

15.1 OVERVIEW

Within Carterton District road and rail networks have been instrumental in influencing development. Rail now plays a less important role while the State Highway carries increasing traffic volumes.

Average daily traffic volumes in Carterton District "range from 6200 south of the urban ward to 6800 north of the urban area with a predicted annual increase in traffic volumes of 1 to 3%" (Wellington Regional Council, 1993).

15.2 ISSUES

- **Effects associated with the establishment and maintenance of the transport network.**

Within the District road and rail systems are constantly being developed and maintained. In establishing and maintaining these systems there are a number of likely adverse effects that may occur. For example, road runoff creating adverse effects on adjacent properties and natural bodies of surface water, or the visual impact of earthworks and road and rail structures. In addition there are a number of nuisance type effects, for example, noise and dust.

There are other activities associated with the transport network including cyclists, pedestrians and carparks. In establishing and maintaining the transport network recognition needs to be given to other users and needs and the potential for conflict between different users needs to be avoided, remedied or mitigated

The establishment and maintenance of the road and rail systems also provide benefits to the community. For example, improved access within and outside the District; and economic advantages for the access of goods.

The infrastructure associated with road and rail is well established and serves a community and national need. It is also important that the resource is efficiently maintained to provide for the needs of existing and future generations.

The location of road and rail can also establish the type of development patterns in the community. For example, the Waingawa industrial area and the Juken Nissho plant are in areas where there is access to both road and rail. These

types of effects need to be accounted for.

- **Effects of activities on the transport network.**

It is recognised in the community that easy access to transport links is a necessity. This ease of access is important to the well being of the community. However, in obtaining this ease of access there are also potential problems. There can be conflict between activities and the users of the transport network. For example, the placing of crossing places may be dangerous for road users; the placing of signage may be visually distracting; safety issues in relation to the placement of rail crossing points; and the potential conflicts between various road users particularly in parking areas with cars versus cyclists versus pedestrians.

There are also issues of road wear and tear. Identifying the cause of wear and tear on roads is not a straightforward matter. Wear and tear cannot easily be attributed to one sector or one period of time. Developing a strategy for maintaining roads in situations of heavy traffic or high traffic volumes should take a long term approach and is not simply a matter of demanding funds for repairs from one industry sector.

In addition the spillage of stock effluent or liquids onto the road surface can create problems for users. These issues are complex and cannot be dealt with through the provisions of the District Plan. Many agencies are involved in reaching a resolution and other legislation is also applicable, for example, the Transport Act.

15.3 OBJECTIVE

- 15.3.1 A safe, efficient and effective land transport system which has minimal adverse effect on the environment.**

15.4 POLICIES

- 15.4.1 Ensure that when the transport network (road and rail) is established or maintained the adverse effects on the environment are avoided, remedied or mitigated.**

Explanation:

In establishing new transport networks there can be adverse effects created for the environment including the local community. It is important that where new transport networks are established the development is not unduly restricted but the consequences of the development are controlled. For example, there can be effects on the visual quality of the environment and nuisance type effects on adjacent communities, such as, noise and dust. In addition the effects of the operation and maintenance of the transport network need to be avoided, remedied or mitigated. There will need to be certain minimum standards to ensure all roading is designed and constructed for the safe and efficient movement of vehicles.

15.4.2 Manage activities to avoid, remedy or mitigate their potential adverse effects on the safety and efficiency of the transport network.

Explanation:

The adverse effects of activities on the land transport network need to be avoided, remedied or mitigated. The intensity and type of activities may need to be controlled particularly where they may effect the safety of road users, for example, signage and road crossing points. In addition recognition needs to be given to the needs of other users of the transport network including pedestrians and cyclists. A roading hierarchy will assist in setting design and speed characteristics of the roads in order to better determine the likely scale of effects of an activity on the roading network.

15.5 METHODS

15.5.1 District Plan

- (a) Ensure that the effects of activities on the transport infrastructure are dealt with through standards and conditions in the plan.
- (b) Ensure that Transit New Zealand are consulted over any activity which may have an adverse effect on the State Highway system.
- (c) Identify a roading hierarchy in the District Plan.
- (d) Ensure that all new public roads are designed and constructed to meet consistent minimum standards to avoid, remedy or mitigate adverse effects.

Reasons

The adverse effects of activities on the transport infrastructure can be avoided, remedied or mitigated through the administration of appropriate standards and conditions in the Plan.

A roading hierarchy will establish the status and type of traffic generated on a particular type of road. This will enable the design aspects of development to be targeted to the likely scale of vehicular traffic. In addition the effects of activities on the roading network can be more easily established where the use and likely traffic generation factors are known.

The adverse effects of roads on the environment need to be avoided, remedied or mitigated.

15.5.2 Annual Plan

- (a) Plan and target the development and maintenance of roads within the control of Council.

Reasons

The annual plan process is the appropriate mechanism for determining how and when road maintenance and development is undertaken. The forward planning process enables a reduction in likely adverse environmental effects. For example, road development and the other infrastructure replacement or development can be planned to occur at the same time and reduce effects in terms of dust and noise.

15.5.3 Other Mechanisms

- (a) Liaison with Transit New Zealand to deal with issues related to the State Highway.
- (b) Liaison with the Wellington Regional Council in terms of a regional land transport strategy.
- (c) To work with the Traffic Safety Service, transport operators and Transit New Zealand to deal with the issue of road spills.
- (d) Transit New Zealand has powers under the Transit New Zealand Act 1989 to control the location and design of state highway crossings.

- (e) Encourage developers to make provision for cyclists and pedestrians in any subdivision or within a development proposal.

Reasons

In order to deal with issues that occur regarding the State Highway and to ensure the highway can operate in a safe and efficient manner on-going contact needs to be made with Transit New Zealand.

The regional land transport strategy will establish the general goals as they relate to the transport network which includes, public and private transport and all modes of transportation.

The Council recognise that the issue of road spills requires the co-operation and co-ordination of many organisations.

Where crossings onto the state highway are likely to create adverse effects on the safety and operation of the highway it is appropriate that all mechanisms are used to avoid, remedy or mitigate adverse effects. The provisions of the Transit New Zealand Act 1989 enable Transit New Zealand to control adverse effects.

The time to make provision for the needs of cyclists and pedestrians is at the time of subdivision or while a new development is being planned.

15.6 ANTICIPATED ENVIRONMENTAL RESULTS

The implementation of the policies and methods is expected to result in the following outcomes:

- A safe and efficient transport network.
- Adverse effects on the environment created by the establishment and maintenance of the transport network will be avoided, remedied or mitigated.

15.7 DISTRICT RULES

15.7.1 PERMITTED ACTIVITIES

- (a) The repair, maintenance, realignment or upgrading of existing roads and rail systems and the provision of signage for traffic control by the road/rail controlling authority within the legal road/rail reserve.

