CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0109324
Insp Area: 2

Site Address: 1 PARKSHORE CR SAC
Parcel No: 030-0580-054

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

CONTRACTOR
WEATHERTITE ROOFING
4661 SUMMERCREEK
SHINGLE SPRINGS, CA 95682

OWNER
WONG KIN Y & EVELYN M
1 PARKSHORE CR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: TAER OFF AND REROOF WITH LIGHT WEIGHT TILE ON NEW SHEATHING

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'sAddress _____

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 _____ License Number 420375 Date 7/23/01 Contractor Signature Carolyn Pay

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 C. 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 herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 7/23/01 Applicant/Agent Signature Carolyn Pay

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.

X 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 1271896-00 Exp Date 10/01/2001

_____ (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 7/23/01 Applicant Signature Carolyn Pay

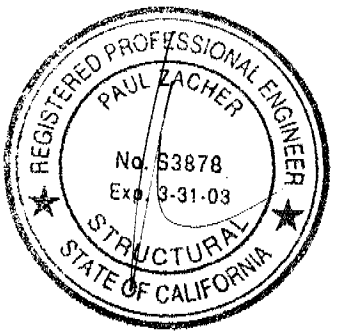
WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S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

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

Wong

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

TEL: 916.961.3960
FAX: 916.961.6552



June 28, 2001

Weather-Tite Roofing Company
P.O. Box 6068
Folsom, CA 95673
TEL: (916) 635-9810
FAX: (916) 635-9810

Attn.: Mr. Larry Peer,

re: Job 2001_159: WONG

Subject: Structural Investigation Report of the Roof for the Residence located at 1 Parkshore Circle, Sacramento, CA 95831.

As requested by Mr. Larry Peer, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site June 28, 2001. 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:	DuPlex.
Year Built:	Estimated 1970's vintage.
Occupancy:	Residential.
No. of Stories:	Two.
Dimensions:	Approximately 3000 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 and garage areas are framed 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. The garage currently lacks sufficient structural capacity for the applied live and dead loads. See "Recommendations" for location and repair to bring the garage up to the required capacity.

SCAB LVL T
LE) HDR

Wong

Paul Zacher – Structural Engineers
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.

Garage:

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

DESIGN LOADING:

Roof Pitch	4	in 12
Pitch Adjustment Factor	1.05	

LOCATION: ROOF

MATERIAL	WEIGHT	
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	1.00	psf
Load	10.9	psf
Roof Pitch Adjustment	0.59	psf
Total Load	11.5	psf

LOCATION: TOP CHORD

MATERIAL	WEIGHT	
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	0.64	psf
Load	10.5	psf
Roof Pitch Adjustment	0.57	psf
Total Load	11.1	psf

LOCATION: BOTTOM CHORD

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

P.K. Zacher, S.E.
4701 Lakeside Way
Fair Oaks, CA 95628
TEL: (916) 961-3960
FAX: (916) 961-6552

Job #: 01-159
Date: 6/28/01

LOADING

RAFTER

D_R = 11.5 psf × 2' = 23 plf 2x6 @ 2
L_R = 16.0 " = 32 "

23/32
12'

B1

D_R = 11.5 psf × 3' = 35 plf 4x12 @ 1
L_R = 16.0 " = 48 "

35/48
14'

B2

D_R = 15.4 psf × 12' = 193 plf 4x12 @ 2 +
L_R = 16.0 " = 200 " 1 3/4 x 11 7/8 LVL

193/200
16'

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

Title :
Dsgnr:
Description :

Job #
Date: 12:26PM, 28 JUN 01

Scope :

Rev: 510304
User: KW-0602844, Ver 5.1.3, 22-Jun-1999, Win32
(c) 1983-99 ENERCALC

Timber Beam & Joist

c:\enercalc\test.ecw:Calculations

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

		rafter	B1	B2
Timber Section		2x6	4x12	4x12 + 1.7
Beam Width	in	1.500	3.500	5.250
Beam Depth	in	5.500	11.250	11.250
Le: Unbraced Length	ft	0.00	0.00	0.00
Timber Grade		ouglas Fir - Larch, ouglas Fir - Larch,ustom, DF#2 + LVL		
Fb - Basic Allow	psi	875.0	1,000.0	1,450.0
Fv - Basic Allow	psi	95.0	95.0	158.0
Elastic Modulus	ksi	1,600.0	1,700.0	1,666.7
Load Duration Factor		1.250	1.250	1.250
Member Type		Sawn	Sawn	Manuf/Pine
Repetitive Status		Repetitive	No	No

