IN THE MATTER OF	The Resource Management Act 1991, Subpart 6 concerning the Intensification Streamlined Plannir Process.	
AND		
IN THE MATTER OF	Hearings on an Intensification Planning Instrument, as a proposed plan change to the Upper Hutt City District Plan under the Resource Management Act 1991, Schedule 1 Subpart 6.	

Ву

Upper Hutt City Council

Statement Of Evidence: Donald Wignall

6th April 2023

INTRODUCTION

1. My full name is Donald Richard Wignall.

Qualifications and Experience

- 2. I have a Master of Science in Transportation and Traffic Planning from the University of Birmingham, and a Master of Civic Design from the University of Liverpool.
- 3. I am a consultant with experience in multi-modal transport planning, project development and assessment at national, regional and local scales. I have served as an advisor to government ministries, national agencies, regional organisations, transport operators, territorial authorities, public bodies and commercial developers in New Zealand.
- I was a transport planner in the United Kingdom from 1976 until 2003, for engineering consultancies and urban councils. Since 2003 I have worked as a transport consultant for Transport Futures Ltd in New Zealand.
- 5. My recent experience in transport planning and assessment includes:
 - (i) Assessing the transport related provisions of PC 50, in terms of potential transport effects, including estimating the effects of increased working from home, SATURN and SIDRA traffic modelling, for Upper Hutt City Council.
 - Undertaking the peer review of the Gabites Block PPC 55 Integrated Transport Assessment and assessing transport issues raised in submissions, for Upper Hutt City Council.
 - (iii) Development of integrated transport assessment guidelines for District Plan purposes, including liaison with Waka Kotahi, for Upper Hutt City Council.
 - (iv) Transport planning assessments and traffic modelling, for Kapiti Coast District Council and Porirua City Council.
 - (v) Transport consultancy advice to Waka Kotahi and Greater Wellington Regional Council.
- 6. I attach a copy of my CV to this evidence in Appendix A.

Scope of Evidence

- I have been engaged by Upper Hutt City Council to provide analysis on transport aspects of:
 - i) Rezoning requests for St Patrick's Urban Precinct and Trentham Racecourse, and
 - ii) Submissions by Z Energy and Waka Kotahi.
- 8. My evidence has been prepared in the context of the Intensification Planning Instrument proposed plan change to the Upper Hutt City District Plan.

Code of Conduct

- I have read the Code of Conduct for expert witnesses in the Environment Court Practice Note 2023 and have complied with it when preparing this evidence.
- 10. My evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

St Patricks Urban Precinct

- 11. St Patrick's Urban Precinct is adjacent to the established Educational Precinct at Silverstream. A range of activities are envisaged for the Urban Precinct in PC50 and a range of specific aspects relating to these activities have been raised in submissions.
- 12. The Urban Precinct has potential to accommodate a substantial amount of development and is adjacent to the Fergusson Drive, a busy high-capacity road. Development issues to consider in respect of Fergusson Drive include the safety and capacity (of adjacent intersections), pedestrian facilities (including access to Silverstream Rail Station) access to bus services, cyclist facilities and the potential need for speed management.
- A preliminary analysis of potential traffic generation arising from potential development activity has been undertaken¹ taking account of the potential

¹ St Patrick's Urban Precinct: Transport Effects Memo v2-3, 27-03-2023.

need for an Integrated Transport Assessment (ITA) when traffic generation thresholds are reached, as measured in Passenger Car Units (PCU) per hour. This analysis has been used to respond to the specific questions raised below.

- 14. What are the key traffic constraints faced by the St Patrick's Estate site? Key traffic constraints include: the capacity and safety of Fergusson Drive at the point access is taken for the development, at adjacent junctions and at the Fergusson Drive intersections with SH2, Eastern Hutt Road, County Lane, Field Street, St Patrick's College Accesses and the two existing Silverstream pedestrian crossings.
- 15. What are the key activities that would require specific consideration of their resulting traffic effects via a resource consent process? Any individual activity type could generate the need for a resource consent as a result of requiring an ITA if it is of sufficient scale. Some activities almost always occur at sufficient scale to warrant an ITA, including: supermarkets, drive through activities and large floor retail. Other activities always require specific arrangements to be in place through an ITA for reasons of access and safety, such as emergency services or motorised recreation activities. Combinations of various smaller scale individual activities could also require an ITA, such as a group of small individual shops.
- 16. What are the most appropriate limits or triggers for those activities to trigger the need for a resource consent? In view of the fact that the St Patrick's Urban Precinct is an area of intensification and proximity to Fergusson Drive and Silverstream Rail Station, in my opinion, an ITA should be undertaken if activities either, require a new access onto a public road, or if they are expected to generate 100 passenger car units (PCU) per hour or more. In addition to traffic generation ITA thresholds for individual activities, the scale of the Urban Precinct means that, in my opinion, an overall ITA is required to appropriately plan necessary access arrangements.

Trentham Racecourse

- 17. A request has been made to rezone an area at the Racecourse from Special Activity Zone (where most activities and development are currently noncomplying activities) to Mixed-Use Zone. This could enable a mix of activities, potentially including: residential, retailing and offices as permitted activities, with non-residential activities, potentially subject to maximum permitted Gross Floor Area (GFA) standards.
- 18. Kainga Ora has indicated Upper Hutt City Council will receive a contribution from the Infrastructure Acceleration Fund for transport upgrades to support a large high-density housing development planned within part of the Trentham Racecourse. However, this may not cover all access capacity requirements arising from future mixed development on the site. It is also not certain at the present time, what the timing of any proposed upgrades might be.
- 19. Large horse racing events are held at the Racecourse on a number of occasions throughout the year, with potentially 25,000 people in in attendance at any one time, many travelling by public transport. Other activities and smaller gathering events are also held at the Racecourse and it is not yet clear which activities would be retained on site, in the context of any future rezoning and associated new mixed development.
- 20. The transport network context of the site can be summarised as follows. The rail station provides good access to Metro rail services, with increases in current frequencies planned. More detailed transport assessment is needed in the context of, increased local road traffic, including access to the site via, the Messines Avenue intersections with Racecourse Road and Seddul Bahr Road, the at-grade road/rail crossing of Messines Avenue (especially given the context of planned increases in train frequency) and the signalised intersection of Fergusson Drive and Sutherland Avenue.
- 21. Development planning is at a preliminary stage, but It is expected that, if development proposals are taken forward, that future traffic generation will be calculated, and an associated access strategy will be developed, through an Integrated Transport Assessment (ITA). However, in order to identify where pressure is likely to fall on the surrounding road network, I have undertaken a

preliminary assessment² on the basis of a potential development mix, to assist in answering the following questions:

- 22. Are there any transport constraints to mixed development on the Racecourse site, prior to appropriate access improvements being undertaken? In the context of site access, capacity, safety and amenity constraints, if any new development activity is expected to generate a road traffic trip rate of 100 passenger car units (PCU) per hour or more, this would, in my opinion, warrant an ITA to be undertaken, for consideration by Council.
- 23. Would the advice (in paragraph 22 above) change if new development was to replace existing activities on the site? The potential scale of new development is so large and different in nature, compared to existing activities, that the issue of whether or not an activity replaces current activities does not materially affect the advice. Specific event access planning would still be required for race days, whether or not the mixed rezoning is approved.
- 24. What would appropriate activity thresholds be for an ITA to be required? Subject to undertaking or reviewing more detailed site-specific assessments, in the context of the site access, capacity, safety and amenity constraints, a mixed development threshold of 100 PCU per hour or more, for any activity or combination of activities, would, in my opinion, warrant an ITA to be undertaken, for consideration by Council.
- 25. Are there any other relevant transport considerations that have been identified? In addition to setting traffic related ITA thresholds for individual activities, in my opinion, the potential scale of future development, in the context of the network location, means that, if the mixed rezoning is approved, an overall ITA will be needed to appropriately plan for necessary access arrangements.

² Trentham Racecourse: Transport Effects Memo, v2-0, 27-03-2023

Submission By Z Energy

- 26. The Z Energy Submission proposes to: ''Amend Rule MUZ-R14(1)(a) to exclude parking and manoeuvring areas at service stations from the calculation of GFA. One way of achieving this outcome would be to make the following changes: Drive through Activity 1. Activity status: Permitted Where: a. The gross floor area of the activity including parking and manoeuvring areas does not exceed 1,500m². For the purposes of this standard, except for service stations, gross floor area shall include parking and manoeuvring areas;''
- 27. The reason given for the proposed change is: 'Z Energy does not support this condition if it includes the car parking and manoeuvring areas of service stations, such as forecourt areas, parking spaces associated with car care facilities and /or entry/ exit and other hardstand areas facilitating access throughout the site. To apply the qualifying standard in that way would effectively mean that service stations were not permitted activities, as most modern service stations have an area exceeding 1500m².''
- 28. The term gross floor area (GFA) most commonly includes internal (multi-floor) internal building areas, plus any canopy footprint: ''The GFA (or FSA) is the sum of the 'Fully Enclosed Covered Area' and 'Unenclosed Covered Area' (as defined by Quantity Surveyors and Architects³).''
- 29. The main issue in using GFA as the sole measure for permitted service station activities, as suggested by Z Energy, in that often the GFA of service stations is very small, or even zero for those stations without roof structures. This could mean that all service station activities, no matter how great their scale, would be treated as permitted activities, which could result in inappropriate and/or problematic developments, in terms of their generated effects.
- 30. The intention behind the term 'parking and manoeuvring areas' is clear, however the exact definition of this could be difficult, for example does this include all hardstanding areas? Or are certain areas of the site to be excluded? To avoid potential misunderstanding, perhaps a definition based on the total site area, minus landscaping, could be considered.
- 31. Although there are differences between the characteristics of service stations and other types of drive through facilities, there are also many similarities. For example, although site area requirements for service stations often exceed

³ NZPGP 601 Methods of Measurement, Section 5.4

1,500m², this is often also the case for the required site area for fast-food and other drive through facilities.

- 32. It is important that service stations are located on sites with a sufficient area to be appropriately accessed, well laid out and with sufficient room to accommodate supportive motorist facilities. Setting the threshold at 1,500m² means that small scale local filling stations would be excluded but modern new facilities would generally exceed this, meaning that the unintended consequences of potentially encouraging the development of overly constrained and sub-optimal small facilities would be avoided.
- 33. The rule addresses the development of separate drive through facilities, but some developments may come proposed with composite facilities, for example a joint service station and supermarket or service station and fastfood arrangement on either a single site or co-joining sites. The potential for such developments increases the need for safeguards to ensure service station facilities are appropriately accessed.
- 34. In my opinion, after assessing⁴ the submission and potential responses, retention of the proposed Rule MUZ-R14(1)(a), without amendment, would ensure that new service stations are appropriately consented and result in the minimisation of potential negative effects.

Planning Policy Manual

- 35. The submission by Waka Kotahi is in relation to TP Transport and Parking, Access to Commercial Zones TP-S1 proposes to: ''Amend the transport access standards for state highways to include minimum access spacing with any consequential amendments required throughout the rest of the plan to correctly reference the required access spacing standards for direct accesses to the state highway. The appropriate safe access spacing standards for the state highway network are found in the Waka Kotahi Planning Policy Manual Appendix 5B, Table App5B/3.''
- 36. The reason given for the proposed change is: ''Waka Kotahi supports the inclusion of specific standards to promote the safety of access to the state highway network. The standards should also address safe access spacing to promote safety and contribute to the delivery of a well-functioning urban environment as per Policy 1 National Policy Statement Urban Development 2020 (NPS UD).''

⁴ Submission 32.7: Z Energy Limited memo, v2-1, 27-03-2023

- 37. In terms of the centres and mixed zones that Waka Kotahi address in respect of their submission, no substantial sites with access issues appear to be physically located on a state highway, so the submission may be associated with potential future designations, rather than any currently proposed designation.
- 38. For State Highways, protections are already provided in the Transport and Parking Chapter of the Upper Hutt City District Plan, in TP Diagrams 2-9 inclusive.
- 39. The Table App5B/3 referred to by Waka Kotahi, is in any case, a general guide, with 'recommended minimums' and 'desirable spacings' and is unlikely to be sufficiently definitive to be enforceable as a rule.
- 40. In the permitted access standard TP-S1 the 'Code of Practice for Civil Engineering Works' already references supportive guides, including Austroads, as follows: ''C2.2 Relevant Standards and Guideline Documents Road designs shall be based on the requirements of the Upper Hutt City Council performance criteria, Upper Hutt City Council typical cross sections and details and the most appropriate Codes and Guidelines applicable at the time of the project. The following is a selection of currently available documents which provide an appropriate basis for road designs in Upper Hutt. These are not exclusive and other standards and guidelines accepted by the engineering profession at the time may be used where appropriate. (i) All Transit New Zealand Standards, Criteria and Guidelines and AUSTROADS Codes and Guides which at any time may be acceptable to Upper Hutt City Council...''
- 41. The submission refers to the Planning and Policy Manual (developed by Transit NZ in 2007, but no longer maintained as a complete entity) and Table App5B/3 in Appendix 5B of the Manual, which, on Waka Kotahi's web site, is currently stated to be ''..under review''.
- 42. Table App5B/3 is also based on, now superseded, Austroads advice and therefore, were Table App5B/3 to be incorporated into standards as requested by Waka Kotahi, it would likely need to be replaced very quickly, when Table App5B/3 is either abandoned or updated, following review.
- 43. It is understood that Waka Kotahi already apply more contemporary methods to determine appropriate junction spacings when considering applications for new accesses onto the state highway, including current Austroads advice.

