



COLUMBIA COUNTY BUILDING DEPARTMENT RESIDENTIAL CHECK LIST

MINIMUM PLAN REQUIREMENTS: FLORIDA BUILDING CODE RESIDENTIAL 2014 EFFECTIVE 1 JULY 2015 AND THE NATIONAL ELECTRICAL CODE 2011 EFFECTIVE 1 JULY 2015

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

ALL BUILDING PLANS MUST INDICATE COMPLIANCE WITH THE CURRENT 2014 FLORIDA BUILDING CODES RESIDENTIAL, EFFECTIVE 1 JULY 2015. NATIONAL ELECTRICAL CODE 2011 EFFECTIVE 1 JULY 2015. 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
Revised 12/2016**

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

Items to Include-
Each Box shall be
Marked as
Applicable

Select From the Dropdown

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.) <u>1536</u> Total (Sq. Ft.) under roof <u>1856</u>	YES ☒	NO ☐ N/A ☐

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.

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Items to Include-
Each Box shall be
Marked as
Applicable

8	Plans or specifications must show compliance with FBCR Chapter 3	YES ☐	NO ☐	N/A ☐
Select From the Dropdown				
9	Basic wind speed (3-second gust), miles per hour	- ✓		
10	(Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated)	- ✓		
11	Wind importance factor and nature of occupancy	- ✓		
12	The applicable internal pressure coefficient, Components and Cladding	- ✓		
13	The design wind pressure in terms of psf (kN/m ²), to be used for the design of exterior component, cladding materials not specifiably designed by the registered design professional.	- ✓		

Elevations Drawing including:

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

Floor Plan including:

20	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	☒
21	Raised floor surfaces located more than 30 inches above the floor or grade	☒
22	All exterior and interior shear walls indicated	☒
23	Shear wall opening shown (Windows, Doors and Garage doors)	☒
24	Show compliance with Section FBCR 310 Emergency escape and rescue opening shown in each bedroom (net clear opening shown) and Show compliance with Section 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: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL	Items to Include- Each Box shall be Marked as Applicable
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YES / NO / N/A

FBCR 403: Foundation Plans

Select From the Dropdown

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 _____ Pound Per Square Foot	☒
33	Location of horizontal and vertical steel, for foundation or walls (include # size and type) For structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	☒

FBCR 506: CONCRETE SLAB ON GRADE

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

FBCR 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	☒
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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 & intermediate of the areas structural panel sheathing	☐
49	Show Draftstopping, Fire caulking and Fire blocking	☒
50	Show fireproofing requirements for garages attached to living spaces, per FBCR section 302.6	☐
51	Provide live and dead load rating of floor framing systems (psf).	☒

FBCR CHAPTER 6 WOOD WALL FRAMING CONSTRUCTION

YES / NO / N/A

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL		Items to Include- Each Box shall be Marked as Applicable
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Select From the Dropdown

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	☒

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 assembles covering	☒
72	Submit Florida Product Approval numbers for each component of the roof assembles covering	☒

FBCR Chapter 11 Energy Efficiency Code for residential building

Residential construction shall comply with this code by using the following compliance methods in the FBCR 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.**

YES / NO / N/A

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL		Items to Include- Each Box shall be Marked as Applicable
		Select From the Dropdown
73	Show the insulation R value for the following areas of the structure	- ☒
74	Attic space	- ☒
75	Exterior wall cavity	- ☒
76	Crawl space	- ☒

HVAC information

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

Plumbing Fixture layout shown

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

Private Potable Water

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

Electrical layout shown including

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

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 Building Permit Application is to be completed, by following the Checklist all supporting documents must be submitted. There is a \$15.00 application fee. The completed application with attached documents and application fee can be mailed.	✓ NO		
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 required. www.columbiacountyfla.com	✓ NO		
94	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.	NO		
***	BELOW ITEMS ONLY NEEDED AFTER ZONING APPROVAL HAS GIVEN.	****	***	***
95	Environmental Health Permit or Sewer Tap Approval A copy of a approved Columbia County Environmental Health (386) 758-1058	NO		
96	City of Lake City A City Water and/or Sewer letter. Call 386-752-2031	NO		
97	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	NO		
98	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.			
99	A Flood development permit is also required for AE, Floodway & AH. Development permit cost is \$50.00			
100	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.	✓ NO		
101	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.	✓ NO		

TOILET FACILITIES SHALL BE PROVIDED FOR ALL CONSTRUCTION SITES. NO

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.

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.

Notification:

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.

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 if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS	Masonite	Inswing & Outswing Fiberglass	FL-8228-R7
A. SWINGING			
B. SLIDING			
C. SECTIONAL/ROLL UP			
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG	Magnolia	Vinyl 400 Single hung	FL-16475-R3
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING	James Hardie	Cement board lap siding	FL-13192-R4
B. SOFFITS	Kaycan	Vinyl PVC/Aluminum Soffit	FL-16503
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES			
B. NON-STRUCTURAL METAL			
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER	Galvalume	Masterb metal	FL-9557-R3
5. STRUCTURAL COMPONENTS			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. 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) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

ALK 3/1/18
Contractor OR Agent Signature Date

NOTES: _____

Schafer Engineering LLC

14705 Main St. Alachua FL 32615

E



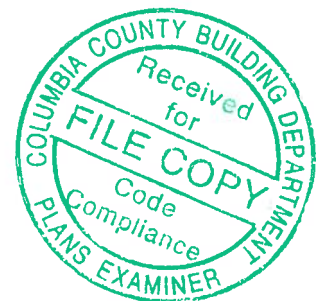
Prepared for:

K&H FRAMING
SKINNER RESIDENCE
853 JULIA TERRACE
LAKE CITY, FLORIDA

By:

Schafer Engineering, LLC

386-462-1340



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SCHAFER ENGINEERING, LLC
7104 NW 42ND LANE \ GAINESVILLE FL. 32606
PHONE: 386-462-1340

Trusses: Pre-engineered, pre-fabricated with the manufacturer's required bracing system installed.

Roof Sheathing: Type: OSB Size: 7/16" Fastener type nails: 8d / .113 Ring Shank
Interior zone spacing: Interior: 6" Periphery: 4"
Edge and end zone spacing: Interior: 6" Periphery: 4"

Double Top Plate: Type: Spruce Grade: #1 #2 Size: 2 x 6 Nail Spacing: 8" o.c.

Stud Type: Spruce Grade: #1 #2 Size: 2 x 6
Interior stud spacing: 16" End stud spacing: 16"

Required Shear Wall Siding: Type: OSB Thickness: 7/16"
32 ft Trans: Fastener 8d/131 Spacing: Int: 8 Edge: 3"
31 ft Long: Fastener 8d/131 Spacing: Int: 8 Edge: 3"

Allowable Unit Shear on Shear Walls: 418 pounds per linear foot
Allowable Unit Shear Transferred from Diaphragm: Trans: 349 Long: 118

Wall Tension Transferred by: Siding Nails: 8d/131 @ 3" O.C. Edges

Foundation Anchor Bolts: Concrete Strength: 3000 psi Size: 1/2"

Washer: 2" Embedment: 7" Location of first anchor bolt from corner: 8"

Anchor Bolts @ 48" o.c. Model: A307 Loc. from corner: 8"

Type of Foundation: (1) - #5 rebar continuous required in bond beam.
Floor Slab: 4" Cmu size: 8" x 16" Height: 32" Rein.: #5 at 72" o.c.

Monolithic Footing: Depth: 20" Bottom Width: 16 Rein.: 3 #5 rebars

Stemwall Footing: Width: 20 Depth: 10 Rein.: 3 #5 rebar

Interior Footings 20" Wide X 10" Deep with 3-#5 rebar continuous

Porch Columns: 6 X 6 X 9' syp #2 pt @ 8-0" max. spacing Simpson PC66 \
Column Fasteners: CB66

Special Comments:

Install 2 ply 2 x 12 syp #2 with 7/16" osb flitch beam over all doors, windows
and open porch.

Notes:

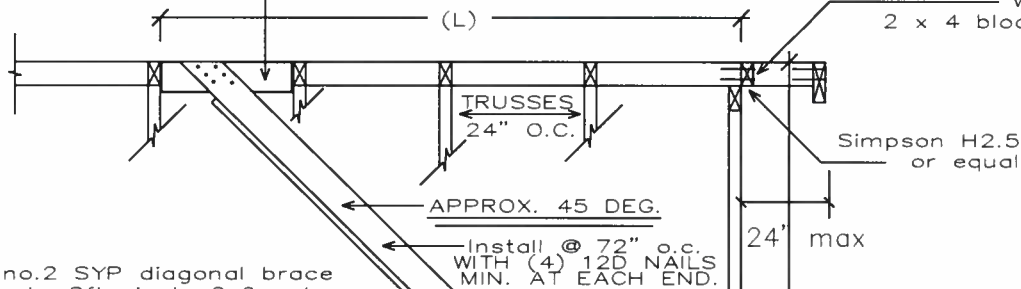
1. Balloon frame all gable ends unless accompanied by gable end detail
2. All walls to be nailed with same nailing pattern as the shear walls.
3. This wind load is not valid without a raised, embossed seal. (NO COPIES).
4. 1500 psf soil bearing pressure minimum.
5. Fiber mesh or WWM may be used in concrete slab. All steel must be grade 40 min.
6. Trusses must be installed and anchored in accordance to the truss engineering.
7. All headers spanning 12' and over must be pre-engineered.
8. This is a windload only. Not a structural analysis. Schafer Engineering strongly recommends always having a structural analysis.
9. The foundation is for minimum design use, and may be increased.
10. Wind load is for one use only \ FBC-2017 \ No copies permitted
11. Install anchor bolts at 32" o.c., & Simpson SP1 at bottom plate and Simpson SP2 at top plate or equal for all interior bearing walls.
12. Contractor may use 2x4 walls in lieu of 2x6 walls.
13. Truss company to use all exterior porch walls for bearing when possible.

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Toe-Nail min 2x6 No 2 SYP blocking
between truss top chords with
(3) 10d each end min.

Install 2 x 4 syp outlookers @ 24" o.c.
w/ 2 16d nails @ ea end.
2 x 4 blocking between outlookers



2x6 no.2 SYP diagonal brace
- Up to 8ft single 2x6 only
- Up to 20ft 2x6 w/ 2x6 T-Brace

fasten 2x6 no.2 SYP "T-Brace to
diagonal brace w/ 10d nails @ 3" o.c.

diagonal bracing not required under 4'-0"

2 x 4 x 8'-0" #2 SYP lateral
brace @ 48" o.c. fastened to
each truss w/ (2) 16d nails

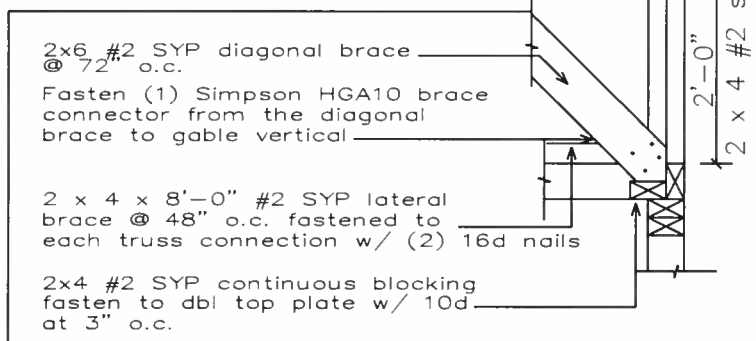
12" max. typ.
each end

Fasten (1) Simpson HGA10 brace connector
from diagonal brace to gable vertical

(H) 24" long 2x4 no.2 SYP scab
applied to gable vertical
or blocking between
truss webs w/ 10d at 3" o.c.

Gable truss to top plate connection

1. Face nail gable bottom chord to continuous blocking w/ 10d @ 8" o.c.
2. Strap truss to top plate with MST12 w/ (8) 10d nails @ 48" o.c. or overlap top plate 12" min. with o.s.b. sheathing. (see wind load for nail size and edge pattern.)



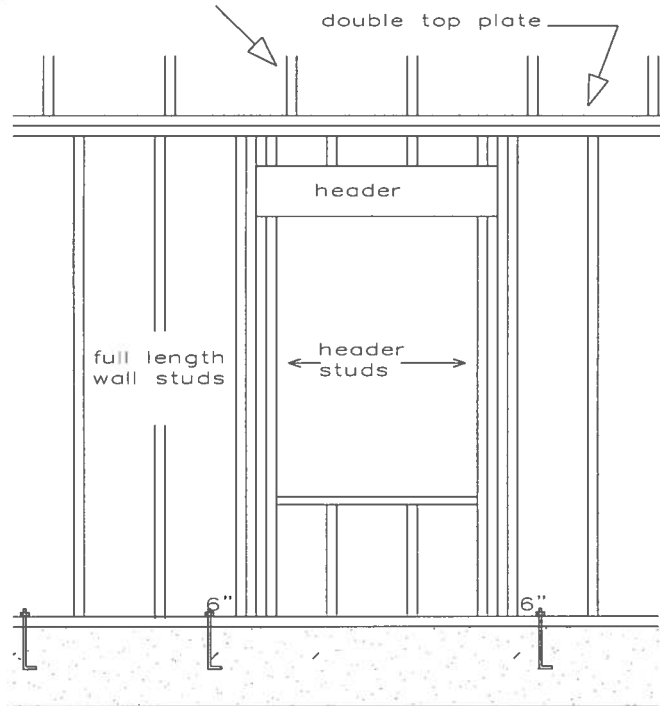
TYPICAL GABLE END BRACING

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see truss engineering for required
anchorage from truss to top plate
and bracing system to be installed



total each truss uplift on the header and divide
by two for header and header stud anchorages

		Maximum Header Span (ft)					
		3'	6'	9'	12'	15'	18'
		Number of Header Studs Supporting End of Header					
		1	1	2	2	2	2
Unsupported Wall Height	Stud Spacing	Number of Full Length Studs at Each End of Header					
		12"	16"	24"	12"	16"	24"
10'-0" or less	12"	2	2	3	3	3	3
	16"	2	2	3	3	3	3
	24"	1	2	2	2	2	2
Greater than 10'-0"	12"	2	2	3	4	5	5
	16"	2	2	3	3	4	4
	24"	1	2	2	2	3	3

SCHAFFER ENGINEERING, LLC

7104 NW 42ND LANE \ GAINESVILLE FL. 32606
PHONE: 386-462-1340

TIE-DOWN TABLES

HEADER STRAPPING				
Uplift Lbs	Top Connector	Rating Lbs	Bottom Connector	Rating Lbs
to 455	LSTA19	635	H3	320
to 910	LSTA12	795	2-H3	640
to 1265	LSTA18	1110	LTT19	1305
to 1750	2-LSTA12	1810	LTT20	1750
to 2530	2-LSTA18	2530	HD2A-2.5	2165
to 2865	3-LSTA18	3255	HD2A-3.5	2865
to 3700	3-LSTA24	3880	HD5A-3	3130

Total the uplift for each truss sitting on the header and divide by 2 to determine the uplift on the header. Use proper bolt anchors sufficient to support required uplift loads.

TRUSSES \ GIRDERS			
Uplift Lbs	Top Connector	Bottom Connector	Rating Lbs
to 535	H2.5A	NA	
to 1015	H10A	NA	
to 1215	TS22	LTT19	1305
to 1750	2-TS22	LTT20	1750
to 2570	2-TS22	HD2A	2775
to 3665	3-TS22	HD5A	4010
to 5420	2-MST37	HTT22	5250
to 9660	2-MST60	HD10A	9540

Two 12d common toenails are required per truss for each bearing point into top plate.
It is the contractors responsibility to provide a continuous load path from truss to foundation.

	TOP CONNECTOR	RATING LBS	BOTTOM CONNECTOR	RATING LBS
BEAM SEATS	LSTA18	1110	LTT19	1305
POSTS	2-LSTA18	2220	ABU44	2300

1. Simpson or equivalent hardware may be used.
For nailing into spruce members,
multiply table values by .86
2. See truss engineering for anchor uplift values.
3. This schedule is not meant to be a
replacement to the specified values of
any manufactures values.

