

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0316248

Insp Area: 4

Thos Bros: 277 B5

Site Address: 2162 MARICOPA WY SAC

Parcel No: 225-0871-033

Sub-Type: RES

Housing (Y/N): N

CONTRACTOR

VALLEY CONSTRUCTION
PO BOX 1164
FAIR OAKS, CA 95628

OWNER

RANDHAWA DALBAG S/TEJINDAR K
2162 MARICOPA WY
SACRAMENTO CA 95833

ARCHITECT

Nature of Work: TEAR-OFF RE-ROOF W/ LITE WT 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 674523 Date 10/20/03 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 bear 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. 7031.5, 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 herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 10/20/03 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 229-0022752 Exp Date 01/01/2004

(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 10/20/03 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.

ROOFING QUESTIONNAIRE

Applicant's name: Valley Construction Phone: 879-6312
Project Address: 2162 MARICOPA WAY

Please check the appropriate boxes. Only check a box if it accurately and completely describes your proposed work, otherwise leave boxes blank.

1. ROOFING TYPE

a. The existing roofing material is composition shingle, wood shake or shingle, tile or metal. The new roofing material shall be:

Existing Proposed

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 25 year laminated dimensional composition |
| <input type="checkbox"/> | <input type="checkbox"/> | wood shake or shingle |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | tile |
| <input type="checkbox"/> | <input type="checkbox"/> | metal that simulates one of the above listed materials |

b. The existing roofing material is built up, foam or membrane with a roof pitch of 2:12 or less. The new roofing material shall be:

Existing Proposed

- | | | |
|--------------------------|--------------------------|----------|
| <input type="checkbox"/> | <input type="checkbox"/> | Built up |
| <input type="checkbox"/> | <input type="checkbox"/> | Foam |
| <input type="checkbox"/> | <input type="checkbox"/> | Membrane |

2. GUTTERS

a. The existing gutters are fascia gutters.

- There is no change proposed to existing gutters.
 New fascia gutters shall be provided.
 Gutters shall be repaired and/or replaced to match existing.

b. The existing gutters are Ogee gutters.

- There is no change proposed to existing gutters.
 New Ogee gutters shall be provided.
 Gutters shall be repaired and/or replaced to match existing.

c. There are no existing gutters.

- No new gutters are proposed.
 New Ogee gutters shall be provided.

3. RAFTER TAILS

a. There are no exposed rafter tails.

b. There are exposed rafter tails.

- There is no change or cutting proposed to existing rafter tails.
 Rafter tails shall be repaired and replaced to match existing.

By signing below, the applicant certifies that this form accurately describes the proposed work.

Applicant's signature: [Signature] Date: 10/20/03

For City Staff use only

Counter Staff

[Signature]

- In a DR District Meets DR criteria? Yes No (route to DR staff)
 In a P area or listed (route to P staff)
 Not in DR/P area

Expanded North Area

Pacific Consulting Engineers

2150 Bell Ave., Suite 145 • Sacramento, CA 95838 • (916) 564-6028 • Fax: (916) 564-6029

October 16, 2003

Jorge Vasquez
Valley Construction

RE: Re-roof at 2162 Maricopa, Sacramento, CA
This inspection and letter is our Job # 03-1402

Per your request, I performed a visual inspection of existing roof framing at the aforementioned residence. The purpose was to determine if the existing roof framing is acceptable to support a light weight tile (6 psf max installed weight) instead of the existing wood shales.

The residence is a single story residence with standard living area and an attached garage. Attachment #1 shows a sketch of the roof plan with approximate dimensions.

The existing roof framing was in good condition and consisted of Composition Shingle over felt over 15/32" APA rated, 32/16, sheathing over pre-fabricated trusses and 2x framing spaced at 24" c.c.. The existing top chords on the trusses were 2x4 #2 DF and had a maximum span of 6". The 2x framing consisted of 2x4 #2 DF spanning 6' maximum and 2x6 #2 DF spanning 7'6" maximum.

It is my understanding that during the re-roof process, the existing composition shingles and felt will be removed, the existing 15/32" sheathing will remain, 30# felt will be placed, and then the light weight tile (6.0 psf maximum installed weight) will be placed per the manufactures instructions.

