

B

Type

X

Plans

B- 111074

Permit Number

30361

Street Number

Seaview Rd

Street Name

 **TIM**

Community Code

109-480-010

APN

**SONOMA COUNTY
BUILDING INSPECTION**

INSPECTOR COPY

575 ADMINISTRATION DRIVE
SANTA ROSA, CA 95403-2884
TELEPHONE (707) 527-2237

OWNER
NAME: _____
MAILING ADDRESS: _____
CITY: _____ ZIP CODE: _____
TEL NO: _____

PROJECT
ADDRESS: 30361 SEA VIEW
CITY: _____
SUBDIVISION NAME: _____ UNIT NO: _____ LOT: _____ BLOCK: _____
ASSESSOR'S PARCEL NO: 109 - 480 - 10 -
NEAREST CROSS STREET: Timbercove Rd

CONTRACTOR
NAME: _____
ADDRESS: _____
CITY: _____ ZIP CODE: _____
TEL NO: _____
STATE LIC NO: _____ LIC CLASS: _____

DESIGNER
NAME: _____
ADDRESS: _____
CITY: _____ ZIP CODE: _____
TEL NO: _____

CERTAIN AREAS WITHIN SONOMA COUNTY MAY BE GEOLOGICALLY HAZARDOUS. YOU ARE INVITED TO REVIEW ANY GEOLOGIC DATA THAT THIS DEPT. HAS AVAILABLE TO AID YOU IN MAKING A DETERMINATION AS TO THE SUITABILITY OF A PROPOSED BUILDING SITE.

CONDITION OF SOIL AT JOB SITE: THE TRAPN LOCATION
 ORIGINAL ENGINEERED FILL LOOSE FILL

SITE REVIEW: Foundation has been poured & grade work up to 30'
on hillside
BY: [Signature] DATE: 10-4-91
this site is 6-8% at Dewell

REQUIRED REPORTS:
 GEOLOGY SOILS COMPACTION
FLOOD ZONE: YES NO
100 YR. FLOOD ELEV: _____

SEWER CONNECTION: _____ SANITATION ENGINEER: _____
APPROVED BY: _____ DATE: _____

SEPTIC TANK INSTALLATION: HEALTH DEPARTMENT
PERMIT NUMBER: 11-3131 OR CLEARANCE: 11220
DATE REC'D: 1/17/92 DATE ISSUED: 10/25/91

DESCRIBE WORK PROPOSED: SFD/Deck

LICENSED CONTRACTORS DECLARATION: I hereby affirm 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.

Contractor's Signature: _____

OWNER-BUILDER DECLARATION: I hereby affirm that I am exempt from the Contractor's 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, or repair any building prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9, commencing with Section 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by an applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500).

I, as owner of the property, or my employee, with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code). The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself, or through his own employees, provided that such improvements are not intended or offered for sale. However, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he 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 Contractor's License Law does not apply to an owner of property who builds or improves thereon, and contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.

I am exempt under Sec. _____, B & P.C. for this reason: _____

Owner's Signature: [Signature]

	NEW	ADDITION	ALTERATION	REPAIR	MOVING	OCC. CHG.
FLOOR AREA	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
GARAGE, CARPORT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DECK AWNING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TOTAL	109545					

FEES - Per Chapter 7, et seq. Sonoma County Code

<input type="checkbox"/> BUILDING	25089-H
<input type="checkbox"/> PLAN CHECK	47.00
<input checked="" type="checkbox"/> PLUMBING	47.00
<input type="checkbox"/> ELECTRICAL	25.00
<input type="checkbox"/> MECHANICAL	
<input type="checkbox"/> GRADING	
<input type="checkbox"/> SITE/SURVEY	25089-H
<input type="checkbox"/> PLANNING	1300
<input checked="" type="checkbox"/> FIRE - Subl. Analysis of 1/17/92	1090
<input type="checkbox"/> SEISMIC	1500
TOTAL \$	653

WORKER'S COMPENSATION DECLARATION: I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation, distributed to me, a copy thereof filed with the Building Inspection Department (Sec. 3800, Lab. C).

Policy No: _____ Insurance Co: _____ Expiration Date: _____

Applicant's Signature: _____

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE: 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.

Owner's or Contractor's Signature: [Signature]

CONSTRUCTION LENDING AGENCY: I hereby affirm 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: _____

APPLICANT

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK AUTHORIZED IS NOT COMMENCED WITHIN 180 DAYS, AND IS SUBJECT TO EXPIRATION IF WORK THEREUNDER IS SUSPENDED FOR 180 DAYS.

NAME: _____
ADDRESS: _____ CITY: _____ ZIP CODE: _____

I certify that I have read this application and state that the above information is correct, and that I am the owner or the duly authorized agent of the owner. I agree to comply with all County and State laws relating to building construction. I hereby authorize representatives of the County of Sonoma to enter upon the above-mentioned property for inspection purposes. If, after making the Certificate of Exemption from the Worker's Compensation provisions of the Labor Code I should become subject to such provisions, I will forthwith comply. In the event I do not comply with the Workmen's Compensation law, this permit shall be deemed revoked.

SIGNATURE: [Signature] DATE: 1/17/92

CONTRACTOR OWNER AGENT FOR CONTRACTOR AGENT FOR OWNER

APPROVED BY: WC 1-14-92 DATE: _____

DATE RECEIVED REC'D BY: 11-12-91 PREVIOUS PERMIT NO: _____ DATE CLEARED FOR ISSUANCE BY: 1-17-92

TYPE OF CONSTRUCTION: VR OCCUPANCY: R3

NO OF STORIES: 2

CERTIFICATE OF OCC: 016415 01/17/92E01

FINAL DATE: _____

INSPECTOR: _____

PLANNING DEPARTMENT

ZONING: AP-CC-B6 FILE NO: _____ ACRES: 1.44

EXISTING USE: UGIANT

PROPOSED USE: SFD/

YARDS FRONT: 20' YARDS SIDE: 100' YARDS REAR: 200'

PLANNING APPROVALS: _____

FOR PERMIT ISSUANCE: _____ DATE: _____

FOR OCCUPANCY: _____ DATE: 1/16/92

MACHINE SPACE FOR PERMIT FEE

PERMIT	0111074
BLDG.	\$505.25
BLDG.	\$42.00
BLDG.	\$42.00
BLDG.	\$25.00
PLANING	\$13.00
EQ PGM	\$10.90
BLDG.	\$15.00
MATTTL	\$653.15
CHECK	\$653.15

1-17-97 Expired B. Bauer

REMARKS: * COVERED PARKING WAIVED

* EXEMPT FROM COASTAL PERMIT

SOUND MITIGATION: REQUIRED EXEMPT

DEVELOPMENT FEES: REQUIRED EXEMPT

30361 SEA VIEW
306
MAP REFERENCE: 9-3
PERMIT NUMBER: 111074
INSPECTION AREA: 2

INSPECTION RECORD	DATE	NAME	REMARKS
SURVEY			
FOUNDATION FORMS - SET BACK	7-3-92		
SLAB			
UFER GROUND	3-3-92		
CONC BLOCK			
RETAINING WALLS			
MASONRY			
FIREPLACE - FOOTING <input type="checkbox"/>			
HEARTH <input type="checkbox"/> THROAT <input type="checkbox"/> CHIMNEY <input type="checkbox"/>			
UNDERFLOOR/SLAB ELEC			
UNDERFLOOR/SLAB MECH			
UNDERFLOOR/SLAB PLUMB			
UNDERFLOOR/SLAB FRAME			
ELEC ROUGH			
MECH ROUGH			
PLUMB ROUGH			
GAS TEST YARD 9-3-92 GDS HOUSE ()	4-2-93	BT O.C. R	
FRAME ROUGH			EGRESS WINDOW.
DIAPHRAGMS			
ROOF NAILING			
SHEAR WALLS			
HOLD DOWNS			
FRAMING			
CO			
RESH			
CRATCH			
BROWN			
FINING			
INFILTRATION CONTROL			
INSULATION ROOF <input checked="" type="checkbox"/> WALLS <input checked="" type="checkbox"/> FLOORS <input type="checkbox"/>	4-16-93 R		
WALL BOARD			
FIREWALLS			
GAS SERVICE EQUIP			
ELEC SERVICE EQUIP			
PANEL BOARDS			
SMOKE DETECTOR			
STAIRWAYS - HANDRAILS			
SUSPENDED CEILINGS			
FIRE DAMPERS			
RAMPS - RAILS			
HANDICAP REQ			
ENERGY REQ			
TEMP OCCUPANCY			
TEMP ELEC			
TEMP GAS			
FINAL			
FIRE DEPT			
HEALTH DEPT			
PLANNING			
ELEC METER AUTH			
GAS METER AUTH			
PLUMBING FINAL			
ELEC FINAL			
MECH FINAL			
GRADING FINAL			
SWIMMING POOL PRE-GUNITE			
PRE-DECK			
PRE-PLASTER			

5-28-92

4-2-93 BT O.C. R

8-10-92 LO

Progress 12-2-94
TEMP OCC REQ

4-16-93 R
8/26/93 R

2

PERMIT #

PLAN RETENTION REQUIRED
YES NO

SPECIAL INSPECTION REQUIREMENTS

Project Title Wilson Holmes Residence Project Address 30625 Timbercove Rd Carzade
Owner Brad Wilson, Pamela Holmes Address Same 95421

The following tests and inspections as indicated below, will be required as detailed in applicable project plans, specifications and the Uniform Building Code. These inspections are in addition to inspections performed by the Building Inspection Department.

Individuals performing these duties must be qualified, and approved by the Building Department prior to performing inspections. Individuals certified in a special inspection category by a qualified independent third party organization, and individuals employed by a recognized testing laboratory and under the direct supervision of a Civil Engineer are considered qualified and approved.

Special Inspection Reports shall be submitted to the Building Inspection Department, engineer or architect of record and other designated individuals. Reporting methods shall be as described in plans, specifications and the Building Code. A final inspection report will be required prior to occupancy of the building.

SPECIAL INSPECTIONS

 Grading, Excavation and Fills:
During fill placement, including subbase preparation, fill material and placement and compaction verification. During construction of buttress fills. During engineered grading procedures.

 Piling, Drilled Piers, Caissons:
During driving and testing of piles and construction of cast-in-place drilled piers or caissons.

 Reinforcing Steel:
During placement of all reinforcing steel, or inspection of all reinforcing prior to closing of forms and prior to concrete delivery. Excluding _____

 Prestressed Steel:
During placing of all tendons and prestressing steel, or inspection of all tendons and prestressing steel prior to closing of forms and prior to concrete delivery. Also during all stressing and grouting operations.

 Concrete:
During the taking of test specimens and placing of all reinforced concrete and pneumatically placed concrete. Excluding _____

 Concrete Frames, Ductile Moment-Resisting:
A specially qualified inspector, under the supervision of the person responsible for the structural design, shall provide continuous inspection of the placement of the reinforcing and concrete.

 MASONRY:
During placing of all masonry units, placement of reinforcement, inspection of grout space, immediately prior to closing of clean-outs, and during all grouting operations. Excluding _____

X Welding:
During all structural welding, including welding of reinforcing steel and shop welding. Excluding all fillet welds may be periodic inspection

 Welding of Ductile Moment-Resisting Steel Frames:
See plans and specifications for special requirements.

 High Strength Bolting:
During all bolt installation and tightening operations, or provide preconnection inspections combined with tension verifications for 10% of the bolts in each connection with a minimum of 2 bolts per connection. Excluding _____

 Gypsum Concrete, Reinforced:
During mixing and placing of Class B gypsum concrete.

 Insulating Concrete Fill:
During application of insulating concrete fill when part of a structural system.

 Spray Applied Fire Proofing:
During mixing and applying of all spray applied fire resistive material including inspection of surfaces to be covered prior to application.

Requirements Determined MEM & Assoc
Architect/Engineer

Requirements Approved _____
Building Department

J. Stenned
Date 1/17/92

Original: Building Department
Yellow: Architect/Engineer

Pink: Owner
Buff: Contractor/Permittee

SCHOOL DISTRICT CERTIFICATION OF COMPLIANCE

RETURN TO: Building Inspection Department, County of Sonoma, 575 Administration Dr., Room 114A, Santa Rosa, California 95403

FROM: School District Aut Ross Telephone No. _____

THIS CERTIFICATION IS VOID IF NOT RETURNED TO THE BUILDING INSPECTION DEPARTMENT WITHIN 30 DAYS AFTER THIS FORM IS SIGNED AND DATED BY THE SCHOOL DISTRICT

BOX #1 [To be completed by developer and verified by Building Department or Department of Planning and Land Use]

EFFECTIVE DATE _____ (Date Plan Check Fee Was Paid) BUILDING PERMIT NO. 25089-H

PROPERTY OWNER'S NAME Parvella Holmes Brad Wilson

PROJECT ADDRESS 30625 Timbercove Cazadero, CA 95421

If applicable: Mobilehome Park Name _____ Lot/Space Number _____

ASSESSOR PARCEL NO. 109-48-10

PROJECT DESCRIPTION - Include number of dwelling units. If agricultural, state specific use. Also include information regarding whether or not replacement dwelling, building used for religious purposes, private school or owned and occupied by governmental entity.

Building Type (circle one): Residential Commercial/Industrial Mobilehome/Manufactured Home

Remodeling with an increased square footage of _____

Square footage breakdown per residential unit: garage/carport _____ residential area 2100 #

open roofed-over area _____

Total No. of residential units _____ Total Square Feet of Eligible Building Area*: 2100 #

I declare under penalty of perjury under the laws of the State of California on behalf of _____ (Developer) that the information furnished in Box #1 is accurate and correct to the best of my knowledge.

Developer Signature _____

The County of Sonoma Building Department / Department of Planning and Land Use (circle one) on Nov-19, 1991, has verified the square footage and use information furnished by the above developer.

County of Sonoma Signature [Signature]

- * Residential Buildings are building occupancies for single and multiple family dwellings, apartments, condominiums, and residential hotels where the primary purpose is to provide a residence and not a service, such as health care.
* Commercial / Industrial Buildings are building occupancies other than residential. Includes those buildings where the primary purpose is to provide a service, such as health care. Also includes senior citizen housing (Civil Code 51.3), residential care facility for elderly [H&S Code 1569.2(j)], multilevel facility for elderly [H&S Code 15432(d)(9)], and adult only mobilehomes [Gov. Code 65995.2(a)]
* Eligible Commercial / Industrial Area is all chargeable covered and enclosed space calculated by the building department. Chargeable Covered and Enclosed Space includes all the covered and enclosed space within the perimeter of a commercial or industrial structure but does not include any storage areas incidental to the principal use of the development, garage, parking structure, unenclosed walkway, or utility or disposal area.
* Eligible Residential Area means the Assessable Space calculated by the building department which includes all the square footage within the perimeter of a residential structure, but does not include any carport, walkway, overhang, patio, enclosed patio, detached accessory structure, or similar area.

