

Developing Technologically Savvy, Data Driven Sign Codes

Dawn Jourdan

Executive Associate Dean and Professor
Texas A&M University

Presentation

- Introduction
- Response
- Model Codes
- New Technology
- Future Proofed Codes

Leading Concerns with Planners

- 70.1% Community aesthetics
- 53.6% Eliminating illegal signs and enforcing sign codes
- 49.1% Legal issues for sign codes
- 45.7% Determining how to regulate new types of signs*

*PROFILES OF SIGN REGULATIONS IN MULTIPLE COMMUNITIES AND ENVIRONMENTS, Sign Research Foundation, 2017

We regulate what we know.



When something new comes along, we PANIC!

- This sign made the City of Navasota, Texas panic!!!



Have you ever panicked?

- Shout it out!!!

What did you do?

- Let me hear you.

We issue moratoria.

- We study.
- We look for best practices.
- We reach out to the public.
- We fill in knowledge gap.



This approach results in....

- Bad blood; and
- Inflexible singular regulations.



Better Approach to Moratoria

Form a stakeholder group

- Who are the stakeholders?
- Number of approaches...

Ideal code is...

- Resilient;
- Forward-thinking; and
- Evidence-based.



Model Sign Code as a Starting Place.

- Charge:
 - You can regulate as long as regulations conform based on the best available data.
 - Easy, right?

A Legal and Technical Exploration
of On-Premise Sign Regulation
**An Evidence Based
Model Sign Code**



Dawn Jourdan, Esq., Ph.D.
University of Florida

H. Gene Hawkins, Jr., Ph.D., P.E.
Hawkins Engineering

Robin Abrams, Ph.D.
Texas A & M University

Kimberly Winson-Geideman, Ph.D.
University of North Texas

U R B A N D E S I G N A S S O C I A T E S



Heart of the Model Sign Code



- A sign's size, height, and letter size is a function of:
 - Setback
 - Angle
 - Speed of traffic.
- Content is irrelevant.

Model Sign Code and Letter Height

- Letter Height: Determinations as to the appropriateness of letter height shall be made on the basis of an established formula.
- Why not proscribe height?
 - Legibility depends on a number of factors, including:
 - *Speed of traffic;*
 - *Angle of sign to the road;*
 - *Lanes of traffic;*
 - *Setback of sign.*
- Effort is to scientifically and uniformly determine what is legible.

$$LH = \frac{\sqrt{(LN \times 12 + LO)^2 + (1.47 \times SL \times DT)^2}}{LI}$$

LH = Letter height for signs oriented perpendicular to traffic flow, inches.

LN = Total number of lanes on the roadway, including the median or two-way left turn lane if present.

LO = Lateral offset of sign from the edge of the right-of-way, feet.

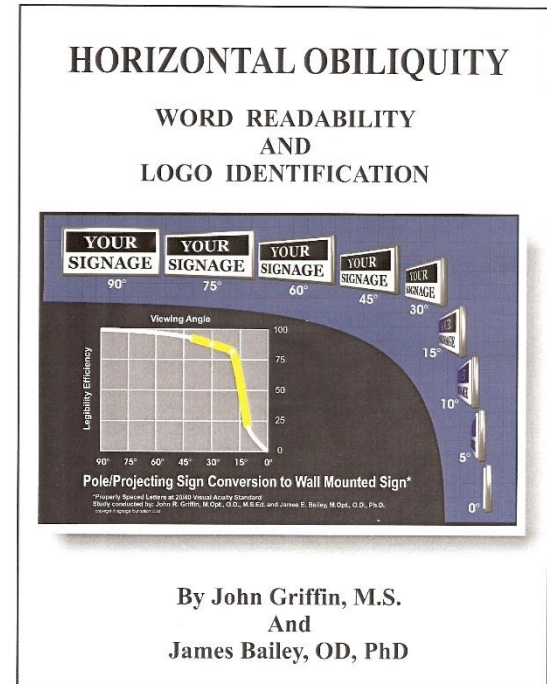
SL = Roadway speed limit, mph.

