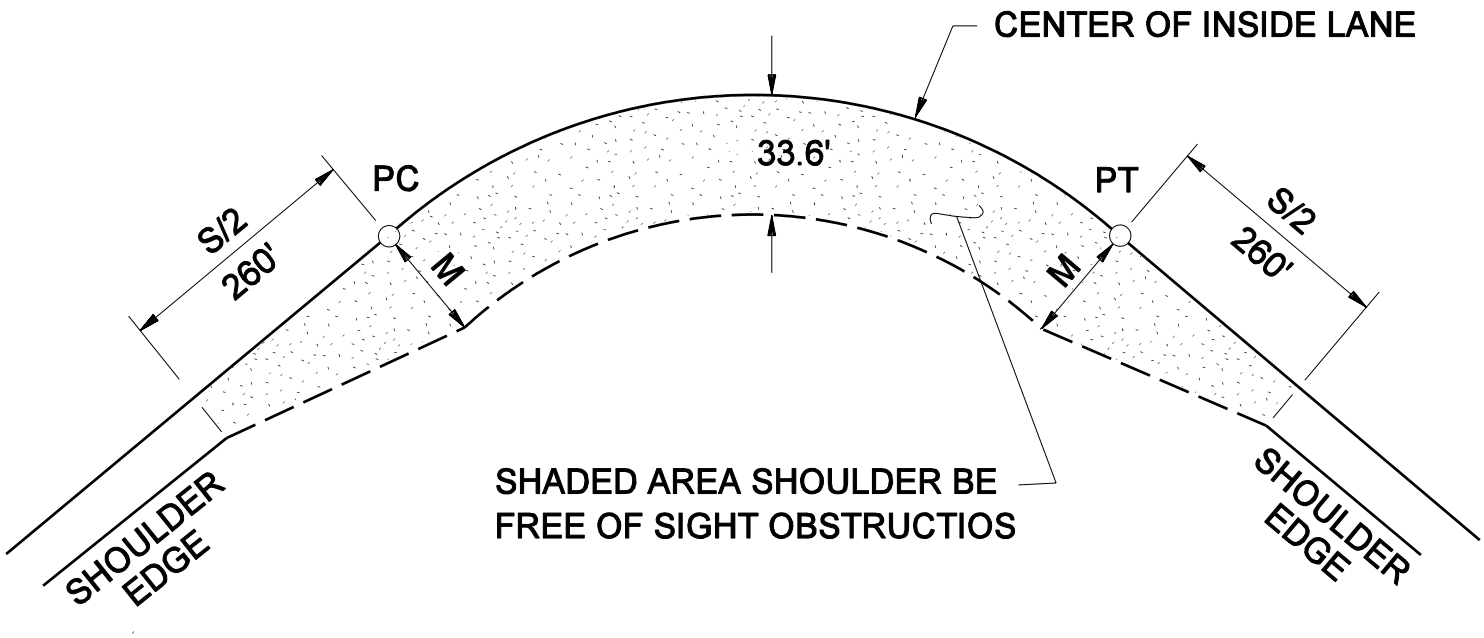

Example 43-4.1

Given: Design Speed = 55 mph, R = 1000 ft.

Problem: Determine the horizontal clearance requirements for the horizontal curve.

Solution: The curve should be designed to accommodate the minimum SSD values. See Figure 42-1A. Using the equation for horizontal clearance (L > S):

$$M = R \{1 - \cos [(28.65\ S) / R]\}$$

$$M = 1000 \{1-\cos [(28.65)\ (520) / 1000]\} = 33.6 \text{ ft.}$$

This figure also illustrates the horizontal clearance requirements for the entering and exiting portion of the horizontal curve.

SIGHT CLEARANCE REQUIREMENTS FOR HORIZONTAL CURVES

Figure 43-4C