



CITY of NOVI CITY COUNCIL

Agenda Item E
December 5, 2011

SUBJECT: Approval to award a contract to Power Engineers for Cityworks asset management system implementation and integration services for a lump sum fee of \$ 83,987, subject to final review and approval as to form by the City Manager and City Attorney.

SUBMITTING DEPARTMENTS: Department of Public Services and Information Technology

CITY MANAGER APPROVAL: 

EXPENDITURE REQUIRED	\$ 83,987
AMOUNT BUDGETED	\$ 195,000
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBERS	592.000.00-140.000 – \$ 41,993.50 210.000.00-986.000 – \$ 20,996.75 204-000.00-986.000 – \$ 20,996.75

BACKGROUND INFORMATION:

About the Novi Enterprise Asset Management System (NEAMS)

The Novi Enterprise Asset Management System was an approved Capital Improvement Program activity for the second quarter of this fiscal year. The City of Novi Department of Public Services and Information Technology Department have been working collaboratively to identify proven technology solutions to improve the operations and maintenance practices involving the City's utility and road networks. This team identified an asset management strategy which improves the performance of these systems, reduces operating and capital replacement costs, and improves customer service delivery by managing service requests so they can be efficiently received, prioritized, and resolved. Over the past four years, extensive research and fact finding from neighboring communities throughout southeast Michigan revealed that investments in asset management systems have significantly reduced both short term and long term operations and maintenance costs. Governor Snyder's recent message discussing the need for reinventing Michigan's infrastructure (off week packet, 10/27/2011) emphasizes the importance of applying sustainable asset management practices which are frequently advanced using technology to improve internal process efficiencies and overall customer service. Communities in our region have calculated a return on the initial investment of their asset management systems between three to five years.

Professional Services Consultant Role & Compellive Request for Proposals (RFP) Solicitation Process

A competitive RFP process was conducted in accordance with the City's purchasing policy. The RFP was reviewed by 48 prospective respondents and only one vendor, Power Engineers, submitted a proposal. Following a team-driven, qualification based selection (QBS) evaluation, staff recommends a contract award to Power Engineers. This experienced vendor will provide software configuration/implementation services, training, system documentation, and oversee the system's successful deployment to ensure staff take complete ownership of the final solution. One of the key selection criteria was a vendor's experience in deploying the Cityworks asset management software. Power was the lead consultant for over 25 projects across the nation enabling local communities to fully leverage this asset management solution. After interviews with peer communities who have used Power's services including Waterford Township and the City of Ann Arbor (both communities who successfully implemented Cityworks asset management systems), a vendor's experience to configure and implement the initial system was rated as a critical selection factor. Power will be responsible for aligning the Cityworks technology to the work practices in the DPS divisions so the City can administer multiple asset management programs in response to current and future operational demands. With this system, our City's work processes will be streamlined for essential service delivery functions including; work order management, scheduling preventive maintenance, responding to citizen service

requests, retrieving asset maintenance histories, and creating standardized reports for expense summaries and budget preparation.

NEAMS Advances Our City Council's Goals

The NEAMS asset management program will advance the City Council's goals of improving infrastructure and maintaining a fiscally responsible government. The system is also designed to evolve and mature with the City's growing operational needs as exemplified by the City's growing road and utility infrastructure. In the past 10 years, the City experienced a 21.7% increase in water and sewer customers and has expanded its road maintenance responsibilities by 30% or 43 road centerline miles according to Act 51 certification records. The initial phase of this project will involve the City's water system, sanitary sewer, road network, and traffic sign assets. It could be later expanded to incorporate other asset groups in response to fulfilling the City's other asset management activities including street trees, sidewalk maintenance, vehicle operations, and storm water management systems.

RECOMMENDED ACTION: Approval to award a contract to Power Engineers for Cityworks asset management system implementation and integration services for a lump sum fee of \$83,987, subject to final review and approval as to form by the City Manager and City Attorney.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Wrobel				

SCOPE OF WORK AND COST

DETAILED DESCRIPTIONS OF ANTICIPATED ACTIVITIES

This work plan consists of:

- Task Outline
- Task Descriptions
- Project Schedule

The Task Outline is a list of all tasks required to support the Cityworks Server Asset Management Solution System Implementation Project.

Following the Task Outline is the main body of the Work Plan – Task Descriptions that define the activities or events that POWER must perform or have accomplished to complete this project efficiently.

A BASIS FOR PROJECT REPORTING

With this work plan, we can track tasks and deliverables throughout the life of the project. Project status reports and project review checklists as well as other project collaboration tools assist us in communicating and coordinating internally throughout the project.

