Council Meeting Date: July 25, 2016 **Agenda Item:** 7(f)

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Motion to Authorize the City Manager to Enter into a Contract with Woolpert, Inc. in the Amount of $156,476 for the Implementation of Cityworks for Parks and Recreation and Ronald Wastewater
DEPARTMENT:	Administrative Services Department
PRESENTED BY:	Katie Moriarty, Information Technology Manager
ACTION:	____ Ordinance ____ Resolution __X_ Motion ____ Discussion ____ Public Hearing

PROBLEM/ISSUE STATEMENT:

The City has invested in the Cityworks Computerized Maintenance Management System (Asset Management) for Public Works, Fleet and Facilities. The implementation of Cityworks for Parks and Recreation and Ronald Wastewater (sewer utility) is included in the Strategic Technology Plan for a 2017 implementation. This will complete the implementation of Cityworks for the City, and will facilitate the action steps necessary for assumption of the Ronald Wastewater District (RWD) through the incorporation of the RWD assets in the City's computerized system. RWD staff will also be familiar with the computerized system well before assumption. Tonight's action would authorize the City Manager to enter into a contract with Woolpert, the City's contracted vendor that has helped the City implement Cityworks on the first and second phases of this project.

RESOURCE/FINANCIAL IMPACT:

The cost for the professional services required for this project is $156,476. The original cost proposed in the Strategic Technology Plan for implementation services for both Parks and RWD was $200,000. The cost estimate from Woolpert for the combined RWD and Parks implementation is $142,901($156,476 including tax). The reduction of cost will yield significant savings to both the City and RWD. There will be additional licensing required due to the inclusion RWD in the amount of $16,425 which will be funded by RWD.

The following deliverables are included in the scope of work from Woolpert:

- Project Management -- $21,383
- Implementation Planning -- $22,376
- System Design and Configuration -- $45,700
- System Deployment -- $23,040
- Quality Assurance and Quality Control -- $1,257

The estimate for vendor expenses is $29,145.

The total project cost for this phase of the project is included in the Administrative Services Information Technology amended budget for 2016. 50% of the cost of the project will be borne by RWD, and the City will invoice Ronald upon completion of each phase of the contract.

RECOMMENDATION

Staff recommends that the Council move to authorize the City Manager to execute a contract with Woolpert, Inc. in the amount of $156,476 for the implementation of Cityworks for Parks and Recreation and Ronald Wastewater.

Approved By: City Manager ***DT*** City Attorney ***MK***

BACKGROUND

The City has selected Cityworks for its Computerized Maintenance Management System (Asset Management). The system was implemented first for the City's Surface Water Utility in 2013, and for the remainder of Public Works, Fleet and Facilities in 2015. The Strategic Technology Plan included the implementation of Cityworks for Parks and Recreation and Ronald Wastewater in 2017. However, the Ronald Wastewater District (RWD) approved funding for the implementation of Cityworks as a part of their 2016 budget. A concurrent Parks and RWD Cityworks implementation was planned in order to gain a reduced cost from Woolpert, the City's contracted Cityworks implementation vendor, by reducing the number of trips to Woolpert will need to make to Shoreline and focusing on the configuration of the system one time for two groups, versus two separate configurations.

DISCUSSION

The implementation of Cityworks for Parks and Recreation and Ronald Wastewater is included in the City of Shoreline Strategic Technology Plan and was estimated to cost $200,000. The intent was to merge the assets of RWD with the City's assets upon assumption. RWD has a very old asset system that is in urgent need of replacement. The RWD Board of Commissioners has appropriated funding for implementation of the Cityworks software and has agreed to migrate to the City's Cityworks environment. This will result in an easy transition to a comprehensive asset management system upon assumption of the District by the City. RWD's assets will already be housed in the City's Computerized Asset Management System, and RWD staff will already be trained and using the application at the time of assumption in October 2017.

Parks and Recreation is included in this project to derive an economy of scale. Parks has moved forward with an inventory of their assets, which are now housed in the City's GIS system and ready for use as the foundation for Cityworks.

This project will complete the implementation of the Cityworks application for the City. The system will provide a tool to measure the costs, risks, and lifecycle of the City's assets through a formal Asset Management Program.

RESOURCE/FINANCIAL IMPACT

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RECOMMENDATION

Staff recommends that the Council move to authorize the City Manager to execute a contract with Woolpert, Inc. in the amount of $156,476 for the implementation of Cityworks for Parks and Recreation and Ronald Wastewater.

ATTACHMENTS

Attachment A: Woolpert, Inc. Statement of Work - Implementation of Shoreline's Maintenance Management System for Parks and Recreation and Ronald Wastewater District

WOOLPERT

STATEMENT OF WORK

Implementation of Shoreline's Maintenance Management System for Parks and Recreation and Ronald Wastewater District

City of Shoreline

May 3, 2016

Prepared by Woolpert, Inc.
116 Inverness Drive East
Denver, Colorado 80112

www.woolpert.com

WOOLPERT

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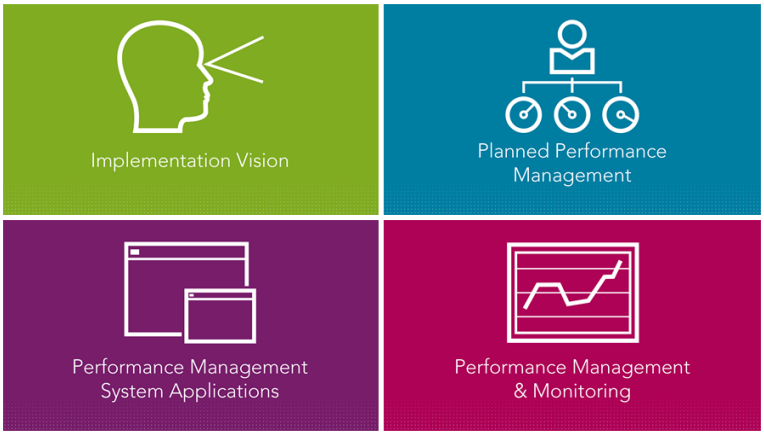
Overview



Woolpert's Asset Management System Implementation projects are focused on delivering a comprehensive set of management strategies, technology tools, and asset management best practices that support our clients' planned asset sustainability performance objectives. **This represents the project approach to implement Cityworks for the Parks and Recreation Department and Ronald Wastewater District. This Scope of Services was developed based on the past successful projects and implementations between Woolpert and the City of Shoreline. Some tasks Woolpert would normally perform in an implementation (e.g.: Enterprise Strategy Workshop) will not be performed in this project, since it has already been completed for the City in a previous Scope of Services.**

Woolpert's implementation approach begins by first understanding your Asset Management (AM) Vision and then defining the Planned Performance Management strategies to achieve the Vision. Then Woolpert will design and deploy the Performance Management System Application (Cityworks AMS) required to support sustained Performance Management & Monitoring activities that are aligned with your long-term Enterprise Asset Management Program objectives.

There are many related Tasks and Sub-Tasks that have to be properly managed, executed, delivered, and accepted to ensure a successful outcome of a high-value Cityworks AMS Enterprise Asset Management System deployment. **Woolpert's proven project methodology fully addresses all aspects of this complex project and ensures all critical success factors are fully addressed in a logical order**.

Services, and associated deliverables, are categorized into several groupings called phases, as more fully detailed in the following sections. Completion of each phase will culminate with the execution of a Phase Acceptance and Close document signifying the City's acceptance of the services rendered to date and authorization for Woolpert to proceed with work on subsequent phases. In some cases, work in later phases will not begin until the deliverables in previous phases have been accepted by the City. In other cases, work in multiple phases will occur simultaneously.

The Cityworks AMS solution will be configured per this Scope of Services to support the following groups within the City:

- Parks and Recreation
- Ronald Wastewater District

Implementation Approach

The Woolpert Implementation Approach will consist of the following:

- Phase 1: Project Management
- Phase 2: Implementation Planning
- Phase 3: System Design and Configuration
- Phase 4: System Deployment

Woolpert has developed a four-phased approach to implementing content rich enterprise asset management solutions. Each of the three technical phases is executed in conjunction with continuous Project Management, and is designed with an emphasis on Knowledge Transfer, Change Readiness, and Quality Management activities. Deliberate execution of each phase, including continuous client involvement and feedback enables Woolpert to ensure a successfully planned, designed, configured, and deployed asset management solution that is used and useful immediately upon "Go-Live".

Specific phase tasks and deliverables are identified within our Scope of Work document. Completion of the specified tasks and deliverables, to agreed-upon standards, is signified by a Phase Acceptance certificate which the client Project Manager signs, thereby accepting the delivered services and work-product. The executed Phase Acceptance and Close-out process clears the way to proceed with the subsequent phase.

Each of the three phases, depicted in the following Implementation Phase diagram, are presented in detail in the Scope of Work section of our response.

