CHAPTER I ACCESS MANAGEMENT GUIDELINES

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CHAPTER I ACCESS MANAGEMENT GUIDELINES

1.1 INTRODUCTION

I.1.1 Purpose

The purpose of this Chapter is to provide guidelines with respect to the management of access between rural highways and adjacent lands for roadside development and for the design and construction of provincial highways (formerly known as primary highways and secondary roads). These guidelines cover all rural highways and high speed urban highways (posted speed 80km/h or greater) under the direction, control and management of the Minister of Infrastructure and Transportation in the Province of Alberta.

In these guidelines, a "rural highway" is defined as a highway having a posted speed limit of 80 km/hr or greater. It is recognized, however, that there may be cases where rural access management guidelines will be applied to highways with a posted speed limit of less than 80 km/hr.

I.1.2 How to Use this Chapter

This chapter is a guide. It is not a substitute for professional experience. Sound judgment must be exercised in the application of the guidelines contained herein. For the most part, however, the procedure should be normalized and the guidelines should be the standard. They are intended to promote consistency throughout the province in the area of rural access management. For the most part, these guidelines are not new as they reflect the Department of Infrastructure and Transportation's (INFTRA) current practices in the field of access management.

Users are encouraged to become familiar with the entire chapter prior to its application. It is particularly important to understand the definitions - roadway groups and access types - that are outlined in this chapter.

The access management guidelines outlined in this document are based upon a hierarchical roadway classification system. This classification system is a continuum from roadway facilities with no at-grade

accesses (e.g. freeways) to facilities with less restricted access management (e.g. minor two-lane highway).

Steps for the selection of the appropriate access management scheme for a particular highway are as follows:

- 1. Refer to Highway Classification for Roadside Management Map (Protection for Ultimate Configuration). Provincial highways are divided into four groups, namely Freeway/Expressway, Multi-lane, Major Two-lane and Minor Two-lane based on "future" needs. The Map is divided into the four regions: Southern Region (Figure I-1.2i), Central Region (Figure I-1.2ii), North-Central Region (Figure I-1.2iii), and Peace Region (Figure I-1.2iv). The current version of the Map (Figures I-1.2 I to I-1.2iv) at the time of printing are included with these guidelines.
 - For subsequent updates to the Map, refer to the Department Infrastructure and Transportation website.
- 2. Proceed to the appropriate part of Section I.5 for guidelines.

I.1.3 Reasons for Access Management I.1.3.1 Consistency

Written guidelines on access management are intended to provide uniformity and consistency. Planners, Designers, Construction Managers/ Engineers and Development and Planning Technologists should use this chapter as a guide for access management on provincial highways.

I.1.3.2 Safety

Proper access management on highways promotes traffic safety. In general, 24% of all reported collisions on rural highways in Alberta were the consequence of a vehicle running off the road. Of these, 32% resulted in a personal injury and an additional 2% resulted in a fatality. By limiting the number of accesses, the frequency and severity of collisions is reduced.

Also, by reducing the number of intersections along a highway, the number of driver decisions that need to be made as well as the number of possible conflict points with other vehicles are reduced. The absence of exit and entry points along any segment of highway promotes consistent speed. In doing so, highway safety improves. In short, consistent and thoughtful access management is a key factor in preserving or improving the safety performance of highways.

I.1.3.3 Traffic Flow

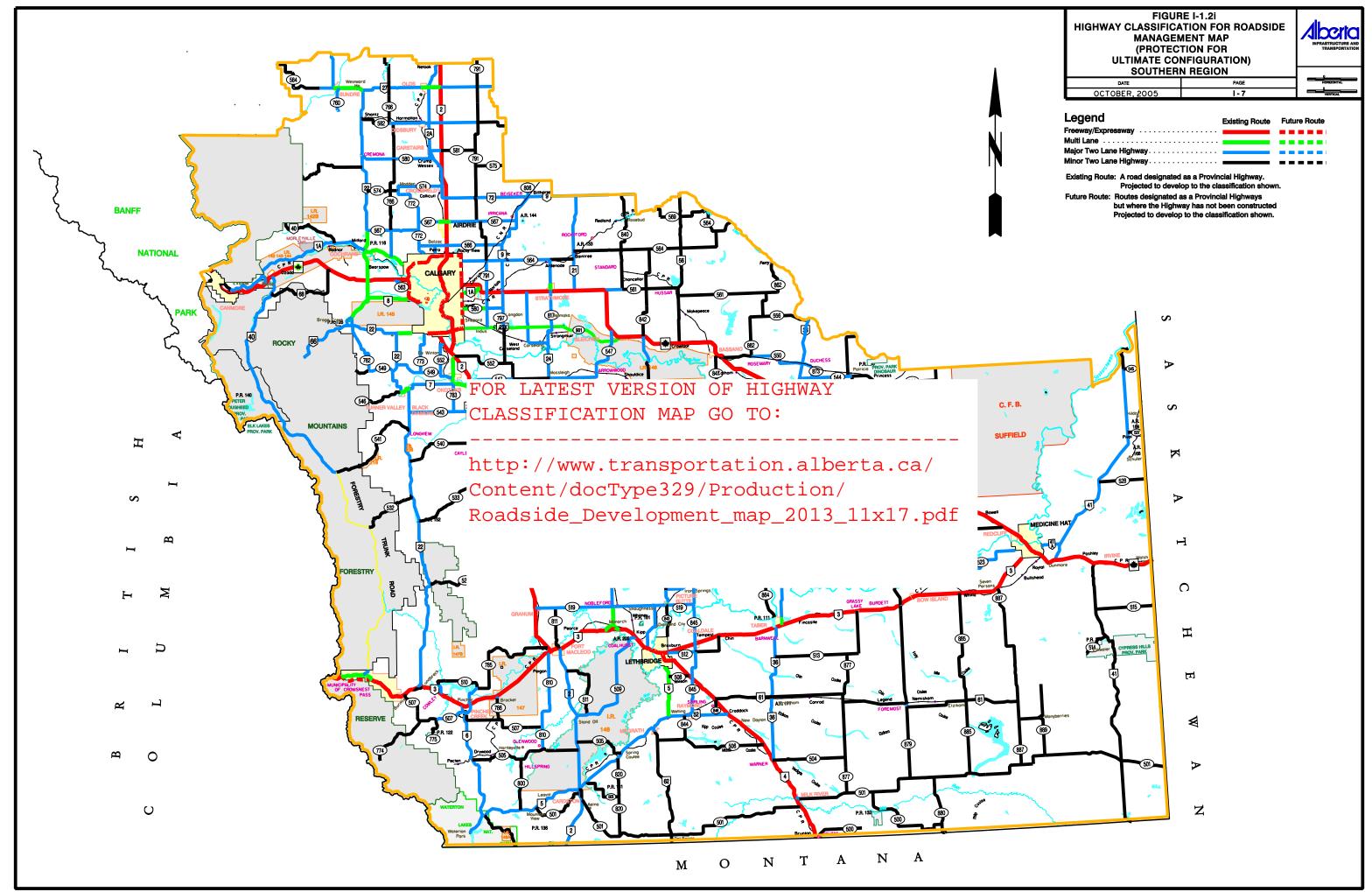
In terms of highway operation, uncontrolled entrance and exit locations can interrupt through traffic. For highways with high traffic volumes, these interruptions can result in unstable traffic flow causing a drop in the operating speed of the traffic. This deterioration in the level of service for a highway could require upgrading resulting in capital improvement spending sooner than normally warranted.

