

**Before the Independent Hearings Panel  
At Wellington City Council**

**Under** Schedule 1 of the Resource Management Act 1991

**In the matter of** the Proposed Wellington City District Plan

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**Statement of evidence of Patricia Wood**

**Date: 26 April 2024**

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## **INTRODUCTION**

My full name is Patricia Wood. I am employed as a Transport and vehicle access engineer in the Transport and Infrastructure business unit, WCC.

I have prepared this statement of evidence on behalf of the Wellington City Council (the **Council**) in respect of matters raised by submitters in the Transport Chapter of the Proposed Wellington City District Plan (the **PDP**) that relate to transport engineering.

I am authorised to provide this evidence on behalf of the Council.

## **QUALIFICATIONS AND EXPERIENCE**

I hold the qualifications of NZCE (Civil) from 1978 and am an REA (Registered Engineers Associate).

I have traffic engineering and road design experience. I currently assess resource consents and building consents regarding traffic and vehicle access aspects. I have been working at the WCC for 39 years, spending 15 years in the roading design team and 23 years in my current roles or related roles. I have been assessing both vehicle access and transport aspects since about 2015.

## **CODE OF CONDUCT**

I have read the Code of Conduct for Expert Witnesses contained in the Practice Note issued by the Environment Court, which came into effect on 1 January 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Environment Court. My qualifications as an expert are set out above. Except where I state that I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

## **INVOLVEMENT WITH THE PROPOSED DISTRICT PLAN**

I have considerable experience applying transport standards under the 2000 Wellington City District Plan. I provided limited input on road design when the PDP was being drafted, and provided comments to the Council's district plan team about how certain provisions may function in practice. I have worked with Andrew Wharton on responses to submissions and further submissions in his 42A Report where the submission content is within my area of expertise. This statement of evidence outlines my advice on these responses.

## **SCOPE OF EVIDENCE**

My statement of evidence addresses the following matters:

- i. Structure setbacks for bus movements
- ii. Vehicle trip generation
- iii. Site access and driveways
- iv. State highway access
- v. On-site vehicle parking, circulation, manoeuvring
- vi. On-site loading

## Structure setbacks for bus movements

Matters raised by submitters	Statement of evidence
<p>Greater Wellington (GW) [351.24] asks for verandahs and other street frontage structures to be set back one metre from the kerb edge along existing and future bus routes, to provide adequate space for buses to turn in and out from the kerb.</p>	<p>The Proposed District Plan already has a standard that verandahs must be set back 0.45 m from the kerb edge. In considering this topic, I have also referred to Auckland Transport standards<sup>1</sup> which have similar constraints to Wellington City in areas with high bus numbers, curves and cambers. I have also referred to Wellington City Council's Encroachment Guidelines which requires 4.5 metres minimum height clearance in encroachment areas and a 0.45 metre setback where vehicles could strike a balcony, verandah etc. It is possible this could occur at bus stops where buses could overhang the public footpath when manoeuvring into and out of bus stops.</p> <p>I support a standard on this matter, as buildings are difficult to change or move once constructed. However, my recommendation for verandahs is to retain the 450mm setback and 4.5 metre height clearance. These distances are also generally consistent with the 4.55 m height clearance which is Auckland Transport's recommended minimum safe design height to free-standing clear hard infrastructure. This covers the legal maximum bus height in New Zealand (4.3 m) and a safety margin. This is applicable to Wellington's double decker buses also. This standard would be relevant in all zones as bus stops can potentially be placed anywhere.</p> <p>WCC and GW sometimes place road sign poles, planter boxes, seats and other small structures near bus stops. The clearance used can be less than 300mm these structures. Small structures like traffic sign poles and gardens on the road reserve near bus routes can be more easily relocated by WCC or GW if they are found to be causing problems with bus collisions or potential collisions.</p> <p>The locations of utility structures e.g. utility poles and cabinets are assessed as part of the WCC Corridor Access Request (CAR) approval required for these structures. The team carrying out this work requests that applicants meet the requirements of the WCC Code of Practice for Working on the Road. This document requires utility poles and cabinets etc to be placed at the back of the public footpath or within 500mm from the kerb face.</p> <p>Structures such as transformers and large cabinets on legal road are not permitted by the Code of Practice for Working on the Road and I understand this is consistent with the District Plan.</p> <p>It is recommended that the discretion for the Transport Consents team to assess resource consent applications for utility structures on legal road is maintained. The Transport Consents team can liaise with the Corridor Access Request team while preparing their assessment.</p>

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<sup>1</sup> Auckland Transport. [Public Transport – Bus Infrastructure](#) Version 1, pg 10.

