ORD. 2555-2012

# Proposal to City of Columbus, Ohio
# Department of Public Utilities
# For
# Software and Implementation Services for the Integration of the DPU's ArcGIS Server GIS Dashboard and Oracle WAM System

**Response to Request for Proposal**
**Solicitation Number: SA004353**

REVISED OCT. 18, 2012

**Prepared by**
**GeoNexus Technologies, LLC.**
**CCCN 271138304**


**CITY OF COLUMBUS**

Public Utilities Directors Office
910 Dublin Road
4th Floor
Columbus, OH 43215

**GEONEXUS TECHNOLOGIES CONTACT**

Skip Heise
3135 South State Street, Suite 350
Ann Arbor, Michigan 48108
734-660-4565
sheise@geo-nexus.com


Proposal Due Date: Friday, May 18th, 2012 by 4:00pm.

## COVER LETTER

May 18, 2012

Public Utilities Directors Office
910 Dublin Rd
4th Floor
Columbus, OH 43215

GeoNexus Technologies, LLC has prepared the attached proposal in response to the RFP Solicitation Number: SA004353 issued by the City of Columbus, Department of Public Utilities (DPU) for software and implementation services related to the integration of DPU's GIS Dashboard and Oracle Utilities Work and Asset Management (WAM) software. We have thoroughly reviewed the RFP and understand that DPU is requesting Commercial Off-The-Shelf (COTS) software that integrates Esri ArcGIS Server and Oracle WAM software to support the organizations' specific Operations and Maintenance activities.

GeoNexus Technologies is uniquely qualified to deliver the system to DPU because:

- We have a COTS product called Geoworks™ that integrates Esri ArcGIS and Oracle WAM.
- We are skilled in the development of rich internet applications using the latest web API's from Esri including Adobe Flex for ArcGIS Server which is the same technology used for DPU's GIS Dashboard.
- We have proven experience developing interfaces to Oracle WAM and understand the business rules, table structures, and constraints imposed by the database which will be critical for this project.
- We have over 20 years experience providing project management and technology solutions to local government and utility organizations.
- We are experienced in water and wastewater asset and work management practices having worked with over 20 municipal utilities across North America.

GeoNexus Technologies was started with this type of project in mind. Our mission is to help organizations such as the DPU optimize performance by implementing GIS and EAM technologies. I am excited about this important project and the opportunity to personally assist the DPU with a successful implementation.

GeoNexus Technologies President and CEO, Mr. William "Skip" Heise is the primary contact for the DPU and he has the authority to negotiate all aspects of services proposed and sign any contract that may result.

Sincerely,

Will a Heise

William "Skip" Heise
President and CEO

3135 South State Street
Suite 350
Ann Arbor, MI 48108
Phone: 734-660-4565
Fax: 734-332-4860
Email: sheise@geo-nexus.com

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## 1 Firm Introduction

*GeoNexus Technologies, LLC*
*3135 South State Street*
*Suite 350*
*Ann Arbor, MI 48108*
*734-660-4565*
***City of Columbus Contract Compliance Number: 271138304***

GeoNexus Technologies is a software development company focused on providing products, solutions, and services related to Enterprise Asset Management (EAM) and GIS integration and mobile technology. We offer a unique blend of services and products based on best-of-breed software from leading vendors like Oracle, IBM, and ESRI, that targets specific business needs and fills functional gaps. GeoNexus employees have experience in planning, designing, and implementing enterprise systems such as Esri ArcGIS, IBM Maximo, Oracle WAM, and Mobile applications for utilities across North America including:

- Albuquerque Bernalillo County Water Utility Authority
- AltaGas
- Charlotte Mecklenburg Utilities
- City and County of Honolulu
- City of Fort Worth Water Department
- City of Indianapolis Water (Veolia NA)
- DeKalb County
- Enbridge
- Erie County Water Authority
- Honolulu Board of Water Supply
- Ocean County Utilities Authority
- ONEOK, Inc.
- Pennichuck Water Works, Inc.
- Providence Water Supply Board
- Sacramento Area Sewer District
- Suffolk County Water Authority
- TOHO Water Authority
- Tualatin Valley Water District
- Veolia Water

GeoNexus Technologies is a State of Michigan based Limited Liability Company (LLC), with headquarters in Ann Arbor, Michigan and offices in Fort Collins, Colorado and Hudson, Wisconsin. GeoNexus Technologies is a Silver level Esri Business Partner authorized to implement and provide solutions based on the ArcGIS platform. Our staff includes Software Developers certified in Java, VB.NET, C#, and Oracle SQL; GIS Analysts with experience in all aspects of ArcGIS implementation; and Practice Consultants with experience designing asset management and GIS data maintenance processes for municipal utility organizations.

During the fall of 2009, Skip Heise, a 23 year veteran in the Geospatial and Asset Management industries established GeoNexus Technologies to continue his mission of spatially enabling Enterprise Asset Management (EAM) software. Having worked in leadership roles for companies including Esri, EMA, and Technology Associates International Corporation, and his active involvement in professional associations including Geospatial Information and Technology Association (GITA), Mr. Heise has exceptional experience in GIS and Work and Asset Management technology and its applications for solving real world business problems. His passion about the benefits that can be realized through the integration of GIS and EAM software is what led him to form GeoNexus Technologies. GeoNexus Technologies is a company focused solely on assisting organizations with the complexity of integrating GIS and EAM software. Integrating GIS and EAM software is much more complex than installing and configuring out-

of-the-box software and must include an overall asset management and geospatial database maintenance strategy. Based on our experience we have found that many organizations think they can simply purchase a vendor's product which promises GIS integration and later learn that the solution fails due to incomplete capabilities, inadequate asset or GIS database structure, or lack of well defined business processes. Our approach for each and every project we are engaged in is to make sure there is adequate representation from the organization that will be impacted by the implementation, thoroughly review and in many cases reengineer the business processes affected, and tailor the technical solution to meet the overall business needs and objectives.

