Virginia Association of Counties
ACHIEVEMENT AWARDS

APPLICATION FORM

All applications must include the following information. Separate applications must be submitted for each eligible program. **Deadline: June 2, 2017.** Please include this application form with electronic entry.

PROGRAM INFORMATION

County: County of Henrico

Program Title: GIS-Based Pre-Incident Emergency Planning

Program Category: Criminal Justice & Public Safety

CONTACT INFORMATION

Name: Holly Zinn

Title: Management Specialist

Department: County Manager's Office

Complete Mailing Address: 4301 E. Parham Road, Third Floor, Henrico, VA 23228
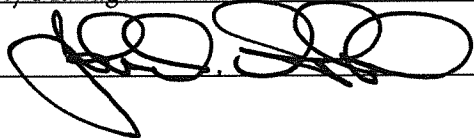
Telephone: 804-501-4370   **Website:** henrico.us

Email: zin01@henrico.us

SIGNATURE OF COUNTY ADMINISTRATOR OR CHIEF ADMINISTRATIVE OFFICER

Name: John A. Vithoulkas

Title: County Manager

Signature:

1. Program Overview

Building strong relationships within a jurisdiction by utilizing Geographic Information Systems (GIS) resources is of obvious importance and essential. Relying upon those resources to enhance the Henrico County Division of Fire's efforts toward operational response is a natural partnership. As a team, we successfully identified solutions to provide the practical pre-incident planning data necessary for safe and effective emergency response in real-time to responders in the field. Transforming handwritten notes and floor-plans to spatial data allowed responders to share valuable information between response units.

2. Problem/Challenge/Situation Faced by Locality

The Henrico County Division of Fire's response units traditionally developed and retained pre-incident response data for their specific response districts. The information was shared only upon request, and no practical solution was used to passively share data between districts. As the agency grew and community demand increased, we consistently identified incidents where firefighters were responding to incidents in districts or areas with which they were unfamiliar. Passively sharing information by using in-vehicle technology became a priority to allow all responders access to equivalent information without any special action.

3. How Program Fulfilled Awards Criteria

Our agency identified a gap in service to our internal customers where a solution was not available to provide the critical data needed to perform safe operations. Pre-incident planning information is critical, yet it was not effectively being shared throughout the organization. This program filled this gap effectively. Additionally, personnel were previously gathering this data before the program was developed. We improved upon the existing program to increase its level of effectiveness and efficiency. By providing real-time data, the data needed for safer environments, we improved upon existing programs. Lastly, we effectively and positively promoted inter-agency partnerships with the Department of Information Technology.

4. How Program Was Carried Out

The objective of this program was to provide real-time building and response component data to all response teams within the operational response network. This includes key component information, floor plans, fire suppression systems, and hazard locations; as a result of this work, these will all be accessible using available technology, and updates are passively pushed at the time of data entry.

Many commercial and residential occupancies to which the fire department responds frequently contain special features and components including hazardous storage, firefighter connections, and alarm panel locations. The locations of these components and features are integral to safe operations while mitigating emergency incidents. The Division of Fire recognized that this location data should be shared across the

organization to appropriate recipients in a manner that was easy to consume and utilize in daily operations. When a response occurs, personnel are able to quickly reference the preplan information on their Mobile Data Computers, which are provided for each fire apparatus. This allows fire officers to understand key attributes about the call location before arriving on scene, increasing the safety and efficiency of operations.

Over an eighteen-month process, Fire staff evaluated all feasible solutions to match the organizational need with the limited funds available. Utilizing the organization's in-house, multi-agency resources, partnerships were formed, and positive relationships were cultivated. A practical solution utilizing GIS was developed and implemented in July 2016. With collaboration between the Division of Fire, the Department of Information Technology, and Esri, a supplier of GIS software, the GIS-Based Pre-Incident Planning Program was successfully implemented, and it is currently maintained in a continuous improvement environment. Because an in-house solution was enacted, the program is customizable and tailored to the organization's need without any additional costs to tax payers.

As of February 2017, the program is consistently used in field operations and is a successful tool for information sharing and retention. Data is continually being updated as new features are identified. Most recently, floor plans were made available to response units in a manner to which users obtain the information easily and without challenge. Multi-page, standardized, floor plans are accessible through on-board computers. All

information is loaded directly to the response unit computers to ensure data availability during times of disaster and limited mobile connectivity.

5. Financing and Staffing

There is no cost to this program. The Pre-Incident Planning Program hinges on existing technology currently available within the organization and existing inter-agency partnerships.

6. Program Results

The Division-wide implementation in July 2016, was the result of months of preparation and partnership. More than 10,000 points of data were loaded into program prior to the release and more are added monthly. Currently, the program is utilized organization-wide and consistently on emergency responses daily. Feedback is received, and modifications to the user-interface are placed to keep with the continuous improvement environment. To further that environment, the organization will, on an annual basis, conduct a program evaluation to identify service gaps, threats to data validity, and areas for improved service delivery. This effort has greatly increased the global situational awareness for our emergency responders, especially when emergencies occur in unfamiliar or complex buildings. Quickly identifying key building and layout attributes gives our firefighters the upper-hand and streamlines the approach to resolving the emergency situation.

7. Brief Summary

Building strong relationships within a jurisdiction by utilizing Geographic Information Systems (GIS) resources is of obvious importance and essential. Relying upon those resources to enhance the Henrico County Division of Fire's efforts toward operational response is a natural partnership. As a team, we successfully identified solutions to provide the practical pre-incident planning data necessary for safe and effective emergency response in real-time to responders in the field. Transforming handwritten notes and floor-plans to spatial data allowed responders to share valuable information between response units. The objective of this program was to provide real-time building and response component data to all response teams within the operational response network. This includes key component information, floor plans, fire suppression systems, and hazard locations; as a result of this work, these will all be accessible using available technology, and updates are passively pushed at the time of data entry.

Many commercial and residential occupancies to which the fire department responds frequently contain special features and components including hazardous storage, firefighter connections, and alarm panel locations. The locations of these components and features are integral to safe operations while mitigating emergency incidents. The Division of Fire recognized that this location data should be shared across the organization to appropriate recipients in a manner that was easy to consume and utilize in daily operations. When a response occurs, personnel are able to quickly reference the preplan information on their Mobile Data Computers, which are provided for each fire

apparatus. This allows fire officers to understand key attributes about the call location before arriving on scene, increasing the safety and efficiency of operations.

Over an eighteen-month process, Fire staff evaluated all feasible solutions to match the organizational need with the limited funds available. Utilizing the organization's in-house, multi-agency resources, partnerships were formed, and positive relationships were cultivated. A practical solution utilizing GIS was developed and implemented in July 2016. With collaboration between the Division of Fire, the Department of Information Technology, and Esri, a supplier of GIS software, the GIS-Based Pre-Incident Planning Program was successfully implemented, and it is currently maintained in a continuous improvement environment. Because an in-house solution was enacted, the program is customizable and tailored to the organization's need without any additional costs to tax payers.

The program is consistently used in field operations and is a successful tool for information sharing and retention. Data is continually being updated as new features are identified. Most recently, floor plans were made available to response units in a manner to which users obtain the information easily and without challenge. Multi-page, standardized, floor plans are accessible through on-board computers. All information is loaded directly to the response unit computers to ensure data availability during times of disaster and limited mobile connectivity.