

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0009684
Insp Area: 2

Site Address: 20 NORTHLITE CR SAC
Parcel No: 030-0296-002

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

CONTRACTOR
ZIMMERMAN ROOFING
3675 R ST
SACRAMENTO CA 95816

OWNER
JUMPER BEVERLEY B
28 NORTHLITE CR
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: TEAR OFF & REROOF W/ MONIER 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 339 License Number 551559 Date 9/7/00 Contractor Signature Billy Coy

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 9/7/00 Applicant/Agent Signature Billy Coy

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 COMP INS FUND Policy Number 713-99-2021 Exp Date 10/01/2000

____ (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 9/7/00 Applicant Signature Billy Coy

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.



DEPARTMENT OF
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

12311 STREET
ROOM 200
SACRAMENTO, CA
95814-2921

28 Northlife Cir
Sacto., CA. 95831

Phone Services
TEL 916-264-7619
FAX 916-264-7096

TILE ROOF WORKSHEET

This worksheet must be filled out whenever any type of tile roof is applied for.

If the answer to question #5 is yes, a written engineering report from a registered engineer must be provided with each application.

- 1 BRAND AND MODEL OF TILE Monier Lite weight
- 2 TILE WEIGHT PER SQUARE 730 lbs 7 1/2
- 3 WEIGHT OF ROOF SYSTEM PER SQUARE 180 lbs
- 4 TOTAL WEIGHT OF ROOF SYSTEM 910 lbs
- 5 DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES NO
- 6 ROOF SLOPE 4/12

PLEASE PROVIDE A SEPARATE WORKSHEET FOR EACH APPLICATION INVOLVING A TILE ROOF.

All attached engin. report

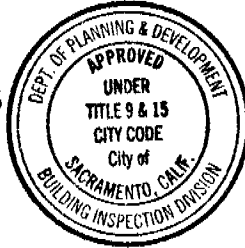
Ku

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

TEL: 916.961.3960
FAX: 916.961.6552

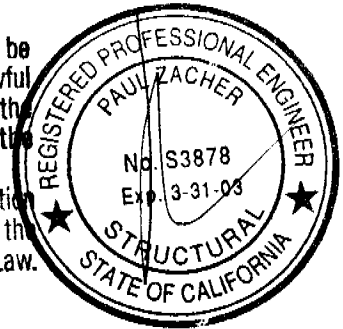
August 30, 2000

Zimmerman Roofing
3675 R Street
Sacramento, CA 95816
TEL: 916.454.3667
FAX: 916.455.3784



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The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.



Attn.: Mr. Jeff Tucker,

re: Job 2000_233: KU

Subject: Structural Investigation Report of the Roof for the Residence located at 20 Northlite Circle, Sacramento, CA 95831.

As requested by Mr. Jeff Tucker, this is a report to determine what needs should be addressed to correct any structural deficiencies of the roof. Paul Zacher visited the site August 14, 2000. 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.

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

DESCRIPTION:

Type of Facility:	Residence.
Year Built:	Estimated 1970's vintage.
Occupancy:	Residential.
No. of Stories:	One.
Dimensions:	Approximately 2000 square feet with a first story plate height of 8 feet.

SEP 05 2000

Sacramento Building Division

REVIEWED BY: [Signature] 9/5/00

CONSTRUCTION:

Roof:

The roof covering will consist of a Light Weight Concrete Tile over 1/2" solid sheathing. The living area is conventionally framed with 2x6 rafters spaced at 24" on center with 2x6 purlins supported at no more than 8'-0" on center by 2x4 struts bearing on walls below except for the vaulted ceiling areas. The vaulted ceiling is constructed of 2x8 rafters spaced at 16" on center. 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 living area has sufficient structural capacity for the applied live and dead loads. The garage lacks sufficient structural capacity for the applied live and dead loads.

RECEIVED SEP 15 2000

Ku



Paul Zacher - Structural Engineers
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.

