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A REVIEW OF ACCESS MANAGEMENT PRACTICE

AUSTROADS

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A REVIEW OF ACCESS MANAGEMENT PRACTICE

AUSTROADS
Sydney 2003

AUSTROADS PROFILE

Austroads is the association of Australian and New Zealand road transport and traffic authorities whose purpose is to contribute to the achievement of improved Australian and New Zealand transport related outcomes by:

- developing and promoting best practice for the safe and effective management and use of the road system
- providing professional support and advice to member organisations and national and international bodies
- acting as a common vehicle for national and international action
- fulfilling the role of the Australian Transport Council's Road Modal Group
- undertaking performance assessment and development of Australian and New Zealand standards
- developing and managing the National Strategic Research Program for roads and their use.

Within this ambit, Austroads aims to provide strategic direction for the integrated development, management and operation of the Australian and New Zealand road system — through the promotion of national uniformity and harmony, elimination of unnecessary duplication, and the identification and application of world best practice.

AUSTROADS MEMBERSHIP

Austroads membership comprises the six State and two Territory road transport and traffic authorities and the Commonwealth Department of Transport and Regional Services in Australia, the Australian Local Government Association and Transit New Zealand. It is governed by a council consisting of the chief executive officer (or an alternative senior executive officer) of each of its eleven member organisations:

- Roads and Traffic Authority New South Wales
- Roads Corporation Victoria
- Department of Main Roads Queensland
- Main Roads Western Australia
- Department of Transport and Urban Planning South Australia
- Department of Infrastructure, Energy and Resources Tasmania
- Department of Infrastructure, Planning and Environment Northern Territory
- Department of Urban Services Australian Capital Territory
- Commonwealth Department of Transport and Regional Services
- Australian Local Government Association
- Transit New Zealand

The success of Austroads is derived from the synergies of interest and participation of member organisations and others in the road industry.

EXECUTIVE SUMMARY

Access management is the process of controlling the interface and interaction between a traffic carriageway and the adjacent land. It is recognised as an essential component of integrated planning to ensure that desired road frontage environments and land access are achieved, while also minimising the side friction and crash impacts related to driveways and minor junctions. Orderly access management aims to avoid ad hoc access decisions in the planning process, and provide greater certainty to all participants.

Dealing with the access aspects of land subdivision and development applications costs in the order of $10-20 million each year in Australia and New Zealand. While this cost is more than justified by the savings in accidents and traffic impedance, there is interest in improving the efficiency and effectiveness of access management practices.

The purpose of this report is to review current Australasian practice in the management of access to the road network from abutting land development, through an examination of existing material and a survey of transport and planning agencies in New Zealand and all Australian States and Territories.

The first phase of the enquiries updated the factual information gathered in 1994-5 by the Austroads Arterial Road Access Management Working Group. The second phase concerned the access decision processes in practice, including perceptions of the adequacy of the processes. The third phase sought to establish the extent of application of each of the various practical access management 'tools' in the various jurisdictions.

Variations in current practices:
The mechanisms and opportunities for access management practice in Australia and New Zealand follow a broadly common model. The main variations in practice lie in the following areas:

- The degree to which the road classification system reflects access rights and expectations.
- Whether or not the road authority can incorporate access requirements into planning schemes and other instruments.
- The weight given to road authority requirements in the development control process.
- The availability of documentation that sets down the rationale, processes and technical requirements for access management.
- The degree of integration between road and land use policies and requirements.

Benchmark Practices:
While this review was not required to identify 'best practice', it does suggest key elements that are already in place in at least one jurisdiction that may offer models or suggestions for changes in other jurisdictions, in the following aspects.

- Policy that specifies access management intentions and purpose.
- Legislation that implements policy.
- Access policy and specific decisions that are part of an integrated planning process.
- Consistent approach to access management on all roads functioning as arterials, whether State roads or not.
- The State Road Authority has power of determination on higher-order roads.
- Incorporation of access management requirements into planning schemes.
- Definition of a road hierarchy with corresponding access conditions.
- Special category of 'limited access roads'.
- Preparation of corridor plans to designate permitted points of access.
- Documented and agreed standards for access location and design.
- Specification of access conditions by the State Road Authority on development permits affecting state-controlled roads.

- The State Road Authority can delegate much of the routine decision-making.
- A cooperative rather than adversarial process.

Integrated Planning:
Participants in the access management process regard a holistic and integrated approach as being necessary. Access management assists integrated planning by promoting appropriate land use patterns and road-land relationships. It also caters for transitions in land uses over time, the needs of all road users and the amenity of adjacent land.

Cost Reduction:
Access management brings potentially large savings in accident, congestion and infrastructure costs. These community and road agency savings more than cover the costs of administering it, and may justify increasing the allocation to access management implementation. There may, however, be opportunities to reduce the unit (or per case) costs through simplifying and clarifying the decision process. The potential improvements identified in the review generally support these objectives. Delegation alone would merely shift the administration cost burden, not reduce it, unless the local authority has clear decision rules to work to.

For consideration:
The review suggests a number of matters for consideration:

Guidelines and technical policy
A *Guide to Traffic Engineering Practice* on the traffic aspects of the location and design of access points, including intersection and junction spacing, could be considered. It is doubtful that a useful detailed policy regarding access planning could be prepared that would be acceptable across the Austroads member agencies. However, existing materials provides indicators of the basic engineering parameters that could be specified for safety and operational reasons.

Identifying roads most needing access management
Consideration could be given to ways to exercise influence over access to higher-order roads, utilising such mechanisms as the 'limited access road', where such provisions do not already exist.

Evidence of benefits
There may be a case for compiling data on the benefits of access management policies and tools, for use by Austroads Members. This would provide greater confidence and a rationale in applying access management in the policy and planning arenas, as well as helping to alleviate concerns about the adverse effects of access management.

Benchmark practices
Consideration could be given, in each jurisdiction, to the extent to which the recorded 'benchmark practices' (practices already in place in at least one jurisdiction) might be applied.

Unit cost reduction
The benchmark practices noted in the report identify practices already in place that should help to increase certainty by setting the rules and context for access management in advance. Delegation to a planning consent body needs to be accompanied by agreed rules and plans, both for specific locations and for general requirements.

Greater certainty
Greater certainty for government and land owners calls for appropriate planning (of land and road characteristics) to create clear rules and expectations for all players in terms of the status of each road boundary and any requirements for the location and design of points of access.

Process and practice
The skills of those involved in access management, and the information and personnel resources they utilise, seem worthy of attention. Practitioners appear to believe that 'how' it is done is more important than 'who' does it.

Greater emphasis in planning processes
Procedures and precedents that give access management requirements a higher status in land use planning decision making are indicated.

Information about access management
Wider availability of information about access management to practitioners and to the wider community seems warranted, to better inform the planning and design processes and increase community understanding of its rationale and benefits.

Access management techniques
It would be useful to develop a mechanism or form of documentation to compare practice and experience with the various planning, management and traffic engineering tools for access management between jurisdictions.

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PART A: CURRENT STATE OF ACCESS MANAGEMENT PRACTICE

1. INTRODUCTION

The nature and extent of connections between a road and abutting land, and its connectivity with other roads in the network, are key parameters in defining its role (classification) in the road network. Conversely, the frequency and type of connections to abutting land and other roads affect the utility of the road investment, reflected by the quality of service and safety of a road for all users (motorists, bus passengers, pedestrians and cyclists), and roadside amenity.

Dealing with the access aspects of land subdivision and other development applications costs in the order of $10-20 million each year in Australia and New Zealand (see Section 11.2.1). This cost is more than justified by the probable savings in accidents and traffic impedance alone, without considering the wider community planning and amenity implications of unfettered access.

Yet despite this level of investment in time and resources, and the acknowledged benefits that it brings, there are widely varying practices in both the process and means of managing access to a given road section. Austroads' interest in access management and ways to improve the efficiency and effectiveness of current practices began in the middle 1990s. It led to a suggested outline for the preparation of access management guidelines (Austroads 2000) and also involved the beginnings of a review of practice.

At the same time, there has been a trend towards simplifying the planning process and reducing the number of agencies involved in the issuing of development permits. In some cases, this has meant that a road authority may become involved only on an exception basis.

These factors, and the different planning and traffic management practices among the Austroads member authorities, have led to a wide range of different outcomes in terms of the way in which access between land and roads (particularly arterial roads) is permitted and designed.

1.1 Purpose and Background

This report reviews current Australasian practice in the management of access to the road network from abutting land development. It is based upon an examination of existing material, including that gathered by the Austroads 'ARAM' Working Group Project RUM.3.D.79 (1994-1997), and a survey of transport and planning agencies in New Zealand and all Australian States and Territories.

The Project Brief noted that:

> 'The control or management of access to the road network is aimed at controlling the interactions between land use and transport at the local level. Its dual aims are to protect the performance and safety of the transport network whilst ensuring that the needs of the community for safe and convenient access to the road network are addressed.
>
> 'AUSTROADS has recently published a framework for access management (AUSTROADS 2000) which provides a technical basis for access management decision making and is a first step towards an agreed set of access management guidelines.

> 'There are a number of practices and legal frameworks controlling access management in the different New Zealand and Australian jurisdictions and these include a variety of road and planning agencies. There is concern that this diversity of practice provides a barrier to the use of the available technical information.
>
> 'Access management practice is part of the overall planning process and there is a growing demand for it to take into account the needs of public transport users, pedestrians and bicyclists as well as the needs of road users in cars and trucks. It is of concern whether traditional access management procedures and practices adequately cater for all transport user groups.
>
> 'As with all state and local government practices there is an interest in improving the efficiency and effectiveness of access management practices. A number of jurisdictions have examined possible improvements and it is believed that a comparison of actual practices and proposals between the jurisdictions could lead to the identification of areas where benefits would be achievable from changes in practices.'

This review is *not* intended to identify 'best practice' (some elements of which have already been reported in AUSTROADS (2000)). Neither does it aim to describe the various techniques of access management in detail. Its essential aims are to provide:

- A description of current practices and existing plans and proposals for changed practices; and
- A comparison of current practices in relation to management of safety and traffic flow, control of abutting land use development and costs of administering development applications.

However, it does identify possible actions that may be considered to improve access management.

1.2 Scope of Report

The Brief required that 'sufficient data' be collected to describe the following for each jurisdiction:

- The legal framework for access management.
- Responsibilities for access management and control.
- Formal procedures available to guide access management practices.
- Other resources used to assist access management practices and decisions making.
- Resources or practices used to ensure public transport, pedestrian and cyclist needs are considered by access management planning decisions.

The survey was also required to collect any available information on:

- Plans or proposals for changes in practices in each jurisdiction.
- The costs of access management including, if available, unit costs for dealing with individual access applications and planning decisions.

Thus, the key purposes of this report are to:

- Identify major differences between jurisdictions;
- Analyse the strengths and weaknesses of the different practices; and
- Highlight areas where there is potential for improvements in practices or significant cost savings.

Given that controls over the spacing, location and type of driveway and road connections to a road are exercised mostly through the planning and development control process, and that these are intimately bound up with the wider political and planning processes in each jurisdiction, a comparison of practices for its own sake might appear to have limited value. However, implicit in the review are several questions that may point towards enhanced practice, such as:

- How can all the safety, efficiency, planning, infrastructure investment, amenity and integrated transport objectives be satisfied without state road agency involvement in every development application?
- What is the knowledge base of current practice, and does that need to be improved?
- Can outcomes be achieved that meet other objectives, such as urban design visions and economic development?
- How can consistency in decision-making be improved?
- How can we influence the decision-making process to optimise outcomes in a holistic sense?

The Report has the following structure.

Part A presents the background and findings of the survey, and contains the report's essentials:
- Chapter 2 gives an overview of access management and its purposes.
- Chapter 3 synthesises the survey results.
- Chapter 4 comprises a summary and conclusions.

Part B describes the conduct of the review and its results, summarised by:
- Policies and intentions.
- Legislation and responsibilities.
- The access management process that is followed.
- The tools that are used.
- Technical resources that are available.
- Perceived costs and benefits.
- Recent and current changes in practice.

Appended material lists the contributors and provides more detailed information about current practice in each jurisdiction.

2. ACCESS MANAGEMENT: DESCRIPTION AND PURPOSE

The use and development of land usually requires provision of access to and from a road. New access arrangements will often impact on the functionality, capacity and safety of a road. Equally importantly, access arrangements can impact on the operation of site entrances themselves and sometimes on the use and enjoyment of the site (e.g. the location of access points may affect site movement circulation and efficiency, or reduce the effectiveness of noise barriers by breaking their continuity). That impact may be significant enough to warrant specific consideration of the access arrangements.

Access movements are known to be directly related to increased accident risk. Access management is therefore a primary road safety tool. In general, if road safety objectives are to be met, opportunities for access movements between a road and the land or streets connecting to it either have to be minimised or, where they need to occur, have to do so under regulated conditions so that the risk and its consequences are minimised. These conditions typically relate to the *design* of the access points and *control* of movements that can occur at them, and to the *speed* and other operating conditions imposed on passing traffic.

Access management is the process of controlling the interface and interaction between a traffic carriageway and the adjacent land. It seeks to promote orderly integrated planning, by protecting the safety and efficiency (including capacity) of the traffic function of the road while acknowledging the needs and amenable use of adjacent land. The rationale and tools of access management are thus an important part of integrated land use-transport planning at the local level (Brindle et al. 2000; Oregon website; Humstone and Campoli 1998; TRB website; Center for Urban Transport Research website).

Access management can be an important element in the assessment of specific proposals for new uses and developments. It should also be considered in the longer term strategic planning of an area, as part of the larger issue of the management of the interface between road and land (or 'frontage management') which has urban design and community activity connotations as well as operational implications.

The tools of access management include planning measures to control the number and location of driveways, and traffic engineering and management measures on and around the road itself.

These techniques of access management aim to minimise the level of interruption to traffic moving along a roadway caused by traffic movements associated with adjacent land and street connections. The primary objectives are:

- to minimise the potential for traffic crashes and pedestrian risk;
- to protect the capacity and level of traffic service on more important traffic routes; and
- to minimise conflict between passing traffic and the pleasant use of land adjacent to the road, including the roadsides and footways.

Thus, access management—

- enhances road safety (including pedestrian and cyclist safety) and increases road efficiency and capacity by reducing traffic interruptions;
- helps to reduce road construction costs and demands for new or expanded infrastructure;
- assists with managing roadside amenity; and
- supports bus efficiency and safety for cyclists and pedestrians (by reducing conflicts in the left lane and exposure to turning traffic).

Access management is therefore an important integrated planning and management tool for increasing the productivity of the road system for all modes. This is its primary rationale in a transportation sense.

Model guidelines for access management are outlined in a separate Austroads report (Austroads 2000), and there is a comprehensive discussion of access management as part of integrated urban planning context in the Austroads publication 'Cities for Tomorrow' (Westerman 1998: section C-6).

Access management is implemented in three broad ways:

(i). As part of ongoing traffic management (parking control, turn control, lane marking and designation, channelisation, etc).
(ii). Through the designation of access and other characteristics at the time of road planning and/or classification.
(iii). Through the land development approvals process.

We are concerned here principally with (ii) and (iii), i.e. the implementation of statutory and other controls on access points through the planning process, both road planning and land planning. Specific traffic engineering and management practices are not the primary focus of this review.

Direct commercial frontages can reduce arterial road efficiency and safety.

3. FINDINGS OF THE REVIEW

3.1 Commonalities in Practices

There are several features of access management practice that are found in most, if not all, jurisdictions in Australia and New Zealand. These are as follows.

3.1.1 Legislation Focuses on Access Control

Legislative powers and duties seem to focus largely on *access control*. Other tools of access management (e.g. non-traversable medians and turn bans) are commonly implemented by the state road agency or by local government under their road management responsibilities.

3.1.2 Recognition of the Need for Control on Arterials

In addition to various levels of control over the details of traffic design, the Australian states and territories and New Zealand vary in the degree to which they specify access management policies and the way in which they are implemented. In general, however, there is a common understanding of the care needed in defining the level and nature of vehicular access to sites abutting arterial roads, in order to preserve the traffic function of those roads. Most commonly, any rules and procedures giving state road and transport bodies a power of determination on access questions relate only to higher-order arterials. Member jurisdictions vary in the way in which they define 'arterials' for access management purposes; the 'declared' road system does not generally fully describe the arterial system, although there is clearly an understanding that roads of major importance in the transport network have, or ought to have, access management controls applied to them under the auspices of the state road or transport agency. Conversely, not all 'declared' roads serve an arterial function. It is widely recognised that the appropriate level of access control should be determined by road function, rather than by which agency is responsible for the road.

3.1.3 The Need for Co-operative Action

Another characteristic, not universal in Australia and New Zealand but clearly recognised as a desirable practice in most places, is to obtain cooperation between local government (as a responsible planning and road authority) and the state transport and planning agencies; and to clarify the roles of each of these parties in access management (or at least access control). Parallel to this trend is the political desire to delegate as much of the planning decision making as practicable down to the local level through the development control process. The availability of agreed access management plans or access decision rules, and/or close working relationships with SRA staff at the local level, are seen as being necessary in that process.

3.1.4 Limited Access Roads

In addition to the creation of 'restricted access' or fully-access-controlled roads (freeways/motorways), most jurisdictions have statutory provision for roads to be gazetted as being of a type that gives the road authority specified powers over points of access. These roads are defined as having 'limited access' (defined on page 41 as 'a condition under which access or specific turning movements are allowed only under tightly managed controls, and at regulated spacings and/or times of day'). The statutory provisions give the road authorities varying degrees of control over development applications and the conditions applied to permits and, in some jurisdictions, enable the road authority to make access decisions even when no development applications are involved:

New Zealand:	*Limited Access Road* (LAR): Allows the Road Controlling Authority (Transit or the local authority) to limit the number and location of points of access to the LAR, and to encourage the use of alternative boundaries for access. LARs are not classed as roads for the purpose of subdivision, unless the Road Controlling Authority agrees.

Northern Territory:	Roads may be declared as *'limited access' roads*, giving the 'road controlling authority' the power of denial of access from new subdivisions, and strict limitation of driveways from existing sites.
South Australia:	The Commissioner of Highways has power to allow or prevent access to any road (normally only primary arterials) which has been gazetted as '*controlled-access*'. When a road has been declared access-controlled, it is up to the Commissioner of Highways to determine who can get access and under what conditions. Applications for additional access may be granted by means of a permit, which can be revoked if necessary.
Tasmania:	Roads may be gazetted as *Limited Access Roads*, on which the State Road Authority determines access requirements.
Western Australia:	On *Primary Regional Roads* (PRR) in the Metropolitan Region Scheme, other than freeways, there is a general presumption on traffic and safety grounds against the creation of new driveways or increased use of existing access to these roads. Where alternative access is or could be made available from side or rear streets or from right of ways, no access shall be permitted to the regional road unless special circumstances apply.
Queensland:	*Limited access roads*: A road-specific access policy is required to be developed with each declaration of a limited access road. Once declared, the access conditions laid down in that policy are obligatory.
NSW:	Some Classified Roads have access restricted from adjoining roads and parcels over some or all of their boundaries. This power appears to be generally limited in practice to freeways and *Controlled Access Roads*.

In addition, the standard road types defined in the ACT reflect various levels of access that are permitted.

3.1.5 The Common Model

The mechanisms and opportunities for access management practice in Australia and New Zealand follow a broadly common model:

- Legislation allows for the creation of fully-access controlled roads by fee simple or other land title procedures.
- In most jurisdictions, but not all, there are special categories of road defined in legislation that carry specific access limitation powers and conditions (see 3.1.4).
- Road authorities have a variety of management and planning techniques available to them to control the location and type of access points, including access control strips of land along abutting frontages, construction of service roads, medians and median break locations, and so on.
- In both the Northern Territory and the ACT, the territory government agencies act as the responsible planning body for most land use plan preparation and development control. In the Australian States and New Zealand, local councils are typically the responsible planning bodies for these purposes.
- Designation of road types in legislation and planning schemes has, in some but not all cases, corresponding access management implications and requirements. There are varying degrees of involvement by the State Road Authorities in the preparation of planning schemes, local structure plans etc.

