B

Type

✓

Plans

BLD08-1899

Permit Number

34285

Street Number

KRUSE RANCH RD

Street Name

TIM

Community Code

109-030-003

APN

COUNTY OF SONOMA - PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403 (707) 565-1900 FAX (707) 565-1103

Please Print Your Name: Douglas Murray **Date Applied:** 13 MAY 08

INFORMATION WITHIN HEAVY LINE TO BE COMPLETED BY APPLICANT

JOB ADDRESS: 34285 Kruse Ranch Rd TM PERMIT NUMBER: BLD08-1899 INSPECTION AREA: 2

SITE LOCATION INFORMATION - PRINT CLEARLY

Site Address: 34285 Kruse Ranch Rd	City: Plantation (Cazadero)	ZIP: 95421	
Cross-Street: Seaview Rd	APN: 109 030 003	Project Phone #: (847 0050	Project Fax #: ( )
Directions: HWY 1 to Seaview to Kruse Ranch Rd	Subd. Name: 0	Unit #:	Lot #:
Describe Project: Brown House Addition - Addition to Single Family	Living Area: 895 Garage: 0 Decks: 515	Contract Price:	

OWNER NAME AND ADDRESS			APPLICANT NAME AND ADDRESS		
Name: David & Suzanne Brown			Name: Douglas Murray		
Mailing Address: 34285 Kruse Ranch Rd.			Mailing Address: P.O. BOX 1864		
City: Cazadero	State: CA	ZIP: 95421	City: Sebastopol	State: CA	ZIP: 95473
Day Ph: (847 0050	Fax: ( )		Day Ph: (707) 829-5596	Fax: (707) 823 5745	
CONTRACTOR INFORMATION			**OTHER PERSONS (ARCHITECT, ENGINEER, ETC.)**		
Company Name:			Name:		
Address:			Address: Arch. see above		
City:	State:	ZIP:	City:	State:	ZIP:
Day Ph: ( )	Fax: ( )		Day Ph: ( )	Fax: ( )	
			License No:	Exp. Date:	

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 worker's compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:

Carrier _____

Policy No. _____

(This section need not be completed if the permit is for one hundred dollars ($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 worker's compensation laws of California, and agree that if I should become subject to the worker's compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Exp. Date: _____ Applicant: _____

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 FEES.

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury 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, 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 Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 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).):

☐ I, as 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 Professions 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 or 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 or 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 & P.C. for this reason _____

Date _____ Owner _____

LICENSED CONTRACTOR'S 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.

Lic. Class _____ Lic. No. _____

Exp. Date _____ Contractor _____

ASBESTOS DECLARATION

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 from construction that (☐ does) (☐ does not) contain asbestos, or that ☐ no demolition is authorized by this permit.

I certify that I have read this application and affirm under penalty of perjury that the above information is correct. I agree to comply with all local Ordinances 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 for the Worker's Compensation provision of the Labor Code I should become subject to such provisions, I will forthwith comply. In the event I do not comply with the Workman's Compensation law, this permit shall be deemed revoked.

PERMITTEE SIGNATURE _____

ADDRESS _____ CITY _____ ZIP _____

☐ Contractor ☐ Owner ☒ Other Licensed Professional

CONSTRUCTION LENDING DECLARATION

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.).

Lenders Name _____

Lenders Address _____

FOR DEPARTMENT USE

Zoning: TP CC BC 160/160 SR G Acres: 30.00

Existing Use/Structures: 25 F.Dw. Studio, Druids Hall, Barns

Proposed Use/Structures: Small Addition

Zoning Min. Yard Requirements: Front 75' Left 20' Right 20' Back 20'

NOTE: Fire Safe Standards require all parcels greater than 1 Acre to have a min. 30' setback unless mitigated. ☐ Mitigation Required ☐ Address subject to change

Approval for Permit Issuance:

By: _____

Date: _____

Approval for Occupancy:

By: [signature]

Date: 5-14-08

Conditions: No ADR req'd No Coastal Permit - Less than 10% Discussed TPZ & W.A.

Sewer Connection: ☐ Available ☐ Fees Paid

Approved by: _____ Date: _____

Road Encroachment: ☐ Fees Paid

Approved by: [signature] Date: 5-14-08

Septic System Permit/Clearance #: SEPTIC OK per T Fitzgerald EFink

Approved by: [signature] Date: 8-6-08

Flood Zone: ☐ Yes ☒ No 100 Year Flood Elevation: _____

Site Review _____

Drainage Review:

Approved by: NR [signature] Date: 5/14/08

Fire:

Approved by: _____ Date: _____

Code Enforcement Violation ☐ Yes ☒ No Violation # _____

This permit is limited to _____ days.

Work Authorized: Add to SFD

☒ Plans Approved ☐ No Plans Subject to Field Inspection

☐ Post FIRM ☐ Alquist Priolo Report Available ☐ Pre FIRM ☐ Geotechnical report Available

Plancheck Cleared By	Date	Type of Construction	Occupancy	No. of Stories	No. of Bedrooms
[signature]	7/24/08	VN	R3	2	

Permit Cleared for Issuance by	Date	Auto. Fire Sprinklers Req'd	No of Units	Certificate of Occupancy
[signature]	8/6/08	NO		

Machine Speed for Permit Fee C'D

$ 3,134.31

AUG 18 2008

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT COUNTY OF SONOMA

Final Date:	Inspector:

THIS PERMIT SHALL EXPIRE IN THREE(3) YEARS FROM DATE FEES ARE PAID UNLESS OTHERWISE NOTED BY CODE ENFORCEMENT

sennis h\forms\cis\CIS-007.cdr Revised: 4/8/2004

Distribution: White - File Canary - Applicant Pink - Audit Copy Blue - Assessor Cardstock - Inspector

131) SPECIAL INSPECTION REQUIRED	☐ YES	☒ NO	IF YES, SEE ADDITIONAL SHEET

INSPECTION RECORD	DATE	NAME
101) ROUGH GRADING		
103) FOUNDATION		
FORMS/SETBACK		
FOOTING		
WALLS		
106) UFER GROUND #		
104) CAISSONS/PIERS	10-17-08	Sd
105) SLAB		
107) UNDERGROUND UTILITIES		
110) MASONRY		
109) RETAINING WALLS		
113) FIREPLACE		
FOOTING		
HEARTH/PROTECTION		
THROAT		
114) CHIMNEY		
120) UNDERFLOOR/UNDERSLAB	11-10-08	RP
115) HYDRONICS		
116) U/F ELECTRICAL	4-22-09	Sd
117) U/F MECHANICAL		
118) U/F PLUMBING		
119) U/F FRAMING	11-10-08	RP
139) U/F INSULATION		
126) SHEAR WALLS	4-10-09	Sd
☒ INTERIOR ☒ EXTERIOR		
127) DIAPHRAGMS	12-26-08	S.A
☒ ROOF ☐ FLOOR		
134) SIDING/SHEATHING	1-13-10	Sd
125) HOLD DOWNS		
132) CLOSE-IN		
122) ROUGH ELECTRICAL	4-10-09	Sd
123) ROUGH MECHANICAL		
124) ROUGH PLUMBING		
128) ROUGH FRAME		
160) SMOKE DETECTORS	1-13-10	Sd
139) INSULATION		
142) WALLBOARD	4-22-09	Sd
143) FIREWALLS		
135) STUCCO/PLASTER		
☐ LATH ☐ SCRATCH		
137) ROOFING	1-13-10	Sd
130) TUB/SHOWER PAN		
162) FIRE DAMPERS/DOORS		
164) SUSPENDED CEILING		
☐ ROUGH ELEC. ☐ ROUGH MECH.		
165) EXITING - RAMPS/STAIRS	1-13-10	Sd
163) HANDRAILS/GUARDRAILS		
CORRIDORS/DOORS		
166) ACCESSIBILITY COMPLIANCE		
144) WATER TANKS		
☐ SLAB ☐ WALLS		
170) TEMPORARY OCCUPANCY		
171) TEMPORARY ELECTRICAL		
172) TEMPORARY GAS		
174) ELECTRIC METER AUTHORIZATION	12-24-08	Sd
152) PANEL BOARDS/SERVICE	1-13-10	Sd
189) SEPTIC ELECTRIC FINAL		
175) GAS METER AUTHORIZATION		
153) GAS PRESSURE TEST	4-22-09	Sd
HOUSE YARD		
190) MANUF. HOME FOUNDATION		
191) MANUF. HOME INSTALLATION		
CONTINUITY		
STAIRS/SKIRTS		
RIDGE BOLTING		
193) MANUF. HOME COND. FINAL		
SWIMMING POOLS		
194) PRE-GUNITE		
195) PRE-DECK		
196) PRE-PLASTER/FENCE		
197) VINYL/FIBERGLASS POOL EXCAVATION		
102) GRADING FINAL		
176) ELECTRICAL FINAL	1-12-10	Sd
177) MECHANICAL FINAL		
178) PLUMBING FINAL		
199) FINAL	* 2/25/10	JC
OCCUPANCY (OK TO OCCUPY)		

