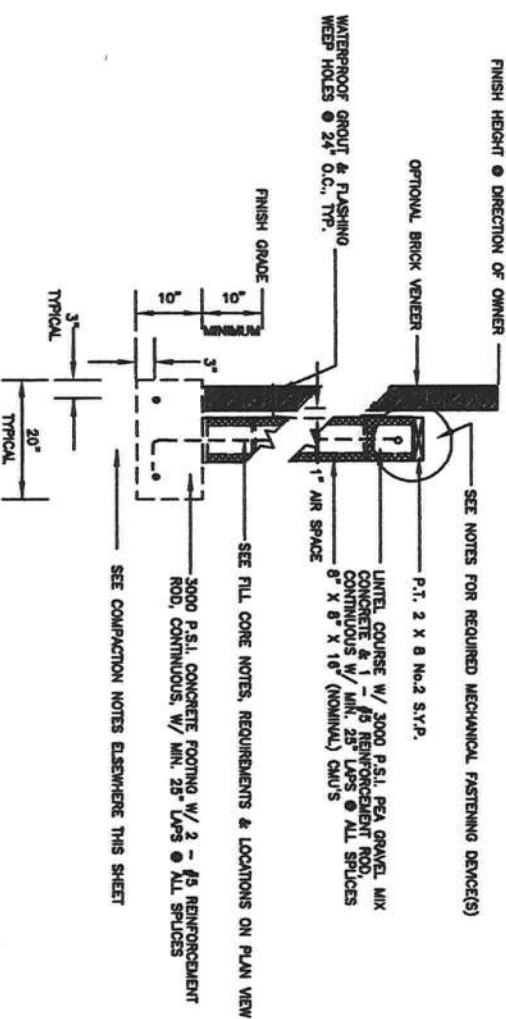
- REINFORCING STEEL SHALL BE #5 UNLESS OTHERWISE NOTED
- ALL REINFORCING STEEL SHALL BE A MINIMUM OF GRADE 40 AND IDENTIFIED IN ACCORDANCE W/ ASTM A615, REINFORCING STEEL A 706
- SPLICES SHALL BE LAP SPLICES W/ A MINIMUM OF 25" FOR #5 BARS
- FOR MINIMUM COVER OVER REINFORCEMENT - SEE DETAILS & SECTIONS ELSEWHERE THESE PLANS
- ALL REINFORCEMENT IN CMU'S SHALL EXTEND A MINIMUM OF 6" INTO ALL FOOTINGS W/ A 6" STANDARD BEND

- ALL JOINT REINFORCEMENT & ANCHOR TIES SHALL CONFORM TO ASTM A36 & A366 AS REQUIRED
- LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT W/ A MINIMUM MINIMUM COVER OVER REINFORCEMENT - SEE DETAILS & SECTIONS ELSEWHERE THESE PLANS
- METAL ACCESSORIES USED IN EXTERIOR WALL CONSTRUCTION SHALL BE GALVANIZED IN ACCORDANCE W/ ASTM A153
- ALL METAL ACCESSORIES USED IN INTERIOR WALL CONSTRUCTION SHALL BE MILL GALVANIZED IN ACCORDANCE W/ ASTM A153

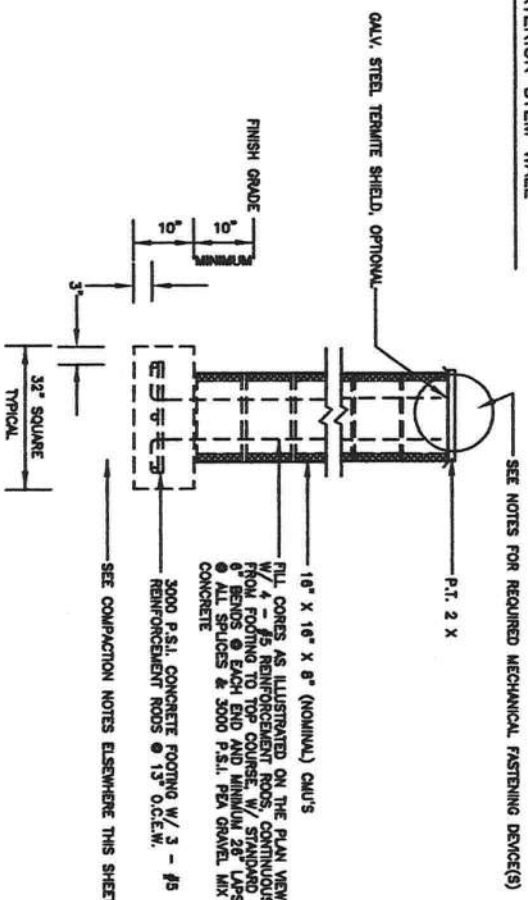
CLASS B-2

- PRIOR TO GRADING OPERATIONS ALL SOIL, ORGANIC LITTER AND FILL SHALL BE STRIPPED FROM BUILDING AREA
- ALL FILL MATERIAL SHALL NOT BE LESS THAN 98% OF THE STANDARD PROCTOR DENSITY
- ALL FILL MATERIAL SHALL BE INORGANIC W/ NOT MORE THAN 30% BY WEIGHT FINER THAN 200 U.S. STANDARD SIEVE CONFORMING TO A. LIQUID LIMIT, LW.....30 MAXIMUM B. ELASTICITY, LW.....15 MAXIMUM C. DRY UNIT WEIGHT.....100 LBS. PER CU. FT.
- ALL FILL MATERIAL SHALL BE UNIFORMLY PLACED @ OPTIMUM MOISTURE CONTENT IN 6" UNIFORM LAYERS AND COMPACTED TO A DENSITY OF 98% OF THE STANDARD PROCTOR IN ACCORDANCE W/ ASTM D698T
- FOOTINGS EXCAVATIONS SHALL BE INSPECTED PRIOR TO PLACING ANY CONCRETE TO ENSURE THAT FOOTINGS REST UPON SOUND EARTH
- ALL SUBGRADES MUST BE LEVEL, SMOOTH AND UNIFORMLY COMPACTED
- SUB GRADE MUST BE ACCURATE WITHIN 1/4" OF THE DESIGNATED LEVEL
- ANY WALL WHICH IS TO RECEIVE BACK FILL ON BOTH SIDES SHALL HAVE THE BACK FILL PLACED SIMULTANEOUSLY ON BOTH SIDES IN EVEN LAYERS AS PREVIOUSLY DESCRIBED SO AS NOT TO APPLY UNEVEN LOADS
- FOOTINGS SHALL BE LEVEL OR STEPPED AS INDICATED ON PLAN VIEWS & DETAILS OR SECTIONS
- SOIL, WASTE PIPES OR BUILDING DRAINS PASSING UNDER A FOOTING OR THROUGH A FOUNDATION SHALL BE GUARDED W/ A RELIEVING ARCH OR AN IRON PIPE SLEEVE A MINIMUM OF 2" - PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH
- STEM WALLS SHALL EXTEND NO GREATER THAN 3 FEET ABOVE THE FINISH GRADE AND CONSTRUCTED W/ THE PREVIOUSLY DESCRIBED MASONRY UNITS
- ALL STATE AND LOCAL CODES SHALL BE COMPLIED WITH BY THE CONTRACTOR
- 2,000 P.S.F. SOLID BEARING PRESSURE SHALL BE OBTAINED UNDER ALL FOOTINGS & SLABS

