

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0013160
Insp Area: 4

Site Address: 1370 PEBBLEWOOD DR SAC
Parcel No: 225-0474-008

Sub-Type: RES
Housing (Y/N): N

CONTRACTOR
BRAZIL QUALITY ROOFING INC
POB 7703
CITRUS HEIGHTS CA 95621

OWNER
JUNG MARVIN/SHERRY TAN
7258 SILVER TREE PLACE
GRANITE BAY CA 95746

ARCHITECT

Nature of Work: T/O & RROOF W/25 SQS LT WT TILE

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class C39 License Number 747348 Date 1/02/00 Contractor Signature Juan B. Gre

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00):

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 1/02/00 Applicant/Agent Signature Jerman B. Gre

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier STATE FUND Policy Number 285-00 0001786 Exp Date 01/01/2001

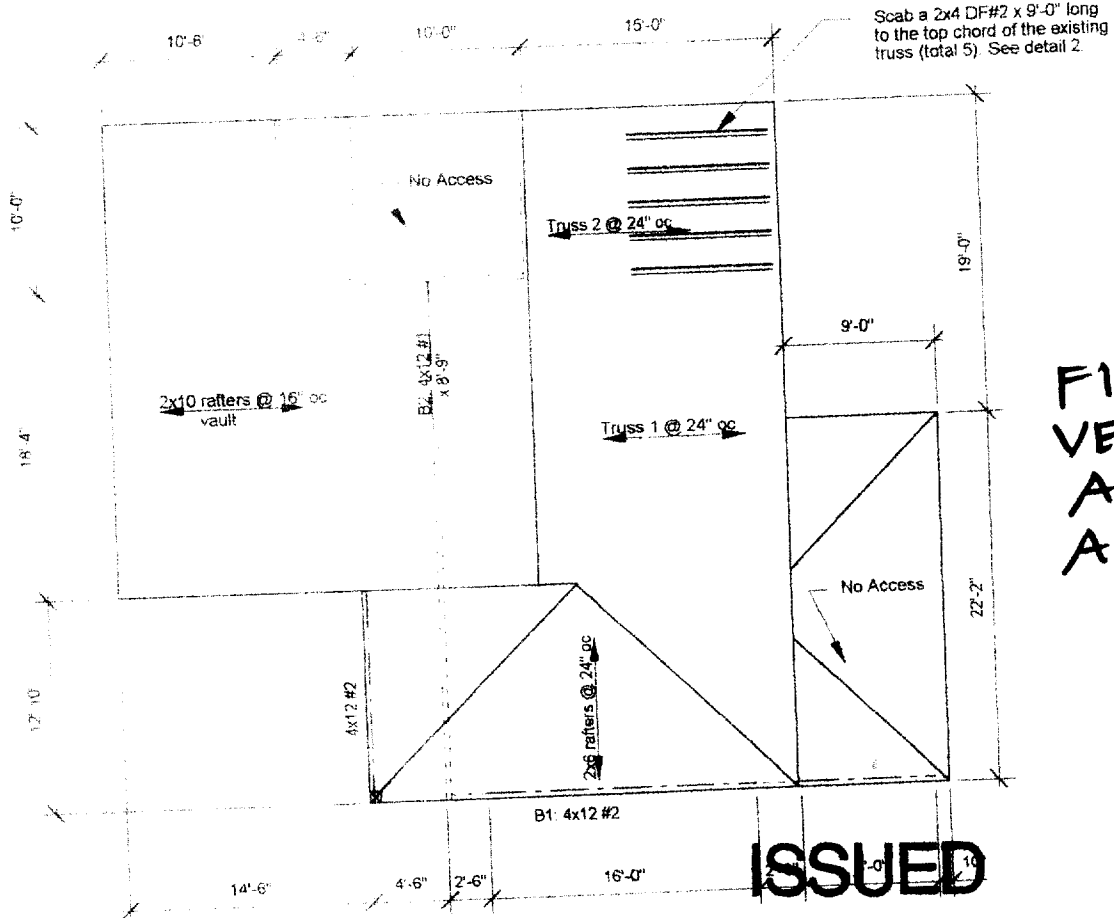
(This section need not be completed if the permit is for \$100 or less.) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 1/02/00 Applicant Signature Jerman B. Gre

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

0013160R
 1370 PEBBLEWOOD DR.



