

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0009960
Insp Area: 2

Site Address: 6319 NORTH POINT WY SAC
Parcel No: 030-0790-025

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

CONTRACTOR
FRID B CURTIS
7475 14TH AV
SACRAMENTO CA 95820

OWNER
MAR JOSEPH & RUTH
6319 NORTH POINT WY
SACRAMENTO CA 95831

ARCHITECT

Nature of Work: TEAR OFF & REROOF WITH LIGHT WEIGHT 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 159577 Date 8/25/00 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 _____

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 8/25/00 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 LEGION INSURANCE COMPANY Policy Number WC1203179 Exp Date 11/11/2000

(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 8/25/00 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.

ISSUED

JUG 25 2000

SCHOEN ENGINEERING
9524 BEDINGTON WAY
SACRAMENTO, CA 95827
(916) 369 6866

Licensed by the California State
Board for Engineers and Land Surveyors
LIC.# C042913



REVIEWED BY
Schoen
8/24/00
O.K.

July 23, 2000

Clyde Scherer
Curtis Roofing
7475 14th Avenue
Sacramento, CA 95820

SUBJECT: Roof inspection at 6319 North Point Way, Sacramento, CA 95820



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Dear Clyde

On July 13th 2000 I inspected the roof structure of the residence at the above mentioned address. The roof was of standard construction with 2x6 Douglas fir No. 2 rafters @ 2' o.c. with a max span of 14' in the attic areas of the house. The false vaulted area of the family room had a 4x12 full dimension ridge beam spanning 17'-3" that supported the vault joists and the purlin in the back slope of the main wing of the house. The garage rafters spanned 10'-10".

the following modifications need to be made prior to reroofing:

* The purlin over the front slope of the main wing of the house above the living room is not adequately braced because it is too far away from the central load bearing wall. In this area a new 2x8 Douglas fir No. 2 purlin should be installed in approximately 15' from the exterior wall and braced off of the central load bearing wall with 2x4 braces 6' o.c.. Then new 2x8 Douglas fir No. 2 rafters should be installed from the exterior wall to the new purlin and be supported by the new purlin. Attach the new 2x8 rafters to the existing 2x6 rafters with 16d common nails @ 16" o.c.(it may be necessary to remove the existing purlin to do this)(see sketch and plan for location and brace details)

X ~~the garage fire wall is overspan. This rafter will be braced off of the garage fire wall so as to reduce the span to 12'.~~

✓ * In the garage the ridge is not properly supported by the existing framing. To support the ridge it will be necessary to brace both ends. At the end where the main wing hip rafter and the valley rafter meet brace the ridge with a double 2x4 brace off of the garage fire wall. At the front end of the ridge where the two garage hip rafters meet install a 1-3/4"x14" Microlam between the side walls of the garage and brace the ridge from the Microlam(see plan and sketch for location and details). If Microlam falls with in 4" of existing wall stud where it rests on the bearing wall, double the stud. If not install a 4x4 post under the Microlam.

* Along the main wing of the house double the existing ridge braces and tie the rafters across the top of the ridge with Simpson MST18 steel ties with 5-10d common nails to each

rafter.(see plan and detail sheet).

It is my finding that this structure is adequate for the following : ½" Plywood or OSB installed over the existing skip sheathing; 30lb. tarred felt; 1x2 batts; Concrete tile weighing 6 lbs./sq.ft..

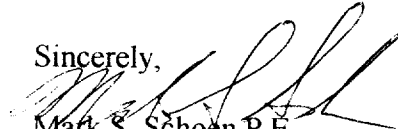
NOTE: it is possible when reroofing that the increased load to structural elements also supporting wall, ceiling and floor finishes could cause some minor cosmetic cracking of these finishes. This is typical of wood framed structures and does not of itself indicate structural inadequacy of these members.