THE CITY OF NOVI AND POWER REVIEW

We invite you to review and revise this document with us before the project starts. This joint review will provide optimum coordination among all involved parties as the project progresses.

CITYWORKS DEPLOYMENT

POWER Engineers has developed a proposed detailed Scope of Work to define the methodology, tasks and services needed to deploy the Cityworks Asset Management System (AMS) at the City of Novi for water, sanitary sewer, streets, and sign infrastructure.

The diagram at the bottom of this page shows the series of tasks involved in the implementation of the appropriate Cityworks components required for the project. Each of the key stages in the project is considered a task series and is required for full deployment. With the exception of the storm system asset group, the detailed scope of work is written with references to the assets identified in the RFP's "base scope of services" and the durations under each task represent the total duration to complete each task. The storm system asset group will be implemented in a future phase due to budget constraints.

Our plan begins with a project kick-off meeting and ends with the City's acceptance of the implemented system. Throughout the process, POWER provides project management to ensure a smooth and orderly implementation. Since the City's input, expertise, and staff are vital to the success of the project, we identify numerous review points within each task series. The implementation and deployment of Cityworks for the City will be successfully delivered by completing the primary activities listed below and will result in an implementation that can evolve as the City expands its requirements for asset management. The deliverables, City responsibilities, assumptions and risks pertinent to each task are detailed in the following scope of work.



CITYWORKS DEPLOYMENT SCOPE OF WORK

- Task 1 Project Management**
 - 1.1 Project Supervision

- Task 2 Cityworks Software and Hardware Review and Recommendations**
 - 2.1 Assess Software and Hardware Requirements
 - 2.2 Develop Software and Hardware Requirements

- Task 3 Implementation Planning and Requirements**
 - 3.1 Kick-Off Meeting
 - 3.2 Implementation Planning and Requirements Workshops
 - 3.3 Develop System Requirements Documents

- Task 4 Base Software Installation**
 - 4.1 Install and Test Base Software

- Task 5 Cityworks Configuration and Installation**
 - 5.1 Cityworks Configuration
 - 5.2 Cityworks Configuration QA/QC
 - 5.3 Cityworks Installation

- Task 6 Cityworks System Review**
 - 6.1 Cityworks Configuration Review
 - 6.2 System Update and Redeploy

- Task 7 Cityworks Training and Documentation**
 - 7.1 Training
 - 7.2 Documentation

- Task 8 Cityworks Deployment**
 - 8.1 System Deployment
 - 8.2 System Acceptance Testing

- Task 9 Support**
 - 9.1 Remote Ad-Hoc Support

Task 1
Project Management



1.1
Project Supervision

TASK 1 PROJECT MANAGEMENT

SUBTASK 1.1 PROJECT SUPERVISION

Objective(s):

- To provide project management and project oversight throughout the course of the Cityworks deployment.

Responsibility: POWER and City

Duration: 5 Months

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Rytalahti, Dan Prowse

Project management will ensure proper communication and scheduling of work between the City and POWER during the project. POWER's project manager will provide project oversight including scheduling and conducting bi-weekly project calls and providing monthly progress reports and project schedule updates to the City. These activities will facilitate communication between POWER and the City's project manager as well as other team members, and ensure that the project schedule and deliverables are met. A project wrap-up conference call will be conducted following acceptance of the system to evaluate the success of the project and to identify the next steps that the City should consider as their Cityworks implementation continues to evolve.

Deliverables:

- Preliminary Project Schedule
- Bi-weekly Project Status Calls
- Kick-Off Meeting Agenda
- Monthly Status Reports

Assumption(s):

- The City will provide facilities for on-site work including desk, telephone, internet access, and system access as required.
- MS Project 2003/2007 will be used for development of the project schedule.
- Basecamp will be used as the online project collaboration tool. The City will be responsible for Basecamp setup and administration.

Client Responsibilities:

- Assign a project manager to the project that is knowledgeable of the project and business requirements and has general decision-making authority to ensure timely resolution of issues that could impact the project schedule.
- Ensure that the appropriate project stakeholders, IT, representatives and Subject Matter Experts (SMEs) attend the kick-off meeting.

- Provide meeting facilities and coordinates the attendance of the City's project participants for the project meetings.

