



Community Development Department
14000 City Center Dr., Chino Hills, CA 91709
(909) 364-2740 Fax (909) 364-2795
www.chinohills.org

RE-ROOFING & CALIFORNIA RESIDENTIAL COMPLIANCE REQUIREMENTS FOR COOL ROOFS

Beginning July 1, 2014 when more than 50% of roof is replaced, the roofing product **must meet** the following prescriptive requirements for Cool Roofs:

FOR ROOF SLOPES GREATER THAN 2:12:

Low-rise residential buildings with steep-sloped roofs. Climate zones 10 through 15 shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75, or a minimum SRI of 16.

ALTERNATIVES TO THE COOL ROOF REQUIREMENT (circle one):

If you are proposing an alternative to a CRRC product you must select one of the alternates listed below.

- a) Air-space of 1.0 inch (25 mm) is provided between the top of the roof deck to the bottom of the roofing product; or
- b) The installed roofing product has a profile ratio of rise to width of 1 to 5 for 50 percent or greater of the width of the roofing product; or
- c) Existing ducts in the attic are insulated and sealed according to Section 150.1(c)9; or
- d) Buildings with at least R-38 ceiling insulation; or
- e) Buildings with a radiant barrier in the attic meeting the requirements of Section 150.1(c)2; or
- f) Buildings that have no ducts in the attic; or
- g) Buildings with R-4 or greater insulation above the roof deck.

ADDITIONAL REQUIREMENTS:

In addition to the State Cool Roof requirements the City of Chino Hills requires that all roofing material installed within the City be listed as minimum Class A rated.

A Certificate of Compliance Energy Form **“CF-1R-ALT”** must be completed and submitted with the permit application, The **“CF-1R-ALT”** form must be signed by the documentation author and the Building designer i.e. Contractor or Homeowner.

At Final Inspection an Installation Certificate Form **“CF-6R-ENV-01”** must be completed by the installing contractor and submitted to the owner and Building Inspector.

Roofing products that are used for compliance with the Energy Standards are required to be tested and labeled by the Cool Roof Rating Council (CRRC). The roofing products manufacturer must have its roofing product tested for solar reflectance and thermal emittance, and be listed in the CRRC's Rated Product Directory (see <http://www.coolroofs.org>) and be labeled according to CRRC procedures (See the next page for an example of an approved CRRC product label).

Example of a CRRC Product Label:

	Solar Reflectance	<u>Initial</u> 0.00	<u>Weathered</u> Pending
	Thermal Emittance	0.00	Pending
	Rated Product ID Number _____		
	Licensed Seller ID Number _____		
	Classification	Production Line	
Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary. Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.			

Attached is the Building Permit Application and the CF-1R-ALT and the CF-6R-ENV-01 for your use. You can also visit the California Energy Commissions webpage at www.energy.ca.gov for additional information.

SMOKE DETECTORS:

Smoke detectors/carbon monoxide detectors are required for alterations, repairs, or additions requiring a permit per CRC sec. R314.3 and R315.3. See separate handout on smoke detector/carbon monoxide detector requirements.

SPARK ARRESTER:

When the value of the work exceeds \$1,000, spark arresters must be installed on fireplace chimneys per CRC sec. 1003.9.1

INSPECTIONS:

- 1) Pre-Roofing Inspection: After existing roofing is removed but before any new material is installed.
- 2) Roof Nailing Inspection: After plywood is installed (if applicable).
- 3) Final Inspection: When all work has been completed. Access to interior must be provided (adult presence required) to verify smoke detector installation and Form ENV-INST must be completed and provided to the inspector.

CONTRACTOR OR OWNER MUST PROVIDE ROOF ACCESS (LADDER TO ROOF) FOR ALL REQUIRED INSPECTIONS. LADDERS MUST BE OSHA APPROVED, MINIMUM TYPE I WITH A 250 lbs. RATING, IN GOOD CONDITION. JOB CARD, PLANS (if applicable) and CRRC PRODUCT LABEL (if applicable) MUST BE ON SITE FOR INSPECTOR.