This report deals with the structural adequacy of roof supporting members that were readily observable. It does not address any structure that was covered by wall finishes, buried in the ground or was otherwise not observable. Any such structures were assumed to conform to standard construction specifications in the Uniform Building Code. Also, it does not address any existing deflection or warping of roof surfaces, nor is it guaranteed that any structural modifications that may be listed in this report will remove such deflections or warping. The repair of such deflections or warping to improve architectural appearance is at the option of the building owner and the roofing contractor.

I would like to thank you for allowing me to provide my services in this matter. Please let me know if I may be of further assistance.

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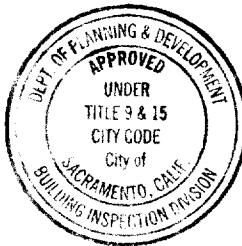
Sincerely,



Mark S. Schoen P.E.

MSS:mss

51 N. 2000 CORPORATE



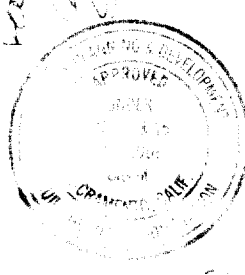
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USE 2x6 BRACKETS
ALL BRACKETS
11" LONG

1400 CALIFORNIA
1000 NORTH POINT WAY
SACRAMENTO CA 95831



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2x6 BRACKETS
2x6 BRACKETS
2x6 BRACKETS
2x6 BRACKETS

DOUBLE BRIDGE BRACKETS & TIE BRACKETS ACROSS TOP OF RIDGE

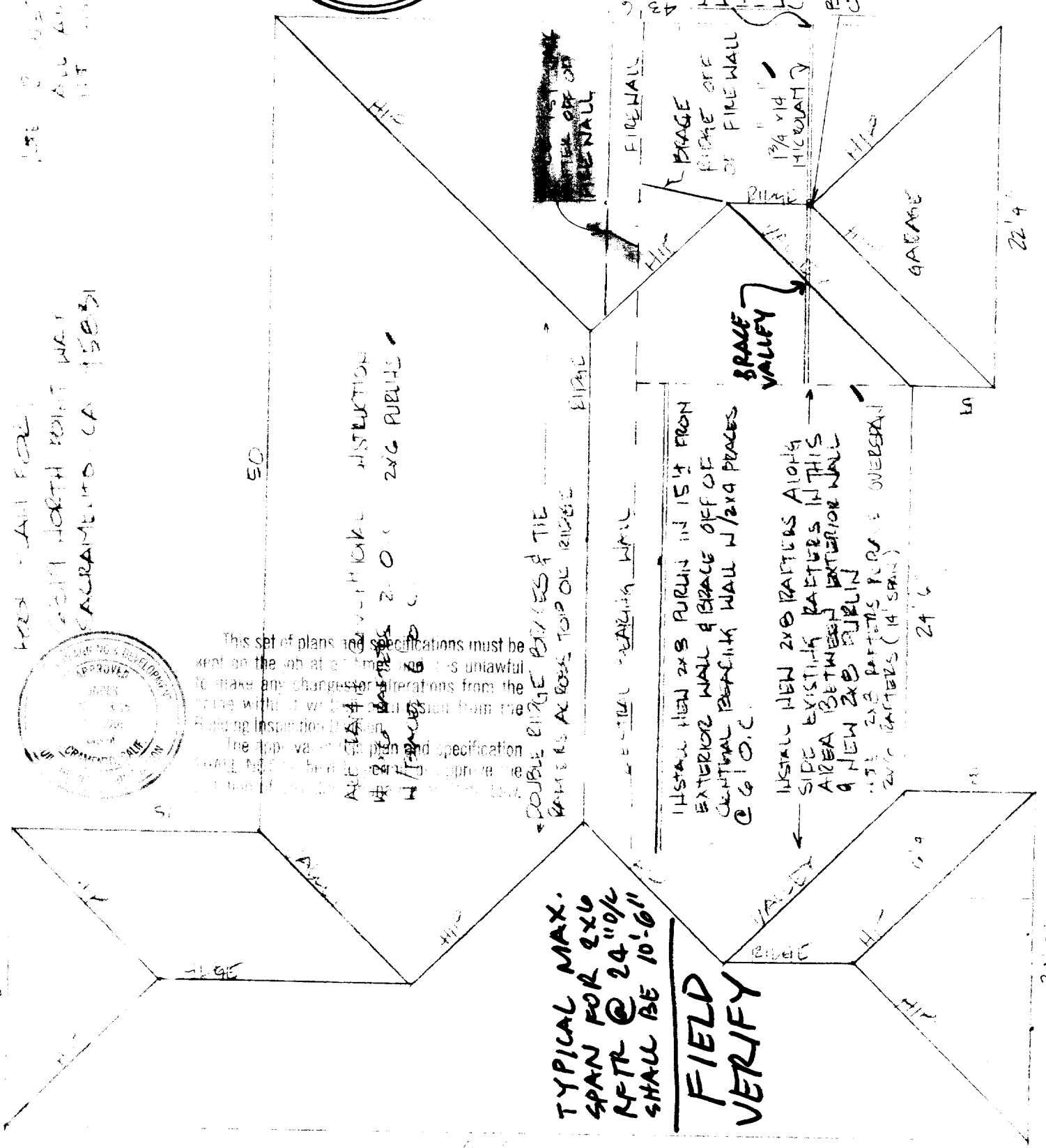
TYPICAL MAX. SPAN FOR 2x6 RFT @ 24" O/C SHALL BE 10'-6"

