



**COLUMBIA COUNTY BUILDING DEPARTMENT  
RESIDENTIAL CHECK LIST**

**MINIMUM PLAN REQUIREMENTS: FLORIDA BUILDING CODE RESIDENTIAL 2014 EFFECTIVE 1 JULY 2015  
AND THE NATIONAL ELECTRICAL 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 7/1/15**

<b>GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</b>		<b>Items to Include- Each Box shall be Circled as Applicable</b>		
		<b>Yes</b>	<b>No</b>	<b>N/A</b>
1	Two (2) complete sets of plans containing the following:	<input checked="" type="checkbox"/>		
2	All drawings must be clear, concise, drawn to scale, details that are not used shall be marked void	<input checked="" type="checkbox"/>		
3	Condition space (Sq. Ft.)      Total (Sq. Ft.) under roof	IIIIIIII	IIIIIIII	IIIIII

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	<input checked="" type="checkbox"/>		
5	Dimensions of all building set backs	<input checked="" type="checkbox"/>		
6	Location of all other structures (include square footage of structures) on parcel, existing or proposed well and septic tank and all utility easements.	<input checked="" type="checkbox"/>		
7	Provide a full legal description of property.	<input checked="" type="checkbox"/>		

**Wind-load Engineering Summary, calculations and any details are required.**

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

**Elevations Drawing including:**

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

**Floor Plan including:**

20	Dimensioned area plan showing rooms, attached garage, breeze ways, covered porches, deck, balconies	X		
21	Raised floor surfaces located more than 30 inches above the floor or grade			N/A
22	All exterior and interior shear walls indicated	X		
23	Shear wall opening shown (Windows, Doors and Garage doors)	X		
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.	X		
25	Safety glazing of glass where needed	X		
26	Fireplaces types (gas appliance) (vented or non-vented) or wood burning with Hearth (see chapter 10 and chapter 24 of FBCR)			N/A
27	Show stairs with dimensions (width, tread and riser and total run) details of guardrails, Handrails			N/A
28	Identify accessibility of bathroom (see FBCR SECTION 320)	X		

**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)**

<b>GENERAL REQUIREMENTS:</b> <b>APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL</b>		Items to Include- Each Box shall be Circled as Applicable
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**FBCR 403: Foundation Plans**

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

**FBCR 506: CONCRETE SLAB ON GRADE**

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

**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	X		
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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	X		
38	Show all Lintel sizes, type, spans and tie-beam sizes and spacing of reinforcement	X		

**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			N/A
40	Show conventional floor joist type, size, span, spacing and attachment to load bearing walls, stem walls and/or piers			N/A
41	Girder type, size and spacing to load bearing walls, stem wall and/or piers			N/A
42	Attachment of joist to girder			N/A
43	Wind load requirements where applicable	X		
44	Show required under-floor crawl space			N/A
45	Show required amount of ventilation opening for under-floor spaces			N/A
46	Show required covering of ventilation opening			N/A
47	Show the required access opening to access to under-floor spaces			N/A
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**

GENERAL REQUIREMENTS: APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL		Items to Include- Each Box shall be Circled as Applicable		
		YES	NO	N/A

52	Stud type, grade, size, wall height and oc spacing for all load bearing or shear walls	X		
53	Fastener schedule for structural members per table IRC 602.3 are to be shown	X		
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	X		
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	X		
56	Show sizes, type, span lengths and required number of support jack studs, king studs for shear wall opening and girder or header per FBCB 2308.9.5	X		
57	Indicate where pressure treated wood will be placed	X		
58	Show all wall structural panel sheathing, grade, thickness and show fastener schedule for structural panel sheathing edges & intermediate areas	X		
59	A detail showing gable truss bracing, wall balloon framing details or/ and wall hinge bracing detail	X		

**FBCR :ROOF SYSTEMS:**

60	Truss design drawing shall meet section FBCR 802.1.7.1 Wood trusses	X		
61	Include a layout and truss details, signed and sealed by Florida Professional Engineer	X		
62	Show types of connector's assemblies' and resistance uplift rating for all trusses and rafters	X		
63	Show gable ends with rake beams showing reinforcement or gable truss and wall bracing details	X		
64	Provide dead load rating of trusses	X		