**FIELD
 VERIFY
 ATTIC
 ACCESS**

ISSUED

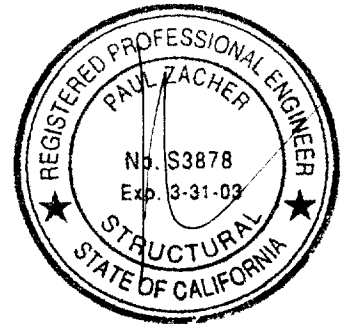
NOV 02 2006

Sacramento Building Division



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.
 The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

REVIEWED 1371
[Signature]
 11/1/06



Notes.

- 1 This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.3 psf.
- 2 All structural wood members that were observed appear to be in sound condition and without structural defect.



1

ROOF PLAN - JUNG

Not to Scale

14

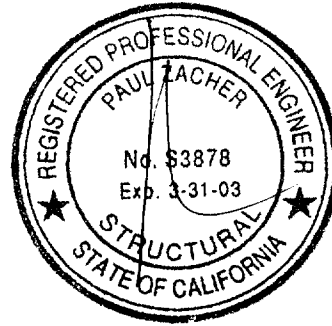
lung

Paul Zacher - Structural Engineers
4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960
FAX: 916.961.6552

October 2, 2000

Brazil Roofing
11300 Coloma Road
Gold River, CA 96670
TEL: (916) 858-8050
FAX: (916) 858-8050



Attn: Mr Mike Brazil,

re: Job 2000_327: JUNG

Subject: Structural Investigation Report of the Roof for the Residence located at 1370 Pebblewood Drive, Sacramento, CA 95833.

As requested by Mr. Mike Brazil, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site September 29, 2000. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report are based on the 1997 Uniform Building Code.

The following is based on visual observations with no subsurface investigation being made.

DESCRIPTION:

Type of Facility:	Residence.
Year Built:	Estimated 1980's vintage.
Occupancy:	Residential.
No. of Stories:	Two.
Dimensions:	Approximately 2500 square feet with a first story plate height of 8 feet.

CONSTRUCTION:

Roof:
The roof covering will consist of Light Weight Concrete Tile over 1/2" solid sheathing. The living area is framed with pre-engineered wood trusses spaced at 24" on center except for the vaulted ceiling areas. The vaulted ceiling is constructed of 2x10 rafters spaced at 16" on center. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center. Some portions were inaccessible and were not inspected.

CONCLUSIONS:

Roof:
The living area lacks sufficient structural capacity for the applied live and dead loads except for those areas that were inaccessible and therefore no conclusions were drawn. The garage has sufficient structural

Jung

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capacity for the applied live and dead loads except for those areas that were inaccessible and therefore no conclusions were drawn.

RECOMMENDATIONS

If any of the following recommendations do not correspond to actual field conditions, the engineer of record shall be notified for further investigation and evaluation before continuing work.

Living Area:

1. After the roofing material has been removed, the contractor shall verify that the framing in the non-accessible of the structure does not exceed the following:

Flat Ceiling Portion:

- a. 2x4 @ 24" oc - max span = 7'-8"
- b. 2x6 @ 24" oc - max span = 12'-0"

If the framing differs from the above, the contractor shall supply the engineer with diagrams showing the member sizes and span lengths. The engineer shall then determine if the structure can adequately support the applied dead and live loads and a supplemental report shall be issued. See detail 1.

