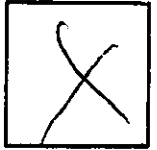




Type



Plans

BLD 10-2465

Permit Number

22155

Street Number

RUOFF DR

Street Name

TIM

Community Code

109-410-024

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: _____	Date Applied: _____
--------------------------------------	----------------------------

INFORMATION WITHIN HEAVY LINE TO BE COMPLETED BY APPLICANT

SITE LOCATION INFORMATION - PRINT CLEARLY

Site Address: 22155 Ruoff Dr.	City: Timber Cove	ZIP: 95450
Cross-Street: Koffinow Dr	Project Phone #: () _____	Project Fax #: () _____
Directions: _____	Email address: abdire@earthlink.net	Unit _____ Lot # _____
Describe Project: Building Addition ± 500 sqft.	License Area: 432	Contract Price: 82,900

OWNER NAME AND ADDRESS			APPLICANT NAME AND ADDRESS		
Name: Erik Owen			Name: Erik Owen		
Mailing Address: 22155 Ruoff Dr			Mailing Address: 22155 Ruoff Dr		
City: Jenner	State: CA	ZIP: 95450	City: Jenner	State: Cal	ZIP: 95450
Day Ph: (707) 847-3724	Fax: () _____		Day Ph: 707 847-3724	Fax: () _____	

CONTRACTOR INFORMATION			OTHER PERSONS (ARCHITECT, ENGINEER, ETC.)		
Company Name: _____			Name: Joseph Styler		
Address: _____			Address: PO BOX 1176		
City: _____	State: _____	ZIP: _____	City: Clayton	State: CA	ZIP: 95425
Day Ph: () _____	Fax: () _____		Day Ph: 707 894-2080	Fax: () _____	

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).):

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 _____

By my signature below I acknowledge that, except for my personal residence in which I must have resided for at least one year prior to completion of the improvements covered by this permit, I cannot legally sell a structure that I have built as an owner-builder if it has not been constructed in its entirety by licensed contractors. I understand that a copy of the applicable law, Section 7044 of the Business and Professions Code, is available upon request when this application is submitted or at the following website: <http://www.reginfo.ca.gov/calaw.html>.

Date: **6/7/10** Signature of Property Owner or Authorized Agent: _____

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.

Signature: _____
 ADDRESS: **22155 Ruoff Dr** CITY: **Jenner** STATE: **CA** ZIP: **95450**

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: RA-C-07	File No: CPN10-0004 Acres: 3.1
Existing Use/Structures: SFD	
Proposed Use/Structures: addition to (2) SFD	
Zoning Min. Yard Requirements: Front AS Left 25' Right 25' Back _____	
NOTE: Fire Safe Standards require all parcels greater than 1 Acre to have a min. 30' setback unless mitigated. <input type="checkbox"/> Mitigation Required <input type="checkbox"/> Address subject to change	
Approval for Permit Issuance: _____	Approval for Occupancy: _____
By: Cynthia De...	By: Cynthia De...
Date: 11-4-10	Date: 11-4-10
Conditions: ISSUANCE ONLY MUST MEET CONDITIONS OF APPROVAL 6-8-7 FOR CPN10-0004	

Sewer Connection: Available Fees Paid

Approved by: _____ Date: _____

Road Encroachment: Fees Paid

Approved by: **CJE** Date: **6/24/10**

Septic System Permit Clearance # **SEP09-0594**

Approved by: **[Signature]** Date: **6-24-10**

Flood Zone: Yes No 100 Year Flood Elevation _____

Site Review: **SEP09-0594**

Drainage Review: **Moore**

Approved by: _____ Date: **06-24-10**

Fire: _____

Approved by: _____ Date: _____

Code Enforcement Violation Yes No Violation # _____

This permit is limited to _____ days.

Work Authorized: **res addition and remodel**

<input checked="" type="checkbox"/> Plans Approved	<input type="checkbox"/> Post FIRM	<input type="checkbox"/> Alquist Priolo Report Available
<input type="checkbox"/> No Plans Subject to Field Inspection	<input type="checkbox"/> Pre FIRM	<input type="checkbox"/> Geotechnical report Available
Plan/Check Cleared By: Paul Smith	Date: 8/19/10	Type of Construction: VB
Permit Cleared for Issuance By: [Signature]	Date: 11/4/10	Occupancy: R3
No. of Stories: 2	No. of Bedrooms: 2	Auto. Fire Sprinklers Req'd: _____
No. of Units: _____	Certificate of Occupancy: _____	

PAYMENT REC'D

Machine Space for Permit Fee \$ _____

NOV 04 2010

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
 COUNTY OF SONOMA

JOB ADDRESS: **22155 Ruoff Dr**
 PERMIT NUMBER: **BL010-2465**
 INSPECTION AREA: **2**

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

Grading Permit Questionnaire

GRD - 002

Purpose: To assist applicants in determining if a grading permit is required for a proposed project.