Center Span Data

Span	ft	12.00	14.00	16.00
Dead Load	#/ft	23.00	35.00	193.00
Live Load	#/ft	32.00	48.00	200.00

Results

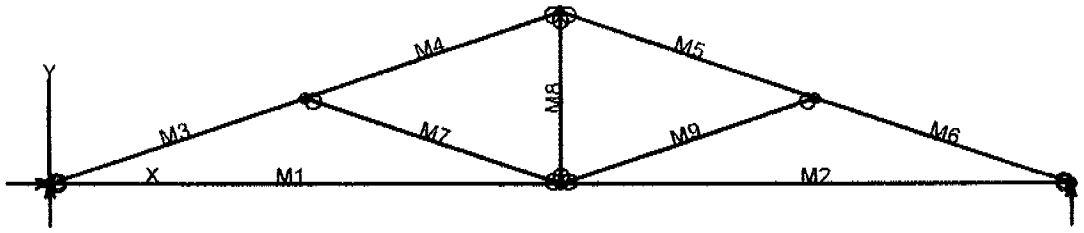
Ratio =		0.9607	0.2404	0.7519
Mmax @ Center	in-k	11.88	24.40	150.91
@ X =	ft	6.00	7.00	8.00
fb : Actual	psi	1,570.9	330.5	1,362.7
Fb : Allowable	psi	1,635.2	1,375.0	1,812.5
		Bending OK	Bending OK	Bending OK
fv : Actual	psi	55.7	19.3	70.9
Fv : Allowable	psi	118.8	118.8	197.5
		Shear OK	Shear OK	Shear OK

Reactions

@ Left End	DL	lbs	138.00	245.00	1,544.00
	LL	lbs	192.00	336.00	1,600.00
	Max. DL+LL	lbs	330.00	581.00	3,144.00
@ Right End	DL	lbs	138.00	245.00	1,544.00
	LL	lbs	192.00	336.00	1,600.00
	Max. DL+LL	lbs	330.00	581.00	3,144.00

Deflections

		Ratio OK	Deflection OK	Deflection OK
Center DL Defl	in	-0.322	-0.043	-0.274
L/Defl Ratio		446.5	3,920.6	700.5
Center LL Defl	in	-0.449	-0.059	-0.284
L/Defl Ratio		320.9	2,858.8	675.9
Center Total Defl	in	-0.771	-0.102	-0.558
Location	ft	6.000	7.000	8.000
L/Defl Ratio		186.7	1,653.3	344.0


Y
X
M1
M2
M3
M4
M5
M6
M7
M8
M9

VisualAnalysis 3.50.c Report

06/28/01 12:29:08
Project: Truss 1
File: C:\Program Files\IES\VA35\truss 1.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	11.00	0.00	No	No	"
N3	22.00	0.00	"	Yes	"
N4	5.50	1.83	"	No	"
N5	16.50	1.83	"	"	"
N6	11.00	3.67	"	"	"

Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	11.00
M2	"	"	11.00
M3	"	"	5.80
M4	"	"	5.80
M5	"	"	5.80
M6	"	"	5.80
M7	"	"	5.80
M8	"	"	3.67
M9	"	"	5.80

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**	**719.81**	-NA-
N3	"	-NA-	719.81	-NA-

Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M1	1682.85	-55.28	-105.95	-0.1499
"	1682.85	-24.85	40.6771	-0.2104
"	1682.85	5.5849	75.9935	-0.1902
"	**1682.85**	36.0183	0.0000	-0.0000
M2	1682.85	-36.02	-0.0000	-0.0000
"	1682.85	-5.5849	75.9935	-0.1903
"	1682.85	24.8484	40.6771	-0.2104
"	1682.85	55.2817	-105.95	-0.1499
M3	**-1812.66**	117.52	0.0000	-0.0000
"	-1779.60	18.1565	130.60	-0.1151
"	-1746.54	-81.21	69.6823	-0.1491
"	-1713.48	**-180.58**	**-182.74**	-0.1446
M4	-1228.48	180.56	-182.74	-0.1446
"	-1195.24	81.1930	69.7868	-0.1984
"	-1161.99	-18.17	**130.70**	**-0.2137**
"	-1128.75	-117.54	0.0000	-0.1477
M5	-1228.48	-180.56	-182.74	-0.1288
"	-1195.24	-81.19	69.7868	-0.1826
"	-1161.99	18.1737	130.70	-0.1979
"	-1128.75	117.54	0.0000	-0.1319
M6	-1812.66	-117.52	-0.0000	**0.0157**
"	-1779.60	-18.16	130.60	-0.0994
"	-1746.54	81.2102	69.6823	-0.1333
"	-1713.48	**180.58**	-182.74	-0.1289
M7	-606.13	0.0000	0.0000	-0.1343
"	-606.13	0.0000	0.0000	-0.1309
"	-606.13	0.0000	0.0000	-0.1275
"	-606.13	0.0000	0.0000	-0.1240
M8	493.28	0.0000	0.0000	-0.0249
"	493.28	0.0000	0.0000	-0.0249
"	493.28	0.0000	0.0000	-0.0249
"	493.28	0.0000	0.0000	-0.0249
M9	-606.13	-0.0000	0.0000	-0.1500
"	-606.13	-0.0000	-0.0000	-0.1466
"	-606.13	-0.0000	-0.0000	-0.1432
"	-606.13	-0.0000	-0.0000	-0.1397

BENDING & COMP; TRUSS 1 - MEMBER 3

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

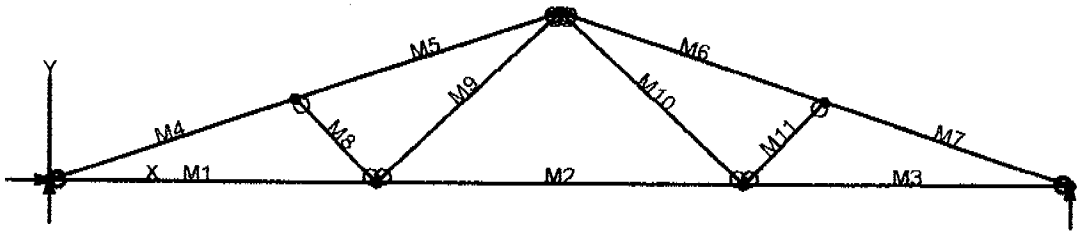
Grading:

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	1.5	inches
Depth, d	3.5	inches
Length	5.8	feet
Max Axial Comp, C	1713	feet
Max Reaction, R	180	feet
Max Moment, M	182	feet
Max LL Deflection	0.07	feet
Max TL Deflection	0.14	feet
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 =	1.16	
fc =	326	psi
Fce=	1496	psi
Fc*=	2084	psi
F'c=	1184	psi
fb=	713	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)) =	0.50 < 1.0, Member OK	
Live Load defl ratio	0.24 < 1.0, Member OK	
Total Load defl ratio	0.36 < 1.0, Member OK	


Y
X
M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
M11

VisualAnalysis 3.50.c Report

06/28/01 12:32:28
Project: Truss 2
File: C:\Program Files\IES\VA35\truss 2.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	8.00	0.00	No	No	"
N3	17.00	0.00	"	"	"
N4	25.00	0.00	"	Yes	"
N5	6.00	2.00	"	No	"
N6	19.00	2.00	"	"	"
N7	12.50	4.17	"	"	"

Member Elements

Member	Section	Material	Length ft
M1	SS2x4	Wood	8.00
M2	"	"	9.00
M3	"	"	8.00
M4	"	"	6.32
M5	"	"	6.85
M6	"	"	6.85
M7	"	"	6.32
M8	"	"	2.83
M9	"	"	6.14
M10	"	"	6.14
M11	"	"	2.83

