TR — Transport

A safe, efficient transport network is essential for the social and economic wellbeing of Lower Hutt. The transport network also provides a significant opportunity for greenhouse gas reductions, as transportation accounts for over half of emissions for Lower Hutt.

To achieve sustainable development, the transport network must be integrated with land use, so that people can easily move around the city, and businesses can move goods efficiently.

The safety and efficiency of transport facilities (such as cycle and motor vehicle parking facilities, vehicle access, loading facilities, and on-site manoeuvring areas) makes a significant contribution to the overall safety and efficiency of the transport network.

This chapter sets requirements for transport facilities, including what facilities are required for different activities and design requirements such as minimum dimensions.

The chapter also includes provisions for high trip generating activities to address effects on the capacity of the transport network and to encourage the uptake of active and public transport modes.

Other relevant chapters

Transport and the transport network is also addressed through the following chapters:

- The Subdivision chapter, which sets requirements for new allotments created through subdivision of land, including requirements for roads and access.
- The Infrastructure chapter, which sets objectives, policies, and rules for new infrastructure, including roads and infrastructure often located in the road corridor (such as electricity, telecommunications and three-waters infrastructure).
- The Financial Contributions chapter, which provides a mechanism for Council to require resource consent holders to make a financial contribution to the costs of upgrading transport infrastructure through resource consent conditions.
- The Designations chapter, which identifies public works and infrastructure that are designated through the District Plan, including State Highways 2 and 58 and the rail network.

Objective

TR-O1	Purpose
Land use and development is managed to ensure that: 1. On-site activities are safely accessible by a range of transport modes, 2. The transport needs of on-site activities are met, 3. Reliance on private motor vehicles is reduced, and 4. The safety, efficiency and multi-modal function of the transport network is not compromised.	

Policies

TR-P1	Required transport facilities
Require provision of: 1. Cycle parking and end of trip facilities to facilitate access to activities through active transport modes, and 2. Loading areas, including for refuse storage and collection for residential activities, to ensure the servicing needs for on-site activities are adequately met without compromising the safety, efficiency, and multi-modal function of the transport network.	
TR-P2	**Enabled transport facilities**
Enable transport facilities that are designed to ensure: 1. On-site activities are safely accessible, including for active transport modes, 2. The transport needs of on-site activities are met, and 3. The safety, efficiency, and multi-modal function of the transport network is not compromised.	
TR-P3	**Potentially incompatible activities and transport facilities**
1. Only allow activities that do not meet standards for provision or design of transport facilities where: a. They are effective in meeting the transport needs of on-site activities, b. The safety, efficiency, and multi-modal function of the transport network and the safety of site users is not	

compromised,
   c. For any shortfall in the provision of loading spaces, cycling parking or end-of-trip facilities, the projected demand for the facilities will be lower than that required to be provided in the standards, or can be accommodated by public, shared, or reciprocal arrangements,
   d. Safe and effective access for firefighting purposes is available, and
   e. They are consistent with the planned outcomes in relation to character and amenity of the zones and precincts in which they are located.
2. Transport facilities may be incompatible if:
   a. There is a reduction in the safety, quality or connectivity of active transport networks, or
   b. The safety and efficiency of road networks are compromised, or
   c. There is not sufficient provision of safe access to on-site activities by active transport users, or
   d. The provision of transport facilities is not conducive to reducing reliance on private motor vehicles, or
   e. They are not consistent with the planned outcomes including in relation to character and amenity of the zones and precincts in which they are located, or
   f. New buildings and structures are not accessible by firefighting appliances.
3. Potentially incompatible activities include:
   a. Activities which are not provided with transport facilities which are required by a standard,
   b. Transport facilities which do not meet design standards, and
   c. Vehicle crossings which are not located in the Active Street Frontage Overlay A and Active Street Frontage Overlay B.

TR-P4	Incompatible transport facilities

Avoid adverse effects from new vehicle crossings in the Active Street Frontage Overlay A and Active Street Frontage Overlay B on the safety, quality, and connectivity of active transport networks.

TR-P5	High trip generating activities

Manage the design and location of high trip generating activities to facilitate the uptake of active and public transport modes, reduce reliance on private motor vehicles and to minimise adverse effects on the safety, efficiency, and multi-modal function of the transport network.

TR-P6	Highly constrained roads

Manage effects on the capacity and safe function on roads which are highly constrained by:
1. Identifying roads with constraints that limit existing safe operation and which have constraints to future upgrades,
2. Identifying sites that are accessed by these roads through the Highly Constrained Roads Overlay, and
3. Only allowing new land use and development within the Highly Constrained Roads Overlay where:
   a. There is no increase in motor vehicle trips on the highly constrained roads, or
   b. It can be demonstrated that additional motor vehicle trips will not worsen the safe operation of the road, or
   c. Improvements are made to the highly constrained road to ensure additional motor vehicle trips are accommodated safely and efficiently, and an equitable financial contribution is made for these improvements.

