# New Central Park Limited, Kapiti

Integrated Transport Assessment

Prepared for:
New Central Park Limited

Date:
22 October 2026

Prepared by:
Stantec NZ

Project/File:
310206784

Stantec New Zealand

# Disclaimer

The conclusions in the Report titled New Central Park Limited, Kapiti Integrated Transport Assessment are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared.

Stantec has assumed all information received from New Central Park Limited (the "Client") and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client.

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.

# Revision Schedule

| Revision No. | Date | Description | Prepared by | Quality Reviewer | Independent Reviewer | Project Manager Final Approval |
|---|---|---|---|---|---|---|
| 0 | 05/10/2026 | Draft | S Jiang / T Lee-Joe | J Whittaker | M Georgeson | M Georgeson |
| 1 | 22/10/2025 | Final | S Jiang / T Lee-Joe | J Whittaker | M Georgeson | M Georgeson |

# Table of Contents

**1 Introduction ..... 1**
**2 Site Location and Context ..... 4**
2.1 Site Location ..... 4
2.2 Metropolitan Centre Zoning ..... 5

**3 Existing Transport Environment ..... 7**
3.1 Road Network ..... 7
3.1.1 Kapiti Road ..... 7
3.1.2 Rimu Road ..... 8
3.1.3 Ihakara Street ..... 9
3.1.4 Iver Trask Place ..... 10
3.1.5 Old SH1 Revocation ..... 11
3.1.6 Future Town Centre Roads ..... 12
3.2 Existing Traffic Volumes ..... 13
3.3 Sustainable Transport ..... 13
3.3.1 Pedestrians ..... 13
3.3.2 Cycling ..... 14
3.3.3 Public Transport ..... 15
3.4 Mode Share ..... 16
3.5 Existing Road Safety ..... 16

**4 Future Network Changes ..... 20**
4.1 Town Centre Link Road ..... 20
4.2 Ihakara Street Extension / Airport Link Road ..... 20
4.3 Speed Limit Review ..... 20

**5 Proposed Site Development ..... 22**
5.1 Proposed Site Activities ..... 22
5.2 Stakeholder Liaison ..... 24
5.2.1 Kapiti Coast District Council ..... 24
5.2.2 GWRC / Metlink ..... 28

**6 Statutory Planning Assessment ..... 29**
6.1 District Plan ..... 29
6.2 Other Key Planning Documents ..... 44
6.2.1 Sustainable Transport Strategy ..... 44
6.2.2 Land Development Minimum Requirements ..... 45

**7 Forecast Site Traffic Generation ..... 46**
7.1 Trip Generation ..... 46
7.1.1 Large Format Retail ..... 46
7.1.2 Supermarket ..... 47
7.1.3 Commercial ..... 47
7.1.4 Small Retail ..... 47
7.1.5 Fuel Stop ..... 47
7.1.6 Fast Food / Drive-through ..... 48
7.1.7 Residential ..... 48
7.1.8 Traffic Generation Summary ..... 49
7.2 Trip Type ..... 49
7.3 Development Site Traffic Distribution ..... 51

**8 Traffic Modelling ..... 52**

8.1 Adopted Modelling Approach ..... 52
8.1.1 Modelled Traffic Scenarios ..... 53
8.1.2 Intersection Design ..... 53
8.1.3 Intersection Performance ..... 54

**9 Site Movement Network ..... 64**
9.1 Site Road Classifications ..... 65
9.2 Site Road Typologies ..... 66
9.2.1 Town Centre Link Road (Road 1) ..... 68
9.2.2 Iver Trask Place and Brett Ambler Way Extns (Roads 2 & 3) ..... 68
9.2.3 Local Residential Roads (Roads 4, 5, and 6) ..... 69
9.2.4 Jointly Owned Access Lots (JOALs) ..... 69
9.3 Active Mode Network ..... 70
9.4 Individual Activity Access ..... 71
9.5 Parking ..... 72

**10 Road Design and Access Statement ..... 73**
10.1 Road Network Hierarchy ..... 73
10.2 Multimodal Design Approach ..... 74
10.2.1 Walking and Cycling Facilities ..... 74
10.2.2 Public Transport Integration ..... 74
10.3 Road Environment ..... 75
10.4 Intersections ..... 75

**11 Servicing ..... 76**
11.1 Commercial Activities ..... 76
11.1.1 On-site Loading Areas ..... 76
11.1.2 Forecast Servicing Demands ..... 77
11.2 Residential Activities ..... 78

**12 Road Safety Assessment ..... 80**
12.1 Internal Site Network ..... 80
12.2 Town Centre Link Road ..... 80
12.3 Kapiti Road ..... 82
12.4 Ihakara Street ..... 82

**13 Construction Traffic Management ..... 84**
**14 Conclusion ..... 86**

**List of Tables**

Table 3-1. Summary of Traffic Volumes (Mobile Road) ..... 13
Table 3-2. Summary of crash record (2021-2025) ..... 17
Table 5-1. Proposed development Site Activity Schedule ..... 23
Table 5-2: Council Feedback Summary ..... 25
Table 6-1. District Plan Compliance ..... 29
Table 6-2. District Plan Transport Objectives and Policies Assessment ..... 40
Table 7-1. Trip Generation Rates for the Site's Activities ..... 49
Table 7-2. Allowance for Pass-by / Secondary Trips ..... 51
Table 8-1. Summary of SIDRA Outputs – AM Peak Hour ..... 55
Table 8-2. Summary of SIDRA Outputs – PM Peak Hour ..... 57
Table 9-1: Proposed Road Typologies ..... 67
Table 12-1: Concept Safe System Assessment Matrix - Link Road ..... 81

## List of Figures

Figure 2-1. Aerial photograph of site ..... 4
Figure 2-2. Site location in context of the Metropolitan Centre Zone 'Structure Plan' ..... 5
Figure 3-1. District Plan roading hierarchy ..... 7
Figure 3-2. Typical formation of Kapiti Road adjacent to the Site (view east between Expressway and Arawhata Road) ..... 8
Figure 3-3. Typical formation of Rimu Road ..... 9
Figure 3-4. Typical formation of Ihakara Street (view west towards to the Site) ..... 10
Figure 3-5. Typical formation of Iver Trask Place (view west towards the Site) ..... 11
Figure 3-6. Old SH1 revocation works (NZTA) ..... 12
Figure 3-7. Local Cycle Network (Council Cycling Map 2023) ..... 14
Figure 3-8. Local bus routes with proposal site indicated by Red Star (Metlink) ..... 15
Figure 3-9. Crash locations map (NZTA CAS) ..... 17
Figure 5-1. Site Masterplan Development Areas ..... 23
Figure 6-1. Kapiti Coast District Council 'Sustainable Transport Strategy' (Source: STS pg. 9) ..... 44
Figure 8-1. LoS Plot – Scenario 1 'Do Minimum' AM Peak ..... 59
Figure 8-2. LoS Plot – Scenario 2 'With Development' AM Peak ..... 60
Figure 8-3. LoS Plot – Scenario 1 'Do Minimum' PM Peak ..... 61
Figure 8-4. LoS Plot – Scenario 2 'With Development' PM Peak ..... 62
Figure 8-5. LoS Plot – Scenario 3 'With Development' and 'Airport Link Road' PM Peak ..... 63
Figure 9-1. Site Roading Layout ..... 65
Figure 9-2. Active Mode Network ..... 71

## List of Appendices

**Appendix A RFI Table Response**
**Appendix B Service Vehicle Tracking**

# 1 Introduction

'New Central Park Limited' (NCPL) are seeking consent to develop an area of land to the west of the existing Paraparaumu town centre, for a mix of future activities including commercial, retail and residential. The proposal area extent (the "Site") encompasses an overall area of approximately 36 hectares.

Following inclusion of the Site as a referred project under the Government's Fast-track Approvals Act 2024 (FTAA), resource consent for its development is being sought under the FTAA. This Integrated Transport Assessment (ITA) has been prepared to accompany the FTAA application, which seeks approval for subdivision and land use consent for the proposed residential, commercial, and retail activities as well as all the necessary transport infrastructure to support the development.

The Site comprises the properties at 77-109 Kapiti Road and 1 Brett Ambler Way and is classified under the Kapiti Coast Operative District Plan (District Plan) as a 'Metropolitan Centre Zone' (MCZ) with a small discrete portion zoned Open Space. The MCZ includes a dedicated Structure Plan vision for how the land will be developed, and incorporates several dedicated 'precincts'. The primary development Site occupies 'Precinct C' which anticipates a mix of commercial, retail and residential land use. This outcome aligns with the proposed mixed-use development for the Site.

The proposed access strategy draws from the MCZ Structure Plan in delivering Council's long-planned town centre Link Road (through the centre of the Site) which connects between Kapiti Road and Ihakara Street. This link has been strategically identified in the Regional Land Transport Plan since approximately 2014. As planned by Council, this key transport link will serve as a relief route for existing town centre traffic as well as providing connection and access to a series of other internal Site roads and development sites.

**Fast-track Referral Decision – Transport Information Requirements**

The Minister for Infrastructure's Section 28 Notice of Decision, dated 18 September 2026, accepted the New Central Park project for referral to the fast-track approvals process. The Notice specifies additional information to accompany the substantive application pursuant to section 27(3)(b)(ii) of the Fast-track Approvals Act 2024.

In relation to transport, paragraph 3 of the Notice requires:

***3(a)*** *An assessment of the relevant transport and three waters infrastructure, including but not limited to:*

- *The existing condition and capacity of that infrastructure;*
- *Any upgrades, improvements or new infrastructure required in connection with the project;*
- *Any funding required to carry out those upgrades, improvements or new infrastructure, including who will provide that funding; and*
- *Information on any discussions held, and any agreements made, between the applicant and relevant infrastructure providers in relation to those matters.*

***3(b)*** *An integrated transport assessment, including but not limited to:*

- *The project's effects on the local and state highway transport network, including the Kāpiti Expressway (State Highway 1);*

- *The effects of the project on relevant surrounding intersections and interchanges;*
- *Traffic safety and network performance effects; and*
- *Any transport mitigation measures proposed to address the effects of the project.*

**Response to the Information Requirements**

This ITA has been prepared to address the transport-related information requirements specified in the Notice of Decision.

In relation to paragraph 3(a), Sections 3 and 4 describe the existing transport environment, including the surrounding road network, traffic volumes, road safety, active mode and public transport infrastructure, together with anticipated future network changes. Sections 8-12 assess the performance of the transport network and identify the proposed road infrastructure, intersection improvements, access arrangements and other transport measures required to accommodate the development. Section 5.2 summarises engagement with Council and GWRC/Metlink in relation to the proposed transport arrangements.

The wider substantive application addresses the delivery, staging and funding of the proposed infrastructure, together with the associated three waters infrastructure requirements.

In relation to paragraph 3(b), the ITA provides a comprehensive assessment of the transport effects of the Proposal, including:

- **Local and state highway network effects:** Sections 7 and 8 assess forecast traffic generation, trip distribution and the effects of the Proposal on the surrounding transport network, including Kāpiti Road and the connections to the Kāpiti Expressway.
- **Surrounding intersections and interchanges:** Section 8 assesses the performance of relevant intersections using the Council KTM4 strategic transport model and SIDRA intersection modelling, including forecast traffic demands associated with the full development of the Site and wider network growth.
- **Traffic safety and network performance:** Sections 8–12 assess intersection performance, internal road layouts, vehicle access, parking, servicing, pedestrian and cyclist facilities and road safety. Section 12 includes a concept-level Safe System Assessment of the proposed transport arrangements.
- **Transport mitigation measures:** Sections 8–12 identify the proposed transport infrastructure and design measures, including the new Town Centre Link Road, associated intersection arrangements, internal road connections, pedestrian and cyclist facilities and other measures intended to provide for the safe and efficient operation of the transport network.

The ITA has been informed by engagement with Council, including the use of the Council's KTM4 strategic transport model and Transport Futures Limited to undertake the strategic modelling. This approach enables the Proposal to be assessed in the context of forecast development and growth across the wider transport network, including the development anticipated within the Metropolitan Centre Zone.

Accordingly, the ITA addresses the transport assessment matters specifically identified in paragraph 3(b) of the Notice of Decision and the transport-related technical matters in paragraph 3(a). Read

together with the Civil Infrastructure Report and wider substantive application, the information provided addresses the additional infrastructure and transport information requirements specified by the Minister.

# 2 Site Location and Context

## 2.1 Site Location

The Site, which is illustrated in the aerial photograph included at Figure 2-1, extends across several adjoining properties at 77-109 Kapiti Road.




*Figure 2-1. Aerial photograph of site*

As shown in Figure 2-1, the Site occupies a significant block of land immediately adjacent to the established Paraparaumu town centre, and is generally bound by the State Highway 1 Kapiti Expressway (Expressway) to the west, Kapiti Road to the north, Ihakara Street to the south, and Brett Ambler Way / Iver Trask Place to the east.

## 2.2 Metropolitan Centre Zoning

As intimated earlier, the Site is zoned MCZ and extends through 'Precinct C' as illustrated by the Structure Plan included in Figure 2-2 below. The Site is shown by the red dotted outline overlaid on this Plan. The proposed wetland offset area and Iver Trask Extension extend through Precinct B.

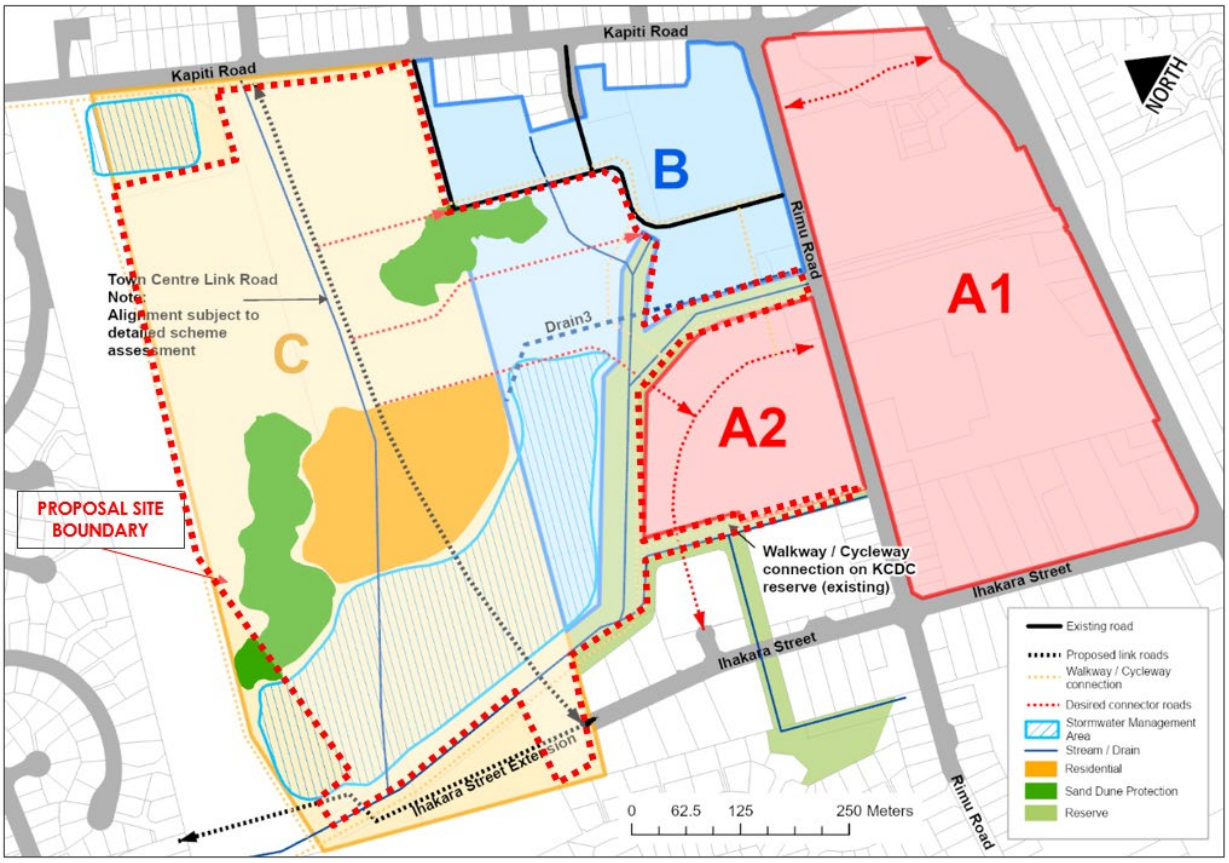



*Figure 2-2. Site location in context of the Metropolitan Centre Zone 'Structure Plan'*

The purpose of the MCZ Structure Plan is set out in the District Plan as follows:

> *"plan for an integrated Metropolitan Centre Zone within the Paraparaumu Sub-Regional Centre. The Structure Plan, in conjunction with the District Plan policies and rules, sets out the land use activities, transport network, public open space network and stormwater management for the Metropolitan Centre Zone[1]."*

A number of strategic planning outcomes were identified for the Structure Plan, including to:

- provide for residential activities to encourage medium density residential development to occur close to the town centre;

[1] District Plan Appendix 19 (para 1)

- provide for commercial, retail and residential activities in Precinct C;
- achieve increased connectivity (the road, cycle and walkway network) throughout the area which does not impede proposed link roads and desired connector roads shown on the Structure Plan; and
- deliver a link road between the Kapiti Road / Arawhata Road intersection and the Ihakara Street extension that provides a strategic transport connection, alleviates traffic issues on Kapiti Road, and enables connections to desired connector roads.

The proposal plans have been developed on the basis of facilitating the construction of a new town centre Link Road, in line with the Structure Plan, as well as a future connection to and extension of the current Iver Trask Place, facilitating a cross-connection through Precinct B. The plans also ensure future provision for the Ihakara Street Extension beneath the Expressway.

The transport modelling undertaken to inform the MCZ included a number of assumptions around anticipated growth and new land uses, forecasting an additional 90,000m² Gross Floor Area (GFA) of mixed-use activity and 1,200 new jobs (between 2018 and 2036) within the town centre area (covered by the MCZ). This traffic growth forecasting and modelling analysis confirmed the appropriateness of providing a mixture of land use activities within Precinct C, as currently proposed.

Importantly, comprehensive development of the Site and the associated increase in transport demand is not a new or unanticipated outcome. The Site has been identified for comprehensive town centre development even before the preparation of the Paraparaumu Town Centre Structure Plan in 2012, with that strategic direction subsequently carried through into the District Plan and the Metropolitan Centre zoning of the Site.

The scale of development enabled by the current planning framework is also relevant. The MCZ anticipates a substantial intensity and mix of residential, commercial and retail development, including buildings of up to 21m in height as a permitted activity. The proposed development does not seek to maximise the development intensity potentially enabled across the Site. A more intensive development of the Site within the permitted building envelope could, depending on the ultimate land-use mix, generate greater transport demand than the Proposal.

Accordingly, the additional transport demand associated with development of the Site is an anticipated consequence of the planned urban development of Precinct C, rather than an unforeseen intensification of the current town centre activity. The relevant consideration is therefore whether the transport network, including the new Link Road and associated intersection improvements, can appropriately accommodate the forecast demands arising from the Proposal. This is assessed in Section 8 of this ITA.

# 3 Existing Transport Environment

## 3.1 Road Network

Figure 3-1 shows the location of the Site in the context of the surrounding District Plan road hierarchy.




*Figure 3-1. District Plan roading hierarchy*

### 3.1.1 Kapiti Road

Kapiti Road, which for the purposes of this report is described as running east-west, abuts the Site's northern boundary and is classified as a 'major community connector' under the provisions of the District Plan. Such roads are defined as joining significant areas of population / major transport nodes, providing access to regionally significant destinations, and serving a predominant through-traffic function. In this respect Kapiti Road serves as the main route between Paraparaumu town centre, the Expressway, and the coast.

In the vicinity of the Site, Kapiti Road is a two-way road comprising two lanes in each direction between Arawhata Road and the Expressway to the west, and single lane in each direction with localised widening for dedicated turn lanes at intersections to the east. Approximately midway along the Site frontage, the intersection of Kapiti Road and Arawhata Road is formed as a signalised tee-intersection,

with provision to add a fourth leg for connection into the Site via the new town centre Link Road. This section of Kapiti Road currently accommodates around 22,000 vehicles per day (vpd).

The section of Kapiti Road adjacent to the Site is subject to a posted 50kph speed limit, and includes a footpath on the northern side of the carriageway, a shared path on the southern side, and marked on-road cycle lanes in each direction. The roading characteristics of Kapiti Road adjacent to the Site are illustrated in the photograph included at Figure 3-2 below.



*Figure 3-2. Typical formation of Kapiti Road adjacent to the Site (view east between Expressway and Arawhata Road)*

### 3.1.2 Rimu Road

Rimu Road lies to the east of the Site and is classified under the District Plan as a 'Centres Route'. Such roads are defined as having the predominant function of providing a link between larger centres or connector roads, allowing for kerbside parking for adjacent retail activities, and accommodating significant pedestrian demands and crossing movements. Rimu Road currently serves a key town centre access function and includes multiple connections to the Coastlands Shopping Centre on the eastern side of the road, a number of other established activities on the western side, and allows for pedestrians to cross the carriageway under signal control at its intersections with Kapiti Road and Iver Trask Place.

Rimu Road is a two-way street with a single traffic lane in each direction and a central flush median that provides for turning at side streets and access driveways. On-road cycle lanes are marked in the carriageway in both directions, whilst footpaths are provided on either side of the street. Rimu Road is subject to a 50kph posted speed limit, and carries around 14,000vpd. The town centre Link Road to be formed as part of the proposal will provide some relief to this traffic function of Rimu Road, returning it to a 'Centres Route' purpose. The typical formation of Rimu Road is shown within the photograph included in Figure 3-3.



*Figure 3-3. Typical formation of Rimu Road*

### 3.1.3 Ihakara Street

Ihakara Street lies to the south of the Site and is classified as a 'Major Community Connector' under the provisions of the District Plan. At present, Ihakara Street extends westwards for around 400m from its intersection with Rimu Road and terminates immediately adjacent to the Site. A notional road identified in the District Plan and also the MCZ Structure Plan (see Figure 2-2), provides for an extension of Ihakara Street westwards, beneath the Expressway. This will provide a second east-west parallel route to Kapiti Road that will link the coast with the town centre. It is understood that whilst this new road has been provisioned for by Council in their previous Long Term Plans (LTP), it is not provided for within the Council's current 2024-34 LTP or Infrastructure Strategy 2024-54.

Between the Site and Rimu Road, Ihakara Street is a two-way road (single traffic lane in each direction) with pockets of kerbside parking and footpaths on either side of the street. Ihakara Street is subject to a

50kph posted speed limit. The section of Ihakara Street to the west of Rimu Road currently carries around 2,000vpd near Rimu Road. The typical formation of Ihakara Street near the Site is shown in Figure 3-4.



*Figure 3-4. Typical formation of Ihakara Street (view west towards to the Site)*

### 3.1.4 Iver Trask Place

Iver Trask Place is unclassified under the provisions of the District Plan and is interpreted as serving as a 'Neighbourhood Access Route' and provides access to a number of civic activities including the library and Council offices. Iver Trask Place connects with Rimu Road via a signalised tee-intersection, which provides for pedestrians to cross the carriageway under signal control. At its western end, Iver Trask Place intersects with Ngahina Street via a priority-controlled tee-intersection, before continuing as Brett Ambler Way past the Aquatic Centre and linking with Kapiti Road.

Iver Trask Place includes a mixture of 90-degree angle and parallel parking on both sides of the street, with a pedestrian path on the southern side of the carriageway. The MCZ Structure Plan includes a desired connector road extending from the current Iver Trask Place through to the town centre Link Road (as illustrated in Figure 2-2). As described later, the proposal includes provision for such a connection to be implemented by Council in the future.

Iver Trask Place is a two-way street (single traffic lane in each direction and occasional marked centreline) and includes speed calming measures in the form of raised tables, humps and kerb

buildouts to provide a low-speed environment commensurate with its 'civic place' land use and street parking function. It has a posted speed limit of 30kph and currently accommodates daily flows of approximately 1,500vpd. The typical formation of Iver Trask Place is shown in Figure 3-5.



*Figure 3-5. Typical formation of Iver Trask Place (view west towards the Site)*

### 3.1.5 Old SH1 Revocation

Following the opening of the Expressway in 2017, the old State Highway 1 (SH1) alignment has undergone revocation in the vicinity of the Paraparaumu town centre, with the now completed changes providing:

- signalisation of the Ihakara Street / old SH1 tee-intersection;
- provision of a new shared path between Ihakara Street and the main Coastlands shopping centre access;
- improved interface between buses and the rail station; and
- a new signalised pedestrian crossing access into the rail station from Coastlands shopping centre.

The pedestrian crossing and shared path which provide for improved active mode connectivity to the town centre and rail station, are illustrated in Figure 3-6 below.

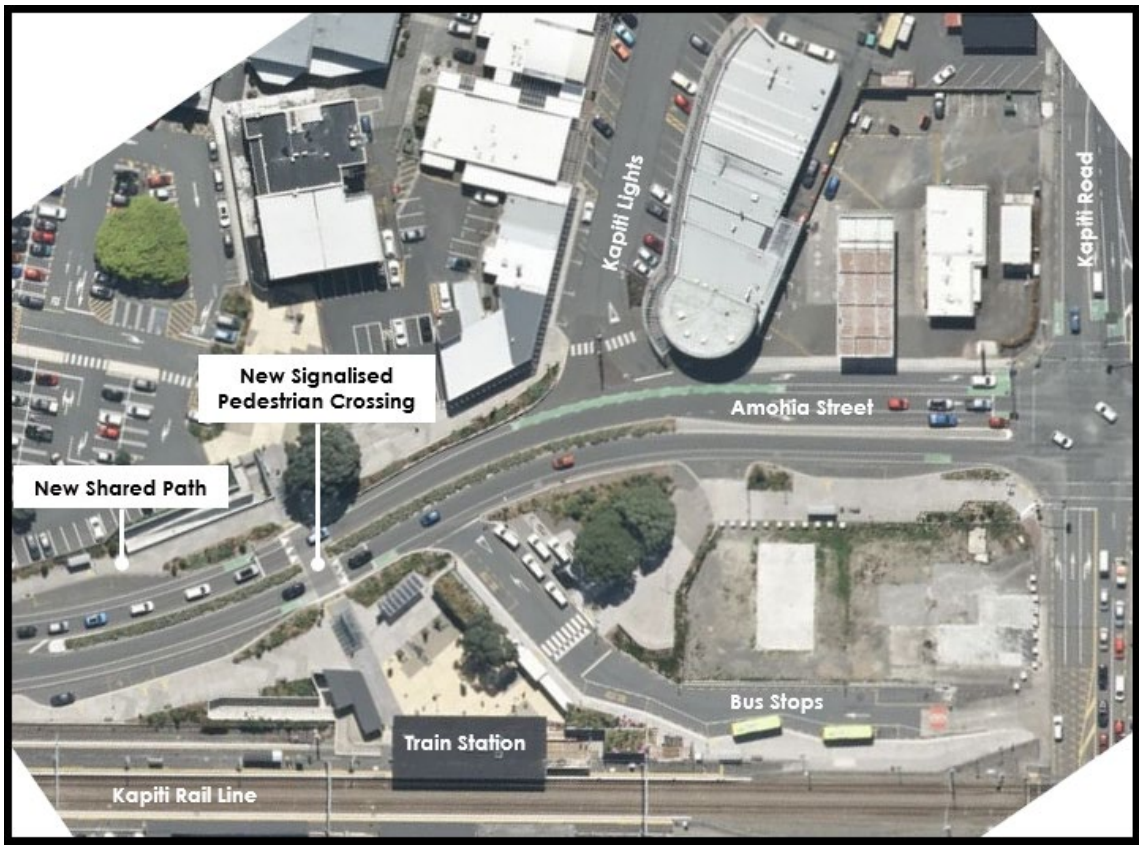



*Figure 3-6. Old SH1 revocation works (NZTA)*

The changes introduced through the revocation works are consistent with the assumptions that informed the MCZ Structure Plan through the District Plan review, providing for a downgrading of the old SH1 alignment, and presenting strong access to and from the train station that in turn facilitates good rail access for future residents and users of the development Site.

### 3.1.6 Future Town Centre Roads

As illustrated earlier in the MCZ Structure Plan (Figure 2-2), a number of new notional roads and desired connector roads are envisaged in and around the town centre, to facilitate access and allow appropriate permeability through the core precincts A, B and C. These can be summarised as follows:

- 'town centre' Link Road connecting between Ihakara Street and Kapiti Road (through the proposal Site): will enable access to and through Precinct C i.e. the Site and its new activities, and serve as a key secondary connection into the town centre in addition to Kapiti Road;
- 'Ihakara Street extension' link road: deliver a parallel route between the residential catchment towards the coast (west of the Expressway and Airport) and assist in separating town centre trips from traffic travelling to/from the Expressway; and
- three desired connector roads that extend between the new town centre Link Road and Brett Ambler Way, Iver Trask Place, and the vacant block of land west of Rimu Road and bounded by the Wharemaukū Stream: will provide local permeability and connectivity between the Site, civic precinct B, and wider town centre, as well as enabling active mode connectivity between the Site and the established Coastlands shopping centre and transport hub/ rail station beyond.

The new town centre Link Road forms a key component of this application and will not only provide primary access to the future mixed-use activities within the Site, but also deliver wider network benefits through attracting traffic from parts of Kapiti Road, improving network permeability, and enhancing walking and cycling connectivity to, from and within the Paraparaumu town centre. Consistent with the MCZ Structure Plan, the proposed roading layout within the Site safeguards the future delivery of two of the three desired connector roads, providing connections through to Brett Ambler Way and Iver Trask Place. The third desired connector, which was envisaged to provide a connection into Precinct A2 (refer Figure 2-2), has subsequently been identified by Council as no longer necessary to achieve the intended transport and connectivity outcomes for the town centre and has therefore not been incorporated into the proposed roading network. The Structure Plan includes a fourth extension road being the 'Ihakara Street Extension' – refer discussion in Section 4 below.

## 3.2 Existing Traffic Volumes

The Mobile Road database has been used to understand the quantum of traffic volumes along each of the roads surrounding the Site. A summary is provided in Table 3-1

*Table 3-1. Summary of Traffic Volumes (Mobile Road)*

| Road | AADT (vpd) | HCV % | Date |
|---|---|---|---|
| Kapiti Road (near Arawhata Road) | 22,150 | 9% | June 2026 |
| Kapiti Road (near Rimu Road) | 26,750 | 8% | |
| Rimu Road (near Ihakara Street) | 14,200 | 5% | |
| Rimu Road (near Kapiti Road) | 15,650 | 6% | |
| Ihakara Street (west of Rimu Road) | 2,100 | 12% | June 2025 |
| Iver Trask Place | 1,550 | 4% | |
| Ngahina Street | 850 | 4% | |

There is nothing unusual about these traffic volumes. The higher volumes on Kapiti Road and Rimu Road reflect their functions as a 'Major Community Connector and a 'Centres Route', respectively. The lower volumes observed within the other local roads reflect their access function.

## 3.3 Sustainable Transport

### 3.3.1 Pedestrians

Footpaths are provided on all roads in the vicinity of the Site and extend through to signalised intersections at Kapiti Road / Arawhata Road, Kapiti Road / Rimu Road and Rimu Road / Iver Trask Place. Dedicated pedestrian routes then extend through the Coastlands shopping centre to the rail station and bus interchange beyond by way of the underpass beneath Old SH1 or the crossing points delivered as part of the revocation works.

This same level of pedestrian service is proposed by way of the new roading infrastructure that will provide access to and through the proposal Site.

A number of pedestrian paths and cycleways provide access through the area of the Site, including the Wharemaukū Stream track, which links the town centre with the residential catchment to the west of the

Expressway and provides access to the new shared path which runs alongside the Expressway. Pedestrian routes to the north include the shared path that runs along the south side of Kapiti Road, and which extends from Rimu Road west past the Airport.

### 3.3.2 Cycling

Demarcated on-street cycle lanes are provided on Rimu Road and Kapiti Road, with green surface marking used to delineate the cycle lanes on approach to, and across driveways and intersections. Away from these intersections, a painted solid edge line provides exclusive space for cyclists to be accommodated in the carriageway shoulder.

A number of shared paths have been delivered by Council in recent years through their 'Stride and Ride' programme including along Kapiti Road, whilst the Kapiti Cycle Way shared path which runs alongside the Expressway alignment and provides a popular off-street facility that links north-south through Paraparaumu, as well as providing for connection to the town centre (via either the Wharemaukū Stream path or the Kapiti Road shared path). These existing cycling provisions are illustrated in Figure 3-7 below.

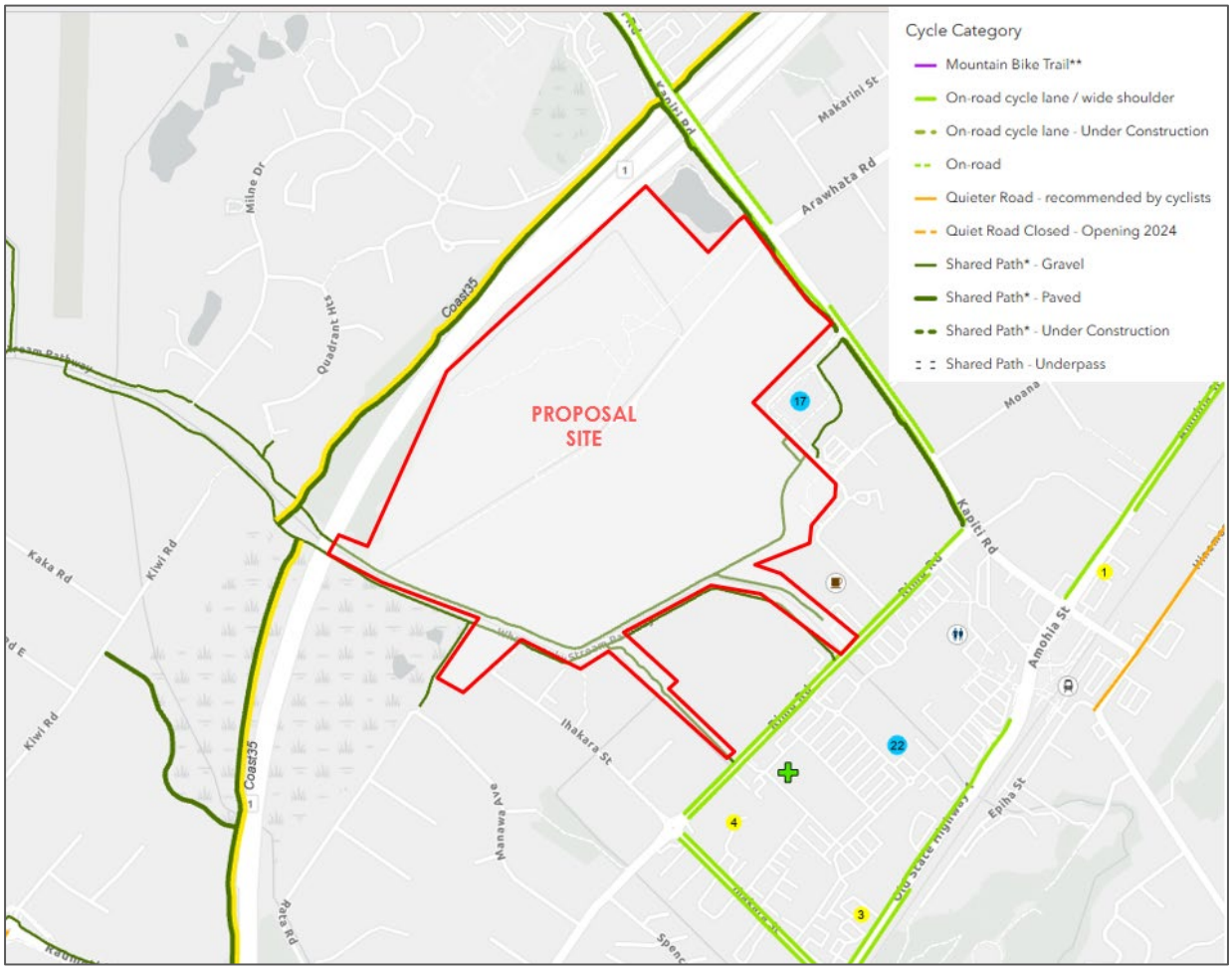



*Figure 3-7. Local Cycle Network (Council Cycling Map 2023)*

The proposed new movement network delivered as part of the proposal has been designed to provide a high-level of access for cyclists, as described later at Section 9, and will ensure improved amenity for sustainable travel modes in and around the wider town centre.

### 3.3.3 Public Transport

Bus stops are located on Kapiti Road and Rimu Road in the vicinity of the Site, with services operating from these stops providing access to the majority of suburbs in Paraparaumu, and wider to the district, as well as the rail station / bus interchange. Details of these services are illustrated in Figure 3-8 below.

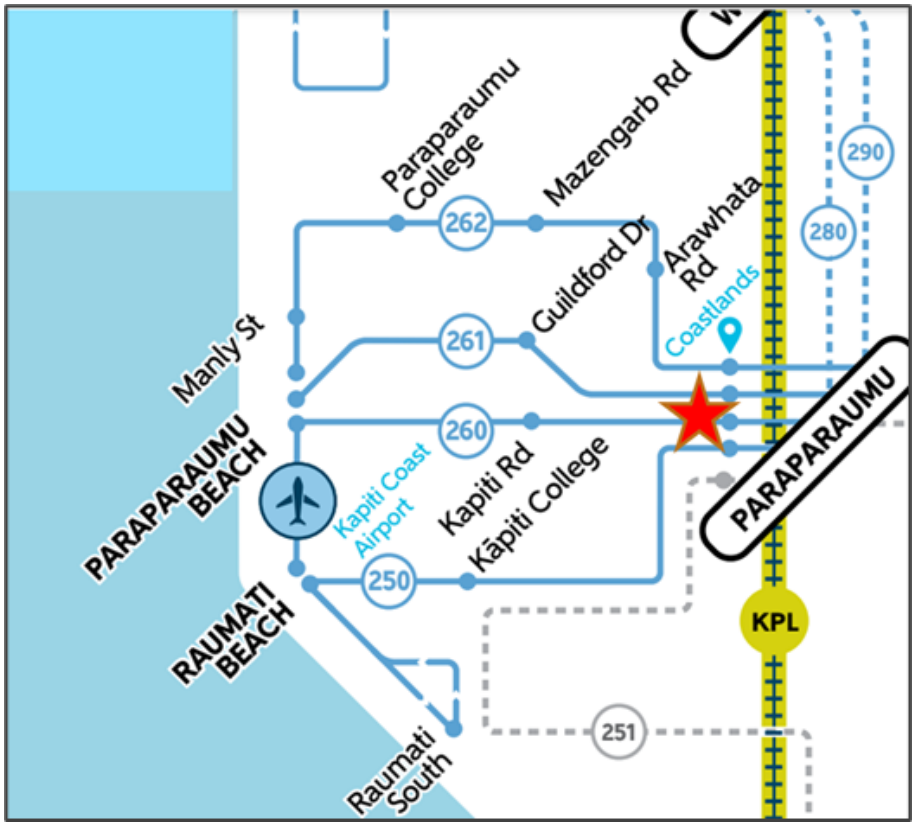



*Figure 3-8. Local bus routes with proposal site indicated by Red Star (Metlink)*

As demonstrated, the Site is well served by proximate bus routes that provide access to the wider district. The proposed new town centre Link Road design provided for as part of the proposed development has been specifically designed to accommodate future extension of these bus services, including provision for bus stops in the vicinity of the Iver Trask Place extension and core commercial / retail activities on the Site.

