

**CITY OF SACRAMENTO**  
1231 I Street, Sacramento, CA 95814

Permit No: **0508898**  
Insp Area: **2**  
Thos Bros: **336F1**

Site Address: **250 AUDUBON CR SAC**  
Parcel No: **031-1090-032**

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

**CONTRACTOR**  
ZUMWALT & ASSOC.  
4887 PASADENA AV  
SACRAMENTO CA 95841

**OWNER**  
MARK KEVIN F/PHYLLIS  
250 AUDUBON CR  
SACRAMENTO, CA 95831

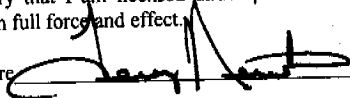
**ARCHITECT**

**Nature of Work: T/O, RESHEET, REROOF 40SQ HOUSE AND GARAGE 2 STORIES, SW 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 \_\_\_\_\_ License Number **763819** Date **6.21.05** Contractor 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.

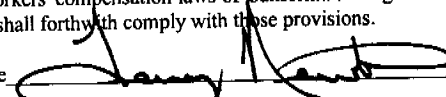
Date \_\_\_\_\_ Applicant/Agent Signature \_\_\_\_\_ **PAID**  
**CITY OF SACRAMENTO**  
**JUN 21 2005**

**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 **0002724-2004** 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 **6.21.05** Applicant 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.**

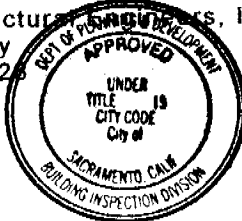
**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**

0508898 250 AUDUBON CR

Mark Std Wt

P

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



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 Inspection Division.

TEL: 916.961.3960  
FAX: 916.961.6552

February 1, 2005

Zumwalt Roofing  
4887 Pasadena Avenue  
Sacramento, CA 95841  
TEL: (916) 978-9600  
FAX: (916) 978-9672

*Jim 2 6-21-05  
site verify - max 10.3  
site verify structural sizes & spacing.  
see page 2 by 6748 - for detail*



Attn.: Mr. Terry Newton, Do not cover prior to inspections

re: Job 2005004: MARK - STANDARD WEIGHT *All work subject to field inspection.*

Subject: Structural Investigation Report of the Roof for the Residence located at 250 Audubon Circle, Sacramento, CA 95831.

0508898 250 AUDUBON CR

As requested by Mr. Terry Newton, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site January 20, 2005. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report are based on the 1997 Uniform Building Code with 2001 CBC Title 24 Amendments.

The following is based on visual observations with no subsurface investigation being made.

DESCRIPTION:

Type of Facility: Residence.  
Year Built: Estimated 1980's vintage.  
Occupancy: Residential.  
No. of Stories: Two.  
Dimensions: Approximately 3000 square feet.

MICROFILM AT FINAL

CONSTRUCTION:

Roof:  
The roof covering will consist of a Standard Weight Concrete Tile over 7/16" solid sheathing. The roof structure is conventionally framed with 2x6 rafters spaced at 24" on center with 2x6 purlins supported at no more than 6'-0" on center by 2x4 struts bearing on walls below. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x10 cross ties spaced at 4'-0" on center. One area had no access and was not inspected.

CONCLUSIONS:

Roof:  
The roof structure currently lacks sufficient structural capacity for the applied live and dead loads. See "Recommendations" for location and repair to bring the roof structure up to the required capacity. No conclusion is drawn for the area that is inaccessible and not inspected.

CITY COPY



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 2x6 rafter to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 11'-4". 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.
2. Scab a 1 3/4" x 14" LVL beam to the existing 2x10 crossie and nail together with 16d's @ 6" oc. The ends of the LVL may be clipped as required to meet the slope of the rafters. The support at the interior wall shall be a 2x8 x 2'-8" long ledger attached to the double top plate with 16d's @ 2" oc staggered. Support the existing valley and ridge boards to the LVL beam with 2x4 struts. See details 1 and 2.
3. Scab a 1 3/4" x 11 1/4" LVL to the existing header. See details 1 and 3.

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.

