

## Indian Programs Manual

### Volume 1

## Capital Facilities and Maintenance

### Roads and Bridges

#### 1.0 Purpose

1.1 This directive states the policy of the Department of Indian Affairs and Northern Development (DIAND) regarding roads and bridges on reserves. The related levels of service standard (Appendices A and B), determined on a national basis, are the levels of service that DIAND is prepared to financially support to assist First Nations in providing community services comparable to the levels of service that would generally be available in non-native communities of similar size and circumstances.

1.2 This document supersedes PD 6.12 Level of Service Standards - Roads and Bridges, DRM10-7/60 Transportation Planning, DRM10-7/61 Road Pre-Engineering and Design, and DRM10-7/62 Road Construction.

#### 2.0 Scope

2.1 This directive is applicable to DIAND staff involved in funding and assisting with the identification, planning, development and implementation of roads and bridges in First Nations communities.

#### 3.0 Authorities

3.1 Treasury Board Specific Authority considered through the 1990-91 Fall Multi-Year Operational Plan Review - Long Term Capital Plan and attached Memorandum of Understanding and Annexes.

#### 4.0 Issuing Authority

4.1 This directive is issued under the authority of the Assistant Deputy Minister, Social Economic Policy and Programming and Program Re-design.

## 5.0 Definitions

5.1 Bridge: Any structure having a span of 3 metres or more that is part of a road which spans a depression or obstacle (e.g. a gully, roadway, railway or waterway). This includes culverts over 3 metres in diameter/span.

5.2 Road: A planned and constructed facility (excluding trails) which provides for land vehicular traffic such as automobiles, buses, or trucks, and includes the following classifications.

- ! Off-Reserve Access Road: Any road outside the boundary of a reserve which permits access to the reserve from a provincial, territorial, regional or municipal transportation system.
- ! Special Use Access Road: A farm road or any other access road to businesses or facilities located on reserve (e.g. sawmills, campgrounds, logging operations, stores) located on reserve.
- ! Public Road: A road designed and constructed (or proposed to be upgraded), to approved standards, that provides for public vehicular access to a residential area having a minimum of three (3) existing detached houses (or equivalent) or an existing or planned public facility such as a school, band office, or fire hall.
- ! Service Road: A road that provides access and services to controlled areas and facilities on reserve such as sewage lagoons and water treatment plants. The road will have limited use and may be a single lane.

5.3 Private entrance/private access road: An entrance, driveway, laneway or access road to a private dwelling for the use or benefit of the occupants.

## 6.0 Policy

6.1 Subject to the availability of funds and departmental priorities, DIAND provides funding assistance, through the capital and operation and maintenance programs, to First Nations for the construction or reconstruction of roads and bridges in accordance with the levels of service outlined in the Appendices.

6.2 Subject to availability of funds and departmental priorities, DIAND will provide First Nations with operation and maintenance funding assistance for roads and bridges in accordance with the policy established in the *Operational and Funding Handbook for the Community Infrastructure and Education Facilities, Operations and Maintenance Program*.

6.3 Construction (including reconstruction), and O&M funding may include support for:

- ! Public and service roads necessary to provide access to housing areas or public facilities located on reserve (Note: private entrances and private access roads are excluded);
- ! Off reserve access roads or bridges linking First Nations communities with provincial, territorial, regional or municipal transportation systems; and
- ! Provincial/territorial roads and bridges located off reserve, used by both on and off reserve traffic, may be funded on a cost shared basis, based on percentage of use.

6.4 All roads on reserve will be required to meet or exceed standards based on the current Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads (TAC Guide). Bridges will meet or exceed the standards in the latest edition of the CAN/CSA S6-88 "Design of Highway Bridges". All roads and bridges must be certified by a Professional Engineer.

6.5 Roads and bridges which receive funding assistance but are constructed/reconstructed off reserve must meet the same levels of service standards as if they were constructed/reconstructed on reserve; however, these facilities may also have to conform to the higher standards of the responsible provincial, territorial, regional or municipal transportation authority.

6.6 First Nations desiring a level of service which is higher than those provided for in the Appendices may provide such upgraded service with funds obtained from their own or other sources.

