



COLUMBIA COUNTY BUILDING DEPARTMENT
RESIDENTIAL CHECK LIST

MINIMUM PLAN REQUIREMENTS: FLORIDA BUILDING CODE RESIDENTIAL 2010 EFFECTIVE 15 MARCH 2012 AND THE NATIONAL ELECTRICAL 2008 EFFECTIVE 1 OCTOBER 2009

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

ALL BUILDING PLANS MUST INDICATE COMPLIANCE WITH THE CURRENT 2010 FLORIDA BUILDING CODES RESIDENTIAL, EFFECTIVE 15 MARCH 2012. NATIONAL ELECTRICAL CODE 2008 EFFECTIVE 1 OCTOBER 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 FLORIDA BUILDING CODE FIGURE 1609-A THROUGH 1609-C ULTIMATE DESIGN WIND SPEEDS FOR RISK CATEGORY AND BUILDINGS AND OTHER STRUCTURES

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.)	2317	Total (Sq. Ft.) under roof	3314	
			✓		

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 are 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	IIIIII	IIIIII
9	Basic wind speed (3-second gust), miles per hour	YES	NO	N/A
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	✓		
11	Wind importance factor and nature of occupancy	✓		
12	The applicable internal pressure coefficient, Components and Cladding	✓		
13	The design wind pressure in terms of psf (kN/m ²), to be used for the design of exterior component, cladding materials not specifically designed by the registered design professional.	✓		

Elevations Drawing including:

14	All side views of the structure	✓		
15	Roof pitch Pe SS Ridge	✓		
16	Overhang dimensions and detail with attic ventilation Pe SS Ridge	✓		
17	Location, size and height above roof of chimneys	✓		
18	Location and size of skylights with Florida Product Approval NA	✓		
18	Number of stories	✓		
20A	Building height from the established grade to the roofs highest peak 32.7	✓		

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 FBC 1405.13.2 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 and chapter 24 of FBCR)	✓		
27	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails	✓		
28	Identify accessibility of bathroom (see FBCR SECTION 320)	✓		

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:
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Items to Include-
Each Box shall be
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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.	✓		
32	Assumed load-bearing value of soil <u>1500</u> Pound Per Square Foot			
33	Location of horizontal and vertical steel, for foundation or walls (include # size and type) For structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	✓		

FBCR 506: CONCRETE SLAB ON GRADE

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

FBCR 318: PROTECTION AGAINST TERMITES

36	Indicate on the foundation plan if soil treatment is used for subterranean termite prevention or Submit other approved termite protection methods. Protection shall be provided by registered termiticides	✓		
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FBCR 606: Masonry Walls and Stem walls (load bearing & shear Walls)

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

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

Floor Framing System: First and/or second story

39	Floor truss package shall including layout and details, signed and sealed by Florida Registered Professional Engineer	✓		
40	Show conventional floor joist type, size, span, spacing and attachment to load bearing walls, stem walls and/or piers	✓		
41	Girder type, size and spacing to load bearing walls, stem wall and/or piers	✓		
42	Attachment of joist to girder	✓		
43	Wind load requirements where applicable			
44	Show required under-floor crawl space			
45	Show required amount of ventilation opening for under-floor spaces			
46	Show required covering of ventilation opening			
47	Show the required access opening to access to under-floor spaces			
48	Show the sub-floor structural panel sheathing type, thickness and fastener schedule on the edges & interior of the areas structural panel sheathing			

8' TO BOTTOM
OF FLOOR SYSTEM
FROM FIN GRADE

49	Show Draftstopping, Fire caulking and Fire blocking	52	✓		
50	Show fireproofing requirements for garages attached to living spaces, per FBCR section 302.6		✓		
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 IRC 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 IRC 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 802.1.6.1 Wood trusses	✓		
61	Include a layout and truss details, signed and sealed by Florida Professional Engineer	✓		
62	Show types of connector's assemblies' and resistance uplift rating for all trusses and rafters	✓		
63	Show gable ends with rake beams showing reinforcement or gable truss and wall bracing details	✓		
64	Provide dead load rating of trusses	✓		

FBCR 802:Conventional Roof Framing Layout

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

ALL TRUSSES

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	✓		

ROOF ASSEMBLIES FRC Chapter 9

71	Include all materials which will make up the roof assemblies covering	54	✓		
72	Submit Florida Product Approval numbers for each component of the roof assemblies covering		✓		

FBCR Chapter 11 Energy Efficiency Code for residential building

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

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

HVAC information

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

Plumbing Fixture layout shown

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

Private Potable Water

82	Pump motor horse power	1 hp		
83	Reservoir pressure tank gallon capacity	40 gal		
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 200 Am			
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
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THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS

		YES	NO	N/A
92	Building Permit Application A current On-Line Building Permit Application www.ccpermit.com is to be completed, by following the Checklist all supporting documents must be submitted. There is a \$15.00 application fee.			
93	Parcel Number The parcel number (Tax ID number) from the Property Appraisers Office (386) 758-1083 is required. A copy of property deed is also requested. www.columbiacountyfla.com			
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 386-752-2031			
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 approved FIRM Flood Maps show the property is in a AE, Floodway, and AH flood zones. Additionally One Foot Rise letters are required for AE and AH zones. In the Floodway Flood zones a Zero Rise letter is required.	✓		
100	A Flood development permit is also required for AE, Floodway & AH. 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. County Public Works Dept. determines the size and length of every culvert before instillation and completes a final inspection before permanent power is granted. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (\$50.00) Separate Check when issued. If the project is to be located on an F.D.O.T. maintained road, then an F.D.O.T. access permit is required.			
102	911 Address: An application for a 911 address must be applied for and received through the Columbia County Emergency Management Office of 911 Addressing Department (386) 758-1125 Ext. 3			

Section R101.2.1 of the Florida Building Code Residential:

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

Section 105 of the Florida Building Code defines the:

Time limitation of application.

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

Single-family residential dwelling.

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

Permit intent.

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

If work has commenced.

Section 105.4.1.1: If work has commenced and the permit is revoked, becomes null and void, or expires because of lack of progress or abandonment, a new permit covering the proposed construction shall be obtained before proceeding with the work.

New Permit.

Section 105.4.1.2: If a new permit is not obtained within 180 days from the date the initial permit became null and void, the building official is authorized to require that any work which has been commenced or completed be removed from the building site. Alternately, a new permit may be issued on application, providing the work in place and required to complete the structure meets all applicable regulations in effect at the time the initial permit became null and void and any regulations which may have become effective between the date of expiration and the date of issuance of the new permit.

Work Shall Be:

Section 105.4.1.3: Work shall be considered to be in active progress when the permit has received an approved inspection within 180 days. This provision shall not be applicable in case of civil commotion or strike or when the building work is halted due directly to judicial injunction, order or similar process.

The Fee:

Section 105.4.1.4: The fee for renewal reissuance and extension of a permit shall be set forth by the administrative authority.

When the application is approved for permitting the applicant will be notified by phone as to the status by the Columbia County Building & Zoning Department.



Load Short Form Entire House Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Information

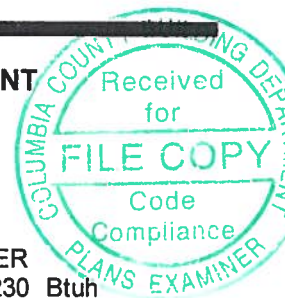
	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	52		

HEATING EQUIPMENT

Make RHEEM
Trade
Model 13PJL18A01
AHRI ref 3468586
Efficiency 8.2 HSPF
Heating input
Heating output 16500 Btuh @ 47°F
Temperature rise 25 °F
Actual air flow 600 cfm
Air flow factor 0.080 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

COOLING EQUIPMENT

Make RHEEM
Trade
Cond 13PJL18A01
Coil RHLL2417JA
AHRI ref 3468586
Efficiency 14 SEER
Sensible cooling 13230 Btuh
Latent cooling 5670 Btuh
Total cooling 18900 Btuh
Actual air flow 600 cfm
Air flow factor 0.041 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)
SITTING AREA	120	1593	3581	127	146
STAIRWAY	60	547	1188	44	48
STORAGE AREA	75	382	199	31	8
LANDING/MECH CLT	104	530	276	42	11
BATH 2	84	428	223	34	9
BEDROOM 2	130	2017	4644	161	189
BEDROOM 3	130	2017	4644	161	189
Entire House	703	7514	14756	600	600
Other equip loads		0	0		
Equip. @ 0.97 RSM			14313		
Latent cooling			2810		
TOTALS	703	7514	17124	600	600

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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2014-Nov-21 14:14:51

Page 1



Building Analysis Entire House Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

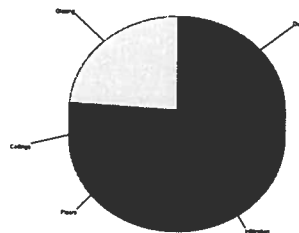
For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	32.8	52.0
Dry bulb (°F)	33	92	Infiltration:		
Daily range (°F)	-	19 (M)	Method	Simplified	
Wet bulb (°F)	-	77	Construction quality	Average	
Wind speed (mph)	15.0	7.5	Fireplaces	0	

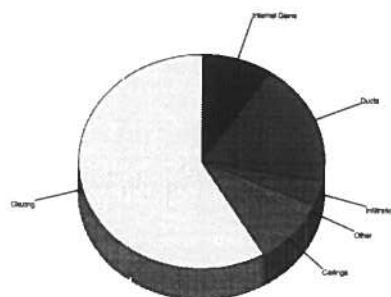
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.4	-259	-3.5
Glazing	24.0	1852	24.6
Doors	0	0	0
Ceilings	1.2	832	11.1
Floors	0.9	632	8.4
Infiltration	0	2314	30.8
Ducts		2143	28.5
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		7514	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.2	-169	-1.1
Glazing	113.4	8734	59.2
Doors	0	0	0
Ceilings	1.7	1184	8.0
Floors	0.4	290	2.0
Infiltration	0	558	3.8
Ducts		2778	18.8
Ventilation		0	0
Internal gains		1380	9.4
Blower		0	0
Adjustments		0	0
Total		14756	100.0



Latent Cooling Load = 2810 Btuh
Overall U-value = 0.231 Btuh/ft²-°F

ERROR: negative wall area in SITTING AREA - check windows.



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2014-Nov-21 14:14:51

Page 1

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Component Constructions
SITTING AREA
Hogle's Heating & Air

Job: UPSTAIRS
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By: W.D.HOGLE

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Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		0	
		Heating	Cooling		
		33	92		
		-	19 (M)		
		-	77		
		15.0	7.5		

Construction descriptions

Walls
(none)

Partitions
(none)

Windows

1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" w gap, 1/8" thk; 2 ft overhang (3 ft window ht, 2 ft sep.); 6.67 ft head ht

Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh

Floors

19C-0cswp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, tight crwl ovr, r-11 wall insul



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2014-Nov-21 14:14:51

Page 1

ments\Wrightsoft HVAC\CARL JOHNSON UPSTAIRS.rup Calc = MJ8 Front Door faces: E

wrightsoft Component Constructions
STAIRWAY
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

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Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
			Moisture difference (gr/lb)		32.8	52.0
Outdoor:			Infiltration:			
	Heating	Cooling	Method		Simplified	
Dry bulb (°F)	33	92	Construction quality		Average	
Daily range (°F)	-	19 (M)	Fireplaces		0	
Wet bulb (°F)	-	77				
Wind speed (mph)	15.0	7.5				

Construction descriptions

Walls
(none)

Partitions
(none)

Windows

Construction descriptions	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Clg HTM Btu/ft²	Gain Btu/h
1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" gap, 1/8" thk; 2 ft overhang (3 ft window ht, 2 ft sep.); 6.67 ft head ht	w	9	0.650	0	24.0	216	75.3	678

Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh		60	0.032	30.0	1.18	71	1.68	101
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Floors

19C-0cswp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, tight crwl ovr, r-11 wall insul		60	0.368	11.0	0.90	54	0.41	25
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Component Constructions
STORAGE AREA
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	92	Infiltration:			
Daily range (°F)	-	19 (M)	Method		Simplified	
Wet bulb (°F)	-	77	Construction quality		Average	
Wind speed (mph)	15.0	7.5	Fireplaces		0	

Construction descriptions

	Or	Area ft²	U-value Btu/hft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/hft²	Loss Btu/h	Clg HTM Btu/hft²	Gain Btu/h
Walls (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 5/8" gypsum board int fnsh		75	0.032	30.0	1.18	89	1.68	126
Floors 19C-0cswp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, tight crwl ovr, r-11 wall insul		75	0.368	11.0	0.90	67	0.41	31



Right-Suite® Universal 2013 13.0.12 RSU08963

2014-Nov-21 14:14:51

Page 3

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Component Constructions
LANDING/MECH CLT
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		0	
Heating	Cooling				
33	92				
-	19 (M)				
-	77				
15.0	7.5				

Construction descriptions

Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Clg HTM Btu/ft²	Gain Btu/h
----	-------------	-----------------------	-----------------------	--------------------	---------------	--------------------	---------------

Walls
(none)

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh

104	0.032	30.0	1.18	123	1.68	175
-----	-------	------	------	-----	------	-----

Floors

19C-0cswp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, tight crwl ovr, r-11 wall insul

104	0.368	11.0	0.90	93	0.41	43
-----	-------	------	------	----	------	----



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2014-Nov-21 14:14:51

Page 4



Component Constructions
BATH 2
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

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Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	92	Infiltration:		Method	Simplified
Daily range (°F)	-	19 (M)				
Wet bulb (°F)	-	77				
Wind speed (mph)	15.0	7.5				
			Construction quality		Average	
			Fireplaces		0	

Construction descriptions

	Or	Area ft²	U-value Btu/h/ft²·°F	Insul R ft²·°F/Btu/h	Htg HTM Btu/h/ft²	Loss Btu/h	Clg HTM Btu/h/ft²	Gain Btu/h
Walls (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh		84	0.032	30.0	1.18	99	1.68	142
Floors 19C-0cswp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, tight cowl ovr, r-11 wall insul		84	0.368	11.0	0.90	75	0.41	35



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2014-Nov-21 14:14:51

Page 5



Component Constructions
BEDROOM 2
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

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Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:			Moisture difference (gr/lb) <td>32.8</td> <td>52.0</td>		32.8	52.0
			Heating	Cooling		
Dry bulb (°F)			33	92		
Daily range (°F)			-	19 (M)		
Wet bulb (°F)			-	77		
Wind speed (mph)			15.0	7.5		
			Infiltration:			
			Method		Simplified	
			Construction quality		Average	
			Fireplaces		0	

Construction descriptions

Walls
(none)

Partitions
(none)

Windows

1D-c2ob: 2 glazing, clr outr, air gas, mtl/w brk frm mat, clr innr, 1/4" w gap, 1/8" thk; 2 ft overhang (5 ft window ht, 2 ft sep.); 6.67 ft head ht

Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh

Floors

19C-0cswp: Flr floor, frm fir, 8" thkns, hrd wd flr fnsh, tight cowl ovr, r-11 wall insul



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2014-Nov-21 14:14:51

Page 6



Component Constructions
BEDROOM 3
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	92	Infiltration:			
Daily range (°F)	-	19 (M)	Method		Simplified	
Wet bulb (°F)	-	77	Construction quality		Average	
Wind speed (mph)	15.0	7.5	Fireplaces		0	

Construction descriptions

	Or	Area ft²	U-value Btu/hft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/hft²	Loss Btu/h	Cig HTM Btu/hft²	Gain Btu/h
Walls								
(none)								
Partitions								
(none)								
Windows								
1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" gap, 1/8" thk; 2 ft overhang (5 ft window ht, 2 ft sep.); 6.67 ft head ht	w	25	0.650	0	24.0	601	75.3	1884
Doors								
(none)								
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh		130	0.032	30.0	1.18	154	1.68	219
Floors								
19C-0cswp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, tight cowl ovr, r-11 wall insul		130	0.368	11.0	0.90	117	0.41	54



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2014-Nov-21 14:14:51

Page 7

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Project Summary
Entire House
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

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	5371 Btuh
Ducts	2143 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	7514 Btuh

Sensible Cooling Equipment Load Sizing

Structure	11977 Btuh
Ducts	2778 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	703	703
Volume (ft³)	5624	5624
Air changes/hour	0.61	0.32
Equip. AVF (cfm)	57	30

Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	14313 Btuh

Latent Cooling Equipment Load Sizing

Structure	2255 Btuh
Ducts	556 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	2810 Btuh

Equipment total load	17124 Btuh
Req. total capacity at 0.70 SHR	1.7 ton

Heating Equipment Summary

Make	RHEEM
Trade	
Model	13PJL18A01
AHRI ref	3468586
Efficiency	8.2 HSPF
Heating input	
Heating output	16500 Btuh @ 47°F
Temperature rise	25 °F
Actual air flow	600 cfm
Air flow factor	0.080 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Cooling Equipment Summary

Make	RHEEM
Trade	
Cond	13PJL18A01
Coil	RHLL2417JA
AHRI ref	3468586
Efficiency	14 SEER
Sensible cooling	13230 Btuh
Latent cooling	5670 Btuh
Total cooling	18900 Btuh
Actual air flow	600 cfm
Air flow factor	0.041 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.84

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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2014-Nov-21 14:14:51

Page 1



AED Assessment
Entire House
Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

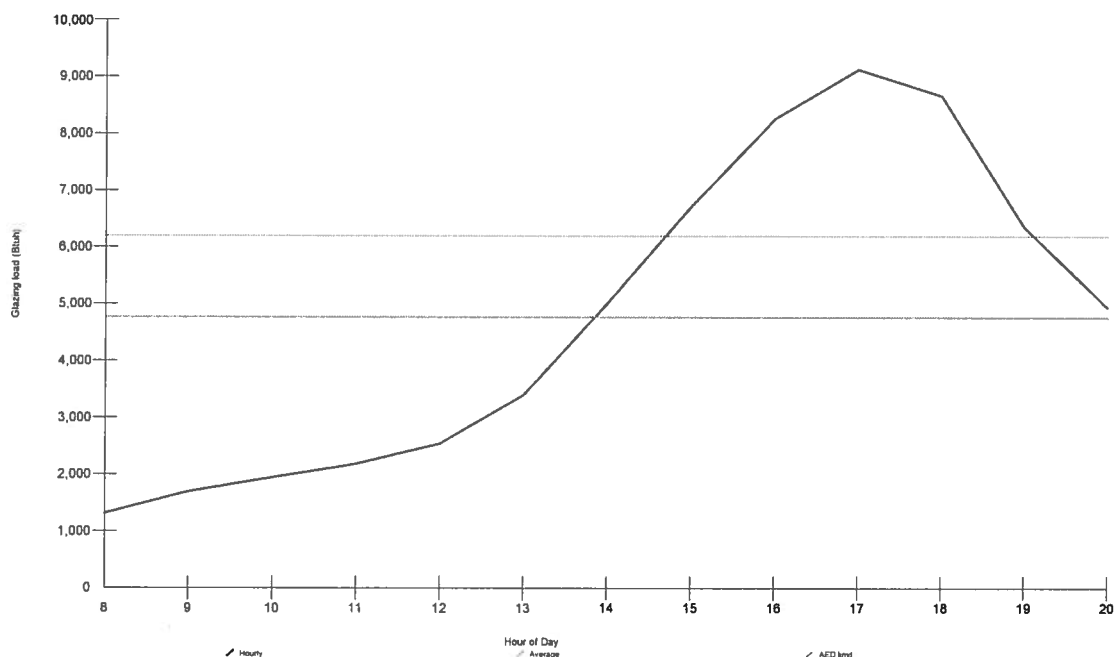
For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
		Heating	Cooling	Infiltration:	
Dry bulb (°F)		33	92		
Daily range (°F)		-	19 (M)		
Wet bulb (°F)		-	77		
Wind speed (mph)		15.0	7.5		

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 91.5%.

