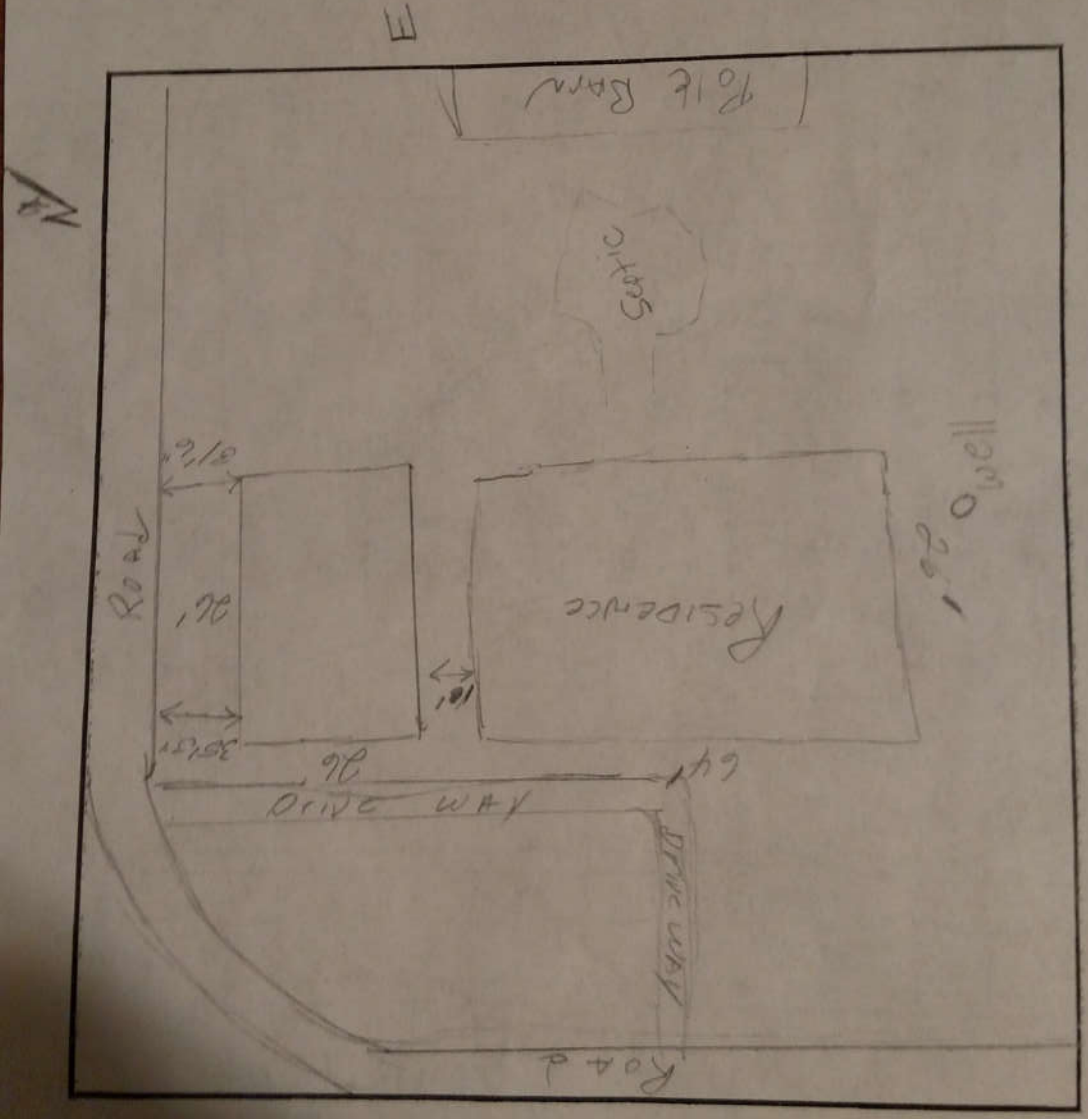
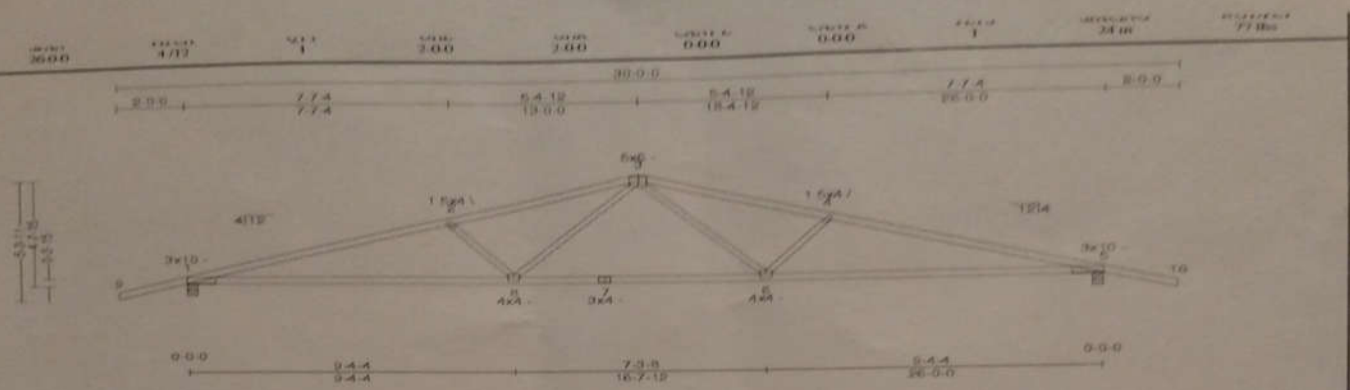
AITKIN COUNTY
BUILDING PERMIT SITE PLAN

