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ERRATA for

A Policy on Geometric Design of Highways and Streets

November 2013

Dear Customer:

Recently, we were made aware of some technical revisions that need to be applied to the 2011 *A Policy on Geometric Design of Highways and Streets*, 6th Edition.

Please replace the existing text with the corrected text to ensure that your edition is both accurate and current.

In addition to the technical corrections, two unfortunate errors occurred in the front matter of the Green Book. First, Reza Amini, Geometric Design Engineer for the Oklahoma Department of Transportation, was inadvertently omitted from the Technical Committee on Geometric Design. Mr. Amini has served on the technical committee from 2001 until the present and was the primary author of Chapter 2. AASHTO definitely wishes to recognize his technical expertise and the dedication he has shown over the years. The voluntary services he has provided help make the Green Book the model of excellence that it is today. AASHTO staff apologizes profusely for this oversight and deeply appreciates his understanding in this matter.

Secondly, the name of one representative from Kansas to the Highway Subcommittee on Design was unfortunately misspelled as "Robert Lacy." The correct spelling is "Rodney Dean Lacy." Again, we apologize and appreciate Mr. Lacy's understanding in this matter.

AASHTO staff sincerely apologizes for any inconvenience to our readers.

Additional copies of this erratum can be downloaded from AASHTO's online bookstore at

http://downloads.transportation.org/GDHS-6-Errata.pdf

Page	Existing Text	Corrected Text
Chapter 2		
2-13	**Two dimensions of the Intercity Bus (BUS-12 [BUS-40]) in Figure 2-4 were "rounded up" to the tenth decimal in the U.S. Customary unit measurements. For the sake of accuracy, the current measurements of 7.09 m [23.3 ft]) and 1.93 m [6.3 ft] should be changed to 7.09 m [23.25 ft]) and 1.93 m [6.25 ft], respectively**.	**Please substitute page 2-13 with the attached page that includes the revised figure.**
2-14	The dimensions for the back overhang of the Intercity Bus (BUS-14 [BUS-45]) in Figure 2-5 are incorrect. The current measurement of the back overhang (2.12 m [7.0 ft]) should be changed to 2.67 m [8.8 ft].	Please substitute page 2-14 with the attached page that includes the revised figure.
2-25	All double-trailer combination design vehicles (WB-30D [WB-67D]) depicted in Figure 2-16 should be 5-axle trucks.	Please substitute page 2-25 with the attached page that includes the revised figure.
2-28	All turnpike-double combination design vehicles (WB-33D [WB-109D]) depicted in Figure 2-19 should be 9-axle trucks.	Please substitute page 2-28 with the attached page that includes the revised figure.
2-35	In Figure 2-25, the legends in both the SI and the U.S. Customary unit graphs list the Minimum Braking Distance as X = Wet Pavement and Y = Dry Pavement.	These representations should be reversed so that X = Dry Pavement and Y = Wet Pavement.
Chapter 3		
3-7	For the 70 km/h design speed in Table 3-3, the Decision Sight Distance for Maneuver B is listed as 325 m.	Please change "325 m" to "235 m."
3-12	Item 4 refers to a PC design vehicle.	Please change "PC design vehicle" to "P design vehicle."
3-86	The second paragraph on page 3-86 refers to "for tangent lane widths, W_n."	Please change "tangent lane widths" to "tangent two-lane traveled way widths."
3-87	Figure 3-17 should be updated.	Please substitute page 3-87 with the attached page that includes the revised figure.

Page	Existing Text	Corrected Text
3-88	Figure 3-18 should be updated.	Please substitute page 3-88 with the attached page that includes the revised figure.
3-92	The second sentence of the final paragraph on page 3-92 begins "The differences in track widths of the SU, WB-12, WB-19, WB-20, WB-20D, WB-30T, and WB-33D [SU, WB-40, WB-62, WB-67, WB-67D, WB-100T, and WB-109D] design trucks are substantial for the sharp curves associated with . . ."	Please change this sentence to read "The differences in track widths of the SU-9, SU-12, WB-12, WB-19, WB-20, WB-20D, WB-28D, WB-30T, and WB-33D [SU-30, SU-40, WB-40, WB-62, WB-67, WB-67D, WB-92D, WB-100T, and WB-109D] design trucks are substantial for the sharp curves associated with . . ."
3-94	The first note under Table 3-26b references the metric WB-19 design vehicle.	Please change this reference to the U.S. Customary design vehicle WB-62.
3-96	In the Radius of Curve column, the 2nd row value is listed as 25000.	Please change "25000" to "2500."
3-99	The final sentence in the section about Case II begins "Case I widths for these longer vehicles, including the WB-19, WB-20, WB-30T, and WB-33D [WB-62, WB-65, WB-100T, and WB-109D] design vehicles, may . . ."	Please change this sentence to read "Case I widths for these longer vehicles, including the WB-19, WB-20, WB-20D, WB-28D, WB-30T, and WB-33D [WB-62, WB-67, WB-67D, WB-92D, WB-100T, and WB-109D] design vehicles, may . . ."
3-103	**Bottom section of Table 3-29**	**For clarification, add a row below "Application of Modification for Edge Conditions" with the headings "Case I, Case II, and Case III" in columns 2, 3, and 4, respectively; repeat in columns 6, 7, and 8 respectively.**
3-114	**The final paragraph on page 3-114 reads "The effect of rate and length of grade on the speed of a typical heavy truck is shown in Figures 3-24 and 3-25. From Figure 3-24 it can be determined how far a truck, starting its climb from any speed up to approximately 120 km/h [70 mph], travels up various grades or combinations of grades before a certain or uniform speed is reached. For instance, with an entering speed of approximately 110 km/h [70 mph], the truck travels about 950 m [2,700 ft] up a 6 percent grade before its speed is reduced to 60 km/h [35 mph]. If the entering speed is 60 km/h [35 mph], the speed at the end of a 300-m [1,000-ft] climb is about**	**Please change this paragraph to read "The effect of rate and length of grade on the speed of a typical heavy truck is shown in Figures 3-24 and 3-25. From Figure 3-24 it can be determined how far a truck, starting its climb from any speed up to approximately 110 km/h [70 mph], travels up various grades or combinations of grades before a certain or uniform speed is reached. For instance, with an entering speed of approximately 110 km/h [70 mph], the truck travels about 750 m [2,700 ft] up a 6 percent grade before its speed is reduced to 60 km/h [35 mph]. If the**

