



APPLICATION FORM

All applications must include the following information. Separate applications must be submitted for each eligible program. **Deadline: June 1, 2018.** Please include this application form with electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: Roanoke

Program Title: Site Selector Application

Program Category: Information Technology

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: Thomas C. Gates

Title: County Administrator

Signature: 

EXECUTIVE SUMMARY

Leaders in Roanoke County, Virginia, wanted a good way to give staff and citizens access to available sites and buildings. Site Selector is a powerful tool to assist the end user in finding a location for their business or industry. The County decided to use ArcGIS for Local Government app template to build the Site Selector App the community needs.

Now the County's staff members use this app, to quickly access data including real estate sales, land records, economic development sites, police activity, planning and zoning, schools, government services, and environmental and utilities information. The improved operational efficiency extends to the Economic Development Department where staff save many hours on data collection by using customized scripts to automate the data entry process.

The County's Economic Development Department uses the new tools to create multiple reports by the click of a mouse that used to take days or weeks. Now it only takes one mouse click to create an even more comprehensive report.

Efficiencies were gained by empowering end users to make better decisions through value-added real estate information, demographic analysis, and comprehensive reports. Questions that had previously required input from economic development staff and technical personnel can now be by the users themselves using this mobile accessible application that also generates quality printed products for both citizens and staff. Prospective businesses, staff and citizens can get data quickly, make smarter choices, and develop new solutions faster with the Site Selector Application.

THE PROBLEM OR CHALLENGE

The County has embraced web-based location technology to help manage a variety of government services, including access to a growing amount of real estate data. With a dynamic real estate market, the County's Economic Development Department was

looking for an efficient way to share and analyze property data and the existing GIS infrastructure offered the foundation for an interactive, web based application. The GIS Services Division in the Communications and Information Technology Department worked closely with the Economic Development to deploy an efficient solution that would leverage their investment in the Esri platform which would be consistent with other County applications. The Site Selector Application also provides the capability of sharing this application with other localities and entities to adopt and use this application as a model for their business purposes using their authoritative data.

TECHNOLOGY AND COLLABORATION

The team began by implementing an early version of the Site Selector template, a JavaScript based application developed by Esri. The Site Selector app provides the ability for both County staff and citizens or professionals to query and locate properties, potential building sites, and demographic information. The target audience for the solution is diverse and includes site selectors, community developers, planning analysts, real estate agents, home buyers, and property valuation administrators.

The County developed an innovative automated solution to prepare the underlying data by extracting the available sites from Economic Development and applying a scripted process to assign spatial representation. The GIS Team then took the standard application a step further, by introducing a style consistent with the Department's branding standard and incorporating custom behavior into the application to accommodate local functional requirements. Likewise, the search results are linked to a suite of related GIS based applications that can easily provide supplemental information and reports with one-click of the mouse.

Through a combination of out-of-the-box functionality and customization, the final solution now provides accurate, up-to-date real estate information that allows end users to self-serve the site selection process. Ultimately, the configurable app helps mitigate the need for time-consuming, manual processes by spatially enabling data from

Economic Development and facilitating access through a user friendly, interactive, web application that can be used as a model for other localities.

The Site Selector application provides enhanced services for businesses, site selection consultants and corporate real estate executives. The innovative Site Selector application is interactive, user friendly and helps business owners and corporations search for and locate available buildings and sites, while combining their property search with key community and demographic information. Access to this information facilitates better business decisions and helps to ensure that investments in the County are sustainable and align with business objectives. The Site Selector application leverages new technology with a variety of databases to provide users with a one-stop-shopping experience when researching a property. In addition, Site Selector is optimized to be mobile friendly for use on smartphones and tablets and is accessible to a wide array of modern desktop and mobile internet browsers.

RESULTS

Now the County's potential businesses and staff use the Site Selector Application to quickly access data including real estate sales, land records, economic development sites, police activity, planning and zoning, schools, government services, and environmental and utilities information. The improved operational efficiency extends to the field where staff save many hours on data collection.

In the past 30 days, Site Selector has experienced 724 Pageviews with 75 percent new users demonstrating that Roanoke County has achieved the goal of offering a good way to give staff and citizens access to the geographic information they need on any device, anytime, anywhere. The County's new customized application can be accessed at the following link: <http://siteselector.roanokecountyva.gov>.