2. Scab a 2x4 DF#2 x 9'-0" long rafter to the top chord of the existing truss. See details 1 and 2.

Garage:

3. After the roofing material has been removed, the contractor shall verify that the framing in the non-accessible of the structure does not exceed the following:

Flat Ceiling Portion:

- a. 2x4 @ 24" oc - max span = 7'-8"
- b. 2x6 @ 24" oc - max span = 12'-0"

If the framing differs from the above, the contractor shall supply the engineer with diagrams showing the member sizes and span lengths. The engineer shall then determine if the structure can adequately support the applied dead and live loads and a supplemental report shall be issued. See detail 1

It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and are not an indication of a structural hazard or failure

It shall be noted that some deflection of the rafters may be evident after installation of the tile. The existing roof framing has deflected but this may not be readily evident due to the uneven nature of the existing roofing material. Concrete tile is a very consistent and uniform product and when installed in an even plane, even small deflections can become apparent. This is only a cosmetic issue and not a structural concern.

Jung

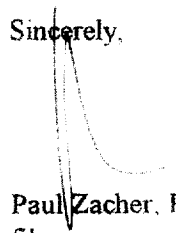
Paul Zacher - Structural Engineers
4701 Lakeside Way
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The inspection consisted of visual observation only, made solely to determine the structural capacity of the existing roof. Analysis does not determine any effects on the overall structure under lateral forces or effects on the foundation unless specifically noted in the calculations and in this document. No warranties, expressed or implied, are made or intended in conjunction with this report. The inspection was made only to the portions that were accessible. The specific items noted were those that were observable and there may be defects that are not observable, or are hidden by architectural and structural materials.

If you have any questions on the above, do not hesitate to call.

Sincerely,



Paul Zacher, P.E., S.E.
file

DESIGN LOADING:

Roof Pitch 4 in 12
Pitch Adjustment Factor 1.05

LOCATION: ROOF

<u>MATERIAL</u>	<u>WEIGHT</u>
Light Weight Tile	7.30 psf
Roofing felt	0.30 psf
1x4 skip sht'g	1.09 psf
1/2" OSB/ plywood	1.50 psf
2x6 rafters @ 24" oc	<u>1.00</u> psf
Load	11.2 psf
Roof Pitch Adjustment	<u>0.61</u> psf
Total Load	11.8 psf

LOCATION: VAULT

<u>MATERIAL</u>	<u>WEIGHT</u>
Light Weight Tile	7.30 psf
Roofing felt	0.30 psf
1/2" OSB/ plywood	1.50 psf
1x4 skip sht'g	1.09 psf
2x10 rafters @ 24" oc	2.54 psf
Batt/blown insul	0.50 psf
1/2" Gypboard	<u>2.50</u> psf
Load	15.7 psf
Roof Pitch Adjustment	<u>0.85</u> psf
Total Load	16.6 psf

LOCATION: TOP CHORD

<u>MATERIAL</u>	<u>WEIGHT</u>
Light Weight Tile	7.30 psf
Roofing felt	0.30 psf
1/2" OSB/ plywood	1.50 psf
1x4 skip sht'g	1.09 psf
2x4 truss @ 24" oc	<u>0.64</u> psf
Load	10.8 psf
Roof Pitch Adjustment	<u>0.59</u> psf
Total Load	11.4 psf

LOCATION: BOTTOM CHORD

<u>MATERIAL</u>	<u>WEIGHT</u>
Batt/blown insul	0.50 psf
2x4 truss @ 24" oc	1.28 psf
1/2" Gypboard	<u>2.50</u> psf
Load	4.3 psf

P K Zacher, S E

Job #

Date:

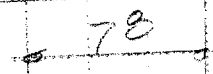
4701 Lakeside Way
Fair Oaks, CA 95628
TEL: (916) 961-3960
FAX: (916) 961-6552

