

# Peka Peka Farm Subdivision

## Integrated Transport Assessment

Prepared for:  
Waikanae North Developments Limited

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Prepared by: Stantec

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## Revision Schedule

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Prepared by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Sayuni Jayasinghe

Reviewed by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Jamie Whittaker

Approved by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Mark Georgeson

While this is not a matter before the Environment Court, the authors of this report have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 ('Code'). The authors have complied with the Code in the preparation of this report.

The data, information, facts and assumptions the authors have considered as part of this report are set out in this report. The reasons for the conclusions of this report are also set out in this report. Unless stated otherwise, this report is within the author's expertise and the authors have not omitted to consider material facts known to them that might alter or detract from the opinions expressed.



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# 1 Introduction

This Integrated Transport Assessment (ITA) has been prepared on behalf of Waikanae North Developments Limited (WNDL), to provide an overview of the transportation investigations and traffic analyses undertaken to inform the proposed development of approximately 141 hectares of land to the north of Waikanae for residential subdivision.

The application property (the “Site”) is located between Peka Peka Road and the new State Highway 1 Kāpiti Expressway (Expressway), with access achieved at 169-171 Peka Peka Road and 107 Paetawa Road. The Site also has frontage to the unformed extension of Ngarara Road.

The Site is currently zoned ‘General Rural’ under the operative Kāpiti Coast District Plan (District Plan) with a small portion of the access from Peka Peka Road zoned ‘Rural Lifestyle’. Following inclusion of the Site as a designated project under the Government’s Fast-track Approvals Act 2024 (FTAA), resource consent for its development is being sought under the FTAA. This report has been prepared to accompany the FTAA application.

The Site plans provide for a development yield of 1,181 – 1,209 residential dwellings comprising a mixture of standard and medium density residential (MDR) dwellings to deliver a range of housing choice. A small commercial centre is also proposed to serve the new subdivision and the surrounding residential catchment, providing local neighbourhood retail and commercial activities. A suitable transport movement network has been designed to support multi-modal trips to/from and within the Site, whilst provision has been included for a bus route to service the Site in the future.

Access to the Site would be achieved via a new intersection with Peka Peka Road, with potential future roading connections allowed for within the current masterplan providing additional connections with land to the south and east. A further connection is proposed from Paetawa Road, to serve a discrete area of 7 residential lots.

This ITA has been prepared to document the traffic and transport investigations associated with the proposed Site development, and has been progressed with due regard to the transport provisions of the District Plan and other relevant industry standards. Accordingly, this report addresses the following matters:

- **Section 2:** Site Context and Location – describes the Site location in the context of the surrounding land use;
- **Section 3:** Existing Transport Environment – provides details of the existing transport network in the vicinity of the Site;
- **Section 4:** Planning Context – provides a summary of the Site’s proposed development in the context of the Kāpiti Coast District Council’s vision for growth across the district;
- **Section 5:** Development Proposal – describes the proposal as relevant to this assessment;
- **Section 6:** District Plan Assessment - assesses the proposal against the relevant transport provisions of the District Plan;
- **Section 7:** Site Access – describes the proposed access strategy for the Site to connect with the external transport network;
- **Section 8:** Proposed Internal Movement Network – describes the proposed internal movement network hierarchy and associated road typologies;



## **Peka Peka Farm Subdivision**

### 1 Introduction

- **Section 9:** Assessment of Traffic Effects – identifies the forecast traffic volumes from the proposal, and summarises the traffic modelling undertaken to assess the impacts of development traffic on the network;
- **Section 10:** Servicing – describes the Site’s typical servicing demands and practices; and
- **Section 11:** Construction Traffic – provides an overview of the construction traffic related management measures to be employed during Site development.

By way of summary, it is concluded that the proposed development of the Site to enable residential subdivision in the manner envisaged by the masterplan, can be delivered with an appropriate transportation outcome, and that potential traffic-related effects arising from the development of the Site can be managed by conditions to ensure they are acceptable.



## 2 Site Context and Location

The Site is located north of the current Waikanae urban area and to the west of the Expressway, as illustrated within the aerial photograph shown in **Figure 2-1**.



*Figure 2-1: Site Location*

The properties which form the Site encompass an area of approximately 141 hectares which is currently predominantly farmland. Legal access to the Site is achieved at 169-171 Peka Peka Road and 107 Paetawa Road. In addition, Site frontages are also achieved to the north and south via the via unformed extension of Ngarara Road.

As illustrated in **Figure 2-2** below, the Site is currently zoned 'General Rural Zone' under the District Plan. A small section of the access from Peka Peka Road, as well as that from Paetawa Road, is zoned 'Rural Lifestyle Zone'.



## Peka Peka Farm Subdivision 2 Site Context and Location



Figure 2-2: District Plan Zoning

Land to the north, west and east is zoned 'General Rural' and 'Rural Lifestyle', whilst land further to the south, beyond the immediately adjoining General Rural Zone, is currently being developed for a mix of medium and standard density residential dwellings under a zoning of 'Ngārara Development Area'. Beyond the immediately adjoining Rural Lifestyle zoning, is an area of General Residential zoning along Paetawa Road.



### 3 Existing Transport Environment

Figure 3-1 below shows the Site location in the context of the District Plan’s surrounding road hierarchy, noting the Expressway follows the red and white hatched alignment shown in the map (labelled ‘Expressway Designation’), functioning as the current ‘Strategic Arterial Route’ through this part of Kāpiti. The former ‘Old State Highway 1 route (“Old SH1”) shown on the map (in orange) has been passed back to Council where it is anticipated it will now function more as a ‘Major Community Connector’.

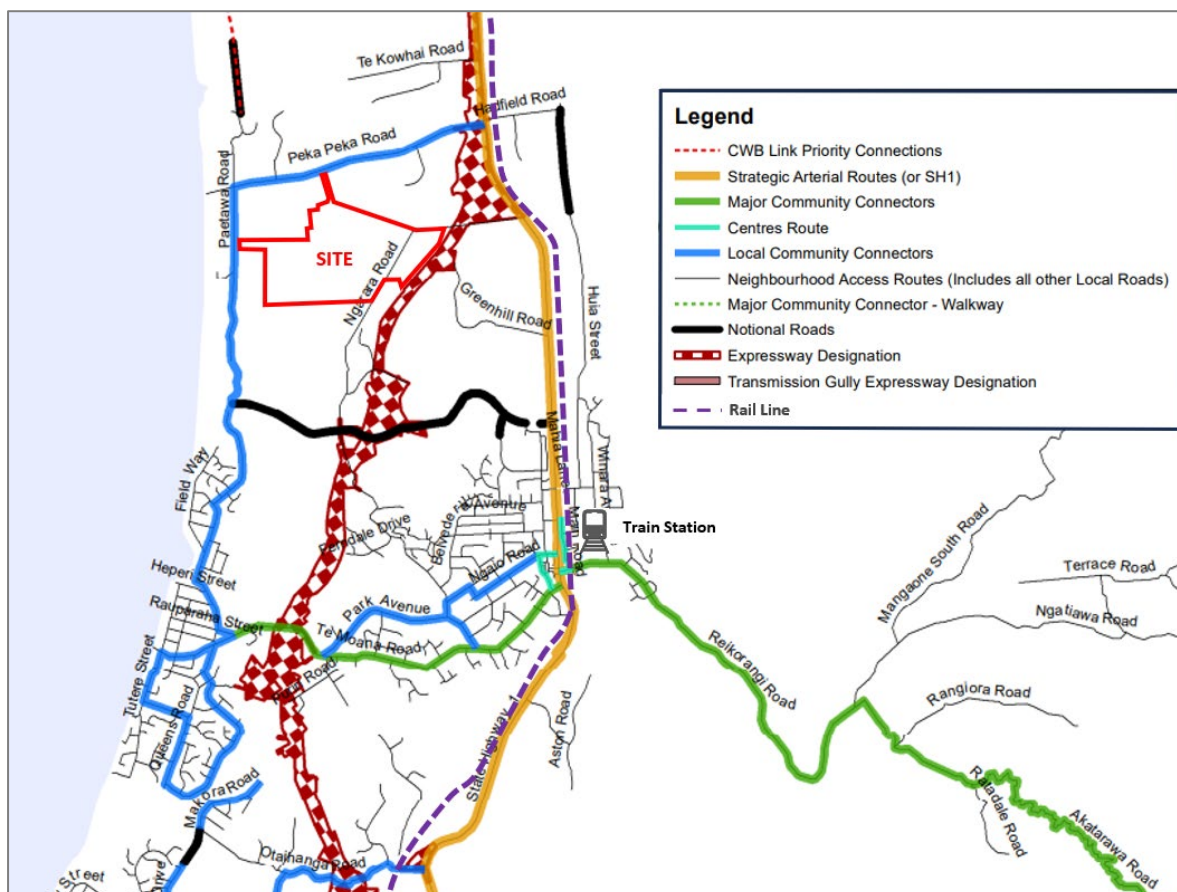


Figure 3-1: Road Hierarchy

Peka Peka Road is classified as a ‘Local Community Connector’ for its length between Paetawa Road and the Expressway. Such roads are defined in the District Plan as functioning as the main access roads through suburbs, connecting local centres and having traffic movements that are mainly locally generated.

At its eastern end, Peka Peka Road connects with the Expressway via north facing on and off-ramps, from where the Peka Peka to Otaki Expressway (which opened in December 2022) then extends north. Access to Old SH1 is also provided at this location, which passes through the nearby Waikanae town centre located to the south of the Site. Access to the southbound lanes on the Expressway is achieved via the full interchange at Te Moana Road to the south of the Site, which is accessed either off the eastern end of Peka Peka Road via Old SH1, or via the coastal route off the western end of Peka Peka Road.



**Peka Peka Farm Subdivision**  
3 Existing Transport Environment

This coastal route accessed off Peka Peka Road connects with Paetawa Road, which forms part of the Local Community Connector route following the coast. From Paetawa Road, this route also includes (north to south) Rutherford Drive, William Street, Field Way, Huiawa Street and Rauparaha Street, in turn connecting with Te Moana Road.

Te Moana Road functions as a Major Community Connector, with such roads defined by the District Plan as roads that join significant centres and suburbs and provide major entry points to and from the highway. To that end, Te Moana Road gives access onto the Expressway interchange, which includes full northbound and southbound on/off ramps.

The posted speed limit on Peka Peka Road is 60kph, changing to 50kph near Paetawa Road and to 80kph at its eastern end at the Peka Peka Link Road roundabout.

The Site also has frontage to a paper road extension of Ngarara Road. Whilst this road is indicated within the detail of Figure 3-1 above as connecting back to the Expressway and Old SH1 alignment, it physically terminates approximately 500m south of the Site. It is understood Council do not have any current plans to form this paper road such that connection to the north is unlikely to be realised in the immediate future.

### 3.1 Local Traffic Volumes

Table 3-1 below summarises the latest available Average Daily Traffic (ADT) count data for the roads in the vicinity of the Site.

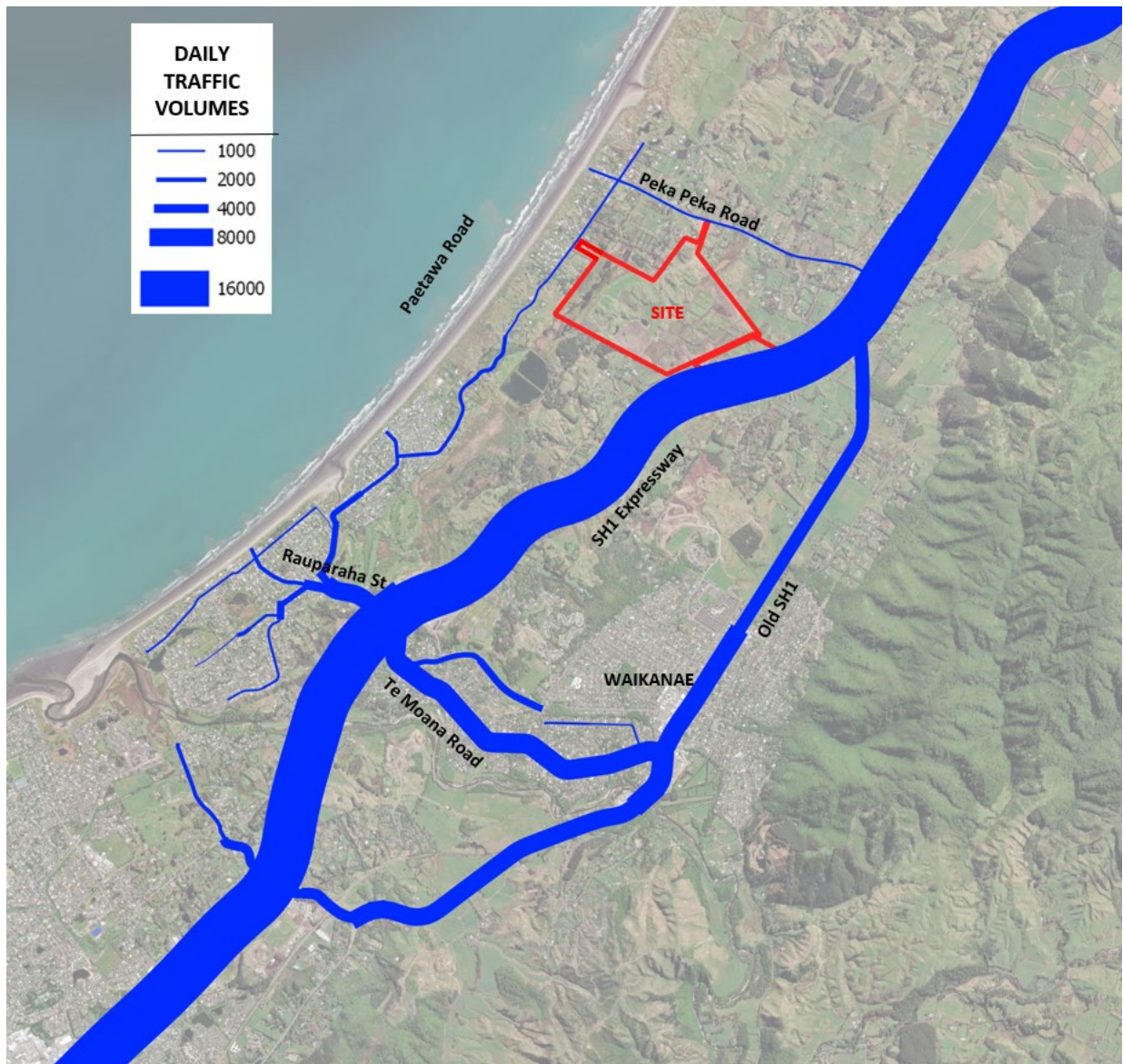
Table 3-1: Daily Traffic Volumes

ROAD	LOCATION	SOURCE	COUNT DATE	ADT
Peka Peka Road	between Paetawa Road and Kensington Drive	MobileRoads	June 2025	1,340
Paetawa Road	between Arapipi Way and Peka Peka Road	MobileRoads	June 2025	1,090
Rutherford Drive	between Goldie Place and William Street	MobileRoads	June 2025	1,800
William Street	between Toru Street and Field Way	MobileRoads	June 2025	1,800
Field Way	between William Street and Konini Crescent	MobileRoads	June 2025	3,000
Huiawa Street	between Hona Street and Hemara Street	KCDC	Oct 2023	3,200
Rauparaha Street	between Huiawa Street and Te Moana Road	KCDC	Aug 2023	4,000
Te Moana Road	between Te Ara Kawakahia and Expressway	KCDC	Aug 2023	9,200
	between Expressway and Park Avenue	KCDC	Aug 2023	10,200
Old SH1	Town Centre (north of Elizabeth Street)	TMS	2024	10,050
Expressway	South of Te Moana Road	TMS	2024	26,500
	North of Peka Peka Interchange	TMS	2024	22,500



**Peka Peka Farm Subdivision**  
3 Existing Transport Environment

**Figure 3-2** provides a visualisation of these traffic volumes across the road network surrounding the Site, with the width of each line being proportional to the daily traffic flow.



*Figure 3-2: Daily Traffic Volumes Diagram*

As shown, traffic volumes along the coastal route between the Site and Rauparaha Street involve around 2,000-4,000 vehicles per day (“vpd”), before increasing to around 10,000vpd on Te Moana Road at the Expressway interchange. Such volumes sit well within the carrying capacity of these local community connector and major community connector routes, respectively.

By comparison, traffic volumes along Old SH1 involve approximately 9,500vpd north of Elizabeth Street through the town centre, noting again these volumes sit well within the capacity of the road which formerly carried upwards of 23,000vpd as the main SH1 route prior to the Expressway opening.



## 3.2 Sustainable Transport

### 3.2.1 Active Modes

The off-road shared path following alongside the Expressway which extends from Otaki in the north, through to Paekākāriki to the south, adjoins the Site to the immediate east and is currently accessible from Ngarara Road via a connection off the end of Smithfield Road (approximately 500m to the south of the Site). It is noted that two additional walking and cycling connections to this shared path have been provisioned for in the proposed Site masterplan, which would in turn provide convenient connection to the nearest bus stops (adjacent Peka Peka interchange) and the on-road cycle lanes along Old SH1 providing a cycling link for Site residents to the Waikanae town centre and rail station. The connections would also provide a shorter through-route from the existing off-road shared path through to the western end of Peka Peka Road, as well as through to Paetawa Road.

Details of these active mode connections that will support external walking and cycling trips at the Site are shown in Figure 3-3 along with existing public transport services.

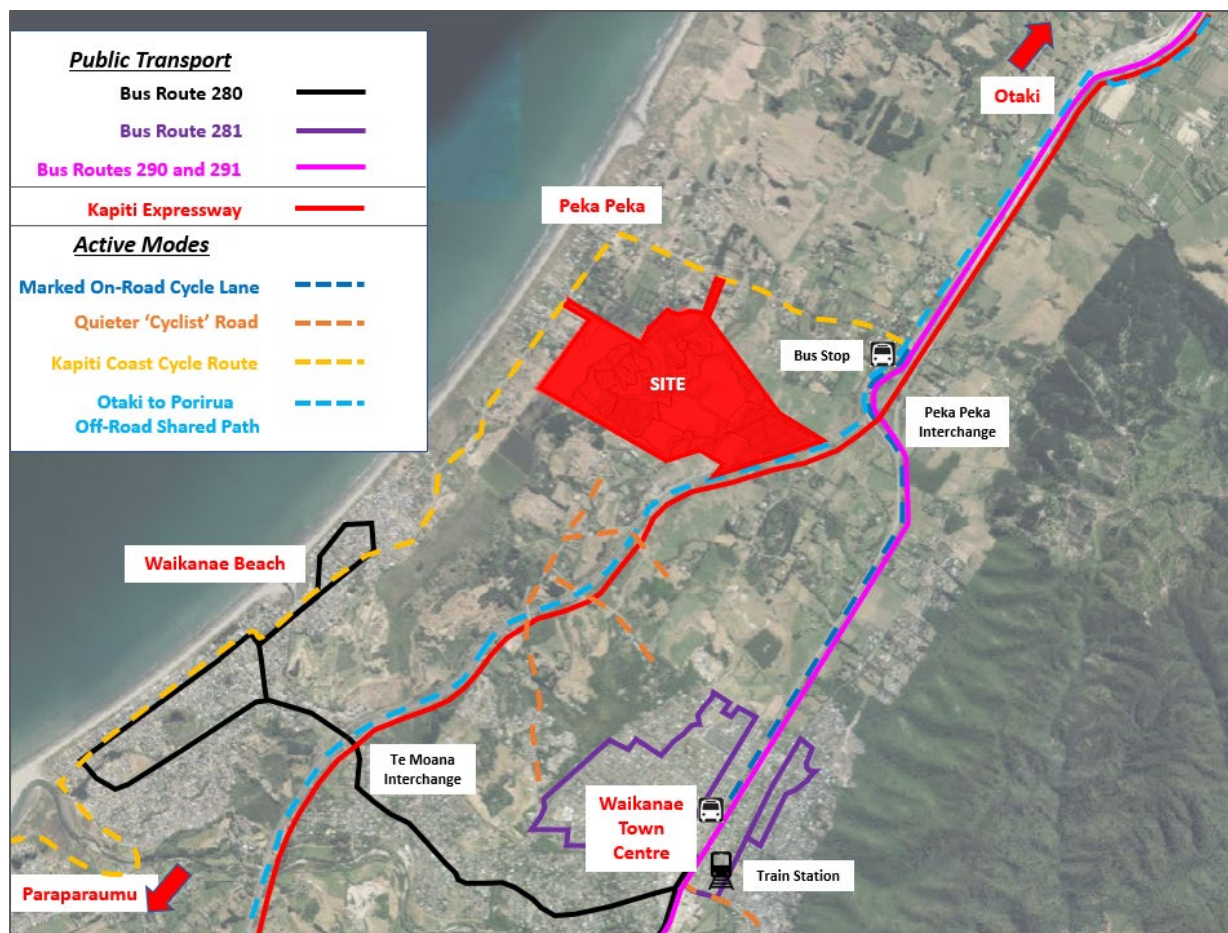


Figure 3-3: Active Mode Infrastructure and Public Transport Services

Discussions with Council indicate some programmed carriageway widening on Peka Peka Road to better provide for cyclists in the shoulder. Current confirmed works include an approximately 0.5km section of widening between the proposed Site access point and the Peka Peka Link Road roundabout,



with future funding being sought to complete widening for cyclists along the entire length of Peka Peka Road. The site access design described in Section 7 can be integrated with these Council works.

### **3.3 Public Transport**

As shown in Figure 3-3, there are four bus routes that currently serve the established Waikanae urban area, being Route 280 (Waikanae - Waikanae Beach - Paraparaumu), Route 281 (Waikanae – Waikanae North – Waikanae East), Route 290 (Paraparaumu – Waikanae – Otaki), and Route 291 (Waikanae – Levin).

Whilst these services do not currently operate on Peka Peka Road or Paetawa Road, a future extension of one or more of these routes past the Site, or loop within it, would serve to support sustainable mode choice by providing a convenient connection to the town centre and enable access to the frequent rail services via Waikanae rail station.

As described later in Section 8, the proposed movement network for the Site includes internal collector roads designed to accommodate buses, should such a service be implemented in the future.

Bus stops located on Peka Peka Link Road (near the end of Peka Peka Road) will be accessible from the Site via the proposed internal Site pedestrian and cycle connection to the existing Expressway shared path (which in turn connects with these bus stops). Route 290 operates from these stops and includes 2-3 services per hour during the peaks, and generally hourly services in the off-peaks which will provide a connection for Site residents to the Waikanae town centre and rail station.

Train services currently operate from the Waikanae rail station at 20-minute headways during the day, providing connection through to Paraparaumu, Porirua and Wellington and serving as a key access corridor to / from Waikanae for commuter, educational and recreational trips.

### **3.4 Road Safety**

A search of the Waka Kotahi 'Crash Analysis System' database has been undertaken for the purpose of reviewing the road safety in the vicinity of the Site, for the most recent complete 5-year period, being the length of time typically adopted for such studies.

The search area included the length of Peka Peka Road and the two key routes between the Site and the Kāpiti Expressway interchanges, as illustrated in **Figure 3-4**.



## Peka Peka Farm Subdivision

### 3 Existing Transport Environment



Figure 3-4: Crash Location Map (2020-2024)

A total of 72 crashes have been recorded on the wider Waikanae network over the last complete 5-year period between 2020 and 2024. There were 52 non-injury, 15 minor injury, and five serious injury crashes recorded, across the combined 16km of these routes.

Of the minor injury crashes, four involved turning vehicles failing to give-way to priority traffic, four were loss of controls crashes resulting in collision with roadside features (i.e. single vehicle accidents), two involved vehicles merging or changing lanes colliding with other vehicles, and one involved a vehicle manoeuvring and colliding with a fence. Of the remaining four crashes, one involved a pedestrian standing close to the live lane (assisting a swan that had been struck by a vehicle) being hit by an eastbound vehicle on Te Moana Road, one occurred when a driver exiting the Waikanae golf course carpark collided with an eastbound cyclist on the footpath, one involved a cyclist riding on the footpath colliding with a vehicle on Te Moana Road near Wakefield Street, and the last incident involved a vehicle turning right onto Te Moana Road intentionally colliding with a pedestrian.

Of the serious injury crashes, the first involved a vehicle turning right out of Ngaio Road onto Old SH1 and colliding with a pedestrian who was crossing the carriageway on a red pedestrian signal (i.e. heedless of traffic). The second crash occurred at the same intersection where a driver ran a red light and collided with two pedestrians crossing the road under signal control. The third crash involved a moped rider being thrown off following a mechanical failure on Peka Peka Link Road, in wet conditions. The fourth crash involved a driver turning right from Paetawa Road onto Peka Peka Road colliding with



## **Peka Peka Farm Subdivision**

### **3 Existing Transport Environment**

an eastbound cyclist. The last crash involved a driver manoeuvring out of their driveway on Te Moana Road, colliding with a cyclist travelling along Te Moana Road.

A review of this crash record does not indicate any inherent pattern of crashes that identifies road safety deficiencies within the wider external network along which the development Site traffic will be concentrated, in either connecting to the Expressway or the Waikanae town centre. Recognising this, and based on discussions with Council, it is understood there are no road safety improvement plans currently identified for these routes outside of widening parts of Peka Peka Road to better provide for cyclists in the shoulder (as described earlier at Section 3.2.1).

Relevantly, there were no reported crashes along the length of Peka Peka Road between Paetawa Road and the Peka Peka Link Road. The recent reduction in the posted speed limit from 80kph to 60kph has recognised the peri-urban nature of the surrounding environment and further supports the safety of Peka Peka Road and its users. Notwithstanding the safe performance of Peka Peka Road, particular attention has nevertheless been given to the form of the Site access onto Peka Peka Road, as discussed further at Section 7.



