

SIGNLINE

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Variable Message Signs and Electronic Message Centers

Generally speaking, all sign faces can be changed, with varying degrees of difficulty. In some cases, this requires a new coat of paint or a change of mounted letters or other graphic elements. The advent of plastic and its successors in the industry have permitted sign copy to be changed with greater ease than ever before, allowing one to simply pull the entire face out of a sign and install a new one. Outdoor advertising utilizes face changes on a regular basis. Even the so-called neon sign is really a form of copy change, as its face can be designed to appear quite different in the daytime than at night. None of this activity has ever been particularly remarkable.

As businesses have focused on the need to communicate in a timely manner to their most immediate potential customers – those driving by the business at a particular moment – they have increasingly focused on ways to display a more timely, direct message, one that can be changed and which says more than just the name of the business.

Mechanical variable message signs have been around for a long time, and are a highly valuable communication tool for businesses and the community. Like all signs, they communicate directly with the people most likely to patronize the business – those passing the site in a vehicle. And because they provide for easy flexibility in communication, their messages can be timely and relevant, conveying announcements of sales or community events, or expressing opinions, words of wisdom, or humorous sayings.

One historic form of changeable copy sign is the graphic display case, most commonly seen at theaters, to display a pictorial that promotes a currently showing film. Similar displays are often used in other retail and food services businesses,

and are an integral part of outdoor advertising programs that appear in airports and on buses and transit shelters. Recently, new changeable copy systems have been developed which enable easily changed full color graphic presentations. Some of these utilize standard graphic panels that mount on existing systems. Others take advantage of the four-color printing process on vinyl materials either backed with adhesive and temporarily mounted on a sign, or, when translucent inks and vinyl are used, sandwiched between two plastic sheets and placed in a lighted sign cabinet.

Early on, theaters were the most prominent users of the form of changeable copy sign known as the marquee. These signs used (and many still do) background panels mounted on internally illuminated cabinets, with metal or plastic tracks on the sign faces to hold individual letters or panels announcing the day's movie showings. Laborers install the letters from either a ladder or a mechanical extension arm. Other businesses soon picked up on the practice of using the marquee sign to market products and services. This form of mechanically changeable signage has evolved into a number of different variations, including the gas station price sign, but even its most basic form it continues to be widely used because of its economy and versatility. Many businesses have relied on portable versions of the changeable copy sign, often mounted on trailers or sandwich boards, and placed close to the roadway to enhance visibility.

Because the early systems required physical activity to accomplish a change of copy, sign industry professionals began experimenting with mechanical, electromechanical and electrical systems that could accomplish copy changes. One of these innovative variations, which is still in use today, is a display that utilizes a series of scrolls

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printed with numbers and letters and located behind the display panel. Each of the scrolls could be turned to reveal the number or letter desired to spell out the message. At first, these signs were changed mechanically, but today they are often controlled electronically. A prime example of this type of sign is the typical price board located inside and outside of nearly all fast food restaurants. This type of sign was the first flawless electronic copy changer.

Other early systems included the use of banks of incandescent light bulbs connected with permanent wiring to form a few predetermined messages, with electrical controllers switching between those messages.

This lamp technology initially evolved into standardized sign cabinets that presented time and temperature displays. The units accomplished copy changes through electromechanical means, using motor-driven banks of cam-operated contacts. Time and temperature units, developed in the 1950s and '60s, were a major technical innovation in electronic signs, however, due to radio interference and vibration problems, a full range of copy changes was still impossible.

By the mid-1970s, energy consumption had become a concern, and manufacturers began to focus their research

on the development of energy efficient products. Incandescent bulb units were equipped with electric eyes (light sensors) that regulated dimming at night. Another new product was developed, the electronic flip disc or panel display, which used an electronically controlled matrix of reflective dots or panels, actuated by electromagnetic means, to form letters and numbers. These reflective surfaces were illuminated by hidden fluorescent lamps, and were very energy efficient. Their limited readability and conspicuity, however, propelled researchers onward in their efforts to develop functional low energy products.

Meanwhile, taking advantage of advances in electronics technology, several companies developed and began selling electronic variable message signs, known as electronic message centers (EMCs). Eventually these efforts came to fruition, and solid state electronics technology enabled the creation of a sign that was durable, reliable, effective, and versatile, allowing copy changes beyond time and temperature display. Electric change panels had become electronic change panels; mechanical controls had become computer controls; and light sources grew increasingly sophisticated.

