SUPPLEMENTAL AGREEMENT
Engineering Services Division

Project Title and Job Number:
Azteca's Cityworks Computerized Maintenance Management System Application Software for Field Services ZK73
Date: 10/6/06
Purchase Order #:6ZK7306225 Supplemental Agreement No.: 1

The City of Sacramento ("City") and Brown and Caldwell ("Consultant"), as parties to that certain Consultant and Professional Services Agreement designated as Agreement Number 2006-0225, including any and all prior supplemental agreements modifying said agreement (said agreement and supplemental agreements are hereafter collectively referred to as the "Agreement"), hereby supplement and modify the Agreement as follows:

1. The scope of Services specified in Exhibit A of the Agreement is amended as follows:

To implement Phase 2 of this Project, Consultant shall perform the additional services described in the Scope of Services attached hereto and incorporated herein by this reference.

2. In consideration of the additional and/or revised services described in Section 1 above, the maximum not-to-exceed amount that is specified in Exhibit B of the Agreement for payment of Consultant's fees and expenses, is increased~~/decreased~~ by $294,632, and said maximum not-to-exceed amount is amended as follows:

Agreement's original not-to-exceed amount:	$327,999
Net change by previous supplemental agreements:	$0
Not-to-exceed amount prior to this supplemental agreement:	$327,999
increase~~/decrease~~ by this supplemental agreement:	$294,632
New not-to-exceed amount including all supplemental agreements:	$622,631

3. Consultant agrees that the amount of increase or decrease in the not-to-exceed amount specified in Section 2 above, shall constitute full compensation for the additional and/or revised services specified in Section 1, above, and shall fully compensate Consultant for any and all direct and indirect costs that may be incurred by Consultant in connection with such additional and/or revised services, including costs associated with any changes and/or delays in work schedules or in the performance of other services or work by Consultant.

4. Consultant warrants and represents that the person or persons executing this supplemental agreement on behalf of Consultant has or have been duly authorized by Consultant to sign this supplemental agreement and bind Consultant to the terms thereof.

5. Except as specifically revised herein, all terms and conditions of the Agreement shall remain in full force and effect, and Consultant shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by this supplemental agreement.

Approval Recommended by:

Project Manager

Approved As to Form By:

City Attorney

Approved By:

Consultant

Approved By: David Zuber

City of Sacramento

Attested to By:

City Clerk

DLB

Exhibit A
City of Sacramento

Azteca's Cityworks Computerized Maintenance Management System

Scope of Services

The Consultant will ensure that key team members (Kent Thompson and Allan Scott, Brown & Caldwell) will be committed to the proposed hours in the budget of this project. The City will have the right to cancel the contract in the event of an unapproved change of team members.

Phase 2 – Sewer and Drainage System Implementation

Task 2.1 Configuration and Integration

Objective

Configure and integrate all components for the sewer and drainage system.

Approach

Integration and installation of all components can begin once the software and hardware have been procured and the integration design has been approved. Any new integration programs will be generated or changes made to existing programs, as required. The existing environment used for the Water Services testing will be used to facilitate configuration of the CMMS and any changes to the CIS, GIS, and mobile interfaces. As the components are completed they will be tested to ensure that they meet the City's needs.

Any required hardware will be purchased by the City during this task, to be tested with the new integrated mobile solution.

Once the system has been installed and configured, the City will review the configuration and provide consolidated comments on any issues identified. These will be reviewed with Consultant, prioritized and resolved in order of importance.

Schedule: November 2006 – January 2007

Deliverables: Preliminary integrated CMMS solution for sewer and drainage.

City Participation: Review and provide consolidated comments on the System Implementation Configuration; be available for technical questions as needed.

Task 2.2 Data Conversion and Migration

Objective

Transfer sewer and drainage historical data to Cityworks.

Approach

Consultant in conjunction with City staff, will review the existing Hansen database to establish what data is to be converted to the new Cityworks database. A data conversion document will be created that identifies the Hansen system file or table names, field names, field lengths, field types, and other relevant information. Similar information for the target Cityworks database will be included in the data conversion document. The objective of the document is to be the primary source for the conversion programs to be developed.

Once the programs are developed they will be tested in the test environment and the results reviewed. If problems are found the programs will be adjusted and re-tested. Once the converted data is correct and in the

right fields, the programs will be deemed correct and accepted. This process will identify any data conflicts, gaps, or errors encountered. A detailed listing of these issues will be provided to the City. City will take the lead on resolving these issues.

Schedule: December 2006 - February 2007

Deliverables: Draft data conversion document; accepted data conversion document; tested data conversion programs.

City Participation: Review draft data conversion document; review and provide consolidated comments on the test converted data; resolve any data gaps, errors, or conflicts identified in the conversion process; be available for technical questions as needed.

Task 2.3 System Testing

Objective

Develop system test plan, acceptance criteria, manage the testing program, and witness the performance testing program.

Approach

Consultant will develop a System Test Plan for Cityworks and integration with CIS, GIS and mobile systems. This task will assure the complete testing of the software from a functionality, performance, reporting, integration, and implementation perspective. Consultant will develop a set of acceptance criteria for the Final Test Plan that will be used for system acceptance testing. Consultant will lead each of the major system test activities to ensure compliance with the test plan and conformance with the acceptance criteria.