- Typically, consent authorities for land subdivision and site development applications refer applications to the road authority: usually the State Road Authority (SRA) in the case of State Roads, and local government for other roads. Jurisdictions vary in the extent to which the State Road Authority exercises this right of referral on all roads under their control.
- In most cases, planning decisions and conditions can be taken to appeal. Appeals may be heard by planning tribunals, appeals courts or by ministers.

3.2 Major Differences in Practices

While access management practice among Austroads member authorities follows the broad common model described in section 3.1.5, there are potentially many variations in detailed practice in such elements as:

(a) The development application process on State Roads

(i). Is there provision for the creation of fully-access controlled roads (freeways/motorways)?

(ii). Is there an access-based road hierarchy or classification system that is used in land use planning and development control (i.e. recognised in planning schemes, district plans etc.)?

(iii). Is there a special road category that has the principal purpose of limiting or regulating access (other than freeway/motorways)?

(iv). By whom/how are access rules for development set?
(e.g. Rules set in state planning policy with SRA input; SRA sets access rules for some/all higher-order roads; planning consent authority sets the access rules; or access conditions are determined on a case-by-case basis.)

(v). How and by whom are access conditions set in specific *subdivision* applications on roads under SRA control?
(e.g. SRA is the subdivision consent authority; SRA issues separate access and/or driveway permit; SRA consent and/or conditions on the permit issued by the planning consent authority are mandatory; the planning consent authority considers the SRA requirements but is not bound by them; or the planning consent authority determines without reference to the SRA.)

(vi). How and by whom are access conditions set in specific *land use change* applications on roads under SRA control?
(e.g. SRA is the development consent authority; SRA issues separate access and/or driveway permit; SRA consent and/or conditions on the permit issued by the planning consent authority are mandatory; the planning consent authority considers the SRA requirements but is not bound by them; or the planning consent authority determines without reference to the SRA.)

(vii). Can/does the SRA normally appeal the decision?

(viii). Who determines in cases of disagreement/appeal?
(e.g. Appeals court decides; Minister decides; SRA decides.)

Figure 1 shows an alternative, diagrammatic way to map these potential differences in detailed practice.

(b) Resources

(i). Does the SRA have documented access standards, requirements or guidelines for some or all of the roads under its control/responsibility?

(ii). Are there established requirements or standards for:
—Intersection spacing
—Driveway spacing and clearances
—Access design (tapers, auxiliary lanes, turn protection, sight distance etc)?

(iii). Can the SRA obtain 'impact funding' from the developer for access works arising from the abutting development?

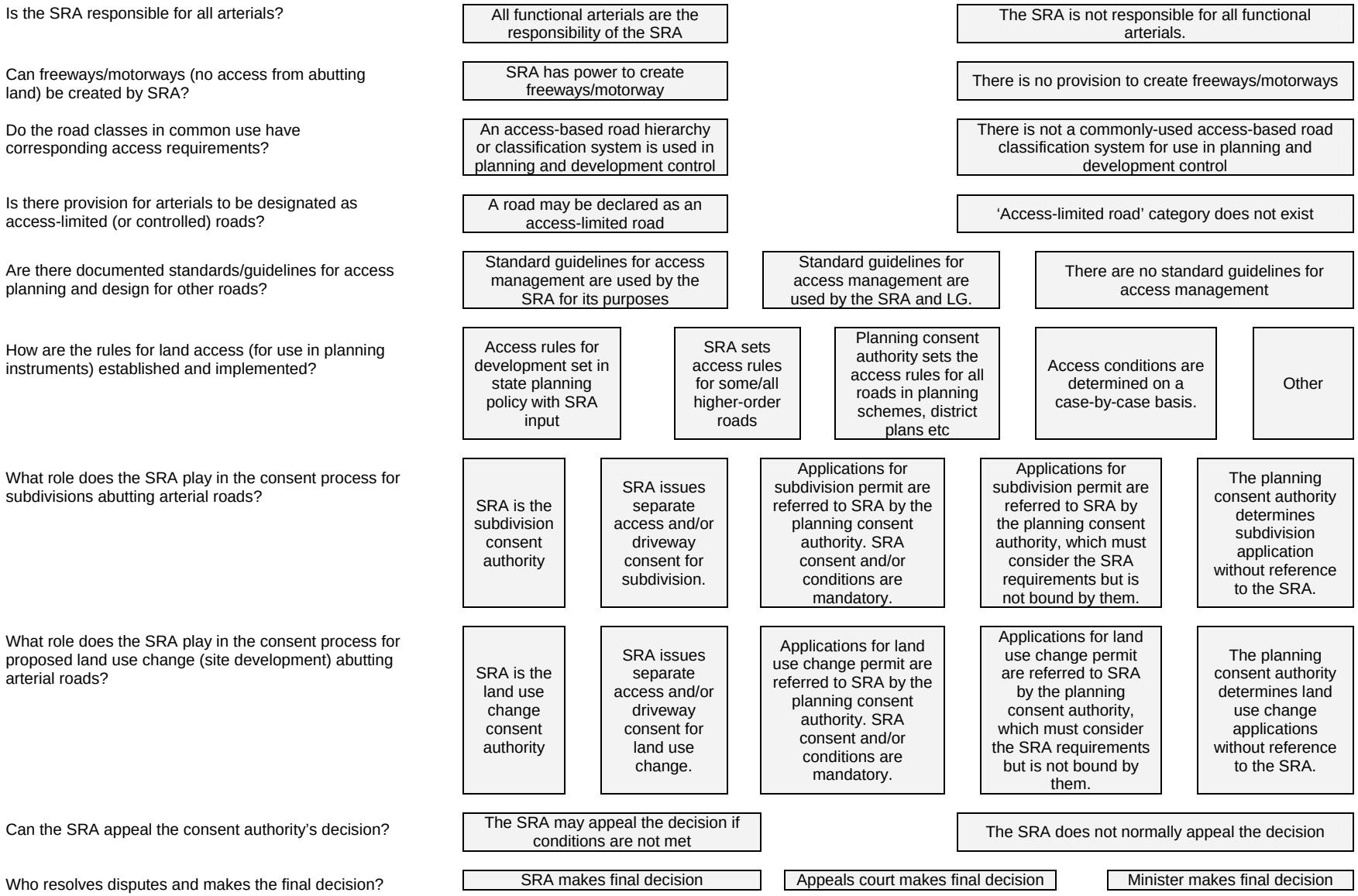

Figure 1 — Possible major points of difference in access management practices between jurisdictions

The responses from the participants revealed that the main actual variations in practice lie in the following areas:

- Whether or not there is an agreed or statutory road classification system that reflects at least the permitted levels or types of access.
- Opportunities for road authorities to incorporate access requirements into road provisions in planning schemes and other instruments.
- The degree to which the road authority opinions and requirements are considered in the development application process.
- Whether or not the road authority opinions and requirements in relation to access provisions are mandatory in the development consent decision and the conditions that may be imposed.
- The availability of documentation that sets down the rationale, processes and technical requirements for access management.
- The degree of integration between road authority policies and requirements, and more broadly-based land use and development policies.

Photo: Andrew O'Brien

Residential development with rear vehicular access is becoming common on urban roads.

3.3 Benchmark Practices

This review was not required to identify 'best practice'. However, among the practices of Member Authorities, it is possible to identify key elements that are in place in at least one jurisdiction and which may offer models or suggestions for changes in other jurisdictions, as follows.

Policy:

There is a specific and documented whole-of-government recognition of the benefits of access management to minimise conflicts due to traffic movements associated with frontage development on primary routes, if not the whole State Road network.

> Currently most strongly stated in legislation in Queensland (Section 52 of the Queensland *Transport Infrastructure Act*: 'Management of access between individual properties and State-controlled roads'). Also found in planning directives for arterial roads in NSW; in State Road Authority policies in relation to part of the road network, as in New Zealand, Tasmania and Western Australia; and implied in planning policy statements in all Victorian planning schemes.

Access policy and specific decisions are part of an integrated planning process:

Access policy and guidelines, both general and specific, are established in the context of a planning process that integrates the needs of both land and the various uses of the road.

Most jurisdictions are operating within, or moving towards, an integrated planning environment. New Zealand, NSW and Queensland are examples of jurisdictions in which there is at least the integrated framework for dealing with access decisions. Regional Road management in Metropolitan Perth provides a good example of application on a more regional basis, as does practice in the ACT as a consequence of the 'in-house' relationship between road and land planning in that jurisdiction.

Access to all roads functioning as arterials is managed under consistent rules defined or agreed by the State Road Authority:

Management of access to all roads that function as arterials, whether State roads or not, is treated in a consistent fashion. This is efficiently done by placing the access conditions on such roads under State Road Authority oversight, either by referrals and mandating conditions in the development control process, or through rules and guidelines which are developed or agreed by the State Road Authority.

When the whole of the network is under unitary control (as in the ACT), there is a consistent and natural correspondence between roads type and access condition. In general, however, the division of responsibility for various aspects of the management of different road types varies between jurisdictions. Some (e.g. Transport SA) but not all SRAs are responsible for the general management of all functional arterials, but this does not necessarily imply a right to impose access conditions on adjacent development. Some jurisdictions (such as Tasmania, Victoria and New Zealand) are moving towards consistency in the treatment of arterials (and other categories of road) by such means as agreed access rules (access categories) or directly through revised road type definitions. These approaches stress that it is road function, not 'ownership', that determines the type of access condition.

The State Road Authority has power of determination on higher-order roads:

The State Road Authority's access requirements are mandatory, on at least the most important arterial roads.

Keeping in mind that decisions and conditions applied to planning permits are usually appealable to a court or minister, there is an apparent intention that the State Road Authority requirements for access on roads designated as 'limited access' or similar, as noted in 3.1.4, will be followed. This seems to be the case in New Zealand, Northern Territory, Queensland, South Australia and Tasmania, for example, but it is known that in at least some of these jurisdictions the development consent authority can and does exercise its own discretion over permitted access points. The pegging of 'limited access' designation to a specific plan of permitted points of access along a corridor, as in Queensland, appears to demonstrate one way of creating certainty in this area.

Incorporation of access management requirements into planning schemes:

Schedules or some other technique such as access categories are developed, for incorporation into planning schemes.

Tasmania is currently introducing such schedules into local planning schemes, where agreed to by the planning consent body (council) and the Resource Planning and Development Commission. Access specifications based on road hierarchy are a special case, noted in the following item.

Definition of a road hierarchy with corresponding access conditions:

Road type definitions are adopted, with application to land development and planning schemes, that include clear statements of the nature and design of access points on each type of road.

Most clearly found in the ACT. Access categories for application through planning instruments, as currently under trial in Victoria, have a similar effect and are intended to be able to operate in parallel with existing or other road type designations. Several jurisdictions are moving towards, or have stated an intention to develop, a hierarchy-based prescription of access conditions.

Special category of 'limited access roads':
A special type of road is defined in legislation, on which the State Road Authority has a pre-eminent role in the planning and management of points of access.

As observed in 3.1.4, the majority of jurisdictions have a provision of this kind, including New Zealand, New South Wales, Queensland, Tasmania and South Australia, each somewhat different in extent and application. Regional Roads in Metropolitan Perth imply similar conditions, and the road hierarchy adopted in the ACT effectively includes roads of this type.

Preparation of corridor plans to designate permitted points of access:
Road-specific plans of sections of the network are prepared, having statutory effect, that show permitted locations for access and, by implication, indicating where access will not be permitted.

Queensland has the clearest examples of this practice, as a requirement of its limited access road provisions. The practice elsewhere tends to deal with access decisions on a case-by-case basis. Corridor or road section access plans are a logical accompaniment to 'limited access road' designation.

Documented and agreed standards for access location and design:
Technical policy and detailed guidelines, including information about the acceptable spacing and character of points of access (road and driveway), are prepared and widely adopted.

The Transit New Zealand *Planning Policy Manual* seems to be the most comprehensive example of such a guide. The RTA NSW's *Guide to Traffic Generating Developments* is widely used (not just in NSW) for guidance on the location and design of driveways. The Access Category concept being developed in Victoria requires the availability of detailed technical standards and guidelines to assist in the planning and design of accesses. Most jurisdictions have some form of in-house criteria and materials of this sort, which could be developed into more widely available documentation.

Right of referral:
The State Road Authority has right of comment and intervention on planning applications adjacent to or affecting a State Road.

State Road Authorities are referral bodies in all jurisdictions. However, the degree to which this right is exercised, and to which the development consent authority gives cognition to the road authority's requirements, varies from place to place.

The State Road Authority can delegate much of the routine decision-making:
Procedures and resources are in place to allow delegation of much of the access-related decision-making to the development consent authority. This implies that decision rules or specific corridor access plans are in place; that there are financial and/or remedial arrangements to retrieve situations where poor decisions are made by the local authority; and that the SRA retains responsibility for the major cases that cannot be adequately covered by general rules.

Although legislation allows for referral to Main Roads of most development which involves access to a State-controlled road, the preparation of specific road-related policies and plans in Queensland could allow delegated approval of simpler applications for access points that conform to the plan. The designation of roads by access categories, as in the Victorian trial, could (if supported by detailed technical requirements) allow the consent authority to handle the access aspects of many applications. (However, note the view of respondents that local government should not have more decision making power (3.4.1). The key seems to lie in how well routine decisions can be prescribed by plans and schedules agreed to by the state and local authorities.)

3.4 Practitioners' Perceptions of the Adequacy of Current Access Management Practices

Respondents to the 1994-5 survey offered a variety of comments about shortcomings and problems in day-to-day access management practice, many if not all of which are likely still to be voiced today:

> 'I'm not optimistic about achieving optimal access control in urban areas.'
> '(The SRA) can only persuade – it has no teeth.'
> 'The approvals process is sliding from (the SRA) – we are losing power'.
> 'Decisions are based on rules, geometric standards and engineering judgement without a rational process based on an assessment of safety effects.'
> 'Provisions in District Plans are not legally binding'.
> 'Rules in District Plans are generally inadequate; based on land use categories, not effects-based performance'.
> 'Need to draw the "zoning" of roads in [District Plans] closer to the principles of access management'.
> 'Access can be licensed or denied, but cannot be open slather' (implying a perception that in fact it was 'open slather').
> 'There is a lack of long-term planning to allow for service roads'.
> '[Access control, or buffer] strips are controversial: There is some debate over how enforceable they are, and they cover only vehicular access'.
> 'Retrofitting of access controls needs to be considered'.
> 'We need to control ribbon development rather than look to more powers of control on access.'
> 'A weakness (and therefore a requirement) is in the linking of land use planning and long term network planning'.
> 'Regional and Local [planning advisory] Committees often comprise inappropriate people for access matters'.
> 'The players frequently do not recognise the needs of other players'.
> 'Lack of uniformity among local government in their approach and criteria'.
> 'Lack of uniformity between the controlling authorities. [The SRA] has greater statutory control over access on State Highways than local government on arterial roads, many of which carry greater traffic volumes than State Highways'.
> 'Criteria for access control have focussed on traffic carrying capacity and efficiency. But the focus at planning hearings is more likely to be on road safety.'
> 'The general lack of exploitation of 'limited access road' provisions by local government'.
> 'In general, guidance on appropriate control of access for urban arterials has been lacking'.
> 'The process is too subjective – not enough quantification of costs and benefits'.

Respondents to the recent survey among state and local government personnel were asked for their views on the adequacy of access management provisions and practices in their jurisdiction. Apart from one respondent in a state planning authority, these indicated a general satisfaction with present arrangements—but there is some concern about their implementation. State Road Authority respondents all stated the view that 'access management provisions are adequate but practice is not always successful', a view shared by about half the local government respondents. Others in local government went further, stating that present arrangements are 'very adequate and successful'. These views are not necessarily inconsistent with those express in 1994-5; the issues of concern appear to be ones of practice rather than the fundamental processes. The end results may be no less unsatisfactory.

The one dissenting view was that access management provisions and practices are neither adequate nor successful. This may be taken as an indicator of a possibly widespread view among non-road planning practitioners, particularly those at the state level who are less exposed to the realities of dealing with land development and traffic conflicts at the local level. This view holds that present practices give excessive emphasis to a road's traffic function and unduly constrain road frontage development, thus preventing the sorts of roadside character that current urban design philosophies are promoting. This may be a misconception because, as noted in Section 6.2, there appears to be a general understanding of the dual land use and traffic aspects of access planning and management among those in local government and State Road Authorities who are responsible for these matters. Road agencies are clearly aware of the need to find outcomes that meet road service and safety objectives as well as planning and urban design objectives.

This apparent dichotomy is confirmed by responses to the question: '*In your experience, how commonly do technical requirements over-ride non-technical considerations in access decisions?'* Land use planners tended to think that technical requirements 'usually' over-ride other considerations. On the other hand, one respondent in a State Road Authority and a local government engineer felt that safety and efficiency are 'often compromised' in access decisions. By far the dominant view, however, was that a 'fair balance' is usually struck between technical and other considerations.

Despite this concern in at least some quarters, all but one respondent said that, in their experience, access management was carried cooperatively by the various players, perhaps with only occasional conflict. The one exception (a local government planner) said that access management was carried out with 'frequent conflict', in his experience.

The general assessment is further confirmed by the judgement of most participants that neither land use planners nor traffic planners should be given more influence and responsibility over access management matters than they currently have—the balance, it appears, is consider to be about right already, although there was solid minority support (especially among some road authority and local government engineer respondents) for some shift in influence to the traffic planning inputs.

Some of the comments from 1994-5 noted above suggest a degree of pessimism among practitioners about access management in practice. The recent survey did not provide evidence to either reinforce or offset this inference. However, the unanimous view among the State Road Authority respondents that 'access management provisions are adequate but practice is not always successful' may hide a range of actual experiences, from satisfactory to frustrating.

3.5 Potential Areas for Improvement and Cost Savings

3.5.1 Views of Participants

Respondents to the survey were asked what changes in access management practices they would make, if they were able. While the numbers of participants cannot be taken to be a conclusive representation, it is interesting to note that those involved directly in road management (at state and local government levels) were agreed that access management controls should generally be tightened, while those engaged in land use planning tended to disagree. On the other hand, there was no support from either group for loosening present controls, suggesting that the common view is that present practices are just adequate for the task, if not better than that. There was unanimity on the aim to achieve all the desired planning, urban design and technical outcomes together. Clearly, the road practitioners believe that tighter controls are a way to do that. There was very little support for placing more decisions in the hands of local authorities.

The participants clearly saw a need to increase the information available: to practitioners, to provide them with information on the need and outcomes from access management, and to the wider community in order to explain the reasons for and benefits of access management. Specific reference was made to the need for better empirical information on expected accident reductions from access management controls.

3.5.2 Reduction in Costs

The study was required to consider ways to reduce the costs of access management. This might be the wrong question, given that (as noted in Section 11.1) there are large potential benefits from access management in terms of accident reduction and traffic flow improvements. There seems little doubt that access management potentially has a high benefit-cost ratio and should not be seen as a cost liability any more than any other planning or management function of a road authority. It could be regarded as an investment rather than a cost. Furthermore, given its importance to both transport and land development sectors, access management has additional intrinsic merit as one of the key tools for integrated planning.

In addition, there is a likelihood that there will be more rather than less pressure for access management in the future, adding to the present level of administration effort. Therefore, the issue is not 'how can the present costs of administering access management be reduced', but rather 'what is the most efficient way to administer the appropriate level of access management'.

Reduction in the costs of administering access management would follow only if either:

- the level of intervention and investigation were reduced, or
- the decision making process were simplified and the amount of time spent on objections and appeals were to be reduced.

It is unlikely that (a), by simply shifting the present costs from the road agencies to road users and the road agencies themselves in the future, would be regarded as an acceptable course of action. The conclusion must be that changes in the process would be required if costs for a given level of administration are to be reduced.

Delegation to local government or other agencies would reduce the time input required from State Road Authorities, but that alone would merely shift the administration cost burden, not reduce it. Whether administered by state or local government, the costs of access management seem likely to be reduced if there were greater certainty for government and land owners. This calls for appropriate planning (of land and road characteristics), to create clear rules and expectations for all players in terms of—

- the status of each road boundary, and
- the details of location and design that would apply in a given situation.

3.5.3 Pointers to Increased Certainty

The benchmark practices noted in Section 3.2 identify practices already in place that should help to increase certainty by setting the rules and context for access management in advance, specifically:

- Incorporation of access management requirements into planning schemes.
- Definition of a road hierarchy with corresponding access conditions.
- Special category of 'limited access roads'.
- Preparation of corridor plans to designate permitted points of access.
- Documented and agreed standards for access location and design.
- Delegation of much of the routine decision-making by the State Road Authority.

