

**DOCKETED**

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| <b>Docket Number:</b>   | 15-BSTD-02   |
| <b>Project Title:</b>   | Residential Compliance Manual and Documents          |
| <b>TN #:</b>            | 232818-14  |
| <b>Document Title:</b>  | 2016-CF2R-MCH-29-SupplyDuctSurfaceAreaBuriedDuctspdf |
| <b>Description:</b>     | N/A  |
| <b>Filer:</b>           | Corrine Fishman                                      |
| <b>Organization:</b>    | California Energy Commission                         |
| <b>Submitter Role:</b>  | Public Agency  |
| <b>Submission Date:</b> | 4/22/2020 9:24:15 AM                                 |
| <b>Docketed Date:</b>   | 4/22/2020  |



|  |                     |                |
|--|---------------------|----------------|
| CERTIFICATE OF INSTALLATION  |                     | CF2R-MCH-29-H  |
| Duct Surface Area Reduction; R-Value; Buried Ducts Compliance Credit |                     | (Page 1 of 2)  |
| Project Name:  | Enforcement Agency: | Permit Number: |
| Dwelling Address:  | City:               | Zip Code:      |

Note: Submit one Certificate of installation for each duct system that must demonstrate compliance in the dwelling.

| A. Duct System Information |  |
|----------------------------|--|
| 01.                        | Duct System Name or Identification/Tag                             |
| 02.                        | Duct System Location or Area Served                                |
| 03                         | Status - Duct Surface Area Reduction And R-Value Compliance Credit |
| 04                         | Status - Buried Ducts Compliance Credit                            |
| 05                         | Status - Deeply Buried Ducts Compliance Credit                     |

| B. Duct Surface Area Reduction and R-value Compliance Credit  |  |
|---|--|
| Credit is available for supply duct systems with reduced surface area in unconditioned space with varying combinations of higher performance insulation if the system complies with the following requirements: |  |
| 01  | The duct system design shall be detailed in the special features section of the CF1R-PRF-01-E approved by the enforcement agency.  |
| 02  | A duct design layout that conforms to the duct system design details in the special features section of the CF1R-PRF-01-E shall be documented on the building design plans approved by the enforcement agency. |
| 03  | The duct system installation, including duct sizes and locations of supply & return registers shall conform to the duct system design layout approved by the enforcement agency.                               |
| 04  | The duct system installation shall be verified by a HERS rater according to the requirements in RA3.1.4.1.4.   |
| 05  | The duct system installation shall not have severely twisted or compressed sections that would restrict required operating airflow.  |
| <b>The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.</b>   |  |

| C. Buried Ducts Compliance Credit   |  |
|---|--|
| Ducts partly or completely buried in blown attic insulation in dwelling units meeting the requirements for verified quality insulation installation may take credit for increased effective duct insulation if the system complies with the following requirements: |  |
| 01  | The duct system design shall be detailed in the special features section of the CF1R-PRF-01-E approved by the enforcement agency.  |
| 02  | A duct design layout that conforms to the duct system design details in the special features section of the CF1R-PRF-01-E shall be documented on the building design plans approved by the enforcement agency. |
| 03  | The duct system installation, including duct sizes and locations of supply & return registers shall conform to the duct system design layout approved by the enforcement agency.                               |
| 04  | The duct system installation shall be verified by a HERS rater according to the requirements in RA3.1.4.1.5.   |
| 05  | The duct system installation shall not have severely twisted or compressed sections that would restrict required operating airflow.  |
| 06  | The dwelling shall comply with all Quality Insulation Installation requirements as documented on the applicable CF2Rs and CF3Rs.   |
| <b>The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.</b>   |  |



|  |                     |                |
|--|---------------------|----------------|
| CERTIFICATE OF INSTALLATION  |                     | CF2R-MCH-29-H  |
| Duct Surface Area Reduction; R-Value; Buried Ducts Compliance Credit |                     | (Page 2 of 2)  |
| Project Name:  | Enforcement Agency: | Permit Number: |
| Dwelling Address:  | City:               | Zip Code:      |

