

CITY OF SACRAMENTO

Permit No: 9809874

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 6318 GREENHAVEN DR SAC

Parcel No: 0300053001

41 Starlit Cir

Sub-Type: RES

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN ROOFING  
3560 RAMONA AV  
SACRAMENTO, CA

95826

OWNER

TERA ROSE  
1 STARLIT CR  
SACRAMENTO CA

95831

ARCHITECT

Nature of Work: REROOF 41 SQR W/PIONEER 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 10-6-98 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 10-6-98 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 71398002021

(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 10-6-98 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.



DEPARTMENT OF  
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO  
CALIFORNIA

1231 I STREET  
ROOM 200  
SACRAMENTO, CA  
95814-2998

Permit Services  
916-264-7619  
FAX 916-264-7046

Bento at  
6318 Greenhaven &  
I Street  
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 180
4. TOTAL WEIGHT OF ROOF SYSTEM 910
5. DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES  NO
6. ROOF SLOPE 9/12

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

see attached engineering report

Bento

**Paul Zacher-Structural Engineers**

4701 Lakeside Way  
Fair Oaks, CA 95628

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

September 21, 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 98227: BENTO

Subject: Structural Investigation Report of the Roof for the Residence located at 6318 Greenhaven 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 September 21, 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 1960's vintage.  
Occupancy: Residential.  
No. of Stories: One.  
Dimensions: Approximately 2500 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 2x4 purlins supported at no more than 6'-0" on center by 2x4 struts bearing on walls below. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center.

Bento

CONCLUSIONS:

Roof:

The living area lacks sufficient structural capacity for the applied live and dead loads. The garage has 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. Add a 1/2" OSB gusset plate adjacent to the existing strut and rafter connection (where shown on detail 1) and attach it with 8d's at 6" on center at the edges. See details 1 and 2.
2. 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 4'-0" on center. The unbraced length of the struts shall not exceed 8'-0" and the minimum slope of the struts shall not be less than 45 degrees from the horizontal. See detail 1.

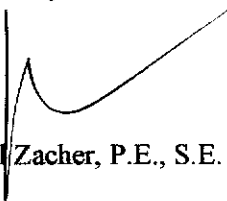
It shall be noted that small hairline cracking may occur at exterior stucco and interior gyboard finished walls which are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and are not an indication of a structural hazard or failure.

It shall be noted that some deflection of the rafters may be evident after installation of the tile. The existing roof framing has deflected but this may not be readily evident due to the uneven nature of the existing roofing material. Concrete tile is a very consistent and uniform product and when installed in an even plane, even small deflections can become apparent. This is only a cosmetic issue and not a structural concern.

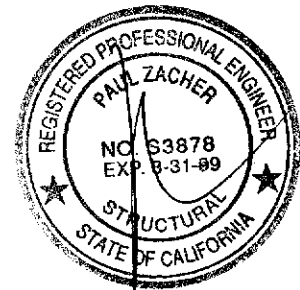
The inspection consisted of visual observation only, made solely to determine the structural capacity of the existing roof. Analysis does not determine any effects on the overall structure under lateral forces or effects on the foundation unless specifically noted in the calculations and in this document. No warranties, expressed or implied, are made or intended in conjunction with this report. The inspection was made only to the portions that were accessible. The specific items noted were those that were observable and there may be defects which are not observable, or are hidden by architectural and structural materials.

If you have any questions on the above, do not hesitate to call.

Sincerely,



Paul Zacher, P.E., S.E.  
file



**DESIGN LOADING:**

Roof Pitch	4	in 12
Pitch Adjustment Factor	1.05	

**LOCATION: ROOF**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Light Weight Concrete Tile	7.00	psf
Roofing felt	0.30	psf
1x4 skip sht'g	1.09	psf
1/2" OSB/ plywood	1.50	psf
2x6 rafters @ 24" oc	<u>1.00</u>	psf
Load	10.9	psf
Roof Pitch Adjustment	<u>0.59</u>	psf
Total Load	11.5	psf

Title :  
 Dsgnr:  
 Description :

Date:  
 Job #

Scope :

Rev. 510001

**Timber Beam & Joist**

Page 1

**Description RAFTERS AND BEAMS**

**Timber Member Information**

		2x6
Timber Section		2x6
Beam Width	in	1.500
Beam Depth	in	5.500
Le: Unbraced Length	ft	0.00
Timber Grade		Douglas Fir - Larch,
Fb - Basic Allow	psi	875.0
Fv - Basic Allow	psi	95.0
Elastic Modulus	ksi	1,600.0
Load Duration Factor		1.250
Member Type		Sawn
Repetitive Status		Repetitive