Page	Existing Text	Corrected Text
	43 km/h [26 mph]. This is determined by starting on the curve for a 6 percent grade corresponding to 60 km/h [35 mph] for which the distance is 750 m [2,500 ft], and proceeding along it to the point where the distance is 300 m [1,000 ft] more, or 1050 m [3,500 ft], for which the speed is about 43 km/h [26 mph]. Figure 3-24 shows the performance on grade for a truck that approaches the grade at or below crawl speed. The truck is able to accelerate to a speed of 40 km/h [25 mph] or more only on grades of less than 3.5 percent. These data serve as a valuable guide for design in appraising the effect of trucks on traffic operation for a given set of profile conditions."	**entering speed is 60 km/h [35 mph], the speed at the end of a 300-m [1,000-ft] climb is about 43 km/h [26 mph]. This is determined by starting on the curve for a 6 percent grade corresponding to 60 km/h [35 mph] for which the distance is 750 m [2,700 ft], and proceeding along it to the point where the distance is 300 m [1,000 ft] more, or 1050 m [3,700 ft], for which the speed is about 43 km/h [26 mph]. Figure 3-25 shows the performance on grade for a truck that approaches the grade at or below crawl speed. The truck is able to accelerate to a speed of 40 km/h [25 mph] or more only on grades of less than 5.5 percent. These data serve as a valuable guide for design in appraising the effect of trucks on traffic operation for a given set of profile conditions."**
3-147	Equation 3-39 is shown as $L = \frac{V^2}{254(R-G)}$ for the Metric units and as $L = \frac{V^2}{30(R-G)}$ for the U.S. Customary units.	Please change Equation 3-39 to read $L = \frac{V^2}{254(R \pm G)}$ for the Metric units and $L = \frac{V^2}{30(R \pm G)}$ for the U.S. Customary units.
Chapter 4		
4-2	Figure 4-1 incorrectly labels the traveled way and the roadway.	Please substitute page 4-2 with the attached page that includes the revised figure.
Chapter 6		
6-13	Under Sight Distance, the final subsection of Section 6.3.1, the final sentence references Tables 6-2 and 6-3.	Please change this cross reference to Tables 6-3 and 6-4.
Chapter 9		
9-42	The design speeds shown in U.S. Customary units in Figure 9-18 are incorrect.	Please substitute page 9-42 with the attached page that includes the revised figure.

Page	Existing Text	Corrected Text
9-45	In the 7th row of Table 9-9 under U.S. Customary units, the Design Speed is listed as 4.	Please change this Design Speed to 45.
9-74	The dimensions for Diagram B in Figure 9-28 (Metric) are incorrect.	Please substitute page 9-74 with the attached page that includes the revised figure.
9-75	The dimensions for Diagram B in Figure 9-28 (U.S. Customary) are incorrect.	Please substitute page 9-75 with the attached page that includes the revised figure.
Chapter 10		
10-78	In Figure 10-53, Part B2 incorrectly cross references Figure 10-69.	Please change the cross reference to "For Deceleration Length See Table 10-5."
10-93	Item 1 under Superelevation and cross slope refers to Figures 3-21 through 3-25.	The correct cross reference should be "Tables 3-8 through 3-12."
	Item 3 refers to Figures 3-29 and 3-30.	Please change these cross references to Tables 3-15 and 3-16, respectively.
10-108	**Note 2 in Figure 10-69 states, "Point A controls speed on the ramp. L_a should not start back on the curvature of the ramp unless the radius equals 300 m [100 ft] or more."**	**Please change "100 ft" to "1,000 ft."**

* Items shown in bold are recent additions to the 2012 edition of the GDHS-6 errata.