Background: Grading is the removal and/or the deposition of earth material by artificial means. Earth material is defined as any rock or natural soil or combination thereof. Grading is generally a combination of excavation (cuts) and placement (fill) of soil. Common examples of grading include constructing a driveway, creating a building pad for further development, or stabilizing a slope. A grading permit is required prior to commencing any grading or related work, including preparatory site clearing and soil disturbance, except where exempted from permit requirements by Section 11.04.020 of the Sonoma County Code.

To determine if a project requires a grading permit, please answer the following questions. If any questions cannot be answered, contact a design professional for assistance and/or consult with the Permit and Resource Management (PRMD) Grading & Storm Water staff. **Incorrect answers may cause delays processing and/or issuing the permit(s) for the project.**

Reviewed by (TP) 6/29/10

- Yes No Unknown 1. Does the project include cuts or fills exceeding 50 cubic yards of soil?*
- Yes No Unknown 2. Does the project include a cut greater than 2 feet in depth?*
- Yes No Unknown 3. Does the project create a cut slope greater than 5 feet in height and steeper than 2:1 (H:V)?*
- Yes No Unknown 4. Does the project include a fill greater than 3 feet in depth?
- Yes No Unknown 5. Does the project include fill between 1 foot and 3 feet in depth, and not intended to support a structure or surcharge, and placed on terrain with a natural slope steeper than 15%?
- Yes No Unknown 6. Does the project include fill greater than 1 foot in depth and intended to support a structure or surcharge?
- Yes No Unknown 7. Does the project include any fill within the Flood Prone Urban Area (FPUA)? See map on reverse side of this form for the location of the FPUA.
- Yes No Unknown 8. Does the project include any fill within a Special Flood Hazard Area designated by FEMA as subject to flooding by the 1% annual chance flood (100-year flood)?

* A "No" answer may be selected for excavations below finished grade for basements, tanks, vaults, swimming pools, and footings of a building, retaining wall, or other structure, where authorized by a valid building permit.

Acknowledgment:

I, as the applicant, understand that a "Yes" answer to any of the above questions means that a grading permit is required for my proposed project. Furthermore, the grading permit must be approved before a building permit can be approved 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.

Erik Owens & Gena Owen
Applicant Printed Name

Gena Owen
Applicant Signature

6/7/10
Date

22155 Ruff Dr
Property Address

109-410-024
Assessor's Parcel Number(s)

BLD10-2465
Building Permit Number(s)

PERFORMANCE CERTIFICATE: Residential

(Part 1 of 5)

CF-1R

Project Name <i>Owen addition</i>	Building Type <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Addition Alone <input type="checkbox"/> Multi Family <input checked="" type="checkbox"/> Existing+ Addition/Alteration	Date <i>6/14/2010</i>
Project Address <i>22155 Ruoff Drive Jenner</i>	California Energy Climate Zone <i>CA Climate Zone 01</i>	Total Cond. Floor Area <i>1,522</i>
	Addition <i>454</i>	# of Stories <i>2</i>

FIELD INSPECTION ENERGY CHECKLIST

Yes No HERS Measures -- If Yes, A CF-4R must be provided per Part 2 of 5 of this form.
 Yes No Special Features -- If Yes, see Part 2 of 5 of this form for details.

