

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

**Permit No: 0406839**

**Insp Area: 2**  
**Thos Bros: 337J7**

**Site Address: 8315 ANTON WY SAC**  
**Parcel No: 117-0534-010**

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

**CONTRACTOR**

**OWNER**  
BALDERRAMA ALICIA & HUGO  
8315 ANTON WAY  
SACRAMENTO CA 95823

**ARCHITECT**

**Nature of Work: T/O RESHEET 20 SQS INSTALL STD WGHT CONC TILE STRENGTHEN ROOF PER ENGINEERS REQUIREMENTS**

**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). *N/A*

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. *N/A*

License Class \_\_\_\_\_ License Number \_\_\_\_\_ Date \_\_\_\_\_ Contractor Signature \_\_\_\_\_

**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 5-4-04 Owner Signature Alicia Tejeda - Balderrama

**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 \_\_\_\_\_ Applicant/Agent Signature \_\_\_\_\_

**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 5-4-04 Applicant Signature Alicia Tejeda - Balderrama

**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.**



Balderamma



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

TEL: 916.961.3960  
FAX: 916.961.6552

**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.

Roof Structure:

1. Scab a 1 3/4" x 11 1/4" LVL to the existing header. See details 1 and 2.

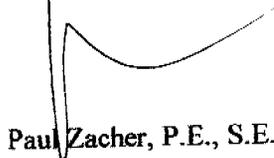
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and 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.

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



PAUL ZACHER- STRUCTURAL ENGINEERS, INC.

4701 Lakeside Way  
Fair Oaks, Ca 95628  
TEL: (916) 961-3960  
FAX: (916) 961-3938

Job #: 04\_187

Date: 04/24/2004

LOADING:

B1:

Dr = 16.8 psf x 12'-0" = 202 plf

Lr = 16.0 psf x 12'-0" = 192 plf

4x12 #2 + 1-3/4"x11-1/4" LVL

202 / 192

16'-0"

Paul Zacher - Structural Engr's  
 4701 Lakeside Way  
 Fair Oaks, CA 95628  
 TEL: (916) 961-3960  
 FAX: (916) 961-6552

Title :  
 Dsgnr:  
 Description :  
 Scope :

Job #  
 Date: 8:32AM, 24 APR 04

Rev: 560100  
 User: KW-0602844, Ver 5.6.1, 25-Oct-2002  
 (c)1983-2002 ENERCALC Engineering Software

### Timber Beam & Joist

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Description RAFTERS AND BEAMS

Calculations are designed to 1997 NDS and 1997 UBC Requirements

#### Timber Member Information

Timber Section		B1
Beam Width	in	4x12#2 + 1 5.250
Beam Depth	in	11.250
Le: Unbraced Length	ft	0.00
Timber Grade		ustom, DF#2 + LVL
Fb - Basic Allow	psi	1,450.0
Fv - Basic Allow	psi	158.0
Elastic Modulus	ksi	1,666.7
Load Duration Factor		1.250
Member Type		Manuf/Pine
Repetitive Status		No

#### Center Span Data

Span	ft	16.00
Dead Load	#/ft	202.00
Live Load	#/ft	192.00

#### Results

Ratio = 0.7538

Mmax @ Center	in-k	151.30
@ X =	ft	8.00
fb : Actual	psi	1,366.2
Fb : Allowable	psi	1,812.5
		Bending OK
fv : Actual	psi	71.1
Fv : Allowable	psi	197.5
		Shear OK

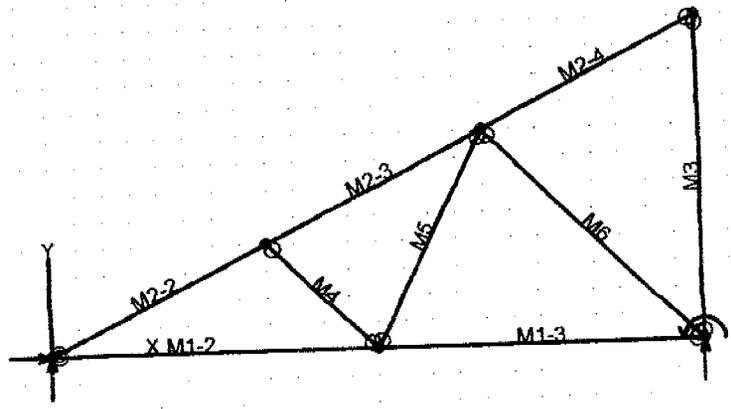
#### Reactions

@ Left End	DL	lbs	1,616.00
	LL	lbs	1,536.00
	Max. DL+LL	lbs	3,152.00
@ Right End	DL	lbs	1,616.00
	LL	lbs	1,536.00
	Max. DL+LL	lbs	3,152.00