In addition to bus services, the Paraparaumu rail station is located an approximate 10-minute walk to the east, with regular services operating on this Kapiti line between Waikanae to the north and Wellington CBD to the south.

## 3.4 Mode Share

Census data from 2023 in the Commuter Waka website has been used to understand the mode share travel patterns of residents arriving and departing from the local area, noting the Site sits within the 'Paraparaumu Central' catchment 'Statistical Area 2' under the census area classifications.

The mode share for those travelling to Paraparaumu Central for work is predominately private vehicle travel, which constitutes 76% of the total travel. For those residents within Paraparaumu Central and travelling for work, 62% drive a vehicle (either private for company owned), 20% work from home, 10% use public transport via train (9%) or bus (1%), and 4% walk, 2% are a passenger in a car, and 2% cycle.

Notably, approximately 45% of employed residents (705 people) within the Paraparaumu Central area (which extends from Guildford Drive in the north, Old SH1 / Amohia Street in the east, Ihakara Street to the south, and the Airport to the west) also work within Paraparaumu Central, indicating that almost half of all work-related trips remain within the local catchment. This highlights the opportunity for future residential development within the Site to support a significant proportion of work-related travel through shorter local trips.

## 3.5 Existing Road Safety

A search of the NZ Transport Agency Waka Kotahi (NZTA) 'Crash Analysis System' was undertaken to review the crash records within the vicinity of the Site. The search utilised the most recent full five-year period between 2021-2025. The search area includes Rimu Road between Ihakara Street and Kapiti Road, Kapiti Road from west of Arawhata Road to Rimu Road, Ihakara Street from Rimu Road to its current termination, Iver Trask Place, Ngahina Street and Brett Ambler Way. The search extent is detailed in Figure 3-9.

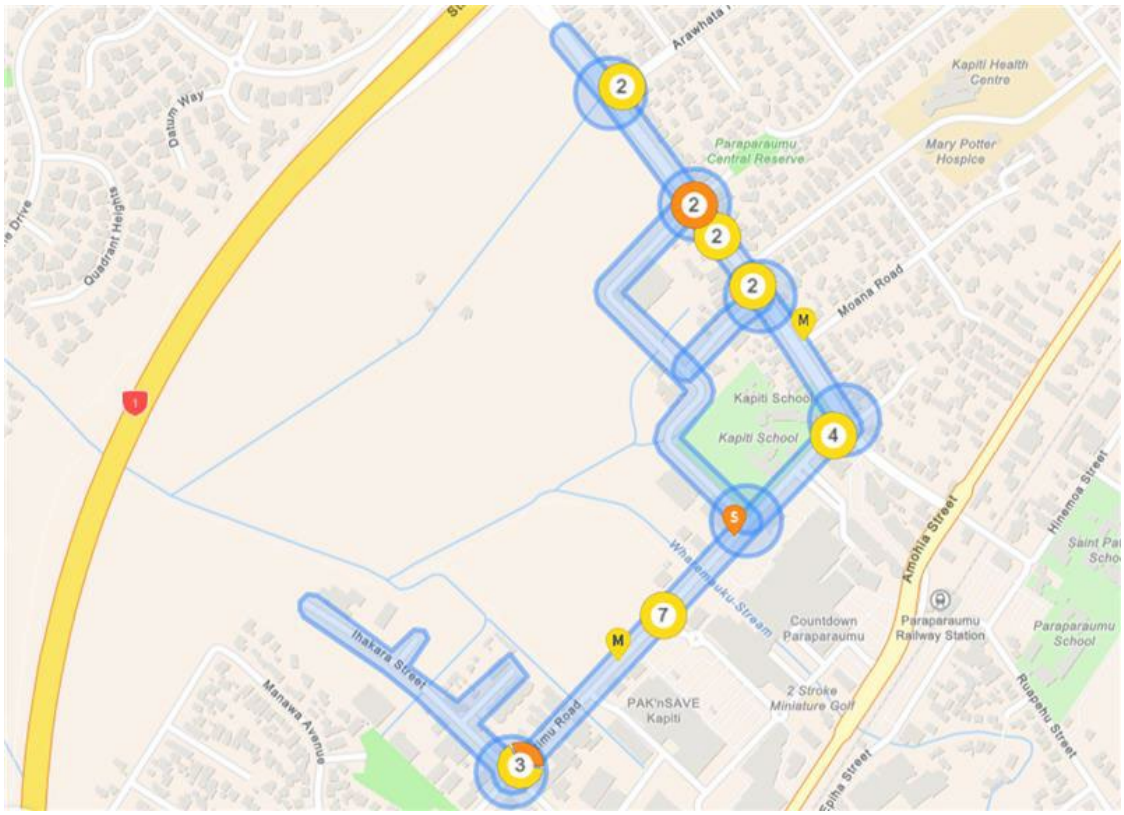



*Figure 3-9. Crash locations map (NZTA CAS)*

A total of four serious and 21 minor injury crashes were reported for the search extent. A summary of the injury crashes are provided below in Table 3-2.

*Table 3-2. Summary of crash record (2021-2025)*

| Date / Time | Location | Crash Severity | Description |
|---|---|---|---|
| Sat 16th March 2024, 1:26pm | Intersection of Kapiti Road and Brett Ambler Way | Serious injury | Eastbound vehicle has been rear-ended as they slowed down at the intersection. |
| Wed 29th June 2022, 5:45pm | | | A vehicle turning right into Brett Ambler Way has failed to notice and give-way to a cyclist travelling through this intersection along Kapiti Road. |
| Thu 22nd July 2021, 12:45pm | Rimu Road midblock | Serious injury | A pedestrian has run from the footpath into the live traffic lane and collided the side of a passing van |
| Wed 27th November 2024, 8:40am | | Minor injury | A vehicle turning right out of Kapiti School has hit a cyclist travelling along the footpath |
| Sat 2nd September 2023, 12:24pm | | Minor injury | Elderly driver has accidentally pressed hard against the accelerator while reversing out of a car park |
| Thu 6th April 2023, 5:30pm | | Minor injury | A southbound vehicle has been rear-ended, with the following driver citing distraction. |

| Date / Time | Location | Crash Severity | Description |
|---|---|---|---|
| Sun 24th January 2021, 12:22pm | | Minor injury | A vehicle and motorcycle have crashed at the end of a southbound merge, failing to notice one another and give way |
| Tue 18th March 2025, 1:54pm | Rimu Road / Coastlands carpark | Minor injury | Vehicle turning right out of Coastlands carpark has failed to give way to a southbound vehicle on Rimu Road |
| Thu 13th February 2025, 11:06am | | | |
| Wed 7th August 2024, 2:30pm | | | |
| Wed 3rd July 2024, 1:33pm | | | |
| Sun 11th February 2024, 12:15pm | | | |
| Sun 26th December 2021, 1:39pm | | Minor injury | Vehicle turning left out of Coastlands carpark has failed to give way to a southbound vehicle on Rimu Road |
| Wed 19th April 2023, 1:12pm | Intersection of Rimu Road and Ihakara Street | Serious injury | A southbound vehicle has failed to notice and give-way to a moped turning through the roundabout. Inexperienced driver. |
| Tue 21st June 2022, 1:40pm | | Minor injury | A southbound vehicle has failed to notice and give-way to a bicycle travelling through the roundabout. |
| Fri 24th September 2021, 9:55am | | Minor injury | A southbound vehicle has failed to notice and give-way to a bicycle turning through the roundabout. |
| Tue 19th April 2022, 9:54am | Intersection of Rimu Road and Kapiti Road | Minor injury | A right-turning vehicle from Kapiti Road has been rear-ended whilst waiting at the signals. |
| Tue 14th September 2021, 1:30pm | | Minor injury | A right turning vehicle has failed to give way to a northbound motorbike on Kapiti Road |
| Sat 28th September 2024, 9:30pm | Intersection of Kapiti Road and Moana Road | Minor injury | A southbound vehicle on Moana Road has hit a pedestrian walking across the street |
| Fri 22nd December 2023, 11:15am | Intersection of Kapiti Road and Ngahina Street | Minor injury | Cyclist has been hit coming out from Ngahina Street, with the vehicle speeding off afterwards. |
| Thu 24th July 2025, 5:35pm | Kapiti Road midblock | Minor injury | Northbound vehicle on Kapiti Road has been rear-ended as it slowed down in a queue. Learner driver. |
| Mon 23rd June 2025, 3:10pm | | Minor injury | Northbound motorbike driver has fallen off, and is known to have a medical condition. |
| Mon 17th July 2023, 7:00am | | Minor injury | A vehicle turning right-out of their driveway had windows fogged and failed to give-way to a southbound motorbike |
| Sun 8th December 2024, 1:00pm | Intersection of Kapiti Road and Arawhata Road | Minor injury | A southbound cyclist has failed to stop at the signal and hit a vehicle turning left out of Arawhata Road. |
| Fri 21st October 2022, 5:51pm | | Minor injury | A motorbike has rear-ended a preceding vehicle that had slowed down. Inexperienced rider following too closely. |

As shown, the majority of injury crashes involved vehicles crossing / turning (60%), with poor observation (56%) and failure to give-way or stop (60%) being the primary contributing factors.

The recorded crash history is characteristic of the urban arterial / town centre environment that accommodates higher traffic volumes, multiple intersections, property access points, and multi-modal trips. The predominance of crossing-turning, rear-end, poor observation and failure-to-give-way crashes is consistent with the operational characteristics of this type of road environment and, outside of some concentration of crashes involving vehicles turning from carpark driveways on Rimu Road, does not identify any systemic road safety deficiency or unusual crash pattern.

# 4 Future Network Changes

Key network changes as envisaged by Council that are either included or are relevant to this application, are set out below.

## 4.1 Town Centre Link Road

A key objective of the Council's LTP is to 'develop and maintain a roading network that provides access and enhances community connectedness'. One of the major capital works projects included in the 2024-2034 LTP to achieve this outcome is delivery of the new (Ihakara Street to Arawhata Road) town centre Link Road. Under the Council's Annual Plan 2025/26, funding for this project has been re-allocated from 2025/2026 to the current year 2026/27.

A key component of this proposal is the design and delivery of the town centre Link Road, which not only enables access into the Site but achieves the broader benefit of providing the LTP's strategic outcome of enhancing town centre access and connectivity.

## 4.2 Ihakara Street Extension / Airport Link Road

As described earlier, the MCZ Structure Plan identifies a notional roading connection extending Ihakara Street through the wider area towards Kiwi Road and the transport network west of the Expressway. The potential connection has been considered through previous transport studies used to inform the land use zoning and Structure Plan provisions ultimately adopted in the District Plan. It is not, however, currently included as a funded project in the LTP.

Over several years, the Developer and Council have discussed options for accommodating this future connection, including the potential for the route to bisect the development Site. Various alignments have been considered as the development concept has evolved. However, the alignment preferred by Council through the Site has proved difficult to accommodate due to the environmental constraints associated with the southern part of the Site, including the Wharemaukū Stream, wetlands and associated restoration and flood management areas.

Accordingly, the Airport Link Road is now being progressed through a separate workstream between the Developer and Council, including investigation of an alternative alignment generally south of the Wharemaukū Stream, broadly corresponding with the location identified notionally on the MCZ Structure Plan (illustrated earlier at Figure 2-2). The detailed alignment, design, consenting requirements, delivery mechanism and timing of that connection remain subject to that separate process, noting the Envelope Engineering drawings provided as part of the wider substantive application include an indicative alignment for the Airport Link road along with connecting intersection to the Town Centre Link Road.

The current proposal therefore does not include construction of the Airport Link Road. Importantly, however, the development has been designed so as not to preclude the future establishment of the connection, should it subsequently be progressed by Council.

## 4.3 Speed Limit Review

Council's draft 'Speed Management Plan 2026-2036' (SMP) includes a proposal to:

- install pedestrian refuges on Rimu Road and Ihakara Street;
- upgrade of existing raised safety platforms to pedestrian zebra crossings on Iver Trask Place; and
- reduce the posted speed limit along the lengths of Iver Trask Place and Brett Ambler Way to a permanent 30kph (i.e. 24/7), as a road safety response to the presence of the Kapiti Primary School. This change has been implemented.

It is understood from Council that a decision on whether the remaining proposals described above are implemented is due at the end of October 2026. The SMP notes that there is no intention at this stage to reduce speeds along urban connector roads such as Kapiti Road.

# 5 Proposed Site Development

The Site, which comprises a total area of approximately 36-hectares, is to be developed for mixed-use purposes including residential, commercial, and retail, along with dedicated provision for reserves and wetland areas with secondary flood management functions.

The proposed access strategy for the Site includes delivery of the new town centre Link Road that will connect as a fourth arm off the current Kapiti Road / Arawhata Road signalised intersection to the north, and as a continuation of the current Ihakara Street stub road to the south. A future extension of Ihakara Street beneath the Expressway by Council is also provided for, along with desired connector roads identified in the MCZ Structure Plan (shown earlier in Figure 2-2) that extend between the Link Road and the town centre and include Brett Ambler Way and Iver Trask Place that will provide future east-west connections.

These new town centre streets have been designed to accommodate appropriate walking and cycling access and movement, in the form of footpaths, shared paths, on-street cycle lanes and facility for users to cross the road carriageways at dedicated crossing points including under signal control. The new town centre Link Road design has also been future proofed to accommodate a potential bus route, with provision for north and southbound bus stops.

The proposal plans developed for the Site are included in the broader Application and provide details of the various development precincts as well as the supporting transport network components that are proposed to be vested to Council. Details of the mixed-use activities proposed within the Site are set out below, which form the basis for the traffic analysis and road capacity design detailed later at Sections 8 and 9.

## 5.1 Proposed Site Activities

The proposal plan is included below in Figure 5-1. A mixed-use development across the Site is proposed, providing for an overall development activity yield of:

- 16,000m² GFA of LFR activities
- 4,000m² GFA supermarket
- 3,500m² GFA mix of small retail / commercial office
- 3 x fast food / drive through
- 1 self-service fuel stop; and
- 600 residential units comprising a mix of typologies including apartments, townhouses, duplexes and standalone dwellings.

While the final development plans do not include a self-service fuel facility, this has been retained within the transport assessment as a sensitivity scenario on the basis that such an activity may be incorporated within the Site at a future stage. Accordingly, the traffic effects assessment adopts a conservative approach by including the potential traffic generation associated with this use.

For the purpose of this assessment of road design requirements and development effects and mitigation determination, it has been necessary to further specify development activities and yields. A fuller activity schedule which shows a breakdown of the nature and scale of development across the Site, is summarised in Table 5-1. It is anticipated this example development form presents an upper

envelope of Site activity such that variabilities in the types of tenants would not lead to greater transport requirements.

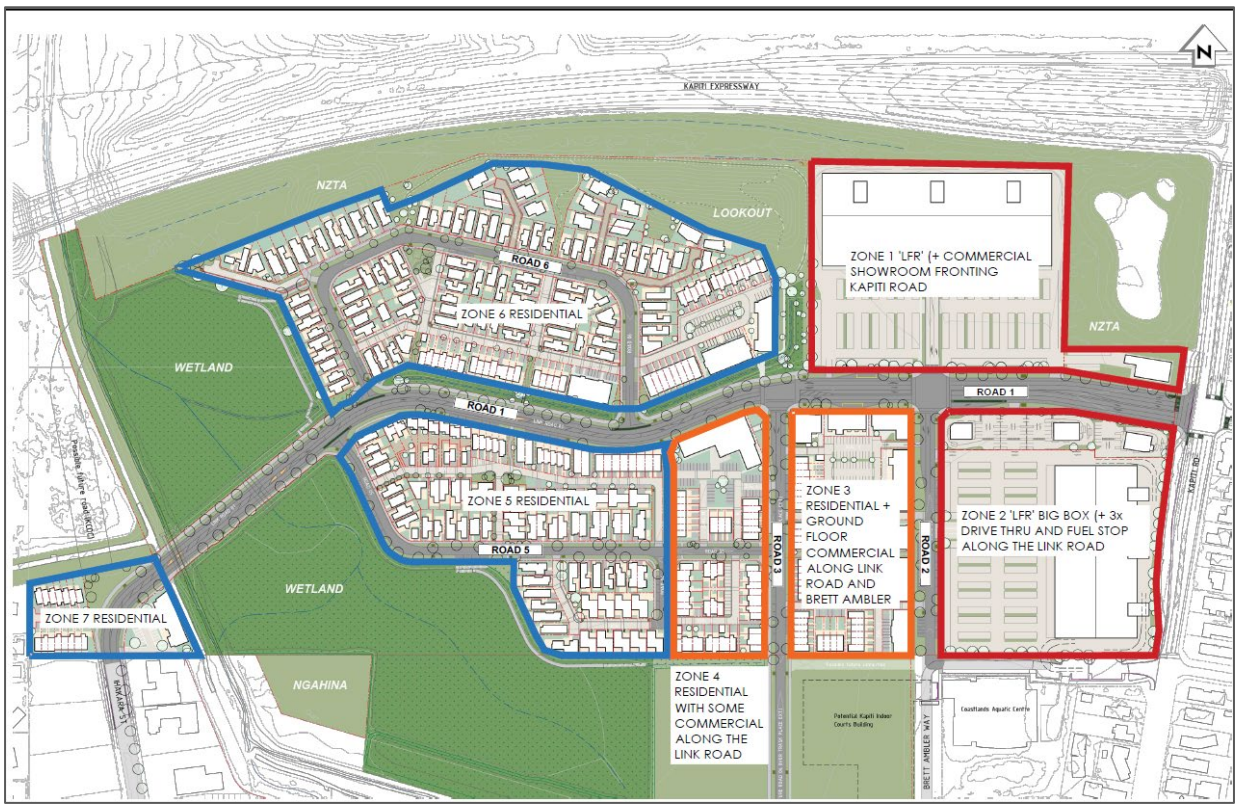



*Figure 5-1. Site Masterplan Development Areas*

*Table 5-1. Proposed development Site Activity Schedule*

| Development Zone | Activity Type | GFA[2] / No. Units |
|---|---|---|
| 1 | Large Format Retail (LFR) | 12,000m² GFA |
| | Commercial / Showroom | 650m² GFA |
| 2 | 3 x Fast food / Drive-through | 800-850 m² GFA |
| | Self-service Fuel outlet | - |
| | LFR | 4,000m² GFA |
| | Supermarket | 4,000m² GFA |
| 3 | Small Retail | 1,175m² GFA |
| | Commercial Office | 1,175m² GFA |
| | Residential Apartments | 98 units |

[2] GFA = Gross Floor Area

| Development Zone | Activity Type | GFA[2] / No. Units |
|---|---|---|
| | Medium Density (townhouse) | 58 units |
| 4 | Small Retail | 250m² GFA |
| | Commercial Office | 250m² GFA |
| | Residential Apartments | 50 units |
| | Medium Density (townhouse) | 45 units |
| 5 | Medium Density (townhouse) | 24 units |
| | Duplex / standalone dwellings | 78 units |
| 6 | Residential Apartments | 59 units |
| | Medium Density (townhouse) | 42 units |
| | Duplex / standalone dwellings | 110 units |
| 7 | Residential Apartments | 12 units |
| | Medium Density (townhouse) | 17 units |

As shown, the proposed development caters for a mix of land use activities as anticipated by the MCZ provisions and associated Structure Plan.

In addition to the main roading links described earlier (section 3.1.6) that are anticipated by the MCZ Structure Plan, a series of new local roads and Joint Ownership Access Lots (JOALs) are proposed to serve the new development activities.

Details of the individual activity access arrangements are included in the proposal plans, which have been developed to be cognisant of the District Plan requirements for access separation from intersections and minimum required sightlines. The Zone 1 large format retail carpark on the western side of the new Link Road is intended to be served by a single access connecting off the first set of signals on the new Link Road (heading south from Kapiti Road). Customer access to the retail activities in Zone 2 is proposed to be accommodated via left in / left out accesses on the new Link Road, driveways off the new east-west connector road running from the link to toward Brett Ambler Way, and a two-way driveway connection to the northern portion of Brett Ambler Way, to provide good traffic distribution. Outside of the Zone 1 and 2 connections, no direct individual lot access to the new Link Road is proposed, with the remaining activities in Zones 3 to 6 accessed via new local roads, and via two new JOALs in the case of Zone 7.

An assessment of the associated traffic generation of the Site development and analysis of the impacts and performance of the new transport links is provided at Section 8.

## 5.2 Stakeholder Liaison

### 5.2.1 Kapiti Coast District Council

Ongoing engagement has been undertaken with Council transport officers throughout the evolution of the masterplan, including in relation to a previous 2023 proposal and the current application. This engagement has principally focused on two matters, being the methodology adopted for assessing the transport effects of the Site's future development including the traffic modelling that has informed the design of the town centre Link Road, and the layout and design of the proposed transport infrastructure

within the Site. A number of matters were raised through the Council's Requests for Further Information (RFIs) on the earlier earthworks and subdivision applications and through more recent engagement on the current scheme. These matters are summarised below, along with a description of how they have been incorporated into the proposed masterplan.

*Table 5-2: Council Feedback Summary*

| Matter Raised | RFI(s) | Information Requested | Response |
|---|---|---|---|
| Road Hierarchy, Network Design | CS2, CS4, CS5, CS19 | Define One Network Framework (ONF) classifications and road functions for new Site roading infrastructure; confirm the Iver Trask extension delivery/staging and interim turning; show property boundaries; update network design including Ihakara interface. | A description of the proposed transport network hierarchy and its alignment with the ONF is provided in Section 9.1. Consideration has also been given to the design and staging of connections to the surrounding road network, including the provision of temporary turning heads where required, together with the definition of property boundaries. These matters are reflected in the updated roading plans. |
| Safe System / road safety audit | CS1, CS19 | Safe System Assessment of the concept roading design including focus on active mode crossing of the Link Road at the Wharemaukū shared path, along with crossings along the fuller length of the Link Road and other key roads, cycle transitions, speed management and bus-stop / shared path interface to mitigate conflicts. | The proposed roading network has been developed to be cognisant of Safe System principles and is intended to provide a safe and legible transport environment for all users. To support ongoing design development, a consent condition is recommended requiring a ‘concept design’ Safe System Audit of the proposed roading infrastructure to confirm alignment with Safe System outcomes and identify any further improvement opportunities. |
| Traffic modelling / network performance | CS8-CS12 | Update SIDRA/network assessment for AM and PM peaks; assess identified Rimu Road intersections; justify the Link Road lane configuration south of Kapiti Road; provide model inputs/outputs; assess worst-case commercial/retail scenario and mitigation. | The revised modelling has taken account of the AM and PM peaks, Rimu Road intersections, and most recent direction from Council to include assessment of a future Ihakara Street / Airport Link Road at Section 8. The associated modelling files can be provided. |

| | | | |
|---|---|---|---|
| Future Ihakara / Iver Trask integration | CS6, CS19, MM5 | Demonstrate that the development does not preclude future Ihakara Street and Iver Trask connections; coordinate road, culvert, shared path and cycle-network interfaces. | The updated roading concept plans provide details of the future network integration, including connection of Iver Trask (with a temporary turning head provided until that connection is implemented) allowance for the Ihakara Street future link road, and consideration of active mode routes and engineering infrastructure. |
| Vehicle access / future lots | CS3, CS13, CS15, CS16 | Show indicative accesses for Lots across the Site; assess District Plan access/sight-distance compliance; provide standard swale-crossing access detail. | The Site masterplan incorporates indicative access arrangements for individual lots, which have been assessed against the applicable District Plan standards in Section 6.1. Given the concept-level nature of the masterplan, some refinement of individual access layouts may occur as detailed design progresses. To address this, a consent condition is proposed requiring assessment of any resulting non-compliances against the relevant access standard(s). |
| Heavy vehicles / buses | CS7 | Confirm design vehicles and tracking for the Link Road / other internal roads, and city bus access to the Link Road bus stops. | The geometric design for the proposed new Site roading infrastructure has been developed to accommodate the relevant design vehicles, including city bus tracking along the Link Road, and service vehicles / waste collection trucks on the remaining Site roads. |
| Walking / cycling / crossings | CS14, CS19, MM3-MM5, OS6 | Show complete active-mode network, crossings, shared-path alignment, cycle transitions, links toward Coastlands/station and how key connections will be protected. | Details of the proposed active mode network are provided in Section 9. This includes dedicated shared path connections to Iver Trask Place, Kapiti Road, and the Wharemaukū shared path via links within the proposed vested road reserve. The associated plans are included within the DCM Open Space Strategy. |

| | | | |
|---|---|---|---|
| Public transport | CS1, CS7, CS19, MM3 | Coordinate bus-stop locations with pedestrian crossings and shared paths; demonstrate bus tracking and safe passenger access | The bus stop locations have been chosen to provide convenient proximity to the Site's core activities (as described in Section 9) and are sited immediately adjacent to signal controlled intersections that allow pedestrians to safely access them. Detailed design of bus stops relative to the shared path interface will be furthered developed in coordination with Council. Bus tracking assessments confirming the operational suitability of the proposed bus stop arrangements are included within the Envelope Drawings. |
| Swales / lighting / road assets | CS16-CS18 | Provide access-over-swale detail, capacity/lining/planting/maintenance information and concept lighting/pole locations; coordinate with civil design. | Standard details for vehicle crossings of the swale are provided in the Envelope roading and civils drawings, whilst lighting plans will be included with the final roading plans to be provided to Council for certification as a condition of consent. . |
| NZTA / Expressway interface | KC5 | Confirm consultation with NZTA regarding Designation NZTA-005 and identify any resulting design or transport implications. | The draft ITA has been provided to NZTA with a meeting to be scheduled once reviewed. |

In addition to the formal RFI responses above, Stantec has undertaken significant engagement with Council throughout the development and refinement of the proposed roading and transport arrangements. This has included review and discussion of successive iterations of the roading plans, with the design progressively amended in response to feedback received from Council transport and development engineering advisors. Stantec has sought to work constructively with Council to understand, respond to and, where practicable, resolve the transport matters raised through that engagement. The current roading plans therefore reflect the outcome of an iterative design and review process undertaken with Council, rather than a design developed in isolation from Council input.

As part of the ongoing pre-lodgement engagement process, an advance copy of the draft ITA and associated draft roading plans were provided to Council for review. Council subsequently provided a number of further RFIs and comments relating to the transport assessment and proposed roading arrangements. A summary of these matters and the corresponding responses is provided in Appendix A.

### 5.2.2 GWRC / Metlink

The draft ITA and associated roading plans have been provided to Metlink for review, with follow-up discussions expected to focus particularly on the ability to accommodate a future bus route along the proposed Town Centre Link Road. This engagement will continue as the detailed roading design is developed, post-consent.

# 6 Statutory Planning Assessment

## 6.1 District Plan

Given the proposal Site is zoned MCZ within the provisions of the District Plan and includes the construction of new roads, compliance is therefore guided by the traffic engineering provisions captured under the rules and standards in 'TR – Transport', including in relation to access and future Site traffic generation.

As such, an assessment of the proposed roading work's compliance with the relevant transport rules and standards is set out in Table 6-1.

*Table 6-1. District Plan Compliance*

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| TR – Transport | | |
| **TR-R1** | **Maintenance and Repair of Roads** | |
| | Permitted Activity Standards:<br>1. Compliance with the permitted activity noise standards in NOISE.<br><br>2. Compliance with Council's Land Development Minimum Requirements [April 2022] | To be assessed by noise engineer.<br><br>**Does not Apply.**<br>Access to and through the proposal Site is proposed via a series of new Site roads (as described at Section 9), rather than existing roads. Notwithstanding, design of the internal local roads aligns with the Council's 'Land Development Minimum Requirements (LDMR), which in turn draws from the industry standard 'NZS4404:2010 Land development and subdivision infrastructure' (NZS4404) for appropriate roading typologies based in land use and link function. |
| **TR-R2** | **Vehicle Movements** | |
| | Permitted Activity Standards<br>1. Up to 200vpd in the Working Zones, except:<br><br>c) any activity in Precinct C in the MCZ must not generate more than 50 vehicle movements in any hour. | **Does not Comply.**<br>The proposed Site development (which occupies Precinct C) will exceed the 50 vehicle movements per hour threshold, and as such is considered a 'Restricted Discretionary' activity. This ITA has therefore been prepared to examine and describe the associated Site transport effects on the wider network. |
| **TR-R3** | **Site access and loading** | |
| 1. | Access – every site must provide either: | **Will Comply**. |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | 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<br>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. | Vehicle access points will be designed accordingly, noting all lots will have access from a vested road, mutual RoW or JOAL. |
| 2. | Vehicle access and pedestrian access - all vehicle accesses must be designed, constructed and maintained to ensure that:<br>a) they are able to be used in all weather conditions;<br>b) they have no adverse impact on the roadside drainage system; and<br>c) surface water and detritus (including gravel and silt) does not migrate onto the highway pavement. | **Will Comply**.<br>Vehicle accesses will be designed and constructed accordingly and to an all weather standard. |
| 3. | Vehicle access - all vehicle accesses must meet the following:<br>a) be a minimum of 3.5 metres wide, except for as set out in TR-Table 1.<br>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. | **Does not Comply**.<br>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 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 volunteered requiring the design of the driveway to be developed, for later certification, to a suitable standard in keeping with the urban setting and frontage street environment that ensures appropriate manoeuvring to/from the lot. |
| 4. | 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. | **Will Comply**.<br>Those off-street commercial activities within the Site that include more than 6 car parks will be designed as a minimum 6m two-way vehicle access. |
| 5. | 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. | **Does not Apply**.<br>The Site does not include any direct accesses to a State Highway. |
| 6. | 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 | **Does not Comply**.<br>One of the proposed JOAL accesses to Road 2 is located approximately 23m from the Link Road signalised intersection and therefore does not achieve the minimum separation |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | intersection or within 60 metres on the departure side of an urban state highway intersection. | distance specified by the District Plan. Notwithstanding this, the access has been designed to operate as an exit-only, thereby minimising turning movements and mitigating potential vehicle conflict and safety effects associated with the reduced separation distance. |
| 7. | 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:<br>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<br>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 | **Does not Comply**.<br>The proposed JOAL J, which has been realigned following the removal of the second Road 5 intersection with Road 1 at Council's request, now intersects with Road 5 opposite the Road 4 tee-intersection. Given the limited traffic expected on Road 4, which functions as a short cul-de-sac and provides a second connection to JOALs I and Q (both of which also connect directly off Road 5), turning volumes at the intersection are anticipated to be low. Through appropriate detailed design that visually downgrades the JOAL J vehicle crossing relative to the Road 4 intersection, safe and efficient operation of the intersection can be achieved.<br>Whilst at this stage the location of each individual lot 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 volunteered 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. |
| 8. | 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. | **Will Comply**.<br>The proposed vehicle accesses serving the Site's major traffic activities in Zones 1 and 2 satisfy the required separation distances in relation to local as well as a Major |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | • Major Community Connector Routes and Centres Routes – 30m<br>• Local community connector routes & neighbourhood Access routes – 15m | Community Connector (the anticipated classification of the new Link Road under the District Plan roading hierarchy). |
| 9. | 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).<br>• 50kph posted limit = 50m | **Does not Comply**.<br>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.<br>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 volunteered requiring driveways where compliance with the Rule is not fully met to be located to maximise sightlines and to ensure appropriate sightlines for the anticipated operating speeds on the frontage road. In addition, the consent condition will include restrictions on boundary fencing arrangements and landscaping, to ensure sightline splays are not adversely impacted. |
| 10. | 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 | **Does not Apply**.<br>No accessways to a State Highway are proposed. |
| 11. | 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). | **Does not Apply**.<br>No accesses onto state Highways or Rural Roads are proposed. |
| 12. | Manoeuvring:<br>a. Private residential access – unless the driveway accesses directly from a | **Will Comply**.<br>On-site manoeuvring and turning facilities are provided for all commercial activities, ensuring that |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | 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.<br>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. | vehicles can enter and exit the Site in a forward direction without the need to reverse to or from the road network. For the residential component, all vehicle access arrangements are designed such that reversing movements onto roads with a classification higher than a Neighbourhood Access Route are avoided. |
| 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 | **Will Comply**<br>Loading spaces provided to support the commercial activities within the development Site will be designed to ensure a 90 percentile truck can access and egress in a forward direction, as per the intent of the Standard. Specific details of the on-site loading and access arrangements for the LFR activities is proposed to be captured through a volunteered consent condition which requires development of a 'Large Format Retail – Transport and Servicing Confirmation Report'. |
| 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. | **Does not comply.**<br>The infringement is largely confined to the Town Centre Precinct, which is intentionally designed as a mixed-use environment incorporating a combination of retail/commercial and residential activities, including at ground-floor level. In some locations, parking and loading areas associated with non-residential activities are therefore not separated from adjoining residential activities or sites by the full 2 m depth of landscaping required by the standard. This reflects the integrated mixed-use design and more intensive urban form anticipated within this part of the development, rather than an absence of landscaping across the precinct. |
| 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**.<br>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.<br>However, in some cases it may not be possible to achieve the minimum i.e. for lots located close to bends or |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | | 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 volunteered, as described under the response to TR-3.9 above. |
| **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. | **Can comply**.<br>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. |
| 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. | |
| 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. | **Can comply**.<br>Parking for the commercial activities at the Site will be:<br>• formed, sealed to an all weather surface, marked and dimensioned to satisfy TR-Diagram – 8.<br>• designed to ensure vehicles can enter and exit in a forward direction and without the need to reverse to/from the public street<br>• landscaped with appropriate treatments around non-residential activity parking areas internal of the Site<br>• a landscape design will be developed for treatments around car parking in front yards associated with the commercial activities.<br><br>A consent condition is recommended that requires parking areas within the commercial centre to comply with TR-R5. |
| 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. | 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:<br>a. where a carparking area incorporates more than 5 carparks, 1m² 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<br>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 1m² of landscaping per carpark;<br>c. planting must be completed within 12 months of commencement of the activity;<br>d. the landscaping must be maintained in healthy condition and clear of litter;<br>e. vehicle crossing points and pedestrian areas within public carparks must have illumination | |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | consistent with the Crime Prevention Through Environmental Design (CPTED) Guidelines (Appendix 6) | |
| 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. | |
| 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**<br>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. | **Will Comply.**<br>Vehicle access arrangements for the commercial activities within Zones 1 and 2 will be designed to accommodate the anticipated service vehicle demands. A servicing strategy will be confirmed under a volunteered condition for a 'Large Format Retail – Transport and Servicing Confirmation Report' to establish the preferred access and egress routes for servicing activities and demonstrate that service vehicles can safely enter, manoeuvre within, and exit the Site via the adjoining frontage roads. Accordingly, compliance with the standard can be achieved through the detailed design process and through the proposed consent condition. '. |
| 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. | |
| 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. | |
| **TR-R8** | **Service Stations** | |
| 1. | <u>Pedestrians</u><br>There must be no access to or from service stations across any footpath where the number of pedestrians exceeds 1,000 per hour for two or more hours of any day of the week for four or more weeks of the year. | **Does not Apply.**<br>The development plans do not include a service station. |
| 2. | <u>Visibility</u><br>Sight distances to and from any access must comply with the distances in TR-Table 5 - Minimum Sight Distances from Access. The table shall be interpreted in accordance with TR-Diagram - 3 of this chapter (where m = metres and km/h = kilometres per hour). | |
| 3. | <u>Arterial Route Stations</u><br>For service stations on limited access roads (LAR), Strategic Arterial Routes, roads carrying in excess of 10,000 vehicles per day (vpd), on rural state highways carrying over 3,000 vpd, or along roads where the 85 percentile speed exceeds 70km/hr; the following conditions must apply. | |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | a. pumps or dispensing points must be located at least 9 metres from the limits of the road boundary; and<br>b. deceleration and acceleration lanes must be provided in accordance with TR-Diagram - 4 of this Chapter. | |
| 4. | Median Divided Roads<br>Service stations on roads that have central medians separating opposing traffic flow must operate only as left turn in, left turn out. No operating in the central median must be provided to facilitate entry or exit from the service station for traffic on the opposite side of the road | |
| 5. | Provisions for Road Widening<br>Where the road controlling authority has designated road widening, the future road boundary and roadway edge should be used to determine relevant distances stated in this ordinance | |
| 6. | Manoeuvring Space<br>To achieve easy ingress and egress, it must not be necessary for vehicles to make turns of less than 4.5-metre radius. Where the maximum turning radius is between 4.5 metres and 7.5 metres, a path width of 4.5 metres must be provided. For turns of 7.5 metres or greater, a minimum path width of 3.5 metres shall be provided. These path widths must be measured between pumps or dispensers and any kerb, nib-wall or planter box etc | |
| 7. | Where it is necessary to have large vehicles such as buses, trucks or tankers passing alongside pumps or dispensers, they must not in any case need to make turns less than 7.5-metre radius and must have a minimum path width of 4.5 metres | |
| 8. | Location of Pumps/ On-site Facilities<br>Any pump or dispensing point must not be located<br>a. within 7 metres of any part of a crossing point or<br>b. within 4.5 metres of the road boundary (which must not be an accessway) except under the following conditions | |
| 9. | On-site facilities such as a car-wash, lube bay, or air hose pump must not be located in such a way that waiting vehicles will obstruct the normal paths of vehicles moving to and from the subject site | |
| 10. | Driveways/ Crossing Points<br>Driveways and crossing points must be clearly defined and shall be restricted to the widths required by TR-Table 6 - Width Restrictions of Driveways/Crossing Points (where m = metres) | |
| 11. | Crossing points providing access to/from the subject site must be separated by a minimum of 10 metres except for service stations located on a State Highway where crossing points shall be separated by a minimum of 15 metres | |
| 12. | Crossing points and driveways must be located and designed so that a tanker can enter and leave the subject site without crossing the centre line of the road carriageway | |
| 13. | Location of Filling Points | |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | Filling points must not be located so that tankers need to park on legal road. | |
| 14. | Fillings points must be located so that tankers do not obstruct the driveways and crossing points | |
| 15. | Treatment of Surface Water<br>Surface (storm) water resulting from the service station premises must be treated prior to entering Council's reticulated services by:<br>a. an interceptor trap to remove petroleum products; and<br>b. settlement tank(s) to remove grit. | |
| **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 | **Will Comply**<br>All proposed public roads within the Site include footpaths on both sides of the carriageway |
| 2. | Cycle paths must be provided either as on-street cycle lanes, off-street shared paths or off-street dedicated cycle paths<br><br>Matters of Control:<br>1. The route of the road.<br>2. The design and construction of the road, including safety, traffic engineering, landscaping and noise mitigation measures.<br>3. The degree of consistency with the Transport Network Hierarchy.<br>4. The imposition of financial contributions in accordance with the FC - Financial Contributions chapter.<br>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.<br>6. The provision of footpaths in Residential Zone areas, where footpaths are not part of the surrounding environment.<br>7. The degree of consistency with:<br>a. a. Council's Land Development Minimum Requirements;<br>b. Council's Best Practice and Subdivision Guide<br>c. NZS4404.2010 Land Development and Subdivision Infrastructure<br>d. AUSTROADS Guide to Traffic Engineering Practice Part 14 Bicycles and Part 6A Guide to Road Design -Pedestrian and Cycle Paths; and<br>e. New Zealand Transport Agency Cycle Network & Route Planning Guide 2004. | **Complies in part**.<br><br>The internal Site roads have been developed in accordance with the design principles set out in NZS4404:2010, 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 town centre Link Road, as well as shared path on the Link Road and Roads 2 and 3 (which in turn provide connection east to the town centre). 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 Wharemaukū 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 |

| Reference | Rule / Standard | Assessment of Compliance |
|---|---|---|
| | | purposefully provided for on higher order roads.<br>Footpaths are included on all street typologies (except private 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 9. |
| **TR-R10: Vehicle Movements not Permitted by TR-R2 (therefore deemed a Major Traffic Activity(ies))** | | |
| 1. | Any activity in Precinct B or Precinct C shall not generate more than 200 vehicle movements in any hour | **Does not Comply.**<br>The full site development will exceed the 200vph threshold and therefore classified as a Major Traffic Activity. |
| 2. | 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. | This ITA has been prepared to accompany the application and provides detailed analysis of the traffic-related impacts arising from the development Site and the associated operation of the adjacent transport network.<br><br>A travel plan for the commercial / retail activities is proposed to be prepared in response to a consent condition, for certification by Council. |
| **TR – Park – R18: Accessible carparks** | | |
| | Accessible carparks must be provided at the rate shown in TR-Table 6A<br><br>Medium Density Housing<br>• 4-5 units = 1 space, 6-25 units = 2 spaces;<br>Supermarket<br>• 500m$^2$ - 2000 m$^2$: 2 spaces;<br>• Plus 1 additional space for every additional 1000 m$^2$, or part thereof.<br>Retail<br>• 100m$^2$ - 350m$^2$ : 1 space<br>• 351m$^2$ - 3333 m$^2$: 2 spaces<br>• Plus 1 additional space for every additional 1666m$^2$, or part thereof<br>Large Format Retailing<br>• 500m$^2$ – 2000 m$^2$ : 2 spaces<br>• Plus 1 additional space for every additional 1000m$^2$, or part thereof<br>Restaurants<br>• 5-20 staff - 1 space<br>• 15-50 people (visitors) – 1 space, 51-500 people - 2 spaces | **Will Comply.**<br><br>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.<br><br>Minimum accessible parking ratios will be provided in Zones 1 and 2 to support the retail activities, and will be confirmed by the detailed designs to be prepared post consent. |
| **TR – Park – R19: Cycle Parking** | | |
| 1. | 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: | **Will Comply**.<br><br>The individual residential dwellings included in the current application |

<table>
<tr><th>Reference</th><th>Rule / Standard</th><th>Assessment of Compliance</th></tr>
<tr><td></td><td>a. Multi-unit residential:<br>• Visitor parks: 4-20 residential units = 1 space<br>• Resident parks: 4-10 residential units = 1 space</td><td>are not subject to a minimum requirement.<br><br>The required number of cycle parks will be provided to support the proposed apartment buildings and commercial activities at the Site, noting these will be designed to align with the relevant requirements in terms of location and design.</td></tr>
<tr><td>2.</td><td>Cycle Parking shall:<br>a. be securely anchored to an immovable object;<br>b. support the bicycle frame and front wheel;<br>c. allow the bicycle frame to be secured;<br>d. be accessible for users of all ages and abilities;<br>e. provide a minimum separation distance of 1.2 metres between cycle stands;<br>f. provide a minimum separation distance of 1 metre between any marked carpark space, wall or any other obstruction;<br>g. be clearly signposted or visible to cyclists entering the site;<br>h. be located so as not to impede pedestrian thoroughfares, including areas used by people whose mobility or vision is restricted;<br>i. be located so that the bicycle is at no risk of damage from vehicle movements within the site; and<br>j. be in a covered area and in an area excluded from general public access when provided exclusively for staff/employee use.</td><td>A consent condition is recommended that requires cycle parking to comply with TR-R19.</td></tr>
<tr><td>3.</td><td>Cycle parking must be provided at the rate shown in TR-Table 6B:<br><table><tr><th>Land Use</th><th>User Type</th><th>Cycle Parking Requirement</th></tr><tr><td>Multi-unit Residential</td><td>Visitor</td><td>1 space for 4–20 units, plus 1 additional space per 20 units (or part thereof) beyond 20</td></tr><tr><td></td><td>Resident</td><td>1 space for 4–10 units, plus 1 additional space per 10 units (or part thereof) beyond 10</td></tr><tr><td>Supermarket</td><td>Visitor</td><td>1 space for up to 500 m² GFA, plus 1 additional space per 1000 m² (or part thereof) beyond that</td></tr><tr><td></td><td>Staff</td><td>1 space for 1–5 FTEs, plus 1 additional space per 5 FTEs (or part thereof) beyond 5</td></tr><tr><td>Retail</td><td>Visitor</td><td>1 space for up to 125 m² GFA, plus 1 additional space per 125 m² (or part thereof) beyond that</td></tr><tr><td></td><td>Staff</td><td>1 space for up to 400 m² GFA, plus 1 additional space per 400 m² (or part thereof) beyond that</td></tr><tr><td>Commercial (Non-retail)</td><td>Visitor</td><td>1 space for up to 500 m² GFA, plus 1 additional space per 500 m² (or part thereof) beyond that</td></tr><tr><td></td><td>Staff</td><td>1 space for up to 200 m² GFA, plus 1 additional space per 200 m² (or part thereof) beyond that</td></tr></table></td></tr>
</table>

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:

- TR-R2 and TR.R10 in relation to exceeding the vehicle movement thresholds within the MCZ Precinct C;
- Standards within TR-R3 related to vehicle access width, driveway sepration from intersections, and some potential deviations for sightlines at residential vehicle crossings; and
- TR.R9 in relation to cycle paths not being provided on local roads, despite aligning with the roading design in regards to the LDMR (which draws from NZS4404).
- As described in Table 6-1 above, the current proposal plans for the Site will generate more than 50 vehicle movements in any hour in MCZ Precinct C, exceeding the thresholds set out in TR-R2 and TR-R10. This report therefore includes assessment of the transport features and needs of the proposed Site development, including to confirm the appropriateness of the new roading infrastructure that will support the Site's activities.