REMARKS

(103) O.K. to pour as indicated by a yellow highlite. See sht. 1 10-17-08 Sd

(132,128,122) O.K. to close-in ext. lower level soffets. 2-27-09 Sd

(115) 11-10-08) Underfloor ok. RP

650)	SUSMP INSPECTION
651)	NPDES EROSION COMPLIANCE
652)	NPDES SEDIMENT COMPLIANCE
653)	NPDES DOCS/SWPPP

FIRE INSPECTION REQUIRED ☐ Yes ☐ No	DATE	NAME
759) KNOX BOX		
760) PROPANE TANK HOLD DOWNS		
770) SPRINKLER FINAL		
771) ABOVEGROUND HYDROSTATIC		
772) UNDERGROUND HYDROSTATIC		
773) UNDERGROUND FLUSH		
774) THRUST BLOCKS		
775) PIPE WELD		
776) HYDRANTS/APPLIANCES		
777) PUMP ACCEPTANCE		
778) WATER SUPPLY/TANK		
779) ALARM SYSTEM		
780) HOOD & DUCT SYSTEM		
781) ABOVEGROUND TANK/DISPENSER		
198) FIRE FINAL		

CLEARANCES:

FIRE ☐ Local ☐ County

HEALTH DEPARTMENT

ZONING

SANITATION

PLAN RETENTION REQUIRED? ☐ Yes ☐ No

PERMIT # BU08-1899

sennis CIS-008.cdr Rev. 04/15/04

Certificate Of Compliance : Residential (Part 1 of 4) CF-1R

Brown Addition
Project Title

3/6/2008
Date

34285 Kruse Ranch Road Cazadero
Project Address

Building Permit #

Douglas Murray, Architect (707) 829-5596
Documentation Author Telephone

Plan Check/Date

EnergyPro 1
Compliance Method Climate Zone

Field Check/Date

TDV (kBtu/sf-yr)	Standard Design	Proposed Design	Compliance Margin
Space Heating	11.79	11.46	0.32
Space Cooling	0.77	0.43	0.34
Fans	0.14	0.08	0.06
Domestic Hot Water	0.00	0.00	0.00
Pumps	0.00	0.00	0.00
Totals	12.70	11.98	0.72
Percent better than Standard:			5.7%

BUILDING COMPLIES - NO HERS VERIFICATION REQUIRED

Building Type: [X] Single Family [ ] Multi Family [X] Addition [ ] Existing + Add/Alt

Building Front Orientation: (S) 180 deg
Fuel Type: Natural Gas
Fenestration:
Area: 243 ft² **Avg. U:** 0.34
Ratio: 27.2% **Avg. SHGC:** 0.55

Total Conditioned Floor Area: 895 ft²
Existing Floor Area: n/a ft²
Raised Floor Area: 110 ft²
Slab on Grade Area: 0 ft²
Average Ceiling Height: 8.0 ft
Number of Dwelling Units: 0.22
Number of Stories: 2

BUILDING ZONE INFORMATION

Zone Name	Floor Area	Volume	# of Units	Zone Type	Thermostat Type	Vent Hgt.	Vent Area
HVAC System	895	7,160	0.22	Conditioned	Setback	8	n/a

OPAQUE SURFACES

Type	Frame	Area	U-Fac.	Insulation Cav.	Insulation Cont.	Act. Azm.	Tilt	Gains Y	Gains N	Condition Status	JA IV Reference	Location / Comments
Floor	Wood	90	0.028	R-30	R-0.0	0	180		X	New	20-A7	1st Floor
Wall	Wood	83	0.102	R-13	R-0.0	0	90	X		New	09-A3	1st Floor
Floor	Wood	20	0.034	R-30	R-0.0	0	180		X	New	21-A7	2nd Floor
Wall	Wood	135	0.069	R-21	R-0.0	180	90	X		New	09-A6	2nd Floor
Wall	Wood	175	0.069	R-21	R-0.0	270	90	X		New	09-A6	2nd Floor
Wall	Wood	168	0.069	R-21	R-0.0	0	90	X		New	09-A6	2nd Floor
Roof	Wood	850	0.036	R-30	R-0.0	180	0	X		New	02-A9	2nd Floor

Certificate Of Compliance : Residential (Part 2 of 4) CF-1R

Brown Addition
Project Title

3/6/2008
Date

FENESTRATION SURFACES

#	Type	Area	U-Factor[1]	SHGC[2]	True Azm.	Tilt	Cond. Stat.	Glazing Type	Location/ Comments
1	Window Rear (N)	66.7	0.340 NFRC	0.55 NFRC	0	90	New	Milgard fiberglass	1st Floor
2	Window Front (S)	55.0	0.340 NFRC	0.55 NFRC	180	90	New	Milgard fiberglass	2nd Floor
3	Window Left (W)	54.6	0.340 NFRC	0.55 NFRC	270	90	New	Milgard fiberglass	2nd Floor
4	Window Rear (N)	66.7	0.340 NFRC	0.55 NFRC	0	90	New	Milgard fiberglass	2nd Floor

1. Indicate source either from NFRC or Table 116A. 2. Indicate source either from NFRC or Table 116B.

INTERIOR AND EXTERIOR SHADING

#	Exterior Shade Type	SHGC	Window Hgt.	Window Wd.	Overhang Len.	Overhang Hgt.	Overhang LExt.	Overhang RExt.	Left Fin Dist.	Left Fin Len.	Left Fin Hgt.	Right Fin Dist.	Right Fin Len.	Right Fin Hgt.
1	Bug Screen	0.76												
2	Bug Screen	0.76												
3	Bug Screen	0.76												
4	Bug Screen	0.76												

THERMAL MASS FOR HIGH MASS DESIGN

Type	Area (sf)	Thick. (in.)	Heat Cap.	Inside Cond.	R-Val.	JA IV Reference	Condition Status	Location/ Comments

PERIMETER LOSSES

Type	Length	R-Val.	Insulation Location	JA IV Reference	Condition Status	Location/ Comments

Certificate Of Compliance : Residential (Part 3 of 4) CF-1R

Brown Addition — Project Title

3/6/2008 — Date

HVAC SYSTEMS

Location	Heating Type	Minimum Eff	Cooling Type	Minimum Eff	Condition Status	Thermostat Type
HVAC System	Boiler	see below	No Cooling	13.0 SEER	Removed	Setback

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Condition Status	Ducts Tested?
HVAC System	Radiant Floor	Ducted	Attic	8.0	Removed	No

Hydronic Piping System Name	Pipe Length	Pipe Diameter	Insul. Thick.
Munchkin MUNCHKIN_T80M	0	0.50	0.50

WATER HEATING SYSTEMS

System Name	Water Heater Type	Distribution	# in Syst.	Rated Input (Btu/hr)	Tank Cap. (gal)	Condition Status	Energy Factor or RE	Standby Loss (%)	Tank Insul. R-Value Ext.
Munchkin MUNCHKIN T80M	Large Gas	Hydronic Heating	1	80,000	0	New	0.92	0.00%	0.0

Multi-Family Central Water Heating Details

Control	Hot Water Pump #	HP	Type	Hot Water Piping Length (ft) In Plenum	Outside	Buried	Add 1/2" Insulation

REMARKS

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them.This certificate has been signed by the individual with overall design responsibility. The undersigned recognizes that compliance using duct design, duct sealing, verification of refrigerant charge and TXVs, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business & Professions Code)

Name:
Title/Firm: Douglas Murray
Address: p.o.box 1864
Sebastopol, ca 95473
Telephone: 707.829.5596 Lic. #: C 17630

(signature) 06MAR08 (date)

Documentation Author

Name: douglas murray
Title/Firm: Douglas Murray, Architect
Address: P.O. Box 1864
Sebastopol, CA 95473
Telephone: (707) 829-5596

(signature) 06 MAR 08 (date)

Enforcement Agency

Name:
Title/Firm:
Address:
Telephone:

STAMP

(signature) (date)

Run Initiation Time: 03/06/08 09:31:32 Run Code: 1204824692

Certificate Of Compliance : Residential (Part 4 of 4) CF-1R

Brown Addition
Project Title

3/6/2008
Date

Special Features and Modeling Assumptions

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

	Plan	Field
~~The Existing Furnace "Quadra-Fire QV32ALP" has an AFUE less than the Table R3-11 CEC Default Vintage Values.~~		
The HVAC System "HVAC System" is a Hydronic System that uses a Dedicated Boiler for Space Heating (see CF-1R).	exist'g	

HERS Required Verification

Items in this section require field testing and/or verification by a certified home energy rater under the supervision of a CEC-approved HERS provider using CEC approved testing and/or verification methods and must be reported on the CF-4R installation certificate.