## 4 Planning Context

The Council's growth strategy 'Te Tupu Pai Growing Well' ("Te Tupu Pai") sets out a vision for achieving sustainable growth across the district over the next 30-years. It recognises Waikanae as a key growth node, highlighting a mix of high-priority, medium-priority and longer term greenfield growth / future urban areas, as illustrated within **Figure 4-1** below.

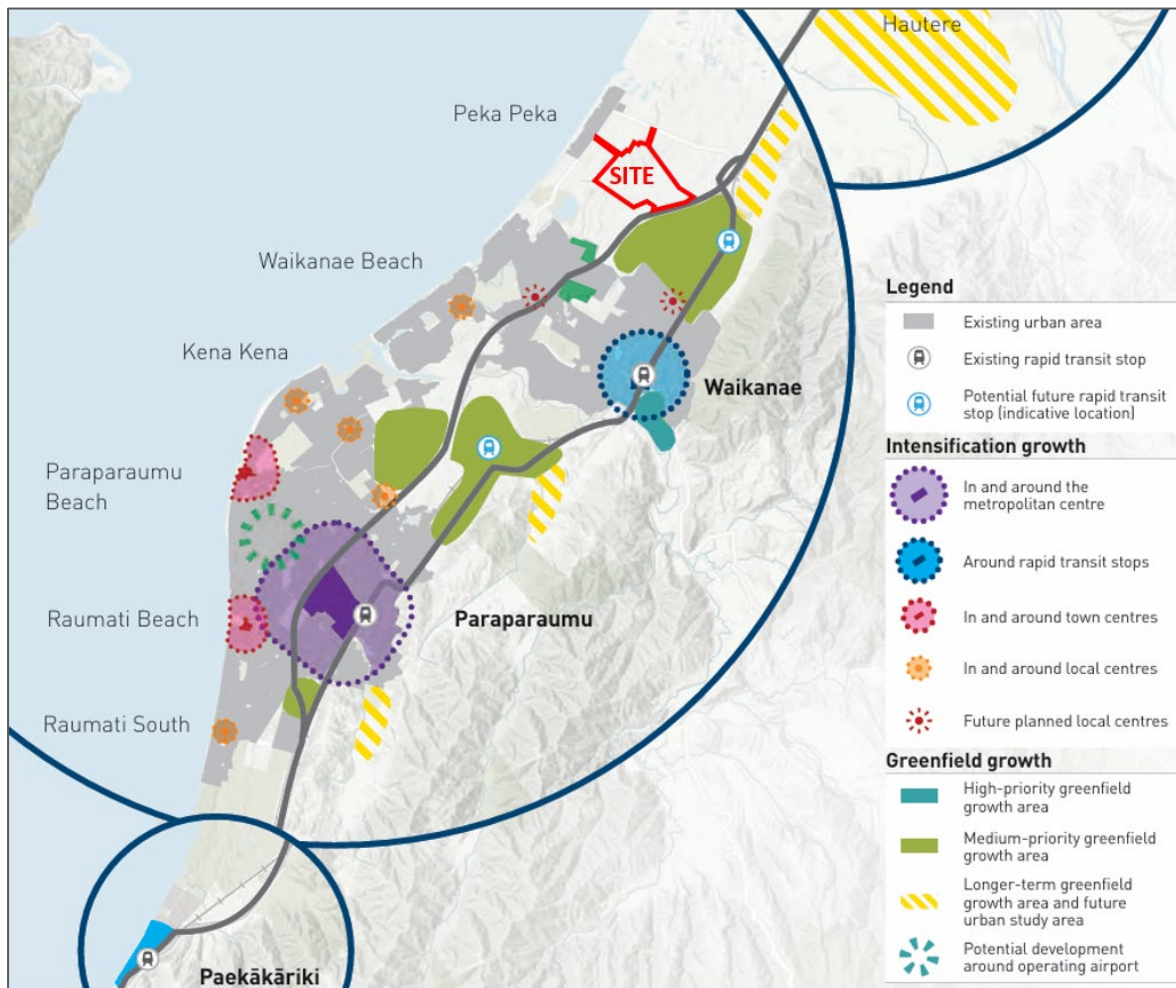


Figure 4-1: Te Tupu Pai Growth Strategy for Kāpiti

Te Tupu Pai includes consideration of new legislative requirements such as the 'National Policy Statement on Urban Development', the need to respond to climate change, and alignment with various other council strategies to enable growing both up and out through a mix of intensification and greenfield development <sup>1</sup>. It also recognises the need to achieve walkable neighbourhoods supported

<sup>1</sup> Council's 'Te Tupu Pai – Growing Well' 2022 (pg.8)



## **Peka Peka Farm Subdivision**

### **4 Planning Context**

by an integrated transport network that ensures communities are connected by active mode infrastructure to public transport services (both bus and rail) to achieve a low-carbon future.

As shown in Figure 4-1, the Site is located immediately west of a 'Medium-priority greenfield growth area' as well as a 'Longer term greenfield growth/future urban study area' (on the eastern side of the Expressway), and north of the 'High-priority greenfield growth area' around Ngarara Road. Its location within areas of potential future growth identified by the Council means that it will benefit from the same strategic advantages, such as access to established roading and active mode infrastructure and connections to Waikanae town centre (as described in Section 3) and associated public transport networks. A future potential rapid transit stop is also indicatively shown within Te Tupu Pai to the east of the Site (on the Kāpiti Rail Line adjacent to Old SH1), which would represent a significant public transport access node for future residents of the Site, and underlines Council's intent to realise development along key public transport routes such as the Kāpiti Rail Line to support multi-modal travel.

Supplementary to the above, the roading infrastructure upgrades delivered by the completed Expressway provide a significant opportunity to enable growth in and around the current Waikanae North area through utilisation of existing transport infrastructure, without requiring significant roading upgrades or generating adverse impacts in terms of network congestion or delays.



## **5 Development Proposal**

### **5.1 Existing Use**

The Site is currently farmland and includes some existing wetland areas (principally to the west and north) and sand dunes located through the western third of the Site. It generates small levels of traffic which have been assumed to be nil for the purpose of this assessment.

### **5.2 Proposed Site Development**

The proposed Site masterplan (included at **Appendix A**) has been iteratively developed between the project team to achieve subdivision across those areas of the property that can accommodate it, taking into account the various Site constraints including topographical and ecological. The masterplan development process has sought to respond to these constraints wherever possible. In some instances, imperatives such as obtaining connections that serve an important functional purpose, have a broader connectivity purpose, or serve to have an urban design outcome, have meant that effects have not always been possible to avoid.

The masterplan has been purposefully developed to allow for a mixture of housing typologies, including standalone dwellings, town houses and walk-up apartments. An overall development yield of 1,181-1,209 dwellings is proposed comprising 959 standard density lots, 198 lots accommodating terrace or semi-detached lots (averaging approximately 250m<sup>2</sup>), and 52 apartments across four buildings. The Site will be developed in stages (indicative staging is including within the Landlink scheme plans) and is estimated to be built out over an approximate 10-year timeframe.

The masterplan also provides for the development of a local neighbourhood centre including a small supermarket and some small retail and commercial activities to serve residents of the new subdivision and the surrounding residential catchment.

For the apartment buildings and neighbourhood commercial centre, detailed design plans will be prepared and submitted to Council for certification in due course, noting two indicative arrangements that deliver the scale and nature of activities proposed in the commercial centre are included in the McIndoe Urban plans. An assessment of these activities against the relevant transport provisions including access, carparking, internal circulation and servicing has been undertaken as part of the broader Site activities District Plan audit at Section 6. Where potential deviations from the Rules and Standards may arise through the course of the detailed design process, assessment of associated effects has been provided and appropriate mitigation identified, with the implementation of such measures provided for under either a consent condition or consent notice.

To support the proposed new development, the following transport infrastructure will be delivered:

- a series of new internal roading connections that provide a clear and legible movement network comprising a primary connector 'spine' route, secondary connectors, local and minor roads, as well as private 'rights-of-way' (RoW) and 'jointly owned access lots' (JOALs);
- a new external Site tee-intersection connection on Peka Peka Road providing vehicular access to the Site. A new RoW connection to Paetawa Road is also proposed to serve a discrete area of 7 lots within the western portion of the Site;



## **Peka Peka Farm Subdivision**

### 5 Development Proposal

- an active mode network comprising on-road cycle lanes, footpaths / shared paths, and off-road walking and cycling routes that provide more direct connections through the Site and linkage to the external walking and cycling networks including the adjacent Expressway shared path; and
- provision for further future roading connections to the south and east.

The detailed proposal plans are provided in the wider application documentation, whilst the overall Site layout and associated transport network is provided in **Appendix A**.

The proposed access strategy for the Site includes a new full tee-intersection arrangement at Peka Peka Road, which will form the primary access to the development. A new RoW connection to Paetawa Road is also proposed to serve a small number of lots located on an isolated portion of the Site to the west. Provision for additional external roading connections with the main portion of the Site to the south and east have been allowed for within the masterplan, so as not to preclude further roading connectivity in the future when adjoining land is developed by others. These opportunities include the Ngarara Road extension being formed (to the south), and potential new roading connections to Peka Peka Road (via a link to Kensington Drive).

The new internal movement network has been designed to provide a legible and well-connected development to support both vehicular and active mode trips. The road typologies have been developed based on the principles of the latest industry standard NZS4404:2010 'Land Development and Subdivision Infrastructure' (NZS4404:2010), as required by the Council's subdivision design guidance<sup>2</sup> for new roads, along with specific consideration for accommodating active modes to promote sustainable transport choices for both internal trips (including to the neighbourhood centre) and external connectivity.

In all instances, the transport infrastructure and designs have been advanced based on full build-out of the Site, including planned apartment development and the local neighbourhood centre.

## **5.3 Engagement with Key Stakeholders**

Discussions have been held with key transport stakeholders including Kāpiti Coast District Council, the NZ Transport Agency (NZTA) and Greater Wellington Regional Council / Metlink, to seek their feedback on the proposed Site development and specific transport elements. An advance draft copy of the ITA was also provided to Kāpiti Coast District Council and NZTA.

### **5.3.1 Kāpiti Coast District Council**

Kāpiti Coast District Council undertook their own review of the draft ITA as well as commissioning an independent peer review. This final version of the ITA includes responses to the feedback received, as summarised in the memorandum included at Appendix B.

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<sup>2</sup> Including the Council's 'Subdivision and Development Principles and Requirements, 2012; and the 'Land Development Minimum Requirements, 2022'



### 5.3.2 NZTA

A summary of the feedback received from NZTA is included in Table 5-1 below, along with references to where additional information has been added to the ITA to address the matters raised.

*Table 5-1: NZTA Feedback Summary*

Matter Raised		Response
Development Traffic effects on the Road Network	Confirm the baseline data adopted in the SIDRA assessment, and confirm the retirement village and Kainga Ora developments are included.	Further detail around the proposed traffic modelling assumptions and background traffic growth allowances (drawing from the district traffic model) has been added at Section 9.2.2.
	What are the impacts of development Site traffic on Te Moana Road.	Assessment of the increase in traffic generated by the proposed development on Te Moana Road is provided at Section 9.2.
	What are the expected traffic volumes for each stage of development at the Site.	Details on the Site staging and associated development traffic volumes have been added at Section 9.1.
Construction Traffic Details and Management	Confirm staging and duration of construction activities.	Information on construction staging will be provided in the Construction Management Plan (CMP), whilst specific information on construction traffic (including estimated truck movements over each stage along with any necessary controls to manage potential effects of these vehicles) will be described in the
	What are the expected construction traffic volumes and numbers for each stage.	



		Construction Traffic Management Plan (CTMP). The preparation and certification of both a CMP and CTMP are included as recommended conditions of consent.
Site Connection to the Expressway Shared Path	Provide further detail (drawings and methodology) for earthworks within the NZTA Expressway designation to connect the Site with the Expressway shared path.	Further detail on the construction methodology and earthworks along the Site boundary that abuts the Highway designation including where the Site connects to the Expressway shared path, will be captured in the design drawings provided by Landlink and the CMP. Conditions of consent address the final connection details to the CWB.

### 5.3.3 GWRC / Metlink

Discussions with GWRC / Metlink focused on the roading design for the Site to ensure it can accommodate scheduled bus services in the future, and confirms general support for the proposed internal Site movement network. GWRC recommended identifying future bus stop locations to ensure these are appropriately provisioned for at the outset, which would remove any potential difficulties in retrofitting these later once the subdivision is built. A condition of consent is therefore proposed to identify future bus stops at engineering approvals stage.

With respect to local rail services, Metlink noted the proposed increase in trains operating from Waikanae station through to Wellington following the introduction of the Tūhona trains in 2030 as providing benefit to residents at the Site choosing to travel by rail.

Liaison with the above stakeholders on the transport outcomes of the Site is expected to continue as the more detailed design progresses.



## 6 District Plan Assessment

An assessment of the proposed development has been undertaken against the relevant transport rules and standards of the District Plan, as set out in **Table 6-1** below.

*Table 6-1: District Plan Compliance Assessment*

Reference	Rule	Assessment of Compliance
Transport		
TR – R1: Maintenance and Repair of Roads		
1.	<p>Compliance with the permitted activity noise standards in NOISE</p> <ul style="list-style-type: none"> <li>- NOISE-P3 (Transport Network Development) <ul style="list-style-type: none"> <li>o The design and development of new transport networks or any changes to the transport network will ensure that the adverse effects of transport on the inhabitants of existing residential buildings and noise sensitive activities are minimised or mitigated</li> </ul> </li> <li>- NOISE-P4 (Noise from Transport Network) <ul style="list-style-type: none"> <li>o All noise sensitive activities in close proximity to a transportation noise effect route or the designated rail corridor must be protected by the building owner from adverse effects of noise through the adoption of acoustic mitigation measures</li> </ul> </li> </ul>	Assessment provided by others.
2.	Compliance with Council's Land Development Minimum Requirements [April 2022].	<p>Does not Apply.</p> <p>Access to and through the Site is proposed via a series of new internal Site roads (as described at Section 8), rather than existing roads.</p>



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<b>TR – R2: Vehicle Movements</b>		
1.	<p>Up to 200vpd in Working Zones, except:</p> <ul style="list-style-type: none"> <li>a) where all public vehicle access is onto strategic arterial routes or major community connector routes any activity must not generate more than 100 vpd. This excludes Precincts A1, A2 and C which are managed in standards 1 b) and 1 c) below;</li> <li>b) any activity in Precincts A1 and A2 in the Metropolitan Centre Zone must not generate more than 200 vehicle movements in any hour;</li> <li>c) any activity in Precinct C in the Metropolitan Centre Zone must not generate more than 50 vehicle movements in any hour;</li> <li>d) any retail activity within the Ihakara Street West Precinct and Ihakara Street East Precinct with frontage to Ihakara Street or Trieste Way must not generate more than 100 vehicle movements in any hour; and</li> <li>e) any traffic generated by an activity permitted under GIZ-R5 (on the site at LOT 2 DP 441854 (Milne Drive, Paraparaumu) must not generate more than 50 vehicles per peak hour</li> </ul>	<p>Does not Apply. No part of the Site is zoned Working Zone.</p>
2.	<p>In all other zones, any activity must not generate more than 100 vpd, except extractive industries that are provided for as a restricted discretionary activity under EW-EXT-R13.</p>	<p>Does not Comply.</p> <p>The proposed Site development will exceed the 100vpd limit and is therefore considered a 'Restricted Discretionary' activity. This ITA has therefore been prepared to examine and describe the associated Site transport effects on the wider network.</p>
<b>TR – R3: Site Access and Loading</b>		
1.	<p>Access – every site must provide either:</p> <ul style="list-style-type: none"> <li>a) vehicular access over land by mutual right of way or service lane for parking and/or loading and shall be in accordance with TR-Diagram-2; or</li> <li>b) for sites with no carparking or loading spaces, pedestrian access over land by mutual right of way with a minimum 1.8 metre legal width may be provided as an alternative to vehicle access.</li> </ul>	<p>Will Comply.</p> <p>Vehicle access points will be designed accordingly, noting all lots will have access from a vested road, mutual RoW or JOAL.</p>
2.	<p>Vehicle access and pedestrian access - all vehicle accesses must be designed, constructed and maintained to ensure that:</p> <ul style="list-style-type: none"> <li>a) they are able to be used in all weather conditions;</li> <li>b) they have no adverse impact on the roadside drainage system; and</li> <li>c) surface water and detritus (including gravel and silt) does not migrate onto the highway pavement.</li> </ul>	<p>Will Comply.</p> <p>Vehicle accesses will be designed and constructed accordingly and to an all weather standard.</p>



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3.	<p>Vehicle access - all vehicle accesses must meet the following:</p> <ul style="list-style-type: none"> <li>a) be a minimum of 3.5 metres wide, except for as set out in TR-Table 1.</li> <li>b) be a maximum of 9 metres wide, except in the Beach Residential Zone at Waikanae Beach where the maximum shall be 6.0 metres wide.</li> </ul>	<p>Does not Comply.</p> <p>Internal access driveways will be designed to these formation width criteria, including the apartment buildings and commercial area activity driveways. However, it is interpreted that a vehicle crossing serving a single residential lot in the Rural Zone is required to provide a minimum 3.5m crossing. In some cases it may not be possible to achieve the minimum 3.5m, i.e. for lots with narrower frontages or where adjoined units are proposed to be served by a conjoined driveway. In such instances a consent condition is recommended requiring the design of the driveway to be developed, for later certification, to a suitable standard in keeping with the suburban setting and frontage street environment that ensures appropriate manoeuvring to/from the lot.</p>
4.	<p>Vehicle access - sites containing non-residential activities and which provide more than 6 carparks, shall provide two-way vehicle accesses which must be a minimum of 6 metres wide.</p>	<p>Does not Comply.</p> <p>Access driveways to shared parking areas serving more than 6 parking spaces in the commercial centre will generally be designed to a minimum 6m width. However, in some cases where JOALs are proposed, these will operate as one-way and therefore be formed to a narrower width (since two-way vehicle movement will not occur). In such cases the actual width will be designed to meet NZS4404 in terms of formed carriageway width, and a consent condition is proposed to capture these arrangements.</p>
5.	<p>Vehicle access to/from a state highway - sites that only have vehicle access via a state highway must only have one crossing point and shall be in accordance with Diagrams TR-Diagram - 1 and TR-Diagram - 2.</p>	<p>Does not Apply.</p> <p>No accesses to or from a State highway are proposed.</p>
6.	<p>Vehicle access spacing – at intersections (except on strategic arterial routes) carrying traffic volumes of 1,000 vehicles or more in any peak hour, or at which traffic signals are operating, no part of a crossing point must be located within 30 metres of an intersection or within 60 metres on the departure side of an urban state highway intersection.</p>	<p>Does not Apply.</p> <p>There are no intersections that share frontage to the Site which are either signalised or carry &gt;1,000vph.</p>



7.	<p>Vehicle access spacing – Where a site is located near an intersection having volumes less than 1,000 vehicles in any peak hour; the minimum distance between the crossing point and the roadway edge or kerb line must be:</p> <ul style="list-style-type: none"> <li>a) 9 metres measured from the intersecting point of the kerb lines or road edge lines or 4.5 metres from the tangent point of the kerb lines or road edge whichever is greater; and</li> <li>b) 12 metres where a “Stop” or “Give Way” control exists on the roadway measured from the intersecting point of the kerb lines or road edge lines.</li> </ul>	<p>Does not Comply.</p> <p>Whilst at this stage the location of each individual vehicle crossing is not yet known, for the most part access driveways will be located to achieve the minimum separation distances from adjacent intersections. However, in some cases it may not be possible to achieve the minimum i.e. for lots with frontages of 12m or less sited adjacent to an intersection. In such instances a consent condition is recommended requiring driveways where compliance with the Rule is not fully met to be located to maximise separation as far as practicable. The location of these driveways will form part of a Council certification process.</p>
8.	<p>Vehicle access spacing for major traffic activities – no crossing point must be located closer to any intersection than the distance specified in TR-Table 2 – Access Distance Dimensions. Distances are measured in metres (m) to the intersecting kerb line.</p> <ul style="list-style-type: none"> <li>• Major Community Connector Routes and Centres Routes – 30m</li> <li>• Local community connector routes &amp; neighbourhood Access routes – 15m.</li> </ul>	<p>Does not Comply.</p> <p>The future commercial centres local supermarket will likely trigger this requirement.</p> <p>The indicative layouts for this development included separately in the McIndoe plans show the local supermarket (within the northern part of the neighbourhood centre) has its carpark access positioned as far practicable (at around 20m) from the adjacent primary connector road intersections. At this stage it’s not clear what roading classification the Site’s primary connector will have; if it’s categorised as a local community connector, then a 15m separation of the driveway will be met, but if it’s given a centres route classification then the access driveway will deviate from the 30m minimum by around 10m as currently shown.</p> <p>Noting the roading environment within the commercial centre will be developed further at detailed design to ensure an appropriate slow speed environment, commensurate with pedestrian activity, formal pedestrian crossings, kerbside parking and accessways, and with raised treatments at intersections to actively slow traffic, the minor shortfall in separation distance of the local supermarket driveway (if the frontage street is subsequently classified as a centres route) is not assessed as giving rise to any adverse safety effects.</p> <p>Notwithstanding this assessed position a consent condition is proposed to ensure the access is positioned to maximise clearance from the nearest adjacent intersections, for certification by the Council.</p>



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9.	<p>Vehicle access spacing sight distances – the required minimum sight distance between the access and the road must be in accordance with TR-Diagram – 3 and TR-Table 3 – Sight Distance Dimensions} (where m = metres).</p> <ul style="list-style-type: none"> <li>• 50kph posted limit = 50m</li> <li>• 60kph posted limit = 60m</li> <li>• 80kph posted limit = 80m</li> </ul>	<p>Does not Comply.</p> <p>Again, whilst at this stage the location of each individual residential lot vehicle crossing is not yet known, for the most part access driveways will be located to achieve appropriate sightlines.</p> <p>However, in some cases it may not be possible to achieve the minimum i.e. for lots located close to bends or adjacent to intersections, noting such circumstances are not uncommon and in practice will not present a significant safety risk given the very low volume of vehicle movements at the driveway. In such cases a consent condition is recommended requiring driveways where compliance with the Rule is not fully met to be located to maximise sightlines, noting for the internal Site roads where a 40kph design speed has been adopted, associated sightlines for these operating speeds will be less than the 50m required for a posted speed limit of 50kph. In addition, the consent condition will include restrictions on boundary fencing arrangements and landscaping, to ensure sightline splays are not adversely impacted.</p>
10.	<p>Vehicle access spacing for state highways - the minimum distance between vehicle accesses on the same side of the road must be 7.5 metres for residential activities (excluding visitor accommodation that is not temporary residential rental accommodation) and 15 metres for all other activities</p>	<p>Does not Apply.</p> <p>No accessways to a State Highway are proposed.</p>
11.	<p>The minimum separation distances between vehicle access to/from a state highway/rural road and an intersection on that state highway/rural road, between a vehicle access to/from a local road and the intersection of that local road with a state highway/rural road and between vehicle accesses to/from a state highway/rural road must meet the provided distances in TR-Table 4 - Access Distance Dimensions for State Highways and Rural Roads (where m = metres, km/h = kilometres per hour, and vpd = vehicles per day).</p> <ul style="list-style-type: none"> <li>• 50kph and 60kph posted speed limit 'Rural Roads' require minimum 20m separation between local road access and an intersection with a 'Rural Road'</li> </ul>	<p>Complies.</p> <p>The posted speed limit on Peka Peka Road where the proposed new external Site access will connect is 60kph, and this Site access road will achieve a separation to the nearest adjacent intersection (at Raukawa Road) of 440m. No individual lot access is proposed on this Site road within 20m of the Peka Peka Road intersection.</p>



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12.	<p>Manoeuvring:</p> <p>a. Private residential access – unless the driveway accesses directly from a Neighbourhood Access Route, sufficient manoeuvring space must be provided on-site to ensure no reversing onto the road is necessary. Note: for clarification see the Transport Network Hierarchy.</p> <p>b. Commercial properties – must ensure that all buildings and parking areas are designed so that sufficient manoeuvring space is provided on-site to ensure no reversing onto the road is necessary.</p>	<p>Does not Comply.</p> <p>The requirement for residential driveways accessing higher order roads to provide on-site turning is designed to reduce the risk of conflict between through traffic and vehicles reversing at driveways, particularly in cases where through traffic volumes are high.</p> <p>Whilst details of the individual lot layouts are not yet known, the majority that access onto either a primary or secondary connector road (which it is assumed will be given a higher classification than Neighbourhood Access Route) are large enough to accommodate on-site driveways and turning areas that will enable vehicles to enter and exit in a forward direction. For some smaller lots with narrower frontages, turning areas may not be practicable, and in such cases on-street kerbside parking restrictions will need to be implemented to ensure safe sightlines. The arrangements for on-street parking and parking restrictions (including time limits and broken yellow lines), to ensure clear lines of sight between vehicles on the road and others manoeuvring at driveways, will be addressed through engineering approval.</p> <p>The designs for the commercial activities in the neighbourhood centre have been developed to ensure vehicles can enter and exit any off-street carparking areas in a forward direction (either via ability to turnaround on site within carpark areas or enter and exit in a one-way circulation for JOALs), removing the need to undertake reverse manoeuvres to/from the street.</p>
13.	Loading spaces - every property in all Working Zones, the layout of loading spaces must comply with the 90 percentile design two-axled truck as defined by the Ministry of Transport and shall be designed in accordance with TR-Diagram - 7	Does not Apply. No part of the Site is zoned 'Working Zone'.
14.	Landscaping - for all non-residential activities, any parking, loading or trade vehicle storage area must be separated from adjoining sites by a minimum depth of 2 metres of landscaping.	Will comply.  Landscaping for the commercial activities in the neighbourhood centre will be designed to meet these requirements. A consent condition is recommended to capture this.
15.	Landscaping - all landscaping adjoining the road boundary of subject sites, must be designed and maintained so that visibility to and from the crossing point complies at all times with the minimum standards sight distances set out in TR-Table 3 Sight Distance Dimensions.	Does not Comply.  See assessment under TR-3.9 above and recommended consent condition.
TR – R4: Design and Layout of Vehicle Parking for All Activities		
1.	All parking must be formed, marked out and maintained for use in all weathers.	Will comply.



