

Vehicle Accessway and Crossings

Operations Committee - 25 August 1999

A DEFINITIONS

Accessway

The part of a vehicle access which crosses the road verge between the road reserve boundary and the edge of the carriageway. The edge of carriageway is defined as:

- a) inside edge of vehicle crossing on urban roads with kerb and channel
- b) edge of seal on sealed roads without kerb and channel
- c) edge of gravel shoulder on unsealed roads.

Vehicle Crossing

A structure to aid vehicular access across a road side drainage facility.

For example: dish channel crossing
bridge crossing
pipe culvert crossing

B URBAN ACCESSWAYS

a New Accessways

Ba1. One accessway is permitted per property. Additional accessways may be permitted at the discretion of the Council.

Ba2. The property owner shall apply to the Council for approval to install a new accessway (where no accessway has previously existed). The Council will ensure that the proposed accessway does not adversely affect:

the road structure
pedestrian access
roadside drainage
safety requirements (sight distances etc.)

Ba3. When excavations are required the property owner shall ascertain the location of any underground services and shall ensure these are not disturbed and that required cover depths are maintained.

Ba4. Where the new accessway will be used for a non-residential use which will involve the use of heavy vehicles the Council may require the footpath to be paved in a heavy duty finish (eg. heavy duty paving cobbles)

Ba5. New accessways shall be constructed by a person or contractor approved by the Council, at the property owner's expense.

b Proximity to Intersections

Bb1 Vehicle accessways shall be located as far as practical from any road intersection and, where possible, shall not be closer than the distance given in table below.

Frontage Road	Intersecting Road Type (Distance in Metres)					
	Urban			Rural		
	Arterial	Collector	Local	Arterial	Collector	Local
Arterial	30	25	20	200	200	200
Collector	20	20	15	60	55	55
Local	15	15	10	60	55	55

(see PDP Table 4 Section 14)

c Proximity to Other Accessways

Bc1 The minimum distance between two accessways serving the same property shall be 7.5 m.

Bc2 The minimum distance between two accessways serving adjoining properties shall be 10 m.

d Sight Distances

Bd1 Minimum sight distances shall be as described in the table below.

Speed Limit (kph)	Minimum Sight Distance (m)
50	85
60	115
70	140
80	170
100	250

(see PDP Section 14q)

The required sight distance shall be checked using the following procedure:

The entranceway centre line shall be projected across the road to intersect the centre lines of both traffic lanes. The appropriate distance from the table above shall be measured from these intersection points, along the lane centre lines, in the vehicle approach directions. There must be a clear line of sight, 1.15 m above finished ground levels, from these points to a point on the entranceway centre line 5.0 m from the centre of the traffic lane nearest the entranceway.

(See also Road & Traffic Standards “Guidelines to Visibility at Driveways”)

Lines of sight shall remain completely in the road reserve where there is the possibility that future landscaping or development of adjoining properties may obstruct visibility across them.

e Plan Dimensions of Accessways

Be1 The widths of accessways shall be as described in the table below.

Zone	Potential No of Lots	Length	Legal Width (m)	Carriage-way Width (m)	Turning Area	Passing Bay	Footpaths
Residential	0-2	Over 50	3.5	3.0	Required	Optional	Optional
Residential	3-6	0-50	4	3.5	Required	Required	Optional
Residential	3-6	Over 50	4.5	4.0	Required	Required	Required
Rural	Any No.	All	5.0	4.0	Optional	Optional	Optional
		Lengths					
All Other	Any No.	All	6.0	4.0	Required	Optional	Optional
Zones		Lengths					

(see PDP Section 14q)

f Vertical Dimensions of Accessways

Bf1 Accessways across footpaths and verges shall follow the existing contours so pedestrian access and drainage patterns etc are not disturbed.

Bf2 Where the gradient of the accessway, adjacent to a footpath is greater than 1 in 8, no reverse manoeuvres onto or from the accessway will be permitted.

