

CITY OF SACRAMENTO

Permit No: 9807538

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 19 PEBBLE RIVER CR SAC

Sub-Type: RES

Parcel No: 0310390067

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO, CA 95826

OWNER

LONG BILLIE L/PATRICIA A
19 PEBBLE RIVER CR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: T/O & REROOF 36 SQS WITH LIGHTWEIGHT 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 557559 Date 8-7-98 Contractor Signature Billy Coy

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 8-7-98 Applicant/Agent Signature Billy Coy

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 713 970002024 Exp 10-1-98

(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 8-7-98 Applicant Signature Billy Coy

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.

NEED MORE

Paul Zacher-Structural Engineers

4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960
FAX: 916.961.3960
e-mail: pzacher@softcom.net

July 7, 1998

Zimmerman Roofing
3560 Ramona Avenue
Sacramento, CA 95826
TEL: 916.454.3667
FAX: 916.455.3784
TEL (Jeff): 916.392.1971
FAX (Jeff): 916.392.6853
FAX (Framer): 916.383.5308

Attn: Mr. Jeff Tucker,

re Job 98137: SAMUEL

Subject: Structural Investigation Report of the Roof for the Residence located at 19 Pebble River Circle, Sacramento, CA 95831.

As requested by Mr. Jeff Tucker, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site July 7, 1998. 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 1994 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: One.
Dimensions: Approximately 2000 square feet with a first story plate height of 8 feet.

CONSTRUCTION:

Roof

The roof covering will consist of Pioneer Everwest Light Weight Tile over 1/2" solid sheathing. The living and garage areas are framed with pre-engineered wood trusses spaced at 24" on center.

ISSUED

AUG 07 1998

Sacramento Building Division

1/17

CONCLUSIONS:

Roof:

The living and garage areas have sufficient structural capacity for the applied live and dead

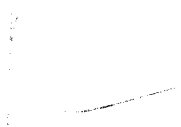
RECOMMENDATIONS:

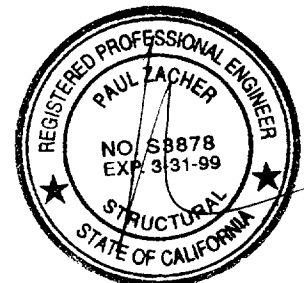
None

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	6	in 12
Pitch Adjustment Factor	1.12	

LOCATION: TOP CHORD

<u>MATERIAL</u>	<u>WEIGHT</u>	
Pioneer Everwest Light Wt	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>1.32</u>	psf
Total Load	12.5	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

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID SE
ZIME-1

DATE (MM/DD/YY)
07/23/98

INSURED
 Jack and Dean
 Division of InterWest Ins Serv
 Box 255188
 Sacramento CA 95865-5188

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

Agent
 Craig Houck
 Phone: 916-488-3100 Fax No: 916-488-7143

COMPANIES AFFORDING COVERAGE

- COMPANY A Reliance Insurance Company
- COMPANY B General Security
- COMPANY C Golden Eagle Ins Corp
- COMPANY D State Comp Ins Fund (CA)

Zimmerman Roofing, Inc.
 3560 Ramona Avenue
 Sacramento CA 95826

TERMS
 THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS MADE <input checked="" type="checkbox"/> OCCUR OWNERS & CONTRACTOR'S PROT	SJ3002844	05/01/98	05/01/99	GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 1,000,000 PERSONAL & ADV INJURY \$ 1,000,000 EACH OCCURRENCE \$ 1,000,000 FIRE DAMAGE (Any one fire) \$ 50,000 MED EXP (Any one person) \$ EXCLUDED
AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	CCP560841-00	05/01/98	05/01/99	COMBINED SINGLE LIMIT \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EACH ACCIDENT \$ AGGREGATE \$
EXCESS LIABILITY <input checked="" type="checkbox"/> UMBRELLA FORM OTHER THAN UMBRELLA FORM	UM2006563	05/01/98	05/01/99	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000
WORKERS COMPENSATION AND EMPLOYERS LIABILITY THE PROPRIETOR, PARTNERS/EXECUTIVE OFFICERS ARE <input checked="" type="checkbox"/> EXCL OTHER	INCL 713-97-2021	10/01/97	10/01/98	<input checked="" type="checkbox"/> WC STATUTORY LIMITS OTHER EL EACH ACCIDENT \$ 1000000 EL DISEASE - POLICY LIMIT \$ 1000000 EL DISEASE - EA EMPLOYEE \$ 1000000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER

TOWHIMC

To Whom It May Concern

CANCELLATION 10-Day Notice for Non-Payment
 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
 Craig Houck *Craig M. Houck*

ACORD CORPORATION 1988



DEPARTMENT OF
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

1231 I STREET
ROOM 200
SACRAMENTO, CA
95814-2998

Permit Service
916-264-7619
FAX 916-264-7096

Samuel at
19 Peck's River, 95831
TILE ROOF WORKSHEET

This worksheet must be filled out whenever any type of tile roof is applied for.