#### Deflections

Ratio OK

Center DL Defl	in	-0.287
L/Defl Ratio		669.2
Center LL Defl	in	-0.273
L/Defl Ratio		704.1
Center Total Defl	in	-0.560
Location	ft	8.000
L/Defl Ratio		343.1



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# Truss 1

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Paul Zacher\Desktop\Robles04\_187\Balderamma01.vap

## Nodes

Node	X ft	Y ft	Fix DX	Fix DY	Fix RZ
N1	0.00	0.00	Yes	Yes	No
N2	24.00	0.00	No	"	Yes
N3	24.00	12.00	"	No	No
N4	12.00	0.00	"	"	"
N5	8.00	4.00	"	"	"
N6	16.00	8.00	"	"	"

## Member Elements

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	12.00
M1-3	"	"	12.00
M2-2	"	"	8.94
M2-3	"	"	8.94
M2-4	"	"	8.94
M3	"	"	12.00
M4	"	"	5.66
M5	"	"	8.94
M6	"	"	11.31

## Section Properties

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sz(+y) in <sup>3</sup>	Sz(-y) in <sup>3</sup>
Wood Sha	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-	1700000.00	0.36	40.47

## Load Combination Summary

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases &amp; Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

## Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft

N1	UBC97 12.8a	0.00	746.40	-NA-
N2	"	-NA-	746.40	0.00

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	1068.76	-63.92	-147.82	0.02	-0.06
"	1068.76	-29.52	39.00	0.01	-0.18
"	1068.76	4.88	88.27	0.01	-0.20
"	<b>1068.76</b>	39.28	0.00	0.00	0.00
M1-3	535.66	-39.28	0.00	0.03	0.00
"	535.66	-4.88	88.27	0.02	-0.20
"	535.66	29.52	39.00	0.02	-0.18
"	535.66	63.92	-147.82	0.02	-0.06
M2-2	<b>-1272.1</b>	154.50	0.00	0.00	0.00
"	-1208.2	26.66	<b>269.90</b>	-0.00	<b>-0.36</b>
"	-1144.3	-101.19	158.81	-0.01	-0.32
"	-1080.4	<b>-229.03</b>	-333.30	-0.01	-0.07
M2-3	-940.51	190.62	-333.30	-0.01	-0.07
"	-876.59	62.78	44.30	-0.02	-0.08
"	-812.67	-65.06	40.89	-0.02	-0.07
"	<b>-748.75</b>	-192.91	<b>-343.52</b>	-0.02	-0.04
M2-4	-115.09	<b>230.17</b>	-343.52	-0.02	-0.04
"	-51.16	102.33	151.99	-0.02	-0.29
"	12.76	-25.52	266.50	-0.02	-0.34
"	76.68	-153.36	0.00	-0.02	0.01
M3	-171.46	0.00	0.00	0.00	-0.03
"	-171.46	0.00	0.00	0.00	-0.01
"	-171.46	0.00	0.00	0.00	0.01
"	-171.46	0.00	0.00	0.00	<b>0.03</b>
M4	-442.35	0.00	0.00	<b>0.06</b>	-0.04
"	-442.35	0.00	0.00	0.06	-0.03
"	-442.35	0.00	0.00	0.06	-0.03
"	-442.35	0.00	0.00	0.06	-0.03
M5	492.64	0.00	0.00	<b>-0.05</b>	-0.04
"	492.64	0.00	0.00	-0.05	-0.03
"	492.64	0.00	0.00	-0.05	-0.03
"	492.64	0.00	0.00	-0.04	-0.02
M6	-757.54	0.00	0.00	0.02	0.00
"	-757.54	0.00	0.00	0.02	0.02
"	-757.54	0.00	0.00	0.03	-0.04
"	-757.54	0.00	0.00	0.03	-0.02

**BENDING & COMP: TRUSS 1 - MEMBER 2-2**

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

Grading:

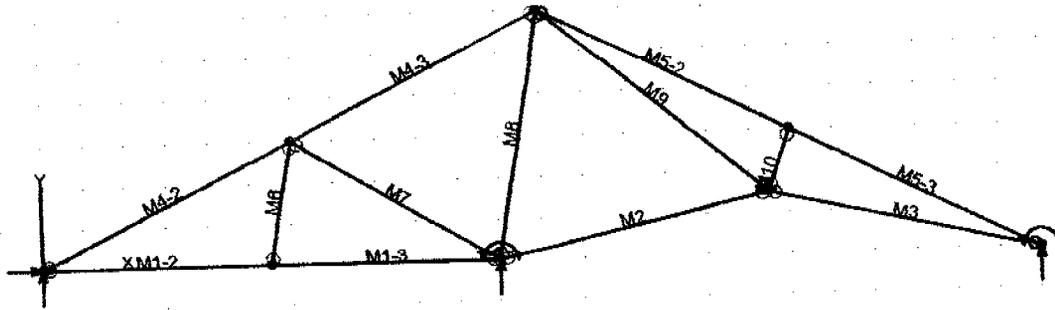
2x or 4x

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	8.94 feet
Max Axial Comp, C	1080 lbs
Max Reaction, R	229 lbs
Max Moment, M	333 ft-lbs
Max LL Deflection	0.04 inches
Max TL Deflection	0.07 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 =	1.25
fc =	206 psi
Fce =	676 psi
Fc* =	2084 psi
F'c =	623 psi
fb =	1305 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.55 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb / (F'b(1-fc/Fce)) =	0.98 < 1.0, Member OK
Live Load defl ratio	0.09 < 1.0, Member OK
Total Load defl ratio	0.12 < 1.0, Member OK



## Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	0.00	113.58	-NA-
N2	"	-NA-	1168.28	0.00
N5	"	-NA-	210.94	0.00

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	-49.65	-29.33	-31.23	-0.00	-0.00
"	-49.65	-13.56	8.07	-0.00	-0.01
"	-49.65	2.20	18.48	-0.00	-0.01
"	-49.65	17.97	0.00	0.00	0.00
M1-3	-59.42	-17.97	0.00	-0.00	0.00
"	-59.42	-2.20	18.48	-0.00	-0.01
"	-59.42	13.56	8.07	-0.00	-0.01
"	-59.42	29.33	-31.23	-0.00	-0.00
M2	-356.87	27.23	0.00	-0.00	0.00
"	-352.68	9.08	40.36	-0.00	-0.04
"	-348.49	-9.08	40.36	-0.00	-0.05
"	-344.30	-27.23	0.00	-0.00	-0.03
M3	225.91	-27.23	0.00	0.01	0.00
"	230.10	-9.08	40.36	0.01	-0.04
"	234.29	9.08	40.36	0.01	-0.05
"	238.48	27.23	0.00	0.01	-0.03
M4-2	1.65	107.72	0.00	0.00	0.00
"	49.59	11.84	133.58	0.00	-0.09
"	97.53	-84.05	52.85	0.00	-0.06
"	145.47	<b>-179.93</b>	<b>-242.19</b>	0.00	-0.00
M4-3	440.05	<b>179.93</b>	<b>-242.19</b>	0.00	-0.00
"	487.99	84.05	52.85	0.00	-0.06
"	535.94	-11.84	133.58	0.00	-0.09
"	583.88	-107.72	0.00	0.01	-0.01
M5-2	-214.71	-178.46	-232.35	0.01	-0.02
"	-166.77	-82.58	59.42	0.01	-0.08
"	-118.83	13.30	<b>136.86</b>	0.01	<b>-0.10</b>
"	-70.89	109.19	0.00	0.01	-0.00
M5-3	-307.55	-109.19	0.00	0.01	0.00
"	-259.60	-13.30	136.86	0.01	-0.09
"	-211.66	82.58	59.42	0.01	-0.08
"	-163.72	178.46	-232.35	0.01	-0.02
M6	59.47	0.00	0.00	-0.00	-0.00
"	59.47	0.00	0.00	-0.00	-0.00
"	59.47	0.00	0.00	-0.00	-0.00
"	59.47	0.00	0.00	-0.00	-0.00
M7	-483.55	0.00	0.00	0.00	-0.00
"	-483.55	0.00	0.00	0.00	-0.00
"	-483.55	0.00	0.00	-0.00	-0.00
"	-483.55	0.00	0.00	0.00	-0.00
M8	-805.71	0.00	0.00	-0.01	-0.01
"	-805.71	0.00	0.00	-0.00	-0.01
"	<b>-805.71</b>	0.00	0.00	-0.00	0.00
"	-805.71	0.00	0.00	-0.00	-0.00
M9	<b>586.39</b>	0.00	0.00	0.01	-0.00
"	586.39	0.00	0.00	0.02	-0.02
"	586.39	0.00	0.00	<b>0.02</b>	-0.01

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
"	586.39	0.00	0.00	0.02	-0.01
M10	-360.54	0.00	0.00	-0.03	-0.01
"	-360.54	0.00	0.00	-0.03	-0.01
"	-360.54	0.00	0.00	-0.03	-0.01
"	-360.54	0.00	0.00	-0.02	-0.01

