

CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 0403745

Insp Area: 2

Thos Bros: 316G7

Site Address: 6762 PARK RIVIERA WY SAC

Parcel No: 030-0164-006

Sub-Type: RES

Housing (Y/N): N

CONTRACTOR

OWNER

ARCHITECT

HEIDI WEIL & LESLIE CARLSON
952 COBBLE SHORE DR
SACRAMENTO CA 95831

Nature of Work: STRUCTURAL REPAIR TO EXISTING CONCRETE TILE ROOF, PREVIOUS PERMITTED REROOF PERMIT. ROOF COVERING ON PERMIT 03-06021

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 _____ Date _____ 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 3/17/04 Owner Signature *Leslie Drumm MD*

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 above mentioned property for inspection purposes.

Date 3/17/04 Applicant/Agent Signature *Leslie Drumm MD*

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 _____ Policy Number _____

(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 3/17/04 Applicant Signature *Leslie Drumm MD*

PAID
CITY OF SACRAMENTO
MAR 17 2004
NORTH PERMIT CENTER

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.

Wile

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

TEL: (916) 961-3960
FAX: (916) 961-6552

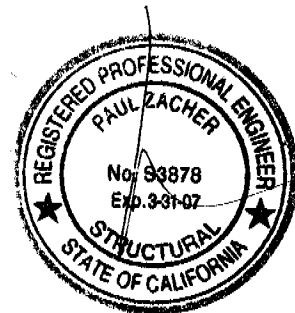
March 29, 2004

Wile
193 Fescue Way
Rhonert Park, CA 94928
TEL: (707) 585-9683
FAX:

Attn.: Mr. Wile

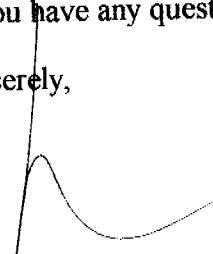
re: Job 2004054: Wile located at 6762 Park Riviera, Sacramento, CA
subject: ~~As-Built Framing for Roof Strengthening~~

The recommendations of the report dated February 15, 2004 for the strengthening of the roof structure have been installed with some minor modifications and additions to suit the existing framing conditions. Therefore, the current as-built framing for the roof is structurally adequate to support the applied dead and live loads.



If you have any questions on the above, do not hesitate to call.

Sincerely,


Paul Zacher, P.E., S.E.

MICROFILM AT FIVEAL

-0403745-

PAUL ZACHER STRUCTURAL ENGINEERS, INC.

Wile02

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

TEL: 916.961.3960
FAX: 916.961.6552

March 3, 2004

Wile
193 Fescuc Way
Rhonert Park, CA 94928
TEL: (707) 585-9683
FAX:



Attn.: Mr. Wile,

re: Job 2003007: WILE

Subject: Structural Investigation Report of the Roof for the Residence located at 6762 Park Riviera,
Sacramento, CA 95831.

As requested by Mr. Wile, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site March 2, 2004. 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: One.
Dimensions: Approximately 2500 square feet.



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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 30'-0" on center by 2x4 struts bearing on walls below. The garage area is framed with 2x6 rafters spaced at 24" on center and 2x6 cross ties spaced at 4'-0" on center.

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.

MICROFILM AT FINAL

CITY COPY

1/8

6762 Park Riviera Wy #0403745

PHOTO COPY



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

TEL: 916.961.3960
FAX: 916.961.6552

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. Add a 1 3/4" x 11 7/8" x 16'-0" long LVL purlin with 2x4 struts to the bearing walls below. See details 1 and 2.
2. Add a 2x6 DF#2 x 39'-0" long purlin with 2x4 struts to bearing below. The maximum spacing between the struts shall not exceed 6'-0" on center. The unbraced length of the struts shall not exceed 8'-0" and the minimum slope of the struts shall not be less than 45 degrees from the horizontal. See detail 1.
3. Add a 2x6 DF#2 x 25'-0" long purlin with 2x4 struts to bearing below. See detail 1.
4. Provide 2x4 struts from the existing valley rafter and ridge to the bearing walls below. The minimum slope of the struts shall not be less than 45 degrees from the horizontal. See detail 1.
5. Scab a 1 3/4" x 11 7/8" 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.

