Carrington Road Improvements Project
Transport Assessment

Prepared for Auckland Transport
Prepared by Beca Limited

11 February 2025

Contents

Appendices

Revision History

Revision N°	Prepared By	Description	Date
1.0	Joshua Hafoka	Draft Transport Assessment	3/12/2024
2.0	Joshua Hafoka	Final Draft Transport Assessment	20/12/2024
3.0	Joshua Hafoka	Final Transport Assessment	11/02/2025

Document Acceptance

Action	Name	Signed	Date
Prepared by	Joshua Hafoka		11/02/2025
Reviewed by	Joe Phillips		11/02/2025
Approved by	Colin MacArthur		
on behalf of	Beca Limited		

Executive Summary

Carrington Road is a 1.6km-long arterial road on the Auckland isthmus, which connects New North Road at the Mt Albert Town Centre to the south, and Great North Road at the Point Chevalier Town Centre to the north. Auckland Transport (AT) has proposed the Carrington Road Improvements Project (the Project) to serve planned growth and intensification in the area; and to achieve the long-term strategic network outcomes for the corridor, particularly a higher level of service for active modes and public transport.

To these ends, the Project comprises the following road upgrades, which include a section of widening on the western side of the road between Woodward Road and State Highway 16 (SH16), and localised widening south of Woodward Road:

- Special Vehicle Lanes[1] for most of the corridor length in both directions, and new/relocated bus stops;
- Improved walking and cycling facilities along the entire corridor length in both directions and new midblock crossings;
- Upgraded intersections along the entire corridor length, including four new/upgraded signalised intersections,
- New stormwater management infrastructure, including stormwater treatment and conveyance swales within the berm on Segar Avenue and
- Public realm placemaking/landscaping, and new street trees.

This Report supports the Assessment of Environmental Effects for the Project by identifying the transport effects associated with the construction and operation of the Project, and identifies ways for any adverse effects to be mitigated, where necessary.

In summary, the Project has many positive effects in terms of the safe and effective operation of the transport network, in particular through improved safety for all users, and improved walking, cycling, public transport and general traffic effects. These align with the desired outcomes for the corridor (as defined in the Carrington Road Improvements Detailed Business Case), which have been guided by relevant transport policy and strategic direction.

There are minimal adverse effects to be managed. These adverse effects are related to on-street parking (during operation and construction) and the temporary effects during the construction of the Project. It is considered that these adverse effects can be satisfactorily addressed, including through the preparation and implementation of a Construction Traffic Management Plan, as part of the overall Construction Management Plan during the construction phase. It is noted that some residual temporary adverse impacts will remain in the construction phase (e.g. increased journey times) with the management measures in place.

[1] The type and operational times of the SVL is to be confirmed through ongoing assessment, which is considering the effectiveness and productivity of the corridor operation, as well as network strategic context.

1 Introduction

1.1 Project Summary

Carrington Road is a 1.6km-long arterial road on the Auckland isthmus, which connects New North Road at the Mt Albert Town Centre to the south, and Great North Road at the Point Chevalier Town Centre to the north. Auckland Transport (AT) has proposed the Carrington Road Improvements Project (the Project) to serve planned growth and intensification in the area; and to achieve the long-term strategic network outcomes for the corridor, particularly a higher level of service for active modes and public transport.

To these ends, the Project comprises the following road upgrades which include a section of widening on the western side of the road between Woodward Road and State Highway 16 (SH16):

- Special Vehicle Lanes[2] (SVL) for most of the corridor length in both directions, and new/relocated bus stops;
- Improved walking and cycling facilities along the entire corridor length in both directions and new midblock crossings;
- Upgraded intersections along the entire corridor length, including four new/upgraded signalised intersections;
- New stormwater management infrastructure, including stormwater treatment and conveyance swales within the berm on Segar Avenue; and
- Public realm placemaking/landscaping, and new street trees.

In conjunction, Watercare Services Limited (Watercare) has proposed the Point Chevalier Watermain No. 2 Project along Carrington Road. The Watermain is a Ø750mm concrete-lined steel (CLS) pipeline approximately 1km in length between Seaview Terrace and Sutherland Road. As the Watermain is proposed to be constructed concurrently with the road improvements, no additional transport effects are anticipated.

Refer to Section 3 of the Assessment of Effects on the Environment (AEE) for a full project description.

This Transport Assessment Report (the assessment) supports the AEE for the Project by identifying the transport effects associated with the construction and operation of the Project and identifies ways for any adverse effects to be mitigated, where necessary.

1.2 Relationship to the Carrington Road Improvements Detailed Business Case

Resource consent is sought for the physical works which comprise the Project, as shown in the Preliminary Design appended to the AEE. The Project was initially developed through the earlier Carrington Road Improvements Detailed Business Case (DBC), which was completed in July 2024. The DBC included a number of investment objectives developed through an Investment Logic Mapping (ILM) process, which in turn informed the selection of an Emerging Preferred Option (EPO) for the Project. The EPO was then used to assess the costs and benefits of the Project.

The Preliminary Design which forms the basis of this resource consent application is substantially based on the EPO, and is in effect is a more detailed refinement of the same concept and proposed interventions. Accordingly, while the resource consent application is based on the more recent Preliminary Design, this report also draws on the DBC analysis of the EPO to describe the high-level transport effects of the proposal.

[2] The type and operational times of the SVL is to be confirmed through ongoing assessment, which is considering the effectiveness and productivity of the corridor operation, as well as network strategic context.

2 Context

2.1 Project Site and Features

Carrington Road is currently a two-lane arterial road that connects Mt Albert to Pt Chevalier. The Project extent are shown in **Figure 2-1**.

Figure 2-1: Project Extent

While serving as a connecting route between the two local town centres, it also provides access to land use generators including Unitec Institute of Technology, Gladstone Primary School, Auckland's Mason Clinic, and the surrounding residential catchment. The Mt Albert Train Station is located at the southern end, providing access to the Western Rail Line which forms part of Auckland's existing rapid transit network. At the northern end of the corridor, the Northwest Rapid Transit Indicative Business Case has identified a potential future Pt Chevalier rapid transit station. Further detail on the adjacent land use and projects is included in the AEE.

The boundary-to-boundary width along Carrington Road varies with the corridor width fronting Unitec generally being between 20.5 metres and 21.3 metres wide. The corridor width at the southern end varies, but is generally 20.1 metres between Woodward Road and New North Road. On-road cycle lanes exist along the corridor, at 1.5 metres wide, and there is no buffer provided between the cycle lane and the general traffic lane.

Footpath widths vary along the frontage of Unitec, generally between 2.0 metres and 3.0 metres, reducing to 1.3 metres in some sections. Footpath widths along the corridor's southern end are generally 1.5 metres, but vary between 1.3 metres and 4.3 metres.