User Input Data		
Structure Type	Building	
Basic Wind Speed (V)	135	mph
Structural Category	II	
Exposure	B	
Struc Nat Frequency (n1)	1	Hz
Slope of Roof (Theta)	30.3	Deg
Type of Roof	Gabled	
Eave Height (Eht)	18.33	ft
Ridge Height (RHt)	26.34	ft
Mean Roof Height (Ht)	22.33	ft
Width Perp. to Wind (B)	42.00	ft
Width Parallel to Wind (L)	42.00	ft
Damping Ratio (beta)	0.01	

Red values should be changed only through "Main Menu"

Calculated Parameters	
Type of Structure	
Height/Least Horizontal Dim	0.53
Flexible Structure	No

Calculated Parameters	
Importance Factor	1
Non-Hurricane, Hurricane (v=85-100 mph) & Alaska	
Table C6-4 Values	
Alpha =	7.000
zg =	1200.000
At =	0.143
Bt =	0.840
Am =	0.250
Bm =	0.450
Cc =	0.300
I =	320.00 ft
Epsilon =	0.333
Zmin =	30.00 ft

Gust Factor Category I: Rigid Structures - Simplified Method			
Gust1	For rigid structures (Nat Freq > 1 Hz) use 0.85	0.85	
Gust Factor Category II: Rigid Structures - Complete Analysis			
Zm	Zmin	30.00	ft
lzm	$Cc * (33/z)^{0.167}$	0.3048	
Lzm	$I * (zm/33)^{Epsilon}$	309.99	ft
Q	$(1/(1+0.63*((B+Ht)/Lzm)^{0.63}))^{0.5}$	0.9002	
Gust2	$0.925 * ((1+1.7 * lzm * 3.4 * Q)/(1+1.7 * 3.4 * lzm))$	0.8661	
Gust Factor Category III: Flexible or Dynamically Sensitive Structures			
Vhref	$V * (5280/3600)$	198.00	ft/s
Vzm	$bm * (zm/33)^{Am} * Vhref$	87.00	ft/s
NF1	$NatFreq * Lzm / Vzm$	3.56	Hz
Rn	$(7.47 * NF1) / (1 + 10.302 * NF1)^{1.667}$	0.0627	
Nh	$4.6 * NatFreq * Ht / Vzm$	1.18	
Nb	$4.6 * NatFreq * B / Vzm$	2.22	
Nd	$15.4 * NatFreq * Depth / Vzm$	7.43	
Rh	$1/Nh - (1/(2 * Nh^2) * (1 - Exp(-2 * Nh)))$	0.5221	
Rb	$1/Nb - (1/(2 * Nb^2) * (1 - Exp(-2 * Nb)))$	0.3501	
Rd	$1/Nd - (1/(2 * Nd^2) * (1 - Exp(-2 * Nd)))$	0.1255	
RR	$((1/Beta) * Rn * Rh * Rb * (0.53 + 0.47 * Rd))^{0.5}$	0.8218	
gg	$+(2 * LN(3600 * n1))^{0.5} + 0.577 / (2 * LN(3600 * n1))^{0.5}$	4.19	
Gust3	$0.925 * ((1 + 1.7 * lzm * (3.4^2 * Q^2 + GG^2 * RR^2))^{0.5} / (1 + 1.7 * 3.4 * lzm))$	1.13	

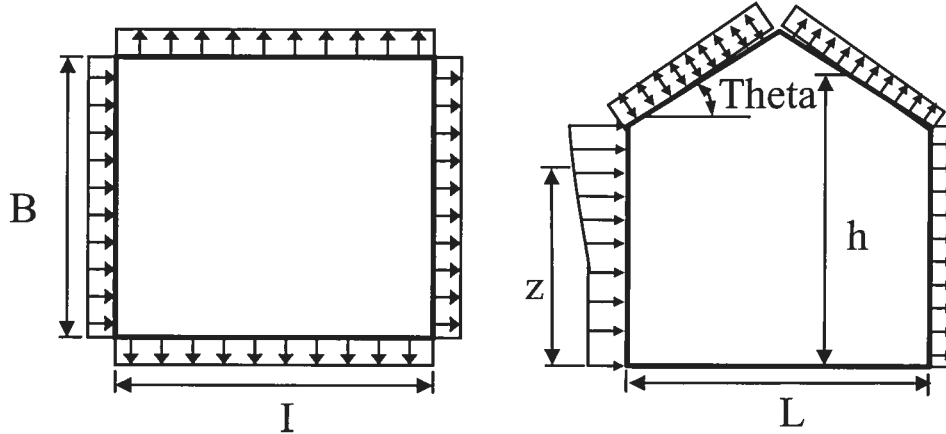
Gust Factor Summary			
Main Wind-force resisting system:		Components and Cladding:	
Gust Factor Category:	I	Gust Factor Category:	I
Gust Factor (G)	0.87	Gust Factor (G)	0.87

6.5.12.2.1 Design Wind Pressure - Buildings of All Heights (Non-flexible)

Elev. ft	Kz	Kzt	Kd	qz lb/ft ²	Pressure (lb/ft ²)	
					Windward Wall*	
			1.00		+GCpi	-GCpi
26.34	0.70	1.00	1.00	32.69	17.24	28.06
22.33	0.70	1.00	1.00	32.69	17.24	28.06
20	0.70	1.00	1.00	32.69	17.24	28.06
18.33	0.70	1.00	1.00	32.69	17.24	28.06
15	0.70	1.00	1.00	32.69	17.24	28.06

Figure 6-3 - External Pressure Coefficients, Cp

Loads on Main Wind-Force Resisting Systems



Variable	Formula	Value	Units
Kh	$2.01 \cdot (Ht/zg)^{(2/\alpha)}$	0.64	
Kht	Topographic factor (Fig 6-2)	1.00	
Qh	$.00256 \cdot (V)^2 \cdot \text{ImpFac} \cdot Kh \cdot Kht \cdot Kd$	30.04	psf

Wall Pressure Coefficients, Cp	
Surface	Cp
Windward Wall (See Figure 6.5.12.2.1 for Pressures)	0.80

Roof Pressure Coefficients, Cp	
Roof Area (sq. ft.)	-
Reduction Factor	1.00

Description	Cp	Pressure (psf)	
		+GCpi	-GCpi
Leeward Walls (Wind Dir Parallel to 42 ft wall)	-0.50	-18.42	-7.60
Leeward Walls (Wind Dir Parallel to 42 ft wall)	-0.50	-18.42	-7.60
Side Walls	-0.70	-23.62	-12.81
Roof - Normal to Ridge (Theta ≥ 10)			
Windward - Max Negative	-0.21	-10.77	0.05
Windward - Max Positive	0.21	-0.06	10.76
Leeward Normal to Ridge	-0.60	-21.02	-10.20
Overhang Top	-0.21	-5.36	-5.36
Overhang Bottom	0.80	0.69	0.69
Roof - Parallel to Ridge (All Theta)			
Dist from Windward Edge: 0 ft to 11.165 ft	-0.93	-29.49	-18.67
Dist from Windward Edge: 11.165 ft to 22.33 ft	-0.89	-28.50	-17.68
Dist from Windward Edge: 22.33 ft to 44.66 ft	-0.51	-18.75	-7.93
	0.00	0.00	0.00

* Horizontal distance from windward edge

Figure 6-4 - External Pressure Coefficients, GCpf

Loads on Main Wind-Force Resisting Systems w/ Ht ≤ 60 ft

$$\begin{aligned} K_h &= 2.01 \cdot (H_t/z_g)^{2/\alpha} &= & 0.64 \\ K_{ht} &= \text{Topographic factor (Fig 6-2)} &= & 1.00 \\ Q_h &= 0.00256 \cdot (V)^2 \cdot \text{ImpFac} \cdot K_h \cdot K_{ht} \cdot K_d &= & 30.04 \end{aligned}$$

Case A						
Surface	GCpf	+GCpi	-GCpi	qh (psf)	Min P (psf)	Max P (psf)
1	0.56	0.18	-0.18	32.69	12.42	24.19
2	0.21	0.18	-0.18	32.69	0.98	12.75
3	-0.43	0.18	-0.18	32.69	-19.94	-8.17
4	-0.37	0.18	-0.18	32.69	-17.98	-6.21
5	0.00	0.18	-0.18	32.69	-5.88	5.88
6	0.00	0.18	-0.18	32.69	-5.88	5.88
1E	0.69	0.18	-0.18	32.69	16.67	28.44
2E	0.27	0.18	-0.18	32.69	2.94	14.71
3E	-0.53	0.18	-0.18	32.69	-23.21	-11.44
4E	-0.48	0.18	-0.18	32.69	-21.57	-9.81
5E	0.00	0.18	-0.18	32.69	-5.88	5.88
6E	0.00	0.18	-0.18	32.69	-5.88	5.88

$$* p = q_h \cdot (GC_{pf} - GC_{pi})$$

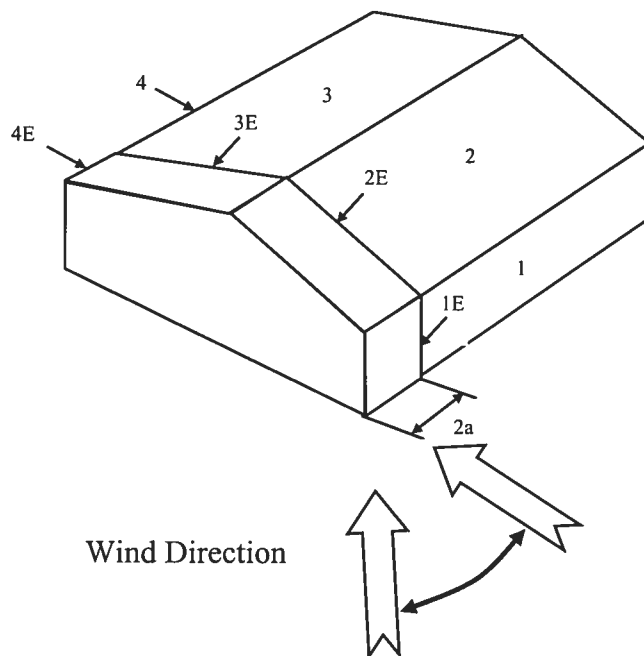


Figure 6-4 - External Pressure Coefficients, GCpf

Loads on Main Wind-Force Resisting Systems w/ Ht ≤ 60 ft

$$\begin{aligned} K_h &= 2.01 \cdot (H_t/z_g)^{2/\alpha} &= & 0.64 \\ K_{ht} &= \text{Topographic factor (Fig 6-2)} &= & 1.00 \end{aligned}$$

$$Q_h = 0.00256 \cdot (V)^2 \cdot \text{ImpFac} \cdot K_h \cdot K_{zt} \cdot K_d = 30.04$$

Case B						
Surface	GCpf	+GCpi	-GCpi	qh (psf)	Min P (psf)	Max P (psf)
1	-0.45	0.18	-0.18	32.69	-20.59	-8.83
2	-0.69	0.18	-0.18	32.69	-28.44	-16.67
3	-0.37	0.18	-0.18	32.69	-17.98	-6.21
4	-0.45	0.18	-0.18	32.69	-20.59	-8.83
5	0.40	0.18	-0.18	32.69	7.19	18.96
6	-0.29	0.18	-0.18	32.69	-15.36	-3.60
1E	-0.48	0.18	-0.18	32.69	-21.57	-9.81
2E	-1.07	0.18	-0.18	32.69	-40.86	-29.09
3E	-0.53	0.18	-0.18	32.69	-23.21	-11.44
4E	-0.48	0.18	-0.18	32.69	-21.57	-9.81
5E	0.61	0.18	-0.18	32.69	14.06	25.82
6E	-0.43	0.18	-0.18	32.69	-19.94	-8.17

$$* p = q_h * (GC_{pf} - GC_{pi})$$

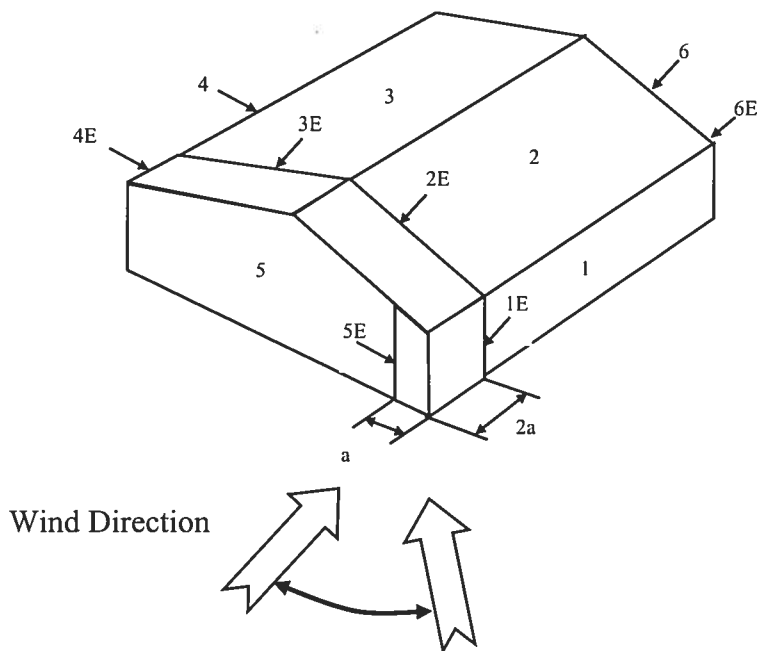
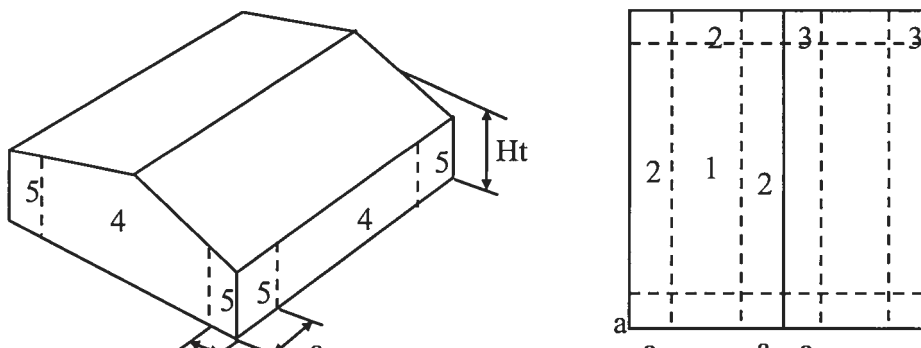


Figure 6-5 - External Pressure Coefficients, GCp

Loads on Components and Cladding for Buildings w/ Ht ≤ 60 ft





Gabled Roof

10 < Theta <= 45

$a = 4.2 \Rightarrow \boxed{4.20 \text{ ft}}$

[illegible]

Note: * Enter Zone 1 through 5, or 1H through 3H for overhangs.

Table 6-7 Internal Pressure Coefficients for Buildings, C_{pi}

Condition	Gcpi	
	Max +	Max -
Open Buildings	0.00	0.00
Partially Enclosed Buildings	0.55	-0.55
Enclosed Buildings	0.18	-0.18
Enclosed Buildings	0.18	-0.18

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Larry & Nansea Skinner Street: 853 Julia Terrace City, State, Zip: Lake City, FL, 32024 Owner: Skinner Design Location: FL, Gainesville	Builder Name: K & H Framing Permit Office: Columbia County Permit Number: Jurisdiction: County: Columbia (Florida Climate Zone 2)
--	--

<table style="width:100%;"> <tr> <td style="width:30%;">1. New construction or existing</td> <td style="width:30%;">New (From Plans)</td> <td style="width:40%;"></td> </tr> <tr> <td>2. Single family or multiple family</td> <td>Single-family</td> <td></td> </tr> <tr> <td>3. Number of units, if multiple family</td> <td>1</td> <td></td> </tr> <tr> <td>4. Number of Bedrooms</td> <td>2</td> <td></td> </tr> <tr> <td>5. Is this a worst case?</td> <td>No</td> <td></td> </tr> <tr> <td>6. Conditioned floor area above grade (ft²)</td> <td>1536</td> <td></td> </tr> <tr> <td>Conditioned floor area below grade (ft²)</td> <td>0</td> <td></td> </tr> <tr> <td>7. Windows (351.0 sqft.)</td> <td>Description</td> <td>Area</td> </tr> <tr> <td>a. U-Factor:</td> <td>Dbl, U=0.36</td> <td>351.00 ft²</td> </tr> <tr> <td>SHGC:</td> <td>SHGC=0.25</td> <td></td> </tr> <tr> <td>b. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td>SHGC:</td> <td></td> <td></td> </tr> <tr> <td>c. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td>SHGC:</td> <td></td> <td></td> </tr> <tr> <td>d. U-Factor:</td> <td>N/A</td> <td>ft²</td> </tr> <tr> <td>SHGC:</td> <td></td> <td></td> </tr> <tr> <td colspan="2">Area Weighted Average Overhang Depth:</td> <td>4.107 ft.</td> </tr> <tr> <td colspan="2">Area Weighted Average SHGC:</td> <td>0.250</td> </tr> <tr> <td>8. Floor Types (1536.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td>a. Slab-On-Grade Edge Insulation</td> <td>R=0.0</td> <td>896.00 ft²</td> </tr> <tr> <td>b. Floor Over Other Space</td> <td>R=19.0</td> <td>640.00 ft²</td> </tr> <tr> <td>c. N/A</td> <td>R=</td> <td>ft²</td> </tr> </table>	1. New construction or existing	New (From Plans)		2. Single family or multiple family	Single-family		3. Number of units, if multiple family	1		4. Number of Bedrooms	2		5. Is this a worst case?	No		6. Conditioned floor area above grade (ft²)	1536		Conditioned floor area below grade (ft²)	0		7. Windows (351.0 sqft.)	Description	Area	a. U-Factor:	Dbl, U=0.36	351.00 ft²	SHGC:	SHGC=0.25		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:		4.107 ft.	Area Weighted Average SHGC:		0.250	8. Floor Types (1536.0 sqft.)	Insulation	Area	a. Slab-On-Grade Edge Insulation	R=0.0	896.00 ft²	b. Floor Over Other Space	R=19.0	640.00 ft²	c. N/A	R=	ft²	<table style="width:100%;"> <tr> <td style="width:30%;">9. Wall Types (2336.0 sqft.)</td> <td style="width:30%;">Insulation</td> <td style="width:40%;">Area</td> </tr> <tr> <td>a. Frame - Wood, Exterior</td> <td>R=19.0</td> <td>1440.00 ft²</td> </tr> <tr> <td>b. Frame - Wood, Exterior</td> <td>R=13.0</td> <td>896.00 ft²</td> </tr> <tr> <td>c. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>d. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>10. Ceiling Types (896.0 sqft.)</td> <td>Insulation</td> <td>Area</td> </tr> <tr> <td>a. Under Attic (Vented)</td> <td>R=38.0</td> <td>896.00 ft²</td> </tr> <tr> <td>b. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>c. N/A</td> <td>R=</td> <td>ft²</td> </tr> <tr> <td>11. Ducts</td> <td></td> <td>R ft²</td> </tr> <tr> <td>a. Sup: Attic, Ret: Attic, AH: 1st Floor</td> <td></td> <td>6 384</td> </tr> <tr> <td>12. Cooling systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td>a. Central Unit</td> <td>24.6</td> <td>SEER:14.00</td> </tr> <tr> <td>13. Heating systems</td> <td>kBtu/hr</td> <td>Efficiency</td> </tr> <tr> <td>a. Electric Heat Pump</td> <td>28.9</td> <td>HSPF:8.20</td> </tr> <tr> <td>14. Hot water systems</td> <td></td> <td></td> </tr> <tr> <td>a. Propane</td> <td></td> <td>Cap: 1 gallons</td> </tr> <tr> <td></td> <td></td> <td>EF: 0.590</td> </tr> <tr> <td>b. Conservation features</td> <td></td> <td></td> </tr> <tr> <td>None</td> <td></td> <td></td> </tr> <tr> <td>15. Credits</td> <td></td> <td>CV, Pstat</td> </tr> </table>	9. Wall Types (2336.0 sqft.)	Insulation	Area	a. Frame - Wood, Exterior	R=19.0	1440.00 ft²	b. Frame - Wood, Exterior	R=13.0	896.00 ft²	c. N/A	R=	ft²	d. N/A	R=	ft²	10. Ceiling Types (896.0 sqft.)	Insulation	Area	a. Under Attic (Vented)	R=38.0	896.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	11. Ducts		R ft²	a. Sup: Attic, Ret: Attic, AH: 1st Floor		6 384	12. Cooling systems	kBtu/hr	Efficiency	a. Central Unit	24.6	SEER:14.00	13. Heating systems	kBtu/hr	Efficiency	a. Electric Heat Pump	28.9	HSPF:8.20	14. Hot water systems			a. Propane		Cap: 1 gallons			EF: 0.590	b. Conservation features			None			15. Credits		CV, Pstat
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Glass/Floor Area: 0.229	Total Proposed Modified Loads: 49.35	PASS
	Total Baseline Loads: 49.83	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u> </u> DATE: <u>3/21/2018</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u> </u> DATE: <u>3/21/18</u>	Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes. BUILDING OFFICIAL: <u> </u> DATE: <u> </u> 
---	---