- 44. Following consideration⁵, I now address specific questions arising from the submission as follows:
- 45. What does the Planning Policy Manual require that is additional to what the proposed District Plan access standard TP-S1 already require? Table App5B/3 is not a requirement, represents a superseded general guide and, in my opinion, would not represent an improvement on currently proposed assess standards and/or associated plan protections.
- 46. Taking into account the specifics of Upper Hutt's state highway network, and the existing and potential future access points to it from the proposed Centres Zones and the Mixed-Use Zone, is there a need to include the requested new access standards via reference to the Planning Policy Manual in response to the amount of additional development enabled by the IPI? In my opinion, there is no need to include the requested new access standards, as the currently proposed assess standards and associated plan protections, in the context of Upper Hutt's state highway network are appropriate, sufficient, and would not be improved by including the requested new access standards.
- 47. Does the District Plan have a gap in the management of the safety of access to the state highway network? I am not aware of any specific capacity or safety issues on the state highway through Upper Hutt, that could not be appropriately managed through existing Road Controlling Authority network management powers, procedures to approve new accesses onto a state highway, or through the currently proposed assess standards and associated plan protections.

⁵ Planning Policy Manual: Waka Kotahi Memo, v2-0, 27-03-2023

48. If the answer (to the question in paragraph 49) is yes, does this gap justify the inclusion of Waka Kotahi's Planning Policy Manual into the permitted activity access standard for the proposed Centres Zones and Mixed-Use Zone? I do not consider that any gap, if it does exist, would justify the inclusion of Waka Kotahi's Planning Policy Manual Table App5B/3 into the permitted activity access standard for the proposed Centres Zone and Mixed-Use Zone provisions.

Inn

DONALD WIGNALL 27th March 2023

Appendix A: CV

Don Wignall

QualificationsMaster of Science, Transportation and Traffic Planning; University of
Birmingham (UK)Master of Civic Design, Town Planning, University of Liverpool (UK)

Experience Transport planning, project development and assessments for territorial authorities, regional councils, national agencies, government ministries, transport operators and developers.

2003 – 2022: Transport Consultant, Transport Futures Limited (NZ) http://transportfutures.co.nz/

Upper Hutt District Council

- Assessment of transport issues and evidence for Intensification Planning Instrument Plan Change Hearing (UHCC, 2023)
- Development of integrated transport assessment guidelines for District Plan purposes, including liaison with Waka Kotahi (UHCC, 2021/22).
- Peer review of Maymorn residential proposal and associated statement of evidence at Private Plan Change 55 Hearing (Gabites Block) for 400 dwellings (UHCC, 2021).
- Assessment of transport effects and provisions, including estimating the effects of increased working from home and the potential need for associated planning controls. Upper Hutt SATURN and SIDRA modelling for Plan Change 50 (UHCC, 2021).

Kāpiti Coast District Council

- Major new residential assessment using the KTM4 district-wide SATURN model, testing future network improvement options, alternative demand matrices and analysis of changes to traffic volumes, travel times and origin/destination patterns for 3,000 dwellings at Kāpiti Airport / Quarter (KCDC, 2021/22).
- Proposed District Plan Environment Court Appeals process evidence (KCDC, 2018-2020).
- Assessment of proposed major retail/commercial town centre extension (Coastlands Square) including new links/intersections and large supermarket using SATURN and SIDRA (KCDC, 2019).
- Linked traffic signals optimisation review, Parts 1 and 2, including strategic (SATURN) and detailed (SIDRA) modelling of 8 sets of closely spaced traffic signals Kāpiti Road (including SH1 M2PP Expressway interchange). Review of Wellington Traffic Operations methodology for assessing, setting and monitoring. Design of field trials and travel time monitoring (using BLIP) and analysis, (KCDC, 2018/19).
- Kāpiti Coast Proposed District Plan Hearing, (Chapters, 2, 6 and 11) transport, traffic and modelling evidence (KCDC, 2015-19).
- Analysis of proposed designation at Paekakariki, adjacent to the NIMT line, including vehicle access, operational, planning and amenity effects. Representation at Notice of Requirement: Adjustment of rail designation Hearing, and preparation of evidence, (KCDC, 2017).
- Kāpiti Coast Proposed Private Plan 84 (Airport) Hearing, transport, traffic and modelling witness (KCDC, 2016/17).

<u>Porirua City Council</u>

- Kenepuru Programme Business Case, multi-modal area-wide transport network improvements (capital value \$36m) in response to Transmission Gully motorway opening and major new developments, economic appraisal and authorship of PBC economics chapter (PCC, 2020/21).
- Comprehensive Area Studies (City Centre, Kenepuru, Eastern Porirua) and Corridor Assessments (for Kenepuru Drive, Raiha-Prosser, Whitford Brown Avenue) multi-modal and development planning assessments, capacity assessments, conceptual design, economic appraisal and reporting (PCC, 2018-2021).
- Assessment of Transmission Gully (TG) motorway traffic impacts and associated responses; including traffic calming, parking and traffic management pedestrian and cycling

improvements, provision for public transport and the feasibility of alternative intersection form, and feasibility assessments (PCC, 2018-2020).

 Assessment of 2,100 new private dwellings in Eastern Porirua using NWSM SATURN model for long-term (2041) network assessment and programming purposes (PCC/Kainga Ora, 2019).
 N7 Transport Agency / Waka Kotabi

<u>NZ Transport Agency / Waka Kotahi</u>

- Forecasting study, to estimate the public transport task (passenger-kms travelled) in the context of the ERP Vehicle Kilometres Travelled (VKT) reduction targets (Waka Kotahi, 2023)
- Peer Review of research project 'Climate Change: interventions to reduce land transport greenhouse gas *emissions*' (Waka Kotahi, 2022/3).

Greater Wellington Regional Council

- Wellington Rail Plan Programme Business Case, economic appraisal of long-term future scenarios (\$6.7b to \$12.2b) taking account of upper and lower demand growth ranges (including rail patronage, other mode forecasts, emissions and VKT effect estimation) authorship of economics chapter and appendix (GWRC, 2021-23).
- Wellington Real Time Information renewal / improvement project, Single Stage Business Case, peer reviewer (GWRC, 2021).
- 1996 2017: Partner, Transportation Planning Partnership (UK)
- 1988 1996: Technical Director, Allott Transportation (UK)
- 1986 1988: Transportation Policy Team Leader (PO4), City of Birmingham (UK)
- 1978 1986: Principal Officer (PO1), Merseyside County Council (UK)
- 1976 1978: Transport Planner, Brian Colquhoun & Partners Consulting Engineers (UK)

