



## 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:

	<b>Solar Reflectance</b>	<u>Initial</u> 0.00	<u>Weathered</u> Pending
	<b>Thermal Emittance</b>	0.00	Pending
	<b>Rated Product ID Number</b> _____		
<b>Licensed Seller ID Number</b> _____			
<b>Classification</b>		<b>Production Line</b>	
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](http://www.energy.ca.gov) for additional information.

**SMOKE DETECTORS:**

When the value of the work exceeds \$1,000, smoke detectors/carbon monoxide detectors must be installed per CRC sec. R314.6.2 and R315.2. 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 180 DAYS AFTER ISSUANCE OR LAST PASSED INSPECTION,  
WHICHEVER IS LATER.**



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

Permit No.: \_\_\_\_\_  
 TDA No.: \_\_\_\_\_  
 Submittal Date: \_\_\_\_\_

## BUILDING PERMIT APPLICATION

This is a combination permit for electrical, mechanical, and plumbing.  
 Please use this for all projects that do not have a specific application.

### OWNER INFORMATION

Owner Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

### APPLICANT INFORMATION *(if different from Owner)*

Name: \_\_\_\_\_  
 Address, City, State, Zip: \_\_\_\_\_  
 Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

### PROJECT INFORMATION

Project Address: \_\_\_\_\_  
 APN: \_\_\_\_\_ Tract: \_\_\_\_\_ Lot: \_\_\_\_\_ Block: \_\_\_\_\_  
 Project Valuation: \_\_\_\_\_  
 Scope of Work: \_\_\_\_\_

### CONTRACTOR INFORMATION

Company Name: \_\_\_\_\_ Rep. Name: \_\_\_\_\_  
 Contractor's License No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ Class: \_\_\_\_\_  
 Workman's Comp. No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 City Business License No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_  
 Address, City, St., Zip: \_\_\_\_\_  
 Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

For projects valued over \$1,000, no permit will be issued without the Homeowner's signature, **NOT** the contractor's signature on our Smoke Detector/Alarm & Carbon Monoxide Detector/Alarm form. Please see page 2 for this form.

All permit fees must be paid by check, money order or cash only. No credit/debit cards are accepted. If you have further questions please contact the Building Division at (909) 364-2780.



## **SINGLE FAMILY HOME SMOKE DETECTOR/ALARM & CARBON MONOXIDE DETECTOR/ALARM REQUIREMENTS**

This application is required to be signed by the homeowner, **NOT** the contractor prior to permit issuance of any project valued at \$1,000 or more.

California State Law requires an operating smoke detector in the following locations:

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

**California State Law requires an operating carbon monoxide detector 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

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

**You are required to install smoke detectors/carbon monoxide detectors if you make an application for an alteration, repair or addition where the valuation of the work exceeds \$1,000.00**

*(2016 California Residential Code section R314.6.2(1) & R315.2.2)*

A City Building Inspector will verify that operating smoke detectors and carbon monoxide detectors are installed per code prior to final inspection of your project. This verification will require access to the interior of your home with an adult present at the time of final inspection. This requirement also applies to reroof permits, patio covers/decks, swimming pools and any project that is valued at \$1,000.00 or more.

### **Home Owner Verification Statement**

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

\_\_\_\_\_  
**Home Owner Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Property Address**

# 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 <sup>1</sup>	Roof Slope ≤ 2:12 > 2:12	Product Weight <5lb/ft <sup>2</sup> ≥5lb/ft <sup>2</sup>	Product Type <sup>2</sup>	Aged Solar Reflectance <sup>3,4 min .2</sup>	Thermal Emittance	SRI <sup>5</sup> 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](http://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  $(0.2+0.7(p_{initial}-0.2))$  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](http://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

<b>INSTALLATION CERTIFICATE: Residential Reroof</b>		<b>CF-6R-ENV-01</b>
<b>Site Address:</b> _____	<b>Enforcement Agency:</b> _____	<b>Permit Number:</b> _____

*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 <sup>2</sup> _____ 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.
- §118(a): Insulation installed meets Standards for Insulating Material.
- §150(g): Mandatory Vapor barrier installed in Climate Zones 14 or 16.

**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 <sup>1</sup>	Roof Slope		Product Weight		Product Type <sup>2</sup>	Aged Solar Reflectance <sup>3,4</sup>		Thermal Emittance
	≤ 2:12	> 2:12	< 5lb/ft <sup>2</sup>	≥ 5lb/ft <sup>2</sup>				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		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:

<input type="checkbox"/> Aluminum-Pigmented Asphalt Roof Coating	<input type="checkbox"/> Cement-Based Roof Coating	<input type="checkbox"/> Other _____
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**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):



Community Development Department  
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## CONSTRUCTION AND DEMOLITION RECYCLING REQUIREMENTS

Many of the materials generated from your project can and should be recycled. Per City of Chino Hills Ordinance No. 240, any new construction project as well as any remodeling or demolition project of 1,000 square feet or more, must have a Waste Management Plan prepared identifying materials that will be reused, recycled, or disposed from your project.