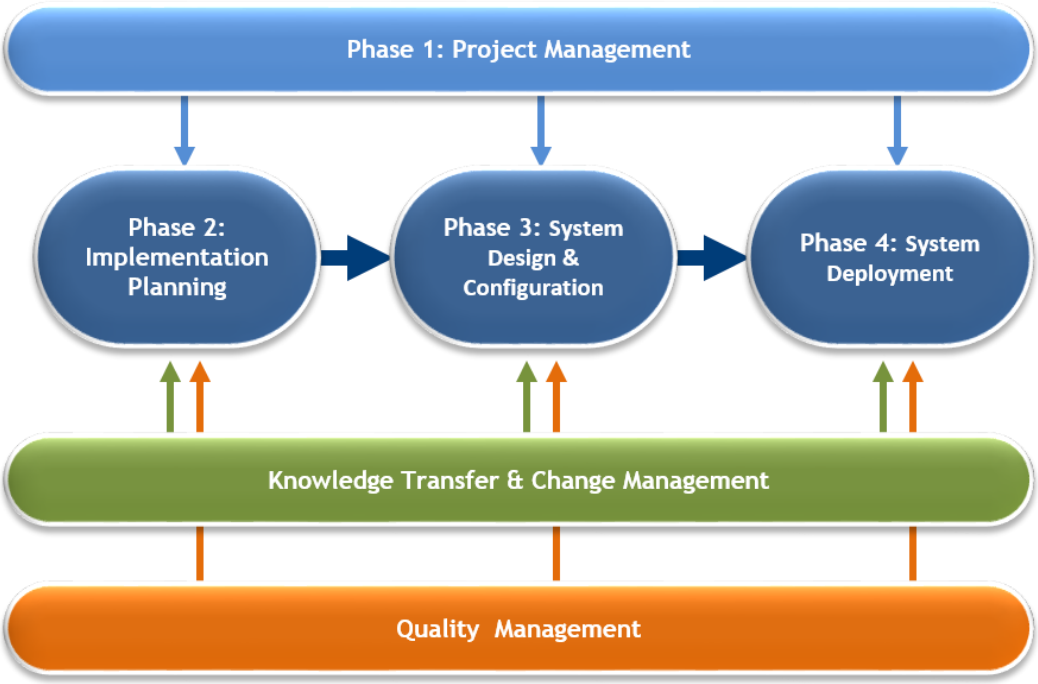


Figure 1: Implementation Phases

Woolpert has found that the following three items are critical elements in our successful implementations. We intentionally include tasks related to each throughout every phase and in nearly every task in our project. As you read our full Scope of Work, these three icons indicate where the elements are embedded within the tasks.

KNOWLEDGE TRANSFER: Onsite workshops and collaborative, web-based meetings designed to increase interaction between Woolpert and County Team Members.

CHANGE READINESS: Tasks designed to identify readiness concerns early in the project so they can be addressed well before Go-Live.

QUALITY MANAGEMENT: Deliverables go through a peer review process so that Woolpert projects all produce similarly high-quality work product.

Phase 1 – Project Management

Woolpert's Project Management approach provides the resources and tools needed to successfully manage the project through all phases / processes, including:

- **Initiation**: project authorizations and expectations
- **Planning**: project definitions, objectives, deliverables, analysis of alternatives
- **Execution**: coordination of resources, quality management, product and service delivery

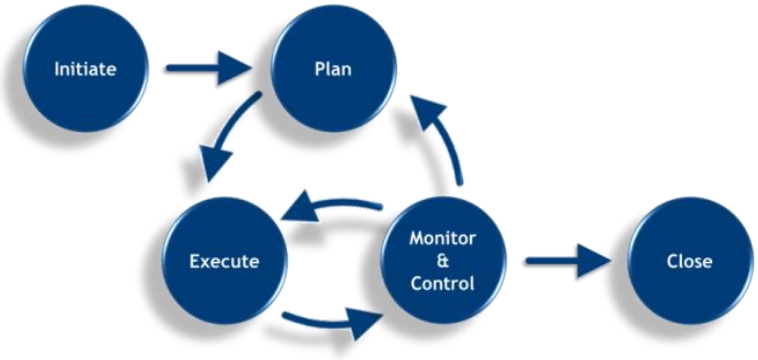


Figure 2: Project Life-Cycle Process Groups

- **Monitoring and Controlling**: monitoring and measuring to identify variances and imitate corrective actions
- **Close-Out**: acceptance of project deliverables and results

To fulfill each of these objectives, Woolpert will employ the various project management tools described in the following sections:

Project Kick-Off Meeting

As soon as is reasonably feasible, following receipt of the Written Notice to Proceed, the Woolpert Project Manager will work with the City Project Manager to schedule a Project Kick-Off Meeting. This meeting will be facilitated onsite at City facilities for the purpose of: 1) establishing the necessary project management protocols to be adhered to by all stakeholders, 2) reviewing the City's implementation goals and objectives with all team members, 3) identifying any City-owned source documentation necessary to support the project, 4) identifying all critical path schedule milestones, and 5) addressing any outstanding scope or schedule questions that City stakeholders may have. Said meeting shall be of a duration suitable for addressing each of the items previously listed. Development of the kick-off meeting agenda shall be the joint responsibility of Woolpert's and the City's Project Managers.

Deliverables

- Kickoff meeting agenda
- On-site project kick-off meeting (half day)

Assumptions

- The activities discussed in this section will begin once a Written Notice-to-Proceed is received
- Six (6) months of project management is included in the project fee

City Responsibilities

- Schedule meeting space and supporting technology peripherals suitable for the kick-off meeting
- Coordinate and schedule meeting attendees

Ongoing Project Management Tasks

Woolpert will provide the following ongoing project management tasks, as defined in this scope of services, throughout the project.

Project Administration

Woolpert and the City will co-author a Project Plan document to more fully detail items that cannot be thoroughly defined prior to the development of this scope of services. The Project Plan will be a living document that is expected to be updated as necessary throughout the project. Items detailed in the Project Plan will include:

- **Project Participants**. Document will include contact information and the role(s) and general responsibility of each project participant.
- **Budget Management and Invoicing**. Document will include details about how the project fees will be managed for each phase / task and how the invoice will be presented such that it contains the information required for prompt payment by City.
- **Communication Plan**. Document will detail how Woolpert and City project participants will communicate.
- **Quality Management Plan**. Document will list all significant project deliverables and assign a Woolpert resource to perform QAQC prior to delivery to City
- **Document Transmittals**. Document will define acceptable means for document transmittals between Woolpert and City project participants.
- **Risk Management / Issue Logging**. Document will define how risk and issues will be recorded and managed to completion.

Woolpert will provide the following general project management services:

- Develop, in cooperation with the City's Project Manager, a project plan and schedule;
- Proactively manage and update project plan and schedule, as required, throughout the duration of the project. Project plan and schedule modifications will be facilitated upon common agreement between the City and Woolpert Project Managers in accordance with the issue control process detailed in the project plan;

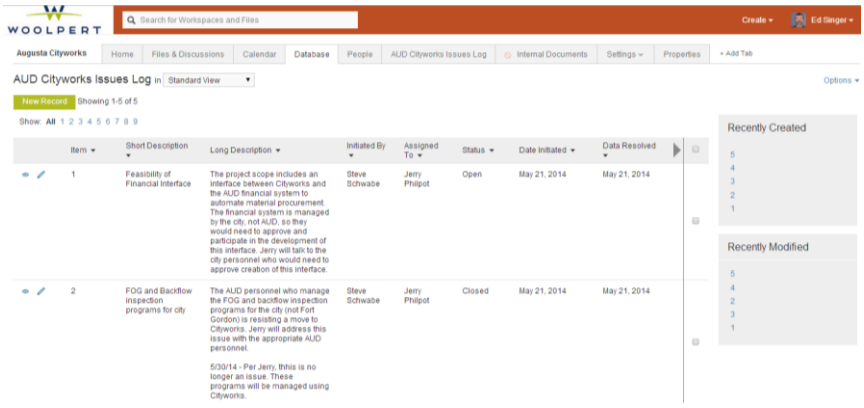


Figure 3: Woolpert's Project Collaboration Web Site

- Coordinate project events with the City Project Manager and Woolpert team members;
- Author, edit, review, and distribute project documentation and technical reports as required;
- Facilitate in-process review meetings with the City Project Manager, committees, management, and end-users as scheduled, and appropriate, throughout the duration of the project;
- Maintain a secure project collaboration web site to post project schedule details, in-process tasks and responsible parties, technical documentation, as well as other project collaboration tools;

- Perform miscellaneous project administration (e.g. arrange travel, internal project updates); and
- Anticipate problem areas and propose and facilitate solutions

Deliverables

- Woolpert to create DRAFT and FINAL project plan and submit them to the City Project Manager
- Woolpert to create Monthly project status reports and submit them to the City Project Manager
- Woolpert to provide on-going project management, including resource allocation and scheduling, invoicing and general consulting
- Woolpert to provide a password protected project collaboration environment and issue log management

Assumptions

- The activities discussed in this section will begin once a Written Notice-to-Proceed is received from the City

City Responsibilities

- Assemble a team of domain and technical experts and have representation of all divisions / departments / work groups / stakeholders involved throughout each project phase, as appropriate, of the project
- Provide a point of contact for all project management issues and questions
- Review, comment and accept draft project work plan within five days of document delivery
- Schedule appropriate internal staff and provide facilities for onsite meetings and off-site conference calls
- Review and accept project status reports, or otherwise provide comments within a reasonable time frame

Project Schedule Coordination

Project schedule coordination and management will be performed using Microsoft Project software. Project schedules and tasks will be monitored and adjusted as needed, depending upon the City's priorities and ability to make its staff and facilities available at the appropriate times throughout the project. An updated project schedule delineating resources, scheduled tasks, and completed tasks will be maintained and available to all Woolpert and City project participants.