### BENDING & COMP: TRUSS 2 - MEMBER 5-2

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

#### Grading:

2x or 4x

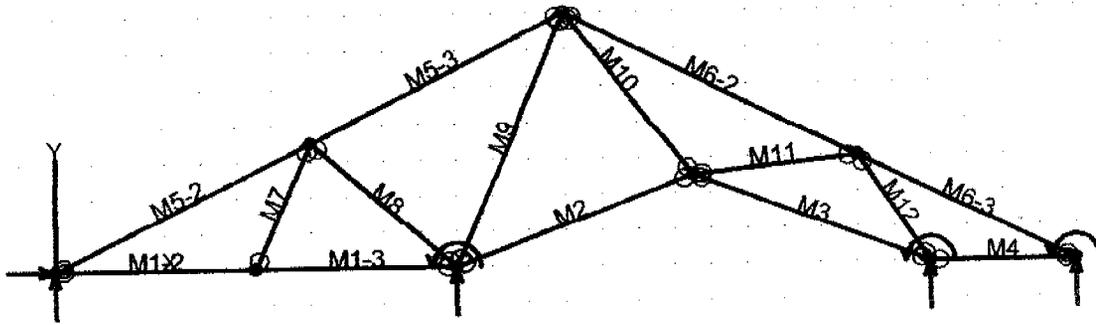
Doug-fir larch: No. 2

#### 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	6.71
Max Axial Comp, C	214 lbs
Max Reaction, R	178 lbs
Max Moment, M	232 ft-lbs
Max LL Deflection	0.01 inches
Max TL Deflection	0.02 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 =	1.18
fc =	41 psi
Fce=	1142 psi
Fc*=	2084 psi
F'c=	972 psi
fb=	909 psi
F'b=Fb*=	2156 psi
Shear D/C ratio	0.43 < 1.0, Member OK
Interaction equation:	
(fc/F'c)^2 +	
fb/ (F'b(1-fc/Fce)) =	0.44 < 1.0, Member OK
Live Load defl ratio	0.03 < 1.0, Member OK
Total Load defl ratio	0.04 < 1.0, Member OK



# Truss 3

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Paul Zacher\Desktop\Robles04\_187\Balderamma 03.vap

## Nodes

Node	X ft	Y ft	Fix DX	Fix DY	Fix RZ
N1	0.00	0.00	Yes	Yes	No
N2	11.00	0.00	No	"	Yes
N3	17.50	2.50	"	No	No
N4	24.00	0.00	"	Yes	Yes
N5	28.00	0.00	"	"	"
N6	14.00	7.00	"	No	No
N7	5.50	0.00	"	"	"
N8	7.00	3.50	"	"	"
N9	22.00	3.00	"	"	"

## Member Elements

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	5.50
M1-3	"	"	5.50
M2	"	"	6.96
M3	"	"	6.96
M4	"	"	4.00
M5-2	"	"	7.83
M5-3	"	"	7.83
M6-2	"	"	8.94
M6-3	"	"	6.71
M7	"	"	3.81
M8	"	"	5.32
M9	"	"	7.62
M10	"	"	5.70
M11	"	"	4.53
M12	"	"	3.61

## Section Properties

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sz(+y) in <sup>3</sup>	Sz(-y) in <sup>3</sup>
Wood Sha	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-	1700000.00	0.36	40.47

## Load Combination Summary

Equation Case: UBC97 12.8a  
Combination: 1D+1Lr

16

Contributing Cases & Source  
 Dead Load (Dead loads)  
 Roof Live Load (Roof Live loads)

## Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	0.00	223.22	-NA-
N2	"	-NA-	938.84	0.00
N4	"	-NA-	542.97	0.00
N5	"	-NA-	36.57	0.00

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	128.41	-29.00	-29.44	0.00	-0.01
"	128.41	-13.24	9.26	0.00	-0.01
"	128.41	2.53	19.08	0.00	-0.01
"	128.41	18.30	0.00	0.00	0.00
M1-3	103.55	-18.30	0.00	0.00	0.00
"	103.55	-2.53	19.08	0.00	-0.01
"	103.55	13.24	9.26	0.00	-0.01
"	103.55	29.00	-29.44	0.00	-0.01
M2	-46.53	26.09	0.00	0.00	-0.00
"	-39.84	8.70	40.36	0.00	-0.04
"	-33.15	-8.70	40.36	0.00	-0.05
"	-26.46	-26.09	0.00	0.00	-0.01
M3	227.04	-26.09	0.00	0.01	0.00
"	233.73	-8.70	40.36	0.01	-0.04
"	240.42	8.70	40.36	0.01	-0.04
"	247.11	26.09	0.00	0.01	-0.01
M4	-167.34	-17.20	0.00	0.01	0.00
"	-167.34	-5.73	15.28	0.01	-0.00
"	-167.34	5.73	15.28	0.01	-0.00
"	-167.34	17.20	0.00	0.01	0.00
M5-2	-206.50	125.86	0.00	0.00	0.00
"	-150.57	14.00	182.32	-0.00	-0.16
"	-94.64	-97.86	72.93	-0.00	-0.11
"	-38.70	-209.73	-328.16	-0.00	-0.01
M5-3	197.74	<b>209.73</b>	-328.16	-0.00	-0.01
"	253.68	97.86	72.93	-0.00	-0.12
"	309.61	-14.00	182.32	0.00	-0.17
"	<b>365.54</b>	-125.86	0.00	0.00	-0.01
M6-2	-202.26	<b>-230.51</b>	<b>-346.57</b>	0.01	-0.01
"	-138.34	-102.67	149.96	0.01	-0.27
"	-74.42	25.17	<b>265.48</b>	0.01	<b>-0.33</b>
"	-10.49	153.02	0.00	0.01	-0.00
M6-3	141.01	-92.16	0.00	0.01	0.01
"	188.95	3.72	98.79	0.01	-0.04
"	236.90	99.60	-16.73	0.01	-0.01
"	284.84	195.49	-346.57	0.01	-0.01
M7	63.11	0.00	0.00	<b>-0.01</b>	-0.00
"	63.11	0.00	0.00	-0.00	-0.00
"	63.11	0.00	0.00	-0.00	-0.00
"	63.11	0.00	0.00	-0.00	-0.00
M8	-497.24	0.00	0.00	0.00	0.00
"	-497.24	0.00	0.00	0.00	-0.00
"	-497.24	0.00	0.00	0.00	-0.00