- (b) Public utilities within road and/or rail reserve (as permitted in the utilities section).
- (c) Temporary recreational events on roads except on strategic and arterial routes as identified in Table 15.2.
- (d) The provision of access points onto existing roads except where the access is to be on to the State Highway.
- (e) The formation of unformed legal roads for vehicle access to any allotment except where the access is to be onto the state highway, and such access does not comply with the design standards of Transit New Zealand.

15.7.2 Conditions for Permitted Activities

These activities will be required to comply with the conditions specified in Appendix 15A and in addition shall meet the following:

15.7.2.1 Earthworks:

- (a) Any activity may alter the existing ground level by up to 4 metres measured vertically.
- (b) Any earthworks shall be setback 10 metres of any body of surface water, 20 metres from the margins of the waterways identified in Appendix 7A and 60 metres from MHWS.

Note: Resource consent may be required from the Regional Council for activities affecting a waterbody.

- (c) No earthworks shall be undertaken on any ridgeline, hilltop, natural hazard area or natural area.

Note: These requirements do not apply to road, bridge and culvert maintenance and replacement carried out on existing roads.

15.7.2.2 Lighting and Glare:

All external lighting shall be directed or shaded so as to avoid any nuisance for nearby residential properties and roads.

15.7.2.3 Surfacewater Disposal:

Provision shall be made for the collection, treatment and disposal of surfacewater runoff in accordance with the provisions in the Subdivision and Development Section.

Explanation:

The conditions aim to avoid or remedy the effects of the operation, repair and maintenance of road and rail systems on the surrounding environment.

15.7.3 DISCRETIONARY ACTIVITIES

- (a) Any activity involving the establishment and maintenance of the transport network which is not identified as a permitted activity.
- (b) The repair, maintenance, minor realignment or upgrading of existing legal roads and rail systems which do not meet the conditions for permitted activities.
- (c) The construction of new roads.
- (d) Any permitted activity which does not meet one or more of the conditions for permitted activities.

15.7.4 Council may have regard to the following matters:

Consideration will be given to the conditions identified in the Appendix 15A.

- (a) Traffic:

Likely traffic volumes.

(b) Noise:

The potential for noise impacts on surrounding activities of the construction and ongoing operation of the road and the proposed means of avoiding, remedying or mitigating those effects.

(c) Conflict with Different Users:

The effects on other activities including effects on the safety of the road users and the potential for pedestrian and vehicle conflict.

(d) Visual:

The likely visual impacts on the surrounding environment and the proposed means of avoiding, remedying or mitigating those effects

(e) Signs:

The impact of the signs on the safety of the road users and the proposed means of avoiding, remedying or mitigating those effects.

(f) Bodies of surface water:

The effects on surface water quality.

Explanation:

Where the road or rail system will have adverse effects on neighbouring activities these effects will be considered as part of the resource consent process. In addition it is important that where any activity is likely to adversely affect the safety of the road and rail users those effects are carefully considered.

APPENDIX 15A

REQUIREMENTS FOR VEHICLE ACCESS, NEW ROADS, INTERSECTIONS,
PARKING, LOADING AREAS.

Table of Contents

	Page
1. Vehicle Access to Sites	15/10
1.1 Vehicle Access to Individual Sites	15/10
1.2 Minimum Distance Between Vehicle Access Crossing Points and to Intersections	15/16
2. New Roads	15/16
2.1 New Roads - Design Dimensions	15/16
2.2 Road Intersections with State Highways	15/18
2.3 Vehicle Access and Road Connections to State Highways	15/20
2.4 New Roads to be Shown in Proposed Subdivision	15/20
2.5 New Roads - Construction	15/20
2.6 Lighting of Vehicle Access Ways and Roads	15/20
2.7 Standards for Pedestrian Facilities	15/21
3. Vehicle Parking Standards	15/21
3.1 Vehicle Parking to be Provided	15/21
3.2 Parking for the Disabled to be Provided	15/22
3.3 Alternative Provision for Vehicle Parking	15/22
3.4 Vehicle Access and Manoeuvring Space to be Provided	15/22
3.5 Vehicle Parking Spaces and Access Aisles to Remain Clear	15/23
3.6 Design of Vehicle Parking Spaces	15/23
3.7 Standards of Construction of Vehicle Parking Spaces	15/23
3.8 Number of Vehicle Parking Spaces Required	15/26
4. Vehicle Loading Area Standards	15/29
4.1 Loading Facilities to be Provided	15/29
4.2 Access to Loading Facilities to be Provided	15/29
4.3 Loading Spaces and Access Aisles to Remain Clear	15/30
4.4 Design of Loading Spaces	15/30
4.5 Standards of Construction of Loading Spaces	15/30

**REQUIREMENTS FOR VEHICLE ACCESS, NEW ROADS, INTERSECTIONS,
PARKING, LOADING AREAS.**

1. VEHICLE ACCESS TO SITES

1.1 Vehicle Access to Individual Sites

All sites and allotments shall have practicable vehicle access from a public road.

No vehicle access shall have a gradient in excess of 1 in 8.

All access ways shall be formed as prescribed in the following table and provision shall be made for collection and disposal of surface water run-off without worsening any inundation onto other land.

All vehicle access connections with roads shall be designed and constructed to be compatible with the formation and speed environment of the road and to ensure safe visibility to and from the vehicle access point in both directions along the road in accordance with the design parameters shown in Figures 15.1, 15.2, 15.3 and 15.4 as appropriate.

Note: Transport network operators may have sight distance requirements which will need to be met before access can be gained to/across their network

Any vehicle access which crosses a waterway shall incorporate culvert crossings appropriate to the volume of water in the waterway and the traffic load on the access. Any pipe work or earthworks shall also comply with any additional requirements of this Plan. Note that the Regional Council may have additional requirements relating to activities in waterways.

Where vehicular access is to be provided by way of an access allotment, access way, shared access way, or private road it shall have dimensions in accordance with Table 15.1 following:

Table 15.1 Vehicle Access Dimensions

Plan Zone	Number of Allotments/ Sites Served	Required Minimum/ Maximum Legal Width	Required Minimum Formation	Maximum Permitted Length of Access
Low Density Residential	2 or more	Min 5 m	2.5 metres formed and metalled to an all-weather standard	150 m
Residential	3 or less	Min 3.5 m	2.5 metres formed, metalled, and sealed to an all-weather standard	100 m
Residential	4 or more	Min 6 m	5 metres formed, metalled, and sealed to an all-weather standard	100 m
Rural Environment	2 or more	Min 5 m	2.2 m formed and metalled to an all weather standard	-
Commercial	3 or less	Min 5 m	3 metres formed, metalled, and sealed to an all-weather standard	30 m
Commercial	4 or more	Min 6 m Max 9m	5 metres formed, metalled, and sealed to an all-weather standard	30 m
Industrial and Rural Industrial	1 or more	Min 6 m	5 metres formed and metalled; and sealed to an all-weather standard where 2 or more allotments are served by the access	150 m

Figure 15.1
Private Access to State Highway and District Arterial Roads: Frequent Use by Heavy Vehicles

Note: All dimensions in metres. Not to scale.