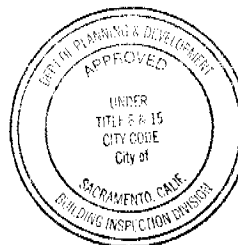
It shall be noted that some deflection of the rafters may be evident after installation of the tile. The existing roof framing has deflected but this may not be readily evident due to the uneven nature of the existing roofing material. Concrete tile is a very consistent and uniform product and when installed 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.



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DESIGN LOADING:

Roof Pitch 4 in 12
Pitch Adjustment Factor 1.05

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>0.76</u> | psf |
| Total Load | 14.8 | psf |

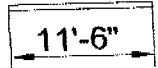
LOADING:

Rafter:

Dr = 14.8 psf x 2'-0" = 29.6 plf
Lr = 16.0 psf x 2'-0" = 32.0 plf

2x6 #2

29.6 / 32.0

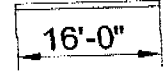


B1:

Dr = 14.8 psf x 4'-0" = 59 plf
Lr = 16.0 psf x 4'-0" = 64 plf

4x12 #2

59 / 64

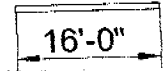


LVL 1:

Dr = 14.8 psf x 8'-6" = 126 plf
Lr = 16.0 psf x 8'-6" = 136 plf

1 3/4" x 11 7/8" LVL

126 / 136



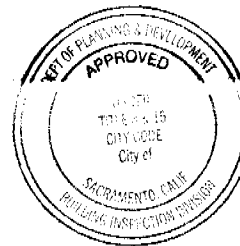
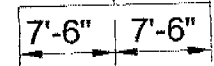
R2 = 1008 / 1088

2016 / 2176

B2:

Pdr = 2 x 1008 = 2016 lbs - LVL's
Plr = 2 x 1088 = 2176 lbs - LVL's

4x12 #2 + 1 3/4" + 11 7/8" LVL



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

Title :
 Dsgnr:
 Description :

Job #
 Date: 4:08PM, 3 MAR 04

Scope :

Rev: 580100
 User: KW-0602844, Ver 5.6.1, 25-Oct-2002
 (c)1983-2002 ENERCALC Engineering Software

Timber Beam & Joist

c:\paul\pk and assoc\roof projects\miscellane

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

| | rafter | B1 | LVL1: | B2: |
|----------------------|-----------------------------------------------------------------------------------|---------|------------|------------|
| Timber Section | 2x6 | 4x12 | MicroLam: | 4x12#2 + 1 |
| Beam Width | 1.500 | 3.500 | 1.750 | 5.250 |
| Beam Depth | 5.500 | 11.250 | 11.875 | 11.250 |
| L: Unbraced Length | 0.00 | 0.00 | 0.00 | 0.00 |
| Timber Grade | Douglas Fir - Larch, Douglas Fir - Larch, Truss Joist - MacMillCustom, 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 | 158.0 |
| 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 | No | No | No |

Center Span Data

| | ft | ft | ft | ft |
|-------------|------------|-------|--------|----------|
| Span | 11.50 | 16.00 | 16.00 | 15.00 |
| Dead Load | #/ft 29.60 | 59.00 | 126.00 | |
| Live Load | #/ft 32.00 | 64.00 | 136.00 | |
| Point #1 DL | lbs | | | 2,016.00 |
| LL | lbs | | | 2,176.00 |
| @ X | ft | | | 9.000 |

Results

| Ratio = | 0.9882 | 0.5317 | 0.7527 | 0.9022 |
|----------------|-------------|------------|------------|------------|
| Mmax @ Center | in-k 12.22 | 47.23 | 100.61 | 181.09 |
| @ X = | ft 5.75 | 8.00 | 8.00 | 9.00 |
| fb : Actual | psi 1,615.9 | 639.8 | 2,446.1 | 1,635.3 |
| Fb : Allowable | psi 1,635.2 | 1,203.1 | 3,250.0 | 1,812.5 |
| | Bending OK | Bending OK | Bending OK | Bending OK |
| fv : Actual | psi 59.8 | 33.3 | 133.1 | 63.9 |
| Fv : Allowable | psi 118.8 | 118.8 | 356.3 | 197.5 |
| | Shear OK | Shear OK | Shear OK | Shear OK |