INSULATION

Construction Type	Cavity	Area (ft ²)	Special Features (see Part 2 of 5)	Status
Wall <i>Wood Framed</i>	<i>None</i>	<i>1,501</i>		<i>Existing</i>
Roof <i>Wood Framed Attic</i>	<i>None</i>	<i>836</i>		<i>Existing</i>
Floor <i>Wood Framed w/Crawl Space</i>	<i>R-30</i>	<i>808</i>		<i>Existing</i>
Wall <i>Wood Framed</i>	<i>R-19</i>	<i>762</i>		<i>New</i>
Floor <i>Wood Framed w/Crawl Space</i>	<i>R-19</i>	<i>454</i>		<i>New</i>
Roof <i>Wood Framed Rafter</i>	<i>R-30</i>	<i>470</i>		<i>New</i>

FENESTRATION

Orientation	Area (ft ²)	U-Factor	SHGC	Overhang	Slidifins	Exterior Shades	Status
<i>Front (SE)</i>	<i>65.4</i>	<i>1.190</i>	<i>0.83</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>Existing</i>
<i>Left (SW)</i>	<i>98.1</i>	<i>1.190</i>	<i>0.83</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>Existing</i>
<i>Left (SW)</i>	<i>40.0</i>	<i>0.770</i>	<i>0.73</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>Existing</i>
<i>Skylight</i>	<i>16.0</i>	<i>1.980</i>	<i>0.68</i>	<i>none</i>	<i>none</i>	<i>None</i>	<i>New</i>
<i>Rear (NW)</i>	<i>23.4</i>	<i>1.190</i>	<i>0.83</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>New</i>
<i>Right (NE)</i>	<i>0.0</i>	<i>0.790</i>	<i>0.70</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>New</i>
<i>Front (SE)</i>	<i>9.0</i>	<i>0.790</i>	<i>0.70</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>New</i>
<i>Left (SW)</i>	<i>40.0</i>	<i>0.770</i>	<i>0.73</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>New</i>
<i>Rear (NW)</i>	<i>9.0</i>	<i>0.790</i>	<i>0.70</i>	<i>none</i>	<i>none</i>	<i>Bug Screen</i>	<i>New</i>
<i>Skylight</i>	<i>8.0</i>	<i>0.590</i>	<i>0.73</i>	<i>none</i>	<i>none</i>	<i>None</i>	<i>New</i>

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
<i>1</i>	<i>Central Furnace</i>	<i>78% AFUE</i>	<i>Split Air Conditioner</i>	<i>8.9 SEER</i>	<i>No Setback</i>	<i>Existing</i>

Wood stove is treated as standard furnace with ducts per T24

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
<i>existing heating</i>	<i>Ducted</i>	<i>Ducted</i>	<i>Attic, Roof Ins</i>	<i>6.0</i>	<i>Altered</i>

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status

PERFORMANCE CERTIFICATE: Residential (Part 3 of 5) **CF-1R**

Project Name: *Owen addition* Building Type: Single Family Addition Alone Multi Family Existing+ Addition/Alteration Date: *6/14/2010*

ANNUAL ENERGY USE SUMMARY

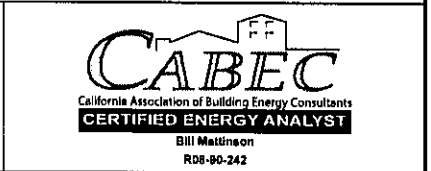
TDV (kBtu/ft ² -yr)	Standard	Proposed	Margin
Space Heating	161.83	159.02	2.82
Space Cooling	24.93	27.22	-2.29
Fans	18.10	18.28	-0.18
Domestic Hot Water	27.81	27.81	0.00
Pumps	0.00	0.00	0.00
Totals	232.68	232.33	0.35
Percent Better Than Standard:			0.2 %

BUILDING COMPLIES - NO HERS VERIFICATION REQUIRED

		Ext. Walls/Roof	Wall Area	Fenestration Area
Building Front Orientation:	(E) 90 deg			
Number of Dwelling Units:	1.00	(E)	560	74
Fuel Available at Site:	Propane	(S)	632	178
Raised Floor Area:	1,262	(W)	670	32
Slab on Grade Area:	0	(N)	686	0
Average Ceiling Height:	10.0	Roof	1,330	24
Fenestration Average U-Factor:	1.05		TOTAL:	309
Average SHGC:	0.79		Fenestration/CFA Ratio:	20.3 %

REMARKS

STATEMENT OF COMPLIANCE
 This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 the Administrative Regulations and Part 6 the Efficiency Standards of the California Code of Regulations.