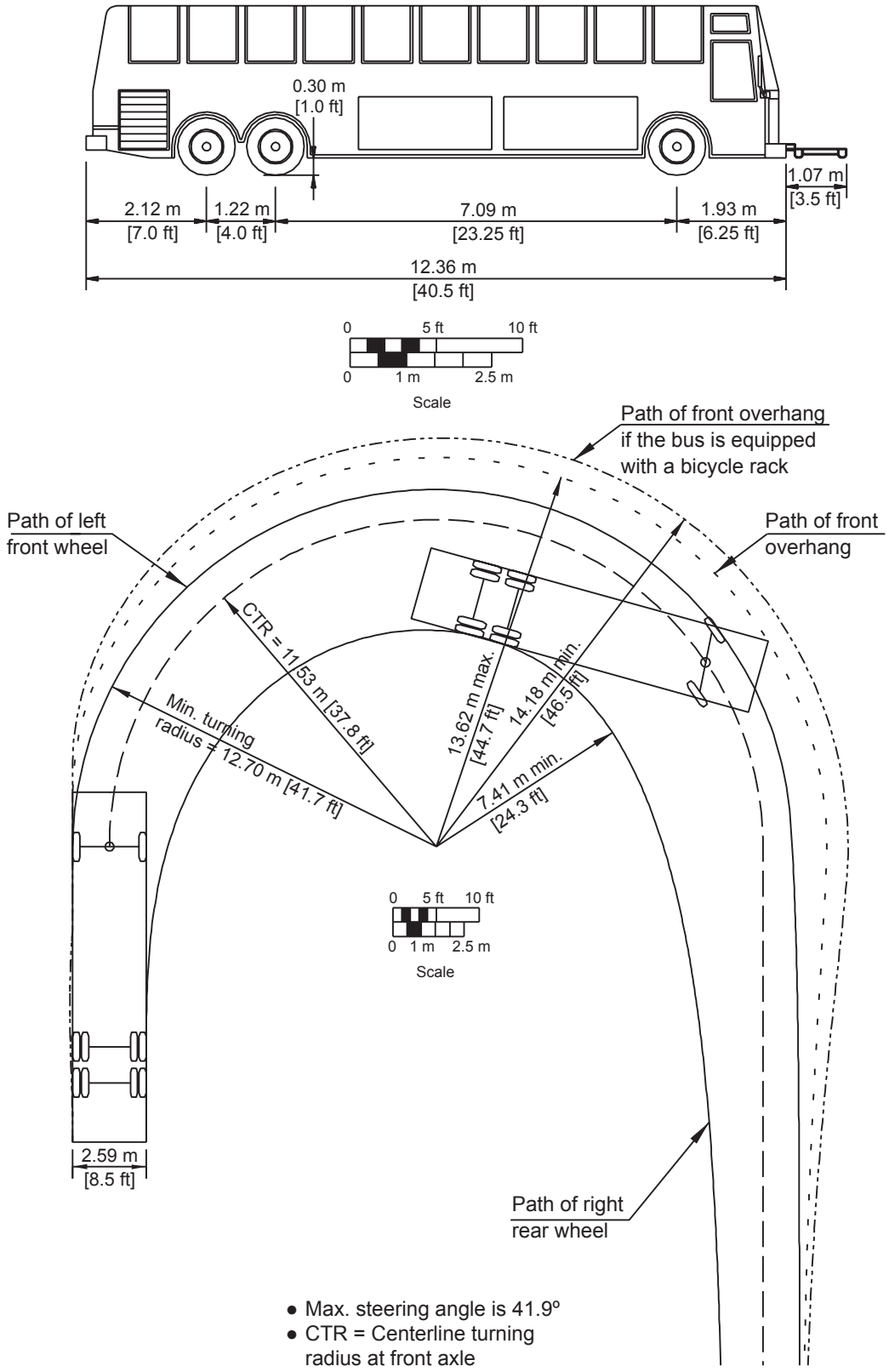


Figure 2-4. Minimum Turning Path for Intercity Bus (BUS-12 [BUS-40]) Design Vehicle

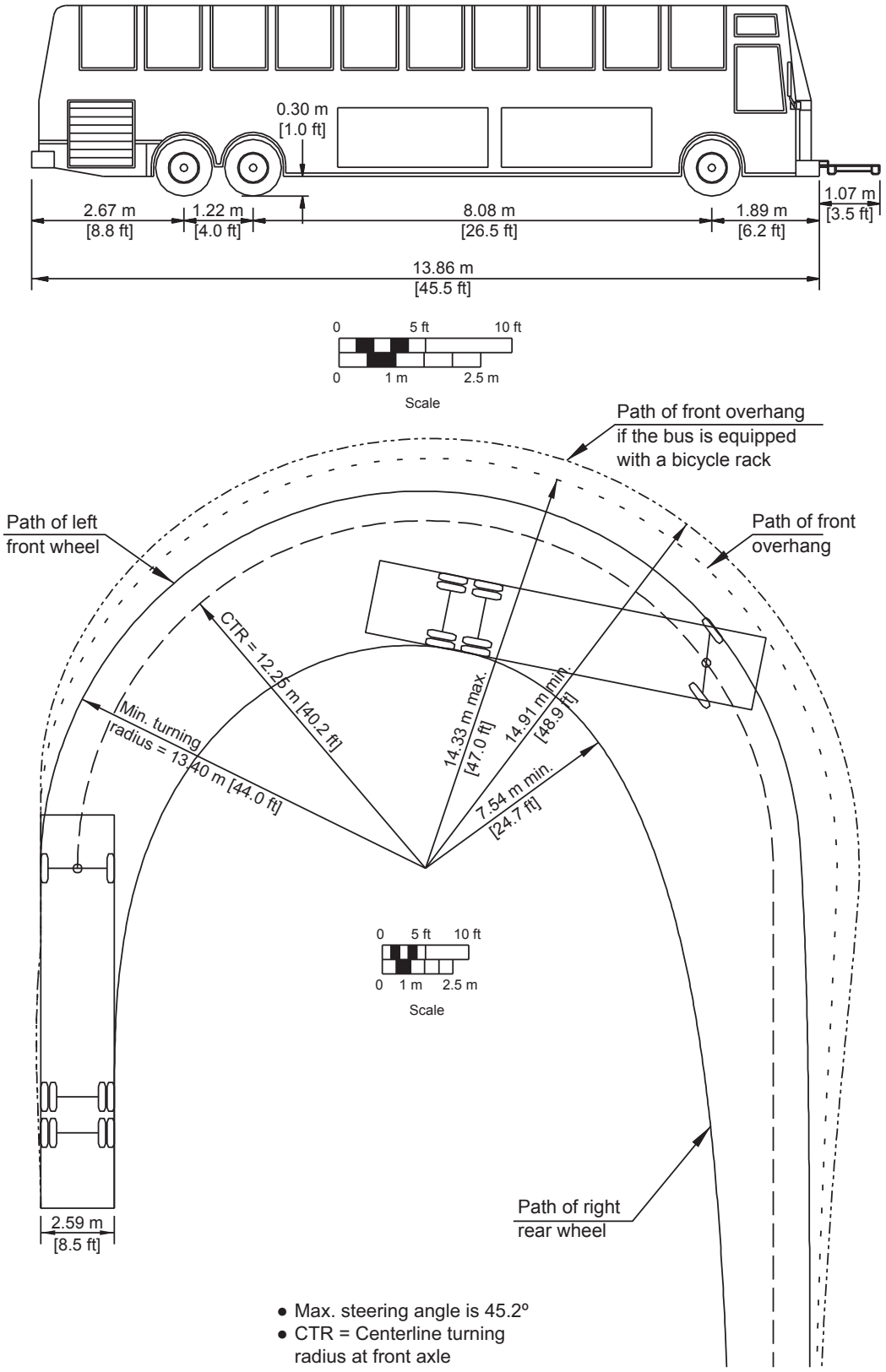


Figure 2-5. Minimum Turning Path for Intercity Bus (BUS-14 [BUS-45]) Design Vehicle

