RV

C/C# 8379

Columbia County Building Permit Application

For Office Use Only Application # 1007-26 Date Received 7/19/10 By CG Permit # 28785

Zoning Official BK Date 27.07.10 Flood Zone X Land Use A-3/ESA Zoning A-3/ESA-2

FEMA Map # N/A Elevation N/A MFE 1' below River N/A Plans Examiner TC Date 7-27-10

Comments

☑ 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 Suspended

☑ Well letter ☑ VF

Septic Permit No. 10-0352 Fax

Name Authorized Person Signing Permit William Cason Phone 352-283-3542

Address 2022 NE 6th STREET, Gainesville, Fl, 32609

Owners Name Carol Alpha Payne Phone 352-283-3542

911 Address 255 SW marine Glen, Fort White, Fl, 32038

Contractors Name CASON BUILDERS INC Phone 352-283-3542

Address 2022 NE 6th Street Gainesville, Fl, 32609

Fee Simple Owner Name & Address Carol Alpha PAYNE, 147 N magnolia ST, Folkston, GA 31548

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address MARK Disosway P.E., PO BOX 868, LAKE City, Florida 32056

Mortgage Lenders Name & Address N/A

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

Property ID Number 36-7S-16-04351-011 Estimated Cost of Construction 150,000

Subdivision Name N/A Lot N/A Block N/A Unit N/A Phase N/A

Driving Directions From intersection of 27th 138 TAKE 138, Then TURN LEFT ON SW TL Rum Islands Terrace. Then take SW Aqua way, turn left on marine Glen. Follow to END.

Number of Existing Dwellings on Property 0

Construction of ~~Residential~~ Single Family Total Acreage 6.4 Lot Size 6.4 Acres

Do you need a ~~Culvert Permit~~ or Culvert Waiver or Have an Existing Drive Total Building Height 21'

Actual Distance of Structure from Property Lines - Front ~~380'~~ Side 35' (left) Side 175' Rear 62'

Number of Stories 1 Heated Floor Area 1,300 Total Floor Area 1,751 Roof Pitch 7/12

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction. **CODE:** Florida Building Code 2007 with 2009 Supplements and the 2008 National Electrical Code.

Spoke to Bill 7/28/10

Columbia County Building Permit Application

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

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

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

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

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

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.)

Carol L. Payne
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.

William Watson
Contractor's Signature (Permitee)

Contractor's License Number CBC060151
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 13 **day of** July **20** 10.

Personally known ✓ **or Produced Identification** _____

Paige Hale
State of Florida Notary Signature (For the Contractor)

SEAL:

PAIGE HALE
MY COMMISSION # DD 633396
EXPIRES: January 28, 2011
Bonded Thru Notary Public Underwriters

FORM 1100A-08

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs Residential Performance Method A

Project Name:	Cason Payne	Builder Name:	Cason
Street:		Permit Office:	Columbia
City, State, Zip:	Hign Springs , FL ,	Permit Number:	28785
Owner:	Payne	Jurisdiction:	221000
Design Location:	FL, Gainesville		

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		2		
5. Is this a worst case?		No		
6. Conditioned floor area (ft²)		1300		
7. Windows	Description		Area	
a. U-Factor: SHGC:	Dbl, U=0.35 SHGC=0.31		208.33 ft²	
b. U-Factor: SHGC:	N/A		ft²	
c. U-Factor: SHGC:	N/A		ft²	
d. U-Factor: SHGC:	N/A		ft²	
e. U-Factor: SHGC:	N/A		ft²	
8. Floor Types		Insulation	Area	
a. Crawlspace		R=19.0	1300.00 ft²	
b. N/A		R=	ft²	
c. N/A		R=	ft²	

9. Wall Types	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1458.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
10. Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30.0	1300.00 ft²
b. Knee Wall (Vented)	R=30.0	49.00 ft²
c. N/A	R=	ft²

11. Ducts
a. Sup: Attic Ret: Attic AH: Interior Sup. R= 6, 260 ft²

12. Cooling systems
a. Central Unit — Cap: 36.6 kBtu/hr SEER: 13

13. Heating systems
a. Electric Heat Pump — Cap: 35.2 kBtu/hr HSPF: 9

14. Hot water systems
a. Electric — Cap: 40 gallons EF: 0.92
b. Conservation features None

15. Credits — None

Glass/Floor Area: 0.160

Total As-Built Modified Loads: 30.30
Total Baseline Loads: 39.18

PASS

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

PREPARED BY: _____
DATE: _____

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: _____

PROJECT

Title:	Cason Payne	Bedrooms:	2	Adress Type:	Street Address
Building Type:	FLAsBuilt	Conditioned Area:	1300	Lot #	
Owner:	Payne	Total Stories:	1	SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Cason	Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	Hign Springs , FL ,
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, Gainesville	FL_GAINESVILLE_REGI	2	32	92	75	70	1305.5	51	Medium

FLOORS

√	#	Floor Type	Exposed Perimeter	Wall Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
_____	1	Crawlspace	164 ft	0	1300 ft²	19	0.35	0	0.65

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	Tested	Deck Insul.	Pitch
_____	1	Gable or shed	Metal	1506 ft²	380 ft²	Medium	0.96	No	0	30.3 deg

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1300 ft²	N	N

CEILING

√	#	Ceiling Type	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	30	1300 ft²	0.11	Wood
_____	2	Knee Wall (Vented)	30	49 ft²	0.11	Wood

WALLS

√	#	Ornt	Adjacent To	Wall Type	Cavity R-Value	Area	Sheathing R-Value	Framing Fraction	Solar Absor.
_____	1	SW	Exterior	Frame - Wood	13	315 ft²		0.23	0.75
_____	2	NE	Exterior	Frame - Wood	13	315 ft²		0.23	0.75
_____	3	SE	Exterior	Frame - Wood	13	414 ft²		0.23	0.75
_____	4	NW	Exterior	Frame - Wood	13	414 ft²		0.23	0.75

DOORS

√	#	Ornt	Door Type	Storms	U-Value	Area
_____	1	SW	Insulated	None	0.460000	20 ft²
_____	2	NE	Insulated	None	0.460000	6.666666
_____	3	NE	Insulated	None	0.460000	6.666666
_____	4	NW	Insulated	None	0.460000	6.666666

WINDOWS

Orientation shown is the entered, asBuilt orientation.

√	#	Ornt	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	SW	Vinyl	Low-E Double	Yes	0.35	0.31	N	60 ft²	9 ft 0 in	1 ft 0 in	HERS 2006	None
_____	2	SW	Vinyl	Low-E Double	Yes	0.35	0.31	N	13.33333	9 ft 0 in	1 ft 0 in	HERS 2006	None
_____	3	NE	Vinyl	Low-E Double	Yes	0.35	0.31	N	30 ft²	0 ft 18 in	5 ft 0 in	HERS 2006	None
_____	4	NE	Vinyl	Low-E Double	Yes	0.35	0.31	N	26.66666	9 ft 0 in	1 ft 0 in	HERS 2006	None
_____	5	NE	Vinyl	Low-E Double	Yes	0.35	0.31	N	9 ft²	9 ft 0 in	1 ft 0 in	HERS 2006	None
_____	6	SE	Vinyl	Low-E Double	Yes	0.35	0.31	N	20 ft²	0 ft 18 in	1 ft 0 in	HERS 2006	None
_____	7	SE	Vinyl	Low-E Double	Yes	0.35	0.31	N	12 ft²	0 ft 18 in	8 ft 0 in	HERS 2006	None
_____	8	SE	Vinyl	Low-E Double	Yes	0.35	0.31	N	13.33333	20 ft 0 in	0 ft 18 in	HERS 2006	None
_____	9	SE	Vinyl	Low-E Double	Yes	0.35	0.31	N	15 ft²	0 ft 18 in	1 ft 0 in	HERS 2006	None
_____	10	SE	Vinyl	Low-E Double	Yes	0.35	0.31	N	9 ft²	0 ft 18 in	5 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	1228	6.30	67.4	126.7	0 cfm	0 cfm	0	0

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts
_____	1	Central Unit	None	SEER: 13	36.6 kBtu/hr	1098 cfm	0.75	sys#0

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Ducts
_____	1	Electric Heat Pump	None	HSPF: 9	35.2 kBtu/hr	sys#0

HOT WATER SYSTEM

√	#	System Type	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	0.92	40 gal	50 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	Attic	6	260 ft²	Attic	65 ft²	Default Leakage	Interior	(Default)	(Default) %		

TEMPERATURES

Programable Thermostat: None

Ceiling Fans:

Cooling	[X] Jan	[X] Feb	[X] Mar	[X] Apr	[X] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[X] Oct	[X] Nov	[X] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[X] Apr	[X] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[X] Oct	[X] Nov	[X] Dec
Venting	[X] Jan	[X] Feb	[X] Mar	[X] Apr	[X] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[X] Oct	[X] Nov	[X] 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
	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

FORM 1100A-08

Code Compliance Cheklist

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
Hign Springs, FL,	

INFILTRATION REDUCTION COMPLIANCE CHECKLIST

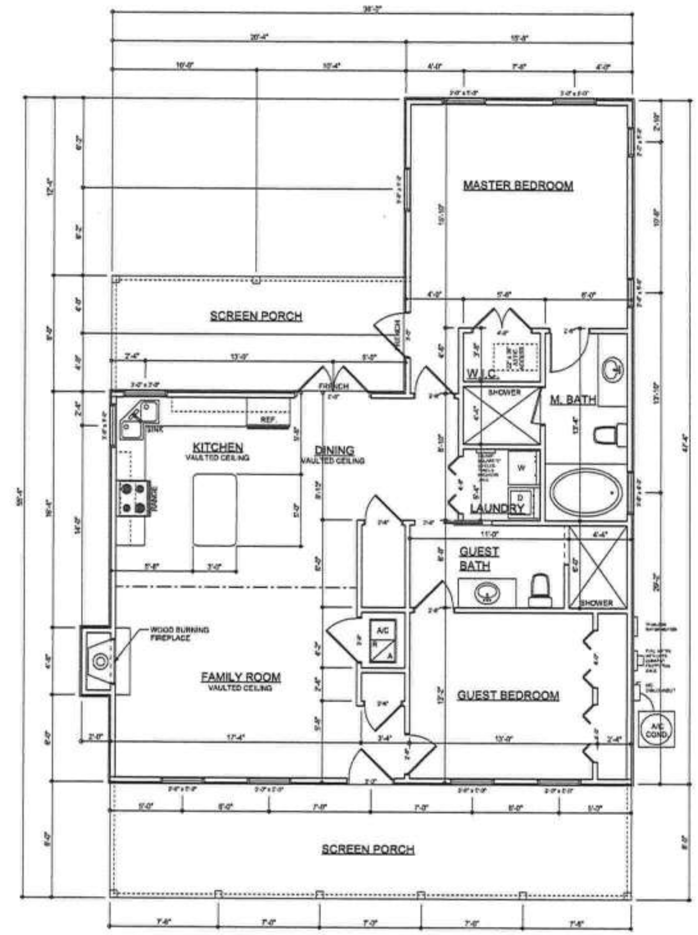
COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	N1106.AB.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	N1106.AB.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall 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.1.2.2	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.1.2.3	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.1.2.4	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.1.2.5	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 N112.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.	

REVISIONS
13May10
24May10

SOFTPLAN



FLOOR PLAN
SCALE: 1/4" = 1'-0"
ALL CEILING HEIGHTS TO BE 8'-0" UNLESS NOTED OTHERWISE

AREA SUMMARY

LIVING AREA	1300	S.F.
REAR SCREEN PORCH AREA	163	S.F.
FRONT SCREEN PORCH AREA	288	S.F.
TOTAL AREA	1751	S.F.

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS:
Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2007, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY
P.E. 53915

SEAL

Cason Builders Inc

Payne Residence

ADDRESS:
Rose Island
Columbia County, Florida

Mark Disosway P.E.
P.O. Box 868
Lake City, Florida 32056
Phone: (386) 754 - 5419
Fax: (386) 269 - 4871

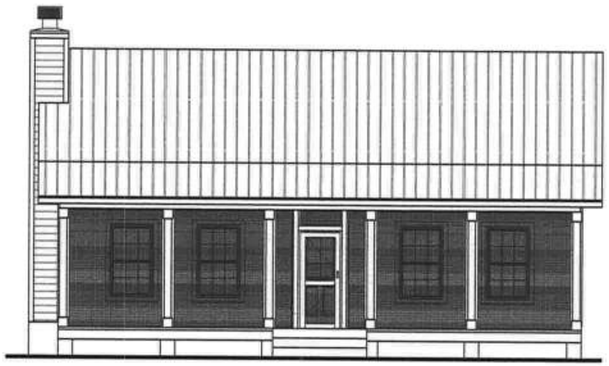
PRINTED DATE:
May 24, 2010

DRAWN BY:
STRUCTURAL BY:
David Disosway

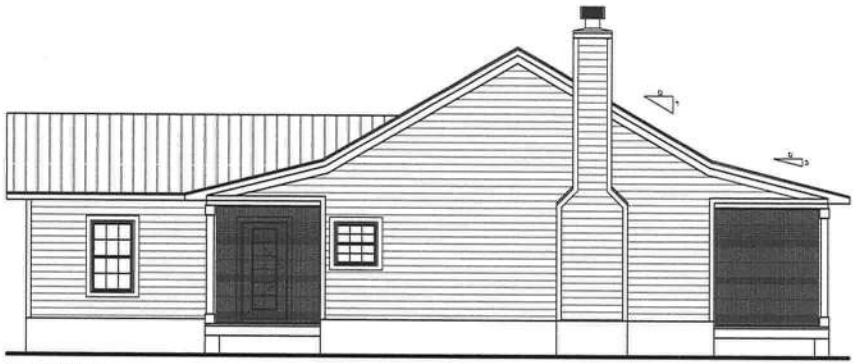
FINALS DATE:

JOB NUMBER:
1003085

DRAWING NUMBER
2
OF 3 SHEETS

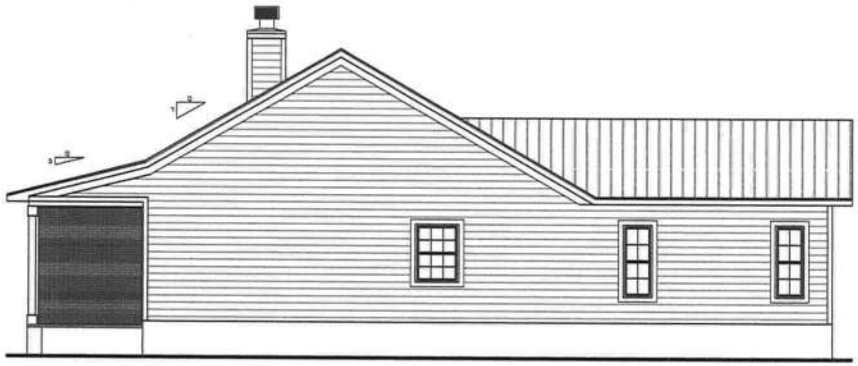


FRONT ELEVATION
SCALE: 1/4" = 1'-0"



LEFT ELEVATION
SCALE: 1/4" = 1'-0"

REAR ELEVATION
SCALE: 1/4" = 1'-0"



RIGHT ELEVATION
SCALE: 1/4" = 1'-0"

REVISIONS	
13May10	
24May10	

SOFTPLAN

WINDLOAD ENGINEER: Mark Disosway, PE No 53915, POB 868, Lake City, FL 32056, 386-754-5419

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LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY
P.E. 53915

SEAL

Cason Builders Inc

Payne Residence

ADDRESS:
Rum Island
Columbia County, Florida

Mark Disosway P.E.
P.O. Box 868
Lake City, Florida 32056
Phone: (386) 754 - 5419
Fax: (386) 269 - 4871

PRINTED DATE:
May 24, 2010

DRAWN BY:	STRUCTURAL BY: Dave Disosway
FINALS DATE:	

JOB NUMBER:
1003085
DRAWING NUMBER
1
OF 3 SHEETS

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 77

The lower the EnergyPerformance Index, the more efficient the home.

, Hign Springs, FL,

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		2
5. Is this a worst case?		No
6. Conditioned floor area (ft²)		1300

7. Windows**	Description	Area
a. U-Factor: SHGC:	Dbl, U=0.35 SHGC=0.31	208.33 ft²
b. U-Factor: SHGC:	N/A	ft²
c. U-Factor: SHGC:	N/A	ft²
d. U-Factor: SHGC:	N/A	ft²
e. U-Factor: SHGC:	N/A	ft²

8. Floor Types	Insulation	Area
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c. N/A	R=	ft²

9. Wall Types	Insulation	Area
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d. N/A	R=	ft²

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11. Ducts
a. Sup: Attic Ret: Attic AH: Interior Sup. R= 6, 260 ft²

12. Cooling systems
a. Central Unit — Cap: 36.6 kBtu/hr SEER: 13

13. Heating systems
a. Electric Heat Pump — Cap: 35.2 kBtu/hr HSPF: 9

14. Hot water systems
a. Electric — Cap: 40 gallons EF: 0.92

b. Conservation features
None

15. Credits — None

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____

*Note: The home's estimated Energy Performance Index is only available through the EnergyGauge USA - FlaRes2008 computer program. This is not a Building Energy Rating. If your Index is below 100, your home may qualify for incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at (321) 638-1492 or see the Energy Gauge web site at energygauge.com for information and a list of certified Raters. For information about Florida's Energy Efficiency Code for Building Construction, contact the Department of Community Affairs at (850) 487-1824.

**Label required by Section 13-104.4.5 of the Florida Building Code, Building, or Section B2.1.1 of Appendix G of the Florida Building Code, Residential, if not DEFAULT.

Inst:2005026557 Date:10/25/2005 Time:12:55
Doc Stamp-Deed : 0.70
DC,P.DeWitt Cason,Columbia County B:1062 P:2590

PREPARED BY FOR RETURN TO:
GREGORY J. GORE, ESQUIRE
P.O. BOX 780384
SEBASTIAN, FL 32958-0384
Property Appraiser's Parcel Identification (Folio) Number(s):

QUIT-CLAIM DEED

THIS QUIT-CLAIM DEED executed this 7th day of September, 2005, by ALPHA R. PAYNE and CAROL L. PAYNE, his wife, parties of the first part, to ALPHA R. PAYNE and CAROL L. PAYNE, parties of the second part, whose post office address is 147 Magnolia St., Fellsmere, FL 32948.

Whereby the parties of the first part, for and in consideration of the sum of $10.00 in hand paid by the parties of the second part, together with other good and valuable consideration, the receipt of which is hereby acknowledged, do hereby remise, release and quit-claim unto the parties of the second part all right, title, interest, claim and demand therein which the parties of the first part have in the following described real estate in the County of Columbia, in the State of Florida, to wit:

See attached legal

Subject to all valid restrictions, reservations, easements, zoning and other matters of record.

This deed was prepared without a review of survey or examination of the title to the above described property and no opinions or representations are being made either expressly or impliedly by Gregory J. Gore, Esquire, or Gregory J. Gore, P.A., and the parties agree to hold same harmless therefrom.

TO HAVE AND TO HOLD, the same together with all and singular the appurtenances thereunto belonging or in anywise appertaining, and all the estate, right, title, interest, lien, equity and claim whatsoever of the said parties of the first part, either in law or equity, to the only proper use, benefit and behoof of the said parties of the second part forever.

IN WITNESS WHEREOF, the said parties of the first part have hereunto set their hands and seals this 7th day of September, 2005.

Betty Damron
BETTY DAMRON

Alpha R. Payne
ALPHA R. PAYNE

Gregory J. Gore
GREGORY J. GORE

Carol L. Payne
CAROL L. PAYNE

STATE OF FLORIDA
COUNTY OF INDIAN RIVER

I HEREBY CERTIFY that on this day personally appeared before me, and officer duly authorized to administer oaths and take acknowledgments, ALPHA R. PAYNE and CAROL L. PAYNE, his wife, to me personally known or having produced identification to be the individuals described in and who executed the foregoing deed and they acknowledged before me that they executed the same freely and voluntarily for the purposes therein expressed.

WITNESS my hand and official seal, in the County of Indian River, and State Of Florida, this 7th day of September, 2005.

Dawn Grimmich
Notary Signature
My Commission expires:

Dawn Grimmich
Commission # DD105860
Expires April 4, 2006
Bonded Thru
Atlantic Bonding Co., Inc.

DESCRIPTION:
A PART OF THE NW 1/4 OF SECTION 36, TOWNSHIP 7 SOUTH, RANGE 16 EAST, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 36, AND RUN N.89°36'20"E., ALONG THE NORTH LINE THEREOF, 35.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF RUM ISLAND ROAD, (A 60 FOOT RIGHT-OF-WAY); THENCE S.01°05'47"E., ALONG SAID RIGHT-OF-WAY, 1269.49 FEET; THENCE N.88°54'35"E., 776.35 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N.88°54'35"E., 499.18 FEET; THENCE S.01°05'56"E., 561.12 FEET; THENCE S.88°54'35"W., 499.20 FEET; THENCE N.01°05'49"W., 561.12 FEET TO THE POINT OF BEGINNING. COLUMBIA COUNTY, FLORIDA. CONTAINING 6.43 ACRES, MORE OR LESS.

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND PUBLIC UTILITIES OVER AND ACROSS A 60 FOOT STRIP OF LAND LYING ADJACENT TO AND EAST OF THE FOLLOWING DESCRIBED LINE; COMMENCE AT THE NW CORNER OF SECTION 36, TOWNSHIP 7 SOUTH, RANGE 16 EAST AND RUN S.01°06'32"E., ALONG THE WEST LINE THEREOF, 1268.76 FEET FOR A POINT OF BEGINNING; THENCE CONTINUE S.01°06'32"E., 1018.35 FEET TO THE POINT OF TERMINATION OF SAID EASEMENT.

ALSO:
TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITY PURPOSES OVER AND ACROSS THE FOLLOWING: COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 36, AND RUN N.89°36'20"E., ALONG THE NORTH LINE THEREOF, 35.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF RUM ISLAND ROAD, (A 60 FOOT RIGHT-OF-WAY); THENCE S.01°05'47"E., ALONG SAID RIGHT-OF-WAY, 1830.61 FEET FOR A POINT OF BEGINNING; THENCE N.88°54'35"E., 836.35 FEET; THENCE S.01°05'49"E., 30.00 FEET; THENCE S.88°54'35"W., 836.35 FEET; THENCE N.01°05'47"W., 30.00 FEET TO THE POINT OF BEGINNING.

Inst:2005026557 Date:10/25/2005 Time:12:55
Doc Stamp-Deed : 0.70
DC,P.DeWitt Cason,Columbia County B:1062 P:2591

Columbia County Property Appraiser

DB Last Updated: 5/6/2010

2009 Tax Roll Year

Parcel: 36-7S-16-04351-011

Tax Collector | Tax Estimator | Property Card | Parcel List Generator

<< Next Lower Parcel | Next Higher Parcel >>

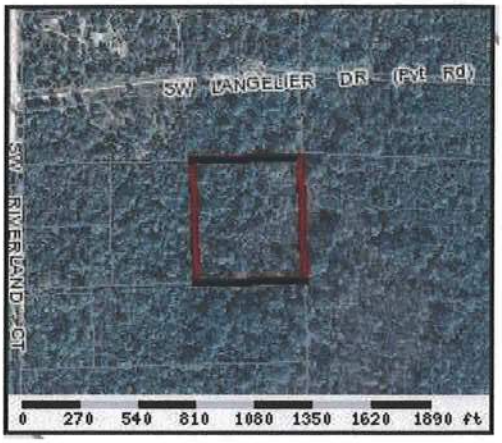
Interactive GIS Map | Print

<< Prev | Search Result: 2 of 22 | Next >>

Owner & Property Info

Owner's Name	PAYNE ALPHA R & CAROL L		
Mailing Address	147 N MAGNOLIA ST FELLSMERE, FL 32948		
Site Address	MAGNOLIA ST		
Use Desc. (code)	VACANT (000000)		
Tax District	3 (County)	**Neighborhood**	36716
Land Area	6.430 ACRES	**Market Area**	02
Description	NOTE: This description is not to be used as the Legal Description for this parcel in any legal transaction.		

COMM NW COR, RUN E 35 FT TO E R/W LINE OF RUM ISLAND RD, RUN S ALONG R/W 1269.49 FT, E 776.35 FT FOR POB, CONT EAST 499.18 FT, S 561.12 FT, WEST 499.20 FT, N 561.12 FT TO POB ORB 826-1547, ORB 1062-2591,



Property & Assessment Values

2009 Certified Values		
Mkt Land Value	cnt: (0)	$46,126.00
Ag Land Value	cnt: (1)	$0.00
Building Value	cnt: (0)	$0.00
XFOB Value	cnt: (0)	$0.00
Total Appraised Value		$46,126.00
Just Value		$46,126.00
Class Value		$0.00
Assessed Value		$46,126.00
Exempt Value		$0.00
Total Taxable Value		Cnty: $46,126 Other: $46,126 | Schl: $46,126

2010 Working Values

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

Show Working Values

Sales History

Show Similar Sales within 1/2 mile

Sale Date	OR Book/Page	OR Code	Vacant / Improved	Qualified Sale	Sale RCode	Sale Price
9/7/2005	1062/2590	QC	V	U	06	$100.00
12/28/2004	1035/2351	WD	V	Q		$98,600.00
7/30/1996	826/1547	WD	V	Q		$41,100.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
NONE						

Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
NONE						

Land Breakdown

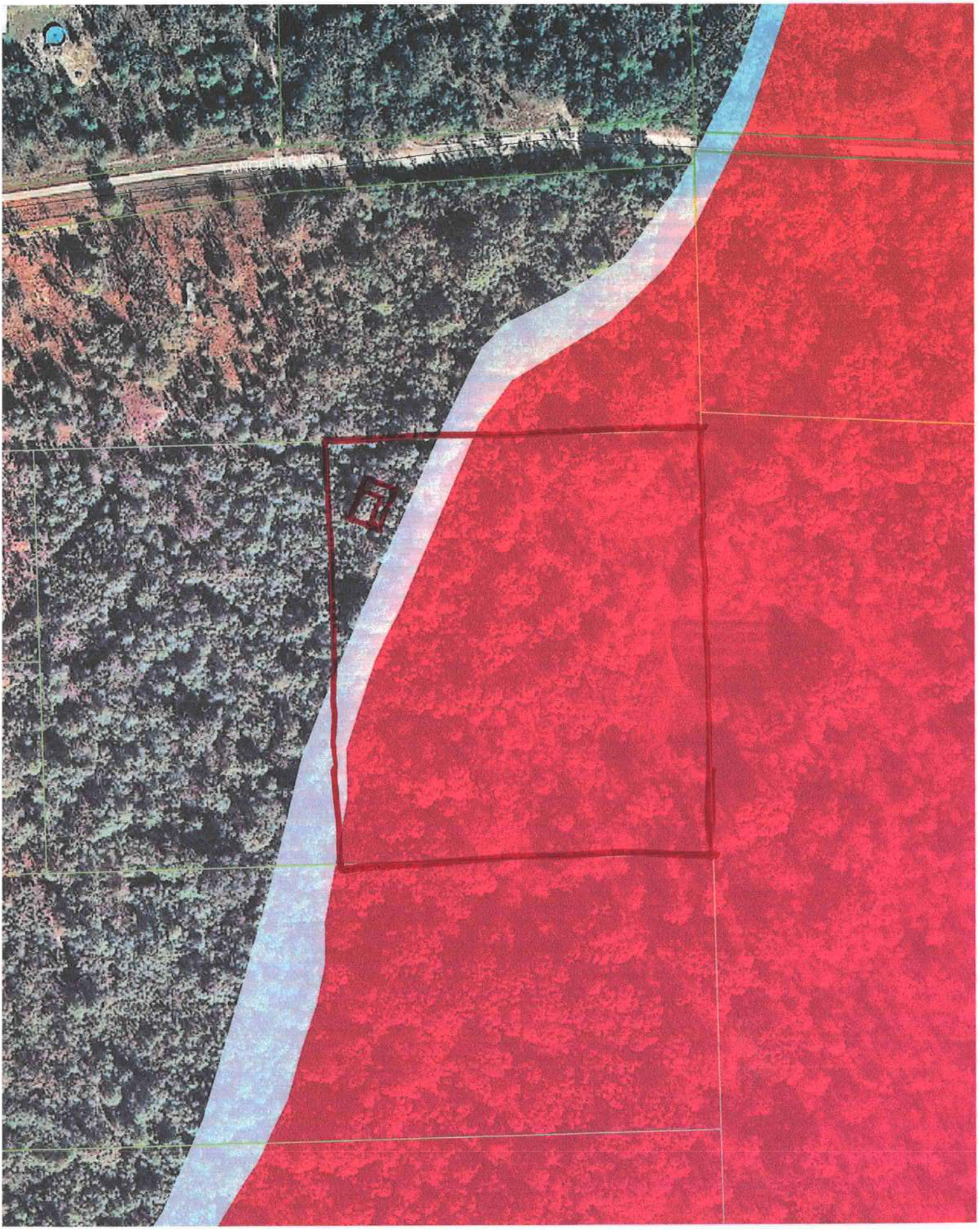
Lnd Code	Desc	Units	Adjustments	Eff Rate	Lnd Value
000000	VAC RES (MKT)	6.43 AC	1.00/1.00/1.00/1.00	$6,456.30	$41,514.00

Columbia County Property Appraiser DB Last Updated: 5/6/2010

<< Prev 2 of 22 Next >>

DISCLAIMER

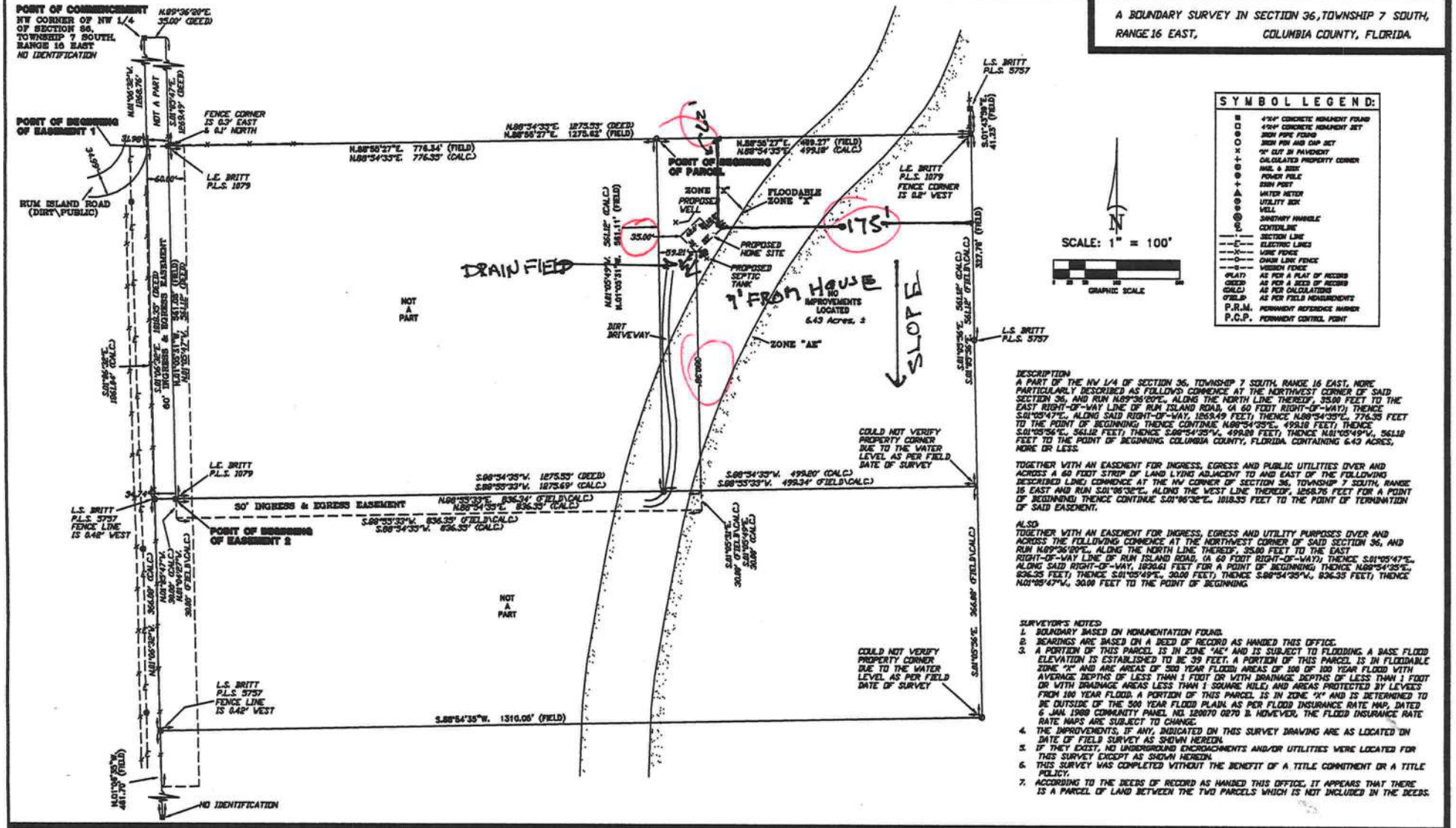
This information was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data



1007-26

1001-36

A BOUNDARY SURVEY IN SECTION 36, TOWNSHIP 7 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA.



SYMBOL LEGEND:

■	4"x4" CONCRETE MONUMENT FOUND
□	4"x4" CONCRETE MONUMENT SET
⊕	IRON PIPE FOUND
○	IRON PIN AND CAP SET
×	"X" CUT IN PAVEMENT
+	CALCULATED PROPERTY CORNER
⊕	MAIL & BOX
⊕	POWER POLE
⊕	SIGN POST
⊕	WATER METER
⊕	UTILITY BOX
⊕	WELL
⊕	SANITARY MANHOLE
⊕	CENTERLINE
—·—	SECTION LINE
—E—	ELECTRIC LINES
—X—	WIRE FENCE
—O—	CHAIN LINK FENCE
—o—	WOODEN FENCE
(PLAT)	AS PER A PLAT OF RECORD
(DEED)	AS PER A DEED OF RECORD
(CALC.)	AS PER CALCULATIONS
(FIELD)	AS PER FIELD MEASUREMENTS
P.R.M.	PERMANENT REFERENCE MARKER
P.C.P.	PERMANENT CONTROL POINT

DESCRIPTION:
A PART OF THE NW 1/4 OF SECTION 36, TOWNSHIP 7 SOUTH, RANGE 16 EAST, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 36, AND RUN N.89°36'20"E., ALONG THE NORTH LINE THEREOF, 35.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF RUM ISLAND ROAD, (A 60 FOOT RIGHT-OF-WAY); THENCE S.01°05'47"E., ALONG SAID RIGHT-OF-WAY, 1869.49 FEET; THENCE N.88°54'35"E., 776.35 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N.88°54'35"E., 499.18 FEET; THENCE S.01°05'56"E., 561.12 FEET; THENCE S.88°54'35"W., 499.20 FEET; THENCE N.01°05'49"W., 561.12 FEET TO THE POINT OF BEGINNING. COLUMBIA COUNTY, FLORIDA. CONTAINING 6.43 ACRES, MORE OR LESS.

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SURVEYOR'S NOTES:
1. BOUNDARY BASED ON MONUMENTATION FOUND.
2. BEARINGS ARE BASED ON A DEED OF RECORD AS HANDED THIS OFFICE.
3. A PORTION OF THIS PARCEL IS IN ZONE "AE" AND IS SUBJECT TO FLOODING. A BASE FLOOD ELEVATION IS ESTABLISHED TO BE 39 FEET. A PORTION OF THIS PARCEL IS IN FLOODABLE ZONE "X" AND ARE AREAS OF 500 YEAR FLOOD; AREAS OF 100 OF 100 YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 100 YEAR FLOOD. A PORTION OF THIS PARCEL IS IN ZONE "X" AND IS DETERMINED TO BE OUTSIDE OF THE 500 YEAR FLOOD PLAIN, AS PER FLOOD INSURANCE RATE MAP, DATED 6 JAN. 1989 COMMUNITY PANEL NO. 120070 0270 B. HOWEVER, THE FLOOD INSURANCE RATE RATE MAPS ARE SUBJECT TO CHANGE.
4. THE IMPROVEMENTS, IF ANY, INDICATED ON THIS SURVEY DRAWING ARE AS LOCATED ON DATE OF FIELD SURVEY AS SHOWN HEREON.
5. IF THEY EXIST, NO UNDERGROUND ENCROACHMENTS AND/OR UTILITIES WERE LOCATED FOR THIS SURVEY EXCEPT AS SHOWN HEREON.
6. THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE COMMITMENT OR A TITLE POLICY.
7. ACCORDING TO THE DEEDS OF RECORD AS HANDED THIS OFFICE, IT APPEARS THAT THERE IS A PARCEL OF LAND BETWEEN THE TWO PARCELS WHICH IS NOT INCLUDED IN THE DEEDS.

CERTIFIED TO:

ALPHA & CAROL PAYNE
CASON BUILDERS

FIELD BOOK: SEE PAGE(S): FILE

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

07/08/10
FIELD SURVEY DATE

07/12/10
DRAWING DATE

L. SCOTT BRITT, P.S.M.
CERTIFICATION # 5757

NOTED UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

BRITT SURVEYING & ASSOCIATES, INC.
LAND SURVEYORS AND MAPPERS, L.B. # 7593
830 WEST DUVAL STREET
LAKE CITY, FLORIDA 32055
TELEPHONE (386) 752-7163 FAX: (386) 752-5573

WORK ORDER # L-20479

COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787
PHONE: (386) 758-1125 * FAX: (386) 758-1365 * Email: ron_croft@columbiacountyfla.com

Addressing Maintenance

To maintain the Countywide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for assigning and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Service Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County.

DATE REQUESTED: 7/6/2010 **DATE ISSUED:** 7/8/2010

ENHANCED 9-1-1 ADDRESS:

255 SW MARINE GLN

FORT WHITE FL 32038

PROPERTY APPRAISER PARCEL NUMBER:

36-7S-16-04351-011

Remarks:

Address Issued By: _____

Columbia County 9-1-1 Addressing / GIS Department

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE.