House does not have adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 2932 Btuh (PFG - 1.3*AFG)



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2014-Nov-21 14:14:51

Page 1

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

Job: UPSTAIRS
 Date: Nov 19, 2014
 By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

1	Room name					Entire House				SITTING AREA				
2	Exposed wall					116.0 ft				22.0 ft				
3	Room height					8.0 ft				8.0 ft				
4	Room dimensions					703.0 ft²				12.0 x 10.0 ft				
5	Room area									120.0 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 G G C F	12C-0sw	0.091	w	3.37	2.20	0	-77	-259	-169	0	-18	-61	-40
		1D-c2ob	0.650	w	24.05	75.35	27	0	649	2034	18	0	433	1356
		1D-c2ob	0.650	w	24.05	75.35	50	0	1202	3767	0	0	0	0
		16B-30ad	0.032	-	1.18	1.68	703	703	832	1184	120	120	142	202
11		19C-0cswp	0.368	-	0.90	0.41	703	703	632	290	120	120	108	50
6	c) AED excursion									2932				685
	Envelope loss/gain								3057	10039			622	2254
12	a) Infiltration								2314	558			471	123
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			6			1380	2			460
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								5371	11977			1093	2837
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								5371	11977			1093	2837
15	Duct loads						40%	23%	2143	2778	46%	26%	500	744
	Total room load								7514	14756			1593	3581
	Air required (cfm)								600	600			127	146

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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

Job: UPSTAIRS
 Date: Nov 19, 2014
 By: W.D.HOGLE

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1	Room name					STAIRWAY					STORAGE AREA				
2	Exposed wall					4.0 ft					23.0 ft				
3	Room height					8.0 ft 4.0 heat/cool					8.0 ft 5.0 heat/cool				
4	Room dimensions					60.0 ft ² 15.0 ft					75.0 ft ² 15.0 ft				
5	Room area														
	Ty	Construction number	U-value (Btuh/ft ² ·°F)	Or	HTM (Btuh/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btuh)		Area (ft ²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W G G C F	12C-0sw	0.091	w	3.37	2.20	0	-9	-30	-20	0	0	0	0	
		1D-c2ob	0.650	w	24.05	75.35	9	0	216	678	0	0	0	0	
		1D-c2ob	0.650	w	24.05	75.35	0	0	0	0	0	0	0	0	
		16B-30ad	0.032	-	1.18	1.68	60	60	71	101	75	75	89	126	
11		19C-0cswp	0.368	-	0.90	0.41	60	60	54	25	75	75	67	31	
6	c) AED excursion									343				0	
	Envelope loss/gain								311	1127			156	157	
12	a) Infiltration								236	62			118	12	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @ 230	Appliances/other		0			0	0	0		0	0	
	Subtotal (lines 6 to 13)								547	1188			274	170	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
14	Subtotal								547	1188			274	170	
15	Duct loads						-0%	0%	0	0	39%	17%	108	29	
	Total room load								547	1188			382	199	
	Air required (cfm)								44	48			31	8	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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

Job: UPSTAIRS
 Date: Nov 19, 2014
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1	Room name					LANDING/MECH CLT					BATH 2				
2	Exposed wall					7.0 ft					14.0 ft				
3	Room height					8.0 ft					8.0 ft				
4	Room dimensions					13.0 x 8.0 ft					6.0 x 14.0 ft				
5	Room area					104.0 ft ²					84.0 ft ²				
	Ty	Construction number	U-value (Btuh/ft ² ·°F)	Or	HTM (Btuh/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btuh)		Area (ft ²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6		12C-0sw	0.091	w	3.37	2.20	0	0	0	0	0	0	0	0	
		1D-c2ob	0.650	w	24.05	75.35	0	0	0	0	0	0	0	0	
		1D-c2ob	0.650	w	24.05	75.35	0	0	0	0	0	0	0	0	
		16B-30ad	0.032	-	1.18	1.68	104	104	123	175	84	84	99	142	
11	F	19C-0cswp	0.368	-	0.90	0.41	104	104	93	43	84	84	75	35	
6	c) AED excursion									0				0	
	Envelope loss/gain								217	218			175	176	
12	a) Infiltration								164	17			132	14	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230			0			0	0			0	
			Appliances/other							0				0	
	Subtotal (lines 6 to 13)								381	235			307	190	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
14	Subtotal								381	235			307	190	
15	Duct loads						39%	17%	150	41	39%	17%	121	33	
	Total room load								530	276			428	223	
	Air required (cfm)								42	11			34	9	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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

Job: UPSTAIRS
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1	Room name						BEDROOM 2				BEDROOM 3			
2	Exposed wall						23.0 ft				23.0 ft			
3	Room height						8.0 ft				8.0 ft			
4	Room dimensions						10.0 x 13.0 ft				10.0 x 13.0 ft			
5	Room area						130.0 ft²				130.0 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	w	3.37	2.20	0	-25	-84	-55	0	-25	-84	-55
	G	1D-c2ob	0.650	w	24.05	75.35	0	0	0	0	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	75.35	25	0	601	1884	25	0	601	1884
	C	16B-30ad	0.032	-	1.18	1.68	130	130	154	219	130	130	154	219
11	F	19C-0cswp	0.368	-	0.90	0.41	130	130	117	54	130	130	117	54
6	c) AED excursion									952				952
	Envelope loss/gain								788	3053			788	3053
12	a) Infiltration								597	165			597	165
	b) Room ventilation								0	0			0	0
13	Internal gains: Occupants @ 230 Appliances/other						2			460	2			460
	Subtotal (lines 6 to 13)								1384	3678			1384	3678
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1384	3678			1384	3678
15	Duct loads						46%	26%	633	965	46%	26%	633	965
	Total room load								2017	4644			2017	4644
	Air required (cfm)								161	189			161	189

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Loads for Multiple Orientations Entire House Hogle's Heating & Air

Job: UPSTAIRS
Date: Nov 19, 2014
By: W.D.HOGLE

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Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:

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

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
37
50
32.8

Cooling

75
17
50
52.0

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33
-
-
15.0

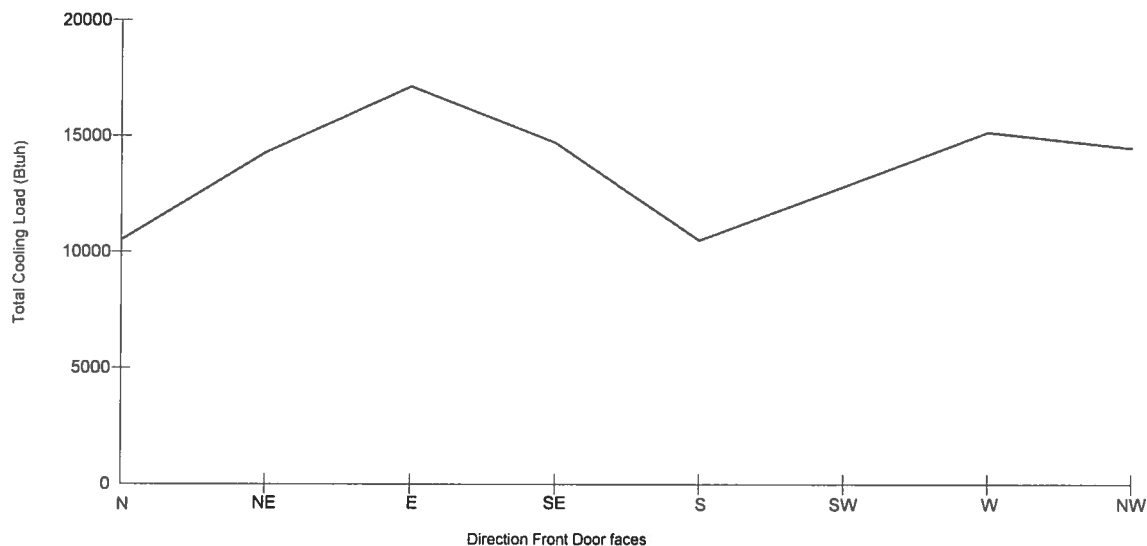
Cooling

92
19 (M)
77
7.5

Infiltration:

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	7704	11479	14313	11901	7704	10037	12363	11692
Latent Load (Btuh)	2810	2810	2810	2810	2810	2810	2810	2810
Total Load (Btuh)	10514	14290	17124	14712	10514	12848	15174	14503
Heating AVF (cfm)	600	600	600	600	600	600	600	600
Cooling AVF (cfm)	600	600	600	600	600	600	600	600

Building Orientation Cooling Load



Current Orientation: Front Door faces East
Highest Cooling Load: Front Door faces East

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.12 RSU08963

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Page 1



Project Summary
Entire House
Hogle's Heating & Air

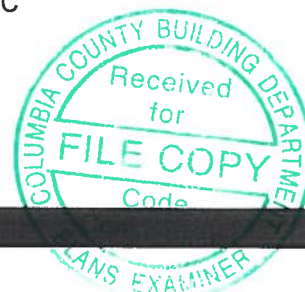
Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

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	14613 Btuh
Ducts	473 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	15086 Btuh

Sensible Cooling Equipment Load Sizing

Structure	28911 Btuh
Ducts	187 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	28225 Btuh

Infiltration

Method	Simplified	
Construction quality	Average	
Fireplaces	1 (Average)	
	Heating	Cooling
Area (ft²)	1570	1570
Volume (ft³)	15700	15700
Air changes/hour	0.46	0.20
Equiv. AVF (cfm)	119	52

Latent Cooling Equipment Load Sizing

Structure	2640 Btuh
Ducts	317 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	2957 Btuh
Equipment total load	31182 Btuh
Req. total capacity at 0.70 SHR	3.4 ton

Heating Equipment Summary

Make	RHEEM
Trade	
Model	13PJL36A01
AHRI ref	3405580
Efficiency	9 HSPF
Heating input	
Heating output	34000 Btuh @ 47°F
Temperature rise	24 °F
Actual air flow	1300 cfm
Air flow factor	0.086 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Cooling Equipment Summary

Make	RHEEM
Trade	
Cond	13PJL36A01
Coil	RHLLHM3617
AHRI ref	3405580
Efficiency	14 SEER
Sensible cooling	24500 Btuh
Latent cooling	10500 Btuh
Total cooling	35000 Btuh
Actual air flow	1300 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.91

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.12 RSU08963

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2014-Nov-21 10:05:52

Page 1



AED Assessment
Entire House
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

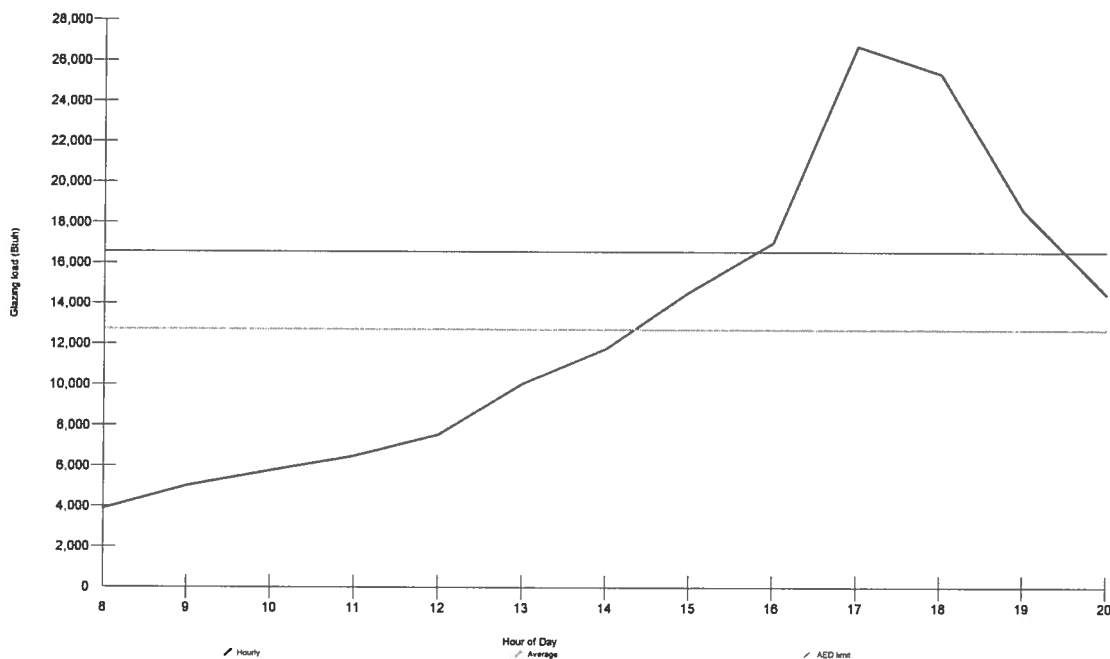
For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:	Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)	70	75
Elevation: 151 ft			Design TD (°F)	37	17
Latitude: 30°N			Relative humidity (%)	50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	32.8	52.0
Dry bulb (°F)	33	92	Infiltration:		
Daily range (°F)	-	19 (M)			
Wet bulb (°F)	-	77			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 109.9%.

House does not have adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 10177 Btuh (PFG - 1.3*AFG)



Right-Suite® Universal 2013 13.0.12 RSU08963

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2014-Nov-21 10:05:52

Page 1



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

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

1	Room name					Entire House				STUDY				
2	Exposed wall					158.0 ft				22.0 ft				
3	Room height					10.0 ft				10.0 ft				
4	Room dimensions									14.0 x 8.0 ft				
5	Room area					1570.0 ft²				112.0 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	w	3.37	2.20	0	-301	-1013	-861	0	-42	-141	-92
11	G	10D-v	0.490	w	18.13	12.18	84	160	1523	1023	0	0	0	0
	G	1D-c2ob	0.650	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	53.19	6	9	144	319	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	58.73	16	21	385	940	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	64.27	174	169	4185	11183	42	9	1010	2699
	D	11J0	0.600	w	22.20	17.49	21	21	466	367	0	0	0	0
	C	16B-30ad	0.032	-	1.18	1.68	1570	1570	1859	2645	112	112	133	189
	F	19A-19bvhp	0.049	-	1.42	0.65	1570	1570	2231	1025	112	112	159	73
6	c) AED excursion									10177				1836
	Envelope loss/gain								9779	27018			1160	4705
12	a) Infiltration								4834	973			574	166
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @ 230		Appliances/other		4			920	2			460
	Subtotal (lines 6 to 13)								14613	28911			1734	5331
14	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
	Subtotal								14613	28911			1734	5331
15	Duct loads						3%	1%	473	187	-0%	0%	0	0
	Total room load								15086	29098			1734	5331
	Air required (cfm)								1300	1300			149	238

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.12 RSU08963

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2014-Nov-21 10:05:52
Page 1

Right-J® Worksheet

Entire House

Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

1	Room name					MASTER BATHROOM					MASTER CLOSET/HL				
2	Exposed wall					9.0 ft					6.0 ft				
3	Room height					10.0 ft					10.0 ft				
4	Room dimensions					14.0 x 10.0 ft					14.0 x 6.0 ft				
5	Room area					140.0 ft²					84.0 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	w	3.37	2.20	0	-6	-20	-13	0	0	0	0	
11	G	10D-v	0.490	w	18.13	12.18	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	53.19	6	3	144	319	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	58.73	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	64.27	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	64.27	0	0	0	0	0	0	0	0	
	D	11J0	0.600	w	22.20	17.49	0	0	0	0	0	0	0	0	
	C	16B-30ad	0.032	-	1.18	1.68	140	140	166	236	84	84	99	142	
F	19A-19bvhp	0.049	-	1.42	0.65	140	140	199	91	84	84	119	55		
6	c) AED excursion									296				0	
	Envelope loss/gain									489	929			219	196
12	a) Infiltration									242	37			108	11
	b) Room ventilation									0	0			0	0
13	Internal gains:		Occupants @ 230	Appliances/other		0				0	0	0		0	0
	Subtotal (lines 6 to 13)									730	966			327	208
14	Less external load									0	0			0	0
	Less transfer									0	0			0	0
	Redistribution									0	0			0	0
	Subtotal									730	966			327	208
15	Duct loads							-0%	0%	0	0	-0%	0%	0	0
	Total room load									730	966			327	208
	Air required (cfm)									63	43			28	9

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet

Entire House

Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

1	Room name					KITCHEN					B PAN/LAUNDRY				
2	Exposed wall					12.0 ft					26.0 ft				
3	Room height					10.0 ft					10.0 ft				
4	Room dimensions					22.0 x 12.0 ft					16.0 x 10.0 ft				
5	Room area					264.0 ft²					160.0 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	w	3.37	2.20	0	0	0	0	0	-36	-121	-79	
11	G	10D-v	0.490	w	18.13	12.18	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	53.19	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	58.73	0	0	0	0	0	0	0	0	
	G	1D-c2ob	0.650	w	24.05	64.27	0	0	0	0	36	8	866	2314	
	D	11J0	0.600	w	22.20	17.49	0	0	0	0	0	0	0	0	
	C	16B-30ad	0.032	-	1.18	1.68	264	264	313	445	160	160	189	270	
F	19A-19bvhp	0.049	-	1.42	0.65	264	264	375	172	160	160	227	104		
6	c) AED excursion									0				1574	
	Envelope loss/gain								688	617			1161	4183	
12	a) Infiltration								340	36			574	151	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230			0			0	0			0	
										0				0	
	Subtotal (lines 6 to 13)								1028	653			1735	4333	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
15	Subtotal								1028	653			1735	4333	
	Duct loads						46%	29%	473	187	-0%	0%	0	0	
	Total room load								1501	840			1735	4333	
	Air required (cfm)								129	38			150	194	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet

Entire House

Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

1 2 3 4 5	Room name		Exposed wall		Room height		Room dimensions		Room area		FOYER				STAIRS/1/2 BATH			
	10.0 ft		10.0 ft		10.0 ft		10.0 x 10.0 ft		100.0 ft²		heat/cool				0 ft			
	10.0 ft		10.0 ft		10.0 ft		10.0 x 10.0 ft		100.0 ft²		heat/cool				4.0 x 9.0 ft			
	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)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	w	3.37	2.20	0	0	0	0	0	0	0	0	0	0	0	0
	G	10D-v	0.490	w	18.13	12.18	0	0	0	0	0	0	0	0	0	0	0	0
	G	1D-c2ob	0.650	w	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	53.19	0	0	0	0	0	0	0	0	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	58.73	0	0	0	0	0	0	0	0	0	0	0	0
	G	1D-c2ob	0.650	w	24.05	64.27	0	0	0	0	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	22.20	17.49	0	0	0	0	0	0	0	0	0	0	0	0
	C	16B-30ad	0.032	-	1.18	1.68	100	100	118	168	36	36	43	61	0	0	0	0
	F	19A-19bvhp	0.049	-	1.42	0.65	100	100	142	65	36	36	51	24	0	0	0	0
6	c) AED excursion																	
	Envelope loss/gain																	
									260	234			94	84				
12	a) Infiltration																	
	b) Room ventilation																	
									129	14			46	5				
									0	0			0	0				
13	Internal gains: Occupants @ 230 Appliances/other																	
							0		0	0	0	0	0	0				
	Subtotal (lines 6 to 13)																	
									389	247			140	89				
	Less external load																	
	Less transfer																	
	Redistribution																	
									0	0			0	0				
									0	0			0	0				
14	Subtotal																	
									389	247			140	89				
15	Duct loads																	
							-0%	0%	0	0	-0%	0%	0	0				
	Total room load																	
									389	247			140	89				
	Air required (cfm)																	
									34	11			12	4				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Loads for Multiple Orientations Entire House Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:

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

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
37
50
32.8

Cooling

75
17
50
52.0

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33
-
-
15.0

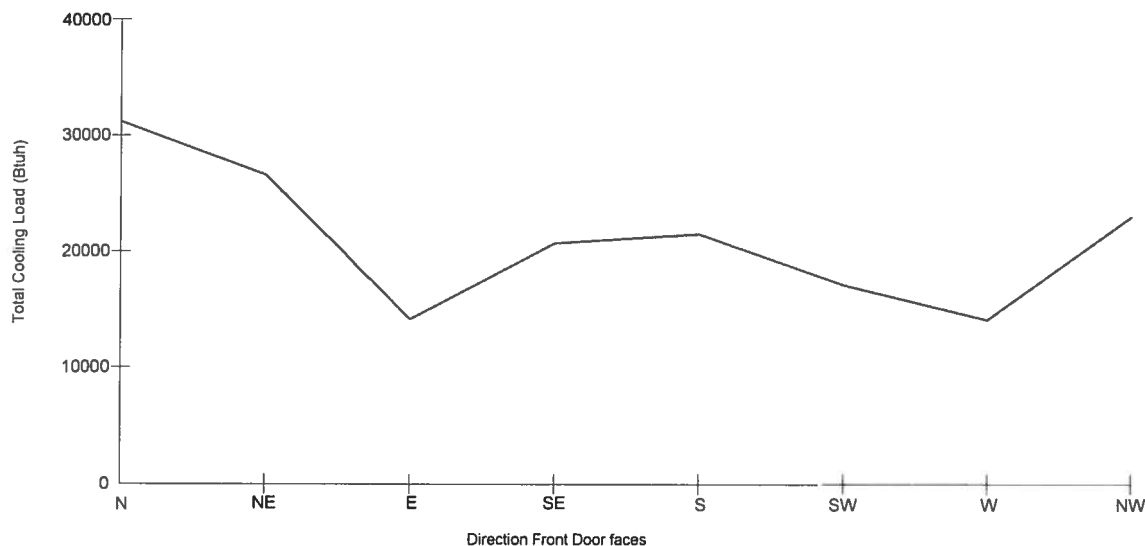
Cooling

92
19 (M)
77
7.5

Infiltration:

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	28225	23659	11214	17786	18578	14217	11214	20102
Latent Load (Btuh)	2957	2957	2957	2957	2957	2957	2957	2957
Total Load (Btuh)	31182	26616	14171	20743	21535	17174	14171	23059
Heating AVF (cfm)	1300	1300	1300	1300	1300	1300	1300	1300
Cooling AVF (cfm)	1300	1300	1300	1300	1300	1300	1300	1300

Building Orientation Cooling Load



Current Orientation: Front Door faces North
Highest Cooling Load: Front Door faces North

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2013 13.0.12 RSU08963

...ogle\Documents\Wrightsoft HVAC\CARL JOHNSON.rup Calc = MJ8 Front Door faces: N

2014-Nov-21 10:05:53

Page 1



Load Short Form
Entire House
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	52		

HEATING EQUIPMENT

Make RHEEM
Trade
Model 13PJL36A01
AHRI ref 3405580

Efficiency 9 HSPF
Heating input
Heating output 34000 Btuh @ 47°F
Temperature rise 24 °F
Actual air flow 1300 cfm
Air flow factor 0.086 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

COOLING EQUIPMENT

Make RHEEM
Trade
Cond 13PJL36A01
Coil RHLLHM3617
AHRI ref 3405580

Efficiency 14 SEER
Sensible cooling 24500 Btuh
Latent cooling 10500 Btuh
Total cooling 35000 Btuh
Actual air flow 1300 cfm
Air flow factor 0.045 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0.91

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
STUDY	112	1734	5331	149	238
MASTER BATHROOM	140	730	966	63	43
MASTER CLOSET/HL	84	327	208	28	9
MASTER BEDROOM	224	2293	3923	198	175
LIVING ROOM	450	6236	13161	537	588
KITCHEN	264	1501	840	129	38
B.PAN/LAUNDRY	160	1735	4333	150	194
FOYER	100	389	247	34	11
STAIRS/1/2 BATH	36	140	89	12	4

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Entire House	1570	15086	29098	1300	1300
Other equip loads		0	0		
Equip. @ 0.97 RSM			28225		
Latent cooling			2957		
TOTALS	1570	15086	31182	1300	1300

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Information

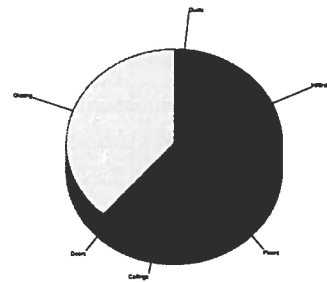
For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling	
Gainesville, FL, US			Indoor temperature (°F)		70	75	
Elevation: 151 ft			Design TD (°F)		37	17	
Latitude: 30°N			Relative humidity (%)		50	50	
Outdoor:			Heating	Cooling	Moisture difference (gr/lb)	32.8	52.0
Dry bulb (°F)			33	92	Infiltration:		
Daily range (°F)			-	19 (M)	Method		Simplified
Wet bulb (°F)			-	77	Construction quality		Average
Wind speed (mph)			15.0	7.5	Fireplaces		1 (Average)

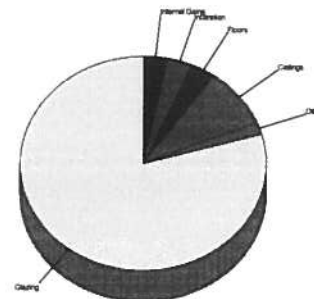
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.4	-1013	-6.7
Glazing	22.3	6237	41.3
Doors	22.2	466	3.1
Ceilings	1.2	1859	12.3
Floors	1.4	2231	14.8
Infiltration	0	4834	32.0
Ducts		473	3.1
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		15086	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.2	-661	-2.3
Glazing	84.4	23642	81.2
Doors	17.5	367	1.3
Ceilings	1.7	2645	9.1
Floors	0.7	1025	3.5
Infiltration	0	973	3.3
Ducts		187	0.6
Ventilation		0	0
Internal gains		920	3.2
Blower		0	0
Adjustments		0	0
Total		29098	100.0



Latent Cooling Load = 2957 Btuh
Overall U-value = 0.089 Btuh/ft²·°F

ERROR: negative wall area in STUDY - check windows.