If the answer to question #5 is yes, a written engineering report from a registered engineer must be provided with each application.

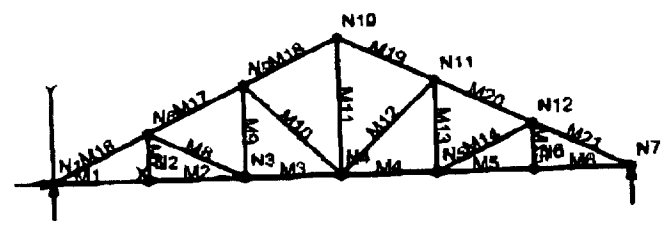
BRAND AND MODEL OF TILE Pioneer Shakes
TILE WEIGHT PER SQUARE 730
WEIGHT OF ROOF SYSTEM PER SQUARE 180
TOTAL WEIGHT OF ROOF SYSTEM 910
DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES NO
ROOF SLOPE: 4/12

PLEASE PROVIDE A SEPARATE WORKSHEET FOR EACH APPLICATION INVOLVING A TILE ROOF.

See attached engineering report

SAMUEL

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The design of a truss and specifications must be approved by the relevant authorities and it is unlawful to construct or alter a truss without the permission from the relevant authorities.

The design of a truss and specifications must be approved by the relevant authorities and it is unlawful to construct or alter a truss without the permission from the relevant authorities.

SAMUEL

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VisualAnalysis 3.11.c Report

July 7, 1998 1:15 PM

Project: truss1

File: D:\Paul\d and d\untitled folder\Samuel\truss1.VAP

Engineer: Paul Zscher

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	8.00	0.00	No	No	"
N3	16.00	0.00	"	"	"
N4	24.00	0.00	"	"	"
N5	32.00	0.00	"	"	"
N6	40.00	0.00	"	"	"
N7	48.00	0.00	"	Yes	"
N8	8.00	4.00	"	No	"
N9	16.00	8.00	"	"	"
N10	24.00	12.00	"	"	"
N11	32.00	8.00	"	"	"
N12	40.00	4.00	"	"	"

Spring Elements

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

Member Elements

Member	Section	Material	Length ft	Weight lbs	Theta deg
M1	SS2x4	Wood	8.00	2248.69	0.00
M2	"	"	8.00	2248.69	0.00
M3	"	"	8.00	2248.69	0.00
M4	"	"	8.00	2248.69	0.00
M5	"	"	8.00	2248.69	0.00
M6	"	"	8.00	2248.69	0.00
M7	"	"	4.00	1124.35	0.00
M8	"	"	8.94	2514.11	0.00
M9	"	"	8.00	2248.69	0.00
M10	"	"	11.31	3180.13	0.00
M11	"	"	12.00	3373.04	0.00
M12	"	"	11.31	3180.13	0.00
M13	"	"	8.00	2248.69	0.00
M14	"	"	8.94	2514.11	0.00
M15	"	"	4.00	1124.35	0.00
M16	"	"	8.94	2514.11	0.00
M17	"	"	8.94	2514.11	0.00
M18	"	"	8.94	2514.11	0.00
M19	"	"	8.94	2514.11	0.00
M20	"	"	8.94	2514.11	0.00
M21	"	"	8.94	2514.11	0.00

Section Properties

Category	Section	Ax in ²	Ix in ⁴	Sy+ in ³	Sy- in ³
Wood Sha	SS2x4	1000.25	5.36	3.06	3.06

Material Properties

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Material	Strength ksi	Elasticity ksi	Poisson	Density lb/ft ³	Therm. /F
Wood	-NA-	1700.00	0.36	40.47	0.00

Plate Elements

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

SAMUEL

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VisualAnalysis 3.11.c Report

July 7, 1998 1:15 PM

Project: truss1

File: D:\Paul\d and d\untitled folder\Samuel\truss1.VAP

Engineer: Paul Zacher

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

Load Cases

Load Case	Strength Service Results		
1) Service Case 1	Yes	Yes	None
2) Service Case 2	"	"	"
3) Equation Case 1	"	"	"

Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

Load Combination Summary

Equation Case: Equation Case 1

Combination: +1D+1L+1Lr+1R+1W+1S+1E+1H+1F+1TS+1T+1TC+1I+1U+1LE

Contributing Cases & Source

Service Case 1 (Dead loads)

Service Case 2 (Roof Live loads)

Equation Case Combinations

Load Case	Cases Equation	
Equation Case 1	-NA-	-NA-

Factored Case Combinations

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

Nodal Loads

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

Member Point Loads

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

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY	0.00	8.00	-0.01 K/ft
	M2	"	0.00	8.00	-0.01 K/ft
	M3	"	0.00	8.00	-0.01 K/ft
	M4	"	0.00	8.00	-0.01 K/ft
	M5	"	0.00	8.00	-0.01 K/ft
	M6	"	0.00	8.00	-0.01 K/ft
	M16	"	0.00	8.94	-0.03 K/ft
	M17	"	0.00	8.94	-0.03 K/ft
	M18	"	0.00	8.94	-0.03 K/ft
	M19	"	0.00	8.94	-0.03 K/ft
	M20	"	0.00	8.94	-0.03 K/ft

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	M21	"	0.00	8.94	-0.03 K/ft
Service Case 2	M16	"	0.00	8.94	-0.03 K/ft
	M17	"	0.00	8.94	-0.03 K/ft
	M18	"	0.00	8.94	-0.03 K/ft
	M19	"	0.00	8.94	-0.03 K/ft
	M20	"	0.00	8.94	-0.03 K/ft
	M21	"	0.00	8.94	-0.03 K/ft

Member Linear Loads

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

Member Temperature Changes

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

Member Gradient Temperatures

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

SAMUEL

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VisualAnalysis 3.11.c Report

July 7 1998 1:56 PM

Project: truss1

File: D:\Paul\d and d\untitled folder\Samuel\truss1.VAP

Engineer: Paul Zacher

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

Load Cases

Load Case	Strength Service Results		
1) Service Case 1	Yes	Yes	1st Ord
2) Service Case 2	"	"	"
3) Equation Case 1	"	"	"

