

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0508981

Insp Area: 4
Thos Bros: 277C4

Site Address: 6 SAGINAW CR SAC
Parcel No: 225-0740-002

Sub-Type: RES
Housing (Y/N): N

CONTRACTOR
B Z ROOFING
173 ROWLAND CT
GALT CA 95632

OWNER
CARDENAS FORTUNATO R/BRIZA
6 SAGINAW CIR
SACRAMENTO, CA 95833

ARCHITECT

Nature of Work: REROOF T/O RESHEET INSTALL 20 SQRS LIGHT WEIGHT TILE & NEW GUTTERS

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 806642 Date 6/22/05 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 on 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 6/22/05 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.

OK 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:

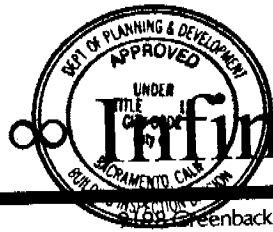
Carrier STATE FUND Policy Number 713-001438 Exp Date 05/01/2006

(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 6/22/05 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.



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 plans without written permission from the Building Inspection Division.

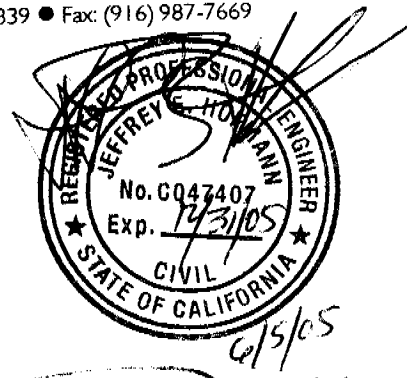
0508981

Infinity Engineering, L.P. ∞

Greenback Lane, Suite 1000, Orangevale, CA 95662 • (916) 987-0839 • Fax: (916) 987-7669
The approval of this plan and specification here to permit or approve the violation of any City Ordinance or State Law.

JR-6-22-05

June 5, 2005 site verify max tile wt - 6.6 #/sq ft
max. of verify framing matches given in this report.
Jorge Vasquez
Valley Construction *Don't cover proon to inspection.*



RE: Roof framing inspection for placement of Light Weight Tile (6 psf - max) on the existing framing at 6 Saginaw Circle, Sacramento, CA. This Inspection and report is Job#05-293.

Purpose of Inspection:

As requested, on June 3, 2005, 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 psf max installed weight) to replace the existing wood shake.

JUN 22 2005

Observations & Comments:

The existing residence is a 2 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 4).

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NORTH DEPARTMENT OF PUBLIC WORKS
CIVIL
JUN 22 2005

In general the existing roof framing on the structure was in good condition and consisted of wood shake over 1x skip sheathing over trusses, with 2x4 top chords, at 24" c.c. and 2x10 rafters at the vaulted ceiling at 24" c.c.. The 2x4 top chords had a maximum horizontal span of 6'-4". The 2x10 rafters at the vaulted ceiling had a maximum unbraced horizontal span of 10'-4".

Attached calculations (see Attachments 2 of 4) show the new dead load to the roof and check the allowable span (8'-0" max) of the existing truss top chords. The existing trusses are acceptable for use with light weight tile.

Attachment 3 of 4, contains the calculations checking the 2x10 framing at the vaulted ceiling over the Kitchen and Family Room. The maximum allowable span is 19'-9".

Recommendations:

- 1) Remove all layers of existing roof covering.
- 2) Place 7/16" (min) APA Rated 24/16 sheathing over the 1x skip sheathing.
- 3) Place new felt and install the light weight tile per the manufactures recommendations.

Conclusion:

Assuming that the aforementioned recommendations are completed, it is my professional opinion

CITY COPY

6 SAGINAW CR

Valley Construction

Page 2

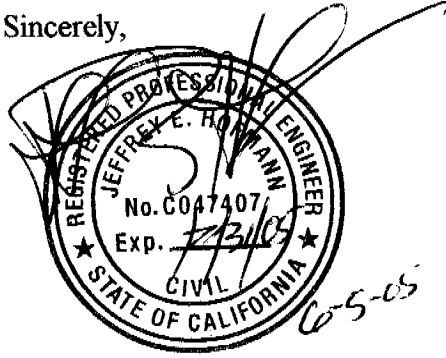
June 5, 2005

that the placement of a light weight tile (6.0 psf max. installed weight) and 7/16" (min) sheathing, over the 1x skip sheathing and framing is structurally acceptable.

Please note that even if the recommendations above are followed, additional settlement of the roof framing and cosmetic cracking in the ceiling areas, especially in the vaulted ceiling areas, may occur due to the work being performed on the roof and the additional weight of the new tile roof covering. 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) 987-0839.