	<p>It is recommended that the reference to the Code of Practice for Working on the Road is retained in the proposed District Plan using similar wording to that in the Operative District Plan.</p> <p>Structures at footpath level being moved 1 m or more in from the kerb would impede pedestrian movements and increase the risk of pedestrians tripping or colliding with them, especially for people with visual or mobility disabilities. In my view, requiring a 1 m setback from all kerbs along current bus routes for all street frontage structures is too onerous and limiting to good streetscape design, especially with Wellington's narrow footpaths. A resource consent would be required every time a utility pole, road sign, seat or another structure is placed closer than 1 metre of the kerb. As discussed above, this would frequently be not supported as a lesser distance (500mm maximum) is required if the utility pole cannot be placed at the back of the footpath. There needs to be a balance between protecting buses from hitting obstacles, and the considerable paperwork that would be required to get resource consents every time a new pole or piece of street furniture is installed.</p> <p>The chance of the bus hitting existing utility poles near bus stops have been highlighted with bright chevron markings. I expect these provide a reminder to drivers to consider obstructions when driving in and out of these bus stops.</p> <p>When new bus stops are created or are moved along the existing bus routes, the Council and the bus stop infrastructure owner (e.g. Metlink) generally work together to move the existing obstacles further back, if required. If street frontage poles etc are considered too close by Greater Wellington, they can be highlighted to drivers as discussed above.</p>
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## Vehicle trip generation

Matters raised by submitters	Statement of evidence
<p>WIAL [406.190, 406.186, 406.187, 406.188, 406.189, 406.193, 406.194] opposes TR-P1. It asks for the trip generation provisions and standards should not apply within the Airport Zone, as the management of people to and from the airport and its environs is a role that WIAL oversees and accounts for as its role as airport operator.</p>	<p>I agree with WIAL's rationale of excluding activities within Wellington Airport's core site on Stewart Duff Drive from vehicle trip generation policies and rules. Wellington Airport manages these activities under their designation in an integrated way, including as set out in the WIAL Designation Outline Plan.</p> <p>The Airport Zone also includes sites and activities directly fronting local roads including Tirangi Road, Lyall Parade, Bridge Street, Calabar Road, Broadway. Policies and rules managing high trip generation are relevant here where activities may be outside of the WIAL designation's scope and Outline Plan and have direct effects on the local transport network. I do not support excluding these areas from trip generation provisions and standards.</p>

<p>Restaurant Brands Ltd [349.18] opposes TR-R2 requiring all drive-through activities to have a resource consent, and wants this clause deleted. McDonald's [FS45.1] supports this change.</p>	<p>On Restaurant Brands' submission point, I consider that drive-through activities, by definition, have "a substantial focus on drive-through transactions". This creates traffic effects due to the high number of vehicle movements associated with these types of businesses. These effects need consideration and management in the Integrated Transport Assessment and during the resource consent process.</p>
<p>Z Energy Ltd [361.12] and the Fuel Companies [372.73, 372.74] wants TR-R2 to apply only to new service stations. Waka Kotahi [FS103.12] opposes the Z Energy point.</p>	<p>Similarly, the submissions from Z Energy and other fuel companies request an exemption from TR-R2 unless it is a new service station. A change to service station operation beyond its existing use rights can generate significant traffic issues with the number, location, and direction of car movements in and out and could also result in altered site access. I agree with Waka Kotahi's concern on this point. I recommend that TR-R2.1 remains unchanged.</p>
<p>Rimu Architects Ltd [318.18] wants TR-S1 to mention garages and reduce light vehicle movements generated by a car park from 10 to 6 per day.</p>	<p>I disagree with Rimu Architects that it is helpful to add "or garage" to "carparks" referred to in TR-S1. Carparks can be in many forms: e.g. garages, carports, cardecks, outdoor parking spaces, stacked cars, etc. The PDP already accounts for this in Table TR-10: Parking space dimensions, which references the standards that may apply inside a garage.</p> <p>Rimu Architects requested to reduce estimated vehicle movements per carpark from 10 to 6. While 10 vehicle movements per day may seem high, this is consistent with Waka Kotahi's Research Report 435<sup>2</sup>, which found an average of 9.5 vehicle trips per household. The range of vehicle movements was not strongly correlated to the number of cars, household income or socioeconomic factors. The report recommends using the 85th percentile figure of 10.4 vehicle movements per day for design and assessment purposes. If a development with vehicle parks will have fewer vehicle movements for some reason, this can be assessed through the resource consent process.</p>
<p>Restaurant Brands [349.22] opposes the TR-S1 thresholds as too low, and wants the table replaced with 100 vehicle movements per hour.</p> <p>Woolworths [359.31] also sees the thresholds as unnecessarily low, and suggests a units/students/GFA set of thresholds like in the</p>	<p>The New Zealand standard AS/NZS2890.1 clause 3.2.2. says 30 movements for a peak hour requires two lane access i.e. 5.5 metres minimum. As an applicant may have proposed a single lane, there needs to be an opportunity for the type of access proposed to be assessed from a traffic point of view.</p> <p>It is considered that the traffic effects of a development can be more accurately measured by the number of vehicle movements rather than by the Gross Floor Area of the site. The example suggested (that the traffic generated by a university hostel is comparable to the traffic generated by a supermarket) illustrates this. While it may be easier to measure, the GFA measurement method is not accurate as the traffic generated can vary greatly depending on the type of development proposed.</p>

<sup>2</sup> [Trips and parking related to land use November 2011](#). NZ Transport Agency research report 453.