Member Extreme Results

Member	Fx (lc) K	Fy (lc) K	Mz (lc) K-ft	fc max (lc) ksi	fc min (lc) ksi	Dx (lc) in	Dy (lc) in
M1	1.34 (2)	-0.06 (3)	-0.11 (3)	0.01 (2)	-0.55 (3)	0.00 (3)	-0.10 (3)
M2	2.69 (3)	0.01 (1)	0.14 (3)	0.55 (3)	0.00 (2)	0.00 (3)	0.00 (2)
M3	1.33 (2)	-0.03 (1)	-0.06 (3)	0.00 (1)	-0.22 (3)	0.00 (2)	-0.01 (1)
M4	2.66 (3)	0.03 (3)	0.02 (1)	0.23 (3)	0.00 (3)	0.00 (3)	0.00 (2)
M5	1.04 (2)	-0.03 (3)	-0.04 (3)	0.00 (1)	-0.16 (3)	0.00 (2)	-0.02 (3)
M6	2.10 (3)	0.03 (1)	0.02 (3)	0.16 (3)	0.00 (1)	0.00 (3)	0.00 (2)
M7	1.04 (2)	-0.03 (1)	-0.04 (3)	0.00 (1)	-0.16 (3)	0.00 (2)	-0.02 (3)
M8	2.10 (3)	0.03 (3)	0.02 (3)	0.16 (3)	0.00 (1)	0.00 (3)	0.00 (2)
M9	1.33 (2)	-0.03 (3)	-0.06 (3)	0.00 (1)	-0.22 (3)	0.00 (2)	-0.01 (1)
M10	2.66 (3)	0.03 (1)	0.02 (1)	0.23 (3)	0.00 (3)	0.00 (3)	0.00 (2)
M11	1.34 (2)	-0.01 (1)	-0.11 (3)	0.01 (2)	-0.55 (3)	0.00 (2)	-0.10 (3)
M12	2.69 (3)	0.06 (3)	0.14 (3)	0.55 (3)	0.00 (2)	0.00 (3)	0.00 (2)
M13	0.02 (2)	0.01 (2)	-0.05 (3)	0.01 (2)	-0.22 (3)	0.00 (2)	0.00 (3)
M14	0.09 (3)	0.03 (3)	0.06 (3)	0.22 (3)	-0.01 (1)	0.00 (3)	0.00 (3)
M15	-0.63 (3)	0.00 (2)	-0.01 (3)	0.00 (3)	-0.04 (3)	0.00 (2)	0.00 (3)
M16	-0.32 (2)	0.00 (3)	0.00 (3)	0.04 (3)	0.00 (2)	0.00 (3)	0.01 (3)
M17	0.14 (2)	0.00 (3)	0.00 (3)	0.00 (2)	-0.02 (3)	0.00 (2)	0.00 (2)
M18	0.34 (3)	0.00 (2)	0.00 (3)	0.02 (3)	0.00 (3)	0.00 (3)	0.00 (3)
M19	-0.75 (3)	0.00 (3)	0.00 (3)	0.00 (3)	0.00 (2)	0.00 (3)	0.00 (2)
M20	-0.37 (2)	0.00 (2)	0.00 (3)	0.00 (3)	0.00 (2)	0.00 (3)	0.00 (2)
M21	0.53 (2)	0.00 (1)	0.00 (3)	0.00 (2)	0.00 (2)	0.00 (2)	0.00 (3)
M22	1.11 (3)	0.00 (3)	0.00 (3)	0.00 (3)	0.00 (3)	0.00 (3)	0.00 (3)
M23	-0.75 (3)	0.00 (2)	0.00 (3)	0.00 (3)	0.00 (3)	0.00 (2)	0.00 (2)
M24	-0.37 (2)	0.00 (3)	0.00 (3)	0.00 (3)	0.00 (2)	0.00 (2)	0.00 (3)
M25	0.14 (2)	0.00 (2)	0.00 (3)	0.00 (2)	-0.02 (3)	0.00 (2)	0.00 (3)
M26	0.34 (3)	0.00 (3)	0.00 (3)	0.02 (3)	0.00 (3)	0.00 (3)	0.00 (3)
M27	0.63 (3)	0.00 (3)	-0.01 (3)	0.00 (3)	-0.04 (3)	0.00 (3)	0.00 (3)
M28	-0.32 (2)	0.00 (2)	0.00 (3)	0.04 (3)	0.00 (2)	0.00 (2)	0.01 (3)
M29	0.02 (2)	-0.03 (3)	-0.06 (3)	0.01 (2)	-0.22 (3)	0.00 (2)	0.00 (3)
M30	0.09 (3)	-0.01 (2)	0.05 (3)	0.22 (3)	-0.01 (1)	0.00 (3)	0.00 (3)
M31	-3.10 (3)	-0.23 (3)	-0.38 (3)	0.00 (3)	-1.48 (3)	0.00 (3)	-0.23 (3)
M32	-1.44 (2)	0.18 (3)	0.21 (3)	1.47 (3)	0.00 (3)	0.00 (2)	0.00 (2)
M33	-2.45 (3)	-0.20 (3)	-0.32 (3)	0.00 (1)	-1.24 (3)	0.00 (3)	-0.14 (3)
M34	-1.11 (2)	0.21 (3)	0.15 (3)	1.24 (3)	0.00 (1)	0.00 (2)	0.00 (1)
M35	-1.86 (3)	-0.20 (3)	-0.30 (3)	0.01 (1)	-1.19 (3)	0.00 (3)	-0.15 (3)
M36	-0.82 (2)	0.20 (3)	0.15 (3)	1.19 (3)	-0.02 (1)	0.00 (2)	0.00 (2)
M37	-1.86 (3)	-0.20 (3)	-0.30 (3)	0.01 (1)	-1.19 (3)	0.00 (2)	-0.15 (3)
M38	-0.82 (2)	0.20 (3)	0.15 (3)	1.19 (3)	-0.02 (1)	0.00 (3)	0.00 (2)
M39	-2.45 (3)	-0.21 (3)	-0.32 (3)	0.00 (1)	-1.24 (3)	0.00 (2)	-0.14 (3)
M40	-1.11 (2)	0.20 (3)	0.15 (3)	1.24 (3)	0.00 (1)	0.00 (3)	0.00 (1)
M41	-3.10 (3)	-0.18 (3)	-0.38 (3)	0.00 (3)	-1.48 (3)	0.00 (2)	-0.23 (3)
M42	-1.44 (2)	0.23 (3)	0.21 (3)	1.47 (3)	0.00 (3)	0.00 (3)	0.00 (3)

SAME

9

BENDING & COMP; TRUSS 1; MEMBER 16

Grading:

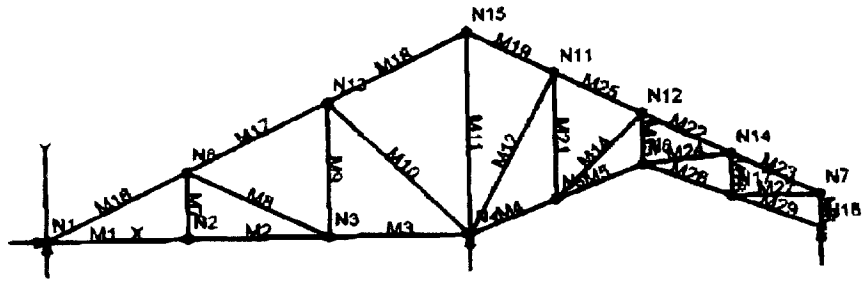
2x or 4x Doug-fir larch: No. 2

Assumptions:

Lateral support at points of bearing
 SPS or gypboard attached to 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	3100 lbs
Max Reaction, R	180 lbs
Max Moment, M	140 ft-lbs
Max LL Deflection	0.15 inches
Max TL Deflection	0.23 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
fc =	590 psi
Fce =	798 psi
Fc* =	1094 psi
F'c =	628 psi
fb =	46 psi
F'b =	1258 psi
Shear D/C ratio	0.43 < 1.0, Member OK
Interaction equation:	
(fc/F'c)^2 +	OK, 2% over
fb / (F'b(1-fc/Fce)) =	1.02 > 1.0, Member No Good.
Live Load defl ratio	0.34 < 1.0, Member OK
Total Load defl ratio	0.39 < 1.0, Member OK

SANVA



SAMUEL

11

VisualAnalysis 3.11.c Report

July 7, 1998 2:29 PM

Project: truss1

File: D:\Paul\d_and_d\untitled folder\Samuel\truss2.VAP

Engineer: Paul Zecher

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

Model Summary

Structure Type: Plane Frame

The model is linear.

15 Nodes

17 Member Elements

Nodes

Node	X ft	Y ft	Fix	DX	Fix	DY	Fix	RE
N1	0.0000	0.0000	Yes	Yes	No			
N2	8.0000	0.0000	No	No				
N3	16.0000	0.0000	"	"				
N4	24.0000	0.0000	"	Yes				
N5	29.0000	2.0000	"	No				
N6	34.0000	4.0000	"	"				
N7	44.0000	2.0000	"	"				
N8	8.0000	4.0000	"	"				
N11	29.0000	9.5000	"	"				
N11	34.0000	7.0000	"	"				
N13	16.0000	8.0000	"	"				
N14	19.0000	4.5000	"	"				
N12	14.0000	12.0000	"	"				
N17	39.0000	2.0000	"	"				
N18	44.0000	0.0000	"	Yes				

Member Elements

Member	Section	Material	(1)Node	(2)Node	Length ft	Weight lbs	Rz1	Rz2
M1	3S2x4	Wood	N1	N2	8.0000	2248.69	Fix	Fix
M2	"	"	N2	N3	8.0000	2248.69	"	"
M3	"	"	N3	N4	8.0000	2248.69	"	"
M4	"	"	N4	N5	5.3852	1513.70	"	"
M5	"	"	N5	N6	5.3852	1513.70	"	"
M6	"	"	N7	N18	2.0000	562.17	"	"
M7	"	"	N8	N2	4.0000	1124.35	"	"
M8	"	"	"	N3	8.9443	2514.11	"	"
M9	"	"	N13	"	8.0000	2248.69	"	"
M10	"	"	"	N4	11.3137	3180.13	"	"
M11	"	"	N15	"	12.0000	3373.04	"	"
M12	"	"	N4	N11	10.7355	3017.59	"	"
M13	"	"	N5	N12	7.0711	1987.58	"	"
M14	"	"	N12	N6	3.0000	843.26	"	"
M15	"	"	N1	N8	8.9443	2514.11	"	"
M16	"	"	N8	N13	8.9443	2514.11	"	"
M18	"	"	N13	N15	8.9443	2514.11	"	"
M19	"	"	N15	N11	5.5902	1571.32	"	"
M20	"	"	N11	N5	7.5000	2108.15	"	"
M21	"	"	N12	N14	5.5902	1571.32	"	"
M22	"	"	N14	N7	5.5902	1571.32	"	"
M23	"	"	N6	N14	5.0249	1412.44	"	"
M24	"	"	N11	N12	5.5902	1571.32	"	"
M25	"	"	N6	N17	5.3852	1513.70	"	"
M26	"	"	N17	N7	5.0000	1405.43	"	"
M27	"	"	N14	N17	2.5000	702.72	"	"
M28	"	"	N17	N18	5.3852	1513.70	"	"

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SAMUEL

Service Load Cases

Load Case	Load Source	Self Weight	Self X	Self Y	Self Z Load
Service Case 1	Dead loads	None	0.0000	0.0000	0.0000 14