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).

PROJECT

Title:	Larry & Nansea Skinner	Bedrooms:	2	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1536	Lot #	
Owner Name:	Skinner	Total Stories:	2	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	K & H Framing	Rotate Angle:	0	Street:	853 Julia Terrace
Permit Office:	Columbia County	Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32024
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1536	13184

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	1st Floor	896	8064	Yes	4	0	1	Yes	Yes	Yes
2	2nd Floor	640	5120	No	4	2	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulation	1st Floor	160 ft	0	896 ft²	----	0	0	1
_____	2	Floor Over Other Space	2nd Floor	----	----	640 ft²	19	0	0	1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or shed	Metal	1038 ft²	262 ft²	Unfinishe	0.96	No	0.4	No	0	30.3

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	896 ft²	Y	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	1st Floor	38	Double Batt	256 ft²	0.11	Wood
✓	2	Under Attic (Vented)	2nd Floor	38	Double Batt	640 ft²	0.11	Wood

WALLS

✓	#	Ornt	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	S	Exterior	Frame - Wood	1st Floor	19	20		9		180.0 ft²		0.23	0.75	0
✓	2	S	Exterior	Frame - Wood	1st Floor	19	20		9		180.0 ft²		0.23	0.75	0
✓	3	E	Exterior	Frame - Wood	1st Floor	19	16		9		144.0 ft²		0.23	0.75	0
✓	4	E	Exterior	Frame - Wood	1st Floor	19	16		9		144.0 ft²		0.23	0.75	0
✓	5	N	Exterior	Frame - Wood	1st Floor	19	12		9		108.0 ft²		0.23	0.75	0
✓	6	W	Exterior	Frame - Wood	1st Floor	19	16		9		144.0 ft²		0.23	0.75	0
✓	7	S	Exterior	Frame - Wood	1st Floor	19	20		9		180.0 ft²		0.23	0.75	0
✓	8	E	Exterior	Frame - Wood	1st Floor	19	8		9		72.0 ft²		0.23	0.75	0
✓	9	N	Exterior	Frame - Wood	1st Floor	19	8		9		72.0 ft²		0.23	0.75	0
✓	10	W	Exterior	Frame - Wood	1st Floor	19	24		9		216.0 ft²		0.23	0.75	0
✓	11	S	Exterior	Frame - Wood	2nd Floor	13	20		8		160.0 ft²		0.23	0.75	0
✓	12	S	Exterior	Frame - Wood	2nd Floor	13	20		8		160.0 ft²		0.23	0.75	0
✓	13	E	Exterior	Frame - Wood	2nd Floor	13	16		8		128.0 ft²		0.23	0.75	0
✓	14	N	Exterior	Frame - Wood	2nd Floor	13	40		8		320.0 ft²		0.23	0.75	0
✓	15	W	Exterior	Frame - Wood	2nd Floor	13	16		8		128.0 ft²		0.23	0.75	0

DOORS

✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
✓	1	N	Insulated	1st Floor	None	.46	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
✓	1	S	1	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 6 in	10 ft 0 in	None	None
✓	2	S	2	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	9 ft 6 in	1 ft 0 in	None	None
✓	3	S	2	Vinyl	Low-E Double	Yes	0.36	0.25	N	40.0 ft²	9 ft 6 in	1 ft 0 in	None	None
✓	4	E	3	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 0 in	10 ft 0 in	None	None
✓	5	E	4	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None
✓	6	W	6	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None
✓	7	S	7	Vinyl	Low-E Double	Yes	0.36	0.25	N	6.0 ft²	1 ft 6 in	10 ft 0 in	None	None
✓	8	S	11	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 6 in	0 ft 6 in	None	None
✓	9	S	12	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	9 ft 6 in	0 ft 6 in	None	None
✓	10	S	12	Vinyl	Low-E Double	Yes	0.36	0.25	N	20.0 ft²	9 ft 6 in	0 ft 6 in	None	None
✓	11	E	13	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 0 in	3 ft 6 in	None	None
✓	12	N	14	Vinyl	Low-E Double	Yes	0.36	0.25	N	45.0 ft²	1 ft 6 in	0 ft 6 in	None	None
✓	13	W	15	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 0 in	3 ft 6 in	None	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqlA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000273	1098.7	60.32	113.43	.2585	5

HEATING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
1	Electric Heat Pump/	None	HSPF:8.2	28.92 kBtu/hr	1	sys#1

COOLING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Central Unit/	None	SEER: 14	24.58 kBtu/hr	750 cfm	0.7	1	sys#1

HOT WATER SYSTEM

#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
1	Propane	Tankless	Exterior	0.59	1 gal	40 gal	120 deg	None

SOLAR HOT WATER SYSTEM

FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
None	None			ft ²		

DUCTS

#	Location	Supply R-Value	Area	Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
1	Attic	6	384 ft ²	Attic	76.8 ft ²	Default Leakage	1st Floor	(Default) c	(Default) c			1	1

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

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

FORM R405-2017

Thermostat Schedule: HERS 2006 Reference		Hours											
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	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

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 99

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

853 Julia Terrace, Lake City, FL, 32024

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=19.0	1440.00 ft ²
3. Number of units, if multiple family	1		b. Frame - Wood, Exterior	R=13.0	896.00 ft ²
4. Number of Bedrooms	2		c. N/A	R=	ft ²
5. Is this a worst case?	No		d. N/A	R=	ft ²
6. Conditioned floor area (ft ²)	1536		10. Ceiling Types	Insulation	Area
7. Windows**	Description	Area	a. Under Attic (Vented)	R=38.0	896.00 ft ²
a. U-Factor:	Dbl, U=0.36	351.00 ft ²	b. N/A	R=	ft ²
SHGC:	SHGC=0.25		c. N/A	R=	ft ²
b. U-Factor:	N/A	ft ²	11. Ducts	R	ft ²
SHGC:			a. Sup: Attic, Ret: Attic, AH: 1st Floor	6	384
c. U-Factor:	N/A	ft ²	12. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	24.6	SEER:14.00
d. U-Factor:	N/A	ft ²	13. Heating systems	kBtu/hr	Efficiency
SHGC:			a. Electric Heat Pump	28.9	HSPF:8.20
Area Weighted Average Overhang Depth:	4.107 ft.		14. Hot water systems		
Area Weighted Average SHGC:	0.250		a. Propane	Cap: 1 gallons	
8. Floor Types	Insulation	Area	b. Conservation features	EF: 0.59	
a. Slab-On-Grade Edge Insulation	R=0.0	896.00 ft ²	None		
b. Floor Over Other Space	R=19.0	640.00 ft ²	15. Credits	CV, Pstat	
c. N/A	R=	ft ²			

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: 3/21/18

Address of New Home: 853 SE Julia Terrace

City/FL Zip: LAKE CITY, FL 32024



*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. Email EnergyGauge tech support at techsupport@energygauge.com 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 R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Residential System Sizing Calculation

Summary

Skinner
853 Julia Terrace
Lake City, FL 32024

Project Title:
Larry & Nansea Skinner

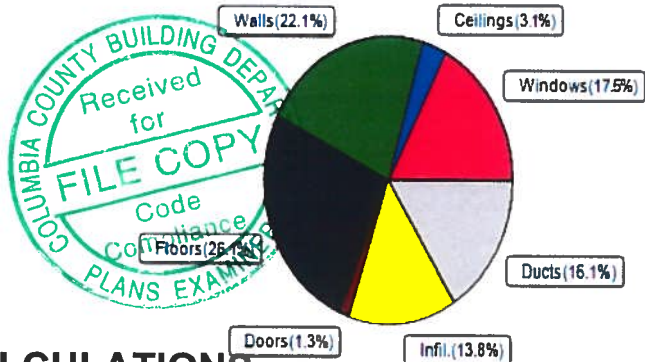
3/21/2018

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)			
Winter design temperature(TMY3 99%)	30 F	Summer design temperature(TMY3 99%)	94 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	40 F	Summer temperature difference	19 F
Total heating load calculation	28924 Btuh	Total cooling load calculation	24869 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 28924	Sensible (SHR = 0.70)	86.6 17208
Heat Pump + Auxiliary(0.0kW)	100.0 28924	Latent	147.7 7375
		Total (Electric Heat Pump)	98.9 24583

WINTER CALCULATIONS

Winter Heating Load (for 1536 sqft)

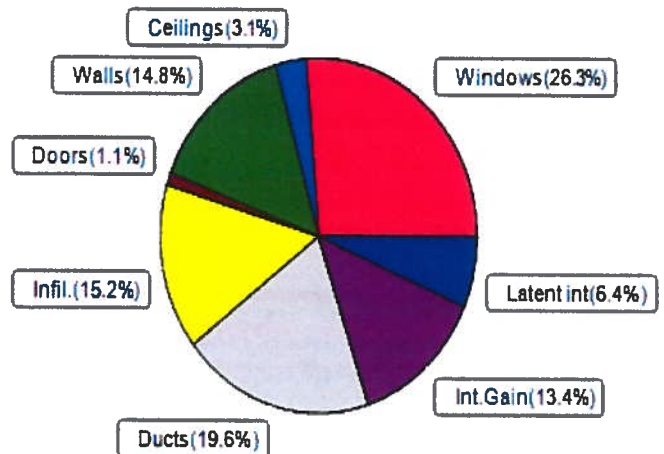
Load component		Load	
Window total	351 sqft	5054	Btuh
Wall total	1965 sqft	6400	Btuh
Door total	20 sqft	368	Btuh
Ceiling total	896 sqft	910	Btuh
Floor total	See detail report	7552	Btuh
Infiltration	91 cfm	3980	Btuh
Duct loss		4659	Btuh
Subtotal		28924	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		28924	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1536 sqft)

Load component		Load	
Window total	351 sqft	6550	Btuh
Wall total	1965 sqft	3683	Btuh
Door total	20 sqft	276	Btuh
Ceiling total	896 sqft	773	Btuh
Floor total		0	Btuh
Infiltration	68 cfm	1418	Btuh
Internal gain		3340	Btuh
Duct gain		3836	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		19877	Btuh
Latent gain(ducts)		1039	Btuh
Latent gain(infiltration)		2353	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1600	Btuh
Total latent gain		4992	Btuh
TOTAL HEAT GAIN		24869	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY:

DATE:

3/21/2018

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Skinner
853 Julia Terrace
Lake City, FL 32024

Project Title:
Larry & Nansea Skinner
Building Type: User

3/21/2018

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 F (TMY3 99%)

Component Loads for Whole House								
Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	S	30.0		14.4	432 Btuh
2	2, NFRC 0.25	Vinyl	0.36	S	30.0		14.4	432 Btuh
3	2, NFRC 0.25	Vinyl	0.36	S	40.0		14.4	576 Btuh
4	2, NFRC 0.25	Vinyl	0.36	E	30.0		14.4	432 Btuh
5	2, NFRC 0.25	Vinyl	0.36	E	15.0		14.4	216 Btuh
6	2, NFRC 0.25	Vinyl	0.36	W	15.0		14.4	216 Btuh
7	2, NFRC 0.25	Vinyl	0.36	S	6.0		14.4	86 Btuh
8	2, NFRC 0.25	Vinyl	0.36	S	30.0		14.4	432 Btuh
9	2, NFRC 0.25	Vinyl	0.36	S	30.0		14.4	432 Btuh
10	2, NFRC 0.25	Vinyl	0.36	S	20.0		14.4	288 Btuh
11	2, NFRC 0.25	Vinyl	0.36	E	30.0		14.4	432 Btuh
12	2, NFRC 0.25	Vinyl	0.36	N	45.0		14.4	648 Btuh
13	2, NFRC 0.25	Vinyl	0.36	W	30.0		14.4	432 Btuh
Window Total					351.0(sqft)			5054 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.077)	19.0/0.0	150		3.09	464 Btuh
2	Frame - Wood	- Ext	(0.077)	19.0/0.0	110		3.09	340 Btuh
3	Frame - Wood	- Ext	(0.077)	19.0/0.0	114		3.09	352 Btuh
4	Frame - Wood	- Ext	(0.077)	19.0/0.0	129		3.09	399 Btuh
5	Frame - Wood	- Ext	(0.077)	19.0/0.0	108		3.09	334 Btuh
6	Frame - Wood	- Ext	(0.077)	19.0/0.0	129		3.09	399 Btuh
7	Frame - Wood	- Ext	(0.077)	19.0/0.0	174		3.09	538 Btuh
8	Frame - Wood	- Ext	(0.077)	19.0/0.0	72		3.09	223 Btuh
9	Frame - Wood	- Ext	(0.077)	19.0/0.0	52		3.09	161 Btuh
10	Frame - Wood	- Ext	(0.077)	19.0/0.0	216		3.09	668 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	130		3.55	462 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	110		3.55	391 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	98		3.55	348 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	275		3.55	976 Btuh
15	Frame - Wood	- Ext	(0.089)	13.0/0.0	98		3.55	348 Btuh
Wall Total					1965(sqft)			6400 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior, n		(0.460)		20		18.4	368 Btuh
Door Total					20(sqft)			368Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Metal		(0.025)	38.0/0.0	256		1.0	260 Btuh
2	Vented Attic/L/Metal		(0.025)	38.0/0.0	640		1.0	650 Btuh
Ceiling Total					896(sqft)			910Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Slab On Grade		(1.180)	0.0	160.0 ft(perim.)		47.2	7552 Btuh
2	Interior		(1.180)	19.0	640.0 sqft		0.0	0 Btuh
Floor Total					1536 sqft			7552 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Skinner
853 Julia Terrace
Lake City, FL 32024

Project Title:
Larry & Nansea Skinner
Building Type: User

3/21/2018

	Envelope Subtotal:					20284 Btuh
Infiltration	Type Natural	Wholehouse ACH 0.41	Volume(cuft) 13184	Wall Ratio 1.00	CFM= 90.9	3980 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.192)					4659 Btuh
All Zones	Sensible Subtotal All Zones					28924 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	28924 Btuh 0 Btuh 28924 Btuh
---------------------------	--	------------------------------------

EQUIPMENT

1. Electric Heat Pump	#	28924 Btuh
-----------------------	---	------------

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)



Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Skinner
853 Julia Terrace
Lake City, FL 32024

Project Title:
Larry & Nansea Skinner

3/21/2018

Reference City: Gainesville, FL

Temperature Difference: 19.0F(TMY3 99%) Humidity difference: 51gr.

