



Hugh Green Ltd
Proposed Plan Change, Hingaia 1 Precinct
Park Estate Road, Hingaia

Transportation Assessment Report

5 November 2020





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1 INTRODUCTION

Commute Transportation Consultants (Commute) have been engaged by Hugh Green Ltd to provide Transport input in support of a number of proposed plan changes to the Hingaia 1 Precinct (specifically sub Precinct D) within the Unitary Plan.

This report considers the traffic engineering components of the proposed Plan Changes only.

Key transport aspects of the proposed Plan Change include:

- Change in zoning from Residential Mixed Housing Suburban to Mixed Housing Suburban within Sub precinct D
- Shift in location of the identified neighbourhood centre zone to align the Precinct Plan with the currently consented neighbourhood centre zone location
- Update of the Rooding Standards within the Precinct Plan to align with current Auckland Transport current relevant Codes of Practice
- General update of the precinct provisions to reflect the already consented developments within the Precinct and defer back to the current Unitary Plan Objectives, Policies and Rules where appropriate.

In summary it is considered that the proposed changes bring the current precinct plan in line with the current Auckland Transport roading standards, as well as the currently consented and under construction roading network that has already occurred within the precinct. Further the increase in zoning is able to be accommodated within the existing required roading upgrades under the current precinct plan.

2 PRECINCT PLAN

The current Precinct Plan and associated rules were formed a number of years ago now, as such the relevance of some of its contents is no longer applicable. In particular, with regards to Transport where there has been a recent shift in thinking, which is now reflected in Auckland Transports latest code of practice (TDM).

2.1 EXISTING PRECINCT PLAN

The existing precinct is known as Hingaia 1 (Hingaia South sub-precinct D) and is located on the southern side of Park Estate Road in Hingaia (properties 144, 152, 158, 158A 180, 200, 202 and 252 park Estate Road), approximately 35 km south of Auckland's city centre and 4 km west of the Papakura town centre. Great South Road serves as the main arterial road connecting the precinct north to Beach Road and the Papakura SH1 Interchange and south to the Pukekohe / Drury SH1 Interchange.

Figure 1 shows the location of the Hingaia 1 Precinct and sub-precinct D within it. Figure 2 shows the existing Precinct Plan. Both figures show the existing zoning within the precinct and in the surrounding areas

Figure 1: Location of Hingaia 1 Precinct, including location of sub-precinct D within this