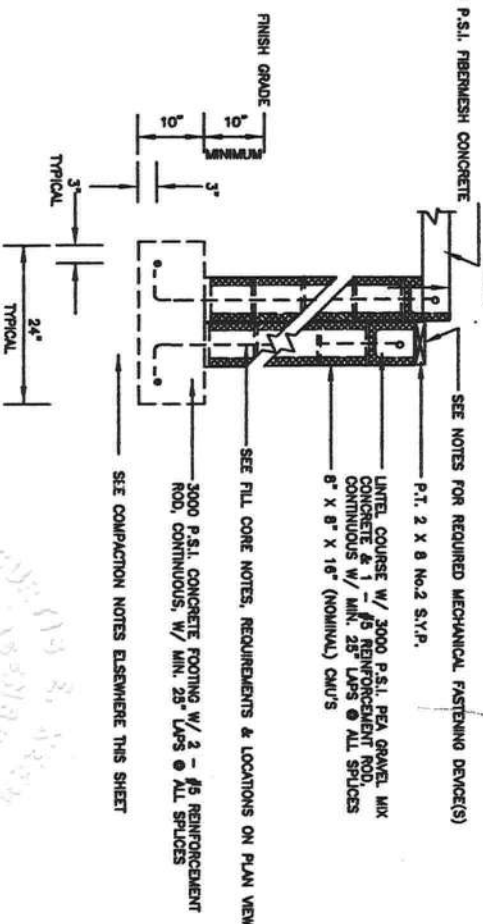
1 SECTION THRU EXTERIOR STEM WALL
S1.1.0 SCALE: N.T.S



2 SECTION THRU TYPICAL INTERIOR PIER
S1.1.0 SCALE: N.T.S



3 SECTION THRU EXTERIOR STEM WALL
S1.1.0 SCALE: N.T.S

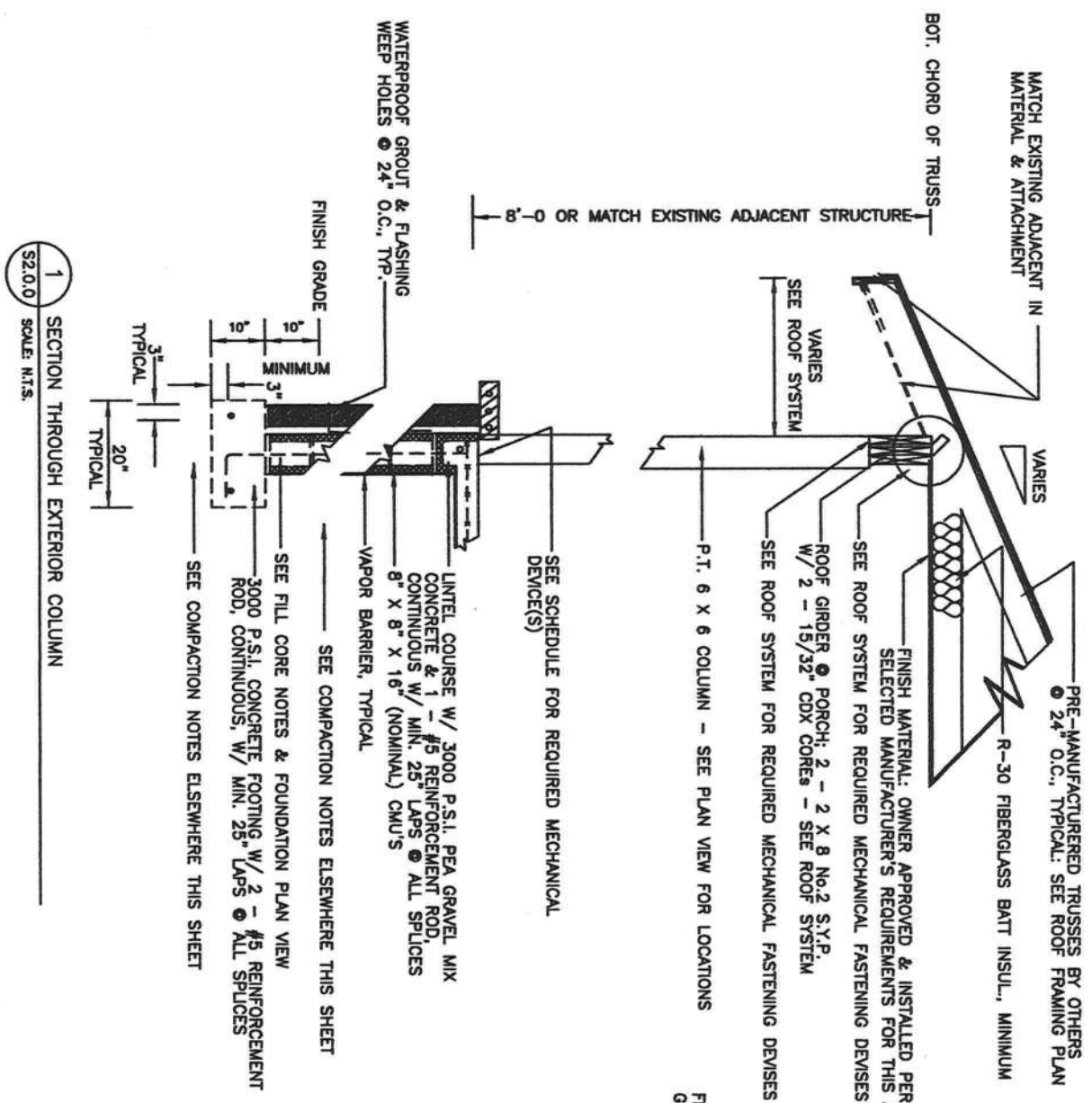


LOURLEY RESIDENCE
COLUMBIA COUNTY, FLORIDA

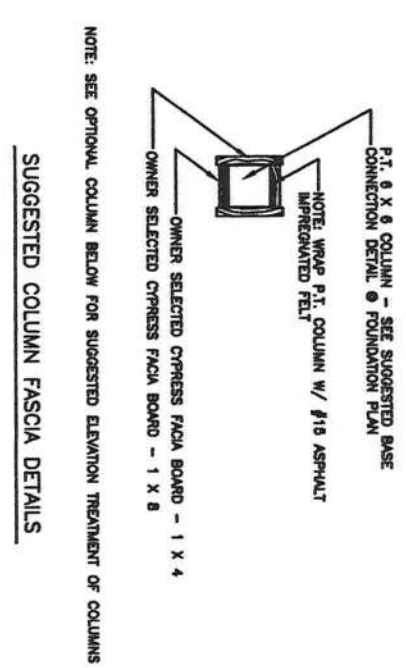
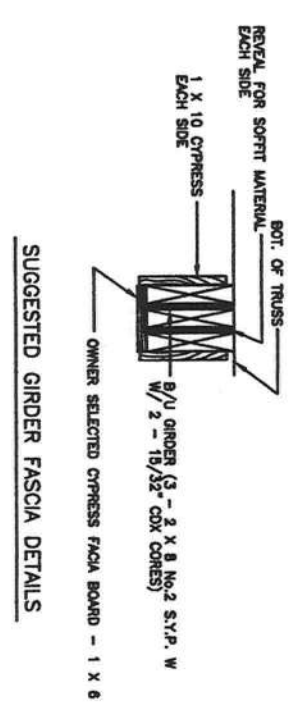
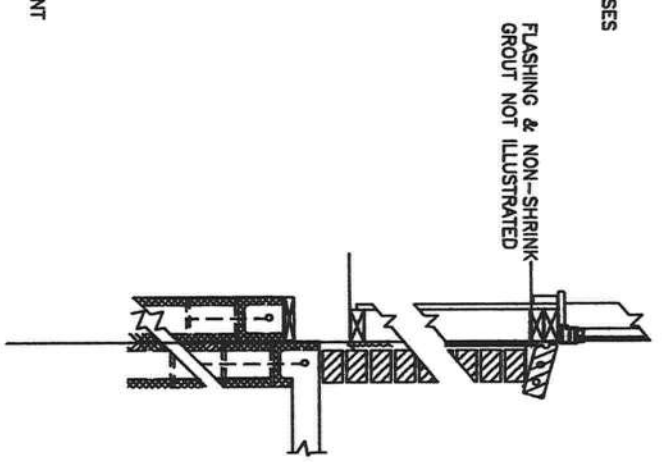
KEEN ENGINEERING & SURVEYING, INC.
9263 CR 417
LIVE OAK, FLORIDA 32060
386-362-4787
ENG. LIC. EB 3761

PROJECT No. LOURLEY-S1.1.0.DWG
SHEET No. S1.1.0
DATE 07/12/10
REFERENCE SECTIONS & DETAILS
MISC. NOTES, REFERENCES & INSTRUCTIONS
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Curtis E. Keen, PE #23836
Certification of Authorization #3761
DATE: 9/10/10

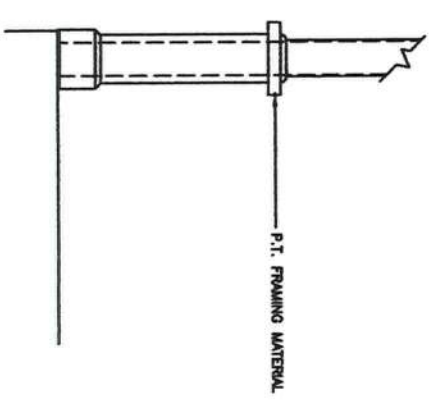
SCALE NOTE:
DETAILS/SECTIONS: N.T.S.



1A SECTION THROUGH OPTIONAL PARTIAL BRICK VENEER
SCALE: N.T.S.



2 OPTIONAL TREATMENT @ EXTERIOR COLUMNS
SCALE: N.T.S.



SCHEDULE OF REQUIRED FOUNDATION SYSTEM MECHANICAL FASTENERS

EXTERIOR	EXTERIOR STEM WALL	LOCATION OF EXTERIOR CMU STEM WALL - SEE PLAN VIEW FOR LOCATIONS CMU SHALL BE 8" X 8" X 16"(NOMINAL) & SHALL RECEIVE 1 - #5 REINFORCEMENT RODS, CONTINUOUS FROM FOOTING TO LINTEL COURSE W/ MINIMUM 25" LAPS @ ALL SPLICES AND 3000 P.S.I. PEA GRAVEL MIX CONCRETE AS ILLUSTRATED 1 - MODEL No., HPAHD22 BY SIMPSON STRONG-TIE OR EQUAL SHALL BE INSTALLED @ EACH CORNER, 16" FROM ALL CORNERS AND 6'-0 O.C. ALONG THE PERIMETER OF THE CMU WALL TO MODULAR DWELLING GIRDERS / JOISTS
	COLUMNS	LOCATION OF P.T. 6 X 6 COLUMNS - FRONT PORCH 1 - MODEL No., ABE66 BY SIMPSON STRONG-TIE OR EQUAL SHALL BE INSTALLED @ EACH COLUMN BASE TO CONCRETE SLAB & ATTACHED TO P.T. 6 X 6 COLUMN W/ 8 - 16d COMMON NAILS LOCATION OF P.T. 6 X 6 COLUMNS - REAR PORCH 1 - MODEL No., PBS66 BY SIMPSON STRONG-TIE OR EQUAL SHALL BE INSTALLED @ EACH COLUMN BASE TO CONCRETE SLAB & ATTACHED TO P.T. 6 X 6 COLUMN W/ 4 - 16d COMMON NAILS
INTERIOR	INTERIOR PIERS	LOCATION OF CMU PIERS - SEE PLAN VIEW ELSEWHERE THIS SHEET CMU SHALL BE 8" X 8" X 16"(NOMINAL) & SHALL RECEIVE 4 - #5 REINFORCEMENT RODS, CONTINUOUS FROM FOOTING TO LINTEL COURSE W/ MINIMUM 25" LAPS @ ALL SPLICES AND 3000 P.S.I. PEA GRAVEL MIX CONCRETE AS ILLUSTRATED 1 - MODEL No. PAHD42 BY SIMPSON STRONG-TIE OR EQUAL SHALL BE INSTALLED @ EACH INTERIOR CMU PIER (SEE PLAN VIEW) W/ 12 - 16d COMMON NAILS, MINIMUM
NOTES:		SEE ALSO FOUNDATION NOTES & REQUIREMENTS SEE ALSO SHEATHING DETAILS & REQUIREMENTS

SCHEDULE OF REQUIRED ROOF SYSTEM MECHANICAL FASTENERS	
MANUFACTURED TRUSSES	No.
	TRUSS TYPE "A"
	TYPICAL 1 - PLY MANUFACTURED ROOF TRUSS - SEE PLAN VIEW 1 - MODEL No. H5 BY SIMPSON STRONG-TIE OR EQUAL @ ATTACH DEVICE TO TRUSS W/ 4 - 8d COMMON NAILS - A 1 - MODEL No. H5 BY SIMPSON STRONG-TIE OR EQUAL @ ATTACH DEVICE TO TRUSS W/ 4 - 8d COMMON NAILS - A
	BUILT-UP GIRDER
	BUILT-UP ROOF GIRDER @ FRONT PORCH SHALL BE 3 - 1/2" 2 - MODEL No. LPC6 BY SIMPSON STRONG-TIE OR EQUAL @ ATTACH DEVICE TO BUILT-UP ROOF GIRDER W/ 8 - 8d COMMON NAILS
	COLUMNS
	P.T. 6 X 6 COLUMNS SHALL BE AS ILLUSTRATED & NOTED SEE ABOVE FOR PARTICULAR ATTACHMENT DEVICE(S)
	VALLEY SET
MANUFACTURED TRUSSES	TRUSS TYPE "B"
	TYPICAL 1 - PLY MANUFACTURED ROOF TRUSS - SEE PLAN VIEW 1 - MODEL No. H10 BY SIMPSON STRONG-TIE OR EQUAL @ ATTACH DEVICE TO TRUSS W/ 8 - 8d X 1 1/2" NAILS - B
	BUILT-UP GIRDER
	BUILT-UP ROOF GIRDER @ FRONT PORCH SHALL BE 3 - 1/2" 2 - MODEL No. LPC6 BY SIMPSON STRONG-TIE OR EQUAL @ ATTACH DEVICE TO BUILT-UP ROOF GIRDER W/ 8 - 8d COMMON NAILS
	COLUMNS
	P.T. 6 X 6 COLUMNS SHALL BE AS ILLUSTRATED & NOTED SEE ABOVE FOR PARTICULAR ATTACHMENT DEVICE(S)
	VALLEY SET
	SEE PLAN VIEWS FOR PARTICULAR LOCATIONS & SIZES OF PURLINS SHALL BE ATTACHED TO TRUSS CHORD(S) W/ 1 - 1/2" X 6 PLATES W/ 1 - 1/2" X 6 PLATES W/ 1 - 1/2"
NOTES:	
NOTE: SEE DETAILS ELSEWHERE THESE PLANS FOR ADDITIONAL REQUIREMENTS	

PROJECT No.
LOURLEY-S2.1.0.DWG
SHEET No.
S2.1.0

DATE
07/12/10

MECHANICAL FASTENING SCHEDULES
MISC. NOTES, REFERENCES & INSTRUCTIONS
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Curtis E. Keen
Curtis E. Keen, PE #23836
Certification of Authorization #3761
DATE: 7/20/10

Dimensions:

- Overall width: 21'-10 1/16"
- Overhang from existing wall: 1'-0"
- Distance between columns: 1'-0"
- Span length: 28'-0"
- Truss depth: 10'-9 1/4"
- Column offset: 6'-2 3/4"

Materials & Components:

- O.S. EXIST. ROOF
- O.S. EXIST. WALL OF DWELLING
- ROOF CENTERLINE
- TYPICAL P.T. 2 X 6 No.2, S.Y.P.
- 2 X 6 No.2 S.Y.P. RAFTERS AS ILLUSTRATED
- TYPICAL P.T. 2 X 6 No.2, S.Y.P.
- O.S. EXIST. WALL OF DWELLING
- O.S. EXIST. ROOF
- TYPICAL P.T. 6 X 6 COLUMN
- TYPICAL GIRDER: 3 - P.T. 2 X 6 I W / 2 - 15/32" C
- O.S. EXIST. WALL OF DWELLING
- O.S. EXIST. ROOF
- TYPICAL P.T. 6 X 6 COLUMN

Notes:

- CONTRACTOR SHALL CONFIRM
- SEE TRUSS PROFILE TYPE "A"
- NOTE: REMOVE EXISTING TRUSS OVERHANG BENEATH NEW CONSTRUCTION

22'-8"

O.S. COLUMN

20'-0"

COLUMN

O.S. COLUMN

1'-4"

1'-0"

12'-0"

7:12

TYPICAL P.T. 6 X 6 COLUMN

TYPICAL GIRDER: 3 - P.T. 2 X 10 No.2 S.Y.P.
W/ 2 - 15/32" CDX CORES

O.S. EXIST. ROOF
O.S. EXIST. WALL OF DWELLING

2 X 6 No.2 S.Y.P. RAFTERS
AS ILLUSTRATED

TYPICAL P.T. 2 X 6 No.2 S.Y.P.