GeoNexus Technologies provides licensed software products that are supported and maintained by the company. It is our experience that an organization's business needs often extend beyond the capabilities provided in Commercial-Off-The-Shelf (COTS) software packages. Our intent is to provide solutions, based on Esri and EAM software including Oracle WAM, which target specific business needs and fill functional gaps. It can be challenging for EAM vendors to maintain their GIS interfaces that rely on another vendor's technology which is constantly evolving. Given our focus and specialty in integrating ArcGIS and Oracle WAM, we can efficiently respond to technology innovation and provide solutions that support the latest platforms. GeoNexus Technologies is marketing their solutions under the name Geoworks™ to organizations with integration needs.

GeoNexus Technologies is a financially sound company with assets in excess of $1.0M. There are no long term debt obligations and we have excellent bank references. The Company or its principals have never been in bankruptcy, we have no pending litigation, planned office closures or mergers. The Company is growing fast with 6 employees and plans to add additional staff in 2012.

## 2 Software Solution

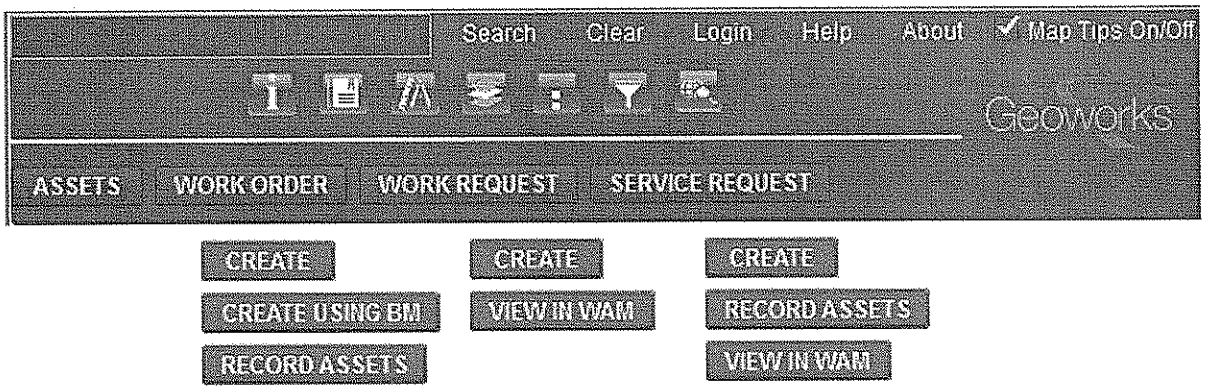
GeoNexus Technologies offers three (3) software products related to the integration of Oracle WAM and Esri ArcGIS. The three software products include:

- Geoworks WM™
- Geoworks Sync™
- Geoworks Monitor™

The City of Columbus functional requirements stated in the RFP can all be met by Geoworks WM, however we are proposing the other two products as optional items for consideration by the Department of Public Utilities (DPU). The following describes each of the three Geoworks software products.

### 2.1 Geoworks WM

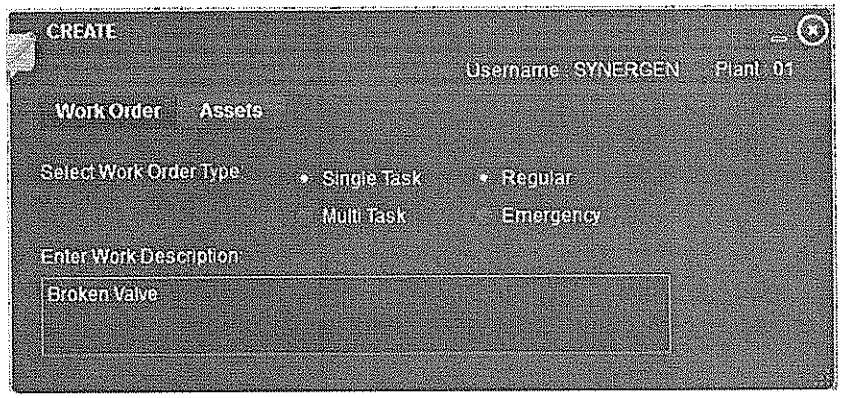
Geoworks WM (Work Manager) is software developed using the Esri ArcGIS Server Application Programming Interface (API) for Adobe Flex. Geoworks WM adds work and asset management functionality as a "Plug-In" to Esri's ArcGIS Flex Viewer. Geoworks WM is delivered as a set of prepackaged widgets and associated web services that connect the ArcGIS Flex Viewer to Oracle WAM software for advanced work and asset management capabilities such as creating and visualizing work orders, service requests, and work requests from the GIS Viewer. Geoworks WM includes the User Interface (UI) components and web services that handle the communication with Oracle WAM. Below is a screenshot of the Geoworks WM user interface.



Geoworks WM provides the following transactions in Oracle WAM:

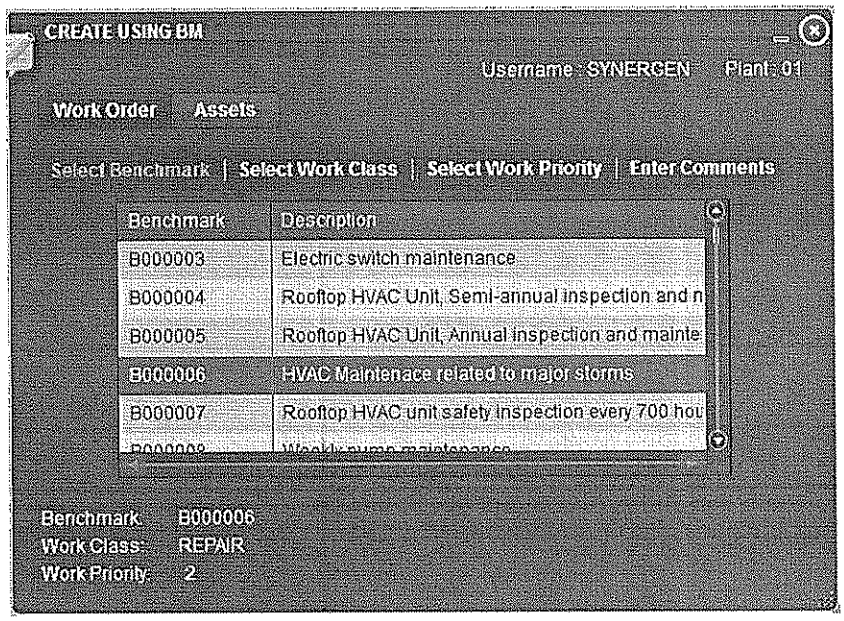
**Create WAM Work Order**

This function provides the ability to create a work order in WAM based on one or more assets selected from the GISmap. The user will have the option of creating a single task or multi task work order in WAM using the selected assets. The user will have the ability to enter a requester name and description for the work order.



