

**REQUEST FOR PROPOSAL**

Project Title: Cooley Laboratory Renovation  
Location: Montana State University

PPA No.: 10-0023  
RFP No.: 6B.Revised  
Date: 10/28/11-1/06/2012

To: Dick Anderson Construction  
4498 Jackrabbit Lane  
Bozeman, MT 59718

Attention: Platisha

From: Cecilia Vaniman, Project Manager  
Cooley Lab Renovation  
Montana State University

Attention: \_\_\_\_\_

In order to expedite the Work and avoid or minimize delays in the Work the following proposal is requested. Please return a response by: 1/19/2012

Date Sent: 1/06/2012  
Date Received: \_\_\_\_\_

**RFP for Heating @ ARC/Tietz 125**

**Reference Drawings: M0.4, M0.5, M2.1.2, M3.3, M5.4**

**Reference Specifications: N/A**

Add a new flush mount ceiling cabinet heater in the hallway 125 between Cooley Lab and the ARC. Extend the existing heating water piping from the existing (demolished) unit in this area as indicated and noted on drawings. Pipe the unit per Detail 3, Sheet M3.3 and provide a wall stat, 2-way control valve and DDC controls the same as called out for unit heaters on Sheet M5.4. The unit shall be depicted on the DDC system graphics.

Provide a 120V connection for new cabinet heater by reusing the existing circuit (circuit from the demolished cabinet heater in this area), extending conduit and wire as required. Provide motor rated toggle disconnect for the new unit. Update changes on as-built drawings.

**Attachment: CM-2, CM-3, CM-5.**

**This RFP is for pricing purposes only. The contractor shall not proceed with the scope of work described within until pricing is approved by the owner in writing.**

Distribution:  Owner  Architect  Engineer  
 Agency  Contractor  Other

# UNIT/CABINET HEATER SCHEDULE

MARK	MFR	MODEL	SIZE	CFM	HEATING COIL				MOTOR		NOTES
					RATINGS				HP	ELECT CHARA.	
					TYPE	MBH	GPM	P.D. (FT. H2O)			
UH 016	AIREDALE	WSC	18	330	W	12.6	1.3	-	1/60	120V/1Ø	① BASEMENT CUSTODIAL UNIT HEATER.
UH 224	AIREDALE	WSC	18	330	W	12.6	1.3	-	1/60	120V/1Ø	① 2ND FLOOR CUSTODIAL UNIT HEATER.
UH 318	AIREDALE	WSC	18	330	W	12.6	1.3	-	1/60	120V/1Ø	① 3RD FLOOR CUSTODIAL UNIT HEATER.
UH 501	McQUAY	UH	47	730	W	29	2.9	0.3	1/12	120V/1Ø	① PENTHOUSE UNIT HEATER.
UH 502	McQUAY	UH	47	730	W	29	2.9	0.3	1/12	120V/1Ø	① PENTHOUSE UNIT HEATER.
UH 503	McQUAY	UH	47	730	W	29	2.9	0.3	1/12	120V/1Ø	① PENTHOUSE UNIT HEATER.
UH 504	McQUAY	UH	47	730	W	29	2.9	0.3	1/12	120V/1Ø	① PENTHOUSE UNIT HEATER.
CH 000	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② WEST STAIRWELL
CH 004	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② ENTRANCE
CH 100	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② WEST STAIRWELL
CH 125	McQUAY	CHB	S04	400	W	20.2	1.0	-	1/12	120V/1Ø	③ 1ST FLOOR HALLWAY
CH 200	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② WEST STAIRWELL
CH 201	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② EAST STAIRWELL
CH 300	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② WEST STAIRWELL
CH 301	McQUAY	CHF	S03	300	W	11.6	1.0	0.7	1/12	120V/1Ø	② EAST STAIRWELL

① HORIZONTAL THROW PROPELLER TYPE HYDRONIC UNIT HEATER WITH OPTIONAL FOUR-WAY DISCHARGE LOUVERS. TOTALLY ENCLOSED MOTOR FOR VOLTAGE LISTED WITH THERMAL OVERLOAD PROTECTION. UNIT SHALL HAVE SIDE INLET AND OUTLET CONNECTIONS FOR HEATING WATER. PROVIDE UNIT WITH RUBBER-IN-SHEAR (RIS) VIBRATION ISOLATORS AND WALL MOUNTED THERMOSTAT.