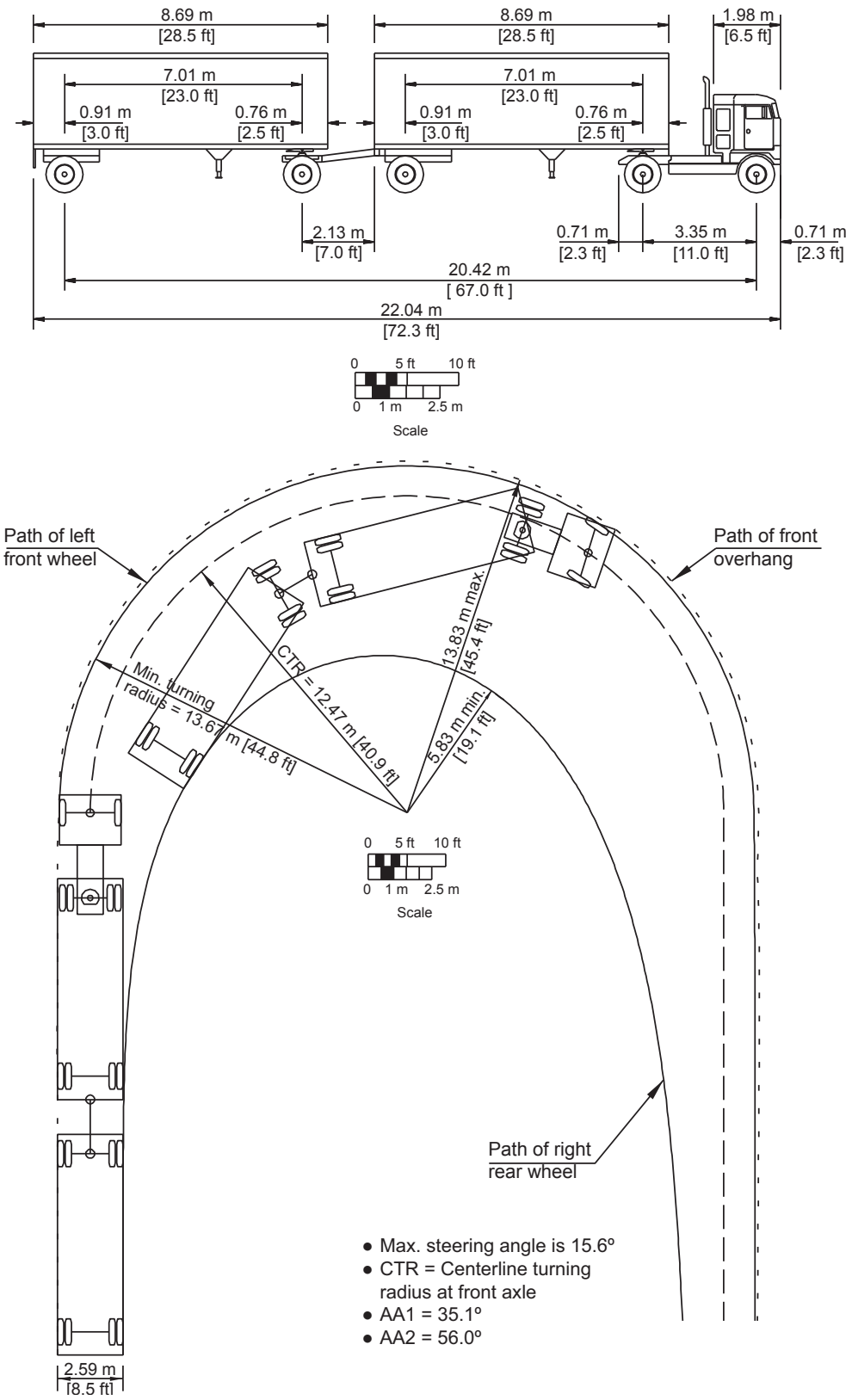


Figure 2-16. Minimum Turning Path for Double-Trailer Combination (WB-20D [WB-67D]) Design Vehicle

