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Structural Engineering  
Mechanical Engineering  
Electrical Engineering  
Civil Engineering  
Controls Engineering  
Architecture

Project:  
Ecomaine Scalehouse

Contractor:  
Jewett Construction Inc

Date Received  
May 22, 2017

Date Reviewed:  
May 23, 2017

Submittal Title:  
15400-005 REV1 Electric Ceiling Heater Product Detail

Reviewed by:  
Mike Fask

Shop Drawing / Submittal Review

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Reviewed without comment | <input type="checkbox"/> Reviewed with comments, See Below<br>No resubmission required |
| <input type="checkbox"/> Revise and Resubmit, See Below      | <input type="checkbox"/> Not Reviewed  |

Comments:

Submittal Review Notes:

1. Submittal was reviewed for design conformity and general conformance to the contract documents only. The contractor and their sub-contractors are responsible for confirming and correlating dimensions at the project site for tolerances, clearances, quantities, fabrication processes, and techniques of construction.
2. Contractor Coordination: The contractor shall be responsible for the coordination of this submittal with related building elements. The contractor and their sub-contractors are responsible for coordination of the work with other trades and full compliance with contract documents.
3. Submittal and/or shop drawing reviews and approvals of items which are not considered the architect's or engineer's 'Basis of Design' shall not alleviate the contractor of their responsibility to coordinate all aspects of the proposed item into the construction. These aspects shall include, but not be limited to, physical installation (fit up), power requirements, mechanical requirements, weather proofing and warranties.
4. Reviews and approval of items with this submittal pertain to drawings M-001, M-002, M-101, M-102, and M-601. Unless otherwise stated, all other parts of this submittal shall be considered reference information to be submitted for approval under separate cover.
5. Review and approval of items within this submittal shall not constitute approval of any changes to the scope, schedule, or budget of the project.

# Submittal

**Job:** 1708  
ECOMAINE SCALE HOUSE  
64 Blueberry Road  
Portland, ME 04102


**Spec Section No:** 15400  
**Submittal No:** 005  
**Revision No:** 1  
**Sent Date:** 5/22/2017

**Spec Section Title:**

**Submittal Title:** Electric Ceiling Heater Product Data

**Contractor:**

Jewett Construction Co., Inc.

 <p><b>JEWETT</b> CONSTRUCTION CO., INC. DESIGN BUILDERS CONSTRUCTION MANAGEMENT</p> <small>46A Route 27 - PO. Box 405 - Raymond, ME 04477 (603) 996-2422 - www.jewettconstruction.com</small>		Reviewed for general conformance with the contract documents. The Subcontractor/Supplier submitting this information remains responsible for all details, accuracy, dimensions, quantities, fabrication and installation methods. The submitting Subcontractor/Supplier is required to comply with all local, state and federal laws, regulations and Jewett Construction Co., Inc.'s general provisions during the execution of their contract.
<p>To Architect /Engineer:</p> <p><input checked="" type="checkbox"/> For Approval <input type="checkbox"/> For Record</p> <p>By <u>JW</u> Date <u>5/22/17</u></p>	<p>To Subcontractor/Supplier:</p> <p><input type="checkbox"/> Approved <input type="checkbox"/> Approved as Noted <input type="checkbox"/> Resubmit <input type="checkbox"/> Reviewed <input type="checkbox"/> Rejected <input type="checkbox"/> Revise and Resubmit</p> <p>By _____ Date _____</p>	

**Other:**

Colby Company Engineering  
Brian Beaulieu

Architect's Stamp

Engineer's Stamp

# RIVERSIDE MECHANICAL INC.

MECHANICAL CONTRACTORS  
27 REBECCA WAY  
FALMOUTH, ME. 04105  
ROB@RIVERSIDEMECHANICALINC.COM

HVAC  
PLUMBING  
PROCESS PIPING  
TEL. (207) 874-1992  
FAX (207) 874-2283

DATE: 5/19/2017  
PROJECT: Ecomaine Scale House Replacement  
SUBMITTAL DATA: Electric Ceiling Heater  
Owner: Ecomaine  
Mechanical Engineer: Colby Company Engineering  
General Contractor: Jewett Construction

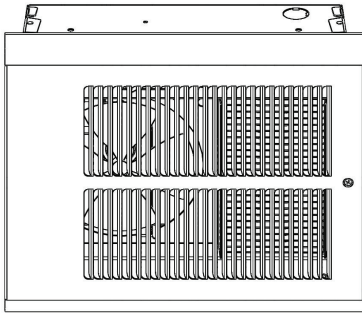
(PLEASE INITIAL AND DATE ANY NOTATIONS ON THE SUBMITTAL SHEET)

GENERAL CONTRACTOR	ARCHITECT
ENGINEER	RIVERSIDE MECHANICAL INC.
<p data-bbox="906 1520 1312 1667"><input checked="" type="checkbox"/> Reviewed <input type="checkbox"/> Make Corrections noted <input type="checkbox"/> Amend &amp; Resubmit <input type="checkbox"/> Rejected / Resubmit</p> <p data-bbox="906 1703 1295 1736">By <u>RW</u> Date <u>5/19/2017</u></p>	



