

# Local Government Web Site Development Manual

*November 2001*



This "Best Practices for Local Government Web Site Development" document was developed by the League of Minnesota Cities (LMC) in consultation with the International City/County Management Association (ICMA). This document is intended to provide general recommendations regarding "best practices" for local government web sites. It is not intended to provide legal advice and should not be used as a substitute for competent legal guidance. Readers are strongly encouraged to consult with an attorney regarding specific situations or particular legal requirements or disclosures relating to websites in your respective jurisdictions.

This document is the 1st Edition, and will be updated and expanded periodically. We encourage you to share comments and suggestions with us by e-mail to: [info@govoffice.com](mailto:info@govoffice.com).

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## *Accessibility*

Information on your City Web site needs to be accessible to all users, regardless of age or disability. The GovOffice.com Web site development tool is designed to make it easy to meet the basic level of accessibility guidelines. However, regardless of what tool you use, it is important to understand the current guidelines for Web accessibility and to keep up-to-date on changes in these guidelines.

### *The Law & Guidelines*

The World Wide Web Consortium (W3C) has established guidelines and a set of rules for Web sites to follow to ensure Web accessibility ([www.w3.org](http://www.w3.org)).

The Federal Rehabilitation Act (section 508) prohibits federal agencies from procuring, developing, maintaining, or using electronic information technology that is inaccessible to people with disabilities. At this time, no law specifically states that local governments must make their Web sites accessible.

The ADA (Americans with Disabilities Act) does apply more broadly. The following policy rulings are of interest to local governments:

- *Dept. of Justice Policy Ruling (1996)*: ADA Titles II and III require state and local governments and the business sector to provide effective communication whenever they communicate through the Internet.
- *Dept. of Education, Office of Civil Rights (OCR) Settlement (1997)*: In a complaint by a disabled student against a university that had failed to provide access to the Internet, the Department determined that access which is as effective as that provided to others must be provided to the disabled.
- OCR has also ruled that a public entity violates its obligations under the ADA when it only responds on an ad-hoc basis to individual requests for access.
- For a Web site to be accessible, it must have a comprehensive policy for access, and when alternative communication is provided, it must be effective, or timely, accurate and appropriate to the significance of the message and the abilities of the disabled user.

### *Access for disabled users*

Voice browsers or screen readers convert text into synthesized speech. Other browsers enlarge the size of the text. The key is that these browsers can only work with text, so images, graphics, etc. must have text alternatives.

### *Making your site accessible*

You can create an accessible, ADA compliant site without sacrificing too much visually or spending too much. The goal is to provide “useful text equivalents” to the non-text information you display. You want one site that works for all users – a site that can be viewed, navigated, and understood without a mouse, and that can be viewed using small or black and white monitor screens, with no screens, or using voice only browsers.

It's an easy fix to provide alternative text for images or graphics (current coding has places for "alt" or "title" tags). Using the GovOffice tool, images require a "title" field. This title should describe the image so that when a voice browser or screen reader is used, the text associated with the image is understandable. You can also add a caption to that image to further describe it.

For video, captions can be added or transcripts can be provided. Other multimedia can be converted as well, though this can cost significant time and money.

### ***W3C's Guidelines for Web Accessible Design***

There are three levels of accessibility that are used to judge sites.

"A" *Priority 1 Level* – a site must satisfy all checkpoints for this priority to be accessible.

"AA" *Priority 2 Level* – a good goal to work toward, since some users may have trouble accessing your site if it is not met.

"AAA" *Priority 3 Level* – right now only a pure text site without tables could satisfy this.

The GovOffice Web site development tool is designed to help cities make their sites compliant with "A" Priority 1 Level guidelines.

### ***Examples of Checkpoints to be a "A" level accessible site***

*(The full list of guidelines and checkpoints can be found at [www.w3c.org](http://www.w3c.org))*

1.1 Provide a text equivalent for every non-text element (e.g. images, graphics, image maps, animations, applets, sounds, stand-alone audio files, audio tracks of video, and video).

How?