Living Area:

1. Scab a 2x6 rafter to the existing 2x6 rafters with 16d's @ 12" on center where the span is greater than 12'-0". See detail 1.
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.

Garage:

3. Add a 1 3/4" x 11 7/8" LVL beam above the existing 2x6 crossties. 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 purlin, valley and ridge to the LVL beam with 2x4 struts. See details 1 and 2.

It shall be noted that small hairline cracking may occur at exterior stucco and interior gyboard 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

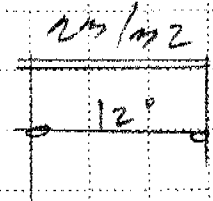
Job #: 00-244

Date: 8/14/00

LOADING

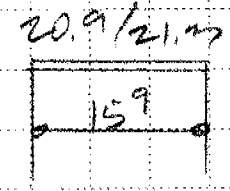
RAFTER

DR: 11.5 puf x 20 = 230 puf 2 x 6 #2
LR: 16.0 = 32 .



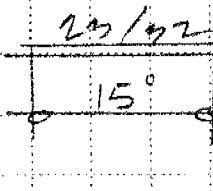
VAULT

DR: 15.7 puf x 4/3 = 20.9 puf 2 x 8 #2
LR: 16.0 = 21.3 .



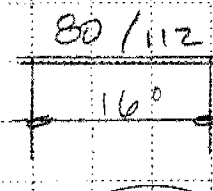
ROOFER

DR: 11.5 puf x 20 = 230 puf 2 x 2 x 6 #2
LR: 16.0 = 32 .



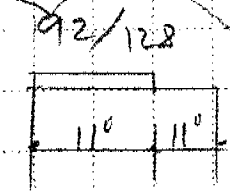
SI

DR: 11.5 puf x 70 = 80 puf 4 x 12 #2
LR: 16.0 = 112 .



LVL

DR: 11.5 puf x 80 = 92 puf
LR: 16.0 = 128 .



REV 8/30/00

Paul Zacher - Structural Engineers
 4701 Lakeside Way
 Fair Oaks
 TEL: (916) 961-3960
 FAX: (916) 961-6552

Title :
 Dsgnr:
 Description :

Job #
 Date: 4:14PM, 14 AUG 00

Scope :

Rev: 510304
 User: RW-0602844, Ver 5.1.3, 22-Jun-1999, Win32
 (c) 1983-99 ENERCALC

Timber Beam & Joist

c:\enercalc\test.ecw:Calculations

Description RAFTERS AND BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

Timber Section		rafter 2x6	vault 2x8	rafter 2-2x6	B1 4x12
Beam Width	in	1.500	1.500	3.000	3.500
Beam Depth	in	5.500	7.250	5.500	11.250
Le: Unbraced Length	ft	0.00	0.00	0.00	0.00
Timber Grade		Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch	Douglas Fir - Larch
Fb - Basic Allow	psi	875.0	875.0	875.0	875.0
Fv - Basic Allow	psi	95.0	95.0	95.0	95.0
Elastic Modulus	ksi	1,600.0	1,600.0	1,600.0	1,600.0
Load Duration Factor		1.250	1.250	1.250	1.250
Member Type		Sawn	Sawn	Sawn	Sawn
Repetitive Status		Repetitive	Repetitive	Repetitive	No

Center Span Data

	ft	12.00	15.75	15.00	16.00
Span					
Dead Load	#/ft	23.00	20.90	23.00	80.00
Live Load	#/ft	32.00	21.30	32.00	112.00

Results

Ratio = 0.9607 0.7917 0.7506 0.8300

Mmax @ Center	in-k	11.88	15.70	18.56	73.73
@ X =	ft	6.00	7.87	7.50	8.00
Fb : Actual	psi	1,570.9	1,194.9	1,227.3	998.6
Fb : Allowable	psi	1,635.2	1,509.4	1,635.2	1,203.1
		Bending OK	Bending OK	Bending OK	Bending OK
Fv : Actual	psi	55.7	42.5	35.4	52.0
Fv : Allowable	psi	118.8	118.8	118.8	118.8
		Shear OK	Shear OK	Shear OK	Shear OK