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2.	Surface water originating from the parking area must be managed without adversely impacting other properties either upstream or downstream of the development subject site.	Parking will be designed in accordance with these provisions and those included in the industry standard for which TR-Diagram 8 draws from for the District Plan parking dimension requirements. A consent condition is recommended to capture this.
3.	Vehicles using the parking area must only use the formed vehicle access point (crossing point) to enter and exit the vehicle parking areas.	
TR-R5 - Parking layout and design for all activities except residential activities. Visitor accommodation that is not temporary residential rental accommodation is included in this rule		
1.	All parking must be sealed or otherwise maintained to have a dust free surface, at all times, and shall comply with car parking dimension standards in TR-Diagram - 8 of this chapter.	<p>Will comply.</p> <p>Parking for the commercial centre activities will be:</p> <ul style="list-style-type: none"> <li>• formed, sealed to an all weather surface, marked and dimensioned to satisfy TR-Diagram – 8.</li> <li>• designed to ensure vehicles can enter and exit in a forward direction and without the need to reverse to/from the public street</li> <li>• landscaped with appropriate treatments around non-residential activity parking areas internal of the Site</li> <li>• a landscape design will be developed for treatments around car parking in front yards associated with the commercial centre activities.</li> </ul> <p>A consent condition is recommended that requires parking areas within the commercial centre to comply with TR-R5.</p>
2.	All parking must be formed, marked out and maintained for use in all weathers.	
3.	When a parking area is required to accommodate three or more vehicles, parking spaces together with access and turning spaces must be designed so as to ensure that vehicles are not required to reverse either on to or off legal road.	
4.	<p>In the case where parking areas adjoin a Residential Zone, either a 2-metre high fully enclosed screen must be erected or a strip of minimum width of 5 metres adjoining the Residential Zone must be landscaped as follows:</p> <ol style="list-style-type: none"> <li>a. where a carparking area incorporates more than 5 carparks, 1m<sup>2</sup> of landscaping is required per carpark and must incorporate one tree capable of growing to 5 metres in height along every 10 metres of the carpark's street frontage</li> <li>b. the amount of landscaping will be considered as a total, and street frontage landscaping and any landscaping/open space provided in terms of the Open Space and Recreational Zone section, and the Natural Environment Values section will be taken into account when assessing the 1m<sup>2</sup> of landscaping per carpark;</li> <li>c. planting must be completed within 12 months of commencement of the activity;</li> <li>d. the landscaping must be maintained in healthy condition and clear of litter;</li> <li>e. vehicle crossing points and pedestrian areas within public carparks must have illumination consistent with the Crime Prevention Through Environmental Design (CPTED) Guidelines (Appendix 6)</li> </ol>	
5.	In the case where parking areas are located within the front yard of a subject site, a 2-metre wide strip must be formed along the front yard (except for vehicle crossings) of any carparking area which shall be landscaped to create a visual and physical barrier between the carpark area and the road.	



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6.	Design for any critical access conditions, such as a ramp included as part of a parking building, must accommodate a 99 percentile design motor car in accordance with TR-Diagram - 6 of this Chapter.	Does not Apply No parking buildings are proposed.
TR – R6: Heavy Trade Vehicle Access		
1.	Heavy trade vehicle accesses, including those for milk tankers and stock trucks, must be designed and constructed to carry the volume and weight of traffic likely to use the access and shall be designed in accordance with TR-Diagram 4.	Complies in part. The Site is unlikely to generate any visits from truck and trailer units and will comprise an urban context rather than the rural highway environment anticipated in TR-Diagram 4.
2.	The surface of a heavy trade vehicle access must be constructed to the same standard as the adjoining road carriageway. This requirement must be deemed to have been complied with if the first 12 metres of the vehicle access, measured from the near edge of the carriageway, is so constructed.	Notwithstanding, the vehicle accesses for the commercial centre activities will be designed to accommodate the types of rigid trucks that will service them, including waste collection trucks and delivery vehicles for the local supermarket.
3.	Heavy trade vehicle accesses must be designed and constructed so that no heavy trade vehicle has to cross the road carriageway centre line when making a left-turn.	Additionally, the proposed internal Site roading has also been designed to accommodate truck traffic associated with rubbish/recycling and emergency vehicle access to the Site, as well as trucks associated with servicing the future local supermarket and adjacent commercial activities. The internal Site collector roads will also be designed to accommodate future bus services. A consent condition is recommended requiring accesses to be designed to appropriately accommodate the types and volumes of Heavy Vehicles likely to access them, including vehicle tracking analysis to confirm required manoeuvre paths are appropriate.
TR-R9: New roads including where they are to serve a subdivision (including boundary adjustments)		
1.	All roads in the Centres Zones must have footpaths on both sides of the road carriageway.	Does not Apply. No part of the Site is zoned 'Centres Zone'. Notwithstanding, all roads within the commercial centre (which is intended to function as a Local Centre Zone) include footpaths on both sides of the road.



<p>2.</p>	<p>Cycle paths must be provided either as on-street cycle lanes, off-street shared paths or off-street dedicated cycle paths</p> <p>Matters of Control:</p> <ol style="list-style-type: none"> <li>1. The route of the road.</li> <li>2. The design and construction of the road, including safety, traffic engineering, landscaping and noise mitigation measures.</li> <li>3. The degree of consistency with the Transport Network Hierarchy.</li> <li>4. The imposition of financial contributions in accordance with the FC - Financial Contributions chapter.</li> <li>5. The provision of grassed swales to direct road-run-off (instead of concrete kerb and channel) in Residential Zone areas, where grassed swales would be in keeping with the surrounding environment and functional.</li> <li>6. The provision of footpaths in Residential Zone areas, where footpaths are not part of the surrounding environment.</li> <li>7. The degree of consistency with:             <ol style="list-style-type: none"> <li>a. Council's Land Development Minimum Requirements;</li> <li>b. Council's Best Practice and Subdivision Guide</li> <li>c. NZS4404.2010 Land Development and Subdivision Infrastructure</li> <li>d. AUSTROADS Guide to Traffic Engineering Practice Part 14 Bicycles and Part 6A Guide to Road Design - Pedestrian and Cycle Paths; and</li> <li>e. New Zealand Transport Agency Cycle Network &amp; Route Planning Guide 2004.</li> </ol> </li> </ol>	<p>Complies in part.</p> <p>The internal Site roads have been developed in accordance with the design principles set out in NZS4404:2010<sup>3</sup>, which is consistent with the Council's Land Development Minimum Requirements (LDMR), along with specific provision for active mode users through marked on-road cycle lanes and off-road shared paths. The proposed internal Site roading arrangements provide for on-road cycle lanes along the primary connector, as well as shared paths on both primary and secondary connector road typologies. In addition, a series of off-road shared paths and trails will provide for further internal connectivity and access to the established external walking and cycling network including the Expressway shared path. The local roads have been designed with cyclists sharing the carriageway, in line with the intent of NZS4404 for lower volume roads. As such, whilst this is interpreted as deviating from Rule TR-9.2, it complies with the road typologies anticipated by the Council's LDMR and industry standard NZS4404, in appropriately accommodating cyclists on these lower order roads. As described above, wider Site circulation and connectivity via dedicated on and off-road cycle provision has been purposefully provided for on higher order roads. Footpaths are included on all street typologies (except private RoW or JOALs where pedestrians will share the carriageway, in accordance with NZS4404). Further detail on the active mode provision at the Site is described in Section 8.</p>
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<sup>3</sup> NZS4404: 2010 'Land Development and Subdivision Infrastructure'



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TR-R10: Vehicle Movements not Permitted by TR-R2 (therefore deemed a Major Traffic Activity(ies))		
2.	<p>A transport assessment and a travel plan must be prepared by a suitably qualified person and submitted to Council with the application for resource consent</p>	<p>Complies in part.</p> <p>This ITA has been prepared to accompany the application and provides detailed analysis of the traffic-related impacts arising from the development and the associated operation of the adjacent transport network.</p> <p>It is proposed to prepare a travel plan for the proposed local supermarket activity, as the largest component, and largest traffic generator, of the proposed local centre. It is not proposed to prepare a travel plan for the associated smaller activities, which, of themselves, would not be a major traffic activity.</p> <p>A travel plan is proposed to be prepared in response to a consent condition, for certification by KCDC.</p>
TR – Park – R18: Accessible carpark		
	<p>Accessible carpark must be provided at the rate shown in TR-Table 6A</p> <p>Medium Density Housing</p> <ul style="list-style-type: none"> <li>• 4-5 units = 1 space, 6-25 units = 2 spaces;</li> </ul> <p>Supermarket</p> <ul style="list-style-type: none"> <li>• 500m<sup>2</sup> - 2000 m<sup>2</sup>: 2 spaces;</li> <li>• Plus 1 additional space for every additional 1000 m<sup>2</sup>, or part thereof.</li> </ul> <p>Retail</p> <ul style="list-style-type: none"> <li>• 100m<sup>2</sup> - 350m<sup>2</sup> : 1 space</li> <li>• 351m<sup>2</sup> - 3333 m<sup>2</sup>: 2 spaces</li> <li>• Plus 1 additional space for every additional 1666m<sup>2</sup>, or part thereof</li> </ul>	<p>Will Comply.</p> <p>The individual residential dwellings included in the current application are not subject to the requirements of TR-Table 6A. The apartment buildings will be designed to ensure appropriate accessible spaces are provided to satisfy the Medium Density Housing requirements.</p> <p>A minimum of 2 accessible parking spaces for a ~1,200 m<sup>2</sup> supermarket and 2 accessible spaces for a retail area ~1000 m<sup>2</sup> will be provided.</p> <p>A consent condition is recommended that requires accessible car parking to comply with TR-R18</p>
TR – Park – R19: Cycle Parking		
1.	<p>Cycle parking must be located no more than 25 metres from the entrance to the destination for all activities listed in TR-Table-6B excluding the following activities:</p> <p>a. Multi-unit residential:</p> <ul style="list-style-type: none"> <li>• Visitor parks: 4-20 residential units = 1 space</li> <li>• Resident parks: 4-10 residential units = 1 space</li> </ul>	<p>Will Comply.</p> <p>The individual residential dwellings included in the current application are not subject to a minimum requirement.</p> <p>The required number of cycle parks will be provided to support the proposed apartment buildings and commercial centre activities at the Site, noting these will be designed to align with the relevant requirements in terms of location and design.</p>



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2.	<p>Cycle Parking shall:</p> <ol style="list-style-type: none"> <li>a. be securely anchored to an immovable object;</li> <li>b. support the bicycle frame and front wheel;</li> <li>c. allow the bicycle frame to be secured;</li> <li>d. be accessible for users of all ages and abilities;</li> <li>e. provide a minimum separation distance of 1.2 metres between cycle stands;</li> <li>f. provide a minimum separation distance of 1 metre between any marked carpark space, wall or any other obstruction;</li> <li>g. be clearly signposted or visible to cyclists entering the site;</li> <li>h. be located so as not to impede pedestrian thoroughfares, including areas used by people whose mobility or vision is restricted;</li> <li>i. be located so that the bicycle is at no risk of damage from vehicle movements within the site; and</li> <li>j. be in a covered area and in an area excluded from general public access when provided exclusively for staff/employee use.</li> </ol>	A consent condition is recommended that requires cycle parking to comply with TR-R19.																							
3.	Cycle parking must be provided at the rate shown in TR-Table 6B:																								
<table border="1"> <thead> <tr> <th data-bbox="351 1140 587 1182">Land Use</th> <th data-bbox="587 1140 820 1182">User Type</th> <th data-bbox="820 1140 1241 1182">Cycle Parking Requirement</th> </tr> </thead> <tbody> <tr> <td data-bbox="351 1182 587 1258" rowspan="2">Multi-unit Residential</td> <td data-bbox="587 1182 820 1258">Visitor</td> <td data-bbox="820 1182 1241 1258">1 space for 4–20 units, plus 1 additional space per 20 units (or part thereof) beyond 20</td> </tr> <tr> <td data-bbox="587 1258 820 1335">Resident</td> <td data-bbox="820 1258 1241 1335">1 space for 4–10 units, plus 1 additional space per 10 units (or part thereof) beyond 10</td> </tr> <tr> <td data-bbox="351 1335 587 1411" rowspan="2">Supermarket</td> <td data-bbox="587 1335 820 1411">Visitor</td> <td data-bbox="820 1335 1241 1411">1 space for up to 500 m<sup>2</sup> GFA, plus 1 additional space per 1000 m<sup>2</sup> (or part thereof) beyond that</td> </tr> <tr> <td data-bbox="587 1411 820 1487">Staff</td> <td data-bbox="820 1411 1241 1487">1 space for 1–5 FTEs, plus 1 additional space per 5 FTEs (or part thereof) beyond 5</td> </tr> <tr> <td data-bbox="351 1487 587 1563" rowspan="2">Retail</td> <td data-bbox="587 1487 820 1563">Visitor</td> <td data-bbox="820 1487 1241 1563">1 space for up to 125 m<sup>2</sup> GFA, plus 1 additional space per 125 m<sup>2</sup> (or part thereof) beyond that</td> </tr> <tr> <td data-bbox="587 1563 820 1639">Staff</td> <td data-bbox="820 1563 1241 1639">1 space for up to 400 m<sup>2</sup> GFA, plus 1 additional space per 400 m<sup>2</sup> (or part thereof) beyond that</td> </tr> <tr> <td data-bbox="351 1639 587 1715" rowspan="2">Commercial (Non-retail)</td> <td data-bbox="587 1639 820 1715">Visitor</td> <td data-bbox="820 1639 1241 1715">1 space for up to 500 m<sup>2</sup> GFA, plus 1 additional space per 500 m<sup>2</sup> (or part thereof) beyond that</td> </tr> <tr> <td data-bbox="587 1715 820 1787">Staff</td> <td data-bbox="820 1715 1241 1787">1 space for up to 200 m<sup>2</sup> GFA, plus 1 additional space per 200 m<sup>2</sup> (or part thereof) beyond that</td> </tr> </tbody> </table>			Land Use	User Type	Cycle Parking Requirement	Multi-unit Residential	Visitor	1 space for 4–20 units, plus 1 additional space per 20 units (or part thereof) beyond 20	Resident	1 space for 4–10 units, plus 1 additional space per 10 units (or part thereof) beyond 10	Supermarket	Visitor	1 space for up to 500 m <sup>2</sup> GFA, plus 1 additional space per 1000 m <sup>2</sup> (or part thereof) beyond that	Staff	1 space for 1–5 FTEs, plus 1 additional space per 5 FTEs (or part thereof) beyond 5	Retail	Visitor	1 space for up to 125 m <sup>2</sup> GFA, plus 1 additional space per 125 m <sup>2</sup> (or part thereof) beyond that	Staff	1 space for up to 400 m <sup>2</sup> GFA, plus 1 additional space per 400 m <sup>2</sup> (or part thereof) beyond that	Commercial (Non-retail)	Visitor	1 space for up to 500 m <sup>2</sup> GFA, plus 1 additional space per 500 m <sup>2</sup> (or part thereof) beyond that	Staff	1 space for up to 200 m <sup>2</sup> GFA, plus 1 additional space per 200 m <sup>2</sup> (or part thereof) beyond that
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As shown, the development plans align well with the traffic and transport provisions of the District Plan, in satisfying each of the relevant standards with the exception of:

- the vehicle movement threshold under TR-R2.2 (with the local supermarket considered a major traffic activity),



- provisions under TR-R3 in relation to Site access (including vehicle crossing minimum widths, separation distances and sightlines, and the likely inability to allow turning on-site for some of the single residential lots accessing roads classified higher than a Neighbourhood Access Route);
- TR-R6 in relation to Heavy Trade vehicle access in the commercial centre; and
- TR-R9 in relation to a lack of dedicated cycle facilities on the Local Access Roads, despite aligning with the roading design in regards to the LDMR (which draws from NZS4404).

Assessment of these deviations and proposed mitigations are identified in the table above, whilst a number of consent conditions that where necessary will be secured through a consent notice, are recommended as a means of ensuring detailed design outcomes align with the intent of the standards that cannot be fully met.

Under TR-R2 the scale of the proposed development, in generating more than 100vpd, requires a detailed assessment be undertaken of the Site traffic impacts on the performance of the adjacent transport network. This analysis, which is set out in detail at Section 9, demonstrates that the additional traffic generated at the Site does not give rise to any safety or capacity issues on the existing surrounding transport network that require mitigation. With regard to the Site road typologies, further detail on the rationale for these and associated cross sections proposed is described in Section 8.

The development plans have been designed to provide an appropriate balance of car parking (both off-street and on-street) to accommodate the expected parking demands generated by the scale and type of activities proposed.

In addition to the Transport Rules above, key transport-related Objectives and Policies which are relevant for this subdivision application are set out below.

<b>DO-O3 'Development Management'</b>
<p>To maintain a consolidated urban form within existing urban areas and a limited number of identified growth areas, and to provide for the development of new urban areas where these can be efficiently serviced and integrated with existing townships, delivering:</p> <ol style="list-style-type: none"> <li>1. urban areas which maximise the efficient end use of energy and integration with infrastructure</li> <li>5. higher residential densities in locations that are close to centres and public open spaces, with good access to public transport</li> </ol>
<b>DO-O14 'Access and Transport'</b>
<p>To ensure that the transport system in the District:</p> <ol style="list-style-type: none"> <li>1. integrates with land use and urban form and maximises accessibility;</li> <li>2. improves the efficiency of travel and maximises mode choice to enable people to act sustainably as well as improving the resilience and health of communities;</li> <li>3. contributes to a strong economy;</li> <li>4. avoids, remedies or mitigates adverse effects on land uses;</li> <li>5. does not have its function and operation unreasonably compromised by other activities;</li> <li>6. is safe, fit for purpose, cost effective and provides good connectivity for all communities; and</li> <li>7. provides for the integrated movement of people, goods and services.</li> </ol>



**TR-P1 Integrated Transport and Urban Form**

Development and subdivision will be integrated with and consistent with the transport network hierarchy in TR-Table 7, and undertaken in a manner and at a rate to ensure:

1. the transport network is capable of serving the projected demand safely and efficiently;
2. the location of development is appropriate, including providing for the co-location of compatible developments and land use and transport networks to reduce unnecessary travel;
3. travel time and distance to services are minimised for all modes of travel;
4. development is consistent with Council's Land Development Minimum Requirements; and
5. enhanced community connectivity is achieved, resulting in more efficient travel patterns from the community.

**TR-P2 Sustainable Transport and Maximising Mode Choice**

Development and subdivision will be integrated with a transport system that offers a wide range of travel mode choices, which connects residents to essential community services, centres and social infrastructure, through:

6. well-integrated and connected communities
7. development that is conducive to active modes of travel, particularly walkable communities which reduce demand for vehicular travel, particularly by private vehicle
8. land use that is integrated with the transport network
9. consistency with the Council's Land Development Minimum Requirements
10. development that ensures adequate access and space for all modes, including pedestrians, people with mobility problems, cyclists, public transport and private car travel.

In considering the broader transport outcomes sought by the Objectives and Policies above, this ITA demonstrates alignment of the proposal plans as follows:

- a dedicated active mode infrastructure has been purposefully included at the Site to support multi-modal trips, through external connections to the wider walking and cycling routes as well as a dedicated internal network providing connection to the local neighbourhood centre retail and commercial amenities;
- analysis confirming Site generated traffic can be appropriately accommodated on the wider road network without resulting in adverse impacts; and
- a proposed internal transport network which has been designed in line with the Council's LDMR and to a standard that can accommodate future public transport bus services.



## **7 Site Access Strategy**

Vehicular access to the Site is proposed via a new Site road connection to Peka Peka Road, whilst other potential future roading connections have also been enabled via land parcels to be allocated as road reserve. In addition, a RoW connection is proposed from Paetawa Road to serve a discrete area of 7 residential lots. Dedicated active mode links to the adjacent walking and cycling networks are also proposed including a connection to the off-road shared path alongside the Expressway.

Further detail on these vehicle and active mode transport connections is provided in turn, below.

### **7.1 Vehicle Access**

The new Site access road will be constructed to a connector road standard, and is proposed to link with Peka Peka Road at a new priority-controlled tee-intersection, with priority given to traffic on Peka Peka Road. A concept design for the proposed intersection arrangement is included at Appendix C, noting sightlines for traffic turning to / from the Site will exceed the minimum 60m requirement associated with the posted 60kph speed limit on Peka Peka Road (under TR-R3.9 of the District Plan). This concept design arrangement can be accommodated within the existing road reserve. Access to the two existing properties (#173 and #175) which connect off the current Site driveway off Peka Peka Road will be maintained, with excellent sightlines for vehicles entering / exiting their respective driveways at the newly upgraded Site road ensuring such movements can be accommodated safely and efficiently.

The proposed new intersection layout includes a dedicated right turn lane for traffic accessing the Site on Peka Peka Road. Analysis of the performance of this priority tee-intersection under a 10-year future assessment scenario, with traffic from full development of the application Site (as described in detail at Section 9) indicates that the intersection performs at a very good Level of Service (LoS). The provision of a right turn bay on Peka Peka Road satisfies the design requirements of Austroads for the 60kph posted speed limit. Access works at the Site could be undertaken at the same time as implementing the full right turn bay intersection on Peka Peka Road, but in the event works weren't undertaken in tandem, a yield of around 400 lots could be established before the need for a right turn bay would be triggered.

The proposal plans provide for all lots to be accessed internally from the Site. No direct lot access will be achieved from Peka Peka Road. A small discrete area in the western part of the Site comprising 7 residential lots will gain access via a separate new private RoW connection to Paetawa Road. The proposed new driveway will connect approximately 80m south of Arapipi Way, noting the straight and level alignment of Paetawa Road at this point will ensure sightlines for traffic turning to / from the access will exceed the minimum 50m required under TR-R3.9 for a 50kph posted speed limit on the frontage road.

Provision for further potential roading connections in the future has been allowed for within the proposed masterplan at Appendix A, including:

- to the east by way of another external connection to Peka Peka Road via a link to Kensington Drive (noting that the alignment of this connection accounts for a potential marginal strip that could be located on the northern boundary of the Site), and;
- to the south allowing for a potential extension of Ngarara Road, noting provision for this road within the Site extent has been made with Council then responsible for completing the



connection via the existing paper road, in combination with future development of adjoining land.

Such links would increase connectivity with the surrounding network as adjoining land is developed by others.

## **7.2 Active Modes**

As described earlier at Section 3.2.1, the established active mode infrastructure in the vicinity of the Site includes the Expressway shared path to the immediate east (which provides a dedicated off-road route which extends through to Otaki in the north, and Paekākāriki in the south), along with other on-road cycle lanes and recreational routes which extend along Old SH1 to the east and the coastal route to the west. These existing routes provide access to the Waikanae town centre and Waikanae railway station and their associated bus stops.

The proposed development plans include active mode links from the Site to the north via a shared path connection at Peka Peka Road on the Site's internal spine road, the south via a shared path link onto the Expressway path, which connects to the local bus stops on Peka Peka Link Road, and the west via a new shared path connection to Paetawa Road. These links will be provided to support convenient active mode and public transport connectivity to Waikanae town centre and other local amenities.



## **8 Proposed Internal Movement Network**

As described earlier (at Section 6) and in line with the District Plan and Council's LDMR, the internal movement network for the Site has been developed in accordance with the principles set out in NZS4404:2010 'Land Development and Subdivision Infrastructure' (NZS4404), inclusive of appropriate provision for both vehicular and active mode users. In developing the internal movement network hierarchy and street typologies, consideration has been given to achieving the following key design outcomes for the Site:

- a legible and connected movement network to support all trip modes to / from and within the Site;
- a range of roading typologies that align with 'place' and 'function', provide for high-quality streetscape, and ensure an appropriate design speed environment through adoption of suitable carriageway widths and road design; and
- purposefully designed walking and cycling routes that support and encourage active mode choice and connectivity within the Site for accessing the local neighbourhood centre, and facilitate connection to external networks which in turn provide access to Waikanae town centre and the Waikanae rail station, as well as other nearby amenities.

The proposed movement network for the Site is illustrated within the landscape plan set developed by Local within the wider application documentation.

### **8.1 Internal Road Layout and Design**

The Site roading layout has been iteratively developed to take account of the traffic engineering requirements whilst acknowledging and balancing the imperatives of other disciplines including ecology, urban design and landscape (with respect to amenity and visual integration), and infrastructure (including drainage and stormwater impacts), to provide:

- a functional and integrated transport network within the Site;
- a connected neighbourhood, minimising long cul-de-sacs, and safeguarding roading connections to adjacent land to enable integration with future external development;
- a design that can accommodate potential future bus services to and through the Site; and
- a compliant and safe trafficable alignment with appropriate movement widths for both vehicles and active modes that can achieve localised responses to topographical or ecology constraints.

To ensure these functional requirements of the future Site internal transport network are appropriately met, three key road typologies have been developed to facilitate movement within the Site comprising a 'primary connector' spine along with 'secondary connector' and 'local access' roads. Variants to these key typologies are needed where Site constraints restrict achievable widths. These typologies have been designed to be cognisant of the appropriate level of expected traffic demands and vehicle types (i.e. buses), operating speeds, parking demand, and pedestrian and cyclist movements, as summarised in **Table 8-1** below.