For the small number of vehicle crossings that may not fully comply with the permitted activity standards under TR-R3, consent conditions are proposed requiring detailed design-stage assessment and confirmation that any adverse effects are appropriately mitigated.

In addition, and as described in Table 6-1 above, an overarching consent condition related to the Large Format Retail components of the Site is volunteered which states that before building consent is sought for any of these activities, the consent holder must provide a transport engineer's confirmation report demonstrating that the proposed tenant mix, trip generation, parking, access, circulation, loading and servicing arrangements are consistent with the assumptions assessed in the ITA, with Council certification required before proceeding; proposals that exceed the assessed trip-generation envelope or generate materially greater transport effects cannot be certified and may require a separate consent variation process.

In addition to the assessment against the specific traffic engineering rules of the District Plan, the proposal Site has been assessed for its alignment with the broader District Plan 'Transport Policies', as set out in Table 6-2.

*Table 6-2. District Plan Transport Objectives and Policies Assessment*

| Policy Reference | Assessment of Alignment |
|---|---|
| DO-O14 | *Access and Transport*<br><br>*To ensure that the transport system in the District:*<br>*1. integrates with land use and urban form and maximises accessibility;*<br>*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;*<br>*3. contributes to a strong economy;*<br>*4. avoids, remedies or mitigates adverse effects on land uses;*<br>*5. does not have its function and operation unreasonably compromised by other activities;*<br>*6. is safe, fit for purpose, cost effective and provides good connectivity for all communities; and*<br>*7. provides for the integrated movement of people, goods and services.*<br><br>Each of these overarching objectives are captured in the respective Transport Policies 1-7, for which an assessment of the proposals alignment against each is described in turn below. |

| Policy Reference | Assessment of Alignment |
|---|---|
| TR-P1 | *Integrated Transport and Urban Form*<br><br>*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:*<br><br>1. *the transport network is capable of serving the projected demand safely and efficiently;*<br>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;*<br>3. *travel time and distance to services are minimised for all modes of travel;*<br>4. *development is consistent with Council's Land Development Minimum Requirements; and*<br>5. *enhanced community connectivity is achieved, resulting in more efficient travel patterns from the community.*<br><br>The proposed new transport infrastructure comprising the town centre Link Road and other roading links have been developed to a standard which aligns with NZS4404 and the LDMR, and which will fully accommodate the anticipated demands generated by both the Site's new future activities and background traffic. The improved access and permeability function that the new roading links will provide for all travel modes will serve to enhance connectivity to, through, and within the town centre. |
| TR-P2 | *Sustainable Transport and Maximising Mode Choice*<br><br>*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:*<br><br>1. *well-integrated and connected communities;*<br>2. *development that is conducive to active modes of travel, particularly walkable communities which reduce demand for vehicular travel, particularly by private vehicle;*<br>3. *land use that is integrated with the transport network;*<br>4. *improved public transport services to the District;*<br>5. *travel plans and transport assessments for major traffic activities as part of an application for consent for new developments;*<br>6. *consistency with the Council's Land Development Minimum Requirements; and*<br>7. *development that ensures adequate access and space for all modes, including pedestrians, people with mobility problems, cyclists, public transport and private car travel.*<br><br>Again, the proposed new roading infrastructure aligns with the LDMR and supports active mode access and travel through the provision of dedicated walking and cycling infrastructure, which in turn connects with the existing wider active mode network to deliver efficient links to a range of civic and retail amenities, as well as key public transport nodes. |
| TR-P3 | *An Efficient and Economic Transport Network*<br><br>*The development, operation, maintenance and upgrading of the transport network will increase the economic vitality of the District by:*<br><br>1. *promoting reliable access to basic social, civic and day to day services (such as health services, schools and local shopping facilities) consistent with the transport network hierarchy maps, District Plan Map;* |

| Policy Reference | Assessment of Alignment |
|---|---|
| | 2. *Promoting timely and reliable access of freight and goods for processing and markets, without compromising the amenity of living and other sensitive activities; and*<br>3. *Promoting reliable access of workers to employment, with a priority placed on local employment access but a recognition of links with regional employment.*<br><br>The new town centre Link Road (and provision for future Iver Trask Place extension) will serve to improve reliability of access to the town centre and its existing / future amenities for shopping, recreational and commuting trips, as well as supporting associated servicing and deliveries for town centre development. |
| TR-P4 | *Effects of Transport on Land Use / Development*<br><br>*The potential adverse effects of development, operation, maintenance and upgrading of the transport network on land use and development will be avoided, remedied or mitigated by:*<br><br>*1. ensuring that new habitable buildings and future noise sensitive activities within close proximity to roads identified as a transportation noise effect route and the rail corridor as identified on the District Plan Maps are protected from the adverse effects of road traffic and rail noise;*<br>*2. avoiding the significant adverse effects of earthworks associated with the transport network;*<br>*3. ensuring that development of the transport network will:*<br>*a. minimise degradation of amenity values;*<br>*b. avoid unacceptable levels of noise and vibration, including from strategic arterial routes;*<br>*c. minimise disruption or destruction of plant and wildlife habitats;*<br>*d. seek to avoid adverse effects on historic heritage, and where avoidance is not practicable, any adverse effects are remedied or mitigated;*<br>*e. minimise community severance and other social effects;*<br>*f. minimise loss of productive land and loss of private property;*<br>*g. minimise pollution of water resources (e.g., stormwater quality and quantity, increased siltation of waterbodies due to road construction, disruption of waterbodies through the use of culverts and piping which can affect fish migration);*<br>*h. avoid unacceptable levels of emissions to air; and*<br>*i. minimise adverse effects on pedestrian and cyclist safety and amenity including availability and safety of walkways, footpaths, cycle lanes, tracks, level and impacts of weather protection (including shade).*<br><br>The District Plan includes specific noise and acoustic insulation standards applying to development within the MCZ, including additional requirements for noise-sensitive activities located within 80 m of the State Highway. An acoustic assessment letter provided with the application confirms that the proposed development can be designed to comply with these requirements, with the necessary acoustic treatment and ventilation measures able to be incorporated at the detailed building design and building consent stage. Compliance with the relevant District Plan standards will therefore ensure that State Highway noise effects on future noise-sensitive activities within the Site are appropriately managed.<br><br>The potential impacts of community severance within the Site, particularly in relation to the Town Centre Link Road, have been addressed through the provision of frequent active mode crossing opportunities supporting connectivity across the development. The proposed active mode network will also provide safe and convenient walking and cycling connections throughout the Site. |
| TR-P5 | *Effects of Land Use on Transport* |

| Policy Reference | Assessment of Alignment |
|---|---|
| | *The potential adverse effects on the transport network from development and subdivision will be avoided, remedied or mitigated by identifying both the key existing transport routes and proposed transport routes likely to be required long term as part of the District's Transport network, and having regard to these when considering applications for subdivision and development.*<br><br>The proposed new roading links have been designed to align with the transport movement network identified in the MCZ Structure Plan, noting these have long been planned to supplement the existing roading network that provides access to the town centre. |
| TR -P6 | <u>*Safety*</u><br><br>*The safety of all transport users will be enhanced during development, operation, maintenance and upgrading of the transport network by:*<br><br>1. *implementing the principles set out in Appendix 6 – Crime Prevention Through Environmental Design (CPTED) Guidelines,*<br>2. *requiring all developments provide for safe vehicular and pedestrian access, and have adequate visibility (sight lines)*<br>3. *requiring all developments to have safe connections to the wider transport network; and*<br>4. *requiring adequate visibility and sight lines for level crossings.*<br><br>The proposed new roading links have been carefully designed to ensure they deliver safe and efficient movement for all modes, including in respect of CPTED and appropriate visibility sight lines. |
| TR-P7 | <u>*Cycling, Walking and Bridleway Links and Safety*</u><br><br>*Subdivision, use and development will be as far as practicable, located and designed to make walking, cycling and the use of bridleways safer, more enjoyable and convenient in accordance with the Crime Prevention Through Environmental Design CPTED) Guidelines set out in Appendix 6 and the following principles:*<br><br>1. *new street linkages will provide safe pedestrian access to shops and services and public transport nodes;*<br>2. *subdivision and development will:*<br>   a. *Enable cycle and pedestrian routes, both on and off road, which offer good continuity*<br>   b. *Avoid large blocks that severe connectivity; and*<br>   c. *Consider opportunities to provide bridleways in suitable location; and*<br>3. *Development will provide for convenient cycle parking facilities in centres; and*<br>4. *pedestrian and cycle routes will have well designed and built facilities including surface conditions, lighting, signage and passive surveillance from adjacent development.*<br><br>As described above, the proposed new roading infrastructure has been developed to provide a high-level of amenity for active mode users, with dedicated walking and cycling infrastructure that will support and encourage these modes over private car travel for convenient short trips, including a shared path along Iver Trask Place that will link to the current town centre (ahead of any vehicular connection) to support connectivity. |

As shown, the proposal aligns well with the policy level intentions of the District Plan's transport vision, in particular providing development that will benefit greatly from proximity to established key town centre services (and vice versa), which in turn will help to deliver reduced reliance on private vehicle travel and support and encourage stronger uptake of sustainable transport modes for staff and residents of the future Site development.

## 6.2 Other Key Planning Documents

Outside of the District Plan, a number of other key planning documents are relevant to the Site proposal, including the Council's 'Sustainable Transport Strategy' and 'Land Development Minimum Requirements'. Commentary on each of these is provided in turn below.

### 6.2.1 Sustainable Transport Strategy

The Council's 'Sustainable Transport Strategy: 2022' ("STS") sets out a framework for enhancing community connectedness through the creation of a well-planned fit-for-purpose physical transport system that supports reliable, efficient and safe movement of peoples and goods, whilst encouraging mode-shift. The key outcomes sought are identified in Figure 6-1.

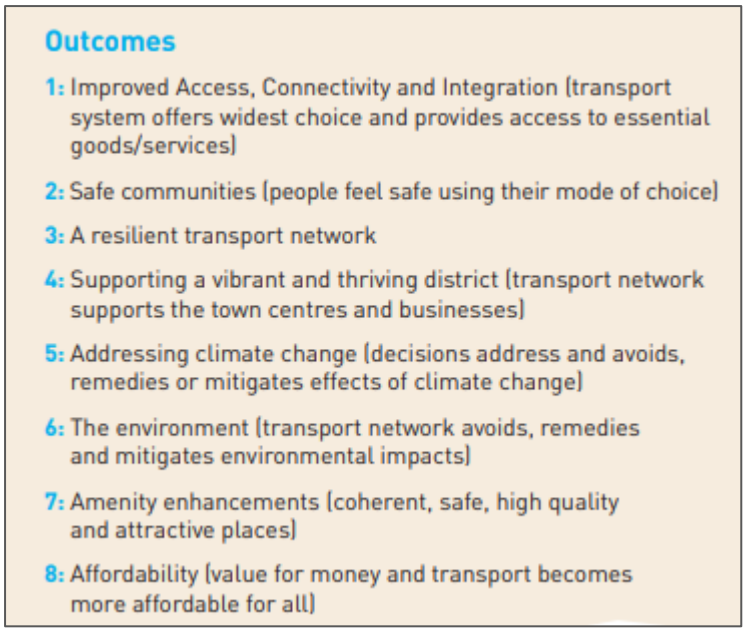



*Figure 6-1. Kapiti Coast District Council 'Sustainable Transport Strategy' (Source: STS pg. 9)*

Many of these outcomes mirror the District Plan Transport Policies which, as set out in Table 6 2 above, the proposal demonstrates a strong alignment with. In particular, the development of residential activity within the Site so close to the scale and variety of town centre services and amenities will support non-car-based travel for shopping, recreational and commuting trips, facilitated by the high-amenity of active mode transport infrastructure proposed for the Site and associated connections to the external walking and cycling networks.

The proposal will also contribute to a more connected and resilient transport network. The Town Centre Link Road, together with future connections to Iver Trask Place and the surrounding transport network, will provide multiple access and movement opportunities through the Site rather than reliance on a single point of access. The interconnected street and active mode network will improve permeability, provide greater route choice and support the ability of the transport system to respond to changing travel demands over time. The proposal also maintains opportunities for further connections to the wider network as these are progressed in the future.

### 6.2.2 Land Development Minimum Requirements

The Council's 'Land Development Minimum Requirements 2022' ("LDMR") document sets out standards and guidance for the design, construction and maintenance of assets that are intended to be vested to Council. The key design principles outlined for new roading infrastructure under the LDMR includes:

- consideration of place and link aspects outlined in NZS4404;
- the need to link with and use public transport networks efficiently;
- provide for connectivity; and
- promote the use of all transport modes such as walking and cycling.

The designs for the proposed new town centre Link Road and future provision for the Iver Trask Place extension have been developed to align with these key principles, in particular the provisioning for active mode infrastructure and futureproofing for a scheduled bus service. These concept designs have been discussed and shared with Council through the development of the Site plans.

# 7 Forecast Site Traffic Generation

## 7.1 Trip Generation

In order to assess the traffic effects of the proposed mixed-use development, traffic generation forecasts have been derived using a combination of recognised industry guidance and surveys of comparable land use activities for the development typologies identified in Table 5-1. Given the significant proportion of retail and commercial activities within the proposal plans, the weekday PM peak period is considered the critical assessment period from a transport perspective, reflecting the overlap of commuter, retail and residential travel demand. Notwithstanding, and in consultation with Council officers, both the weekday AM and PM peak periods have been assessed. The resulting trip generation forecasts form the basis of the traffic forecasting and network performance assessments presented in Section 8.

The proposed land use mix, development yields and floor areas represent the anticipated nature and scale of development currently envisaged by the proposal plans, and inform the traffic modelling assessment described later in Section 8. The traffic generation analysis has been undertaken to estimate the likely upper-bound transport effects of that development envelope. This approach has largely been adopted because, at the time of lodgment, the specific occupiers and operators of the LFR activities have not been confirmed.

Should the proposed activities, development yields, LFR operator mix, floor areas or tenant mix materially change as the project progresses, the resulting traffic generation and transport effects would require further assessment, as captured under the volunteered consent condition requiring the preparation of a Large Format Retail – Transport and Servicing Confirmation Report. Where any changes would result in traffic generation or transport effects exceeding those assessed and authorised by the consent, a variation to the resource consent or a new resource consent would be required, supported by an updated transport assessment.

### 7.1.1 Large Format Retail

The specific mix of activities that will ultimately occupy the LFR component of the development has not yet been confirmed. For the purposes of providing a robust assessment of the potential transport effects of the proposed LFR development envelope, the traffic assessment has therefore adopted a conservative activity mix comprising comparatively high trip-generating LFR activities that includes a supermarket. This approach provides an appropriate upper-bound scenario against which the traffic effects of the LFR component can be assessed.

Surveys undertaken by Stantec of established LFR activities of the scale proposed for the Site indicate peak hour traffic generations range between 0.3-0.4vph per 100m² GFA for the AM peak and 1.7-2.5vph per 100m² GFA for the PM peak, depending on the tenant types and development mix. The upper threshold has been applied to the LFR development anticipated for Zones 1 and 2, noting that in reality a portion of those trips attracted to the activities at the Site will already be on the network visiting the town centre, and would instead constitute either a pass-by or link-diverted trip, rather than a wholly new vehicle movement on the adjacent network. Allowance for these pass-by and link-diverted trips is described further at Section 7.2

### 7.1.2 Supermarket

Data for a supermarket trip generation collected by Stantec at established similar sized stores to that proposed here indicate AM and PM peak hour typical trip generation rates of 4.6vph and 12.4vph/100m² GFA. It is noted that patterns vary site to site, depending on location in the road network, catchment served and distance to other existing supermarkets. The proposal Site is located near to several other supermarkets, including the Pak N Save and Woolworth stores at Coastlands, and the New World to the west of the Expressway, and in general, historic trends elsewhere around the country indicate that increased supermarket shopping options (within an urban area) trigger a reduction in the associated trip generation at individual sites.

Moreover, the relative proximity of the proposed development site in relation to the existing town centre activities, and to immediate residents of the new development, will encourage non-vehicle trips to and from the supermarket more so than would be likely to occur at other more suburban sites. In this manner, there is likely to be a higher proportion of walking and cycling trips, with a commensurate reduction in vehicle based visits. Notwithstanding, in order to ensure a robust assessment that doesn't under-estimate the supermarket trips, the traffic generation rate surveyed at other supermarkets of 4.6vph and 12.4vph for the AM and PM peaks, has been adopted here.

### 7.1.3 Commercial

The current planning for the mixed-use in Zones 3 and 4 includes provision for commercial office space to be accommodated alongside some small retail (see below) at street level. The industry Trips Database Bureau (TDB) indicates weekday AM and PM peak hour trip generations of 1.7vph per 100m² GFA. This rate has been adopted for the assessment period.

The trip generation associated with the showroom activity proposed in Zone 1 has drawn on published rates in the Institute of Transportation Engineers (ITE), Trip Generation Manual for 'automobile sales', which indicates AM and PM peak hour trips generation of 2vph and 2.6vph per 100m² GFA, respectively.

### 7.1.4 Small Retail

For the smaller scale retail units that are proposed within the development areas of Zones 3 and 4, these are anticipated to include a mixture of small local shops and high street outlets. As such, a combination of trip rates have been adopted out of the industry standards RR453 and the TDB for 'small shopping' retail activities, along with surveyed rates for a small convenience retail, indicating 10 and 11.5vph per 100m² GFA for the AM and PM peaks, respectively. These rates have been apportioned to the anticipated floor area mix for the respective uses within Zones 3 and 4.

### 7.1.5 Fuel Stop

As described earlier in Section 5.1, whilst a self-service fuel stop does not form part of the final development plans, the potential traffic generation associated with such a use has been incorporated into the assessment. This approach reflects the possibility that a fuel stop could be introduced within the Site in the future and therefore provides a conservative basis for evaluating the transport effects of the development.



Traffic generated by fuel stations generally comprises a proportion of the existing traffic flows that are already passing the Site (pass-by) on the frontage streets. Typically, a 5% pass-by rate is considered appropriate, which based on the daily flows on Kapiti Road would equate to around 1,000 visits per day. Translating this to an AM and PM peak generation would give approximately 120-130vph, which has been adopted for Zone 2. Given the nature of the proposed fuel station being self-service and without a shop, this adopted rate is considered generous.

### 7.1.6 Fast Food / Drive-through

Three drive-through outlets are proposed. RR453 identifies a peak hour trip generation rate of 52.2vph per 100 m² GFA for fast-food outlets. However, this rate is considered representative of the weekly peak trading hour, typically associated with lunchtime demand. Data from the underlying Trip Database (TDB) indicates lower weekday commuter peak rates, with Tier 1 fast-food operators (e.g. Burger King) generating approximately 23vph and 33vph per 100 m² GFA during the weekday AM and PM peaks, respectively, and Tier 2 operators (e.g. Popeyes) generating approximately 12vph and 18vph per 100 m² GFA. The third food and beverage tenancy is anticipated to comprise a drive-through coffee outlet, for which TDB data (e.g. Starbucks) indicates peak hour generation of approximately 70vph in the AM peak and 18vph in the PM peak. These rates have been adopted for the proposed fast-food activities within Zone 2.

### 7.1.7 Residential

The future residential development anticipated within the Site comprises a range of housing typologies, including higher-density apartments, medium-density townhouses, duplex dwellings and standalone housing. The apartment and townhouse components are consistent with the medium and higher-density residential outcomes envisaged through Plan Change 2: Intensification and are expected to exhibit lower vehicle ownership and trip-making characteristics than traditional suburban residential development.

The RR453 provides peak hour trip generation rates for conventional low-density residential development of approximately 0.9 vehicle trips per dwelling. However, more recent surveys of suburban residential developments within the Wellington region indicate lower peak hour trip generation rates, generally in the order of 0.7 vehicle trips per dwelling during both the weekday AM and PM peak periods. Further surveys undertaken by Stantec at established medium-density residential developments in the Wellington region indicate lower trip rates again, typically below 0.6 vehicle trips per dwelling during peak periods, reflecting the reduced vehicle ownership associated with smaller dwelling typologies. By comparison, higher density apartments which have lower occupancy and vehicle ownership rates than townhouses indicate trips rates of 0.2-0.3vph.

Given the proposed mix of residential typologies across the Site which comprises approximately 1/3 apartments, 1/3 townhouses, and 1/3 duplexes / standalone dwellings, and with the Site's highly accessible location within the Paraparaumu town centre, proximity to public transport services, and convenient access to employment, retail, community and recreational activities, a blended peak hour trip generation rate of 0.6 vehicle trips per dwelling has been adopted for both the weekday AM and PM peak periods. This rate is considered representative of the proposed housing mix and site location for assessing the transport effects associated with the future residential development anticipated under the proposal plans.

### 7.1.8 Traffic Generation Summary

Table 7-1 sets out the forecast trip generation rates for each of the Site's mix of respective activities.

*Table 7-1. Trip Generation Rates for the Site's Activities*

| Zone # | Activity | Scale | Peak Hour Traffic Generation Rate | | Peak Hour Trips (vph) | |
|---|---|---|---|---|---|---|
| | | | AM | PM | AM | PM |
| **Commercial Activities** | | | | | | |
| 1 | LFR | 12,000m² GFA | 0.6 | 2.5 | 75 | 300 |
| | Showroom | 650m² GFA | 2.0 | 2.6 | 13 | 17 |
| 2 | LFR | 4,000m² GFA | 0.6 | 2.5 | 25 | 100 |
| | Supermarket | 4,000m² GFA | 4.6 | 12.4 | 183 | 496 |
| | Drive-thru 1 (tier 1) | 250m² GFA | 23.1 | 37.4 | 58 | 94 |
| | Drive-thru 2 (tier 2) | 250-300m² GFA | 11.6 | 18.7 | 35 | 56 |
| | Drive-thru 3 (coffee) | 300m² GFA | Direct rate | | 70 | 18 |
| | Fuel Stop | - | Pass-by rate | | 132 | 132 |
| | | | | | | |
| 3 | Small Retail | 1,175m² GFA | 10.0 | 11.5 | 118 | 135 |
| | Commercial (office) | 1,175m² GFA | 1.7 | 1.7 | 20 | 20 |
| 4 | Small Retail | 250m² GFA | 10.0 | 11.5 | 25 | 29 |
| | Commercial (office) | 250m² GFA | 1.7 | 1.7 | 4 | 4 |
| **Residential Activities** | | | | | | |
| 3-7 | Dwellings | 600 | 0.6 | 0.6 | 360 | 360 |
| **Total** | | | | | **1,118** | **1,761** |

Based on the adopted trip rates above, the proposed full Site development is assessed as generating 1,118vph and 1,761vph vehicle movements during the weekday AM and PM peak hours, respectively.

## 7.2 Trip Type

The transport demand generated by the proposed mixed-use development will consist of a combination of primary trips (representing net new or transferred vehicle movements on the wider network) and secondary trips (consisting of pass-by and diverted link movements that are already present on the adjacent roading network). Distinguishing between these trip types is standard practice in traffic engineering and ensures that the infrastructure impacts on the surrounding network are not over-estimated.

A brief description of each of these types of trips is provided below.

**Primary Trips** specifically for the purpose of visiting the supermarket involve:

- new trips are entirely new to the road network that would not have occurred if the proposed development was not present; and
- transferred trips are trips that are currently attracted to other like for like activities that would choose to visit the proposal Site instead. These trips typically find the new development more

attractive (due to location and offering) and transfer. These trips are therefore not new to the road network but may be new to the local road network surrounding the Site.

**Secondary trips** are those that are already on the road network, and involve:

- diverted trips are those which are already on the adjacent network but alter their route to visit the Site. For example, traffic already routing along Kapiti Road that may make a diversion to the development Site; and
- pass-by trips are those already travelling along the Link Road that choose to visit the Site activities before continuing their journey.

Applying generic or unadjusted driveway trip rates to development Sites incorrectly treats all vehicles as 'new' traffic, which fails to reflect consumer shopping behaviour where grocery and retail stops are heavily integrated into existing daily commutes or multi-purpose trips. Such an approach typically leads to the over-design of roading infrastructure. To establish an empirical basis and contextually appropriate envelope for secondary trip reductions, reference has been made to New Zealand studies including the research report 'Trip Generation Characteristics of Large-Format Retail Development Sites in Auckland[3]' .

The research specifically examined trip type distributions for LFR and supermarket land uses within a New Zealand urban context. The study utilised customer exit interviews and automatic traffic counts to isolate primary and secondary trip splits during peak hours. The findings from this research demonstrated that secondary trips (combined pass-by and diverted link movements) represent a highly significant proportion of total retail driveway traffic, consistently ranging between 57% and 67% across surveyed sites:

- Supermarkets during the weekday PM peak exhibited a secondary trip proportion of 60-65% (comprising 20-25% true pass-by and 40% diverted link trips).

- LFR / Home Improvement stores during the weekday PM peak demonstrated a secondary trip proportion of 65-70% (comprising 25-30% true pass-by and 40% diverted link trips).

The relative proportion of pass-by and diverted trips is influenced by location-specific factors, including levels of traffic on frontage streets, proximity to arterial routes, and surrounding land use patterns. Given the Site's central location and direct frontage to the proposed town centre Link Road, this creates an optimal environment for high secondary trip interception, and a significant proportion of retail vehicle movements are expected to be drawn from existing traffic already travelling through the area as pass-by trips. Additional diverted trips are also anticipated from vehicles travelling along the Kapiti Road corridor and the surrounding road network as 'diverted' trips. Because a large portion of the commercial traffic will be drawn from vehicles already utilising the Link Road or diverting from Kapiti Road, a blended reduction approach has been adopted for this assessment. To maintain a conservative and robust assessment framework that at the same time accounts for the high-volume through-traffic on the Link

[3] Including Harries, J., Abley, S., Maclennan, C. & Thyne, J. (2012) "Trip Generation Characteristics of Large-Format Retail Development Sites in Auckland"

Road, the peak period pass-by percentages adopted in this assessment are below the combined secondary trip totals (pass-by plus diverted) identified by the research.

The resultant proportion of secondary trips adopted for the development traffic, by activity type, is summarised in Table 7-2.

*Table 7-2. Allowance for Pass-by / Secondary Trips*

| Activity | Peak Period Pass-by / Secondary Trip Rate |
|---|---|
| LFR | 25% |
| Supermarket | 33% |
| Small Retail | 35% |
| Drive-through | 40% |

Pass-by and diverted trip adjustments have not been applied to the residential or commercial office activities at the Site, since these land uses generate destination-based travel demand. Accordingly, all associated vehicle movements have been classified as primary trips.

## 7.3 Development Site Traffic Distribution

The development traffic distribution has been determined using the strategic Kapiti Transport Model 'version 4' (KTM4), which uses the SATURN traffic modelling software. The KTM4 is a district-wide traffic assignment model, which in turn draws from the regional EMME 'Wellington Transport Strategy Model' (WTSM) and allows for development Site traffic distribution to be determined based on activity type (i.e. residential or commercial) and route choice. In this manner, trips are apportioned across the network based on like for like existing activity zones, which takes account of origin-destination patterns based on trip type (i.e. work, school, retail etc.). Further discussion on the traffic modelling undertaken to inform this assessment is set out in the next Section.

# 8 Traffic Modelling

This section sets out the adopted approach for the traffic assessment and analysis undertaken to determine the design and performance of the proposed new roading infrastructure (i.e. the town centre Link Road), including at the external intersection connections, as well as assessment of the wider network performance with the additional traffic generated by the proposed Site development in place.

In this manner, the primary purpose of the modelling is to confirm design for the new town centre Link Road. The secondary purpose of the traffic modelling is to confirm the network operation of the surrounding town centre roading links, with full development Site traffic on the network.

## 8.1 Adopted Modelling Approach

As directed by Council, for the purposes of assessing the network performance, the development has been modelled using the district-wide strategic KTM4, to capture wider area distributions and patterns for the mixture of trips generated by the Site's future activities. These modelling tasks were requested by Council to be undertaken by Transport Futures Limited (TFL) who operate the KTM4 on behalf of Council. Individual intersection performances have then been modelled using the industry-recognised SIDRA, as informed by the forecast turning volumes from the KTM4. This approach of using the district-wide KTM model and SIDRA mirrors the modelling approach adopted by Council to inform the District Plan review and MCZ zoning and Structure Plan, with this work also having also been undertaken by TFL.

A base SIDRA network model was first developed of the adjacent Kapiti Road corridor, including the Arawhata Road intersection and established intersections to the east as far Rimu Road, and the Expressway interchange to the west, using traffic count and signal timing data provided by the Wellington Traffic Operations Centre for 2026. Queue length surveys were also undertaken on-site to validate the modelled queues and demonstrate good correlation between on-street queues and those recorded in the SIDRA network outputs.

Details of the Council's KTM4 model land use assumptions are set out in the correspondence with TFL, noting the development Site traffic has been loaded into the model in place of any activity within the Site boundary included on the 2036 forecast year assumptions, but has not displaced any other future activity allowances in the district.

Importantly, the modelling approach adopted reflects the methodology requested by Council, including the use of their KTM4 model and Transport Futures Limited to undertake the strategic modelling. The KTM4 already incorporates forecast development and growth across the District. The assessment has therefore retained the wider forecast growth and development assumptions within KTM4, while replacing the model's existing allowance for development within the Site with the actual traffic generation anticipated with the proposal plans. This ensures that the effects of the proposed Site development is assessed against the future transport network and anticipated development of the wider town centre, without double counting development traffic from the Site.

This approach is consistent with the planning context described in Section 2.2, whereby comprehensive development of the Site has long been anticipated as part of the Paraparaumu Metropolitan Centre. Importantly, the forecast development traffic is therefore not simply added to an existing model assumption that the Site remains undeveloped.

### 8.1.1 Modelled Traffic Scenarios

The KTM4 assessment of the 'future year' adopted the forecast 2036 model as a realistic future assessment year for the purposes of understanding infrastructure needs and transport impacts of full Site development.

The forecast development Site traffic volumes applied to the KTM4 for the proposal Site are those set out in the previous chapter. Whilst the focus of the SIDRA analysis has been on the key connection of the town centre Link Road to Kapiti Road / Arawhata Road, the wider adjacent intersections on Kapiti Road from the Expressway Interchange to Rimu Road, and Rimu Road through to Ihakara Street has also been assessed using the SIDRA network modelling functionality. Signal timings within the network models have been optimised to reflect the operation of a coordinated signal network responding to future traffic demands.

Accordingly, the following traffic scenarios have been assessed, for both the weekday AM and PM peak periods:

- Scenario 1: Forecast 2036 flows (future Do Minimum) with town centre Link Road in place;
- Scenario 2: Forecast 2036 flows with 100% development Site traffic added and proposed Site transport infrastructure in place; and
- Scenario 3: as per scenario 2, but with the Ihakara Street / Airport link road in place.

At Council's direction, the future internal roading network assessed for the scenarios outlined above excludes a vehicular connection between the Site at Road 3 and Iver Trask Place, noting the timing and delivery of any such connection by Council remains uncertain. In addition, and again as per Council's direction, the adopted roading arrangement at Brett Ambler Way assumes that Road 2 provides a connection between the Link Road and Kapiti Road via the Brett Ambler Way signalised intersection on Kapiti Road, whilst removing the current east-west road connection past the Aquatic Centre.

### 8.1.2 Intersection Design

In determining the layouts of the new intersections along the new town centre Link Road at Kapiti Road / Arawhata Road and the Iver Trask Place extension, these have been developed through iterative testing and refining based on the modelled performance outputs from SIDRA, in turn informed by the KTM4 modelling.

In ensuring appropriate pedestrian connectivity to deliver an integrated land use form through Precinct C, allowance for pedestrians to cross the key approaches at each of these signalised intersections has been assumed, noting further uncontrolled pedestrian crossing points are also allowed for to the south of Iver Trask Place, as described further in the following chapter.

In considering the required capacity at each intersection, the KTM4 modelling assumes a proportion of town centre traffic currently using Rimu Road and Kapiti Road will divert onto the proposed new town centre Link Road. Accordingly, this triggers the need for some changes to the Kapiti Road / Arawhata Road signals, requiring the need for an increase from two to three approach lanes on Arawhata Road, along with three approach lanes on the new town centre Link Road. A third lane is also required on the Kapiti Road west approach, to facilitate the right turn into the new town centre Link Road, which can be achieved using the current flush median space. These changes allow for the intersection to support the future district and development traffic during the more heavily-trafficked weekday PM peak period.



The resultant designs will therefore ensure that the Link Road corridor fits the ultimate full road buildout needed to support future traffic, as intended under both the masterplan and MCZ Structure Plan.

Following the more recent engagement with Council, a future scenario with Site development traffic and Ihakara extension / Airport Link Road has also been modelled, to determine any redistribution effects arising from the introduction of this secondary road connection between the coast and the town centre.

### 8.1.3 Intersection Performance

The SIDRA software analyses intersection capacities, vehicle delays and vehicle queuing, to give an indication of the expected intersection performance. It calculates a number of performance indicators including Level of Service[4] (LoS), based on delay to motorists, graded from A (excellent performance) to F (poor performance). In town centre environments where pedestrian demands can lengthen cycle times, an acceptable all-of-intersection level of service is usually LoS of D for signalised intersections, with some individual turning movements of LoS E or F to provide overall performance that balances demands.

The resultant modelled LoS at each of the new town Link Road intersections, along with its external connection with Kapiti Road and the wider network, by approach and individual turning movement, for the forecast weekday AM and PM peak 2036 without (Do Minimum) and with full development traffic added, are summarised in Table 8-1 and Table 8-2, respectively. In addition, LoS plots are also included for these AM and PM 'without' and 'with' development traffic, at *Figure* 8-1 through *Figure* 8-4.

