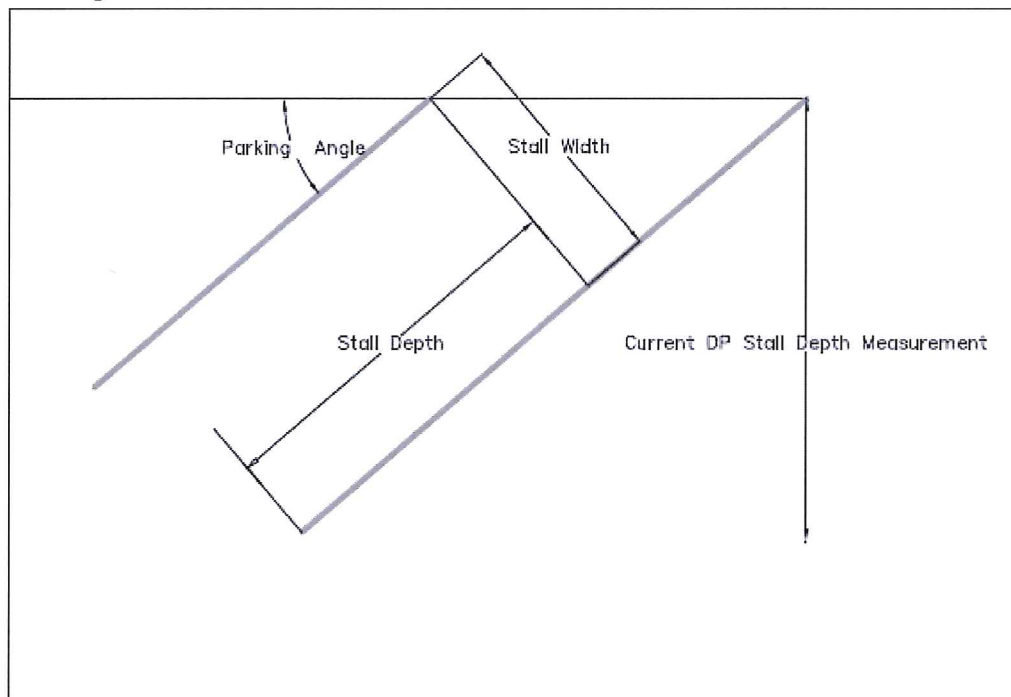


Specified Dimensions

- 3.4 The parking dimensions specified in Table 30.9 are overly generous compared to the minimum requirements specified in the New Zealand off-street parking Standard AS/NZS2890.1: 2004⁷. For instance, the combined stall depth (including overhang provision) and manoeuvring space (aisle width) where 90° angle parking is provided on two sides of an aisle is 3m more than that required by the Standard where the stall width is 2.5m.
- 3.5 These overly generous parking dimensions are likely to result in a space consumptive use of parking areas and in turn may preclude the introduction of desirable features within parking areas such as pedestrian links and landscaping.
- 3.6 Furthermore, there is currently no diagram showing how parking dimensions should be measured. This is particularly confusing for the stall depth measurement which currently changes depending on the parking angle, and is therefore actually referring to the length that will be taken up by the parking measured perpendicularly from the wall or kerb as illustrated in **Figure 3.1**.

Figure 3.1 Parking Dimension Measurements



User Class

- 3.7 Table 30.9 provides no differentiation or guidance on the suitability of parking space dimensions for short duration, high turnover activities e.g. supermarket customer parking, compared to long duration, low turnover activities e.g. staff parking. Best practice suggests that longer duration, low turnover spaces can have narrower dimensions than parking spaces used for shorter duration, high turnover activities. Designing parking areas for a specific user allows land to be used more efficiently where possible without compromising on the use of the spaces.

⁷ AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking

Staff Parking

- 3.8 There is currently no requirement to designate some spaces for the exclusive use of staff. In Business 2 zones especially, it may be appropriate to require some on-site parking to be identified for the exclusive use of staff to avoid parking occurring on-street assuming the current policy applicable to Business 2 zones remains. In Business 1 zones, on-street parking is an expected outcome so the need to allocate any on-site spaces for staff is unlikely to be required, or indeed appropriate.

