

GISette

City of Marlborough
Massachusetts



GIS

A quarterly newsletter for City Departments to keep them informed of updates and changes to the City's Geographic Information System

Volume 1, Issue 2

Summer 2010

Welcome to the second edition of the *GISette*, a quarterly publication designed to keep people informed on what's happening with the city's GIS, data updates and ongoing developments. Although it is my primary consideration to convey information directly related to Marlborough's ever expanding GIS system, I will also attempt to include other items that highlight spatial resources and their impact on our everyday life.

GIS and Mapping Related News

FEMA has introduced new FIRM maps (Flood Insurance Rate Maps). These maps became official on June 4, 2010. You can find a link to the maps and can also download the official FIRM panels on the city's web page. They can be accessed by clicking on the following link:

[FEMA FIRM Maps 2010](#)

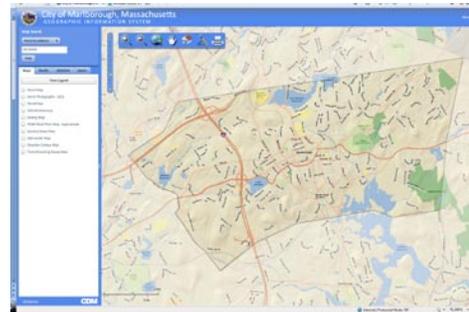
Updates have been made to the content on the GIS portion of the city website. New maps now available for download include:

- 2010 Assessor's Maps
- Individual Ward and Precinct Maps
- FEMA FIRM maps and their associated Letters of map Change (LOMC)

You may also continue to view Open Space mapping, City Zoning and Conservation Trail Maps among others.

New Public Mapping Tool

Marlborough to launch a new online mapping viewer



We have had access to an internal mapping site for some time now. However, by the end of the summer, the city will have a new version of its online web mapping software. This new site will be much more robust and user friendly and it can be adapted for individual departmental use. That means that we can easily put together a site that will be specific to the needs of one department. If the fire department needs to see only certain types of information, then we can put together a mapping site just for them. They won't have to wade through all of the various layers that we currently have online and will be able to see their queries answered more quickly. It will also have a variety of new tools that will make identifying and analyzing information easier and faster.

What is even more exciting about this new site is that it will be available to the general public through the internet. Up until now, the public has had to come into one or more city offices to be able to access this kind of information. Now, they will log on through the city's website. This will provide greater service to residents and cut down on the number of office visits they will have to make. Among its many uses, this will help streamline the city's permitting processes, assist real estate professionals and answer general mapping questions people might have. You'll be hearing more about this as it becomes available later this summer.

INSIDE THIS ISSUE

- 1 New online mapping application
- 1 News
- 2 Spotlight
- 2 How are maps made?
- 3 Do you Google?

SPOTLIGHT

Building Department

I never really know how much people are using the GIS until there is a problem with it. Almost immediately, I'll start getting phone calls from people asking what's wrong. This is a good thing, I suppose, because it means that the various departments are relying on my work to make their daily jobs easier.

One department in particular that really embraced the use of GIS is the city's Building Department. They have been ardent supporters from the beginning.

As part of the residential building permit process, applicants are required to submit a sketch. Those residents who want to add additions, do site work, put up a fence and so on, have to show their intent so as to avoid any potential conflict with current building code.

"I use the maps when we have residents that come in and are needing the maps for building use" says Carrie Lizotte

"The layers of seeing where everything is help as well. It is also easy to jump from map to map in seconds"

Aside from accessing the information for residents who visit the office, the Building Department has begun to rely on the GIS for their own quick reference to questions that come in over the phone. For example, residents may inquire about the zoning of a particular lot. Within a few seconds, they can call up the appropriate information and answer that request quickly and efficiently. Ideally, this has saved somebody a trip to city hall and has cut down on time spent handling in person inquiries.

"Having the maps help us serve the community better and in a timely manner" says Carrie, *"In general, I think the customers are the ones that benefit."*

What makes an effective map?

What works and what doesn't

It is sometimes easy to forget that that people have to 'read' maps. Yes, they are looking at images and colors and symbols, but they are translating all of those things in their heads in an attempt to understand complex ideas and thoughts. It can be more difficult than you think to take colors and shapes and arrange them in such a way that makes it useful to the subject audience.

As a general rule, the simpler the map, the better the map is. Too much information can overwhelm the reader and can be counterproductive. The map maker needs to define his or her objective and determine what best symbolizes the reality he or she is attempting to convey to their reader.

Maps are made with a certain objective in mind. Typically, you are trying to highlight spatial relationships between objects or ideas. Once you define an objective, you must design the map. As a map maker, you want ensure a truthful depiction of reality. Most people handle the concept of space and time somewhat differently. You need to help the reader easily create a mental image that closely resembles that same image as it exists in your own head.

Maps can fail even though the ideas they are attempting to convey may be sound ones. The idea did not fail, the map did. Remember that a map is not a photograph. It only contains selected information. More often than not it is poor design that causes this failure. Colors that blend too easily or text that may be too small, can fail because the reader cannot differentiate the information. Conversely, dominant colors and large text can capture the reader's eye and make it difficult to see the more generalized relationship between objects. Finding a balance is the key.

Lastly, how you present your map is as crucial as what information it contains. The most beautifully designed map may contain colors or fonts that a printer may not be able to handle. A bright red may be reproduced as dull and less than expressive. Electronic copies of maps can go wrong too. Somebody may not be able to open a PDF because they have an old version of Adobe Reader. The resolution of the map may be too small. This is common when trying to email an image that isn't too big for the recipient's inbox. These are problems that are often out of your control, but they all play a role in the effectiveness of the map.

Do you Google?

Model our City in 3-D

Unless you've been living under a rock you have probably seen or, at the very least, heard of Google Earth. This virtual globe superimposes aerial imagery of varying resolution on top of the earth's surface. You may also have noticed that in some locations you can view three dimensional buildings. Check out New York City and you'll see what I mean. What you may not know, however, is that Marlborough has been partially modeled as well. This is because anybody can create these accurate 3-D models and upload them to the Google community. As a pet project, I started to model the downtown area. I was inspired when I attended a conference and heard the city planner from Amherst, MA speak about it. They have been using it as a planning tool to evaluate the impact of proposed construction to parts of their town. This allows them to, in effect; see it before they build it. They can evaluate view sheds, shadows that may be cast, you name it. I haven't been able to return to this project for some time now, but, I thought I would put it out there in the hopes that others could pick up where I left off. It is incredibly simple to do and everybody is welcome to upload content. I always thought this would make great school project. If you're interested, or know somebody that might be, have them check out Google's [3-D Warehouse](#). There is free software called [SketchUp](#) for more involved design or brand new software called [Building Maker](#) for quick and easy buildings available to all. It enables anyone from a child to a grandparent to create a virtual community.



COMMON QUESTIONS AND ANSWERS

Q: I need a map to illustrate a point I am trying to make, how do I get one?

A: Just give me a call. In most cases, we already have the information you are looking to see illustrated. If it's a unique request, we can certainly work together to get you what you need.

Q: Can I make my own maps?

A: Yup. Click the link below and start making and printing your own maps. If you need help using the website, just ask.

[Click here](#) for the current web mapping site

Q: I have information in my office that I would like to see displayed on a map. How do I make this happen?

A: I'm glad you finally asked!! Many city departments are sitting on treasure troves of data that could easily be displayed as a 'layer' on a map. Please call me.



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