Standard Alphabets For Traffic Control Devices

Introduction

The Standard Alphabets for Traffic Control Devices were prepared by the Federal Highway Administration for signing and marking all streets, highways, bike routes, trails and other by-ways open to public travel.

The alphabets were first adopted nationwide some time in the late 1940's and early 1950's after completion of studies by the California Department of Transportation. A modified version of the Gothic style alphabet was adopted having an openness in the rounded shaped characters. This modification provided better legibility and readability for traffic control devices. These alphabets contained dimensions for each letter (A, B, C, etc.) and a table that permitted several sizes to be drawn mechanically to scale for upper case series A through F.

In 1966, the Federal Highway Administration reprinted the Standard Alphabets For Traffic Control Devices. This edition contained upper case series B, C, D, E, E Modified, Lower case E Modified and F (series A was deleted from this edition). These Alphabets were placed on 1/4 inch grids which eliminated the need for the previous tables of dimensions. However, the 1966 edition did contain six tables for character widths and spacings for upper case letters and numerals. A simplified spacing chart also was included for E Modified characters. In 1977, the Federal Highway Administration issued a metric edition of the 1966 Standard Highway Alphabets in upper case Series B, C, D, E, E Modified, F and Lower case E Modified. The 1977 edition also contained the design standards for alphabets, numerals and symbols to be placed on roadway pavements. These alphabets were placed on five millimeter grids for ease of use.

The 1977 edition also contained spacing charts for all alphabets and numerals which specified exact letter to letter distances to be used when constructing words or legends. Depending upon the letter to letter combination a different dimension was prescribed. In concept this approach is correct; however, it makes this method useable with only the more sophisticated signmaking software programs, because the myriad of unique spacing values can only be reproduced through the use of kerning pairs. Typically, CAD software applications are not typographically sophisticated enough to handle kerning information. Unfortunately, this limits the use for the 1966 and 1977 alphabets.

This edition of the Standard Alphabets For Traffic Control Devices contains a complete functional specification for designing standard highway alphabets. Much work has gone into updating the alphabets. Particular attention has been paid to make them adaptable to a broader range of equipment and software application tools in use within engineering departments and sign fabrication facilities in the transportation industry.

Overview of the alphabet spacing

Spacing for the 1966 and 1977 alphabets was developed a long time before computers and plotters would be used to design and fabricate traffic control signs. Letter spacing in particular reflects this because the method applied is better suited to manual layout when using die stamp equipment and silk screen printing.

Generally, a variety of different space values are reserved for each letter of the alphabet. These space values are applied depending upon a particular letter to letter occurrence. This method is acceptable when a sign is being manually laid out, letter by letter and measurements are being made with a scale along a drawn baseline.

In an attempt to simplify this system the FHWA implemented a procedure which converted the spacing values into a limited number of codes (see Figure 1). While this has helped the situation, it continues to have drawbacks because more than one spacing value is required for each and every letter of the alphabet.