Manufacturers have continued to focus on improving the light source of their displays, with the goal of

Like electronic message centers, mechanical variable message signs provide for easy flexibility in communication. Their messages can be timely and relevant, conveying announcements of sales or community events, or expressing opinions, words of wisdom, or humorous sayings. They provide the business owner with a valuable communication tool to reach the people most likely to patronize the business - those passing the site in a vehicle.





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reducing energy consumption and increasing the length of the life of the light source. Today, variable message signs can display high quality images in full color with excellent energy efficiency, as can be predominately witnessed in many coliseum and stadium complexes. The signs utilize computers and electronic circuit boards to accomplish switching of incandescent bulbs, low-voltage bulbs, light emitting diodes, or small CRT tubes (video screens), enabling the display of an unlimited number of messages, with the computer controlling the timing between each message. Electronic circuits also control the brightness of the display, allowing a full range of dimming to match ambient light conditions, thus assuring continued readability.

Electronic message center signs range from small panel notification systems to huge scoreboards or entertainment installations, such as those seen in Las Vegas, Nevada. Much of this has become possible through the use of computers, both in the manufacturing of the products and in the systems' operations. The sophisticated hardware that is now available makes maximum readability possible for the viewer. New signs offer minimal energy use simultaneously with nearly magazine quality images. These displays are now able to display longer messages with full control of timing, so the complete message can be easily read by passing motorists. The message can easily be programmed to change days, weeks, or even months in advance, or on

Variable message signs are used by businesses that want the flexibility to control and change their own message to meet their needs and the needs of their customers.

- Large corporations have used such devices for years, in forums ranging from sports stadiums to Times Square. They like the ability to advertise their products in a dynamic format in which they can change their messages frequently and easily.
- State highway departments have also realized the value of electronic message centers, and are increasingly using them to inform and direct traffic in large metropolitan areas, where government studies have demonstrated their value in easing traffic congestion and increasing traffic safety. Large-scale urban studies are currently being done to expand message center use in this area, with other "intelligent" components, to create integrated intelligent transportation systems. Under the Manual on Uniform Traffic Control Devices (MUTCD), they are used for regulatory, warning, and guidance purposes related to traffic control.
- Banks have for years used the familiar time and temperature units.
- National chains, such as Walgreens, incorporate an EMC in almost every free-standing sign installed at their new store locations.
- Small businesses are quickly realizing the advertising power of these dynamic visual communication devices as most people in a community look at the signs frequently. Although EMCs have been quite expensive in the past, often costing around \$30,000 or more for a small, simple unit, recent technological breakthroughs have drastically reduced production and operating costs, bringing them within an affordable range.
- Entertainment establishments, restaurants, casinos, and theme parks use EMCs extensively to create a district or zone effect.



the spot, to suit the demographics of the people passing by throughout the day or week. This allows the business owner to advertise specials, display public service information, or provide other items of public interest in a manner that can be quickly and easily read by those passing at any given time. Consequently, the effectiveness of an electronic message center is not limited by the space or surface area constraints that hamper business communication on reader boards.

The sophistication of electronic message signs is truly amazing and electronic sign technology is continuing to advance at a breathtaking pace. This rapidly developing technology and a corresponding fall in technology cost has made it possible for even a small business to produce high-impact changeable copy video/graphic displays. It has also led to regulatory conflicts, most often due to outdated codes, a stark misunderstanding of the purpose of on-premise signage, and false assumptions about traffic safety. Because the regulatory reaction has frequently focused on the electronic message center, the balance of this Signline will focus on these particular signs. However, the principles addressed apply equally to all forms of changeable copy signs.

Most Common Types

The industry is constantly improving existing technologies and devising new technologies. As message center technologies have developed, several display types have become prominent. These displays may present a few lines of copy, or can fill the whole sign

"A prior restraint exists when speech is conditioned upon the prior approval of public officials. ... The ordinance requires engaging the [permit] process whenever there is a proposed 'changing of the message' on a sign. Requiring official permission to change a sign's message is disturbingly suggestive of authority to sanction the message itself."

King Enterprises, Inc., et al v. Thomas Township
215 F.Supp 2d. 891 (E.D. Mich, 2002)

face with pictures and/or information. The newest technology provides everything from monochrome (single color) to full color, as well as full action to produce television quality pictures and copy. Typically, computers control the signs, switching arrays of light

Time and temperature displays have become common tools used by banks and lending institutions seeking to brand their sites and become landmarks in their communities.