Component Loads for Whole House

Window	Type*						Overhang		Window Area(sqft)			HTM		Load	
	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	10.0ft	30.0	0.0	30.0	12	14	422	Btuh
2	2 NFRC	0.25, 0.36	No	No	S		9.5ft.	1.0ft.	30.0	30.0	0.0	12	14	363	Btuh
3	2 NFRC	0.25, 0.36	No	No	S		9.5ft.	1.0ft.	40.0	40.0	0.0	12	14	484	Btuh
4	2 NFRC	0.25, 0.36	No	No	E		1.0ft.	10.0ft	30.0	0.0	30.0	12	31	928	Btuh
5	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	15.0	0.7	14.3	12	31	450	Btuh
6	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	15.0	0.7	14.3	12	31	450	Btuh
7	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	10.0ft	6.0	0.0	6.0	12	14	84	Btuh
8	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	0.5ft.	30.0	30.0	0.0	12	14	363	Btuh
9	2 NFRC	0.25, 0.36	No	No	S		9.5ft.	0.5ft.	30.0	30.0	0.0	12	14	363	Btuh
10	2 NFRC	0.25, 0.36	No	No	S		9.5ft.	0.5ft.	20.0	20.0	0.0	12	14	242	Btuh
11	2 NFRC	0.25, 0.36	No	No	E		1.0ft.	3.5ft.	30.0	0.0	30.0	12	31	928	Btuh
12	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	0.5ft.	45.0	0.0	45.0	12	12	544	Btuh
13	2 NFRC	0.25, 0.36	No	No	W		1.0ft.	3.5ft.	30.0	0.0	30.0	12	31	928	Btuh
Window Total									351 (sqft)					6550 Btuh	
Walls	Type	U-Value				R-Value		Area(sqft)			HTM		Load		
							Cav/Sheath								
1	Frame - Wood - Ext						0.08	19.0/0.0	150.0			1.7		248	Btuh
2	Frame - Wood - Ext						0.08	19.0/0.0	110.0			1.7		182	Btuh
3	Frame - Wood - Ext						0.08	19.0/0.0	114.0			1.7		189	Btuh
4	Frame - Wood - Ext						0.08	19.0/0.0	129.0			1.7		213	Btuh
5	Frame - Wood - Ext						0.08	19.0/0.0	108.0			1.7		179	Btuh
6	Frame - Wood - Ext						0.08	19.0/0.0	129.0			1.7		213	Btuh
7	Frame - Wood - Ext						0.08	19.0/0.0	174.0			1.7		288	Btuh
8	Frame - Wood - Ext						0.08	19.0/0.0	72.0			1.7		119	Btuh
9	Frame - Wood - Ext						0.08	19.0/0.0	52.0			1.7		86	Btuh
10	Frame - Wood - Ext						0.08	19.0/0.0	216.0			1.7		357	Btuh
11	Frame - Wood - Ext						0.09	13.0/0.0	130.0			2.3		294	Btuh
12	Frame - Wood - Ext						0.09	13.0/0.0	110.0			2.3		249	Btuh
13	Frame - Wood - Ext						0.09	13.0/0.0	98.0			2.3		222	Btuh
14	Frame - Wood - Ext						0.09	13.0/0.0	275.0			2.3		622	Btuh
15	Frame - Wood - Ext						0.09	13.0/0.0	98.0			2.3		222	Btuh
Wall Total									1965 (sqft)					3683 Btuh	
Doors	Type					Area (sqft)			HTM		Load				
	Insulated - Exterior					20.0			13.8		276 Btuh				
Door Total									20 (sqft)			276 Btuh			
Ceilings	Type/Color/Surface	U-Value				R-Value		Area(sqft)			HTM		Load		
	Vented AtticLight/Meta/RB	0.025				38.0/0.0		256.0			0.86		221 Btuh		
2	Vented AtticLight/Meta/RB	0.025				38.0/0.0		640.0			0.86		552 Btuh		
Ceiling Total									896 (sqft)					773 Btuh	
Floors	Type					R-Value		Size			HTM		Load		
	Slab On Grade					0.0		896 (ft-perimeter)			0.0		0 Btuh		
2	Interior					19.0		640 (sqft)			0.0		0 Btuh		
Floor Total									1536.0 (sqft)					0 Btuh	
Envelope Subtotal:														11283 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

Skinner
853 Julia Terrace
Lake City, FL 32024

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Larry & Nansea Skinner

3/21/2018

Infiltration	Type Natural	Average ACH 0.31	Volume(cuft) 13184	Wall Ratio 1	CFM= 68.2	Load 1418 Btuh
Internal gain		Occupants 8	Btuh/occupant X 230	Appliance +	1500	Load 3340 Btuh
					Sensible Envelope Load:	16040 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.239)	3836 Btuh
					Sensible Load All Zones	19877 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Skinner
853 Julia Terrace
Lake City, FL 32024

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Larry & Nansea Skinner

3/21/2018

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	16040 Btuh
	Sensible Duct Load	3836 Btuh
	Total Sensible Zone Loads	19877 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	19877 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	2353 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1039 Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	4992 Btuh
	TOTAL GAIN	24869 Btuh

EQUIPMENT

1. Central Unit	#	24583 Btuh
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*Key: Window types (Panels - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
- For Draperies: Assume medium weave, half closed
- For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Omt - compass orientation)



Version 8



Alpine, an ITW Company
2400 Lake Orange Dr., Suite 150
Orlando, FL 32837
Phone: (800)755-6001
alpineitw.com

Site Information:

Customer: W. B. Howland Company, Inc.	Job Number: 18-2151
Job Description: SKINNER	
Address:	City, State, Zip:

Name, Address and License # of Structural EOR if one exists for the building:

Name:	License #:	State:
Address:	City, State, Zip:	

Job Engineering Criteria:

Design Code: FBC 2017 RES	View Version: 17.02.00.1013.16	JRef #: 1W9G2150007
Wind Standard: ASCE 7-10	Wind Speed (mph): 130	Roof Load (psf): 20.00-10.00- 0.00- 10.00
		Floor Load (psf): None

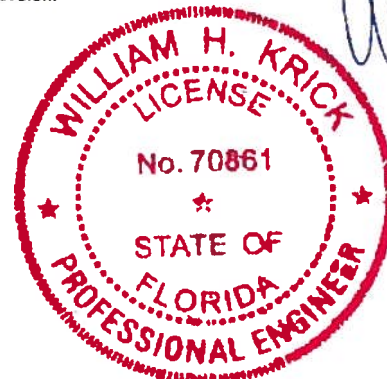
This package contains a job notes page, 9 truss drawings and 3 details.

Item	Seal #	Truss
1	080.18.1553.01360	C02
3	080.18.1553.06120	A02
5	080.18.1553.09717	B02
7	080.18.1553.13030	B01
9	080.18.1553.31447	C01

Item	Seal #	Truss
2	080.18.1553.04350	A03
4	080.18.1553.07410	A01
6	080.18.1553.11103	D02
8	080.18.1553.15533	D01



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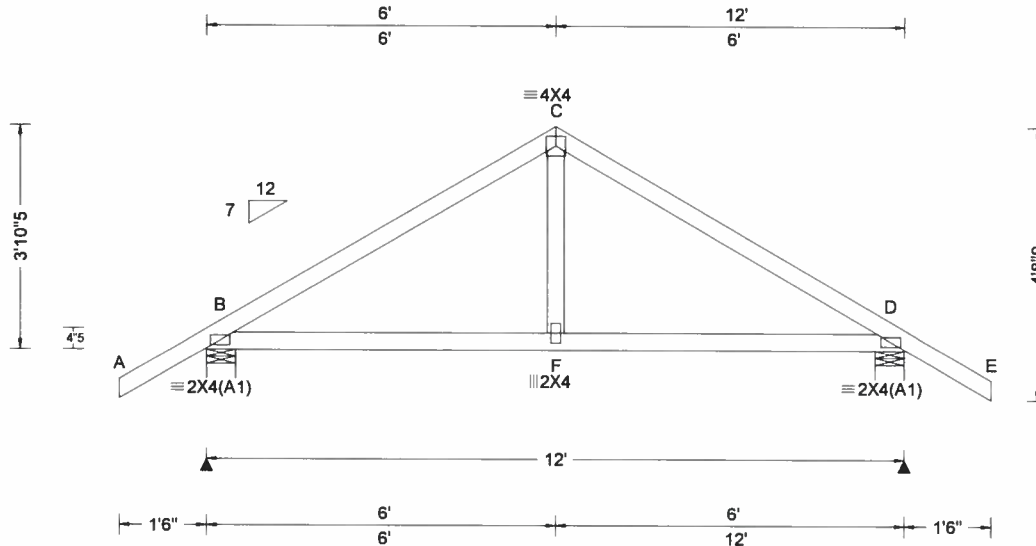
03/22/2018

Job Number: 18-2151
SKINNER
Truss Label: C02

Ply: 1
Qty: 8

SEQN: 543583 / T2 COMN
FROM: CDM

Cust: R215 JRef: 1W9G2150007
DrwNo: 080.18.1553.01360
KM / BAF 03/21/2018



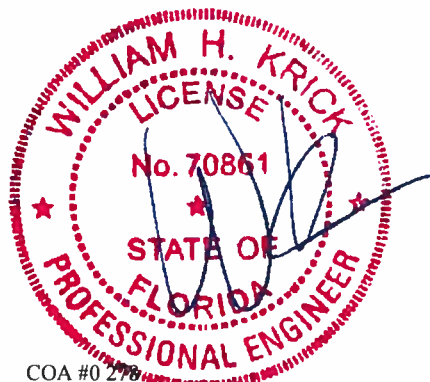
Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.007 F 999 240 VERT(TL): 0.022 F 999 180 HORZ(LL): 0.004 F - - HORZ(TL): 0.007 F - - Creep Factor: 2.0 Max TC CSI: 0.325 Max BC CSI: 0.361 Max Web CSI: 0.100 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W B 601 / 106 / 377 / - / 134 / 6.0 D 601 / 106 / 377 / - / - / 6.0 Wind reactions based on MWFRS B Min Brg Width Req = 1.5 D Min Brg Width Req = 1.5 Bearings B & D are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 173 -600 C - D 174 -600

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

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

Additional Notes
The overall height of this truss excluding overhang is 3-10-5.

Maximum Bot Chord Forces Per Ply (lbs)
Chords Tens.Comp. Chords Tens. Comp.
B - F 445 -29 F - D 445 -29



COA #0 278
03/22/2018

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
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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 and 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 ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinet.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

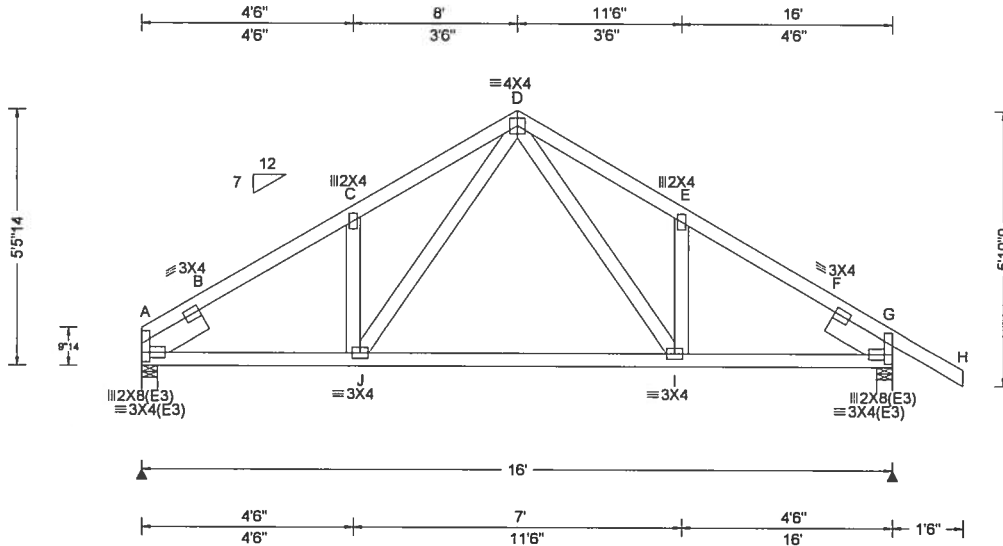
ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

Job Number: 18-2151
SKINNER
Truss Label: A03

Ply: 1
Qty: 11

SEQN: 543603 / T7 COMN
FROM: CDM

Cust: R215 JRef: 1W9G2150007
DrwNo: 080.18.1553.04350
KM / BAF 03/21/2018



Loading Criteria (psf)
TCLL: 20.00
TCDL: 10.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 40.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0"

Wind Criteria
Wind Std: ASCE 7-10
Speed: 130 mph
Enclosure: Closed
Risk Category: II
EXP: C
Mean Height: 21.30 ft
TCDL: 5.0 psf
BCDL: 5.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Factors Used: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): 0.019 E 999 240
VERT(TL): 0.058 E 999 180
HORZ(LL): 0.008 I - -
HORZ(TL): 0.016 I - -
Creep Factor: 2.0
Max TC CSI: 0.198
Max BC CSI: 0.378
Max Web CSI: 0.139

VIEW Ver: 17.02.00.1013.16

Maximum Reactions (lbs)
Loc R / U / Rw / Rh / RL / W
A 660 / 106 / 381 / - / 158 / 4.0
G 772 / 133 / 473 / - / - / 4.0
Wind reactions based on MWFRS
A Min Brg Width Req = 1.5
G Min Brg Width Req = 1.5
Bearings A & G are a rigid surface.

Members not listed have forces less than 375#
Maximum Top Chord Forces Per Ply (lbs)
Chords Tens.Comp. Chords Tens. Comp.
A - B 244 -950 D - E 316 -854
B - C 249 -892 E - F 235 -880
C - D 333 -875 F - G 276 -926

Maximum Bot Chord Forces Per Ply (lbs)
Chords Tens.Comp. Chords Tens. Comp.
A - J 722 -125 I - G 704 -119
J - I 509 -36

Lumber

Top chord 2x4 SP #2
Bot chord 2x4 SP #2
Webs 2x4 SP #3
:Lt Slider 2x6 SP #2: BLOCK LENGTH = 1.500'
:Rt Slider 2x6 SP #2: BLOCK LENGTH = 1.500'

Wind

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

Additional Notes

The overall height of this truss excluding overhang is 5-5-14.



COA #0 278
03/22/2018

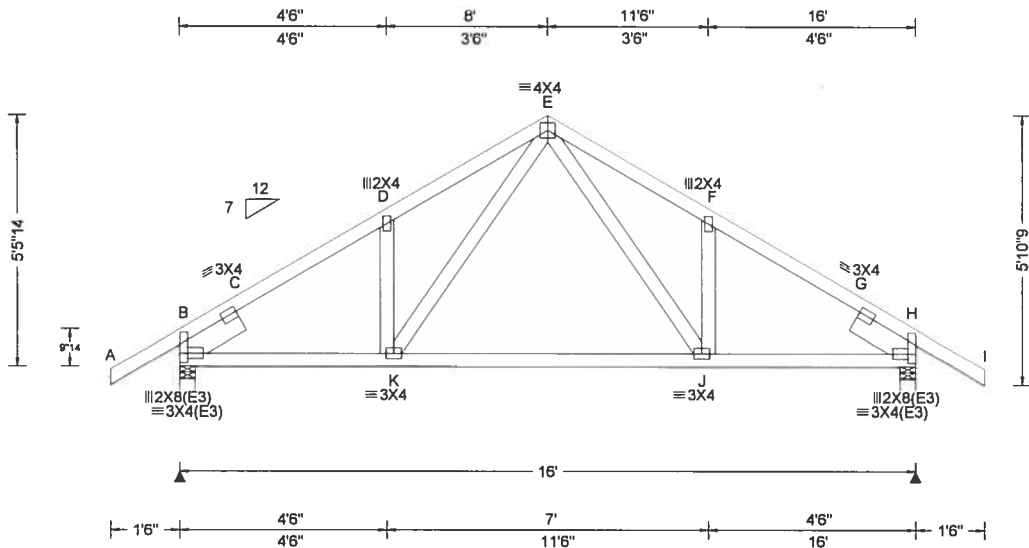
****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
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2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 21.30 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.019 D 999 240 VERT(TL): 0.058 D 999 180 HORZ(LL): 0.008 G - - HORZ(TL): 0.016 J - - Creep Factor: 2.0 Max TC CSI: 0.198 Max BC CSI: 0.376 Max Web CSI: 0.128 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W B 767 / 214 / 472 / - / 176 / 4.0 H 767 / 214 / 472 / - / - / 4.0 Wind reactions based on MWFRS B Min Brg Width Req = 1.5 H Min Brg Width Req = 1.5 Bearings B & H are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 324 -918 E - F 381 -846 C - D 289 -873 F - G 288 -873 D - E 382 -846 G - H 323 -918

Lumber
 Top chord 2x4 SP #2
 Bot chord 2x4 SP #2
 Webs 2x4 SP #3
 :Lt Slider 2x6 SP #2: BLOCK LENGTH = 1.500'
 :Rt Slider 2x6 SP #2: BLOCK LENGTH = 1.500'

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

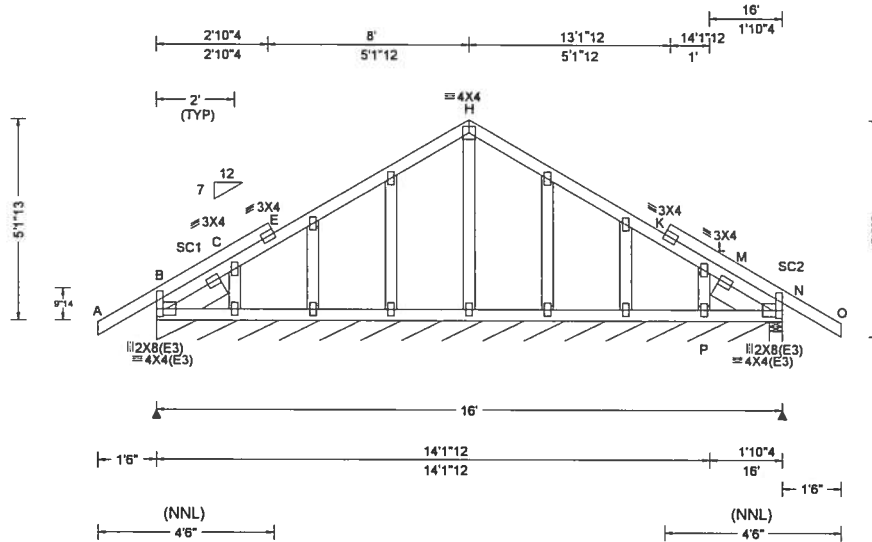
Additional Notes
 The overall height of this truss excluding overhang is 5-5-14.



