



DRURY EAST PRECINCT URBAN DESIGN REPORT

Drury, New Zealand

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

Fulton Hogan Land Development Ltd is requesting a Plan Change to obtain live zoning over land at Drury East that is currently zoned Future Urban. This urban design report is one of a suite of technical reports that has been prepared to inform the Plan Change request for this Precinct.

Urban Design has been an integral part of the Plan Change and Structure Planning process. This has resulted in a collaborative design approach with planning, ecology, transport and engineering disciplines to design a contextual design framework that is feasible to develop. Urban design has provided an iterative process that has incorporated the Auckland Council Drury-Opaheke Structure Plan document and technical reporting.

This report has been prepared in accordance with the structure planning requirements set out in Appendix 1 of the Auckland Unitary Plan. It includes a comprehensive analysis of the existing environment which has set the underlying project structure and design principles.

This context analysis, besides looking at the wider physical environment beyond the Plan Change area, comments on the Council Structure Plan report for Drury-Opaheke including proposed zoning, movement networks and proposed public transport links.

The Plan Change Request includes proposed Precinct Plans covering movement networks and indicative road cross-sections developed in co-ordination with adjacent land-owners Kiwi Income Property Ltd and Oyster Capital Ltd and their consultants.

1.2 BACKGROUND

Since 1993, Fulton Hogan Land Development Ltd (FHLD) has been a major land developer in New Zealand.

In recent years, they have developed major subdivisions across the greater Auckland area, notably Millwater in Silverdale, which is nearly complete and currently the 300 hectare Milldale development in Wainui.

Over the last two years, FHLD has been actively working with Auckland Council through the Future Urban Land Supply Strategy and public Structure Planning processes to advance its plans to develop a new community on the Drury East greenfield area.

This Urban Design Report in support of the Plan Change application outlines areas of agreement with council and possible areas for improvement. The collaboration with adjacent landowners has informed an appropriate suite of urban zones for the wider Drury-Opaheke Structure Plan which places FHLD's Plan Change application for its landholding in context.

1.3 THE PROPOSAL

FHLD has undertaken a broad masterplanning exercise for the Drury East the Plan Change area, including a comprehensive assessment of the land with its constraints and opportunities to identify the most logical and desirable development pattern for the wider Future Urban zone. This process acknowledges Council's desire to lead its own Structure Plan, and is premised on the applicant's (and consultant's) belief that it can be advanced in the short term without undermining or predetermining the wider Drury Town and Drury East vision that the Council may settle on.

The Council has indicated through its Future Urban Land Strategy, which has been reiterated in the Drury-Opaheke Structure Plan document issued August 2019 that it considers this Drury East Area would be developed in the 2028-2032 time period.

The goal for the development is to provide quality, compact neighbourhoods adjacent to both a town centre and business-zoned land owned by adjacent land-owners with zoning intensity reflected by the distance from the Town Centre.

Residential neighbourhoods will be connected to the Drury Centre, the state highway network and adjacent business zones by a comprehensive transport and open space network, offering alternative transport opportunities including buses, trains, cycling and walking in addition to private vehicles.

When fully developed, it is envisaged that the 187.4 hectare Drury East Precinct could provide between 2,200 to 2,500 new dwellings. The proposed zones and Precinct provisions will encourage a range of three housing zones that will encourage development of varying densities to accommodate people of all ages.

The Council's Drury Opaheke Structure Plan aims to restore and enhance existing stream networks, integrate these with suburban and neighbourhood parks and provide a smaller neighbourhood mixed-use area for everyday retail needs.

The new community will have access to proposed public transport options.

The Council's Drury Opaheke Structure Plan promotes walking and cycling within two natural stream corridors and roading networks. Refer to the Precinct Plans and road cross-sections in Section 5 of this report.

