

PART 3: ROADS

3.1 Scope – No change

3.2 General – No change

3.2.1 Objective – No change

3.2.2 Relevant standards and guideline documents

Add the following new paragraph:

The developer shall comply with the WDC policy and procedures for the excavation and reinstatement of works within road reserve, this was historically referred to as the Street Opening Policy, which has been replaced with:

Best Practice for Utility Services Access and Reinstatement in Public Utility Corridors:

- *NZS HB 2002:2003 Code of Practice for Working in the Road*

Temporary Traffic Management:

- *Transit New Zealand Code of Practice for Temporary Traffic Management (CoPTTM)*, and

Road Controlling Authorities draft *Local Roads Supplement to TNZ CoPTTM*

3.2.3 Rooding hierarchy and design

Add the following new paragraph:

Subdividers/developers should obtain a specific determination from the WDC, on a proposed/current road's status, before proceeding with detailed designs for roads.

Where local roads are cul de sac's, they shall not exceed 300 metres in length in urban areas without specific approval from WDC. Cul de sac's of this length shall be designed in terms of "Residential" roads in Table 3.1. This approval will only be given where the proposal has been subject to specific design attention, including an analysis of alternative layouts.

Where urban roads run generally parallel at a separation of 200 metres or less, and where the topography permits, they shall be connected by lateral roads at a spacing of no less than 600 metres.

The completed rooding design may be required to be subject to an independent safety audit by a qualified and approved traffic safety professional, at the developers expense, with the audit report made available to WDC at the time that the design plans are submitted to WDC for approval.

WDC's approved Long Term Road Hierarchy Network Plan is covered in the District Plan.

3.2.4 Traffic management plan

Add the following new sentence:

The Traffic Effect Assessment documentation is shown in Appendix F.

3.2.5 Public transport – No change

3.2.6 Classification of urban roads – No change

3.2.7 Classification of rural roads – No change

3.2.8 New Clause: Public or Private Road

WDC reserves the right to determine whether a road is deemed to be public or private. In most cases a road will be deemed public if it serves 7 or more dwelling units.

3.3 Design – No change**3.3.1 Minimum requirements – No change****3.3.2 Road geometric design – No change****3.3.2.1 Design parameters – No change****3.3.3.2 Sight distance – No change****Table 3.1 Road design standards – Urban (speed limit \leq 70 km/h)**

Note: Table 3.1 has been moved to Appendix L.

Table 3.2 Road design standards – Rural (speed limit up to 100 km/h) – No change**Table 3.3 Safe speeds on horizontal curves – No change****Table 3.4 Superelevation run-off – No change****Table 3.5 Widening of curves for urban kerbed streets – No change****Table 3.6 Vertical curve lengths – No change****Table 3.7 Road and Street Name Signs****3.3.3 Pavement structural design – No change****3.3.3.1 CBR design method for rigid and flexible pavements – No change****3.3.3.2 CBR tests – No change****3.3.4 Safety provision on hills – No change****Figure 3.1 Parameter relationship – No change****3.3.5 Traffic calming in residential streets – No change****3.3.6 Parking – No change****3.3.7 Intersection design – No change****3.3.8 Roundabouts – No change****Figure 3.2 Car park dimensions – No change****Figure 3.3 Minimum traffic sight lines at non-signalized intersections – No change****3.3.9 Cul-de-sac heads – No change****3.3.10 Bus bays – No change****3.3.11 Special road and footpath provisions near places of assembly – No change****3.3.12 Footpaths, pedestrian accessways, cycleways, berms – No change****3.3.12.1 Urban – No change****Figure 3.4 Dimensions of cul-de-sac turning areas – No change****Figure 3.5 Turning areas for cul-de-sacs – No change****Figure 3.6 Bus bays: 3.0 m and 3.5 m – No change****Figure 3.7 Pedestrian accessway cycle barriers – No change****Figure 3.8 Footpath construction – typical sections**

Replace this Drawing

See updated drawing at the back of this document RD-WDC-016.

3.3.12.2 Rural – No change**3.3.12.3 Cycleways**

Add the following new paragraph:

Cycleways to conform to WDC's cycle strategy.

3.3.14 Trees and landscaping

Add the following new sentence:

No building, fence or vegetation on any property shall be erected or permitted to grow in a manner which adversely affects visibility at any road intersection, including access to lots.