1771

NOTICE OF COMMENCEMENT

County Clerk's Office Stamp or Seal

Tax Parcel Identification Number 36-7S-16-04351-011

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)*: COMM NW COR, RUN E 35 FT TO E R/W LINE OF RUM ISLAND RD, RUN S ALONG R/W 1269.49 FT, E 776.35 FT FOR POB, CONT EAST 499.18 FT, S 561.12 FT, WEST 499.20 FT, N 561.12 FT TO POB ORB 826-1547, ORB 1062-2591,
   a) Street *(job)* Address: _____
2. General description of improvements: _____
3. Owner Information
   a) Name and address: Alpha R. Payne 255 SW Marine Glen, Fort White, Fl, 320
   b) Name and address of fee simple titleholder (if other than owner) _____
   c) Interest in property Owner
4. Contractor Information
   a) Name and address: Cason Builders Inc 2022 NE 6th Street, Gainesville, Fl, 3
   b) Telephone No.: 352-283-3542 Fax No. (Opt.) 352-485-2362
5. Surety Information
   a) Name and address: N/A
   b) Amount of Bond: _____
   c) Telephone No.: _____ Fax No. (Opt.) _____
6. Lender
   a) Name and address: N/A
   b) Phone No. _____
7. Identity of person within the State of Florida designated by owner upon whom notices or other documents may be served:
   a) Name and address: Cason Builders Inc
   b) Telephone No.: 352-283-3542 Fax No. (Opt.) 352-485-2362
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(l)(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. _____
Signature of Owner or Owner's Authorized Office/Director/Partner/Manager

_____
Print Name

The foregoing instrument was acknowledged before me , a Florida Notary, this 6th day of July, 20 10, by:

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

Personally Known ___ OR Produced Identification ✓ Type DL

Notary Signature _____ Notary Stamp or Seal:

GALE TEDDER
MY COMMISSION # DD 805686
EXPIRES: July 14, 2012
Bonded Thru Notary Public Underwriters

AND

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

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

Inst:201012010674 Date:7/6/2010 Time:9:42 AM
DC,P.DeWitt Cason,Columbia County Page 1 of 1 B:1197 P:760

383

8:54:53 AM 7/28/2010

Licensee Details

Licensee Information

Name:	**CASON, WILLIAM JOSEPH (Primary Name)**
	CASON BUILDERS INC (DBA Name)
Main Address:	**20223 NE 6TH STREET**
	GAINESVILLE Florida 32609
County:	**ALACHUA**
License Mailing:	
LicenseLocation:	**20223 NE 6TH STREET**
	GAINESVILLE FL 32609
County:	**ALACHUA**

OK - updated in this office

License Information

License Type:	**Certified Building Contractor**
Rank:	**Cert Building**
License Number:	**CBC060151**
Status:	**Current,Active**
Licensure Date:	**05/23/2001**
Expires:	**08/31/2012**

Special Qualifications	**Qualification Effective**
Construction Business	**02/20/2004**

View Related License Information

View License Complaint

Clark Drilling Inc.

2403 N.W. 47 Terrace
Gainesville, Fl 32606
Ph: (352) 372-9705
Fax: (352) 372-4013

To: Columbia County Building Dept. **07-28-10**
C/O Mrs Gail

Fr: Cliff Clar

Re: Cason Builders Inc.

Payne Residence.

Well Parameters

Four inch PVC casing.	(neat cement / estimated depth 100 feet.)
One horse power Submersible pump.	(18 gallons per minute.)
82 gallon captive air tank.	
cycle stop control valve.	(pre set 50 psi)

If you have any questions please contact me at the phone numbers mentioned above.

Cliff Clark
Lic # 7211

"More than just a hole in the ground!"

Pat 485-256 c
352-

JS 000062647
SBC 7/22

10-0324

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

PERMIT NO. 9142858
DATE PAID: 7/30/10
FEE PAID: 425.00
RECEIPT #: 1345104

APPLICATION FOR:
[X] New System [ ] Existing System [ ] Holding Tank [ ] Innovative
[ ] Repair [ ] Abandonment [ ] Temporary [ ] _____

APPLICANT: ~~CASON BUILDERS INC~~ / ALBERT & CAROL PAYNE

AGENT: Bill CASON TELEPHONE: 352-283-3542

MAILING ADDRESS: 20223 NE 6th STREET, Gainesville, FL 32609

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.

PROPERTY INFORMATION

LOT: N/A BLOCK: N/A SUBDIVISION: 36716 PLATTED: N/A

PROPERTY ID #: 36-75-16-04351-011 ZONING: Residential/M OR EQUIVALENT: [Y / N]

PROPERY SIZE: 6.4 ~~acres~~ ACRES WATER SUPPLY: [X] PRIVATE PUBLIC [ ]<=2000GPD [ ]>2000GPD

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

PROPERTY ADDRESS: 255 SW MARINE GLEN, FORT WHITE, FL 32038

DIRECTIONS TO PROPERTY: From intersection of 27 & 138 TAKE 138, Then TURN LEFT ON SW Rum Island Terrace. Then take SW Aqueway TURN LEFT ON MARINE GLEN, Follow to END

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	Residential	2	1,300	
2				
3				
4				

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

SIGNATURE: William [illegible] DATE: 7/13/2010

DH 4015, 10/97 – Page 1 (Previous editions may be used)
Stock Number: 5744-001-4015-1

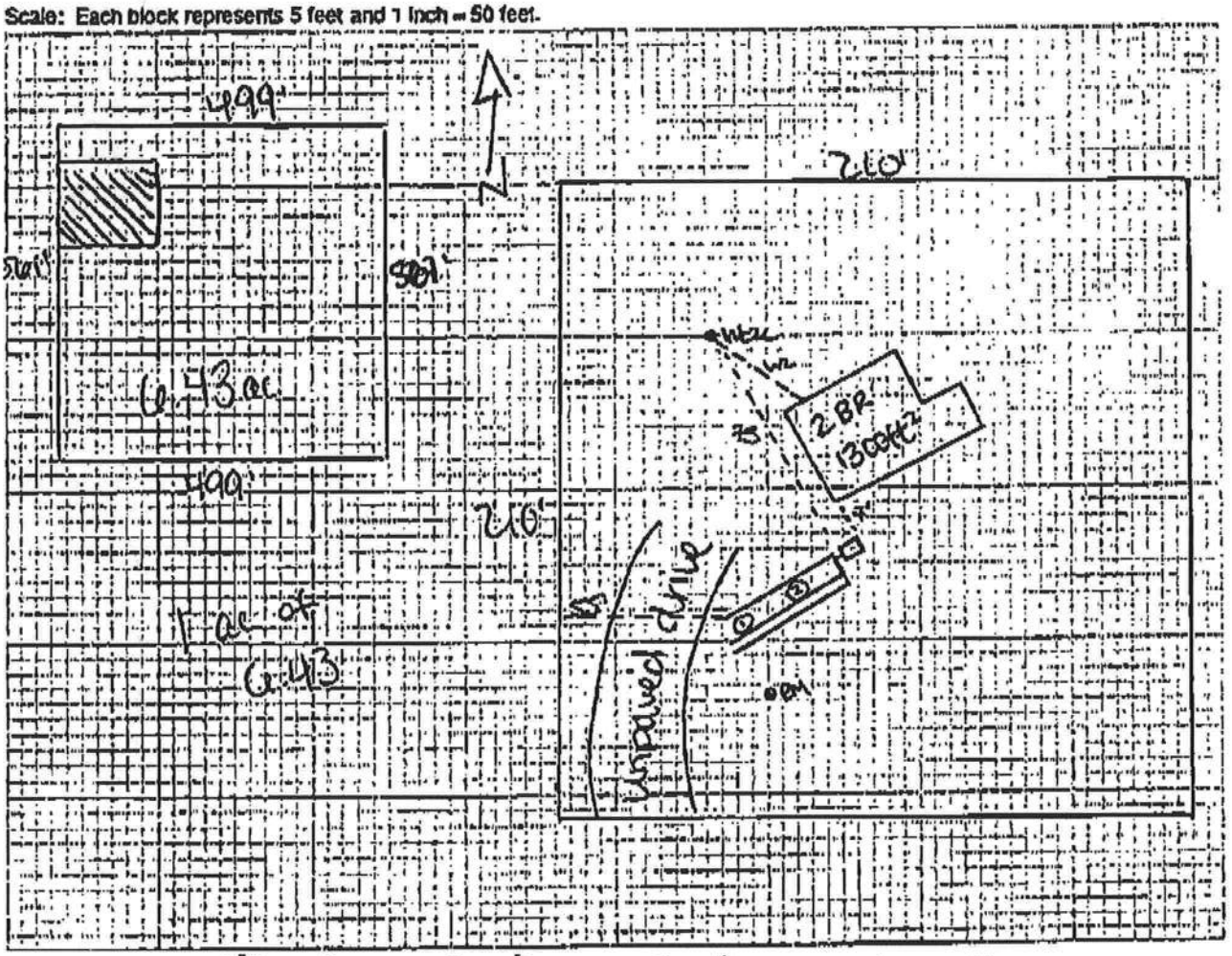
STATE OF FLORIDA
DEPARTMENT OF HEALTH

APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 10-0352 N

PART II - SITE PLAN

Scale: Each block represents 5 feet and 1 inch = 50 feet.



Notes: no additional wells within 75' of proposed septic

Site Plan submitted by: [signature] PRESIDENT
Signature Title

Plan Approved X Not Approved Date 8/4/10

By [signature] Columbia CHD County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

DH 4015, 10/98 (Replaces HRS-H Form 4015 which may be used)
(Stock Number: 6744-003-4015-4)

DATE 08/12/2010

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000028785

APPLICANT WILLIAM CASON PHONE 352 283-3542

ADDRESS 223 NE 6TH STREET GAINESVILLE FL 32609

OWNER CAROL & ALPHA PAYNE PHONE 352 283-3542

ADDRESS 255 SW MARINE GLEN FT. WHITE FL 32038

CONTRACTOR WILLIAM CASON PHONE 352 283-3542

LOCATION OF PROPERTY 47S,TL CR138,TL RUM ISLAND TERR.,TL AQUA WAY,TL MARINE GLEN, TO THE END

TYPE DEVELOPMENT SFD,UTILITY ESTIMATED COST OF CONSTRUCTION 87550.00

HEATED FLOOR AREA 1300.00 TOTAL AREA 1751.00 HEIGHT ____ STORIES 1

FOUNDATION CONC WALLS FRAMED ROOF PITCH 7/12 FLOOR SLAB

LAND USE & ZONING A-3 MAX. HEIGHT ____

Minimum Set Back Requirments: STREET-FRONT 30.00 REAR 25.00 SIDE 25.00

NO. EX.D.U. 0 FLOOD ZONE X DEVELOPMENT PERMIT NO. ____

PARCEL ID 36-7S-16-04351-011 SUBDIVISION ____

LOT ____ BLOCK ____ PHASE ____ UNIT ____ TOTAL ACRES 6.40

000001840	____	CBC060151	[signature]
Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor
CULVERT	10-352	BK	TC	Y
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: NOC ON FILE, ONE FOOT ABOVE THE ROAD

Check # or Cash 8379

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power ____ date/app. by Foundation ____ date/app. by Monolithic ____ date/app. by

Under slab rough-in plumbing ____ date/app. by Slab ____ date/app. by Sheathing/Nailing ____ date/app. by

Framing ____ date/app. by Insulation ____ date/app. by

Rough-in plumbing above slab and below wood floor ____ date/app. by Electrical rough-in ____ date/app. by

Heat & Air Duct ____ date/app. by Peri. beam (Lintel) ____ date/app. by Pool ____ date/app. by

Permanent power ____ date/app. by C.O. Final ____ date/app. by Culvert ____ date/app. by

Pump pole ____ date/app. by Utility Pole ____ date/app. by M/H tie downs, blocking, electricity and plumbing ____ date/app. by

Reconnection ____ date/app. by RV ____ date/app. by Re-roof ____ date/app. by

BUILDING PERMIT FEE $ 440.00 CERTIFICATION FEE $ 8.76 SURCHARGE FEE $ 8.76

MISC. FEES $ 0.00 ZONING CERT. FEE $ 50.00 FIRE FEE $ 0.00 WASTE FEE $ ____

FLOOD DEVELOPMENT FEE $ ____ FLOOD ZONE FEE $ 25.00 CULVERT FEE $ 25.00 **TOTAL FEE** 557.52

INSPECTORS OFFICE [signature] CLERKS OFFICE [signature]

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.

SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER PAYNE RES: Dens CONTRACTOR CASON BUILDERS INC PHONE 352-283-3542

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 OK	Print Name CUSTOM ELECTRIC Signature License #: EC0001384 Kurt Swindel Phone #:
MECHANICAL/ A/C OK	Print Name Hogle's Heating & Air Signature See Attached License #: CAC058124 Phone #:
PLUMBING/ GAS OK	Print Name Coleman's Plumbing Signature See Attached License #: CFC1425624 Phone #:
ROOFING OK	Print Name TRACY MCDONALD INC Signature See Attached License #: CCC057964 Phone #:
SHEET METAL	Print Name N/A Signature License #: Phone #:
FIRE SYSTEM/ SPRINKLER	Print Name N/A Signature License#: Phone #:
SOLAR	Print Name N/A Signature License #: Phone #:

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON OK 383	CB-C06151	CASON BUILDERS INC	
CONCRETE FINISHER	CB-C06151	CASON BUILDERS INC	
FRAMING 954 OK	CGC1505970	Phil Evans	See Attached
INSULATION	CB C06151	CASON BUILDERS INC	
STUCCO	N/A		
DRYWALL	CB C06151	CASON BUILDERS INC	
PLASTER	CB C06151	CASON BUILDERS INC	
CABINET INSTALLER	CB-C06151	CASON BUILDERS INC	
PAINTING	CB C06151	CASON BUILDERS INC	
ACOUSTICAL CEILING	N/A		
GLASS	N/A		
CERAMIC TILE	CB C06151	CASON BUILDERS INC	
FLOOR COVERING	CB-C06151	CASON BUILDERS INC	
ALUM/VINYL SIDING OK		Paul Phinney	See Attached
GARAGE DOOR	N/A		
METAL BLDG ERECTOR	N/A		

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 CB-060151 CONTRACTOR CASON BUILDERS INC PHONE 352-283-3547

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 _____	Print Name Hughes Heating & Air Hogle License #: CAC058124	Signature _____ Phone #: _____
PLUMBING/ GAS 767	Print Name Coleman's Plumbing License #: CFC1425624	Signature _____ Phone #: 352-472-4114
ROOFING 605	Print Name Track G. McDonald Inc. License #: CCC057914	Signature _____ Phone #: (352) 2135287
SHEET METAL N/A	Print Name _____ License #: _____	Signature _____ Phone #: _____
FIRE SYSTEM/ SPRINKLER N/A	Print Name _____ License#: _____	Signature _____ Phone #: _____
SOLAR N/A	Print Name _____ License #: _____	Signature _____ Phone #: _____

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON			
CONCRETE FINISHER			
FRAMING	CGC1509970	Phil Evans	
INSULATION			
STUCCO			
DRYWALL			
PLASTER			
CABINET INSTALLER	CB-060151	CASON BUILDERS INC	
PAINTING			
ACOUSTICAL CEILING	N/A		
GLASS	N/A		
CERAMIC TILE			
FLOOR COVERING			
ALUM/VINYL SIDING OK		Paul Phinney	
GARAGE DOOR	N/A		
METAL BLDG ERECTOR	N/A		

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.

CASON Builders

SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER 1007-26 CONTRACTOR Wm CASON PHONE 352.283.354

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 583 ✓	Print Name Kurt Swindel License #: EC-0002384	Signature Kurt Swindel Phone #: 352-262-0792
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.

Contractor Forms: Subcontractor form: 6/08

Columbia County Building Department
Culvert Permit

Culvert Permit No.
000001840

DATE 08/12/2010 PARCEL ID # 36-7S-16-04351-011

APPLICANT WILLIAM CASON PHONE 352 283-3542

ADDRESS 20223 NE 6TH STREET GAINESVILLE FL 32609

OWNER CAROL & ALPHA PAYNE PHONE 352 283-3542

ADDRESS 255 SW MARINE GLEN FT. WHITE FL 32038

CONTRACTOR WILLIAM CASON PHONE 352 283-3542

LOCATION OF PROPERTY 47S, TL ON CR 138, TL RUM ISLAND TERR., TL AQUA WAY, TL MARINE GLEN, TO THE END

SUBDIVISION/LOT/BLOCK/PHASE/UNIT

SIGNATURE William J Cason

INSTALLATION REQUIREMENTS

[X] Culvert size will be 18 inches in diameter with a total lenght of 32 feet, leaving 24 feet of driving surface. Both ends will be mitered 4 foot with a 4 : 1 slope and poured with a 4 inch thick reinforced concrete slab.

INSTALLATION NOTE: Turnouts will be required as follows:
a) a majority of the current and existing driveway turnouts are paved, or;
b) the driveway to be served will be paved or formed with concrete.
Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.

[ ] Culvert installation shall conform to the approved site plan standards.

[ ] Department of Transportation Permit installation approved standards.

[ ] Other

ALL PROPER SAFETY REQUIREMENTS SHOULD BE FOLLOWED DURING THE INSTALATION OF THE CULVERT.

135 NE Hernando Ave., Suite B-21
Lake City, FL 32055
Phone: 386-758-1008 Fax: 386-758-2160

Amount Paid 25.00

COLUMBIA COUNTY GATEWAY TO FLORIDA

CERTIFICATE OF 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 36-7S-16-04351-011 **Building permit No.** 000028785

Use Classification SFD,UTILITY **Fire:** 109.98

Permit Holder WILLIAM CASON **Waste:** 150.75

Owner of Building CAROL & ALPHA PAYNE **Total:** 260.73

Location: 255 SW MARINE GLEN, FT.WHITE, FL 32038

Date: 01/11/2011

Harry Dicks

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

Cason Builders Inc.

20223 NE 6th Street
Gainesville, Fl, 32609
Phone (352)-283-3542
Fax (352) 485-2362
E-mail casonbuilders@windstream.net
www.casonbuildersinc.com
License #CB-C060151

January 11, 2011
Payne Residence
255 SW Marine Glen, Fort White, Fl, 32038
Permit #28785

I have enclosed a check for the final assessments for permit #28785. Please fax a copy of the certificate of Occupancy to the above contact information.

Thank you,
Bill Cason
Cason Builders Inc.

Rec'd 1.12.11
faxed
1.12.11
Thanks
JW

COLUMBIA COUNTY BUILDING DEPARTMENT 6-25-09
RESIDENTIAL CHECK LIST REQUIRMENTS

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.)		Total (Sq. Ft.) under roof	IIIIIII	IIIIIII	IIIII

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**	IIIIII	IIIII	IIIIII
		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/m²), to be used for the design of exterior component, cladding materials not specifally 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	N/A		
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 plans (see Florida product approval form)

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

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.	N/A		
32	Assumed load-bearing valve of soil _____ Pound Per Square Foot	N/A		
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 priers	✓		
41	Girder type, size and spacing to load bearing walls, stem wall and/or priers	✓		
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 & interi 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	N/A		
66	Connectors to wall assemblies' include assemblies' resistance to uplift rating	N/A		
67	Valley framing and support details	N/A		
68	Provide dead load rating of rafter system	N/A		

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 assembles covering	✓		
72	Submit Florida Product Approval numbers for each component of the roof assembles 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 chapter11 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	w/a		
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 911address 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 applicatio 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.

Julius Lee

RE: 336787 - CASON BLDRS. - PAYNE RES.

1109 Coastal Bay Blvd.
Boynton Beach, FL 33435

Site Information:
Project Customer: CASON BLDRS. Project Name: 336787 Model: PAYNE RES.
Lot/Block: Subdivision:
Address: RUM ISLAND
City: COLUMIBA CTY State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.
Name: WILLIAM J. CASON License #: CBC060151
Address: 10 NW 15TH ST
City: HIGH SPRINGS, State: FL

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code: FBC2007/TPI2002 Design Program: MiTek 20/20 7.1
Wind Code: N/A Wind Speed: N/A mph Floor Load: 55.0 psf
Roof Load: N/A psf

This package includes 6 individual, dated Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.
This document processed per section 16G15-23.003 of the Florida Board of Professionals Rules

In the event of changes from Builder or E.O.R. additional coversheets and drawings may accompany this coversheet. The latest approval dates supersede and replace the previous drawings.

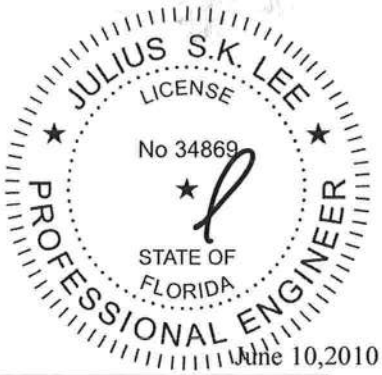
No.	Seal#	Truss Name	Date
1	I4359184	F01	6/10/010
2	I4359185	F02	6/10/010
3	I4359186	F03	6/10/010
4	I4359187	KW1	6/10/010
5	I4359188	KW2	6/10/010
6	I4359189	KW3	6/10/010

The truss drawing(s) referenced above have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Lake City).

Truss Design Engineer's Name: Julius Lee

My license renewal date for the state of Florida is February 28, 2011.

NOTE: The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-1 Chapter 2.



June 10,2010

Julius Lee

Job	Truss	Truss Type	Qty	Ply	CASON BLDRS. - PAYNE RES.	
336787	F01	FLOOR	10	1	Job Reference (optional)	I4359184

Builders FrstSource, Lake City, FL 32055 — 7.140 s Oct 1 2009 MiTek Industries, Inc. Thu Jun 10 12:07:00 2010 Page 1

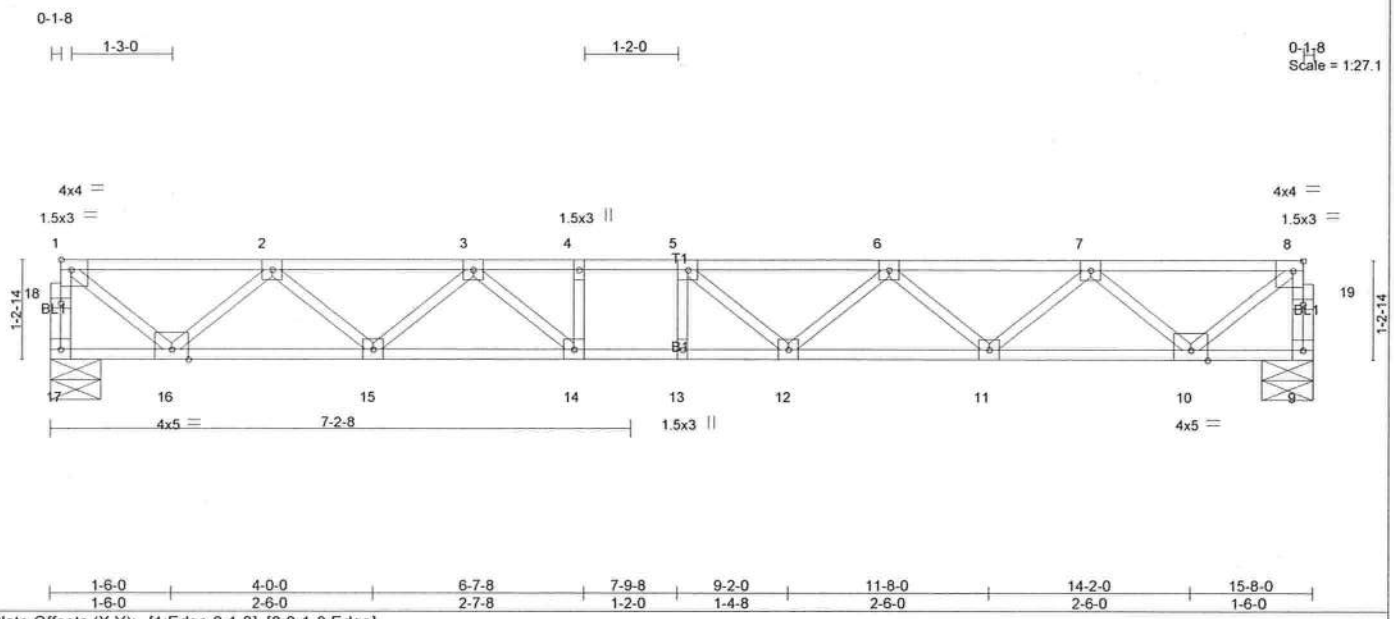


Plate Offsets (X,Y): [1:Edge,0-1-8], [8:0-1-8,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.42	Vert(LL)	-0.16	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber Increase	1.00	BC	0.85	Vert(TL)	-0.25	12-13	>730	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(TL)	0.05	9	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)							Weight: 81 lb	

LUMBER
TOP CHORD 4 X 2 SYP No.2
BOT CHORD 4 X 2 SYP No.2
WEBS 4 X 2 SYP No.3

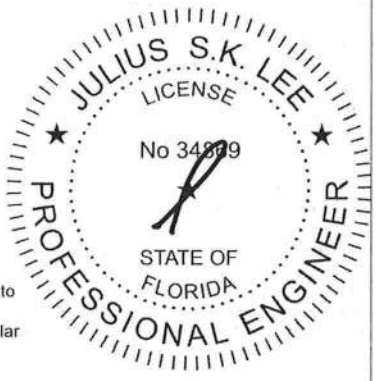
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 17=842/0-7-8, 9=842/0-7-8

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 17-18=-838/0, 1-18=-837/0, 9-19=-837/0, 8-19=-836/0, 1-2=-913/0, 2-3=-2171/0, 3-4=-2901/0, 4-5=-2901/0, 5-6=-2802/0, 6-7=-2186/0, 7-8=-908/0
BOT CHORD 15-16=0/1709, 14-15=0/2622, 13-14=0/2901, 12-13=0/2901, 11-12=0/2644, 10-11=0/1704
WEBS 8-10=0/1130, 1-16=0/1136, 7-10=-1066/0, 2-16=-1067/0, 7-11=0/646, 2-15=0/619, 6-11=-614/0, 3-15=-605/0, 6-12=0/324, 3-14=0/559, 5-12=-347/114

NOTES (6-7)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) All bearings are assumed to be SYP No.2 .
4) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
7) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 10,201

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	CASON BLDRS. - PAYNE RES.	I4359185
336787	F02	FLOOR	27	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.140 s Oct 1 2009 MiTek Industries, Inc. Thu Jun 10 12:07:01 2010 Page 1

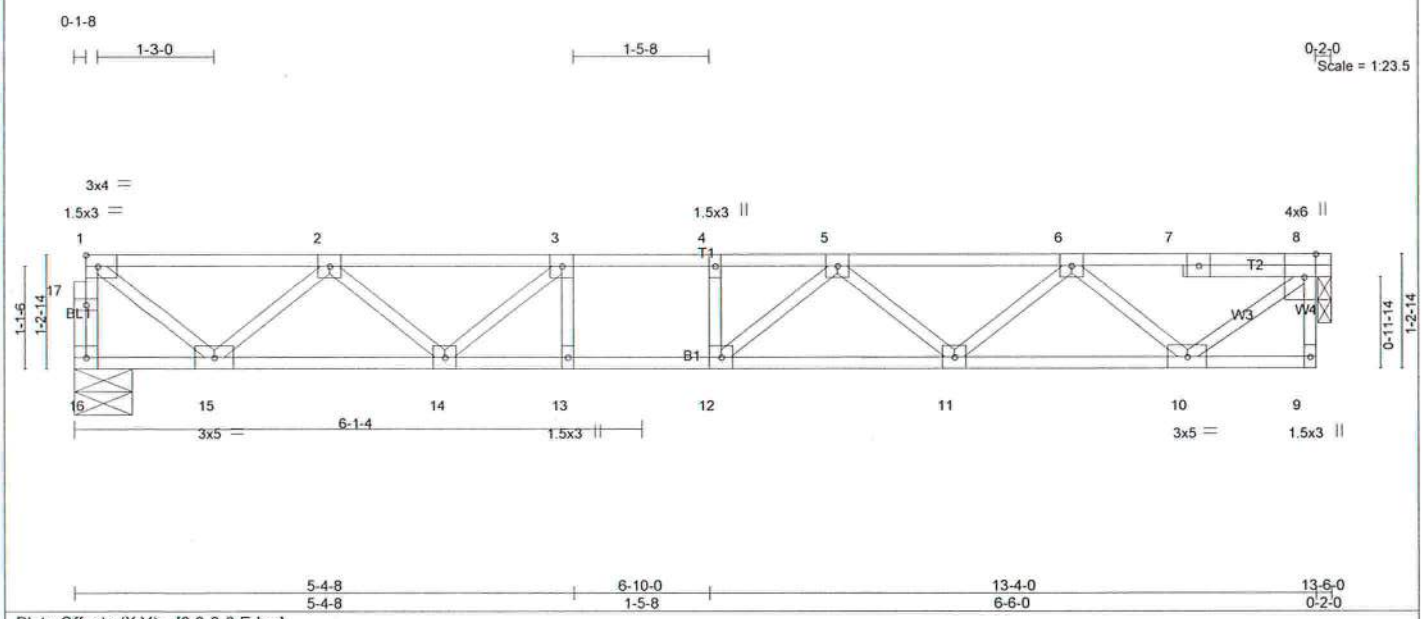


Plate Offsets (X,Y): [8:0-3-0,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.37	Vert(LL)	-0.10	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber Increase	1.00	BC	0.64	Vert(TL)	-0.16	11-12	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(TL)	0.01	8	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)							Weight: 70 lb	

LUMBER
TOP CHORD 4 X 2 SYP No.2
BOT CHORD 4 X 2 SYP No.2
WEBS 4 X 2 SYP No.3

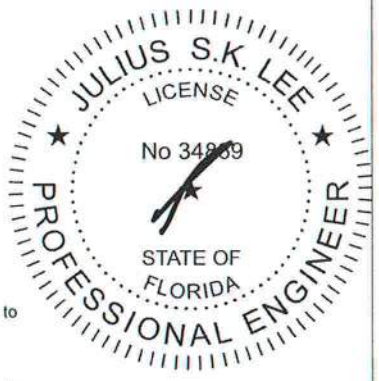
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 16=717/0-7-8, 8=723/0-1-12

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 16-17=-713/0, 1-17=-712/0, 1-2=-757/0, 2-3=-1747/0, 3-4=-2097/0, 4-5=-2097/0, 5-6=-1731/0, 6-7=-739/0, 7-8=-742/0
BOT CHORD 14-15=0/1413, 13-14=0/2097, 12-13=0/2097, 11-12=0/2040, 10-11=0/1382
WEBS 8-10=0/947, 1-15=0/941, 6-10=-862/0, 2-15=-879/0, 6-11=0/467, 2-14=0/457, 5-11=-413/0, 3-14=-537/0, 5-12=-130/328

NOTES (9-10)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) All bearings are assumed to be SYP No.2 .
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
8) CAUTION, Do not erect truss backwards.
9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
10) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



June 10,2010

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	CASON BLDRS. - PAYNE RES.
336787	F03	FLOOR	7	1	I4359186
					Job Reference (optional)

Builders FrstSource, Lake City, FL 32055 — 7.140 s Oct 1 2009 MiTek Industries, Inc. Thu Jun 10 12:07:01 2010 Page 1

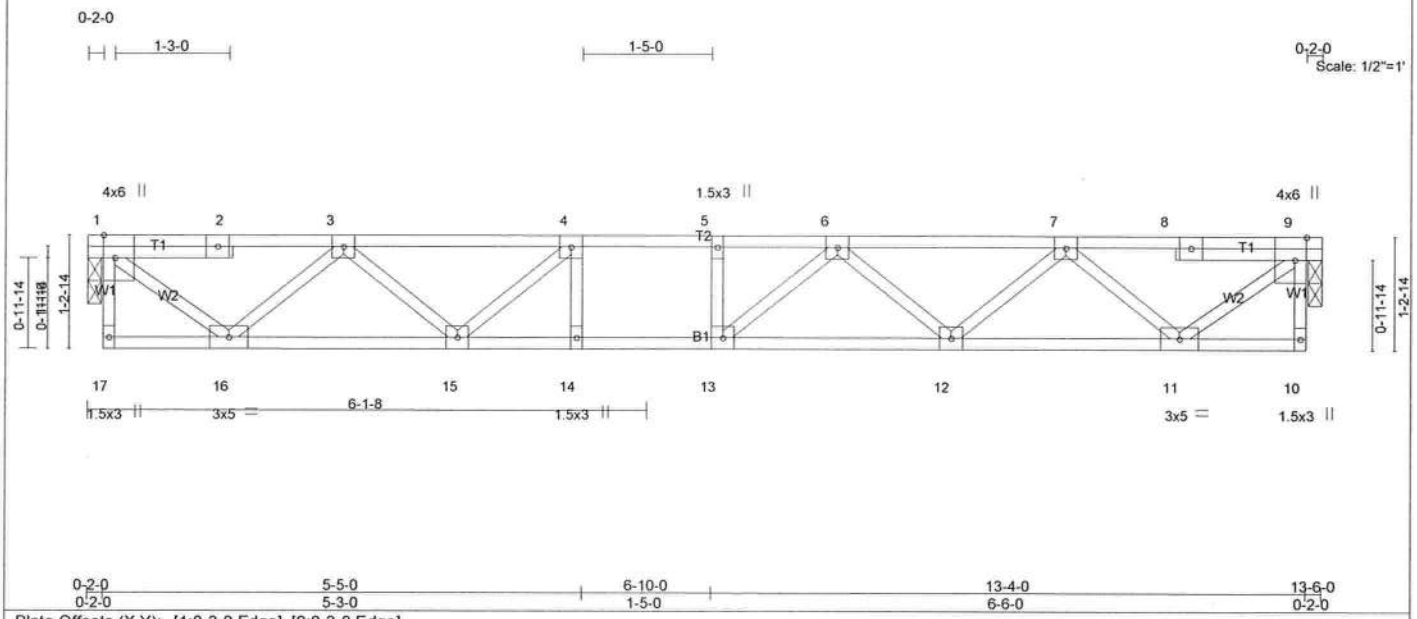


Plate Offsets (X,Y): [1:0-3-0,Edge], [9:0-3-0,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.33	Vert(LL)	-0.10	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber Increase	1.00	BC	0.63	Vert(TL)	-0.15	12-13	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(TL)	-0.02	9	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)							Weight: 71 lb	

LUMBER
TOP CHORD 4 X 2 SYP No.2
BOT CHORD 4 X 2 SYP No.2
WEBS 4 X 2 SYP No.3

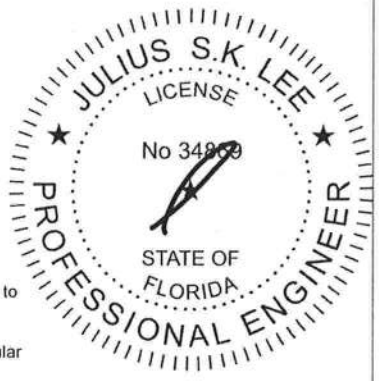
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=717/0-1-12, 9=717/0-1-12

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-738/0, 2-3=-734/0, 3-4=-1706/0, 4-5=-2064/0, 5-6=-2064/0, 6-7=-1712/0, 7-8=-732/0, 8-9=-736/0
BOT CHORD 15-16=0/1365, 14-15=0/2064, 13-14=0/2064, 12-13=0/2014, 11-12=0/1369
WEBS 9-11=0/938, 1-16=0/940, 7-11=-854/0, 3-16=-845/0, 7-12=0/459, 3-15=0/459, 6-12=-405/0, 4-15=-538/0, 6-13=-136/317

NOTES (8-9)
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x3 MT20 unless otherwise indicated.
3) All bearings are assumed to be SYP No.2 .
4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 1, 9.
5) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

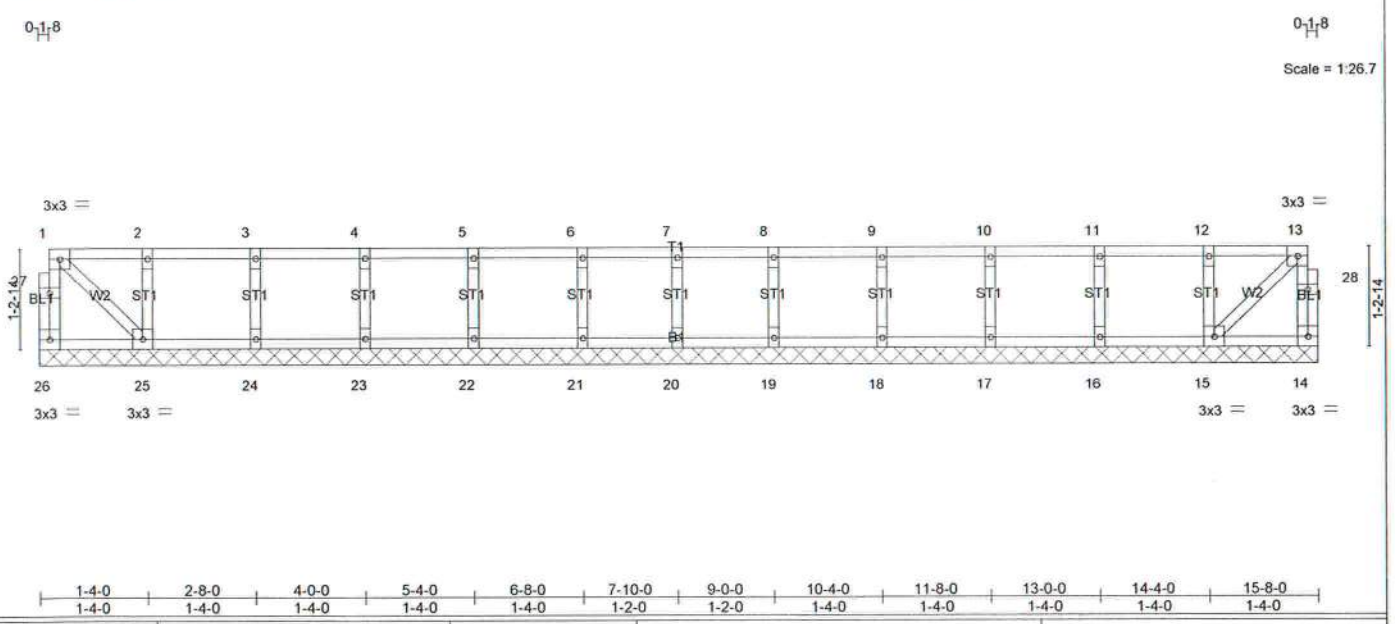


June 10,201

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	CASON BLDRS. - PAYNE RES.	I4359187
336787	KW1	GABLE	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.140 s Oct 1 2009 MiTek Industries, Inc. Thu Jun 10 12:07:01 2010 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber Increase	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	-0.00	15	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)							Weight: 72 lb	

LUMBER
TOP CHORD 4 X 2 SYP No.2
BOT CHORD 4 X 2 SYP No.2
WEBS 4 X 2 SYP No.3
OTHERS 4 X 2 SYP No.3

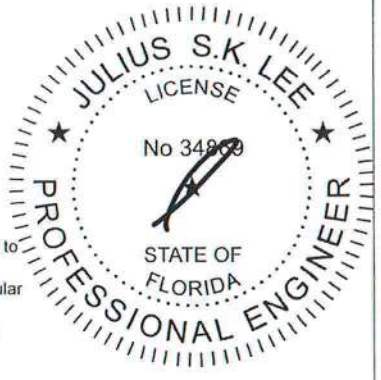
BRACING
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 25-26,14-15.