<p>Auckland Unitary Plan. Stride [FS107.8] and Investore [FS108.8] support this change.</p> <p>Kāinga Ora [391.150, 391.151] wants to clarify the evidential basis of the assessment criteria and to increase the light vehicle threshold to 500 per day.</p>	<p>Even a development of 200 vehicle movements represents a large development. Based on the average of 10 movements a day (discussed above) 200 vehicle movements a day represents a development comprising 20 dwellings with carparking. Alternatively, it could include a fast food restaurant or supermarket as discussed above. This size of development is likely to require assessment on other grounds, but the proposed threshold permits a traffic assessment to be made as well. The suggested 500 vehicle movement per day threshold is therefore considered too high.</p> <p>Kainga Ora [FS89.17], and also Stride Investment Management Ltd [FS107.26] and Investore Property Ltd [FS108.26] have therefore opposed Waka Kotahi's suggestion that there is a lower threshold for those developments fronting state highways. This is considered not necessary as Waka Kotahi will have the ability to comment on the number of vehicle movements as part of their submission. However, see further comments below on the Waka Kotahi submission.</p>
<p>Waka Kotahi [370.163], on the other hand, consider 200 vehicles per day as too high, and wants a threshold of 100 car-equivalent movements onto state highway, and lower thresholds for safety reasons. It also prefers using "equivalent car movements" instead of separate heavy vehicle standards. As state above, Kāinga Ora [FS89.17], Stride [FS107.26] and Investore [FS108.26] oppose these changes.</p>	<p>Waka Kotahi has queried where the "200 vehicles per day" threshold has come from. I did not prepare the proposed District Plan standards, so do not know. I expect that it may have come from NZS4404:2010. This document suggests road / footpath widths associated various types and scales of developments. It may have also been influenced by the previous Code of Practice for land Development 2012 or earlier versions.</p> <p>I agree with Waka Kotahi that 200 "car equivalent vehicle movements per day" is a high number for those developments gaining site access from a state highway. These roads would have a high traffic volume and sometimes a higher speed limit than most WCC controlled roads. A lower figure, e.g. 100 vehicle movements as they suggested, for those developments gaining site access from a state highway, would warrant assessment by Waka Kotahi as part of the resource consent process. This assessment is allowed for by TR-R3.1.b.</p> <p>The Waka Kotahi suggestion that they use their interpretation of equivalent car movements (rather than those proposed in TR-S1) would be an alternative way of measuring car movements. For example, their document suggested "1 truck to and from the property = 6 car movements" and "1 truck and trailer to and from the property = 10 car movements". Based on their suggested limit of 100 car movements, this could permit 17 truck movements and 3 car movements or 10 truck and trailers at a site. Having this number of trucks could be feasible e.g. at a small warehouse or goods distribution centre. These numbers of trucks would exceed those suggested in TR-S1 which is much more conservative, as it has a threshold of 8 heavy vehicles per week. I suggest that the heavy vehicle numbers indicated in TR-S1 are retained, including for the Waka Kotahi sites and the Waka Kotahi method of measuring trucks is not used.</p>

### Site access/driveways

Matters raised by submitters	Statement of evidence
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<p>FENZ [273.51] supports TR-P3.6 about safe and effective access for firefighting purpose, but considers it should include reference to NZS 4404:2010 and the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008</p>	<p>I agree with FENZ that a reference to NZS 4404:2010 (Land Development and Subdivision Engineering) and the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008 would be useful as reference documents about what “safe and effective access” comprises, as discussed in the driveway design topic. Both documents are already referenced documents in the PDP<sup>3</sup>.</p>
<p>FENZ requests that INF-S13 criterion 3 is adjusted to include Fire Appliance access.</p>	<p>This is acceptable, although the requirements of the Fire Service e.g. those indicated in the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008 differ from some of the proposed road widths. For example, Table 1 - INF Design of Roads recommends a 3.5 metre minimum road width for, and states that the traffic lane must provide unhindered access including fire truck access. However, the FENZ standard requests a 4 metre minimum width. I consider a straight 3.5 metre width should usually be sufficient for a 2.5 metre wide vehicle to travel along. Additional width is likely to be needed if vehicles need to drive along a curved road carriageway. In this situation, assessment of the vehicle tracking curves, including the assessment of the tracking curves for a fire appliance would be needed.</p> <p>I agree that that a 3.5 metre carriageway width would be narrow for using as the point from which staff would be able to easily work around the vehicle. However, the adjacent footpath and berms would add to the width that would be available for staff to use.</p>
<p>FENZ requests a 4 metre height clearance.</p>	<p>A 4 metre height clearance would be generally available on roads, although it may require street trees to be located away from road edges and/or trimmed to retain the clearance.</p>
<p>FENZ requests that the one vehicle crossing site restriction is removed.</p>	<p>I do not understand how having more than one vehicle crossing would aid FENZ activities. This was the only suggested change to INF-S16 points 1 to 4 that I could see.</p>
<p>FENZ requests maximum gradient of 15%.</p>	<p>This gradient is acceptable for a public road where the gradient must be 1 in 8 maximum.</p> <p>The 15% (1 in 6.7) maximum gradient may not be achievable for driveways for private developments as these frequently need steep gradients e.g. 1 in 4 to achieve access. This gradient is allowed for Driveway Level 1 sites. It is suggested that fire truck access will need to be considered for such driveways, particularly when they are beyond the reach of a fire hose. In that situation, alternative methods of fire control may be needed. It is therefore not considered to be possible, in Wellington where the terrain is steep, to provide the requirements suggested in their point 10, relating to INF-S16. In particular, it would be difficult to require the provision of a hardstand and turnaround areas with a maximum gradient of 5% (1 in 20) in all directions as requested for TR-S7.</p> <p>Consideration could be given to requiring resource consent assessment of those sites where the structures are located more than 70 metres from an area that a fire appliance can access.</p>