Risks

- While the Cityworks product is a proven solution with a significant user base and the proposed methodology has successfully delivered over twenty-five Cityworks systems, there are potential project risks including:
 1. *Organizational risks* – Is there sufficient commitment to this project, including management, testers, QA, and other external but involved stakeholder?
 2. *Funding risks* – Is the funding in place to successfully complete the project? Has an appropriate level of funding been allocated for training and mentoring?
 3. *People risks* – Does the City have enough people with the required skills and experience available to support the project? Do they believe that the project can succeed? Are user representatives available for reviews? Are domain experts available? Do union issues need to be addressed?
 4. *Time risks* – Is the schedule realistic? Can functionality be scope-managed to meet schedules? How critical is the delivery date? Is there time to "do it right"?
 5. *Scope risks* – Can success be measured? Is there agreement on how to measure success? Are the requirements fairly stable and well understood? Is the project scope firm or does the project scope continue to expand?
 6. *External dependency risk* – Does the project depend on other (parallel) development projects? Is success dependent on off-the-shelf products or externally-developed components? Is success dependent on the successful integration of development tools (design tools, compilers, etc.) or implementation technologies (operating systems, databases, inter-process communication mechanisms, etc.)? Is there a back-up plan for delivering the project without these technologies?
 7. *Schedule Risks* – Experience shows that 85% of the risks have a direct or indirect impact on the schedule, and therefore implicitly on cost. Maybe 5% have only a cost impact. The rest have no direct impact on cost or schedule, but on other factors like project quality.



TASK 2 SOFTWARE AND HARDWARE REVIEW AND RECOMMENDATIONS

Objective(s):

- To determine the required software, hardware, and optimum configuration necessary to deploy Cityworks for the targeted users as well as plan for potential users.

Responsibility: POWER and City

Duration: 2 Weeks

Location: POWER Office

Resources: Bill Hoisington, Mark Rytlahti, Dan Prowse

SUBTASK 2.1 ASSESS SOFTWARE and HARDWARE REQUIREMENTS

The City has determined the software, database, networking and server requirements to support the Cityworks implementation. As part of POWER's implementation planning tasks, we will review these requirements with the City to verify that the appropriate software either exists or can be procured in time to host the Cityworks system. POWER and the City will discuss the appropriate Cityworks product configuration and versions as well as what versions of the products listed below should be used via conference call.

- Microsoft SQL Server
- ESRI ArcGIS Server Enterprise Standard
- Microsoft Office
- VMWare for a Dedicated Server Virtual Environment
- Secure VPN Client
- Crystal Reports

SUBTASK 2.2 PROVIDE SOFTWARE and HARDWARE RECOMMENDATIONS

Based on our review of the City's planned Cityworks software and hardware environment and discussions with the IT department, POWER will prepare a summary software and hardware recommendations document identifying the appropriate software, versions, hardware and additional software that will be required to support the Cityworks system.

Deliverable(s):

- Draft and Final Software and Hardware Recommendations Document

Assumption(s):

- POWER staff will conduct the software and hardware review via conference call(s)
- One draft and one final of the software and hardware recommendations document not to exceed 5 pages will be delivered.

Client Responsibilities:

- City IT staff and other stakeholders as required will be available for the software and hardware review discussions
- Acquire the necessary hardware recommended by POWER
- Acquire the necessary software recommended by POWER
- Provide consolidated comments on the draft software and hardware recommendations document within five business days of delivery

Risks

- The risks to successfully completing this Task series include:
 1. *People risks* – Are the appropriate IT and Cityworks stakeholders available to participate in software assessment discussions and to review the draft software recommendations document?
 2. *Budget risks* – Does the City have the budget to procure all the necessary hardware and software to meet its deployment objectives?
 3. *Schedule Risks* – Can the hardware and software be procured in a timely manner so it doesn't affect downstream tasks and deliverables?



TASK 3 IMPLEMENTATION PLANNING AND REQUIREMENTS

Objective(s):

- To document the Cityworks system requirements.

Responsibility: POWER and City

Duration: 4 Weeks

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Ryttilahti

SUBTASK 3.1 KICK-OFF MEETING

POWER and the City will participate in a project kick-off meeting on-site at the City. Prior to the kick-off meeting, POWER will prepare a preliminary project schedule and meeting agenda. The project kick-off meeting will provide a forum to familiarize project participants with the goals and objectives of the project, review the statement of work and planned deliverables, review the preliminary project schedule and the overall implementation and deployment approach for Cityworks. POWER and Stakeholders from the City's Department of Public Services, Engineering and IT will share knowledge about the City's current and future-state Maintenance Management and Work Order environment, business processes, IT and operational environment, and strategic business goals to ensure that there is a synchronized vision for the project and a sound implementation strategy to support that vision. The project schedule will be updated based upon the findings of the meeting and used as a guide for the remainder of the project.

SUBTASK 3.2 IMPLEMENTATION PLANNING AND REQUIREMENTS

Following the kick-off meeting, POWER and the City will conduct a series of configuration planning workshops at the City's office. The goal of this activity is to share knowledge about the City's current and future-state work order and service request environment. POWER and the City will conduct a four-day Cityworks requirements workshop. The goal of this activity is to gather necessary work management related information needed to properly configure the Cityworks software for the City's water, sanitary sewer, streets, and sign infrastructure.

