

CITY OF SACRAMENTO

Permit No: 9806358

1231 I Street, Sacramento, CA 95814

Insp Area: 2

Site Address: 1160 ROBERTSON WY SAC

Sub-Type: ASFR

Parcel No: 0120202016

Housing (Y/N): N

CONTRACTOR

TUDOR CONSTRUCTION
330 TENAYA AV
SACRAMENTO CA

95833

OWNER

MCFARLAND BEVERLY N
1160 ROBERTSON WY
SACRAMENTO CA

95818

ARCHITECT

Nature of Work: REMEDIAL FOUNDATION REPAIR TO PREVENT DAMAGE FROM EXSTG TREE

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 5 License Number 429045 Date 7-9-98 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 hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 7-9-98 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:

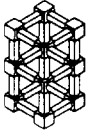
Carrier INS Policy Number 50306070

(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.



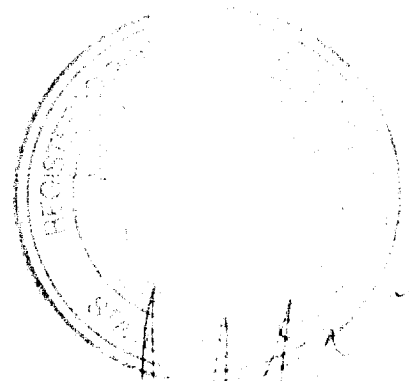
O'Connor Engineers, Inc.

Civil, Structural, Electrical & Forensic Engineering Services
P.O. Box 986, El Dorado, CA 95623 PHONE: (800) 341-5721 FAX: (916) 621-1099

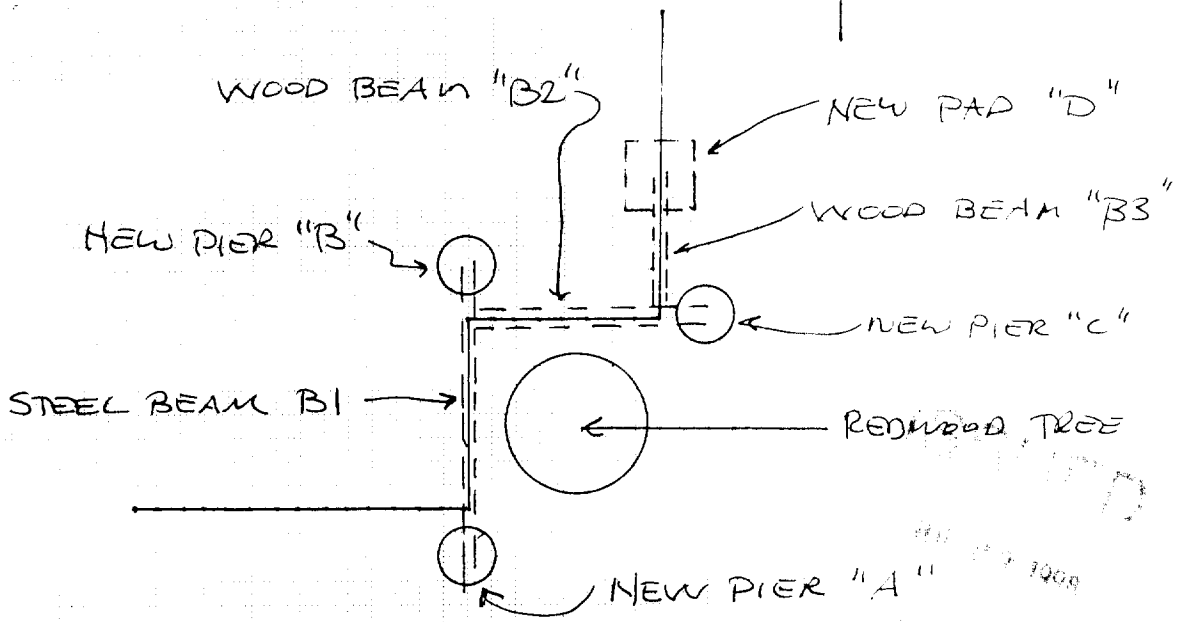
Date	6/20/98	Sheet	1	of	6
Job #	970337	By	mpo	Project	

DAVID McFARLAND RESIDENCE
 1160 Robertson Way
 Sacramento, CA
 Job # 970337

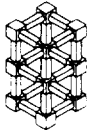
REMEDIAL FOUNDATION REPAIR
 REVISED DESIGN
 REF: PREVIOUS DESIGN REPORTS



Michael J. O'Connor
 NORTH



- STEEL BEAM B1 = TS 4x4 x 1/4 ASTM A500 GRADE B
- WOOD BEAM B2 = 4x10 PARALLEL STRAND LUMBER
- WOOD BEAM B3 = 4x10 DF #2



