Date: January 20, 2021

To: DPW Commission

From: Chapin Spencer, Director Public Works
      Megan Moir, Water Resources Division Director
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Subject: Asset Management Program – Amending Asset Management Contract; Authorizing Clean Water & Drinking Water State Revolving Fund Loans, GIS hosting contract and CMMS platform contract

Background:

The Department of Public Works (DPW) requests the Commission’s support for a number of items related to the full implementation of the City’s Asset Management Program. Specifically, we are seeking support for advancing a contract with Data Transfer Systems (DTS) to implement their VUEWorks software as a Computerized Maintenance Management System (CMMS) & Enterprise Asset Management (EAM) application. To support the CMMS & EAM contract, DPW is also seeking to amend the existing contract with KCI Technologies, Inc. (KCI) to assist the City through Task 3 of the City’s asset management and implementation program. Also related to the asset management software implementation effort, DPW is advancing a contract with ROK Technologies (ROK) to host the City’s GIS data in a cloud-based server. Lastly, DPW requests the Commission’s support for an amendment the existing Drinking Water and Clean Water (Wastewater/Stormwater) State Revolving Fund planning loans to fund the Water Resources portion of the above costs.

City Council adopted the Asset Management Program and Implementation Resolution on 1/27/2020, supporting this scope of work. Given the newly developing financial constraints, this is an even more timely opportunity to effectively manage and minimize the costs associated with purchasing, maintaining, and renewing $500,000,000 worth of City assets, including property, infrastructure, facilities, vehicles, and equipment. It is critical to long-term financial health and sustainability of the City to proceed with this project now by approving agreements with DTS, KCI, and ROK.

Data Transfer Systems (DTS):

The Capital and Asset Management Team has been working with KCI through tasks 0, 1, and 2 of their contract to plan for asset management and select a vendor for a CMMS/EAM Software as noted in the memo dated April 13, 2020. A request for proposals (RFP) for a CMMS/EAM software was posted on October 2, 2020, and 19 proposals were received by November 2nd. A short-list was created, and the top four vendors were interviewed in December. Staff from divisions across DPW, Innovations, Burlington Parks, Recreation & Waterfront (BPRW), and Burlington International Airport (BIA) participated in the interviews and post-demonstration discussions to determine the top candidate. DTS, the makers of the asset and work management system VUEWorks, was selected as the vendor that would best suit all of the involved teams’ needs.
The proposal from DTS outlines a 12-month approach from kick-off to go-live. The VUEWorks software that DTS would implement would be linked to the City’s existing hosted GIS services, and would store non-spatial assets such as facility equipment and fleet within a DTS owned database. Work orders and service requests would be tracked and managed through VUEWorks as well. The implementation process begins by assessing what each City work group will need out of VUEWorks so that the proper workflows and asset registries can be set up. Then data from systems the city will abandon will be migrated to VUEWorks, and integrations will be set up to transfer data between legacy systems that the City intends to continue using, such as SeeClickFix for service requests from citizens and GraniteXP for CCTV pipeline inspections, among others. DTS will then divide the City’s teams into four internally chosen “asset groups” which will be trained on using VUEWorks and will begin using the software over four separate go-live dates. The order of the roll out has been determined by the relative readiness of the assets and work order management across the various divisions.

VUEWorks software will provide significant improvements in how we steward City infrastructure, including better collaboration between work groups, risk tracking, and improved reporting of assets. The work order system can keep tabs on the cost of labor, parts, and equipment that is used during maintenance activities that can then be summed up for each asset. Condition scores can be attached to assets through inspections, assisting in calculating asset risk through likelihood of failure and consequence of failure analyses. Life-cycle planning by asset is aided by viewing conditions along a depreciation curve. Managers can get a quick look at real time data with charts, graphs, and other key performance indicators. Finally, through improved tracking of maintenance activities, the city can transition from focusing on reactive work, to proactive, extending the life of assets and creating cost savings through efficiency. These are just a few of the capabilities of the VUEWorks software.

KCI Technologies Inc. (KCI):

KCI was selected in February 2020 to provide the City with consulting services in the assessment, procurement, and now implementation of a CMMS & EAM application to enable cross-departmental management of work orders, customer inquiries, asset inventories, and preventative maintenance scheduling. KCI will also assist the City in developing best-in-class asset management practices and workflows to achieve the lowest cost of ownership for our assets, minimizing operational and capital costs for the City in perpetuity.

After completing the Tasks 0, 1, and 2, the contract KCI calls for an amendment to lay out the scope of work (SOW) for Task 3.
From the April 13, 2020 memo:

Task 0: Project Initiation and Project Management
Task 1: Procurement of CMMS/EAM Solution
Task 2: Selection of CMMS/EAM Solutions
Task 3*: Implementation Oversight and Support

*Contract calls for an amendment to define Task 3 at the completion of Task 2

KCI has come in under budget on the Tasks 0, 1, and 2. Their proposed amendment for Task 3 has been reduced from the estimated $160,172.00 to $120,000.00.

ROK Technologies (ROK):

In light of the potential contract with DTS, the Innovation & Technology Department (I&T) does not believe that our current GIS infrastructure is adequate to support a new CMMS/EAM software over the next five years. The GIS servers that that department hosts on-site are becoming outdated, are expected to reach end of life over the asset management contract time period, and may not be able to handle the increased traffic that will come with a move to a GIS based asset management and work order system. For these reasons, I&T has been looking into a cloud-based GIS server that would be hosted and administered by a third-party. In 2019, I&T reached out for three quotes for a cloud-based hosting service. Out of the three options, ROK was selected as the best fit for the City. However, at the time there were insufficient funds to execute a contract.

Funding:
The Capital and Asset Management Team has budgeted $300,000 from the General Fund to finance the first year of the DTS, KCI, and ROK contracts. Water Resources will be amending loans with both the Clean Water State
Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) to provide a significant component of the total funding for this project. Both SRF loans offer 5 year repayment at 0% admin/interest and the CWSRF includes a 50% planning loan subsidy in the form of loan forgiveness at the end of the project, up to $100,000.

If you have any questions, please contact Martha Keenan, Capital & Asset Management Program Manager (mkeenan@burlingtonvt.gov); Gustave Sexauer, Asset Management Administrator (gsexauer@burlingtonvt.gov); or Megan Moir, Assistant DPW Director – Water Resources (mmoir@burlingtonvt.gov).