

B5 Truss Damage, Jobsite Modifications and Installation Errors

Daño a los Truss, Modificaciones en la Obra y Errores de Instalación

- ✓ Every truss is made up of lumber, connector plates and carefully executed engineering design and manufacturing.

Cada truss está hecho de madera, lámina de conexión, y con ingeniería ejecutada muy cuidadosamente.

- ⚠ Damage, jobsite modifications or improper installation will reduce the strength of a truss. Contact the Truss Manufacturer or a Design Professional to remedy the condition.

Daño, modificaciones en la obra, o instalación impropia puede reducir la fortaleza de el truss. Pongase en contacto con el fabricante de los trusses o un profesional de diseño para remediar el problema.



Do not cut truss webs. This condition needs a repair.
*No corte a los miembros secundarios de trusses.
Esta condición necesita una reparación.*

FOLLOW THESE STEPS TO CORRECT DAMAGE, MODIFICATIONS AND ERRORS

SIGA ESTOS PASOS PARA CORREGIR DANO, MODIFICACIONES Y ERRORES

1. Report damage, alterations or installation errors to the Truss Manufacturer immediately. Failure to report may void any warranties.

Reporte daño, alteraciones o errores de instalacion a el fabricante de los trusses inmediatamente. Falta de reportarlo puede poner en nulo la garantía.

2. Do not attempt to repair the truss without a Repair Truss Design Drawing (RTDD) from the Truss Manufacturer or a Design Professional.

No intente reparar el truss sin un dibujo de reparo de el diseño de truss (RTDD) de el fabricante de los trusses o un profesional de diseño.

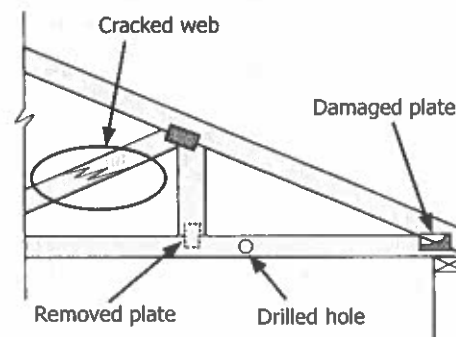
3. Follow the RTDD exactly and keep a copy on hand; the Building Official, Building Designer or Owner may ask for this document.

Siga el dibujo de reparo de el diseño de truss (RTDD) exactamente y siempre tenga una copia a mano; el oficial de edificio, diseñador de edificio, u el dueño puede pedirlo en cualquier momento.

4. If a RTDD is not for the exact field condition or cannot be accomplished, inform the Truss Manufacturer or Design Professional.

Si el dibujo de reparo de el diseño de truss (RTDD) no es para la condición exacta, o no puede ser logrado, informe el fabricante de truss o profesional de diseño.

Examples of Damage or Alterations *Ejemplos de Daño u Alteraciones*



COMMON REPAIR TECHNIQUES

TECNICAS COMUNES DE REPARO

- ✓ Plywood or oriented strand board (OSB) gussets over damaged plates or joints.
Madera contrachapada u (OSB) escudese sobre láminas dañadas o ensambladura.

- ✓ Metal nail-on plates.

Láminas de metal que se clavan.

- ✓ Lumber scabs or repair frames over broken chords or webs.

Scabs de madera o armazón de reparo sobre cuerdas o miembros secundarios quebrados.

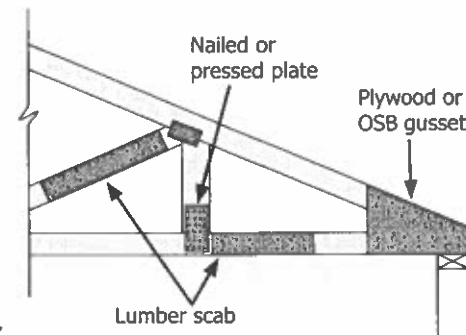
- ✓ Truss plates applied by a portable press.

Láminas de truss aplicadas por una prensa portátil.

There are no "standard" repair details; they are generated on a case-by-case basis.