Parking Area Layout

- 3.9 Improved car park design, operation and aesthetics can improve the quality of service experienced by motorists and pedestrians as well as improving safety for all users. Aside from the requirements set out in Table 30.9, the District Plan is largely silent on the design and layout of parking areas although there is mention of parking areas to be located to the 'rear or side of the road frontage' for buildings in the Business 1 Zones (**Rule 31.20.1.2**).

- 3.10 Therefore, while parking space dimensions and the width of manoeuvring areas form a vital component of a successful car park design, there are numerous other factors that need to be considered at the time of consent to ensure a desirable outcome is achieved including but not limited to:

- Circulation within car parks and the need to avoid features such as long 'blind aisles';
- The ability of parking spaces to be used as intended. The presence of elements at the side of spaces, such as lighting columns and trolley bays can reduce the effective width of a space and may prevent safe door-opening. The presence of elements at the end of spaces, such as high kerbs, walls, landscaping and even other parking spaces can reduce the manoeuvring area (effectively a narrowed aisle) to a parking space if the spaces were designed with an allowance for vehicle overhang;
- The extent to which the design supports slow vehicle speeds;
- How pedestrians are accommodated within the car park, including pedestrians that walk to the activity and people that walk within the car park after parking a vehicle;
- Treatment of conflict points between vehicles, pedestrians and cyclists;
- Connectivity of the car parking area relative to the activity it services, and to adjacent activities and parking areas;
- Where loading should occur on-site relative to customer parking areas;
- The ability to incorporate landscaping into the design; and
- The provision of accessible parking spaces and accessible pedestrian paths from parking spaces to building entrances.

- 3.11 With respect to residential areas, the design and location of residential garages needs to be considered at the time of consent.

- 3.12 In terms of urban design matters, Council would like to provide guidance on where parking can be located on a site with respect to buildings and the road frontage, as a function of zoning and activity type.

- 3.13 The policy direction of the District Plan to some extent addresses some of these matters, as evidenced by **Policy 11.1.1.7**, and the parking related characteristics that are desired for Business 1 and 2 zones.

- 3.14 **Policy 11.1.1.7** of the District Plan states “*Sites shall provide on-site parking, loading, turning for vehicles, or have safe and efficient access to those facilities. Any use of off-site facilities should not compromise pedestrian and vehicle safety, or the safe and efficient operation of the road network.*”
- 3.15 The characteristics of Business 1 Zones, in relation to parking and parking areas in particular, are listed under **Policy 16.1.1.2** of the District Plan and are reproduced in **Table 3.2** below.

Table 3.2 Waimakariri District Plan Characteristics of the Business 1 Zones

Characteristics	Business 1 Zone
Pedestrian focus on primary shopping streets	<ul style="list-style-type: none"> • Interconnected network of public car parking, pedestrian areas, lanes and footpaths • High level of safety, taking into account CPTED principles
Vehicle focus	<ul style="list-style-type: none"> • Provision for car parking, private and public • Interconnected network of roads, car parking, pedestrian areas, footpaths, lanes and public spaces • Public off-street parking • Little on-site parking
Amenities	<ul style="list-style-type: none"> • Landscaping, plantings and public open spaces • Street and pedestrian treatments, including street furniture
Parking	<ul style="list-style-type: none"> • Public off-street parking • Limited private off-street parking • Limited duration on-street parking • Public parking pedestrian connections with footpaths, lanes and public spaces
Function	<ul style="list-style-type: none"> • Community focal point for: government services; professional services; office/finance; retail; emergency services; and household services • An area with safe, convenient, pleasant, attractive environments where people can enjoy extended visits to gather, socialise, and do business

- 3.16 Areas zoned Business 2 are predominantly industrial in nature, characterised by large-scale buildings and a low density of development. Activities that give rise to significant pedestrian movements are discouraged, while ease of vehicle movement and access is promoted.
- 3.17 Desired characteristics of the Business 2 Zone is set out in Table 16.1 of the District Plan, a summary of which (relating to parking and parking areas) is presented in **Table 3.3** below. The points listed in Table 16.1 are also assessment criteria for determining the suitability of discretionary activities within this zone.

