PART H

CAR PARKING, VEHICLE MOVEMENTS AND ROADS
H CAR PARKING, VEHICLE MOVEMENTS AND ROADS

This Part of the Plan sets out the Technical Standards relating to car parking, vehicle movements and roads. It is an integral part of the Rules and Standards contained in Part D of the Plan, and the financial contribution provisions in Part E of the Plan.

H1 CAR PARKING, PRIVATE WAY AND DRIVEWAY TECHNICAL STANDARDS

The Council requires all car parks, private ways and driveways to meet the following standards:

(i) Maximum gradient of 1 in 5;

(ii) Except in the Rural Zone, each car park including aisles, turning circles, driveways and accessways shall be formed and surfaced with an all weather surface such as concrete, bitumen or seal, before use of the site or building (as appropriate) commences.

(iii) Minimum car manoeuvring and parking dimensions shall be in accordance with the dimensions specified in Figure 5, Figure 5a and Table 2 below.

(iv) Parallel parking spaces shall be 6.0m long, except where one end of the space is not obstructed, in which case the length of the space may be reduced to 5.0m.

Minimum car manoeuvring and parking dimensions shall be in accordance with the dimensions specified in Figure 5 and Table 2 below.

(v) Car parks are to be clear of front yards.

(vi) Minimum carriageway widths shall be in accordance with the dimensions specified in Table 4 below.
CAR PARK LAYOUT

FIGURE 5.

STANDARD CAR PARK MEASUREMENTS

<table>
<thead>
<tr>
<th>Type of parking</th>
<th>Stall width (a)</th>
<th>Stall Depth</th>
<th>Aisle Width (d)</th>
<th>Total Depth (e)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>from wall (b)</td>
<td>From kerb (c)</td>
<td>One row</td>
</tr>
<tr>
<td>Parallel</td>
<td>2.5m</td>
<td>see clause (v) above.</td>
<td>4.5</td>
<td>10.0m</td>
</tr>
<tr>
<td>Angled</td>
<td>2.5m</td>
<td>5.5m</td>
<td>5m</td>
<td>10.0m</td>
</tr>
<tr>
<td>90°</td>
<td>2.5m</td>
<td>5.0m</td>
<td>4.6m</td>
<td>12.5m</td>
</tr>
</tbody>
</table>

TABLE 2.
FIGURE 5a  VEHICLE TURNING CIRCLES

300mm clearance to buildings (10km/hr)

600mm clearance to buildings (>10km/hr)

Path of front overhang

7.0m radius turning circle

Path of right front wheel

4.5m

1.95m  1.0m

4.95m

12°  20°

166°

(99 percentile design motor car)
H2  VEHICLE MOVEMENTS

In meeting the non-residential requirements of the "vehicle movements" activity standard specified in D3.2.1 the following shall be used as the method for calculating vehicular movements:

(i) The number of vehicle movements permitted by an activity standard shall be calculated over a 24 hour period.

(ii) In assessing the number of vehicle movements, the Council shall require that all vehicles parked on the road which are associated with a particular site shall, as well as the number of vehicles entering and exiting the site, be included in the calculation of vehicle movements.

In this context, the term "associated" refers to vehicles used by persons residing and working at the site, and persons visiting the site including those unable to park their vehicle within the confines of the site.

(iii) A vehicle arriving and leaving a site within a 24 hour period is counted as two vehicle movements.

H3  ROADING CLASSIFICATION

The Roading Classification sets the technical standard for the overall size and relationship of new roads and private ways and driveways. It is also the basis of the standards for Noise, and for the consideration of the effects of activities on the transportation network.

Primary Roading Classification and Technical Standards

The City's primary roads have been classified on the following basis:

(i) Motorway: This provides the main spine of the network, usually multi-lane, with full control of access and grade separation at junctions and intersections. Traffic volumes in the range 10,000 to 30,000 v.p.d. Motorway implies a statutory definition limiting both access and traffic.

(ii) Arterial roads (Major/Minor): These roads provide inter-connection between major sectors of a large area, provide a link with important external areas. Access is provided at a limited number of intersections usually at grade. Traffic volumes are typically 7,000-15,000 v.p.d. for Minor arterials while Major implies planning for four lanes and volumes typically 10,000 - 25,000 v.p.d.

(iii) Principal Streets: These roads have a dominant through-traffic movement and provide a network of public transport routes. Land use and access may be restricted at important intersections and rear servicing facilities may be required. Volumes are typically 2,500 - 10,000 v.p.d. The equivalent Table is on the following page.

Note: These are also defined in the Code of Practice - Design for Urban Streets (NRB 1975) and include the National or Regional State Highway routes and the City's major/minor arterials and principal streets.
Table 3 below contains key technical standards for each category of primary road. These standards form part of the rules of the Plan.