Electronic message center displays are commonly used in sports arenas and other public facilities because of their versatility, exceptional visibility in virtually all weather conditions, advertising versatility, and attractive and crowd-pleasing visual quality.



sources to produce images and text. These light sources may include:

- **Light Emitting Diode (LED)** - This type of EMC has a matrix of LEDs. LED electronic sign displays provide good resolution, are energy-efficient, and are long-lasting. LED technology, first developed in the 1990s, has continued to improve, increasing light output and reducing LED degradation, thus extending the life of the LED light source.
- **Incandescent lamps** - This type of EMC uses a matrix of incandescent bulbs. Its messages can easily be seen and read across a wide viewing range and often for a long distance. Multicolored displays can be created by clustering several different colored bulbs together to create pixels, which are then mounted on panels. Incandescent lamp screens are bright and suitable for operation in direct sunlight.
- **Wedge-based low voltage lamp** - This type of message center consists of small diameter light bulbs with a wedge-shaped base inserted into parabolic reflectors similar to those found in an automobile taillight. Several bulbs may then be covered with different colored lenses and arranged into pixels. The result is a very bright display that works well in direct sunlight. Like most lamp displays, it offers a wide viewing range.
- **Fluorescent Discs** - Also known as “flip disc” or “split flap,” this technology uses electromagnets to mechanically turn or “flip” discs mounted on pivots in a specific sequence to reveal the reflective material, forming letters

or numbers. Depending on ambient lighting, the signs can take advantage of sunlight or hidden fluorescent light bulbs to illuminate reflective material on each disc, or pixel.

- **Cathode Ray Tubes (CRTs)** – These signs are virtual television screens, with CRTs mounted in arrays. They are utilized in very large, expensive message centers to produce full color images, and are commonly featured in sports arenas.

Traffic Safety

Electronic message centers are not a distraction to drivers; in fact, it is quite the contrary. Their exceptional readability and conspicuity means that EMCs actually increase driver safety. The federal government recognizes the superior communication value of EMCs and uses electronic information panels on many freeways to warn drivers of possible hazards. Its use of portable electronic warning signs at construction or accident sites is also increasing. Airports and state highway departments are also developing expertise in positioning and sizing of these signs to enable the driver to read, react and move through traffic with optimum safety. The federal government and other reviewers, after conducting numerous studies, analyzing court cases, and reviewing the available literature, have concluded that signs and electronic message centers, if used properly, are traffic safety enhancement devices.

Variable message signs, whose content can be changed or altered on a fixed display surface, are recognized by the federal government as different from the regulated



animated signage, which mimic movement or have high-intensity flashing lights in order to gain the viewer's attention.

The 1958 Federal-Aid Highway Act established federal controls for signs illuminated by flashing, moving or intermittent light. The 1965 Federal-Aid Highway Act did not contain any reference to lighting controls. Federal/State agreements were entered into with all States, however, referencing lighting restrictions on signs in commercial or industrial areas, based on customary usage.

Initially, federal rules and regulations restricted the use of electronic message centers on the primary and interstate highway system to displays of time, temperature, and "public service messages." The restriction no longer stands, as it is an obvious instance of content control.

Over time, as the technology advanced, the federal government began to research the signs and their impacts on traffic safety. The newer signs allowed for changing messages, and some of these newer signs had been constructed along the highway in certain areas exempt from federal controls. The research showed that neither flashing, animation, nor copy change had impacted traffic safety.

In 1978, the Surface Transportation Assistance Act amended the highway beautification law to allow on-premise electronic message centers along the Interstate and Federal Aid Primary road systems, subject to individual state law, so long as the messages were sequenced on and off in a manner that did not constitute "flashing." Congress refrained from setting a time limit on the sequencing of the messages, instead opting for a "reasonable interval" standard.

While the definition of "reasonable interval" is not clear it is evident that any control of copy change time interval must be exercised with caution to avoid those time limits becoming de facto content control. This is a likely risk as the copy change time interval necessary for effective communications is dependent in part on the physical characteristics of each message center. A multiple line, text only message center is normally likely to display a complete message. In that case, the time interval between copy changes can be several seconds. A short, single line message center operated by a small business may only be able to display a single word at a time. The copy must, therefore, change at a faster rate that enables comfortable reading of the message or the business is unable to communicate.