Note: The custom functionality to generate email alerts and reminders to appropriate staff when work orders are not completed within the reasonable durations for routine activities, and the management level

dashboard to display key performance measures and status review checks will be deferred to a subsequent phase of the project.

During these workshops, the City and POWER will also review the geodatabase design of the City's GIS, existing service requests and work orders, sample documents, workflow information, and other data that is currently used to manage its work activities. This information will be used by POWER and the City to design and customize the service request and work order templates and codes necessary for the operation of Cityworks. During this workshop, POWER will use its standard Cityworks configuration document as a road map for collecting the required Cityworks configuration points. POWER has an extensive collection of geodatabase designs, Cityworks data models, work order, service request and report templates, and other Cityworks configuration artifacts from past projects that can be referenced during the requirements process.

SUBTASK 3.3 DEVELOP CITYWORKS CONFIGURATION REQUIREMENTS DOCUMENT

POWER will develop a Cityworks Configuration Requirements document based upon information discovered during the workshops. This document will address the following configuration requirements:

CONFIGURATION REQUIREMENTS

Users Groups	Work Orders
Service Requests	Project Hierarchy
Cityworks System Standards	Work Order Tasks
Geocoding Services	Reporting
Cityworks Domain Security	Work Order Valid Values
Asset Identifiers	Service Request Valid Values
Print Templates	Employee Hierarchy
Street Names	GIS Data Assessment

This document is augmented with Azteca Cityworks spreadsheets for employees, materials, equipments, labor, project and tasks. Particular attention will be placed on developing the print templates. These documents typically are the main interface between Cityworks and the field users and need to be designed correctly. POWER will create up to four print templates and four Crystal Reports.

Deliverable(s):

- Kick-Off Meeting Notes
- Revised Project Schedule
- Draft and Final Cityworks Configuration Requirements Document
- Recommendations for GIS data model changes for water, sewer, streets and signs asset classes

Assumption(s):

- The City Project Manager will coordinate appropriate Subject Matter Experts (SMEs) and meeting participants for each workshop.
- The City will deliver existing work order, inventory, GIS and related system documentation to POWER's project manager at least one (1) week prior to the requirements design meeting. This documentation will include existing City basic workflows for water and sanitary sewer.
- The City's current work process are substantially the same as the work documented in the OHM CMMS report and the supplied workflows.
- The signs configuration will consist of one feature class and the work process represented on the sample paper work form.
- Cityworks Server will not support creating work orders based upon metrics until the Cityworks 2012 version. This type of configure will be discussed and documented but will not be implemented due the lack of functionality in the current version of Cityworks 2011 AMS.

Client Responsibilities:

- Deliver existing work order and related system documentation.
- Distribute primer information to appropriate meeting participants.
- Participate in and provide meeting facilities for the kick-off meeting and the requirements workshops.
- Coordinate the collection, organization and transfer of requested documentation, data, hard-copy samples and other appropriate information as needed.
- Review and provide written comments on the draft and final System Requirements Document within five (5) business days of delivery.
- If required, update the GIS data model to support the use of Cityworks.
- At the City's discretion, implement any recommended GIS data model changes

Risks

- The risks to successfully completing this Task series lie primarily with the availability of the appropriate stakeholders during the discovery meetings and requirements document review, however several risks similar to those mentioned under the Project Management task also apply and are listed below:
 1. *People risks* – Are stakeholders available for the system requirements workshops and to review the draft requirements document? Are subject matter experts available?
 2. *Scope risks* – Can the requirements be prioritized to limit scope and schedule creep, and exceeding the City's budget?
 3. *Schedule Risks* – Can the requirements workshops be scheduled in a manner that the necessary stakeholders are available during the course of the on-site meetings to avoid scheduling additional trips to meet with absent subject matter experts?

Task 4
Base Software
Installation and Testing



4.1
Install and Test Base
Software

TASK 4

BASE SOFTWARE INSTALLATION AND TESTING

Objective(s):

- Install Cityworks and related software

Responsibility: POWER

Duration: 1 Week

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Rytlahti

SUBTASK 4.1 INSTALL AND TEST BASE SOFTWARE

POWER will install the base Cityworks database and software. POWER will be remotely installing the software and testing the system. The software installation includes:

- Esri ArcGIS Server 10 SP2 Standard Enterprise
- Esri Arc SDE 10 SP2
- Cityworks Server AMS 2011 Build 2 Software
- Cityworks Desktop 2011 Software (1 Administration Machine)
- Microsoft SQL Server
- MS Office 2007 or 2010
- Crystal Reports XI

Note: Office 2007 or 2010 is required. Cityworks requires at least MS Word and MS Excel.

