Prescriptive Certificate of Compliance: Residential						
Residential Alterations				(Page 1 of 5)		
Project Name:	C	limate Zo	ne #	# of Stories		
General Information						
Site Address:	Enforcement Agency:		Date:			
Building Type ☐ Single Family ☐ Multi Family	Circle the Front Orientation: N, E,	S, W, or de	egrees			
Conditioned Floor Area (CFA):	Project Type:					
<u>NOTE</u> : This form is not to be used for Newly Constructed E	Buildings or Additions					
Insulation Values For Opaque Surfaces (for Furring use the	e Mass and Furring Strips Construct	ion table b	elow)			
Assembly Alteration ☐ Opening of framed cavity alone – Alterations that involve mandatory minimum insulation value per §150 for the altered ☐ Replacement of entire assembly – Replacement of an ent Package- D insulation values in Table 151-C. Fill in Column	l assembly. Fill in Columns A –C and ire wall, ceiling, or floor assembly re	d enter ma	ndatory insulation val	ue in Column H.		
Opaque Surface Details For the furred portioned of	Mass Walls see Furring Strips Co	nstruction	Table below.			

Opaque	Opaque Surface Details For the furred portioned of Mass Walls see Furring Strips Construction Table below.										
A	В	C	D	E	F	G	H	I	J		
Proposed See Note Standard Values From JA4 Table											
Tag/ ID ¹	Assembly Name or Type ²	Framing Material and Size ²	Thickness, Spacing, or Other ³	U- factor ⁴	JA4 Table Number ⁵	Framed Cavity R-value ⁶	Continuous Insulation R-Value ⁷	JA4 Assembly Row/Col ⁸	Proposed Assembly U-factor ⁹		

Note: For furred assemblies, accounting for Continuous Insulation R-value, see Page JA4-3 and Equation 4-1. For calculating furred walls use the Mass and Furring Construction table below.

- 1. For Tag/ID indicate the identification name that matches the building plans.
- 2. Indicate the Assembly Name or type: Roof/Ceiling, Walls, Floors, Slabs, Crawl Space, Doors and etc...Indicate in column G the Frame material and Size: For Wood, Metal, Metal Buildings, Mass, enter 2x4, 2x6, or etc... see JA4 for other possible frame type assemblies.
- 3. Enter the thickness for mass in inches or Spacing between framing members enter; 16" or 24" OC; or Other for all other assembly description such as Concrete Sandwich Panel, Spandrel Panel, Logs, Straw Bale Panel and etc....
- 4. Based on the Climate Zone; enter the equivalent U-factor found in JA4 Table based on the R-Value from Table 151-B, C, or D
- 5. Enter the Table number that closely resembles the proposed assembly.
- 6. Enter the R-value that is being installed in the wall cavity or between the framing; otherwise, enter "0".
- 7. Enter the Continuous Insulation R-value for the proposed assembly; otherwise, enter "0".
- 8. Enter the row and column of the U-factor value based on Column F Table Number and enter the Assembly U-factor in Column J
- 9. The Proposed Assembly U-factor, Column J, must be equal to or less than the Standard U-factor in Column E to comply.

Furring Strip	Furring Strips Construction Table for Mass Walls Only											
A	В	C	D	E	F	G	Н	I	J	K	L	M
Proposed P	roperties of M	asonry and	Concre	te	Ad	lded In	terior or l	Exterior I	nsulatio	n		
Joint A	Walls From I ppendix Table		4.3.7		i			from Ref Table 4.3				
Mass Thickness ¹	Assembly Name or Type ²	JA4 Table Number ³	JA4 -Mass Cell Value ⁴	Mass U-Factor ⁵	Interior or Exterior of Insulation Layer	Frame Thickness	Frame Type Wood or Metal	Furring Cavity R-value³	JA4 -Mass Cell Value ⁴	Effective R-value ⁵	Final Assembly U-factor ^{6,7}	Comment

Registration Number: ______ HERS Provider: ______

Prescriptive Certificate of Compliance: Residential		CF-1R-ALT
Residential Alterations		(Page 2 of 5)
Project Name:	Climate Zone #	# of Stories

Mass and Furring Strips Construction (footnotes)

- 1. Indicate the type of assembly to include; Hollow Unit Masonry Walls, Solid Unit Masonry, Solid Concrete Walls, Etc. Additional assemblies can be found Reference Joint Appendix JA4.
- 2. This is the U-Factor based on the thickness of the assembly in inches.
- 3. The R-value of the insulation to be added on the interior or exterior of the assembly.
- 4. The Calculated R-Value is the R-value of the furred out section of the assembly.
- 5.-6.The Final Assembly is calculated using Equation 4-2 or Equation 4-4of the Reference Joint Appendix JA4. The equation is the inverse of Column
- D added to Column I. Column K is the inverse from column J.
- 7. Insert the calculated U-factor value on to the Opaque Surface Details in Column J

FENESTRA	TION	PROPOSED	AREAS	3

□ Replacing window alone – Replacement windows shall meet the U-Factor and SHGC Value requirements of Component Package D in
Table 151-C. The Total Fenestration and West-facing Area requirements are not applicable.