Bf3 Accessways shall be constructed so that a laden 90 percentile vehicle (car) can negotiate the accessway without bottoming.

Bf4 The minimum height clearance for accessways is 3.5 m

g Metalling and Sealing

Bg1 Construction shall be as per Plan 1.

Bg2 Granular Fill Material (bulk fill) shall consist of AP50 or similar well graded granular material containing no clay or organic matter.

Bg3 The top 100 mm of fill (basecourse layer) shall consist of Transit NZ Specification M4 material.

Bg4 All fill shall be compacted to a uniformly dense stable condition.

Bg5 Accessways on sealed roads shall be sealed with a 2 coat grade 4 chip seal for 5.5 m from the edge of the carriageway or to the property boundary, whichever is the lesser. Where the road verge is wider than 5.5m the

remainder of the accessway to the boundary shall be metalled to an all-weather standard or chip sealed if desired.

Bg6 Accessways on unsealed roads shall be metalled to an all-weather standard.

h Maintenance of Accessways

Bh1. Maintenance of accessways shall be the responsibility of the property owner except in the following instances:

- When road improvements have necessitated alterations to the accessway, the maintenance of the alterations will be the responsibility of the Council until they have become stabilised.
- Where an accessway crosses a formed footpath, the Council will maintain the footpath, to a standard suitable for the pedestrians. Any damage to the footpath caused by vehicles will be repaired at the property owner's expense.

Bh2. The property owner shall maintain the accessway in a safe and tidy condition, this shall include:

maintaining pedestrian access

maintaining road side drainage

ensuring gravel is not brought onto the road or footpath

C URBAN VEHICLE CROSSINGS

a New Crossings

Ca1. All new vehicle crossings (where no crossing has previously existed) shall be paid for by the property owner, except when alterations to road side drainage necessitate the installation of a vehicle crossing.

Ca2. The lengths of crossings shall be 3.0 m (min.) to 6.0 m (max.).

(see PDP Table 4 Section 14)

Ca3. The type of crossing shall be approved by Council staff prior to construction.

Ca4 Construction of new crossings shall be carried out by a contractor approved by the Council.

b Replacement Crossings - Condition

Cb1. Where an existing crossing has deteriorated to a condition where repairs or replacement is necessary, Council staff shall assess the cause of the deterioration.

- Where the deterioration is due to reasonable wear and tear, the Council will repair or replace the crossing at its own expense.
- Where the deterioration is due to unreasonable use by the property owner (eg. damaged by heavy or construction vehicles) the property owner shall pay for any repairs or replacement.
- If there is a combination of causes a cost sharing arrangement may be determined by the Council.

Cb2. Existing crossings would have been constructed to a strength compatible with the property use at the time of construction. Crossings constructed for light residential vehicles may not be suitable for heavy vehicles. If a change in property use causes accelerated deterioration of a crossing then its repair or replacement will be paid for by the property owner.

Cb3. When a property owner requests a replacement crossing to be 'heavy duty' then the additional costs shall be at the property owner's expense.

c Replacement Crossings - Performance

Cc1. When an urban property owner complains about the change of grades of a crossing, (causing 'bottoming' of a vehicle) then a cross section of the crossing shall be surveyed. The cross section shall be matched with the clearance characteristics of a laden 90 percentile vehicle (car) to determine whether the crossing has the correct grade requirements. If the crossing does not comply with the requirements the Council will modify or replace the crossing to meet the correct grade requirements on an equal cost sharing basis with the property owner.

Cc2. Crossing replacement may not necessarily be done immediately but may be programmed for when funds become available, this may not be until the next financial year. Alternatively the work may be delayed to

coincide with a programmed general street upgrade. Should the property owner have an urgent need for the work to be completed it may be done at the property owners expenses at the Council’s discretion.