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**	**821.70**	-NA-
N4	"	-NA-	821.70	-NA-

Member Results

Member	Axial lbs	Vy lbs	Mz lb-ft	Dy in
M1	1988.50	-39.94	-44.31	-0.1930
"	1988.50	-17.00	31.4660	-0.1710
"	1988.50	5.9285	46.2343	-0.1132
"	**1988.50**	28.8619	0.0000	-0.0000
M2	1221.36	-38.70	-44.31	-0.1930
"	1221.36	-12.90	32.9015	-0.2383
"	1221.36	12.9000	32.9015	-0.2383
"	1221.36	38.7000	-44.31	-0.1930
M3	1988.50	-28.86	-0.0000	-0.0000
"	1988.50	-5.9285	46.2343	-0.1132
"	1988.50	17.0048	31.4660	-0.1710
"	1988.50	39.9381	-44.31	-0.1930
M4	**-2137.17**	123.34	0.0000	-0.0000
"	-2101.04	14.9390	145.19	-0.1434
"	-2064.91	-93.46	62.4171	-0.1804
"	-2028.77	-201.86	**-248.31**	-0.1803
M5	-1821.33	**212.39**	-248.31	-0.1803
"	-1782.12	94.9520	102.03	-0.2911
"	-1742.92	-22.48	**184.80**	**-0.3224**
"	-1703.71	-139.91	0.0000	-0.1928
M6	-1821.33	**-212.39**	-248.31	-0.1621
"	-1782.12	-94.95	102.03	-0.2729
"	-1742.92	22.4813	184.80	-0.3041
"	-1703.71	139.91	0.0000	-0.1746
M7	-2137.17	-123.34	0.0000	**0.0182**
"	-2101.04	-14.94	145.19	-0.1252
"	-2064.91	93.4610	62.4171	-0.1622
"	-2028.77	201.86	-248.31	-0.1621
M8	-464.08	0.0000	0.0000	-0.1213
"	-464.08	0.0000	0.0000	-0.1130
"	-464.08	0.0000	0.0000	-0.1048
"	-464.08	0.0000	0.0000	-0.0965
M9	598.49	0.0000	0.0000	-0.1616
"	598.49	0.0000	0.0000	-0.1598
"	598.49	0.0000	0.0000	-0.1579
"	598.49	0.0000	0.0000	-0.1561
M10	598.49	0.0000	0.0000	-0.1225
"	598.49	0.0000	0.0000	-0.1207
"	598.49	0.0000	0.0000	-0.1188
"	598.49	0.0000	0.0000	-0.1170
M11	-464.08	-0.0000	0.0000	-0.1620
"	-464.08	-0.0000	-0.0000	-0.1537
"	-464.08	-0.0000	-0.0000	-0.1455
"	-464.08	-0.0000	-0.0000	-0.1372

