DEPARTMENT OF VETERANS AFFAIRS

Justification and Approval
For
Other Than Full and Open Competition

1. **Contracting Activity:** Department of Veterans Affairs, VISN 5, Baltimore VA Medical Center, Station #512. *Justification for Other than Full and Open Competition.* Project #512-14-213 Loch Raven Controls Upgrade.

2. **Nature and/or Description of the Action Being Processed:** Justification for Other than Full and Open Competition for Project #512-14-213 Loch Raven Controls Upgrade. This action will be awarded as a new contract with Johnson Controls.

3. **Description of Supplies/Services Required to Meet the Agency's Needs:** Upgrade the current Johnson Controls Loch Raven campus control system to a full Johnson Controls BACnet protocol system which operates on the same network, server, and operating software as the Baltimore campus. Upgrade Arcnet (25 year old technology) control boards in Buildings 1, 4, and 2 to BACnet controllers and map these controllers to the Local Area Network via IT cable drops and assigned IP addresses (to be provided by VA). Arcnet equipment requiring upgrade in Buildings 1, 4, and 2 includes 2 Network Control Modules (NCMs), 1 Multiplex Binary Controller (XBN), 1 Rooftop Unit Controller (RTU), 1 Network Control Engineer, and 5 Field Equipment Controllers. These arcnet controllers will be upgraded to BACnet controllers. All N2 arcnet lines will be removed and new BACnet lines installed. Controllers will be mapped to the Johnson Controls Server in Baltimore, via local network drops. Reconfigure existing BACnet Johnson Controls controllers in Buildings 1, 5, and 7 to operate from the server in Baltimore via local network drops by reprogramming controllers and remapping IP addresses. This includes work to 5 existing Network Automation Engines. All new and existing BACnet systems shall be upgraded to Johnson Controls Extended Architecture - Release 5.2. User views and graphics shall be recreated for the entire site and existing equipment programs shall be re-downloaded, evaluated, and reconfigured, in some cases. The existing server in Baltimore shall be upgraded to increase the Random Access Memory (RAM) to support the addition of the Loch Raven campus and the server shall be upgraded to a Windows/SQL 2008 protocol to support Extended Architecture Release 5.2. Contractor shall provide commissioning and calibration of new controls architecture to verify the operation of all communication networks and sub-networks, as well as the sequence of operations for mechanical equipment controllers. Existing wiring and control diagrams, reflecting architecture changes, shall be updated and provided to the VA. This project is valued at an estimated $359,108 and the delivery period should be approximately 9 months from the Notice to Proceed.

4. **Statutory Authority Permitting Other than Full and Open Competition:** 10 USC 2304 paragraph (c)(1) and *41 USC §253(c)(1),* as implemented by FAR 6.302-1.

   (X) (1) Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements per FAR 6.302-1;
   ( ) (2) Unusual and Compelling Urgency per FAR 6.302-2;
   ( ) (3) Industrial Mobilization, Engineering, Developmental or Research Capability or Expert Services per FAR 6.302-3;
   ( ) (4) International Agreement per FAR 6.302-4
   ( ) (5) Authorized or Required by Statute FAR 6.302-5;
   ( ) (6) National Security per FAR 6.302-6;

( ) (7) Public Interest per FAR 6.302-7;

5. **Demonstration that the Contractor's Unique Qualifications or Nature of the Acquisition Requires the Use of the Authority Cited Above (applicability of authority):**

This project is a follow-on initiative for continued development to 1.) Upgrade and modernize the existing (Johnson Controls) building automation systems at Baltimore and Loch Raven, remove all N2 arcnet control system operations at both campuses and upgrade to BACnet architecture and controllers and 2.) Bring the building automation systems at the Baltimore and Loch Raven campuses onto the local area network and integrate the two campuses onto one operating system with user interface to either site accessible via facility workstations at both sites. The building control system is a major system which controls all mechanical ventilation, cooling, and heating in the buildings and it is highly specialized in that specific communication protocol and operating systems must be utilized, programmed, updated, and maintained to achieve consistency across the two sites.

Previous similar projects to upgrade the Baltimore facility, were initially bid full and open competition, but the only bid that was received, was from the existing controls contractor in the building, Johnson Controls. The lack of bids was likely due to the inability of any other acceptable contractors to compete financially with the contractor, Johnson Controls, whose equipment previously existed in the building and already exists in the Loch Raven buildings. For an upgrade to such a highly technical system, it is much more cost effective for a contractor to upgrade their existing system then to install an entirely new one. In addition, Johnson Controls obtains inherent knowledge of the system structure, from years of maintaining and servicing it, which allow them to complete the work more effectively and cost efficiently. An award to any alternative contractor would result in a substantial duplication of costs to the government, which could not be recovered through competition.

