

BAXTER & WOODMAN NEWS

Consulting Engineers

Making a positive difference through innovative engineering solutions

Shared Services – A Cost Reduction Strategy for Municipalities

MUNICIPAL PARTNERING

WHAT IS MUNICIPAL PARTNERING?

Municipal partnering is a group of municipalities and/or agencies joining together to achieve economies of scale for the purpose of purchasing shared services and commodities. This collaborative approach has many benefits including helping communities extend their financial resources.

WHAT ARE SOME OF THE BENEFITS OF PARTNERING?

- Sharing best practices results in better bid specifications and cost savings by challenging the status quo
- Existing contracts can be reexamined and vendors may be willing to renegotiate in order to get more business
- Relationships established can lead to other shared service opportunities and discussions

HOW DO I GET STARTED?

Identify common opportunities for partnering between neighboring communities. These projects/service needs could include street resurfacing, curb/sidewalk replacement, cleaning and televising sewers, purchasing road salt, sewer lining, and more. Next, reach out to neighboring communities to identify which are open to discussing a partnership. Then, get together to discuss projects/services that are a good fit for a partnership.

HOW CAN BAXTER & WOODMAN HELP?

Baxter & Woodman has the experience to facilitate a partnership initiative by coordinating participants, identifying ideal projects/services to include in the partnership, reaching out to service providers, and organizing bidding. We have facilitated several successful municipal partnerships including:

Glenview, IL: The Village of Glenview participates in approximately 20 joint bids in any given year for services and supply of

materials. These bids range from large street resurfacing bids worth nearly \$2.0 Million to smaller decorative fountain maintenance bids worth approximately \$20,000. Other examples of jointly bid projects include concrete sidewalk and curb & gutter repair, internal sanitary and storm sewer lining, crack sealing, internal closed-circuit televising of storm and sanitary sewers, and street light maintenance and repair. Many of the Request for Bid's (RFBs) are for multi-year contracts allowing Glenview to extend the contract on a yearly basis depending on contractor performance, budget, and board approval. Baxter & Woodman has assisted the Village of Glenview in preparing RFBs and managing approximately 7 of these contracts each year. The Village has noticed cost savings ranging from \$1,000 to \$75,000 depending on project size and scope.

Bull Valley, IL: We recently completed two joint bid federal-aid transportation projects for the Village. These projects involved the Village teaming with Dorr Township, Nunda Township, and the City of Woodstock to complete resurfacing and patching improvements on long, continuous stretches of roadway without interruption. The improvements crossed in and out of the boundaries of these four agencies. By partnering on the projects, the agencies saved money completing single larger scale improvement projects opposed to improving the smaller stretches of each roadway individually.

For more information contact Lou Haussmann at lhaussmann@baxterwoodman.com

April 2018

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DISCOVER

ASSET MANAGEMENT THROUGH CMMS

Computerized Maintenance and Management Systems (CMMS) help record and identify assets, schedule and track maintenance tasks, and keep a historical record of work. Although a CMMS Program requires an investment of time and care to start and maintain, the program will provide invaluable insight into the finances of operating Public Works. A CMMS program consists of management tools to streamline processes including automating routine preventative maintenance tasks through a scheduler, tracking lifecycle costs of assets, creating and assigning work orders from a spatial map interface, centralizing asset and work order information and history, providing insight into labor and material costs of maintenance tasks, and streamlining necessary reporting standards.

WHAT ARE THE MAIN GOALS OF A CMMS PROGRAM?

- Update asset attributes and Operations and Maintenance needs
- Initiate paperless work requests and work orders
- Utilize mobile tablets to enhance productivity
- Consolidate preventative maintenance tasks
- Produce data driven reports

Teamwork from all levels of staff is required for a CMMS to be successful. Managerial input is important to guide information collection. Operator/staff input is critical to determine user interface and maintenance plans. IT/GIS Support is important to help maintain the SQL Database and GIS component and ensure the CMMS upkeep through standardization of new assets, maintenance of existing information, and to monitor the workflow system.

WHAT ARE SOME CMMS PROGRAM BENEFITS?

Fewer work stoppages: Improved preventive maintenance means there are fewer surprise breakdowns.

Better accountability: Easily see work status and receive an alert when a task is finished.

Less overtime: Work can be distributed evenly. Better scheduling means your team doesn't sit idle or work overtime.

Information capture: Operators have the ability to record problems and solutions, so information is captured and easily shared with others.