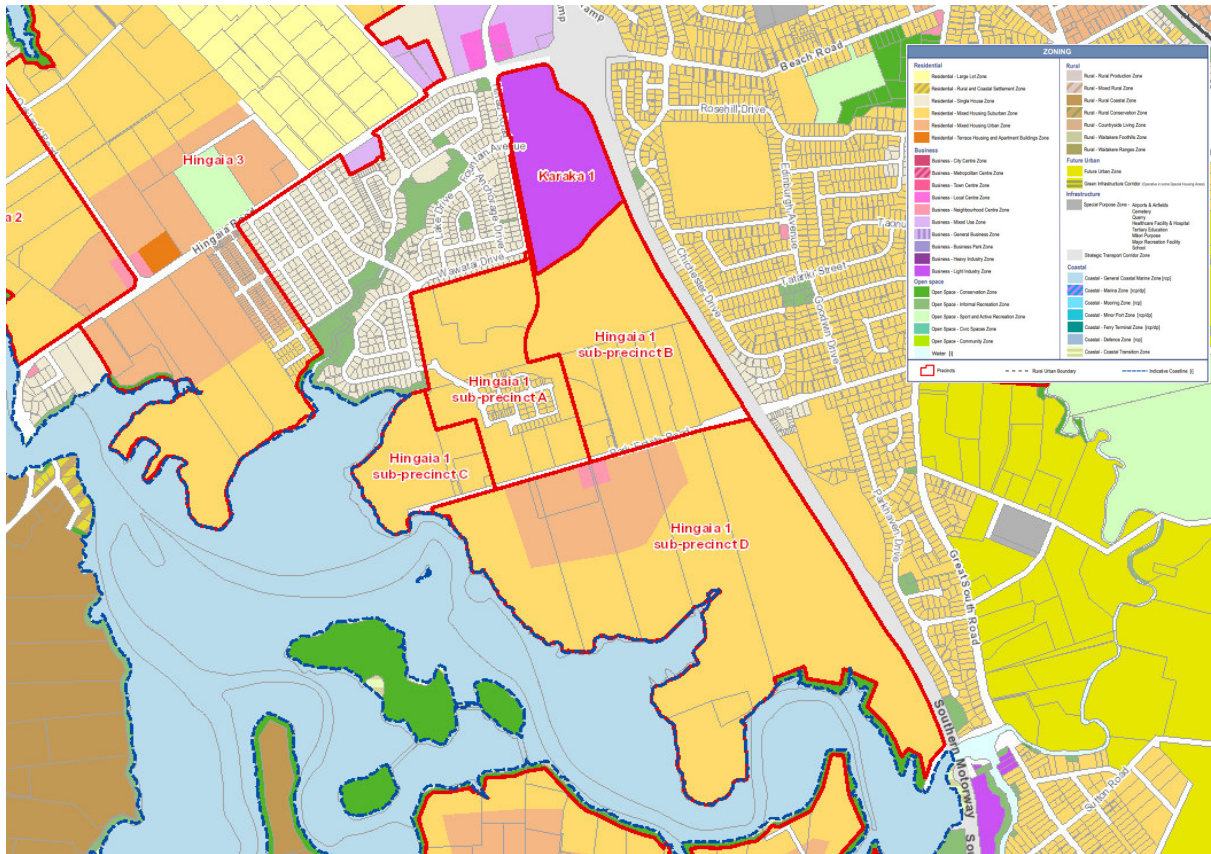
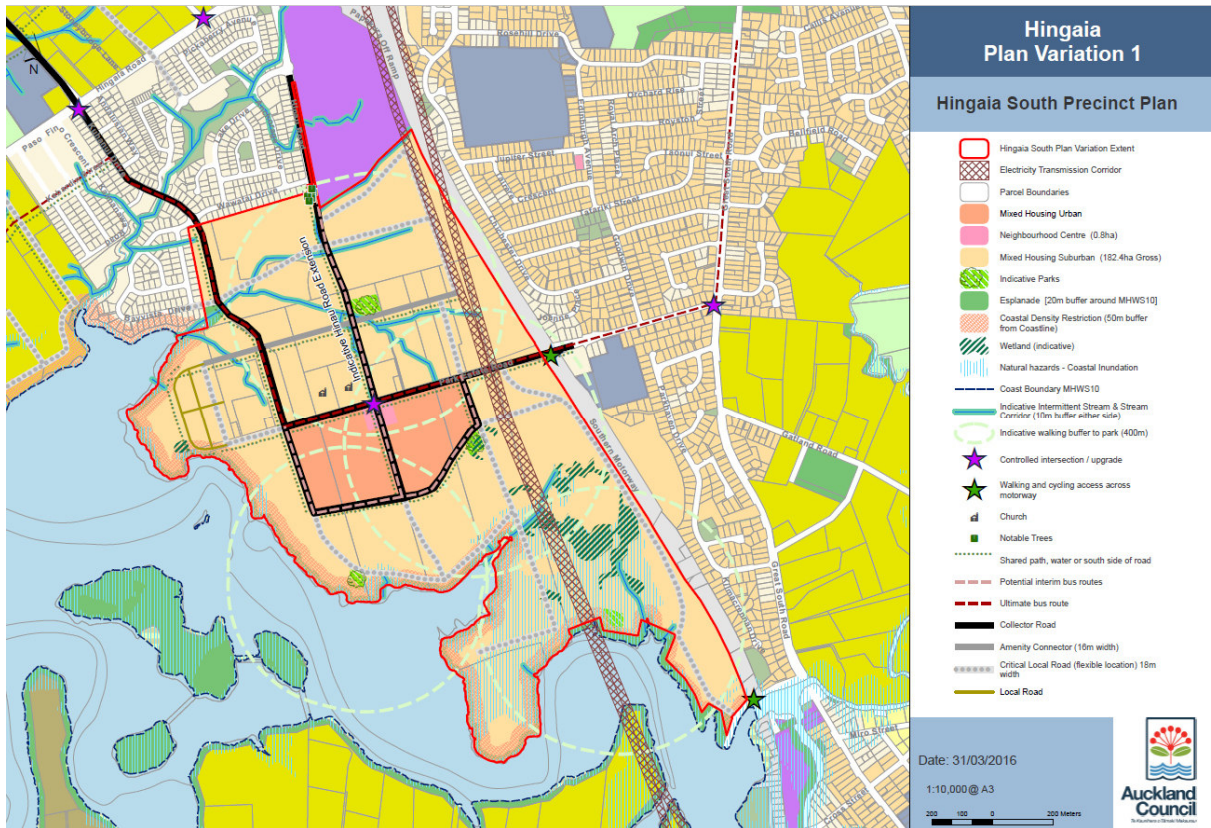


