

Before an Independent Hearings Panel
Appointed by Christchurch City Council

under: the Resource Management Act 1991

in the matter of: proposed Plan Change 14 to the Christchurch District
Plan

and: **Carter Group Limited**
(Submitter 824)

Statement of evidence of Lisa Williams (Transport Engineering) on
behalf of Carter Group Limited

Dated: 20 September 2023

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STATEMENT OF EVIDENCE OF LISA WILLIAMS ON BEHALF OF CARTER GROUP LIMITED

INTRODUCTION

- 1 My full name is Lisa Marie Williams. I am a senior transport engineer and planner employed by Novo Group Limited.
- 2 I hold the qualifications of a Bachelor of Environmental Management from Lincoln University and Master of Engineering (Transport) from the University of Canterbury. I have nearly 20 years of experience as a Transport Engineer and Planner in New Zealand. I am a Transportation Group member of Engineering New Zealand.
- 3 My specific experience relevant to this evidence includes processing and preparing traffic assessments under the Resource Management Act 1991 (*the Act*), for notified and non-notified applications on a range of land-use activities. I also have specific experience in undertaking reviews of, drafting and analysis of transport provisions as part of District Plan Reviews for a range of Council and private clients.
- 4 In the Christchurch specific context, I have experience with the application of the transport chapter of the District Plan to a wide variety of developments. This experience provides a thorough practical understanding of the application and implementation of the District Plan provisions.

CODE OF CONDUCT

- 5 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in Part 9 of the Environment Court Practice Note 2023. I have complied with it in preparing my evidence. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 6 My evidence relates to the submission filed by Carter Group Limited (CGL) (Submitter 824) on Plan Change 14 (PC14).
- 7 I have provided transport engineering evidence on the following aspects of *Chapter 7, Transport: Vehicle Crossing Co-Location; Pedestrian Accessways; High Traffic Generator Assessments; Accessible Car Parking; and Loading Requirements* .

- 8 In preparing my evidence, I have reviewed:
- 8.1 The submissions filed by CGL (also referred to as 'the submitter').
 - 8.2 The relevant Section 42A Reports prepared by: Michael Christopher Rossiter (Chris); Anne Heins; William Field and Clare Piper (10.A Transport) and the associated changes recommended to Chapter 7 Transport.
 - 8.3 The relevant statutory planning documents, including the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (the *EHS Act*), and the National Policy Statement on Urban Development 2020 (*NPSUD*).

SUMMARY OF EVIDENCE

- 9 I have provided transport engineering evidence on the following aspects of *Chapter 7, Transport: Vehicle Crossing Co-Location; Pedestrian Accessways; High Traffic Generator Assessments; Accessible Car Parking; and Loading Requirements* .
- 10 In summary, I consider that:
- 10.1 The **vehicle crossing co-location** provisions should be deleted and controlled through the Council's vehicle crossing permit and *Construction Standard Specifications*¹ or be amended to: only apply to residential zones, refer to "accesses" not "sites", and reduce the required minimum separation to other vehicle crossings from 13m to 1.8m.
 - 10.2 The **pedestrian accessway** provisions should be simplified and amended, including:
 - (a) *Policy 7.2.1.9* re-written to provide overarching direction, remove prescriptive provisions that in my opinion conflict with the proposed rule requirements², and be limited to residential activities.
 - (b) Amend *Appendix 7.5.7 c* by removing the 3m width for a pedestrian access.
 - (c) Delete *Appendix 7.5.7 d* relating to pedestrian passing areas.

¹ <https://ccc.govt.nz/consents-and-licences/construction-requirements/construction-standard-specifications/download-the-css/>

² Standard 7.4.3.7 and Appendix 7.5.7

- (d) Delete *Assessment Matter 7.4.4.27 v* as I am not aware of any applicable emergency pedestrian access requirements.
- 10.3 Delete the **high traffic generator** *Assessment Matter 7.4.4.18 vii* relating to greenhouse gas emissions. I consider *Assessment Matters 7.4.4.18 ii* and *iv* already provide consideration of encouraging modes that produce less greenhouse gas emissions.
- 10.4 Delete the **accessible car parking** requirements in *Appendix 7.5.1 Table 7.5.1.1 (2)* for residential activities. In my opinion, these conflict with, and are best controlled by, the Building Act.
- 10.5 Delete the residential **loading requirement** proposed in *Appendix 7.5.3 Table 7.5.3.1 w*. as I consider there is likely to be in-sufficient demand and it will be an inefficient use of space.
- 11 I have included a summary of changes in **Appendix 1**.