Table 3.3 Waimakariri District Plan Characteristics of the Business 2 Zones

Characteristics	Business 1 Zone
Pedestrian focus on primary shopping streets	<ul style="list-style-type: none"> • Pedestrian linkages provide access between the Business 2 Zone and surrounding Residential Zones and Business 1 Zones
Vehicle focus	<ul style="list-style-type: none"> • Caters for cars and large vehicles • Ease of access • Linkage to arterial road/within sites • No public off-street parking • All sites with on-site parking • Turning spaces within site including for trailers • Loading and unloading on-site • Limited constraints on vehicle movements
Amenities	<ul style="list-style-type: none"> • Landscaping – more on road reserves but uncoordinated provision of amenity plantings on sites
Parking	<ul style="list-style-type: none"> • Mostly off-street • No public parking • Long term duration
Function	<ul style="list-style-type: none"> • Service/retail; processing; manufacturing/associated retail; storage; repair retail; depots; utilities. • An area with limited amenity and visual appeal where vehicle-based users can obtain goods and services

3.18 Therefore the characteristics for Business 1 and 2 Zones is already identified in the District Plan, however there are no rules to support these outcomes.

Landscaping

3.19 With respect to landscaping, **Rule 30.6.1.32** requires one tree to be provided per five parking spaces required on sites in Business 1 zones that require more than five parking spaces. Through the staff and stakeholder consultation process this provision has been highlighted as being inadequate in the following aspects:

- The only requirement is for trees, whereas other plant specimens may be more appropriate in some locations;
- No minimum area for tree pits resulting in many trees not surviving;
- No requirement for parking spaces to be offset a minimum distance from a tree;
- Inadequate coverage compared with parking and manoeuvring space in a parking area;
- No provision for maintenance; and
- Only applicable to Business 1 Zones.

Summary

3.20 This section has identified a number of gaps in the current District Plan with regards to car parking area layout and design including:

- Space consumptive parking space dimensions;
- Lack of flexibility with parking dimensions depending on the type of user;
- Inadequate landscaping provisions for parking areas; and
- Lack of rules to improve urban design outcomes, particularly in Business 1 Zones.

Recommendations

3.21 The following changes to the District Plan are recommended:

- The minimum parking dimensions should be revised to more closely align with the dimensions set out in AS/NZS2890.1:2004.
- Parking space dimensions should be configured to match the requirements of the users. Guidance can be drawn from AS/NZS2890.1:2004, which provides definitions of different user classes and demonstrates how parking space dimensions can be designed to accommodate different user class requirements.
- The District Plan review should consider the need to designate spaces for staff parking in Business 2 zones.
- The landscaping provisions need to be broadened to not only include trees, extend it to other zones, increase the landscaping coverage requirement relative to the parking provision, and include maintenance provisions.
- The District Plan needs to support the policy direction for the design and layout of parking areas. Rules are required to ensure parking areas are designed and laid out in a more holistic context suitable for the intended use and users.

3.22 The following research and documents will assist with preparation of parking area layout rules:

- AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking. Australia
- Austroads (2008) Guide to Traffic Management Part 11: Parking

3.23 Scale of potential effects if a development does not comply with this rule: low

3.24 Minimum parking dimensions based on AS/NZS 2890., classified by user type are provided in **Table 3.4** below.

Table 3.4 Minimum Parking Dimensions

User Type	Parking Angle (degrees)	Manoeuvring Space (m)	Stall Width (m)	Stall Depth (m)
All users	Parallel parking	3.3m one-way	2.5	6.1
		5.5m two-way		5.0 (unobstructed end spaces)
Long term (1)	90	6.4	2.4	5.0
	60	5.3	2.4	5.0
	45	4.3	2.4	5.0
	30	3.5	2.1	5.0

User Type	Parking Angle (degrees)	Manoeuvring Space (m)	Stall Width (m)	Stall Depth (m)
Medium term (2)	90	6.2	2.5	5.0
	60	5.0	2.5	5.0
	45	4.1	2.5	5.0
	30	3.4	2.3	5.0
Short term (3)	90	6.2	2.6	5.0
	60	4.7	2.6	5.0
	45	3.9	2.6	5.0
	30	3.3	2.5	5.0
Disabled parking	As above	As above	3.6	5.0