Following the installation of the software components, POWER will test the system configuration to verify that it's working correctly.

POWER suggests that the City install VMWare for the Dedicated Server Virtual Environment and the Secure VPN Client as these are software components typically used for other applications and supported by the client's IT department. It is the City's responsibility to install this software.

Deliverable(s):

- Cityworks installation and testing documentation
- Assist the City with migrating its GIS asset data currently residing in personal or file geodatabases into ArcSDE

Assumption(s):

- POWER will have remote access to the City's equipment to install software.

- POWER will have the necessary administrative privileges to install software as an administrator and create directories
- The City will have appropriate software licenses in place in a timely manner.
- POWER will have access to the City's IT staff as needed during the software installation and testing process.

Client Responsibilities:

- Provide timely response to questions raised by POWER during the configuration.
- Provide IT staff as needed to support POWER as needed during the software installation and testing process.
- Provide remote access to the City's equipment to install software.
- Install software for the Dedicated Server Virtual Environment and the Secure VPN Client

Risks

- The risks to successfully completing this Task series include:
 1. *People risks* – Are the appropriate IT and Cityworks stakeholders available to support the software installation?
 2. *Budget/Schedule Risks* – Can the City provide remote access for the software installation to avoid the need for an on-site installation trip?



TASK 5 CITYWORKS CONFIGURATION AND INSTALLATION

Objective(s):

- To configure and install Cityworks software

Responsibility: POWER

Duration: 4 Weeks

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Ryttilahti, Dan Prowse

SUBTASK 5.1 CITYWORKS CONFIGURATION

In this series of tasks, POWER will configure Cityworks to the requirements outlined in the System Requirements document. With the information gathered in the requirements meetings, POWER's consultants will configure the Cityworks database. The information entered into the system typically includes: employees, materials, equipment, work order templates, reports, problem codes and table codes. POWER will create an internal test environment that resembles the City's environment as part of this task. This approach will allow for testing the configured system in a manner that will produce appropriate results during the final installation.

SUBTASK 5.2 CITYWORKS CONFIGURATION QA/QC

Upon completing the Cityworks configuration, POWER will execute a test plan against the configured database. Issues related to the configured Cityworks software will be addressed during this task.

SUBTASK 5.3 CITYWORKS INSTALLATION

Upon completing the Cityworks configuration, POWER will install the configured Cityworks database and related data. POWER will be remotely installing the data and test the system.

Deliverable(s):

- Remote installation of Cityworks Data
- Configured Cityworks database
- Four (4) Custom Print Templates
- Four (4) Custom Reports

Assumption(s):

- POWER will have remote access to the City's equipment to install software and data.
- POWER will have the necessary administrative privileges to install software as an administrator and create directories
- The City will have appropriate software licenses in place in a timely manner.
- POWER will have access to the City's IT staff as needed during the software installation and testing process.
- The City will have GIS data suitable for deployment of Cityworks software.
- POWER will pre-schedule remote access with the City's IT staff for installation and testing.
- POWER will coordinate with the City's PM to pre-schedule support time from the City's IT staff.

Client Responsibilities:

- Provide timely response to questions raised by POWER during the configuration.
- Provide IT staff to support POWER as needed during the software installation and testing process.

Risks

- The risks to successfully completing this Task series include:
 1. *People risks* – Are the appropriate IT and Cityworks Stakeholders available to support the software installation?
 2. *Budget/Schedule Risks* – Can the City provide remote access for the software installation to eliminate the need for on-site installation that will add cost and time to the project?



TASK 6 CITYWORKS SYSTEM REVIEW

Objective(s):

- To confirm Cityworks configuration

Responsibility: POWER

Duration: 2 Weeks

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Rytlahti, Dan Prowse

SUBTASK 6.1 CITYWORKS CONFIGURATION REVIEW

After completing the Cityworks system configuration, POWER will conduct a System Review session with the City. During this session POWER will walk the City through a review of the configured Cityworks system. This initial review will identify necessary changes in the database, templates and reports. The required configuration changes will be documented in an update to the System Requirements document.

SUBTASK 6.2 SYSTEM UPDATE AND REDEPLOY

Issues identified during the review activities will be rectified prior to final system deployment. The updated Cityworks database will be provided to the City for additional review onsite at the City.

Deliverable(s):

- 4 Days Onsite Review Meetings
- Updated Cityworks Configuration Requirements Document

Assumption(s):

- The City Project Manager will coordinate appropriate City Subject Matter Experts and meeting participants for each workshop.