[4] Level of Service (LOS) is a six-level grading system for intersection performance (A to F), where Level A represents totally uncongested operation with minimal delays and queues, and Level F represents highly congested operation with long delays and extensive queuing

*Table 8-1. Summary of SIDRA Outputs – AM Peak Hour*

| Access / Intersection | Approach | Movement | 2036 Do Minimum | | | 2036 with 100% Development Site | | |
|---|---|---|---|---|---|---|---|---|
| | | | LoS | Ave Delay (Secs) | 95% Queue (m) | LoS | Ave Delay (Secs) | 95% Queue (m) |
| Kapiti Rd / Expressway – Western Intersection | Expressway NB off-ramp (south) | Left | B | 17.6 | 56.9 | B | 17.6 | 56.9 |
| | | Right | D | 41.6 | 15.4 | D | 42.2 | 21.5 |
| | Kapiti Road (west) | Left | C | 26.1 | 85.5 | C | 26.9 | 99.7 |
| | | Through | C | 28.4 | 153.2 | C | 24.1 | 125.5 |
| | Kapiti Road (east) | Through | A | 4.2 | 24.5 | A | 4.3 | 31.0 |
| | | Right | A | 7.6 | 9.8 | A | 7.7 | 11.1 |
| **All Vehicles** | | **All** | **B** | **18.9** | **153.2** | **B** | **17.1** | **125.5** |
| Kapiti Rd / Expressway – Eastern Intersection | Expressway SB off-ramp (north) | Left | C | 21.9 | 61.0 | C | 22.2 | 67.5 |
| | | Right | D | 41.7 | 58.6 | D | 41.8 | 59.0 |
| | Kapiti Road (west) | Through | A | 0.4 | 2.5 | A | 0.4 | 3.2 |
| | | Right | A | 4.1 | 6.0 | A | 4.1 | 5.5 |
| | Kapiti Road (east) | Left | D | 35.6 | 75.8 | D | 45.3 | 113.8 |
| | | Through | C | 29.7 | 77.7 | D | 37.1 | 117.0 |
| **All Vehicles** | | **All** | **B** | **17.1** | **77.7** | **C** | **20.0** | **117.0** |
| Kapiti Road / Arawhata Road / New Town Centre Link Road | North | Left | D | 40.4 | 69.8 | D | 48.9 | 82.0 |
| | | Through | D | 42.9 | 31.1 | E | 58.0 | 63.8 |
| | | Right | E | 56.0 | 90.2 | E | 64.6 | 100.6 |
| | East | Left | A | 9.4 | 27.6 | A | 8.9 | 28.0 |
| | | Through | B | 19.5 | 27.8 | C | 20.0 | 33.0 |
| | | Right | D | 48.3 | 34.1 | D | 47.3 | 35.6 |
| | South | Left | B | 14.0 | 25.0 | B | 15.1 | 48.8 |
| | | Through | D | 36.4 | 23.1 | D | 44.4 | 45.4 |
| | | Right | D | 39.7 | 1.6 | D | 47.2 | 10.2 |
| | West | Left | B | 18.6 | 38.3 | B | 19.5 | 53.4 |
| | | Through | C | 25.4 | 122.0 | C | 31.33 | 155.3 |
| | | Right | C | 33.3 | 70.2 | D | 35.4 | 105.1 |
| **All Vehicles** | | **All** | **C** | **31.5** | **122.0** | **D** | **35.6** | **155.3** |
| Kapiti Road / Brett Ambler Way / Larch Grove | North | Left | D | 35.4 | 1.7 | D | 38.3 | 1.8 |
| | | Through | C | 29.8 | 1.7 | C | 32.5 | 1.8 |
| | | Right | C | 33.7 | 1.7 | D | 36.4 | 1.8 |
| | East | Left | A | 6.8 | 36.9 | A | 6.9 | 43.0 |
| | | Through | A | 6.2 | 36.9 | A | 6.4 | 43.0 |
| | | Right | B | 15.7 | 0.3 | B | 17.0 | 0.3 |
| | South | Left | **Traffic assumed to route to/from the east via Iver Trask* | | | D | 36.8 | 10.2 |
| | | Through | | | | C | 30.4 | 10.2 |
| | | Right | | | | C | 35.0 | 10.2 |
| | | Left | C | 20.9 | 151.3 | C | 27.4 | 192.7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | West | Through | C | 22.9 | 151.3 | C | 31.0 | 192.7 |
| | | Right | B | 10.7 | 11.9 | B | 13.1 | 15.6 |
| **All Vehicles** | | **All** | **B** | **15.4** | **151.3** | **C** | **20.3** | **192.7** |
| Kapiti Road / Rimu Road / Waimarie Ave | North | Left | C | 28.6 | 1.6 | C | 28.6 | 1.6 |
| | | Through | C | 24.5 | 1.6 | C | 24.6 | 1.6 |
| | | Right | C | 28.6 | 1.6 | C | 28.6 | 1.6 |
| | East | Left | B | 17.9 | 15.1 | B | 17.8 | 14.6 |
| | | Through | B | 12.4 | 27.7 | B | 13.8 | 31.7 |
| | | Right | C | 25.2 | 0.3 | C | 26.7 | 0.3 |
| | South | Left | A | 9.9 | 14.2 | B | 10.2 | 15.8 |
| | | Through | B | 13.2 | 13.8 | B | 13.1 | 13.3 |
| | | Right | B | 17.8 | 13.8 | B | 17.6 | 13.3 |
| | West | Left | B | 18.2 | 35.0 | B | 19.3 | 40.9 |
| | | Through | B | 13.6 | 35.0 | B | 14.7 | 40.9 |
| | | Right | C | 20.6 | 31.1 | C | 22.9 | 40.3 |
| **All Vehicles** | | **All** | **B** | **15.4** | **35.0** | **B** | **16.6** | **40.9** |
| Town Centre Link Road / Road 2 | North | Left | | | | C | 21.7 | 2.1 |
| | | Through | | | | D | 44.8 | 96.9 |
| | | Right | | | | C | 29.8 | 5.1 |
| | East | Left | | | | B | 18.4 | 5.0 |
| | | Through | | | | C | 32.5 | 37.3 |
| | | Right | | | | D | 37.0 | 37.3 |
| | South | Left | | | | B | 16.2 | 30.9 |
| | | Through | | | | C | 20.3 | 30.9 |
| | | Right | | | | C | 30.8 | 11.5 |
| | West | Left | | | | B | 14.3 | 2.9 |
| | | Through | | | | C | 24.8 | 1.2 |
| | | Right | | | | C | 29.3 | 1.2 |
| **All Vehicles** | | **All** | | | | **C** | **31.9** | **96.9** |
| Town Centre Link Road / Road 3 | North | Left | | | | B | 11.4 | 80.6 |
| | | Through | | | | C | 23.9 | 80.6 |
| | East | Left | | | | B | 12.5 | 5.3 |
| | | Right | | | | C | 21.2 | 5.4 |
| | South | Through | | | | C | 20.8 | 65.0 |
| | | Right | | | | C | 23.8 | 4.2 |
| **All Vehicles** | | **All** | | | | **C** | **21.7** | **80.6** |

*Table 8-2. Summary of SIDRA Outputs – PM Peak Hour*

| Access / Intersection | Approach | Movement | 2036 Do Minimum | | | 2036 with 100% Development Site | | |
|---|---|---|---|---|---|---|---|---|
| | | | LoS | Ave Delay (Secs) | 95% Queue (m) | LoS | Ave Delay (Secs) | 95% Queue (m) |
| Kapiti Rd / Expressway – Western Intersection | Expressway NB off-ramp (south) | Left | C | 22.4 | 108.9 | C | 20.6 | 102.3 |
| | | Right | D | 45.1 | 34.0 | D | 49.3 | 47.1 |
| | Kapiti Road (west) | Left | C | 29.3 | 102.7 | D | 38.1 | 177.1 |
| | | Through | C | 23.6 | 106.0 | C | 32.4 | 177.1 |
| | Kapiti Road (east) | Through | A | 1.4 | 12.4 | A | 2.7 | 31.4 |
| | | Right | A | 5.0 | 9.4 | A | 6.3 | 19.8 |
| **All Vehicles** | | **All** | **B** | **16.1** | **108.9** | **B** | **20.0** | **177.1** |
| Kapiti Rd / Expressway – Eastern Intersection | Expressway SB off-ramp (north) | Left | B | 19.4 | 55.99 | C | 27.9 | 90.8 |
| | | Right | D | 46.3 | 65.1 | E | 66.3 | 81.1 |
| | Kapiti Road (west) | Through | A | 2.1 | 13.9 | A | 0.8 | 17.3 |
| | | Right | A | 5.7 | 9.5 | B | 15.8 | 38.7 |
| | Kapiti Road (east) | Left | D | 41.3 | 151.1 | D | 45.8 | 153.2 |
| | | Through | C | 34.7 | 151.1 | D | 36.3 | 154.6 |
| **All Vehicles** | | **All** | **C** | **21.9** | **151.1** | **C** | **24.9** | **154.6** |
| Kapiti Road / Arawhata Road / New Town Centre Link Road | North | Left | C | 26.2 | 35.2 | C | 32.5 | 41.3 |
| | | Through | C | 33.9 | 15.9 | E | 63.0 | 64.0 |
| | | Right | E | 58.6 | 57.7 | F | 93.2 | 90.2 |
| | East | Left | B | 19.1 | 66.4 | C | 32.3 | 71.9 |
| | | Through | C | 22.9 | 66.4 | D | 48.1 | 184.0 |
| | | Right | D | 51.2 | 88.7 | C | 32.7 | 78.7 |
| | South | Left | C | 25.5 | 74.2 | C | 29.4 | 145.5 |
| | | Through | C | 34.8 | 27.0 | D | 54.1 | 60.3 |
| | | Right | D | 43.2 | 0.8 | E | 59.7 | 7.8 |
| | West | Left | B | 18.4 | 45.7 | C | 27.8 | 73.5 |
| | | Through | D | 37.0 | 177.4 | E | 66.4 | 292.7 |
| | | Right | D | 45.5 | 74.8 | E | 73.4 | 269.3 |
| **All Vehicles** | | **All** | **C** | **33.4** | **177.4** | **D** | **51.7** | **292.7** |
| Kapiti Road / Brett Ambler Way / Larch Grove | North | Left | D | 44.5 | 2.6 | D | 52.8 | 3.1 |
| | | Through | D | 38.1 | 2.6 | D | 45.9 | 3.1 |
| | | Right | D | 41.9 | 2.6 | D | 49.8 | 3.1 |
| | East | Left | B | 10.4 | 108.5 | B | 11.5 | 148.3 |
| | | Through | B | 10.7 | 108.5 | B | 12.3 | 148.3 |
| | | Right | B | 15.1 | 0.3 | B | 13.4 | 0.3 |
| | South | Left | **Traffic assumed to route to/from the east via Iver Trask* | | | E | 61.1 | 46.7 |
| | | Through | | | | D | 53.1 | 46.7 |
| | | Right | | | | E | 57.7 | 46.7 |
| | | Left | A | 9.4 | 91.1 | A | 5.6 | 29.3 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | West | Through | A | 9.7 | 91.1 | A | 1.6 | 29.3 |
| | | Right | B | 13.9 | 11.3 | B | 13.9 | 13.6 |
| **All Vehicles** | | **All** | **B** | **10.8** | **108.5** | **B** | **12.4** | **148.3** |
| Kapiti Road / Rimu Road / Waimarie Ave | North | Left | C | 30.3 | 1.5 | C | 31.2 | 1.6 |
| | | Through | C | 26.1 | 1.5 | C | 27.1 | 1.6 |
| | | Right | C | 30.2 | 1.5 | C | 31.2 | 1.6 |
| | East | Left | B | 14.8 | 7.9 | B | 19.4 | 10.0 |
| | | Through | B | 12.1 | 34.8 | C | 24.3 | 53.8 |
| | | Right | C | 31.3 | 0.5 | D | 36.9 | 0.5 |
| | South | Left | B | 11.3 | 27.2 | B | 11.2 | 35.6 |
| | | Through | B | 13.4 | 15.2 | B | 11.8 | 14.9 |
| | | Right | B | 18.0 | 15.2 | B | 16.4 | 14.9 |
| | West | Left | C | 21.3 | 43.6 | B | 17.7 | 42.7 |
| | | Through | B | 16.7 | 43.6 | B | 12.1 | 42.7 |
| | | Right | C | 23.9 | 33.9 | C | 31.6 | 46.7 |
| **All Vehicles** | | **All** | **B** | **16.1** | **43.6** | **B** | **19.14** | **53.8** |
| Town Centre Link Road / Road 2 | North | Left | | | | C | 21.0 | 3.0 |
| | | Through | | | | D | 45.8 | 82.9 |
| | | Right | | | | C | 32.4 | 13.7 |
| | East | Left | | | | B | 16.9 | 7.5 |
| | | Through | | | | D | 36.3 | 73.4 |
| | | Right | | | | D | 40.9 | 73.4 |
| | South | Left | | | | C | 20.3 | 28.2 |
| | | Through | | | | C | 23.9 | 28.2 |
| | | Right | | | | C | 33.2 | 18.2 |
| | West | Left | | | | B | 15.6 | 11.5 |
| | | Through | | | | C | 27.5 | 7.5 |
| | | Right | | | | C | 32.0 | 7.5 |
| **All Vehicles** | | **All** | | | | **C** | **32.8** | **82.9** |
| Town Centre Link Road / Road 3 | North | Left | | | | B | 17.8 | 78.9 |
| | | Through | | | | C | 25.5 | 78.9 |
| | East | Left | | | | B | 11.9 | 2.0 |
| | | Right | | | | C | 20.5 | 3.3 |
| | South | Through | | | | B | 19.8 | 60.4 |
| | | Right | | | | C | 22.8 | 9.1 |
| **All Vehicles** | | **All** | | | | **C** | **22.3** | **78.9** |

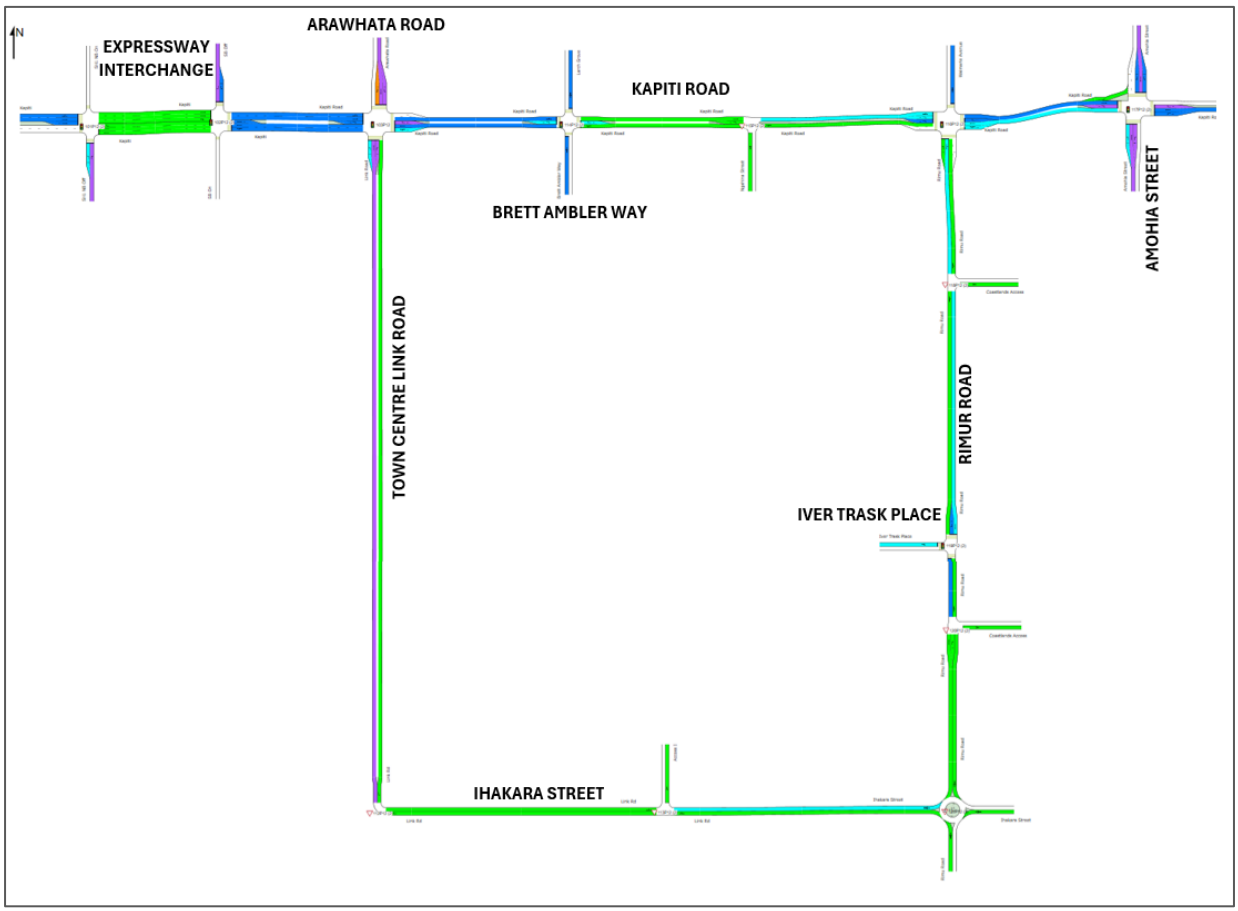



*Figure 8-1. LoS Plot – Scenario 1 'Do Minimum' AM Peak*

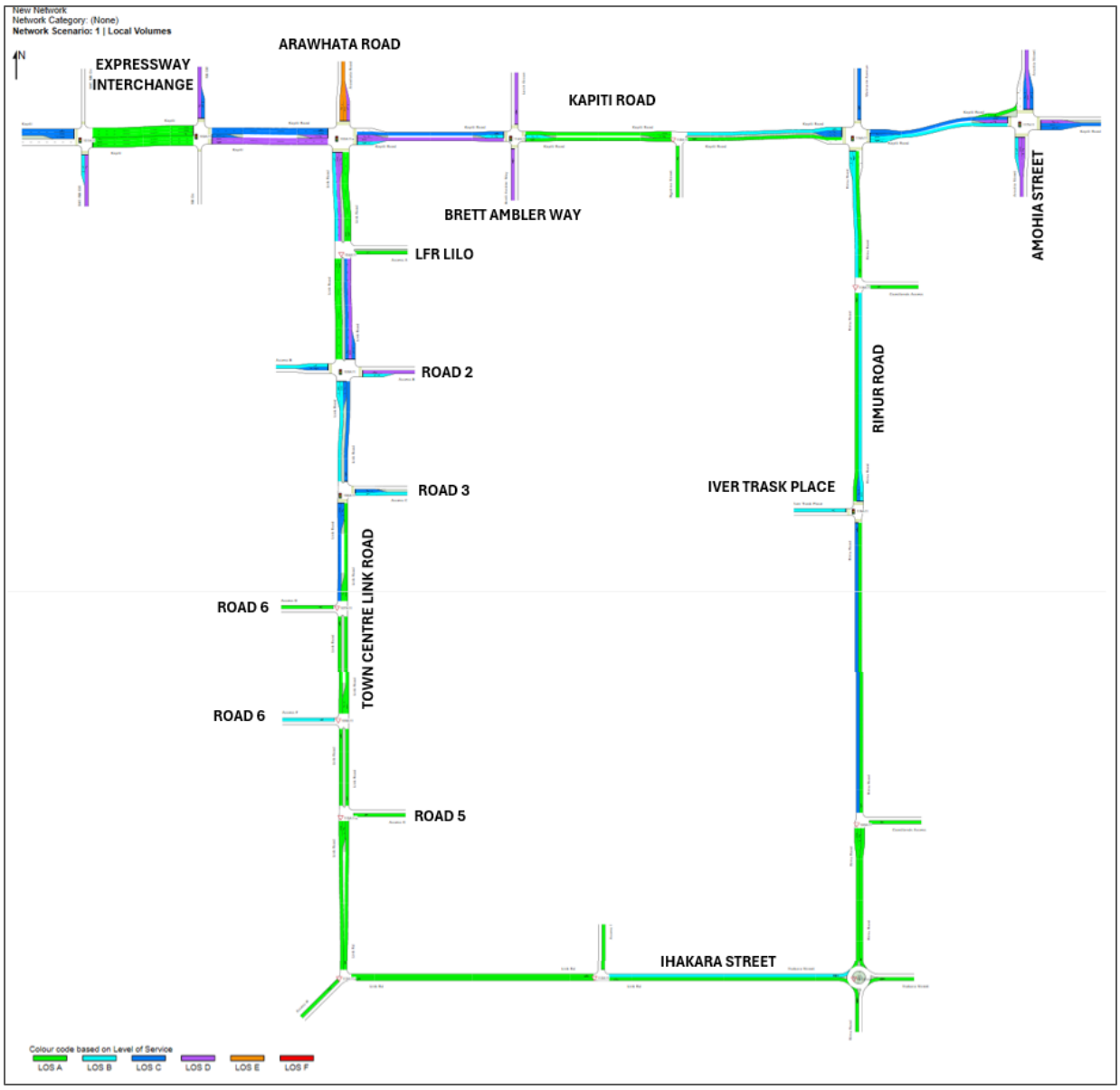



*Figure 8-2. LoS Plot – Scenario 2 'With Development' AM Peak*

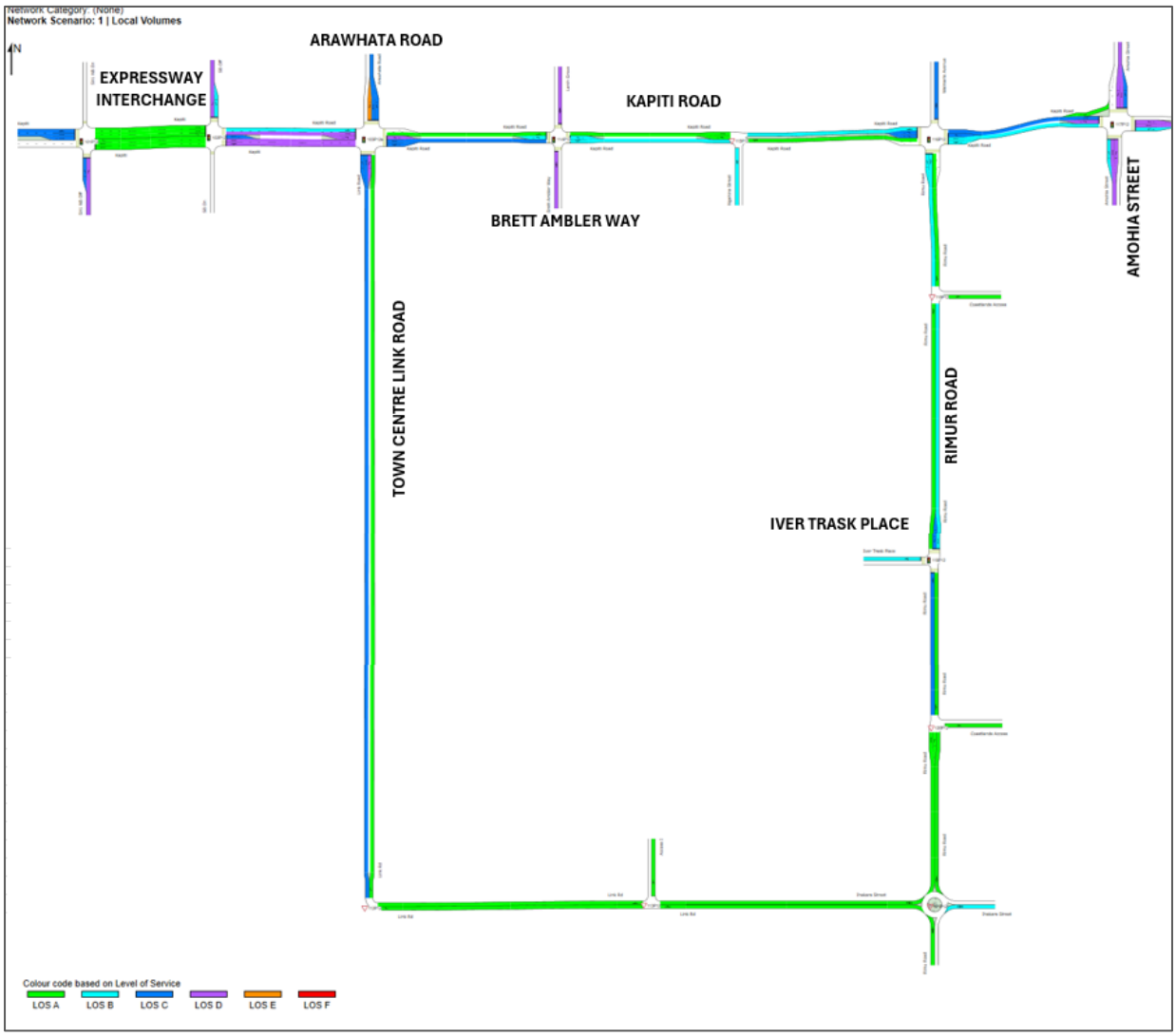



*Figure 8-3. LoS Plot – Scenario 1 'Do Minimum' PM Peak*

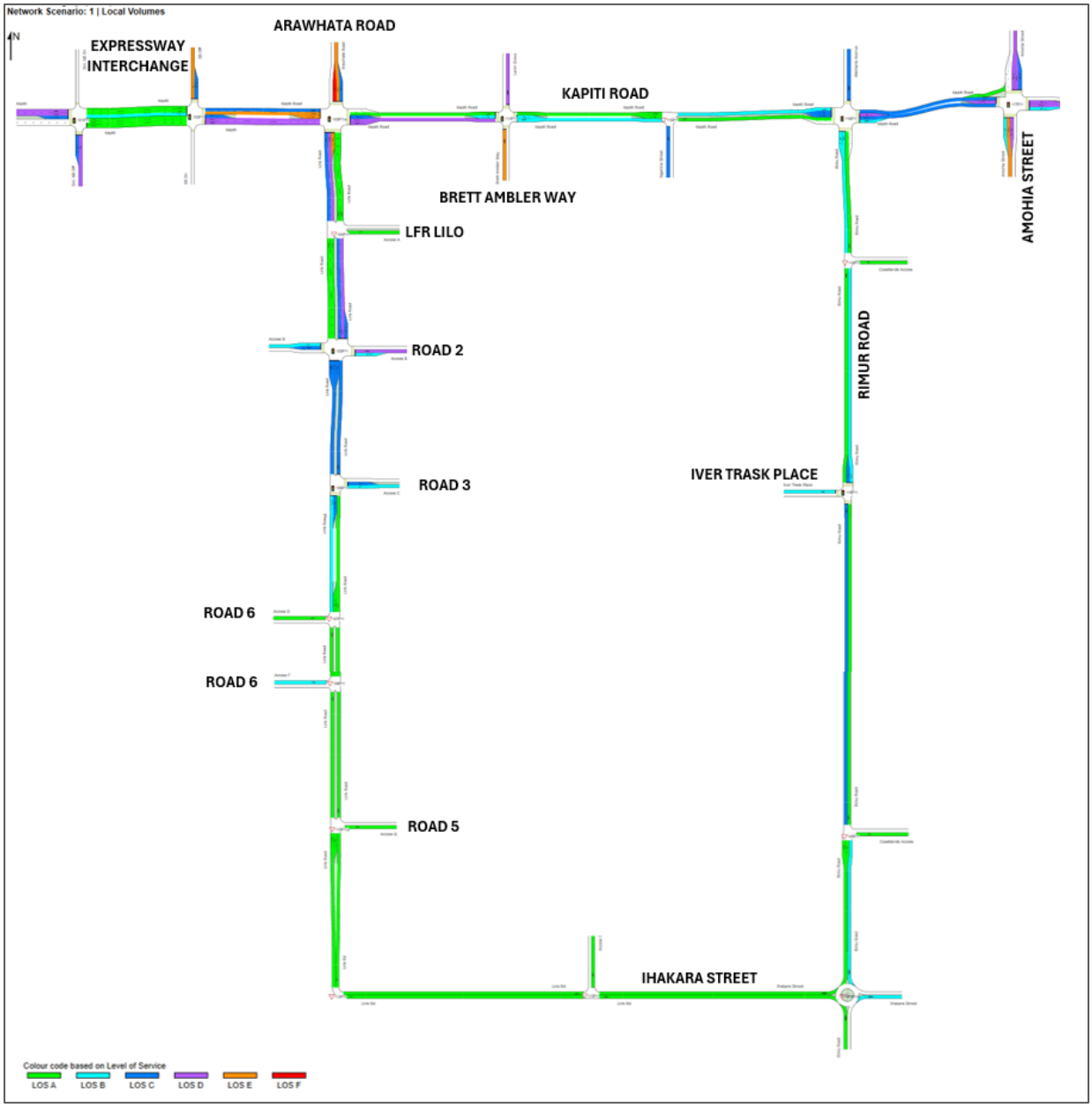



*Figure 8-4. LoS Plot – Scenario 2 'With Development' PM Peak*

The SIDRA network model shows the Kapiti Road corridor generally operates at an overall intersection LoS C or better in the future Do Minimum during the AM peak, with the Kapiti Road / Arawhata Road / Link Road signals operating at a still acceptable overall LoS D. With the additional development Site traffic added and the proposed new link road intersections in place, the network continues to operate at very similar overall intersection levels of service.

During the PM peak, the Do Minimum scenario again shows intersections along the Kapiti Road corridor operating at overall LoS C or better. With development Site traffic added, the Kapiti Road corridor intersections continue to operate at equivalent overall LoS C or better, whilst the Kapiti Road / Arawhata Road / Link Road signals are shown to operate at overall LoS D. Although increased delays are projected for some individual movements at this intersection, overall performance remains within acceptable operational thresholds. The longest modelled queue is forecast on the western approach to

the Kapiti Road / Arawhata Road / Link Road intersection during the PM peak with full development traffic added. On the infrequent occasions such queues occur, they would extend back to the adjacent signals at the interchange, noting these conditions reflect a 95th percentile event under the assumed full Site buildout and associated traffic generations at a future point in time. The assessment also demonstrates that occasional longer queues, which are not uncharacteristic for busier urban signalised corridors such as Kapiti Road, continue to flush out and do not result in sustained network congestion.

With the introduction of the Airport Link Road, traffic volumes on Kapiti Road reduce by up to 10%, reflecting the traffic redistributions for those routing between the coast and the town centre. This redistribution provides a corresponding benefit to the Kapiti Road corridor, including at the new Link Road intersection at Kapiti Road, delivering reductions in delay and commensurate improvements with shorter queues and in LoS, as illustrated in the model network plot in *Figure* 8-5 below.

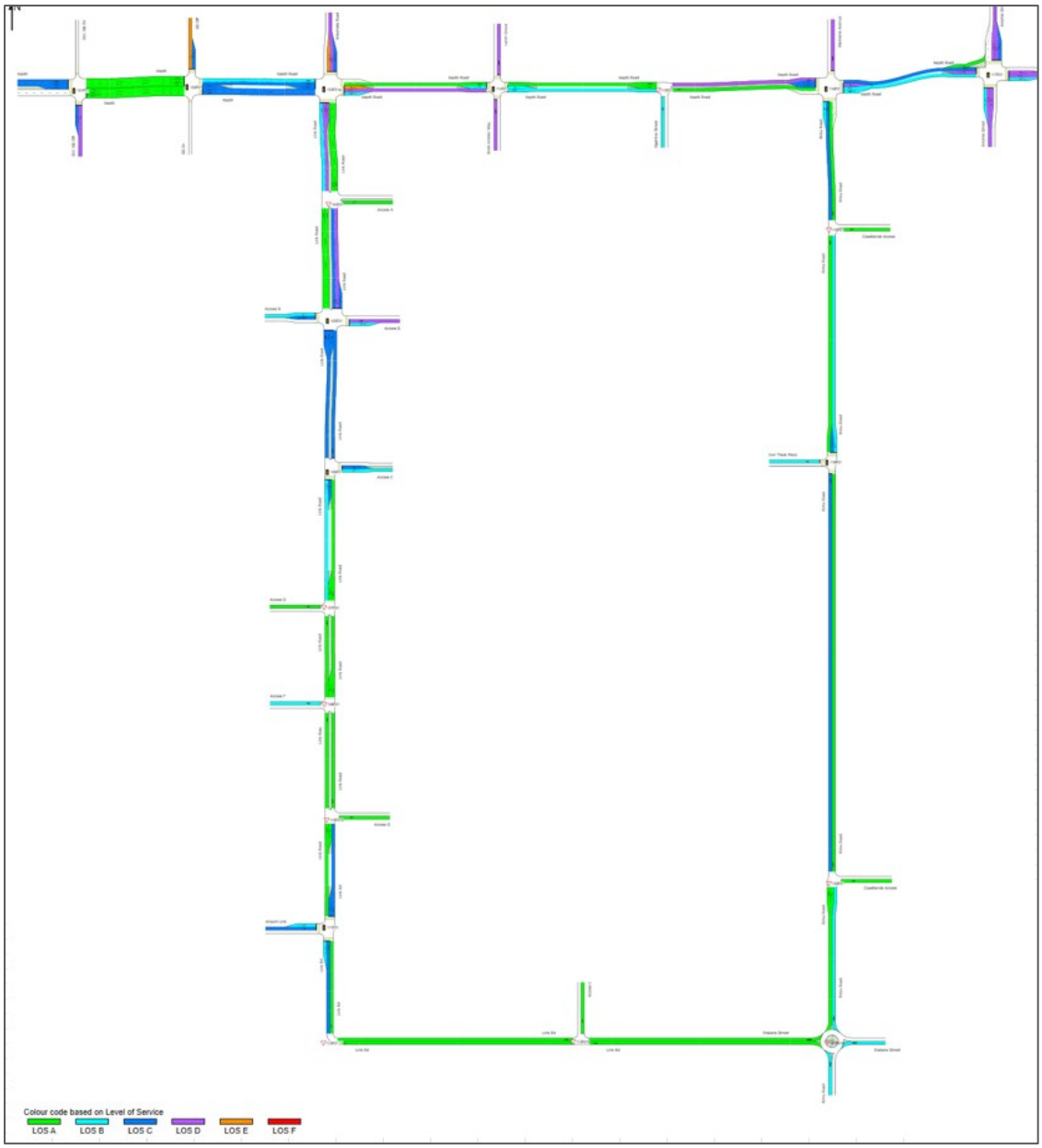



*Figure 8-5. LoS Plot – Scenario 3 'With Development' and 'Airport Link Road' PM Peak*

# 9 Site Movement Network

The internal movement network for the Site has been developed in accordance with the principles set out in the MCZ Structure Plan, the Council's LDMR, and NZS4404, inclusive of appropriate provision for both vehicular and active mode users. In addition, the current proposed movement network has sought to respond to requests for information received from Council on the previous earthworks and subdivision consent, and more recent engagement to date.

In developing the internal movement network hierarchy and street typologies in coordination with Council, and to ensure a legible and connected network to support trips to/from and within the Site, the development plans provide:

- a connected and legible movement network that enables safe and efficient travel for all users and integrates with the wider transport system;
- delivery of the MCZ Structure Plan transport framework, including the town centre Link Road as a strategic north-south connector and relief route, while facilitating opportunities for future network connectivity to the east at Iver Trask Place and Brett Ambler Way;
- a range of road typologies and street environments that respond to their intended movement and place functions, support safe operating speeds through adoption of suitable carriageway widths and road design, and contribute positively to the quality and character of the public realm; and
- safe, direct and convenient walking and cycling facilities that strengthen connections between the Site, the town centre and surrounding destinations, supporting broader transport choice

Details of the proposed new transport infrastructure are illustrated in the plan included in Figure 9-1 below.




*Figure 9-1. Site Roading Layout*

## 9.1 Site Road Classifications

The internal movement network has been informed by the principles of the One Network Framework (ONF), recognising the need to balance movement and place functions while integrating transport and land use planning. Council specifically sought that this framework was adopted and as such, it has influenced the layout and hierarchy of roads, walking and cycling connections, and public transport interfaces to support safe, efficient and well-connected movement throughout the Site and to surrounding areas. Within an urban context, the ONF identifies the following street categories:

- **Urban Connectors** – prioritise efficient movement of people and goods between key destinations, with limited land-use interaction.
- **City Hubs** – highly active centres with significant pedestrian and public transport activity, supporting both movement and place functions.
- **Main Streets** – balance movement and place, accommodating through travel while supporting on-street activity and adjacent development.
- **Activity Streets** – provide access to businesses and community facilities, supporting a mix of pedestrian, cycling, public transport and vehicle movements.
- **Local Streets** – provide low-speed access to neighbourhoods and support local walking, cycling and community activities.
- **Civic Spaces** – places primarily for people, including plazas, pedestrian streets and shared spaces where staying and pedestrian activity are prioritised.

The Link Road is expected to perform a key movement function by improving network permeability and reducing reliance on parts of Kapiti Road and Rimu Road for some local town centre trips. The

modelling demonstrates that it is anticipated to carry an underlying through-traffic volume of approximately 7,000vpd and total volumes of 9,000vpd and 13,000vpd for the southern and northern parts of the road once the development Site is fully built out. From a place-making perspective, its design recognises its role within a mixed-use town centre environment by supporting safe pedestrian and cycling movement, access to the future development sites, and an urban street character.

The nature of this place function is expected to vary along the alignment in response to the surrounding land uses. The northern section, adjoining the proposed retail and commercial activities, is anticipated to attract higher levels of pedestrian activity and interaction (>1,000 pedestrians per day), whereas the southern section, adjoining predominantly residential and open space areas, is expected to experience a lower intensity of pedestrian activity (<1,000 pedestrians per day). Accordingly, while the movement function is considered to align with an ONF M3 classification along the full length of the corridor, reflecting its role in facilitating movement within the town, the place function is anticipated to be higher (P3) along the northern section and lower (P4) along the southern section.

On this basis, the northern section of the Link Road is considered to align most closely with the ONF **Activity Street** category, reflecting its stronger urban and pedestrian-oriented function, while the southern section is considered to align more closely with an **Urban Connector**, balancing local movement with access to adjacent residential neighbourhoods. These classifications are consistent with the ONF's expectation that such streets accommodate intersections, side roads, and multimodal activity as part of the urban transport network.

Roads 2 and 3 will improve east-west connectivity between the Site and the wider town centre, supporting more direct local trips and better integration with surrounding land uses. They are anticipated to carry <1,000vpd and approximately 4,000vpd, respectively, once the Site is fully developed. Under the ONF, Road 3 is anticipated to serve a relatively minor movement function (M4) and accommodate a moderate level of on-street activity given its predominant residential frontage. As such, it is anticipated to align most closely with a **Local Street** classification within the ONF, with importance placed on providing a slower-speed street environment and supporting active modes. By comparison, Road 2 will, in providing access to a mixture of commercial and retail activities (including an LFR site), serve in a moderate movement function (M3) and a higher place function (P3). As such, it is anticipated this road will align with the **Activity Street** classification, albeit with a lower order movement function than that anticipated for the northern section of the Link Road.

The local roads serving the residential areas of the Site will serve a primary access function, and will align with the '**Local Streets'** classification of the ONF.

## 9.2 Site Road Typologies

As previously described, the proposed roads to be vested in Council will form the primary movement network within the Site, providing access to development areas while also serving a broader network function by accommodating through traffic as part of the town centre Link Road. The roading typologies that have been adopted for the Site are summarised in Table 9-1, all of which are to be vested with Council except for the private Jointly Owned Access Lots (JOALs).