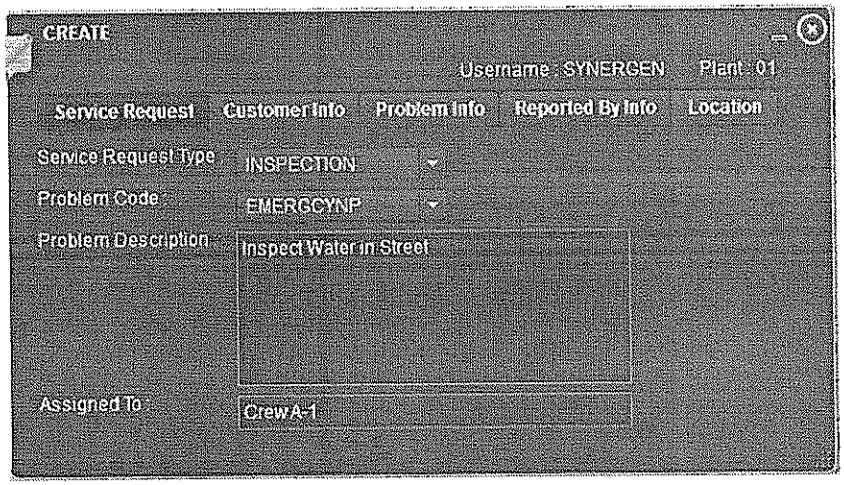

**Create WAM Work Order using Benchmark**

This function provides the ability to create a new work order using an existing benchmark work order from WAM. The user may select an existing benchmark work order and then select one or more assets from the map to include on the work order.



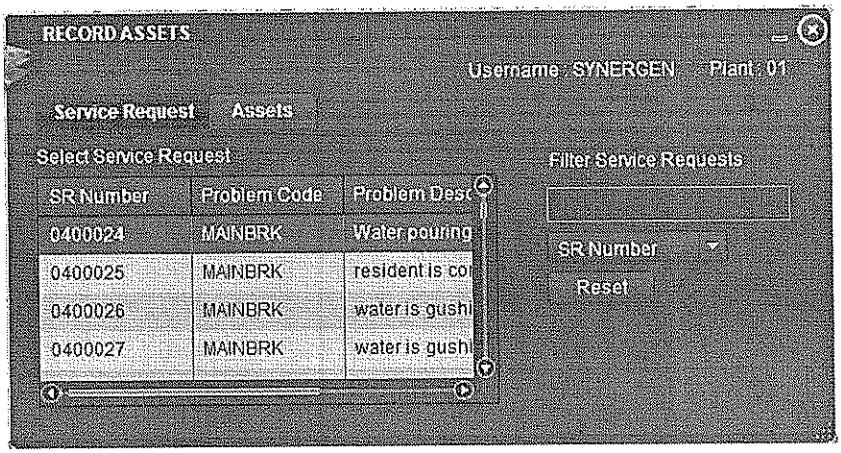
**Create WAM Service Request**

This function provides the ability to create a service request in WAM based on one or more assets selected from the GIS map. The user will have the ability to enter a requester name and description for the service request. The user will also have an option to select the service request type and problem code for the service request.



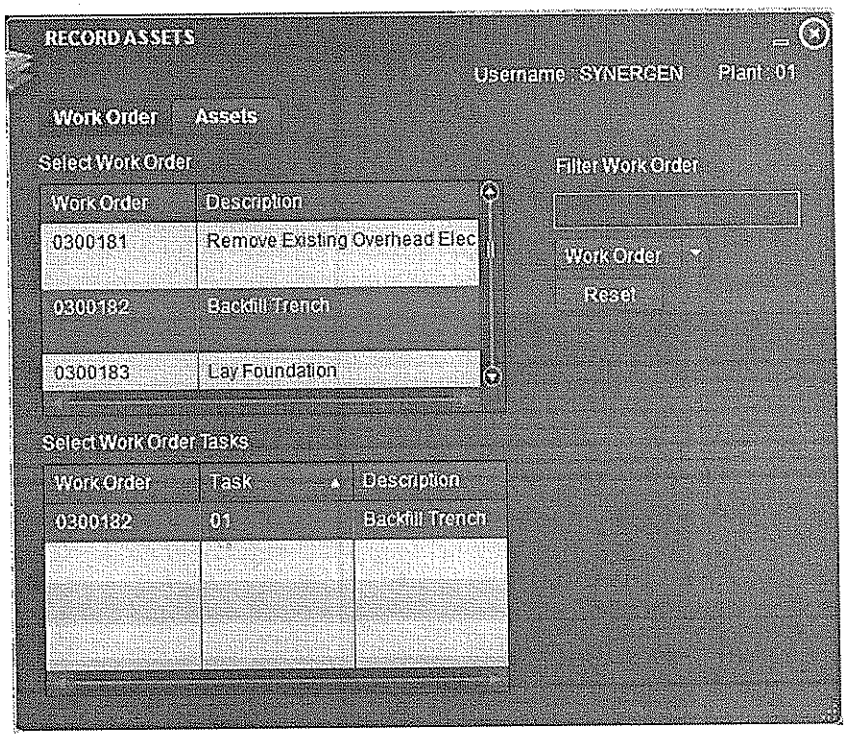

**Record Service Request**

This function provides the ability to select one or more assets from the GIS map to record to an existing Service Request in WAM.