BOX #2 [To be completed by school district] Receipt No. _____

SCHOOL DISTRICT CERTIFICATION

School District requirements for the above project have been satisfied pursuant to (circle one):

Gov. Code 53080 Gov. Code 65970 Agreement Existing Not subject to
(for relocatables) before 1/1/87 fee requirement

This Certification covers only the amount of square footage identified above. Any additional square footage for the project is subject to another certification of compliance.

Total amount of fees collected: \$ 3318.00 at \$ 1.58 /square feet X 2100 square feet.

With regards to mobilehomes / manufactured homes, it is understood that the validity of any certificate of occupancy or Statement of Installation Acceptance issued by the County is conditioned on the concurrent payment of fees set forth above.

AUTHORIZED SCHOOL DISTRICT OFFICIAL Parvella J. Wilson Signature Date 11/17/92

original - Building Inspection Dept.
1st copy - District
2nd copy - Developer
1/90

Aut Clark Title

SPECIAL INSPECTION REQUIREMENTS

Project Title Wilson Holmes Residence Project Address 30625 Timbercove Rd Cazadero
Owner Brad Wilson, Pamela Holmes Address Same 95421

The following tests and inspections as indicated below, will be required as detailed in applicable project plans, specifications and the Uniform Building Code. These inspections are in addition to inspections performed by the Building Inspection Department.

Individuals performing these duties must be qualified, and approved by the Building Department prior to performing inspections. Individuals certified in a special inspection category by a qualified independent third party organization, and individuals employed by a recognized testing laboratory and under the direct supervision of a Civil Engineer are considered qualified and approved.

Special Inspection Reports shall be submitted to the Building Inspection Department, engineer or architect of record and other designated individuals. Reporting methods shall be as described in plans, specifications and the Building Code. A final inspection report will be required prior to occupancy of the building.

SPECIAL INSPECTIONS

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During mixing and placing of Class B gypsum concrete.

 Insulating Concrete Fill:
During application of insulating concrete fill when part of a structural system.

 Spray Applied Fire Proofing:
During mixing and applying of all spray applied fire resistive material including inspection of surfaces to be covered prior to application.

Requirements Determined MEM & Assoc
Architect/Engineer

Requirements Approved _____
Building Department

Date 1/17/92

Original: Building Department
Yellow: Architect/Engineer

Pink: Owner
Buff: Contractor/Permittee

Applicant Name and Mailing Address

Pamela Holmes
30625 Timbercove Rd
Cazadero, CA 95421

BUILDING PERMIT CHECK LIST
SONOMA COUNTY BUILDING INSPECTION DEPARTMENT

NAME _____ PLAN CHECK # 25089-17

DATE SUBMITTED _____ PLAN CHECKER _____

You have submitted plans to this department for review. Clearances designated will be required prior to issuance of your building permit. You are advised to contact these agencies early in your process to prevent unnecessary delays in building permit issuance.

AGENCY OR CLEARANCE REQUIRED

CLEARANCES
REQUIRED RECEIVED

<u>PLANNING</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>BUILDING DEPARTMENT</u>		
GRADING PERMIT	<input type="checkbox"/>	<input type="checkbox"/>
GEOTECHNICAL REPORT	<input type="checkbox"/>	<input type="checkbox"/>
ELEVATION CERTIFICATE	<input type="checkbox"/>	<input type="checkbox"/>
ADDITIONAL FEES (PLAN CHECK)(VIOLATION).....	<input type="checkbox"/>	<input type="checkbox"/>
WORKER'S COMPENSATION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SCHOOL MITIGATION FEE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DEVELOPMENT FEES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>HEALTH DEPARTMENT</u>		
SEPTIC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FOOD HANDLING	<input type="checkbox"/>	<input type="checkbox"/>
<u>PUBLIC WORKS</u>		
SEWER	<input type="checkbox"/>	<input type="checkbox"/>
ROAD ENCROACHMENT	<input type="checkbox"/>	<input type="checkbox"/>
PARCEL MAP IMPROVEMENT CONDITIONS	<input type="checkbox"/>	<input type="checkbox"/>
<u>SPECIAL DISTRICTS</u>		
WATER	<input type="checkbox"/>	<input type="checkbox"/>
SEWER	<input type="checkbox"/>	<input type="checkbox"/>
<u>UTILITY CERTIFICATE</u>		
SANTA ROSA	<input type="checkbox"/>	<input type="checkbox"/>
WINDSOR	<input type="checkbox"/>	<input type="checkbox"/>
BODEGA BAY PUBLIC UTILITIES	<input type="checkbox"/>	<input type="checkbox"/>
<u>SONOMA COUNTY WATER AGENCY</u>		
DRAINAGE	<input type="checkbox"/>	<input type="checkbox"/>
CREEK SETBACK	<input type="checkbox"/>	<input type="checkbox"/>
<u>FIRE MARSHALL</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>DEMOLITION PERMIT ACCOMMODATE AB2791</u>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: The PINK COPY is a preliminary determination of clearances required. A complete list will be developed during the plan review process.

Plan Check # 25089-H

This departments plan check on your project has been completed and plans are approved.

Providing you have obtained, and we have verification of, all required clearances indicated on your building permit check list your building permit may be issued.

Appropriate Worker's Compensation Certificate must be on file in this department.

Your plancheck will expire on _____

SONOMA COUNTY BUILDING INSPECTION

WALLS TESTING, INC.
 600 Martin Ave., Ste. 110
 Rohnert Park, CA 94928

REPORT OF VISUAL EXAMINATION OF WELDS

Project: BRAD WELSON Project No: 222-100 1-A
 Project Address: 30625 TIMBER COVE ROAD
 Welding Company: KAUTH BROS
 Welders Name: THO TRAN Welders S.S. #: 254-37-1928
 Quality Requirements: AWS D1.1, AISI
 Reported To: KAUTH Report Date: 2-25-92

WELD LOCATION AND NOTES:
 DETAILS SUPPLIED BY CONTRACTOR

Date	Weld Identification	Area	Interpretation		Repairs	
			Accept	Reject	Acc.	Rej.
2-25-92	(1) COLUMN W/16x45 w/COO DETAIL 19	SHOP	OK			

We the undersigned, certify that the statements in this report are correct and that the welds were prepared and inspected in accordance with the requirements of AWS D1.1/D1.4 and the Uniform Building Code Section 306 for Special Inspection.

Inspector: *[Signature]*

Date: 2-25-92

Certification: _____



This form, and any attachments indicated hereon, are required to be attached to all building permit applications prior to permit issuance.

COUNTY OF SONOMA

DEVELOPMENT FEE CHECKLIST

Name: PAMELA HOLMES File #: _____

APN(s): 109-480-10

Site Address: 30625 TIMBERLAKE RD.

Residential: Expansion of Existing Residence

New Residential

Subdivision Name (If Applicable) _____

Lot Number(s) _____

Total Number of Dwelling Units ONE

Commercial/Industrial/Institutional:

Total Number Acres _____

Total Building Square Feet _____

(If Applicable)

Exempt from Development Fees

Development Fee Required:

Park Development Fee (Attachment "A")

Larkfield/Wikiup Specific Plan (Ord. #2531)

Windsor Specific Plan (Ord. #3625)

County-Wide Park Fee (Ord. #3622)

Roadway Improvement Fee (Attachment "B")

Airport Industrial Area Specific Plan (Ord. #3412)

Larkfield/Wikiup Specific Plan (Ord. #3531)

Moorland Avenue Traffic Impact Zone (Ord. #3841)

Sonoma Valley Traffic Fee (Ord. #4073)

Windsor Specific Plan (Ord. #3625)

County-Wide Traffic Fee

Fire Protection Improvement Fee (Attachment "C") N/A

Airport Industrial Area Specific Plan (Ord. #3412)
(Rincon Valley Fire Protection District)

Windsor Specific Plan (Ord. #3625)

Windsor Fire Protection District

Rincon Valley Fire Protection District

Drainage Mitigation Fee

Windsor Specific Plan (Ord. #3625) (\$1,639.00/Unit) N/A

Total Amount: \$ _____ Receipt # _____

Planning Staff Signature

Date

This form to be completed by the Sonoma County Planning Department.

This form, and any attachments indicated hereon, are required to be attached to all building permit applications prior to permit issuance.

COUNTY OF SONOMA

DEVELOPMENT FEE CHECKLIST

Name: Pamela Holmes File #: _____
APN(s): 109-480-10
Site Address: 30625 Timbercove Rd Cazadero 95421
Residential: Expansion of Existing Residence
 New Residential
Subdivision Name (If Applicable) _____
Lot Number(s) _____
Total Number of Dwelling Units ONE (1)

Commercial/Industrial/Institutional:

Total Number Acres _____
Total Building Square Feet _____
(If Applicable)

Park Development Fees Required: Regional Parks Planning Area /
 Larkfield/Wikiup Specific Plan (Ord. #2531)
 Windsor Specific Plan (Ord. #3625)
 County-Wide Park Fee (Ord. #3622)
 Other Condition of Approval _____

Fees previously paid with Subdivision Map _____
Receipt No. _____

Required fees are to be paid at the following address:

County of Sonoma Regional Parks Department
2403 Professional Drive, Suite 100
Santa Rosa, California 95405 (707) 527-2041

When fees have been paid, this memo, along with a receipt, must be attached to plans prior to building permit issuance.

Total Amount Paid: \$ 1,111.00
Receipt Number 1512644
(Copy attached)

Jessie A. Peterson
Regional Parks Staff Signature

1-6-92
Date

FORM OF REMITTANCE:

CASH
CHECK

OFFICIAL RECEIPT
COUNTY OF SONOMA
SANTA ROSA, CALIFORNIA

1512644

RECEIVED FROM

ADDRESS

THE SUM

FOR

ORIGINAL - TO PAYEE

Donald Williams

June 6 19*82*

30625 Mendocino Road, Ukiah, CA 95421

For the purchase of the land of 4000 sq. ft. on Highway 101, 111.08

Acres #1 9407 109-488-10, 30625

Mendocino Co. Assessor's Office 95421

DEPARTMENT OR OFFICE
Donald Williams

This form, and any attachments indicated hereon, are required to be attached to all building permit applications prior to permit issuance.

COUNTY OF SONOMA

DEVELOPMENT FEE CHECKLIST

Name: Pamela Holmes File #: _____

APN(s): 109-480-10

Site Address: 30625 Timbercove Rd Caradero 95421

Residential: Expansion of Existing Residence
 New Residential
Subdivision Name (If Applicable) _____
Lot Number(s) _____
Total Number of Dwelling Units One

Commercial/Industrial/Institutional:

Total Number Acres _____
Total Building Square Feet _____
(If Applicable)

Roadway Improvement Fee Required:

- Airport Industrial Area Specific Plan (Ord. #3412)
- Larkfield/Wikiup Specific Plan (Ord. #3531)
- Moorland Avenue Traffic Impact Zone (Ord. #3841)
- Sonoma Valley Traffic Fee (Ord. #4073)
- Windsor Specific Plan (Ord. #3625)
- County-Wide Traffic Fee West County
- Other Condition of Approval _____

Fees previously paid with Subdivision Map
Receipt No. _____

Required fees are to be paid at the following address:

County of Sonoma Road Department
Attn: Larry Pollard
575 Administration Drive, Room 117A
Santa Rosa, California 95403 (707) 527-2231

When fees have been paid, this memo, along with a receipt, must be attached to plans prior to building permit issuance.

Total Amount Paid: \$ 2986⁰⁰
Receipt Number (Copy Attached) 1489382

[Signature]
Road Department Staff Signature

1/6/92
Date

FORM OF REMITTANCE:

CASH
CHECK

289

OFFICIAL RECEIPT

COUNTY OF SONOMA
SANTA ROSA, CALIFORNIA

1489382

DATE JUN 6 19 92

RECEIVED FROM Pamela Holmes

ADDRESS 30625 Timber Cove Rd. Cazadero, CA 95421

THE SUM OF Two Thousand Nine Hundred Eighty Six Dollars \$ 2986.00

FOR County Wide Traffic Fee - West County

AP # 109-480-10

ORIGINAL - TO PAYEE

TF 4040

DEPARTMENT OR OFFICE

BY

Public Works
Paul C. Conolly

RE: PAYMENT OF SCHOOL MITIGATION MONIES

Pursuant to Government Code, Section 53080, you are required to pay school mitigation monies before the County may issue building permits you have requested for your development.

You are directed to pay these monies directly to the School District at the District Office.

Upon identification of sites proposed for construction (address and assessor parcel number for each dwelling) and payment of the appropriate monies, the District will issue a certification of payment. The certification shall then be presented to the County Building Inspection Department prior to building permit issuance.

In the event these building permits expire and must be reissued, you may be responsible for additional payments to the School District.