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

**DESIGN LOADING:**

Roof Pitch    6    in 12  
Pitch Adjustment Factor                        1.12

**LOCATION: ROOF**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Standard Weight Tile	10.30	psf
Roofing felt	0.30	psf
1x4 skip sht'g	1.09	psf
7/16" OSB/ plywood	1.30	psf
2x6 rafters @ 24" oc	<u>1.00</u>	psf
	Load	14.0 psf
Roof Pitch Adjustment	<u>1.65</u>	psf
Total Load	15.6	psf

Job #: 05\_004

Date: 02/02/2005

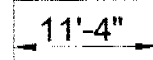
LOADING:

Rafter:

Dr = 15.6 psf x 2'-0" = 31.2 plf  
Lr = 16.0 psf x 2'-0" = 32.0 plf

2x6 #2

31.2 / 32.0

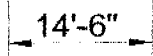


Rafter:

Dr = 15.6 psf x 2'-0" = 31.2 plf  
Lr = 16.0 psf x 2'-0" = 32.0 plf

2-2x6 #2

31.2 / 32.0



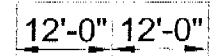
LVL:

Pdr = 15.6 psf x 7' x 7' = 764 lbs  
Plr = 16.0 psf x 7' x 7' = 784 plf

1-3/4"x14" LVL

R1 = 382 / 392

764 / 784



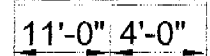
B2:

Dr = 15.6 psf x 7'-0" = 109 plf  
Lr = 16.0 psf x 7'-0" = 112 plf  
Pd/lr = 382 / 392 - LVL

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

382 / 392

109 / 112



Rev: 580006  
 User: KW-0602844, Ver 5.8.0, 1-Dec-2003  
 (c)1983-2003 ENERCALC Engineering Software

**Timber Beam & Joist**

Mark Std Wt.ecw:Calculations

**Description RAFTERS AND BEAMS**

**Timber Member Information** Code Ref: 1997/2001 NDS, 2000/2003 IBC, 2003 NFPA 5000. Base allowables are user defined

	rafter	rafter	LVL	B1
<b>Timber Section</b>	2x6	2-2x6	MicroLam: 1.75x144x12#2+1.75x11.875	
Beam Width	in: 1.500	3.000	1.750	6.186
Beam Depth	in: 5.500	5.500	14.000	11.250
Le: Unbraced Length	ft: 0.00	0.00	0.00	0.00
Timber Grade	Douglas Fir - Larch, No.2	Douglas Fir - Larch, No.2	Truss Joist - MacMillan,	Custom, DF#2 + LVL
Fb - Basic Allow	psi: 875.0	875.0	2,600.0	1,450.0
Fv - Basic Allow	psi: 95.0	95.0	285.0	1,670.0
Elastic Modulus	ksi: 1,600.0	1,600.0	1,900.0	1,666.7
Load Duration Factor	1.250	1.250	1.250	1.250
Member Type	Sawn	Sawn	Manuf/Pine	Manuf/Pine
Repetitive Status	Repetitive	Repetitive	No	No

**Center Span Data**

	ft	ft	ft	ft
Span	11.33	14.50	24.00	15.00
Dead Load	#/ft: 31.20	31.20		109.00
Live Load	#/ft: 32.00	32.00		112.00
Point #1 DL	lbs		764.00	382.00
LL	lbs		784.00	392.00
@ X	ft		12.000	11.000