Limited on-street parking is provided on Carrington Road, with 'No Stopping At All Times' lines spanning most of the road. Kerbside parallel parking is provided in the southbound direction between Fifth Avenue and Gladstone Primary School and in the northbound direction between Willcott Street and Woodward Road. Between Woodward Road and Willcott Street, there are currently 28 on-street carparks. Between Fifth Avenue and Gladstone Primary, there are currently 9 on-street carparks, including three car parks that are P5 restricted during school drop-off and pickup times.

No on-street loading provision is provided, as most of the land use is residential and the non-residential land west along the road provides its own accessways to off-street facilities.

The existing typical cross sections are shown below in **Figure 2-2**.

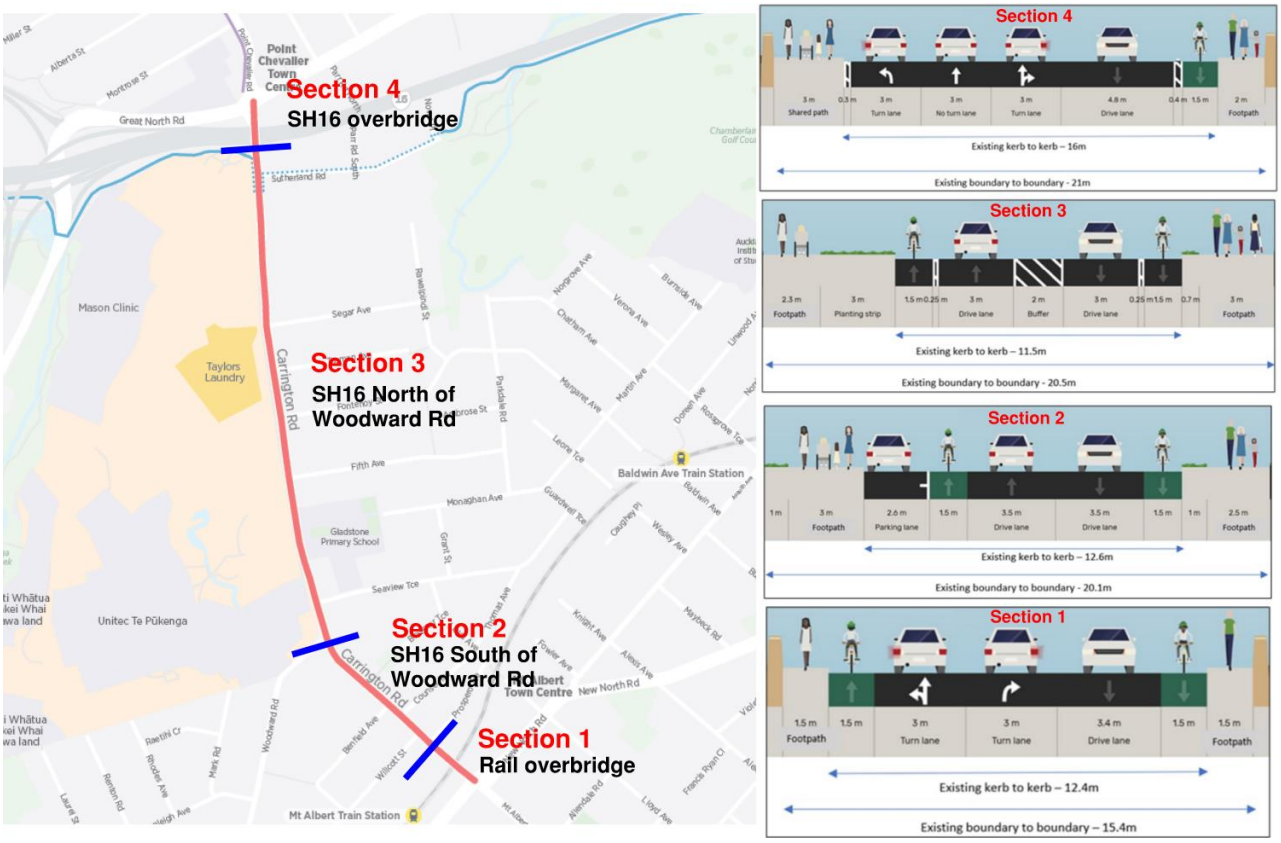

Figure 2-2: Existing typical cross-sections of Carrington Road

2.2 Carrington Road Transport Function

Based on Auckland Transport's Future Connect[3] (November 2024):

- Carrington Road is classified as a Primary Arterial. It is also identified as an Overweight route, and the northern section between Woodward Road intersection and Great North Road intersection, is an Over-dimension route.
- Carrington Road is a Frequent Transit Network (FTN) route, and is currently used by the Outer Link and 66 bus service. The two services operate with frequencies of at least 15 minutes between 7am to 7pm, and 7 days a week.

[3] AT's long-term plan for Auckland's transport system, which identifies the most important parts of the transport network alongside the most critical issues and opportunities.

- Carrington Road is classified as a Major route on the cycle network, and a Primary route for the walking network.
- No change in Carrington Road's strategic transport function is anticipated between the current and first decade networks.

A Roads and Streets Framework (RASF) assessment was undertaken for the DBC[4] to identify the movement and place function of Carrington Road and to develop modal priorities for each transport mode. This assessment followed AT's guiding document[5].

The RASF assessment resulted in a general shift in modal prioritisation from freight (and private vehicles to a lesser extent) towards walking, cycling and public transport. This is demonstrated in **Figure 2-3**. For Carrington Road, the optimal and future modal priority are generally the same, as no further change in the strategic functions of Carrington Road is anticipated.

Figure 2-4 below shows the future modal priorities for each section of Carrington Road determined through the RASF assessment in the DBC.