Schedule: February - March 2007

Deliverables:

- System test acceptance criteria
- System test reviews
- Final Test Plan

City Participation: Review and acceptance of system testing results.

Task 2.4 System Roll Out for Sewer and Drainage

Objective

Roll out Cityworks and the integrated system to sewer and drainage users.

Approach

As with the Water Services, the system roll out will be completed in a phased approach. Implementation areas will be prioritized by the City's Field Service Division so the roll out can be managed. A roll out phased implementation plan will be created identifying area prioritization, roll out start dates, staff training requirements

and data conversion requirements. As each area is completed, City staff will be interviewed regarding their satisfaction with the system and their comments and suggestions will be documented.

Final training for City staff will be conducted on the sewer and drainage components of the system. Consultant will also conduct a "Train the Trainer" workshop focused on educating selected City staff who will provide training to new system users in the future. Training will be conducted at the City facilities. City will provide the necessary hardware needed for training.

At the appropriate time the data conversion process will be executed and the data moved in to the live Cityworks database.

Schedule: February – June 2007

Deliverables: Roll out phased plan; roll out of CMMS; training materials; six training workshops (four hours) and materials for 10 participants each workshop (60 participants total); live converted data (Hansen V7 sewer and drainage data from asset, work orders, and PM files).

City Participation: Participate in the training sessions; sign off on final implementation once it is up and running; take responsibility for the system once it has been accepted.

Task 2.5 Project Management

Objective

Ensure the project is successfully delivered within the City schedules and meet City's expectations.

Approach

Project management activities will be performed throughout this project to ensure that the scope, schedule, and budget are achieved, to provide adequate communication between Consultant and the City, and to ensure that the team is collaborating as efficiently as possible to meet the project goals.

An initial activity of the Project Management task is to develop the Project Management Plan. To ensure that projects meet or exceed their objectives, Consultant is required to produce a project management plan (PMP) for each project. The process of creating a PMP provides managers with guidelines and checklists to increase project success. Detailed project instructions and planning tools are specified in the PMP including project team organization, responsibilities, the work plan, progress evaluation, and change control. In addition, guidelines for ensuring quality assurance of project performance and deliverables are provided. The PMP is provided to all project participants, including Consultant, subcontractors, and the City, so that everyone clearly knows the project objectives, communication protocols, and each individual's project responsibilities. All projects receive extensive peer review by senior third-party experts.

Consultant's project manager, Kent Thompson, will meet with the City's project manager regularly to provide project status reports and review project progress relative to goals. This will provide on-going communication between Consultant and the City, allowing opportunity for evaluating progress. Consultant's corporate tools to support project management allow its managers to communicate effectively, monitor work progress, and administer projects efficiently. For example, project managers have real-time access to project planning and cost information through our project delivery system, which provides up-to-date information on project expenditures, committed costs, and client billings.

Exhibit A
City of Sacramento

Azteca's Cityworks Computerized Maintenance Management System

Scope of Services

A key component to the success of this project is on-going formal and informal communication about the project between the City and the Consultant's project manager. Requirements and priorities may change after a project has started and more understanding of current conditions and user needs are identified. These need to be identified, evaluated, and discussed to determine project impact and trade-offs. The communication mechanisms that will be used for the project will be laid out and discussed at the start of the project. These mechanisms will be used throughout the project to communicate issues, track progress, identify and document decisions, and manage expectations.

These communication mechanisms may include scheduled status reports, project management meetings, informal updates, and conversation confirmation forms.

Schedule: November 2006 – June 2007

Deliverables: Project Management Plan; monthly project status reports (schedule, budget, and progress) (assume 8 months); monthly project management meeting with the City (assume six 2-hour meetings).

City Participation: Provide dedicated project manager to be main counterpart and point of contact for Consultant's project manager.

Cost Breakdown

Phase	Phase Name	Total BC	Total Azteca	Total Burleson	Total Cost
Phase I					
1.1	Needs Assessment	$25,850	$0	$0	$25,850
1.2	Business Processes	$34,190	$0	$0	$34,190
1.3	System integration design	$45,168	$3,200	$0	$48,368
1.4	Configuration and Integration (Water)	$41,184	$3,200	$0	$44,384
1.5	System Testing	$11,514	$0	$0	$11,514
1.6	Pilot implementation of Water services	$33,730	$3,200	$0	$36,930
1.7	Server Configuration & Installation	$11,790	$0	$0	$11,790
1.8	Rollout Data Conversion & Training	$81,560	$0	$0	$81,560
1.9	Project Management	$3,413	$0	$0	$3,413
	Contingency				$30,000
	Phase I Total	$288,399	$9,600	$0	$327,999
Phase II					
2.1	Configuration & Integration (Sewer and Drainage)	$92,704	$3,200	$0	$95,904
2.2	Data Conversion & Migration	$34,100	$6,400	$30,080	$70,580
2.3	System Testing	$16,780	$0	$3,760	$20,540
2.4	System Rollout for Sewer & Drainage	$90,540	$3,200	$0	$93,740
2.5	Project Management	$13,868	$0	$0	$13,868
	Phase II Total	$247,992	$12,800	$33,840	$294,632
	Total	$536,391	$22,400	$33,840	$622,631