BENDING & COMP: TRUSS 2 - MEMBER 4

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

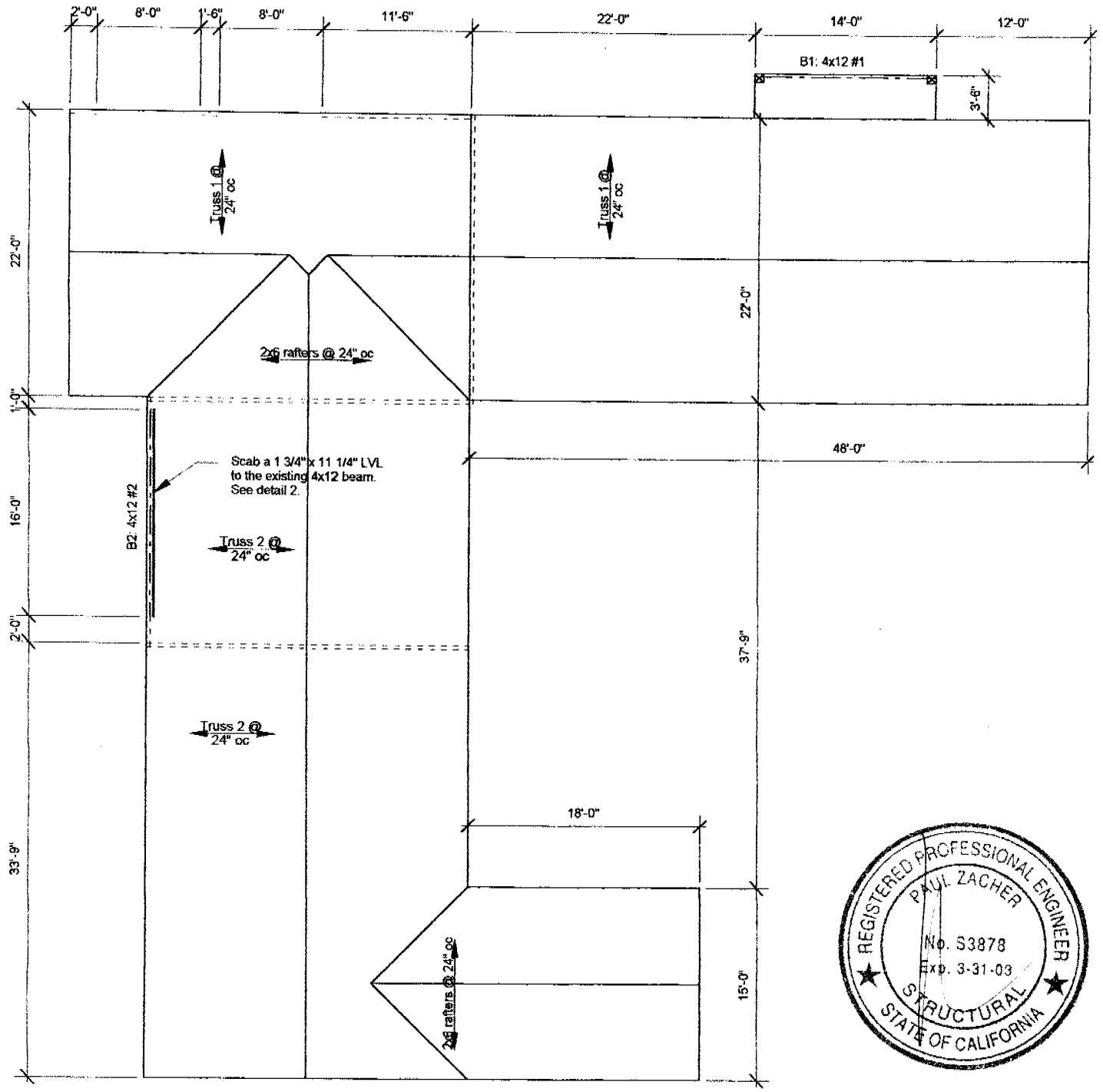
Grading:

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	6.32	feet
Max Axial Comp, C	2028	feet
Max Reaction, R	201	feet
Max Moment, M	248	feet
Max LL Deflection	0.08	feet
Max TL Deflection	0.18	feet
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 =	1.17	
fc =	386	psi
Fce=	1275	psi
Fc*=	2084	psi
F'c=	1057	psi
fb=	972	psi
F'b=Fb*=	2156	psi
Shear D/C ratio	0.48 < 1.0, Member OK	
Interaction equation:		
(fc/F'c)^2 +		
fb/ (F'b(1-fc/Fce)) =	0.78 < 1.0, Member OK	
Live Load defl ratio	0.25 < 1.0, Member OK	
Total Load defl ratio	0.43 < 1.0, Member OK	



Notes:

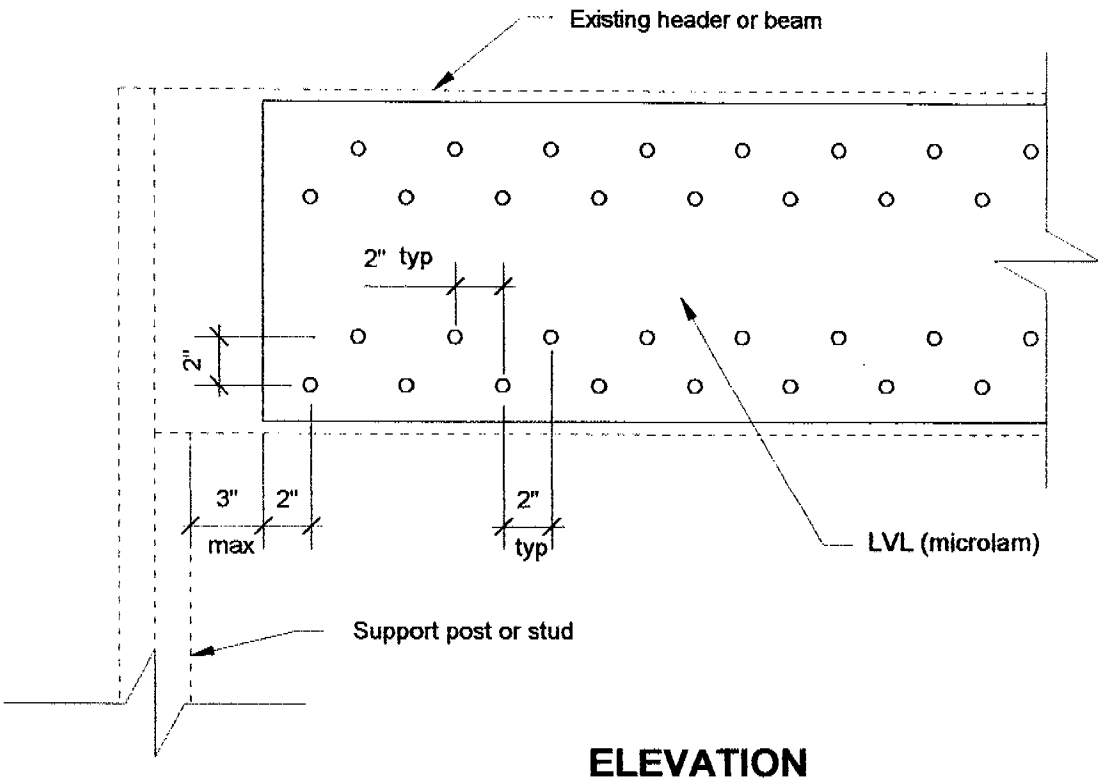
1. This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.0 psf.
2. All structural wood members that were observed appear to be in sound condition and without structural defect.

N

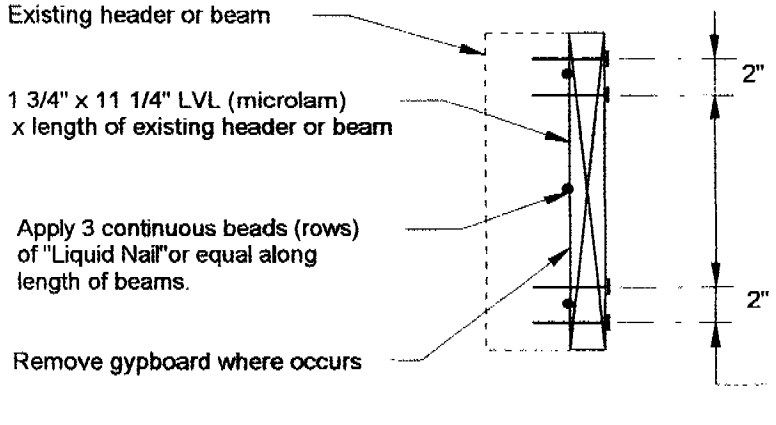
1 ROOF PLAN - WONG

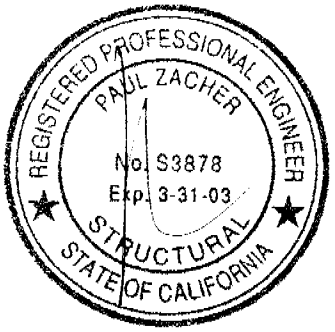
Not to Scale

14



ELEVATION





SECTION

2 **HEADER DETAIL**

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