- Use "alt" for the image and applet tags (or in GovOffice fill in the "title" field with a descriptive title for the image)
- Provide an audio description of important information of the visual track of a multimedia presentation

### ***Additional W3C Level 1 Guidelines***

- Don't rely on color alone to highlight important items or to serve as navigational elements (there are many color blind visitors to web sites)
- Avoid the use of "pop-up" windows that are not supported by older browsers and are confusing to blind visitors to your site who lack the technology that informs them another window has been opened
- Use only W3C technologies that are accessible to all, or provide alternatives (such as providing documents in text-only formats).

### ***Validating the Accessibility of a Web site***

- Use an automated accessibility tool [www.cast.org/bobby](http://www.cast.org/bobby)
- Test with text-only browser, such as Lynx. Lynx can be downloaded for free at <http://lynx.browser.org/>
- Use multiple graphic browsers (Netscape 4+ and Internet Explorer 4+) to test your site for navigability without using a mouse, or with all graphics turned off.

To turn off graphics in Internet Explorer, go to View/Internet Options/Advanced, and then disable the "Show Pictures" box. In Netscape go to Edit/Preferences/Appearance, and then make sure "text only" is checked.

- Use spelling and grammar checkers. (For the current version of GovOffice, this is done by copying or cutting and pasting text into Microsoft Word and conducting a spelling and grammar check, then bringing it back into the appropriate GovOffice text box.)
- Invite people with disabilities to review the site.
- Purchase and use Web design software that has ADA compliant features built into it, such as the GovOffice.com Web site development tool.

## *Advertising*

At this time, many people do not recommend that cities provide advertisements on their city Web sites. The case law is very new on this subject, but we do believe that cities run the risk of lawsuits and the appearance of conflict of interest if they show advertisements on their sites. For example, if the city allows advertisements from local restaurants but refuses to run an advertisement from a bar that serves food, it has opened itself up to legal action. Similarly, if a city shows an advertisement for a local resort and receives payment for that advertisement, and that resort brings a zoning request to the City Council, a conflict of interest could be alleged.

Instead of advertising local businesses, your city site could link to the Chamber of Commerce site. If you do choose to list local businesses, you should be prepared to list all of them or risk a legal challenge.

## *Comment Forms & Bulletin Boards*

If you choose to put a comment form on your Web site, it is important to clearly inform visitors that most of the comments they submit will be considered public data under the data practices act.

If a city chooses to post all or some of the comments received, visitors also need to be made aware of this before they complete the comment form.

Like any public data, most of the comments need to be made available to any member of the public who wants to see them.

If a city creates a “public comment” or “bulletin board” area of the site, the city is effectively creating a public forum for speech. Therefore, any censoring based on viewpoint could be subject to a legal challenge.

As a general rule, we would not recommend having a bulletin board area on your city site. The city would have a difficult time controlling the content of a bulletin board, and comments should not be displayed on a city Web site unless all comments are displayed and in unedited format.

However, taking comments through a comment form and then using them as examples, such as part of a meeting presentation, would be an appropriate use.

In determining how your city would like to proceed in regard to public comments, we also recommend that you consult with your city attorney.

## *Community Involvement in Web Site Development*

In determining what information to present on your city Web site, you may want to ask for comments from the key audiences you hope to visit your site, such as current residents, current local businesses, prospective tourists, potential new residents, potential new businesses, and specific segments of your population (youth, senior citizens, populations of color, etc.).

To start, think about the calls or other information requests you receive at City Hall on an ongoing basis. This information should be easy to find on your site, as well as listed in a “Frequently Asked Questions” section.

You may want to involve representatives of these groups early on in the process of building your site, or after you’ve had a chance to build the main portions of your site. Useful feedback would include ease of navigation in finding the information the visitor is looking for, attractiveness of the site design, what information should be prominently featured, etc.

The process of gaining feedback from the community on your city’s Web site should continue after you launch your site to the public. It should be an ongoing evolution, always changing to meet the changing needs of the community.

## *Content Contributors*

The GovOffice Web site development tool allows individuals to contribute content to specific areas of your city's Web site without having to be at the city offices. This may make it tempting to allow various community members to contribute content to your Web site. While there may be situations where this is appropriate, cities should be careful to avoid potential conflicts of interest or the appearance of censorship.