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Job Number: 18-2151 SKINNER Truss Label: A01	Ply: 1 Qty: 2	SEQN: 543605 / T14 FROM: CDM	GABL Cust: R215 JRef: 1W9G2150007 DrwNo: 080.18.1553.07410 KM / BAF 03/21/2018
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0"	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 21.13 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.004 K 999 240 VERT(TL): 0.012 K 999 180 HORZ(LL): 0.005 K - - HORZ(TL): 0.006 K - - Creep Factor: 2.0 Max TC CSI: 0.464 Max BC CSI: 0.046 Max Web CSI: 0.086 VIEW Ver: 17.02.00.1013.16	Loc R /U /Rw /Rh /RL /W B* 153 /48 /67 /- /22 /188 N 494 /138 /306 /- /- /4.0 Wind reactions based on MWFRS B Min Brg Width Req = - N Min Brg Width Req = 1.5 Bearings B & N are a rigid surface. Members not listed have forces less than 375#

Lumber
Top chord 2x4 SP #2
Bot chord 2x4 SP #2
Webs 2x4 SP #3
Stack Chord SC1 2x4 SP #2:
Stack Chord SC2 2x4 SP #2:
Lt Slider 2x6 SP #2: BLOCK LENGTH = 1.571'
Rt Slider 2x6 SP #2: BLOCK LENGTH = 1.571'

Plating Notes
All plates are 2X4 except as noted.

Loading
Truss designed to support 2-0-0 top chord outlookers and cladding load not to exceed 2.30 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

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

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

Additional Notes
See DWGS A14030ENC101014 & GBLLETIN1014 for gable wind bracing and other requirements.
Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.
The overall height of this truss excluding overhang is 5-1-13.



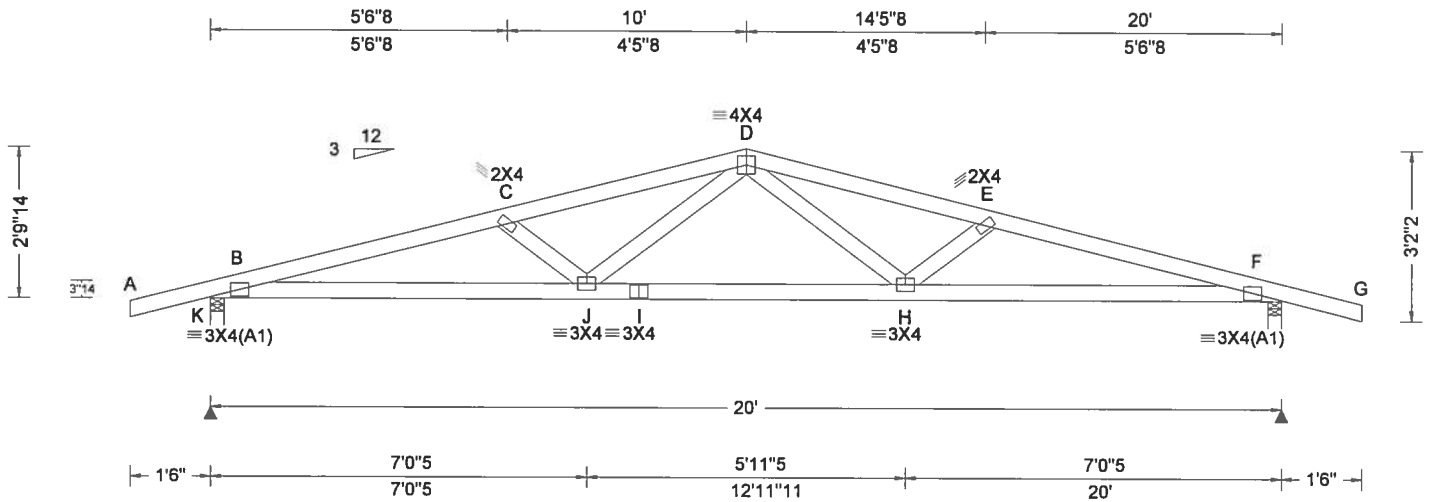
COA #0 2178
03/22/2018

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AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 19.97 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.134 D 999 240 VERT(TL): 0.393 D 899 180 HORZ(LL): 0.032 H - - HORZ(TL): 0.063 H - - Creep Factor: 2.0 Max TC CSI: 0.330 Max BC CSI: 0.640 Max Web CSI: 0.205 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W K 903 / 253 / 449 / - / 45 / 3.0 F 903 / 253 / 449 / - / - / 3.0 Wind reactions based on MWFRS K Min Brg Width Req = 1.5 F Min Brg Width Req = 1.5 Bearings K & F are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1199 - 2286 D - E 1071 - 2042 C - D 1071 - 2042 E - F 1198 - 2286

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

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

Additional Notes
The overall height of this truss excluding overhang is 2-9-14.

Maximum Bot Chord Forces Per Ply (lbs)			
Chords	Tens.Comp.	Chords	Tens. Comp.
B - J	2189 - 1094	I - H	1539 - 737
J - I	1539 - 737	H - F	2189 - 1102

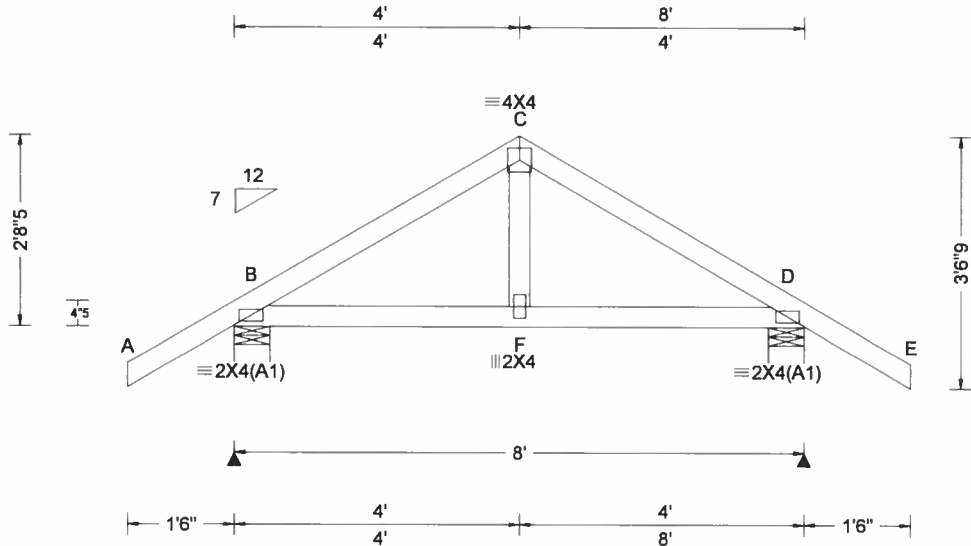
Maximum Web Forces Per Ply (lbs)			
Webs	Tens.Comp.	Webs	Tens. Comp.
J - D	539 - 236	D - H	539 - 236



COA #0 278
03/22/2018

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For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinet.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org





Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 F 999 240 VERT(TL): 0.011 F 999 180 HORZ(LL): 0.001 F - - HORZ(TL): 0.003 F - - Creep Factor: 2.0 Max TC CSI: 0.182 Max BC CSI: 0.144 Max Web CSI: 0.061 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W B 434 / 78 / 285 / - / 104 / 6.0 D 434 / 78 / 202 / - / - / 6.0 Wind reactions based on MWFRS B Min Brg Width Req = 1.5 D Min Brg Width Req = 1.5 Bearings B & D are a rigid surface. Members not listed have forces less than 375#

Lumber

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

Wind

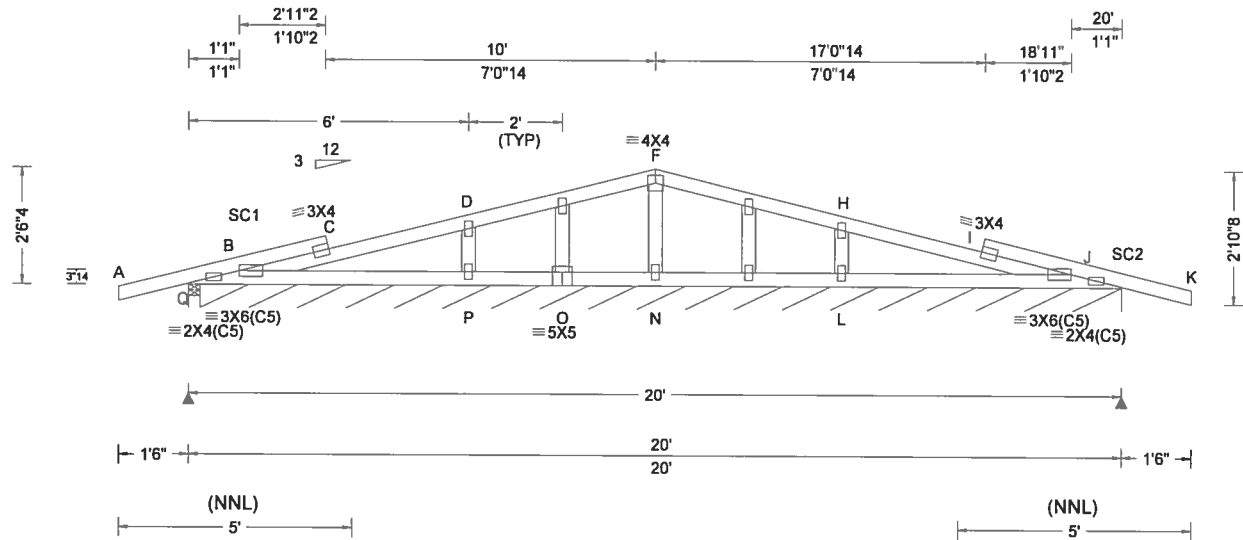
Wind loads based on MWFRS with additional C&C member design.

Additional Notes

The overall height of this truss excluding overhang is 2-8-5.



****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or * = PLF
TCLL: 20.00	Wind Std: ASCE 7-10	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#	Loc R / U / Rw / Rh / RL / W
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.064 C 999 240	Q 554 / 236 / 271 / - / 90 / 3.0
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(TL): 0.164 C 607 180	J* 138 / 44 / 53 / - / - / 237
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.016 I - -	Wind reactions based on MWFRS
	EXP: C		HORZ(TL): 0.028 I - -	Q Min Brg Width Req = 1.5
Des Ld: 40.00	Mean Height: 19.82 ft		Creep Factor: 2.0	J Min Brg Width Req = -
NCBCLL: 10.00	TCDL: 5.0 psf	Code / Misc Criteria	Max TC CSI: 0.787	Bearings Q & Q are a rigid surface.
Soffit: 2.00	BCDL: 5.0 psf	Bldg Code: FBC 2017 RES	Max BC CSI: 0.289	Members not listed have forces less than 375#
Load Duration: 1.25	MWFRS Parallel Dist: 0 to h/2	TPI Std: 2014	Max Web CSI: 0.153	Maximum Top Chord Forces Per Ply (lbs)
Spacing: 24.0 "	C&C Dist a: 3.00 ft	Rep Factors Used: Yes		Chords Tens.Comp. Chords Tens. Comp.
	Loc. from endwall: Any	FT/RT:20(0)/10(0)		
	GCpi: 0.18	Plate Type(s):		
	Wind Duration: 1.60	WAVE	VIEW Ver: 17.02.00.1013.16	B - C 522 -463 F - H 388 -120

Lumber
Top chord 2x4 SP #2
Bot chord 2x4 SP #2
Webs 2x4 SP #3
:Stack Chord SC1 2x4 SP #2:
:Stack Chord SC2 2x4 SP #2:

Plating Notes

All plates are 2X4 except as noted.

Loading

Truss designed to support 2-0-0 top chord outlookers and cladding load not to exceed 2.30 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind

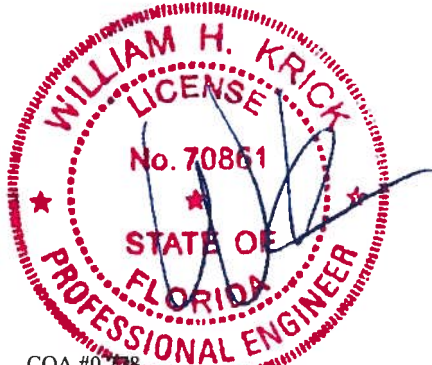
Wind loads based on MWFRS with additional C&C member design.

Additional Notes

See DWGS A14030ENC101014 & GBLLETIN1014 for gable wind bracing and other requirements.

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

The overall height of this truss excluding overhang is 2-6-4.



COA #0 278
03/22/2018

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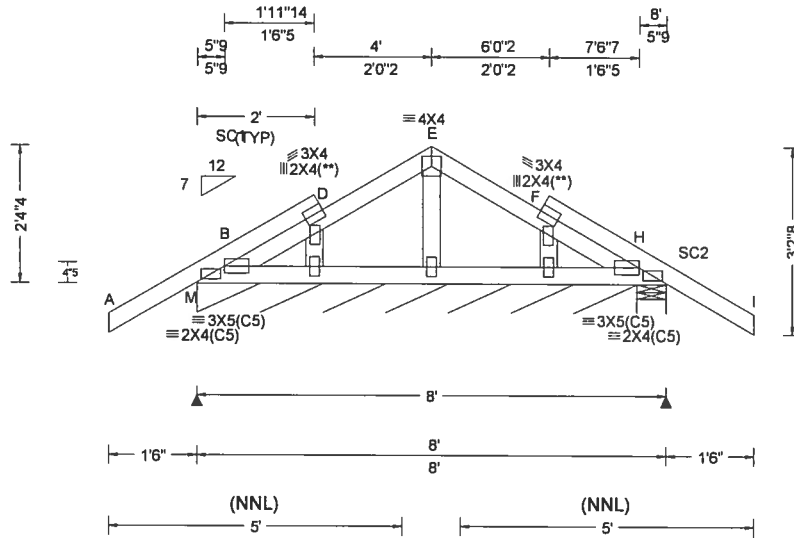
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Job Number: 18-2151 SKINNER Truss Label: D01	Ply: 1 Qty: 1	SEQN: 543613 / T8 FROM: CDM	GABL Cust: R215 JRef: 1W9G2150007 DrwNo: 080.18.1553.15533 KM / BAF 03/21/2018
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg.Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or * = PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): -0.002 D 999 240 VERT(TL): 0.004 F 999 180 HORZ(LL): 0.003 F - - HORZ(TL): 0.003 F - - Creep Factor: 2.0 Max TC CSI: 0.556 Max BC CSI: 0.046 Max Web CSI: 0.049 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W M* 152 / 99 / 81 / - / 27 / 90.0 H 489 / 392 / 353 / - / - / 6.0 Wind reactions based on MWFRS M Min Brg Width Req = - H Min Brg Width Req = 1.5 Bearings M & H are a rigid surface. Members not listed have forces less than 375#

Lumber

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

Plating Notes

All plates are 2X4 except as noted.

(**) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

Loading

Truss designed to support 2-0-0 top chord outlookers and cladding load not to exceed 2.30 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind

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

Additional Notes

See DWGS A14015ENC101014 & GBLLETIN1014 for gable wind bracing and other requirements.

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

The overall height of this truss excluding overhang is 2-4-4.