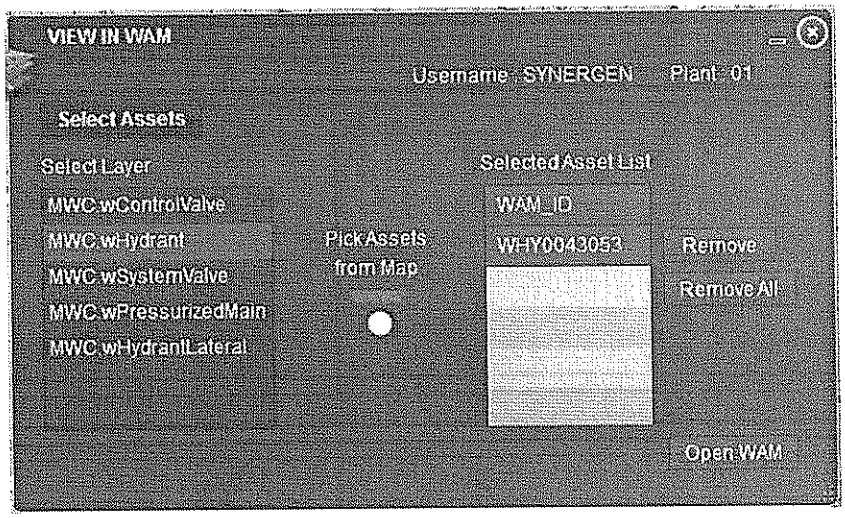
**Record Work Order**

This function provides the ability to select one or more assets from the GIS map to record on an existing Work Order in WAM.



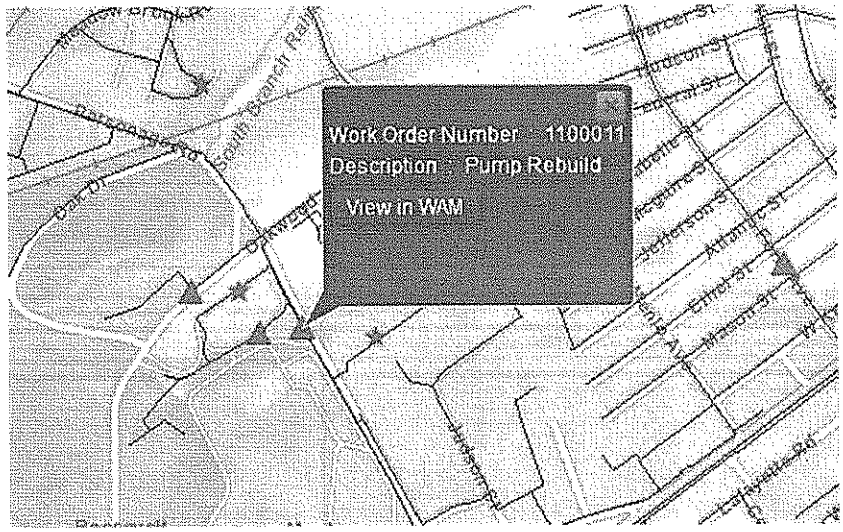

**View Selected Assets and Work in WAM**

This functionality allows the user to select features on the map and view details in Oracle WAM. GIS features represent Assets, Work Orders, Service Requests, and Work Requests in Oracle WAM.



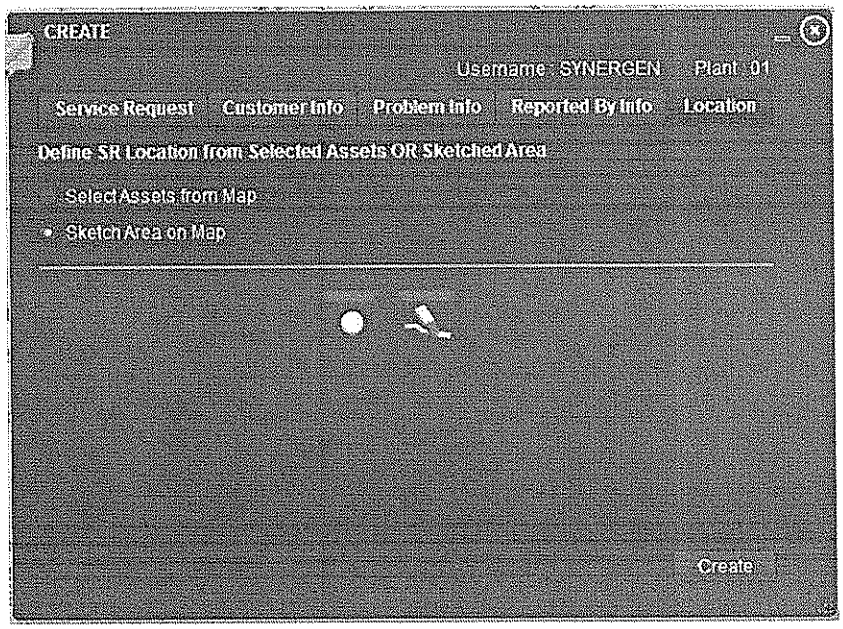
**View Work on Map**

Work Orders, Work Requests, and Service Requests can be shown on the map. The user may turn on and off the work layers using the layer visibility control in the GISviewer.



