



Designing web sites for small land surveying businesses

Written with the small geospatial company in mind, this article discusses the basic principles of good website design and provides miscellaneous tips on how to deal with issues ranging from browser compatibility to RSS feeds.—**Landon Blake**

Planning a web site

Before you sit down with a consultant to design your web site (or do it yourself), you should consider four key elements of the concept:

- **Who is the web site's target audience?** Your target audience may be the general public, fellow professionals, potential employees, members of the public seeking land surveying services, or students researching information about the land surveying profession. Most likely, you will want your web site to reach a varied audience, while targeting some visitors more than others. To achieve this, aim to build a web site which has a broad appeal but also attracts your most important visitors.
- **What is the purpose of the web site?** Is it to attract new clients or serve existing clients better? Will it serve to highlight the company's involvement in the local community or in the development of the profession? Will it show what a great place the company is to work for and will it try to attract new talent? Your web site will likely have several purposes. Given this scenario, it is advisable to prioritize the purposes and objectives you have identified for your web site. This will help you decide between different web design options.
- **What are the possibilities of communication through the site?** Which web tools—text, images, multimedia, or interactivity—are best suited to communicate the purpose of your web site? On what type of technology platform will the site be displayed? Will it function only as internal corporate web site? Will it be viewed primarily on mobile phones, on home computers, or on the desktop workstations of the typical CAD user? Will people be viewing your web site with Microsoft's Internet Explorer, and if so, what version of the browser? You will likely want to have your web site displayed in such a way so that it is readable on all sorts of different platforms. We will talk more about "compatibility" later.

- **Who will build, maintain, and update your web site?**

You don't need expensive and powerful software, or a degree in computer science, to build a visually appealing and effective small business web site. Most land surveyors can build a web site (and maintain it) with something as simple as Microsoft Notepad and a modest investment in time. As an alternative, you can hire a consultant to design the web site for you. Even if you choose this route, read the rest of this article. The more you understand about web site design, the more likely you will be to find a professional web design consultant who will build you a quality web site. Think also about web site maintenance and updates. Could the consultant be contracted to regularly tune up the web site? If this is not an option, you can either ask the consultant to teach you how to update the site yourself, or you may have an employee or a friend who is tech-savvy and web-literate who would be able to lend a hand.

Once you have identified the audience of your web site, determined its purpose, and settled on the best way to communicate the objectives for creating the web site, you need to do one more thing—chart your site's structure and document its design.

Simple web design

This is the most critical part of the article. If you don't remember anything else, remember these principles of a simple web design:

Principle #1: Simple is good

Why is this true? What do I mean when I say "simple"?

A web site does not have to have fancy animations, eye-popping graphics, and high-definition video to be well designed and functional. This can be achieved with ordinary text files, some digital photos, and a logo. It does not mean that these technologies don't have a place on the web, but I would argue they are not appro-

appropriate for most small land surveying businesses. Leave the eye candy to the Hollywood movie studios and the corporate giants of the Silicon Valley. Focus on high-quality content instead. (See also Principle #3.)

3 Principles of Simple Web Design

Simple is Good

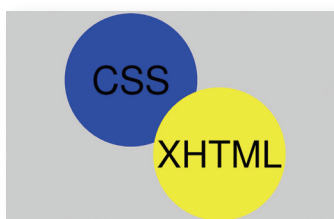
Use Open Tech Standards

Quality Content Is Critical

Why is a simple web site better? A simple web site is easier (and less expensive) to build and maintain, and it will accomplish the purpose of having a web site in the first place—by reaching your target audience—with content targeted to that audience.

Remember, the more complicated technology your web site is built on, the fewer people the web site will reach. Any specialized software a user needs to install in order to “see” your web pages will reduce the number of people visiting the site. On the other hand, you don’t want to build a web site for a 10-year-old web browser. Don’t let a consultant or a peer talk you into some fancy web technology that you don’t need, but also be mindful of the fact that basic technology develops too. The rule of thumb is that the purpose of your web site will drive the selection of web technology on which to build it.