(1) Tenant, employee and commuter parking (generally all day parking)

(2) Medium term town centre parking, sports facilities, entertainment centres, hotels, motels (generally medium term parking)

(3) Short term town centre parking, shopping centres, supermarkets, hospitals and medical centres (generally short term parking and where children and goods can be expected to be loaded into vehicles)

4 ACCESSIBLE PARKING SPACES

Technical Review and Gap Analysis

- 4.1 The District Plan does not stipulate the number of parking spaces required for disabled persons. However, there is a requirement under **Rule 30.6.1.30** that parking spaces for disabled persons are provided in accordance with NZS 4121:2001⁸. This standard stipulates an accessible parking rate based on the number of parking spaces provided as well as stipulating appropriate dimensions for accessible parking spaces and manoeuvring space.
- 4.2 The District Plan should be more explicit regarding the provision of parking for disabled persons.

Recommendations

- 4.3 The District Plan should stipulate:
- The number of accessible car parking spaces required based on the number of on-site parking spaces stated in Table 1 of NZS 4121;
 - The dimensions of accessible parking spaces (refer to Section 3);
 - The location of accessible parking in relation to the entrances to the activity.

⁸ NZS 4121: 2001 Design for Access and Use of Buildings and Facilities for Disabled Persons

5 ACTIVITY STATUS

Technical Review and Gap Analysis

- 5.1 The District Plan is currently structured such that non-compliance with any parking rules results in the application having a discretionary status (**Rule 30.8.1**).
- 5.2 Furthermore, under **Rule 31.22.1** any land use that has a parking requirement of 2 or more spaces in the Residential Zones (or 3 or more spaces in the Residential 6A Zone) and land uses with a parking requirement of 10 or more spaces in the Rural Zone (**Rule 31.22.2**) results in the application having a restricted discretionary status.
- 5.3 There is also a form of High Traffic Generator Rule in the District Plan whereby any land use in any zone that will result in more than 250 motorised vehicle movements per day is classified as a restricted discretionary activity (**Rule 31.22.3**).
- 5.4 It is noted that Council's discretion if an activity triggers restricted discretionary status under Rules 31.22.1-3 include a number of matters that are not related to parking or access at all, for example:
- The need for landscaping to create a pleasant, safe and visually attractive setting for the site and surrounding neighbourhood;
 - The positive effects arising from the retention and protection of notable plants, other significant plants, or heritage resources;
 - The effect of any activity on the visual and acoustic privacy of adjacent structures and private open space
- 5.5 A discretionary activity status means Council has full discretion to consider any potential effects of all aspects of the proposal. Discretionary activities are generally anticipated by the plan's objectives and policies, provided that the environmental effects are appropriately managed. Applications must pass the tests of s104 and s104B of the RMA and consent may be declined or approved, and conditions imposed. The need for public notification is determined on a case-by-case basis under section 95 of the RMA.
- 5.6 A restricted discretionary activity means Council can exercise discretion but only in respect of those matters over which it has restricted its discretion in the plan.
- 5.7 Feedback gathered from consultation with staff and community stakeholders suggests resource consent applicants actively seek compliance with the parking provision rule because of the discretionary activity status that is triggered if the rule is not met. Often the need to squeeze an extra parking space or two onto a site to meet the rule comes at the expense of other desirable parking area features, such as pedestrian connections and landscaping, resulting in a worse outcome than if fewer spaces were provided.

Recommendations

- 5.8 Through this District Plan review process Council will gain a better appreciation of the implications of any non-compliance with parking requirements. On this basis, it may be appropriate to consider changing non-compliance with these rules to a Restricted Discretionary activity status where the matters over which Council can exercise discretion are listed for applicants and are based on only transport related effects. This will provide both Council and applicants an understanding of situations where a departure from these rules is likely to be considered an acceptable or unacceptable outcome.