Please indicate the location of: Wells, well setback to system components, buildings, septic system components, reserved septic system area, property lines, waterways, and buried lines. Include size, length, and appropriate distances from fixed reference points. Provide a North directional arrow!



MENARDS Design-It Garage



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI Summary		Deflection		L/	(loc)	Allowed
TCLL: 40	Bldg Code:	IRC 2015/ TPI 1-2007	TC:	0.95 (1-2)	Vert TL:	0.56 in	L / 547	(5-6)	L / 180
Snow(Pf/Pg): 42/60	Rep Mbr Increase:	Yes	BC:	0.86 (5-6)	Vert LL:	0.3 in	L / 999	(5-6)	L / 240
TCDL: 10	Lumber D.O.L.:	115 %	Web:	0.72 (3-8)	Horz TL:	0.12 in		5	
BCLL: 0									
BCDL: 10									

Reaction Summary

JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	1	3.5 in	2.85 in	1,820 lbs	-	-	-291 lbs	-291 lbs	-7 lbs
5	1	3.5 in	2.85 in	1,820 lbs	-	-	-291 lbs	-291 lbs	-

Material Summary

TC	SPF 1650/1.5 2 x 4
BC	SPF 1650/1.5 2 x 4
Webs	SPF Stud 2 x 3

Bracing Summary

TC Bracing	Sheathed
BC Bracing	Sheathed or Purlins at 10-0-0, Purlin design by Others

Loads Summary

1) This truss has been designed for the effects of balanced and unbalanced snow loads for hip/gables in accordance with ASCE7 - 10 with the following user defined input: 60 psf ground snow load, Terrain Category B, Exposure Category Fully Exposed (Ce = 0.9), Risk Category II (I = 1.00), Thermal Condition Cold ventilated (Ct = 1.1), DOL = 1.15. Unventilated. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.

2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 10 with the following user defined input: 115 mph (Factored), Exposure B, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, h= 15 ft, End Zone Truss, Both end webs considered. DOL= 1.60
4) Minimum storage attic loading has been applied in accordance with IRC 301.5

Member Forces Summary

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC	1-2	0.946	-3,748 lbs		3-4	0.743	-3,303 lbs								
	2-3	0.743	-3,303 lbs		4-5	0.946	-3,748 lbs								
BC	1-8	0.880	3,458 lbs	(288 lbs)	8-6	0.595	2,399 lbs	(140 lbs)	6-5	0.880	3,458 lbs	(288 lbs)			
Webs	2-8	0.364	-903 lbs		3-8	0.755	1,198 lbs	(-65 lbs)	3-6	0.755	1,198 lbs	(-65 lbs)	4-6	0.364	-903 lbs