**FBCR 802:Conventional Roof Framing Layout**

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

**FBCR 803 ROOF SHEATHING**

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

## ROOF ASSEMBLIES FRC Chapter 9

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

## FBCR Energy Conservation R.401

Residential construction shall comply with this code by using the following compliance methods in the Residential buildings compliance methods. **Two of the required forms are to be submitted, R 402-2014 As an alternative to the computerized Compliance Method A, the Alternate Residential Point System Method hand calculation, Alternate Form R 402-2014, may be used. All requirements specific to this calculation are located in Sub appendix C to Appendix G. Buildings complying by this alternative shall meet all mandatory requirements of this chapter. Computerized versions of the Alternate Residential Point System Method shall not be acceptable for code compliance.**

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

## HVAC information

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

## Plumbing Fixture layout shown

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

## Private Potable Water

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

## Electrical layout shown including

85	Show Switches, receptacles outlets, lighting fixtures and Ceiling fans	X		
86	Show all 120-volt, single phase, 15- and 20-ampere branch circuits outlets required to be protected by <b>Ground-Fault Circuit Interrupter (GFCI) Article 210.8 A</b>	X		
87	Show the location of smoke detectors & Carbon monoxide detectors	X		
88	Show service panel, sub-panel, location(s) and total ampere ratings	X		
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	X		
90	Appliances and HVAC equipment and disconnects	X		
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 <b>Combination arc-fault circuit interrupter</b> , Protection device. NEC 210.12A	X		



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**THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS**

		YES	NO	N/A
92	<b>Building Permit Application</b> A current Building Permit Application is to be completed, by following the Checklist all supporting documents must be submitted. There is a <b>\$15.00</b> application fee. The completed application with attached documents and application fee can be mailed.	X		
93	<b>Parcel Number</b> The parcel number (Tax ID number) from the Property Appraisers Office (386) 758-1083 is required. A copy of property deed is also required. <a href="http://www.columbiacountyfla.com">www.columbiacountyfla.com</a>	X		
94	<b>Environmental Health Permit or Sewer Tap Approval</b> A copy of a approved Columbia County Environmental Health (386) 758-1058			
95	<b>City of Lake City</b> A City Water and/or Sewer letter. Call 386-752-2031			N/A
96	<b>Toilet facilities shall be provided for all construction sites</b>	X		
97	<b>Town of Fort White</b> (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.			N/A
98	<b>Flood Information:</b> 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			N/A
99	<b>CERTIFIED FINISHED FLOOR ELEVATIONS</b> 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.	X		
100	A Flood development permit is also required for AE, Floodway & AH. Development permit cost is <b>\$50.00</b>			N/A
101	<b>Driveway Connection:</b> If the property does not have an existing access to a public road, then an application for a culvert permit ( <b>\$25.00</b> ) 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 ( <b>\$50.00</b> ) 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.	X		
102	<b>911 Address:</b> An application for a 911 address must be applied for and <b>received</b> through the Columbia County Emergency Management Office of 911 Addressing Department (386) 758-1125.	X		

**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:**

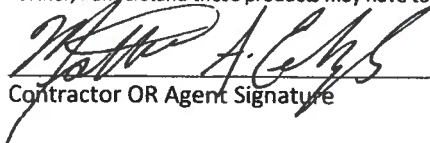
When the application is approved for permitting the applicant will be notified by phone as to the status by the Columbia County Building & Zoning Department.

