

**CITY OF SACRAMENTO**  
1231 I Street, Sacramento, CA 95814

**Permit No: 0103362**  
**Insp Area: 4**

**Site Address: 735 SOTANO DR SAC**  
Parcel No: 262-0290-023

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

CONTRACTOR  
MG ROOFING  
7596 MACFINLEY WY  
SAC CA 95828

OWNER  
PLASCENCIA MELECIO/SANDRA B  
735 SOTANO DR  
SACRAMENTO CA 95833

ARCHITECT

**Nature of Work: REROOF; TEAR OFF; RESHEET; INSTALL 22-SQ OF LIGHT WEIGHT  
TILE ROOFING**

**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 C34 License Number 5824214 Date 3/19/01 Contractor Signature Edward Gonzalez

**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 & P 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 3/19/01 Applicant-Agent Signature Edward Gonzalez

**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:

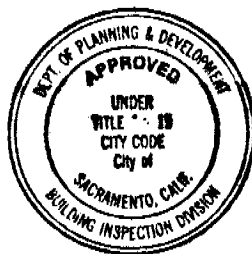
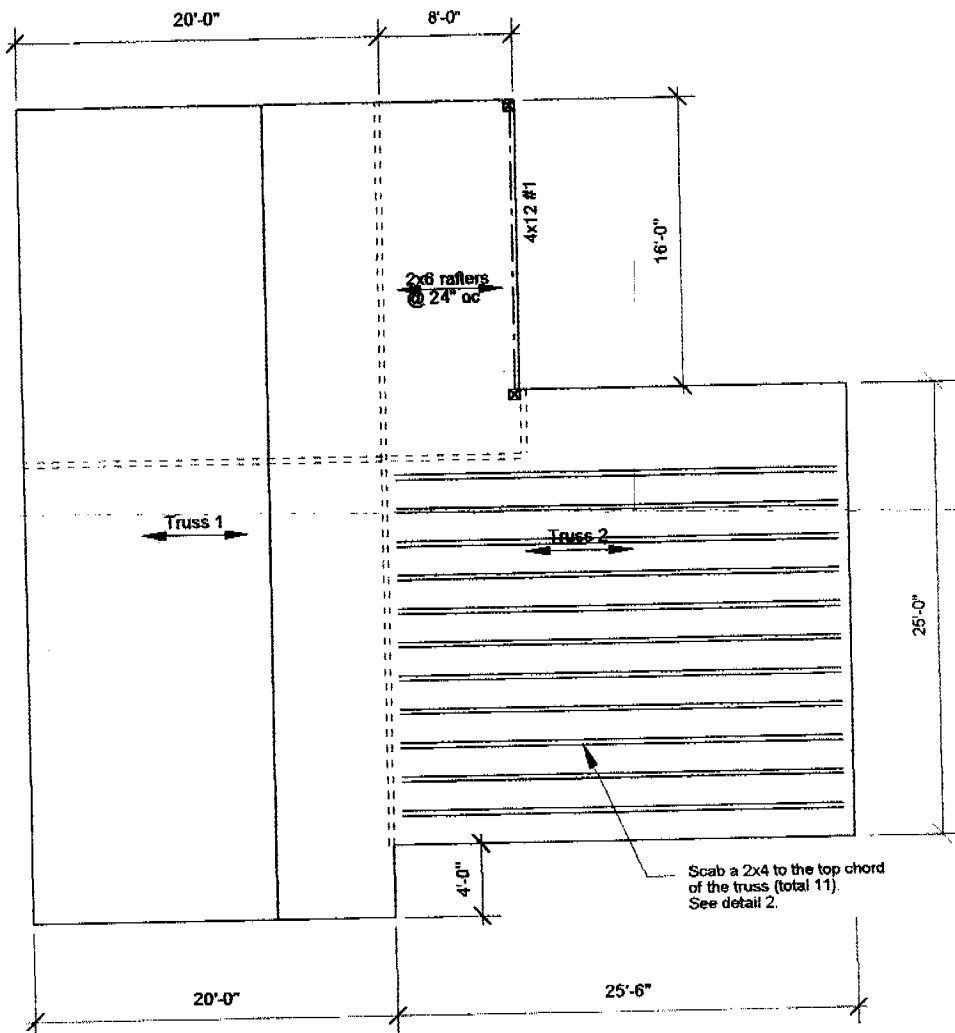
Carrier \_\_\_\_\_ Policy Number \_\_\_\_\_ Exp Date \_\_\_\_\_