**Peka Peka Farm Subdivision**  
8 Proposed Internal Movement Network

*Table 8-1: Proposed Road Typologies*

Road Typology	Description	Total Road Width	Carriageway Width	Active Mode Provision
Primary Connector (PC)	2 x 3.2m traffic lanes, 1.8m marked cycle lanes <sup>4</sup> , 2.2m wide kerbside parking lane or landscaping, 3m shared path on side with 0.8m berm 'buffer' to kerbside parks and 1.8m footpath on the other, and 0.5m berms at the boundaries	21m*	6.4m	On-road cycle lanes, shared path on one side and footpath on the other
Secondary Connector (SC)	2 x 3.2m traffic lanes, 2.2m wide kerbside parking lane or landscaping, 1.8m footpath on either side, and 0.7m berms at the boundaries	18m*	6.4m	Footpaths on both sides
Local Access Road (AR)	2 x 3m traffic lanes, 2.2m kerbside parking lane or landscaping, 1m berms at the boundaries	16m	6m	Footpaths on both sides

*\* for localised sections constrained by topography or legal boundaries the legal width is reduced whilst maintaining appropriate movement space*

The proposed road typologies are illustrated diagrammatically in the cross-sections included in the plans at Appendix D. Whilst there are localised sections where the topography or site boundaries (at the connection to Peka Peka Road) on the primary and secondary connector roads mean a narrower legal road width is proposed than that envisaged by NZS4404 of 20m, the associated movement widths for traffic lanes and active mode routes still comply. Typically, where this narrowing occurs there is either no development or only development on one side of the road, meaning potential effects on adjacent land use in the form of kerbside parking or only including an active mode route on one side of the road won't adversely impact on amenity or functionality.

Allocation of the road typologies described above across the internal Site network, is shown in **Figure 8-1** below, including locations where variants to the three key cross sections are proposed.

<sup>4</sup> Feedback from Council's peer review indicates a preference for 2m wide parking lanes and 2m wide cycle lanes. Details of the specific road space allocation between parking and cycle lanes will be confirmed at Engineering Approvals stage.



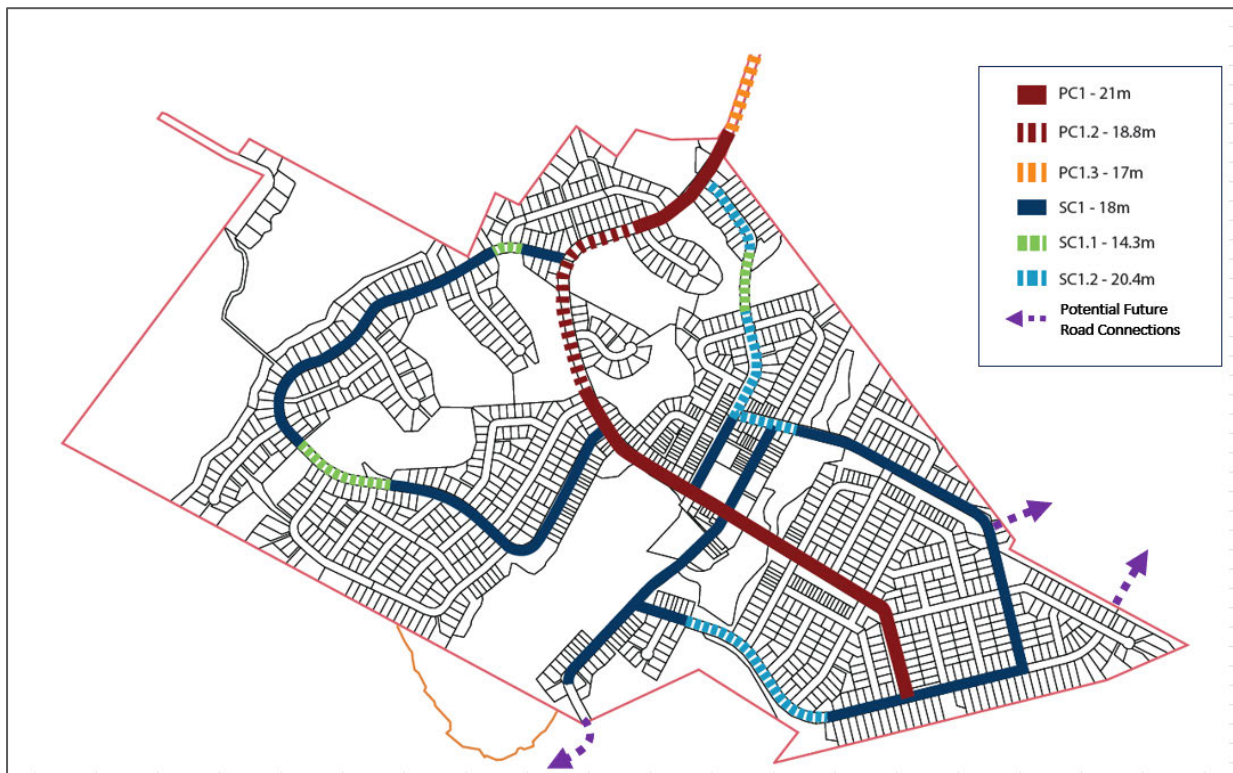


Figure 8-1: Site Roading Typology Allocation

A description of those instances where an alternative cross section is proposed to respond to Site constraints is given for each of the primary and secondary connector routes in turn, below.

**Primary Connector roads:**

- PC1.2: this cross section extends through a portion of the central Site where steeper topography restricts the road corridor. An overall 18.8m legal width is proposed which retains the equivalent cross-sectional components as the primary connector in Table 8-1, but removes a 2.2m kerb side parking lane on the side of the road where there is little to no adjacent development; and
- PC1.3: this section extends along the entry to the Site from Peka Peka Road where the adjacent lot boundaries restrict the width of this access leg. Here, an overall 17m legal width is available and proposed with no kerbside parking (since there is no adjacent development). A shared path is proposed along the eastern side of the carriageway for pedestrians and cyclists, noting again that given the lack of activity fronting this street the omission of a footpath on the western side of the road will not have any adverse effect on amenity or functionality.

**Secondary Connector roads:**

- SC1.1: this typology has been proposed in three sections across the Site where topography or wetlands restrict the road corridor. An overall legal width of 14.3m is proposed in these locations where an equivalent carriageway width is maintained to that identified in Table 8-1 (6.4m), with kerbside parking or footpath provided on one side of the road only. This cross section is only proposed in locations where there is either no development fronting the street, or where it only extends along one side and where parking and a footpath is to be maintained to service this activity; and



## Peka Peka Farm Subdivision

### 8 Proposed Internal Movement Network

- SC1.2: this cross section has been specifically developed to incorporate a shared path on one side of the road to better serve active mode connectivity across the Site by supplementing the primary connector road shared path coverage. An overall legal width of 20.4m is proposed, with equivalent carriageway, kerbside parking / landscaping and berm space to that identified in Table 8-1, but with a 3m shared path (in place of a standard footpath) on one side and a 1.8m footpath on the other.

Each of the proposed internal road typologies allow for two-way traffic flow (i.e. one traffic lane in each direction), with all intended to be vested to Council. Where these roads are formed as cul-de-sacs, appropriate turning heads have been included to allow rubbish trucks and the like to turnaround.

In addition to those road typologies identified above, a number of private RoW or JOALs are proposed that will provide shared access to rear lots or service off-street parking associated with MDR activity (noting access arrangements for the apartment buildings are subject to further design, certification and compliance (by way of consent conditions) with relevant District Plan standards). Noting NZS4404 sets out a recommended carriageway width of 2.75-3.0m when providing access for up to 20 dwellings, these RoWs and JOALs have been designed to a minimum 5m legal width and 3m carriageway width, to encourage slower speeds and ensure vehicle and pedestrians can safely share the carriageway.

Consideration of active mode users is well catered for within the various road typologies, with on-road marked cycle lanes provided along the key primary connector road which forms the subdivision access spine route between Peka Peka Road, through to the neighbourhood centre, and onto the southern end of the Site. In addition, a shared path is also provided along this route, and in turn links with shared paths on the secondary connector roads which will provide access and connection through the eastern part of the Site and linking with the Expressway shared path for external trips. All roads have generous footpaths provided on at least one side of the street.

To supplement the footpaths and shared paths provided for within the proposed roading corridors described above, which have been designed to align with industry guidance<sup>5</sup>, additional off-carriageway provision for pedestrians and cyclists will be provided for by means of a network of trails that connect through the recreational and wetland areas, providing for shorter and more convenient linkages through the Site, to/from the neighbourhood centre, and with external active mode routes.

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<sup>5</sup> In line with the NZTA 'Pedestrian Planning and Design Guide' and the Austroads Guide to Road Design 'Part 6A: Paths for Walking and Cycling'



## 9 Assessment of Traffic Effects

In order to assess the potential effects of the proposal as envisaged by the masterplan, an assessment of the potential Site traffic generation and associated impacts on the adjacent road network has been undertaken using a combination of the latest 'Kāpiti Transport Model' version 4 ("KTM4") and SIDRA, as set out and described below.

### 9.1 Site Traffic Generation

As previously described, the Masterplan provides for 1,181-1,209 residential dwellings involving 959 standard lots, 198 lots that will townhouses or semi-detached units, and four apartment buildings accommodating a total of 52 units.

The NZTA Research Report 453 'Trips and Parking Related to Land Use' 2011 (RR453) sets out trip generation rates for 'Outer Suburban' residential activities of approximately 8.2vpd per dwelling, with associated peak hour movements of 0.9 vehicles per hour (vph). It is noted that such rates are typically associated with more traditional low density standalone suburban dwellings, rather than smaller MDR units that won't involve as many multi-car families, resulting in a lower comparable trip rate overall. Further, the data supporting these trip rates in the RR453 '2011' publication is now very dated, with more recent data collected for household trips across the Wellington region indicating levels of 0.6-0.8 per dwelling for traditional low density, and lower trips ranging between 0.5-0.6 for MDR during the peak hours. Whilst these lesser rates are now more typically likely to occur in practice, for the purpose of providing a robust assessment of the potential traffic effects arising from the proposed development, the generous RR453 peak hour rate of 0.9vph has been adopted.

The resultant total residential traffic generated by the development is summarised in **Table 9-1**.

*Table 9-1: Forecast Traffic Generation*

No. Dwellings	Peak Hour Movements		Daily
	AM Peak	PM Peak	
1,181-1,209	1,063-1,088	1,063-1,088	9,684-9,914

For modelling purposes, a development yield of 1,250 dwellings has been assumed which is above the anticipated actual yield of 1,209 dwellings, effectively acting as a further sensitivity test for the modelling assumptions in addition to the generous rates assumed above.

Development of the commercial neighbourhood centre will generate a level of traffic activity associated with the local supermarket and small retail and commercial offerings. The majority of these visits are expected to be associated with Site residents, with a small component generated from within the local existing residential catchments where the proximity of these services offers more convenience over travelling to Waikanae town centre and elsewhere. Accordingly, some small net benefit can be expected to arise with establishment of this local centre over the wider network movements, as a whole, removing the need for longer trips and providing viable opportunities (particularly for Site residents) of undertaking these trips using active modes. In addition, there may be some external (i.e. non-resident) trips to the Site associated with recreational visits to the park / dunes, noting these would be minor. Overall, the sensitivity allowances described above capture these traffic variables.



As described earlier in Section 5.2 the Site will be established in stages with associated development traffic incrementally added to the network over time. Assuming an approximate 10-year buildout of the Site and using the indicative staging illustrated in the Landlink scheme plans, the year-on-year traffic additions that could be expected on the surrounding network are summarised in **Table 9-2** below.

*Table 9-2: Year on Year Forecast Site Traffic*

<b>Year (assumed 10-year buildout)</b>	<b>Indicative # Lots</b>	<b>Peak Hour Site Traffic Volumes (Cumulative)</b>
1	120	108
2	140	234
3	140	360
4	140	486
5	140	612
6	140	738
7	120	846
8	100	936
9	90	1,017
10	79	1,088

Again, these numbers illustrate the incremental increase in development traffic over time as opposed to a step change in network volumes occurring all at once. For the purposes of the network modelling, a future 10-year horizon has been selected for assessment which assumes the Site is fully built out.

## **9.2 Traffic Modelling Assessment**

To appropriately analyse potential impacts of the development Site traffic on the performance of the surrounding transport network, it has been modelled using a combination of the Council's district-wide KTM4 'Saturn Model' to test the wider area network effects, and localised SIDRA intersection analysis of the proposed new primary Site access onto Peka Peka Road and the Te Moana interchange (which represent the key connections for Site traffic accessing the primary road network at the Expressway). Given the very small Site traffic volumes generated on by the 7 lots accessing onto Paetawa Road via the proposed new RoW, specific assessment of this access performance is not warranted.

These analyses are set out and described in turn below.

### **9.2.1 Wider Network Traffic Model**

The KTM4 model utilises the SATURN software, which is a traffic assignment model that extends across the entire Kāpiti Coast District. The model includes a '2036' forecast year, which has been adopted for this assessment as it represents a practical and commonly applied 10-year assessment horizon for strategic traffic effects, and represents a reasonable forecast year horizon within which full development of the Site could be achieved. While staged development of the Site may vary depending on market conditions, a 10-year timeframe provides a reasonable and practicable benchmark for assessing the potential traffic effects associated with the proposed development.



The modelling has been undertaken to identify key areas of change on the surrounding network as well as to inform an understanding of network capacity and performance along key routes and at local intersections.

Further details on the modelling methodology and assumptions<sup>6</sup> are provided in the Transport Futures technical modelling memorandum, included in Appendix E.

## **9.2.2 Traffic Growth**

The KTM4 model includes an allowance for traffic growth to represent new development-related trips that will come online over time. New development areas within Waikanae that will contribute to this growth include staged residential subdivision in the Ngarara Farm Plan Change Area (NFPCA), and along the section of Old SH1 heading north out of Waikanae.

Additional traffic generated by those developments along Old SH1 to the north of the town centre are shown by the model to generally remain on the Old SH1 alignment when routing to / from the south - in an equivalent manner to the new proposal Site trips (see network plots included in the Transport Futures memo at Appendix E) - rather than connecting onto the Expressway via the Te Moana Interchange.

Review of the 2036 forecast traffic flows at the Te Moana Road / SH1 interchange shows an uplift of approximately 441vph and 526vph during the AM and PM peaks, as compared to current flows. In determining the quantum of new residential development allowed for within this background traffic growth, the traffic generation rate identified earlier (at Section 9.1) of 0.9vph 'per dwelling' can be applied to the forecast uplift, which translates to an increase of around 490-584 new dwellings over the next 10 years.

Information provided by Council for the NFPCA indicates a current 'as built plus consented' development of around 350 dwellings. Deducting the approximate 90% interchange bound traffic<sup>7</sup> associated with the 350 'built + consented' dwellings from the 490-584 provided for within the growth allowance at the Interchange in the next 10 years, indicates there is a traffic volume balance equivalent to a further 175 to 269 dwellings beyond the current consented receiving environment. That is, the KTM4 Do Minimum model also accounts for other development that might be consented in the period to 2036. As below, the development scenario has been added to this future baseline.

## **9.2.3 Modelled Scenarios**

To provide a comparative baseline and appropriately test the full Development Site traffic effects on the network, the following scenarios have been modelled for the future assessment year 2036:

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<sup>6</sup> Traffic generation as per Table 9-1; directional splits for inbound / outbound traffic modelled as 35%/65% for the AM and reverse for the PM; traffic composition of 98% lights and 2% heavies adopted given proposed residential activity; traffic distributions within the model have been adopted from adjacent residential areas and applied to the proposed development Site.

<sup>7</sup> Turn count surveys undertaken at the intersection of Te Moana Road and Te Ara Kawakahia indicate an approximate 10% split of traffic entering and exiting the side road turning to/from the north



**Peka Peka Farm Subdivision**  
**9 Assessment of Traffic Effects**

- future 'Do Minimum': 2036 forecast KTM4 traffic volumes, which allows for development and traffic growth; and
- future 'With Development': future 'Do Min' traffic volumes and with 100% of the development Site traffic added, allowing for a 'sensitivity' over the proposed yield of 1,181-1,209 dwellings (i.e. 1,250 dwellings), plus the generous traffic generation rates adopted.

The key trends that emerge from the modelling with respect to Site traffic distribution on the network can be summarised as follows:

- approximately 5% of traffic routes to/from the Expressway 'north' via the Peka Peka interchange;
- for trips travelling to and from the Expressway 'south', around 35% of total Site trips use the coastal route to access the Te Moana interchange; and
- around 60% of traffic routes along the Old SH1, with a portion of these trips associated with the Waikanae town centre.

The modelled increase in traffic volumes along Peka Peka Road and Peka Peka Link Road are summarised in **Table 9-3** for the AM (8:00-9:00) and PM (16:30-17:30) peak hours, for both the 'Do minimum' and 'With Development' future year scenarios.

*Table 9-3: Modelled 2036 Peak Hour Two-way Link Volumes on Peka Peka and Peka Peka Link Road*

Link	AM Peak Hour		PM Peak Hour	
	Do Minimum	With development	Do Minimum	With development
Peka Peka Road, west of Site access	117	532	136	502
Peka Peka Road, east of Site access	141	860	177	949
Peka Peka Link Road	591	1,209	783	1,431

As described earlier and indicated in the table above, the modelling shows a split of Site traffic using the coastal route (via Peka Peka Road - Paetawa Road etc) versus the Old SH1 alignment, of approximately 1/3 versus 2/3.

With respect to traffic flows on Old SH1 heading into Waikanae town centre, the KTM4 model shows forecast traffic volumes of approximately 1,209 and 1,431vph during the peaks. Such flows are well within the Old SH1 carrying capacity, noting it previously accommodated peak hour flows of >2,000vph in its State Highway function, prior to the Expressway opening in 2017. Volumes on Te Moana Road between the town centre and the Expressway interchange are forecast in the KTM4 to increase by around 20-30% over the next 10 years, with peaks of around 1,100-1,200vph. These forecast traffic volumes are consistent with Te Moana Road's designated function as a Major Community Connector, providing connectivity between major transport nodes (Expressway interchange) and regional destinations (the town centre). These volumes can be accommodated within the road's available carrying capacity. For traffic in the town centre, the signalisation of key intersections at Te Moana Road, Elizabeth Street and Ngaio Road provides safe and controlled vehicle movements, noting again these previously accommodated much larger flows than forecast with full development Site traffic added to the network.



In this manner, detailed capacity analysis of development Site traffic effects on the wider network has focused on two specific nodes, being the Site access intersection at Peka Peka Road, and the Te Moana signalised interchange at the Expressway, as described in turn below.

### 9.2.4 Site Access Intersection Analysis

Forecast intersection turn volumes from the KTM for both the AM and PM peak periods have been used to test the performance of the proposed Site access priority tee-intersection design at Peka Peka Road, using the SIDRA intersection tool. The intersection layout, as modelled in SIDRA, is illustrated below in Figure 9-1.

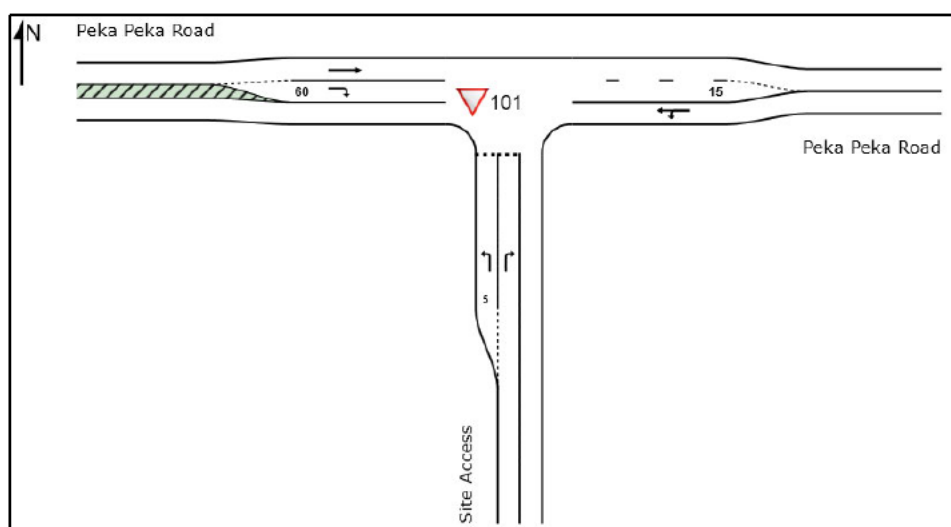


Figure 9-1: Proposed Site Access Intersection SIDRA Model Layout

The forecast 2036 volumes in vehicles per hour (vph), average delay (in seconds), Level of Service (LoS) and 95<sup>th</sup> percentile queue lengths for the individual intersection approaches are summarised in Table 9-4 and Table 9-5 for the AM and PM peaks, respectively.

Table 9-4: SIDRA Output Summary - Site Access 2036 AM

Approach	Movement	Do Minimum 2036 AM				Development Scenario 2036 AM			
		Volume (vph)	Delay (sec)	LoS	Queue (metres)	Volume (vph)	Delay (sec)	LoS	Queue (metres)
Peka Peka Road (West)	Through	60	-	A	-	60	-	A	-
	Right	13	5.7	A	0.2	137	7.0	A	3.6
Peka Peka Road (East)	Left	31	5.6	A	-	328	5.6	A	-
	Through	32	-	A	-	32	0.1	A	-
Site Access (South)	Left	19	4.7	A	0.4	338	4.7	A	7.6
	Right	26	5.3	A	0.7	492	17.4	C	71.1



Table 9-5: SIDRA Output Summary - Site Access 2036 PM

Approach	Movement	Do Minimum 2036 PM				Development Scenario 2036 PM			
		Volume (vph)	Delay (sec)	LoS	Queue (metres)	Volume (vph)	Delay (sec)	LoS	Queue (metres)
Peka Peka Road (West)	Through	56	-	A	-	55	-	A	-
	Right	19	5.0	A	0.1	264	9.5	B	11.2
Peka Peka Road (East)	Left	38	5.6	A	-	577	5.7	A	-
	Through	51	-	A	-	47	0.1	A	-
Site Access (South)	Left	18	4.7	A	0.3	162	4.8	A	3.3
	Right	42	5.4	A	1.1	320	16.1	C	32.0

As shown, the movement with the highest delay with development traffic added is the right-turn out from the Site. For this movement, the average delay is around 17 and 16 seconds in the AM and PM peaks, respectively, once the Site is fully developed. These delays correlate to a LoS C.

The right-turn movement into the Site from Peka Peka Road operates well with delays of less than 10 seconds and an associated LoS A in the PM peak.

Overall, this assessment demonstrates that from a traffic operation point of view, the proposed Site access concept design can accommodate the quantum of traffic activity generated at a LoS C or better in the forecast year scenario allowing for background growth and with full Site development in place.

### 9.2.5 Te Moana Interchange Intersection Analysis

Noting that wider district trips undertaken by Site traffic will mostly access the primary road network at the Expressway, forecast intersection turn volumes from the KTM have also been used to test the performance of the Te Moana interchange, again using SIDRA intersection. The modelled intersection layout is illustrated below in **Figure 9-2**. Signal phasing adopted for the analysis has been informed by signal data and settings (obtained from the Wellington Transport Operations Centre) associated with the current interchange operation.



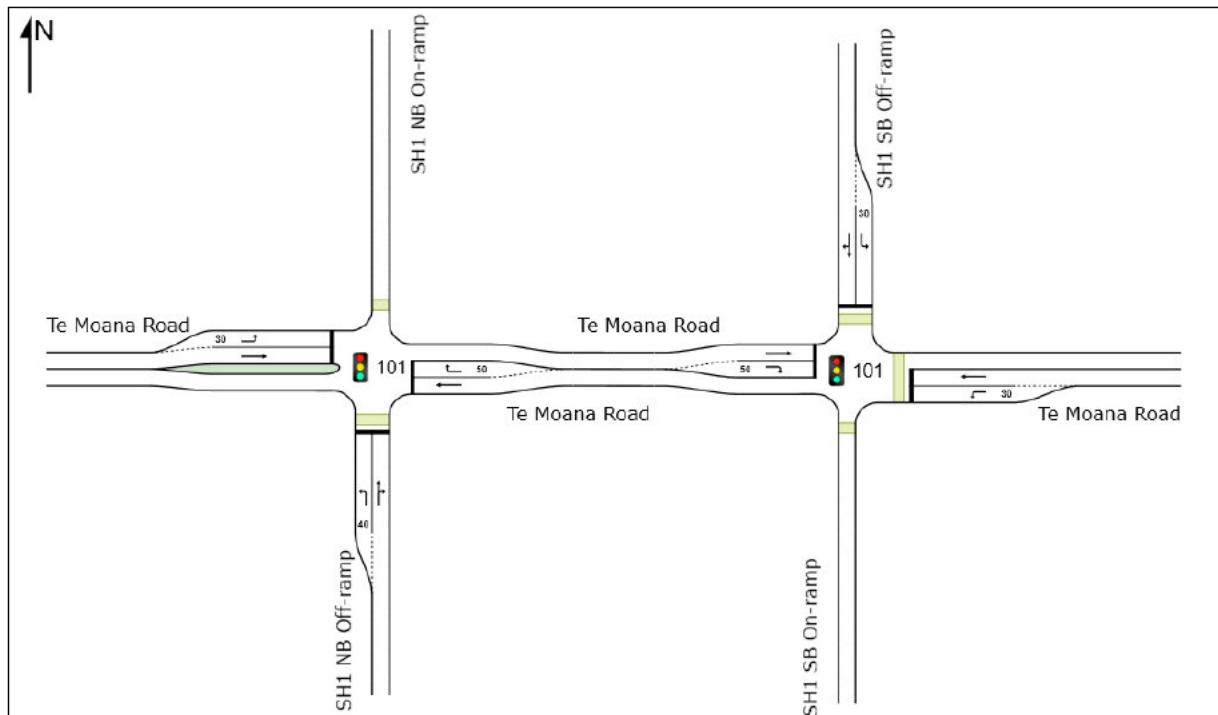


Figure 9-2: Proposed Te Moana Interchange SIDRA Model Layout

Again, turn volumes, average delay, LoS and 95<sup>th</sup> percentile queue lengths for the intersection are reported for the 2036 scenarios, as summarised in **Table 9-6** and **Table 9-7**.