Component Constructions STUDY

Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		1 (Average)	
		Heating	Cooling		
		33	92		
		-	19 (M)		
		-	77		
		15.0	7.5		

Construction descriptions

Walls
(none)

Partitions
(none)

Windows

1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" w gap, 1/8" thk; 4 ft overhang (6 ft window ht, 2 ft sep.); 6.67 ft head ht

Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh

Floors

19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovrr



Component Constructions
MASTER BATHROOM
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		1 (Average)	
				Heating	Cooling
				33	92
				-	19 (M)
				-	77
				15.0	7.5

Construction descriptions

Or	Area ft²	U-value Btu/hft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/hft²	Loss Btu/h	Cig HTM Btu/hft²	Gain Btu/h
----	-------------	------------------------	-----------------------	---------------------	---------------	---------------------	---------------

Walls
(none)

Partitions
(none)

Windows

1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" w gap, 1/8" thk; 4 ft overhang (3 ft window ht, 2 ft sep.); 6.67 ft head ht	6	0.650	0	24.0	144	53.2	319
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Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh	140	0.032	30.0	1.18	166	1.68	236
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Floors

19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr	140	0.049	19.0	1.42	199	0.65	91
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2014-Nov-21 12:03:14

Page 2



Component Constructions
MASTER CLOSET/HL
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	92	Infiltration:		Simplified	
Daily range (°F)	-	19 (M)				
Wet bulb (°F)	-	77				
Wind speed (mph)	15.0	7.5				
			Method		Average	
			Construction quality		1 (Average)	
			Fireplaces			

Construction descriptions

	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Clg HTM Btu/ft²	Gain Btu/h
Walls (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 5/8" gypsum board int fnsh		84	0.032	30.0	1.18	99	1.68	142
Floors 19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr		84	0.049	19.0	1.42	119	0.65	55



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2014-Nov-21 12:03:14

Page 3



Component Constructions
MASTER BEDROOM
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		1 (Average)	
				Heating	Cooling
				33	92
				-	19 (M)
				-	77
				15.0	7.5

Construction descriptions

Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu	Clg HTM Btu/ft²	Gain Btu
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Walls
(none)

Partitions
(none)

Windows

10D-v: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 10 ft overhang (7 ft window ht, 2 ft sep.); 6.67 ft head ht	w	42	0.490	0	18.1	761	12.2	511
1D-c2ob: 2 glazing, clr outr, air gas, mtl/w brk frm mat, clr innr, 1/4" gap, 1/8" thk; 4 ft overhang (4 ft window ht, 2 ft sep.); 6.67 ft head ht	w	16	0.650	0	24.0	385	58.7	940

Doors
(none)

Ceilings

16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh		224	0.032	30.0	1.18	265	1.68	377
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Floors

19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr		224	0.049	19.0	1.42	318	0.65	146
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2014-Nov-21 12:03:14

Page 4



Component Constructions
LIVING ROOM
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	92	Infiltration:			
Daily range (°F)	-	19 (M)	Method		Simplified	
Wet bulb (°F)	-	77	Construction quality		Average	
Wind speed (mph)	15.0	7.5	Fireplaces		1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Cig HTM Btu/ft²	Gain Btu/h
Walls								
(none)								
Partitions								
(none)								
Windows								
10D-v: 2 glazing, clr low-e outr, air gas, vnl frm mat, clr innr, 1/4" gap, 1/8" thk; 10 ft overhang (7 ft window ht, 2 ft sep.); 6.67 ft head ht	w	42	0.490	0	18.1	761	12.2	511
1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" gap, 1/8" thk; 4 ft overhang (6 ft window ht, 2 ft sep.); 6.67 ft head ht	w	96	0.650	0	24.0	2309	64.3	6170
Doors								
11J0: Door, mtl fbrgl type	w	21	0.600	6.3	22.2	466	17.5	367
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 5/8" gypsum board int fnsh		450	0.032	30.0	1.18	533	1.68	758
Floors								
19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr		450	0.049	19.0	1.42	639	0.65	294



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2014-Nov-21 12:03:14

Page 5



Component Constructions
KITCHEN
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		1 (Average)	
				Heating	Cooling
				33	92
				-	19 (M)
				-	77
				15.0	7.5

Construction descriptions

Walls
(none)

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh

Floors
19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr

Or	Area ft²	U-value Btu/hft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/hft²	Loss Btu/h	Clg HTM Btu/hft²	Gain Btu/h
	264	0.032	30.0	1.18	313	1.68	445
	264	0.049	19.0	1.42	375	0.65	172



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2014-Nov-21 12:03:14

Page 6

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Component Constructions
B.PAN/LAUNDRY
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville, FL, US			Indoor temperature (°F)		70	75
Elevation: 151 ft			Design TD (°F)		37	17
Latitude: 30°N			Relative humidity (%)		50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	92	Infiltration:			
Daily range (°F)	-	19 (M)	Method		Simplified	
Wet bulb (°F)	-	77	Construction quality		Average	
Wind speed (mph)	15.0	7.5	Fireplaces		1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Cig HTM Btu/ft²	Gain Btu/h
Walls								
(none)								
Partitions								
(none)								
Windows								
1D-c2ob: 2 glazing, clr outr, air gas, mtl /w brk frm mat, clr innr, 1/4" w gap, 1/8" thk; 4 ft overhang (6 ft window ht, 2 ft sep.); 6.67 ft head ht		36	0.650	0	24.0	866	64.3	2314
Doors								
(none)								
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh		160	0.032	30.0	1.18	189	1.68	270
Floors								
19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovrr		160	0.049	19.0	1.42	227	0.65	104



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2014-Nov-21 12:03:14

Page 7

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Component Constructions
FOYER
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CAC058124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)		Infiltration:			
Daily range (°F)		Method		Simplified	
Wet bulb (°F)		Construction quality		Average	
Wind speed (mph)		Fireplaces		1 (Average)	
		Heating	Cooling		
		33	92		
		-	19 (M)		
		-	77		
		15.0	7.5		

Construction descriptions

Walls
(none)

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 5/8" gypsum board int fnsh

Or	Area ft²	U-value Btu/h/ft²·°F	Insul R ft²·°F/Btu/h	Htg HTM Btu/h/ft²	Loss Btu/h	Clg HTM Btu/h/ft²	Gain Btu/h
	100	0.032	30.0	1.18	116	1.68	168
	100	0.049	19.0	1.42	142	0.65	65

Floors
19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr



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2014-Nov-21 12:03:14

Page 8



Component Constructions
STAIRS/1/2 BATH
Hogle's Heating & Air

Job: MAIN FLOOR
Date: Nov 19, 2014
By: W.D.HOGLE

13815 nw 39 th ave, Gainesville, Florida 32606 Phone: 352-332-1508 Fax: 352-332-1501 Email: RACEHOGIE@AOL.COM License: CACO58124

Project Information

For: CARL & CONNIE JOHNSON, SCOTT ROSENBOOM INC

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
		Heating	Cooling		
Dry bulb (°F)		33	92		
Daily range (°F)		-	19 (M)		
Wet bulb (°F)		-	77		
Wind speed (mph)		15.0	7.5		
Infiltration:		Method		Simplified	
		Construction quality		Average	
		Fireplaces		1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Clg HTM Btu/ft²	Gain Btu/h
Walls (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 5/8" gypsum board int fnsh		36	0.032	30.0	1.18	43	1.68	61
Floors 19A-19bvhp: Flr floor, frm flr, 8" thkns, hrd wd flr fnsh, r-19 cav ins, leaky bsmt ovr		36	0.049	19.0	1.42	51	0.65	24



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2014-Nov-21 12:03:14

Page 9



Certificate of Product Ratings

AHRI Certified Reference Number: 3405580

Date: 12/26/2013

Product: Split System: Heat Pump with Remote Outdoor Unit-Air-Source

Outdoor Unit Model Number: 13PJL36

Indoor Unit Model Number: RHLL-HM3617+RCSL-H*3617

Manufacturer: RHEEM SALES COMPANY, INC.

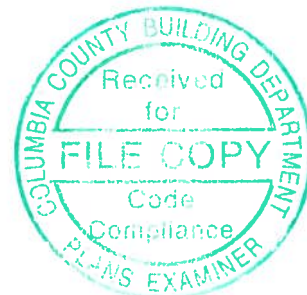
Trade/Brand name: RHEEM, RUUD, WEATHERKING

Series name:

Manufacturer responsible for the rating of this system combination is RHEEM SALES COMPANY, INC.

Rated as follows in accordance with AHRI Standard 210/240-2008 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):	35000
EER Rating (Cooling):	11.50
SEER Rating (Cooling):	14.00
Heating Capacity(Btuh) @ 47 F:	34000
Region IV HSPF Rating (Heating):	9.00
Heating Capacity(Btuh) @ 17 F:	22000



* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a WAS, which indicates an involuntary rerate.

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Air-Conditioning, Heating,
and Refrigeration Institute

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CERTIFICATE NO.: 130325703650156288

Certificate of Product Ratings

AHRI Certified Reference Number: 3468586

Date: 4/11/2013

Product: Split System: Heat Pump with Remote Outdoor Unit-Air-Source

Outdoor Unit Model Number: 13PJL18

Indoor Unit Model Number: RHLL-HM2417+RCSL-H*2417

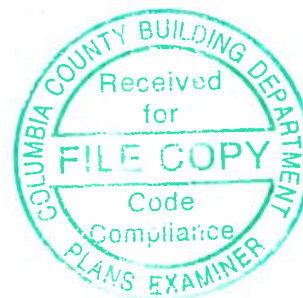
Manufacturer: RHEEM MANUFACTURING COMPANY

Trade/Brand name: RHEEM 13PJL SERIES

Manufacturer responsible for the rating of this system combination is RHEEM MANUFACTURING COMPANY

Rated as follows in accordance with AHRI Standard 210/240-2008 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):	18900
EER Rating (Cooling):	12.00
SEER Rating (Cooling):	14.00
Heating Capacity(Btuh) @ 47 F:	16500
Region IV HSPF Rating (Heating):	8.20
Heating Capacity(Btuh) @ 17 F:	8300



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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.



Air-Conditioning, Heating,
and Refrigeration Institute

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CERTIFICATE NO.: 130101451014288594

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 74

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

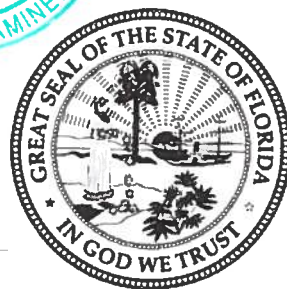
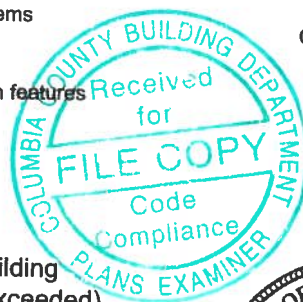
, , FL,

1. New construction or existing	New (From Plans)		9. Wall Types	Insulation	Area
2. Single family or multiple family	Single-family		a. Frame - Wood, Exterior	R=13.0	1360.00 ft ²
3. Number of units, if multiple family	1		b. N/A	R=	ft ²
4. Number of Bedrooms	3		c. N/A	R=	ft ²
5. Is this a worst case?	Yes		d. N/A	R=	ft ²
6. Conditioned floor area (ft ²)	2317		10. Ceiling Types	Insulation	Area
7. Windows**	Description	Area	a. Under Attic (Vented)	R=30.0	2317.00 ft ²
a. U-Factor:	Dbl, U=0.30	361.00 ft ²	b. N/A	R=	ft ²
SHGC:	SHGC=0.40		c. N/A	R=	ft ²
b. U-Factor:	N/A	ft ²	11. Ducts		
SHGC:			a. Sup: Attic, Ret: Attic, AH: Main	R	ft ²
c. U-Factor:	N/A	ft ²	b. Sup: Attic, Ret: Attic, AH: Main	6	122
SHGC:				6	231.7
d. U-Factor:	N/A	ft ²	12. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	36.0	SEER:14.00
Area Weighted Average Overhang Depth:	3.504 ft.		b. Central Unit	24.0	SEER:14.00
Area Weighted Average SHGC:	0.400		13. Heating systems	kBtu/hr	Efficiency
8. Floor Types	Insulation	Area	a. Electric Heat Pump	36.0	HSPF:9.00
a. Raised Floor	R=19.0	1600.00 ft ²	b. Electric Heat Pump	24.0	HSPF:9.00
b. Floor Over Other Space	R=30.0	717.00 ft ²	14. Hot water systems		
c. N/A	R=	ft ²	a. Electric	Cap: 50 gallons	
			b. Conservation features	EF: 0.98	
			None		
			15. Credits		
				CF, Pstat	

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: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: JOHNSON RES		Builder Name: ROSENBOOM	
Street:		Permit Office:	
City, State, Zip: , FL ,		Permit Number:	
Owner:		Jurisdiction:	
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		3	
5. Is this a worst case?		Yes	
6. Conditioned floor area above grade (ft²)		2317	
Conditioned floor area below grade (ft²)		0	
7. Windows(361.0 sqft.)		Area	
a. U-Factor: Dbl, U=0.30		361.00 ft²	
SHGC: SHGC=0.40			
b. U-Factor: N/A		ft²	
SHGC:			
c. U-Factor: N/A		ft²	
SHGC:			
d. U-Factor: N/A		ft²	
SHGC:			
Area Weighted Average Overhang Depth:		3.504 ft.	
Area Weighted Average SHGC:		0.400	
8. Floor Types (2317.0 sqft.)		Insulation Area	
a. Raised Floor		R=19.0 1600.00 ft²	
b. Floor Over Other Space		R=30.0 717.00 ft²	
c. N/A		R= ft²	
9. Wall Types(1360.0 sqft.)		Insulation Area	
a. Frame - Wood, Exterior		R=13.0 1360.00 ft²	
b. N/A		R= ft²	
c. N/A		R= ft²	
d. N/A		R= ft²	
10. Ceiling Types (2317.0 sqft.)		Insulation Area	
a. Under Attic (Vented)		R=30.0 2317.00 ft²	
b. N/A		R= ft²	
c. N/A		R= ft²	
11. Ducts		R ft²	
a. Sup: Attic, Ret: Attic, AH: Main		6 122	
b. Sup: Attic, Ret: Attic, AH: Main		6 231.7	
12. Cooling systems		kBtu/hr Efficiency	
a. Central Unit		36.0 SEER:14.00	
b. Central Unit		24.0 SEER:14.00	
13. Heating systems		kBtu/hr Efficiency	
a. Electric Heat Pump		36.0 HSPF:9.00	
b. Electric Heat Pump		24.0 HSPF:9.00	
14. Hot water systems		Cap: 50 gallons	
a. Electric		EF: 0.980	
b. Conservation features		None	
15. Credits		CF, Pstat	

Glass/Floor Area: 0.156	Total Proposed Modified Loads: 40.67	PASS
	Total Standard Reference Loads: 54.75	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.	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.	
PREPARED BY: _____ DATE: _____		
I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.	BUILDING OFFICIAL: _____ DATE: _____	
OWNER/AGENT: _____ DATE: _____		

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with 403.2.2.1.1.
- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist

PROJECT

Title: JOHNSON RES	Bedrooms: 3	Address Type: Street Address
Building Type: User	Conditioned Area: 2317	Lot #
Owner:	Total Stories: 1	Block/SubDivision:
# of Units: 1	Worst Case: Yes	PlatBook:
Builder Name: ROSENBOOM	Rotate Angle: 225	Street:
Permit Office:	Cross Ventilation:	County: Columbia
Jurisdiction:	Whole House Fan:	City, State, Zip: , 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	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1600	12800
2	Block2	717	5736

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1600	12800	Yes	1	3	1	Yes	Yes	Yes
2	2nd Floor	717	5736	No	0	0	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Raised Floor	Main	----	----	1600 ft²	19	0	0	1
_____	2	Floor Over Other Space	2nd Floor	----	----	717 ft²	30	0	0	1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	2510 ft²	0 ft²	Medium	0.96	No	0.9	No	0	22.6

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	2317 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
	1	Under Attic (Vented)	Main	30	2317 ft²	0.11	Wood

WALLS

✓	#	Omt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
	1	N=>SW	Exterior	Frame - Wood	Main	13	45		8		360.0 ft²		0.23	0.75	0
	2	S=>NE	Exterior	Frame - Wood	2nd Floor	13	45		8		360.0 ft²		0.23	0.75	0
	3	E=>NW	Exterior	Frame - Wood	2nd Floor	13	40		8		320.0 ft²		0.23	0.75	0
	4	W=>SE	Exterior	Frame - Wood	Main	13	40		8		320.0 ft²		0.23	0.75	0

DOORS

✓	#	Omt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
	1	N=>SW	Insulated	Main	None	.46	3		7		21 ft²

WINDOWS

Orientation shown is the entered orientation (=>) changed to Worst Case.

✓	#	Omt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening
	1	N=>SW	1	Vinyl	Low-E Double	Yes	0.3	0.4	108.0 ft²	0 ft 0 in	0 ft 0 in	Drapes/blinds	None
	2	N=>SW	1	Vinyl	Low-E Double	Yes	0.3	0.4	27.0 ft²	5 ft 0 in	0 ft 0 in	Drapes/blinds	None
	3	S=>NE	2	Vinyl	Low-E Double	Yes	0.3	0.4	50.0 ft²	5 ft 0 in	0 ft 0 in	Drapes/blinds	None
	4	E=>NW	3	Vinyl	Low-E Double	Yes	0.3	0.4	120.0 ft²	5 ft 0 in	0 ft 0 in	Drapes/blinds	None
	5	W=>SE	4	Vinyl	Low-E Double	Yes	0.3	0.4	56.0 ft²	5 ft 0 in	0 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	.0003	1823.3	100.09	188.24	.231	5.9018

HEATING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF: 9	36 kBtu/hr	1	sys#1
	2	Electric Heat Pump	None	HSPF: 9	24 kBtu/hr	2	sys#2

COOLING SYSTEM

✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit	None	SEER: 14	36 kBtu/hr	1080 cfm	0.75	1	sys#1
	2	Central Unit	None	SEER: 14	24 kBtu/hr	720 cfm	0.75	2	sys#2

HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Main	0.98	50 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM

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

DUCTS

✓	#	Supply Location	R-Value	Area	Return Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	122 ft²	Attic	115.85	Default Leakage	Main	(Default)	(Default)			1	1
_____	2	Attic	6	231.7 ft	Attic	57.925	Default Leakage	Main	(Default)	(Default)			2	2

TEMPERATURES

Programable Thermostat: Y					Ceiling Fans:									
Cooling	☒ Jan	☐ Feb	☒ Mar	☐ Apr	☐ May	☒ Jun	☒ Jul	☒ Aug	☒ Sep	☐ Oct	☒ Nov	☒ Dec		
Heating	☒ Jan	☒ Feb	☒ Mar	☒ Apr	☐ May	☐ Jun	☐ Jul	☐ Aug	☐ Sep	☒ Oct	☒ Nov	☒ Dec		
Venting	☒ Jan	☒ Feb	☒ Mar	☒ Apr	☐ May	☐ Jun	☐ Jul	☐ Aug	☐ Sep	☐ Oct	☒ Nov	☒ Dec		
Thermostat Schedule: HERS 2006 Reference														
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12	
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80	
	PM	80	80	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	66	66	66	66	66	68	68	68	68	68	68	68	
	PM	68	68	68	68	68	68	68	68	68	68	66	66	
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68	
	PM	68	68	68	68	68	68	68	68	68	68	66	66	

Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations
Residential Whole Building Performance Method

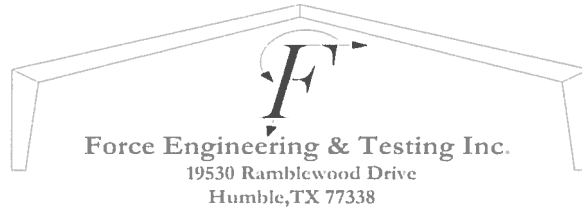
ADDRESS:

, FL,

PERMIT #:

MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	
Ducts	403.2.2	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code.	
	403.3.3	Building framing cavities shall not be used as supply ducts.	
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	
Ceilings/knee walls	405.2.1	R-19 space permitting.	



Product Evaluation Report
GULF COAST SUPPLY & MANUFACTURING, LLC.

1" Snap Lock 24 Ga. Roof Panel over 15/32" Plywood

Florida Product Approval # 11651.5 R1

Florida Building Code 2010

Per Rule 9N-3

Method: 1 -D

Category: Roofing

Subcategory: Metal Roofing

Compliance Method: 9N-3.005(1)(d)

HVHZ

Product Manufacturer:

GULF COAST SUPPLY & MANUFACTURING, LLC.

4020 S.W. 449th Street

Horseshoe Beach, Florida 32648

Engineer Evaluator:

Terrence E. Wolfe, P.E. # 44923

Florida Evaluation ANE ID: 1920

Validator:

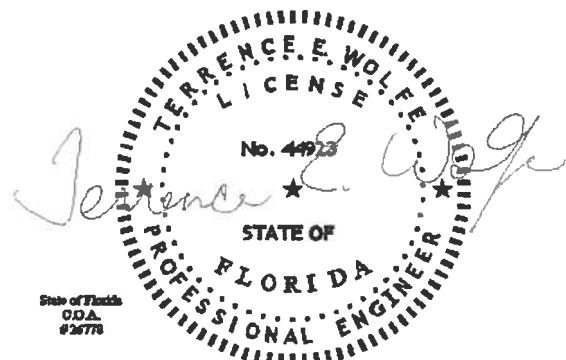
Locke Bowden, P.E., FL #49704

9450 Alysburry Place

Montgomery, AL 36117

Contents:

Evaluation Report Pages 1 - 4



FL# 11651.5 R1

February 17, 2012



Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2010, Sections 1504.3.2, 1518.9, 1523.6.5.2.4.

Product Description: 1" Snap Lock Standing Seam Roof Panel, 24 Ga. Steel, 17" Wide, Roof Panel restrained with steel slider clips into 15/32" Plywood decking. Non-structural Application.

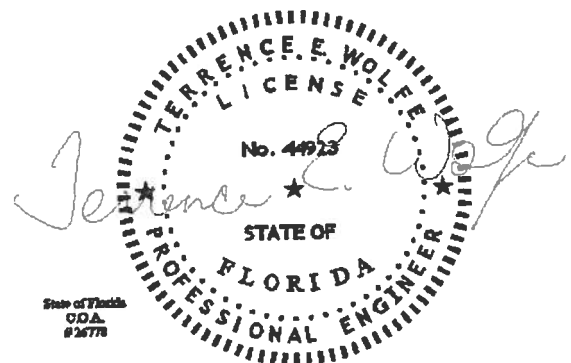
Panel Material/Standards: Material: 24 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2010 Section 1507.4.3.
Paint Coating: Valspar Fluoropon Coating (Optional)
Yield Strength: Min. 50.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2010, Section 1507.4.3

Panel Dimension(s): Thickness: 0.024"
Width: 17"
Rib Height: 1"
Panel Seam: Snap Lock

Roof Panel Clips: Product Name: 1000SNS
Type: Fixed, 18 Ga., 3 1/2" long
Corrosion Resistance: Per Florida Building Code 2010 Section 1506.7

Roof Clip Fastener: (2) #12-11 x 1" Pancake Type A
1/4" minimum penetration through plywood
Corrosion Resistance: Per Florida Building Code 2010, Section 1506.6, 1507.4.4

Substrate Description: Min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C.
Design of plywood and plywood supports are outside the scope of this evaluation. Must be designed in accordance w/ Florida Building Code 2010.