CHAPTER 7 TRANSPORT

- 12 CGL's primary submission point on the proposed changes to Chapter 7 Transport is that the proposed provisions in their entirety '*are onerous and unnecessary and are not necessary for the purposes of implementing the NPSUD or EHS Act*'. The issue of scope for PC14 has been addressed in the evidence of **Jeremy Phillips** and I adopt his conclusions for the purposes of my evidence. My evidence on this issue below should be read in conjunction with **Mr Phillips'** evidence and any uncertainty resolved with reference to his evidence.

Vehicle Crossing Co-Location

- 13 Proposed Rule 7.4.3.8, Transport Standard 7.4.3.13 and associated Appendix 7.5.11.4 seek to limit shared vehicle crossings to two adjacent sites, with a maximum shared width of 7m and a minimum of 13m separation between shared vehicle crossings and any other vehicle crossing.
- 14 Whilst I support the principle of co-locating vehicle crossings in some situations, I have a number of concerns with the proposed requirements which may mean they are not practicable or result in poor outcomes.
- 15 My first point of concern is that limiting a vehicle crossing to two "sites" means, for example, that only two dwellings can access a vehicle crossing, even if multiple sites have a shared access / right of way. This is in direct conflict with the access requirements in Rule 7.4.3.7 and Appendix 7.5.7, which allow multiple lots to share an

access. I expect that the intention was for proposed rule 7.4.3.13 to apply to two "accesses" rather than "sites". This can be addressed with the change below:

7.4.3.13 a. no more than two adjacent **sites accesses** shall share a single vehicle crossing;

b. the total width of a vehicle crossing shared between two adjacent **sites accesses** shall not exceed 7m; and

- 16 My second point of concern is that the 7m maximum vehicle crossing width (proposed rule 7.4.3.13. b) directly conflicts with the minimum access width and queuing space requirements in Rule 7.4.3.7. The proposed rule also creates a "first in first served" situation which may leave neighbouring sites with no complying vehicle crossing location. Several examples are provided below.

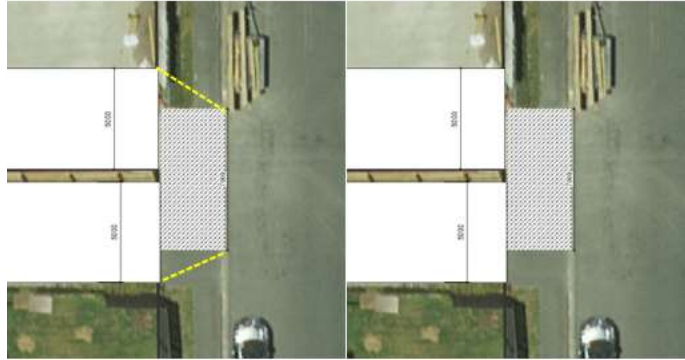


Figure 1: Miss-alignment between minimum access width and maximum vehicle crossing widths (even if splayed – yellow dotted lines).

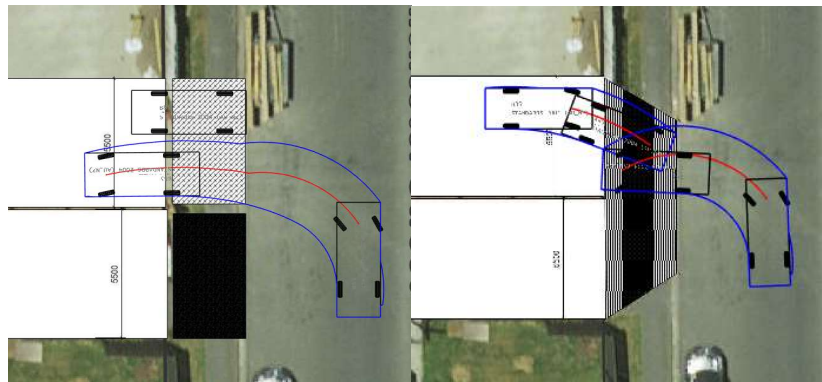


Figure 2: Queuing space achieved by a standard vehicle crossing (left) is prohibited by the maximum co-location vehicle crossing width (right).