Table 9-6: SIDRA Output Summary – Te Moana Interchange 2036 AM

Approach	Movement	Do Minimum 2036 AM				Development Scenario 2036 AM			
		Volume (vph)	Delay (sec)	LoS	Queue (metres)	Volume (vph)	Delay (sec)	LoS	Queue (metres)
<b>Western Intersection</b>									
SH1 Expressway NB off-ramp (South)	Left	215	19.9	B	30.2	253	17.9	B	30
	Through	1	52.9	D	66.8	1	45.8	D	47.8
	Right	187	60.5	E	66.8	152	53.4	D	47.8
Te Moana Road (East)	Through	202	4.8	A	13.9	197	4.3	A	11.8
	Right	24	46.6	D	7.2	24	43.2	D	6.6
Te Moana Road (West)	Left	68	27.8	C	14.6	62	30	C	13.4
	Through	632	11.1	B	111.2	783	13.4	B	154.8
<b>Eastern Intersection</b>									
Te Moana Road (East)	Left	319	42.9	D	98.2	258	43.4	D	75.8
	Through	185	24.9	C	42.4	191	27.5	C	44.4
SH1 Expressway SB off-ramp (North)	Left	19	43.1	D	5	18	42.2	D	4.5
	Through	1	35.9	D	11.3	1	34.7	C	8
	Right	41	43.5	D	11.3	31	42.3	D	8
Te Moana Road (West)	Through	440	3.6	A	39.8	421	3.1	A	29.1
	Right	379	29.5	C	66	514	27.7	C	83.4



Table 9-7: SIDRA Output Summary – Te Moana Interchange 2036 PM

Approach	Movement	Do Minimum 2036 PM				Development Scenario 2036 PM			
		Volume (vph)	Delay (sec)	LoS	Queue (metres)	Volume (vph)	Delay (sec)	LoS	Queue (metres)
<b>Western Intersection</b>									
SH1 Expressway NB off-ramp (South)	Left	491	18.7	B	88.1	547	20.4	C	100.4
	Through	1	67.9	E	211.5	1	71.2	E	177.5
	Right	465	75.5	E	211.5	406	78.8	E	177.5
Te Moana Road (East)	Through	343	17.2	B	76.2	342	15.1	B	65.5
	Right	28	55.4	E	10	27	47.9	D	8.3
Te Moana Road (West)	Left	66	47.3	D	21.2	63	43.6	D	18.1
	Through	522	59.4	E	230.9	577	55.3	E	232.8
<b>Eastern Intersection</b>									
Te Moana Road (East)	Left	172	51.9	D	60.8	153	44.5	D	45.7
	Through	304	37.5	D	98.5	314	31.4	C	86.6
SH1 Expressway SB off-ramp (North)	Left	26	27.7	C	4.2	25	25	C	3.9
	Through	1	46.8	D	23.2	1	40.2	D	16.6
	Right	67	54.4	D	23.2	56	47.8	D	16.6
Te Moana Road (West)	Through	714	6.6	A	75	672	7.3	A	68.7
	Right	274	17.4	B	40.7	312	17.5	B	43.7

With background growth for the future 'Do Minimum' 2036 scenario, the worst performing movements at the interchange are shown to operate at an overall LoS E. The right-turn out from the Expressway northbound off-ramp (during both peak periods) and eastbound through movement along Te Moana Road (PM peak) are seen to be the critical movements at the interchange.

Delays for the right-turn onto Te Moana Road from the Expressway northbound off-ramp are around 60 and 75 seconds during the AM and PM peaks, respectively, representing typical delays for signalised intersections. The Te Moana Road eastbound through movement operates with delays of around 60 seconds during the PM peak, again consistent with delays at key signalised intersections.

When adding development traffic, no movements at the interchange experience a deterioration in modelled LoS for the future 2036 scenario except for the left turn onto Te Moana Road from the Expressway northbound off-ramp, which experiences a minor change from LoS B to C with a <2-second increase in delay. As such, this assessment demonstrates that the quantum of Site traffic activity generated is able to be accommodated within the residual capacity of the signalised arrangement at the Te Moana interchange.



## 10 Servicing

Servicing requirements for subdivision development are typically limited to refuse and recycling collection, and to occasional household deliveries. Consideration has also been given to the requirement for service truck access to the proposed commercial centre.

Waste collection will be undertaken by contracted waste companies (e.g. Waste Management NZ, Envirowaste, etc) via kerbside pickup. For lots accessed through private RoWs or JOALs, waste will either be placed at the kerbside along the frontage roads for collection or managed by a waste contractor using a small collection vehicle suitable for restricted access conditions. For the apartment buildings, dedicated refuse collection points will be provided as part of the detailed design plans and managed in line with the Council's 'Waste Management and Minimisation Bylaw 2021' Clause 12 (for multi-unit developments).

Development of the Site's proposed commercial centre will identify the associated servicing requirements, noting the primary connector road connection to / from Peka Peka Road has been designed to accommodate service vehicles. Vehicle tracking analysis using an appropriate design vehicle (approved by Council) will be provided at engineering approvals stage to confirm intersections and lot access driveways are designed to accommodate safe and efficient service vehicle manoeuvring. A consent condition is proposed to capture these arrangements.

Further, provision has also been made for the primary and secondary connector routes to accommodate public bus access, enabling future services to be implemented by the Regional Council should this be determined appropriate in the future. A condition of consent is offered that requires future bus stops to be identified at the engineering approvals stage for relevant internal Site roads, to ensure this infrastructure is appropriately provisioned for ahead of any scheduled bus service being implemented.

Fire appliances can be positioned within the Site's publicly vested road network to allow a hose run of not more than 75m<sup>8</sup> to each dwelling, as required by the Fire and Emergency New Zealand guidance.

Accordingly, the Site layout has been developed to accommodate the associated servicing requirements of the proposed activity, with the transport system having been designed to appropriately accommodate these vehicles and demands in a safe and efficient manner.

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<sup>8</sup> As stated in Fire and Emergency New Zealand's Designers' guide to firefighting operations – Emergency vehicle access



## **11 Construction Traffic**

A detailed Construction Management Plan (CMP) addressing the phasing and construction of the Site development will be prepared and submitted to Council in due course, in response to a volunteered condition of consent.

In this respect, it is noted that the proposed development will be undertaken in stages, with design details and construction scheduling able to be better confirmed after consent is granted, and contractors have been appointed.

In line with usual practice, as part of the CMP, a Construction Traffic Management Plan (CTMP) will be prepared and provided to Council for certification prior to works commencing on the Site. The CTMP will set out details of the work phases, associated forecast construction traffic volumes for each phase, and related management. It is usual practice for the CTMP to evolve as development works and stages are progressed.

It is anticipated that vehicle access to the Site during construction will be handled via the existing vehicle access point off Peka Peka Road, or via 107 Paetawa Road for the discrete area associated with the 7 lots proposed in this western part of the Site, where appropriate temporary traffic controls will be certified by Council in advance of any Site works commencing.

The Site itself will allow all vehicles to access and egress in a forward direction, removing the need for any reversing manoeuvres. On occasion, when specialist machinery is being delivered or collected from the Site, or when works are being undertaken close to the Peka Peka Road frontage, it may be necessary to implement other temporary controls under a Traffic Management Plan (TMP).

These and other specific details will be documented in the CTMP to be prepared in due course, that will be submitted to Council for certification prior to Site works commencing. The actual content of the CTMP will include details of:

- the timing of specific work phases;
- key activities during each work phase;
- maintenance of safe access for neighbouring properties;
- anticipated traffic levels and access arrangements for each work phase;
- provision for maintaining safe active mode movements in the vicinity of the Site;
- wheel washing requirements for Site vehicles;
- route restrictions, for both large trucks and any over-sized vehicles;
- arrangements for temporary traffic management;
- arrangements for worksite staff parking; and
- contact telephone number for key Site staff.

Safety of all users will be an important practice in the implementation of the CTMP.



## 12 Conclusion

A detailed assessment of the transport-related effects of a proposal to undertake residential development of approximately 141 hectares of land located at 169-171 Peka Peka Road, in Peka Peka, has been completed with due regard to the provisions and requirements set out in the Kāpiti Coast District Plan and relevant best practice.

The access strategy developed for the Site includes a new primary tee-intersection connection to Peka Peka Road that will provide vehicular access for the development, supported by active mode connections to the surrounding walking and cycling networks including the Expressway shared path, which give access to local bus services to Waikanae and the rail station, which in turn provides regional connectivity. Provision for additional future roading connections through to land to the south and east will ensure a suitable connected land use pattern can be achieved as any further residential subdivision takes place in this area.

The traffic modelling undertaken using the Council's available Kāpiti Transport Model indicates the additional traffic generated by the development will disperse well on the surrounding network, and will not give rise to any safety or capacity effects that require mitigation works. Furthermore, the forecast traffic volumes on the Old SH1 alignment between the Site and Waikanae town centre with full development trips added, remain well below the historical volumes carried along this alignment prior to the Expressway opening, which provides opportunities for new growth such as this without triggering requirements for significant transport infrastructure upgrades or investment.

Good quality pedestrian and cycle connections are also proposed as a purposeful component of the Site's internal movement network, that will enable convenient access to the Site's commercial centre shops and services, whilst off-road pedestrian walkways and cycle trails within the Site provide further amenity and recreational opportunities.

A number of consent conditions (that where necessary will be secured through a consent notice) are proposed to ensure further design of certain Site components align with the intent of the District Plan provisions, or incorporate mitigation measures assessed as appropriate, as follows:

Consent Conditions that require the following:

- specific Site access arrangements under TR-R3 that provides for access driveways to be designed appropriately incorporating proposed mitigations (identified in Section 6) in relation to:
  - o formation width (TR-R3.3 and TR-R3.4);
  - o location in respect to appropriate separation distances from intersections (TR-R3.7 and TR-R3.8), visibility sightlines (TR-R3.9); and
  - o manoeuvring (TR-R3.12).
- Site parking arrangements within the commercial centre to be designed in accordance with Rule TR-R5;
- accesses within the commercial centre under TR-R6 to be designed to ensure they can appropriately accommodate the type and weight of vehicles that service these activities;
- Accessible car parking be provided in accordance with TR-Park-R18 for Medium Density Housing and activities within the commercial centre;
- Cycle parking be provided in accordance with TR-Park-R19 for multi-unit residential and activities within the commercial centre.



## Peka Peka Farm Subdivision

### 12 Conclusion

- Future bus stops are to be identified and appropriately accommodated into the roading design plans at engineering approvals stage;
- Where non-compliances against the District Plan transport standards exist, including in relation to those conditions above, approval of all detailed design drawings at engineering approvals stage (including vehicle tracking analysis for service vehicle access to the proposed commercial centre where appropriate) will be required; and

An independent Safe System Audit will be required for the proposed new roading arrangements within the Site at both the detailed design and post-construction stages.

Preparation of the following documents for certification by Council:

- Construction Traffic Management Plan; and
- Travel Plan for commercial centre activities.

Overall, and with the adoption of the proposed transport connections and infrastructure as well as the consent conditions recommended above, it is assessed that development of the Site to provide for a mixture of residential activity along with a local neighbourhood centre can be delivered with an appropriate transportation outcome for all modes and users.

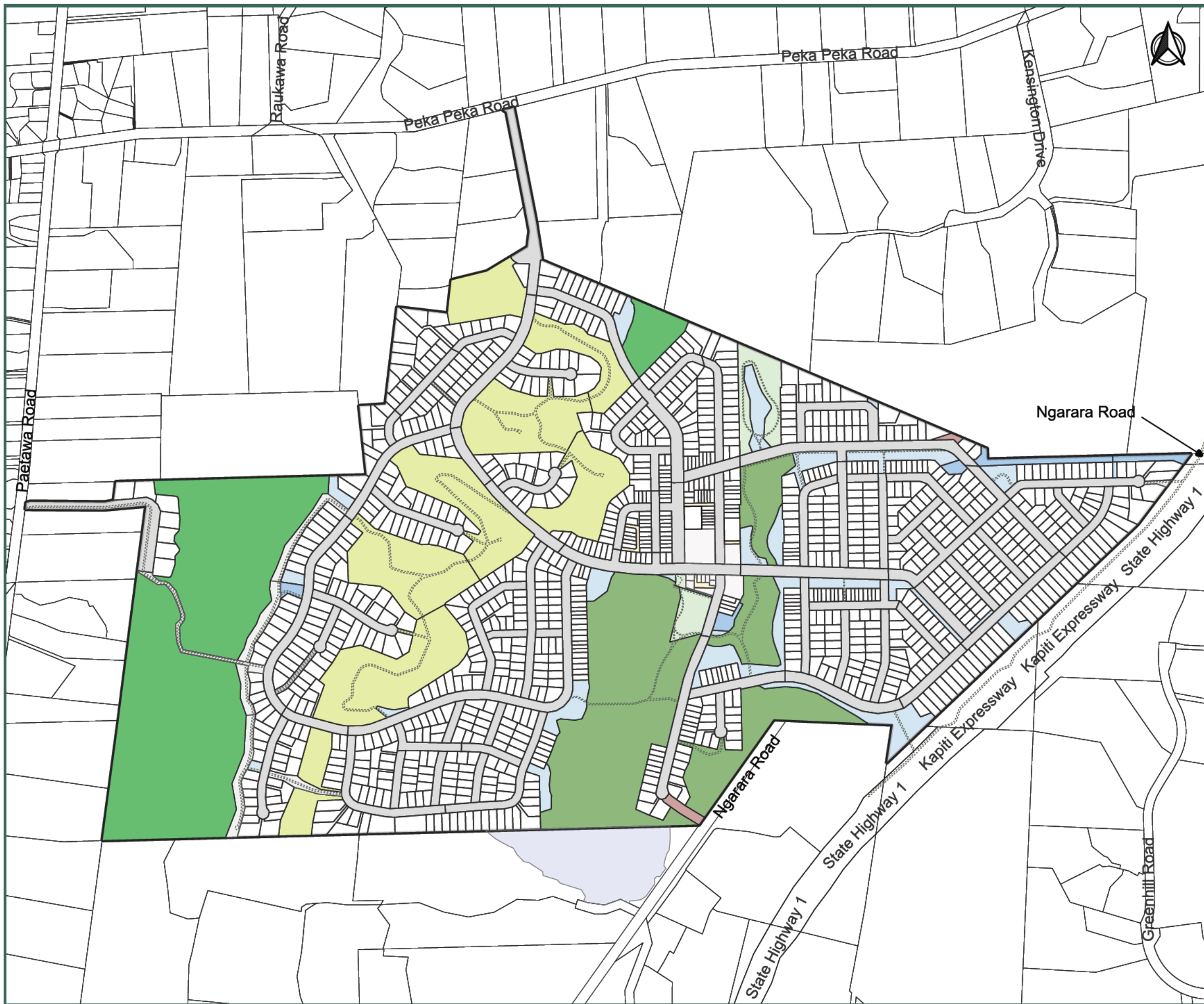


# Appendices



# **Appendix A Development Plans**





0 100 200 300 400 500 m

Legend

- Private Lot
- Joint Owned Access Lot
- Road Reserve
- Recreation Reserve
- Local Purpose Reserve (Utilities)
- Local Purpose Reserve (Stormwater)
- Local Purpose Reserve (Walkway)
- Private Open Space (Ecological)
- Private Open Space (Dune Ridgeline)
- Private Open Space (Wetland Restoration)
- To Vest as Road (Unformed) in Kapiti Coast District Council

Notes:

1. Coordinates in NZGD2000 (Wellington Circuit) and NZVD2016.
2. Boundaries and titles derived from LINZ DCDB and subject to final survey.
3. KCDC and GWRC planning overlays sourced from operative ArcGIS MapServer layers.
4. Scheme layout indicative; final design subject to detailed design and servicing requirements.
5. Easements required for servicing to be created at implementation stage or as otherwise required by Kāpiti Coast District Council.

Overall Masterplan – Land Use and Layout

Waikanae North Developments Ltd

Waikanae North

Peka Peka, Kapiti Coast

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1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz

STAGE	ALL
REVISION	C
REVISION DETAILS	Issued For Consent

DESIGNED BY	JJH
DRAWN BY	JJH
APPROVED BY	PT

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DATE 2026-03-13

SCALE Refer Scale Bar

2911-ALL-P-1

## **Appendix B Memo on Liaison and Feedback from Council**



To: Waikanae North Developments Limited      From: Stantec NZ

Project/File: Peka Peka Farm Subdivision      Date: 30 January 2026

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**Reference: Integrated Transport Assessment – Council Feedback**

This memorandum summarises the traffic engineering and transport planning consultation undertaken with Kapiti Coast District Council (Council) in relation to the proposed Peka Peka Farm Subdivision, for which an Application is to be lodged via the Fast-track Approvals Act 2024.

On 6 October the Applicant provided the Council with a draft Integrated Transport Assessment (ITA) prepared by Stantec addressing development of the Site, for review and comment.

The Council subsequently responded on 18 November via email and provided its internal review of the draft ITA, along with feedback arising from an independent peer review commissioned by the Council and undertaken by Colin Shields of Tonkin + Taylor.

An online meeting was subsequently held on 25 November to discuss the matters raised in both reviews. A summary of these discussions is provided in the attached Council meeting minutes.

The table below outlines the feedback received from both the peer review and Council's own review, in turn, and summarises the corresponding amendments made to the ITA in responding to the matters raised.

Ref	Matter Raised	Response
<b>T&amp;T Peer Review</b>		
2	<p><b>Active mode and public transport mode site connectivity</b></p> <p>The ITA states that walking and cycling connections will be provided by one walking and cycle connection to the existing expressway shared path. This then provides connections to existing bus stops on the Peka Peka Link Road and then to on road cycle lanes along Old Main Road providing a cycle link to Waikanae town centre and the train station. It is not considered that this will</p>	<p>Added clarification to Section 4 which acknowledges that the Site forms part of the growth area to the north of Waikanae and associated planning for infrastructure (as identified in the Growth</p>

## Reference: Integrated Transport Assessment – Council Feedback

	<p>actively promote active mode and bus trips outside of the site since:</p> <ul style="list-style-type: none"> <li>• Based on drawing #2911-in Appendix A of the ITA, it is estimated that where this connection meets the expressway shared path is circa 870 m (or 10.5 minute walk time) to the existing bus stops on Peka Peka Link Road. As such, the closest point of the site is in excess of 400 m (5 min) reasonable walk to bus stop distance. Furthermore, the furthest part of the residential development to the expressway shared path is circa 2 km, which would result in up to a 2.9 km (35 min) walk to the bus stop.</li> <li>• From the proposed expressway shared path connection to the train station/town centre (via Peka Peka Link Road and Main Road) is circa 4 km which although a reasonable cycling distance is not a reasonable walk distance (circa at least 48 minutes' walk time). As such it is not considered that the Waikanae community facilities are within a reasonable walk distance of the site.</li> <li>• The analysis of crash data within the ITA indicates that 2 out of the 5 serious crashes involved cyclists and a further 2 involved pedestrians. It is not considered that the surrounding road network of Peka Peka Road, the coast connection roads to Te Moana Road or Main Road currently provide safe and attractive active mode connections (also taking into account existing speed limits, lack of street lighting, lack of/intermittent provision of footpaths and cycleways on these roads)</li> <li>• The ITA states that "<i>provision has been included for a bus route to service the Site in the future</i>". It is understood that the road cross sections provide for a carriageway width to accommodate future bus services, but they do not allow for any bus stopping facilities or safe crossing points for pedestrians. Furthermore, there is no certainty that a bus service will be provided in the future and it is recommended that the applicant discusses this with Council and the Regional Council. Furthermore, if a bus service is provided in the future then this will be too late to influence mode choice since bus services need to be operating from day 1 of</li> </ul>	<p>Strategy) will provide more opportunities for future integration between the development Site and public transport services.</p> <p>Included provision in Section 10 for future bus stops to be identified at EPA stage and new recommended condition added at Section 12.</p> <p>Added commentary on liaison with GWRC / Metlink at Section 5.3.</p>
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	<p>occupation in order to influence travel habits. Once residents move in when there is no bus service then they will become accustomed to using a car as the mode of transport which is hard to then influence if a bus service is introduced at a later date.</p> <p>Given the above, it is not considered that the site will generate any active mode trips outside of the site or that public transport will be an attractive mode choice. As such the trip rates used in section 10 of the ITA are not considered to be worst case but the more likely rates given walk, cycle and bus mode shares are likely to be very low.</p> <p>Section 4 of the ITA states that the site supports the Council’s ‘Te Tupu Pai Growing Well’ growth strategy. Although the internal walking and cycling provision will help support internal walkable neighbourhoods, based on the lack of active mode and public transport mode connectivity outside of the site, it is not considered that an integrated transport network will be available “that ensures communities are connected by active mode infrastructure to public transport services (both bus and rail) to achieve a low-carbon future”. Likewise, the site is not considered to comply with some of the wider District Plan policies referred to in section 6 of the ITA including:</p> <ul style="list-style-type: none"> <li>• DO-03 - 5 - higher residential densities in locations that are close to centres and public open spaces, with good access to public transport.</li> <li>• DO-014 2 - improves the efficiency of travel and maximises mode choice to enable people to act sustainably as well as improving the resilience and health of communities</li> <li>• TR-P1 3 -travel time and distance to services are minimised for all modes of travel.</li> </ul>	
<p>3</p>	<p><b>Potential road connections</b></p> <p>The ITA indicates that the site has frontage to the unformed extension of Ngarara Road. However, in terms of wider connectivity, there is no commitment to connect to Ngarara Road. Such a connection would create a shorter connection to the town centre for cyclists and also offers enhanced future bus routing options. However, the ITA indicates that a connection “is</p>	<p>Further detail on provision for future external road connections added to Section 7.1, noting:</p> <ul style="list-style-type: none"> <li>• Existing marginal strip to the north will influence the</li> </ul>

## Reference: Integrated Transport Assessment – Council Feedback

	<p><i>unlikely to be realised in the immediate future”</i> and therefore wider road, bus and cycling connections are not guaranteed and no delivery mechanism for this road connection is provided. The ITA also indicates provision for additional external roading connections to the east to Peka Peka Road (via a link to Kensington Drive) has been allowed for within the masterplan, but no indication is provided on what would trigger implementation of this connection and what would be the delivery mechanism.</p>	<p>alignment of this connection to Kensington Drive.</p> <ul style="list-style-type: none"> <li>• Future connection to Ngarara Road to the south has been provisioned for, with Council responsible for completing the connection via the existing paper road, in combination with development of adjoining land.</li> </ul>
4	<p><b>Internal road layouts</b></p> <p>Section 5.2 and Figure 8.1 of the ITA indicates that there are topographical constraints. It would be useful to understand the gradients of the roads and footpaths at these locations.</p> <p>Table 8.1 and Appendix C (Drawings LA10.01 to 07) provide details of typical road cross sections. Accepting that the proposed cycleway width complies with standards, it is recommended that the width of the on road cycleway is increased from 1.8 m to 2 m and the width of the parking lane is reduced from 2.2 m to 2 m so that good parking discipline is encouraged, allowing people on cycles to avoid opening car doors.</p>	<p>Contour details are provided in the Landlink drawing package.</p> <p>Detailed allocation of road space between kerbside parking and on-road cycle lanes will be confirmed at engineering approvals stage (footnote added at Section 8.1).</p>
5	<p><b>Crash data study area</b></p> <p>The crash data study area does not include Te Moana Road east of the expressway which the ITA estimates 60% of the site traffic will use this route. The crash data presented in section 3.4 should be updated.</p>	<p>The crash analysis included at Section 3.4 has been updated to include the length of Te Moana Road from the interchange through to Old SH1.</p>
6	<p><b>Development densities</b></p> <p>It is not clear what development density defines what the ITA calls ‘<i>standard</i>’ and ‘<i>medium</i>’ density. This is</p>	

## Reference: Integrated Transport Assessment – Council Feedback

	important to understand since density of development influences the viability of future bus services.	Clarification on density has been added at Sections 5.2 and 9.1.
7	<p><b>District Plan assessment</b></p> <p>Section 6 of the ITA notes the following likely non-compliance with the District Plan (noting at this stage there is insufficient detail to confirm whether or not it will comply).</p> <ul style="list-style-type: none"> <li>• TR-R3.3 a.</li> <li>• R-R3.4.</li> <li>• TR-R3.7.</li> <li>• TR-R3.8.</li> <li>• TR-R3.9.</li> <li>• TR-R3.12.</li> <li>• TR-R3.15.</li> <li>• TR-R6. 1 to 3.</li> <li>• TR-R9.2.</li> </ul> <p>Given the lack of detail to confirm compliance with District Plan requirements, it is recommended that a generic condition is included relating to approval of all detailed design drawings at Engineering Plan Approval (EPA) stage. Section 10 of the ITA briefly refers to servicing and it is considered that the condition noted above should also include demonstration of vehicle tracking at EPA.</p> <p>Should there be the number of non-compliances as indicated in the ITA, it is recommended that a condition is included requiring submission and approval of an independent Safe System Audit of the non-complying elements of the designs.</p>	The recommended consent conditions at Section 12 have been updated to capture the requirement for EPA and Safe System Audits.
8	<p><b>Expressway/Te Moana Road Sidra assessment</b></p> <p>Given the recent plan change submission at 100-110 Te Moana Road and the detailed Sidra modelling undertaken at the Expressway/Te Moana Road interchange within the Transport Assessment submitted to support this application, it will be important to have</p>	Further clarification on the assumptions informing the traffic modelling has been added at Section 9.2, and draws from information