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Typical Traffic vpd</th>
<th>Design Speed kph</th>
<th>Min Width (m)</th>
<th>Typical Carriageway Width</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Park (m)</td>
</tr>
<tr>
<td>Principal Street</td>
<td>2,500 - 10,000</td>
<td>60</td>
<td>20</td>
<td>2 x 3</td>
</tr>
<tr>
<td>Minor Urban Arterial</td>
<td>7,000 - 15,000</td>
<td>70</td>
<td>20</td>
<td>2 x 3</td>
</tr>
<tr>
<td>Major Urban Arterial</td>
<td>10,000 - 25,000</td>
<td>70</td>
<td>30</td>
<td>2 x 3</td>
</tr>
<tr>
<td>Minor Rural Arterial</td>
<td>1,000 - 8,000</td>
<td>120</td>
<td>20</td>
<td>N/A</td>
</tr>
<tr>
<td>Major Rural Arterial</td>
<td>3,000 - 10,000</td>
<td>120</td>
<td>30</td>
<td>2x2</td>
</tr>
<tr>
<td>Motorway</td>
<td>10,000 - 30,000</td>
<td>120</td>
<td>Up to 200 m</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**TABLE 3.**
### Secondary Roading Classification and Technical Standards

The City’s secondary roads and private ways have been classified into the categories stated in Table 4 below. In addition, Table 4 contains key technical standards for each category of road. These standards form part of the rules of the Plan.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Sub-Classification</th>
<th>Type</th>
<th>Traffic volume (vpd)</th>
<th>Dwellings served or length in metres</th>
<th>Design Speed (kph)</th>
<th>Minimum legal road width (m)</th>
<th>Minimum Carriageway width (m)</th>
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</thead>
<tbody>
<tr>
<td>Private Ways &amp; Drive Ways</td>
<td>Residential</td>
<td>Private Way &amp; Drive Way</td>
<td>up to 3</td>
<td>3.5</td>
<td>2.7</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private Way &amp; Drive Way</td>
<td>4-6</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium density Policy Areas</td>
<td>Private Way &amp; Drive Way</td>
<td>Dwellings: ≤ 3</td>
<td>3.5m</td>
<td>Note 1</td>
<td>2.7m</td>
<td>2.7m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private Way &amp; Drive Way</td>
<td>Dwellings: 4-9 (a) Accessway length: ≤ 50m</td>
<td>7.0m for the first 8m, tapering to 3.5m by 12m³ and 3.5m thereafter</td>
<td>Note 1</td>
<td>6.0m for the first 8m, tapering to 2.7m by 12m³ and 2.7m thereafter</td>
<td>6.0m for the first 8m, tapering to 2.7m by 12m³ and 2.7m thereafter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(b) Accessway length: &gt;50m³</td>
<td>7.0m for the first 8m, tapering to 3.5m by 12m³ and 3.5m thereafter with provision for passing bays every 50m³</td>
<td>Note 1</td>
<td>6.0m for the first 8m, tapering to 2.7m by 12m³ and 2.7m thereafter with provision for passing bays every 50m³</td>
<td>6.0m for the first 8m, tapering to 2.7m by 12m³ and 2.7m thereafter with provision for passing bays every 50m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Private Way &amp; Drive Way</td>
<td>Dwellings: 10-19</td>
<td>7.0m for the first 8m, tapering to 6, by 12m³, and 6m thereafter.</td>
<td>Note 2</td>
<td>6.0m for the first 8m tapering to 4.5m by 12m³, and 3.5m thereafter PLUS 1m footpath</td>
</tr>
<tr>
<td>Rural</td>
<td>Private Way &amp; Drive Way</td>
<td>up to 3</td>
<td>4</td>
<td>3m metalled</td>
<td>4m metalled</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 4.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Sub - Classification</th>
<th>Type</th>
<th>Traffic volume (vpd)</th>
<th>Dwellings served or length in metres</th>
<th>Design Speed (kph)</th>
<th>Minimum legal road width (m)</th>
<th>Minimum Carriageway width (m)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Parking Traffic Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Allow passing bays as required and @ max 200m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Way &amp; Drive Way</td>
<td></td>
<td></td>
<td>4-6</td>
<td>6</td>
<td></td>
<td>3m sealed 4m sealed</td>
<td>½ m shoulders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Allow passing bays as required and @ max 200m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCAL</td>
<td>Residential</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short cul-de-sac</td>
<td></td>
<td>&lt;20</td>
<td>&lt;100m</td>
<td>12</td>
<td>2 x 3 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long Cul-de-sac</td>
<td></td>
<td>&gt;20</td>
<td>&gt;100m</td>
<td>15</td>
<td>2 x 3.5 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minor access</td>
<td></td>
<td>&lt;100</td>
<td>20</td>
<td></td>
<td>2 x 3.5 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td></td>
<td>&lt;200</td>
<td>na</td>
<td>40</td>
<td>2 x 2.5 1 x 3 8</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>Medium</td>
<td></td>
<td>100 - 250</td>
<td>&lt;30</td>
<td>70</td>
<td>20 7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>30 - 100</td>
<td>&lt;12</td>
<td>20</td>
<td>5/7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>&lt;30</td>
<td>&lt;4</td>
<td>15</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>COLLECT OR</td>
<td>Sub-collector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td></td>
<td>200-1000</td>
<td>&lt;150</td>
<td>40</td>
<td>2 x 2.5 1 x 3 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td></td>
<td>200-1000</td>
<td>&lt;150</td>
<td>40</td>
<td>2 x 2.5 1 x 3 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td></td>
<td>&lt;1000</td>
<td>&lt;100</td>
<td>80</td>
<td>20 7.5</td>
<td></td>
</tr>
<tr>
<td>Collector</td>
<td>Suburban</td>
<td></td>
<td>800-3000</td>
<td>150-450</td>
<td>50</td>
<td>2 x 2.5 2 x 3 11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td></td>
<td>800-3000</td>
<td>&gt;1000</td>
<td>50</td>
<td>2 x 2.5 2 x 3 11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td></td>
<td>500-2000</td>
<td>&lt;200</td>
<td>100</td>
<td>20 9-11</td>
<td></td>
</tr>
</tbody>
</table>