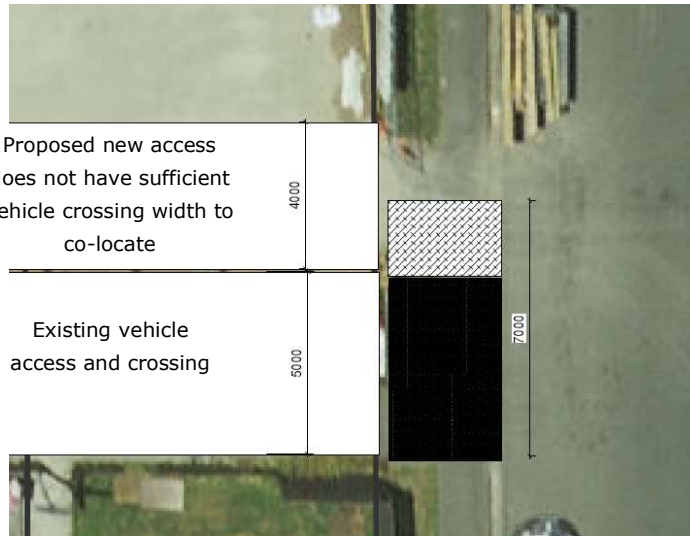


Figure 3: Existing vehicle crossing position and 7m max width makes it impossible for the next development to co-locate the vehicle crossing.

- 17 The issues identified above may also have unintended outcomes. One example is the prevention of a landscaping strip along the site boundaries in order to improve alignment of the accesses to a narrow, shared vehicle crossing.
- 18 I consider the matters outlined above, are exacerbated for commercial and industrial activities where wider accesses (generally 5.5m-9.0m) are currently enabled, and necessary, to accommodate the swept path of larger vehicles. The evidence of William Field refers to co-location of vehicle crossings on residential streets however the rule applies to all vehicle crossings in urban areas. As such the rule should be amended to clearly apply only to the residential zone. For example, 7.4.3.8. h. **Any vehicle crossing in a residential zone onto an urban road**
- 19 My third point of concern is that the proposed rule also requires 13m between a co-located vehicle crossing and another vehicle crossing. Many sites have narrow road frontages such that the proposed rule will leave some neighbouring sites with no compliant vehicle crossing location. It could also force a vehicle crossing to be provided in a less desirable location for the development of the site or in direct conflict with other rules such as separation from intersections. Several examples are provided in Figure 4.

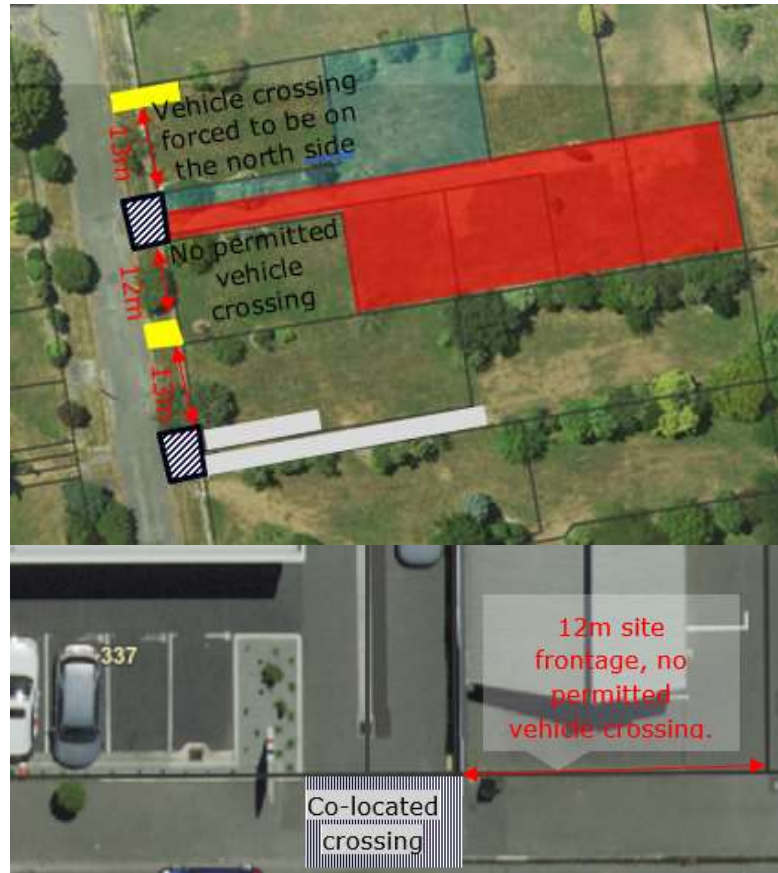


Figure 4: Two examples of sites left with no permitted or impractical vehicle crossing locations.