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<sup>3</sup> A list and hyperlinks of documents incorporated by reference in the PDP is located [here](#).



	<p>I therefore mostly disagree that safe and effective access for firefighting should be provided “in accordance with” NZS 4404:2010 and the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008, as FENZ requests. TR-P3 has a strong direction: “only allow ... where”. There may be instances when a development can provide safe and effective access for firefighting purposes, but due to a unique situation it may not meet one or more of the technical standards in these documents. “With reference to” these documents is more appropriate for this policy.</p>
<p>FENZ [273.52, 273.53] supports TR-R3 with an amendment to include TR-P3 matters as matters of discretion. The Retirement Villages [FS126.35, 350.51, 350.52] and Ryman [FS128.35] oppose this due to duplication with the Building Act, and also want TR-P3.5 “Safe and effective access for firefighting purposes is provided” deleted as it’s regulated under the Building Act. FENZ [FS14.2] in turn opposes removal of TR-P3.5.</p>	<p>I disagree with the Retirement Villages and Ryman that TR-P3.5 duplicates the Building Act. The Building Act has controls for fire-fighting service access into and around buildings. The discretion to assess the fire-related aspects of the site access at the resource consent stage was not previously available. This resulted in situations where the access driveways for a development could be already built before any building consents were applied for. District plan controls are useful to ensure that the ability for emergency vehicles to access the site and buildings can be considered. District plan controls for access for firefighting purposes are relatively common, to protect the health, safety and wellbeing of people and communities.</p>
<p>Rimu Architects Ltd [318.17] wants TR-R3.1 amended by requiring compliance with INF-S16 Connections to roads - driveways. Waka Kotahi [FS103.13] supports this.</p>	<p>I note Rimu Architects’ and Waka Kotahi’s point about including bridges and culverts being not specifically referred to in TR-R3. It is agreed that these features occur sometimes, and these are required mainly in rural areas. However, I consider they would not need to be specifically mentioned as these features would generally be within legal road or sometimes a private right of way.</p> <p>Regarding their comment about including connecting the road connection standards in INF-S16 with the TR-R3, it is considered that it is clearer to keep separate the rules and standards for driveways, and the rules and standards for road connections. Mr Wharton’s recommendation to move INF-S16 (and related rules and standards) into the Transport chapter will help with the connection that these submitters want.</p> <p>Rimu Architects’ submission also notes the missing link between INF-S16 and the TR-R3.1.b permitted threshold that the driveway access is not to a State Highway. I agree these provisions should be linked. I consider the statement is in the wrong place entirely; it should be part of the Connections to Roads rule, not the Driveways rule. I recommend moving TR-R3.1.b to (relocated) TR-R7.1.d, which should partly satisfy the submitters’ concern.</p>
<p>Rimu Architects Ltd [318.17] wants a Right of way from another property to be attributed to that site rather than the site that it is located on.</p>	<p>It is expected that in this situation, that whether this was considered to be a second vehicle crossing would depend on whether the site also used the vehicle crossing. It would not necessarily always be that a right of way on a site would only be used by the other site. The number of vehicle crossings attributed to a site would therefore need a traffic assessment as part of the proposed resource consent.</p>

Rimu Architects Ltd [318.17] points out there may be a discrepancy between the 4.91m x 1.87m being an 85%ile vehicle and a reference to a 99%ile vehicle.	I agree there is a discrepancy between INF-S16 point 2 which requires a vehicle crossing to be designed for 99%ile vehicle and TR-S7.1 that references an 85%ile vehicle. It is recommended that the 85%ile vehicle is used when designing the vehicle crossing also, as a driveway that suits a 99%ile vehicle would need to be wider. This would conflict with some of the other driveway width requirements proposed e.g. a 3.0 metre maximum vehicle crossing width for Driveways Level 1 as required in INF-S16.3.
Rimu Architects Ltd [318.17] wants a special width allowance for angled driveways as they need to be wider.	I do not agree that a greater width should be permitted for angled driveways, as these types of driveways are not encouraged and need careful assessment.
Rimu Architects Ltd [318.17] want a wider allowance for double garages that face the road.	This relates only to Level 1 driveways, and it is expected that it has been made a requirement to deter these types of garages on these roads, possibly for urban design reasons. However, I agree that a 3.0 metre vehicle crossing width would be insufficient for providing access to a double garage that is close to the formed road. This could result in additional resource consent applications but as there may need to be consideration by other teams and the planner, the retention of the 3 metre vehicle crossing width is acceptable. A transport benefit is that it should reduce the effect of the vehicle crossing on the on-street parking.

