270 SPECIAL TREATMENTS FOR HORIZONTAL CURVES

270.1 INTRODUCTION

Horizontal alignment warning signs are placed at horizontal curves in accordance with TGP 321.

If an engineering study approved by the State Traffic Engineer indicates that additional measures may be appropriate at a horizontal curve or series of curves, the following treatments may be considered:

270.2 SIGNS

A. Dynamic Curve Warning Sign

Dynamic Curve Warning signs may be used to supplement curve warning by using beacons and/or messages that activate when a motor vehicle approaches a curve at a speed higher than a threshold speed set in the controller for the dynamic warning sign. A typical dynamic curve warning system combines a speed measuring system (such as detectors or radar) with a flashing beacon and/or a changeable message sign. The system is designed to advise drivers traveling above a threshold speed to reduce their speed as they approach and enter a horizontal curve.

B. Truck Rollover Sign (W1-13)

A Truck Rollover sign (W1-13) may be installed to warn drivers of vehicles with a high center of gravity, such as trucks, tankers, and recreational vehicles, of a curve or turn where geometric conditions might contribute to a loss of control that could lead to a rollover-type crash.

270.3 PAVEMENT MARKINGS

A. Speed Reduction Markings

Speed Reduction Markings are transverse markings defined in Section 3B.22 of the MUTCD. They are installed along the lane lines and edge lines and spaced at gradually decreasing distances. These markings are designed to induce a perception of increasing speed to the driver, resulting in a speed reduction. Speed Reduction Markings may be installed at horizontal curves requiring traffic to significantly reduce speed, such as for example an unexpected curve at the end of a long tangent segment.

B. On-Pavement Curve and Advisory Speed Marking

Pavement markings in advance of horizontal curves can provide information on the direction of the curve and the recommended advisory speed for that curve. This marking consists of a pavement marking arrow as defined in Standard Drawing M-10 combined with pavement marking numerals as defined in Standard Drawing M-9 displaying the advisory speed for the curve. If used, this pavement marking should be installed at or near the location of the advance warning signs for the horizontal curve. The arrow marking may be omitted in locations where there is a potential for driver confusion due to intersecting roadways or driveways.

270.4 OTHER TREATMENTS

A. High-Friction Surface Treatment

High-friction surface treatments may be installed in accordance with TGP 1040.

B. Other

Other treatments may be installed at horizontal curves if approved by the State Traffic Engineer. If a treatment includes a non-standard traffic control device that is not included in the MUTCD, then the experimental process described in Section 1A.10 of the MUTCD should be followed.