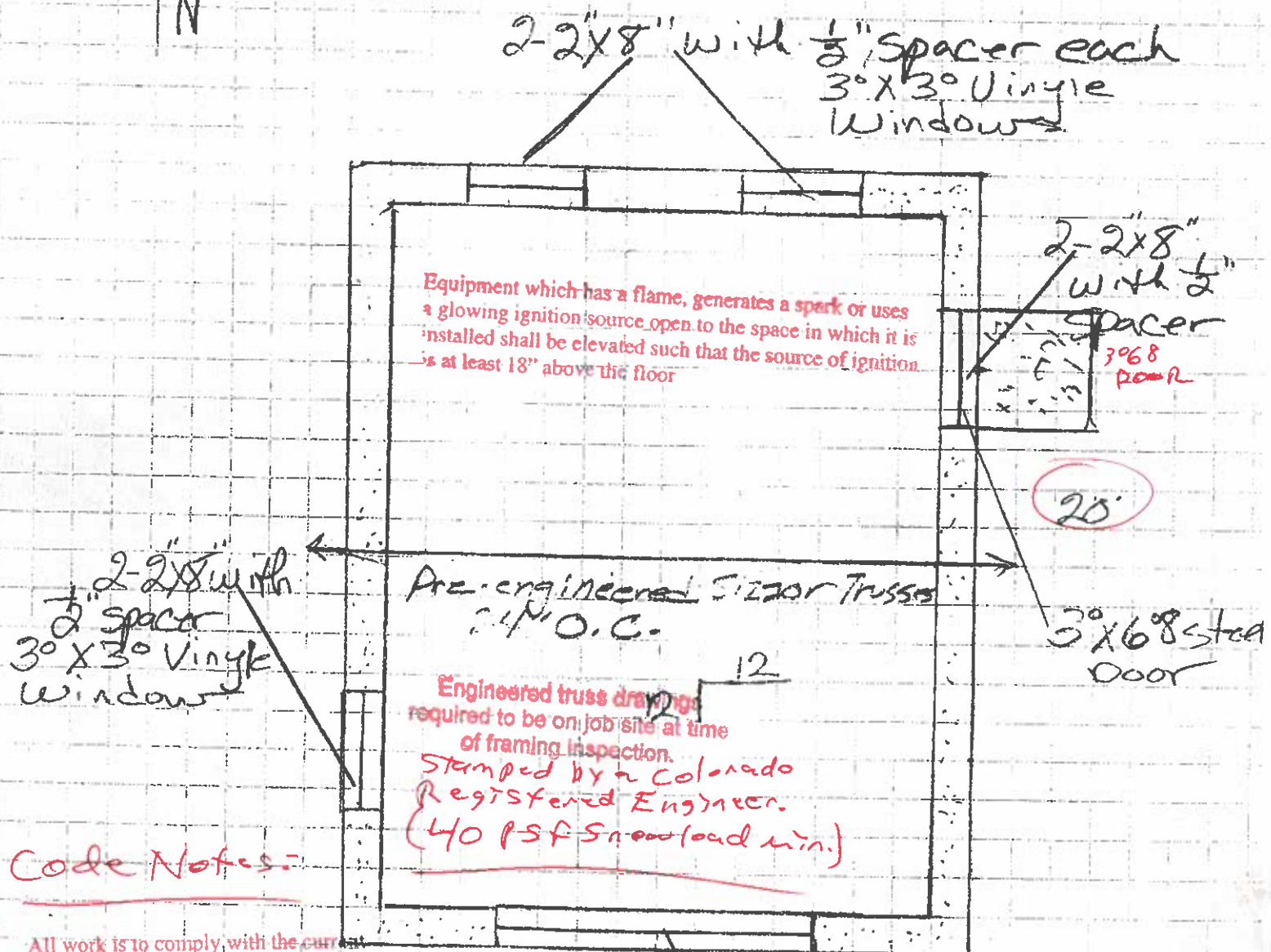
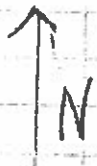
No hay un "standard" de detalles de reparo; son generados en basis de caso por caso.

Examples of Repairs *Ejemplos de Reparos*



Roof and Floor Plan 6215 Mill Creek Road

Scale $\frac{1}{4}" = 1 \text{ foot}$



Code Notes:

All work is to comply with the current Building, Mechanical, and Plumbing Codes as amended and adopted by Larimer County 2003 I.R.C.

Electrical not reviewed by Larimer County. A separate permit and review required from Colorado State Electrical Board.

2005 NEC, if any electrical work is done

Provide sway bracing at all corners and every 25 feet of wall.

Tempered glass is required when glazing is within 5 foot of a tub bottom, within 2 foot of a doorway, within 18 inches of finished floor and over 9 square feet in size or in the enclosing walls of stairway landings.

No foam or paper faced insulation is to be left exposed. Facings on other insulations left exposed must meet

7/8" O.S.B.
with 30# felt and
Class A Fiberglass
shingles or
metal roofing

12" 12" Pitch

Pre-engineered Sissor
Trusses 2' O.C.
40 psf snow load.

Metal connectors
each end of each truss.

7/8" O.S.B. Sheeting
Hard board siding

9'

2x4 walls 16" O.C.

Treated 2x4 sill plate

12"x1/2" Anchor Bolts 6' O.C.

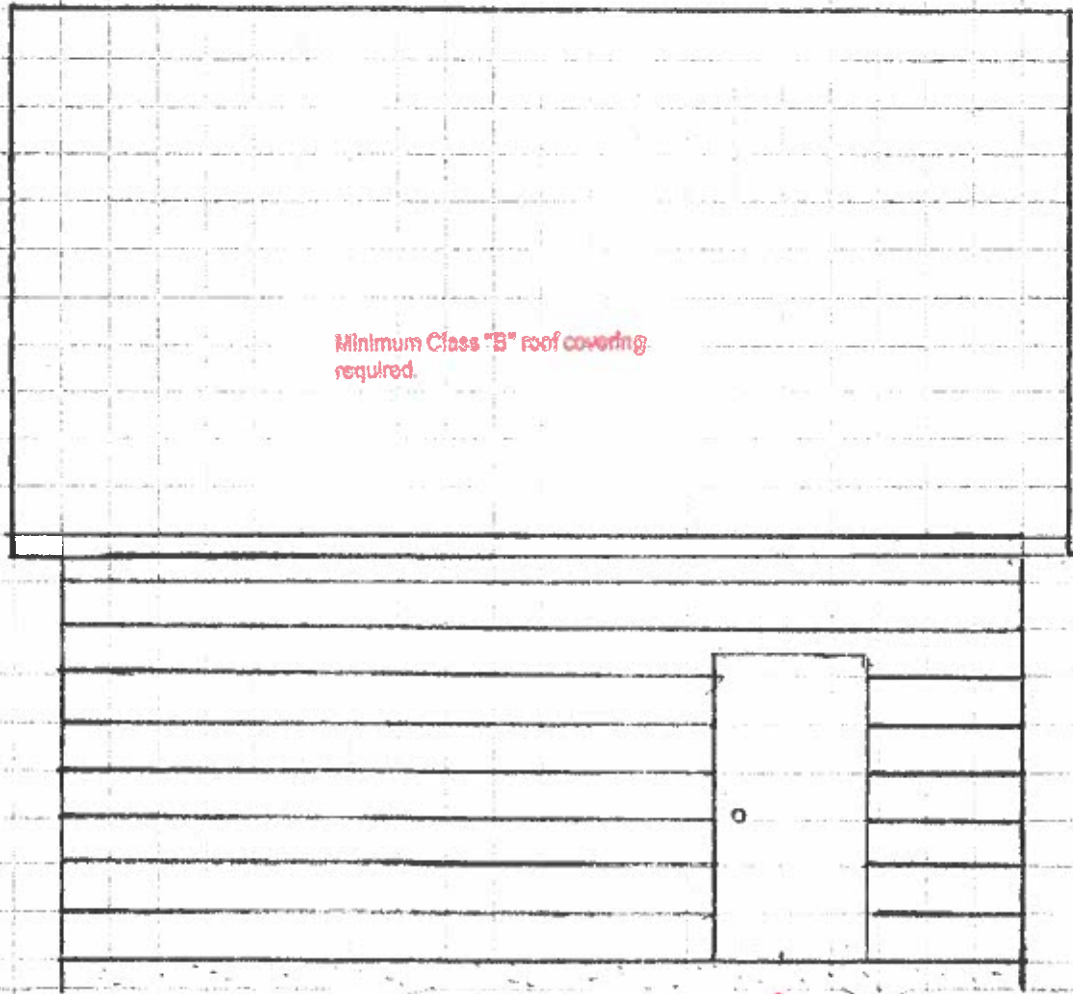
4"

