

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

<b>Program Category:</b>	<b>Project Title:</b>		<b>12 Project #</b>	<b>13 Project #</b>	<b>14 Project #</b>
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

<b>Is this equipment prioritized on an equipment replacement schedule?</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>
			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.

<b>REVENUE</b>	<b>How is this project going to be funded:</b>							<b>Funded in Prior Years</b>
	<b>Funding Source</b>	<b>Accounting Code</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	
	General Fund Bond		77,490					
			77,490	-	-	-	-	-
<b>EXPENSE</b>	<b>How is this project going to be spent:</b>							<b>Spent in Prior Years</b>
	<b>Budgeted Funds</b>	<b>Accounting Code</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	
	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		77,490					
	G. Other							
			77,490	-	-	-	-	-

<b>OPERATING BUDGET COSTS</b>	<b>Does this project have any additional impact on the operating budget:</b>							<b>Spent in Prior Years</b>
	<b>Expense Object</b>	<b>Accounting Code</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	
	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.							

<b>Responsible Person:</b>	<b>Responsible Department:</b>	<b>Date Submitted to Finance</b>	<b>Today's Date and Time</b>	<b>Preparer's Initials</b>	<b>Total Score</b>
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)					
Program Category:	Project Title:			10 Project #	
Community Service	Energy Savings Parks Operations Building			CS-24	
Qualitative Analysis		Yes	No	Comments	
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.					
			x		
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.					
			x		
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.					
			x		
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.				This project is part of our energy savings, clean air, carbon reduction effort. It does have some positive impacts on public health.	
			x		
Quantitative Analysis	Raw Score Range	Comments		Weight	Total Score
5. Does the project result in maximum benefit to the community from the investment dollar?	(0-3) 3	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) 2	As soon as the project is completed the energy savings and associated cost savings can begin. Additionally, this project is replacing antiquated 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) 3	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) 1	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) 3	• 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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