FL# 11651.5 R1

February 17, 2012



Quality Assurance Entity:	The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 9N-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.
Minimum Slope Range:	2:12. Minimum Slope shall comply with Florida Building Code 2010, including Sections 1515.2 and in accordance with Manufacturers recommendations.
Installation:	Install per manufacturer's recommended details and RAS 133.
Underlayment:	Per Manufacturer's installation guidelines per Florida Building Code 2010 Section 1518.2, 1518.3, 1518.4.
Fire Barrier:	Any approved fire barrier having a current NOA. Refer to a current fire directory listing for fire ratings of this roofing system assembly as well as the location of the fire barrier within the assembly. Fire classification is not part of this acceptance.
Shear Diaphragm:	Shear diaphragm values are outside the scope of this report.
Design Procedure:	Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2010 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2010 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

*The Test Reports are owned by Metalforming, Inc. Metalforming, Inc. gives the above manufacturer permission to use these test reports.



FL# 11651.5 R1

February 17, 2012



Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	67.3 psf	131.0 psf
Clip Spacing:	24" O.C.	6" O.C.
# Fasteners per Clip:	2	2

*Design Pressure includes a Safety Factor = 2.0.

Code Compliance:

The product described herein has demonstrated compliance with The Florida Building Code 2010, Section 1504.3.2, 1518.9, 1523.6.5.2.4.

Evaluation Report Scope:

The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2010, as relates to Rule 9N-3.

Performance Standards:

The product described herein has demonstrated compliance with:

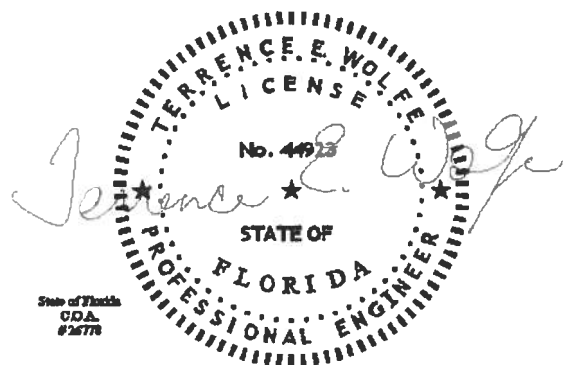
- TAS 125-03
- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-04 - Uplift Test for Roof Covering Systems
- TAS 100-95 - Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems
- TAS 110-00 - Accel. Weathering ASTM G 26 / Salt Spray ASTM B 117

Reference Data:

1. TAS 125-03: UL 580-94 / 1897-98 Uplift Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 72-0210T-07*, Dated 07/12/2007
2. TAS 100-95
Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)
Report No. T233-07*, Dated 07/14/2007
3. TAS 110-00: Valspar Fluoropon coated metal panel testing
A) ASTM G 26 by PRI Asphalt Technologies dated 01/19/2004
B) ASTM B 117 by PRI Asphalt Technologies dated 01/19/2004
4. Certificate of Independence
By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc.
(FBC Organization # ANE ID: 1920)

Test Standard Equivalency:

1. The UL 580-94 test standard is equivalent to the UL 580-06 test standard.
2. The UL 1897-98 test standard is equivalent to the UL 1897-04 test standard.



FL# 11651.5 R1

February 17, 2012



<http://growth-management.alachua.fl.us>

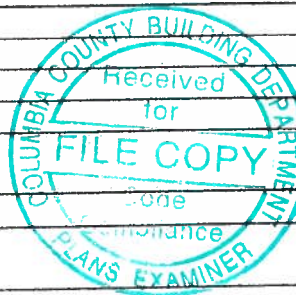
Submit Application to: Building Division

Tel. 352.374.5243
Fax. 352.491.4510

PRODUCT APPROVAL SPECIFICATION SHEET

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below. You can find product approval numbers at www.floridabuilding.org. First select "Product Approval". "Find a Product". Then select a category (product), select a manufacturer, and then search. Please include the mfg's installation instructions in your package.

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING	FLASPRO		15215.6
B. SLIDING			15215.9
C. SECTIONAL	"		15215.8
D. ROLL UP			
E. AUTOMATIC			
F. OTHER			
2. WINDOWS			
A. SINGLE HUNG	GA	Single Hung Windows	15217.18
B. HORIZONTAL SLIDER	GA	Twin	15217.22
C. CASEMENT			
D. DOUBLE HUNG			
E. FIXED			
F. AWNING			
G. PASS THROUGH			
H. PROJECTED			
I. MULLION			
J. WIND BREAKER			
K. DUAL ACTION			
L. OTHER			
3. ROOFING PRODUCTS			
A. ASPHALT SHINGLES METAL			
B. UNDERLAYMENTS		30lb FEL	
C. ROOFING FASTENERS			
D. NON-STRUCTURAL METAL ROOFING	GULF COAST	1" SNAP Lock 24 GAGE	FL 11651.5 R1
E. WOOD SHINGLES & SHAKES			
F. ROOFING TILES			
G. ROOFING INSULATION			
H. WATERPROOFING			
I. BUILT-UP ROOFING ROOF SYSTEMS			
J. ROOFING SLATE			
K. LIQUID APPLIED ROOF SYSTEMS			
L. ROOF TILE ADHESIVE			
M. SPRAY APPLIED POLYURETHANE ROOF			
N. OTHER			
4. SKYLIGHTS			
5. NEW EXTERIOR ENVELOPE PRODUCTS			



The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturer's installation requirements. Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Signature of Applicant

Scott Roan

Date

12/10/14

13618 NW 270th Ave.
Alachua, FL 32615
(386) 418-4387
dwpest@windstream.net

NOTICE OF TREATMENT

Date 4/27/15 Time _____

Treatment Address 633 SW Riverside Ave
Fort Lauderdale
Subdivision _____
Lot # _____

Type of Treatment: Soil or Wood

Square Feet 2000 Linear Feet _____

Chemical Termite _____ 05 %

Gallons Applied 200

Area Treated around house

Remarks _____

Technician [Signature]

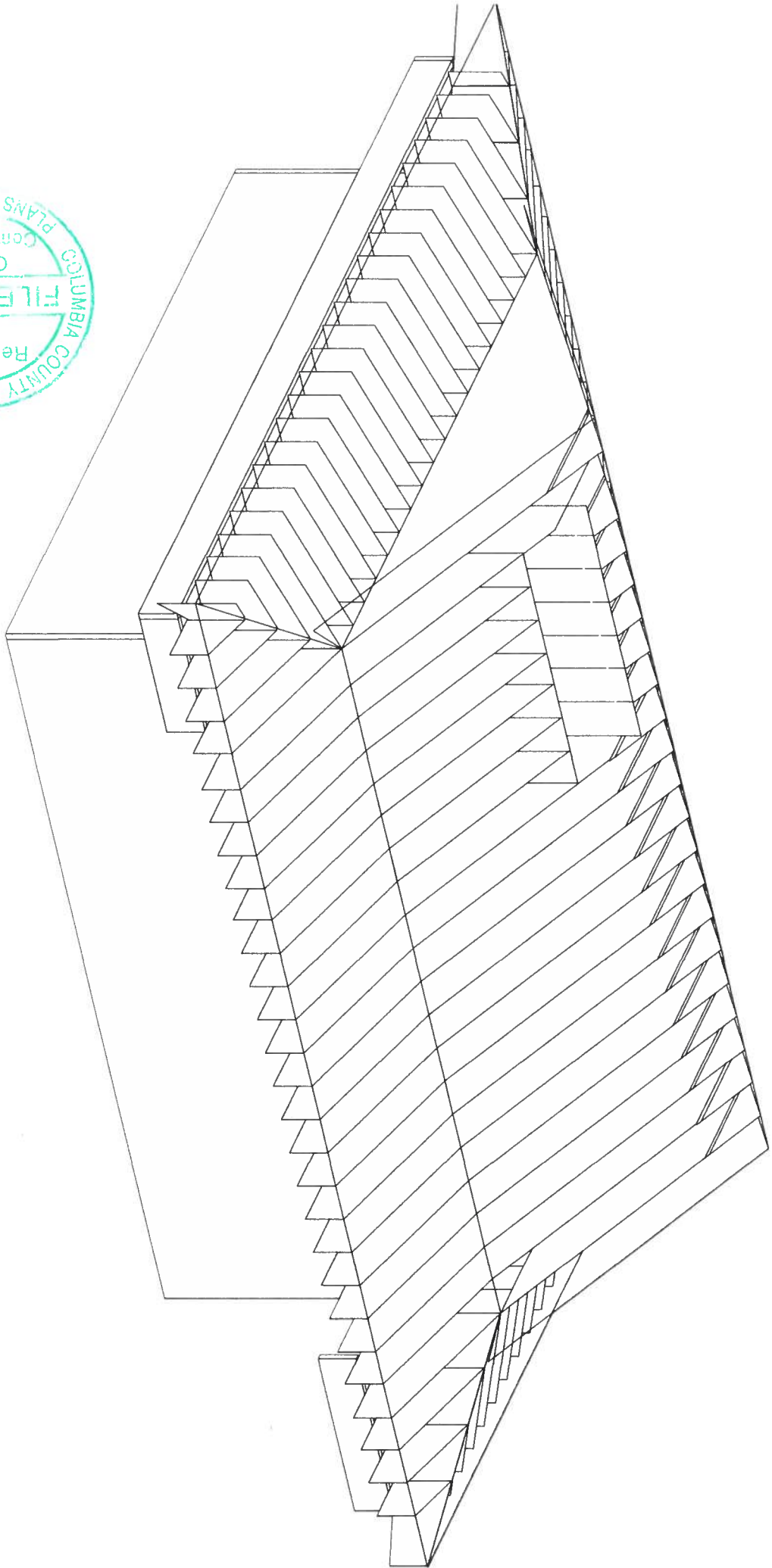
Per Florida Building Code 104.2.6 – If soil chemical barrier method for termite prevention is used, final exterior treatment shall be completed prior to final building approval.

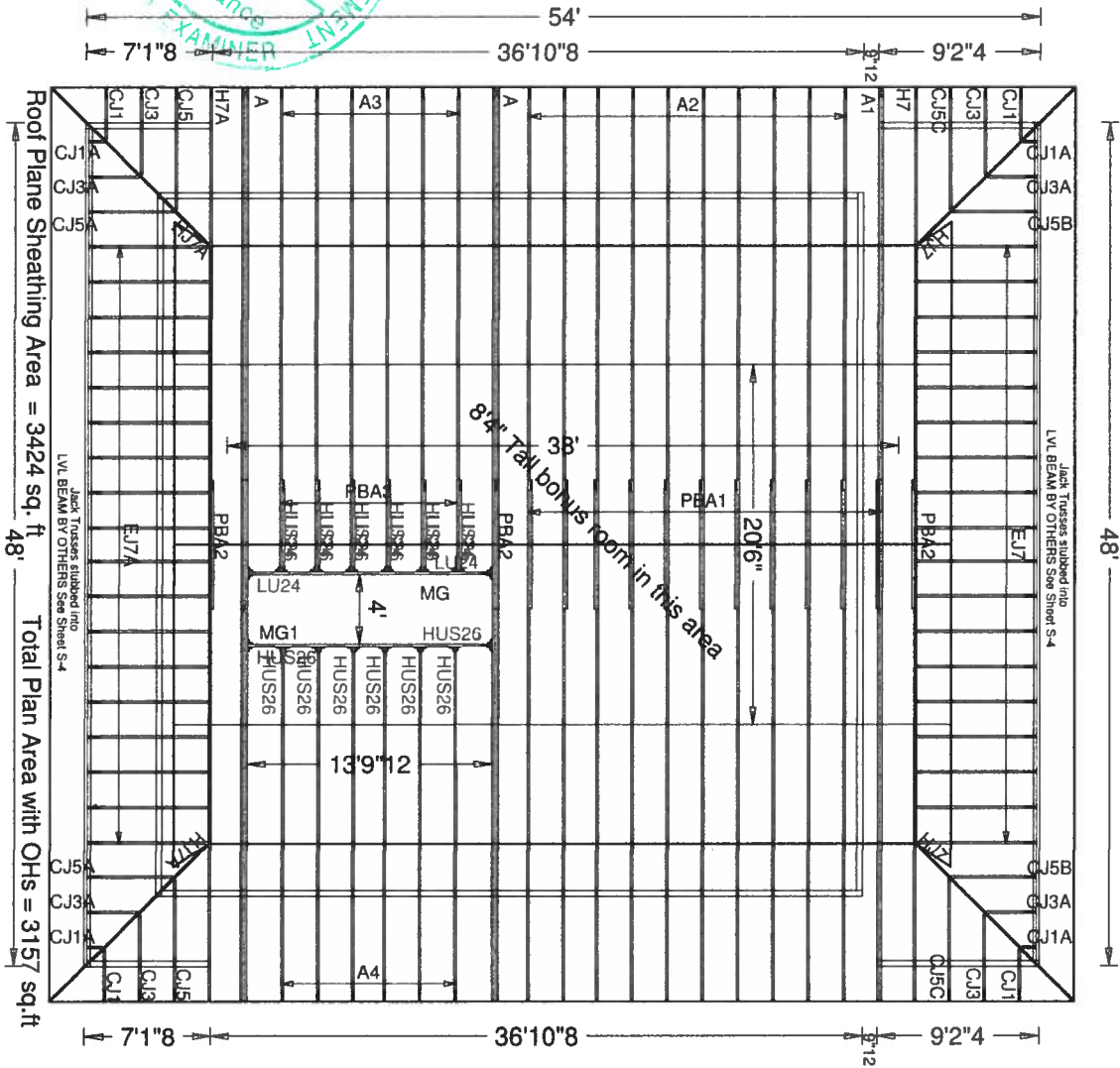
DW Pest – White

Permit File – Yellow

Permit Holder - Pink

JGR08





Alpine, an ITW Company

2400 Lake Orange Drive suite 150 Orlando FL 32837
Florida Engineering Certificate of Authorization Number: 0 278
Florida Certificate of Product Approval # FL1999
Page 1 of 1 Document ID:IVBL9114Z0119151729



Truss Fabricator: **Anderson Truss Company**
Job Identification: **14-189--OWNER BUILDER /Carl & Connie Johnson Res -- Columbia/Suwannee Co**
Truss Count: **25**
Model Code: **Florida Building Code 2010**
Truss Criteria: **FBC2010Res/TPI-2007(STD)**
Engineering Software: **Alpine Software, Version 13.02.**
Structural Engineer of Record: **The identity of the structural EOR did not exist as of the seal date per section 61G15-31.003(5a) of the FAC**
Address:
Minimum Design Loads: **Roof - 40.0 PSF @ 1.25 Duration**
Floor - N/A
Wind - 120 MPH ASCE 7-10 -Closed

11/19/2014

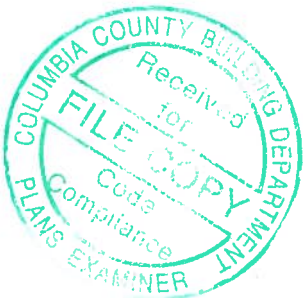
Notes:

1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1
2. The drawing date shown on this index sheet must match the date shown on the individual truss component drawing.
3. As shown on attached drawings; the drawing number is preceded by: HCUSR9114

William H. Krick
-Truss Design Engineer-

2400 Lake Orange Dr, Suite 150
Orlando FL, 32837

Details: BRCLBSUB-PB16010-14030EC1-GBLLETIN-12030EC1-GABRST10-DEFLCAMB-



#	Ref	Description	Drawing#	Date
1	38228-A	52' Special Gi	14323025	11/19/14
2	38229--A1	52' Special	14323020	11/19/14
3	38230--A2	52' Special	14323021	11/19/14
4	38231-A3	27' 6" 8' Special	14323022	11/19/14
5	38232--A4	20' 2" 8' Mono	14323001	11/19/14
6	38233--CJ1	3' Jack	14323002	11/19/14
7	38234--CJ1A	10" Jack	14323003	11/19/14
8	38235--CJ3	5' Jack	14323004	11/19/14
9	38236--CJ3A	2' 10" Jack	14323005	11/19/14
10	38237--CJ5	7' Jack	14323006	11/19/14
11	38238--CJ5A	4' 10" Jack	14323007	11/19/14
12	38239--CJ5B	4' 10" Jack	14323008	11/19/14
13	38240--CJ5C	7' Jack	14323009	11/19/14
14	38241-EJ7	6' 10" End Ja	14323010	11/19/14
15	38242-EJ7A	6' 10" End J	14323011	11/19/14
16	38243-H7	52' Special G	14323023	11/19/14
17	38244-H7A	52' Special	14323024	11/19/14
18	38245-HJ7	12' 8" Hip Ja	14323012	11/19/14
19	38246-HJ7	12' 8" Hip Ja	14323013	11/19/14
20	38247-HJ7A	12' 8" Hip J	14323014	11/19/14
21	38248-MG	13' 9" 12' Flat	14323015	11/19/14
22	38249-MG1	13' 9" 12' Flat	14323016	11/19/14
23	38250-PBA1	7' 4" Common	14323017	11/19/14
24	38251-PBA2	7' 4" Common	14323018	11/19/14
25	38252-PBA3	5' 2" 8' Speci	14323019	11/19/14

3 COMPLETE TRUSSES REQUIRED

Value Set: 13B (Effective 6/1/2013)
 Top Chord 2x6 SP #1 Dense: T2, T6 2x8 SP 2400F-2.0E:
 T3, T5 2x4 SP 2850F-2.3E: T14 2x4 SP #1:
 Bot Chord 2x6 SP #1 Dense: B2, B4 2x6 SP M-26:
 B3 2x4 SP #1:
 Webs 2x4 SP #3
 W10, W11, W14, W18, W36, W42 2x4 SP #2:
 Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
 120 mph wind, 28.71 ft mean hgt, ASCE 7-10, CLOSED bldg, not located
 within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf,
 wind BC DL=5.0 psf, GCPI (+/-)=0.18

Left and right cantilevers are exposed to wind

(a) Continuous lateral restraint equally spaced on member.

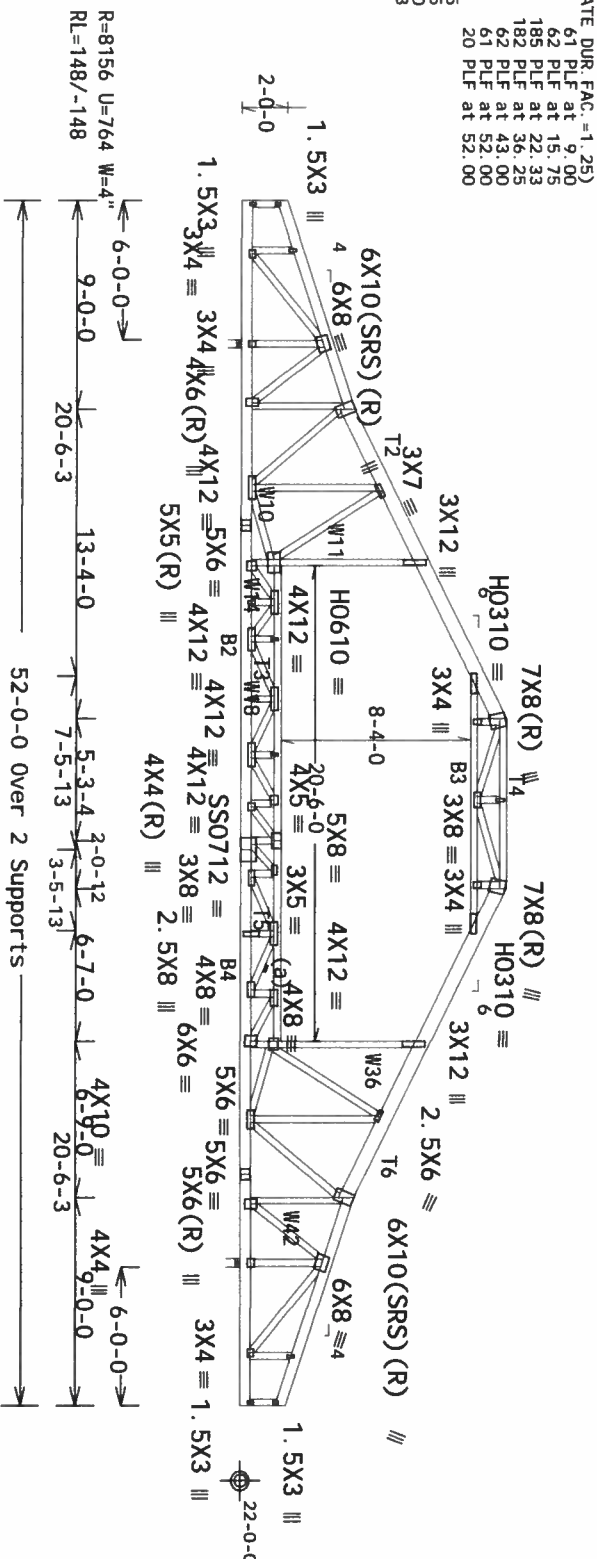
Deflection meets L/240 live and L/180 total load. Creep increase
 Factor for dead load is 1.50.

The maximum concentrated load is 7552#

MMFRS loads based on trusses located at least 14.35 ft. from roof
 edge.

SPECIAL LOADS

----- (LUMBER DUR. FAC. = 1.25 / PLATE DUR. FAC. = 1.25)
 TC - From 61 PLF at 0.00 to 61 PLF at 9.00
 TC - From 62 PLF at 9.00 to 62 PLF at 15.75
 TC - From 185 PLF at 15.75 to 182 PLF at 22.33
 TC - From 182 PLF at 22.33 to 182 PLF at 36.25
 TC - From 62 PLF at 36.25 to 61 PLF at 43.00
 TC - From 61 PLF at 43.00 to 20 PLF at 52.00
 BC - 119 LB Conc. Load at 15.75
 BC - 119 LB Conc. Load at 36.25
 BC - 7552 LB Conc. Load at 27.60
 BC - 3367 LB Conc. Load at 31.73



R=9733 U=992 W=4"

Note: All Plates Are 1.5X4 Except As Shown.
 PLT TYP. 20 Gauge HS, 18 Gauge HS, Design CRT: FBC2010RES/TP1-2007(STD)

Wave

FT/RT=10%(0%)/0(0)

13.02.07.0228.13

QTY: 2 FL/-/5/-/-/R/-

Scale = 1/25"/Ft.

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.
 FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.



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 Orlando, FL 32837
 FL COA #0278

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and WCA) for safety precautions to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, all chords shall have properly attached structural sheathing and bottom chord shall have a properly attached structural sheathing. All trusses shall be braced in accordance with the BCSI. Apply plates to each face of truss and position as shown above and in the Joint Details, unless noted otherwise. Refer to drawings 1604-2 for standard plate positions.
 Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping or installation & bracing of trusses.
 A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility for the design shown. The suitability and use of this drawing for any structure is the responsibility of the building designer per ANSI/TPI 1 Sec. 2.

ALPINE: www.alpineinc.com TPI: www.tpiinc.org WCA: www.wcainc.org
 For more information see this job's general notes page and those web sites.

STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 No. 70861
 H. KRICK

TC LL	20.0 PSF	REF	R9114- 38228
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCSR9114 14323025
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415328
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF	1VBL9114Z01

11/19/2014

Value Set: 13B (Effective 6/1/2013)

Top Chord 2x4 SP 2850F-2.3E : T1, T7 2x6 SP M-26:

Bot Chord 2x4 SP 2850F-2.3E

Webbs 2x4 SP #3

W1, W3, W4, W11, W15, W34, W36, W43, W44, W46 2x4 SP #2:

W12, W35 2x4 SP #1:

Rt Splice Block 2x4 SP #3:

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

Wind loads and reactions based on MWFRS with additional C&C member design.