- 5.9 The District Plan review should consider whether the current discretionary activity status for non-compliance with parking provision requirements is generating desirable outcomes. In general, non-compliances with parking rules will only have parking and access effects, therefore, restricted discretionary status can be applied to these types of development provided that specific assessment matters are included in the District Plan to guide Council's discretion.

6 PEDESTRIAN PROVISIONS

Technical Review and Gap Analysis

- 6.1 At present the District Plan is almost silent regarding the needs of pedestrians in the public realm such as parking areas, apart from the characteristics of Business 1 and 2 Zones as outlined in Section 3 of this report.
- 6.2 Through the staff and stakeholder consultation process it became evident that the lack of provision for pedestrians to access developments and travel safely around and within parking areas is a major community concern.

Recommendations

- 6.3 The District Plan needs to include provisions that support safe and high amenity pedestrian connections within and through parking areas particularly in Business Zones where pedestrian activity is anticipated to be high. The provisions should seek to achieve outcomes such as:
- Providing a pedestrian path between the road frontage and public access to the activity within larger parking areas;
 - Providing a continuous pedestrian path along the frontage of the activity that provides public access;
 - Designing pedestrian paths so that a minimum useable width is maintained at all times and not reduced by temporary obstructions, such as vehicle overhangs, or permanent/semi-permanent obstructions, such as signs, vegetation etc.;
 - Prioritising the efficient and safe movement of pedestrians across busy circulation and access aisles within larger parking areas;
 - Accommodating mobility scooters and other mobility aids where necessary;
 - Ensuring loading and servicing activities do not impinge on the safe movement of pedestrians; and
 - Providing pedestrian connectivity between adjacent sites.
- 6.4 Some of the above requirements can be written into rules. However, it is recognised that it is difficult to write effective rules to achieve some of the above desirable outcomes (for example accommodating mobility scooters where necessary) because developments vary significantly. An alternative approach would be for car parking areas over a specific size to trigger controlled or restricted discretionary activity status with strong assessment matters regarding pedestrian access and safety to steer developers to the outcomes that Council expects.
- 6.5 A controlled activity requires a resource consent before it can be carried out, however Council must grant the consent with or without conditions for those matters over which Council has reserved control in the District Plan. Therefore, Council should consider including a rule to trigger controlled activity status for developments that are over a certain size and are located in high pedestrian activity areas (eg. greater than 20 parking spaces in Business Zones).
- 6.6 The following research may assist with the development of appropriate rules to support pedestrian access and safety:
- NZ Transport Agency (2009) Pedestrian Planning and Design Guide
 - Plan Change 12 Integrated Transport Management, Selwyn District Plan (became operative in April 2013)

7 CYCLING PROVISIONS

Technical Review and Gap Analysis

- 7.1 The District Plan is silent on the need to provide facilities for cyclists as part of land use developments. As a result many developments in the District that attract cyclists (or could attract cyclists) lack dedicated on-site cycle parking facilities. The benefits of providing cycle parking include:

- Encourages cycling as a mode of transport
- Reduces cycle theft
- Reduces informal parking of bicycles

- 7.2 The provision of end of trip facilities is imperative for encouraging travel to activities by bicycle. Good quality cycle facilities can reduce reliance on private vehicle travel and generate numerous flow-on benefits.

Recommendations

- 7.3 The District Plan should include provisions for cycle parking both in terms of number of spaces by activity type and the design and access to cycle parking areas.

- 7.4 The provisions will need to distinguish between bicycle facilities intended for visitor/customer use and employee/resident use separately, as demand and design considerations vary across these groups.

- 7.5 Cycle parking opportunities should be provided for all non-residential land use activities outlined in Table 2.2. Specific bicycle parking provision does not need to be provided for residential land uses, for example, bicycles can be stored in the garages of residential dwellings.

- 7.6 In terms of bicycle parking design, it is more appropriate to stipulate the criteria that cycle parking should meet rather than providing a specific design that must be adhered to. This provides more flexibility for cycle parking to meet development and site constraints whilst still providing cycle parking appropriate for use. For example, visitor cycle parking in the Christchurch central city should meet criteria such as stands that are securely attached to an immovable object, support the bicycle frame, are visible to cyclists entering the site or are clearly signposted, comply with lighting requirements and can be detected by the visually impaired (CCC City Plan, Volume 3, Part 13, Clause 2.4.4).