\_\_\_\_\_, (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 3/19/01 Applicant Signature Edward Gonzalez

**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.**

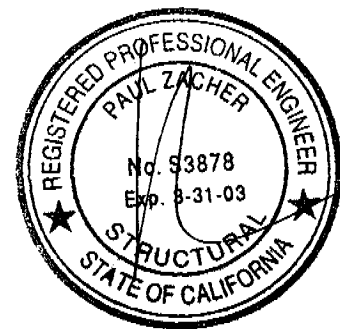
**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**



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 BY: *Jalal*  
3/19/01



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 7.0 psf.
2. All structural wood members that were observed appear to be in sound condition and without structural defect.

**ISSUED**

MAR 19 2001

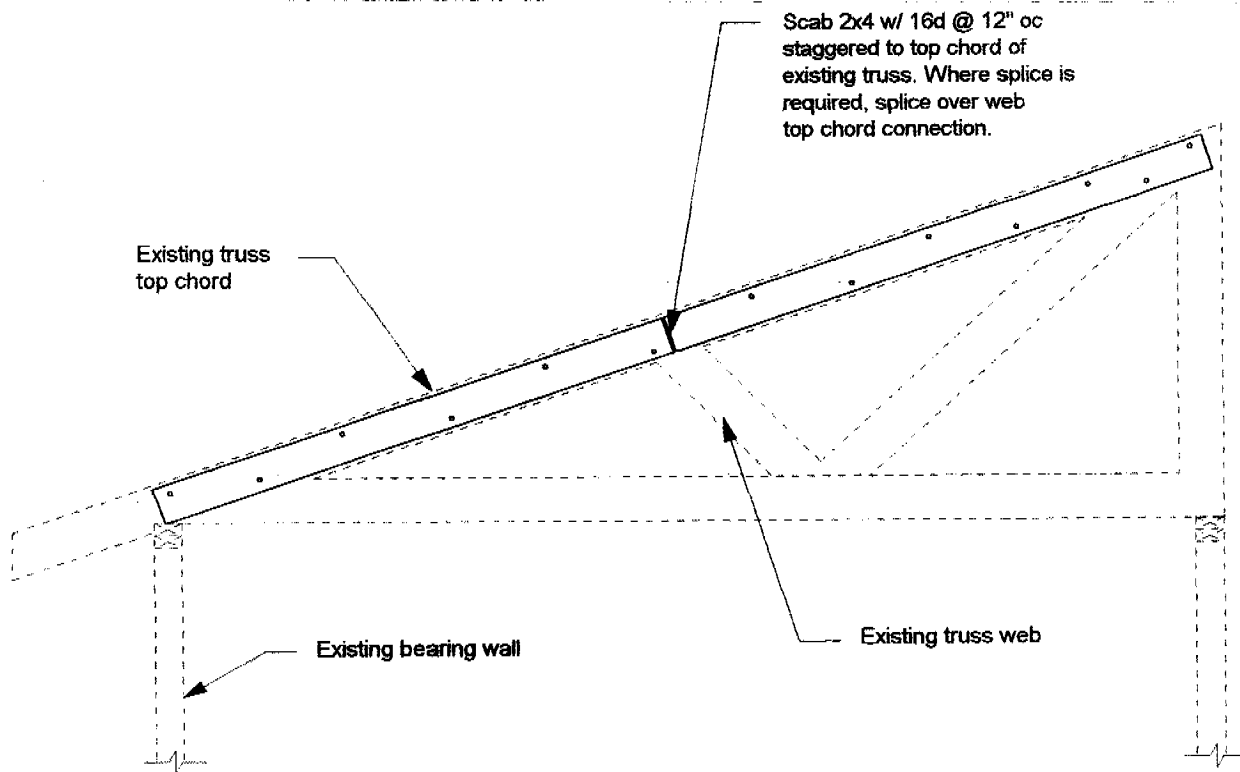
Sacramento Building Division



**ROOF PLAN -PLASENCIA**

Not to Scale





2

TRUSS REINFORCEMENT DETAIL

scale: 1/2" = 1'-0"