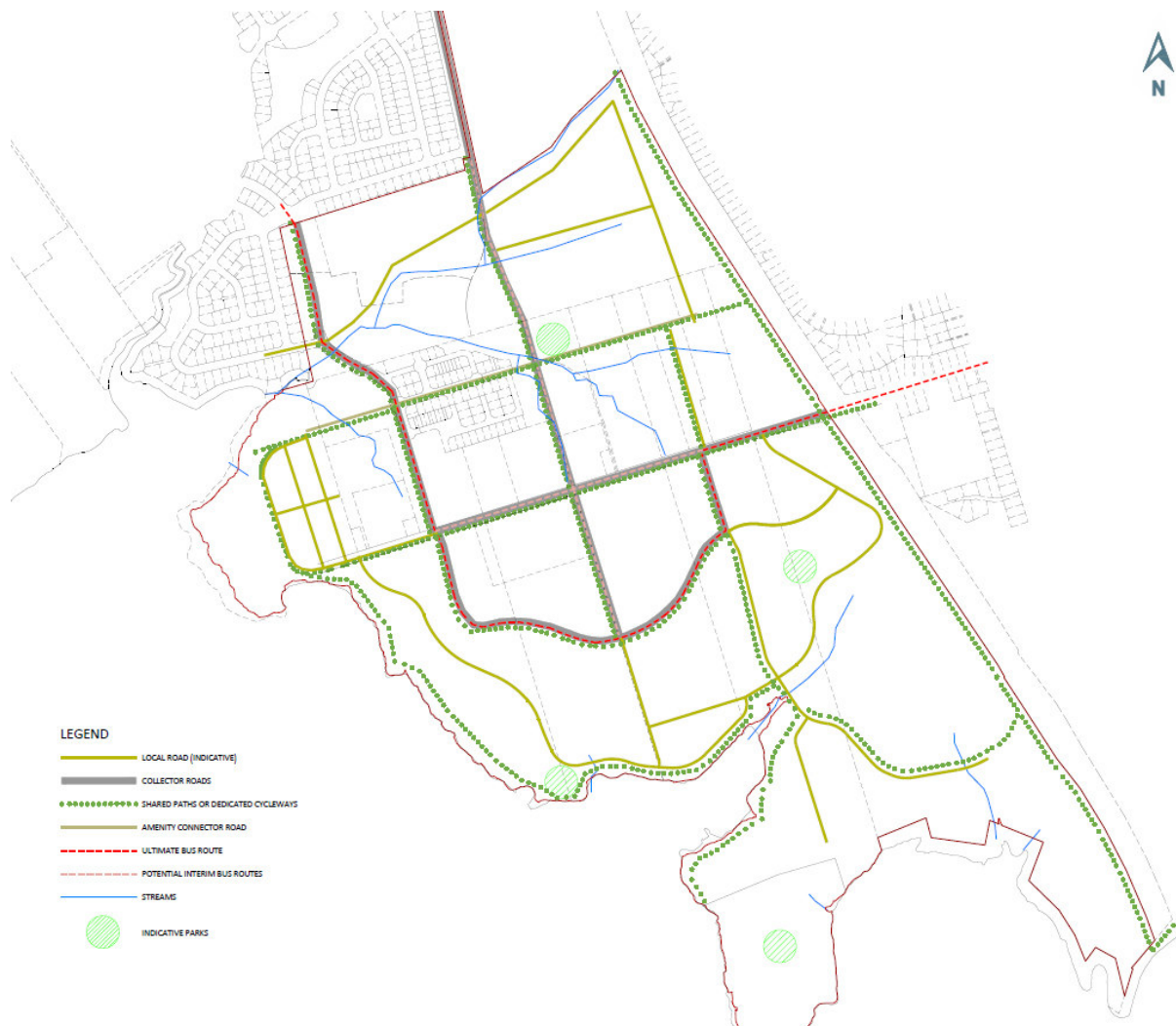
Figure 2: Existing Precinct Plan



2.2 PROPOSED PRECINCT PLAN

Figure 3 below shows the marked up proposed changes to the Precinct Plan, the primary intention behind these is to bring the Precinct Plan in line (in respect to collector road alignments, bus alignments etc) with already progressed development and to reflect consented plans for the area including agreements with Auckland Transport with regards to shifting things such as bus routes, collector road alignments and shared paths.

