

CITY OF SACRAMENTO

Permit No: 9811274

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 7255 HAVENSIDE DR SAC

Sub-Type: RES

Parcel No: 0310500019

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO, CA

95826

OWNER

CHEW JAMES C/CATHY M Y
7255 HAVENSIDE DR
SACRAMENTO CA

95831

ARCHITECT

Nature of Work: REMOVE OLD ROOF & REROOF W/PIONEER TILE 4/12 PITCH - 37 SQS

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 11-12-98 Contractor Signature Billy Corp

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: NOV 12 1998

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 11-12-98 Applicant/Agent Signature Billy Corp

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 GOLDEN EAGLE INS CORP Policy Number CCP560841-00 Exp Date 05/01/1999

(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 11-12-98 Applicant Signature Billy Corp

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.



DEPARTMENT OF  
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO  
CALIFORNIA

1231 F STREET  
ROOM 200  
SACRAMENTO, CA  
95814-3970

Permit Service  
916-264-7629  
FAX 916-264-7626

James Chew at  
7255 Havenside Dr  
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.**

1. BRAND AND MODEL OF TILE Pioneer Shake tile
2. TILE WEIGHT PER SQUARE 730
3. WEIGHT OF ROOF SYSTEM PER SQUARE ~~150~~ 150
4. TOTAL WEIGHT OF ROOF SYSTEM 880
5. DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES NO
6. ROOF SLOPE 4/12

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

*See attached engineering Report*

Chew

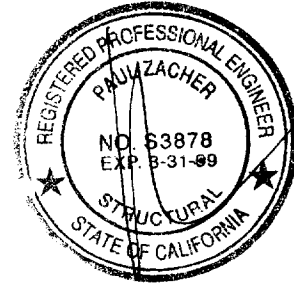
**Paul Zacher-Structural Engineers**

4701 Lakeside Way  
Fair Oaks, CA 95628

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

October 31, 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 (Ron Parsons) : 916.383.5308



Attn: Mr. Jeff Tucker.

re: Job 98279: CHEW

Subject: Structural Investigation Report of the Roof for the Residence located at 7255 Havenside Drive, 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 October 28, 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 1970'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 Light Weight Concrete Tile over 1/2" solid sheathing. The living area is conventionally framed with 2x6 rafters spaced at 24" on center with 2x6 and 2x12 purlins supported at no more than 21'-0" on center by 2x4 struts bearing on walls. The garage area is framed with 2x6 rafters spaced at 24" on center. The 2x6 cross ties spaced at 4'-0" on center are not attached to the rafters.

CONCLUSIONS:

Roof:  
The living and garage areas lack sufficient structural capacity for the applied live and dead loads.

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. Provide additional 2x4 struts from the existing purlins to the bearing walls below. The maximum spacing between the new and existing struts shall not exceed 6'-0" on center and the minimum slope of the struts shall not be less than 45 degrees from the horizontal. See detail 1.
2. Scab a 1 3/4" x 1 1/8" x 22'-0" long microlam purlin to the existing 2x12 purlin which spans 22'-0" (total 2). Attach it with 16d's @ 3" on center. Support the microlam to the bearing walls below with 2x4 struts. See details 1 and 2.
3. Scab a 2x12 DF#2 x 12'-0" long purlin to the existing 2x6 purlin which spans 12'-0". Attach it with 16d's @ 3" on center. Support the 2x12 to the bearing walls below with 2x4 struts. See details 1 and 2.

Garage:

4. Add 2x8 cross ties as required so that the maximum spacing does not exceed 4'-0" on center. Nail the cross ties to the existing rafters with 6 -16d's at each connection. See detail 1.