TR-P7	Positive effects

Recognise the positive effects for the uptake of active and public transport modes resulting from:
1. Improvements, extensions, or additions to active transport networks within a site or the transport network,
2. Improvements to the safety and quality of active transport networks where existing vehicle crossings are removed, reduced in width, or relocated to less active frontages,
3. Cycle parking or end-of-trip facilities,
4. Connections to or integration with public transport facilities and routes, and
5. High trip generating activities that are located in a way which facilitates minimisation of transport demand and increased uptake of active and public transport modes.

Rules

TR-R1	All activities — Transport facilities, excluding vehicle crossings
All zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. TR-S1: Pedestrian and cycling access, ii. TR-S2: Provision of cycle parking and end of trip facilities, iii. TR-S3: Design requirements for cycle parking, iv. TR-S4: Classification of vehicle crossings and driveways, v. TR-S7: Driveways,

	vi. TR-S8: Design requirements for motor vehicle parking, circulation and manoeuvring, vii. TR-S9: Loading and un-loading — Non-residential, and viii. TR-S10: Loading and un-loading - Residential.
All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with TR-R1.1. **Matters of discretion are restricted to:** 1. The matters in TR-P3: Potentially incompatible activities and transport facilities. 2. The degree of non-compliance and matters of discretion of any infringed standard. 3. Positive effects on facilitating the uptake of active and public transport modes where in relation to any matter specified in TR-P7: Positive effects. **Notification:** Public notification is precluded for applications under this rule.
TR-R2	**New vehicle crossings**
All Zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. TR-S4: Classification of vehicle crossings and driveways, ii. TR-S5: Vehicle crossings — Number, location and width, and iii. TR-S6: Vehicle crossings — Separation distances and design, and b. Not located within the Active Street Frontage Overlay A, and c. Not located within the Active Street Frontage Overlay B.
All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with TR-R2.1a. **Matters of discretion are restricted to:** 1. The matters in TR-P3: Potentially incompatible activities and transport facilities. 2. Positive effects on facilitating the uptake of active and public transport modes where in relation to any matter specified in TR-P7: Positive effects. **Notification:** Public notification is precluded for applications under this rule.
City Centre Zone Metropolitan Centre Zone	3. **Activity status:** Non-complying Where: a. Located within the Active Street Frontage Overlay B.
City Centre Zone Metropolitan Centre Zone	4. **Activity status:** Prohibited Where: a. Located within the Active Street Frontage Overlay A.
TR-R3	**All activities — Trip generation**
All Zones	1. **Activity status:** Permitted Where: a. New activities do not exceed a motor vehicle trip generation threshold set out in Table 8: High trip generating activity thresholds, including when assessed cumulatively with all other activities which share on-site motor vehicle access, circulation, or parking, b. Where the activities are located in the City Centre Zone, Metropolitan Centre Zone or the Specified High Trip Generator Exemption Overlay, no more than 10 on-site motor vehicle parking spaces are provided for the activity, and c. Alteration or expansion of an existing high trip generating activity does not: i. Increase motor vehicle trip generation by greater than 5%, ii. Alter, remove, or increase the number of, vehicle crossings which provide access to the activity, and iii. Remove the ability for vehicles to enter and exit the site in a forward direction.

All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with TR-R3.1, or b. The activity is a new service station or a new drive-through activity. **Matters of discretion are restricted to:** 1. The extent that the development provides for active and public transport modes. 2. Positive effects on facilitating the uptake of active and public transport modes where in relation to any matter specified in TR-P7: Positive effects. 3. Effects on the capacity, safety, efficiency, and multi-modal function of the transport network. 4. Whether safe and effective access can be provided and maintained for emergency service vehicles to the site and within the transport network. 5. The design of transport facilities and their integration with the transport network. 6. Whether any improvements to the transport network are proposed or required as a result of the activity, and a financial contribution has been made in accordance with the provisions of the Financial Contributions chapter. 7. The transport needs of activities on the site. 8. Any cumulative adverse effects. **Information Requirements:** Applications made under this rule must include an Integrated Transport Assessment prepared by a suitably qualified traffic engineer or transport planner. Where the application is for a new high trip generating activity the Integrated Transport Assessment must include a travel choice assessment. The Waka Kotahi NZ Transport Agency guidelines in Research Report 422: Integrated Transport Assessment Guidelines, November 2010 should be used to inform any Integrated Transport Assessment.
TR-R4	**Activities within the Highly Constrained Roads Overlay**
All Zones	1. **Activity status:** Permitted Where: a. It is a residential activity and no more than one residential unit occupies the site, or b. It is a non-residential activity and is ancillary to an existing on-site activity.
All zones	2. **Activity status:** Non-complying Where: a. Compliance is not achieved with TR-R4.1. **Notification:** Public notification is precluded for applications under this rule. **Information requirements:** Applications made under this rule must include an assessment from a suitably qualified and experienced traffic engineer or transport planner. The assessment must include the following: 1. A review of the current operating conditions and recent crash history of the road. 2. An estimation of private motor vehicle movements generated by the activity, including any proposed methods to minimise trip generation or divert it to other modes. 3. An assessment of the effects of trip generation from the proposed activity on the safe operation of the road. 4. Whether there are any opportunities for improvements to the road to safely accommodate the trip generation from the proposed activity.