**Center Span Data**

Span	ft	12.00
Dead Load	#/ft	23.00
Live Load	#/ft	32.00

**Results** Ratio = 0.9607

Mmax @ Center	in-k	11.88
@ X =	ft	6.00
fb : Actual	psi	1,570.9
Fb : Allowable	psi	1,635.2
		Bending OK
fv : Actual	psi	55.7
Fv : Allowable	psi	118.8
		Shear OK

**Reactions**

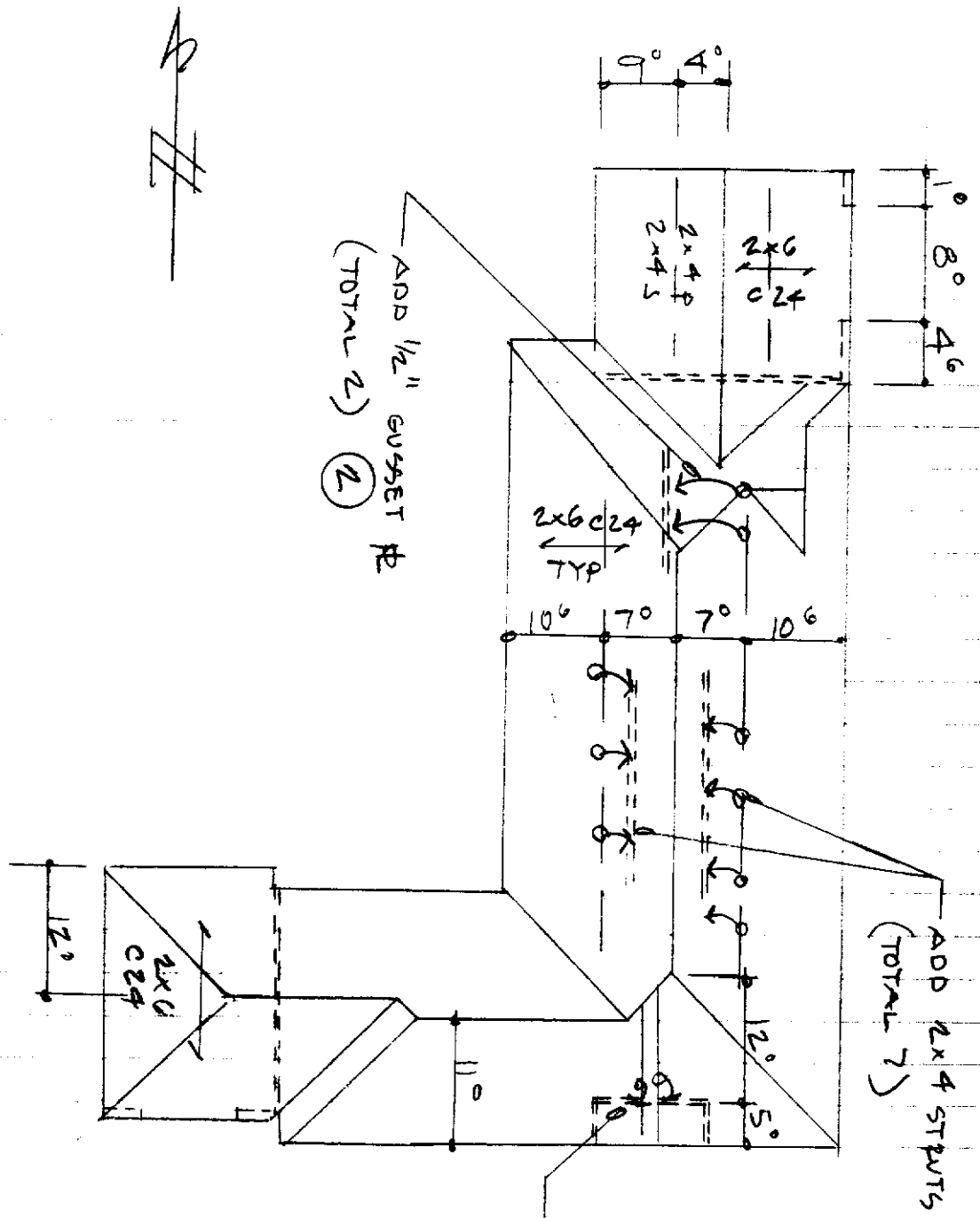
@ Left End	DL	lbs	138.00
	LL	lbs	192.00
	Max. DL+LL	lbs	330.00
@ Right End	DL	lbs	138.00
	LL	lbs	192.00
	Max. DL+LL	lbs	330.00

**Deflections**

Center DL Defl	in	-0.322
L/Defl Ratio		446.5
Center LL Defl	in	-0.449
L/Defl Ratio		320.9
Center Total Defl	in	-0.771
Location	ft	6.000
L/Defl Ratio		186.7