② CEILING MOUNTED CABINET HEATER WITH FRONT DISCHARGE. PROVIDE UNIT WITH CEILING CONVERSION KIT. CABINET SHALL BE GALVANIZED STEEL AND BAKED-ON POWDER PAINT FINISH. FAN SHALL BE FORWARDLY CURVED, CENTRIFUGAL TYPE WITH A SINGLE SPEED PSC MOTOR WITH THERMAL OVERLOAD PROTECTION. COILS SHALL BE ALUMINUM FINNS WITH COPPER TUBES WITH A FACTORY INSTALLED MANUAL AIR VENT.

③ 3-SPEED CEILING MOUNTED RECESSED FAN COIL WITH FLUSH MOUNTED WALL (CEILING) PLATE. PROVIDE WITH PLENUM BACK WITH FILTER AND 1-ROW HEATING COIL ONLY (DELETE COOLING COIL AND DRAINPAN). WALL-MOUNTED SPEED SWITCH AND THERMOSTAT PROVIDED BY TEMPERATURE CONTROLS. UNIT SHALL BE SUPPLIED WITH THREE COMPLETE SETS OF 1" THROW-AWAY FILTERS. PROVIDE WITH UNIT MOUNTED DISCONNECT SWITCH.

HEATING COIL RATINGS ARE FOR WATER AT 180° F E.W.T. AND 60° F E.A.T., SEA LEVEL ELEVATION AND WATER WITH 35% GLYCOL AS THE HEATING FLUID.

REFERENCE UNIT/CABINET HEATER SCHEDULE ON SHEET M0.4.



524 FIRST AVENUE S  
GREAT FALLS, MT 59401  
PH 406.452.9558  
FX 406.727.9720

2291 W BROADWAY  
SUITE 4  
MISSOULA, MT 59808  
PH 406.721.5936  
FX 406.721.8716

ADD CUSTODIAL UNIT HEATERS

MSU-COOLEY LAB RENOVATION  
BOZEMAN, MONTANA

ISSUE:

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DATE  
**1/6/2012**  
PROJECT NUMBER  
**100104**


DRAWING NUMBER  
**CM-2**  
OF

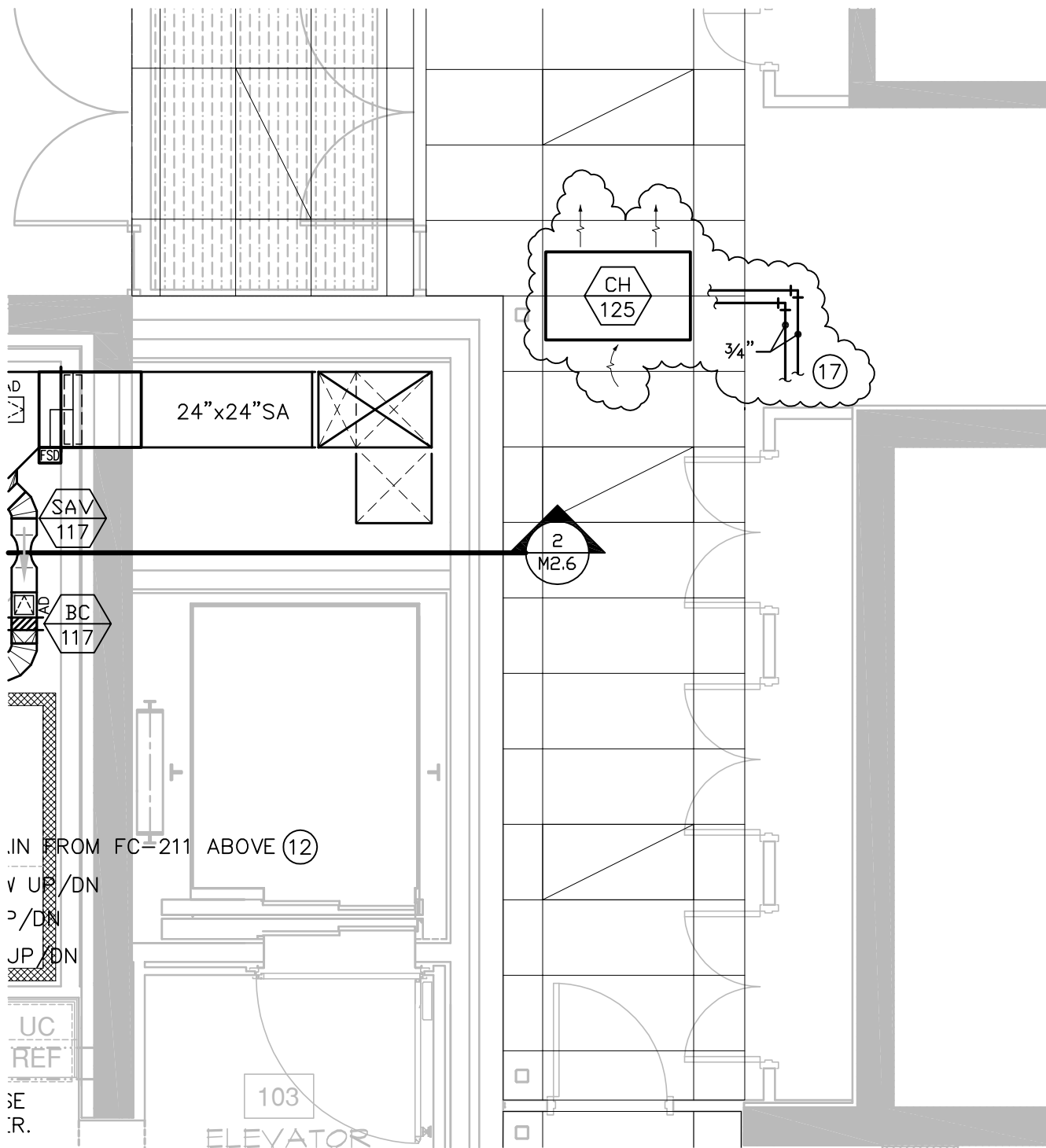
# FLOW BALANCE DEVICE SCHEDULE (CONTINUED)