Cc3. Where a property has more than one vehicle crossing The above provisions shall apply only to the principal crossing, ie. the one which serves a garage or driveway to a garage.

Cc4. If the match with laden 90 percentile vehicle indicates that there is not a problem but the property owner still wishes to proceed with modification or replacement of the crossing, then the property owner will be liable for the full cost, including any footpath and carriageway alterations required.

Cc5. Modification or replacement of the crossing will normally be done by installing a slot crossing, either by pouring a raised lip on the existing crossing, or by installing a new crossing with a slot profile. The effect of the reduction in flow capacity of the channel shall be taken into account before agreeing to a slot type channel. If a slot crossing is not suitable, then the Council may seek alternative options at its discretion.

d Maintenance of Crossings

Cd1. The maintenance of all existing crossings and new crossings approved by the Council shall be the responsibility of the Council.

Cd2. Prior to accepting the maintenance responsibilities, Council staff shall be given the opportunity to inspect the crossing

D RURAL ACCESSWAYS

a New Accessways - General

Da1. The number of accessways serving a property shall be kept to the practicable minimum for the particular residential, agricultural or commercial use of the property.

Da2. The property owner shall apply to the Council for approval to install a new accessway (where no accessway has previously existed). The Council will ensure that the proposed accessway does not adversely affect:

- the road structure
- pedestrian access
- roadside drainage
- safety requirements (sight distances etc.)

Da3. When excavations are required the land owner shall ascertain the location of any underground services and shall ensure these are not disturbed and that required cover depths are maintained

Da4. New accessways shall be constructed by a person or contractor approved by the Council, at the property owner’s expense.

b Proximity to Intersections

Db1 Vehicle accessways shall be located as far as practical from any road intersection and shall not be closer than the distance given in table below.

Frontage Road	Intersecting Road Type (Distance in Metres)					
	Urban			Rural		
	Arterial	Collector	Local	Arterial	Collector	Local
Arterial	30	25	20	200	200	200
Collector	20	20	15	60	55	55

Local 15 15 10 60 55 55

(see PDP Table 4 Section 14)

c Proximity to Other Accessways

Dc1 The minimum distance between two accessways, on the same side of the road, and excluding paddock gateways, shall be not less than distance given in the table below for the relevant posted speed limit.

Speed Limit (km/h)	Minimum Distance to Existing Access on Same side of Road (m)
50	10
60	15
70	40
80	100
100	200

d Plan Dimensions of Accessways

Dd1 The widths of accessways shall be as described in the table below.

Zone	Potential Length	Legal Width
Carriageway		
No. of Lots	(m)	of Accessway Width
	(m)	(m)
Rural	Any No. All Lengths	5.0 4.0

(see PDP Section 14q)

Dd2 Rural residential accessways and accessways to paddocks which do not contain any buildings and which are exclusively used for grazing or cropping shall be constructed in accordance with Plan 2 attached.

Dd3 Rural accessways used regularly by heavy vehicles shall be constructed in accordance with the appropriate diagram on Plan 3

e Vertical Dimensions of Accessways

De1 For rural residential properties the first 6 m from the edge of the carriageway shall have a maximum gradient of 1 in 5. For other activities a distance equivalent to the maximum length of vehicle likely to use the accessway (or the length of vehicle used with Plan 3) shall have a maximum gradient of 1 in 8. Suitable transition curves shall be formed between changes in grade. Where the topography does not permit the required gradient to be achieved a steeper gradient may be permitted at the Councils discretion, specific conditions may be applied.

De2 Accessways serving rural residential properties shall be constructed so that a laden 90 percentile vehicle (car) can negotiate the accessway without bottoming.

De3 The minimum height clearance for accessways is 3.5 m

f Metalling and Sealing

Df1 Construction shall be as per Plan 1.

Df2 Granular Fill Material (bulk fill) shall consist of AP50 or similar well graded granular material containing no clay or organic matter.