The necessary sequence for a message is also dependant on the content of the message, the speed of the traffic,

State highway departments have realized the value of electronic message centers, and are increasingly using them to inform and direct traffic in large metropolitan areas, where government studies have demonstrated their value in easing traffic congestion and increasing traffic safety.



visibility conditions, and, not least of all, demographics of the audience. As the profile on the street changes, the content of the message displayed also can change. When message content on an electronic message center is unduly limited by sequencing restrictions, it interferes with the sign user's ability to effectively communicate with the identifiable demographic on the street at a particular time of day.

In 1980, following the 1978 amendment, the Federal Highway Administration commissioned researchers Ross Netherton and Jerry Wachtel to undertake one more study of variable electronic messaging. The researchers set out to prove electronic variable message signs were unsafe. They concluded, however, that no credible statistical evidence existed to support the assumption that electronic or variable message centers negatively impacted road safety.

Their report also said that roadside signs provided a stimulus that helped maintain driver alertness, and increased safety by combating "highway hypnosis." During the subsequent 22 years, no research has emerged that contradicts the 1980 finding.

Several states have conducted studies on the safety of roadside signs, including EMCs, and none have found an increase in traffic accidents – and in some cases have found a significant decrease in accidents – related to the signs. Furthermore, nine leading insurance companies were surveyed, and all indicated that they had never received an accident claim involving an advertising sign.

Richard Schwab, former Federal Highway Administration program manager for research on highway visibility and night driving safety and Fellow of the Illuminating Engineering Society of North America, conducted an extensive study that concluded EMCs could not be linked to traffic accidents or to any reduction in traffic safety.

In 1996, the Kentucky Supreme Court struck down a state statute that prohibited signs near highways if they contained or included "flashing, moving or intermittent lights except those displaying time, date, temperature or weather" See *Flying J. Travel Plaza v. Commonwealth*, 928 SW 2d 344 (Ky.1996). The court said the state had failed to demonstrate that a legitimate government interest was advanced by the prohibition,

Businesses often select their advertising medium, and messages, based upon the cost per thousand exposures of their message to the public. On this basis, no other form of advertising comes close to matching the efficiency and cost-effectiveness, dollar for dollar, of an electronic message display. Compare the figures below:

- Newspaper advertising - the cost on average is about \$7.39 for 1000 exposures within a 10-mile radius of the business location.
- Television advertising - The cost on average is approximately \$6.26 per 1000 exposures.
- Radio advertising - The cost is about \$5.47 per 1000 exposures.
- New LED electronic message center display - The cost is less than \$0.15 per 1000 exposures. How? Assume, for example, that you spend \$30,000.00 on this type of system, and that its useful life is about ten years. The amortized daily cost of the message center would equal about \$8.22. Add to this the daily cost of electricity for this new LED unit (approximately \$0.20), thus giving your business a daily message center expense total of \$8.42. With a daily traffic count of 20,000 vehicles passing your business, you would have a cost of less than \$0.43 per thousand exposures (counting drivers only)!

Best of all, with a changeable copy sign, a business does not have to worry about missing its target audience, becoming "yesterday's news," or facing expensive production costs for changing its message, as happens frequently with the other forms of advertising mentioned.

With a changeable copy sign:

- The business owns the form of advertising.
- The advertising works for the business 24 hours a day, 365 days a year, with minimal cost.
- The sign acts as the "salesman on the street" attracting customers into the business.
- The advertising speaks directly to the potential customers as they drive past the business location.
- The EMC can display information pertaining specifically to products available on the premises.
- The EMC makes the business a landmark in its community.
- The business can select its own market and direct its message to that market at any given time.



and said no evidence supported the notion that so limiting the content on the display had “anything to do with highway safety or aesthetics.”

It is a testament to the safety of EMCs that, since 1979, the Federal Highway Administration has not seen any need to revise its recognition of the legality of on-premise commercial variable electronic message signage.

Electronic message centers - like other types of signage - when properly designed, placed, maintained, and illuminated can actually promote greater traffic safety. Regulations that are overly specific or restrictive could have the unintended consequence of creating a traffic hazard as well as limiting technological advances that might offer greater energy-efficiency and communication advantages.