### Driveway classification

Matters raised by submitters	Statement of evidence
Restaurant Brands [349.10, 349.26] supports TR-S5 and TR-Table 8 as notified.	Noted
Waka Kotahi [370.164] asks that TR-S5 be clearer that, where there is a new activity, the driveway classification and design is relative to that new activity.	I agree with Waka Kotahi's request but this aspect is already covered by clause TR-R3.1.b.
Waka Kotahi [370.155] wants TR-Table 8 to have the High Trip Generating activity threshold decreased from 201 light vehicle movements to 100 light vehicle movements where the driveway accesses the state highway, and lower than 201 movements	<p>I accept Waka Kotahi's point that the state highway is an important corridor through Wellington City, not just for cars, but also for public transport and active modes. However, this does not need to affect TR-Table 8 because site access activities (beyond existing use rights) that are onto a state highway are already a restricted discretionary activity under TR-R3, which requires assessment against the safety and effectiveness of the transport network.</p> <p>I do not support adjusting the heavy vehicle movement thresholds in TR-Table 8 to align with the equivalent car movement ratios in the NZ Transport Agency Planning Policy Manual, as discussed above. The Waka Kotahi method of measuring heavy movements could result in those sites, where there are a lot of heavy vehicle movements, not being correctly assessed.</p>

<p>elsewhere where the safety of the transport network warrants it – to be determined between Council and Waka Kotahi. It also notes how equivalent car movements should be better calculated for cars (x2), trucks (x6) and truck and trailers (x10), to and from the property.</p>	<p>I do not support adding lower thresholds “where the safety of the transport network warrants it”. This would add significant uncertainty for applicants about which standard in TR-Table 9 they have to meet and whether they need to apply for resource consent or not. This would add bureaucracy and cost without significantly improving road safety.</p>
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### Driveway design

Matters raised by submitters	Statement of evidence
<p>Restaurant Brands [349.11, 349.27] supports TR-S6 and TR-Table 9 as notified.</p>	<p>Noted</p>
<p>Waka Kotahi [370.165] ask that TR-S5 be clearer that driveway design is relative to a new activity.</p>	<p>I disagree that driveway design is only for a new activity. The activity TR-R3 Site access that references TR-S5 and TR-S6 is also relevant where an existing activity may change or expand beyond its existing use rights under RMA Section 10.</p>
<p>FENZ [273.47, 273.48] supports TR-Table 9, subject to driveways serving buildings more than 70 m from a legal road to have unhindered fire appliance access in accordance with the NZ Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008. FENZ [273.55] also wants to add standards to support site access by fire emergency vehicles where reticulated water is unavailable or too far away. Retirement Villages [FS126.34,</p>	<p>I support a new standard for driveways serving buildings more than 70 m from a legal road to have unhindered fire appliance access. Requirements in district plans relating to access for firefighting purposes are relatively common. This responds to an identified resource management issue, particularly relating to the health, safety and wellbeing of people and communities. The Building Act provides for fire-fighting service access standards in terms of where buildings are located (for example, within 20 m of a hard-standing area for firetrucks). District plan controls on driveway design help ensure that sites can actually be developed to meet these Building Act controls.</p> <p>The referenced document NZ Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008 requested by FENZ has more onerous driveway design controls, such as a minimum road width of 4 m and road gradient that should not exceed 15%. I note this document is already incorporated by reference when the PDP was notified. However, these controls would only apply where the driveway to a building site is more than 70 m long. If a driveway cannot meet these Code of Practice controls, a resource consent assessment on how safe and effective access for firefighting purposes is provided (TR-P3.5) would allow the consideration of the site-specific conditions and mitigations. I recommend including the FENZ text requested, but limiting the application of the NZ Fire Service Firefighting Water Supplies Code of Practice SNA PAS 4509:2008 to the vehicle access standards part.</p>