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](http://www.floridabuilding.org)

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
<b>1. EXTERIOR DOORS</b>			
A. SWINGING	Masonite	Fiberglass Ext. Door w/Composite Jm	FL4334-R9
B. SLIDING			
C. SECTIONAL/ROLL UP			
D. OTHER			
<b>2. WINDOWS</b>			
A. SINGLE/DOUBLE HUNG	Magnolia	Vinyle Single Hung w/low E Glass	FL16475-R2
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
<b>3. PANEL WALL</b>			
A. SIDING			
B. SOFFITS	Kaycan	Alum. Soffets	FL16503-R1
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
<b>4. ROOFING PRODUCTS</b>			
A. ASPHALT SHINGLES	Certaainted	30 YR Architectural	FL5444-R8
B. NON-STRUCT METAL			
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER			
<b>5. STRUCT COMPONENTS</b>			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES	Alpine	Truss Plates	FL1999-3
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
<b>6. NEW EXTERIOR ENVELOPE PRODUCTS</b>			

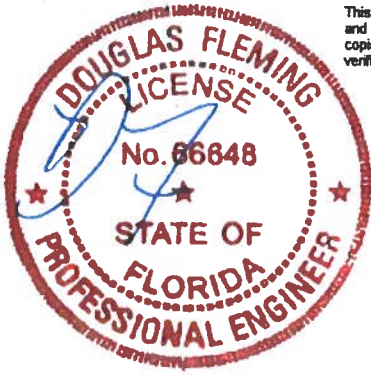
The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) performance characteristics which the product 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.

  
Contractor OR Agent Signature

Date

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
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This document has been electronically signed and sealed using a Digital Signature. Printed copies without an original signature must be verified using the original electronic version.



Alpine, an ITW Company  
6750 Forum Drive, Suite 305  
Orlando, FL 32821  
Phone: (800)755-6001  
www.alpineitw.com

COA #0 278  
12/26/2019

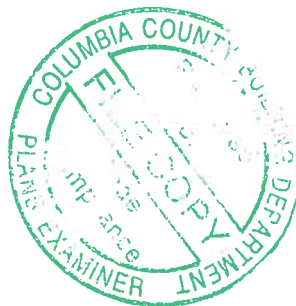
Site Information:	Page 1:
Customer: Seminole Trusses, Inc.	Job Number: B50568a
Job Description: -Bullard Carport Erkinger Home Builders	
Address: 182 Crystal Glen, LAKE CITY, FL	

Job Engineering Criteria:
Design Code: FBC 2017 RES
IntelliVIEW Version: 18.02.01A
JRef #: 1WRd8570002
Wind Standard: ASCE 7-10      Wind Speed (mph): 130
Roof Load (psf): 20.00- 7.00- 0.00-10.00
Building Type: Closed
Floor Load (psf): None

This package contains general notes pages, 1 truss drawing(s) and 3 detail(s).

Item	Drawing Number	Truss
1	360.19.1256.08397	T-1
3	PB180160118	

Item	Drawing Number	Truss
2	PB160160118	
4	REPCHRD1014	





## **General Notes**

### **Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:**

The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AF&PA. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

### **Temporary Lateral Restraint and Bracing:**

Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

### **Permanent Lateral Restraint and Bracing:**

The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed and detailed by the Building Designer.

### **Connector Plate Information:**

Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at [www.icc-es.org](http://www.icc-es.org).

## **General Notes** (continued)

### **Key to Terms:**

Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

BCDL = Bottom Chord standard design Dead Load in pounds per square foot.

BCLL = Bottom Chord standard design Live Load in pounds per square foot.

Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.

HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.

HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.

HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.

L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.

L/defl = ratio of Length between bearings, in inches, divided by the immediate vertical Deflection, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.

Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.

Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.

Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.

Max Web CSI = Maximum bending and axial Combined Stress Index for Webs for of all load cases.

NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.

PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.

PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds

PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.

PP = Panel Point.

R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).

Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).

TCDL = Top Chord standard design Dead Load in pounds per square foot.

TCLL = Top Chord standard design Live Load in pounds per square foot.

U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.

VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.

VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.

W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.

Uppercase Acronyms not explained above are as defined in TPI 1.

### **References:**

1. AF&PA: American Forest & Paper Association, 1111 19<sup>th</sup> Street, NW, Suite 800, Washington, DC 20036; [www.afandpa.org](http://www.afandpa.org).