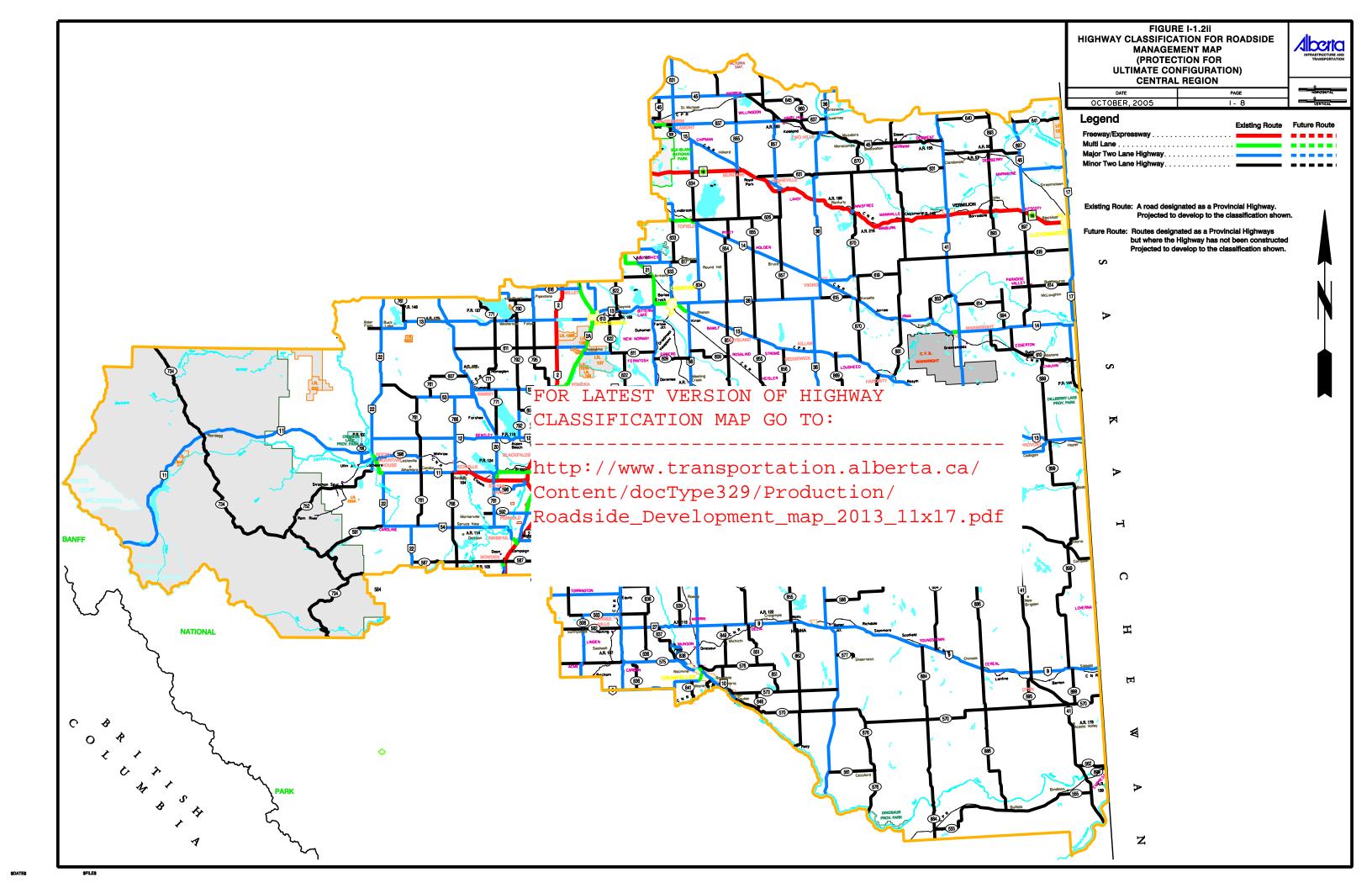
I.1.3.4 Planning

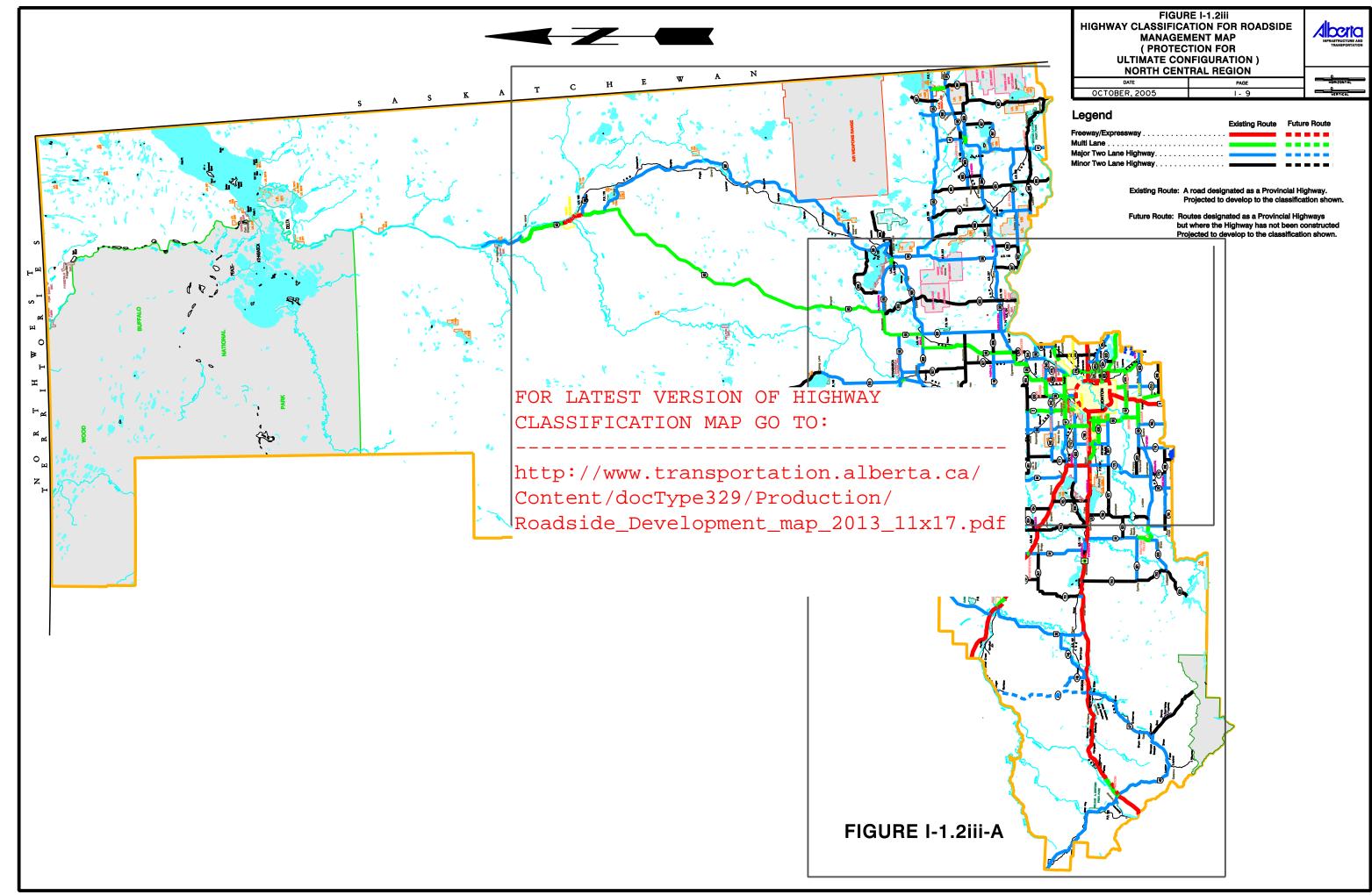
The ultimate classication of higher category highways normally evolves over a period of time. For example, an existing highway projected to be a freeway will go through developmental changes from the two-lane stage, possibly through the multilane and expressway stages, then into its final freeway form.

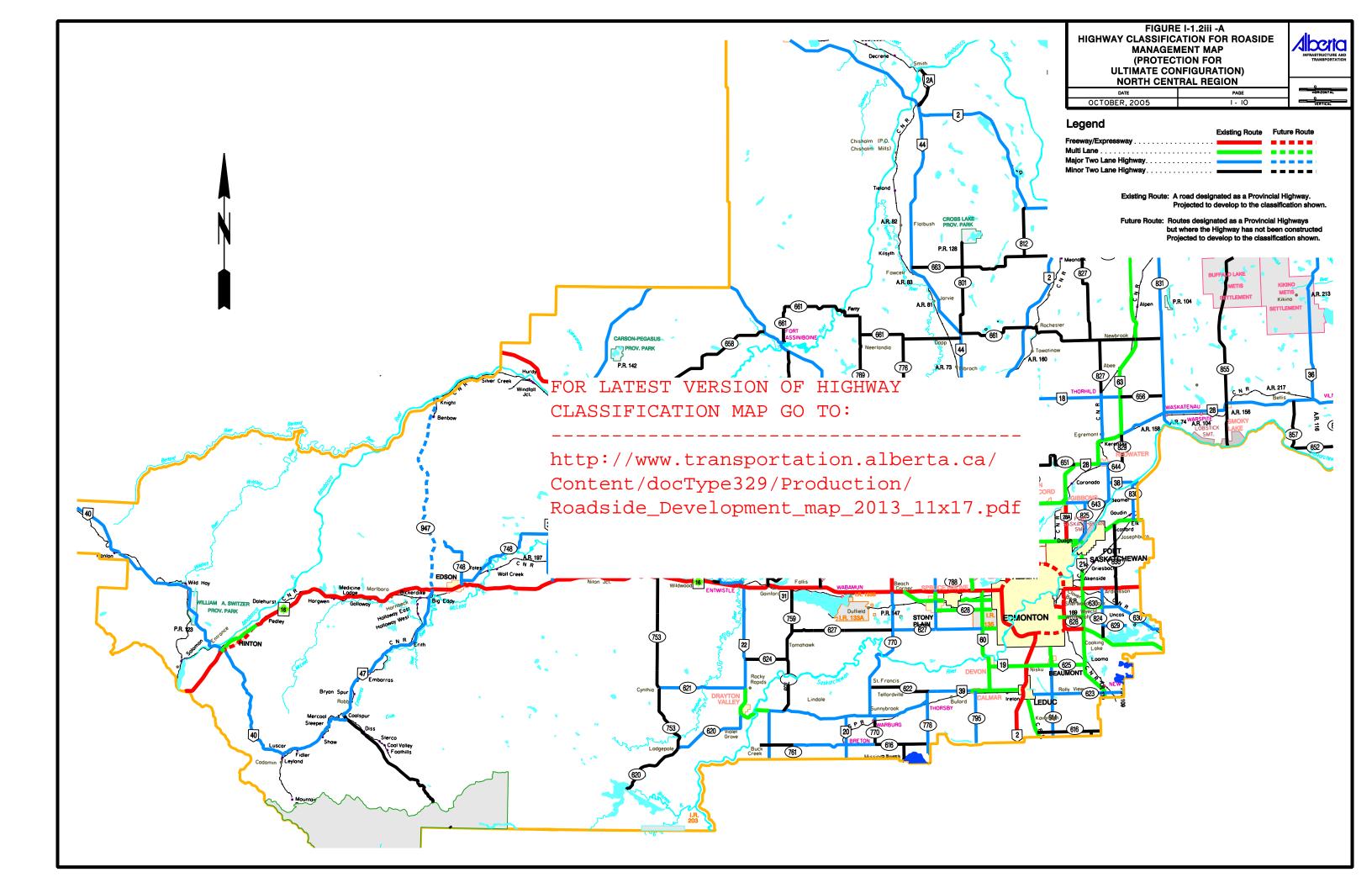
Access to adjoining lands will change through these highway development stages whereby at-grade private and public road intersections will be phased out and replaced by grade separated interchanges at selected locations. The failure to recognize and protect a particular highway for its ultimate classification can lead to its obsolescence.