- □ Adding 50ft² or less of window area Newly installed windows shall meet the U-Factor and SHGC Value requirements of Component Package D in Table 151-C.
- □ Adding more than 50ft² of window area − Newly installed windows shall meet the U-Factor and SHGC Value and the Fenestration Area requirements of Component Package D in Table 151-C. Complete the Altered Fenestration Allowed Area Table on Page 2 of the CF-1R-ALT

Fenestration Type and Frame (Window, Glass Door or Skylight)	Orientation (North, East, South, West)	PropsedArea ¹ (ft ²)	Maximum U-factor ^{2, 3}	Maximum SHGC ^{2, 3, 4}	NFRC or Default Value ⁵

- 1. Fenestration area is the area of total glazed product (i.e. glass plus frame). Exception: When a door is less than 50% glass, the fenestration area may be the glass area plus a "2 inch frame" around the glass.
- 2. Enter value from Component Package D Requirements in Table 151-C.
- 3. Actual fenestration products installed and as indicated in CF-6R-ENV Form shall be equivalent to or have a lower U-factor and/or a lower SHGC value than that specified on the CF-1R ALT Form.
- 4. Submit a completed WS-3R Form if a reduced SHGC is calculated with exterior shading.
- 5.If applicable at this stage enter "NFRC" for NFRC Certified windows or are CEC "Default" values found in Table 116-A or B.

ALTERED FENESTRA	ALTERED FENESTRATION ALLOWED AREAS (Complete if more than 50ft ² of fenestration is added)									
	A	В	C	D	Е	F		G		
	CFA of Entire Dwelling	Allowed % of CFA ^{2, 3}	Existing Fenestration Area ⁴	Area Removed ⁵	Fenestration Area Added ⁶	Allowed Area (A x B)		Proposed Area ^{1, 4} (E-D) + C		
Total Fenestration Area ² ,(ft ²)							>			
West Fenestration Area ^{1,3} (Required In CZ's 2, 4 & 7-15)							//			

- 1. The Proposed West Fenestration Area includes West-sloping skylight area and any other skylight area with a pitch less than 1:12.
- 2. Enter 20% when no West orientation restriction or 15% when West fenestration is being installed in Climate Zones 2, 4, & 7-15. Note that the maximum allowed fenestration can only be 5% of the CFA as indicated in Column F. Column G must be equal to or less than Column F.
- 3. In climate zones 2, 4, 7-15, no more than 5% of the CFA is allowed for west-facing glazing.
- 4. Existing Fenestration area must be counted toward the maximum allowed 15% or 20% of the whole building and calculated in Column G. The Proposed Area must be less than or equal to Column F.
- 5. Enter the fenestration removed as part of the alteration if any in column D.
- 6. Enter the Fenestration area that is being added as part of the alteration.