FIELD VERIFY

INSTALL NEW 2x8 PURLIN IN 15" FROM EXTERIOR WALL & BRACE OFF OF CENTRAL BRICK WALL W/ 2x4 BRACES @ 6' O.C.

INSTALL NEW 2x8 BRACKETS ALONG SIDE EXISTING BRACKETS IN THIS AREA BETWEEN INTERIOR WALL & NEW 2x8 PURLIN. USE 2x8 PARTS PURCHASE OVERSIZED 2x8 BRACKETS (14' SPAN)

SPACE VALLEY



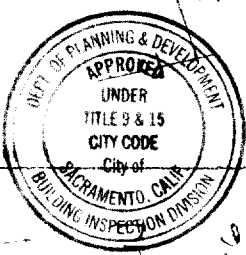
NOTE: IF MICROPILES WITHIN 4' OF STUD WOULD STUD, IF NOT WITHIN 4' IN WALL UNDER MICROPILES (BOTH SIDES)

BRACE BRIDGE OFF OF MICROPILES HERE

22'4"

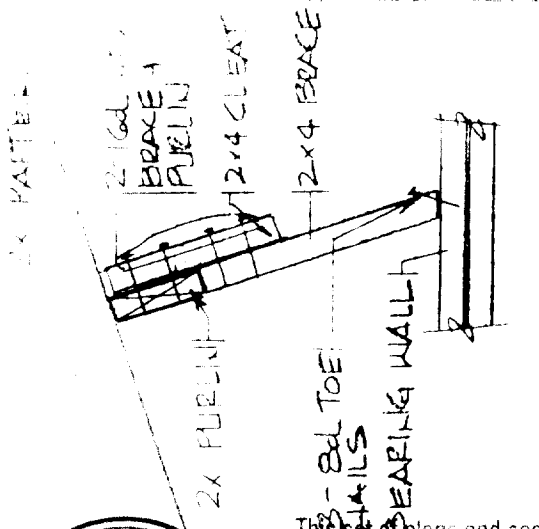
24'6"

21'2"