**Results** Ratio = 0.9841 0.8059 0.5999 0.3988

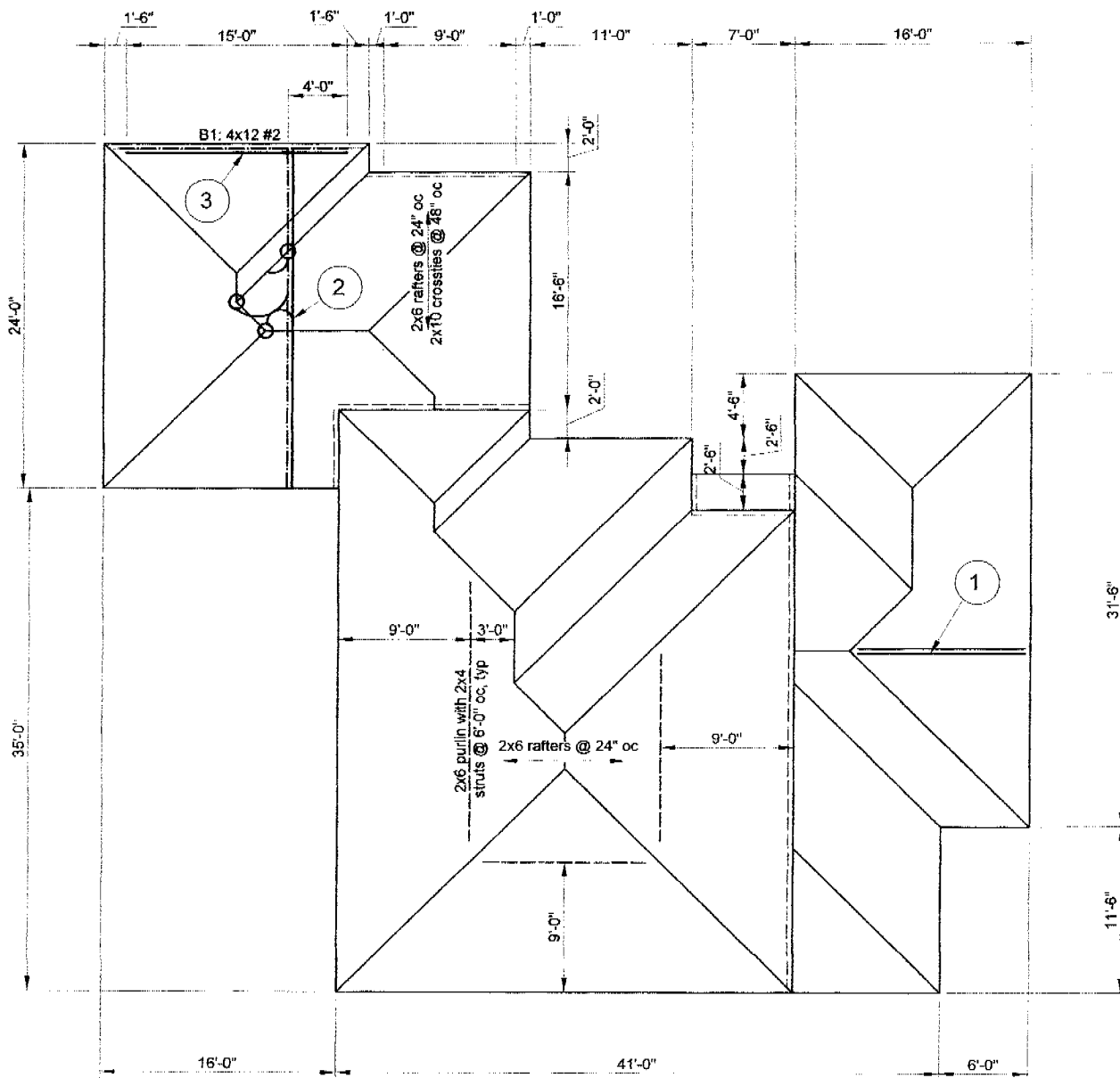
Mmax @ Center	in-k	12.17	19.93	111.46	94.32
@ X =	ft	5.66	7.25	12.00	8.46
fb : Actual	psi	1,609.2	1,317.8	1,949.7	722.8
Fb : Allowable	psi	1,635.2	1,635.2	3,250.0	1,812.5
		Bending OK	Bending OK	Bending OK	Bending OK
fv : Actual	psi	59.9	39.3	47.4	43.7
Fv : Allowable	psi	118.8	118.8	356.3	2,087.5
		Shear OK	Shear OK	Shear OK	Shear OK

**Reactions**

@ Left End DL	lbs	176.75	226.20	382.00	919.37
LL	lbs	181.28	232.00	392.00	944.53
Max. DL+LL	lbs	358.03	458.20	774.00	1,863.90
@ Right End DL	lbs	176.75	226.20	382.00	1,097.63
LL	lbs	181.28	232.00	392.00	1,127.47
Max. DL+LL	lbs	358.03	458.20	774.00	2,225.10

**Deflections** Ratio OK Deflection OK Deflection OK Deflection OK

Center DL Defl	in	-0.348	-0.466	-0.500	-0.129
L/Defl Ratio		391.1	373.2	575.9	1,394.8
Center LL Defl	in	-0.357	-0.478	-0.513	-0.133
L/Defl Ratio		381.3	363.8	561.2	1,357.8
Center Total Defl	in	-0.704	-0.945	-1.013	-0.262
Location	ft	5.665	7.250	12.000	7.680
L/Defl Ratio		193.1	184.2	284.2	688.0