20 I do not consider that 13m separation distance is required to avoid adverse safety and efficiency effects. In my opinion a 1.8m separation³ would provide sufficient refuge for any pedestrians⁴. There are no other safety and efficiency effects on vehicles or cyclists from co-located vehicle crossings relative to two separate but adjacent vehicle crossings.

21 As such I recommend that the requirement for separation between co-located vehicle crossings is amended as follows:

*c. the minimum distance between a shared vehicle crossing and any other **shared** vehicle crossing shall be **131.8m**.*

22 Irrespective of the above, I note that vehicle crossings design and construction are separately controlled through a vehicle crossing permit and must meet the Councils *Construction Standard*

³ I.e., the same width as a pedestrian island in the Pedestrian Planning & Design Guide.

⁴ In the event that a pedestrian may need to wait for a vehicle already stopped across the footpath waiting for a gap in traffic.

*Specifications*⁵. In my opinion this would be a more suitable process to manage the design of shared / co-located vehicle crossings.

- 23 Noting the above, I consider that the proposed provisions relating to the co-location of vehicle crossings should be deleted (this is my preferred relief) or otherwise amended to be more practicable. The suggested amendments are summarised in **Appendix 1**.

Pedestrian Access

- 24 The proposed changes to Rule 7.4.3.7 and Appendix 7.5.7 will require any site with three or more residential units, that does not have a vehicle access, to provide a 3.0m wide pedestrian access. This must include a 1.5m wide path with 1.8m wide, 2.0m long pedestrian passing areas, every 50m.
- 25 The Council's infrastructure design guide⁶ requires 1.5m wide footpaths (+0.15m clearance to fences or kerbs) for roads in residential areas and does not require passing areas.
- 26 Section 14.2.3 of the Waka Kotahi *Pedestrian Planning and Design Guide*⁷ sets out the requirements for pedestrian passing areas which appear to have been replicated in Appendix 7.5.7 d of the proposed District Plan Transport chapter. However, that guide only specifies passing areas where through route widths are less than 1.5m wide. Wider through areas are required (in the *Pedestrian Planning and Design Guide*) where there are high pedestrian volumes (greater than 50 pedestrians per minute for residential) or a high number of pedestrians stopping e.g waiting for a bus or to cross the road. The 1.8m by 2.0m passing area dimensions are based on space for two wheelchairs to pass or for pedestrians to walk past stationary pedestrians. I consider it is very unlikely that standard residential developments would meet any of those criteria.
- 27 I also note that 1.5m width does still accommodate an occasional passing of either two pedestrians (0.61m shoulder width⁸) or for a pedestrian to pause and turn (0.46m body depth) to allow a cyclist (1m design envelope⁹) past. Such interactions are entirely reasonable on private developments where they would be moving at slow speeds and it allows interactions between neighbours.

⁵ <https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/CSS/Download-the-CSS-2022/CSS-2022-PART-6-ROADING-STANDARD-DRAWINGS.PDF>

⁶ <https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/Infrastructure-Design-Standard/Part-8-Roading.pdf>

⁷ <https://www.nzta.govt.nz/assets/resources/pedestrian-planning-guide/docs/pedestrian-planning-guide.pdf>

⁸ Figure 3.1 of Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling

⁹ Figure 3.5 of Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling

- 28 For the above reasons, I do not consider that the pedestrian passing requirements in Appendix 7.5.7 d. are necessary for residential activities.
- 29 The evidence of William Field¹⁰ outlines that the 3m width for pedestrian accessways does not need to be unobstructed and is appropriate because *"it improves safety and security of pedestrians and occupants (in line with CPTED principles) by providing for passing space and visibility, privacy separation from paths to windows, space for all users, landscaping, and for cycle and bin access"*.
- 30 As outlined above, in my view a 1.5m path width is suitable such that there does not appear to be any need for a further pedestrian access width in addition to the path width. Other considerations relating to landscaping, building location and the like are best managed by rules specific to those matters.
- 31 In terms of the proposed assessment matters I have particular concerns regarding proposed assessment matter 7.4.4.27 v. *"whether the pedestrian access is suitable for use by emergency services"*.
- 32 I agree with the evidence of Chris Rossiter that:
- "...not aware of any specific design criterion for firefighting pedestrian access In the absence of such criteria, it would not be possible for an applicant to provide an assessment of "whether the pedestrian access is suitable for use by emergency services" that is fundamentally different from the assessment against the general pedestrian access requirements" [P.62]*
- 33 In addition, I note that building fire egress is already considered under the Building Act and there does not appear to be any additional assessment that would reasonably be provided in respect of proposed assessment matter 7.4.4.27 v. As such I consider this assessment matter should be deleted.
- 34 There is also tension between the application, and prescriptive requirements, of Policy 7.2.1.9 and the requirements of the rule. These include:
- 34.1 The rule only applies to residential developments of more than three units. The policy is not limited to residential activities and could be applied to all pedestrian accesses for discretionary / non-complying applications for non-residential activities.