*Table 9-1: Proposed Road Typologies*

| ONF Classification | Road(s) # | Description | Legal Width | Carriageway Width | Active Mode Provision |
|---|---|---|---|---|---|
| Main Street | Road 1 (Link Road) | 3.3m wide traffic lanes, flush median, 1.6m wide on-road cycle lanes, 2.5m wide kerbside parking or berm on once side, 2.2m berm on the other, 3m wide shared path on one side and 1.8-2.5m footpath on the other. | Varies 22-30m | Varies, but typically minimum 13.4m (2 x 3.3m lanes), 3m flush median | On-road cycle lanes, shared path on one side and footpath on the other |
| Activity street | Road 2 (Brett Ambler Way extension) | 7.2 wide carriageway with 90-degree or parallel parks, 2.2m berm, 3m shared path on one side, and 2.2m parallel parks or berm and 2m footpath on the other. | 23m | 7.2m | Shared path on one side and footpath on the other |
| | Road 3 (Iver Trask Place Extension) | 7.2 wide carriageway with 2.2m parallel parks or berm and 3m shared path on one side, and 2.2m parallel parks or berm and 1.8m footpath on the other. | 20m | 7.2m | Shared path on one side and footpath on the other |
| Local Access Road | Roads 4, 5 & 6 | 6m wide carriageway with an indented 2.5m wide kerbside parking lane or berm on both sides, 1.8m wide footpath on both sides. | 15m | 6m | Footpath on both sides of the road |
| Private JOAL | Type 1 (JOALs A, B, C, G*, I, J & K) | 5.5m carriageway, sections of 2.2m berm or parking on one side. | 7-10m (varies) | 5.5m | Shared in movement lane |
| | Type 2 (JOALs D, E F, & G*) | 4.5m carriageway with 1.5m berm | 6m | 4.5m | Shared in movement lane |
| | Type 3 (JOALs H, L & M) | Access to carparking serving Apartment Buildings | 6m | 5.8m | Shared in movement lane |
| | Type 4 (JOALs | Rear laneways | 6m | 5.8m | Shared in movement lane |

**The initial section of JOAL G which serves a total of 9 dwellings has been formed as 'Type 1' with a 5.5m two-way carriageway before narrowing to 'Type 2' 4.5m wide carriageway for the remaining section which serves 6 lots.*

These road typology cross sections are provided in the Envelope Engineering roading plans included in the broader Application.

### 9.2.1 Town Centre Link Road (Road 1)

In determining a suitable carriageway cross-section for the town centre Link Road formation, the District Plan points to the industry standard NZS4404, which provides guidance on the road formations based on place and link function relative to the types and scale of activity they serve. Road Types E34 and E36 relate to 'Centres primary access' and 'Centres urban streets' which each serve a mixed land use contiguous of the town centre Link Road. The provision of dedicated on-road cycle lanes also responds directly to feedback from Council through RFIs on the previous resource consent application, where Council specifically requested that on-road cycle facilities be incorporated into the Link Road design. These E34 and E36 typologies incorporate a minimum 20-23m legal road reserve. Traffic movement is provided for in 2 x 3-4.2m wide traffic lanes with separate kerbside parallel parking. It is noted that the 4.2m wide traffic lanes are more typical of roads where no specific on-street or off-road cycle lane is included and provides for cyclists to instead utilise the road shoulder of the over-wide traffic lane. Given the emphasis on providing high-quality cycle provision to the town centre, dedicated on-road cycle lanes in each direction have been allowed for in the road cross section, along with an off-road shared path which runs along the western side of the Link Road. The traffic lanes have therefore been designed to a minimum 3.3m width, with a 3m wide central flush median provided along the two-lane section of the road. A second footpath is provided on the eastern side of the road, to service pedestrian access to and from the adjacent development. This dedicated active mode provision, which goes beyond that envisaged by NZS4404 and responds to Council feedback on the design of the Link Road, will provide a high level of walking and cycling accessibility and amenity commensurate with the town centre environment that this street will serve.

Cross-carriageway connectivity for pedestrians and cyclists will be provided for at the signalised intersections at Kapiti Road, Road 2 and Road 3, along with additional mid-block crossings spaced along the southern section of the Link Road, including at the point where the existing Wharemaukū Stream shared path crosses the carriageway (just north of the current Ihakara Street termination). The form of these mid-block crossings will be determined post consent in collaboration with Council, noting the Wharemaukū Stream crossing will likely adopt a staged design with pedestrian refuges provided initially, with more formal pedestrian priority and/or signalisation to follow once pedestrian / cycle / traffic demands increase to levels to trigger a change, including with the future airport link road in place. Adequate provision to accommodate the associated infrastructure has been allowed for within the overall road reserve width proposed.

As described in the previous chapter, the town centre Link Road intersection layouts, including the number of approach lanes required to provide appropriate capacity and Levels of Service, have been iteratively developed using the traffic modelling analysis based on full development Site traffic. So as not to preclude this Link Road from accommodating a scheduled bus service in the future, the design includes provision for two bus stops (one on either side of the Road) between the intersections with Roads 2 and 3. The position of these bus stops aligns with the anticipated highest pedestrian demands, being in close proximity to the proposed commercial and retail activities, whilst also convenient for the residential catchments provided for within the Site. It is understood that the roading plans have been provided to Metlink for specific comment regarding public transport enablement.

### 9.2.2 Iver Trask Place and Brett Ambler Way Extns (Roads 2 & 3)

Again, the road cross-section design for the extension of Iver Trask Place through to the new town centre Link Road has drawn from NZS4404, and includes a 7.2m wide carriageway to accommodate

two-way movement, along with separate parallel or 90-degree parking spaces, and a 3m and 1.8-2m shared path / footpath on either side of the carriageways. Noting that the design speed for this link will be 30kph, some cyclists will choose to share the carriageway, whilst other riders will choose to use the off-road path.

### 9.2.3 Local Residential Roads (Roads 4, 5, and 6)

The Local Roads serving the residential activity at the Site have again been developed in accordance with NZS4404, in providing a 15m legal width and 6m wide carriageway to accommodate two-way movement, with pockets of indented kerbside parking. A 1.8m footpath and berms are provided on either side of the road.

### 9.2.4 Jointly Owned Access Lots (JOALs)

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 apartments and townhouse activities (noting access arrangements for the apartment buildings are subject to further design, certification and compliance (by way of consent conditions)).

The design approach adopted for the Site JOALs is to provide a 4.5m wide carriageway where 6 or fewer lots are served, and a minimum 5.5m carriageway where more than 6 lots are served allowing for occasional vehicles to pass each other, which aligns with the intent of NZS4404. For the JOALs incorporating a 4.5 m wide carriageway, the additional width relative to the 2.75–3.0 m carriageway anticipated by NZS4404 is intended to provide extra space for vehicles manoeuvring at individual driveways, whilst also providing greater separation and comfort during the occasions when vehicles and pedestrians are using the JOAL concurrently. As noted in Table 9-1 above, the initial section of JOAL G that extends off Road 6 and serves a total of 9 dwellings, has been formed as ‘Type 1’ with a 5.5m two-way carriageway before narrowing to ‘Type 2’ 4.5m wide carriageway for the remaining section which serves just 6 lots, consistent with NZS4404.

For the longer JOAL Type 1 (e.g. JOAL A), intermittent landscape buildouts are proposed that serve to restrict vehicle movements to single width, to actively reduce vehicle speeds, commensurate with the shared laneway environment. Details of this are shown in the roading cross sections in the Envelope Engineering roading plans.

In Council’s review of the draft ITA, some concern was raised around the legal width of JOALs relative to the number of units they will serve, in particular JOAL A. The JOALs will principally accommodate resident light vehicles, with occasional delivery and servicing vehicles. Their safe operation depends on access geometry, individual parking manoeuvres, turning areas and design-vehicle tracking, rather than legal width in isolation. Example vehicle tracking (provided in Appendix B) demonstrates appropriate tracking for a private waste collection vehicle, demonstrating the trafficable widths will not inhibit access and manoeuvring for such vehicles.

The typology proposed for JOAL A is the Type 1 and includes an 8m legal width, with a 5.5m wide movement width which narrows at intervals to provide traffic calming. Council’s suggested 15m legal width appears to apply a public Local Road dimension to a private residential accessway, because it serves more than 20 units. The number of dwellings served is relevant, but is not determinative of the width required for safe access. A 15m public road corridor commonly accommodates functions beyond access, including footpaths, berms, public services, on-street parking and wider network connectivity.

JOAL A serves an identified group of properties, has no through-traffic role, and is not intended to perform those wider road functions, noting the initial section of JOAL H serves a greater number of dwellings and has an equivalent legal and trafficable width to JOAL A.

Legal width should also be distinguished from the formed carriageway width needed for safe vehicle movements. Increasing the legal corridor to 15m would not necessarily improve safety or efficiency where the carriageway and passing arrangements already meet the operational demand. Noting residents of those units accessed directly off JOAL A have options to connect to/from Road 6 via JOALs B and C as well, some distribution of inbound and outbound trips will occur on these other routes, such that not all will travel in/out on the same section of JOAL A. Assuming then on the busiest section of JOAL A at its northern end adjacent to Road 6, equivalent to 25 dwellings (two-way movements) would traverse the laneway, and applying the blended residential trip rate identified earlier at Section 7.1.7 of 0.6vph per dwelling an estimated 15 movements during the peak hours could be expected, substantially lower than a conventional Local Road.

Intermittent landscape buildouts along JOAL A are a deliberate low-speed design feature. They restrict vehicles to single-width movement at selected points, encouraging yielding and reinforcing the shared residential character. A substantially wider corridor could encourage higher speeds and a more road-dominated environment without a commensurate safety benefit. It would also increase land dedicated to access at the expense of residential development, landscaping and amenity, inconsistent with intent of the MCZ.

Accordingly, the proposed legal width for JOALs A, as with the other JOALs, is assessed as being appropriate to support the anticipated movement volumes, passing opportunities and manoeuvring arrangements safely.

## 9.3 Active Mode Network

The proposal provides a purposefully designed active mode network within the Site which includes on-road marked cycle lanes and a shared path along the town centre Link Road, and shared path and footpath or footpaths on both sides of all other vested roads that in turn provide for connection to the established wider walking and cycling networks shown earlier in Figure 3-7, including to the current town centre activities.

To supplement these footpaths and shared paths within the proposed roading corridors, additional off-road provision for pedestrians and cyclists is provided in the form of a series of off-road trails which connect to and through recreational areas and reserves, and provide shorter and more convenient linkages through the Site for active mode users connecting to the town centre and associated public transport node at the Paraparaumu rail station. Details of the Site's active mode network and external connections at the Site boundary are illustrated within the plan included at Figure 9-1.

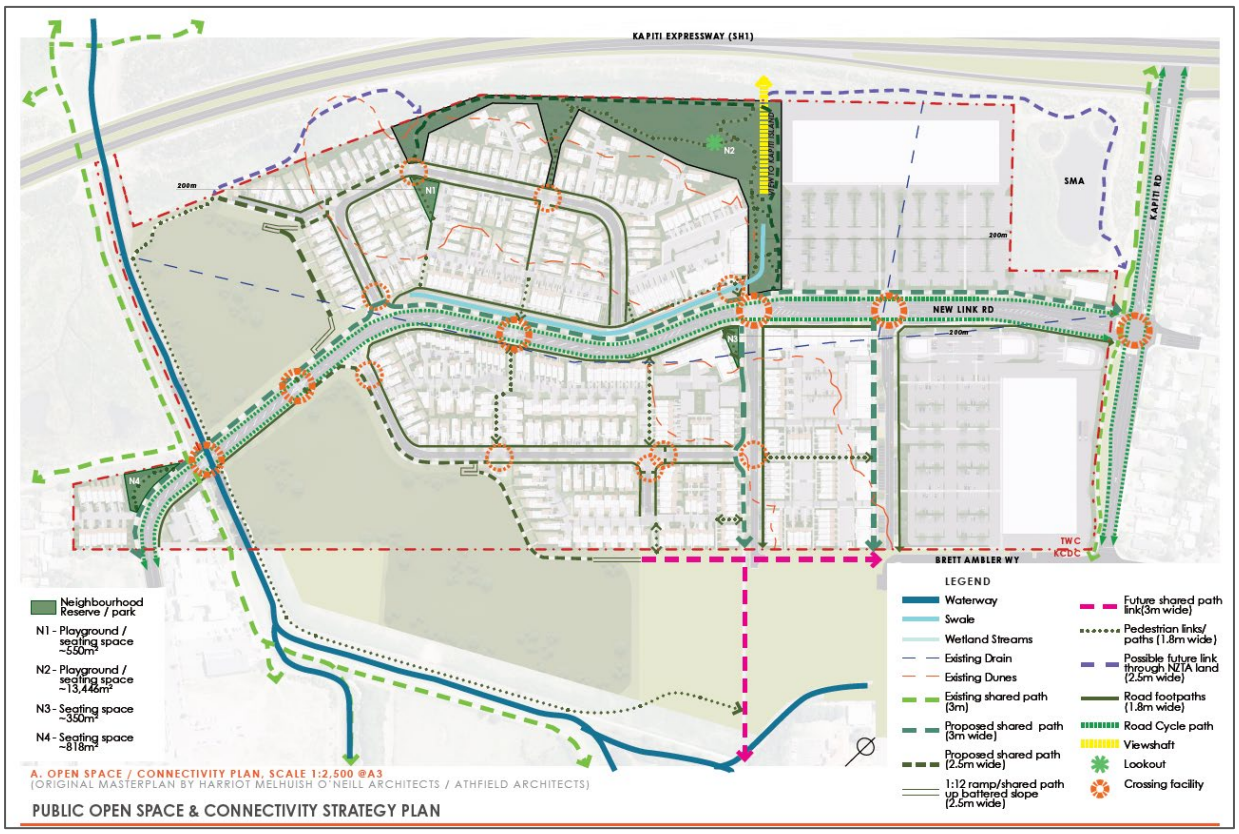



*Figure 9-2. Active Mode Network*

Example cross sections for the various new roading typologies, which have been discussed and shared with Council through the iterative development of the Site plans, are provided in the Envelope Engineering roading plans.

Furthermore, the designs for the new town centre Link Road and Iver Trask Place extension have been developed in a manner that will not preclude the realisation of the Ihakara Street extension, if and when Council seek to progress this, with the associated traffic reassignment able to be accommodated on the new Site roading connections. An indicative corridor and intersection point are shown on the plans, noting as described earlier at Section 4.2, progression of planning for this link is being progressed separately between the Developer and Council.

## 9.4 Individual Activity Access

Whilst the locations of all individual driveway crossings have not yet been finalised, a consent condition is proposed (as described earlier at Section 6.1) requiring detailed assessment of all driveways against the District Plan access standards under TR-R3, including compliance with minimum separation distances from intersections and adjacent accesses, as well as sight distance requirements. Where compliance cannot be demonstrated, further consent conditions are proposed requiring detailed design-stage assessment and, where appropriate, confirmation that any resulting adverse effects are appropriately addressed through suitable mitigation measures.

## 9.5 Parking

The proposal plans have been developed to provide an appropriate balance of car parking through both off-street and on-street provision to accommodate the expected demands generated by the scale and nature of the proposed Site activities. On-street parking is provided in the form of indented parking bays on local streets serving the residential activity, whilst Roads 2 and 3 include parallel parks and some 90-degree spaces to serve adjacent commercial and retail units, in keeping with the town centre environment. Some parallel parks are also provided on the eastern side of the Link Road, between the intersections with Roads 4 and 5, to supplement demand and accommodate some potential recreational visitors to the wetland and/or trails.

# 10 Road Design and Access Statement

Consistent with Council's LDMR, this Section provides a 'Design and Access Statement' for the proposed new transport infrastructure. It outlines the design rationale, functional role and multimodal outcomes of the proposed road network, and demonstrates how the infrastructure responds to the planned land use pattern, movement demands and town centre objectives for the Site.

The proposal plans have been developed around the principle of creating a highly connected, multimodal transport network that supports the planned expansion of the Paraparaumu town centre. The proposed roading network balances movement and place functions, recognising the need to accommodate vehicles, public transport, pedestrians and cyclists within an urban environment that prioritises accessibility, permeability and town centre amenity.

The proposed movement network has been developed to support the Site's anticipated land use pattern whilst also delivering the long-planned town centre Link Road. In doing so, it provides efficient access to the Site's activity areas and supports the MCZ Structure Plan objectives of improving local connectivity, increasing network resilience, and enhancing active mode accessibility

The proposed network comprises a hierarchy of streets and connections that respond to their intended movement function, adjacent land use context and expected traffic demand. Road design provisions have been developed having regard to relevant Council engineering standards, national guidance and desired urban design outcomes.

## 10.1 Road Network Hierarchy

The proposed road network consists of three principal components:

- the town centre Link Road, which forms the primary north-south movement spine through the Site;
- secondary connector roads (Roads 2 and 3) that provide desired linkage to the transport network to the east; and
- local streets and access lanes that facilitate direct access to individual development lots.

The town centre link road is intended to perform both a movement and place function, as described earlier at Section 9.1 . While providing for efficient vehicle movement and enabling redistribution of traffic within the wider town centre network, it must also provide appropriate access to, and connectivity between, the development areas within the Site. This is important to achieve an integrated and permeable urban form, avoiding reliance on disconnected or cul-de-sac forms of development, and providing a legible internal movement network.

At the same time, the Link Road will support pedestrian movement, cycling activity, streetscape amenity and enable future public transport integration. Its alignment and cross-section have therefore been developed to balance Council's objectives for the road to perform an effective network movement function with the need for it to operate as an integrated town centre street providing access to, and connectivity between, the adjoining development areas.

Consistent with the wider Structure Plan framework, provision has been made within the proposed road layout to enable future extension of Roads 2 and 3 to the east, by Council, to provide future connections

with Brett Ambler Way and Iver Trask Place. These future links will further increase permeability within the town centre zone, provide additional route choice for all transport modes, and support an integrated town centre street network.

## 10.2 Multimodal Design Approach

A key objective of the transport network design is to support a genuine multimodal environment. The proposed transport infrastructure has therefore been designed to prioritise pedestrian accessibility throughout the development area, provide safe and convenient cycling connections between destinations, support integration with existing and future public transport services, and deliver an urban form that supports active streets and high-quality public spaces.

### 10.2.1 Walking and Cycling Facilities

The proposed transport infrastructure incorporates a comprehensive active mode network designed to facilitate movement both within the development Site and between key destinations in the wider town centre. The active transport framework includes:

- continuous footpath connections along all public streets;
- shared path connections along key movement corridors, including the town centre Link Road;
- safe crossing opportunities at signalised intersections and mid-block crossings;
- direct connections to the wider established walking and cycling routes including the Wharemaukū shared path, Kapiti Road shared path and cycle lanes, and active mode route to Iver Trask Place; and
- active mode access to public transport routes and town centre destinations.

Shared path facilities are proposed where appropriate to provide safe and attractive facilities for users of varying ages and abilities. The network has been configured to maximise directness and minimise severance effects associated with vehicular traffic.

### 10.2.2 Public Transport Integration

The proposed roading layout has been developed to support future public transport opportunities within the Site, through the design of the town centre Link Road which provides sufficient corridor width and suitable geometry to accommodate future public buses, when route extensions are made by GWRC in the future.

The road network has therefore been planned to ensure appropriate intersection design and geometry at the Site's external connections at Ihakara Street and Kapiti Road, suitable provision for city bus tracking along the Link Road alignment, and accessible future bus stops which have been indicatively located in close proximity to the core Site activities where demand is likely to be highest.

As noted, the roading plans have been provided to GWRC / Metlink for review, with ongoing engagement expected to focus on the detailed provision for a future bus route along the Link Road, including appropriate bus stop design and infrastructure.

## 10.3 Road Environment

The proposed road design adopts a context-sensitive approach whereby road geometry, intersection spacing, streetscape treatment and active mode infrastructure collectively influence driver behaviour and operating speeds. The design objective is to create a self-explaining environment where:

- vehicle speeds are consistent with urban centre activities;
- pedestrian crossing opportunities are well catered for and prioritised;
- cyclists are accommodated safely and comfortably, either within on-street cycle lanes or via off-road shared paths;
- streets contribute positively to urban character; and
- the road environment supports both movement and placemaking outcomes.

The proposed street network is therefore intended to operate at urban speeds appropriate to the surrounding land use activities without reliance on excessive traffic control measures, with the designs to be further developed post consent for Council engineering approval.

## 10.4 Intersections

Intersections have been strategically located to balance network permeability, traffic efficiency and safety outcomes. The proposed intersection framework has been designed to facilitate efficient vehicle circulation throughout the Site's various activity zones, maintain suitable spacing between key intersections, and accommodate turning for servicing and emergency design vehicles.

Earlier iterations of the proposed roading layout included two additional intersections along the Link Road: one located between Kapiti Road and northern signalised intersection adjacent to the LFR areas, and a second local road connection (Road 5) on the eastern side of the Link Road to the south of the Road 3 intersection. In response to feedback from Council, the layout was refined to rationalise the intersection arrangements by removing these two connections and increasing the spacing between the Road 3 and Road 6 staggered intersections to approximately 100m. The current layout reflects that revised approach, resulting in a more streamlined intersection network.

Where higher traffic volumes and turning demands are anticipated, signalised intersections are proposed in preference to roundabouts to provide a safer outcome for active mode users. Again, detailed intersection design will be further refined through subsequent engineering phases, informed by Safe System principles and road safety assessment processes.

# 11 Servicing

Consideration of the servicing requirements for the variety of activities proposed across the Site has been given in terms of dedicated on-site loading areas for the commercial activities, and in the case of the residential development either on-site waste collection or kerbside pick-up. Further detail on these arrangements and anticipated servicing demands is set out in turn below.

## 11.1 Commercial Activities

### 11.1.1 On-site Loading Areas

While servicing arrangements have been incorporated into the masterplan layout, detailed operational requirements will be confirmed through subsequent design phases, and through the volunteered consent conditions that requires the consent holder to demonstrate, prior to building consent, that the final large format retail tenant mix and associated transport arrangements including in respect of provision for servicing, are appropriate. Overall, the proposed layout has been configured to accommodate efficient service vehicle access and associated (un)loading activities, whilst minimising interaction with customer parking areas. For the principal commercial and retail activities within Zones 1 and 2, the masterplan incorporates dedicated service corridors located to the rear of buildings, providing access to back-of-house loading and servicing areas. These routes are intended to operate as one-way circulation enabling service vehicles to enter and leave each site in a forward direction.

**Zone 1 Servicing Operation**

In Zone 1, service vehicles will access the site from the Link Road via a dedicated service vehicle entrance, circulate around the rear of the building, and exit via a separate left-turn-only driveway onto the Link Road. This arrangement would ensure service vehicles remain clear of the main customer carpark and its associated circulation aisles, and could reasonably include measures to prevent public access at any dedicated service vehicle driveways to avoid customer access / egress at these locations. Further such design and consideration of wider service vehicle routes, to align with the left in / left out nature of the service vehicle driveways, will form part of the volunteered consent condition requirement for a ‘Large Format Retail – Transport and Servicing Confirmation Report’, to demonstrate safe and efficient servicing can be provided for this site.

The proposed egress is located 18m from the indicative future bus stop on the Link Road. As noted in the preceding sections, the Link Road has been designed to accommodate future bus services, with stops positioned close to the principal commercial and retail activities and signalised intersections to provide convenient and safe pedestrian access.

Given the frequency of servicing movements is limited and any departing service vehicle would give-way to a bus entering the bus stop under normal road rules, the arrangement is considered practical. Section 11.1.2 below identifies an anticipated servicing demand for a large home improvement store of approximately five articulated truck visits and ten smaller truck visits per day, equating to just 15 service vehicle egress movements per day, involving just one or two an hour.

The left-turn-only exit arrangement provides a simple egress solution for service vehicles, whilst the signalised intersection of Road 1 / Road 3 will provide gap opportunities for service vehicles to exit the

LFR site and manoeuvre into the northbound lanes on the Link Road. The principal considerations are therefore the availability sufficient separation between the driveway and bus stopping area, and the ability of service vehicles to safely complete their turning movements when a bus is present. This is demonstrated in the vehicle tracking plans (Figure 22) included in Appendix B, which shows an articulated truck is able to exit the LFR site, well clear of any bus occupying the bus stop.

The detailed design of the bus stops will also be progressed in consultation with Council, including in relation to treatments and markings on the shared path, consideration of which will also extend to the adjacent service vehicle driveway. In addition, the proposed Large Format Retail – Transport and Servicing Confirmation Report will provide an opportunity to confirm the final servicing arrangements, including vehicle tracking and the interface with the adjoining bus stop.

**Zone 2 Servicing Operation**

For Zone 2, service vehicles visiting the main LFR and supermarket activities would access via a dedicated service vehicle driveway off Brett Ambler Way, circulate around the rear of the building and then exit on to Road 2, before then connecting to the Link Road at the signalised intersection to the west. The other drive-through activities in Zone 2 would be serviced from appropriately located areas within the internal circulation network, with servicing timed where necessary to avoid peak trading periods and minimise conflict with customer vehicle movements.

**Servicing Operation - Other Zones**

The smaller retail and commercial office activities associated with Zones 3 and 4 would generally be serviced either from adjacent kerbside parking (which could include provision of a dedicated loading zone) or via the rear laneway.

Vehicle tracking analysis has also been undertaken using appropriate design vehicles to confirm the expected on-site loading and servicing routes, including movements between the proposed loading areas and the surrounding road network, such as Road 2 (Brett Ambler Way extension), and is included at Appendix B. Further vehicle tracking will be undertaken at the engineering approval stage post-consent, as necessary, to confirm that final lot access arrangements, loading areas and internal circulation routes can safely and efficiently accommodate the anticipated service vehicles. These requirements are also secured through the proposed consent conditions.

### 11.1.2 Forecast Servicing Demands

#### Large Format Retail

Servicing demands for LFR activities generally vary, depending on the nature of the goods and scale of the activity. Data collected by Stantec for large home improvement stores indicates around 5 articulated trucks and 10 other (smaller) trucks per day i.e. 10 + 20 = 30 trucks movements per day total, relating to their combined goods-inwards and goods-outwards delivery operations.

#### Supermarket

Data captured at other similar sized supermarkets indicates an expected 20-25 delivery and service vehicle visits per day, on average, plus home delivery movements, comprising predominantly vans and rigid trucks with occasional visits by two or three articulated trucks each day. The loading area has been designed to provide sufficient space for the longest articulated trucks to access the back-of-house area

at the rear of the building, although noting that a bespoke servicing arrangement will likely be developed further post consent, specific to the future tenant.

### Fast Food / Drive-through

It is anticipated that the drive-through servicing requirements would involve predominantly small and medium rigid trucks, with around 4-6 visits per day for each of the activities, with these vehicles able to service from the circulation aisle within the adjacent carparks, or from the carpark spaces directly adjacent to the building.

### Small Retail / Commercial Office

Servicing of the smaller retail tenancies within Zones 3 and 4 is expected to comprise courier van and small to medium rigid truck deliveries. It is expected that around six to eight vans and five to six trucks could be generated by the combined tenancies, per day, with associated vehicles using a combination of on-street parks on Road 2 or alternatively the rear laneways between Roads 2 and 3, without unduly inhibiting access by other vehicles.

Servicing demands associated with the proposed commercial office activities are expected to be modest, comprising predominantly courier vans and light commercial vehicles undertaking routine deliveries such as office supplies and consumables. Occasional larger deliveries, including furniture, equipment or fit-out materials, may generate infrequent visits by medium-sized trucks. Waste collection for smaller office activities of the like proposed is more generally anticipated to be undertaken by cleaners.

## 11.2 Residential Activities

Residential servicing demands are typically restricted to waste collection, courier van deliveries and occasional furniture trucks. Waste collection will be undertaken via kerbside pickup. For lots accessed through private 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. Within the JOALs, dedicated turning areas have been provided to allow turning and exiting in a forward direction. 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).

It is also understood that the proffered consent conditions require Waste Management Plans to be prepared and submitted at the building consent stage for residential development accessed via private JOALs and for apartment developments. These plans will confirm the final waste storage, collection, access and servicing arrangements having regard to the detailed design and configuration of each development.

Fire appliances can be positioned within the Site's publicly vested road network to allow a hose run of not more than 75m[5] to each dwelling, as required by the Fire and Emergency New Zealand guidance.

Accordingly, the Site masterplan 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.

[5] As stated in Fire and Emergency New Zealand's Designers' guide to firefighting operations – Emergency vehicle access

# 12 Road Safety Assessment

This Section provides a concept-level assessment of the proposed transport network from a Safe System perspective. The assessment considers the extent to which the proposed internal roads, intersections and external network connections have been developed to manage crash risk, support safe travel for all users, and align the design of the transport network with the anticipated movement and place functions of the Site. A simplified Safe System Assessment (SSA) has been undertaken for key components of the proposed network. Further consent conditions required that Safe System assessment audits will be undertaken as appropriate through subsequent detailed design and engineering approval processes.

The assessment undertaken at this stage is appropriate to the level of design detail and considers the overall safety of the proposed road network, including intersection arrangements, vehicle access, pedestrian and cyclist facilities, crossing locations, speed management and the integration of future public transport services. The assessment identifies the principal safety considerations and demonstrates how these have informed the proposed roading layout.

Whilst Council has requested a Safe System Audit of the concept design be undertaken pre-lodgement, it would be more usual for an audit to be progressed when the road geometry, intersection layouts, vehicle accesses, pedestrian and cyclist facilities, signage and road markings are sufficiently developed, to enable a meaningful audit.

This requirement has been included in the draft consent conditions, with any recommendations addressed through the engineering approval process prior to construction.

## 12.1 Internal Site Network

The proposed internal Site transport network includes multi-modal provisions that respond to the land use, place and movement functions anticipated by the development. At a high level, the layout supports Safe System outcomes by providing a connected transport network for walking, cycling, public transport, servicing and general traffic, while recognising the need to manage conflict between these users in a town centre environment.

The new town centre Link Road is anticipated to operate with a posted speed limit of 50kph. The remaining public roads are anticipated to operate at slower speeds, with appropriate speed limits to be determined with Council in conjunction with engineering approval.

## 12.2 Town Centre Link Road

The Town Centre Link Road has been designed to provide for both Site activity access and strategic through traffic movements, with intersection forms and crossing facilities responding to the adjacent land use.

Signalised intersections are proposed in locations where higher levels of retail activity and pedestrian movement are expected. This form of control is appropriate from a Safe System perspective as it separates conflicting movements, provides controlled crossing opportunities for pedestrians and

cyclists, and assists in managing turning conflicts at locations where traffic activity and crossing demand are likely to be higher.

Priority-controlled intersections are proposed in areas adjoining primarily residential activity, where lower traffic demands and a more local access function is anticipated. In these locations, the design allows for appropriate sightlines and approach speeds, and ensures priority arrangements are clear for all users.

Pedestrian crossings will be provided at the signalised intersections, supported by midblock refuge islands at selected locations along the corridor.

Dedicated on-road cycle lanes are proposed in each direction along the Link Road, together with an off-road shared path on the western side of the corridor (as illustrated earlier within the detail of Figure 9-2). These facilities provide dedicated space for active mode users and reduce reliance on cyclists sharing the general traffic lanes along this internal route.

Overall, the Link Road design has been developed to align with the Safe System approach by recognising the different movement functions along the corridor, managing conflict points through appropriate intersection control, and providing dedicated facilities for pedestrians and cyclists within the mixed-use town centre environment. The road curvilinear alignment further supports the anticipated posted speed and encourages suitable vehicle operating speeds. A simplified Safe System assessment for the Link Road is summarised below in able 12-1.

*Table 12-1: Concept Safe System Assessment Matrix - Link Road*

| Crash Type | Existing Environment | Concept Design | Residual Risk | Response to address Residual Risk |
|---|---|---|---|---|
| Run-off road | No existing internal road. | Urban 50km/h corridor with kerbs, defined lanes, sealed shoulders, footpaths and cycling provision. | Low | Detailed design to confirm kerbs, lighting and roadside features. |
| Head-on | No existing internal road. | Posted 50kph two-way urban carriageway with defined traffic lanes, flush median or wide centreline and controlled intersections. | Low | Lane markings to be confirmed at detailed design. |
| Intersection | Turning and crossing crashes are an issue on nearby town centre roads. | Signalised intersections near higher turning movements adjacent retail activity, priority control near lower trafficked residential activity. Curvilinear alignment encourages suitable operating speeds. Dedicated right turn lanes on higher order road | Moderate | Intersection type responds to land use and demand. |

| Crash Type | Existing Environment | Concept Design | Residual Risk | Response to address Residual Risk |
|---|---|---|---|---|
| Other | Nearby roads include queuing, access and rear-end crash risks. | Managed vehicle access onto lower volume roads, bus stop provision and staged crossings are included. | Low to moderate | Vehicle access points will be positioned to minimise conflict with nearby intersections and provide safe sightlines. |
| Pedestrian | High pedestrian activity is expected adjacent to Zones 1 and 2, lower volumes along the southern portion of the route. | Footpaths, signalised crossings and selected midblock refuges are proposed. | Moderate | Lighting at crossing locations to be confirmed at detailed design. Potential full pedestrian red arrow protection at signalised intersections. |
| Cyclist | Existing cycle routes are provided on Kapiti Road, Rimu Road and nearby shared paths. | Dedicated cycling provision connects to surrounding facilities and crossings catering for All Ages and Abilities with shared path. | Low to moderate | Location of cycle markings to be confirmed at detailed design. |

The table summarises the key crash types considered for the proposed Link Road and identifies how the concept design responds to each risk. Whilst a number of residual risks remain, these are generally low to moderate in nature and are expected to be further mitigated through detailed design, including the refinement of intersection layouts, signalised intersection operation, crossing facilities, signage, markings and lighting.

## 12.3 Kapiti Road

Kapiti Road forms the Site's northern frontage and provides external connection between the Site, Paraparaumu north and west catchments, and the Expressway. The new town centre Link Road will connect to Kapiti Road at the existing Kapiti Road / Arawhata Road signalised intersection.

From a high-level Safe System perspective, and as in the assessment above for the Link Road, this form of intersection control provides safety benefits by managing vehicle turning movements through defined signal phases, reducing complexity, and providing controlled crossing opportunities for pedestrians and cyclists, as it does in the existing situation. The signalised intersection supports the Safe System approach by managing the points at which vehicles, pedestrians and cyclists interact, and reduces exposure to uncontrolled turning and crossing conflicts. The signalised layout also assists in maintaining continuity for active mode facilities along and across the Site frontage, while balancing the movement function of Kapiti Road with the need for safe access to the Site and town centre. The proposed arrangement also maintains continuity for active mode connections along and across the Site frontage, while balancing the important movement function of Kāpiti Road with the need to provide safe and efficient access to the Site and wider town centre.

## 12.4 Ihakara Street

Ihakara Street forms the Site's southern interface, providing connection between the Site and Paraparaumu town centre area to the east, as well as the future Airport Link beneath the Expressway. The key Safe System considerations are maintaining appropriate operating speeds, providing clear priority and access arrangements, and supporting safe movement for pedestrians and cyclists, both to

and from the Site as well as through it. The existing western end kerb to kerb carriageway width (excluding indented parking) is 12 metres providing opportunity for cycle lanes and a central flush median or right turn provisions.

The Site interface with the existing end of Ihakara Street is considered appropriate from a high-level road safety perspective, with subsequent detailed design ensuring that safe pedestrian, cyclist and vehicle movements are supported, including in respect of the Site's new shared path connecting with Council's proposed shared path extension through to Ihakara Street.

# 13 Construction Traffic Management

A detailed Construction Management Plan (CMP) addressing the phasing and construction of the new roading and servicing infrastructure as well as development of the Site's individual activities, will be prepared and submitted to Council in due course.

A Construction Traffic Management Plan (CTMP) will be prepared to set out details of the various works phases, associated forecast construction volumes for each phase, and related management thereof. As a component of the CMP, the CTMP will be submitted to Council for certification prior to any Site works beginning. A condition of consent is volunteered in this regard.

The Site itself will be laid out to allow all vehicles, where practicable, to access and egress the Site in a forward direction, without requiring any reverse manoeuvres on the adjacent road network. On occasion, when specialised machinery is being delivered to or collected from the Site; where space precludes larger vehicles from turning; or when works are being undertaken close to the Site frontages, it may be necessary to require some Temporary Traffic Management (TTM). This will be undertaken in a manner that is satisfactory to Council and will be submitted for approval as part of a Temporary Traffic Management Plan (TTMP).

It is anticipated that vehicle access to the Site during construction will initially be achieved off the existing access from Kapiti Road to the west of the Arawhata Road signalised intersection for truck traffic. With truck movements likely to be predominantly to / from the Expressway interchange, the initial construction access strategy anticipates arriving trucks turning right into the Site from Kāpiti Road, with the existing painted median providing space to facilitate this movement. Exiting trucks will mostly turn left onto Kapiti Road. Active traffic management measures required to achieve safe access / egress under such arrangements, will be detailed in corresponding TTMPs, requiring certification by Council.

Once the necessary culverts are constructed at the Ihakara Street end of the Site to enable access from the south, construction access may also be provided from Ihakara Street. This will provide an additional construction access option as development progresses and enable construction traffic to be distributed having regard to the location and sequencing of works across the Site. The detailed arrangements will be addressed through the CTMP. These and other specifics will be documented in the CTMP to prepared in due course, that will be submitted to Council for approval prior to site works commencing. The CTMP will include, as relevant to each phase, details of:

- the timing of specific work phases;
- key activities during each work phase;
- anticipated traffic levels and access arrangements during each work phase;
- provision for maintaining a safe Site perimeter, and associated measures to maintain access to adjacent activities and safely manage pedestrian / active mode movements in the vicinity of the Site;
- wheel washing requirements for Site vehicles;
- route restrictions, for both large and any oversize vehicles;
- arrangements for TTM, including with regard to traffic management measures, works Site signage plans, impacts on access and circulation within adjacent streets, and any temporary changes to public on-street parking; and
- contact telephone number for key Site staff.

Given the proximity to the town centre and Iver Trask Place civic hub, consideration of pedestrian and cycle safety will necessarily have to be included in the CTMP, potentially including footpath diversions and or closures, particularly when Site works on the key roading connections to the existing network are underway. Appropriate signage clearly communicating any necessary diversions will be erected in accordance with the New Zealand Guide to Temporary Traffic Management. Full details of these arrangements will be provided within phase-specific TTMPs.

# 14 Conclusion

New Central Park Limited are seeking consent to develop the approximately 28-hectare area of land within the Metropolitan Centres Zone (MCZ) in Paraparaumu. The proposed development comprises a variety of land use activities including residential, commercial and retail, in line with the intent of the underlying MCZ provisions.

Access to the Site will be achieved by way of the new town centre Link Road. The internal Site transport infrastructure has been designed to align with the District Plan and NZS4404 to deliver a movement network that fits with the place and link context of the anticipated future land use and through-traffic function the Link Road will serve.

Analysis of the proposed Site traffic generation and general background traffic growth in the town centre confirm that, with the proposed new roading infrastructure in place and associated connecting intersection designs, the new and existing network can appropriately accommodate the forecast traffic volumes associated with the Site's subsequent development, along with general background traffic growth and reassignment within the wider town centre.

The Site's proximity to the established town centre and associated key public transport nodes will support a reduced reliance on private car ownership and use, in line with the Council's Sustainable Transport Strategy. Accordingly, the new movement network that has been designed to accommodate future transport demands generated at, to and through the Site includes high-quality walking and cycling infrastructure, to support and encourage mode choice.

Assessment of the key external intersections surrounding the Site, together with the proposed internal intersections along the Link Road, indicates that each intersection is expected to operate at an acceptable overall Level of Service D or better during both the AM and PM peak periods while accommodating traffic generated by the proposal. While some individual movements are forecast to operate at lower levels of service during peak periods, this is consistent with the operation of signalised intersections in a town centre environment and does not result in unacceptable overall intersection or network performance. Forecast changes in travel patterns following implementation of the Link Road indicates that the proposed four-leg Kapiti Road intersection will experience increased demand on some movements once the full development traffic is realised. Delivery of the future Airport Link Road is expected to reduce traffic volumes on Kapiti Road by up to 10%, providing corresponding relief to intersection demand and improving overall network performance.

A number of consent conditions are recommended to ensure that subsequent detailed design and implementation of the development remain consistent with the transport effects and outcomes assessed in this ITA. These recommended conditions have been incorporated into the draft consent conditions submitted with the application and, where appropriate, will also be secured through consent notices.

The conditions provide clear parameters and certification requirements for subsequent design stages. Where information submitted in accordance with those conditions demonstrates compliance with the specified standards, performance requirements and outcomes, certification is to be provided by Council. This provides an appropriate mechanism for confirming detailed design matters without reopening matters already assessed and authorised through the resource consent.