The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author
 Company: _____ Name: *Bill Mattinson*
 Address: *401-C College Avenue* Phone: *707-545-4440* Signed: *Bill Mattinson* Date: *6/14/2010*
 City/State/Zip: *Santa Rosa, CA 95401*

The individual with overall design responsibility hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application, and recognizes that compliance using duct design, duct sealing, verification of refrigerant charge, 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)
 Company: *Joseph Styles, Designer* Name: *Joseph Styles*
 Address: *P.O. Box 1176* Phone: *707-479-4161* Signed: *[Signature]* License #: _____ Date: *6-21-10*
 City/State/Zip: *Cloverdale, CA*

CERTIFICATE OF COMPLIANCE: Residential (Part 4 of 5) **CF-1R**

Project Name: *Owen addition* Building Type: Single Family Addition Alone Multi Family Existing+ Addition/Alteration Date: *6/14/2010*

OPAQUE SURFACE DETAILS

Surface Type	Area	U-Factor	Insulation				Azim	Tilt	Status	Joint Appendix 4	Location/Comments
			Cavity	Exterior	Frame	Interior					
Wall	416	0.356	None				45	90	Existing	4.3.1-A1	Existing
Wall	335	0.356	None				135	90	Existing	4.3.1-A1	Existing
Wall	374	0.356	None				225	90	Existing	4.3.1-A1	Existing
Roof	836	0.305	None				135	10	Existing	4.2.1-A13	Existing
Wall	377	0.356	None				315	90	Existing	4.3.1-A1	Existing
Floor	808	0.028	R-30				0	180	Existing	4.4.1-A7	Existing
Wall	120	0.356	None				45	90	Removed	4.3.1-A1	Existing
Wall	270	0.074	R-19				45	90	New	4.3.1-A5	addition
Wall	151	0.074	R-19				135	90	New	4.3.1-A5	addition
Wall	80	0.074	R-19				225	90	New	4.3.1-A5	addition
Wall	261	0.074	R-19				315	90	New	4.3.1-A5	addition
Floor	454	0.037	R-19				0	180	New	4.4.1-A4	addition
Roof	470	0.035	R-30				135	0	New	4.2.2-A17	addition

FENESTRATION SURFACE DETAILS

ID	Type	Area	U-Factor	SHGC		Azim	Status	Glazing Type	Location/Comments	
1	Window	65.4	1.190	Default	0.83	Default	135	Existing	Single Metal Clear	Existing
2	Window	98.1	1.190	Default	0.83	Default	225	Existing	Single Metal Clear	Existing
3	Window	40.0	0.770	Default	0.73	Default	225	Existing	Double Metal Clear patio	Existing
4	Skylight	16.0	1.980	Default	0.68	Default	135	New	Single Metal skylight	Existing
5	Window	23.4	1.190	Default	0.83	Default	315	New	Single Metal Clear	Existing
6	Window	40.0	1.190	Default	0.83	Default	45	Removed	Single Metal Clear	Existing
7	Window	0.0	0.790	Default	0.70	Default	45	New	Double Metal Clear	addition
8	Window	9.0	0.790	Default	0.70	Default	135	New	Double Metal Clear	addition
9	Window	40.0	0.770	Default	0.73	Default	225	New	Double Metal Clear patio	addition
10	Window	9.0	0.790	Default	0.70	Default	315	New	Double Metal Clear	addition
11	Skylight	8.0	0.590	NFRC	0.73	Default	135	New	Double Milgard 780 skylight	addition

(1) U-Factor Type: 116-A = Default Table from Standards, NFRC = Labeled Value
 (2) SHGC Type: 116-B = Default Table from Standards, NFRC = Labeled Value

EXTERIOR SHADING DETAILS

ID	Exterior Shade Type	SHGC	Window		Overhang				Left Fin			Right Fin		
			Hgt	Wd	Len	Hgt	LExt	RExt	Dist	Len	Hgt	Dist	Len	Hgt
1	Bug Screen	0.76												
2	Bug Screen	0.76												
3	Bug Screen	0.76												
4	None	1.00												
5	Bug Screen	0.76												
6	Bug Screen	0.76												
7	Bug Screen	0.76												
8	Bug Screen	0.76												
9	Bug Screen	0.76												
10	Bug Screen	0.76												
11	None	1.00												

CERTIFICATE OF COMPLIANCE: Residential (Part 5 of 5) **CF-1R**

Project Name: *Owen addition* Building Type: Single Family Addition Alone Multi Family Existing+ Addition/Alteration Date: *6/14/2010*

BUILDING ZONE INFORMATION

System Name	Zone Name	Floor Area (ft ²)				Volume	Year Built
		New	Existing	Altered	Removed		
<i>existing heating</i>	<i>Existing + Alterations</i>		<i>1,068</i>			<i>10,680</i>	<i>1972</i>
	<i>new bedroom</i>	<i>454</i>				<i>4,540</i>	
Totals		<i>454</i>	<i>1,068</i>	<i>0</i>	<i>0</i>		