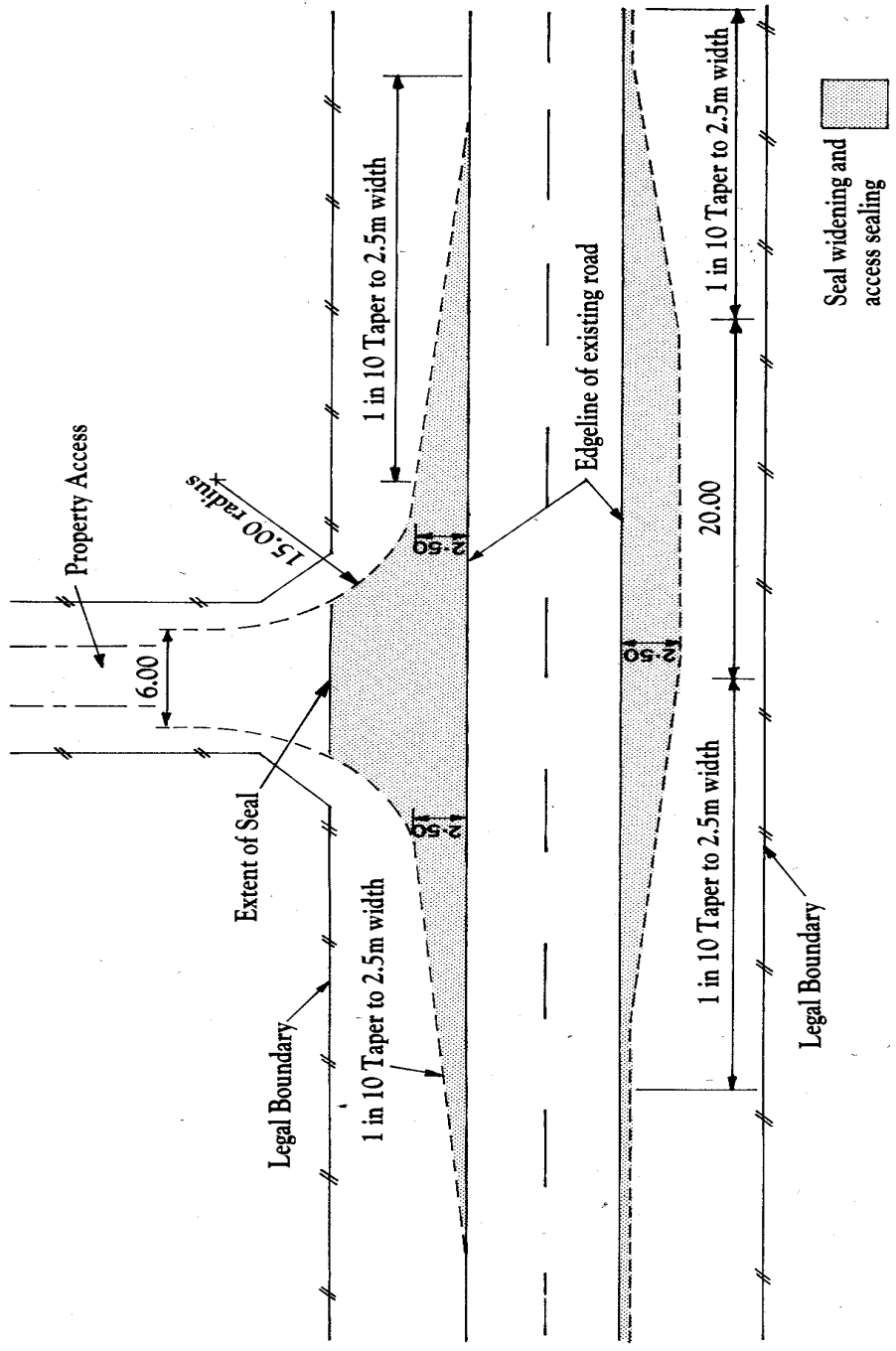


Figure 15.2
Private Access onto the State Highway and Sealed Roads in the District

Note: All dimensions in metres. Not to scale.