3.3.15 Road lighting

Add the following new clauses:

3.3.15.1 General

Developers shall be responsible for design and installation of street lighting and all associated cabling for all new development areas.

All new lighting should be agreed to by Council with regards to the appropriate lighting category as per AS/NZS 1158.3.1:2005 – Part 3.1.

In addition to specific areas noted below, lighting shall be adequate to ensure safety, security and visibility for the convenience of residents and road users. It shall not be excessive in design such that it creates a nuisance, a hazard, or excessive operating cost. To ensure these criteria are met, street lighting shall be the subject of specific design for each development proposal.

To minimise the cost of maintaining replacement stock and ensure consistency of appearance and amenity, lighting columns and lanterns shall be consistent with adjacent existing lighting systems where these comply with WDC's current lighting practice. Where developers wish to use an alternative form of lighting, WDC's may, subject to approval of the developer's proposal, require that the developer contribute spare components into the maintenance stock, or contribute to a maintenance fund.

3.3.15.2 Urban Street Lighting

In addition to recognising the relative requirements of the roading hierarchy, the lighting design shall focus on potential hazard areas, such as intersections, pedestrian crossings, public transport waiting areas and other points of community gathering. Street lighting shall be provided on all public roads as well as pedestrian and cycle accessways. If developers wish to light private rights of way, then the costs of installing, operating and maintaining such lights shall be at the expense of the developer and/or the subsequent owners.

3.3.15.3 Rural Street Lighting

Developers in rural areas, where new development creates a hazard, shall provide street lighting. Such areas may include (but are not necessarily limited to) new road junctions, additional loading on existing junctions, or areas of substandard geometry or width.

Each case is to be judged on its merits, but it is important that the lighting system provides an unambiguous message to rural drivers. To this end, single lanterns are not considered adequate warning of a rural intersection.

3.3.15.4 Other Utilities

For urban and peri urban areas, underground cabling is the preferred method of installation. Refer also to the WDC's District Plan requirements.

- 3.3.16 Bridges and culverts – No change**
3.3.17 Non public accesses (urban and rural) – No change
3.3.18 Multi-unit non public accesses (urban and rural) – No change

3.3.19 Crossings

Add the following new clause:

3.3.19.1 Urban

The width of the vehicle crossing shall be defined as the width at the property boundary.

Replace the 2nd to last sentence of the 3rd paragraph with:
All crossings shall be surfaced with concrete.

Replace last sentence, 3rd paragraph with:
Drawings RD-WDC-004, RD-WDC-005 and RD-WDC-005 show acceptable details of vehicle crossing.

3.3.19.2 Rural

The width of the vehicle crossing shall be defined as the width at the property boundary.

Figure 3.9 Maximum breakover angles for vehicular access to property – No change

Figure 3.10 Standard light duty vehicle crossing detail

Replace this Drawing

See updated drawing at the back of this document in Appendix A.

3.3.20 Fencing – No change

3.3.21 Road drainage – No change

3.3.21.1 Calculations and design – No change

3.3.21.2 Subsurface drains – No change

3.3.21.3 Side drains/water tables – No change

Figure 3.11 Under kerb drainage and rural subsoil drainage – No change

3.3.21.4 Kerbs and channels

Replace the first paragraph with the following:

Where kerbs and channels are to be provided on carriageways they should comply with figure 3.12. Mountable kerb will not be allowed where it will impinge on pedestrians, utility services or safety. Footpaths may need strengthening if mountable kerb is used. See Drawing RD-WDC-018.

3.3.21.5 Sumps – No change

3.3.21.5.1 Sump location – No change

Figure 3.12 Kerbs and dished channels

See supporting Drawing in Appendix A.

See updated drawing at the back of this document for standard and mountable kerb and channel RD-WDC-018.

Figure 3.13 Typical sump to driveway or right of way – No change

Figure 3.14 Flat channel or yard sump – No change

Figure 3.15 Hillside sump

Replace this Drawing.

See updated drawing CM-WDC-004 in Appendix A.

Figure 3.16 Add-on back-entry sump for hillside situations – No change

Figure 3.17 An alternative sump for hillside situations – No change

Figure 3.18 Special entry to double sump in hillside channel – No change

Figure 3.19 Double back-entry sump for road low points – No change

3.3.21.5.2 Side-entry sumps – No change**3.3.21.5.3 Sump gratings – No change****3.3.21.5.4 Sump leads – No change****3.3.21.5.5 Secondary flow provisions**

Add the following new sentence:

Secondary flow paths to be shown on subdivision drawings.