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



PAUL ZACHER - STRUCTURAL ENGINEERS  
 4701 LAKESIDE WAY  
 FAIR OAKS, CA 95628  
 TEL: 916.961.3960  
 FAX: 916.961.3960

Title :  
 Dsgnr:  
 Description :  
 Scope :

Job #  
 Date: 9:21AM, 1 NOV 98

Rev: 510001

## Timber Beam & Joist

### Description RAFTERS AND BEAMS

#### Timber Member Information

		2x6	2x12	microlam
<b>Timber Section</b>		2x6	2x12	LVL:1.750x
Beam Width	in	1.500	1.500	1.750
Beam Depth	in	5.500	11.250	11.875
Le. Unbraced Length	ft	0.00	2.00	0.00
Timber Grade		Douglas Fir - Larch, Douglas Fir - Larch, Truss Joist - MacMil		
Fb - Basic Allow	psi	875.0	875.0	2,600.0
Fv - Basic Allow	psi	95.0	95.0	285.0
Elastic Modulus	ksi	1,600.0	1,600.0	1,800.0
Load Duration Factor		1.250	1.250	1.250
Member Type		Sawn	Sawn	Sawn
Repetitive Status		Repetitive	No	No

#### Center Span Data

		ft	ft	ft
Span	ft	12.00	12.00	22.00
Dead Load	#/ft	23.00	58.00	46.00
Live Load	#/ft	32.00	80.00	64.00

**Results**      Ratio =      0.9607      0.9023      0.5974

Mmax @ Center	in-k	11.88	29.81	79.86
@ X =	ft	6.00	6.00	11.00
fb Actual	psi	1,570.9	942.1	1,941.7
Fb Allowable	psi	1,635.2	1,044.1	3,250.0
		Bending OK	Bending OK	Bending OK
fv Actual	psi	55.7	62.4	79.7
Fv Allowable	psi	118.8	118.8	356.3
		Shear OK	Shear OK	Shear OK

#### Reactions

@ Left End	DL	lbs	138.00	348.00	506.00
	LL	lbs	192.00	480.00	704.00
	Max. DL+LL	lbs	330.00	828.00	1,210.00
@ Right End	DL	lbs	138.00	348.00	506.00
	LL	lbs	192.00	480.00	704.00
	Max. DL+LL	lbs	330.00	828.00	1,210.00