**BENDING & COMP: TRUSS 3 - MEMBER 2-2**

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

**Grading:**

2x or 4x

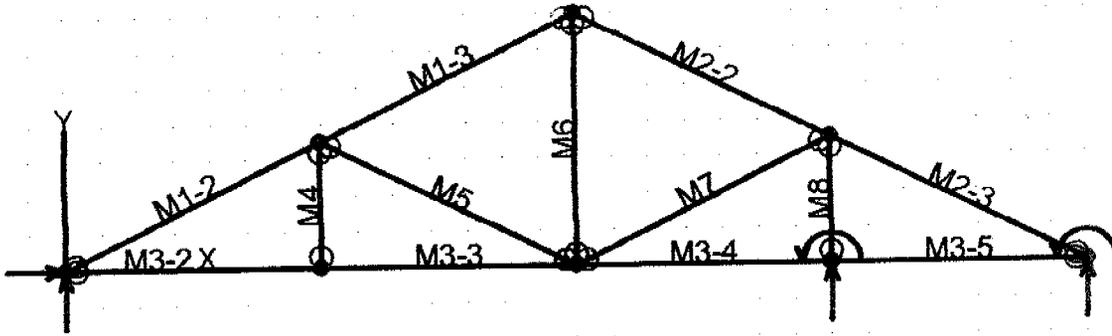
Doug-fir larch: No. 2

**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	8.94 feet
Max Axial Comp, C	138 lbs
Max Reaction, R	102 lbs
Max Moment, M	149 ft-lbs
Max LL Deflection	0.13 inches
Max TL Deflection	0.27 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 =	1.25
fc =	26 psi
Fce=	676 psi
Fc*=	2084 psi
F'c=	623 psi
fb=	584 psi
F'b=Fb*=	2156 psi
Shear D/C ratio	0.25 < 1.0, Member OK
Interaction equation:	
(fc/F'c)^2 +	
fb/ (F'b(1-fc/Fce)) =	0.28 < 1.0, Member OK
Live Load defl ratio	0.29 < 1.0, Member OK
Total Load defl ratio	0.45 < 1.0, Member OK

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
"	-497.24	0.00	0.00	0.00	-0.00
M9	-600.63	0.00	0.00	-0.01	-0.01
"	-600.63	0.00	0.00	-0.00	-0.01
"	-600.63	0.00	0.00	-0.00	-0.00
"	-600.63	0.00	0.00	0.00	-0.00
M10	182.23	0.00	0.00	<b>0.01</b>	-0.00
"	182.23	0.00	0.00	0.01	-0.00
"	182.23	0.00	0.00	0.01	-0.00
"	182.23	0.00	0.00	0.01	-0.00
M11	-144.34	0.00	0.00	0.00	-0.01
"	-144.34	0.00	0.00	0.00	-0.01
"	-144.34	0.00	0.00	0.00	-0.01
"	-144.34	0.00	0.00	0.00	-0.01
M12	-700.59	0.00	0.00	0.01	0.00
"	<b>-700.59</b>	0.00	0.00	0.01	-0.00
"	-700.59	0.00	0.00	0.01	0.01
"	-700.59	0.00	0.00	0.01	<b>0.01</b>



**Truss 4**

VisualAnalysis 4.00 Report

Company: Paul Zacher - Structural Engineers Engineer: Paul Zacher

File: C:\Documents and Settings\Paul Zacher\Desktop\Robles04\_187\Balderamma 04.vap

**Nodes**

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RZ
N1	28.00	0.00	No		Yes		Yes	
N2	0.00	0.00	Yes		"		No	
N3	14.00	7.00	No		No		"	
N4	7.00	0.00	"		"		"	
N5	14.00	0.00	"		"		"	
N6	21.00	0.00	"		Yes		Yes	
N7	7.00	3.50	"		No		No	
N8	21.00	3.50	"		"		"	