P.T. 2 X 8 No.2 S.Y.P.

SEE TRUSS PROFILE TYPE "B"

2 S.Y.P. CORES

PLAN VIEW / SECTION

DETAILS/SECTIONS:

[illegible]

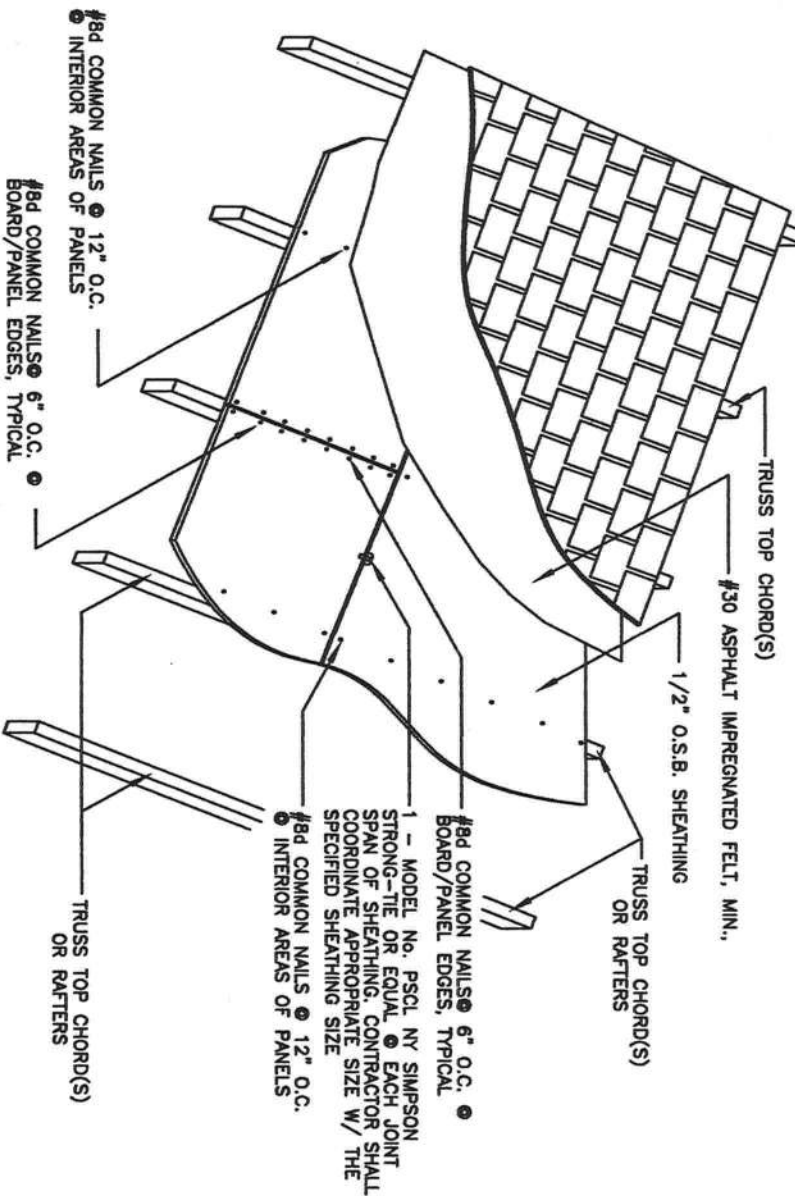
Diagram of a truss profile type "B". The truss is shown in elevation, with a total height of 22'-8" and a total width of 20'-0". The top chord is labeled B.P. (Bearing Point) at both ends. The bottom chord is labeled B.P. at both ends. The truss consists of a central diamond shape with a vertical member in the center. The top chord is composed of two segments, each 1'-4" long, separated by a 1'-4" gap. The bottom chord is composed of two segments, each 1'-4" long, separated by a 1'-4" gap. A slope triangle is shown to the right of the truss, indicating a slope of 12 vertical to 7 horizontal.

2A TRUSS PROFILE TYPE "B"

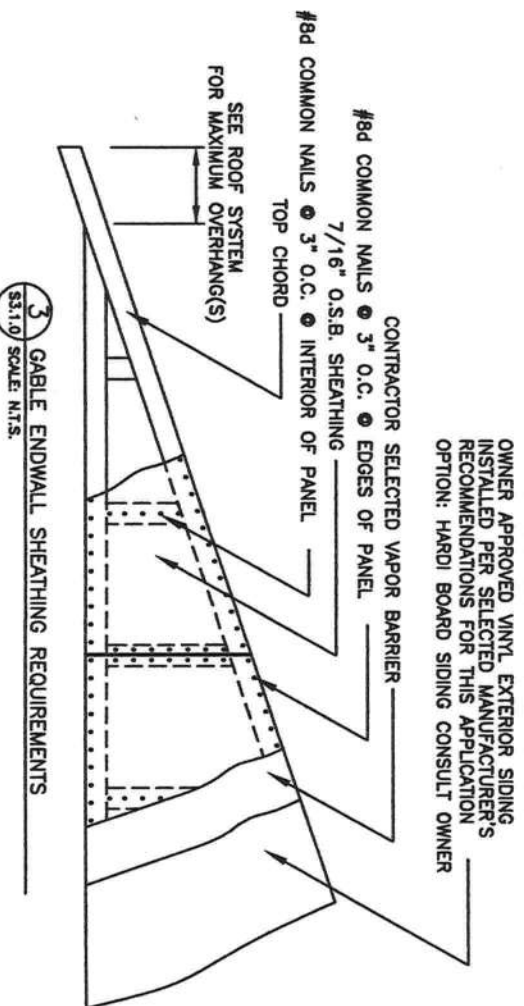
SCALE: N.T.S.

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LIVE OAK, FLORIDA 32060
9263 CR 417
386-352-4787
ENG. LIC. EB 3761

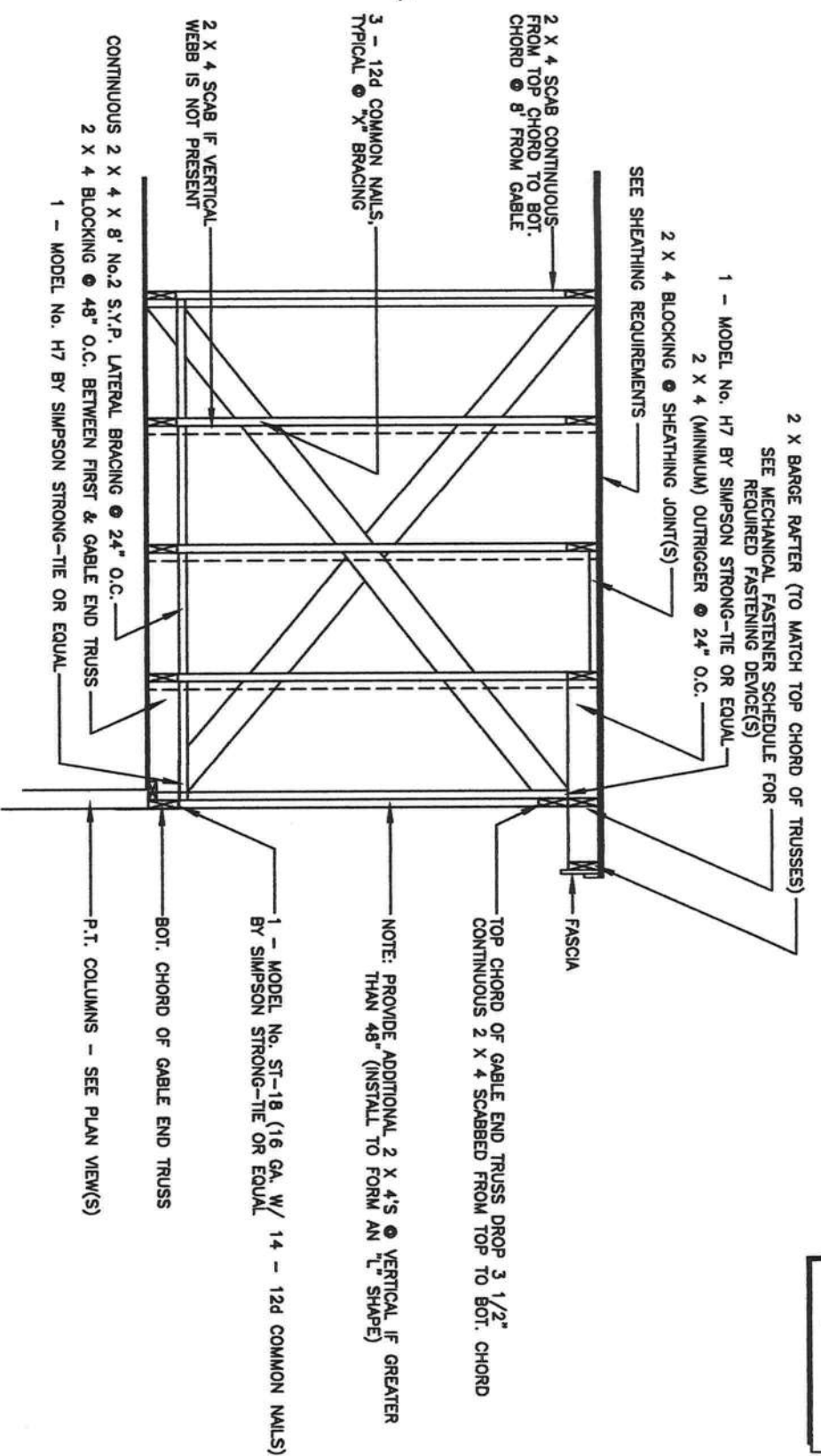
OWNER APPROVED ARCHITECTURAL COMPOSITION ROOFING SHINGLES TO MATCH EXISTING ADJACENT ROOFING & INSTALLED PER SELECTED MANUFACTURER'S REQUIREMENTS FOR THIS SPECIFIC APPLICATION