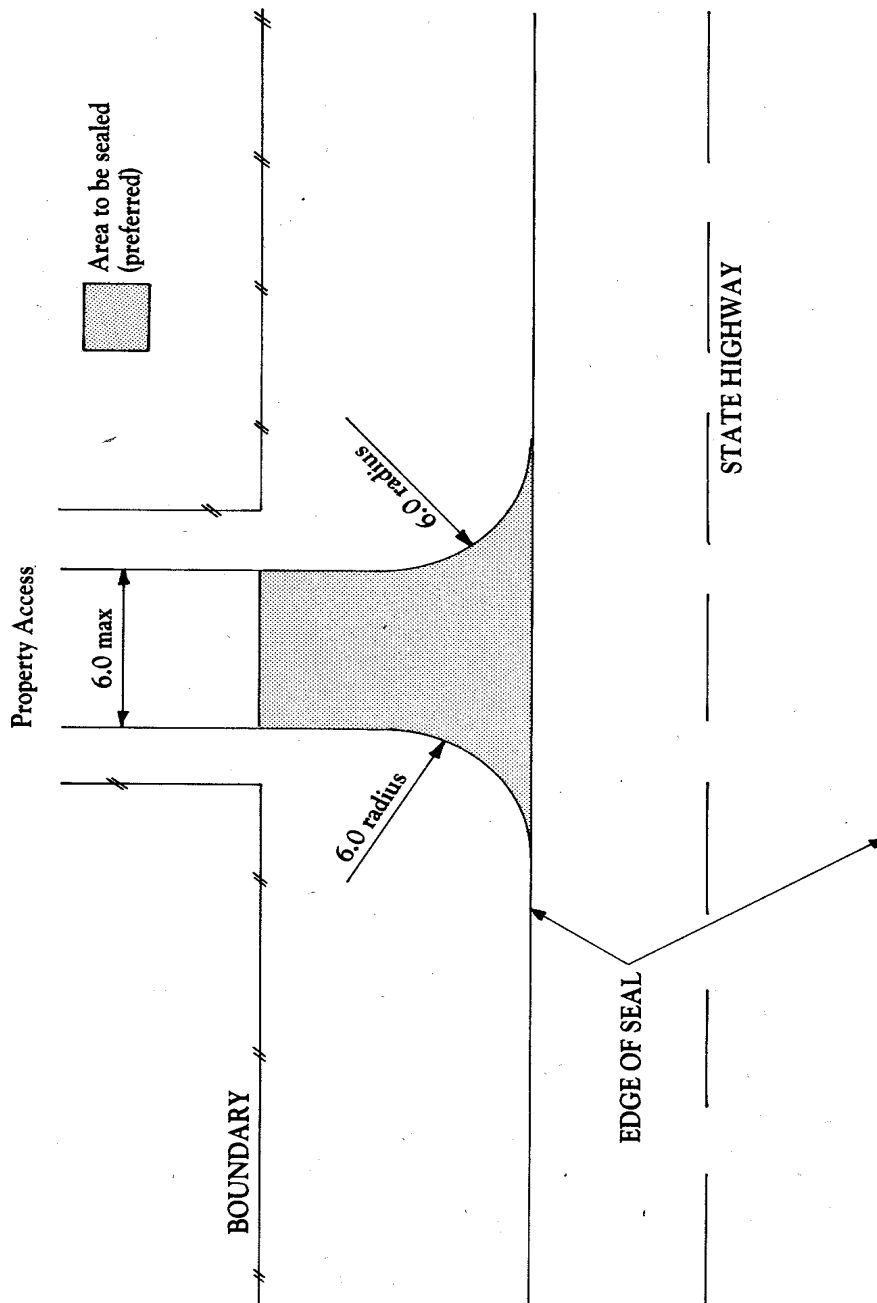


Figure 15.3
Major Entrance onto Sealed Roads in the District

Note: All dimensions in metres. Not to scale.

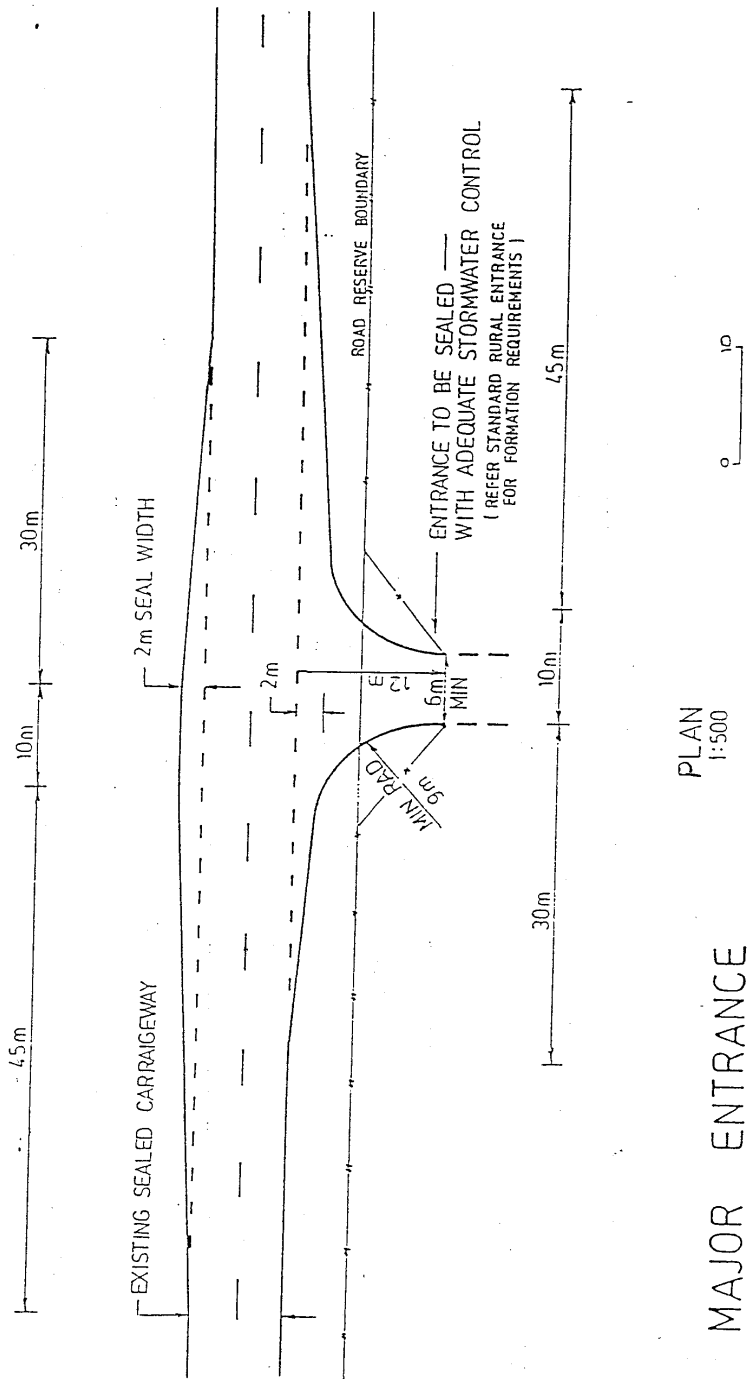
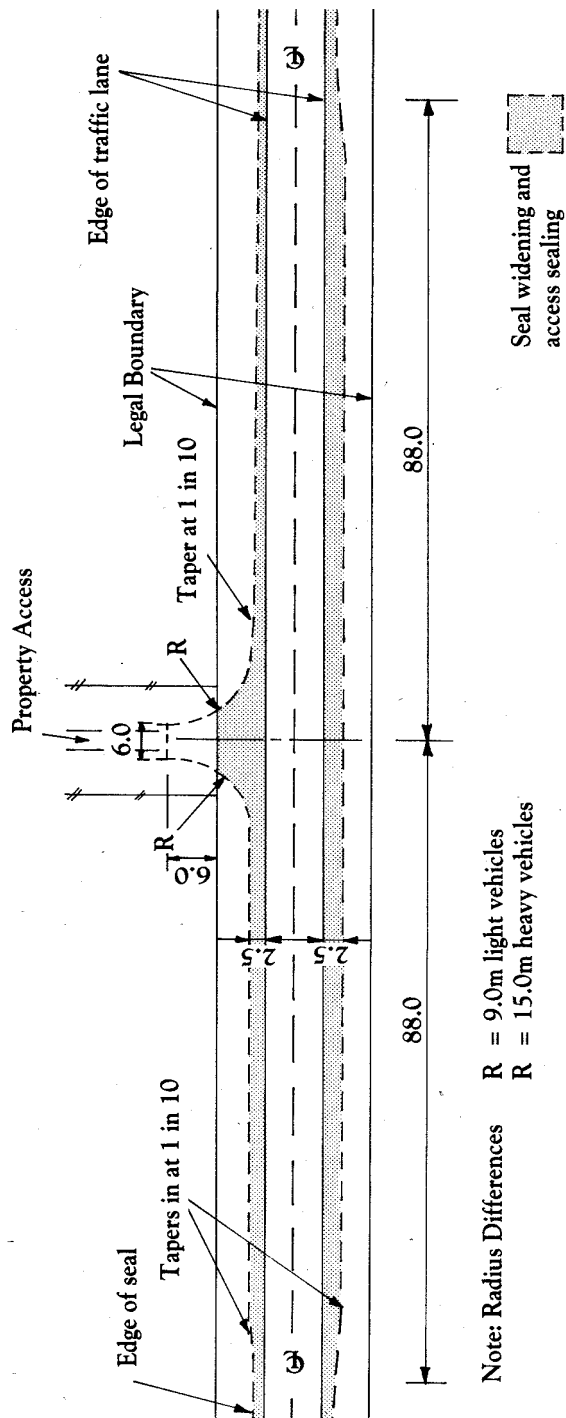


Figure 15.4
Localised Road Widening: Commercial Access onto the State Highway

Note: All dimensions in metres. Not to scale.