Standards

TR-S1	Pedestrian and cycling access
1. Any pedestrian and cycling access which provides access to: a. Two or more residential units, b. A non-residential activity with at least one Full Time Equivalent staff member, or c. An activity on a rear site,	

must:
   d. Be formed from the road reserve to each building containing the activity,
   e. Have a minimum 1.5m formed width,
   f. Have a 1.8m minimum legal width,
   g. Have a maximum average gradient of 1:20, and
   h. Have a maximum gradient of 1:12 for any length which does not exceed 9m.
2. For firefighting purposes, any pedestrian and cycling access which is the sole access to the activity or site, must comply with the following:
   a. A fully reticulated water supply system including hydrants must be available within the road corridor to which the access connects, and
   b. The pedestrian and cycling access must be no more than 75m in length measured from the road boundary to any existing building or proposed building platform on the site.

Matters of discretion if the standard is not met:

1. Whether the pedestrian and cycling access is safe and functional, including for pedestrians, cyclists, micromobility users and persons with a disability.
2. Whether activities have safe and effective access for firefighting purposes.

TR-S2	Provision of cycle parking and end of trip facilities

1. For all activities in new buildings and redevelopment of existing buildings which increases GFA by 10% or more:
   a. Cycle parking must be provided in accordance with Table 1: Minimum requirements for cycle parking, and
   b. Where three or more long-stay cycle parking spaces are required under TR-S2.1a, except where required for residential activities:
      i. A minimum of one locker must be provided per long-stay parking space required under that standard,
      ii. A minimum of one shower must be provided, and
      iii. A minimum of one shower must be provided for every 10 long stay parking spaces required under that standard.

Matters of discretion if the standard is not met:

1. The availability of alternative, accessible, safe, and secure cycle parking that meets the needs of the intended users.
2. Whether provision for cycle parking and end-of-trip facilities for multiple sites or activities can be consolidated and maintained in a shared cycle parking area.
3. Whether the transport needs of on-site activities and site constraints make compliance with the standard impractical.

TR-S3	Design requirements for cycle parking

1. Cycle parking required by TR-S2: Provision of cycle parking and end of trip facilities must:
   a. Be sized and spaced to accommodate cycle dimensions of 1200mm height, 1800mm length, and 600mm width,
   b. Be securely anchored to an immovable object,
   c. Be able to support the bicycle frame and front wheel, and
   d. Allow the cycle frame to be secured.
2. Short-stay cycle parking required by TR-S2: Provision of cycle parking and end of trip facilities must be in a location:
   a. That is accessible for users of short-stay cycle parking for the duration of the activity's hours of operation,
   b. Within 20m of the primary entrance,
   c. That does not impede pedestrian thoroughfares,
   d. Clear of motor vehicle parking or manoeuvring areas, and
   e. Clear of any structure, storage of goods, landscape planting, or other use.
3. Long-stay cycle parking required by TR-S2: Provision of cycle parking and end of trip facilities must be in a location that is:
   a. Secure and separate from any short-stay cycle parking facility,
   b. Accessible to long-stay users related to the activity (such as staff or residents), and
   c. Covered either within the building for the activity or within its own structure.

Matters of discretion if the standard is not met:

1. The safety of pedestrians, cyclists and micromobility users using the road, accessways, walkways, and cycle parking spaces.
2. The effectiveness of the cycle parking spaces and end-of-trip facilities.
3. Whether the transport needs of on-site activities and site constraints make compliance with the standard impractical.

TR-S4	Classification of vehicle crossings and driveways

1. Driveways and vehicle crossings must be classified according to Table 2: Driveway and vehicle crossing classification.

There are no matters of discretion if the standard is breached.

TR-S5	Vehicle crossings — Number, location and width

1. The number of vehicle crossings per site must not exceed the following:
    a. Where the total frontage width does not exceed 50m: One vehicle crossing.
    b. Where the total frontage width is between 50m and 100m: Two vehicle crossings.
    c. Where the total frontage width exceeds 100m: Three vehicle crossings.
2. Where a site has more than one frontage and is permitted only one vehicle crossing, the location selection of the vehicle crossing must be in accordance with the following order of precedence:
    a. Local streets, then
    b. Urban connectors or Rural roads, then
    c. Any other road.
3. Vehicle crossings at the point of intersection with any footpath or shared path must have a width not exceeding:
    a. For single vehicle crossings: 6m, and
    b. For combined vehicle crossings: 9m.
4. The total width of vehicle crossings must not exceed 30% of the frontage width.

Matters of discretion if the standard is not met:

1. The classification, characteristics, and operating speed of the road and the number and types of motor vehicles accessing the site.
2. The characteristics of active transport networks at the site frontage and the amenity of the streetscape.
3. Whether the proposed activities provide for the safety, continuity and quality of active transport networks.
4. Opportunities to consolidate and reduce the number of vehicle crossings.
5. Alternative opportunities for vehicle access.