<p>FS126.36] and Ryman [FS128.34, FS128.36] oppose this as fire-fighting service matters are already provided for in the Building Act.</p>	
<p>Survey &amp; Spatial [439.23] considers that width standards for driveways for 7-20 dwellings (Driveway Level 3) are excessive. It proposes: Footpath = 1 x <del>1.5</del> <u>1.0</u>, Vehicles = <del>2 x 3.0</del> <u>1 x 4.5</u>, Berm = 1 x 1.0 <u>or 2 x 0.5</u>, Overall legal width = <del>8.0</del> <u>6.5</u>.</p>	<p>The proposed District Plan classified driveways by vehicle movements per day etc. Assuming 10 vehicle movements per dwelling, a development with 7 – 20 dwellings would be classified as warranting a Driveway Level 3 in Table 8. Proposed Table 9 – TR: Design of driveways suggests a single 1.5 metre wide footpath and 2 x 3.0 metre wide vehicle lanes. It would also have a single 1.0 metre wide infrastructure berm. As detailed in the Survey and Spatial submission, it suggests a single 1.0 metre wide footpath, a single 4.5 metre wide lane for vehicles, or a single 1.0 metre wide berm or 2 x 0.5 berms.</p> <p>I disagree with some of these widths proposed by Survey &amp; Spatial e.g. a 1.0 metre wide footpath is of little benefit to pedestrians, particularly those walking side by side or passing each other. Pedestrians are likely to walk on the driveway in this situation.</p> <p>A 4.5 metre driveway is considered too narrow for vehicles to pass each other. A lesser width than 2 x 3.0 metre wide lanes could be acceptable e.g. a passing area has been considered to be 5.5 metres wide in the past and could be used.</p> <p>The 1.0 metre wide berm is considered acceptable from a transport point of view.</p>
<p>Living Streets Aotearoa [482.36] also wants the width and speed of driveways in TR-Table 9 to be reduced from 6 m.</p>	<p>Living Streets Aotearoa suggests that a 6 metre wide driveway is too wide. As stated above, a 5.5 metre wide driveway could be acceptable. However, the point where the vehicle crosses the footpath often needs to be wider when vehicles need to pass each other. This is due to the need for a greater width needed when vehicles are turning. The 2 x 3.0 metre wide driveway is only required on the busier driveways i.e. Driveway Level 3. The 6.0 metre overall width is considered acceptable for these driveways, as it is likely that vehicles will be passing each other at the vehicle crossing point</p>

### State highway access

Matters raised by submitters	Statement of evidence
<p>Waka Kotahi [370.156, 370.160] wants new a new policy and rule to control activities having direct access to the state highway, with the effect of requiring resource consent when the land use changes to ensure the safe and efficient function of the state highway network. Stride [FS107.25]</p>	<p>I agree that additional controls on land use changes with direct state highway access should be allowed for. This includes the need to consult with Waka Kotahi when access is from a state highway. State Highway 1 has many existing direct vehicle access points along Vivian Street, Kent Terrace, Ruahine Street and Wellington Road. These are urban areas where significant land use intensification and change is likely. Land use changes could affect state highway function, even where vehicle movements remain below the vehicle trip generation thresholds in TR-S1. Assessment of these effects through a resource consent application can help retain state highway function as an Urban Connector with a high vehicle movement value under its One Network Framework classification.</p>

and Investore [FS108.25] oppose the new policy as unnecessary and inappropriate.	However, I note that my and Mr Wharton’s recommendations are already to require a resource consent for any new connection to a state highway, and requiring an integrated traffic assessment for any activity that generates over 100 light vehicle movements per day or 8 heavy vehicle movements to/from the state highway.
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### On-site vehicle parking, circulation, manoeuvring

Matters raised by submitters	Statement of evidence
TR-R5 is supported as notified by McDonald’s [274.5], Restaurant Brands [349.21] supported by Foodstuffs North Island [FS23.34] with its amendments, WCCERG [377.53], Foodstuffs North Island [476.8].	Noted
TR-S7 is supported as notified by Restaurant Brands [349.28].	Noted
<p>FENZ [273.56, 273.57] supports TR-S7, and wants to add heavy rigid vehicle manoeuvring standard as per AS2890.2 where reticulated water is unavailable or too far away.</p> <p>Retirement Villages [FS126.37] and Ryman [FS128.37] oppose this as duplicating matters under the Building Act.</p>	<p>I support including a standard for manoeuvring of a heavy rigid vehicle e.g. as per AS2890.2 where the site access is some distance away from a road with reticulated water supply – See comments below though. Requirements in district plans relating to access for firefighting purposes are relatively common. This responds to an identified resource management issue, particularly relating to the health, safety and wellbeing of people and communities.</p> <p>The Building Act<sup>4</sup> provides for fire-fighting service access standards in terms of where buildings are located (for example, within 20 m of a hard-standing for firetrucks) and have specific fire access requirements for multi-unit dwellings. District plan controls on manoeuvring can ensure the fire service vehicles can actually get to the site. If a development does not meet this standard, the Council will need to assess other firefighting capacity options under matter TR-P3.5.</p> <p>The document AS2890.2 requested by FENZ was not notified as a referenced document in the PDP, and is not publicly available. This makes it difficult to be a referenced document. As an alternative, Porirua City Council has decided changes to its Proposed District Plan that address submissions from FENZ and others about firefighting access in this exact situation.</p>

<sup>4</sup> See [Building Regulations SR 1992/150](#).