**Member Elements**

Member	Section	Material	Length ft
M1-2	SS2x4	Wood	7.83
M1-3	"	"	7.83
M2-2	"	"	7.83
M2-3	"	"	7.83
M3-2	"	"	7.00
M3-3	"	"	7.00
M3-4	"	"	7.00
M3-5	"	"	7.00
M4	"	"	3.50
M5	"	"	7.83
M6	"	"	7.00
M7	"	"	7.83
M8	"	"	3.50

**Section Properties**

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sz(+y) in <sup>3</sup>	Sz(-y) in <sup>3</sup>
Wood	Sha 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-	1700000.00	0.36	40.47

**Load Combination Summary**

Equation Case: UBC97 12.8a

Combination: 1D+1Lr

Contributing Cases &amp; Source

Dead Load (Dead loads)

Roof Live Load (Roof Live loads)

## Nodal Reactions

Node	Load Case	FX lb	FY lb	MZ lb-ft
N1	UBC97 12.8a	-NA-	84.40	0.00
N2	"	0.00	608.87	-NA-
N6	"	-NA-	1048.34	4.21

## Member Results

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
M1-2	-1050.7	127.10	0.00	0.00	0.00
"	-994.84	15.24	185.55	-0.00	-0.18
"	-938.90	-96.63	79.39	-0.01	-0.15
"	-882.97	-208.49	-318.48	-0.01	-0.05
M1-3	-496.88	208.49	-318.48	-0.01	-0.05
"	-440.95	96.63	79.39	-0.01	-0.16
"	-385.02	-15.24	185.55	-0.01	-0.20
"	-329.09	-127.10	0.00	-0.01	-0.03
M2-2	-497.70	-210.12	-331.24	0.01	-0.00
"	-441.77	-98.26	70.88	0.01	-0.12
"	-385.84	13.61	181.29	0.01	-0.17
"	-329.90	125.47	0.00	0.01	-0.03
M2-3	112.70	-125.47	0.00	0.01	0.01
"	168.63	-13.61	181.29	0.01	-0.15
"	224.56	98.26	70.88	0.01	-0.11
"	280.50	210.12	-331.24	0.01	-0.00
M3-2	882.99	-34.93	-33.84	0.01	-0.05
"	882.99	-14.87	24.25	0.01	-0.06
"	882.99	5.20	35.53	0.00	-0.05
"	882.99	25.27	0.00	0.00	0.00
M3-3	882.99	-29.52	-29.78	0.02	-0.03
"	882.99	-9.45	15.67	0.01	-0.05
"	882.99	10.61	14.32	0.01	-0.06
"	882.99	30.68	-33.84	0.01	-0.05
M3-4	-156.91	-32.77	-48.47	0.02	0.00
"	-156.91	-12.70	4.56	0.02	-0.01
"	-156.91	7.36	10.79	0.02	-0.03
"	-156.91	27.43	-29.78	0.02	-0.03
M3-5	-156.91	-22.58	0.00	0.01	0.00
"	-156.91	-2.51	29.25	0.01	-0.02
"	-156.91	17.56	11.69	0.01	-0.01
"	-156.91	37.62	-52.67	0.02	0.00
M4	65.61	0.00	0.00	0.05	0.01
"	65.61	0.00	0.00	0.05	0.01
"	65.61	0.00	0.00	0.05	0.01
"	65.61	0.00	0.00	0.05	0.01
M5	-594.58	0.00	0.00	0.03	-0.03
"	-594.58	0.00	0.00	0.03	-0.03
"	-594.58	0.00	0.00	0.03	-0.02
"	-594.58	0.00	0.00	0.04	-0.04
M6	68.80	0.00	0.00	-0.03	-0.02
"	68.80	0.00	0.00	-0.03	-0.01
"	68.80	0.00	0.00	-0.03	-0.01
"	68.80	0.00	0.00	-0.03	0.00
M7	568.07	0.00	0.00	0.00	-0.04
"	568.07	0.00	0.00	0.00	-0.03
"	568.07	0.00	0.00	0.00	-0.02

Member	Fx lb	Vy lb	Mz lb-ft	Dx in	Dy in
"	568.07	0.00	0.00	0.01	-0.01
M8	-977.94	0.00	0.00	0.00	0.01
"	-977.94	0.00	0.00	0.00	0.01
"	-977.94	0.00	0.00	0.00	0.01
"	-977.94	0.00	0.00	0.00	0.02