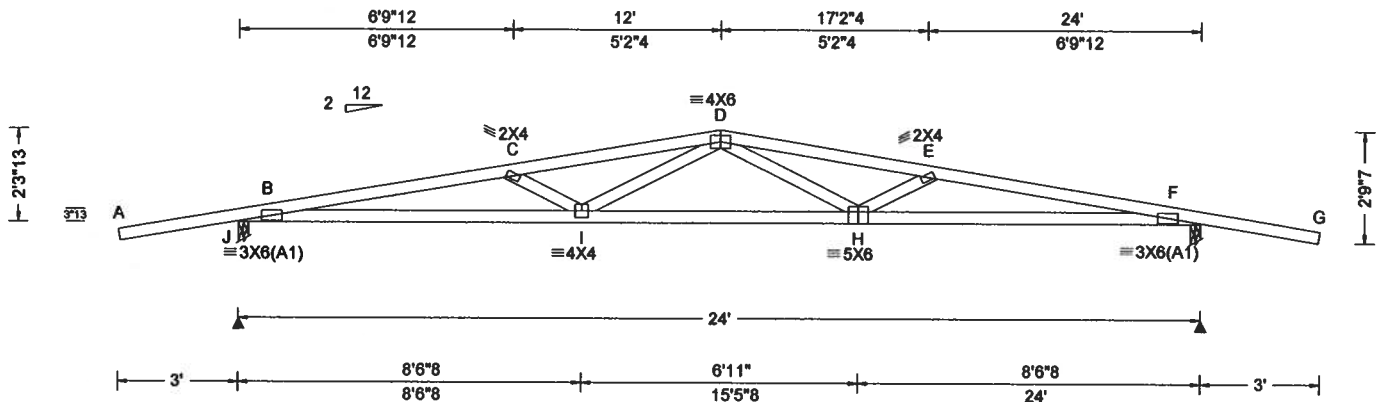
2. ICC: International Code Council; [www.iccsafe.org](http://www.iccsafe.org).

3. Alpine, a division of ITW Building Components Group Inc.: 13723 Riverport Drive, Suite 200, Maryland Heights, MO 63043; [www.alpineitw.com](http://www.alpineitw.com).

4. TPI: Truss Plate Institute, 218 North Lee Street, Suite 312, Alexandria, VA 22314; [www.tpinst.org](http://www.tpinst.org).

5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; [www.sbcindustry.co](http://www.sbcindustry.co)

SEQN: 56064 FROM: CVB	COMN Qty: 13	Ply: 1 Job Number: B50568a -Bullard Carport Erkinger Home Builders Truss Label: T-1	Cust: R 857 JRef: 1WRd8570002 T1 DrwNo: 360.19.1256.08397 SSB / DF 12/26/2019
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-10 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 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  <b>Code / Misc Criteria</b> Bldg Code: FBC 2017 RES TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.369 D 773 240 VERT(CL): 0.647 D 440 180 HORZ(LL): 0.061 H - - HORZ(TL): 0.107 H - - Creep Factor: 2.0 Max TC CSI: 0.998 Max BC CSI: 0.680 Max Web CSI: 0.278  VIEW Ver: 18.02.01A.0205.20	<b>Maximum Reactions (lbs)</b> Gravity Loc R+ /R- /Rh /Rw /U /RL Non-Gravity Loc R+ /R- /Rh /Rw /U /RL J 1052 - /- /- /528 /341 /19 F 1052 - /- /- /528 /341 - Wind reactions based on MWFRS J Brg Width = 3.0 Min Req = 1.5 F Brg Width = 3.0 Min Req = 1.5 Bearings J & F are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 1769 -3487 D - E 1560 -3152 C - D 1559 -3153 E - F 1770 -3486

#### Lumber

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

#### Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

#### Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	34	-2.98	12.00
TC	34	12.00	26.98

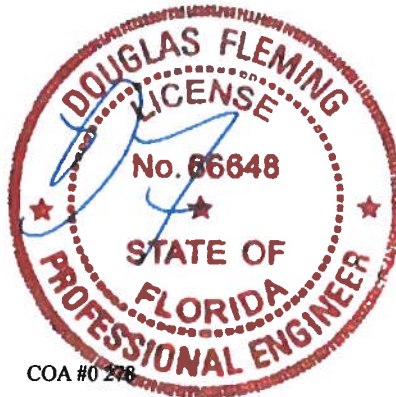
Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