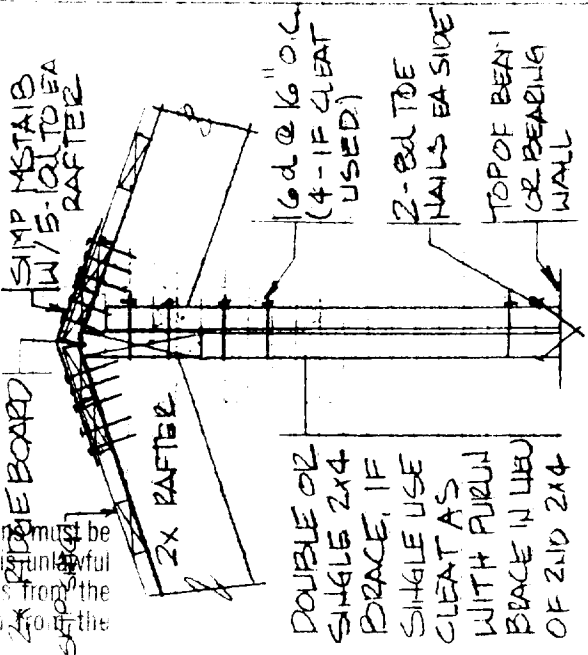


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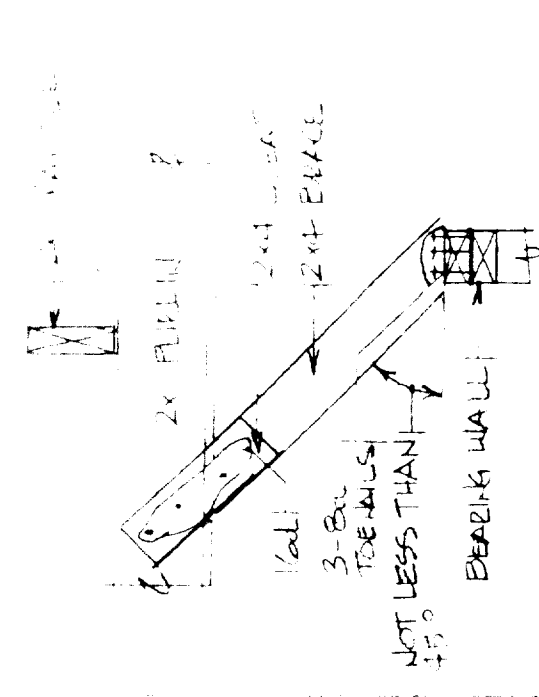
The approval of this plan and specification SHALL NOT be held to result in approval or violation of any code or ordinance or State Law.



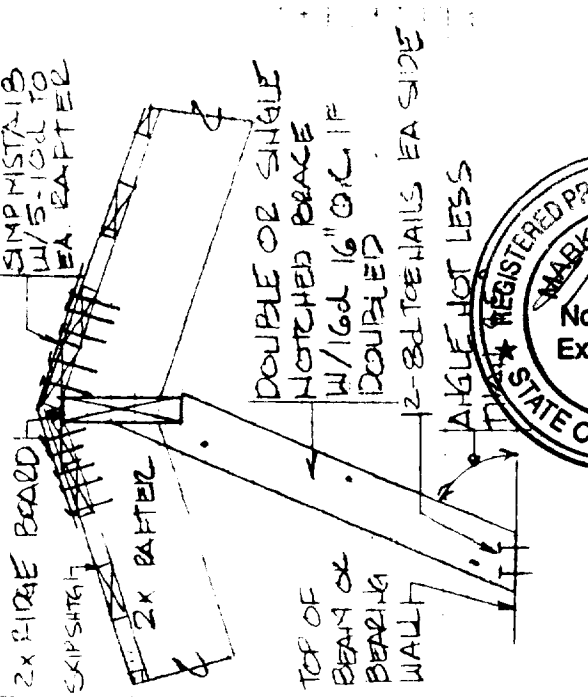
CLEATED PURLIN BRACE (END VIEW)



CLEATED PURLIN BRACE (SIDE VIEW)

