

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0412797

Insp Area: 2
Thos Bros: 316J7

Site Address: 6648 GLORIA DR SAC
Parcel No: 030-0123-016

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

CONTRACTOR
ABSOLUTE ROOFING
8831 OLIVE RANCH LN
FAIR OAKS, CA 95628

OWNER
FONG NORMAN
6648 GLORIA DR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: T/O SHAKE, RESHEET, APPLY LIGHT WEIGHT TILE, 34 SQS, 1 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 C-39 License Number 704832 Date 8-9-04 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 herby authorize representative(s) of this city to enter upon the above-mentioned property for inspection purposes.

Date 8-9-04 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 0001787-2003 Exp Date 01/01/2005

(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 8-9-04 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 3700 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.



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.

Roof Structure:

1. Scab a 1 3/4" x 11 1/4" LVL to the existing header. Per the owner's approval, jack up the existing beam as required where the existing sag occurs to provide an even contour at the roof level before installation of the LVL. See details 1 and 2.
2. Scab a 2x6 rafter to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 12'-0". The rafter to be scabbed to the existing rafter may be held short of the intersecting bearing wall, hip, valley, ridge or purlin by no more than 4". Notch the existing purlin as required (where occurs). See detail 1.
3. Provide a 2x4 strut from the existing valley rafter to the bearing wall below. The minimum slope of the struts shall not be less than 45 degrees from the horizontal. See detail 1.
4. Scab a 1 3/4" x 5 1/2" LVL to the existing header. See details 1 and 3.
5. Scab a 1-3/4" x 14" LVL valley rafter to the existing 2x valley rafter with 16d's spaced at 6" on center. Cut back the existing rafters as required for installation and reattach with 3 - 16d's toe nailed to the new LVL. The rafter to be scabbed to the existing rafter may be held short of the intersecting bearing wall, hip, valley, ridge or purlin by no more than 4". See detail 1.
6. Scab a 1 3/4" x 11 7/8" x 16'-0" long LVL to the existing 2x4 purlin which spans 15'-0". Attach it with 16d's @ 3" on center. Support the LVL to the bearing walls below with 2x4 struts. See details 1 and 4.
7. Shim the areas as required where the existing sags occur to provide an even contour at the roof level. See detail 1.

It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and are not an indication of a structural hazard or failure.

It shall be noted that some deflection of the rafters may be evident after installation of the tile. The existing roof framing has deflected but this may not be readily evident due to the uneven nature of the existing roofing material. Concrete tile is a very consistent and uniform product and when installed in an even plane, even small deflections can become apparent. This is only a cosmetic issue and not a structural concern.

Fong



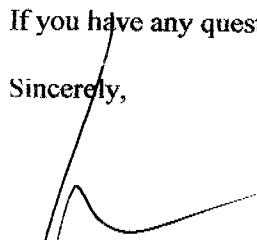
Paul Zacher - Structural Engineers, Inc
4701 Lakeside Way
Fair Oaks, CA 95628

TEL: 916.961.3960
FAX: 916.961.6552

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 that 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

Job #: 04_448

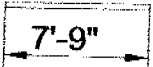
Date: 08/07/2004

LOADING:

Rafter:

Dr = 11.2 psf x 2'-0" = 22.4 plf
 Lr = 16.0 psf x 2'-0" = 32.0 plf

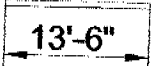
2x4 #2

22.4 / 32.0


Rafter:

Dr = 11.2 psf x 2'-0" = 22.4 plf
 Lr = 16.0 psf x 2'-0" = 32.0 plf

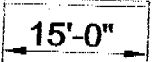
2x4 #2 + 2x6 #2

22.4 / 32.0


B1:

Dr = 11.2 psf x 11'-0" = 124 plf
 Lr = 16.0 psf x 11'-0" = 176 plf

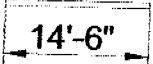
4x12 #2 + 1-3/4"x11-1/4" LVL

124 / 176


B2:

Dr = 11.2 psf x 4'-0" = 45 plf
 Lr = 16.0 psf x 4'-0" = 64 plf

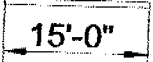
4x6 #1 + 1-3/4"x5-1/2" LVL

45 / 64


LVL:

Dr = 11.2 psf x 11'-0" = 124 plf
 Lr = 16.0 psf x 11'-0" = 176 plf

1-3/4"x11-7/8" LVL

124 / 176


Paul Zacher - Structural Engr's
 4701 Lakeside Way
 Fair Oaks, CA 95628
 TEL: (916) 961-3960
 FAX: (916) 961-6552

Title :
 Dsgnr:
 Description :
 Scope :

Job #
 Date: 3:57PM, 7 AUG 04

Rev: 560100
 User: KW-0602844, Ver 5.6.1, 25-Oct-2002
 (c)1983-2002 ENERCALC Engineering Software

Timber Beam & Joist

c:\documents and settings\paul.zacher\desktop

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

| Timber Section | | rafter | | B1 | B2 | LVL |
|----------------------|-----|--|------------|--------------------|--------------------|-----------------------|
| | | 2x4 | 2x4 + 2x6 | 4x12#2 + 1 | 4x6#1 + 1. | MicroLam: |
| Beam Width | in | 1.500 | 3.000 | 5.250 | 5.250 | 1.750 |
| Beam Depth | in | 3.500 | 4.897 | 11.250 | 5.500 | 11.875 |
| Le: Unbraced Length | ft | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Timber Grade | | Douglas Fir - Larch, Douglas Fir - Larch | | Custom, DF#2 + LVL | Custom, DF#1 + LVL | Truss Joist - MacMill |
| Fb - Basic Allow | psi | 875.0 | 875.0 | 1,450.0 | 1,533.0 | 2,600.0 |
| Fv - Basic Allow | psi | 95.0 | 95.0 | 158.0 | 158.0 | 285.0 |
| Elastic Modulus | ksi | 1,600.0 | 1,600.0 | 1,666.7 | 1,766.7 | 1,900.0 |
| Load Duration Factor | | 1.250 | 1.250 | 1.250 | 1.250 | 1.250 |
| Member Type | | Sawn | Sawn | Manuf/Pine | Manuf/Pine | Manuf/Pine |
| Repetitive Status | | Repetitive | Repetitive | No | No | No |

Center Span Data

| | | rafter | rafter | B1 | B2 | LVL |
|-----------|------|--------|--------|--------|-------|--------|
| Span | ft | 7.75 | 13.50 | 15.00 | 14.50 | 15.00 |
| Dead Load | #/ft | 22.40 | 22.40 | 124.00 | 45.00 | 124.00 |
| Live Load | #/ft | 32.00 | 32.00 | 176.00 | 64.00 | 176.00 |

Results

| | Ratio = | rafter | rafter | B1 | B2 | LVL |
|---------------------|---------|------------|------------|------------|------------|------------|
| Mmax @ Center @ X = | | 0.8482 | 0.7043 | 0.5044 | 0.6777 | 0.7575 |
| fb : Actual | in-k | 4.90 | 14.87 | 101.25 | 34.38 | 101.25 |
| Fb : Allowable | ft | 3.87 | 6.75 | 7.50 | 7.25 | 7.50 |
| fb : Actual | psi | 1,600.4 | 1,240.3 | 914.3 | 1,298.7 | 2,461.7 |
| Fb : Allowable | psi | 1,886.7 | 1,760.9 | 1,812.5 | 1,916.3 | 3,250.0 |
| fb : Actual | psi | Bending OK | Bending OK | Bending OK | Bending OK | Bending OK |
| Fv : Actual | psi | 55.9 | 35.4 | 50.3 | 38.8 | 141.6 |
| Fv : Allowable | psi | 118.8 | 118.8 | 197.5 | 197.5 | 356.3 |
| Fv : Actual | psi | Shear OK | Shear OK | Shear OK | Shear OK | Shear OK |

