

CITY OF SACRAMENTO

Permit No: 9807816

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 6412 DRIFTWOOD ST SAC

Sub-Type: RES

Parcel No: 0300104013

Housing (Y/N): N

CONTRACTOR

CARVALHO ROOFING
P OB OX 671
ROCKLIN CA

95677

OWNER

TOWNZEN KENNETH R & BONNIE J
6412 DRIFTWOOD ST
SACRAMENTO CA

95831

ARCHITECT

Nature of Work: REROOF 34 SQS LIGHTWEIGHT TILE WITH MINOR STRUCTURAL MODIFICATIONS

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 C 2939 License Number 614503 Date 8/13/98 Contractor Signature Michael R. Carvalho

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 8/13/98 Applicant/Agent Signature Susan Carvalho

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 Business Insurance Co. Policy Number W 987178929
7-1-99

____ (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 8/13/98 Applicant Signature Susan Carvalho

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.

Paul Zacher-Structural Engineers

4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960

FAX: 916.961.3960

e-mail: pzacher@softcom.net

August 8, 1998

Carvalho Roofing
P.O. Box 671
Rocklin, CA 95677
TEL: 916.624.2942
FAX: 916.632.8455

Attn.: Mr. Mike Carvalho,

re: Job 98177: TOWNSEND



This seal of professional qualifications must be used on all job contracts and all work orders, to certify any other person or firm from the State of California is not qualified from the Project mentioned herein.

The approval of this seal of qualifications SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

Subject: Structural Investigation Report of the Roof for the Residence located at 6412 Driftwood Street, Sacramento, CA 95831.

As requested by Mr. Mike Carvalho, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site August 8, 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 Monier Duralite 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 4'-0" on center by 2x4 struts bearing on walls. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center.

John Tang

1/7

Townsend
6412 Driftwood Street
Sacramento, CA

CONCLUSIONS:

Roof:

The living area lacks sufficient structural capacity for the applied live and dead loads. The garage area 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.

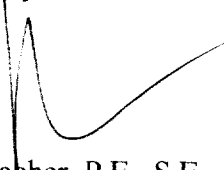
Living Area:

1. Scab a 2x6 rafter to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 12'-0". See detail 1.
2. Add a 2x6 purlin with 2x4 struts from the purlin to the bearing walls below. The maximum spacing between the struts shall not exceed 6'-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.
3. Add 2x4 struts from each rafter to the bearing wall where the span of the existing rafter is greater than 12'-0". See detail 1.

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



BEAM DESIGN FOR UNIFORM LOAD: 2x6

(Values for DF Larch #2)

Width, b	1.5 inches
Depth, d	5.5 inches
Length of beam	12 feet
Dead load roof	11.9 psf
Live load roof	16 psf
Contributory width of roof load	2 feet
Dead load floor	0 psf
Live load floor	0 psf
Contributory width of floor load	0 feet
Dead load wall	0 plf
Live load defl ratio	240
Total load defl ratio	180
Total dead load	23.8 plf
Total live load	32 plf

Base design values:

Shear, Fv	95 psi
Bending, Fb	875 psi
Comp. perp. to grain, Fc	625 psi
Mod of Elasticity, E	1600000 psi
Load duration factor, Cd	1.25
Size Factor, Cf	1.30
Repetitive factor, Cr	1.15

Dead load reaction	143 lbs
Live load reaction	192 lbs
Total load reaction	335 lbs

Allowable shear, Fv'	119 psi	Horizontal Shear OK
Actual shear, fv	56 psi	
Allowable bending, Fb'	1635 psi	Bending OK
Actual bending, fb	1594 psi	
Allowable live load defl	0.60 inches	Live Load Deflection OK
Actual live load defl	0.45 inches	
Allowable total load defl	0.80 inches	Total Load Deflection OK
Actual total load defl	0.78 inches	
Bearing length req'd	0.36 inches	

BEAM DESIGN FOR UNIFORM LOAD: 2-2x6

(Values for DF Larch #2)

Width, b	3 inches
Depth, d	5.5 inches
Length of beam	15 feet
Dead load roof	11.9 psf
Live load roof	16 psf
Contributory width of roof load	2 feet
Dead load floor	0 psf
Live load floor	0 psf
Contributory width of floor load	0 feet
Dead load wall	0 plf
Live load defl ratio	240
Total load defl ratio	180
Total dead load	23.8 plf
Total live load	32 plf

Base design values:

Shear, F_v	95 psi
Bending, F_b	875 psi
Comp. perp. to grain, F_c	625 psi
Mod of Elasticity, E	1600000 psi
Load duration factor, C_d	1.25
Size Factor, C_f	1.30
Repetitive factor, C_r	1.15

Dead load reaction	179 lbs
Live load reaction	240 lbs
Total load reaction	419 lbs

Allowable shear, F_v'	119 psi
Actual shear, f_v	36 psi
Allowable bending, F_b'	1635 psi
Actual bending, f_b	1245 psi
Allowable live load defl	0.75 inches
Actual live load defl	0.55 inches
Allowable total load defl	1.00 inches
Actual total load defl	0.96 inches

Horizontal Shear OK

Bending OK

Live Load Deflection OK

Total Load Deflection OK

Bearing length req'd	0.22 inches
----------------------	-------------

BEAM DESIGN FOR UNIFORM LOAD: Porch

(Values for DF Larch #1)

Width, b	3.5 inches	
Depth, d	7.25 inches	
Length of beam	9 feet	
Dead load roof	11.9 psf	
Live load roof	16 psf	
Contributory width of roof load	5 feet	
Dead load floor	0 psf	
Live load floor	0 psf	
Contributory width of floor load	0 feet	
Dead load wall	0 plf	
Live load defl ratio	240	
Total load defl ratio	180	
Total dead load	59.5 plf	
Total live load	80 plf	
Base design values:		
Shear, F_v	95 psi	
Bending, F_b	875 psi	
Comp. perp. to grain, F_c	625 psi	
Mod of Elasticity, E	1600000 psi	
Load duration factor, C_d	1.25	
Size Factor, C_f	1.30	
Dead load reaction	268 lbs	
Live load reaction	360 lbs	
Total load reaction	628 lbs	
Allowable shear, F_v'	119 psi	Horizontal Shear OK
Actual shear, f_v	32 psi	
Allowable bending, F_b'	1422 psi	Bending OK
Actual bending, f_b	553 psi	
Allowable live load defl	0.45 inches	Live Load Deflection OK
Actual live load defl	0.07 inches	
Allowable total load defl	0.60 inches	Total Load Deflection OK
Actual total load defl	0.12 inches	
Bearing length req'd	0.29 inches	

1 ROOF PLAN - TOWNSEND
N.T.S.