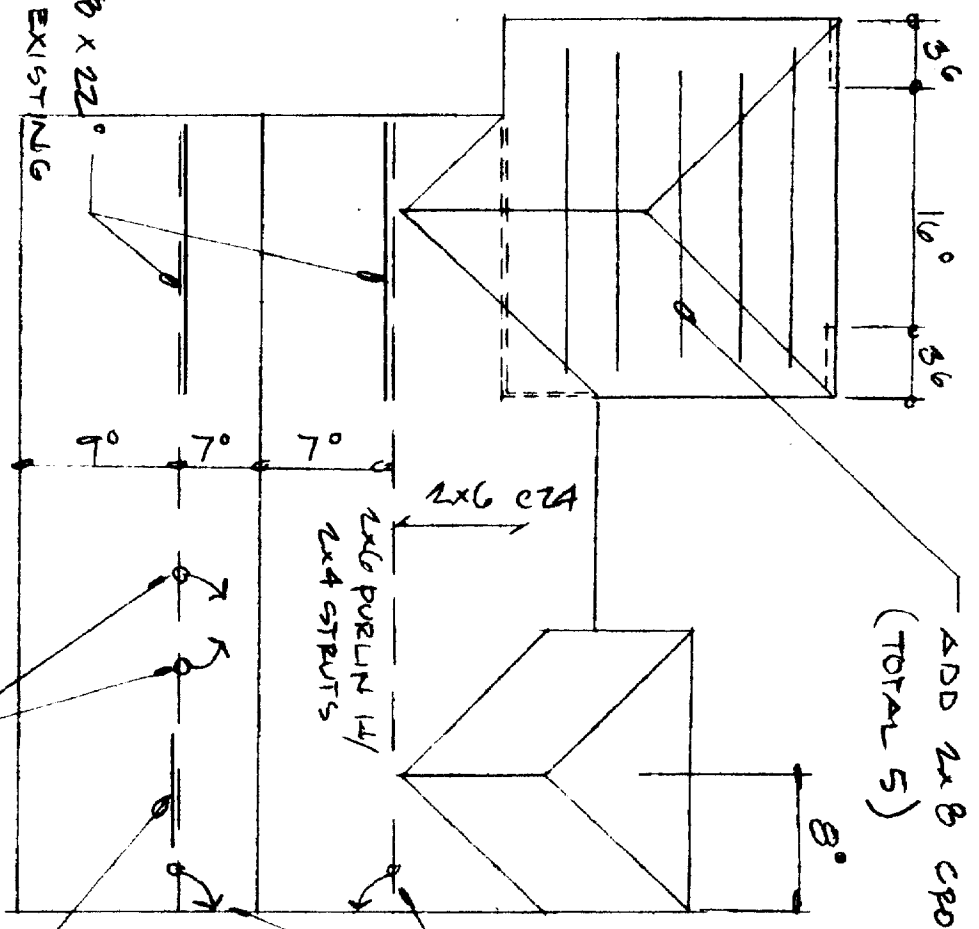
#### Deflections

Center DL Defl	in	-0.322	-0.095	-0.552
L/Defl Ratio		446.5	1,515.4	478.6
Center LL Defl	in	-0.449	-0.131	-0.767
L/Defl Ratio		320.9	1,098.7	344.0
Center Total Defl	in	-0.771	-0.226	-1.319
Location	ft	6.000	6.000	11.000
L/Defl Ratio		186.7	636.9	200.2

SCAB 1 3/4 x 11 7/8 x 22°  
 MICROPOLAM TO EXISTING  
 2x12 x 22° PURLIN  
 (TOTAL 1 @ EACH  
 LOCATION) (2)

SCAB 2x12 x 12° TO EXISTING  
 2x6 PURLINS THAT SPAN 12°  
 ADD 2x4  
 STRUTS (TOTAL 2) (2)

1 ROOF PLAN - CHEM  
 N.T.S.



ADD 2x8 CROSSMETS  
 (TOTAL 5)

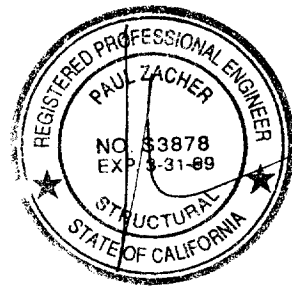
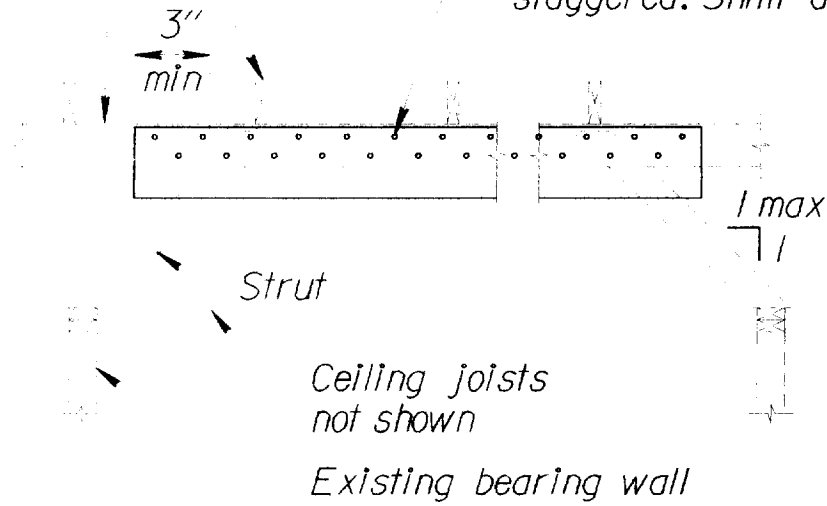
ADD 2x4 STRUTS  
 (TOTAL 2)



LN

Existing rafters  
Existing purlin

Purlin. Nail to existing  
purlin w/ 16d @ 3" oc,  
staggered. Shim as required.



2

## PURLIN DETAIL

6

1" = 1'-0"