REACTIONS All bearings 15-8-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 20, 15, 16, 17, 18, 19, 25, 24, 23, 22, 21

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES (8-9)
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) All bearings are assumed to be SYP No.2 .
6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

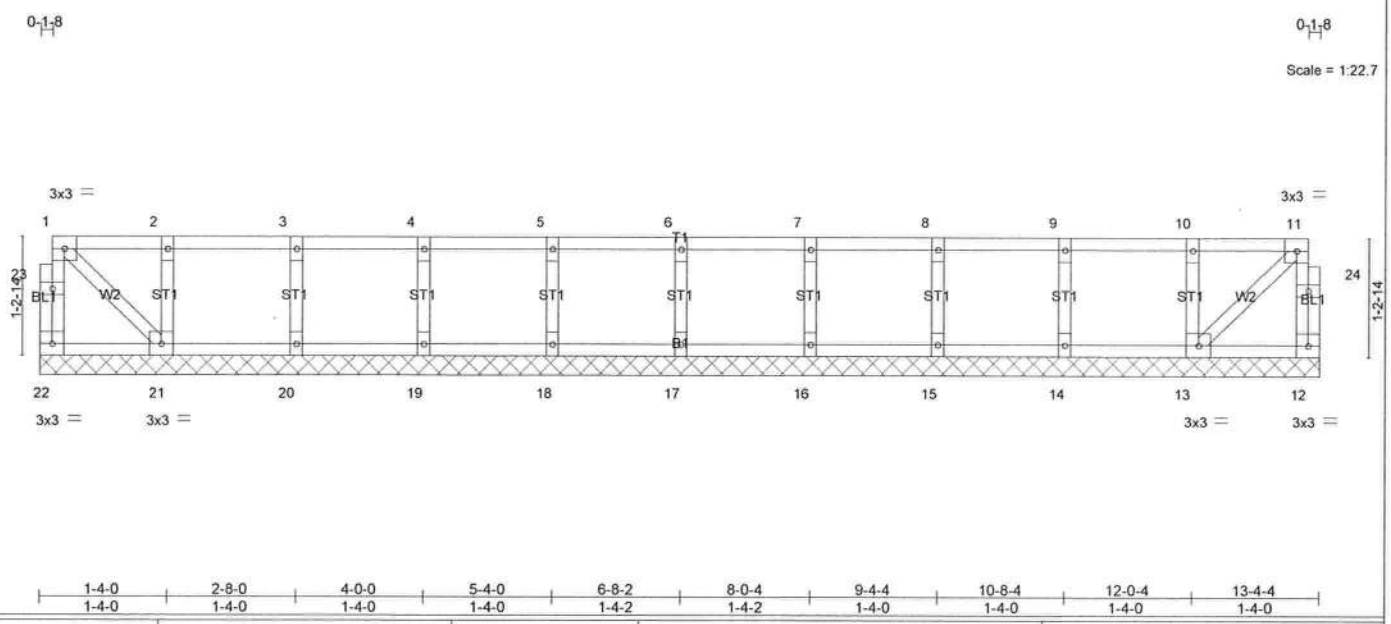


June 10,2010

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	CASON BLDRS. - PAYNE RES.
336787	KW2	GABLE	3	1	I4359188
					Job Reference (optional)

Builders FrstSource, Lake City, FL 32055 — 7.140 s Oct 1 2009 MiTek Industries, Inc. Thu Jun 10 12:07:02 2010 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber Increase	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	-0.00	13	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)							Weight: 62 lb	

LUMBER

TOP CHORD	4 X 2 SYP No.2
BOT CHORD	4 X 2 SYP No.2
WEBS	4 X 2 SYP No.3
OTHERS	4 X 2 SYP No.3

BRACING

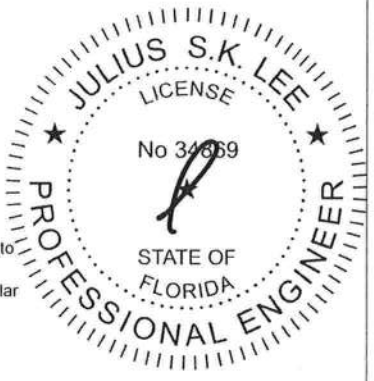
TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 21-22,12-13.

REACTIONS All bearings 13-4-4.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 17, 13, 14, 15, 16, 21, 20, 19, 18

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES (8-9)
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) All bearings are assumed to be SYP No.2 .
6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard

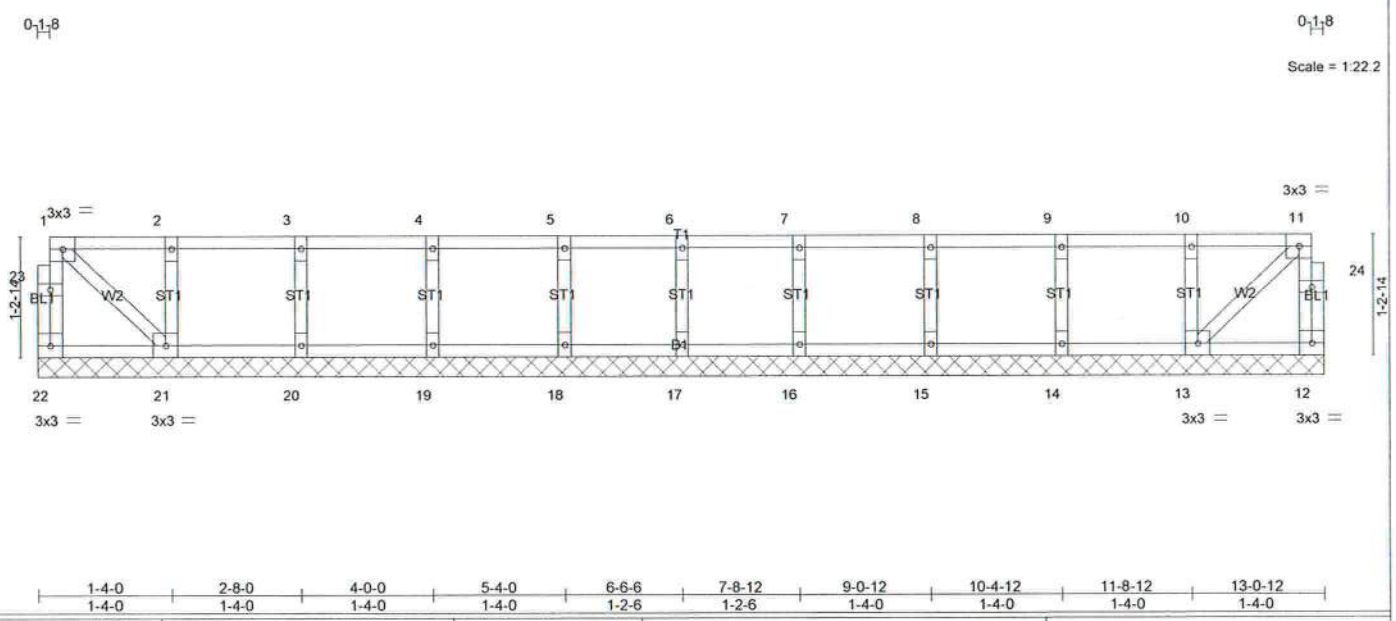


June 10,201

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Job	Truss	Truss Type	Qty	Ply	CASON BLDRS. - PAYNE RES.	I4359189
336787	KW3	GABLE	1	1	Job Reference (optional)	

Builders FrstSource, Lake City, FL 32055 — 7.140 s Oct 1 2009 MiTek Industries, Inc. Thu Jun 10 12:07:02 2010 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plates Increase	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber Increase	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	-0.00	13	n/a	n/a		
BCDL	5.0	Code FBC2007/TPI2002		(Matrix)							Weight: 61 lb	

LUMBER

TOP CHORD	4 X 2 SYP No.2
BOT CHORD	4 X 2 SYP No.2
WEBS	4 X 2 SYP No.3
OTHERS	4 X 2 SYP No.3

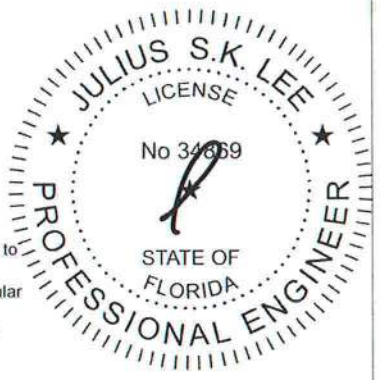
BRACING

TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 21-22,12-13.

REACTIONS All bearings 13-0-12.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 22, 12, 17, 13, 14, 15, 16, 21, 20, 19, 18

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES (8-9)
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) All bearings are assumed to be SYP No.2 .
6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
7) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
9) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869: Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435



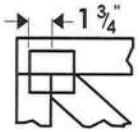
LOAD CASE(S) Standard

June 10,2010

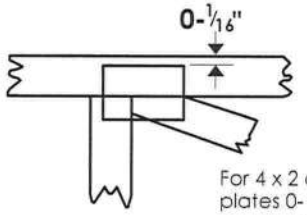
Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

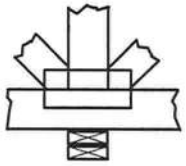
4 x 4

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION

Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING



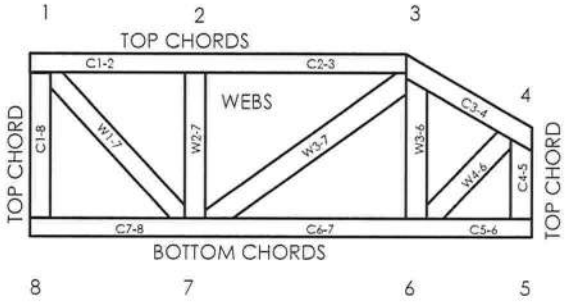
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI1: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ER-5243, 9604B, 9730, 95-43, 96-31, 9667A
NER-487, NER-561
95110, 84-32, 96-67, ER-3907, 9432A

Julius Lee
1109 Coastal Bay Blvd.
Boynton, FL 33435

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI1.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

STEPDOWN CORNER SET

TOP CHORD 2X4 SO. PINE #2 or Better
BOT CHORD 2X4 SO. PINE #2 or Better
WEBS 2X4 SO. PINE #3 or Better

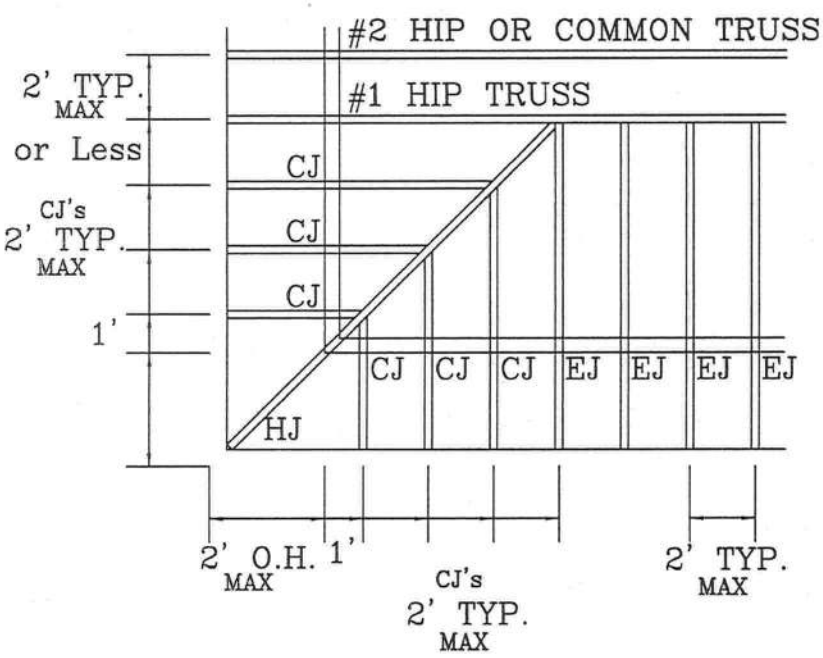
120 MPH MAX

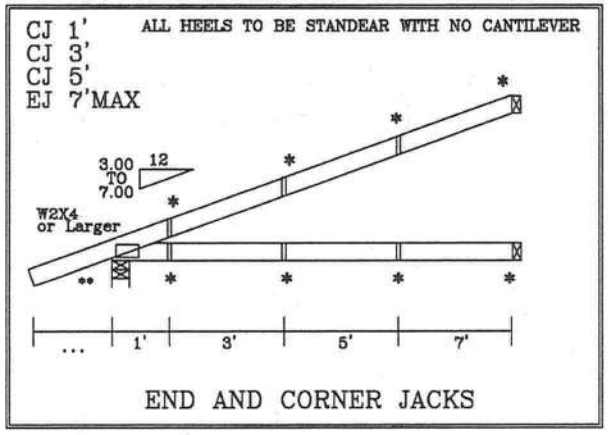
Setback 7' or Less

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED.
UPLIFT: 400# or Less
BRG LOC: *
UPLIFT BASED ON 7.2 PSF TOTAL DEAD LOAD. WIND SPEED=120 "C" MPH. MEAN HGT=28 FT. ENCLOSED. (ASCE 7-02)

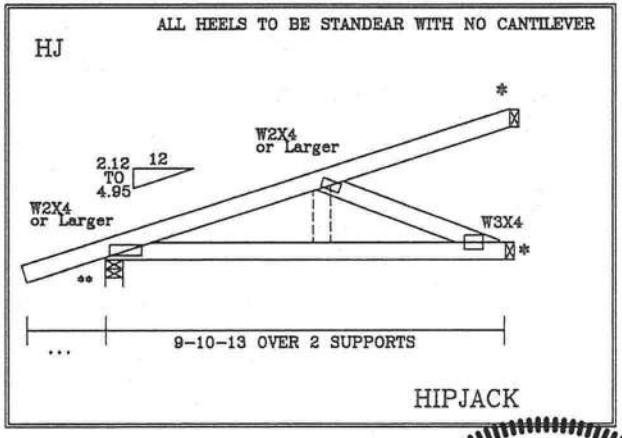
PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED. TILE
UPLIFT: 400# or Less
BRG LOC: *
UPLIFT BASED ON 15.0 PSF TOTAL DEAD LOAD. WIND SPEED=120 "C" MPH. MEAN HGT (of jacks)=28 FT. ENCLOSED. (ASCE 7-02)

PROVIDE UPLIFT CONNECTIONS AT BEARINGS AS INDICATED.
UPLIFT: 400# or Less
BRG LOC: *
UPLIFT BASED ON 7.2 PSF TOTAL DEAD LOAD. WIND SPEED=120 "B" MPH. MEAN HGT (of jacks)=28 FT. ENCLOSED. (ASCE 7-02)





END AND CORNER JACKS



HIPJACK

* (3) 16d TOENAILS

** SEE EOR FOR TIE DOWN

UPLIFT VALUES DO TAKE INTO ACCOUNT PORCHES EXPOSED
BC LIVE LOAD IS NON CONCURRENT 10*

CORNER SET SETBACK
7'0" MAX

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

IMPORTANT FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ALPINE ENGINEERED PRODUCTS, INC., 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. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC BY AF&PA) AND TPI. ALPINE CONNECTOR PLATES ARE MADE OF 20/18/16GA (W,H/S/K) ASTM A653 GRADE 40/60 (W,K/H,S) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z. ANY INSPECTION OF PLATES FOLLOWED BY (I) SHALL BE PER ANNEX A3 OF TPI 1-2002 SEC. 3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER ANSI/TPI 1 SEC. 2.

JULIUS LEE
CONS. ENGINEERS, P.A.
1455 SW 4TH AVENUE
DELRAY BEACH, FL 33444-2131
NO. 34869
STATE OF FLORIDA
PROFESSIONAL ENGINEER

SHINGLE		
TC LL	20	MAX PSF
TC DL	7	MAX PSF
BC LL	10*	MAX PSF
BC DL	5	MAX PSF
TILE		
TC LL	20	MAX PSF
TC DL	20	MAX PSF
BC LL	10*	MAX PSF
BC DL	5	MAX PSF
DUR. FAC.	1.25	
SPACING	2' MAX	

REF	7'MAX STBK CS
DATE	Jun./27/2008
DRWG	
-ENG	

REVIEWED
By julius lee at 10:52 am, Jun 27, 2008

ASCE 7-02: 130 MPH WIND SPEED, 15' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH

2X4 GABLE VERTICAL SPACING	SPECIES	BRACE GRADE	NO BRACES	(1) 1X4 "L" BRACE *		(1) 2X4 "L" BRACE *		(2) 2X4 "L" BRACE **		(1) 2X6 "L" BRACE *		(2) 2X6 "L" BRACE **	
				GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B
24" O.C.	SPF HF	#1 / #2	3' 4"	5' 10"	6' 0"	6' 11"	7' 1"	8' 3"	8' 6"	10' 10"	11' 2"	12' 11"	13' 3"
		#3	3' 3"	4' 11"	4' 11"	6' 6"	6' 6"	8' 3"	8' 3"	10' 1"	10' 1"	12' 11"	12' 11"
		STUD	3' 3"	4' 11"	4' 11"	6' 5"	6' 5"	8' 3"	8' 3"	10' 0"	10' 0"	12' 11"	12' 11"
		STANDARD	3' 3"	4' 2"	4' 2"	5' 6"	5' 6"	7' 5"	7' 5"	8' 8"	8' 8"	11' 5"	11' 5"
	SP DFL	#1	3' 8"	5' 10"	6' 3"	6' 11"	7' 5"	8' 3"	8' 11"	10' 10"	11' 8"	12' 11"	13' 11"
		#2	3' 7"	5' 10"	6' 3"	6' 11"	7' 5"	8' 3"	8' 11"	10' 10"	11' 8"	12' 11"	13' 11"
		#3	3' 6"	5' 0"	5' 0"	6' 8"	6' 8"	8' 3"	8' 8"	10' 4"	10' 4"	12' 11"	13' 7"
		STUD	3' 6"	5' 0"	5' 0"	6' 7"	6' 7"	8' 3"	8' 8"	10' 3"	10' 3"	12' 11"	13' 7"
		STANDARD	3' 4"	4' 3"	4' 3"	5' 8"	5' 8"	7' 8"	7' 8"	8' 10"	8' 10"	12' 0"	12' 0"
16" O.C.	SPF HF	#1 / #2	3' 10"	6' 8"	6' 10"	7' 11"	8' 1"	9' 5"	9' 8"	12' 5"	12' 9"	14' 0"	14' 0"
		#3	3' 9"	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 4"	12' 4"	14' 0"	14' 0"
		STUD	3' 9"	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 4"	12' 4"	14' 0"	14' 0"
		STANDARD	3' 9"	5' 2"	5' 2"	6' 10"	6' 10"	9' 2"	9' 2"	10' 7"	10' 7"	14' 0"	14' 0"
	SP DFL	#1	4' 3"	8' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"	14' 0"	14' 0"
		#2	4' 2"	8' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"	14' 0"	14' 0"
		#3	4' 0"	6' 2"	6' 2"	7' 11"	8' 2"	9' 5"	9' 11"	12' 5"	12' 8"	14' 0"	14' 0"
		STUD	4' 0"	6' 1"	6' 1"	7' 11"	8' 1"	9' 5"	9' 11"	12' 5"	12' 8"	14' 0"	14' 0"
		STANDARD	3' 10"	5' 3"	5' 3"	6' 11"	6' 11"	9' 4"	9' 4"	10' 10"	10' 10"	14' 0"	14' 0"
12" O.C.	SPF HF	#1 / #2	4' 3"	7' 4"	7' 7"	8' 9"	8' 11"	10' 5"	10' 8"	13' 8"	14' 0"	14' 0"	14' 0"
		#3	4' 2"	6' 11"	6' 11"	8' 9"	8' 9"	10' 5"	10' 5"	13' 8"	13' 8"	14' 0"	14' 0"
		STUD	4' 2"	6' 11"	6' 11"	8' 9"	8' 9"	10' 5"	10' 5"	13' 8"	13' 8"	14' 0"	14' 0"
		STANDARD	4' 2"	6' 11"	6' 11"	7' 10"	7' 10"	10' 5"	10' 5"	12' 3"	12' 3"	14' 0"	14' 0"
	SP DFL	#1	4' 8"	7' 4"	7' 11"	8' 9"	8' 9"	10' 5"	11' 2"	13' 8"	14' 0"	14' 0"	14' 0"
		#2	4' 7"	7' 4"	7' 11"	8' 9"	9' 5"	10' 5"	11' 2"	13' 8"	14' 0"	14' 0"	14' 0"
		#3	4' 4"	7' 2"	7' 2"	8' 9"	9' 2"	10' 5"	10' 11"	13' 5"	14' 0"	14' 0"	14' 0"
		STUD	4' 4"	7' 1"	7' 1"	8' 9"	9' 2"	10' 5"	10' 11"	13' 8"	14' 0"	14' 0"	14' 0"
		STANDARD	4' 3"	6' 1"	6' 1"	8' 0"	8' 0"	10' 5"	10' 8"	12' 6"	12' 6"	14' 0"	14' 0"

BRACING GROUP SPECIES AND GRADES:

GROUP A:

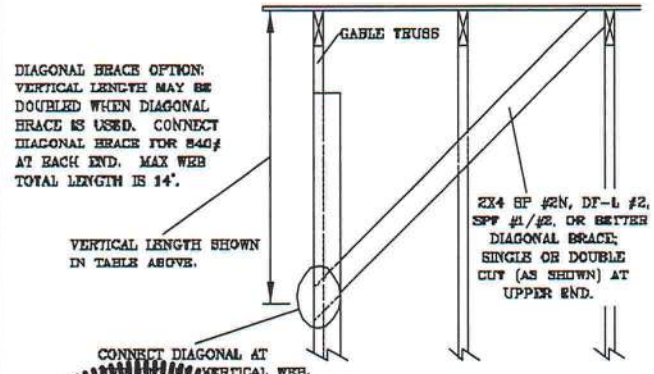
SPRUCE-PINE-FIR		HEM-FIR	
#1 / #2	STANDARD	#2	STUD
#3	STUD	#3	STANDARD

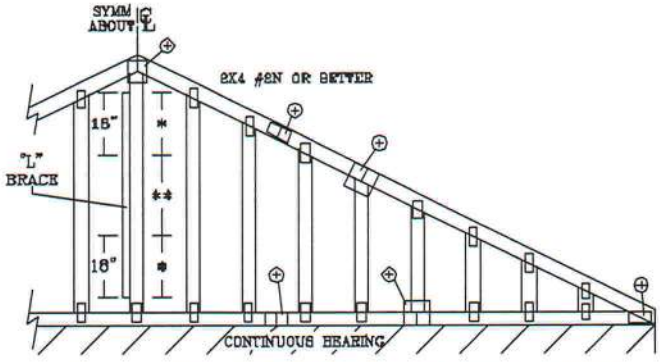
DOUGLAS FIR-LARCH	SOUTHERN PINE
#3	#3
STUD	STUD
STANDARD	STANDARD

GROUP B:

HEM-FIR
#1 & BTR
#1

SOUTHERN PINE	DOUGLAS FIR-LARCH
#1	#1
#2	#2





REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 136 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 16" END ZONES AND 4" O.C. BETWEEN ZONES.
** FOR (2) "L" BRACES: SPACE NAILS AT 3" O.C. IN 16" 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' 8"	2X4
GREATER THAN 11' 8"	2.5X4

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

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 12:00 pm, Jun 11, 2008

JULIUS LEE'S CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF ASCE7-02-GAB13015
DATE 11/26/03
DRWG MITEK STD GABLE 15 E HT
-ENG

ASCE 7-02: 130 MPH WIND SPEED, 30' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH

2X4 GABLE VERTICAL SPACING	SPECIES	BRACE GRADE	NO BRACES	(1) 1X4 "L" BRACE *		(1) 2X4 "L" BRACE *		(2) 2X4 "L" BRACE **		(1) 2X6 "L" BRACE *		(2) 2X6 "L" BRACE **	
				GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B
24" O.C.	SPF HF	#1 / #2	3' 2"	5' 6"	5' 6"	6' 6"	6' 9"	7' 10"	8' 0"	10' 3"	10' 7"	12' 3"	12' 7"
		#3	3' 1"	4' 5"	4' 5"	5' 10"	5' 10"	7' 10"	7' 10"	9' 1"	9' 1"	12' 3"	12' 3"
		STUD	3' 1"	4' 5"	4' 5"	5' 10"	5' 10"	7' 10"	7' 10"	9' 1"	9' 1"	12' 3"	12' 3"
		STANDARD	2' 11"	3' 9"	3' 9"	5' 0"	5' 0"	6' 9"	6' 9"	7' 10"	7' 10"	10' 7"	10' 7"
	SP DFL	#1	3' 6"	5' 8"	5' 11"	6' 8"	7' 0"	7' 10"	8' 5"	10' 3"	11' 1"	12' 3"	13' 2"
		#2	3' 5"	5' 6"	5' 11"	6' 6"	7' 0"	7' 10"	8' 5"	10' 3"	11' 1"	12' 3"	13' 2"
		#3	3' 3"	4' 6"	4' 6"	6' 0"	6' 0"	7' 10"	8' 1"	9' 4"	9' 4"	12' 3"	12' 6"
		STUD	3' 3"	4' 6"	4' 6"	5' 11"	5' 11"	7' 10"	8' 0"	9' 3"	9' 3"	12' 3"	12' 6"
		STANDARD	3' 0"	3' 10"	3' 10"	5' 1"	5' 1"	6' 11"	6' 11"	8' 0"	8' 0"	10' 10"	10' 10"
16" O.C.	SPF HF	#1 / #2	3' 8"	6' 4"	6' 6"	7' 6"	7' 8"	8' 11"	9' 2"	11' 9"	12' 1"	14' 0"	14' 0"
		#3	3' 7"	5' 5"	5' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 2"	11' 2"	14' 0"	14' 0"
		STUD	3' 7"	5' 5"	5' 5"	7' 2"	7' 2"	8' 11"	8' 11"	11' 1"	11' 1"	14' 0"	14' 0"
		STANDARD	3' 7"	4' 8"	4' 8"	6' 2"	6' 2"	8' 3"	8' 3"	9' 7"	9' 7"	12' 11"	12' 11"
	SP DFL	#1	4' 0"	6' 4"	6' 10"	7' 8"	8' 1"	8' 11"	9' 7"	11' 9"	12' 8"	14' 0"	14' 0"
		#2	3' 11"	6' 4"	6' 10"	7' 8"	8' 1"	8' 11"	9' 7"	11' 9"	12' 8"	14' 0"	14' 0"
		#3	3' 9"	5' 7"	5' 7"	7' 4"	7' 4"	8' 11"	8' 5"	11' 5"	11' 5"	14' 0"	14' 0"
		STUD	3' 9"	5' 6"	5' 6"	7' 3"	7' 3"	8' 11"	8' 5"	11' 4"	11' 4"	14' 0"	14' 0"
		STANDARD	3' 8"	4' 9"	4' 9"	6' 3"	6' 3"	8' 5"	8' 5"	9' 9"	9' 9"	13' 3"	13' 3"
12" O.C.	SPF HF	#1 / #2	4' 0"	6' 11"	7' 2"	8' 5"	8' 6"	9' 10"	10' 1"	12' 11"	13' 4"	14' 0"	14' 0"
		#3	3' 11"	6' 3"	6' 3"	8' 3"	8' 3"	9' 10"	9' 10"	12' 11"	12' 11"	14' 0"	14' 0"
		STUD	3' 11"	6' 3"	6' 3"	8' 3"	8' 3"	9' 10"	9' 10"	12' 10"	12' 10"	14' 0"	14' 0"
		STANDARD	3' 11"	5' 4"	5' 4"	7' 1"	7' 1"	9' 6"	9' 6"	11' 1"	11' 1"	14' 0"	14' 0"
	SP DFL	#1	4' 5"	6' 11"	7' 6"	8' 3"	8' 11"	9' 10"	10' 7"	12' 11"	13' 11"	14' 0"	14' 0"
		#2	4' 4"	6' 11"	7' 6"	8' 3"	8' 11"	9' 10"	10' 7"	12' 11"	13' 11"	14' 0"	14' 0"
		#3	4' 2"	6' 6"	6' 5"	8' 3"	8' 6"	9' 10"	10' 4"	12' 11"	13' 3"	14' 0"	14' 0"
		STUD	4' 2"	6' 4"	6' 4"	8' 3"	8' 5"	9' 10"	10' 4"	12' 11"	13' 1"	14' 0"	14' 0"
		STANDARD	4' 0"	5' 6"	5' 6"	7' 3"	7' 3"	9' 9"	9' 9"	11' 4"	11' 4"	14' 0"	14' 0"

BRACING GROUP SPECIES AND GRADES:

GROUP A:

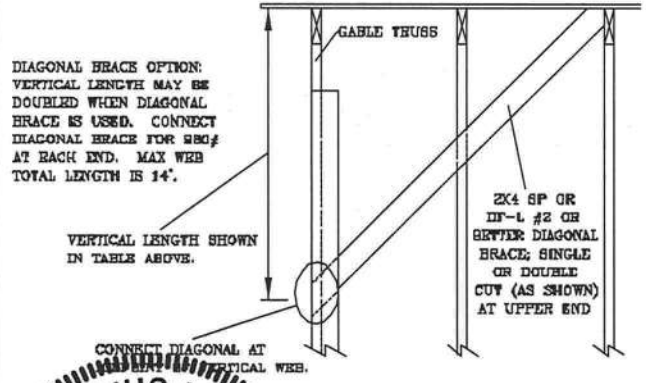
SPRUCE-PINE-FIR		HEM-FIR	
#1 / #2	STANDARD	#2	STUD
#3	STUD	#3	STANDARD

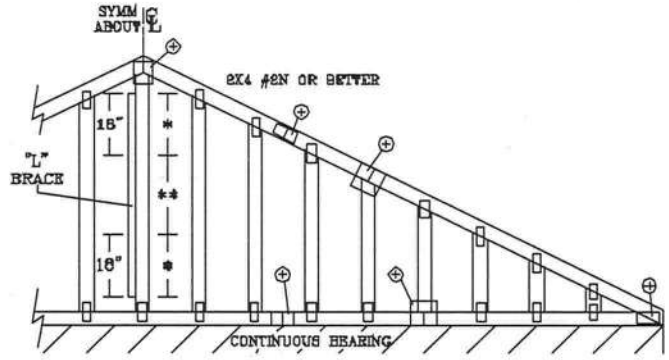
DOUGLAS FIR-LARCH	SOUTHERN PINE
#3	#3
STUD	STUD
STANDARD	STANDARD

GROUP B:

HEM-FIR
#1 & BTR
#1

SOUTHERN PINE	DOUGLAS FIR-LARCH
#1	#1
#2	#2





REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 180 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"	2X4
GREATER THAN 11' 6"	2.5X4

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

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 12:00 pm, Jun 11, 2008

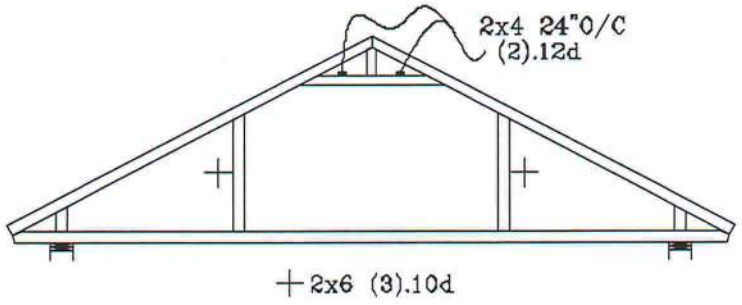
JULIUS LEE'S CONS. ENGINEERS P.A.
1456 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161
No: 34869
STATE OF FLORIDA

MAX. TOT. LD. 60 PSF

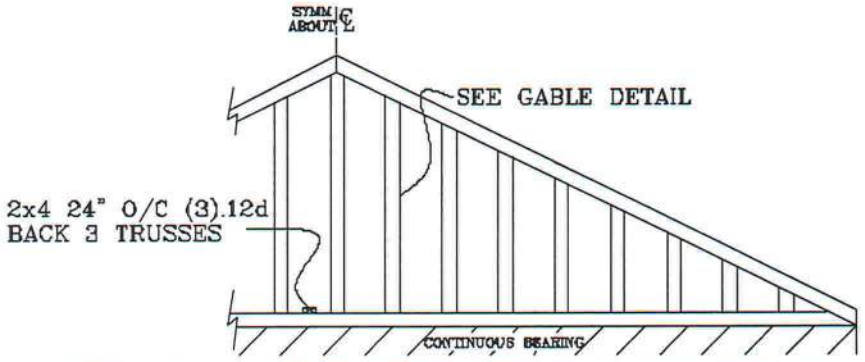
MAX. SPACING 24.0"

REF ASCE7-02-GAB13030
DATE 11/26/03
DWG MWFRS 9WD GABLE 30' E MT
-ENG

TYPICAL ATTIC TRUSS BRACING

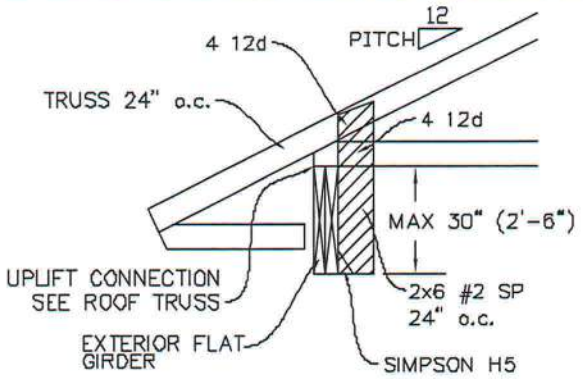


GABLE END TRUSS DETAIL

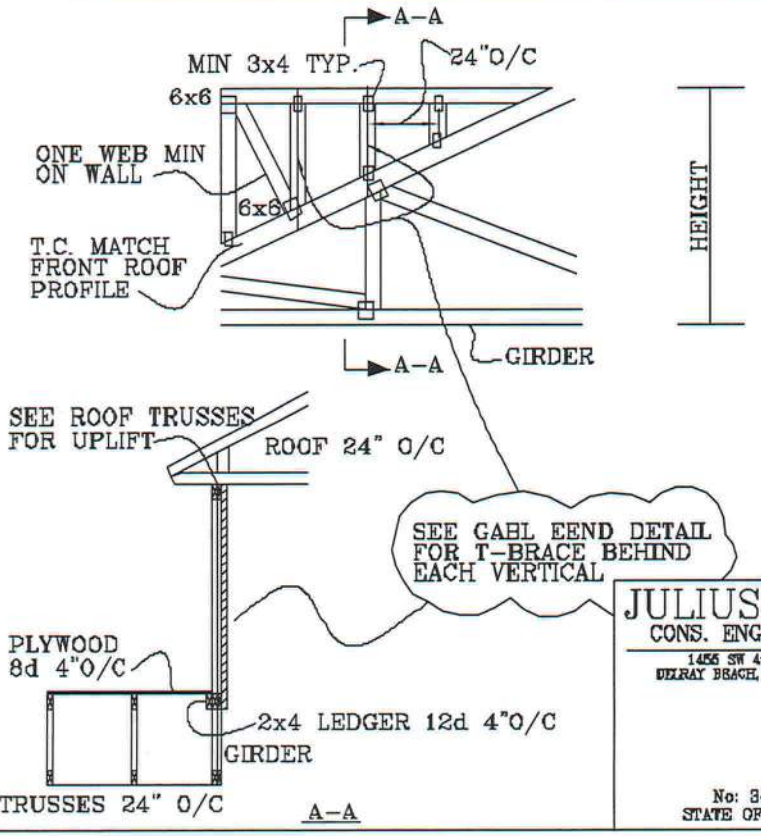


MINIMUM BC BRACING ON GABLE TRUSS. OTHER PERMANENT BRACING DESIGNS BY ARCHITECT OR EOR

TYPICAL ALTERNATE BRACING DETAIL FOR EXTERIOR FLAT GIRDER TRUSS



TYPICAL WALL GIRDER VERTICAL WEB BRACING DETAIL



REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE
LICENSE
NO. 34869
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

PIGGYBACK DETAIL

TOP CHORD 2X4 #2 OR BETTER
BOT CHORD 2X4 #2 OR BETTER
WEBS 2X4 #3 OR BETTER

REFER TO SEALED DESIGN FOR DASHED PLATES.

SPACE PIGGYBACK VERTICALS AT 4' OC MAX.

TOP AND BOTTOM CHORD SPLICES MUST BE STAGGERED SO THAT ONE SPLICE IS NOT DIRECTLY OVER ANOTHER.

PIGGYBACK BOTTOM CHORD MAY BE OMITTED. ATTACH VERTICAL WEBS TO TRUSS TOP CHORD WITH 1.5X3 PLATE.

ATTACH PURLINS TO TOP OF FLAT TOP CHORD. IF PIGGYBACK IS SOLID LUMBER OR THE BOTTOM CHORD IS OMITTED, PURLINS MAY BE APPLIED BENEATH THE TOP CHORD OF SUPPORTING TRUSS.

REFER TO ENGINEER'S SEALED DESIGN FOR REQUIRED PURLIN SPACING.

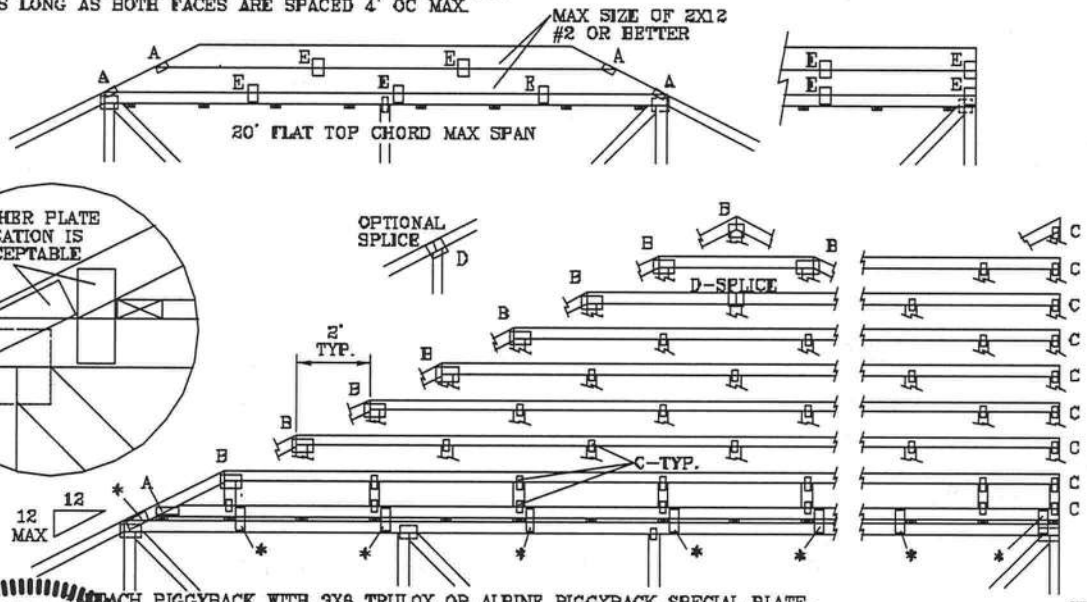
THIS DETAIL IS APPLICABLE FOR THE FOLLOWING WIND CONDITIONS:

110 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, 1 MI FROM COAST CAT I, EXP C, WIND TC DL=5 PSF, WIND BC DL=5 PSF

110 MPH WIND, 30' MEAN HGT, FBC ENCLOSED BLDG, LOCATED ANYWHERE IN ROOF WIND TC DL=5 PSF, WIND BC DL=5 PSF

130 MPH WIND, 30' MEAN HGT, ASCE 7-02, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II, EXP. C, WIND TC DL=5 PSF, WIND BC DL=5 PSF

FRONT FACE (E,*) PLATES MAY BE OFFSET FROM BACK FACE PLATES AS LONG AS BOTH FACES ARE SPACED 4' OC MAX.