If you have any questions regarding the District's office hours or the contact person to pay these monies to, you may call the District at the telephone number listed:

ANALY HIGH SCHOOL
6980 Analy Avenue
Sebastopol, CA 95472
Telephone: 823-7623

FORESTVILLE
FORT ROSS
GRAVENSTEIN
GUERNEVILLE
HARMONY
OAK GROVE
SEBASTOPOL
TWIN HILLS

BELLEVUE
3223 Primrose Av
Santa Rosa, CA 95407
Telephone: 542-5197

BENNETT VALLEY
(Residential)
2250 Mesquite Dr
Santa Rosa, CA 95405
Telephone: 542-2201

BENNETT VALLEY
(Commercial/Industrial)
211 Ridgway Av
Santa Rosa, CA 95402
Telephone: 528-5206

KENWOOD
RINCON VALLEY
ROSELAND
SANTA ROSA ELEMENTARY

CALISTOGA
1327 Berry Street
Calistoga, CA 94515
Telephone: 942-4703

CINNABAR
286 Skillman Lane
Petaluma, CA 94975
Telephone: 765-4345

CLOVERDALE
97 School St
Cloverdale, CA 95425
Telephone: 894-2548

COTATI-ROHNERT PARK
235 E. Cotati Av
Rohnert Park, CA 94928
Telephone: 792-4700

HEALDSBURG
925 University St
Healdsburg, CA 95448
Telephone: 431-3401

HORICON
Sonoma County Office of
Education
5340 Skylane Blvd
Santa Rosa, CA 95403
Telephone: 524-2625

MARK WEST
5187 Redwood Hwy
Santa Rosa, CA 95401
Telephone: 578-1061

OLD ADOBE
845 Crinella Dr
Petaluma, CA 94952
Telephone: 765-4321

PETALUMA
11 Fifth St
Petaluma, CA 94952
Telephone: 778-4621

PETALUMA
11 Fifth St
Petaluma, CA 94952
Telephone: 778-4621

PINER-OLIVET
1825 Willowside Rd
Santa Rosa, CA 95401
Telephone: 575-7057

SONOMA VALLEY
721 West Napa
Sonoma, CA 95476
Telephone: 935-6000

WAUGH
1060 Corona Rd
Petaluma, CA 94952
Telephone: 762-4905

WESTSIDE
1201 Felta Rd
Healdsburg, CA 95448
Telephone: 433-3923

WINDSOR
7650 Bell Rd
Windsor, CA 95492
Telephone: 838-2928

WRIGHT
4385 Price Av
Santa Rosa, CA 95407
Telephone: 542-0550

DEVELOPMENT FEES

As you consider applying for building, development, and planning permits, it is important to be aware of, and budget for, all anticipated costs. All permits will have processing fees which are paid when you make an application, but some projects may be required to pay additional fees called "development fees". These fees are required so new or expanded development will pay a fair share towards covering the increasing cost to the County of providing improvements and services. The development fees are listed below along with a contact number which you may phone to find out more information about whether your project is subject to the fee, and the amount of the fee.

<u>TYPE OF FEE</u>	<u>CONTACT</u>
ROAD:	
<ul style="list-style-type: none">● Countywide Road fee● Sonoma Valley Area Road Fee● Windsor Area Road Fee● Airport Industrial Area Road Fee● Mooreland Avenue Area Road/Drainage Fee	Sonoma County Road Department Attn: Richard Cannini 575 Administration Drive, Room 117A Santa Rosa, Ca. 75403 Phone: (707) 527-2231
PARK	
<ul style="list-style-type: none">● Countywide Parks fee● Windsor Area Parks Fee	Sonoma County Regional Parks Department 2403 Professional Drive, Suite 100 Santa Rosa, Ca. 95405 Phone: (707) 527-2041
FIRE PROTECTION	
<ul style="list-style-type: none">● Windsor Area Fire Protection Fee	Windsor Fire Protection District Attn: Dean Carruthers 444 Windsor River Road Windsor, Ca. 95492 Phone: (707) 838-6657
<ul style="list-style-type: none">● Airport Industrial Area Fire Protection Fee	Rincon Valley Fire Protection District Attn: Doug Williams 91 Middle Rincon Road Santa Rosa, Ca. 95409 Phone: (707) 539-1801
DRAINAGE	
<ul style="list-style-type: none">● Windsor Area Drainage Fee	Sonoma County Planning Department Attn: Rick Jones 575 Administration Drive, Room 105A Santa Rosa, Ca. 95403 Phone: (707) 527-1900
SCHOOL	
<ul style="list-style-type: none">● School Mitigation Fee	Sonoma County Building Department 575 Administration Drive, Rm.114A Santa Rosa, Ca. 95403 Phone: (707) 527-2221, OR contact your local school district

In addition to development fees, there are other costs which should be anticipated. For instance, there may be costs for developing a well or septic system, or optionally for connecting to a water supply or and/or sewer system. You may inquire about well, water connection, and septic system fees at the Environmental Health Department located at 1030 Center Drive, Suite A in Santa Rosa or by calling 525-6500. You can find out more information about sewer connection fees by contacting the County Sanitation Department located at 575 Administration Drive, Rm 117A, in Santa Rosa or by calling 527-2231. Private water and sewer suppliers may be contacted directly for fee information.

SONOMA COUNTY BUILDING INSPECTION DEPARTMENT

PERMIT QUESTIONNAIRE

PROJECT ADDRESS: 30625 Timber Cove Rd Cazadero

Prior to issuance of building permits this department is required to verify that your project is consistent with regulations of other agencies. This questionnaire will assist us in informing you of those agencies you must contact, and those approvals you must secure prior to issuance of a building permit.

Sewage disposal for the subject building will be:

- Connection to public sewer.
- Septic Disposal System.
- The proposed building contains no plumbing.

Water for the subject building will be provided by:

- A private well.
- From _____ Water District.
- The building contains no plumbing or water systems.

The subject building is located in the Analy School District.

The subject building (is), (is not), (may be), located within the Santa Rosa sphere of influence. These are the areas of anticipated future City annexations. Projects within these areas are subject to City review and approval prior to building permit issuance.

Access to the property:

- Exists and will not be altered.
- Will be developed, or altered and is from a public street.
- Will be developed, or altered and is from a private street.

Fire protection at this property is provided by the Timber Cove Fire District. This property (is), (is not), in a State wildfire responsibility area.

The following question applies to nonresidential buildings.

Will the building occupants need to comply with the applicable requirements of Sections 25505, 25533 and 25534 of the Health and Safety Code and the requirements for a permit for construction or modification from the Air Quality Control District? YES NO

Written asbestos notification pursuant to part 61 of Title 40 of the Code of Federal Regulations is required when asbestos exists in buildings, or portions thereof, undergoing demolition. I hereby declare that demolition authorized by this permit is for construction that (does), (does not), contain asbestos or, that (no) demolition is authorized by this permit.

Date: 11-19-91

Applicant: James Hill

Received by: _____

SONOMA COUNTY

BUILDING INSPECTION DEPARTMENT

575 ADMINISTRATION DRIVE, RM 114A • SANTA ROSA, CALIFORNIA 95403-2884
TELEPHONE (707) 527-2221

PLAN CHECK APPLICATION

ONLY - NOT A PERMIT

PLAN CHECK APPLICATION NUMBER

25089-17

DESCRIBE WORK PROPOSED:

Build House

21004

APPLICANT: ENTER DATA IN AREA OUTLINED BY HEAVY RULE.

OWNER

NAME Pamela Holmes Bradburnson
 CURRENT MAILING ADDRESS 30625 Timbercove Rd
 CITY Caradon CA ZIP CODE 95421
 DAYTIME TELEPHONE NO. 847 3747

PROJECT

ADDRESS Same
 CITY
 SUBDIVISION NAME
 UNIT NO.
 LOT
 BLOCK

CERTAIN AREAS WITHIN SONOMA COUNTY MAY BE GEOLOGICALLY HAZARDOUS. YOU ARE INVITED TO REVIEW ANY GEOLOGIC DATA THAT THIS DEPARTMENT HAS AVAILABLE TO AID YOU IN MAKING A DETERMINATION AS TO THE SUITABILITY OF A PROPOSED BUILDING SITE.

APPLICANT SHALL READ AND BE FAMILIAR WITH THE INSTRUCTIONS ATTACHED TO THE BUILDING PERMIT FORM BEFORE SIGNING THE PLAN CHECK APPLICATION.

THIS APPLICATION SHALL EXPIRE BY LIMITATION IF BUILDING PERMIT IS NOT ISSUED WITHIN 180 DAYS OF THE ISSUANCE OF THIS PLAN CHECK APPLICATION. I UNDERSTAND THAT NO REFUND OF PLAN CHECK FEES MAY OCCUR FOLLOWING COMMENCEMENT OF PLAN CHECK.

REFER TO PLAN CHECK APPLICATION NUMBER WHEN MAKING INQUIRIES OF JOB STATUS. I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all County Ordinances and State Laws regulating building construction.

APPLICANT NAME (PRINT) Pamela Holmes
 ADDRESS 30625 Timbercove Rd STATE CA ZIP 95421
 CITY Caradon

X SIGNATURE OF PERMITTEE OR AUTHORIZED AGENT Pamela Holmes

NEW	ADDITION	ALTERATION	REPAIR	MOVING	SPEC. CHG.	PLAN CHECK FEE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USE	FLOOR AREA IN SQUARE FEET	VALUATION PER SQUARE FOOT	VALUATION			
DWELLING	21004	50.70	106470.98			
GARAGE DET						
CARPORT						
AT						
DECK						
YES						
AWNING						
NO	322	6.00	2128.50			
TOTAL						1178598.50
						328.41

TYPE OF CONSTRUCTION

OCCUPANCY

FEES - Per Chapter 7, et. seq. Sonoma County Code

PLAN CHECK 328.41
 SITE REVIEW 30.00
 FIRE SERVICE
TOTAL \$ 358.41

014872 11/19/91E01
 PERMIT 0025089
 PLANCK \$328.41
 STESUV \$30.00
 ***TTL \$358.41
 CASH \$400.00
 CHNG \$41.59

REC'D BY MS DATE RECEIVED 11-19-91

INSPECTION AREA 2

NOT TRANSFERABLE

APPLICATION FOR PRIVATE SEWAGE DISPOSAL PERMIT

APPLICATION FOR PUBLIC HEALTH CLEARANCE FOR:

PUBLIC HEALTH DEPARTMENT

1030 CENTER DR. - SUITE A • SANTA ROSA, CA 95403-2067 • PHONE 525-6500

This permit application must be signed on all 3 signature lines by the same person (i.e., contractor or owner/builder). A letter of authorization from owner must accompany this application if agent is signing on owner's behalf.

BLDG. PERMIT NO. <u>91-3131</u>	DATE ISSUED <u>10-28-91</u>	CLEARANCE
SDS PERMIT NO. <u>110280</u>		REPAIR

OWNER'S NAME BRAD WILSON & PAMELA HOLMS
 MAILING ADDRESS 30625 Timbercove Road
 CITY CAZADERO CA. 95421 TELEPHONE 707-847-3747

INSTALLATION WILL SERVE:

RESIDENCE APARTMENT HOUSE COMMERCIAL MOBILE HOME
 MOTEL OTHER BUILDING CONST. NEW ADDN/ALTER

NO. OF UNITS: 1 TOTAL NO. OF BEDROOMS: 4 WATER SUPPLY: PUBLIC PRIVATE
 LOT SIZE: 14.49 AC.

TERMS OF PERMIT

APPLICANT AGREES THAT:

- HEALTH DEPARTMENT SANITARIAN WILL BE NOTIFIED A MINIMUM OF 24 HOURS PRIOR TO COMMENCING WORK.
- HEALTH DEPARTMENT SANITARIAN AND ENGINEER'S OR CONSULTING SANITARIAN'S INSPECTION, WHEN INDICATED, WILL BE OBTAINED PRIOR TO COVERING THE SYSTEM.
- THE JOB CARD AND A COPY OF THE APPROVED SEWAGE DISPOSAL SYSTEM DESIGN SHALL BE AVAILABLE AT THE JOB SITE AT ALL TIMES.
- ANY DEVIATION FROM APPROVED PLAN WITHOUT PRIOR APPROVAL OF THE HEALTH OFFICER WILL BE CAUSE FOR STOPPING WORK UNTIL THE CHANGES ARE FULLY JUSTIFIED AND APPROVED.
- STRUCTURAL PLANS FOR THE SEPTIC TANK MUST BE SUBMITTED TO AND APPROVED BY THE BUILDING INSPECTION DEPARTMENT PRIOR TO INSTALLATION.
- PRIOR TO AUTHORIZING OCCUPANCY OF ANY BUILDING WITH AN ENGINEER OR CONSULTING SANITARIAN'S DESIGN SYSTEM, A SIGNED STATEMENT BY THE DESIGNER CERTIFYING THAT THE SYSTEM WAS INSTALLED IN COMPLIANCE WITH THE APPROVED PLAN MUST BE SUBMITTED TO THE PUBLIC HEALTH OFFICER.
- THIS PERMIT IS SUBJECT TO REVOCATION IF FOUND TO BE IN NONCONFORMANCE WITH SONOMA COUNTY CODE OR STANDARDS OF THE PUBLIC HEALTH DEPARTMENT.

IT IS UNDERSTOOD THAT THE ISSUANCE OF A PERMIT IN NO WAY INDICATES THAT A GUARANTEE OF PERFECT AND INDEFINITE OPERATION OF THIS SYSTEM IS MADE BY THE COUNTY OF SONOMA PUBLIC HEALTH DEPARTMENT AND THAT THE OWNER IS REQUIRED TO MAKE ANY REPAIRS NECESSARY TO CONFINE SEWAGE BELOW THE SURFACE OF THE GROUND.

I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS APPLICATION AND THE INSTRUCTIONS ON THE REVERSE SIDE AND STATE THAT THE ABOVE IS CORRECT AND AGREE TO COMPLY WITH ALL COUNTY ORDINANCES AND STATE LAWS REGULATING CONSTRUCTION OF PRIVATE SEWAGE DISPOSAL SYSTEMS. THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK AUTHORIZED IS NOT COMMENCED WITHIN 120 DAYS.

Brad & Pamela Holms
 SIGNATURE OF APPLICANT

The undersigned applicant for private sewage disposal permit certifies as follows:

CONTRACTOR'S LICENSE LAW CERTIFICATE

(COMPLETE EITHER A OR B)
 A. THE APPLICANT HAS BEEN LICENSED UNDER THE PROVISIONS OF THE CONTRACTORS' LICENSE LAW UNDER LICENSE NUMBER 409597 WHICH IS CURRENT IN FULL FORCE AND EFFECT.
 B. THE APPLICANT IS EXEMPT FROM THE PROVISIONS OF THE CONTRACTORS' LICENSE LAW FOR THE FOLLOWING REASONS:
 1) OWNER/BUILDER
 2) OTHER (EXPLAIN)

WORKMEN'S COMPENSATION CERTIFICATE

(One or two must be completed)
 1. A currently effective certificate of Workmen's Compensation Insurance coverage is on file with the Sonoma County Public Health Department.
 2. 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 workmen's compensation laws of California.

Compensation Insurance _____ Policy # _____
 is currently in force.

