

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0508952
Insp Area: 2
Thos Bros: 316G7

Site Address: 419 DEER RIVER WY SAC
Parcel No: 031-0960-003

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

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

OWNER
CHRISTOPHER GENE P/PHYLLIS I
419 DEER RIVER WY
SACRAMENTO, CA 95831

ARCHITECT

Nature of Work: T/O, RESHEET, REROOF 45SQ LIGHT WEIGHT TILE AND 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 704832 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, 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 _____

PAID
CITY OF SACR
JUN 22 2005
BUILDING PERM.

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.

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 0001787-2004 Exp Date 01/01/2006

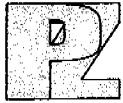
(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become 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.

Christopher



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. Scab a 1 3/4" x 11 7/8" LVL beam to the existing 2x6 crosstie 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. Support the existing valley, hip and ridge boards to the LVL beam with 2x4 struts. See details 1, 2 and 3.
2. Provide additional 2x4 struts from the existing purlins to the bearing walls below. The maximum spacing between the new and existing 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.

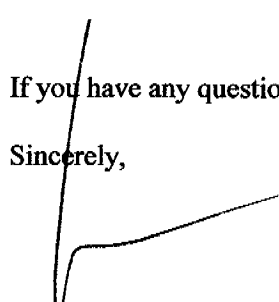
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls that are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and 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

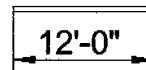
LOADING:

Rafter:

Dr = 12.3 psf x 2'-0" = 24.6 plf
 Lr = 16.0 psf x 2'-0" = 32.0 plf

2x6 #2

24.6 / 32.0

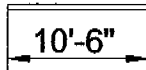


Vault:

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

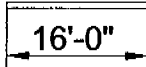


B1:

Dr = 12.3 psf x 7'-0" = 86 plf
 Lr = 16.0 psf x 7'-0" = 112 plf

4x12 #2

86 / 112

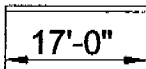


B2:

Dr = 15.6 psf x 8'-0" = 125 plf
 Lr = 16.0 psf x 8'-0" = 128 plf

6x14 #1

125 / 128

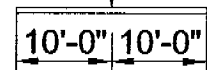


LVL:

Pdr = 12.3 psf x 7' x 7' = 603 lbs
 Plr = 16.0 psf x 7' x 7' = 784 plf

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

603 / 784



Paul Zacher Structural Engr's, Inc.
4701 Lakeside Way
Fair Oaks, CA 95628

Title :
Dsgnr:
Description :

Job #
Date: 6:06PM, 8 APR 05

Scope :

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

Timber Beam & Joist

Christopher.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	vault	B1	B2	LVL
Timber Section	2x6	2x6	4x12	6x14 MicroLam: 1.75x11.	
Beam Width	in 1.500	1.500	3.500	5.500	1.750
Beam Depth	in 5.500	5.500	11.250	13.500	11.875
Le: Unbraced Length	ft 0.00	0.00	0.00	0.00	0.00
Timber Grade	Douglas Fir - Larch, No.2	Douglas Fir - Larch, No.2	Douglas Fir - Larch, No.2	Douglas Fir - Larch, Dense	Truss Joist - MacMillan,
Fb - Basic Allow	psi 875.0	875.0	875.0	1,550.0	2,600.0
Fv - Basic Allow	psi 95.0	95.0	95.0	85.0	285.0
Elastic Modulus	ksi 1,600.0	1,600.0	1,600.0	1,700.0	1,900.0
Load Duration Factor	1.250	1.250	1.250	1.250	1.250
Member Type	Sawn	Sawn	Sawn	Sawn	Manuf/Pine
Repetitive Status	Repetitive	Repetitive	No	No	No

Center Span Data

		rafter	vault	B1	B2	LVL
Span	ft	12.00	10.50	16.00	17.00	20.00
Dead Load	#/ft	24.60	31.20	86.00	125.00	
Live Load	#/ft	32.00	32.00	112.00	128.00	
Point #1 DL	lbs					603.00
LL	lbs					784.00
@ X	ft					10.000

