

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0500786

Insp Area: 2

Thos Bros: 336J2

Site Address: 939 SUNWOOD WY SAC

Parcel No: 031-0740-011

Sub-Type: REP

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN REROOFING CO.
3675 R ST
SACRAMENTO CA 95816

OWNER

FONG NORMAN J/YUK LIN
939 SUNWOOD WY
SACRAMENTO, CA 95831

ARCHITECT

Nature of Work: T/O & REROOF 27SQ'S WITH EAGLE LITE 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 763169 Date 1-27-05 Contractor Signature Koti Op

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 1-27-05 Applicant/Agent Signature Koti Op

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 713-0002021 Exp Date 10/01/2005

_____, (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 1-27-05 Applicant Signature Koti Op

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.

∞ Infinity Engineering, L.P. ∞

2150 Bell Ave., Suite 145 • Sacramento, CA 95838 • (916) 646-1760 • Fax: (916) 646-1760

December 15, 2004

Jeff Shulman
Zimmerman Re-Roofing, Inc
3675 R Street
Sacramento, CA 95816

CITY COPY



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

RE: Roof framing inspection for placement of Light Weight Tile (6.0 psf) on the existing residence at 939 Sunwood Way, Sacramento, CA 95831. This Inspection and report is for the same. Our Job#04-374.

Dear Mr. Shulman,

As requested, on December 14, 2004, I performed a visual inspection of the existing roof framing at the aforementioned residence. The purpose of the inspection was to determine if the existing roof framing was structurally acceptable for the placement of a light weight tile (6.0 psf installed weight) to replace the existing wood shake.

The existing residence is a 1 story single family dwelling with the standard living areas and an attached garage. Attached is a sketch of the roof plan showing the dimensions of the exterior walls (Attachment 1 of 3).

Observations:

- In general the existing roof framing on the structure was in good condition (except as noted below), and consisted of wood shake over felt over 1x skip sheathing over Trusses at 24" c.c..
- The Truss top chords had a maximum span of 7'-10".
- The Truss top chords at the vaulted ceiling area were 2x8 and had a maximum span of 10'-6";
- The barge rafter and fascia at the back bay were sagging.

In the attached calculations (Attachments 2 of 2) the maximum allowable span of the 2x4 top chords was found to be 8'-0". Also, on Attachment 3 of 3, the span of the 2x8 top chords were checked and found to be acceptable.

Recommendations:

- At the area by the back bay, it is recommended that the top chord of the last truss, over the back wall of the bay, that cantilevers approximately 3'-8", be reinforced. In addition,



Jeff Shulman
Zimmerman Re-Roofing, Inc.
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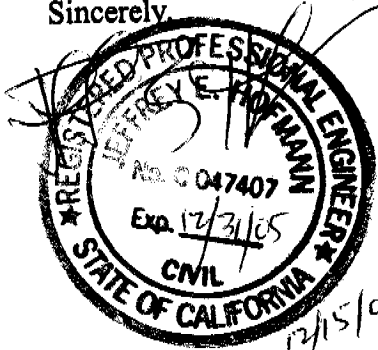
there are some special instructions on the placement and attachment of the sheathing to the barge rafter. This information and other requirements are shown on the "Framing @ Back Bay" detail shown at the top of Attachment 1 of 3.

Thus, it is my professional opinion that the placement of a light weight tile (6.0 psf installed weight) to replace the existing wood shake is structurally acceptable as long as the aforementioned .

Please note that the aforementioned recommendations are made in order to provide framing that meets the requirements of the current building code and to minimize additional settlement of the roof framing due to the slightly higher weight of the light weight tile. However, there is a possibility of cosmetic cracking in the vaulted ceiling areas or visible differential deflection in the roof due to both the additional weight of the tile and the work being performed on the roof. It is the owners responsibility to determine if the possibility of these occurring is acceptable to them.

If you have any questions or need further clarification on these matters please feel free to contact me at (916) 646-1760.

Sincerely,



Jeffrey E. Hofmann, P.E.
President of General Partner, Hofmann Management Inc.

JUST

12/15/04

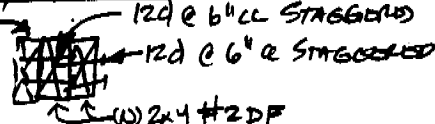
ZIMMERMAN
FASCIA ROPING - 939 SUNWOOD WAY