Registration Number: ______ HERS Provider: ______ HERS Provider: _____

Prescriptive Certificate of Compl	liance: R	esidenti	al				CF	-1R-ALT
Residential Alterations							(Pa	ge 3 of 5)
Project Name:					Cli	mate Zone #	,`	of Stories
ROOFING PRODUCTS (COOL RO	OFS) <i>§15</i>	51(f)12						
When the area of exterior roof surface to	be replacea	l exceeds i	more than :	50% of the	existing rooj	f area, or more tha	n 1,000 ft², whic	chever is
less, the new roofing area must meet the r	oofing pro	duct "Coo	l Roof" req	uirements	of §152(b)11	Hi, 152(b)1Hii, or 1	152(b)1Hiii.	
Check applicable alternative or exception						•	-	
one of the alternatives or exception below i		the Aged S	Solar Reflec	ctance and T	Thermal Emi	ttance requirement	s for roofing pro	oducts in
§118(i) are not applicable. Do not fill table								
☐ Cool Roofs Not Required in Climate Zoo								
□Cool Roofs Not Required in Climate Zor than 5lb/ft².	es 1 throug	th 9 and 10	6 with a Ste	ep-Sloped l	Roofs (pitch	greater than 2:12) a	and product unit	weight less
Alternatives to §152(b)1Hi and §152(b)H								
☐ Insulation with a thermal resistance of a	t least 0.85	hr∙ft².°F/B	tu or at least	t a 3/4 inch a	air-space is a	dded to the roof dec	k	
over an attic; or								
Existing ducts in the attic are insulated						2		
☐ In climate zones 10, 12 and 13, with 1 f					-		, and	
where at least 30 percent of the free ver		a is within	2 feet vertic	al distance o	of the roof rid	lge; or		
☐ Building has at least R-30 ceiling insula				(02:				
☐ Building has radiant barrier in the attic☐ Building has no ducts in the attic; or	meeting the	requireme	ents of §151	(1)2; 01				
☐ In climate zones 10, 11, 13 and 14, R-3	or greater r	oof deck in	eulation abo	ove vented s	attic			
Exception to \$152(b)1Hiii, Low-slope roo	-		isuiation aoi	ove venteu i	ittic.			
☐ Building has no ducts in the attic.	n (puen =	2.12)						
Other Exceptions								
☐ Roofing area covered by building integr	ated; photo	voltaic pa	nels and sol	ar thermal j	panels are ex	empt from the belo	w Cool Roof cri	iteria.
☐ Roof constructions that have thermal ma								
Note : If no CRRC-1 label is available, this Check the applicable box below if Exer							v compliance, ot	herwise,
Check the applicable box below if Exel	Roof		Products		Product	Aged Solar	Thermal	
CRRC Product ID Number ¹	≤ 2:12		$< 5 lb/ft^2$	$> 5 lb/ft^2$	Type ²	Reflectance ^{3,4}	Emittance	SRI ⁵
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					JP -	\square^4		
						\Box ⁴		
1 TI CDDCD 1 ID V 1					1 . D:		/ 1 . / 1	,
 The CRRC Product ID Number can be obtained Indicate the type of product is being used for the 						v at <u>www.coolroofs.or</u>	g/products/search	<u>.php</u>
3. If the Aged Reflectance is not available in the C						ne Initial Reflectance	value from the san	ne
directory and use the equation (0.2+0.7(ρ_{initi})		_					v	
4. Check box if the Aged Reflectance is a calculate					•			
Calculate the SRI value by using the SRI- Work the SRI- Worksheet to the CF-1R.	sheet at <u>http</u>	://www.ene	rgy.ca.gov/ti	t <u>le24/</u> and en	ter the resultin	ng value in the SRI Co	olumn above and a	ttach acopy of
To apply Liquid Field Applied Coatings , threecommended by the coatings manufacturer								
☐ Aluminum-Pigmented Asphalt Roof Co			nt-Based Ro			Other	TT TTTT TOWN	υ ·

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Project Name:	Climate Zone #	# of Stories

HVAC SYSTEMS - HEAT	ΓING				
Heating Equipment Type and Capacity ^{1,2,3}	Minimum Efficiency (AFUE or HSPF)	Distribution Type and Location ⁴	Duct or Piping Insulation R-Value	Thermostat Type	Configuration (Central, Split, Space, Package or Hydronic)

- 1. Indicate Heating Type (Central Furnace, Wall Furnace, Heat pump, Boiler, Electric Resistance, etc.)
- 2. Electric resistance heating is allowed only in Component Package C, or except where electric heating is supplemental (i.e., if total capacity ≤ 2 KW or 7,000 Btu/hr electric heating is controlled by a time-limiting device not exceeding 30 minutes). See §151(b)3 exception.
- 3. Refer to the HERS Verification section on Page 4 of the CF-1R-ALT Form for additional requirements and check applicable boxes.
- 4. Indicate Type or Location (Ducts, Hydronic in Floor, Radiators, etc.)

HVAC SYSTEMS - COOLING

Cooling Equipment Type and Capacity ^{1,2}	Minimum Efficiency (SEER/EER or COP)	Distribution Type and Location ³	Duct or Piping Insulation R-Value	Thermostat Type	Configuration (Central, Split, Space, Package or Hydronic)

- 1. Indicate Cooling Type (A/C, Heat pump, Evap. Cooling, etc)
- 2. Refer to the HERS Verification section on Page 4 of the CF-1R-ALT Form for additional requirements and check applicable boxes.
- 3. Indicate Type or Location (Ducts, Hydronic in Floor, Radiators, etc.)

WATER HEATING

List water heaters and boilers for both domestic hot water (DHW) heaters and hydronic space heating. Individual dwelling DHW heaters must be gas or propane fired. Hot water pipe insulation from the DHW heater to the kitchen(s) and on all underground hot water pipes is required in all component packages in all climate zones.