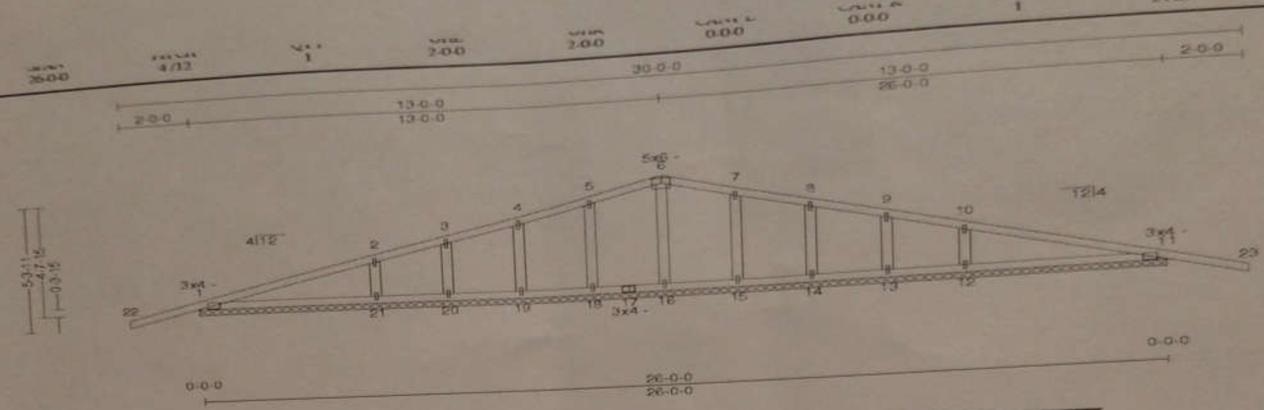
JSI Summary

1 = 0.89, 2 = 0.65, 3 = 0.72, 4 = 0.65, 5 = 0.89, 6 = 0.89, 7 = 0.99, and 8 = 0.89

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) When this truss has been chosen for quality assurance inspection, the Double Polygon Method per TPI 1-2007/Chapter 3 shall be used.
3) The fabrication tolerance for this roof truss is 0 % (Cq = 1.00)
4) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
5) Creep has been considered in the analysis of this truss.
6) Listed wind uplift reactions based on MWFRS & C&C loading.

26-0-0	4/12	1	2-0-0	2-0-0	0-0-0	0-0-0	1	24 in	89 lbs



All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General	CSI Summary	Deflection		L/	(loc)	Allowed
TCLL: 42	Bldg Code: IRC 2012/ TPI 1-2007	TC: 0.77 (11-23)	Vert TL:	0.02 in	L/999	(11-12)	L/180
Snow(Pf/Pg): 42/60	Rep Mbr Increase: No	BC: 0.15 (21-1)	Vert LL:	0 in	L/999	12	L/240
TCDL: 10	Lumber D.O.L.: 115 %	Web: 0.10 (10-12)	Horz TL:	0 in			
BCLL: 0							
BCDL: 10							

Reaction Summary

Brg Combo	Brg Width	Max React	Ave React	Max Grav Uplift	Max MWFRS Uplift	Max C&C Uplift	Max Uplift	Max Horiz
1	-	553 lbs	161 plf	-	-5 lbs	-147 lbs	-147 lbs	-128 lbs

Material Summary

TC	SPF #2 2x4
BC	SPF #2 2x4
Webs	SPF Stud 2x4

Bracing Summary

TC Bracing	Sheathed or Purlins at 6-3-0, Purlin design by Others.
BC Bracing	Sheathed or Purlins at 10-0-0, Purlin design by Others.

Loads Summary

1) This truss has been designed for the effects of balanced and unbalanced snow loads for hips/gables in accordance with ASCE7 - 10 with the following user defined input: 60 psf ground snow load, Terrain Category B, Exposure Category Fully Exposed (Ce = 0.9), Risk Category II (I = 1.00), Thermal Condition Cold ventilated (Ct = 1.1), DOL = 1.15. Ventilated. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.

2) This truss has been designed to account for the effects of ice dams forming at the eaves.

3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 10 with the following user defined input: 115 mph (Factored), Exposure B, Enclosed, Gable/Hip, Risk Category II, Overall Bldg Dims 25 ft x 60 ft, b= 15 ft, End Zone Truss, Both end webs considered. DOL = 1.60

Member Forces Summary

Table indicates: Member ID, max CSI, max axial force, (max compr. force if different from max axial force). Only forces greater than 300lbs are shown in this table.

TC						
BC						
Webs	2-21	0.101	-443 lbs	10-12	0.101	-443 lbs
	4-19	0.084	-303 lbs			
	8-14	0.084	-303 lbs			

JSI Summary

1 = 0.48, 2 = 0.76, 3 = 0.55, 4 = 0.55, 5 = 0.55, 6 = 0.25, 7 = 0.55, 8 = 0.55, 9 = 0.55, 10 = 0.76, 11 = 0.48, 12 = 0.79, 13 = 0.57, 14 = 0.57, 15 = 0.57, 16 = 0.57, 17 = 0.37, 18 = 0.57, 19 = 0.57, 20 = 0.57, and 21 = 0.79

Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable requires continuous bottom chord bearing.
3) Gable webs placed at 24 " OC, U.N.O.
4) Attach gable webs with 1x4 20ga plates, U.N.O.
5) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
6) When this truss has been chosen for quality assurance inspection, the Double Polygon Method per TPI 1-2007/Chapter 3 shall be used.
7) The fabrication tolerance for this roof truss is 10 % (Cq = 0.90).
8) Creep has been considered in the analysis of this truss.
9) Listed wind uplift reactions based on MWFRS & C&C loading.

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