

CITY OF SACRAMENTO

Permit No: 0509648

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Thos Bros: 337A4

Site Address: 7760 SLEEPY RIVER WY SAC

Sub-Type: RES

Parcel No: 031-0490-046

Housing (Y/N): N

CONTRACTOR

DAVID KNUTSON ROOFING
WENDY STARK
1520 MAIN AV 95838

OWNER

GAINES WILLIAM F/CAROLYN S
PO BOX 22995
SACRAMENTO, CA 95822

ARCHITECT

Nature of Work: REROOF T/O INSTALL 35 SQRS LIGHT WEIGHT TILE (2-STORY)

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 453373 Date 7/1/05 Contractor Signature [Signature]

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 7/1/05 Applicant/Agent Signature [Signature]

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 1677234 Exp Date 01/01/2006

(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 7/1/05 Applicant Signature [Signature]

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.

0509648

Anderson Engineering Consultants

16790 Placer Hills Road, Suite A Phone: (530) 878-4770
Meadow Vista, CA. 95722 Fax: (530) 878-1579

David Knutson Roofing
1520 Main Avenue
Sacramento, CA. 95838

June 30, 2005

Subject: Lightweight Tile Re-roof
7760 Sleep River Way
Sacramento, CA. 95831

Dear David,

Pursuant to your request, Anderson Engineering Consultants has reviewed the roof framing of the structure at the above address for structural adequacy. The house is approximately 20 to 25 years old, and is conventionally framed. The roof is comprised of the following:

- Single 2x6 rafters at 24" o.c. with an 11'-0" maximum span.
- 2x6 Purlins with 2x4 struts at 48" o.c.
- 2x8 hip and valley boards.

Calculations show the rafters are adequate.

The roof has a pitch of 6:12 and appears to be in sound condition. The hip and valley boards are 2x8 and braced adequately to bearing members. The total dead load on the rafters including roofing material does not exceed 11 psf. Calculations also show rafters are adequate.

- | | |
|--|-----------|
| ○ Lightweight Tile | = 7.2 psf |
| ○ Thermo-ply / light gage metal system | = 0.5 psf |
| ○ Existing skip sheathing | = 1.5 psf |
| ○ 2x6 roof framing | = 1.0 psf |
| | <hr/> |
| | 10.2 psf |

RECEIVED
City of Sacramento
JUL 01 2005
BUILDING DEPARTMENT
CENTER

*Field verify:
- Tile weight*



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspector.

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

Approved By h.a.b.

07-01-05

CITY COPY

city

It is our opinion that using your proposed re-roof system consisting of the following will not compromise the structural integrity of the roof system:

- 7/8" - 22 gage hat channel fastened to the rafters with 10d-galvanized nails (or equal) at 24" o.c.
- "Thermo-ply" underlayment fastened to the hat channel with #10 self-tapping screws (or equal).
- 7/8" - 22 gage steel hat channel battens over the "Thermo-ply" underlayment fastened with #10 self tapping screws (or equal) at every rafter.
- Lightweight Eaglelite concrete tile weighing no more than 7.2 psf.

The determination of the roof's structural integrity is based on observation and known mechanical properties of wood.

After re-roofing minor cracking of the ceiling and interior and exterior walls may occur. In addition, a small amount of deflection in the rafters may be observed. These conditions are cosmetic only and do not affect the structural integrity of the roof framing.

Should you have any questions, please do not hesitate to contact us.

Sincerely,



Carl Anderson, P.E.



Project: GAINS - Location: MAX RAFTER SPAN

Summary:

1.5 IN x 5.5 IN x 11.0 FT @ 24 O.C. / #2 - Douglas Fir-Larch - Dry Use
 Section Adequate By: 17.1% Controlling Factor: Moment of Inertia / Depth Required 5.22 In

Rafter Span Deflections:

Dead Load:	DLD-Interior=	0.30	IN
Live Load:	LLD-Interior=	0.40	IN = L/373
Total Load:	TLD-Interior=	0.70	IN = L/211

Rafter End Loads and Reactions:

Upper Live Load:	LOADS:	RXNS:	
Upper Dead Load:	88 PLF	176 LB	
Upper Total Load:	68 PLF	135 LB	
Lower Live Load:	156 PLF	311 LB	
Lower Dead Load:	88 PLF	176 LB	
Lower Total Load:	68 PLF	135 LB	
Upper Equiv. Tributary Width:	156 PLF	311 LB	
Lower Equiv. Tributary Width:	UTWeq=	5.5	FT
	LTWeq=	5.5	FT

Rafter Data:

Interior Span:	L=	11.0	FT
Eave Span:	L-Eave=	0.0	FT
Rafter Spacing:	Spacing=	24.0	IN O.C.
Rafter Pitch:	RP=	6.0	: 12
Roof sheathing applied to top of joists-Top of rafters fully braced.			
Live Load Deflect. Criteria:	L/	240	
Total Load Deflect. Criteria:	L/	180	

Non-Snow Live Load:

Roof Loaded Area:	RLA=	22.0	SF
Live Load Method:	Method =	One	

Rafter Loads:

Roof Live Load:	LL=	16.0	PSF
Roof Dead Load:	DL=	11.0	PSF
Roof Duration Factor:	Cd=	1.25	

Slope Adjusted Spans And Loads:

Interior Span:	L-adj=	12.3	FT
Rafter Live Load:	wL-adj=	26	PLF
Rafter Dead Load:	wD-adj=	20	PLF
Rafter Total Load:	wT-adj=	45	PLF

Properties For: #2- Douglas Fir-Larch

Bending Stress:	Fb=	900	PSI
Shear Stress:	Fv=	180	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc-perp=	625	PSI

Adjusted Properties

Fb' (Tension):	Fb'=	1682	PSI
Adjustment Factors: Cd=1.25 Cf=1.30 Cr=1.15			
Fv':	Fv'=	225	PSI
Adjustment Factors: Cd=1.25			

Design Requirements:

Controlling Moment:	M=	856	FT-LB
6.149 Ft from left support of span 2 (Center Span)			
Critical moment created by combining all dead loads and live loads on span(s) 2			
Controlling Shear:	V=	262	LB
At a distance d from right support of span 2 (Center Span)			
Critical shear created by combining all dead loads and live loads on span(s) 2			

Comparisons With Required Sections:

Section Modulus (Moment):	Sreq=	6.11	IN3
	S=	7.56	IN3
Area (Shear):	Areq=	1.74	IN2
	A=	8.25	IN2
Moment of Inertia (Deflection):	Ireq=	17.76	IN4
	I=	20.80	IN4



LOCATION:

7760 SLEEPY RIVER WY.
SACRAMENTO, CA

* 2x6 @ 24" o.c.
--- 2x6 PURLINS w/
2x4 STRUTS @ 48" o.c.

6:1/2 PITCH