Client Responsibilities:

- Participate in and provide meeting facilities for the review workshops.
- Provide review and consolidated comments on the updated requirements document within five business days of receipt.

Risks

- The risks to successfully completing this Task series include:
 1. *People risks* – Are the appropriate stakeholders and subject matter experts available for the software configuration review workshops and to provide timely comments to the updated requirements document?

2. *Budget/Schedule Risks* – Can the system configuration review workshops be scheduled in a manner that the necessary stakeholders are available during the course of the on-site meetings to avoid additional trips to meet with absent subject matter experts?

Task 7 Cityworks Training

7.1 On-site Training Workshops

TASK 7 CITYWORKS TRAINING

Objective(s):

- To provide Cityworks training services

Responsibility: POWER

Duration: 2 Weeks

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Rytifahti

SUBTASK 7.1 ON-SITE TRAINING WORKSHOPS

POWER will provide on-site training for the Cityworks software modules and products procured by the City.

Cityworks is a highly configurable system and the City will want to make tweaks to the system (e.g., create new work order templates; add new employees). POWER recommends that the City appoint personnel in each department that will be super users or trainers. These people will be responsible for making configuration changes to the system and will be a form of in-house support for the users. These users will be provided with Cityworks Designer training. Of course, POWER and Azteca will be available for support, but the presence of in-house super users will help ensure successful adoption of the system.

Prior to full system deployment, POWER will develop and provide training workshops that will accommodate up to eight (8) users for each of the training sessions. The following sessions will be provided:

COURSE	DESCRIPTION
Cityworks Service Requests	This training will cover creating and processing service requests. Topics include: adding labor, submitting, searching, canceling, closing, combining, geo-locating, and reports; associating to projects and work orders.
Cityworks Work Orders	Users will learn how to create and process work orders and tasks. Topics include: adding labor, material, and equipment; submitting, searching, canceling, closing, scheduling, repeating, geo-locating and reports; associating to projects and service requests.
Cityworks Designer and System Administration	The Cityworks Designer product is used to configure work order templates, equipment lists, material lists, employees, user permissions and other configurable aspects of the system. Covers items needed to

Course	Essential(s)
	successfully manage the setup and maintenance of the GIS for Cityworks use. Covers system and database administration issues such as software installation, user accounts, and security.
Introduction to Crystal Reports	Crystal Reports is the primary report generator used by Cityworks. Covers an introduction to Crystal Reports

Cityworks training is modular. Students attend those sections that are relevant to the type of work they perform. All courses include relevant materials and will be conducted using the City's data.

Deliverable(s):

- Four and one half (4 1/2) days of Instructor-Led Training
 - Cityworks End-user Training (3 days)
 - Cityworks Administrator Training (1 day)
 - Crystal Reports Training (1/2 day)
 - Recommended Cityworks supplemental education

Assumption(s):

- N/A

Client Responsibilities:

- Provide all student computers with Internet Explorer 8 or 9 along with MS Office 2007 or 2010 installed, used for training.
- Provide the location and set-up (physical space) used for training.
- Ensure that the training area is large enough to accommodate 10 (2 from POWER) networked-computers, eight students and two instructors with a table, computer, projector, and supporting materials.
- Ensure that all students participating in training have at a minimum basic PC literacy.

Risks

The risks to successfully completing this Task series include:

1. *People risks* – Are the class participants willing and able to learn the software to efficiently perform their daily job responsibilities as well as mentor and support new users as the system is made available to them? Can the training courses be scheduled in a manner that the necessary participants are available to avoid additional trips for training?



TASK 8 CITYWORKS DEPLOYMENT

Objective(s):

- To develop a test plan for identifying remaining system configuration issues
- Provide a traceable plan that can be used by the City for final system review and acceptance
- To provide system start-up services

Responsibility: POWER

Duration: 2 Weeks

Location: POWER Office and City's Office

Resources: Bill Hoisington, Mark Rytlahti, Dan Prowse

SUBTASK 8.1 SYSTEM ACCEPTANCE

Prior to deployment, POWER will conduct a system evaluation and acceptance testing wherein the representatives of each asset group will review the Cityworks system to ensure that the system meets their requirements.

Prior to testing, POWER and the City will develop the System Acceptance Test Plan that outlines the process used for system evaluation. The System Acceptance Test Plan will be based on the system requirements document used by POWER for configuration and internal testing. By using the system requirements document as the Test Plan foundation, the requirements captured during Task Series 3 and updated during Task Series 6 are traceable to the final system delivery.

During a web meeting or series of web meetings, POWER and the City will execute the test plan. Any issues found during testing, will be logged, researched and the appropriate configuration adjustments made to the system.