## Reference: Integrated Transport Assessment – Council Feedback

	<p>some consistency between the two assessments. Given the capacity issues raised within the 100-110 Te Moana Road assessment (especially in relation to the impact of the full development of the consented Ngarara Farm Plan Change Area), it is recommended that the assessment work in Section 10 of the ITA is updated accordingly. Also it will also be important to understand what developments are included in the forecast traffic flows used in Section 10 of the ITA Sidra assessment.</p>	<p>provided by Council on the built to date and currently consented lots within the Ngarara Farm Plan Change Area.</p>
9	<p><b>CTMP</b></p> <p>The CMP consent condition suggestion is noted. It is recommended that a consent condition should also be included for submission and approval of a CTMP</p>	<p>The recommended conditions set out at Section 12 already include the requirement for a CTMP.</p>
<p><b>Council Review</b></p>		
Sections 1 to 4	<p>No specific comments</p>	<p>-</p>
Section 5	<p>We're still not sold on the JOAL concept and various teams have raised concerns with utilities contained in the JOAL (and how they are to be serviced in the future) and ongoing maintenance and traffic control (parking and access issues) within the JOAL. This probably needs to be expanded on so that we are comfortable with having them.</p>	<p>Further discussion to be had around the JOALs between Landlink and Council (noting Council approval of the designs will be required at the EPA stage as per recommended condition of consent).</p>
Section 6	<p><b>District Plan Compliance</b></p> <p>There are multiple areas of non-compliance, some are relatively minor and concessions have to be made to adapt to medium density development and the way this compresses site sizes etc. but when you have a greenfield site you should be able to design to meet minimum access requirements. (site frontages, crossing offsets etc.) The Commercial centre and access offsets</p>	<p>Matters such as traffic calming treatments can be addressed during subsequent detailed design stages, once there is a clearer understanding of</p>

Reference: Integrated Transport Assessment – Council Feedback

	<p>can be fine tuned at Engineering Design stage but if it's obvious that there are major non-compliances now then lot designs, traffic calming, and/or reduced speed limits should be considered up front. Agree that we can put conditions on the residential lots to safeguard sight lines and spacing. We still don't have a District wide parking strategy to fall back on so we will still press for onsite manoeuvring for any properties on the major connector roads and examine this thoroughly at engineering approval stage. With the Heavy Trade access, while they state that they don't expect visits from Truck and Trailer units, I know that even my local 4 Square is serviced by large Foodstuffs truck and trailer units, and their trailers are often parked on Te Moana Road near the golf course while the front half of their combination is down the road visiting the shops. Therefore, all major routes need to have vehicle tracking checked. (and while this is usually supplied at engineering stage, initial design needs to look at corner radii, intersection radii and widths, access in and around the commercial centre).</p>	<p>the nature, extent, and location of any non-compliances and the most appropriate response options. With regard to service vehicle access to the commercial centre, vehicle tracking will be undertaken to demonstrate the roading design can accommodate an appropriate design vehicle (to be agreed with Council), prior to submitting plans for EPA, noting the current roading design includes sufficient flexibility to adapt if changes are identified. Further detail has been added at Section 10 to reflect these arrangements whilst a recommended consent condition has been added at Section 12.</p>
<p>Section 7</p>	<p>Under our current LTP we are about to construct a series of Cycling safety improvements along Peka Peka Road which will involve seal &amp; lane widening at the Site Access Point. Therefore it is advised that the developer contact our Transport Lead – Walking &amp; Cycling and discuss the access layout and any ped/cycle linkages with him. [REDACTED]</p>	<p>We have contacted Fraser and details of the programmed road widening have been added to Section 3.2 of the report.</p>
<p>Section 8</p>	<p><b>Internal network.</b></p> <p>The road widths and typologies meet or exceed NZS44040 suggested widths except possibly for the commercial centre where we need to see more detail.</p>	<p>As per above, consent condition added requiring vehicle tracking analysis to demonstrate appropriate service vehicle</p>

## Reference: Integrated Transport Assessment – Council Feedback

		manoeuvring to and from the commercial centre.
Section 9	<p><b>Traffic Effects:</b></p> <p>I'm comfortable with the traffic generation and suggested traffic assignment on the network but I haven't got my head around all of the SIDRA results and couldn't see how you got from Table 9-2 to Tables 9-3 and 9-4 so this is probably something I need to take offline and get walked through by your modeller. Similarly, with the Te Moana Interchange analysis, Level of service D and E are not great and I couldn't understand why the Volumes were lower with the full development scenario than with do minimum. Or is this an indication that increased volumes on the network are causing capacity problems and therefore the SIDRA volume is strangled?? Again I am happy to be educated on SIDRA and how to interpret the results.</p>	Further liaison will be undertaken with Council's traffic engineer to work through the modelling assumptions and outcomes.
Section 10	<p><b>Servicing:</b></p> <p>Note that KCDC do not undertake kerbside rubbish collection. All of our collection is user pays and the resident has a direct contract with a waste company (Waste Management, Envirowaste, Low Cost Bins, et al). They should also check the KCDC Waste Minimisation Bylaw 2021 and note in particular Section 12 where they talk about multi-unit developments and waste management plans.</p>	Chapter 10 has been updated to reflect collection by contractors (rather than Council) and requirement for multi-unit developments to align with the Council's Waste Management Bylaw.
Section 11	<p><b>Construction traffic</b></p> <p>CMP will be carefully reviewed and commented on when submitted.</p>	Noted.
Section 12	Most of the issues I've noted are summarised here as deficiencies to work through	Noted.

**Reference: Integrated Transport Assessment – Council Feedback**

Appendices	All good, but as mentioned the Plan in Appendix B will need to be checked against the KCDC road widening plans at this location.	A plan of the proposed Site access has been provided to Council's 'Transport Lead – Walking and Cycling' for coordination
Note	There is no such road as "Old Main Road" which is used throughout the report. It is still (Old) State Highway 1 at the moment with the proposed names now before LINZ for approval. When the renaming report goes to Council we will have a final Resolution on the names for the M2PP section of the revoked SH1.	Updated throughout report to reference 'Old SH1'.

**Stantec New Zealand**

# **Appendix C Site Access Intersection Concept Design**





Photo image looking east from the site access



Photo image looking west from the site access

- NOTES**
1. DO NOT SCALE THIS DRAWING.
  2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
  3. CONCEPT DESIGN BASED ON A MAJOR ROAD DESIGN SPEED OF 60km/h.
  4. INTERSECTION GEOMETRY TESTED WITH 11.5m LONG LARGE RIGID TRUCK.
  5. ANY EARTHWORKS REQUIRED TO SUPPORT THIS INTERSECTION HAS NOT BEEN ESTABLISHED AT THIS TIME.



SCALE 1:1000

REV	DATE	DRN	DESCRIPTION

**PEKA PEKA FARM SUBDIVISION**  
 KAPITI COAST DISTRICT  
 CONCEPT SITE ACCESS ARRANGEMENT - VERSION 3 (60KM/H MAJOR ROAD SPEED)

CLIENT LOGO

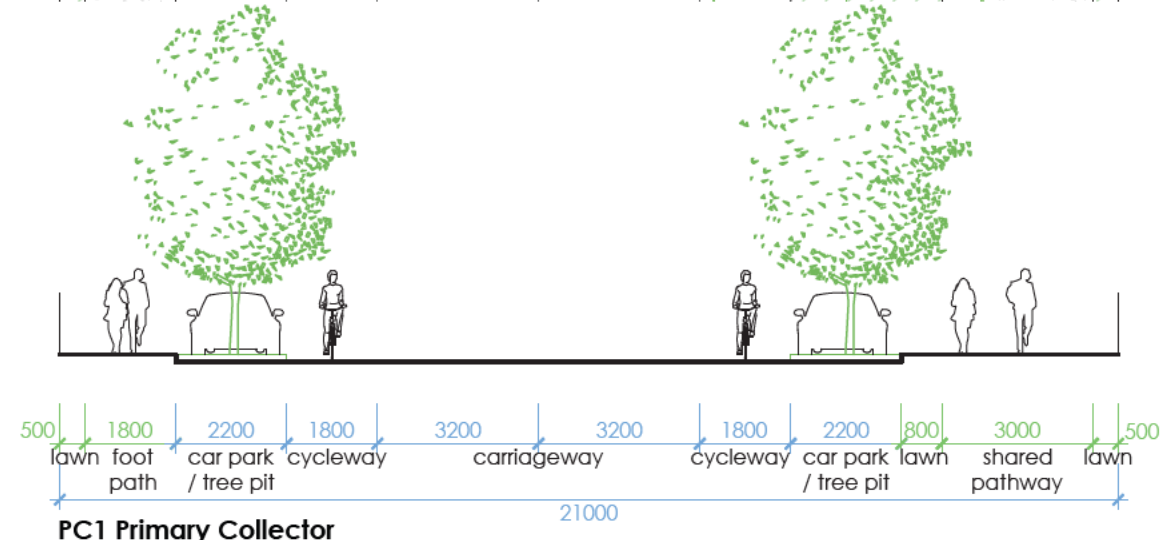
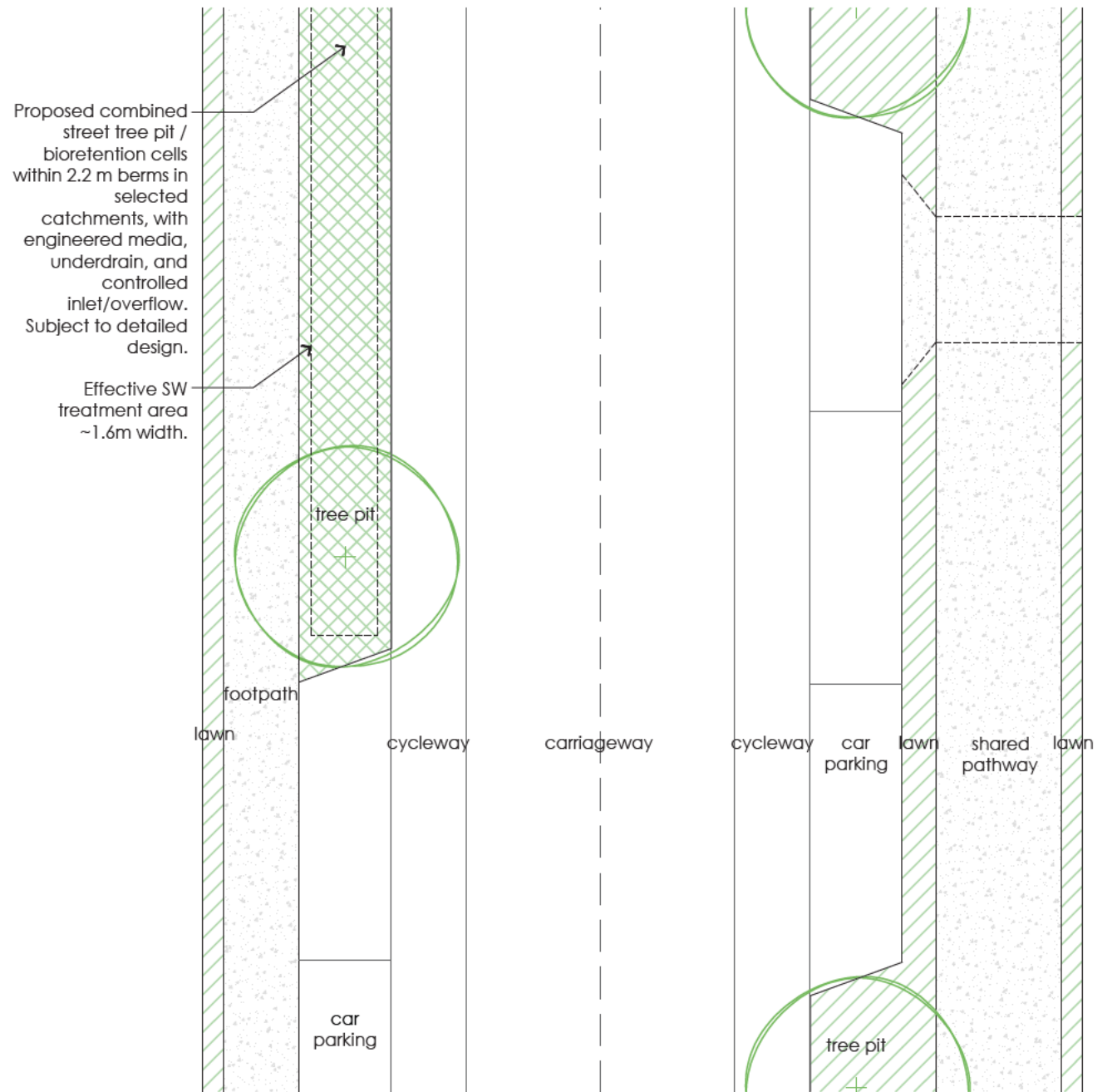


SCALE: AS SHOWN	FIGURE No.
DRAWN: S LLOYD	SK002
DATE:	
DESIGN: S LLOYD	OF 1-1

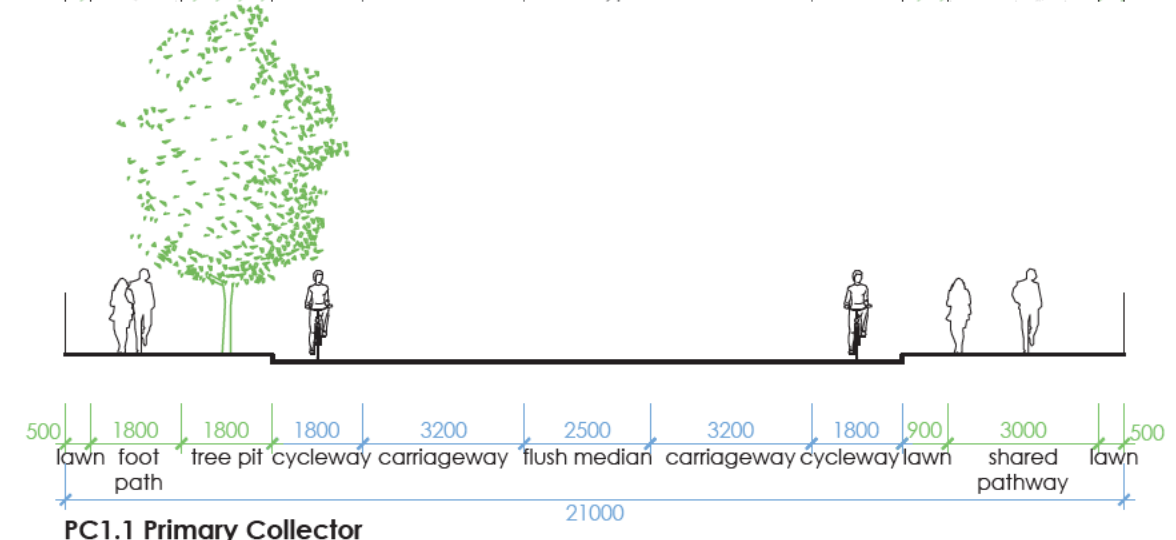
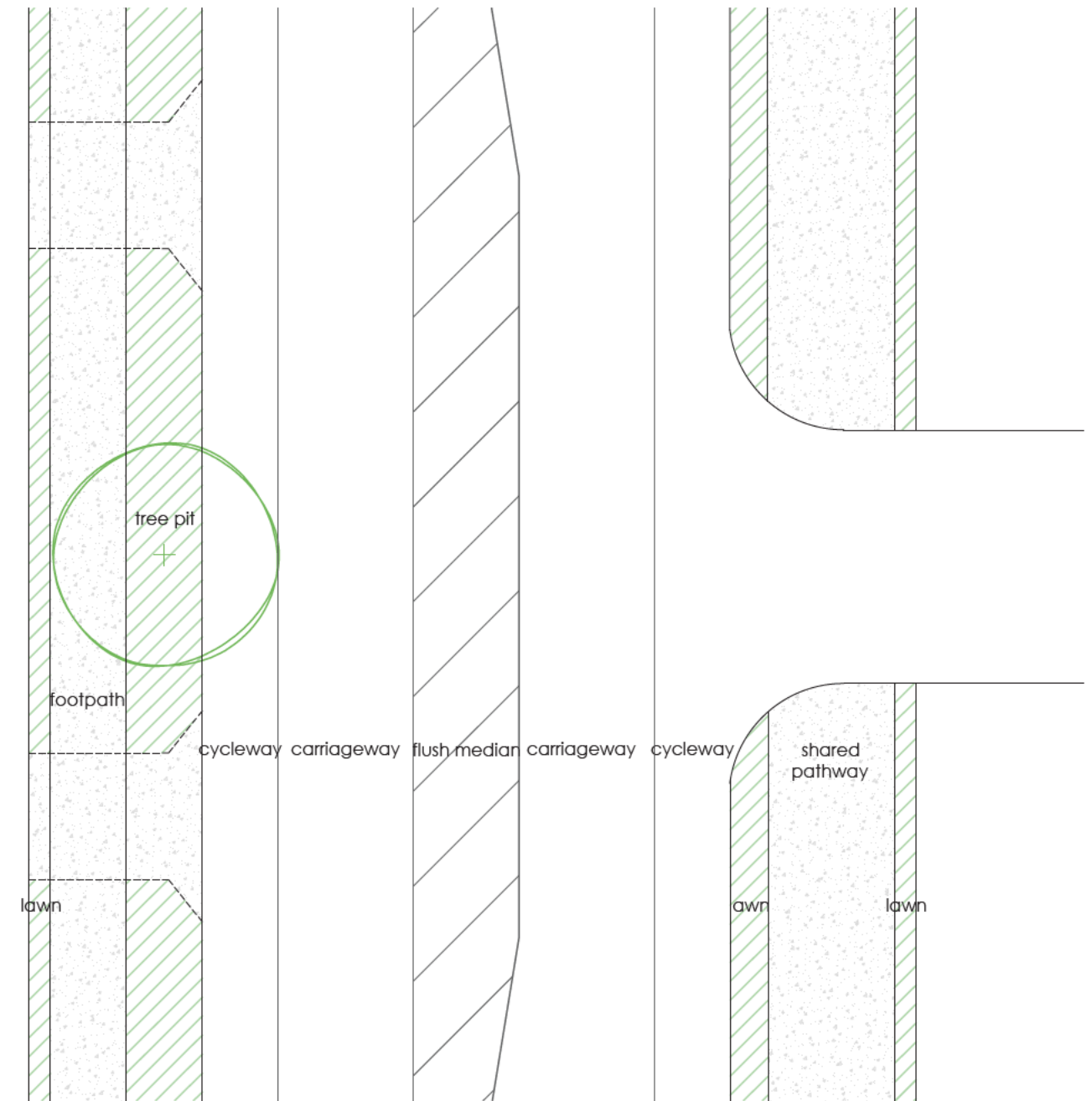
**WORKING PLOT**

# **Appendix D Site Road Typologies**





PC1 Primary Collector



PC1.1 Primary Collector  
At intersections

Do not scale. Verify dimensions on site before commencing work.

E	Resource Consent	13.03.2026
D	Resource Consent DRAFT	03.02.2026
C	Resource Consent DRAFT	02.10.2025
B	Resource Consent DRAFT	23.09.2025
A	Draft	12.08.2025
No.	Revision Notes.	Date

**Not For Construction**

**DRAFT**

**local**

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Scale: 1:150 @A3

Issued For: Resource Consent

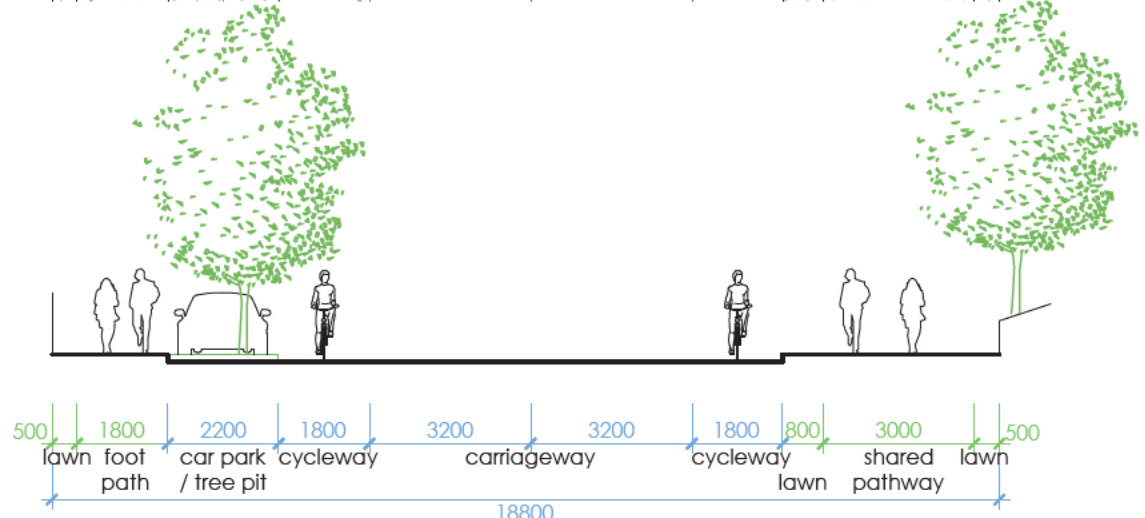
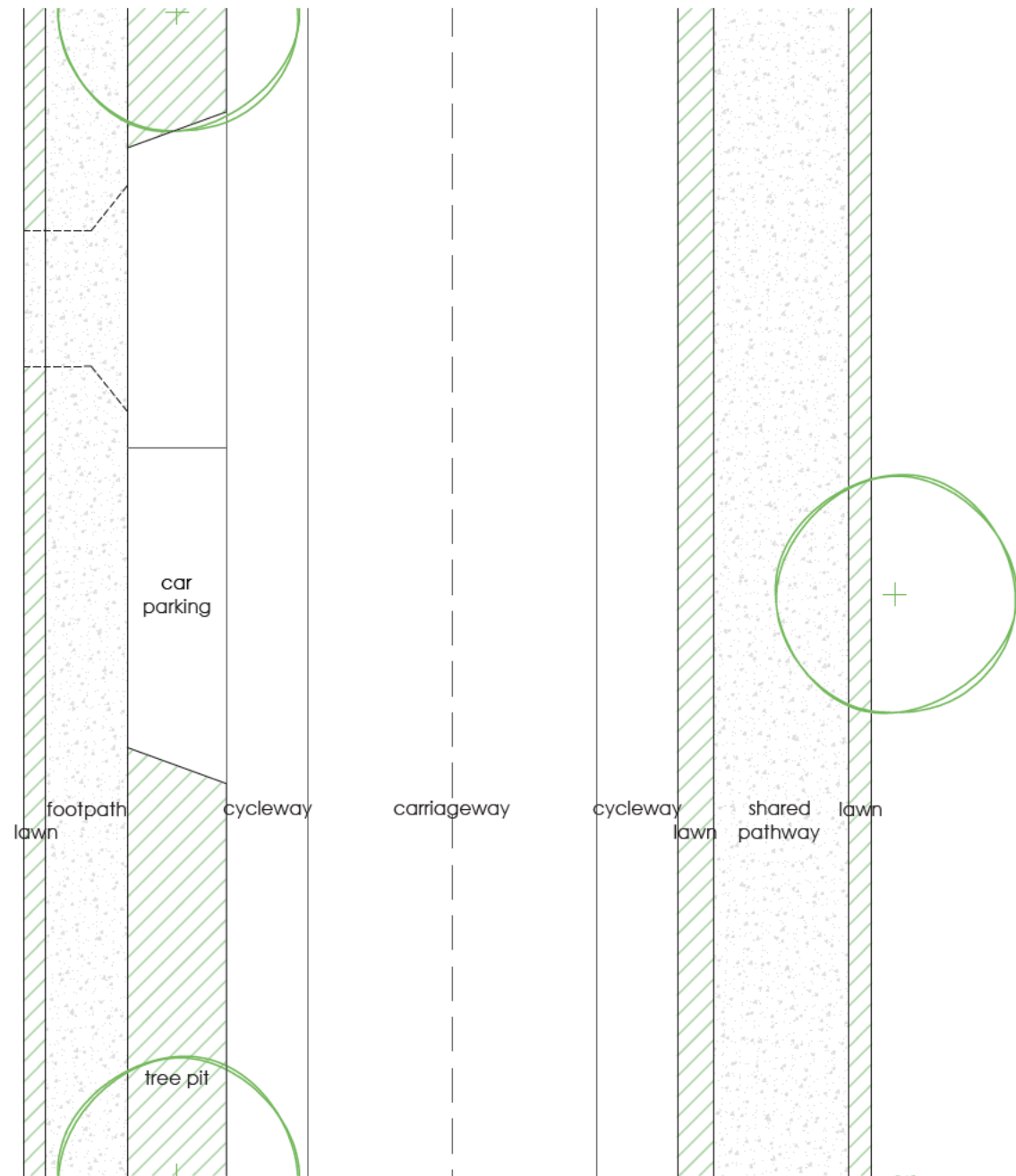
Job Number: 2109-1238