If the purpose of your web site is to entertain, to impress, or to dazzle, then “simple” design technology may not be for you. Perhaps you want to stand out from the competition, and you figure an eye-popping web site is the only way to do it. But choosing a design with all the latest whistles and bells has its consequences—a more expensive web site to build and maintain, and more limited audience. Are you willing to accept the higher costs and restrictions on accessibility?



Principle #2: Use open technology standards

I highly recommend you use open technology standard in your web site design. What are open technology standards? These are specifications

and guidelines developed by the World Wide Web Community (W3C) to govern the use of interoperable web software and tools. Two of these standards—XHTML and CSS—can prove immensely useful when building a web site for a small business.

Both XHTML and CSS provide rules for structuring your web site. Using them will make your web site more flexible and easier to maintain. They are compatible with a host of new open technologies, which means that you will avoid problems associated with a proprietary (or commercial) file format or technology, such as purchasing special software and undergoing specialized training.

Principle #3: Quality (and regularly updated) content is critical

Do you know what attracts people to a small business web site? It isn’t the eye popping graphics or fancy animations. It isn’t the opportunity to watch people whistle the top 10 songs on the pop chart while riding a bicycle. They come to a business web site primarily for two reasons:

- Easily accessible and well presented information about the business; and
- Quality content on the subjects the company has expertise in.

Consider the questions your land surveying business receives on the telephone or when your crews are out working in the field, and you will realize that they fall into one or the other of the two categories listed above. Typical questions related to your business—surveying—would include:

- How much will it cost to find my property corners?
- How long have you been in business?
- Why does your estimate to stake this earthen dam is so much higher than that of your competitors?
- How much experience do you have in commercial real estate development?
- Do you work on Saturdays?
- Is your company currently hiring?

Questions such as these relate to expertise:

- Are you taking my picture with that thing on the tripod?
- What is a land surveyor, anyway? Why are you guys always standing on the side of the road?
- Why did the land surveyor tell me my fence is not the property line?
- Do I have to go to school to become a land surveyor?
- Do surveyors work in an office?
- Do surveyors use the same GPS I use when I go hiking?

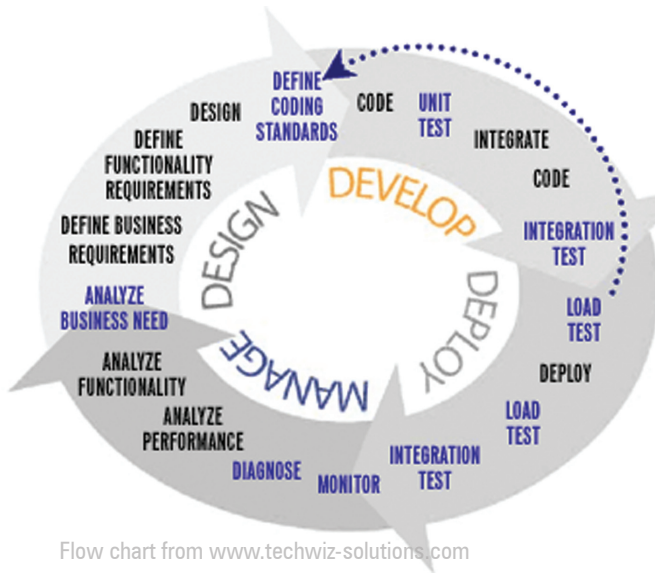
If your web site has quality content which answers these and other questions, traffic to your web site will increase, and repeated traffic can drive the business. So, instead spending money on fancy graphics you don’t need, bolster the quality of your web site’s content.

Tailor your content to fit your web site’s primary purpose. For example, if this purpose is to attract new clients, post content that explains in detail the services you provide. Show potential clients photos of your recent projects, and let them read references and testimonials from past clients. Design a graphic that shows them how you can save them money on their next project. Provide a list of the steps that you take to ensure a quality product is delivered. Post an audio interview with a member of another professional consultant you regularly work with, explaining why he values his/her business relationship with you.