LOADING

RAFTER

2x12 @ 24" OC
2x12 @ 24" OC

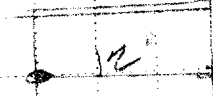
24.0/12



RAFTER

2x12 @ 24" OC
2x12 @ 24" OC

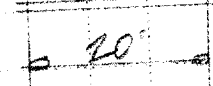
24.0/12



VAULT

2x10 @ 24" OC
2x10 @ 24" OC

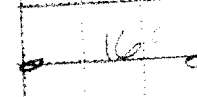
22.1/21.3



2x

2x12 @ 24" OC
2x12 @ 24" OC

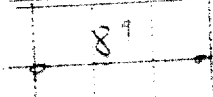
83/112



3x

2x12 @ 24" OC
2x12 @ 24" OC

133.2/132.0



Paul Zacher - Structural Engineers
 4701 Lakeside Way
 Fair Oaks
 TEL: (916) 961-3960
 FAX: (916) 961-6552

Title :
 Dsgnr:
 Description :

Job #
 Date: 11:51AM, 2 OCT 00

Scope :

Rev: 010304
 User: RW-0802844, Ver 5.3.1.02 Jun 1999 Win32
 © 1983-99 ENERCALC

Timber Beam & Joist

c:\enercalc\test\cw.Calculations

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

	rafter	rafter	vault	B1	B2
Timber Section	2x4	2x6	2x10	4x12	4x12
Beam Width	in: 1.500	1.500	1.500	3.500	3.500
Beam Depth	in: 3.500	5.500	9.250	11.250	11.250
Le. Unbraced Length	ft: 0.00	0.00	0.00	0.00	0.00
Timber Grade	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch
Fb - Basic Allow	psi: 875.0	875.0	875.0	875.0	1,000.0
Fv - Basic Allow	psi: 95.0	95.0	95.0	95.0	95.0
Elastic Modulus	ksi: 1,600.0	1,600.0	1,600.0	1,600.0	1,700.0
Load Duration Factor	1.250	1.250	1.250	1.250	1.250
Member Type	Sawn	Sawn	Sawn	Sawn	Sawn
Repetitive Status	Repetitive	Repetitive	Repetitive	No	No

Center Span Data

		7.67	12.00	20.00	16.00	8.75
Span	ft:					
Dead Load	#/ft:	23.60	23.60	22.10	83.00	332.00
Live Load	#/ft:	32.00	32.00	21.30	112.00	320.00

Results

Ratio =	0.8491	0.9712	0.8799	0.8430	0.7376
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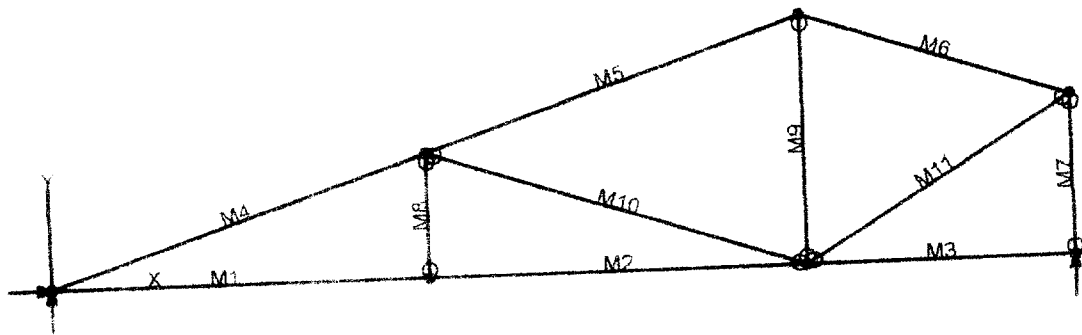
Mmax @ Center	in-k:	4.91	12.01	26.04	74.88	74.88
@ X =	ft:	3.83	6.00	10.00	8.00	4.37
Fb Actual	psi:	1,602.1	1,588.0	1,217.4	1,014.2	1,014.2
Fb Allowable	psi:	1,886.7	1,635.2	1,383.6	1,203.1	1,375.0
		Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
Fv Actual	psi:	56.5	56.3	43.5	52.8	86.1
Fv Allowable	psi:	118.8	118.8	118.8	118.8	118.8
		Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