0013420
 SEP TANK
 TITLANT
 CHECKS
 CHANGE
 0 398 #2 13706

JOB ADDRESS 30625 TIMBER COVE RD
 NEAREST CROSS STREET SEAVIEW RD
 ASSESSOR'S PARCEL NO. 109-480-10
 SUB-DIVISION _____ LOT _____ BLK _____
 CITY CAZADERO
 SEWAGE DISPOSAL SYSTEM CONTRACTOR BOHAN & CAHELIS TEL. NO. 632-5276
 ADDRESS 600 AUSTIN CREEK RD.
 GENERAL CONTRACTOR SELF

Brad & Pamela Holms
 APPLICANT

Bohan & Cahelis
 CONTRACTOR

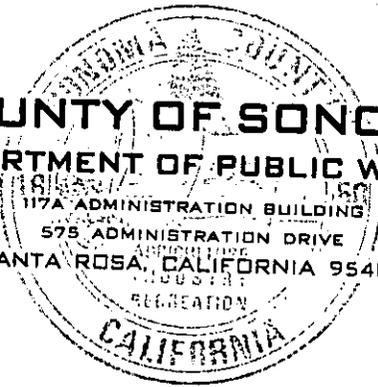
LAYOUT PLAN APPROVED BY _____ DATE 10/2/91
 CONSTRUCTION APPROVED BY _____ DATE _____

WHEN APPROVED THIS IS YOUR PERMIT

570

**COUNTY OF SONOMA
DEPARTMENT OF PUBLIC WORKS**

117A ADMINISTRATION BUILDING
575 ADMINISTRATION DRIVE
SANTA ROSA, CALIFORNIA 95403



EDWARD J. WALKER
DIRECTOR OF PUBLIC WORKS

AREA CODE (707)
ROADS 527-2231
TRANSIT 585-7516
SANITATION 527-2231
REFUSE 527-2231
FAX 527-2620

December 10, 1991

RE: Driveway Encroachment Permit
Timber Cove Road (#83001)
Building Dept. Plan Check No. 25089-H

Pamela Holmes & Brad Wilson
30675 Timber Cove Road
Cazadero, CA 95421

We have reviewed your Building Plan Check application at 30675 Timber Cove Road and have determined that you will be required to obtain an Encroachment Permit to improve your existing driveway(s) to County Standards.

To improve a driveway onto a County-maintained road requires an Encroachment Permit from this Department which is enclosed and will enable you to improve your existing driveway onto a County road according to Sonoma County Public Works standards. Please fill it out and return it to us with the \$70.00 Permit Fee.

Your Building Permit will not be issued until you have obtained an Encroachment Permit.

It is to your advantage to get your Driveway Encroachment Permit started early during the design period of your project in order to insure that the driveway improvements will be approved by this department. I have included for your reference a copy of our Typical Driveway Details. Your particular driveway may not exactly fit all the details shown on this drawing--it is intended as a guide only. Depending upon your site conditions, you may be required to submit engineered plans (to this Department) for your driveway improvements.

If you have any questions, please feel free to call me at (707) 527-2231.

EDWARD J. WALKER
DIRECTOR OF PUBLIC WORKS

John Pawson
Engineering Technician II

Enclosures

c: Sonoma County Building Department
Ed Scott

JP/LL:Letters/Encroachment/Bldg Plan Check-Holmes

COUNTY OF SONOMA
DEPARTMENT OF PUBLIC WORKS



EDWARD J. WALKER
DIRECTOR OF PUBLIC WORKS

AREA CODE (707)
ROADS 527-2231
TRANSIT 585-7516
SANITATION 527-2231
REFUSE 527-2231
FAX 527-2620

December 11, 1991

RE: Driveway Encroachment Permit
Timber Cove Road (#83001)
Building Dept. Plan Check No. 25089-H

Pamela Holmes & Brad Wilson
30675 Timber Cove Road
Cazadero, CA 95421

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EDWARD J. WALKER
DIRECTOR OF PUBLIC WORKS


John Pawson
Engineering Technician II

Enclosures

c: Sonoma County Building Department ✓
Ed Scott

JP/LL:Letters/Encroachment/Bldg Plan Check-Holmes

SOL*DATA Energy Consulting
908A College Avenue, Santa Rosa, CA 95404
(707) 545-4440 FAX (707) 545-4447

project: **Holmes Wilson Residence**
location: 30625 Timbercove Road, Cazadero, CA
designer: **Brad Wilson**
job number: 910998
date: 11/5/91

Submittal	Signatures Required
Owner	COPY
Designer	

Title 24 Energy Compliance Documentation

Method of Compliance: Performance Analysis

Standard Design = 29.95 Proposed Design = 26.07

This project meets the design goal for **Climate Zone 3** and must include the following components:

Insulation:

- R-30 at all roof areas
- R-21 minimum at all exterior walls
- R-19 or R-21 at all raised floors

Mass:

None

Windows:

All windows and doors will be double pane wood sash

HVAC and Water Heating:

Aquastar instantaneous gas water heater model 125VP.

The house will be served by wall furnaces with a minimum of **64% SE**.

These calculations are a part of the construction documents. Any change to the proposed building that would affect these calculations may void this submittal and require new Title 24 energy documentation. In particular, the following changes must not occur: increases in glass area; glass orientation or type; shading devices; levels of insulation; heating, cooling, or water heating equipment; area or type of thermal mass (if included in calculations).

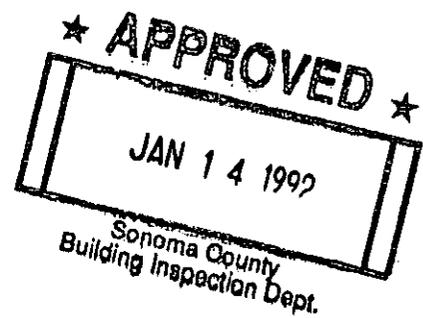


Table Of Contents for Title 24 Report

Table of Contents
Form CF-1R Certificate of Compliance: Residential
Form MF-1R Mandatory Measures Checklist: Residential
Form C-2R Computer Method Summary
Water Heating Worksheet
Form CF-3 Construction Assemblies
HVAC Zone & Space Loads Summary

```

=====
Project Title..... Holmes Wilson Residence      Date..... 11/05/91
Project Address..... 30625 Timbercove Road
                  Cazadero CA 95421
Documentation Author... Kevin Gilleran          | Building Permit # |
Company..... Sol*Data Consulting                | Plan Check / Date |
Telephone..... (707) 545-4440                   | Field Check/ Date |
=====
Compliance Method..... MICROPAS3 by Enercomp, Inc.
Climate Zone..... 03
=====
    
```

```

| MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-FORM CF-1R |
| User#-MP0817 User-Sol*Data Consulting Run-                  |
=====
    
```

GENERAL INFORMATION

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-----
Conditioned Floor Area..... 2100 sf
Building Type..... Single Family Detached
Building Front Orientation. Front Facing 270 deg (W)
Number of Dwelling Units... 1
Number of Stories..... 2
Floor Construction Type.... Raised Floor (Package E)
Infiltration Control..... Standard
    
```

BUILDING SHELL INSULATION

```

-----
Component  Insul
Type       R-value  Location/Comments
-----
WALL       R-21    Minimum Insulation Values
ROOF       R-30
Floor      R-19 or 21
    
```

GLAZING

Glazing Orientation	Area (sf)	# of Panes	Interior Shading	Exterior Shading	Overhang	Framing Type
Window Front (W)	30.0	2	Standard	None	None	Wood
Window Left (N)	69.3	2	Standard	None	None	Wood
Door Left (N)	58.8	2	Standard	None	None	Special
Window Back (E)	30.0	2	Standard	None	None	Wood
Window Right (S)	315.5	2	Standard	None	None	Wood
Door Right (S)	67.2	2	Standard	None	None	Special

ASSUMED HVAC SYSTEMS

Assumed System	Assumed Efficiency	Duct Location	Duct R-value
Gas	0.640 SE	None	R-2.1
AirCond	8.90 SEER	Attic	R-2.1

Project Title..... Holmes Wilson Residence

Date..... 11/05/91

MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-FORM CF-1R
 User#-MP0817 User-Sol*Data Consulting Run-

ACTUAL HVAC SYSTEMS

Actual System	Actual Efficiency	Output (Btuh)	Manufacturer and Model # (or approved equal)
Heating	MIN 64% SE		
Heating	MIN 64% SE		
Heating	MIN 64% SE		

CEC Maximum output for Gas Central Furnaces: N/A FOR WALL FURNACES

WATER HEATING SYSTEMS

System Type	# of Tank	Vol Heat (gal)	R-12 or Greater Blanket	Manufacturer and Model # (or approved equal)	Energy Credits
Instantaneous, Gas	1	0	n/a		None

SPECIAL FEATURES/REMARKS

The HVAC & water heating equipment proposed must meet the sizing and efficiency requirements of the Standards. Responsibility for the selection, sizing and installation of all the equipment must be taken by licensed contractor or engineer.

Project Title..... Holmes Wilson Residence

Date..... 11/05/91

MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-FORM CF-1R
User#-MP0817 User-Sol*Data Consulting Run-

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and performance specifications needed to comply with Title 24, Chapter 2-53 and Title 20, Chapter 2, Subchapter 4, Article 1 of the California Administrative code. This certificate has been signed by the individual with overall design responsibility and the building owner, who shall retain a copy of it and transmit the certificate to any subsequent purchaser of the building. When this certificate of compliance is submitted for a single building plan to be built in multiple orientations, all building conservation features which vary are indicated in the Special Features/Remarks section.

DESIGNER

OWNER

Name.... Brad Wilson
Company. Brad Wilson
Address. 30625 Timbercove Road
Cazadero CA 95421
Phone... (707) 847-3747
License.

Name.... Brad Wilson
Company. Brad Wilson
Address. 30625 Timbercove Road
Cazadero CA 95421
Phone... (707) 847-3747

Signed Brad Wilson 11/19/91 (date)

Signed Brad Wilson 11/19/91 (date)

DOCUMENTATION AUTHOR

ENFORCEMENT AGENCY

Name.... Kevin Gilleran
Company. Sol*Data Consulting
Address. 908A College Ave.
Santa Rosa, CA 95404
Phone... (707) 545-4440

Name....
Title...
Agency..
Phone...

Signed [Signature] (date)

Signed _____ (date)

Project:	COMPLY 24 v 3.10
Designer:	Building Permit No
Location:	Date: 2/14/1991 Checked By
Documentation: SOL*DATA Energy Consulting	Date (User # 1004)

NOTE: Lowrise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as binding minimum component performance specifications for the mandatory measures whether they are shown elsewhere in the documents or on this checklist only.

BUILDING ENVELOPE MEASURES

Enforcement

- o Sec. 2-5352(a): Minimum ceiling insulation R-19 weighted average. * _____
- o Sec. 2-5352(b): Loose fill insulation manufacturers labeled R-Value. _____
- o Sec. 2-5352(c): Minimum wall insulation in framed walls R-11 weighted average (does not apply to exterior mass walls). * _____
- o Sec. 2-5352(k): Slab edge insulation - water absorption rate no greater than 0.3%, water vapor transmission rate no greater than 2.0 perm/inch. _____
- o Sec. 2-5311: Insulation specified or installed meets California Energy Commission (CEC) quality standards. Indicate type and form. _____
- o Sec. 2-5352(f): Vapor barriers mandatory in Climate Zones 14 and 16 only. _____
- o Sec. 2-5317: Infiltration/Exfiltration Controls
 - a. Doors and windows between conditioned and unconditioned spaces designed to limit air leakage.
 - b. Doors and windows certified.
 - c. Doors and windows weatherstripped; all joints and penetrations caulked and sealed. _____
- o Sec. 2-5352(e): Special infiltration barrier installed to comply with Sec. 2-5351 meets CEC quality standards. _____
- o Sec. 2-5352(d): Installation of Fireplaces
 - 1. Masonry and factory-built fireplaces have:
 - a. Tight fitting, closeable metal or glass door
 - b. Outside air intake with damper and control
 - c. Flue damper and control
 - 2. No continuous burning gas pilots allowed. _____

Project:	COMPLY 24 v 3.10
Designer:	Building Permit No
Location:	Date: 2/14/1991 Checked By
Documentation: SOL*DATA Energy Consulting	Date (User # 1004)

HVAC AND PLUMBING SYSTEM MEASURES Enforcement

- o Sec. 2-5352(g) and 2-5303: Space conditioning equipment sizing: attach calculations. _____
- o Sec. 2-5352(h) and 2-5315: Setback thermostat on all applicable heating systems. _____
- o Sec. 2-5316(a): Ducts constructed, installed and insulated per Chapter 10, 1976 UMC. * _____
- o Sec. 2-5316(b): Exhaust systems have damper controls. _____
- o Sec. 2-5314(c): Gas-fired space heating equipment has intermittent ignition devices. _____
- o Sec. 2-5314: HVAC equipment, water heaters, showerheads and faucets certified by the CEC. _____
- o Sec. 2-5352(i): Water heater insulation blanket (R-12 or greater) for storage & backup tanks for solar water heating systems; first 5 feet of pipes closest to tank insulated (R-3 or greater). _____
- o Sec. 2-5312(Exception I): Pipe insulation on steam and steam condensate return & recirculating piping. _____
- o Sec. 2-5318(d): Swimming Pool Heating
 1. System has:
 - a. On/off switch on heater.
 - b. Weatherproof instruction plate on heater.
 - c. Plumbed to allow for solar.
 2. 75 percent thermal efficiency.
 3. Pool cover.
 4. Time clock.
 5. Directional water inlet. _____

LIGHTING AND APPLIANCE MEASURES

- o Sec. 2-5352(j): Lighting - 25 lumens/watt or greater for general lighting in kitchens and bathrooms. _____
- o Sec. 2-5314(c): Gas fired appliances equipped with intermittent ignition devices. _____
- o Sec. 2-5314(a): Refrigerators, refrigerator-freezers, freezers and fluorescent lamp ballasts certified by the CEC. Indicate make and model number. _____

```

=====
Project Title..... Holmes Wilson Residence      Date..... 11/05/91
Project Address..... 30625 Timbercove Road
                  Cazadero CA 95421
Documentation Author... Kevin Gilleran
Company..... Sol*Data Consulting
Telephone..... (707)545-4440
Compliance Method..... MICROPAS3 by Enercomp, Inc.
Climate Zone..... 03
=====
    
```

	Building Permit #
	Plan Check / Date
	Field Check/ Date

```

=====
| MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-FORM C-2R
| User#-MP0817 User-Sol*Data Consulting Run-
=====
    
```

```

=====
= MICROPAS3 ENERGY USE SUMMARY =
= ----- =
= Energy Use Standard Proposed Compliance =
= (kBtu/sf-yr) Design Design Margin =
= ----- ----- ----- =
= Space Heating..... 17.21 13.42 3.79 =
= Space Cooling..... 2.84 4.67 -1.83 =
= Water Heating..... 9.90 7.98 1.92 =
= ----- ----- ----- =
= Total 29.95 26.07 3.88 =
=
= *** Building complies with Computer Performance *** =
=====
    