	Plan	Field

Mandatory Measures Summary: Residential (Page 1 of 2) MF-1R

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

DESCRIPTION	Check or initial applicable boxes or check NA if not applicable and included with the permit application documentation.	N/A	DESIGNER	ENFORCEMENT
Building Envelope Measures				
* § 150(a):	Minimum R-19 in wood ceiling insulation or equivalent U-factor in metal frame ceiling.	☐	☒	
§ 150(b):	Loose fill insulation manufacturer's labeled R-Value:_____.	☒	☐	
* § 150(c):	Minimum R-13 wall insulation in wood framed walls or equivalent U-factor in metal frame walls (does not apply to exterior mass walls).	☐	☒	
* § 150(d):	Minimum R-13 raised floor insulation in framed floors or equivalent U-factor.	☐	☒	
§ 150(e):	Installation of Fireplaces, Decorative Gas Appliances and Gas Logs.			
	1. Masonry and factory-built fireplaces have:			
	a. closable metal or glass door covering the entire opening of the firebox	☒		
	b. outside air intake with damper and control, flue damper and control	☒		
	2. No continuous burning gas pilot lights allowed.	☒		
§ 150(f):	Air retarding wrap installed to comply with §151 meets requirements specified in the ACM Residential Manual.	☐	☒	
§ 150(g):	Vapor barriers mandatory in Climate Zones 14 and 16 only.	☒		
§ 150(i):	Slab edge insulation - water absorption rate for the insulation alone without facings no greater than 0.3%, water vapor permeance rate no greater than 2.0 perm/inch.	☒		
§ 118:	Insulation specified or installed meets insulation installation quality standards. Indicate type and include CF-6R Form: _____	☐	☒	
§ 116-17:	Fenestration Products, Exterior Doors, and Infiltration/Exfiltration Controls.			
	1. Doors and windows between conditioned and unconditioned spaces designed to limit air leakage.	☐	☒	
	2. Fenestration products (except field fabricated) have label with certified U-Factor, certified Solar Heat Gain Coefficient (SHGC), and infiltration certification.	☐	☒	
	3. Exterior doors and windows weatherstripped; all joints and penetrations caulked and sealed.	☐	☒	
Space Conditioning, Water Heating and Plumbing System Measures				
§ 110-13:	HVAC equipment, water heaters, showerheads and faucets certified by the Energy Commission.	☐	☒	
* § 150(h):	Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA or ACCA.	☐	☒	
§ 150(i):	Setback thermostat on all applicable heating and/or cooling systems.	☐	☒	
§ 150(j):	Water system pipe and tank insulation and cooling systems line insulation.			
	1. Storage gas water heaters rated with an Energy Factor less than 0.58 must be externally wrapped with insulation having an installed thermal resistance of R-12 or greater.	☒		
	2. Back-up tanks for solar systems, unfired storage tanks, or other indirect hot water tanks have R-12 external insulation or R-16 internal insulation and indicated on the exterior of the tank showing the R-value.	☒		
	3. The following piping is insulated according to Table 150-A/B or Equation 150-A Insulation Thickness:			
	1. First 5 feet of hot and cold water pipes closest to water heater tank, non-recirculating systems, and entire length of recirculating sections of hot water pipes shall be insulated to Table 150B.	☒		
	2. Cooling system piping (suction, chilled water, or brine lines), piping insulated between heating source and indirect hot water tank shall be insulated to Table 150-B and Equation 150-A.	☒	☐	
	4. Steam hydronic heating systems or hot water systems > 15 psi, meet requirements of Table 123-A.	☒		
	5. Insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind.	☒		
	6. Insulation for chilled water piping and refrigerant suction piping includes a vapor retardant or is enclosed entirely in conditioned space.	☒	☐	
	7. Solar water-heating systems/collectors are certified by the Solar Rating and Certification Corporation.	☒		

Mandatory Measures Summary: Residential (Page 2 of 2) MF-1R

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

DESCRIPTION	Instructions: Check or Initial applicable boxes when completed or check N/A if not applicable.	N/A	DESIGNER	ENFORCEMENT
Space Conditioning, Water Heating and Plumbing System Measures: (continued)				
§ 150(m):	Ducts and Fans			
	1. All ducts and plenums installed, sealed and insulated to meet the requirements of the CMC Sections 601, 602, 603, 604, 605, and Standard 6-5; supply-air and return-air ducts and plenums are insulated to a minumum installed level of R-4.2 or enclosed entirely in conditioned space. Openings shall be sealed with mastic, tape or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than 1/4 inch, the combination of mastic and either mesh or tape shall be used.	☒	☐	☐
	2. Building cavities, support platforms for air handlers, and plenums defined or constructed with materials other than sealed sheet metal, duct board or flexible duct shall not be used for conveying conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms shall not be compressed to cause reductions in the cross-sectional area of the ducts.	☒	☐	☐
	3. Joints and seams of duct systems and their components shall not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.	☒	☐	☐
	4. Exhaust fan systems have back draft or automatic dampers.	☒	☒	☐
	5. Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operating dampers.	☒	☐	☐
	6. Protection of Insulation. Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Cellular foam insulation shall be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation that can cause degradation of the material.	☐	☒	☐
	7. Flexible ducts cannot have porous inner cores.	☒	☐	☐
§ 114:	Pool and Spa Heating Systems and Equipment			
	1. A thermal efficiency that complies with the Appliance Efficiency Regulations, on-off switch mounted outside of the heater, weatherproof operating instructions, no electric resistance heating and no pilot light.	☒	☐	☐
	2. System is installed with:			
	a. At least 36" of pipe between filter and heater for future solar heating.	☒	☐	☐
	b. Cover for outdoor pools or outdoor spas.	☒	☐	☐
	3. Pool system has directional inlets and a circulation pump time switch.	☒	☐	☐
§ 115:	Gas fired fan-type central furnaces, pool heaters, spa heaters or household cooking appliances have no continuously burning pilot light. (Exception: Non-electrical cooking appliances with pilot < 150 Btu/hr)	☒	☐	☐
§ 118 (i):	Cool Roof material meets specified criteria	☒	☐	☐
Lighting Measures				
§ 150(k)1:	HIGH EFFICACY LUMINAIRES OTHER THAN OUTDOOR HID: contain only high efficacy lamps as outlined in Table 150-C, and do not contain a medium screw base socket (E24/E26). Ballasts for lamps 13 Watts or greater are electric and have an output frequency no less than 20 kHz.	☐	☒	☐
§ 150(k)1:	HIGH EFFICACY LUMINAIRES - OUTDOOR HID: contain only high efficacy lamps as outlined in Table 150-C, luminaire has factory installed HID ballast.	☒	☐	☐
§ 150(k)2:	Permanently installed luminaires in kitchens shall be high efficacy luminaires. Up to 50% of the Wattage, as determined in Section 130(c), of permanently installed luminaires in kitchens may be in luminaires that are not high efficacy luminaires, provided that these luminaires are controlled by switches separate from those controlling the high efficacy luminaires.	☒	☐	☐
§ 150(k)3:	Permanently installed luminaires in bathrooms, garages, laundry rooms, utility rooms shall be high efficacy luminaires. OR are controlled by an occupant sensor(s) certfied to comply with Section 119(d).	☐	☒	☐
§ 150(k)4:	Permanently installed luminaires located other than in kichens, bathrooms, garages, laundry rooms, and utility rooms shall be high efficacy luminaires (except closets less than 70 ft) OR are controlled by a dimmer switch OR are controlled by an occupant sensor that complies with Section 119(d) that does not turn on automatically or have an always on option.	☐	☒	☐
§ 150(k)5:	Luminaires that are recessed into insulated ceilings are approved for zero clearance insulation cover (IC) and are certified to ASTM E283 and labeled as air tight (AT) to less than 2.0 CFM at 75 Pascals.	☐	☒	☐
§ 150(k)6:	Luminaires providing outdoor lighting and permanently mounted to a residential building or to other buildings on the same lot shall be high efficacy luminaires (not including lighting around swimming pools/water features or other Article 680 locations) OR are controlled by occupant sensors with integral photo control certified to comply with Section 119(d).	☐	☒	☐
§ 150(k)7:	Lighting for parking lots for 8 or more vehicles shall have lighting that complies with Sections 130, 132, and 147. Lighting for parking garages for 8 or more vehicles shall have lighting that complies with Section 130, 131, and 146.	☒	☐	☐
§ 150(k)8:	Permanently installed lighting in the enclosed, non-dwelling spaces of low-rise residential buildings with four or more dwelling units shall be high efficacy luminaires OR are controlled by occupant sensor(s) certified to comply with Section 119(d).	☒	☐	☐

FILE BLD08-1899

September 22, 2008

re: Change in Engineering of Record for 34285 Kruse Ranch Road, Cazadero, CA, Brown House Addition

To whom it may concern,

I am retaining Peter Schurch, P.E., as Engineer of Record for the Brown House Addition. Bob Ost will no longer be working on this project.

