

CITY OF SACRAMENTO

Permit No: 9812156

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 42 ZEPHYR COVE CR SAC

Sub-Type: RES

Parcel No: 0310463006

Housing (Y/N): N

CONTRACTOR

ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO, CA

95826

OWNER

PROSPER LINDA J
42 ZEPHYR COVE CR
SACRAMENTO CA

95831

ARCHITECT

Nature of Work: REROOF WITH PIONEER 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 C39 License Number 557559 Date 1-6-99 Contractor Signature Kelly 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 1-6-99 Applicant/Agent Signature Kelly 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.

X 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 713-98-2021 Exp Date 10/01/1999

(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 1-6-99 Applicant Signature Kelly 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

1221 I STREET  
ROOM 200  
SACRAMENTO, CA  
95814-2990

Permit Service  
916-264-7667  
FAX 916-264-7668

Linda Prosper at  
42 Zephyr Cove Circle  
95831

**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 Pioneer Shake tile
2. TILE WEIGHT PER SQUARE 7.30
3. WEIGHT OF ROOF SYSTEM PER SQUARE 1.80
4. TOTAL WEIGHT OF ROOF SYSTEM 9.10
5. DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? YES NO
6. ROOF SLOPE 9/12

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

*See attached engineering Report*

Prosper

**Paul Zacher-Structural Engineers**

4701 Lakeside Way  
Fair Oaks, CA 95628

TEL: 916.961.3960  
FAX: 916.961.3960  
e-mail: pzacher@softcom.net

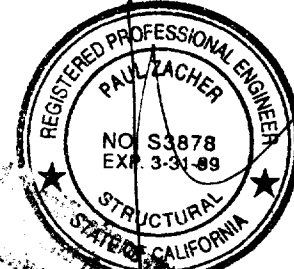
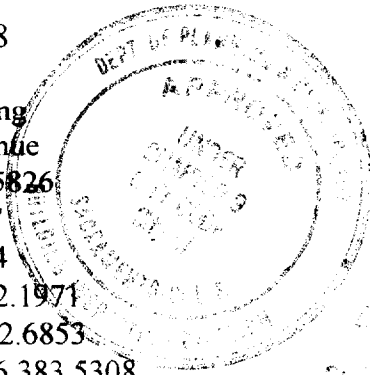
November 18, 1998

Zimmerman Roofing  
3560 Ramona Avenue  
Sacramento, CA 95826  
TEL: 916.454.3667  
FAX: 916.455.3784  
TEL (Jeff): 916.392.1971  
FAX (Jeff): 916.392.6853  
FAX (Framer) : 916.383.5308

Attn.: Mr. Jeff Tucker,

re: Job 98305: PROSPER

Subject: Structural Investigation Report of the Roof for the Residence located at 42 Zephyr Cove Way, Sacramento, CA 95831.



It is unlawful to be  
employed by or to be  
employed from the  
State of California  
without a valid  
license or certificate  
issued by the State Board of  
Professional Engineers  
in accordance with the  
provisions of the  
Professional Engineers Law

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 November 17, 1998. The investigation was made to determine the existing condition of the structure. All information, data and analysis contained within this report is based on the 1994 Uniform Building Code.

The following is based on visual observations with no subsurface 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.

CONSTRUCTION:

Roof:  
The roof covering will consist of Pioneer Light Weight Concrete Tile over 1/2" solid sheathing. The living and garage areas are framed with pre-engineered wood trusses spaced at 24" on center.

1/00

Prosper

CONCLUSIONS:

Roof:

The living and garage areas have sufficient structural capacity for the applied live and dead loads.

RECOMMENDATIONS:

None.