**BENDING & COMP: TRUSS 4 - MEMBER 1-2**

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

**Grading:**

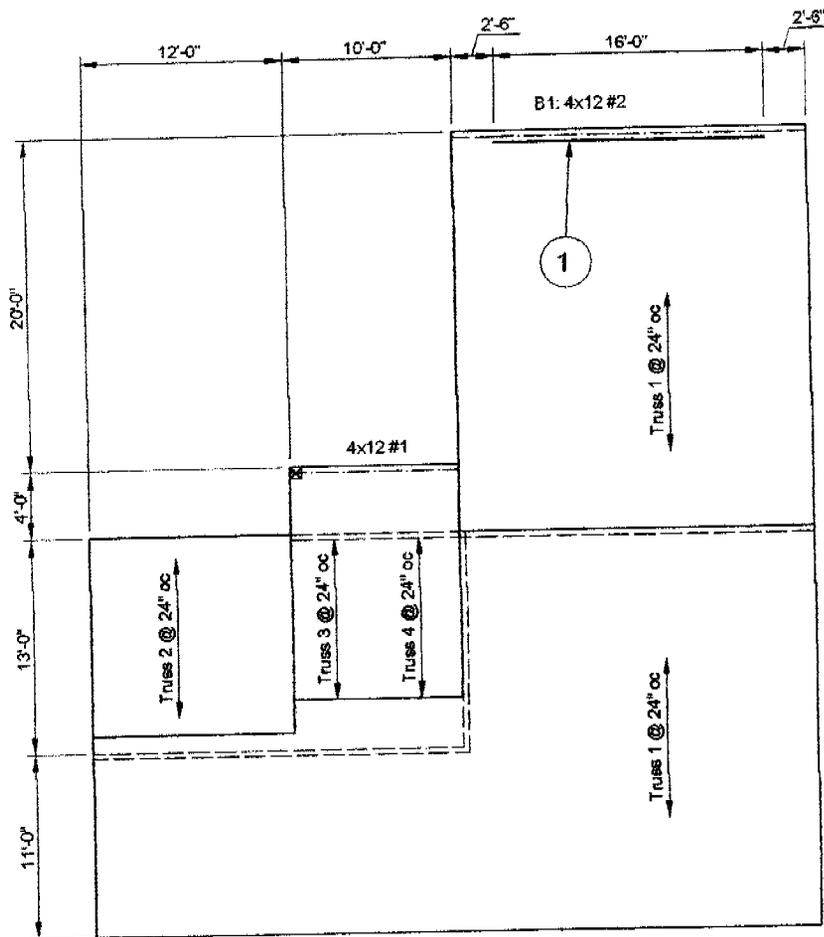
2x or 4x

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	7.83 feet
Max Axial Comp, C	882 lbs
Max Reaction, R	208 lbs
Max Moment, M	318 ft-lbs
Max LL Deflection	0.03 inches
Max TL Deflection	0.05 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 =	168 psi
Fce =	860 psi
Fc* =	2084 psi
F'c =	770 psi
fb =	1246 psi
F'b = Fb* =	2156 psi
Shear D/C ratio	0.50 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb / (F'b(1-fc/Fce)) =	0.77 < 1.0, Member OK
Live Load defl ratio	0.08 < 1.0, Member OK
Total Load defl ratio	0.10 < 1.0, Member OK



**FRAMING NOTES:**

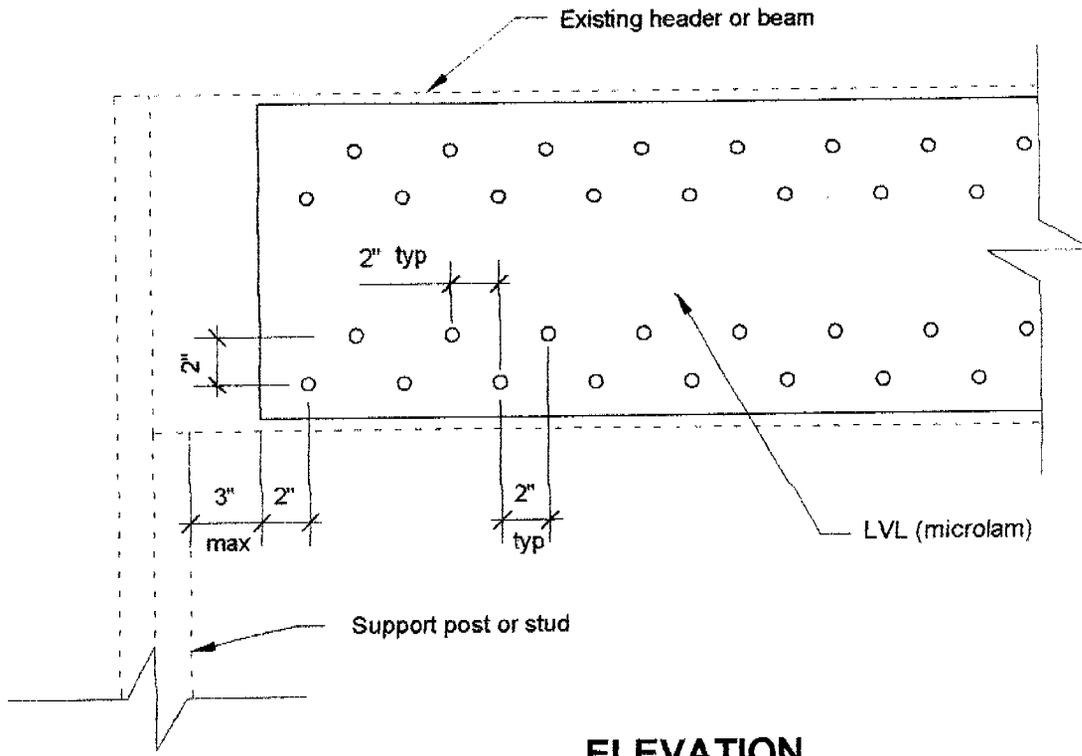
1. Scab a 1 3/4" x 11 1/4" LVL to the existing 4x12 beam. See detail 2.