18"

Wall section - Not to
scale
24" R-10 insulation
2x15 Mill Creek Road

East Elevation
6215 Mill Creek Road

Scale $\frac{1}{4}" = 1 \text{ foot}$



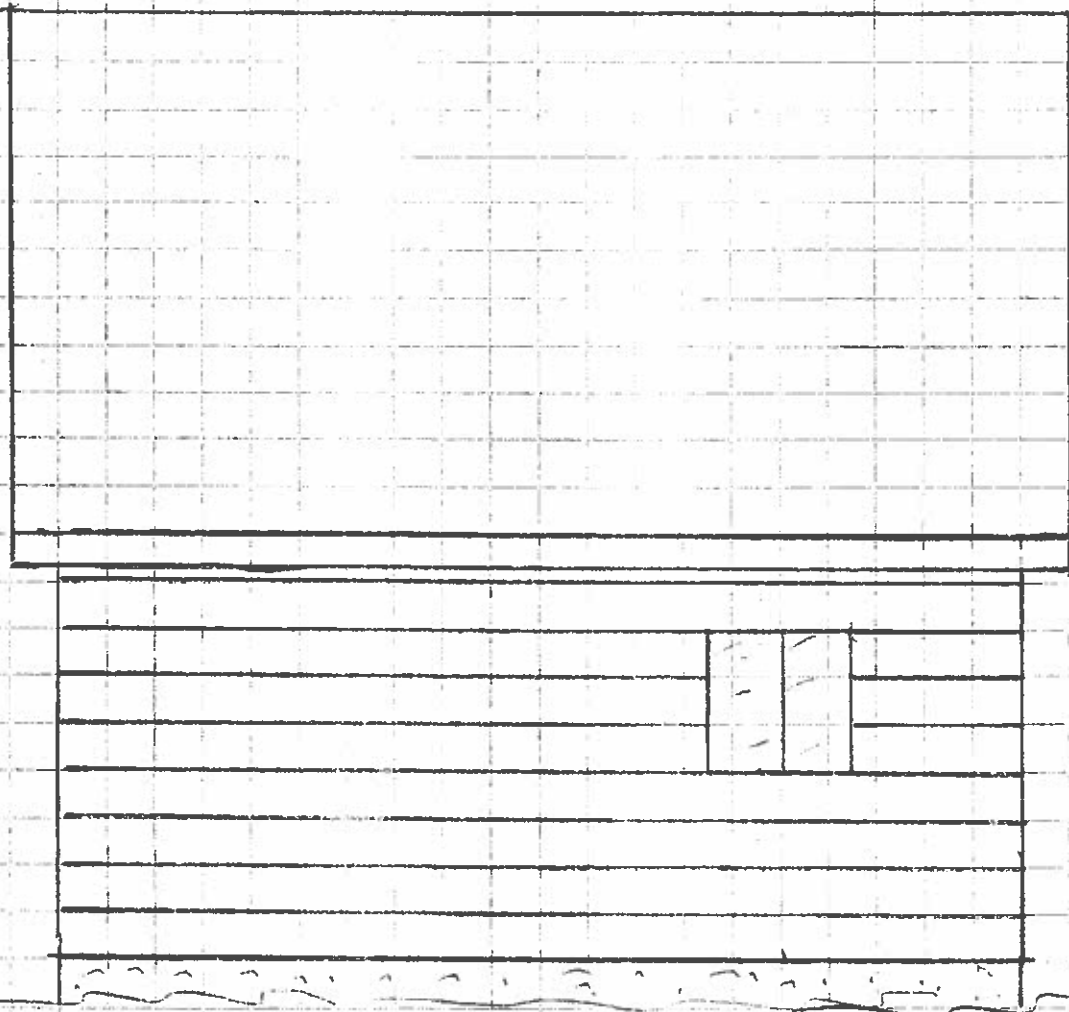
Minimum Class "B" roof covering required.

A minimum 36 inch deep landing is required at main entry level doors, full width of door and not more than $7\frac{1}{4}$ inches lower than the floor level. Other exits/entrances may have maximum of 1 step with 12" run.