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Offset ft	Magnitude
Service Case 1	M1	DY	0.0000	8.0000	-7.2000 lbs/ft
	M2	"	0.0000	8.0000	-7.2000 lbs/ft
	M3	"	0.0000	8.0000	-7.2000 lbs/ft
	M4	"	0.0000	5.3852	-7.2000 lbs/ft
	M5	"	0.0000	5.3852	-7.2000 lbs/ft
	M16	"	0.0000	8.9443	-25.000 lbs/ft
	M17	"	0.0000	8.9443	-25.000 lbs/ft
	M18	"	0.0000	8.9443	-25.000 lbs/ft
	M19	"	0.0000	5.5902	-25.000 lbs/ft
	M22	-DY	0.0000	5.5902	25.0000 lbs/ft
	M23	"	0.0000	5.5902	25.0000 lbs/ft
	M25	DY	0.0000	5.5902	-25.000 lbs/ft
	M26	DY	0.0000	5.2001	7.2000 lbs/ft
	M29	"	0.0000	5.0000	7.2000 lbs/ft

SAMUEL

13

VisualAnalysis 3.11.c Report

July 7, 1998 2:21 PM

Project: truss1

File: D:\Paul\d_and_d\untitled folder\Samuel\truss2.VAP

Engineer: Paul Zacher

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

Load Cases

Load Case	Strength Service Results		
	Yes	Yes	1st Ord
(1) Service Case 1	Yes	Yes	1st Ord
(2) Service Case 2	"	"	"
(3) Equation Case 1	"	"	"

Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

Load Combination Summary

Equation Case: Equation Case 1

Combination: +1D+1L+1Lr+1R+1W+1S+1E+1R+1F+1TS+1T+1TC+1I+1U+1LE

Contributing Cases & Sources

Service Case 1 (Dead loads)

Service Case 2 (Roof Live loads)

Equation Case Combinations

Load Case	Cases Equation	
Equation Case 1	0.00	0.00

Factored Case Combinations

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

Nodal Loads

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

Member Point Loads

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

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY	0.00	8.00	-0.01 K/ft
	M2	"	0.00	8.00	-0.01 K/ft
	M3	"	0.00	8.00	-0.01 K/ft
	M4	"	0.00	5.39	-0.01 K/ft
	M5	"	0.00	5.39	-0.01 K/ft
	M16	"	0.00	8.94	-0.03 K/ft
	M17	"	0.00	8.94	-0.03 K/ft
	M18	"	0.00	8.94	-0.03 K/ft
	M19	"	0.00	5.59	-0.03 K/ft
	M22	-DY	0.00	5.59	0.03 K/ft
	M23	"	0.00	5.59	0.03 K/ft

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SAMUEL

VisualAnalysis 3.11.c Report

July 7, 1998 2:21 PM

Project: truss1

File: D:\Paul\d_and_d\untitled folder\Samuel\truss2.VAP

Engineer: Paul Zacher

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

Load Cases

Load Case	Strength Service Results		
1 Service Case 1	Yes	Yes	1st Ord
2 Service Case 2	"	"	"
3 Equation Case 1	"	"	"

Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

Load Combination Summary

Equation Case: Equation Case 1
 Combination: +1D+1L+1Lr+1R+1W+1S+1E+1H+1F+1TS+1T+1TC+1I+1U+1LE
 Contributing Cases & Sources
 Service Case 1 (Dead loads)
 Service Case 2 (Roof Live loads)

Equation Case Combinations

Load Case	Cases Equation	
Equation Case 1	0.00	0.00

Factored Case Combinations

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

Nodal Loads

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

Member Point Loads

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

Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY	0.00	8.00	-0.01 K/ft
	M2	"	0.00	8.00	-0.01 K/ft
	M3	"	0.00	8.00	-0.01 K/ft
	M4	"	0.00	5.39	-0.01 K/ft
	M5	"	0.00	5.39	-0.01 K/ft
	M16	"	0.00	8.94	-0.03 K/ft
	M17	"	0.00	8.94	-0.03 K/ft
	M18	"	0.00	8.94	-0.03 K/ft
	M19	"	0.00	5.59	-0.03 K/ft
	M22	-DY	0.00	5.59	0.03 K/ft
	M23	"	0.00	5.59	0.03 K/ft

SAMUEL

	M25	DY	0.00	5.59	-0.03 K/ft
	M26	-DY	0.00	5.20	0.01 K/ft
	M29	"	0.00	5.00	0.01 K/ft
Service Case 1	M16	DY	0.00	8.94	-0.03 K/ft
	M17	"	0.00	8.94	-0.03 K/ft
	M18	"	0.00	8.94	-0.03 K/ft
	M19	"	0.00	5.59	-0.03 K/ft
	M22	-DY	0.00	5.59	0.03 K/ft
	M23	"	0.00	5.59	0.03 K/ft
	M25	DY	0.00	5.59	-0.03 K/ft