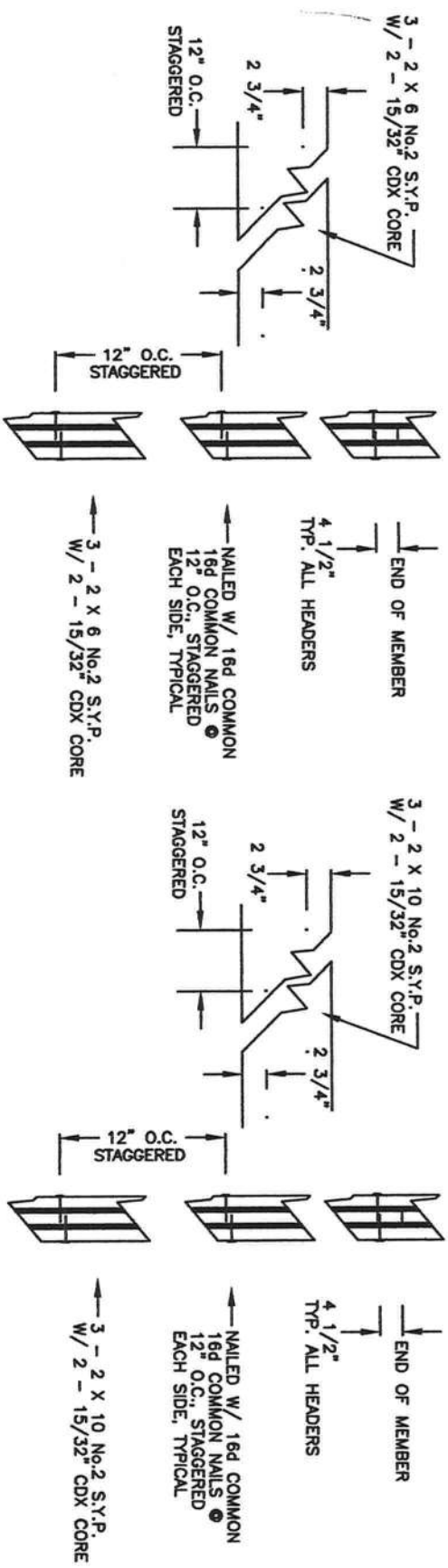
1 ROOFING & SHEATHING CONNECTIONS TO TRUSSES
S3.1.0 SCALE: N.T.S.



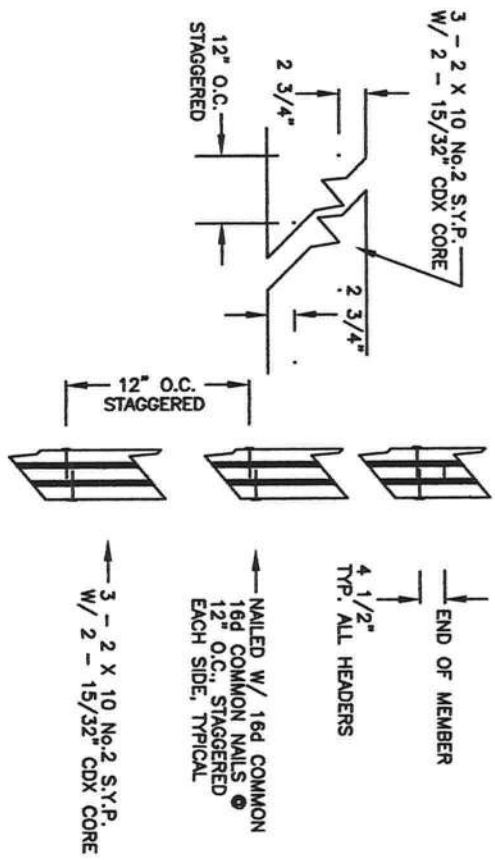
3 GABLE ENDWALL SHEATHING REQUIREMENTS
S3.1.0 SCALE: N.T.S.



2 GABLE ENDWALL FRAMING REQUIREMENTS
S3.1.0 SCALE: N.T.S.



4 CONTINUOUS ROOF GIRDER: FRONT PORCH
S3.1.0 SCALE: N.T.S.



5 CONTINUOUS ROOF GIRDER: REAR PORCH
S3.1.0 SCALE: N.T.S.

OWNER APPROVED VINYL EXTERIOR SIDING INSTALLED PER SELECTED MANUFACTURER'S RECOMMENDATIONS FOR THIS APPLICATION OPTION: HARDI BOARD SIDING CONSULT OWNER

PROJECT No.
LOURLEY-S3.1.0.DWG
SHEET No.
S3.1.0
DATE
07/12/10

REFERENCED SECTIONS & DETAILS
MISC. NOTES, REFERENCES & INSTRUCTIONS
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Keen Engineering & Surveying, Inc.
Curtis E. Keen, P.E. #23836
Certification of Authorization #3761
DATE: 7/12/10

LOURLEY RESIDENCE
COLUMBIA COUNTY, FLORIDA

KEEN ENGINEERING & SURVEYING, INC.
9263 CR 417
OAK, FLORIDA 32060
360-362-4787
ENG. LIC. EB 3761

SCALE NOTE:
DETAILS/SECTIONS: N.T.S.

RIDGE VENT (TYP)
ASPHALT SHINGLES (TYP)

DATE: 7/16/10 Plan No. ABS-1122
APPROVED BY: R. Bullock
Richard L. Bullock
Modular Building Plans Examiner Florida Certificate SRP 093

REAR ELEVATION

LEFT ELEVATION

FRONT ELEVATION

RIGHT ELEVATION

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DOCUMENT

Validated products in
compliance with
Rule 9B-72 for
Product Approval

Working as agent for DCA
These prints comply with the
Florida Manufactured Bld.
Act and adopted Codes and
are subject to the following criteria:
Construction Type V
Occupancy 1R-3
Allowable # floors 1
Wind Velocity 140
Fire Rating of Ext. Walls 0
Pilot # ABS-1122
Allow. Floor Load 40
Approved Date 7/16/10
Name: R. Bullock
Approve: or this document does not
authorize or approve any deviation
from the requirements of applicable
state laws



THIS UNIT MAY BE MIRROR-REVERSED
THIS UNIT IS NOT TO BE LOCATED IN A FLOOD PLAIN
THIS UNIT IS TO BE LOCATED NO LESS THAN 5' FROM PROPERTY LINES OR ADJACENT STRUCTURES

ATTIC VENTILATION ACHIEVED BY RIDGE VENT AND SOFFIT VENTS
(SEE CROSS SECTION DRAWING FOR SPECS)
THIS UNIT MUST BE CONNECTED TO A PUBLIC WATER SUPPLY
AND SEWER SYSTEM IF THESE ARE AVAILABLE

ELEVATION NOTES (TYPICAL)
HANDICAP RAMPS(S), STAIRS(S), AND HAND RAILS ARE SITE
INSTALLED, DESIGNED BY OTHERS, AND SUBJECT TO LOCAL
JURISDICTION REVIEW AND APPROVAL.
FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1
SQUARE FOOT NET VENT AREA PER 11500H OF THE FLOOR
AREA AND AN 18" x 24" MIN. CRAWL SPACE ACCESS, SITE INSTALLED
BY OTHERS, SUBJECT TO LOCAL JURISDICTION REVIEW AND APPROVAL

ATTENTION LOCAL INSPECTIONS DEPARTMENT
THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY
THE BUILDING MANUFACTURER, HAVE NOT BEEN INSPECTED
BY THE THIRD PARTY INSPECTION AGENCY:

- 1.) RAMPS, STAIRS, AND GENERAL ACCESS TO THE BUILDING
- 2.) THE COMPLETED FOUNDATION SUPPORT SYSTEM AND THE DOWN AND/OR ANCHORAGE SYSTEM
- 3.) ON-SITE FASTENINGS AT THE FLOOR AND ROOF RIDGE AT MATE LINES OF MULTI-WIDE UNITS
- 4.) INSTALLATION OF INSULATION AT FLOORS, CEILINGS, AND ENDWALLS AT MATE LINES TO MINIMIZE AIR INFILTRATION
- 5.) INSTALL R6.5 INSULATION ON ALL PIPING INSTALLED IN UNCONDITIONED SPACES
- 6.) RIDGE VENTS MUST BE INSTALLED IN ACCORDANCE WITH THE VENT MANUFACTURERS INSTRUCTIONS
- 7.) ELECTRICAL CROSSOVER CONNECTIONS BELOW FLOOR OR IN ATTIC ACROSS MATE LINES
- 8.) ELECTRICAL SERVICE, MAIN ELECTRICAL PANEL AND FEEDERS TO SUBPANEL(S) LOCATED IN THE MODULAR BUILDING
- 9.) BUILDING DRAINS, CLEANOUTS, AND HOOK UPS TO PLUMBING SYSTEM, AND FINISH PLUMBING
- 10.) CRAWL SPACE LIGHT AND SWITCH
- 11.) HVAC SYSTEM CROSSOVER DUCTS, AND HVAC SYSTEMS

COMPONENTS AND CLADDING:
WINDOWS: FIELD= 46.2, *EDGE= 57.0
DOORS: FIELD= 44.2, *EDGE= 53.2
*EDGE= WITHIN 4 FEET OF CORNERS

ENGINEERING AND PLAN DEVELOPMENT:
CRAIG E. GUNDERSON, P.E.
GULF COAST ENGINEERING, LLC
703 CAPE CORAL PKWY W STE 201
CAPE CORAL, FL 33914
PH: 239-458-6633
FL LICENSE # 060102



AFFINITY BUILDING SYSTEMS
PO BOX 186
LAKELAND, GA 31635

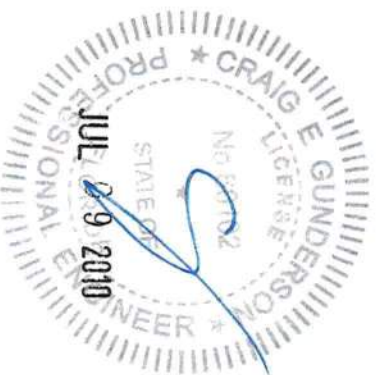
DATE: APRIL 22, 2009	REVISION	DRAWN BY:
SCALE: NTS	REVISION	KWL
MODEL: ABS-1122		SHEET
DRAWING: ELEVATIONS		1 OF 7

ALL DOORS ARE 80" HIGH UNLESS OTHERWISE NOTED (SEE PLAN FOR WIDTH)					
LIGHT AND VENT SCHEDULE					
WIDTH	HEIGHT	TYPE	LIGHT SQ. FT.	VENT SQ. FT.	
2/6	3/0	SINGLE HUNG	5.8	2.53	
3/0	5/6	SINGLE HUNG	13.1	6.55	

Date: 7/16/10 Plan No. ABS 1122
 Approved By: R. Bullock
 Richard L. Bullock
 Modular Building Plans Examiner Florida Certificate 3647 02

