BOARD OF SUPERVISORS   Agenda Number:
AGENDA LETTER

Clerk of the Board of Supervisors
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2010 APR -5 PM 1: 21

COUNTY OF SANTA BARBARA
CLERK OF THE
BOARD OF SUPERVISORS

Department Name:	General Services/ITD
Department No.:	063/066
For Agenda Of:	4/13/2010
Placement:	Departmental
Estimated Tme:	30 minutes
Continued Item:	Yes
If Yes, date from:	3/9/2010
Vote Required:	Majority

TO: Board of Supervisors

FROM: General Services   Bob Nisbet, Director (560-1014)
               ITD   Sally Nagy, CIO (884-6806)
               Contact Info: Paddy Langlands, Assistant Director, General Services (568-3096)
                                   Daniel Milei, Assistant Director, ITD (568-2671)

SUBJECT: ITD Enhanced Computer Room at Betteravia Government Center in Santa Maria,
               Projects 8687 and 8676
               5th Supervisorial District

County Counsel Concurrence   **Auditor-Controller Concurrence**
As to form: NA   As to form: NA

Other Concurrence: NA
As to form:

Recommended Actions:

That the Board of Supervisors:

Approve staff recommendations to incorporate an Enhanced Computer Room of approximately 800 square feet into the new Betteravia Government Administration and Back-Up Emergency Operations Center, "Building E".

Summary Text:

The Information Technology Department has identified the need for a new Enhanced Computer Room (ECR) in Santa Maria to replace the existing machine room as it no longer meets the County's needs. The existing machine room in Santa Maria can no longer accept new equipment due to structural concerns and is dependent upon two portable air conditioning units in an effort to maintain the temperature at a safe level. The new ECR will guarantee the delivery of mission critical voice and data communication functions including the ability to communicate and exchange information between computers, computer users, departments and external agencies as well as serve as a backup or failover site for the whole County in case of an emergency. The new ECR will also help mitigate the risks associated with the County's aging machine room in the basement of the Santa Barbara Administration Building, which has problems that will need to be addressed in the future.

Minimum requirements for the machine room include:

- High-volume air conditioning and humidity control systems
- Uninterrupted power supply via a combination of batteries and generator
- Specialized water-free fire suppression system
- Fiber speed connectivity
- Restricted and monitored physical access

On the March 9, 2010, agenda of the Board of Supervisors, General Services sought approval of plans and specifications and permission to bid the ECR project to be built in a room on the first floor of Building C. In the March 9 hearing the Board directed staff to consider placing the ECR into the new Building E, and to present a comparison of costs and benefits of the two alternatives. The cost study shows that both options have about the same cost when compared equally. Staff has concluded that Building E is overall the best option for the project, because it provides the most strategic and efficient solution for the County. If approved by the Board, the current design of Building E would be modified by eliminating one set of staff restrooms so that the computer room originally planned for that building can be expanded to accommodate the larger ECR. The new total project cost for Building E is now estimated at $6 million.

Background – Information Technology Needs:

The Information Technology Department is responsible for building, maintaining, and managing the infrastructure that enables one computer to talk to other computers in the office, within departments, between departments and also to external partners such as the State of California, federal government and the Department of Justice. This infrastructure enables the County workforce to be reached while working in the field or during emergencies. This infrastructure allows access to the data necessary to make decisions, and the tools to make such data relevant and understandable (allowing us to write this memo, prepare the corresponding presentation and work out financials through spreadsheets). It also allows for the communication, exchange, and discussion of data (to listen to each other, see others on camera, post meeting agendas and minutes online, allow remote testimony, watch a clip online). This infrastructure enables access to departmental applications and connects government to our constituency via email. Public safety agencies rely on this infrastructure via portable and mobile radios to communicate, coordinate and respond to citizens' needs and emergencies. All information technology components work in unison, 24/7, to keep government running effectively.

This infrastructure is comprised of specialized computers (servers), switches and routers that direct the information of data and voice traffic. Infrastructure components require a well controlled, dust-free, cold, low humidity environment. Because the information technology infrastructure is critical to the delivery of government services, it requires video cameras and proper access control to the rooms housing all the equipment necessary to support and deliver government services. The electrical and complex nature of this equipment requires a specialized, foam-based fire suppression system. A fiber optic connection is required for fast data transmission. An uninterrupted power supply system and a generator provide the necessary insurance to keep the computer operations running in case of an emergency.

Such a monitored, secured, controlled and specialized environment is called an enhanced computer room, (ECR).

For the past 10 years, the County has utilized a retrofitted training room, as an over-utilized and under-performing machine room. As the technological needs of the departments evolved and required more

servers, the current room situated on the 3rd floor of the Social Services Betteravia Building could no longer support the workload. The temperature inside the room increased significantly. On occasion, when high temperatures were reached; the equipment inside the room self-protected itself by shutting down. When the servers went down, applications and data became unavailable and government services could no longer run effectively.

In collaboration with General Services, the Information Technology Department explored options for how best to retrofit the existing room. A study showed that structural limitations such as the roof which could not support the weight of a high volume air conditioning unit and the floor which could not support the weight of the servers prevented much needed change. As an alternative to the high cost of structural reinforcements, ITD installed first one, then two portable air conditioning units. The temperature stayed stable for a while, but eventually rose again as additional equipment was added to the room. In the absence of other alternatives, ITD stopped accepting new equipment into the room in the summer of 2009.

The new ECR will also help mitigate the risks associated with the County's aging machine room in the basement of the Santa Barbara Administration Building. The Santa Barbara machine room required $16,850 in circuit breaker and HVAC repairs during FY08-09 and so far, an additional $38,000 this fiscal year.