Selected References

- Economic Re-evaluation of New Zealand Transport Investments, Australasian Transport Research Forum, November 2017 <u>http://www.atrf.info</u> <u>https://www.australasiantransportresearchforum.org.au/sites/default/files/ATRF2017_031.pdf</u>
- Implications of Road Investment, NZTA Research Report 507, <u>http://www.nzta.govt.nz/resources/research/reports/507/</u> November 2012
- Regional transport targets for sustainable transportation in New Zealand, NZTA Research Report 385, <u>http://www.nzta.govt.nz/resources/research/reports/385/</u> November 2009
- Role of land use planning in shaping our transport system: Christchurch Conference (NZ); July 2007
- The A565 Atlantic Avenue; A Regeneration Corridor; Highways and Transportation (UK): February 1996
- How Public Transport Can Influence Development Location: Aston University Development Conference (UK): May 1995.
- Sustainable and Attractive Industrial Development: Estates Times Industrial Review (UK): February 1995.
- Royal Town Planning Institute Prize, Civic Design, University of Liverpool (1992)
- Manchester Phoenix Regeneration Study: Municipal Engineer (UK), June 1990

Memo To:	Emily Thomson, UHCC	: Matt Muspratt, MCL	
From:	Don Wignall, Transpor	t Futures	
Subject:	Trentham Racecourse	: Transport Effects	
Issue Date:	27-03-2023	Version: v2-0	

Trentham Racecourse: Transport Effects

1 Introduction

1.1 The scope of the work is contained in the email of 20th March 2023 from UHCC to Transport Futures, with responses to specific questions raised in correspondence, provided in Section 3 below:

2 Background

2.1 A request has been made for the area (below in black diagonal lines) to rezone it from Special Activity Zone (where most activities and development are currently non-complying activities) to Mixed-Use Zone, where a mix of activities including: residential, retailing and offices, (although the exact development mix is unknown at this stage) could be permitted activities, with non-residential activities generally being subject to maximum permitted GFA standards.



2.2 Kainga Ora has indicated Upper Hutt City Council will receive \$12.4 million from the Infrastructure Acceleration Fund for transport upgrades to support a large high-density housing development planned within part of the Trentham Racecourse¹. However, this may not necessarily cover all access capacity requirements arising from future mixed

¹ <u>https://kaingaora.govt.nz/working-with-us/housing-acceleration-fund/infrastructure-acceleration-fund/#regions</u>

development on the site. It is also not certain at the present time, what the timing of any proposed upgrades might be.

- 2.3 Large horse racing events are held at the racecourse on a number of occasions throughout the year, with potentially 25,000 people in in attendance at any one time, many travelling by public transport. Other activities and smaller gathering events are also held at the racecourse site and it is not currently clear which activities would be retained on site, in the context of any future rezoning and associated new mixed development.
- 2.4 The transport network context of the site can be summarised as follows. The rail station provides access to Metro rail services, with a 20-minute service in either direction on weekdays, a 30-minute service at the weekends and increases in these frequencies planned².
- 2.5 Detailed transport assessment is needed in the context of³: increased local traffic using Messines Avenue intersections with Racecourse Road and Seddul Bahr Road, substantial increases in development related traffic demand at the at-grade road/rail crossing of Messines Avenue (especially given) the context of planned increases in train frequency and increased demand at the signalised intersection of Fergusson Drive and Sutherland Avenue.
- 2.5 Development planning is at a preliminary stage, and it is not known whether the requested rezoning will be approved or what any future scale end mix of individual activities might be. It is expected that, if development proposals are taken forward, that future traffic generation will be calculated, and an associated access strategy will be developed through a future Integrated Transport Assessment (ITA)⁴. However, in order to identify where pressure is likely to fall on the surrounding road network, a nominal development mix has been tested, initially for the weekday morning peak hour, see Annex.

3 Specific Questions

- 3.1 Are there any transport constraints to mixed development on the Racecourse site, prior to appropriate access improvements being undertaken? In the context of site access: capacity, safety and amenity constraints, if any new development activity is expected to generate a road traffic trip rate⁵ of 100 passenger car units (PCU) per hour or more, this would, in my opinion, warrant an ITA to be undertaken, for consideration by Council.
- 3.2 Would the advice (in 3.1 above) change if new development was to replace existing activities on the site? The potential scale of new development is so large / different in nature, compared to existing (routine) activities, that the issue of whether or not an activity replaces current activities does not materially affect the advice in 3.1. Specific access planning would still be required for race days, whether or not the mixed rezoning is approved.
- 3.3 What would appropriate activity thresholds be for an ITA to be required? Subject to undertaking or reviewing more detailed site-specific assessments, in the context of the site access: capacity, safety and amenity constraints, a mixed development threshold of ≥100 PCU for any activity or combination of activities, would, in my opinion, warrant an ITA to be undertaken, for consideration by Council.

² Wellington Rail Programme Business Case, June 2022

³ This does not a comprehensive list of issues to be addressed by an ITA, see for example, considerations in Draft Transport Assessment Guidelines, 2023 (UHCC).

⁴ Research Report 422, Integrated transport assessment guidelines, 2010 (NZTA).

⁵ Research Report 453, Trips and parking relating to land use, 2011 (NZTA).

3.4 Are there any other relevant transport considerations that have been identified? In addition to setting traffic related ITA thresholds for individual activities, in my opinion, the potential scale of future development in the context of the network location, means that, if the mixed rezoning is approved, an overall ITA is needed to appropriately understand and plan for necessary access arrangements.

Annex

- A1 A preliminary assessment of the potential effects of a potential development mix (of residential, medical, health, education and office activities) has been undertaken for a weekday, using the NWSM AM peak hour model⁶.
- A2 An illustration showing the location of additional traffic pressures from this mix of activities is shown below, where the blue bandwidths indicate the general scale of potential traffic effects on the adjacent road network⁷.





⁶ Do-Minimum 2021 North Wellington Saturn Model

⁷ The model, as currently configured, does not precisely reflect local traffic routing between the Racecourse site and Messines Road, however this is not material to the consideration of potential overall change in traffic demand on the road network.

Memo To:	Emily Thomson, UHC	C Matt Muspratt, MCL	
From:	Don Wignall, Transpo	ort Futures	
Subject:	St Patrick's Urban Precinct: Transport Effects		
Issue Date:	27-03-2023	Version: v2-3	

St Patrick's Urban Precinct: Transport Effects

1 Introduction

1.1 The scope of the work is contained in the email of 13th February 2023 from UHCC to Transport Futures, with responses to specific questions raised provided in Section 4, below:

2 Background

- 2.1 St Patrick's Urban Precinct is adjacent to the established Educational Precinct at Silverstream. A range of activities are envisaged for the Urban Precinct in PC50 and a range of specific aspects relating to these activities have been raised in submissions.
- 2.2 The Urban Precinct, with an area of approximately 30 hectares, has potential to accommodate a substantial amount of development and is adjacent to the major arterial road of Fergusson Drive, providing vehicular access to a busy high-capacity road whilst acting as a potential barrier to crossing movements. Issues to consider in respect of Fergusson Drive include the safety and capacity (of adjacent intersections), pedestrian facilities (including access to Silverstream Rail Station) access to bus services, cyclist facilities and the potential need for speed management.