plascencia

R

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

TEL: 916.961.3960  
FAX: 916.961.3960

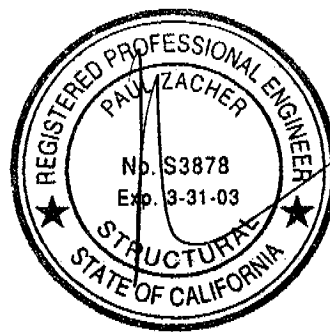
047993-088N PAPERWORK-TO-BE-REMOVED

October 20, 1999

MG Roofing  
7596 MacFinley Way  
Sacramento, CA 95828  
TEL: (916) 689-3175  
FAX: (916) 689-3175

Attn.: Mr. Ed Gonzales,

re: Job 99282: PLASENCIA



Subject: Structural Investigation Report of the Roof for the Residence located at 735 Sotano Drive,  
Sacramento, CA 95833.

As requested by Mr. Ed Gonzales, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site October 19, 1999. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report is 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 1970'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 a Light Weight Concrete Tile over 1/2" solid sheathing. The living area is conventionally framed with 2x6 rafters spaced at 24" on center and with pre-engineered wood trusses spaced at 24" on center.

**CONCLUSIONS:**

Roof:  
The living area has sufficient structural capacity for the applied live and dead loads.

1/11

plasecia



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

TEL: 916.961.3960  
FAX: 916.961.3960

**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. Scab a 2x4 DF#2 to the top chord of the truss and attach it with 16d's @ 12" on center. See details 1 and 2.

It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls which 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.

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 which 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	7.00	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	10.9 psf
Roof Pitch Adjustment	<u>0.59</u>	psf
Total Load	11.5	psf

**LOCATION: TOP CHORD**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Tile	7.00	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>1.28</u>	psf
	Load	11.2 psf
Roof Pitch Adjustment	<u>0.60</u>	psf
Total Load	11.8	psf

**LOCATION: BOTTOM CHORD**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Batt/blown insul	0.50	psf
2x4 truss @ 24" oc	0.64	psf
1/2" Gypboard	<u>2.50</u>	psf
	Load	3.6 psf

Paul Zacher - Structural Engineer  
 4701 Lakeside Way  
 Fair Oaks, CA 95628  
 TEL: (916) 961-3960  
 FAX: (916) 961-3960

Title :  
 Dsgnr:  
 Description :  
 Scope :

Job #  
 Date: 10:06PM, 20 OCT 99

Rev: 510304  
 User: KW-0602814, Ver 5.1.3, 22-Jun-1999, Win32  
 (c) 1993-99 ENERCALC

**Timber Beam & Joist**

c:\enercalc\tes\ecw\Calculations

Description RAFTERS AND BEAMS

**Timber Member Information**

Calculations are designed to 1997 NDS and 1997 UBC Requirements

		rafter	porch
Timber Section		2x6	4x12
Beam Width	in	1.500	3.500
Beam Depth	in	5.500	11.250
Le: Unbraced Length	ft	0.00	0.00
Timber Grade		Douglas Fir - Larch, Douglas Fir - Larch,	
Fb - Basic Allow	psi	675.0	675.0
Fv - Basic Allow	psi	95.0	95.0
Elastic Modulus	ksi	1,600.0	1,600.0
Load Duration Factor		1.250	1.250
Member Type		Sawn	Sawn
Repetitive Status		Repetitive	No

