CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: 9905070

Insp Area: 2

Site Address: 9 DUMFRIES CT SAC
Parcel No: 031-0290-027

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

CONTRACTOR
ZIMMERMAN ROOFING
3560 RAMONA AV
SACRAMENTO CA 95826

OWNER
ONANIAN LOUIS ARSHAG/EVELYN
9 DUMFRIES CT
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: REROOF W/TILE 42SQS

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'sAddress_____

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 _____ 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 herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date ____ Applicant/Agent 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, forthe 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 713-98-2021 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 ____ 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.

DEPARTMENT OF
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

1231 I STREET
ROOM 200
SACRAMENTO, CA
95814-2998

Permit Services
916-264-7619
FAX 916-264-7046

[illegible] Manor
[illegible] Dunstan Ct
[illegible] 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 Monier tile
2. TILE WEIGHT PER SQUARE _____
3. WEIGHT OF ROOF SYSTEM PER SQUARE _____
4. TOTAL WEIGHT OF ROOF SYSTEM _____
5. DOES TOTAL WEIGHT OF ROOF SYSTEM EXCEED 750# PER SQUARE? (YES) NO
6. ROOF SLOPE 4/12

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

Anderson Engineering Consultants

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. March 16, 1999
The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

Zimmerman Roofing
3560 Ramona Avenue
Sacramento, CA. 95826

ISSUED

MAY 19 1999

CITY OF SACRAMENTO
DEVELOPMENT SERVICES DIV

Subject: Structural Roof Inspection
9 Dumfries Court
Sacramento, CA. 95831

Dear Jeff,

Pursuant to your request, Anderson Engineering Consultants performed a visual structural inspection at the subject site on September 18, 1998. The roof structure is comprised of 2x6 rafters at 24" o.c. at a 6:12 pitch. The maximum span is 11'- 11" from bearing wall to purlin and is adequate based on calculations. 2x6 purlins support the rafters at approximately mid-span throughout the structure and are properly braced to load bearing members. The rear patio area has 2x6 rafters at 16" o.c. at a 7:12 pitch. The span is 13'-0" and is adequate based on calculations. The 4x12 x 17'-0" beam at the rear patio is adequate based on calculations. A slight sag was observed in the rafters over the garage. This is probably due to wood shrinkage since the span is adequate for the existing and proposed load. Therefore, the sag is cosmetic in nature and does not pose a structural problem. We do recommend that the sag be corrected in order to assure the aesthetics of the roof.

It is our opinion, based on the site inspection and calculations, that the structural integrity of the roof system will not be compromised by using your proposed reroof system of 7/16" OSB sheathing over existing skip sheathing, 30 lb felt, and lightweight concrete tile weighing 7.4 psf or less. The total dead load is 10 psf for the house and 12 psf for the patio.

Should you have any questions, please do not hesitate to contact us.

Sincerely,

Carl Anderson, P.E.

zimonan.wri

Reviewed by Matt P. 5/19/99

57 Plumwood Court Chico, CA 95928 Bus / FAX (530) 343-0500

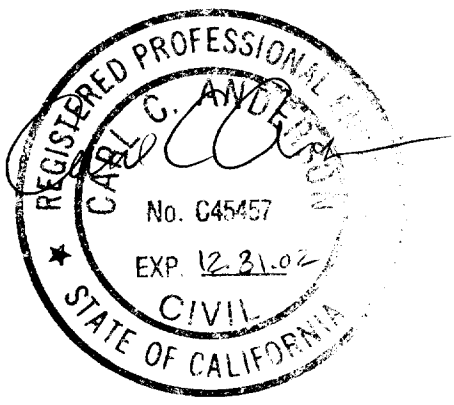
ONANIAN RES. #9 DUFRIES CT.