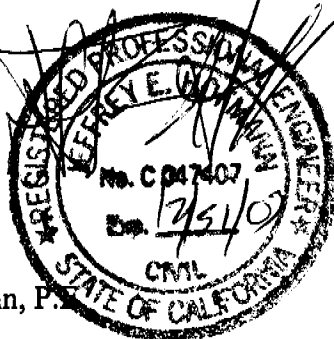
Attachment 1 is a sketch of the roof plan and shows the approximate dimensions of the exterior walls of the house. Attachment 2 contains the calculations regarding the dead load to the top chord of the trusses and the rafters, and the maximum allowable span of the existing 2x4 top chords and rafters. Attachment 3 contains the calculations regarding the maximum allowable span of the 2x6 #2 DF rafters.

Thus, it is my professional opinion that it is acceptable if all layers of the existing roof coverings and felt are removed, the existing sheathing remains, new 30# felt placed, and then re-roofed with a light weight tile with an installed weight of 6 psf or less.

If you have any questions or need further clarification on these matters please feel free to contact me at (916) 564-6028.

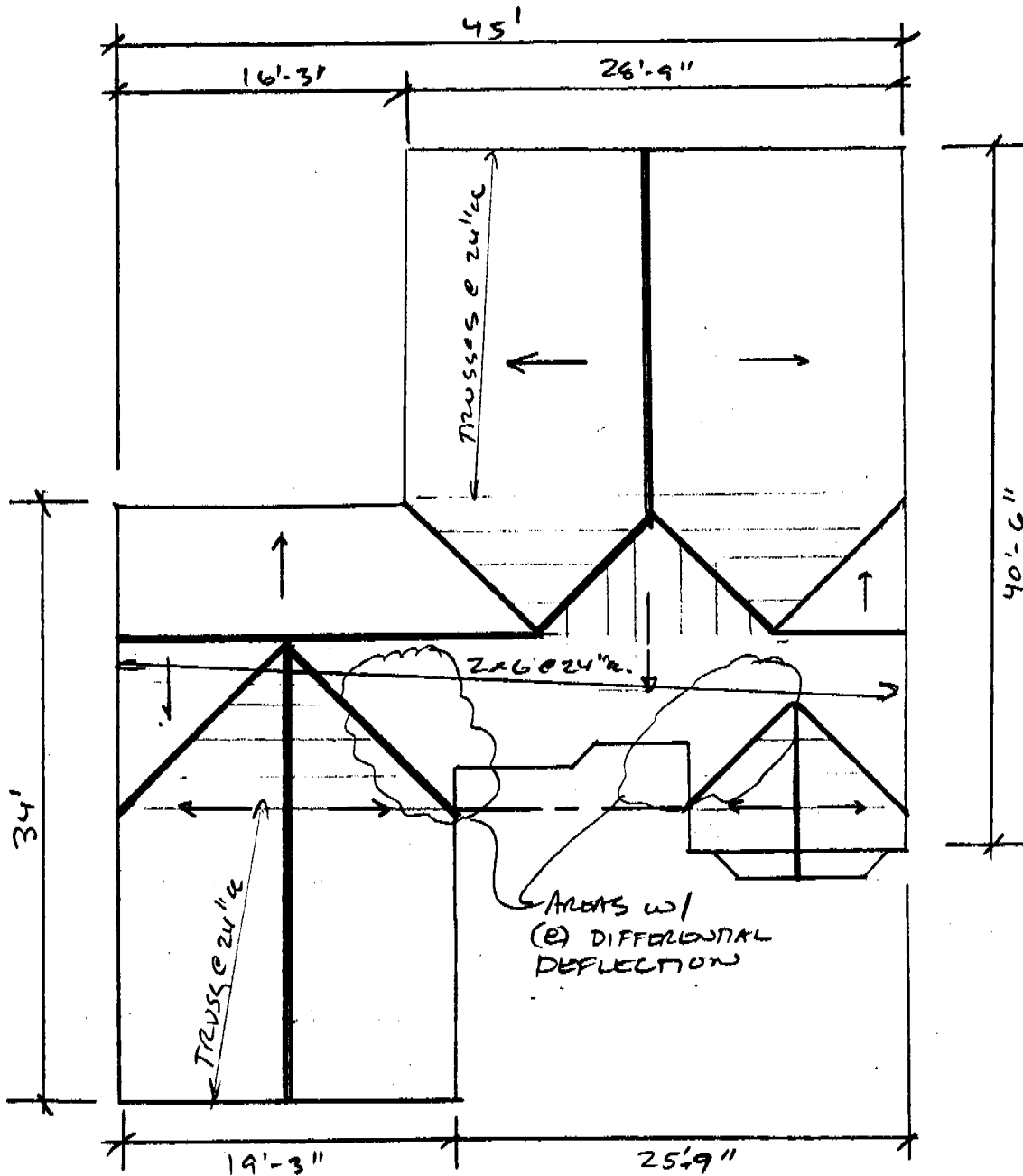
Sincerely,

Jeffrey E. Hofmann, P.E.



No. 937 811E
Engineer's Computation Pad

STAEDTLER



SKETCH OF ROOF PLAN - (Approx Scale 1"=10')
MARILOPA WAY

EXISTING ROOF

COMP SHINGLES OVER 15/32", 32/16 SHEATHING. OVER TRUSSES @ 24" CC W/ 2x CALIF FRAME OVER + FILL FRAMING.

New ROOF

- LIGHT WEIGHT TILE OVER 30# FELT OVER 15/32", 32/16 SHTG OVER TRUSSES @ 24" CL W/ 2x CALIF FRAME OVER + FILL FRAMING.

DETERMINE NEW DEAD LOAD TO RAFTER/TRUSS TOP CHORD10.0 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

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 RAFTER #2 DF

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 =