The widespread view among practitioners is that delegation needs to be accompanied by agreed rules and plans, both for specific locations and for general requirements, if increased costs are not merely to be transferred onto the local authority or planning consent body.

4. SUMMARY AND CONCLUSIONS

4.1 Summary

4.1.1 Access Management Policy Statements

Only NSW and WA (in relation to major roads in the Perth metropolitan area) appear to have explicit government statements of policy reflecting access management intent, other than in the powers and responsibilities contained in legislation and in the manuals and rules set by the various road authorities. In other jurisdictions, access management policy is expressed by implication in legislation, and as technical policy of the road authority and in the required planning processes that are followed. Of these, Queensland's legislation is among the clearest statements. In several jurisdictions there are now explicit statements of policy on urban design, sustainable transport and so on that may, by inference and in practice, cut across the intent of access management.

4.1.2 Principles and Intentions

The dominant intention of access management, as interpreted by State Road Authority and most of the local government respondents, is to emphasise through-traffic priority on arterials, and to target the problem of ribbon development. However, there was a strong view that this should go hand-in-hand with some form of frontage development.

Most respondents reported that their agency's approach was that access management requires careful handling of both land use and traffic conditions to try to meet the necessary requirements of both.

The responses indicate clearly that there is a widespread understanding of the dual land use and traffic aspects of access planning and management.

4.1.3 Legislation

Broadly speaking, all jurisdictions have legislation covering road designation, powers and responsibilities of the various road authorities and the process by which development proposals are considered and determined.

4.1.4 Identification of Road Types for Access Management

Some sort of relationship between access condition and 'road hierarchy' or class is implicit in most Australasian approaches to access management – and explicit in some. The most obvious examples of the latter are found in those jurisdictions that have 'Limited Access Roads' (LARs) or similar legal road categories. However, other than standards applying to LARs, there are no examples of legally enforced, hierarchically-related access management standards across a range of road types as are found in many states in the US (as described in Section 7.1).

In each jurisdiction, the distinctions between road types for access management purposes are essentially the same:

- State-controlled roads and others;
- Functional arterial roads and others;
- Access-controlled or not.

4.1.5 Responsibilities, Powers and Duties

In various combinations, legislation covering the roles of state and local government agencies describes and gives authorisation to:

- Declaration of roads (specifically, roads under the responsibility of the SRA);
- Power to create freeways/motorways;
- Power to impose access limitations;
- Assessment of the traffic impacts and access requirements of proposed development;
- Development approvals process, including requirements to refer applications to the SRA and/or rights to comment;
- Power to approve or veto a development and/or its access provisions;
- The appeals process and powers of intervention;
- General powers over management of traffic and roads; and
- Controls, permits and standards for driveway construction.

4.1.6 Development Control Process

In summary, the process typically followed for access considerations is—

- On designated limited access roads (where applicable): Conditions are as determined by the road authority, although the mechanisms to achieve this differ.
- On other state (declared or proclaimed) roads:
  - arterials and non-arterials tend to follow similar processes; and
  - there is no dominant tendency to make the road authority conditions either compulsory on the permit or not.
- On roads under local authority control: Consideration of access management consequences by the local authority is discretionary, and actual practice varies.

The key differences in approach between jurisdictions and cases lie in whether or not the development consent authority is required to consider access management consequences, and whether or not any conditions imposed by the road controlling authority are obliged to be included in the development permit.

4.1.7 Access Management Tools

While there is a broad similarity between the various jurisdictions in the way in which planning processes operate for access management, there is diversity in the engineering measures that are used from place to place (as described in Section 9). There seem to be clear opportunities for comparing practice and experience with some of these techniques.

4.1.8 Guidelines and Other Documentation

Guidelines currently in use fall into two broad categories: road-based standards, and land use or subdivision planning guidelines. The Transit New Zealand *Planning Policy Manual* seems to be the most comprehensive example the former.

4.1.9 Access Management and Specific Road Users

There have been few conceptual or practical developments in Australia or New Zealand to exploit the potential synergy between access management and the needs of buses, cyclists and pedestrians. In most instances, the impact of access points on these specific road users (and vice versa) is considered on a case-by-case basis as part of the traffic impact assessment, if at all. Management of these access points and their impacts can usually be expected to result in benefits to buses, pedestrians and cyclists.

4.1.10 Special Cases

Freeway service centres were specifically mentioned as special cases by several respondents. Standards and practices vary on the spacing and design of these facilities.

4.1.11 Benefits of Access Management

It appears that no agency has its own empirical evidence of the benefits of access management, and that in general most agencies rely on a broad acceptance of evidence and experience elsewhere.

4.1.12 Costs of Access Management

Based on the responses to hand, the routine costs of administering access management on State roads in Australia and New Zealand total of the order of A$5-10 million per year. The total local government resources consumed in access management matters could be of the same order as in the State Road Authorities. This suggests that the cost of administering access management in both levels of government is of the order of A$10-20 million each year. The panel was divided on the question of whether or not there was evidence that access management can lead to real economic or financial loss to individuals. There appears to be an awareness that access management results in a net gain to the community; the savings in accident costs alone far outweighs the costs of access management, without including other savings such as congestion and benefits to bus operation, cycling and pedestrian movement.

4.1.13 Compensation

There is no uniformity between jurisdictions or when and how compensation is paid for loss or change of access. This survey was not able to explore the implications of these wide variations in compensation practice between jurisdictions. Clearly, the different legal contexts and practices in each place have a major influence, and no general conclusions can be drawn.

4.1.14 Imminent Changes

There are reported changes in policy, legislation or practice currently under way or being considered, either politically or technically. If carried through, these changes would in some cases bring about advances in integrated planning at the local level.

4.1.15 Perceptions of Practitioners

The respondents indicated a general satisfaction with present arrangements—but there is some concern about their implementation. Land use planners tended to think that technical requirements ‘usually’ over-ride other considerations. On the other hand, there is a minority feeling that safety and efficiency are ‘often compromised’ in access decisions. By far the dominant view, however, was that a ‘fair balance’ is usually struck between technical and other considerations. Despite the generally positive responses, there is a hint of an undercurrent of pessimism among practitioners about the effectiveness and durability of their access management work in the face of political realities.

4.2 Conclusions

4.2.1 Commonalities and Differences in the Access Management Process

The mechanisms and opportunities for access management practice in Australia and New Zealand follow a broadly common model, applying to—

- Enabling legislation;
- Provision for ‘limited access roads’ or similar;

- Management and planning techniques available to road authorities;
- Local councils as the responsible planning bodies;
- Designation of road types in legislation and planning schemes;
- Road authorities as planning application referral bodies; and
- Appeals rights.

The main variations in practice lie in the following areas:
- Whether or not there is an agreed or statutory road classification system that reflects at least the permitted levels or types of access.
- Opportunities for road authorities to incorporate access requirements into road provisions in planning schemes and other instruments.
- Whether or not the road authority requirements are mandatory inclusions in the development consent decision and imposed conditions.
- The availability of documentation that sets down the rationale, processes and technical requirements for access management.
- The degree of integration between road authority policies and requirements, and more broadly-based land use and development policies.

4.2.2 Benchmark Practices

Some key elements that are already in place in at least one jurisdiction may offer models or suggestions for changes in other jurisdictions, in the following areas:
- Policy that specifies access management intentions and purpose.
- Legislation that implements policy.
- Access policy and specific decisions that are part of an integrated planning process.
- Consistent approach to access management on all roads functioning as arterials, whether State roads or not.
- The State Road Authority has power of determination on higher-order roads.
- Incorporation of access management requirements into planning schemes.
- Definition of a road hierarchy with corresponding access conditions.
- Special category of ‘limited access roads’.
- Preparation of corridor plans to designate permitted points of access.
- Documented and agreed standards for access location and design.
- Right of referral.
- The State Road Authority can delegate much of the routine decision-making.
- A cooperative rather than adversarial process (between road and land use planning professionals, and between agencies.

4.2.3 Integrated Planning

It is clear that a holistic and integrated approach is regarded as necessary by participants in the access management process, and is the intention (with varying degrees of implementation so far) of most planning systems in place in Australia and New Zealand. Adequate integrated planning in which access management plays a part—
- Helps to avoid many problems created by ad hoc access conditions,
- Promotes appropriate land use patterns and road-land relationships, including proper location of high traffic-generating developments,
- Provides greater certainty to all participants,

- Balances access provision with road safety, amenity, efficiency and infrastructure investment,
- Caters for 'transitions' (rural to urban, conversion from residential to commercial, redevelopment of sites) and makes provision for anticipated needs (service roads, car parking etc), and
- Accommodates provisions, now or in the future, for amenity measures such as noise barriers, and planning for public transport access, cycling and pedestrian movement.

4.2.4 Perceived Improvements

While road authority and planning agency staff tended to have different views about whether or not present controls needed to be tightened, none thought they should be loosened. The participants clearly saw a need to increase the information available to practitioners and to the wider community, in order to—

- Provide an accepted rationale for access management and stress its importance;
- Provide input into the land use-transport planning process at the macro-level; and
- Provide guidance on detailed engineering, design and other matters.

The study also suggests that improvements could be considered in the following areas:

- Specific legislation and policy that affirm access management alongside contemporary planning policies promoting 'new urbanism' and urban villages – and development techniques that support these policies.
- Legislation also needs to clearly define—
  - the access management powers of state and local agencies, and rights of referral to the SRA;
  - powers to introduce access management in already-developed areas; and
  - powers and penalties in the case on non-conformance.
- Staff resources: Access management is generally under-resourced in the road authorities, and impositions such as attending to this survey are clearly difficult for some to find time to deal with.
- Procedures that reduce the costs of administering access management while not reducing the present level of planning control and technical input.
- Ways to 'set the rules' up front, within the overall objectives of the road agency, and allow local road agency staff and the planning consent authorities to operate with delegated powers to approve access arrangements within those agreed rules.

  Care is needed to identify those cases where delegation of the access decision may not be appropriate, e.g. in unusual or 'non-conforming' cases, or where there is not adequate guidance available.
- Identify those primary arterials whose access arrangements need to remain under the direct planning control of the State Road Authority, utilising such mechanisms as the 'limited access roads' that apply in some jurisdictions.

4.2.5 Cost Reduction

Costs of the order of $10-20 million per annum to administer access management in Australia and New Zealand cannot be considered excessive in view of the large potential costs savings it brings. In fact, there seems to be a good case to increase rather than decrease the allocation to access management implementation. There may, however, be opportunities to reduce the unit (or per case) costs.

Reduction in the unit costs of administering access management requires a simplification of the decision making process and reduction in the amount of time spent on objections and appeals. Delegation to local government or other agencies would merely shift the administration cost burden, not reduce it. Whether administered by state or local government, the costs of access management seem likely to be reduced if there were greater certainty for government and land owners. This calls for appropriate planning (of land and road characteristics), to create clear rules and expectations for all players. The improvements identified in the review generally support this objective, although it must be noted that quality planning, including the preparation of guidelines etc, itself has substantial cost implications.

4.3 For Consideration

Guidelines and technical policy
It is doubtful that a useful detailed policy regarding access planning could be prepared that would be acceptable across the Austroads member agencies. However, there are indicators in the existing materials of the basic engineering parameters that could be specified for safety and operational reasons. A *Guide to Traffic Engineering Practice* on the traffic aspects of the location and design of access points, including intersection and junction spacing, could be considered. Such a document could include whatever road planning and design criteria are deemed appropriate to maximize safety and convenience of pedestrian, cycle and bus movement. (Austroads Publication AP-R163 offers a possible model framework for the development of access management guidelines in a given jurisdiction.)

Identifying roads most needing access management
Access arrangements for higher-order roads are of major interest to State Road Authorities. Consideration could be given to ways in which influence over access to these roads can be exercised, utilising such mechanisms as the 'limited access road', where such provisions do not already exist.

Evidence of benefits
There may be a case for compiling data on the benefits of access management policies and tools, for use by Austroads Members. This would provide greater confidence and a rationale in applying access management in the policy and planning arenas. Concern about the effects of specific access constraints or measures in certain situations, and claims of adverse affection, may also be reduced if there were a clearer picture of experiences with those measures.

Unit cost reduction
The benchmark practices noted in the report identify practices already in place that should help to increase certainty by setting the rules and context for access management in advance. If increased costs are not merely to be transferred onto the local authority or planning consent body, and access management intentions are to be protected through the process, delegation needs to be accompanied by agreed rules and plans, both for specific locations and for general requirements.

Greater certainty
On the outcomes side, the costs of access management seem likely to be reduced if there were greater certainty for government and land owners. This calls for appropriate planning (of land and road characteristics), to create clear rules and expectations for all players in terms of the status of each road boundary and any requirements for the location and design of points of access.

Benchmark practices
Consideration could be given, in each jurisdiction, to the extent to which the recorded 'benchmark practices' (3.3) might be applied.

Process and practice
The skills of those involved in access management, and the information and personnel resources they utilise, seem worthy of attention. Practitioners appear to believe that improvements to the details of the *implementation* of access management, and the skills and knowledge-base of those engaged in it, are more in need of attention than are the *processes* for access management. 'How' it is done seems more important than 'who' does it.

Greater emphasis in planning processes
The vulnerability of access management arrangements to arbitrary decisions (at all levels) is widely-recognised by practitioners. Procedures and precedents that give access management requirements a higher status in decision making are indicated.

Information about access management

Wider availability of information about access management to practitioners and to the wider community would—

- Provide an accepted rationale for access management and stress its importance;
- Provide input into the land use-transport planning process at the macro-level; and
- Provide guidance on detailed engineering, design and other matters.

Access management techniques

Use of the various planning and traffic management tools for access management varies between jurisdictions. It would be useful to develop a mechanism or documentation that would compare practice and experience with these techniques between jurisdictions.

Photo: Andrew O'Brien

Medians and controls on driveway spacings are used to limit turns on higher-speed roads.

PART B: THE SURVEY IN MORE DETAIL

5. REVIEWING AUSTRALIAN AND NEW ZEALAND PRACTICE

5.1 Survey Methods

The information gathered for this report was obtained from—

- Material to hand;
- Literature scan;
- Documentation offered by road and transport agencies;
- Questionnaire surveys; and
- Direct contact and interviews with individual respondents to supplement the survey returns.

The questionnaire survey was prepared in two stages, and was designed to build on and update the 1994/5 investigations of the Austroads Access Management Working Group. There was also a supplementary stage to confirm the extent to which specific measures are being applied in each jurisdiction.

The first phase of the enquiries sought to update the following factual information gathered in 1995:

- The legal and policy framework for access management.
- The road classification system that relates to access management.
- Responsibilities for access management and control.
- Formal procedures available to guide access management practices:
- How are (or can) access management controls be put in place in planning instruments (zoning plans, corridor management plans, District Plans etc)?
- What is the statutory process for considering the access management requirements of the various parties in the Development Control process?
- Provisions for compensation.

The second category of information concerned what actually happens in practice, perceptions of the adequacy of the processes, and procedures for roads other than the highest category of concern to the Highway Authorities. It also extracted information from all sectors about costs and mooted changes, as follows:

- Processes for implementing the access requirements and intentions of the agency (highway authority, local government body or planning agency etc.).
- Other resources used to assist access management practices and decisions making.
- Resources or practices used to ensure public transport, pedestrian and cyclist needs are considered by access management planning decisions.
- Plans or proposals for changes in practices in each jurisdiction.
- The costs of access management including, if available, unit costs for dealing with individual access applications and planning decisions.
- Compensation practices.

The survey forms were tailored to each respondent and sent by email. Most respondents replied by returning an amended emailed file, while others faxed hand-completed hard copies.

The third contact listed various access management 'tools', and invited the Member Authority contacts to indicate the prevalence of each measure in their jurisdiction.

5.2 Respondents

The information was obtained from selected persons in participating agencies, as follows:

- Contacts nominated from each of the Austroads Member Authorities.
- A person in each jurisdiction's planning authority, where appropriate. (Eight in all. Three of these pointed out that their department was not involved in access management at any level, and thus did not participate in the survey. One other provided information in another form, and one provided combined information with the Member Authority contact.)
- At least one person in local government in most jurisdictions. (13 in all, of whom 7 participated and a further 2 responded with information in another form.)

The persons and organisations that were contacted are listed in Appendix A.

It is important to stress that this is not by any means a 'representative sample', but rather a selection of people who can offer –

(i). the factual information for each jurisdiction, and

(ii). a sample of perspectives reflecting state/local government and planning/transport experience and needs.

In their responses to the second category of questions, the respondents can be regarded as a kind of panel or 'indicator group' who reflect some of the experience and opinion of practitioners involved in access management in state and local government bodies. No more emphasis than that should be placed on their responses.

5.3 Results

Access management practice can be described in two broad categories:

- The policy and legal frameworks within which access management operates, leading to the processes by which it is applied.
- The techniques and resources for access management.

The following summary of practice will deal with these separately, starting with reported policies, legal provisions and responsibilities in the various jurisdictions, and then reviewing the tools, resources and reported costs and benefits of access management.

A summary of the reported current situation in each jurisdiction is included in Appendix J.

Photo: Andrew O'Brien

Access management can create shared access points for traffic-generating land uses.

6. CURRENT ACCESS MANAGEMENT POLICIES AND INTENTIONS

6.1 Stated Policies

Reported specific statements of policy related to access management are summarised in Appendix B, which shows that 'Policy' can be expressed or deduced in several ways:

- Government policy expressed in formal statements of intent.
  There are few cases of specific government statements of policy related to access management (e.g. NSW and—in relation to major roads in the Perth metropolitan area—WA; others, such as Queensland, appear to have the legislative capacity and will to create such statements).
- Government policy expressed or implied in legislation.
  In most jurisdictions, access management policy is expressed by implication in legislation. Of these, Queensland's legislation is among the clearest statements.
- Documented SRA and planning authority policies and procedures (as in New Zealand, Queensland and WA), and/or planning instruments (as in the ACT).
- Policy may also be deduced from processes and requirements set down by the road authorities through their technical guidelines and standards, and (most importantly in practice) from recent decisions made by governments, courts and road authorities. Technical resources are discussed in Section 9 of this report.

In several jurisdictions there are now explicit statements of policy on urban design, sustainable transport and so on that may, by inference and in practice, cut across the intent of access management. This can and does compromise road management where there are not equally specific statements of policy on access management: current visions of preferred urban environments that are reflected in stated government policy, for example, may carry more weight in the planning appeals arena than requirements found only in technical manuals.

A 'hierarchy' of policy affirmations, with formal government statement finding expression successively through legislation and regulations, planning policy, road management policy and documented technical procedures, provides surety and consistency in access management.

6.2 Guiding Principles

Parallel to the published policies of the governments and agencies are the explicit or implicit guiding principles that determine the ways in which the agencies and their staff see their access management roles and responsibilities.

In order to establish some measure of this 'culture' that interprets the official policy, participants were asked to describe their agency's *intentions* in applying access management to frontages on arterials, sub-arterials and other important roads.

The options were:

(i). Through traffic has priority over local access needs on arterials/main roads.
(ii). Ribbon development on arterials/main roads is a problem that should be minimised through planning controls.
(iii). We try to encourage 'active frontages' on arterials/main roads while minimising the negative impacts on passing traffic.
(iv). Local land uses and activities on arterials/main roads have priority over through traffic.
(v). Abutting development on arterials/main roads, with its associated parking and turning movements, helps to create an urban environment and reduce speeds, and so should be encouraged.

All respondents chose one of the first three options, although one local government response indicated that deliberate traffic interference (Option 5) might be appropriate on some 'main roads' under their control. Responses from state planning bodies and some in local government reflected the growing interest in maintaining 'active frontages' to meet contemporary urban design concerns (Option 3). The dominant intention, as interpreted by the State Road Authority and the rest of the local government respondents, is to emphasise through traffic priority on arterials, and to target the problem of ribbon development (Options 1 and 2).

Respondents were then asked what was their agency's *vision* for access management, from the following list:

(i). *Most* roads under their control should desirably have some degree of access management in order to protect safety and efficiency of road use.
(ii). Vehicle access will be restrained, where possible, *only* on those important roads that need it to be in order to protect safety and traffic efficiency.
(iii). Most, if not all, roads should have frontage development, but some may have vehicular access from boundaries other than the frontage.
(iv). Most, if not all, roads may have vehicular access across the boundary with abutting land.
(v). Other.

