

### GEOMETRIC DESIGN STANDARDS FOR SERVICE ROADS (GS-9M)

(1) DEAD END SERVICE ROADS UNDER 25 VPD								
PROPERTIES SERVED	DESIGN SPEED (km/h)	MINIMUM RADIUS (METERS)	STOPPING SIGHT DISTANCE (METERS)	(2) MINIMUM TRAVEL WAY WIDTH	MINIMUM WIDTH OF SHOULDER		(3) MINIMUM WIDTH OF DITCH (FRONT SLOPE)	SLOPES
					FILL W/GR.	CUT & FILL		
1	20	10	40	3.6m	1.2m	0.6m	0.9m	(4)
OVER 1	30	29	70	4.8m	1.5m			
	50	86	65	5.4m				
	70	203	105					

#### GENERAL NOTES

The minimum design speed for service roads should be 30 km/h except for one lane service roads serving one property which may have a minimum design speed of 20 km/h.

Standard TC-5.01R (M) superelevation based on 8% maximum to be used (See 2001 AASHTO "Green Book").

For Passing Sight Distance Criteria See Current AASHTO Green Book.

#### FOOTNOTES

- (1) For through service roads and dead end service roads with over 25 VPD, use Standards shown for Local Roads and Streets (Also See Standard GS-12).
- (2) Under adverse conditions, intermittent shoulder sections or turnouts for passing may be required (see page 411, 2004 AASHTO "Green Book").
- (3) Ditch slope to be 3:1. A hydraulic analysis is necessary to determine actual depth requirement.
- (4) Slopes to be same as mainline when service road is parallel to or otherwise visible from the mainline. For other cases slopes should be in accordance with standards for Local Roads and Streets.

RELATIONSHIP OF MAXIMUM GRADES TO DESIGN SPEEDS				
TYPE OF TERRAIN	DESIGN SPEED (km/h)			
	20	30	50	60
	GRADES (PERCENT)			
LEVEL	8	8	7	7
ROLLING	12	11	10	9
MOUNTAINOUS	18	16	14	12

FIGURE A - 1 - 9M\*

\* Rev. 1/11