For example, instead of asking the local newspaper to post news on your site, simply provide links to all local news-gathering organizations. Similarly, instead of having a staff member from the local Convention & Visitors Bureau write content on tourism for your site, which may highlight one lodging establishment more than another, just link to the CVB's site.

*Copyright Policy*

An example of a copyright policy statement that can be adapted for use on your web site is listed below:

Example:

Unless a copyright is indicated, information on the City of \_\_\_\_\_ web site is in the public domain and may be reproduced, published or otherwise used with the City of \_\_\_\_\_'s permission. We request only that the City of \_\_\_\_\_ be cited as the source of the information and that any photo credits, graphics or byline be similarly credited to the photographer, author or City of \_\_\_\_\_, as appropriate.

## *Digital Cameras*

A digital camera can range in price from around \$50 to over \$2,500. In addition to price, there are many features to consider in choosing the digital camera that will best meet your City's needs.

### ***VGA or XGA***

VGA (video graphics array) digital cameras are less expensive than XGA (extended graphics array) cameras, but they also offer less resolution than XGA cameras. If you only plan to use your camera to take photos to be uploaded to your City Web site, you do not need the enhanced resolution of XGA cameras. The images XGA cameras produce, especially if they are large images, look better, but they take a long time to load. We recommend a VGA camera if you only intend to capture images for use on the Web.

### ***Lens***

Many digital cameras are less expensive because they use plastic lenses. Pay for a good case if you buy a plastic lens digital camera, as plastic lenses scratch more easily than the aspherical glass lenses found on more expensive digital cameras.

### ***Zoom or Telephoto Lens***

The camera you choose should be capable of zooming in or out.

### ***Compression Settings***

Compression is shrinking the file size of a captured image down to a more manageable size. Most digital cameras use some kind of compression. An uncompressed image can be very large, and since this is not practical for Web use, some form of compression needs to be applied to the image.

The most universally accepted compression format is called JPEG. Most digital cameras have three types of JPEG settings: fine, normal and basic. If you want high-quality prints, be sure to set the camera to use the least amount of compression.

The *fine* setting compresses an image to one-fourth its original size. When the photo is printed, it will still look quite good.

The *normal* setting compresses an image to one-eighth its original size. At this point, if you zoomed into the photo using a computer image-editing application, you would see some pixelation and other artifacts.

The *basic* setting compresses an image to one-sixteenth its original size. This would be for use only on the Web. If you took a photo using the basic setting and printed it out, it would not look good.

If you plan on using your digital camera to take photos that will be professionally printed, then use the TIFF setting.

## ***Storage Cards***

Choose a camera with removable media. Most cameras that use removable media come with an 8MB or 16MB memory card. A 16MB card holds roughly 32 pictures at 1600x1200 resolution using normal JPEG compression. If you are taking photos only for use on the Web, you should be using 640x480 resolution, which means you can store even more photos per card.

## ***Standard Floppy Disk vs. Special Memory Card***

Standard floppy disks are easier to use. You just take out the disk and insert it into your computer. Unfortunately, standard floppy disks only contain 1.4MB of memory, which is far less than more expensive digital memory cards, such as SmartMedia or CompactFlash. However, if you are just taking Web-related photos, a floppy disk will probably do the trick, and be much less expensive.

## ***LCD***

An LCD (Liquid Crystal Display) should have the ability to both preview and review your images, as well as allow you to see the shot you are about to take and play the shot back once it has been snapped.

## ***Connecting the Digital Camera to the Computer***

If you are using a digital camera with a floppy disk, you can just take your disk out and put it into the computer. If not, here are additional options:

*USB:* The fastest and easiest way to connect your camera to a computer and transfer images to its hard drive. Most, if not all, digital cameras today include a USB port.

*TV video-out:* The video-out port on a digital camera allows you to view your pictures on a television set.

*Serial port:* Before there was USB, there was serial. Serial is the slow way to connect your camera to a computer and transfer images. The main benefit of a serial port is that all PCs have one.

## ***Other Considerations***

*Batteries:* Do not be surprised if your camera goes through batteries very quickly – this is much more true of digital cameras than traditional cameras.

*Web Images:* Use the 640x480 setting to take Web photos, and compress all images as JPEGs using the normal or basic setting. This will insure that your image has good quality and loads quickly.