Figure 1: District Plan - Proposed IPI Layers

Proposed IPI - Residential & Commercial/Industrial Rezoning - Upper Hutt City (arcgis.com)

3 Review

- 3.1 An analysis of potential traffic generation arising from potential activities has been undertaken primarily based on Research Report 453¹. This analysis, as summarised in this Memo and Annex has been used to respond to the specific questions raised in Section 4.
- 3.2 Development planning is at a preliminary stage, and it is not known what the scale end mix of future individual activities will be. It is expected that future traffic generation will be calculated, and an associated access strategy will be developed through a future Integrated Transport Assessment (ITA)². However, for test purposes only, in order to identify where pressure might fall on the surrounding network, a nominal development mix has been tested, initially for the weekday morning peak hour.

3 Specific Questions

3.1 Responses to questions regarding the potential rezoning of St Patrick's to MUZ:

i) What are the key traffic constraints faced by the St Patrick's Estate site?

The key traffic constraints include: the capacity and safety of Fergusson Drive at the point access is taken for the development and adjacent junctions, and also at the Fergusson Drive intersections with SH2, Eastern Hutt Road, County Lane, Field Street, St Patrick's College Accesses and the two Silverstream pedestrian crossings.

ii) What are the key activities that would require specific consideration of their resulting traffic effects via a resource consent process? (see the key MUZ activities in the table below).

Any/all individual activity types could generate the need for a resource consent as a result of requiring an ITA if they are of sufficient scale³.

Some activities almost always occur at sufficient scale to warrant an ITA, including: supermarkets, drive through activities and large floor retail. Other activities require specific arrangements to be in place for reasons of access and safety, such as emergency services or motorised recreation.

Combinations of various smaller scale individual activities could also require an ITA, such as groups of small individual shops.

In view of the fact that the St Patrick's Urban Precinct is an area of intensification, proximity to Fergusson Drive and Silverstream Rail Station, an ITA should be undertaken if activities either:

- a) Require a new access onto a public road, or
- b) Are expected to generate 100 vehicles per hour (VPH) or more, as expressed in terms of passenger car units (PCU).

iii) What are the most appropriate limits or triggers for those activities to trigger the need for <u>a resource consent?</u>

The scale of different activities that would generate 100 PCU per hour and these are contained below.

¹ Research Report 453, Trips and parking relating to land use, 2011 (NZTA).

² Research Report 422, Integrated transport assessment guidelines, 2010 (NZTA).

³ Draft Transport Assessment Guidelines, 2023 (UHCC)

Upper Hutt City Council

Activity	Threshold
Drive-Through Activity	550 m ² GFA
Educational Facility	1,000 m ² GFA
Emergency Service Facility	Any
Food And Beverage	1,000 m ² GFA
Garden Centre	Any ⁴
Large Floor Retail	1,700 m ² GFA
Light Industrial Activities	1,800 m ² GFA
Medical (Healthcare) Facilities	600 m ² GFA
Motorised Recreation	Any
Residential Units	100 Dwellings
Retail (Shop)	200 m ² GFA
Retirement Village	250 units / beds
Supermarket	600 m ² GFA
Visitor Accommodation	1,200 m ² GFA
Warehouse	5,000 m ² GFA
Yard Based Activity / Trade Supplier	350 m ² GFA

Table 1: Activity Thresholds Generating 100 PCU per hr.

Notes:

1 GFA in the above table refers to building area, not site area. 2 Thresholds rounded down for robustness.

3.2 The key differences between the activity status of different activities within the St Patrick's Estate Area under the existing Special Activity Zone - compared to how they would be provided for in the Mixed-Use Zone if the submitter's request to rezone the site is accepted are identified, with associated questions and responses, below:

Activity	Special Zone Status	Area Activity	Mixed Use Status	e Zone	Activity	A) What is an appropriate floor area limit or other trigger to manage traffic effects for these activities within the St Patrick's Estate site? – particularly for:
						As outlined in Table 1 above, with a catch-all of any other activity generating ≥100 PCU per hour.
						1) Retailing including large format retailing and supermarkets.
						Suggest 'any' is the threshold for supermarkets and LFRs or as outlined in Table 1 above, with a catch-all of any other retail activity generating ≥100 PCU per hour.
						2) Food and beverage activity.
						As outlined in Table 1 above, with 1,000 m ² GFA taken as equivalent to 200 seats.
						3) Drive-through activity.
						As outlined in Table 1 above, this is for built GFA based on a fast-food facility and is not incompatible with a 1,500 m ² threshold for drive through activities including parking and manoeuvring area.

Table 2: Review of Activity Effects

⁴ Likely to be principally outdoors with small built footprint, with 350 m2 GFA expected to generate 100 VPH.

	1	T	
			B) Are the GFA limits within the MUZ appropriate for the St Patrick's Estate site? If not, what would an appropriate limit be?
			The MUZ GFA thresholds in the IPI are not primarily based on traffic generation, and so would not be compatible with an approach based on a threshold of \geq 100 PCU per hour.
			The St Patrick's Urban Precinct has particular characteristics, with a large development potential adjacent to a substantial traffic corridor that warrants a particular approach.
			C) Any other activities that should have limits placed to address potential traffic effects?
			Residential development and combinations of activities generating ≥100 PCU per hour.
			D) Are there any other specific matters of discretion or standards the Council should be considering for the St Patrick's site to address traffic effects if rezoned to Mixed Use Zone?
			An overall collective ITA for the Urban Precinct would assist in identifying any required improvements, facilities or mitigation measures.
			In terms of requirements, it is likely that footpath connections and more than one vehicle access point will be required.
			Restrictions on strip frontage development along Fergusson Drive for drive through and retail may also be needed, on access and safety grounds.
Retailing (inc. large format retailing – <u>presumably including</u> <u>supermarkets</u>)	Non-complying	Permitted <u>NOTE: The</u> submitter is requesting a permitted activity rule for supermarkets within the St Patrick's Estate site.	These activities are high traffic generators which, would require an ITA, taking account of other permitted activities within the Urban Precinct.
Garden centre	Controlled	Discretionary (catch-all rule) NOTE: The submitter is requesting a permitted activity rule for garden centres on the St Patrick's <u>Estate site or within the</u> <u>MUZ generally.</u>	This is a high traffic generator in terms of built GFA trip generation.
Medical facilities	Non-complying	Discretionary (catch-all rule)	As in Table 1 above, assumes 6 professional staff.
Food and beverage activity	Non-complying (catch-all rule)	Permitted (500m ² max GFA per tenancy)	This would be within the threshold suggested in Table 1 above.
Retirement village	Non-complying (catch-all rule)	Restricted discretionary – RD standards for noise and ventilation, and landscaping/screening)	This activity generates lower traffic levels than most conventional housing types.
Light industrial activities	Non-complying (catch-all rule)	3500m² max GFA	This limit is higher than suggested in Table 1 above, taking account of potential heavy vehicle movements.

