



## Does your community have a TRAFFIC CALMING POLICY?

**“Cars fly down this road at double the speed limit! Someone is going to get hurt if you don’t install a stop sign!”**

**Is this a common phone call you receive? Has your community considered adopting a traffic calming policy to objectively and systematically handle these concerns?**

**WHAT IS A TRAFFIC CALMING POLICY?** A traffic calming policy is an engineering based document that:

- Educates the public on the use of traffic control devices and traffic calming measures;
- Establishes criteria for when and what type of traffic calming is appropriate depending on roadway type and function; and
- Contains a systematic plan for residents to make formal requests to have a traffic study completed, which warrants (or doesn’t) appropriate traffic calming measures be installed.

**HOW DOES THE PROCESS WORK?** The process generally works like this:

1. A speeding/traffic complaint is made.
2. Resident is directed to the municipality’s traffic control policy website, where resident is educated on traffic calming measures (and dispels myths like

stop signs effectively calm traffic), and what criteria need to be met in order for a traffic study to be undertaken.

3. Citizen completes a form requesting a traffic study.
4. At staff discretion, municipality completes a traffic study which typically consists of reviewing accident data and collecting speed and traffic counts.
5. Staff analyzes the data against its traffic calming policy, and determines whether the traffic calming threshold has been met. The analysis can be completed in different ways, but a popular method is a minimum scoring threshold based on speed, traffic volume, crashes, crossings, sidewalks, and others.

6. If the threshold has been met, staff determines the most appropriate traffic calming measure to be installed. If there are multiple options that can be effective, staff can reach out to stakeholders for their input. In some cases, multiple traffic calming options are installed on a temporary basis to measure the effectiveness of each.

Q1 2019

### INSIDE

2 Drones in Action

4 Impact Fee Changes

BAXTER & WOODMAN  
Consulting Engineers  
baxterwoodman.com

# DRONES IN ACTION

**Technological advances, increased ease of use, lower costs, and improved overall functionality have turned drones into valuable tools.**

Drones can collect a wide variety of useful imagery for varying applications. They can take photos to help monitor project progress, collect ortho-imagery (for mapping), and conduct inspection work. Drones are capable of creating 3D data sets (LIDAR, Point Clouds, etc.) for use in volume measurements, planimetrics, and modeling. Some drones have Forward Looking Infrared (FLIR) available. FLIR can be used for many applications from construction project photos to bridge and utility inspections.

Through the use of pre-programmable flight plans, drones can be configured to fly the same path again and again. Repeat flights offer the opportunity to capture the exact same data set repeatedly over a period of time. As a result, the data can be compared over time to reveal change.

## DRONES ARE IDEAL FOR...

- Traffic Analysis
- Hard-to-Access Areas such as: Bridge Inspection, Water Tower Inspection, Facilities (Roofs) Inspection
- Site-Specific Aerial Mapping
- Environmental Data Collection
- High Resolution Images and Video
- 3D Data Collection
- Thermal Imagery
- Utility Corridor Survey

## HOW CAN A DRONE ASSIST MY ORGANIZATION?

- Collect data quickly and cost efficiently
- Capture aerial imagery, High Resolution Photos
- Monitor project progress
- Proactively identify potential issues such as algae blooms, invasive species, etc.
- Mitigate safety risks and reduce workers' exposure in high risk environments

## No Name Key, Florida

### BRIDGE INSPECTION

No Name Key is an island community located in the lower Keys which connects to Big Pine Key by a concrete bridge. The Florida Keys Aqueduct Authority (FKAA) supplies potable water to island residents while providing reclaimed water and wastewater services. The FKAA installed 2,000 feet of 2-inch stainless steel force main pipe to transport wastewater from No Name Key to a local treatment facility. After construction, the newly installed pipe needed to be inspected; however, the pipe's inaccessible location beneath the bridge deck required an innovative solution. FKAA hired Baxter & Woodman to perform a drone inspection. The drone video and photographs identified several locations which were deficient and needed to be corrected by the contractor. Baxter & Woodman provided two drone flight inspections to verify the corrective work done by the contractor was completed satisfactorily.