Significantly, none (even from local government) chose Option 4 from this list. Most opted for a degree of access management as a general rule, again with a strong additional view that this should go hand-in-hand with some form of frontage development (Options 1 and 3). The view that access management should be applied only by exception, where necessary (Option 2), was limited to a minority of local government respondents.

When asked if their agency's approach to access management was to treat it as a land use or traffic management issue, or both, most respondents answered that '*Access management requires careful handling of both land use and traffic conditions to try to meet the necessary requirements of both'*. Only two local government engineers said that their organisation's approach assumed that the proper relationship between a road and abutting land is best achieved through land use planning and development control, and only one saw it solely as a traffic management issue.

These responses indicate clearly that there already is a widespread understanding of the dual land use and traffic aspects of access planning and management. By and large (as reinforced by earlier comments in Section 3.4.1 regarding the roles played by technical inputs in access management compared with community and land use planning inputs), official approaches to access management in Australia and New Zealand avoid an excessively traffic-oriented emphasis. At the same time, there appears to be a general understanding that urban design and local planning objectives need to be tempered by an acknowledgment of the principles of separation of access and circulating traffic from major traffic streams.

7. LEGISLATION AND RESPONSIBILITIES

7.1 Road Designation for Access Management Decision Making

The Queensland Main Roads *Roads Policy Manual* states that:

> 'It is … critical that the full road hierarchy is recognised in the land use planning process. Land use and access management arrangements can then be provided such that both operate to achieve optimum benefits to owners of land and road users.'

Some sort of relationship between access condition and 'road hierarchy' or class is implicit in most Australasian approaches to access management – and explicit in some. The most obvious examples of the latter are found in those jurisdictions that have 'Limited Access Roads' (LARs) or similar legal road categories that formally define and allocate powers to control and manage points of access to and from a road (New Zealand, NSW, Queensland, South Australia and Tasmania). Most State Road Authorities have design and planning rules in some form that guide technical decisions on such things as driveway location and design on different road types. However, other than standards applying to LARs, *there are no examples of legally enforced, hierarchically-related access management standards across a range of road types*. (By comparison, increasing numbers of states in the US have introduced access standards related to functional road hierarchy or 'access category'. These lay down requirements for physical provisions such as intersection and median break spacings, access location and minimum separation, permitted turning movements and so on, for each road category).

Road type, defined more or less hierarchically, does commonly come into play in allocating responsibilities and powers for access management. By inference, this in turn can be expected to correspond to a more intense consideration of access requirements and implications on the higher-order roads. Different planning and management powers and responsibilities apply on different road types, and these are defined differently between jurisdictions. Appendix C summarises the reported distinctions between road types that are relevant to determining the process and responsibilities for making recommendations and final decisions on access conditions. These are not, it should be stressed, necessarily the full lists of 'road classes' in operation in each jurisdiction; they state the coarsest distinctions between road types for the purposes of allocating the various powers and responsibilities.

The terminology may obscure similarities or differences in practice. In each jurisdiction, the distinctions are essentially the same:

- State-controlled roads and others;
- Functional arterial roads and others;
- Access-controlled or not.

Figure 2 presents a generic model of road types for the purposes of discussing access management in the development control process, based on these distinctions between road types and status. Each jurisdiction may have some or all of the possible road types. Note that local ('Non-State') roads in new subdivisions may have local planning controls on the nature of their frontages and driveway locations, for local amenity and pedestrian safety reasons rather than traffic objectives. These are not considered further in this review, other than to note that planning consent authorities may impose such planning conditions on some of the roads under their control as road authorities. Conditions imposed on subdivision roads do not normally involve the State Road Authority (SRA).

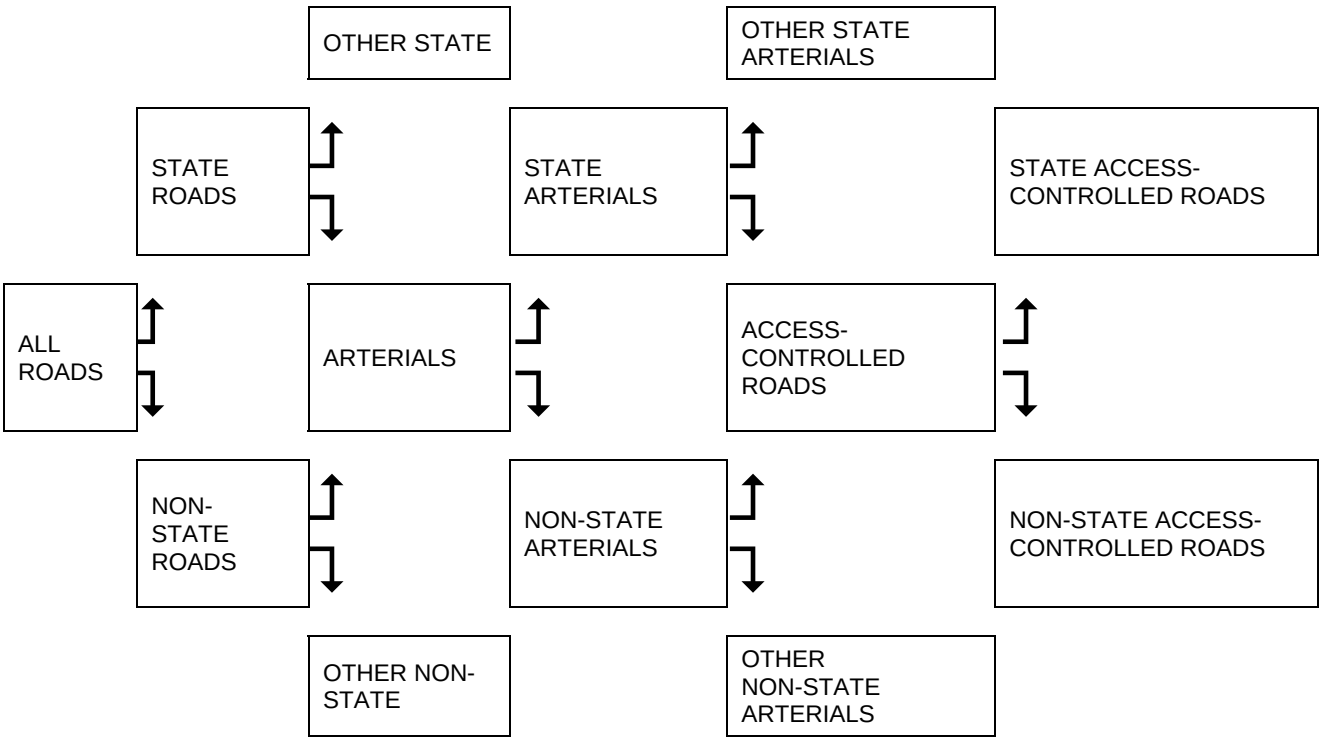

Figure 2 — Models of road classification and hierarchy.

Notes:

'State' refers to declared, gazetted or classified 'State-controlled' roads.
'Arterials' refers to roads that are functionally (if not 'legally') part of the primary or secondary arterial road system.
Non-State roads in new subdivisions may have local planning controls on the nature of their frontages and/or driveway locations, for amenity and safety reasons rather than traffic objectives.

7.2 Legislation Impacting on Access Management Powers and Duties

Key legislation impacting on access management powers and duties in each jurisdiction is listed in Appendix D. Broadly speaking, all jurisdictions have legislation covering road designation, powers and responsibilities of the various road authorities and the process by which development proposals are considered and determined.

7.3 Roles and Responsibilities in Access Management

Appendix E summarises the current roles of the 'state' road authority and local government in each jurisdiction. In various combinations, the legislation describes and gives authorisation to:

- Declaration of roads (specifically, roads under the responsibility of the SRA);
- Power to create freeways/motorways;
- Power to impose access limitations;
- Assessment of the traffic impacts and access requirements of proposed development;
- Development approvals process, including requirements to refer applications to the SRA and/or rights to comment;
- Power to approve or veto a development and/or its access provisions;
- The appeals process and powers of intervention;
- General powers over management of traffic and roads; and
- Controls, permits and standards for driveway construction.

How these various powers apply in each jurisdiction will be discussed more fully in Section 8.

7.3.1 Delegation

When asked if the State Road Authority delegated its access management powers to local government or other bodies, all respondents answered in the negative (except the ACT, where the two-level government structure does not apply). However, there is an increasing trend to allow at least some access decisions to be made by planning consent bodies within the constraints of previously-agreed access plans or decision criteria.

Photo: Andrew O'Brien

Access control strips or buffers can be used to control vehicular access to arterial roads.

8. PROCESS

By definition, the principal determining factor in the level of access management that applies on a particular road is the frequency and type of driveway and road connections to that road. These connections are controlled (or not) chiefly through the planning and development control processes. In the special cases of purchase of rights of access and/or non-traversable buffers, the road authority defines, negotiates and manages the access conditions that are permissible. In all other cases, the matter of access is generally determined by the various development control procedures (*Figure 3*).

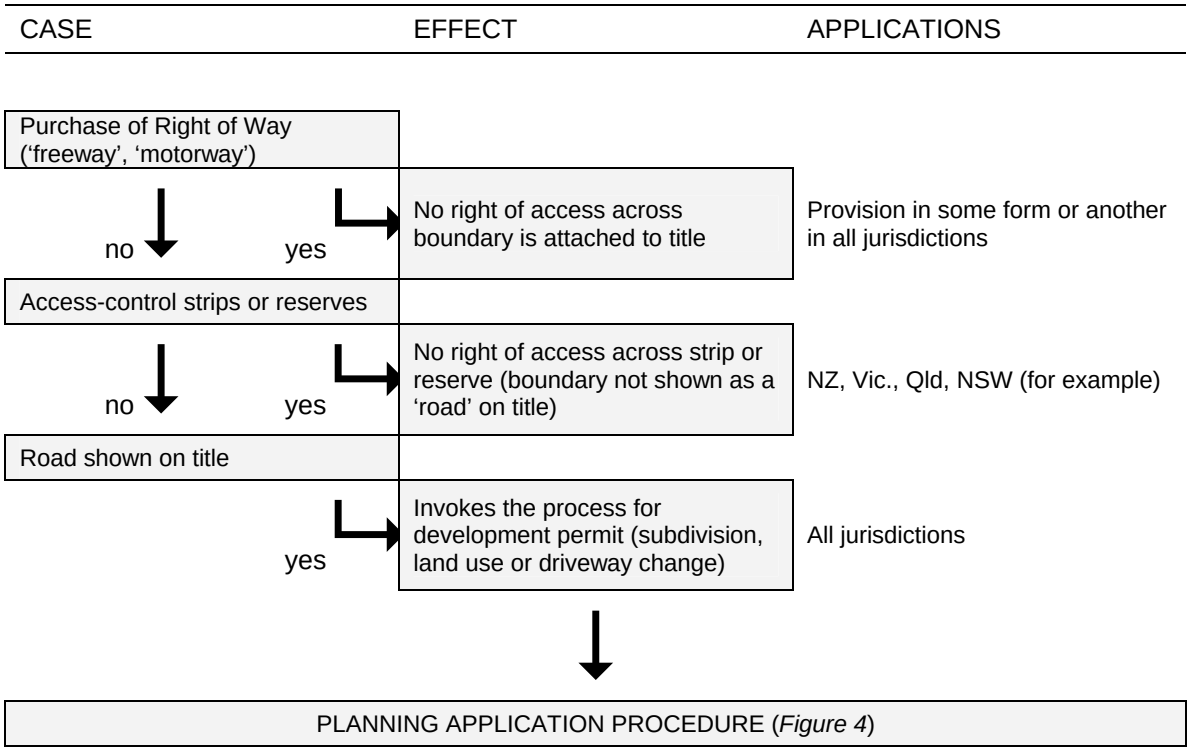

Figure 3 — Models of Right-of-Way Status.

8.1 The Alternative Models of the Access Management Process

The reported development control processes followed in each jurisdiction in relation to decisions on connections to a road are summarised in Appendix J. While there are differences in detail, some significant, there is a broad commonality in the steps that are followed.

In summary, the process followed for access considerations is—

- On designated limited access roads (where applicable): Conditions are determined by the road authority, although the mechanisms to achieve this differ.
- On other state (declared or proclaimed) roads:
  - arterials and non-arterials tend to follow similar processes; and
  - there is no dominant tendency to make the road authority conditions either compulsory on the permit or not.
- On roads under local authority control: Consideration of access management consequences by the local authority is discretionary, and actual practice varies.

	Are RCA Consideration and Conditions mandatory or compulsory?	Means of implementation of the legal powers
A	Access management consideration is MANDATORY on the DCA and the conditions imposed by the RCA are COMPULSORY:	A1 Access conditions are determined and codified by the RCA, and are implicit in the road classification/designation that applies A2 DCA must refer application to the RCA, which applies its own code or standards and imposes compulsory conditions. A3 Access requirements/limitations are specified in previously-agreed planning instruments (access categories, road code, etc) A4 The RCA issues the driveway or access consent.
	– and the access conditions on the development permit are/are not appealable by the applicant.	
B	Access management consideration is MANDATORY on the DCA but the conditions imposed by the RCA are DISCRETIONARY:	B1 The RCA must have the opportunity to comment and state its requirements, but the imposition of these by the DCA is discretionary. B2 Access implications are required to be considered by the DCA, using agreed (discretionary) guidelines; reference to the SRA is not mandatory. B3 Access implications are required to be considered by the DCA. Reference to the SRA is not mandatory. There are no commonly-used guidelines to assist the DCA.
	– and the access decisions by the DCA are /are not appealable by the RCA or applicant.	
C	Access management considerations and conditions are at the DISCRETION of the DCA:	C Access management consideration is discretionary – the DCA is not required specifically to consider access implications or to refer to the RCA or to any codified requirements.
	– and the access decisions by the DCA are/are not appealable by the RCA or applicant.	

Figure 4 — Models of consideration of access implications in the Development Approvals Process

Notes:

SRA: State Road Authority, where 'State' has the general meaning of 'government jurisdiction' (national, state or territory, as applicable).
DCA: Development Consent Authority.
RCA: Road controlling authority. Usually the SRA for State ('declared' or 'proclaimed') roads, or the local government body for other roads.

The key differences in approach between jurisdictions and cases lie in whether or not the development consent authority is *required* to consider access management consequences (meaning the impacts of connections to the abutting road, not just the matter of the number and location of connections in themselves), and whether or not any conditions imposed by the road controlling authority are *obliged* to be included in the development permit. *Figure 4* describes the eight possible process models that arise from these different combination of requirements and powers. In the first group (A), the development consent authority (DCA) must undertake or seek an assessment of the access management consequences of the proposed development, and any conditions that are imposed as a consequence must be adhered to. There are four practical ways in which these legal requirements can be implemented (A1 to A4). In the second group, the DCA is not required to impose the suggested conditions on the permit. There are three practical means by which these powers and requirements can be implemented (B1 to B3). The third case (C) describes those arrangements under which access management considerations and conditions are at the discretion of the DCA.

The Table in Appendix F summarises which of these eight process models is followed in practice in each of the nine jurisdictions, according to road status, following the model of road types defined in *Figure 2*.

Medians across minor junctions can control right turns into and out of local streets.

9. TOOLS OF ACCESS MANAGEMENT

The techniques of access management can be grouped into seven types: frontage controls, driveway controls, local widenings, intersection controls, turn controls, medians and openings, and traffic (including parking) management. The first two of these are, in general, largely controlled through the land use planning and development control process described in the preceding pages.

While there is a broad similarity between the various jurisdictions in the way in which these planning processes operate, there is diversity in the engineering measures that are used from place to place. State Road Authority contacts were asked to indicate the extent to which each of several common management tools (excluding widespread and routine traffic management techniques) was applied in their jurisdiction. Appendix G records the results.

The most widely used access management techniques on State Roads are apparently:

- Controls over the number, location and spacing of driveways through the development control process.
- The setting of minimum distances along a primary road frontage between driveways and intersections.

Application of the following measures is reported to be increasing in several jurisdictions:

- Statutory 'limited access' roads.
- Provision of auxiliary lanes (short added lanes for the purposes of turning at a series of driveways).
- Raised medians, which perhaps surprisingly are not yet 'common' in every jurisdiction.
- Service roads (connected to the left through lane or to subdivisional streets).
- Controlling driveways through the development control process.
- Shared driveways.
- Separate turning lanes as a condition of permits.

There are many interesting divergences in practice on State Roads suggested in the table. Application of some measures is reported to be declining in some jurisdictions, while on the increase in others:

- No-access strips or buffer areas are generally less used than previously, although one jurisdiction reports an increase in this technique.
- One jurisdiction commonly negotiates to purchase access rights, and reports to be increasing this method. But this is rare in other jurisdictions.
- One jurisdiction commonly sets limits on future traffic volumes using a driveway as part of the permit process; the others rarely, if ever, do so.
- Only one jurisdiction commonly sets controls on driveway spacing, and is increasing the use of this technique, while this is not widely applied elsewhere.
- Application of painted (crossable) medians varies widely; these are common in two of the jurisdictions (one of which anticipates even more use of the technique in the future), used sometimes in two others (one of which is reducing its use of this technique), and rare or not used in the remaining jurisdictions.
- Continuous opposed right turn lanes are not common anywhere, but are used sometimes in half of the jurisdictions that replied. Of these, one reports an increase in use, another reports a decrease.

It would be useful to compare practice and experience with some of these techniques between jurisdictions.

10. RESOURCES FOR ACCESS MANAGEMENT

10.1 Standards and Guides to Practice

Documentation reported to be used in each jurisdiction is noted in the summaries in Appendix J

The following specific guidelines and standards are in current use for the location and nature of access points on roads in the various jurisdictions:

- Transit NZ Planning Policy Manual
- The Western Australia Planning Commission Policy on Regional Roads (Vehicular Access) DC 5.1 (for application in the Perth Metropolitan area).
- Queensland Department of Main Roads Road Policy Manual – Access.
- RTA Guidelines for Traffic Generating Development. (Used in several States, and recognised in the NSW Land and Environment Court).
- Development on Arterial Roads—Metropolitan Adelaide. Planning SA Planning Bulletin, 2001.
- Road Access Management Policy and Guidelines, Prepared by Pak-Poy Lange Pty Ltd and revised by the Northern Territory's (former) Department of Transport and Works Transport Division (June 1991).
- ACT Guidelines for Engineering and Environmental Practices.
- Residential planning codes and policies, such as *Liveable Neighbourhoods* in WA; ACT *Code for Residential Development*, and *Queensland Streets.*
- In-house engineering manuals and policies, such as VicRoads' Draft Statutory Planning Guidelines, which contain a chapter on 'Access Control'.
- Towards Safer Roads in Developing Countries (TRL)

In summary, guidelines currently in use fall into two broad categories: road-based standards, and land use or subdivision planning guidelines.

Liveable Neighbourhoods (WA) is an example of the latter. It specifies street types in terms of traffic issues and access arrangements, and encourages development to front arterial routes and neighbourhood connector streets, rather than back on them. Conflict with access management intentions appears not to be canvassed.

In addition, there are guidelines for developers in preparation in the Northern Territory. Various in-house procedural and design guidelines are in operation in some state and local government offices, and there is widespread use of Austroads and Australian Standards documents dealing with intersection and access design. In some cases, access design and location is specified in local planning schemes or other instruments, and other local government respondents referred to reliance on 'common local government practice'.

Other planning and design considerations sometimes impinge on access management considerations, or have implications for access decisions. Among these, the panel reported:

- Planning scheme requirements, local planning standards etc.
- Planning policy on service stations and other traffic-oriented sites.
- Driveway location and design policies and guides.
- Location and design of noise barriers.
- Council environmental, heritage and other guidelines.
- Disabilities Discrimination Act requirements.
- Road corridor management policies and guidelines (including deterrents to ribbon development).
- Traffic engineering and design requirements, especially sight line standards and requirements.
- Broader aspects of the various residential planning codes and policies, mentioned above.

There appears to be little commonality in coverage and detail between these documents. A set of standardised parameters and technical dimensions has yet to emerge.