ATTACH PIGGYBACK WITH 3X8 TRULOX OR ALPINE PIGGYBACK SPECIAL PLATE.

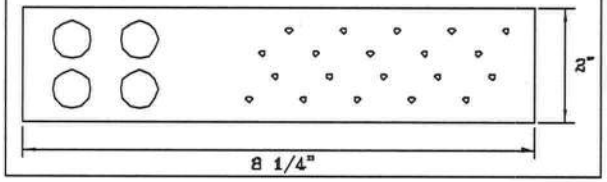
JOINT TYPE	SPANS UP TO			
	30'	34'	38'	52'
A	2X4	2.5X4	2.5X4	3X5
B	4X8	5X8	5X8	5X8
C	1.5X3	1.5X4	1.5X4	1.5X4
D	5X4	5X5	5X5	5X8
E	4X8 OR 3X8 TRULOX AT 4' OC, ROTATED VERTICALLY			

ATTACH TRULOX PLATES WITH (8) 0.120" X 1.375" NAILS, OR EQUAL, PER FACE PER PLY. (4) NAILS IN EACH MEMBER TO BE CONNECTED. REFER TO DRAWING 160 TL FOR TRULOX INFORMATION.

WEB BRACING CHART	
WEB LENGTH	REQUIRED BRACING
0' TO 7'9"	NO BRACING
7'9" TO 10'	1x4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 8d NAILS AT 4" OC.
10' TO 14'	2x4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 16d NAILS AT 4" OC.

* PIGGYBACK SPECIAL PLATE

ATTACH TEETH TO THE PIGGYBACK AT THE TIME OF FABRICATION. ATTACH TO SUPPORTING TRUSS WITH (4) 0.120" X 1.375" NAILS PER FACE PER PLY. APPLY PIGGYBACK SPECIAL PLATE TO EACH TRUSS FACE AND SPACE 4' OC OR LESS.



THIS DRAWING REPLACES DRAWINGS 634,016 634,017 & 647,045

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1450 SW 4th AVENUE
DELRAY BEACH, FL. 33444-2161

No: 34869
STATE OF FLORIDA

MAX LOADING
55 PSF AT 1.33 DUR. FAC.
50 PSF AT 1.25 DUR. FAC.
47 PSF AT 1.15 DUR. FAC.
SPACING 24.0"

REF PIGGYBACK
DATE 09/12/07
DRWG MITEK STD PIGGY
-ENG JL

VALLEY TRUSS DETAIL

TOP CHORD 2X4 SP #2 OR SPF #1/#2 OR BETTER.
BOT CHORD 2X3(*) OR 2X4 SP #2N OR SPF #1/#2 OR BETTER.
WEBS 2X4 SP #3 OR BETTER.

* 2X3 MAY BE RIPPED FROM A 2X6 (PITCHED OR SQUARE).

** ATTACH EACH VALLEY TO EVERY SUPPORTING TRUSS WITH: (2) 16d BOX (0.135" X 3.5") NAILS TOE-NAILED FOR FBC 2004 110 MPH, ASCE 7-02 110 MPH WIND OR (3) 16d FOR ASCE 7-02 130 MPH WIND. 15' MEAN HEIGHT, ENCLOSED BUILDING, EXP. C, RESIDENTIAL, WIND TC DL=5 PSF.

UNLESS SPECIFIED ON ENGINEER'S SEALED DESIGN, APPLY 1X4 "T"-BRACE, 80% LENGTH OF WEB, VALLEY WEB, SAME SPECIES AND GRADE OR BETTER, ATTACHED WITH 8d BOX (0.113" X 2.5") NAILS AT 6" OC, OR CONTINUOUS LATERAL BRACING, EQUALLY SPACED, FOR VERTICAL VALLEY WEBS GREATER THAN 7'9".

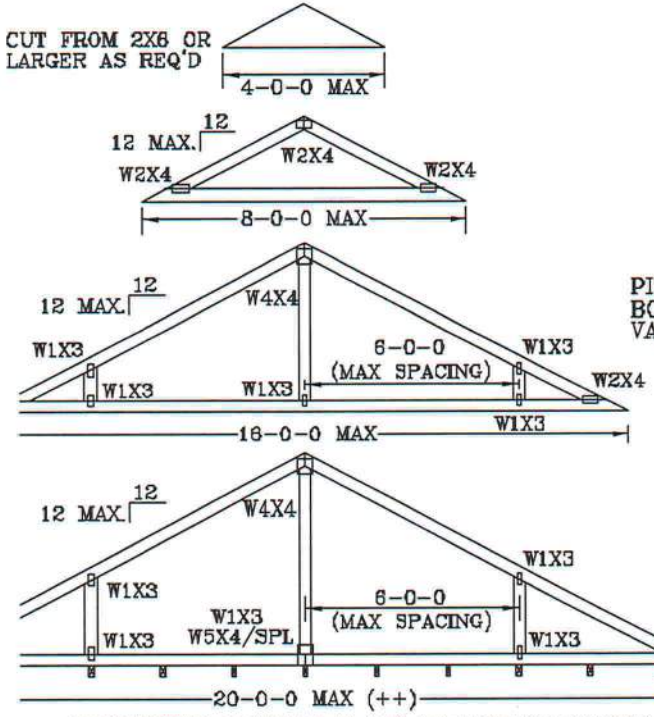
MAXIMUM VALLEY VERTICAL HEIGHT MAY NOT EXCEED 12'0".

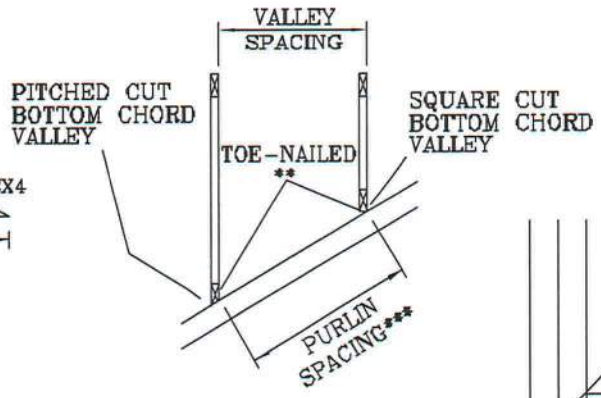
TOP CHORD OF TRUSS BENEATH VALLEY SET MUST BE BRACED WITH:
PROPERLY ATTACHED, RATED SHEATHING APPLIED PRIOR TO VALLEY TRUSS INSTALLATION
OR
PURLINS AT 24" OC OR AS OTHERWISE SPECIFIED ON ENGINEERS' SEALED DESIGN
OR
BY VALLEY TRUSSES USED IN LIEU OF PURLIN SPACING AS SPECIFIED ON ENGINEERS' SEALED DESIGN.

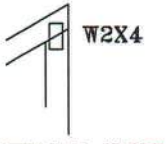
*** NOTE THAT THE PURLIN SPACING FOR BRACING THE TOP CHORD OF THE TRUSS BENEATH THE VALLEY IS MEASURED ALONG THE SLOPE OF THE TOP CHORD.

++ LARGER SPANS MAY BE BUILT AS LONG AS THE VERTICAL HEIGHT DOES NOT EXCEED 12'0".

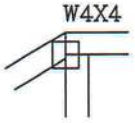
BOTTOM CHORD MAY BE SQUARE OR PITCHED CUT AS SHOWN.



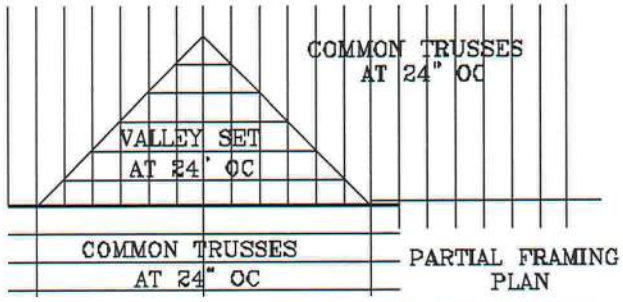




OPTIONAL STUB END DETAIL



OPTIONAL HIP JOINT DETAIL



PARTIAL FRAMING PLAN

SUPPORTING TRUSSES AT 24" OC MAXIMUM SPACING.

THIS DRAWING REPLACES DRAWING A105

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL. 33444-2161

No: 34869
STATE OF FLORIDA

TC LL	20	20	PSF	REF VALLEY DETAIL
TC DL	7	15	PSF	DATE 11/26/03
BC DL	5	5	PSF	DRWG VALTRUSS1103
BC LL	0	0	PSF	-ENG JL
TOT. LD.	32	40	PSF	
DURFAC.	1.25	1.25		
SPACING		24"		

TOE-NAIL DETAIL

TOE-NAILS TO BE DRIVEN AT AN ANGLE OF APPROXIMATELY THIRTY DEGREES WITH THE PIECE AND STARTED APPROXIMATELY ONE-THIRD THE LENGTH OF THE NAIL FROM THE END OF THE MEMBER.

PER ANSI/AF&PA NDS-2001 SECTION 12.4.1 - EDGE DISTANCE, END DISTANCE, SPACING: "EDGE DISTANCES, END DISTANCES AND SPACINGS FOR NAILS AND SPIKES SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD."

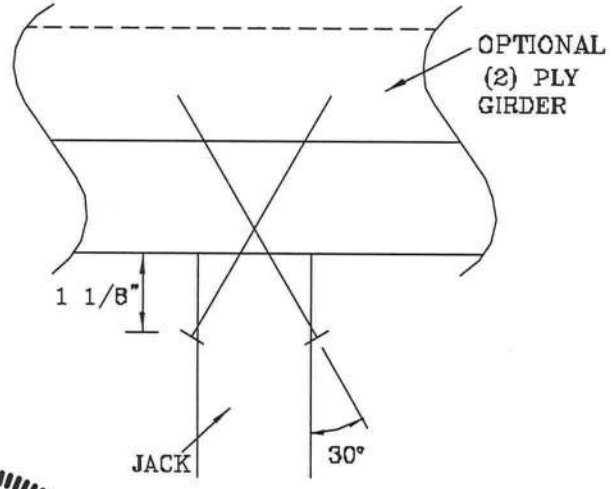
THE NUMBER OF TOE-NAILS TO BE USED IN A SPECIFIC APPLICATION IS DEPENDENT UPON PROPERTIES FOR THE CHORD SIZE, LUMBER SPECIES, AND NAIL TYPE. PROPER CONSTRUCTION PRACTICES AS WELL AS GOOD JUDGEMENT SHOULD DETERMINE THE NUMBER OF NAILS TO BE USED.

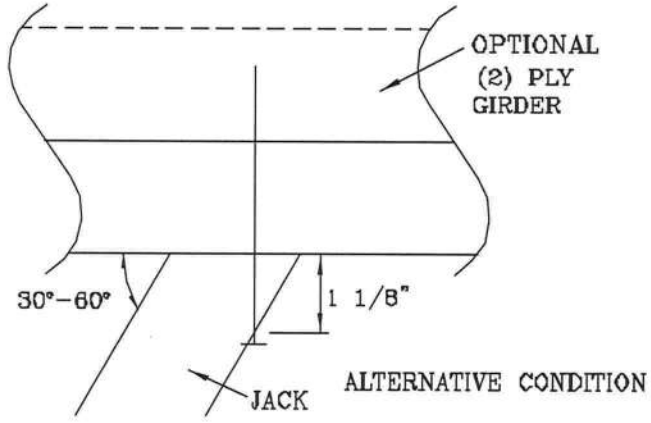
THIS DETAIL DISPLAYS A TOE-NAILED CONNECTION FOR JACK FRAMING INTO A SINGLE OR DOUBLE PLY SUPPORTING GIRDER.

MAXIMUM VERTICAL RESISTANCE OF 16d (0.162"X3.5") COMMON TOE-NAILS

NUMBER OF TOE-NAILS	SOUTHERN PINE		DOUGLAS FIR-LARCH		HEM-FIR		SPRUCE PINE FIR	
	1 PLY	2 PLIES	1 PLY	2 PLIES	1 PLY	2 PLIES	1 PLY	2 PLIES
2	197#	256#	181#	234#	156#	203#	154#	199#
3	296#	383#	271#	351#	234#	304#	230#	298#
4	394#	511#	361#	468#	312#	406#	307#	397#
5	493#	639#	452#	585#	390#	507#	384#	496#

ALL VALUES MAY BE MULTIPLIED BY APPROPRIATE DURATION OF LOAD FACTOR.





ALTERNATIVE CONDITION

THIS DRAWING REPLACES DRAWING 784040

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR, SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

TC LL	PSF	REF	TOE-NAIL
TC DL	PSF	DATE	09/12/07
BC DL	PSF	DRWG	CNTONAIL1103
BC LL	PSF	-ENG	JL
TOT. LD.	PSF		
DUR. FAC.	1.00		
SPACING			

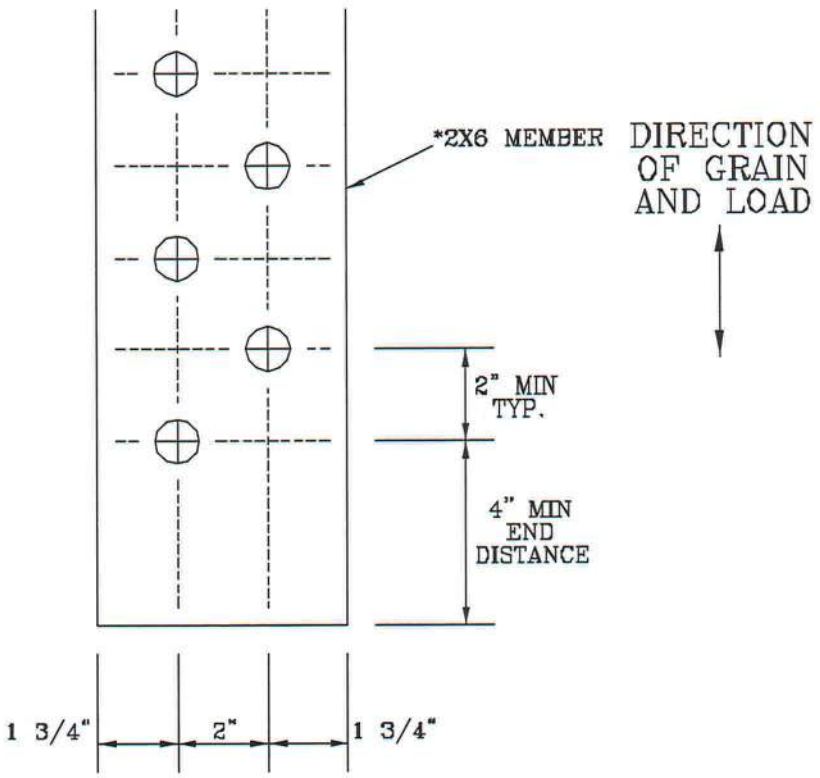
1/2" DIAMETER BOLT SPACING FOR LOAD APPLIED PARALLEL TO GRAIN.

* GRADE AND SPECIES AS SPECIFIED ON THE ALPINE DESIGN.

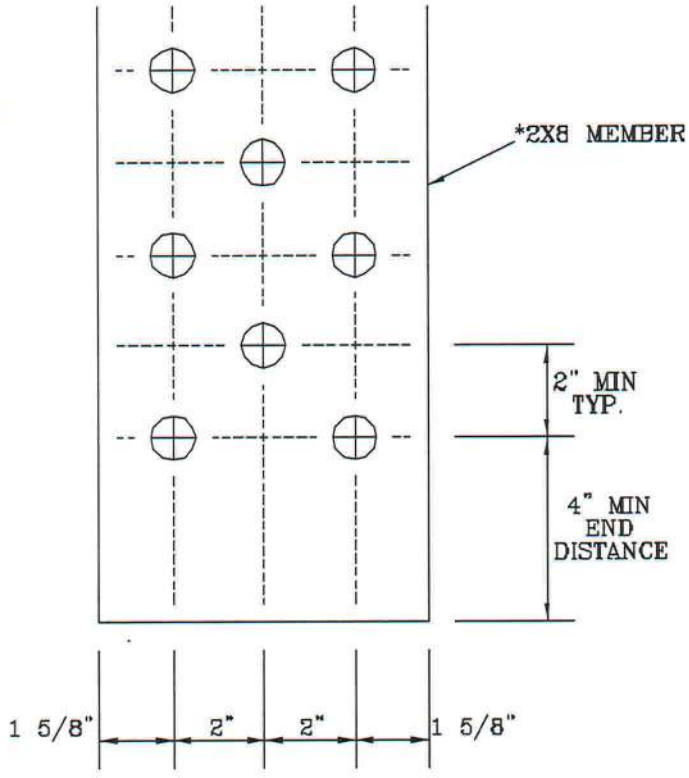
BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN BOLT DIAMETER.

TYPICAL LOCATION OF 1/2" DIAMETER THRU BOLTS. BOLT QUANTITIES AS NOTED ON SEALED DESIGN MUST BE APPLIED IN ONE OF THE PATTERNS SHOWN BELOW.

WASHERS REQUIRED UNDER BOLT HEAD AND NUT



2X6 DETAIL



2X8 DETAIL

THIS DRAWING REPLACES DRAWING A628,016

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

WARNING== TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR., SUITE 200, MADISON, WI. 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

REVIEWED
By julius lee at 11:59 am, Jun 11, 2008

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

TC LL	PSF	REF BOLT SPACING
TC DL	PSF	DATE 11/26/03
BC DL	PSF	DRWG CNBOLTSP1103
BC LL	PSF	-ENG JL
TOT. LD.	PSF	
DUR. FAC.		
SPACING		

TRULOX CONNECTION DETAIL

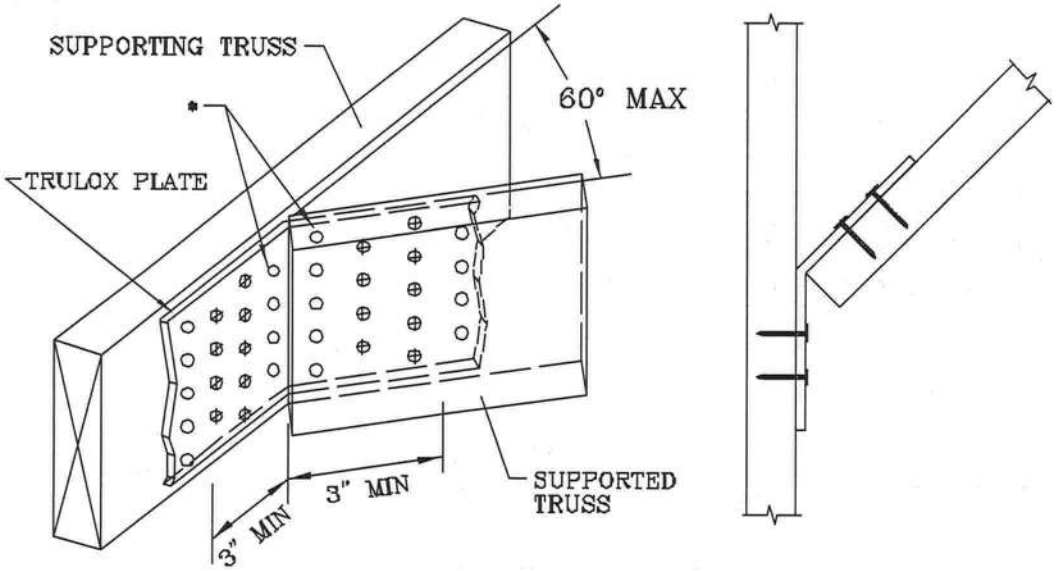
11 GAUGE (0.120" X 1.375") NAILS REQUIRED FOR TRULOX PLATE ATTACHMENT. FILL ROWS COMPLETELY WHERE SHOWN (⊕).

* NAILS MAY BE OMITTED FROM THESE ROWS.

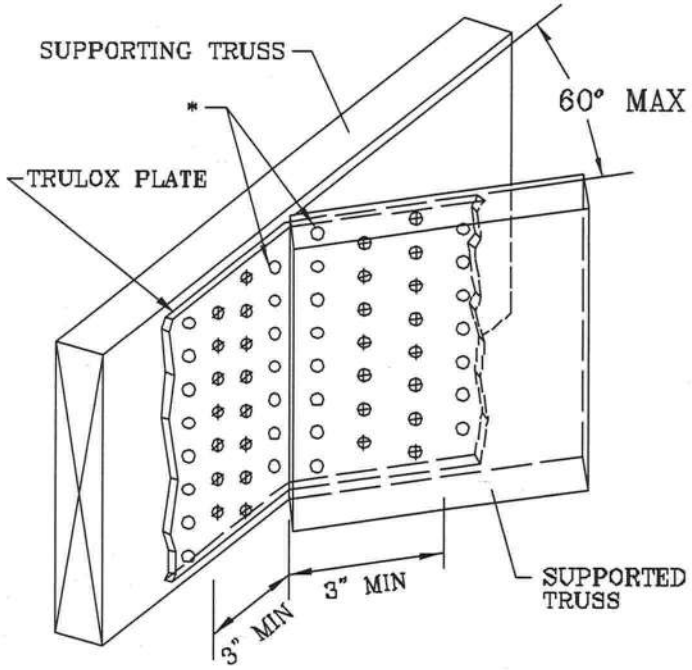
THIS DETAIL MAY BE USED WITH SO. PINE, DOUGLAS-FIR OR HEM-FIR CHORDS WITH A MINIMUM 1.00 DURATION OF LOAD OR SPRUCE-PINE-FIR CHORDS WITH A MINIMUM 1.15 DURATION OF LOAD. CHORD SIZE OF BOTH TRUSSES MUST EXCEED THE TRULOX PLATE WIDTH.

TRULOX PLATE IS CENTERED ON THE CHORDS AND BENT BETWEEN NAIL ROWS.

REFER TO ENGINEER'S SEALED DESIGN REFERENCING THIS DETAIL FOR LUMBER, PLATES, AND OTHER INFORMATION NOT SHOWN.



MINIMUM 3X6 TRULOX PLATE



MINIMUM 5X6 TRULOX PLATE

TRULOX PLATE SIZE	REQUIRED NAILS PER TRUSS	MAXIMUM LOAD UP OR DOWN
3X6	9	350#
5X6	15	990#

REVIEWED
By julius lee at 11:58 am, Jun 11, 2008

JULIUS LEE LICENSE NO. 34869 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS DRAWING REPLACES DRAWINGS 1,158,989 1,158,989/R 1,154,944 1,152,217 1,152,017 1,159,154 & 1,151,524

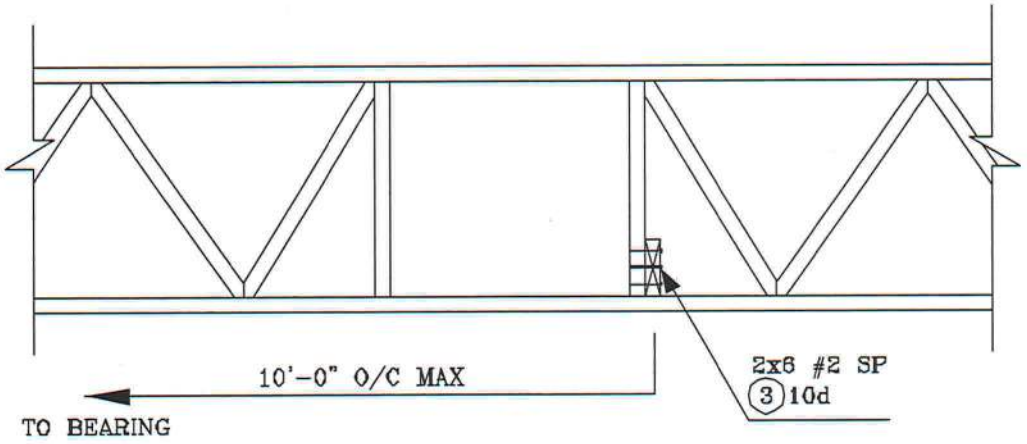
WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI 1-03 (BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 583 D'ONOFRIO DR, SUITE 200, MADISON, WI 53719) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

JULIUS LEE'S
CONS. ENGINEERS P.A.
1455 SW 4th AVENUE
DELRAY BEACH, FL. 33444-2151

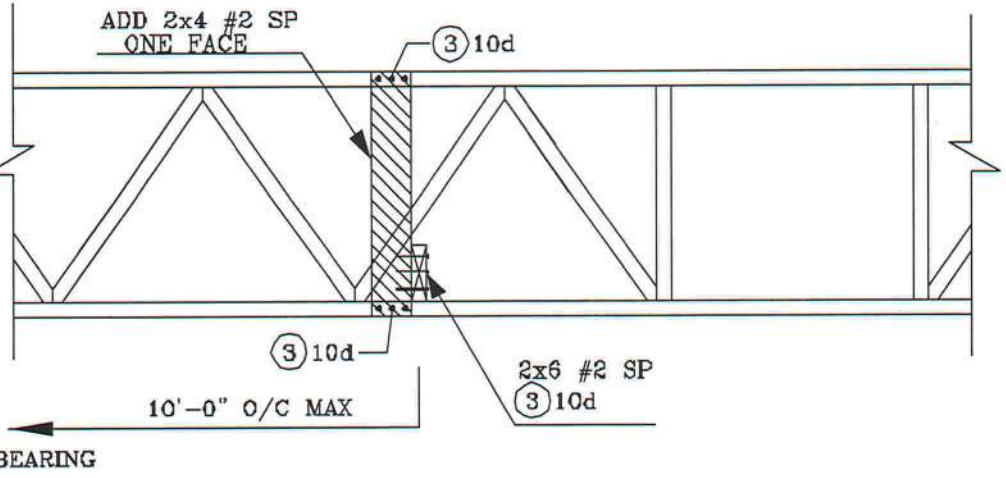
No: 34869
STATE OF FLORIDA

REF	TRULOX
DATE	11/26/03
DRWG	CNTRULOX1103
-ENG	JL

STRONG BACK DETAIL
SYSTEM-42 OR FLAT TRUSS



ALTERNATE DETAIL FOR
STRONG BACK WITH VERTICAL
NOT LINING UP



REVIEWED
By julius lee at 11:58 am, Jun 11, 2008

JULIUS LEE
LICENSE
NO. 34869
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FLORIDA
PROFESSIONAL ENGINEER

JULIUS LEE'S
CONS. ENGINEERS P.A.
1456 SW 4th AVENUE
DELRAY BEACH, FL 33444-2161

No: 34869
STATE OF FLORIDA

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Maximum Uniform Load Applied to Either Outside Member (PLF)

Connector Type	Number of Rows	Connector On-Center Spacing	Connector Pattern					
			Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
			3½" 2-ply	5¼" 3-ply	5¼" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail[1]	2	12"	370	***280***	280	***245***		
	3	12"	555	***415***	415	***370***		
½" A307 Through Bolts[2][4]	2	24"	505	380	520	465	860	340
		19.2"	635	475	655	580	1,075	425
		16"	760	570	785	695	1,290	505
SDS ¼" x 3½"[4]	2	24"	680	***510***	510	***455***		
		19.2"	850	***640***	640	***565***		
		16"	1,020	***765***	765	***680***		
SDS ¼" x 6"[3][4]	2	24"				***455***	***465***	***455***
		19.2"				***565***	***580***	***565***
		16"				***680***	***695***	***680***
USP WS35[4]	2	24"	480	***360***	360	***320***		
		19.2"	600	***450***	450	***400***		
		16"	715	***540***	540	***480***		
USP WS6[3][4]	2	24"				***350***	***525***	***350***
		19.2"				***440***	***660***	***440***
		16"				***525***	***790***	***525***
3⅜" TrussLok[4]	2	24"	635	***475***	475	***425***		
		19.2"	795	***595***	595	***530***		
		16"	955	***715***	715	***635***		
5" TrussLok[4]	2	24"		***500***	500	***445***	***480***	***445***
		19.2"		***625***	625	***555***	***600***	***555***
		16"		***750***	750	***665***	***725***	***665***
6¾" TrussLok[4]	2	24"				445	620	445
		19.2"				555	770	555
		16"				665	925	665

(1) Nailed connection values may be doubled for 6" on-center or tripled for 4" on-center nail spacing.

(2) Washers required. Bolt holes to be 9/16" maximum.

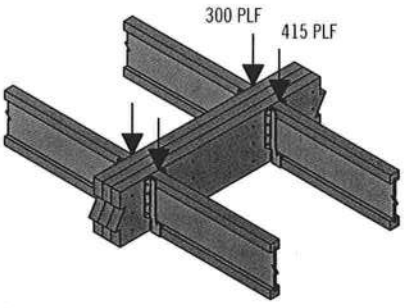
(3) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.

(4) 24" on-center bolted and screwed connection values may be doubled for 12" on-center spacing.

General Notes

- Connections are based on NDS® 2005 or manufacturer's code report.
- Use specific gravity of 0.5 when designing lateral connections.
- Values listed are for 100% stress level. Increase 15% for snow-loaded roof conditions or 25% for non-snow roof conditions, where code allows.
- ***Bold Italic*** cells indicate **Connector Pattern** must be installed on both sides. Stagger fasteners on opposite side of beam by ½ the required **Connector Spacing**.
- Verify adequacy of beam in allowable load tables on pages 16–33.
- 7" wide beams should be side-loaded only when loads are applied to both sides of the members (to minimize rotation).
- Minimum end distance for bolts and screws is 6".
- Beams wider than 7" require special consideration by the design professional.

Uniform Load Design Example

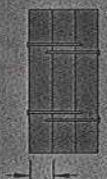
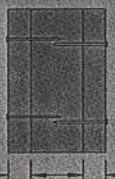
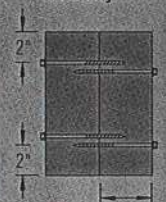
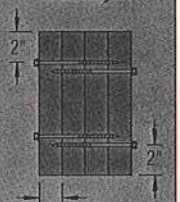


First, check the allowable load tables on pages 16–33 to verify that three pieces can carry the total load of 715 plf with proper live load deflection criteria. Maximum load applied to either outside member is 415 plf. For a 3-ply 1¾" assembly, two rows of 10d (0.128" x 3") nails at 12" on-center is good for only 280 plf. Therefore, use three rows of 10d (0.128" x 3") nails at 12" on-center (good for 415 plf).

Alternates:
Two rows of ½" bolts or SDS ¼" x 3½" screws at 19.2" on-center.

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

Point Load—Maximum Point Load Applied to Either Outside Member (lbs)

Connector Type	Number of Connectors	Connector Pattern: Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
							
		3½" 2-ply	5¼" 3-ply	5¼" 2-ply	7" 3-ply	7" 2-ply	7" 4-ply
10d (0.128" x 3") Nail	6	1,110	*835*	835	*740*		
	12	2,225	*1,670*	1,670	*1,485*		
	18	3,335	*2,505*	2,505	*2,225*		
	24	4,450	*3,335*	3,335	*2,965*		
SDS Screws ¼" x 3½" or WS35 ¼" x 6" or WS6(1)	4	1,915	1,435(4)	1,435	*1,275*	*1,860(2)*	*1,405(2)*
	6	2,870	2,150 (4)	2,150	*1,915*	*2,785(2)*	*2,110(2)*
	8	3,825	2,870 (4)	2,870	*2,550*	*3,715(2)*	*2,810(2)*
3⅜" or 5" TrussLok™	4	2,545	1,910 (4)	1,910	*1,695*	*1,925(3)*	*1,775(3)*
	6	3,815	2,860 (4)	2,860	*2,545*	*2,890(3)*	*2,665(3)*
	8	5,090	3,815 (4)	3,815	*3,390*	*3,855(3)*	*3,550(3)*

(1) 6" SDS or WS screws can be used with Parallam® PSL and Microllam® LVL, but are not recommended for TimberStrand® LSL.

See General Notes on page 38

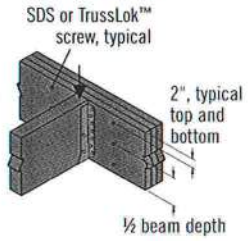
(2) 6" long screws required.

(3) 5" long screws required.

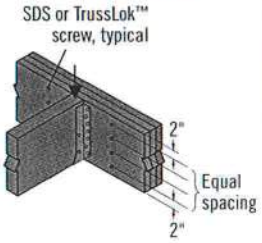
(4) 3½" and 3⅜" long screws must be installed on both sides.

Connections

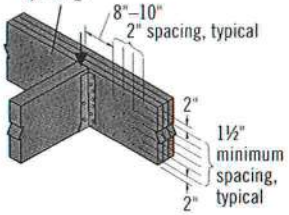
4 or 6 or Screw Connection



8 Screw Connection

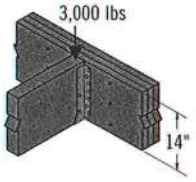


Nail Connection



There must be an equal number of nails on each side of the connection

Point Load Design Example



First, verify that a 3-ply 1¾" x 14" beam is capable of supporting the 3,000 lb point load as well as all other loads applied. The 3,000 lb point load is being transferred to the beam with a face mount hanger. For a 3-ply 1¾" assembly, eight 3⅜" TrussLok™ screws are good for 3,815 lbs with a face mount hanger.

MULTIPLE-MEMBER CONNECTIONS FOR TOP-LOADED BEAMS

1¾" Wide Pieces

- Minimum of three rows of 10d (0.128" x 3") nails at 12" on-center.
- Minimum of four rows of 10d (0.128" x 3") nails at 12" on-center for 14" or deeper.
- If using 12d–16d (0.148"–0.162" diameter) nails, the number of nailing rows may be reduced by one.
- Minimum of two rows of SDS, WS, or TrussLok™ screws at 16" on-center. Use 3⅜" minimum length with two or three plies; 5" minimum for 4-ply members. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. For 3- or 4-ply members, connectors must be installed on both sides. Stagger fasteners on opposite side of beam by ½ of the required connector spacing.
- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

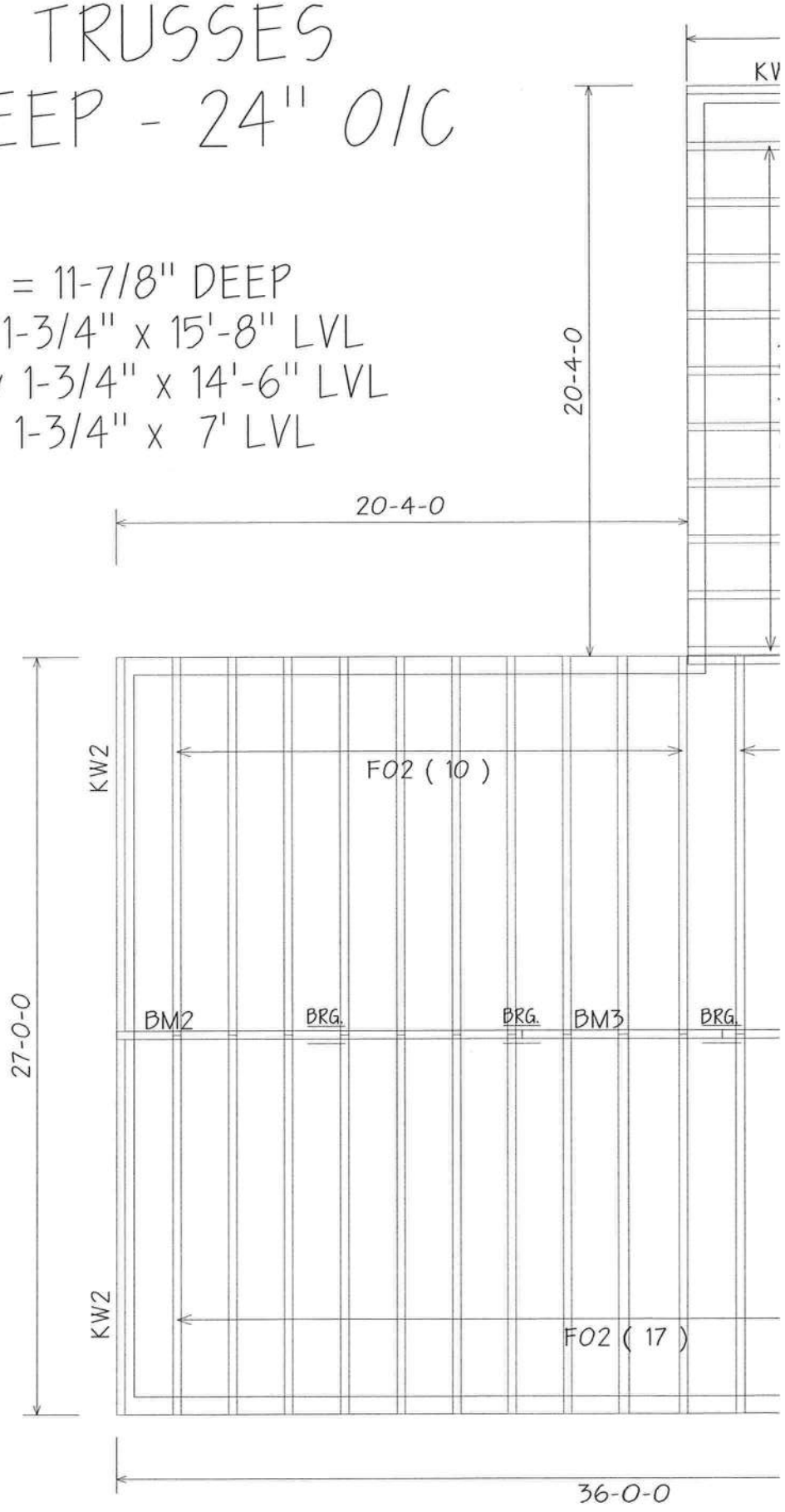
3½" Wide Pieces

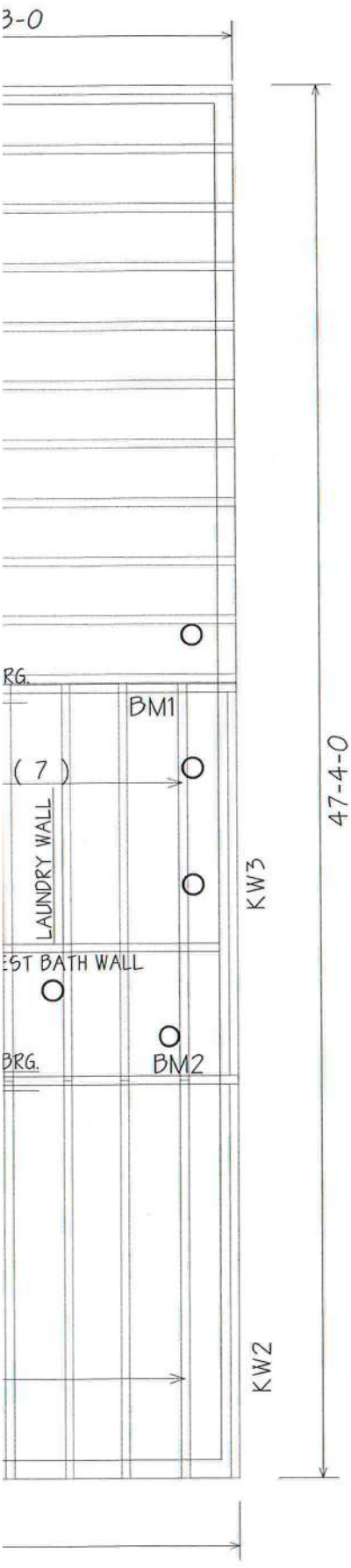
- Minimum of two rows of SDS, WS, or TrussLok™ screws, 5" minimum length, at 16" on-center. 6" SDS and WS screws are not recommended for use with TimberStrand® LSL. Connectors must be installed on both sides. Stagger fasteners on opposite side of beam by ½ of the required connector spacing.
- Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.
- Minimum of two rows of ½" bolts at 24" on-center staggered.