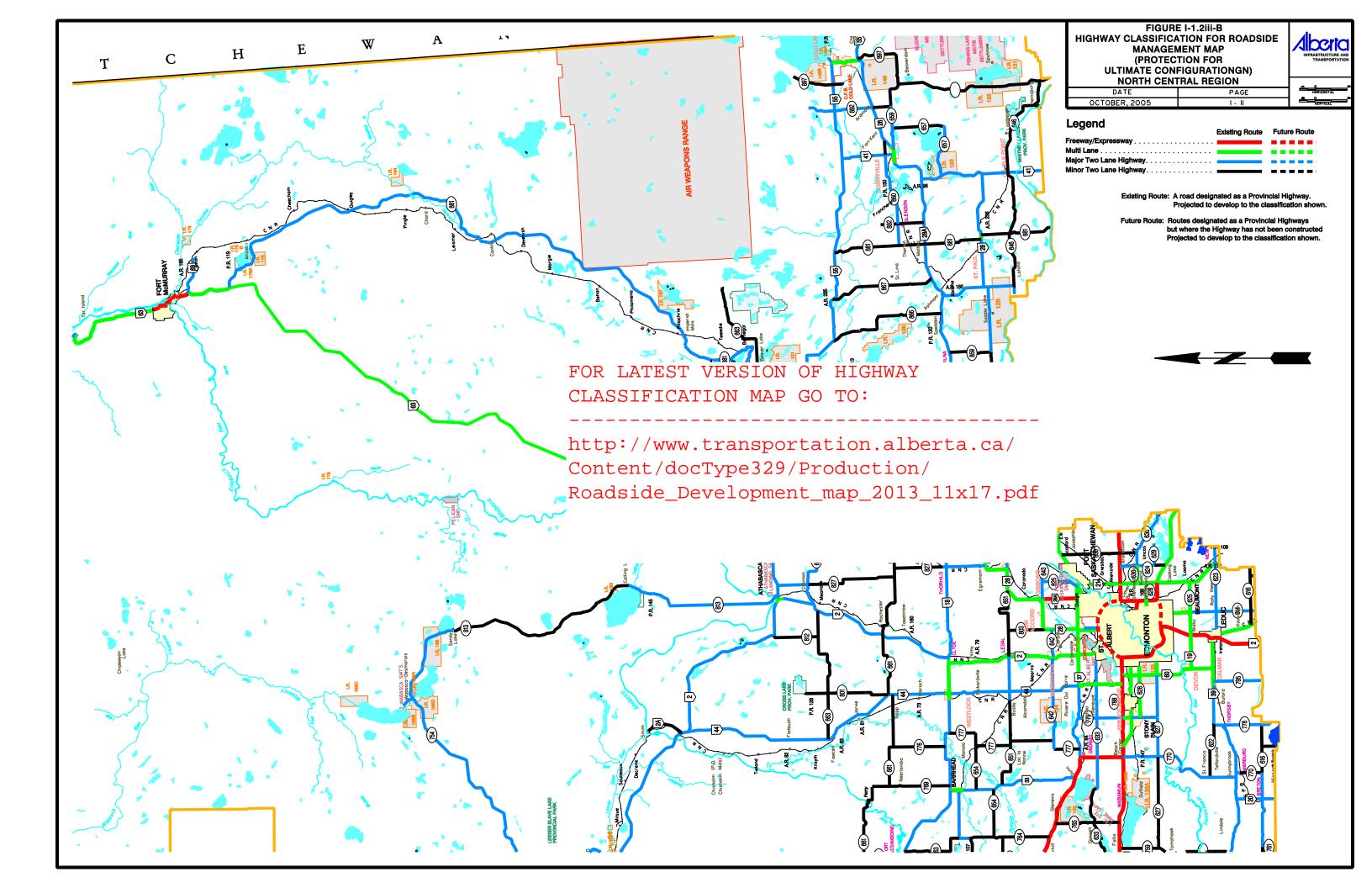
Access removal is often difficult and as a result when new accesses or access consolidation is permitted it is strongly recommended that they be placed according to the ultimate access plan. This minimizes future disruption and facilitates orderly development. Access consolidation also makes intersection treatment more cost effective.