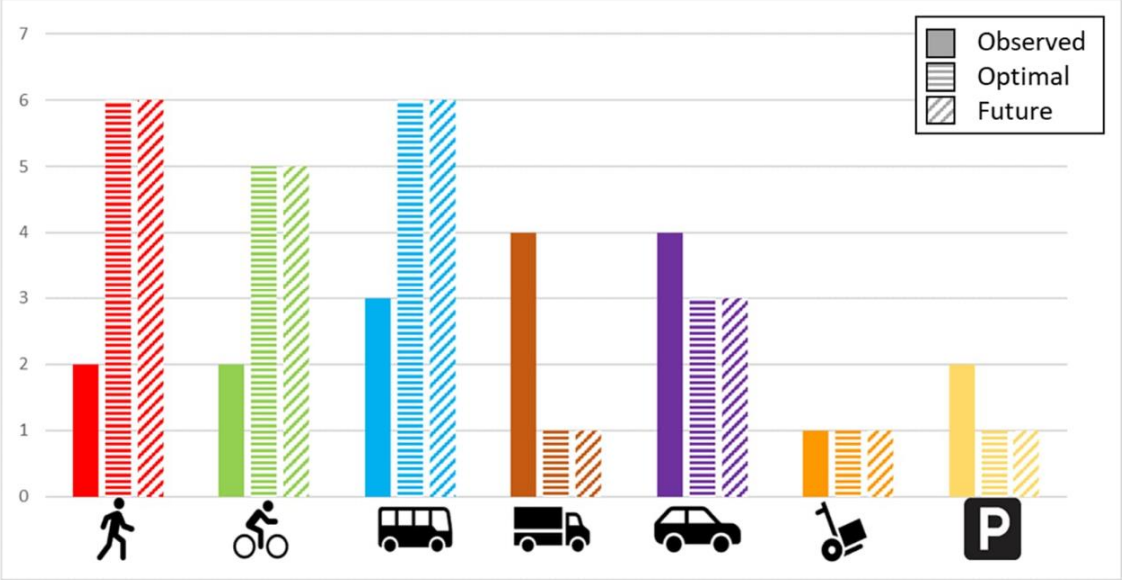

Figure 2-3: Carrington Road RASF modal priority assessment (average across all sections)

[4] Carrington Road DBC Appendix A, June 2024

[5] https://at.govt.nz/about-us/transport-plans-strategies/roads-and-streets-framework

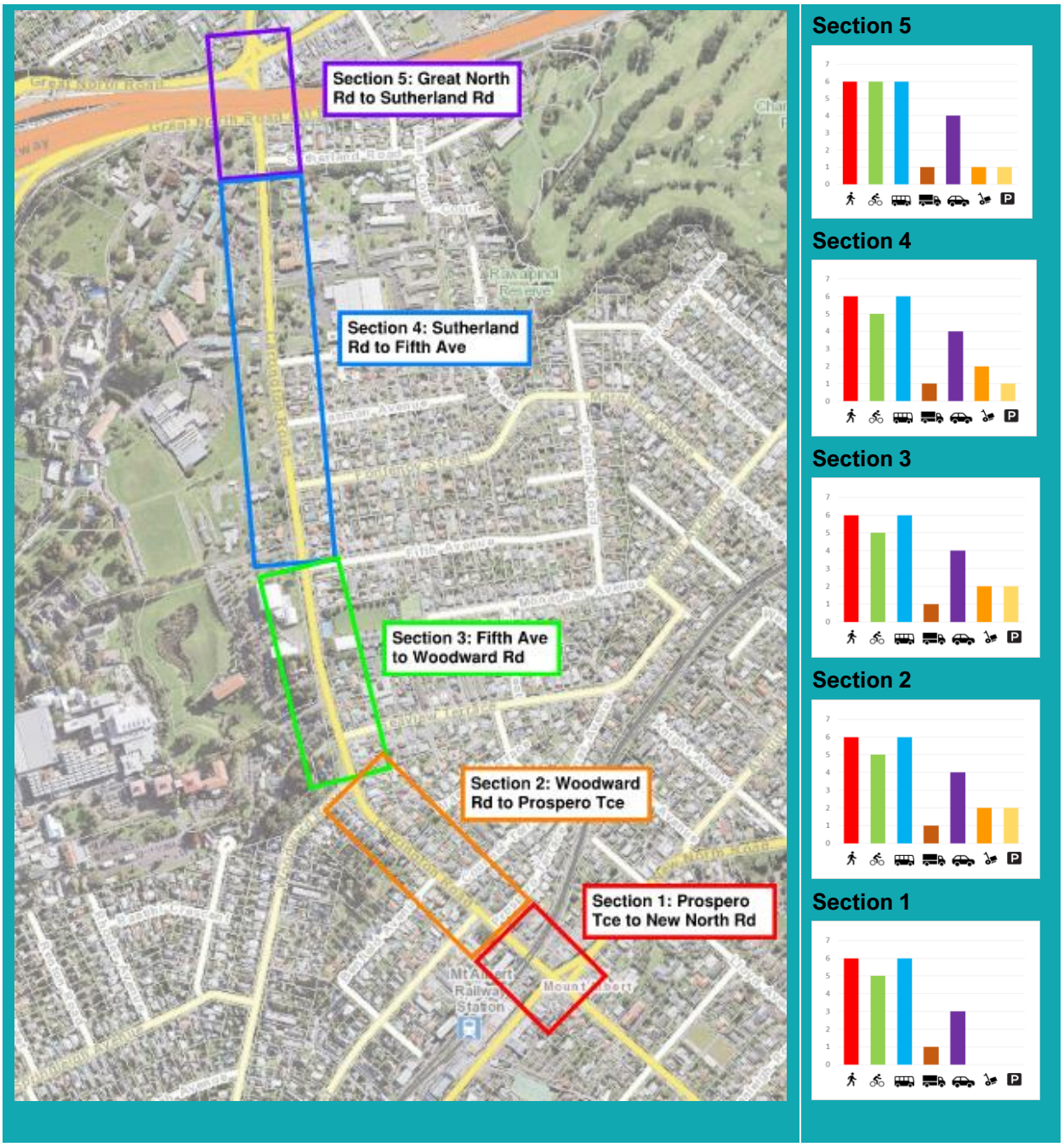

Figure 2-4: Future modal priorities

2.3 Carrington Residential Development

Carrington Residential Development will result in housing intensification on the eastern side of Carrington Road with a substantial increase in additional dwellings in the future. This will result in increased pressure on the existing transport network along Carrington Road.

The Carrington Residential Development extends from Woodward Rd to SH16 at Pt Chevalier south, and from Oakley Creek / Te Auaunga in the west to Carrington Road in the east. Approximately 4,000 dwellings at a medium-high density are planned to be delivered over the next 10-15 years. The density proposed for the site will be supported by retail and commercial premises.

Proposed Plan Change 94 proposes amendments to the precinct to enable a minimum of 4,000 dwellings through rezoning of land and identification of areas where additional height can be accommodated.

The AEE contains further detail on the Carrington Residential Development in the Wairaka Precinct.

2.4 Project Scope

The scope of the Carrington Road Corridor Improvements Project has been developed to support the future development and growth in the surrounding area, and achieve AT's long-term strategic network objectives for the corridor. As noted above in **Section 1.2**, the scope has been defined by the EPO identified in the DBC, which has formed the basis of the current Design. The scope of the improvements is demonstrated in the Preliminary Design (appended to the AEE).