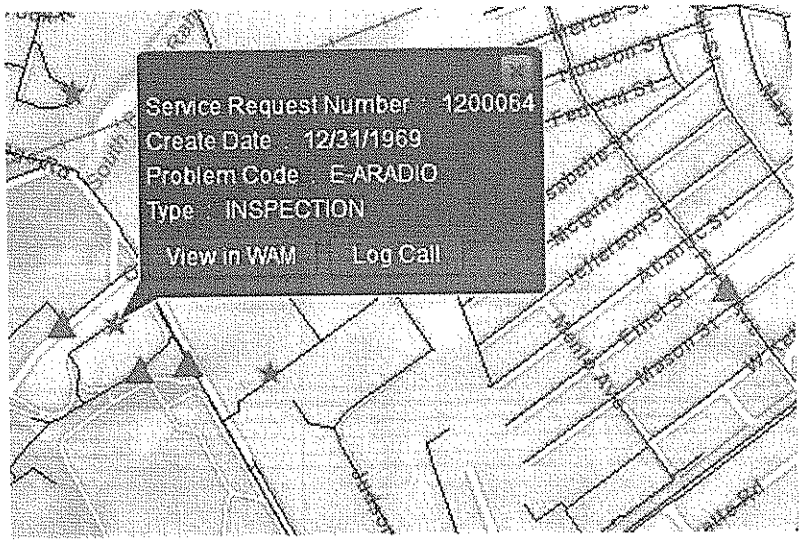

**Create Service Request Point**

The user may sketch a point on the Map to represent a Service Request location. A new Service Request is created in Oracle WAM.



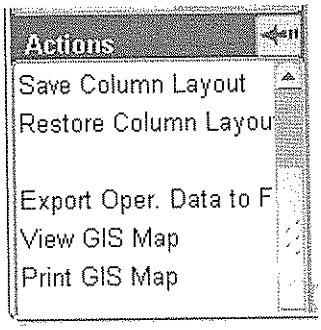
**Map Tips**

This provides the ability to hover the mouse cursor over a work order or service request displayed in the Map and view basic information such as description, priority, and status.




**Open GISMap**

Oracle WAM includes actions to open GISMap from various screens. This native functionality can open the GISViewer and zoom to the desired feature.




## 2.2 Geoworks Sync

Geoworks Sync is software developed using Esri ArcGIS ArcObjects and web services. Geoworks Sync is used to synchronize asset related data between the ESRI ArcGIS Geodatabase and the Oracle WAM database. Geoworks Sync ensures the GIS and WAM databases are synchronized providing a single consistent asset inventory as data is modified in either system.

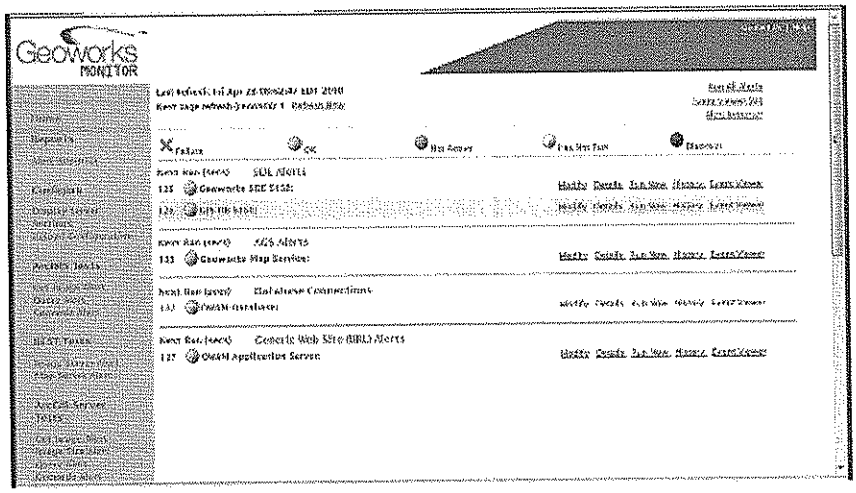
Features in GIS such as hydrants, pipes, valves, and services are associated to asset records in Oracle WAM by a common identifier (WAM_ID in GIS and ASSET_ID in WAM). Geoworks Sync uses this

relationship when synchronizing data back and forth between these two databases. Geoworks Sync has a cross reference table that governs the synchronization process. During the installation and configuration process the cross reference table is populated with information that maps attributes in GIS to corresponding specifications in WAM and business rules for synchronization direction. Geoworks Sync also has a default table that contains information about default values that are used when new assets are created in Oracle WAM from GIS. The following functions are provided in Geoworks Sync

| Function | Description |
|---|---|
| Create Asset in WAM | When a new feature is created in GIS the synchronization process will automatically create an associated asset record in Oracle WAM. The ID (WAM_ID) value entered into GIS will be populated in the ASSET_ID field in Oracle WAM. Default values for required fields will be populated in WAM as defined in the Geoworks Sync Defaults table. |
| Synchronize Attribute and Specification Changes | When a change to an attribute is made in GIS or a change is made to a specification value in Oracle WAM the synchronization process will synchronize the data based on business rules governing data flow direction specified in the Geoworks Sync cross reference table. |

## 2.3 Geoworks Monitor

Geoworks Monitor is an enterprise performance monitoring and alerting solution for Esri ArcGIS. Geoworks Monitor can be configured to monitor the status of GIS services including all Geoworks modules and automatically notify the system administrator through various alerts, such a text messages, emails, and enterprise dashboard alarms, if trouble occurs. Geoworks Monitor is a comprehensive tool to improve overall IT efficiency and productivity ensuring enterprise systems are up and running to support the business. Below is a screenshot of Geoworks Monitor administration dashboard.



When the City's implementation of Geoworks WM goes "live" it will become an integral part of several mission-critical asset management workflows. If the system is not running properly, the City's staff may not be able to complete their work efficiently and customers may be negatively impacted. It is imperative that the Geoworks system experiences maximum uptime, operates correctly, and is responsive. As part of our commitment to insuring that the system and associated tools are running properly, our proposal includes Geoworks Monitor software as an optional item for the City's consideration. Geoworks Monitor can be configured to continually monitor database connections, Arc SDE, web services, and other system components. If problems are detected, City staff will be notified immediately. In some cases, the Geoworks Monitor can be configured to auto-correct problems (such as unresponsive map services) without user interaction. Our goal is to provide a long term commitment to the City for insuring maximum system uptime and proper system operation.