EMCs that employ copy change display methods in which each change in the display of lights results in the appearance of a new word, words, or graphic, is employing a “copy change.” It is not “flashing” or “animation.” As long as the messages are sequenced on and off, traffic safety does not pose a legitimate reason to interfere with the copy. Because these signs come in many sizes and varieties, a one-size-fits-all sequencing standard could inadvertently contribute negatively to traffic safety by preventing a full “read” of the message within a safe period of time. Furthermore, requiring

lengthy sequencing of message changes may well fall outside permissible legal constraints, essentially constituting censorship of the intended message.

Legal Protections for Copy Change

The subject of copy and face changes on signs, and exactly how much control regulators should have over it, is riddled with complexities. At this time, due to Federal Highway regulations, flashing, scintillating, or chasing – all of which a quality message unit can do – may be regulated along the federal highway system. What benefit is gained by limiting this technology is basically unknown. The federal law was written decades ago without the benefit of technical substantiation. Federal courts have been clear in restricting sign codes to content-neutral regulations of time, place and manner of display, but what about copy and face changes? Several cases have bearing on the issue.

In *Kevin Gray-East Coast Auto Body v. Village of Nyack*, 566 N.Y.S.2d (N.Y. App. Div. 1991), a local business changed hands and the new owner wanted to reflect this with a new name for the business; a village ordinance deemed this a change of copy sufficient to require the nonconforming sign to conform before the copy change would be allowed. The Court, however, found that the

While the variable message sign is a very useful tool for businesses and public facilities, advances in technology have resulted in the development of the electronic message center, which often offers a more aesthetically pleasing appearance, as well as greater ease in making copy changes.





Technological advances have resulted in spectacular electronic displays, such as this computer-controlled video display in Las Vegas. The sophisticated hardware now available makes messages extremely readable, with minimal energy use, on displays of virtually any size.

sign could remain in place and that the new owner could change the copy on it, holding: “Generally, ... such truthful commercial speech may not be prohibited on the basis of its content alone.” This case casts doubt on any regulation that prohibits changing the copy of a nonconforming sign.

Several other cases support a sign owner’s right to change the face or copy of a sign without interference by a governing body:

- *Budget Inn of Daphne, Inc. v. City of Daphne*, 2000 WL 184245 (Ala). The Court struck down as unconstitutional a provision similar to that in the *Village of Nyack* case, based on a First Amendment analysis and the substantive due process clause of the 14th Amendment.
- *Motel 6 Operating Ltd. Partnership v. City of Flagstaff*, 195 AZ 569, 991 P.2d 272 (1999). The Court ruled that the owners’ proposed sign face changes were reasonable alterations to their legal nonconforming signs and, therefore, would not trigger a duty to bring the sign into conformance.
- *Rogers v. Zoning Bd. Of Adjustment of the Village of Ridgewood*, 309 N.J. Super. 630, 707 A.2d 1090 (App.Div. 1998), *aff’d*, 158 N.J. 11, 726 A.2d 258 (N.J. 1999). The Court held that a change of sign to indicate a new owner of a legal nonconforming building does not cause the sign to lose its protected status.
- *Ray’s Stateline Market, Inc. v. Town of Pelham*, 140 N.H. 139, 665 A.2d 1068 (1995). The Court ruled that replacing the plastic face panels of two on-premise signs with face panels advertising a new tenant doughnut franchise would not result in an impermissible change or extension of the store’s legal nonconforming use, as lettering or copy changes to the existing signs would not affect the signs’ dimensions.
- *C.F. Royal Food Systems, Inc. v. Missouri Highway and Transp. Com’n*, 876 S.W. 2d 38 (Mo.App. 1994). The Court held that an advertising message on a sign which falls within the nonconforming use exemption under the state Billboard Act can be changed to reflect a change in ownership without rendering the

modified sign a new erection, and thereby removing it from extension.

- *King Enterprises, Inc., et al v. Thomas Township*, 215 F.Supp 2d. 891 (E.D. Mich, 2002). Here, the Township's ordinance triggered "conformity" upon altering the "message, or content" of the sign itself. The Court determined that the Township failed to establish any justification, under the *Central Hudson* four-pronged test, for allowing such a "content-based triggering event," and the provision was found unconstitutional.