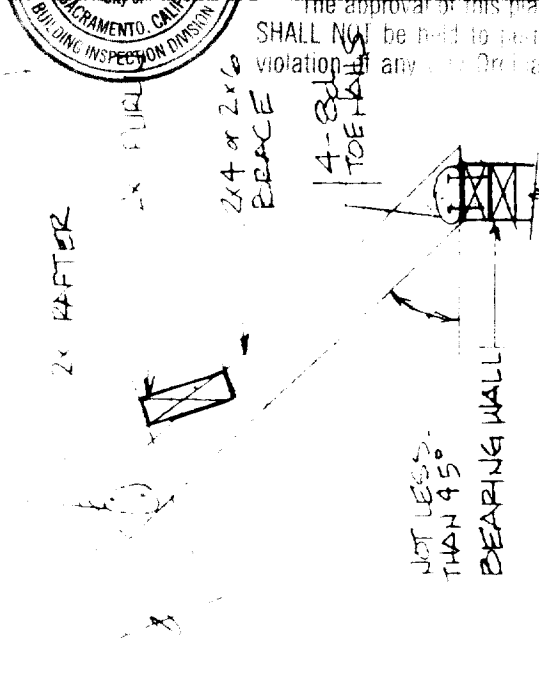


NOTCHED PURLIN BRACE

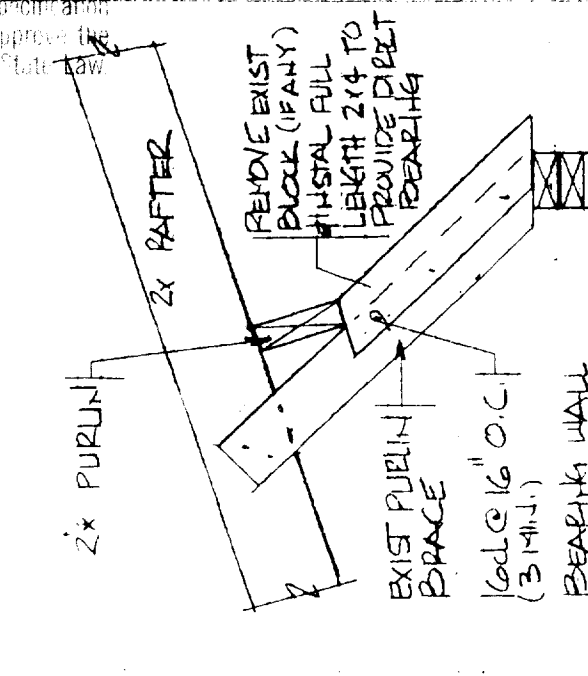


EXISTING BRACE MODIFIED FOR DIRECT BEARING

RIDGE BRACE W/ BEARING WALL NOTCHED RATHER THAN BEARING WALL DISPLACED TO SIDE OF RIDGE DIRECTLY UNDER RIDGE



NOTCHED PURLIN BRACE (END VIEW)



NOTCHED PURLIN BRACE (SIDE VIEW)

EXISTING BRACE MODIFIED FOR DIRECT BEARING

RIDGE BRACE W/ BEARING WALL NOTCHED RATHER THAN BEARING WALL DISPLACED TO SIDE OF RIDGE DIRECTLY UNDER RIDGE

(MAY BE TRIMMED TO CLEAR ROOF LINE.)

3/4" x 14" MICROLAM

A-35 CLIP (ON BACK SIDE)

INTERIOR FIRE WALL

2x4 BRACE FOR PURLIN, RAFTER, BARGE, VALLEY OR HIP RAFTER

NOTCHED & ATTACHED W/ A-34 CLIP

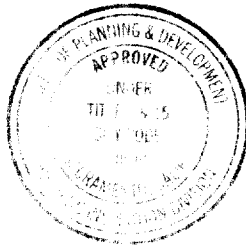
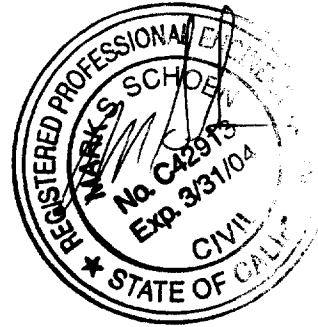
3/4" x 14" MICROLAM