Reactions

@ Left End	DL	lbs	90.51	141.60	221.00	664.00	1,452.50
	LL	lbs	122.72	192.00	213.00	896.00	1,400.00
	Max DL+LL	lbs	213.23	333.60	434.00	1,560.00	2,852.50
@ Right End	DL	lbs	90.51	141.60	221.00	664.00	1,452.50
	LL	lbs	122.72	192.00	213.00	896.00	1,400.00
	Max DL+LL	lbs	213.23	333.60	434.00	1,560.00	2,852.50

Deflections

		Ratio OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK
Center DL Defl	in:	-0.214	-0.331	-0.503	-0.184	-0.062
L/Defl Ratio		429.5	435.2	477.5	1,042.4	1,692.9
Center LL Defl	in:	-0.291	-0.449	-0.484	-0.249	-0.060
L/Defl Ratio		316.7	320.9	495.4	772.5	1,756.4
Center Total Defl	in:	-0.505	-0.780	-0.987	-0.433	-0.122
Location	ft:	3.835	6.000	10.000	8.000	4.375
L/Defl Ratio		182.3	184.7	243.2	443.7	862.0



VisualAnalysis 3.50.c Report

10/02/00 12:05:03

Project: Truss 1

File: Untitled.Vap

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	0.00	0.00	Yes		Yes		No	
N2	7.50	0.00	No		No			
N3	15.00	0.00	"		"			
N4	20.33	0.00	"		Yes			
N5	7.50	2.50	"		No			
N6	15.00	5.00	"		"			
N7	20.33	3.22	"		"			

Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	7.50
M2	"	"	7.50
M3	"	"	5.33
M4	"	"	7.91
M5	"	"	7.91
M6	"	"	5.62
M7	"	"	3.22
M8	"	"	2.50
M9	"	"	5.00
M10	"	"	7.91
M11	"	"	6.23

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sy+ in ³	Sy- in ³
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft ³
Wood	-NA-	1700000.00	0.36	40.47

Load Combination Summary

Equation Case: Equation Case 1
 Combination: +1D+1L+1Lr
 Contributing Cases & Source
 Service Case 1 (Dead loads)
 Service Case 2 (Roof Live loads)

Member Uniform Loads

This item is empty. Check the selection state, or report properties.

Nodal Reactions

Node	Load Case	FX lbs	FY lbs	MZ lb-ft
N1	Equation Case 1	0.00	674.71	-NA-
N4	"	-NA-	674.74	-NA-

Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M1	1419.89	55.69	-59.22	0.1092
"	1419.89	-34.19	52.9844	-0.1535
"	1419.89	-12.69	111.58	-0.1400
"	1419.89	8.8127	116.56	-0.0000
M2	1419.89	28.09	-28.06	-0.0522
"	1419.89	-5.5944	15.1691	-0.0729
"	1419.89	14.9056	4.7801	-0.0948
"	1419.89	36.4056	-59.22	-0.1092
M3	-0.0000	17.67	0.0000	-0.0000
"	-0.0000	-2.3837	17.7598	-0.0248
"	-0.0000	12.9052	8.4073	-0.0404
"	-0.0000	28.1941	-28.06	-0.0522
M4	-1557.60	182.72	-116.56	-0.0000
"	-1511.93	45.7172	183.53	-0.2129
"	-1466.26	-91.28	123.45	-0.2233
"	-1420.60	-228.28	-296.67	-0.1095
M5	-686.15	213.34	-296.67	-0.1095
"	-640.48	76.3432	84.1233	-0.1701
"	-594.82	-60.66	104.79	-0.1585
"	-549.15	-197.66	-234.66	-0.0476
M6	-649.95	104.40	-0.0000	-0.0009
"	-617.44	-6.9749	103.91	-0.0597
"	-584.93	90.4474	25.6877	-0.0593
"	-552.41	187.87	-234.66	-0.0515
M7	-657.06	0.0000	0.0000	0.0055
"	-657.06	0.0000	0.0000	0.0132
"	-657.06	0.0000	0.0000	0.0209
"	-657.06	0.0000	0.0000	0.0286
M8	92.0929	0.0000	0.0000	0.0142
"	92.0929	0.0000	0.0000	0.0161
"	92.0929	0.0000	0.0000	0.0179
"	92.0929	0.0000	0.0000	0.0196
M9	-17.18	0.0000	0.0000	-0.0062
"	-17.18	0.0000	0.0000	0.0054
"	-17.18	0.0000	0.0000	0.0170
"	-17.18	0.0000	0.0000	0.0286
M10	-881.66	0.0000	0.0000	-0.0971
"	-881.66	0.0000	0.0000	-0.0782
"	-881.66	0.0000	0.0000	-0.0593
"	-881.66	0.0000	0.0000	-0.0404
M11	681.57	-0.0000	-0.0000	-0.0595
"	681.57	-0.0000	-0.0000	-0.0414
"	681.57	-0.0000	-0.0000	-0.0233
"	681.57	-0.0000	-0.0000	-0.0053