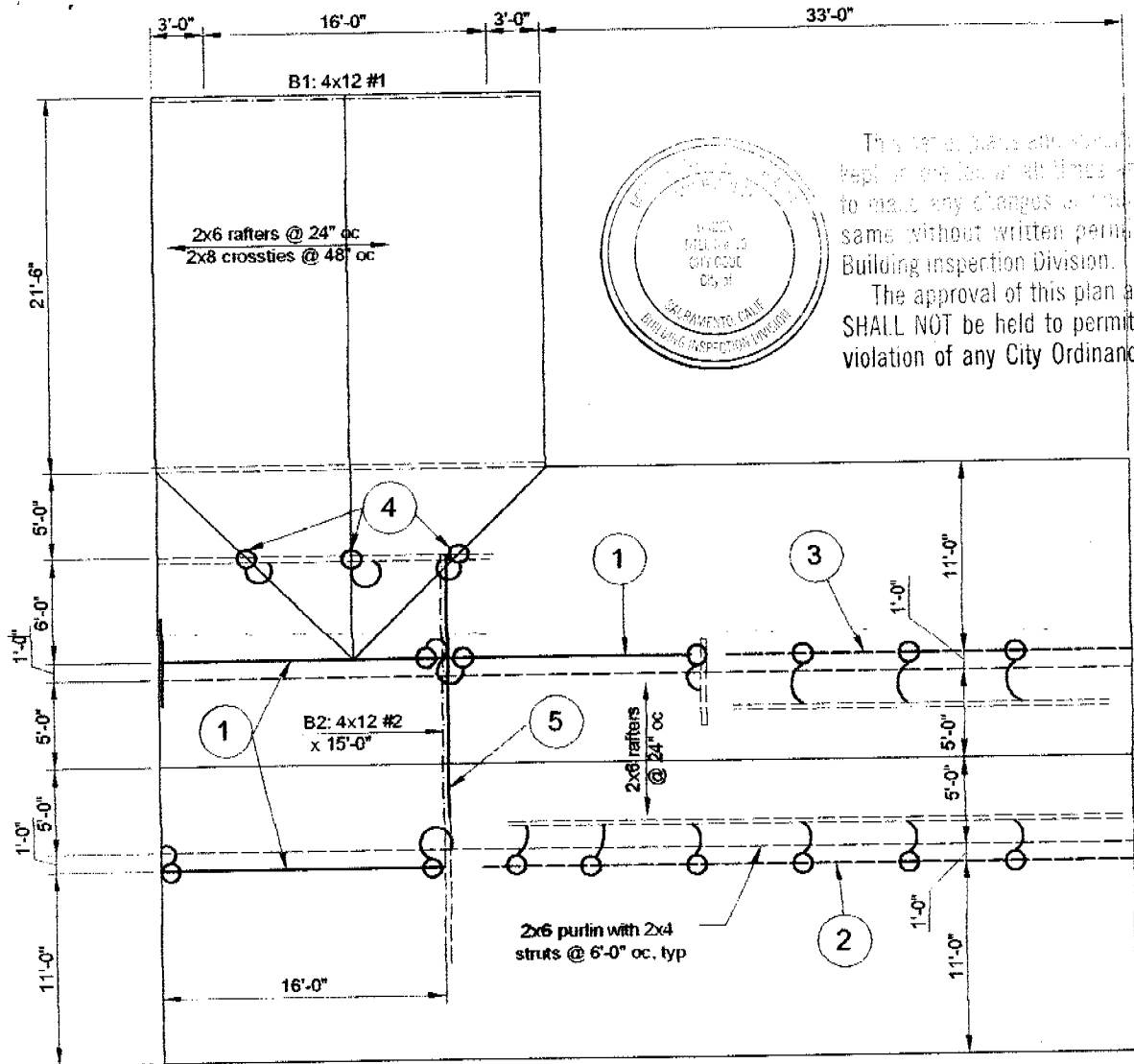
Reactions

| | | | | | |
|----------------|-----|--------|--------|----------|----------|
| @ Left End DL | lbs | 170.20 | 472.00 | 1,008.00 | 806.40 |
| LL | lbs | 184.00 | 512.00 | 1,088.00 | 870.40 |
| Max. DL+LL | lbs | 354.20 | 984.00 | 2,096.00 | 1,676.80 |
| @ Right End DL | lbs | 170.20 | 472.00 | 1,008.00 | 1,209.60 |
| LL | lbs | 184.00 | 512.00 | 1,088.00 | 1,305.60 |
| Max. DL+LL | lbs | 354.20 | 984.00 | 2,096.00 | 2,515.20 |

Deflections

Ratio OK Deflection OK Deflection OK Deflection OK

| | | | | | |
|-------------------|----|--------|---------|--------|--------|
| Center DL Defl | in | -0.350 | -0.131 | -0.400 | -0.224 |
| L/Defl Ratio | | 394.2 | 1,466.4 | 479.5 | 804.6 |
| Center LL Defl | in | -0.378 | -0.142 | -0.432 | -0.241 |
| L/Defl Ratio | | 364.7 | 1,351.9 | 444.2 | 745.4 |
| Center Total Defl | in | -0.728 | -0.273 | -0.833 | -0.465 |
| Location | ft | 5.750 | 8.000 | 8.000 | 7.920 |
| L/Defl Ratio | | 189.4 | 703.4 | 230.6 | 386.9 |



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. To make any changes or modifications to 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.

FRAMING NOTES:

1. Add a 1 3/4" X 11 7/8" x 16'-0" long LVL with 2x4 struts to bearing below. See detail 2.
2. Add a 2x6 DF#2 x 39'-0" long purlin with 2x4 struts to bearing below.
3. Add a 2x6 DF#2 x 25'-0" long purlin with 2x4 struts to bearing below.
4. Add 2 x 4 struts from the valley rafters and ridge to bearing below (total 3)
5. Scab a 1 3/4" x 11 7/8" x 15'-0" long LVL to the existing 4x12 header. See detail 3.

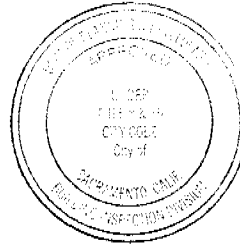


NOTES:

- 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.