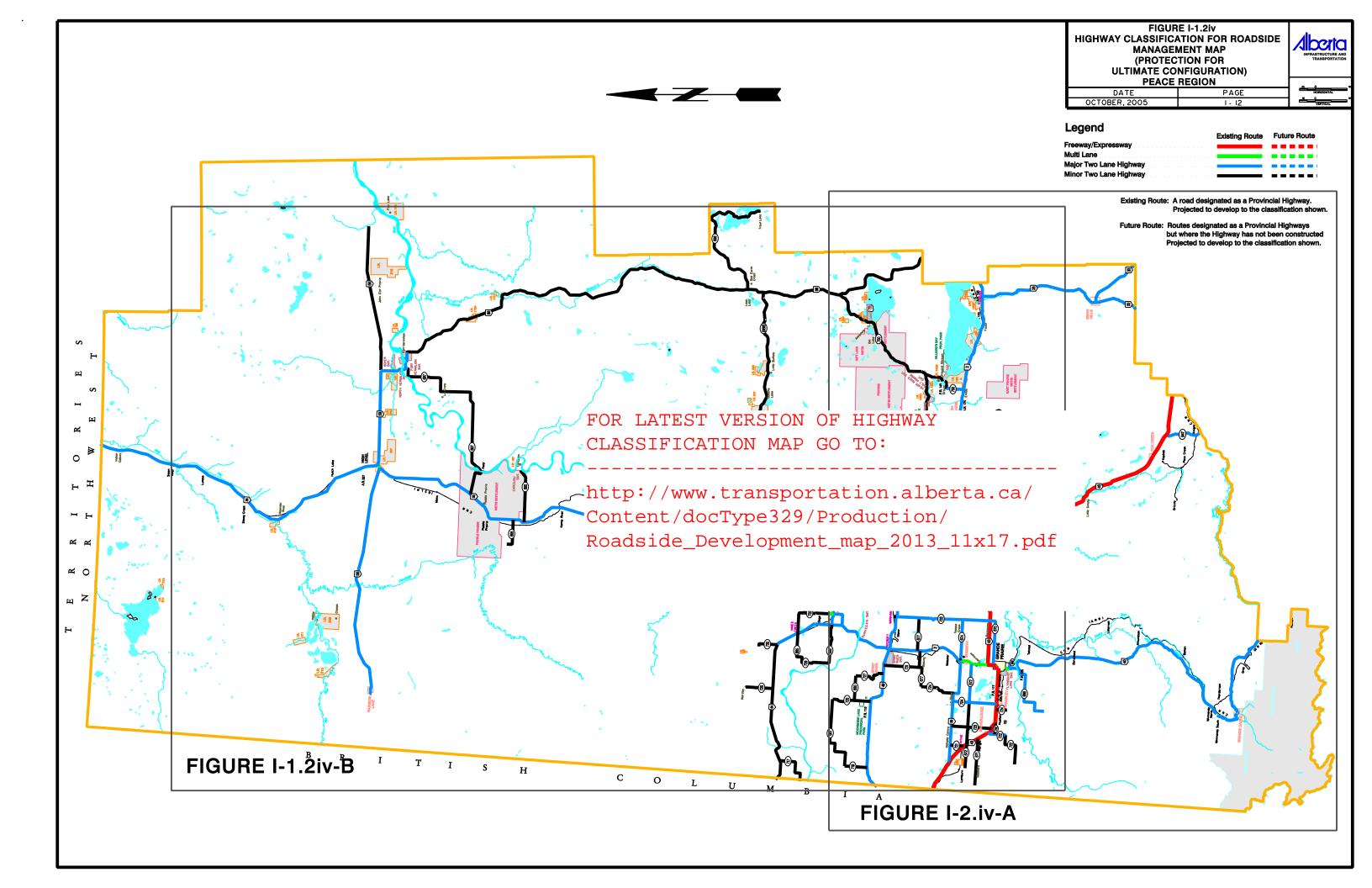


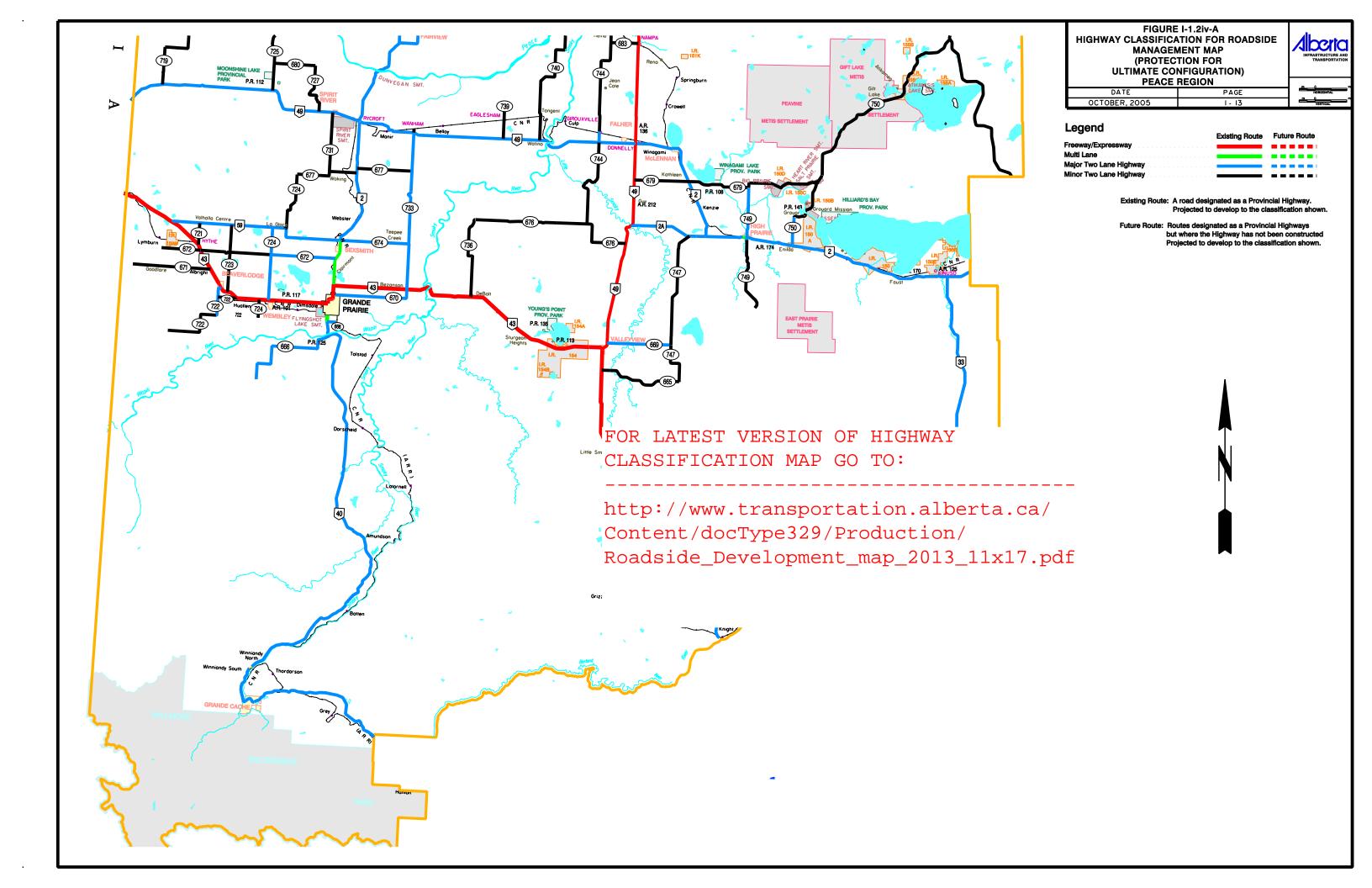


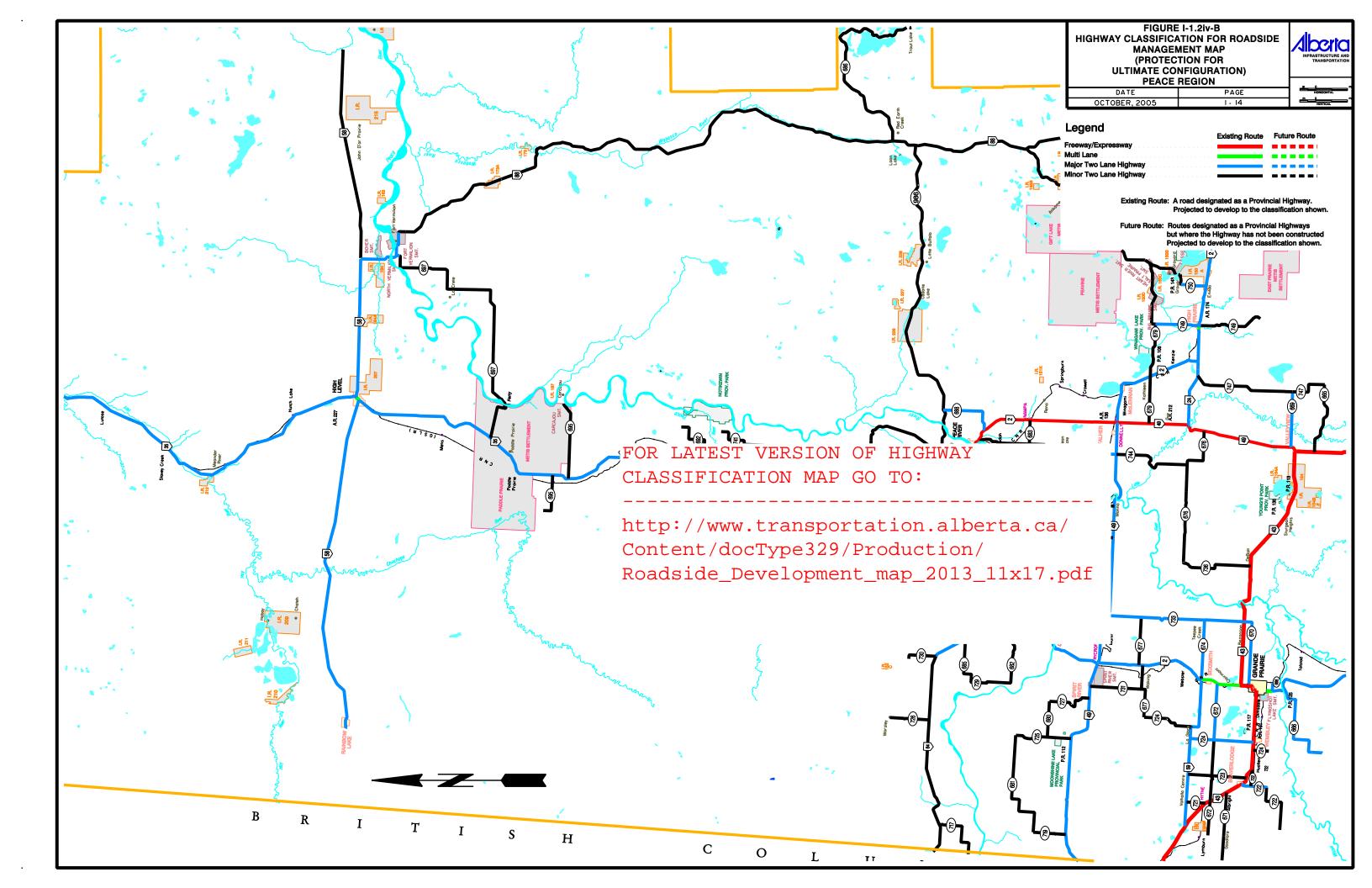












1.2 LEGISLATION

I.2.1 General

The provincial *Public Highways Development Act* and regulations govern access management for highways under provincial jurisdiction. This section provides summaries of the relevant access management legislation in Alberta, including the legislation relevant to municipal jurisdiction. Copies of all provincial acts and regulations are available on the Alberta Queen's Printer website or by contacting one of the Queen's Printer offices below:

Edmonton:

Main Floor, Park Plaza 10611 - 98 Avenue Edmonton, AB T5K 2P7 Phone: (780) 427-4952

Fax: (780) 452-0668

Calgary:

Main Floor, McDougall Centre 455 - 6th Street SW Calgary, AB T2P 4E8 Phone: (403) 297-6251

Phone: (403) 297-6251 Fax: (403) 297-8450

I.2.2 Public Highways Development Act

The control of access to highways under provincial jurisdiction is governed by the *Public Highways Development Act*, R.S.A. 2000, c. P-38 (PHDA) and the *Highway Development Control Regulation* (AR 242/90) (HDCR).

I.2.2.1 Authority Over Highways

The Minister of Infrastructure and Transportation can designate any existing or proposed highway as a "primary highway" (PHDA, s. 3(1)) and can designate as a "secondary road":

- (a) any existing or proposed rural road, town street or village street (where a plan submitted under s. 9 by a rural municipality is approved by the Minister),
- (b) a highway in an improvement district, or
- (c) a highway passing through an Indian reserve (where title to the highway is vested in the Crown) (PHDA, s. 7).¹

The Minister has direction, control and management of the following highways in the province:

- all primary highways;
- roads within improvement districts (unless under the administration of another member of Executive Council);
- highways within Metis settlements (where the Crown retains right of management);
- highways through Indian reserves (where title is vested in the Crown and are not the subject of an agreement with a rural municipality under s. 13);
- highways in cities (if title is vested in the Crown pursuant to PHDA, s. 22);
- forestry roads; and
- secondary roads that the Minister designates as being under his direction, control and management (PHDA, s. 19).

Generally, highways within city boundaries are under the direction, control and management of the city. However, the Minister and a city can enter into an agreement for the transfer of title to any city highway or street to the Crown, and once transferred the Minister has the direction, control and management of the highway/street (PHDA, s. 22)².

I.2.2.2 Access Management

I.2.2.2.1 Controlled Highways

All primary highways are "controlled highways". In addition, the Minister can designate any other roads under his direction, control or management (e.g. secondary roads) as a controlled highway (PHDA, s. 24).

No person is entitled to any direct access to or from a controlled highway from or to any land adjacent to it, or any right of easement, light, air or view to, from or over a controlled highway (PHDA, s. 23).

¹ The Department is currently looking at amendments to the PHDA that would remove the separate designations of "primary highway" and "secondary road" and combine them under the single designation of "provincial highways".

² Further information regarding city highways that have been transferred to the Minister by agreement can be obtained by contacting the appropriate Regional Transportation office, listed on the Department of Infrastructure and Transportation website.

No person is allowed to enter on or leave a controlled highway except by way of:

- a highway connecting with the controlled highway,
- a permitted means of access,
- a means of access that is exempted from requiring a permit, or
- an access that existed prior to the designation as a controlled highway or primary highway and has not been subsequently closed by the Minister (PHDA, s. 28(2)).

Also, no one is allowed to construct or maintain a means of access to or from a controlled highway, unless:

- they have a permit,
- they are exempted from requiring a permit, or
- the means of access existed prior to the designation as a controlled highway or primary highway and has not been subsequently closed by the Minister (PHDA, s. 28(3)).