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New Wood BEAM "B3"

$$\text{SPAN} = 6 \text{ ft}$$

$$\text{LOAD} = 10\frac{1}{2}' \text{ ROOF @ } 30 \text{ psf}$$

$$+ 4' \text{ floor @ } 50 \text{ psf}$$

$$+ 9' \text{ wall @ } 15 \text{ psf} = 650 \text{ plf}$$

$$M = 1\frac{1}{8} \times 650 \times 6^2 = 2925 \text{ ft-lb}$$

$$S_r = 12M / 900 = 39 \text{ in}^3 \text{ — } 4 \times 10 \text{ DF \#2}$$

$$V = 650 \times (l/2 - d) = 1450 \text{ \#}$$

$$A_r = 1.5V / 95 = 23 \text{ in}^2 \text{ — ok for } 4 \times 10$$

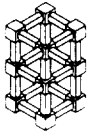
\therefore use $4 \times 10 \text{ DF \#2}$

$$\text{REACTION @ PAD "D"} = 3 \times 650 = 1950 \text{ \#}$$

\therefore underpin with $18" \phi \times 12" \text{ PAD}$

$$\text{CONNECTION TO BEAM "B2"} = 1950 \text{ \#}$$

\therefore use Simpson HU 4/10 hanger



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BEAM "B2"

$$\text{SPAN} = 8 \text{ ft}$$

$$\begin{aligned} \text{LOAD} &= 10' \text{ wall e } 15 \text{ psf} \\ &+ 1' \text{ floor e } 50 \text{ psf} \\ &+ 2' \text{ roof e } 30 \text{ psf} \\ &= 260 \text{ plf} \end{aligned}$$

$$\begin{aligned} M &= 12 \text{ plf}^2 / 2 \times 260 \\ &= 3170 \text{ ft lbs} \end{aligned}$$

$$S_r = 12 \times 3170 / 900 = 42.3 \text{ in}^3 \quad - \text{ ok for } 4 \times 10 \quad S = 49.9 \text{ in}^3$$

$$A_r = 1.5 \times 2746 / 95 = 43.3 \text{ in}^2 \quad - \text{ need } 4 \times 14$$

go to 4x10 PSL BEAM for higher
Shear capacity of 285 psi

\therefore use 4x10 PSL

PIER "C"

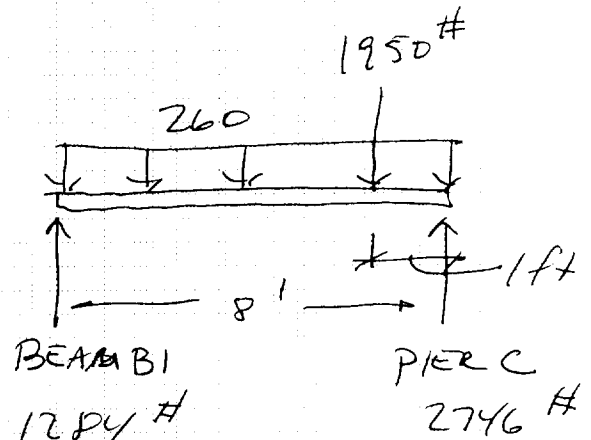
$$\text{LOAD} = 2746 \# \quad \text{Skin friction} = 1000 \text{ psf } 16 = 167 \text{ ft}^2$$

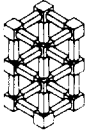
$$A = \cancel{2.746 \text{ ft}^2} \quad 2746 \# / 167 = 16.44 \text{ ft}^2$$

~~use 24" ϕ pier x 12" deep~~ USE 16" ϕ x 4' pier

$$\text{if we go to 6' deep, } \tau = 2000 \text{ psf, } A_r = 1.37 \text{ ft}^2$$

~~use 16" ϕ x 6' deep pier~~





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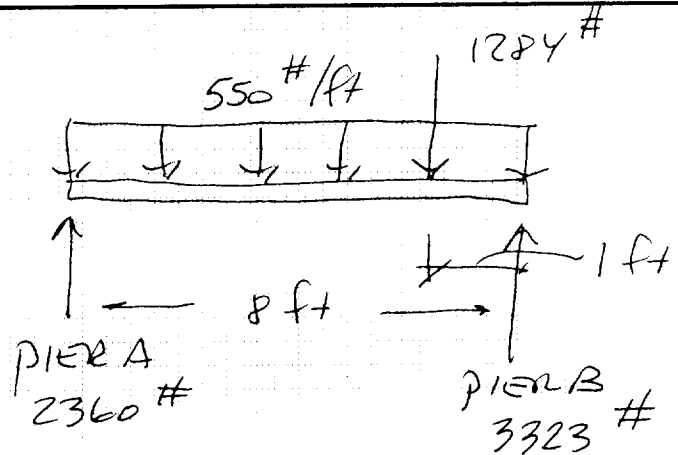
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Revised			

BEAM "B1"

Span = 8 ft

Load = 8' Roof @ 30 psf
 + 3 1/2' floor @ 50 psf
 + 9' wall @ 15 psf
 = 550 plf



$$M = 2360^2 / 2 \times 550 = 5063 \text{ ft-lbs}$$

$$S_r = 12M / (.66 \times 36,000) = 2.55 \text{ in}^3$$

use TB 4x4x1/4, $S = \text{~~3.5~~ } 4.11 \text{ in}^3 \text{ OK}$

BEAR 4x10 on TB 4x4x1/4

PIER "A"

Load = 2360 #

skin friction = $1000 \text{ #} / 6 = 167 \text{ psf}$

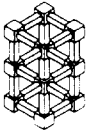
$$A = 2360 / 167 = 14.13 \text{ ft}^2$$

use 16" ϕ x 4' deep pier

PIER "B"

$$\text{Load} = 3323 \text{ #} \quad A = 3323 \text{ #} / 167 = 19.9 \text{ ft}^2$$