Yours truly,

David W. Brown

RETAIN

DOUGLAS M. MURRAY ARCHITECT AND ASSOCIATES
J. CARSON BOWLER, ASSOCIATE ARCHITECT
POST OFFICE BOX 1864, SEBASTOPOL CA 95473
707-829-5596 FAX 707-823-2360

-5745

LETTER OF AUTHORIZATION

02NOV07

RE: BROWN HOUSE ADDITION / REMODEL

OWNER'S : David & Suzanne Brown

PROJECT ADDRESS: 34285 Kruse Ranch Road, Cazadero, Ca. 95421

WE DAVID & SUZANNE BROWN DO HEREBY AUTHORIZE DOUGLAS MURRAY ARCHITECT TO SUBMIT THE ABOVE REFERRENCED PROJECT FOR SITE REVIEW & PLAN CHECK ON OUR BEHALF.

SIGNED / DATED David L. Brown 11/2/07
Suzanne L. Brown

RETAIN

BUD08-1899

BROWN HOUSE ADDITION

BLD-08-1899

Percentage of Remodel Improvement Determination Worksheet

WLS-029

35% OK

Purpose: This worksheet is intended to be used with the Permit & Resource Management Department (PRMD) Policy 9-2-29, Percentage of Remodel Improvement Determination. Please refer to the calculation method illustration in the policy. This policy is required to determine if a proposed remodel and/or addition complies with PRMD Policy 9-2-12, Guidelines for Remodeling and Additions with Respect to Septic Systems.

I. Calculate the percentage of additions using square footage, if applicable

Square footage of addition 895

Divide by square footage of existing structure ..... ÷ 2912

Equals total percent of addition .31

If no other work is being done, stop here. If other work is being done, proceed to section II, using the Linear Footage of Altered Walls Method.

II. Calculate existing linear footage of all walls in habitable areas.

A. Walls between floors, or between floors and ceilings or roofs shall be considered as separate walls.

1. First Floor 440
2. Second Floor, if applicable 162
3. Third Floor, if applicable ..... N/A

Total linear footage of existing walls 602

B. Perimeter foundations of all types shall be considered as walls. (Cripple walls are considered part of the foundation.)

1. Foundation ..... _____

Total linear footage of existing foundation 290

C. Roof lines, including gable ends shall be considered as a wall above the wall to which they connect. (Dormers and overhangs are not part of the calculation.) Measure at the wall.

1. Roof ..... _____

Total linear footage of existing roof 322

D. Add totals of A, B & C above.

Total linear footage of structure 1,214

III. Calculate the linear footage of all removed, added, reconstructed and altered walls.

A. Walls

1. First Floor 40
2. Second Floor, if applicable 3
3. Third Floor, if applicable ..... N/A

Total linear footage of walls 43

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue ❖ Santa Rosa, CA ❖ 95403-2829 ❖ (707) 565-1900 ❖ Fax (707) 565-1399

B-67773

B. Foundation
1. Demolition/removal of foundation 0
2. New or repaired foundation 0

Total linear footage of foundation 0

C. Roof
1. Demolition/removal of roof framing 0
2. Linear footage of new or repaired roof 0

Total linear footage of altered roof 0

D. Add totals of A, B & C above.

Total altered linear footage of structure 43

IV. Calculate the percentage of remodel improvement, if applicable

Total altered linear footage of structure 43
Divide by total linear footage of existing structure .... + 1,214

Equals total percent of remodel improvement ..... .04

V. If an addition and remodel were done, add the two percentages to calculate the total percentage of improvement.

Percentage of Remodel Improvement (from IV) ..... .04
Add Percentage of Addition (from I) ..... .31

Equals total percent of remodel improvement ..... .35

VI. Calculate the percentage of remodel improvement of all building permits in the past 24 months (based on the date of "issuance" of the initial building permit), if applicable.

Percentage Improvement:

Bld _____ ..... /
Bld _____ 0
Bld _____ ..... /
Bld _____ ..... /

Equals total percent of all building permit improvements . 0

VII. Calculate the proposed total percentage of improvement.

Total percent of remodel improvement (V) ..... .35
Add total percent of all building permit improvements (VI) 0

Proposed total percent of improvement ..... .35

BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Licensee Name: OST ROBERT HARLEY
License Type: CIVIL ENGINEER
License Number: 28151
License Status: CLEAR Definition
Expiration Date: March 31, 2010
Address: 4310 MT TAYLOR DRIVE
City: SANTA ROSA
State: CA
Zip: 95404
County: SONOMA
Actions: No

BUD08-1897

RETAIN

Disciplinary Actions

No records returned

This information is updated Monday through Friday - Last updated: MAY-12-2008

Disclaimer

All information provided by the Department of Consumer Affairs on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While the Department believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, the Department makes no guarantee as to the accuracy,

FOR INTERNAL USE ONLY

Address: 34285 Kruse Ranch Rd Tim P.C.# 06-

Inspector: Rex Peterson Date: 11-28-07

The proposed construction appears to be located in:

Flood Hazard:

- [ ] FIRM Flood Zone (ASFH) BFE = _____ ft. NGVD.
- Lowest finish floor at 12 above BFE = _____ft. NGVD.
- [ ] Design for moving water is recommended
- Section _____ is _____ Ft/sec
- Section _____ is _____ Ft/sec
- [ ] Area subject to flooding (not on adopted FIRM).
- [ ] Project is on flood zone major damage list.
- [ ] Flood Prone Urban Area defined by Ordinance #4906.
- [ ] Portions of property in flood zone but project site not in flood zone.
- [ ] Building is in FIRM Floodway
- [ ] Main building on site is Post-FIRM
- [ ] Sensitive drainage area, review by drainage section recommended.
- [ ] Appears to be a "substantial improvement" (40%), therefore flood regulations apply.
- [ ] Located inside the *Laguna de Santa Rosa* below elevation of 75 ft (Ord.#4906).

Geo-technical:

- [ ] Area of suspected slides, slumps, earth flow, or soil creep. (a.)
- [ ] Area of previous fill placement. (g.)
- [ ] Area of suspected expansive soil. (c.)
- [ ] Area without sufficient slope setback as set forth in UBC Section 1806. (b.)
- [ ] Area subject to possible liquefaction. (e.)
- [ ] Area of suspected soft, compressible, or organic soil with low bearing capacity.
- [ ] Area without recommended setback from stream (Drainage Division recommendations).
- [ ] Area of high moisture content in soil. (f.)
- [ ] Area subject to high erosion (water or wind).
- [ ] Area of soft soil due to past deep ripping or cultivation below minimum foundation depth. (h.)
- [ ] Area within 1000 feet of a solid waste disposal site.

Soils Investigation: **Required [ ]** **Included [ ]** **Available [ ]**

Geologic:

- [ ] Located in the Alquist-Priolo Special Studies Zone.
- [ ] Geologic report required (see CGS Publication 42).

General:

- [ ] Building addition will affect the required light and ventilation in an existing room.
- [ ] Existing electric meter must be replaced.
- [ ] Existing gas meter must be replaced.
- Slope is Flat to 5%
- [ ] Indications of existing substandard conditions that are not addressed by the proposed construction.
- [ ] Indications of past work done without a permit.
- [ ] Grading permit required for road, driveway, or site preparation.
- [X] Site is likely to be acceptable for conventional construction methods.

Wind: Exposure "B" Exposure "C" Exposure "D"

N.S.C. Air Pollution Control District . . . . . [ ] Yes [ ] No

Single story foundation - lower floor load to be supported by new underfloor girder & addition 2ND floor to be on existing foundation on South side only. North side to get new foundation, RP

Grading Permit Questionnaire

BPC-017

Purpose: This form is used to determine if your project requires a grading permit in addition to a building permit. Grading is defined in Appendix Chapter 33 of the 2001 California Building Code (CBC) as "any excavating or filling or combination thereof." Grading can take the form of excavating and/or filling for foundations of structures, driveway construction and modification of topography. No person shall commence any grading without first having obtained a grading permit unless exempt as determined by the Permit and Resource Management Department (PRMD).