1.2.2.2.2 Permits

A permit is required for the placement of any "development" within 300 m of a controlled highway or 800 m from the centre point of a controlled highway and another highway or public roadway (HDCR, s. 2). Refer to Figure I-2.2.

"Development" means (HDCR, s. 1):

- (i) any building, structure, fixture, road, airstrip, excavation or other installation of whatever nature placed, constructed, enlarged, extended, erected or re-erected above or below ground level, including signs, roadways, road or highway entrances or exits, wells, dugouts or other articles or objects with the exception of wire fences erected for agricultural purposes, and
- (ii) any display of machinery, motor vehicles or other articles whether placed for storage or wrecking or for the purpose of advertising or sale;

If a person wants to place a development within the 300 m/800 m control line, he must submit the required plans, designs and specifications, obtain the Department's approval, and complete the

development within the time specified on the permit, otherwise the permit is void (HDCR, s. 11).

The Minister, or any department employee authorized to do so, can issue a permit on any terms and conditions he or she considers proper and can cancel a permit at any time (PHDA, s. 31). Terms and conditions can specify the length of time the access is permitted to be there. When a permit has been issued, only the development and uses stated in the permit are allowed. Any revisions, modifications, expansions or additional construction require a new permit. The Department can refuse to issue any permit (HDCR, s. 12).

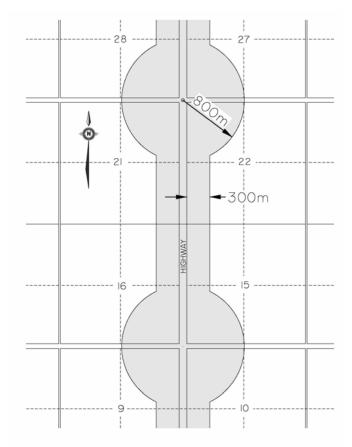


Figure I-2.2 Control Area For Developments Near Primary Highways

I.2.2.3 Closing Access to Highways

The Minister may, at any time, close:

- any roadway or highway providing access to or from a controlled highway,
- any means of access between a controlled highway and land adjacent to a controlled highway (PHDA, s. 28(1)), or
- access to any public roadway within the control area.

The Minister can give notice to an owner of land to move, remove or alter, within the time prescribed in the notice:

- (a) any thing placed, erected, enlarged, extended, re-erected, constructed or displayed on the land [within the 300m/800m control line], or
- (b) any means of access constructed or maintained on the land providing direct access to a controlled highway (PHDA, s. 30(1)).

The notice must be in writing and served on the owner. If the owner fails to comply with the notice the Department can carry out the requirements of the notice. Any costs incurred by the Department can be recovered as a debt due to the Crown from the person who failed to comply with the notice (PHDA, s. 30(7)).

I.2.2.2.4 Compensation

No person is entitled as of right to any compensation solely for the designation of a highway as a controlled highway.

Where land is required from an owner for the purpose of constructing a highway, compensation will be paid in accordance with the Alberta Expropriation Act.

1. Where Department Closes Access

Where the Department closes a direct means of access under s. 28 and a service or frontage road is provided, no compensation is payable (PHDA, s. 29(4)). Where no service or frontage road or alternate means of access is provided, and the access was maintained in compliance with the Act and regulations at the time it was closed, the Department must compensate each person owning an estate or interest in the adjacent land as registered owner, life

tenant or purchaser for the loss resulting from the closure (PHDA, s. 29(1)).

2. Where Notice Served On Owner

Where an owner is served with a notice to move, remove or alter an access under s. 30 and:

- complies with the notice, and
- the access was constructed and maintained in compliance with the act and regulations,

the owner is entitled to compensation from the Crown for the reasonable expense in carrying out the notice (PHDA, s. 30(4)).

1.2.2.2.5 Offences

It is an offence to fail to comply with a notice under s. 30 of the PHDA to move, remove or alter a means of access to a controlled highway. On conviction, the court can order the person to move, remove or alter the access within a specified period. If they fail to comply with the order, they are liable to a fine of not more than \$25 for each day the access remains in place (PHDA, s. 32).

It is also an offence for a person to obstruct or deposit any material on a highway or interfere with, break, cut or injure a highway. On conviction, the court can order the person to remove any obstruction or material deposited on the highway. As well, the Department may remove the obstruction or material and recover its expenses from the person in an action in debt (s. 43).

A person who contravenes any other provision of the PHDA or HDCR is guilty of an offence and liable:

- (a) for a first offence, to a fine of not more than \$200 and in default of payment to a term of imprisonment of not more than 15 days, and
- (b) for a 2nd or subsequent offence, to a fine of not less than \$50 and not more than \$500 and in default of payment to a term of imprisonment of not more than 30 days (PHDA, s. 51).

I.2.3 Other Legislation

There are two other pieces of legislation that are relevant to the issue of access management. These acts do not apply to highways under the direction, control and management of the Minister of Infrastructure and Transportation and are referenced here for information only.

The City Transportation Act, R.S.A. 2000, c. C-14 applies to cities and gives them authority to designate any of their streets as "controlled streets". The provisions governing access to controlled streets are very similar to the provisions for controlled highways under the PHDA, with a few minor exceptions.

The Municipal Government Act, R.S.A. 2000, c. M-26 gives municipalities (includes a city, town, village, summer village, municipal district or specialized municipality) the direction, control and management of all roads within the municipality³. A municipality has the power to close a road, open a temporary road or right of way on private land, pay compensation for the closure or temporary opening of a road and reopen a road that has been closed due to the granting of a Crown lease. Municipalities also have control over land use and development within their municipal boundaries.

I.2.4 Administration

I.2.4.1 Permits

Permit issuance is a Region/District responsibility. New means of access to a controlled highway or significant changes in the use of an existing means of access to a controlled highway must have a permit. In addition to the information requirements set out in the Highway Development Control Regulation, applicants are to complete the form Application for Development Permit Near a Primary Highway⁴ when applying. For roads other than controlled highways that are under the Minister's direction, control and management, a "Letter of Approval" shall be used by the Region in granting new means of access or altering the use of existing means of access.

If a permit is refused, the applicant shall be notified of this in writing, with the reasons for the refusal. The letter shall be served on the applicant either personally or by mail.

I.2.4.2 Process for Removal of Unauthorized Means of Access

Persons constructing or maintaining an unauthorized means of access to a controlled highway will be directed (as per s. 30 of the PHDA) by the Regional Operations Manager to remove the access within a specified time. Such notice shall be in writing and served on the person either personally or by registered mail.

If the person fails to comply with the request within the specified time, the Department can enter on the land and carry out the requirements of the notice. The decision whether or not to enter on land should a person fail to comply with a notice must be made on a case-by-case basis. As a guideline, the Department will take such a step (with prior written notice to the owner) where the Regional Operations Managers is of the opinion that the means of access constitutes in any way an immediate safety hazard to the travelling public. If the means of access does not, in the Regional Operations Manager's opinion, constitute an immediate safety hazard, a draft Ministerial notice shall be prepared and forwarded to the Minister for his/her consideration.

³ Exceptions are: (i) where the Minister has designated a road as a secondary road or primary highway under the PHDA, (ii) where title to a city road is transferred to the Minister of Infrastructure and Transportation under s. 22

Minister of Infrastructure and Transportation under s. 22 of the PHDA, and (iii) roads within a specialized municipality. In these cases, the Minister has the direction, control and management of the roads.

⁴ Available on the Department of Infrastructure and Transportation website.

1.3 DEFINITIONS

In this chapter, highways are defined by the designations of Freeway/Expressway, Multi-Lane, Major Two-lane and Minor Two-lane. These four distinctions to the highway class are desirable, especially for access management purposes, in order to ensure that appropriate decisions are made in regard to land use and highway design/planning. Access types and adjacent land use are also defined below.

I.3.1 Highway Classifications (Groups)

I.3.1.1 Freeways/Expressways

1. Freeways

The primary function of Freeways is the efficient movement of traffic under free flow conditions.

Traffic traveling in opposite directions is separated by a median. No at-grade intersections or direct accesses are allowed. Land access is obtained only through interchanges which connect to the road system.

The highest level of access management is warranted because of the strategic and functional importance of these routes to the provincial network. Strict access management serves to preserve the functionality and safety of the freeway system.

2. Expressways

Expressways are multi-lane highways that may evolve into freeways.

I.3.1.2 Multi-Lane

The primary function of multi-lane facilities is to provide for the efficient movement of higher volumes of traffic. In rural settings this class of roadway is characterized by a median separating traffic in opposing directions of travel.

This class of roadway has restrictive access management as a function of design speed, adjacent land use and roadway geometry. This class of roadway generally serves commuter traffic.

I.3.1.3 Major Two-lane

Major two-lane roadways, as the name suggests, is a two-lane roadway with the prime function of the roadway being traffic movement. Traffic travels in two directions separated only by pavement line marking. This class of roadway generally serves provincial and interregional travel demands.

While direct access to these highways is controlled, the criteria are not as restrictive as for the freeway/expressway class. These roadways connect the minor two-lane facilities to the freeways/expressways and the multi lane facilities.

I.3.1.4 Minor Two-lane

Minor two-lane roadways typically serve regional traffic. Their prime function is to collect traffic from public roads and adjacent lands. These roads serve tourist, resource, agricultural and local traffic needs.

I.3.2 Access Types

I.3.2.1 Public Road

For the purposes of this chapter, a public road refers to those locations where a roadway exists in a government road allowance, either developed or undeveloped, a township road, range road, service road, forced road or other road with a minimum spacing of 1.6 km (1 mile). Therefore a public road access is the intersection of a public road and a provincial highway.

I.3.2.2 Commercial

A commercial access is a means of access between a provincial highway and a commercial development.

I.3.2.3 Industrial

An industrial access is a means of access between a provincial highway and a parcel of land used by industry (e.g., business park, heavy industry, intensive livestock operation, grain terminal).