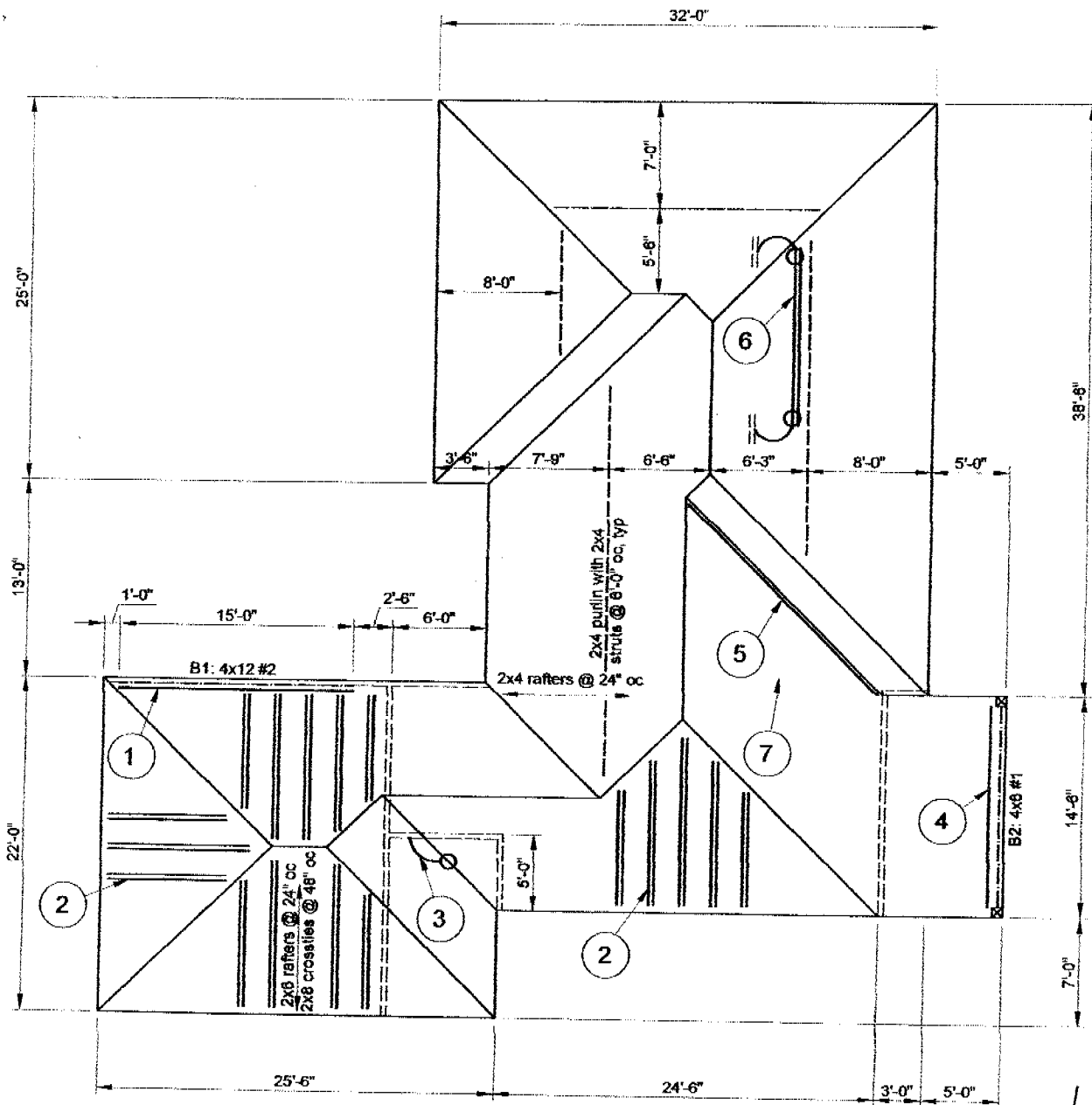
Reactions

| | DL | LL | Max. DL+LL | DL | LL | Max. DL+LL | DL | LL | Max. DL+LL |
|-------------|--------|--------|------------|--------|--------|------------|--------|--------|------------|
| @ Left End | 86.80 | 124.00 | 210.80 | 86.80 | 124.00 | 210.80 | 86.80 | 124.00 | 210.80 |
| @ Right End | 151.20 | 216.00 | 367.20 | 151.20 | 216.00 | 367.20 | 151.20 | 216.00 | 367.20 |