To determine if your project requires a grading permit, please answer the following questions. If you are unable to answer any questions, you should contact your design professional for assistance and/or consult with a PRMD plans examiner. **Incorrect answers may cause delays processing and/or issuing the permit(s) for your project.**

☐ Yes ☒ No ☐ Unknown	1.	Does the project include a fill of 6 inches or more within the Flood Prone Urban Area? See map on reverse side of this form for the location of the Flood Prone Urban Area.
☐ Yes ☒ No ☐ Unknown	2.	Does the project include a fill 1 foot or more in depth **and** placed on natural terrain with a slope steeper than 1 unit vertical in 5 units horizontal?
☐ Yes ☒ No ☐ Unknown	3.	Does the project include a fill 3 feet or more in depth?
☐ Yes ☒ No ☐ Unknown	4.	Does the project include an excavation that (1) is 2 feet or more in depth **or** (2) creates a cut slope greater than 5 feet in height and steeper than 1 unit vertical in 1 ½ units horizontal that is not an excavation below finished grade for a basement, footing, retaining wall or other structure authorized by a valid building permit?
☐ Yes ☒ No ☐ Unknown	5.	Does the project include a fill that is intended to support structures?
☐ Yes ☒ No ☐ Unknown	6.	Does the project include a fill that exceeds 50 cubic yards on any one lot?
☐ Yes ☒ No ☐ Unknown	7.	Does the project include the construction of a driveway that exceeds 122 feet in length?
☐ Yes ☒ No ☐ Unknown	8.	Does the project include an excavation or fill that alters or obstructs a drainage course?

Acknowledgment:
I, as the applicant, understand that a "Yes" answer to **any** of the above questions means that a grading permit is required and shall be obtained before issuance of a building permit for the site. If any answers are "Unknown" to me, I should contact my design professional immediately to determine if a grading permit is required.

Applicant Signature

14 MAY 08
Date

Douglas Murray
Applicant Printed Name

34285 Kruse Ranch Rd, Cazadero
Property Address

109.030.003
Assessor's Parcel Number(s)

BLD08-1899
Building Permit (BLD) Number

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue ❖ Santa Rosa, CA ❖ 95403-2829 ❖ (707) 565-1900 ❖ Fax (707) 565-2210

INSTALLATION CERTIFICATE	(Page 1 of 12) CF-6R
Site Address 34265 KRUSE RANCH RD LAZADERA	Permit Number 04 1819

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner at occupancy, per Section 10-103(a).

WATER HEATING SYSTEMS:

Heater Type	CEC Certified Mfr Name & Model Number	Distribution Type (Std, Point-of-Use, etc)	If Recirculation, Control Type	# of Identical Systems	Rated Input (kW or Btu/hr)[1]	Tank Volume (gallons)	Efficiency (EF, RE)[2]	Standby Loss (%)[2]	External Insulation R-value[2]
BOILER	MUNCHKIN T-80-M	HYDRONIC			80000		.92	0.0%	

1 For **small gas storage** (rated input of less than or equal to 75,000 Btu/hr), **electric resistance** and **heat pump water heaters**, list Energy Factor (EF). For **large gas storage water heaters** (rated input of greater than 75,000 Btu/hr), list Recovery (RE), Thermal Efficiency, Standby Loss and Rated Input. For **instantaneous gas water heaters**, list Thermal Efficiency and Rated Input.

2. R-12 external insulation is mandatory for storage water heaters with an energy factor of less than 0.58.

Kitchen Piping:
If indicated on the CF-1R, all hot water piping ≥ 3/4 inches in diameter that runs from the hot water source to the kitchen fixtures is insulated.

Faucets & Shower Heads:
All faucets and showerheads installed are certified to the Energy Commission, pursuant to Title 24, Part 6, Section 111.

Central Water Heating in Buildings with Multiple Dwelling Units (required for prescriptive)

✓

☐ All hot water piping in main circulating loop is insulated to requirements of §150(j)

☐ Central hot water systems serving six or fewer dwelling units which have (1) less than 25' of distribution piping outdoors; (2) zero distribution piping underground; (3) no recirculation pump; and (4) insulation on distribution piping that meets the requirements of Section 150(j)

☐ Central hot water systems serving more than 6 dwelling units - presence of either a time control or a time/temperature control

✓☑ I, the undersigned, verify that equipment listed above my signature is: 1) the actual equipment installed; 2) equivalent to or more efficient than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the *Energy Efficiency Standards* for residential buildings; and 3) equipment that meets or exceeds the appropriate requirements for manufactured devices (from the *Appliance Efficiency Regulations* or Part 6), where applicable.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	LIVEN PROPERTIES CONSTRUCTION
Signature: Mark C. Bryant	Date: 1-13-10

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 2 of 12) CF-6R
Site Address 34245 KENSE RANCH RD CAZADERO	Permit Number 08-1899

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner at occupancy, per Section 10-103(a).

FENESTRATION/GLAZING:

Item	Manufacturer/Brand Name (GROUP LIKE RODUCTS)	Product U-factor[1] (≤ CF-1R value)[2]	Product SHGC[1] (≤CF-1R value)[2]	# of Panes	Total Quantity of Like Product (*Optional*)	Area Square Feet	Exterior Shading Device or Overhang	Comments/Location/ Special Fentures
1.	MILGARD FIBREGLASS	.340	.55 "			66.2	SCREEN.76	REAR (W) 1ST FLOOR
2.	MILGARD FIBREGLASS	.340	.55 NFRC			33	SCREEN.76	FRONT (S) 2ND FLOOR
3.	"	.340	.55 "			54.6	SCREEN.76	LEFT (W) 2ND FLOOR
4.	"	.390	.55 "			66.7	SCREEN.76	
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								

[1] Use values from a fenestration product's NFRC label. For fenestration products without an NFRC label, use the default values from Section 116 of the Energy Efficiency Standards.

[2] Installed U-factor must be less than or equal to values from CF-1R. Installed SHGC must be less than or equal to values from CF-1R, or a shading device (exterior or overhang) is installed as specified on the CF-1R. Alternatively, installed weighted average U-factors for the total fenestration area are less than or equal to values from CF-1R. If using default table SHGC values from §116 identify whether tinted or not.

✓ ☑ I, the undersigned, verify that the fenestration/glazing listed above my signature: 1) is the actual fenestration product installed; 2) is equivalent to or has a lower U-factor and lower SHGC than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the *Energy Efficiency Standards* for residential buildings; and 3) the product meets or exceeds the appropriate requirements for manufactured devices (from Part 6), where applicable.

Item #s (if applicable)	Signature	Date	Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner OR Window Distributor
1-4	Stephen C. Bryant		LIVEN PROPERTIES CONSTRUCTION
Item #s (if applicable)	Signature	Date	Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner OR Window Distributor
Item #s (if applicable)	Signature	Date	Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner OR Window Distributor

Copies to: Building Department, HERS Rater (if applicable) Building Owner at Occupancy

INSTALLATION CERTIFICATE	(Page 3 of 12) CF-6R
Site Address: 34285 KRUSE RANCH RD. CATALDO	Permit Number: 081899

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner at occupancy, per Section 10-103(a).

HVAC SYSTEMS:

Heating Equipment

Equip Type (pkg. heat pump)	CEC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (AFUE, etc.)[1] (≥CF-1R value)	Duct Location (attic, etc.)	Duct or Piping R-value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr)
BOILER	MUNCHKIN T-80-M		.92 RE	FLOOR PIPE			80,000

Cooling Equipment

Equip Type (pkg. heat pump)	CEC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (SEER or EER)[1] (≥CF-1R value)	Duct Location (attic, etc.)	Duct R-value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)
Ø							

1. ≥ symbol reads *greater than or equal to what is indicated on the CF-1R value.*
Include both SEER and EER if compliance credit for high EER air conditioner is claimed.

✓ I, the undersigned, verify that equipment listed above is: 1) is the actual equipment installed, 2) equivalent to or more efficient than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the *Energy Efficiency Standards* for residential buildings, and 3) equipment that meets or exceeds the appropriate requirements for manufactured devices (from the *Appliance Efficiency Regulations* or Part 6), where applicable.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	LINGEN PROPERTIES CONSTRUCTION
Signature: Alan C. Bryant	Date: 1-13-10

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 4 of 12) CF-6R
Site Address 34265 KRUSE RANCH RD OZAPEN	Permit Number 08 1879

INSTALLER COMPLIANCE STATEMENT FOR DUCT LEAKAGE

INSTALLER COMPLIANCE STATEMENT

The building was: ✓ ☐ Tested at Final ✓ ☐ Tested at Rough-in

INSTALLER VISUAL INSPECTION AT FINAL CONSTRUCTION STAGE:

- ☐ Remove at least one supply and one return register, and verify that the spaces between the register boot and the interior finishing wall are properly sealed.
- ☐ If the house rough-in duct leakage test was conducted without an air handler installed, inspect the connection points between the air handler and the supply and return plenums to verify that the connection points are properly sealed.
- ☐ Inspect all joints to ensure that no cloth backed rubber adhesive duct tape is used