- 7.7 The following references may assist with the development of appropriate cycle parking rates for different activity types and their design:

- Standards Association of Australia (1993) AS 2890.3-1993 Bicycle parking facilities. Australia
- Celis, P., Bolling-Ladegaard, E. (2008) Bicycle Parking Manual. The Danish Cyclists Federation. Copenhagen
- Victoria Transport Policy Institute (2010) Bicycle Parking: Bicycle Parking, Storage and Changing Facilities. Online TDM Encyclopaedia [www.vtpi.org/tdm/tdm85.htm]
- Plan Change 12 Integrated Transport Management, Selwyn District Plan (became operative in April 2013)

- 7.8 Regardless of the rates that are applied, it is recommended that formal bicycle parking facilities need not be required on a site unless there is a calculated requirement for at least 2 bicycles, as an individual bicycle stand will typically accommodate two bikes, one on each side.

8 LOADING AND SERVICING PROVISIONS

Technical Review and Gap Analysis

- 8.1 The District Plan does not stipulate loading or servicing requirements for land uses. Some land uses will generate significant numbers of large or heavy vehicle movements and it is important that these vehicles are accommodated safely on-site. In fact, the only reference to loading in the current District Plan is **Rule 30.6.1.29** which states that *"Sufficient loading and manoeuvring space shall be provided on-site to ensure that no vehicle is required to reverse either onto or off a site where access is to a strategic or arterial road."* The rule relates to all activities.
- 8.2 The intention of the rule is to ensure that movements to and from the District's most important movement roads do not compromise the safety or efficiency of those roads. The rule is most essential for sites that have the potential to generate large numbers of vehicle movements such as retail and industrial activities. Applying the rule to individual residential dwellings may be an overly onerous requirement, which may compromise desired outcomes in residential environments. By way of example, to provide on-site manoeuvring space for a residential property usually requires the garage to be provided parallel to the frontage road. This can visually dominate the frontage of the property and may be inconsistent with the visual appearance sought in some residential zones.
- 8.3 Other planning documents that include a requirement for on-site manoeuvring typically link this to vehicle crossings that serve four or more parking spaces.
- 8.4 At the other end of the scale, if significant loading and servicing does occur on a development site, for example at retail and industrial activities, it has the potential to affect other activities that occur on that site. For example, large vehicles stopped within a car park can block the circulation of vehicles and can result in safety issues as visibility to vulnerable users within the car park is compromised.

Recommendations

- 8.5 The District Plan review should consider modifying **Rule 30.6.1.29** to exclude reference to individual residential dwellings. Where loading and servicing is a significant aspect of a development (in particular retail and industrial activities), the District Plan should include provisions requiring loading and manoeuvring arrangements to be designed to ensure vehicle, pedestrian and cyclist access and safety is not compromised.
- 8.6 Consideration should also be given to providing tracking curves of heavy vehicles to assist with designing adequate manoeuvring space through car parking areas and within loading areas.
- 8.7 The following documents may assist with the preparation of loading and servicing rules:
- Standards Association of Australia (2002) AS 2890.2-2002 Off-street commercial vehicle facilities. Australia
 - NZ Transport Agency (2007) On road tracking curves (<http://www.nzta.govt.nz/resources/road-traffic-standards/docs/2007-on-road-tracking-curves.pdf>)

9 VEHICLE CROSSING INTERFACE

Technical Review and Gap Analysis

9.1 The District Plan currently includes a suite of rules relating to the design and location of vehicle access crossings (**Rule 30.6.1**). This includes the following provisions:

- Minimum formation and legal widths of accessways
- Number of permitted accessways
- Stipulated access locations (in particular parts of the District)
- Surfacing of accessways
- Ownership of accessways
- Maximum number of vehicle crossings
- Spacing between vehicle crossings
- Minimum and maximum widths of vehicle crossings
- Sight distances from access points
- Separation distances between vehicle crossings and intersections

Visibility Splays

9.2 A notable omission from these rules is the incorporation of a visibility splay at the vehicle crossing interface with the road reserve so that adequate visibility is provided between vehicles exiting the site and pedestrians on the frontage road footpath.