A number of transport related Consent Conditions are proposed, as follows:

- Preparation of a 'Large Format Retail – Transport and Servicing Confirmation Report' to ensure that the eventual large format retail tenants and their associated transport and servicing arrangements remain within the transport effects envelope assessed and authorised through the ITA, thereby avoiding transport effects that are materially greater or different to those anticipated at the time consent was granted. Proposals which exceed the assessed trip-generation envelope or generate materially greater transport effects cannot be certified and may require a separate consent variation process;
- specific Site access arrangements under TR-R3 that provides for access driveways to be designed appropriately incorporating proposed mitigations in relation to:
    - formation width (TR-R3.3);
    - location in respect to appropriate separation distances from intersections (TR-R3.7), visibility sightlines (TR-R3.9); and
- Site parking arrangements within the commercial areas to be designed in accordance with Rule TR-R5;
- Accessible car parking be provided in accordance with TR-Park-R18 for Medium Density Housing and activities within the commercial zones;
- Cycle parking be provided in accordance with TR-Park-R19 for multi-unit residential and activities within the commercial zones.
- 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.

<u>Preparation of the following documents for certification by Council:</u>

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

Collectively, these conditions provide a clear and enforceable framework for the detailed design and implementation of the transport network, while ensuring that subsequent development remains within the envelope of the transport effects assessed in this ITA.

The assessment of transport effects arising from the proposed development of the Site has been undertaken using the modelling methodology requested by Council, being the use of Council's KTM4 strategic transport model and subsequent SIDRA intersection assessments. This approach reflects the established transport planning framework for the Paraparaumu Metropolitan Centre, including the anticipated development of Precinct C and the wider network function of the proposed Link Road.

The assessment has considered the anticipated full development of the Site, together with forecast growth and development across the wider transport network. The proposed road network and intersection arrangements have been developed and refined in response to the modelling outcomes and through collaboration with Council, with consideration also given to vehicle access, servicing, public transport, pedestrian and cyclist movements, and road safety.

The level of assessment undertaken is considered appropriate to the current stage of design and demonstrates that the proposed transport network can accommodate the anticipated development in a safe and efficient manner. The detailed design and engineering approval processes to come will provide for further refinement of individual road and intersection layouts, access arrangements and associated



infrastructure, including a Road Safety Audit, without altering the fundamental transport network arrangements assessed in this report.

Overall, with the proposed transport connections and infrastructure in place, and subject to the recommended consent conditions which have been incorporated into the draft consent conditions, it is assessed that the Site can be developed as a mixed-use centre while maintaining the safe and efficient operation of the surrounding transport network. The proposal can therefore be supported from a traffic engineering and transport planning perspective.

# Appendices

# Appendix A RFI Table Response

# NEW CENTRAL PARK | KCDC TRANSPORT COMMENTS

Verbatim KCDC comments and requests | grouped by topic | 16 October 2026

Comments are transcribed from the 13 October 2026 KCDC email and associated 7 October drawing review text. Original spelling and wording are retained. Initial responses are carried across where a corresponding item was identified; blank cells require allocation/review. Source references identify the original section/page, not a rewritten comment.

| NO. | SOURCE / CATEGORY | KCDC COMMENT / REQUEST — VERBATIM | INITIAL RESPONSE / ACTION |
|---|---|---|---|
| TRAFFIC MODELLING | | | |
| 1 | Page 4<br>Traffic modelling | How have the figures for the mixed use activity been determined e.g. what assumptions have been made to determine that 90,000sqm equates to 1,200 new jobs? | The reference to 90,000m² of mixed-use activity and approximately 1,200 jobs reflects the assumptions adopted as part of the earlier work undertaken by Council to inform the then Proposed District Plan zoning, now incorporated into the Operative District Plan. These figures were intended to provide an indication of the scale of additional development and employment activity relative to the Proposal.<br><br>They do not form the basis of, or otherwise relate directly to, the level of activity proposed as part of the current application. |
| 2 | Page 4<br>Traffic modelling | The reason I have raised this is that we need to ensure that the number of movements into and out of the site for commercial activities is accurately reflected in the transport model. There will also be the customers to add on top of this and I am unclear what assumptions have been made on this. | As per response to #1 above, these numbers are related to Council's earlier planning assessment for the town centre to inform the District Plan, and do not represent the current development schedule proposed for the Site which is set out in detail at Section 7 of the ITA, and has subsequently been adopted within the traffic modelling described in the ITA at Section 8. |
| 3 | Page 4<br>Traffic modelling | Is there a need to model the worst case scenario noting the following commentary "A more intensive development of the Site within the permitted building envelope could, depending on the ultimate land-use mix, generate greater transport demand than the Proposal. Accordingly, the additional transport demand associated with development of the Site is an anticipated consequence of the planned urban development of Precinct C, rather than an unforeseen intensification of the current town centre activity". | The traffic modelling undertaken in the ITA reflects the proposed activity mix and associated envelope of traffic effects for which consent is sought. The proposed consent conditions include a requirement for a Large Format Retail – Transport and Servicing Confirmation Report, to demonstrate that the final activity mix remains within the assessed envelope of effects. Should more intensive activities be proposed that would generate traffic movements exceeding those assessed in the ITA, a variation to the resource consent or a new resource consent would be required, supported by further traffic analysis and assessment of the associated effects. |
| 4 | Page 22<br>Traffic modelling | Methodology adopted for assessing the transport effects of the Site's future development including the traffic modelling that has informed the design of the town centre Link Road but we have not received information on the assumptions made in the model, please can this be provided. | Stantec can collate and provide relevant model inputs/outputs, KTM4 trip input summary, counts, signal timings, queue surveys, 2036 land-use assumptions, and daily-flow calculations. |
| 5 | Table 5.2<br>Traffic modelling | Re CS8-12 – RFI 3 - SIDRA 10 electronic (not PDF) files are requested along with all KTM4 model outputs (including all AM and PM peak turning flows, link flows, select link analysis and development site trip distribution) as supplied by Transport Futures Ltd (TFL). | |
| 6 | Table 5.2<br>Traffic modelling | We would like to see the SIDRA and SATURN modelling assumptions, inputs and outputs. | |

| | | | |
|---|---|---|---|
| 7 | Trip Type<br>Traffic modelling | Please provide a summary table of trip generation input to KTM4 | As per response above to items #4-6 above, this information can be collated and provided. |
| 8 | Pages 49 to 51<br>Traffic modelling | RFI 9 Please provide details of 2026 traffic count and signal timing data. | As per response above to items #4-6 above, this information can be collated and provided.<br>With respect to network performance, LOS C/D represents typical performance at busy signalised urban intersections, with some individual movements operating at lower levels of service during peak periods. The key consideration is the extent to which the Proposal changes network performance relative to the future baseline, rather than the absolute LOS forecast, noting too that the assessed performance is for a future 2036 year and for full build-out of the Site..<br><br>The Link Road and possible future Airport Link Road will redistribute traffic across the wider network, meaning intersection performance should not be considered in isolation but from a whole-of-system perspective. |
| 9 | Pages 49 to 51<br>Traffic modelling | RFI 10 Please provide details of the queue length surveys. | |
| 10 | Pages 49 to 51<br>Traffic modelling | RFI 11 Please provide details of the TFL correspondence re land use assumptions and level of traffic removed in the 2036 forecast year assumptions. | |
| 11 | Traffic modelling<br>Traffic modelling | As per the above comment, it is difficult to provide more feedback given that we have not seen the model assumptions, inputs and outputs, it would be good to see this. It is noted, however, that network performance does reduce in some areas below the preferred level of service of C at worst and is already at level of service C on some parts of the new link roads. Council is also uncomfortable with a level of service E and F at the Kapiti Road / Arawhata Road interchange, noting a slight improvement with the airport link. This goes back to some of our concerns about queue lengths and in some areas insufficient stacking space / turning lanes. | |
| 12 | Page 61<br>Traffic modelling | • RFI 13 Please provide details of how the daily flows were calculated. | The daily flows were determined by multiplying the modelled peak hours by a rule-of-thumb factor of 10 to provide an estimated daily traffic flow. As such, the numbers should be regarded as an indicator. |
| 13 | Page 62<br>Traffic modelling | It would be good to see traffic modelling showing anticipated vehicle movements. | As per response to item #3 above. |
| 14 | Page 72<br>Traffic modelling | How did truck movements get accounted for in the traffic modelling noting that 1 truck is usually the equivalent of 10 vehicle movements. | The development-generated traffic within the KTM modelling assumed 1% Heavy Vehicles, which is considered appropriate given servicing activities for retail and commercial land use are typically spread throughout the day, rather than being concentrated in any peak hour. Truck servicing will be undertaken by a range of vehicles, from smaller trucks to articulated trucks in some instances, such that the mix would be less than 1 truck = 10 car movements. |
| TRIP GENERATION RATES | | | |
| 15 | Pages 43 to 46<br>Trip generation rates | RFI 6 - The trip generation rates for the large format retail, supermarket and fast food activities seem very low and it would be helpful to see the evidence / surveys for this. | Details of the adopted trip generation rates and associated sources used to inform these is provided in the table below. |
| 16 | Pages 43 to 46<br>Trip generation rates | The assessment refers to Research Report 453 (RR453) for small retail and identifies 11.5 vehicles per hour (vph) per 100sqm but RR453 shows 18.9 vph for small shops – which rates have been used to form the basis of the assessment? | |
| 17 | Pages 43 to 46<br>Trip generation rates | Fuel stop - 5% pass by from Kapiti Road is only applied to the PM peak. This assumes nobody buys fuel in the AM peak. Please update the AM peak trip generation and assessments accordingly. | To clarify, whilst the description of the Fuel Stop trip generation at Section 7.1.5 refers only to the PM peak, this figure has been applied to both the AM and PM peaks for the assessment of development traffic, as indicated in the overall trip Site generation Table 7-1. |

| | | | |
|---|---|---|---|
| 18 | Pages 43 to 46<br>Trip generation rates | RFI 7 - Please can evidence / surveys be provided for the trip rates for residential activities and the survey data used for the high density apartments trip rate - this trip rate seems very low. It is unclear whether the evidence relates to a comparable site, as an example a trip generation rate for a similar development in Wellington where this a high level of public transport would be expected to have a different profile to somewhere like Paraparaumu. The trip generation has assumed a one-third split town houses/duplexes/apartments. If there is a greater split of town houses then a higher trip generation would be expected. On this basis the trip generation is not considered conservative. Please update the trip generation and assessments to reflect a conservative approach | As per response to item #15 above, details of the trip rates and sources are provided in the Table below.<br><br>In terms of the residential splits for apartments versus townhouses etc, any material changes to the proportions specified in the development plans and adopted in the ITA would require a variation of the consent along with updated analysis of the traffic effects, as required by the consent condition referred to in Item #3. |
| 19 | Pages 43 to 46<br>Trip generation rates | Wrapping up the above – can evidence / surveys for all trip rates please be provided as they seem low. | |
| 20 | Trip Type<br>Trip generation rates | RFI 8 please supply the questionnaire surveys collected by Stantec at established retail centres (including Wellington Airport Retail Park and Mt Wellington Retail Park). | The data collected by Stantec is confidential to those parties and reference to this has been removed from the ITA Instead, reference is made to the New Zealand industry available data 'Trip Generation Characteristics of Large-Format Retail Development Sites in Auckland' has been further identified within the ITA Section 7.2 to clarify assumptions for primary versus secondary trips. Whilst examples of LFR collected elsewhere around New Zealand may vary slightly, the proportion of primary versus secondary trips for commercial/ retail activities remains valid for the development Site, given the concentration of established commercial/retail activities within the town centre and the resulting potential for linked and multi-purpose trips. |
| 21 | Page 52<br>Trip generation rates | It would be good to see evidence for pass by trips noting that Mount Wellington in Auckland and Wellington Airport retail park are different types of development to what is proposed here. | |
| 22 | Pages 71 and 72<br>Trip generation rates | • RFI 16 please provide survey data as referred to for each of the uses. | As per response to item #15 above, details of the trip rates and sources are provided in the Table belowhew.. |
| DEVELOPMENT ASSUMPTIONS / CONSISTENCY | | | |
| 23 | Page 4<br>Development assumptions / consistency | Page 4 identifies 90,000sqm but page 21 shows less than this, is this accounting for parking etc. | See response to item #1 above. |
| 24 | Page 4<br>Development assumptions / consistency | On page 21 it says 12,000 larger format retail but on page 20 it says 20,000, which is correct? | Page 20 of the ITA identifies 16,000sqm GFA of LFR plus a 4,000sqm supermarket, so 20,000sqm GFA total. This is further broken down in Table 5-1 on Page 21 to 12,000sqm + 4,000sqm LFR + 4,000sqm supermarket. |
| 25 | Page 4 identifies 90,000sqm but page 21 shows less than this, is this accounting for parking etc.<br>Development assumptions / consistency | There also appears to be some differences between the figures for drive throughs on page 21 and those on page 46. Additionally, we note that the drive though arrangements (including waiting lanes) are not identified on the plans meaning that potential conflicts with other vehicle movements are not identified. We are already experiencing some safety issues with drive throughs blocking access and impacting on live lane movements and do not wish for this potential conflict to be repeated, particularly in the vicinity of Kapiti Road. | Floor Areas have been updated to capture recent iterative adjustments toas the plan set has been finalised. The latest plans also now show the drive-through arrangements for the three individual fast-food sites, which have been designed to avoid queues at the drive-through lanes extending back and impacting on adjacent circulation routes and traffic lanes on Road 1. |
| 26 | Page 4 identifies 90,000sqm but page 21 shows less than this, is this accounting for parking etc.<br>Development assumptions / consistency | Can all figures be checked for consistency throughout, noting that the figures on page 46 have been used for traffic modelling purposes. | As per response to Item# 25 above, some activity floor areas have been subject to minor refinement as the masterplan has developed. Notwithstanding these adjustments, the final proposed scale of activities remains within the overall envelope of development assessed through the traffic modelling. |

| | | | |
|---|---|---|---|
| 27 | Page 22<br>Development assumptions / consistency | It is recommended that a condition is included relating to development of the site to be in accordance with the uses and scale of development indicated in section 5.1 of the ITA and that this does not include the fuel stop (it is noted on Page 32 of the ITA that the development plans do not include a service station). However, if the applicant wants to include the fuel stop at a future stage, then the ITA cannot be considered to be a conservative traffic effects assessment. | The requirement for development to be undertaken generally in accordance with the approved plans and supporting documentation is already captured under Condition 1. However, the proposed KCDC consent conditions have been amended to specifically reference the activity mix and scale of development assessed in the ITA, while retaining appropriate flexibility for detailed design and final tenancy arrangements.<br>The proposed conditions also require a Large Format Retail – Transport and Servicing Confirmation Report to demonstrate that the final activity mix remains within the assessed envelope of traffic effects. Any more intensive activities generating traffic beyond that assessed in the ITA would require a variation to the consent or a new resource consent, supported by further transport assessment.<br>For clarity, a service station / fuel stop is not proposed as part of the current development and is not included in the activities for which consent is sought, but is included as a placeholder for the purpose of the transport assessment and modelling presented, and as such represents a slightly higher view of total traffic generation. |
| 28 | Page 32<br>Development assumptions / consistency | The assessment identifies that rule TR-R8 does not apply as no service station is proposed but it is conceivable that it will occur and has been assessed in the traffic model. It is unclear what is anticipated in this regard. | |
| STRATEGIC NETWORK / AIRPORT LINK ROAD | | | |
| 31 | Page 18<br>Strategic network / Airport Link Road | The application states "Importantly, however, the development has been designed so as not to preclude the future establishment of the connection" – RFI 1 Please provide information demonstrating how the ARL is not precluded eg through volunteered conditions relating to provision of land for the ARL route alignment and potential alternative alignment options. | The Wharemaukū Stream corridor and adjoining NCP land to the south are proposed to vest in KCDC as drainage reserve. While a future Airport Link Road connection would also require a portion of NZTA land, the proposed stream works have been designed to accommodate the anticipated crossing of the Wharemaukū Stream.<br>Accordingly, the Proposal does not preclude the future connection, with the relevant NCP land to be transferred into Council ownership..<br>Section 4.2 of the ITA describes the future Airport Link Road, and refers to the Envelope Engineering roading drawings which include a separate indicative plan of the Airport Link Road alignment for discussion with NZTA. |
| 32 | Pages 18/19<br>Strategic network / Airport Link Road | A decision will be made by Council on these proposals at the end of the month. | A note on this has been added to Section 4.3 of the ITA. |
| 33 | Table 5.2<br>Strategic network / Airport Link Road | Re CS6, 19, MM5 - where on the roading drawings is the future protection for the ARL shown (see RFI 1 above)? | Refer scheme plans included in the application.<br>See response to item #31 above. |
| LINK ROAD / INTERSECTION DESIGN | | | |
| 34 | Table 5.2<br>Link Road / intersection design | RFI's CS2, CS4, CS5, CS19 – see comments in section 9.1 | See responses to Items #36-50 below. |
| 36 | Page 27<br>Link Road / intersection design | TR-R3 standard 6 – has the distance of 23m changed with the proposed new plans? | The access proximity remains unchanged. |
| 37 | Pages 63 to 67<br>Link Road / intersection design | Table 9.1 - This should be updated to include proposed posted speed limits. Specific comments include: | Whilst Council, as the relevant road controlling authority will determine the posted speed limits, it is anticipated that Road 1, together with Roads 4, 5 and 6, would operate with a posted speed limit of 50 km/h. Roads 2 and 3, which form extensions of Brett Ambler Way and Iver Trask Place respectively, may be more appropriately subject to a 30 km/h posted speed limit, consistent with the existing speed limits on those streets. |

| | | | |
|---|---|---|---|
| 38 | Road 1<br>Link Road / intersection design | • How has the carriageway minimum width of 13.4m been derived (i.e. 3.3m*2 +3m +1.6m *2 = 12.8m)? | Details of the various proposed road cross sections are illustrated within the Envelope Engineering plans included with the application. |
| 39 | Road 1<br>Link Road / intersection design | • Width within description = 22.3 to 23m. What else is included in the legal width of 22-30m? | |
| 40 | Road 2<br>Link Road / intersection design | • Width within description = 16.6m – what else is included in the legal width of 23m? | |
| 41 | Road 2<br>Link Road / intersection design | • Carriageway width of 7.2m - does this mean the traffic lanes are 3.6m wide? What width allowance has been made for the angled parking? | |
| 42 | Road 3<br>Link Road / intersection design | • Width within description = 16.6m – what else is included in the legal width of 20m? | |
| 43 | Road 3<br>Link Road / intersection design | • Carriageway width of 7.2m - does this mean the traffic lanes are 3.6m wide? | |
| 44 | Roads 4 to 6<br>Link Road / intersection design | • Width within description = 14.6m, what else is included in the legal width of 15m? | |
| 45 | 9.2.1<br>Link Road / intersection design | • Reference to Road 1 having 2 x 3-4.2m wide traffic lanes - since this is a bus corridor, 3.2m is the minimum width with 3.5m being the preferred. | Traffic lanes on Road 1 have been designed to a minimum 3.3m, consistent with Austroads Part 3 guidance for urban streets. |
| 48 | Plans<br>Link Road / intersection design | · Road 1/6 and Road 1/3 intersection spacing improved, now circa 115m separation. | Noted. |
| 50 | Plans<br>Link Road / intersection design | Road 1/5 and Road 1/6 Right left stagger is proposed as opposed to a left right stagger which is KCDC's preference given there may be some vehicle movement across road 1 between roads 5 and 6, as well as the distance between the intersections. | Conventional practice in roading layout design where staggered intersections are proposed, is for the stagger to occur in the right-left sequence when travelling along the main road. This ensures that any associated right turning vehicles do not overlap, and are appropriately separated on the entry to any right turn bays provided. This is how the Road 1/5 and 1/6 configuration has been designed. Additionally, such an arrangement provides for any cross-road movements between Roads 5 & 6 (or vice versa) to turn right onto Road 1 before subsequently turning left into the opposing side road, providing a more orderly 2-stage movement.<br>ReOn this basis, the proposed right-left stagger is considered preferable from a traffic safety and operational perspective. Accordingly, the Applicant proposes to retain the intersection arrangement as designed. |
| COMMERCIAL ACCESS / SERVICING | | | |

| | | | |
|---|---|---|---|
| 51 | Page 22<br>Commercial access / servicing | Zone 1 Service access on Road 1 is for Large Format Retail and therefore large trucks are expected. Could access be taken from the Road 1/7 signalised intersection? It is noted on page 31/32 of the ITA that a "servicing strategy will be confirmed under a volunteered condition for a 'Large Format Retail –Transport and Servicing Confirmation Report' to establish the preferred access and egress routes for servicing activities and demonstrate that service vehicles can safely enter, manoeuvre within, and exit the Site via the adjoining frontage roads. Accordingly, compliance with the standard can be achieved through the detailed design process and through the proposed consent condition". It is considered that service access/egress to the LFR is a critical issue that could impact on the masterplan design and should be resolved to the agreement of KCDC at this application stage and not at detailed design stage. | The vehicle tracking plans attached to the ITA at Appendix D demonstrate tracking for a semi-trailer to access and egress the LFR site at the western side of Road 1, by undertaking a left turn in at the Site's northern service vehicle 'entry only' driveway, travel anti-clockwise through the Site around the rear of the LFR building, and then exit back onto Road 1 via a left turn out at the service vehicle 'exit only' driveway, adjacent to the Road 1 / Road 3 signals. These signals will provide gaps in the traffic stream for service vehicles to exit the LFR Site. Internal Site measures can be implemented to ensure this driveway is only accessible to service vehicles leaving the Site.<br>With the proposed service vehicle circulation described above, associated trucks routing to/from the Site from State Highway 1 would be as follows:<br>Truck arriving on the Expressway from the south would likely exit at Poplar Avenue interchange, route north along the old SH1 alignment, turn left into Ihakara Street and connect to the Link Road. This route is approximately 500m shorter than the equivalent route of continuing on the Expressway and exiting at the Kapiti Road Interchange.<br>For trucks arriving on the Expressway from the north, these would connect to Kapiti Road, turn right at the signals onto Brett Ambler Way (consistent with service vehicles accessing the LFR Site on the eastern side of Road 1), turn right at the signals onto Road 1, and then left turn into the dedicated service vehicle left turn entry only driveway. This route is approximately 500m longer than would otherwise be required if a direct right turn from Road 1 into the LFR site were available, noting that this movement will be physically prevented by the proposed central median on Road 1.<br>The respective differences in travel distance therefore broadly offset one another, such that the proposed left-in/left-out access arrangement is not expected to materially increase overall service vehicle travel distances. On departure, service vehicles would connect to Kāpiti Road and access the Expressway directly via the Kāpiti Road Interchange. |
| 52 | Page 22<br>Commercial access / servicing | RFI 2 - Please provide further details of how LFR service trucks will safely access and egress the site. | |
| 53 | Page 22<br>Commercial access / servicing | Zone 2 and 3 fast food and fuel stop - it is expected there will be a high turnover of vehicles turning in/out of the two accesses and hence potentially creating operational and safety concerns given the close proximity to adjacent signalised intersections. Could the 2 accesses be combined into 1 left in/out access? Also recommend a condition that these are left in/out only and measures to self-enforce this are incorporated at detailed design stage. | The proposed driveways on Road 1 serving the fast-food activities and LFR sites will be left-in / left-out only, with a central median island along this section of Road 1 prohibiting any right turn manoeuvres. A consent condition capturing these arrangements can be included in the proposed suite of conditions. Given the restriction on right turns out at these driveways, a proportion of traffic visiting these Sites will likely choose to exit to Road 2 via the wider LFR site driveways, to then turn right onto Road 1 and route back to Kapiti Road.<br>The northern driveway will serve the northern fast-food activity, whilst the southern driveway will function as an access to the LFR activities to the east, as well as providing access to the remaining two fast-food activities. This driveway has been specifically located to provide generous separation (125m) from the Road 1 / Kapiti Road signals. Road 1 has also been designed with two southbound lanes along this block length to provide ample capacity a inbound from Kapiti Road. |

| | | | |
|---|---|---|---|
| 54 | Page 27<br>Commercial access / servicing | TR-R3 standard 4 - I would go one step further for the commercial accessways and make sure that they are designed to accommodate eh swept paths of the vehicles anticipated to visit the site e.g. large format retail needing to accommodate heavy goods vehicles. | Vehicle tracking of service trucks accessing / egressing the commercial driveways is included in Appendix D of the ITA, noting further refinement of the driveway arrangements will occur through subsequent design, as per the proposed consent condition requirement for a 'Large Format Retail – Transport and Servicing Confirmation Report'. |
| 55 | Page 28<br>Commercial access / servicing | TR-R3 standard 8 – compliance does not appear to be achieved with the large format retail where accesses are proposed and entry cannot be controlled e.g. the vehicle crossings for delivery vehicles. | The two driveways serving the LFR Site on the western side of Road 1 will be restricted to left-in/left-out movements through the provision of a central median island on Road 1 and are intended to provide for service vehicles only. Public use of these accesses can be prevented through appropriate access controls and/or internal circulation arrangements that restrict connectivity with the main customer carpark. The specific measures adopted will be agreed with Council and documented through the 'Large Format Retail – Transport and Servicing Confirmation Report' required by the proposed consent condition. |
| 58 | Plans<br>Commercial access / servicing | · Road 1 (north and south side) closely spaced car park accesses for the retail lots - concerns regarding:<br>Operationally - potential blocking back to adjacent signals (60m distance).<br>Safety how prevent right turns in and out and also safety with left turns and the on road cycle lane proposed. | See responses to items #51-55 above.<br><br>The safe operation of the two driveways on Road 1 serving the LFR site on the eastern side of the Link Road can be appropriately captured at detailed design by incorporating measures such as appropriate pavement and cycle lane markings, signage, and speed management measures such as raised or speed-hump treatments at the driveway crossings, to reinforce cyclist priority and encourage low vehicle speeds. The design will also maintain appropriate sightlines between exiting vehicles and cyclists, with landscaping, street furniture and other infrastructure located so as not to impede visibility. |
| 61 | Plans<br>Commercial access / servicing | · Road 1 north side retail service access - is this an access or an egress? and how prevent right turns in/out? If its an access then right turns have to cross 3 lanes of traffic and the cycle lane and no right turn bay shown. | See response to item #52 above. |
| RESIDENTIAL ACCESS / JOALS | | | |
| 62 | Page 22<br>Residential access / JOALs | Zone 7 residential access for 31 residential units. Safety and operational concerns with access to this Zone were raised in the drawing review comments of 7/10/26. Since this access is directly from a JOAL then this would be a vehicle crossing. | Available sightlines from the access driveway serving the 14 dwellings on the eastern side of Road 1 in Zone 7 are approximately 46m, which is marginally less than the 50m minimum set out in TR-R3.9 based on a 50kph posted speed limit. Noting operating speeds for southbound vehicles on Road 1 are anticipated to less than 50kph given the horizontal alignment on the approach, this departure is not expected to give rise to safety issues. |
| 63 | Table 5.2<br>Residential access / JOALs | Access to some lots is not identified on the plans e.g. JOAL G. | Access to the row of lots immediately east of the JOAL G dog-leg – outlined in orange in the snip below – will be achieved from JOAL H. |

| | | | |
|---|---|---|---|
| | | |  |
| 64 | Page 26/27<br>Residential access / JOALs | TR-R3 standard 1 - See above point on page 24 about access not being shown for all residential lots. | Access arrangements for each individual lot within the Site is illustrated in the architects' plans. |
| 65 | Page 27<br>Residential access / JOALs | It would be helpful to understand the issues with not complying with TR-R3 standard 3 and what the extent of the non compliance will be, particularly as there will be some critical driveways. Leaving this to a later certification stage as identified in the proffered condition may result in an ability to make amendments that address access and safety issues. | As outlined in Table 6-1 of the ITA under Rule TR-R3.3, any anticipated non-compliances are expected to be limited to narrower residential lots where the minimum 3.5 m vehicle crossing width at the site boundary cannot be fully achieved. Notwithstanding this, all vehicle crossings will be designed and certified to a width that demonstrates satisfactory vehicle tracking to and from the Site. Requiring on-site turning for each allotment would significantly increase the area required for vehicle access and manoeuvring, reducing the efficient use of residential land, which is contrary to the outcomes sought by the MCZ. |
| 66 | Page 28<br>Residential access / JOALs | TR-R3 standard 7 – It is unclear what the implications of this non compliance will be and whether any of those driveways would be critical, therefore, the proffered condition may still result in some unsafe movements. A safety audit may identify some issues that may need to be addressed at a later stage in the process when redesign becomes more difficult. | An assessment of the potential non-compliances for TR-R3.7 is provided in Table 6-1 of the ITA under Rule TR-R3.7. |
| 67 | Page 28<br>Residential access / JOALs | TR-R3 standard 9 – It is unclear what the implications of this non compliance will be and whether any of those driveways would be critical, therefore, the proffered condition may still result in some unsafe movements. A safety audit may identify some issues that may need to be addressed at a later stage in the process when redesign becomes more difficult. | The following supplementary requirement for safe sightlines at driveways is proposed by way of consent condition as a means of ensuring appropriate safe outcomes: |

| | | | |
|---|---|---|---|
| | | | *Where vehicle crossing sightlines under TR-R3.9 cannot be complied with and the crossing is located on the inside of a bend with a change of angle of 45 degrees or more, an assessment shall be undertaken of the associated Austroads Stopping Sight Distance for the estimated operating speed of the road where the vehicle crossing connects. The traffic engineer shall confirm that non-compliance with the Council standard will not result in unacceptable safety effects*. |
| 68 | Page 29<br>Residential access / JOALs | TR-R3 standard 12 – whilst the District Plan does contemplate some vehicle movements where reversing is allowed onto a Neighbourhood Access route, we are concerned about the fact that this may apply to a significant number of lots and have cumulative effects and it is not a practice we would encourage as a default. It is also noted that some lots directly access off road 3 are very narrow such that on site manoeuvring may not be able to be achieved. We are also concerned with the proposed car parks for the JOAL H being located in close proximity to Road 6 resulting in potential conflicts of vehicles trying to park whilst other vehicles are trying enter the site. | While rear-lane access has been incorporated throughout the development where practicable, some higher-density housing typology lots require direct frontage access. In these circumstances, avoiding reverse manoeuvres between the dwelling access and the public road is not practicable. Notwithstanding, the adjoining roads are anticipated to carry relatively low traffic volumes, generally less than 100 vehicles per hour, such that potential conflict between through traffic and vehicles manoeuvring at driveways would be low.<br>JOAL H serves 70 units and 70 parking spaces. It is anticipated that associated peak hour traffic movements would sit at around 40-50vph during the peaks, translating to less than one vehicle on average per minute. The likelihood of a vehicle manoeuvring at one of the parking pads adjacent to Road 6 is assessed as small, noting almost all traffic entering from Road 6 would be undertaking a right turn in and would therefore have good visibility of a car manoeuvring into the laneway from these driveways.<br>It is relevant too that TR-R3 Standard 12 expressly anticipates reversing movements onto Neighbourhood Access roads. The proposed arrangement reflects the higher-density housing typologies anticipated within the Metropolitan Centre Zone, where providing on-site turning for every dwelling would compromise efficient land use. |
| 69 | Page 64<br>Residential access / JOALs | Council is concerned about the legal width of some of the JOALs being only 6m wide with 4.5m carriageway, this does not accord with NZS4404, does not allow for two waying passing. With between 8 and 12 dwellings served by these JOALS they should be at least 9m wide with a 5.5 to 5.7m carriageway. This would also provide room for infrastructure to be in a berm. This is especially in JOAL E which is likely to have site visibility issues. | Further rationale for the JOAL Type 2 has been added to the ITA at Section 9.2.4, noting this has only been adopted where 6 or fewer dwellings are served. The 4.5 m wide carriageway (which is wider than the 2.75–3.0 m carriageway anticipated by NZS4404) is intended to provide extra space for vehicles manoeuvring at individual driveways, rather than accommodating two-way traffic, which isn't required under NZS4404 given the small number of lots served. |
| 70 | Page 64<br>Residential access / JOALs | JOAL A in particular should also be 15m wide as a minimum as this serves more than 20 units. | Further explanation of the typology adopted for JOAL A has been added to the ITA at Section 9. |
| 71 | Plans<br>Residential access / JOALs | Joal G - how are properties to north of end of JOAL G accessed? | See response to item #63 above. |
| VEHICLE TRACKING / SWEPT PATHS | | | |
| 72 | Table 5.2<br>Vehicle tracking / swept paths | CS7 – RFI 4 Vehicle tracking drawings for design and check vehicle requested. | Vehicle tracking of service vehicles for the commercial activities, along with waste collection vehicles on other public roads and private waste collection vehicles on JOALs is included at Appendix D of the ITA. |

| | | | |
|---|---|---|---|
| 73 | Page 29<br>Vehicle tracking / swept paths | TR-R3 standard 13 – we ae concerned that the proposal as it stands may make this difficult to achieve and swept path analysis has not been provided to demonstrate this can work. | |
| 74 | Pages 71 and 72<br>Vehicle tracking / swept paths | RFI 15 Vehicle tracking is referred to - please provide tracking drawings for design and check vehicle on all roads and JOAL's. | |
| 75 | Plans<br>Vehicle tracking / swept paths | Vehicle tracking - no details of vehicle tracking has been provided to confirm this. Vehicle tracking of the vested roads and JOALS for design and check vehicles to be agreed with Council is requested. | |
| ROAD SAFETY AUDITS / APPROVALS | | | |
| 76 | Table 5.2<br>Road safety audits / approvals | Re RFIs CS1/19 and section 12 - a Safe System Audit was requested by Council but the ITA response is that this should be a consent condition. Given there are some key outstanding issues with the Envelope drawings (see drawing review comments of 7/10/26) an independent concept design stage safe system audit is recommended to be carried out now to ensure the proposed roading infrastructure can be delivered and that fundamental design changes are not required at the detailed design stage. | Stantec notes that, in our experience, a concept-stage Safe System Audit is not typically required as part of a resource consent application for a development of this nature. The ITA has assessed the proposed road network and associated safety considerations, with the detailed design and approval process providing the appropriate opportunity for further auditing and refinement.<br><br>The draft KCDC consent conditions include standard requirements relating to Engineering Plan Approval, compliance with Council's design standards and road safety audits. |
| 77 | Table 5.2<br>Road safety audits / approvals | Re CS3, 13, 15 and 16 (and Table 6.1 - District Plan compliance)– noting the drawings are at concept design stage, a generic subdivision condition is suggested relating to approval of all vested and JOAL roading (including pedestrian and cycle routes) and parking/loading detailed design drawings at the Engineering Plan Approval (EPA) stage which also includes demonstration of vehicle tracking, independent detailed design stage Safe System Audits, landscaping design and compliance with relevant KCDC design standards (eg Land Development Minimum Requirements (LDMR). The condition will also need to include designs for bus stops including accessibility requirements, footpath connections, footpath and berm space for shelters and sufficient room for bus manoeuvring. The condition should also include that for JOAL's, prior to EPA, agreement on parking, property access, servicing of utilities, pedestrian provision and vehicle tracking will be required - see Section 6.1 below | The draft KCDC consent conditions include standard requirements relating to Engineering Plan Approval, compliance with Council's design standards and road safety audits. |
| 78 | Page 34 | Rule TR-R10 - without seeing the traffic modelling it is difficult to provide further commentary at this stage. | As described in Table 6-1 at TR-R10, the Site as a whole, including specific activities within it, trigger the Major Traffic Activity rule. The ITA has therefore been developed to assess the associated effects of development Site traffic on the operation of the surrounding network, as anticipated by TR-R10. |
| 79 | Appendices<br>Road safety audits / approvals | RFI 17 please provide the detailed assessment matrices referred to in Appendix C | These can be provided. |
| 80 | Plans<br>Road safety audits / approvals | Access shown on bend of Road 1 at ch 900 - concerns regarding sightlines and overall safety of this access. | See response to item #62 above. |
| 81 | Plans<br>Road safety audits / approvals | Sightlines - CAD versions of all the updated roading drawings are requested so that the sight distances can be checked and also details of the design design criteria used e.g. crossing width, vehicle approach speed and pedestrian walk speed | The Applicant is still considering this request. |
| WALKING / CYCLING / OPEN SPACE | | | |

| | | | |
|---|---|---|---|
| 83 | Road 1<br>Walking / cycling / open space | • Regarding proposed 1.6m cycle lanes, 1.6m is the NZTA desirable minimum when there is no on street parking. Where on street parking is provided then the desirable minimum width is 1.8m and a buffer zone is required. | The proposed on-street cycle lanes are 1.6m wide, in line with the NZTA guidance, noting this is measured from the edge of channel, meaning an additional 300mm is actually achieved to the kerbface. For the section of southbound cycle lane on Road 1 where parallel parking is required, a minimum 1.8m width is provided in the cycle lane, again satisfying the NZTA guidance. These details are shown in the roading cross sections included in the Application. |
| 85 | Plans<br>Walking / cycling / open space | Road 1/Wharemauku shared path staggered crossing -concerns regarding sightlines, width of island to accommodate cyclists waiting to cross, should it be controlled? | An assessment of the Crossing Sight Distances at the crossing location show sightlines of approximately 90m and 98m are available to the south when crossing the northbound traffic lane from the western footpath and central refuge, respectively. Whilst this is marginally less than the 105m Crossing Sight Distance (CSD) based on the 50kph posted speed of the Link Road, the geometry of the curve on the approach from Ihakara Street will serve to reduce operating speeds, such that the available CSD is considered appropriate. The crossing refuges are designed to provide a 2.5m wide physical island for users, in line with NZTA guidance and appropriate for accommodating a typical bicycle length of 1.8m |
| 86 | Plans<br>Walking / cycling / open space | Pedestrian linkage between the residential areas west to east between Roads 3 and 5. As shown on the drawings no pedestrian/cycle links are shown to the proposed crossing of road 1 between Roads 3 and 5. This makes walking distances long for residents west of road 1 to access the town centre/train station/Coastlands etc and could result in unsafe crossings of Road 1. Below is the plan provided in the Stantec memo of 30 September 2026 and notably this shows pedestrian links in the areas to the west and east of Road 1 (which are not shown on the drawings) connecting to the pedestrian crossing at ch 730 (which is shown on the drawings). Also the pedestrian crossing proposed south of Road 5 does not seem to connect the residential areas and doesn't match the position shown in the Stantec Memo. The drawings should be reviewed and updated taking into account the pedestrian paths, shared paths and crossing facilities as indicated in the Stantec memo. | The Open Space Strategy Plans illustrate the proposed pedestrian connections throughout the development, including links between the residential areas and the proposed Road 1 crossings. The pedestrian refuges are also identified on the roading plans.<br><br>Accordingly, the proposed pedestrian connectivity has been addressed in the application documentation. |
| 87 | Plans<br>Walking / cycling / open space | The open space plan below needs to be consistent with what is in plan 3000 | |
| 88 | Plans<br>Walking / cycling / open space | Cyclists riding on roads which could be narrow in width and where on street parking is provided could create safety issues for cyclists (eg opening car doors) at:<br>Road 6 parallel parking on both sides of the road<br>Road 2 angled parking and parallel parking on both sides | The local roads are anticipated to accommodate relatively low traffic volumes and are therefore considered suitable for cyclists to safely share the carriageway, consistent with the approach envisaged by NZS 4404, including in locations where indented on-street parking is provided. Comparable road environments are common throughout the Kāpiti District and do not inherently present safety concerns for cyclists. In addition, Road 2 incorporates an off-street shared path, providing an alternative facility for riders. |
| 91 | Plans<br>Walking / cycling / open space | No pedestrian crossing shown at Road 1/Kapiti Road NW side. | Given the traffic volumes on Kāpiti Road at this location, and to achieve balanced future performance, a single pedestrian crossing is proposed on the south-eastern side of the intersection. The provision of a single crossing of Kāpiti Road is consistent with the arrangement currently provided at the Kāpiti Road / Te Roto Drive signalised intersection. |

| | | | |
|---|---|---|---|
| 92 | Plans<br>Walking / cycling / open space | Cycle lane boxes missing at Road 1/7 and Road 1/3 intersections. | Roading plans have been updated to include these identified cycle boxes. |
| PUBLIC TRANSPORT | | | |
| 93 | Table 5.2<br>Public transport | CS1, CS7, CS19, MM3 – Concerns raised in drawing review comments of 7/10/26 that bus stops don't meet design standards. Only one pair of bus stops on road 1 is proposed at circa ch 270. The total length of Road 1 is 920m (at tie in with Ihakara St). Should another pair of bus stops be provided? For example at ch 560 (where on street parking is proposed) which would be immediately adjacent to residential areas. See comments above about discussions with GWRC / Metlink. As per RFI 4, vehicle tracking drawings are requested. | The proposed bus stops have been designed to accommodate tracking for a GWRC bus, as included in the tracking plans in the ITA Appendix D. The project team are engaging with GWRC regarding the bus stops provision and design, with any amendments able to be carried through to detailed design, noting the currently-proposed pair of stops have been strategically located to maximise accessibility to the primary development area and the highest concentration of proposed activities within the Site. |
| 95 | Page 25<br>Public transport | It would be good to see the outcome of the discussions with GWRC/Metlink. | |
| 97 | Plans<br>Public transport | Is there scope for additional Road 1 bus stops? | |
| 98 | Plans<br>Public transport | Bus stops – at 40m these don't seem to comply with standards for entry/exit taper and bus stop lengths. | See response to item #93 above. |
| 99 | Plans<br>Public transport | The bust stop between the access for the large format retail and the intersection for this development | |
| PARKING | | | |
| 100 | Parking<br>Parking | Acknowledging that minimum car parking standards are no longer able to be provided Council is concerned about the safe and efficient operation of the road network being impacted by overspill parking, as has been observed in other medium density housing developments. | Each proposed dwelling is provided with at least one dedicated on-site parking space, including all apartment units. Larger dwelling typologies generally provide either two on-site parking spaces or a combination of a garage and a parking space within the driveway.<br>A review of 2023 Census data for Paraparaumu indicates an average vehicle ownership rate of approximately 0.99 vehicles per dwelling for one- and two-bedroom households. Given that approximately 250 of the proposed dwellings comprise one- and two-bedroom units, including all apartments, the proposed parking supply aligns closely with expected vehicle ownership levels. This is considered appropriate given the Site's proximity to local services, employment opportunities and public transport, which can be expected to support lower levels of vehicle ownership than more peripheral locations.<br>For three- and four-bedroom dwellings, Census data indicates typical vehicle ownership rates ranging between one and two vehicles per household. While not all larger dwellings provide two parking spaces, the proposed parking provision has been developed having regard to the anticipated housing mix, vehicle ownership patterns and the Site's accessibility to services and public transport. |
| WASTE COLLECTION / SERVICING | | | |
| 101 | 11.2<br>Waste collection / servicing | RFI 17 – please provide more information on how waste will be collected and ensure that all lots can be serviced effectively – waste may wish to comment further. Bering in mind that waste collectors are only required to provide a kerbside service, there will be up to the three bins per property and the waste collection arm of the truck is on the left hand side. | Waste Management NZ Limited has been consulted and have confirmed they are comfortable with the internal roading network, including the JOALs, for achieving access for their waste collection vehicles. |
| STORMWATER / MAINTENANCE | | | |

