

**DOCKETED**

<b>Docket Number:</b>	12-HERS-01
<b>Project Title:</b>	Informational Proceeding for the California Home Energy Rating Systems (HERS) Program
<b>TN #:</b>	224794
<b>Document Title:</b>	Owner
<b>Description:</b>	CF2R-PLB-03 Certificate of installation
<b>Filer:</b>	Brennan Warde
<b>Organization:</b>	Artificial Rock Concepts
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	9/25/2018 10:23:21 AM
<b>Docketed Date:</b>	9/25/2018

## POOL AND SPA HEATING SYSTEMS

CEC-CF2R-PLB-03-E (Revised 10/16)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF INSTALLATION		CF2R-PLB-03-E
Pool And Spa Heating Systems		(Page 2 of 3)
Project Name: <u>WALTHER</u>	Enforcement Agency: <u>CITY OF DANA POINT</u>	Permit Number: <u>BLD 18-0296</u>
Dwelling Address: <u>33292 BIG SUR ST.</u>	City: <u>DANA POINT</u>	Zip Code: <u>92629</u>

D. Pool Pump Sizing and Flow Rate Specification (Section 150.0(p))			
01	The pool pump specified is listed in the CEC database of certified pool pumps.		
02	The pool pump flow rate shall not exceed the maximum pump flow rate calculated based on pool sizing in the table below. The return pipe diameter, suction pipe diameter, and filter area shall be at least as large as the required minimums shown in the table. Alternatively, a flow calculation or flow test result shall be provided to demonstrate that the pump flow rate is less than 6 hour filtration turnover, and the return pipe flow rate does not exceed 8 fps and that the suction pipe flow rate does not exceed 6 fps.		
03	An alternative compliance calculation or a flow test result is provided for this pool or spa use (must attach flow calculation or flow test result to this form)	Yes <input type="radio"/>	No <input checked="" type="radio"/>
04	The pump is capable of operating at 2 or more speeds (not applicable if pump is less than 1 horsepower).		
05	Each auxiliary pool load is served by either a separate pump, or the system is served by a multi-speed pump.		
06	Volume of Pool (gallons)		
07	Filter Type (Cartridge, Sand, DE)		
	08a Required Min Return Pipe Diameter (inches)	08b Required Min Suction Pipe Diameter (inches)	08c Required Min Filter Area (ft <sup>2</sup> )
	<u>1.5</u>	<u>2.0</u>	<u>3.1</u>
			08d Required Max Pump Flow (gpm)
			<u>47</u>
09	Return Pipe Diameter (inches)	<u>2.5</u>	
10	Suction Pipe Diameter (inches)	<u>2.5</u>	
11	Filter Surface Area (ft <sup>2</sup> )	<u>4.9 ft<sup>2</sup></u>	
12	Max Pump Flow Rate (gpm)	<u>88</u>	
13	Measured Flow Rate Return Line (fps)	<u>N/A</u>	
14	Measured Flow Rate Suction Line (fps)	<u>N/A</u>	
15	Compliance Statement:		
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.			

E. Pool System Piping (Section 150.0(p)2)	
01	The suction side pipe is straight for at least 4 pipe diameters before entering the pump (See table below for the required straight run lengths for various pipe sizes). <u>YES</u>
02	All elbows are sweep elbows, or an elbow type that has a pressure drop that is less than the pressure drop of a straight pipe with a length of 30 pipe diameters. <u>YES</u>
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.	

F. Pool Filters and Valves (Section 150.0(p)3 and 4)	
01	If a filter is used in a pool intended for public use: The size of the filter is at least the size specified in NSF/ANSI 50. <u>N/A</u>
02	If a backwash valve is used: The diameter of the backwash valve is at least 2 inches, or the diameter of the return pipe, whichever is greater. <u>2" BACKWASH VALVE</u>
The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.	

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CEC-CF2R-PLB-03-E (Revised 10/16)



CERTIFICATE OF INSTALLATION		CF2R-PLB-03-E
Pool And Spa Heating Systems		(Page 3 of 3)
Project Name: WALTHER	Enforcement Agency: CITY OF DANA POINT	Permit Number: BLD 18-0296
Dwelling Address: 33292 BIG SUR ST.	City: DANA POINT	Zip Code: 92629

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Installation documentation is accurate and complete.	
Documentation Author Name: BRENNAN WARDE	Documentation Author Signature: 
Documentation Author Company Name: ARTIFICIAL ROCK CONCEPTS	Date Signed: 9-25-18
Address: 414 DELAGE DR	CEA/MERS Certification Identification (if applicable):
City/State/Zip: ENCINITAS, CA 92024	Phone: (760) 230-2866

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>The information provided on this Certificate of Installation is true and correct.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol>	
Responsible Builder/Installer Name: BRENNAN WARDE	Responsible Builder/Installer Signature: 
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) ARTIFICIAL ROCK CONCEPTS	Position With Company (Title): OWNER
Address: 414 DELAGE DR	CSLB License: 825494
City/State/Zip: ENCINITAS, CA 92024	Phone: (760) 230-2866
	Date Signed: 9-25-18