Water Heater Type/Fyel	Distribution Tons	Number In	Tank	Energy Factor or	External Tank
Water Heater Type/Fuel	Distribution Type	Number in	тапк	Energy Factor or	Insulation
Type ¹	(Standard, Recirculating) ²	System	Capacity (gal)	Thermal Efficiency	R-Value ³

- 1. Indicate Type (Storage Gas, Heat Pump, Instantaneous, etc.)
- 2. Recirculating systems serving multiple dwelling units shall meet the recirculation requirements of §150(n). The Prescriptive requirements do not allow the installation of a recirculating water heating system for single dwelling units.
- 3. The external water heating tank and pipes shall be insulated to meet the requirements of §150(j).

SPECIAL FEATURES The enforcement agency should pay special attention to the Special Features specified in this checklist below.				
These items may require written justification and documentation and special verification.				
NEW ROOF ASSEMBLY - Radiant Barrier				
The radiant barrier requirement of §151(f)2 does not apply to roof alterations.				
Slab Edge (Perimeter) Insulation				
YES: In Climate Zone 16 in Component Packages D, R-7 insulation is required.				
Heated Slab Insulation ☐ YES ☐ NO				
YES: Slab edge insulation required for all heated slabs in all Climate Zones. See details in Table 118-A of the standards.				
Raised Slab Insulation				
YES: In Climate Zones 1, 2, 11, 13, 14 & 16, R-8 insulation is required; in Climate Zones 12 & 15, R-4 is required under component Package D.				
Thermal Mass				
To obtain Compliance Credit for the installation of thermal mass, use the Performance Approach.				

Registration Number: Registration Date/Time: HERS Provider:

Prescriptive Certificate of Compliance: Residential						
Residential Alterations						
Project Name:	Climate Zone #	# of Stories				
HERS VERIFICATION SUMMARY The enforcement agency should pay special attention to the HERS Measures specified in this						
checklist below. A completed and signed CF-4R Form for all the measures specified shall be submitted to the building inspector before final inspection.						
Duct Sealing & Testing HERS verification is required for this measure.						
☐ YES ☐ NO YES: In Climate Zones 2 and 9-16, if more than 40 linear feet of new or replacement ducts are installed in unconditioned space, the ducts are to be sealed per §152(b)1Dii and the newly installed ducts are to be insulated per §151(f)10. ☐ EXCEPTION: Existing duct systems that are extended, which are constructed, insulated or sealed with asbestos.						
☐ YES ☐ NO YES: In Climate Zones 2 and 9-16, if the existing space-conditioning system (HVAC equipment and ducting) is replaced, the ducts are to be sealed per §152(b)1Di.						
☐ YES ☐ NO YES: In Climate Zones 2 and 9-16, if the existing HVAC equipment is replaced (including the replacement of the air handler, outdoor condensing unit of a split system, cooling or heating coil, or the furnace heat exchanger) the ducts are to be sealed per §152(b)1E.						
 □ EXCEPTION: Duct systems that are documented to have been previously sealed confirmed through HERS verification in accordance with procedures in the Reference Residential Appendix RA3. □ EXCEPTION: Duct systems with less than 40 linear feet in unconditioned space. 						
☐ EXCEPTION: Existing duct systems constru						
Refrigerant Charge - Split System HERS verification is requi						
■ YES ■ NO YES: In Climate Zones 2 and 8-15, when the existing HVAC equipment is replaced (including the replacement of the air handler, outdoor condensing unit of a split system A/C or heat pump, cooling or heating coil, or the furnace heat						
exchanger) a refrigerant charge measurement sh Central Fan Integrated (CFI) Ventilation System and Fa						
The ventilation requirements of §150(o) do not apply to existing residenti						
Ducted Split Systems - Air Conditioners and Heat Pumps: Air						
☐ YES ☐ NO YES: In Climate Zones 10 through 15, when the existing space-conditioning system (HVAC equipment and ducting) is						
replaced, the airflow and fan watt draw shall b	e verified per §152(b)1Ci to meet the requirements of §	151(f)7B.				
Documentation Author's Declaration Statement I certify that this Certificate of Compliance documentation is accurate and complete.						
Name:	Signature:					
Company:	Date:					
Address:	If Applicable □ CEA or I (Certification #):	□ CEPE				
City/State/Zip:	Phone:					
Responsible Building Designer's Declaration Statement						
I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.						
• I certify that the energy features and performance specifications for the building design identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations.						
 The building design features identified on this Certificate of Complia building design on the other applicable compliance forms, workshee agency for approval with this building permit application. 						
Name:	Signature:					
Company:	Date:					
Address:	License:					
City/State/Zip:	Phone:					
For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.						

_ Registration Date/Time: __

Registration Number:

_ HERS Provider: __