Roof Rafter[94 UBC (91 NDS)] Ver. V4051796
By: CCA , Anderson Engineering Consultants on: 09-30-1998

Project: ONANIAN - Location: 2X6 @ 24" O.C. - HOUSE

Summary:
1.50 IN x 5.50 IN x 13.92 FT (Actual 15.563 FT) @ 24.00 O.C. / #2 - DOUGLAS FIR-LARCH - Dry Use
Section Adequate By: 2.7% Controlling Factor: Moment of Inertia / Depth Required 5.45 In

Deflections:			
Dead Load:	DLD=	0.36	IN
Live Load:	LLD=	0.51	IN = L/314
Total Load:	TLD=	0.86	IN = L/185
Rafter End Loads and Reactions:	LOADS:	RXNS:	
Upper Live Load:	95 PLF	191 LB	
Upper Dead Load:	65 PLF	130 LB	
Upper Total Load:	160 PLF	320 LB	
Lower Live Load:	130 PLF	260 LB	
Lower Dead Load:	91 PLF	182 LB	
Lower Total Load:	221 PLF	442 LB	
Upper Equiv. Tributary Width:	UTWeq=	6.663	FT
Lower Equiv. Tributary Width:	LTWeq=	9.087	FT
Rafter Data:			
Interior Span:	L=	11.92	FT
Cantilever Span:	CS1=	2.0	FT
Live Load Deflect. Criteria:	L/	240	
Total Load Deflect. Criteria:	L/	180	
Rafter Spacing:	SPC=	24.00	IN O.C.
Rafter Loads:			
Roof Live Load:	LL=	16	PSF
Roof Dead Load:	DL=	10	PSF
Rafter Pitch:	RP=	6.00	: 12
Rafter Unbraced Length:	Lu=	0.0	FT
Roof Duration Factor:	Cd=	1.25	
Slope Adjusted Spans And Loads:			
Interior Span:	Ladj=	13.3	FT
Cantilever Span:	CS1adj=	2.2	FT
Rafter Live Load:	wL=	26	PLF
Roof Loaded Area:	RLA=	27	SF
Roof Live Load Method: 1			
Rafter Dead Load:	wD=	18	PLF
Rafter Total Load:	wT=	43	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties			
Fb' (Tension):	Fb'=	1635	PSI
Adjustment Factors: Cd=1.25 Cf=1.30 Cr=1.15			
Fv':	Fv'=	119	PSI
Adjustment Factors: Cd=1.25			
Design Requirements:			
Maximum Moment(Interior Span):	Mcent=	943	FT-LB
At Location(From Upper Support):	X=	6.586	FT
Moment At Cantilever:	Mcant=	109	FT-LB
Maximum Shear:	Vmax=	298	LB
Shear At Peak:	Vpeak=	286	LB
Required Cantilever Depth:	D(cant)=	1.79	IN
Comparisons With Required Sections:			
Section Modulus:	Sreq=	7.0	IN3
	S=	7.5	IN3
Area:	Areq=	3.8	IN2
	A=	8.2	IN2
Moment of Inertia:	Ireq=	20.3	IN4
	I=	20.7	IN4



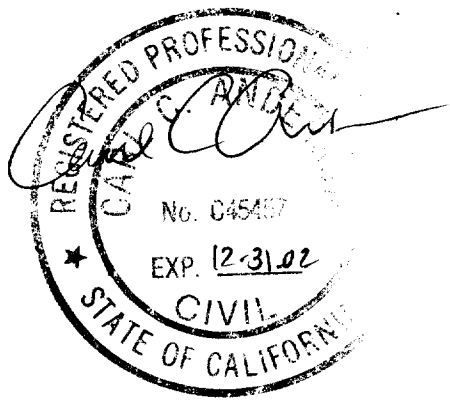
ONANIAN RES. #9 DUMFRIES CT.

Roof Rafter[94 UBC (91 NDS)] Ver. V4051796
By: CCA , Anderson Engineering Consultants on: 09-30-1998

Project: ONANIAN - Location: 2X6 @ 16" O.C. - PORCH

Summary:
1.50 IN x 5.50 IN x 15.0 FT (Actual 17.366 FT) @ 16.00 O.C. / #2 - DOUGLAS FIR-LARCH - Dry Use
Section Adequate By: 3.1% Controlling Factor: Moment of Inertia / Depth Required 5.44 In