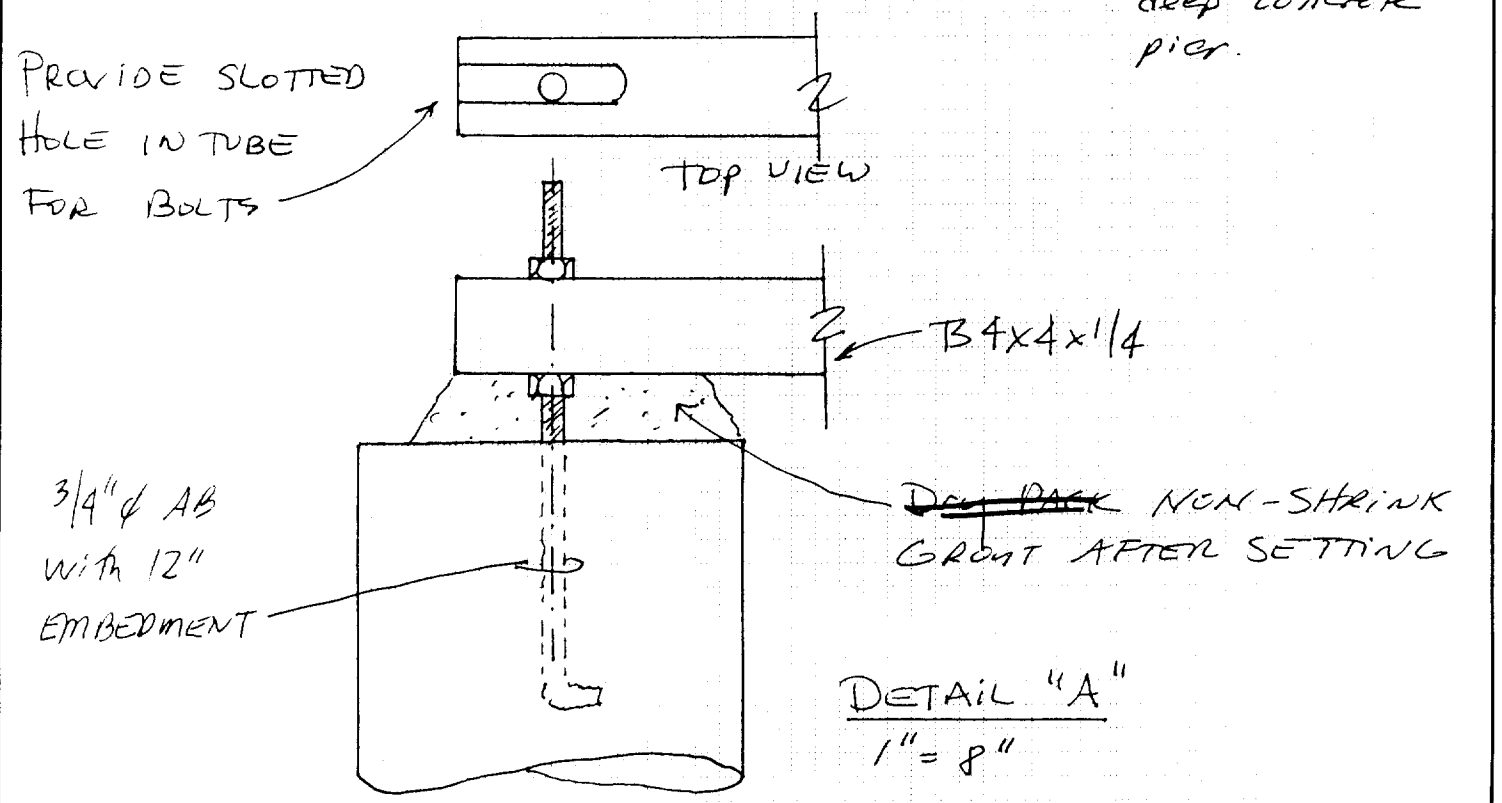
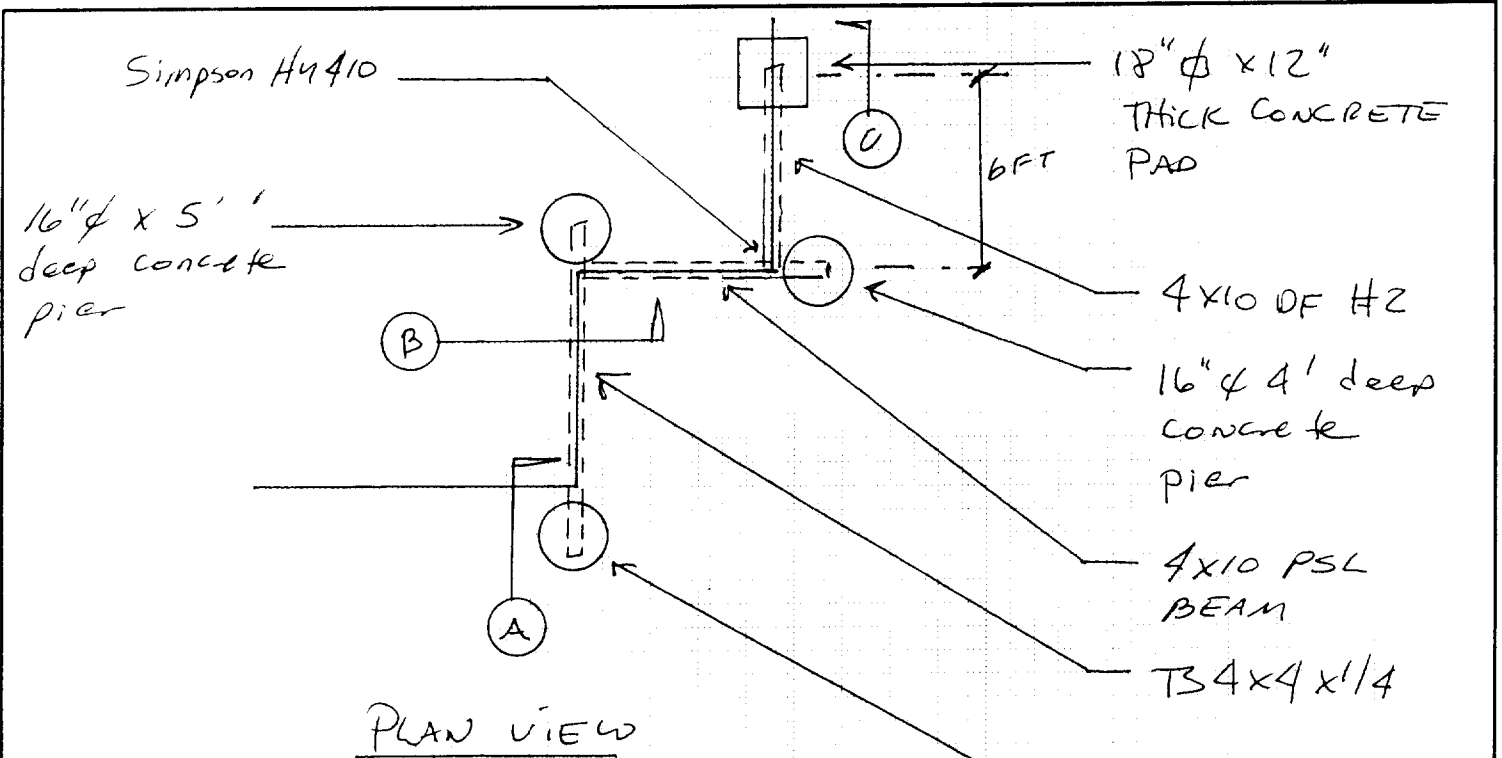
\therefore use 16" ϕ x 5' deep pier