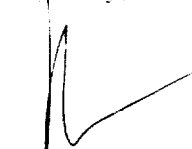
It shall be noted that small hairline cracking may occur at exterior stucco and interior gypboard finished walls which are load bearing or distributing roof strut loads. These cracks are a natural occurrence as the existing structure re-distributes the new roof weight. They are cosmetic in nature and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

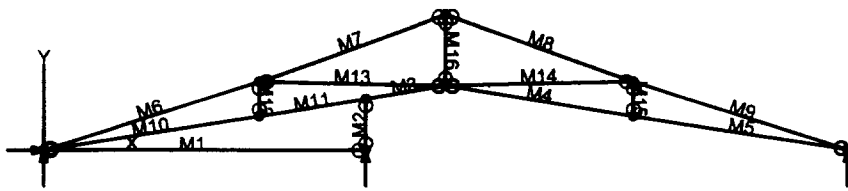
Roof Pitch	4	in 12
Pitch Adjustment Factor	1.05	

**LOCATION: TOP CHORD**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Pioneer Light Weight	7.00	psf
Roofing felt	0.30	psf
1/2" OSB/ plywood	1.50	psf
1x4 skip sht'g	1.09	psf
2x4 truss @ 24" oc	<u>1.28</u>	psf
	Load	11.2 psf
Roof Pitch Adjustment	<u>0.60</u>	psf
Total Load	11.8	psf

**LOCATION: BOTTOM CHORD**

<u>MATERIAL</u>	<u>WEIGHT</u>	
Batt/blown insul	0.50	psf
2x4 truss @ 24" oc	0.64	psf
1/2" Gypboard	<u>2.50</u>	psf
	Load	3.6 psf



# VisualAnalysis 3.12.c Report

November 18, 1998 6:35 AM

## Project:

File: D:\Paul\d\_and\_d\aafolder\truss1.VAP

Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

## Nodes

Node	X ft	Y ft	Fix	DX Fix	DY Fix	RZ Fix
N1	0.00	0.00	Yes	Yes	No	
N2	12.00	0.00	No	"	"	"
N3	30.00	0.00	"	"	"	"
N4	8.00	1.33	"	No	"	"
N5	22.00	1.33	"	"	"	"
N6	12.00	2.00	"	"	"	"
N7	15.00	2.50	"	"	"	"
N8	8.00	2.67	"	"	"	"
N9	22.00	2.67	"	"	"	"
N10	15.00	5.00	"	"	"	"

## Spring Elements

This item is empty. Check the selection state, or report properties.

## Member Elements

Member	Section	Material	Length ft	Weight lbs	Theta deg
M1	SS2x4	Wood	12.00	17.70	0.00
M2	"	"	2.00	2.95	0.00
M3	"	"	3.04	4.49	0.00
M4	"	"	7.10	10.47	0.00
M5	"	"	8.11	11.96	0.00
M6	"	"	8.43	12.44	0.00
M7	"	"	7.38	10.88	0.00
M8	"	"	7.38	10.88	0.00
M9	"	"	8.43	12.44	0.00
M10	"	"	8.11	11.96	0.00
M11	"	"	4.06	5.98	0.00
M12	"	"	1.34	1.98	0.00
M13	"	"	7.00	10.33	0.00
M14	"	"	7.00	10.33	0.00
M15	"	"	1.34	1.98	0.00
M16	"	"	2.50	3.69	0.00

## Section Properties

Category	Section	Ax in <sup>2</sup>	Iz in <sup>4</sup>	Sy+ in <sup>3</sup>	Sy- in <sup>3</sup>
Wood Sha	SS2x4	5.25	5.36	3.06	3.06

## Material Properties

Material	Strength ksi	Elasticity ksi	Poisson	Density lb/ft <sup>3</sup>	Therm. /F
Wood	-NA-	1700.00	0.36	40.47	0.00

# VisualAnalysis 3.12.c Report

November 18, 1998 6:35 AM

## Project:

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Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

## Load Cases

Load Case	Strength	Service	Results
1) Service Case 1	Yes	Yes	None
2) Service Case 2	"	"	"
3) Equation Case 1	"	"	1st Ord

## Service Load Cases

Load Case	Load Source	Self Weight	Loads
Service Case 1	Dead loads	None	
Service Case 2	Roof Live 1	"	

## Load Combination Summary

Equation Case: Equation Case 1

Combination: +1D+1L+1Lr+1R+1W+1S+1E+1H+1F+1TS+1T+1TC+1I+1U+1LE

### Contributing Cases & Source

Service Case 1 (Dead loads)

Service Case 2 (Roof Live loads)

## Equation Case Combinations

Load Case	Cases	Equation
Equation Case 1	0.00	0.00

## Factored Case Combinations

This item is empty. Check the selection state, or report properties.

