

SIMPSON

Strong-Tie

Component Solutions™  
Truss  
Version: 4.36 [Build 16]

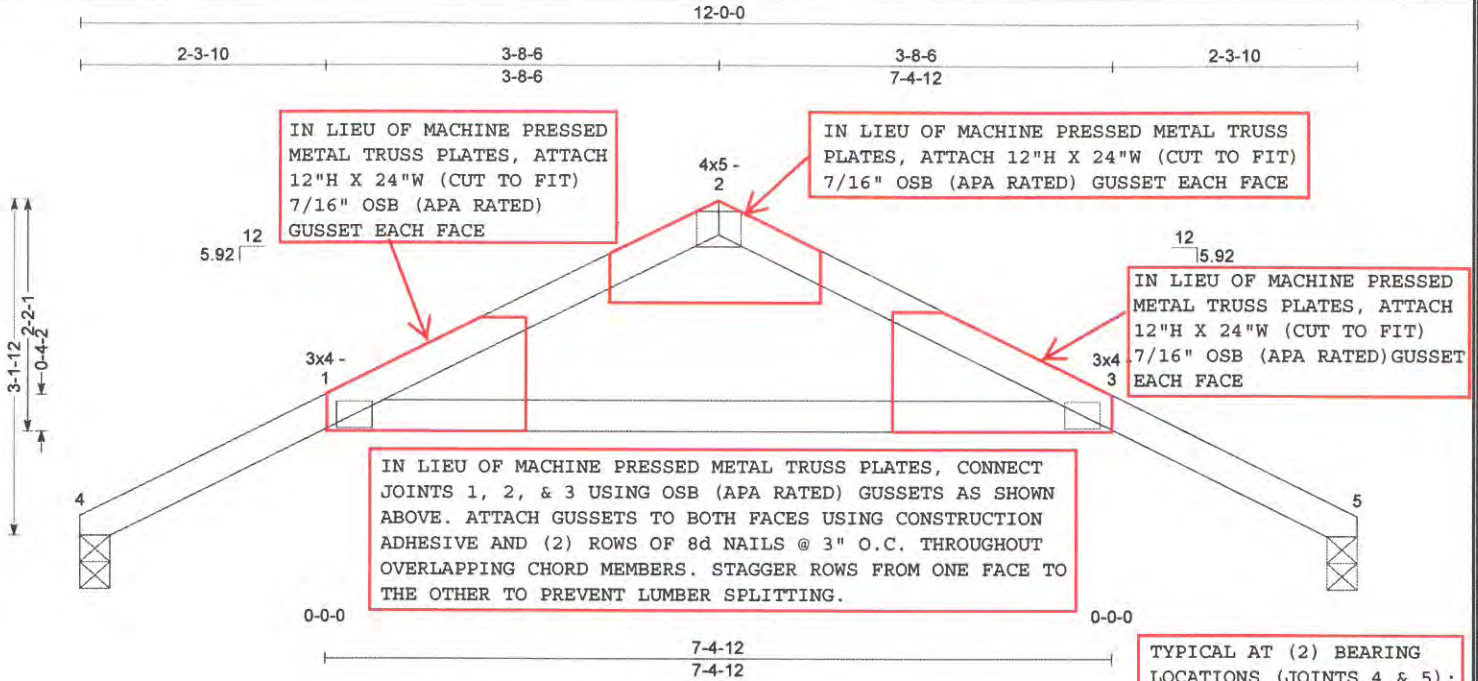
Reynolds Building Systems, Inc.

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Greenville, PA 16125

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Truss: R14C\_CO  
JobName: BestBarn\_R14C  
Designer: KDH  
Date: 4/10/2014 9:39:24 AM  
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Span 7-4-12	Pitch 5.92/12	Qty 2	OHL 2-3-10	OHR 2-3-10	CANT L 0-0-0	CANT R 0-0-0	PLYS 1	Spacing 24 in	WGT/PLY 23 lbs
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Loading	General	CSI Summary	Deflection	L/	(loc)	Allowed
TCLL: 20 psf Gnd Snow (Pg): 40 psf TCDL: 7 psf BCLL: 0 psf BCDL: 10 psf	Bldg Code: IRC 2012/ TPI 1-2007 Rep Mbr Increase: Yes D.O.L.: 125 %	TC: 0.71 (4-1) BC: 0.84 (3-1) Web: 0.00 (1)	Vert TL: 0.02 in Vert LL: 0.01 in Horz TL: 0 in Creep Factor, Kcr = 1.5	L/999	3	L/240 L/360
Plate Offsets (Int:X,Y,Ang): (1-3-5,2-4,0.) (2-0-3-4,0.) (3-3-5,2-4,0.)						