Create a defensible space according to Colorado State Forest Service Guidelines

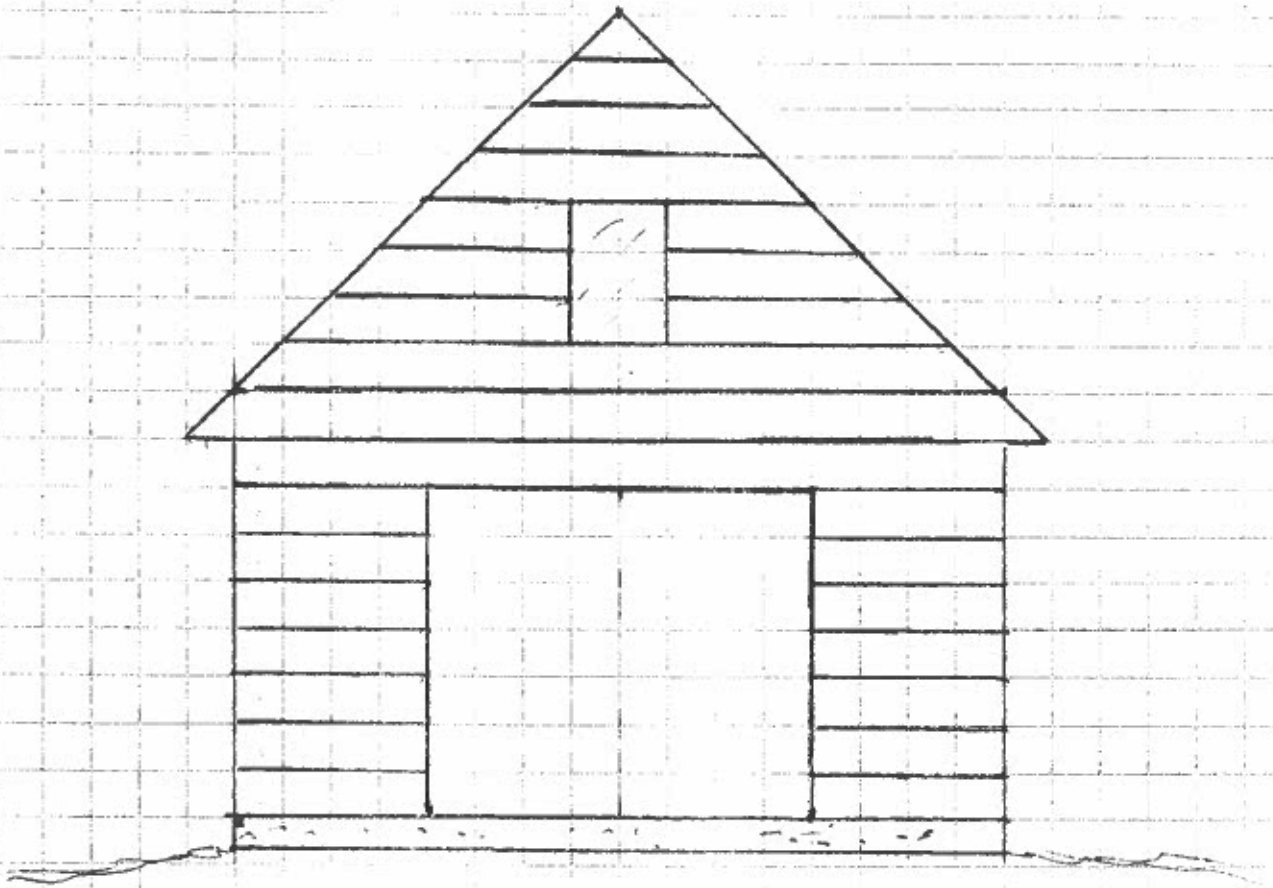
One-hour fire resistive assembly OR class III or better flame resistant exterior siding required