TR-S6	Vehicle crossings — Separation distances and design

1. Where the posted speed limit along the site frontage is 70km/h or greater, new vehicle crossings must have a minimum 50m separation from existing vehicle crossings (including those for other sites) which are located on the same side of the road.
2. There must be a separation distance of at least one metre between vehicle crossings measured at the kerb/carriageway edge and between full kerb heights. This includes when measured from vehicle crossings on neighbouring sites. Where a one metre separation cannot be achieved the vehicle crossings must be combined.
3. Vehicle crossings must not be located within a distance "a" of an intersection tangent point as shown by the heavy line between points A and B in Figure 1: Separation distances from intersections, where distance "a" is:
    a. 20m: where one or more roads joining the intersection is a Transit corridor or Interregional corridor.
    b. 10m: where one or more roads joining the intersection is an Urban connector, Rural connector, Activity street, Main street, Civic space, City hub, Peri-urban road and Rural road.
    c. 6m: where all roads joining the intersection are Local streets.
4. A vehicle crossing must not be located at the top of a T-intersection, shown as the heavy line between Points C and D in Figure 1: Separation distances from intersections and where the distance "a" is as described in clause 3 of this standard, except where all roads forming the intersection are Local streets.
5. For pedestrian safety, vehicle crossings must have clear visibility splays from 1.0m above ground level, as shown in Figure 2: Visibility splays and safe stopping distances. For Vehicle Access Level 1 (based on the classification in Table 2: Driveway and vehicle crossing classification), where providing the visibility splay is not practicable, then it is not required if a 75mm high speed hump is installed 1.0m from the road boundary.
6. Safe stopping distances from vehicle crossings, as shown in Figure 2: Visibility splays and safe stopping distances, must comply with Table 3: Safe stopping distances for new vehicle crossings.
7. The distance from vehicle crossings to railway crossings must be at least 30m, measured from the nearest edge of the vehicle crossing to the nearest railway track.

Matters of discretion if the standard is not met:

1. Whether the vehicle crossing provides for the safety, continuity and quality of active transport networks.
2. The characteristics of active transport networks at the site frontage and the amenity of the streetscape.
3. Opportunities to consolidate and reduce the number of vehicle crossings.
4. Alternative opportunities for vehicle access.
5. The classification, characteristics and operating speed of the road and the number and types of motor vehicles accessing the site.
6. Whether manoeuvring is provided on-site to enable motor vehicles to enter and exit the vehicle crossing in a forward direction.
7. Whether the design of the vehicle crossing and driveway, and the characteristics of the transport network enable motor vehicles to traverse the vehicle crossing efficiently without obstructing the movement of users in the transport network.

TR-S7	Driveways

1. The minimum design vehicle used for driveway design under this standard is a 4.91m x 1.87m vehicle (85th percentile vehicle).
2. Driveways must be designed to achieve the design speeds, minimum widths, pedestrian access, maximum gradients and seal requirements in Table-4: Design requirements for driveways
3. Any driveway for a site located in an area where no fully reticulated water supply system is available, or having a length greater than 75m when connected to a road that has a fully reticulated water supply system including

hydrants, must:
a. Have a minimum unobstructed width of 4m,
b. Have a minimum formed width of 3.5m,
c. Have a minimum height clearance of 4m, and
d. Be designed to be free of obstacles that could hinder access for emergency service vehicles.

Matters of discretion if the standard is not met:
1. The safe, efficient, and effective functioning of the driveway, including the safety of pedestrians, cyclists, micromobility users, and people with disabilities.
2. The ability for refuse collection to occur safely and efficiently while minimising disruption to site users and the transport network.
3. Whether activities have safe and effective access for firefighting purposes.

TR-S8	Design requirements for motor vehicle parking, circulation, and manoeuvring

1. The minimum design vehicle used for design under the standard must be a 4.91m x 1.87m vehicle (85th percentile vehicle) with a minimum outside turning radius of 5.8m and a 300mm clearance from the outside radius.
2. Carparking spaces must:
   a. Comply with the minimum dimensions of Figure 3: Motor vehicle parking and Table 5: Design requirements for motor vehicle parking,
   b. Have a maximum gradient of 5% in any direction,
   c. Have a minimum height clearance of 2.3m, and
   d. For residential on-site carparking spaces, whether covered or uncovered, be electric vehicle-charging-ready by being serviced with an electrical cable conduit from the electricity supply to the edge of the carpark.
3. Blind aisles must extend at least 1m beyond the last parking space they provide access to.
4. On-site circulation and manoeuvring areas must:
   a. Have a maximum gradient of 12.5%, and
   b. Not be located on areas permanently allocated for parking or storage.
5. On-site parking, circulation and manoeuvring must not include ramps, turntables, lifts or stackers.

Note:
Where parking is provided, the New Zealand Building Code D1/AS1 New Zealand Standard for Design for Access and Mobility — Buildings and Associated Facilities (NZS: 4121-2001) sets requirements for the number and design of parking spaces for people with disabilities and for accessible routes from the parking spaces to the associated activity or road.

Matters of discretion if the standard is not met:
1. The safe, efficient, and effective functioning of the motor vehicle parking, circulation, and manoeuvring areas, including the safety of pedestrians, cyclists, micromobility users, and people with disabilities.