Sincerely,



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

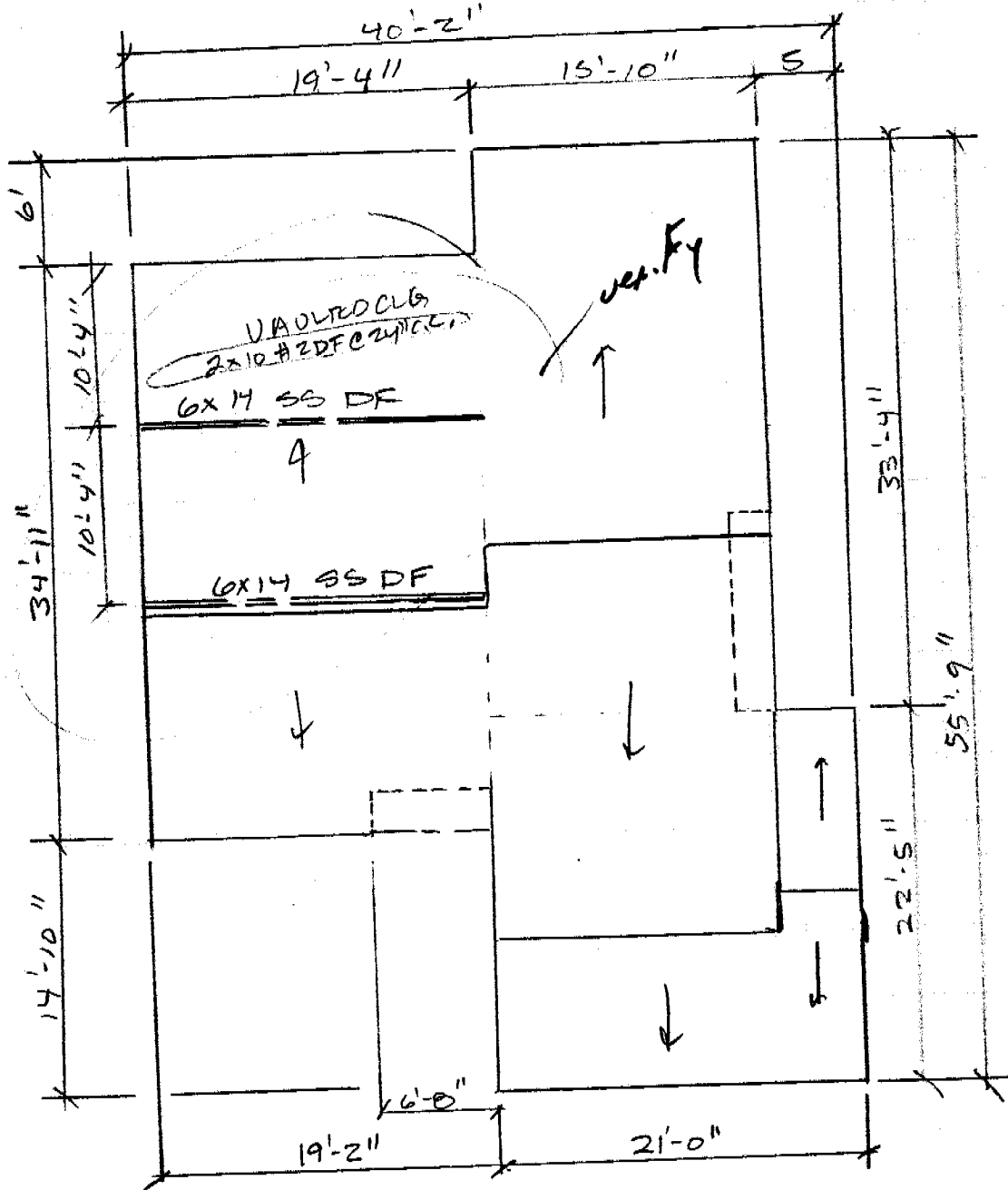
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CENTER

JEH

VALLEY
6/5/05 RE ROOF @ 6 SAGINAW CT

05-293

ATTACH
1/4



SKETCH OF ROOF PLAN (21' x 10')
6 SAGINAW CIR, SAC

(E) ROOF

WOOD SHAKE OVER 1X SKIP OVER
TRUSSES @ 24" CL + 2X10 #2 DF @ 24" CL

(N) ROOF

LT WT TILE (6.0 PSF) OVER 1 5/32" APA RATED
SHTG OVER (E) 1X SKIP SHTG OVER
(E) TRUSSES + 2X10 RAFTERS

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CENTRAL

INFINITY ENGINEERING, L.P.
9198 GREENBACK LANE, #200
ORANGEVALE, CA 95662

JEH

6/5/05

REEROOF @

6 SAGINAW CIR, SACR...

05-293

ATTACH 2/4

DETERMINE NEW DEAD LOAD TO TRUSS TOP CHORDS/RATER

10.0 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

L, 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 PSI f_b = 1450 PSI (REP). E = 1.7 x 10⁶ PSI

2x4 → A = 5.25 in² S_x = 3.06 in³ I = 5.36 in⁴

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ACTUAL MAX SPAN OF TOP CHORD =