Df3 The top 100 mm of fill (basecourse layer) shall consist of Transit NZ Specification M4 material.

Df4 All fill shall be compacted to a uniformly dense stable condition.

Df5 Accessways on sealed roads shall be sealed with a 2 coat grade 4 chip seal for 5.5 m from the edge of the carriageway. Where the road verge is wider than 5.5m the remainder of the accessway to the boundary shall be metalled to an all-weather standard or chip sealed if desired.

Df6 Accessways on unsealed roads shall be metalled to an all-weather standard.

g Maintenance of Accessways

Dg1. Maintenance of accessways shall be the responsibility of the property owner except in the following instances:

- Where road improvements have necessitated alterations to the accessway, maintenance of the alterations will be the responsibility of the Council until they have become stabilised.

Dg2. The property owner shall maintain the accessway in a safe and tidy condition, this shall include:

maintaining pedestrian access

maintaining road side drainage

ensuring gravel is not brought onto the road.

h Sight Distances

Dh1 Minimum sight distances shall be as described in the table below.

Speed Limit Minimum Sight Distance

(kph) (m)

50 85

60 115

70 140

80 170

100 250

(see PDP Section 14p)

The required sight distance shall be checked using the following procedure:

The entranceway centre line shall be projected across the road to intersect the centre lines of both traffic lanes. The appropriate distance from the table above shall be measured from these intersection points, along the lane centre lines, in the vehicle approach directions. There must be a clear line of sight, 1.15 m above finished ground levels, from these points to a point on the entranceway centre line 5.0 m from the centre of the traffic lane nearest the entranceway.

(See also Road & Traffic Standards "Guidelines to Visibility at Driveways")

i Sight Distances - Vegetation Control

Di1 The initial clearing and ongoing control of vegetation on adjacent private property and the road reserve necessary to maintain the required sight distances shall be the responsibility of the property owner using the accessway. Should the property owner not control vegetation it shall be done by the Council at the property owner's expense.

j Site Clearing and Excavation

Dj1 All trees, vegetation, grass and top soil shall be removed from the construction site of the entranceway.

Clearing of the Surface Water Channels shall be carried out beyond the construction site to clear blockages and to make improvements to the course of the channel.

k Gates

Dk1 Gates shall be positioned sufficiently far off the carriageway edge so that, according to the type of vehicle which will use the entranceway, the entire length of the vehicle can be parked off the road carriageway.

E RURAL VEHICLE CROSSINGS

a New Crossings

Ea1. All new vehicle crossings (where no crossing has previously existed) shall be paid for by the property owner, except when alterations to road side drainage necessitate the installation of a vehicle crossing

Ea2 Vehicle crossings serving rural residential properties shall be constructed so that a laden 90 percentile vehicle (car) can negotiate the accessway without bottoming.

b Replacement Crossings - Condition or Performance

Eb1. Where an existing crossing has deteriorated so that the flow of storm water is adversely affected the Council shall replace the crossing. Where the crossing requires replacement for any other reason the property owner shall pay the cost of replacement.

c Maintenance of Crossings

Ec1. The Council shall maintain the flow of storm water by periodic cleaning of water channels and culverts pipes. All other maintenance shall be the responsibility of the property owner.

d Culverts

Ed1 Specific culverts specifications shall be provided by Council but shall generally consist of a 225 mm diameter concrete or corrugated steel pipe

Ed2 Culverts shall extend at least 1.5 m from the entranceway carriageway edge.

Ed3 Where the foundation material under the proposed position of the culvert is not suitable a further 300 mm of material shall be removed and replaced with selected granular material, well compacted.

Ed4 Culverts shall be laid true to line and level and bedded in selected granular material with a minimum compacted cover of 300 mm

Ed5 Where the Council requires head walls to be constructed they shall consist of concreted cobbles.

Ed6 Culverts may be omitted from entranceways where an unlined or chip sealed dish channel is sufficient.