SPECIAL LOADS

-----LUMBER DUR. FAC. =1.00 / PLATE DUR. FAC. =1.00
TC - From 21 PLF at 0.00 to 21 PLF at 9.00
TC - From 22 PLF at 9.00 to 22 PLF at 15.75
TC - From 145 PLF at 15.75 to 145 PLF at 22.33
TC - From 142 PLF at 22.33 to 142 PLF at 29.67
TC - From 100 PLF at 29.67 to 100 PLF at 36.25
TC - From 145 PLF at 36.25 to 145 PLF at 43.00
TC - From 21 PLF at 43.00 to 21 PLF at 52.00
BC - From 119 LB Conc. Load at 15.75
BC - 119 LB Conc. Load at 36.25

2 COMPLETE TRUSSES REQUIRED

Nail Schedule: 0.131"x3", min. nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webbs: 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

120 mph wind, 28.71 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 6.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

End verticals not exposed to wind pressure.

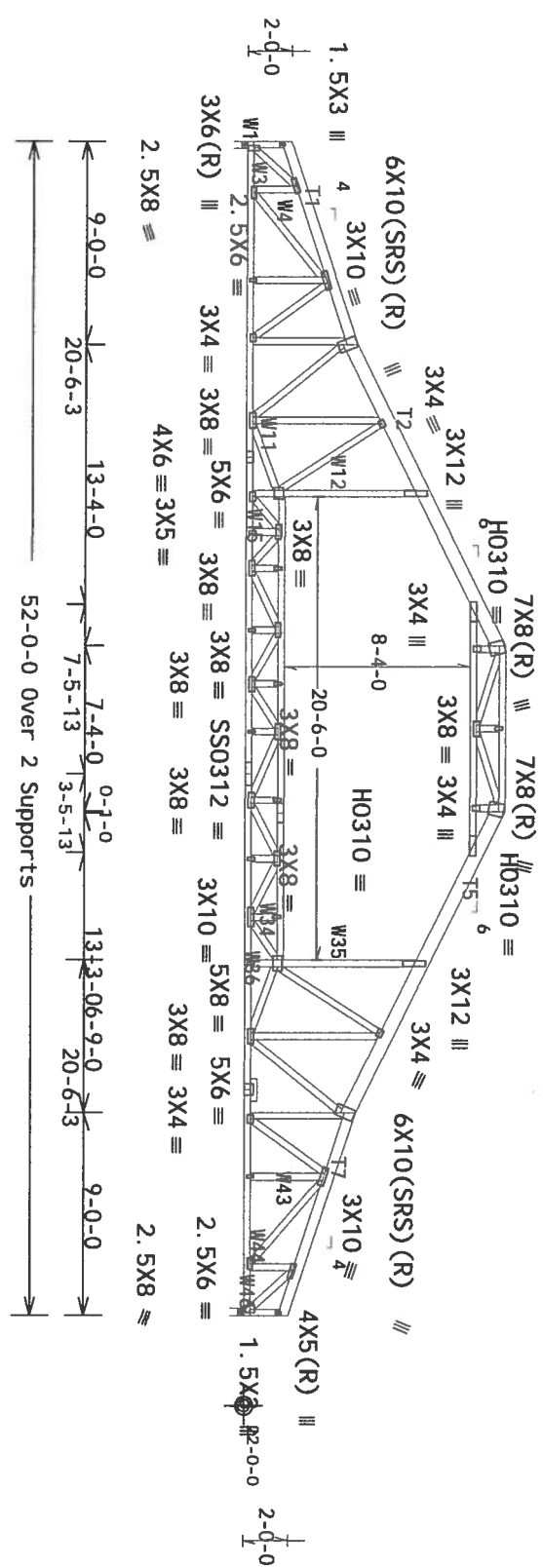
Calculated horizontal deflection is 0.26" due to live load and 0.27" due to dead load.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Calculated vertical deflection is 0.82" due to live load and 0.85" due to dead load at X = 26'-1.12".

WARNING: Furnish a copy of this DWG to the installation contractor. Special care must be taken during handling, shipping and installation of trusses. See "WARNING" note below.



R=3777 U=203 W=4"

RL=148/-148

Note: All Plates Are 1.5X4 Except As Shown.
PLT TYP. 20 Gauge HS, 18 Gauge HS, Design Crit: FBC2010Res/TPI-2007(STD)

Wave FT/RT=10%(0%/0/0/0)

13.02.07.0228.13

QTY: 1 FL/-/5/-/-/R/-

Scale = .125"/ft.



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A seal on this drawing or cover page listing this drawing, indicating acceptance of professional responsibility for the design shown. The seal shall be used and use of this drawing for any structure is the responsibility of the building designer per ANSI/TPI 1 Sec. 2.

TC LL	20.0 PSF	REF	R9114- 38229
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCSR9114 14323020
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SECON-	415286
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF	1VBL9114Z01

120 mph wind, 28.

120 mph w/ind, 28.71 ft mean hgt, ASCE 7-10, CLOSED bldg, not located
with in 13.00 ft from roof edge, R1 SK CAT II, EXP B, w/ind TC DL=3.5
psf, w/ind DL=5.0 psf, Gdpt (+/-) = 0.18

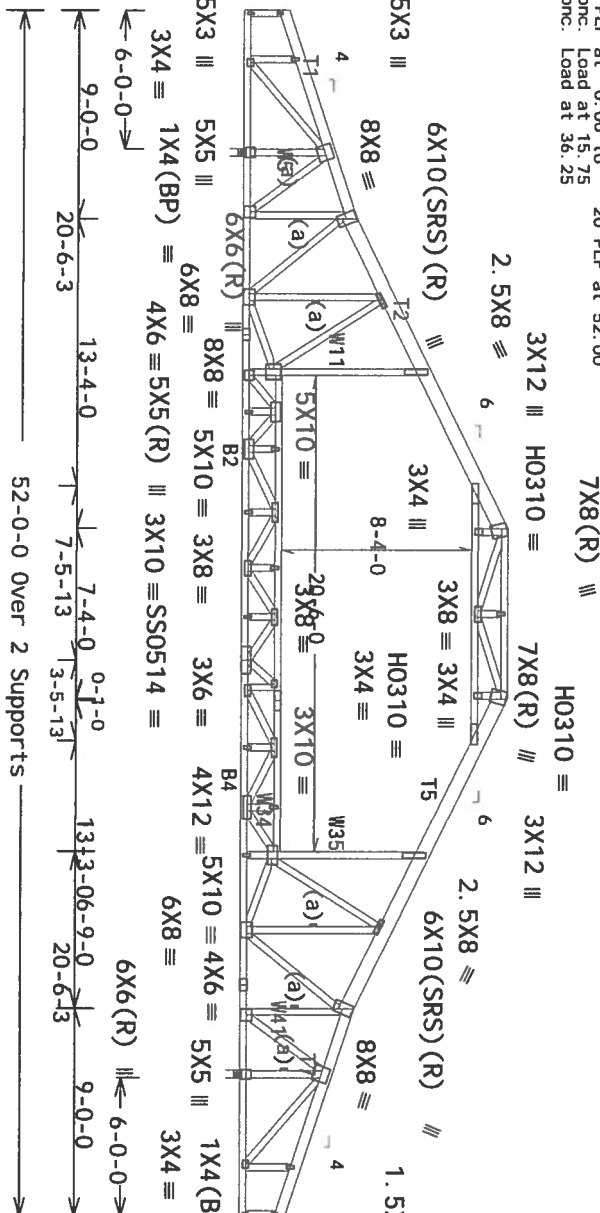
Wind loads and reactions based on MWFRS with additional C&C member design.

(a) Continuous lateral restraint equally space

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

Bottom chord checked for 10.00 psf non-concurrent live load

Deflection on meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=4129 U=174 W=4"

BC2010Res/TP1-2007(Std)

$$FT/RT = 10\%(0\%)/0(0)$$

QTY: 10 FL/-/5/-/-/R/-/

Scale = .125"

LAKE

TC LL	20.0
-------	------

REF R9114-

and other
CENS
RIC

Tc	10.0
----	------

DATE 11/1

attached

DC DI	10.0
-------	------

DATE 11/1

NAME

70861

BC DL	10.0
-------	------

DRW HCUSR9114

growth

BC LL 0.0

HC-ENG WHK/W

STATE OF

TOT.LD.	40.0
---------	------

SEON- 4153

WEEK

DUR. FAC. 1.25

FROM JMW

ENGINEERING

SPACING 34.0'

1 DEC 11/01 01

ADDITIONAL PAGES

2014	24.0
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JREF - 1VBL71

(14-189--OWNER BUILDER /Carl & Connie Johnson Res -- Col umbia /Savannah CO. , FL - A4 20' 2" Mono)

Value Set: 13B (Effective 6/1/2013)

Top chord 2x6 SP #1 Dense : T2 2x8 SP #1 Dense:
: T3 2x4 SP #1:
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

Left cantilever is exposed to wind

Hanger specified assumes connection to supporting chord is located a minimum of five times the depth of the supporting chord from any unsupported end, unless unsupported chord end has 85% plating coverage.

These support conditions used at bearings indicated
(H1) = HUS26 w/ (1) 2x8 SP #1 Dense supporting member.
(14) 0.148"x3" nails into supporting member,
(4) 0.148"x3" nails into supported member.

(a) Continuous lateral restraint equally spaced on member.

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

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

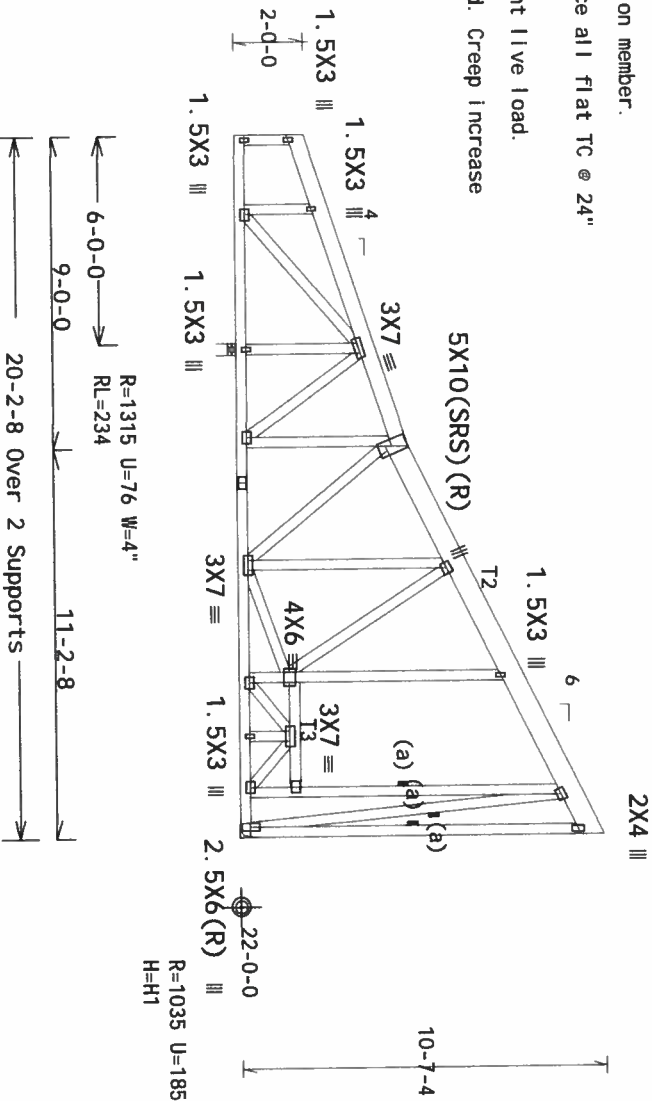
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

THIS DWG PREPARED FROM COMPUTER INPUT (LUMBER & DIMENSIONS) SUBJECT TO THE FOLLOWING:
120 mph wind, 28.18 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCpl (+/-)=0.18

wind loads and reactions based on MMFRS with additional CAC member design.

End verticals not exposed to wind pressure.

H = recommended connection based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.



Note: All Plates Are 3X4 Except As Shown.

Design Crit: FBC2010Res/TPI-2007 (STD) FT/RT=10%(0%)/0(0)

PLT TYP. Wave

IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING. FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.



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Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information) by TPI and WCA for safety practices and to performing these functions. Installers shall provide temporary bracing per BCSI unless noted otherwise. Top chord shall have properly attached structural sheathing and bracing. Bottom chord shall have properly attached structural sheathing and bracing. All bracing shall be installed in accordance with the BCSI. Apply plates to each face of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings 100A-Z for standard plate positions. Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with the BCSI/TPI 1, or for handling, shipping, installing and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicating acceptance of professional responsibility of the building designer per ASCE/TPI 1 Sec. 2. The seal shall be used and use of this drawing for any structure shall be the responsibility of the building designer per ASCE/TPI 1 Sec. 2.

TC LL	20.0 PSF	REF	R9114- 38232
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCSR9114 14323001
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SECN-	415289
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF	1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #1
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

Left end vertical not exposed to wind pressure.

Left cantilever is exposed to wind

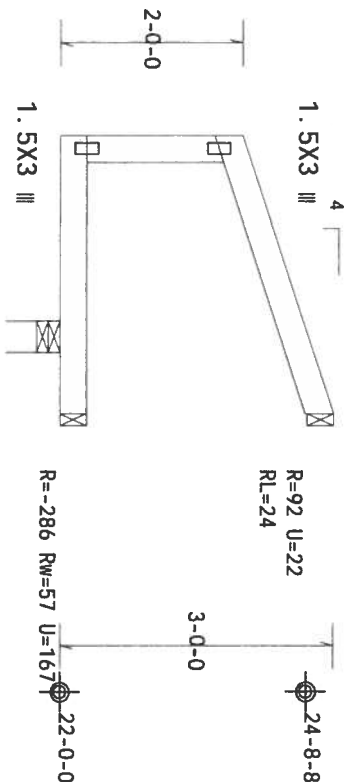
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

Negative reaction(s) of -286# MAX. (See below) from a non-wind load case requires uplift connection.

120 mph wind, 24.50 ft mean hgt, ASCE 7-10, CLOSED bldg, located anywhere in roof, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

Wind loads and reactions based on MMFRS with additional C&C member design.

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



← 2'-0'-0 →
← 3'-0'-0 Over 3 Supports →

R=438 U=74 W=4"

PLT TYP. Wave

Design Criteria: FBC2010Res/TPI-2007(STD)
FT/RT=10%(0%/0/0)

13.02.07, 0228, 13

QTY: 4 FL/-/5/-/-/R/-

Scale = .5"/Ft.



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FL COA #0278

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety) Information, by TPI and WCA for safety procedures. Top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached structural sheathing. The joint details, unless noted otherwise, shall refer to drawings 160A-2 for standard plate positions and details. Alpine, a division of TFW Building Components Group Inc. shall not be responsible for any deviation from this installation or bracing of trusses.

A seal on this drawing or cover page listing this drawing indicates acceptance of professional engineering responsibility of the Building Designer per ASCE/TPI 1 Sec. 2.

ALPINE www.alpine-tfw.com TPI www.tpi.net.org WCA www.structindustry.com ICC www.iccsafe.org



TC LL	20.0 PSF	REF R9114- 38233
TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HCUR9114 14323002
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEQN- 415290
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VBL9114Z01

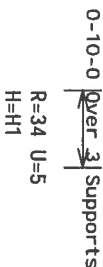
THIS DWG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.
(ck)

24.86 ft mean hgt, ASCE 7-10, CLOSED bldg, Located

120 mph wind, 24.86 ft mean hgt, ASCE 7-10, CLOSED bldg, located anywhere in roof, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BO DL=5.0 psf. GCPI (+/-)=0.18

Wind loads and reactions based on MWFRS with additional C&C member design.

Bottom chord checked for 10.00 psf non-concurrent live load. Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



Design Crit: FBC2010Res/TP1-2007(STD)

13.02.07.0238.13

FL/-/5/-/-/R/-/

Scale = .5"/ft.



For more information see this job's general notes page and these web sites:
ALPINE: www.alpinetw.com TPI: www.tpinst.org WTCA: www.sbcindustry.com ICC: www.icc.org

11/10/2014

SPACING

JREF- 1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP 2850F-2.3E
Bot chord 2x4 SP 2850F-2.3E
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

Left end vertical not exposed to wind pressure.

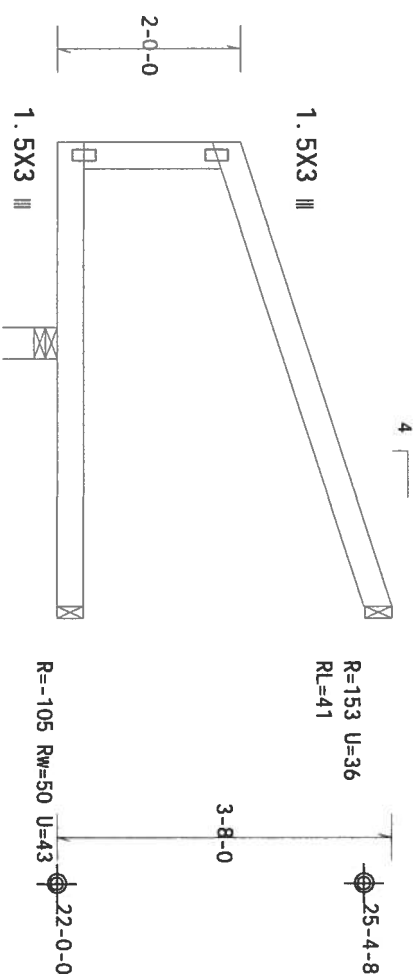
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 24.83 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

Wind loads and reactions based on MMFRS with additional C&C member design.

Left cantilever is exposed to wind

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



2'-0-0" →
5-0-0 Over 3 Supports →

R=358 U=49 W=4"

PLT TYP. Wave

Design Criteria: FBC2010Res/TP1 -2007 (STD)
FT/RT=10%(0%)/0(0)

13.02.07.0228.13

QTY: 4

FL/-/5/-/-/R/-

Scale = .5"/Ft.



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FL COA #0 278

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING. FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety) information, by TPI and WCA for safety practices and top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached sheathing. Locations shown on drawings for bracing shall be followed. Refer to drawings for standard plate positions. Refer to drawings for standard plate positions. Refer to drawings for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TP1 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing the drawing, indicates acceptance of professional responsibility of the Building Designer per ANSI/TP1 1 Sec. 2. For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com TPI: www.tpiinst.org WCA: www.structure.com ICC: www.iccsafe.org

11/19/2014

TC LL	20.0 PSF	REF	R9114- 38235
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HGUSR9114 14323004
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415292
DUR. FAC.	1.25	FROM	JMM
SPACING	24.0"	JREF-	1VBL9114Z01

THIS DWG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.
(jack)

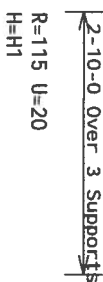
120 mph wind, 25.19 ft mean hgt, ASCE 7-10, CLOSED bldg, Located

120 mph w/nd, 25.19 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP B, w/nd TC DL=3.5 psf, w/nd BC DL=5.0 psf. GCpl (+/-)=0.18

Wind loads and reactions based on MMFRS with additional C&C member design.

Bottom chord checked for 10.00 psf non-concurrent live load

Deflection on meets $L/240$ live and $L/180$ total load. Creep increase factor for dead load is 1.50.



Scale = .5"/ft.

[illegible]

I have properly attached structural sheathing and bottom chord shall have a proper Locations shown for permanent lateral restraint of webs shall have bracing installed as applicable. Apply plates to each face of truss and position as shown or B10, as applicable.

Refer to drawings 1604-2 for standard plate post (301 stainless steel) and 1604-3 for standard plate post (304 stainless steel). The manufacturer of the ITH Building Components Group Inc. shall not be responsible for any deviation from the drawings or specifications. The manufacturer shall be responsible for the selection of materials and the design of the truss to build the truss in conformance with AISI/TPI 1, or for handling, shipping and erecting of trusses.

of the Building Designer per ANSI/TP1 1 Sec. 2.

For more information see this job's general notes page and those web sites.
www.alpinetw.com: TPI: www.tpinet.org: WTCA: www.sbcindustry.com: ICC: www.icc-

11/10/2014

TC LL	20.0 PSF	REF R9114- 38226
TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HCURP114 1432300
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEON- 415293
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VB19114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #1
 Bot chord 2x4 SP #1
 Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

Left end vertical not exposed to wind pressure.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

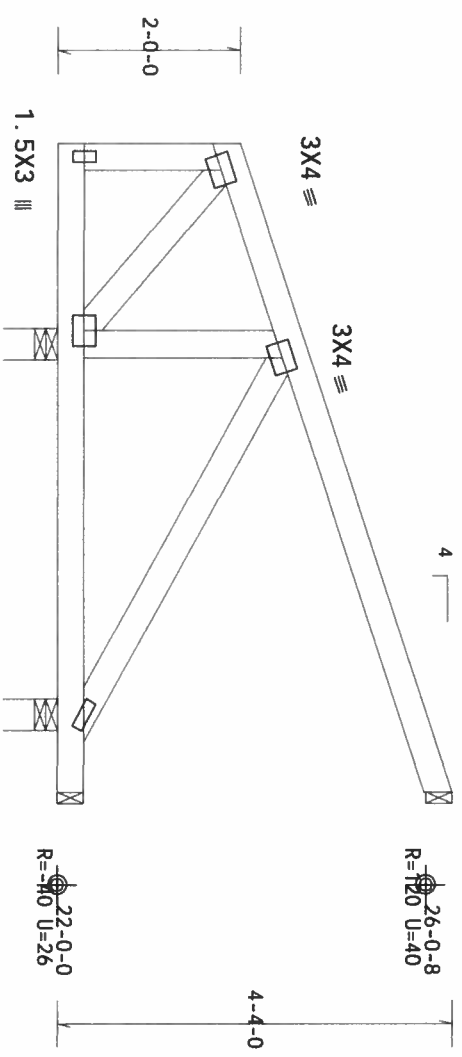
120 mph wind, 25.17 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18

Wind loads and reactions based on MMFRS with additional C&C member design.

Left cantilever is exposed to wind

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

Shim all supports to solid bearing.



2'-0-0
 7'-0-0 Over 4 Supports
 R=385 U=20 W=4"
 RL=58
 R=152 U=20 W=4"

PLT TYP. Wave Design Cr1 t: FBC2010Res/TP1 -2007(STD) FT/RT=10%(0%)/0(0)



2400 Lake Orange Dr., Suite 150
 Orlando, FL 32837
 FL COA #0278

IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING. FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety) Information, by TPI and WCA for safety practices pertaining to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached structural sheathing. Trusses shall be installed in accordance with the manufacturer's instructions and the joint details, unless noted otherwise. Refer to drawings 1004-Z for standard plate positions. Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing indicates acceptance of professional engineering responsibility of the Building Designer per ANSI/TPI 1 Sec. 2.

