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

Dobias Residence — Project Title
11/23/2004 — Date
2361 Old Mammoth Road Mammoth Lakes — Project Address
Title 24 Data Corporation (800) 237-8824 — Documentation Author / Telephone
Computer Performance 16 — Compliance Method (Package or Computer) / Climate Zone

Date
Building Permit #
Plan Check / Date
Field Check / Date
Enforcement Agency Use Only

GENERAL INFORMATION

Total Conditioned Floor Area: 1,973 ft²
Total Conditioned Slab Area: 0 ft²
Average Ceiling Height: 9.6 ft

Building Type: (check one or more)
- [X] Single Family Detached
- [ ] Single Family Attached
- [ ] Multi-Family
- [ ] Addition
- [ ] Existing Building
- [ ] Existing Plus Addition

Front Orientation: (Northwest)315deg
Number of Dwelling Units: 1.00
Number of Stories: 2
Floor Construction Type: [ ] Slab Floor [X] Raised Floor

BUILDING SHELL INSULATION

Component Type	Frame Type	Const. Assembly U-Value	Location/Comments (attic, garage, typical, etc.)
R-19 Floor	Wood	0.038	Exterior Floor / Over Crawlspace (w/R-6 Credit)
Log Wall	Wood	0.079	Exterior Wall
R-19 Wall	Wood	0.065	Exterior Wall
R-30 Roof	Wood	0.034	Exterior Roof

FENESTRATION

Type	Orientation	Area (SF)	U-Factor	Fenestration SHGC	Exterior Shading	Overhang Yes	Overhang No	Side Yes	Side Fins No
Left	(Northeast)	17.8	0.45	0.39	Bug Screen		X		X
Left	(Northeast)	57.5	0.47	0.48	Bug Screen		X		X
Right	(Southwest)	37.8	0.45	0.39	Bug Screen		X		X
Right	(Southwest)	75.9	0.47	0.48	Bug Screen		X		X
Rear	(Southeast)	17.8	0.45	0.39	Bug Screen		X		X
Rear	(Southeast)	32.8	0.47	0.48	Bug Screen		X		X
Front	(Northeast)	20.0	0.45	0.39	Bug Screen		X		X
Front	(Northwest)	87.5	0.47	0.48	Bug Screen		X		X
Left	(Northeast)	45.5	0.48	0.52	Bug Screen		X		X
Right	(Southwest)	74.0	0.48	0.52	Bug Screen		X		X
Rear	(Southeast)	15.0	0.48	0.52	Bug Screen		X		X
Front	(Northwest)	128.8	0.48	0.52	Bug Screen		X		X

Run Initiation Time: 11/23/04 09:39:53 Run Code: 1101231593

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

Dobias Residence — Project Title
11/23/2004 — Date

HVAC SYSTEMS Note: Input Hydronic or Combined Hydronic data under Water Heating Systems, except Design Heating Load.

Heating Equipment Type (furnace, heat pump, etc.)	Minimum Efficiency (AFUE/HSPF)	Distribution Type and Location (ducts, attic, etc.)	Duct or Piping R-Value	Thermostat Type	Location / Comments
Central Furnace	80% AFUE	Ducts in Attic	4.2	Setback	Res.HVAC
Gravity Wall Furnace	63% AFUE	Ductless / with Fan	n/a	Setback	Res.HVAC - Guest

Cooling Equipment Type (air conditioner, heat pump, evap. cooling)	Minimum Efficiency (SEER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Location / Comments
No Cooling	10.0 SEER	Ducts in Attic	4.2	Setback	Res.HVAC
No Cooling	10.0 SEER	Ducts in Attic	4.2	Setback	Res.HVAC - Guest

WATER HEATING SYSTEMS

Water Heater System Name	Water Heater Type	Distribution Type	# in Syst.	Rated Input [1] Btu/hr	Tank Cap. (gal)	Energy Fact.[1] or Recovery Efficiency	Standby [1] Loss (%)	External Tank Insul. R-Value
AQUASTAR 125 B	Instant Gas	Standard	2	117,000	0	0.82	1	n/a

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

REMARKS
www.tl6e24.qpg.com
e-mail: tl6e24@frazmtn.com
"One Day Service" since 1978

COMPLIANCE STATEMENT
This certificate of compliance lists the building features and performance 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 recognize that compliance using duct sealing and TXV's requires installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business & Professions Code)
Name:
Title/Firm: Scott Dobias
Address: 321 Cazador Lane
San Clemente, CA 92672
Telephone: (949) 310-8187
Lic. #:
(signature) (date)

Documentation Author
Name: Monika Kimball RES01-1926
Title/Firm: Title 24 Data Corporation
Address: 633 Monterey Trial
Frazier Park, CA 93225-2199
Telephone: (800) 237-8824
Monika Kimball 11-23-04
(signature) (date)

Enforcement Agency
Name:
Title/Firm:
Address:
Telephone:
(signature/stamp) (date)

Run Initiation Time: 11/23/04 09:39:53 Run Code: 1101231593

Certificate of Compliance: Residential (Addendum) CF-1R

Dobias Residence — Project Title
11/23/2004 — Date

Special Features and Modeling Assumptions
The local enforcement agency should pay special attention to the items specified in this checklist. These items require specific 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
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 350 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor		
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 392 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor		
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 340 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor		
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 156 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor		
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 90 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor - Guest		
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 20 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor - Guest		
HIGH MASS Design(see C-2R) - Verify Thermal Mass: 112 sqft Wood, Solid/Logs Exterior Mass, 12.00" thick at Main Floor - Guest		

HERS Required Verification
These features must be confirmed and/or tested by a certified HERS rater under the supervision of a CEC approved HERS provider. The HERS rater must document the field verification and diagnostic testing of these measures on a form CF-6R.