## Nodal Loads

This item is empty. Check the selection state, or report properties.

## Member Point Loads

This item is empty. Check the selection state, or report properties.

## Member Uniform Loads

Load Case	Member	Direction	Offset ft	End Off ft	Magnitude
Service Case 1	M1	DY proj.	0.00	12.00	-0.01 K/ft
"	M3	"	0.00	3.04	-0.01 K/ft
"	M4	"	0.00	7.10	-0.01 K/ft
"	M5	"	0.00	8.11	-0.01 K/ft
"	M6	"	0.00	8.43	-0.02 K/ft
"	M7	"	0.00	7.38	-0.02 K/ft
"	M8	"	0.00	7.38	-0.02 K/ft
"	M9	"	0.00	8.43	-0.02 K/ft
Service Case 2	M6	"	0.00	8.43	-0.03 K/ft
"	M7	"	0.00	7.38	-0.03 K/ft
"	M8	"	0.00	7.38	-0.03 K/ft



# VisualAnalysis 3.12.c Report

November 18, 1998 6:35 AM

**Project:**

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Engineer: Paul Zacher

Default Units: Feet, Pounds, Degrees, °Fahrenheit, Seconds.

## Load Cases

Load Case	Strength Service Results		
( 1)Service Case 1	Yes	Yes	None
( 2)Service Case 2	"	"	"
( 3)Equation Case 1	"	"	1st Ord