TR-S9	Loading and unloading - Non-residential

1. The number of loading spaces to be provided on-site must not be less than that shown in Table 6: Minimum provision of loading spaces for non-residential activity.
2. On-site loading spaces and design of related manoeuvring and circulation areas must comply with the specifications of the applicable design vehicle detailed in Table 7: Loading space design requirements.
3. Loading spaces must provide for loading and unloading to occur within the site and in a manner that does not impede vehicular access to parking spaces or areas within the site required for vehicle manoeuvring and circulation.
4. On-site circulation and manoeuvring areas must be provided so that within five turning movements the applicable design vehicle can enter and exit the site and any required loading space in a forward direction, except where access to the site is from a Local street. These on-site circulation and manoeuvring areas must not be located on:
   a. Road reserve (unless a service lane), or
   b. Areas permanently allocated for parking or storage.

Matters of discretion if the standard is not met:
1. Whether the projected demand for loading areas will be lower than that required in the standards or can be accommodated by shared or reciprocal arrangements.
2. The effects on the amenity of the streetscape and the safety and effectiveness of the transport network where loading needs are not adequately met on-site.

TR-S10	Loading and unloading — Residential

For developments with 10 or more residential units:
1. An on-site refuse storage area must be provided which:
   a. Is accessible to residents,
   b. Is screened from the street,
   c. Is at least $20m^2$ in size plus $1m^2$ for each residential unit above 10 units, and

   d. Includes a 1.5m wide aisle for accessing and manoeuvring bins.
2. Provision for on-site refuse collection must be provided in accordance with the following:
   a. Within 10m and directly accessible to the refuse storage area, sufficient area must be provided for a medium rigid vehicle to stand and perform loading operations to collect refuse without obstructing through movement for persons and vehicles.
   b. On-site circulation and manoeuvring areas must be provided so that within five turning movements a medium rigid vehicle can enter and exit the site in a forward direction and access the refuse collection area, except where the refuse collection area is within 15m of the road frontage access.

Matters of discretion if the standard is not met:

1. Whether the projected demand for refuse storage and collection areas will be lower than that required in the standards or can be accommodated by public, shared, or reciprocal arrangements.
2. The extent to which bin placement for collection or vehicle loading may obstruct pedestrian, cyclist, or vehicle movement on site or within the transport network.
3. The adverse effects on streetscape amenity and the quality of active transport networks related to bin placement within the road reserve.
4. Whether the frequency of servicing for refuse collection is more than once weekly.

Table 1: Minimum requirements for cycle parking

Activity	**Minimum number of on-site cycle parking spaces**	
	Short stay	**Long stay**
Any activity in City Centre Zone, Metropolitan Zone or Local Centre Zone	Nil	In accordance with rest of table
Commercial activity – Office	Minimum 1, 1 per 500m^2 GFA	Minimum 2, 1 per 300m^2 GFA
• Standalone office activity	Minimum 1, 1 per 300m^2 GFA	Minimum 1, 1 per 200m^2 GFA
• Service station • Trade supply retail • Yard-based retailing	Up to 200m^2 GFA area: Nil Greater than 200m^2 GFA, 1 per additional 500m^2 GFA	Minimum 1, 1 per 200m^2 GFA
• Home business	Nil	Nil
Industrial activity — Manufacturing, Trade yard	Up to 500m^2 GFA area: Nil required	
	Greater than 500m^2: 1 per additional 1,000m^2	Greater than 500m^2: 1 per additional 500m^2
Industrial activity — Warehousing	Up to 1000m^2 GFA area: Nil required	
	Greater than 1000m^2: 1 per additional 2,000m^2	Greater than 1,000m^2: 1 per additional 1,000m^2
Residential units	Up to 19 residential units: Nil required 20 or more residential units: 1 per 20 residential units	Up to 3 residential units: Nil required 4 or more residential units: 1 per residential unit
Visitor accommodation	Up to 10 units: Nil required	
	Greater than 10 units: 1 per additional 20 units	Greater than 10 units: 1 per 10 FTE employees
Retirement village	1 per 30 units or beds	1 per 10 FTE employees
Educational facility – Primary	1 space, plus 1 space per 400 students	1 per 20 students, plus 1 per 10 FTE employees
Educational facility – Secondary	1 space, plus 1 space per 400 students	1 per 10 students, plus 1 per 10 FTE employees
Educational facility – Tertiary	1 space, plus 1 space per 400 students	1 per 10 students, plus 1 per 10 FTE employees
Healthcare activities	1 per 250m^2 GFA	1 per 10 FTE employees
Community facility, Sports facility	1 per 10 persons that site is designed to accommodate	1 per 10 FTE employees

Any other activity	Up to 500m^2 GFA: Nil required	
	Greater than 500m^2: 1 per additional 500m^2	1 per 10 FTE staff members

Table 2: Driveway and vehicle crossing classification

		Vehicle Access Level 1	Vehicle Access Level 2	Vehicle Access Level 3	Vehicle Access Level 4
Non-residential	Typical daily traffic (AADT)	1-30	31-60	61-200	201+
	Heavy vehicles (AAWT)	0-2	3-4	5-8	9+
Residential	No. of residential units	1-3	4-6	7-19	20+

Notes to table:
The higher category of classification is to be used. For example, if a non-residential activity has Annual Average Daily Traffic of 50 vehicles/day and Annual Average Weekly Traffic of 6 vehicles/week, then the classification is the higher classification, being Vehicle Access Level 3.