# 3 Installation, Configuration, and Training

This section describes our work plan to implement and configure the software for the City. The plan describes the work tasks and timeline to complete the project. The plan also identifies GeoNexus and DPU responsibilities as best as they can be determined at this time.

## 3.1 Work Plan

### Task 1 – Kick Off Meeting

This project will begin with a kick-off meeting onsite at the City of Columbus. GeoNexus Technologies will facilitate a 2-3 hour meeting with the City to review the project scope of work and schedule. During this time we will demonstrate Geoworks WM software and discuss the process for implementation at the City. The following topics will be addressed during this meeting.

- City hardware and software designated to support this project
- VPN and Remote Desktop access to the City's networks
- Oracle WAM instance (DEV/TST) to support this project
- Esri ArcGIS Server and ArcSDE instance (DEV/TST) to support this project
- Establishing a Geoworks Account in Oracle for the Geodatabase

| GeoNexus Technologies Responsibilities | City Responsibilities (DPU / DOT) |
|---|---|
| ▪ Meeting facilitation | ▪ Schedule attendees<br>▪ Reserve meeting space<br>▪ Provide LCD projector and white board |

### Task 2 – Install and Configure Geoworks WM in a Development Environment

Configure Geoworks Defaults, Xref Table, and Centroid Builder

The Geoworks Defaults and Xref tables are installed and configured in Oracle under the Geoworks account schema. These tables are used by the synchronization and centroid builder processes. The centroid builder process is used to create centroids for all features in GIS that will be associated to Oracle WAM. This layer is used to create the work order and service requests layers in the following task.

Create Map Layers and Configure Map Services

During this task new map layers will be created for work orders, service requests, and work requests. This is done by establishing SDE views between the GIS feature classes and tables in Oracle WAM. A map service will be established and published using ArcGIS Server to support the web based GIS Viewer application.

Install Geoworks WM Search Engine and Create Indexes

Geoworks includes a search engine that provides the ability to easily find and zoom to features in the map. The software components will be installed and indexes created for various searches. The indexes will be fine tuned to support specific searches identified during the business workflow sessions during subsequent tasks.

Configure Web Services in Microsoft IIS

The middleware components that broker communication between the GIS Viewer and Oracle WAM will be installed and configured during this task. This includes installing a number of web service handlers in Microsoft IIS on the application server.

Configure GIS API's in Oracle WAM DEV

PLSQL programs and stored procedures will be installed and configured in Oracle WAM (DEV) which will process the requests from the GIS Viewer. The GIS API's will be installed, updated for the City's environment, and compiled during this task.

Test Environment

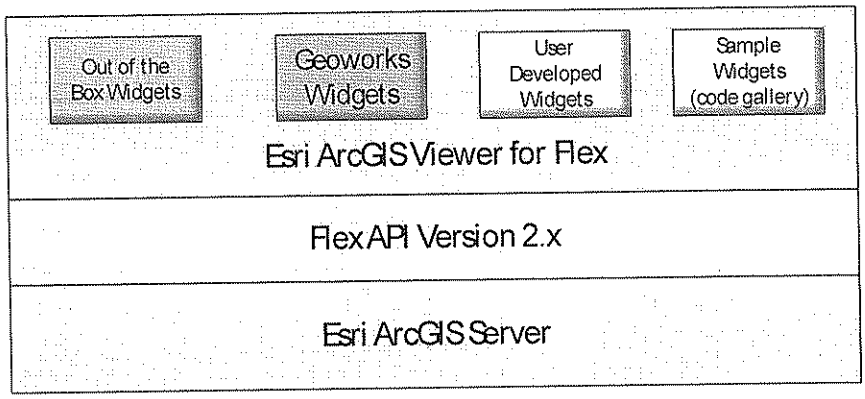
The purpose of this task is to test the GIS/WAM integration in the Development environment and make updates based on anomalies identified.

| GeoNexus Technologies Responsibilities | City Responsibilities (DPU / DOT) |
|---|---|
| ▪ Installation and configuration of Geoworks WM software | ▪ Provide VPN and remote desktop access to WAM and ArcGIS instances<br>▪ Create Geoworks account in Oracle SDE instance<br>▪ Provide a dblink in WAM instance to GIS and in GIS instance to WAM<br>▪ Provide proper user accounts and credentials required for this task |

### Task 3 – Plug In Geoworks WM Functions into City's Dashboard GIS Viewer

The goal of this task is to plug in Geoworks WM functions into the City's Dashboard GIS Viewer. Geoworks WM is essentially a "Plug-In" component for the Esri ArcGIS Flex Viewer that can be downloaded at http://help.arcgis.com/en/webapps/flexviewer. The City's GIS Dashboard was built using the ArcGIS for Adobe Flex 2.3 API from Esri. The City expects to upgrade the GIS Dashboard to the ArcGIS for Adobe Flex 2.4 or later API during this project timeframe. GeoNexus Technologies will support the City with plugging in the Geoworks WM Widgets into a compatible version of the GIS Dashboard.

- This task assumes that the standard Esri Flex Viewer version 2.x will be used as a base for the City's Dashboard GIS Viewer. This will allow the Geoworks WM widgets to simply be plugged into the Esri Flex Viewer 2.x platform. The diagram below describes this "Plug-In" framework. The green box represents the Geoworks WM functions.