Reactions

@ Left End	DL	lbs	138.00	164.59	172.50	640.00
	LL	lbs	192.00	167.74	240.00	896.00
	Max. DL+LL	lbs	330.00	332.32	412.50	1,536.00
@ Right End	DL	lbs	138.00	164.59	172.50	640.00
	LL	lbs	192.00	167.74	240.00	896.00
	Max. DL+LL	lbs	330.00	332.32	412.50	1,536.00

Deflections

Ratio OK Deflection OK Deflection OK Deflection OK

Center DL Defl	in	-0.322	-0.380	-0.394	-0.178
L/Defl Ratio		446.5	497.8	457.3	1,081.5
Center LL Defl	in	-0.449	-0.387	-0.548	-0.249
L/Defl Ratio		320.9	488.5	328.7	772.5
Center Total Defl	in	-0.771	-0.767	-0.941	-0.426
Location	ft	6.000	7.875	7.500	8.000
L/Defl Ratio		186.7	246.5	191.2	450.6

Paul Zacher - Structural Engineers
 4701 Lakeside Way
 Fair Oaks
 TEL: (916) 961-3960
 FAX: (916) 961-6552

Title :
 Dsgnr:
 Description :
 Scope :

Job #
 Date: 6:20AM, 30 AUG 00

Rev. 610304
 User: KW-0602844, Ver 5.1.3, 22-Jun-1999, Win32
 (c) 1983-99 ENERCALC

Timber Beam & Joist

c:\enercalc\test.ecw:Calculations

Description BEAMS

Timber Member Information

Calculations are designed to 1997 NDS and 1997 UBC Requirements

		LVL
Timber Section		LVL:1.750x
Beam Width	in	1.750
Beam Depth	in	11.875
Le: Unbraced Length	ft	0.00
Timber Grade		Ass Joist - MacMil
Fb - Basic Allow	psi	2,600.0
Fv - Basic Allow	psi	285.0
Elastic Modulus	ksi	1,900.0
Load Duration Factor		1.250
Member Type		Manuf/Pine
Repetitive Status		No

*REV
8/10/00*

Center Span Data

Span	ft	22.00
Dead Load	#/ft	92.00
Live Load	#/ft	128.00
Start	ft	
End	ft	11.000

Results

Ratio = 0.6721

Mmax @ Center	in-k	89.84
@ X =	ft	8.27
fb : Actual	psi	2,184.4
Fb : Allowable	psi	3,250.0
		Bending OK
fv : Actual	psi	115.6
Fv : Allowable	psi	356.3
		Shear OK

