



Roadside Management Manual

Section:

PROVINCIAL HIGHWAYS

Subject:

FUNCTIONAL CLASSIFICATIONS

INTRODUCTION

Access management policies, standards and practices, developed to control and manage access to the highway system, are related to the functional classification for rural roads shown in **Std. Plan No. 20000 (1992)**.

It is considered more practical and efficient to use established levels of access management, rather than the rural highway classification criteria, to manage and control access to the highway system. This is because of the wide range of traffic volumes and adjacent land uses on the various functional classes of provincial highways.

It is important for users of the manual to have a very good appreciation of the functional classification systems used to establish the relationship to the levels of access management.

The provincial rural highway classification system is divided into three main systems. They are:

- the arterial highway system;
- the collector highway system; and
- The local highway system.

These systems are classified based on the function and purpose of the highways.

The main purpose/function of the arterial system is to provide a high level of mobility for through movements. The local system mainly provides for lands access while the collector system serves both through movement and access functions.

The arterial system is subdivided into major and minor arterial systems.

The major arterial system consists of divided and undivided highways.

The minor arterial system consists mainly of the undivided highways that are likely to remain at that level throughout the life of the facility.

The collector system consists mainly of undivided collector highways.

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The local system consists of all local roads and for the most part is represented by low volume gravel roads and low volume thin membrane structures (TMS's).

FUNCTIONAL RURAL CLASSIFICATION SYSTEM

Rural Major Arterial Highway System: This system consists of a connected network of continuous routes with the following characteristics:

- Serves all urban population centres of over 10,000 people, and most if not all over 5,000 people;
- Serves corridor movements having trip lengths of substantial province-wide, inter-provincial, and/or international importance, with high percentage commercial truck traffic and travel density (> 1,000 AADT is at Year 20);
- Serves national or provincial parks receiving more than 400,000 visitors per year;
- Serves areas with a high regional service need (e.g. La Ronge, Meadow Lake, and Assiniboia);
- Provides a continuous system, except for regional considerations and special boundary conditions; and
- Are made up of divided or undivided highways classified as freeways, expressways, or major arterials.

Rural Minor Arterial Highway System: The rural minor arterial system, in conjunction with the major arterial system, forms a network with the following characteristics:

- Links cities and towns in the population range of 1,000 to 5,000 with the rest of the system;
- Serves parks or recreation areas with over 150,000 visitors per year. The park or recreation area may be up to 20 km from the arterial;

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- Provides a continuous system linked to major arterial highways except for regional or multiple user considerations;
- Spaced at reasonable intervals, consistent with population density, so that all developed areas of the province are within reasonable distance from an arterial highway; and
- Provides service to corridors with trip lengths and travel density (volume and composition) greater than those predominately served by collector or local systems. Highways in the minor arterial system would have relatively high travel speeds with minimal interference to through movements.

Rural Collector System: This system generally serves inter-municipal travel rather than province wide travel and has the following characteristics:

- Travel distances are shorter than on arterial routes;
- Serves larger towns and villages (100 to 1,000 populations) not on the arterial highway classifications;
- Serves other major traffic generators such as parks, or important mining and resource areas, linking them to other towns and cities or routes of higher classifications; and
- Collecting and distributing traffic to municipal and rural local systems.

Rural Local System: The system primarily provides access to adjacent land over relatively short distances as compared to the higher-class systems. This class comprises all other roads not in higher classifications.

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HIGHWAY CLASSIFICATIONS RELATIONSHIP

Many North American jurisdictions use their functional highway classification system as the basis for managing access.

The wide range of traffic volumes for the various functional highways systems shown in **Table 430-20-1**, illustrates the need to establish access management levels based on traffic volumes and highway use, in addition to the functional classification systems approach.

Table 430-20-1 also establishes a relationship among the following:

- The Provincial Rural Highway Functional Classification System;
- The Functional Design Classification;
- The Functional Design Standard; and
- The range of levels of Access Management that can be established on a given functional highway class.

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Table 430-20-1

PROVINCIAL RURAL HIGHWAY CLASSIFICATION RELATIONSHIPS

Provincial Functional Highway Systems	Functional Design Classification	Functional Design Standard	Projected (20 year) ADT Ranges	Range of Levels of Access Management	Levels of Access Management /AADT Ranges
	Freeway Highways (10)	D 130 - 7430 - (S/AC/C)			R-1: >9000
MAJOR ARTERIAL SYSTEM	Expressway Highways (10)	D 130 - 7430 - (S/AC/C)	400 -17,500	R-1 to R-5	R-2: 7000-9000 R-3: 2000-7000 R-4: 1000-2000
	Major Arterial Highways (20)	U 130 - 7430 - (S/AC/AC)			R-5 < 1000
	Minor Arterial Highway (30)	U 120 - 7420 - (S/AC/C)			
MINOR ARTERIAL SYSTEM	Minor Arterial Highway (40)	U 120 - 7420 - (A/DS/SS)	50 - 3,500	R-3 to R-5	
	Minor Arterial Highway (41)	U 120 - 7415 - (A/DS/SS)			
COLLECTOR SYSTEM	Collector Highways (71)	U 110 - 7008- (C/DS/DS)	20 - 2,300	R-4 to R-5	
	Collector Highways (72)	U 110 - 7008 - (TMS)			
LOCAL SYSTEM	Local Roads	No current Std. Determined at design stage	5 - 900	R-5	

Date

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