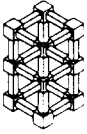


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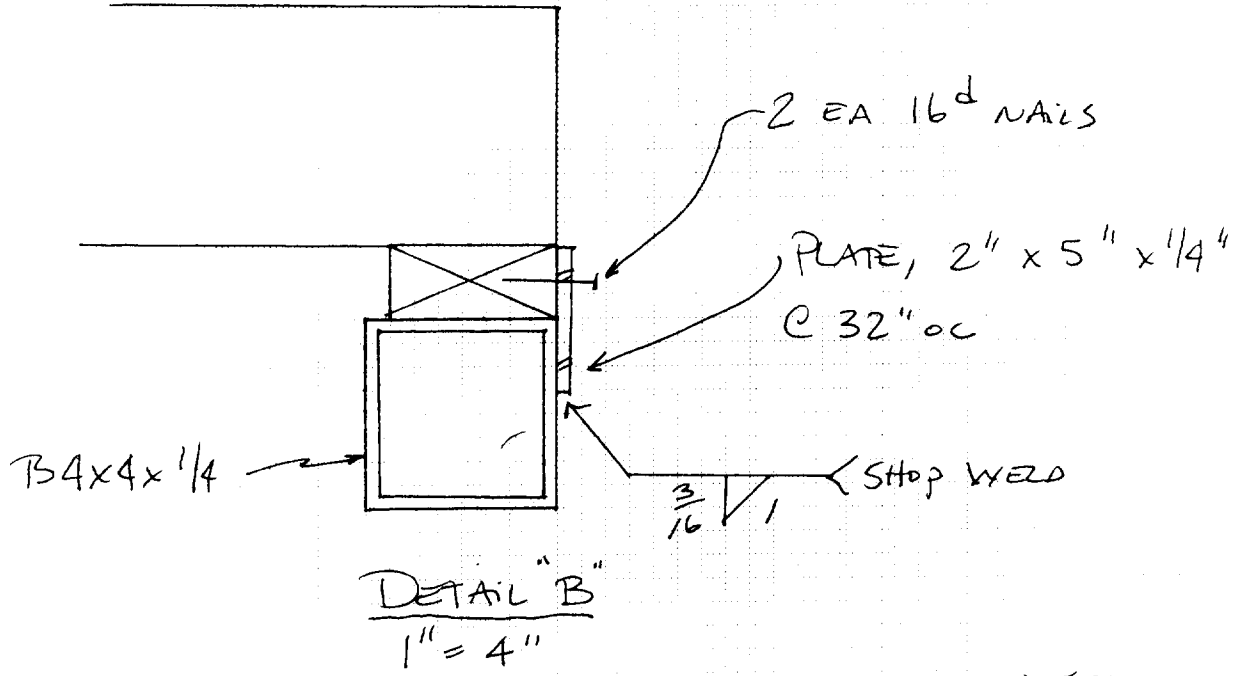