	<p>I agree with that Porirua Hearing Panel’s assessment in its Report 5B<sup>5</sup> that there is a regulatory gap in that Building Code fire access requirements only apply to multi-unit dwellings of two or more, and that “safety of life” in a fire is a health and safety matter within the purpose of the RMA.</p> <p>I generally support applying the new Porirua District Plan’s TR-S4 standards to the PDP TR-S7, with one change below. The standards are not quite as strict as FENZ requests (such as applying to access lengths &gt;75 m instead of &gt;50 m). In my view, these standards enable sufficient emergency vehicle access while minimising adverse effects on development feasibility, and benefit from alignment with the neighbouring Porirua District Plan rules.</p> <p>There is a consistency gap here with the FENZ recommendation for 70 metres distance from the road in its requested change to Table 9 – TR: Design of Driveways. I supported this change above. This standard should be incorporated into the on-site manoeuvring standard too. If a building is 70 m away from a road and so needs to accommodate fire trucks, the manoeuvring standards should enable the truck to be able to park and move while on-site as well.</p>
Rimu Architects [318.19] want an exception added to TR-S7.4 where the street has a steeper gradient than 12.5% so the limit is set by the street gradient.	On Rimu Architects’ requested exemption, there are only about 20 streets in Wellington City that exceed 12.5% slope <sup>6</sup> , so this is an uncommon situation. New streets and roads (except for main streets and activity streets) also have a maximum gradient of 12.5% in Table 1 – INF: Design of Roads. The street gradient should not influence the on-site circulation and manoeuvring area slope assessment, especially as on-site circulation is often a small space with tight vehicle movements, compared to the wider and straighter street environment.
Survey & Spatial [439.26] wants TR-S7.4 to exclude residential driveways as TR-Table 9 allows a steeper gradient.	A similar argument applies to Survey & Spatial’s point. Driveways can be much steeper, but at the manoeuvring areas, where cars are stopping and changing direction, there needs to be a shallower slope to be safe. If a steeper manoeuvring area is requested and there are to be mitigating design elements, this will need to be assessed and approved through the resource consent. I recommend retaining the maximum gradient standard of 12.5% in TR-S7.4.
Kāinga Ora [391.152, 391.153] supports TR-S7, but wants 2.d (electric vehicle charging-ready) removed. GW [FS84.77] opposes this	Kāinga Ora’s submission to remove the electric vehicle-charging-ready standard TR-S7.2.d did not include a reason for supporting this. I acknowledge Mr Wharton’s arguments about this standard being an important way to enable electric vehicle uptake in medium and high density living areas while balancing this with the obligation for electric vehicle owners to supply their own cabling and charger to their individual carparks. The car owner is also responsible for adapting to the evolving technologies for EV charging as described in the Section 32 Transport Report <sup>7</sup> .

<sup>5</sup> Refer to section 6.14, paras 241 – 243 in the [Porirua City Council Hearing of Submissions and Further Submissions on Proposed District Plan, Report 5B](#).

<sup>6</sup> The streets are described in this media article, with street gradients sourced from the Council. <https://www.stuff.co.nz/dominion-post/news/114780462/wellingtons-steepest-streets-revealed-and-theyre-not-for-the-fainthearted>

<sup>7</sup> Refer to Issue 20, pgs 39, 40, of the [Section 32 – Part 2 – Transport Report](#).

<p>and references the directions in Proposed RPS Change 1.</p>	<p>The cost of installing the electrical cable conduit during the construction of an in-building carparking area or an outdoor parking area is much cheaper per individual car park than an individual car owner having to retrofit a separate cable and other electrical components from the power supply to their individual car park.</p> <p>I consider that TR-S7.2.d is unclear whether it applies to a car parking area, or to individual car parking spaces – it should only apply to a car parking area.</p>
<p>Design Network Architecture [FS73.1] wants TR-S7.2.c to clarify what the minimum height clearance means, and that the garage door can be lower.</p>	<p>I agree that that “minimum height clearance” for a carpark should be further clarified. For a garage door, a 2.2 metre height clearance is preferred as this meets AS/NZS2890.1:2004 requirements. I accept that a garage door height of 2.1 metres is usually accepted in Wellington City at the building consent stage. A garage door height of 2.3 metres minimum is hard to justify. The recommended height clearance at a garage door is therefore 2.1 metres.</p> <p>However, notification of a 2.3 metre minimum height clearance on a shared commercial driveway e.g. a public parking area or supermarket carpark would be beneficial and would be supported. This requirement is also indicated in AS/NZS2890.1:2004.</p> <p>The proposed use of the wording below is therefore supported.</p> <ul style="list-style-type: none"> <li>a. Have a minimum height clearance of <u>its vehicle access and any associated garage door of:</u> <ul style="list-style-type: none"> <li>i. <u>2.3 m for spaces where the general public have access; and</u></li> <li>ii. <u>2.1 m for all other spaces;</u></li> </ul> </li> </ul>
<p>Retirement Village Association [350] page 32 queries the need for retirement villages to meet parking design standards.</p>	<p>This submission also requests dispensation from the parking design requirements that relate to on-site parking areas. While the number of carparks required may not be a requirement, if carparks are provided they will need to meet the usual design requirements. If alternative designs are proposed, these would need to be assessed as part of a resource consent application.</p>