I.3.2.4 Recreational

A recreational access is a means of access between a recreational facility and a provincial highway, such as a golf course or a campground.

I.3.2.5 Multi-Parcel Country Residential

A multi-parcel country residential access is a means of access between a country residential subdivision and a provincial highway that consists of more than one lot.

I.3.2.6 Farmstead

A farmstead access is a means of access between a single farm residence and a provincial highway.

1.3.2.7 Field

A field access is a means of access between a provincial highway and a directly adjacent parcel of land used only for agriculture purposes.

1.3.2.8 Utility

A utility access is a means of access between a utility installation and a provincial highway (e.g., microwave tower, pumping station).

I.3.2.9 Resource

A resource access is a means of access between a site used for resource exploration and a provincial highway (e.g., well site, gravel pit, coal mine, log haul).

I.4 GUIDELINES

I.4.1 General

Access management and land use management are inextricably bound together. The goals of proper access management for any particular roadway cannot be achieved without paralleling rural land use goals which support and protect the role of a hierarchical road system throughout the province.

While the access management guidelines found in this document tend to deal with access situations on an isolated basis, the following basic land use philosophy is encouraged.

- If two roadways of different classifications border a development, access should be obtained from the roadway with the lower classification.
- Concentrated subdivision and development supported by the framework of an area structure plan or highway vicinity management agreement is encouraged along provincial highways, particularly in high demand development areas.
- Subdivisions, such as a farmstead separation or first parcel out of an unsubdivided quarter section, should be reviewed on the basis that they do not proliferate the number of access points to the provincial highways.
- Significant changes in use of existing means of access to provincial highways that negatively affect the operation of the highway, will not be permitted.
- New developments/subdivisions should be directed to access public roads as opposed to creating new or using existing temporary direct private means of access to provincial highways. It is by far preferable to improve a pubic road intersection with a highway as opposed to improving existing temporary private intersections.
- Means of access to a development should not be permitted in the vicinity of major at-grade rural intersections. Development accesses within major intersection improvement areas compromise the safety and operation of the major intersection.

I.4.2 Design and Geometric Considerations

Generally the geometric design criteria used for private or public access to highways shall be treated the same way as highway intersection design. All aspects of intersection design, with the exception of access management, are covered in detail in Chapter D of this Design Guide. The primary considerations used for locating accesses are intersection sight distances, distance bridges, from curves, interchanges and intersections and railways. The geometric parameters stipulated are intersection sight distances, gradient, skew angle, design vehicle and intersection treatment. These issues are covered in detail in Chapter D.

I.4.3 Temporary Means of Access

There will be cases when a developer/landowner, in the pursuit of their proposed activities, will request the use of an existing access, or creation of a new access on a temporary basis, which is not in keeping with the access management guidelines. **Temporary means of access should be avoided**, particularly in cases where the proposed activity upon the land will be of a permanent nature and sensitive to a future change of access location.

When a temporary access is to be considered, the application should clearly state the temporary nature and a defined time limit. The maximum time limit for a temporary access permit is one year. In most cases, a temporary access permit will be in place for 6 months or less. Once the permit expires, the applicant must discontinue the use of the means of access, remove it, or apply to the Department for an extension to the permit.

The access permit for an improvement that could be reasonably expected to become permanent should also identify an ultimate access plan that meets with the ultimate strategy for access management of the highway facility. A gas and oil well site development is an example of a temporary access situation that may be allowed during the site preparation and exploration. Should the development result in a pump jack or battery site installation, ultimate access should be defined at the outset of the permit application.

I.4.4 Cost and Responsibility I.4.4.1 Private Access

cases where the department approves applications for new means of private access or requires improvement of an existing private means of access, the applicant will be responsible for the cost and construction. The landowner/developer can be the applicant, but in all cases, the landowner sign the application. The original must field/farmstead access to a quarter section is generally built by Alberta Infrastructure and Transportation during highway construction if public road access is not available.

I.4.4.2 Public Access

In cases where the department approves applications for new means of public access or requires the improvement (intersectional treatment) of an existing means of public access as a result of a particular development/subdivision, the applicant will be responsible for the cost and construction. The municipality should be the applicant even though in many cases they may require through their development agreement process a particular landowner(s)/ developer(s) to pay for the construction and cause to have the construction undertaken. This general philosophy applies to all roads administered by the Department.

I.4.5 Removal of Redundant and/or Non-Compliant Accesses

Attempts should be made to remove all redundant and/or non-compliant means of access at the time of development applications, highway construction, major rehabilitation or major subdivision development. In all cases prior consultation with the landowner regarding private access or the local road authority regarding public access is required.

I.4.6 Change of Use/Intensified Use of an Existing Means of Access

There will be cases when a developer/landowner will request to make joint use of an existing direct means of private access. In some cases the joint use of an existing access may be desirable as opposed to considering a new direct means of access. For example, on minor two-lane highways, two dwellings using a joint private access is generally acceptable as would a new minor utility installation jointly using a field or farmstead access.

Normally any significant changes in the use of a private means of access or more intensified use of a private means of access should be avoided and the guidelines of the manual should be followed as though the current access did not exist. New development proposals in the vicinity of existing means of private access that should not be used may prompt the removal of the existing access, with indirect access being established by way of a service or frontage road to a public road access.

I.4.7 Variance Procedures

While the guidelines within this chapter should be followed, it is recognized that there will be instances where exceptions may need to be considered. In order to maintain administrative control pertaining to exceptions, the following procedures shall be followed for roadways under the jurisdiction of Alberta Infrastructure and Transportation.

- For roadways in the highway classifications ranging from minor two-lane up to and including major two-lane, proposed variances shall be reviewed by the District Operations Manager.
- 2. For roadways in the highway classifications ranging from multi-lane up to and including freeways/expressways, proposed variance shall be referred to the Executive Director of Technical Standards Branch.
- Highway Planning and Design, Technical Standards Branch should be notified of all variances for reference purposes and for future guideline amendments.

I.5 TYPICAL ACCESS MANAGEMENT BY HIGHWAY CLASSIFICATION

For access management purposes, Alberta's provincial highways are divided into the following four groups:

- 1. Freeways/Expressways
- 2. Multi-Lane
- 3. Major Two-lane
- 4. Minor Two-lane

Table I.5 summarizes the guidelines by group and access type.

I.5.1 Freeways/Expressways

Freeways are the highest roadway category in the provincial roadway network and are differentiated from expressways in that freeways allow access only via interchanges. In the expressway stage, at-grade intersections are permitted at selected locations along the route.

There are two types of interchanges on the provincial highway system:

- A system interchange provides a high-speed connection between two major highways. Its prime function is to provide efficient movement of traffic between two roadways and does not attempt to connect to the local road network.
- A service interchange provides high-speed traffic movement along the main route by grade separating intersecting traffic along the minor route (i.e. other provincial highways or major regional transportation routes). This service interchange is normally spaced up to 16 km apart in the rural environment.

During the functional planning process, the location and configuration of system and service interchanges along a route are defined.

I.5.1.1 Freeways

As indicated previously, access to a freeway is totally restricted and only provided at interchange facilities. As a result, an at-grade intersection for any type of access is not permitted. Currently, within the provincial rural roadway network there are only a few sections classified as a freeway, including the following:

- Hwy 2 Edmonton to S. of Leduc;
- Hwy 2 Vicinity of Red Deer; and
- Hwy 2 Calgary to N. of Airdrie

The service interchange configuration for this type of facility normally would have the minor road constructed over the freeway. This requires that the minor roadway's geometric design must be considered when determining the closest proximity of an access road intersecting with the minor road in relation to the interchange itself. This access location is irrespective of the type of adjacent development, but rather a result of geometric characteristics of the interchange.

Specific design issues such as horizontal alignment, vertical profile, intersection sight distance with adequate setback distance to accommodate the required guide and regulatory signs must be identified to determine the location for the first access adjacent to the interchange ramp intersection. Generally, this setback of the access road intersection, measured along the minor road, shall be a minimum of 400 m away from the nearest interchange ramp intersection or 150 m from end of taper treatment, whichever is greater (refer to Figures I-5.1ii to I-5.1iv), and including normal geometric design criteria used in highway intersection design.

Public Road Access

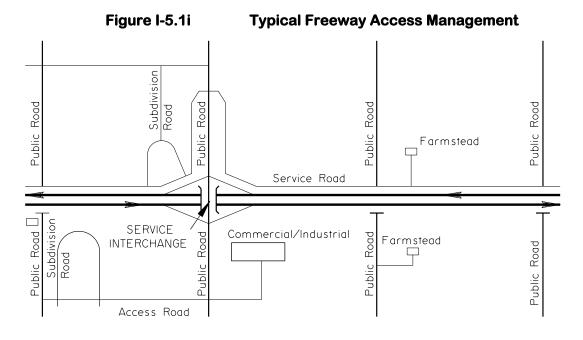
All public roads intersecting a freeway will ultimately be closed. Two options dealing with the closure of existing roads are shown in Figure I-5.1i, either provision of a parallel service road or utilization of the local road network to access the closest service interchange.

Commercial/Industrial Access

Commercial/industrial types of developments are dependent on reasonably close vicinity to the freeway for efficient business operations. Reduced roadway infrastructure costs and accessibility to highway travel lanes generally require developments to locate within a quadrant of the interchange. This concept is encouraged so long as the access to the property is be obtained from the public road, a minimum of 400 m away from the interchange ramp intersection or 150 m from end of taper treatment, whichever is greater, and including normal geometric design criteria's used in highway intersection design.

Other Types of Access

The other types of developments that occur in the vicinity of freeways include multi-parcel country residential, rural recreational, farmsteads, or utility and resource related activities. These are less dependent on close proximity to access as they tend to be located based on specific requirements unique to the development and therefore access is permitted from the public road network only.