West Elevation
6215 Mill Creek Road
 $\frac{1}{4}" = 1 \text{ foot}$



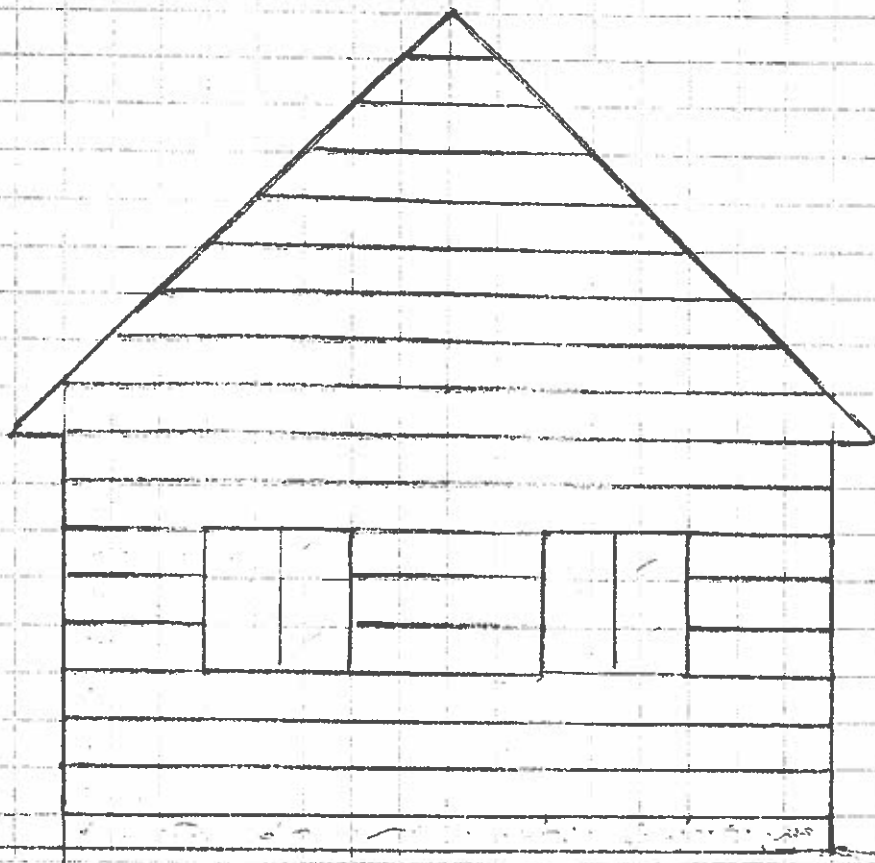
South Elevation
6215 Millcreek Road

Scale $\frac{1}{4}" = 1 \text{ foot}$



North Elevation
6215 Mill Creek Road

Scale $\frac{1}{4}" = 1 \text{ foot}$

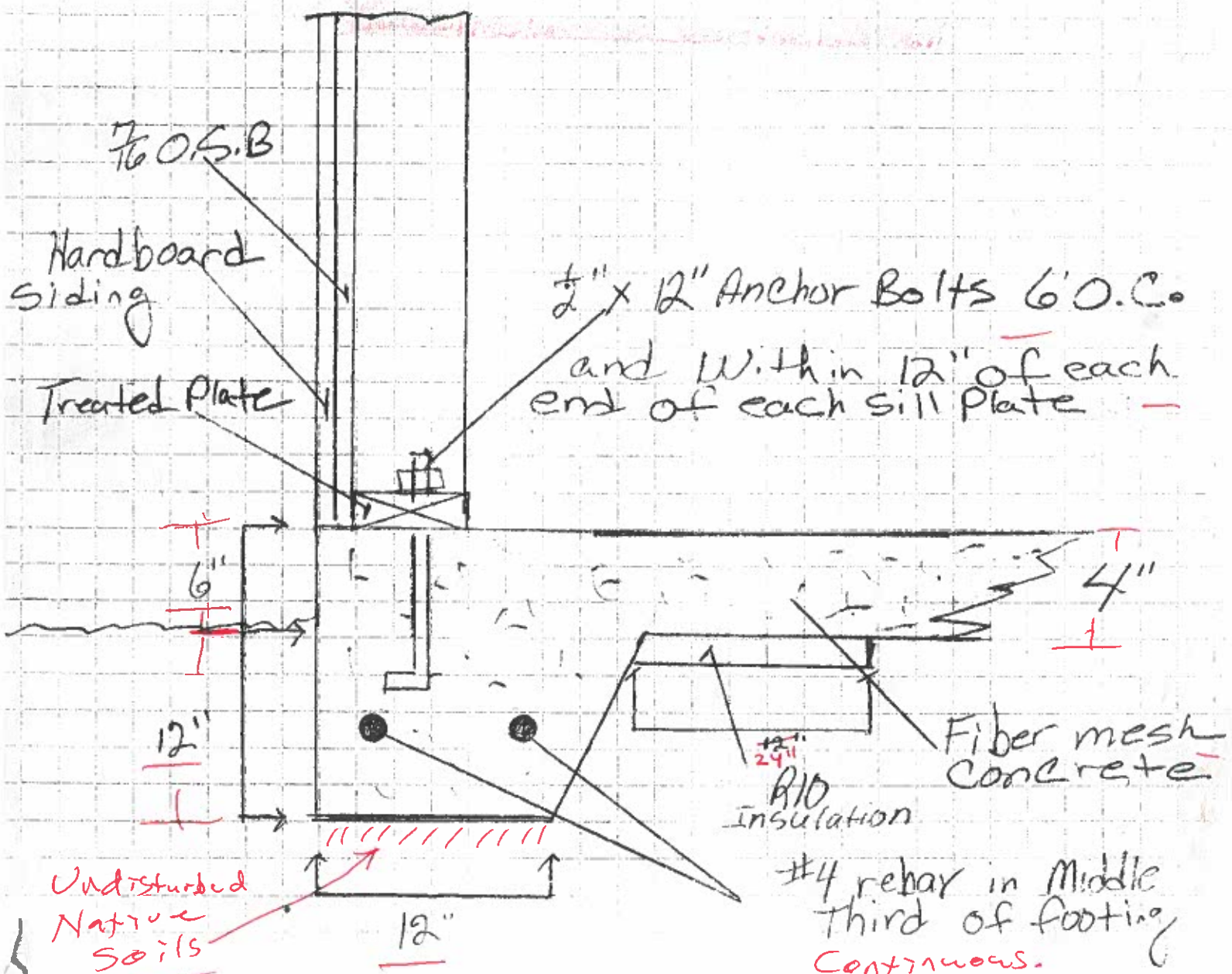


Foundation Plan for 6215 Mill Creek Road

Unheated Structure.