**The goal is to reuse or recycle at least 50% of project waste.**

The only two options for compliance with our ordinance are to self-haul or use Republic Services. Republic Services may be contacted at (714) 238-3300.

**PERMITS WILL NOT BE ISSUED UNTIL THE ATTACHED FORMS ARE SUBMITTED AND APPROVED BY THE ADMINISTRATIVE AUTHORITY.**

### **Step 1: Before Permit Issuance – Submit Waste Management Plan**

- Form No. 1 – Provide the necessary project information and identify a recycling dealer for recyclable materials. If you are using Republic Services as your waste hauler, they will also be your recycling dealer. (Republic Services has an exclusive franchise for waste hauling in the City of Chino Hills. Third party haulers cannot satisfy City Ordinance No. 240 requirements.)
- Forms No. 2 – Identify the amount of material (in tons or cubic yards) that you anticipate will be recycled or reused.

### **Step 2: BEFORE Final Approval – Submit Recycling Documentation. (Be sure to save receipts and/or documents of materials recycled during construction, demolition, or remodeling.)**

- If you are using Republic Services as your waste hauler, submit any receipts and/or documents you received from them when they processed your waste materials.
- If acting as your own hauler, submit receipts or a report from the recycling dealer showing the total weight of the material that was taken to the recycling facility.

**NO REFUND OF ANY DEPOSIT WILL BE GIVEN UNTIL DOCUMENTATION HAS BEEN SUBMITTED TO AND APPROVED BY THE ADMINISTRATIVE AUTHORITY.**

### **Attachments:**

- Form 1 - Waste Management Plan
- Form 2 – Demolition Waste Estimates
- Conversion Rates and How to Locate Recycling Facilities

**Questions?  
Contact the Administrative Authority  
(909) 364-2633**





## Form 2 Demolition Waste Estimates

Total Estimated Waste Generated by Project: \_\_\_\_\_ tons/cubic yard  
(Ask your recycler to assist you. Use receipts from previous jobs for estimates)

BEFORE Permit Issuance					BEFORE Final
Material	Estimated Amount Generated	Estimated Percentage Recycled	Estimated Percent Disposed	Vendor or Facility	Actual Percentage Recycled/Comments
Asphalt/Concrete					
Dirt					
Brick/Masonry					
Wood					
Metals					
Doors, Windows, Cabinets, Fixtures					
Other:					
Trash:					

- Once the removal of waste materials has occurred and removal manifests, receipts and records are correlated, the "Before Final" column **MUST** be filled in for resubmittal, review, correction and/ or approval by the Administrative Authority. Final inspection cannot be requested until the Administrative Authority has determined the documentation illustrates compliance with the diversion requirements.

Estimated Date on which demolition is to commence: \_\_\_\_\_

Was "deconstruction" or salvage considered as an option to traditional demolition?  Yes  No

If "no", explain: \_\_\_\_\_

\_\_\_\_\_

Conversion Rates			
Materials	Lbs / cu yd	Tons / cu yd	Cu yd / Ton
Wood	300 lbs / cu yd	0.15 tons / cu yd	6.7 cu yds / ton
Cardboard	100 lbs / cu yd	0.05 tons / cu yd	20 cu yds / ton
Drywall	500 lbs / cu yd	0.25 tons / cu yd	4 cu yds / ton
Concrete/Asphalt	4000 lbs / cu yd	2.0 tons / cu yd	0.5 cu yds / ton
Mixed Waste	350 lbs / cu yd	0.175 tons / cu yd	5.7 cu yds / ton

Source: Resource Efficient Building (1994), Metro Solid Waste Department, Portland, Oregon

Use the above conversion factors and receipts from previous projects to help you estimate the potential amount of recyclable materials and waste from your project. Again, your recycler may assist you in estimating these numbers.

The categories of recyclable materials are as follows:

**Construction and Demolition Materials (C&D):** Brick, Concrete, Dirt, Granite, Gravel, Pavement/Asphalt and Sand

**Metals:** Aluminum, Aluminum cans, Ferrous / Non-ferrous metals, Scrap metals, Tin cans & White Goods (stoves, etc.)

**Green Waste:** Compost, Grass clippings, Leaves, Prunings, Christmas trees

**Glass:** Beverage containers, Crushed glass, and Window panes.

**Wood:** Bark, Boards, Planks, Chips, Pallets, Plywood, Sawdust and Shavings.

### How to Locate Recycling Facilities

For more information on Construction and Demolition Recycling, please visit the CalRecycle website at

<http://www.calrecycle.ca.gov/ConDemo/Materials/>. If you need to locate a Construction and Demolition recycling facility in your area, please visit CalRecycle's website at <http://www.calrecycle.ca.gov/Facil/Facility/Search.aspx>.