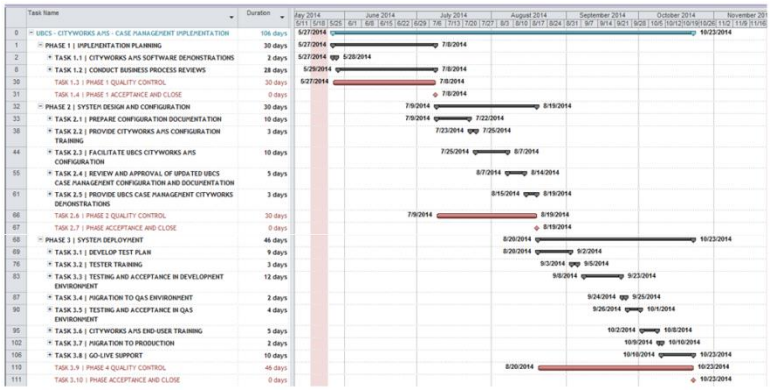


Figure 4: Microsoft Project Gantt Chart

Deliverables

- Woolpert to maintain a project schedule in Microsoft Project and to update the project schedule with significant changes and percent completes on a regular basis

Assumptions

- The activities discussed in this section will begin once a Written Notice-to-Proceed is received from the City

City Responsibilities

- City to participate in project schedule reviews on a regular basis

Project Manager Status Meetings

Woolpert will facilitate regular Project Manager Status Meetings with the City Project Manager. The Woolpert Project Manager and other Woolpert project team members, as appropriate, will participate in regularly scheduled project status meetings with the City Project Manager and designees, as appropriate, for the purpose of reviewing project progress and issues including: 1) on-going and upcoming project activities, 2) open issues and action items, 3) deliverables completed which require acceptance and upcoming deliverables, and 4) technical or contractual issues that require action. Woolpert meeting participants will include Woolpert's Project Manager and ad hoc team members, as required. City meeting participants will be as determined by the City Project Manager, or as requested by the Woolpert Project Manager.

When feasible, Project Manager Status Meetings will be held onsite at City facilities in conjunction with other scheduled onsite tasks. Otherwise, Project Manager Status Meetings will be facilitated remotely using teleconference and web meeting tools.

Deliverables

- Woolpert to facilitate monthly Project Manager meetings
- Woolpert to author Meeting Minutes for each Project Manager meeting and to upload the minutes to project website, as required

Assumptions

- The activities discussed in this section will begin once a Written Notice-to-Proceed is received from the City

City Responsibilities

- City to schedule appropriate internal staff and provide facilities for on-site meetings and off-site conference calls
- City to review and accept project status reports, or otherwise provide comments within a reasonable time frame
- City to schedule meeting space and supporting technology peripherals suitable for on-site meetings
- City to coordinate and schedule meeting attendees

Internal Coordination Meetings

Internal Woolpert-resource coordination meetings will be held on a regular basis to ensure continuous communication about tasks in process, scheduled tasks, and any issues impacting a successful implementation. The Woolpert Project Manager will utilize these meetings to gather information from project team members required to manage on-going resource loading.

Deliverables

- Regularly scheduled internal coordination meetings attended by Woolpert team members

Assumptions

- The activities discussed in this section will begin once a Written Notice-to-Proceed is received from the City
- These activities are included in this scope of services for the first one hundred (100) weeks of the project; At that time, Woolpert and the City will determine the best method to continue to manage the project

City Responsibilities

- None

Phase 2 – Implementation Planning

The Implementation Planning tasks are performed for the purpose of verifying / establishing and documenting a clear purpose for, and vision of, the enterprise Cityworks AMS solution implementation. Functional and technical requirements that were published in the request for proposal are reviewed between Woolpert's implementation team and City stakeholders, managers and implementation / technical team leads in order to align goals and expectations and to establish critical success factors as a means to measure implementation milestones.

Woolpert will facilitate a number of planning tasks in order **to identify, validate, and document the City's vision, goals and objectives** of this asset management system implementation as well as the key **asset management metrics** that the solution must support. In those instances where the City's implementing

divisions do not yet have well-defined metrics, the Woolpert implementation team will provide examples used by similar organizations that the City can adopt and/or grow into as use of the system matures.

The planning tasks will set the stage for the project. The Familiarization Training is mean to expose the Implementation Team (and all end users, if their schedule allows), the ability to understand the capabilities of Cityworks AMS. It is a key initial change management step in our methodology. It is the first of many software demonstrations throughout the project. The Business Process Review tasks establish a common set of workflows that will be adopted by all implementing divisions, modified only as absolutely necessary, and provide a set of global configuration settings for the Cityworks solution. These common set of workflows have already been adopted by the City, so the focus of this task is to review these common workflow and focus on unique workflows to the Divisions part of this particular project. Also included in these workshops will be validation of the **current state of the asset repository** for each division, as well as their **future desired mobile computing capabilities**.

Key Implementation Planning (Phase 2) Deliverables

- **Familiarization Training**
- **Review Performance Measures and Reports**
- **Business Process Review**
- **Geodatabase Design Support**
- **Migration Analysis**

Task 2.1: Asset Management Visioning

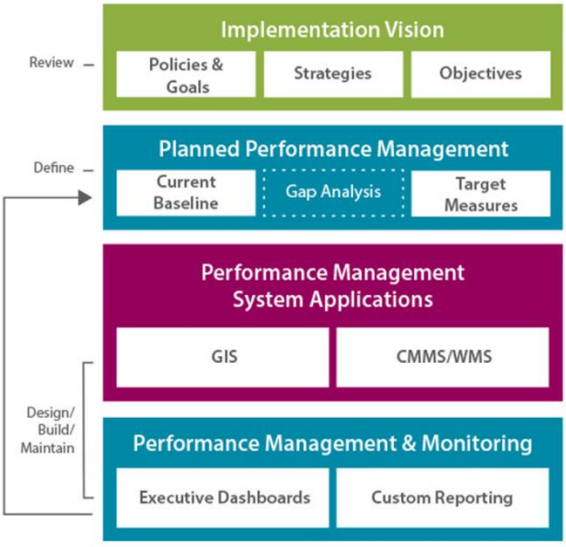


Figure 5: Performance Management Roadmap

Woolpert certified Asset Management Professionals will jointly facilitate a series of Asset Management Visioning workshops, one with each of the divisions listed in the RFP, for the purposes of: 1) understanding the City's and each division's over-arching corporate enterprise solution objectives and strategies; 2) aligning the City's stated technical and functional requirements with the governing project plan; and 3) identifying and documenting any critical performance requirements that have not been adequately addressed to date (critical / unique asset performance measures / metrics, system integrations, unique workflows, specific reporting requirements, data conversion requirements, etc.)

Ultimately, we are utilizing these workshop opportunities to engage the City's management team and stakeholders to define performance metrics that align with the corporate policies, goals, strategies, and objectives, we are able to establish the desired "to-be" position at the very onset of the project.

Figure 5 - Performance Management Roadmap, illustrates how the implementation planning discovery is used to align implementation goals and objectives and establish the requisite implementation road map.

Any program elements that are discovered during this process that are not part of the Project Scope of Services will be presented to the City's management team for consideration. At their discretion, the City's management team may elect to: 1) have these added to a revised Project Plan for inclusion in the core

project implementation; 2) swapping them into the scope while eliminating other elements from the scope; or 3) place them in a "parking lot" for future consideration outside of the scope of this implementation plan. Depending upon the City's decision, Woolpert will make any necessary adjustments to the Project Plan and obtain acceptance from the City.