I.5.1.2 Expressways

Access management for this facility is an interim stage to a freeway, as all expressways will ultimately be developed into the higher classification roadway. Therefore, the overriding philosophy of access management for this category must be cognizant of future freeway access management. Based on historical development of highways within the province, evolution of an expressway to a freeway is recognized as a long-term process. Short and long term access for major developments still should be in close proximity to future interchange locations. Generally, requests for development access to an existing expressway/future freeway shall be referred to the Executive Director, Technical Standards Branch for approval due to various requirements (weaving, interchange configuration/spacing, staging, etc.).

Recognizing the time frame for development to a freeway, approval of a development access to an expressway requires careful review. The majority of the provincial system identified as freeway/expressway will likely remain as an expressway in the foreseeable future due to traffic volumes and the cost to implement rigid access management (i.e. interchanges).

Public Road Access

Existing public accesses to the highway may remain on a temporary basis. These accesses shall be removed when the highway is upgraded to freeway status. Closure of the public roads to the highway is likely when safety or operational characteristics are jeopardized due to large traffic volumes along the main facility, or on the crossroad, or both. Development of new public road connections to this category of highway is not permitted.

Commercial/Industrial Access

As with freeways, development of commercial or industrial sites will be accessed ultimately at future service interchange locations. A temporary or new direct access to an expressway facility is not permitted. It is recognized that while a roadway may currently exist only as a two-lane highway, and will go through several developmental changes prior to taking its final form, the importance of locating the major development at the appropriate location at the outset cannot be stressed enough. application of access management concepts will compromise the location of future interchanges and effectiveness/efficiency of the transportation network.

Resource Access

Due to the nature of resource based activities in the province, the temporary nature of these accesses is recognized. These accesses should meet all geometric design criteria's. Based on the seasonal nature of the work, short-term temporary accesses to expressways are permitted only under limited conditions (i.e. confirmation of the viability of the resource). In the review of these requests for access, ultimate access locations are to be identified at the temporary permit application stage to ensure the applicant is aware of the ultimate requirements.

Other Types of Access

Similar to freeways, access to developments such as recreational, multi-parcel country residential, farmsteads or utility installations is only permitted from the local road network.

The following schematic diagrams are provided to illustrate the principles of access management strategies for freeway/expressway facilities.

Figure I-5.1ii Highway / Public Road Intersection at Diamond Interchange

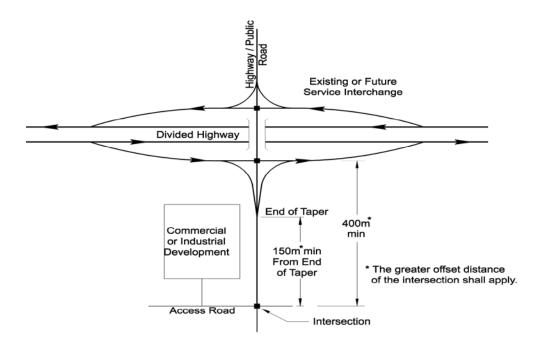
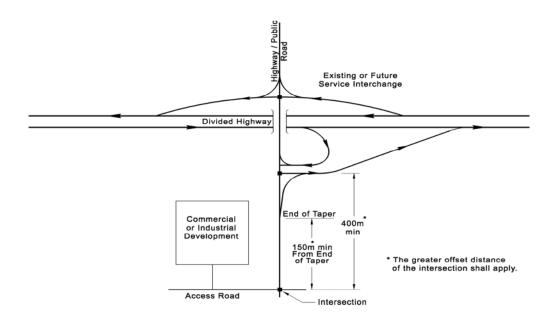
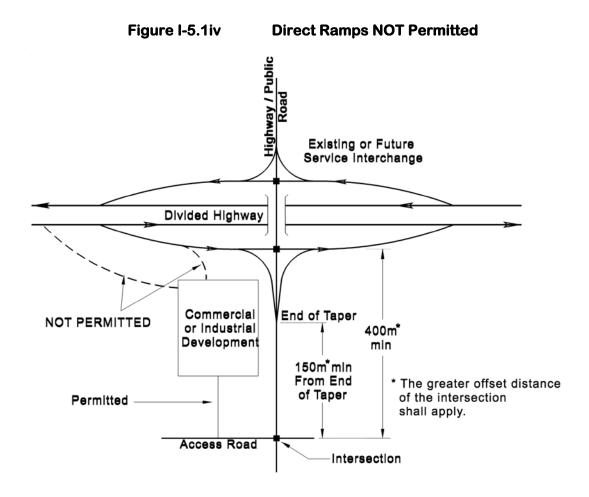


Figure I-5.1iii Highway / Public Road Intersection at Parclo Interchange



NOTE: Developers are encouraged to develop within a quadrant of an existing or proposed service interchange. Advantages to the developer would include reduction in roadway infrastructure costs for the development and all-directional access to/from the freeway.



NOTE: Access for development permitted at public road only. Direct developmental access from highway or exit ramps is not permitted.

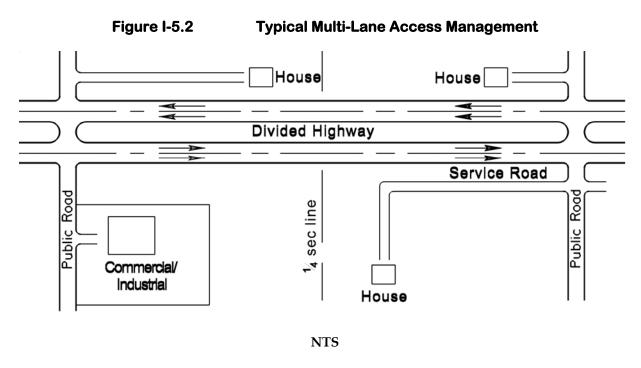
1.5.2 Multi-Lane

For purposes of access management, multi-lane facilities have restrictive requirements, albeit less than the freeway/expressway category of roadway. It is recognized that the roadway may presently be a two-lane highway and as a result, it will go through from developmental changes the configuration to a multi-lane configuration. Access to adjoining lands will change through these stages, whereby removal of non-conforming at-grade accesses will occur in favor of regularly spaced public road intersections. Figure I-5.2 shows the typical access management strategy for multi-lane facilities.

With this highway classification there is a potential for future interchanges at selected locations. Access management principles established in the freeway/expressway categories would apply to these specific areas. Generally, it is expected that atgrade intersections will comprise the majority of access types along a multi-lane. Integral to the application of access management for this type of facility is the 1.6 km spacing between major access points. All new requests for access are only permitted at public roads.

Commercial/Industrial Access

Development of these facilities along a multi-lane highway is likely to be located where the maximum benefit can be derived from provincial roadway network (i.e. intersection of two provincial highways). This location may also be a future interchange location. Additional review for this possibility is required to determine the extent of access management requirements for such a development. The primary access to the development should be obtained from the roadway with the lower classification.



NOTE: For various types of accesses refer to Table I.5.

1.5.3 Major Two-Lane

Major two-lane highways comprise a significant portion of the roadway network in the province and generally are not expected to develop into multilane, expressways, or freeways. It is recognized that specific sections along some two-lane routes may require upgrading to a multi-lane category but these instances are expected to be isolated. For a major two-lane facility, the access management strategy along the route is progressively less restrictive when compared to the preceding roadway types. The most significant difference in defining access management is that direct access to the provincial highway is permitted specific developments commercial, multi-parcel country residential etc). Figure I-5.3, shown below demonstrates access management concepts for this type of highway.

Commercial Access

development of major commercial developments adjacent to major two-lane highways is expected to be less frequent and smaller in size when compared to development along divided highway facilities. Direct access to these developments from the highway is permitted if a minimum of 400 m is provided between the new access and any public road (existing or future). This spacing requirement is also applicable to existing commercial developments that are being upgraded. In cases where there is no alternative access via a public road, a maximum of one access per quarter section is permitted.

At the intersection of two provincial highways, access to the development should be provided from the roadway with the lower classification only.

Industrial / Recreational Access

Existing direct access may remain on a temporary basis and shall be removed when the highway is upgraded. Indirect access to new developments is permitted via the public road system.

Multi-Parcel Country Residential Access

For these developments, indirect access should be provided via the public road network. In cases where this is not possible, direct highway access is permitted if it does not occur within 400 m of a public road intersection.

Farmstead Access

A limit of one direct access per quarter section is permitted if there is no public road access available. Indirect access is the most favorable permitted access strategy for this type of highway.

Field Access

These types of accesses are intended to provide a means of access between the highway and a parcel of land whose primary use is of a low intensity agricultural nature. As a result, conversion of these accesses for any other use is not permitted. A limit of one direct access for each quarter section of land is permitted.

Public Road Access Relocated For Safe Sight Landowner A Distance and Coincidental Accesses Landowner A1 Landowner B 1/4 Section Line Temporary Access Commercial (New) Farmstead (Existing) Ultimate Access Section Line Mudd Install Low Level Crossing Landowner C Landowner D 1/4 Section Line New Major House Temporary Original Residential/Industrial Joint Development Farmstead Access Landowner E Internal (new) Road Public Road Drainage Contee Ultimate Access Minor Install Standard Low Level Temporary Crossing (ultimate stage) House Access 1/4 Section Line House 🗌 **Ultimate Access** Landowner G Landowner F Private Access Section Line 50m @ to @ minimum NTS

Figure I-5.3 Typical Major Two-Lane Access Management

1.5.4 Minor Two-Lane

This category includes a significant proportion of highways in the province. Minor two-lane highways distribute traffic between major highway facilities and important market areas serving agricultural, commercial, industrial and recreational needs.