1.2 Minimum Distance between Vehicle Access Crossing Points and to Intersections

In the rural area the minimum distance between property access points for vehicles onto a state highway shall be 200 metres and no property access for vehicles onto the state highway shall be located within 100 metres of an intersection and where the property access is on to a side road the property access shall be a minimum of 30 metres from the state highway boundary.

For all other roads in the rural area in relation to any subdivision application lodged there is no minimum distance between vehicle crossing points; however the applicant must provide sufficient information to demonstrate that proposed vehicle access points will provide suitable and safe access.

In the urban area, the access to or egress from strategic, arterial and collector routes should not be located within 15 metres of the intersection of the street kerb lines. In the urban area, the access to or egress from local roads should not be located within 7.5 metres of the intersection of the street kerb lines.

2 NEW ROADS

2.1 New Roads - Design Dimensions

All proposed new roads shall connect with and be compatible with the Council's roading hierarchy set out in Table 15.2 below.

All public road carriageways shall provide for two lanes of moving traffic except for short local roads where traffic volume is insufficient to warrant two lanes.

All public road reserves shall be of sufficient width to provide for vehicle carriageway, footpaths (as required), cycleway (as required), public utilities, street lighting, reticulated services, drainage, landscaping, and road-side vehicle parking (where required).

The vertical alignment of all roads should be such that inclines can be negotiated during all weather conditions and sight distances are adequate for road safety.

All cul-de-sacs shall be provided with an area where light vehicles may turn without reversing manoeuvres. Each cul-de-sac shall be of such design and dimension to enable larger vehicles to reverse from the cul-de-sac without compromising traffic safety on any intersecting road or pedestrian footpath.

Table 15.2 Carterton District Council Roading Hierarchy

Strategic Routes Roads which form part of a network of strategic national importance, having the highest standards with access control where necessary, and for which a high level of user service must be provided on a continuous basis.	
! State Highway Number 2	
Arterial Routes Roads serving an arterial function within or between regions or territorial authorities, having high safety standards and pavements in keeping with traffic use, with access controls where warranted.	
! Carterton Gladstone (Park, Carters Line, Gladstone)	! Tupurupuru Te Wharau
! Carterton Longbush (Carters Line, Nix's, Kokotau, Millers)	! Ponatahi
! Masterton-Martinborough Road (the former Highway 52)	! Bristol
	! East Taratahi
Collector Routes Local preferred routes between or within areas of population or activities, complementing arterial routes, and having pavements and road geometry in keeping with the operational safety standards required for the traffic volumes on each section of the route.	
! Dalefield Road	! Moreton Road
! Belvedere Road	! Para/Waihakate (para to SH II intersection)
Local Roads All other roads servicing residential and rural development, with standards appropriate for the traffic volume using them.	
All other roads in the District	



2.2 Road Intersections with State Highways

Intersections shall be designed to ensure adequate sight distances and safety having regard to expected traffic volumes and speeds on approach roads.

Minimum distances between intersections shall be as prescribed in Table 15.3 following:

Table 15.3 Minimum Distance between Road Intersections on the State Highway

Speed Limit (km/hr)	Minimum Distance (metres)
100	800
80	550
70	220
60	160
50	125

Kerbline radius at intersections should be kept as short as possible consistent with likely vehicle and pedestrian use. In all cases, kerbline radius shall not be less than 6 metres. Intersections with arterial routes shall be specifically designed to provide for bus and heavy vehicle use.

The preferred angle of intersection is 90 degrees. The minimum permitted angle is 80 degrees. Carriageway alignment may be offset from the road alignment to improve intersection angle. Roads intersecting at T-intersections should be offset at least 40 metres where practicable.

Where practicable corner splays for road purposes shall be vested at road intersections and shall have minimum horizontal dimension(s) of 6 metres.

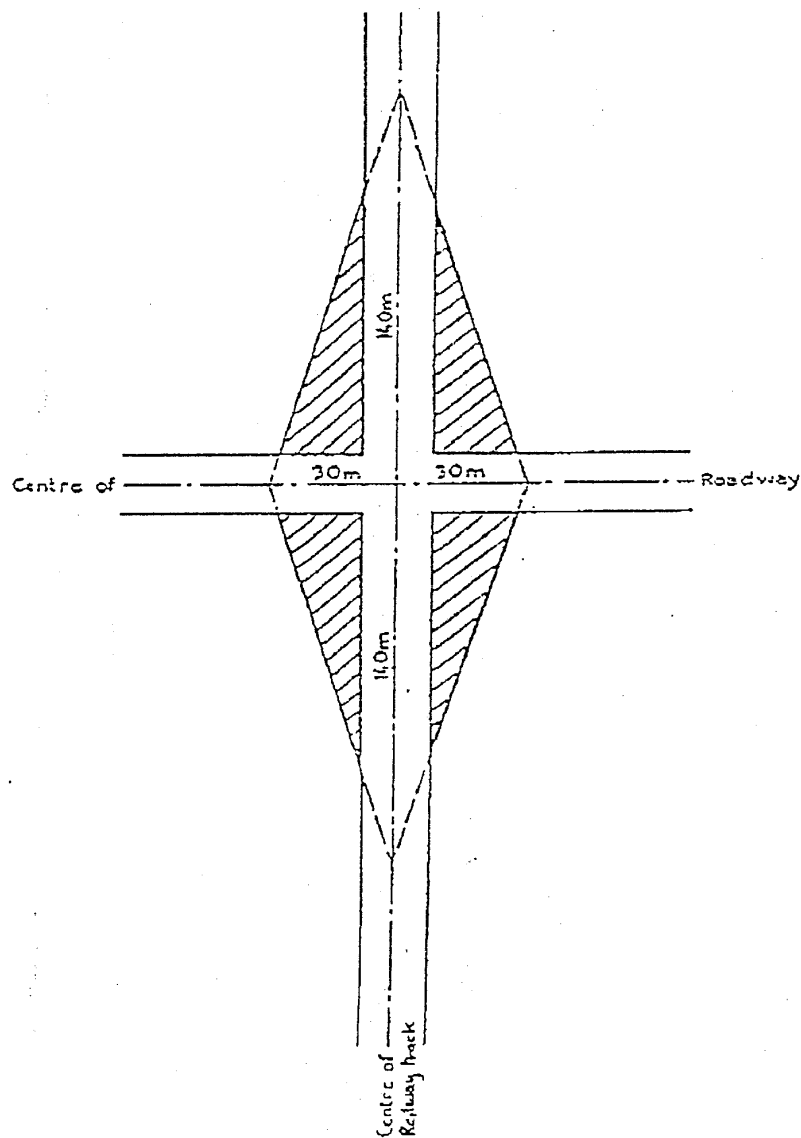
At road/rail level crossings the minimum sight distance requirement is illustrated in Figure 15.5.