BRACE TOP OF MICROLAM 2" O.C. FROM OTHER STRUCTURE & ATTACH W/A-34

NOTE: BRACE MAY TIE IN FROM THE SIDE OR GO OVER THE TOP OF THE MICROLAM

45° MAX BRACE ANGLE

NOTE: AS WITH PURLIN AND RIDGE BRACES, VALLEY & HIP RAFTER BRACES SHOULD PROVIDE DIRECT BEARING SUPPORT. (SEE PURLIN BRACE DETAILS)



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GARAGE ROOF SUPPORT BEAM

EXIST. 2x4 RAFTER

EXIST. 2x6 TIE

A-35 CLIP (ON RAKE SIDE)

EXIST. EXTERIOR WALL

Calculation for the required section modulus and moment of inertia for simple span wood beams. Dead load (dl) and Live load (ll) are in pounds per square ft., Spans (l) and Tributary load length or spacing (sp) are in ft., Section moduli are in inches cubed and Moments of inertia are in in⁴. Allowable stress (Fy) is in lbs./sq.in.



POINT LOADED BEAM AT GARAGE HIP

Superimposed dead and live loads

Tile dead load: $DL_t := 7$ Live load: $LL := 16$
 Rafter spacing: $sp := 2$ Rafter dead load: $Rdl := \frac{2}{sp}$
 Skip shtg. dead load: $skshtg := 1$ Plywood felt & batts dead load: $ply := 1.8$
 Ceiling dead load: $clg := 0$ msl. dead load: $msl := 0$ $ta := \frac{21.67 \cdot 16}{4}$
 Total dead load $dl := DL_t + Rdl + skshtg + ply + clg + msl$ $dl = 10.8$ Trib area: $ta = 86.68$
 Length $l := 21.67 \cdot 12$

Point load $pl := (dl + ll) \cdot ta$ Point load live load only: $pld := ll \cdot ta$

Application of point load $a := \frac{l}{2}$ $b := l - a$

$Fy := 2600 \cdot 1.25$ $E := 1900000$ $Fv := 285 \cdot 1.25$

End reactions $R1 := pl \cdot \frac{b}{l}$ $R1 = 1161.512$ $R2 := pl \cdot \frac{a}{l}$ $R2 = 1161.512$

A min. required = $R1 \cdot \frac{3 \cdot l}{2 \cdot Fv} = 4.891$ $R2 \cdot \frac{3 \cdot l}{2 \cdot Fv} = 4.891$

S min. required = $pl \cdot a \cdot \frac{b}{l \cdot Fy} = 46.468$

I min. required = $pl \cdot a \cdot b \cdot (a + 2 \cdot b) \cdot \frac{(3 \cdot a \cdot (a + 2 \cdot b))^5}{27 \cdot E \cdot l} = 310.036$

Beam section properties: $w := 1.75$ $d := 14$

$A = w \cdot d$ $S := w \cdot \frac{d^2}{6}$ $I := w \cdot \frac{d^3}{12}$

 $A = 24.5 > 5.9$ $S = 57.167 > 46.5$ $I = 400.167 > 310$ therefore O.K.

Actual deflections: $pl \cdot a \cdot b \cdot (a + 2 \cdot b) \cdot \frac{(3 \cdot a \cdot (a + 2 \cdot b))^5}{27 \cdot E \cdot l} = 1.119$



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 2x8 Douglas fir No. 2 rafter

$E_w := 1600000$ $F_b := 875$ $C_d := 1.25$ $C_f := 1.2$

$1x2x6 := 34$

$C_t := 1.15$ $F_{bp} = F_b \cdot C_d \cdot C_f \cdot C_t$ $F_{bp} = 1509.375$

$h := 1.5$ $d := 7.25$ $I_{x2x8} = b \cdot \frac{d^3}{12}$ $S_{x2x8} := b \cdot \frac{d^2}{6}$ $Stiff_{2x8} := I_{x2x8} \cdot E_w$

Superimposed dead and live loads:

Tile dead load: $DL_t = 7$ Live load: $LL = 16$

Rafter spacing: $sp = 2$ Rafter dead load: $Rdl := \frac{2.84}{sp}$

Skip shtg dead load: $skshtg = 1$ Plywood felt & batts dead load: $ply := 2$

Ceiling dead load: $clg := 0$ misc. dead load: $msl := .0$

Structure roof dead load: $DL_{ext} := Rdl + skshtg + ply + clg + msl$

Check maximum span based on deflection limit of L/240 for rafters w/ceiling

L/180 for rafters w/o ceiling:

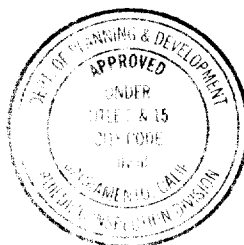
(Note: The formula used to calculate allowable span for deflections is based on a two span continuous beam where rafters are continuous over a midspan purlin with live load on one span only and dead load on both spans otherwise it is based on a simple span condition)

Load: $wd = sp \cdot \frac{1}{12} \cdot ((DL_{ext} + DL_t) + LL)$ $ws := sp \cdot \frac{1}{12} \cdot ((DL_{ext} + DL_t) + LL)$

$L_{maxd} := \frac{77 \cdot Stiff_{2x8}}{1180 \cdot wd} \cdot \frac{1}{12}$ $L_{maxd} = 16.042 > 15$ therefore O.K.

Check for maximum span based on stresses

$L_{maxs} = \sqrt{F_{bp} \cdot 8 \cdot \frac{S_{x2x8}}{ws} \cdot \frac{1}{12}}$ $L_{maxs} = 15.528 > 15$ therefore O.K.



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Calculation for the required area, section modulus and moment of inertia for simple span wood beams. Dead load(dl) and Live load(ll) are in pounds per square ft., Spans(l) and Tributary load length or spacing(sp) are in ft., Areas are in sq.in., Section moduli are in inches cubed and Moments of inertia are in inches to the 4th power. Allowable stresses (Fy),(Fb),(Fv) are in lbs./sq.in. per 1991 U.B.C.

WOOD HEADER BEAM (VALLEY BRIDGE)

$$\begin{aligned}
 rdl &= 15 & rll &= 14 & rta &= \frac{38.5}{2} \cdot 61 & l &= 17.25 \\
 fdl &= 9 & fll &= 40 & fta &= \frac{0}{2} & rta \cdot l &= 202.558 \\
 wt &= (rta \cdot (rdl + rll) + fta \cdot (fdl + fll)) \cdot 1.3 & Cd &= 1.25 & Cf &= 1. \\
 Fb &= 1250 & Cr &= 1 & Fbp &= Fb \cdot Cd \cdot Cf \cdot Cr & Fwp &= 1700000 & Fv &= 95 \cdot Cd
 \end{aligned}$$

$$A_{min} \text{ required} = \frac{l \cdot \frac{wt}{2} \cdot \frac{3}{2}}{Fv} = 38.516$$

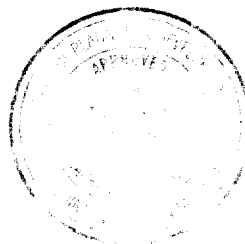
$$S_{min} \text{ required} = \frac{wt \cdot l^2 \cdot \frac{1.5}{Fbp}}{5} = 100.99$$

$$I_{min} \text{ required} = \frac{5 \cdot wt \cdot \frac{(l \cdot 12)^4}{12 \cdot 384 \cdot Ew \cdot l \cdot \frac{12}{240}}}{5} = 480.353$$

Check Beam properties.

$$\begin{aligned}
 CF &= \frac{12}{d} & A &= w \cdot d & S &= w \cdot CF \cdot \frac{d^2}{6} & I &= w \cdot \frac{d^3}{12} & Stiffw &= I \cdot Ew
 \end{aligned}$$

A = 72	> 52.7	S = 144	> 57	I = 864	> 260	therefore O.K.
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