Access to sites with a mix of activities, including residential and non-residential activities, is to be assessed based on the total typical daily traffic (AADT) or heavy vehicles traffic (AAWT) for all activities. One dwelling is equivalent to 10 motor vehicles/day.

Figure 1: Separation distances from intersections

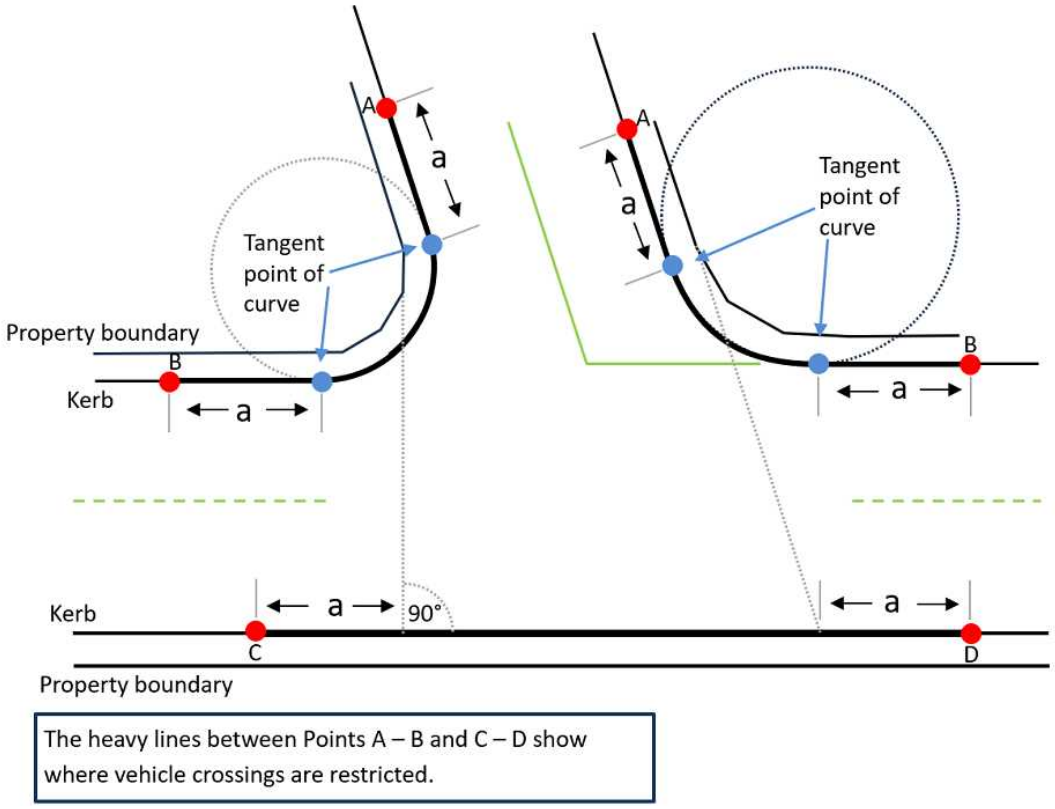

Figure 2: Visibility splays and safe stopping distances

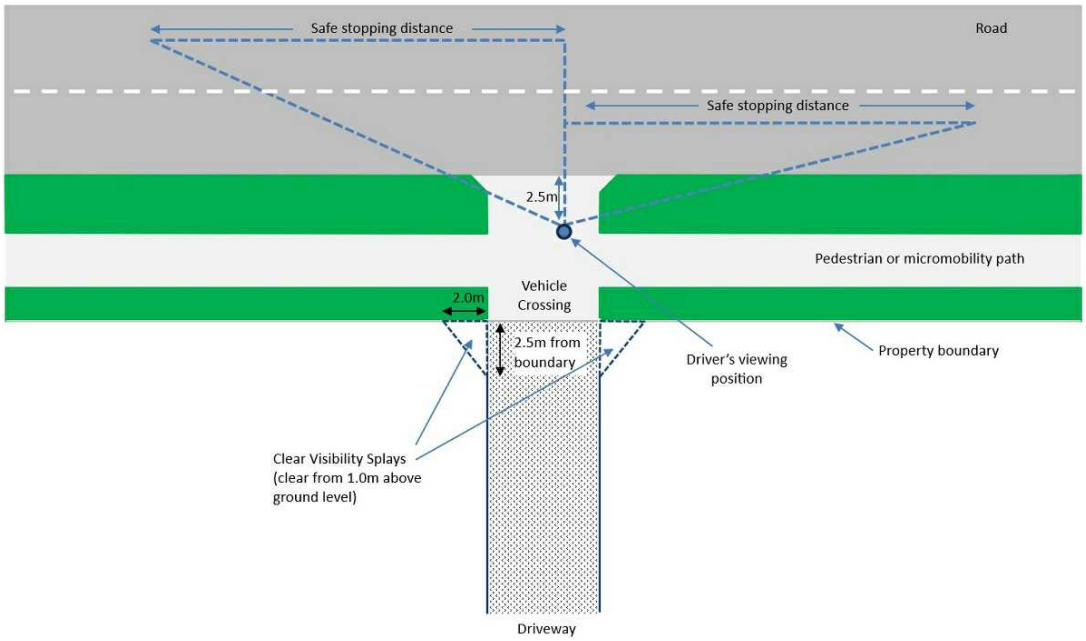

Table 3: Safe stopping distances for new vehicle crossings

Frontage speed limit	Vehicle Access Levels 1, 2 and 3	Vehicle Access Level 4
30	25	50
40	30	75
50	45	100
60	65	125
70	85	150
80	105	180
90	130	215
100	160	250