Figure 15.5
Railway Crossing and Traffic Sight Lines at Road/Level Crossings

Note: All dimensions in metres. Not to scale.

Source: NZ Rail Limited in response to Council's invitation pursuant to clause 4(a) of Part 1 of the First Schedule of the RMA.

Hatched areas are to be kept clear of buildings or other obstructions which might block sight lines. Dispensation to dimensions that are given may be possible through application to NZ Rail Limited dependent upon train movements in the area. Where there are 2 or more rail tracks, the 30 m sight line applies from the centre line of the nearest track.



2.3 Vehicle Access and Road Connections to State Highways

Where it is proposed to create a vehicle access or road intersection with any State Highway, the subdivider or developer shall obtain the approval of Transit New Zealand prior to commencing any work to create or construct the access crossing place or intersection. Transit New Zealand may have the following requirements in addition to any prescribed by this Plan:

- Where reasonably practicable vehicle access to another road exists, Transit New Zealand may not agree to any private vehicle access onto the highway;
- Transit New Zealand may require only one vehicle access per allotment onto the highway; and
- Transit New Zealand may require upgrading of the access or intersection.

2.4 New Roads to be Shown in Proposed Subdivision

Where it is proposed to subdivide or develop land, the Council requires the application to clearly show the proposed vehicle access connecting all allotments with public road(s). The Council may also require the application to clearly show the proposed roading pattern for any balance area. The proposed future roading pattern shown is required to be compatible with the Council's roading hierarchy.

2.5 New Roads - Construction

The subdivider or developer shall form and construct all roads, shared access ways, private ways, and private roads.

All roads in the urban areas shall be formed, metalled, and sealed to an all-weather hard surface standard and shall incorporate provision for surface water drainage.

All rural roads shall be formed and metalled to an all-weather standard and shall incorporate provision for surface water drainage.

2.6 Lighting of Vehicle Access Ways and Roads

All roads and all access ways serving 3 or more residential allotments shall be provided with night lighting.

2.7 Standards for Pedestrian Facilities

The Council will require pedestrian footpaths to be provided separate from the road carriageway. Public footpaths should be constructed to have permanent concrete or asphalt surfaces and should be designed to minimise any surface water flow across the footpath which would be an impediment or hazard to pedestrians.

The longitudinal profile of footpaths should not be depressed by vehicular crossings. Pram and wheelchair crossings shall be provided in pedestrian footpaths at road intersections.

Footpath gradients should not exceed 1 in 6 except where steps, ramps, or other safety measures are provided.

Where footpaths or access ways are intended to be used by both cyclists and pedestrians, a physical separation of the two users shall be provided.

3 VEHICLE PARKING STANDARDS

3.1 Vehicle Parking to be Provided

Every activity shall be provided with off-street parking for vehicles used in conjunction with the activity and vehicles expected to visit or be stored on the site in connection with the activity to meet the requirements of Table 15.4; whether those vehicles are used by the owner, occupier, employees, invitees, customers, contractors, or other persons associated with the activity.

Where any activity is changed or any building erected or altered, sufficient vehicle parking shall be provided to meet the demands generated by the altered activity or building to meet the requirements of Table 15.4.

Where there are multiple activities on a site, and each activity requires vehicle parking in terms of this Plan, the total vehicle parking required shall be the combined total requirement for all activities. The Council will consider reductions in parking provision, subject to a resource consent, where it can be demonstrated that the demand for parking generated by each activity does not occur simultaneously and that the operational hours or arrangements of those activities means that sharing of parking spaces will occur. Loading bays and spaces may be counted as parking space(s) according to the number of parking spaces able to be accommodated (refer to section 4.1 of Appendix 15A, Loading

Facilities to be Provided)

3.2 Parking for the Disabled to be Provided

Any activity that is required by other legislation (notably the Disabled Persons Community Welfare Act 1974) to provide specific vehicle parking spaces for the disabled, shall provide the parking spaces required by that legislation in addition to the requirements set out below. The dimensions for the parking spaces shall be in accordance with NZS 4121 "Code of Practise for Design and Use of Buildings and Facilities by Disabled Persons: 1985".

3.3 Alternative Provision for Vehicle Parking

Where it is not reasonable or physically practicable to make provision for the required off-street parking within the site of the activity, the Council may accept alternative parking provision in either of the following ways:

- (a) The required parking may be provided on a nearby site provided that the parking is sufficiently close to the site of the activity to effectively accommodate the vehicles expected to be generated by the activity; or
- (b) The Council may require, in lieu of the provision of vehicle parking spaces, a financial contribution towards the cost of constructing or maintaining public vehicle parking spaces. The amount of the contribution shall be the value of the area of land that would be required to accommodate the number of parking spaces and access aisles required by this Plan. In all cases the amount of the contribution shall not exceed the land value of more than 25 square metres per parking space.

3.4 Vehicle Access and Manoeuvring Space to be Provided

Each required vehicle parking space shall be provided with practical vehicular access from a public road. Sufficient manoeuvring space shall be provided to enable vehicles to enter and leave the parking area in a forward direction in the following situations:

- Where the site gains access from a State Highway; or
- The vehicle parking area contains more than 5 parking spaces; or
- Any of the parking spaces is located further than 30 metres from the road;

or

- Where the site is a rear site with access by way of an access way or driveway.

3.5 Vehicle Parking Spaces and Access Aisles to Remain Clear

The space that is dedicated on any site for vehicle parking and access shall remain unobstructed by other activities and shall not be diminished by the storage of goods or erection of any structure.

3.6 Design of Vehicle Parking Spaces

Each required parking space shall be of usable shape and have a minimum dimension to accommodate a 90 percentile car tracking curve with manoeuvring space in accordance with Figures 15.6 and 15.7.

3.7 Standards of Construction of Vehicle Parking Spaces

In all urban areas and rural settlement zones, all vehicle parking spaces and access aisles required by this Plan shall be formed and metalled or sealed to an all-weather hard surface standard and shall be provided with surface water drainage in accordance with the requirements of the Subdivision and Development Section.

In the rural zone, all vehicle parking spaces and access aisles required by this Plan shall be formed and metalled to an all-weather standard and shall be provided with surface water drainage in accordance with the requirements of the Subdivision and Development Section.

All parking areas that are available to the public for after hour use shall be provided with night lighting to enhance their safety after dark.