Figure 3: Proposed Precinct Plan



3 PROPOSED ZONE CHANGES

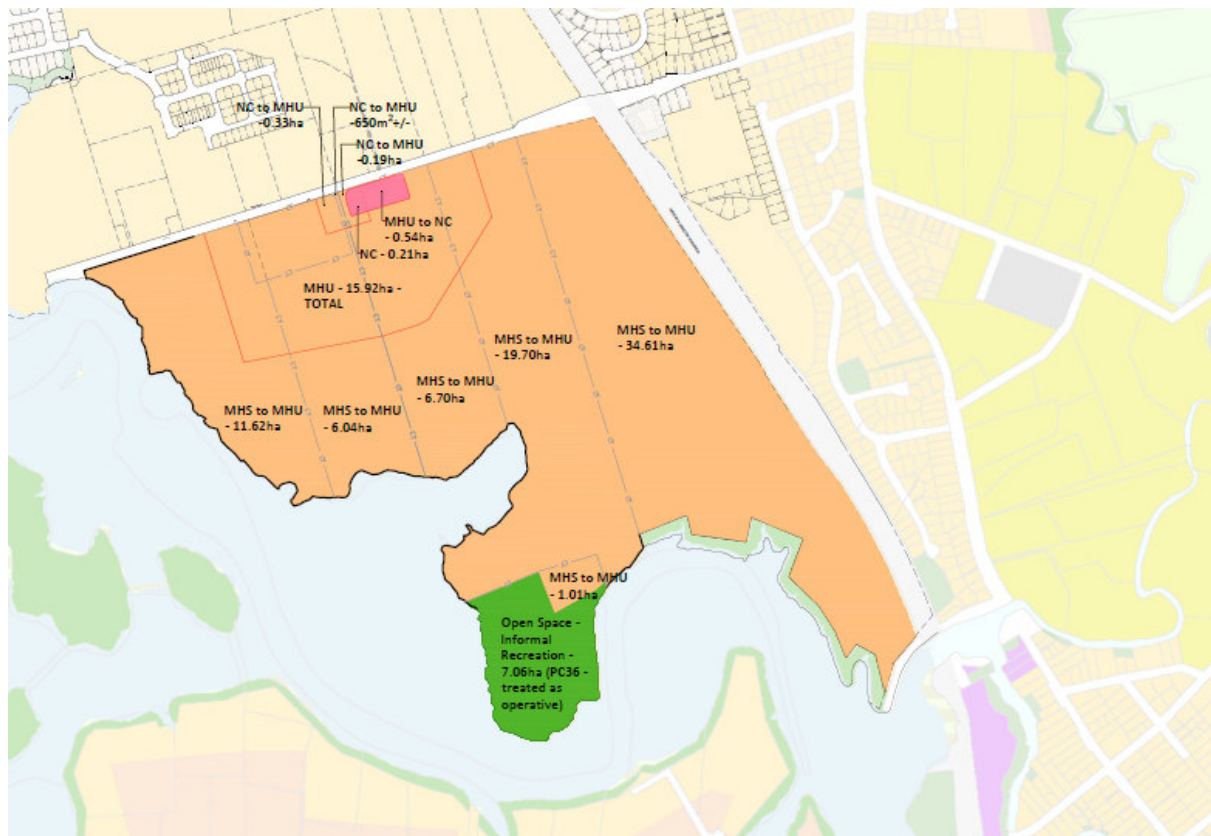
It is proposed to amend the existing zoning within the precinct as follows:

Table 1: Proposed Zone changes within Sub Precinct D Hingaia 1 Precinct

| Zone | Existing (ha) | Proposed (ha) | Change (ha) |
|---|---------------|---------------|-------------|
| Residential - Mixed Housing Suburban | 79.7 | 0 | -79.7 |
| Residential - Mixed Housing Urban | 16.45 | 96.2 | +79.75 |
| Business - Neighbourhood Centre | 0.8 | 0.75 | -0.05 |
| Open Space - Informal Recreation ¹ | 7.06 | 7.06 | 0 |
| Total | 104.01 | 104.01 | 0 |

These changes can be seen in Figure 4 below.

Figure 4: Proposed new zoning



Based on the Objectives, Policies and Rules within the Unitary Plan for these zones and the land area included this would enable in the vicinity (dependant on roading layout, developer densities etc) of 1,660 dwellings to be constructed compared to some 1,300 under the previous zoning.

3.1 PREVIOUS ASSESSMENTS

A number of previous assessments have been undertaken for the master planning and wider development of both the site and the Hingaia Peninsula by Hugh Green Group and the

¹ Open Space zoning is part of a Council initiated Plan Change which is now being treated as operative, but is yet to be incorporated into the current Precinct Plans / zoning maps within the Unitary Plan. As such no change to this is proposed as a part of this Plan Change application

surrounding landowners. The following previous assessments have been referenced with respect to traffic effects of the proposal:

- Hingaia Special Housing Areas, Transport Assessment, Flow Transportation Specialists, November 2014
- Hingaia Special Housing Areas, 2021 Transport Assessment, Flow Transportation Specialists, July 2014
- Hingaia Special Housing Areas, Transport Assessment, Opus International Consultants, June 2015
- Hingaia Special Housing Areas, Staging Analysis of Transport Infrastructure Improvements, Opus International Consultants, July 2015
- Park Estate Development, Integrated Transport Assessment, Jacobs, January 2016
- Hugh Green Ltd, Residential Subdivision 180-200 Park Estate Road, Hingaia, Transport Assessment Report, Commute Transportation Specialists, June 2017
- Hingaia Transport Assessment, Modelling Update, Flow Transportation Specialists, August 2018
- Hugh Green Ltd, Residential Subdivision, Stages 1B-E, 152 - 252 Park Estate Road, Hingaia, Transport Assessment Report, Commute Transportation Specialists, August 2019
- Hugh Green Ltd, Residential Subdivision, Stage 1A, 252 Park Estate Road, Hingaia, Transport Assessment Report, Commute Transportation Specialists, September 2019
- Hugh Green Ltd, Residential Subdivision, Stage 2, 252 Park Estate Road, Hingaia, Transport Assessment Report, Commute Transportation Specialists, September 2020

The above reports (in particular those prepared by Flow, Opus and Jacobs) provide detailed descriptions of the land use assumptions and associated trip generation and distribution methodology undertaken as a part of the original Plan Change (to form the existing Hingaia Precinct). These have not been replicated in this report - however they have been referenced.

The effects of the additional traffic generation as a result of the original change in zoning to form the existing Hingaia Precinct Plan (including within the subject site) were considered and developed within the work undertaken by Flow, with the most recent wider network modelling (August 2018) allowing for some 2,300 dwellings to be constructed south of Park Estate Road (the subject site).

The work undertaken by Flow also identified the extent of any roading and intersection upgrades required to accommodate the proposed levels of development in the area, although it did not identify when these would be required or who would be financially responsible.

The reporting prepared by Opus however, drew on the results from Flow and expanded on these by developing triggers for the staging of the required intersection upgrades based on a combination of vehicles per hour (vph) and households developed.

3.2 PROPOSED CHANGES

The latest wider network modelling undertaken by Flow included for some 2,300 households south of Park Estate Road. It is understood that based on the existing Zoning (primarily Mixed Housing Suburban) this was an ambitious yield with master planning having identified

a more realistic yield for this land under the current zoning to be in the region of 1,300 dwellings.

Under the proposed new zoning (as shown in Figure 2), master planning identifies an expected yield in the region of 1,660 households.

This is some 640 households less than has been allowed for in the modelling undertaken by Flow for this area thus the proposed change in zonings is not expected to change the outcomes of this modelling and all effects, required upgrades and triggers for these (as outlined in the previous reports prepared by Opus and Flow) are expected to remain appropriate under the proposed new zones.

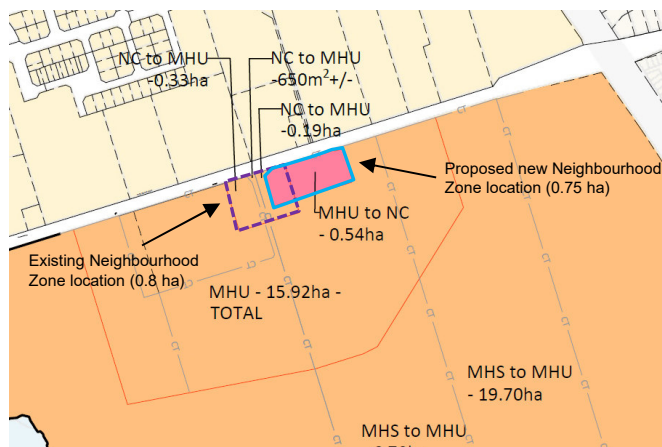
3.3 RELOCATION OF THE NEIGHBOURHOOD ZONE

It is proposed to shift the existing neighbourhood zone to the east slightly, this will enable the location of the neighbourhood zone on the Precinct Plan to align with that consented as a part of previous Stages 1B - E.

The traffic effects associated with this location have already been assessed (and consented BUN60343386) in the transportation assessment prepared by Commute titled *Hugh Green Ltd, Residential Subdivision, Stages 1B-E, 152 - 252 Park Estate Road, Hingaia, Transport Assessment Report* and dated August 2019.

Figure 5 below shows the proposed relocation of the neighbourhood zone.

Figure 5: Proposed relocation of the existing neighbourhood zone



4 CONSISTENCY WITH AUCKLAND UNITARY PLAN OPERATIVE IN PART

A number of changes are proposed to the text within the Precinct Rules in order to provide consistency when compared to the Unitary Plan. In summary, those changes relative to transport include:

- Replacement of existing subdivision provisions restricting vehicle access over cycle facilities with land use provisions consistent with those in Section E27 of the Unitary Plan.
- Removing the Hingaia 1 precinct subdivision control for roading standards and instead inserting Hingaia 1 precinct assessment criteria requiring these matters to be considered, alongside consideration of Auckland Transport's current code of practice, as part of the subdivision consent application that include new roads.