The key components of the design scope include:

- General traffic lanes in each direction for the full length of the corridor
- Southbound SVL[6] for almost the full length of the corridor (between bridges)
- Northbound SVL from near Woodward Road to the Northwest Cycleway crossing
- Improved active modes (walking and cycling) facilities in both directions for the full length of the corridor
- New signalised intersections at Gate 1, Gate 3 and Woodward Road
- Upgraded signalised intersection at Gate 4
- Upgraded unsignalised intersections at Gate 2 (left in/left out) and existing side roads as appropriate
- New and relocated midblock crossings
- New/relocated bus stops
- Re-allocation of parking space
- Road widening on the western side between the south of SH16 overbridge and Woodward Road
- Bridge improvements which includes widening (Mt Albert rail overbridge)
- Upgraded stormwater infrastructure
- Major utility infrastructure works
- Landscaping and public realm features.

[6] The type and operational times of the SVL is to be confirmed through ongoing assessment, which is considering the effectiveness and productivity of the corridor operation, as well as network strategic context.

3 Operational Effects

3.1 Existing Deficiencies

The Carrington Road DBC included an assessment of the current transport environment and its deficiencies, and how this could result in adverse effects for the future transport environment (in the 'do nothing' scenario in which no improvements are made to Carrington Road to rectify existing deficiencies). A clear understanding of the existing corridor deficiencies also defines the baseline against which positive effects of the Project can be identified. The existing deficiencies are broadly described below.

3.1.1 Safety

Historic crash data indicates a poor safety record for the corridor. Multiple crashes have been recorded along Carrington Road, including three serious crashes within a 5-year period. Future Connect identifies Carrington Road as being 'First Ranked' (i.e. highest priority) in terms of safety deficiency, indicating AT's recognition of the safety issues along the corridor. This conclusion is supported by the Safe System Assessments undertaken for the DBC.

Specific safety issues on Carrington Road include:

- A lack of safe walking facilities with narrow and inconsistent footpath widths and limited safe crossing opportunities
- Limited protected cycle facilities, with unprotected cycle lanes that conflict with side streets, bus stops and car parking spaces
- A 50km/h speed limit, with high associated risk of death or serious injury to vulnerable road users if crashes occur.

3.1.2 User Experience

Active mode and public transport facilities on Carrington Road do not enable attractive and convenient journeys, adversely affecting use of active modes and public transport. Carrington Road connects to high-quality active and public transport facilities and has strong potential for uptake of these modes, but a lack of space allocation and priority infrastructure and poor connections at stops and stations limit their attractiveness, particularly to commuters. As a result, these modes do not contribute to moving people on Carrington Road as much as they can.

These adverse effects are evidenced in the DBC by:

- Future Connect modal deficiencies to support active modes and PT
- Inadequate condition of existing facilities
- Pedestrian/cycle surveys showing low demand
- Accessibility / catchments and bus stop locations not supporting existing and future land use activities
- Bus boardings and AT HOP card data showing low demand

3.1.3 Mode Choice and Access

The current layout of Carrington Road does not support efficient and reliable journeys including by public transport to support development and population growth, with adverse effects for mode choice and access to key destinations. There is a heavy reliance on private vehicles to move people on Carrington Road, already leading to substantial congestion with flow-on effects on other modes. In addition, the development proposed on Carrington Road would more than double the number of people living along the corridor. This level of growth and the associated increase in travel demand cannot be accommodated on Carrington Road without significant changes in transport infrastructure and travel behaviour to avoid adverse transport effects.

The priority for vehicles is evident from the wide carriageway, contrasted with inconsistent narrow or missing footpaths, narrow unprotected cycle lanes and a lack of bus priority. This layout results in public and active transport not being a competitive choice for travel with private vehicle travel for commute trips and shorter neighbourhood trips as private vehicle is viewed as faster, more reliable, safer and more convenient. As a result, around 70% of people living around the Carrington Road area use private vehicles as their primary mode of choice for their commute to work.

The significant levels of congestion on Carrington Road are evidenced by the low level of service, average speed, and reliability along the corridor. There is currently no separation between buses and general traffic on Carrington Road. As a result, buses are caught in the same delays as private vehicles, with added delays due to the need to exit and rejoin the traffic flow at bus stops. Travel times and reliability are expected to further deteriorate with the future development in place.

3.2 Positive Effects

The EPO (and by extension the Preliminary Design) was found to be well-aligned with the DBC's investment objectives, which were informed by the existing deficiencies described in **Section 3.1**. As such, **the Project has many positive transport effects in terms of safe and effective operation of the transport network**, by addressing the adverse effects that would otherwise eventuate**.**

The positive effects of the Preferred Option are described below in **Table 1**. These are reported relative to the environment without the project (Do Minimum) at the same operational date[7].

Table 1: Benefits of the DBC Preferred Option

Metric	Benefits of Project (2031, relative to 2031 Do Minimum)
Safety (DSI - 5yr period)	The Project provides a safer system compared to the Do Minimum (by 18%) in terms of DSI over a 5-year period based on corridor interventions. The proposed safety improvements leads to DSI reductions for active users, however due to the implementation of new traffic signals along the corridor, an increase in rear end type crashes leads to an increase in predicted DSI's for general vehicles. This outcome represents an improved alignment with safe system principles.
Private vehicle mode share	Lower private vehicle mode share of 66% for the Do Minimum compared to 63% with the Project implemented.
Bus patronage AM + PM (4 hours total)	Minor modelled increase in bus patronage for project relative to the Do Minimum due to improved journey times.

[7] It is noted that the environment without the Project included Carrington Residential Development intersection upgrades and short bus advance lanes at the signalised intersections.