Related Sub-Tasks

2.1	Asset Management Visioning	N/A
2.1.1	Provide Performance Measures and Reports - CLIENT-OWNED TASK	N/A
2.1.2	Review Performance Measures and Reports	off-site
2.1.3	Performance Measures Review Workshop	on-site
2.1.4	Document Performance Measure Configuration Recommendations	off-site
2.1.5	Review Performance Measure Configuration Recommendations - CLIENT-OWNED TASK	N/A
2.1.6	Hold Meeting to Discuss the City's Review	off-site
2.1.7	Update Documentation from the City Review	off-site

Deliverables

- Woolpert will develop an Request for Information (RFI) and perform a desktop review of the data provided by the City Project Manager and prepare for the Visioning Workshops
- Woolpert's Project Manager and a Subject Matter Specialist will facilitate a series of discovery workshops, on-site at City facilities, over the course of one (1) business day; Woolpert has allocated the one day of workshops as follows:
  - Wastewater – up to four (4) hours
  - Parks and Recreation – up to four (4) hours
- Woolpert will document the workshop discussions and findings in the form of a Technical Memorandum and submit it to the City Project Manger
- Woolpert will facilitate a remote conference call meeting with the City to review the contents of the Technical Memorandum. The conference call meeting will be up to four (4) hours in duration

Assumptions

- City Project Manager will provide the Data gathered from the Request for Information no later than one (1) week prior to the scheduled workshops
- All activities, other than the actual workshops, will be performed remotely
- The workshops will take place during the same business week (Monday – Friday) and the project kick-off meeting
- City Project Manager will ensure site readiness and staff participation for the workshops

City Responsibilities

- City Project Manager will facilitate the data gathering process to collect the information detailed in Woolpert's RFI.
- City Project Manager will secure appropriate meeting facilities in which Woolpert will conduct the workshops
- City Project Manager will schedule all City workshop attendees
- All identified City workshop attendees will actively participate in the on-site meetings without undue interruption

- City Project Manager and City Management Team and Stakeholders will review the Technical Memorandum and provide feedback to Woolpert in a timely fashion
- City Project Manager and the City Implementation team members will participate in a remote conference call review meeting with the Woolpert Project Manager

Task 2.2: Provide Cityworks AMS Software Demonstrations

As part of Woolpert's continuous knowledge transfer and change control efforts, we provide a series of software demonstrations to all City future system end users. Woolpert will facilitate a series of on-site software demonstrations for the purpose of introducing the entire City user community to the core functionality and features of the Cityworks AMS software applications. For many, this will be their first exposure to the new Cityworks software. These demonstrations will provide an initial overview of the features and functions of the core Cityworks software. For the City Implementation Team and Technical Team, this demonstration will serve as a basis for on-going software exposure and knowledge transfer that will increase in frequency and complexity as the project progresses through the subsequent phases. The on-site software demonstrations will be facilitated at least twice over a days to accommodate City employee schedules.

This task doubles as an opportunity for the City to evaluate the readiness of their workforce. It is an early look at each department staff's eagerness or apprehension of the upcoming change. Notable concerns can be addressed well before the software is ready to go-live, giving the City the opportunity maximize end-user buy-in at Deployment.

Related Sub-Tasks

2.2	Provide Cityworks AMS Software Demonstrations	N/A
2.2.1	Prepare Training Agendas	off-site
2.2.2	Facilitate Training	on-site

Deliverables

- Woolpert will develop a Software Demonstration agenda and provide to the City Project Manager
- Woolpert will provide a Woolpert Project Manager and a Senior Systems Analyst onsite for one (1) business day to facilitate the Software Demonstrations

Assumptions

- Software Demonstrations will be facilitated utilizing the newly installed on-premise Cityworks software environment, including the use of a sample Cityworks AMS/PLL database OR using a designated Woolpert laptop.
- City Project Manager will ensure site readiness and staff participation for the Software Demonstrations
- City Project Manager will provide a conference room or training room with a projector. During the Software Demonstrations, individual computers are not needed for the participants. The software functionality will be demonstrated from the instructor's computer
- City Project Manager will ensure Woolpert is provided access to the Cityworks software environment installed on-premise

- Demonstrations will take place during the same business week (Monday – Friday) as the project Kick-Off Meeting

City Responsibilities

- City Project Manager will review and accept the agenda for Software Demonstrations
- City Project Manager will schedule and accommodate the appropriate City Implementation Team and Technical Team staff such that they are available, without undue interruption, for the demonstration
- Secure an appropriate training facility suitable for participants

Task 2.3 Business Process Reviews

Woolpert will facilitate a series of Business Process Review workshops with City staff for the purpose of aligning application workflows with the City's various asset maintenance management business processes. One of the main features of Cityworks AMS is its ability to be configured to fit the unique manner in which an organization manages and executes its infrastructure maintenance management activities. Over the course of many asset management system implementation engagements, Woolpert has learned that: 1) documenting asset management software workflows can be a rather overwhelming task for the client's Implementation Team; and 2) the service request, work order, and inspection life-cycles that need to be managed within the Cityworks AMS software application is 80 – 90 percent standard across all implementing organizations. Woolpert has taken this knowledge and developed a standard set of "best practice" workflow templates that we use to facilitate understanding of the work management life-cycle. We tailor these standard workflows to accommodate the implementing organization's "planning, scheduling, and execution" workflows. We have found that this approach saves time, money, and introduces a substantial level of industry best practices for work management activities at the on-set of the project.

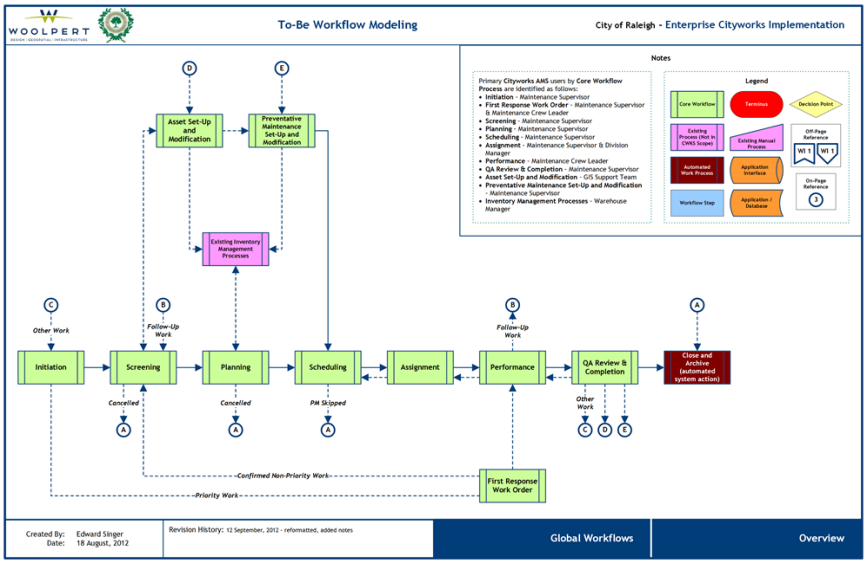


Figure 6: Work Order Management Workflow Best Practices

KNOWLEDGE TRANSFER

The objective of the business process reviews is three-fold: 1) provide Woolpert's implementation team with a deep understanding of the City desired work / asset management work flows / business processes, 2) provide City Implementation Team participants with a deeper understanding of the impending business process improvements introduced by the planned Cityworks AM solution, and 3) establish asset life-cycle management and work management workflows in the context of the City asset management strategies and as supported by the Cityworks AM functional and technical capabilities.

Woolpert will facilitate a series of on-site workshops that investigate a number of standard work management work flow diagrams detailing the life-cycle management of work requests within the Cityworks AMS application. The eight (8) primary workflow areas addressed will include:

1. Initiation
2. Screening
3. Planning
4. Scheduling
5. Assignment
6. Performance
7. Emergency Work
8. QA Review & Completion

Along with the workflows, Woolpert will introduce the use of Work Order Statuses, Hold Reasons, reasons why work order / inspection performance might be delayed such as awaiting parts, awaiting available crews, weather delays, etc., job progress tracking and reporting for work orders through-out their life-cycle, and how all of these factors relate to establishing a work management environment that moves from reactive maintenance to a more proactive maintenance position (one of the multiple asset management best practices Woolpert facilitates through our implementations).

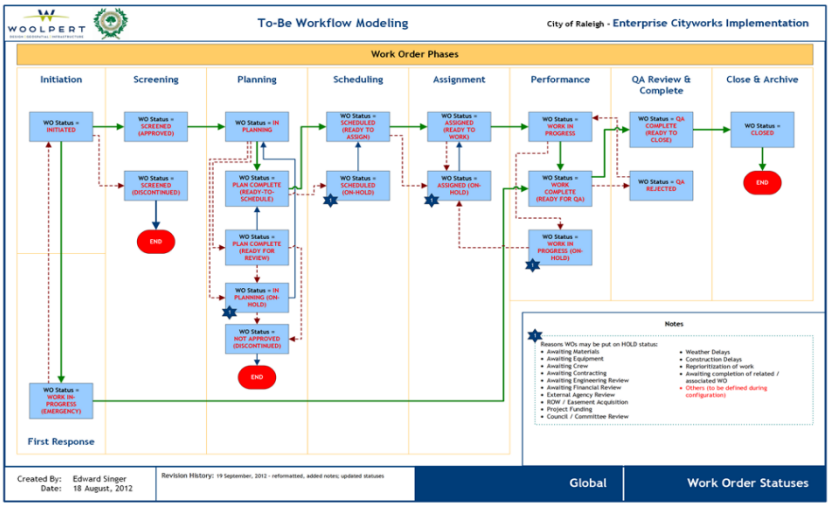


Figure 7: Work Order Status Best Practices

Also as part of these workshop discussions, Woolpert will expand upon the discussions of Levels of Service, asset performance measures, and specialized reporting requirements to identify any key custom data fields or workflows that will need to be taken under consideration during the subsequent (Phase 3) configuration workshops.

