



ALTERATIONS TO SPACE CONDITIONING SYSTEMS (FORMERLY CF-1R-ALT-HVAC)

CF1R-ALT-02-E

(Page 1 of 3)

CERTIFICATE OF COMPLIANCE

Project Name:	9480 Ben Way	Enforcement Agency:	Sonoma, County of
Dwelling Address:	9480 Ben Way	Permit Number:	BLD24-7911
City and Zip Code	Cazadero, 95421	Permit Application Date:	2024-12-27

A. General Information					
CF1R-ALT-02 is applicable to multiple space conditioning systems contained within a single dwelling unit.					
01	Project Name	9480 Ben Way	02	Date Prepared	2025-01-03
03	Project Location	9480 Ben Way	04	Building Type	Single family
05	CA City	Cazadero	06	Dwelling Unit Name	9480 Ben Way
07	Zip Code	95421	08	Dwelling Unit Conditioned Floor Area (ft²)	1560
09	Climate Zone	1	10	Number of Space Conditioning (SC) Systems in this Dwelling Unit:	1

B. Space Conditioning (SC) System Information									
01	02	03	04	05	06	07	08	09	10
SC System ID or Name	SC System Location or Area Served	CFA served by this SC System (ft ²)	Is the SC system a ducted system?	Installing a refrigerant containing component?	Installing new SC system components?	Installing more than 25 feet of ducts?	Installing entirely new duct system?	Installing entirely new SC system?	Alteration Type
System 1	Location 1	1560	No	Yes	Yes	No	No	No	Altered space conditioning system

Registration Number: 425-A020001488A-000-000-0000000-0000

Registration Date/Time: 2025-01-03 09:36:22

HERS Provider: CHEERS

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CA Building Energy Efficiency Standards - 2022 Residential Compliance

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C. Extension of Existing Duct System, Greater Than 25 Feet (Section 150.2(b)1Diib)

This section does not apply to this project.

D. Altered Space Conditioning System (Sections 150.2(b)1E and F)

01	02	03	04	05	06	07	08	09	010	11	12	13	14
System ID/ Name	SC System Description of Area Served	Heating System Type	Altered Heating Component s	Heating Efficiency Type	Heating Minimum Efficiency Value	Cooling System Type	Altered Cooling Component s	Cooling Efficiency Type	Cooling Minimum Efficiency Value SEER/SEER2	Cooling Minimum Efficiency Value EER/EER2/C EER	Required Thermostat Type	New or Replaced Duct Length	New Duct R-Value
System 1	Location 1	Ducted mini-split HP	All new heating components	HSPF2	8	Ducted mini-split HP	All new cooling components	EER2SEER2	14	11.7	Setback	n/a	n/a

Required Documentation:

CF2R-MCH-01-E - Space Conditioning Systems

- Duct insulation requirement for the new portions of supply-air and return-air ducts or plenums: R6 (CZ 3, 5-7) and R8 (CZ 1, 2, 4, 8-16)

CF2R and CF3R-MCH-20-H - Duct Leakage Test required when heating or cooling components are installed in ducted systems, or when more than 25 ft of duct length is replaced

-Leakage rate compliance: less than or equal to 10% or less than or equal to 7% leakage to outside, or seal all accessible leaks.

CF2R and CF3R-MCH-25-H Refrigerant Charge verification required when refrigerant containing components are installed or altered (applicable in CZ 2, 8-15).

CF2R and CF3R-MCH-23 Airflow Rate greater than or equal to 300 CFM per ton required when MCH-25 is required.

Exceptions:

- Duct systems registered with HERS provider as previously sealed are exempt from MCH-20 Duct Leakage Testing requirements.

- Heating-only systems and Air Handler Furnace changes do not require verification of Air Flow MCH-23, or Refrigerant Charge MCH-25.

-Existing duct systems constructed, insulated or sealed with asbestos are exempt from MCH-20 Duct Leakage Testing requirements.

E. Entirely New or Complete Replacement Duct System, with or without Equipment Changeout (Sections 150.2(b)1Diia and 150.2(b)1E, F)

This section does not apply to this project.