04-374

ATTACH

3

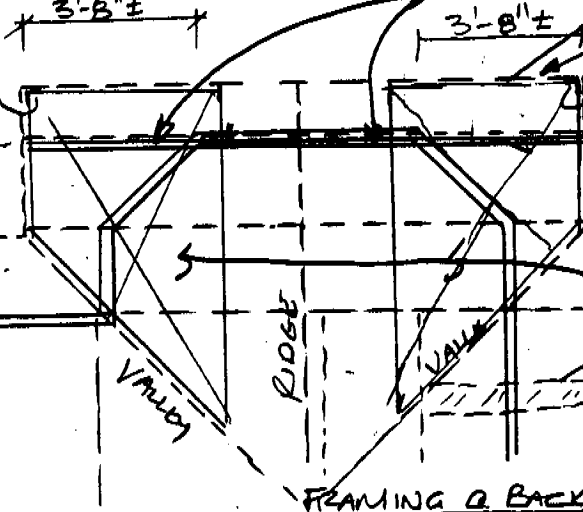
(E) 2x4



ADD (2) 2x4 #2 DP TO THE EXISTING 2x4 @ 3'-8" OVERHANG - EXTEND TO RIDGE
NAIL EX LAYER W/ (2) @ 6" C.C.

SCREW ROOF SHEATHING TO BARGE RAFTERS
W/ #10 X 3" WOODSCREWS @ 6" C.C. - SCREWS THRU (E) (W) 1x

A35 BARGE TO FASCIA
NAIL 2x FASCIA BD W/ (2) 16d TO EA 2x4 TAIL

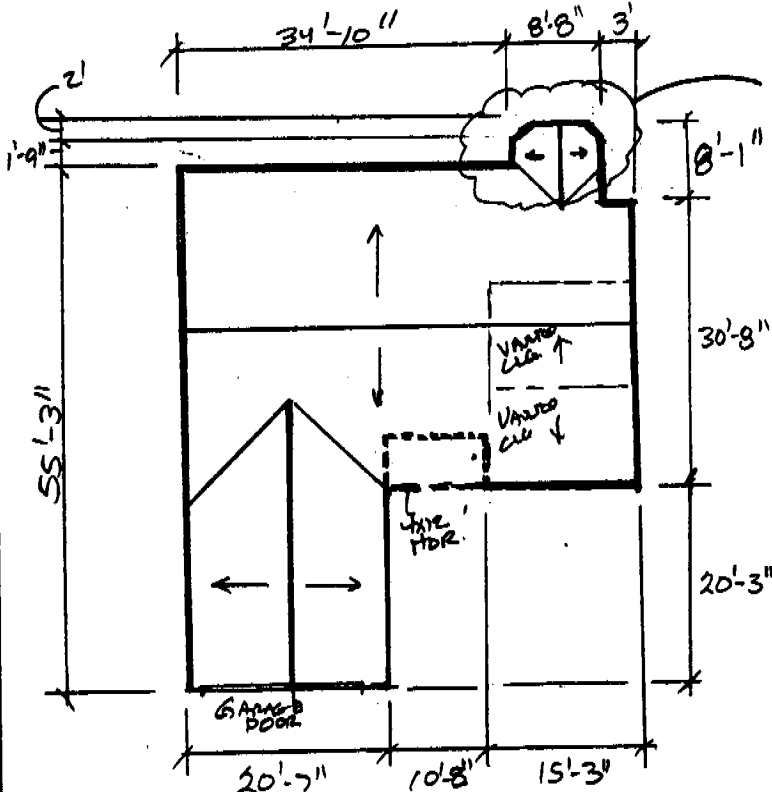


A35 BARGE TO FASCIA - N16 NAILS (1 1/2" LONG)
NAIL 2x FASCIA BD W/ (2) 16d TO EA 2x4 TAIL.

PLY WOOD SHEATHING TO BE ORIENTED W/ FINE GRAIN (LONG DIM) PERPENDICULAR TO FRAMING AND IS TO EXTEND BACK AS FAR AS POSSIBLE FROM OVERHANG IN ONE CONTINUOUS PIECE W/ 4' WIDTH @ BOTTOM + SMALLER PIECE @ RIDGE.

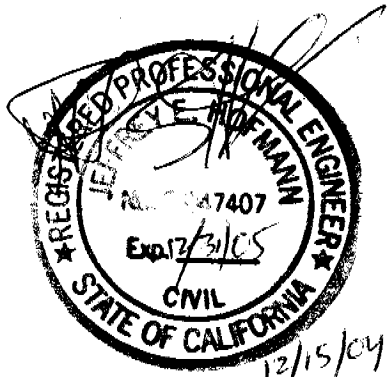
No. 937 811E
Engineer's Computation Pad

STAEDTLER



THIS AREA THE BARGE RAFTERS ARE SAGGING SEE ABOVE FOR ADDITIONAL FRAMING NEEDED.

SKETCH OF ROOF PLAN (SCALE = 20')
939 SUNWOOD WAY, SAC, CA 95831



(E) ROOF

WOOD SHAKE OVER FELT OVER 1x SKIP SHTG OVER TRUSSES @ 24" C.C.

(W) ROOF

LT WF TILE (517 PSF) OVER 1 1/2" SHTG OVER 1x SKIP OVER (E) TRUSSES @ 24" C.C.