## *Hit Counters (Measuring Visitor Activity on Your Web Site)*

Placing a hit counter at the bottom of your home page seems like a great idea. We've seen them on countless other sites. They often will tell the visitor how many others have visited, such as "you are visitor #2,312 to our site since October 1, 2000."

There's only one problem. Have you ever hit the refresh button a few times to see what happens to the hit counter? It goes up by one pretty much every time you hit refresh. So really you may not be "visitor #2,312" to the site. You could be visitor number 300, or even the first visitor other than the webmaster who hit refresh on the home page 2,310 times before you happened along and found the site.

Avoid hit counters like this. They won't help you with statistics, and do you really want visitors to know how many hits you've had on your site? What's enough? Besides, site hits, as pointed out, aren't accurate. Even though a site like Yahoo continues to proclaim that it gets millions of hits a day, the folks behind the scenes at Yahoo aren't using these astronomical hit count numbers for anything other than to impress people that don't know any better.

A web site page, even if visited just once, may be recorded as having multiple hits. Not only can a user hit refresh and add a new hit, but if a page pulls in different images to it, then each image counts as its own hit. Links, headers, footers, or other text pages that are separate documents (called include files) brought in to be part of the page when it is requested are also all treated as individual hits. So if you have, for example, five images on your home page and two text include files, any time a visitor goes to the page eight hits, not just one, will be recorded. If the visitor hits refresh, then the page has 16 hits, even though only one person has come to visit your site just once.

Forget about hits and hit counters. If you want to be able track visitor activity for use in determining such things as navigation features or page content, invest in web tracking software that looks at more useful statistics, including but not limited to visitor sessions, average visitor session length, and most visited pages.

## *Links Policy*

The following is a sample policy on city Web site links that you may want to modify and post somewhere on your city's Web site.

The purpose of the City's Web site is to provide information about the City's government, services and attractions. The City's Web site may provide links to Web sites outside the City's Web site that also serve this purpose. The City is not responsible for and does not endorse the information on any linked Web site unless the City's Web site states otherwise. The following criteria will be used to decide whether to grant requests for City Web site links. (*The City may want to set a maximum number of linked Web sites that it will allow.*) If a particular request does not fit any of the following criteria, the City Council will decide whether to approve the request. The City Council will approve the requested Web site link if it serves the general purpose of the City's Web site.

The City's Web site will provide links to Web sites for:

- Governmental and educational institutions
- Organizations with some relationship to the City (including but not limited to: organizations contracting with the City, organizations sponsoring City activities or programs, and organizations participating in City activities or programs)
- Generally recognized community organizations
- Organizations providing information about art, cultural, and sporting activities in the City's area
- Organizations providing information about employment opportunities in the City's area
- Organizations providing information about tourist attractions in the City's area

The City's Web site will not provide links to Web site for:

- Candidates for local, state or federal offices
- Political organizations or other organizations advocating a position on a local, state or federal issue
- Corporate or other for-profit organizations unless they fit any of the criteria stated above
- Individual or personal home pages

## *Loading Documents*

Because you want all visitors to your city's Web site to be able to access the information you post, be careful in determining how and when to attach documents to the site.

Using GovOffice.com, you can cut and paste information from Microsoft Word documents into the text boxes provided. This is the best way to present text to be sure that all visitors can access the information.

*See **PDF** in this guide for more information on creating and viewing PDF documents.*

## *Mayor & Council Information*

It is appropriate for cities to present information regarding elected officials on the city Web site. It is best that what is presented be informational in nature so that it cannot be construed as campaign material.

Cities often ask if comments from the Mayor, similar to what often runs in a city newsletter, are appropriate for city Web sites. In our opinion, this is appropriate, as one of the Mayor's roles is to serve as the spokesperson for the city. However, if you have questions in this regard, we suggest that you talk with your city attorney.

## *Navigation*

The primary goal is to ensure that a visitor can get to the information they want quickly and easily, which some have translated to be a “3-clicks” rule – that within three clicks of the mouse, the visitor has found the information they need.