10.2 Accommodating Pedestrians, Cyclists and Buses.

Experience has shown that access management supports safe and convenient travel on foot, bike or by bus, rather than militates against it as is sometimes claimed. Access management tends to limit left-lane parking and the number of driveways and minor intersections. It thus reduces interruptions in the left lane for buses, and also reduces the number of dangerous conflict points for cyclists and pedestrians (Brindle 1995). Appendix H summarises some of the observed impacts of various frontage types on specific road users.

Only one state (Queensland) and a small number of local government authorities report having specific policies, guidelines or information on the effects of abutting development and access on buses, cyclists and/or pedestrians. The Queensland guide *Shaping Up* (Department of Transport 1999) promotes land use patterns to suit these modes, and physical arrangements to provide for them. In new subdivision development, access restraint is promoted on higher order local roads (generally all roads over 3000-5000 veh/d in residential areas), principally for driveway safety and residential amenity. This is providing opportunities for pedestrian and bicycle paths with minimal driveway interruption along these higher order local roads, and which connect to bus stops and local facilities. This approach is being promoted in new planning schemes, with varying levels of application.

In most other instances, the impact of access points on these specific road users (and vice versa) is considered on a case-by-case basis as part of the traffic impact assessment, if at all. Access management is thus a secondary consequence of perceived difficulties for these road users caused by proposed access points.

Enquiries on this matter opened up the difference (and relationship) between ‘access’ and ‘accessibility’. For example, Western Australia reports that ‘access’ matters are considered at the structure plan stage. The policies said to be applied for that purpose (including WAPC *Policy Bicycle Planning* (D.C 1.5) and *Policy Planning to Enhance Public Transport Use* (D.C 1.6)) in fact refer to the need to maximise *accessibility* by rail and other public transport to urban activities, and to facilitate safe pedestrian and cycle access to public transport nodes and facilities around them. These are important matters, but do not directly relate to the interaction between access traffic and pedestrians, cyclists or buses.

It thus appears that there have been few guides or practices in Australia or New Zealand that acknowledge or exploit overtly the potential synergy between access management and the needs of buses, cyclists and pedestrians. However, there have been benefits to these modes arising from the various development codes and practices, to the extent that they promote careful consideration of vehicular access. Care needs to be taken with ‘active frontages’ if these are likely to create greater conflict between parked or turning vehicles and other road users.

10.3 Special Cases: Freeway/Motorway Service Centres

Freeway service centres were specifically mentioned by several jurisdictions. These are sites having direct (ramp) access from a freeway/motorway or other road with high levels of access limitation, which provide fuel, food and other services to travellers. In Western Australia, for example, the *Policy Location and Design of Freeway Service Centres* (August 2001) applies to proposals to establish freeway service centres on land abutting a Primary Regional Road reserve in the Metropolitan Region Scheme or a regional planning scheme where road is planned to be developed to a freeway standard.

Standards and practices vary on the spacing and design of these facilities.

10.4 What is Needed

It is doubtful that a useful detailed policy regarding access planning and design could be prepared that would be acceptable across the Austroads member agencies. However, there are indicators in the existing materials of the basic engineering parameters that could be specified for safety and operational reasons. *A Guide to Traffic Engineering Practice in the location and design of access points, including intersection and junction spacing, could be considered.* Such a document could include whatever design criteria are deemed appropriate to maximize safety and convenience of pedestrian, cycle and bus movement. It could also provide advice on the spacing and design of service centres on restricted-access roads.

Photo: Andrew O'Brien

Service roads to cater for individual property frontages and u-turns are common in some parts of Australia.

11. THE BENEFITS AND COSTS OF ACCESS MANAGEMENT

11.1 Benefits of Access Management

The safety and operational benefits of access management are reported in both general and specific terms in many sources (e.g. TRB 2002). A significant proportion of the estimated $15 billion annual cost of road crashes in Australia alone might be avoided by access management. It is also known that, by protecting the efficiency of a road, access management can defer (if not avoid) the costs of road expansion. Given that considerable resources are consumed in the various agencies in dealing with access matters, and there are some community costs involved in terms of site value and detouring, it is of interest to know what bases the agencies rely upon to demonstrate the specific benefits of access management.

Responses to this review indicated that no agency has its own empirical evidence of the benefits of access management, and that in general most agencies rely on a broad acceptance of evidence and experience elsewhere. State Road Authorities either accept access management as self-evident 'good practice', rely on professional judgement and non-specific knowledge, or have an informed knowledge of experience and data elsewhere.

Those wishing to vary current practice and controls can exploit a lack of specific local evidence to justify controls on access points. As one contributor put it:

> 'Strict access-control on important arterials (particularly new ones and the more heavily-trafficked high-speed rural ones) was [once] accepted without question by the public. Nowadays there is far more willingness by developers to use the political process to try to justify their developments as 'special cases', worthy of receiving direct access. To counter this the responsible authority needs adequate evidence of the benefits of access management, in order to make a convincing case as to why access should not be granted.'

The unevenness of apparent concern about establishing and asserting the benefits of access management may place road and safety authorities at a disadvantage should there be policy debates about the balance of priorities between traffic and other objectives. There may be a case for compiling data on the benefits of access management for use by Austroads Members.

11.2 Costs of Access Management

Offsetting the benefits of access management are the costs it imposes, to the community, to individuals and to the agencies who administer it.

11.2.1 Costs to the Agencies

State authorities report that, annually, dealing with specific access matters can cost from about $300,000 up to nearly $2 million. Based on the responses to hand, the routine costs of administering access management on State roads in Australia and New Zealand total of the order of A$5-10 million per year. Costs to local government range from a few person-days up to several hundred person days per year. Individual cases are reported to consume from 2 hours to 5 person-days each. If this pattern is repeated across urban Australia alone, the total local government resources consumed in access management matters could be of the same order as in the State Road Authorities.

This suggests that the costs of administering access management in both levels of government is of the order of A$10-20 million each year, or only about one tenth of one percent of total accident costs alone.

11.2.2 Costs to the Community

The panel was divided on the question of whether or not there was evidence that access management can lead to real economic or financial loss. About a third of the respondents did not know one way or the other. The burden of such loss, if any, is thought to fall on commercial sites rather than residential sites. Most thought that economic loss is 'rarely' incurred by residential landowners or the community as a whole, if at all, but some (a minority) thought that commercial enterprises 'often' or 'usually' suffered some sort of economic or financial loss.

Claims of general community costs such as extra travel distance, delays and detriment to urban design values are as yet unsubstantiated, and in any case appear to be related to the detail of how access is managed rather than the management of access per se. Once safety and efficiency are included, however, the outcome is expected to be a net benefit rather than cost to the community.

Together, these opinions seem to suggest that individual (usually commercial) losses are offset by community gains. This leads to the matter of compensation.

11.2.3 Compensation Costs

Given that the net community benefits of access management are expected to be positive, compensation is, in theory, simply a mechanism by which genuine individual loss is partly offset against community gain for the public good. However, 'losses' are related to legislated property rights rather than just the expectations or plans of the landowner, and a particular access requirement in itself is not a basis for compensation. At the same time, access management is a means to remove some of the detriment caused to the serviceability of a public asset for private gain. Reduction of this ability to exploit the public asset to its detriment does not of itself provide a basis for compensation. In those cases where compensation is payable, it becomes a part of the costs of access management.

Where payable, the usual basis of compensation is the calculation of loss of value of the land as a result of the access restriction. In some jurisdictions, the estimated extra travel costs caused by the change in access may be added to the compensation claimed.

Appendix I lists the reported current legislative provisions for compensation. There is no uniformity between jurisdictions on whether compensation is payable in various types of case or not, although it can be concluded that the law does not recognise a general right to obtain access directly from passing traffic lanes, and there is not normally an expectation that compensation is payable when works or other controls prevent direct access to a site from a given traffic stream. This survey was not able to explore the implications of these wide variations in compensation practice between jurisdictions. Clearly, the different legal contexts and practices in each place have a major influence, and no general conclusions can be drawn.

It may be useful to investigate the possibility of producing common materials that lay down broad access management practices and their likely consequences for the individual site owners and the general community, as a way to remove some of the uncertainty (and thus the amounts sought) in compensation claims.

12. CHANGES IN ACCESS MANAGEMENT PROCEDURES

Since the 1995 review, there have been substantial changes in policy, legislation and practice in Queensland, and some changes in policy and/or legislation in NSW, Victoria, WA and Tasmania. In addition, the process has been clarified in Victoria through the introduction of the 'New Format Planning Schemes'. No substantial changes were reported in other jurisdictions.

There are reported changes in policy, legislation or practice currently under way or being considered, either politically or technically, as follows:

Tasmania:	Introduction of road schedules into planning schemes; legislative changes to clarify process.
New Zealand:	Considering differentiating between requirements on LARs according to their traffic volume. Legislation is under review.
Northern Territory:	Developer guidelines as an incorporated document in planning process. Reviewing Control of Roads Act (outdated) Increased emphasis on AM in documentation for developers (LG)
Victoria:	Access categories being trialled (VicRoads) Increased emphasis on AM in documentation for developers (LG)
Western Australia:	The DPI is in process of developing of Transport Impact Assessment Guidelines for future developments, including proposed access arrangements.
Queensland, ACT, South Australia, NSW:	No changes currently under consideration.

If carried through, these changes would in some cases bring about advances in integrated planning at the local level.

Photo: Andrew O'Brien

Medians control where right turns and U-turns can occur.

DEFINITIONS

There is no standard terminology for use in discussions on access management. Common technical, planning and land title terms may have different connotations, and sometimes quite different meanings, from place to place. The following definitions, as used in this report, are based on the most widespread definitions in practice, and may not have the precise legal meaning prevailing in a given jurisdiction.

Abutting site, land or development	A site, land or development sharing a boundary with the road, or having an access easement to it.
Access control	The prevention or limitation of vehicular (and sometimes non-vehicular) access to a site across a specific boundary. It is a tool of access management, but not the only one nor is it always part of access management.
Access management plan	A plan for an area or length of road that shows (among other things) the locations of permitted connections to a road, either at intersections or at specified driveway locations. By inference, access at other locations within the scope of the plan would not be permitted.
Access (point)	A legal point of property access on a site boundary. This may be at the point of *connection* to the through carriageway, or to another road such as a service road or a road on another boundary.
Access works	A physical means of entry or exit for traffic between land and a road; or the physical provisions for connecting an access point to the through carriageway (e.g. driveway; acceleration or deceleration lane; other lane or track). (As used in Queensland, for example.)
Arterial roads	Those roads catering for the majority of non-local movements, on which capacity and economy of movement are of importance and will generally have precedence over access needs. How this is defined or decided is a transport and land use planning decision, reflecting community needs and priorities. The definition is essentially functional, not descriptive (i.e. a road is not necessarily an arterial just because it has a particular physical form, nor do all arterials look the same). The terms *arterial* and *traffic route* are used interchangeably in this Report. It is clear that this definition includes roads which may be a local government responsibility.
Back-up lots	Abutting development oriented away from the road, with vehicular access to an alternative boundary, and with no vehicular (and usually no pedestrian) access to the road. Usually, but not necessarily, there is a continuous walled or fenced boundary to the arterial, with or without intervening landscaping.
Connection	Any location where vehicles may enter or leave the through carriageway, at driveways or road *intersections* (including minor cross intersections or T junctions, *frontage road* entries or exits, *driveways* or private entries constructed as junctions). Not necessarily the same as an *Access point*.
Contiguous street	A s*ubdivision street* (i.e. a road in a plan of subdivision) functionally adjacent and parallel to the through carriageway.
Controlled intersection	An intersection with signals or a roundabout.
DCA	Development Consent Authority

DCP	Development Control Plan (NSW)
Development	All property change, including subdivision and change in zoning, use or intensity of use.
Directional connection	A *connection* (or *access point*) where some turns are prohibited or prevented (e.g. left in–left out minor street junction).
Driveway	Vehicular entry to or exit from private property, including commercial and institutional sites, not constructed as an *intersecting road*.
Entry	A *connection* at which vehicles may leave an adjacent street, site or *frontage road* to enter the through carriageway.
Exit	A *connection* at which vehicles may leave the through carriageway and enter an adjacent street, site or *frontage road*.
Frontage	The boundary to which the use or buildings on a site principally are oriented (not necessarily the boundary from which it gains vehicular access).
Frontage road	*Service road* or *contiguous street* parallel to and adjacent to the main carriageway, which provides frontage access to properties adjacent to the road; functionally, a minor street with one-way or two-way connections to the through carriageway or the minor street system.
Intersecting road (or street)	A road (or street) that terminates at, or crosses, the road in question at an *intersection*.
Intersection	Where two roads meet, forming either a T or cross.
Intersection spacing	The distance between centrelines of successive *intersecting roads*, on the same or alternate sides of the road.
LAR	Limited Access Road (e.g. New Zealand; Tasmania; South Australia; Queensland)
Left-turn connection	A *driveway* to an individual site, frontage road or local street forming a T-*intersection* at which the only possible turns are left-in and/or left-out.
LEP	Local Environment Plan (NSW)
Limited access	A condition under which access or specific turning movements are allowed only under tightly managed controls, and at regulated spacings and/or times of day. (cf. *Restricted Access*.)
Local streets	Roads serving the district through which the primary road passes.
Median break	A gap in a non-traversable median where some or all vehicle turning, merging or intersecting movements are possible.
Restricted access	A condition under which access movements are not permitted or possible. (cf. *Limited Access*.)
RCA	Road Controlling Authority (i.e. body responsible for a road) (New Zealand).
RMA	Resource Management Act (New Zealand)
Road authority	The agency responsible for a given road or part of the network. For all Declared Roads: usually the State Road Authority. For other roads: generally the relevant Council or other agency responsible for administering the road.

Service road	A *frontage road* constructed within the road right-of-way, with entry and exit from the through carriageway or from the minor street system, to provide individual access points to sites fronting an arterial.
Speed change lane	A traffic lane in which vehicles may accelerate or decelerate in order to minimise delay to through traffic (hence 'acceleration lane' and 'deceleration lane').
SRA	'State' Road Authority—the body responsible for the 'declared' road system in each state, territory or New Zealand.
State Road	Generally, a road that is the statutory responsibility of the SRA. Known variously as a 'Declared', 'Classified', 'Gazetted', 'Government' or 'Proclaimed' Road in different jurisdictions.
Subdivision street	A local street constructed as part of the land subdivision process.
Taper	A gradual increase or decrease in lane width.
Through lanes	Traffic lanes used by *through traffic.*
Through traffic	Traffic that is continuing along the road in question.
TLA	Territorial Local Authority (New Zealand)
Traffic route	See *Arterial*
WAPC	Western Australia Planning Commission

REFERENCES AND BIBLIOGRAPHY

AUSTROADS (2000). *A framework for Arterial Road Access Management,* Report AP-R163, prepared by R. Brindle (Austroads, Sydney).

Brindle, R. (1995). Arterial Road Access Management Source Document, *Research Report ARR 271*, ARRB Transport Research Ltd., Vermont South, Vic.

Brindle, R. and others (2000). *Recommendations for the explanation, definition and application of access management categories*. Report by Ray Brindle with Andrew O'Brien and Assocs. and RPD Group, for the Victorian Dept. of Infrastructure, Melbourne.

CUTR (1998). *Ten Ways to Manage Roadway Access in Your Community*, Center for Urban Transportation Research, University of South Florida (www.cutr.eng.usf.edu).

CUTR website: Center for Urban Transport Research at the University of South Florida http://www.cutr.eng.usf.edu/

Department of Transport (1999). *Shaping Up.* A *Guide to the Better Practice and Integration of Transport, Land Use and Urban Design Techniques*. Queensland Government, Brisbane.

Humstone, E. and Campoli, J. (1998). Access management – an overview, *Planning Commissioners' Journal*, Issue 29, Winter 1998.

Oregon State Department of Transportation website: http://www.odot.state.or.us/tdb/planning/access_mgt/
TRB (2002). *Access Management Manual*. (In print)

TRB website: http://www.accessmanagement.gov/

Westerman, H.L. (1998). *Cities for Tomorrow. Better Practice Guide* (Austroads, Sydney).

APPENDIX A: PARTICIPANTS IN THE SURVEY

Survey Panel personnel	Stages sent out		
	Phase 1	Phase 2	AM tools
Member Authority Nominated Contacts:			
Merv Lauder, Transit New Zealand	✳	✳	✳
Phil Margison, RTA NSW	✳	✳	✳
Phil Symons, VicRoads	✳	✳	✳
Julie Mitchell, Main Roads Queensland	✳	✳	✳
Les Zetlein, Transport SA	✳	✳	✳
Denise McIntyre, DIER Tasmania	✳	✳	✳
Paul Trichilo, MR WA	✳	✳	✳
Bob Allison, PALM ACT	✳	✳	✳
Ken Grattan, Road Development Divn., DIPE	✳	✳	✳
Additions to Panel—Planners (other than Local Government):			
Barbara Rouse, Ministry for the Environment NZ		✳	
Jan McCredie, Department of Infrastructure, Planning and Natural Resources		✳	
Paula O'Byrne, DoI Vic		✳	
Peter Syson, Main Roads Qld		✳	
Steve Copus, Planning SA		✳	
Kerry Boden, Executive Officer RPDCTas.		✳	
John Chortis, Dept for Planning & Infrastructure WA		✳	
Jim O'Neill, Lands & Planning Div DIPE NT		✳	
Additions to Panel—Local Government:			
John Hutchings, Local Govt. NZ		✳	
John Delohery, Ashfield CC NSW		✳	
Griff Davis, Whittlesea CC Vic		✳	
Robert Clementi, Brimbank CC Vic		✳	
Rodney Mogg, Brisbane CC		✳	
Sareth Chandra, Logan CC		✳	
Andrew West, Planner, Northern Midlands Council		✳	
Michael Purves, Planner, Waratah Wynyard Council		✳	
Mark Westerway, Town Planner, Launceston CC		✳	
Mark Broadley, Traffic Engineer, Hobart CC		✳	
Chris Thompson, WA Municipal Assocn.		✳	
John Pudney, Darwin CC		✳	
Peter Rufford#, ALGA Canberra		✳	

✳: Invited to contribute to this stage of the survey
: Since departed from ALGA.