L6 ***Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"***

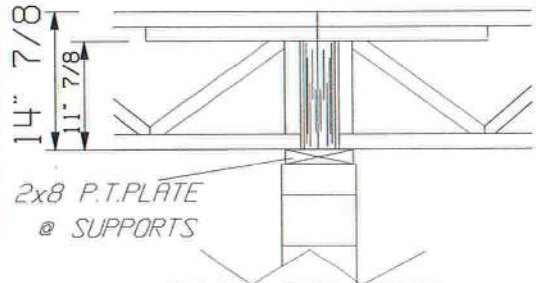
FLOOR TRUSSES
14-7/8" DEEP - 24" O/C

ALL BEAMS = 11-7/8" DEEP
1 - BM1 - 2ply 1-3/4" x 15'-8" LVL
2 - BM2 - 2ply 1-3/4" x 14'-6" LVL
1 - BM3 - 2ply 1-3/4" x 7' LVL





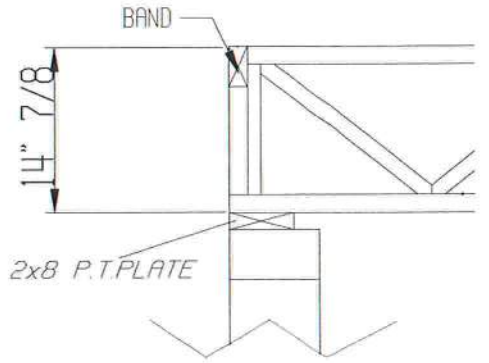
APPROVED TRUSS ANCHOR BY BUILDER
BOTTOM = 4x2 (VARIES)
TOP = 4x2 (VARIES)



TRUSS END DETAIL
AT CENTER SUPPORT

○ APPROXIMATE
PIPE LOCATIONS FOR
SHOWERS, TOILETS & SINKS
WALLS SHOWN FOR REFERENCE

APPROVED TRUSS ANCHOR BY BUILDER
BOTTOM = 4x2
TOP = 4x2



TRUSS END DETAIL

BEARING HEIGHT SCHEDULE

	PLATE1

NOTES:

1) REFER TO HIB 91 (RECOMMENDATIONS FOR HANDLING INSTALLATION AND TEMPORARY BRACING.) REFER TO ENGINEERED DRAWINGS FOR PERMANENT BRACING REQUIRED.
2) ALL TRUSSES (INCLUDING TRUSSES UNDER VALLEY FRAMING) MUST BE COMPLETELY DECKED OR REFER TO DETAIL V105 FOR ALTERNATE BRACING REQUIREMENTS.
3) ALL VALLEYS ARE TO BE CONVENTIONALLY FRAMED BY BUILDER.
4) ALL TRUSSES ARE DESIGNED FOR 2' o.c. MAXIMUM SPACING, UNLESS OTHERWISE NOTED.
5) ALL WALLS SHOWN ON FLAGEMENT PLAN ARE CONSIDERED TO BE LOAD BEARING, UNLESS OTHERWISE NOTED.
6) SY42 TRUSSES MUST BE INSTALLED WITH THE TOP BEING UP.
7) ALL ROOF TRUSS HANGERS TO BE SIMPSON HTU26 UNLESS OTHERWISE NOTED. ALL FLOOR TRUSS HANGERS TO BE SIMPSON THA422 UNLESS OTHERWISE NOTED.
8) BEAM/HEADER/LINTEL (HDR) TO BE FURNISHED BY BUILDER.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

Requested Delivery Date: _____

Approved by: _____ Date: _____

Builders FirstSource
Bunnell
PHONE: 904-437-3349 FAX: 904-437-3994
Jacksonville
PHONE: 904-772-6100 FAX: 904-772-1973
Lake City
PHONE: 386-755-6894 FAX: 386-755-7973
Sanford
PHONE: 407-322-0059 FAX: 407-322-9593

BUILDER: CASON BLDRS.		
LEGAL ADDRESS: PAYNE RES.		
MODEL: CUSTOM		REVISION: SCALE: NTS
DATE: 6-9-10	DRAWN BY: K.L.H.	JOB #: 336787

Product Approval

USER: Public User

FL #	FL9107-R1
Application Type	Revision
Code Version	2007
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Metal Sales Manufacturing Corporation
Address/Phone/Email	545 South 3rd Street, Suite 200 Louisville, KY 40202 (812) 218-7342 dstermer@metalsales.us.com
Authorized Signature	David Stermer dstermer@metalsales.us.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	
Category	Roofing
Subcategory	Metal Roofing
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☑ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Bala Sockalingam
Florida License	PE-62240
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	12/31/2011
Validated By	Yoosef Lavi, P.E. ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL9107_R1_COI_CertificateIndependence.pdf

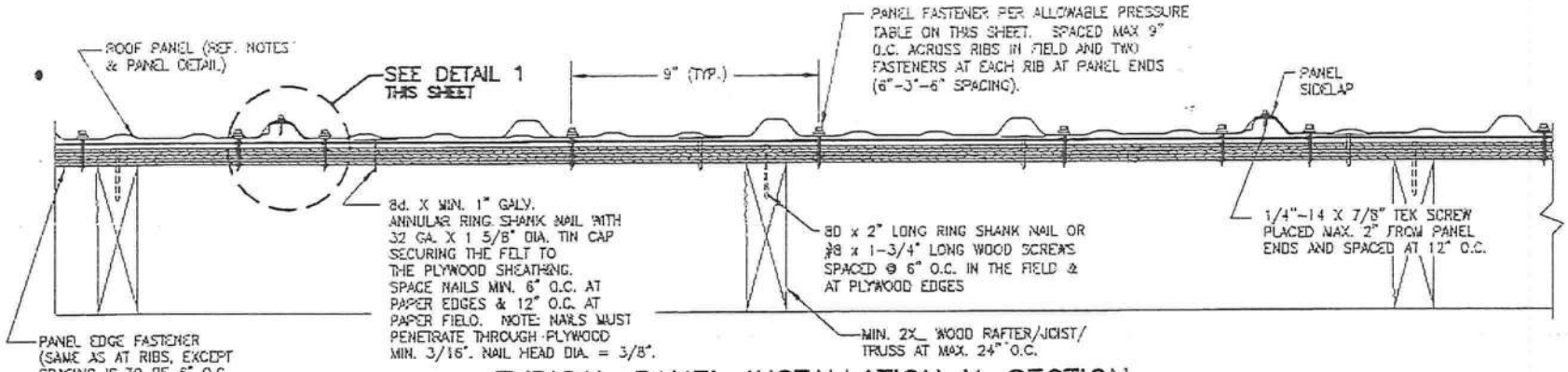
Referenced Standard and Year (of Standard)

Standard	Year
UL 1897	1998
UL 580	1994

Equivalence of Product Standards Certified By

Sections from the Code

Manufacturer:	Metal Sales Manufacturing Corporation
Product Name:	Pro-Panel II
Panel Description:	36" wide coverage with (5) 5/8" high ribs
Materials:	Min 29 ga. with galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755). Minimum yield stress F_y = 80 ksi.
Deck Description:	15/32" CDX Plywood (New & Existing Construction)
Deck Attachment:	8d x 2" long ring shank nails or #8 x 1-3/4" long wood screws @ 6" OC in the plywood field and edges
Underlayment:	Minimum underlayment as per FBC 2007 Section 1507.4.5
Slope:	1/2:12 or greater in accordance with FBC 2007 Section 1507.4.2
Design Uplift Pressure: (Factor of Safety = 2)	41.6 psf @ fastener spacing of 2' 0" 71.5 psf @ fastener spacing of 1' 0"
Panel Attachment: At panel ends At intermediate	 #9-15 x 1-1/2" long SDS @ 6"-3"-6" OC across panel width #9-15 x 1-1/2" long SDS @ 9" OC across panel width
Sidelap Attachment:	¼"-14 x 7/8" long SDS @ 12" OC
Test Standards:	Roof assembly tested in accordance with UL-580-94 (Rev 98) 'Uplift Resistance of Roof Assemblies' & UL 1897-98 'Uplift Tests for Roof Covering Systems' and FM 4470 Section 5.5 'Resistance to Foot Traffic'.
Code Compliance:	The product described herein has demonstrated compliance with FBC 2007 Section 1507.4
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2007 Section 1609. The maximum fastener spacing listed herein shall not be exceeded. This product is not approved for use in the High Velocity Hurricane Zone.
Supporting Documents:	UL-580 Test Reports Farabaugh Engineering and Testing Inc Project No. T257-06, Reporting Date 11/14/06 FM 4470 Test Report ENCON Technology Inc C1587-3, Reporting Date 5/17/08



TYPICAL PANEL INSTALLATION X-SECTION

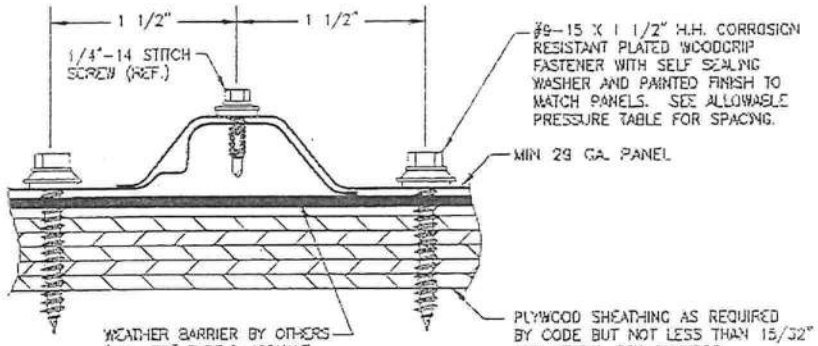
SCALE: 3"=1'-0"

ALLOWABLE UPLIFT PRESSURE

PANEL FASTENERS SPACING ALONG RIB	PRESSURE (PSF)
24"	41.6
12"	71.5

GENERAL NOTES:

1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ALL ROOF PANELS ARE FABRICATED FROM A 41.83" WIDE COIL & SHALL BE 29 GA. (t = 0.0135"). EFFECTIVE COVERING WIDTH OF PANEL = 36".
3. THE ROOF PANELS SHALL BE INSTALLED OVER SHEATHING & STRUCTURE AS SPECIFIED ON THESE DRAWINGS.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOADS SPECIFIED ON THIS DRAWING.
5. ALL FASTENERS MUST BE IN ACCORDANCE WITH THESE DRAWINGS & THE FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THESE DRAWINGS & THE CODE, THE CODE SHALL CONTROL.
6. RAFTERS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.



DETAIL 1

SCALE: FULL

DRAWN BY: T.S. CHECKED BY: B.S.
DATE: 1/15/07

NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE: PRO-PANEL II METAL ROOF PANEL

MANUFACTURER: METAL SALES MANUFACTURING CORP.
7800 STATE ROAD 60
SELLERSBURG, IN 47172
800-944-3786

CONSULTANTS: BALA SOCKALINGAM, PH.D., P.E.
6717 S. YALE AVE, SUITE 200
TULSA, OK 74136
PHONE: 918-493-5972 FAX: 918-493-3568

CERTIFICATION

BALA SOCKALINGAM, P.E.
P.E. NO. 02240

DRAWING NO. 1382-6 REV.

PAGE NO. 1 OF 1

Product Approval Method	Method 1 Option D
Date Submitted	05/19/2008
Date Validated	05/21/2008
Date Pending FBC Approval	05/23/2008
Date Approved	06/24/2008

Summary of Products

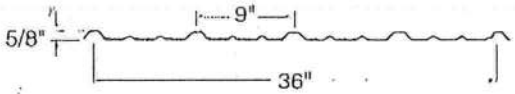
FL #	Model, Number or Name	Description
9107.1	5V-Crimp	26 ga., 24 wide through fastened roof panel over plywood deck
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-149.6 **Other:** 84.5 psf @ fastener spacing of 2' 0", 131.3 psf @ fastener spacing of 1' 6" and 149.6 psf @ fastener spacing of 1' 0"		**Installation Instructions** FL9107_R1_II_1582_8.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes **Evaluation Reports** FL9107_R1_AE_EvaluationReportC1582_8.pdf Created by Independent Third Party: Yes
9107.2	Classic Rib	26 ga., 36" wide through fastened roof panel over plywood deck
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-133.9 **Other:** 92.3 psf @ fastener spacing of 2' 0" and 133.9 psf @ fastener spacing of 1' 6"		**Installation Instructions** FL9107_R1_II_1582_9.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes **Evaluation Reports** FL9107_R1_AE_EvaluationReportC1582_9.pdf Created by Independent Third Party: Yes
9107.3	Image II	26 ga., 16" wide standing seam roof panel over plywood deck
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +N/A/-139.1 **Other:** 102.7 psf @ fastener spacing of 6" and 139.1 psf @ fastener spacing of 6" with 3/8" bead adhesive in sidelap		**Installation Instructions** FL9107_R1_II_1582_10.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes **Evaluation Reports** FL9107_R1_AE_EvaluationReportC1582_10.pdf Created by Independent Third Party: Yes
9107.4	Stile	26 ga., 39.4" wide through fastened roof panel over plywood deck
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-149.6 **Other:** 106.8 psf @ fastener spacing of 2' 0" and 149.6 psf @ fastener spacing of 1' 0"		**Installation Instructions** FL9107_R1_II_1582_11.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes **Evaluation Reports** FL9107_R1_AE_EvaluationReportC1582_11.pdf Created by Independent Third Party: Yes

Back Next

Department of Community Affairs
Florida Building Code Online
Codes and Standards
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100
(850) 487-1824, Fax (850) 414-8436

Product Approval Accepts:

PRO-PANEL II



- Exposed fastened, low profile panel
- 36" panel coverage
- Trapezoidal rib on 9" center
- 5/8" rib height
- Gauges: 30ga, 29ga, 26ga, and 24ga
- Minimum roof slope: 3:12
- Applies over open framing or solid substrate
- Up to a 45-year paint warranty and up to a 10-year edge corrosion warranty available.
- Finishes: MS Colorfast45®, PVDF, Acrylic Coated Galvalume®, and Galvanized

Testing:

- *UL 790 Fire Resistance Rating*
- *UL 2218, Class 4 Impact Resistance*
- *Texas Windstorm Approved*
- *Dade County, FL Approved (Wall Application)*

General Information

Slope: The minimum recommended slope for Pro-Panel II roofing panel is 3:12.

Substructure: Pro-Panel II is designed to be utilized over open structural framing or a solid substrate. To avoid panel distortion, use a properly aligned and uniform substructure.

Coverage: Pro-Panel II panels are available in a 5/8" rib height with a coverage width of 36".

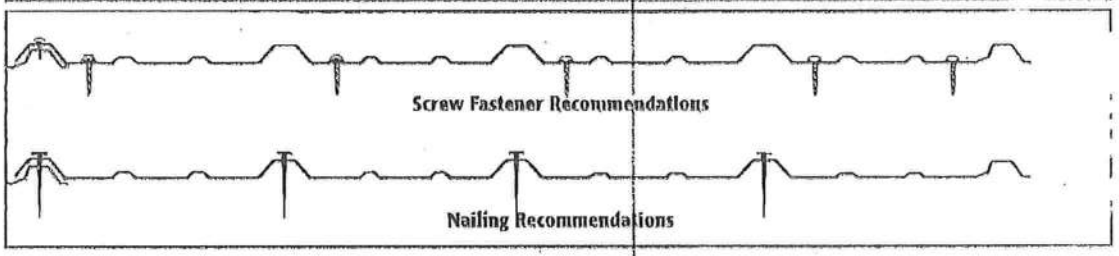
Length: Minimum factory cut length is 5'-0". Maximum recommended panel length is 45'-0". Longer panels require additional considerations in packaging, shipping, and erection. Please consult Metal Sales for recommendations.

Fasteners: The fastener selection guide should be consulted for choosing the proper fastener for specific applications. Quantity and type of fastener must meet necessary loading and code requirements. *Note: all panels are subject to surface distortion due to improperly applied fasteners. Overdriven fasteners will cause stress and induce oil canning across the face of the panel at or near the point of attachment.*

Availability: 30ga, 29ga, 26ga, and 24ga in Acrylic Coated Galvalume®, MS Colorfast45®, or various Kynar 500 (PVDF) colors.

For all specific warranty, application, installation, and technical information regarding these products, contact your representative.

Fastening Pattern



Load Tables

GA.	Width (in.)	Yield KSI	Weight PSF	SECTION PROPERTIES: Top in Compression[1,4] Ixx In⁴/ft	Top in Compression[1,4] Sxx In³/ft	Bottom in Compression[1,4] Ixx In⁴/ft	Bottom in Compression[1,4] Sxx In³/ft	ALLOWABLE UNIFORM LIVE LOADS PSF[1,2,3,4] (3 or More Equal Spans) Inward (Gravity / Deflection) Load[2,4]: 2'	2.5'	3'	3.5'	4'	5'	Outward Uplift (Stress) Load[3]: 2'	2.5'	3'	3.5'	4'	5'
29	36"	80	0.71	0.0067	0.0134	0.0053	0.0137	93	60	42	28	18	9	121	78	55	40	31	20
26	36"	80	0.87	0.0087	0.0179	0.0067	0.0173	117	76	53	34	23	12	161	104	73	54	41	27

1. Theoretical section properties have been calculated per AISI 1996. "Specifications for the design of cold formed steel members." Ixx and Sxx are effective section properties for deflection and bending. 2. Tabulated loads are allowable loads calculated in accordance with good engineering practices and with AISI 1996 specifications for bending stresses. Panel weight has not been subtracted from allowable gravity loads. Allowable load does not address web crippling requirement, or fastener/support connection. 3. Allowable loads are calculated in accordance with AISI 1996 specifications, and have been increased by 33-1/3% for wind uplift. Contact Metal Sales Technical Services Department for more information. 4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.

metal sales manufacturing corporation

Longmont, CO: 800.289.7663
Jacksonville, FL: 800.394.4419
Jefferson, OH: 800.321.5833
Independence, MO: 800.747.0012
Sellersburg, IN: 800.999.7777
Rogers, MN: 800.328.9316
Antioch, TN: 800.251.8508
Spokane, WA: 800.572.6565
Kent, WA: 800.431.3470
Rock Island, IL: 800.747.1206
Orwigsburg, PA: 800.544.2577
Temple, TX: 800.543.4415
Woodland, CA: 800.759.6019
Fontana, CA: 800.782.7953
Anchorage, AK: 866.640.7663
Bay City, MI: 888.777.7640
Detroit Lakes, MN: 888.594.1394
Mocksville, NC: 800.220.6119

www.metalsales.us.com

EVALUATION REPORT OF METAL SALES MANUFACTURING CORPORATION '29 GA. PRO-PANEL II PANEL'

FLORIDA PRODUCT APPROVAL #FL 8131.3 ROOFING METAL ROOFING

Prepared For:
Metal Sales Manufacturing Corporation
7800 State Road 60
Sellersburg, IN 47172
Telephone: (812) 246-1935
Fax: (812) 246-0899

Prepared By:
Bala Sockalingam, Ph.D., P.E.
Florida Professional Engineer #62240
6717 South Yale Avenue, Suite 200
Tulsa, OK 74136
Telephone: (918) 492-5992
FAX: (918) 493-3568

This report consists of
Evaluation Report (2 Pages including cover)
Installation Details (1 Page)

Report No. C1582-6
Date: 5.19.08

5.19.08

PRODUCT APPROVAL SPECIFICATION SHEET

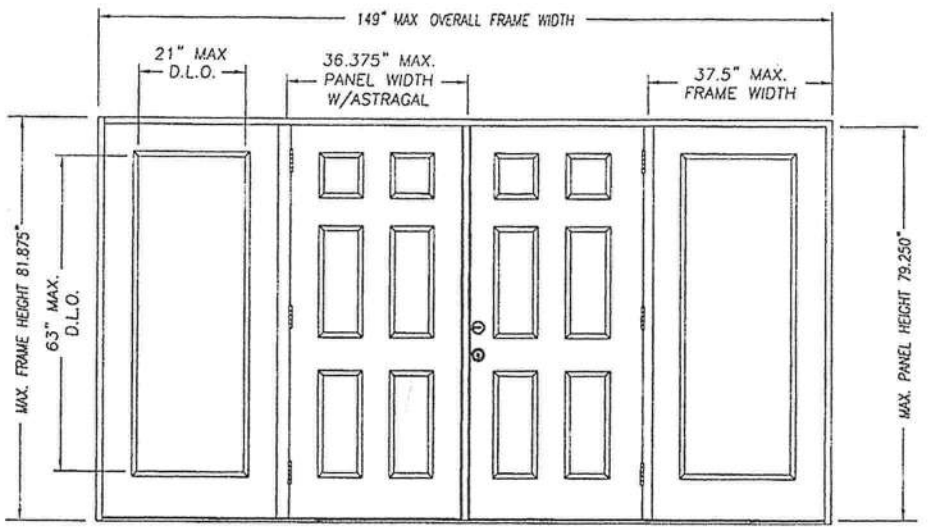
Location: _____ **Project Name:** PAYNE

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are **applying for a building permit on or after April 1, 2004**. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
A. EXTERIOR DOORS			
1. Swinging	THERMA TRU	FIBREGLALL EXT. DOORS	FL 1170
2. Sliding			
3. Sectional			
4. Roll up			
5. Automatic			
6. Other			
B. WINDOWS			
1. Single hung	SILVERLINE	VINYL, # 2200	FL 4065
2. Horizontal Slider			
3. Casement			
4. Double Hung			
5. Fixed			
6. Awning			
7. Pass -through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11 Dual Action			
12. Other			
C. PANEL WALL			
1. Siding	JAMES HARDIE	FIBER CEMENT LAP SIDING	FL 8891
2. Soffits			
3. EIFS			
4. Storefronts			
5. Curtain walls			
6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other			
D. ROOFING PRODUCTS			
1. Asphalt Shingles			
2. Underlayments			
3. Roofing Fasteners			
4. Non-structural Metal	METAL SALES	MANUFACTURING Corp. - Metal Roofing	FL9107 RT
RT 5. Built-Up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing Sys			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			

Masonite

SIDE-HINGED WOOD-EDGE STEEL DOOR UNIT
6'-8" DOUBLE DOOR WITH / WITHOUT SIDELITES



DOUBLE INSWING UNIT W/SIDELITES

GENERAL NOTES

1 EVALUATED FOR USE IN LOCATIONS ADHERING TO THE FLORIDA BUILDING CODE AND WHERE PRESSURE REQUIREMENTS AS DETERMINED BY ASCE 7, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, DOES NOT EXCEED THE DESIGN PRESSURES LISTED

2 HURRICANE PROTECTIVE SYSTEM (SHUTTERS) IS NOT REQUIRED ON OPAQUE PANELS, BUT IS REQUIRED ON GLAZED SIDELITES

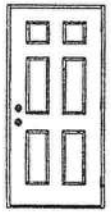
3 POLYURETHANE CORE FLAME SPREAD INDEX OF 50 AND SMOKE DEVELOPED INDEX OF 60 PER ASTM E84

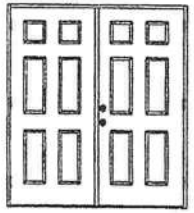
4 PLASTICS TESTING OF LITE FRAME MATERIAL:

TEST DESCRIPTION	DESIGNATION	RESULT
SELF IGNITION TEMP	ASTM D1929	680 °F > 650 °F
RATE OF BURNING	ASTM D635	1.10 IN/MIN
SMOKE DENSITY	ASTM D2843	69.6%
TENSILE STRENGTH*	ASTM D638	-7.48% DIFF

* COMPARATIVE TENSILE STRENGTH AFTER WEATHERING 4500 HOURS XENON ARC METHOD 1

Addendum to NAMI
Certification No.: NI006110
Reviewed By:
Date Reviewed: 8/10/05


SINGLE DOOR UNIT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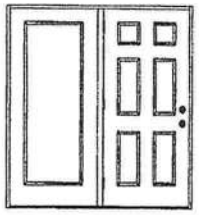
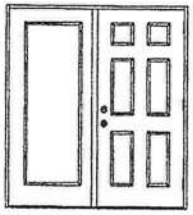

SINGLE DOOR UNIT WITH SIDELITE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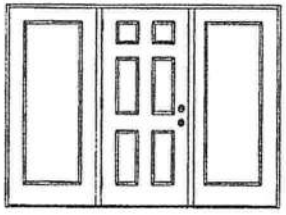

SINGLE DOOR UNIT W/SIDELITES

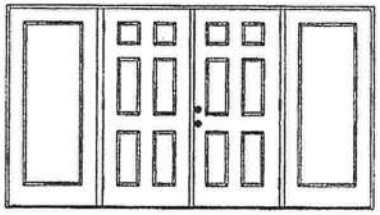

DOUBLE DOOR UNIT W/SIDELITES

TABLE OF CONTENTS

CONFIG	MAX WIDTH	DESIGN PRESSURE RATING		WHERE WATER INFILTRATION PERFORMANCE IS REQUIRED TO BE 15% OF DESIGN PRESSURE	
		INSWING	OUTSWING	INSWING	OUTSWING
X	37.5"	+76.0 / -76.0	+76.0 / -76.0	+19.0 / -19.0	+55.0 / -55.0
XX	74"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0
OX or XO	75"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0
OXO	112.5"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0
OXXO	149"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0

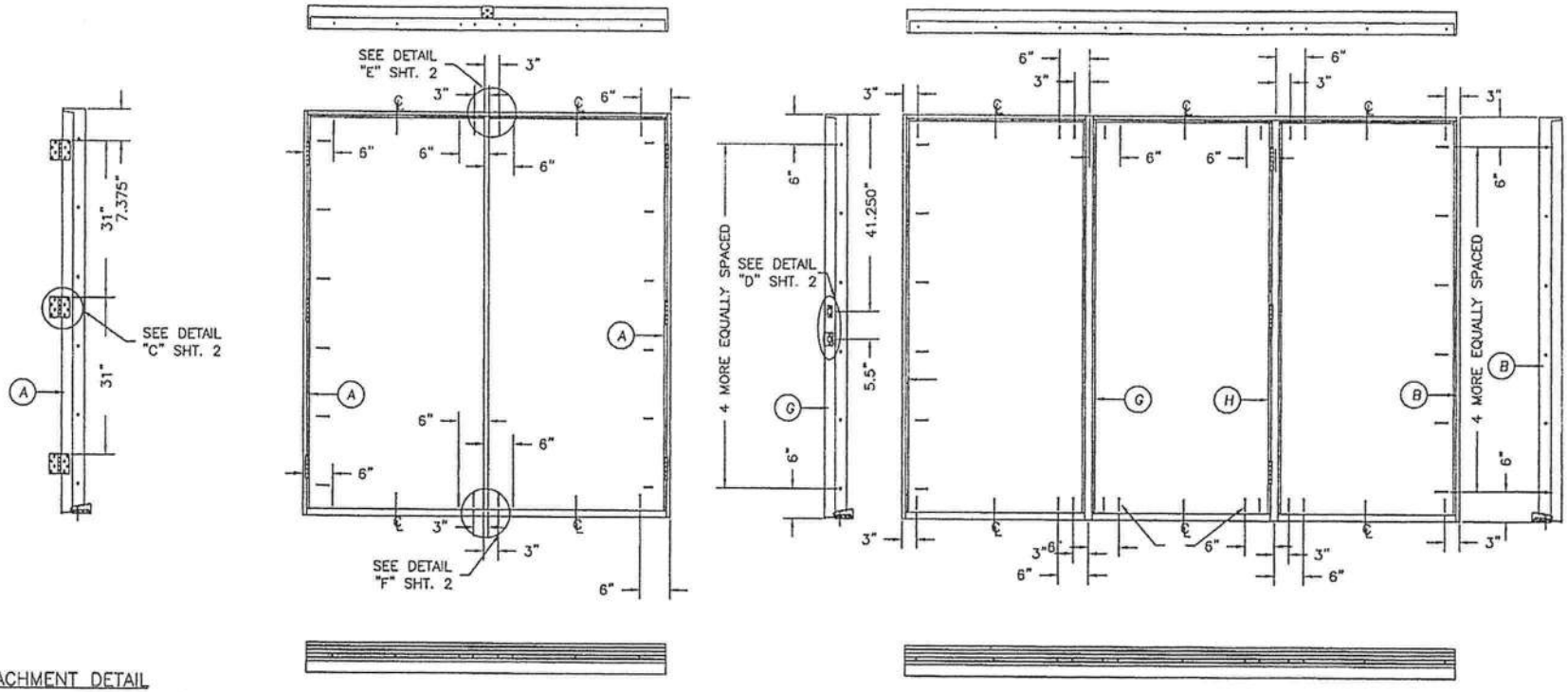
MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT: "EXTERIOR DOOR PRODUCT" DOUBLE 6'8" OPAQUE WOOD-EDGE STEEL DOOR

PART OR ASSEMBLY: TYPICAL ELEVATIONS & GENERAL NOTES

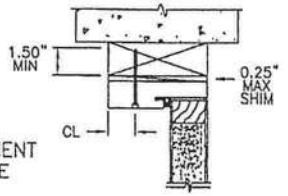
NO.	DATE	BY
REVISIONS		

DATE: 7/11/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.: DWG-MA-FL0128-05
SHEET 1 OF 3



ATTACHMENT DETAIL

1. ANCHOR ANALYSIS FOR LOADING CONDITIONS PREPARED, SIGNED AND SEALED BY HAROLD E. RUPP, PE (FLORIDA #15935) WITH THE LOWEST (LEAST) FASTENER RATING FROM THE DIFFERENT FASTENERS BEING CONSIDERED FOR USE. JAMB, HEAD, AND THRESHOLD FASTENERS ANALYZED FOR THIS UNIT INCLUDE #10 WOOD SCREWS OR 3/16" TAPCONS. A PHYSICAL SHIM MUST BE PLACED IN SHIM SPACE AT EACH ANCHOR LOCATION.
2. THE WOOD SCREW SINGLE SHEAR DESIGN VALUES COME FROM ANSI/AF&PA NDA FOR SOUTHERN PINE LUMBER AND ACHEIVEMENT OF 1-1/2" MINIMUM EMBEDMENT. THE TAPCON MUST ACHIEVE MINIMUM EMBEDMENT OF 1-1/4".
3. WOOD BUCKS BY OTHERS MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO STRUCTURE.
4. MINIMUM DESIGN VALUE STRENGTH OF ANCHORS 171 LBS.



TYPICAL ANCHOR INSTALLATION

HARDWARE SCHEDULE

1.	KWIKSET OR SCHLEGE ANSI/BHMA GRADE 3 OR BETTER CYLINDRICAL AND DEADLOCK HARDWARE TO BE INSTALLED AT 5-1/2" CENTERLINE.
2.	4" X 4" FULL MORTISE BUTT HINGES

Addendum to NAMI
Certification No: NI006110
Reviewed By:
Date Reviewed: 8/10/05

MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT: "EXTERIOR DOOR PRODUCT" 6'-8" WOOD-EDGE STEEL OPAQUE DOUBLE DOOR UNIT

PART OR ASSEMBLY: ANCHORING LOCATIONS & DETAILS

REVISIONS

NO.	DATE	BY

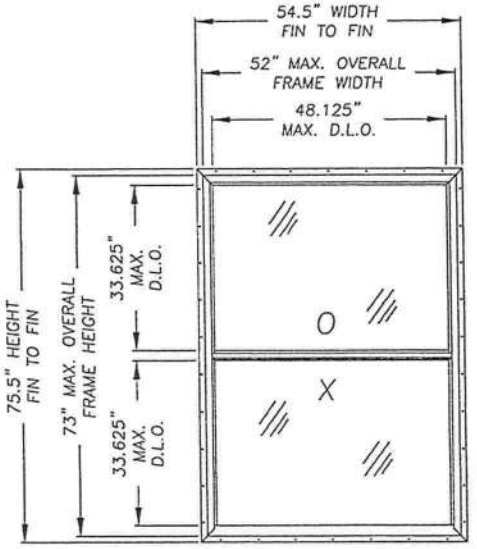
DATE: 7/11/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.: DWG-MA-FL0128-05
SHEET 3 OF 3

F: APPROVAL # 3884

SilverLINE
BUILDING PRODUCTS CORP.

1 SILVERLINE DRIVE NORTH BRUNSWICK, NJ 08902 PH. 732.435.1000

2200 SERIES, MODEL 2200 EXTRUDED VINYL SINGLE HUNG WINDOW



GENERAL NOTES

1. THIS PRODUCT HAS BEEN EVALUATED AND IS IN COMPLIANCE WITH THE FLORIDA BUILDING CODE EXCLUDING THE "HIGH VELOCITY HURRICANE ZONE".
2. PRODUCT ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
3. WHEN USED IN AREAS REQUIRING WIND-BORNE DEBRIS PROTECTION THIS PRODUCT IS REQUIRED TO BE PROTECTED WITH AN IMPACT RESISTANT COVERING THAT COMPLIES WITH SECTION 1609.1.4 OF THE FLORIDA BUILDING CODE.

OVERALL FIN DIMENSION	OVERALL FRAME DIMENSION	OVERALL DAY LIGHT DIMENSION	GLASS TYPE	DESIGN PRESSURE	
				POSITIVE	NEGATIVE
54.5" x 75.5"	52" x 73"	(O) 48.125" x 33.625" (X) 48.125" x 33.625"	1/8" ANNEALED AIR 1/8" ANNEALED	+25.0 PSF	-25.0 PSF
54.5" x 64.5"	52" x 62"	(O) 48.125" x 28.125" (X) 48.125" x 28.125"	1/8" ANNEALED AIR 1/8" ANNEALED	+35.0 PSF	-35.0 PSF
47.5" x 64.5"	45" x 62"	(O) 41.125" x 28.125" (X) 41.125" x 28.125"	1/8" ANNEALED AIR 1/8" ANNEALED	+40.0 PSF	-40.0 PSF
42.5" x 64.5"	40" x 62"	(O) 36.125" x 28.125" (X) 36.125" x 28.125"	1/8" ANNEALED AIR 1/8" ANNEALED	+45.0 PSF	-45.0 PSF
38.5" x 64.5"	36" x 62"	(O) 32.125" x 28.125" (X) 32.125" x 28.125"	1/8" ANNEALED AIR 1/8" ANNEALED	+50.0 PSF	-50.0 PSF

TABLE OF CONTENTS

Documents Prepared By:
BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL 33595
Phone No.: 813.659.9197
Florida Board of Professional Engineers
Certificate of Authorization No. 9913
Wendell W. Maney. P.E. No. 54158

PRODUCT: SILVERLINE BUILDING PRODUCTS 2200 SERIES MODEL 2200 SINGLE HUNG WINDOW

PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO	DATE	REVISIONS	BY
1	7/26/05	REVISE TO 2004 FBC	EW

DATE: 12/27/04
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: WWH
DRAWING NO.: FL-408
SHEET 1 OF 4

AHRI CERTIFIED™
www.ahridirectory.org

This combination qualifies for a Federal Energy Efficiency Tax Credit when placed in service between Feb 17, 2009 and Dec 31, 2010.

Certificate of Product Ratings

AHRI Certified Reference Number: 3220862 Date: 7/8/2010

Product: Split System: Heat Pump with Remote Outdoor Unit-Air-Source
Outdoor Unit Model Number: 4A6Z0036A1
Indoor Unit Model Number: 4TEE3C04A1
Manufacturer: AMERICAN STANDARD, INC.
Trade/Brand name: HERITAGE 20

Manufacturer responsible for the rating of this system combination is AMERICAN STANDARD, INC.

Rated as follows in accordance with AHRI Standard 210/240-2006 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	36600
EER Rating (Cooling):	13.00
SEER Rating (Cooling):	18.60
Heating Capacity(Btuh) @ 47 F:	35200
Region IV HSPF Rating (Heating):	9.00
Heating Capacity(Btuh) @ 17 F:	19400

A * following a rating indicates a voluntary rerate of previously published data, unless accompanied with a WAS which indicates an involuntary rerate.

CERTIFICATE VERIFICATION
The information for the model cited on this certificate can be verified at www.ahridirectory.org, click on "Verify Certificate" link and enter the AHRI Certified Reference Number and the date on which the certificate was issued, which is listed above, and the Certificate No., which is listed below.

AHRI Air-Conditioning, Heating, and Refrigeration Institute

CERTIFICATE NO.: 129230873558826119

AHRI CERTIFIED™
www.ahridirectory.org

This combination qualifies for a Federal Energy Efficiency Tax Credit when placed in service between Feb 17, 2009 and Dec 31, 2010.