F. Entirely New or Complete Replacement Space Conditioning System (Section 150.2(b)1C)

This section does not apply to this project.



ALTERATIONS TO SPACE CONDITIONING SYSTEMS (FORMERLY CF-1R-ALT-HVAC)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Lionel Tukumoeatu	Documentation Author Signature: <i>Lionel Tukumoeatu</i>
Company: Archon Energy Solutions	Signature Date: 2025-01-03
Address: 46 Union Way Vacaville	CEA/ HERS Certification Identification (if applicable): RCN13318
City/State/Zip: Vacaville CA 95687	Phone: (888) 600-1614
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
<ol style="list-style-type: none"> The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements. 	
Responsible Designer Name: Jessica Escarcega	Responsible Designer Signature: <i>Jessica Escarcega</i>
Company : Henry Mechanical	Date Signed: 2025-01-03
Address: 7656 Bell Road	License: 855174
City/State/Zip: Windsor CA 95492	Phone: (707) 838-3311

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

CERTIFICATE OF INSTALLATION

Project Name:	9480 Ben Way	Enforcement Agency:	Sonoma, County of
Dwelling Address:	9480 Ben Way	Permit Number:	BLD24-7911
City and Zip Code	Cazadero, 95421	Permit Application Date:	2024-12-27

A. General Information					
01	Dwelling Unit Name	9480 Ben Way	02	Climate Zone	1
03	Dwelling Unit Total Conditioned Floor Area (ft ²)	1560	04	Number of Space Conditioning Systems in this Dwelling Unit.	1
05	Certificate of Compliance Type	Prescriptive alterations (CF1R-ALT)	06	Method Used to Calculate HVAC Loads (See Section 150.0(h))	Not applicable - equipment changeout, like-for-like
07	Calculated Dwelling Unit Sensible Cooling Load (Btu/h)	n/a	08	Calculated Dwelling Unit Heating Load (Btu/h)	n/a
09	Dwelling Unit Number of Bedrooms	2			

MCH-01b - Space Conditioning Systems Ducts and Fans - Prescriptive Alterations



B. Space Conditioning (SC) System Information									
01	02	03	04	05	06	07	08	09	10
SC System ID/ Name from parent CC	SC System Description of Area Served	CFA served by this SC System (ft ²)	Is the SC system a ducted system?	Does work include installing a refrigerant containing component?	Does work include installing new SC system components?	Does work include installing more than 25 feet of ducts?	Does work include installing an "entirely new duct system"?	Does work include installing an "entirely new SC system"?	Alteration Type
System 1	Location 1	1560	No	Yes	Yes	No	No	No	Altered space conditioning system
Notes:									

C. Space Conditioning (SC) System Alterations Compliance Information														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
SC System ID/ Name from parent CC	SC System Description of Area Served	Heating System Type	Altered Heating Component	Heating Efficiency Type	Heating Minimum Efficiency Value	Cooling System Type	Altered Cooling Component	Cooling Efficiency Type	Cooling Minimum Efficiency Value SEER/SEER 2	Cooling Minimum Efficiency Value EER/EER2/ CEER	Required Thermostat Type	Number of Indoor Units for this System	Number of Ducted Indoor Units for this System	Central Fan Integrated (CFI) Ventilation System Status
System 1	Location 1	Ducted mini-split HP	All new heating components	HSPF2	8	Ducted mini-split HP	All new cooling components	EER2/SEER 2	14	11.7	Setback	2	n/a	Not a CFI system
Notes:														

D. Installed Heating Equipment Information for Gas Furnace Indoor Unit, or Heat Pump Indoor Unit, or Packaged Unit (Gas Furnace or Heat Pump)									
01	02	03	04	05	06	07	08	09	10
SC System ID/ Name from parent CC	SC System Description of Area Served	Heating Efficiency Type	Heating Efficiency Value	Indoor Unit or Packaged Unit Manufacturer	Indoor Unit or Packaged Unit Model Number	Indoor Unit or Packaged Unit Serial Number	SC System Rated Heating Capacity, Output (Btu/h)	Multi-Split Systems only	
								Indoor Unit Name or Description of Area Served	Indoor Unit Duct Status
System 1	Location 1	HSPF2	8	mitsubishi	MSZFS18NA	4012837T	18000	n/a	n/a