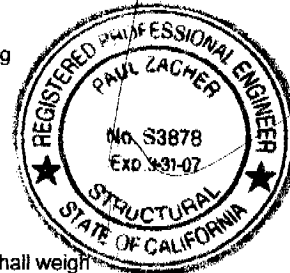


**FRAMING NOTES:**

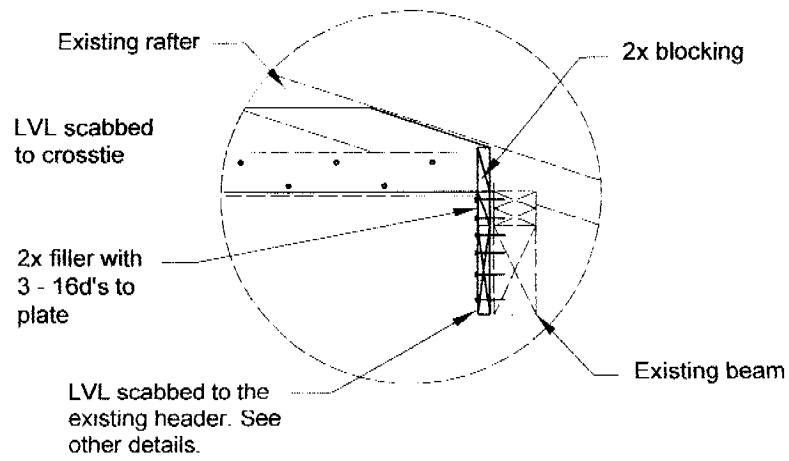
1. Scab a 2x6 to existing 2x6 rafters where the span is greater than 12'-0" (total 1).
2. Scab a 1-3/4" x 14" LVL to the existing 2x10 crossie with 16d's @ 6" oc. The ends of the LVL may be clipped as required to meet the slope of the rafters. The support at the interior wall shall be a 2x8 x 2'-8" long ledger attached to the double top plate with 16d's @ 2" oc staggered. Support the existing ridge and valley rafters to the LVL below with 2x4 struts. See detail 2.
3. Scab a 1 3/4" x 11 1/4" LVL to the existing 4x12 beam. See detail 3.

**NOTES:**

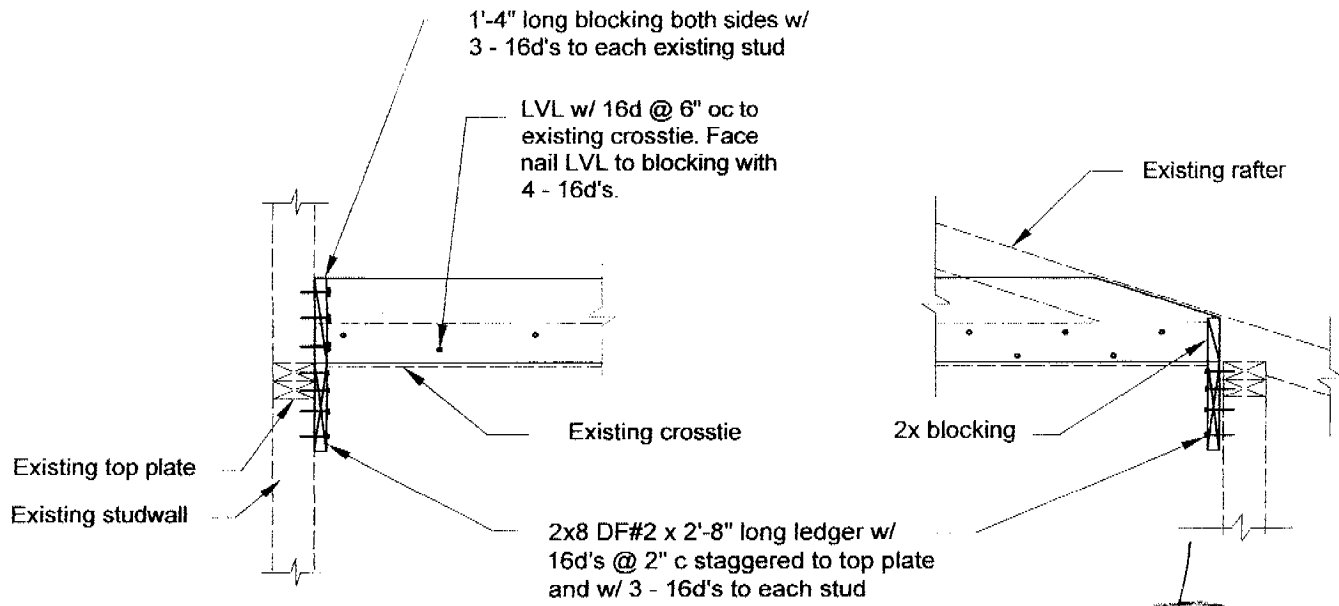
- A. This is a reroof project. The new roofing material shall be a Standard Weight Concrete Tile. The tile shall weigh less than or equal to 10.3 psf.
- B. All rafters are 2x6 DF#2 and hips and valleys are 2x8 DF#2 unless otherwise noted.
- C. All existing rafter, hips, valleys, rafter ties, and purlins 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 - MARK  
Not to Scale