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3 MODULES

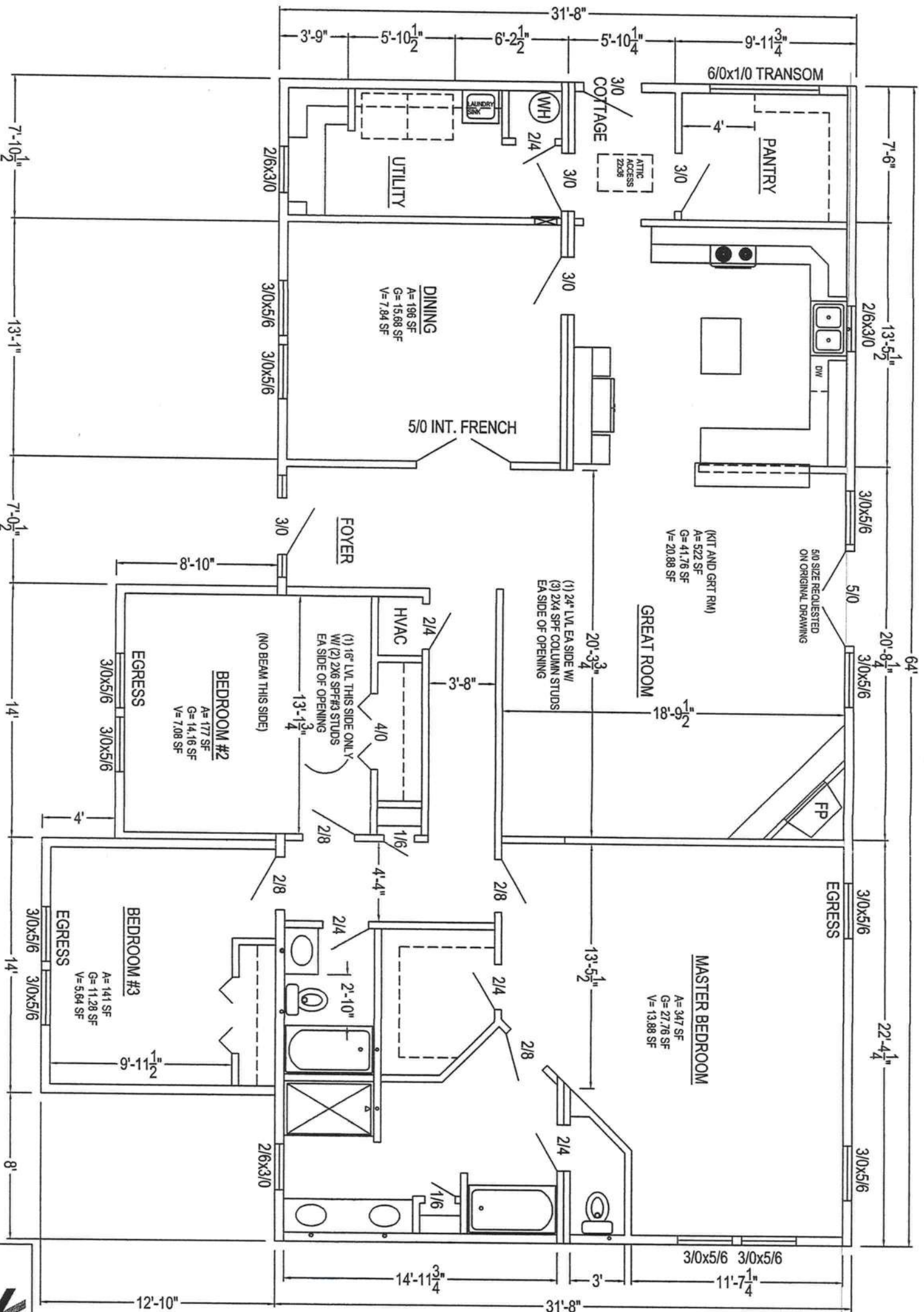


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AFFINITY BUILDING SYSTEMS
 PO BOX 186
 LAKELAND, GA 31635

DATE: APRIL 21, 2009	REVISION	DRAWN BY:
SCALE: NTS	REVISION	KWL
MODEL: ABS-1122		SHEET
DRAWING: FLOOR PLAN		2 OF 7



ALL WINDOW AND DOOR GLASS TO BE DOUBLE PANE
 NOTE: ALL WINDOWS TO BE SINGLE HUNG W/ INSULATED GLAZING
 ALL EGRESS WINDOWS MUST COMPLY WITH IRC SECTION R310
 ALL EXTERIOR DOORS TO BE INSULATED
 ALL INTERIOR PARTITIONS 2x4 STUDS @ 16" O.C. SPF#3
 MIN., UNLESS OTHERWISE NOTED.

NOTE: PLAN MAY BE MIRRORED/ REVERSED

2330 SQ FT HEATED/COOLED

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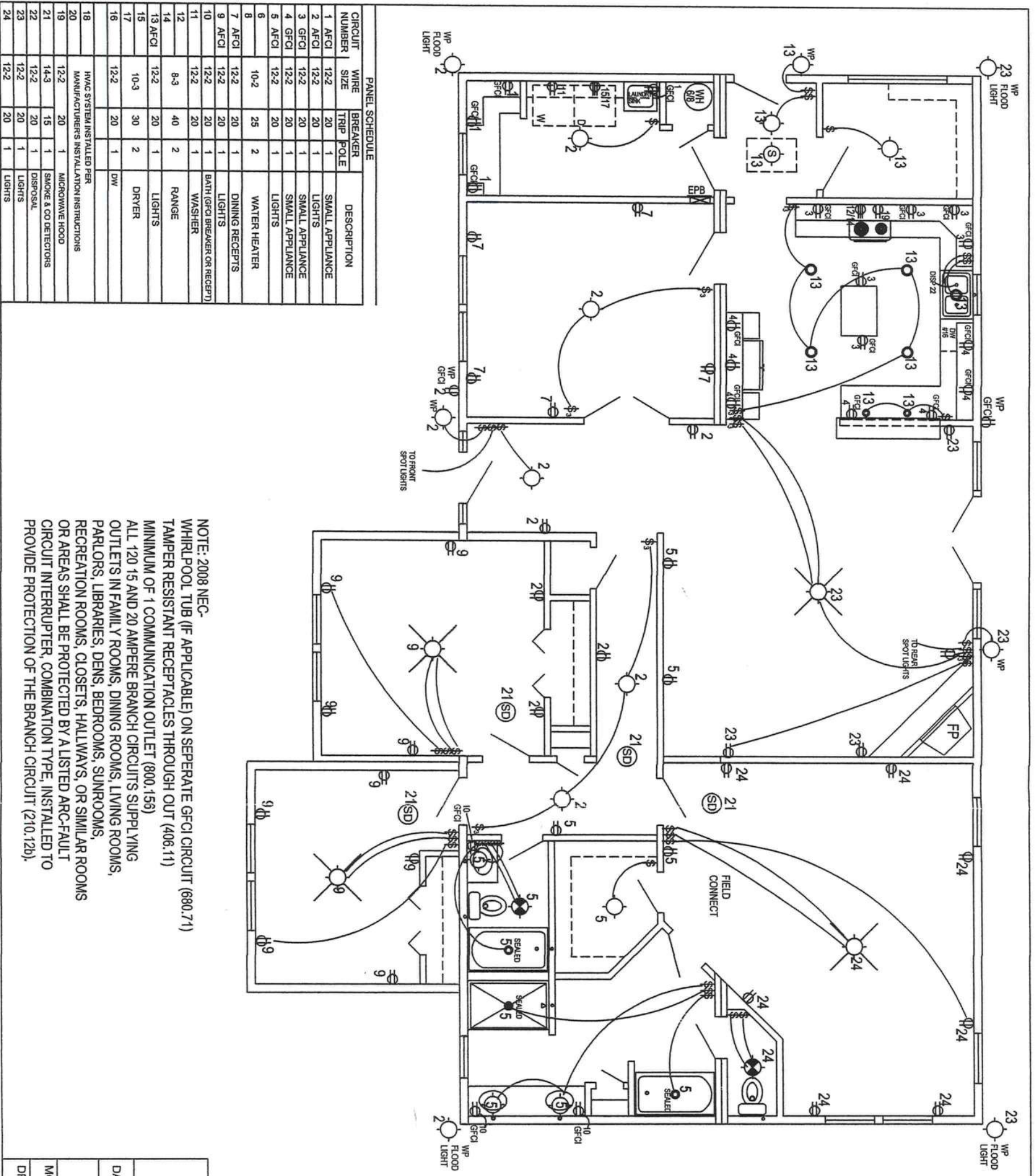
Date: 7/16/10 Plan No. ABS-1122
Approved By: R. Anderson
Richard L. Bullock
Master Building Plans Examiner Florida Certificate No. 003



ENGINEERING AND PLAN DEVELOPMENT:
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AFFINITY BUILDING SYSTEMS
PO BOX 186
LAKELAND, GA 31635

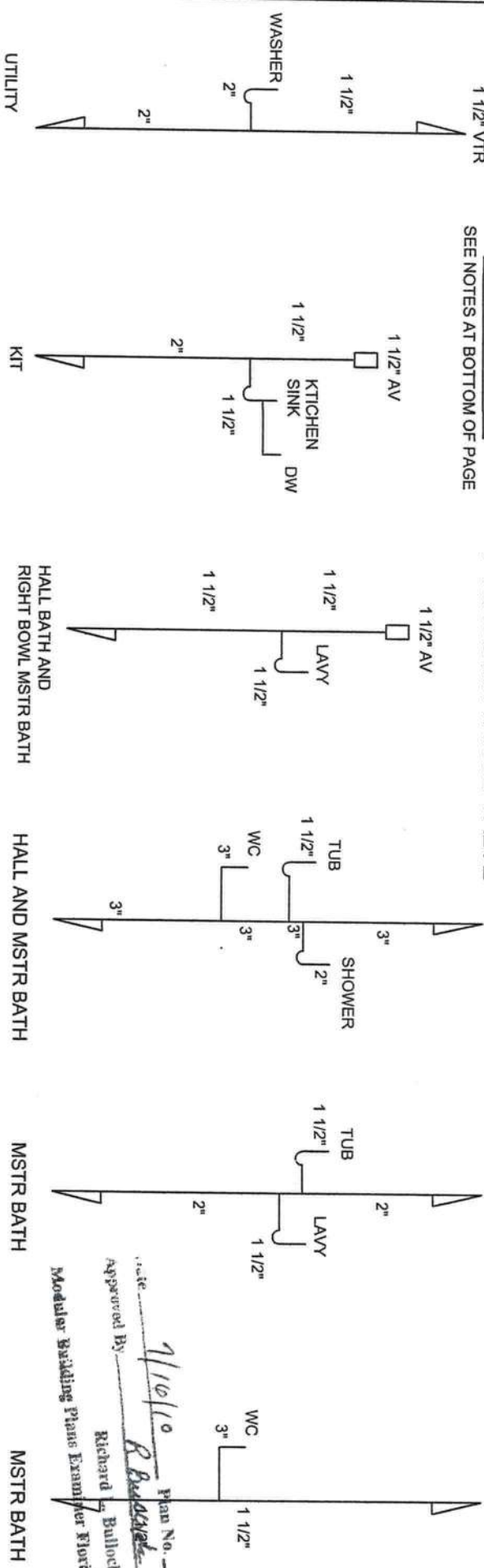
DATE: APRIL 21, 2009	REVISION	DRAWN BY: KWL
SCALE: NTS	REVISION	
MODEL: ABS-1122		SHEET 3 OF 7
DRAWING: ELECTRICAL		



CIRCUIT NUMBER	WIRE SIZE	BREAKER TRIP POLE	DESCRIPTION
1 AFCL	12-2	20 1	SMALL APPLIANCE
2 AFCL	12-2	20 1	LIGHTS
3 GFCI	12-2	20 1	SMALL APPLIANCE
4 GFCI	12-2	20 1	SMALL APPLIANCE
5 AFCL	12-2	20 1	LIGHTS
6	10-2	25 2	WATER HEATER
7 AFCL	12-2	20 1	DINING RECEPTS
9 AFCL	12-2	20 1	LIGHTS
10	12-2	20 1	BATH (GFCI BREAKER OR RECEPT)
11	12-2	20 1	WASHER
12	8-3	40 2	RANGE
13 AFCL	12-2	20 1	LIGHTS
15	10-3	30 2	DRYER
16	12-2	20 1	DW
18	HVAC SYSTEM INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS		
19	12-2	20 1	MICROWAVE HOOD
21	14-3	15 1	SMOKE & CO DETECTORS
22	12-2	20 1	DISPOSAL
23	12-2	20 1	LIGHTS
24	12-2	20 1	LIGHTS

NOTE: 2008 NEC-
WHIRLPOOL TUB (IF APPLICABLE) ON SEPARATE GFCI CIRCUIT (680.71)
TAMPER RESISTANT RECEPTACLES THROUGH OUT (406.11)
MINIMUM OF 1 COMMUNICATION OUTLET (800.156)
ALL 120 15 AND 20 AMPERE BRANCH CIRCUITS SUPPLYING
OUTLETS IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS,
PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS,
RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS
OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT
CIRCUIT INTERRUPTER, COMBINATION TYPE, INSTALLED TO
PROVIDE PROTECTION OF THE BRANCH CIRCUIT (210.12b).