W_T = 2'(16+10)PSF = 52 PLF

SHEAR V_{ALL} = $\frac{5.25 \text{ in}^2 (95) (1.25)}{1.5} = 416\#$

l_{MAX} = $\frac{2(416)}{2'(16+10)} = 16' = l_{MAX(SHR)}$

BENDING M_{ALL} = $\frac{3.06 \text{ in}^3 (1450 \text{ PSI}) (1.25)}{12} = 462 \text{ Lb-ft}$

l_{MAX} = $\sqrt{\frac{8(462)}{52}} = 8'-5" = l_{MAX(BEND)}$

DEFLECTION: Δ_{ALL R} = $\frac{L}{180}$ Δ_{ALL L} = $\frac{L}{240}$ (NO CEILING ATTACHMENT)

(TOTAL LOAD CONTROL)

Δ_{ALL} = $\frac{L(12)}{180} = \frac{5(52)(L)^4(1728)}{384(1.7 \times 10^6)(536)}$

l_{MAX} = $\sqrt[3]{\frac{12(384)(1.7 \times 10^6)(536)}{180(5)(52)(1728)}} = 8.03' = l_{MAX(DEF)}$

∴ ALLOWABLE MAX SPAN OF 8' EXCEEDS MAXIMUM ACTUAL SPAN OF 6'-4"

No. 937 811E
Engineer's Computation Pad

SPAEITLER

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9198 GREENBACK LANE, #200
ORANGEVALE, CA 95662

DETERMINE NEW DEAD LOAD TO RAFTERS (C VAULTED CEILING)

15.5 PSF = TOTAL DEAD LOAD

- 7.3 PSF = INSTALLED TILE WT (ACTUAL TILE WT WILL BE 6 PSF OR LESS)
- 0.3 PSF = 30# FELF
- 1.3 PSF = 7/16" SHTG
- 1.25 PSF = 1X SKIP SHTG.
- 1.70 PSF = 2x10 @ 24" CC
- .75 PSF = INSULATION
- 2.5 PSF = GYP BD.
- 0.4 PSF = MISC

CHECK MAX SPAN OF (E) 2x10 #2 DFC @ 24" CC (PER 1995 WUPA CODE)

#2 DFC $f_v = 95$ $f_b = 1450$ PSI $E = 1.7 \times 10^6$ PSI
 $A = 13.9$ IN² $S = 21.4$ IN³ $I = 98.9$ IN⁴

SHEAR: $V_{ALL} = \frac{13.9(95)(1.25)}{1.5} = 1100$ #

$R_{max} = \frac{2(1100)}{2(16+15.5)} = 34.9' = R_{max}(SHE)$

BENDING: $M_{ALL} = \frac{21.4(1450)(1.25)}{12} = 3232$ #'

$R_{max} = \sqrt{\frac{8(3232)}{2(16+15.5)}} = 20.8" = R_{max}(BEND)$

DEFLECTION: $\Delta_{ALL TL} = \frac{L}{180}$ $\Delta_{ALL CL} = \frac{L}{360}$ (NO CLG ATTACHED)

(TOTAL LOAD CONTROL)

$\Delta_{ALL} = \frac{L(2)}{180} = \frac{5(2(16+15.5))(L)^3(1728)}{384(1.7 \times 10^6)(98.9)}$

$R_{max} = \sqrt[3]{\frac{12(384)(1.7 \times 10^6)(98.9)}{180(5)(63)(1728)}} = 19.9" = R_{max}(DEFL)$

MAX ALLOWABLE SPAN OF 19.9" EXCEEDS ACTUAL SPAN OF 10'-4" - THUS 2x10'S @ VAULTED AREA OK.

NO. 937 811E
Engineer's Computation Pad
STAEDTLER

CHECK 6X14 SS DF BMS @ VAULT DOOR LINING

SPAN = 19'

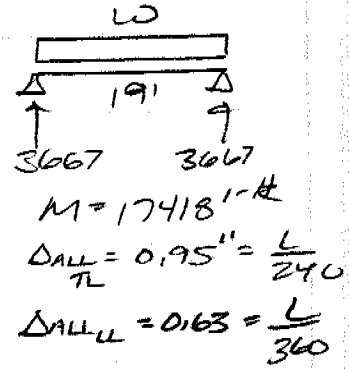
$WPL = \frac{24.5}{2} (16 + 15.5 \text{ PSF}) = 386 \text{ PLF}$

$R_{REQ A} = 1.5 (3667 - 386) / (85 (1.25)) = 46.3 \text{ IN}^2$

$R_{REQ S} = 12 (17418) / (1600 (1.25)) = 104.5 \text{ IN}^3$

$R_{REQ F} = \frac{5 (386 (19)^4 (1728))}{384 (1.6 \times 10^6) (0.95)} = 744.6 \text{ IN}^4$

2. (E) 6X14 SS DF BMS ACCEPTABLE



25 SHEETS
25 SHEETS
25 SHEETS

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