3.3.22 Add the following new clause:**3.3.22.1 Loading**

- a Loading bays shall be designed and located so as to provide a safe position for loading and unloading of goods and providing access and egress without affecting any road or service lane.
- b Loading bays shall be designed and located so as to:
 - i. Promote use of the loading bay rather than the road side for loading and unloading of goods;
 - ii. Minimise conflicts between traffic entering and leaving the site.
- c The areas of the loading bay(s) shall be sufficient in size to cater for the largest expected vehicle, plus manoeuvring space around that vehicle.

(Standards (a) to (c) above aim to ensure that the safe and efficient operation of roads is not impeded by the location of stationary service vehicles nor the manoeuvring of such vehicles. It is preferable that vehicle movement, to and from sites be in a forward direction where possible.)

3.3.22.2 Property Access

New vehicle crossings, and existing vehicle crossings serving a new activity, shall meet the design standards in NZTA – Planning Policy Manual when all the following circumstances exist:

- i. The road is a National route, (State Highway) primary arterial or secondary arterial (as defined on the Planning Maps); and
- ii. The road has a speed limit of 100km/hr or more at the access location; and
- iii. The activity concerned is a high traffic generating activity which, for the purpose of this standard, shall be defined as an activity which generates more than 30 car equivalent movements per day (24 hour period) averaged over a normal week, where:

- 1 car to and from the site = 2 car equivalent movements
- 1 truck to and from the site = 6 car equivalent movements
- 1 truck and trailer to and from the site = 10 car equivalent movements
- 1 single residential dwelling = 8 car equivalent movements

NZTA – Planning Policy Manual – For Integrated Planning and Development of State Highways – Appendix 5B.3; Accessway geometric design should be used in the above circumstances.

Generally, Diagrams D & E will be used depending on Table App 5B/4 – Accessway types.

NZTA standards for State Highway access design aims, to allow most new crossing places to be permitted activities, which requiring specific access design only in relation to high traffic generating activities seeking access to high speed arterial roads. The alternative of not having any controls over access for high traffic generating activities to high speed arterials is not appropriate for traffic safety and efficiency reasons. At the other extreme, the alternative of requiring a resource consent for all new accesses to state highways (regardless of nature and location of activity) is also not considered to be necessary or appropriate).

Note: *That the WDC have rural vehicle crossings drawings which apply for vehicle movements less than 30 on minor rural roads.*

Note: NZTA approval is required for access onto State Highways under section 51 of the Government Roading Powers Act 1989.

3.3.22.3 Separation Distance Between Accesses

Roads where speed limit is less than 70 km/hr:

In relation to any state highway or other national route, primary arterial or secondary arterial (as defined on the Planning Maps), the minimum distance between accesses (either single or combined) on the same side of the road shall be:

- i. not less than 7.5 metres for residential land uses,
- ii. not less than 15 metres for all other land uses.

In relation to any road not covered by the paragraph above, there is no minimum standard for the minimum distance between accesses.

Roads where speed limit is 70 km/hr or more:

In relation to any state highway or other national route, primary arterial or secondary arterial (as defined on the Planning Maps), the minimum distance between successive accesses (regardless of the side of the road on which they are located) shall be not less than:

- i. 40 metres for 70 km/hr roads,
- ii. 100 metres for 80-90 km/hr roads,
- iii. 200 metres for 100 km/hr roads.

In relation to any road not covered by the paragraph above, there is no minimum standard for the minimum distance between accesses.

Separation Distance Between Accesses and Intersections:

Roads where speed limit is less than 70 km/hr:

- k In relation to any state highway or other national route, primary arterial or secondary arterial (as defined on the Planning Maps), the minimum distance between an access and a road intersection shall be 15 metres.
- l In relation to any road not covered by (k) above, the minimum distance between an access and a road intersection shall be 10 metres, except that where the road intersects with a national route, primary arterial or secondary arterial, the minimum distance shall be 15 metres.
- m The measurement of distances shall be taken from the nearest corner junction point of the road reserve boundaries at the intersection (or their projection in respect of "T" intersections) and shall be measured to the nearest edge of the access to the intersection.