<table>
<tr><th>Metric</th><th>Benefits of Project (2031, relative to 2031 Do Minimum)</th></tr>
<tr><td>Cycling AM + PM commuter trips (2-way)</td><td>Higher cycling trip numbers during the AM and PM peaks of 500 for the project compared to 300 for the Do Minimum.</td></tr>
<tr><td>Walking AM + PM commuter trips (2-way)</td><td>Higher walking trip numbers during the AM and PM peaks of 1500 for the project compared to 1000 for the Do Minimum.
It should be noted that the increase of pedestrians along different sections along Carrington Road will vary due to different land use and public transport services.</td></tr>
<tr><td>Bus journey time – average AM and PM peak (one-way)</td><td>Improved average corridor bus journey time of 7 minutes for the project compared to 11.4 minutes for the Do Minimum during peak periods. This is further broken down by peak time and direction below.
<table>
<tr><th></th><th colspan="2">Northbound</th><th colspan="2">Southbound</th></tr>
<tr><th></th><th>Do Min (mins)</th><th>Project (mins)</th><th>Do Min (mins)</th><th>Project (mins)</th></tr>
<tr><td>AM</td><td>10.5</td><td>6.7</td><td>8.2</td><td>7.3</td></tr>
<tr><td>PM</td><td>18.0</td><td>7.7</td><td>8.8</td><td>6.8</td></tr>
</table>
The Do Minimum generally has one lane in each direction throughout the corridor and does not include SVL / bus priority lanes, except on the approach to and exit from signalised intersections to provide bus queue jumps. Buses, therefore, share a single lane with general traffic for much of the corridor.
The project has improvements in bus journey times due to the additional capacity provided along the corridor. It is still predicted that delays will be experienced at the New North Road / Carrington Road / Mt Albert Road intersection due to the lack of current bus priority and intersection congestion on those corridors.</td></tr>
<tr><td>Vehicle journey time – average AM and PM peak (one-way)</td><td>Improved average corridor vehicle journey time of 7.2 minutes for the project compared to 8.5 minutes for the Do Minimum during peak periods. These vehicle journey time benefits are primarily realised for northbound vehicles. This is further broken down by peak time and direction below.
<table>
<tr><th></th><th colspan="2">Northbound (mins)</th><th colspan="2">Southbound (mins)</th></tr>
<tr><th></th><th>Do Min</th><th>Project</th><th>Do Min</th><th>Project</th></tr>
<tr><td>AM</td><td>7.7</td><td>5.8</td><td>6.5</td><td>7.4</td></tr>
<tr><td>PM</td><td>12.8</td><td>7.5</td><td>7.0</td><td>8.6</td></tr>
</table>
The project’s overall improvement in vehicle journey times is due to the additional capacity provided along the corridor. It is still predicted that delays will be experienced at the New North Road / Carrington Road / Mt Albert Road intersection due to the intersection congestion on those corridors. Delays for the Great North Road / Carrington Road / Point Chevalier Road and the New North Road / Carrington Road / Mt Albert Road intersections during the AM and PM peaks are shown below.
<table>
<tr><th></th><th colspan="2">Great North Road (delay per vehicle (s) / LOS)</th><th colspan="2">New North Road (delay per vehicle (s) / LOS)</th></tr>
<tr><th></th><th>Do Min</th><th>Project</th><th>Do Min</th><th>Project</th></tr>
<tr><td>AM</td><td>119 / F</td><td>101 / F</td><td>179 / F</td><td>192 / F</td></tr>
<tr><td>PM</td><td>124 / F</td><td>124 / F</td><td>232 / F</td><td>219 / F</td></tr>
</table></td></tr>
</table>

Metric	Benefits of Project (2031, relative to 2031 Do Minimum)
Productivity - AM and PM peak, north and southbound	36% higher productivity associated with the project (133,000 people.km/hr) compared to the Do Minimum (98,000 people.km/hr).

3.3 Adverse Effects

The Project has adverse operational transport effects as described below. Measures to avoid, remedy or mitigate these adverse effects are described in **Section 3.4**.

3.3.1 Vehicle Crossing at 155 Carrington Road

A Vehicle Access Restriction applies to this site under E27.6.4.1(3)(c), as it is on an arterial road. E27.6.3.4(1)(c) of the AUP(OP) states that sufficient space must be provided on a site, so vehicles do not need to reverse off the site or onto or off the road from any site. The existing site at 155 Carrington Road does not have sufficient manoeuvring space on site. However, space is currently present in the road reserve, within a parking area, to allow sufficient space to manoeuvre before driving onto or off the road carriageway (**Figure 3-1**).

Figure 3-1: Current access arrangement at 155 Carrington Road

Manoeuvring space must be maintained to avoid instances of vehicles reversing onto or off of the site directly into the carriageway. The Project includes a new access lane to access the driveway at 155 Carrington Road (**Figure 3-2**Error! Reference source not found.).

While the Project does not alter the vehicle crossing or site (155 Carrington Road) itself (except for reinstatement of the vehicle access at the same location), relevant AUP(OP) assessment matters are considered in relation to the Project to address potentially adverse effects resulting from changes to the corridor.

The relevant assessment matters are set out in set out at E27.8.1(12), with Auckland Council's discretion considering:

- Adequacy for the site and the proposal
- Design and location of access
- Effects on pedestrian and streetscape amenity, and
- Effects on the transport network.

The form of the access lane at 155 Carrington Road has been designed with the consideration of these elements to support safe and efficient network operation (particularly for reversing vehicles) through:

- Avoidance of conflict between reversing movements and cyclists / vehicles travelling northbound along Carrington Road
- Raised safety platforms and visual cues to:
    - Manage approach speeds
    - Dissuade use of the access lane for left turn movements at the Woodward Road intersection
    - Support pedestrian movements
- Appropriate sightlines for traffic and pedestrian movements.

The design therefore addresses any potential adverse effects associated with the need for vehicles to reverse onto the main carriageway from 155 Carrington Road, supporting efficient and safe operation of transport movements on Carrington Road.