```

GENERAL INFORMATION

```

Conditioned Floor Area..... 2100 sf
Building Type..... Single Family Detached
Building Front Orientation. Front Facing 270 deg (W)
Number of Dwelling Units... 1
Number of Building Stories. 2
Weather Data Type..... ReducedYear

Floor Construction Type.... Raised Floor (Package E)
Number of Building Zones... 3
Conditioned Volume..... 25200 cf
Footprint Area..... 1280 sf
Slab-On-Grade Area..... 0 sf
Glazing Percentage..... 27.2 % of FA
Average Ceiling Height..... 12 ft
    
```

BUILDING ZONE INFORMATION

Zone Type	Cond- itioned	Floor Area (sf)	Volume (cf)	# of Dwell Units	Thermostat Type	Vent Height (ft)	Special Vent Area (sf)
LOWER Residence	Yes	1280	15360	0.61	SetBack	8.0	n/a
MASTER Residence	Yes	420	5040	0.20	SetBack	8.0	n/a

Project Title..... Holmes Wilson Residence Date..... 11/05/91

MICROPAS3 v3.11 File-HLMSWLSN Wth-CT203 Program-FORM C-2R
 User#-MP0817 User-Sol*Data Consulting Run-

BUILDING ZONE INFORMATION

Zone Type	Cond- itioned	Floor Area (sf)	Volume (cf)	# of Dwell Units	Thermostat Type	Vent Height (ft)	Special Vent Area (sf)
LIBRARY Residence	Yes	400	4800	0.19	SetBack	8.0	n/a

OPAQUE SURFACES

Surface	Area (sf)	U- value	Insul R-val	Act Azimuth	Tilt	Solar Gains	Location/ Comments	Form 3 Reference
LOWER								
1 WALL	195	0.057	R-21	270	90	Yes		None
2 WALL	800	0.057	R-21	0	90	Yes		None
3 WALL	195	0.057	R-21	90	90	Yes		None
4 WALL	627	0.057	R-21	180	90	Yes		None
5 ROOF	460	0.035	R-30	0	0	Yes		None
6 Floor	1280	0.037	R-19	0	0	No		None
MASTER								
7 WALL	195	0.057	R-21	270	90	Yes		None
8 WALL	213	0.057	R-21	0	90	Yes		None
9 WALL	172	0.057	R-21	180	90	Yes		None
10 ROOF	420	0.035	R-30	0	0	Yes		None
LIBRARY								
11 WALL	213	0.057	R-21	0	90	Yes		None
12 WALL	195	0.057	R-21	90	90	Yes		None
13 WALL	172	0.057	R-21	180	90	Yes		None
14 ROOF	400	0.035	R-30	0	0	Yes		None

GLAZING SURFACES

Surface	Area (sf)	# of Panes	Frame Type	Open Type	U- value	Act Azimuth	Tilt	SC Glass Only	Interior Shade Type	SC Gls+ Shade
LOWER										
1 Window	15.0	2	Wood	Slider	0.53	270	90	0.67	Standard	0.57
2 Window	55.1	2	Wood	Slider	0.53	0	90	0.67	Standard	0.57
3 Door	58.8	2	Special	Slider	0.53	0	90	0.88	Standard	0.75
4 Window	15.0	2	Wood	Slider	0.53	90	90	0.67	Standard	0.57
5 Window	219.5	2	Wood	Slider	0.53	180	90	0.67	Standard	0.57
6 Door	67.2	2	Special	Slider	0.53	180	90	0.88	Standard	0.75
MASTER										
7 Window	15.0	2	Wood	Slider	0.53	270	90	0.67	Standard	0.57
8 Window	7.1	2	Wood	Slider	0.53	0	90	0.67	Standard	0.57
9 Window	48.0	2	Wood	Slider	0.53	180	90	0.67	Standard	0.57
LIBRARY										
10 Window	7.1	2	Wood	Slider	0.53	0	90	0.67	Standard	0.57
11 Window	15.0	2	Wood	Slider	0.53	90	90	0.67	Standard	0.57
12 Window	48.0	2	Wood	Slider	0.53	180	90	0.67	Standard	0.57

Project Title..... Holmes Wilson Residence Date..... 11/05/91

MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-FORM C-2R
 User#-MP0817 User-Sol*Data Consulting Run-

HVAC SYSTEMS

System Type	Minimum Efficiency	Duct Location	Duct R-value	Duct Efficiency
LOWER				
Gas	0.640 SE	None	R-2.1	1.000
AirCond	8.90 SEER	Attic	R-2.1	0.830
MASTER				
Gas	0.640 SE	None	R-2.1	1.000
AirCond	8.90 SEER	Attic	R-2.1	0.830
LIBRARY				
Gas	0.640 SE	None	R-2.1	1.000
AirCond	8.90 SEER	Attic	R-2.1	0.830

WATER HEATING SYSTEMS

System Type	Capa- # of Heat	R-12 or Greater Blanket	Effic- iency	Standby Loss	Input Rating	Pilot Size (Btuh)	Credits
Instantaneous Gas	1 n/a	n/a	0.78 RE	n/a	n/a	260.000	None

SPECIAL FEATURES/REMARKS

The HVAC & water heating equipment proposed must meet the sizing and efficiency requirements of the Standards. Responsibility for the selection, sizing and installation of all the equipment must be taken by licensed contractor or engineer.

WATER HEATING

Project Title.....	Holmes Wilson Residence	Date.....	11/05/91
Project Address.....	30625 Timbercove Road Cazadero CA 95421		
Documentation Author...	Kevin Gilleran	Building Permit #	
Company.....	Sol*Data Consulting	Plan Check / Date	
Telephone.....	(707)545-4440	Field Check/ Date	
Compliance Method.....	MICROPAS3 by Enercomp, Inc.		
Climate Zone.....	03		

MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-WATER HEATING			
User#-MP0817 User-Sol*Data Consulting Run-			

WORKSHEET TWO: INSTANTANEOUS GAS OR INSTANTANEOUS ELECTRIC

A. EQUIPMENT DATA

- 1. Water heater type..... Instantaneous, Gas
- 2. Manufacturer..... Aquastar
- 3. Model number..... 125VP
- 4. Ignition device..... Gas Pilot
- 5. Tank volume..... n/a gal
- 6. Recovery efficiency..... .78 percent x 0.01
- 7. Standby loss..... n/a percent/hour x 0.01
- 8. Rated Input..... n/a Btu/hr
- 9. Number of Heaters..... 1

B. OPERATING DATA

- 1. Climate Zone..... 3
- 2. Water heating budget.... 20800 kBtu/yr/unit
- 3. Tank set temp..... 140 F
- 4. Water main temp..... 65 F
- 5. Daily hot water load.... 50 gal
- 6. Ambient air temp..... n/a F
- 7. Adj. Standby Losses.... n/a
- 8. No. dwelling units..... 1
- 9. Pump power..... 0 Watts (0 Watts controller)
- 10. Pumping energy..... 0 Watt-hr/yr (24 hr per day)
- 11. Pilot light energy..... 2277.6 kBtu/yr (260 Btu/hr)

C. WATER HEATING ENERGY CREDITS

- 1. Credit Name..... None
- 2. Annual savings..... 0 kBtu/yr/unit

D. ANNUAL WATER HEATING ENERGY

- 1. Recovery load..... 11292 kBtu/yr
- 2. Recovery energy..... 14477 kBtu/yr
- 3. Pilot light energy..... 2278 kBtu/yr
- 4. Pumping energy..... 0 kBtu/yr source
- 5. Total energy..... 16755 kBtu/yr/unit source
- 6. Comparison..... 4045 kBtu/yr/unit source
- 7. Points..... 4
- 8. Water Heating Energy Use
(D5 x B8) / 2100 sf 7.98 kBtu/yr/sf

Project: Holmes Wilson Residence	COMPLY 24 v 3.10
Designer: Brad Wilson	Building Permit No
Location: Fort Ross	Date: 11/5/1991
Documentation: Kevin Gilleran SOL*DATA Consulting	Checked By
	Date (User # 1004)

Assembly Name: R-21 Frame Wall
 Assembly Type: Wall
 Assembly Tilt: 90 deg (Vertical)

Construction Components	Fr	Th (in)	R-Value	
			Summer	Winter
Outside Air Film			0.25	0.17
1. Plywood		0.625	0.78	0.78
2. Insulation, Mineral Wool, R-21	*	5.500	21.00	21.00
3. Gypsum or Plaster Board		0.500	0.45	0.45
4.				
5.				
6.				
7.				
8.				
9.				
Inside Air Film			0.68	0.68
Total			23.16	23.08

Framing Percentage: 15.0 %
 Framing Material: Softwood, Douglas Fir-Larch

Calculation for Framing Adjustment

Summer U-Value
 $0.0432 \times 0.85 + 0.1315 \times 0.15 = 0.0564$

Winter U-Value
 $0.0433 \times 0.85 + 0.1329 \times 0.15 = 0.0568$

OVERALL VALUES ADJUSTED FOR FRAMING

R-Value 17.72 17.62

U-Value 0.0564 0.0568

Sketch of Construction Assembly

Absorptivity: 0.70
 Roughness: Stucco, Wood Shingles
 Weight: 6.5 lb/sqft
 Heat Capacity: 2.03

Project: _____

Designer: _____

Location: _____

Date: _____

Building Permit No _____

Checked By _____

Documentation: SOL*DATA Consulting

CEC Standard U-values for Opaque Surfaces

<u>Ceiling Insulation(1)</u>	<u>U-value</u>
R-0(2) no insulation	0.304
R-11 16" o.c. framing	0.077
R-19 16" o.c. framing	0.051
R-19 24" o.c. framing	0.049
R-30 16" o.c. framing	0.035
R-30 24" o.c. framing	0.033
R-38 16" o.c. framing	0.030
R-38 24" o.c. framing	0.029
<u>Wall Insulation</u>	<u>U-value</u>
R-0(2) no insulation	0.393
R-7(2) 16" o.c. framing	0.121
R-11 16" o.c. framing	0.098
R-13 16" o.c. framing	0.089
R-19 16" o.c. framing	0.065
Solid core wood door	0.330
<u>Floor Insulation</u>	<u>U-value</u>
R-0 no insulation	0.101
R-11 crawlspace	0.050
R-11 garage or exterior	0.074
R-19 crawlspace	0.037
R-19 garage or exterior	0.049
R-30 crawlspace	0.028
R-30 garage or exterior	0.034
<u>Uninsulated Slab Edge(3)</u>	<u>F2 value</u>
Exposed slab, edge to exterior	0.90
Covered slab, edge to exterior	0.72
Exposed slab, edge to garage	0.55
Covered slab, edge to garage	0.50

1. Ceiling values shown ignore the effect of the attic air space.
2. These constructions are typically used for modeling the existing building when showing on a compliance a building addition, the insulation levels do not meet the minimum level required as a mandatory measure.
3. See Table 2-1 for F2 values for both insulated and uninsulated slab edges.

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=====
Project Title..... Holmes Wilson Residence           Date..... 11/05/91
Project Address..... 30625 Timbercove Road
                   Cazadero CA 95421
Documentation Author... Kevin Gilleran              | _____ |
Company..... Sol*Data Consulting                    | Building Permit # |
Telephone..... (707)545-4440                        | _____ |
                   | Plan Check / Date |
Compliance Method..... MICROPAS3 by Enercomp, Inc. | Field Check/ Date |
Climate Zone..... 03                                | _____ |
=====
| MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-HVAC SIZING |
| User#-MP0817 User-Sol*Data Consulting Run- |
=====

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GENERAL INFORMATION

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Floor Area..... 2100 sf
Volume..... 25200 cf
Front Orientation..... Front Facing 270 deg (W)
Sizing Location..... FORT ROSS (SEA RANCH)
Latitude..... 38.5 degrees
Winter Outside Design..... 35 F
Winter Inside Design..... 70 F
Summer Outside Design..... 74 F
Summer Inside Design..... 78 F
Summer Range..... 19 F
Shading Used..... Yes
Latent Load Fraction..... 0.20

```

HEATING AND COOLING LOAD SUMMARY

Description	Heating (Btuh)	Cooling (Btuh)
Opaque Conduction and Solar.....	9144	1684
Glazing Conduction.....	10588	0
Glazing Solar.....	n/a	12991
Infiltration.....	11828	0
Internal Gain.....	n/a	6300
Ducts.....	0	2097
Sensible Load.....	31560	23072
Latent Load.....	n/a	4614
Total Load	31560	27687

Note: The loads shown are only one of the criteria affecting the selection of HVAC equipment. Other relevant design factors such as air flow requirements, outdoor design temperatures, coil sizing, availability of equipment, oversizing safety margin, etc., must also be considered. It is the HVAC designer's responsibility to consider all factors when selecting the HVAC equipment.