4

1 ROOF PLAN - BENTO  
N.T.S.

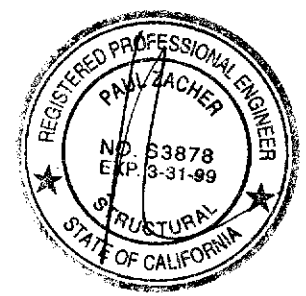


ADD 1/2" GUSSET #2  
(TOTAL 2) 2

ADD 2x4 STRUTS  
(TOTAL 7)

ADD 2x4 STRUT TO  
BEG BELOW WHERE  
RAFTERS SPAN 12"  
(TOTAL 2)

5



Add 2x4 shim as req'd w/ 16d @ 8" oc to existing member

Existing rafter

Existing ceiling joist

Existing strut

Add 1/2" OSB w/ 8d @ 6" oc edges, 12" oc field at existing strut to rafter connection

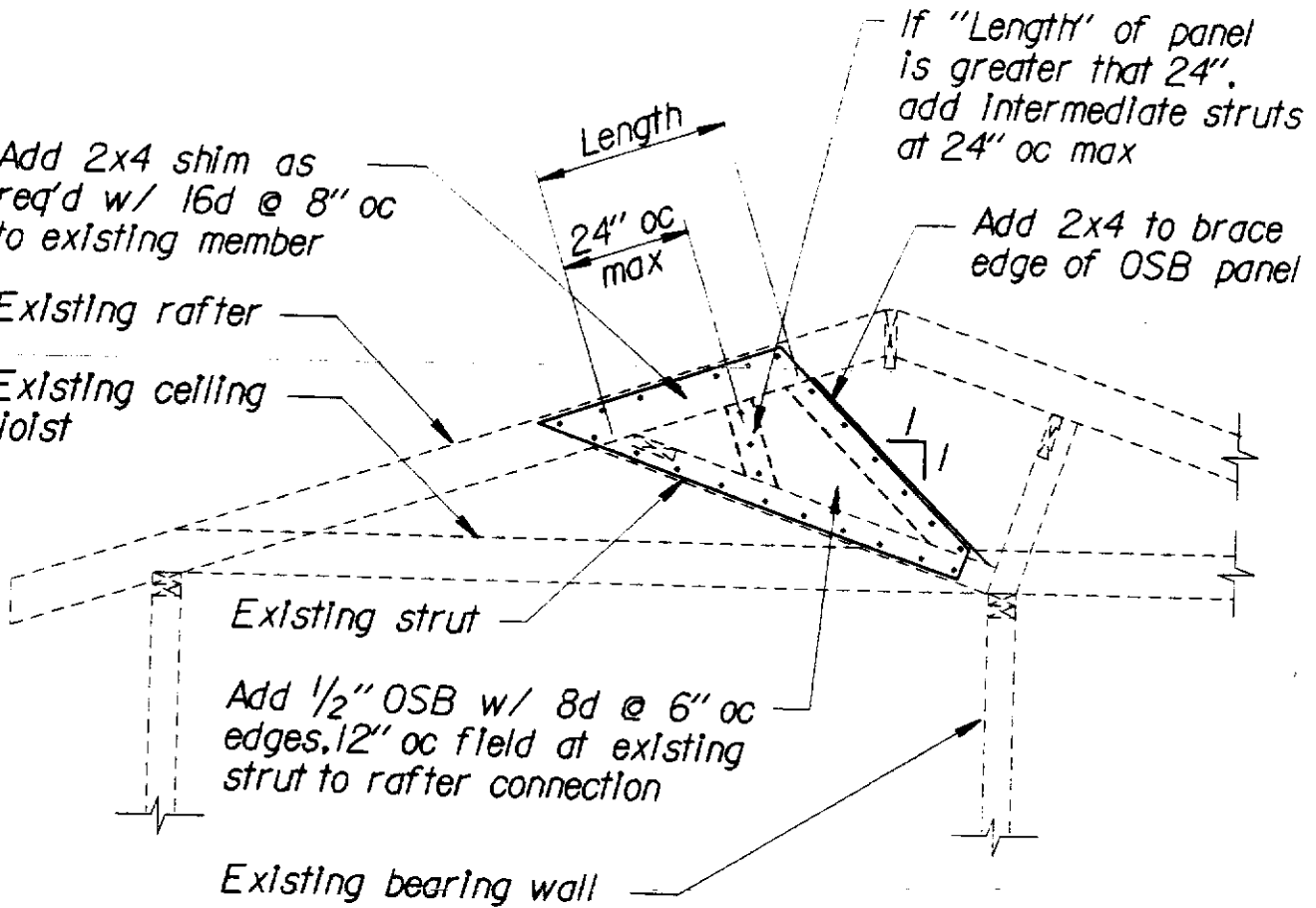
Existing bearing wall

Length

24" oc max

If "Length" of panel is greater than 24", add intermediate struts at 24" oc max

Add 2x4 to brace edge of OSB panel



2

## GUSSET PLATE DETAIL

1/2" = 1'-0"