

# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Katy Allen  
Randall Murphy

**SUBJECT:** SEE BELOW

**DATE:** 04-21-08

Approved

Date 4/28/08

**COUNCIL DISTRICT:** Citywide

**SUBJECT: APPROVAL OF AN AGREEMENT WITH RTKL ASSOCIATES INC. FOR IN-BUILDING WIRELESS REINFORCEMENT DESIGN SERVICES FOR THE NEW CITY HALL COMPLEX**

## **RECOMMENDATION**

Approval of an agreement with RTKL Associates Inc. for In-Building Wireless Reinforcement Design consultant services for the New City Hall (NCH) complex, from the date of execution to December 31, 2008, in an amount not-to-exceed \$125,000.

## **OUTCOME**

Council approval and award of an agreement between the City and RTKL Associates Inc. will enable the design of the In-Building Wireless Reinforcement for the NCH complex Project to begin.

## **EXECUTIVE SUMMARY**

Cellular and radio coverage within certain parts of City Hall and the employee garage are inconsistent with the rest of the complex. The Information Technology Department (ITD) has studied ways to improve the quality of services and determined that design and installation of a cellular and radio reinforcing system would mitigate the problem. The Council-approved Qualification Based Consultant Selection process was utilized to solicit statements of qualification, interview and rank consultants to provide design services for improvement of the wireless communication system. This memo seeks award of a consulting agreement to provide those design services.

## **BACKGROUND**

In 2004, during construction of NCH, studies performed by ITD determined that cell phone and radio reception was inconsistent and unattainable in certain parts of the facility. Through a design bid proposal, the Department of Public Works (DPW) solicited bids for a project to

provide reinforcement for cellular and public safety radio, along with WiFi coverage, for the site. On November 4, 2004, bids for the New City Hall In-Building Reinforcement of Wireless Radio, Cellular and Wireless Fidelity (WiFi) Coverage Project were opened. The sole proposal received was approximately \$1.6 million greater than the initial \$1 million budgetary estimate, and was rejected by Council action in February 2005.

Subsequent work continued to implement each of these three technologies concurrently. Public Safety radio reinforcement for critical areas of the NCH was completed prior to full occupancy, and WiFi installation in the public spaces was completed in October 2005. Staff from ITD analyzed cellular reception to identify issues and possible solutions.

At the December 7, 2005, Rules Committee meeting, staff was directed to respond to additional questions concerning the cellular communication workload assessment presented at that meeting. In response to this directive, ITD conducted studies to understand cellular phone coverage quality at City Hall for major cellular providers.

ITD completed the exploration of free and low cost alternatives that carriers would provide to the City in order to improve cellular phone reception at NCH. Improvement actions carried out by the vendors did not yield significant improvement in overall cellular reception quality at NCH, particularly in pursuit of the City's goal to increase coverage for the benefit of the public as well as employees. In summary, the City's most desirable option of improving cell phone reception at little or no cost to the City did not prove to be a viable alternative. In-building equipment would better support the needs of Public Safety radio and cellular phone coverage.

In February 2006, ITD worked with Finance Department and issued a Request for Information (RFI) for relevant products that may be utilized to improve cellular reception at NCH. Six responses were received. Solutions are available that use plug-in equipment and have the ability to support many different signal frequencies; a Distributed Antenna System (DAS) solution eliminates the need for multiple pieces of equipment to handle multiple signals from multiple wireless carriers. Many solutions are expandable and can support Public Safety Radio reinforcement as well as new technologies currently being introduced in the marketplace.

At this point in time there are three options that can be pursued to address the cellular reinforcement deficiency:

1. CONTINUE WITH NO COST COVERAGE. This is the no cost option; however, the quality of wireless service reception at NCH will remain inconsistent.
2. LOCALIZED SOLUTIONS. This option would improve specific radio/cellular services coverage at defined NCH locations by installing commercially available hardware designed and tuned for specific carriers. For example, low-profile interior antennas that are connected to an amplifier and external antenna tuned to Verizon/Cingular frequencies would only benefit reception of that particular provider. Additional antennas and equipment would be required to improve reception for other carriers. A localized

solution also has limited range and would most likely require multiple instances (i.e. multiple antennas and amplifiers) to cover a large area, such as an entire floor at NCH. In summary, a localized solution can be effective if the area to be addressed is relatively small and improvement is required for only one or two carriers.

3. INSTALL AND MAINTAIN A CARRIER NEUTRAL SOLUTION. This option would improve cell phone reception for City cell phones as well as those used by the public, by implementing an in-building solution such as a DAS that will provide improved coverage for all cell phone providers, as well as supporting a number of wireless services including Public Safety Radio. This option offers a comprehensive solution that is flexible, expandable, and scalable. While this option is initially more expensive for the City, it provides an infrastructure that supports the wireless technology needs of the building as we move into the future.

Staff recommendation is to proceed with an agreement with an in-building solution as referenced in Option 3 above.

### ANALYSIS

A Request for Qualifications for In-Building Wireless Consultant Design Services for the New City Hall Complex Wireless Reinforcement Project was released by Public Works on February 1, 2007, and the City received Statements of Qualifications (SOQ's) from 3 firms. Staff from Public Works, Information Technology and General Services conducted a selection process for consultant services in accordance with the Council adopted, Qualifications Based Consultant Selection (QBCS) process and the Local Business and Small Business Preference Ordinance.