DT = decision time, seconds. The recommended decision time is 5.5 seconds.

LI = Legibility index, ft/in. The recommended legibility index is 30 ft/in

Model Code and Sign Angle

- The visibility and legibility of signs is improved when the sign is situated at an angle 20 degrees to the traffic flow.
- Applicants seeking to erect a sign with a lesser will not be able to seek a variance from any of the other requirements contained in this ordinance relating to setbacks, letter height, contrast, luminance, or the number of signs.



MSC focuses on typology and context.



New Technology

MSC and Digital signs

- Model Sign Code did not fully address digital signs.



Technical Information Related to Electronic Message Displays

Electronic Message Displays (EMDs), which are also referred to as electronic message centers or electronic changeable copy signs, are a type of private sector sign that may require special treatment in the development of a model sign ordinance. These signs have unique capabilities to provide a variety of messages in a range of formats. At the low end of the technology scale, these signs use a matrix arrangement to present text and simple graphics. The message or messages may be displayed in a static mode or may scroll or flash. At the high end of the technology scale, these signs are capable of providing television quality types of images.

The use of large EMDs is more common for off-premise signing, typically in billboard-type applications. On-premise use of EMDs is more commonly limited to static, scrolling, or alternating messages. The technology for EMDs is far ahead of the research on their impacts and guidelines for use. A 2005 report by the United States Sign Council (Garvey and Pietrucha 2005) indicated that "there has been little research conducted specifically on commercial EMCs." As such, this Technical Report and model sign code contains relatively little information regarding these types of signs.

What's all the fuss...why are dynamic signs so important?

- 76 percent of consumers have entered a store because the digital signs were **interesting**.
- 75 percent of consumers have told friends about a store simply because they were **impressed by the signage**.
- 68 percent of Americans purchase a product or service because of the **appealing nature of the digital signage**. (Kellaris, Better Homes and Gardens Survey)

Evolution of Digital Signs



Now we can do this....



We can even do this....



Not everyone is happy about it



Signs of the Future

- Signmakers are innovators.
- Only limits are imagination and technological capacity.

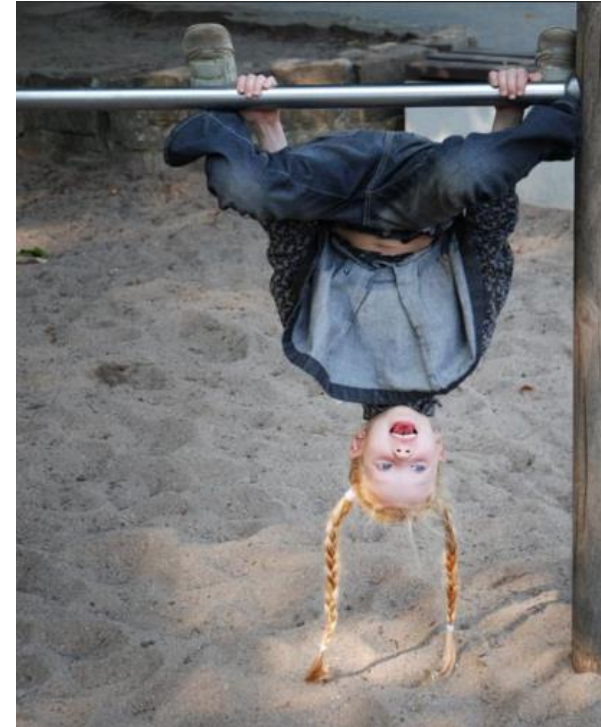


Preparing our codes to be future-proofed.



Model Sign Code Plus.....

- Add Digital Display
 - ISA illumination guidelines a must
- Follow Advances in Technology with a Technical Committee
- Encourage Experimentation with Visualization



New Technology

- If your code does not address
- Request applicant to demonstrate to educate staff and public
- Community can decide if it meets the intent of policies/codes in place
 - Context
 - Safety
 - Desired community aesthetics

Takeaways

- Don't Panic
- Bring in all the stakeholders
- Evidence Based as possible
- Stay up-to-date with technology advances

Thank you.