HVAC SYSTEMS

System Name	Qty.	Heating Type	Min. Eff.	Cooling Type	Min. Eff.	Thermostat Type	Status
<i>existing heating</i>	<i>1</i>	<i>Central Furnace</i>	<i>78% AFUE</i>	<i>Split Air Conditioner</i>	<i>8.9 SEER</i>	<i>No Setback</i>	<i>Existing</i>

HVAC DISTRIBUTION

System Name	Heating	Cooling	Duct Location	Duct R-Value	Ducts Tested?	Status
<i>existing heating</i>	<i>Ducted</i>	<i>Ducted</i>	<i>Attic, Roof Ins</i>	<i>6.0</i>	<input type="checkbox"/>	<i>Altered</i>
					<input type="checkbox"/>	
					<input type="checkbox"/>	
					<input type="checkbox"/>	

WATER HEATING SYSTEMS

System Name	Qty.	Type	Distribution	Rated Input (Btuh)	Tank Cap. (gal)	Energy Factor or RE	Standby Loss or Pilot	Ext. Tank Insul. R-Value	Status
<i>Standard Gas 50 gal or Le</i>	<i>1</i>	<i>Small Gas</i>	<i>No Pipe Insulation</i>	<i>40,000</i>	<i>50</i>	<i>0.58</i>	<i>n/a</i>	<i>n/a</i>	<i>Existing</i>

MULTI-FAMILY WATER HEATING DETAILS **HYDRONIC HEATING SYSTEM PIPING**

Control	Qty.	HP	Eff. Premium	Hot Water Piping Length (ft)			Add 1/2" Insulation	System Name	Pipe Length	Pipe Diameter	Insul. Thick.
				Plenum	Outside	Buried					
			<input type="checkbox"/>				<input type="checkbox"/>				
			<input type="checkbox"/>				<input type="checkbox"/>				
			<input type="checkbox"/>				<input type="checkbox"/>				
			<input type="checkbox"/>				<input type="checkbox"/>				

MANDATORY MEASURES SUMMARY: Residential

(Page 1 of 3)

MF-1R

Project Name

Owen addition

Date

6/14/2010

NOTE: Low-rise residential buildings subject to the Standards must comply with all applicable mandatory measures listed, regardless of the compliance approach used. More stringent energy measures listed on the Certificate of Compliance (CF-1R, CF-1R-ADD, or CF-1R-ALT Form) shall supersede the items marked with an asterisk (*) below. This Mandatory Measures Summary shall be incorporated into the permit documents, and the applicable features shall be considered by all parties as minimum component performance specifications whether they are shown elsewhere in the documents or in this summary. Submit all applicable sections of the MF-1R Form with plans.

Building Envelope Measures:

§116(a)1: Doors and windows between conditioned and unconditioned spaces are manufactured to limit air leakage.

§116(a)4: Fenestration products (except field-fabricated windows) have a label listing the certified U-Factor, certified Solar Heat Gain Coefficient (SHGC), and infiltration that meets the requirements of §10-111(a).

§117: Exterior doors and windows are weather-stripped; all joints and penetrations are caulked and sealed.

§118(a): Insulation specified or installed meets Standards for Insulating Material. Indicate type and include on CF-6R Form.

§118(i): The thermal emittance and solar reflectance values of the cool roofing material meets the requirements of §118(i) when the installation of a Cool Roof is specified on the CF-1R Form.

*§150(a): Minimum R-19 insulation in wood-frame ceiling or equivalent U-factor.

§150(b): Loose fill insulation shall conform with manufacturer's installed design labeled R-Value.

*§150(c): Minimum R-13 insulation in wood-frame wall or equivalent U-factor.

*§150(d): Minimum R-13 insulation in raised wood-frame floor or equivalent U-factor.

§150(f): Air retarding wrap is tested, labeled, and installed according to ASTM E1677-95(2000) when specified on the CF-1R Form.

§150(g): Mandatory Vapor barrier installed in Climate Zones 14 or 16.

§150(l): Water absorption rate for slab edge insulation material alone without facings is no greater than 0.3%; water vapor permeance rate is no greater than 2.0 perm/inch and shall be protected from physical damage and UV light deterioration.