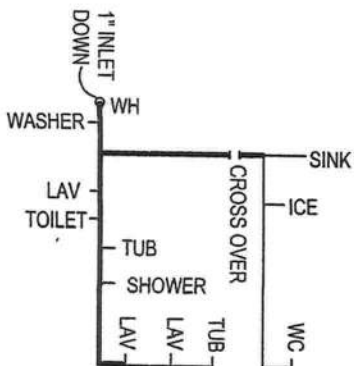
1 1/2" VTR



LEOMIDINO

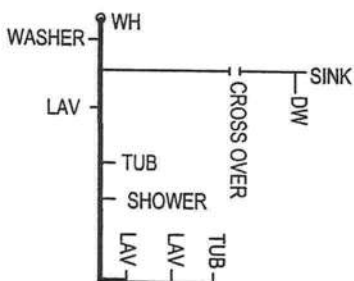
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"APPROVED"
DOCUMENT

**NOTE:
HOSE BIBS TO HAVE
BACKFLOW PREVENTERS
(HOSE BIBS ARE OPTIONAL)**



MAX DESIGN PRESSURE = 80 PSI
MAX DEVELOPED LENGTH = 80'

THIN LINE= 1/2" LINE
THICK LINE= 3/4" LINE



HOT WATER SUPPLY

(NOT TO SCALE)

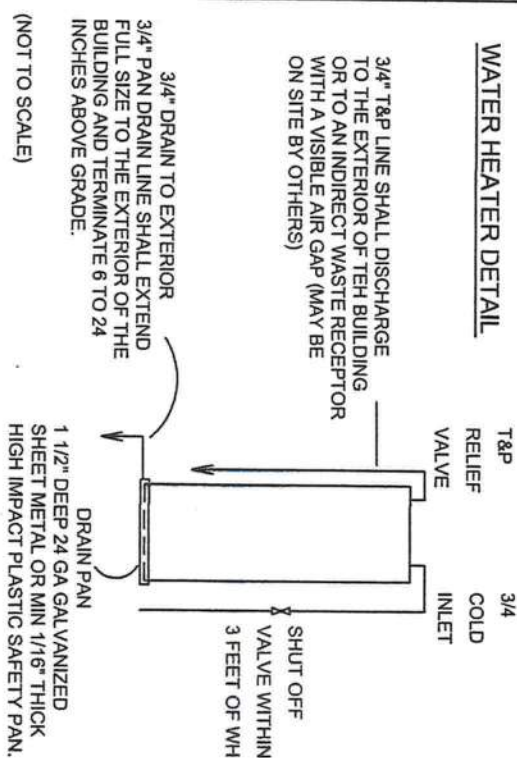
DWV RISER

CHANGE IN DIRECTION IN SCHEDULE 40 DWV-PVC AND ABS DRAINAGE PIPING SHALL BE MADE BY THE APPROPRIATE USE OF 45° (0.785 RAD) WYES, QUARTER BENDS, OR LONG SWEEP QUARTER BENDS, ONE-SIXTH, ONE-EIGHTH, ONE-SIXTEENTH BENDS, OR BY A COMBINATION OF THESE OR EQUIVALENT FITTINGS. SINGLE AND DOUBLE SANITARY TEES AND QUARTER BENDS MAY BE USED IN DRAINAGE LINES ONLY WHERE THE DIRECTION OF FLOW IS FROM THE HORIZONTAL TO THE VERTICAL.

PIPE SUPPORT

PEX: HORIZONTAL= 2'-8", VERTICAL= 10'
COPPER: HORIZONTAL= 12', VERTICAL= 10'
PVC: HORIZONTAL= 4', VERTICAL= 10'

WATER HEATER DETAIL



(NOT TO SCALE)

3/4" DRAIN TO EXTERIOR —
3/4" PAN DRAIN LINE SHALL EXTEND
FULL SIZE TO THE EXTERIOR OF THE
BUILDING AND TERMINATE 6 TO 24
INCHES ABOVE GRADE.

DRAIN PAN
1 1/2" DEEP 24 GA GALVANIZED
SHEET METAL OR MIN 1/16" THICK
HIGH IMPACT PLASTIC SAFETY PAN.

WATER HEATER NOTES:

1. TUB ACCESS PROVIDED UNDER HOME UNLESS OTHERWISE NOTED.
2. ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUT-OFF VALVES (TUBS AND SHOWERS LOCATED IN FLOOR CAVITY, SINKS LOCATED IN CAB, BASE) WITHIN 3 FEET ON THE COLD WATER SUPPLY LINE.
3. WATER HEATER SHALL HAVE SAFETY PAN WITH 3/4" DRAIN TO EXTERIOR.
4. TAP RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT-OFF VALVE WITHIN 3 FEET ON THE COLD WATER SUPPLY LINE.
5. DWV SYSTEM SHALL EITHER BE ABS OR PVC-DWV.
6. WATER SUPPLY LINES SHALL BE CPVC (SCH 40 OR SDR11) OR PEK. WATER SUPPLY LINES MAY BE STUBBED THROUGH THE FLOOR ONLY WITH THE ON-SITE INSTALLATION OF ALL LINES BELOW THE FLOOR TO BE IN ACCORDANCE WITH THE SPECIFICATIONS ON THIS DRAWING.
7. WATER CLOSETS AVERAGE WATER USAGE SHALL NOT EXCEED 1.6 GPF/FLUSH.
7.1. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
UNDER FLOOR TRAP ARMS NOT INSTALLED IN THE FACTORY DUE TO POSSIBLE IN-TRANSIT DAMAGE ARE TO BE SITE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS ON THIS DRAWING.
8. AN ACCESSIBLE SHUT OFF VALVE SHALL BE PROVIDED AHEAD OF THE FIRST OUTLET OR BRANCH CONNECTING TO THE SERVICE OR DISTRIBUTION PIPE. THIS SHUT OFF VALVE MAY BE SITE INSTALLED.
9. SINKS AND LAVS SHALL NOT USE MORE THAN 2.2 GAL/MIN @ 60 PSI.
10. SHOWER HEADS SHALL NOT USE MORE THAN 2.5 GAL/MIN @ 60 PSI.
PER ANSI STD A 112.18.1M.

11. ALL SHOWERS TO HAVE TEMPERATURE OF WATER CONTROLLED BY A BALANCED PRESSURE, THERMOSTATIC OR COMBINATION BALANCED PRESSURE/THERMOSTATIC VALVE TO LIMIT THE WATER TEMP TO 120°F (VALVE TO COMPLY W/ ASSE 1016 OR CSA CANS/CA-8129).
12. AIR ADMITTANCE VALVES (AV) SHALL CONFORM TO ASSE 1051.
THE AV VALVES SHALL BE LOCATED A MINIMUM OF 4 INCHES ABOVE THE HORIZONTAL DRAIN OR FIXTURE DRAIN BEING VENTED AND MUST BE INSTALLED IN WELL VENTILATED SPACES OR BE PROVIDED WITH VENTILATED ACCESS DOORS.
13. WATER HAMMER ARRESTORS TO BE INSTALLED WHERE QUICK CLOSING VALVES ARE UTILIZED (I.E. DISHWASHERS, CLOTHES WASHERS, ICE MAKERS, OR OTHER QUICK CLOSING DEVICES WITH SOLENOID VALVES), ARRESTORS MUST COMPLY WITH ASSE/ANSI 1010 AND MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS.
14. AN APPROVED THERMAL EXPANSION DEVICE SHALL BE SITE INSTALLED IN THE WATER SUPPLY SYSTEM IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. THIS DEVICE IS REQUIRED WHEN BACKFLOW PREVENTIONS, PRESSURE REDUCING VALVES, CHECK VALVES, OR STORAGE WATER HEATERS ARE INSTALLED IN THE WATER SUPPLY SYSTEM WHICH MAY PREVENT PRESSURE RELIEF.

1. WATER HEATER SHALL BE PROVIDED WITH A COLD WATER "DIP" TUBE WITH A HOLE AT THE TOP OR A VACUUM RELIEF VALVE INSTALLED IN THE COLD WATER SUPPLY LINE ABOVE THE TOP OF THE WATER HEATER TANK; BOTTOM FED WATER HEATERS SHALL HAVE A VACUUM RELIEF VALVE COMPLYING WITH ANSI Z21.22 INSTALLED.
2. WATER HEATERS SHALL BE PROVIDED WITH A TEMPERATURE AND PRESSURE RELIEF VALVE COMPLYING WITH ANSI Z21.22 INSTALLED IN THE SHELL OF THE WATER HEATER TANK. THE VALVE SHALL BE ACTUATED BY THE WATER IN THE TOP 6" OF THE TANK AND SHALL HAVE A TEMPERATURE RATING OF NOT MORE THAN 210°F AND A PRESSURE SETTING NOT EXCEEDING THE TANKS RATED WORKING PRESSURE OR 150 PSI, WHICHEVER IS LESS.
3. WATER HEATERS SHALL BE EQUIPPED WITH AN ENERGY CUTOFF DEVICE THAT WILL CUT OFF THE SUPPLY OF HEAT ENERGY TO THE WATER TANK BEFORE THE TEMPERATURE OF THE WATER IN THE TANK EXCEEDS 210°F.