Upon completion of these workshops, Woolpert will compile all of the comments and feedback received from the City's Implementation Team and update the standard workflow diagrams to reflect local practices. Our past experiences with this exercise indicate that we should not need to make more than a few edits to our standard workflow diagrams. The resultant documentation will later be used by the City Implementation Team and System Administrators to develop standard operating procedures and training materials.

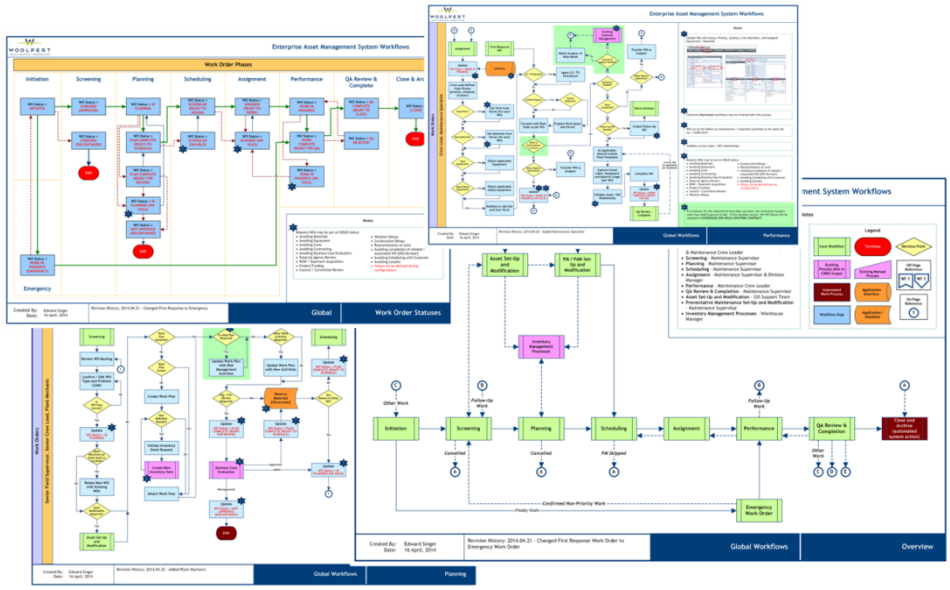


Figure 8: Example AM Software Workflow Diagrams

Related Sub-Tasks

2.3	Conduct Business Process Reviews	N/A
2.3.1	Woolpert to Prepare for Business Process Review Workshops	off-site
2.3.2	Facilitate Business Process Review Workshops	on-site
2.3.3	Document Results of Business Process Reviews	off-site
2.3.4	Submit Business Process Review Document	off-site
2.3.5	**Client Review - CLIENT OWNED TASK**	**N/A**
2.3.6	Review final comments	off-site
2.3.7	Finalize Business Process Review Documents	off-site

Deliverables

- A Woolpert Project Manager and Senior Systems Analyst will facilitate a series of on-site Business Process Review Workshops for up to one day (1)
- Woolpert team members will document the outcomes of the workshops in the form of a Technical Memorandum and submit said document to the City Project Manager
- Woolpert team members will facilitate a two (2) hours remote review session with the City Implementation Team to review the Technical Memorandum

Assumptions

- All activities, other than the actual workshops will be performed remotely.
- All workshop activities will be performed on-site.
- The City Project Manager will ensure site readiness and staff participation for the workshops
- No changes to the standard workflows are planned, since they have already been adopted by the City from past projects. The Standard Workflows will be provided in same format provided from the previous project.
- New Microsoft Visio diagrams will be created for unique workflows where custom fields are required. New Visio diagrams will be created using Microsoft Visio and will be provided in both

PDF and Visio formats; the Technical Memorandum will be a Microsoft Word document with embedded Visio diagrams

- All City divisions implementing the asset management solution during this project will participate simultaneously the business process workshops and all divisions will have, as much as is reasonable, the same business process workflows

City Responsibilities

- Secure an appropriate meeting facility suitable for participants,
- Schedule and accommodate the appropriate City project participants such that they are available, without undue interruption, for the required number of days.

Task 2.4: Migration Analysis (Wastewater)

Woolpert will facilitate a migration analysis review of Ronald Wastewater District's legacy data. The City will provide the data in Microsoft Excel or CSV format along with a data dictionary for each field that describes the purpose of each field and if the field needs to be migrated (yes or no). Woolpert is happy to discuss the format of the data dictionary prior to the City providing one, if the data dictionary does not exist at this time. Woolpert will facilitate an on-site workshop to review the data with the City. Following the on-site workshop, Woolpert will develop a Scope of Services, fee and schedule to perform the data migration, assuming after the on-site workshop discussions the City desires to proceed with a data migration.

Related Sub-Tasks

2.4	Migration Analysis (Wastewater)	N/A
2.4.1	Provide Sample Data for Review - CLIENT-OWNED TASK	N/A
2.4.2	Review Sample Data	off-site
2.4.3	Faciliate Workshops to Review Data	on-site
2.4.4	Develop Memorandum	off-site
2.4.5	Submit to Client	off-site
2.4.6	Client Review	N/A
2.4.7	Receive Feedback	off-site
2.4.8	Update Memorandum	off-site

Deliverables

- A Woolpert Project Manager and Senior Systems Analyst will facilitate an on-site Migration Analysis Workshops for up to one day (1)
- Woolpert will develop a Scope of Services, fee and schedule to perform the data migration

Assumptions

- All activities, other than the actual workshops will be performed remotely.
- All workshop activities will be performed on-site.
- The City Project Manager will ensure site readiness and staff participation for the workshops
- Only legacy work order history is planned to be reviewed.

City Responsibilities

- Secure an appropriate meeting facility suitable for participants,
- Schedule and accommodate the appropriate City project participants such that they are available, without undue interruption, for the required number of days.

Task 2.5: Provide Geodatabase Design Support (Wastewater)

Based on all prior workshops and tasks, Woolpert will review the Wastewater geodatabase schema and developed a Technical Memorandum document with our recommendations for modifications to the schema to support the Enterprise Asset Management Implementation requirements.

Related Sub-Tasks

2.5	Provide Geodatabase Design Support (Wastewater)	N/A
2.5.1	Client PM Provide Geodatabse - CLIENT OWNED TASK	N/A
2.5.2	Geodatabase Review	off-site
2.5.3	Develop Recommendations	off-site
2.5.4	Submit Recommendations	off-site

Deliverables

- A Woolpert Senior Systems Analyst will review the Wastewater geodatabase schema and provide recommendations for schema changes in a Technical Memorandum in Microsoft Word format.

Assumptions

- All activities, other than the actual workshops will be performed remotely.
- All workshop activities will be performed on-site.
- The City Project Manager will ensure site readiness and staff participation for the workshops
- Only legacy work order history is planned to be reviewed.

City Responsibilities

- Secure an appropriate meeting facility suitable for participants,
- Schedule and accommodate the appropriate City project participants such that they are available, without undue interruption, for the required number of days.

Task 2.6: Phase 2 Quality Control

Woolpert technical resources not regularly involved with this implementation will perform independent quality review of the work processes and deliverable products in accordance with the Woolpert Total Quality Plan.

Task 2.7: Phase 2 Acceptance and Close

This is the Phase exit document that the City Project Manager signs indicating Woolpert has delivered the Phase 1 services in accordance with the Scope of Work and Project Plan. Phases 2 and 3 of this scope, which are executed concurrently, will not begin until Phase 1 has been approved by the City.

Phase 3 – System Design and Configuration

Using the "road map" developed in Phase 2 as our guide the Woolpert project team will lead the City Implementation Team through the AMS software configuration tasks. Together, the teams will design the configuration to meet the needs of the implementing divisions. The end result of the Phase 3 activities will be a fully-configured Cityworks AMS solution deployed to City's development environment that is ready to undergo User Acceptance Testing.

In the Planning Phase, the AMS Business Process Workflows document set the baseline workflow configuration for Service Requests, Work Orders and Inspections. In the Design and Configuration Phase, Woolpert will facilitate workshops to design the specifics of each Service Request, Work Order, and Inspection template. Woolpert will initiate the configuration activities by developing a master Configuration Document. The document will be reviewed with the City Implementation Team for the purpose of gaining a level of familiarity with the various aspects of the system components that will need to be configured (service requests, work orders, inspections, job plans, work crews, default schedule dates, etc.). Then, Woolpert will deliver a Configuration Training workshop so that the City Implementation Team can understand the types of decisions they will be asked to make and to show them how the Configuration Document relates to the actual system configuration. A key take-away from the Configuration Training task is that the City Implementation Team will know what information they will be asked for during the Configuration Workshops, allowing them to better prepare for the initial workshop.