Certificate of Product Ratings

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AHRI Air-Conditioning, Heating, and Refrigeration Institute

CERTIFICATE NO.: 129230873558826119

Hogle's
Heating & Air

Load Short Form
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

Project Information

For: BILL CASON BUILDERS

Design Information

	Htg	Clg
Outside db (°F)	33	92
Inside db (°F)	70	75
Design TD (°F)	37	17
Daily range	-	M
Inside humidity (%)	30	50
Moisture difference (gr/lb)	11	52

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

HEATING EQUIPMENT

Make AMERICAN STANDARD
Trade
Model A4Z6Z0036A1000B
ARI ref no. 3220862

Efficiency	9 HSPF	
Heating input		
Heating output	35200	Btuh @ 47°F
Temperature rise	27	°F
Actual air flow	1200	cfm
Air flow factor	0.066	cfm/Btuh
Static pressure	0	in H2O
Space thermostat		

COOLING EQUIPMENT

Make AMERICAN STANDARD
Trade
Cond A4Z6Z0036A1000B
Coil A4TEE3C04A1000A
ARI ref no. 3220862

Efficiency	13 EER	
Sensible cooling	25620	Btuh
Latent cooling	10980	Btuh
Total cooling	36600	Btuh
Actual air flow	1200	cfm
Air flow factor	0.048	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0.84	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
GUEST BEDRROM	180	2378	3709	156	180
GUEST BATHROOM	90	557	341	36	17
LAUNDRY ROOM	36	223	1820	15	88
MASTER BATH	84	1057	704	69	34
MASTER SHOWER	30	186	114	12	6
MASTER CLOSET	24	149	91	10	4
MASTER BEDROOM	256	5262	5097	345	247
DINING/KITCHEN	312	4569	7223	299	350
FAMILY ROOM	280	3937	5646	258	274

Printout certified by ACCA to meet all requirements of Manual J 8th Ed.

Entire House	1292	18318	24744	1200	1200
Other equip loads		799	367		
Equip. @ 0.97 RSM			24357		
Latent cooling			4896		
TOTALS	1292	19117	29253	1200	1200

Printout certified by ACCA to meet all requirements of Manual J 8th Ed.

Hogle's
Heating & Air

Building Analysis
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

Project Information

For: BILL CASON BUILDERS

Design Conditions

Location:
Gainesville, FL, US
Elevation: 151 ft
Latitude: 30 °N

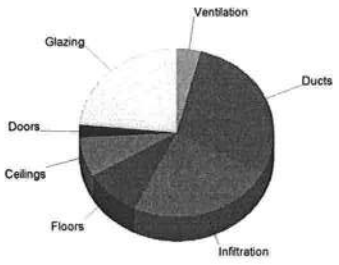
Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	33	92
Daily range (°F)	-	19 (M)
Wet bulb (°F)	-	77
Wind speed (mph)	15.0	7.5

Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	70	75
Design TD (°F)	37	17
Relative humidity (%)	30	50
Moisture difference (gr/lb)	10.6	52.0

Infiltration:	
Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

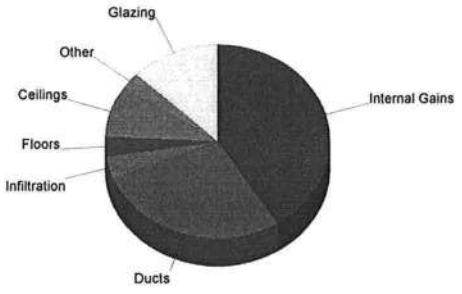
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.4	-805	-4.2
Glazing	21.5	4681	24.5
Doors	22.2	466	2.4
Ceilings	1.2	1530	8.0
Floors	1.4	1836	9.6
Infiltration	0	4879	25.5
Ducts		5731	30.0
Piping		0	0
Humidification		0	0
Ventilation		799	4.2
Adjustments		0	
Total		**19117**	**100.0**



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.2	-525	-2.1
Glazing	15.1	3301	13.1
Doors	17.5	367	1.5
Ceilings	1.7	2177	8.7
Floors	0.7	843	3.4
Infiltration	0	956	3.8
Ducts		7105	28.3
Ventilation		367	1.5
Internal gains		10520	41.9
Blower		0	0
Adjustments		0	
Total		**25111**	**100.0**



Overall U-value = 0.086 Btuh/ft²-°F

ERROR: negative wall area in GUEST BEDRROM - check windows.

Hogle's
Heating & Air

Component Constructions
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

Project Information

For: BILL CASON BUILDERS

Design Conditions

Location:
Gainesville, FL, US
Elevation: 151 ft
Latitude: 30°N

Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	33	92
Daily range (°F)	-	19 (M)
Wet bulb (°F)	-	77
Wind speed (mph)	15.0	7.5

Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	70	75
Design TD (°F)	37	17
Relative humidity (%)	30	50
Moisture difference (gr/lb)	10.6	52.0

Infiltration:	
Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
(none)								
Partitions								
(none)								
Windows								
10B-w: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 50% roller shades, transl; 8 ft overhang (7 ft window ht, 2 ft sep.)	n	63	0.600	0	22.2	1399	10.6	668
1D-c2ov: 2 glazing, clr outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% roller shades, white; 2 ft overhang (3 ft window ht, 2 ft sep.)	n	18	0.570	0	21.1	380	16.6	298
1D-c2ov: 2 glazing, clr outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% roller shades, white; 2 ft overhang (5 ft window ht, 2 ft sep.)	n	65	0.570	0	21.1	1371	16.6	1076
1D-c2ov: 2 glazing, clr outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 50% roller shades, white; 8 ft overhang (5 ft window ht, 2 ft sep.)	n	60	0.570	0	21.1	1265	16.6	994
7A-1gsnn: Gls blk glazing, smth srf; 2 ft overhang (4 ft window ht, 2 ft sep.)	n	12	0.600	0	22.2	266	22.1	265
Doors								
11J0: Door, mtl fbrgl type	n	21	0.600	6.3	22.2	466	17.5	367
Ceilings								
16B-30md: Attic ceiling, mtl roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh		1292	0.032	30.0	1.18	1530	1.68	2177
Floors								
19A-19cswp: Flr floor, frm flr, 6" thkns, hrd wd flr fnsh, r-2 ext ins, r-19 cav ins, tight crwl ovr		1292	0.049	19.0	1.42	1836	0.65	843

Hogle's
Heating & Air

Project Summary
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

Project Information

For: BILL CASON BUILDERS

Notes:

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33	°F
Inside db	70	°F
Design TD	37	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	52	gr/lb

Heating Summary

Structure	12587	Btuh
Ducts	5731	Btuh
Central vent (20 cfm)	799	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	19117	Btuh

Sensible Cooling Equipment Load Sizing

Structure	17639	Btuh
Ducts	7105	Btuh
Central vent (20 cfm)	367	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	24357	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft²)	1292	1292
Volume (ft³)	13404	13404
Air changes/hour	0.54	0.23
Equiv. AVF (cfm)	121	51

Latent Cooling Equipment Load Sizing

Structure	2606	Btuh
Ducts	1596	Btuh
Central vent (20 cfm)	694	Btuh
Equipment latent load	4896	Btuh
Equipment total load	29253	Btuh
Req. total capacity at 0.70 SHR	2.9	ton

Heating Equipment Summary

Make	AMERICAN STANDARD
Trade	
Model	A4Z6Z0036A1000B
ARI ref no.	3220862

Efficiency	9	HSPF
Heating input		
Heating output	35200	Btuh @ 47°F
Temperature rise	27	°F
Actual air flow	1200	cfm
Air flow factor	0.066	cfm/Btuh
Static pressure	0	in H2O
Space thermostat		

Cooling Equipment Summary

Make	AMERICAN STANDARD
Trade	
Cond	A4Z6Z0036A1000B
Coil	A4TEE3C04A1000A
ARI ref no.	3220862

Efficiency	13	EER
Sensible cooling	25620	Btuh
Latent cooling	10980	Btuh
Total cooling	36600	Btuh
Actual air flow	1200	cfm
Air flow factor	0.048	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0.84	

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Hogle's
Heating & Air

AED Assessment
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

Project Information

For: BILL CASON BUILDERS

Design Conditions

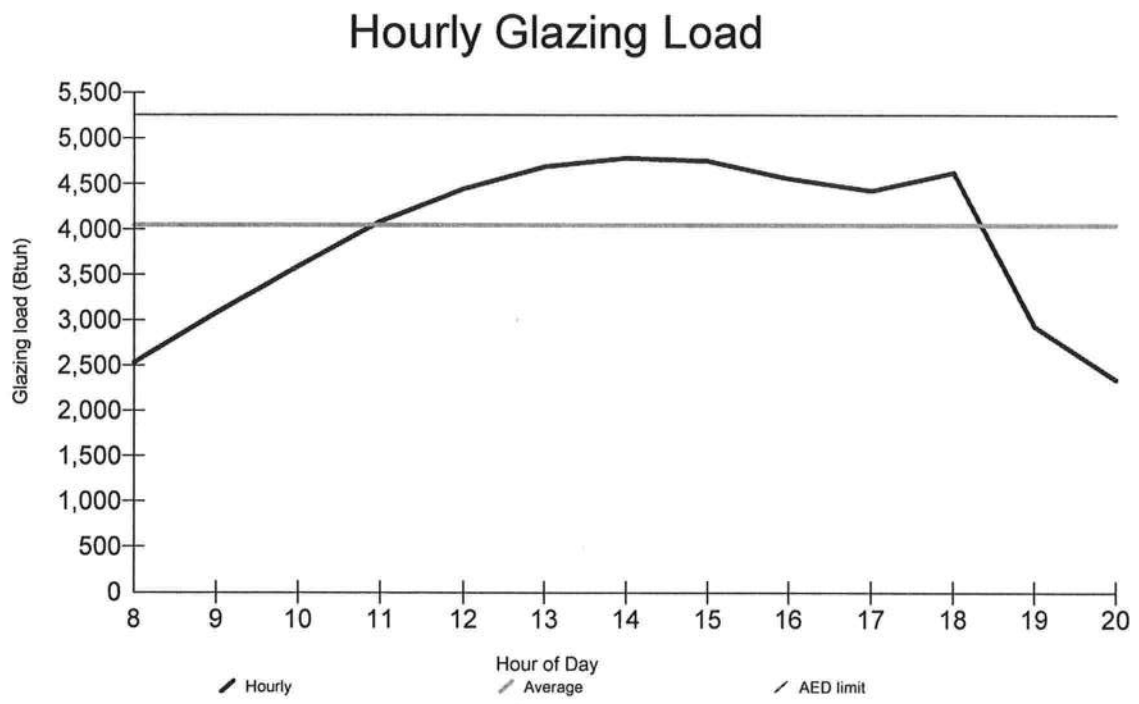
Location:
Gainesville, FL, US
Elevation: 151 ft
Latitude: 30 °N

Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	33	92
Daily range (°F)	-	19 (M)
Wet bulb (°F)	-	77
Wind speed (mph)	15.0	7.5

Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	70	75
Design TD (°F)	37	17
Relative humidity (%)	30	50
Moisture difference (gr/lb)	10.6	52.0

Infiltration:

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 18.4%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh

Hogle's
Heating & Air

Right-J® Worksheet
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

1	Room name						Entire House				GUEST BEDRROM			
2	Exposed wall						161.0 ft				27.0 ft			
3	Ceiling height						10.4 ft				9.0 ft		heat/cool	
4	Room dimensions										15.0 x 12.0 ft			
5	Room area						1292.0 ft²				180.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	n	3.37	2.20	0	-239	-805	-525	0	-30	-101	-66
.	├─G	10B-w	0.600	n	22.20	10.60	63	0	1399	668	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	18	0	380	298	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	65	0	1371	1076	0	0	0	0
11	├─G	1D-c2ov	0.570	n	21.09	16.56	60	0	1265	994	30	0	633	497
	├─G	7A-1gsnn	0.600	n	22.20	22.06	12	0	266	265	0	0	0	0
	└─D	11J0	0.600	n	22.20	17.49	21	21	466	367	0	0	0	0
	C	16B-30md	0.032	-	1.18	1.68	1292	1292	1530	2177	180	180	213	303
	F	19A-19cswp	0.049	-	1.42	0.65	1292	1292	1836	843	180	180	256	118
6	c) AED excursion									0				0
	Envelope loss/gain								7708	6163			1001	852
12	a) Infiltration								4879	956			633	132
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					4			920	2			460
		Appliances @ 1200					8			9600	1			1200
	Subtotal (lines 6 to 13)								12587	17639			1634	2644
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								12587	17639			1634	2644
15	Duct loads						46%	40%	5731	7105	46%	40%	744	1065
	Total room load								18318	24744			2378	3709
	Air required (cfm)								1200	1200			156	180

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Hogle's
Heating & Air

Right-J® Worksheet
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

							GUEST BATHROOM 6.0 ft 9.0 ft heat/cool 15.0 x 6.0 ft 90.0 ft²				LAUNDRY ROOM 0 ft 9.0 ft heat/cool 6.0 x 6.0 ft 36.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	n	3.37	2.20	0	0	0	0	0	0	0	0
.	├─G	10B-w	0.600	n	22.20	10.60	0	0	0	0	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
11	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
	├─G	7A-1gsnn	0.600	n	22.20	22.06	0	0	0	0	0	0	0	0
	└─D	11J0	0.600	n	22.20	17.49	0	0	0	0	0	0	0	0
	C	16B-30md	0.032	-	1.18	1.68	90	90	107	152	36	36	43	61
	F	19A-19cswp	0.049	-	1.42	0.65	90	90	128	59	36	36	51	24
6	c) AED excursion									0				0
	Envelope loss/gain								234	210			94	84
12	a) Infiltration								148	33			59	13
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				0			0	0			0
		Appliances @	1200				0			0	1			1200
	Subtotal (lines 6 to 13)								383	243			153	1297
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								383	243			153	1297
15	Duct loads						46%	40%	174	98	46%	40%	70	523
	Total room load								557	341			223	1820
	Air required (cfm)								36	17			15	88

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Hogle's
Heating & Air

Right-J® Worksheet
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

							MASTER BATH 13.0 ft 9.0 ft heat/cool 6.0 x 14.0 ft 84.0 ft²				MASTER SHOWER 0 ft 9.0 ft heat/cool 6.0 x 5.0 ft 30.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	n	3.37	2.20	0	-12	-40	-26	0	0	0	0
.	├─G	10B-w	0.600	n	22.20	10.60	0	0	0	0	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
11	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
	├─G	7A-1gsnn	0.600	n	22.20	22.06	12	0	266	265	0	0	0	0
	└─D	11J0	0.600	n	22.20	17.49	0	0	0	0	0	0	0	0
	C	16B-30md	0.032	-	1.18	1.68	84	84	99	142	30	30	36	51
	F	19A-19cswp	0.049	-	1.42	0.65	84	84	119	55	30	30	43	20
6	c) AED excursion									0				0
	Envelope loss/gain								445	435			78	70
12	a) Infiltration								282	67			49	11
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	0			0
		Appliances @ 1200					0			0	0			0
	Subtotal (lines 6 to 13)								726	502			128	81
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								726	502			128	81
15	Duct loads						46%	40%	331	202	46%	40%	58	33
	Total room load								1057	704			186	114
	Air required (cfm)								69	34			12	6

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Hogle's
Heating & Air

Right-J® Worksheet
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

							MASTER CLOSET 0 ft 9.0 ft heat/cool 6.0 x 4.0 ft 24.0 ft²				MASTER BEDROOM 48.0 ft 9.0 ft heat/cool 16.0 x 16.0 ft 256.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	n	3.37	2.20	0	0	0	0	0	-86	-290	-189
.	├─G	10B-w	0.600	n	22.20	10.60	0	0	0	0	21	0	466	223
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	65	0	1371	1076
11	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
	├─G	7A-1gsnn	0.600	n	22.20	22.06	0	0	0	0	0	0	0	0
	└─D	11J0	0.600	n	22.20	17.49	0	0	0	0	0	0	0	0
	C	16B-30md	0.032	-	1.18	1.68	24	24	28	40	256	256	303	431
	F	19A-19cswp	0.049	-	1.42	0.65	24	24	34	16	256	256	364	167
6	c) AED excursion									0				0
	Envelope loss/gain								63	56			2214	1709
12	a) Infiltration								40	9			1402	265
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	2			460
		Appliances @ 1200					0			0	1			1200
	Subtotal (lines 6 to 13)								102	65			3616	3633
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								102	65			3616	3633
15	Duct loads						46%	40%	46	26	46%	40%	1647	1464
	Total room load								149	91			5262	5097
	Air required (cfm)								10	4			345	247

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Hogle's
Heating & Air

Right-J® Worksheet
Entire House
Hogle's Heating and Air

Job: PAYNE
Date: Jun 17, 2010
By: W.D.HOGLE

13815 NW 39th Ave, Gainesville, FL 32606 Phone: (352) 332-1508 Fax: (352) 332-1501 Email: racehogie@aol.com

1	Room name						DINING/KITCHEN				FAMILY ROOM			
2	Exposed wall						33.0 ft				34.0 ft			
3	Ceiling height						12.0 ft		heat/cool		12.0 ft		heat/cool	
4	Room dimensions						24.0 x 13.0 ft				20.0 x 14.0 ft			
5	Room area						312.0 ft²				280.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	n	3.37	2.20	0	-60	-202	-132	0	-51	-172	-112
.	├─G	10B-w	0.600	n	22.20	10.60	42	0	932	445	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	18	0	380	298	0	0	0	0
.	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	0	0	0	0
11	├─G	1D-c2ov	0.570	n	21.09	16.56	0	0	0	0	30	0	633	497
	├─G	7A-1gsnn	0.600	n	22.20	22.06	0	0	0	0	0	0	0	0
	└─D	11J0	0.600	n	22.20	17.49	0	0	0	0	21	21	466	367
	C	16B-30md	0.032	-	1.18	1.68	312	312	369	526	280	280	332	472
	F	19A-19cswp	0.049	-	1.42	0.65	312	312	443	204	280	280	398	183
6	c) AED excursion									0				0
	Envelope loss/gain								1923	1341			1657	1407
12	a) Infiltration								1217	208			1049	218
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	0			0
		Appliances @ 1200					3			3600	2			2400
	Subtotal (lines 6 to 13)								3140	5149			2705	4025
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								3140	5149			2705	4025
15	Duct loads						46%	40%	1430	2074	46%	40%	1232	1621
	Total room load								4569	7223			3937	5646
	Air required (cfm)								299	350			258	274

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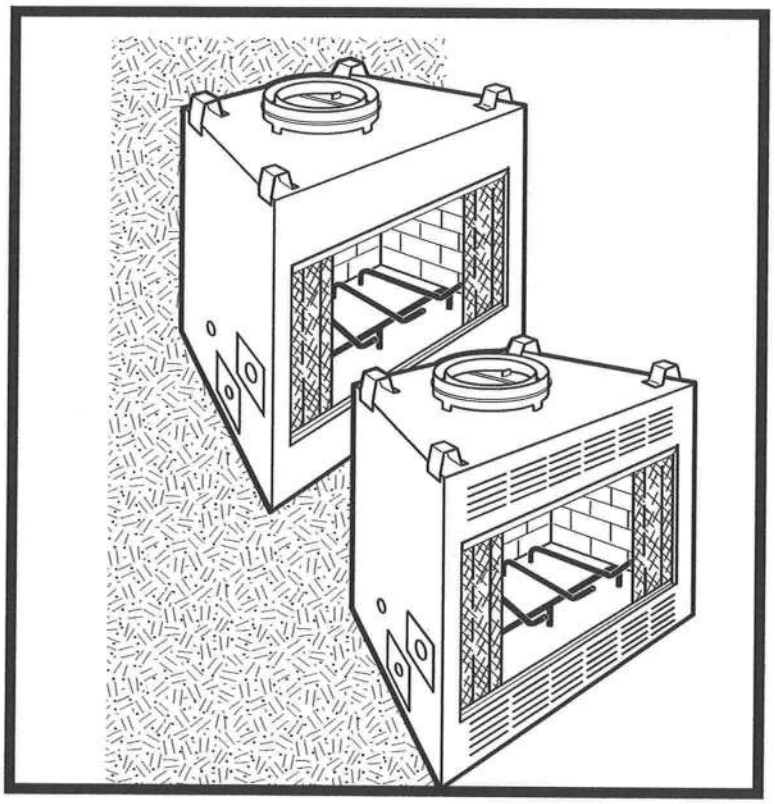
MHSC
Monessen Hearth Systems Company

BR/BC Series
Woodburning Fireplace



Homeowner's Installation and Operating Manual

For Models:

BR36
BR42
BC36
BC42

c UL us
LISTED
For use in U.S./Canada
Underwriter's Laboratories
Report No. MH7603

NATIONAL FIREPLACE INSTITUTE
NFI
CERTIFIED
www.nficertified.org

We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).

Wood Energy Technical Training
www.wettinc.ca

DO NOT DISCARD THIS MANUAL: Retain for future use.

7412944 2/10 Rev. 26

Safety Information

PLEASE READ THIS MANUAL BEFORE INSTALLING AND USING FIREPLACE.

IMPORTANT: Read all instructions and warnings carefully before starting installation. Failure to follow these instructions may result in a possible fire hazard and will void the warranty.

Description

The BR/BC Series fireplaces are solid fuel, woodburning fireplaces. The BR36/42 (Builder Radiant) is a clean-face fireplace and the BC36/42 (Builder Circulating) unit has fixed grilles.

Precautions

MHSC fireplaces and component parts have been highly tested and will operate safely when installed in accordance with instructions provided in this manual. Carefully read and understand all instructions **before** beginning installation.

If you notice any damage to fireplace or component parts, immediately report damage to your MHSC Fireplaces dealer.

Only use MHSC components or the warranty will be voided and a fire hazard may be created.

MHSC warranty will be voided by and MHSC disclaims any responsibility for the following actions:

- **Installation by any other than a qualified installer, preferably NFI or WETT (Canada) certified.**
- **Installation of any damaged fireplace or chimney component;**
- **Modification of fireplace, chimney assembly or any component parts thereof;** (except for chase flashings as detailed in Chimney Top installation instructions).
- **Installation other than as instructed by MHSC; or**
- **Installation and/or use of any component part not manufactured or approved by MHSC in combination or assembly with a MHSC Fireplaces fireplace system, notwithstanding any independent testing laboratory or other third party approval of such component parts or accessory.**

Any such action may possibly cause a fire hazard.

Consult local building codes to ensure that you are in compliance **before** installing the fireplace.

Fireplaces must be vented to the out-of-doors.

Do not obstruct or modify air inlets/outlets in any manner.

Do not install combustible materials on any of the black fireplace surround.

Burn only solid wood fuel or gas logs.

Do not install a solid fuel burning insert or other products not specified for use with this fireplace.

Proposition 65 Warning: Fuels used in gas, wood-burning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.
California Health & Safety Code Sec. 25249.6

Drafts

The fireplace should not be located in areas that create drafts (ie: frequently opened doors and central heating air inlets/outlets) that hamper the normal flow of air into the fire.

Gas Logs

If you plan to install a gas log, the gas line should be installed **before** framing the fireplace. The gas line must be installed by a certified gas line installer.

BR36 / BR42 **BC36 / BC42** **Listed**
UL 127 / ULC-S610 **Standard for Factory Built Fireplaces**

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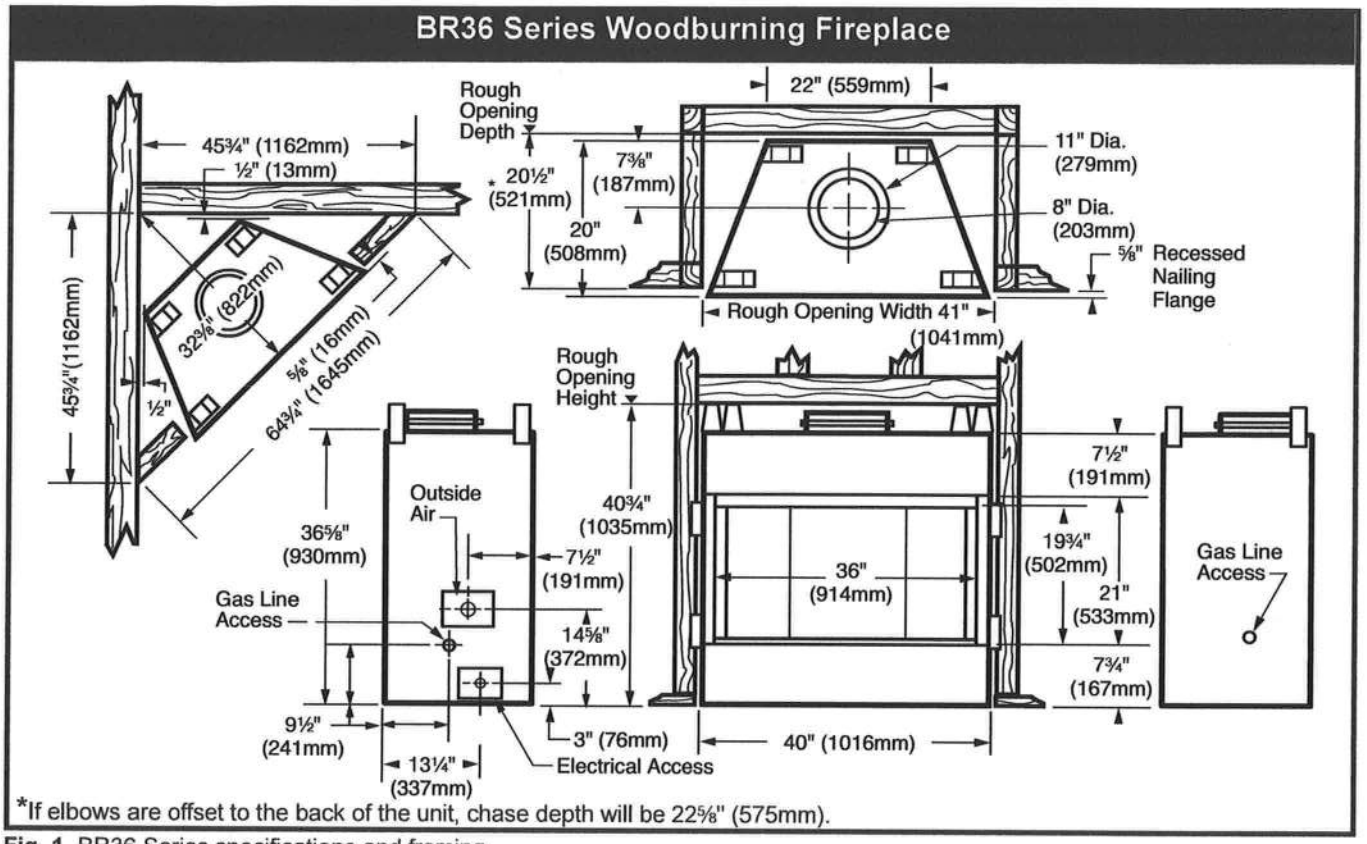


Fig. 1 BR36 Series specifications and framing.

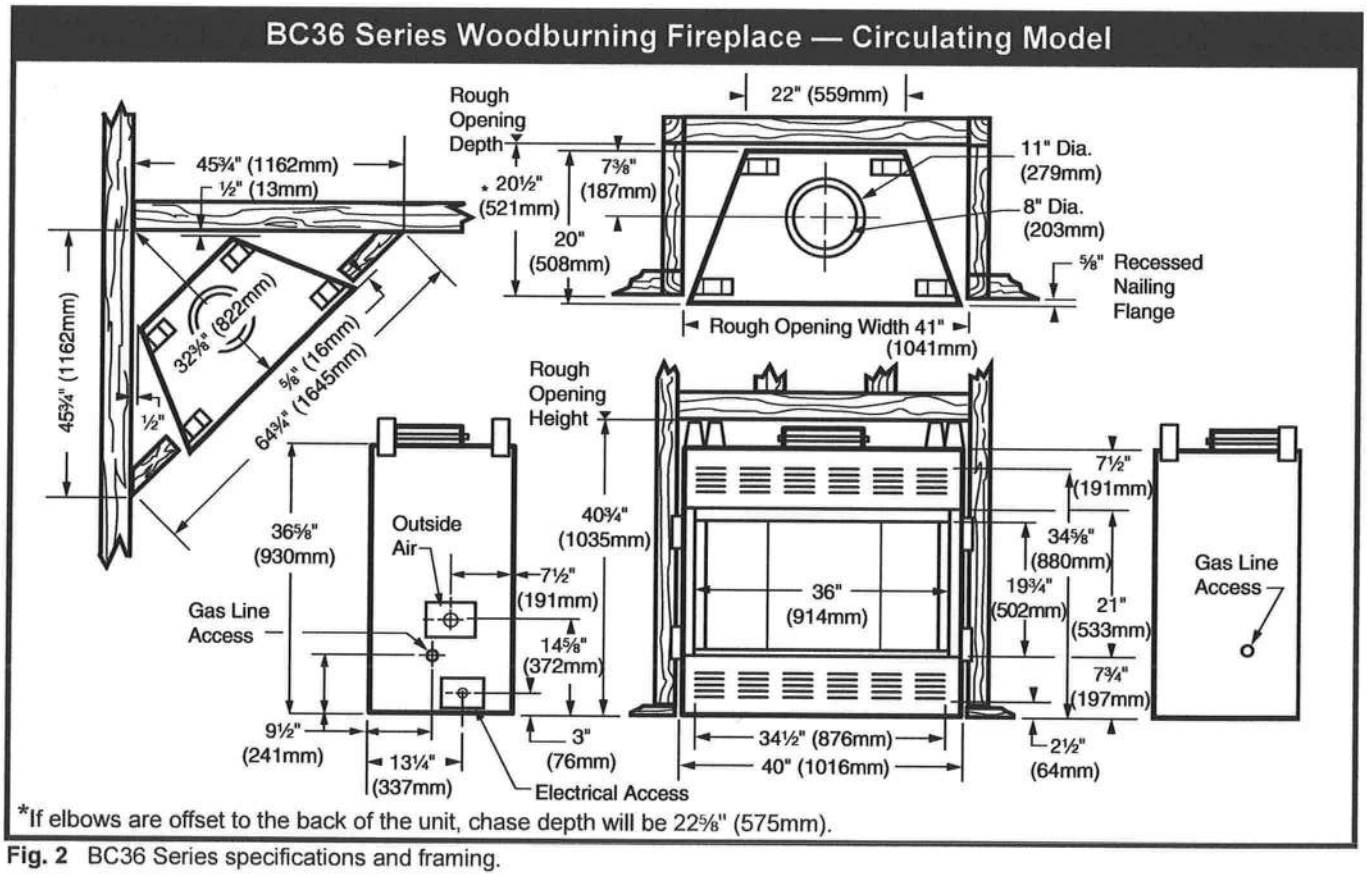


Fig. 2 BC36 Series specifications and framing.

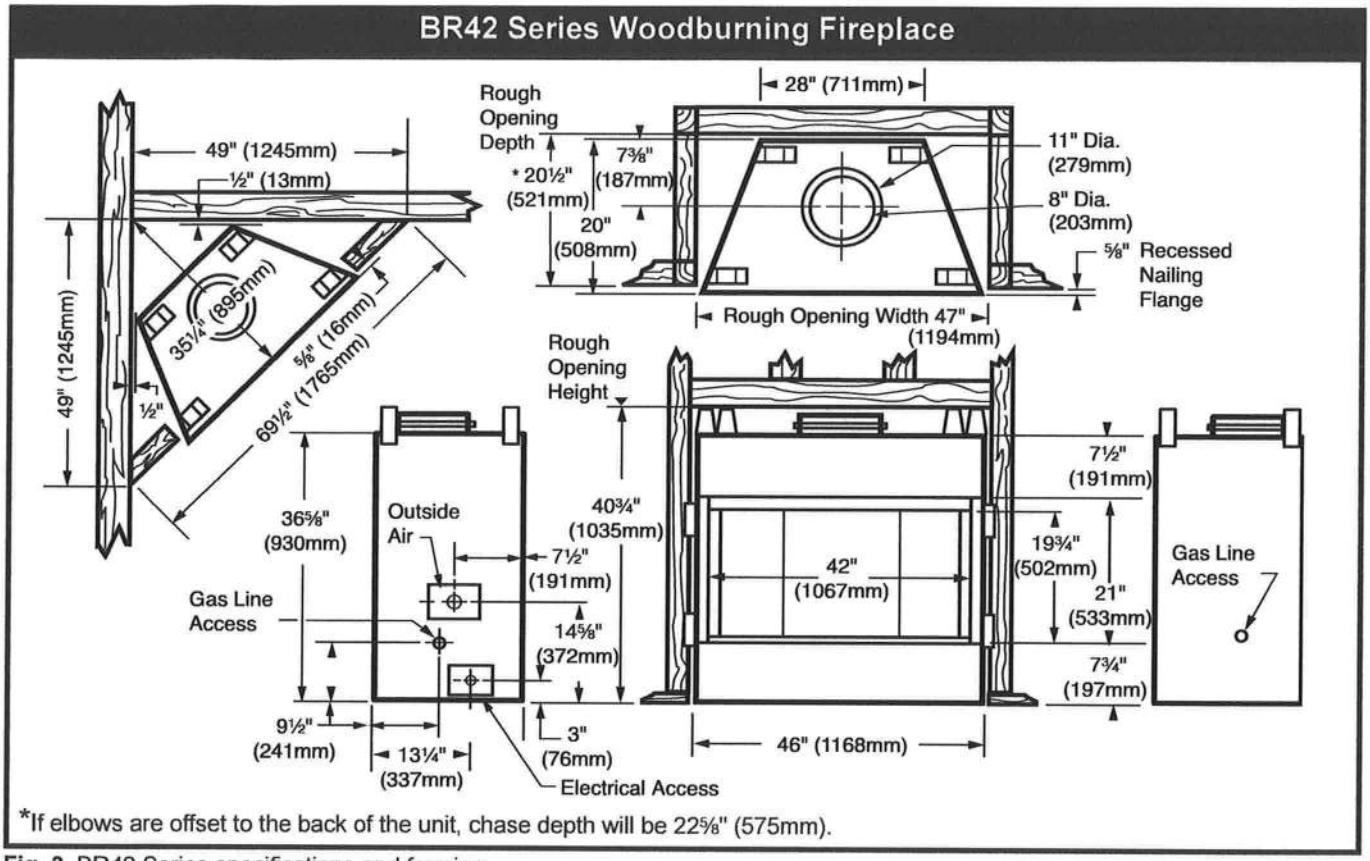


Fig. 3 BR42 Series specifications and framing.

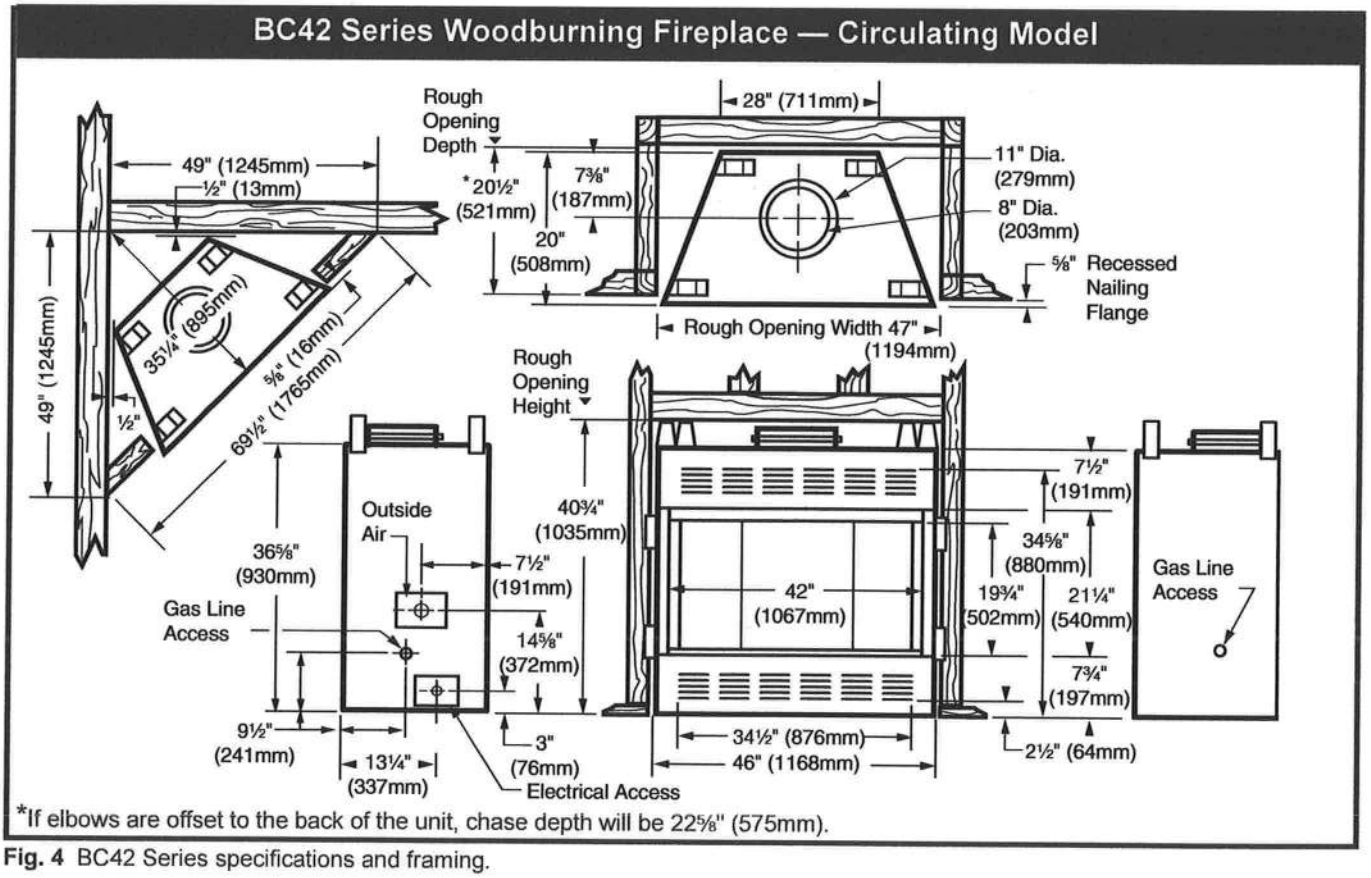
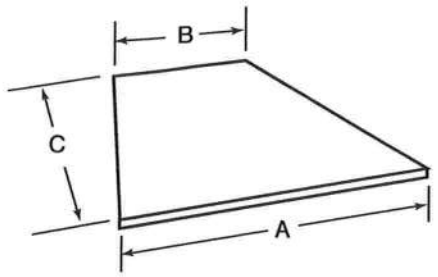


Fig. 4 BC42 Series specifications and framing.



	Front Width A	Back Width B	Depth C
BR/BC36	33¼" (845 mm)	19⅝" (499 mm)	15¼" (387 mm)
BR/BC42	39¼" (997 mm)	25⅝" (651 mm)	15¼" (387 mm)

Fig. 4a Hearth dimensions.