### On-site loading

Matters raised by submitters	Statement of evidence
<p>TR-S8 and TR-S9 are supported as notified by Restaurant Brands [349.29, 349.30].</p>	<p>Noted</p>
<p>Precinct Properties [139.3, 139.4] asks for TR-S8 and TR-S9 to be</p>	<p>The Precinct Properties considers that the design requirement being based on an 8 metre x 2.5 metre truck (4.5 metres high) is excessive. I agree that the 4.5 metre height requirement is excessive in most areas e.g. Centres, Central and High Density and residential areas . A 3.6</p>

<p>deleted. It considers S8 may unnecessarily constrain development where the on-site loading area is impractical and unnecessary. It sees S9's measurements as excessive for loading requirements, which will constrain appropriate designs, negatively affect streetscape and urban design. It considers S9 will reduce pedestrian amenity so is inconsistent with the PDP's strategic objectives and City Centre Zone objectives and policies.</p>	<p>metre height clearance would be acceptable for those sites that have a loading area in these zones. The 4.5 metre height clearance would generally be required in zones such as the General Industrial Zone where tall trucks would be expected. A longer truck may need to be allowed for in this zone also.</p> <p>I consider there remains a need for on-site loading areas in large developments, particularly those in central areas. Servicing vehicles may otherwise park on the public road causing congestion and delays to other road users. The need for loading areas to be required only for buildings with a large total floor area would mitigate the streetscape designs issues raised. Consideration could be given to making the need for the provision of on-site loading areas a discretion that would be assessed as part of the transport assessment of the project.</p> <p>I agree it can be difficult to achieve manoeuvring areas clear of the public road reserve for large vehicles, but if manoeuvring on the road is required, a traffic assessment will be required.</p> <p>Regarding loading area size, it is considered that the width of a loading area (2.5 metres + 0.3 metres on each side) is already too narrow. The trucks will generally be 2.5 metres wide and there needs to be 0.6 metres clearance to obstructions on each side to allow staff to access both sides of the vehicle while using the loading area.</p> <p>In principle, I consider that an accumulation of vehicle entrances and loading bays can disrupt building frontages and reduce pedestrian amenity and walkability in dense urban environments such as the City Centre Zone. This is addressed in the Section 32 – Transport Report<sup>8</sup>. This is why this Section 32 Report recommends the 450 m<sup>2</sup> gross floor area as a threshold beyond which an on-site loading area would be required. This would allow for less visual effects from the loading bay entrance as the vehicle entrance and the loading bay should be a small proportion of the overall ground footprint. There would be less impact on pedestrians also.</p> <p>A 450+ m<sup>2</sup> building gross floor area is large. Typically, the activities within these large buildings require regular deliveries, freight, tradespeople, waste collection etc., some of which require typical two-axle medium rigid trucks to be on-site. Even if the current activity in the large building does not use these trucks, future users of the building may require them. This regular loading/offloading activity can cause adverse effects on street function and movements if it has to rely solely on street space, especially in dense urban environments.</p> <p>On-site loading areas may also be required for large residential developments. A private waste collection needs to be provided for the situations that exceed a threshold of 10 or more apartments. It will be necessary to make a traffic assessment of the feasibility of the private waste collection vehicles accessing the waste storage areas, and whether they will affect road users if no on-site loading area is provided.</p>
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<sup>8</sup> [Wellington City Proposed District Plan Section 32 Evaluation Report – Part 2 – Transport](#). Issue 18: Loading, pages 32, 38, 39.



	<p>TR-S8 and TR-S9 minimise adverse effects on the streetscape and pedestrian amenity and safety from too much truck loading on the streetside on one hand, and too many driveways and large manoeuvring spaces on the other hand. Based on the Section 32 evaluation, I consider the threshold and design requirements are about right or may be able to be achieved in a different way e.g. making on-site loading a matter of discretion for large developments.</p>
<p>Retirement Villages [350.59, 350.60] proposes switching the order of S8.1 and S8.2, and to only require one on-site loading area per retirement village.</p>	<p>I agree with the Retirement Villages that the order of S8.1 and S8.2 read more easily if switched. I also agree with their concern that for large sites such as retirement villages, each large building is required to have a loading bay. The purpose of the standard is to address the issue of regular deliveries impeding street function when they have space to do this on-site. Having at least one on-site loading space that meets the TR-S9 design requirements achieves this, even if there are more than one &gt;450 m2 buildings on site.</p> <p>I recommend amending TR-S8 to clarify the loading area must be provided for the site, not the building. The Retirement Village relief sought was only for retirement villages, but the Precinct submission point asking for the standard to be deleted gives scope for the standard to be reduced in its application for all activities.</p>

**Date:** 26 April 2024

Patricia Wood