**ALTERNATE CONNECTION AT BEAM**

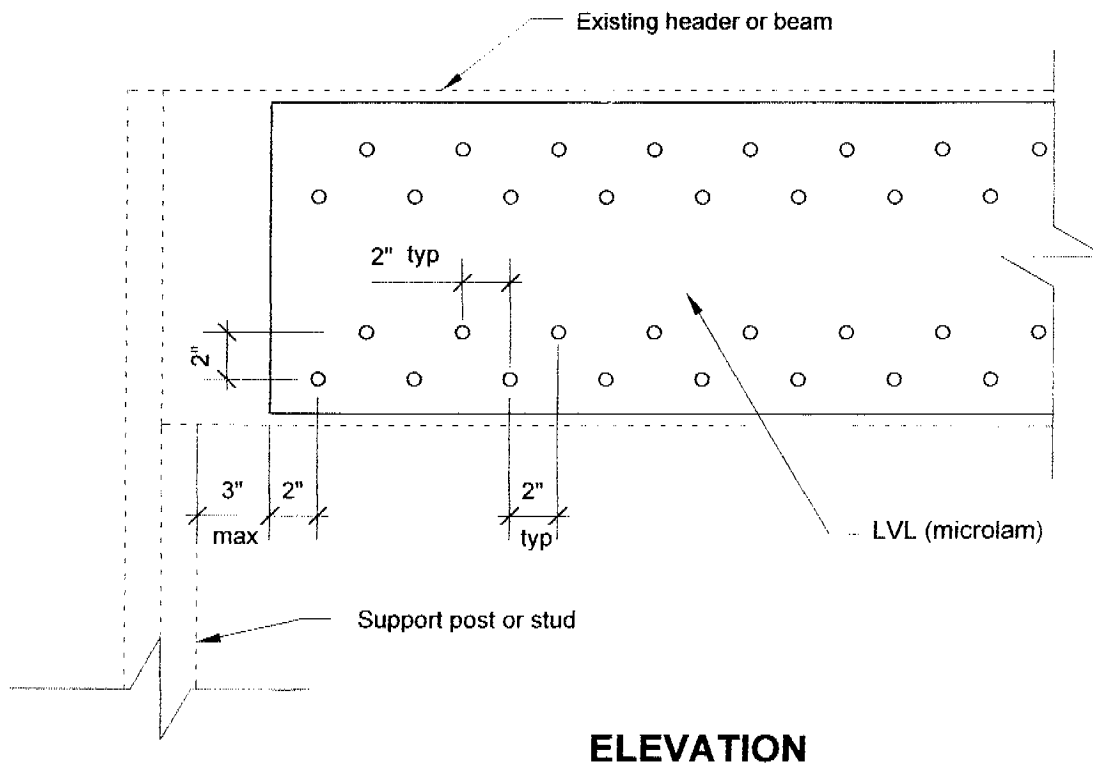


**2**

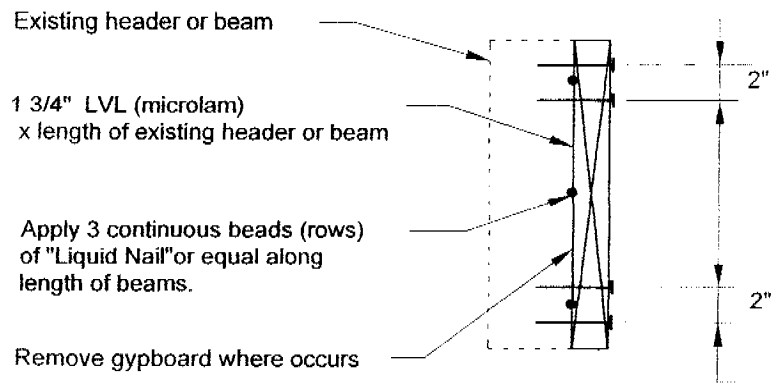
**LEDGER CONNECTION**

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





**ELEVATION**



16d's box nails @ 2" oc,  
staggered

**SECTION**

3

**DETAIL**

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

