



- GENERAL NOTES**
- (A) FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001.
 - (B) PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001, UNLESS OTHERWISE NOTED.
 - (C) REFERENCE SHOULD ALSO BE MADE TO THE "ROADSIDE DESIGN GUIDE," AASHTO, 2002.
 - (D) DESIRABLE RIGHT-OF-WAY IS SLOPE LINES PLUS 4.6 METERS.
 - (E) IF NO ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE TRAVELED WAY PLUS CLEAR ZONE.
 - (F) IF ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE SUFFICIENT TO ACCOMMODATE THE UTILITIES OUTSIDE THE CLEAR ZONE.
 - (G) ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR MS-18 LOADING. THE MINIMUM CLEAR WIDTH FOR NEW AND REHABILITATED BRIDGES SHALL BE EQUAL TO THE FULL WIDTH OF THE APPROACH ROADWAY, CURB-TO-CURB OR FULL SHOULDER WIDTH AS APPLICABLE.
 - (H) FOR EXISTING BRIDGES TO REMAIN IN PLACE, THEY SHOULD HAVE ADEQUATE STRUCTURAL STRENGTH AND A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE TRAVELED WAY PLUS 0.6 METERS OF CLEARANCE ON EACH SIDE. BRIDGES SHOULD BE CONSIDERED FOR ULTIMATE WIDENING OR REPLACEMENT IF THEY DO NOT PROVIDE AT LEAST 1.0 METER CLEARANCE ON EACH SIDE OR ARE NOT CAPABLE OF MS-18 LOADINGS. AS AN INTERIM MEASURE, ALL BRIDGES THAT ARE LESS THAN FULL WIDTH SHOULD BE CONSIDERED FOR SPECIAL NARROW BRIDGE TREATMENTS SUCH AS SIGNING AND PAVEMENT MARKING.
 - (I) FOR ADDITIONAL URBAN DESIGN AND CRITERIA, SEE PAGES 433-444.

TABLE I. MINIMUM DESIGN SPEEDS FOR RURAL COLLECTOR ROADS (SEE PAGE 426).

TYPE OF TERRAIN	MINIMUM DESIGN SPEED (km/h)
LEVEL	100
ROLLING	80
MOUNTAINOUS	60

- FOOTNOTES**
- (1) SEE GUARDRAIL STANDARD DRAWINGS FOR TYPICAL GUARDRAIL PLACEMENT.
 - (2) SEE DETAILS A, B, C, OR D FOR ROUNDING.
 - (3) THE CLEAR ZONE WIDTH SHALL BE DETERMINED FROM STANDARD DRAWING RDM01-S-12. SEE THE "ROADSIDE DESIGN GUIDE," AASHTO, 2002 FOR FURTHER INFORMATION ON CLEAR ZONES.
 - (4) SEE STANDARD DRAWINGS RDM01-S-11 AND RDM01-S-11B FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, AND SPECIAL ROCK CUT TREATMENT.
 - (5) SEE STANDARD DRAWING RDM01-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.
 - (6) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0 %.
 - (7) ALTHOUGH THE SELECTED DESIGN SPEED ESTABLISHES THE LIMITING VALUES OF CURVE RADIUS AND MINIMUM SIGHT DISTANCE THAT SHOULD BE USED IN DESIGN, THERE SHOULD BE NO RESTRICTION ON THE USE OF FLATTER HORIZONTAL CURVES OR GREATER SIGHT DISTANCES WHERE SUCH IMPROVEMENTS CAN BE PROVIDED AS A PART OF AN ECONOMICAL DESIGN (SEE PAGE 69).
 - (8) 1.2 METERS MEDIAN WIDTH ALLOWED UNDER RESTRICTIVE CONDITIONS. 3.6 METERS MINIMUM WIDTH IS PREFERRED.

TABLE II. 4 AND 6 LANE COLLECTOR ROADS AND STREETS - DESIGN STANDARDS (7)

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)	DESIGN SPEEDS (km/h)							
	50	60	70	80	90	100		
MINIMUM RADIUS (m) 0.04 MAX. S.E.	100	150	215	280	375	490	SEE PAGE 145	
MINIMUM RADIUS (m) 0.06 MAX. S.E.	90	135	195	250	335	435		
MINIMUM RADIUS (m) 0.08 MAX. S.E.	80	125	175	230	305	395		
MAXIMUM RURAL GRADES (%)	LEVEL TERRAIN	7	7	7	6	6	5	SEE PAGE 427
	ROLLING TERRAIN	9	8	8	7	7	6	
	MOUNTAINOUS TERRAIN	10	10	10	9	9	8	
MAXIMUM URBAN GRADES (%)	LEVEL TERRAIN	9	9	8	7	7	6	SEE PAGE 436
	ROLLING TERRAIN	11	10	9	8	8	7	
	MOUNTAINOUS TERRAIN	12	12	11	10	10	9	
MINIMUM STOPPING SIGHT DISTANCE (m)	65	85	105	130	160	185	SEE PAGE 426	
MINIMUM "K" VALUE	CREST VERTICAL CURVE	7	11	17	26	39		52
	SAG VERTICAL CURVE	13	18	23	30	38		45
SUPERELEVATION	SEE STANDARD DRAWINGS RDM01-SE-2 AND RDM01-SE-3							

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ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**DESIGN STANDARDS
4 AND 6 LANE
COLLECTOR
HIGHWAYS WITH
FLUSH MEDIANS**