**PERMITS EXPIRE 365 DAYS AFTER ISSUANCE OR LAST PASSED INSPECTION,
WHICHEVER IS LATER.**



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Permit No.: _____

TDA No.: _____

Submittal Date: _____

BUILDING PERMIT APPLICATION

Please use this for all projects that don't have a specific application.

PROJECT INFORMATION

Project Address: _____

APN: _____ Tract: _____ Lot: _____ Block: _____

Project Valuation: _____

Scope of Work: _____

OWNER INFORMATION

Owner Name: _____

Address: _____

Phone No.: _____ Email: _____

APPLICANT INFORMATION *(if different from Owner)*

Name: _____

Address, City, State, Zip: _____

Phone No.: _____ Email: _____

CONTRACTOR INFORMATION

Company Name: _____ Rep. Name: _____

Contractor's Exp. _____

License No: _____ Date: _____ Class: _____

Workman's Exp. _____

Comp. No.: _____ Date: _____ Company: _____

City Business License No.: _____ Exp. Date: _____

Address, City, St., Zip: _____

Phone No.: _____ Email: _____



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SINGLE FAMILY HOME SMOKE ALARM & CARBON MONOXIDE ALARM REQUIREMENTS

California Residential Code (CRC) Section R314.3, CRC R315.3 states in part that existing dwellings be retrofitted with smoke detectors and carbon monoxide alarms when a building permit is issued for work or repairs to a building.

Functional smoke alarm is required in the following locations:

- In each sleeping room.
- Outside each separate sleeping area in the immediate vicinity of the bedrooms.
- On each additional story, including basements and habitable attics.

Functional carbon monoxide alarm is required in the following locations:

- Outside each separate sleeping area in the immediate vicinity of the bedrooms.
- On each additional story, including basements and habitable attics.
- Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

Multiple-purpose alarms (smoke detector & carbon monoxide) listed and approved by the State Fire Marshal may be used to fulfill the requirements.

Home Owner Verification Statement

I have read the above Smoke Alarm / Carbon Monoxide Alarm installation requirements and agree to comply with the requirements prior to the final inspection of my project.

Homeowner Signature

Date

Property Address

Self-Certification

I, the undersigned, hereby certify that I am the property owner or permittee of the project. I further certify that smoke alarms and carbon monoxide alarms are present and tested to be functional in all the following locations: (both boxes below must be checked)

☐ Carbon Monoxide Alarm: On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms or in each hallway outside of the rooms, and each level of the dwelling.

☐ Smoke Alarms: Installed in each room used for sleeping purposes, outside each sleeping area, and on each level of the dwelling unit.

Signature (☐ Owner / ☐ Permittee) Date

Property Address

NOTE: This **Self-Certification** is only used for projects to the exterior of the structure where access to the interior of the dwelling by the City of Chino Hills Building Inspector is not achieved during the course of construction.

Simplified CF-1R-ALT-REROOF for City of Chino Hills (Climate Zone 10)

Site Address: _____
Permit No.: _____

Residential Cool Roof Requirements

Residential roofing products must be certified as "cool roof" by the Cool Roof Rating Council (CRRC) or...

Exemptions:

- ☐ The roofing being replaced is less than 50% of the total roof area of the building.
- ☐ 1 Inch air space between top of roof deck to the bottom of roofing product
- ☐ Ducts are insulated to R-6 and sealed (must be verified by HERS report)
- ☐ Building has R-38 insulation
- ☐ Building has a radiant barrier in the attic
- ☐ Building has no ducts in the attic
- ☐ R-4 minimum insulation above roof deck
- ☐ Roofing is covered by integrated photovoltaic panels
- ☐ Roof construction having thermal mass over the roof membrane of at least 25 lb. per square foot

Required Forms:

When a cool roof system is required, the installer must submit the CF2R-ENV-05-E form at final inspection