D. Installed Heating Equipment Information for Gas Furnace Indoor Unit, or Heat Pump Indoor Unit, or Packaged Unit (Gas Furnace or Heat Pump)									
01	02	03	04	05	06	07	08	09	10
SC System ID/ Name from parent CC	SC System Description of Area Served	Heating Efficiency Type	Heating Efficiency Value	Indoor Unit or Packaged Unit Manufacturer	Indoor Unit or Packaged Unit Model Number	Indoor Unit or Packaged Unit Serial Number	SC System Rated Heating Capacity, Output (Btu/h)	Multi-Split Systems only	
								Indoor Unit Name or Description of Area Served	Indoor Unit Duct Status
System 1	Location 1	HSPF2	8	MITSUBISHI	MSZFS12NA	4021216T	12000	n/a	n/a

E. Installed Cooling Equipment Information for Outdoor Condenser or Packaged Unit (Air Conditioner or Heat Pump)									
01	02	03	04	05	06	07	08	09	10
SC System ID/ Name from parent CC	SC System Description of Area Served	Cooling Efficiency Type	Cooling Efficiency Value SEER/SEER2	Cooling Efficiency Value EER/EER2/CEER	Condenser or Package Unit Manufacturer	Condenser or Package Unit Model Number	Condenser or Package Unit Serial Number	System Cooling Capacity at Design Conditions (Btu/h)	Condenser Nominal Capacity (tons)

Notes:

F. Altered Space Conditioning System Duct Information (< 75% of duct system is altered; or duct system is not altered)

This section does not apply to this project.

G. Installed New or Complete Replacement Duct System Information

This section does not apply to this project.

H. Installed Air Filter Device Information

This section does not apply to this project.

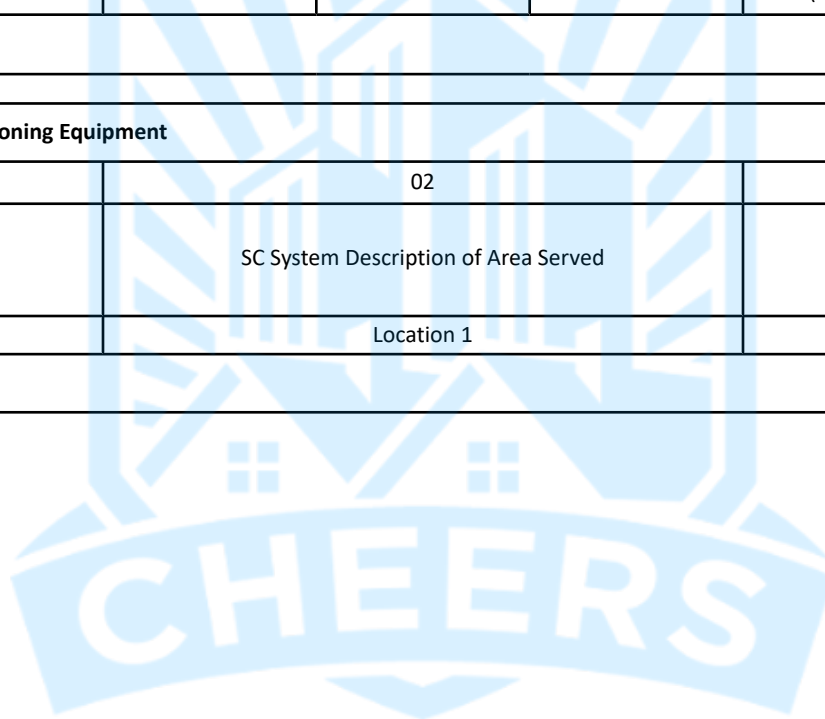
I. Air Filter Device Requirements

This section does not apply to this project.