Key Core System Design and Configuration (Phase 3) Deliverables

- **Core Cityworks AMS System Configuration Documentation**
- **Cityworks AMS System Configuration Training**
- **Core Cityworks AMS and Storeroom System Configuration in the Development Environment**
- **Core Cityworks AMS System Full-Scale Demonstrations**

Following the Cityworks AMS Configuration Training, the Woolpert team will facilitate a series of onsite configuration workshops, whereby the Cityworks AMS software solution will be iteratively configured and loaded with the data provided by the City Implementation Team. One of the key benefits of this approach is the **organic knowledge transfer** that occurs between the Woolpert and City team members. Woolpert conducts the first round of configuration workshops to gather specific information pertaining to types of service requests, activities performed against assets by the City's employees for both work orders and inspections, and information pertaining to reporting. **Round 1 workshops are intended to collect a lot of information and a fair, but not comprehensive, amount of detail.** The focus of these workshops is to collect a list of all the Service Request, Work Order and Inspection templates that need to be created. Details about each template will be collected if they are readily available, but the intent of Round 1 is to focus on quantity of configuration items, but not details. After the Round 1 workshops are complete, Woolpert will remotely add the discovered information to the Configuration Document and configure the Cityworks AMS software in preparation for the Round 2 workshops. The second round of configuration workshops explores the recently configured Cityworks AMS software with the City Implementation Team.

By configuring all of the information collected in Round 1 and loading all of the data provided by the Implementation Team, **Round 2 workshops center on collecting the missing details and polishing the previous templates.** At the conclusion of Round 2 workshops, Woolpert expects to have all of the information necessary to configure the user interface and nearly all of the information to configure the details of the each Service Request, Work Order and inspection template, such as Service Request questions and answers, repetitive work order job plans and tasks, Inspection points and, where appropriate, response values for each inspection point. Again, Woolpert will work remotely to configure the system per the decisions made in the workshops, load the new data provided by the City, and update the system configuration document. A third round of configurations workshops will review the configuration changes made as a result of the Round 2 workshops

Every one of our Cityworks implementation projects has a defined **quality management** plan. For this phase, a Senior System Analyst who is not involved in the onsite workshops is assigned to perform a peer review of the Design and Configuration deliverables. We stage an internal mock demonstration to the peer reviewer. That person prepares for the mock demonstration by reviewing the Configuration Document. They then sit through the mock demonstration and ask specific configuration and process questions of the project analysts. Along with ensuring that the look and feel of the deliverables are up to Woolpert standards, any gaps in the configuration or documentation are addressed prior to delivery of the Configuration to the City for acceptance. This task not only ensures that our deliverables are of a high quality, but also allows our analysts to practice their presentation, making the onsite system demonstrations to the future end users more polished.

Once all of the configuration activities have been completed, Woolpert will facilitate a series of off-site system demonstrations. These demonstrations are similar to those at the end of the previous phase. They are for the entire future end-user community and are intended to "show-off" the work performed during the Design and Configuration phase. Woolpert will perform essentially the same demonstrations, but this one will be with actual City configuration and data. Again, one of the main goals of this demonstration is to manage the organizational **change readiness** for the upcoming system change. By identifying where groups or individuals are hesitant to the new system, the City has the ability to proactively address their concerns and prepare them for the upcoming change. Beyond change readiness, this demonstrations starts to build momentum within the organization, particularly among those excited to start using the new system.

Task 3.1: Prepare Configuration Document

Woolpert will compile the asset management program data gathered and documented through the multiple on-site workshops and other related project meetings completed project-to-date (Kick-Off Meeting, Visioning Workshops, Software Demonstrations, Business Process Workflow Development, etc.) and distill this information into an organized configuration document. The configuration documentation, consisting of standard Cityworks AMS system elements, as well as the customized details required to support the City's specific asset management program, will be used to guide the configuration of the Cityworks AMS system such that it is localized to the City's specific work tracking and asset management requirements.

Related Sub-Tasks

3.1 Prepare Configuration Documentation

Deliverables

- Woolpert will develop a Cityworks AMS configuration document

Assumptions

- All tasks will be performed remotely

City Responsibilities

- None.
- Participate in the remote review meeting

Task 3.2: Core Cityworks AMS Solution

Woolpert will facilitate the Core Cityworks AMS Software Configuration for each division through a series of three (3) rounds of onsite configuration workshops. Each round of workshops will allow each of the configuration groups to define their system requirements such that the Woolpert implementation team can configure the Cityworks solution to their needs. Also during this task, the City Implementation Team members will collect or develop, and deliver to Woolpert, data that be loaded into the Cityworks solution. Each round of workshops will be followed by Woolpert building the Cityworks Development environment by loading the supplied information and performing the necessary configuration to transform the out-of-the-box Cityworks solution to one that meets the needs of the implementing groups. Each successive round of workshops will address the following topics at increasing level of detail:

Cityworks is a complex and powerful software product. But too often, it is implemented in a less than optimal manner and as a result does not deliver the desired results. Our three-round configuration process is a critical factor in capturing user requirements and refining workflows before testing begins. Not all implementation firms use this approach, but our long history shows that the extra time spent at this stage helps make the remainder of the project much smoother.

- **Domains**. This is the security architecture that determines how employees, work orders and other asset maintenance management information can be shared across organization-al boundaries.
- **Employee Hierarchy**. Determines security protocols for each user of the system as well as practical grouping of employees for assignments to work orders, inspections, and service requests (e.g. crews).
- **Work Orders**. Templates for each of the type of maintenance activities that will be per-formed on each asset in the system
- **Tasks**. Individual work items associated with a work order. For example, a repair sewer main work order might have tasks for establish traffic control, utility locate, excavate, etc.
- **Materials Hierarchy**. Organization and rules for items that are used to repair assets. Examples of materials are things such as pipes and meters.

- **Equipment Hierarchy**. Organization and rules for items that are utilized to complete a work order but are not consumed. Examples are items such as backhoes, vehicles, vacuum trucks, etc.
- **Service Requests**. Templates for requests for service. Many times maintenance activities are initiated starting with a service request whose purpose is to determine if a work is necessary or not.
- **Inspections**. Templates for each type of periodic and ad-hoc asset inspection where detailed attributes need to be stored as individual data elements.
- **Reporting**. Current or future expected reports will be discussed and designed.
- **Projects**. Projects to be managed within the AMS software

At the end of the each round of workshops, there will be a set of action items for the City Implementation Team members, such as compiling lists of employees, work crews, and contractors, as well as hard copies of work orders, reports, inspection forms, and other relevant data sets. Woolpert will prepare a detailed list of action items and submit them to the City Project Manager. After each round of workshops, Woolpert will work remotely to update the Configuration Document with the decisions made during the workshops and perform the necessary system configuration such that solution meets the defined requirements. Woolpert will conduct a number of WebEx-style remote meetings, as necessary, to obtain follow-up information and provide clarity to City staff, as necessary, on their assignments.

After each set of workshops, Woolpert will facilitate a WebEx demonstration of the system for the purpose of showing the City Implementation Team members how to execute simple tasks within the configured solution. The City Implementation Team members are expected to then, on their own, create Service Request, Work Order and Inspection records in the system. They are expected to process them through various Statuses, assign labor, issues materials, charge equipment and populate the various fields on the records. This City task is intended to ensure that the City Implementation Team is putting their hands on the system, that they are making an effort to learn how the system functions and understand the configuration. It is critical that the City Implementation Team members work in the Cityworks solution after each of the three rounds of workshops. This task is part of the knowledge transfer process. It makes the Implementation Team members more prepared for each subsequent set of workshops. It increases their familiarity and comfort with the system. And it will make the Deployment Phase more successful in that they will be more competent testers, able to facilitate training classes in conjunction with Woolpert analysts, and more prepared as front line support to the end users once the system is live.

Related Sub-Tasks

3.2	**Hold Configuration Meetings**	**N/A**
3.2.1	Hold Configuration Meetings (Round 1)	N/A
3.2.1.1	Hold Workshops (on-site) - (Prep / 2-days / Daily meeting notes) Round 1	on-site
3.2.1.2	Configuration and Documentation	off-site
3.2.1.3	Demonstrate Configuration	off-site
3.2.1.4	**Client Review - CLIENT-OWNED TASK**	**N/A**
3.2.2	Hold Configuration Meetings (Round 2)	N/A
3.2.2.1	Hold Workshops (on-site) - (Prep / 2-days / Daily meeting notes) Round 2	on-site
3.2.2.2	Configuration and Documentation	off-site
3.2.2.3	Demonstrate Configuration	off-site
3.2.2.4	**Client Review - CLIENT-OWNED TASK**	**N/A**
3.2.3	Hold Configuration Meetings (Round 3)	N/A
3.2.3.1	Hold Workshops (on-site) - (Prep / 2-days / Daily meeting notes) Round 2	on-site

3.2.3.2	Configuration and Documentation	off-site
3.2.3.3	Demonstrate Configuration	off-site
3.2.3.4	**Client Review - CLIENT-OWNED TASK**	**N/A**

Deliverables

- Round 1 Workshop Deliverables:
  - Woolpert will facilitate Round 1 workshops as follows:
    - Parks and Recreation – one (1) day
    - Wastewater – one (1) day