¹⁰ Paragraphs 13 and 14.

- 34.2 The prescriptive elements of the policy requiring lighting, allweather surfacing and accessible access, exceed the requirements in the rule.
- 35 This creates inconsistencies in assesment of effects and policy assessments, for instance, where a development complies with the rule but does not meet the additional requirements of the policy.
- 36 I recommend that the policy wording be simplified to provide overarching direction rather than prescriptive requirements. For example I would recommend wording such as "*Pedestrian acceses are designed to meet the access requirements of residents and their visitors*".

High Traffic Generator Assessments

- 37 The proposed changes seek to apply the following assessment matter to both "basic" and "full" Integrated Transport Assessments (ITA's) under Rule 7.4.4.18:

"vii Greenhouse gas emissions: Whether measures are proposed to be implemented to promote opportunities for safe efficient travel other than by conventional provide¹¹ vehicles, to seek to reduce the greenhouse gas emissions from vehicle use associated with the activity, and the ability for the measures to be implemented and maintained over the lifetime of the activity. "

- 38 The evidence of Chris Rossiter notes the following:

"It is not the intention of the policy and rule to require detailed analysis of greenhouse gas emissions, but rather a more generic approach was expected, for example, by demonstrating what measures are proposed to promote use of travel modes other than private vehicles or promote use of vehicles that do not generate greenhouse gases such as electric vehicles." [p. 38]

- 39 In my opinion, the wording of the assessment matter does not reflect this intended approach. I also note that those matters listed by Chris Rossiter are already considerations in the existing assessment matters as shown below [emphasis added in **Bold**]:

*ii Design and Layout: Whether the design and layout of the proposed activity **maximises opportunities, to the extent practicable, for travel other than by private car**, including providing safe and convenient access for travel by such modes. ...*

iv. Accessibility of the location: Whether the proposed activity has demonstrated the accessibility of the site by

¹¹ Assumed to be an error with the correct reference being "private."

a range of transport modes and whether the activity's location will minimise or reduce travel to and from the activity by private vehicles and encourage public and active transport use.

- 40 Given the matters identified by Chris Rossiter are already addressed in the existing assessment matters, the proposed assessment matter is likely to be interpreted as requiring some other additional assessment. This is particularly the case given the title being 'Greenhouse gas emissions' which is again referenced in the assessment criteria. The lack of clear direction relating to the proposed assessment matter leaves significant uncertainty for a resource consent applicant, particularly where they only exceed the basic ITA thresholds.
- 41 I consider that the existing assessment matters are already sufficient, particularly where Policy 7.2.1.2 xi. identifies that encouraging appropriate modes reduces greenhouse gas emissions. As such, I consider the proposed assessment matter 7.4.4.18 vii should be deleted in its entirety.

Accessible Car Parking

- 42 The proposed changes to Appendix 7.5.1 seek to add new requirements for minimum provision of accessible parking in Table 7.5.1.1, for residential activities. This is based on the number of residential units.
- 43 The evidence of Chris Rossiter states that:
- "...Since the implementation of the NPS-UD removed minimum parking supply requirements, this creates a situation where no accessible parking spaces are required if less than 20 parking spaces are provided. In my opinion, this is not a desirable outcome in the context of MDRS where there will always be a need for some residents to have easy access to a parking space for mobility reasons."* [p. 41]
- 44 In my view, this is incorrect as residential activities were excluded (Table 7.5.1.1 Top Row) from provision of accessible parking irrespective of the number of parking spaces provided. As such there is no reduction in mobility parking for residential activities arising from the removal of minimum car parking requirements under the NPS-UD.
- 45 I also note that accessible parking is controlled by the Building Act in D1.3.6 for which the acceptable solution is NZS4121¹². NZS4121 states that *"the access requirement in the building act applies in effect to all new buildings and existing buildings, other than private*

¹² NZS 4121:2001 Design for access and mobility: Buildings and associated facilities.

residential buildings..." Further D1.3.2 for access routes for people with disabilities states that it "*shall not apply to housing*". As such, even if accessible parking spaces were provided in residential developments there would be no accessible route required to a dwelling from those parking spaces.