J. HERS Verification Requirements for Duct Systems								
01	02	03	04	05	06	07	08	09
SC System Identification or Name	SC System Description of Area Served	Indoor Unit Name or Description of Area Served	Exemption From Duct Leakage Requirements	MCH-20 Duct Leakage Test	MCH-21 Duct Location Verification	MCH-22 AHU Fan Efficacy (W/cfm)	MCH-23 AHU Airflow Rate (cfm/ton)	MCH-28 Return Duct Design - Table 160.3-A or B
Notes:								

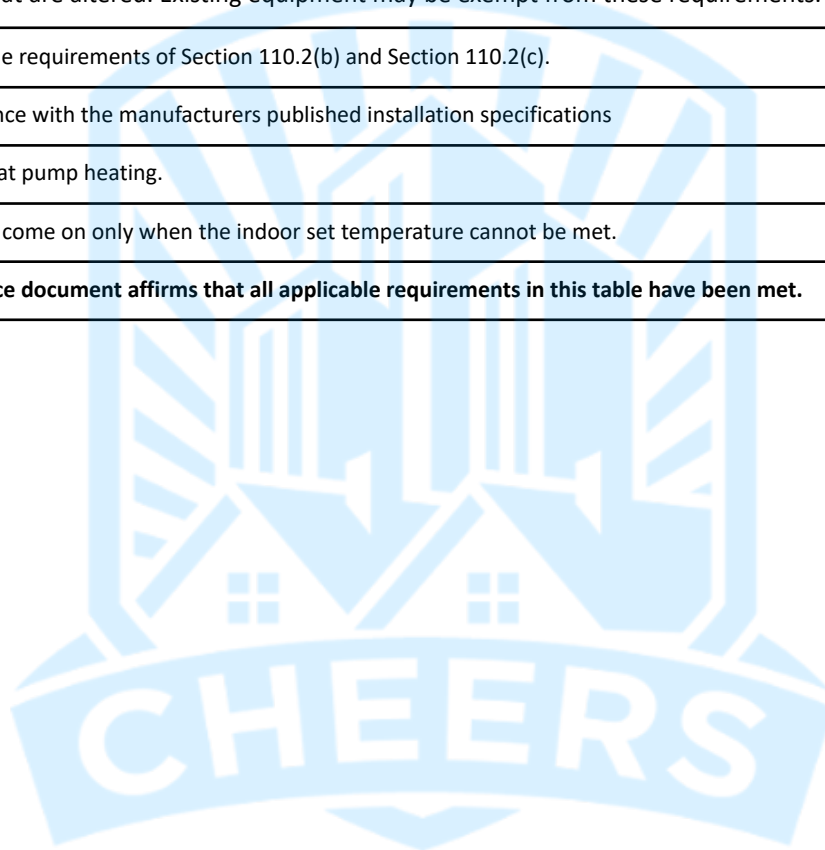
K. HERS Verification Requirements For Space Conditioning Equipment		
01	02	03
SC System ID/ Name from parent CC	SC System Description of Area Served	MCH-25 Refrigerant Charge
System 1	Location 1	No
Notes:		