#### Wind

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

#### Additional Notes

Refer to General Notes for additional information



COA #0 278

12/26/2019

#### Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
--------	------------	--------	-------------

B - I	3417 -1686	H - F	3416 -1687
I - H	2473 -1211		

#### Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
------	------------	------	-------------

C - I	296 -392	D - H	724 -266
I - D	729 -264	H - E	295 -393

**\*\*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-2 for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, 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](http://www.alpineitw.com); TPI: [www.tpinet.org](http://www.tpinet.org); SBCA: [www.sbcindustry.com](http://www.sbcindustry.com); ICC: [www.iccsafe.org](http://www.iccsafe.org)

**ALPINE**  
ANTHONY COMPANY  
6750 Forum Drive  
Suite 305  
Orlando FL, 32821

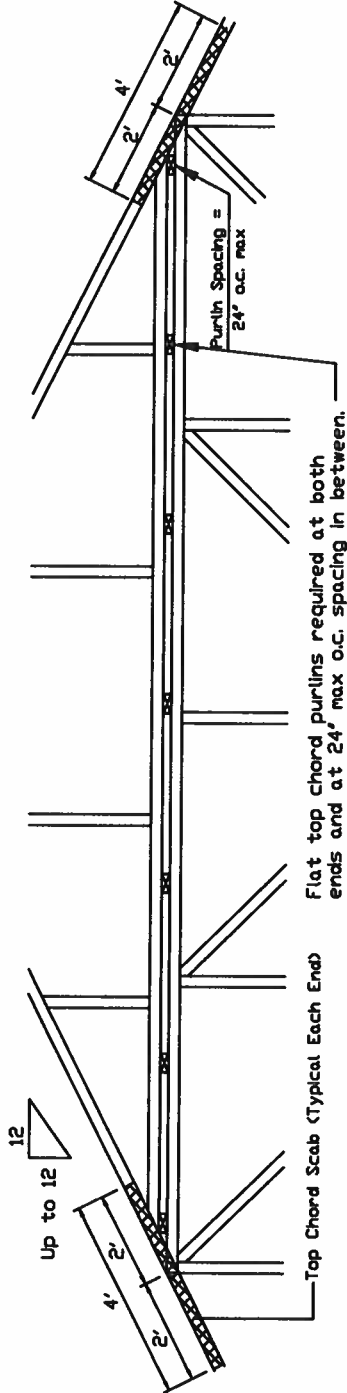
# Piggyback Detail - ASCE 7-16: 160 mph, 30' Mean Height, Enclosed, Exposure C, Kzt=1.00

160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg, located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0, or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg, located anywhere in roof, Exp D, Wind DL= 5.0 psf (min), Kzt=1.0.

Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends. Maximum truss spacing is 24' o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

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

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



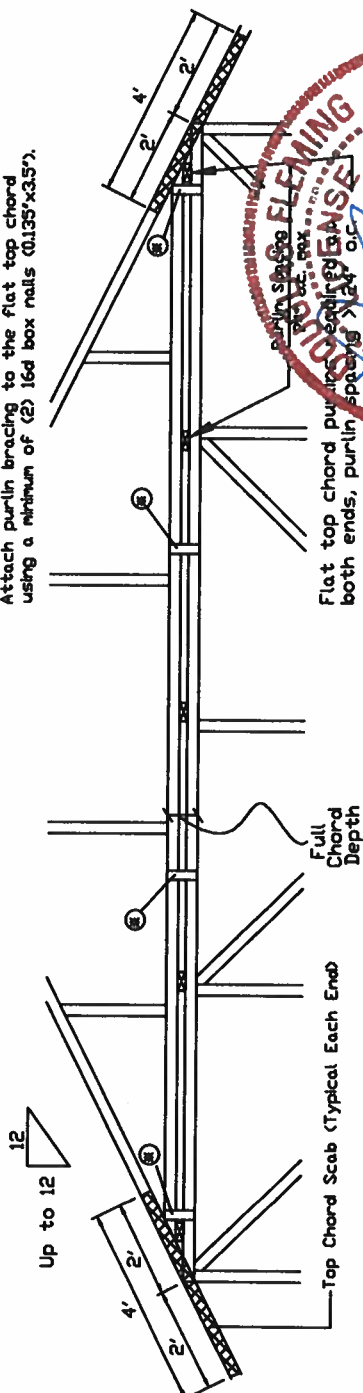
Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135" x 3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128" x 3.5") at 4' o.c.

Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135" x 3.5").

The top chord #3 grade 2x4 scab may be replaced with either of the following: (1) 3X8 Trulox plate attached with (8) 0.120" x 1.375" nails, (4) into cap TC & (4) into base truss TC or (1) 28P8 wave piggyback plate attached to the piggyback truss TC and attached to the base truss TC with (4) 0.120" x 1.375" nails. Note: Nailing thru holes of wave plate is acceptable.

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

Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135" x 3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128" x 3.5") at 4' o.c. Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135" x 3.5").



Note: If purlins or sheathing are not specified on the flat top of the truss, purlins must be installed at 24' o.c. max. and use Detail A.

APA Rated Gusset 8"x8"x7/16" (min) APA rated sheathing gussets (0.135" x 3.5") Attach 8" o.c. (min) (8) 0.120" x 1.375" nails per gusset. (4) into base truss top chord and (4) into base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.

2x4 Vertical Scabs 2x4 SPF #2, full chord depth scabs (each face). Attach 8" o.c. with (6) 10d box nails (0.128" x 3.5") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

28P8 Wave Piggyback Plate 28P8 wave piggyback plate to each face 8" o.c. Attach teeth to piggyback at time of (4) 0.120" x 1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.

REF PIGGYBACK DATE 01/02/2018 DRWG PBI60160118

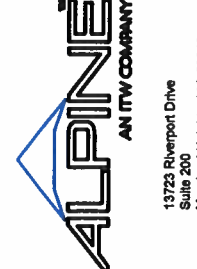
SPACING 24.0'



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 ASCE Guiding Component Safety Information, by TPI and SDOA for safety instructions. Truss components shall be installed in accordance with the design shown. (Unless noted otherwise, top chord shall have permanent lateral bracing for stability and shall have a properly attached rigid ceiling. Locations shown for permanent lateral bracing shall have bracing installed per SDCI sections 82, 87 or 101, as applicable. Apply plates to end of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 1004-2 for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from the design shown. The user of this drawing shall be responsible for obtaining all necessary permits and for ensuring that the design shown is in accordance with all applicable codes and regulations. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The liability and use of this drawing for any structure is the responsibility of the Building Designer per ASCE/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites: ALPINE: www.alpineinc.com TPI: www.tpi.com SDOA: www.sdoa.com









# Cracked or Broken Member Repair Detail

This drawing specifies repairs for a truss with broken chord or web member.

This design is valid only for single ply trusses with 2x4 or 2x6 broken members. No more than one break per chord panel and no more than two breaks per truss are allowed. Contact the truss manufacturer for any repairs that do not comply with this detail.

(B) = Damaged area, 12" max length of damaged section

(L) = Minimum nailing distance on each side of damaged area (B)

(S) = Two 2x4 or two 2x6 side members, same size, grade, and species as damaged member. Apply one scab per face. Minimum side member length(s) = (2xL) + (B)

Scab member length (S) must be within the broken panel.

Nail into 2x4 members using two (2) rows at 4' o.c., rows staggered.

Nail into 2x6 members using three (3) rows at 4' o.c., rows staggered.

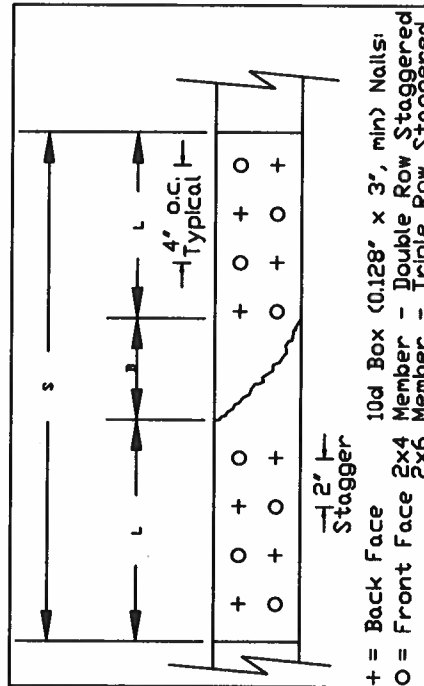
Nail using 10d box or gun nails (0.128"x3", min) into each side member.