As a general rule, try to keep your navigation bar to 10 – 12 sections on the main page. If more sections are needed, you can “nest” subsections, and in this regard we suggest that you limit the levels of nesting to three.

**Usability testing** is perhaps the best way to determine the effectiveness of your web site's navigation. Choose a group of 5 to 10 users and ask them to use your site's navigation. In addition to giving general feedback, users should be asked to navigate to pre-selected areas in your site. By keeping track of the length of time and number of clicks necessary, on average, to access each area, you can determine if certain areas of your site are less navigable than others, making modifications as necessary to improve access to them.

## *PDF Documents*

Short for portable document format, PDF captures formatting information from a variety of desktop applications, such as Microsoft Word. Turning a Word document, for example, into a PDF allows you to send documents via your web site to the user's computer or printer in the format it was intended. To create PDF documents, you'll need Adobe Acrobat, which costs around \$250 to license for one computer. To view a file in PDF format, you need [Adobe Acrobat Reader](#), a free application distributed by Adobe Systems.

Remember that PDF documents are not ADA-compliant, because they require a special plug-in and cannot be viewed by text-only browsers. Although PDF documents are commonplace on most web sites, and it makes sense to convert some larger documents or special forms that will be printed and mailed (such as Parks and Recreation Registration forms) into PDF format, try to avoid having all documents on your site in PDF format only.

## *Photos, Images & Graphics*

### *File Type*

The general rule, and a good one not to break, is to save all photos as .jpeg files. Other graphics can be saved as .gif files. You may be familiar with .tif files if you've done any desktop publishing before. The format of .tif files makes them much too large to work successfully on the Internet. It would literally take minutes or hours for some users to download a .tif image, even a small one.

### *Download Time*

The time it takes a user to download and open an image on your Web site depends on: 1) the size of the image; 2) the file type; and 3) the speed of the user's Internet connection. You still have to assume, unless you have information that tells you otherwise, that most users will have only a 56k-modem connection to your site. All images you post on your site should be designed with this user in mind – those with faster connections will just open your images even more quickly.

### *Photo Sizes & Download Times*

Listed below, you will find three different photo sizes. All of then size dimensions are in pixels. The resolution for each photo is 75 pixels per inch, which is standard for the Internet. If you increase the resolution, it will dramatically increase the download time. You will notice that the larger the photo, the longer it takes to download.

File Size	File Type	Download Time
500x500	.jpeg photo	19 seconds
350x350	.jpeg photo	15 seconds
150x150	.jpeg photo	4 seconds

You can use compression with .jpeg files to improve download time, but compression will hurt the quality of the photo. If you want good, clear photos that do not dominate your site, but instead enhance its content, stick to sizes below 350 pixels for either width or height. If you are using the GovOffice.com Web site development tool, choosing the "Recommended Size" for your photos will achieve this as well.

### *Graphics*

Use .gif files for all of your graphics. In general, .gif files will download more quickly than .jpeg files. They lack the quality of .jpeg files, so they are not the best choice for photos, but for all other images or graphics, the .gif file type should be used.

Keep .gif files below 350 pixels for either width or height (or when using GovOffice.com, select "Recommended Size") and you should have a well-designed Web site with supporting images that download quickly and do not dominate the page.

## Privacy Policy

Listed below is an example privacy policy that can be easily adapted to meet the needs of your city's web site.

### **Example:**

The protection of individual privacy is a concern to the City of \_\_\_\_\_, and is governed by (put applicable state or local law source here, such as Minnesota Statutes Chapter 13, (Government Data Practices Act.) The City of \_\_\_\_\_ has created this privacy statement in order to demonstrate its firm commitment to privacy. The following discloses our information gathering and dissemination practices for this site.