470 Beauty Spot Rd. E, Bennettsville, SC 29512

**SUBMITTAL SHEET  
QCH SERIES  
SMALL CEILING  
MOUNTED HEATERS**



FILE #E21609

CAPACITIES
500 TO 2000W 120V, 208V, 240V, 277V See Selection Chart

**QCH SERIES - SMALL CEILING MOUNTED HEATERS**

JOB NAME: \_\_\_\_\_

LOCATION: \_\_\_\_\_

ARCHITECT: \_\_\_\_\_

ENGINEER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

SUBMITTED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

ITEM	QTY.	CATALOG NUMBER	TAG	WATTS	VOLTS	PHASE Ø	AMPS

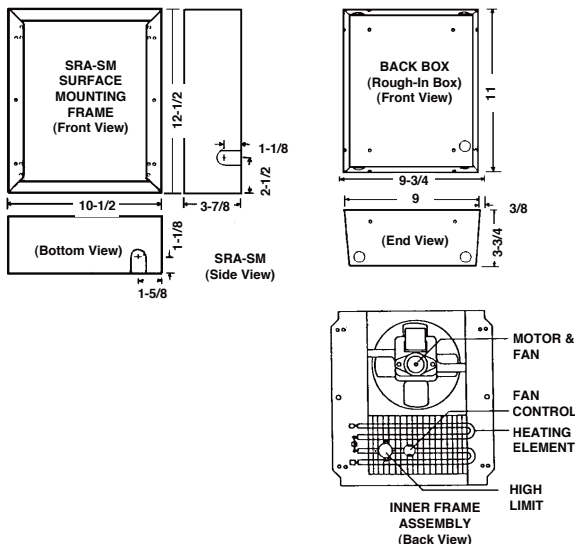
**ACCESSORIES  
AND  
CONTROLS**

ITEM	QTY.	CAT. NO.	TAG	DESCRIPTION



470 Beauty Spot Rd. E, Bennettsville, SC 29512

### DIMENSIONS



### ARCHITECT'S & ENGINEER'S SPECIFICATIONS \*

The heating equipment shall include an electric automatic QCH Series fan-forced air heater suitable for small area heating as manufactured by QMark Electric, A Marley Engineered Products Brand, Bennettsville, SC. Heaters shall be UL Listed. The heater shall be designed for surface or recessed ceiling mounting. For surface mounting, a QMark SRA-SM surface mounting frame shall be used.

**BACK BOX:** The back box shall be designed for duty as a recessed rough-in box in either masonry or frame construction, and also when mounting directly to the surface of the finished ceiling in surface mounting installations. The back box shall be 20-gauge galvanized steel and shall contain knockouts through which field wiring leads are brought.

**INNER FRAME ASSEMBLY:** The inner frame assembly shall consist of a 20-gauge steel chassis on which are mounted the heating element, fan motor and blade, fan control and thermal cutout. The inner frame assembly shall be completely pre-wired.

**HEATING ELEMENT:** The heating element shall be guaranteed for five years and shall be of non-glowing design consisting of a special resistance wire, enclosed in a steel sheath to which steel plate fins are brazed. The element shall cover the entire air discharge area to ensure uniform heating of all discharge air.

**MOTOR AND CONTROLS:** The fan motor shall be impedance protected, permanently lubricated and with totally enclosed rotor. Fan control shall be bi-metallic, snap-action type and shall activate fan after heating element reaches operating temperature, and continue to operate the fan after the thermostat is satisfied and until all heated air has been discharged. Thermal cutout shall be bi-metallic, snap-action type designed to shut off heater in the event of overheating and reactivate the heater when temperatures return to normal.

**DISCONNECT SWITCH:** A factory installed double pole single throw disconnect switch shall be provided for positive disconnect of power supply. It will be completely concealed behind the front cover.

**FRONT COVER:** The louvered front cover shall be of commercial grade steel finished in Navajo White baked enamel. It will attach to the fan deck via snaps in the plastic trim pieces and shall have no exposed screw heads.

**FINISH:** All sheet metal parts, except the front cover and galvanized back box shall be phosphatized, then completely painted by a baked enamel painting process.

\* QMark reserves the right to change specifications without prior notice.

### SELECTION CHART

CATALOG NUMBER	VOLTS	WATTS	BTU/HR.	AMPS.
<b>QCH1101F</b>	<b>120</b>	<b>1000/500</b>	<b>3413</b>	<b>8.3/4.7</b>
QCH1151F	120	1500/750	5120	12.5/6.3
QCH1202F	240/208	2000/1500 1000/750	6826/5119	8.4/7.2 4.2/3.6
QCH1207F	277/240	2000/1500 1000/750	6826/5119	7.2/6.3 3.6/3.1

\* Factory wired for full wattage, field convertible to half wattage.

### ACCESSORIES

CATALOG NUMBER	DESCRIPTION
QCH-SM	Surface Mounting Sleeve
QCHS1	1" Semi-Recessed Frame
QCHS2	2" Semi-Recessed Frame
QCHTBF	T-Bar Frame Kit

Air movement 65 CFM  
Temp range 45-96° F

### MOUNTING LIMITATIONS

Heaters are designed for surface or recessed mounting in ceiling. They must be mounted a minimum of 6' from floor and 24" from any adjacent wall or obstruction.

NOTE: In order to have the fan delay operate correctly, three wires are required between the heater and the wall thermostat. (See figure 1).

### WIRING DIAGRAM

