

Memorandum 10-86 Library Energy Efficiency Improvements

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MEMORANDUM 10-86

TO: Walt Wrede, City Manager
FROM: Carey Meyer, Public Works Director
DATE: June 8, 2010
RE: Library Energy Efficiency Improvements Budget Authorization and Scope of Work

In May of 2009, the City received a written report from a local mechanical administrator (Bill Smith) with recommendations on how to make the library more energy efficient. The City followed up this last winter with a report prepared by a mechanical/electrical design consultant (EDC, Inc.) that generally confirmed many of the recommendations and provide additional insight into the matter. In April 2010 the library advisory Board submitted a memo identifying their priorities for capital and energy efficiency improvements at the library.

The report from EDC, Inc. summarized their finds as follows:

“Using ... Army Corps of Engineers guidelines results in an energy use budget of 80,000 BTU/SF for a building of similar use and in the same climate zone as the Homer Library. Actual energy consumption figures provided by Homer Public Works indicate that the Library consumed about 30% more energy in 2009 than the above energy budget figure.”

Public Works proposes to issue a Request for Proposal using the recommendations from the previously prepared reports to select an electrical/mechanical contractor to implement several recommended energy efficiency improvements utilizing brief scope of work instructions. These improvements include HVAC modifications and computer control reprogramming and involves modifications to air exchange rates, timing of pumps and fans, reduced water heater usage and boiler burner modifications (focusing on energy savings).

The cost to complete this work is estimated to be \$14,000 and is expected to result in energy savings over the next two to three years that will pay for the efficiency improvements contemplated.

They will not include dealing with heat loss from north facing windows, arctic entry modifications, modifications to heated sidewalk system, roof boiler ventilation stack extension, providing window insulation, or noise reduction/control from entrance hallway. These modifications will require additional planning and evaluation by staff and involve contractors oriented toward architectural and building modification work.

Modifications that will be completed by Homer Public Works staff include:

- Set up reports using the DDC system to track consumption of electrical energy and fuel consumption.
- Re-establish remote access to the DDC system.
- Set thermostats to infrequently occupied spaces to lower temperature.
- Continue to consider (with input from library staff) disabling the sidewalk snow melt system.
- Investigate and repair (if required) the error code on the boiler controller.

Recommendations: The City Council approve a budget of \$14,000 to complete energy efficiency improvements at the Homer Library utilizing a portion of the remaining library construction funds (151-722) and authorizing the City Manager to execute all appropriate documents.

Related Ordinances **Memorandum - Related Ordinances:** [Ordinance 10-34 Amending the FY 2010 Budget for Energy Efficient Measures at the Library](#)

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