**Center Span Data**

Span	ft	12.00	16.00
Dead Load	#/ft	23.00	46.00
Live Load	#/ft	32.00	64.00

**Results**

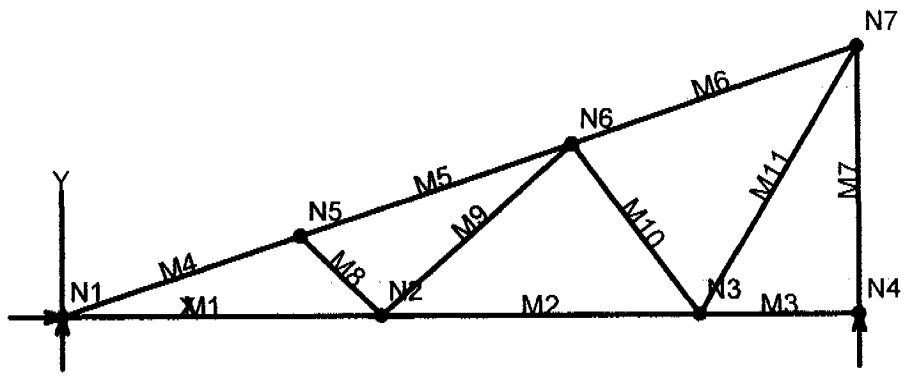
		Ratio =	
Mmax @ Center	in-k	11.88	42.24
@ X =	ft	6.00	8.00
f <sub>b</sub> : Actual	psi	1,570.9	572.1
F <sub>b</sub> : Allowable	psi	1,635.2	1,203.1
		Bending OK	Bending OK
f <sub>v</sub> : Actual	psi	55.7	29.8
F <sub>v</sub> : Allowable	psi	118.8	118.8
		Shear OK	Shear OK

**Reactions**

		lbs	
@ Left End	DL	138.00	368.00
	LL	192.00	512.00
	Max. DL+LL	330.00	880.00
@ Right End	DL	138.00	368.00
	LL	192.00	512.00
	Max. DL+LL	330.00	880.00

**Deflections**

Center DL Defl	in	-0.322	-0.102
L/Defl Ratio		446.5	1,880.9
Center LL Defl	in	-0.449	-0.142
L/Defl Ratio		320.9	1,351.9
Center Total Defl	in	-0.771	-0.244
Location	ft	6.000	8.000
L/Defl Ratio		186.7	786.5





# VisualAnalysis 3.50.c Report

10/21/99 14:46:50

## Project:

File: C:\Program Files\IES\VA35\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	10.00	0.00	No	No	"
N3	20.00	0.00	"	"	"
N4	25.00	0.00	"	Yes	"
N5	7.50	2.50	"	No	"
N6	16.00	5.33	"	"	"
N7	25.00	8.33	"	"	"

## Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	10.00
M2	"	"	10.00
M3	"	"	5.00
M4	SS2-2x4	"	7.91
M5	"	"	8.96
M6	"	"	9.49
M7	SS2x4	"	8.33
M8	"	"	3.54
M9	"	"	8.03
M10	"	"	6.66
M11	"	"	9.72

## Section Properties

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sy+ in <sup>3</sup>	Sy- in <sup>3</sup>
Wood Sha	SS2-2x4	10.50	10.72	6.13	6.13
"	SS2x4	5.25	5.36	3.06	3.06

## Material Properties

Material	Strength psi	Elasticity psi	Poisson	Density lb/ft <sup>3</sup>
Wood	-NA-	1700000	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)

## Nodal Reactions

Node	Load Case	FX lbs	FY lbs	MZ lb-ft
N1	Equation Case 1	0.00	790.00	-NA-
N4	"	-NA-	790.00	-NA-

