

**Juneau Public Health Center Heating, Ventilation, Fire and Life Safety Repairs**      **FY2001 Request: \$687,500**  
**Reference No: 32451**

**AP/AL:** Appropriation      **Project Type:** Deferred Maintenance  
**Category:** Health/Human Services  
**Location:** Juneau Areawide      **Contact:** Larry Streuber  
**House District:** Juneau Areawide (HD 3-4)      **Contact Phone:** (907)465-1870  
**Estimated Project Dates:** 07/01/2000 - 06/30/2002

**Brief Summary and Statement of Need:**

Purchase and installation of new heating and ventilation (HVAC) system at the Juneau Public Health Center (JPHC) to bring the system up to code, and to increase energy efficiency and patient and staff safety. The absence of an appropriate fire alarm system is a risk to the safety of employees and clients. The two household type fire alarms are placed out of the reach of servicing and do not produce an audible alarm for the first floor or exam room occupants. The risk for injury from fire and the risk to the facility and records compels a solution immediately. For the state to continue to ignore the HVAC problems risks an interruption of services to the public.

<b>Funding:</b>	<b>FY2001</b>	<b>FY2002</b>	<b>FY2003</b>	<b>FY2004</b>	<b>FY2005</b>	<b>FY2006</b>	<b>Total</b>
Fed Rcpts	\$127,200						\$127,200
Gen Fund	\$560,300						\$560,300
<b>Total:</b>	<b>\$687,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$687,500</b>

<input checked="" type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
86% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

**Operating & Maintenance Costs:**

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

This project has not received previous funding.

**Project Description/Justification:**

A detailed evaluation and plan conducted by Southeast Energy Consulting found that the heating and ventilation (HVAC) system at the Juneau Public Health Center (JPHC) is out of compliance with both the 1991 and the 1994 Uniform Building Code requirements. The summary finding of this evaluation was that the HVAC system at the JPHC is incapable of providing adequate thermal comfort and indoor air quality and should be replaced.

There have been consistent problems and complaints about the HVAC system at the JPHC since it was purchased by the state in 1991. The current HVAC system was initially designed for two clinic areas on the upper level and two proposed suites on the lower level, using four zones with heat pump technology. This system is not adequate for the increased occupant load and separate room layout required of the JPHC. In an effort to improve the ventilation and heating, operable windows were installed on both floors and electric baseboard heating units were installed on the lower floor. While the windows provide needed ventilation during warm weather, they are ineffective most of the year when outside temperatures are too cool to allow them to be open.

The electric heaters have increased heating capacity and thermal comfort in the exterior rooms on the lower level, at increased operating costs and serve only as a temporary solution to overall facility heating problems.

There currently is no fire panel at this facility. The only means of detection is provided by two battery operated smoke

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32451**

detectors that are located up too high to be serviced. Additionally, occupants on the first floor and inside exam rooms cannot hear them should an alarm occur. Installation of a fire panel with central station monitoring for after hours is needed.

The overall condition and function of the JPHC facility is good. It serves the public well and the resolution of the HVAC and fire panel problem will extend the useful life of the facility to serve the public health needs of the Juneau area for the future. Resolution of the HVAC problem and installation of a fire panel system is an essential maintenance issue to insure the health and safety of patients and nursing personnel at the JPHC.

As a stand-alone project the Fire Alarm System will be more expensive (because of economies of scale on the project). Done separately the projects are estimated to cost:

	Fed.	GF	Total
HVAC	105.1	463.2	568.3
Fire System	24.3	107.3	131.6
Total Project	129.4	570.5	699.9

While the fire alarm is an important item, the HVAC (Heating, Ventilation, and Air Conditioning) system is extremely important. The system is not up to code and has been a serious problem since we moved in years ago. The Department has tried every low-budget stopgap measure possible to improve the working conditions in the building (installing openable windows in the lower level to allow some ventilation in the warmer months, installing supplemental electrical baseboard heaters).

DHSS has had two different ventilation engineers and an architect look at the problem and see if any incremental improvements could be made. The last engineer made it a personal challenge to find some ways to make low cost improvements to the system (and spent many unreimbursed hours on the project beyond the maximum allowed by his contract). Ultimately, he had to throw up his hands and conclude that only a complete replacement of the existing system would do any good, mostly because very little fresh air was coming into the building. Ventilation (and heat) in the building is totally inadequate and, especially over the long term, a health and safety issue because of the indoor air quality. There is virtually no ventilation in the building and heat is provided by air-to-air heat pumps that are not appropriate for Juneau's climate and that are reaching the end of their operating life.

There is an immediate compelling need for the State of Alaska to resolve the basic heating, ventilation (HVAC) and fire protection problems in the State-owned Juneau Public Health Facility.

The absence of an appropriate fire alarm system is a risk to the life and safety of employees and clients. The two household type fire alarms are placed out of the reach of servicing and do not produce an audible alarm for the first floor or exam room occupants. The risk for injury from smoke and fire during service hours and the risk to the facility and records during closed hours compels a solution immediately.

The HVAC problems have been studied completely and replacement of the heating system is the only viable solution. For the state to continue to ignore this basic element of building management and lack of compliance with 1991 and 1994 Uniform Building Code risks an interruption of services to the public. If there is not adequate heating and ventilation, clinical services to patients may be curtailed. The temporary fixes are costly and only partially address the lack of heating and ventilation. Heating is essential to providing clinical services for clients and for workers to accomplish their responsibilities.