The maximum permitted lumber grade for use with this detail is limited to Visual grade #1 and MSR grade 1650f.

This repair detail may be used for broken connector plate at mid-panel splices.

This repair detail may not be used for damaged chord or web sections occurring within the connector plate area.

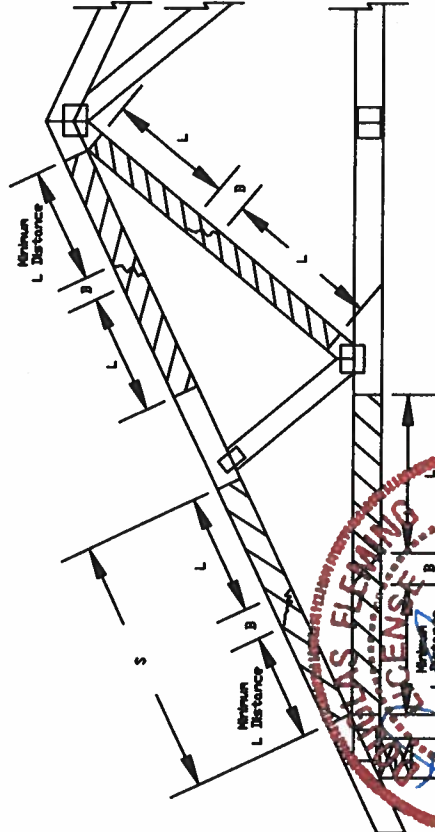
Broken chord may not support any tie-in loads.



Nail Spacing Detail

Load Duration = 0%  
Member forces may be increased for Duration of Load

		Maximum Member Axial Force					
Member	Size	L	SPF-C	HF	DF-L	SYP	
Web Only	2x4	12'	620#	635#	730#	800#	
Web Only	2x4	18'	975#	1055#	1295#	1415#	
Web or Chord	2x4	24'	975#	1055#	1495#	1745#	
Web or Chord	2x6		1465#	1585#	2245#	2620#	
Web or Chord	2x4	30'	1910#	1960#	2315#	2555#	
Web or Chord	2x6		2230#	2365#	3125#	3575#	
Web or Chord	2x4	36'	2470#	2530#	2930#	3210#	
Web or Chord	2x6		3535#	3635#	4295#	4745#	
Web or Chord	2x4	42'	2975#	3045#	3505#	3835#	
Web or Chord	2x6		4395#	4500#	5225#	5725#	
Web or Chord	2x4	48'	3460#	3540#	4070#	4445#	
Web or Chord	2x6		5165#	5280#	6095#	6660#	



13723 Riverport Drive  
Suite 200  
Maryland Heights, MO 63043

Trusses require extreme care in fabricating, handling, shipping, installing, and erecting. The installer shall follow the latest edition of ICC Building Component Safety Information, TPI and ICC ESR-1300 for all practices prior to performing these functions. Installers shall provide temporary bracing and blocking for all trusses noted otherwise, top chord shall have properly attached structural sheathing and blocking above the top chord. A safety checklist shall be completed and signed by the installer for permanent lateral restraint of trusses and blocking installed per ICC ESR-1300. Refer to drawings 1504-2 for standard plate positions.

Above, a division of ITW Building Components Group Inc. shall not be responsible for any device, method, or material used in the construction of a truss system. The user of this drawing assumes full engineering responsibility for the design shown. The suitability and use of this drawing for any structure is the responsibility of the building designer per ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites:  
ALPINE: [www.alpineinc.com](http://www.alpineinc.com) TPI: [www.tpi.org](http://www.tpi.org) ICC: [www.iccsafe.org](http://www.iccsafe.org)

NO. 66848  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

2/28/2014

SPACING 24.0' MAX

REF MEMBER REPAIR  
DATE 10/01/14  
DRWG REPCRD1014