

# Truss Analysis

Sunday, May 1, 2022 9:48 PM

## Dead Load

Shingles	2 psf
1/4" ply	1.2 psf
Total	3.2 psf

## Roof Live Load

Snow Load	17.5 psf
Total	17.5 psf

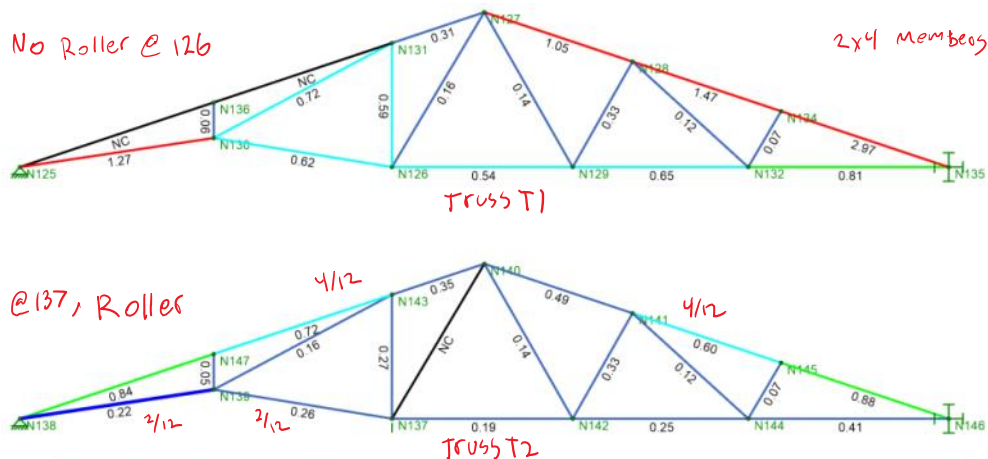
I skimmed as much load as I can.

Truss spans about 37 feet with a 4/12 pitch on top and a 2/12 pitch. Spacing 2'-0". (I was wrong about 30 feet) all 2x4 members

W(dl)	3.2psf*2	6.4 plf (note self weight accounted for in model)
W(ll)	17.5*2	35 plf

Risa model. Pinned all members. Used unbraced length

Top chord	Bottom chord
<b>Design Properties</b> le2, ft: 1 le1, ft: Segment le-bend top, ft: 1 le-bend bot, ft: Segment K y-y: ... K z-z: ...	<b>Design Properties</b> le2, ft: 2 le1, ft: Segment le-bend top, ft: Segment le-bend bot, ft: 2 K y-y: ... K z-z: ...



Envelope Node Displacements					
	Node Label		X [in]	LC	Y [in]
1	N126	max	0.282	2	-0.362
2		min	0.105	1	-0.975
3	N127	max	0.149	2	-0.329
4		min	0.055	1	-0.886
5	N140	max	0.018	2	-0.011
6		min	0.007	1	-0.029

Load Combinations											
Combinations		Design									
LC Generator	Description	Solve	P-Delta	SRSS	BLC	Factor	BLC	Factor	BLC	Factor	BLC
1	IBC 16-8	<input checked="" type="checkbox"/>	Y		DL	1					
2	IBC 16-10...	<input checked="" type="checkbox"/>	Y		DL	1	RLL	1			

Same trusses, just a roller added at N137. Truss is failing, looks like the wall is load bearing, and or not an intentional load bearing wall. Went into the crawl space and the wall looks to be about 32" away from the center beam. what do you guys think?

Pic at node N131 on Truss 1 or N143 on Truss 2



Pic @ node N130 and N139

