COMMON GEOMETRIC PRACTICES
RURAL COLLECTOR ROADS

		TRAFFIC VOLUME			
	TERRIAN	UNDER 400 A.D.T.	400-2000 A.D.T.		OVER 2000 A.D.T.
MINIMUM DESIGN SPEED (M.P.H.) (7)	LEVEL	40	50		60
	ROLLING	30	40		50
	MOUNTAIN	20	30		40
PAVEMENT WIDTH (FEET) (1) (8)	DESIGN SPEED	UNDER 400 A.D.T.	400-1500 A.D.T.	1500-2000 A.D.T.	OVER 2000 A.D.T.
	20 MPH	20 (9)	20	22	24
	25 MPH				
	30 MPH				
	35 MPH		22		
	40 MPH				
	45 MPH	20			
	50 MPH				
	55 MPH	22		24	
	60 MPH				
MINIMUM GRADED SHOULDER WIDTH (FEET) (6)	ALL SPEEDS	2	5 (10)	6	8
MIN. CLEAR ROADWAY WIDTH OF NEW AND RECONSTRUCTED BRIDGES	ALL SPEEDS	APPROACH ROADWAY WIDTH			

MINIMUM RADIUS (FEET)	DESIGN SPEED	eMAX. 4%	eMAX. 6%	eMAX. 8%
	20 MPH	125	115	105
	25 MPH	205	185	170
	30 MPH	300	275	250
	35 MPH	420	380	350
	40 MPH	565	510	465
	45 MPH	730	660	600
	50 MPH	930	835	760
	55 MPH	1190	1065	965
	60 MPH	1505	1340	1205

NORMAL PAVEMENT CROSS SLOPES (4)	RATE OF CROSS SLOPE = 2%									
NORMAL SHOULDER CROSS SLOPES	EARTH = 8%						PAVED = 4%			
MAXIMUM GRADE (PERCENT) (5)	M.P.H.	20	25	30	35	40	45	50	55	60
	LEVEL	7						6		5
	ROLLING	10		9		8		7		6
	MOUNTAIN	12	11	10				9		8
MINIMUM STOPPING SIGHT DISTANCE (2)	(FEET)	115	155	200	250	305	360	425	495	570
MINIMUM PASSING SIGHT DISTANCE (3)	(FEET)	710	900	1090	1280	1470	1625	1835	1985	2135

(1) WIDEN PAVEMENT ON CURVES IN ACCORDANCE WITH APPROVED DESIGN STANDARDS. REFER TO CURRENT STANDARD DRAWING FOR ADDITIONAL DETAIL.

(2) MINIMUM STOPPING SIGHT DISTANCE BASED ON HEIGHT OF EYE OF 3.5 FT AND HEIGHT OF OBJECT OF 2.0FT. CONSIDER BOTH HORIZONTAL AND VERTICAL ALIGNMENTS.

(3) MINIMUM PASSING SIGHT DISTANCES BASED ON HEIGHT OF EYE 3.5 FT AND HEIGHT OF OBJECT OF 3.5 FT. CONSIDER BOTH HORIZONTAL AND VERTICAL ALIGNMENTS.

(4) NORMAL PAVEMENT CROSS SLOPES ON BRIDGES IS 2%.

(5) MAY USE ONE PERCENT STEEPER MAXIMUM GRADES ON SHORT LENGTHS (LESS THAN 500 FT) AND ON ONE-WAY DOWN GRADES.

(6) WIDEN 3 FT FOR GUARDRAIL.

(7) DOCUMENT AND RETAIN JUSTIFICATION FOR A DESIGN SPEED LESS THAN THE REGULATORY OR POSTED SPEED IN THE PROJECT FILES.

(8) ON ROADWAYS TO BE RECONSTRUCTED, A 22 FT TRAVELLED WAY MAY BE RETAINED WHERE THE SAFETY RECORDS AND ALIGNMENT ARE SATISFACTORY.

(9) 18 FT MINIMUM WIDTH MAY BE USED FOR ROADWAYS WITH DESIGN VOLUMES UNDER 250 A.D.T.

(10) SHOULDER WIDTH MAY BE REDUCED FOR DESIGN SPEEDS GREATER THAN 30 MPH PROVIDED A MINIMUM ROADWAY WIDTH OF 30 FT IS MAINTAINED.