

# Customizing Solutions for Better Results

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*Since 2005, the City of Waynesboro, Virginia has used CartêGraph to elevate its Public Works operations to their rightful place among the City’s other enterprise systems. By leveraging the streamlined nature and customizability of CartêGraph applications—such as WATERview, SEWERview, WORKdirector, and VERSAtools—Waynesboro Public Works has gained efficiency in its divisions and bolstered productivity among its work crews. With its easy-to-use interface, and ability to streamline workflow, CartêGraph has helped Waynesboro to innovate and succeed in its approach to infrastructure management*

As Waynesboro’s Public Works Systems Manager, Dwayne Schwartz can easily recall a time in the not-too-distant past when the City’s work and asset management methods weren’t nearly as advanced as they are today. Until 2005, when the City integrated CartêGraph technology, Waynesboro, like many other organizations, relied heavily on manually-populated spreadsheets as a means to track assets and performance measures.

“Everything was based out of Access and Excel,” recalls Schwartz. “It wasn’t until we started using CartêGraph that users realized how much of our database was going unused.”



Eventually, Waynesboro’s Public Works Department realized the inefficiency of its ways and identified a distinct need to upgrade its methods of work and asset management. As such, the City went to market seeking a software system that combined asset tracking ability with GIS functionality. Adding to his primary role of Systems Administrator, Schwartz teamed with Waynesboro’s IT Director to research the City’s options. While several software systems were available, the customizability and user-friendliness of CartêGraph set it apart as Waynesboro’s best option.

With its first implementation effort in June, 2005, the City partnered with CartêGraph’s technical staff to implement WATERview, a water system management tool used to map water network assets, capture and

maintain inventory information, and monitor the age and condition of water network components. With *WATERview*, the Public Works Operations division realized the ability to maximize the return on the City's water system. By tracking the current and historical conditions of components and assets—such as mains, backflows, hydrants, valves, service laterals, and meters—Waynesboro could diligently assess and gauge the effects of distress conditions. In doing so, the City found itself able to proactively schedule maintenance and replacements, and anticipate future network condition. At the same time, the City integrated *MAPdirector* for ArcView, a system that enabled Waynesboro to link its new CartêGraph database directly to its existing GIS system. Now, the Public Works Department could easily map components to give users a clear understanding of asset locations, and how they are connected.

Encouraged by these newfound abilities and their accompanying results, Waynesboro abandoned the spreadsheets and quickly moved forward with the implementation of additional CartêGraph applications. *SEWERview* was added to track the current and historical conditions of sewer assets—including sanitary sewer overflows, pipes, manholes, mains, service laterals, pumps, and auxiliary equipment—and confirm that the City's sanitary sewer system is being maintained in compliance with Capacity Management Operations Management (CMOM) best practices. *WORKdirector* was added to manage and maintain all current and historical workflow information—including activities, materials, employees, and equipment—and manage tasks from initial request, to the scheduling of maintenance, and through to completion.

Another interesting addition was that of *VERSAtools*, a tool kit used to design and create management applications that are specific to the needs of an organization. With *VERSAtools*, Waynesboro gained the ability to create custom applications that could be used to manage projects, assets and resources that resided outside of their other CartêGraph applications. The first area to be addressed was the Engineering Division.

“What the Engineering Division wanted to do was take things a step further,” explained Schwartz. “So we made them their very own project module; one that would allow the Department to track individual projects and their associated notes, assigned hours, and specialized attachments.”

When this newly-designed Engineering Project Module was quickly declared a success, Schwartz was prompted to create other custom applications. A special module was designed to capture and report land erosion and sediment information for monthly submission to the Department of Conservation and Recreation. Another module was built for the sole purpose of tracking and reporting Erosion & Sediment permits; establishing a dedicated, central database for permit applications, issued permits and all associated information.

“And it's just ballooned from there,” added Schwartz. Waynesboro now boasts an array of custom-built modules that track everything from hours spent on environmental education to purchases made outside of departmental budgets; all information that lends itself well to seamless workflow and year-to-year budgeting. With that in mind, the City's future plans include the development

of another *VERSAtools* module purposed specifically to budgeting scenarios.

“Right now, we’re still doing budget notes and totals in Excel,” continued Schwartz. “We’d like to get to the point where we construct a module that centralizes and tracks all departmental purchases and provides a rolling total of our budget.”

Once the efficiencies of the software became clear, other departments began to take notice. “The Finance

Department was so impressed with the clarity of our reporting,” explained Schwartz, “they began to ask us for additional reports for Equipment usage.”

When Schwartz reflects on Waynesboro’s decision to implement CartêGraph, he sees clear advantages. “We can actually, physically see what we’ve done,” said Schwartz, “so, when the budget is short and the money isn’t there, we can easily pinpoint the performance measures that are and are not being met.”