Member Linear Loads

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

Member Temperature Changes

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

Member Gradient Temperatures

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

SAMUEL

VisualAnalysis 3.11.c Report

July 7, 1998 2:21 PM

Project: truss1

File: D:\Paul\d_and_d\untitled folder\Samuel\truss2.VAP

Engineer: Paul Zacher

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

Load Cases

Load Case	Strength Service Results		
	Yes	Yes	1st Ord
(1) Service Case 1	Yes	Yes	"
(2) Service Case 2	"	"	"
(3) Equation Case 1	"	"	"

Member Extreme Results

Member	Fx(1c) K	Fy(1c) K	Mz(1c) K-ft	fc max(1c) ksi	fc min(1c) ksi	Dx(1c) in	Dy(1c) in
M1	0.29(1)	-0.06(3)	-0.11(3)	0.00(2)	-0.55(3)	0.00(3)	-0.10(3)
M2	0.57(3)	0.01(1)	0.14(3)	0.55(3)	0.00(2)	0.00(3)	0.00(1)
M3	0.27(1)	-0.03(1)	-0.06(3)	0.00(1)	-0.22(3)	0.00(1)	-0.01(1)
M4	0.55(3)	0.03(3)	0.02(1)	0.22(3)	0.00(1)	0.00(3)	0.00(2)
M5	-0.02(3)	-0.03(3)	-0.04(1)	0.00(2)	-0.15(1)	0.00(1)	-0.02(1)
M6	-0.01(2)	0.03(1)	0.02(1)	0.15(1)	0.00(2)	0.00(3)	0.00(2)
M7	-0.39(3)	-0.02(3)	-0.02(1)	0.00(2)	-0.08(1)	0.00(1)	0.00(3)
M8	-0.19(2)	0.02(1)	0.01(3)	0.08(1)	0.00(2)	0.00(3)	0.00(1)
M9	-0.04(3)	-0.02(1)	-0.02(3)	0.00(2)	-0.05(3)	0.00(1)	0.00(1)
M10	-0.01(2)	0.02(3)	0.01(1)	0.06(3)	0.00(2)	0.00(3)	0.00(2)
M11	-0.29(3)	0.02(2)	-0.07(3)	0.01(1)	-0.26(3)	0.00(1)	0.00(3)
M12	-0.14(1)	0.04(3)	0.02(3)	0.26(3)	-0.01(1)	0.00(3)	0.00(3)
M13	0.02(2)	0.01(2)	-0.05(3)	0.01(2)	-0.22(3)	0.00(2)	0.00(3)
M14	0.09(3)	0.03(3)	0.06(3)	0.22(3)	-0.01(2)	0.00(3)	0.00(3)
M15	-0.63(3)	0.00(1)	-0.01(3)	0.00(1)	-0.05(3)	0.00(2)	0.00(3)
M16	-0.32(2)	0.00(3)	0.00(3)	0.05(3)	0.00(1)	0.00(3)	0.01(3)
M17	0.14(2)	0.00(3)	-0.01(3)	0.00(2)	-0.05(3)	0.00(1)	0.00(3)
M18	0.34(3)	0.00(2)	0.01(3)	0.05(3)	0.00(2)	0.00(3)	0.00(3)
M19	-0.76(3)	0.00(3)	0.00(2)	0.00(2)	-0.03(3)	0.00(1)	-0.01(3)
M20	-0.39(2)	0.00(1)	0.01(3)	0.02(3)	0.00(2)	0.00(3)	0.00(2)
M21	-0.94(3)	0.00(1)	-0.04(3)	0.00(2)	-0.18(3)	0.00(2)	0.00(1)
M22	-0.45(1)	0.01(3)	0.02(3)	0.17(3)	0.00(2)	0.00(3)	0.04(3)
M23	-0.43(3)	0.00(3)	-0.01(3)	0.00(2)	-0.03(3)	0.00(3)	0.00(2)
M24	-0.22(2)	0.00(1)	0.00(2)	0.03(3)	0.00(2)	0.00(3)	0.01(3)
M25	-0.45(3)	0.00(1)	0.00(3)	0.00(1)	-0.01(3)	0.00(3)	0.00(3)
M26	0.22(1)	0.00(3)	0.00(3)	0.01(3)	0.00(1)	0.00(3)	0.00(2)
M27	0.08(2)	0.00(2)	0.00(3)	0.00(2)	-0.01(3)	0.00(1)	0.00(1)
M28	0.19(3)	0.00(3)	0.00(3)	0.01(3)	0.00(2)	0.00(3)	0.00(3)
M29	-0.73(3)	-0.23(3)	-0.38(3)	0.00(3)	-1.47(3)	0.00(3)	-0.23(3)
M30	-0.26(2)	0.18(3)	0.21(3)	1.47(3)	0.00(3)	0.00(1)	0.00(1)
M31	-0.08(3)	-0.20(3)	-0.31(3)	0.00(1)	-1.23(3)	0.00(3)	-0.13(3)
M32	0.12(3)	0.20(3)	0.15(3)	1.23(3)	0.00(1)	0.00(1)	0.00(1)
M33	0.25(2)	-0.20(3)	-0.32(3)	0.01(1)	-1.27(3)	0.00(3)	-0.18(3)
M34	0.71(3)	0.21(3)	0.17(3)	1.27(3)	-0.01(1)	0.00(1)	0.00(1)
M35	0.28(2)	-0.11(3)	-0.21(3)	0.00(2)	-0.80(3)	0.00(1)	0.00(3)
M36	0.70(3)	0.15(3)	0.04(3)	0.80(3)	0.00(2)	0.00(3)	0.01(3)
M37	2.10(2)	0.00(3)	0.00(3)	0.00(2)	-0.04(3)	0.00(1)	0.00(3)
M38	0.23(3)	0.00(1)	0.01(3)	0.04(3)	0.00(2)	0.00(3)	0.00(3)
M39	-0.02(3)	-0.13(3)	-0.12(3)	0.00(1)	-0.47(3)	0.00(1)	-0.02(3)
M40	0.10(3)	0.13(3)	0.06(3)	0.47(3)	0.00(1)	0.00(3)	0.00(1)
M41	-0.43(3)	-0.12(3)	-0.13(3)	0.00(2)	-0.51(3)	0.00(1)	-0.03(3)
M42	-0.15(2)	0.13(3)	0.07(3)	0.51(3)	0.00(2)	0.00(3)	0.00(3)
M43	-0.37(3)	0.00(3)	0.00(3)	0.00(1)	-0.01(3)	0.00(1)	0.00(3)
M44	-0.18(2)	0.00(1)	0.00(3)	0.01(3)	0.00(1)	0.00(3)	0.00(3)
M45	0.16(2)	-0.13(3)	-0.12(3)	0.00(1)	-0.49(3)	0.00(1)	-0.03(3)
M46	0.46(3)	0.12(3)	0.06(3)	0.49(3)	0.00(1)	0.00(3)	0.00(2)
M47	0.17(1)	-0.02(3)	-0.02(3)	0.00(3)	-0.06(3)	0.00(1)	0.00(1)