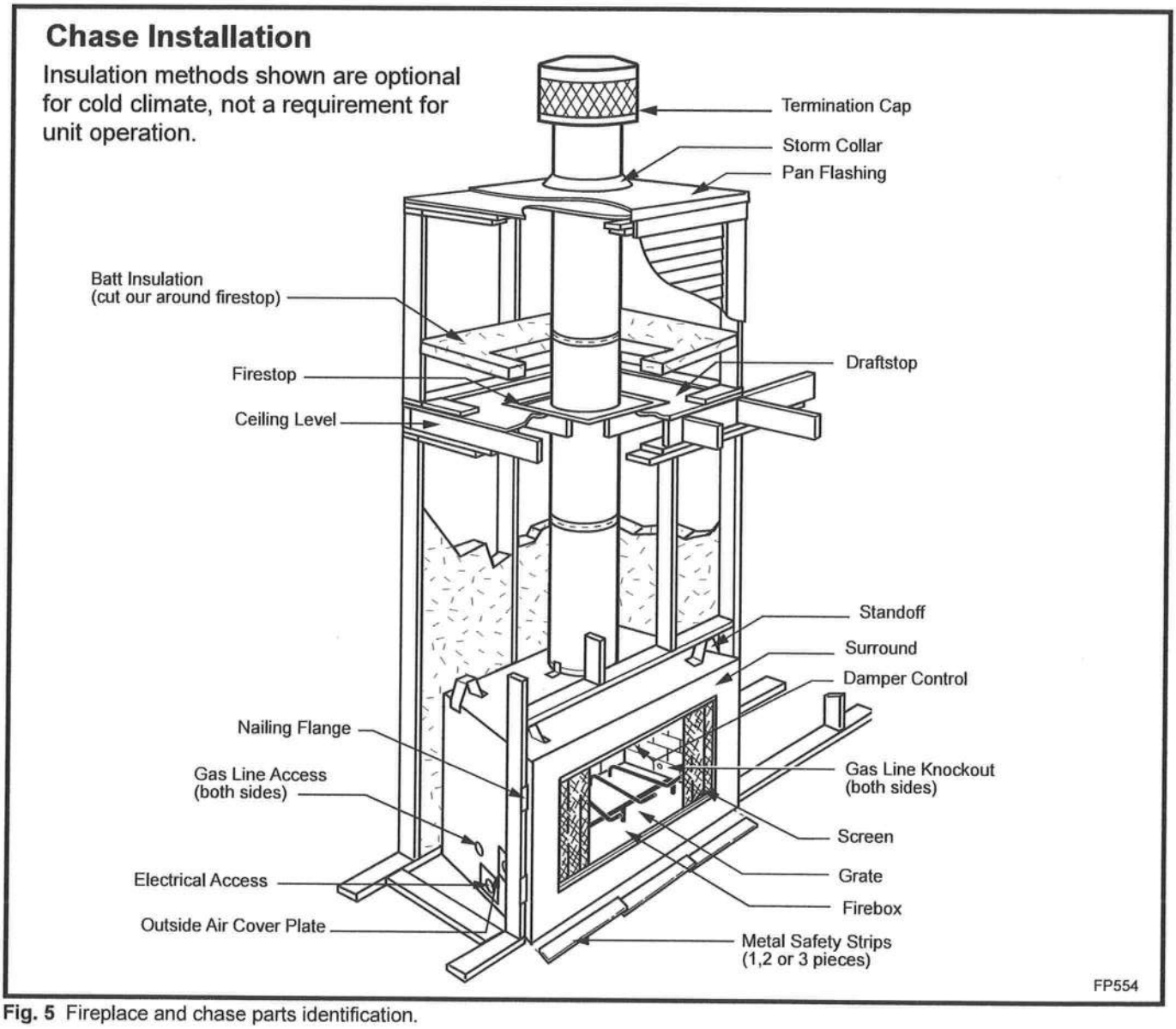
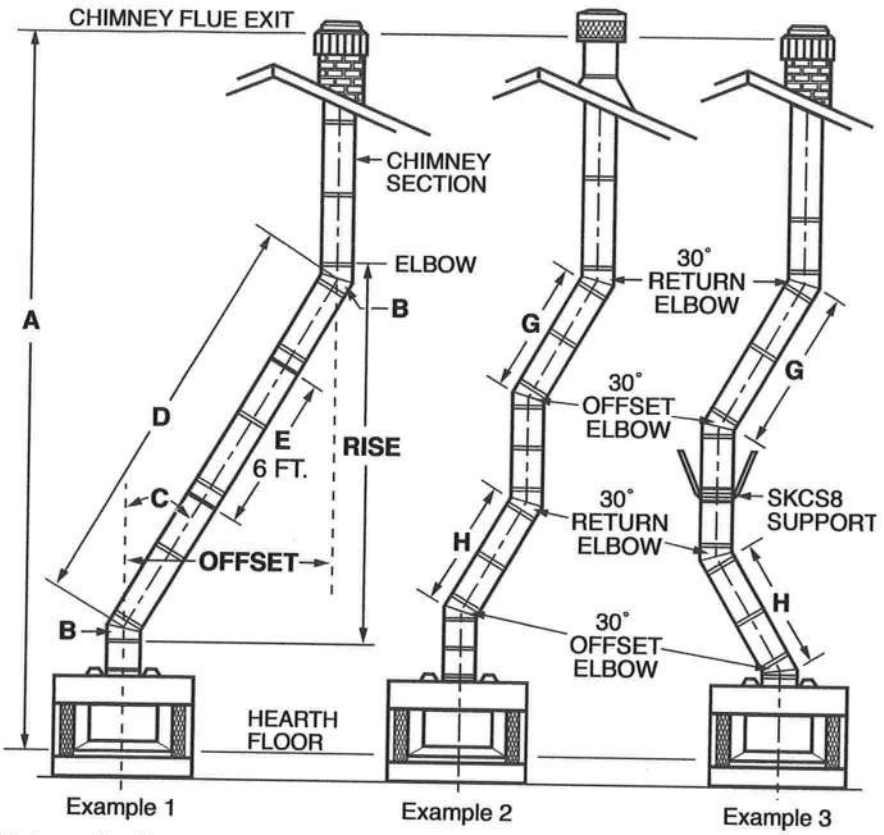


Fig. 5 Fireplace and chase parts identification.

Chimney Requirements - Offset Installations



Notes: G + H cannot exceed 20 feet. FP269
Air space clearances: SK8 (2-wall = 1½" and "S" Series (3-wall) = 2"

Illustration Key

The following safety rules apply to offset installations (letters correspond with illustration above):

A. Height of the chimney is measured from the hearth to the chimney exit.

	BR/BC36	BR/BC42
Maximum:	90'0"	90'0"
Minimum:		
Without Elbows	12' 6"	12' 6"
With 2 Elbows*	14' 6"	14' 6"
With 4 Elbows*	21' 0"	21' 0"

B. Do not use more than 4 elbows per chimney.

Attach the straps of the return (top) elbow to a structural framing member.

The offset (first) elbow of any pair does not have straps.

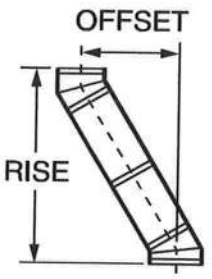
C. The chimney cannot be more than 30° (45° in Canada) from the vertical plane in any installation*.

D. The maximum length of the angled run of the **total** chimney system is 20 feet. (G plus H cannot exceed 20 feet.)

E. A chimney support (Model SKCS8) is required every 6 feet of angled run of chimney. Chimney supports are required for every 30 feet and 60 feet (SK8 pipe) or 20 feet and 40 feet (3-wall pipe) of vertical chimney height above the hearth.

Determine the offset distance of your chimney arrangement from the centerline of the fireplace to the centerline of the chimney where it is to pass through the first ceiling.

NOTE: This offset distance may not be your full offset distance. See Examples 2 and 3.



FP282

30° Elbow Offsets

1'	1½'	3'	4'	Chimney Support	Offset	Rise
0	0	0	0	0	3"	11"
1	0	0	0	0	8¼"	20"
0	1	0	0	0	11¼"	25¼"
2	0	0	0	0	13½"	29¼"
1	1	0	0	0	16½"	34¼"
0	0	1	0	0	20¼"	40¾"
2	1	0	0	0	21¾"	43½"
0	0	0	1	0	26¼"	51¼"
0	1	1	0	0	28½"	55¼"
1	0	0	1	0	31½"	60¼"
0	1	0	1	0	34½"	65½"
0	0	2	0	0	37½"	70¾"
1	1	0	1	1	41½"	77¾"
0	0	1	1	1	45"	83¾"
0	1	2	0	1	47¼"	87½"
0	0	0	2	1	51"	94"
0	1	1	1	1	53¼"	98"
0	0	3	0	1	56¼"	103¼"
0	1	0	2	1	59¼"	108½"
0	0	2	1	1	62¼"	113½"
0	1	3	0	1	64½"	117½"
0	0	1	2	1	68¼"	124"
0	1	2	1	1	70½"	128"
0	0	0	3	1	74¼"	134½"
0	1	1	2	2	78"	140¾"
0	0	3	1	2	81"	146"
0	1	0	3	2	84"	151¼"
0	0	2	2	2	87"	156½"
0	1	3	1	2	89¼"	160¼"
0	0	1	3	2	93"	166¾"
0	1	2	2	2	95¼"	170¾"
0	0	0	4	2	99¼"	177¾"
0	1	1	3	2	101¼"	181¾"
0	0	3	2	2	104¼"	186¼"
0	1	0	4	2	107¼"	191½"
0	0	2	3	2	110¼"	196¾"
0	1	3	2	3	114"	203¼"
0	0	1	4	3	117¾"	209¾"
0	1	2	3	3	120"	213½"
0	0	0	5	3	123¾"	220"

Fig. 6. Chimney system requirements.

Planning Information

Preplanning an installation is very important to ensure safety and to save time and money. An installer must predetermine where a fireplace will be set and how the chimney system will be run.

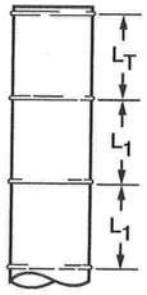
Mounting the Fireplace

A fireplace may only be mounted on the following surfaces:

1. A flat combustible surface.
2. A raised wooden platform.
3. A concrete block or other solid object placed beneath each of the four (4) corners of the fireplace.

The fireplace **must** be spaced 1/2" (13 mm) from a combustible back wall and 1/2" (13 mm) from a combustible side wall or support. (Page 14, Fig. 20)

Planning the Chimney Run



MODEL SK 2 WALL CHIMNEY	TOTAL LENGTH (L_T)	INSTALLED LENGTH (L_1)
SK81	11½"	10½"
SK818	17½"	16½"
SK83	35½"	34½"
SK84	47½"	46½"

FP288

Fig. 7 Installed lengths of chimney sections.

Determine how the chimney will be run, length of run and chimney components required to complete the job. (Fig. 6) **Never** install a chimney below minimum heights.

In planning a chimney system, it is important to know:

1. The height of a chimney is measured from the hearth to the exit point on the termination.
2. A chimney cannot be offset more than 30° from a vertical plane.
3. A chimney may run straight up or it may be necessary to offset it to avoid obstructions.
4. The maximum length of an angled run (total chimney system) is 20' (6 m).
5. No more than 2 offsets (4 total 30° elbows in U.S./or 2 total 45° elbows in Canada) per fireplace may be used.
6. A guy wire stabilizer is required for chimneys extending more than 6' (1.8 m) above a roof line.

The Ten Foot Rule

Major U.S. building codes specify a minimum chimney height above the roof top. The "Ten Foot Rule" is a fire safety rule and not a draft rule. To ensure proper draft, it is recommended that you always meet or exceed the "Ten Foot Rule," especially when installing a termination on a high pitch roof. (Fig. 8)

The key points of the "Ten Foot Rule" are:

1. If the horizontal distance from the chimney to the peak of the roof is 10' (3 m) or less, the top of the chimney must be at least 2' (610 mm) above the peak of the roof, but never less than 3' (914 mm) in height above the highest point where it passes through the roof.
2. If a horizontal distance from the chimney to the peak of the roof is more than 10' (3 m), a chimney height reference point is established on the surface of the roof a distance of 10' (3 m) from the chimney in a horizontal plane. The top of the chimney must be at least 2' (610 mm) above the reference point, but never less than 3' (914 mm) in height above the highest point where it passes through the roof.

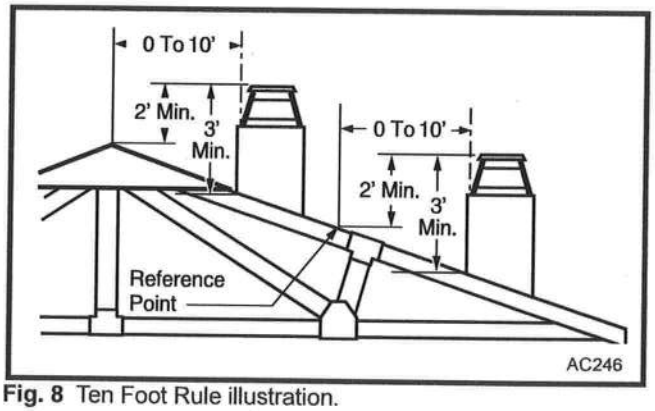


Fig. 8 Ten Foot Rule illustration.

Chimney Supports

The chimney system is supported by the fireplace for vertical chimney heights less than 30' (9 m) above the hearth. Chimney supports are required if the vertical height exceeds 30' (9 m) with SK8 chimneys or 20' (6 m) with 3-wall chimneys. Locate chimney supports at ceiling holes or other structural framing at 30' (9 m) (SK8) or 20' (6 m) (3-wall) heights. Spacing between chimney supports **must not** exceed 30' (9 m) (SK8) or 20' (6 m) (3-wall). Use Chimney Support Model SKCS8. **(NOTE: The SKCS8 can not be mounted directly to the fireplace.)** Support provided by elbow straps fulfills the support requirement only if they are spaced as previously described. (A chimney support is 2½" (64 mm) long when installed.)

Angled chimney runs require a support every 6' (1.8 m) in addition to the elbow straps. Chimney supports are used for this function. (Fig. 9)

Chase Installation

A chase is a vertical box-like structure which encloses the fireplace and/or chimney. Chases are typically built on the outside of the house with fireplace opening cut into the outer wall of a room. (Page 5, Fig. 5)

If you need help in determining fireplace location or how the chimney system should be run, contact your MHSC Fireplaces dealer for assistance.

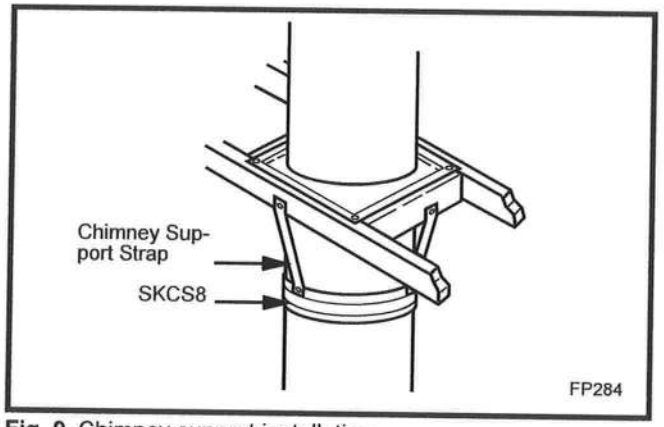


Fig. 9 Chimney support installation

Installation

Insulating Fireplace Enclosure for Cold Climates

If you live in a cold climate, it is not required but **highly recommended** that you insulate fireplace enclosure to eliminate cold air penetration as much as possible.

Insulate base of fireplace with a noncombustible insulation rated for a minimum of 300°F. Insulating is **very important** for outside wall installations over a concrete slab. If fireplace is installed on a platform, insulation should be placed on top of the platform **before** fireplace is set. (Fig. 10)

When a fireplace is installed in a chase or on a outside wall, enclosure should be treated like any outside wall in a home. Insulation should be installed on the inside wall as well as the outside wall(s). In a chase, it is also a good idea to install a firestop at the first ceiling level above the fireplace and enclose the chase with sheeting material. Insulation may then be installed above sheeting material to assure the space around the fireplace is totally protected. (Fig. 5)

When installing the chimney, **DO NOT** caulk between outer pipe and firestop. It is vital that some air be allowed to flow through this very thin gap.

CAUTION: WHEN INSTALLING A FIREPLACE IN AN INSULATED ENCLOSURE, BE SURE ALL REQUIRED AIR SPACES ARE MAINTAINED. (Page 14, Figure 20)

Framing

Framing can be constructed before or after the fireplace is set in place, however, most installers build the frame before setting the fireplace.

Frame fireplace with 2 x 4 lumber or heavier materials. Refer to framing dimensions in Figures 1, 2, 3 or 4 for basic fireplace specifications.

NOTE: When using 2 x 6 framing construction, the allowable air space between the front of the SK8 outer pipe and 2 x 6 framing is reduced to 1" (25mm) as tested and approved by U.L. for use in both the United States and Canada.

NOTE: Framing should be positioned to accommodate wall covering and fireplace facing material.

Installing Electrical Wire (for Circulator Models)

If a circulating fireplace is to be installed, run the 120 VAC, 60 Hz wiring to the left side of installation. Wiring must be completed **before** the fireplace is secured and finish material applied.

Remove the cover plate and electrical knock-out on the lower left side of the fireplace and set aside. Follow the instructions on Page 10 for proper wiring and installation of the EB1.

If the fan kit is not being installed with the fireplace, it is highly recommended that 120 VAC supply be made available since someone may elect to install a blower at a later date.

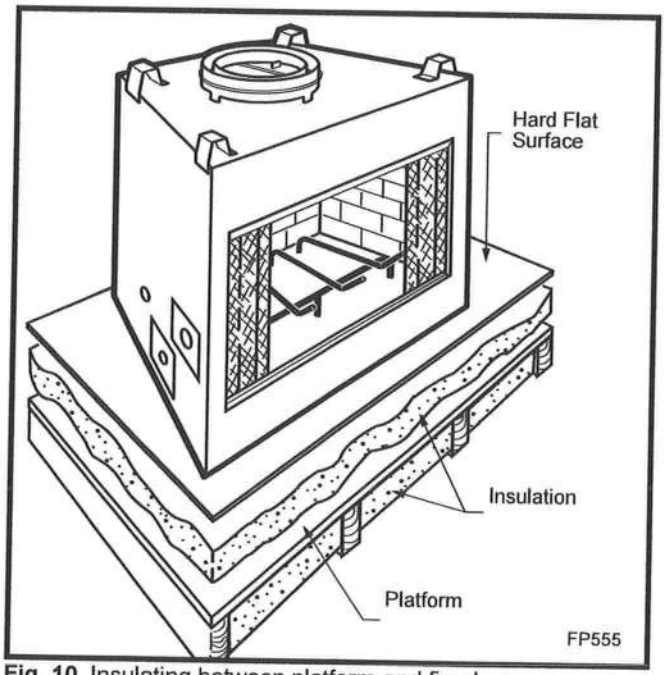


Fig. 10 Insulating between platform and fireplace.

Option For Circulating Models Only —

EB1 (Receptacle) Hook-Up:

- Wiring should be installed by a certified electrician.
- Turn off circuit breaker before wiring models.

Once fireplace is secured, complete wiring the fan kit. Remove knockout in the center of the back of the EB1 and install listed cable clamps. Feed electrical wire through listed cable clamp leaving approximately 6" (152 mm) of wire exposed through the EB1. Secure listed cable clamp to the wire.

Attach white wire from power source to one (1) wire of receptacle and secure with nut. Attach black wire from power source to the other wire of receptacle and secure with nut. Be sure nuts are secured tightly.

Secure EB1 assembly to inside of electrical box coverplate using two screws. Attach cover to face of the EB1 while being careful to position excess wire completely within the EB1, then attach coverplate to fireplace.

Install Fan Kit Assembly

Refer to optional Model FK12 fan kit assembly installation instructions for field installation.

Chimney Set-up

Since you have already preplanned the chimney run, you should know exactly how the installation is to be accomplished — how much pipe is required, the number of elbows, if any, and type of termination to be used.

CAUTION: REPORT TO YOUR DEALERS ANY PARTS DAMAGED IN SHIPMENT, SPECIFICALLY CHECK THE END CONNECTION OF CHIMNEY SECTIONS AND ELBOWS.

NOTE: Fireplaces may use MHSC Model SK8, or Model S (three wall) chimney systems. The BR/BC Series Fireplace will accept the SK8 chimney system as is; but a TWABR adapter collar is required when using the Model S (triple wall) chimney system. The installation procedure described in this manual applies **only** to the SK8 system. Either chimney system may be used, but **may not** be mixed.

Straight-Up Chimney Installation

To mark the centerline of the flue, put the fireplace in final position and measure out from the wall: 8¼" (210 mm)

Mark a spot on the ceiling directly above the fireplace. Draw a line parallel to the back wall through this mark. (Fig. 11)

Using a plumb bob positioned directly over center point of fireplace flue collar, mark the ceiling to establish the chimney center point. (Fig. 11)

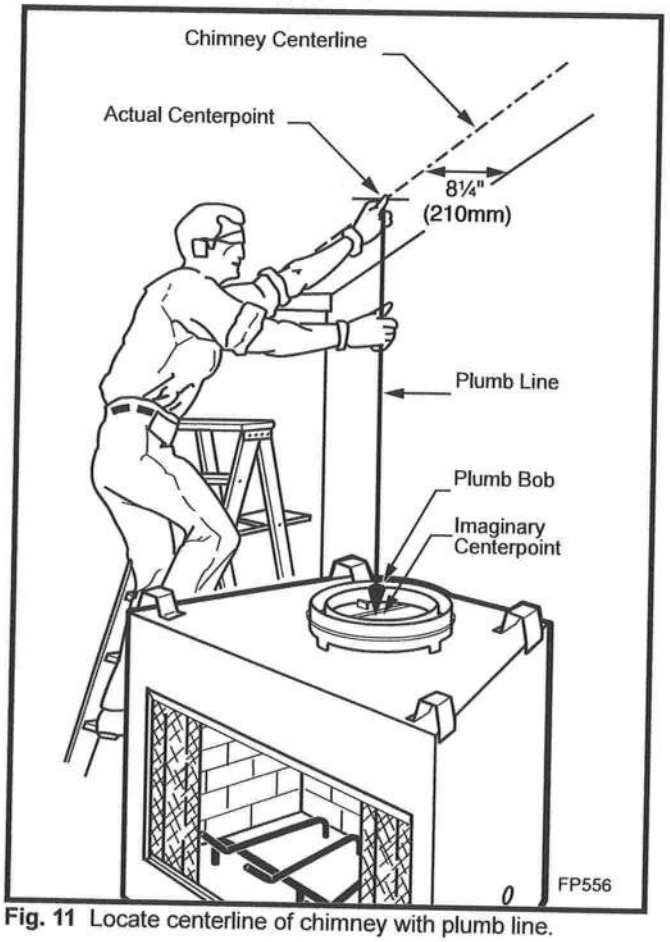


Fig. 11 Locate centerline of chimney with plumb line.

Offset Installation

In order to clear an obstruction, it may be necessary to offset chimney from vertical. This is accomplished by using MHSC elbows. Use the *30° Offset Elbow* table on Page 6 to determine proper offset and parts required.

Each offset requires two (2) elbows. The second elbow is equipped with support straps. It is very important to install the second elbow in each offset as close to the ceiling or support as possible so that the elbow straps can be secured to framing members to help support the weight of the chimney.

Determine offset distance of your chimney arrangement from centerline of fireplace to centerline of chimney where it is to pass through ceiling.

Locate center point of the chimney on ceiling as though a straight up chimney arrangement is to be used. Measure your offset dimension from straight up chimney center point on ceiling.

Ceiling Chimney Hole/ Possible Obstructions

The size of the hole in ceiling will vary with the angle at which the chimney passes through ceiling.

Drive a nail up through ceiling at marked chimney center point. Go to floor above and see where hole will be cut. Check to see where existing ceiling joists and other possible obstructions are located...i.e. wiring, plumbing etc... If necessary, re-position chimney and/or fireplace to avoid obstructions.

Cutting the Hole

Cover fireplace collar opening and cut proper sized chimney hole in chimney. The SK8 pipe allows you to run pipe through a typical 16" on center joist without cutting joists.

Framing the Ceiling Hole

Frame the ceiling chimney hole as shown in Figure 12. It is good practice to use framing lumber that is the same size as the ceiling joists; this is a requirement at attic level.

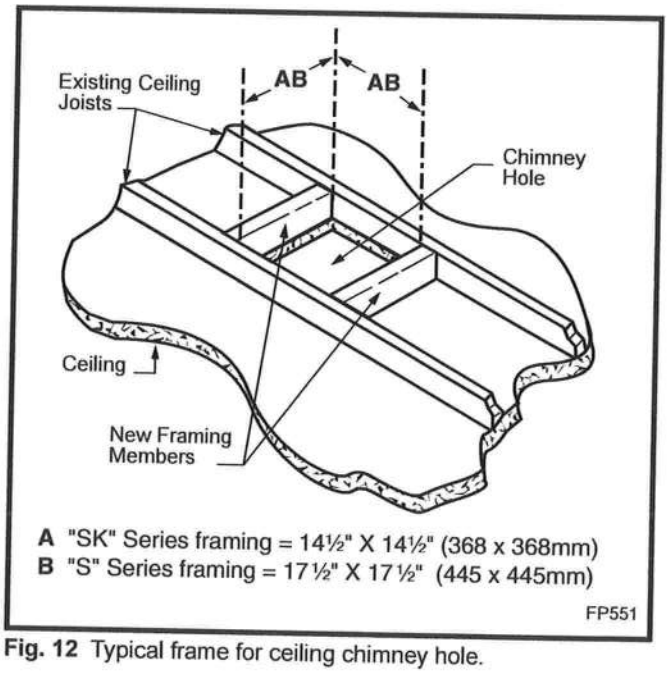


Fig. 12 Typical frame for ceiling chimney hole.

The following table gives firestop spacer model numbers:

Size of Chimney	Angle of Chimney at Ceiling	
	Vertical	30°
8" Flue "SK" Series	SKFS2A 14½" x 14½" (368 mm x 368 mm)	SKFS6A 14½" x 25½" (368 mm x 648 mm)
8" Flue "S" Series 3-Wall	FS2A 17½" x 17½" (445 mm x 445 mm)	FS6A 17⅞" x 29⅝" (454 mm x 753 mm)

Fig. 13 Ceiling chimney hole sizes necessary for installing firestop spacer.

The **inside dimension** of the frame **must be** the same as the hole size selected from Figure 13 in order to provide the required 1½" (38 mm) of air space between the outside diameter of the chimney and the edges of the framed ceiling hole.

Positioning, Safety Strips, Securing the Fireplace

Slide fireplace into position.

Lift the fireplace front slightly and slide the metal safety strips under front bottom edge about 1½" (38 mm), allowing the remainder to extend in front of firebox. Overlap strips at least 1/2" (13 mm) to provide a positive joint. (Flat safety strips are packed with fireplace.) (Fig. 14)

Safety strips are used to ensure that any combustible materials in front of the fireplace are protected even though a noncombustible hearth extension is required.

If fireplace is to be elevated above the floor, a "Z" shaped metal safety strip must be fabricated and used to protect combustible surfaces in front of the fireplace. This "Z" shaped safety strip is not provided but must be fabricated of metal with each horizontal leg at least 1½" (38mm) wide and equal in length to the metals strips provided with the fireplace.

Note: Safety strips are not required over noncombustible floors where all supports at the base of the fireplace are noncombustible.

Four (4) nailing flanges are supplied with the fireplace (found on the fireplace hearth). To level the box and secure it firmly in place, remove the nailing flanges from the hearth and install at the sides of the fireplace as shown in Figure 15.

Installing Outside Air Kit

An outside air kit is installed in all BR/BC Series Fireplaces. If desired, or if local codes mandate the use of an air kit, then an AK-MST is required to complete the installation (from air kit to the outdoors). If the outside air kit is to be used, the AK-MST **MUST** be installed **BEFORE** the fireplace is enclosed. Refer to the AK-MST instructions for field installation.

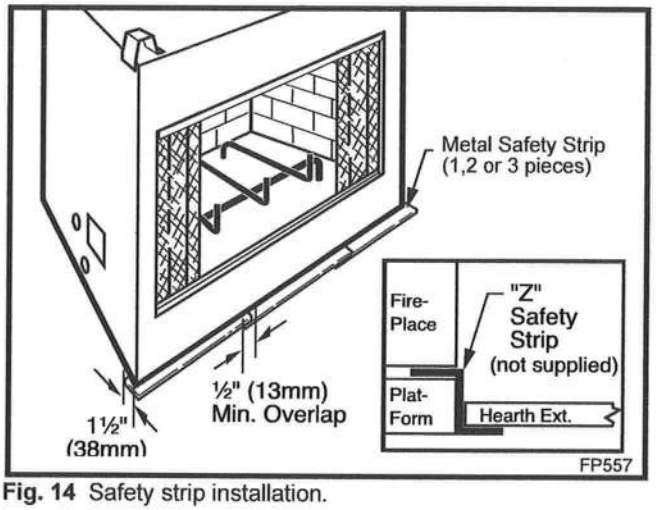


Fig. 14 Safety strip installation.

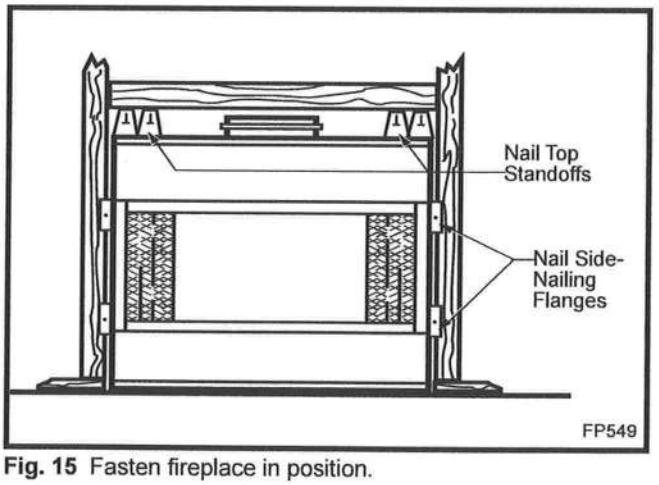


Fig. 15 Fasten fireplace in position.

Installing the Chimney System

Start by attaching the first chimney section to the collar on top of the fireplace.

Install the pipe as pictured in Figure 16. When you get a good lock, you will hear the pipe clearly snap together. Once sections are snap-locked in place, it is extremely difficult to get them apart. **Make sure the pipe is firmly snapped and locked together as each pipe section is mounted.**

When installing elbows, only outer pipe will snap- lock. Middle pipes simply slide into position. Be sure to always attach straps on upper elbow to a structural framing member. (Fig. 17)

Continue installing the pipe as required until pipe is installed up through the ceiling. At this point, you must install a firestop spacer.

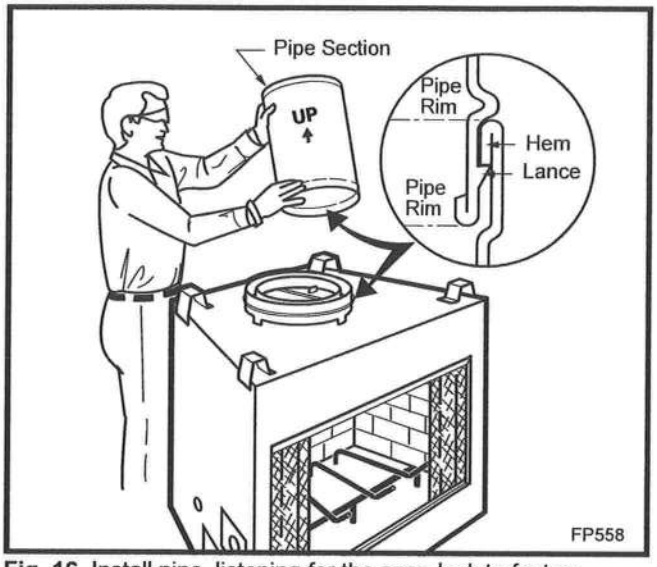


Fig. 16 Install pipe, listening for the snap-lock to fasten.

Installing the Firestop Spacer in the Ceiling Hole

A firestop spacer is used to keep pipe spaced properly and required for safety.

Nail the firestop spacer (at each corner) to the framing members of the ceiling hole. **NOTE:** A firestop spacer is not required at the roof.

Hole sizes listed in Figure 13 for angled firestop spacers provide minimum required air space to chimney pipe for ceiling thickness up to 8" (203 mm). When combined thickness of ceiling material, ceiling joists and flooring material exceeds 8" (203 mm), adjustments must be made in framing to assure that minimum air spaces to chimney are maintained.

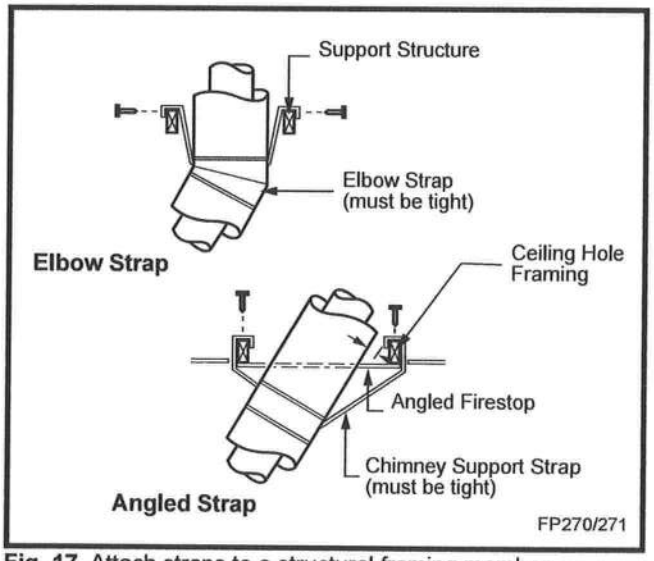


Fig. 17 Attach straps to a structural framing member.

Proper Firestop Spacer Installation

Figure 18 shows different installation procedures for both an area that *is* an attic and an area that *is not* an attic.

If the area above the ceiling **is not** an attic, position the firestop spacer with the flange on the ceiling side and the angled portion extending up into the hole.

If the area above the ceiling **is** an attic, position the firestop spacer with the flange on the top of the framed hole and the angled portion extending down into the hole.

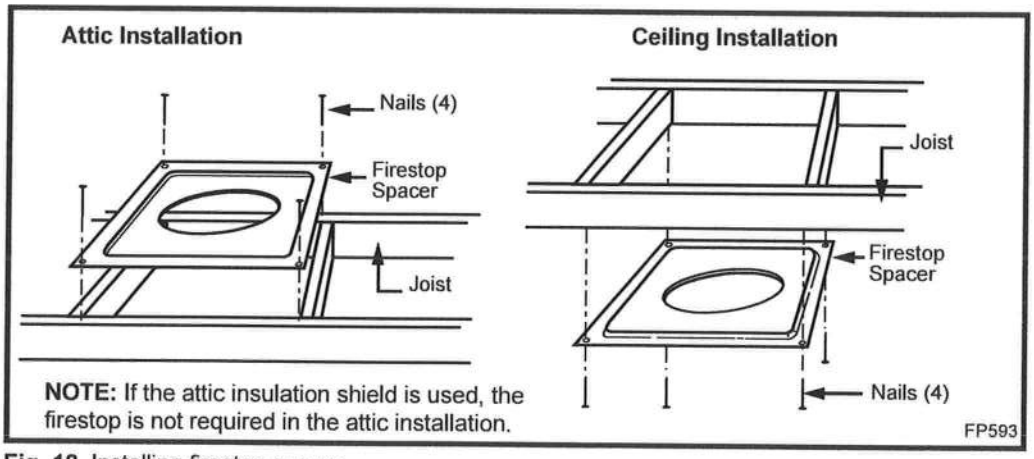


Fig. 18 Installing firestop spacer.

Firestop spacers are not available for nor are they required on vertical walls.

DO NOT put any sealant around the area where the outer pipe slides through the firestop spacer. If you seal this area, **it may cause a fire hazard.**

Canadian Requirements for Insulation Shield

In Canada, an attic insulation shield is required to prevent attic insulation from contacting the chimney section. **NOTE:** If the attic insulation shield is used, the firestop is not required in the attic installation. Framing dimensions for the chimney hole should measure 14½" x 14½" (368 x 368 mm). An attic shield MUST be installed on top of attic joists (above the floor level). (Fig. 19)

NOTE: In the U.S., it is a good idea, although not always required, to install an attic insulation shield where blown-in insulation is planned to be used in the attic.

Install the attic insulation shield with the flanges on its base extending down into the framing hole. Nail each corner of attic insulation shield to the framing members of the ceiling hole using 8d nails. Attic shields are not required at the roof.

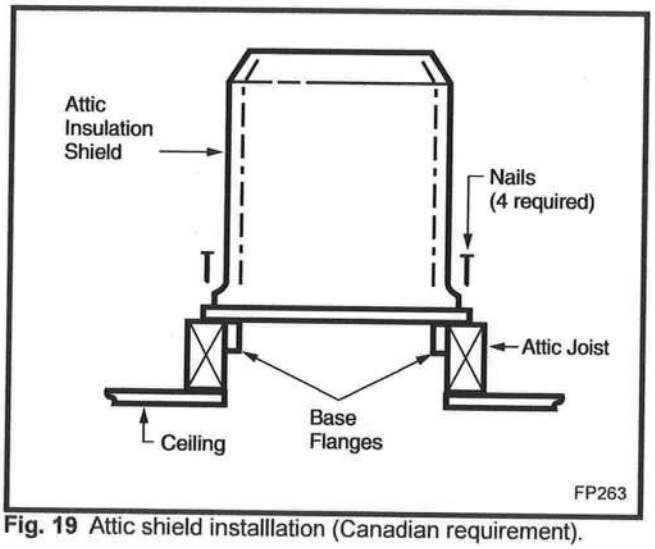


Fig. 19 Attic shield installlation (Canadian requirement).

Continue Installing Pipe to Complete Run

Continue attaching pipe sections to complete system to next level always being careful that the pipe is firmly snapped locked in place before proceeding to next pipe section.

Chimney Supports

If chimney supports are required, they are installed the same as elbows. Nail chimney support straps to adjacent structural framing, as shown on Figure 9, Page 8. Bend straps as necessary and make sure they are secure so they will support the weight of the chimney.

A chimney support is 2½" (64mm) long when installed. Consider this dimension when determining how many straight chimney sections are needed.

NOTE: Chimney supports are generally used in long runs in a chase installation.

Additional Ceilings

If you encounter additional ceilings, repeat same steps required for first ceiling installation. See firestop illustration on Page 12, Figure 18.

Penetrating the Roof

Run pipe to roofline. Since chimney system must be vented to the out-of-doors, you **must** use an approved termination.

If a chase is used, refer to the installation manual provided with the termination cap.

Locate Chimney Centerpoint On Roof

Use same procedure detailed in locating center point of the flue system.

Drive a nail up through roof at the center point. This will determine center point on outside of the roof.

Cut and Frame Roof Hole

Size of roof hole varies with the type of chimney termination installed. Refer to installation instructions provided with the chimney termination to find correct size of roof hole.