ALPINE: www.alpineitw.com TPI: www.tpinet.org WCA: www.wcaindustry.com ICC: www.iccsafe.org



TC LL	20.0 PSF	REF	R9114- 38237
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCSR9114 14323006
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415294
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF-	1VBL9114Z01

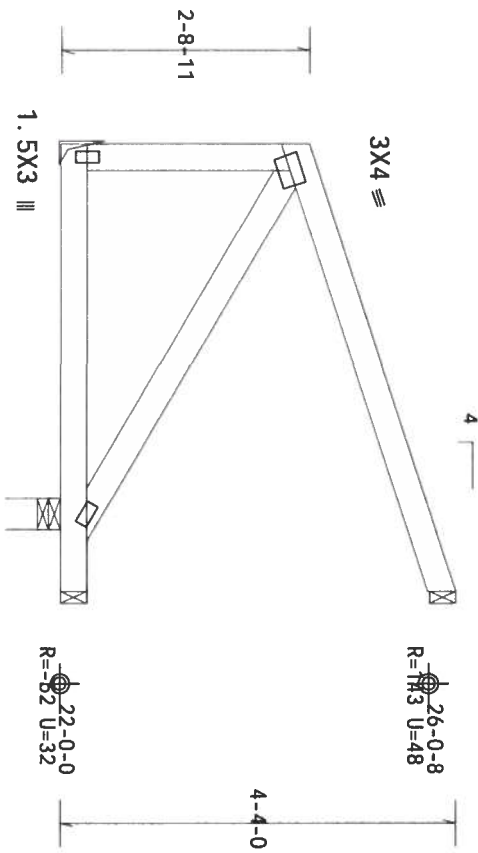
Scale = .5"/Ft.

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #1
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
Left end vertical not exposed to wind pressure.
Shim all supports to solid bearing.

120 mph wind, 25.53 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18
Wind loads and reactions based on MMFRS with additional C&C member design.
Bottom chord checked for 10.00 psf non-concurrent live load.
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



4-10-0 Over 4 Supports
R=179 U=2
RL=40
H=H1
R=182 U=2 W=4"

PLT TYP. Wave

Design Cr1t: FBC2010Res/TP1-2007(STD)
FT/RT=10%(0%)/0(0)

13.02.07.0228.13

QTY: 2

FL/-/5/-/-/R/-

Scale = .5"/Ft.



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FL COA #0278

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.
FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety) information, by TPI and WCA for safety practices to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted, the top chord shall have properly attached structural sheathing and bottom chord shall have a proper live load. The truss shall be installed in accordance with the manufacturer's instructions. The joint details, unless noted otherwise, shall refer to drawings 100A-Z for standard plate positions. All joints, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping or installation of bracing or trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional responsibility for the design shown. The suitability and use of this drawing for any structure is the responsibility of the building designer per ANSI/TPI 1 Sec. 2.

ALPINE www.alpineitw.com TPI www.tpiinst.org WCA www.stcindustry.com ICC www.iccsafe.org

11/19/2014

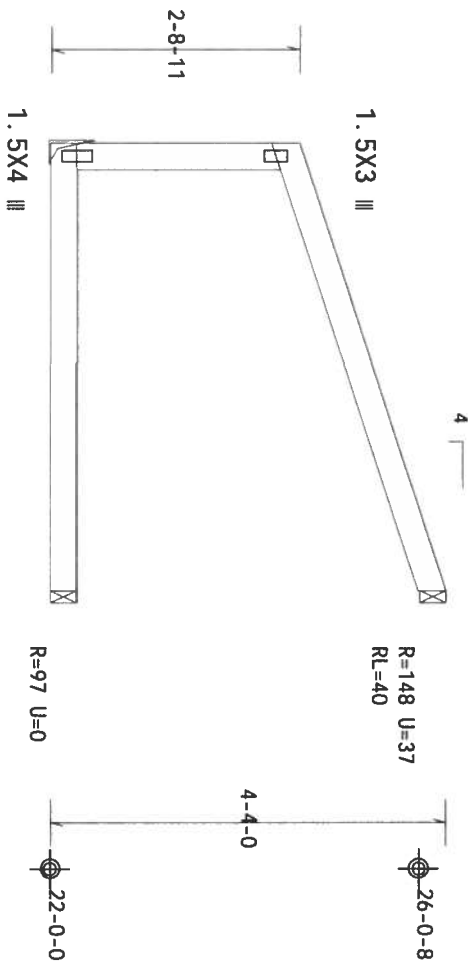
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TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HCUR9114 14323007
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEON- 415295
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #1
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
Left end vertical not exposed to wind pressure.

120 mph wind, 25.53 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18
Wind loads and reactions based on MMFRS with additional C&C member design.
Bottom chord checked for 10.00 psf non-concurrent live load.
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



4-10-0 Over 3 Supports
R=196 U=35
H=H1

PLT TYP. Wave

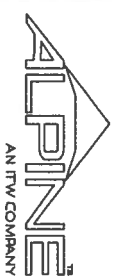
Design Criteria: FBC2010Res/TP1-2007(STD)
FT/RT=10%(0%)/0(0)

13.02.07.0228.13

QTY: 2 FL/-/5/-/-/R/-

Scale = .5"/Ft.

IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING. FURNISH THE DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.



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Trusses require extreme care in fabricating, handling, siting, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and WCA) for safety practices and to performing these functions. Installers shall provide temporary bracing per BCSI unless noted otherwise. Top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached structural sheathing. All trusses shall be installed in accordance with the manufacturer's instructions. Apply plates to each face of truss and position as shown above and in the Joint Details, unless noted otherwise. Refer to drawings 180A-2 for standard plate positions. Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, siting or installation & bracing of trusses.

A seal on this drawing or cover page listing the drawing, indicates acceptance of professional engineering responsibility for the building design. The seal shall be used for any structure for which the responsibility of the building designer per ANSI/TPI 1 Sec. 2.

ALPINE www.alpineinc.com TPI www.tpiinc.org WCA www.wcaindustry.com ICC www.iccsafe.org

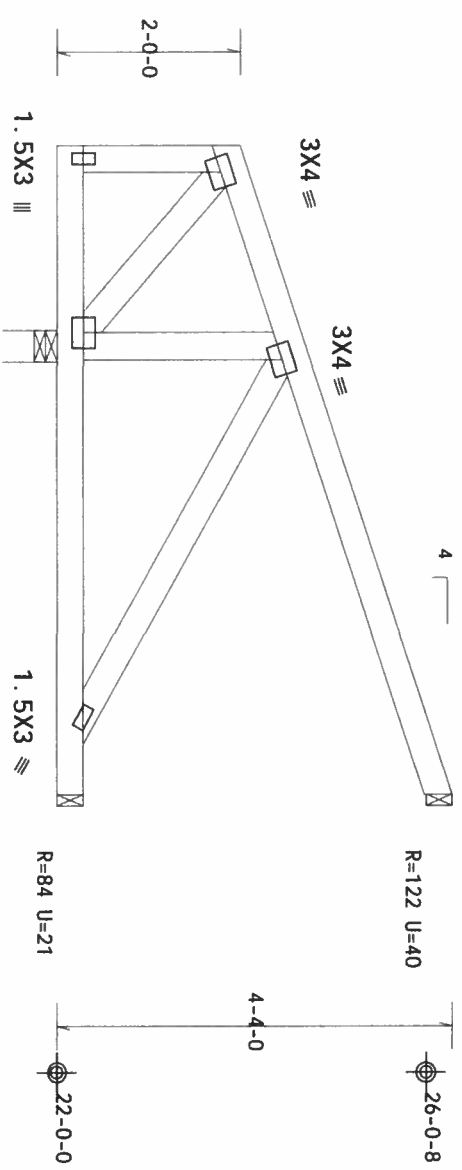
11/19/2014

TC LL	20.0 PSF	REF	R9114- 38239
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCUSR9114 14323008
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415296
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF-	1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)
Top chord 2x4 SP #1
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
Left end vertical not exposed to wind pressure.
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

120 mph wind, 25.17 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18
Wind loads and reactions based on MMFRS with additional C&C member design.
Left cantilever is exposed to wind
Bottom chord checked for 10.00 psf non-concurrent live load.



2'-0'-0"
7'-0'-0" Over 3 Supports
R=399 U=19 W=4"
RL=58

PLT TYP. Wave
Design Crit: FBC2010Res/TP1-2007(STD)
FT/RT=10%(0%)/0(0)
13.02.07.0228.13 QTY: 2 FL/-/5/-/-/R/-



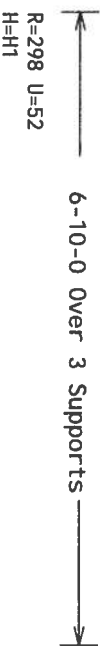
2400 Lake Orange Dr., Suite 150
Orlando, FL 32837
FL COA #0278
ALPINE: www.alpineinc.com
For more information see this job's general notes page and these web sites
www.alpineinc.com
www.tpi.com
www.tpiinst.org
www.sciindustry.com
ICC
www.iccsafe.org
11/19/2014

TC LL				REF			
20.0 PSF				R9114- 38240			
TC DL				DATE			
10.0 PSF				11/19/14			
BC DL				DRW HCUR9114 14323009			
10.0 PSF				HC-ENG WHK/WHK			
BC LL				SEON- 415297			
0.0 PSF				FROM JMW			
TOT. LD.				JREF- 1VBL9114Z01			
40.0 PSF							
DUR. FAC.							
1.25							
SPACING							
24.0"							

Wind loads and reactions based on MMFRS with additional C&C member design.

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Deflection meets $L/240$ live and $L/180$ total load. Creep increase factor for dead load is 1.50.



Design Crit:	FBC2010Res/TP1 -2007(STD)
	FT/RT=10%(0%)/0(0)

QTY: 18 FL/-/5/-/-/R/-

Scale = .5"/Ft.

--WARNING-- READ AND FOLLOW ALL NOTES ON THIS DRAWING!
 --IMPORTANT-- FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

AN ITW COMPANY

For more information see this job's general notes page and these web sites:
www.alplanetw.com TP1: www.tp1inst.org WTC: www.sbcindustry.com ICC: www.1

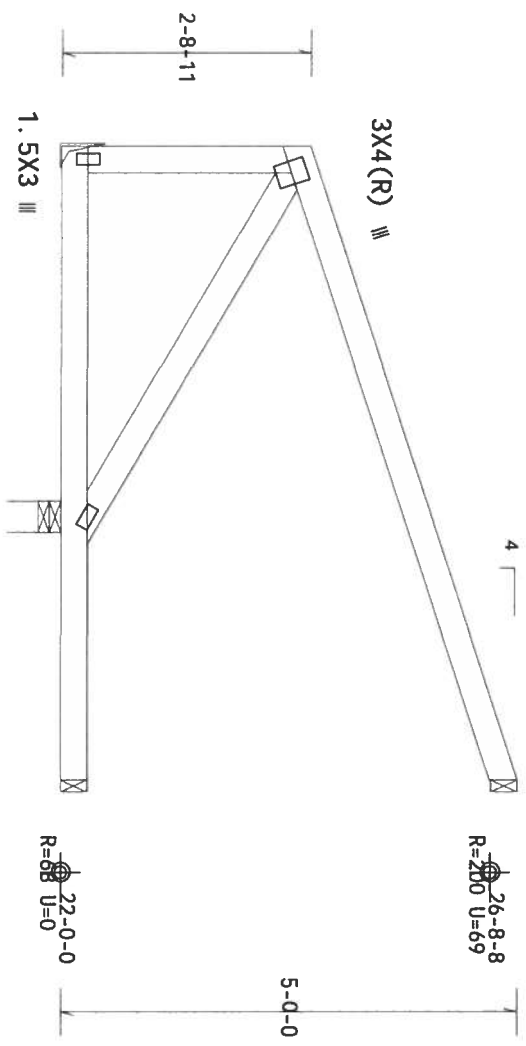
TC LL	20.0 PSF	REF	R9114- 38241
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCUSR9114 14323010
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEQN-	415298
DUR. FAC.	1.25	FROM	JMM
SPACING	24.0"	JREF-	1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #1
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
Left end vertical not exposed to wind pressure.
Bottom chord checked for 10.00 psf non-concurrent live load.

THIS DWG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.
120 mph wind, 25.86 ft mean hgt, ASCE 7-10, CLOSED bldg, located anywhere in roof, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCPI (+/-)=0.18
Wind loads and reactions based on MMFRS with additional C&C member design.
Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



6-10-0 Over 4 Supports
R=231 U=5
RL=58
H=H1
R=178 U=17 W=4"

PLT TYP. Wave Design Criteria: FBC2010Res/TP1-2007(STD) 13.02.07.0228.13 QTY: 18 FL/-/5/-/-/R/- Scale = .5"/Ft.



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Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and WCA) for safety precautions to performing these functions. Installers shall provide temporary bracing per BCSI unless noted otherwise. To protect the truss from damage during shipping, handling and installation, the truss shall have bracing installed per BCSI sections 83, 87 or 810, as applicable. Apply plates to each face of truss and position as shown above and in the joint details, unless noted otherwise. Refer to drawings 160A-2 for standard plate positions.
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from the drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.
A seal on this drawing or cover page listing the drawing, final case acceptance of professional engineering responsibility of the Building Designer per ANSI/TPI 1 Sec. 2.
For more information see this job's general notes page and these web sites:
ALPINE: www.alpineinc.com TPI: www.tpi.net WCA: www.wcausa.com ICC: www.iccsafe.org

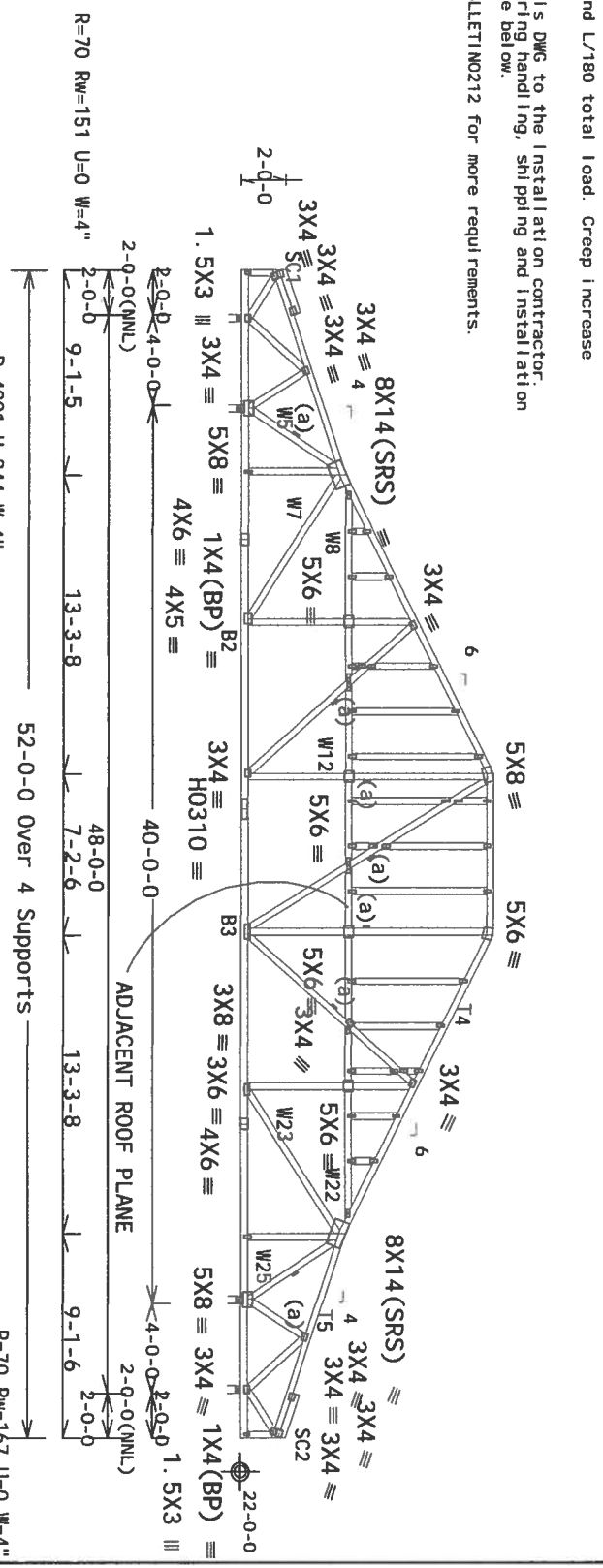


TC LL	20.0 PSF	REF	R9114- 38242
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCSR9114 14323011
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415299
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF-	1VBL9114Z01

See DWGS A12030ENC101014, GBLLETT101014, & GABRST101014 for gable wind bracing requirements.

(a) Continuous lateral restraint equally spaced on member.
 In lieu of structural panels use purlins to brace all flat TC @ 24"
 OC.
 Bottom chord checked for 10.00 psf non-concurrent live load.

SPECIAL LOADS
 LUMBER DUR. FAC. =1.25 / PLATE DUR. FAC. =1.25
 TC - From 61 PLF at 0.00 to 61 PLF at 9.11
 TC - From 31 PLF at 9.11 to 31 PLF at 22.40
 TC - From 31 PLF at 22.40 to 31 PLF at 29.60
 TC - From 31 PLF at 29.60 to 31 PLF at 42.89
 TC - From 61 PLF at 42.89 to 61 PLF at 52.00
 BC - From 20 PLF at 0.03 to 20 PLF at 9.03
 BC - From 20 PLF at 9.03 to 20 PLF at 42.99
 BC - From 20 PLF at 42.99 to 20 PLF at 52.00
 TC 200 LB Conc. Load at 9.06, 11.06, 13.06, 15.06, 17.06, 19.06,
 21.06, 23.06, 25.06, 26.94, 28.94, 30.94, 32.94, 34.94, 36.94, 38.94,
 40.94, 42.94
 BC - 210 LB Conc. Load at 9.03
 BC - 68 LB Conc. Load at 11.06, 13.06, 15.06, 17.06, 19.06, 21.06,
 23.06, 25.06, 26.94, 28.94, 30.94, 32.94, 34.94, 36.94, 38.94, 40.94
 BC - 210 LB Conc. Load at 42.99



Note: All Plates Are 1.5X4 Except As Shown.
 Design Criteria: FBC2010Res/TP1-2007(STD) 13.02.07.0228.13 QTY: 1 FL/-5/-/-/R/- Scale = 1/25"/Ft.
 PLT TYP. 20 Gauge HS Wave
 FT/RT=10%(0%)/0(0)

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FL COA #0278

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.**
 Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BC53 (Building Component Specification, Information, by TPI and WCA) for safety precautions and to performing these functions. Installers shall provide temporary bracing per BC53. Unless noted, all trusses shall be installed on a level surface and shall be braced in accordance with the manufacturer's instructions. Local bracing for each truss shall be provided in accordance with the manufacturer's instructions. The joint details, unless noted otherwise, shall be in accordance with the manufacturer's instructions. Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping or installation and bracing of trusses.
 A seal on this drawing for cover page listing the drawing, indicates acceptance of professional engineer's responsibility for the building design per ASCE/TP1 1 Sec. 2.
 For more information see this job's general notes pages and these web sites
 ALPINE: www.alpineinc.com; TPI: www.tpiinc.org; WCA: www.wcaindustry.com; ICC: www.iccsafe.org

STATE OF FLORIDA
PROFESSIONAL ENGINEER
NO. 70861
H. KRICK

TC LL	20.0 PSF	REF R9114- 38244
TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HUS9114 14323024
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEON- 415310
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VBL9114Z01

11/19/2014

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP M-30
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
120 mph wind, 25.49 ft mean hgt, ASCE 7-10, CLOSED bldg, not located
within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf,
wind BC DL=5.0 psf. GCpl (+/-)=0.18

Wind loads and reactions based on MMFRS.

Left end vertical not exposed to wind pressure.

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

These hangers and support conditions used at bearings indicated.

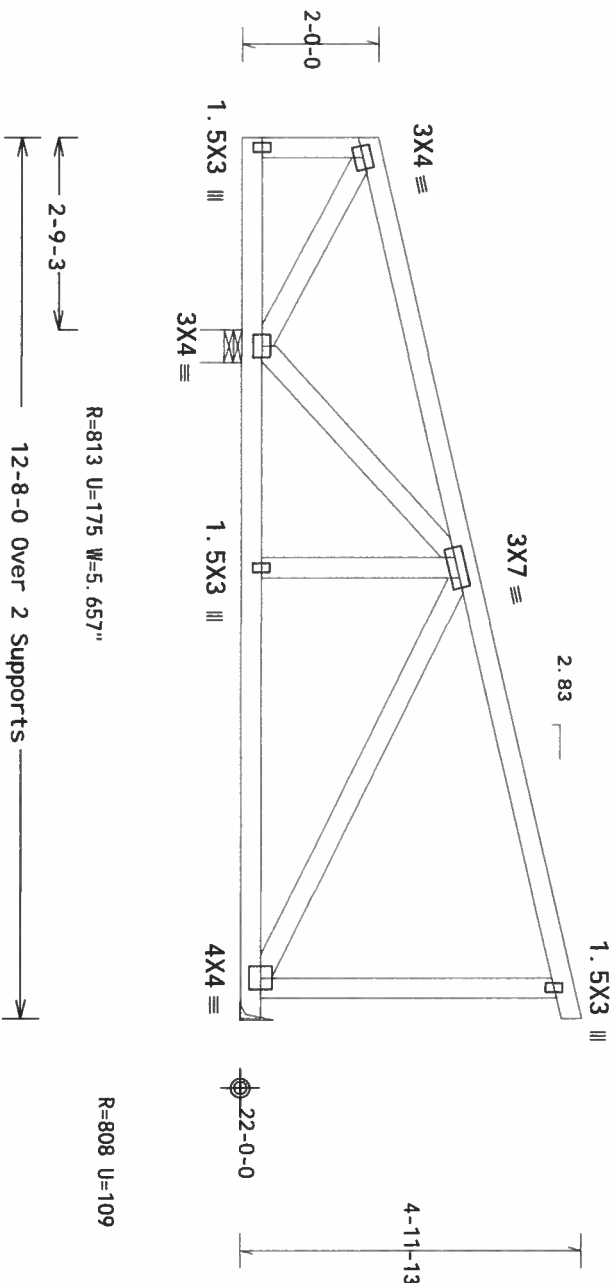
(H1) = Simpson
(H2) = (J) Hanger not calculated

Special loads

TC- From	Dur. Fac.=1.25 / plate	Dur. Fac.=1.25
BC- From	2 plf at 0.00 to 2 plf at 12.67	
BC- From	2 plf at 0.00 to 2 plf at 4.24	
TC- From	2 plf at 4.24 to 2 plf at 12.67	
TC- 117.08 lb Conc.	Load at 4.24	
TC- 239.25 lb Conc.	Load at 7.07	
TC- 269.54 lb Conc.	Load at 9.90	
BC- 142.23 lb Conc.	Load at 4.24	
BC- 16.67 lb Conc.	Load at 4.24	
BC- 16.77 lb Conc.	Load at 7.07	
BC- 56.67 lb Conc.	Load at 7.07	
BC- 180.31 lb Conc.	Load at 9.90	

Left cantilever is exposed to wind

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



R=813 U=175 W=5.657"

R=808 U=109

PLT TYP. Wave

Design crit: FBC2010Res/TP1 -2007(STD)
FT/RT=10%(0%)/0(0)

13.02.07.0228.13

QTY: 1

FL/-/5/-/-/R/-

Scale = .375"/Ft.