ENGINEERING AND PLAN DEVELOPMENT:

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FI LICENSE # 060407

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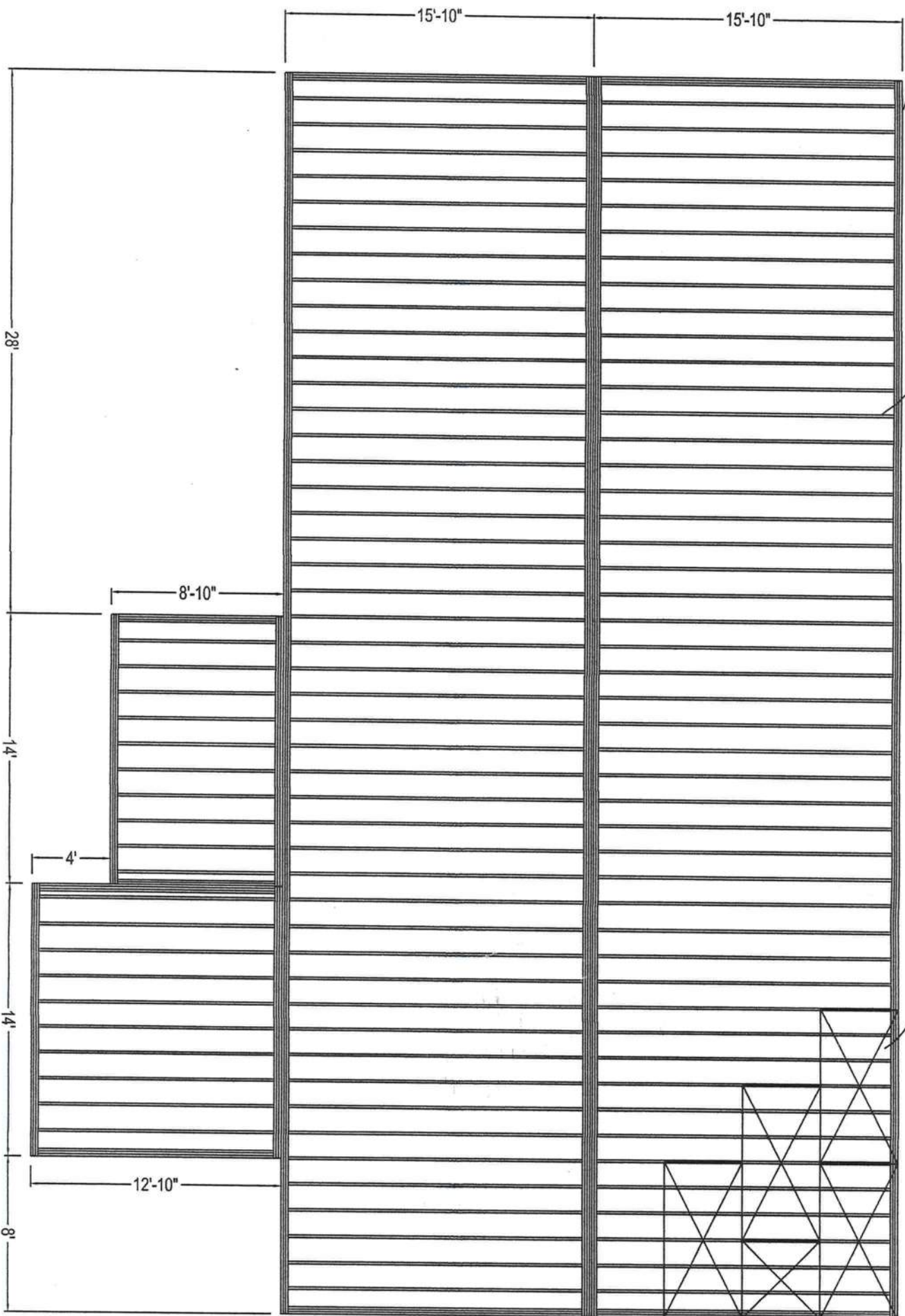
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TRIPLE 2X12 SYP#2 EDGE JOISTS
FASTEN INSIDE JOIST TO EACH TRANSVERSE JOIST WITH (6) 8d NAILS OR (6) #8 X 2 1/2" SCREWS
(TYP AT SIDEWALLS AND MATELINE EACH HALF)
FASTEN DBL EDGE JOISTS TOGETHER WITH 2 ROWS .131"X3" NAILS, 6" O.C. OR 2 ROWS #8 X 3" SCREWS, 6" O.C.
OFFSET BUTT JOINTS 4' (TYP AT SIDEWALLS AND MATELINE EACH HALF)

64'

2X10 SYP#2 JOISTS, 16" O.C.
(TYP. EACH MODULE)

19/32" (MIN) PLYWOOD OR OSB SHEATHING PERPENDICULAR TO JOIST W/ NEXT ROW
STAGGERED @ 4" O.C. (STURDI-FLOOR, EXP 1, 20" O.C.) T&G EDGES FASTENED W/ 100%
PVA GLUE AND 2" x .099 NAILS 6" O.C. EDGES AND FIELD
OR #8 X 1 3/4" SCREWS 6" O.C. EDGES AND FIELD



FLOOR JOISTS MAY BE PRESSURE TREATED
OPT. TRIPLE EDGE JOISTS (SEE FLOOR DETAIL PRINT)
OPT. 2X12 EDGE JOISTS AND/OR TRANSVERSE JOISTS
HOT DIPPED ZINC COATED

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"APPROVED"
DOCUMENT



Date: 7/16/10 Plan No. ABS-1122
Approved By: R. Bullock
Richard L. Bullock
Modular Building Plans Examiner Florida Certificate #2002-2003

ENGINEERING AND PLAN DEVELOPMENT:

CRAIG E. GUNDERSON, P.E.
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PH: 239-458-6633
FL LICENSE # 060102



AFFINITY BUILDING SYSTEMS

PO BOX 186
LAKELAND, GA 31635

DATE: APRIL 21, 2009	REVISION	DRAWN BY:
Scale: NTS	REVISION	KWL
MODEL: ABS-1122		SHEET
DRAWING: FLOOR DETAIL		5 OF 7

ATTIC VENTILATION:
AREA IS ACCUMULATED WITH 50% OF THE TOTAL ROOF AREA PROVIDED FOR THE TRUSS VENTILATORS OR RIDGE VENTS LOCATED IN THE UPPER 1/3 OF THE TRUSS HEIGHT AND THE REMAINDER OF THE NET VENT FREE AREA PROVIDED BY SOFFIT VENTS.
SOFFIT VENT FREE AREA: 14.34 SQ IN PER LIN FT
RIDGE VENT FREE AREA: 18 SQ IN PER LIN FT
(RIDGE VENT PROVIDED BY AFFINITY BUILDING SYSTEMS, LLC)

CONT 2X6 SPF #3 RIDGE BEAM OR RIDGE BEAM OVER OPENINGS PER FLOOR PLAN SPECS (TYP EACH HALF)

CONT 2X6 SPF #3 RIDGE BEAM OR RIDGE BEAM OVER OPENINGS PER FLOOR PLAN SPECS (TYP EACH HALF)

INSTALL 1/2" THICK X 1 3/4" WIDE CONT. OSB OR PLY BEARING STRIP ON SIDEWALL AND MAR WALL TOP PLATES (REMOVE CEILING INT. FINISH FOR BEARING STRIPS) TO SUPPORT TRUSSES (TYP)

7/16" RATED SHEATHING OSB EXP1 24/16 MIN ROOF SHEATHING

INSTALL SIMPSON TRUSS ANCHOR FROM EACH TRUSS TO WALL STUD WITH MIN 66# UPLIFT LOAD CAPACITY USING SIMPSON LTA18 STRAP TIE W/ (6) 1 1/2" X 1/4" NAILS EACH END

FASTEN EACH TRUSS TO TOP PLATE WITH (3) 8d NAILS TOED OR 2-48X2 1/2" SCREWS TOED (TYP) STEEL EAVE DRIP EDGE (TYP)

2x6 SPF #3 JOIST, TOP PLATE AND STUDS. DBL TOP PLATE FACE FASTENING: 16d NAILS OR 8d X 1 1/2" SCREWS, 24" O.C. FACE FASTEN (6) 16d NAILS OR 8d X 1 1/2" SCREWS STUD TO PLATE. END FASTENING: (2) 8d NAILS OR 8d X 1 1/2" SCREWS OR- FASTENING: (3) 8d NAILS OR 8d X 1 1/2" SCREWS

WALL INSULATION PER ENERGY CALCS

INTERIOR CEILING FINISH 1/2" GYPSUM BOARD INSTALLED PER MFG. SPECS (CLASS A) (TYP)

INTERIOR WALL FINISH 1/2" GYPSUM BOARD INSTALLED PER MFG. SPECS (CLASS C MIN) (TYP)

2x6 SPF #3 BOTTOM PLATE (TYP AT EXT WALLS)

2x6 SPF #3 JOIST (TYP AT EXT WALLS)

2x6 SPF #3 JOIST (TYP AT EXT WALLS)

2x6 SPF #3 JOIST (TYP AT EXT WALLS)

2x6 SPF #3 JOIST (TYP AT EXT WALLS)

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INSTALL CONT. 1X4 SPF BRACE AT CENTERLINE OF TRUSS HORIZONTAL WEB MEMBER AS SHOWN. FASTEN BRACE TO EACH TRUSS WITH (2) 15 GA X 1 3/4" STA. OR (2) 8d NAILS, OR (2) 8d X 2" SCREWS (TYP EACH TRUSS IN EACH HALF)

CONT. 2X4 SPF #3 FASTEN TO EACH TRUSS W/ 3-15 GA X 2 1/2" STA. (TYP EACH HALF OF TRUSS)

INSTALL ROOF SHEATHING, FASCIA, INSULATION, INTERIOR FINISH, ETC., PER SPECS ON CROSS SECTION DWG (TYP UNLESS OTHERWISE NOTED)

(FOR MODELS CONTAINING THE COTTAGE TRUSSES)

(NOT TO SCALE)

TRUSS DESIGN LOADS:
TOP CHORD LIVE LOAD: 20 PSF
TOP CHORD DEAD LOAD: 7 PSF
BOTTOM CHORD DEAD LOAD: 10 PSF
BOTTOM CHORD LIVE LOAD: 0 PSF

INSTALL CONT. 1X4 SPF BRACE AT CENTERLINE OF TRUSS HORIZONTAL WEB MEMBER AS SHOWN. FASTEN BRACE TO EACH TRUSS WITH (2) 15 GA X 1 3/4" STA. OR (2) 8d NAILS, OR (2) 8d X 2" SCREWS (TYP EACH TRUSS IN EACH HALF)

ASPHALT SHINGLES INSTALLED PER MFG INSTRUCTIONS OVER ONE LAYER OF 15# FELT FOR ROOF PITCHES EXCEEDING 4/12 AND TWO LAYERS (WIND RESISTANT SHINGLES) (CLASS A)

HARD FASCIA AND VENTED HARD SOFFIT FASTENED PER MANUFACTURER'S INSTRUCTIONS

EXTERIOR SIDING INSTALLED PER MFG INSTRUCTIONS OVER 1562" RATED SHG FASTENED WITH: 15GA X 1 1/2" STA. 6" O.C. FIELD

ON ENDWALLS SHEATHING SHALL EXTEND CONTINUOUSLY FROM TOP OF TRUSS TOP CHORD TO BOTTOM OF EDGE JOISTS WITH SYP BLOCKING BEHIND ALL HORIZONTAL SEAMS

ON SIDEWALLS SHEATHING SHALL EXTEND CONTINUOUSLY FROM TOP OF TOP PLATE TO BOTTOM OF EDGE JOISTS WITH ALL EDGES SUPPORTED BY 2X SPF BLOCKING (TYP)

EXTERIOR WALL STUDS 2X6 SPF#3 16" O.C.

FASTEN EXTERIOR WALLS TO EDGE JOISTS WITH 16d NAILS 16" O.C. OR 8d X 1 1/2" SCREWS 16" O.C. FASTEN EXTERIOR WALL SHEATHING TO SILL PLATE WITH 15GA X 1 1/2" STA. 6" O.C. FIELD INSTAL EXTERIOR WALL SHEATHING AND FASTEN TO EDGE JOISTS AND SILL WITH 15GA X 1 1/2" STA. 6" O.C.