Savings on purchases: Inventory planning allows you time to shop for best pricing, instead of having to buy quickly.

If you are interested in learning how a CMMS program can help your community operate with greater efficiency, please contact Derek Wold at dwold@baxterwoodman.com



Project Highlight

CMMS Implementation Elmhurst, IL

The City of Elmhurst, IL is a western suburb of Chicago with a population of just over 46,000. Baxter & Woodman worked closely with the City to implement a CMMS program.

BACKGROUND:

The City's water production & wastewater treatment current operations consist of 16 staff members, preventative maintenance (PM) on over 900 assets, and paper tickets for assigning and tracking work orders. The City's water distribution and sanitary collection current operations consist of 18 staff members.

CMMS IMPLEMENTATION AND STARTUP:

In 2013, Baxter & Woodman provided implementation support for the City helping them meet their goals for the program.

"The City's goals for implementing the Utility CMMS included;

- ◆ More effective planning for maintenance functions that can sometimes get lost when staff retire,
- ◆ Improved productivity through less paper handling,
- ◆ Lower overall operating cost by preventing potential crises by maintaining equipment to manufacturer specifications,
- ◆ Increased compliance data tracking for easy reporting to different organizations,
- ◆ Better planning for future capital improvements by documenting equipment value on a routine basis."

Paul Burris

City of Elmhurst Utility Operations Manager

KEY PROJECT TAKEAWAYS:

Implementation provided some key takeaways for creating a successful CMMS program:

1. Garbage In = Garbage Out
2. CMMS programs are powerful tools if built and maintained properly
3. The quality and standardization of data is paramount to provide feature-rich reports
4. Requires involvement at all levels to get off the ground
5. CMMS tools, like mobile support, allow centralized workflow for all user levels
6. GIS Integration keeps the data connected between different user groups

2018 AWARDS RECAP

B&W RECOGNIZED BY ACEC

Baxter & Woodman's WWTC Phase 2 Combined Heat & Power Improvements earned a 2018 National Recognition Award from the American Council of Engineering Companies (ACEC).

This award-winning project allows the Downers Grove Sanitary District to recover valuable energy resources through the use of two Combined Heat and Power systems that convert biogas from anaerobic digestion into electricity and thermal energy. The District can now not only produce as much energy as it uses, but also send excess electricity back to the grid.



Additional 2018 Project Award Recognition Includes:

Downers Grove Sanitary District, IL – WWTC Phase 2 Combined Heat & Power Improvements

- APWA Suburban Branch 2018 Project of the Year, Environment, Less than \$5M
- ACEC Illinois 2018 Engineering Excellence Honor Award
- ACEC Illinois 2018 Engineering Excellence Best in Category Award
- ACEC 2018 National Recognition Award

Village of South Elgin, IL – McDonald Road Bridge Replacement

- APWA Fox Valley Branch 2018 Project of the Year, Transportation, Less than \$5M
- APWA Chicago Metro Chapter 2018 Project of the Year, Transportation, Less than \$5M

Village of Plainfield, IL – 127th Street Reconstruction

- APWA Southwest Branch 2018 Project of the Year, Transportation, Less than \$5M

City of Chicago, IL – Root Street Relocation

- APWA City Branch 2018 Project of the Year, Transportation, Less than \$5M

Madison Metropolitan Sewerage District, WI – Pumping Station 15

- Institute for Sustainable Infrastructure Envision Gold Award
- First Project in Wisconsin to receive an Envision Award!



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TECH SPOTLIGHT

AUGMENTED REALITY (AR)

Baxter & Woodman pioneers the development and application of specialized technologies and techniques to enhance our traditional engineering services. Recently, we have been using augmented reality to help the public visualize proposed improvements.

WHAT IS AUGMENTED REALITY?

Augmented reality technology overlays virtual objects onto the real-world environment. B&W's AR uses a combination of computer-generated imagery (CGI) (virtual objects) and drone video (real world environment) to create a visual representation of future construction. This representation can be used to promote public awareness, involvement, and engagement. The augmented reality video can be posted online, on a community website, or shared directly through links.

Contact Peter Ferretti at pferretti@baxterwoodman.com to learn more about the benefits and potential uses of AR.

The Village of Plainfield used augmented reality to provide a glimpse of what a proposed \$4.8 million Park-n-Ride PACE transportation facility would look like. The project was recently approved and construction will begin in 2018.

View the AR Video here: <http://bit.ly/2EsPEpD>