TYPICAL AT (2) BEARING LOCATIONS (JOINTS 4 & 5): PROVIDE CONNECTION TO RESIST THE FOLLOWING LOADS AND FORCES:  
VERTICAL REACTION: 714#  
VERTICAL UPLIFT: 408#  
HORIZONTAL REACTION (THRUST): 1,029#

Reaction Summary

JT	Type	Big Combo	Big Width	Material	Rqd Big Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz.
4	Pin (Wall)	1	3.375 in	Spruce-Pine-Fir	1.96 in	714 lbs	-	-138 lbs	-408 lbs	-408 lbs	1,029 lbs
5	Pin (Wall)	1	3.375 in	Spruce-Pine-Fir	1.96 in	714 lbs	-	-138 lbs	-408 lbs	-408 lbs	546 lbs

Material Summary

TC SPF #2 2 x 4  
BC SPF #2 2 x 4  
Webs

Bracing Summary

TC Bracing Sheathed or Purlins at 4-0-0, Purlin design by Others.  
BC Bracing Sheathed or purlins at 66" o.c., Purlin design by Others.

Loads Summary

- This truss has been designed for the effects of a balanced design snow load (Ps = 33.6 psf) and unbalanced design snow loads (5.92/12, 10.1 psf wind, 33.6 psf lee, 24.9 psf lee over peak to 6 ft) for hips/gables in accordance with ASCE7 - 10 with the following user defined input: 40 psf ground snow load (Pg), Terrain Category C, Exposure Category Partially Exposed (C<sub>e</sub> = 1.0), Building Category II (I = 1.0), Thermal Condition Unheated (C<sub>t</sub> = 1.2), Roof Slope Factor (C<sub>s</sub> = 1.00), DOL = 1.15. Ventilated.
- This truss has been designed to account for the effects of ice dams forming at the eaves.
- This truss has been designed for the effects of wind loads in accordance with ASCE7 - 10 with the following user defined input: 120 mph ultimate, Exposure C, Overall Bldg Dims 12 ft x 16 ft, h = 15 ft, End Zone Truss, Both end webs considered, DOL = 1.60, CC Zone Width 3 ft.
- In addition to the snow loading specified on this drawing, this truss has also been designed for a roof live load (TCLL) of 20 psf.
- Minimum storage attic loading in accordance with IRC Table R301.5 has been applied.

Member Forces Summary

Table indicates: Member ID, max CSI, max axial force, (max compr force if different from max axial force)												
TC	4-1	0.709	-1,239 lbs	1-2	0.495	-865 lbs	2-3	0.495	-865 lbs	3-5	0.709	-1,239 lbs
BC	3-1	0.841	-1,048 lbs									
Webs												

Notes:

- When this truss has been chosen for quality assurance inspection, the Double Polygon Method per TPI 1-2007/Chapter 3 shall be used. Fabrication tolerance = 20 %.
- Multiple pinned bearings exist.
- Listed wind uplift reactions based on MWFRS & C&C loading.
- Bearing material shown in the above table has only been checked for resistance perpendicular to grain, and does not indicate adequacy of material for other design considerations.
- Plate sizes have NOT been checked for minimum sizes for handling of the truss.