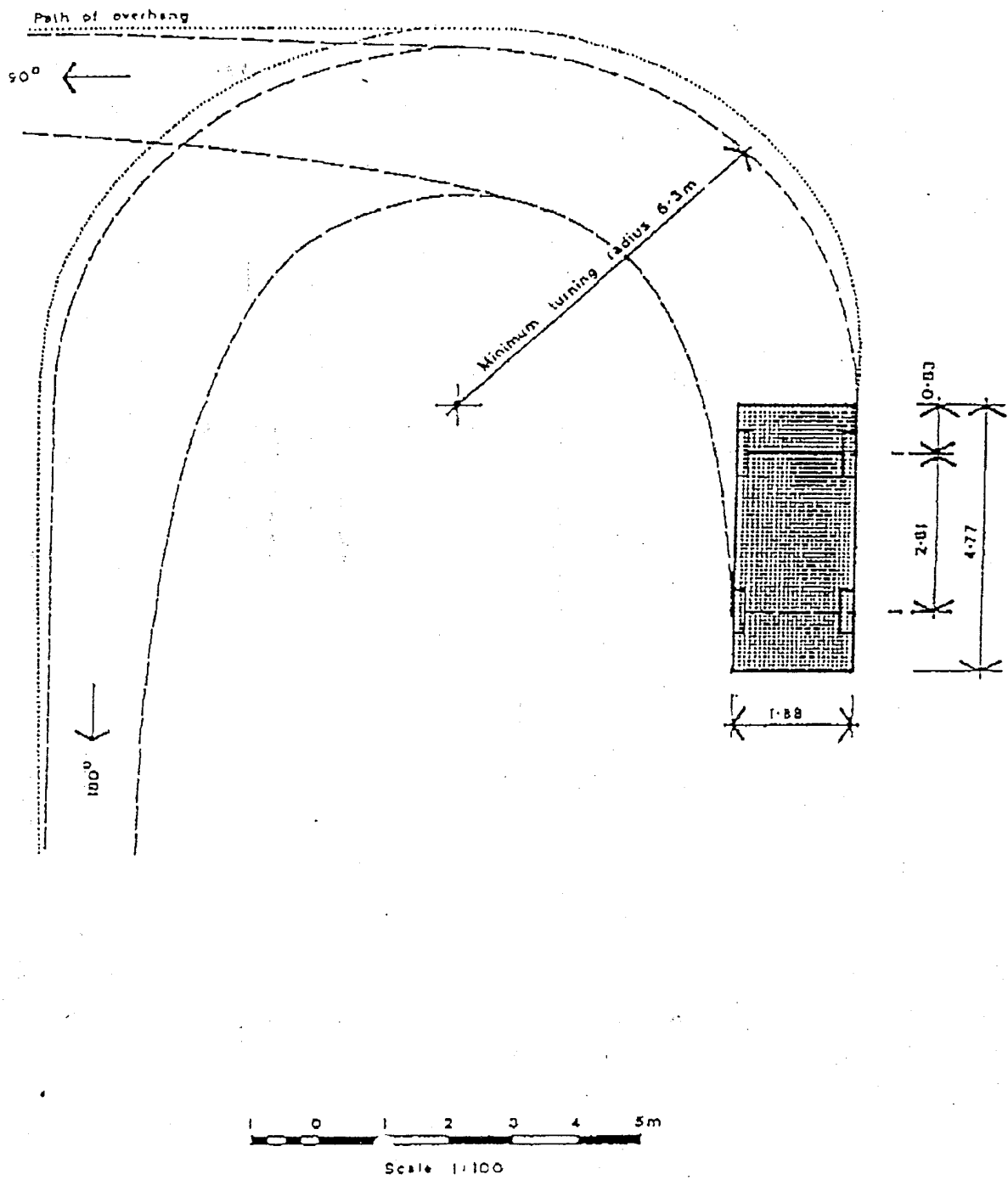
Any parking area which comprises 4 or more parking spaces and which adjoins a residential zone shall be screened along the boundary adjoining that residential zone by planting or a solid screen fence not less than 1.5 metres in height.

All parking areas and access thereto shall have, adjacent to their boundary with any road, a permanent barrier or raised kerb to prevent vehicles entering or leaving the site at any point other than the approved vehicle access crossing

point.

Figure 15.6
90 Percentile Car Tracking Curve Minimum Radius

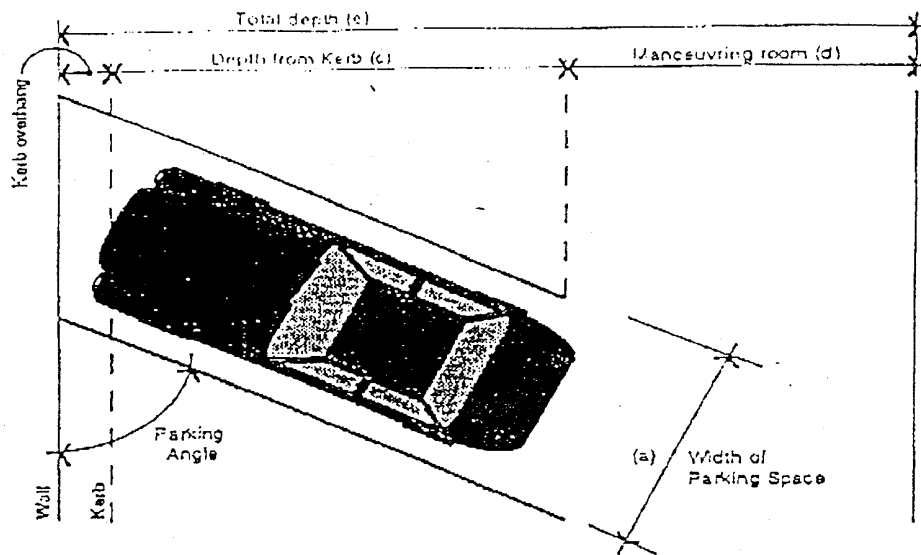
Note: All dimensions in metres. Not to scale.



Fig

Figure 15.7
Car Manoeuvring and Parking Space Dimensions

Note: All dimensions in metres. Not to scale.