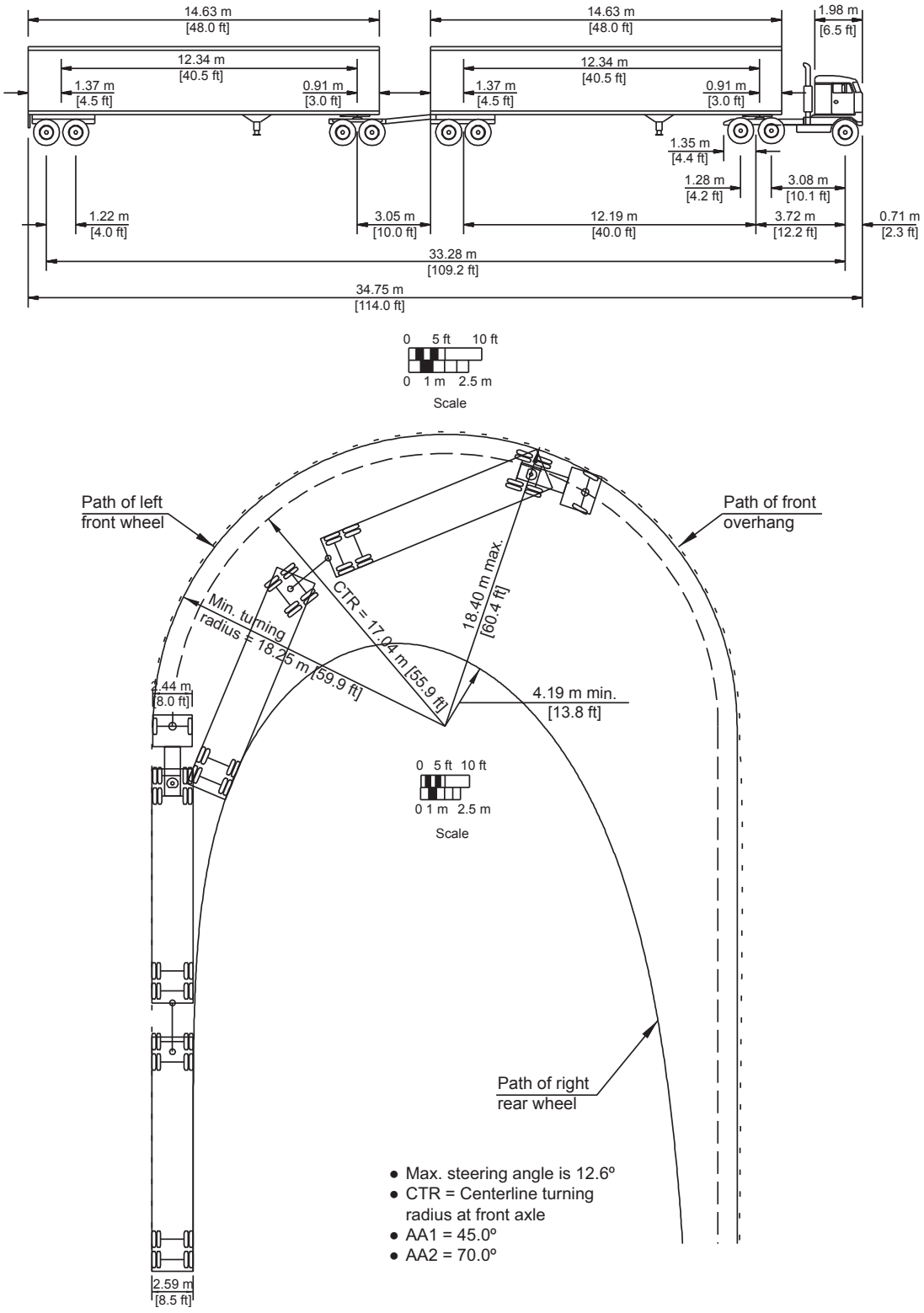


Figure 2-19. Minimum Turning Path for Turnpike-Double Combination (WB-33D [WB-109D]) Design Vehicle

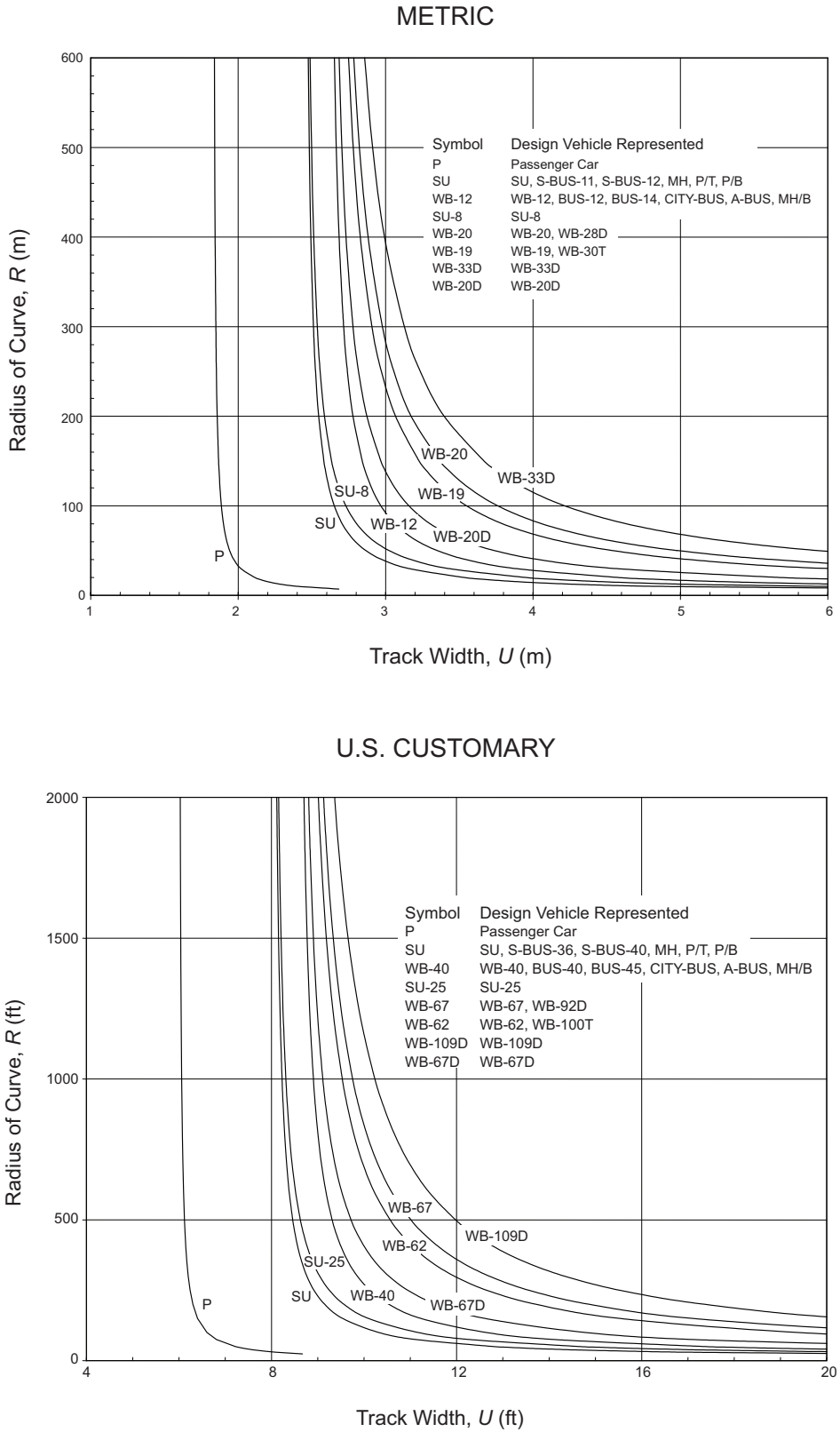
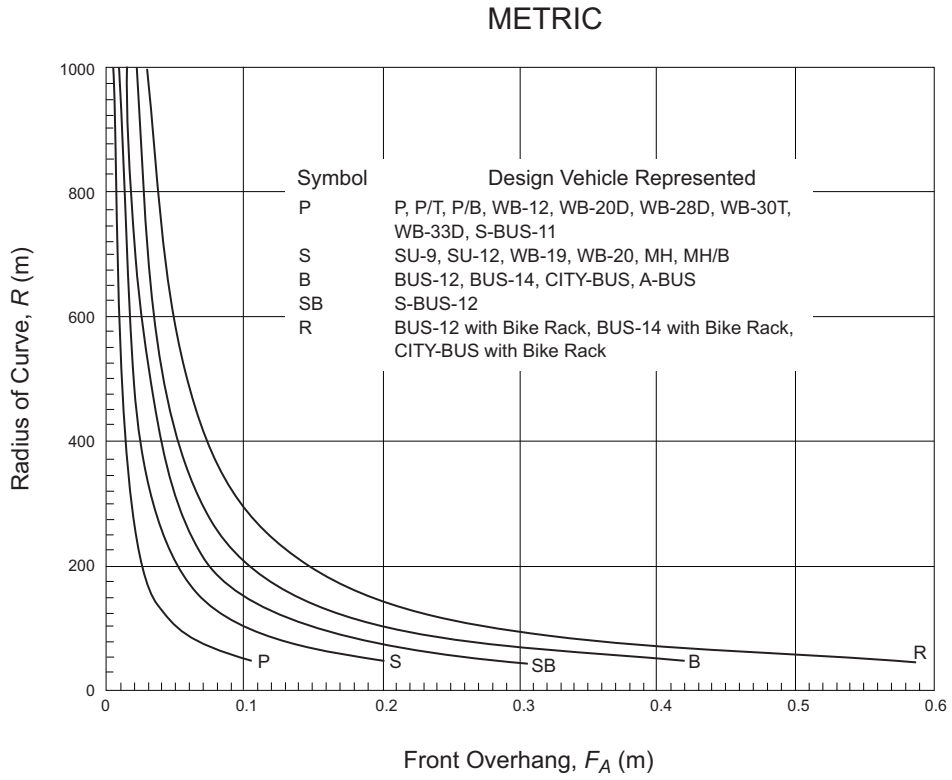