**D. Deeply Buried Ducts Compliance Credit**

Duct segments deeply buried in lowered areas of ceiling and covered by at least 3.5 inches of insulation above the top of the duct insulation jacket may claim effective insulation of R-25 for fiberglass insulation and R-31 for cellulose insulation if the system complies with the following requirements:

|   |  |
|---|--|
| 01  | The duct system design shall be detailed in the special features section of the CF1R-PRF-01-E approved by the enforcement agency.  |
| 02  | A duct design layout that conforms to the duct system design details in the special features section of the CF1R-PRF-01-E shall be documented on the building design plans approved by the enforcement agency. |
| 03  | The duct system installation, including duct sizes and locations of supply & return registers shall conform to the duct system design layout approved by the enforcement agency.                               |
| 04  | The duct system installation shall be verified by a HERS rater according to the requirements in RA3.1.4.1.6.   |
| 05  | The duct system installation shall not have severely twisted or compressed sections that would restrict required operating airflow.  |
| 06  | The dwelling shall comply with all Quality Insulation Installation requirements as documented on the applicable CF2Rs and CF3Rs.   |
| <b>The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.</b> |  |

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Installation documentation is accurate and complete.

|                                    |  |
|------------------------------------|--|
| Documentation Author Name:         | Documentation Author Signature:                        |
| Documentation Author Company Name: | Date Signed:   |
| Address:                           | CEA/HERS Certification Identification (if applicable): |
| City/State/Zip:                    | Phone:   |

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Installation is true and correct.
- I am either: a) a responsible person eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction, or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Installation and attest to the declarations in this statement, or b) I am an authorized representative of the responsible person and attest to the declarations in this statement on the responsible person's behalf.
- The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations and the installation conforms to the requirements given on the Certificate of Compliance, plans, and specifications approved by the enforcement agency.
- I understand that a HERS rater will check the installation to verify compliance and if such checking determines the installation fails to comply, I am required to offer any necessary corrective action at no charge to the building owner.
- I will ensure that a registered copy of this Certificate of Installation 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 registered copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.

|   |  |              |
|---|--|--------------|
| Responsible Builder/Installer Name:   | Responsible Builder/Installer Signature: |              |
| Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) | Position With Company (Title):           |              |
| Address:  | CSLB License:                            |              |
| City/State/Zip:   | Phone:                                   | Date Signed: |
| Third Party Quality Control Program (TPQCP) Status:                             | Name of TPQCP (if applicable):           |              |

**CF2R-MCH-29-H User Instructions****Section A. Duct Information**

1. *System Identification or Name*: This field is filled out automatically. It is referenced from the CF2R-MCH-23, which must be completed prior to this document.
2. *System Location or Area Served*: This field is filled out automatically. It is referenced from the CF2R-MCH-23, which must be completed prior to this document.
3. *Status – Duct Surface Area Reduction and R-Value Compliance Credit*: This field is auto-filled from the CF1R indicating if the credit is being used. If not, then N/A will be displayed.
4. *Status – Buried Ducts Compliance Credit*: This field is auto-filled from the CF1R indicating if the credit is being used. If not, then “N/A” will be displayed.
5. *Status – Deeply Buried Ducts Compliance Credit*: This field is auto-filled from the CF1R indicating if the credit is being used. If not, then “N/A” will be displayed.

**Section B. Supply Duct Surface Area Reduction and R-value Compliance Credit**

1. This field must be a true statement (or not applicable) for the system to comply.
2. This field must be a true statement (or not applicable) for the system to comply.
3. This field must be a true statement (or not applicable) for the system to comply.
4. This field must be a true statement (or not applicable) for the system to comply.
5. This field must be a true statement (or not applicable) for the system to comply.

**Section C. Buried Ducts Compliance Credit**

1. This field must be a true statement (or not applicable) for the system to comply.
2. This field must be a true statement (or not applicable) for the system to comply.
3. This field must be a true statement (or not applicable) for the system to comply.
4. This field must be a true statement (or not applicable) for the system to comply.
5. This field must be a true statement (or not applicable) for the system to comply.
6. This field must be a true statement (or not applicable) for the system to comply.

**Section D. Deeply Buried Ducts Compliance Credit**

1. This field must be a true statement (or not applicable) for the system to comply.
2. This field must be a true statement (or not applicable) for the system to comply.
3. This field must be a true statement (or not applicable) for the system to comply.
4. This field must be a true statement (or not applicable) for the system to comply.
5. This field must be a true statement (or not applicable) for the system to comply.
6. This field must be a true statement (or not applicable) for the system to comply.