9.3 Best practice guidance requires all vehicle crossings to provide a minimum visibility sight triangle that ensures adequate visibility is provided. The dimensions of the sight triangle are a function of the driveway type, the nature of the frontage road and the volume of traffic using the vehicle crossing.

9.4 It is understood that Council is currently in the process of reviewing residential fencing requirements. It is recommended the residential fencing review takes account of potential sight triangle requirements that may be introduced as part of the parking review, to the extent that any new provisions do not preclude the introduction of a sight triangle requirement.

Vehicle Access Designs

9.5 The District Plan also requires acceleration and deceleration tapers to be constructed for some vehicle crossings depending on the activity being served, the type of road and the posted speed limit of that road. For example, **Rule 30.6.1.21** requires acceleration and deceleration tapers for vehicle crossings serving any retail activity where the road is a strategic, arterial or collector road with a posted speed limit of more than 70km/hr in the Rural Zone and Residential 4A and 4B Zones. However, there is no similar provision for industrial activities in the Business 2 Zone which in some instances will generate significant volumes of heavy traffic and require larger swept paths and longer acceleration and deceleration requirements than the existing activities covered by the rule.

9.6 The District Plan also stipulates vehicle access designs (including appropriate tapers) for vehicle crossings onto State Highways with low and moderate traffic use, i.e. up to 100 equivalent car movements per day (ecm/day). However, there is no vehicle crossing design stipulated for accessways that generate more than 100 ecm/day. This omission needs to be addressed.

Vehicle Crossing Separation

- 9.7 Vehicle crossings should be separated from intersecting roads and other vehicle crossings to ensure motorists have adequate time to find gaps in traffic flows to exit an accessway safely and to minimise confusion as to which accessway a vehicle is entering. **Rule 30.6.1.13** includes Table 30.4 which states the permitted range of spacing between vehicle crossings on roads (other than State Highways) where the posted speed limit is 70 km/h or greater depending on the zone. Feedback during the Council workshops identified that some of these dimensions are not appropriate.
- 9.8 Council staff also identified that it is difficult to comply with the vehicle crossing separation distances in residential cul-de-sacs due to the number of properties that access the turning head. Further, providing 7m or more separation distances between vehicle crossings on a cul-de-sac is not desirable because this allows on-street parking which can interfere with u-turning movements at the cul-de-sac head particularly for larger vehicles.

Recommendations

- 9.9 The District Plan review should consider incorporating provisions that include a visibility triangle at the interface of vehicle crossings with the road reserve. Figure 14.11 of the Pedestrian Planning and Design Guide (NZ Transport Agency, 2009) suggests a 5.0m by 2.0m visibility splay at accessways with high pedestrian flows and more than 200 vehicle movements per day.
- 9.10 The District Plan review should include provisions for vehicle crossing designs that are appropriate based on the amount of traffic that will use the accessway (including the proportion of heavy traffic), the type of frontage road and the posted speed limit.
- 9.11 The District Plan review should consider modifying the spacing requirements between vehicle crossings to reduce the chance of confusion between motorists. Further, there should be an exemption to the separation rule for vehicle crossings located at the head of cul-de-sacs.

The following documents may assist with revising the vehicle crossing design and separation rules:

- Austroads (2008) Guide to Traffic Management, Part 5 – Road Management
- Austroads (2013) Guide to Traffic Management, Part 6 – Intersections, Interchanges and Crossings
- Austroads (2009) Guide to Traffic Management, Part 12 – Traffic Impacts of Developments
- Austroads (2009) Guide to Road Design: Part 4 – Intersections and Crossings

10 REFERENCES

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Plan Change 12 Integrated Transport Management, Selwyn District Plan (became operative in April 2013)

Department of Planning and Community Development, State Government of Victoria (2013) The Parking Overlay, Practice Note 57

NZ Transport Agency (2009) Pedestrian Planning and Design Guide

The background of the page is a solid orange color. In the lower half, there are several overlapping rectangular shapes in various shades of orange and brown, creating a layered, architectural effect. These shapes are positioned behind the contact information text.

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