Miscellaneous tips for good web site design

Avoid fixed width layouts

The cascading style sheets distinguish between “fixed” and “fluid” layout. Avoid using fixed-width layouts (also referred to



Flow chart from www.techwiz-solutions.com

as “absolute positioning”) when designing your web site. A fixed-width web site is static, frozen, or fixed in place because each major element on the site’s pages has been given a specific (absolute) position. Some of the reasons for staying away from this type of a layout are:

- Web sites with fixed-width layouts may not display well on computer monitors of different sizes. They will most likely not display properly on mobile devices such as cell phones or handhelds used to view the web.
- Fixed-width layouts can make it harder to update the content of a web site. For example: Additional content may not fit in its predefined box. This can make it necessary to change the layout for large portions of the page because of one simple change or addition in the page’s content.
- Fixed-width layouts do not usually make the most efficient use of screen space to display a web page.

Have a RSS feed

A RSS feed is a simple way to let visitors know when there is new content on your web site. They can then use free tools such as Google Reader to “subscribe” to your RSS feed. This will help them zero in on new content.

Avoid “click me” hyperlinks

The names of your hyperlinks should be specific and descriptive. Instead of putting a hyperlink on “click this” or “click here for my site,” make a hyperlink which let’s the reader immediately know where they are being taken. Putting a hyperlink on, for instance, “SurveyOS Project, my programming web site which focuses on open source tools for land surveyors,” speeds up navigation to the content on the site. This in turn will improve the web site’s ranking in search engine results.

Maintaining your web site

Regular web site maintenance is critical. Once you have your web site designed, constructed, and online, you will need to maintain it. This ensures that your web site will remain usable and relevant, and it will protect the initial investment in building the web site. The following tasks should be regularly completed as part of your web site maintenance program:

Check browser compatibility: Make sure that your web site displays properly on the different web browsers. The most important web browsers for the Microsoft Windows operating system are Internet Explorer and Mozilla Firefox. The Safari web browser is commonly used on computers with the Macintosh operating system. Mozilla Firefox is also commonly used on Linux / Unix operating systems. Ensure that your web site’s browser compatibility is not affected with the release of new versions; its pages may not display correctly if it is. [Note: While it may be difficult to get your web site to display properly on all the different web browsers, if you have followed the principles for simple web design we recommend in this article, your web site should display 99 percent correctly about 99 percent of the time.]

Regularly fix or remove broken hyperlinks: Nothing says your web site is being neglected like broken hyperlinks. (A broken hyperlink can occur when a resource or a web page you linked to is no longer at the web location identified by the link.) You should check you web site for broken hyperlinks on a regular basis. If you find a broken hyperlink, fix it or remove it.

Keep your content fresh: The following actions will help you to keep the content on your site relevant:

- Remove content which is out-of-date and replace it with new content. It might help to keep a list of expiration dates for each of the pages on your site.
- Use a schedule to update the material on your web site. Write the new content yourself, or hire a writer to help you generate some quality content for your web site.
- Update the content on your web site when your business changes. Have you hired a new employee? Are you offering your clients a new service? Did you just successfully complete an important project? Did you buy a new instrument or computer program? Tell people about it on your web site. Explain how these changes will make a difference for your clients, employees, profession, and your community.
- Tap into events occurring in your community and in the profession. Is your community celebrating its anniversary? Write an article with some of the land surveying history of your community and put it on your web site. Is the local chamber of commerce holding a festival for small businesses? Host a web page with details on the festival and explain how land surveying businesses are an important part of economic development in your area.

Editor’s note: Three decades ago, the World Wide Web was conceived as a global, internet-based information sharing mechanism by a graduate of Oxford University in England, Tim Berners-Lee. He wrote the first web client and server in 1990. His specifications of URLs, HTTP, and HTML were refined as web technology spread into a vehicle of communication linking people and businesses together, enabling business-to-business interactions, and ultimately boosting socio-economic activity. Hopefully the selected principles and tips presented in this article will help all small geospatial companies make the utmost use of web technologies to communicate better with their current and prospective clients, and so fully benefit from the current communication revolution.