Fireplaces, Decorative Gas Appliances and Gas Log Measures:

§150(e)1A: Masonry or factory-built fireplaces have a closable metal or glass door covering the entire opening of the firebox.

§150(e)1B: Masonry or factory-built fireplaces have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper and or a combustion-air control device.

§150(e)2: Continuous burning pilot lights and the use of indoor air for cooling a firebox jacket, when that indoor air is vented to the outside of the building, are prohibited.

Space Conditioning, Water Heating and Plumbing System Measures:

§110-§113: HVAC equipment, water heaters, showerheads, faucets and all other regulated appliances are certified by the Energy Commission.

§113(c)5: Water heating recirculation loops serving multiple dwelling units and High-Rise residential occupancies meet the air release valve, backflow prevention, pump isolation valve, and recirculation loop connection requirements of §113(c)5.

§115: Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces, household cooking appliances (appliances with an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt), and pool and spa heaters.

§150(h): Heating and/or cooling loads are calculated in accordance with ASHRAE, SMACNA or ACCA.

§150(i): Heating systems are equipped with thermostats that meet the setback requirements of Section 112(c).

§150(j)1A: Storage gas water heaters rated with an Energy Factor no greater than the federal minimal standard are externally wrapped with insulation having an installed thermal resistance of R-12 or greater.

§150(j)1B: Unfired storage tanks, such as storage tanks or backup tanks for solar water-heating system, or other indirect hot water tanks have R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.

§150(j)2: 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 are insulated per Standards Table 150-B.

§150(j)2: Cooling system piping (suction, chilled water, or brine lines), and piping insulated between heating source and indirect hot water tank shall be insulated to Table 150-B and Equation 150-A.

§150(j)2: Pipe insulation for steam hydronic heating systems or hot water systems >15 psi, meets the requirements of Standards Table 123-A.

§150(j)3A: Insulation is protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind.

§150(j)3A: Insulation for chilled water piping and refrigerant suction lines includes a vapor retardant or is enclosed entirely in conditioned space.

§150(j)4: Solar water-heating systems and/or collectors are certified by the Solar Rating and Certification Corporation.

MANDATORY MEASURES SUMMARY: Residential

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§150(m)1: All air-distribution system ducts and plenums installed, are sealed and insulated to meet the requirements of CMC Sections 601, 602, 603, 604, 605 and Standard 6-5; supply-air and return-air ducts and plenums are insulated to a minimum 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

§150(m)1: 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.

§150(m)2D: 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.

§150(m)7: Exhaust fan systems have back draft or automatic dampers.

§150(m)8: Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers.

§150(m)9: 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.

§150(m)10: Flexible ducts cannot have porous inner cores.

§150(o): All dwelling units shall meet the requirements of ANSI/ASHRAE Standard 62.2-2007 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings. Window operation is not a permissible method of providing the Whole Building Ventilation required in Section 4 of that Standard.

Pool and Spa Heating Systems and Equipment Measures:

§114(a): Any pool or spa heating system shall be certified to have: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater; a permanent weatherproof plate or card with operating instructions; and shall not use electric resistance heating or a pilot light.

§114(b)1: Any pool or spa heating equipment shall be installed with at least 36" of pipe between filter and heater, or dedicated suction and return lines, or built-up connections for future solar heating.

§114(b)2: Outdoor pools or spas that have a heat pump or gas heater shall have a cover.

§114(b)3: Pools shall have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.

§150(p): Residential pool systems or equipment meet the pump sizing, flow rate, piping, filters, and valve requirements of §150(p).

Residential Lighting Measures:

§150(k)1: High efficacy luminaires or LED Light Engine with Integral Heat Sink has an efficacy that is no lower than the efficacies contained in Table 150-C and is not a low efficacy luminaire as specified by §150(k)2.

§150(k)3: The wattage of permanently installed luminaires shall be determined as specified by §130(d).

§150(k)4: Ballasts for fluorescent lamps rated 13 Watts or greater shall be electronic and shall have an output frequency no less than 20 kHz.

§150(k)5: Permanently installed night lights and night lights integral to a permanently installed luminaire or exhaust fan shall contain only high efficacy lamps meeting the minimum efficacies contained in Table 150-C and shall not contain a line-voltage socket or line-voltage lamp holder; OR shall be rated to consume no more than five watts of power as determined by §130(d), and shall not contain a medium screw-base socket.