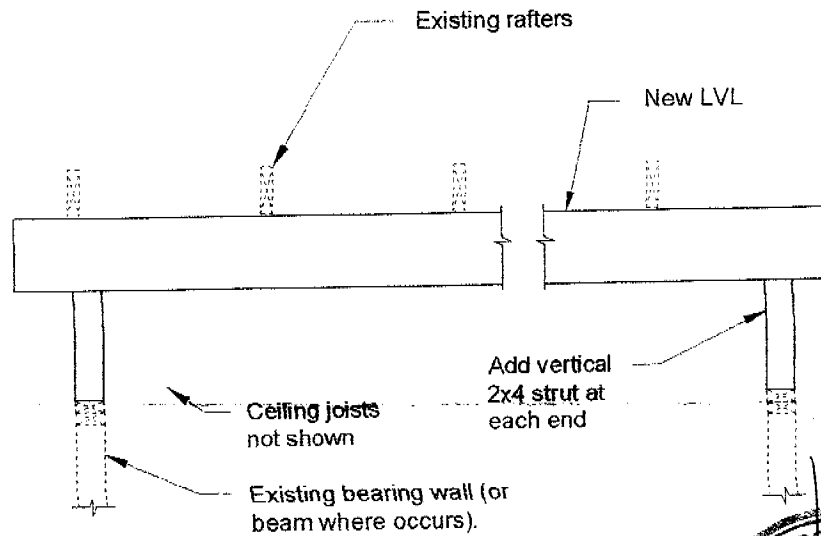
1 **ROOF PLAN - WILE**
Not to Scale

6



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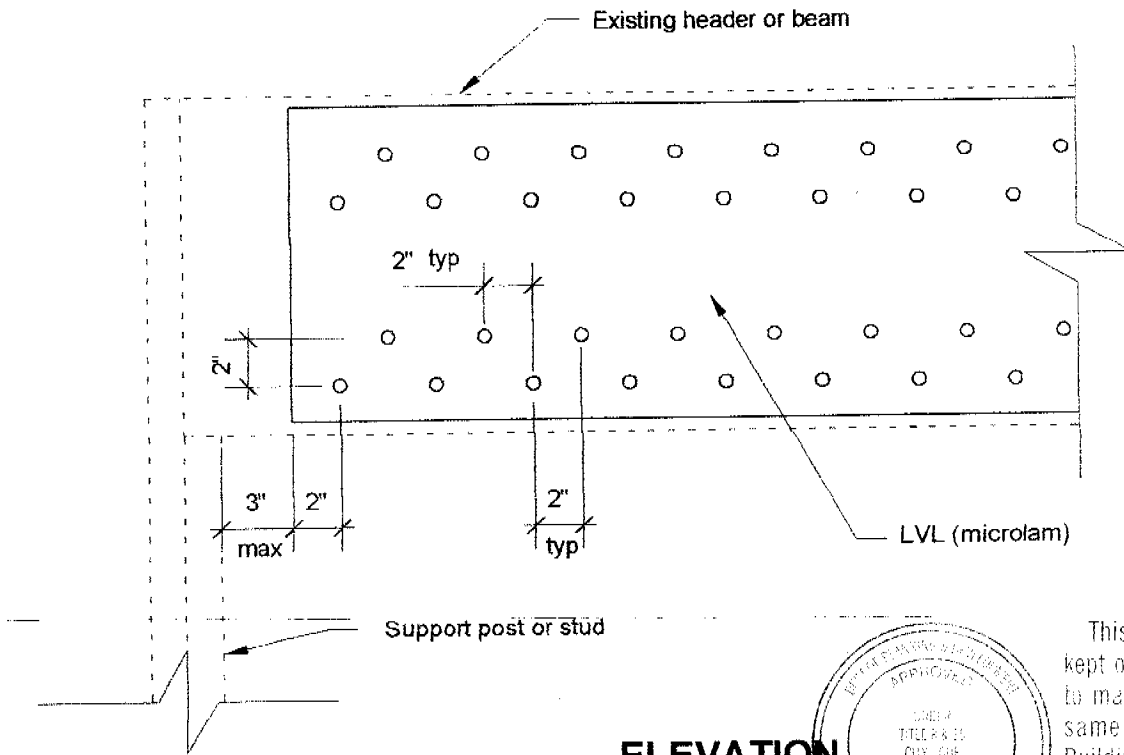


2

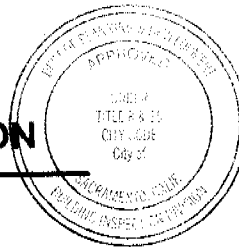
PURLIN DETAIL

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



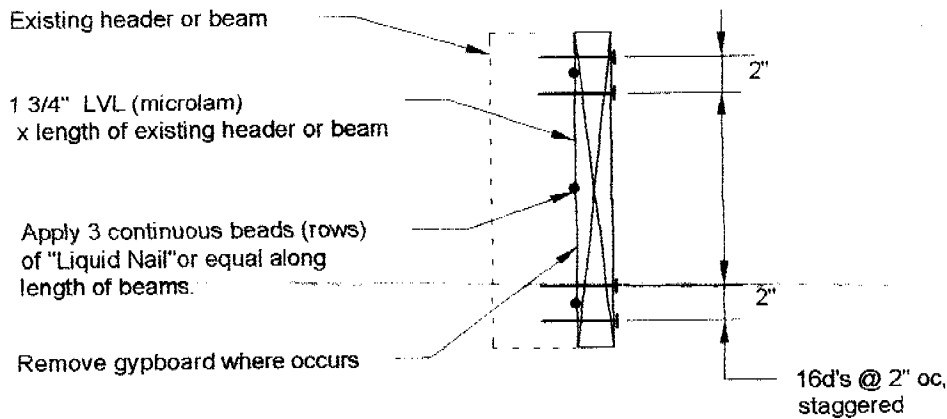


ELEVATION



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SECTION



3

HEADER DETAIL

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