The planned 800 square-foot size is large enough to relocate equipment from the current sub-standard third floor computer room (79 pieces of equipment including servers, UPS, racks and monitors from District Attorney, Probation, CARE, Planning, Public Health and ITD), as well as becoming available to house the Sheriff Department's storage center, Social Service's North County equipment, and the equipment necessary to support the next generation of the County's phone system due within 2-3 years. Once all equipment is relocated and new requirements are met, the new machine room will be running at approximately 65-70 percent capacity and will be able to meet expected North County computing power growth for years into the future.

Background - Building and Construction:

In conjunction with ITD, The General Services Department (GSD) has determined that the existing computer room on the third floor of Building C, primarily occupied by Social Services Department, is inadequate and cannot support the needs of ITD. In response a project was begun in June of 2009, and GSD determined at that time that the first floor of Building C would be the least cost, most effective solution for the project need.

On the March 9, 2010 agenda of the Board of Supervisors, GSD sought approval of plans and specifications and permission to bid the ECR project to be built in a room on the first floor of Building C. Less than one month prior to this request, the Board on February 2, 2010, directed staff to proceed with advertisement of bids for the completed design of the new Betteravia Government Administration and Back-Up Emergency Operation Center project, which will become Building E. In the March 9 hearing the Board directed staff to consider placing the ECR into the new Building E, and to present a comparison of costs and benefits of the two alternatives.

Cost estimates have been prepared for the two options. The total cost for putting the ECR in Building C was estimated at $350,000. The total cost for putting it in Building E, using an "apple-to-apple"

comparison has been estimated at $400,000. Given the imprecise nature of construction cost estimating, the options are considered essentially equal in cost.

The ECR, wherever it's located, requires a generator for backup power. Building C already has a small generator which is large enough to meet the initial needs of the ECR. Building E was designed to utilize a generator, but it had not been included in the project. A generator sufficient for the ECR and the rest of the building will cost about $140,000, which would bring the cost of the Building E option to $540,000.

Staff has looked for ways to include the ECR into Building E without increasing the footprint of the building already designed. One way to do this is to eliminate the one set of men's and women's rest rooms planned for staff, which included showers (which together with the bicycle racks is a LEED score builder). Doing this makes a room big enough for the ECR. Room for a much smaller set of restrooms with showers would then be made on the other side of the floor plan by reducing the size of the offices planned for future 1st, 2nd and 3rd District Supervisors and eliminating one of the conference rooms in the building. Doing all this saves the project an estimated $122,000. Thus, the estimated net cost of incorporating the ECR into Building E is $418,000 ($540,000 - $122,000).

When the ECR project was begun, putting it in Building E was not considered a viable option because it was unknown if the project would be approved, or within a time frame that was feasible for the needs of ITD. Now that it has been approved, a study of the option suggests that placing the ECR into Building E has the following advantages and disadvantages over the Building C option:

Advantages:

1) The capital cost would be financed through the same financing as that used for the construction of Building E. Reimbursement of the costs expended for the ECR would be captured through IT rates over the 30-year term of the debt.

2) Compatibility of Functions - It is more appropriate for the ECR to be in an "administration" building than a building devoted to Social Services. The space in Building C that would have been used for the ECR could be used for future social services functions or other more compatible use.

3) Contingency Strategy - Because one purpose of the ECR is to provide back-up capability to provide the entire county with IT services in the event of losing the South County data room, a more strategic location of such a facility would be in the back-up Emergency Operation Center (EOC) that Building E is being designed for. This building will be designed to remain operable after an earthquake.

Disadvantages:

1) Time Delay – The construction time for the Building C option was scheduled for 75 days, which would begin about three months after receiving permission to bid from the Board. The construction time for the Building E option is estimated at 420 days. Additionally, an extra month is required to redesign Building E. Added time has three negative impacts:
   a. Adoption of the Building E option would delay operation of the new ECR by approximately 18 months thus causing ITD to retain the existing deficient space in

b. Building "C" longer, and require them to find temporary space for any new equipment in the interim.

b. Since a special type of bond financing is being used for this project, the Debt Advisory Committee has recommended that construction bids be received before the bonds are issued. Given the additional time needed to re-design the building, receiving bids prior to the issuance of the bonds, which is currently scheduled toward the end of May, will be challenging.

c. Related to "b", when the final design of a project is "fast-tracked", there is an increased chance for errors and/or omissions in the final bid package. All steps will obviously be taken to avoid errors, but in this bidding climate, we have recently witnessed contractors using minor technicalities or inconsistencies in the plans and specifications as a way to protest the bid results if they are not the successful, low bidder.

In spite of the scheduling risks, and the neutral cost comparison, staff has concluded that Building E is overall the best option for the project. If the Board agrees and the proposed changes described above are incorporated into the project, the total project cost would now be estimated at $6 million.

Fiscal and Facilities Impacts:

Budgeted: Will be when debt is approved and issued**Fiscal Analysis:**

Narrative:

The Betteravia Administration Building project is estimated to cost $6 million if the ECR is incorporated. Without the ECR, it is estimated to cost $5.6 million. The financing proposed to be used for this project are Recovery Zone Economic Development Bonds (RZEDBs). This program was made available to municipalities through the Federal Stimulus legislation passed in early 2009. The Treasurer-Tax Collector will provide additional details on the financing at an upcoming Board meeting.

Special Instructions:

Please forward a copy of the Minute Order to Grady Williams, General Services Department – Capital Projects Div., Courthouse East Wing and Verna Dodge, Information Technology Department

Authored by:

Grady Williams and Daniel Milei