COA #0 278
03/22/2018

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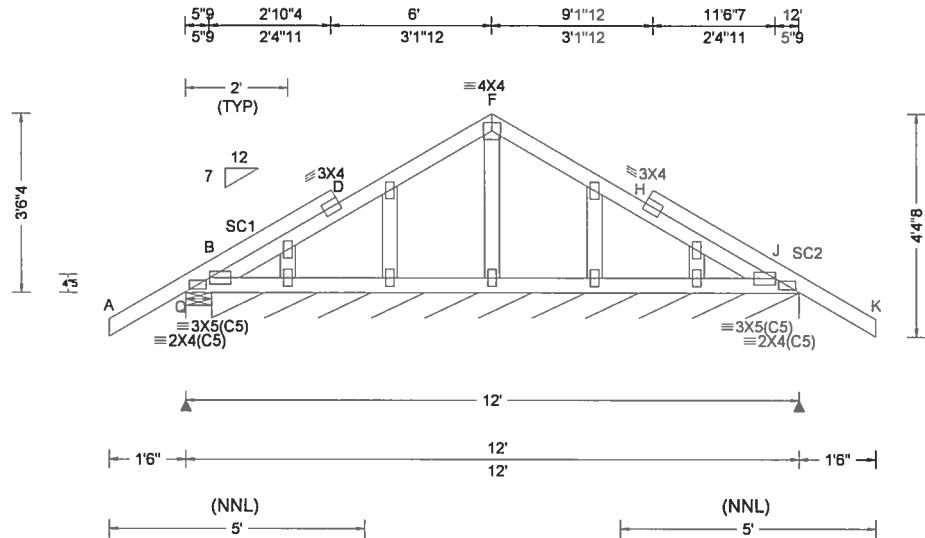
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ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *-PLF
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.003 D 999 240 VERT(TL): 0.008 D 999 180 HORZ(LL): 0.004 H - - HORZ(TL): 0.004 H - - Creep Factor: 2.0 Max TC CSI: 0.567 Max BC CSI: 0.039 Max Web CSI: 0.062 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W Q 530 / 260 / 317 / - / 264 / 6.0 J* 149 / 61 / 69 / - / - / 138 Wind reactions based on MWFRS Q Min Brg Width Req = 1.5 J Min Brg Width Req = - Bearings Q & B are a rigid surface. Members not listed have forces less than 375#

Lumber
Top chord 2x4 SP #2
Bot chord 2x4 SP #2
Webs 2x4 SP #3
Stack Chord SC1 2x4 SP #2:
Stack Chord SC2 2x4 SP #2:

Plating Notes
All plates are 2X4 except as noted.

Loading
Truss designed to support 2-0-0 top chord outlookers and cladding load not to exceed 2.30 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

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

Additional Notes
See DWGS A14015ENC101014 & GBLLETIN1014 for gable wind bracing and other requirements.
Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.
The overall height of this truss excluding overhang is 3-6-4.



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Gable Stud Reinforcement Detail

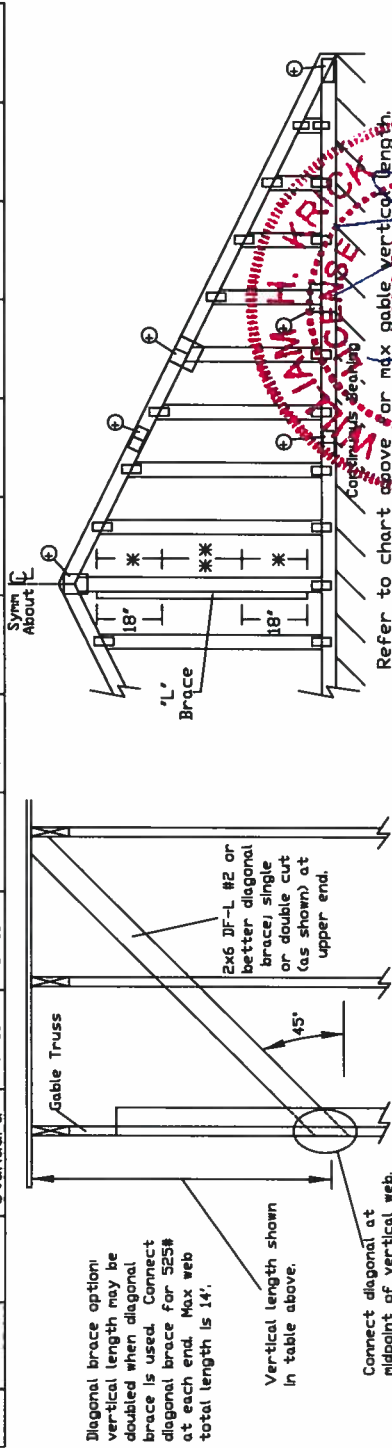
ASCE 7-10: 140 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 120 mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00

Or: 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Or: 100 mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

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



13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

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For more information see this job's general notes page and these web steps: ALPINE: www.alpineitw.com TPI: www.tpi.org SBCA: www.sbcaindustry.org ICD: www.icdusa.org

Refer to chart above for max gable vertical length.

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

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF ASCE 7-10-GAB14030

DATE 10/01/14

DRWG A14030ENC101014

Bracing Group Species and Grades:	
Group A:	Spruce-Pine-Fir #1 / #2 Standard #3 Stud
	Heir-Fir #2 Standard #3 Stud
Group B:	Douglas Fir-Larch #3 Standard #3 Stud
	Southern Pine #3 Standard #3 Stud
Group C:	Douglas Fir-Larch #1 Standard #1 Stud
	Southern Pine #1 Standard #1 Stud

1x4 Braces shall be SRB (Stress-Rated Board).

For 1x4 Sp. 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 plf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" outlookers with 2' 0" overhang, or 12' plywood overhang.

Attach 'L' braces with 10d (0.128"x3.0" 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.

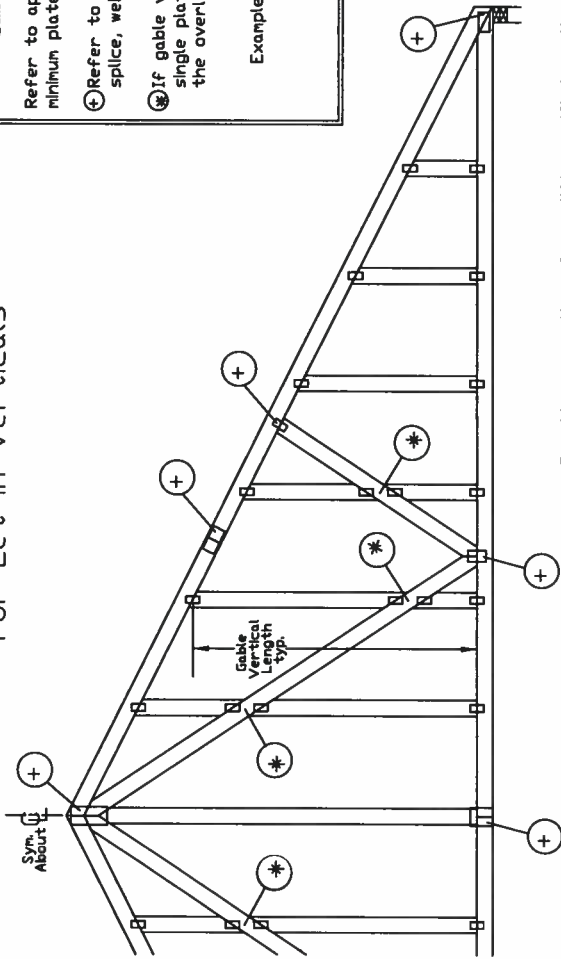
'L' bracing must be a minimum of 80% of web member length.

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.

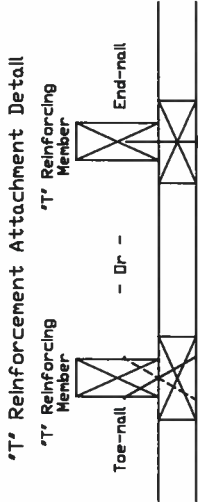
Refer to the Building Designer for conditions not addressed by this detail.

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.



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	30 %

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"

Provide connections for uplift specified on the engineered truss design.

Attach each 'T' reinforcing member with End Driven Nails:

- 10d Common (0.148"x3", min) Nails at 4' o.c. plus
- (4) nails in the top and bottom chords.

Toenailed Nails:

- 10d Common (0.148"x3", 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.

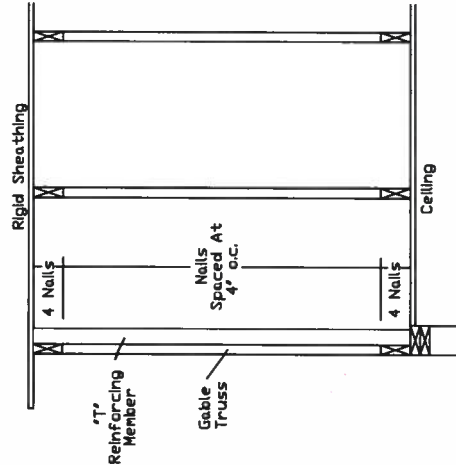
ASCE 7-05 Gable Detail Drawings

A13015051014, A12015051014, A11015051014, A10015051014, A14015051014, A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

ASCE 7-10 Gable Detail Drawings

A11515ENC101014, A12015ENC101014, A14015ENC101014, A16015ENC101014, A18015ENC101014, A20015ENC101014, A22015ENC101014, A24015ENC101014, A26015ENC101014, A28015ENC101014, A30015ENC101014, A32015ENC101014, A34015ENC101014, A36015ENC101014, A38015ENC101014, A40015ENC101014, A42015ENC101014, A44015ENC101014, A46015ENC101014, A48015ENC101014, A50015ENC101014, A52015ENC101014, A54015ENC101014, A56015ENC101014, A58015ENC101014, A60015ENC101014, A62015ENC101014, A64015ENC101014, A66015ENC101014, A68015ENC101014, A70015ENC101014, A72015ENC101014, A74015ENC101014, A76015ENC101014, A78015ENC101014, A80015ENC101014, A82015ENC101014, A84015ENC101014, A86015ENC101014, A88015ENC101014, A90015ENC101014, A92015ENC101014, A94015ENC101014, A96015ENC101014, A98015ENC101014, A100015ENC101014

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



REF	LET-IN VERT
DATE	10/01/14
DRWG	GBLLETIN1014
MAX. TOT. LD.	60 PSF
DUR. FAC.	ANY
MAX. SPACING	24.0"

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 BCSP (Building Components Safety Program) by TPI and SCSA for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSP. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have bracing installed per BCSP sections 13, 17 or 210, as applicable. Apply plates to each joint of truss and position as shown above and on the joint details, unless noted otherwise. Refer to drawings 10012 for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this detail or 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 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.tpiinc.org, SCSA: www.scsa.org, ICC: www.iccsafe.org

NO. 70851

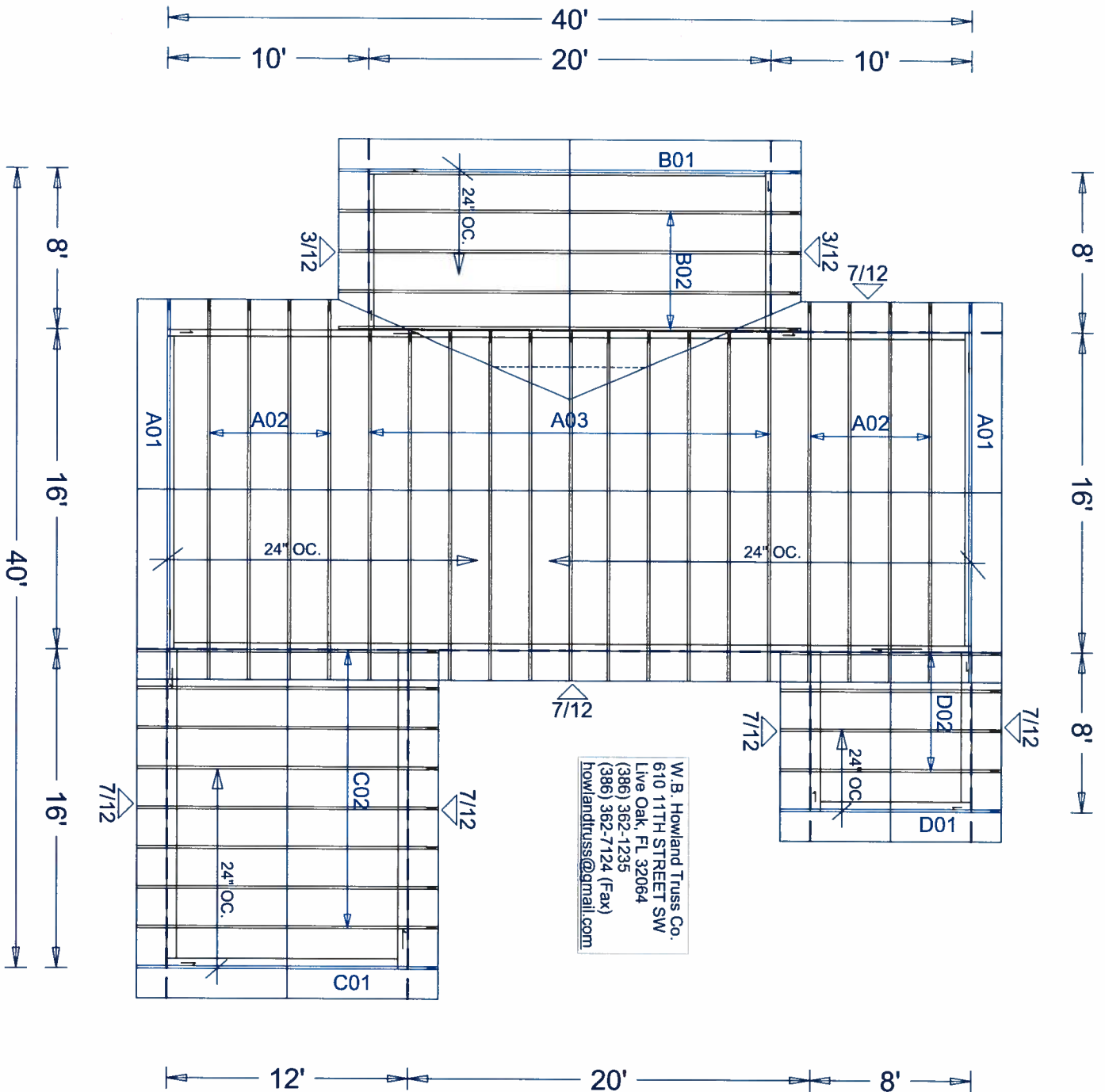
STATE OF FLORIDA

PROFESSIONAL ENGINEER

COA 03/22/2018



13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043



W.B. Howland Truss Co.
610 11TH STREET SW
Live Oak, FL 32064
(386) 362-1235
(386) 362-7124 (Fax)
howlandtruss@gmail.com

ROOF PITCH: 7 & 3/12
CLG PITCH: FLAT
OVERHANG: 18"
LOADING: 40 PSF
WIND LOAD: 130 MPH
EXPOSURE: C
EXT WALLS: 2 X 6 & 4
1st FLOOR 9'
2nd FLOOR 8'
DATE: 3/21/18
FIELD FRAME VALLEYS
BY OTHERS



JOB #: 18-2151

Job Name: SKINNER
Customer: K&H FRAMING
Designer: ROBERT GLOVER
ADDRESS:
SALESMAN: Fill in later
: <Not Found>

JOB NO:
18-2151

PAGE NO:
1 OF 1



Alpine, an ITW Company
2400 Lake Orange Dr., Suite 150
Orlando, FL 32837
Phone: (800)755-6001
alpineitw.com

Site Information:

Customer: W. B. Howland Company, Inc.	Job Number: 18-2151F
Job Description: SKINNER	
Address:	City, State, Zip:

Name, Address and License # of Structural EOR if one exists for the building:

Name:	License #:	State:
Address:	City, State, Zip:	

Job Engineering Criteria:

Design Code: FBC 2017 RES	View Version: 17.02.00.1013.16	JRef #: 1W9G2150008
Wind Standard: NA	Wind Speed (mph): N/A	Roof Load (psf): None
		Floor Load (psf): 40.00-10.00- 0.00-5.00

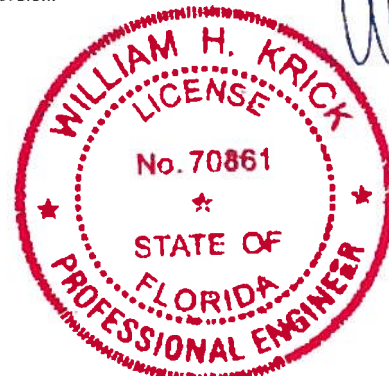
This package contains a job notes page, 5 truss drawings and 3 details.