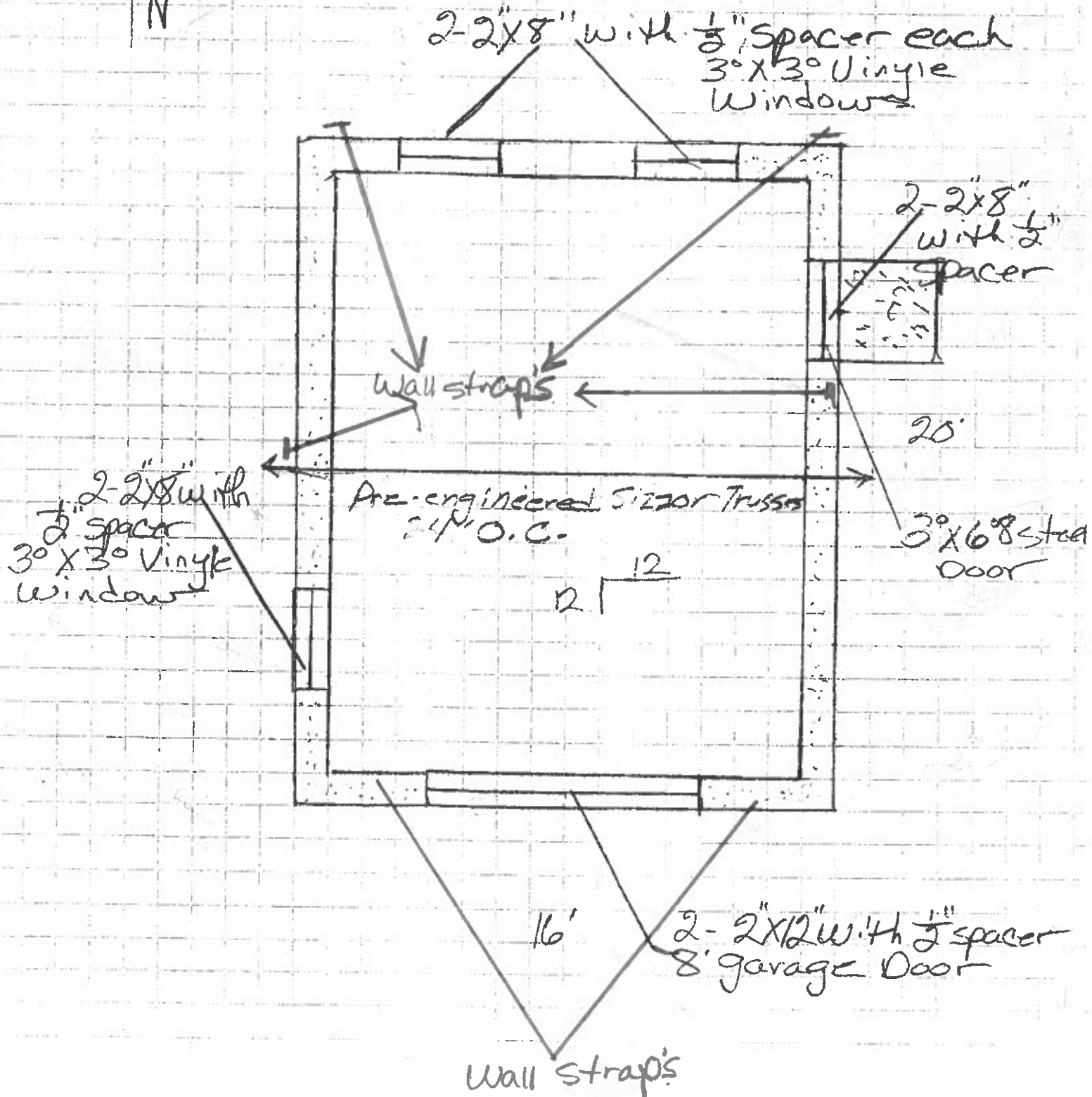
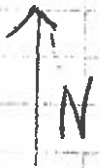
Create a defensible space according to
Colorado State Forest Service Guidelines

One hour fire resistive assembly OR
class III or better flame resistant
exterior siding required



Roof and Floor Plan
6215 Mill Creek Road

Scale $\frac{1}{4}" = 1 \text{ foot}$



Job	Truss	Truss Type	Qty	Ply	JIM STOOL/ 16X20 GARAGE5501508
JK159	GE16	GABLE	2	1	Job Reference (optional)
BMC WEST TRUSS AND COMPONENTS, FORT LUPTON, CO 80621					
6 200 s Jul 13 2005 MiTek Industries, Inc. Thu Sep 28 10 19 37 2006 Page 1					

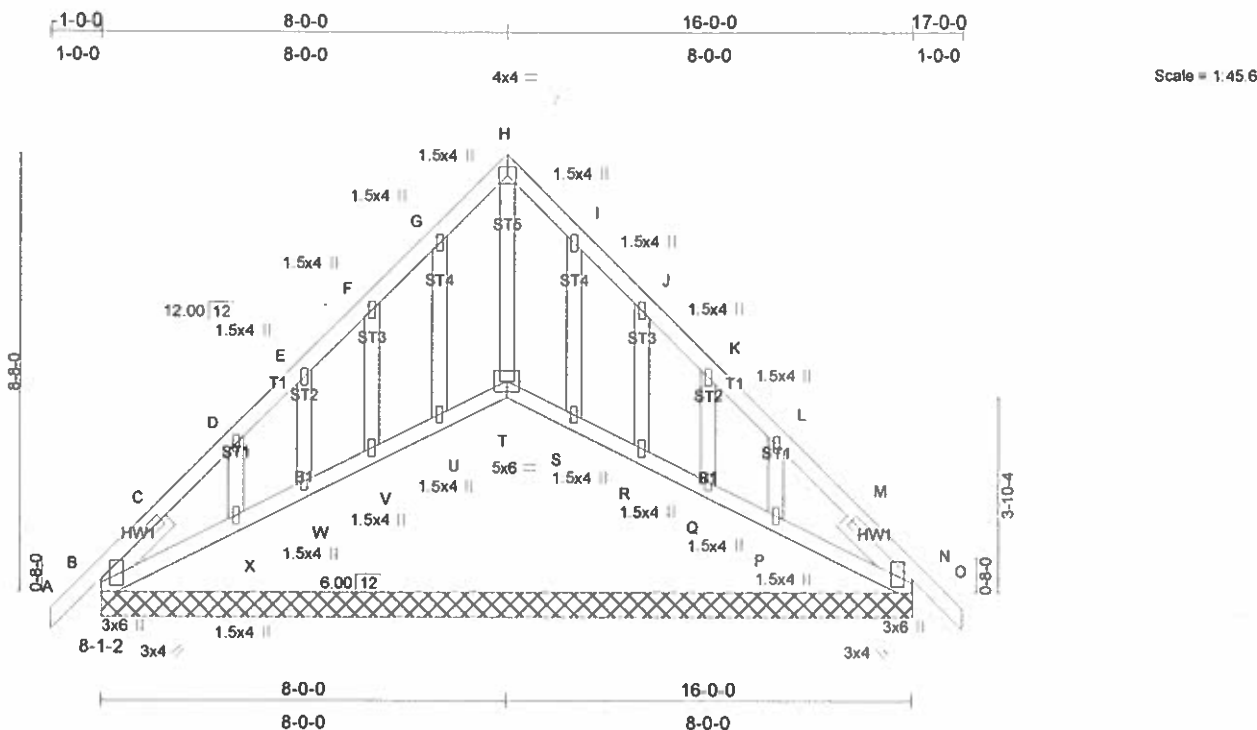


Plate Offsets (X Y) [B 0-1-10, 0-2-1], [N 0-1-10, 0-2-1]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 46.2	2 0-0	TC 0.37	Vert(LL)	-0.02	O	n/r	120	MT20	169/123
(Roof Snow=60.0)	Plates Increase 1.15	BC 0.12	Vert(TL)	-0.02	O	n/r	90		
TCDL 10.0	Lumber Increase 1.15	WB 0.16	Horz(TL)	0.01	N	n/a	n/a		
BCLL 0.0	Rep Stress Incr NO	(Matrix)							
BCDL 10.0	Code IRC2003/TPI2002								
								Weight: 78 lb	

