

DESIGN BULLETIN #36/2006

ClearviewHwy Font for Positive Contrast Legends on Guide Signs

Summary

This Bulletin is issued to inform practitioners and department staff that the ClearviewHwy font shall be used for positive contrast legends on guide signs.

The Clearview font style, which includes the ClearviewHwy font, was developed through a decade of research starting in the early 1990s. The goal of the Clearview font was to increase legibility and reduce halation of highway sign legends in comparison to that of Standard Highway Signs (SHS) Alphabets (Highway Gothic font). This research development effort resulted in the final design of Clearview font letters in 2003.

Clearview font letters were developed specifically to address four issues with the legibility of SHS alphabets. They are:

- Upgrade highway signing word messages to accommodate the needs of older drivers without increasing the capital letter height and the overall length and height of word messages and the signs themselves,
- Improve word pattern recognition by using mixed case words of the same size composed of lower case letters designed for highway sign applications,
- Improve the speed and accuracy of destination recognition and the legibility distance of word messages, and
- Control or minimize the halation of words displayed on high brightness retroreflective materials for drivers with reduced contrast sensitivity.

The legibility of positive contrast Clearview legends for guide signs has been researched by the Pennsylvania Transportation Institute and the Texas Transportation Institute. The key conclusions of the research are:

- Using the Clearview font, there was a 16 percent improvement in recognition by older drivers as compared to an equal size footprint for SHS Alphabet Series D letters and when there was little change in overall sign size – Two Pennsylvania Transportation Institute studies (Garvey, P.M., M.T. Pietrucha, and D. Meeker. Effects of Font and Capitalization on Legibility of Guide Signs. In Transportation Research Record 1605, TRB, National Research Council, Washington, DC, 1997, pp. 73-79).
- Using the Clearview font, there was a 12 percent increase in legibility for overhead and shoulder-mounted guide signs when applied to ASTM D4956 microprismatic sheeting Types VII, VIII, or IX - Texas Transportation Institute study. (Gene Hawkins and Paul Carlson FHWA/TX-02/4049-1, Evaluation of Clearview Alphabet with Microprismatic Retroreflective Sheetings, 2001).

Meeker & Associates Inc., developer of the Clearview font type system, have filed a disclaimer with the US Patent and Trademark Office disclaiming exclusive rights in the term "Clearview." The effect of this disclaimer will be to allow any jurisdiction to use the term "Clearview" by itself in connection with a typeface or font.

The term ClearviewHwy font will be used to reference the Clearview type system that has the six distinct weights, with each having a version for positive contrast applications. ClearviewHwy font software is available from the developer of the Clearview font type system. For further information on the ClearviewHwy font, please refer to the website: clearviewhwy.com

A general comparison guide for application to the SHS Standard Alphabet is as follows:

Series B	ClearviewHwy 1-W
Series C	ClearviewHwy 2-W
Series D	ClearviewHwy 3-W
Series E	ClearviewHwy 4-W
Series E-Modified	ClearviewHwy 5-W and ClearviewHwy 5-W-R*
Series F	ClearviewHwy 6-W

* ClearviewHwy 5-W-R has tighter letter spacing than 5-W and is designed for the replacement of overhead guide signs in which the 5-W is too wide for the specific application.

Key Changes

Changes to the department practice for Standard Highway Signs Alphabets (Highway Gothic font) for guide signs shall be as follows:

All new overhead and shoulder-mounted guide signs shall adopt the ClearviewHwy font type system. Guide signs that previously applied the SHS Series E shall utilize ClearviewHwy 4-W. Guide signs that previously applied the SHS Series E-Modified shall utilize the ClearviewHwy 5-W.

The character spacing of Clearview font shall follow the spacing tables for ClearviewHwy, and not SHS E-modified. However, for overhead guide signs and for the replacement of existing guide signs where the 5-W is too wide for the specific application, the 5-W-R font may be used.

All guide signs shall be designed with the ClearviewHwy font type system software.

Effective Date: July 1, 2006.

Contact

Contact: Richard Chow or Corinna Mulyk, Technical Standards Branch, Alberta Infrastructure and Transportation.