<table>
<tr><td>102</td><td>Page 25<br>Stormwater / maintenance</td><td>Concern over some swales.</td><td></td></tr>
<tr><td>103</td><td>Plans<br>Stormwater / maintenance</td><td>Ability to maintain swales in future – Council does not want to take on a future maintenance issue – these need to provide for the free flow of water and must be capable of being mowed / be designed for ease of mowing.</td><td>Addressed in substantive application.</td></tr>
<tr><td>104</td><td>Plans<br>Stormwater / maintenance</td><td>Council does not want to have future maintenance of steps from the lots to the wetland – these should be in private ownership, otherwise they would be considered an encroachment which causes legal issues.</td><td>Refer scheme plan where these batters are not in the ownership of council.</td></tr>
<tr><td colspan="4">LANDSCAPE / AMENITY</td></tr>
<tr><td>105</td><td>Page 30<br>Landscape / amenity</td><td>TR-R3 standard 14 – it is unclear why this standard cannot be met and why there should not be landscaping (particularly between residential and commercial area) just because this is a mixed use precinct.</td><td>The draft KCDC consent conditions include a requirement for sightlines at vehicle accesses to be assessed against safe stopping sight distance requirements at detailed design stage. This will ensure that appropriate visibility is maintained, including where landscaping is proposed adjacent to vehicle accesses.</td></tr>
<tr><td colspan="4">PLANNING STANDARDS / COMPLIANCE</td></tr>
<tr><td>106</td><td>Page 30<br>Planning standards / compliance</td><td>TR-R3 standard 15 - It is unclear what the implications of this non compliance will be and whether any of those driveways would be critical, therefore, the proffered condition may still result in some unsafe movements. A safety audit may identify some issues that may need to be addressed at a later stage in the process when redesign becomes more difficult.</td><td>The proposed landscaping provisions restrict fencing within front yards to a maximum height of 1.2 m, ensuring visibility is maintained at vehicle accesses. This, together with the proposed sightline condition requiring assessment at detailed design stage, is considered sufficient to address potential safety concerns associated with the non-compliance.</td></tr>
<tr><td>107</td><td>Page 35<br>Planning standards / compliance</td><td>Rule TR-R18 – Medium density standards apply to all housing typologies not just apartments.</td><td>TR-R18 refers to Medium Density Housing ‘Multi-unit residential’ which, for the proposal plans is interpreted as being just the apartment blocks. Notwithstanding, parking pads provided for other typologies including townhouses will provide spaces that are able to satisfy the dimension requirements of an accessible carpark.
<table>
<tr><td>Activity</td><td>Gross floor area or bar area, where stated</td><td>Staff/employee numbers</td><td>Visitor/people numbers</td><td>No of units</td></tr>
<tr><td colspan="5">MEDIUM DENSITY HOUSING</td></tr>
<tr><td>Multi-unit residential</td><td></td><td></td><td></td><td>4 – 5 units:<br>1 space<br><br>6 – 25 units:<br>2 spaces<br><br>Plus 1 additional space for every additional 25 units, or part thereof</td></tr>
</table>
</td></tr>
</table>

**Trip Generation Data Sources**

| Zone # | Activity | Scale | Peak Hour Traffic Generation Rate | | Peak Hour Trips (vph) | | Traffic Generation Rate Source |
|---|---|---|---|---|---|---|---|
| | | | AM | PM | AM | PM | |
| Commercial Activities | | | | | | | |
| 1 | LFR | 12,000m² GFA | 0.6 | 2.5 | 75 | 300 | Rates from TDB at Harvey Norman, Briscoes, Mitre 10 and a bulk retail centre indicates an average PM peak rate of around 2-3vph / 100m$^2$ GFA. Stantec surveys at Home Department Stores indicate a peak hour rate of around 1.2 to 1.8vph / 100 m$^2$ GFA, whilst large scale Home Improvement Stores indicate rates of 1.1 and 2.6 vph / 100 m$^2$ GFA, with an average of 1.8 vph / 100 m$^2$ GFA. |
| | Showroom | 650m² GFA | 2.0 | 2.6 | 13 | 17 | Rates adopted from ITE – automobile sales |
| 2 | LFR | 4,000m² GFA | 0.6 | 2.5 | 25 | 100 | As above for LFR. |
| | Supermarket | 4,000m² GFA | 4.6 | 12.4 | 183 | 496 | Rates adopted from TDB – similar full-sized supermarkets. PM peak rate survey sites include Countdown (10-15 vph / 100 m$^2$ GFA), PaknSave (12-13 vph / 100 m$^2$ GFA), and New World (13-23 vph / 100 m$^2$ GFA). Stantec surveys at supermarket sites indicate PM peak rates between 10-13 vph / 100 m$^2$ GFA. |
| | Drive-thru 1 (tier 1) | 250m² GFA | 23.1 | 37.4 | 58 | 94 | Rates adopted from TDB – fast food |
| | Drive-thru 2 (tier 2) | 300m² GFA | 11.6 | 18.7 | 35 | 56 | Rates adopted from TDB – fast food |
| | Drive-thru 3 (coffee) | 236m² GFA | Direct rate | | 70 | 18 | Rates adopted from TDB – drive thru coffee |
| | Fuel Stop | - | Pass-by rate | | 132 | 132 | A 5% pass-by rate has been adopted. The ITE suggests a pass-by rate of 4% for service stations. |
| 3 | Small Retail | 1,175m² GFA | 10.0 | 11.5 | 118 | 135 | Rates adopted from TDB - small local shops / high street retailers / small shopping precincts |
| | Commercial (office) | 1,175m² GFA | 1.7 | 1.7 | 20 | 20 | Rates adopted from TDB – commercial offices. |
| 4 | Small Retail | 250m² GFA | 10.0 | 11.5 | 25 | 29 | As above for Small Retail. |
| | Commercial (office) | 250m² GFA | 1.7 | 1.7 | 4 | 4 | As above for Commercial Office. |
| Residential Activities | | | | | | | |
| 3-7 | Dwellings | 600 | 0.6 | 0.6 | 360 | 360 | An averaged rate using Stantec surveyed rates from a proposed medium density townhouse development in Petone (0.7 AM and 0.6 PM), TDB rates for low density |

| Zone # | Activity | Scale | Peak Hour Traffic Generation Rate | | Peak Hour Trips (vph) | | Traffic Generation Rate Source |
|---|---|---|---|---|---|---|---|
| | | | AM | PM | AM | PM | |
| | | | | | | | dwellings (0.76 AM and 0.72 PM), and high density / apartment rates from TDB (0.27 AM and 0.22 PM). |
| Total | | | 1,118 | | 1,761 | | |

# Appendix B  Service Vehicle Tracking

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING

N

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## GWRC 12.8m BUS - ROAD 1

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 1 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING

N

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## GWRC 12.8m BUS - ROAD 1

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 2 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING

N

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## GWRC 12.8m BUS - ROAD 1

CLIENT LOGO

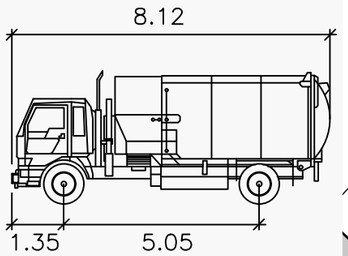
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 1 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




Hino4X2 meters

| | |
|---|---|
| Width | : 2.48 |
| Track | : 2.48 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 41.1 |

N

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 8m WASTE MANAGEMENT VEHICLE - ROAD 05 CLOCKWISE

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |

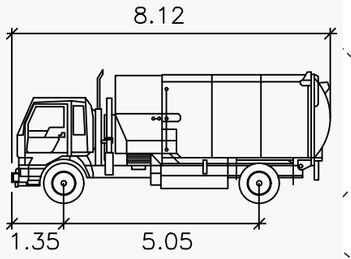
FIGURE No. 4

OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




Hino4X2 meters

| | |
|---|---|
| Width | : 2.48 |
| Track | : 2.48 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 41.1 |




WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 8m WASTE MANAGEMENT VEHICLE - ROAD 05

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |

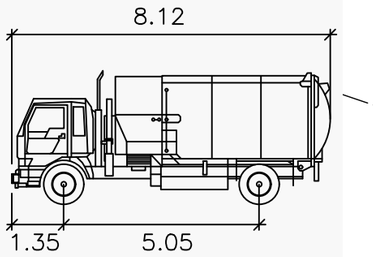
FIGURE No. 5

OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

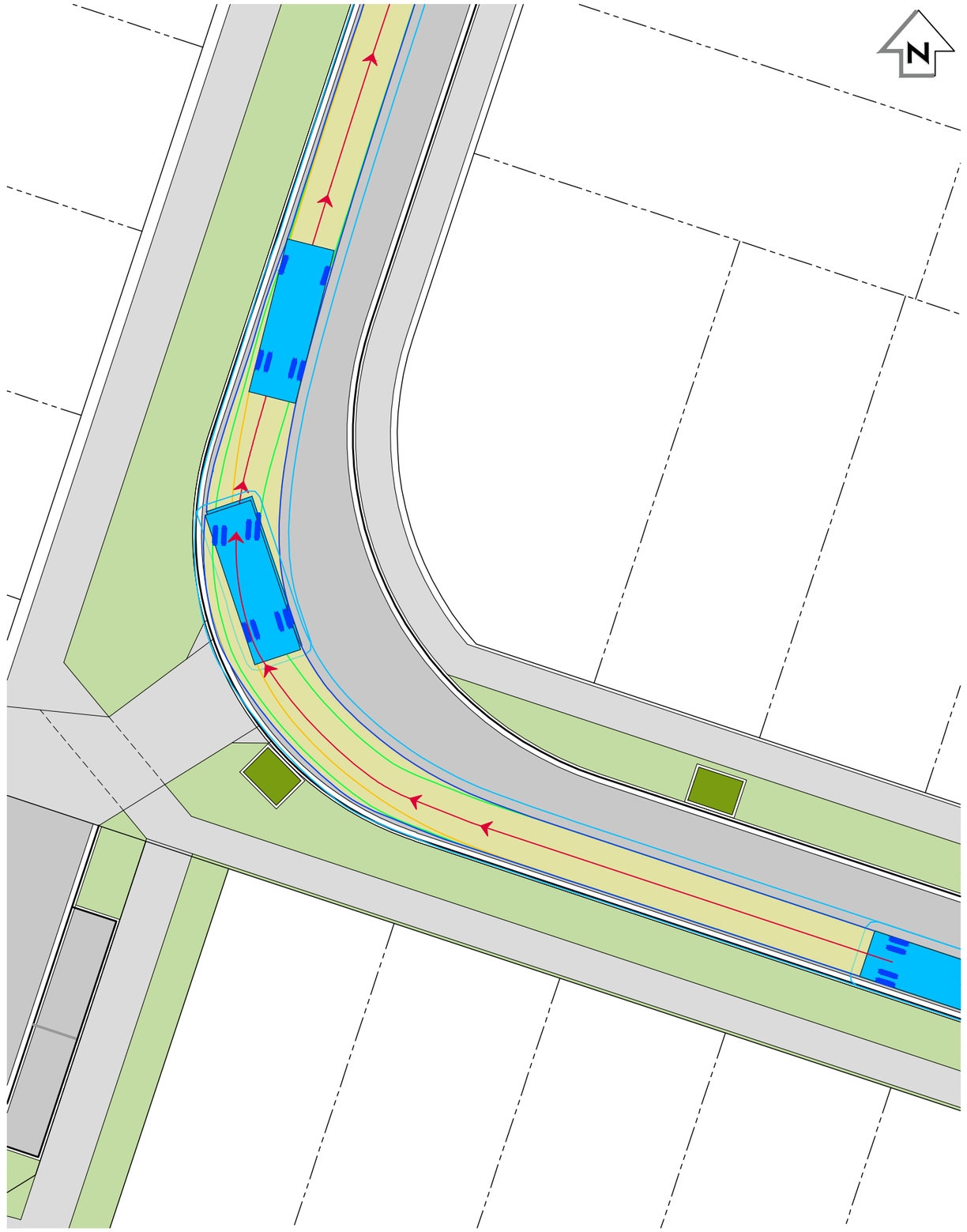
- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




Hino4X2 meters

| | |
|---|---|
| Width | : 2.48 |
| Track | : 2.48 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 41.1 |




WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 8m WASTE MANAGEMENT VEHICLE - ROAD 06 CLOCKWISE

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |

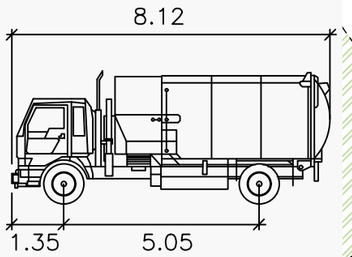
FIGURE No. 6

OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




Hino4X2 meters

| | |
|---|---|
| Width | : 2.48 |
| Track | : 2.48 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 41.1 |

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

VEHICLE TRACKING DIAGRAMS

8m WASTE MANAGEMENT VEHICLE - ROAD 06 CLOCKWISE

CLIENT LOGO

Stantec

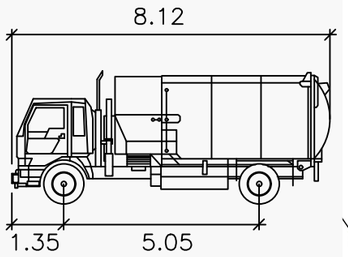
SCALE: 1:250 @ A3
DRAWN: S JIANG
DATE: 20/10/2026
DESIGN: J WHITTAKER

FIGURE No. 7
OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING

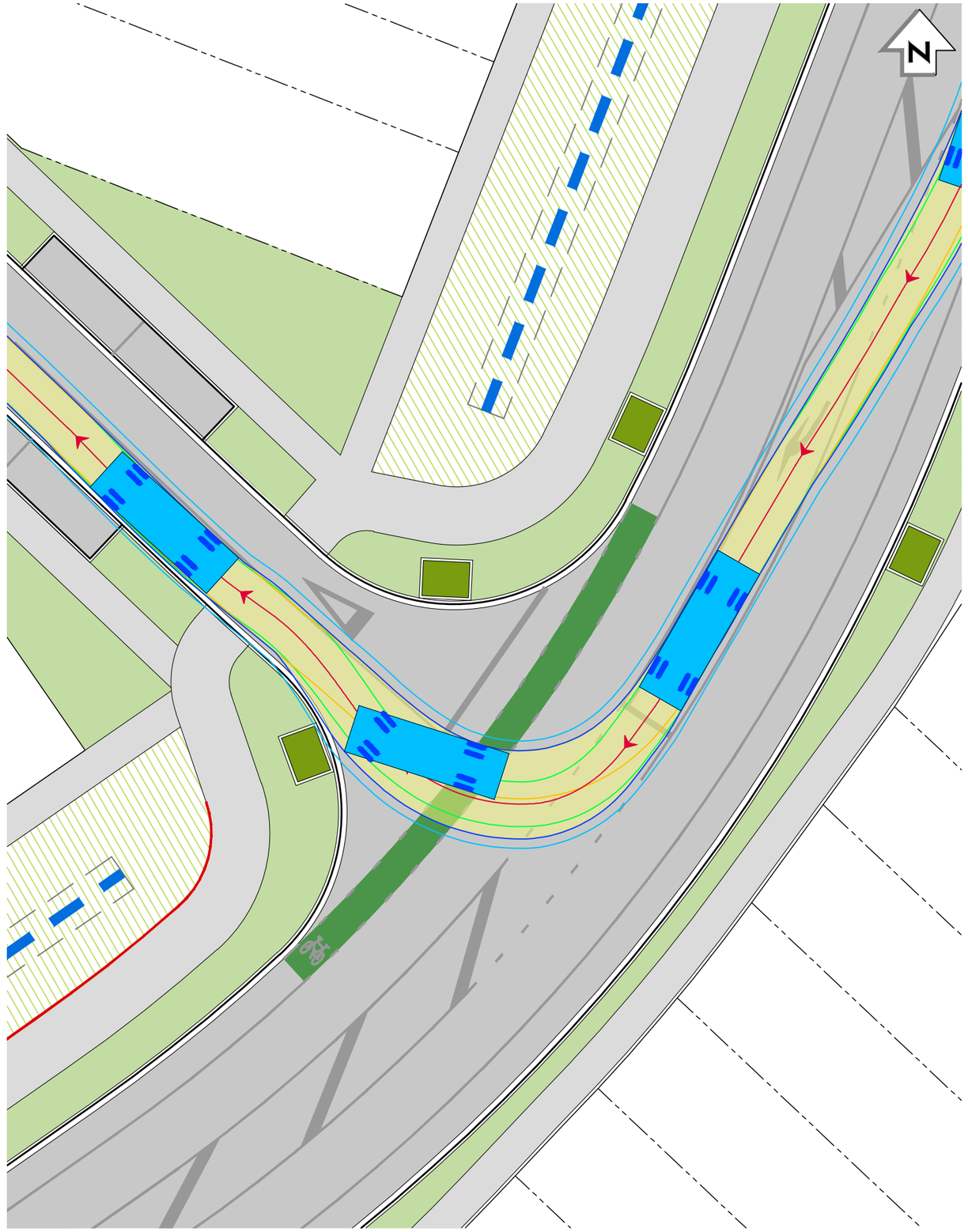



Hino4X2 meters

| | |
|---|---|
| Width | : 2.48 |
| Track | : 2.48 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 41.1 |




SCALE 1:250




WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 8m WASTE MANAGEMENT VEHICLE - ROAD 06 COUNTERCLOCKWISE

CLIENT LOGO

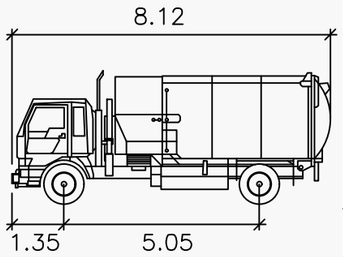
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 8 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




| Hino4X2 | meters |
|---|---|
| Width | : 2.48 |
| Track | : 2.48 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 41.1 |

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 8m WASTE MANAGEMENT VEHICLE - ROAD 06 COUNTERCLOCKWISE

CLIENT LOGO

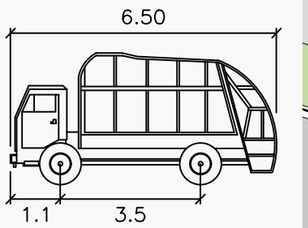
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 9 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |




SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

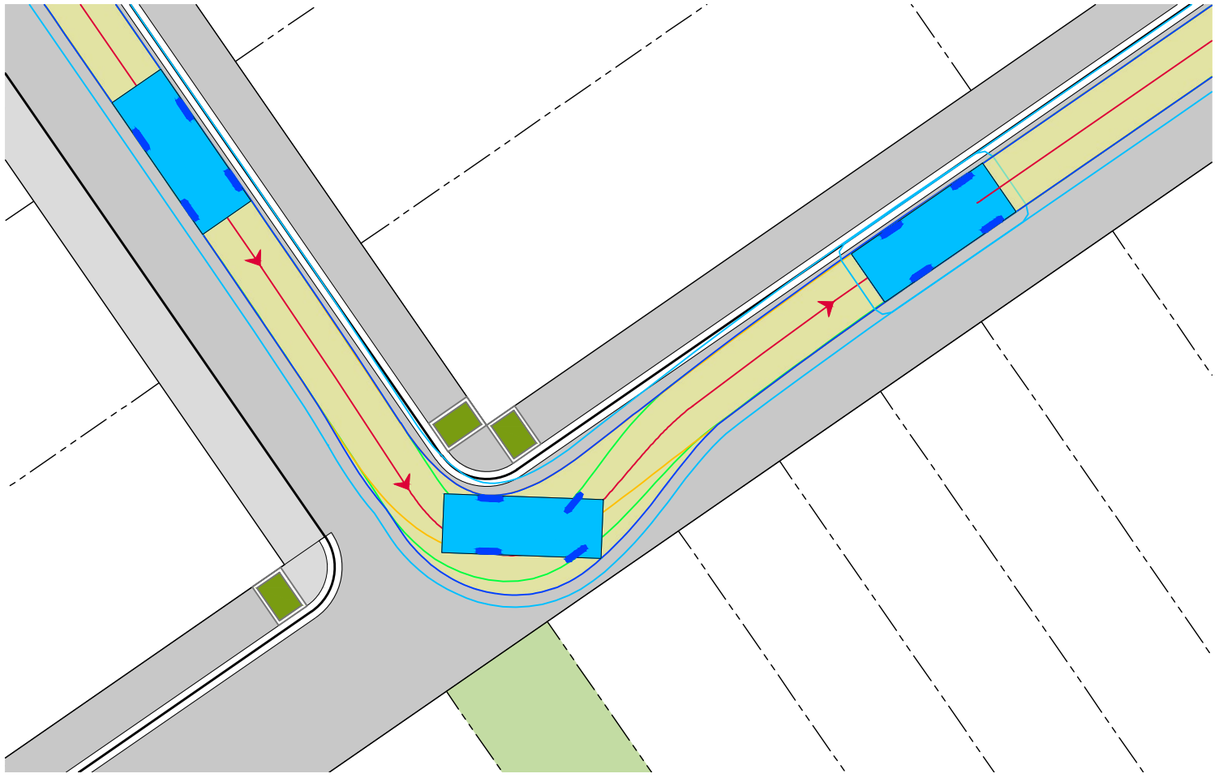
## 6.5m WASTE MANAGEMENT VEHICLE - JOAL A / B / C

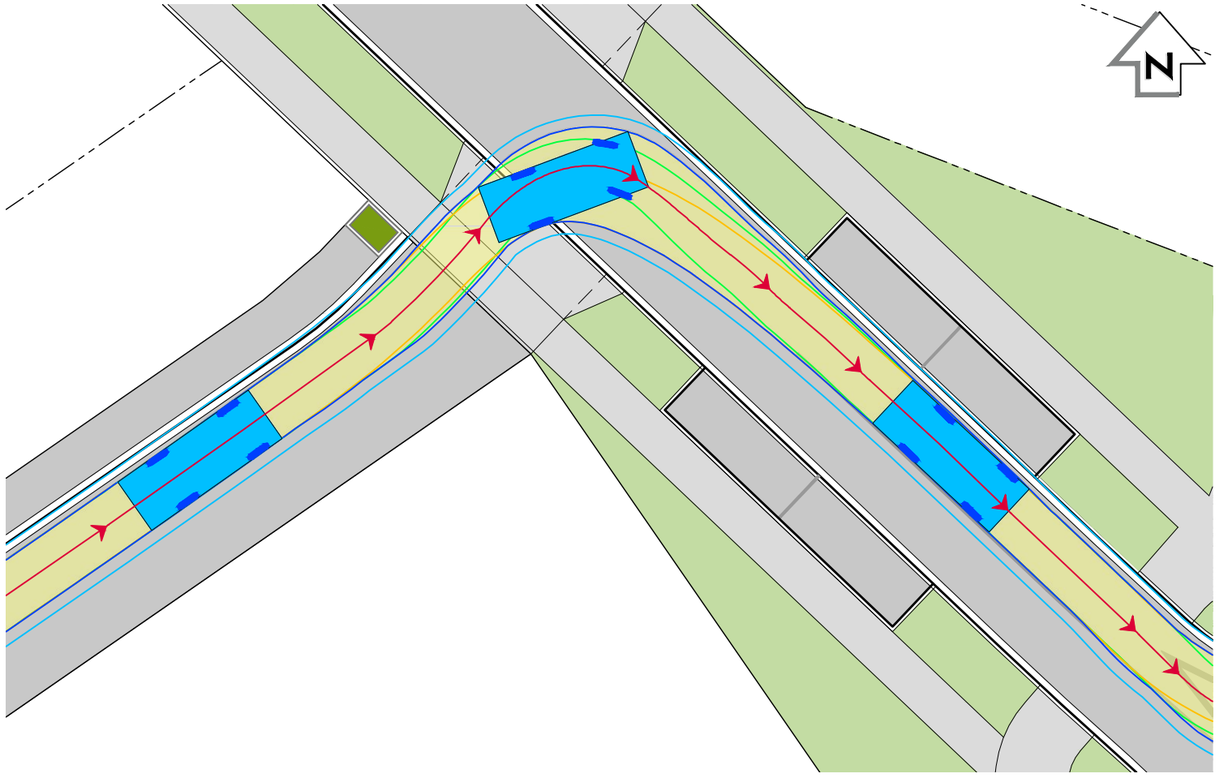
CLIENT LOGO

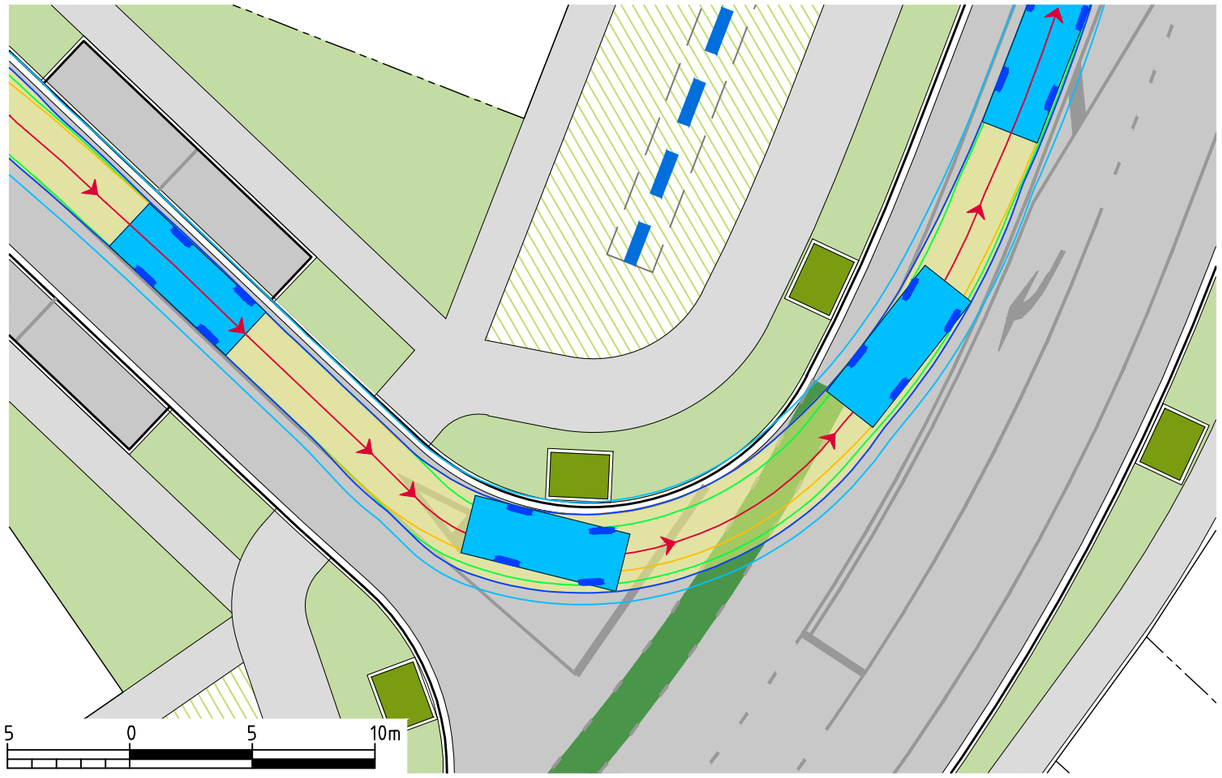
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 10 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg



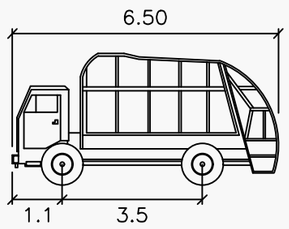





SCALE 1:250

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

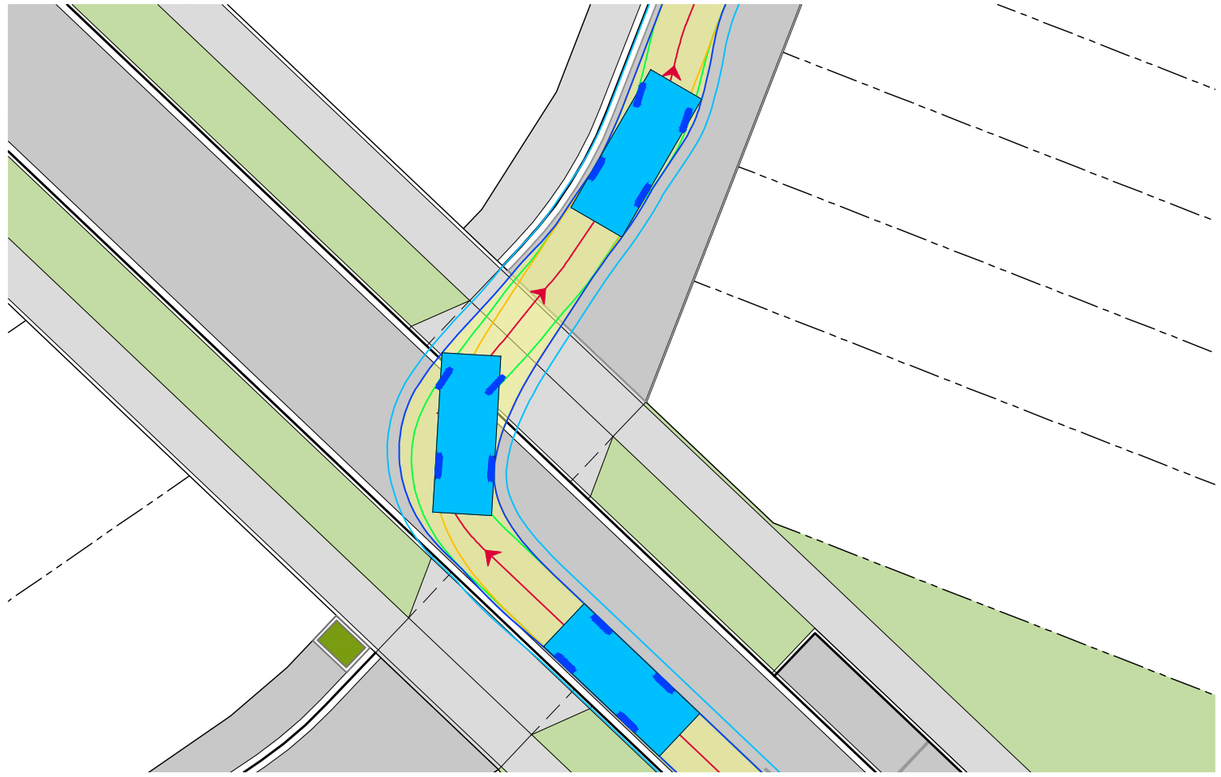
6.5m WASTE MANAGEMENT VEHICLE - JOAL A / B / C

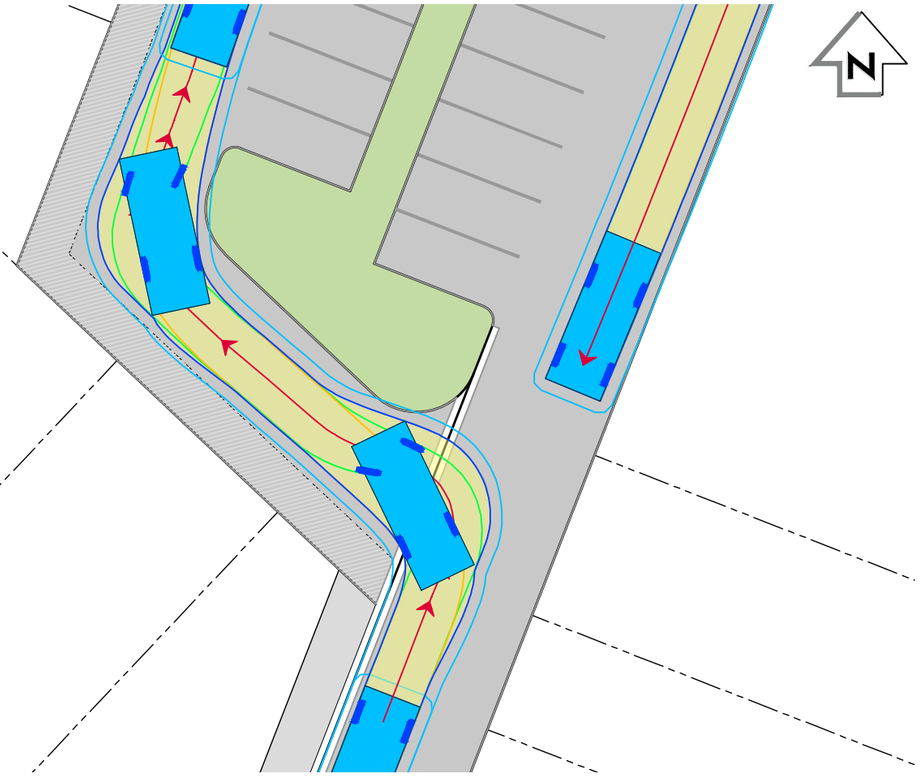
CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 11 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg



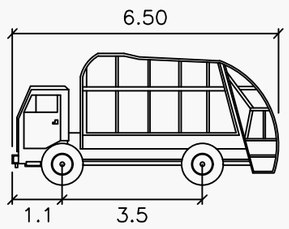





SCALE 1:250

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 6.5m WASTE MANAGEMENT VEHICLE - JOAL H

CLIENT LOGO

Stantec

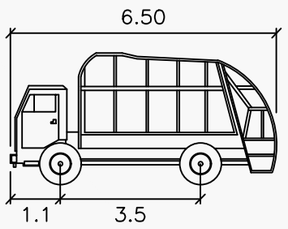
SCALE: 1:250 @ A3
DRAWN: S JIANG
DATE: 20/10/2026
DESIGN: J WHITTAKER

FIGURE No. 12
OF
A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |




SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 6.5m WASTE MANAGEMENT VEHICLE - JOAL J / K / I

CLIENT LOGO

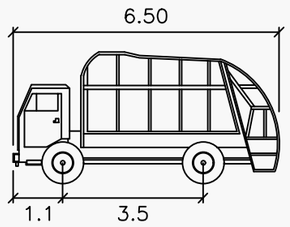
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 13 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

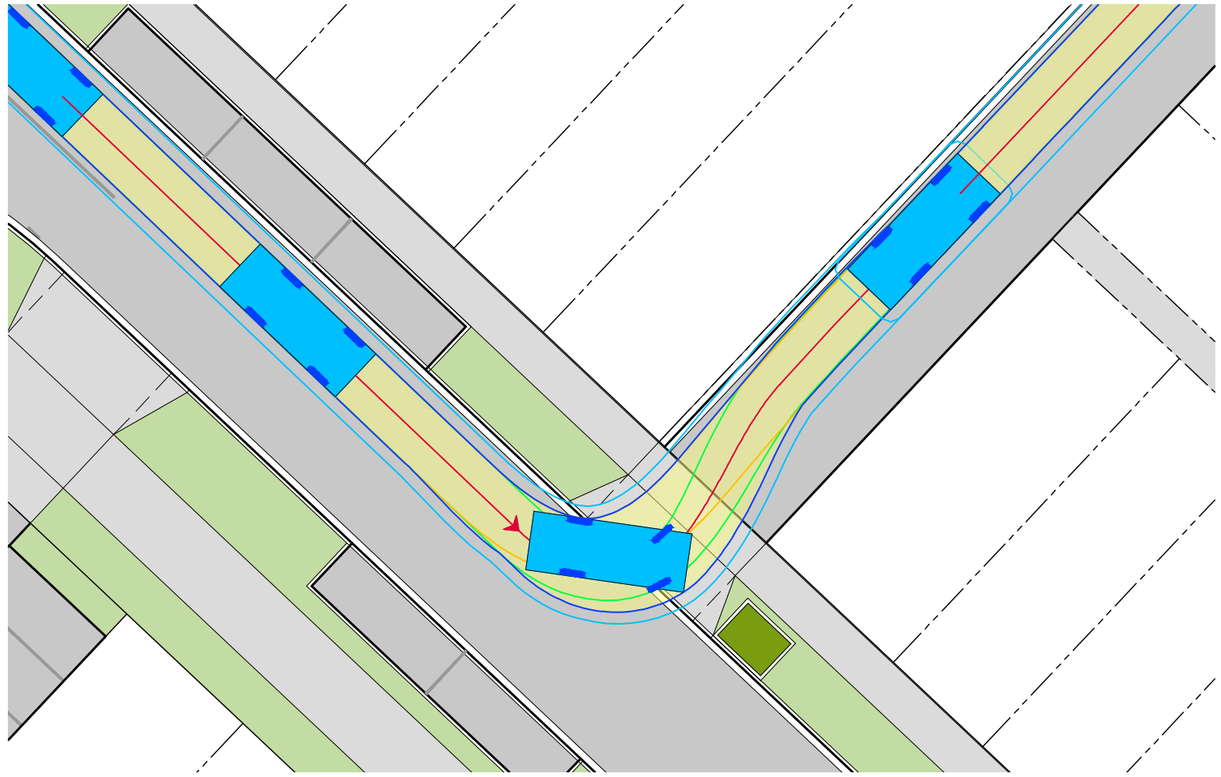
## 6.5m WASTE MANAGEMENT VEHICLE - JOAL J / K / I