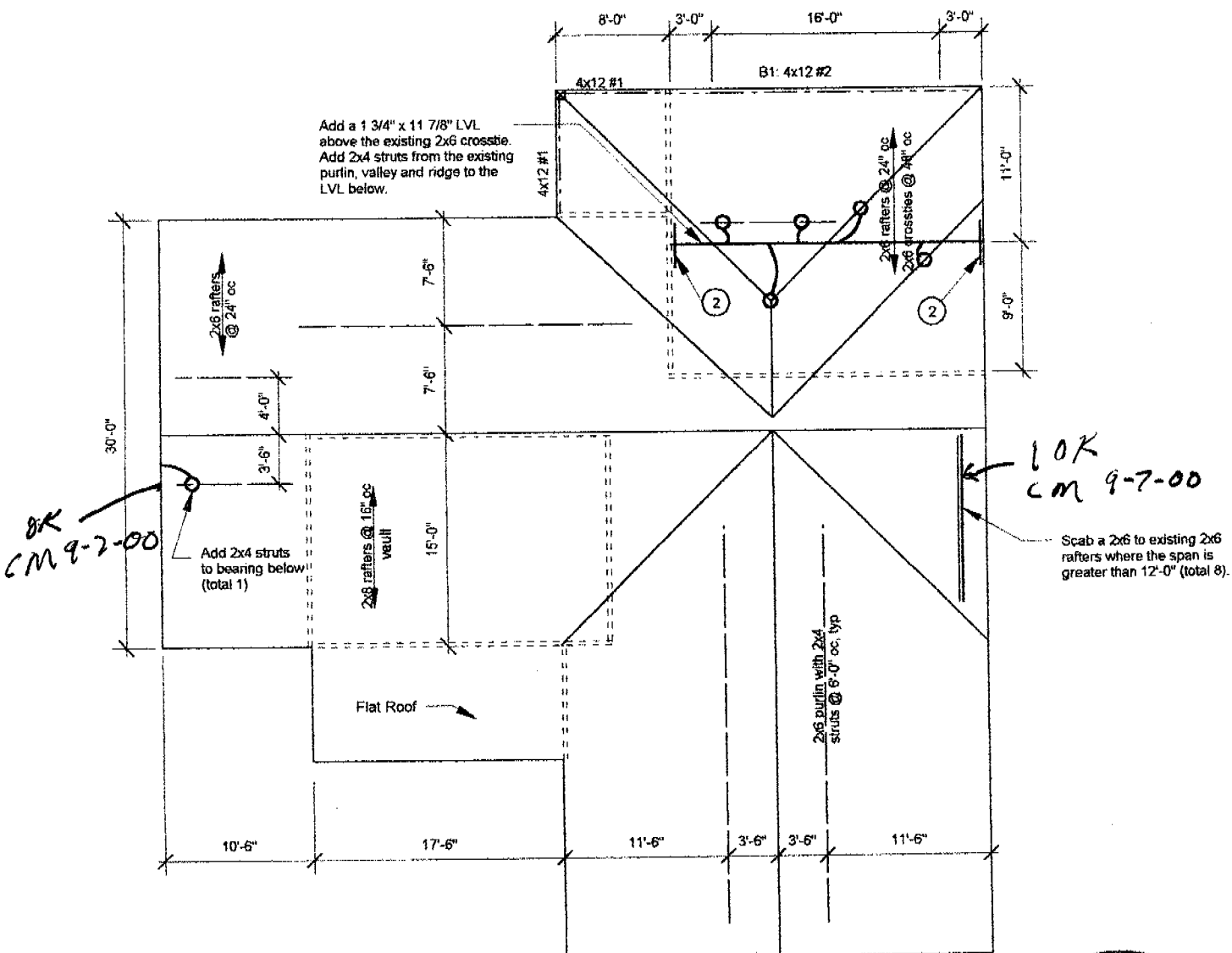
Reactions

@ Left End	DL	lbs	759.00
	LL	lbs	1,056.00
	Max. DL+LL	lbs	1,815.00
@ Right End	DL	lbs	253.00
	LL	lbs	352.00
	Max. DL+LL	lbs	605.00

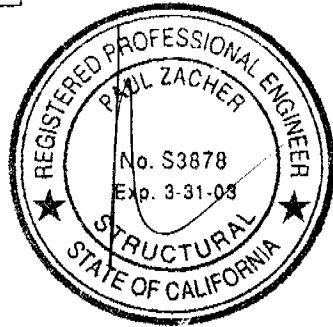
Deflections

Ratio OK

Center DL Defl	in	-0.527
L/Defl Ratio		501.2
Center LL Defl	in	-0.733
L/Defl Ratio		360.2
Center Total Defl	in	-1.260
Location	ft	10.120
L/Defl Ratio		209.6



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Notes:

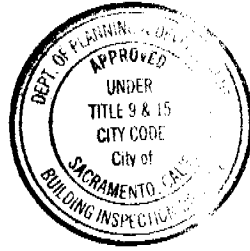
1. This is a reroof project. The new roofing material shall be a Light Weight Concrete Tile. The tile shall weigh less than or equal to 7.0 psf.
2. All rafters are 2x6 DF#2 and hips and valleys are 2x8 DF#2 unless otherwise noted.
3. All existing rafter, hips, valleys, rafter ties, and purlins are braced per UBC Section 2320.12 "Roof and Ceiling Framing" unless otherwise shown.
4. All structural wood members that were observed appear to be in sound condition and without structural defect.