Emergency service facility	Non-complying (catch-all rule)	Restricted Discretionary (RD standard for landscaping and screening)	These facilities have specific access and safety requirements which would require an ITA whatever the scale of facility proposed.
Warehouses	Non-complying (catch-all rule)	Discretionary	See Table 1 above which takes account of potential heavy vehicle movements.
Yard Based Activity / Trade Supplier	Non-complying (catch-all rule)	Discretionary	See Table 1 above.
Motorised Recreation	Non-complying (catch-all rule)	Discretionary	These facilities have specific access and safety requirements which would require an ITA whatever the scale of facility proposed.
Drive-through activity	Non-complying (catch-all rule)	Permitted (1500m ² max GFA of the activity including parking and manoeuvring). Table 1 above is for built GFA, base food facility and is not incompatible m ² threshold for drive through activiti parking and manoeuvring areas.	
Residential units	Controlled	Permitted (6 residential units per site) <u>NOTE: The</u> <u>submitter is seeking the</u> <u>High-Density Residential</u> <u>Zone provisions apply for</u> <u>subdivision within the St</u> <u>Patricks Estate site.</u>	Table 1 above indicates a threshold of 100 dwellings for ITA purposes, however an assessment could sensibly be undertaken for the entire residential proposal to ensure suitable access arrangements are in place.
Visitor accommodation	Controlled	Permitted (500m ² max GFA per tenancy).	Table 1 above indicates a threshold of 1,100 m ² for ITA purposes, based on an 80-bedroom facility.
Education activity	Permitted	Permitted (500m ² max GFA per facility). NOTE: The submitter is requesting removal of the floor area restriction for the existing college site within the St Patrick's Estate site.	Table 1 above indicates a threshold of 1,000 m ² for ITA purposes, based on a 60-child pre-school facility.

5 Comments

- 5.1 The analysis summarised in this Memo and Annex are based on preliminary assumptions and are subject to checking and review.
- 5.2 The traffic generation criteria described are subject to consideration alongside other planning criteria which are outside the scope of the work undertaken.
- 5.3 In addition to setting traffic related ITA thresholds for individual activities, the scale of the Urban Precinct means that an overall ITA may also be needed to appropriately plan the necessary access arrangements.

Annex

- A1 A preliminary assessment of the potential effects of a potential development mix (of residential, supermarket, fast food, medical, food and beverage, industry, warehousing, garden centre and yard-based activities) has been undertaken for a weekday using the NWSM AM peak hour model⁵.
- A2 An illustration showing the location of additional traffic pressures from this mix of activities is shown below, where the blue bandwidths indicate the scale of additional traffic on the adjacent road network.





⁵ Do-Minimum 2021 North Wellington Saturn Model

Memo To:	Emily Thomson UHCC: Matt Muspratt MCL		
From:	Don Wignall, Transport Futures		
Subject:	Submission 32.7: Z Energy Limited		
Issue Date:	27-03-2023	Version: Issue v2-1	

Submission 32.7: Z Energy Limited

1 Introduction

- 1.1 The scope of the work undertaken is contained in the email of 3rd February from UHCC and the submission by Z Energy (32.7) in the document: Planning for Growth, Full Submissions, Intensification Planning Instrument, November 2022.
- 1.2 In particular, Z Energy proposes to: "Amend Rule MUZ-R14(1)(a) to exclude parking and manoeuvring areas at service stations from the calculation of GFA. One way of achieving this outcome would be to make the following changes: Drive through Activity 1. Activity status: Permitted Where: a. The gross floor area of the activity including parking and manoeuvring areas does not exceed 1,500m². For the purposes of this standard, except for service stations, gross floor area shall include parking and manoeuvring areas;"
- 1.3 The reason given for the proposed change is: "Z Energy does not support this condition if it includes the car parking and manoeuvring areas of service stations, such as forecourt areas, parking spaces associated with car care facilities and /or entry/ exit and other hardstand areas facilitating access throughout the site. To apply the qualifying standard in that way would effectively mean that service stations were not permitted activities, as most modern service stations have an area exceeding 1500m²."

2 Discussion

- 2.1 The term gross floor area (GFA) includes internal (multi-floor) internal building areas plus any canopy footprint: *"The GFA (or FSA) is the sum of the 'Fully Enclosed Covered Area' and 'Unenclosed Covered Area' (as defined by Quantity Surveyors and Architects)*¹." The main issue in using GFA as the sole measure for permitted service station activities, as suggested by Z Energy, in that often the GFA is very small or even zero for stations with no roof structures. This would mean that all service station activities, no matter how great their scale, would be treated as permitted activities, which could result in inappropriate and/or problematic developments in terms of generated effects.
- 2.2 The intention behind the term 'parking and manoeuvring areas' is clear, however the exact definition of this could be difficult, for example does this include all hardstanding areas? Or are certain areas of the site to be excluded? To avoid misunderstanding, perhaps instead of a GFA+ approach, a definition based on the total site area, minus landscaping, may be preferable?
- 2.3 Although there are differences between the characteristics of service stations and other types of drive through facilities, there are also many similarities. For example, although site area requirements for service stations often exceed 1,500m², this is often also the case for the required site area for fast-food and other drive through facilities.

¹ NZPGP 601 Methods of Measurement, Section 5.4

- 2.4 It is important that service stations are located on sites with a sufficient area to be appropriately accessed, well laid out and with sufficient room to accommodate supportive motorist facilities. Setting the threshold at 1,500m² means that small scale local filling stations would be excluded but modern new facilities would generally exceed this, meaning that the unintended consequences of potentially encouraging the development of overly constrained and sub-optimal small facilities would be avoided.
- 2.5 The rule addresses the development of separate drive through facilities, but some developments may come proposed with composite facilities, for example a joint service station and supermarket or service station and fast-food arrangement on either a single site or cojoining sites. The potential for such developments increases the need for safeguards to ensure service station facilities are appropriately accessed.

3 Options

3.1 A review of potential responses to the Z Energy Submission is provided below:

Option	Advantages	Disadvantages
i) Accept the proposed Z Energy amendment to Rule MUZ-R14(1)(a) without amendment.	This would minimise consenting costs for service station developers.	Virtually all service stations would be treated as permitted activities no matter what the scale of effects generated.
ii) Amend the GFA+ threshold to better reflect modern service station requirements, (say) to 2,000m ² .	Assuming a typical new service station site of 2,500m ² of which 500m ² is landscaping. This would capture the largest service stations, likely to generate the greatest effects.	This could result in unintended consequences of sub-optimal site development and/or the use of landscaping areas for operational purposes on smaller sites, in order to keep below the permitted activity threshold.
iii) Instead of the rule threshold relating to 'gross floor area including parking and manoeuvring areas' it could instead relate to 'total site area, excluding landscaping'.	This is likely to be clearer and less open to misinterpretation.	It is possible that either the total site area or what is included or excluded in terms of landscaping could be contested.
v) Retain Rule MUZ-R14(1)(a) without amendment.	This would ensure that most new service stations were appropriately consented and would minimise negative effects.	Most new service station developers would incur resource consenting costs.