4.1 VEHICLE ACCESS OVER CYCLE FACILITIES

The proposed changes to the plan with regard to vehicles accessing over cycling / shared path facilities are as follows:

- Revision of existing I444.2 Objective (5) to read “*The safety of users of shared paths and dedicated cycleways is prioritised over vehicle access*” and further align with Objective E27.2(5).
- Inclusion of a new Policy enforcing Vehicle Access Rules in alignment with Policy E27.3 (21):

I444.3. (13) Restrict or manage vehicle access to and from sites adjacent to shared paths or dedicated cycleways so that:

- (a) the location, number, and design of vehicle crossings and associated access provides for the efficient movement of people and goods on the road network; and*
- (b) any adverse effect on the effective, efficient and safe operation of the shared paths or dedicated cycleways arising from vehicle access across these facilities is avoided or mitigated.*

- Inclusion of a new Land Use activity table and new line item A1) requiring *Construction or use of a vehicle crossing to comply with the relevant standards in section E27.6; and Standard I444.6.1.7 Vehicle access restrictions – Cycle facilities*
- Inclusion of a new Development Control detailing vehicle access restrictions for cycle facilities as follows

I444.6.1.7. Vehicle access restrictions – Cycle facilities

(1) In addition to the requirements of Standard E27.6.4.1, new vehicle crossings must not be constructed or used to provide vehicle access across that part of a site boundary which has frontage to an existing or proposed shared path or dedicated cycle way, including where shown on Figure I444.10.1. Hingaia 1 - Precinct Plan. For the avoidance of doubt, this relates only to allotments fronting that side of the road where the shared path or dedicated cycle way exists or is proposed.

(2) Standard I444.6.1.7(1) above applies in any of the following circumstances:

- (a) a new vehicle crossing is proposed;*
- (b) a new activity is established on a site;*
- (c) there is a change of type of activity; or*
- (d) a building(s) is constructed, or additions to buildings that are not permitted activities in Table H12.4.1 Activity table, except that this does not apply in the case of a dwelling where the reconstruction, alteration or addition does not increase the number of dwellings on a site.*

- For Restricted Discretionary Activities new I444.8.1 Matters for Discretion as follows:

I444.8.1 (7) for construction or use of a vehicle crossing that does not comply with Standard I444.6.1.7. Vehicle access restrictions – Cycle facilities:

(a) the matters listed in E27.8.1(12).

I444.8.1 (10) for any subdivision that creates a road:

(e) consistency with Standard I444.6.1.7 Vehicle access restrictions – Cycle facilities;

- New Assessment Criteria as follows:

I444.8.2 (11) for construction or use of a vehicle crossing that does not comply with Standard I444.6.1.7. Vehicle access restrictions – Cycle facilities:

(a) the criteria listed in E27.8.2(11).

I444.8.2 (13) for vacant sites subdivision that creates an allotment less than 4 ha in area in a residential zone; vacant sites subdivision that creates an allotment less than 4 ha in area in a business zone:

(e) whether lots adjoining an existing or proposed shared path or dedicated cycle way, including where shown on Figure I444.10.1. Hingaia 1 - Precinct Plan are provided with access from an alternative road so that infringement with Standard I444.6.1.7 Vehicle access restrictions – Cycle facilities can be avoided or minimised.

I444.8.2 (14) For any subdivision that creates a road:

(e) where the road contains a shared path or dedicated cycle way, whether lots with frontage to that shared path or dedicated cycle way are provided with access from an alternative road so that infringement with Standard I444.6.1.7 Vehicle access restrictions – Cycle facilities can be avoided or minimised.

- Removal of the previous Assessment Criteria for item (13): *e. Pedestrian access to an Amenity Connector from all adjoining allotments* as this is now covered by the new assessment criteria which incorporate cycling and pedestrian users.

These changes are considered to appropriately consider cyclist safety at shared paths and cycleways and align with the intent of both Auckland Transport's TDM and the Transportation section of the Unitary plan (E27). In addition the proposed new policy for the precinct is considered to provide an improvement over the existing E27 Policy which does not specifically consider shared paths and cycleways (E27.3 (21) provides for sites adjacent to intersections, adjacent motorway interchanges, and on arterial roads only).