Documentation of Cool Roof Product

CRRC Product ID Number ¹	Roof Slope ≤ 2:12 > 2:12	Product Weight <5lb/ft ² ≥5lb/ft ²	Product Type ²	Aged Solar Reflectance ^{3,4 min .2}	Thermal Emittance	SRI ⁵ min.16
					.75	
					.75	

1. The CRRC Product ID number can be obtained from the Cool Roof Rating Council's Rated Product Directory at www.coolroofs.org
2. Indicate the type of product being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc.
3. If the Aged Reflectance is not available in the Cool Roof Rating Council's Rated Product Directory then use the initial Reflectance value from the same directory and use the equation $(0.2 + 0.7(p_{\text{initial}} - 0.2))$ to obtain a calculated aged value. Where p is the initial solar reflectance.
4. Check box if the Aged Reflectance is a calculated value using the equation above.
5. Calculate the SRI value by using the SRI-worksheet at www.energy.ca.gov/title24 and enter the resulting value in the SRI column above and attach a copy of the SRI Worksheet to the CF-1R form.

Declaration Statement:

I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is accurate and complete. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, parts 1 and 6 of the California Code of Regulations.

Signature _____ Print Name _____ Date _____

INSTALLATION CERTIFICATE: Residential Reroof		CF-6R-ENV-01
Site Address:	Enforcement Agency:	Permit Number:

If more than one person has responsibility for installation of the items on this certificate, each person shall prepare and sign a certificate applicable to the portion of construction for which they are responsible; alternatively, the person with chief responsibility for construction shall prepare and sign this certificate for the entire construction. All applicable Mandatory Measures with check boxes are required to be checked to ensure the mandatory measures have been met.

CEILING INSULATION

Rigid: _____	Brand Name: _____
Batt or Blanket Type: _____	Brand Name: _____
Loose Fill Type: _____	Thermal Resistance (R-Value): _____
Spray Foam Type: _____	Brand Name: _____
Installed Actual Thickness (inches): _____	Contractor's min installed weight/ft ² _____ lb

☐ Manufacturer's installed weight per square foot to achieve Thermal Resistance (R-Value):
 §150(a): Minimum R-19 insulation in wood-frame ceiling or equivalent U-factor.

ROOFING PRODUCTS (COOL ROOFS) §151(f)12							
☐ Check this box if the newly installed roof is exempted from the roofing product "Cool Roof" requirements as indicated on the CF-1R-Alt-Reroof form for this project. Otherwise fill in the table below.							
CRRC Product ID Number ¹	Roof Slope		Product Weight		Product Type ²	Aged Solar Reflectance ^{3,4}	Thermal Emittance
	≤ 2:12	> 2:12	< 5lb/ft ²	≥ 5lb/ft ²			
	☐	☐	☐	☐		4	
	☐	☐	☐	☐		4	
1. CRRC-1 label information is available is on the package of the roofing product being installed and attach the CRRC label to this form. 2. Indicate the type of product is being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc. 3. If the Aged Reflectance is not available in the Cool Roof Rating Council's Rated Product Directory then use the Initial Reflectance value from the same directory and use the equation $(0.2 + 0.7(\text{initial} - 0.2))$ to obtain a calculated aged value. Where is the Initial Solar Reflectance. 4. Check box if the Aged Reflectance is a calculated value using the equation above.							
To apply Liquid Field Applied Coatings , the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §118(i)4. Select the applicable coating:							
☐ Aluminum-Pigmented Asphalt Roof Coating			☐ Cement-Based Roof Coating			☐ Other _____	

- ☐ §118(a): Insulation installed meets Standards for Insulating Material.
- ☐ §150(g): Mandatory Vapor barrier installed in Climate Zones 14 or 16.

DECLARATION STATEMENT

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I reviewed a copy of the Certificate of Compliance (CF-1R) form approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF-1R that apply to the installation have been met.
- I will ensure that a completed, signed copy of this Installation Certificate shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy.

Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)		
Responsible Person's Name:	Responsible Person's Signature:	
CSLB License:	Date Signed:	Position With Company (Title):