Project Title..... Holmes Wilson Residence Date..... 11/05/91

MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-HVAC SIZING
 User#-MP0817 User-Sol*Data Consulting Run-

HEATING AND COOLING LOAD SUMMARY BY ZONE

ZONE 'LOWER'

Floor Area..... 1280 sf
 Volume..... 15360 cf

Description	Heating (Btuh)	Cooling (Btuh)
Opaque Conduction and Solar.....	5834	758
Glazing Conduction.....	7988	0
Glazing Solar.....	n/a	9348
Infiltration.....	7209	0
Internal Gain.....	n/a	2100
Ducts.....	0	1221
Sensible Load.....	21031	13427
Latent Load.....	n/a	2685
Zone Load	21031	16112

ZONE 'MASTER'

Floor Area..... 420 sf
 Volume..... 5040 cf

Description	Heating (Btuh)	Cooling (Btuh)
Opaque Conduction and Solar.....	1667	471
Glazing Conduction.....	1300	0
Glazing Solar.....	n/a	1821
Infiltration.....	2366	0
Internal Gain.....	n/a	2100
Ducts.....	0	439
Sensible Load.....	5333	4832
Latent Load.....	n/a	966
Zone Load	5333	5798

Project Title..... Holmes Wilson Residence Date..... 11/05/91

MICROPAS3 v3.11 File-HLMSWLSN Wth-CTZ03 Program-HVAC SIZING
 User#-MP0817 User-Sol*Data Consulting Run-

ZONE 'LIBRARY'

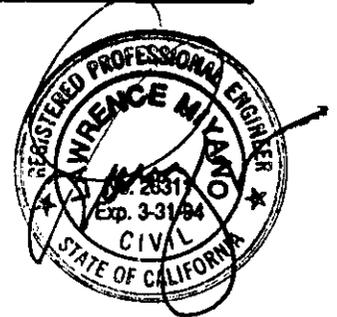
Floor Area..... 400 sf
 Volume..... 4800 cf

Description	Heating (Btuh)	Cooling (Btuh)
Opaque Conduction and Solar.....	1643	455
Glazing Conduction.....	1300	0
Glazing Solar.....	n/a	1821
Infiltration.....	2253	0
Internal Gain.....	n/a	2100
Ducts.....	0	438
Sensible Load.....	5196	4813
Latent Load.....	n/a	963
Zone Load	5196	5776

11.1.91	Structural Calculations for: Wilson Residence 30625 Timber Cove Rd. Cazadero, CA 95421	910485
Teq		1 OF 16

DESIGN CRITERIA

Uniform Building Code
1983 Edition



Vertical Loads

	<u>Dead</u>		<u>Live</u>	
Roof (Comp)	<u>16</u>	psf	<u>20</u>	psf
Roof ()		psf		psf
Floor(wood)	<u>12</u>	psf	<u>40</u>	psf
Floor()		psf		psf
Deck ()		psf		psf
Exterior Walls (wood)	<u>10</u>	psf		---
Exterior Walls ()		psf		---
Interior Walls (gyp. bd.)	<u>10</u>	psf		---

Lateral Loads

Wind = 20.5 psf 30mph, exp "C"
 Earthquake = 0.183 W (Zone IV)

Foundation Design

MKM & ASSOCIATES has not made a field review of the building site and is not responsible for general site stability or soil suitability for the proposed project. A review by a soil engineer or geologist may be desirable by the owner.

Foundation design is based on minimum footing dimensions as set forth in Table 29A and B of Chapter 29 in the Uniform Building Code. Assume class 5 soil with allowable soil bearing pressure of 1000 psf with a constant expansion index less than 20.

MKM & ASSOCIATES

CIVIL & STRUCTURAL ENGINEERS
441 COLLEGE AVE. • SANTA ROSA, CA 95401

(707) 578-8185
FAX (707) 578-7153

11.8.91	MOMENT AND SHEAR CAPACITY OF	910485
T-22	SINGLE & BUILT-UP JOISTS	2 OF

DOUG. FIR (S4S)		A	MOMENT CAPACITY (lb-ft)			SHEAR CAPACITY (lb)		
		S	1.0	1.15	1.25	1.0	1.15	1.25
#/SIZE	GRADE	I						

*	1/ 2x6	NO. 1	2.25 7.56	1103	1268	1378	522	601	653
		NO. 2	23.78	914	1031	1142	522	601	653
	2/ 2x6	NO. 1	16.50 15.13	1891	2175	2364	1045	1202	1306
		NO. 2	41.59	1576	1812	1970	1045	1202	1306
*	3/ 2x6	NO. 1	24.75 22.69	3309	3805	4136	1568	1803	1959
		NO. 2	62.39	2742	3153	3427	1568	1803	1959
*	4/ 2x6	NO. 1	33.00 30.25	4411	5073	5514	2090	2404	2612
		NO. 2	83.19	3655	4203	4569	2090	2404	2612
*	1/ 2x8	NO. 1	10.88 13.14	1916	2204	2395	639	792	861
		NO. 2	47.64	1588	1826	1985	639	792	861
	2/ 2x8	NO. 1	21.75 26.28	3285	3778	4106	1378	1584	1722
		NO. 2	45.27	2738	3148	3422	1378	1584	1722
*	3/ 2x8	NO. 1	32.62 39.42	5749	6611	7186	2066	2376	2533
		NO. 2	142.91	4763	5478	5954	2066	2376	2533
*	4/ 2x8	NO. 1	43.50 52.96	7665	8815	9581	2755	3168	3444
		NO. 2	190.54	6351	7304	7939	2755	3168	3444
*	1/ 2x10	NO. 1	13.88 21.39	3119	3587	3899	879	1010	1098
		NO. 2	78.93	2585	2972	3231	879	1010	1098
	2/ 2x10	NO. 1	27.75 42.78	5348	6150	6684	1758	2021	2197
		NO. 2	197.86	4456	5125	5570	1758	2021	2197
*	3/ 2x10	NO. 1	41.62 64.17	9358	10762	11698	2636	3031	3295
		NO. 2	296.80	7754	8917	9692	2636	3031	3295
*	4/ 2x10	NO. 1	55.50 85.56	12478	14349	15597	3515	4042	4394
		NO. 2	395.73	10338	11889	12923	3515	4042	4394
*	1/ 2x12	NO. 1	16.88 31.64	4614	5306	5768	1069	1229	1336
		NO. 2	177.98	3823	4397	4779	1069	1229	1336
	2/ 2x12	NO. 1	33.75 63.28	7910	9096	9888	2138	2458	2672
		NO. 2	355.96	6592	7580	8240	2138	2458	2672
*	3/ 2x12	NO. 1	50.62 94.92	13842	15919	17303	3206	3687	4007
		NO. 2	533.94	11470	13190	14338	3206	3687	4007
*	4/ 2x12	NO. 1	67.50 126.56	18457	21225	23071	4275	4916	5344
		NO. 2	711.92	15293	17587	19116	4275	4916	5344

ALLOWABLE STRESSES:

GRADE:
DF #1
DF #2

F_b:
1500 psi
1250 psi

* F_b (REPETITIVE):
1750 psi
1450 psi

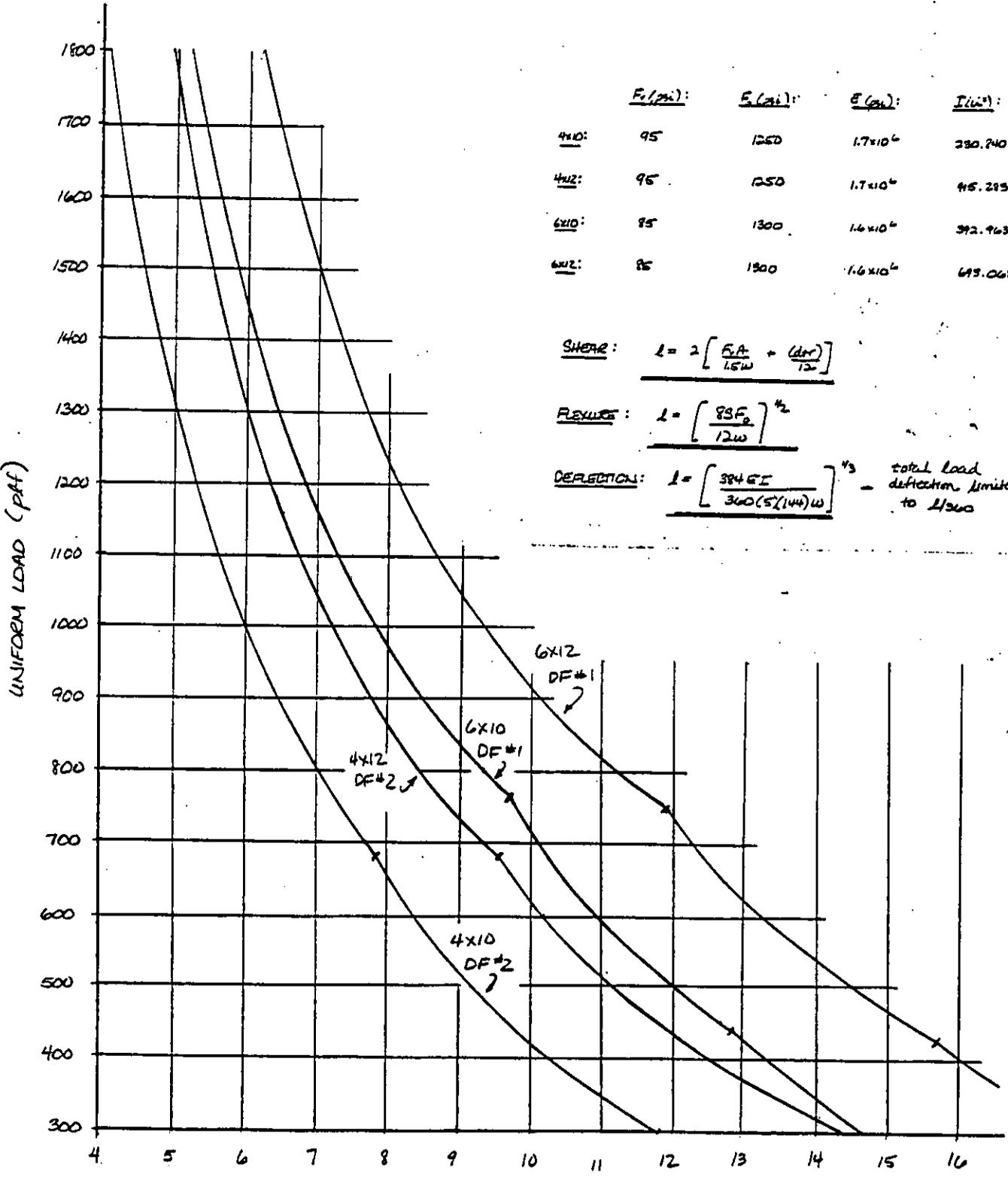
F_v:
95 psi
95 psi

11.3.91	MOMENT AND SHEAR CAPACITIES	910435
Tel		3 OF

DOUG FIR SIZE GRADE	A S I	MOMENT CAPACITY (k#)			SHEAR CAPACITY (#)			
		1.00	1.15	1.25	1.00	1.15	1.25	
4x6	NO. 1	19.25	2206	2537	2757	1219	1402	1524
		17.65						
	NO. 2	48.53	1838	2114	2298	1219	1402	1524
4x8	NO. 1	25.38	3833	4408	4791	1607	1848	2009
		30.66						
	NO. 2	111.15	3194	3673	3992	1607	1848	2009
4x10	NO. 1	32.38	6239	7175	7799	2050	2358	2563
		49.91						
	NO. 2	230.84	5199	5979	6499	2050	2358	2563
4x12	NO. 1	39.38	9229	10613	11536	2494	2868	3117
		73.83						
	NO. 2	415.28	7690	8844	9613	2494	2868	3117
4x14	NO. 1	46.38	12801	14722	16002	2937	3378	3671
		102.41						
	NO. 2	678.48	10668	12268	13335	2937	3378	3671
6x6	NO. 1	30.25	2773	3189	3466	1714	1971	2143
		27.73						
	S.S.	76.26	3466	3986	4333	1714	1971	2143
6x8	NO. 1	41.25	5156	5930	6445	2338	2688	2922
		51.56						
	S.S.	193.36	6445	7412	8057	2338	2688	2922
6x10	NO. 1	52.25	8962	10307	11203	2961	3405	3701
		82.73						
	S.S.	392.96	11031	12685	13788	2961	3405	3701
6x12	NO. 1	63.25	13133	15103	16416	3584	4122	4480
		121.23						
	S.S.	697.07	16164	18588	20205	3584	4122	4480
6x14	NO. 1	74.25	17863	20543	22329	4208	4839	5259
		167.06						
	S.S.	1127.67	21985	25283	27482	4208	4839	5259
6x16	NO. 1	85.25	23189	26668	28987	4831	5555	6039
		220.23						
	S.S.	1706.78	28541	32822	35676	4831	5555	6039

Fb psi	4x #1	#2	6x6 & 8 #1	S.S.	6x10 TO 16 #1	S.S.
	1500	1250	1200	1500	1300	1600
Fv psi	95	95	ALL 6x	85		

11.8.91	FLOOR GIRDERS	910A-B5
Ter	4X10 DF#2, 4X12 DF#2, 6X10 DF#1, 6X12 DF#1	4 OF



	$F_y (ksi):$	$E (ksi):$	$E (psi):$	$I (in^4):$	$S (in^3):$
4x10:	95	1250	1.7×10^6	230.240	49.911
4x12:	95	1250	1.7×10^6	46.285	73.722
6x10:	95	1300	1.6×10^6	392.963	82.729
6x12:	85	1300	1.6×10^6	69.068	121.229

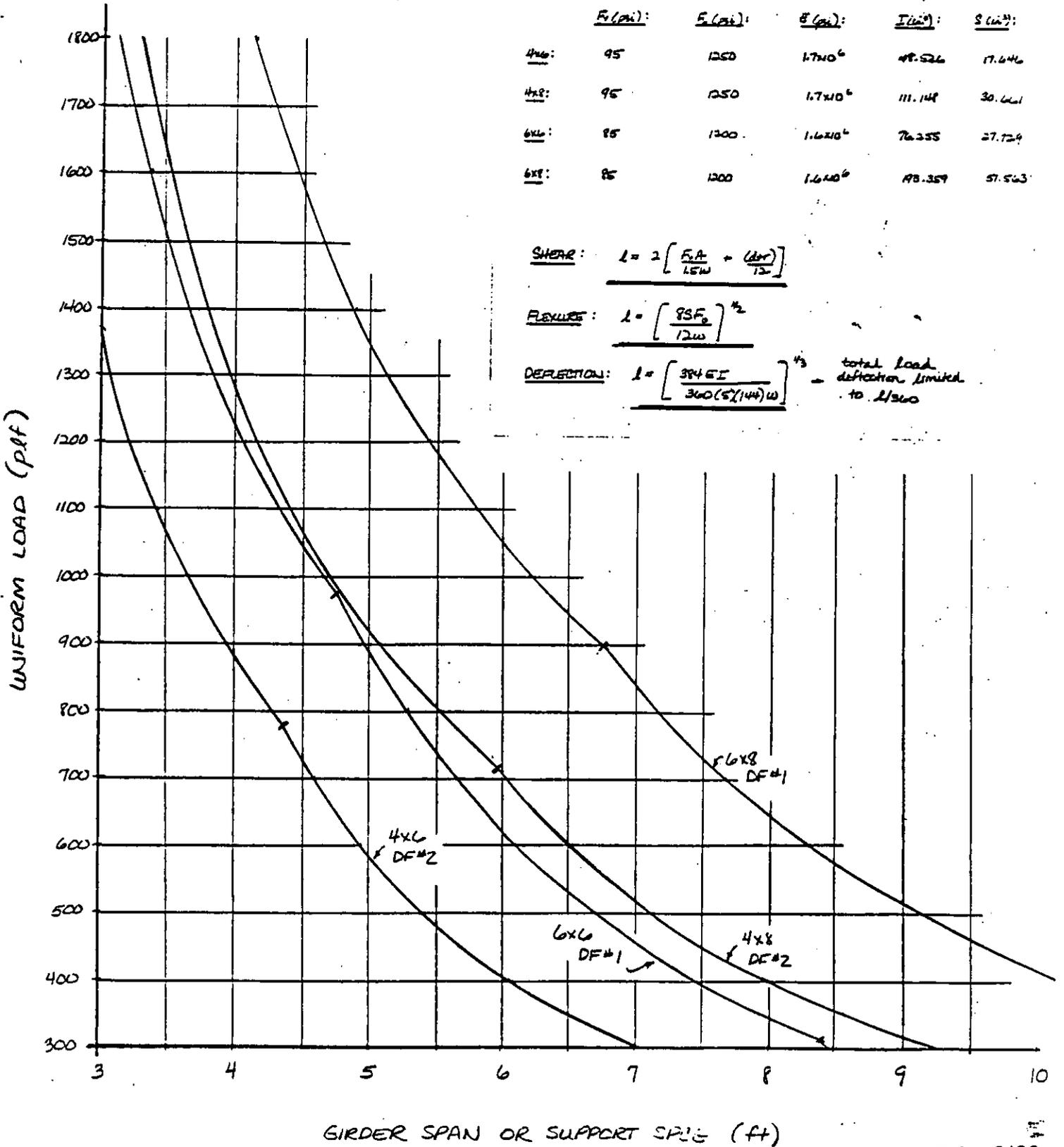
SHEAR:
$$L = 2 \left[\frac{F_y A}{1.5W} + \frac{(dcr)}{12} \right]$$