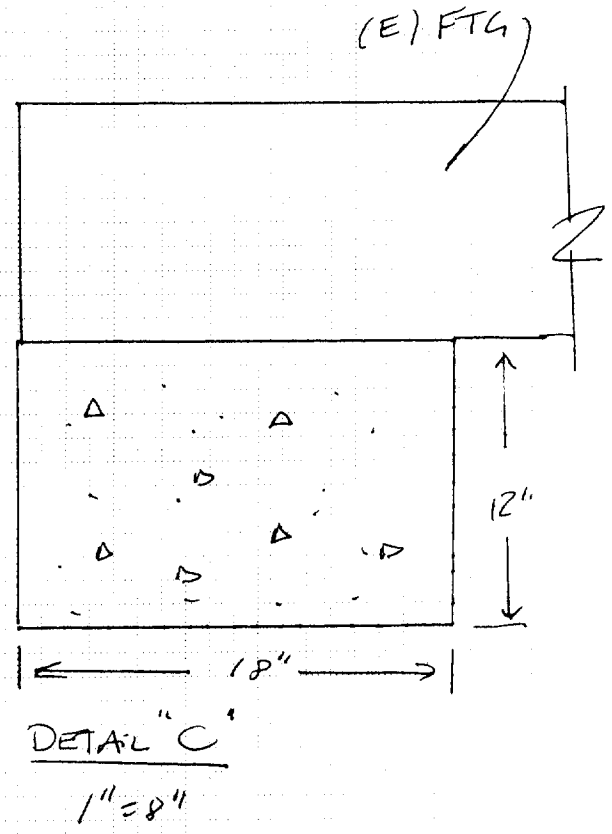
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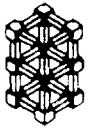
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UNDER PIN (E)
FOOTING e point
WHERE (E) FOOTING
IS CUT OFF THUS