Figure 3-17. Track Width for Widening of Traveled Way on Curves



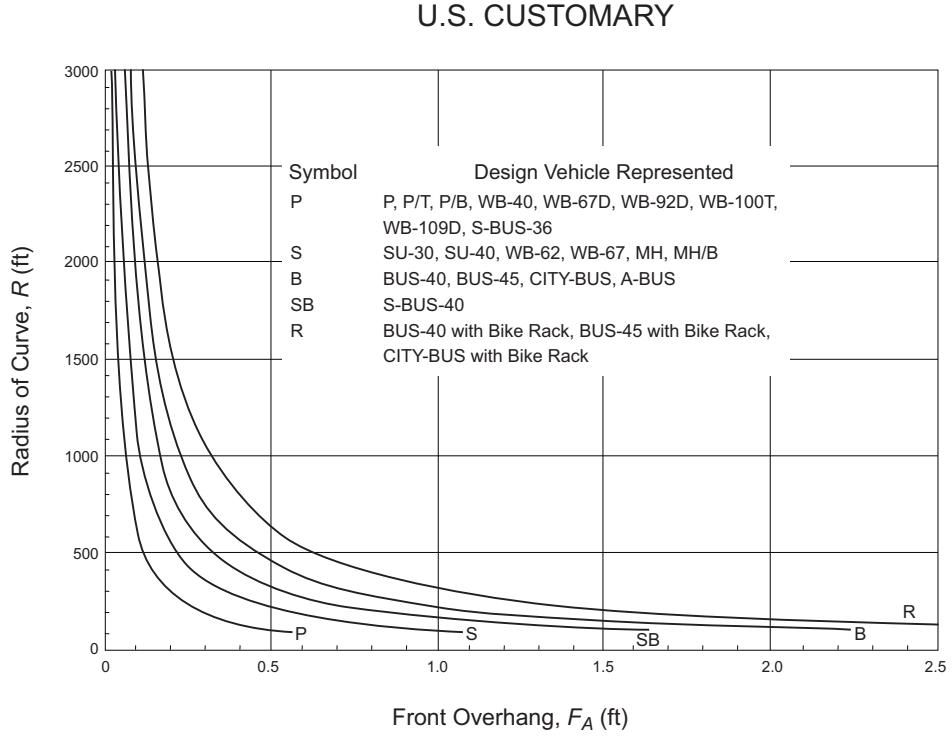


Figure 3-18. Front Overhang for Widening of Traveled Way on Curves

slightly rounded surface at the crown line and increasing cross slope toward the edge of the traveled way. Because the rate of cross slope is variable, the parabolic section is described by the crown height (i.e., the vertical drop from the center crown line to the edge of the traveled way). The rounded section is advantageous in that the cross slope steepens toward the edge of the traveled way, thereby facilitating drainage. Disadvantages are that rounded sections are more difficult to construct, the cross slope of the outer lanes may be excessive, and warping of pavement areas at intersections may be awkward or difficult to construct.

