GEOMETRIC DESIGN STANDARDS-URBAN MINOR ARTERIAL STREET SYSTEM (GS-6)

	DESIGN SPEED (MPH)	MINIMUM RADIUS		(12) STOPPING SIGHT DISTANCE	(11) MIN. WIDTH OF LANE	(3) STANDARD CURB & GUTTER (10)	BUFFER STRIP WIDTH	(4) MINIMUM SIDEWALK WIDTH	(5) SLOPE	(6) NEW AND RECONSTRUCTED MINIMUM BRIDGE WIDTHS AND VERTICAL CLEARANCES
		U	ULS	MIN.						
STREETS WITH CURB & GUTTER	60	1204'	-	570'	12'	CG-7	(10)	5'	2: 1	SAME AS CURB TO CURB OF APPROACHES
	50	929'	-	425'						
	45	730'	795'	360'	(1) (2) 11'					
	40	563'	593'	305'		CG-6				
	30	300'	273'	200'						

	DESIGN SPEED (MPH)	MINIMUM RADIUS		STOPPING SIGHT DISTANCE	MIN. WIDTH OF LANE	(7) MINIMUM WIDTH GRADED SHOULDERS		(8) PAVED SHOULDER WIDTH		(9) MINIMUM WIDTH OF DITCH FRONT SLOPE	(5) SLOPE	(6) (13) NEW AND RECONSTRUCTED MINIMUM BRIDGE WIDTHS AND VERTICAL CLEARANCES
		U	ULS	MIN.		FILL W/GR	CUT & FILL	RT.	LT.			
(13) STREETS WITH SHOULDER DESIGN	60	1204'	-	570'	12'	13'	10'	8'	4'	10'	2: 1	10' + PAVEMENT WIDTH + 10'
	50	929'	-	425'						6'		
	40	563'	593'	305'	(1) (2) 11'							
	30	300'	273'	200'								

GENERAL NOTES

Design Speeds for Urban Arterials generally range from 40 to 60 mph and occasionally may be as low as 30 mph. The lower (40 mph and below) speeds apply in the central business district and intermediate areas. The higher speeds are more applicable to the outlying business and developing areas.

Standard TC-5.01R (2001 AASHTO Green Book) superelevation based on 8% maximum is to be used for 60 mph design speed.

Standard TC-5.01U (Urban) (2001 AASHTO Green Book) superelevation based on 4% maximum is to be used for design speeds less than 60 mph.

Standard TC-5.04ULS (Urban Low Speed) (2004 AASHTO Green Book) superelevation based on 2% maximum may be used for design speeds less than or equal to 45 mph.

Clear Zone and Recoverable Area information can be found in Appendix A, Section A-2 of the Road Design Manual.

If medians are included, see Section 2E-3 of Chapter 2E of the Road Design Manual.

A minimum 30' width of surfacing or a minimum 30' face to face of curb is to be used within incorporated cities or towns to qualify for maintenance payments.

For maximum grades relative to terrain and design speed, see AASHTO Green Book, Chapter 7, Exhibit 7-10.

FOOTNOTES

(1) Lane width to be 12' at all interchanges or if design year ADT exceeds 2000.

(2) If heavy truck traffic is anticipated, an additional 1' width is desirable.

(3) Or equivalent City or Town design.

(4) A width of 8' or more may be needed in commercial areas.

(5) Slopes 3:1 and flatter may be used when the right of way is behind the sidewalk (or sidewalk space) in residential or other areas where slopes will be maintained by the property owner.

(6) Vertical clearance at roadway underpasses for new and reconstructed bridges is to be 16'-6" (1' additional clearance required for non-vehicular overpasses).

(7) If graded median is used, the width of median shoulder is to be 8' (See Standard GS-11 for shoulder design).

(8) The Paved widths shown are the widths to be used if the Materials Division recommends the shoulders be paved. When the mainline is 4 lanes (both directions) a minimum 8' wide paved shoulder will be provided on the right of traffic and a minimum 4' wide paved shoulder on the median side. Where the mainline is 6 or more lanes, both right and median paved shoulders will be 8' in width. If paved shoulders are not recommended by the Materials Division the mainline pavement structure will be extended 1' at the same slope into the shoulder to eliminate raveling of the pavement edge.

(9) Ditch slope to be 6:1 - 10' width and 4:1 - 6' width. A hydraulic analysis is necessary to determine actual depth requirement.

(10) For buffer strip widths see IIM–LD–55.

(11) Situations having restrictions on trucks may allow the use of lanes 1' less in width.

(12) For additional information on sight distance requirements on grades of 3 percent or greater, see Exhibit 3-2 of the 2004 AASHTO, Green Book.

(13) For information on reduced shoulder widths, see Exhibit 7-3 of the 2004 AASHTO Green Book.

FIGURE A - 1 - 6*

* Rev. 1/10