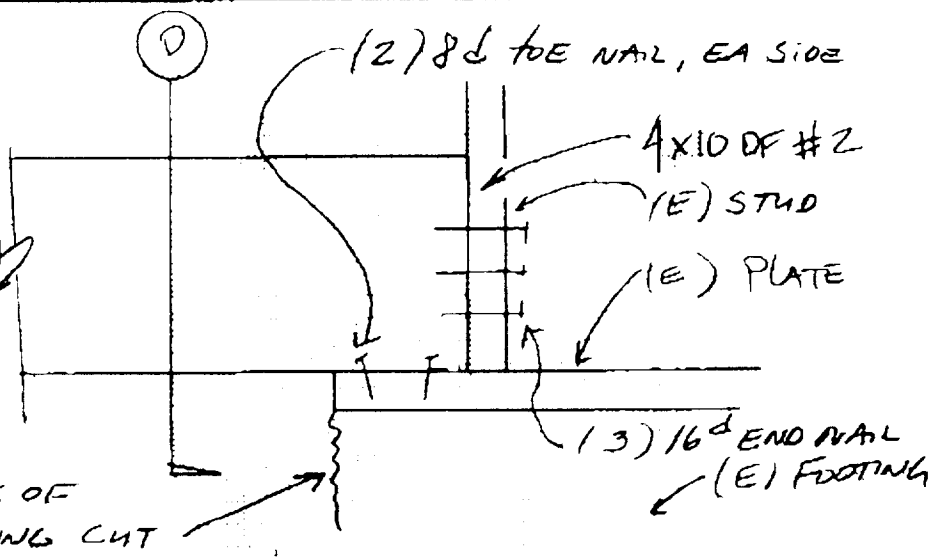




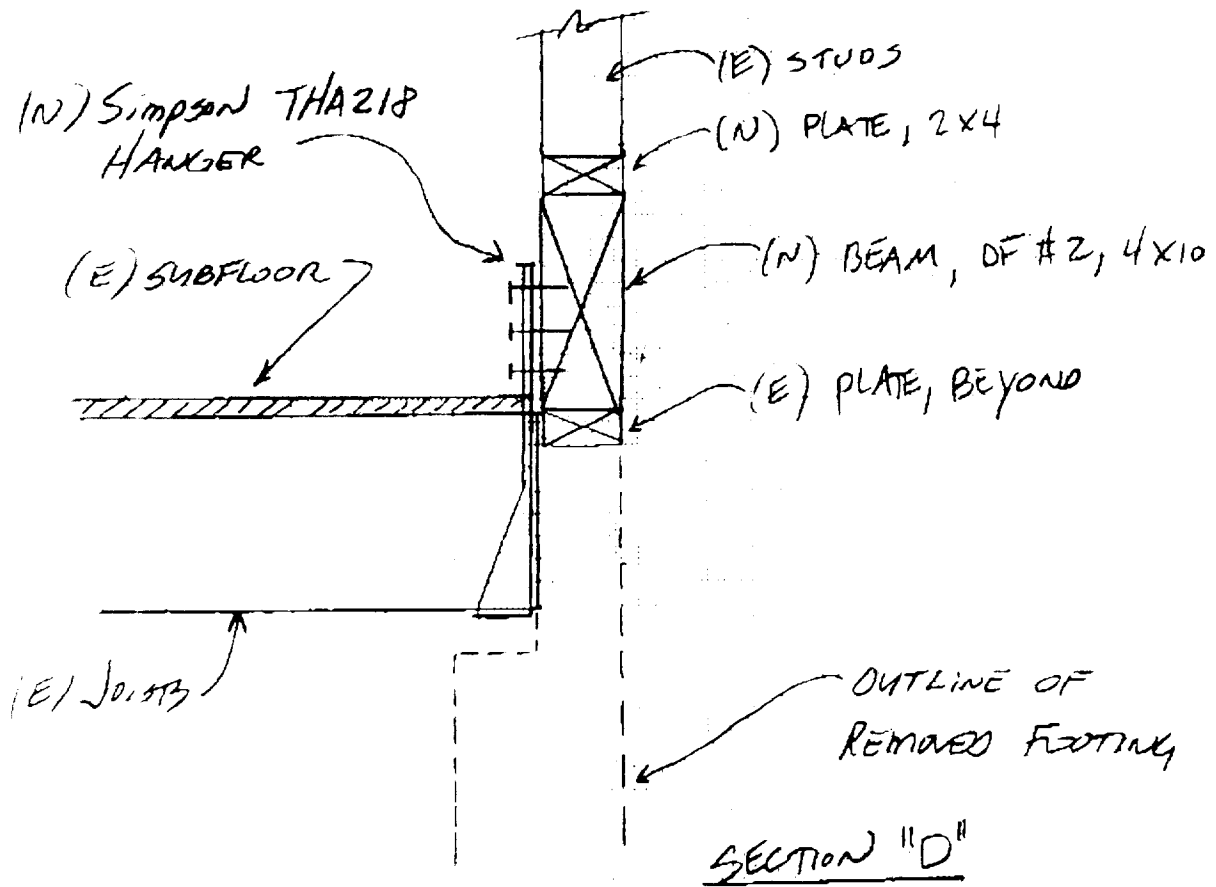
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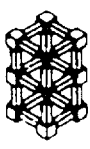
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DETAIL "C" @ BEAM B3



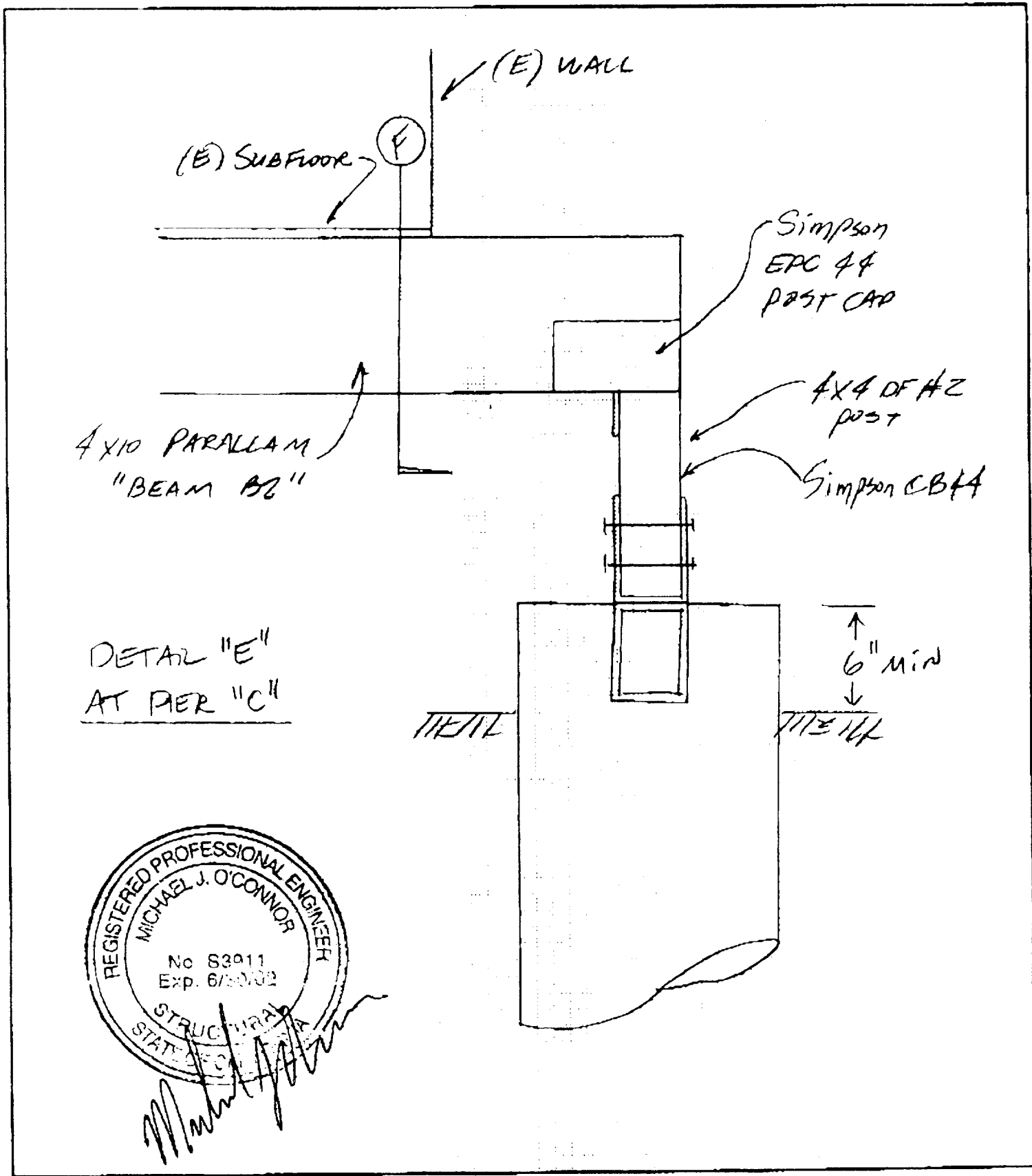
SECTION "D"