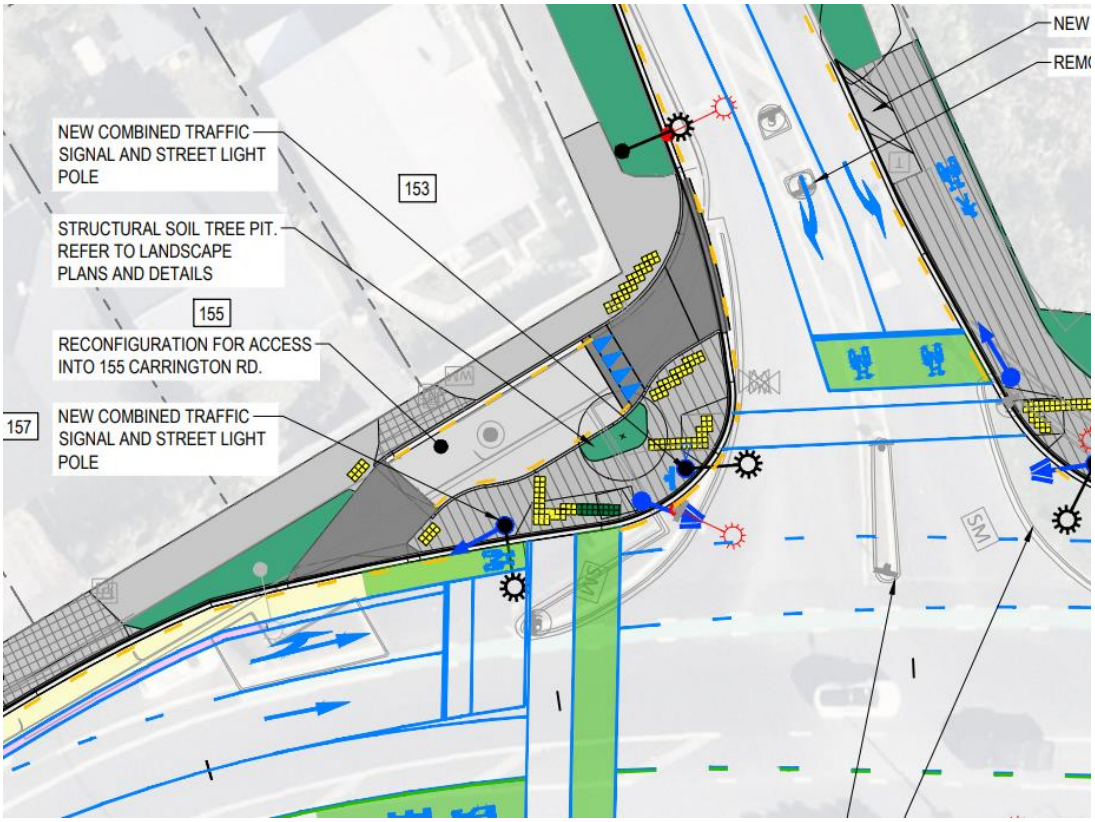

Figure 3-2: Access lane for 155 Carrington Road.

3.3.2 On-street Parking

The Project includes the following changes to on-street parking in the operational phase:

- Removal of unrestricted on-street parking (28 spaces) on its western kerbside between Willcott St and Woodward Road
- Removal of nine parking spaces on its eastern kerbside between Seaview Terrace and Fifth Avenue near Gladstone Primary School. Three of these spaces are P5 restricted during school drop-off and pickup times.

The location of these parking spaces is shown in **Figure 3-3**.

Figure 3-3: Current car parking provision on Carrington Road

If left unmitigated, the removal of parking spaces may result in:

- Undesirable parking behaviour (non-compliance) that could disrupt the safe and efficient operation of the transport network, and
- Sub-optimal provision of parking facilities that do not sufficiently support adjacent land use activities (e.g. Gladstone Primary School).

3.4 Measures to Avoid, Remedy, or Mitigate Adverse Effects

3.4.1 On-street Parking

A parking assessment has been developed to outline how the effects of the changes to on-street parking resulting from the design could be managed (**Appendix A**). Management measures are described below.

It is noted that Room to Move: Tāmaki Makaurau Auckland's Parking Strategy policy statement indicates that parking is a lower priority use of kerbside space on the Strategic Transport Network. Carrington Road is identified as part of this Strategic Transport Network. Under this policy, AT will seek to offset the loss of parking by replacing it in side-streets. Based on the findings of this parking assessment, the 37-parking reduction can be accommodated by the spare parking capacity on side roads.

3.4.1.1 On-street Parking between Willcott Street and Woodward Road

The loss of the on-street parking spaces on Carrington Road between Willcott Street and Woodward Road and on the directly adjoining side roads (except Willcott Street) can be accommodated by parking on the side roads. The adjoining roads are likely to have sufficient capacity to accommodate the effects of the displaced parking on Carrington Road, based on current parking utilisation and operation.

The Preliminary Design includes the provision of improved pedestrian accessibility via a new signalised mid-block crossing on Carrington Road between Willcott Street and Counsel Terrace. This is expected to facilitate more even distribution of parking utilisation from the higher-utilised adjacent side roads on the western side of Carrington Road to the lower-utilised roads on the eastern side.

The parking utilisation and operation on the adjacent roads should be monitored post-implementation to inform the need for further parking interventions on the adjacent roads, such as through time-limited parking or introducing parking charges alongside appropriate enforcement.

3.4.1.2 On-street Parking on Side Roads near Gladstone Primary School

The current design assumes that no on-street parking would be implemented on Carrington Road. It is considered that the adjacent side roads are expected to have capacity to manage the effects of displaced parking on Carrington Road.

The provision of 37 parking spaces on Carrington Road are still being considered between Woodward Road and Sutherland Road, which includes the three P5 parking spaces (currently present on Carrington Road adjacent to the school). If provided, these parking spaces would further support the management of potential adverse effects associated with displaced parking. The inclusion of these on-street parking spaces is related to the ongoing assessment of the SVL type and operational hours, as well as review of parking provision by AT.

4 Construction Effects

4.1 Adverse Effects

In order to assess the potential construction transport effects, an indicative construction methodology has been prepared. This is summarised in the AEE.

In general, the adverse construction effects of the Carrington Road works include:

- Temporary traffic management of traffic / buses
- Temporary closure / diversion of cycle lanes and facilities
- Temporary closure / diversion of pedestrian facilities
- Temporary management of property access
- Temporary diversion of access to side roads
- Temporary traffic management along the corridor, including speed restrictions; and
- Additional construction traffic using Carrington Road and the adjacent network.

If not mitigated, these effects will significantly impact the safe and efficient operation of the transport network.

4.2 Measures to Avoid, Remedy, or Mitigate Adverse Effects

To appropriately manage these effects, a Construction Traffic Management Plan (CTMP) is required, which would be prepared in accordance with the New Zealand Guide to Temporary Traffic Management (NZGTTM), for each stage, as part of the overall Construction Management Plan (CMP). The CTMP must be submitted to AT and approved as part of the Corridor Access Request (CAR) process. It is noted that some residual adverse impacts will remain (e.g. increased journey times) with the management measures in place.

From a transport perspective, the objectives of the CTMP would:

- Aim to balance the level of disruption to the transport network at each construction stage, and the overall duration of disruption
- Limit and manage the number of construction traffic movements on the transport network
- Provide for the safety of everyone (transport corridor users, local residents, construction staff) at all times
- Maintain pedestrian and vehicle access at all times to / from properties
- Maintain access to the Northwestern cycleway crossing
- Minimise disruption from construction traffic on the travelling public and road users
- Manage integration with other construction projects and Auckland Transport projects
- Manage the condition of roading assets to ensure road user safety and accessibility is maintained
- Provide for prior engagement with relevant stakeholders, including, when public access, particularly to properties, will be affected, and
- Provide a mechanism for addressing queries and responding to complaints.

To achieve these objectives, the CTMP shall include details of:

- The traffic management measures that will be required to be implemented for every stage
- For each stage, confirmation of typical numbers of heavy vehicle movements throughout the day for heavy vehicle access routes, and liaison with developers, Unitec, adjacent businesses and adjacent projects to manage construction vehicle movement
- Alternative routes to enable closure of side roads, enabling faster construction of raised safety platforms and utilities across road crossings
- Coordination with Auckland Transport regarding other construction sites and road works
- Active monitoring of traffic performance to manage transport effects on a day-to-day basis

- Prioritised parking for workers on construction sites, with parking prioritised for those needing to bring tools / equipment for specialist activities, car / van pooling, staff working outside standard hours and mobility impaired staff / visitors
- Temporary on-street parking management measures on adjacent streets to accommodate nearby activities, in particular for the Gladstone Primary School
- Measures to maintain safe and continuous pedestrian access to bus stops and footpaths (with bus stop and footpath relocations, where necessary to achieve this), while minimising detours and additional crossing points for pedestrians
- Monitoring of and cleaning of spillage from construction trucks onto roads and footpaths
- Processes for monitoring, review and amendments to the CTMP, in particular in response to changes in the roading network including any change in the condition of roading assets.