LUMBER

TOP CHORD 2 X 4 SPF 1650F 1.5E
 BOT CHORD 2 X 4 SPF 1650F 1.5E
 OTHERS 2 X 4 SPF-S Stud
 SLIDER Left 2 X 4 SPF-S Stud 1-10-1, Right 2 X 4 SPF-S Stud 1-10-1

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) B=336/16-0-0, T=143/16-0-0, N=336/16-0-0, U=167/16-0-0, V=185/16-0-0, W=147/16-0-0, X=262/16-0-0, S=167/16-0-0, R=185/16-0-0, Q=147/16-0-0, P=262/16-0-0
 Max Horz B=-372(load case 5)
 Max Uplift B=-321(load case 5), N=-108(load case 5), U=-71(load case 6), V=-128(load case 7), W=-58(load case 7), X=-244(load case 6), S=-51(load case 8), R=-88/271, V-W=-67/267, V-W=-74/266, U-V=-73/266, T-U=-73/264, S-T=-73/264, R-S=-73/266, Q-R=-71/265, P-Q=-78/269, N-P=-69/262
 Max Grav B=486(load case 2), T=570(load case 8), N=486(load case 3), U=258(load case 2), V=270(load case 2), W=214(load case 2), X=388(load case 2), S=258(load case 3), R=270(load case 3), Q=214(load case 3), P=388(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD A-B=0/141, B-C=-350/252, C-D=-342/264, D-E=-168/210, E-F=-133/223, F-G=-139/273, G-H=-139/297, H-I=-139/282, I-J=-139/220, J-K=-133/139, K-L=-157/101, L-M=-217/139, M-N=-263/127, N-O=0/141
 BOT CHORD B-X=-88/271, V-W=-67/267, V-W=-74/266, U-V=-73/266, T-U=-73/264, S-T=-73/264, R-S=-73/266, Q-R=-71/265, P-Q=-78/269, N-P=-69/262
 WEBS H-T=-323/0, G-U=-232/87, F-V=-240/142, E-W=-199/83, D-X=-334/231, I-S=-232/70, J-R=-240/144, K-Q=-199/87, L-P=-334/219

NOTES (14)

- 1) Wind: ASCE 7-98; 120mph; h=25ft, TCDL=6.0psf, BCDL=6.0psf; Category II; Exp C; enclosed, MWFRS interior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
- 3) TCLL: ASCE 7-02; Pf=60.0 psf (flat roof snow); Ps=46.2 psf (roof snow); Category II; Exp C; Fully Exp.; Ct=1.1
- 4) Roof design snow load has been reduced to account for slope.
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 60.0 psf on overhangs non-concurrent with other live loads.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 1-4-0 oc.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 321 lb uplift at joint B, 108 lb uplift at joint N, 71 lb uplift at joint U, 128 lb uplift at joint V, 58 lb uplift at joint W, 244 lb uplift at joint X, 51 lb uplift at joint S, 130 lb uplift at joint R, 64 lb uplift at joint Q and 216 lb uplift at joint P.
- 12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) T, U, V, W, X, S, R, Q, P.

Job	Truss	Truss Type	Qty	Ply	JIM STOOL/ 16X20 GARAGE5501508
JK159	GE16	GABLE	2	1	Job Reference (optional)

BMC WEST TRUSS AND COMPONENTS, FORT LUPTON, CO 80621

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NOTES (14)

13) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

14) This truss designed to conform to ASCE 7-98 and ASCE 7-02 wind load.

