

APPLICATION FORM

All applications must include the following information. Separate applications must be submitted for each eligible program. **Deadline: June 3, 2019.** 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 County

Program Title: 3-D View Web Mapping Application

Program Category: Information Technology

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: Dan O'Donnell

Title: County Administrator

Signature: 

THE PROBLEM OR CHALLENGE

Comprehensive information about properties in Roanoke County could only be obtained for internal or public use by compiling information from several separate, diverse and in-house systems, or from staff in separate departments. Fulfilling public or staff requests about property characteristics, historic market assessments, legal descriptions, zoning restrictions, and other vital information required several days and coordination of staff in various departments. This approach created a barrier to citizen and staff access to important information necessary for daily decision-making in the County.

Roanoke County sought a way to offer aerial photography and oblique imagery about a property in a single, easy-to-use web mapping service that allowed users to find information with the most commonly used search methods. A key objective in the project was to make all aerial photography, oblique imagery and other GIS data accessible quickly, across a variety of platforms and technologies, including today's current mobile devices.

GIS Services in Information Technology maintains aerial photography, oblique imagery, parcel outlines, address data, street centerlines, and zoning data to create the foundation of the Enterprise GIS in the County. This approach ensures data consistency across the County's various departments and assorted applications. GIS Services was able to leverage the Integrated Pictometry Application for web integration and ArcGIS Desktop Python scripting technologies to integrate the Enterprise GIS foundation data with data from the Eagleview Pictometry Image Cloud Service and other third party commercial services to

provide a one-stop-shop for all Roanoke County Enterprise GIS data including multiple types of imagery.

3-D View offers an easy-to-use web mapping service of aerial photography, oblique imagery and the Enterprise GIS data services that consolidates various other data sources. Using Microsoft SQL Server, the ArcGIS platform and Python, GIS Services was able to integrate the data into its GIS platform, providing community facilities, mile markers, trails, park sites, water features, appraiser zones, address points, streets, zoning, flood zones, building footprints, jurisdictions, hydrants, fire response areas, and law districts information in a web mapping service application.

Imagery location discovery is made simple by using a custom auto-complete search engine that allows discovery based on the most commonly used labels, including street address, owner name, or tax ID number.

3D-View offers the same functionality when accessed on a desktop PC, mobile phone or tablet device. Designed at the outset as a native mobile application, 3D-View offers comprehensive situational awareness and a common operational picture in the palm of a user's hand. In addition, location-based services allow real estate professionals, citizens, and staff this same information on parcels as they travel through neighborhoods.

Roanoke County citizens and staff members use the application to quickly access data including aerial photography, imagery oblique imagery, real estate assessments, 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.

The overall goal of developing the 3-D View app was to minimize the administrative overhead of delivering staff and public requests to make more informed decisions from data, with accompanying visual information about parcels, while maximizing access to public data delivery in the most convenient and accessible formats for staff and the public alike. With 3-D View, all citizens, staff and commercial stakeholders can access the comprehensive information they need on any device, at any time, and anywhere.

To streamline requests for more informed decisions from both staff and citizens, Roanoke County sought to create a solution for staff and citizens to access information using any desktop and mobile devices. The 3-D View app was designed from the ground up to offer a consistent experience on a PC, mobile phone or tablet.

Questions such as real estate values or citizen safety on hiking trails that required input from staff in several departments can now be answered independently and quickly through the integrated services offered in the 3-D View app, which creates efficiencies for staff and public users alike.

Now staff and citizens can use the 3-D View Application to quickly access data for community facilities, mile markers, trails, park sites, water features, appraiser zones, address points, streets, zoning, and flood zones, building footprints, jurisdictions, hydrants, fire response areas, and law districts information in a web mapping service application. The new app improves the regularity, volume

and accuracy of annual assessments that previously consumed hours of staff time and coordination. Access to holistic visual information about a parcel results in the Roanoke County Real Estate Valuation Office using with no out of office travel.

Giving citizens easy access to aerial photography and oblique imagery and related information, available in the palm of their hands at all times, has reduced citizen calls for information, while overall customer satisfaction has increased. Citizen and staff adoption of the new 3-D View app is the strongest indicator of the app's ongoing success. Since the application's launch on August 14, 2018, the 3-D View app has served 5,609 page views with 82 percent new users.

With the 3-D View app, Roanoke County has achieved its goal of offering staff and citizens greater access to tax parcel data they need on any device, at any time, and anywhere it is needed.

EXECUTIVE SUMMARY

Roanoke County, Virginia's 3-D View web mapping service is a customized solution that addresses the County's need to offer comprehensive aerial photography and oblique imagery through a simple and easy to use interface. The 3-D View app was created from the ground up with accessibility in mind, and an emphasis was placed on integrating the latest technologies to ensure mobile compatibility and the use of location services.

The 3-D View app offers a new level of government transparency to its citizens, by including a vast array of acquired public data in an easy-to-use and mobile solution. Citizens and staff are no longer tied to desktop computers, as the 3-D View app can be used on a variety of mobile devices, from any location.

This increased ease-of-use helps streamline the day-to-day operation of staff while giving citizens access to County data whenever and wherever they choose, utilizing the custom autocomplete quick search based on County of Roanoke address and parcel locations. Please click on the following link to launch the 3-D View application <https://gisweb.roanokecountyva.gov/3DView/index.aspx> .

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BRIEF OVERVIEW

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