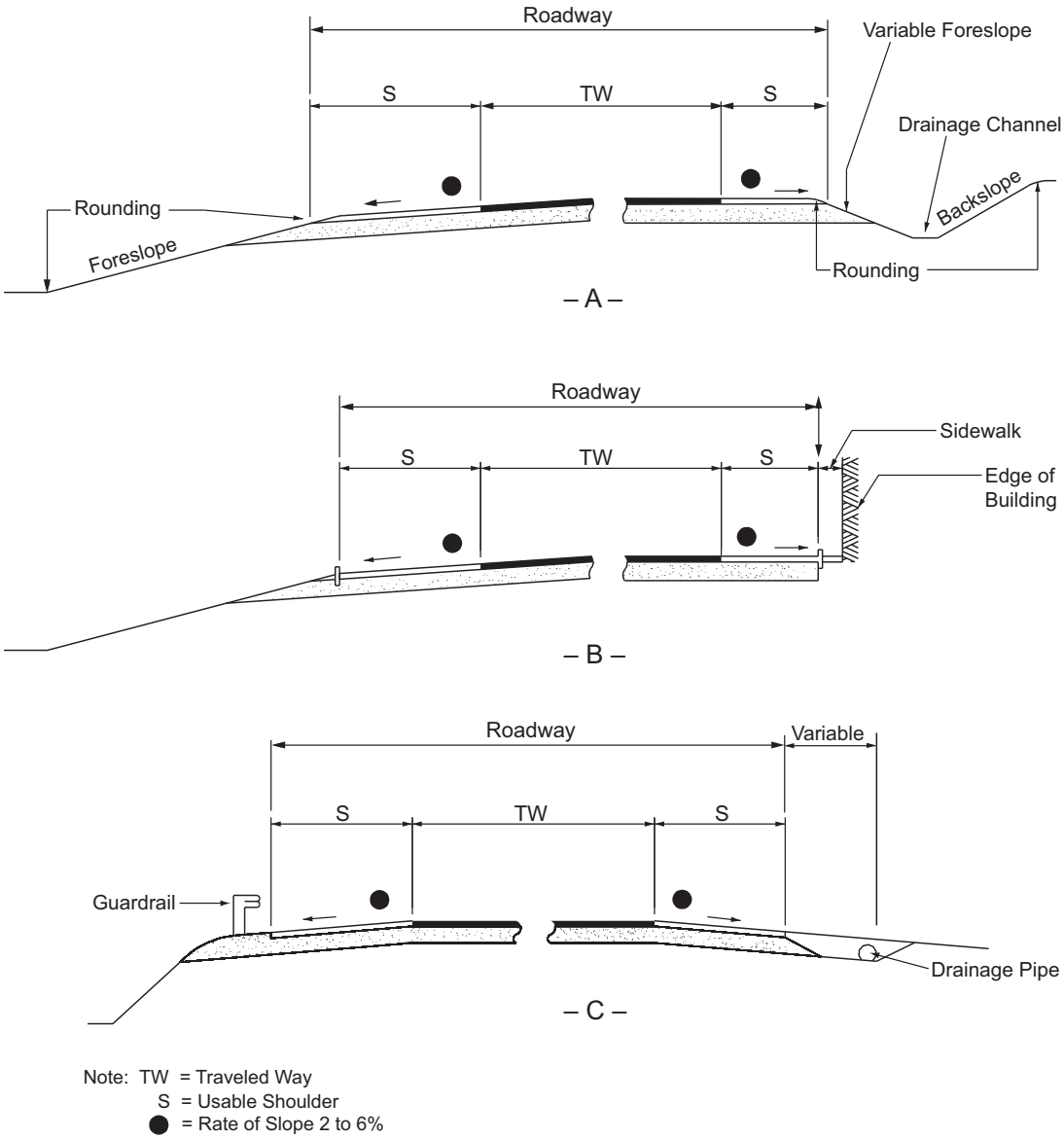


Figure 4-1. Typical Cross Section, Normal Crown

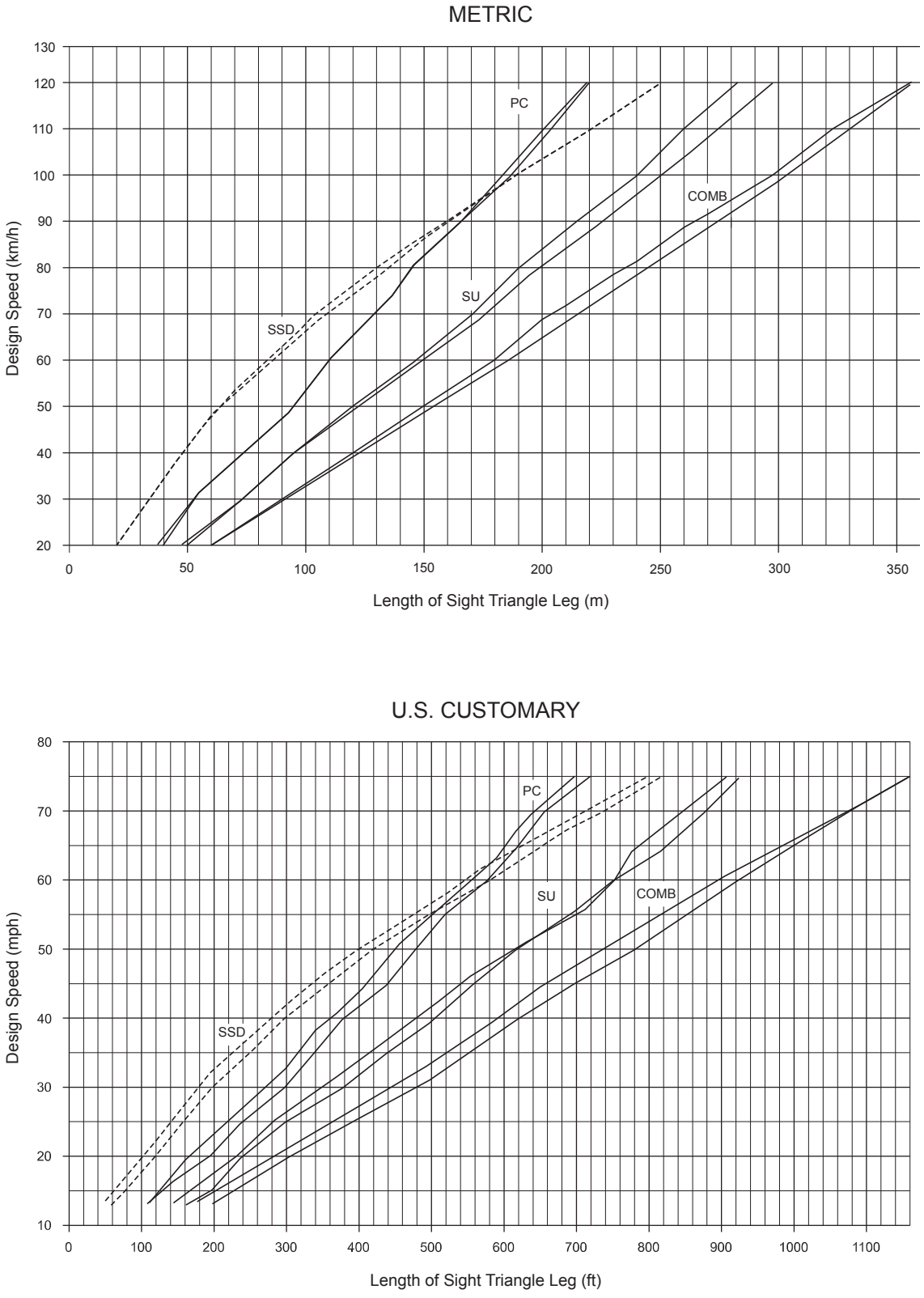
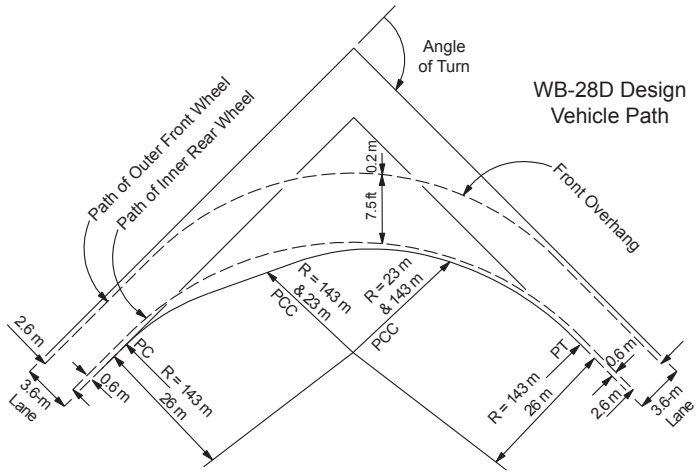
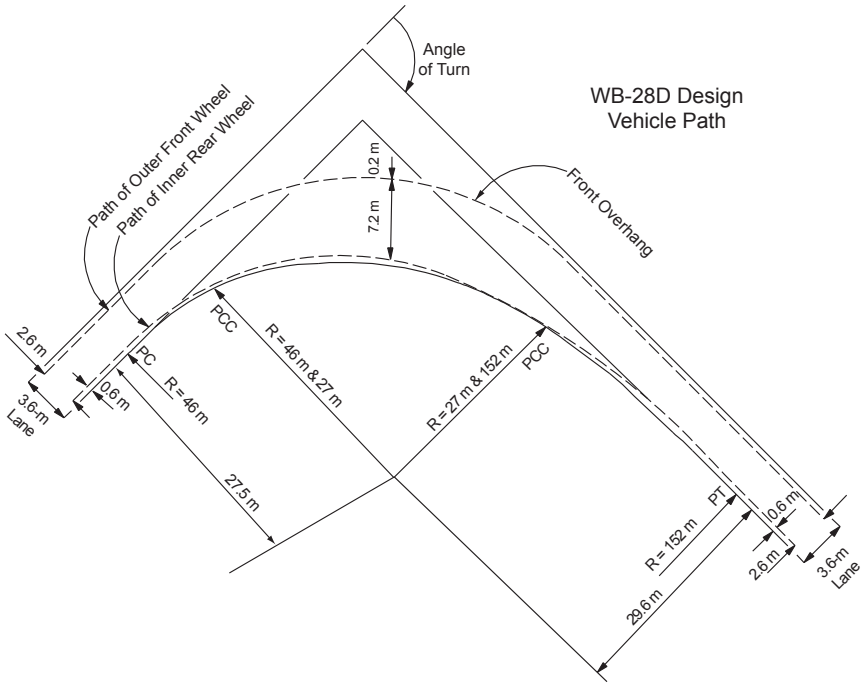