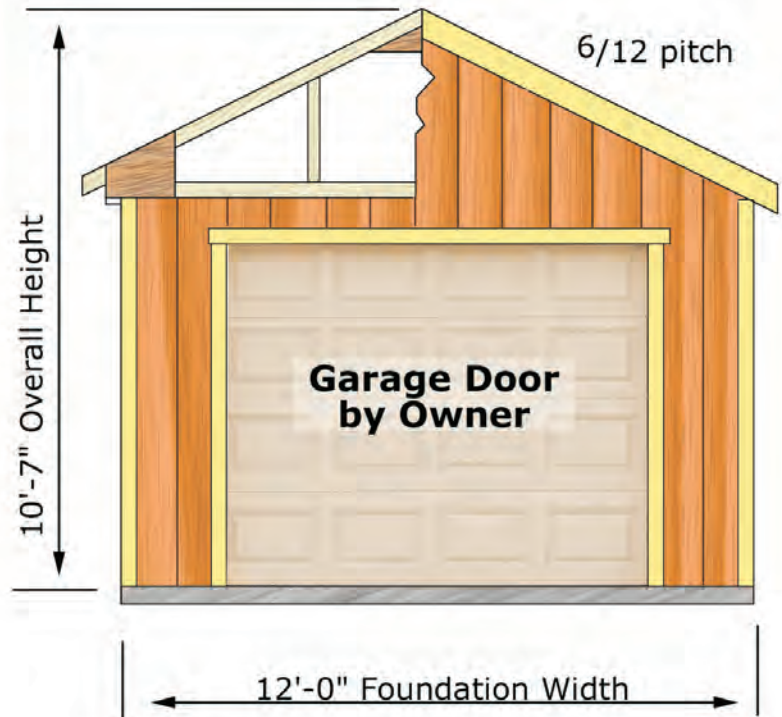
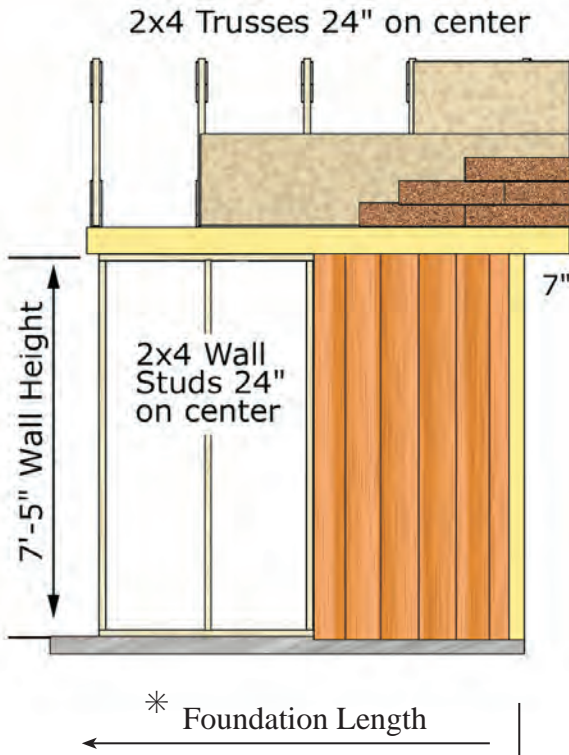
\*NOTICE\* Copy of this design shall be furnished to the erection contractor. The design of this individual truss is based on design criteria and requirements applied by the Truss Manufacturer and relies upon the accuracy and completeness of the information set forth by the Building Designer. A seal on this drawing indicates acceptance of professional engineering responsibility solely for the truss component design shown. The suitability and use of this component for any particular building design is the responsibility of the Building Designer, per ANSI TPI 1-2007 Chapter 2. \*WARNING\* Trusses require proper handling, erection, restraint and bracing. Refer to the latest edition of BCS (Building Component Safety Information) jointly produced by TPI and SBCA for proper installation methods and important safety information relating to the entire construction process. In the absence of specific installation and temporary restraint bracing specifications by others, the installation (including installation tolerances) and temporary restraint bracing of the trusses shall be in accordance with BCSI-D1 and BCSI-D2. Trusses also require permanent restraint bracing of chords and certain web members (where indicated). This drawing only indicates the locations for lateral restraint. The method of individual truss member restraint bracing shall be as specified by the Building Designer per ANSI TPI 1, Chapter 2, if specific truss permanent bracing design is not specified by others, this shall be accomplished by standard industry lateral restraint and diagonal bracing details in accordance with BCSI-B3 or BCSI-B7 as applicable. \*IMPORTANT\* This design assumes the truss is manufactured in accordance with this drawing and the quality criteria specified in ANSI TPI 1 Chapter 3. All connector plates shall be manufactured by Simpson Strong-Tie Company, Inc in accordance with ESR-2762. All connector plates are 20 gage, unless the specified plate size is followed by a "-18" which indicates an 18 gage plate.

Simpson Strong Tie  
2600 International St  
Columbus, OH 43228



Before you order our kit or begin construction, obtain a building permit. If additional documents are required contact Richard@barnkits.com.

## SIERRA ELEVATION



**Foundation:** By owner

**Wall Framing:** Wall studs spaced 24" o.c., designed to meet the international building codes of BOCA, IBC-IRC-2009 Edition.

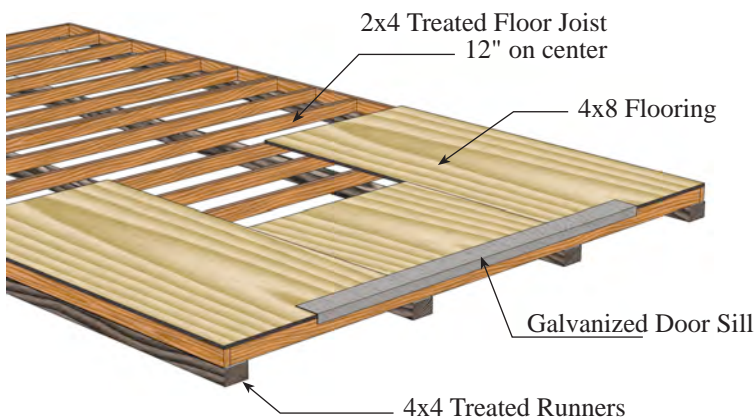
**Siding:** Louisiana-Pacific 'Smart Panel' primed 8" o.c. groove with 50 year warranty.

**Roof System:** 2x4 trusses spaced 24" on center, (40 psf ground snow load, 120 mph wind load). 7/16" OSB roof sheathing. *Shingles by owner.*

**Exterior Trim:** White pine door jamb, trim for door opening, gable trim and sidewall fascia.

**Garage Door:** By Owner.

**Hardware:** Nails for framing, metal hurricane hangers for trusses.



### Optional Sturdy-built Floor System:

2x4 treated floor joist spaced 12" on center covered with 3/4" plywood, *not treated*, installed over 4x4 treated runners. Galvanized door sill and nails are included. Material is not pre-cut.

* 12'x16' Foundation Size	12'-0" x 16'-0"
12'x20' Foundation Size	12'-0" x 20'-0"
12'x24' Foundation Size	12'-0" x 24'-0"