## Member Extreme Results

Member	Fx(lc) K	Fy(lc) K	Mz(lc) K-ft	fc max(lc) ksi	fc min(lc) ksi	Dx(lc) in	Dy(lc) in
M1	0.00( 3)	-0.04( 3)	0.00( 3)	0.00( 3)	-0.51( 3)	0.00( 3)	-0.37( 3)
"	0.00( 3)	0.04( 3)	0.13( 3)	0.51( 3)	0.00( 3)	0.00( 3)	0.00( 3)
M2	-0.57( 3)	0.00( 3)	0.00( 3)	-0.11( 3)	-0.11( 3)	0.00( 3)	-0.03( 3)
"	-0.57( 3)	0.00( 3)	0.00( 3)	-0.11( 3)	-0.11( 3)	0.00( 3)	0.00( 3)
M3	1.81( 3)	0.25( 3)	-0.80( 3)	0.35( 3)	<b>-2.77( 3)</b>	0.03( 3)	-0.58( 3)
"	1.82( 3)	<b>0.27( 3)</b>	0.00( 3)	3.46( 3)	0.35( 3)	0.04( 3)	-0.01( 3)
M4	2.91( 3)	-0.02( 3)	0.00( 3)	0.56( 3)	0.31( 3)	0.22( 3)	-0.62( 3)
"	<b>2.92( 3)</b>	0.03( 3)	0.06( 3)	0.80( 3)	<b>0.56( 3)</b>	0.25( 3)	-0.54( 3)
M5	2.91( 3)	-0.03( 3)	0.00( 3)	0.55( 3)	0.26( 3)	0.25( 3)	-0.58( 3)
"	2.92( 3)	0.02( 3)	0.08( 3)	0.85( 3)	0.55( 3)	0.28( 3)	0.05( 3)
M6	-1.99( 3)	-0.25( 3)	-0.35( 3)	-0.38( 3)	-1.71( 3)	-0.02( 3)	-0.60( 3)
"	-1.85( 3)	0.17( 3)	0.29( 3)	1.01( 3)	-0.38( 3)	0.00( 3)	0.00( 3)
M7	-1.51( 3)	-0.14( 3)	-0.35( 3)	-0.26( 3)	-1.65( 3)	<b>-0.04( 3)</b>	<b>-0.70( 3)</b>
"	-1.39( 3)	0.23( 3)	0.19( 3)	1.07( 3)	-0.26( 3)	-0.02( 3)	-0.50( 3)
M8	-1.51( 3)	-0.23( 3)	-0.31( 3)	-0.26( 3)	-1.52( 3)	0.31( 3)	-0.68( 3)
"	-1.39( 3)	0.14( 3)	0.20( 3)	0.94( 3)	-0.26( 3)	0.32( 3)	-0.49( 3)
M9	<b>-3.09( 3)</b>	-0.17( 3)	-0.31( 3)	<b>-0.59( 3)</b>	-1.79( 3)	0.27( 3)	-0.61( 3)
"	-2.95( 3)	0.25( 3)	0.30( 3)	0.67( 3)	-0.59( 3)	0.31( 3)	0.09( 3)
M10	1.85( 3)	0.05( 3)	0.00( 3)	0.35( 3)	-1.09( 3)	0.00( 3)	-0.62( 3)
"	1.85( 3)	0.05( 3)	<b>0.37( 3)</b>	1.79( 3)	0.35( 3)	0.02( 3)	0.00( 3)
M11	1.91( 3)	<b>-0.29( 3)</b>	<b>-0.80( 3)</b>	0.44( 3)	-2.75( 3)	0.02( 3)	-0.49( 3)
"	1.91( 3)	-0.29( 3)	0.37( 3)	<b>3.48( 3)</b>	0.29( 3)	0.03( 3)	0.00( 3)
M12	-0.34( 3)	0.00( 3)	0.00( 3)	-0.06( 3)	-0.06( 3)	0.48( 3)	0.10( 3)
"	-0.34( 3)	0.00( 3)	0.00( 3)	-0.06( 3)	-0.06( 3)	0.48( 3)	0.14( 3)
M13	-0.47( 3)	0.00( 3)	0.00( 3)	-0.09( 3)	-0.09( 3)	0.15( 3)	-0.56( 3)
"	-0.47( 3)	0.00( 3)	0.00( 3)	-0.09( 3)	-0.09( 3)	0.15( 3)	-0.48( 3)
M14	-1.51( 3)	0.00( 3)	0.00( 3)	-0.29( 3)	-0.29( 3)	0.10( 3)	-0.61( 3)
"	-1.51( 3)	0.00( 3)	0.00( 3)	-0.29( 3)	-0.29( 3)	0.12( 3)	-0.57( 3)
M15	0.04( 3)	0.00( 3)	0.00( 3)	0.01( 3)	0.01( 3)	<b>0.61( 3)</b>	0.12( 3)
"	0.04( 3)	0.00( 3)	0.00( 3)	0.01( 3)	0.01( 3)	0.61( 3)	<b>0.15( 3)</b>
M16	0.61( 3)	0.00( 3)	0.00( 3)	0.12( 3)	0.12( 3)	0.56( 3)	0.13( 3)
"	0.61( 3)	0.00( 3)	0.00( 3)	0.12( 3)	0.12( 3)	0.56( 3)	0.15( 3)

**BENDING & COMP: TRUSS 1; MEMBER 9**

Buckling Factor, CT is  
 negelected due to small contribution

Grading:

2x or 4x                      Doug-fir larch: No. 2

Assumptions:

Lateral support at points of bearing  
 SPS or gypboard attached to compression face  
 Maximum center-center spacing = 24"

Width, b	1.5 inches
Depth, d	3.5 inches
Length	8.43 feet
Max Axial Comp, C	3090 lbs
Max Reaction, R	170 lbs
Max Moment, M	310 ft-lbs
Max LL Deflection	0.3 inches
Max TL Deflection	0.61 inches
LL Defl Criteria = L/	240
TL Defl Criteria = L/	180
Duration factor, Cd	1.25
Repetitive Factor, Cr	1.15
fc =	589 psi
Fce=	898 psi
Fc*=	1094 psi
F'c=	677 psi
fb=	101 psi
F'b=	1258 psi
Shear D/C ratio	0.41 < 1.0, Member OK
Interaction equation:	
(fc/F'c) <sup>2</sup> +	
fb/ (F'b(1-fc/Fce)) =	0.99 < 1.0, Member OK
Live Load defl ratio	0.71 < 1.0, Member OK
Total Load defl ratio	1.09 > 1.0, Member No Good.
	OK, less than 1/16"over