Table 1: Option Discussion

Memo To:	Emily Thomson UHCC: Matt Muspratt MCL		
From:	Don Wignall, Transport Futures		
Subject:	Planning Policy Manual: Waka Kotahi		
Issue Date:	27-03-2023	Version: Issue v2-0	

Planning Policy Manual: Waka Kotahi

1 Introduction

- 1.1 The scope of the work undertaken is contained in the email of 13th March from UHCC and the submission by Waka Kotahi in relation to TP Transport and Parking, Access to Commercial Zones TP-S1¹.
- 1.2 In particular, Waka Kotahi proposes to: "Amend the transport access standards for state highways to include minimum access spacing with any consequential amendments required throughout the rest of the plan to correctly reference the required access spacing standards for direct accesses to the state highway. The appropriate safe access spacing standards for the state highway network are found in the Waka Kotahi Planning Policy Manual Appendix 5B, Table App5B/3."
- 1.3 The reason given for the proposed change is: "Waka Kotahi supports the inclusion of specific standards to promote the safety of access to the state highway network. The standards should also address safe access spacing to promote safety and contribute to the delivery of a well-functioning urban environment as per Policy 1 National Policy Statement Urban Development 2020 (NPS UD)."

2 Discussion

- 2.1 In terms of the centres and mixed zones that Waka Kotahi address in respect of their submission, no substantial sites appear to be physically on a state highway, so the submission may be associated with potential future designations, rather than any currently proposed designations.
- 2.2 For State Highways, protections are already provided in the Transport and Parking Chapter of the Upper Hutt District Plan, in TP Diagrams 2-9 inclusive.
- 2.3 The Table App5B/3 referred to by Waka Kotahi, is in any case, only a general guide, with 'recommended minimums' and 'desirable spacings' and so is unlikely to be sufficiently definitive to be enforceable as a rule.
- 2.4 In the permitted access standard TP-S1 (see Table A.2 in the Annex) the 'Code of Practice for Civil Engineering Works' already references supportive guides, including Austroads, as follows: "C2.2 Relevant Standards and Guideline Documents Road designs shall be based on the requirements of the Upper Hutt City Council performance criteria, Upper Hutt City Council typical cross sections and details and the most appropriate Codes and Guidelines applicable at the time of the project. The following is a selection of currently available documents which provide an appropriate basis for road designs in Upper Hutt. These are not exclusive and other standards and guidelines accepted by the engineering profession at the time may be used where appropriate. (i) All Transit New Zealand Standards, Criteria and Guidelines and AUSTROADS Codes and Guides which at any time may be acceptable to Upper Hutt City Council..."

¹ Council's proposed intensification planning instrument 2021 (IPI).

- 2.5 The submission refers to the Planning and Policy Manual (developed by Transit NZ in 2007 but no longer maintained as a complete entity) and a Table App5B/3² in Appendix 5B of the Manual which, on Waka Kotahi's web site, is stated to be *"under review"*³.
- 2.6 Table App5B/3 is also based on, now superseded, Austroads advice⁴ and therefore, were Table App5B/3 to be incorporated into standards as requested by Waka Kotahi, it would likely need to be replaced very quickly, when Table App5B/3 is abandoned or updated.
- 2.7 It is understood that Waka Kotahi already apply contemporary methods of determining appropriate junction spacings when considering the approval of new accesses onto the state highway, including current Austroads advice.

3 Specific Questions

- 3.1 What does the Planning Policy Manual require that is additional to what the proposed District Plan access standard TP-S1 already require? Table App5B/3 is not a requirement, represents a superseded general guide and would not represent an improvement on currently proposed assess standards and/or associated plan protections.
- 3.2 Taking into account the specifics of Upper Hutt's state highway network, and the existing and potential future access points to it from the proposed Centres Zones and the Mixed-Use Zone, is there a need to include the requested new access standards via reference to the Planning Policy Manual in response to the amount of additional development enabled by the IPI? There is no need to include the requested new access standards, as the currently proposed assess standards and associated plan protections, in the context of Upper Hutt's state highway network are appropriate, sufficient, and would not be improved by including the requested new access standards.
- 3.3 **Does the District Plan have a gap in the management of the safety of access to the state highway network?** I am not aware of any specific capacity or safety issues on the state highway through Upper Hutt, that could not be appropriately managed through existing Road Controlling Authority network management powers, procedures to approve new accesses onto a state highway, or through the currently proposed assess standards and associated plan protections.
- 3.4 If the answer (to 3.3) is yes, does this gap justify the inclusion of Waka Kotahi's Planning Policy Manual into the permitted activity access standard for the proposed Centres Zones and Mixed Use Zone? I do not consider that any gap, if it does exist, would justify the inclusion of Waka Kotahi's Planning Policy Manual Table App5B/3 into the permitted activity access standard for the proposed Centres Zone and Mixed-Use Zone provisions.

² <u>https://www.nzta.govt.nz/assets/resources/planning-policy-manual/docs/planning-policy-manual,-appendix-5B-accessway-standards-and-guidelines.pdf</u>

³ <u>https://www.nzta.govt.nz/resources/planning-policy-manual/</u> accessed 23-03-2023.

⁴ Austroads Guide to Traffic Engineering Practice Part 5, Intersections at Grade, 2005 (table 6.3), now replaced with Austroads Guide to Road Design Part 4: Appendix E Access Spacing, 2021.

Annex

A.1 For context, the Waka Kotahi submission states:

Table A.1 Waka Kotahi Submission					
TP – Transport and Parking	Access to Commercial Zones TP-S1	Support in part	Waka Kotahi supports the inclusion of specific standards to promote the safety of access to the state highway network. The standards should also address safe access spacing to promote safety and contribute to the delivery of a well-functioning urban environment as per Policy 1 National Policy Statement Urban Development 2020 (NPS UD).	Amend the transport access standards for state highways to include minimum access spacing with any consequential amendments required throughout the rest of the plan to correctly reference the required access spacing standards for direct accesses to the state highway The appropriate safe access spacing standards for the state highway network are found in the Waka Kotahi Planning Policy Manual Appendix 5B, Table App5B/3.	