Item	Seal #	Truss
1	081.18.0737.36513	F02
3	081.18.0738.14600	F05
5	081.18.0738.18993	F01

Item	Seal #	Truss
2	081.18.0738.12843	F04
4	081.18.0738.16337	F03



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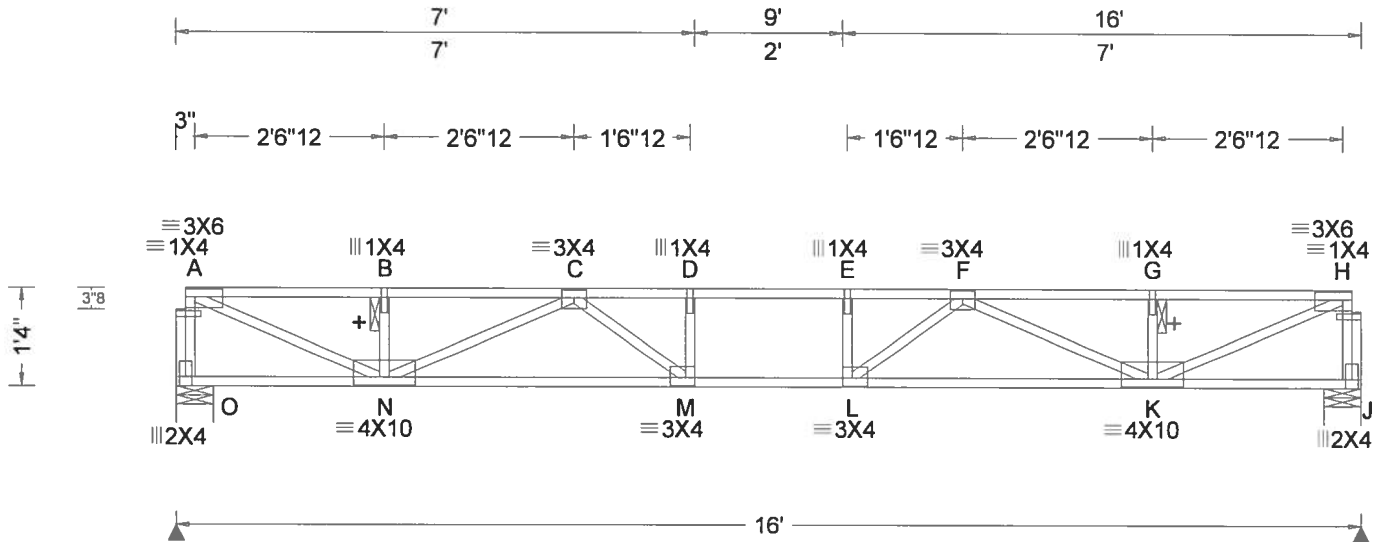
03/22/2018

Job Number: 18-2151F
SKINNER
Truss Label: F02

Ply: 1
Qty: 11

SEQN: 543617 / T1 SY42
FROM: CDM

Cust: R215 JRef: 1W9G2150008
DrwNo: 081.18.0737.36513
KM / WHK 03/22/2018



Loading Criteria (psf)
TCLL: 40.00
TCDL: 10.00
BCLL: 0.00
BCDL: 5.00
Des Ld: 55.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.00
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Code / Misc Criteria
Bldg Code: FBC 2017 RES
TPI Std: 2014
Rep Factors Used: Yes
FT/RT: 12(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): 0.238 D 780 480
VERT(TL): 0.455 D 572 360
HORZ(LL): 0.031 K - -
HORZ(TL): 0.044 B - -
Creep Factor: 2.0
Max TC CSI: 0.734
Max BC CSI: 0.836
Max Web CSI: 0.823

VIEW Ver: 17.02.00.1013.16

Maximum Reactions (lbs)

Loc	R	/U	/Rw	/Rh	/RL	/W
O	867	-	-	-	-	/6.0
J	867	-	-	-	-	/6.0
O	Min Brg Width Req = 1.5					
J	Min Brg Width Req = 1.5					

Bearings O & J are a rigid surface.

Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)					
Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	0	-1562	E - F	0	-2691
B - C	0	-1562	F - G	0	-1562
C - D	0	-2691	G - H	0	-1562
D - E	0	-2700			

Maximum Bot Chord Forces Per Ply (lbs)					
Chords	Tens.	Comp.	Chords	Tens.	Comp.
N - M	2426	0	L - K	2426	0
M - L	2700	0			

Maximum Web Forces Per Ply (lbs)					
Webs	Tens.	Comp.	Webs	Tens.	Comp.
A - O	0	-810	L - F	568	0
A - N	1728	0	F - K	0	-955
N - C	0	-955	K - H	1728	0
C - M	568	0	H - J	0	-810

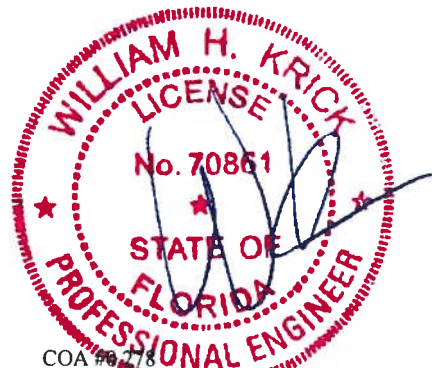
Lumber
Top chord 4x2 SP #2
Bot chord 4x2 SP #2
Webs 4x2 SP #3

Additional Notes

+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.

Truss must be installed as shown with top chord up.

The overall height of this truss excluding overhang is 14'-0".



COA #0778
03/22/2018

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!

****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

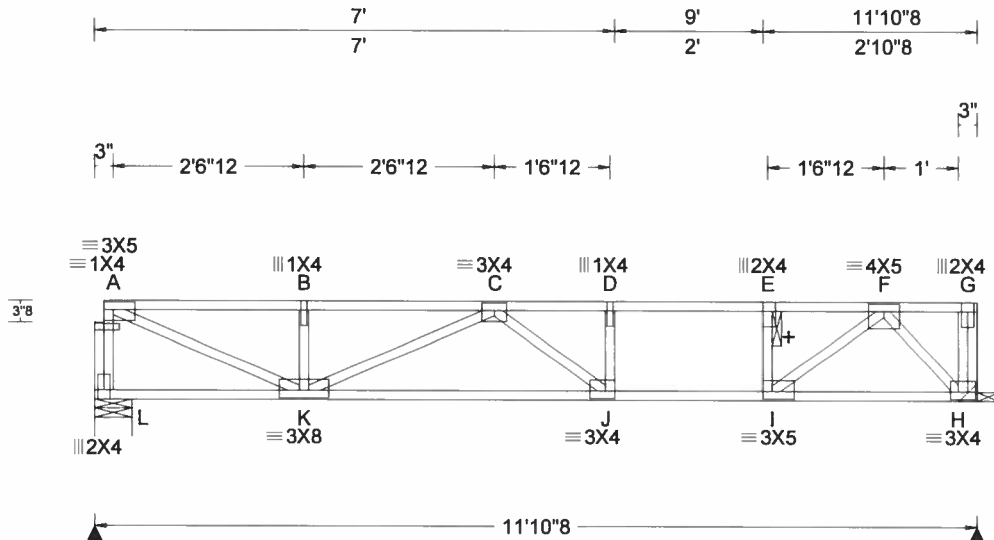
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCE) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-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 and 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 ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites: ALPINE: www.alpine.itw.com; TPI: www.tpinet.org; SBCE: www.sbceindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

Job Number: 18-2151F SKINNER Truss Label: F04	Ply: 1 Qty: 6	SEQN: 543621 / T5 FROM: CDM	SY42 Cust: R215 JRef: 1W9G2150008 DrwNo: 081.18.0738.12843 KM / WHK 03/22/2018
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:12(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.179 D 761 480 VERT(TL): 0.342 D 532 360 HORZ(LL): 0.024 B - - HORZ(TL): 0.036 B - - Creep Factor: 2.0 Max TC CSI: 0.591 Max BC CSI: 0.450 Max Web CSI: 0.575 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W L 640 / - / - / - / - / 6.0 H 653 / - / - / - / - / - L Min Brg Width Req = 1.5 H Min Brg Width Req = - Bearing L is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. A - B 0 -1092 D - E 0 -1253 B - C 0 -1092 E - F 0 -1229 C - D 0 -1257

Lumber
Top chord 4x2 SP 2400f-2.0E
Bot chord 4x2 SP 2400f-2.0E
Webs 4x2 SP #3

Hangers / Ties
Simpson Construction Hardware is specified based on the most current information provided by Simpson Strong-Tie. Please refer to the most recent Simpson Strong-Tie catalog for additional information.
Recommended hanger connections are based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.
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.
Bearing at location x=11'7"8 uses the following support conditions: 11'7"8
Bearing H (11'7"8, 9'1"2) THA422
Supporting Member: (1)4x2 SP 2400f-2.0E
(2) 0.162"x3.5" nails into supporting member,
(4) 0.162"x3.5" nails in flange and
(6) 0.148"x3" nails into supported member.

Additional Notes
+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.
Truss must be installed as shown with top chord up.
The overall height of this truss excluding overhang is 1-4-0.

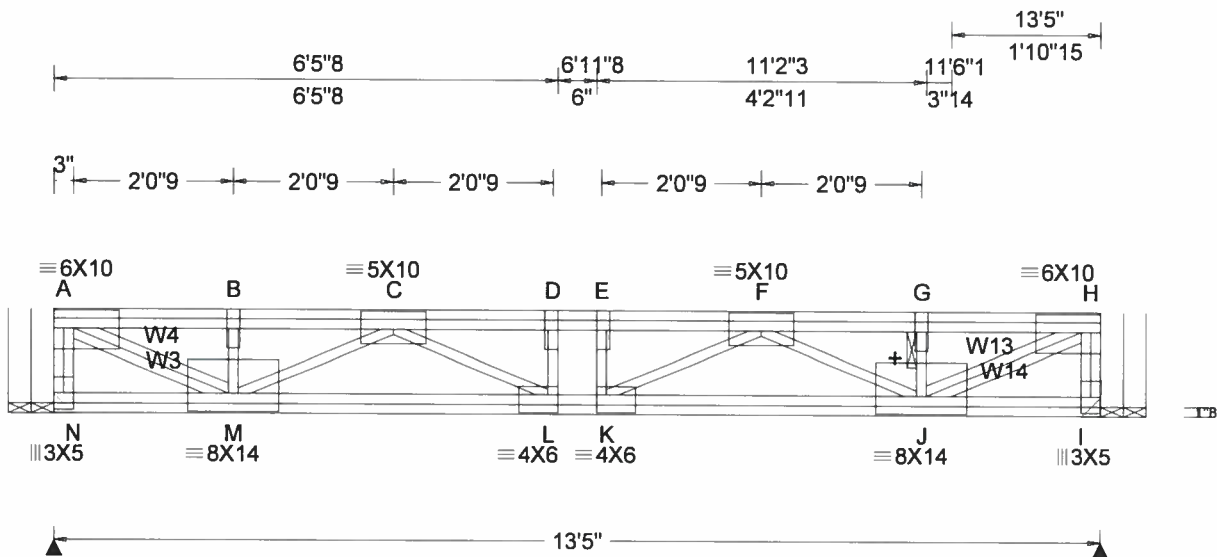
Maximum Bot Chord Forces Per Ply (lbs)			
Chords	Tens.Comp.	Chords	Tens. Comp.
K - J	1452 0	I - H	479 0
J - I	1253 0		

Maximum Web Forces Per Ply (lbs)			
Webs	Tens.Comp.	Webs	Tens. Comp.
A - L	0 -602	E - I	0 -461
A - K	1208 0	I - F	963 0
K - C	0 -398	F - H	0 -755



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For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinet.org; SBCE: www.sbceindustry.com; ICC: www.iccsafe.org





Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:12(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.263 E 590 480 VERT(TL): 0.459 E 429 360 HORZ(LL): 0.024 J - - HORZ(TL): 0.033 J - - Creep Factor: 2.0 Max TC CSI: 0.587 Max BC CSI: 0.460 Max Web CSI: 0.665 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W N 2373 / - / - / - / - / - I 2285 / - / - / - / - / - N Min Brg Width Req = - I Min Brg Width Req = - Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. A - B 0 -4096 E - F 0 -7308 B - C 0 -4096 F - G 0 -4067 C - D 0 -7310 G - H 0 -4067 D - E 0 -7337

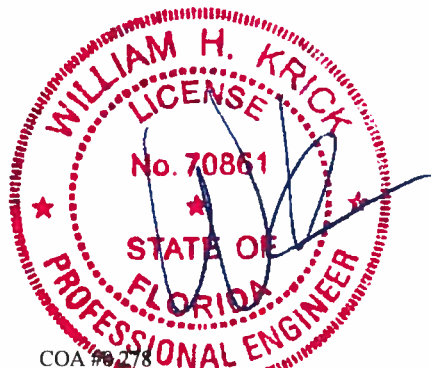
Lumber
Top chord 4x2 SP 2400F-2.0E
Bot chord 4x2 SP 2400F-2.0E
Webs 4x2 SP #3 :W3, W4, W13, W14 4x2 SP #2:

Special Loads
---(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)
TC: From 50 plf at 0.00 to 50 plf at 13.42
BC: From 5 plf at 0.00 to 5 plf at 13.42
TC: 653 lb Conc. Load at 1.56, 3.56, 5.56, 7.56, 9.56,11.56

Plating Notes
All plates are 2X6 except as noted.

Hangers / Ties
(J) Hanger Support Required, by others

Additional Notes
+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.
Truss must be installed as shown with top chord up.
The overall height of this truss excluding overhang is 1'-4-0.



COA # 218
03/22/2018

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
M - L	6426 0	K - J	6410 0
L - K	7337 0		

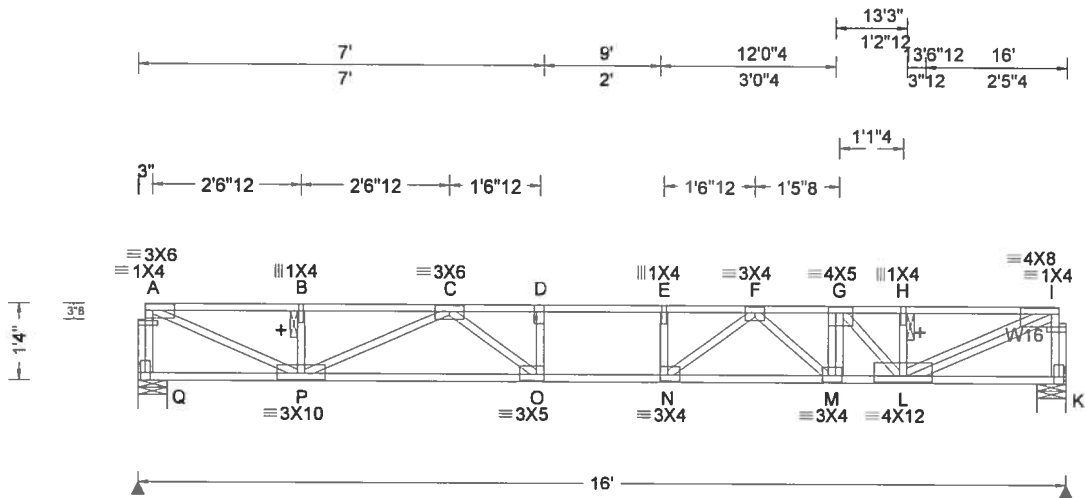
Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
A - N	47 -2432	E - K	0 -499
A - M	4622 0	K - F	1023 0
B - M	0 -908	F - J	0 -2650
M - C	0 -2635	G - J	0 -892
C - L	1006 0	J - H	4609 0
L - D	0 -473	H - I	0 -2243

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ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

2 Complete Trusses Required



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:12(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.309 N 602 480 VERT(TL): 0.541 N 437 360 HORZ(LL): -0.029 I - - HORZ(TL): 0.040 I - - Creep Factor: 2.0 Max TC CSI: 0.781 Max BC CSI: 0.814 Max Web CSI: 0.718 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W Q 1438 / - / - / - / - / 6.0 K 2670 / - / - / - / - / 6.0 Q Min Brg Width Req = 1.5 K Min Brg Width Req = 1.5 Bearings Q & K are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. A - B 0 -1363 E - F 0 -3178 B - C 0 -1363 F - G 0 -3728 C - D 0 -3143 G - H 0 -2666 D - E 0 -3165 H - I 0 -2666

Lumber
Top chord 4x2 SP 2400f-2.0E
Bot chord 4x2 SP 2400f-2.0E
Webs 4x2 SP #3 :W16 4x2 SP #2:

Special Loads
-----(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)
TC: From 100 plf at 0.13 to 100 plf at 15.88
BC: From 10 plf at 0.00 to 10 plf at 16.00
TC: 2373 lb Conc. Load at 12.02

Plating Notes
All plates are 2X4 except as noted.

Additional Notes
See DWG CNSY42PL1014 or LSCCSYX2A1014 for connection details of 2 ply trusses.
+ 2x6 continuous strongback. See detail STRBRIBR1014 for bracing and bridging recommendations.
Truss must be installed as shown with top chord up.
The overall height of this truss excluding overhang is 1-4-0.