✓ ☐ DUCT LEAKAGE REDUCTION

Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC4.3

NEW CONSTRUCTION:			
	Duct Pressurization Test Results (CFM @ 25 Pa)	Measured Values	
1	Enter Tested Leakage Flow in CFM:		
2	Fan Flow: Calculated (Nominal: ✓ ☐ Cooling ✓ ☐ Heating) or ✓ ☐ Measured If Fan Flow is Calculated as 400 cfm/ton x number of tons or as 21.7 cfm/(kBtu/hr) x Heating Capacity in Thousands of Btu/hr, enter total calculated or measured fan flow in CFM here:		✓ ✓
3	Pass if Leakage Percentage≤ 6% for Final or ≤ 4% at Rough-in: [100 x [_____(Line # 1) / _____(Line # 2)]]		☐ Pass ☐ Fail
ALTERATIONS: **Duct System and/or HVAC Equipment Change-Out**			
4	Enter Tested Leakage Flow in CFM from **Pre-Test** of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.		
5	Enter Tested Leakage Flow in CFM from **Final Test** of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.		
6	Enter Reduction in Leakage for Altered Duct System [_____(Line # 4) Minus _____(Line # 5)] – (Only if Applicable)		
7	Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		✓ ✓
8	Entire New Duct System - Pass if Leakage Percentage ≤ 6% for Final or ≤ 4% at Rough-in [100 x [_____(Line # 5) / _____Line # 2)]]		☐ Pass ☐ Fail
TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out Use one of the following four Test or Verification Standards for compliance:			✓ ✓
9	Pass if Leakage Percentage ≤ 15% [100 x [_____(Line # 5) / _____ (Line # 2)]]		☐ Pass ☐ Fail
10	Pass if Leakage to Outside Percentage ≤ 10% [100 x [_____(Line # 7) / _____ (Line # 2)]]		☐ Pass ☐ Fail
11	Pass if Leakage Reduction Percentage ≥ 60% [100 x [_____(Line # 6) / _____ (Line # 4)]] and Verification by Smoke Test and Visual Inspection		☐ Pass ☐ Fail
12	Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection		☐ Pass ☐ Fail
	Pass if One of Lines # 9 through # 12 pass		☐ Pass ☐ Fail

✓ ☐ I, the undersigned, verify that the above diagnostic test results were performed in conformance with the requirements for compliance credit. I, the undersigned, also certify that the newly installed or retrofit Air-Distribution System Ducts, Plenums and Fans comply with Mandatory requirements specified in Section 150 (m) of the 2005 Building Energy Efficiency standards.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	
Signature:	Date:

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

Site Address 34265 KRUSE RANCH RD. 0424000	Permit Number 08 1899

✓ ☐ THERMOSTATIC EXPANSION VALVE (TXV)

Procedures for field verification of thermostatic expansion valves are available in RACM, Appendix RI.

				✓	✓
✓	☐ Yes	☐ No	Access is provided for inspection. The procedure shall consist of visual verification that the TXV is installed on the system and installation of the specific equipment shall be verified.	☐	☐
			Yes is a pass	Pass	Fail

✓ ☐ REFRIGERANT CHARGE MEASUREMENT

Verification for Required Refrigerant Charge and Adequate Airflow for Split System Space Cooling Systems without Thermostatic Expansion Valves

Outdoor Unit Serial #		
Location		
Outdoor Unit Make		
Outdoor Unit Model		
Cooling Capacity		Btu/hr
Date of Verification		
Date of Refrigerant Gauge Calibration		(must be checked monthly)
Date of Thermocouple Calibration		(must be checked monthly)

Standard Charge Measurement Procedure (outdoor air dry-bulb 55°F and above):

Procedures for Determining Refrigerant Charge using the Standard Method are available in RACM, Appendix RD2.

Note: The system should be installed and charged in accordance with the manufacturer's specifications before starting this procedure.

Measured Temperatures

Supply (evaporator leaving) air dry-bulb temperature (Tsupply, db)		°F
Return (evaporator entering) air dry-bulb temperature (Treturn, db)		°F
Return (evaporator entering) air wet-bulb temperature (Treturn, wb)		°F
Evaporator saturation temperature (Tevaporator, sat)		°F
Suction line temperature (Tsuction, db)		°F
Condenser (entering) air dry-bulb temperature (Tcondenser, db)		°F

Superheat Charge Method Calculations for Refrigerant Charge

Actual Superheat = Tsuction, db – Tevaporator, sat		°F
Target Superheat (from Table RD-2)		°F
Actual Superheat – Target Superheat (System passes if between -5 and +5°F)		°F

Temperature Split Method Calculations for Adequate Airflow

Split Method Calculation is not necessary if Adequate Airflow credit is taken

Actual Temperature Split = Treturn, db Tsupply, db		°F
Target Temperature Split (from Table RD3)		°F
Actual Temperature Split Target Temperature Split (System passes if between -3°F and +3°F or, upon remeasurement, if between -3°F and -100°F)		°F

INSTALLATION CERTIFICATE	(Page 6 of 12) CF-6R
Site Address 34285 KRUSE RANCH RD ATADERO	Permit Number 08-1899

Standard Charge Measurement Summary:

System shall pass both refrigerant charge and adequate airflow calculation criteria from the same measurements. If corrective actions were taken, both criteria must be remeasured and recalculated.

✓	☐ Yes	☐ No	System Passes

Alternate Charge Measurement Procedure (outdoor air dry-bulb below 55 °F)

Note: The system should be installed and charged in accordance with the manufacturer's specifications and installer verification shall be documented on CF-6R before starting this procedure. If outdoor air dry-bulb is 55 °F or above, installer shall use the Standard Charge Measure Procedure:

Procedures for Determining Refrigerant Charge using the Alternate Method are available in RACM, Appendix RD3.

Weigh-In Charging Method for Refrigerant Charge

Actual liquid line length:		ft
Manufacturer's Standard liquid line length:		ft
Difference (Actual – Standard):		ft
Manufacturer's correction (ounces per foot) _____ x difference in length = _____ ounces (+ = add) (- = remove)		

Measured Airflow Method for Adequate Airflow Verification *available in RACM, Appendix RD2.6*

Calculated Airflow: Cooling Capacity (Btu/hr)_____ X 0.033 (cfm/Btu-hr) = _____ CFM
Measured Airflow is _____CFM (Measured airflow must be greater than the calculated airflow).

Alternate Charge Measurement Summary:

System shall pass both refrigerant charge and adequate airflow calculation criteria from the same measurements. If corrective actions were taken, both criteria must be remeasured and recalculated.

✓	☐ Yes	☐ No	*System Passes*

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	
Signature:	Date:

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 7 of 12) CF-6R
Site Address 34205 KRUSE RANCH RD CAZADERO	Permit Number 09 1899

MISCELLANEOUS CREDITS

✓ ☐ DIAGNOSTIC SUPPLY DUCT LOCATION, SURFACE AREA AND R-VALUE

Procedures for field verification and diagnostic testing for this group compliance credits are available in RACM, Appendix RC, RE & RH.

✓ ☐ LESS THAN 12 LINEAL FEET OF SUPPLY DUCT OUTSIDE OF CONDITIONED SPACE COMPLIANCE CREDIT

✓	☐Yes	☐No	Less than 12 lineal feet of supply duct outside of conditioned space.		
			Yes to this compliance credit is a pass	✓ ☐ Pass	✓ ☐ Fail

✓ ☐ SUPPLY DUCTS LOCATED IN CONDITIONED SPACE COMPLIANCE CREDIT

✓	☐ Yes	☐ No	Ducts are located within the conditioned volume of building.		
			Yes to this compliance credit is a pass	✓ ☐ Pass	✓ ☐ Fail

Duct System Design verification is required for a compliance credit for the following:

1. **Supply duct surface area reduction**
2. **Buried supply ducts on the ceiling**
3. **Deeply buried supply ducts**

✓ ☐ DUCT SYSTEM DESIGN VERIFICATION

✓	☐ Yes	☐ No	Adequate airflow verified		
✓	☐ Yes	☐ No	The duct system design plan meets the requirements specified in RACM, Appendix RE, Section RE.4.2		
✓	☐ Yes	☐ No	The duct system design plan exists on building plans		
✓	☐ Yes	☐ No	Duct sizes, duct system layout and locations of supply & return registers match the duct system design plan		
			Yes to all is a pass	✓ ☐ Pass	✓ ☐ Fail

✓ ☐ SUPPLY DUCTS SURFACE AREA REDUCTION COMPLIANCE CREDIT

Attic	Crawl Space	Basement	Covered	Deeply Covered	Other	Duct Diameter	R-4.2 Surface Area	R-6.0 Surface Area	R-8.0 Surface Area
☐	☐	☐	☐	☐	☐				
☐	☐	☐	☐	☐	☐				
☐	☐	☐	☐	☐	☐				
☐	☐	☐	☐	☐	☐				
☐	☐	☐	☐	☐	☐				
☐	☐	☐	☐	☐	☐				
☐	☐	☐	☐	☐	☐				
Total Surface Area for Each R-Value =									
✓	☐ Yes	☐ No	atches Performance's CF-1R?					✓	✓
							Yes to all is a pass	☐ Pass	☐ Fail

✓ ☐ BURIED DUCTS ON THE CEILING COMPLIANCE CREDIT

	☐ Yes	☐ No	Buried Ducts on the Ceiling		
	☐ Yes	☐ No	Verified High Insulation Installation Quality	✓	✓
Yes to duct system design, supply duct surface area reduction and this compliance credit is a pass				☐ Pass	☐ Fail

✓ ☐ DEEPLY BURIED DUCTS COMPLIANCE CREDIT

✓	☐ Yes	☐ No	Deeply Buried Ducts		
✓	☐ Yes	☐ No	Verified High Insulation Installation Quality	✓	✓
Yes to duct system design, supply duct surface area reduction and this compliance credit is a pass				☐Pass	☐ Fail

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 8 of 12) CF-6R
Site Address 34285 KRUSE RANCH RD GRADED	Permit Number 08-1899

✓☐ FAN WATT DRAW

Procedures for measuring the air handler watt draw are available in RACM, Appendix RE3.2.