- This task assumes that no coding will be necessary to Plug-In the Geoworks WM functions, and that the City's GIS Dashboard conforms to the standard Esri Flex Viewer 2.x framework.

| GeoNexus Technologies Responsibilities | City Responsibilities (DPU / DOT) |
|---|---|
| ▪ Install and configure Geoworks WM plug-in. | ▪ Provide a copy of the Dashboard application to GeoNexus for testing the Plug-In prior to delivery to the City. |

### Task 4 – Training

- GeoNexus will perform system administration and user training during this task. Each training session will last approximately 4 hours and will occur over a 2 day period. During the system administration training session we will train 1-2 System Administrators from the City. We will cover all the components that make up the system and the tasks necessary to configure and maintain the system. During the end-user training session we will train 5-10 end-users from the City. We will cover topics related to how to use the WAM and GIS integration functionality. The dates and times for the training sessions will be scheduled by the City's Project Manager and GeoNexus Technologies.

| GeoNexus Technologies Responsibilities | City Responsibilities (DPU / DOT) |
|---|---|
| ▪ Facilitate training sessions | ▪ Schedule attendees<br>▪ Provide meeting space<br>▪ Provide LCD projector and white board |

### Task 5 – Acceptance Period

After Geoworks WM functions have been integrated into the City's GIS Dashboard and the viewer is up and running in the City's Development environment and training as occurred, City staff will spend up to 2 weeks testing the system for acceptance. GeoNexus will provide test scenarios that the City can use to perform acceptance testing. Any issues or bugs identified during this time will be documented in a punch list and provided to GeoNexus for resolution. GeoNexus will correct the deficiencies and provide the City with updated application code for Geoworks WM functions. Since GeoNexus will be incorporating new functions within the City's existing code base, careful evaluation of each issue will be required to determine if the deficiency is related to GeoNexus code or existing application code created by the City.

| GeoNexus Technologies Responsibilities | City Responsibilities (DPU / DOT) |
|---|---|
| ▪ Create test scenarios<br>▪ Fix bugs<br>▪ Issue resolution | ▪ Perform acceptance testing<br>▪ Document issues and bugs |

### Task 6 – Install and Configure in City's Production Environment

The purpose of this task is to install and configure the system within the City's Production environment. The activities performed during this task are identical to Task 2 (Development Environment). GeoNexus understands that the move to Production may not happen for 1-2 months after the test period due to potential internal schedule constraints at the City.

| GeoNexus Technologies Responsibilities | City Responsibilities (DPU / DOT) |
|---|---|
| ▪ Installation and configuration of Geoworks WM software | ▪ Provide VPN and remote desktop access to WAM and ArcGIS instances<br>▪ Create geoworks account in Oracle SDE instance<br>▪ Provide a dblink in WAM instance to GIS and in GIS instance to WAM<br>▪ Provide proper user accounts and credentials required for this task |

### Task 7 – Custom Linear Asset Point Location Tool

The purpose of this task is to design and develop a custom tool that users can use to place a point along a linear feature such as a water pipe to represent an event such as a main break. During this task GeoNexus Technologies will meet with select users to determine the required functionality. Once the functionality is determined we will design and develop a custom widget that can be plugged into Geoworks WM.

## 3.2 Project Timeline

GeoNexus Technologies is estimating a 4-5 month project duration given a formal notice to proceed in June. Below is a proposed timeline for this project.

| TASK | HRS | DEC | JAN | FEB | MAR | APR |
|---|---|---|---|---|---|---|
| Task 1 – Kick Off Meeting | 12 | | | | | |
| Task 2 – Install and Configure Geoworks WM in a Non-Production Environment | 137 | | | | | |
| Task 3 – Plug In Geoworks WM Functions into City's Dashboard GIS Viewer | 48 | | | | | |
| Task 4 – Training | 16 | | | | | |
| Task 5 – Acceptance Period | 20 | | | | | |
| Task 6 – Install and Configure in City's Production Environment | 36 | | | | | |
| Task 7 – Custom Linear Asset Point Location Tool | 85 | | | | | |

## 3.3 Prerequisites

The following are prerequisites for this project. These items must be provided and in place at the City prior to initiation of the project.

- Installed and configured baseline instances of Oracle WAM 1.8.x or WAM 1.9.x
- Installed and configured instances of Esri ArcGIS 10.0 sp2 for Microsoft Windows (ArcGIS Server and ArcSDE for Oracle RDBMS)
- ArcGIS Flex Viewer version 2.x
- An Esri geodatabase for linear assets configured in ArcSDE 10.0 sp2
- Asset classifications established in WAM for linear assets that aligns with the Esri geodatabase feature classes.
- A workstation with ArcGIS 10.0 sp2 desktop installed is available to GeoNexus Technologies via VPN and remote desktop access.
- Microsoft IIS is installed and running on GIS Application Servers
- Microsoft .NET Framework
- ArcGIS Server map service is available for Geoworks WM to connect to the Geodatabase.

## 3.4 Assumptions

Our proposal is based on the following project assumptions.

- Geoworks WM baseline functionality will be implemented. This project will not require any custom development or new functionality. If the user desires functional enhancements or new capabilities those items will be discussed and proposed separately.
- The solution will be installed and configured in up to 2 instance of Oracle WAM and ArcGIS 10.0 sp2 (Development and Production instances).

- This project does not include any data cleaning or scrubbing to support Geoworks nor does it include time to load data. If assistance is requested to support data clean-up, manipulation, or loading we will provide a separate fee proposal.
- GIS and WAM are linked by a unique ID resident in both systems. This is the ASSET_ID in WAM and a user defined attribute field in the Geodatabase.

## 3.5 Deliverables

The following describe the formal deliverables for this project.

- Geoworks WM is installed and working with core functionality on a Development and Production instance for 1 map service
- Installation and configuration documentation
- Training

## 3.6 Scope Exclusions

The following are considered out of scope items which will need to be provided or supported by the City.

- Purchase of hardware or software
- Installation and configuration of hardware
- Installation and configuration of base hardware operating systems or networks including the base Oracle database management system
- Installation of any software or interfaces not specified in our scope
- Customized QA/QC tools, reporting or map making functions
- Data clean up, scrub, conversion or migration

# 4 Project Profiles

The following are profiles for similar projects performed by GeoNexus Technologies.

GeoNexus Technologies value our customers and their privacy. We have procedures for ensuring confidentiality of client information. As a standard practice and based upon requests from our clients we do not include email addresses, and telephone numbers in our references. Our clients have asked us to facilitate an introduction of a prospective client when requested. We would be happy to make the introduction of the DPU to our clients and arrange a phone call upon request.