FLEXURE:
$$L = \left[\frac{88 F_y S}{12W} \right]^{1/2}$$

DEFLECTION:
$$L = \left[\frac{384 EI}{340(5)(144)W} \right]^{1/3}$$
 - total load deflection limited to L/360

GIRDER SPAN OR SUPPORT SPACING (ft)

11.8.91	FLOOR GIRDERS (NORMAL DURATION) 4X6 DF#2, 4X8 DF#2, 6X6 DF#1, 6X8 DF#1	910485
Ted		5 OF



	$F_y (psi)$	$F_c (psi)$	$E (psi)$	$I (in^4)$	$S (in^3)$
4x6:	95	1250	1.7x10 ⁶	49.526	17.646
4x8:	95	1250	1.7x10 ⁶	111.148	30.661
6x6:	95	1200	1.6x10 ⁶	76.255	27.729
6x8:	95	1200	1.6x10 ⁶	173.359	57.563

SHEAR:
$$L = 2 \left[\frac{F_y A}{1.5W} + \frac{(d)(r)}{12} \right]$$

FLEXURE:
$$L = \left[\frac{93F_y}{12W} \right]^{1/2}$$

DEFLECTION:
$$L = \left[\frac{384EI}{360(S)(144)W} \right]^{1/3}$$
 - total load deflection limited to 1/360

11.1.91		910485
T=Q	Wilson	6 OF

ROOF FRAMING :

- Roof Beam of Open area: $l = 23.5'$
 $w = 1\frac{1}{2} \times (20+16) = 180 \text{ PLF}$

$$M = 12,426' \#$$

$$\Delta_{TL} = 0.68" \Rightarrow 1/412 \text{ OK}$$

\therefore Use 6x14 DF # 1

- Roof Beam of Bedroom # 2 : $l = 21'$

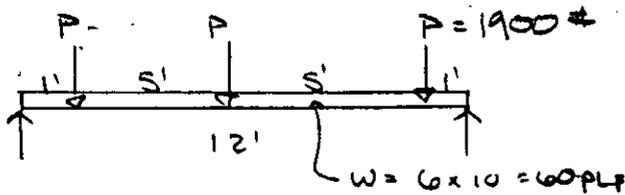
$$w = 180 \text{ PLF}$$

$$M = 9,923' \#$$

$$\Delta_{TL} = 0.70" \Rightarrow 1/358 \text{ OK}$$

\therefore Use 6x12 DF # 1

- Gable end beam: $l = 12'$



$$R = 3210 \#$$

$$M = 8680' \#$$

$$w_{eq} = 482 \text{ PLF}$$

$$\Delta_{TL} = 0.20" \text{ OK.}$$

\therefore Use 4x14 DF # 2

11.1.91		910485
Ted	Wilson	7 OF

FLOOR FRAMING:

- Floor Beam supporting Roof of kitchen: $l = 16'$
 $W = 4\frac{3}{2} \times (16+16) + (4+10) + \frac{1}{2} \times (12+40) = 932 \text{ PLF}$
 $R = 7456 \#$
 $M = 29,824' \#$ $S_{GLB} = 119.3 \text{ in}^3$
 $\Delta_{\pi_{all}} = \frac{1}{240} = 0.8" \rightarrow I_{GLB} = 954 \text{ in}^4$
 \therefore Use $5\frac{1}{8}" \times 15"$ GLB
 (24F-V4)
- Typical Floor Beam: $l = 20'$ $W = 4.2' \times (12+40) = 220 \text{ PLF}$
 $M = 11,000' \#$
 $\Delta_{LL} = 0.52" \Rightarrow \frac{1}{453} \text{ OR}$ \therefore Use $4 \times 14 \text{ DF} \# 2$
- Lower floor girder: $W = 19\frac{1}{2} \times (12+40) = 500 \text{ PLF}$
 $4 \times 8 \text{ DF} \# 2$; $l_{\text{max}} = \underline{\underline{7'-2"}}$
 $P = 7.17 \times 500 = 3585 \#$ \therefore Use $2'-0"$ SQ.
 CONCL. PAD

11.8.91	SHEAR WALL DESIGN GUIDE	910485
Tel.		8 OF

Type	Sheathing/Nailing	See Notes 1-7	Allowable Shear	Type	Sheathing/Nailing	See Notes 1-7	Allowable Shear
①	3/8" / 8d at 6" o.c.		260 plf	⑩	303 siding / 8d at 6" o.c.		180 plf
②	3/8" / 8d at 3" o.c.		490 plf	⑪	303 siding / 8d at 3" o.c.		350 plf
③	3/8" / 8d at 2" o.c. Notes C & D		636 plf	⑫	1/2" gypsum wallboard / 5d cooler or wallboard at 7" o.c. (unblocked) Notes E and F	Wind	100 plf
④	3/8" each side / 8d at 3" o.c. Note B		980 plf			Earthquake	50 plf
⑤	15/32" / 10d at 6" o.c.		310 plf	⑬	1/2" gypsum wallboard / 5d cooler or wallboard at 4" o.c. block all edges	Notes E and F	
⑥	15/32" / 10d at 4" o.c.		460 plf			Wind	150 plf
⑦	15/32" / 10d at 3" o.c. Note A		600 plf			Earthquake	75 plf
⑧	15/32" / 10d at 2" o.c. Notes C & D		770 plf	⑭	7/8" stucco / No. 16 gauge x 7/8" leg staples at 6" o.c. Note E		180 plf
⑨	15/32" each side / 10d at 3" o.c. Note B		1200 plf				

TYPICAL NOTES

1. Studs shall be at 16" o.c. maximum
2. Field nailing for all plywood shall be at 12" o.c.
3. Block and nail all plywood edges.
4. All plywood shall be spliced at centerline of framing or blocking. (See details 5/S1, 6/S1 and 7/S1).
5. See detail 11/S1 for typical shear wall details.
6. See "wall bracing" note in General Structural Notes for general requirements.
7. For holddown detail see 8/S1.

SPECIAL NOTES (only if required, see schedule):

- A. Use 10d shorts (2-1/8" long) common nails or use 3x framing per notes C and D.
- B. Panel joints (each side of wall) shall be offset to fall on different framing members or use 3x framing per notes C and D.
- C. Stagger nails at plywood edges, typical.
- D. At plywood joints, use 3x minimum studs or blocking.
- E. Applies to nailing at all studs, top and bottom plates and blocking.
- F. Use 6d cooler or wallboard nails at 5/8" gypsum wallboard.

Anchor Bolt	Sill Plate	Parallel Bolt Value/+33%	Anchor Bolt Spacing (PLF)					
			1'-4"	2'-0"	2'-8"	4'-0"	5'-4"	6'-0"
1/2"	2x	633 / 842	633	421	315	211	158	140
	3x	635 / 845	635	422	316	211	159	141
	4x	635 / 845	635	422	316	211	159	141
5/8"	2x	950 / 1264	950	632	473	316	273	211
	3x	994 / 1322	994	661	495	330	248	220
	4x	994 / 1322	994	661	495	330	248	220
3/4"	2x	1278 / 1700	1278	850	637	425	319	283
	3x	1423 / 1893	1423	946	709	473	355	315
	4x	1430 / 1902	1430	951	712	475	357	317

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LATERAL REVIEW

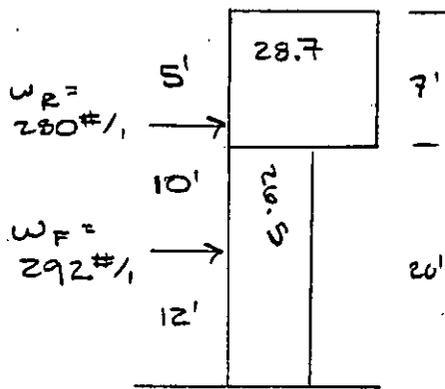
1. All exterior walls except as noted in 3. below conform to the bracing requirements of the conventional construction provisions of the Uniform Building Code section 2517 (g) 3.
2. Conventional bracing methods used:
 - a. All top floor exterior walls and main cross-stud partitions.
 - (i) Nominal 1-inch by 4-inch continuous diagonal braces let into top and bottom plates and intervening studs, placed at an angle no more than 60 degrees nor less than 45 degrees from the horizontal, and attached to the framing in conformance with UBC Table No. 25-Q. Install braces at each end or as near thereto as possible and at 25' o.c. maximum.
 - (ii) Gypsum board (sheathing 1/2 inch thick by 4 feet wide, wallboard or veneer base) on studs not over 24" o.c. and nailed at 7 inches on center to all blocks (if required), plates and studs with nails as required by UBC Table No. 47-I.
 - (iii) Plywood sheathing or siding with a thickness not less than 3/8 inch in accordance with UBC Table No. 25-M-1, No. 25-N-1 and No. 25-Q.
 - b. All exterior walls and main cross stud partitions below the top story and all exterior cripple walls shall be sheathed in accordance with item 2-a(ii) or 2-a(iii)
3. Calculated Areas

TRANSVERSE DIRECTION

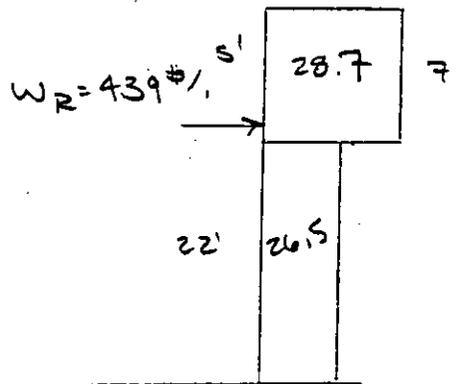
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LATERAL REVIEW (CON'T) :

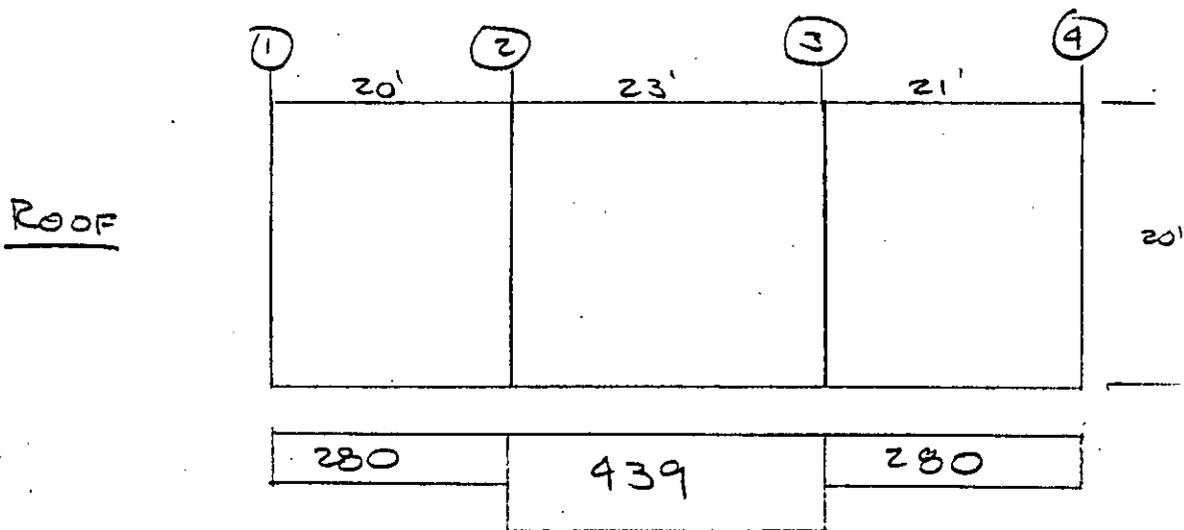
BY OBSV. WIND LOAD GOVERNS



@ 2 story



@ Balloon Framed walls



- Roof Diaphragm: $V_{max} = 439(23)/2 \times 20' = 252 \text{ #/ft}$
 \therefore Use $1\frac{5}{32}$ " shft w 8 de G.L. 12
 $V_{all} = 240 \text{ PLF}$ (5% overstress)
 (unblocked) OK

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Ted	Wilson	11 OF

LATERAL REVIEW (CON'T):

Diaphragm Chord:

$$T_{max} = 439(23)^2 / 8 \times 20 = 1451 \#$$

$$\# \text{ 16d nails} = 1451 / 94 \times 1.33 = 11.6 \quad \underline{\text{SAY 12 NAILS}}$$

- Floor diaphragm: $T = 292 \times 21 / 2 \times 20 = 153 \text{ PLF}$
 \therefore Use 15/32" sheq w/ 8d @ 6, 6, 10 (UNBLOCKED)