Transport-related queries in relation to the construction works are expected to be managed through a project-wide stakeholder management process. A nominated stakeholder manager should be responsible for receiving, addressing and monitoring queries and responding to complaints in relation to the construction works.

5 Summary and Conclusions

In summary, the Project has many positive effects in terms of the safe and effective operation of the transport network, in particular through improved safety for all users, and improved walking, cycling, public transport and general traffic effects. These align with the desired outcomes for the corridor (as defined in the DBC) which have been guided by relevant transport policy and strategic direction.

There are minimal adverse effects to be managed. These adverse effects are related to on-street parking (during operation and construction) and the temporary effects during the construction of the Project. It is considered that these adverse effects can be satisfactorily addressed, including through the preparation and implementation of a CTMP, as part of the overall CMP during the construction phase. It is noted that some residual temporary adverse impacts will remain in the construction phase (e.g. increased journey times) with the management measures in place.

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Appendix A – TM020 Carrington Road Parking Strategy Memo

To:	Jaco du Preez, Tony Liu	**Date:**	21 November 2024
From:	Connell Pham	**Our Ref:**	3230635
Copy:	Cherie Dunn, Hanna O'Donoghue, Adam Holt, Joe Phillips	**:**	
Subject:	Carrington Road Parking Strategy		

1 Introduction

1.1 Background

The Auckland Transport (AT) intent is to upgrade Carrington Road into a multi-modal urban road corridor to provide for bus priority, improved walking and cycling facilities, stormwater management, place-making and safety improvements to:

- Enable the housing outcomes of the local housing development, the Carrington Residential Development,
- Support growth and intensification in the surrounding area, and
- Achieve AT's long-term strategic network objectives for the corridor.

The Concept Design issued on 18 October 2024 generally aligns with the Carrington Road Improvements Detailed Business Case (DBC) design. However, it does include changes to parking on Carrington Road, which requires consideration to manage the effects of this change.

1.2 Purpose

The purpose of this memo is to:

- Document the changes to the existing on-street parking provision on Carrington Road, as part of the Carrington Road Improvements Project
- Document the current utilisation of on-street parking on Carrington Road and adjacent side roads
- Provide a high-level strategic direction to manage effects from proposed changes to on-street parking on Carrington Road.

2 Existing On-Street Parking Provision

The on-street parking provision on Carrington Road currently comprises of:

- Unrestricted on-street parking (28 spaces) on its western kerbside between Wilcott Street and Woodward Road
- Nine parking spaces on its eastern kerbside between Seaview Terrace near Gladstone Primary School and Fifth Avenue. Three of the spaces are P5 restricted during school drop-off and pickup times.

All existing parking is proposed to be removed on Carrington Road (37 total) to improve the movement of people, goods and services along this corridor. The location of the existing parking is shown in **Figure 1**.

Figure 1: Current car parking provision on Carrington Road[1]

3 On-Street Parking Assessment

3.1 Assessment Methodology

The Concept Design (and the DBC design) proposes to remove all existing on-street parking on Carrington Road. The removal of the parking spaces would have some impact to the current parking demand, and motorists will likely look for parking spaces on the adjacent side roads. To understand the impacts, the following methodology has been followed:

- Analyse the existing parking demand on Carrington Road. Parking surveys were completed by AT in 2023. Two-hour surveys were conducted on Saturday 25 March and Wednesday 29 March 2023 between 7:00 am and 5:00 pm. 15-minute parking surveys were also undertaken during school pick up and drop off periods for the parking adjacent to the primary school. The geographic scope of the surveys is shown in **Figure 2**
- Identify if the side roads have sufficient capacity to accommodate for the parking reduction on Carrington Road by adopting AT's target for managed parking intervention is when parking regularly exceeds 85% capacity (based on Room to Move: Tāmaki Makaurau Auckland's Parking Strategy 2023).

[1] Original image retrieved from https://at.govt.nz/projects-initiatives/city-centre-projects-and-initiatives/carrington-road-improvements

Figure 2. Parking survey extents

3.2 Existing Parking Demand on Carrington Road

This section summarises the existing parking demand on Carrington Road based on the survey data between 7am to 5pm, as shown in **Table 1**.

Table 1. Survey results for Carrington Road

Carrington Road	Current Parking Capacity	Parking Survey Results on Wed 29 March 2023			Parking Survey Results on Sat 25 March 2023	
		Average Occupancy (%)	Ave Peak Occupancy (%)	Ave Peak Occupancy	Ave Occupancy (%)	Ave Peak Occupancy (%)
Willcott St to Woodward Rd (west side)	28	60%	66%	19	45%	50%
Seaview Tce to Fifth Ave (east side)	9	65%	94%	9	6%	11%

(green shading = well below 85% capacity of on-street parking, yellow = close to 85%, and red = above 85%)

Table 1 indicates:

- Nine parking spaces on Carrington Road between Seaview Tce and Fifth Ave are currently being fully utilised (i.e. at full capacity) at times. Given these spaces are fully utilised at times, it is very likely that the **parking** demand would impact the on-street parking on the adjacent side roads if they are no longer available on Carrington Road. At this location, there is higher turnover due to the three existing P5 parking spaces
- While there are 28 on-street parking spaces on Carrington Road between Willcott St and Woodward Road, there were only up to 19 vehicles parking along that length, when the survey was carried out in 2023. Thus, a potential demand of **19 parked vehicles** would likely impact the side road on-street parking.

3.3 On-street Parking Capacity on Side Roads

To manage effects due to the parking removal on Carrington Road from Willcott Street to Woodward Road, the surveys indicate that up to 19 vehicles would potentially need to be accommodated on adjacent side roads. Sufficient parking for nine vehicles would also need to be accommodated based on the current use of kerbside parking on Carrington Road between Fifth Avenue and Seaview Terrace.

The parking survey results for the 7:00 am to 5:00 pm surveys on the side roads are shown in Table 2. The table has been categorised by surveyed locations at or directly adjacent to the existing parking on Carrington Road to demonstrate potential alternative parking locations.