Table 4: Design requirements for driveways

	Vehicle Access Level 1	Vehicle Access Level 2	Vehicle Access Level 3 and Level 4
Design speed (km/h)	10	10	20
Max gradient	20% 2m transition length for changes in grade >12.5% For sites where the driveway rises to meet the road, 5% maximum gradient within 6m of road boundary	20% 2m transition length for changes in grade >12.5% For sites where the driveway rises to meet the road, 5% maximum gradient within 6m of road boundary	16% 2m transition length for changes in grade >12.5% For sites where the driveway rises to meet the road, 5% maximum gradient within 6m of road boundary
Seal	Urban environments: Driveways must be sealed, except where: • The driveway serves a single residential unit, and • There the driveway gradient is less than 1 in 10 (10%).		
	Rural environments: Driveways must be sealed where the driveway gradient exceeds 1 in 10 (10%).		
Formation dimensions			
• Traffic lane width	3.0m	5.5m for the first 10m from the boundary	5.5

		3.0m	
• Traffic lane length	The traffic lane must have a minimum length of 6m extending into the site from the property frontage, which must be unobstructed but may be enclosed by a garage or a carport.		
• Passing bay	Urban zones: • Where the length of a driveway exceeds 50m, a passing bay must be provided every 50m. • To form the passing bay the width must be increased to 5.5m over a minimum 7m length with 45º tapers.		Shared in movement lane
	Rural zones: • Where the length of a driveway exceeds 100m, a passing bay must be provided every 100m. • To form the passing bay the width must be increased to 5.5m over a minimum 15m length.		
• Footpath	Shared in vehicle lane	1.2m wide, one side	1.2 m wide, one side
• Cycle lane	Shared in vehicle lane	Shared in vehicle lane	Shared in vehicle lane
Legal width	3.3m + 2.2m where passing bays required	4.5m + 1.0m where passing bays required	7.0m

Table 5 — Design requirements for motor vehicle parking

Parking space type		Dimension “a” (m)	Dimension “b” (m)	Dimension “c” (m)	Minimum aisle width (m)
Parallel (permanently unobstructed sides and ends)		-	2.1	5.4	3.0
Additional clearance requirement for each obstructed side or end (e.g. fence, wall, column)		-	+0.3	+0.9 (between spaces) +1.2 (obstructed end space)	
Perpendicular (permanently unobstructed sides and ends[1])	Regular users[2] only	-	2.4	5.0	5.8
			2.5	5.0	5.4
	Casual users[3]		2.5	5.0	5.8
Additional clearance requirement for each obstructed side or end (e.g. fence, wall, column or inside garage)		-	+0.3	+0.4	
Additional clearance requirement both ends obstructed (e.g. inside garage)		-	+0.6	+0.4	
Additional aisle width for accessing garage door that is less than 2.7m wide					+0.8
Kerb stops, where provided, must be offset a minimum 0.5m from any pedestrian movement areas.					
Angle — 60° (permanently unobstructed sides)		2.4 (regular users[2] only)	2.8 (regular users[2] only)	5.1	4.9 (regular users[2] only)
		2.5	2.9		4.6
		2.6	3.0		4.3
Additional clearance requirement for each obstructed side (e.g. fence, wall, column)		+0.3	+0.33	+0.6	
Notes to table					

[1]Unobstructed ends means where the parking space is to a low kerb which allows 400mm of overhang, and the overhanging dimension does not include space required for pedestrian or cyclist through movement.

[2]Regular users are people whose regular use gives them a familiarity with the parking area that permits smaller safe clearances about the parking spaces (for example residents, employees).

[3]Casual users are people, typically short-term visitors, who would not be familiar with the parking layout.