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.



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FL COA #0278

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety) Information, by TPI and WCA for safety practices and to performing these functions. Installers shall provide temporary bracing per BCSI unless noted otherwise. Local building codes may require additional bracing. Apply plates to each face of truss and position as shown above and in the Joint Details, unless noted otherwise. Refer to drawings 160A-2 for standard plate positions. Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping or installation & bracing of trusses.

A seal on this drawing or cover listing the drawing indicates acceptance of professional engineering responsibility for the design shown. The seal shall be used for any structure for which the responsibility of the building designer per ANSI/TPI 1 Sec. 2.

ALPINE: www.alpineitw.com TPI: www.tpiinst.org WCA: www.wcaindustry.com ICC: www.iccsafe.org

11/19/2014

TC LL	20.0 PSF	REF R9114- 38246
TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HCUSR9114 14323013
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEON- 415303
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP M-30
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
120 mph wind, 25.49 ft mean hgt, ASCE 7-10, CLOSED bldg, not located
w/ thin 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf,
wind BC DL=5.0 psf. GCpl (+/-)=0.18

Wind loads and reactions based on MWFRS.

Left end vertical not exposed to wind pressure.

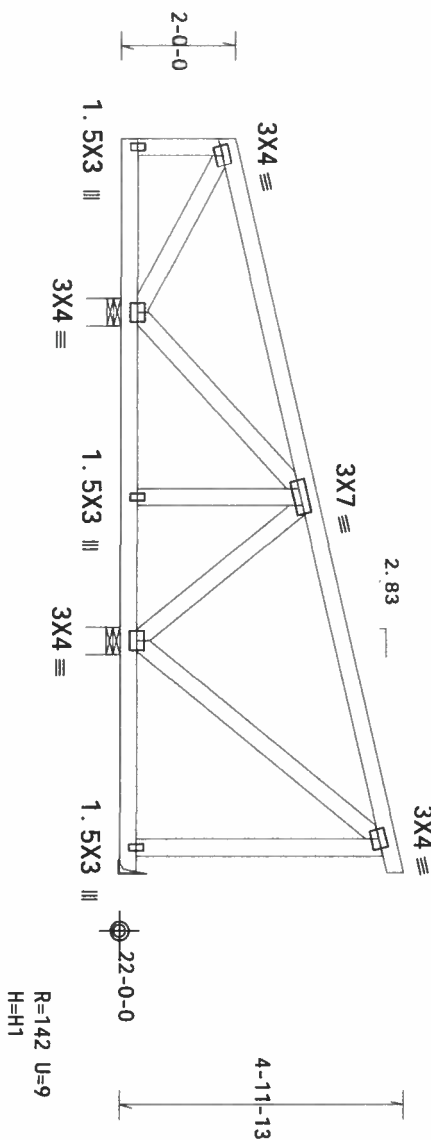
Bottom chord checked for 10.00 psf non-concurrent live load.

Special Loads

-----Lumber Dur. Fac.=1.25 / Plate Dur. Fac.=1.25)
TC- From 2 plf at 0.00 to 2 plf at 12.67
BC- From 20 plf at 0.00 to 20 plf at 4.24
BC- From 2 plf at 4.24 to 2 plf at 12.67
TC- 117.08 lb Conc. Load at 4.24
TC- 239.25 lb Conc. Load at 7.07
TC- 263.00 lb Conc. Load at 9.90
BC- 142.23 lb Conc. Load at 4.24
BC- 16.67 lb Conc. Load at 4.24
BC- 16.77 lb Conc. Load at 7.07
BC- 56.67 lb Conc. Load at 7.07
BC- 45.44 lb Conc. Load at 9.90

Left cantilever is exposed to wind

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



2-9-3 5-7-14 4-2-15
12-8-0 Over 3 Supports
R=546 U=91 W=5.657" R=869 U=248 W=5.657"

R=142 U=9
H=H1

PLT TYP. Wave

Design Crit: FBC2010Res/TP1-2007(STD)
FT/RT=10%(0%)/0(0)

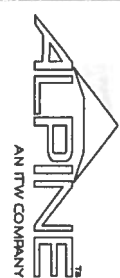
13.02.07.0228.13

QTY: 2 FL/-5/-/-/R/-

Scale = .3125"/Ft.

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING!
FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCS (Building Component Safety Information, by TPI and WTC) for safety practices and to performing these functions. Installers shall provide temporary bracing per BCS. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCS. All bracing shall be properly attached and braced. Refer to drawings 1000-2 for standard bracing details. Refer to drawings 1000-2 for standard bracing details. Refer to drawings 1000-2 for standard bracing details. Refer to drawings 1000-2 for standard bracing details.



2400 Lake Orange Dr., Suite 150
Orlando, FL 32837
FL COA #0278

ALPINE: www.alpineitw.com, TPI: www.tpi.net, WTC: www.wtcindustry.com, ICC: www.iccsafe.org

11/19/2014

TC LL	20.0 PSF	REF	R9114-38247
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCUSR9114 14323014
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEQN-	415304
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF-	1VBL9114Z01

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #1
 Bot chord 2x8 SP #1 Dense
 Webs 2x4 SP #3 : W1, W9 2x4 SP #1:
 : W2, W8 2x4 SP #2:

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC
 Wind loads and reactions based on MMFRS.
 End verticals not exposed to wind pressure.

(a) Continuous lateral restraint equally spaced on member.
 Truss must be installed as shown with top chord up.

Special loads

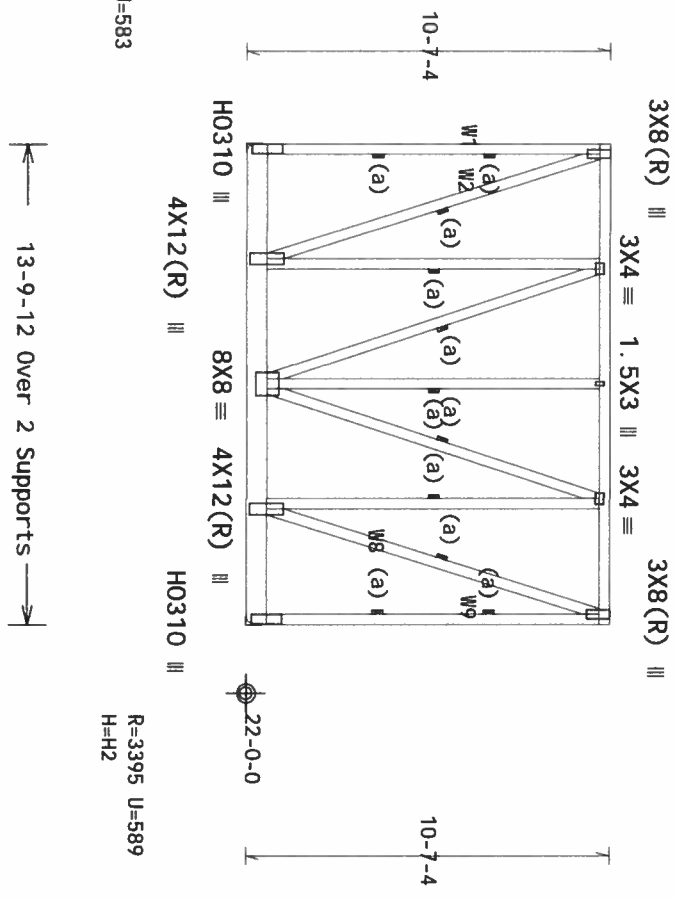
-----Lumber
 TC- From 30 plf at 0.00 to 30 plf at 13.81
 BC- From 10 plf at 0.00 to 10 plf at 13.81
 BC- 1034.91 lb Conc. Load at 2.06, 4.06, 6.06, 7.81
 9.81, 11.81

120 mph wind, 32.60 ft mean hgt, ASCE 7-10, CLOSED bldg, not located
 within 9.00 ft from roof edge, RISK CAT II, EXP B, wind TC DL=3.5 psf,
 wind BC DL=5.0 psf, GCpl (+/-)=0.18

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

Deflection meets L/240 live and L/180 total load. Creep increase
 factor for dead load is 1.50.

The TC of this truss shall be braced with attached spans at 24" OC in
 lieu of structural sheathing.



R=3367 U=583
 H=H1

R=3395 U=589
 H=H2

PLT TYP. 20 Gauge HS, Wave

Design Crit: FBC2010Res/TPI-2007(STD)
 FT/RT=10%(0%/0/0)

13.02.07-0228.13

QTY: 1 FL/-5/-/-/R/-

Scale = .1875"/ft.

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.
 FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.



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Trusses require extreme care in fabrication, handling, shipping, installing and bracing. Refer to the latest edition of BCSI (Building Component Safety Information, by TPI and WCA) for safety procedures to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted, all top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached structural sheathing. Locations shown for permanent lateral restraint of webs shall have bracing installed for BCSI. All bracing shall be installed in accordance with BCSI. Refer to drawings 1004-Z for standard plate positions. All bracing, any failure of TPI Building Components Group Inc. shall not be responsible for any damage from the installation & bracing of trusses.
 Alpine, a division of TPI Building Components Group Inc. shall not be responsible for any damage from the installation & bracing of trusses.
 A seal on this drawing or cover page listing this drawing indicates acceptance of professional engineering responsibility solely for the design shown. The seal shall be used for any structure for any structure in the State of Florida.
 For more information see this job's general notes page and these web sites:
 ALPINE www.alpine-tim.com TPI www.tpi.net WTCA www.sciindustry.com ICC www.iccsafe.org

TC LL	20.0 PSF	REF	R9114- 38249
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	HCSR9114 14323016
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415306
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF	1VBL9114Z01

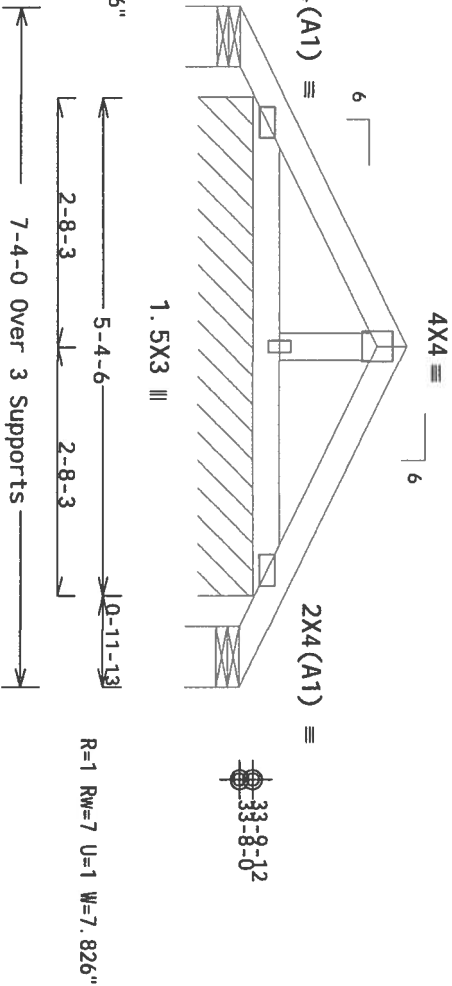
11/19/2014

Special loads

Special loads				
-----Lumber	Dur. Fac. = 1.25 /	Plate Dur. Fac. = 1.25)		
TC- From	62 plf at 0.00 to	62 plf at 3.67		
TC- From	62 plf at 3.67 to	62 plf at 7.33		
BC- From	4 plf at 0.00 to	4 plf at 7.33		

In lieu of rigid ceiling use purlins to brace BC @ 24" OC.
120 mph wind, 34.58 ft mean hgt, ASCE 7-10, CLOSED bldg, located
anywhere in roof, RISK CAT II, Exp B, wind TC DL=3.5 psf, wind BC
DL=2.0 psf. GCPI (+/-)=0.18

In lieu of rigid ceiling use purlins to brace BC @ 24" OC



Design Crit: FBC2010Res/TP1-2007(STD)
FT/RT=10%(0%)/0(0)

QTY: 11 FL/-/5/-/-/R/-

Scale = .5"/Ft.



For more information see this job's general notes page and these web sites:
ALPINE: www.alpinetw.com TPI: www.tpinet.org WTC: www.sbcindustry.com ICC: www.icec.org

[illegible]

11/10/2014

TC LL	20.0 PSF	REF R9114- 38250
TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HCUSR9114 1423017
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEON- 415300
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VBL9114Z01

Val ue Set: 138 (Effective 6/1/2013)

Top chord 2x4 SP #1
Bot chord 2x4 SP #1
Webs 2x4 SP #3

Lumber val ue set "138" uses design val ues approved 1/30/2013 by ALSC
wind loads and reactions based on MMFRS with additional C&C member
design.

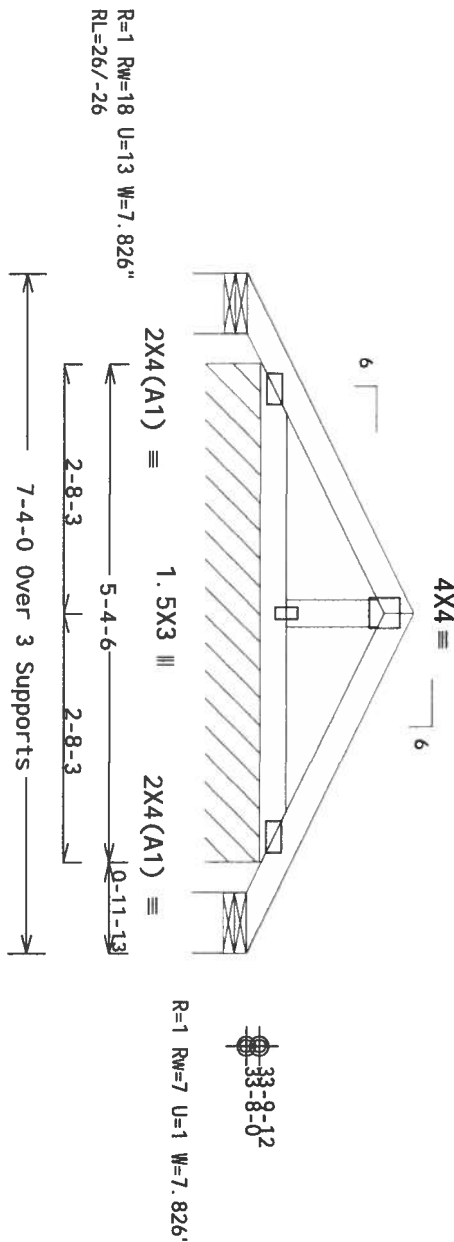
Deflection meets L/240 live and L/180 total load. Creep increase
factor for dead load is 1.50.

Refer to DWG PB160100212 for piggyback details.

Special Loads

------(Lumber Dur. Fac.=1.25 / Plate Dur. Fac.=1.25)
TC- From 62 plf at 0.00 to 62 plf at 3.67
TC- From 62 plf at 3.67 to 62 plf at 7.33
BC- From 4 plf at 0.00 to 4 plf at 7.33
120 mph wind, 34.58 ft mean hgt, ASCE 7-10, CLOSED bldg, located
anywhere in roof, RISK CAT II, EXP B, wind TC DL=3.5 psf, wind BC
DL=2.0 psf, GCPI (+/-)=0.18

In lieu of rigid ceiling use purlins to brace BC @ 24" OC.



PLT TYP. Wave

Design Crit: FBC2010Res/TP1-2007(STD)
FT/RT=10%(0%)/0(0)

13.02.07.0228.13

QTY: 3

FL/-/5/-/-/R/-

Scale = .5"/ft.

IMPORTANT READ AND FOLLOW ALL NOTES ON THIS DRAWING.
FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to the latest edition of BCS Building Component Safety Information by TPI and WTC for safety practices and to performing these functions. Installers shall provide temporary bracing per BCS unless noted otherwise. Top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint or webs shall have bracing installed per BCS. The joint details, unless noted otherwise, refer to drawings 1000-2 for standard plate position, above and below the joint details. ALPINE, a division of ITW Building Components Group Inc. shall not be responsible for any damage from the drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, or installation & bracing of trusses.



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ALPINE www.alpineinc.com TPI www.tpi.net IRC WTC www.wtcindustry.com ICC www.iccsafe.org



11/19/2014

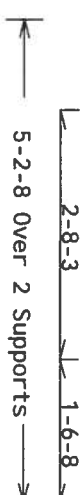
TC LL	20.0 PSF	REF R9114- 38251
TC DL	10.0 PSF	DATE 11/19/14
BC DL	10.0 PSF	DRW HCUSR9114 14323018
BC LL	0.0 PSF	HC-ENG WHK/WHK
TOT. LD.	40.0 PSF	SEQN- 415307
DUR. FAC.	1.25	FROM JMW
SPACING	24.0"	JREF- 1VBL9114Z01

Special Loads

Special loads					
-----Lumber	Dur. Fcc.=1.25	/	Plate Dur. Fcc.=1.25)		
TC-From	62 plf at	0.00	to	62 plf at	3.67
TC-From	62 plf at	3.67	to	62 plf at	5.21
BC-From	4 plf at	0.00	to	4 plf at	5.21

220 mph wind, 34.58 ft mean hgt ASCE 7-10, CLOSED bldg. Located
anywhere in roof, RSK CAT 11, EXP B, wind TC DL=3.5 psf, wind BC
DL=2.0 psf, gcpl (+/-)=0.18

In lieu of rigid ceiling use purlins to brace BC @ 24" OC



=29 PLF W=4-2-11

Design Crit: FBC2010Res/TP1 -2007(STD)
FT/RT=10%(0%)/0(0)

QTY: 6 FL/-/5/-/-/R/-

Scale = .5"/Ft.

“...DONING” READ AND FOLLOW ALL NOTES ON THIS DRAINING!
 “...IMPORTANT” FURNISH THIS DRAINING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

with extreme care in fabricating, handling, shipping, installing and bracing. Refer to end of section 10.0 for details. The contractor shall provide the following information to the manufacturer of the BCS1 (Building Component Safety Information, by TPI and WTCa) for safety purposes. The contractor shall provide temporary bracing per BCS1. Unless noted, the contractor shall have properly attached structural sheathing and bottom chord shall have a nominal 1/2" deflection.

Locations shown for permanent lateral restraint of webs shall have bracing installed per BCS 17 or B10, as applicable. Apply plates to each face of truss and position as shown above and below, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

From the
division of ITH Building Components Group Inc. shall not be responsible for any deviation from the
specification to build the truss in conformance with ANSI/TPI 1, or for handling, shipping,
and bracing of trusses.

of the Building Designer per ANSI/TP1 1 Sec.2.

For more information see this job's general notes page and these web sites:
www.eplnetw.com TPI: www.tpinet.org WICA: www.sbiindustry.com ICC: www.iccsafe.org

11/19/2014

TC LL	20.0 PSF	REF	R9114- 38252
TC DL	10.0 PSF	DATE	11/19/14
BC DL	10.0 PSF	DRW	H0USP9114 14323019
BC LL	0.0 PSF	HC-ENG	WHK/WHK
TOT. LD.	40.0 PSF	SEON-	415301
DUR. FAC.	1.25	FROM	JMW
SPACING	24.0"	JREF-	1VBL9114Z01

CLR Reinforcing Member Substitution

This detail is to be used when a Continuous Lateral Restraint (CLR) is specified on a truss design but an alternative web reinforcement method is desired.

Notes:

This detail is only applicable for changing the specified CLR shown on single ply sealed designs to T-reinforcement or L-reinforcement or scab reinforcement.
Alternative reinforcement specified in chart below may be conservative. For minimum alternative reinforcement, re-run design with appropriate reinforcement type.

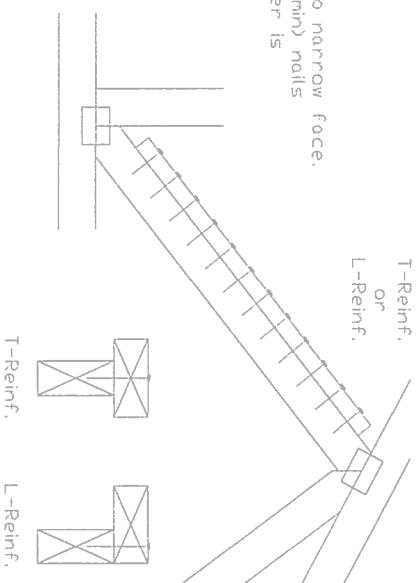
Web Member Size	Specified CLR Restraint	Alternative Reinforcement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

(*) Center scab on wide face of web. Apply (1) scab to each face of web.

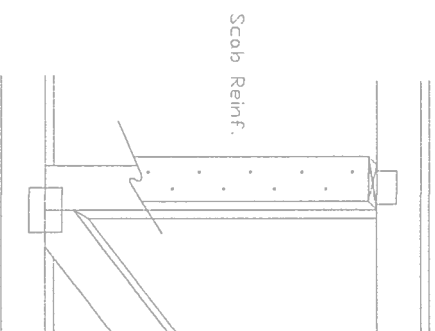
T-Reinforcement OR L-Reinforcement:

Apply to either side of web narrow face. Attach with 10d (0.128"x3.0", min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.



Scab Reinforcement:

Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0", min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.



IMPORTANT: FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BC51 (Building Component Safety Information, by TPI and SDC) for safety information. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of web of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 100A-2 for standard plate positions.

Alpine, a division of TTV Building Components Group Inc. shall not be responsible for any design or fabrication errors. The truss is to be installed in accordance with AISI/TPI 1, or for handling, shipping, installation & bracing of trusses. A seal on this drawing or cover page listing this drawing indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per AISI/TPI 1 Sec. 6.

13389 Lakeland Drive
Earth City, MO 63045



TC LL	PSF	REF	CLR Subst.
TC DL	PSF	DATE	10/01/14
BC DL	PSF	DRWG	BRLCBSUB1014
BC LL	PSF		
TDI. LD.	PSF		
DUR. FAC.			
SPACING			

11/19/2014

Piggyback Detail - ASCE 7-10: 160 mph, 30' Mean Height, Enclosed, Exposure C, Kzt=1.00

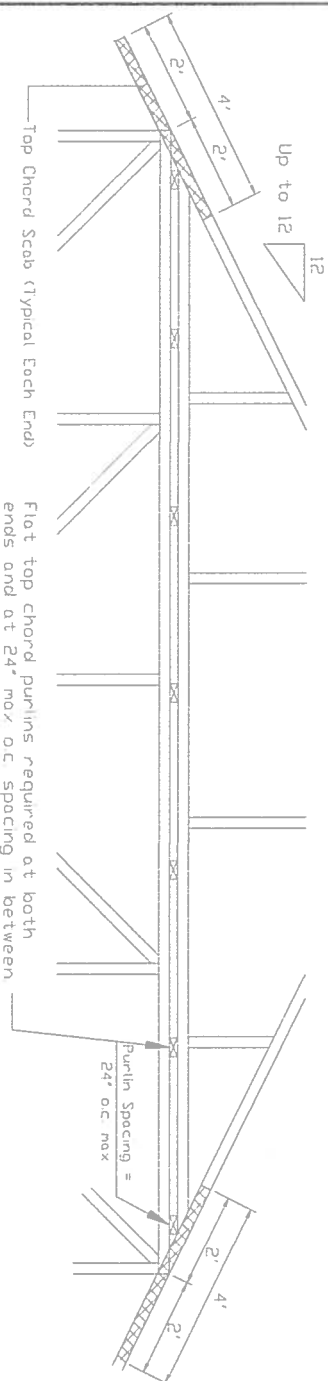
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-10: Enclosed Bldg, located anywhere in roof, Exp C, Wind DL= 50 psf (min), Kzt=1.00.
Dr: 140 mph Wind, 30.00 ft Mean Hgt, ASCE 7-10: Enclosed Bldg, located anywhere in roof, Exp D, Wind DL= 50 psf (min), Kzt=1.00.

Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

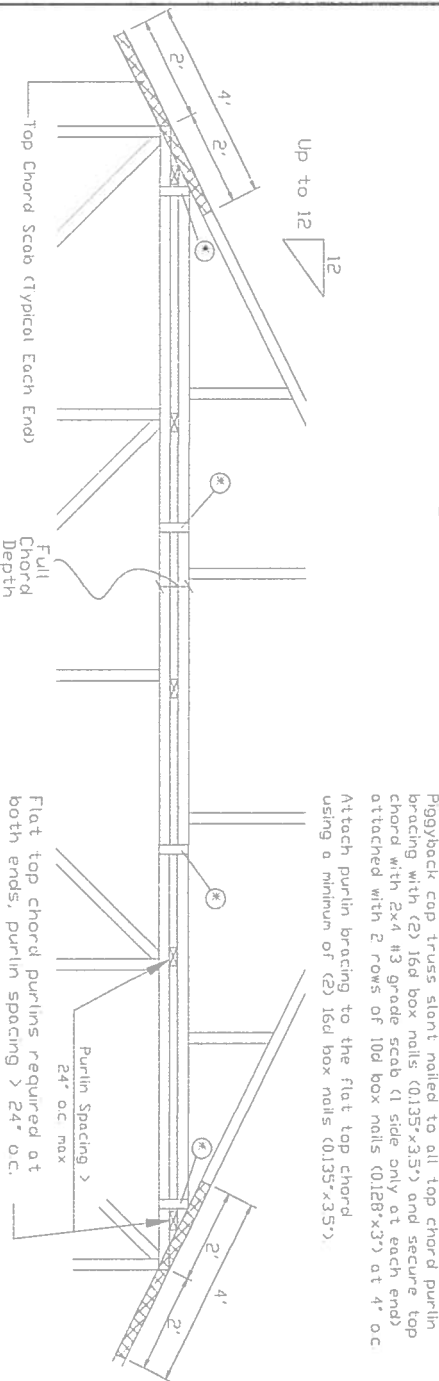
Maximum truss spacing is 24' o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

** Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

Detail A : Purlin Spacing = 24" o.c. or less



Detail B : Purlin Spacing > 24" o.c.



Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135x3.5) and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128x3.5) at 4' o.c. Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135x3.5).

The top chord #3 grade 2x4 scab may be replaced with either of the following: (1) 3x8 Truax plate attached with (8) 0.120x1.375" nails, (4) into cap 1C & (4) into base truss 1C or (1) 2x8 wave piggyback plate attached to the piggyback truss 1C and attached to the base truss 1C with (4) 0.120x1.375" nails. Note: Nailing thru holes of wave plate is acceptable.

Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135x3.5).

* In addition, provide connection with one of the following methods:

Truax Use 3x8 Truax plates for 2x4 chord member, and 3x10 Truax plates for 2x6 chord member. Attach to each face of 8' o.c. with (4) 0.120x1.375" nails into cap bottom chord and (4) into base truss top chord. Truax plates may be staggered 4' o.c. front to back faces.

APA Rated Gussset 8'x8'x7/16" (min) APA rated sheathing gusssets (each face) Attach @ 8' o.c. with (8) 6d common (0.113x2) nails per gussset. (4) in cap bottom chord and (4) in base truss top chord. Gusssets may be staggered 4' o.c. front to back faces.

2x4 Vertical Scabs 2x4 SPF #2, full chord depth scabs (each face) Attach @ 8' o.c. with (6) 10d box nails (0.128x3.5) per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

2x8 Wave Piggyback Plate Use 2x8 wave piggyback plate to each face of flat top chord. Attach to piggyback truss with (4) 0.120x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.



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Earth City, MO 63045

IMPORTANT: READ AND FOLLOW ALL NOTES ON THIS DRAWING
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCST (Building Component Society Information, by TPI and SBGA) for safety practices and to performing these functions. Installers shall provide temporary bracing per BCST. Trusses shall be installed in accordance with the manufacturer's instructions. Trusses shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-2 for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from the manufacturer's instructions. The truss in conformance with ANSI/TPI 1, or for handling, shipping, installation, bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Engineer per ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites:
ALPINE: www.alpineinc.com TPI: www.tpi.org SBGA: www.sbgainc.com ICC: www.iccsafe.org



11/19/2014

SPACING	24.0"
REF	PIGGYBACK
DATE	10/01/14
DRWG	PB160101014

ASCE 7-10: 140 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Dr. 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00
 Dr. 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, Kzt = 1.00
 Dr. 100 mph wind speed, 30' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

Gable Stud Reinforcement Detail

Gable Vertical Species	Brace	No Braces	Max Gable Vertical Length											
			12" o.c.				16" o.c.				24" o.c.			
Species	Grade	No	Group A				Group B				Group A			
			(1) 1x4 'L'	(1) 2x4 'L'	(1) 2x4 'L'	(1) 2x4 'L'	(2) 2x4 'L'	(2) 2x4 'L'	(2) 2x4 'L'	(2) 2x4 'L'	(1) 2x6 'L'	(1) 2x6 'L'	(2) 2x6 'L'	(2) 2x6 'L'
SPF	#1 / #2	4' 1"	6' 11"	7' 2"	8' 2"	8' 6"	9' 9"	10' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	#3	3' 10"	6' 2"	6' 7"	8' 1"	8' 5"	9' 8"	10' 0"	12' 8"	13' 2"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	3' 10"	6' 2"	6' 7"	8' 1"	8' 5"	9' 8"	10' 0"	12' 8"	13' 2"	14' 0"	14' 0"	14' 0"	14' 0"
	Standard	3' 10"	5' 3"	5' 7"	7' 0"	7' 6"	9' 6"	10' 0"	11' 10"	11' 10"	14' 0"	14' 0"	14' 0"	14' 0"
HF	#1	4' 2"	7' 3"	7' 7"	8' 3"	8' 7"	9' 10"	10' 3"	13' 0"	13' 6"	14' 0"	14' 0"	14' 0"	14' 0"
	#2	4' 1"	6' 11"	7' 2"	8' 2"	8' 6"	9' 9"	10' 2"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	#3	4' 0"	5' 7"	5' 11"	7' 5"	7' 11"	9' 8"	10' 1"	11' 7"	12' 5"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	4' 0"	5' 7"	5' 11"	7' 5"	7' 11"	9' 8"	10' 1"	11' 7"	12' 5"	14' 0"	14' 0"	14' 0"	14' 0"
SPF	#1 / #2	3' 9"	4' 11"	5' 13"	6' 6"	7' 0"	8' 10"	9' 6"	10' 3"	11' 0"	13' 11"	14' 0"	14' 0"	14' 0"
	#3	4' 8"	7' 11"	8' 3"	9' 4"	9' 9"	11' 2"	11' 7"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	4' 5"	7' 6"	8' 3"	9' 3"	9' 7"	11' 0"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	Standard	4' 5"	6' 5"	6' 10"	8' 7"	9' 2"	11' 0"	11' 6"	13' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
HF	#1	4' 10"	8' 0"	8' 4"	9' 6"	9' 10"	11' 3"	11' 9"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	#2	4' 8"	7' 11"	8' 3"	9' 4"	9' 9"	11' 2"	11' 7"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	#3	4' 7"	6' 10"	7' 3"	8' 1"	8' 6"	11' 1"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	4' 7"	6' 10"	7' 3"	8' 1"	8' 6"	11' 1"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
SPF	#1 / #2	4' 5"	6' 10"	7' 3"	8' 0"	8' 7"	10' 1"	11' 6"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	#3	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	12' 9"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	4' 10"	8' 7"	8' 11"	10' 2"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	Standard	4' 10"	7' 5"	7' 11"	9' 11"	10' 7"	12' 2"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
HF	#1	5' 4"	8' 10"	9' 2"	10' 5"	10' 10"	12' 5"	12' 11"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	#2	5' 2"	8' 9"	9' 1"	10' 4"	10' 9"	12' 9"	12' 9"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	#3	5' 0"	7' 10"	8' 4"	10' 3"	10' 8"	12' 3"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	5' 0"	7' 10"	8' 4"	10' 3"	10' 8"	12' 3"	12' 8"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"	14' 0"
SPF	#1 / #2	4' 10"	6' 11"	7' 4"	8' 1"	8' 6"	9' 10"	10' 3"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	#3	4' 10"	6' 11"	7' 4"	8' 1"	8' 6"	9' 10"	10' 3"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	Stud	4' 10"	6' 11"	7' 4"	8' 1"	8' 6"	9' 10"	10' 3"	12' 10"	13' 4"	14' 0"	14' 0"	14' 0"	14' 0"
	Standard	4' 10"	6' 11"	7' 4"	8' 1"	8' 6"	9' 10"	10' 3"	12' 10"	13' 4"	14' 0"	14' 0"	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			
#3	Standard	#3	Standard
Stud	Standard	Stud	Standard

Group B:			
Douglas-Fir-Larch		Southern Pine***	
#1	Standard	#1	Standard
#2	Standard	#2	Standard

1x4 Braces shall be SPF (Stress-Rated Board).
 ***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

Gable Truss Detail Notes:

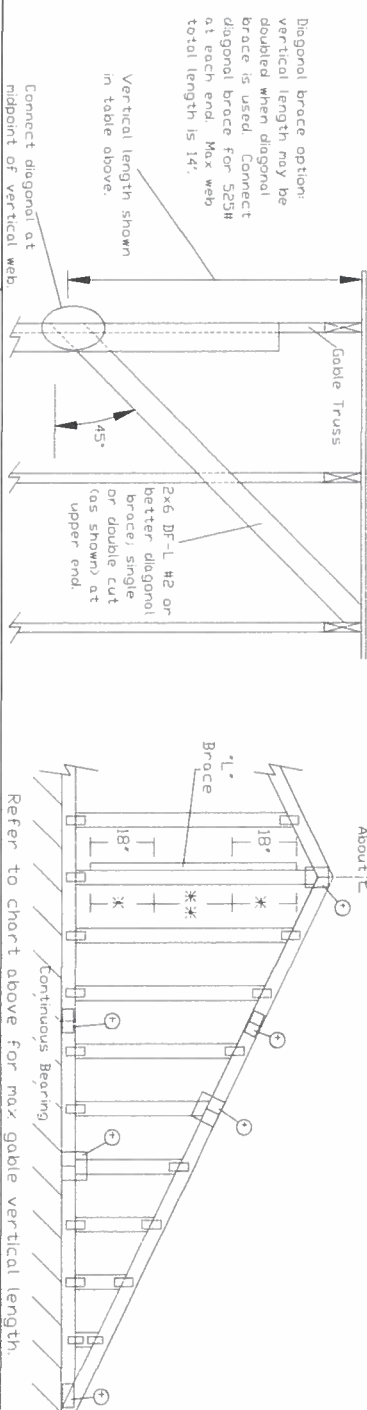
Wind load deflection criterion is L/240.
 Provide uplift connections for 100 pif over continuous bearing (5 psf 1C Dead Load).
 Gable end supports load from 4' 0" outleaves with 2' 0" overhang, or 12" plywood overhang.

Attach 'L' braces with 10d (0.128x3.0" min) 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"		2x4	
Greater than 4' 0", but less than 11' 6"		3x4	
Greater than 11' 6"		4x4	

* Refer to common truss design for peak, splice, and heel plates.

Refer to the Building Designer for conditions not addressed by this detail.



***WARNING: READ AND FOLLOW ALL NOTES ON THIS DRAWING. ***

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the manufacturer's instructions for proper installation and bracing. Trusses shall be braced prior to performing these functions. Trusses shall be braced in accordance with the manufacturer's instructions. Trusses shall be braced in accordance with the manufacturer's instructions. Trusses shall be braced in accordance with the manufacturer's instructions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any design, engineering or construction errors. The user assumes full responsibility for the design and construction of the structure. Alpine is not responsible for any design, engineering or construction errors.



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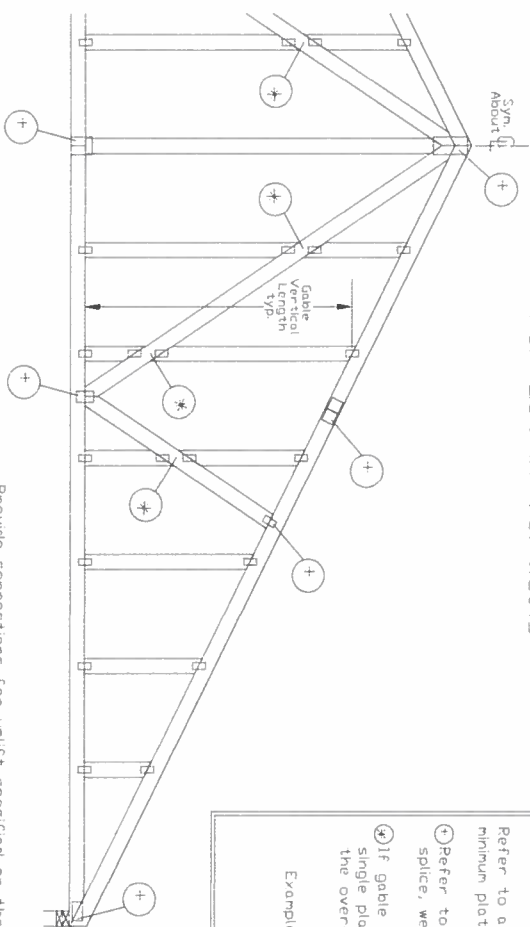
MAX. TOT. LD 60 PSF

MAX. SPACING 24' 0"

REF ASCE7-10-GAB14030
 DATE 10/01/14
 DRWG A14030ENC101014

11/19/2014

Gable Detail For Let-in Verticals



Gable Truss Plate Sizes

Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs.

- Refer to Engineered truss design for peak, splice, web, and heel plates.
- If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:

Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

End Driven Nails:

10d Common (0.148" x 3.2" min) Nails at 4" o.c. plus (4) nails in the top and bottom chords.

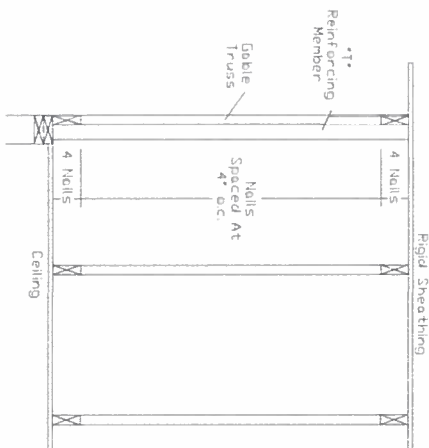
Toenailed Nails:

10d Common (0.148" x 3.2" min) Toenails at 4" o.c. plus (4) toenails in the top and bottom chords.

This detail to be used with the appropriate Alpine gable detail for ASCE wind load.

- ASCE 7-05 Gable Detail Drawings
- A130150S1014, A120150S1014, A100150S1014, A140150S1014, A130300S1014, A120300S1014, A100300S1014, A140300S1014
 - ASCE 7-10 Gable Detail Drawings
 - A11515ENC101014, A12015ENC101014, A14015ENC101014, A16015ENC101014, A18015ENC101014, A20015ENC101014, A20015PEDI101014, A1530ENC101014, A12030ENC101014, A14030ENC101014, A16030ENC101014, A18030ENC101014, A20030ENC101014, A20030PEDI101014

See appropriate Alpine gable detail for maximum unreinforced gable vertical length.

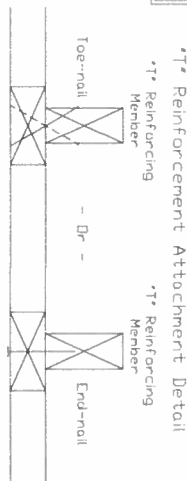


IMPORTANT: FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI requirements. Trusses shall be braced in accordance with the manufacturer's instructions. Trusses shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of truss and position as shown above and on the joint details, unless noted otherwise.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from the installation instructions. Only Alpine or its authorized representatives shall be responsible for the engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the building designer per AISC/ISI 1.0c.2.

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Earth City, MO 63045



To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate Alpine gable detail).

Maximum allowable "T" reinforced gable vertical length is 14' from top to bottom chord.

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

Web Length Increase w/ "T" Brace

"T" Reinf. Mbr. Size	"T" Increase
2x4	30 %
2x6	20 %

Example:
ASCE 7-10 Wind Speed = 120 mph
Mean Roof Height = 30 ft, Kzt = 1.00
Gable Vertical = 24' o.c. Sp #3
"T" Reinforcing Member Size = 2x4
"T" Brace Increase (from Above) = 30% = 1.30
(1) 2x4 "L" Brace Length = 8' 7"
Maximum "T" Reinforced Gable Vertical Length
1.30 x 8' 7" = 11' 2"

MAX. TOT. LD. 60 PSF
DUR. FAC. ANY
MAX. SPACING 24.0"

REF LET-IN VEPT
DATE 10/01/14
DPWG GBLLETN1014

11/19/2014

ASCE 7-10: 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Dr: 100 Mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure C, $K_{zt} = 1.00$
Dr: 100 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, $K_{zt} = 1.00$

Brooding Group Species and Grades

Group A

Species-Pine-Fir	Hein-Fir
#1 / #2 Standard	#2 Stud
#3 Stud	#3 Standard

Douglas Fir-Larch

#3 Stud	Southern Pine***
Standard	#3 Stud
	Standard

Group B

Hein-Fir

#1 & Btr
#1

Douglas Fir-Larch

#1
#2

Southern Pine***

#1
#2

1x4 Braces shall be PB (Stress Rated Boards)

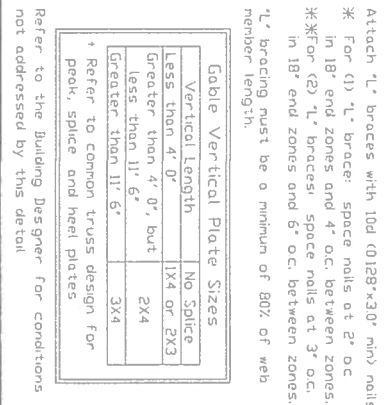
**For 1x4 So Pine use only Industrial S5 or Industrial 4S Stress-Rated Boards Group B values may be used with these grades

Wind Load deflection criterion is $L/240$.

Wind Load deflection criterion is $L/240$.

Provide uplift connections for 70 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



Refer to the Building Designer for conditions not addressed by this detail

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Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCIS (Building Component Safety) Information by IPI and S&PCA for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCIS Practices noted otherwise. Top chord shall have properly attached endplate sheathing and notches shall have bracing installed per BCIS sections B3, B7 or B10, as applicable. Apply plates to each of Truss and bracing as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 1604-2 for standard plate locations.

Alpine, a division of ITT Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with AISI/TPI 1, or for handling, shipping, installing, or bracing the truss. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per AISI/TPI 1, Sec.2.

For more information see this job's general notes page and these web sites:
AISIHP: www.alpinegroup.com
TPI: www.tpi.org
S&PCA: www.sandpcanet.org
ICC: www.iccsafe.org

MAX TOT LD 60 PSF

MAX. SPACING 24.0"

PE ASCET-10-GAB12030
DATE 10/01/14
DRWG A12030ENC101014

11/19/2014

11/19/2014

Commentary: Deflection and Camber

Camber may be built into trusses to compensate for the vertical deflection that results from the application of loads. Providing camber has the following advantages:

- Helps to ensure level ceilings and floors after dead loads are applied.
- Facilitates drainage to avoid ponding on flat or low slope roofs.
- Compensates for different deflection characteristics between adjacent trusses.
- Improves appearance of garage door headers and other long spans that can appear to "sag"
- Avoids "dips" in roof ridgelines at the transition from the gable to adjacent clear span trusses.

In accordance with ANSI/TPI 1 the Building Designer, through the Construction Documents, shall provide the location, direction, and magnitude of all loads attributable to ponding that may occur due to the design of the roof drainage system. The Building Designer shall also specify any dead load, live load, and in-service creep deflection criteria for flat or low-slope roofs subject to ponding loads.

The amount of camber is dependent on the truss type, span, loading, application, etceteras.

More restrictive limits for allowable deflection and slenderness ratio (L/D) may be required to help control vibration.

The following tables are provided as guidelines for limiting deflection and estimating camber. Conditions or codes may exist that require exceeding these recommendations, or past experience may warrant using more stringent limitations.

L = Span of Truss (inches)
D = Depth of Truss at Deflection Point (inches)

Recommended Truss Deflection Limits

Truss Type	L/D	Deflection Limits	
		Live Load	Total Load
Pitched Roof Trusses	24	L/240 (vertical)	L/180 (vertical)
Floor of Room-In-Attic Trusses	24	L/360 (vertical)	L/240 (vertical)
Flat or Shallow Pitched Roof Trusses	24	L/360 (vertical)	L/240 (vertical)
Residential Floor Trusses	24	L/360 (vertical)	L/240 (vertical)
Commercial Floor Trusses	20	L/480 (vertical)	L/240 (vertical)
Scissors Trusses	24	0.75" (horizontal)	1.25" (horizontal)

Truss Type

Recommended Camber

Pitched Trusses

1.00 x Deflection from Actual Dead Load

Sloping Parallel Chord Trusses

1.5 x Vertical Deflection from Actual Dead Load

Floor Trusses

(0.25 x Deflection from Live Load) + Actual Dead Load

Flat Roof Trusses

(0.25 x Deflection from Live Load) + (1.5 x Design Dead Load Deflection)

Note: The actual dead load may be considerably less than the design dead load.



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***WARNING: READ AND FOLLOW ALL NOTES ON THIS DRAWING
***IMPORTANT: FURNISH THIS DRAWING TO ALL CONTRACTORS INSTANTLY THE INSTALLER.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the instructions on the drawings and the manufacturer's literature for proper installation and safety practices prior to performing these functions. Trusses are designed for specific loads and conditions. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of trusses shall have erection installed per BCJ sections B3, B7 or B10, as applicable. Apply plates to each truss member in accordance with the manufacturer's instructions. Refer to drawings 160A3 for truss details, unless noted otherwise.

Alpine, a division of ITW Building Components Group, Inc. shall not be responsible for any design, fabrication, installation or bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec. 6.

For more information, please contact: Alpine, a division of ITW Building Components Group, Inc. www.alpinegroup.com
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REF DEFLEC/CAMB
DATE 10/01/14

DRWG DEFLCMB3104

11/19/2014