

City of Culver City, California
City Council Agenda Item Report

Meeting Date: 6/22/2009		Item Number: C-10	
AGENDA ITEM: Approval of an Agreement with Latitude Geographics Ltd for the Purchase of GIS Software and GIS Training and Web Development Support Services.			
Contact Person/Dept.: Johnnie Griffing		Phone Number: 310-253-5976	
Fiscal Impact: Yes ☒ No ☐		General Fund: Yes ☒ No ☐	
Public Hearing: ☐		Action Item: ☐	Attachments: ☒
Public Notification: Master E-Mail Notification List (6/17/09); Latitude Geographics Ltd, James Van Dyk (6/17/09)			
Department Approval: John Richo (6/11/09)		City Attorney Approval: Carol Schwab (by H. Baker) (06/19/09)	
Chief Financial Officer Approval: Jeff Muir (by M. Noller) (06/17/09)		City Manager Approval: Mark Scott (06/18/09)	

RECOMMENDATION:

Staff recommends the City Council approve an agreement with Latitude Geographics Group Ltd (Victoria BC, Canada) for the purchase of GIS software and Geographic Information Systems (GIS) training and development support services.

BACKGROUND:

In 1998, the Information Technology Department initiated efforts to implement an enterprise GIS that would support the needs of all City departments. To date, this effort has resulted in the acquisition of over 100 digital data layers such as aerial photography, land parcels, street centerlines and department specific information. The primary objective of the City's GIS program is to create a stable and accurate GIS database and provide customized GIS applications, maps, and spatial analysis services to City departments and the public.

In 2002, staff initiated a development effort to design custom GIS interactive web applications. The software used for these applications was ArcIMS, which was developed by Environmental Systems Research Institute, Inc. (ESRI). ESRI is the industry leader of GIS technology. Culver City's existing web applications also integrated MoxiMedia Internet Mapping Framework (IMF), a software product developed by MoxiMedia Inc. to rapidly deploy customized web mapping applications. After 2 years of development, the following applications were launched between 2004-2005:

- *Property Information Search* – Provides access to property information in Culver City including parcel data and aerial photography (1999, 2004, 2006,

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2008). Detailed parcel reports include zoning, landuse, residential trash pickup, and more.

- *General City Map* – Provides access to Culver City infrastructure including schools, places of interest, parks and recreation, and street address.
- *Planning Vicinity Map* – Query property information, mark up maps, and generate custom soft- and hard-copy maps used in public hearings and staff reports.
- *Mail Label Application* – Used by Culver City staff to generate public notifications and general mailings by identifying locations, optionally calculating a buffer distance, and generating address lists culminated from three databases for owners, businesses, and occupants.
- *Bus Route Map* – Displays bus routes, bus stops, and estimated walking times (5 and 10 minutes) from bus services. Provides the ability to find locations.
- *Sewer System Access Map* – Search Culver City sewer system and I.D. sewer lines for descriptive information and scanned engineering drawings.

DISCUSSION:

Training was provided to city staff, and these applications became well adopted in support of day-to-day activities in city government, often times reducing considerably the amount of time to answer a question, provide information, or use as a resource for maintaining city infrastructure. Additionally, these applications are also accessible via the City's Internet and benefit businesses and citizens requiring information. Having such an online resource also reduces the amount of time city staff needs for answering questions or providing information to the public.

While these applications have served the City well, the software platform they are based on has become obsolete and is no longer supported. Certain factors have been affected by this outdated technology:

- *Security* – Staff has faced challenges migrating legacy applications while keeping server operating systems up to date. For example, in 2008 a service pack was implemented on servers for required security measures. Staff had to implement complex configuration changes so servers could operate with legacy GIS web applications.
- *Stability* – Often times the GIS web applications crash or cease functioning requiring staff time, both from the IT Department for administrating/troubleshooting as well as client downtime, before remedying the problems. Staff has investigated these issues with vendor support and concludes that these stability problems are related to conflicts between various outdated

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software components running on updated operating systems and infrastructure.

- *Performance* – The web applications run very slowly over the network. Again, this is due to incompatibility between the software and operating system of the server.
- *Support* – Vendors ESRI and MoxiMedia have diminished capabilities to support outdated software as ESRI's new web mapping technology, called ArcGIS Server, has become the industry standard. Additionally, staff projects that advancements in Microsoft's operating system software will soon push out the ability to support legacy web applications for continued use. There were numerous challenges with migrating to Windows Server 2003. The fact that the web mapping technology is old inhibits us from maintaining security measures in the future and making further enhancements.

The most advanced mapping technology from ESRI, ArcGIS Server, is an enterprise technology that provides numerous advancements in web mapping for performance, stability, security, and functionality. This software has become the industry standard for custom web mapping as ESRI's center focal point in GIS software.

The middleware that the IT Department proposes, Geocortex Essentials by Latitude Geographics Ltd, is an off-the-shelf software package that provides the largest set of web mapping tools to choose from on the market. This off-the-shelf solution has a site management tool that enables and simplifies maintenance of GIS web applications. Additionally, other Southern California government agencies (attachment 1) are also using the Geocortex solution which further enables data sharing. Geocortex Essentials, a strategic business partner with ESRI, is exclusively and tightly integrated with ESRI's ArcGIS Server, ensuring compatibility with future releases of this software.

Our City requires custom development to replace and enhance our existing GIS web applications, such as was the case in 2002 with the 2-3 years it required to then stand up complete, working web applications in 2004-2005. IT Department recommends contracting directly with the software provider, Latitude, to rapidly develop new GIS web applications. The contract deliverables would include:

- *Application 1* – this would be a combined "Mail Label Application" and "Planning Vicinity Map" application. This would include replacement of mailing and vicinity map templates based on what our City currently uses.
- *Application 2* – this would be replacement for "Property Information Search" and "General City Map" that would include the ability to search by APN/Address/Intersection and additional query, map markup, and map development functionality.
- *Application 3* – this would replace the "Bus Route Map" with greatly enhanced interface providing a fast, stable, and very user-friendly web experience.

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- *Application 4* – this would replace the “Sewer System Access Map”. This application would retain important search functionality and hyper-linking capability to view scanned engineering drawings that correspond to GIS sewer map data.

During development, a complete transfer of knowledge will occur which will serve to train staff on the use of the development tools. The objective at project completion will be to eliminate the need for ongoing consulting services.

We believe Geocortex Essentials is the software of choice because of its industry leading set of tools and tight integration and support with ESRI. Staff believes it is in the City’s best interest to contract with the software provider directly for maximum efficiency in development that will result in a savings in cost and time. Per Culver City Municipal Code Section 3.07.065.A, there is an exemption from competitive bidding for “the purchase of supplies or equipment which...can be obtained from only one (1) vendor”.

FISCAL ANALYSIS:

Sufficient funding is available in the following accounts for fiscal year 2008-09:

- IT Department Operating Budget (Other Contractual Services - 10124100.619800) in the amount of \$26,660 for professional services.
- Capital Improvement Project (GIS Network Survey - 42000525.732160) in the amount of \$9,500 to purchase GIS software.

The authorization to purchase software and obtain professional services from Latitude Geographics Ltd would result in an expenditure not to exceed \$36,160.00

ATTACHMENTS:

- List of Geocortex Essentials users (California government agencies)
- Latitude Quote

MOTION:

That the City Council:

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1. Approve an agreement with Latitude Geographics Ltd. for the purchase of GIS software and GIS training and web development support services in an amount not to exceed \$36,160.00;
2. Authorize the City Attorney to review/prepare the necessary documents; and
3. Authorize the City Manager to execute such documents on behalf of the City.