**Drone video of bridge piping inspection, part 2:** <https://bit.ly/2ynjRQS>

# DRONES IN ACTION

## Village of South Elgin, Illinois

### MCDONALD ROAD BRIDGE OVER OTTER CREEK

Throughout construction Baxter & Woodman used drone technology to capture both data and imagery. The collected information was used to keep stakeholders informed, monitor change over time, and capture an archival record of construction progress at various stages of the project.

 **YouTube** Drone Video: McDonald Road Bridge over Otter Creek: <https://bit.ly/2D0ArcX>



## City of Waukegan, Illinois

### GENESEE BRIDGE INSPECTION

The size, location, and design of the bridge made it difficult for a traditional inspection. Drone inspection was a more cost effective and safer approach.

 **YouTube** Drone Video: Genesee Bridge Inspection: <https://bit.ly/2sejZQa>



Continued from page 1

## TRAFFIC CALMING

7. The preferred traffic calming device is chosen and the municipality determines when and how it will be installed.

8. The municipality follows up after installation to measure prevailing speeds and traffic counts, and compares that information to data collected before traffic calming was implemented to measure its effectiveness. Post installation data vs. pre-installation data is tracked so it can be used to make future traffic calming decisions.

### Example: Project Point Assignment - Local Streets

Criteria	Points	Basis
Speed (85th percentile)	0 to 40	10 Pts for every 5 mph over posted speed limit
Volume	0 to 40	ADT divided by 100
No Sidewalks	0 to 5	If no continuous sidewalk then 5pts. If there are signs of heavy pedestrian traffic w/out sidewalks 10 pts
Traffic Crashes	0 or 51	Pt for each crash/year at one location
School Crossing	0 or 55	Pts if children must cross street to get to school
Total Points Possible	100	

**HOW DO I START?** There are plenty of well thought out traffic calming policies for public viewing. Find a policy that works for your community and put it in place to save time for your staff and to provide your residents an objective strategy to address their traffic and/or speeding concerns.

Please contact Scott Ahles, PE at [sahles@baxterwoodman.com](mailto:sahles@baxterwoodman.com) to discuss the best way for your community to implement a traffic calming policy.



To receive *Baxter & Woodman News* electronically, send your email address to: [editor@baxterwoodman.com](mailto:editor@baxterwoodman.com)

Prst Std  
U.S. Postage  
PAID  
Crystal Lake, Illinois  
Permit No. 345

# IMPACT FEE CHANGES

*Last year Wisconsin Act 243 was signed into law and contains several wide-ranging provisions that will affect Wisconsin municipalities. One of these provisions included changes to the rules governing the use of impact fees. These changes could require your community to update your local ordinances and revise your impact fee studies. Changes include:*

- A municipality, at the time it collects an impact fee, must provide the developer (from whom it received the fee) an accounting of how the fee will be spent.
- Developers may defer payment on impact fees exceeding \$75,000 for four years. If the fee-funded facilities are constructed earlier, the developer must pay the full fee six months before the revenue is spent.
- Fee revenue must be spent within eight years (in certain cases, longer time limits may apply).
- Impact fees cannot be used to expand the service capacity beyond that which is needed to serve the

development for which the fee was created.

- Impact fees cannot be used for the operation or maintenance expenses of public facilities.
- Aggrieved parties now have 90 days following the fee's due date to file a petition.

To review these changes, visit Wisconsin Act 243 at <http://docs.legis.wisconsin.gov/2017/related/acts/243>. Baxter & Woodman can review your ordinances and help update your impact fee studies to ensure you stay in compliance. Contact Jerry Groth at 815.444.3264 or [ggroth@baxterwoodman.com](mailto:ggroth@baxterwoodman.com) for more information.