Deflections:			
Dead Load:	DLD=	0.45	IN
Live Load:	LLD=	0.52	IN = L/347
Total Load:	TLD=	0.97	IN = L/186
Rafter End Loads and Reactions:	LOADS:	RXNS:	
Upper Live Load:	104 PLF	139 LB	
Upper Dead Load:	88 PLF	118 LB	
Upper Total Load:	192 PLF	256 LB	
Lower Live Load:	138 PLF	185 LB	
Lower Dead Load:	120 PLF	160 LB	
Lower Total Load:	259 PLF	345 LB	
Upper Equiv. Tributary Width:	UTWeq=	7.525	FT
Lower Equiv. Tributary Width:	LTWeq=	10.019	FT
Rafter Data:			
Interior Span:	L=	13.0	FT
Cantilever Span:	CS1=	2.0	FT
Live Load Deflect. Criteria:	L/	240	
Total Load Deflect. Criteria:	L/	180	
Rafter Spacing:	SPC=	16.00	IN O.C.
Rafter Loads:			
Roof Live Load:	LL=	16	PSF
Roof Dead Load:	DL=	12	PSF
Rafter Pitch:	RP=	7.00	: 12
Rafter Unbraced Length:	Lu=	0.0	FT
Roof Duration Factor:	Cd=	1.25	
Slope Adjusted Spans And Loads:			
Interior Span:	Ladj=	15.1	FT
Cantilever Span:	CS1adj=	2.3	FT
Rafter Live Load:	wL=	16	PLF
Roof Loaded Area:	RLA=	20	SF
Roof Live Load Method: 1			
Rafter Dead Load:	wD=	14	PLF
Rafter Total Load:	wT=	30	PLF
Properties For: #2- DOUGLAS FIR-LARCH			
Bending Stress:	Fb=	875	PSI
Shear Stress:	Fv=	95	PSI
Modulus of Elasticity:	E=	1600000	PSI
Stress Perpendicular to Grain:	Fc_perp=	625	PSI
Adjusted Properties			
Fb' (Tension):	Fb'=	1635	PSI
Adjustment Factors: Cd=1.25 Cf=1.30 Cr=1.15			
Fv':	Fv'=	119	PSI
Adjustment Factors: Cd=1.25			
Design Requirements:			
Maximum Moment(Interior Span):	Mcent=	824	FT-LB
At Location(From Upper Support):	X=	7.442	FT
Moment At Cantilever:	Mcant=	80	FT-LB
Maximum Shear:	Vmax=	229	LB
Shear At Peak:	Vpeak=	221	LB
Required Cantilever Depth:	D(cant)=	1.53	IN
Comparisons With Required Sections:			
Section Modulus:	Sreq=	6.1	IN3
	S=	7.5	IN3
Area:	Areq=	2.9	IN2
	A=	8.2	IN2
Moment of Inertia:	Ireq=	20.2	IN4
	I=	20.7	IN4

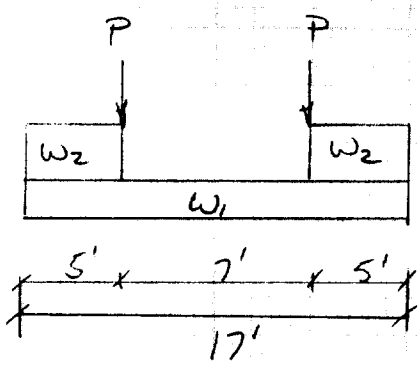


Anderson Engineering Consultants

Project: ONANIAN RES. Job No. _____ Sheet 3 of 3
9 DUMFRIES CT.,

Designed By: CCA Checked By: _____ Date: 9-29-98

REAR PATIO BEAM



w_1 = (DL 12(2') + LL 16(2') + BM WT 10 PLF) = 66 PLF

w_2 = $12(13'/2) + 16(13'/2)$ = 182 PLF

$P = (12(4') + 16(4'))\ 7'/2$ = 392#

By HP41CV PROGRAM:

M_{MAX} @ MIDSPAN = 79,131 #"

Δ_{MAX} " = 0.55"

V_{MAX} @ END = 1853#

$f_b = \frac{M}{S} = \frac{79131}{73.83}$ = 1,072 psi

$F_b = 875(1.25)(1.1)$ = 1,200 psi > 1,072 psi ok

V ok By INSPECTION

Δ = .55" < $\ell/180$ = 1.13" ok

∴ 4x12x17' DF #2 ok

REGISTERED PROFESSIONAL ENGINEER
CARL C. ANDERSON
No. C45457
EXP. _____
CIVIL
STATE OF CALIFORNIA

57 Plumwood Court Chico, CA 95928 Bus / FAX (530) 343-0500