### **Information you provide to us**

*The City of \_\_\_\_\_ does not keep any personal information about you or your visit to our Internet site unless you have specifically supplied it to us. For instance, if you may have supplied us with information as part of a request for information or for purposes of registering or obtaining a license or permit online. Similarly you may have sent us an email or left us a message in some other electronic format. In cases where you have supplied us with information, including financial data, we will treat such information in accordance with the requirements of the (name of law, such as Minnesota Government Data Practices Act). This means that it will be treated in the same way as written forms of communication, and in many instances it will be considered public information available to the public upon request. To the extent allowed by law, the city will make reasonable attempts to protect personal financial information from disclosure.*

### **Other information about your visit to our site**

Like most Internet sites, our web site reads some information from your computer that helps us analyze traffic patterns, perform routine maintenance, maintain site security, and to help you navigate through our site. Generally the information we collect is temporary and when you leave the site this information is deleted from our system. The only information the City automatically collects and maintains is the following:

- total number of visitors to our site
- types of computer systems used to access our site
- web browser type and version
- date and time of access
- the web site you visited prior to coming to this web site
- information about possible system security threats.

*Occasionally the city may have a survey on the web site that only allows a visitor to vote only once. In order to keep track of whether you have voted, a cookie (a simple text file) will be created and stored on your computer. This cookie is created on your computer by voting on the survey. It will not contain personally identifying information and will not compromise your privacy or security. The only information that is contained is the name of the survey and how you voted. This cookie will remain on your computer for the duration of the survey. The cookie has an expiration date. When that date occurs it will be deleted from your computer.*

This privacy policy does not apply to web sites operated by third parties that you may access through a link from our web Site.

## *Scanners*

Finding the right scanner depends on what you need in a scanner. Scanner prices, like digital camera prices, can range greatly – from \$50 to \$3,000.

For most of you, the scanner you purchase will be used for scanning photos that will be used on your city Web site. Web images don't need to have the same resolution quality that documents and other communications tools require. In fact, if you try to put an image on the Web that has too high of a resolution (typically found in .tif and bitmap files), the image will be too large to load for most visitors to your site. So if you are purchasing a scanner primarily for Web-related needs, you can probably choose one that is less expensive because you don't require high-end resolution quality.

Three options for scanners are presented below. The first represents the low-end of the price range, but any scanner you find that fits its profile will be good enough for scanning Web images. The next option is middle-of-the-road; it's a little better but a little more expensive. The final option is for those cities that are willing to spend more because it may be used for more than just Web photos, such as scanning images to appear in your city's printed newsletter or scanning documents for records retention purposes.

### ***Option 1: The Budget Scanner***

This type of scanner is just fine for scanning snapshots and graphics for posting on the Web, and is very affordable.

Price: \$50-\$100

Scanner type: Flatbed or sheetfed

Sensor type: CIS or CCD

Minimum optical resolution: 300 dpi

Acceptable maximum interpolated resolution: Any

Minimum bit depth (grayscale): 8-bit

Minimum bit depth (color): Optional 24-bit

Interface: Any to match available port on system (parallel port most likely)

Minimum size for largest scannable original: Letter size

Optical density/dynamic range: 1.5

Transparency, slide, and negative scanning: Optional

Dimensions: Flatbed – 11.5 x 18.1 x 3.7 inches; Sheetfed – 2 x 2.5 x 11 inches

Weight: Flatbed – less than 10 lbs.; Sheetfed – less than 2 lbs.

Warranty: 90 days to 1 year parts and labor

### ***Option 2: Middle-of-the-Road Scanner***

This type of scanner can scan graphics and photos for posting on the Web or making small prints, and also offers OCR, faxing, and document handling features. Choose this option if price matters, but so does scan speed and quality.

Price: \$100-\$300

Scanner type: Flatbed, with automatic document feeder (ADF), if you'll be scanning multi-page documents

Sensor type: CCD

Minimum optical resolution: 600 dpi

Acceptable maximum interpolated resolution: Any

Minimum bit depth (grayscale): 8-bit

Minimum bit depth (color): 24-bit

Interface: USB, IEEE-1394 (FireWire), or SCSI, to match available port on system; avoid parallel port

Minimum size for largest scannable original: Letter size; legal size optional

Optical density/dynamic range: 2.0

Transparency, slide, and negative scanning: Transparency adapter built into the lid or included as an accessory, if you want to scan 35mm film or slides

Dimensions: 11.5 x 18.1 x 3.7 inches

Weight: Less than 10 lbs.

Warranty: One year parts and labor

### ***Option 3: Top-of-the-Line Scanner***

With any scanner in this category you can scan graphics and photos for use in print graphics and Web authoring applications – all at a high quality.