Figure 3 — Motor vehicle parking

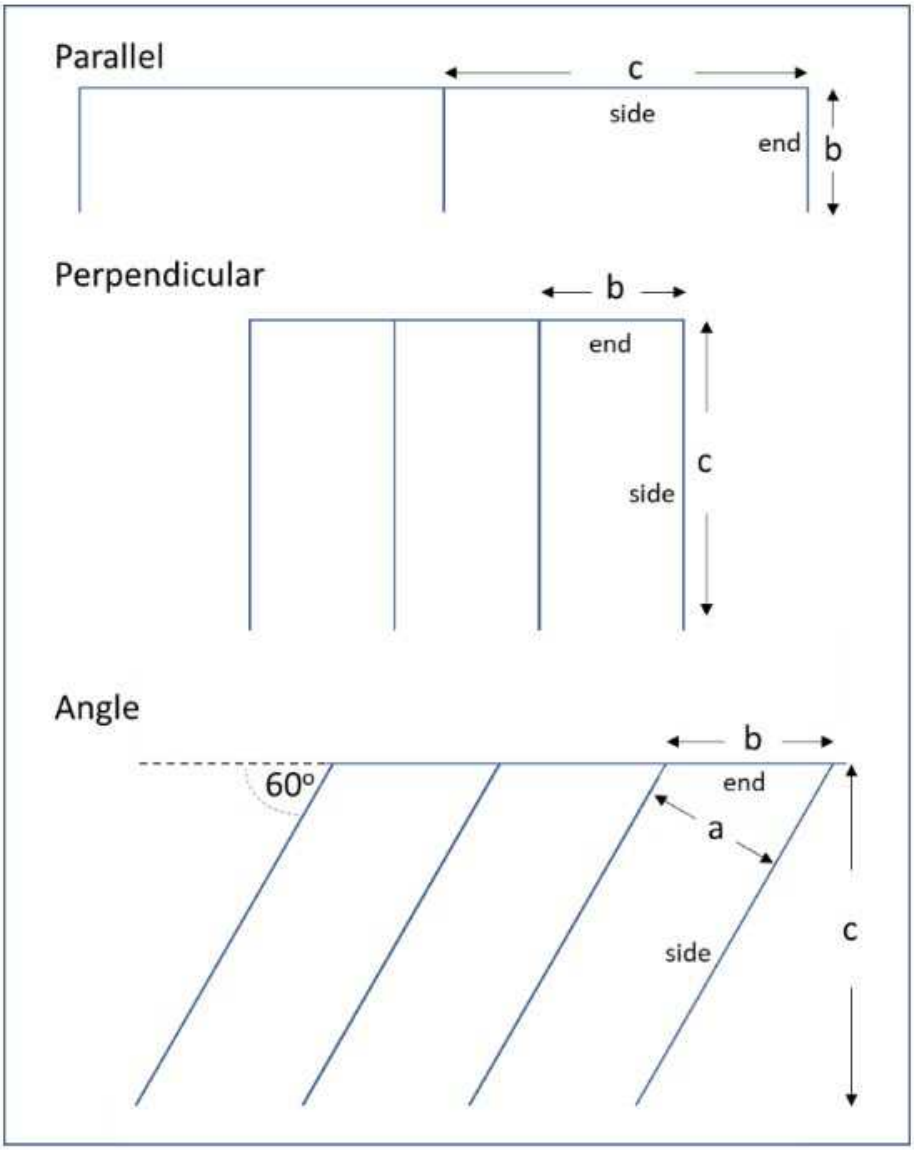

Table 6: Minimum provision of loading spaces for non-residential activity

Gross floor area	No of Spaces	Minimum Design Vehicle
Up to 500m^2	Nil	-
501 — 1,000m^2	1	Small Rigid Vehicle
1001 — 3,000m^2	1	Medium Rigid Vehicle
Greater than 3,000m^2	1	Heavy Rigid Vehicle

Table 7: Loading space design requirements

	Small Rigid Truck	Medium Rigid Truck	Large Rigid Truck
Min space width (m)	3.5 + 0.3 for side obstructions		
Min space length (m)	6	8	11.5
Min vertical clearance (m)	3.5	4.5	4.5
Design turning radius (m)	7.1	10	12.5
Max gradient for loading space	1:25 (4%) measured in any direction		

Table 8: High trip generating activity thresholds

Activity	Threshold		
	City Centre Zone Metropolitan Centre Zone	All other Zones	Specified High Trip Generator Exemption Overlay
Residential activities:			
Residential units	No threshold	20 or more residential units	No threshold
Retirement village	100 beds or units	100 beds or units	100 beds or units
Visitor accommodation:			
Visitor accommodation	No threshold	30 units	30 units
Educational facilities:			
Child care services	35 children	20 children	35 children
Primary, intermediate, and secondary schools	125 students	125 students	125 students
Tertiary education activities	300 FTE students	150 FTE students	300 FTE students
Health care activities:			
Health care activities	500m^2 GFA	300m^2 GFA	500m^2 GFA
Commercial activities:			
Fitness centres	No threshold	600m^2 GFA	600m^2 GFA
Food and beverage activities (not including drive-through activities)	No threshold	200m^2 GFA	No threshold
Grocery stores, supermarkets, integrated retail activity, and retail activity	No threshold	300m^2 GFA	500m^2 GFA
Motor vehicle servicing	Any	200m^2	Any
Standalone office activities	No threshold	1,000m^2	1,000m^2 GFA
Trade supply retail, yard-based retailing	Any	1,000m^2	Any
Industrial activities:			
Business parks	Any	Ten or more tenancies or allotments	Ten or more tenancies or allotments
Warehousing or storage	Any	5,000m^2 GFA	5,000m^2 GFA
Manufacturing	Any	2,000m^2 GFA	2,000m^2 GFA
Community activities:			
Community facility	No threshold	More than 200 persons on the site at any one time	More than 200 persons on the site at any one time

Other activities:			
Any activity not listed above, or Any combination of activities which are listed in this table and which have a numerical threshold	200 vehicle trips/day	200 vehicle trips/day	200 vehicle trips/day

Note to table:

Where "any" is stated in the threshold columns, means that any extent of the activity is considered to exceed table thresholds.