## Project Profile #1

| | |
|---|---|
| Project Title: | **Oracle WAM and ESRI ArcGIS Integration Project** |
| Owner: | Indianapolis Water, Managed by Veolia Water North America |
| Contact: | Mr. Greg McLear<br>Technology Director<br>Veolia Water North America<br>1220 Waterway Blvd.<br>Indianapolis, IN 46202 |
| Project Description: | GeoNexus Technologies developed a solution using the latest state-of-the-art technologies from Esri and Oracle. The solution was built using ArcGIS Server 9.3.1 Application Programming Interface (API) for Adobe Flex, ArcSDE API, ArcObjects with C# and VB, and the Oracle WAM GIS API. We delivered a solution that fully met the functional requirements for this project but was also designed to be open and flexible allowing our Client to extend the solution as needs arise overtime. |
| Project Date: | December 2009 – December 2010 |

## Project Profile #2

| | |
|---|---|
| Project Title: | **Oracle WAM and ESRI ArcGIS Integration Project** |
| Owner: | Middlesex Water Company |
| Contact: | Mr. Christian Andreasen, Jr., P.E.<br>Director of Engineering<br>Middlesex Water Company<br>1500 Ronson Road<br>Iselin, NJ 08830-3020 |
| Project Description: | Middlesex Water Company purchased Geoworks WM and Geoworks Sync software and implementation services from GeoNexus Technologies. GeoNexus Technologies is part of a multi vendor team consisting of EP$^2$M and CH2M Hill to implement Oracle WAM, Oracle MWM, Oracle CC&B, and Geoworks at |

Middlesex Water. The project started in January of 2011 and go live is scheduled for May 2012. GeoNexus Technologies role on the project is to provide expertise relating to Esri ArcGIS integration with Oracle WAM as well as installation, configuration, and training services related to our Geoworks software. Middlesex Water Company is a licensed user of Geoworks and will receive software support and maintenance on an annual basis after the system goes live in 2012.

Project Date: January 2011 – June 2012

# 5 Software and Implementation Pricing

This section provides a cost summary for Geoworks software and Professional Services for installation and configuration. This quote is valid through March 31, 2013.

## 5.1 Software License Fee

The following are software license fees for Geoworks. GeoNexus is proposing 1 seat of Geoworks WM.

| ITEM | DESCRIPTION | QTY | FEE | AMOUNT |
|---|---|---|---|---|
| Geoworks WM | Primary Software Install License | 1 | 24,995.00 | **24,995.00** |

## 5.2 Software Maintenance and Support

The initial software Maintenance and Support Term (Initial Term) is effective from the contract execution date through March 31, 2013 and is included in the license fee. Following the initial term, Maintenance and Support will be made available to the City by GeoNexus Technologies on an on-going basis for an annual fee equal to twenty percent (20%) of the Software license fee paid by the City to GeoNexus Technologies.

## 5.3 Implementation Services

We are proposing a Time and Materials (T&M) cost estimate for implementation services with a not-to-exceed amount of $68, 145.00. The following is a breakdown of our fee for implementation services.

| TASK | HRS | FEE |
|---|---|---|
| Task 1 – Kick Off Meeting | 12 | $2,100.00 |
| Task 2 – Install and Configure Geoworks WM in a Development Environment | 137 | $23,975.00 |
| Task 3 – Plug In Geoworks WM Functions into City's Dashboard GIS Viewer | 48 | $8,400.00 |
| Task 4 – Training | 16 | $2,800.00 |
| Task 5 – Acceptance Period | 20 | $3,500.00 |
| Task 6 – Install and Configure in City's Production Environment | 36 | $6,300.00 |
| Task 7 – Custom Linear Asset Point Location Tool | 85 | $14,875.00 |
| **Estimated Labor** | **354** | $61,950.00 |
| **10% Contingency** | | $6,195.00 |
| **Total Not-To-Exceed Services Fee** | | **$68,145.00** |

## 5.4 Total Proposed Cost

The following is a summary of the total proposed cost for software and implementation services.

| | |
|---|---|
| Software | $24,995.00 |
| Implementation Services | $68,145.00 |

| | |
|---|---|
| **Total** | **$93,140.00** |

# 6 Other Pertinent Information

## 6.1 Optional Software

GeoNexus Technologies is proposing the following software as an option for the City's consideration. Geoworks Sync and Geoworks Monitor are described in Section 2 of this proposal.

| ITEM | DESCRIPTION | QTY | FEE | AMOUNT |
|---|---|---|---|---|
| Geoworks Sync | Primary Software Install License | 1 | 28,750.00 | $28,750.00 |
| Geoworks Monitor | Software Install License, up to 10 services monitored | 1 | $3,495.00 | $3,495.00 |

## 6.2 Equal Business Opportunity

GeoNexus Technologies understands the City of Columbus encourages the participation of City certified minority and female business enterprises, however GeoNexus will not be utilizing subcontractor(s) in our bid due to the project size and the specific skills and knowledge required to perform the work. The following is our statement of providing equal business opportunity employment.

GeoNexus Technologies, a small business with fewer than 10 employees is committed to providing equal employment opportunities for all of our employees and to maintain a workplace that is free from harassment and discrimination. Equal Employment Opportunity is a vital component of our company culture and our success. This policy states that all employees have equal opportunities for jobs, skills training and promotions regardless of race, color, national origin, ancestry, sex, age, religion, physical or mental disability, medical condition, veteran status, marital status, pregnancy, sexual orientation, gender identity, genetic information or any other non-job related factor. Consistent with these principles, we base all employment decisions only on valid, business-based job requirements. It is equally important that, wherever our business needs take us, we maintain a work environment that honors our diversity by treating one another with mutual respect. Any form of harassment or discrimination violates our core values and our Equal Employment Opportunity policy. By maintaining an environment that fosters, respects, and celebrates the diversity of our workforce, we will achieve our vision of being a leading management and information technology consulting firm in the United States.

## 6.3 Software License and Maintenance Agreement

The following is our standard software license and maintenance agreement for Geoworks software.