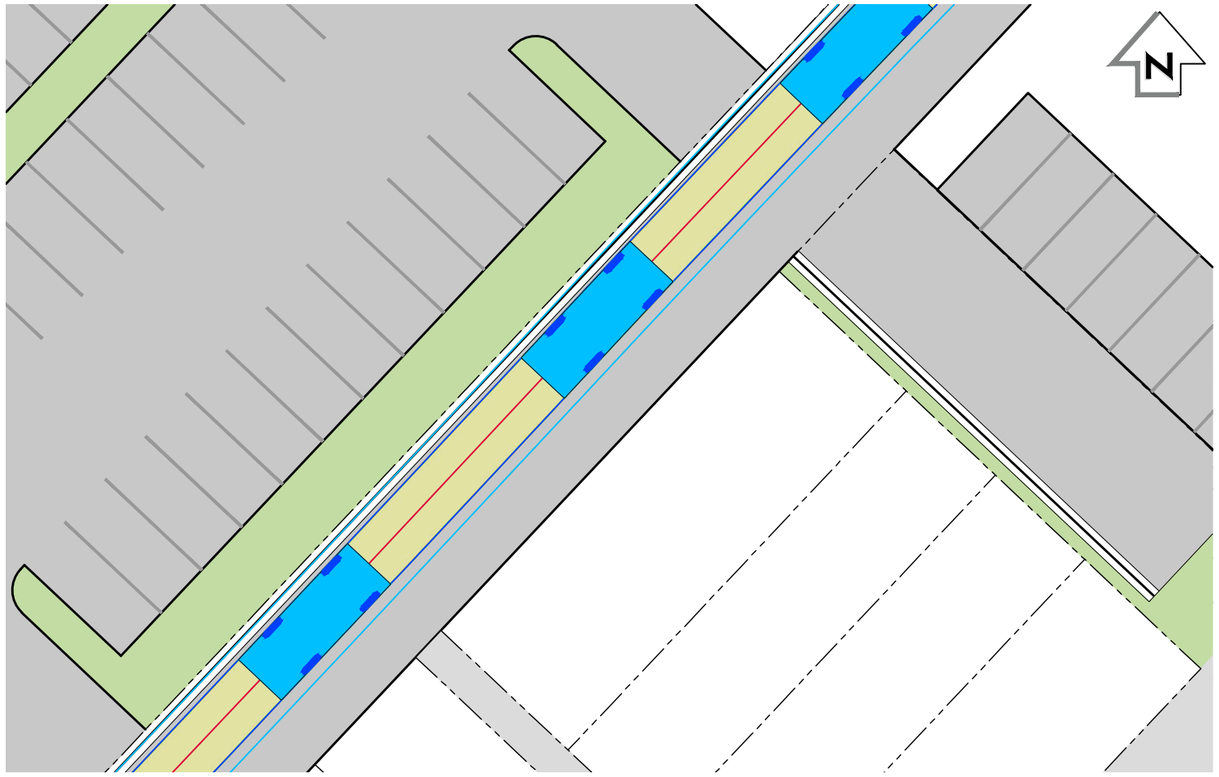
CLIENT LOGO

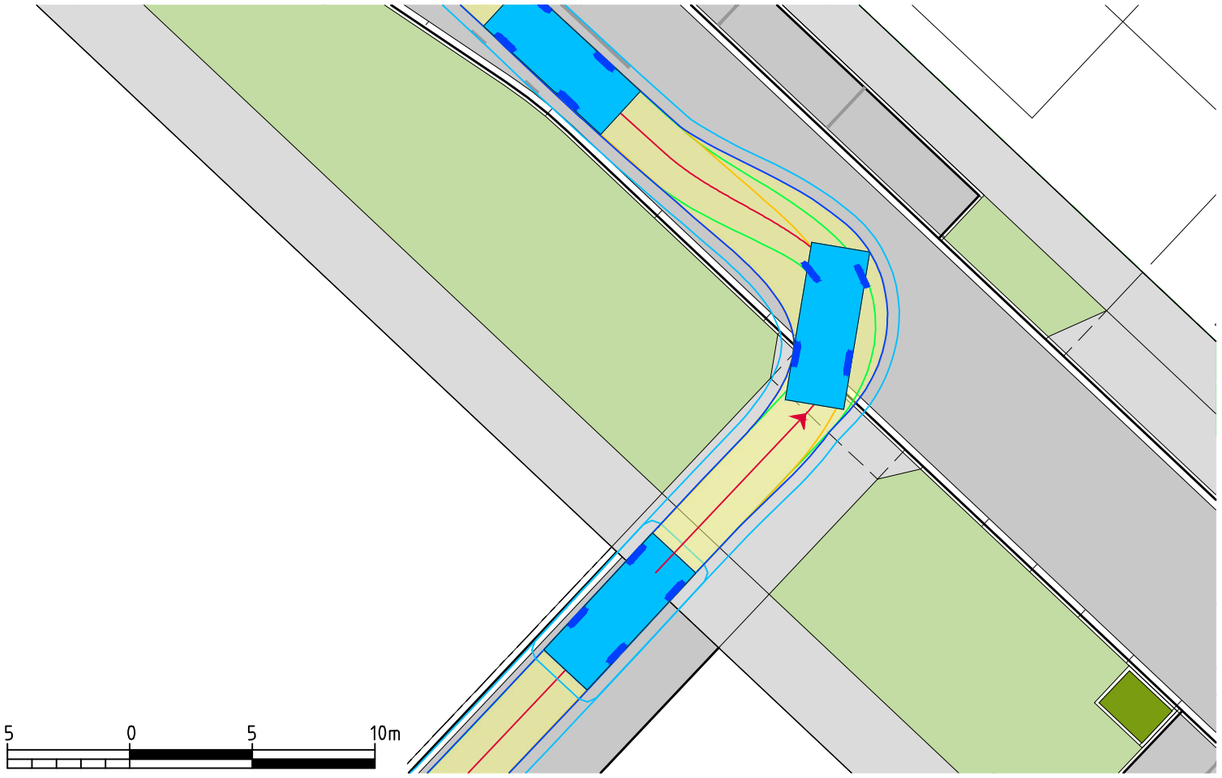
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 14 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg



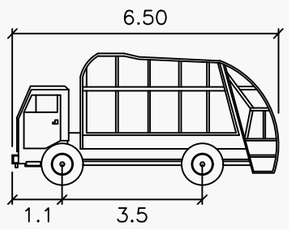





SCALE 1:250

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

6.5m WASTE MANAGEMENT VEHICLE - ROAD 3 / JOAL O / ROAD 2

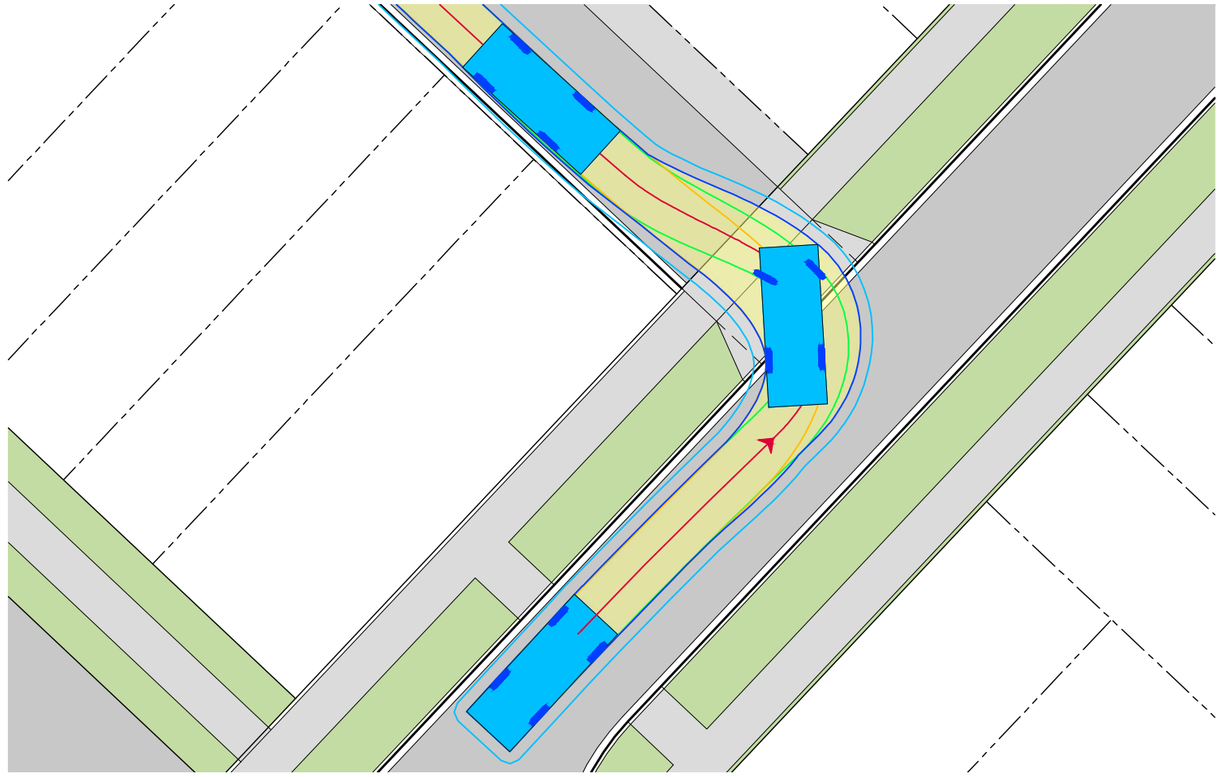
CLIENT LOGO

Stantec

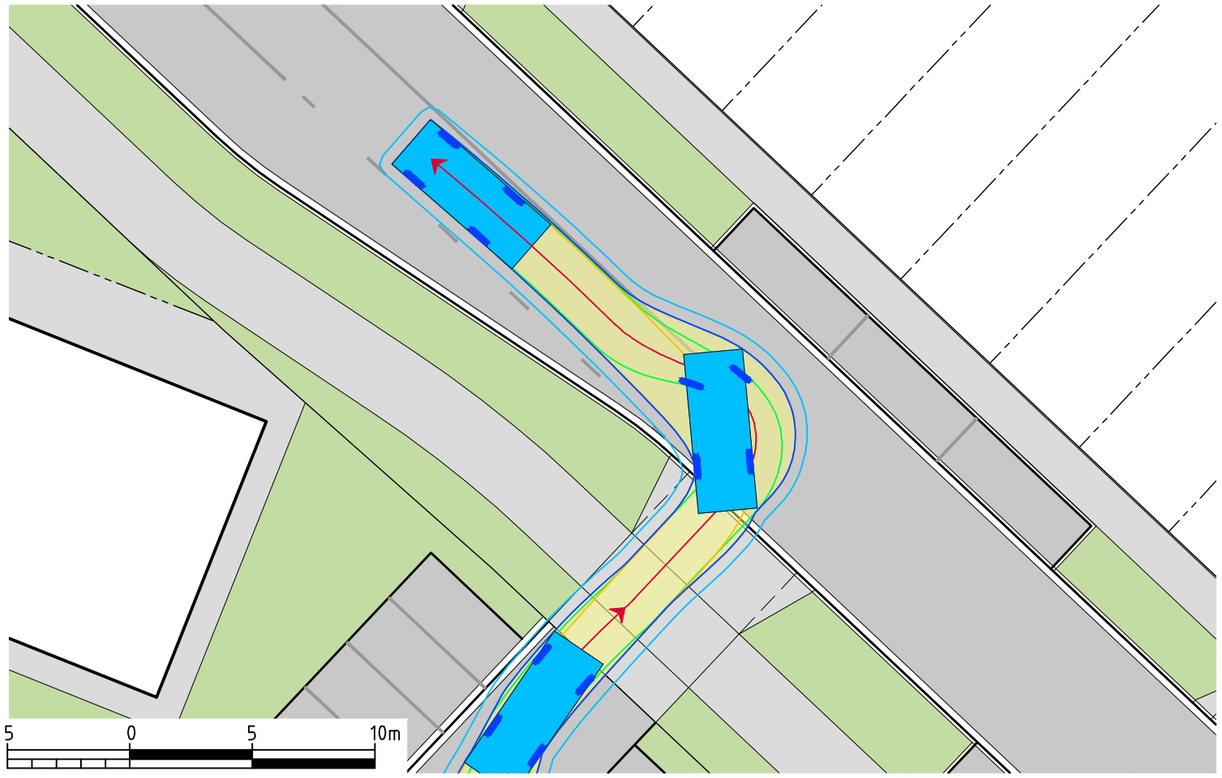
SCALE: 1:250 @ A3
DRAWN: S JIANG
DATE: 20/10/2026
DESIGN: J WHITTAKER

FIGURE No. 15
OF
A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg



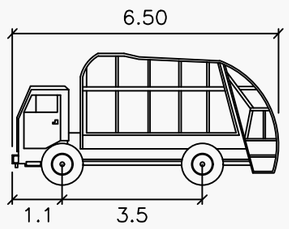



SCALE 1:250

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




ISUZU65Refuse

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 38.0 |

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

6.5m WASTE MANAGEMENT VEHICLE - ROAD 05 / JOAL M

CLIENT LOGO

Stantec

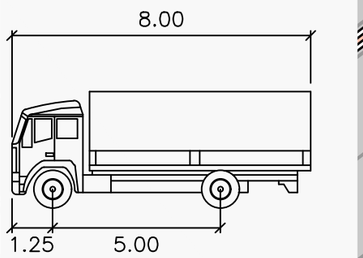
SCALE: 1:250 @ A3
DRAWN: S JIANG
DATE: 20/10/2026
DESIGN: J WHITTAKER

FIGURE No. 16
OF
A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

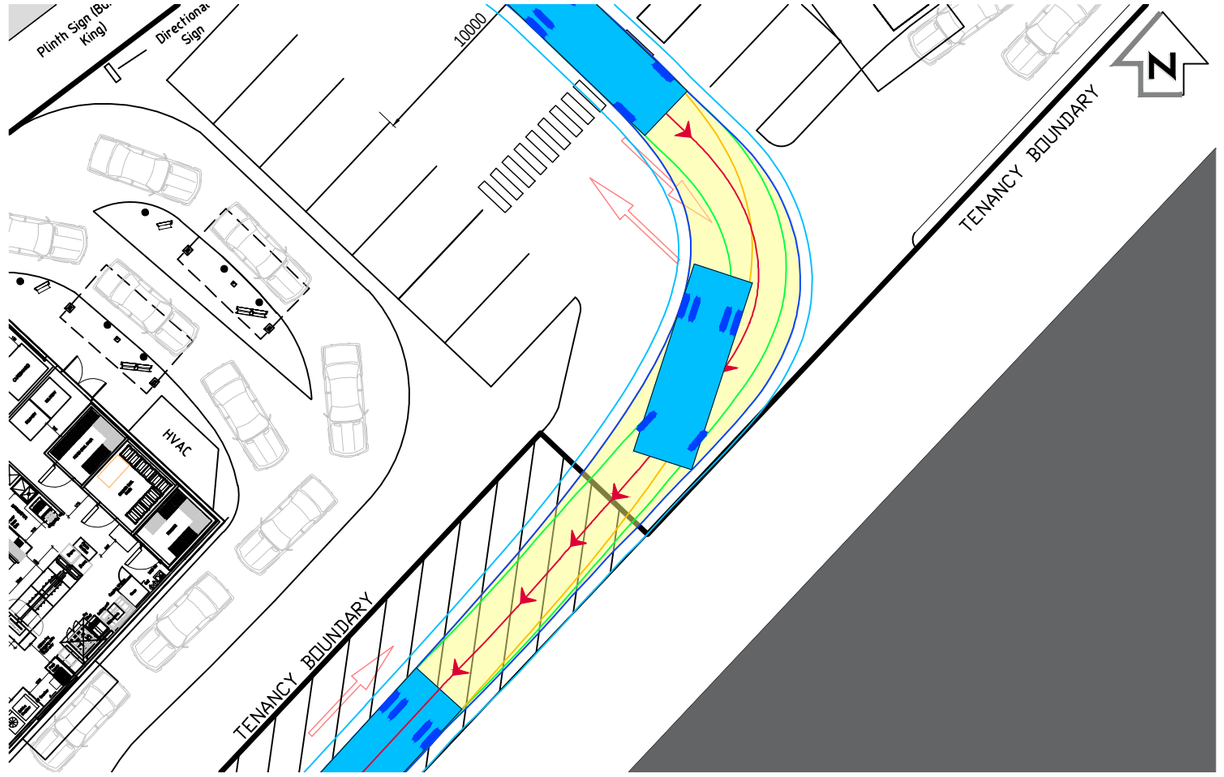
- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING

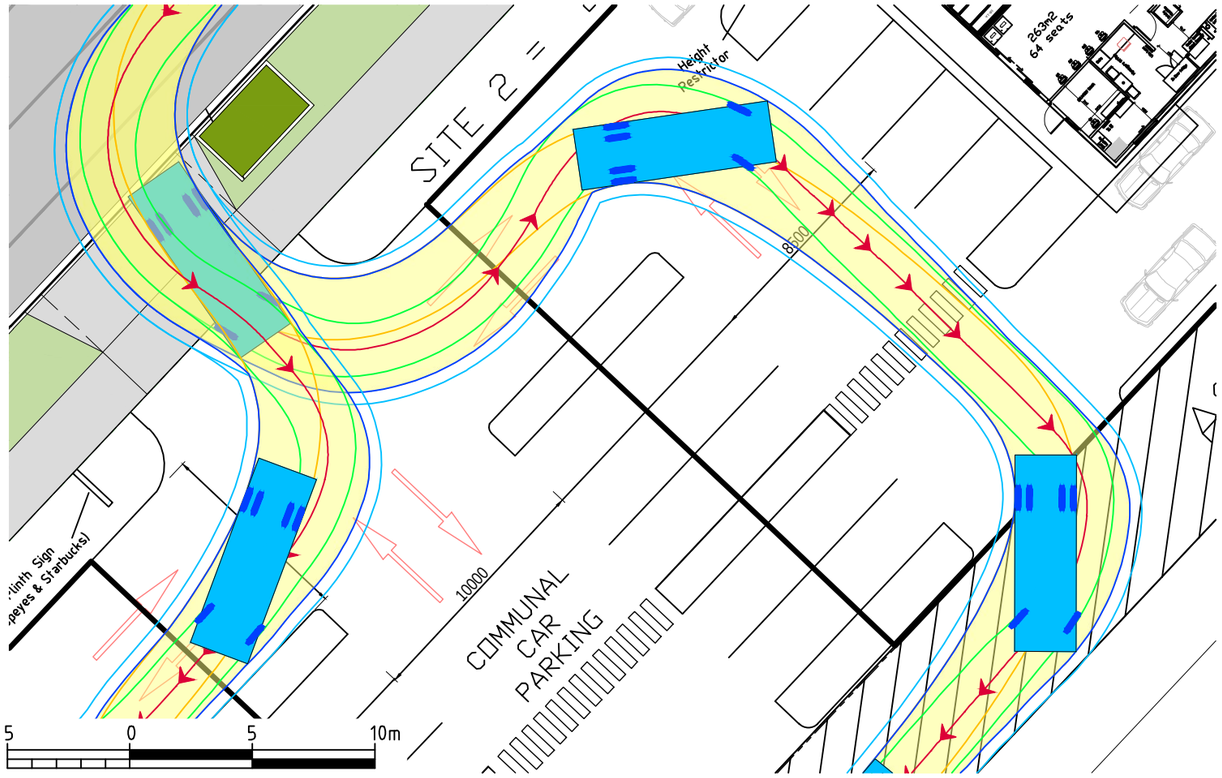



MEDIUM RIGID TRUCK

| | meters |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 37.3 |




SCALE 1:250




WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 8m MEDIUM RIGID TRUCK - SOUTHERN LFR

CLIENT LOGO

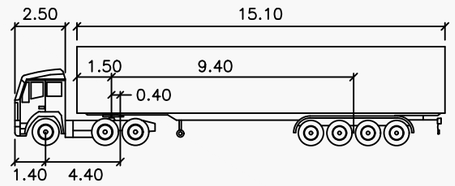
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 17 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




LTNZ–19ST–125R

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 24.1 |
| Tractor Track | : 2.50 | Articulating Angle | : 70.0 |
| Trailer Track | : 2.50 | | |

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

VEHICLE TRACKING DIAGRAMS

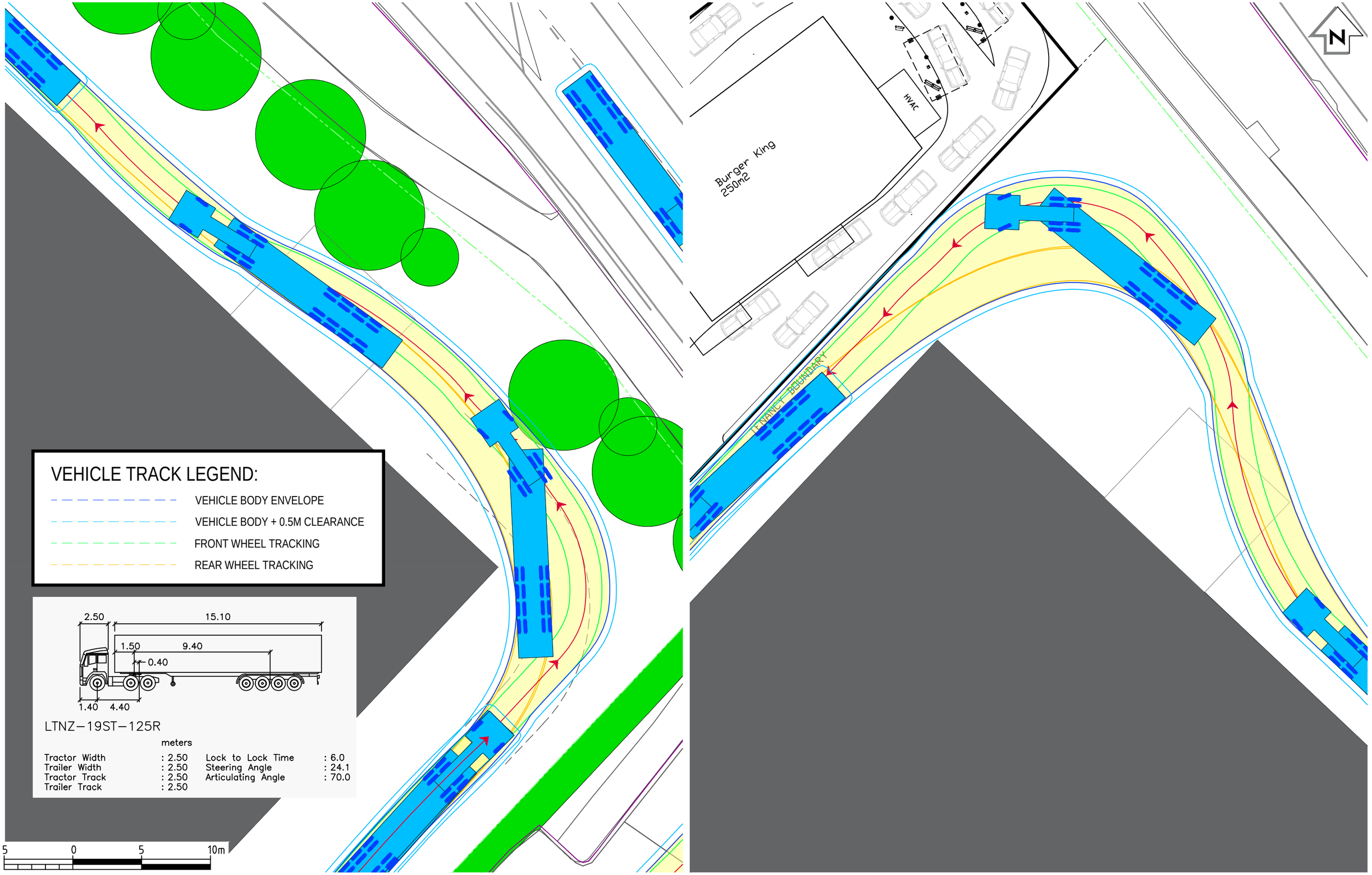
19m SEMI-TRAILER - SOUTHERN LFR

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 18 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg




## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




LTNZ–19ST–125R

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 24.1 |
| Tractor Track | : 2.50 | Articulating Angle | : 70.0 |
| Trailer Track | : 2.50 | | |

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 19m SEMI-TRAILER - SOUTHERN LFR

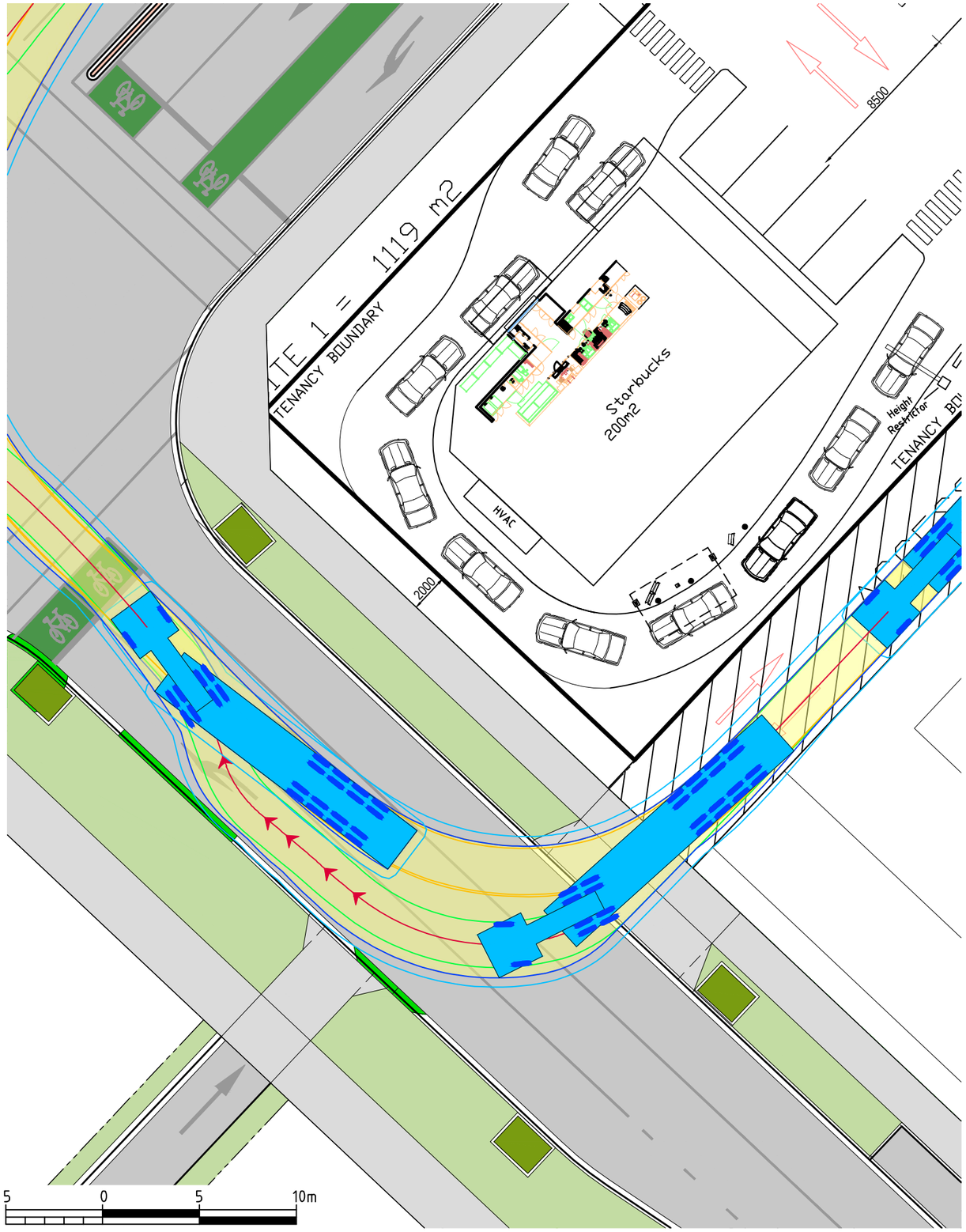
CLIENT LOGO

Stantec

SCALE: 1:250 @ A3
DRAWN: S JIANG
DATE: 20/10/2026
DESIGN: J WHITTAKER

FIGURE No. 19
OF A

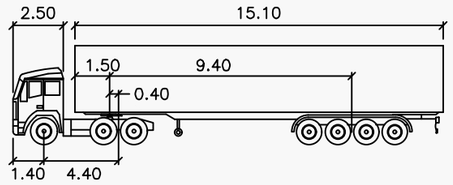
\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg




SCALE 1:250

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




LTNZ–19ST–125R

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 24.1 |
| Tractor Track | : 2.50 | Articulating Angle | : 70.0 |
| Trailer Track | : 2.50 | | |




WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 19m SEMI-TRAILER - SOUTHERN LFR

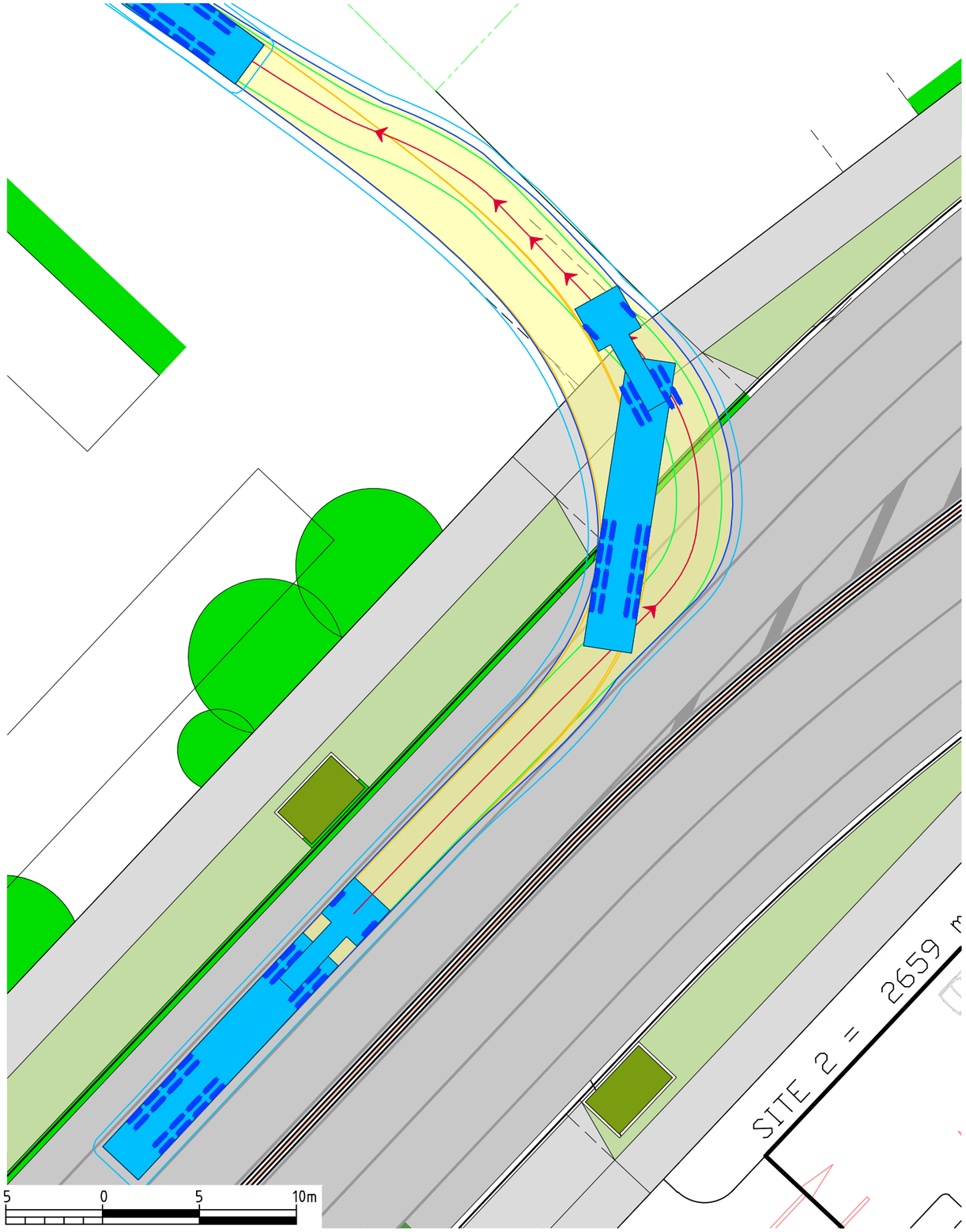
CLIENT LOGO

Stantec

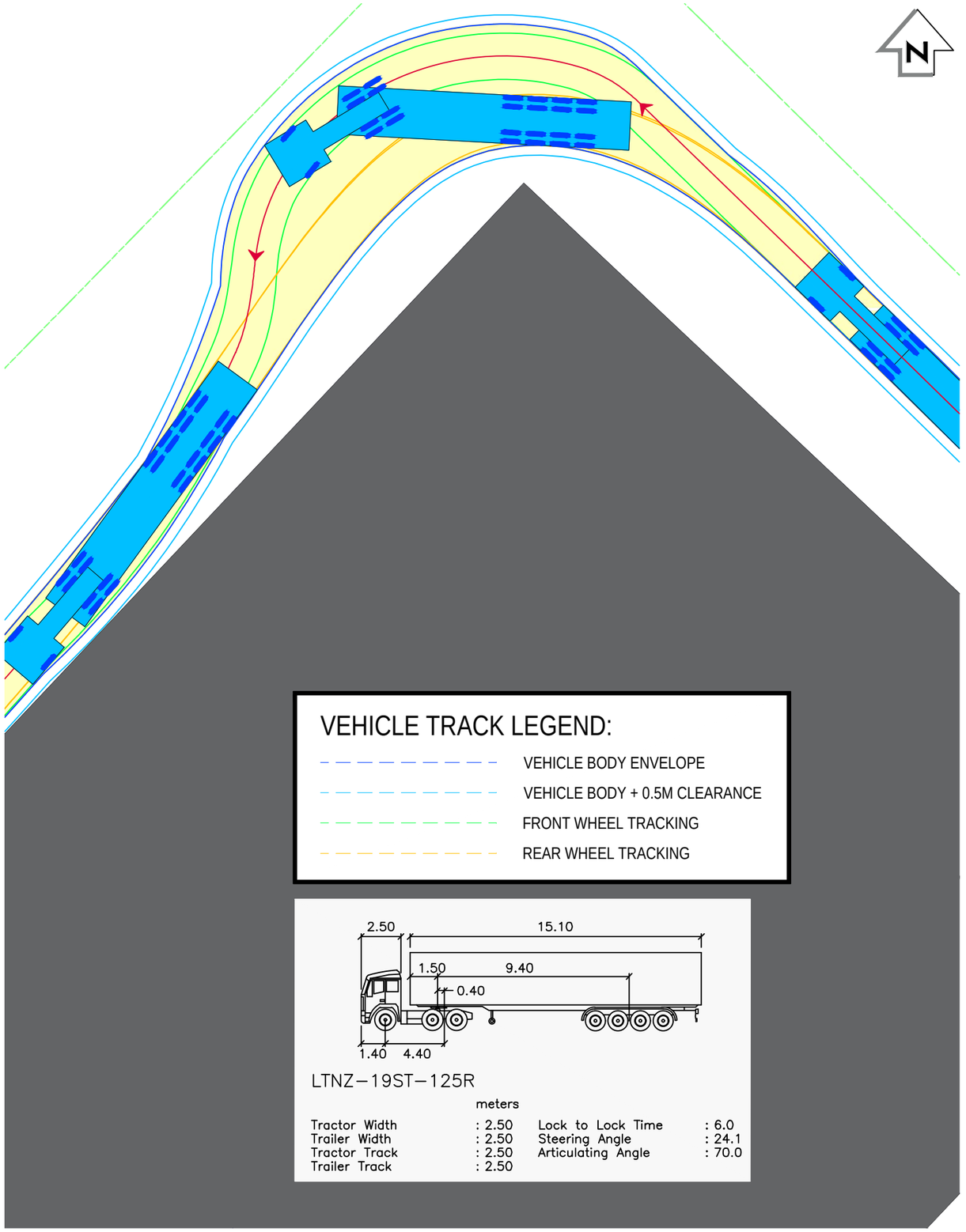
SCALE: 1:250 @ A3
DRAWN: S JIANG
DATE: 20/10/2026
DESIGN: J WHITTAKER

FIGURE No. 20
OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg




SCALE 1:250




## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




LTNZ–19ST–125R

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 24.1 |
| Tractor Track | : 2.50 | Articulating Angle | : 70.0 |
| Trailer Track | : 2.50 | | |

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 19m SEMI-TRAILER - NORTHERN LFR COUNTERCLOCKWISE

CLIENT LOGO

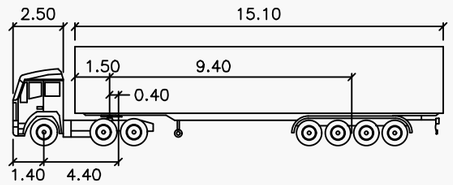
Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |
| FIGURE No. | 21 |
| OF | A |

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING




LTNZ–19ST–125R

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 24.1 |
| Tractor Track | : 2.50 | Articulating Angle | : 70.0 |
| Trailer Track | : 2.50 | | |

N

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## 19m SEMI-TRAILER - NORTHERN LFR COUNTERCLOCKWISE

CLIENT LOGO

Stantec

SCALE: 1:250 @ A3

DRAWN: S JIANG

DATE: 20/10/2026

DESIGN: J WHITTAKER

FIGURE No. 22

OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

## VEHICLE TRACK LEGEND:

- VEHICLE BODY ENVELOPE
- VEHICLE BODY + 0.5M CLEARANCE
- FRONT WHEEL TRACKING
- REAR WHEEL TRACKING

N

5 0 5 10m

SCALE 1:250

WORKING PLOT

| REV | DATE | DRN | DESCRIPTION |
|---|---|---|---|
| A | 10/26 | SJ | FOR INFORMATION ONLY |

# NEW CENTRAL PARK KAPITI

## VEHICLE TRACKING DIAGRAMS

## GWRC 12.8m BUS - ROAD 1 BUS BAYS

CLIENT LOGO

Stantec

| | |
|---|---|
| SCALE: | 1:250 @ A3 |
| DRAWN: | S JIANG |
| DATE: | 20/10/2026 |
| DESIGN: | J WHITTAKER |

FIGURE No. 23

OF A

\\nz4113-ppfss01\shared_projects\310205943\5_drawings\310205943_C003.dwg

Stantec

Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

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