**NOTES:**

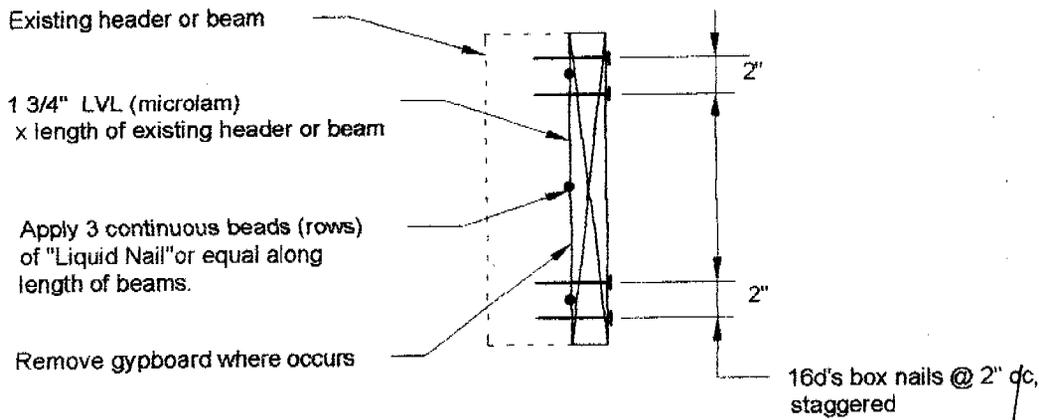
- A. This is a reroof project. The new roofing material shall be a Standard Weight Concrete Tile. The tile shall weigh less than or equal to 10.3 psf.
- B. All structural wood members that were observed appear to be in sound condition and without structural defect.



**1** ROOF PLAN - BALDERAMMA  
Not to Scale  
25



**ELEVATION**



**SECTION**

2

**HEADER DETAIL**

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

20





**CITY OF SACRAMENTO**  
**PLANNING & BUILDING DEPARTMENT**  
**BUILDING DIVISION**

[www.cityofsacramento.org](http://www.cityofsacramento.org)

Help Line: 1-916-264-5656 OR 1-866-EZ-PERMIT  
 Inspection: 1-916-808-4677



Downtown Permit Center 1-916-264-6807  
 1231 I Street, Suite 200, Sacramento, CA 95814

North Permit Center 1-916-808-2354  
 2101 Arena Blvd., Suite 200, Sacramento, CA 95834

**OWNER-BUILDER VERIFICATION**  
**ATTENTION PROPERTY OWNERS**

An owner-builder building permit has been applied for in your name and bearing your signature.

Please complete and return this information in the envelope provided at your earliest opportunity to avoid unnecessary delay in processing and issuing your building permit. No building permit will be issued until this form is received.

1. I personally plan to provide the major labor and materials for construction of the proposed improvements  
 (yes or no) yes

2. I (have/have not) yes signed and application for a building permit for the proposed work.

3. I have contracted with the following person (firm) to provide the proposed construction:

Name N/A Address \_\_\_\_\_

City \_\_\_\_\_ Telephone \_\_\_\_\_

Contractors License No. \_\_\_\_\_

4. I plan to provide portions of the work, but I have hired the following person to coordinate, Supervise, and provide the major work.

Name N/A Address \_\_\_\_\_

City \_\_\_\_\_ Telephone \_\_\_\_\_

Contractors License No. \_\_\_\_\_

5. I will provide some of the work but I have contracted (hired) the following to provide the Work indicated:

Name	Address	Phone	Type of Work
<u>N/A</u>			

Signed Oliver Hyston-Baldernan

Job Address 8315 Anton Way Sac, CA 95823

Permit No: \_\_\_\_\_