APPENDIX B: CURRENT POLICY BASIS FOR ACCESS MANAGEMENT

Jurisdiction	Policy
New Zealand	*Transit NZ Planning Policy Manual:* The objective is to protect the safety and efficiency of the state highway network from the adverse effects of adjacent subdivision and land use activities. (Local Government) will actively discourage ribbon development along proposed or existing State Highways by specific planning strategies and controls. Policies for access (in part): (i) To have all local road intersections and property accesses adjoining State highways located and designed to comply as far as practical with Transit standards. (ii) To declare additional "at risk" sections of State highway as Limited Access Roads (LAR) in terms of the LAR prioritisation model. (iii) To use the provisions of the Resource Management Act (RMA) to protect State highways from inappropriately located developments, and to ensure the adverse effects of adjacent developments are remedied or mitigated.
NSW	Specified with reference to controlled access roads (motorways/expressways). Implied in traffic and safety legislation for other roads. *Section 117 Direction*: Direction G2(xiii) made by the Minister concerns zoning of arterial road frontages in urban areas, with the following objectives: (i) to maximise the efficiency and safety of vehicular and pedestrian movement; (ii) to provide efficient and safe vehicular and pedestrian access to adjoining land; and *(iii) to improve the physical environment of the arterial road by encouraging development which will contribute to an improvement in the level of service of the road.* State Environmental Planning Policy No. 11 (SEPP 11): *Developments greater than a certain size to be referred to Regional or Local Traffic Committee for impact assessment.*
Victoria	Policy on integration of land use and transport planning is contained in the state section (State Planning Policy Framework) of all municipal planning schemes. This generally requires that the planning, siting and design of transport routes, and new uses or development of land, addresses service, safety, accessibility, and environmental objectives in order to achieve the greatest overall benefit to the community. There is no specific statement on access management. Technical policies contained in internal VicRoads guidelines.
Queensland	*Road Policy Manual–Access (Main Roads Queensland):* 'To meet the community's demands for access, where this is consistent with the communities (sic) demands for road safety and transport efficiency.' 'In respect to existing and future State-controlled roads, and access to and from adjacent land and other roads: -Main Roads will influence land use planning through input into Local Government Integrated Planning Act Planning Schemes to minimise the impact of access requirements of the development of land on road networks; -Main Roads will declare roads or sections of roads as 'Limited access' roads consistent with the Department's future planning; -Main Roads will permit access to individual properties in accordance with the Department's road safety and transport efficiency requirements; -The department will require (as appropriate) and/or permit (as appropriate) the construction of road access works within the State-controlled road reserve, and no rights concerning their continued existence, or continued access to a particular traffic stream, will be conferred on the person who constructs such works; and -the owners of the private road access works located at a property boundary are responsible for the provision and ongoing maintenance of that access in accordance with the conditions set by Main Roads.
ACT	Implicit in Territory/ National Capital Plan and road hierarchy definitions in technical Guidelines.
South Australia	No stated policy. Implied policy in Development Plans, which refer to 'safe and convenient access', 'should not cause interference with the free flow of traffic on adjoining roads', 'number, location and design of access points should minimize traffic hazards, queuing on the roads, right turn movements and interference with the functioning of intersections, junctions and traffic control devices' and so on.
Western Australia	*State Planning Commission Policy 5.1 Regional Roads (vehicular access):* To ensure that vehicle access to regional roads and the type of abutting developments is controlled and conforms to sound town planning principles. To improve traffic flow and safety on all regional roads, either new or exiting, by minimising the number of junctions or driveways. By implication, in powers vested in the Commissioner for Main Roads under the Main Roads Act to improve and maintain traffic safety and flow on nominated main roads.
Northern Territory	No explicit policy. Implied in technical manual used by the Road Development Division.
Tasmania	*Operational Policy Statements, Asset Management Branch DIER, March 2002:* The Department's Policy is to work with developers, their representatives and Councils to assess and advise on developments proposed adjacent to the State road network to ensure that there is no adverse impact on the safety, efficiency and operation of the road in the performance of its strategic function. Except in exceptional circumstances, Departmental policy is that no additional accesses should be permitted on limited access roads. Proclamation of limited access is to be progressively implemented on all Category 1, 2 and 3 roads and sections of Category 4 and 5 when considered appropriate

APPENDIX C: ROAD TYPES FOR THE PURPOSES OF ACCESS MANAGEMENT DECISION MAKING

Jurisdiction	Road types or descriptions for Access Management purposes
ACT	All roads
New Zealand	Proclaimed Roads: Motorway Expressways Limited Access Roads Road (Other proclaimed roads). Roads other than Proclaimed Roads:
Northern Territory	NT Government Roads Local Government-controlled roads
NSW	Freeways/tollways Controlled Access Roads Other Classified roads Unclassified roads
Queensland	Motorways Other limited access declared roads Other declared roads Undeclared roads [Local government]
South Australia	Proclaimed Access Controlled Roads Other Primary arterials Secondary arterials Local roads
Tasmania	Limited Access Roads Other Proclaimed Roads Council Roads (i.e. not Proclaimed)
Victoria	Freeways Other Declared Roads under the Transport Act Undeclared Roads zoned as Category 1 in planning schemes. Other Undeclared Roads
Western Australia	Proclaimed Roads Regional Roads (Perth Metro Area) Other Roads.

APPENDIX D: ACTS AND REGULATIONS CONCERNING ACCESS MANAGEMENT

Jurisdiction	Act/Instrument	Scope
ACT	Lands (Planning and Environment) Act	Design and management of highways
	Design and Siting Act	Control of access to highways
	Implementation plans	Control of access
	Territory Plan	Outline and detailed planning
New South Wales	Environmental Planning and Assessment Act –Sec. 79C	
	–Sec. 91	Development approvals process
	Roads Act	Referral body consent
		Intersection approvals
		Controlled access roads
	Local Government Act	Freeways
	Road Transport (Safety and Traffic Management) Act	Access aspects of traffic schemes
		RTA's general powers over traffic
New Zealand	Transit NZ ACT[1]	SRA access control powers
	Resource Management Act	Development approvals process
	Public Works Act and Local Government Act[2] Sec. 346A.	LG access control and and subdivision powers
Northern Territory	Control of Roads Act	Control of access to proclaimed roads
	Local Government Act	Control of access to other roads
	Planning Act	Referrals to 'management bodies'
Queensland	Transport Infrastructure Act	Access not part of devt. applications
	Integrated Planning Act	Development approvals process
South Australia	Highways Act	Gazetting of 'Controlled Access' roads
		Development approvals process
	Development Act	
Tasmania	Roads and Jetties Act	Control of access to proclaimed roads
	Land Use Planning and Approvals Act	Development control process
	Local Government (Highways) Act	Driveways
Victoria	Transport Act	Road declarations; freeways
	Planning and Environment Act	Roads in planning schemes
		Permit requirements for Cat. 1 roads
		Referrals on declared roads
	Local Government Act	Power to declare limited access roads
Western Australia	Main Roads Act	Control of access to proclaimed roads
	Local Government Act	Planning schemes
	State Planning Commission Act	Delegations for development approvals
	Metropolitan Region Scheme	Planning in Perth metropolitan region

[1] Expected to be reviewed 2003
[2] Under review at the time of reporting

APPENDIX E: ROLES AND RESPONSIBILITIES IN ACCESS MANAGEMENT

Jurisdiction	Role of 'state' road authority	Role of local government
ACT	❑ ACT Urban Services (Planning and Land Management (PALM) and Roads ACT) approves and manages all connections to the road system.	
New South Wales	❑ Declaration of Freeways and Controlled Access Roads. ❑ Approval of road connections with State Roads. ❑ Influence access arrangements on other roads through LEPs, DCPs and Traffic Committees.	❑ (Generally) consent authorities for development applications. ❑ Preparation of LEPs.
New Zealand	❑ Road Controlling Authority for State Highways. ❑ Creates and decides access conditions on Motorways and LARs. ❑ Comments and states requirements on development applications on State Highways. ❑ Implements access controls and conditions on State Highways.	❑ Road Controlling Authority for other roads. ❑ Makes decisions on access conditions on development permits. ❑ Implements access controls and conditions on roads other than State Highways.
Northern Territory	❑ Standards and control of access to all Government Roads. ❑ Recommends access requirements for new development applications. ❑ Note: All Town Planning responsibility rests with NT Government.	❑ Determines access conditions for development on Local Government controlled roads. ❑ Local Government has no statutory responsibility for town planning.
Queensland	❑ Declaration and control of Motorways, 'Limited Access' and other State-controlled roads. ❑ Management of access to State-controlled roads, including concurrence powers over developments directly accessing or located near (and likely to affect) State-controlled roads. ❑ Influence land use planning and access arrangements on other roads.	❑ Consent authority for development applications. ❑ Decides and implements access requirements on non-State-Controlled roads that do not affect State-Controlled Roads.
South Australia	❑ Declaration of Freeways and Controlled Access Roads. ❑ Recommends access arrangements and conditions on all arterials. ❑ May issue temporary permits. ❑ Power to construct fences along boundary of controlled-access roads.	❑ Consent authority for development applications and access conditions on arterials. ❑ Full control over access arrangements on other roads.
Tasmania	❑ Administer access control for Category 1 roads under Code in planning schemes. ❑ Assists development consent authority with access conditions on Category 2 roads.	❑ None on State Roads. ❑ Development consent authority for Category 2, 3 and 4 roads. ❑ Access control and permits for 'high' traffic generators.
Victoria	❑ Declaration of Freeways. ❑ Referral authority for development applications on Declared Roads. ❑ Generally accountable for arterial road frontages and traffic operations.	❑ Implementation of access conditions for development applications on Declared Roads. ❑ Decides and implements access requirements on other roads. ❑ May declare limited access roads.
Western Australia	❑ Declaration of Freeways. ❑ Control (not denial) of access to 'important' State Roads. ❑ Referral authority for development applications on certain roads in certain cases.	❑ Consent authority for development applications and access conditions on all roads. ❑ Decisions on access matters on roads other than State Roads.

APPENDIX F: SUMMARY OF THE PROCESS FOLLOWED IN EACH JURISDICTION FOR ACCESS MANAGEMENT ON AT-GRADE ROADS.

The process for considering access implications in the Development Approvals Process in each jurisdiction, using the 'models' as described in *Figure 4* (definitions of categories from which are reproduced below), are as follows.

Road 'sieve'	Road category	Jurisdiction								
		ACT	NSW	NZ	NT	Qld	SA	Tas	Vic	WA
Fully access-controlled roads	Freeway/Motorway	Direct access from adjacent land not permitted, by definition.								
Designated 'limited access' roads	Limited access roads or similar	A(1)	N/A	A(1)	N/A	A(2/3/4)	A(2)	A(4)	N/A	N/A
Other arterials	State (declared/ proclaimed) functional arterials	A(1)	B(1)	B(1)	A(2)	A(2/3/4)	Subdn: A(4) LU: B(1)	B(1) + A(4)	A(2)	A(2) or B(1)*
	Non-State (not declared/ proclaimed) functional arterials	N/A	C	B(3)	C	C	N/A	C	C	C
Other roads	Other State (declared/ proclaimed) roads	A(1)	B(1)	B(1)	A(2)	A(2/3/4)	B(4)	B(1) + A(4)	A(2)	A(2)
	Other non-State (not declared/ proclaimed) roads	N/A	C	C	C	C	C	C	C	C

Codes as in Figure 4 (summarised in table below).
* For 'Regional Roads' in the Perth Metropolitan Region.

	Means of implementation of the legal powers
A	A1 Access conditions are determined and codified by the RCA, and are implicit in the road classification/designation that applies. the conditions imposed by the RCA are COMPULSORY A2 DCA must refer application to the RCA, which applies its own code or standards and imposes compulsory conditions. the conditions imposed by the RCA are COMPULSORY A3 Access requirements/limitations are specified in previously-agreed planning instruments (access categories, road code, etc)and the conditions imposed by the RCA are COMPULSORY A4 The RCA issues the driveway or access consent.
B	B1 The RCA must have the opportunity to comment and state its requirements, but the imposition of these by the DCA is discretionary. B2 Access implications are required to be considered by the DCA, using agreed (discretionary) guidelines; reference to the SRA is not mandatory. B3 Access implications are required to be considered by the DCA. Reference to the SRA is not mandatory. There are no commonly-used guidelines to assist the DCA.
C	C Access management consideration is discretionary – the DCA is not required specifically to consider access implications or to refer to the RCA or to any codified requirements.

Notes:
SRA: State Road Authority, where 'State' has the general meaning of 'government jurisdiction' (national, state or territory, as applicable).
DCA: Development Consent Authority.
RCA: Road controlling authority. Usually the SRA for State ('declared' or 'proclaimed') roads, or the local government body for other roads.

APPENDIX G: REPORTED APPLICATION OF ACCESS MANAGEMENT TECHNIQUES.

As indicated in Section 9, the tools for access management range across seven broad categories: frontage controls, driveway controls, local widenings, intersection controls, turn controls, medians and openings, and traffic (including parking) management.

State Road Authority contacts were asked to indicate the extent to which each of several common management techniques among these categories (other than widespread and routine traffic management techniques, particularly turn controls) was applied in their jurisdiction. The results below are discussed in Section 9 of the Report.

↑ indicates that the techniques is on the increase in one jurisdiction.
↓ indicates that the technique is on the decrease in one jurisdiction.
x indicates the technique is used in one jurisdiction, and is neither on the increase nor decrease.

The column in which the symbol is located indicates whether the application is currently rare, common or neither.

Measure/technique	Road type	Extent of application		
		None/rare	Some	Common
FRONTAGE CONTROLS: Right-of-way not shown as a road on abutting title:- *ROW purchase* (e.g. freeway reserve)	On State roads	xxx	xx	x
	On other roads	xx	x	
Right-of-way not shown as a road on abutting title:- *No-access strip or buffer*	On State roads	↓↓x	↑↓	↓
	On other roads	↓x	↑	
Other *purchase of access rights* by negotiation	On State roads	xx↓	x	↑
	On other roads	xxx		
DRIVEWAY CONTROLS: *'Frontages without vehicular access'* (buildings face road, no driveway access)—other than in 'downtown' or 'Mainstreet' areas	On State roads	xxx	xx↑	
	On other roads	x	x↑	
Statutory *'limited access' roads* (e.g. denial of access from new subdivisions, and strict limitation of driveways from existing sites by 'road controlling authority')	On State roads	x↑	xx	x↑
	On other roads	↑	xx	
Frontage roads: *Service road* connecting to left through lanes	On State roads	x	xx↑↑	x
	On other roads	x	xx	
Frontage road connecting only to side or subdivisional streets.	On State roads		xxx↑↑	↑
	On other roads	xxx	↑↓	
Control over the number, location and spacing of *driveways* through the development control process	On State roads		↑	xxxx↑
	On other roads		↑	x↑
Shared driveways for adjacent or consolidated sites	On State roads		xxx↑	↑x
	On other roads		xxx	
Minimum clearance: distance of driveway from intersection:- —along the primary road	On State roads	x		↑↑xxx
	On other roads	x	↑	↑
—along intersecting road	On State roads	x	xx↑	x↑
	On other roads		xxx	

DRIVEWAY CONTROLS ctd.: Specify *maximum future traffic volume* using the driveway, as a condition of permit	On State roads	XXXXX		X
	On other roads	XXX		
Enforced minimum *spacings of driveways* along the road	On State roads	XXX	XX	↑
	On other roads	X	↑↑	
LOCAL WIDENINGS: Provision of *separated turning lanes* at entry or exit as a condition of development permit	On State roads	↑	X↑	↑XX
	On other roads	X	↑	↑
Provision for *parking bays or lanes clear of through lanes* as a condition of development permit	On State roads	XX	X↑	X↓
	On other roads		XXX	
Provision of *auxiliary (extended) lane* for left turns in and out	On State roads	X	↑↑↑X	↑
	On other roads		XX↑	
INTERSECTION CONTROLS: Enforced minimum *spacings of minor junctions* along the road	On State roads	X	XX	↑XX
	On other roads	X		X
Signalisation (or roundabout) of driveway connection as condition of permit.	On State roads	XX	XXX	X
	On other roads	XXX		
MEDIANS AND OPENINGS: *Raised median* (to control and minimise right turn locations)	On State roads		↑↑↑X	X↑
	On other roads	↑	↑X	
TRAFFIC MANAGEMENT: *Painted median* with permitted turns across	On State roads	XX	↓X	↑X
	On other roads	XX		↑
Continuous *opposed right turn* lanes	On State roads	XXX	X↓↑	
	On other roads	XX	↑	

Note: Six of the nine road authority representatives replied. Not all gave replies for 'Other roads'.

APPENDIX H: EFFECT OF FRONTAGE TYPE ON SPECIFIC ROAD USERS

In the following Table, the overall likely effect of each frontage condition on each road user type is shown by these symbols:

✓✓ Frontage condition strongly supports road use type.
✓ Frontage condition is compatible with road use type, and may provide at least some benefits.
× Condition tends to be incompatible with that road use type, having at least some negative impacts.
×× Condition can create strong disbenefits for that road use type.

Frontage condition	Bus operation	Cyclists	Pedestrians
Direct frontages	×× Parking and left turns (driveways and junctions) can interfere.	× Parking, driveways and minor intersections are all hazards.	× Driveways and minor intersections are hazards. Individual frontages draw pedestrians along arterial roadside.
Frontages to service roads	✓ Left lane generally clear for bus passage and stops. Bus stop location on outer separator sometimes constrained.	✓ Provide choices for cyclists (can use through lanes or service road).	✓✓ Less vulnerability to fast left turns.
Auxiliary lanes	✓✓ Provide for bus stops and accel/decel. clear of through lanes	× Movements into and out of lane seem likely to increase hazards for cyclists. The lane may provide some protection from passing traffic but would be intermittent.	✓ Slower turns in and out probably mean less exposure to risk.
Frontages without vehicular access	✓ Better if parking is on another boundary. Some passengers more convenient to bus stop.	✓✓ Greater convenience and safety from traffic due to fewer driveways.	✓✓ Greater convenience to fronting development. Fewer driveways means greater safety from traffic.
Back-up lots without plantation/buffer strip	✓✓ Bus stops only at local street connections, pedestrian outlets or adjacent to major generators.	✓✓ No separate provision for cyclists. Greater convenience and safety from traffic due to fewer driveways.	✓ Fewer driveways means greater safety from traffic. Unsubstantiated claims of greater risk from assault. Most pedestrian movements on other roads and paths.
Back-up lots with plantation/buffer strip.	✓ Bus stops only at local street connections, pedestrian outlets or adjacent to major generators. Unsubstantiated claims of less security at and around bus stops.	✓✓ Separate cycle tracks can be provided. Greater convenience and safety from traffic due to fewer driveways.	✓ Fewer driveways means greater safety from traffic. Landscaped walkways. Unsubstantiated claims of greater risk from assault and burglary.

Source: Brindle, R. (1995) ARR 271.

APPENDIX I: LEGISLATIVE PROVISIONS FOR COMPENSATION FOR RESTRICTION OR CHANGE OF ACCESS

Jurisdiction	Compensation arrangements
ACT	N/A
NSW	Freeways/Controlled Access Roads: Compensation for existing loss of access under Sections 68 and 69 of the Roads Act where a road is gazetted as a freeway or access-controlled road only. Apparently no provision for compensation for access change elsewhere.
New Zealand	Public Works Act and the TNZ Act provide for compensation in cases of injurious affection. Sec. 98 of the TNZ Act covers compensation on declaration of LARs. Similar provisions under the Local Government Act apply to TLAs.
Northern Territory	No specific arrangements. If acquisition involved, would be considered under Land Acquisition Act. Where no acquisition involved, would be by individual negotiation basis.
Queensland	Transport Infrastructure Act Sections 55,56 & 57 and Main Roads Policy on Access describe the circumstances where compensation is and is not payable.
South Australia	Under the Highways Act, access denial 'without reasonable alternative access' is compensatable. 'Compensation is payable by the Commissioner to any person having any estate or interest in any land abutting a controlled-access road, where they are directly prejudiced by any restriction on the use of the land resulting from the proclamation of the control of access.' Based on difference in market value.
Tasmania	If applied for, compensation is payable under both the Roads and Jetties Act 1935 and the Local Government Highways Act 1982 for acquisition of the common law right of access and for revocation/removal of an access licence (R&J Act) or physical access to a public road.
Victoria	Land Acquisition and Compensation Act 1986 establishes procedures for acquisition and mechanisms for determination of compensation for injurious affection. This could include restrictions on access when a highway becomes a freeway.
Western Australia	Clause 28A Main Roads Act.

APPENDIX J: SUMMARIES OF CURRENT PRACTICE

AUSTRALIAN CAPITAL TERRITORY

Reported situation as at May 2002

Access Management policy
Implicit in Territory/ National Capital Plan and road hierarchy definitions in (Former) NCDC Guidelines. In essence, major traffic distributors do not have access from individual sites.

Legislation:
Lands (Planning and Environment) Act 1991 (Design and management of highways)
Design and Siting Act (Control of access; driveways)
Implementation plans (Control of access)
Territory Plan (Outline and detailed planning)

Road types for the purposes of access management
All road types include specified access conditions.

Access management responsibilities on State Roads
ACT Dept. of Urban Services generally functions as asset manager and makes final decision.

Access management responsibilities on other roads
ACT Dept. of Urban Services generally functions as asset manager and makes final decision.

Planning for access management
ACT government prepares plans for new areas, including road type designation.

Development application process
Roads ACT of the ACT Dept. of Urban Services decides on access arrangements in combination with Planning and Land Management.

Changes under way or being considered
None reported.

Guides, technical policies and other resources
Territory Plan and (former) NCDC Guidelines for Engineering and Environmental Practices.
ACT Code for Residential Development

NEW SOUTH WALES

Reported situation as at May 2002

Access Management policy

Specified with reference to controlled access roads (motorways/expressways). Implied in traffic and safety legislation for other roads.

'Section 117 Direction': Direction G2(xiii) made by the Minister concerns zoning of arterial road frontages in urban areas, with the following objectives:

(i). to maximise the efficiency and safety of vehicular and pedestrian movement;
(ii). to provide efficient and safe vehicular and pedestrian access to adjoining land; and
(iii). to improve the physical environment of the arterial road by encouraging development which will contribute to an improvement in the level of service of the road.

Legislation

Integrated Development Legislation (1998) including *Roads Act* Sec 138 and *EP&A Act* 91:

Roads Act 1993 – S49 gives RTA power to declare a Controlled Access Road; S67 gives power to restrict and locate access to a freeway or controlled access road; gazettal of intersections with other roads (but not access from private property) under Section 67.