Issue Tracking

Software issues identified during the system deployment and acceptance testing will be tracked in an issues resolution spreadsheet provided by POWER for review and discussion with the City's Project Manager during system acceptance. The City's Basecamp collaboration portal will be used to track the software issues identified during testing. Software issues related to the configuration or installation of the software will be addressed by POWER as part of the project scope. Software issues related to Cityworks "Out-Of-The Box" functionality will be submitted to Cityworks for tracking and resolution.

SUBTASK 8.2 SYSTEM DEPLOYMENT

The Cityworks system will be deployed to the end users. The deployment to each asset group will be done individually during the deployment period. This method will allow POWER and City support staff to control the process and provide individual department support as needed. This approach also helps identify and resolve any configuration issues and ensures adoption of the system among users, enabling them to get the most from Cityworks. To ensure that the system is being used properly by the City's staff, POWER will be on site during system deployment. POWER will work alongside the staff responsible for each asset group to make sure that they are using the system properly and to identify any common errors that occur across the departments. Remaining configuration issues that were captured during the requirements or system review task series but not implemented will be captured in the requirements document and added to the system. New configuration requirements will be discussed with the City's PM and an estimate to implement the changes will be provided upon request.

Deliverables:

- Cityworks Deployment Support (3 Full Days)
- Draft Test Plan
- Test Plan Review Meeting (Web Meeting)
- Final Test Plan
- Test Plan Execution (Web Meeting)
- Final System Requirements Document in editable Word format

Assumption(s):

- POWER will have the appropriate level of access for Cityworks installation.
- The City will provide an adequate level of IT support to ensure that installation, testing and issue resolution are performed in an efficient manner.
- One review and revision cycle will be needed to finalize this test plan.
- Cityworks deployment will occur during one on-site deployment trip.

Client Responsibilities:

- Provide IT support during the Cityworks installation and testing tasks.
- Coordinate departmental participation for the deployment and acceptance testing.
- Ensure that all stakeholders review the Draft Test Plan in advance of the meeting and attend the review meeting.
- Coordinate departmental participation for the project wrap-up meeting.

Risks

- The risks to successfully completing this Task series include:
 1. *People risks* – Does the end user's perception of the delivered system substantially match the requirements captured during the system requirements workshops? Are the end users using the system efficiently and adopting the system? Are new

requirements that impact user acceptance and usability being identified as the system is being exercised?

- 2. *Technology Risks* – Is the system performing as expected? If not, are there external systems or factors impacting the system?

Task 9
Cityworks
Support



9.1
Remote Ad-hoc
Support

TASK 9 CONTINUING CITYWORKS SUPPORT

Objective(s):

- To provide system support

Responsibility: POWER

Duration: Ongoing

Location: POWER Office

Resources: Bill Hoisington, Mark Rytlahti, Dan Prowse

SUBTASK 9.1 REMOTE AD-HOC SUPPORT

Once the system has been deployed and is being used, POWER can provide remote ad-hoc implementation support to address configuration, implementation, enhancements or software installation matters that may arise.

Deliverables:

- Remote Telephone and Web Support

Assumptions:

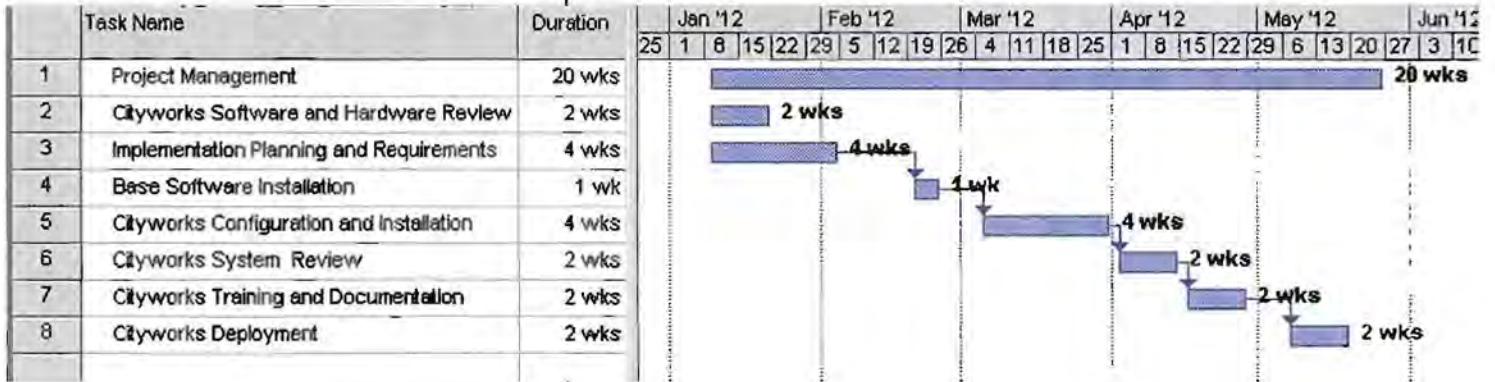
- Support hours will be billed hourly on a time-and-material basis using the rate sheet included with the professional fees.