    NOTE: Each workshop will be attended by two Woolpert staff; one to lead discussions and one to documents configuration and other decisions. Workshop time can be reallocated between the implementation groups, however, the total amount of workshop time for Round 1 workshops will not exceed sixteen (16) hours.
  - Woolpert will perform up to one (1) follow-up remote meetings via WebEx for the Round 1 Workshops. Each meeting will be no longer than two (2) hours.
  - Woolpert will update the configuration documentation based on the outcome of the Round 1 configuration workshops
  - Woolpert will perform system configuration in the City on-premise development environment based on the outcome of the Round 1 workshops
- Round 2 Workshop Deliverables:
  - Woolpert will facilitate Round 2 workshops as follows:
    - Parks and Recreation – one (1) day
    - Wastewater – one (1) day

    NOTE: Each workshop will be attended by two Woolpert staff; one to lead discussions and one to documents configuration and other decisions. Workshop time can be reallocated between the implementation groups, however, the total amount of workshop time for Round 2 workshops will not exceed sixteen (16) hours.
  - Woolpert will perform up to one (1) follow-up remote meetings via WebEx for the Round 2 Workshops. Each meeting will be no longer than two (2) hours.
  - Woolpert will update the configuration documentation based on the outcome of the Round 2 configuration workshops
  - Woolpert will perform system configuration in the City on-premise development environment based on the outcome of the Round 2 workshops
- Round 3 Workshop Deliverables:
  - Woolpert will facilitate Round 2 workshops as follows:
    - Parks and Recreation – one (1) day
    - Wastewater – one (1) day

    NOTE: Each workshop will be attended by two Woolpert staff; one to lead discussions and one to documents configuration and other decisions. Workshop time can be reallocated between the implementation groups, however, the total amount of workshop time for Round 2 workshops will not exceed sixteen (16) hours.
  - Woolpert will perform up to one (1) follow-up remote meetings via WebEx for the Round 3 Workshops. Each meeting will be no longer than two (2) hours.

- Woolpert will update the configuration documentation based on the outcome of the Round 3 configuration workshops
- Woolpert will perform system configuration in the City on-premise development environment based on the outcome of the Round 3 workshops

Assumptions

- All work aside from the actual workshops will be performed remotely
- All Round 1, 2 and 3 workshops will take place over the course of two (2) business days (Monday – Friday)
- Actual workshops will be administered onsite at City facilities
- City staff participating in the Configuration workshops will do so uninterrupted
- The geodatabase design for the participating divisions will be complete and populated with at least 50% of the expected total number of asset records before the starting of Round 1 of the Cityworks configuration workshops. Existing asset records will be accurate and complete. This information is essential for Woolpert to configure Cityworks in a timely manner.
- A map service and geocoding service will be available for Woolpert to consume specific to the AMS divisions

City Responsibilities

- City to schedule the appropriate City project team members such that they are available, without undue interruption, for the required number of days
- City will provide a conference room or training room with a projector. During Configuration Training, individual computers are not needed for the participants. The software functionality will be demonstrated from the instructor's computer.
- Workshop participants shall actively participate in workshop activities
- Workshop participants shall participate in the remote review meetings, as requested
- City Technical Team will provide Woolpert a map service and geocoding service for Woolpert to consume, specific to the AMS divisions
- City Implementation Team Members will create and process Cityworks Service Request, Work Order and Inspection records after each round of workshops

Task 3.3: Develop Reports CLIENT-OWNED TASK

Woolpert is not providing any deliverables for this task.

Task 3.4: Provide Cityworks AMS Software Demonstrations

After completion of the core AMS software configuration and approval of the updated configuration documentation, Woolpert will provide a series of onsite full AMS software demonstrations to the entire future user community and project stakeholders for the configured groups. Woolpert will provide up to a half (1/2) day of demonstrations on the final, approved configuration. Similar to the demonstrations in Implementation Planning phase, this task provides an opportunity for the City to assess the readiness of their staff. Should any apprehension or reluctance to adopt the new system become apparent, the City still has time to address those concerns and maximize staff readiness prior to Go-Live.

This task doubles as an opportunity for the City to evaluate the readiness of their workforce. Staff apprehension early in the project can be re-evaluated. New and continuing concerns can be at this point in the project as there is still time to ready the organization prior to Go-Live.

Related Sub-Tasks

3.4	Provide Cityworks AMS Software Demonstrations	off-site

Deliverables

- Woolpert will provide agendas for the onsite demonstrations
- Woolpert will provide up to a half-day (1/2) off-site of Cityworks AMS System solution demonstrations.

Assumptions

- All demonstration preparation activities will be performed remotely
- City staff participating in the demonstrations will do so un-interrupted

City Responsibilities

- Secure an appropriate workshop facility
- Coordinate and schedule demonstration participants
- Coordinate and schedule a configuration wrap-up meeting

Task 3.5: Phase 3 Quality Control

Woolpert technical resources, not regularly involved with this implementation will perform independent quality review of the work processes and deliverable products in accordance with the Woolpert Total Quality Plan.

Task 3.6: Phase 3 Acceptance and Close

This is the Phase exit document that the City Project Manager signs indicating Woolpert has delivered the Phase 3 services in accordance with the Scope of Work and Project Plan. Phase 4 will be executed concurrently with Phase 3, but Phase 4 will not commence until all Phase 3 tasks and deliverables have been accepted by City.

Phase 4 – System Deployment

Once the Cityworks solution has been configured and the advanced functionality items deployed, there are still a number of critical tasks that must be completed before the solution is placed into a production environment. Woolpert will lead the City Implementation team through a series of related deployment tasks that will ensure a fully tested and accepted solution, as well as a City team of fully trained system administrators and end users are ready to put the system to use on a daily basis.

Woolpert recognizes that there will be up to 25 users between the Divisions part of this project in the system once it is fully utilized by all planned users.

The City will develop a thorough Testing and Acceptance Plan for all aspects of the new system. The test plan is designed to step the testers through the configured solution and ensure the configurations is accurate and functions as designed and that the system supports all of the technical and functional requirements that the system was configured to support. The Test Plan will be submitted to Woolpert for review and acceptance.

Following acceptance of the test plan, the City will execute, and Woolpert will facilitate, User Acceptance Testing. Woolpert will facilitate an onsite Tester Training class for the City testing groups. The purpose of the Tester Training classes is to instruct those City testing participants on how to execute the test scripts in the system and record the results. Note that the testers will be shown how to use Cityworks, but this is not a replacement for the thorough end user training that will occur once the solution passes User Acceptance Testing.

Through project experience, Woolpert has discovered that onsite assistance during testing is not only more efficient with respect to time, but it also pushes the testers to truly test the system. Another reason onsite testing support is beneficial is that what some testers may deem a testing error may in fact be a tester issue. Having Woolpert on-site to assist in testing helps negate these possibilities.

Key Enterprise System Deployment (Phase 4) Deliverables

- **Testing Document**
- **User Acceptance Testing**
- **End User Training**
- **Go-Live Support**

Immediately upon completion of this training, the City's testing team will begin to execute the User Acceptance Testing program in accordance with the Test Plan. Woolpert will work onsite with each of the tester groups to facilitate testing. Though Woolpert has allocated what we believe to be ample time to complete the testing for each group while we are onsite to support it, occasionally testing extends beyond the onsite support period. As such, Woolpert will remotely support testing activities that extend beyond the onsite support period. Woolpert will address many issues while onsite and correct them so they can be immediately retested. Woolpert will work remotely to correct other issues and perform a remote meeting via WebEx to demonstrate how the failed scenarios now successfully pass the tests.

Once the system testing has been completed and the production-worthy system has been accepted, Woolpert will then deliver the required end-user training. This training will be scheduled and delivered "just in time", immediately prior to the Go-Live activities to ensure system administrators and end users are prepared to adopt and embrace the new technology solution right out of the gate. Woolpert

recommends that the City perform a single Go-Live where all users will be put into the production environment at the same time.

Prior to the initial Go-Live, Woolpert will assist the City system administrators in migrating the fully configured database from the Development / Testing environment to a live Production environment and provide on-site go-live support.

Task 4.1: Develop Test Plan CLIENT-OWNED TASK

The focus of system testing efforts is to thoroughly test the newly installed / configured Cityworks AMS solution and ensure all delivered functionality (application workflows, templates, reports, legacy data) are functioning properly.

The City will take the lead on developing a Testing and Acceptance Plan. The Plan will derive its focus from the previously prepared AMS System Configuration documents. Functional metrics that the Enterprise System configuration must successfully achieve prior to being promoted to the City's production environment will be defined. Additionally, test scenarios designed to step testers through the User Acceptance Testing (UAT) process will be developed as part of this plan. Final plan contents will be scenario based scripts that will allow users to test real situations utilizing the software. The test plan will address the Cityworks System functionality and reporting that is specified and configured per the Project Plan.

Related Sub-Tasks

4.1	Develop Test Plan - CLIENT-OWNED TASK	N/A
4.2	User Acceptance Testing - CLIENT-OWNED TASK	N/A

Deliverables

- City will prepare and deliver the DRAFT Testing and Acceptance Plan to Woolpert.
- Woolpert will facilitate a remote review meetings with the City Testing Team for up to four (4) hours in duration
- The City will update the Testing and Acceptance Plan per the results of the review meeting and re-submit to Woolpert

Assumptions

- The Testing and Acceptance Plan will be developed per common agreement between the City and Woolpert.