There must be a 1½" (38mm) air space between outermost portion of chimney sections and any adjacent combustible surfaces. (Combustible surfaces include burnable materials such as: ceiling members, joists, flooring, combustible insulation and roof structures.)

WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.

Mark an outline of the roof hole around the center of the point nail. **NOTE:** Hole dimensions given in the chimney top installation instructions are **horizontal** dimensions; therefore, the hole size must be marked on the roof accordingly.

Cover the opening of the installed chimney so debris cannot get into the system.

Cut and frame the hole. It is good practice to use framing lumber that is the same size as the rafters. Install the frame securely because the chimney top and flashing anchored to the frame must be able to withstand heavy winds.

Install Remainder of Chimney Sections

Since you have already preplanned the height of your termination according to the *Ten Foot Rule*, continue to install pipe to the predetermined height.

Check the chimney top installation instructions for details on how high above the roof top the chimney sections (all pipes) should extend.

Installing Top Housing or Termination

Follow the installation instructions provided with the chimney termination you have selected.

Installing Chimney In a Chase

Refer to Page 5, Figure 5 for an illustration of a typical chase installation.

CAUTION: Treatment of firestop spacers and construction of chase may vary with type of building. These instructions are not a substitute for local building codes. You **must** check your local building codes to determine specific requirements for your city or state. **NOTE:** Other building materials may be required in addition to Firestop Spacers.

Finishing

CAUTION: All joints between the finished wall and the fireplace surround (top/sides) must be sealed with noncombustible material to prevent cold air leakage into the room. Only noncombustible material may be applied to the facing of the fireplace surround. (Black painted area) (Fig. 20)

Finish Wall

Finish the wall with material of your choice. **Do not install a combustible mantel shelf less than 12" (305mm) from the top of the fireplace opening for radiant models and 12" (305mm) from top of grille opening for circulating models. Do not install a mantel face plate less than 6" (159mm) from top of fireplace opening for radiant models and 6" (159mm) from top of grille opening for circulating models.** (Fig. 22) If a combustible material is used below a flat mantel shelf, consult your local building codes for minimum clearance from top of fireplace opening to bottom of mantel shelf.

All joints (top, bottom and sides) where wall or decorative facing material meets fireplace surround must be completely sealed with a noncombustible material. (Figures 21 and 22)

NOTE: No side wall protection is required for fireplaces installed at 45° to two (2) side walls (corner installation).

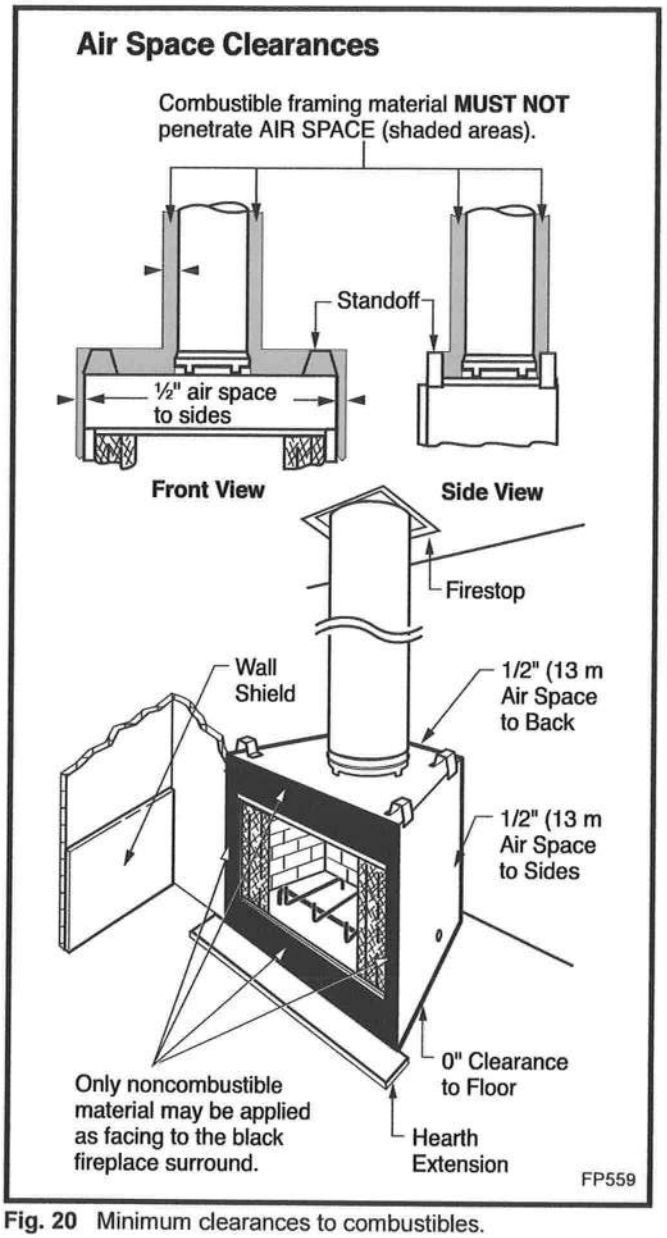


Fig. 20 Minimum clearances to combustibles.

Often a decorative surround or vertical portion of the mantel is desired. If this is constructed of any combustible material it must be within the safe zone indicated in Figure 23.

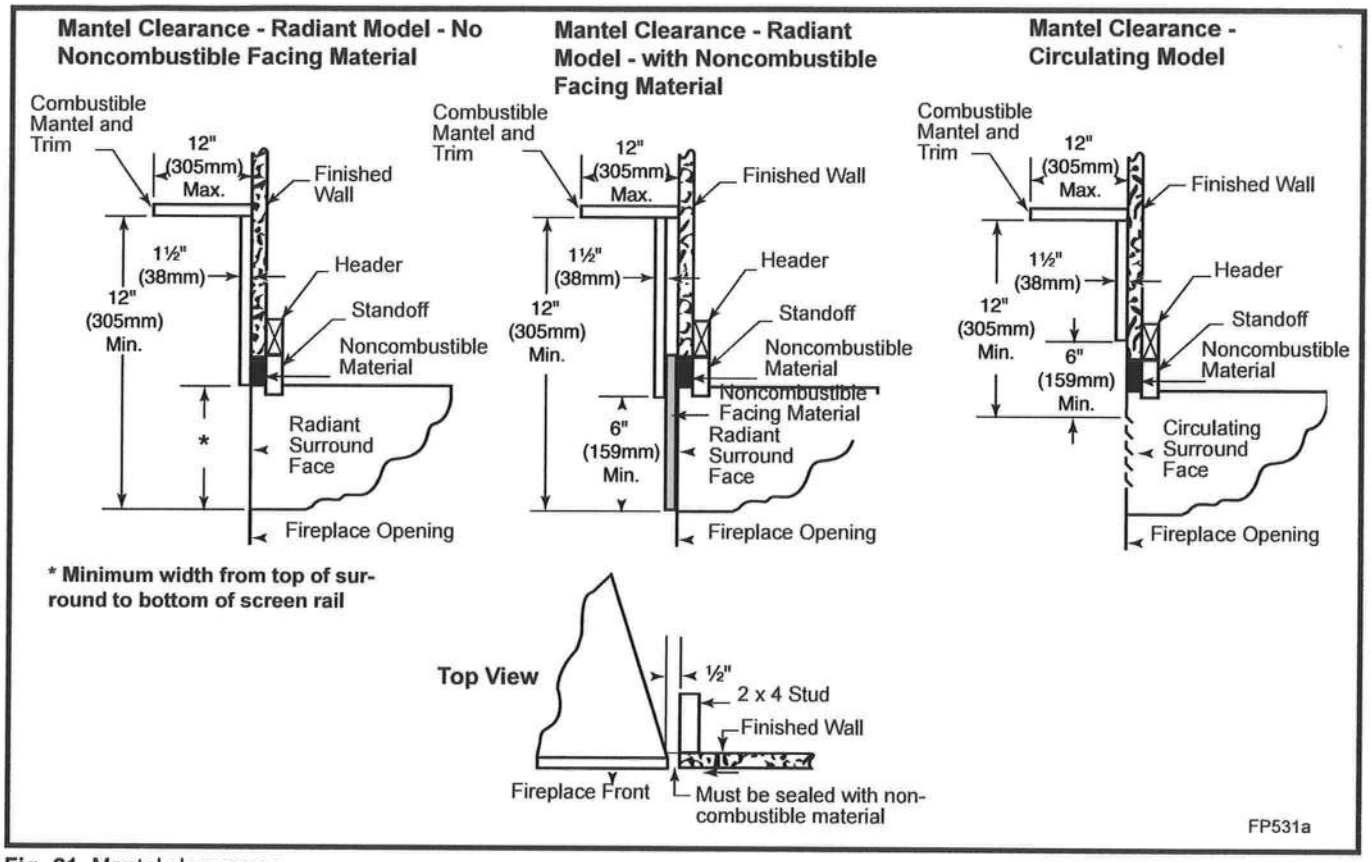


Fig. 21 Mantel clearances.

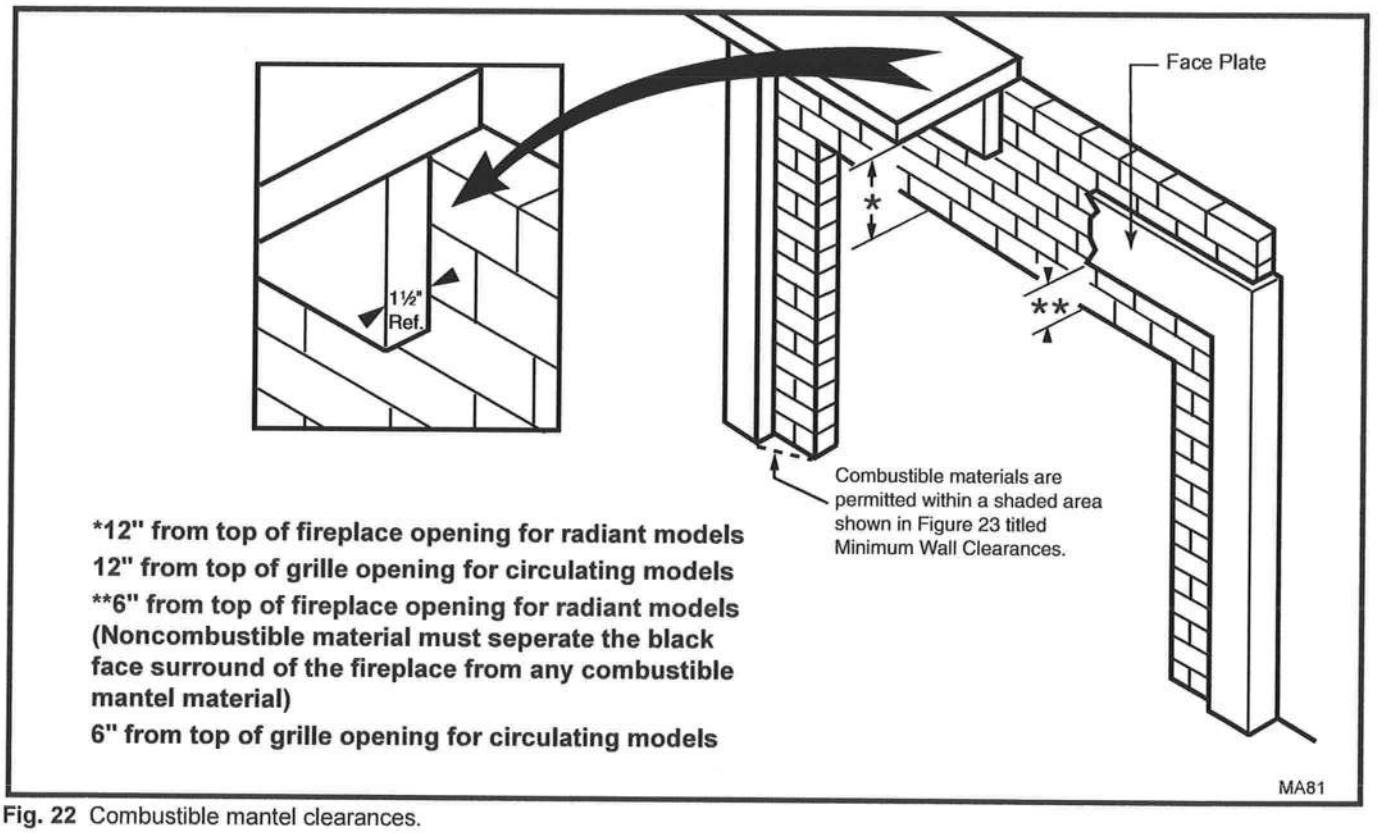


Fig. 22 Combustible mantel clearances.

Side Wall Protection

Adjacent combustible side walls that are within minimum dimensions shown in Figure 23 of the fireplace opening must be protected with MHSC Wall Shield Model SP40 or a specifically built wall shield described in Figure 20.

The special wall shield design described in Figure 20 is an alternate method of adding protection to side walls and can be used in place of the SP40 with the same wall clearances specified for the SP40. Rt must =1.85 minimum.

Examples of wall shield insulation:

1. Manville - CERAFORM 126, K=.27, 1/2 inches thick
2. MHSC - EH2416, K = .458, 1 inch thick required.

Hearth Installation

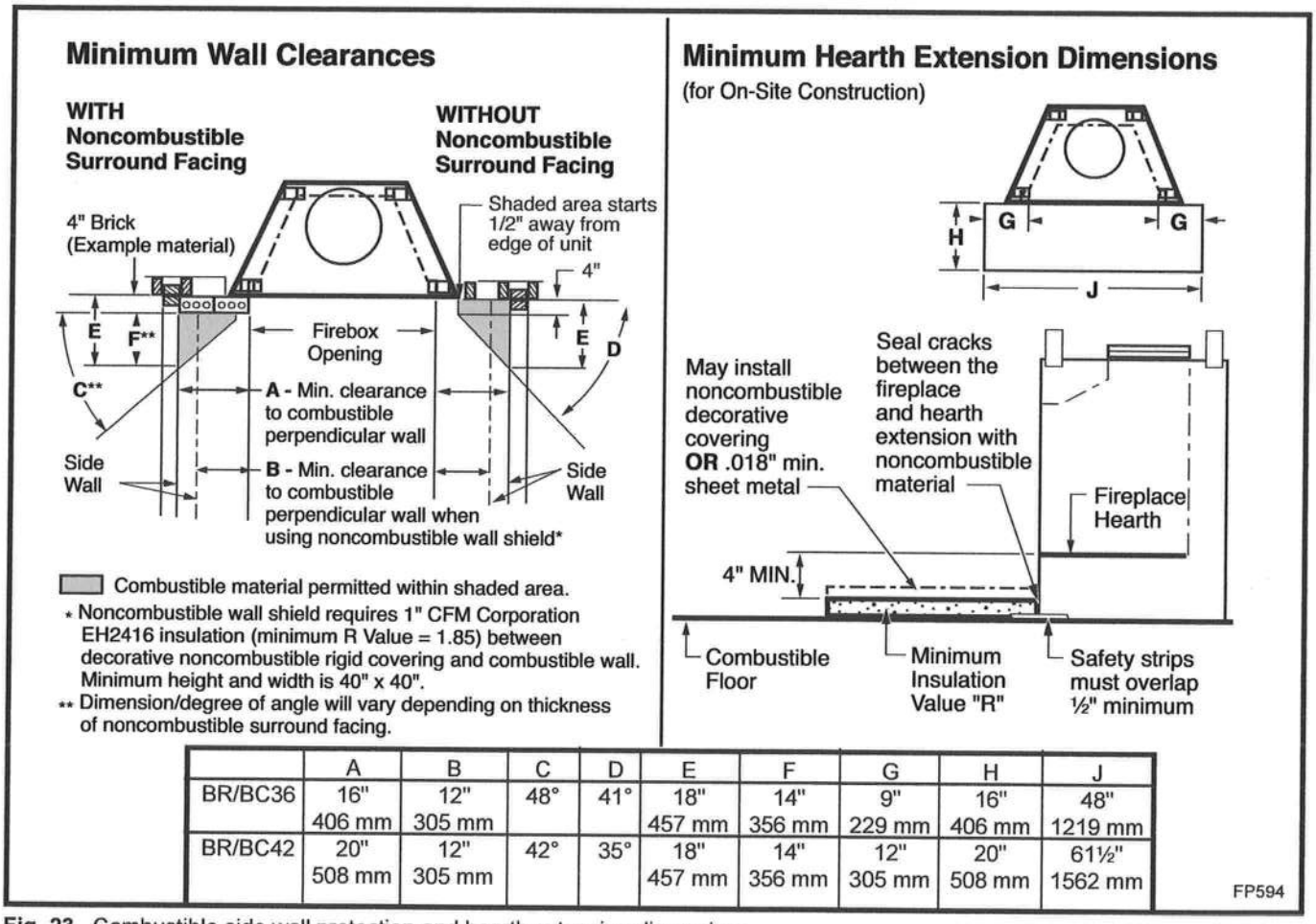
A hearth extension is required to protect a combustible floor in front of the fireplace. Refer to Figure 23 for minimum dimensions and mounting detail.

NOTE: Hearth Extension must not cover the air inlet opening of a fireplace.

The hearth extension described in Figure 23 must be a durable noncombustible material with a minimum (total) Rt value of 1.09; see Figure 24 for examples. The overall height (above a combustible floor), depth and width must be as indicated, with the extension centered to the fireplace opening.

The top of insulation must be covered with a noncombustible decorative covering **or** a piece of .018" minimum sheet metal, to protect hearth extension material. (Fig. 23)

Secure the hearth extension to the floor to prevent shifting, using trim molding or other similar means at three (3) outer edges. Seal crack between the fireplace hearth and hearth extension with a noncombustible material. (Figs. 23 and 25)



	A	B	C	D	E	F	G	H	J
BR/BC36	16" 406 mm	12" 305 mm	48°	41°	18" 457 mm	14" 356 mm	9" 229 mm	16" 406 mm	48" 1219 mm
BR/BC42	20" 508 mm	12" 305 mm	42°	35°	18" 457 mm	14" 356 mm	12" 305 mm	20" 508 mm	61½" 1562 mm

Fig. 23 Combustible side wall protection and hearth extension dimensions.

WARNING: HEARTH EXTENSION MUST BE INSTALLED IN ACCORDANCE WITH FIGURE 23 AND MUST NOT COVER THE BOTTOM FRONT OPENING OF THE CIRCULATING MODEL.

Alternate noncombustible materials may be used providing the (total) thermal resistance (Rt value) of the alternate material employed is greater than or equal to R = 1.09 Thermal resistance (R) or thermal conductivity (K), may be obtained from manufacturer of the material. Factors are related by the formula K = 1/R. (Fig. 24)

T = given thickness
R = thermal resistance for a given thickness (T)
K = thermal conductivity

Noncombustible material with a lower R value may be used, provided thickness of material is sufficiently greater to maintain an equivalent (total) thermal resistance (Rt).

COMMON MATERIALS AND FACTORS

MATERIAL	K*	R	MINIMUM THICKNESS
EH2416 *(CFM Corporation)*	0.458	1.09	0.50 in.**
Common Brick	5.0	0.10	5.46 in.**

R Value is for 1/2 inch.
* Units of K = BTU/SQ FT/HR/°F/IN
** Thickness of Listed Material

FP533ADD

Fig. 24 Hearth extension material factors.

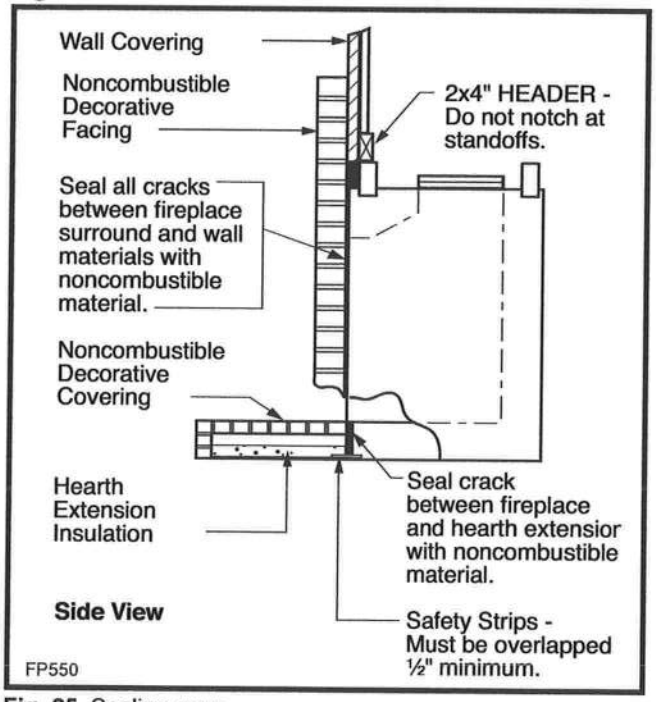


Fig. 25 Sealing gaps.

Example of Determining Hearth Extension Equivalents

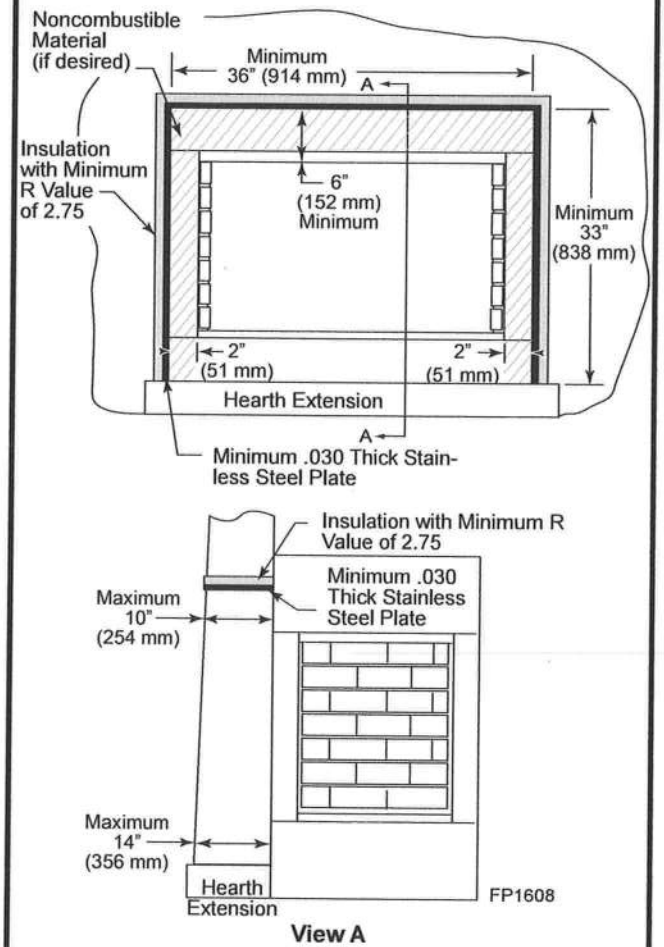
To determine the thickness required for any **new** material:

NEW required listed thickness = (K of new material (per inch) / K of listed material (per inch)) X thickness of material

Example for Common Brick

T (new) = 5.0/0.458 x 0.50 in. = **5.46 in.** (new required thickness).

Recessed Installation - BR/BC36 Only



View A

NOTE: If noncombustible material is not used between the stainless steel plate and fireplace opening, the steel must be attached to the front of the unit a minimum of four (4) places on each piece with sheet metal screws no longer than 1/2".

NOTE: The size of the insulation and stainless steel plate must be within limits stated above and covers all combustible framing material.

Fig. 26 Recessed installation.

Installing Line For Gas Log

MHSC fireplaces are designed to accept a 1/2 inch gas line for installation of an approved gas appliance. (MHSC manufactures a wide variety of gas logs for use in MHSC fireplaces.)

Be sure to have the appliance installed in accordance with building codes.

Gas connection may enter from either left or right side of the fireplace.

Locate appropriate gas line in the outer casing of fireplace and remove insulation from gas line tube. (Fig. 27)

From inside the fireplace, locate the knockout on the firebrick -- be sure you are on the appropriate or "gas line" side of the fireplace. Using a flat bladed screwdriver or small chisel and hammer, carefully tap around the knockout until it loosens and falls out.

Install 1/2 inch certified gas pipe through opening. After gas pipe installation is complete, use insulation that was removed from gas line tube to repack space around the pipe. Material should be inserted from outside of the fireplace and packed tightly to totally seal between the pipe and tube.

Note: Gas pipe should not come in contact with any wood structures until it has reached a point at least one (1) inch away from fireplace side.

NOTE: When installing an ANSI Z21.11.2 ventless appliance, the finishing material used for the mantel must be rated at 250°F or greater.

BTU input of a gas appliance installed in fireplace should be rated less than 100,000 BTU/Hr.

Gas pipe installation is intended for connection to a decorative gas appliance only when (1.) incorporating an automatic shutoff device and (2.) complying with the Standard for Decorative Gas Appliances for Installation in Vented Fireplaces (ANSI Z21.60) **or** CSA draft requirements for Gas-Fired Log Lighters for Woodburning Fireplaces (Draft No. 4, August 1993).

Decorative gas appliance should be installed in accordance with the National Fuel Gas Code, ANSI Z223.1/ NFPA 54 (latest edition).

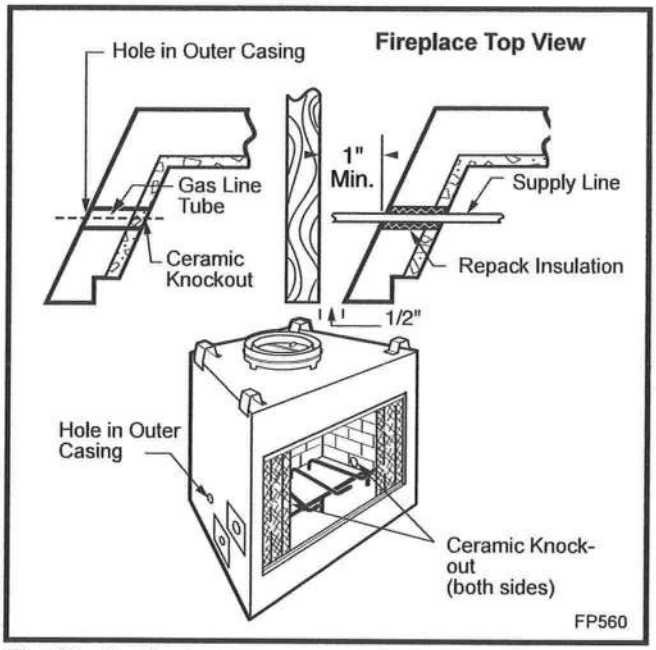


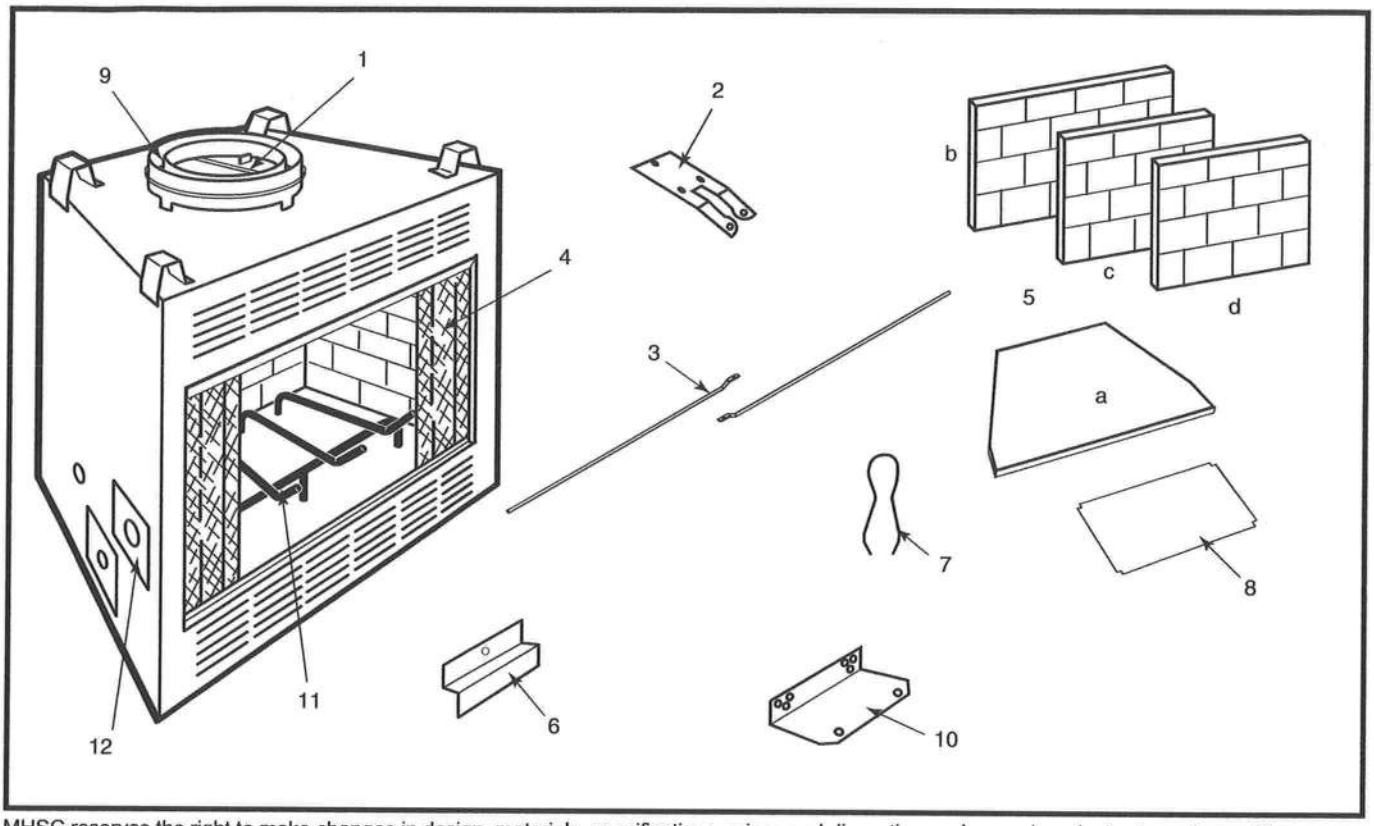
Fig. 27 Gas line access.

CAUTION: WHEN USING DECORATIVE GAS APPLIANCE, FLUE DAMPER MUST BE SET IN FULLY OPEN POSITION. IF YOU HAVE GLASS DOORS ON THE FIREPLACE, THEY MUST ALSO BE FULLY OPENED.

WARNING: DO NOT OPERATE AN UNVENTED GAS LOG SET IN THIS FIREPLACE WITH THE CHIMNEY REMOVED.

WARNING: WHEN INSTALLING AN UNVENTED GAS LOG SET, THE MHSC MODEL CABL OR CABR 4" ADJUSTABLE HOOD MUST BE USED.

Only unvented gas log sets which have been found to comply with the Standard for Unvented Room Heaters, ANSI Z21.11.2, are to be installed in this fireplace.



MHSC reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, with out notice.

BR/BC SERIES

Item/Model Number	BR/BC36	BR/BC42
1. Damper Blade Weld Assembly	RP199	RP199
2. Damper Bracket	3030176	3030176
3. Screen Rod (two per fireplace)	26D0132	61D0500
4. Screen Mesh (two per fireplace)	26D0131	26D0131
5a. Firebrick - Hearth*	3030103 or 20007494	3032103 or 20007496
5b. Firebrick - Rear*	3030102 or 20007495	3032102 or 20007497
5c. Firebrick - Rt. Side*	3030160 or 20007492	3030160 or 20007492
5d. Firebrick - Lt. Side*	3030104 or 20007493	3030104 or 20007493
6. Top Brick Retainers (three per fireplace)	3030172	3030172
7. Cable Clips (four per fireplace)	7512135	7512135
8. Hearth Pan Cover (BC Only)	3031104	3031104
9. Outer Collar Assembly (SK8 Chimney)	3030143	3030143
10. Nailing Flange - Bag of 4 w/screws	2253160	2253160
11. Basket Grate	3030129	3030129
12. O.S.A. Assy.	20003076	20003076

* When ordering replacement firebrick, check the serial number and plant code of the fireplace, located on the UL label inside the firebox. Serial numbers/plant code with an 'H' or 'P' require the firebrick listed first under the respective fireplace (grey brick). Serial numbers/plant code with an 'X' require the firebrick listed second under the respective fireplace (white brick).

Accessories

The following accessories for this appliance are available from your local MHSC Fireplaces distributor. Should you need additional information beyond what your distributor can furnish, contact: MHSC, 149 Cleveland Drive, Paris, KY 40361, Attn: Technical Services.

CAUTION: This fireplace and chimney assembly is a highly engineered system, and, as such, must be operated only with MHSC approved components. If you use an unapproved component to make any modifications, you may create a possible fire hazard and will void the MHSC warranty. In addition, such action may void the coverage provided by the owner's insurance.

Accessory	Description		Model Number
Glass Door — Standard	Bi-Fold door set	Brushed Brass finish 42GDKBB (BR/BC42)	36GDKBB (BR/BC36)
		Black finish	36GDKBK (BR/BC36) 42GDKBK (BR/BC42)
		Polished Brass finish	36GDKDP (BR/BC36) 42GDKDP (BR/BC42)
		Pewter finish	36GDKS (BR/BC36) 42GDKS (BR/BC42)
Fan Kit	Provides forced air flow		FK12
Variable Speed Control	Provides speed adjustment of fans		SCVS
Outside Air Termination	Completes connection from air kit to out-of-doors		AK-MST
Hearth Extension Insulation	Provides hearth extension floor protection		EH2416
Grate for BR/BC36/42	Holds firewood in firebox		RBBG36
Hearth Patch Compound	Patch cracks in hearth		HPC-1
Chimney System Adapter Collar	Converts fireplace to a 3-wall chimney system		TWABR

Contact your MHSC Fireplaces distributor or dealer for finishing Marble and Mantels, available in a wide selection of styles.

Chimney Components

U.S.

Component	Description	Model Number
Round Top Termination	Top used to terminate chimney at roof. (Flashing not included.)	RLTSK8
Round Top Termination - Extended	Top used to terminate chimney at chase. (Flashing not included.)	RLTSK8L
Flashing	Metal finishing required around Contemporary Termination to prevent rain leakage.	8-6-12 with 8" flue: 0-6/12 pitch 8-12-12 with 8" flue: 6/12-12/12 pitch
Square Termination - Housing	Top housing of simulated brick pattern available in red, tan or white. Appropriate adapter required. Flashing included.	S20B (R,T,W) Msut include PLTSK8 or SLTSK8
Adapter Kit	Unites Square Termination with chimney pipe (required).	CF8CA
Housing Extensions	Extends Square Termination on steep pitched roofs.	202036
Square Chase Termination	Housing used to terminate chimney through a chase top. Appropriate adapter required. (Flashing not included.)	CT100
Adapter Kit	Unites Square Chase Termination with chimney pipe (required).	CTSK
Chase Top Housing	Low profile pyramid-style chimney cap used to terminate chimney through a chase. Includes adapter. (Flashing not included.)	PTLSK8
Chase Top Housing	Square chimney cap used to terminate chimney through a chase. Terra Cotta Masonry. Includes adapter. (Flashing not included.)	SLTSK8
SK8 Chimney Sections	Pipe used to build 8" (SK8) flue systems.	SK81 (1' Long) SK818 (1½' Long) SK83 (3' Long) SK84 (4' Long)
SK8 Chimney Elbows	Elbow used to create an offset in an 8" chimney system. Only 30□ elbows available. Packaged 2 per carton (offset and return).	SK830-2
Firestop	Required at each floor level of chimney installation. (Plus attic on multi-story installation.)	SKFS2A — (8" straight flue) SKFS6A — (8" 30° inclined flue)
Chimney Support	Used to support chimney for each of: 30' vertical height and 6' of angled chimney run.	SKCS8

(Chimney Components con't.)

Canada

Component	Description	Model Number
Chimney Collar Enclosure	Installs on the "over the chimney collar" of the fireplace; provides outside air to assist in cooling the chimney system.	CCE-SK
Attic Insulation Shield	Used to prevent insulation from coming in contact with the chimney system.	AIS-SK
SK8 Chimney Sections	Used to build chimney systems exposed above roof.	SK818CAN (1½' Long) SK84CAN (4' Long)
45° Chimney Elbows	Provides 45° offset and return. For Canadian installations only. For use with SK8 chimney only. (Maximum use of 2, or 1 pair.)	SK845/2

LIMITED WARRANTY

Factory-Build Fireplace and Components (Except Blowers)

What is Covered and For How Long

Five-Year Coverage: For five years from the date this fireplace and components are first purchased for use, MHSC will, at its option, repair or replace any defective part of this fireplace or components, or refund to you a sum not to exceed the factory retail price in effect at the time of purchase.

Ten-Year Coverage: From the sixth through the tenth year following the date this fireplace or accessory is first purchased for use, MHSC will make available to you, at our factory, a free replacement for any defective part in this fireplace or accessory.

Twenty-Five-Year Availability of Replacement Parts: From the eleventh through the twenty-fifth year following the date this fireplace or accessory is first purchased for use, MHSC will make available at our factory replacement parts for this fireplace or accessory, which you may purchase for the list price current at the time your purchase order is received.

What is Not Covered

- This limited warranty does not cover:
- Transportation or shipping cost.
- The cost of a service call to diagnose trouble.
- Painted surfaces.
- Damage or defect caused by improper installation, accident, misuse, abuse or alteration.
- Poor ventilation of smoke or gases caused by air-conditioning and heating systems, exhaust fans, or pressure differentials produced by wind.
- Broken glass components.
- Cracks in ceramic and castable parts that do not affect safe operation.
- We do not warrant this fireplace to be in compliance with your local building code. Building codes vary greatly throughout the country, and you should determine whether your local building code contains restrictions on the use of this fireplace before you purchase it.
- Blowers or fans, which are warranted separately.
- Heat loss due to the passage of heat or air through or around the fireplace.

Also, under our five year coverage, we do not pay the cost of removal and replacement of any portion of the structure in which the fireplace is situated, made necessary by the repair, removal or re-installation of the fireplace.

And under our twenty-five year warranty of availability of replacement parts, we only promise to maintain a supply of replacement parts at our factory for you to purchase.

Limitations and Exclusions

1. No one has authority to add to or vary this limited warranty, or to create for MHSC any other obligations of liability in connection with this fireplace and accessory.
2. MHSC shall not be liable for incidental, consequential, special or contingent damages you might suffer as a result of its breach of this written warranty or any implied warranty. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitations may not apply to you.
3. This warranty applies only to a fireplace sold and used in the United States.

IF WARRANTY SERVICE IS NEEDED...

1. Contact your supplier. Make sure you have your warranty, your sales receipt and the model/serial number of your MHSC product.
2. DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.

MHSC
149 Cleveland Drive • Paris, Kentucky 40361
www.mhsc.com