Figure 9-18. Intersection Sight Distance—Case B2, Right Turn from Stop, and Case B3, Crossing Maneuver



Three-Centered Compound Curve with
143 m – 23 m – 143 m Radii, Offset 3 m

– A –

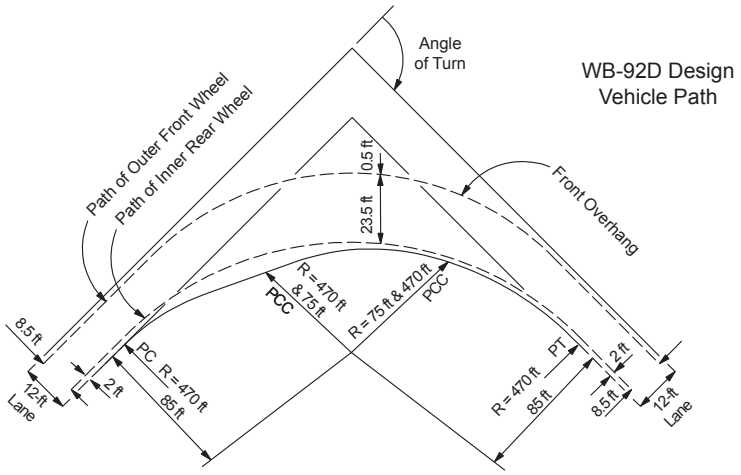


Three-Centered Compound Curve with
46 m – 27 m – 152 m Radii, Offset 0.5 m and 2.6 m

– B –

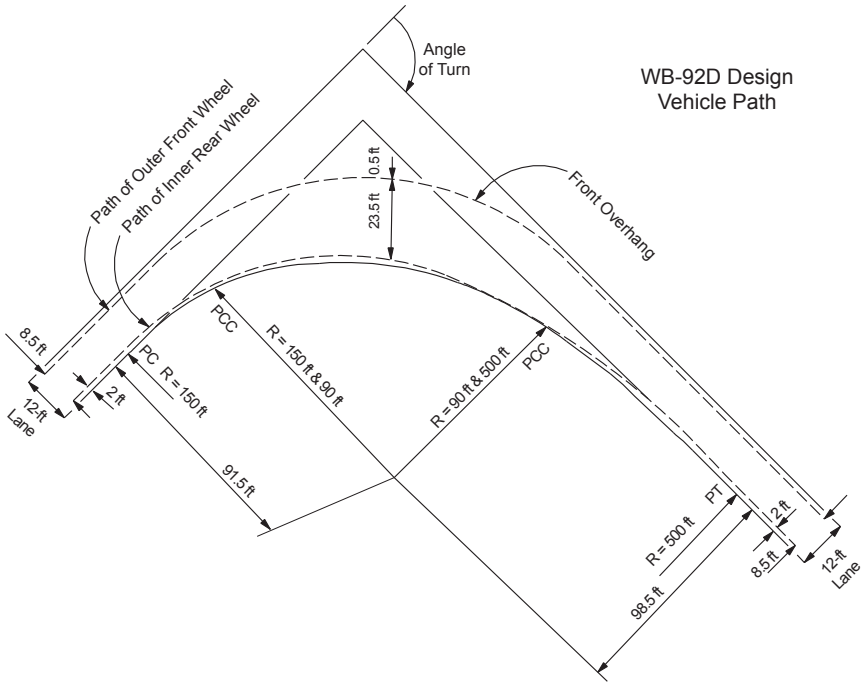
METRIC

Figure 9-28. Minimum Edge-of-Traveled-Way Designs (WB-28D [WB-92D] Combination Trucks)



Three-Centered Compound Curve with
470 ft – 75 ft – 470 ft Radii, Offset 10 ft

– A –



Three-Centered Compound Curve with
150 ft – 90 ft – 500 ft Radii, Offset 1.5 ft and 8.5 ft

– B –

U.S. CUSTOMARY

Figure 9-28. Minimum Edge-of-Traveled-Way Designs (WB-28D [WB-92D] Combination Trucks) (Continued)