City Responsibilities

- City's Project Manager and members of the testing team must thoroughly review and understand the Testing and Acceptance Plan.
- City's Project Manager and members of the testing team must participate in the remote reviews of the UAT plans
- City's Project Manager and members of the testing team must provide feedback on, and ultimately accept, the UAT Plans

Task 4.2: User Acceptance Testing (UAT) – CLIENT-OWNED TASK

It will be the responsibility of the City to select a number of implementation team members, future end-users and application support staff who will execute the testing of the newly configured Cityworks solution. In order to effectively test the system in accordance with the UAT Plans, training will be provided to these end-users. The training will consist of half-day (1/2) day and all testing groups will attend. The training will include the following:

- Course 1 – Testing Administration ..... 1 hours
- Course 2 – Work Management ..... 3 hours

During the Testing Administration course, Woolpert will instruct the testers how to read the test scripts, how to record a successful test scenario as Pass or Fail, what to do when they think they find an error, and the information they must record to ensure that the error can be recreated.

During the Work Management course, Woolpert will instruct the testers how to create and process, per the test scripts, Service Requests, Work Orders and Inspections. This instruction will not include the additional context that end users receive during training, only enough direction to complete the testing tasks.

Once all testers have been trained, the City testing groups will, one-by-one, execute the UAT test scenarios defined within the plan in the Cityworks Testing environment. Woolpert proposes that each group execute testing under the guidance of a Woolpert Analyst. A majority of the required corrections will be completed while Woolpert is onsite with the City testing team can retest immediately. Failed test scenarios that require additional time to correct will be completed remotely and demonstrated as corrected in a WebEx follow-up to the onsite testing task.

All test scenarios will be marked as either “pass” or “fail” with appropriate notes and screen shots provided to Woolpert for resolution. Testing and related configuration updates will continue until acceptable performance is achieved as defined within the UAT Plan.

Related Sub-Tasks

4.2	User Acceptance Testing - CLIENT-OWNED TASK	N/A
4.2.1	Support UAT	on-site
4.2.2	Update Application and Database Configuration per UAT Results	off-site
4.2.3	Update Final Configuration Documentation per UAT Results	off-site

Deliverables

- Woolpert’s Project Manager will provide agendas for each Tester Training course and deliver one-half (1/2) day of onsite Tester Training
- Woolpert will provide one (1) analyst resources to perform one-half (1/2) day of tester training
- Woolpert will provide one (1) analyst resources for up to forty hours to facilitate and support onsite testing to the following testing groups:
  - Parks and Recreation
  - Wastewater
- Woolpert will make the necessary updates to the Cityworks AMS Configuration and Cityworks AMS Configuration Documents.

Assumptions

- All Tester Training and onsite Testing Support will occur over one consecutive business week (Monday – Friday)
- The City understands that failure to properly prepare the training site and ensuring adequate available training resources will result in the Woolpert – City training team being unable to provide the required training to the City testers.
- The City understands that failure to properly prepare for and participate in the training sessions will significantly impact the City testing team's ability to effectively make use of the configured System application.
- City UAT efforts will remain focused on the scripts and criteria defined in the UAT Plan
- City will ensure the key team members are available to support the testing updates that require additional time will be performed remotely followed by a WebEx demonstration by Woolpert to provide the City confirmation of the fix

City Responsibilities

- Distribute training materials to the City testing team prior to the scheduled training sessions.
- Ensure training room is prepared in advance.
- Secure an appropriate training facility suitable for participants,
- Schedule and accommodate the appropriate City testing team members such that they are available, without undue interruption, for the required number of days.

Task 4.3: Pause Project and City Continues to "Play" with Cityworks During Holidays CLIENT-OWNED TASK

Based on the project start date, this project may not be able to be completed before December 2016. As a result of the holidays, it is difficult to conduct training and Go-Live activities in the month of December, so the project may be put on hold in December. If this occurs, during this time, Woolpert will not any resources allocated to the project.

Task 4.4: Provide End-User Training (EUT)

Completion of the training efforts will result in City system administrators and end-users being provided the system knowledge and capabilities necessary to use (end-users) the configured AM System in an effective manner such that the City's over-arching business objectives can be met through use of the newly configured system. Prior to the training, Woolpert will prepare a training syllabus detailing each topic to be covered. The syllabus will be the same for similar classes in each track, but the Woolpert trainer will use examples specific to the group being trained so that the content is more familiar to the trainees.

Woolpert proposes that all City system users be trained during the two weeks immediately prior to go-live. In order to accomplish training effectively, Woolpert proposes one Woolpert analysts provide the classroom training assisted by at least one City implementation team member. A two-person training team can effectively train up to twenty (25) trainees. Or, if desired by the City, the training classes can be split into smaller groups and training concurrently, provided the City has a second training room available. In this instance, each smaller classes will be led by one Woolpert analyst and assisted by a City implementation team member.

Each class will be facilitated on-site at the City's identified training facility.

Related Sub-Tasks

4.4	**Provide End-User Training (EUT)**	**N/A**
4.4.1	Prepare Training Materials	off-site
4.4.2	**Prepare Client Site for Training - CLIENT-OWNED TASK**	**N/A**
4.4.3	Deliver General Training (on-site)	on-site

Deliverables

- Woolpert will update our standard Training Manual to the version the City is current using
- Woolpert will provide one (1) analyst resources for up to thirty-two (32) hours for onsite End User Training.

Assumptions

- Training will occur over two consecutive business weeks (Monday – Friday)
- A member of the implementation team will support each Woolpert-led class by auditing the users during training and ensuring that those struggling to keep up are given extra support so as not to disrupt the entire class
- The City has an adequate training facility that can accommodate the number of staff to be trained in the classes identified within this scope of services
- It is expected the City implementation members participating training end users will provide training for the unique business processes identified and documented in Task 2.3

City Responsibilities

- Secure an appropriate training facility
- Coordinate and schedule training participants
- Training participants shall actively participate in training activities

Task 4.5: Provide Go-Live Support

Immediately following End User Training, Woolpert will provide on-site Go-Live support in order to assist with the successful use of the new Cityworks solution in a production environment. During this time, one Woolpert analyst resource will be onsite to support City end-users and system administrators as they encounter the typical issues associated with any Go-Live. As the issues subside, Woolpert will work with individuals, typically system administrators and heavy users who want to get more out of their new solution, to provide additional coaching and supplemental training services, on an as-needed and as-available basis. Go-Live week is also a time where known tasks that were put off during the project can be executed to 'catch the system up'. For example, if additional employees, materials or equipment were identified after the cutoff point for new data, the System Administrator would load these items during the Go-Live week so that, if they were to run into issues, the onsite Woolpert resource could provide immediate assistance.

In preparation for Go-Live, Woolpert will migrate the configured and approved Cityworks System database from the Development environment to the Production environment, load any cutover sensitive data and port the system integration components to the production environment.

Related Sub-Tasks

4.5	Conduct GO-LIVE	N/A
4.5.1	Prepare for Go-Live	off-site
4.5.2	Go-Live Support	on-site

Deliverables

- Woolpert will migrate Cityworks Development to Production environment
- One (1) Woolpert analyst resource will be provided onsite for up to thirty-two (32) hours to support the Go-Live activities

Assumptions

- The City will sign-off and accept the end user training prior to the go-live cutover tasks and onsite end user and system administrator support efforts
- The City's Project Manager will provide project sign-off within agreed upon timeframe following Go-Live.
- The City will include current Cityworks Power Users to support Go-Live week to ensure there is enough coverage / support

City Responsibilities

- The City's Project Manager and IT support staff should equally assist in administering the Go-Live tasks to make sure it is clear to the End-Users that the City is internally capable of supporting the newly deployed Enterprise solution. The City system administrators and IT support staff will benefit from learning basic Cityworks troubleshooting routines during this time.

Task 4.6: Phase 5 Quality Control

Woolpert technical resources, not regularly involved with this implementation will perform independent quality review of the work processes and deliverable products in accordance with the Woolpert Total Quality Plan.

Task 4.7: Project Acceptance and Close

This is the Project exit document that the City Project Manager signs indicating Woolpert has delivered Phases 2 through 4 services in accordance with the Scope of Work and Project Plan.

Schedule and Fee

Schedule

The City will provide notice-to-proceed (NTP) no later than June 21, 2016. Assuming NTP occurs on or before this date, the Go-Live date is planned to be November 7, 2016. A more detailed project schedule is available upon request and will be mutually agreed to between Woolpert and the City prior to the project kickoff.

Fee

This is a fixed-fee project that is all-inclusive of labor and expenses. Woolpert will invoice on a monthly basis based on percent complete.

Phase	Cost
PHASE 1 | Project Management	$ 21,383
PHASE 2 | IMPLEMENTATIONS PLANNING	$ 22,376
PHASE 3 | SYSTEM DESIGN AND CONFIGURATION	$ 45,700
PHASE 4 | SYSTEM DEPLOYMENT	$ 23,040
Quality Assurance and Quality Control	$ 1,257
Expenses	$ 29,145
Total	$ 142,901