A.2 The District plan and IPI include a permitted access standard TP-S1 – note the deletion below is proposed by the IPI. This is a duplicate standard created for the new proposed commercial and mixed-use zones. The same standard applies to the residential zones; however, this is the specific standard Waka Kotahi is submitting on:

Table A.2 Standards	
Where site access is required or provided the following standards apply:	Commercial and Mixed Use
 All accessways and manoeuvring areas shall be formed and surfaced in accordance with the Code of Practice for Civil Engineering Works. 	
Exemption – the requirement for accessways serving sites solely occupied by unstaffed utilities shall be that the accessway shall be surfaced with permanent all-weather surfacing for a minimum length of 5m from the edge of the roac carriageway seal.	
(2) Sites shall have practical vehicle access to car parking and loading spaces (where provided or required), in accordance with the Code of Practice for Civi Engineering Works. This requirement does not apply to sites solely occupied by unstaffed utilities, provided that vehicles associated with utilities shall not obstruct the footpath or create a traffic hazard on the road.	
(3) Adequate vehicular access shall be made available to the rear of every new building in accordance with the Code of Practice for Civil Engineering Works.	
(3) Vehicular access to a corner allotment shall be located no closer than 8m from the street corner. Where a site is located on an intersection of a primary or secondary arterial traffic route (as identified in the Transport and Parking (TP) Chapter) the siting of the vehicular access shall be located as far as practicable from the corner of the street. The 8 metre setback shall be measured from where the two front boundaries of the site (refer to the definition of a corner allotment) join, or in accordance with the diagram below.	



Transport Assessment Guidelines

DRAFT v3-3 27-03-2023

Introduction

These guidelines provide information on when and how Integrated Transport Assessments (ITAs) should be undertaken in Upper Hutt to assist developers and their advisors.

Preparing an ITA in accordance with these guidelines addresses matters of interest to UHCC as Road Controlling Authority (RCA), transport aspects of the Council's role as spatial planning authority and to other interested/affected transport organisations (such as Waka Kotahi and Greater Wellington Regional Council).

The purpose of undertaking an ITA is to facilitate the planning process and achieve better outcomes for all concerned.

What is an ITA?

An ITA is a report prepared to assess the likely transport effects of a development proposal.

An ITA focuses on the transport related aspects of a proposal and is considered by Council, alongside other factors, during the decision-making process.

ITAs need to consider all modes and to review any mitigation measures needed to ensure that adverse effects of a proposal are avoided, remedied, or mitigated. This could, for example, include measures to reduce travel demand, utilise existing transport networks more efficiently, encourage other modes, and only if necessary, adding more road capacity if no other alternatives exist.

The ITA Process

Development proposals should be formulated in the context of relevant plans and policies. If these proposals are an application for resource consent for a land use or subdivision which is not specifically provided for the District Plan or if they are part of a structure plan, notice of requirement or private plan change, then an ITA may be required. The ITA Process is illustrated below.



1 www.transportfutures.co.nz The process begins with definition of scale and activity type in the context of the development location and area of influence. Then, at an early stage in the assessment process, a scoping discussion with Council is recommended to determine whether or not an ITA is required and, if so, what needs to be covered in an ITA to enable Council to appropriately consider the transport aspects of the proposal.

An ITA should be prepared where the proposal exceeds one of the following Passenger Car Unit¹ (PCU) traffic thresholds²:

Table 1: ITA Traffic Generation Thresholds			
Residential	Non-residential	Mixed and Centre Zones	
Trip Generation ≥30 PCU per day	Trip Generation ≥100 PCU per day	Trip Generation ≥100 PCU per hour	
Rationale: To manage the location of traffic generating activities in residential areas, for amenity reasons.	Rationale: To ensure traffic generating activities on the wider transport network are appropriately managed and accessed, for reasons of safety and capacity.	Rationale: To ensure high traffic generating activities in high activity zones are appropriately managed and accessed, for reasons of safety and capacity.	

To assist those considering whether or not an ITA is required, an indicative scale of selected activities expected to reach³ the traffic thresholds in Table 1 are provided in Table 2 below:

Table 2: Typical Activity Scale		
Residential	Non-residential	Mixed and Centre Zones
<u>Trip Generation ≥30 PCU per day</u>	<u>Trip Generation ≥100 PCU per day</u>	Trip Generation ≥100 PCU per hour
Retirement Home 6 units	Residential 10 units	Residential 100 units
Nursery 6 children	Retirement Village 25 units	Offices 4,000 m ² GFA
Home based business with > 4 employees	Nursery 25 children	Light Industrial 1,800 m ² GFA
Any other development that generates ≥30 PCU per day	Offices 400 m ² GFA	Warehousing 5,000 m ² GFA
	Shop 250 m ² GFA	Large Floor Retail 1,700 m ² GFA
	Any other development that generates ≥100 PCU per day	Any other development that generates ≥100 PCU per hour
	Any size: Supermarket, Large Floor Retail, Industry, Warehousing, Drive- through, Schools, Hospitals, Emergency Services.	Any size: Supermarket, Drive- through, Schools, Hospitals, Emergency Services.

¹ Defined as a "Measure involving the conversion of different types of vehicles into their equivalent passenger cars in terms of operating characteristics" reference Austroads Glossary of Terms, Austroads Publication No. AP-C87-15 August 2015. For most general traffic capacity analysis purposes (e.g., for ITA capacity analysis) a car (or other light vehicle) is taken to be 1.0 PCU, and a heavy vehicle or bus is taken to be 2.0 PCU (for example, see SIDRA INTERSECTION 9.1 Passenger Car Equivalent values).

² The PC 50 analysis addresses the need for lower (30 VPD) thresholds in order to be consistent with activities in residential areas, and the 100 VPD and 100 VPH thresholds are consistent with NZTA RR422 and AUSTROADS advice (detailed references to be included): ³ Using trip generation rates taken from NZTA RR453 and the TDB database (detailed references to be included):.

The contents of an ITA should be agreed with Council (in writing) following the initial scoping discussion, however it would normally include a description of the proposal, the transport network context, assessment methodology details, likely effects of the proposal in transport terms and details of any mitigation measures.

It should be noted that, important though vehicle traffic effects are, a transport assessment should not neglect other modes. Person-movements by all modes should be estimated and the need for facilities considered, for example, access to public transport, ease of access for walking, cycling and other modes.

Below the traffic generating thresholds, there remains a need to comply with other aspects, including safety, sub-division and District Plan rules.

ITA Methodology Considerations

The following should be considered when selecting the assessment methodology for development proposals:

- Location, likely area of influence, potential associated (transport network) sensitivities, taking account of intersection traffic capacity, safety, modal accessibility and amenity.
- Cumulative scale, phasing and ultimate development form, taking account of any former site activities.
- Assessment year(s), future background transport system forecasting, trip/traffic generation assumptions.
- Description of pre-mitigation effects.
- Description of proposed mitigation and associated effects.
- Planning, programming and policy compliance, taking account of legal/regulatory issues, linkage to forward programmes, potential to further Council aims.
- Reporting, sensitivity testing and peer review.

Guideline Status

These guidelines have been prepared in draft in the context of preliminary discussions with Council officers, Waka Kotahi and have not yet been finalised, formally considered or approved.