Deflections

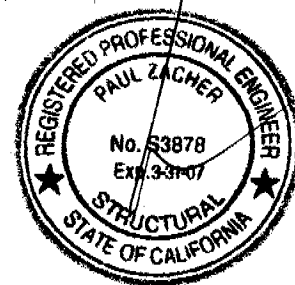
| | Ratio OK | Deflection OK | Deflection OK | Deflection OK | Deflection OK |
|-------------------|----------|---------------|---------------|---------------|---------------|
| Center DL Defl | -0.212 | -0.356 | -0.136 | -0.348 | -0.304 |
| L/Defl Ratio | 438.6 | 454.6 | 1,323.1 | 499.9 | 591.3 |
| Center LL Defl | -0.303 | -0.509 | -0.193 | -0.495 | -0.432 |
| L/Defl Ratio | 307.0 | 318.2 | 932.2 | 351.5 | 416.6 |
| Center Total Defl | -0.515 | -0.865 | -0.329 | -0.843 | -0.736 |
| Location | 3.875 | 6.750 | 7.500 | 7.250 | 7.500 |
| L/Defl Ratio | 180.6 | 187.2 | 546.9 | 206.4 | 244.4 |

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FRAMING NOTES:

1. Scab a 1 3/4" x 11 1/4" LVL to the existing 4x12 beam. See detail 2.
2. Scab a 2x6 to existing 2x4 rafters where the span is greater than 8'-0" (total 18).
3. Add a 2x4 strut from the valley rafter to bearing below (total 1).
4. Scab a 1 3/4" x 5-1/2" LVL to the existing 4x6 beam. See detail 3.
5. Scab a 1 3/4" x 14" LVL to the existing valley rafter with 16d's @ 6" oc. Cut back the existing rafters as required for installation and reattach with 3 - 16d's toe nailed to the new LVL.
6. Scab a 1 3/4" X 11 7/8" x 16'-0" long LVL to the existing 2x4 purlin. See detail 4.
7. Shim the areas as required where the existing sags occur to provide an even contour at the roof level.



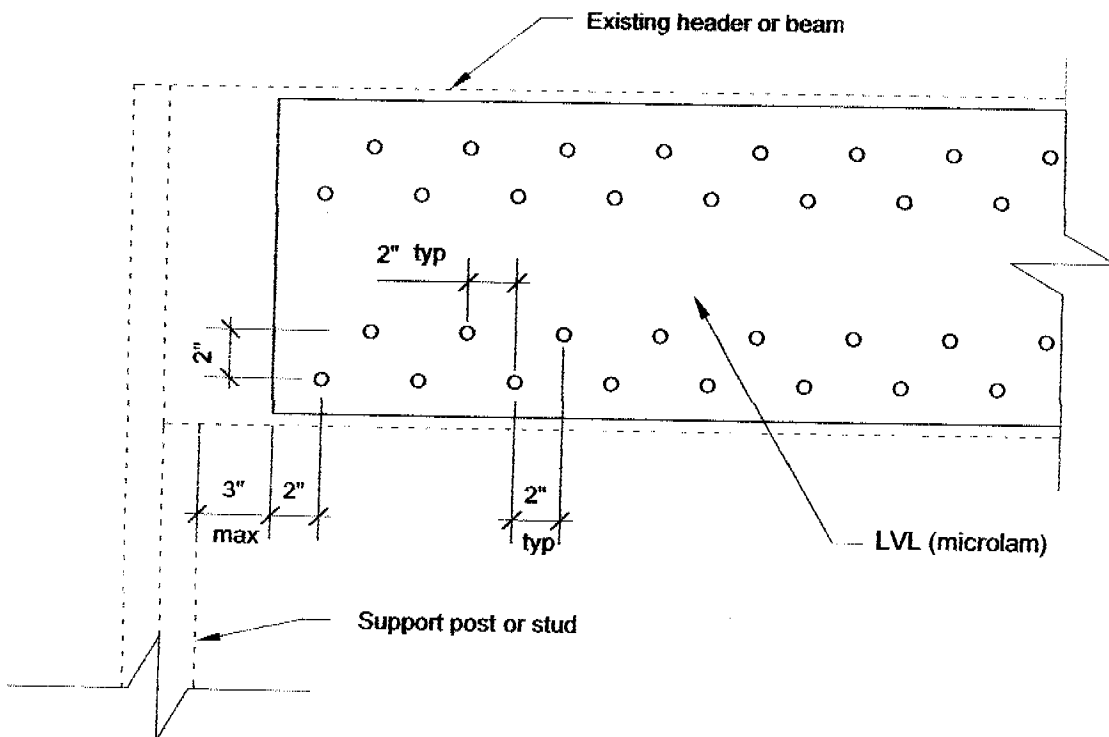
NOTES:

- A. This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.3 psf.
- B. All rafters are 2x4 DF#2 and hips and valleys are 2x6 DF#2 unless otherwise noted.
- C. All existing rafter, hips, valleys, rafter ties, and purlins are braced per UBC Section 2320.1 "Roof and Ceiling Framing" unless otherwise shown.
- D. All structural wood members that were observed appear to be in sound condition and without structural defect.

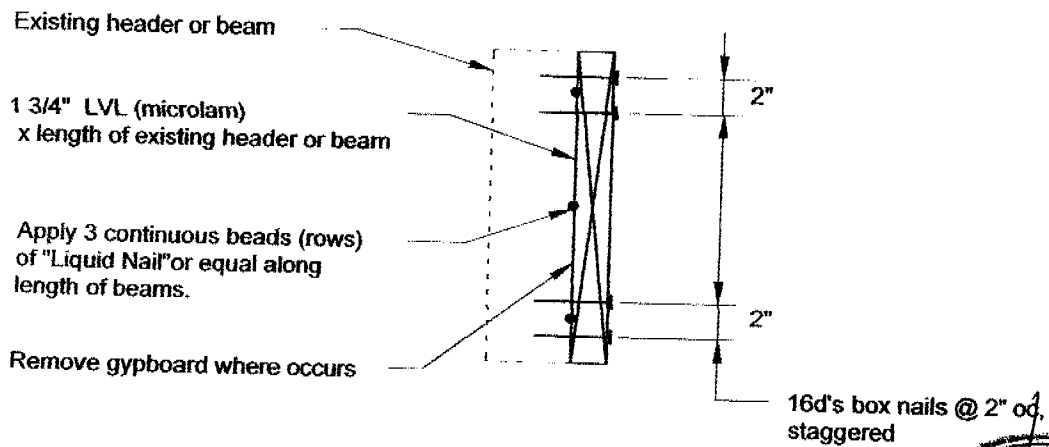
1 ROOF PLAN - FONG

Not to Scale

6



ELEVATION



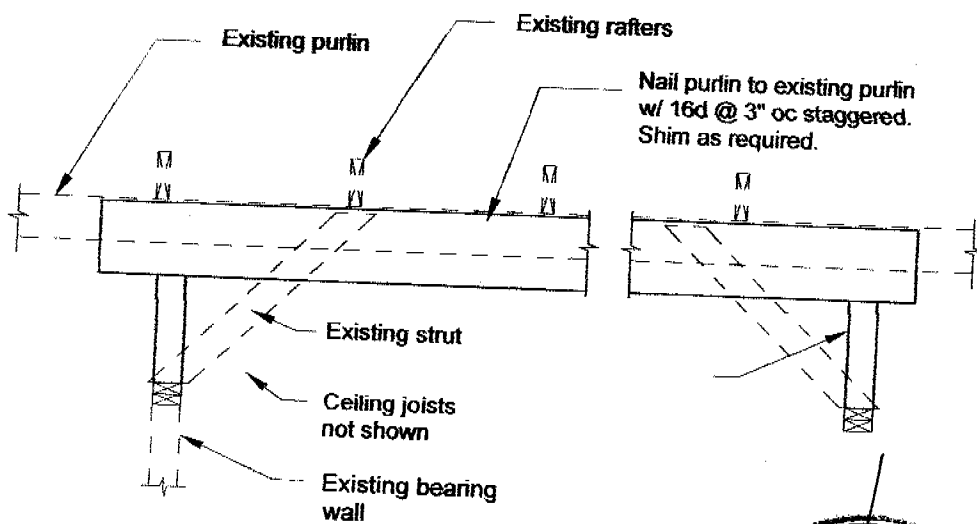
SECTION

2

DETAIL

scale: 1 1/2" = 1'-0"





4

PURLIN DETAIL

scale: 1/2" = 1'-0"



9