After evaluation of the SOQ's submitted, three firms were invited to interview. Interviews were conducted in May 2007 by a panel comprised of City staff from Public Works, Information Technology and General Services, as well as a non-City employee outside consultant. The three short listed firms were evaluated and ranked based on their demonstration of relevant design experience for in-building wireless design and technical knowledge of operating systems, as well as their success designing for public projects. Also, consideration was given to their overall project management and ability to work with public and regulatory agencies. The three firms were ranked by the interviewing panel as follows:

**Ranked List determined by the Interview Panel:**

1	RTKL Associates Inc.
2	SASCO
3	MACRO

The panel rated RTKL Associates Inc. of Baltimore, MD as the top-ranked firm. This consultant team has extensive experience in the design of In-Building wireless reinforcement. As the top ranked firm, RTKL is being recommended to provide In-Building Wireless Reinforcement Design consultant services for the City Hall complex.

Under the agreement, the consultant will provide services that include: program review, development of the design from concept through construction documents, and construction phase services through project close-out.

Staff and RTKL agree that a fee of \$125,000 is appropriate for the services to be provided under the agreement. The consultant will begin work on the project upon Council approval of the agreement.

### **EVALUATION AND FOLLOW-UP**

This contract is for consulting services only. Subsequent construction is estimated to be less than \$1,000,000, and as such, a contract may be awarded by the Director of Public Works. The Director would subsequently report the award of a contract to Council.

### **POLICY ALTERNATIVES**

*Alternate #1:* Do not award this consulting agreement.

**Pros:** Requires no expenditure of funds.

**Cons:** Does not resolve the problem of phone and radio coverage within City Hall and the employee garage.

**Reason for not recommending:** Does not improve quality of cellular or radio services.

*Alternate #2:* Recruit and hire new staff to perform the design work in house.

**Pros:** Allows the work to be designed in-house and eliminates the need to award a consulting agreement.

**Cons:** This is an area of expertise that is rarely needed within the City. The recruitment process is lengthy and will impact the overall project schedule.

**Reason for not recommending:** The recruitment process significantly extends the project schedule, potentially delaying the completion of this work. Additionally, since the expertise required for this project is very specialized, there is little likelihood that there will be any subsequent work for this new staff.

### **PUBLIC OUTREACH/INTEREST**



**Criterion 1:** Requires Council action on the use of public funds equal to \$1 million or greater. (Required: Website Posting)



**Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. (Required: E-mail and Website Posting)



**Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council

or a Community group that requires special outreach. (Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)

This item does not meet any of the above criteria, but this memorandum will be posted on the City's website for the May 13, 2008, Council agenda.

The 'Request for Qualification' submittals were listed on the City's Internet Bid Line and were advertised in the *San Jose Post Record*.

### **COORDINATION**

This agreement and memorandum have been coordinated with the Departments of General Services, Planning, Building and Code Enforcement and Finance, the City Manager's Budget Office and City Attorney's Office.

### **FISCAL/POLICY ALIGNMENT**

This project is consistent with the Council-approved Budget Strategy to continue with capital investments that spur construction spending in our local economy.

### **COST SUMMARY/IMPLICATIONS**

1. AMOUNT OF RECOMMENDATION: \$ 125,000.00

2. COST ELEMENTS OF AGREEMENT:	COST
Task#1 – Program Review and Conceptual Design	\$5,000
Task#2 - Schematic Design	\$15,000
Task#3 – Design Development	\$20,000
Task#4 – Construction Documents	\$37,000
Task#5 – Bidding & Award	\$5,000
Task#6– Construction Administration Services	\$15,000
Task#7– Record Document & Project Close-out	\$2,050
Task#8– Additional Services	\$19,950
Reimbursable Expenses	\$6,000
<b>TOTAL AGREEMENT AMOUNT</b>	<b>\$125,000</b>

3. SOURCE OF FUNDING: 473 – Technology, Furniture and Equipment Fund

4. OPERATING COSTS: This contract is a one-time FY 2007-2008 expenditure.

**BUDGET REFERENCE**

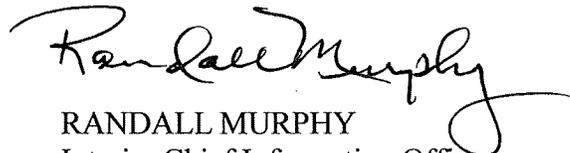
Fund #	Appn #	Appn. Name	RC #	Total Appn.*	Amt. for Contract	2007-08 Adopted Budget Page	Last Budget Action (Date, Ord. No.)
473	5152	Technology, Furniture & Equipment	131559	\$9,962,301	\$125,000	V-1211	10/16/2007 Ord. No. 28143

**CEQA**

CEQA: Not a project



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Interim Chief Information Officer

For questions please contact DAVID SYKES, ASSISTANT DIRECTOR, PUBLIC WORKS DEPARTMENT, 408-535-8300.

Attachment  
KJ:rm:sb