Revision: E

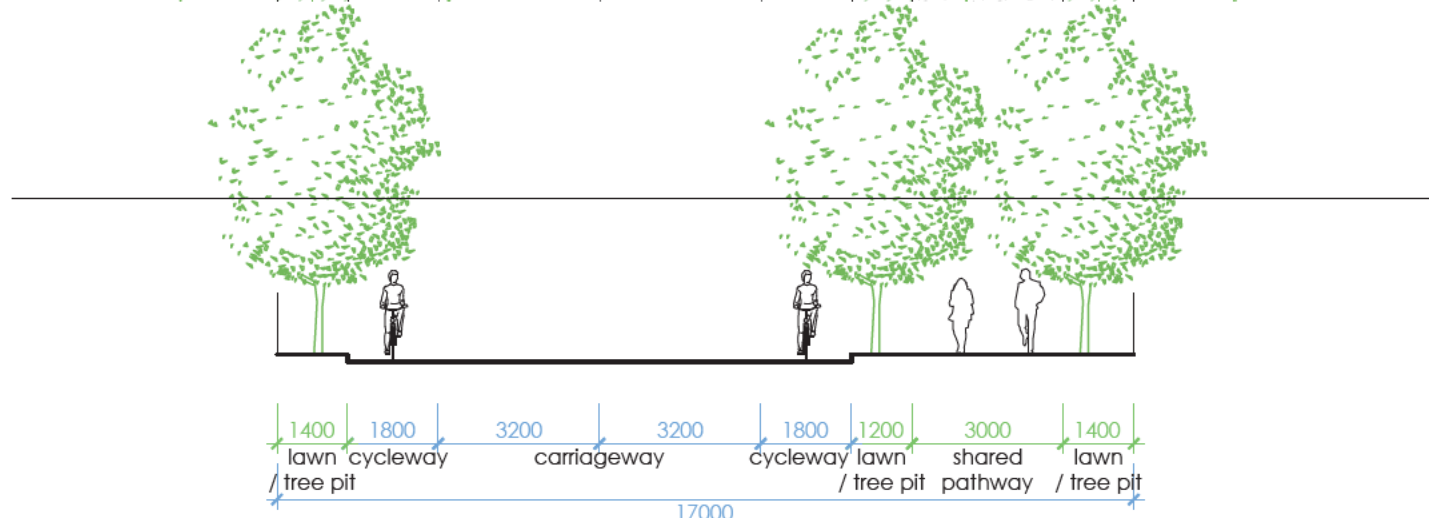
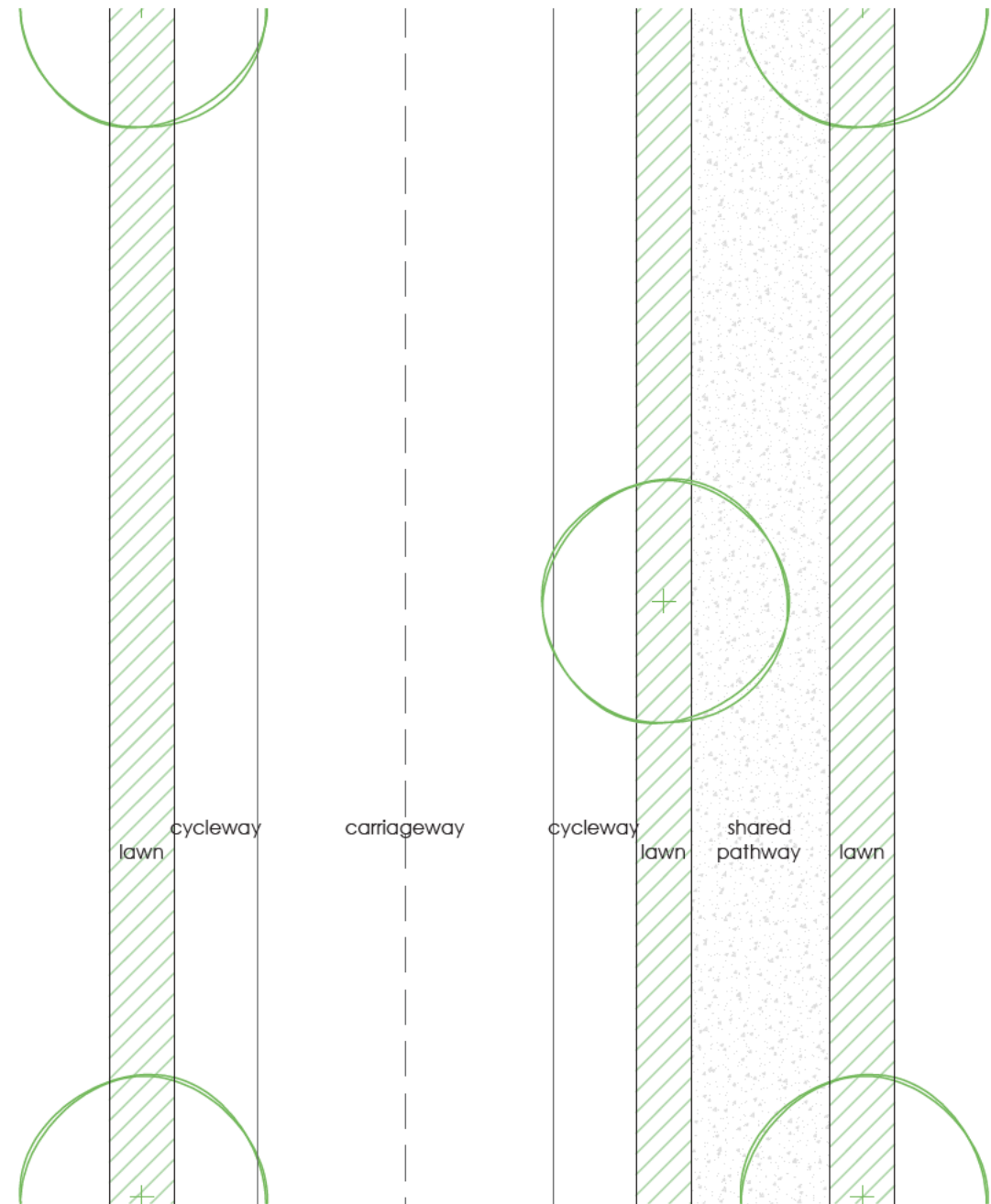
Project: Waikanae North

Drawing Title: Street Sections - Primary Collectors

Drawing No: LA8.01



**PC1.2 Primary Collector**  
Next to Topography



**PC1.3 Primary Collector**  
Next to Shared Path at restricted entrance

Do not scale. Verify dimensions on site before commencing work.

E	Resource Consent	13.03.2026
D	Resource Consent DRAFT	03.02.2026
C	Resource Consent DRAFT	02.10.2025
B	Resource Consent DRAFT	23.09.2025
A	Draft	12.08.2025
No.	Revision Notes.	Date

**Not For Construction**

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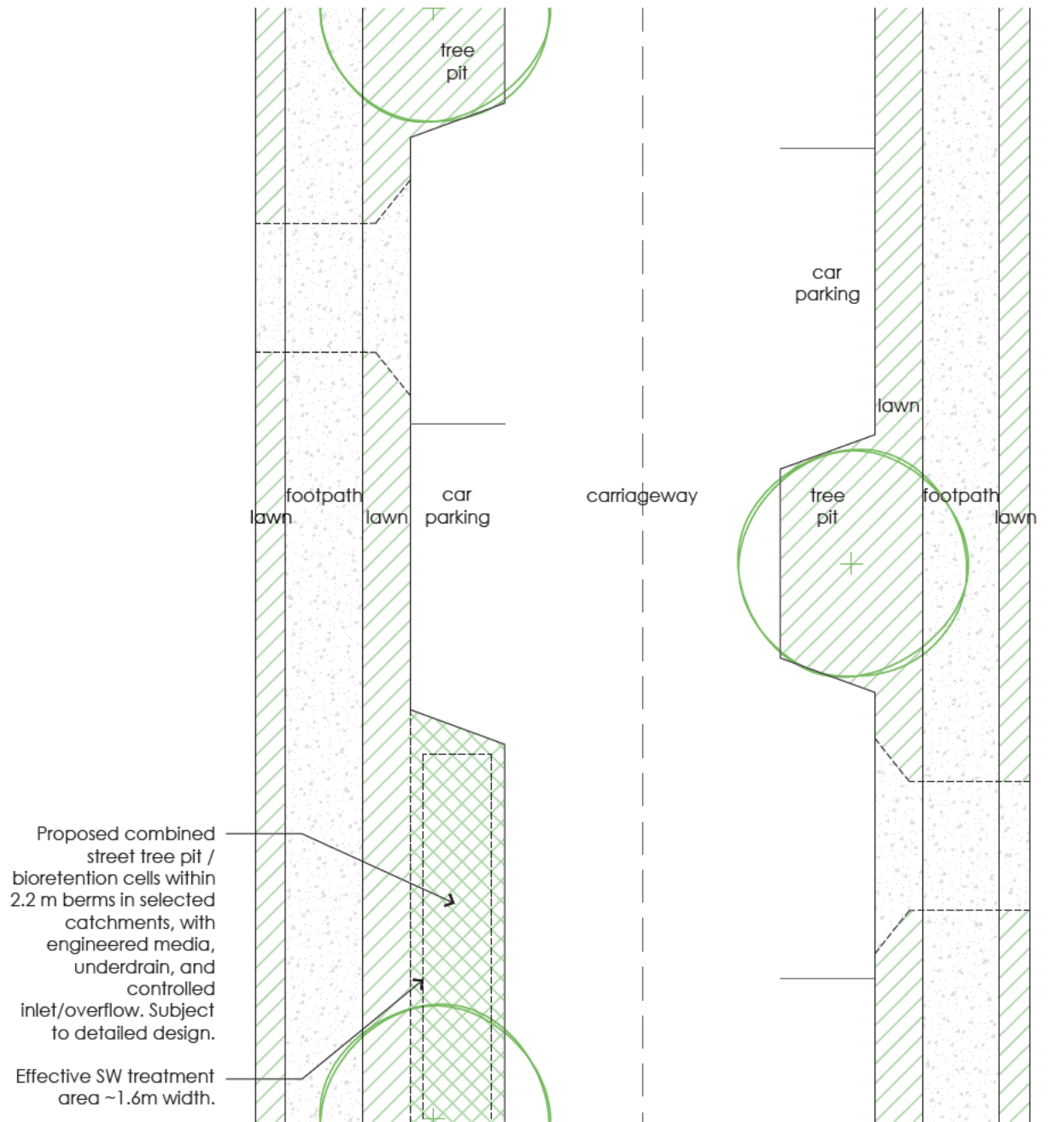
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**2109-1238**

Scale:  
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Issued For: **Resource Consent**

Revision:  
**E**

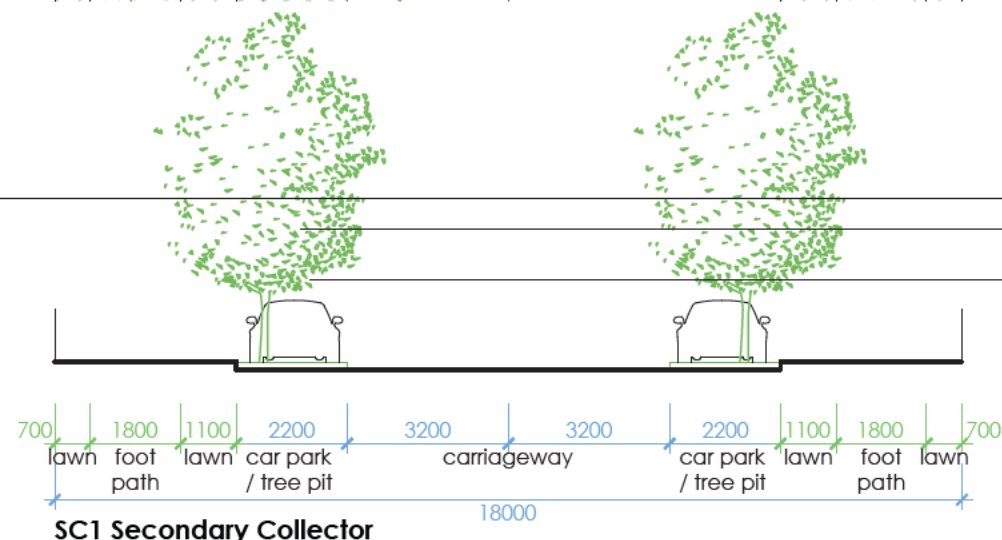
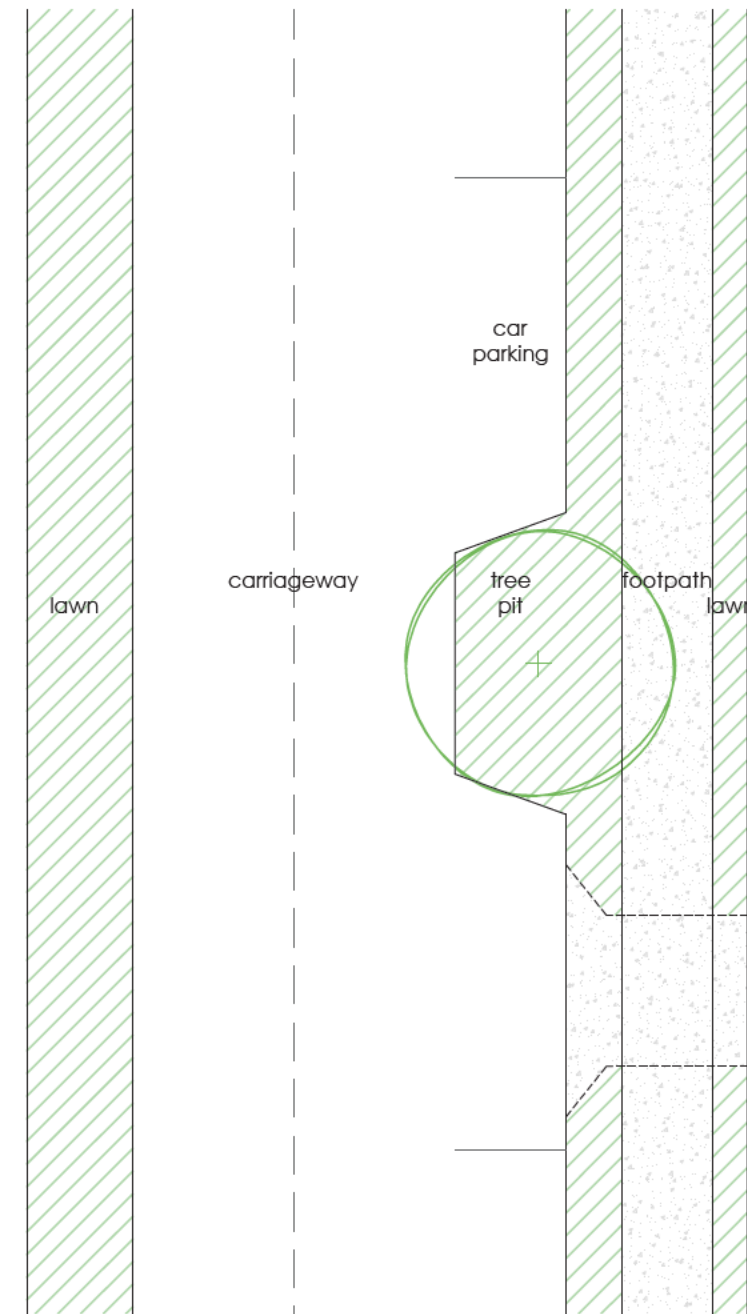
Project:  
**Waikanae North**  
Drawing Title:  
**Street Sections - Primary Collectors**

Drawing No:  
**LA8.02**

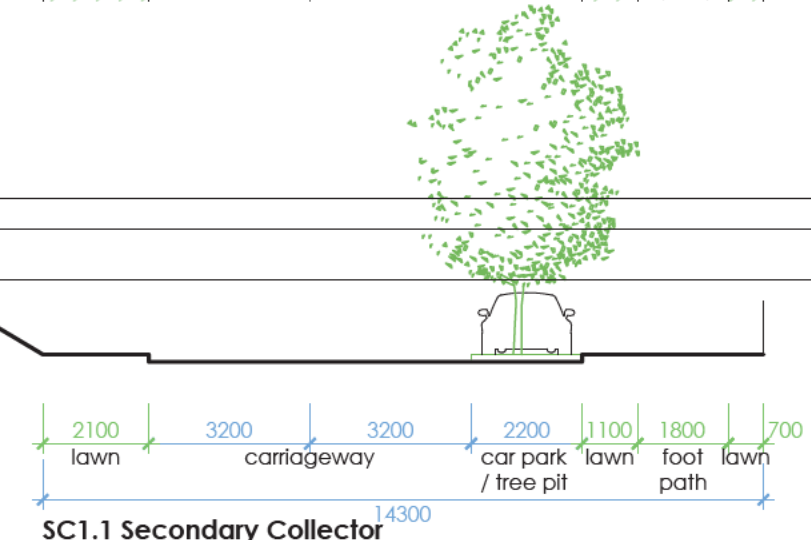


Proposed combined street tree pit / bioretention cells within 2.2 m berms in selected catchments, with engineered media, underdrain, and controlled inlet/overflow. Subject to detailed design.

Effective SW treatment area ~1.6m width.



SC1 Secondary Collector



SC1.1 Secondary Collector  
Next to Topography

Do not scale. Verify dimensions on site before commencing work.

E	Resource Consent	13.03.2026
D	Resource Consent DRAFT	03.02.2026
C	Resource Consent DRAFT	02.10.2025
B	Resource Consent DRAFT	23.09.2025
A	Draft	12.08.2025
No.	Revision Notes.	Date

**Not For Construction**

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Job Number:  
**2109-1238**

Scale:  
**1:150 @A3**

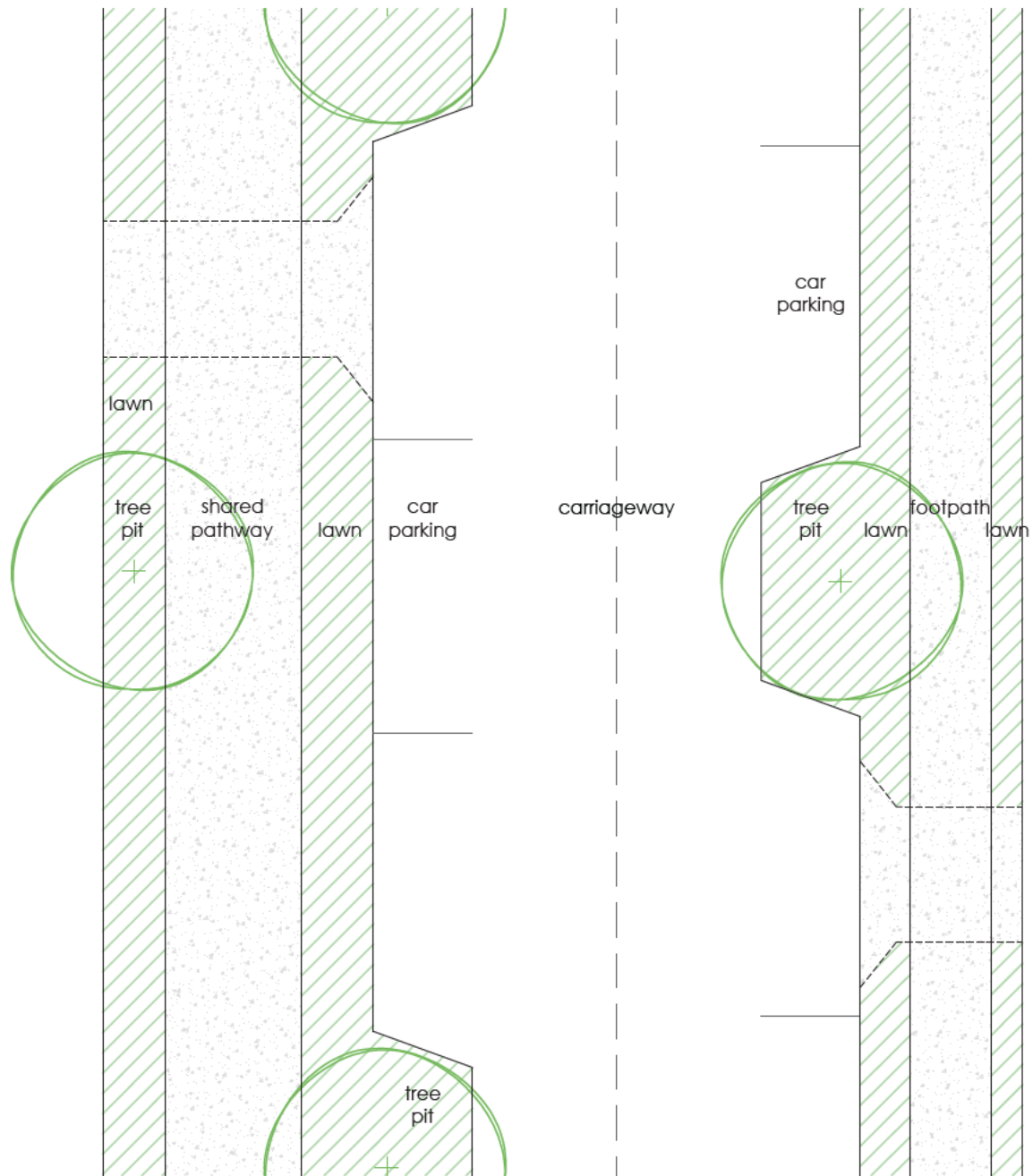
Revision:  
**E**

Issued For: Resource Consent

Project:  
**Waikanae North**

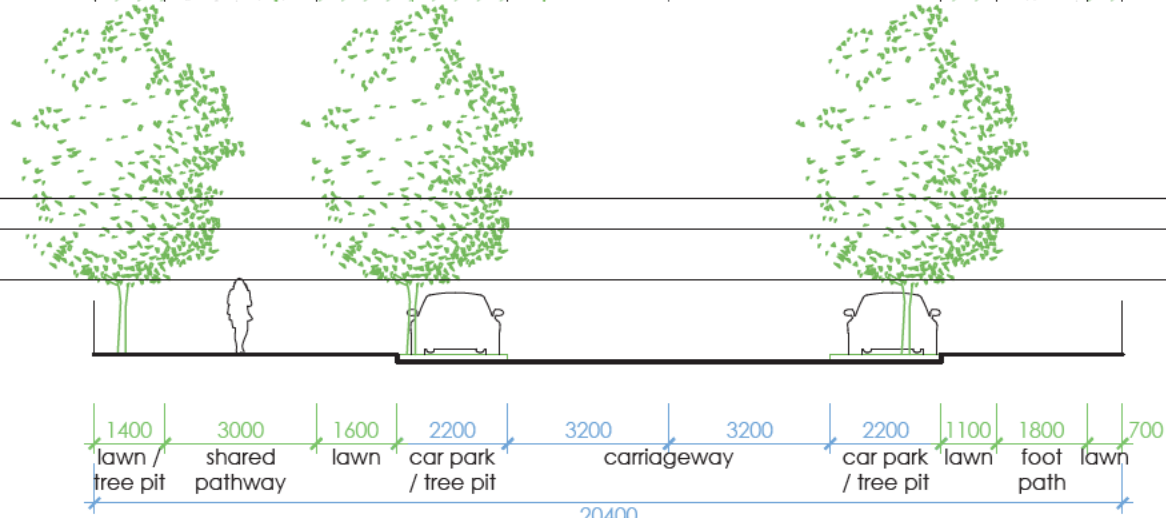
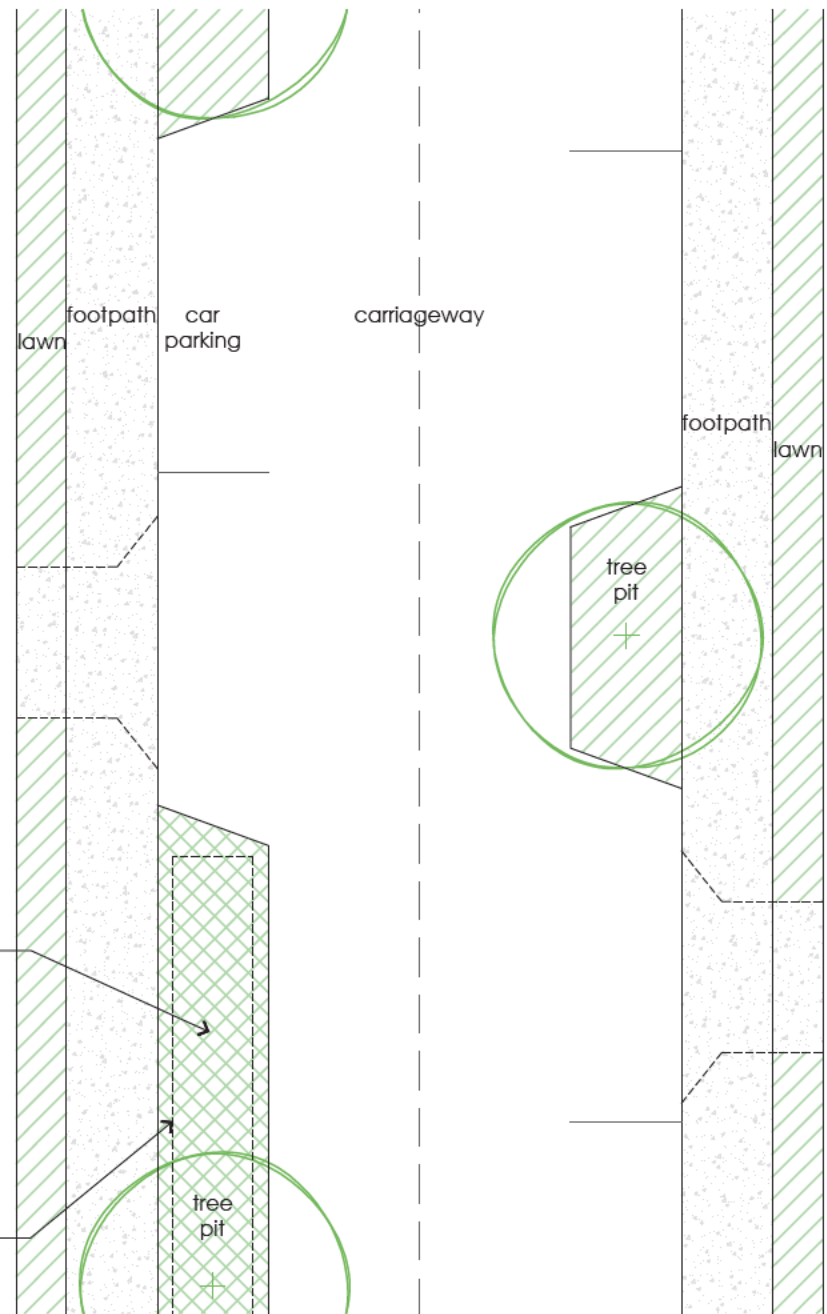
Drawing Title:  
**Street Sections - Secondary Collectors**

Drawing No:  
**LA8.03**

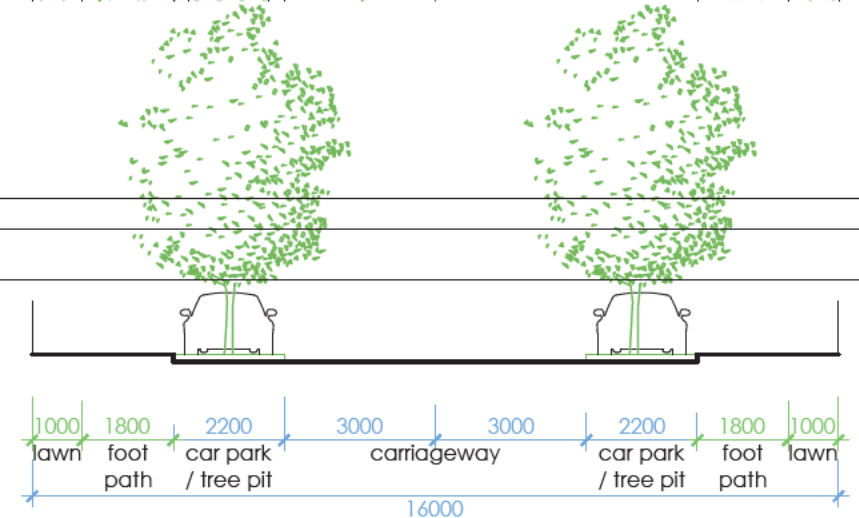


Proposed combined street tree pit / bioretention cells within 2.2 m berms in selected catchments, with engineered media, underdrain, and controlled inlet/overflow. Subject to detailed design.