Type of Parking		Stall Width (a)	Stall Depth		Aisle Width (c)	Total Depth (e)	
Parking Angle	Type		from wall (b)	from kerb (c)		one row	two rows
ALL MEASUREMENTS ARE IN METRES							
0°	Parallel	2.4	See note 1		3.5	5.9	8.3
30°	Nose in	min. 2.4	4.2	4.0	3.5	7.7	11.9
45°	Nose in	min. 2.4	4.9	4.5	3.5	8.4	13.3
60°	Nose in	2.4	5.4	4.9	4.5	9.9	15.3
		2.5			4.1	9.5	14.9
		2.6			3.5	8.9	14.3
		2.7			3.5	8.9	14.3
75°	Nose in	2.4	5.4	4.9	6.6	12.0	17.4
		2.5			6.3	11.7	17.1
		2.6			5.2	10.6	16.0
		2.7			4.6	10.0	15.4
90°	Nose in	2.4	5.1	4.6	8.7	13.8	18.9
		2.5			7.7	12.8	17.9
		2.6			7.0	12.1	17.2
		2.7			6.8	11.9	17.0

1. Parallel parking spaces (Parking angle = 0) shall be 6.0m long, except where one end of the space is not obstructed, in which case the length of a space may be reduced to 5.0m
2. Minimum aisle and accessway widths shall be 3.0m for one way flow, and 5.5m for two way flow. Recommended aisle and accessway widths are 3.5m for one way flow, and 6.0m for two way flow.
3. Maximum kerb height = 150mm
4. Stall depth computed from 90 percentile vehicle dimensions. A 200mm separation from walls has been added
5. Aisle width from MoT Traffic Engineering Section analysis.

3.8 Number of Vehicle Parking Spaces Required

Where the calculation of required vehicle parking spaces results in a fraction of a whole space, any fraction less than or equal to one half shall be disregarded; and any fraction over one half shall count as one space.

The area of required spaces, access drives, or aisles provided within a building shall be excluded from the gross floor area of the building.

Vehicle parking spaces shall be provided for activities as shown in Table 15.4 following:

Table 15.4 - Parking Requirements

ACTIVITY	NUMBER OF SPACES REQUIRED
Auto Wreckers' Activities	1 per 60 square metres area used for storage of vehicles or vehicle parts (whether within a building or outside)
Churches, Church Halls	1 per 10 persons the church or hall is designed to accommodate; except that where a church and hall exist together, the maximum requirement shall be the number of spaces required for either the church or hall, whichever is the greater
Commercial Activities including Banks and Commercial Services	1 per 70 square metres gross floor area
Day-care and Child Care Centres	1 per staff member; plus 1 per 10 persons to be accommodated in the centre
Funeral Directors Premises, Mortuaries, Funeral Chapels	1 per 4 persons the building is designed to accommodate
Garden Centres and Horticultural Nurseries	1 per 20 square metres gross floor area of any retail shop; plus 1 per 100 square metres of display or storage area

Home Occupations	1 space in addition to any other spaces required for the principal activity on the site
Hospitals	1 per 2 staff. 1 for each doctor and 1 for every 5 persons the facility is designed to accommodate
Premises Hiring Goods, Materials, Equipment, and Vehicles	1 per 45 square metres gross floor area
Licensed Hotels and Taverns	1 per 4 staff; plus 1 per 5 square metres gross floor area of all bar, dining, or other areas open to the public
Industrial Activities	1 per 50 square metres gross floor area of any building; and 1 per 100 square metres used for outside storage
Medical Centres	4 per medical practitioner
Motor Vehicle Repair Services and Commercial Garages	3 per work bay;
Offices	1 per 40 square metres gross floor area
Places of Assembly or Entertainment	1 per 2 staff; plus 1 per 5 persons the building is designed to accommodate
Residential Activities (excluding accessory flats)	1 space per residential dwelling unit
Utilities	Parking shall be provided if the site is staffed at the rate of one space per person normally working at the site plus one visitor car park per site.
Rest Homes and Facilities for the Care of the Elderly	1 per 2 staff; plus 1 per 5 persons the facility is designed to accommodate

Restaurants	1 per 3 persons the dining area is designed to accommodate
Rural Commercial Activities	1 per 20 square metres gross floor area of retail shop; plus 1 per 100 square metres gross floor area of storage area
Schools - Primary and Intermediate Level	1 per staff member
Schools - Secondary	1 space per staff member; plus 1 per 10 students over the age 15
Petrol Service Stations	in addition to the lanes and standing space provided in association with any fuel dispenser - 1 per 20 square metres of any retail shop; plus 4 per work bay or car wash facility where a work bay may be counted as a vehicle parking space
Retail Activities and Retail Shops	1 per 20 square metres gross floor area
Road-Side Sales Activities	1 per 20 square metres gross floor area
Visitor Accommodation	1 per accommodation room for let, plus 1 for every 2 staff employed
Visitor Accommodation in Existing Residential Dwelling Unit	1 space per accommodation room for let in addition to any spaces required for the principal (residential) activity on site

Note: Where an existing building within the commercial area and retail core is being used by a permitted activity the provisions outlined above do not need to be met (refer to section 5.7.2.17). These requirements do not apply to temporary activities.

4 VEHICLE LOADING AREA STANDARDS

4.1 Loading Facilities to be Provided

Every activity shall make provision for the off-street loading and unloading of goods onto or from delivery vehicles associated with that activity.

Where any activity is changed or any building erected or altered, provision for loading facilities shall be sufficient to serve the changed operations or activities undertaken on the site. The exception to this is permitted activities within existing buildings within the Urban Commercial zone (refer section 5.7.2.17).

Where multiple activities exist on a site, Council will consider reductions in parking provision, subject to a resource consent, where it can be demonstrated that the operational hours or arrangements of those activities means that sharing of loading spaces will occur.

Council may require a financial contribution towards the cost of constructing or maintaining service lanes (refer Chapter 8 - Financial Contributions).

Loading Bays and spaces may be counted as parking spaces according to the number of parking spaces able to be accommodated (refer to section 3.1 in Appendix 15A, Vehicle Parking to be Provided)

4.2 Access to Loading Facilities to be Provided

Each required loading space shall be provided with practical vehicular access from a public road. Sufficient manoeuvring space shall be provided to enable vehicles to enter and leave the loading area in a forward direction in the following situations:

- Where the site gains access from a State Highway; or
- The vehicle loading area contains more than 5 loading spaces; or
- Any of the loading spaces is located further than 30 metres from the road; or
- Where the site is a rear site with access by way of an access way or driveway.

4.3 Loading Spaces and Access Aisles to Remain Clear

The space that is dedicated on any site for loading and unloading of vehicles shall remain unobstructed by other activities and shall not be diminished by the storage of goods or erection of any structure.

4.4 Design of Loading Spaces

Each required loading space shall be of usable shape and have a minimum length of 7.5 metres, minimum width of 3.5 metres, and minimum clear height of 4.5 metres. Sufficient manoeuvring space shall be provided to accommodate a 99 percentile two-axle truck as shown in Figure 15.8.

4.5 Standards of Construction of Loading Spaces

All required loading spaces and access aisles required by this Plan shall be formed, metalled, and sealed to an all-weather hard surface standard and shall be provided with surface water drainage in accordance with the requirements of Chapter 9, Subdivision and Development.

Explanation:

The plan rules are designed to ensure that where an activity involves parking, access and roading that certain minimum standards are met. These standards are designed to ensure adverse effects are avoided, remedied or mitigated.

Figure 15.8
99 Percentile Truck Tracking Curve Minimum Radius

Note: All dimensions in metres. Not to scale.

