

To: Raymond Summers, Executive Director, The Journey Museum

From: Gary Hargens, Facilities Manager, The Journey Museum

Date: May 3, 2011

RE: HVAC Justification and Description of System Upgrade

In order for the museum to maintain proper temperature and humidity levels for the care and protection of the numerous irreplaceable artifacts, the HVAC system that was installed in 1997 requires a major upgrade.

Currently, there are six unitary controllers: 5 air handlers and 1 heating controller. A unitary controller consists of a motherboard and three processor cards that allow the system to operate properly while also relaying all information (valve position, temperature, humidity, etc) back to a computer where changes can be made by the end user.

Over the past 14 years, the unitary controllers have become obsolete and if parts are needed for repair, the parts have to come from a company that deals with used parts because new parts are no longer being made. Currently, unitary controllers on two air handling units have cards that have failed. These failures have resulted in the end computer user not being able to see if each point (i.e. humidity, temperature, air dampers, cooling and heating valves) is in proper working order. Right now, I assume everything is working because there are no noticeable differences in temperature and humidity as I walk through the building. Also without the computer not being able to read what's going on, if an event is taking place and the event organizers request that the heating/cooling be turned up or down, I must manually open and close the valves and use a best guess to make it comfortable for them. While this might work for people, it is not the best solution for the preservation of artifacts.

The best and only solution is to upgrade the hardware in each unitary controller and to upgrade the software to a new WEB based interface. The old software is called Insight and it is currently running on a computer with windows 98. It should also be of noted that the current computer after startup is displaying a warning that the hard drive is about to fail.

I have nursed the system along to the best of my abilities but we are at a critical point where failure to upgrade the system will result in irreparable damage to the artifacts that are currently housed in the Journey Museum.

The project will upgrade the existing Siemens control panels (6 Unitary Controllers and 1 RBC)



G & R Controls

April 29, 2011

Journey Museum
222 New York St.
Rapid City, SD 57701
Attn: Gary Hargens
605-394-1881
FAX: 605-394-6940

RE: Proposal for Upgrading Siemens Hardware and Software

Gary;

Enclosed is our proposal to upgrade your existing Siemens control panels (6 Unitary Controllers and 1 RBC) to the current technology and to provide a WEB based graphics interface. All prices include labor. Note that the WEB interface is only installed with the upgrade to the RBC.

Upgrade RBC & SFIN UC	9,170.00
Upgrade SFIS UC	2,497.00
Upgrade HWP UC	1,757.00
Upgrade AH3 UC	2,127.00
Upgrade AH2 UC	2,327.00
Upgrade AH1 UC	2,207.00

Total Upgrade	\$20,085.00
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This proposal is valid for 90 days.

If you have any questions or comments I can be contacted at 605-343-7037.

Sherman Westvig
1221 Concourse Dr
Rapid City, SD 57703

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PO Box 95661 • Sioux Falls, SD 57118-5661 • Phone (605) 336-3788 • Fax (605) 336-0289
1221 Concourse Drive • Rapid City, SD 57703 • Phone (605) 343-7037 • Fax (605) 348-9215
2220 Main Avenue East, Suite F • West Fargo, ND 58078 • Phone (701) 237-3763 • Fax (701) 237-5103

CAPITAL IMPROVEMENTS PROGRAM COMMITTEE MINUTES

City of Rapid City, South Dakota
C/SAC – 3rd Floor, West Conference Room
10:00 A.M., Friday, May 20, 2011

Finance Officer Pauline Sumption called the meeting to order at 10:00 A.M. with the following committee members present: Aldermen Bill Waugh and Gary Brown; Planning Commissioner Doug Kinniburgh, and city staff: Public Works Director Robert Ellis and Parks and Recreation Director Jerry Cole. Others present included: Mayor Alan Hanks, Chief Accountant Tracy Davis, City Engineer Dale Tech, Compliance Specialist Toni Broom, Fire Chief Mike Maltaverne, Battalion Chief Rod Seals, Library Director Greta Chapman, Journey Museum Director Ray Summers, Journey Museum Facilities Manager Gary Hargens, IT Officer Russ Tiensvold and Administrative Coordinator Sharlene Mitchell; Others present: Charity Doyle.

Summers presented the request for **HVAC hardware/software upgrades** noting the estimated cost of \$20,085. Summers addressed the upgrades that have been performed on an on-going basis to the building infrastructure. Hargens addressed the facility air handlers and heat/cooling units noting that the software to control these units is outdated and can no longer be replaced. Hargens indicated that two air handlers are being controlled manually as the computer controls are inoperable. Hargens indicated that the low bidder can replace the electronics without upgrading the wiring and equipment. Summers addressed the need to facilitate the upgrade to insure the maintenance of proper temperature and humidity levels for the care and protection of the numerous museum artifacts. In response to a question from Waugh, Summers addressed the annual funding to the museum and the increased maintenance issues. Summers indicated that the project estimate exceeds the ability to fund from the operating budget noting the impact the project would have on cash reserves needed to carry the facility during the winter months. Discussion followed regarding museum projects which have been funded through the CIP program. Motion was made by Waugh, second by Brown and carried to recommend funding of the HVAC hardware/software upgrades from contingency funding.

There being no further business, motion was made by Cole, second by Ellis and carried to adjourn the meeting at 10:50 a.m., and it was noted that the next scheduled meeting is Friday, June 17, 2011 at 10:00 a.m. in the CSCA, 3rd Floor West Conference Room.