1

ROOF PLAN - KU

Not to Scale

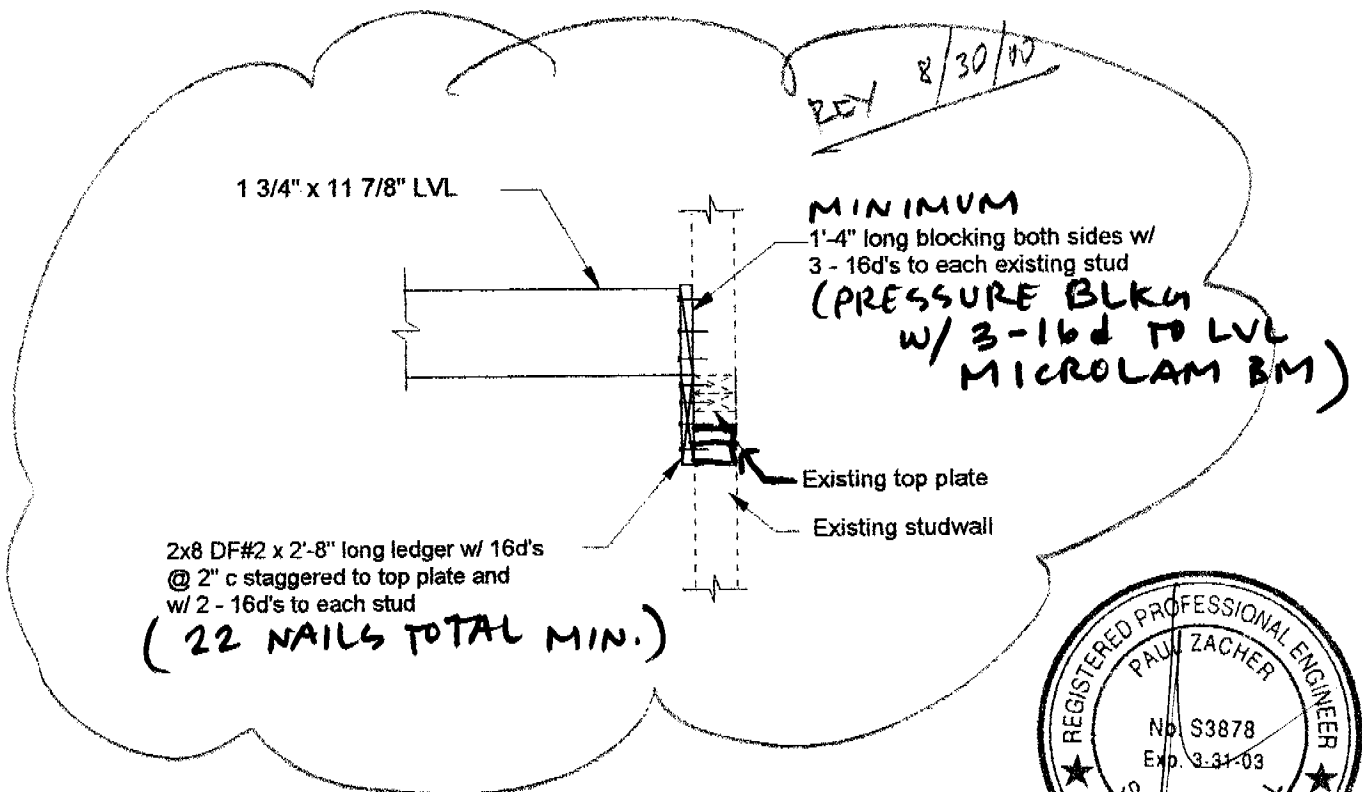




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NOTE: LEDGER & BLOCKING APPLIED OVER 5/8" DRYWALL AT HOUSE-TO-GARAGE FIRE SEPERATION



2

LEDGER CONNECTION

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