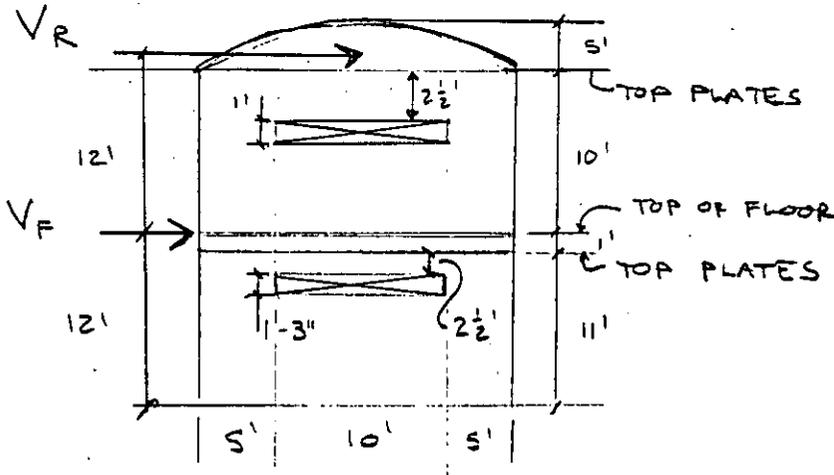
Chord: $T = 292(21)^2 / 8 \times 20 = 805 \#$ Use 8-16d nails

- Shearwalls:

End walls @ ① & ④:

$$V_R = 21 \times 280 / 2 = 2940 \#$$

$$V_F = 21 \times 292 / 2 = 3066 \#$$

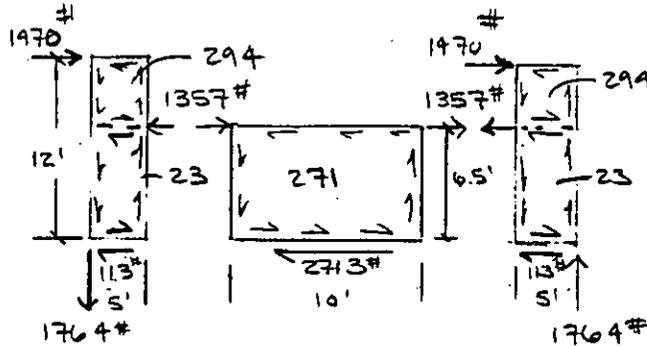


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LATERAL REVIEW (CONT):

Roof Shearwall:

$\sqrt{S} = 294 \text{ PLF}$
 \therefore Use $3/8" \text{ shtg}$
 $W/8 \times C3" \text{ o.c.}$



$T = 1357\#$ Use CS150 STRAP

OVERTURNING:

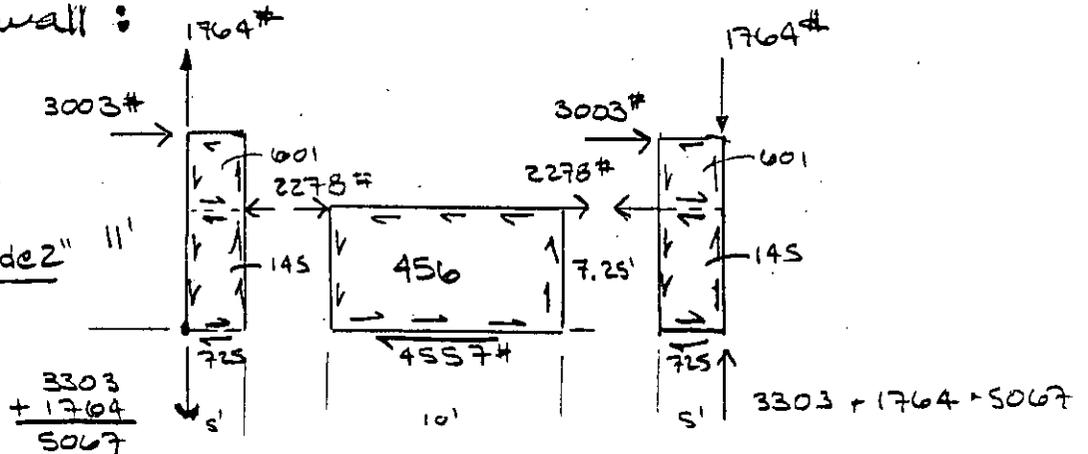
$M_{OT} = 2940 \times 12 = 35,280$
 $M_{RES} = \frac{2}{3} (12 \times 10) / (20)^2 = 16,000$
 $M_{net} = 19,280$

$T = 964\#$ Use LTT20B
 btwn FLOORS

Floor Shearwall:

$\sqrt{S} = 3003/5 = 601 \text{ PLF}$

\therefore Use $3/8" \text{ shtg}$ w/ \emptyset de 2" 11"



$T_{STRAP} = 2278\#$ Use 2 - C6150 STRAPS

OVERTURNING:

$M_{OT} = 107,352$
 $M_{RES} = 32,000$
 $M_{net} = 75,352'$

$T = 3768\#$
 Use WOSA

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Ter	Wilson	13 OF

LATERAL REVIEW (CON'T) :

Shearwall e (3) :

$$V_{ROOF} = (2\frac{3}{2} \times 439) + (2\frac{1}{2} \times 280) = 7985 \#$$

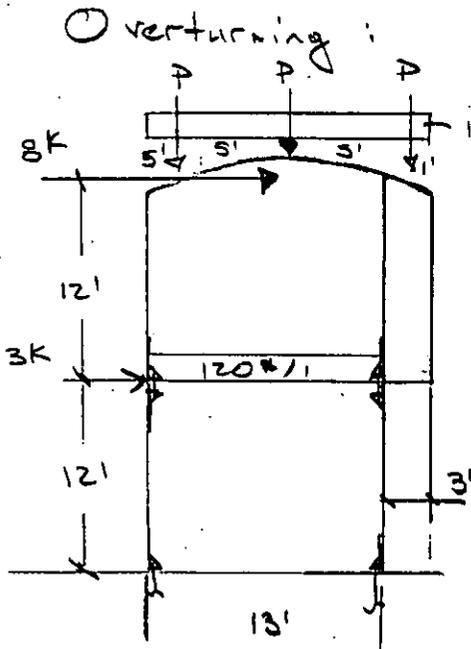
$$V_{S.W.} = 7985 / 16 = 499 \text{ PLF} \quad \therefore \text{Use } \frac{3}{8}'' \text{ AAA SHtg}$$

w/ 8 d e 3" o.c.
(2% overstress ok)

$$V_{FLOOR} = (7985) + (292 \times 2\frac{1}{2}) = 11,051 \#$$

$$V_{S.W.} = 11,051 / 13 = 850 \text{ PLF} \quad \therefore \text{Use } \frac{3}{8}'' \text{ SHtg both sides}$$

w/ 8 d e 3" o.c.



$$P = (9\frac{1}{2}) (10\frac{1}{2}) (16) = 1760 \#$$

2nd FLR TO 1st FLR :

$$M_{OT} = 96' \text{ K}$$

$$M_{RES} = 31.4' \text{ K}$$

$$M_{net} = 64.6' \text{ K} \quad T = 5' \quad \therefore \text{Use HD7A}$$

1st FLR :

$$M_{OT} = 228' \text{ K}$$

$$M_{RES} = 38' \text{ K}$$

$$M_{net} = 190' \text{ K}$$

$$T = 14.6' \text{ K}$$

$$\therefore \text{Use HD20A}$$

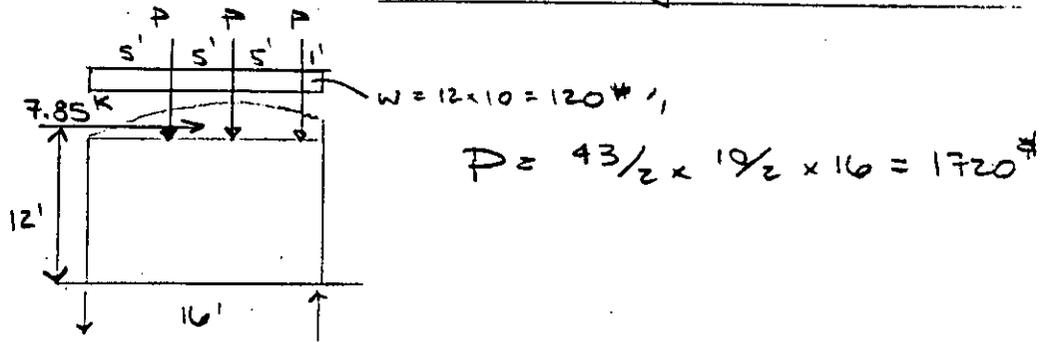
11.4.91		910485
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LATERAL REVIEW (CON'T):

- Roof Shearwall @ (2) : $V = (20/2 \times 280) + (23/2 \times 439)$
 $V = 7850 \#$

$\sqrt{s.w.} = 7850/16 = 491 \#/\text{ft}$, $\therefore 3/8" \text{ Stg } w/ 8d @ 3" o.c.$

Overturning:



$M_{OT} = 94.2'K$
 $M_{RES} = [(1.72)(1+6+11) + 0.12(16)^2/2]^{2/3} = 30.9'K$
 $M_{net} = 63.3'K$

$T = 3.96K$ \therefore Use HDSA

- Steel col. @ (2) (Floor) : $V = 7850 + 2 \times 2(20)/2$
 $V = 10.77K$

$\Delta_{H \text{ all}} > .005 H = .005 (12 - 1(2M) + 2' (\text{thru 1st floor}))$

$\Delta_H = .005 (13.0)(12) = 0.78"$

$\Delta_H = \frac{P L^3}{3EI} \rightarrow I_{REQ} = 541 \text{ in}^4$

$M = (13)(10.77) = 140.1K$

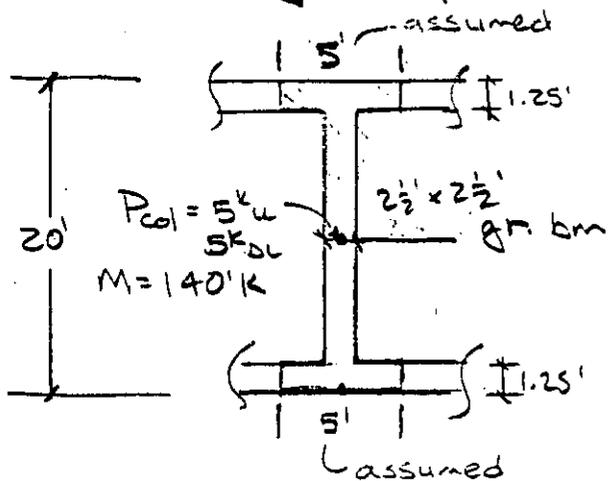
$S_{REQ} = \frac{(140)(12)}{(1.33)(0.6)(36)} = 58 \text{ in}^3$

\therefore Use W16x45

11.4.91		910485
Ted	Wilson	15 OF

LATERAL REVIEW (CON'T):

Footing design:



$$DL \text{ OF gr. bm} = (2.5)^2 < 17.5 < 150 \\ = 16.4 k$$

$$DL \text{ OF WALL \& CONC. FTG @ ENDS} \\ = [(2.5 \times 10) + 300PLF] 5' = 2.6 k$$

$$P_{TL} = 5 + 5 (\text{col.}) + 16.4 + 2 \times 2.6$$

$$P_{TL} = 31.6 k$$

$$P_R = 26.6 k$$

$$A_{BM} = 56.3 \text{ ft}^2$$

$$I_{BM} = 2215. \text{ ft}^4$$

$$S_{BM} = 221 \text{ ft}^3$$

$$q_{max} = \frac{31.6}{56.3} + \frac{140 + 63}{221} = 1.48 \text{ KSF} \\ \text{OK}^*$$

$$q_{min} = \frac{26.6}{56.3} - \frac{140 + 63}{221} = 450 \text{ P.S.F. UPLIFT} \\ \text{OK}^*$$

(*Use of 5' width from cont. ftg) is conservative

Req'd Steel in 2.5' x 2.5' gr. bm: ($d = 27''$)

$$M_u = 1.3 \times 140 = 182' k$$

$$a = A_s(60) / (.85)(2.5)(30) = 0.941 A_s$$

$$182 = (0.9)(60)(A_s)(27 - \frac{0.941 A_s}{2})$$

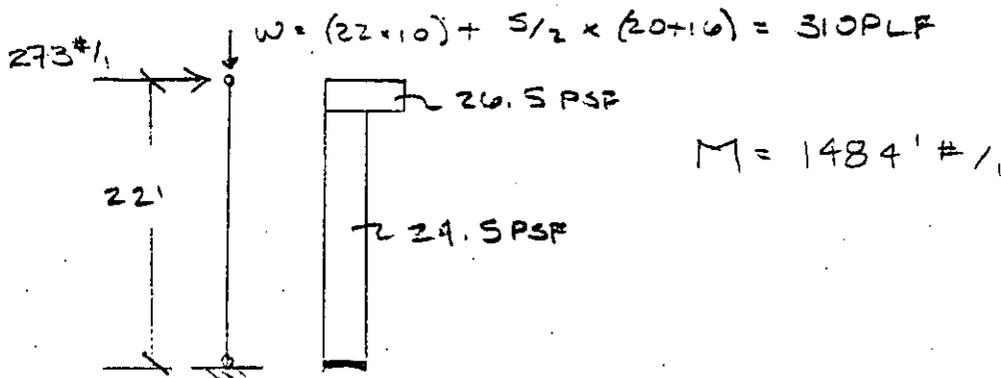
$$0.471 A_s^2 - 27 A_s + 40.44 = 0$$

$$A_s = 1.23 \text{ in}^2 \rightarrow 4 - \#5's \text{ TOP \& BOT.}$$

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Ted	Wilson	16 OF 16

LATERAL REVIEW (CON'T) :

Design of 22' Balloon Framed walls :



2x6 wall: $\frac{l_e}{d} = \frac{22 \times 12}{5.5} = 48 \quad \therefore \text{Long col.}$

2x6 DF #2 $K = 0.671 \sqrt{\frac{1.7 \times 10^6}{(1.45)(4/3)}} = 23.4$

$F_c = \frac{0.3(1.7 \times 10^6)}{(48)^2} = 221 \text{ psi}$ $j = \frac{48 - 11}{23.4 - 11} = 2.98$

2-2x6 @ 10' o.c. : $P = 310(2/3) = 207 \#$

$f_c = 25 \text{ psi}$

$f_b = \frac{1484(2/3)(12)}{7.56} = 1570 \text{ psi}$

$F_b = 1450(4/3) = 1933 \text{ psi}$

$\frac{25}{221} + \frac{1570}{1933 - (2.98)(25)} = 0.96 \quad \text{OK}$