The Baltimore campus now operates on a BACnet Johnson Controls Extended Architecture System, which runs off of a server on the Local VA network. The Loch Raven campus controls are already Johnson Controls – with half of the campus operating on arcnet protocol and half of the campus on BACnet. One of the major objectives of this project is to bring both control systems under one system, operating on one server on the local network. This will benefit the facilities in the areas of emergency maintenance response, system reliability, and regular maintenance. Since the Johnson Controls infrastructure to support this migration of Loch Raven is already in place at Baltimore and partially in place at Loch Raven, it would be impossible for any other company to complete financially and would not meet the need of the facility to use one system to achieve optimal maintenance response and reliability.

This project to upgrade the Loch Raven campus should be sole-source awarded to Johnson Controls for the reasons stated above and to maintain continuity and operability among the two campuses. The contractor will be required to supply and install Wiring, Control Panels, terminal devices, systems design, programming graphical interface and miscellaneous other work. The existing Building Automation System manufacturer, Johnson Controls, has unique knowledge and experience in the design of the existing system. Programming and interface elements as well as a number of hardware items are proprietary in nature to Johnson Controls, making it impossible for any other controls company to competitively bid this work, evidenced by the lack of bids on the initial project at the Baltimore site. Accordingly, Johnson Controls is the only firm qualified to make the necessary additions expansions and modifications to the existing system, and the only firm capable of providing the supplies and services requested without the Veteran's Health Administration experiencing substantial duplication of cost and unacceptable delays in fulfilling its requirements.

6. **Description of Efforts Made to ensure that offers are solicited from as many potential sources as deemed practicable:**

When controls upgrade of the Baltimore campus was contracted, it was bid for full and open competition. Although alternative control firms had every opportunity to bid on the job Johnson Controls was the only firm to submit a proposal. Now that the installation of control system infrastructure is in place and is Johnson Controls, it would be even more impractical for any other control firms to compete financially.

7. **Determination by the Contracting Officer that the Anticipated Cost to the Government will be Fair and Reasonable:**

Sole sourcing is recognized as increasing the unit cost of changes and additions. This has to be weighed against improved system performance and the multiple benefits, which are: there will be no need to remove the second or third controls system in the future in order to get to a single unified system, improved system performance, simplified maintenance, having only one single unified system to be trained in and learned for maintenance and operations staff, the ability to more readily achieve a higher standard for the environment of care. Contracting Officer, in coordination with the COTR, will confirm fair pricing, by comparing it to pricing submitted for previous control upgrades of similar scope to the Baltimore campus and by comparing it to the Independent Government Cost Estimate.

8. **Description of the Market Research Conducted and the Results, or a Statement of the Reasons Market Research Was Not Conducted:**

Multiple private and public facilities, including a number of VA facilities have, in the past, allowed multiple manufacturers of BMS systems on their sites. These have without exception created a significant number of negative issues for the facilities. Examples of the negative issues are as follows: A requirement that on-site VA staff have significant training in multiple systems. These systems are complex enough that being an expert in one system takes a great deal of training and work experience. Attempting to learn multiple systems is self defeating and ends in having facilities that are not properly controlled wasting significant amounts of energy, increased trouble calls, lower levels of comfort/satisfaction for employees, patients and visitors and increased maintenance costs. In addition hiring a maintenance contractor to maintain a hybridized system becomes costly as the contractor is by necessity required to take one of two options to maintain the facility. 1. Slowly convert the facility over to a single system or hire sub-contractors to maintain various sections of your facility. Almost without exception, in both private and public markets, facilities with hybrid systems work aggressively to eliminate all but one system to end up with a single unified and functionally operations controls system. This is done at great cost and disruption but the benefits are universally recognized within maintenance and operations.

9. **Any Other Facts Supporting the Use of Other than Full and Open Competition:** All facts and justifications listed above.

10. **Listing of Sources that Expressed, in Writing, an Interest in the Acquisition:** Johnson Controls, Inc.

11. **A Statement of the Actions, if any, the Agency May Take to Remove or Overcome any Barriers to Competition before Making subsequent acquisitions for the supplies or services required:** No actions are

planned, due to the financial and reliability reasons stated in the justification and the market research sections.

12. **Requirements Certification:** I certify that the requirement outlined in this justification is a Bona Fide Need of the Department of Veterans Affairs and that the supporting data under my cognizance, which are included in the justification, are accurate and complete to the best of my knowledge and belief.

Whitney Burger — 1/30/2014

Whitney Burger
Energy Engineer/COTR
Baltimore VA Medical Center

Date

13. **Approvals in accordance with FAR 6.304**

a. **Contracting Officer's Certification (required):** I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Kandi A McDonald — 1/30/2014

Kandi A. McDonald
Supervisory Contract Specialist
VA Maryland Health Care System

Date

b. **NCM/PCM (Required $3K and above):** I certify the justification meets requirements for other than full and open competition.

for: Smith, Donyale E.

Digitally signed by Smith, Donyale E.
DN: dc=gov, dc=va, ou=Entities, ou=InternalStaff, cn=Smith, Donyale E.
Date: 2014.01.30 14:29:34 -05'00'

Scott A. Sands
Network Contract Manager
VISN/PCA X

Date

Title
Facility