COA # 218
03/22/2018

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
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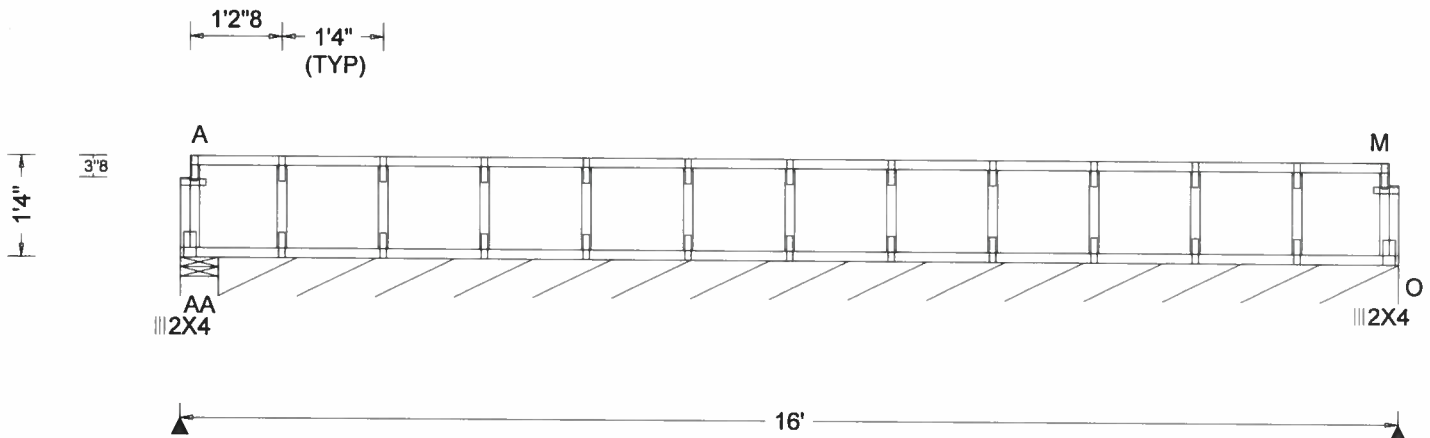


Job Number: 18-2151F
SKINNER
Truss Label: F01

Ply: 1
Qty: 2

SEQN: 543632 / T4 SY42
FROM: CDM

Cust: R215 JRef: 1W9G2150008
DrwNo: 081.18.0738.18993
KM / WHK 03/22/2018



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Mean Height: NA ft TCDL: NA psf BCDL: NA psf MWFRS Parallel Dist: NA C&C Dist a: NA ft Loc. from endwall: NA I: NA GCpi: NA Wind Duration: NA	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Code / Misc Criteria Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Factors Used: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 M 999 360 VERT(TL): 0.001 M 999 240 HORZ(LL): -0.000 O - - HORZ(TL): 0.000 O - - Creep Factor: 2.0 Max TC CSI: 0.239 Max BC CSI: 0.024 Max Web CSI: 0.065 VIEW Ver: 17.02.00.1013.16	Loc R / U / Rw / Rh / RL / W AA 117 / - / - / - / - / 6.0 O* 213 / - / - / - / - / 186 AA Min Brg Width Req = 1.5 O Min Brg Width Req = - Bearings AA & AA are a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord 4x2 SP #2
Bot chord 4x2 SP #2
Webs 4x2 SP #3

Bracing

Sheathing is required for any longitudinal(drag) forces. All connections to be designed by the building designer.

Fasten rated sheathing to one face of this frame.

Plating Notes

All plates are 1X4 except as noted.

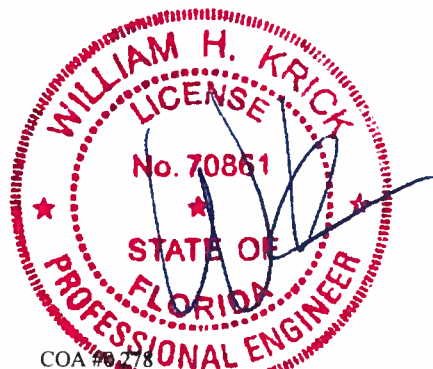
Additional Notes

See detail STRBRIBR1014 for bracing and bridging recommendations.

Provide for complete drainage of roof.

Truss must be installed as shown with top chord up.

The overall height of this truss excluding overhang is 1'-4"-0.



COA #0-218

03/22/2018

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!

****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. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

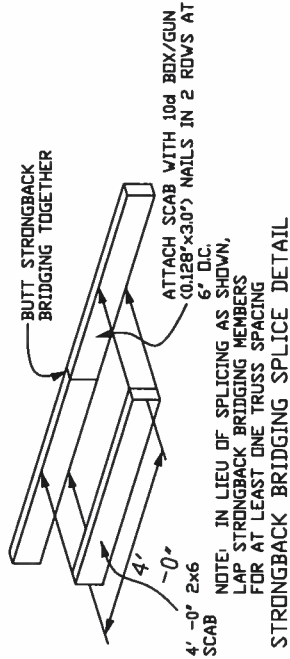
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, 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 ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinet.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

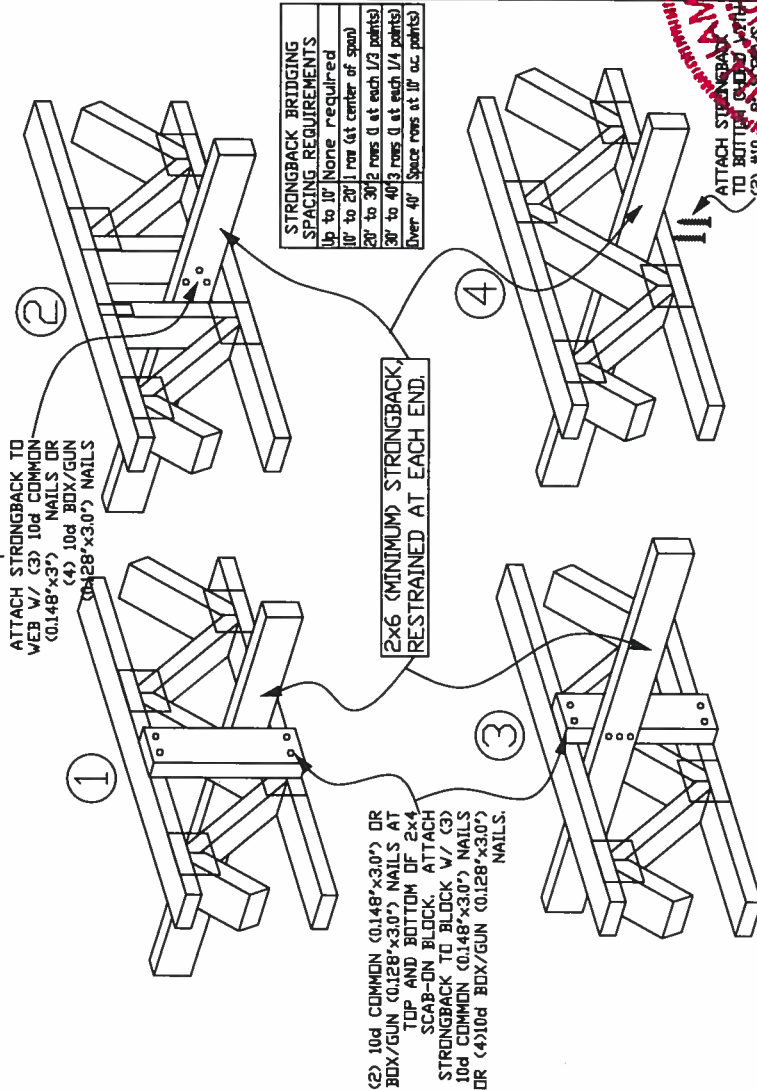
ALPINE
AN ITW COMPANY
2400 Lake Orange Dr.
Suite 150
Orlando FL, 32837

STRONGBACK BRIDGING RECOMMENDATIONS

- ▶ All scab-on blocks shall be a minimum 2x4 "stress graded lumber."
 - ▶ All strongback bridging and bracing shall be a minimum 2x6 "stress graded lumber."
 - ▶ The purpose of strongback bridging is to develop load sharing between individual trusses, resulting in an overall increase in the stiffness of the floor system. 2x6 strongback bridging, positioned as shown in details, is recommended at 10' - 0" o.c. (max.)
 - ▶ The terms "bridging" and "bracing" are sometimes mistakenly used interchangeably. "Bracing" is an important structural requirement of any floor or roof system. Refer to the Truss Design Drawing (TDD) for the bracing requirements for each individual truss component. "Bridging," particularly "strongback bridging" is a recommendation for a truss system to help control vibration. In addition to aiding in the distribution of point loads between adjacent truss, strongback bridging serves to reduce "bounce" or residual vibration resulting from moving point loads, such as footsteps.
- The performance of all floor systems are enhanced by the installation of strongback bridging and therefore is strongly recommended by Alpine.
- For additional information regarding strongback bridging, refer to BCSI (Building Component Safety Information).



NOTE: Details 1 and 2 are the preferred attachment methods



STRONGBACK BRIDGING ATTACHMENT ALTERNATIVES

WARNING: READ AND FOLLOW ALL NOTES ON THIS DRAWING. THIS DRAWING IS THE PROPERTY OF ALPINE. IT IS TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED. IT IS NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF ALPINE. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

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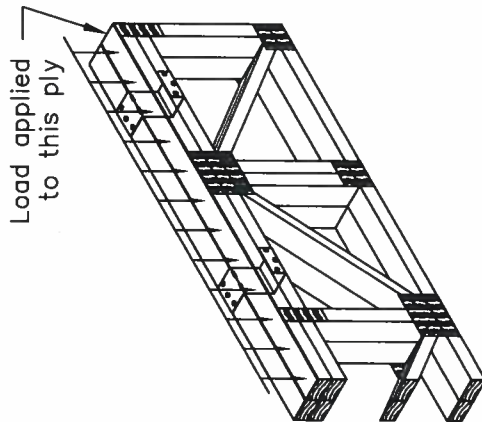
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

REF	STRONGBACK
DATE	10/01/14
DRWG	STRBRI014
PSF	PSF
TC LL	TC DL
BC DL	BC LL
TOT. LD.	PSF
DUR. FAC.	1.00
SPACING	

SY32/SY42 PLY TO PLY LSC CONNECTION DETAIL

FOR DOWNWARD LOADS ONLY

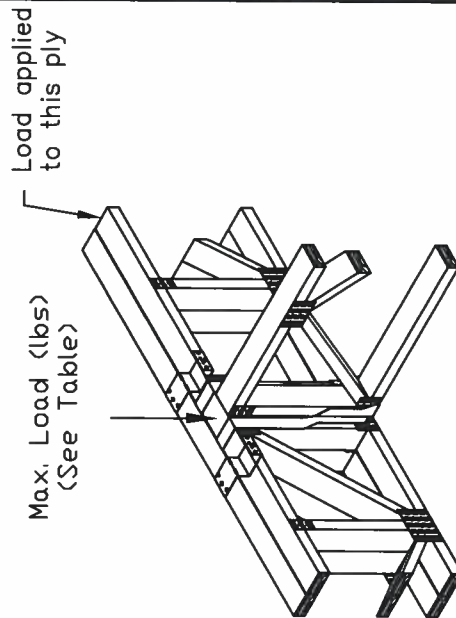
Uniform Load Application



Max. T.C. Uniform Load (p/f)	Clip Spacing Along Top Chord	
	SP	DF
935	810	585
625	540	390
470	405	295
375	325	235

Maximum LSC spacing is 30" o.c.

Concentrated Load Application



Max Load (lbs)		
SP	DF	SPF/HF
1870	1620	1170

Note:

Install LSC adjacent, equidistant, and not more than 6" on each side of concentrated loads. ~~AM~~

Refer to Alpine sealed drawing for individual frames design.

Installation Instructions:

1. Position and attach LSC to loaded ply with (3) 0.131"x1.5" nails into narrow face.
2. Bend clip over adjacent ply and attach with (3) 0.131"x1.5" nails into wide face.



LS C42 for single 4x2 chords
LS C32 for single 3x2 chords



LSC42-2 for stacked 4x2 chords
LSC32-2 for stacked 3x2 chords

UNNECESSARY SCAB AND FILLING. ALL NOTES ON THIS DRAWING ARE IMPORTANT! FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLER. Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Review the latest edition of ECSI Guiding Component Safety Information, by TPI and ECSI. Follow the instructions and drawings in this manual. Truss installers should be familiar with the practices prior to performing these functions. Installers shall provide temporary bracing for all trusses. Trusses shall be braced in accordance with the bracing details shown on this drawing. Trusses shall have a properly attached rigid ceiling. Locations shown for permanent lateral bracing shall be braced installed per ECSI sections B3, B7 or B10, as applicable. Apply plates to all truss and position as shown above and on the Joint Details, unless noted otherwise.

Alpha, a division of ITV Building Components Group Inc. shall not be responsible for any design or engineering work performed by the contractor or its subcontractors. The contractor shall be responsible for obtaining the necessary permits and for obtaining the necessary approvals from the appropriate authorities. The contractor shall be responsible for obtaining the necessary approvals from the appropriate authorities. The contractor shall be responsible for obtaining the necessary approvals from the appropriate authorities.

Maryland Heights, MO 63043

13723 Riverport Drive
Suite 200
Maryland Heights, MO

For more information see this job's general notes page and these web sites:
ALPINE: www.alphalife.com TP2: www.tpinst.org SBICA: www.sbichdstry.org ICC: www.iccsafe.org

No. 70851

STATE OF
FLORIDA
SIGNAL ENGINEER

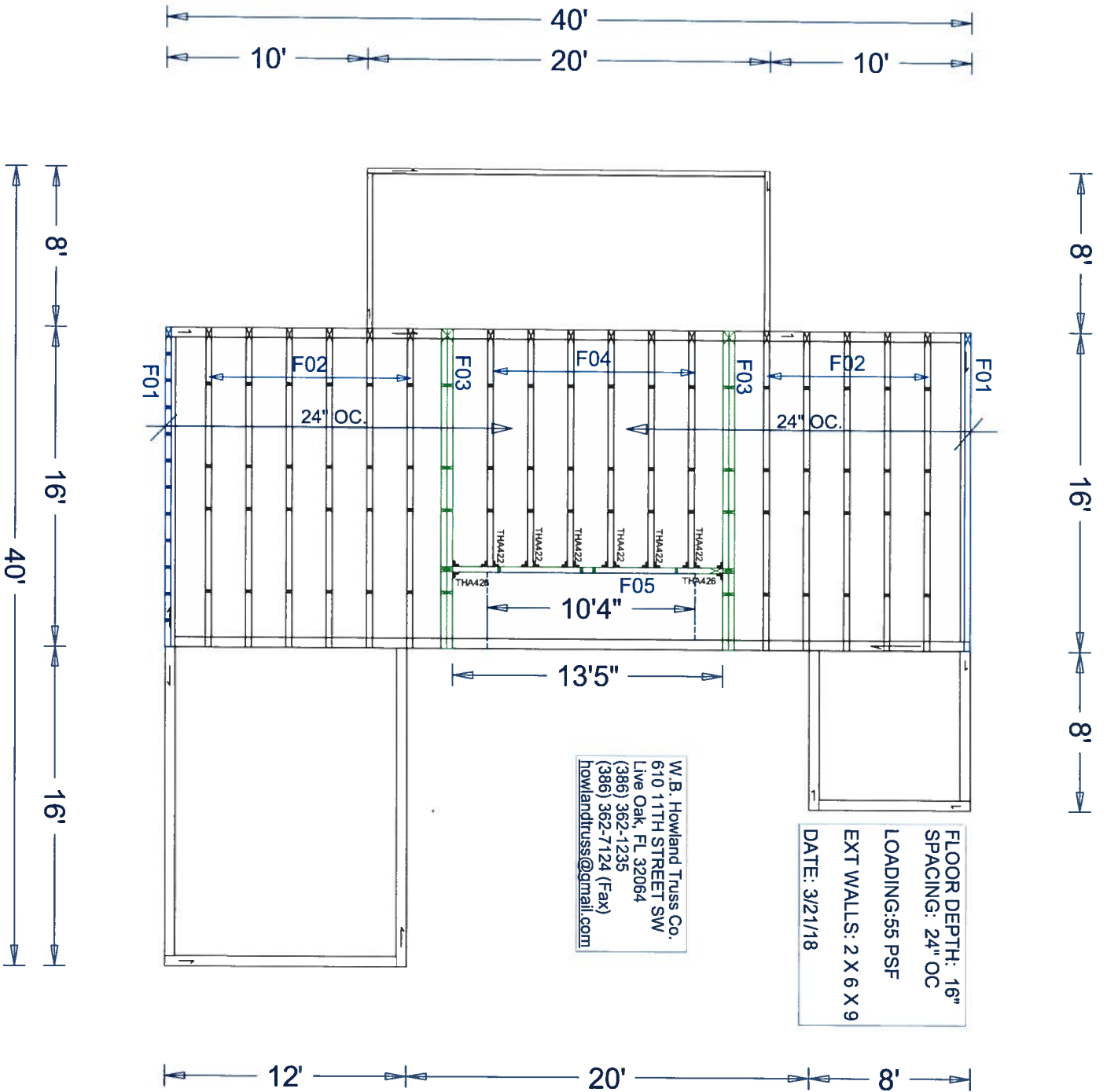
COA #117928 05/22/2018

DUR. FAC. ALL

REF SY42 Connection

DATE 10/01/14

DRWG LSCSYX2A1014



Permit # 36622



 **SCANNED**

Britt Surveying and Mapping, LLC
2086 SW Main Blvd Ste 112 • Lake City, FL 32025
386-752-7163 P • 386-752-5573 F • www.brittsurvey.com

05/02/18

L-25214

Re: Lot 15 Hawks Ridge

K & H Framing, Inc

To Whom It May Concern:

There is a benchmark set in a 30" oak tree and is determined to be 62.00 feet. The natural ground elevation at the base of the tree is 59.8 feet. The elevations shown are on NAVD 88 datum.

Sincerely,

A handwritten signature in blue ink, appearing to read "L. Scott Britt", is written over the word "Sincerely,".

L. Scott Britt
LS 5757