✓ Method For Fan Watt Draw Measurement					
☐	RE3.2.1	Portable Watt Meter Measurement			
☐	RE3.2.2	Utility Revenue Meter Measurement			
		Measured Fan Watt Draw			Watts
		Measured Fan Flow (enter total cfm from airflow verification)			cfm
		Enter results of Watts/cfm			Watts/cfm
			✓	✓	
✓ ☐ Yes	☐ No	Measured fan watt/cfm draw is equal to or lower than the fan watt/cfm draw documented in CF-1R	☐	☐	
		Yes is a pass	Pass	Fail	

✓☐ ADEQUATE AIRFLOW VERIFICATION

Procedures for measuring the airflow are available in RACM, Appendix RE3.1.

✓ Method For Airflow Measurement					
☐	RE4.1.1	Diagnostic Fan Flow Using Flow Capture Hood			
☐	RE4.1.2	Diagnostic Fan Flow Using Plenum Pressure Matching			
☐	RE4.1.3	Diagnostic Fan Flow Using Flow Grid Measurement			
☐ Yes	☐ No	Duct design exists on plans			
		Measured Airflow:			Total cfm
		Rated Tons cfm/ton			cfm/ton
✓ ☐ Yes	☐ No	Measured airflow is greater than the criteria in Table RE-2	✓	✓	
		Yes is a pass	☐ Pass	☐ Fail	

✓☐ MAXIMUM COOLING CAPACITY

Procedures for determining maximum cooling load capacity are available in RACM, Appendix RF3.

1	✓	☐ Yes	☐ No	Adequate airflow verified (see adequate airflow credit)			
2	✓	☐ Yes	☐ No	Refrigerant charge or TXV			
3	✓	☐ Yes	☐ No	Duct leakage reduction credit verified			
4	✓	☐ Yes	☐ No	Cooling capacities of installed systems are ≤ to maximum cooling capacity indicated on the Performance's CF-1R and RF-3.			
5	✓	☐ Yes	☐ No	If the cooling capacities of installed systems are > than maximum cooling capacity in the CF-1R, then the electrical input for the installed systems must be ≤ to electrical input in the CF-1R.	✓ ☐	✓ ☐	
				Yes to 1, 2, and 3; and Yes to either 4 or 5 is a pass	Pass	Fail	

✓☐ HIGH EER AIR CONDITIONER

Procedures for verification are available in RACM, Appendix RI.

1	✓	☐ Yes	☐ No	EER values of installed systems match the CF-1R		
2	✓	☐ Yes	☐ No	For split system, indoor coil is matched to outdoor coil	✓	✓
3	✓	☐ Yes	☐ No	Time Delay Relay Verified (If Required)	☐	☐
				Yes to 1 and 2; and 3 (If Required) is a pass	Pass	Fail

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	
Signature:	Date:

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 9 of 12) CF-6R
Site Address 34265 KRUSE RANCH RD. CAZADERO CA 9	Permit Number 08-1899

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner at occupancy, per Section 10-103(a).

BUILDING ENVELOPE LEAKAGE DIAGNOSTICS

✓ ☐ ENVELOPE SEALING INFILTRATION REDUCTION

Procedures for field verification and diagnostic testing of envelope leakage are available in RACM, Appendix RC.

Diagnostic Testing Results					
	✓	✓	Building Envelope Leakage (CFM @ 50 Pa) as measured by Rater:		
1.	☐ Yes	☐ No	Measured envelope leakage less than or equal to the required level from CF-1R?		
2.	☐ Yes	☐ No	Is Mechanical Ventilation shown as required on the CF-1R?		
2a.	☐ Yes	☐ No	If Mechanical Ventilation is required on the CF-1R ('Yes' in line 2), has it been installed?		
2b.	☐ Yes	☐ No	Check this box 'yes' if mechanical ventilation is required ('Yes' in line 2) and ventilation fan watts are no greater than shown on CF-1R. Measured Watts =		
3.	☐ Yes	☐ No	Check this box "yes" if measured building infiltration (CFM @ 50 Pa) is greater than the CFM @ 50 values shown for an SLA of 1.5 on CF-1R (If this box is checked no, mechanical ventilation is required.)		
4.	☐ Yes	☐ No	Check this box "yes" if measured building infiltration (CFM @ 50 Pa) is less than the CFM @ 50 values shown for an SLA of 1.5 on CF-1R, mechanical ventilation is installed and house pressure is greater than minus 5 Pascal with all exhaust fans operating.		
			Pass if: a. Yes in line 1 and line 3, or b. Yes in line 1 and line2, 2a, and 2b, or c. Yes in line 1 and Yes in line 4. Otherwise fail.	✓ ☐ Pass	✓ ☐ Fail

✓ ☐ I, the undersigned, verify that the building envelope leakage meets the requirements claimed for building leakage reduction below default assumptions as used for compliance on the CF-1R. This is to certify that the above diagnostic test results and the work I performed associated with the test(s) is in conformance with the requirements for compliance credit. (The builder shall provide the HERS provider a copy of the CF-6R signed by the builder employees or subcontractors certifying that diagnostic testing and installation meet the requirements for compliance credit.)

Test Performed	
Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	
Signature:	Date:

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE), BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 10 of 12) CF-6R
Site Address 34285 KRUSE RANCH RD CAZADERO	Permit Number 08-1899

Insulation Installation Quality Certificate

✓ ☒ Description of Insulation, (CF-6R, formerly IC-1) signed by the installer stating: insulation manufacturer's name, material identification, installed R-values, and for loose-fill insulation: minimum weight per square foot and minimum inches

✓ ☐ Installation meets all applicable requirements as specified in the High Quality Insulation Installation Procedures (ACM, Appendix RH)

✓ FLOOR			
☒ Yes	☐ No	☐ NA	All floor joist cavity insulation installed to uniformly fit the cavity side-to-side and end-to-end
☒ Yes	☐ No	☐ NA	Insulation in contact with the subfloor or rim joists insulated
☒ Yes	☐ No	☐ NA	Insulation properly supported to avoid gaps, voids, and compression
✓ WALLS			
☒ Yes	☐ No	☐ NA	*Wall stud cavities caulked or foamed to provide an air tight envelope*
☒ Yes	☐ No	☐ NA	Wall stud cavity insulation uniformly fills the cavity side-to-side, top-to-bottom, and front-to-back
☒ Yes	☐ No	☐ NA	No gaps
☒ Yes	☐ No	☐ NA	No voids over 3/4" deep or more than 10% of the batt surface area.
☒ Yes	☐ No	☐ NA	Hard to access wall stud cavities such as; corner channels, wall intersections, and behind tub/shower enclosures insulated to proper R-Value
☒ Yes	☐ No	☐ NA	Small spaces filled
☒ Yes	☐ No	☐ NA	Rim-joists insulated
☐ Yes	☐ No	☒ NA	Loose fill wall insulation meets or exceeds manufacturer's minimum weight-per-square-foot requirement
✓ ROOF/CEILING PREPARATION			
☒ Yes	☐ No	☐ NA	All draft stops in place to form a continuous ceiling and wall air barrier
☒ Yes	☐ No	☐ NA	All drops covered with hard covers
☒ Yes	☐ No	☐ NA	All draft stops and hard covers caulked or foamed to provide an air tight envelope
☒ Yes	☐ No	☐ NA	All recessed light fixtures IC and air tight (AT) rated and sealed with a gasket or caulk between the housing and the ceiling
☒ Yes	☐ No	☐ NA	Floor cavities on multiple-story buildings have air tight draft stops to all adjoining attics
☐ Yes	☐ No	☒ NA	Eave vents prepared for blown insulation - maintain net free-ventilation area
☐ Yes	☐ No	☒ NA	Knee walls insulated or prepared for blown insulation
☐ Yes	☐ No	☒ NA	Area under equipment platforms and cat-walks insulated or accessible for blown insulation
☐ Yes	☐ No	☒ NA	Attic rulers installed

