

94 Reservoir Park Drive Rockland, MA 02370 (617)-544-3200

November 5, 2024

# Solution: Survey & Replace Steam Traps

# Site: Edgerly Education Center, 8 Bonair Street, Somerville, MA 02145

Presented To: Andrew Reider City of Somerville areider@somervillema.gov

Prepared By:	
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Inovis Energy, Inc, is a turn-key implementer of energy efficiency measures. We provide our clients with a streamlined approach to energy conservation projects that makes the process efficient, clear, and successful

We have included the necessary information for review of the above-mentioned project in this report. We hope you find our analysis clear and concise. If there are any specific questions, or additional information requested, please let us know.

Tony Parente

Tony Parente Director of Business Development Inovis Energy, Inc.



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## **Proposed Scope of Work:**

Inovis Energy proposes to survey (202) steam traps, and supply and install (69) new steam traps per the findings in separately provided steam trap survey. Significant energy and maintenance savings will result.

#### **Clarifications and Assumptions:**

- 1. Work to be performed during normal, first shift hours, Monday through Friday, prevailing wage.
- 2. No existing code violations to be corrected.

### **Proposal:**

Description	Total Cost	Utility Incent- ive *	Total Cost less Incentive	Annual Therms Savings	Annual Cost Savings **	Payback (yrs)
Survey (202) Steam Traps & Install (69) Steam Traps	\$55,502	\$16,092.50	\$39,049.50	28,484	\$49,847	0.8

\* Incentive based on Ngrid letter 6/27/24

\*\* Cost savings based on Natural Gas cost of \$1.75/Therm

Due to current supply chain volatility, this proposal is valid for 30 days from date of submittal.

EXHIBIT A – ECM# 1



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## AGREEMENT TO PROCEED

Customer: City of Somerville Site Address: 8 Bonair Street Somerville, MA 02145

## **Solution: New Steam Traps**

#### **Terms & Conditions:**

This is a turnkey proposal unless otherwise agreed upon by the customer and Inovis Energy, Inc. Labor, materials, and waste disposal are included in the project cost. The total installed cost is based on the included 'Scope of Work'. Any fixtures not included in the 'Scope of Work', or uncounted fixtures or areas that the customer would like to add to the contract are treated as a Change Order. Change Orders must be approved by the customer prior to installation. Any available rebates/incentives will be paid to Inovis Energy, Inc. unless otherwise noted, and will be considered partial payment for the project as outlined below.

Upon acceptance of this proposal (unless financing), the customer shall pay a deposit of 50% of the contract price. The customer understands that Inovis will incur certain mobilization expenses as a result of its undertaking this project. If the customer seeks to cancel the contract, Inovis will be entitled to 10% of the contract price to cover these mobilization expenses. If the customer cancels the project within thee (3) days of signature, Inovis shall waive said mobilization expenses.

#### Acceptance of Terms:

Somerville approved the terms & conditions outlined above as well as the scope of work as provided. Somerville agrees to the following payment terms and amounts outlined below. Any unpaid invoices that exceed 30 day terms will accrue late fees of 2% per month.

Payment Terms: Total Cost less Incentive due Net 30.

	<b>Client Accepted By:</b>		Inovis Energy, Inc Accepted By:
Name:		Name:	
Title:		Title:	
Signature:		Signature:	
Date:		Date:	

# Table 1: Summary of Audit Results

	F	ailing Statu	S			
Fully	Blowing			Not In Service	<b>Retired in Place</b>	
Operational	Ву	Leaking	Plugged	(NIS)	(RIP)	Total
126	5	58	6	7	0	202

An estimated 28,149 therms/year could be saved by making repairs to faulty traps.