- 46 This creates a conflict between the Building Act and proposed District Plan provisions. If changes to accessible parking and access routes are necessary for residential developments this should be addressed through changes to the Building Act. I therefore consider that the changes proposed to *Appendix 7.5.1 Table 7.5.1.1 (2) Residential* should be removed.

Loading Requirements

- 47 The proposed changes to Appendix 7.5.3 would require residential developments of 20 or more units to provide a 99th percentile car loading space. No evidence or survey data to support the demand for loading spaces has been provided.
- 48 Rule 7.4.3.3 relating to Appendix 7.5.3 only applies to sites where standard car parking is already provided. In my view it is not clear why there would be regular loading demand when residents already have on-site car parks. Courier deliveries, or taxi pick-up / drop-offs for residential activities are very infrequent and of a short duration. It follows that a dedicated loading space would likely remain vacant for the majority of the time and this is an in-efficient use of space.
- 49 Therefore, I consider the proposed changes to Appendix 7.5.3 to be un-necessary.

SUMMARY

- 50 For the reasons outlined above, I have suggested a number of the proposed provisions in Chapter 7 Transport, are removed or deleted. These relate to: Vehicle Crossing Co-Location; Pedestrian Access; High Traffic Generator Assessments; Accessible Car Parking; and Loading Requirements.
- 51 A summary of changes is provided in **Appendix 1**.

Lisa Williams

20 September 2023

APPENDIX 1: SUMMARY OF CHANGES

The below summary of changes should be read in conjunction with the explanations provided in the body of my evidence.

Vehicle Crossing Co-Location

Delete Rule ~~7.4.3.8 h~~ and ~~7.4.3.13~~ entirely (preferred relief); or,

Secondary relief, amend the provisions as follows:

Rule 7.4.3.8. h. "Any vehicle crossing in a residential zone onto an urban road"

Transport Standard 7.4.3.13:

- a. no more than two adjacent sites accesses shall share a single vehicle crossing;
- b. the total width of a vehicle crossing shared between two adjacent sites accesses shall not exceed 7m; and
- c. the minimum distance between a shared vehicle crossing and any other shared vehicle crossing shall be ~~131.8m~~.

Pedestrian Access

Policy 7.2.1.9 a: Pedestrian accesses are designed to meet the access requirements of residents and their visitors.

~~Pedestrian access is designed to:~~
~~i. be of a sufficient width and grade that the pedestrian access meets the access requirements of all users, including persons with a disability or with limited mobility;~~
~~ii. have a surface treatment that provides for all weather access; and~~
~~iii. where required for consistency with Crime Prevention Through Environmental Design (CPTED), have sufficient illumination to provide for the safety of users after dark.~~

Assessment Matter 7.4.4.27 ~~v. "whether the pedestrian access is suitable for use by emergency services".~~

Appendix 7.5.7

- c. For developments of three or more residential units, each unit shall be accessed by either a combined vehicle-pedestrian access or a dedicated pedestrian access ~~that is a minimum of 3 metres in width~~ with a formed pathway of at least 1.5m; and each access shall be from the street to the front door of the unit ~~and any garage or parking space for that unit.~~
- d. ~~Any pedestrian access longer than 50m with a formed width of less than 1.8m shall provide passing opportunities with a minimum length of 2m and a minimum width of 1.8m at least every 50m.~~

High Traffic Generator Assessments

~~7.4.4.18 vii. Greenhouse gas emissions: Whether measures are proposed to be implemented to promote opportunities for safe efficient travel other than by conventional provide vehicles, to seek to reduce the greenhouse gas emissions from vehicle use associated with the activity, and the ability for the measures to be implemented and maintained over the lifetime of the activity.~~

Accessible Car Parking

Appendix 7.5.1

Table 7.5.1.1 – Minimum number of mobility parking spaces required.

The minimum number of mobility parking spaces provided must be calculated using the following method:

~~(2) Residential activities~~

Number of units	Minimum number of mobility parking spaces
< 7 units	0
7 – 18	1
19 – 31	2
32 – 43	3
> 43	3 for the first 43 car parking spaces + 1 additional mobility parking spaces for each 12.5 units thereafter

Loading Requirements

Appendix 7.5.3

Table 7.5.3.1:

w. Other residential activities if not specified above; [Number of 99 percentile vehicle bays to be provided] ~~Nil~~ **For developments of 20 or more residential units – 1 bay**