L. Space Conditioning Systems, Ducts and Fans Mandatory Requirements and Additional Measures Additional mandatory requirements from Section 150.0 that are not listed here may be applicable to some systems. These requirements may be applicable to only newly installed equipment or portions of the system that are altered. Existing equipment may be exempt from these requirements.	
Heating Equipment	
01	Equipment Efficiency: All heating equipment must meet the minimum efficiency requirements of Section 110.1 and Section 110.2(a) and the Appliance Efficiency Regulations.
02	Controls: All unitary heating systems, including heat pumps, must be controlled by a setback thermostat. These thermostats must be capable of allowing the occupant to program the temperature set points for at least four different periods in 24 hours. See Sections 150.0(i), 110.2(b).
03	Sizing: Heating load calculations must be done on portions of the building served by new heating systems to prevent inadvertent undersizing or oversizing. See sections 150.0(h)1 and 2).
04	Furnace Temperature Rise: Central forced-air heating furnace installations must be configured to operate at or below the furnace manufacturer's maximum inlet-to-outlet temperature rise specification. See Section 150.0(h)4.
05	Standby Losses and Pilot Lights: Fan-type central furnaces may not have a continuously burning pilot light. Section 110.5 and Section 110.2(d).
Cooling Equipment	
06	Equipment Efficiency: All cooling equipment must meet the minimum efficiency requirements of Section 110.1 and Section 110.2(a) and the Appliance Efficiency Regulations.
07	Refrigerant Line Insulation: All refrigerant line insulation in split system air conditioners and heat pumps must meet the R-value and protection requirements of Section 150.0(j)2 and 3, and Section 150.0(m)9.
08	Condensing Unit Location: Condensing units shall not be placed within five (5) feet of a dryer vent outlet. See Section 150.0(h)3A.
09	Liquid Line Filter Drier: A liquid line filter drier shall be installed according to the manufacturer's specifications 150.0(h)3B
10	Sizing: Cooling load calculations must be done on portions of the building served by new cooling systems to prevent inadvertent undersizing or oversizing. See Section 150.0(h)1 and 2.
Air Distribution System Ducts, Plenums and Fans	
11	Insulation: The minimum duct insulation value is R-6 or ducts can be uninsulated if the duct system is located entirely in conditioned space. Note that higher values may be required by the prescriptive or performance requirements. See Section 150.0(m)1B for exceptions.
12	Connections and Closures: All installed air-distribution system ducts and plenums must be, sealed and insulated to meet the requirements of CMC Sections 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006.
Heat Pump Thermostat	



L. Space Conditioning Systems, Ducts and Fans Mandatory Requirements and Additional Measures	
Additional mandatory requirements from Section 150.0 that are not listed here may be applicable to some systems. These requirements may be applicable to only newly installed equipment or portions of the system that are altered. Existing equipment may be exempt from these requirements.	
13	A thermostat shall be installed that meets the requirements of Section 110.2(b) and Section 110.2(c).
14	The thermostat shall be installed in accordance with the manufacturers published installation specifications
15	First stage of heating shall be assigned to heat pump heating.
16	Second stage back up heating shall be set to come on only when the indoor set temperature cannot be met.
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.	





DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Installation documentation is accurate and complete.	
Documentation Author Name: Lionel Tukumoeatu	Documentation Author Signature: <i>Lionel Tukumoeatu</i>
Company: Archon Energy Solutions	Signature Date: 2025-01-03
Address: 46 Union Way Vacaville	CEA/ HERS Certification Identification (if applicable): RCN13318
City/State/Zip: Vacaville CA 95687	Phone: (888) 600-1614

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.
- II 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 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, and I will take the necessary steps to ensure this requirement is accomplished.
- 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, and I will take the necessary steps to ensure this requirement is accomplished.

Responsible Builder/Installer Name: Jessica Escarcega (authorized Lionel Tukumoeatu)	Responsible Builder/Installer Signature: <i>Lionel Tukumoeatu</i>	
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) Henry Mechanical	Position With Company (Title):	
Address: 7656 Bell Road	CSLB License: 855174	Date Signed: 2025-01-03
City/State/Zip: Windsor CA 95492	Phone: (707) 838-3311	

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CHEERS REGISTRY PROJECT STATUS REPORT



Scan to Validate

PROJECT SUMMARY

Project Name: 9480 Ben Way
 Address: 9480 Ben Way
 City, State, Zip: Cazadero, CA 95421
 Building Department: Sonoma, County of
 Permit Number: BLD24-7911
 Building Energy Code: 2022 Standards

**HERS VERIFIABLE
MEASURES**

COMPLETE



**ENERGY CODE
COMPLIANCE**

COMPLETE



CERTIFICATE OF COMPLIANCE (CF1R)

DATE	DOCUMENT	TITLE	REGISTRATION NUMBER	STATUS
01/03/2025	CF1R-ALT-02-E	Residential HVAC Alterations	425-A020001488A-000-000-0000000-0000	

D06 changed from "6.7" to "8"
 D10 changed from "13.4" to "14"
 D10b changed from "11.2" to "11.7"

CERTIFICATE OF INSTALLATION (CF2R)

DATE	DOCUMENT	TITLE	REGISTRATION NUMBER	STATUS
01/03/2025	CF2R-MCH-01b-E	HVAC, Ducts and Fans	425-A020001488A-000-001-M01001A-0000	