Roads where speed limit is 70 km/hr or more:

- n In relation to any state highway or other national route, primary arterial or secondary arterial (as defined on the Planning Maps), the minimum distance between an access and a road intersection shall be 100 metres.
- o In relation to any road not covered by (n) above, the minimum distance between an access and a road intersection shall be 30 metres.
- p The measurement of distances shall be taken from the intersection of the centrelines of the intersecting roads.

(Standards (k) to (p) above aim to ensure that vehicle crossings are not located unduly close to road intersections, for traffic safety and efficiency reasons. The separation distance required increases with the speed environment and the nature of the road concerned.)

3.4 Construction – No change

3.4.1 Introduction

Add the following new sentence:

Construction work in the public road reserve shall comply with WDC's Street Opening Policy.

3.4.2 Materials for flexible pavements – No change

3.4.2.1 Transition layer – No change

3.4.2.2 Sub-base – No change

3.4.2.3 Basecourse

(a) Shall apply in Wanganui

3.4.3 Road Surfacing

Clause (d) & (e) subject to specific approval.

3.4.4 Road surfacing materials – No change

3.4.4.1 First and second coat chip seals

Replace first sentence with:

The first coat seal shall comprise of a grade 4 and 6 two coat seal.

Two seal coats shall be applied by the developer. The second seal coat shall be applied approximately 1 year after the first seal coat, ideally between 12 and 18 months after the first coat. The type of each seal coat shall be agreed with Council's Infrastructure Group prior to the work commencing.

3.4.4.2 Double wet lock coat – No change**3.4.4.3 Hot laid asphaltic concrete surfacing – No change****3.4.4.4 Other asphaltic mixes – No change****3.4.4.5 Concrete**

Replace 1st paragraph, second sentence with:

Concrete of not less than 30MPa, 28 day strength shall be used for any road.

Replace last sentence with:

Concrete of not less than 20MPa, a 28-day strength shall be used for kerbs and channel and crossing slabs.

3.4.4.6 Concrete pavers – No change**3.4.5 Subgrade checking – No change****3.4.6 Spreading and compaction of metal course aggregates – No change****3.4.7 Sub-base**

Replace the last sentence of the second paragraph with:

Sub-base shall be constructed in accordance with TNZ B/2 Specification.

3.4.8 Basecourse – No change**3.4.9 Maintenance of basecourse – No change****3.4.10 Basecourse preparation for surfacing – No change****3.4.11 Deflection testing prior to surfacing – No change****3.4.12 Surfacing specification**

Replace second sentence with:

Asphaltic concrete construction shall comply with TNZ Specification P/9P.

3.4.13 Bitumen application rate – No change**3.4.14 Footpaths – No change****3.4.14.1 Concrete**

Penultimate paragraph. Delete second sentence.

3.4.14.2 Asphaltic concrete – No change**3.4.14.3 Concrete pavers**

Add the following new sentence:

Block paving shall not be used.

3.4.14.4 Surface finish, tolerances

Add the following new sentence:

Coloured concrete and stamped concrete shall not be used.

3.4.15 Kerb and channel

Add the following new sentence:

Coloured concrete and stamped concrete shall not be used.

3.4.16 Berms and landscaping – No change**3.4.17 Road surface tolerances and texture – No change****3.4.18 Surface finish and tolerances on kerbs, paths and accessways**

Add the following new sentence:

Coloured concrete and stamped concrete shall not be used.

3.4.18.1 Kerbs and channel – No change**3.4.18.2 Paths, accessways – No change****3.4.19 Progress inspections – No change****3.4.20 Installation of traffic services, road furniture, benchmarks – No change****3.4.21 As-built and completion documentation**

Add the following new paragraph:

On completion of the physical works, and before acceptance of the works by WDC, the developer shall submit a full set of As-Built drawings of the works to Council in accordance with 1.5.2.1.

The As-Built drawings shall include the full detail required by WDC to inventory, locate and maintain the works, along with the manuals necessary to operate plant, signals or other devices.

As-Built drawings may take the form of construction drawings modified to account for amendments or refinements in the field, but shall be clearly labelled as "As-Built" and certified as an accurate post-construction record.

See Appendix J: Schedule 1D As-Built Plans and Documents for WDC requirements.