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	0.36(3)	0.02(1)	0.01(1)	0.07(3)	0.00(3)	0.00(3)	0.00(2)
M1	0.14(1)	0.00(1)	-0.01(3)	0.00(1)	-0.11(3)	0.00(1)	-0.01(3)
	0.29(3)	0.01(3)	0.03(3)	0.11(3)	0.00(1)	0.00(3)	0.00(1)
M2B	-0.07(3)	-0.01(3)	-0.01(3)	0.00(1)	-0.03(3)	0.00(1)	0.00(3)
	-0.02(1)	0.00(1)	0.01(3)	0.03(3)	0.00(1)	0.00(3)	0.00(3)
M3	0.02(3)	-0.02(3)	-0.02(3)	0.00(1)	-0.08(3)	0.00(1)	0.00(1)
	0.05(3)	0.02(1)	0.01(1)	0.08(3)	0.00(3)	0.00(3)	0.00(2)

SAMUEL

BENDING & COMP: TRUSS 2: MEMBER 16

Grading

2x or 4x

Doug-fir larch: No. 2

Assumptions

Lateral support at points of bearing

SPS or gypboard attached to 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	710 lbs
Max Reaction, R	230 lbs
Max Moment, M	380 ft-lbs
Max LL Deflection	0.15 inches
Max TL Deflection	0.23 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
fc =	135 psi
Fce =	798 psi
Fc* =	1094 psi
F'c =	628 psi
fb =	124 psi
F'b =	1258 psi
Shear D/C ratio	0.55 < 1.0, Member OK
Interaction equation:	
(fc/F'c) ² +	
fb / (F'b(1-fc/Fce)) =	0.17 < 1.0, Member OK
Live Load defl ratio	0.34 < 1.0, Member OK
Total Load defl ratio	0.39 < 1.0, Member OK