Plan	Field

Run Initiation Time: 11/23/04 09:39:53 Run Code: 1101231593

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

NOTE: Low-rise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as 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 or enter N/A if not applicable.	DESIGNER	ENFORCEMENT
Building Envelope Measures		
[X] * 150(a): Minimum R-19 ceiling insulation.		
[ ] 150(b): Loose fill insulation manufacturer's labeled R-Value.		
[X] * 150(c): Minimum R-13 wall insulation in wood frames; walls or equivalent U-value in metal frame walls (does not apply to exterior mass walls).		
[X] * 150(d): Minimum R-13 raised floor insulation in framed floors or equivalent.		
[ ] 150(f): Slab edge insulation - water absorption rate no greater than 0.3%, water vapor transmission rate no greater than 2.0 perm/inch.		
[X] 118: Insulation specified or installed meets insulation quality standards. Include type and form.		
[X] 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.		
[ ] 150(g): Vapor barriers mandatory in Climate Zones 14 and 16 only.		
[ ] 150(f): Special infiltration barrier installed to comply with Section 151 meets Commission quality standards.		
[ ] 150(k): Installation of Fireplaces, Decorative Gas Appliances and Gas Logs. *. Masonry and factory-built fireplaces have: a. Closeable metal or glass door b. Outside air intake with damper and control c. Flue damper and control 2. No continuous burning gas pilots allowed.		
Space Conditioning, Water Heating and Plumbing System Measures		
[X] 110-12: HVAC equipment, water heaters, showerheads and faucets certified by the Commission.		
[X] 150(h): Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA or ACCA.		
[X] 150(i): Setback thermostat on all applicable heating and/or cooling systems.		
[X] 150(j): Pipe and Tank Insulation *. 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. First 5 feet of pipes closest to water heater tank, non-recirculating systems, insulated (R-4 or greater) 3. Back-up tanks for solar system, unfired storage tanks, or other indirect hot water tanks have R-12 external insulation or R-16 combined internal/external insulation. 4. All buried or exposed piping insulated in recirculating sections of hot water systems. 5. Cooling system piping (below 55 degrees F.) insulated. 6. Piping insulating between heating source and indirect hot water tank.		

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

NOTE: Low-rise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. Items marked with an asterisk (*) may be superseded by more stringent compliance requirements listed on the Certificate of Compliance. When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as 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 or enter N/A if not applicable.	DESIGNER	ENFORCEMENT
Space Conditioning, Water Heating and Plumbing System Measures: (continued)		
[X] * 150(m): Ducts and Fans 1. All ducts and plenums installed, sealed and insulated to meet the requirements of the 1998 CMC Sections 601, 603, 604 and Standard 6-5; ducts insulated to a minimum installed level of R-4.2 or enclosed entirely in conditioned space. Openings shall be sealed with mastic, tape, aerosol sealant, or other duct-closure system that meets the applicable requirements of UL181, UL181A, or UL181B. 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. Building cavities shall not be used for conveying conditioned air. 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 drawbands. 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 a tape is used in combination with mastic and drawbands. 4. Exhaust fan systems have back draft or automatic dampers. 5. Gravity ventilation systems serving conditioned space have either automatic or readily accessible, manually operated dampers. 6. Protection of Insulation. Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind but not limited to the following: Insulation exposed to weather shall be suitable for outdoor service e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover. 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.		
[ ] 114: Pool and Spa Heating Systems and Equipment 1. Certified with 78% thermal efficiency, on-off switch, weatherproof operating instructions, no electric resistance heating, and no pilot. 2. System is installed with at least 36" of pipe between filter and heater for future solar, cover for outdoor pools or spas. 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.		
[X] 115: Gas fired 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 (f): Cool Roof material must meet specified criteria		
Lighting Measures		
[X] 150(k)1: Luminaires for general lighting in kitchens shall have lamps with an efficacy 40 lumens/watt or greater for general lighting in kitchens. This general lighting shall be controlled by a switch on a readily accessible lighting control panel at an entrance to the kitchen.		
[X] 150(k)2: Rooms with a shower or bathtub must have either at least one luminaire with lamps with an efficacy of 40 lumens/watt or greater switched at the entrance to the room or one of the alternative to this requirement allowed in Section 150(k)2.i. and recessed ceiling fixtures are IC (insulation cover) approved.		

ISSUED FOR PERMIT

REVISIONS
1 | 11 APRIL 2005
2 | 3 | 4 | 5

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The Log Connection
Log Home Specialist

Dobias Residence

PREPARED FOR:
Scott Dobias, 321 Cazador Lane, San Clemente, CA 92672
Phone Number: (949) 310-8187
Site Address: 2361 Old Mammoth Rd. Mammoth Lakes, CA.

General Contractor: Scott Dobias, San Clemente, CA
Structural Engineering: Alpine Engineering, 615 Front St. Coeur d'Alene, Idaho, 83814 Phone Number: (208) 667-2600

ENERGY CALCULATIONS
PAGE TITLE
SCALE: NONE
DATE: 15 OCT. 2004
DRAWN BY: ROBERT WOOD
CHECKED BY: DAVE SUTTON

A.14