INSTALLATION CERTIFICATE	(Page 11 of 12) CF-6R
Site Address: 34285 LOWSE RANCH RD CATALINA CA	Permit Number

✓ ROOF/CEILING BATTS

☒ Yes	☐ No	☐ NA	No gaps
☒ Yes	☐ No	☐ NA	No voids over ¾ in. deep or more than 10% of the batt surface area.
☐ Yes	☐ No	☐ NA	Insulation in contact with the air-barrier
☒ Yes	☐ No	☐ NA	Recessed light fixtures covered
☒ Yes	☐ No	☐ NA	*Net free-ventilation area maintained at eave vents*

✓ ROOF/CEILING LOOSE-FILL

☐ Yes	☐ No	☒ NA	Insulation uniformly covers the entire ceiling (or roof) area from the outside of all exterior walls.
☐ Yes	☐ No	☒ NA	Baffles installed at eaves vents or soffit vents - maintain net free-ventilation area of eave vent
☐ Yes	☐ No	☒ NA	Attic access insulated
☐ Yes	☐ No	☒ NA	Recessed light fixtures covered
☐ Yes	☐ No	☒ NA	Insulation at proper depth – insulation rulers visible and indicating proper depth and R-value
☐ Yes	☐ No	☒ NA	*Loose-fill insulation meets or exceeds manufacturer's minimum weight and thickness requirements for the target R-value. Target R-value* _____. *Manufacturer's minimum required weight for the target R-value* _____ *(pounds-per-square-foot). Manufacturer's minimum required thickness at time of installation* _____. *Manufacturer's minimum required settled thickness* _____. *Note: To receive compliance credit the HERS rater shall verify that the manufacturer's minimum weight and thickness has been achieved for the target R-value. (CF-6R only)*

DECLARATION

✓ ☒ I hereby certify that the installation meets all applicable requirements as specified in the Insulation Installation Procedures.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	LIVEN PROPERTIES CONSTRUCTION
Signature: Mark C. Bryant	Date: 1-13-10

Copies to: BUILDING DEPARTMENT, HERS RATER (IF APPLICABLE), BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 12 of 12) CF-6R
Site Address 34285 KRUSE RANCH RD GRADEW	Permit Number 08-1899
County Subdivision	Lot Number

Description of Insulation (Formerly IC-1 Form)

1. RAISED FLOOR
   Material FIBRE BATT — Brand Name OOV CORNING
   Thickness (inches) ____ — Thermal Resistance (R-Value) R-30

2. SLAB FLOOR/PERIMETER
   Material ~~FIBER BATT~~ NA — Brand Name ~~OOV~~
   Thickness (inches) ____ — Thermal Resistance (R-Value) ____
   Perimeter Insulation Depth (inches) ____

3. EXTERIOR WALL
   Frame Type WOOD 2 x 6
   A. Cavity Insulation
   Material FIBER BATT — Brand Name OOV
   Thickness (inches) ____ — Thermal Resistance (R-Value) R-21
   B. Exterior Foam Sheathing
   Material ____ — Brand Name ____
   Thickness (inches) ____ — Thermal Resistance (R-Value) ____

4. FOUNDATION WALL
   Material ____ — Brand Name ____
   Thickness (inches) ____ — Thermal Resistance (R-Value) ____

5. CEILING
   Batt or Blanket Type BATT — Brand Name OOV
   Thickness (inches) ____ — Thermal Resistance (R-Value) R-30
   Loose Fill Type ____ — Brand ____
   Contractor's min installed weight/ft² ____ lb — Minimum thickness ____ inches
   Manufacturer's installed weight per square foot to achieve Thermal Resistance (R-Value) ____

6. ROOF
   Material BATT — Brand Name OOV
   Thickness (inches) ____ — Thermal Resistance (R-Value) R-38

Declaration

✓ ☐ I hereby certify that the above insulation was installed in the building at the above location in conformance with the current *Energy Efficiency Standards* for residential buildings (Title 24, Part 6, California Code of Regulations) as indicated on the Certificate of Compliance, where applicable.

Item #s (if applicable)	Signature	Date	Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner OR Window Distributor
	Allen C. Bryant	1-13-10	CPC
Item #s (if applicable)	Signature	Date	Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner OR Window Distributor
Item #s (if applicable)	Signature	Date	Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner OR Window Distributor

Special Inspection and Testing Requirements

CNI-012

BROWN-GARAGE — Project Name
34285 KRUSE RANCH RD — Project Address
BLD08-5303 — Permit No.

Reinforced Concrete, Gunite, Grout and Mortar: CBC 1701.5.1

Concrete	Gunite	Grout	Mortar	
☐	☐	☐	☐	Aggregate Tests
☐	☐	☐	☐	Reinforcing Tests
☐	☐	☐	☐	Mix Designs
☐	☐	☐	☐	Reinforcing Placement
☐	☐	☐	☐	Batch Plant Inspection
☐	☐	☐	☐	Inspect Placing
☐	☐	☐	☐	Cast Samples
☐	☐	☐	☐	Pick-up Samples
☐	☐	☐	☐	Compression Tests

CBC 1701.5.1 and .4

Piers	Grade Beams	Pretens	Precast	
☐	☐	☐	☐	Aggregate Tests
☐	☐	☐	☐	Reinforcing Tests
☐	☐	☐	☐	Tendon Tests
☐	☐	☐	☐	Mix Designs
☒	☐	☐	☐	Reinforcing Placement
☐	☐	☐	☐	Insert Placement
☐	☐	☐	☐	Concrete Batching
☒	☐	☐	☐	Installation Inspection
☐	☐	☐	☐	Cast Samples
☐	☐	☐	☐	Pick-up Samples
☐	☐	☐	☐	Compression Tests

Structural Observation by Architect or Engineer: CBC 1702

- ☐ Foundation Observation
- ☐ Framing Observation
- ☐ Final Observation
- ☐ General Conformance Letters

Masonry: CBC 1701.5.7

- ☐ Special Inspection Stresses Used
- ☐ Prelim. Acceptance Test (Masonry Units, Wall Prisms)
- ☐ Subsequent Tests (Mortar, Grout, Field Wall Prisms)
- ☐ Placement Inspection of Units

Flo Wms — 2/9/09
Plans Examiner — Date

Arthur Lang — 2/9/09
Requirements specified by (Architect/Engineer of record) — Date

Contractor — Date

Collins — 2/9/09
Owner — Date

Embedded Bolts or Inserts: CBC 1701.5.2 and .15

- ☐ Bolt/Insert Placement Inspection ____ %
- ☐ Bolt/Insert Tension Test ____ %
- ☐ Bolt/Insert Shear Test ____ %
- ☐ Epoxy Mix and Placement Observation ____ %

Structural Steel / Welding: CBC 1701.5.5 and .6

- ☐ Sample and Test (list specific members below)
- ☐ Shop Material Identification
- ☐ Welding Inspection ☐ Shop ☐ Field
- ☐ Ultra Sonic Inspection ☐ Shop ☐ Field
- ☐ High-Stress Bolting Inspection
  - ☐ A325 ☐ Shop ☐ Field
  - ☐ A490 ☐ N ☐ X ☐ F
- ☐ Metal Deck Welding Inspection
- ☐ Reinforcing Steel Welding Inspection
- ☐ Metal Stud Welding Inspection
- ☐ Concrete Insert Welding Inspection

Structural Wood: CBC 1701.5.15

- ☐ Horizontal Diaphragms
- ☐ Shear Wall Nailing Inspection
- ☐ Inspection of Glulam Fabrication
- ☐ Inspection of Truss Joint Fabrication
- ☐ Sample and Test Components

Geotechnical/Foundation: CBC 1701.5.11 and .13

- ☒ Soils Engineer Plan Review Acceptance Letter
- ☒ Foundation Excavation
- ☒ Pier Holes
- ☐ Site Drainage
- ☐ Fill Material
  - ☐ Placement Inspection
  - ☐ Field Density
  - ☐ Acceptance Letter
- ☒ Acceptance Letter

Fireproofing: CBC 1701.5.10

- ☐ Placement Inspection
- ☐ Density Tests
- ☐ Thickness Tests
- ☐ Inspect Batching

Insulating Concrete: CBC 1701.5.9

- ☐ Sample and Test
- ☐ Placement Inspection
- ☐ Unit Weights

Additional Instructions/Other Tests & Inspections:

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue ❖ Santa Rosa, CA ❖ 95403-2829 ❖ (707) 565-1900 ❖ Fax (707) 565-2210