BENDING & COMP: TRUSS 1 - MEMBER 4

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

Grading:

2x or 4x

Doug-fir larch: No. 2

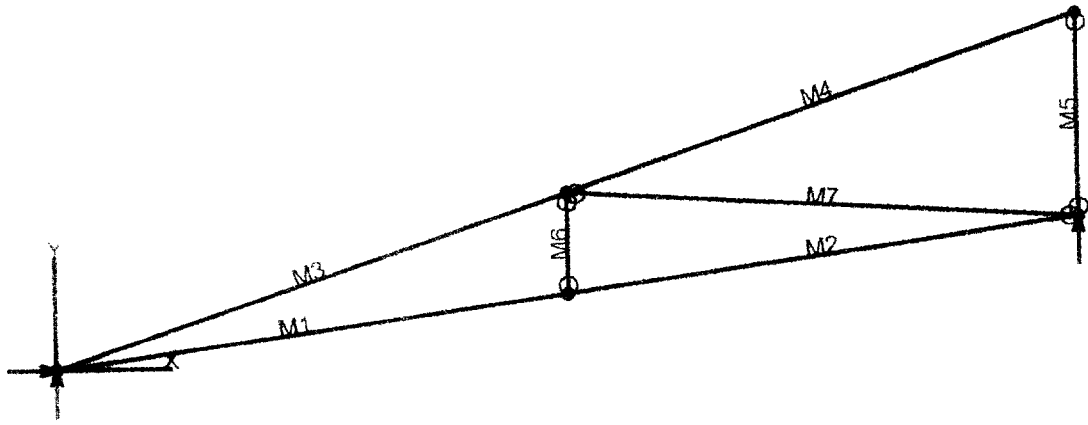
Assumptions:

Solid sheathing on top chord of truss. Therefore,

continuous lateral support is provided along compression face

Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	3.5 inches
Length	7.91 feet
Max Axial Comp, C	1420 lbs
Max Reaction, R	228 lbs
Max Moment, M	296 ft-lbs
Max LL Deflection	0.04 inches
Max TL Deflection	0.11 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.22
fc =	270 psi
Fce =	844 psi
Fc* =	2084 psi
F'c =	758 psi
fb =	1160 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.55 < 1.0. Member OK
Interaction equation:	
(fc/F'c)^2 +	
fb/(F'b(1-fc/Fce)) =	0.92 < 1.0. Member OK
Live Load defl ratio	0.10 < 1.0. Member OK
Total Load defl ratio	0.21 < 1.0. Member OK



VisualAnalysis 3.50.c Report

11/12/00 12:13:25

Project: Truss 2

File: C:\Program Files\IES\VA350\truss 2.w4b

Company: PK Associates Engineers

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, Fahrenheit, Seconds.