# Table 2: Audit Results

	TRAP	APPLICATION	BLDG/ROOM/FLOOR	LOCATION/ELEVATION	MFG	MODEL	TRAP TYPE	PIPE SIZE (IN.)	PSIG	TRAP STATUS
1	3801	Drip Leg	boiler room/basement	above hot water heater/15'	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
2	3802	Drip Leg	boiler room/basement	above hot water heater/15'	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
3	3803	Drip Leg	boiler room/basement	condensate tank/2'	Hoffman	FT015H	Float & Thermostatic	2"	5	Fully Operational
4	3804	Drip Leg	boiler room/basement	condensate tank/2'	Hoffman	FT015H	Float & Thermostatic	2"	5	Fully Operational
5	3805	Drip Leg	boiler room/basement	left of condensate tank/4'	Barnes & Jones	6721	Thermostatic Straight	1/2"	5	Plugged
6	3806	Drip Leg	boiler room/basement	left of condensate tank/15'	Armstrong	17c	Thermostatic Angle	1/2"	5	Fully Operational
7	3807	Drip Leg	boiler room/basement	above boiler/15'	Barnes & Jones	FT2015-4	Float & Thermostatic	1"	5	Fully Operational
8	3808	Unit Heater	room 300/3r floor	unit heater right window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
9	3809	Radiator	room 300/3r floor	left windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
10	3810	Radiator	room 300A office/3rd floor	window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
11	3811	Unit Heater	room 301/3rd	unit heater right window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
12	3812	Radiator	room 301	Center window left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational

13	3813	Radiator	Hall	right of rm 302 left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
14	3814	Unit Heater	room 302	Right window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
15	3815	Radiator	room 302	Left window left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
16	3816	Radiator	Boys/ 3rd floor	x308 window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
17	3817	Unit Heater	room 303/3rd floor	Right window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
18	3818	Radiator	room 303/3rd floor	left window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
19	3819	Unit Heater	room 304/3rd floor	Right window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
20	3820	Radiator	room 304/3rd floor	Left window right side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Not In Service
21	3821	Radiator	room 305/3rd floor	Back right corner left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
22	3822	Unit Heater	room 305/3rd floor	Back left window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
23	3823	Radiator	room 305/3rd floor	Front left window left side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
24	3824	Radiator	Nurse office bathroom/3rd floor	right of sink left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
25	3825	Radiator	Nurse office/3rd floor	Window right side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
26	3826	Radiator	hall/3rd floor	Across from elevator left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
27	3827	Radiator	room 305B/3rd floor	windowrightside(access from room 306)	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
28	3828	Unit Heater	Room 306B/3rd floor	window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Not In Service
29	3829	Radiator	room 306/3rd floor	Left window right side	Barnes & Jones	6929	Thermostatic Straight	3/4"	5	Fully Operational
30	3830	Radiator	room 314/3rd floor	Left window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
31	3831	Unit Heater	room 314/3rd floor	Right window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
32	3832	Radiator	room 313/3rd floor	Right window left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational

33	3833	Radiator	room 307/3rd floor	Office window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
34	3834	Unit Heater	room 307/3rd floor	window left side	Barnes & Jones	FT-2015- 3	Float & Thermostatic	3/4"	5	Fully Operational
35	3835	Radiator	room 307A/3rd floor	rad on wall	Barnes & Jones	122A	Thermostatic	1/2"	5	Fully Operational
36	3836	Radiator	room 312/3rd floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
37	3837	Unit Heater	308/3rd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
38	3838	Radiator	308/3rd floor	Left window right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
39	3839	Radiator	308A/3rd floor	Right window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
40	3840	Radiator	308A/3rd floor	Back window right side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
41	3841	Radiator	room 309/3rd floor	window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
42	3842	Radiator	Hall/3rd floor	Right og 309 left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
43	3843	Unit Heater	room 310/3rd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Not In Service
44	3844	Radiator	room 310/3rd floor	Left window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Blowing by
45	3845	Radiator	room 14/3rd floor	Windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
46	3846	Radiator	room 1/3rd floor	Windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
47	3847	Radiator	room 2/3rd floor	Windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
48	3848	Radiator	room 3/3rd floor	Windows right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
49	3849	Radiator	room 12/3rd floor	Windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Leaking
50	3850	Radiator	room 11/3rd floor	Window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Fully Operational
51	3851	Radiator	room 4/3rd floor	Windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
52	3852	Radiator	room 10/3rd floor	Windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational

53	3853	Radiator	room 9/3rd floor	Window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
54	3854	Radiator	room 9A/3rd floor	Windows left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational
55	3855	Radiator	room 6/3rd floor	Windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
56	3856	Radiator	room 7/3rd floor	Window right side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
57	3857	Radiator	stairwell outside special ed	Left side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Fully Operational
58	3858	Radiator	room 211E/2nd floor	Windows left side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Fully Operational
59	3859	Radiator	room 211D/2nd floor	Window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
60	3860	Radiator	room 211M/2nd floor	Window right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
61	3861	Radiator	room 211L/2nd floor	Window left side	Barnes & Jones	134	Thermostatic Angle	3/4"	5	Fully Operational
62	3862	Radiator	room 211K/2nd floor	Right window	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
63	3863	Radiator	room 210D/2nd floor	right windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
64	3864	Radiator	room 210C/2nd floor	Left windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
65	3865	Radiator	room 210C/2nd floor	Right window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Leaking
66	3866	Radiator	room 211H/2nd floor	Windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
67	3867	Radiator	room 210B/2nd floor	Right windows left side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
68	3868	Radiator	room 210B/2nd floor	Left windows left side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Fully Operational
69	3869	Radiator	room 211F/2nd floor	Windows left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Leaking
70	3870	Radiator	room 210A/2nd floor	Left windows right side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
71	3871	Unit Heater	room 210A/2nd floor	Right windows left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Blowing by
72	3872	Radiator	room 209/2nd floor	Window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking

73	3873	Radiator	Hall/2nd floor	Right of room 209 left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational
74	3874	Unit Heater	room 208/2nd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
75	3875	Radiator	room 208/2nd floor	Left windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
76	3876	Radiator	room 208B/2nd floor	Back window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
77	3877	Radiator	room 212/2nd floor	bathroom window right side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational
78	3878	Unit Heater	room 207A/2nd floor	Left windows right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Not In Service
79	3879	Radiator	room 207A/2nd floor	Center window right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
80	3880	Radiator	room 213A/2nd floor	Window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Blowing by
81	3881	Radiator	room 214/2nd floor	window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
82	3882	Radiator	room 215/2nd floor	bathroom	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
83	3883	Radiator	room 215/2nd floor	Window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
84	3884	Radiator	gym/2nd floor	right windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
85	3885	Radiator	gym/2nd floor	Left window right side	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Fully Operational
86	3886	Unit Heater	room 207D/2nd floor	Right windows left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
87	3887	Radiator	room 207D/2nd floor	Left windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Leaking
88	3888	Radiator	room 207B/2nd floor	Left windows right side	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
89	3889	Radiator	room 206/2nd floor	Window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
90	3890	Radiator	room 206/2nd floor	rad in bathroom	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
91	3891	Radiator	hallway/2nd floor	rad across from room 207	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational
92	3892	Radiator	hallway/2nd floor	rad across from elevator	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational

93	3893	Radiator	room 205/2nd floor	Left window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
94	3894	Unit Heater	room 205/2nd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
95	3895	Radiator	room 204/2nd floor	left windows right side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
96	3896	Unit Heater	room 204/2nd floor	Right windows left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
97	3897	Unit Heater	room 203/2nd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
98	3898	Radiator	room 203/2nd floor	Center windows left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
99	3899	Radiator	room 202/2nd floor	Center window right side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
100	3900	Unit Heater	room 202/2nd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
101	3901	Drip Leg	room 201/2nd floor	far right corner cubby	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
102	3902	Radiator	room 201/2nd floor	center window left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational
103	3904	Unit Heater	room 201/2nd floor	Right window left side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
104	3903	Radiator	room 200/2nd floor	Bathroom	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
105	3905	Unit Heater	room 200/2nd floor	Left window right side	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
106	3906	Radiator	room 200/2nd floor	Right window right side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Fully Operational
107	3907	Radiator	Hall/1st floor	rad on wall right of room 101	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
108	3908	Drip Leg	Hall/1st floor	left of room 101	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
109	3909	Drip Leg	Hall/1st floor	across from 105A/ 10'	Barnes & Jones	6721	Thermostatic	1/2"	5	Fully Operational
110	3910	Drip Leg	Hall/1st floor	across from 105/10'	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
111	3911	Drip Leg	Hall/1st floor	across from 106/9'	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Blowing by
112	3912	Radiator	Hall/1st floor	across from 106A	Barnes & Jones	122A	Thermostatic	1/2"	5	Blowing by
113	3913	Drip Leg	Hall/1st floor	acoss from 109	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational

114	3914	Radiator	room 101/1st floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
115	3915	Radiator	room 101/1st floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
116	3916	Drip Leg	room 101/1st floor	far left corner/ 2'up	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
117	3917	Drip Leg	room 101/1st floor	far left corner/ 10' up	Barnes & Jones	6721	Thermostatic	1/2"	5	Leaking
118	3918	Drip Leg	room 101/1st floor	near right corner 2' up	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
119	3919	Drip Leg	room 101/1st floor	near right corner 2' up	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	fully Operational
120	3920	Drip Leg	room 102/1st floor	drip leg by window	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
121	3921	Radiator	room 102/1st floor	rad on wall	Barnes & Jones	122A	Thermostatic	1/2"	5	Fully Operational
122	3922	Unit Heater	room 100/1st floor	unit heater on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
123	3923	Radiator	room 100/1st floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Leaking
124	3924	Drip Leg	room 100/1st floor	left of unit heater/2' up	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
125	3925	Drip Leg	room 100/1st floor	left of rad/1' up	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
126	3926	Radiator	room 103/1st floor	rad on wall	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
127	3927	Drip Leg	room 103/1st floor	drip leg left of rad	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
128	3928	Drip Leg	room 104/1st floor	drip leg to the right of rad	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
129	3929	Radiator	room 104/1st floor	rad on wall	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
130	3930	Unit Heater	café/1st floor	left unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
131	3931	Drip Leg	café/1st floor	right of stairs/0-1'	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
132	3932	Radiator	café/1st floor	rad on wall	Barnes & Jones	6721	Thermostatic	1/2"	5	Plugged
133	3933	Drip Leg	café/1st floor	right of rad	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
134	3934	Unit Heater	café/1st floor	right unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Not In Service
135	3935	Drip Leg	café/1st floor	right of right most unit heater	Barnes & Jones	6721	Thermostatic	1/2"	5	Leaking

136	3936	Drip Leg	room 105/1st floor	right of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
137	3937	Unit Heater	room 105/1st floor	unit heater on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
138	3938	Drip Leg	room 105/1st floor	left of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
139	3939	Radiator	room 105/1st floor	left window left side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Leaking
140	3940	Radiator	room 106A/1st floor	Back right window right side	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
141	3941	Drip Leg	room 106A/1st floor	back left corner	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
142	3942	Radiator	room 106A/1st floor	left center windows left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
143	3943	Radiator	hallway/1st floor	ramp to right of elevator rad on wall	Barnes & Jones	6721	Thermostatic Angle	1/2"	5	Fully Operational
144	3944	Drip Leg	room 108/1st floor	right of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
145	3945	Unit Heater	room 108/1st floor	unit heater on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
146	3946	Radiator	room 108B/1st floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Leaking
147	3947	Radiator	room 115/1st floor	rad on wall	Barnes & Jones	122A	Thermostatic	1/2"	5	Plugged
148	3948	Drip Leg	room 115/1st floor	drip left of window	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
149	3949	Radiator	room 114/1st floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Not In Service
150	3950	Unit Heater	room 113/1st floor	unit heater on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
151	3987	Drip Leg	room 113/1st floor	drip left of unit heater	Barnes & Jones	122A	Thermostatic	1/2"	5	Fully Operational
152	3989	Drip Leg	room 112/1st floor	drip left of rad	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
153	3988	Radiator	room 112/1st floor	rad on wall	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
154	3990	Drip Leg	Hall/1st floor	stairwell outside 109	Hoffman	17C	Thermostatic	1/2"	5	Leaking
155	3991	Radiator	Hall/1st floor	stairwell outside 109	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
156	3992	Drip Leg	room 108A/1st floor	right of rad	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational

157	3993	Radiator	room 108A/1st floor	rad on wall	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
158	3994	Unit Heater	room 108A/1st floor	unit heater on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
159	3995	Drip Leg	room 108A/1st floor	right of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
160	3996	Radiator	room 108A/1st floor	side office	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
161	3997	Drip Leg	room 108A/1st floor	bathroom	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
162	3998	Radiator	room 108A/1st floor	bathroom	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
163	3999	Drip Leg	room 109/1st floor	right of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
164	7275	Unit Heater	room 109/1st floor	unit heater on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
165	7276	Drip Leg	room 109/1st floor	drip leg to left of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
166	7277	Radiator	room 109/1st floor	right rad	Barnes & Jones	6721	Thermostatic	1/2"	5	Fully Operational
167	7278	Drip Leg	room 109/1st floor	right of left rad	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
168	7279	Radiator	room 109/1st floor	left rad	Barnes & Jones	122A	Thermostatic	1/2"	5	Fully Operational
169	7280	Drip Leg	room 110/1st floor	right of rad	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
170	7281	Radiator	room 110/1st floor	rad on wall	Hoffman	17C	Thermostatic	1/2"	5	Fully Operational
171	7282	Drip Leg	boxing gym	under stairs	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
172	7283	Radiator	boxing gym	left of stairs	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
173	7284	Unit Heater	boxing gym	left of stairs	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
174	7285	Drip Leg	boxing gym	left of bathroom	Barnes & Jones	134A	Thermostatic	3/4"	5	Not In Service
175	7286	Drip Leg	boxing gym	behind weight machine	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
176	7287	Radiator	boxing gym	behind weight machine	Barnes & Jones	122A	Thermostatic	1/2"	5	Fully Operational
177	7288	Unit Heater	boxing gym	behind weight machine/10' up	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Plugged

178	7289	Drip Leg	boxing gym	behind weight machine	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
179	7290	Drip Leg	boxing gym	behind weight machine/10' up	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
180	7291	Drip Leg	boxing gym	behind weight machine	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
181	7292	Unit Heater	boxing gym	behind ring to the right	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
182	7293	Radiator	boxing gym	heavy bag area	Barnes & Jones	122A	Thermostatic	1/2"	5	Leaking
183	987	Drip Leg	boxing gym	heavy bag area	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
184	7295	Unit Heater	boxing gym	mens locker room	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Leaking
185	7296	Drip Leg	boxing gym	room left of locker room/12-15' up	Barnes & Jones	134A	Thermostatic	3/4"	5	Fully Operational
186	7297	Radiator	boxing gym	office	Barnes & Jones	134A	Thermostatic	3/4"	5	Leaking
187	14622	Radiator	Room 207C/2nd	window right side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
188	14623	Radiator	Room 201A/2nd	window right side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
189	14624	Radiator	Hall/2nd	right of 202 left side	Barnes & Jones	122A	Thermostatic Angle	1/2"	5	Leaking
190	14625	Drip Leg	Stairs/1.5	HIdden stairs to gym	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
191	14626	Drip Leg	106A/1st	back right corner 2'	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
192	14627	Drip Leg	Hall/1st floor	ramp to right of elevator rad on wall	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
193	14628	Radiator	Stairs/1st	under stairs x 106A	Barnes & Jones	6929	Thermostatic Angle	3/4"	5	Fully Operational
194	5333	radiator	boxing gym	locker room	Barnes & Jones	3500	Thermostatic Angle	1/2"	5	Fully Operational
195	985	Drip Leg	boxing gym	locker room	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
196	5337	Drip Leg	boxing gym	back left corner room	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
197	5336	Drip Leg	boxing gym	right corner of room right of office	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Plugged
198	986	Radiator	boxing gym	left of wall mounted rad	Barnes & Jones	134A	Thermostatic Angle	3/4"	5	Plugged

199	992	Drip Leg	boxing gym	room right of office	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
200	5338	Drip Leg	boxing gym	left wall left of unit heater	Barnes & Jones	T-41	Float & Thermostatic	3/4"	5	Fully Operational
201	5339	Drip Leg	rm 108 1st floor	above ceiling tiles	Barnes & Jones	3045	Thermostatic Angle	1/2"	5	Fully Operational
202	5340	Drip Leg	rm 104	above ceiling tiles	Barnes & Jones	3045	Thermostatic Angle	1/2"	5	Fully Operational

Recommendations

- 1) It is recommended that all 69 failed traps be replaced as soon as possible. Running a steam system with failing traps leads to unnecessary steam loss and potential damage to condensate return pumps.
- 2) The ratio of traps leaking to the total number of traps is 34%. To compare, the Department of Energy estimates that between 10% 15% of steam traps fail per year.
- 3) Trap #3934 was found to be "Not in Service" as the TRV is not allowing steam to the steam trap.