Client Responsibilities:

- The City will provide a description of the support issue and provide access to the system via remote support software.
- The City will provide timely response to requests for system evaluation comments and suggestions.

PROJECT SCHEDULE

Below is the proposed project schedule. The project will be completed in five (5) months.



PROJECT COSTS

Based upon the above of the project tasks, POWER has determined the following costs for each task below:

SERVICES		
PROJECT TASKS		COSTS
Task 1: Project Management		\$ 6,572.00
Task 2: Software and Hardware Review and Recommendations		\$ 1,960.00
Task 3: Implementation Planning and Requirements		\$21,200.00
Task 4: Base Software Installation and Testing		\$ 3,360.00
Task 5: Cityworks Configuration and Installation		\$10,640.00
Task 6: Cityworks System Review		\$ 8,260.00
Task 7: Cityworks Training		\$18,480.00
Task 8: Cityworks Deployment		\$ 8,585.00
Task 9: Continuing Cityworks Support (up to 34 hours for NetMotion and secure VPN implementation assistance, or post Cityworks implementation support hours.	T&M as needed	\$ 4,930.00
ESTIMATED COST FOR EXPENSES (INCLUDED IN INDIVIDUAL TASK COST)		
TOTAL SERVICES COST		
		\$ 83,987.00

The total cost of the proposal does not include sales tax where applicable. The City is responsible for any taxes, duties, or fees.

Payment will be based upon task completion with 13.3 percent of the fees withheld pending the City's final acceptance of the project deliverables as detailed in the payment schedule on the following page. Payment for Task 9 "Continuing Cityworks Support" will be paid in full upon performance of the support service. Payment is due net 30 days. All change orders will be performed on either a time and material or fixed price basis.

**PROPOSED PAYMENT SCHEDULE
CITY OF NOVI CITYWORKS SYSTEM IMPLEMENTATION & INTEGRATION SERVICES
13.3% OF PROJECT FEES RELEASED AT FINAL PROJECT SIGNOFF**

TASK ITEM	COST	FEE WITHHELD	FEES RELEASED	DELIVERABLES
Project Management	\$6,572	\$3,286	\$3,286	Preliminary Project Schedule, Kick-Off Meeting Agenda, Monthly Status Reports (50% Released at Final Project Signoff)
Software and Hardware Review and Recommendations	\$1,960	\$196	\$1,764	Draft & Final Software & Hardware Recommendations Document
Implementation Planning & Requirements	\$21,200	\$2,120	\$19,080	Kick-Off Meeting Notes, Revised Project Schedule, Draft/Final Cityworks Configuration Requirements Document, Recommendations for GIS Data Model Changes for Water, Sewer, Streets, and Signs Asset Classes
Base Software Installation and Testing	\$3,360	\$336	\$3,024	Cityworks Installation and Testing Document, Assistance with Migration of GIS Asset Data Currently in Geodatabases into ArcSDE
Cityworks Configuration and Installation	\$10,640	\$1,064	\$9,576	Remote Installation of Cityworks Data, Configured Cityworks Database, Four Custom Print Templates, Four Custom Reports
Cityworks System Review	\$8,260	\$826	\$7,434	Four Days Onsite Review Meetings, Updated Cityworks Configuration Requirements Document
Cityworks Training	\$18,480	\$1,848	\$16,632	Four & One-Half Days of Instructor-Led Onsite Training, Recommended Cityworks Supplemental Education
Cityworks Deployment	\$8,585	\$859	\$7,727	Three Days of On-Site Deployment Support, Draft Test Plan, Test Plan Review Meeting, Final Test Plan, Test Plan Execution Meeting, Final System Requirements Document
TOTALS PRIOR TO FINAL SIGNOFF	\$79,057	\$10,535	\$68,523	

FEES RELEASED AT FINAL PROJECT SIGNOFF

PROJECT MANAGEMENT TASK	\$3,286	\$0	\$3,286	Bi-Weekly Project Status Calls, Monthly Status Reports
OTHER TASK FEE WITHHOLDINGS	\$7,249	\$0	\$7,249	Withheld Fees Released at Final Project Signoff
TOTALS AT DELIVERY	\$10,535	\$0	\$10,535	(13.3% of Total Project Fees Released at Final Signoff)