## 7.0 Responsibilities

### 7.1 DIAND:

- (a) establishes and provides the level of funding for roads and bridges which is based on criteria contained in the *Operational and Funding Handbook for the Community Infrastructure and Education Facilities Operations and Maintenance Program* and in the Appendices - *Level of Service Standard*;
- (b) negotiates, approves and administers roads and bridges municipal type funding agreements with First Nations and other organizations;
- (c) ensures approved funding agreements contain the necessary terms and conditions that establish adherence to the TAC Guide standards and other applicable codes, standards, and regulatory requirements;
- (d) ensures recipients compliance with established funding agreements;
- (e) provides recipients with advice and assistance regarding funding criteria; and
- (f) provides input and information into reports which are required by Transport Canada Interdepartmental Highway Committee and the Transportation Association of Canada.

7.2 Real Property Services for INAC: Subject to the terms specified in the Memorandum of Understanding (April 1, 1987) between DIAND and Public Works and Government Services Canada and subsequent regional and headquarters annual specific services agreements, Real Property Services for INAC will provide knowledgeable advice on roads and bridges to DIAND.

## 8.0 Enquiries

8.1 Matters related to the interpretation of this directive are to be referred to the Director, Community Development Directorate, at DIAND Headquarters.

8.2 Requests for additional copies should be addressed to the Information Quality and Research Directorate at Headquarters.

## 9.0 Appendices

- A - Levels of Service Standard: Roads
- B - Levels of Service Standard: Bridges

## Appendix A

### Levels of Service Standard: Roads

#### 1.0 Purpose

1.1 The levels of service standard, determined on a national basis, are the levels of service that the Department of Indian Affairs and Northern Development (DIAND) is prepared to financially support to assist First Nations in providing community services comparable to the levels of service that would generally be available in non-native communities of similar size and circumstances.

1.2 The levels of service standard provide a description of criteria which will be used to establish the level of funding.

#### 2.0 Levels of Service Standard

2.1 The TAC Guide will be used to determine the level of service, taking the following factors into consideration:

- ! the setting of the road;
- ! the class of the road;
- ! the design speed;
- ! traffic characteristics; and
- ! surface type.

2.2 Interpretation of the TAC Guide will be based on the following:

(a) Road Setting. The terms "urban" and "rural" are based not only on the jurisdiction boundaries, but more importantly, the predominant characteristics of the adjacent land use.

"Urban" typically means areas with a housing density of 7.5 units per hectare or lot frontages averaging less than 30 metres. "Rural" means other than "urban";

(b) Road Classification and Design Speed.

The following parameters apply to traffic volume:

- (1) if traffic volumes are expected to be, or are measured to be, less than 200 vehicles per day (Average Annual Daily Traffic (AADT) is less than 200 vehicles per day) then use Chapter H “Low Volume Roads” of the TAC Guide;
- (2) if the AADT is expected to be or is measured to be between 200 and 1000 vehicles per day, then use the **local classification** (not the collector or arterial classifications) in the TAC Guide; and
- (3) if the AADT is expected to be greater than 1000 vehicles per day, then use progressive selection of the local, collector or arterial classifications as indicated in the TAC Guide.

Every effort should be made to use as high a design speed as practicable to attain the desired degree of safety, mobility and efficiency. Only where severe topographic conditions or surrounding development are encountered and where drivers expect to travel at lower speeds, should consideration be given to selecting a lower design speed. The additional factors discussed in the related sections of the TAC Guide, regarding the range of design speeds, must be assessed before determining what is appropriate.

2.3 Surface Type. If the AADT is expected to be, or is measured to be, **less than 200 vehicles per day**, a socio-economic analysis must be conducted to justify funding for any type of paved surface.

## Appendix B

### Levels of Service Standard: Bridges

#### 1.0 Purpose

1.1 The levels of service standard, determined on a national basis, are the levels of service which the Department of Indian Affairs and Northern Development (DIAND) is prepared to financially support to assist First Nations in providing community services comparable to the levels of service that would generally be available in non-native communities of similar size and circumstances.

1.2 The levels of service standard provide a description of criteria which will be used to establish the level of funding.

#### 2.0 Levels of Service Standard

2.1 The levels of service standard for bridges are dependent on the levels of service standard of the approach roads.

2.2 Bridge Design. Bridges shall be designed according to the latest edition of the CAN/CSA S6-88 "Design of Highway Bridges" or according to adjacent provincial, territorial, regional or municipal standards. In general the design load shall be CS-600, but it can be increased or decreased to meet special requirements.

2.3 Width of Bridges: Chapters H and C of the TAC Guide must be used to determine the width of bridges. Single lane bridges will not be considered except in exceptional circumstances, and in no case will they be accepted where school buses are in operation.