

**DOCKETED**

<b>Docket Number:</b>	19-HERS-01
<b>Project Title:</b>	2019 HERS Providers' Application for the 2019 Building Energy Efficiency Standards
<b>TN #:</b>	239205
<b>Document Title:</b>	HERS Compliance
<b>Description:</b>	I need to register the CF1R to get compliance for the ADU i want to built at my home. Can you please help me.
<b>Filer:</b>	Isaac Reyes
<b>Organization:</b>	Owner
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	8/8/2021 5:01:21 PM
<b>Docketed Date:</b>	8/9/2021

**CERTIFICATE OF COMPLIANCE**

**CF1R-PRF-01E**

**Project Name:** 13723 S Catalina ADU

**Calculation Date/Time:** 2021-08-08T16:39:41-07:00

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**Calculation Description:** ADU Calculations

**Input File Name:** 13723 S Catalina - ADU.ribd19

GENERAL INFORMATION					
01	Project Name	13723 S Catalina ADU			
02	Run Title	ADU Calculations			
03	Project Location	13723 S Catalina			
04	City	Gardena, CA	05	Standards Version	2019
06	Zip code	90247	07	Software Version	CBECC-Res 2019.1.3 SP1
08	Climate Zone	6	09	Front Orientation (deg/ Cardinal)	0
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	AdditionOnly	13	Number of Bedrooms	5
14	Addition Cond. Floor Area (ft <sup>2</sup> )	528	15	Number of Stories	1
16	Existing Cond. Floor Area (ft <sup>2</sup> )	1302	17	Fenestration Average U-factor	0.31
18	Total Cond. Floor Area (ft <sup>2</sup> )	1830	19	Glazing Percentage (%)	9.09%
20	ADU Bedroom Count	2	21	ADU Conditioned Floor Area	528
22	Is Natural Gas Available?	Yes			

Addition Alone Project Analysis Parameters					
01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
1302	528	1830	3	2	5

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

Registration Number:

Registration Date/Time:

HERS Provider:

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ENERGY USE SUMMARY				
Energy Use (kTDV/ft <sup>2</sup> -yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	3.93	7.67	-3.74	-95.2
Space Cooling	19.79	13.47	6.32	31.9
IAQ Ventilation	4.3	4.3	0	0
Water Heating	73.54	73.54	0	0
Self Utilization/Flexibility Credit	n/a	0	0	n/a
<b>Compliance Energy Total</b>	<b>101.56</b>	<b>98.98</b>	<b>2.58</b>	<b>2.5</b>

**REQUIRED SPECIAL FEATURES**

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- Cool roof
- Ceiling has high level of insulation
- Insulation below roof deck
- No cooling system included

**HERS FEATURE SUMMARY**

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

- Building-level Verifications:
- Indoor air quality ventilation
  - Kitchen range hood
- Cooling System Verifications:
- -- None --
- Heating System Verifications:
- -- None --
- HVAC Distribution System Verifications:
- -- None --
- Domestic Hot Water System Verifications:
- -- None --

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ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft <sup>2</sup> )	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
ADU	Conditioned	HVAC System 1	528	8	DHW System	N/A

OPAQUE SURFACES									
01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup> )	Window and Door Area (ft <sup>2</sup> )	Tilt (deg)	Wall Exceptions	Status
ADU Front	ADU	R15 Wall	0	Front	160	52	90	Ex. w/ Siding	New
ADU Left	ADU	R15 Wall	90	Left	160	0	90	Ex. w/ Siding	New
ADU Back	ADU	R15 Wall	180	Back	160	0	90	Ex. w/ Siding	New
ADU Right	ADU	R15 Wall	270	Right	160	56	90	Ex. w/ Siding	New
Ceiling	ADU	R38 Ceiling below attic	n/a	n/a	528	n/a	n/a		New

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic	Tile High Performance	Ventilated	5	0.2	0.85	No	Yes

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
F1	Window	ADU Front	Front	0			1	16	0.32	NFRC	0.25	NFRC	Bug Screen
F2	Window	ADU Front	Front	0			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
R1	Window	ADU Right	Right	270			1	16	0.32	NFRC	0.25	NFRC	Bug Screen

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OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft <sup>2</sup> )	U-factor
Front Dr	ADU Front	20	0.2
Right Dr 1	ADU Right	20	0.2
Right Dr 2	ADU Right	20	0.2

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft <sup>2</sup> )	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab On Grade	ADU	400	80	none	0	80%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
Tile High Performance	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-13	None / None	0.072	Roofing: 10 PSF (RoofTileAirGap) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-0.0 insul.
R38 Ceiling below attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 Bottom Chord of Truss @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-28.9 insul. Cavity / Frame: R-9.1 / 2x4 Btm Chrd Inside Finish: Gypsum Board

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BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS						
01	02	03	04	05	06	07
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification
DHW System	Domestic Hot Water (DHW)	Standard Distribution System	Small Instantaneous (1)	n/a	None	n/a

WATER HEATERS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
Small Instantaneous	Gas	Consumer Instantaneous	1	0	0.81-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a	New	n/a

WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW System - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

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SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC System 1	Heating and cooling system other	t24-CntrlFurnace	t24-SplitAirCond	n/a	t24-Ducts-CondSpace	Non-setback thermostat	New	NA	1	1

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
t24-CntrlFurnace	Gas wall furnace	1	AFUE-70

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER/CEER	Efficiency SEER	Zonally Controlled	Mult-speed Compressor	HERS Verification
t24-SplitAirCond	No Cooling	1	n/a	n/a	Not Zonal	Single Speed	n/a

HVAC - DISTRIBUTION SYSTEMS															
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 40 ft
t24-Ducts-CondSpace	No ducts	Non-Verified	R-0.0	R-0.0			n/a	n/a	No Bypass Duct	Sealed and Tested	t24-Ducts-CondSpace-hers-dist	New	n/a	n/a	n/a

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IAQ (INDOOR AIR QUALITY) FANS					
01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness (%)	IAQ Recovery Effectiveness - SRE IAQ Recovery Effectiveness - SRE
SFam ADU IAQVentRpt	38	0.25	Default	0	n/a

*This Certificate of Compliance is not registered*

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
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:	
<ol style="list-style-type: none"> <li>1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.</li> <li>2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.</li> <li>3. 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.</li> </ol>	
Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone:

Registration Number:

Registration Date/Time:

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

Report Version: 2019.1.300  
Schema Version: rev 20200901

Report Generated: 2021-08-08 16:39:53