LOAD CASE(S) Standard

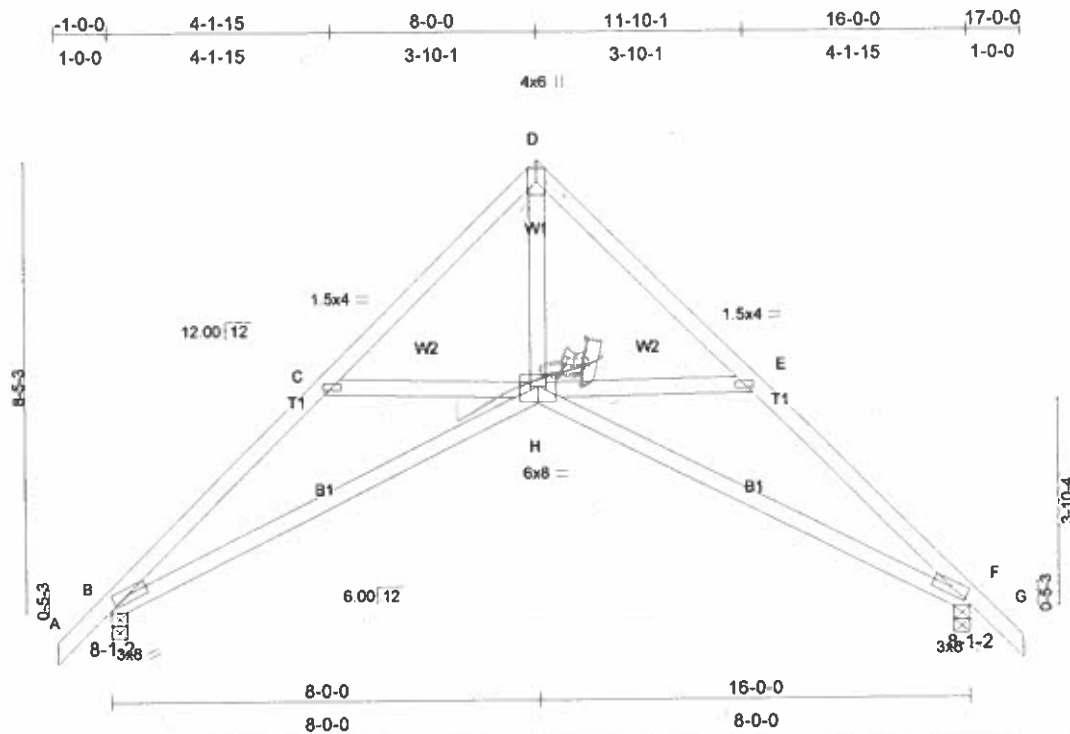


Plate Offsets (X,Y): [B:0-1-9,0-0-2], [F:0-1-9,0-0-2], [H:0-4-0,0-3-8]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 46.2	Plates Increase	1.15	TC 0.40	Vert(LL)	-0.10	H	>999	360	MT20	169/1 23
(Roof Snow=60.0)	Lumber Increase	1.15	BC 0.45	Vert(TL)	-0.24	B-H	>797	240		
TCDL 10.0	Rep Stress Incr	YES	WB 0.86	Horz(TL)	0.22	F	n/a	n/a		
BCLL 0.0	Code IRC2003/TPI2002		(Matrix)							
BCDL 10.0									Weight: 62 lb	

LUMBER	BRACING
TOP CHORD 2 X 4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 4-2-10 oc purlins.
BOT CHORD 2 X 4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2 X 4 SPF-S Stud	

REACTIONS (lb/size) B=1168/0-3-8, F=1168/0-3-8
 Max Horz B=-361(load case 5)
 Max Uplift B=-222(load case 7), F=-222(load case 8)
 Max Grav B=1426(load case 2), F=1426(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD A-B=0/179, B-C=-2432/338, C-D=-1593/150, D-E=-1593/194, E-F=-2432/277, F-G=0/179
 BOT CHORD B-H=-455/1730, F-H=-121/1730
 WEBS C-H=-611/335, D-H=-93/1565, E-H=-611/352

- NOTES** (11)
- 1) Wind: ASCE 7-98; 120mph; h=25ft; TCDL=6.0psf; BCDL=6.0psf; Category II; Exp C, enclosed; MWFRS interior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33.
 - 2) TCLL: ASCE 7-02; Pf=60.0 psf (flat roof snow); Ps=46.2 psf (roof snow); Category II; Exp C; Fully Exp.; Ct=1.1
 - 3) Roof design snow load has been reduced to account for slope.
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 60.0 psf on overhangs non-concurrent with other live loads.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
 - 8) Bearing at joint(s) B, F considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 222 lb uplift at joint B and 222 lb uplift at joint F.
 - 10) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) This truss designed to conform to ASCE 7-98 and ASCE 7-02 wind load.

LOAD CASE(S) Standard



PLANNING AND BUILDING SERVICES DIVISION

P.O. Box 1190
Fort Collins, Colorado 80522-1190
Planning (970) 498-7683 Building (970) 498-7700
Planning Fax (970) 498-7711 Building Fax (970) 498-7667
<http://www.larimer.org/planning>

LETTER OF COMPLETION

DATE: November 9, 2006

DATE COMPLETED: November 09, 2006

BUILDING PERMIT NUMBER: 06-B1066

PERMIT TYPE: NUTIL

----- OWNER -----
KEISWETTER, KIM
CONSTRUCTION

----- CONTRACTOR -----
ROCKY MOUNTAIN

CONSTRUCTION ADDRESS: 6215 MILL CREEK RD RFL

SUBD. NAME: N/A

LOT: BLOCK/TRACT:

PARCEL NUMBER: 2115000020

DESCRIPTION OF WORK: UNHEATED DETACHED GARAGE 16 X 20

The work authorized by the above referenced building permit number is substantially complete and in compliance with the adopted Larimer County regulations. This is not a Certificate of Occupancy and no change of use is authorized by this document.

Tom Garton, Larimer County Building Official



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BMC WEST**TRUSS AND COMPONENTS**

1241 Denver Ave.
Ft. Lupton, CO 80621
(303) 659-1110 Fax (303) 659-1117

SHIP TO

SHIP TO

STOLL, JIM

Fax () -

STOLL CONSTRUCTION
6215 MILL CREEK RD
CHEROKEE PARK

DELIVERY LIST

ORDER NO
5501508

DATE 09/28/06

PAGE 1

SALES 209
DESIGN

JOB NAME STOLL CONSTRUCTION
MODEL GARAGE
TAG JK159

SPECIAL INFO

DELIVERY INSTRUCTIONS

call Jim before delivery 970-217-5432. He will give you directions and will meet you at jobsite to unlock gate~

ROOF TRUSSES

PROFILE	QTY	PITCH		TYPE ID	O/A LENGTH	LUMBER		OVERHANG		HEEL HEIGHT		UNIT WEIGHT	LOADED BY	CHECKED BY
	PLY	TOP	BOT			TOP	BOT	LEFT	RIGHT	LEFT	RIGHT			
	2	12.00	6.00	GABLE GE16	16-00-00	2 X 4	2 X 4	01-00-00	01-00-00	00-08-00	00-08-00	78		
	9	12.00	6.00	SCISSORS S16	16-00-00	2 X 4	2 X 4	01-00-00	01-00-00	00-05-03	00-05-03	61		

11

HANGERS/MISC.

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
22	Hanger	H2.5T			

* Note: Unit Weight refers to the weight of each individual truss, except in the case of multi-ply girders, where the combined weight for each girder is shown.

THE ABOVE LISTED ITEMS HAVE BEEN RECEIVED IN GOOD CONDITION (EXCEPTIONS NOTED).

RECEIVED BY: _____

DATE: _____

THANK YOU - WE APPRECIATE YOUR BUSINESS