UNIT SERVED	DEVICE TYPE	MFR	RETURN DEVICE	SUPPLY DEVICE	BALANCE FLOW (GPM)	NOMINAL FLOW RANGE	NOTES
UH 016	AUTO	FLOW DESIGN	YR0075	YC075	1.3	2 -32 PSIG	③
UH 224	AUTO	FLOW DESIGN	YR0075	YC075	1.3	2 -32 PSIG	③
UH 318	AUTO	FLOW DESIGN	YR0075	YC075	1.3	2 -32 PSIG	③
<b>CH 125</b>	<b>AUTO</b>	<b>FLOW DESIGN</b>	<b>YR0075</b>	<b>YC075</b>	<b>1.0</b>	<b>2 -32 PSIG</b>	<b>③</b>

③ AUTOMATIC FLOW BALANCE DEVICE FURNISHED WITH STAINLESS STEEL FLOW ELEMENT, DUAL TEMPERATURE/PRESSURE PORTS, AND OPTIONAL UNION. SEE COIL PIPING DETAILS. FURNISH WITH INDIVIDUAL COMPANION SUPPLY COMPONENTS SUCH AS STRAINER WITH BLOW DOWN VALVE AND CAP, T&P TEST PORT, AND UNION. SEE SPECIFICATION SECTION 15704. SCHEDULED DEVICE MODEL NUMBER MUST BE APPROVED BY OWNER FOR USE OVER INDIVIDUAL COMPONENTS.


REFERENCE FLOW BALANCE DEVICE SCHEDULE ON SHEET M0.5.

	524 FIRST AVENUE S GREAT FALLS, MT 59401 PH 406.452.9558 FX 406.727.9720	<h2 style="margin: 0;">ADD CUSTODIAL UNIT HEATERS</h2>	ISSUE: ---/---/---      --- ---/---/---      ---
	2291 W BROADWAY SUITE 4 MISSOULA, MT 59808 PH 406.721.5936 FX 406.721.8716	<h2 style="margin: 0;">MSU-COOLEY LAB RENOVATION BOZEMAN, MONTANA</h2>	DATE <b>1/6/2012</b> PROJECT NUMBER <b>100104</b>



17) CONNECT 3/4" HEATING WATER SUPPLY/RETURN LINES TO EXISTING LINES IN THE CEILING.

REFERENCE DETAIL 1/M2.1.2.

	524 FIRST AVENUE S GREAT FALLS, MT 59401 PH 406.452.9558 FX 406.727.9720	<b>ADD A.R.C. ENTRY          CABINET HEATER</b>	ISSUE:	
	2291 W BROADWAY SUITE 4 MISSOULA, MT 59808 PH 406.721.5936 FX 406.721.8716		<b>MSU-COOLEY LAB RENOVATION          BOZEMAN, MONTANA</b>	
			PROJECT NUMBER <b>100104</b>	OF