 $W_R = 2'(16+10 \text{ PSF}) = 52 \text{ PLF}$ 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 CONTROLS)

$$\Delta_{ALL} = \frac{L(12)}{180} = \frac{5(52)(L)^4(1728)}{384(1.7 \times 10^6)(5.36)}$$

$$L_{MAX} = \sqrt[3]{\frac{12(384)(1.7 \times 10^6)(5.36)}{180(5)(52)(1728)}} = 8.03'$$

∴ ALLOWABLE MAX SPAN OF 8' EXCEEDS MAXIMUM ACTUAL
SPAN OF 7'-6"

DETERMINE NEW DEAD LOAD TO RAFTERS.10.0 PSF = TOTAL DEAD LOAD

- 6.0 PSF = INSTALLED TILE WT
 0.3 PSF = 30# FELT
 1.3 PSF = 7/16" SHTG.
 1.25 PSF = 1X SKIP SHTG.
 1.0 PSF = 2x6 @ 24" CC
 0.15 PSF = MISC

CHECK MAX SPAN OF (E) 2x6 #2 DF @ 24" CC (PER 1995 WUPA CODE)

$$\#2 \text{ DF } F_v = 95 \quad F_b = 1450 \text{ PSI} \quad E = 1.7 \times 10^6 \text{ PSI}$$

$$2 \times 6 \quad A = 8.25 \text{ IN}^2 \quad S = 7.56 \text{ IN}^3 \quad I = 20.80 \text{ IN}^4$$

$$\text{SHEAR: } V_{ALL} = \frac{8.25(95)(1.25)}{1.5} = 653 \#$$

$$l_{MAX} = \frac{2(653)}{2(16+10)} = 25.1' = l_{MAX(SHEAR)}$$

$$\text{BENDING: } M_{ALL} = \frac{7.56(1450)(1.25)}{12} = 1142 \text{ IN} \cdot \#$$

$$l_{MAX} = \sqrt{\frac{8(1142)}{2(16+10)}} = 13.3' = l_{MAX(BEND)}$$

$$\text{DEFLECTION: } \Delta_{ALL TL} = \frac{L}{180}$$

$$\Delta_{ALL CL} = \frac{L}{240} \text{ (NO CLG ATTACHED)}$$

(TOTAL LOAD CONTROL)

$$\Delta_{ALL} = \frac{L(12)}{180} = \frac{5(2(16+10)) (L)^4 (1728)}{384(1.7 \times 10^6)(20.80)}$$

$$l_{MAX} = \sqrt[3]{\frac{12(384)(1.7 \times 10^6)(20.80)}{180(5)(52)(1728)}} = 12'-7" = l_{MAX(DEFL)}$$

MAX ALLOWABLE SPAN OF 12'-7" EXCEEDS ACTUAL SPAN
 12'-4" - EXCEPT @ AREAS NOTED OTHERWISE