Environmental Planning and Assessment Act (1979) Section 79C (replaces Sec. 90) – adequacy of access arrangements and impacts of generated traffic to be assessed for development applications.

Access conditions can be prescribed in Regional Environmental Plans (REPs), Local Environmental Plans (LEPs), and Development Control Plans (DCPs):

Development Control Plans are used to control access to arterial roads. Local Environmental Plans can be used to control access through land use categories.
In addition to these provisions, if a development application for certain traffic generating developments over a certain size (as defined in the policy) is received the consent authority is required to consult with the RTA. This is a consultative procedure only.

State Environmental Planning Policy No. 11 (SEPP 11).
Local Government Act – access implications in traffic management and traffic improvement schemes.
Road Transport (Safety and Traffic Management) Act 1999 – gives RTA general control over traffic movement and parking.

Road types for the purposes of access management

Access management responsibilities and processes for roads other than freeways in NSW are defined by whether or not the road is declared as a Controlled Access Road, and whether it is 'classified' (declared) or not:

- Freeways/tollways
- Controlled Access Roads
- Other Classified roads
- Unclassified roads

All freeways are vested in fee simple in the RTA.
Controlled Access Roads (which include but are not limited to freeways) have access restricted from adjoining roads and parcels over some or all of their boundaries.

Access management responsibilities on State Roads

- Local government, in consultation with the RTA and Department of Infrastructure, Planning and Natural Resources are responsible for establishing the access characteristics of a road in the DCP and LEP process.

- The Minister for Roads, on the recommendation of the RTA, can declare a road to be a Freeway or Controlled Access Road (under the Roads Act).
- RTA has a concurrence role for development applications affecting State Roads.
- Local government manage parking (other than clearway designation) and delegated traffic management on State Roads.
- RTA defines the functional hierarchy of roads, which is then accepted by councils who administer 'local' and 'regional' roads in that hierarchy. RTA administers all State roads.
- Local government is generally the planning consent authority for development abutting all roads.

Access management responsibilities on other roads
- Councils are consent authorities for other roads, under the EPA Act Sec 90/ Section 79C and SEPP 11 guidelines.
- Councils are required to prepare plans for infrastructure contributions in an area.
- Councils are responsible for parking and traffic management.
- Councils are responsible for preparing Local Environmental Plans.
- RTA has influence through membership of Regional and Local Traffic Committees, and through LEPs and DCPs (under consultation provisions).

Planning for access management
Local government, in consultation with the RTA and Department of Infrastructure, Planning and Natural Resources, are responsible for establishing the access characteristics of a road, via DCPs and LEPs. RTA has consultation rights, and input to LEP and DCP preparation and rezoning processes. When preparing these plans and rezonings, councils are required to consult the RTA, if in the opinion of the council the RTA may be affected by the plan. RTA advice is not binding.

Development application process
Councils are the consent authorities for development on all roads, although bound by EPA Act Section 79C considerations (traffic and safety aspects of access provisions) and SEPP 11 guidelines (traffic generating developments).

State roads: All applications for developments to a State Road, or involving traffic signals, require RTA's concurrence prior to consent being granted. RTA can use Sec. 138 of the Roads Act, DCPs and LEPs to control connections with classified roads, hence to influence planning decisions and definition of road hierarchy.

Where direct access is sought, the RTA enters into negotiations with the developer at the Development Approval stage when developments on arterial roads are referred to the RTA for comment and conditioning. Under the Roads Act 1993 in NSW the RTA has the authority under S.138(2) to determine whether a new development will be allowed direct access to a classified road. If access is available off an adjoining local road then the RTA will not give its permission for direct access to the arterial road. If direct access is required then the RTA holds the developer responsible for traffic management works required to maintain existing levels of service and safety.

Changes under way or being considered
None reported

Guides, technical policies and other resources
RTA *Guide to Traffic Generating Developments.* (Recognised by Land and Environment Court).
State Environmental Planning Policy 11 Guidelines.
Council parking control plans.

NEW ZEALAND

Reported situation as at May 2002

Statutory And Policy Context

Current policy is expressed in the Transit *Planning Policy Manual*, which states that the objective is 'to protect the safety and efficiency of the state highway network from the adverse effects of adjacent subdivision and land use activities'. Local government is required to actively discourage ribbon development along State Highways, through local plans and development control.

Transit NZ Act (1989) permits Motorways and Limited Access Roads (LARs), and empowers Transit as the responsible body for the State Highway (proclaimed) road system.
Resource Management Act (1991) sets out the planning and development control process, and requires it to consider the effects of planning proposals.
Public Works Act covers Council administration of local roads, including Limited Access provisions, controls on subdivisions, and land uses.
Local Government Act: Local Roads. Section 346A deals with Limited Access Road provisions for 'Territorial Local Authorities' (TLAs).

The *Local Government Act* is currently being reviewed. The *Transit NZ Act* is planned for review during 2003.

Road Types Adopted For The Purposes Of Access Management

Motorway: Full purchase of access rights. Motorways are not 'public roads' with attendant common law rights of passage. They are confined to being 'corridors for regulated motor vehicle use'; i.e., they fulfil a more limited function compared to roads as defined in New Zealand law, and specifically do not bestow any right of access to abutting land.

Expressway: A non-statutory term used to describe a highway which generally has well-spaced at grade intersections and carries higher-speed traffic. In relation to access control, it lies between a motorway and a limited access road. Direct property access to an expressway is prevented through the use of segregation strips (narrow strips not classed as a 'road', to be held in public ownership, that are created on the road boundary during property negotiations).

Limited Access Road (LAR): May be created under either the *Transit NZ Act* (by Transit) or the *Public Works Act* (by TLAs – rare). Allows the Road Controlling Authority (RCA – Transit or TLA) to limit the number and location of points of access to the LAR, and to encourage the use of alternative boundaries for access. LARs are not classed as roads for the purpose of subdivision, unless the RCA agrees.

Access Management Responsibilities On State Roads

Transit NZ has statutory responsibility for the State Highway system, which comprises 12% of the public road system. Less than 1% of the road system is owned by other organisations such as Dept of Conservation, Trusts etc. Local government (TLAs) is responsible for the rest of the road system.

Transit makes the rules and decisions in the case of Motorways and LARs, including access control strips.

Transit implements controls on other State Highways, and is involved in the development control process as an 'abutting land owner'. Transit set requirements that form the basis of its comments on planning/resource consent applications. On LARs, Transit may opt to leave it to the local authority. Transit is responsible for traffic management on State Highways.

Access Management Responsibilities On Other Roads
TLAs (through District Plans) are Road Controlling Authorities. TLAs set rules on roads other than highways, as roading authorities; and make decisions as planning authorities via District Plans under the Resource Management Act.
Planning for access management
Planning and notifying the intention of controlling access to a hierarchy of roads is implemented through the District Plan of the Territorial Local Authority.

Declaration of a road as a Limited Access Road effectively prevents further lots with access to the highway. The Road Controlling Authority has the right to control the number and siting of all accesses through a licensing process.

Development Application Process
Subdivision and land development applications are made to the responsible authority (council) under the Resource Management Act (RMA). Decisions and conditions by council are appealable in the Environment Court.

State roads: Transit makes the access rules and decisions in the case of *Motorways and LARs*. Territorial Local Authorities (TLAs) have a say for non-LARs. Transit participates in the RMA submission process for a subdivision or land use application adjoining a State highway that has been declared LAR, but uses the Limited Access Road provisions of the Transit Act to control access points from the approved development rather than lodge an appeal on the resource consent decision. Under the RMA and Transit Act, Transit NZ can negotiate funding contributions for works arising from development adjacent to State Highways.

Other (non-State) roads: The LAs make the rules and decisions. (Note: Most arterials in urban areas are not State Highways.)

Changes Under Way Or Being Considered
Transit is currently exploring access management categories based on functional hierarchy.

Guides, Technical Policies And Other Resources
Transit NZ *Planning Policy Manual* sets down the technical policy and practices for managing access to State Highways, and to ensure that all local road intersections and property accesses adjoining State Highways are located and designed to comply as far as practicable with Transit standards.

Traffic Design Guideline

Land Transport Safety Authority Guidelines:
Guidelines for Visibility at Driveways RTS 6, May 1993.
Road Safety Guidelines for Service Stations TS 13, March 1996.

NORTHERN TERRITORY

Reported situation as at May 2002

Access Management policy

No explicit policy. Implicit in legislation

Legislation:

Control of Roads Act
Local Government Act
Planning Act

Road types for the purposes of access management

- Other NT Government Roads (Freeways, Arterials/Highways, Sub arterials, Distributor, Collector, Local/ access road).
- Local Government-controlled roads.

Roads may be declared as statutory *'limited access' roads* (e.g. denial of access from new subdivisions, and strict limitation of driveways from existing sites by the 'road controlling authority').

Access management responsibilities on State Roads

DIPE Lands and Planning Division acts as the responsible planning authority.

Road Development Division, Department of Infrastructure, Planning and Environment (DIPE RDD):

- Control of standards for access to all NT government roads (including compliance checks on permitted or required works).
- Input to Planning Act process for any new development application.
- Technical advice to other Government department's development applications.

Local government has no planning or access management responsibilities.

Access management responsibilities on other roads

DIPE Lands and Planning Division (LPD) acts as the responsible planning authority.

Local government acts as road controlling authority but has no planning responsibility.

Planning for access management

All Town Planning responsibility rests with NT Government (DIPE Lands and Planning Division). Local Government has no statutory responsibility for town planning.

Development application process

Application for subdivision, development or zoning goes to the Development Consent Authority. The Planning Act provides that the consent authority might be either the Minister for Lands and Planning, or the Planning Authority (DIPE LPD).

DCA then refers it to the Road Authority (RDD for State roads) for comment. Access conditions are then provided back to Planning Authority as part of the development approval process. The location and standard of access is subject to specific Road Authority approval.

For new or modified access to existing developments, applications are made direct to Road Authority.

Currently, access conditions/ criteria are provided to the DCA by RDD for roads under their jurisdiction and these conditions are generally incorporated into the Instrument of Determination.

Access conditions/ criteria are provided to the DCA by LG for roads under their jurisdiction and these conditions are generally incorporated into the Instrument of Determination.

NT Office of Environment and Heritage raises environmental impact issues, e.g. noise protection/access. Generally passed on to the Development Consent Authority as recommendations for incorporation in the Instrument of Determination.

Changes under way or being considered

DIPE is currently preparing Development Guidelines with the intention that the final document will be included as an incorporated document under the planning process.

Additionally, NT is currently reviewing its *Control Of Roads Act* which is based on 1950s legislation, to update provisions including increased powers of Road Authority regarding access management.

Guides, technical policies and other resources

- Austroads guidelines.
- DTW has minimum standards for driveway widths etc. Each development is assessed according to traffic generation. Documentation from other jurisdictions is used, e.g. RTA *Guide to Traffic Generating Developments*.
- *Road Access Management Policy and Guidelines*, Prepared by Pak-Poy Lange Pty Ltd and revised by Dept of Transport and Works Transport Division (June 1991).

QUEENSLAND

Reported situation as at May 2002

Access Management policy

'To meet the community's demands for access, where this is consistent with the communities (sic) demands for road safety and transport efficiency.'

'Main Roads … will continue to influence land use planning authorities, and have appropriate input in and exercise powers associated with land use proposals, to ensure that the detrimental impact on the safety and transport efficiency of State-controlled roads, by land use planning decisions, in terms of access, is minimised.' (Department of Main Roads (DMR) Road Policy Manual: Access)

Legislation:

Transport Infrastructure Act 1994 (TIA) deals with access-related planning, decisions/approval, appeals and compensation relating to individual access issues and development applications involving access decisions. *Integrated Planning Act 1997* (IPA) and related Regulation deals with development approvals under an Integrated Development Assessment System [IDAS]. This process includes access issues where relevant.

> Sections 51-57 of the *Transport Infrastructure Act* provide Main Roads with the power to approve, amend, prohibit, or apply conditions to access arrangements between a State-controlled road and adjacent land. The *Integrated Planning Act* defines which development applications are referred to Main Roads. These include most development applications which involve access to a State-controlled road. Section 40 of the *Transport Infrastructure Act* requires local governments to refer to Main Roads any roadworks or changes to the management of a local government road which would have a significant adverse impact on a State-controlled road or the planning of a State-controlled road.
>
> Section 31 of the *Transport Infrastructure Act* requires all persons to obtain Main Roads' approval before carrying out roadworks on or interfering with a State-controlled road.

Road types for the purposes of access management

- Motorways
- Other 'Limited access roads' under Sections 51-57 of the TIA 1994.
- Other declared roads
- Undeclared roads (managed by local governement)

About 20 per cent of the length of roads in Queensland is State controlled.

Limited Access Roads

The key feature of limited access roads is that a *road-specific* access policy is required to be developed with each declaration of a limited access road. Once declared, all access decisions must be consistent with that access policy.

Access management responsibilities on State Roads

Main Roads policy and responsibilities relate to State-controlled roads. Access between properties and State-controlled roads is only permitted in accordance with conditions set by Main Roads. This is implemented through:

- General control through the land development and works approval processes; or
- Through access decisions on a section of road. This mechanism is facilitated by the ability to make a road a limited access road, which provides a method of establishing a policy about how access to individual properties will be handled.

Previously, Main Roads' development approval processes relied on referral requirements under the TIA. Since late 1997, Main Roads has been operating under the IPA for development approvals. The IPA has its own Referral Regulations.

Local government does not have any powers over access on State-controlled roads

Access management responsibilities on other roads
Local Government has complete control over access management on non-State-controlled roads, except where these accesses are close to State-controlled roads such that they may cause an adverse impact on these roads, in which case Main Roads can make decisions in relation to mitigating the impact (e.g. set access further back).

Planning for access management
Main Roads engages in planning for access management through the following mechanisms:

- Influencing the preparation of land use planning instruments through input into Regional Planning Processes and Local Government Planning Schemes to minimise the impact of access requirements of the development of land on road networks.
- Declaring roads or sections of roads as 'limited access' roads consistent with the Department's future planning.

In this process, Main Roads seeks to rationalise and reduce the number of accesses to State-controlled roads by re-directing access to side roads and/or back roads, and by combining accesses to adjacent properties wherever possible.

Once a road is declared a limited access road, Main Roads will only approve any additional direct access on that section or road, consistent with the policy notified in the Government Gazette.

Main Roads, in cooperation with Local Government, is keen to promote the use of Access Management Plans. These usually cover existing and proposed urban areas and are designed to identify the proposed;

- Form of the state and local road network (including intersection locations along state roads); and
- Road hierarchy (which includes the level of access to each road link),

These are then used to guide public infrastructure investment and set conditions on development applications during the land development process such that over time, the proposed road network (and associated level of access) gradually takes shape.

Access can also be controlled through land title (i.e. rely on trespass law to prohibit access), as follows:

- Land for road corridors can be purchased in fee simple.
- Access Restriction Strips (ARS) can be established in fee simple adjacent to the road.
- Road corridor can be established in a reserve which is not a road reserve (e.g. held in some other government reserve tenure).

Development application process
Local government is usually the development consent authority.

State-controlled roads:

- Under the *Transport Infrastructure Act*, Local government must get written approval from Main Roads to approve a development (or access works) in close proximity to, or on, a State-controlled road. Approval may be subject to conditions.
- Main Roads will permit access to individual properties in accordance with the Department's road safety, transport efficiency, amenity and planning requirements;

- The department will require (as appropriate) and/or permit (as appropriate) the construction of road access works within the State-controlled road reserve, and no rights concerning their continued existence, or continued access to a particular traffic stream, will be conferred on the person who constructs such works; and
- The owners of the private road access works located at a property boundary or in the road reserve are responsible for the provision and ongoing maintenance of that access in accordance with the conditions set by Main Roads. (*Road Policy Manual*)

Road access works can be approved through an Ancillary Work and Encroachment (AWE) permit or separate approval under Section 52 of the TIA. Permits and approvals may be for a finite or indefinite period, and may be specified to lapse when a particular event occurs or ceases to occur.

The Department's requirements for both types of approvals may include restrictions or prohibition in terms of, for example:

- prohibition of access between the State-controlled road and all or a specified part of the land,
- the allowable access to/from the network,
- turning movements onto/off the network,
- the type and number of vehicles using the road access location,
- the times of the day when the access may be used,
- prohibiting use of the access by pedestrians, and
- the standard of construction and maintenance for the means of access.

Where owners of land adjacent to a State-controlled road plan to provide, alter or maintain road access works within the State-controlled road reserve (or if the State-controlled road is a limited access road, road access works on the property in the vicinity of the front property boundary), they are required to contact Main Roads to gain approval as necessary, for such works. The approval may also include conditions as mentioned above.

Other Roads:
Local government acts as the road and land use planning authority, except that Main Roads has a degree of control where the access is near a State-controlled road.

Changes under way or being considered
Amendments to the IPA may affect legislation and policy. Main Roads' powers as an assessment manager for access, may be considered in the future.

Main Roads is attempting to input its access (and other) requirements into local government planning schemes under the IPA. This includes the establishment of road hierarchies which are understood by users of planning schemes.

Guides, technical policies and other resources
Austroads *Guides (e.g. Intersections at Grade).*

Main Roads Policies:

- Roads Connecting Queenslanders.
- Declaration of State-controlled Roads.
- Gazette Notices for each Limited Access road.
- Access Policy.
- Guidelines for Assessment of Impacts of Road Impacts of Development Proposals.
- Ancillary Works and Encroachments.
- Service Centres on Access Controlled Roads.

Local Main Roads District policies, plans, standards and practices, including District policies for each specific Limited-Access road.

SOUTH AUSTRALIA

Reported situation as at May 2002

Statutory and policy context

No explicit policy. Implied policy in Development Plans, which refer to 'safe and convenient access', 'should not cause interference with the free flow of traffic on adjoining roads', 'number, location and design of access points should minimize traffic hazards, queuing on the roads, right turn movements and interference with the functioning of intersections, junctions and traffic control devices' and so on.

Road types for the purposes of access management

In SA, roads are designated as 'arterials' on functional and classification criteria. In general, all roads in South Australia are vested in local government. The Commissioner of Highways (and hence Transport SA) assumes the responsibility for these arterial roads through a notice to the relevant local government under Section 26 of the Highways Act 1926. (This generally implies that an 'arterial road' is defined as any road in which the Commissioner of Highways has a management and maintenance interest. There are exceptions, for example the Commissioner maintains some scenic roads, which are not arterials, as well as all outback roads that are outside local government boundaries). Roads are typically classified as::

Primary arterials (maintained by Transport SA (TSA))
Secondary arterials (maintained by TSA)
Local roads (all other roads -- maintained by local govt.)

In addition, roads may be gazetted as 'controlled access'.

All National Highways, heavily-trafficked and high-speed arterials and strategically-important roads are access-controlled by legislative or physical means.

For TSA internal planning and traffic management purposes there are various different road networks, e.g. freight routes, commuter routes, bus routes, cycling routes, and 'strategic' routes. The recommended access management regime (e.g. median breaks, service roads, etc.) differs somewhat for each type of route, depending on which network function(s) it serves.

Controlled-Access Roads

Highways Act 1926 30a gives the Commissioner of Highways power to allow or prevent access to any road which has been gazetted as 'controlled-access'. Normally only primary arterials are access-controlled although there are exceptions. When a road has been declared access-controlled, it is up to the Commissioner of Highways to determine who can get access and under what conditions. Normally, most accesses existing at the time of gazettal are 'authorized' in the gazettal notice. Applications for additional access may be granted at a later date by means of a permit, which can be revoked if necessary.

Other important arterials may have partial access control by means of service roads or (rare) narrow access-control strips owned by the Commissioner.

Access management responsibilities on arterial roads

On arterials, the Commissioner of Highways, through TSA, recommends access controls and issues permits for access to controlled-access roads; also has responsibility for planning, construction and maintenance kerb-to-kerb; traffic control, including signing, devices, median openings, safety; power to construct fences etc along boundary of controlled-access roads.

TSA retains control over design and traffic management matters such as signal spacing, medians and median openings, turn controls etc. Local Authority acts as Responsible Authority for development applications and considers access conditions; has control of footpaths, verges etc.; decides on advertising within the road reserve under the Development Act.