General rules for these roads are listed as follows:

- i. The desirable spacing between public road intersections is 1.6 km. A minimum spacing of 800 m between public road intersections is required
- ii. Access to private lands is not permitted within 400 m of a public road intersection.
- iii. One access per quarter section is desirable. In cases where there is a physical restriction, such as a creek or a ravine, a second access is permitted.
- iv. The distance between approaches should be at least 200 m. Utilizing a joint access should be considered.
- v. Attempts should be made to remove all redundant field approaches.

NOTE: For various types of accesses refer to Table I.5.

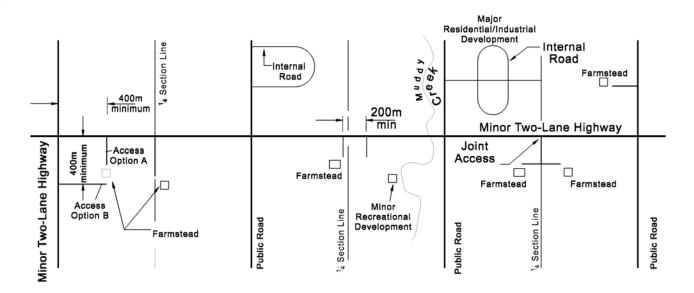


Figure I-5.4 Typical Minor Two-Lane Access Management

Table I.5 Access Management by Highway Classifications (Protection for Ultimate Configuration)

	Highway Classification (Groups) ¹							
	Fr	eeway/Expressway						
Access Type	Existing Freeways	Expressways / Future Freeways	Multi-Lane	Major Two-Lane	Minor Two-Lane			
Public Road ²		 Minimum spacing of 1.6 km required. Existing intersections may remain on temporary basis only if minimum spacing attained. Remove non-conforming accesses when upgrading of highway occurs. New accesses not permitted unless minimum spacing attained. Must meet ultimate access management plan. 	Minimum spacing of 1.6 km required. New accesses at 1.6 km minimum spacing can be considered based upon demonstrated need.	Minimum spacing of 1.6 km required.	 Desired spacing of 1.6 km. Minimum spacing of 0.8 km required. 			
Commercial ³	×	 Access to developments permitted via ultimate service interchange locations as defined in the long-term access management strategy for the facility. Direct access for new developments not permitted. 	 Developments permitted at locations compatible with long-term access management requirements. Direct access for new developments not permitted. Access permitted via public roads. 	 Development access must be compatible with future access management plans. Access not permitted within 400 m of a public road or another access. Access permitted via public roads. Limit access per ¼ section permitted if no public road access of one direct available. 	 Access not permitted within 400 m of a public road or another access. Joint use of an access to an adjacent similar type of development permitted. Access permitted via public roads. 			
Industrial	rchange only	 Developments permitted at ultimate service interchange locations as defined in the long-term access management strategy for the facility. Direct access for new developments not permitted. 	 Existing access may remain on temporary basis until upgrading of highway occurs. Direct access for new developments not permitted. Access permitted via public roads. Development of industrial parks encouraged whereas isolated developments are discouraged. 	 Existing access may remain on temporary basis until upgrading of highway occurs. Direct access for new developments not permitted. Access permitted via public roads. Development of industrial parks encouraged whereas isolated developments are discouraged. 	 Existing access may remain on temporary basis, which could be removed when upgrading highway Prefer indirect access by public roads. Development of industrial parks encouraged whereas isolated developments are discouraged. 			
Recreational	ed via inter	isi	asis until mitted.	 Existing access may remain on temporary basis until upgrading of highway occurs. Direct access for new developments not permitted. Access permitted via public roads. 	 Existing access can remain on temporary basis, which could be removed when upgrading highway. Prefer indirect access at public roads. Access not permitted within 400 m of a public road or another access. 			
Multi-Parcel Country Residential	d permitted	mporary bars not	orary b	 Existing access may remain on temporary basis until upgrading of highway occurs. Access permitted via public roads. Access not permitted within 400 m of a public road or another access 	 Existing access can remain on temporary basis, which could be removed when upgrading highway. Prefer indirect access at public roads. Access not permitted within 400 m of a public road or another access. 			
Farmstead	managed an	y remain on tel ighway occurs. ew developmer ia public roads.	y remain on tempor ay occurs. ew developments r ia public roads.	 Existing access may remain on temporary basis until upgrading of highway occurs. Access permitted via public roads. May consider joint use of existing direct access. Limit of one direct access per ¼ section permitted if no public road access available. 	 Limit of one access per ¼ section desirable. Access not permitted within 400 m of a public road or another access. New access not permitted where farmstead exists on ¼ section. Should consider access at public road or joint use of existing direct access. 			
Field	reeways fully	Existing access ma until upgrading of h Direct access for ne permitted. Access permitted vi	Existing access may re upgrading of highway of Direct access for new Access permitted via p	 Access permitted via public roads. Conversion of existing accesses to other uses not permitted. Direct access permitted where demonstrated need exists (e.g., where physical barriers such as creeks or ravines). Limit of one direct access per ½ section permitted if no public road access available. 	 Access from field should be at public road whenever possible. Conversion of existing accesses to other uses not permitted. Direct access permitted where demonstrated need exists (e.g., where physical barriers such as creeks or ravines). 			
Utility	ccess to f	• • • A D U U U	* • • • • • • • • • • • • • • • • • • •	 Existing access may remain on temporary basis until upgrading of highway occurs. Direct access for new developments not permitted. Access permitted via public roads. 	Access should be at public road or may use existing access as a temporary condition.			
Resource	ĕ	 Existing access may remain on temporary basis. Access permitted via public roads. New temporary⁴ access permitted for defined period of time for exploration of resource, or seasonal requirements. Ultimate access location to be defined on permit. 	 Existing access may remain on temporary basis. Access permitted via public roads. New temporary⁴ access permitted for defined period of time for exploration of resource, or seasonal requirements. Ultimate access location to be defined on permit. 	 Existing access may remain on temporary basis. Access permitted via public roads. New temporary access permitted for defined period of time for exploration of resource, or seasonal requirements. Ultimate access location to be defined on permit. 	 Existing access may remain on temporary basis. May permit temporary joint use of existing access. Access permitted via public roads. New temporary access permitted for defined period of time for exploration of resource, or seasonal requirements. Ultimate access location to be defined on permit. 			

Notes:

- 1. If two roadways of different classifications border a development, access should be obtained from the roadway with the lower classification. Where deviation from these guidelines occur, see Section I.4.7 for appropriate variance procedures.
- 2. For definition of Public Road, for access management purposes, refer to Section I.3.2.1 of these Access Management Guidelines.
- 3. All requests for access to highways classified either Freeway or Expressway must be referred to the Executive Director of Technical Standards Branch (Edmonton).
- 4. All requests for temporary access to a freeway/expressway/multi-lane highway must be referred to the Regional Infrastructure Manager.

I.6 FREQUENTLY ASKED QUESTIONS (FAQs)

The purpose of this section is to provide the reader with responses to frequently asked questions about access management of highways. The questions listed below represent several common inquiries within the province of Alberta along with the corresponding answers (or references to where the answers are located within the manual).

(Q) Why Can't I Have More Than One Access to My Land?

(A) By decreasing the number of intersections along a highway, it reduces the number of driver decisions that need to be made as well as the number of possible conflict points with other vehicles. In doing so, highway safety improves. In short, proper access management is a key factor in preserving or improving the safety record of highways.

Proper access management on highways promotes traffic safety. In general, 24% of all reported collisions on rural highways in Alberta were the consequence of a vehicle running off the road. Of these, 32% resulted in a personal injury and an additional 2% resulted in a fatality. By limiting the number of accesses, the frequency and severity of collisions is reduced.

(Q) Why Must My Access Be Constructed to Such Specific Standards When Others Down the Road Aren't?

(A) Road standards and guidelines are changing. When an existing access is upgraded, or a new access is being installed, these must be built to the standard of the day. While a new access is required to be built to meet the current requirements, an access down the road may have been constructed to a different set of guidelines. The goal is that eventually, all accesses and roadways will reflect the most up to date standard. Please refer to Chapter D for existing design standards.

(Q) Why Do I Need a Permit for an Access?

(A) Any development on public land requires the permission of the Crown. A permit is required for all means of access to ensure that all accesses along highways are built to standard. By maintaining a high standard of roadway we are able to facilitate safe and efficient movement of vehicles.

(Q) Who is the First Point of Contact For Any New Access?

(A) The Regional Development and Planning Technologist is the first point of contact for any new access within Alberta. A directory is available on the Department of Infrastructure and Transportation website.

(Q) What is the Process for Access Removal?

(A) Under the *Public Highways Development Act*, the Department of Infrastructure and Transportation can, at any time, close any access between a controlled highway and land adjacent to it. As well, the Department can give written notice to an owner of land to move, remove or alter any means of direct access in the time prescribed in the notice. If the owner fails to comply with the notice, the Department can enter on the land and carry out the requirements of the notice. Any costs incurred by the Department can be recovered as a debt due to the Crown from the person who failed to comply with the notice.

(Q) Who Should Pay for a New Access or Modification of an Existing Access?

(A) In cases where the department approves applications for new means of access or requires the improvement (intersectional treatment) of an existing means of access as a result of a particular development/subdivision, the applicant will be responsible for the cost and construction.

(Q) Can I Obtain a Temporary Access?

(A) Temporary accesses are generally avoided, however, there may be cases where such an access is acceptable. When a temporary access is to be considered, the application should clearly state the temporary nature together with a specified time after which the applicant will discontinue the use of the means of access or cause to have the means of access removed, whichever case applies. In addition, the applicant should identify the ultimate access plan on the application. A gas and oil well site development is an example of where a temporary access situation may be allowed during the site preparation.

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