Results

	Ratio =	0.9887	0.8452	0.8560	0.3566	0.6226
Mmax @ Center	in-k	12.23	10.45	76.03	109.68	83.22
@ X =	ft	6.00	5.25	8.00	8.50	10.00
fb : Actual	psi	1,616.6	1,382.0	1,029.9	656.5	2,023.4
Fb : Allowable	psi	1,635.2	1,635.2	1,203.1	1,912.3	3,250.0
		Bending OK	Bending OK	Bending OK	Bending OK	Bending OK
fv : Actual	psi	57.3	55.5	53.6	37.9	50.1
Fv : Allowable	psi	118.8	118.8	118.8	106.3	356.3
		Shear OK	Shear OK	Shear OK	Shear OK	Shear OK

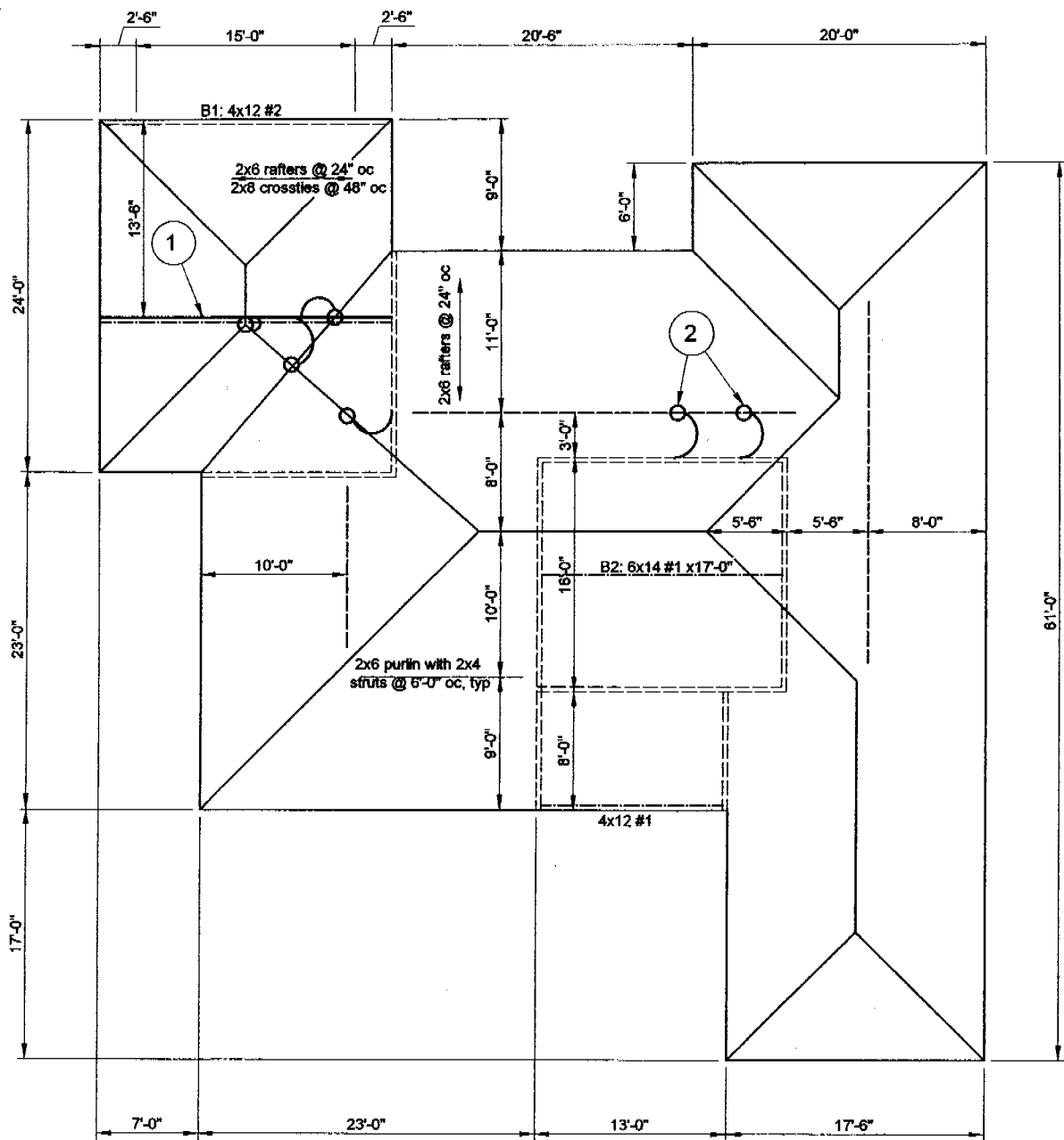
Reactions

		rafter	vault	B1	B2	LVL
@ Left End DL	lbs	147.60	163.80	688.00	1,062.50	301.50
LL	lbs	192.00	168.00	896.00	1,088.00	392.00
Max. DL+LL	lbs	339.60	331.80	1,584.00	2,150.50	693.50
@ Right End DL	lbs	147.60	163.80	688.00	1,062.50	301.50
LL	lbs	192.00	168.00	896.00	1,088.00	392.00
Max. DL+LL	lbs	339.60	331.80	1,584.00	2,150.50	693.50

Deflections

		Ratio OK	Deflection OK	Deflection OK	Deflection OK	Deflection OK
Center DL Defl	in	-0.345	-0.256	-0.191	-0.123	-0.374
L/Defl Ratio		417.5	491.4	1,006.0	1,664.9	641.2
Center LL Defl	in	-0.449	-0.263	-0.249	-0.125	-0.487
L/Defl Ratio		320.9	479.1	772.5	1,625.9	493.2