Access management responsibilities on other roads
Local Government (or other equivalent authority) has complete control over all aspects of access management and TSA has no role, except where controlled access has been declared for the road. In such case the Commissioner decides access matters.

Planning for access management
Road classifications (arterial-local) are reflected in State and Council Development Plans (zoning plans), and have significance in land-use planning decisions.

The requirements of the Commissioner of Highways concerning access aspects of planning and land division on Controlled-Access Roads must be complied with.

Development applications
Development Act (covering approvals procedures for land division and development applications, required consultation; defines responsible authority; consultation and appeals procedure) gives more decision-making responsibility to local government.

Development applications affecting *Controlled-Access Roads* or encroaching within a widening setback under the Metropolitan Adelaide Road Widening Plan Act must be referred to TSA. The planning authority *must comply* with the requirements of the Commissioner of Highways concerning access aspects of the proposed development (including refusal).

On *non-controlled-access arterial roads*, access points are determined by the local planning authority (Council) in consultation with TSA. The planning authority must refer the application to the Commissioner of Highways for comment if it considers that a development is likely to alter an existing access or its traffic, or require a new access. The planning authority must have regard to the Commissioner's comments when making its decision.

On *non-arterial roads*, the planning authority makes the decision without reference to the Commissioner.

Changes under way or being considered
TSA is developing 'network operational strategies' which will give different emphasis to various aspects of traffic management on arterials, depending on the importance and function of the road. For example, one road might be identified as a strategic freight route, so priority would be given to easy through movement; another might be identified as a commuter/shopping route, with more emphasis being given to local access and amenity whilst still maintaining reasonable capacity for peak flows. Guidance will include the preferred cross-sections (including medians, service roads, etc.) for various types of arterials.

An Access Management Code, to bring more certainty for the key players, is being investigated. The policy basis for access decisions is currently not formalised nor considered to be transparent to all parties.

Documentation
- Development on Arterial Roads—Metropolitan Adelaide. Planning SA Planning Bulletin, 2001.
- AS 2890.1 - 1993. Parking facilities Part 1: Off-street parking.
- NAASRA Guide to Traffic Engineering Practice Part 5: Intersections at grade.
- Internal 'Network Operational Strategy – Strategic Routes' document, in preparation (Access management techniques with some basic requirements).

TASMANIA

Reported situation as at May 2002

Access Management policy

Department of Infrastructure Energy and Resources (DIER):

> 'The Department's Policy is to work with developers, their representatives and Councils to assess and advise on developments proposed adjacent to the State road network to ensure that there is no adverse impact on the safety, efficiency and operation of the road in the performance of its strategic function.
>
> 'Except in exceptional circumstances, Departmental policy is that no additional accesses should be permitted on limited access roads. Proclamation of limited access is to be progressively implemented on all Cat 1, 2 and 3 roads and sections of Cat 4 and 5 when considered appropriate'
>
> –Excerpt from Operational Policy Statements, Asset Management Branch March 2002

Legislation:

Land Use Planning and Approvals Act 1993
Roads and Jetties Act 1935 52(a)(b)(c)(d) (Control of access)
Local Govt (Highways) Act 1982 (1),(2); 37(1) to (7) (matters relating to driveways)

Road types for the purposes of access management

Limited Access Roads
Other Proclaimed Roads
Council Roads (i.e. not Proclaimed)

Road hierarchy defined in the draft 'Road Asset Schedule':

Category 1 Roads: Trunk Network
Category 2 Roads: Regional Freight Roads
Category 3 Roads: Regional Access Roads
Category 4 Roads: Feeder Roads
Category 5 Roads: Local Connector Roads
Category 6 Roads: Other Roads

Access management responsibilities

On Limited Access Roads, DIER (on behalf of the Crown) determines access requirements.
On other roads, responsibilities and the process are determined by road type as in the draft 'Road Asset Schedule':

DIER administer access control for Category 1 roads under agreed Code in planning schemes.
DIER assists planning authority on Category 2 roads.
Local government acts as planning authority for Category 2,3 and 4 roads: Access control and permits for 'high' traffic generators.

Planning for access management

The Resource Planning and Development Commission (RPDC) is responsible for approving planning schemes and amendments to planning schemes.

Development application process

Individual local councils via their planning schemes are responsible for planning matters in their municipality. If there is an appeal or an objection against a Council decision it is heard by the Resource Management Planning and Appeals Tribunal(RMPAT). RMPAT is an independent arbitrator of planning decisions.

State Roads: Planning permit under jointly-developed Code. On Limited Access Roads, DIER (on behalf of the Crown) determines access requirements. Disputes in those cases are resolved in the Supreme Court.

Other roads: Planning permit under jointly-developed Code.

Changes under way or being considered

- Changes to the Roads & Jetties Act to bring it into line with the Land Use Planning and Approvals Act 1993;
- Alterations to Part 4 of the Roads & Jetties Act to reduce time frames for claims, reduce hypothetical claims;
- Introduction of Road Asset (Access Management) schedules for proposed inclusion in Planning Schemes with emphasis on the development.

Guides, technical policies and other resources

- Draft Code for traffic generating developments (joint transport and planning authorities) developed for inclusion in planning schemes.
- AUSTROADS *Guides to Traffic Engineering Practice*

VICTORIA

Reported situation as at May 2002

Access Management policy

Government policy on integration of land use and transport planning is contained in the state section (State Planning Policy Framework) of all Victorian municipal planning schemes. This generally requires that the planning, siting and design of transport routes, and new uses or development of land, addresses service, safety, accessibility, and environmental objectives in order to achieve the greatest overall benefit to the community.

Whilst there is no specific statement on access management, it is State Planning Policy that:

> *New uses or developments of land near an existing or proposed transport route should be planned or regulated to void detriment to, and where possible enhance, the service, safety and amenity desirable for that transport route in the short and long terms.*
> (Clause 18.01-2 of the State Planning Policy Framework – Infrastructure – Declared highways, railways and tramways)

Legislation

Transport Act 1983 - Roads may be declared under the Transport Act. The Act gives VicRoads power to fully control or restrict access to roads declared as freeways under the Act.

Planning and Environment Act 1987 – Defines local government as the planning consent authority (Responsible Authority). Designates VicRoads as a referral authority for subdivision and development applications on declared roads.

Local Government Act 1989 – Provides local government with general powers, including the ability to pass by-laws declaring roads as limited access and prohibiting access from abutting land.

Planning Schemes -

Clause 18.01 of the SPPF – Infrastructure – Declared highways, railways, and tramways, especially the third paragraph of clause 18.01-2, which states inter alia:

> New uses or development of land near an existing or proposed transport route should be planned or regulated to avoid detriment to, and where possible enhance, the service, safety and amenity desirable for that transport route in the short and long terms.

Local Government Act 1989 - Provides local government with general powers, including the ability to pass by-laws declaring roads as limited access and prohibiting access from abutting land.

Road types for the purposes of access management

- Freeways
- Other Declared Roads under the Transport Act
- Undeclared Roads zoned as Category 1 in planning schemes.
- Other Undeclared Roads

Access management responsibilities on State Roads

VicRoads is generally accountable for all arterial road frontages. On other roads, it may provide financial assistance for some safety or other projects.

Local Government, as planning consent authorities, ensure that permit conditions specified by VicRoads are fulfilled. Local government is the designated 'Highway Authority' for parking control and certain 'Major Traffic Control Items' including fairways.

Access management responsibilities on other roads
Councils act as the planning consent authority and the road authority. Councils have power to declare limited access roads, in addition to their role as 'Highway Authorities' as on State Roads.

Planning for access management
Roads which are subject to planning access controls are zoned as Category 1 roads (RDZ1) in municipal planning schemes. [Ministerial direction that all declared roads be zoned as Category 1 ensures that all proposals for new/modified access, and subdivisions adjacent, to declared roads require planning approval for which VicRoads is a referral authority.]

Development application process
Development applications are made to the Responsible Authority (usually Council), which makes the final decision. Decision or conditions appealable.

Roads which are subject to planning access controls are zoned as Category 1 roads (RDZ1) in municipal planning schemes. Under a mandatory provision of all planning schemes (clause 52.29) a planning permit is required to create or alter access, or subdivide land adjacent, to a Category 1 road. All roads declared under the Transport Act must be zoned as Category 1 roads. Municipal councils may also zone other roads not declared under the Transport Act as Category 1 roads (but this is rare in practice). VicRoads is a referral authority for planning permit application where the Category 1 road is also declared, and is therefore empowered to impose access requirements. The municipal council, as the authority responsible for granting planning permits or the road authority on Category 1 roads not declared, may also impose access requirements.

Changes under way or being considered
The Department of Infrastructure and VicRoads have been working on a project to review and improve the arterial road access management process. A number of changes have been identified as being required in:

- the management of the access relationship between land use and arterial roads; and
- the approval process for development and land use proposals seeking access to arterial roads.

A system of managing access requirements in a more transparent, consistent, and efficient manner is needed that provides certainty in planning decisions. Arrangements also need to be improved for the timely management of access to local roads that will become important future arterial routes, and to roads along growth corridors.

The proposed changes aim to promote a more integrated approach to land use and road planning with improved access outcomes, and a more streamlined approval process, that will benefit the development industry and the wider community.

The project involves developing:

- a hierarchy of defined Access Management Categories (AMCs) linked to varying road types and functions;
- a Code of Practice that provides guidance on good access provisions for each AMC and stipulates standards, which if satisfied, obviate the need for development approval applications to be referred to VicRoads;
- statutory implementation of the new arrangements to incorporate arrangements into the planning approval process.

The proposed changes focus on processes - it is not anticipated that these changes will necessarily involve changes in legislation or typical practices. However, explicit statements on access management are likely to be needed in State Planning Policy to support the proposed changes.

Guides, technical policies and other resources

- Internal VicRoads Draft Statutory Planning Guidelines contain a chapter on 'Access Control'.
- Internal VicRoads checklists and standard planning permits conditions
- Typical VicRoads plans of access treatments and traffic management works
- Technical Guidelines for the Control of Access to Arterial Roads - Chief Road Design Engineer - September 1980
- VicRoads quality procedures for assessing planning permit applications
- Safer Urban Environments – Road Safety and Land Use Planning Guide (Draft)
- Austroads Guide to Traffic Engineering Practice Series (particularly Part 5 – Intersections at Grade) and other Austroads guides.
- ResCode
- Relevant VicRoads and Municipal Corridor/Road Strategies
- Municipal Planning Schemes and Strategic Statements
- VicRoads Guidelines for New and Retrofitted DDA Compliance Works - July 2000

WESTERN AUSTRALIA

Reported situation as at May 2002

Access Management policy

Access management is implied in powers vested in the Commissioner for Main Roads (CMR) under the *Main Roads Act* (to improve and maintain traffic safety and flow on nominated main roads).

State Planning Commission Policy 5.1 Regional Roads (Vehicular Access):

- To ensure that vehicle access to Regional Roads and the type of abutting developments is controlled and conforms to sound town planning principles.
- To improve traffic flow and safety on all regional roads, either new or exiting, by minimising the number of junctions or driveways.

Current Department of Planning and Infrastructure (DPI) planning policies and *Liveable Neighbourhoods* practice recognise that 'the capacity of regional roads to carry traffic, the safety and free flow of traffic are all related to access – the fewer the number of driveways and junctions, the smoother the traffic flow and safer the road'. The capacity of designated traffic routes can be increased by segregating different forms of traffic and by restricting vehicular access to frontages.

At the same time, current WAPC Policies and principles encourage 'active frontage' development along all arterial routes. They recommend usage of service roads or other traffic management techniques along arterials to enable development rather than back fencing to front arterial routes. This is claimed to achieve 'a sustainable urban form which recognises the close relationship between transport infrastructure and land use'.

Legislation:

Main Roads Act 1930 Sec. 28A: Control of access to declared ('proclaimed') Highways, Main and Secondary Roads.
Local Government Act Sec. 357, 358: Town planning schemes; defers to Main Roads Act on proclaimed roads.
State Planning Commission Act 1985: Delegation of authority for development applications in the metropolitan area.
Metropolitan Region Scheme (MRS): Land use planning

Road types for the purposes of access management

Proclaimed Roads

The access control requirements of current DPI Policies and Guidelines apply to Primary and District Distributors 'A' and 'B' categories roads (arterial routes) as classified under:

- the Conventional Functional Road Classification (WAPC DC Policies – No. DC 1.4 *Functional Road Classification for Planning*; No. D.C 1.7 *General Road Planning*; No. D.C 2.6 *Residential Road Planning* and No. D.C 5.1 *Regional Roads (Vehicular Access)*; and
- the Liveable Neighbourhoods (LN) Street Types (refer WAPC Liveable Neighbourhoods - Street Layout, Design and Traffic Management Guidelines).

Primary Distributors (freeways and other four or six lane roads) play a fundamental role in catering for inter and intra regional traffic and are major truck roads. Where arterial routes are constructed or planned to a fully controlled and grade separated freeway standard, or to an access controlled arterial standard, no access to frontage development is permitted.

Where arterial routes are constructed or planned to a partially access controlled arterial standard (e.g. a primary or district distributor road with direct connections to local streets and driveways to large sites, but with some restriction of direct frontage access to individual properties; or have frontage access to abutting properties due to the historic development of the road and properties), frontage access may be allowed subject to approval.

Regional Roads (Perth Metropolitan Area)
Primary Distributors are reserved as Primary Regional Roads (PRR) in the Metropolitan Region Scheme (MRS). Currently they are under the responsibility of Main Roads Western Australia (MRWA).(Refer WAPC Policy Regional Roads Vehicular Access, D.C 5.1 and Notice of Delegation dated 30 June 2000 under the WAPC Act 1985).

WAPC Policy Regional Roads (Vehicular Access) DC 5.1. (Para 3.3.2):

> 'Where regional roads are constructed or planned to freeway standards no access to frontage development is permitted. On regional roads not constructed or planned to freeways standards, there is a general presumption on traffic and safety grounds against the creation of new driveways or increased use of existing access to these roads. Where alternative access is or could be made available from side or rear streets or from right of ways, no access shall be permitted to the regional road unless special circumstances apply.'

Other Roads:
Many District Distributors are not classified in the Scheme and control of development on these roads is the responsibility of local governments

Access management responsibilities on State Roads
The Commissioner of Main Roads (CMR) may determine roads or road sections that should have control of access, and specify the permitted points of access (Main Roads Act 28A).

The CMR may control (not deny) access to a proclaimed road. This applies to important roads 'where it is important to minimise traffic mobility and access conflict'. Main Roads has right of referral for development applications on certain roads in certain cases.

Vehicle crossings (driveways) on 'Main' (proclaimed) roads require CMR approval. (LG Act 359).

Access management responsibilities on other roads
Local Government makes decisions on access matters on other than State roads.

Planning for access management
Most of the Other Regional Roads (ORRs) reserved in the MRS function as District Distributors 'A' and 'B' (DD). (Refer WAPC Policy Regional Roads, Vehicular Access, D.C 5.1 and Notice of Delegation dated 30 June 2000 under the WAPC Act 1985).

To minimise negative impacts on passing traffic and to prevent direct vehicle access onto District Distributors, the design of new developments is required to incorporate service roads wherever possible. Direct vehicle access on District Distributors 'A' and 'B' from adjoining development is not permitted or limited, where service roads or other alternative access (via side or rear streets, or from rights of way) could not be made available.

Development application process
Local government is the Responsible Authority for decisions on development applications. Disputes are resolved by the State Planning Commission.

The WAPC (respectively DPI) is a responsible authority for development control (access control) on regional roads (arterial routes) that are reserved only as Other Regional Roads in the Metropolitan Region Scheme (MRS).

*State Roads:*CMR determines access requirements on proclaimed roads. For development abutting a 'regional road' in the Perth metropolitan area, applications may be referred by the LGA to MRD for comments and recommendation if MRD controls the road reserve. LGA determines, or the SPC if the LGA rejects the recommendations.

Important 'non-State' Roads: For development abutting a 'regional road', applications may be referred by the LGA to DPUD for comments and recommendation if MRD does not control the road reserve. LGA determines, or the SPC if the LGA rejects the recommendations.

Other roads: Local Government determines, without referral.

Changes under way or being considered

The Department of Planning and Infrastructure is in the process of developing Transport Impact Assessment Guidelines that should apply in assessing development applications, including proposed access arrangements for future developments and opportunities to achieve 'balanced transport outcomes'.

Guides, technical policies and other resources

- Ministry for Planning Policy on Access to Service Stations.
- Liveable Neighbourhoods – Street Layout, Design and Traffic Management Guidelines (WAPC) provide some guidance on access issues for lower order roads in new developments. Liveable Neighbourhoods Street Types have been specifically designed to address traffic issues and access arrangements along different categories roads.
- WAPC Policy Location and Design of Freeway Service Centres (August 2001)
- This policy applies to proposals to establish freeway service centres on land abutting a Primary Regional Road reserve in the Metropolitan Region Scheme or a regional planning scheme where road is planned to be developed to a freeway standard.
- A procedure has been prepared to guide staff in declaring Control of Access over roads under Section 28A of the Main Roads Act 1930.
- A Guide to the Geometric Design of Driveways that details Main Roads' policy and standards for driveway access is currently nearing completion.

INFORMATION RETRIEVAL

Austroads (2003), **A Review of Access Management Practice**, Sydney, A4, 88pp, AP-R227/03

KEYWORDS:

Access management, arterial road, practice review, development control, land use, traffic management.

ABSTRACT:

This report reviews and compares processes and tools for access management employed in Australia and New Zealand. It highlights both commonalities and wide variations in practice in dealing with proposals for new points of access (driveways and minor roads) and in the management of existing access points.

The report details and discusses current access management policy, guiding principles, legislation, powers and responsibilities, planning and development control processes, management tools and guidelines, including their provision for pedestrians, cyclists and buses.

Costs of access management administration and how to reduce them, and possible changes to processes, are canvassed. Some benchmark practices are noted and matters for further consideration are put forward.

AUSTROADS PUBLICATIONS

Austroads publishes a large number of guides and reports. Some of its publications are:

AP-1/89	Rural Road Design		
AP-8/87	Visual Assessment of Pavement Condition		
Guide to Traffic Engineering Practice			
AP-11.1/88	Traffic Flow	AP-11.9/88	Arterial Road Traffic Management
AP-11.2/88	Roadway Capacity	AP-11.10/88	Local Area Traffic Management
AP-11.3/88	Traffic Studies	AP-11.11/88	Parking
AP-11.4/88	Road Crashes	AP-11.12/88	Roadway Lighting
AP-11.5/88	Intersections at Grade	AP-11.13/95	Pedestrians
AP-11.6/93	Roundabouts	AP-11.14/99	Bicycles
AP-11.7/03	Traffic Signals	AP-11.15/99	Motorcycle Safety
AP-11.8/88	Traffic Control Devices		
AP-12/91	Road Maintenance Practice		
AP-13/91	Bridge Management Practice		
AP-14/91	Guide to Bridge Construction Practice		
AP-15/96	Australian Bridge Design Code		
AP-17/92	Pavement Design		
AP-18/00	RoadFacts 2000		
AP-S22/02	Austroads Pavement Strategy 2001–2004		
AP-23/94	Waterway Design, A Guide to the Hydraulic Design of Bridges, Culverts & Floodways		
AP-26/94	Strategy for Structures Research and Development		
AP-C29/01	Austroads Strategic Plan 2001–2004		
AP-G30/02	Road Safety Audit – 2nd Edition		
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AP-36/95	Adaptions and Innovations in Road & Pavement Engineering		
AP-38/95	Guide to Field Surveillance of Quality Assurance Contracts		
AP-40/95	Strategy for Ecologically Sustainable Development		
AP-41/96	Bitumen Sealing Safety Guide		
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AP-53/97	Strategy for Improving Asset Management Practice		
AP-54/97	Austroads 1997 Bridge Conference Proceedings — Bridging the Millennia		
AP-55/98	Principles for Strategic Planning		
AP-G56/01	Assessing Fitness to Drive — 2nd edition		
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AP-62/99	*e*-transport — The National Strategy for Intelligent Transport Systems		
AP-64/00	Austroads 4th Bridge Conference Proceedings — Bridges for the New Millenium		
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AP-G73/02	Guide to the Selection and Use of Bitumen Emulsions		

These and other Austroads publications may be obtained from:

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