PROJECT DEVELOPMENT

The County of Roanoke has a Small Government Enterprise License Agreement with Esri. This gives the county the ability to fast track GIS. The ELA provides unlimited access to ArcGIS software along with timely and professional assistance from Esri. Microsoft SQL Server 2012 is the Enterprise Database providing a consistent programming model and common tools across the Enterprise. The County has established a web presence that caters to a broad user base with diverse needs and technological capability. The application was largely designed with a singular focus, which creates a comfortable environment that doesn't require instruction or training. To achieve this, the applications were developed with contemporary methods and designed according to the asynchronous module definition (AMD) and Model View View Model (MVVM) patterns leveraging Knockout JS and Twitter Bootstrap libraries. This approach creates a solution that is easily maintained in-house while taking advantage of other commercial technologies that already exist. As a result, the County can deliver rich content based on Esri's ArcGIS for Server and ArcGIS Online offerings, combined with Google Streetview and Pictometry to allow users to explore the County from every angle.

COST OF THE PROJECT

The biggest investment is in personnel time dedicated to the application's development. A total of 452.75 personnel hours was used to complete this project for a cost of approximately \$13,500. The hours were used to support the enterprise approach and design, develop, and maintain the enterprise GIS resources. Also, professional Services was used from our partner GIS Inc. for a cost of \$17,752.25 for a total cost of \$31,252.25.

The GIS Infrastructure is a large investment. The County of Roanoke leverages VMware to reduce capital and operational costs by increasing energy efficiency and using less hardware with server consolidation. Virtualization technology increases efficiency in our data center by enabling today's x86 servers to run multiple operating systems and

applications. Workloads get deployed faster, performance and availability increases and operations become automated, resulting in IT that's simpler to manage and less costly to own and operate. Fortunately, the total cost of GIS infrastructure including disaster resiliency is \$0 Cost because we were able to take advantage of our existing infrastructure.

The Esri Small Government Enterprise License Agreement is \$50,000. The ELA provides unlimited access to ArcGIS software along with timely and professional assistance from Esri. Other software such as MS SQL Server and SAP Crystal Reports with a total cost of \$5,000 are essential in implementing this program, but fortunately these costs are not included for the Site Selector Application since these costs are associated with the Enterprise GIS Program. The Site Selector Application also provides the capability of sharing this application with other localities and entities to adopt and use this application as a model for their business purposes using their authoritative data.

The total one time cost for the Site Selector Application is \$31,252 which was used to design, develop and support this project.

RESULTS

On a daily basis, the county is better serving the needs of its constituents. Giving the public one place to find detailed information on available Sites and buildings for Economic Development saves citizens' time. Residents can find the details they need any time of day or night on many types of devices.

In the past 30 days, Site Selector has experienced 724 Pageviews with 75 percent new users demonstrating that Roanoke County has achieved the goal of offering a good way to give staff and citizens access to the geographic information they need on any device, anytime, anywhere.

OVERVIEW

The Roanoke County Department of Economic Development new Site Selector Geographic Information System (GIS) application provides enhanced services for businesses, site selection consultants and corporate real estate executives.

The innovative Site Selector application is interactive, user friendly and helps business owners and corporations search for and locate available buildings and sites, while combining their property search with key community and demographic information. Access to this information facilitates better business decisions and helps to ensure that investments in the County are sustainable and align with business objectives.

MODEL FOR OTHER MUNICIPALITIES

Leveraging Esri's ArcGIS for Local Government to share GIS, Roanoke County created Site Selector Application powered by ArcGIS for Server technology, providing quick and easy access to the wealth of data maintained by the county. The Site Selector Application also provides the capability of sharing this application with other localities and entities to adopt and use this application as a model for their business purposes using their authoritative data. The Site Selector application leverages new technology with a variety of databases to provide users with a one-stop-shopping experience when researching a property.

In addition, Site Selector is optimized to be mobile friendly for use on smartphones and tablets and is accessible to a wide array of modern desktop and mobile internet browsers. The user-friendly application also offers a help section that features a video overview and instructions on how to navigate throughout the application.

The County's Economic Development Department uses the new application daily to communicate to site selectors and businesses the available development sites and

buildings in the county. The app allows the Department and business users to share information using Email, Twitter, and Facebook or embedded URL.