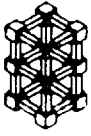


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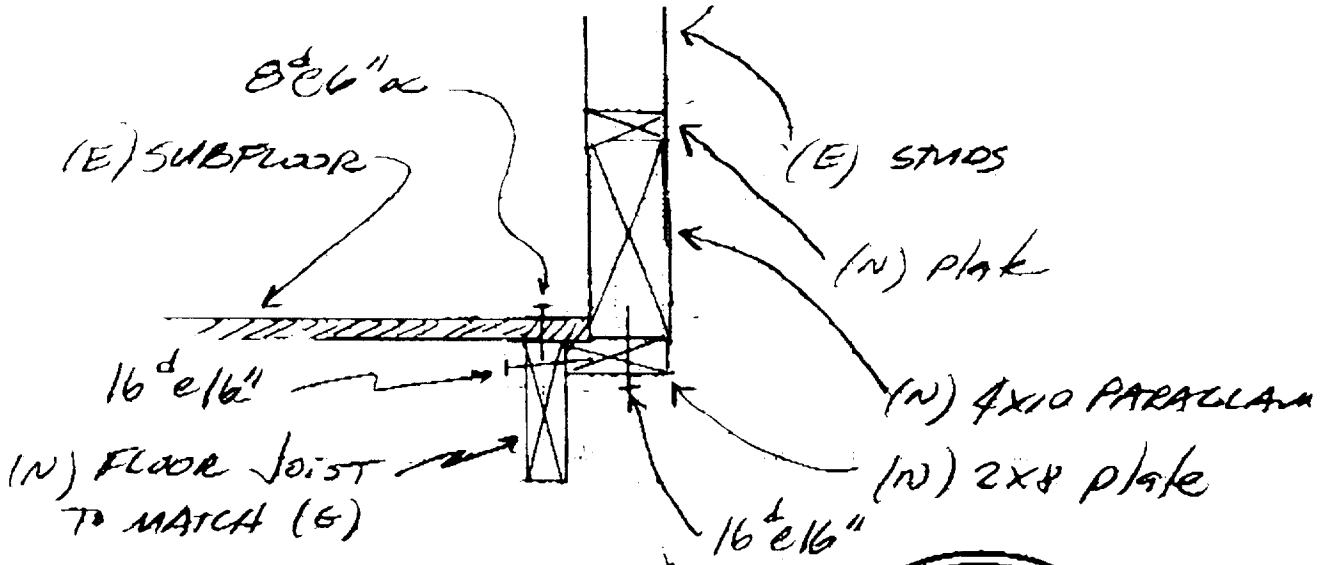




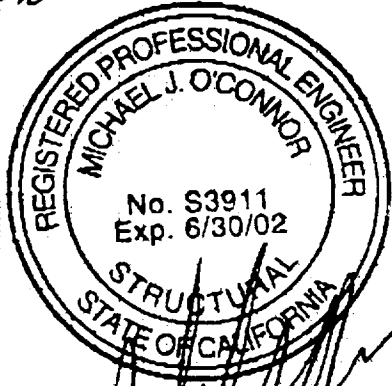
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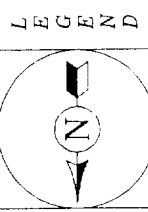
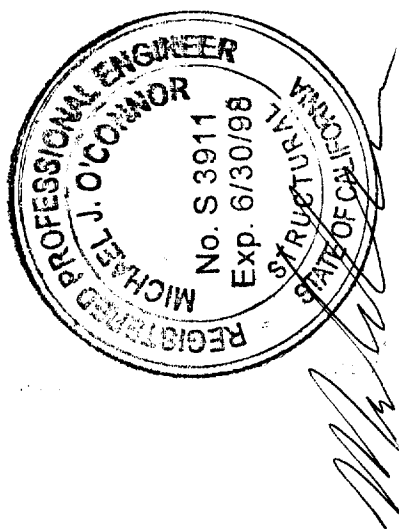
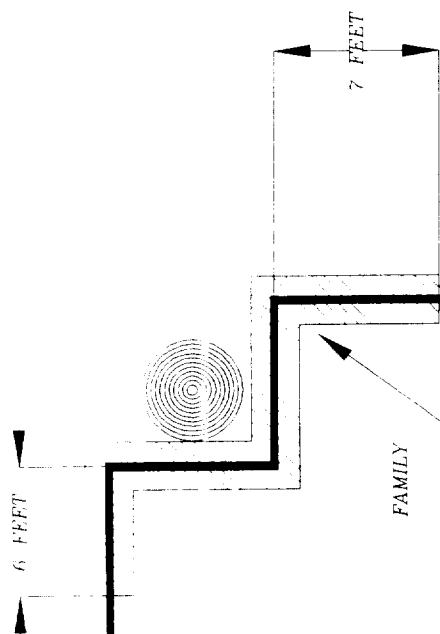
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DETAIL "F"



