



TECH NOTE

Lettering size to be readable at different distances

For stationery reader and message

If it costs you money to display your message then you want it to be readable to passersby.

If they walk by or can easily stop and read your message then it is easy to specify how high the text in your message should be.

The answer is that, given a good contrast between text and background – Black/White, yellow/Black etc, and that the font used is not a thin line contracted font but a medium to heavy weight bold font then the rule is

“If you halve the height of the lettering in millimeters, then that is the distance you can read the text in metres.”

Eg 20mm high text can be read at 10metres

For unusual text type or colour contrasts between text and background – you can do some tests and establish the distance at which you can read 10mm high text and then use that ratio to scale up or down the distance that differing height of that text can be read.

Note : There is no rule that stops you using much larger text than is necessary for the distance from where the text will be read.

Refer to article published in
The Sydney Morning Herald

Weekend Edition
October 23-24 2010

Ageing eyes put focus on road signs

IN A NOD to the fading eyesight of the growing legions of baby boomers in the US, the federal government is requiring cities to change street-name signs from all capitals to capital and lower-case letters, which it says makes them easier to read.

Cash-starved cities will also have to pay for new traffic warning signs that do a better job of reflecting light from headlights.

Under Federal Highway Administration rules, communities have until 2015 to improve night visibility of signs such as stop, yield and railway crossings. Failing to do so could result in the loss of federal funds and leave states liable in lawsuits, the administration says.

Communities will be allowed to change street-name signs gradually as they wear out.

“As drivers get older, we want to make sure they’re able to read the signs,” said Victor Mendez, from the administration. “Research shows that older drivers are better able to read signs when they’re written in both capital and small letters.”

Mr Mendez said the changes were included in last year’s update to the federal code governing public roads. The changes are not welcome in cities that have already made budget cuts.

“It’s ridiculous,” said a Milwaukee alderman, Bob Donovan, whose city will spend about \$US1.4 million on new signs in the next four years.

“Our street signs have worked perfectly well for 100 years or more. I think it’s just the federal government run amok.”

USA Today



For signage to be read from a moving vehicle

Here the issue is more complex and the best reference we have seen was sent to us by Mr. Craig Mc Laren of Mc Laren Traffic Engineering

mclarenc@ozemail.com.au – see Appendix H

That reference is attached and came from AUSTRROADS, Guide to Traffic Engineering Practice, Part 8: *Traffic Control Devices* – COPYRIGHT

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AS 1742.2—1994

APPENDIX H DETERMINATION OF LETTER SIZES FOR SIGNS (Informative)

H1 SCOPE This Appendix sets out a method of determining the size of letters to be used on signs requiring individual design.

H2 PROCEDURE Determine the capital letter sizes using the following equation*:

$$H = 0.14 NV + 11.4S \quad \dots H1$$

where

H = capital letter height in millimetres, including height of initial capitals used with lower case letters

N = number of words on the sign

V = approach speed in kilometres per hour

S = lateral offset of the sign in metres, measured from the centre of the sign to the centre of the traffic lane

The formula applies to words made up of *Series E Mod. capitals and lower case letters*, e.g. on direction signs, on *side-mounted* signs in *rural* areas. For other conditions the formula should be modified as follows:

- For other letter Series *increase H* by the following factors:
Series C—50%, Series D—25%, Series E—7%.
- For signs in urban areas *increase H* by 25% (conspicuousness adjustment for urban environments).
- For overhead signs, S used in formula should be vertical offset of centre of sign from driver's eye height *multiplied by 2*.

Where an overhead sign is at the side of the road and more than 3 m from the edge of the pavement, it may be necessary to calculate the equivalent lateral distance S_{EL} from the formula:

$$S_{EL} = (S_L^2 + 4S_V^2)^{1/4} \quad \dots H2$$

where

S_L = lateral offset of the sign in metres, as for Equation H1

S_V = vertical distance of the centre of the sign above the driver's eye in metres, (distance above road surface, minus 1.2 m)

The value S_{EL} is then substituted for S in Equation H1.

To facilitate sign design and manufacture it will usually be necessary to adopt the standard letter size given in AS 1744, nearest to the size calculated.

* The derivation of this equation is given in AUSTRROADS, Guide to Traffic Engineering Practice, Part 8: *Traffic Control Devices*