§150(k)6: Lighting integral to exhaust fans, in rooms other than kitchens, shall meet the applicable requirements of §150(k).

§150(k)7: All switching devices and controls shall meet the requirements of §150(k)7.

§150(k)8: A minimum of 50 percent of the total rated wattage of permanently installed lighting in kitchens shall be high efficacy. EXCEPTION: Up to 50 watts for dwelling units less than or equal to 2,500 ft² or 100 watts for dwelling units larger than 2,500 ft² may be exempt from the 50% high efficacy requirement when: all low efficacy luminaires in the kitchen are controlled by a manual on occupant sensor, dimmer, energy management system (EMCS), or a multi-scene programmable control system; and all permanently installed luminaries in garages, laundry rooms, closets greater than 70 square feet, and utility rooms are high efficacy and controlled by a manual-on occupant sensor.

§150(k)9: Permanently installed lighting that is internal to cabinets shall use no more than 20 watts of power per linear foot of illuminated cabinet.

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§150(k)10: Permanently installed luminaires in bathrooms, attached and detached garages, laundry rooms, closets and utility rooms shall be high efficacy.

EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by a manual-on occupant sensor certified to comply with the applicable requirements of §119.

EXCEPTION 2: Permanently installed low efficacy luminaires in closets less than 70 square feet are not required to be controlled by a manual-on occupancy sensor.

§150(k)11: Permanently installed luminaires located in rooms or areas other than in kitchens, bathrooms, garages, laundry rooms, closets, and utility rooms shall be high efficacy luminaires. EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided they are controlled by either a dimmer switch that complies with the applicable requirements of §119, or by a manual-on occupant sensor that complies with the applicable requirements of §119. EXCEPTION 2: Lighting in detached storage building less than 1000 square feet located on a residential site is not required to comply with §150(k)11.

§150(k)12: Luminaires recessed into insulated ceilings shall be listed for zero clearance insulation contact (IC) by Underwriters Laboratories or other nationally recognized testing/rating laboratory; and have a label that certifies the luminaire is airtight with air leakage less than 2.0 CFM at 75 Pascals when tested in accordance with ASTM E283; and be sealed with a gasket or caulk between the luminaire housing and ceiling.

§150(k)13: Luminaires providing outdoor lighting, including lighting for private patios in low-rise residential buildings with four or more dwelling units, entrances, balconies, and porches, which are permanently mounted to a residential building or to other buildings on the same lot shall be high efficacy. EXCEPTION 1: Permanently installed outdoor low efficacy luminaires shall be allowed provided that they are controlled by a manual on/off switch, a motion sensor not having an override or bypass switch that disables the motion sensor, and one of the following controls: a photocontrol not having an override or bypass switch that disables the photocontrol; OR an astronomical time clock not having an override or bypass switch that disables the astronomical time clock; OR an energy management control system (EMCS) not having an override or bypass switch that allows the luminaire to be always on. EXCEPTION 2: Outdoor luminaires used to comply with Exception 1 to §150(k)13 may be controlled by a temporary override switch which bypasses the motion sensing function provided that the motion sensor is automatically reactivated within six hours. EXCEPTION 3: Permanently installed luminaires in or around swimming pool, water features, or other location subject to Article 680 of the California Electric Code need not be high efficacy luminaires.

§150(k)14: Internally illuminated address signs shall comply with Section 148; OR not contain a screw-base socket, and consume no more than five watts of power as determined according to §130(d).

§150(k)15: Lighting for parking lots and carports with a total of for 8 or more vehicles per site shall comply with the applicable requirements in Sections 130, 132, 134, and 147. Lighting for parking garages for 8 or more vehicles shall comply with the applicable requirements of Sections 130, 131, 134, and 146.

§150(k)16: 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. EXCEPTION: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by an occupant sensor(s) certified to comply with the applicable requirements of §119.

THESE ATTACHMENTS ARE PART
OF THE APPROVED PLANS.
* DO NOT REMOVE THEM *

AUG 19 2010

Structural Calculations

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
BUILDING PLAN CHECK

PERMIT # _____

Project Description: _____

Owners: Owen

Address: 22155 Proff Dr

Street # / Name

Jenner, CA

City / State / Zip

Client: WSLA

Date: June 2010



Prepared by: Scott Christiansen, P.E.

710 Wilshire Boulevard Δ Suite 230 Δ Santa Monica Δ CA Δ 90401 Δ Tel: (310)395-7641 Δ Fax: (310)395-9806