4.2 ROADING STANDARDS / CROSS-SECTIONS

The proposed changes to the plan with regard to roading standards and assessment criteria are designed to ensure the precinct plan is consistent with Auckland Transport's current relevant Code of Practice (Traffic Design Manual) for roading. The previous version of the Precinct Plan was created sometime ago and no longer reflects current thinking, as such the recently developed roading network within the Precinct does not reflect the existing Precinct Plan either (rather it reflects the TDM). The proposed changes are as follows:

- Introduction of a new Activity Table for Subdivision activities. Including a new restricted discretionary activity as follows:

Table I444.4.2 Activity Table – Subdivision activities (A27) Any subdivision that vests a road to be a restricted discretionary activity; complying with the standards applying to vacant sites subdivision (A24 – A26); Standard E38.7.3.2 Subdivision establishing an esplanade reserve;

- Removal of the previous Notification requirement 2.3 “*Subdivision and resource consent applications that do not meet the minimum berm width adjacent to the road boundary shown in the figures referenced in Activity Table 4, and/or where planting is proposed on berms accommodating services, will be notified on a limited basis to Counties Power if written approval from this party is not included with the resource consent application*”.
- Removal of the previous roading standards chapter (Section 5.3) as follows:

Section 5.3 Roading Standards

5.3.1. Roads must be provided in accordance with the Hingaia 1 precinct plan.

- 5.3.2. New roads are to be constructed to the standards contained in Table 4 for Additional Road Types.
- 5.3.3. New roads in sub-precinct A must be constructed in accordance with the road construction standards in figures 1 – 4 in Table 4 and the corresponding figure in the precinct figures.
- 5.3.4. New roads in sub-precincts B - C must be constructed in accordance with figures 1 – 3 in Table 4 and the corresponding figure in the precinct figures.
- 5.3.5. New roads in sub-precinct D must be constructed in accordance with figures 1, 2, 3, 5 and 6 in Table 4 and the corresponding figure in the precinct figures.
- 5.3.6 On Collector, Amenity Connector and Local Roads an unsealed strip of land with a minimum width of 600mm must be provided immediately adjacent to the road boundary of all lots for electricity supply infrastructure installation and maintenance.
- 5.3.7. In the Minor Residential Street, an easement in favour of Counties Power Limited must be provided over a strip of land with a minimum width of 700mm in all residential allotments immediately adjacent to the road boundary as outlined in Figure 4 in Table 4 and the corresponding figure in the precinct figures.
- 5.3.8. The unsealed strip of land required by standards 5 and 6 must be kept free of planting, fencing, buildings and structures.
- 5.3.9. No vehicle access to allotments adjoining a Collector or Amenity Connector road is to be provided over the combined cycle / footpath.
- 5.3.10. For the avoidance of doubt:
- Construction of a Minor Residential Street will require resource consent as a restricted discretionary activity;
 - Private vehicle access over a combined cycle/footpath to allotments adjoining a Collector and/or Amenity Connector road will require consent as a restricted discretionary activity.

The removed roading standards section (above) will be addressed in new assessment criteria instead.

Relocation of Table 4 to the assessment criteria section. No changes proposed to the content of Table 4 however (renamed as Table I444.8.2.1).

Table I444.8.2.1 – Minimum Road Construction Standards

| Types of Road | Sub-Precinct | Road Width | Carriageway | Footpath Width | Combined Cycle / Footpath | Figure |
|-------------------|--------------|------------|-------------|-----------------|---------------------------|-------------------|
| Collector | All | 21m | 7.0m | 1.8m (one side) | 3.0m (one side) | Figure I444.8.2.1 |
| Amenity Connector | All | 18m | 6.0m | 1.8m (one side) | 3.0m (one side) | Figure I444.8.2.2 |
| Local Road | All | 16m | 6.0m | 1.8m | N/A | Figure I444.8.2.3 |
| Minor Street | A only | 12m | 5.6m | 1.8m | N/A | Figure I444.8.2.4 |
| Reserve Edge Link | D only | 12m | 6.0m | 1.8m | N/A | Figure I444.8.2.5 |
| Park Edge Road | D only | 14.7m | 5.8m | 1.8m | N/A | Figure I444.8.2.6 |

- For Restricted Discretionary Activities new I444.8.1 Matters for Discretion as follows:

I444.8.1 (10) for any subdivision that creates a road:

- the relevant matters listed above for any other elements of the proposed subdivision;*
- consistency with the road locations shown on Figure I444.10.1. Hingaia 1 – Precinct Plan;*
- the concept design of the road cross-sections;*
- the ability for all necessary infrastructure, including network utilities, to be provided for within or adjacent to the road;*

- (e) consistency with Standard I444.6.1.7 Vehicle access restrictions – Cycle facilities;*
- (f) management of effects of stormwater from the proposed roads; and*
- (g) where an esplanade reserve is established, the matters listed in E38.12.1(5).*

- New Assessment Criteria as follows:

I444.8.2 (14) for any subdivision that creates a road:

- (a) the relevant criteria listed above for any other elements of the proposed subdivision.*
- (b) whether the proposed road locations are consistent with, do not preclude or are a superior solution to the road locations shown on Figure I444.10.1. Hingaia 1 – Precinct Plan.*
- (c) the concept design of the road cross-sections:*
 - (i) whether the design of proposed roads are consistent with Auckland Transport’s relevant Code of Practice for roading that is in effect at the time that the application for resource consent is made;*
 - (ii) whether the proposed road cross-sections are designed to reflect the purpose of that road, with regard to the hierarchy shown on Figure I444.10.1. Hingaia 1 - Precinct Plan; and*
 - (iii) whether the proposed road cross-section design is generally consistent with the minimum road construction standards for the applicable road type specified in Table I444.8.2.1 – Minimum Road Construction Standards and as shown in Figures Figure I444.8.2.1 to Figure I444.8.2.6 below.*
- (d) the ability for all necessary infrastructure, including network utilities, to be provided for within or adjacent to the road:*
 - (i) whether the concept design is consistent with Auckland Council’s codes of practice for infrastructure provision that are in effect at the time that the application for resource consent is made.*
 - (ii) where network utilities are to be located within the road corridor, whether a back berm is provided with a minimum width of 600 mm that is clear of planting and structures (other than grass and vehicle crossings).*
 - (iii) where network utilities are not to be located within the road and instead within private allotments, the ability for a strip of land with a minimum width of 700 mm immediately adjacent to the road boundary to be subject to an easement in favour of the network utility provider(s) and be kept free of planting, fencing, buildings and structures (other than grass and paved access to vehicle crossings).*

- Relocation of the existing road cross-section diagrams from the Section 9. Precinct Plans, to the assessment criteria section (Figures I444.8.2.1 – I444.8.2.6)
- Removal of the definition for a Minor Residential Street

5 CONSISTENCY WITH HUGH GREEN RESOURCE CONSENT MASTER PLANNING

In order to bring the Precinct Plan in line with previous consents, including Hugh Greens masterplan for the area the following transport related amendments are proposed:

- relocate the bus route to the position most recently agreed with Auckland Transport
- relocate the collector roads to the positions granted by Resource Consent BUN60343386
- relocate the indicative local roads to the align with the key road location shown on Hugh Green Limited master plan

The existing and proposed new alignments are shown in Figures 2 and 3 above.

The minor relocation of the bus and collector road routes from the existing Precinct Plan alignments to that currently consented and agreed upon with Auckland Transport will bring the Precinct Plan in line with currently undergoing works. In addition, shifting the final bus route from Park Estate Road onto the Escarpment Road will also improve the walking catchment for the route. Providing the roads are suitably constructed at the time of development, the change in alignment is considered to result in negligible traffic effects.

Similarly, providing that they are constructed suitably, the relocation of the indicative local roads to align with the Hugh Green masterplan is considered to result in negligible traffic effects.

6 CONCLUSION

Based on a review of the proposed changes to the Hingaia 1 Precinct, it is concluded that:

- The increased yield enabled by the proposed change in zoning has already been anticipated and incorporated within the traffic modelling undertaken by Flow for the Plan Change, thus the change in zoning fits within that assumed for the site as a part of the wider network transport modelling undertaken for the Hingaia area and the network upgrade triggers identified in the Opus report are considered to remain relevant.
- The traffic effects associated with the relocated neighbourhood zone have already been assessed (and consented BUN60343386) in the transportation assessment prepared by Commute titled *Hugh Green Ltd, Residential Subdivision, Stages 1B-E, 152 - 252 Park Estate Road, Hingaia, Transport Assessment Report* and dated August 2019. The changes proposed to the Precinct Plan bring it in line with what is consented here, thus this is considered acceptable.
- Proposed changes to the objectives, policies, and rules with regards to vehicle access over cycle / shared path facilities realign the content of the Plan with current Auckland Transport codes of practices and provide an improved outcome for users than the current version of the precinct plan does.
- It is proposed to remove the roading standards rules and replace them with assessment criteria. The proposed new assessment criteria have been rephrased slightly to enable suitable assessment of roading networks but retain the same general approach as the previous roading standards did. This is considered acceptable as it requires developers to meet the requirements of the Precinct Plan, or for a suitable assessment to be undertaken for any departures to this.
- The proposed changes to the precinct plan layout, align the plan with the already consented developments within the area. It will now reflect what is actually taking place within the Precinct and make it easier for future works to integrate with that developed to date.

Accordingly, it is concluded that there is no traffic engineering or transportation planning reason to preclude acceptance of the proposed Plan Changes as outlined above.