Center Total Defl	in	-0.794	-0.519	-0.439	-0.248	-0.861
Location	ft	6.000	5.250	8.000	8.500	10.000
L/Defl Ratio		181.5	242.6	437.0	822.6	278.8

5



FRAMING NOTES:

1. Scab a 1-3/4" x 11-7/8" LVL to the existing 2x6 crossie with 16d's @ 6" oc. The ends of the LVL may be clipped as required to meet the slope of the rafters. Support the existing ridge, hip and valley boards to the LVL below with 2x4 struts. See detail 2.
2. Add 2x4 struts to bearing below (total 2).

NOTES:

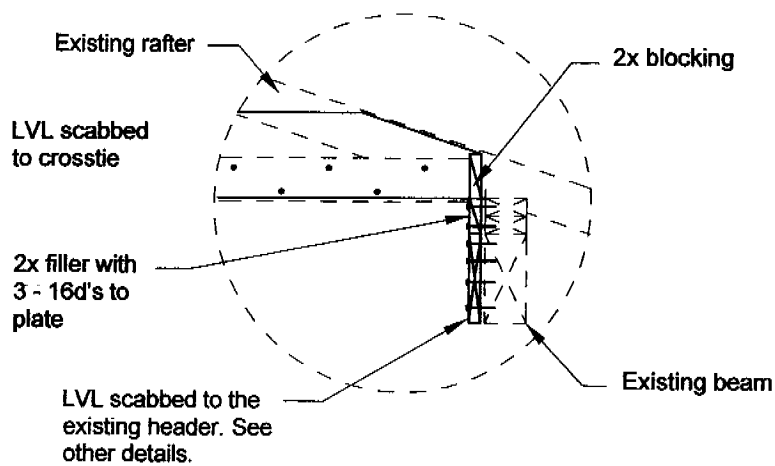
- A. This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.3 psf.
- B. All framing members including rafters, purlins, joists and beams are existing unless otherwise noted in the framing notes above.
- C. All rafters are 2x6 DF#2 and hips and valleys are 2x8 DF#2 unless otherwise noted.
- D. All existing rafter, hips, valleys, rafter ties, and purlins are braced per UBC Section 2320.1 "Roof and Ceiling Framing" unless otherwise shown.
- E. All structural wood members that were observed appear to be in sound condition and without structural defect.