Aesthetic Benefits of Flexible Communication

The public is on the move, both literally and figuratively, and sometimes catching their attention is like hitting a moving target. Bear in mind that approximately 18.6% of Americans move every year. Whether they move a short or long distance, they usually change their basic trade area. Add to that the fact that 15-35% of the traffic on a given street is "just passing through" (vacation travelers and such), and you can see the great potential for single stops by those unfamiliar with the area.

Consider further the speed at which traffic passes by the average business. A motorist has only a few seconds to see and comprehend any given sign. In order to succeed, businesses must find a way to capture the attention of passing motorists within the limited amount of time available, particularly those who are "just passing through."

Electronic message centers are now being used creatively in outdoor advertising to provide viewers with timely and meaningful information that would have been impossible a few short years ago.

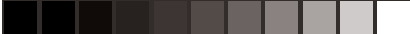


Motorists often spot electronic message centers quickly because the copy changes and the letters are illuminated. Additionally, electronic message centers may have greater visibility from further distances, especially in poor lighting conditions, giving the motorist additional time to read the message displayed while safely maneuvering his or her vehicle.

Additionally, an electronic or variable message center offers a business a unique way to communicate more effectively with the typical person passing by at a particular time of day by allowing the business to change its message and graphic to match the profile on the street. The local airport in Monmouth, NJ offers a clever example of this flexibility. The airport uses its display to advertise price specials at peak hours to those traveling by on the freeway on the way to and from work. During shopping hours or after-school traffic, the airport changes its display to offer community service messages. This kind of flexibility increases the readership of a message unit, as it can correspond to the traffic profile by the day of the week, the time of day, or the season.

One of the leading reasons for restrictive sign codes is the desire to reduce sign clutter and improve the aesthetics of the business district. This goal is frequently followed by tight restrictions on electronic message centers. But if a city is truly trying to cut down on the number of signs or to encourage aesthetically beautiful sign structures, the message center can be a powerful tool.

For one thing, changeable copy signs act as a consolidating type of advertising. In other words, they



Changeable copy signs have been around for a long time. Modern technology has simply created more options for business owners seeking to reach potential customers passing by their sites. Electronic message centers offer greater flexibility and creative, colorful options with enhanced readability, day and night.

offer businesses a way of attractively posting a variety of information in one place rather than relying on numerous signs and banners displayed in windows, for example. Consequently, they offer a significant advantage to a district wishing to reduce the use of temporary signs.

The Bottom Line

For businesses that choose to enhance their signage with a changeable copy sign (this is particularly true with an electronic message center), the owners typically see an increase in business of 15% to 150%. Using the smaller number, consider the following example.

A small business generating \$1,000.00 a day in revenue adds an electronic message center. The business soon increases by 15%, adding another \$150 per day in total revenue. That translates into an additional \$1,050.00 a week in revenue, or \$54,600.00 per year. With this example, the investment in the electronic message center unit would likely be about one-third of the additional revenue generated in the first year of its operation alone.

It has been said that in retailing, “the last dollars are the best dollars,” meaning that each additional customer adds a greater marginal percentage to the business’s bottom

line profit. In the foregoing example, we can only speculate upon the actual impact upon profit, but assuming that the business was at or above its “break-even” point before adding the electronic message center, the addition of \$54,600.00 per year in revenue would clearly add to the business’s profit. Obviously, increased profits translate into increased tax revenue for the city.

Beyond tax revenues, a city benefits in many other ways from a thriving business. Innovative cities seek to optimize the return from local retail space to prevent urban sprawl and deterioration. Aesthetics and urban deterioration are closely linked. In an environment where change is constant, if the visual communication of retail sties is not allowed to be flexible to respond to the marketplace, it is only a matter of time until the retail community will no longer be able to afford proper maintenance and the design, fixtures and merchandise needed to survive in the changing competitive economy.

So if aesthetics, upkeep and improvement of the environment are part of a city’s general plan, the city must allow businesses the flexibility to communicate in a way that generates a strong consumer response. The electronic message center is one of the most powerful tools available to help the small business attract consumers’ attention and communicate with them.

Changeable copy signs come in many forms, from those in which entire panels can be removed and replaced, to those with individual letters and numbers placed by hand, to those changed electronically. Their exceptional communicative abilities are highly valuable to businesses seeking to present a variety of timely information to the passing public.



Several legal issues are discussed throughout ISA's Signline series. Signline is offered for educational and informational purposes only and not to be construed as giving legal advice to any user. Competent legal advice/advisors should be sought after and obtained by the user.

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