NOTE: FOR TREATED FLOORS, FASTENERS TO BE HOT DIPPED, ZINC COATED NAILS

1932 PLYWOOD OR OSB SHEATHING PERPENDICULAR TO JOIST W/ NEXT ROW STAGGERED 4" (STURD FLOOR, EXP 1, 20" O.C.)

2-2X10 SPF#3 CENTER GIRDER OFFSET BUTT JOINTS 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

2-2X10 SPF#3 JOIST 48" MIN

FLOOR JOISTS MAY BE PRE-SPACED TO 16" O.C. OR 24" O.C. OPT. TRIPLE EDGE JOISTS (SEE FLOOR DETAIL PRINT) OPT. 2X12 EDGE JOISTS AND/OR TRANSVERSE JOISTS FOR TREATED JOISTS, ALL FASTENERS MUST BE HOT DIPPED, ZINC COATED

Richard L. Bullock
Professional Engineer
Florida
Certificate No. 11610
Plan No. 11610
11/6/10

GENERAL NOTES:
EXTERIOR JOINTS IN THE BUILDING ENVELOPE THAT ARE SOURCES OF AIR LEAKAGE, SUCH AS AROUND WINDOWS AND DOOR FRAMES, BETWEEN WALL CAVITIES AND WINDOWS OR DOOR FRAMES, ROOF/CEILING JOINTS, BETWEEN WALLS AND ROOFS, AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE SHALL BE CALKED, GASKETED, WEATHER STRIPPED, OR OTHERWISE SEALED IN AN APPROVED MANNER.
SOFFIT VENTS AND RIDGE VENTS EQUAL TO 1/150 OF TOTAL ROOF AREA (THIS FACTOR MAY BE REDUCED TO 1/200 WHEN A VAPOR BARRIER OF 1 PERM OR LESS IS INSTALLED IN ATTIC) (MIN 5.5 SQ FT NET VENT AIR IS REQUIRED W/ VAPOR BARRIER)

ENGINEERING AND PLAN DEVELOPMENT:

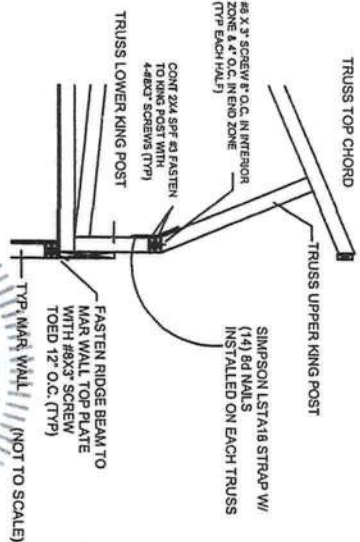
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703 CAPE CORAL PKWY W STE 201
CAPE CORAL, FL 33914
PH: 239-458-6633
FL LICENSE # 060102



AFFINITY BUILDING SYSTEMS
PO BOX 186
LAKELAND, GA 31635

DATE: APRIL 21, 2009	REVISION	DRAWN BY:
Scale: NTS	REVISION	KWL
MODEL: TYPICAL CROSS SECTION		SHEET 6 OF 7
DRAWING: CROSS SECTION		

DETAIL "A"



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ELECTRICAL NOTES:

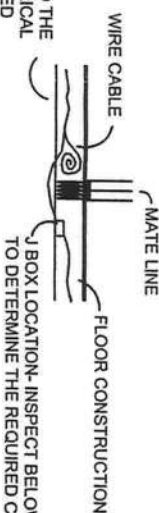
- ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NEC.
- WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE MINIMUM CLEARANCE OF 8" FROM "STORAGE AREA" AS DEFINED BY NEC 410-8(a).
- WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKERS SHALL BE PERMITTED TO SERVE AS DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
- PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM, THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED BY AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC, BY LOCAL ELECTRICAL CONSULTANT.
- THE MAIN ELECTRICAL PANEL, SERVICE DISCONNECT (MAIN CIRCUIT BREAKERS) AND FEEDERS ARE SITE INSTALLED, DESIGNED BY OTHERS AND SUBJECT TO LOCAL JURISDICTION REVIEW AND APPROVAL.
- ALL CIRCUITS CROSSING OVER MODULAR MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, LOCATED IN THE FLOOR OR IN THE ATTIC.
- ALL CIRCUITS TO BE COPPER NM EXCEPT HVAC AND RANGE CIRCUITS TO BE COPPER SE CABLE (75°C).
- LIGHT AND SWITCH TO BE SITE-INSTALLED IN THE CRAWL SPACE NEAR THE CRAWL SPACE ACCESS DOOR (LIGHT TO BE CONNECTED TO ANY OF THE INSTALLED GENERAL LIGHTING CIRCUITS).
- RECEPTACLES INSTALLED IN WET LOCATIONS MUST BE IN A WEATHERPROOF ENCLOSURE WITH INTEGRITY OF WHICH IS NOT AFFECTED WHEN THE ATTACHMENT PLUG CAP IS INSERTED OR REMOVED.
- SMOKE DETECTORS MUST BE WIRED TO ACTIVATE ALL ALARMS SIMULTANEOUSLY IF ANY DETECTOR IS ACTIVATED. ALL SMOKE DETECTORS LOCATED WITHIN 20 FEET OF A COOKING APPLIANCE SHALL BE THE PHOTOELECTRIC TYPE.
- ALL FANS MUST BE DUCTED TO THE EXTERIOR OF THE BUILDING AND TERMINATE AT AN APPROVED VENT CAP.

ELECTRICAL CROSS OVER DETAIL

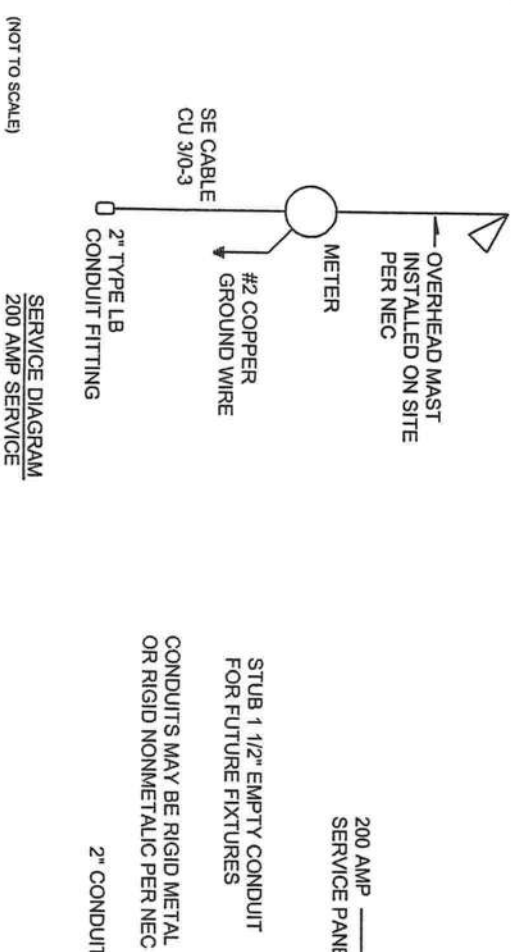
EXTEND THE COILED WIRE CABLE TO THE J BOX IN THE OTHER MODULE. CONNECT THE CABLE TO THE J BOX WITH A LISTED WIRE CONNECTOR. CONNECT EACH CONDUCTOR TO THE CORRESPONDING CONDUCTOR BASED BASED ON EACH CONDUCTOR'S INSULATION COLOR (CONNECT BLACK TO BLACK, ETC.) AND CONNECT THE GROUNDING WIRE TO BOTH THE J BOX GROUNDING SCREW. IF MORE THAN ONE CIRCUIT IS TO BE CONNECTED IN THE SAME JUNCTION BOX, VERIFY THAT THE CORRECT CIRCUITS ARE BEING SPLICED TOGETHER BEFORE CONNECTING ANY WIRES TOGETHER.

THE DETAIL BELOW IS SHOWN FOR ELECTRICAL CROSS-OVER CONNECTIONS INSTALLED BELOW THE FLOOR SYSTEM. THESE SAME PROCEDURES SHOULD BE USED FOR ELECTRICAL CROSS OVER CONNECTIONS LOCATED IN THE ATTIC. INSPECT THE ATTIC NEAR THE MATE LINE FOR ALL SUCH REQUIRED ELECTRICAL CROSSOVER CONNECTIONS.

WIRE CONDUCTORS REQUIRED TO BE CONNECTED TO THE J BOX IN OTHER MODULE TO COMPLETE THE ELECTRICAL CROSSOVER CONNECTION (EXTRA WIRE TO BE COILED AND INSTALLED IN FRAMING CAVITY AT FACTORY TO ENABLE ON SITE CROSSOVER CONNECTION)



RE-INSTALL THE JUNCTION BOX COVER PLATE AND TEST EACH CIRCUIT AS REQUIRED BY THE LOCAL BUILDING OFFICIAL. (HAVE ALL WORK INSPECTED AND APPROVED BY THE LOCAL BUILDING OFFICIAL BEFORE INSTALLING THE J BOX COVER OR TURNING ON THE POWER TO THE BUILDING OR CIRCUIT.)



ELECTRICAL LEGEND

- FLUORESCENT LIGHT
- INCANDESCENT LIGHT
- EXHAUST FAN
W/ LIGHT
- PANEL BOX
- SMOKE DETECTOR
- SMOKE DETECTOR/
CARBON MONOXIDE DETECTOR
- DUPLEX RECEPTACLE
- 240V RECEPT
- SWITCHED RECEPTACLE
(HALF OF DUPLEX OUTLET IS SWITCHED)
- WIRE AND BRACE FOR
CEILING FAN / LIGHT
- RECESSED CAN LIGHT (IC)
- PULL-CHAIN ATTIC LIGHT
(MAY BE SWITCHED)
- "OPT" INDICATES AN OPTIONAL
LIGHT FIXTURE OR SWITCH
- SWITCH
- TV/P TV AND PHONE JACK
- CH DOOR CHIME

PANEL SIZING

(TYPICAL FOR HOMES UP TO 3000 SQ. FT.)

- 9,000 KW = 3000 SQ. FT. @ 3 WATTS/SQ. FT.
- 3,000 KW = (2) 20 AMP APPLIANCE CIRCUITS
- 1,500 KW = LAUNDRY CIRCUIT
- 13,000 KW = RANGE
- 5,200 KW = CLOTHES DRYER
- 4,500 KW = WATER HEATER
- 1,400 KW = DISHWASHER
- 37,600 KW = TOTAL
- 10,000 KW = FIRST 10 KW @ 100%
- 11,040 KW = REMAINDER @ 40% (27.6)(4)
- 20,900 KW = ASSUMED HVAC
- 41,940 KW = TOTAL
- CALCULATED LOAD FOR SERVICE SIZE:
41,940 W / 240 VOLTS = 174.75 AMPERES
- 200 AMP SERVICE STANDARD

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"APPROVED"
DOCUMENT



Date: 7/16/10 Plan No. ABS-1122
Approved By: R. Butler
Richard L. Butler
Modular Building Plans Examiner Florida Certificate No. 20

ENGINEERING AND PLAN DEVELOPMENT:

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AFFINITY BUILDING SYSTEMS



PO BOX 186
LAKELAND, GA 31635

DATE: APRIL 21, 2009

REVISION

DRAWN BY:

Scale: NTS

REVISION

KWL

MODEL: ABS-1122

SHEET

DRAWING: NOTES

7 OF 7