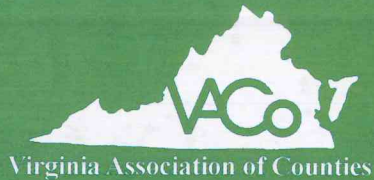


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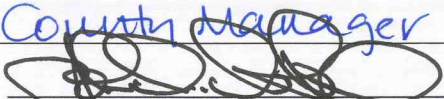
Program Information

Locality County of Henrico, VA
Program Title Online Construction Document Management System
Program Category Customer Service

Contact Information

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Signature of county administrator or chief administrative officer

Name John A. Vitoulkas
Title County Manager
Signature 

Call for Entries

General Overview - Online Construction Document Management System

In September 2013, the County of Henrico Virginia, Department of Finance, Purchasing Division using a cross-functional team including representatives from the Department of Information Technology and multiple divisions within the Department of General Services, unveiled the Online Construction Document Management System web portal for construction related projects. Early in the process, the County identified goals and objectives that focused on benefits to the suppliers. One of the main objectives of the portal is to allow contractors, subcontractors and suppliers to view and download plans at their convenience. Staff of the Purchasing Division met with construction contractors, architects, engineering firms, and County departments to determine their need for a web portal. The consensus was that posting online would maximize competition by making construction documents available to a wider business community. By providing complete sets of drawings, project manuals, addenda, and other contract documents online, printing and mailing costs would be substantially reduced or eliminated. The portal provides information about the project, and captures contact information of bidders and suppliers who have viewed the documents. Suppliers are then able to gather information to allow them to network with each other on current and future projects.

1. Problem/Need for the program

In July 2012, the Henrico County Purchasing Division was tasked with developing a program for online distribution of construction documents. The need stemmed from the desire to make bidding documents and specifications more accessible and at a lower cost to potential bidders. The Purchasing Division mission is to ensure the integrity and efficiency of the procurement process in an environment that is fair to all qualified suppliers. By posting documents online, the Purchasing Division could reach general contractors as well as their subcontractors and suppliers in a cost-effective manner.

Producing printed sets of drawings, project manuals, and mailings were costly to both the County and construction contractors. Small Women Minority Owned businesses (SWAM) would also be able to access new opportunities without paying for construction documents. The web portal needed to be one where the general contractors, sub-contractors or suppliers could review plans in electronic format at no charge and at any time during the procurement process. For security purposes and to maintain a plan holders list, once contractors registered on the site, all activity is tracked electronically saving time and expense for the Purchasing Division. A benefit of providing the plan holders list to all bidders creates networking and subcontracting business opportunities that has the potential of extending beyond current County projects.

Several major areas needed to be addressed - security, ease of access, document responsibility and training.

2. How the Program Fulfilled the Awards Criteria

Posting bidding documents online and making them easily accessible increases the County's visibility in supplier markets. The program improves cost efficiencies for bidders with

convenient security measures and notification options, thereby increasing interest in County projects. In keeping with the Purchasing Division's mission, the program provides an opportunity for transparency, fairness, and equality by providing documents to all interested parties easily and freely.

3. How the Program was Carried Out

Purchasing Division staff in conjunction with construction contractors, architects, engineering firms, and other County department representatives developed software requirements and conducted extensive research including a survey of 28 localities to determine how construction documents including drawings, project manuals, etc. are posted electronically. The County took into consideration both the suppliers' and the County's goals and objectives when looking for a solution.

Before the implementation of the web portal the Purchasing Division developed requirements to address online distribution:

- **Security** - a primary concern due to the sensitivity of the documents.

Engineering and architectural drawings are sealed electronically to prevent tampering or modifications. Project manuals and contract documents are uploaded in PDF format, also to prevent modifications. In addition to having contractors register to view and download the documents, a plan holders list would be generated automatically and would be available for public view. This facilitated networking and partnerships between contractors, subcontractors, and suppliers.

Procedures were developed for projects deemed too sensitive for online distribution. Projects involving critical infrastructure (i.e., water and sewer, bridges, dams); school or educational facilities; courts and other secure facilities (i.e., jail, detention facility, IT computer room) have the option of requesting an exemption from electronic posting of the solicitation and related documents. A waiver for exemption from electronic posting of solicitations was created to maintain the security of sensitive building/infrastructure information from public dissemination on a non-secure public domain.

- **Easy Access** - an important element to bringing in new contractors, particularly SWAM suppliers.

In an effort to increase participation by suppliers, it was particularly important that contractors would not have to pay to have access to the plans. Included in the free registration was an automatic notification system. If an addendum is released, the plan holders list allows Purchasing to notify all registered bidders automatically in a timely manner. This is in lieu of mailing under the previous process.

- **Document Responsibility and Document Control** - involves cooperation from all involved parties during a bid solicitation.

Purchasing is responsible for developing the bidding requirements and the contract documents, while the requesting department and the architect or engineering firm develops all specifications and drawings. After review, the architect or engineering firm uploads all of the documents using pre-developed folder templates. The

templates were developed in conjunction with County departments depending on their project types and are based on the Construction Specifications Institute (CSI) format. Purchasing is responsible for the final review of all documents before releasing to the public by posting on applicable websites.

- **Training** - done primarily in one-on-one sessions.

Purchasing initially held a large training session for County departments and local architecture and engineering firms to demonstrate the portal and to educate them on their roles in the solicitation process. Further one-on-one sessions are held with architects and engineers when their specific project is due to be solicited online. Training documents have also been developed by the Purchasing staff for potential bidders.

Once all research and survey data was collected and analyzed, bids were solicited and multiple firms were interviewed. The final selection was made in April 2013, and the first project advertised was in September 2013.

The web portal is a cloud based internet service, easily accessible to users of multiple operating systems. When contractors first log in to the portal, they can choose to view general information about the project, contact information, time, date, and location of the pre-bid meeting. They may also self-define whether they will bid, not bid, or are unsure. This helps subcontractors and suppliers reach out to suppliers that are only interested in bidding.

To promote the portal all construction solicitation notices provide the web address and advertisements are posted on the County website. All solicitation and addenda notices are also posted on Electronic Virginia (eVA), the state procurement portal.

4. **Results**

Implementing the Online Construction Document Management System has produced substantial cost savings. County printing costs were cut by 50 percent. Mailing, distribution and courier services were eliminated. The cost savings are passed on to registered contractors who are able to choose whether they want to print all documents and drawings or simply view electronically. Additionally, general contractors and sub-contractors have the capability to download drawings and project specifications into cost estimating software. At a printing cost of \$0.10 per page and based on the figures above, there has been an estimated cost savings to the suppliers of \$14,040. In addition, printing and mailing costs to the County have been lowered by over \$8,000 in the short period the portal has been active.

The response from the contractor community as well as the consultant firms has been very positive. Currently there are more than 500 suppliers registered to use the portal. Contractors have enjoyed the ease and convenience of downloading, as well as the benefit of it being at no cost to them. They have unlimited access to the documents, as well as the automatic notifications for any addenda.

During the first five months, the County has posted a total of 36 project solicitations and there has been an average of 1000 visits per month to the website. There is an average of 32 registered plan holders per bid and a current total of 1,417 documents posted with suppliers downloading on average 11,000 documents per month.

The Purchasing Division has received increased number of bids and interest in projects from more suppliers as a result and in the long term anticipates lower pricing as competition increases and cost savings of not having to purchase plans lowers the cost of doing business.