1 ROOF PLAN - CHRISTOPHER

Not to Scale

6





ALTERNATE CONNECTION AT BEAM

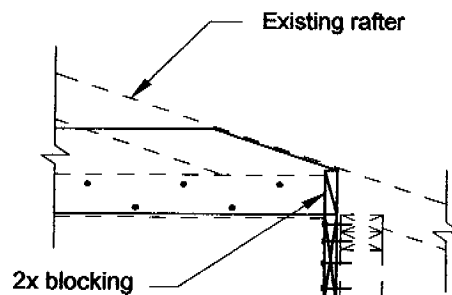
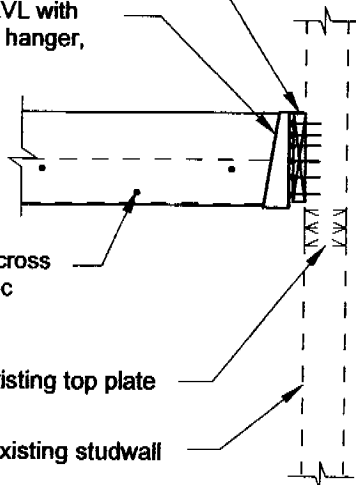
2x12 DF#2 x 2'-8" long ledger w/ 5-16d's to each stud (total 15)

1 3/4" x 11 7/8" LVL with Simpson IUT410 hanger, shim as required

Nail LVL to existing cross tie with 16d's @ 6" oc

Existing top plate

Existing studwall



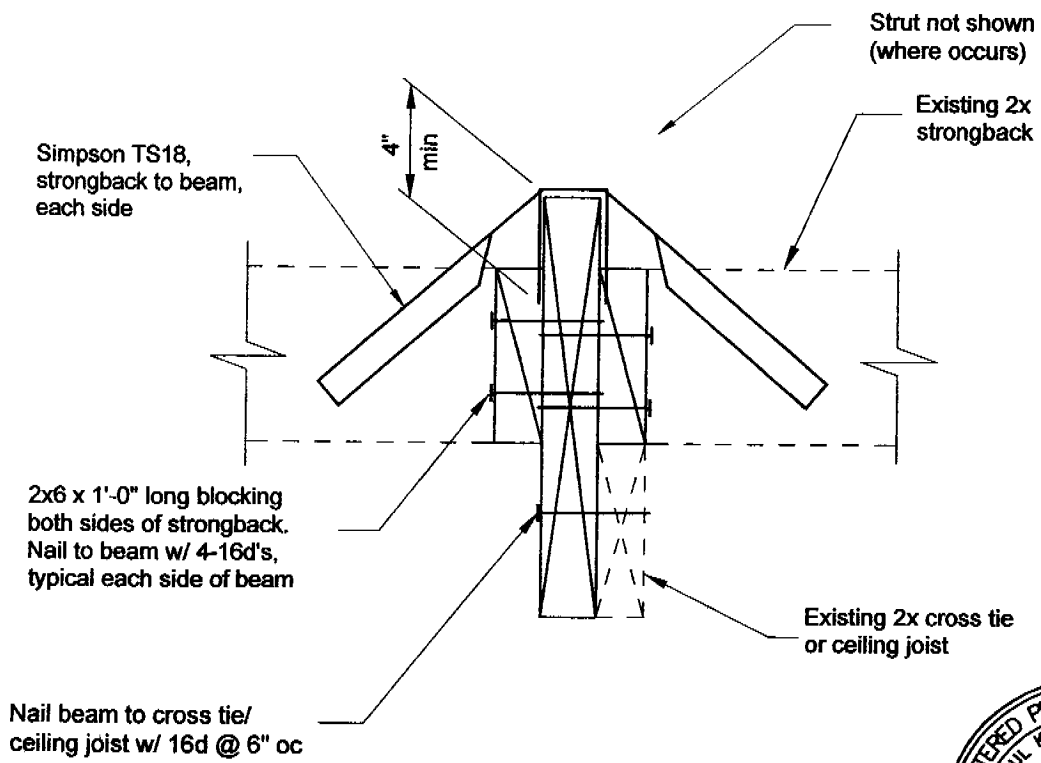
2x8 DF#2 x 2'-8" long ledger w/ 16d's @ 2" oc staggered to top plate and w/ 3 - 16d's to each stud

2

LEDGER CONNECTION

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





3

STRONGBACK DETAIL

No scale