Effective SW treatment area ~1.6m width.



SC1.2 Secondary Collector  
Next to Shared Path



LR1 Local Road

Do not scale. Verify dimensions on site before commencing work.

F	Resource Consent	13.03.2026
E	Resource Consent	13.03.2026
D	Resource Consent DRAFT	03.02.2026
C	Resource Consent DRAFT	02.10.2025
B	Resource Consent DRAFT	23.09.2025
A	Draft	12.08.2025

No.	Revision Notes.	Date
<b>Not For Construction</b>		

**DRAFT**

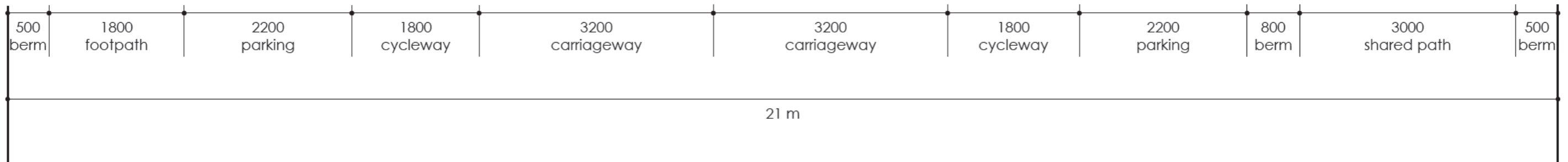
**local**

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 Job Number: 2109-1238  
 Revision: F  
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Project: Waikanae North  
 Drawing Title: Street Section - Secondary Collector & Local Road

Drawing No: LA8.04

Proposed combined street tree pit / bioretention cells



Do not scale. Verify dimensions on site before commencing work.

D.	Resource Consent	13.03.2026
C.	Resource Consent DRAFT	03.02.2026
B.	Resource Consent DRAFT	02.10.2025
A.	Resource Consent DRAFT	23.09.2025
No.	Revision Notes	Date

Not For Construction

**DRAFT**

McIndoe  
Urban

**local**

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North:

Scale:

NTS

Issued For:

Resource Consent

Job Number:

2109-1238

Revision:

D

Resource Consent

Project:

Waikanae North

Drawing Title:

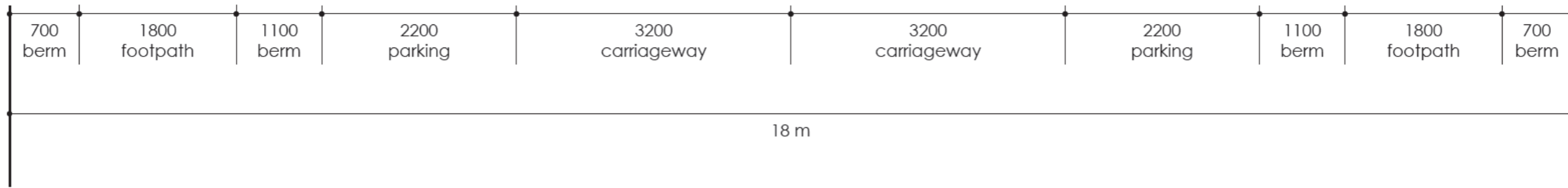
Illustrative Section - Primary Collector

Drawing No:  
**LA 8.05**

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Proposed combined street tree pit / bioretention cells



Do not scale. Verify dimensions on site before commencing work.

D.	Resource Consent	13.03.2026
C.	Resource Consent DRAFT	03.02.2026
B.	Resource Consent DRAFT	02.10.2025
A.	Resource Consent DRAFT	23.09.2025
No.	Revision Notes	Date

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North:

Job Number:

2109-1238

Scale:

NTS

Revision:

D

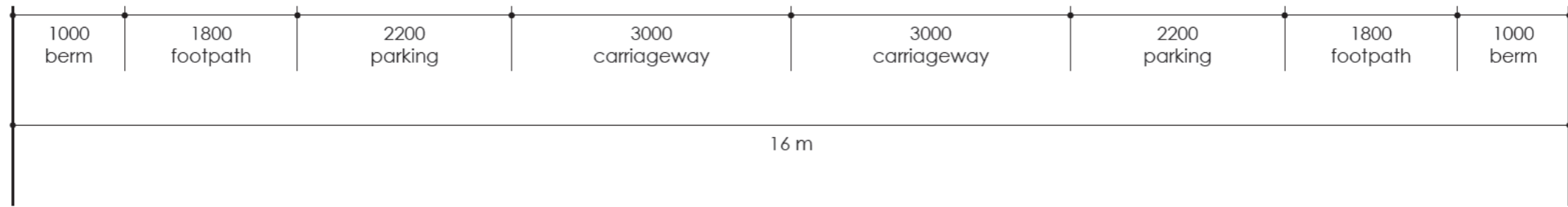
Issued For: Resource Consent

Illustrative Section - Secondary Collector

Project:  
Waikanae North

Drawing No:  
LA 8.06

Proposed combined street tree pit / bioretention cells



Do not scale. Verify dimensions on site before commencing work.

E.	Resource Consent	13.03.2026
D.	Resource Consent	13.03.2026
C.	Resource Consent DRAFT	03.02.2026
B.	Resource Consent DRAFT	02.10.2025
A.	Resource Consent DRAFT	23.09.2025
No.	Revision Notes	Date

**Not For Construction**

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North:  
Scale:  
Issued For:

Job Number:  
**2109-1238**

Revision:  
**E**

**Resource Consent**

Project:  
**Waikanae North**

Drawing Title:  
**Illustrative Section - Local Road**

Drawing No:  
**LA 8.07**

## **Appendix E KTM Modelling Memorandum**



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**Memo:** Mark Georgeson, Stantec: CC Vijay Soma, KCDC

---

**From:** Don Wignall, Transport Futures

---

**Subject:** Peka Peka KTM4 SATURN Modelling

---

**Issue:** 25-05-2023

**Version:** Issue v2-0

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## Peka Peka KTM4 SATURN Modelling

### 1 Introduction-

1.1 The work undertaken is described in the email from Stantec to Transport Futures 06-05-2023 and supporting correspondence, and is based on the following scope<sup>1</sup>:

- Create 2036 Do-Something (DS) AM & PM UFN networks (including new development access connection/intersection)
- Create DS (AM & PM) UFM demand matrices for 3x2036 Scenarios based on advised development traffic characteristics.
- Result plots for (AM & PM) Scenarios: 2036 Do-Minimum (DM), 2036 3xDS road link volumes/ turning volumes (PCU) including site access /Peka Peka Road and Peka Peka Road / Peka Peka Link Road intersections.
- Summarise method / assumptions / results.

1.3 The development is located between the Expressway and Paetawa Road, accessed via Peka Peka Road as shown below:

Figure 1 Development Location Plan



---

<sup>1</sup> Specified in more detail in KCDC contract, 02-05-2023.

1.4 The site access location, looking east along Peka Peka Road, is shown below:

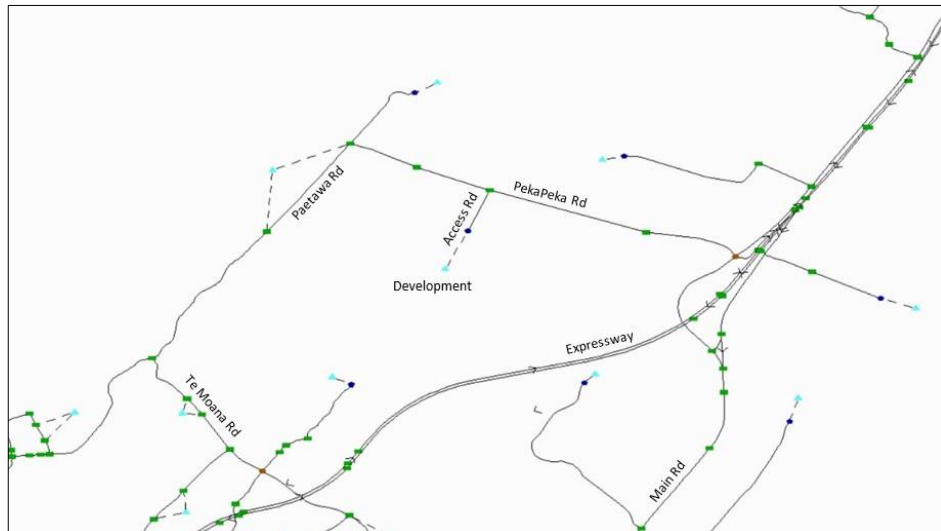
Figure 2 Location of Access Point



## 2 Method

2.1 The work utilises the 2036 KTM4 AM and PM peak SATURN models<sup>2</sup> see network plan below:

Figure 3 Network Plan



2.2 Three future do-something (DS) AM and PM scenarios were produced for 2036, including development traffic characteristics specified in correspondence (Stantec 06-05-2023) as follows:

- AM and PM traffic generation: Scenario (1) 656 VPH, Scenario (2) 874 VPH, Scenario (3) 1,123 VPH.
- Directional split: 65% out and 35% in for the AM peak / reversed for the PM peak.
- Traffic composition: 98% LVs (AM and PM peaks).

<sup>2</sup> Calibration and Validation Report (January 2019): Model Build and Forecasting Report (January 2019).

- 2.3 An improved priority (sign controlled) intersection was assumed for the proposed access connection to Peka Peka Road
- 2.4 The existing model zone traffic distribution was applied to development traffic.

### **3 Results**

- 3.1 Results are available for the following scenarios:
  - 2036 AM and PM DM Scenario (two models).
  - 2036 AM and PM DS Scenarios (six models).
- 3.2 Link demand traffic volumes have been issued via separate email (25-05-2023). Modelled hourly (weekday 16.30-17.30 hrs) directional link demand traffic volumes in passenger car units (PCUs) for:
  - (i) Peka Peka Road, and
  - (ii) Peka Peka Expressway intersection.
- 3.3 Intersection demand turning traffic volumes have been issued via separate email (25-05-2023). Modelled hourly (weekday 0800-0900 hrs and 16.30-17.30 hrs) demand PCU for:
  - (iii) Development Access / Peka Peka Road intersection, and
  - (iv) Peka Peka Road / Peka Peka Link Road intersection.
- 3.4 Difference plots identify network locations where changes in traffic volumes may warrant further consideration. Volume (demand flow) differences between DM and the three DS Scenarios are shown below for 2036 AM and PM peaks (green bands represent increased traffic and blue bands decreased traffic) as shown below:

Figure 4 AM Peak Scenario 1

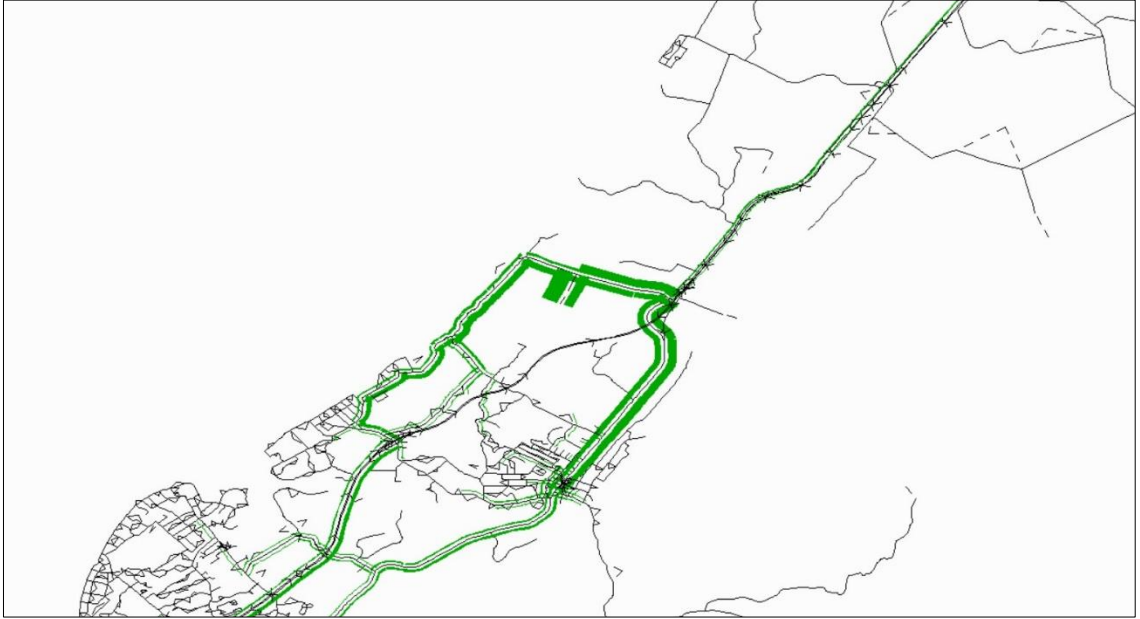


Figure 5 PM Peak Scenario 1

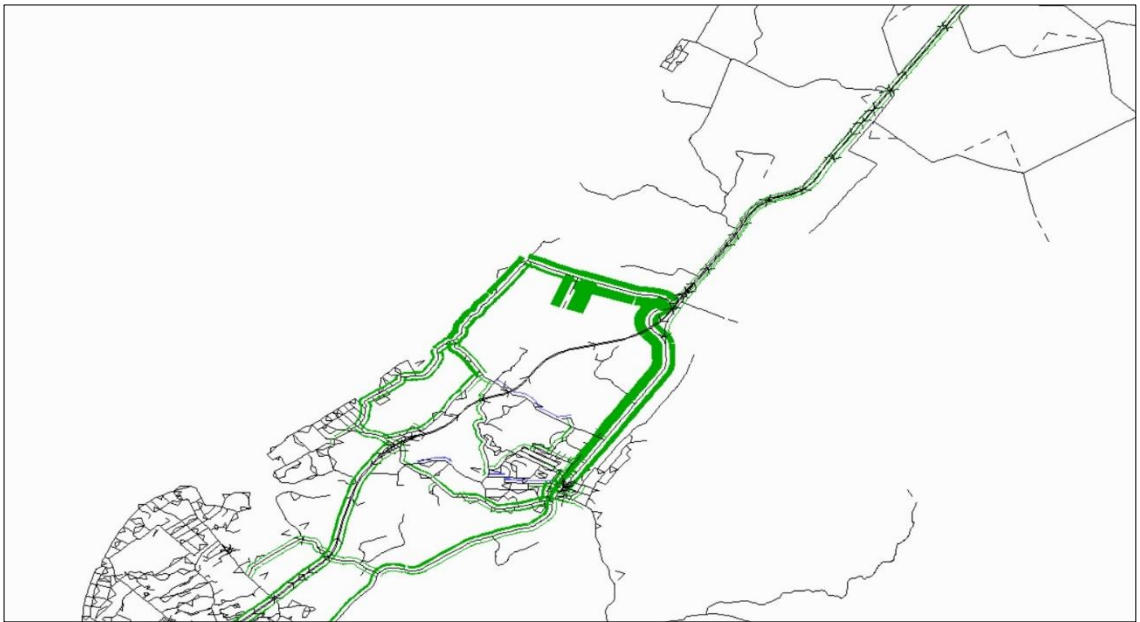


Figure 6 AM Peak Scenario 2

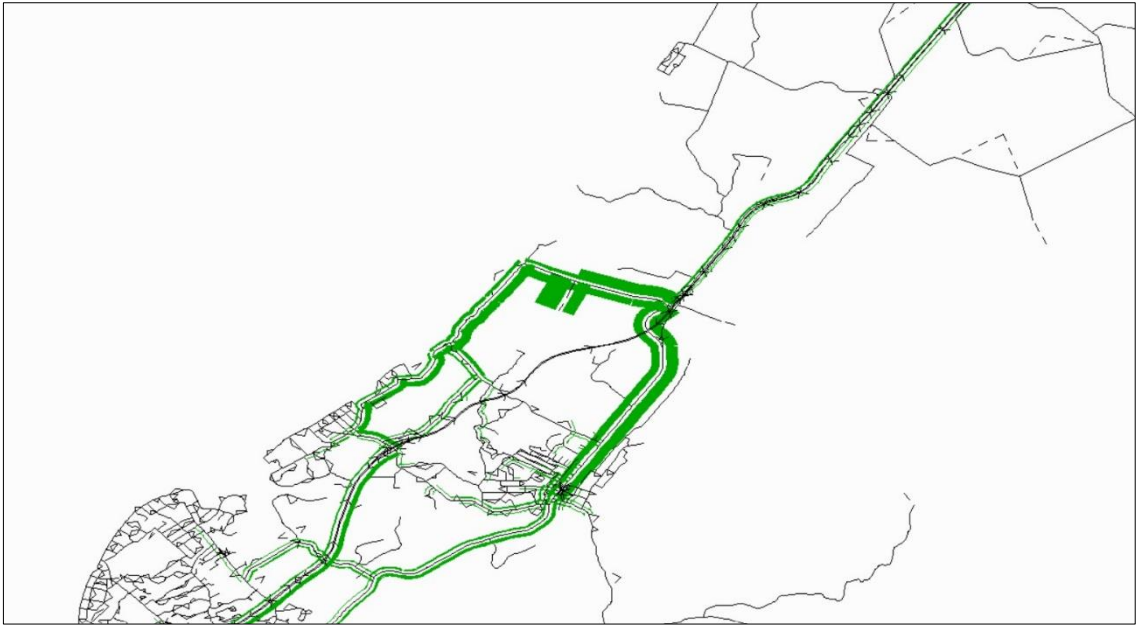


Figure 7 PM Peak Scenario 2

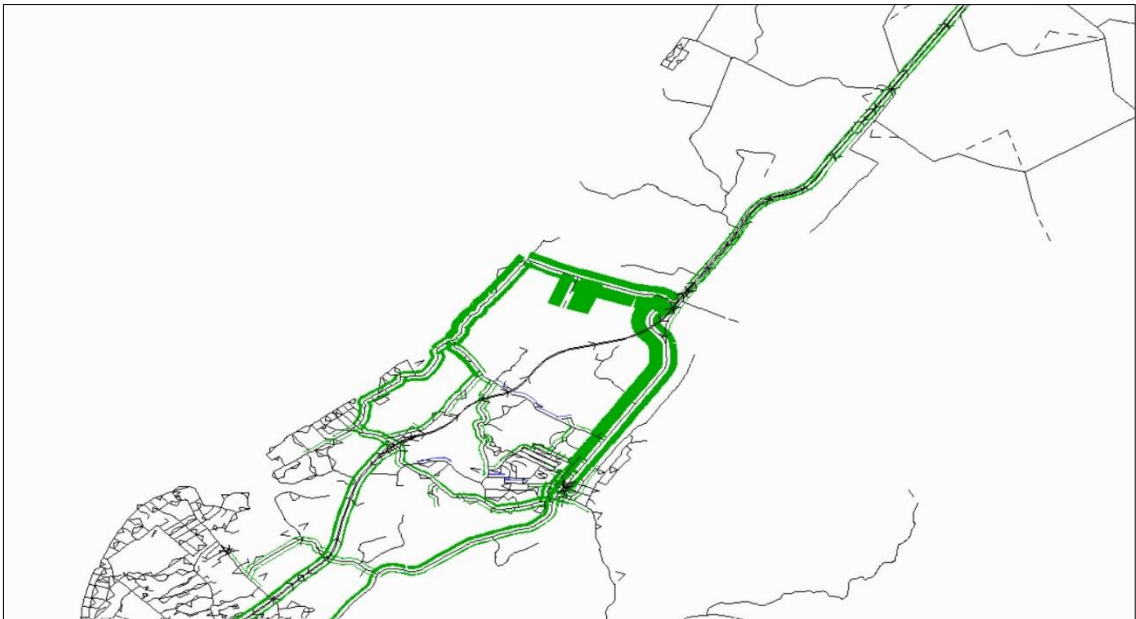


Figure 8 AM Peak Scenario 3

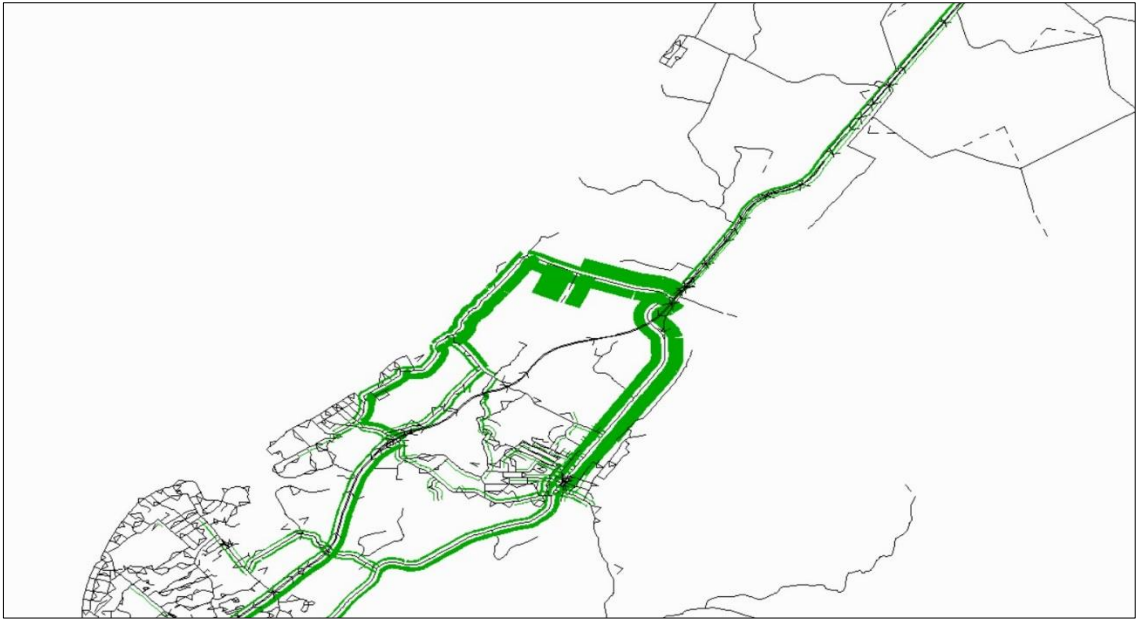
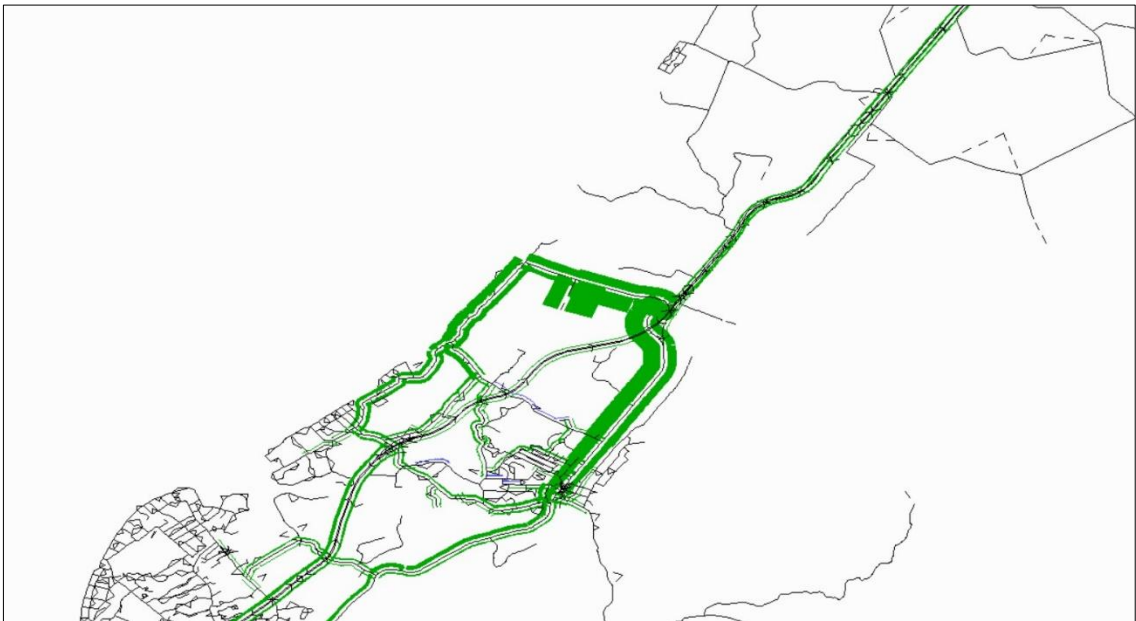


Figure 9 PM Peak Scenario 3





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**Stantec New Zealand**  
Level 3, 2 Hazeldean Road  
Addington, Christchurch 8024  
NEW ZEALAND  
Mail to: PO Box 13052, Christchurch 8140  
stantec.com