**a** All private ways/driveways serving Medium Density Residential developments shall provide a turning head or bay which enables vehicles to manoeuvre in accordance with the vehicle turning circle and/or car park layout manoeuvring room requirements shown in Figures 5 and 5a.

**b** The first 8m length of the legal private way width extending from the road shall be 7m in width. Between 8m and 12m length it shall taper to a 3.5 m width where it serves less than 10 dwellings, or a 6m width where it serves 10 –19 dwellings. The first 8 m length of the carriageway extending from the road shall be 6m in width. Between 8m and 12m length it shall taper to a 2.7m width where it serves less than 10 dwellings, or a 4.5 m width (including a 1m width footpath) where it serves 10-19 dwellings.
c  Where private ways serve between four and nine dwellings and are longer than 50m, passing bays need to be provided at 50m intervals. The carriageway should have a minimum total width of 4.5m at the passing bays, with each bay designed with a length of 5m and start and end tapers of 4m. Other intermediary passing bays should be provided in the event that there is not full visibility available between the passing bays.

d  The carriageway is intended to be designed with an integrated footpath that is suitably delineated from the carriageway but which vehicles can also share. This can include the provision of mountable kerbs between the footpath and carriageway.

Note 1 The carriageway standards do not provide for any parking within the length of private way.

Note 2 Additional widening should be provided on bends in the event that the access ways are not straight.

**H4 SCHEDULE OF PRIMARY ROADS WITHIN THE CITY**

**Primary Roads**

(i) **Motorways**

(a)  State Highway 1 (Linden boundary to Paremata)

(ii) **Major Rural Arterial**

(a)  State Highway 1 (Plimmerton to Pukerua Bay)

(b)  State Highway 58 (Pauatahanui to Haywards)

(iii) **Minor Rural Arterial**

(a)  Grays Road (Plimmerton to Paekakariki Hill Road)

(b)  Paekakariki Hill Road (Pauatahanui to hill top)

(c)  State Highway 58 (Browns Bay to Pauatahanui)

(iv) **Major Urban Arterial**

(a)  Kenepuru Drive (Titahi Bay Road to City boundary)

(b)  Mungavin Avenue (Mungavin Interchange to Champion Street)

(c)  Paremata Road State Highway 58 (Paremata Roundabout to Browns Bay)

(d)  State Highway 1 Mana Esplanade (Paremata Roundabout to Plimmerton)

(e)  State Highway 1 Pukerua Bay (Grays Street to Pa Road)

(f)  Te Whaka Whitianga O Ngatitoa (Parumoana Street to State Highway 1)
(g) Titahi Bay Road
(h) Whitford Brown Avenue (State Highway 1 to Warspite Avenue)

(v) Minor Urban Arterial
(a) Champion Street
(b) Lyttelton Avenue, Kenepuru Drive to Parumoana Street
(c) Main Road Titahi Bay
(d) Raiha Street and Prosse Street
(e) Semple Street, Parumoana Street
(f) Steyne Avenue to Beach Road
(g) Warspite Avenue

(vi) Principal Streets
(a) Airlie Road
(b) Awarua Street
(c) Awatea Street
(d) Bay Drive
(e) Broken Hill
(f) Castor Crescent
(g) Conclusion Street
(h) Dimock Street
(i) Discovery Drive
(j) Driver Crescent
(k) Eskdale Road
(l) Gloaming Hill
(m) Hagley Street
(n) James Cook Drive
(o) Lyttelton Avenue
(p) Mana View Road
(q) Moana Road Plimmerton
(r) Mungavin Avenue
H-10

(s) Niagara Street
(t) Norrie Street
(u) Omapere Street
(v) Papakowhai Road
(w) Paremata Crescent (Part near Kahu Road)
(x) Postgate Drive
(y) Spinnaker Drive
(z) Sunset Parade
(aa) Te Hiko Street
(ab) Te Pene Avenue
(ac) Te Puke Street
(ad) Thornley Street
(ae) Truro Road and part of Pope Street
#af) Tweed Road
FIGURE 6: PRIVATE ACCESS ONTO STATE HIGHWAYS