Price: Flatbed - \$150-\$400 for letter size, up to \$2,500 for tabloid size; Film scanner - \$350 and up

Scanner type: Flatbed for general purpose photo and graphics; photo scanner for photos only; film scanner for film only; drum scanner for the highest of high-end applications.

Sensor type: CCD

Minimum optical resolution: 600 dpi

Acceptable maximum interpolated resolution: Any

Minimum bit depth (grayscale): 12-bit for film; otherwise 8-bit

Minimum bit depth (color): 24-bit for graphics and prints; true 36-bit for film

Interface: USB, IEEE-1394 (FireWire), or SCSI, to match available port on system; avoid parallel port

Minimum size for largest scannable original: For flatbed – letter or tabloid size; For photo scanner – 5x7 inches; For film scanner – 35 mm

Optical density/dynamic range: 2.0 (3.0 for film)

Transparency, slide, and negative scanning: Dedicated film scanner or flatbed with transparency adapter built into the lid or included as an accessory

Dimensions: Flatbed – 11.5 x 18.1 x 3.7 inches

Weight: Any

Warranty: One year parts and labor

## *Tourism*

One of the key reasons why cities choose to have a Web site is to promote their community to potential tourists. While it is entirely appropriate to showcase aspects of your community that would be of interest to tourists, be careful not to cross the line into advertising one private sector establishment over another. (See Advertising for additional guidance.)

We suggest that a tourism section focus on natural attributes of your community and its surrounding area, general business districts (such as your Main Street area where tourists can find many retail and dining establishments), and public sector attractions (museums, zoos, nature preserves, gardens, public spaces, etc.).

We also suggest that you link to other Web sites to round out your site, such as the Convention & Visitors Bureau, Chamber of Commerce and similar sites, perhaps linking specifically to pages on lodging, shopping, restaurants, etc.

## *Protection Against Computer Viruses & Hackers*

As you take advantage of the GovOffice Web Creator to create and build your Web site, the need for better computer security grows. To avoid possibly downloading or uploading documents infected with viruses that could infect your computers or those of citizens accessing your Web site, take these simple steps:

1. Buy Anti-Virus Software & install it on all computers.
  - Set it to automatically go out and get updates to protect your computers from new threats
  - Make sure to scan any document you download from the Internet, and any document you plan to upload to your Web site--catch a virus before it catches you
2. Backup the data on your computer, and test to insure your backups aren't corrupted
3. Educate Staff
  - Establish & consistently enforce a computer security policy
  - Discourage if not forbid the downloading of screen savers or games from the Internet (such applications often carry destructive worms or viruses)
4. Use best practices for opening email and attachments (where many nasty viruses and other damaging bugs lurk)
  - Set Email so that Preview Pane is never open.
  - Don't open emails without subject lines.
  - Don't open email attachments with .vbs, .exe, or .com extensions
  - Don't open any messages that contain an attachment unless you were expecting the email or you scan the attachment first.
  - If you can, set Email Software to display all messages as plain text only (other email formats, such as html, can carry hidden viruses)
5. Install a firewall and keep current on all patches for your software and operating systems (a firewall masks all the information and activity on your side of the modem from the Internet--many anti-virus software companies are encouraging you to purchase firewalls, and some are including it in upgrades to existing anti-virus software)
6. Make sure all computers used for city business that can connect to the Internet (including ones at home if you do city work on them) are secured with anti-virus software and firewall protection

### **Costs**

You can purchase good anti-virus software for under \$50 per computer. Very often you can find anti-virus software on sale for much less than \$50, but don't wait for a deal if you have no protection right now. If you have a large number of computers to protect (over 10) or are networked, then you might consider a license pack or corporate editions, which are more expensive.

Personal firewall protection is available through some anti-virus software companies, such as McAfee or Norton. Personal editions are not very expensive, and in some cases you can download and install free versions.

All the other security measures suggested above don't cost anything. They just need to be part of an established computer use and security policy that every city should have and enforce.

**Bottom Line**

Don't be afraid, be prepared. Cities should continue to build their technology infrastructure. Relying on the power and efficiency of computers to provide better services, whenever possible, is the right way to go. Just make sure you secure your technology as you improve it.