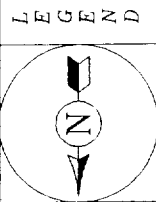
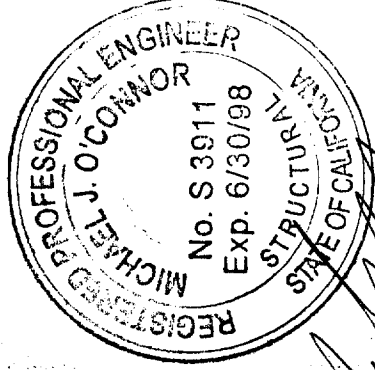
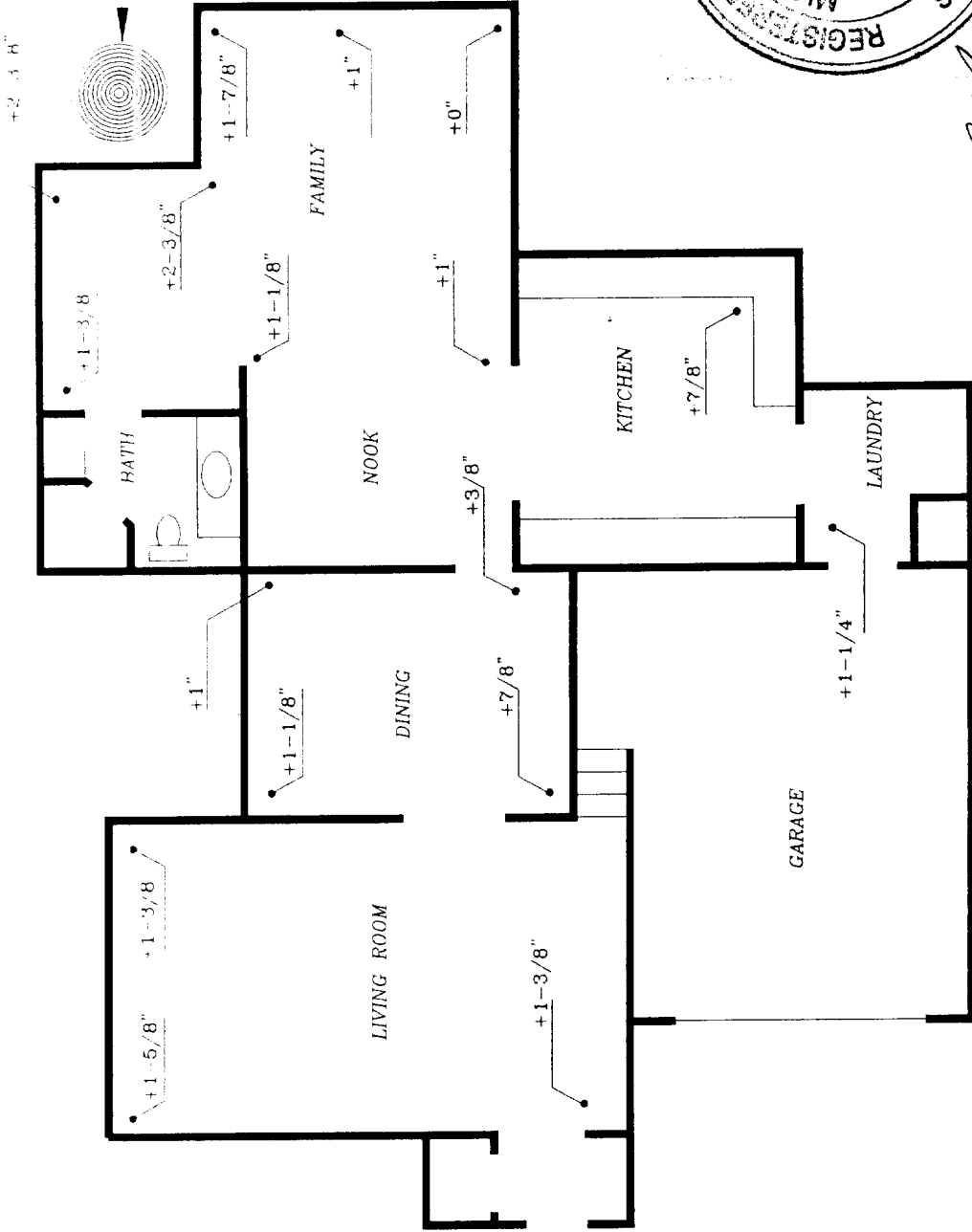
Michael J. O'Connor



O'CONNOR ENGINEERS, INC.
 P.O. BOX 986
 EL DORADO, CA 95623-0986
 800-341-5721

EXTENT OF DAMAGE		Technician: O'CONNOR	Job: McFARLAND
		Date: 4/24/97	Job Number: 970337

CALIFORNIA
COASTAL
REDWOOD



L E G E N D

O'CONNOR ENGINEERS, INC.
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 EL DORADO, CA 95623-0986
 800-341-5721

-3/4" Indicates The
 Floor Elevation
 Is 3/4" Below
 High Spot.

L E V E L S U R V E Y

Technician: O'CONNOR

Date: 4/24/97

Job: McFARLAND

Job Number: 970337