## Member Extreme Results

Member	Axial (lc) lbs	Vy (lc) lbs	Mz (lc) lb-ft	Dx (lc) in	Dy (lc) in
M1	1770.00 ( 1)	-45.10 ( 1)	-70.99 ( 1)	-0.00 ( 1)	-0.16 ( 1)
"	1770.00 ( 1)	30.90 ( 1)	62.80 ( 1)	0.02 ( 1)	-0.00 ( 1)
M2	931.66 ( 1)	-35.10 ( 1)	-70.99 ( 1)	0.02 ( 1)	-0.14 ( 1)
"	931.66 ( 1)	40.90 ( 1)	39.02 ( 1)	0.04 ( 1)	-0.06 ( 1)
M3	0.00 ( 1)	-10.61 ( 1)	-41.97 ( 1)	0.04 ( 1)	-0.06 ( 1)
"	0.00 ( 1)	27.39 ( 1)	7.36 ( 1)	0.04 ( 1)	-0.00 ( 1)
M4	-1919.22 ( 1)	-235.18 ( 1)	-295.51 ( 1)	-0.01 ( 1)	-0.19 ( 1)
"	-1787.35 ( 1)	160.42 ( 1)	257.09 ( 1)	-0.00 ( 1)	-0.00 ( 1)
M5	-1566.65 ( 1)	-241.77 ( 1)	-452.96 ( 1)	-0.02 ( 1)	-0.15 ( 1)
"	-1417.36 ( 1)	206.63 ( 1)	130.75 ( 1)	-0.01 ( 1)	-0.08 ( 1)
M6	-553.42 ( 1)	-189.61 ( 1)	-452.96 ( 1)	-0.02 ( 1)	-0.30 ( 1)
"	-395.18 ( 1)	285.11 ( 1)	359.25 ( 1)	-0.02 ( 1)	-0.00 ( 1)
M7	-779.39 ( 1)	-0.00 ( 1)	-0.00 ( 1)	0.00 ( 1)	-0.02 ( 1)
"	-779.39 ( 1)	-0.00 ( 1)	0.00 ( 1)	0.01 ( 1)	0.04 ( 1)
M8	-493.34 ( 1)	0.00 ( 1)	0.00 ( 1)	0.10 ( 1)	-0.06 ( 1)
"	-493.34 ( 1)	0.00 ( 1)	0.00 ( 1)	0.10 ( 1)	-0.06 ( 1)
M9	654.75 ( 1)	-0.00 ( 1)	-0.00 ( 1)	-0.06 ( 1)	-0.10 ( 1)
"	654.75 ( 1)	-0.00 ( 1)	0.00 ( 1)	-0.05 ( 1)	-0.07 ( 1)
M10	-827.67 ( 1)	-0.00 ( 1)	-0.00 ( 1)	0.07 ( 1)	-0.04 ( 1)
"	-827.67 ( 1)	-0.00 ( 1)	0.00 ( 1)	0.07 ( 1)	-0.00 ( 1)
M11	844.97 ( 1)	-0.00 ( 1)	-0.00 ( 1)	-0.03 ( 1)	-0.06 ( 1)
"	844.97 ( 1)	-0.00 ( 1)	0.00 ( 1)	-0.02 ( 1)	0.01 ( 1)

**BENDING & COMP: TRUSS 1; MEMBER 4**Design based on 1997 UBC 2321 Division V  
and ANSI/TPI 1-1995Grading:

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	1919 lbs
Max Reaction, R	235 lbs
Max Moment, M	295 ft-lbs
Max LL Deflection	0.08 inches
Max TL Deflection	0.19 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
Size Factor, Cf comp	1.15
Buckling Factor, CT =	1.23
fc =	183 psi
Fce =	804 psi
Fc* =	1869 psi
F'c =	715 psi
fb =	578 psi
F'b = Fb* =	1887 psi
Shear D/C ratio	0.28 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb / (F'b(1-fc/Fce)) =	0.46 < 1.0, Member OK
Live Load defl ratio	0.20 < 1.0, Member OK
Total Load defl ratio	0.36 < 1.0, Member OK

**BENDING & COMP: TRUSS 1; MEMBER 5**Design based on 1997 UBC 2321 Division V  
and ANSI/TPI 1-1995Grading:

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	8.96 feet
Max Axial Comp, C	1566 lbs
Max Reaction, R	242 lbs
Max Moment, M	453 ft-lbs
Max LL Deflection	0.07 inches
Max TL Deflection	0.15 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
Size Factor, Cf comp	1.15
Buckling Factor, CT =	1.26
fc =	149 psi
Fce =	642 psi
Fc* =	1869 psi
F'c =	588 psi
fb =	888 psi
F'b = Fb* =	1887 psi
Shear D/C ratio	0.29 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb / (F'b(1-fc/Fce)) =	0.68 < 1.0, Member OK
Live Load defl ratio	0.16 < 1.0, Member OK
Total Load defl ratio	0.25 < 1.0, Member OK