Nodes

Node	X ft	Y ft	Y Fix	DX Fix	DY Fix	RZ Fix
N1	0.00	0.00	Yes	Yes	No	No
N2	7.50	1.00	No	No	No	No
N3	15.00	2.00	No	Yes	No	No
N4	7.50	3.50	No	No	No	No
N5	15.00	5.00	No	No	No	No

Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	7.50
M2	"	"	7.50
M3	"	"	7.91
M4	"	"	7.91
M5	"	"	3.00
M6	"	"	1.50
M7	"	"	7.50

Section Properties

Category	Section	Ax in ²	Iz in ⁴	Sy+ in ³	Sy- in ³
Wood Sha	SS2x4	5.25	5.38	3.06	3.06

Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft ³
Wood	-NA-	1700000.00	0.35	40.47

Load Combination Summary

Equation Case: Equation Case 1
Combination: +1D+1L+1LL
Contributing Cases & Source
Service Case 1 (Dead loads)
Service Case 2 (Roof Live loads)

Member Uniform Loads

This item is empty. Check the selection state, or report properties.

Nodal Reactions

Node	Load Case	FX lbs	FY lbs	MZ lb-ft
N1	Equation Case 1	0.00	498.30	-NA-
N2	"	-NA-	498.30	-NA-

Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M1	1511.07	12.5364	100.13	-0.0000
"	1513.94	17.9636	107.02	-0.1590
"	1516.80	29.46	59.8231	-0.1946
"	1519.67	50.96	-41.47	-0.1634
M2	1507.84	31.7302	-41.47	-0.1534
"	1510.71	18.2302	26.4467	-0.1424
"	1513.58	-1.2698	40.2684	-0.0948
"	1516.44	26.77	0.0000	-0.0041
M3	-1639.14	175.25	-100.13	-0.0000
"	-1593.47	36.2466	180.27	-0.2177
"	-1547.80	-98.75	100.55	-0.2372
"	-1502.14	-235.75	-339.30	-0.1628
M4	-82.81	248.42	-339.30	-0.1628
"	-37.14	11.42	133.90	-0.2941
"	8.5270	-25.58	247.02	-0.2875
"	54.1937	-162.58	-0.0000	0.0049
M5	-171.38	0.0000	0.0000	-0.0175
"	-171.38	0.0000	0.0000	0.0013
"	-171.38	0.0000	0.0000	0.0149
"	-171.38	0.0000	0.0000	0.0311
M6	89.4787	0.0000	0.0000	0.0352
"	89.4787	0.0000	0.0000	0.0361
"	89.4787	0.0000	0.0000	0.0365
"	89.4787	0.0000	0.0000	0.0369
M7	-1502.93	0.0000	0.0000	-0.1570
"	-1502.93	0.0000	0.0000	-0.1040
"	-1502.93	0.0000	0.0000	-0.0510
"	-1502.93	0.0000	0.0000	0.0021

BENDING & COMP: TRUSS 2 - MEMBER 3

Design based on 1997 UBC 2321 Division V and ANSI/TPI 1-1995

Grading:

2x or 4x

Doug-fir larch: No 2

Assumptions:

Solid sheathing on top chord of truss. Therefore,
continuous lateral support is provided along compression face
Maximum center-center spacing = 24"

Width, b	3 inches
Depth, d	3.5 inches
Length	7.91 feet
Max Axial Comp, C	1502 lbs
Max Reaction, R	235 lbs
Max Moment, M	339 ft-lbs
Max LL Deflection	0.08 inches
Max TL Deflection	0.16 inches
LL Defl Criteria = $L/240$	240
TL Defl Criteria = $L/180$	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
Size Factor, Cf bending	1.5 1.5 for 2x4, 1.3 for 2x6
Size Factor, Cf comp	1.15 1.15 for 2x4, 1.1 for 2x6
Buckling Factor, CT =	1.22
$f_c =$	143 psi
$F_{ce} =$	844 psi
$F_c^* =$	2084 psi
$F'_c =$	758 psi
$f_b =$	664 psi
$F'_b = F_b^* =$	2156 psi
Shear D/C ratio	0.28 < 1.0, Member OK
Interaction equation:	
$(f_c/F'_c)^2 +$	
$f_b / (F'_b(1-f_c/F_{ce})) =$	0.41 < 1.0, Member OK
Live Load defl ratio	0.20 < 1.0, Member OK
Total Load defl ratio	0.30 < 1.0, Member OK