Infinity Engineering, L.P.
2150 Bell Ave., #145
Sacramento, CA 95838

JEH

12/15/04

REEROOF @

FONG RESID-939 S. WINDY...

04:374

ATTACH 2/3

DETERMINE NEW DEAD LOAD TO TRUSS TOP CHORDS/RATEA10.0 PSF = TOTAL DEAD LOAD

6.0 PSF = LIGHT WT TILE, (6 PSF INSTALLED WT)

0.3 PSF = 30# FELT

1.3 PSF = 7/16" SHTG - New

1.25 PSF = (E) 1x SKIP SHTG OR 3/8" SHTG

0.65 PSF = 2x4 (TOP CHORD) @ 24" CC.

0.5 PSF = MISC

∴ WT OF NEW ROOF CONFIGURATION IS W/IN
NORMAL DESIGN WEIGHT FOR ROOF
- EXISTING FRAMING IS ACCEPTABLE

CHECK MAX SPAN OF (E) 2x4 TRUSS TOP CHORD

NOTE: HOUSE BUILT PRIOR TO 1994 UBC THUS OLDER
WOOD ALLOWABLE STRESSES APPLICABLE.

#2DF → $F_v = 95 \text{ PSI}$ $f_b = 1450 \text{ PSI (REP)}$ $E = 1.7 \times 10^6 \text{ PSI}$ 2x4 → $A = 5.25 \text{ IN}^2$ $S_x = 3.06 \text{ IN}^3$ $I = 5.36 \text{ IN}^4$

ACTUAL MAX SPAN OF TOP CHORD = 7'-10"

 $W_r = 2'(16+10 \text{ PSF}) = 52 \text{ PLF}$ SHEAR $V_{ALL} = \frac{5.25 \text{ IN}^2 (95) (1.25)}{1.5} = 416 \#$ $l_{MAX} = \frac{2(416)}{2'(16+10)} = 16' = l_{MAX} \text{ (SHEAR)}$ BENDING $M_{ALL} = \frac{3.06 \text{ IN}^3 (1450 \text{ PSI}) (1.25)}{12} = 462 \text{ Lb-ft}$ $l_{MAX} = \sqrt{\frac{8(462)}{52}} = 8'-5" = l_{MAX} \text{ (BENDING)}$ DEFLECTION: $\Delta_{ALL} = \frac{L}{180}$ $\Delta_{ALL} = \frac{L}{240}$ (NO CEILING ATTACHED)

(TOTAL LOAD CONTROL)

 $\Delta_{ALL} = \frac{L(12)}{180} = \frac{5(52)(L)^4 (1729)}{384 (1.7 \times 10^6) (5.36)}$ $l_{MAX} = \sqrt[3]{\frac{12(384) (1.7 \times 10^6) (5.36)}{180(5)(52)(1729)}} = 9.03' = l_{MAX} \text{ (DEAD)}$

∴ ALLOWABLE MAX SPAN OF 8' EXCEEDS MAXIMUM ACTUAL
SPAN OF 7'-10"

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CHECK 4x12 HDR @ FRONT PORCH

SPAN = 10'-8"

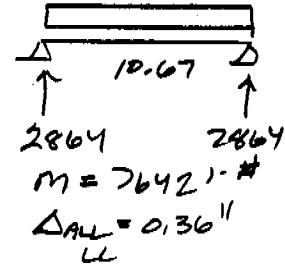
$W_{TL} = \frac{34.67}{2}(16+10+5) = 537 \text{ PLF}$

$REQ'D A = 1.5(2864 - \frac{12(537)}{2}) / 95(1.25) = 30.5 \text{ in}^2$

$REQ'D S = \frac{12(7642)}{1250(1.25)} = 58.6 \text{ in}^3$

$REQ'D I = \frac{5(537)(10.67)^4(1.728)}{384(1.6 \times 10^6)(1.25)} = 271.8 \text{ in}^4$

L(E) 4x12 HDR IS OK



No. 937 811E
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GARAGE DOOR HDR SPAN = 16

TROSSER ROW PARALLEL TO HEADER L 4x12 #2 DP OK

CHECK 2x8 TOP CHORDS @ VAULTED CEILING AREA OVER LIVING ROOM

SPAN = 10'-6"

$W_{TL} = 2(16+10+5) = 62 \text{ PLF}$

$REQ'D I = \frac{5(62)(10.5)^4(1.728)}{384(1.6 \times 10^6)(1.35)} = 30.3 \text{ in}^4 < 47.6 \text{ in}^4 \text{ OK}$

$REQ'D S = \frac{12(954)}{1450(1.25)} = 5.65 \text{ in}^3 < 13.1 \text{ in}^3 \text{ OK}$

$REQ'D A = \frac{1.5(325)}{95(1.25)} = 4.10 \text{ in}^2 < 10.9 \text{ in}^2 \text{ OK}$

L 2x8 Top Chords @ VAULTED CEILING AREA IS ACCEPTABLE

