

**CAPITAL IMPROVEMENT PROGRAM**  
**City of Missoula CIP Project Request Form FY 2014-2018**

Program Category:	Project Title:		12 Project #	13 Project #	14 Project #
Community Service	Energy Savings Parks Operations Building			new	CS-24

**Description and justification of project and funding sources:**

We know the HVAC system in the operations building at 100 Hickory Street is ancient and less than efficient. Most of the HVAC components at this site are old style pilot light forced air heating units. At my request, Johnson Controls Inc. (the current service contractors) made the following recommendations to upgrade the antiquated HVAC system:  
 West Offices Furnace Replacement #1, \$7,250,  
 West Offices Furnace Replacement #2 \$7,425,  
 East Offices Furnace Replacement \$7,850,  
 West Offices Furnace #2 with zoning package \$7,040,  
 Unit Heater Replacements (5) \$16,020,  
 Infrared Heating System for Bay 6 Main Shop \$10,140,  
 Infrared Heating for Bay 3 Southeast Garage \$5,075, Infrared Heating System for Wood Shop \$5,075,  
 Network Supervisor Controller \$11,615.  
 The total cost of all upgrades to this HVAC system is \$77,490

The second phase of this project will include a building envelope (insulation package) and an electrical energy savings project. FY15

Is this equipment prioritized on an equipment replacement schedule?	Yes	No	NA
		xxx	

**Are there any site requirements:**

This project is replacing existing HVAC components with more efficient upgrades. The component sites may experience some minor modifications. However, no significant site requirements are anticipated.

		How is this project going to be funded:							Funded in Prior Years
		Funding Source	Accounting Code	FY14	FY15	FY16	FY17	FY18	
REVENUE	General Fund Bond			77,490					
				77,490	-	-	-	-	-
		How is this project going to be spent:							Spent in Prior Years
		Budgeted Funds	Accounting Code	FY14	FY15	FY16	FY17	FY18	
EXPENSE	A. Land Cost B. Construction Cost C. Contingencies (10% of B) D. Design & Engineering (15% of B) E. Percent for Art (1% of B) F. Equipment Costs G. Other			77,490					
				77,490	-	-	-	-	-
		Does this project have any additional impact on the operating budget:							Spent in Prior Years
		Expense Object	Accounting Code	FY14	FY15	FY16	FY17	FY18	
OPERATING BUDGET COSTS	Personnel Supplies Purchased Services Fixed Charges Capital Outlay Debt Service			2,850	5,700	5,700	5,700	5,700	
				2,850	5,700	5,700	5,700	5,700	-
Description of additional operating budget impact: We will experience a positive reduction in the cost of energy used by the current Parks Department HVAC system. We have not entered a performance contract or contracted with an engineering firm to determine exactly how much this savings will be. The age and the condition of the existing system will mandate upgrades in the near future. The energy and cost saving is a bonus to needed upgrade.									
Responsible Person:	Responsible Department:	Date Submitted to Finance		Today's Date and Time			Preparer's Initials	Total Score	
Jack Stucky	Vehicle Maintenance	2/14/2013		4/10/2013 16:08			js	48	

# CAPITAL IMPROVEMENT PROGRAM

## Project Rating

(See C.I.P. Instructions For Explanation of Criteria)

<b>Program Category:</b>	<b>Project Title:</b>				<b>10 Project #</b>		
Community Service	Energy Savings Parks Operations Building						CS-24
<b>Qualitative Analysis</b>		<b>Yes</b>	<b>No</b>	<b>Comments</b>			
1. Is the project necessary to meet federal, state, or local legal requirements? This criterion includes projects mandated by Court Order to meet requirements of law or other requirements. Of special concern is that the project be accessible to the handicapped.		<input type="checkbox"/>	<input checked="" type="checkbox"/>				
2. Is the project necessary to fulfill a contractual requirement? This criterion includes Federal or State grants which require local participation. Indicate the Grant name and number in the comment column.		<input type="checkbox"/>	<input checked="" type="checkbox"/>				
3. Is this project urgently required? Will delay result in curtailment of an essential service? This statement should be checked "Yes" only if an emergency is clearly indicated; otherwise, answer "No". If "Yes", be sure to give full justification.		<input type="checkbox"/>	<input checked="" type="checkbox"/>				
4. Does the project provide for and/or improve public health and/or public safety? This criterion should be answered "No" unless public health and/or safety can be shown to be an urgent or critical factor.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	This project is part of our energy savings, clean air, carbon reduction effort. It does have some positive impacts on public health.			
<b>Quantitative Analysis</b>		<b>Raw Score Range</b>	<b>Comments</b>			<b>Weight</b>	<b>Total Score</b>
5. Does the project result in maximum benefit to the community from the investment dollar?		(0-3)  <input type="checkbox"/>	This project is centered around reducing energy expenses and improving air quality.			5	15
6. Does the project require speedy implementation in order to assure its maximum effectiveness?		(0-3)  <input type="checkbox"/>	As soon as the project is completed the energy savings and associated cost savings can begin. Additionally, this project is replacing antequated HVAC components that will fail in the near future. The current HVAC system is running on borrowed time.			4	8
7. Does the project conserve energy, cultural or natural resources, or reduce pollution?		(0-3)  <input type="checkbox"/>	The project was created for energy savings and improved air quality. The current pilot controlled forced air style heating components use significantly more energy than the newer more efficient units. If we can get half the savings from the infrared heating units that we did in the Central Maintenance Facility, this project will have a significant energy reduction.			3	9
8. Does the project improve or expand upon essential City services where such services are recognized and accepted as being necessary and effective?		(0-2)  <input type="checkbox"/>	This project promotes healthier, more productive workplaces and public buildings. This has a trickle down effect on all the services provided by the Parks Department.			4	4
9. Does the project specifically relate to the City's strategic planning priorities or other plans?		(0-3)  <input type="checkbox"/>	• Strategy: We will reflect values of sustainability in transportation and building design. This project promotes efficient government and a healthy happier place to live.			4	12
Total Score							48

Jack,

Reviewing the mechanical retrofit components for the Parks HVAC project, I would guess we could save 10% to 12% off of the gas utility bill. The new Furnaces are condensing and run around 95% efficient compared to the existing one's in place at 75% efficient. Although direct Unit Heater replacements may not add a huge increase in efficiency, where we replace the Unit Heaters with Infrared Heating units (3 locations with 4 IR heating units), greater efficiency gains will be realized and occupants will be more comfortable. Combining these retrofits with Lighting and Building insulation and weather stripping will also add electrical savings to the overall mix of utility savings.

Jon

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