Table 2. 7:00 am to 5:00 pm parking survey results for adjoining side roads near Carrington Road

Side Road	Current Parking Capacity	Parking Survey Results on Wednesday 29th March		
		Average Occupancy (%)	Average Peak Occupancy (%)	Average Peak Capacity Remaining (spare parking before reaching 85% capacity)
Willcott Street	50	78%	81%	2
Benfield Avenue	32	59%	63%	7
Prospero Terrace	28	40%	48%	10
Counsel Terrace	25	38%	48%	9
Seaview Terrace	44	75%	91%	0
Fifth Avenue	46	65%	83%	1
Monaghan Avenue	27	23%	35%	13

(green shading = well below 85% capacity of on-street parking, yellow = close to 85%, and red = above 85%)

Table 2 indicates:

- There is high occupancy on Willcott Street throughout the day, as expected, given its proximity to the Mount Albert train station. Parking on the other adjacent side roads is otherwise under-utilised (i.e. having spare capacity to accommodate more on-street parking before reaching 85% capacity). A total of 28 parking spaces was observed to be available on these side roads. This would be sufficient to accommodate the current parking demand of 19 vehicles for the on-street parking on Carrington Road from Woodward Road to Willcott Street.
- There is high occupancy on Seaview Terrace, as expected, given its proximity to the Gladstone Primary School. The 15-minute parking surveys indicated the high peak occupancy on Seaview Terrace and Fifth Avenue coincides with afternoon school pick up times. There was observed to be a total of 14 available parking spaces on adjacent side roads. The spaces would be able to accommodate the nine vehicles which currently use the parking on Carrington Road eastern kerbside from Fifth Avenue to Seaview Terrace during the peak school pickup period. The existing parking on Carrington Road is nearer to Fifth Avenue than the other adjacent side roads. Therefore, Fifth Avenue would more likely be the location people choose to park, if the existing parking in Carrington Road were to be removed. An increase in the parking occupancy on Fifth Avenue during the afternoon school pick up period is likely to require parking management to provide for high turnover during school pick-up period.

4 Summary

4.1 On-street Parking on Side Roads between Woodward Road and Willcott Street

The loss of on-street parking on Carrington Road between Woodward Road and Willcott Street and on the directly adjoining side roads (except Willcott Street) can be accommodated by parking on the side roads. The adjoining roads are likely to have sufficient capacity to accommodate the effects of the displaced parking on Carrington Road, based on current parking utilisation and operation.

The Concept Design includes the provision of improved pedestrian accessibility via a new signalised mid-block crossing on Carrington Road between Willcott Street and Counsel Terrace[2]. This is expected to facilitate more even distribution of parking utilisation from the higher-utilised adjacent side roads on the western side of Carrington Road to the lower-utilised roads on the eastern side.

Room to Move: Tāmaki Makaurau Auckland's Parking Strategy includes a location-based tier system for parking management. Carrington Road and its adjacent side roads are categorised under Tier 2, which recommends the consideration of the following potential on-street parking management interventions:

- Proactive on-street parking management focused on optimising parking turnover
- Maintain or increase the amount of time-limited/short-stay parking to ensure turnover and short-stay provision, and reduce the risk and effects of long-term vehicle storage
- Increased parking charges
- Some parking space repurposing to improve travel choices.

[2] Location to be reviewed through further design

The Concept Design re-purposes existing parking spaces to improve travel choices. It is recommended that the parking utilisation and operation on the adjacent roads be monitored post-implementation to inform the need for further parking interventions on the adjacent roads, such as through time-limited parking or introducing parking charges alongside appropriate enforcement.

4.2 On-street Parking on Side Roads near Gladstone Primary School

The surveys indicated high occupancy of the six unrestricted parking spaces on Carrington Road outside the primary school between Seaview Terrace and Fifth Avenue, and also on Fifth Avenue. Therefore, the removal of these six unrestricted parking spaces on Carrington Road is likely to require additional parking management, particularly to provide for high turnover during the school pick-up period.

The adjacent side roads are generally expected to have capacity to accommodate the effects of displaced parking on Carrington Road during the morning drop off period. The on-street parking on Carrington Road will be available during the afternoon school pick up period, which does not coincide with the typical 4pm to 6pm Special Vehicle Lane operation. Therefore, it is considered that the three P5 parking spaces can be retained for this afternoon period.

4.3 Proposed Parking Provision in Detailed Business Case (DBC)

The DBC and the last public consultation (between May and June 2024) proposed to have 38 new 'off-peak' on-street carparks on the western kerb between Woodward Road and Sutherland Road. The time of parking would depend on the operational hours of the SVLs. It is understood that the purpose of this proposal was to accommodate for the 37 parking reduction, without completion of parking assessment at the time of consultation.

Room to Move: Tāmaki Makaurau Auckland's Parking Strategy policy statement indicates that parking is a lower priority use of kerbside space on the Strategic Transport Network. Carrington Road is identified as part of this Strategic Transport Network. Under this policy, AT will seek to offset the loss of parking by replacing it in side-streets. Based on the findings of this parking assessment, the 37-parking reduction can be accommodated by the spare parking capacity on side roads. Therefore, it is recommended AT review the consultation proposal of providing 38 new 'off-peak' parking on Carrington Road, as this is not aligned with the parking policy on Strategic Transport Network.

5 Recommendations

It is recommended that the parking utilisation and operation on Carrington Road and the side roads directly adjacent to the primary school be monitored during the afternoon pick up period during construction and following the implementation of the Carrington Road design. With the following considered:

- Temporary parking management measures on adjacent side roads should be considered during construction, such as temporarily extending P5 parking zones, given the P5 parking on Carrington Road is unlikely to be available at times
- During the operational phase, consider the following:
  - Expansion of the P5 restricted parking on Carrington Road directly outside the primary school, where it is considered that an additional seven spaces could be possible; and / or
  - Expanding P5 parking on adjacent side roads (Seaview Terrace and Fifth Avenue) to provide for high turnover during the school pick-up period. Noting this may be necessary if

the operational hours for the SVLs on Carrington Road coincide with the afternoon pick-up period 2.30-3.30pm.

- A site observation suggests there is a number of parents parking in the Unitec carpark at gate 4 during the pick-up time. The parking survey was not conducted for this specific parking demand. Whilst the extent of Carrington Road Improvements Project does not include the Unitec carpark, it is anticipated that these parents would need to circulate to the neighbouring roads to find parking for pick-up. Thus, it is recommended to engage Gladstone Primary School to explore the feasible alternative options to minimise the impact to pick-up/drop-off parking.
- Review the consultation proposal of providing 38 new ‘off-peak‘ parking on Carrington Road between Woodward Road and Sutherland Road, given the parking proposal is not aligned with the parking policy on Strategic Transport Network.

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