Figure 1: Location map of Drury East Precinct

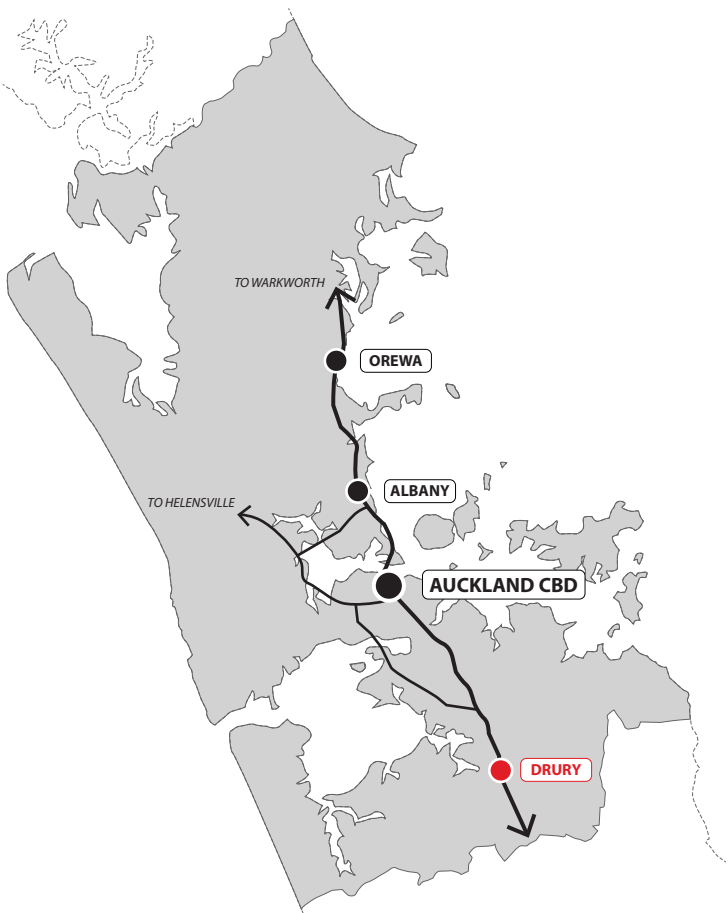
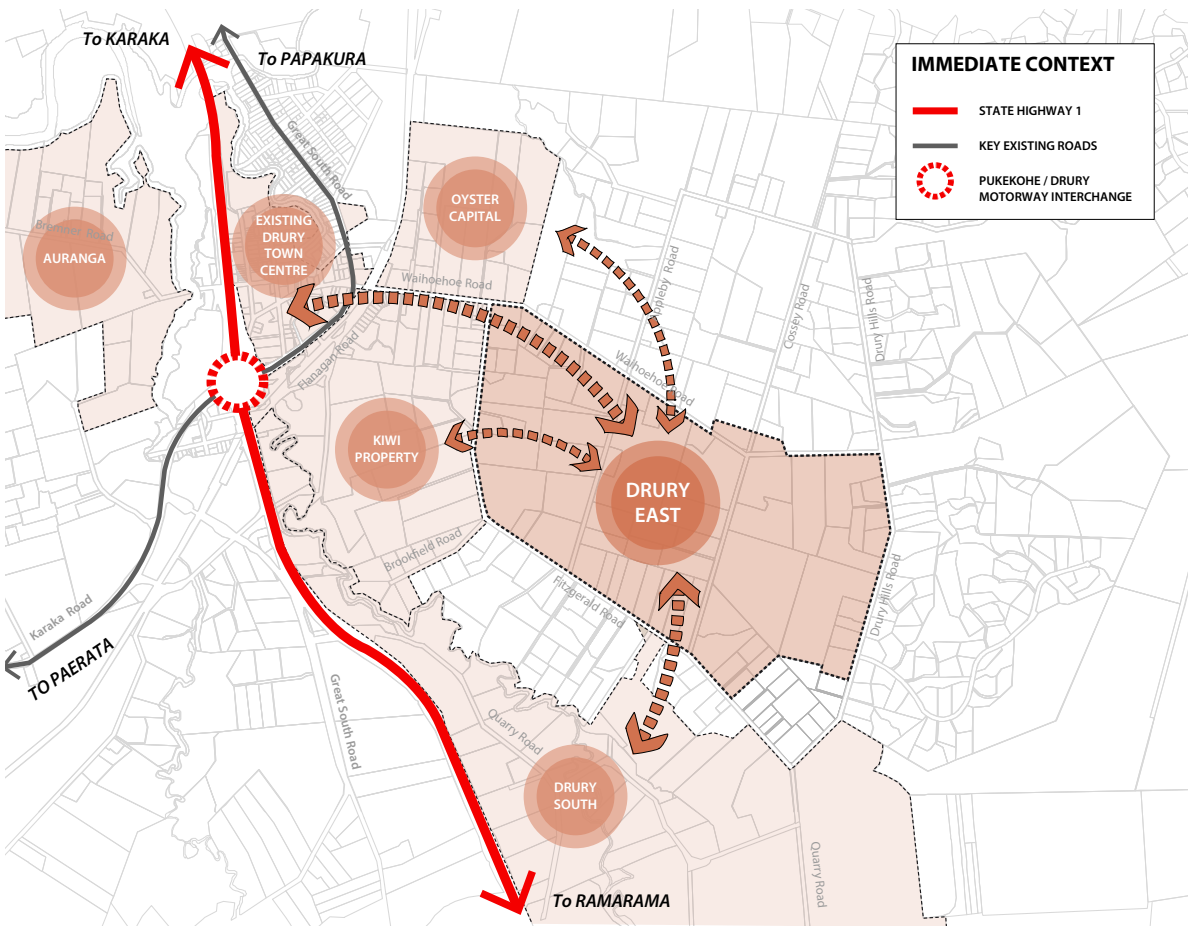


Figure 2: Drury East Precinct and its immediate surrounding context



2.0 SITE CONTEXT

2.1 LOCATION AND ACCESSIBILITY

The Drury East Future Urban area is approximately 36km south of Auckland CBD, and approximately 16km north-east of Pukekohe Town Centre. Refer to Figure 1

It is located directly east of Drury township (refer to Figure 2), and the eastern edge of the zone is defined by Drury Hills Road, which is also the Rural-Urban boundary (RUB) as the Drury foothills with its undulating terrain is currently zoned Countryside Living and Mixed Rural zone. At the south-east corner the plan change area is defined by the future Mill Rd corridor proposed by Council, forming an arc that joins to Fitzgerald Rd.

The south edge of the Precinct is defined by Fitzgerald Road. Hingaia Stream is considered the natural southern boundary. Further south from this is the Drury South Crossing area of industrially-zoned land. The former Papakura District Council promoted the Drury South Employment Area, a 361 ha area premised on large industrial/ commercial developments providing employment for the area.

The northern edge is Waihoehoe Road. We note that in Council’s Drury Opaheke Structure Plan, this road is designated as an east-west arterial that connects to the proposed north-south Mill Road to provide an alternative main route to SH1.

A small portion of land north of Waihoehoe Raod is included in the subject area. This being the area that a stormwater solution exists for.

The Plan Change area is strategically located 700 metres from Great South Road and the adjacent Southern Train line. Although there is no train station currently at Drury, Council’s Drury Opaheke Structure Plan identifies a potential future station location here, and electricification of the line is intended in the future.

The western corner of Drury East precinct is 1.5-1.6km from the southern and northern exits and entries to SH1.

Future accessibility and the connected character of the Drury east precinct is affected by the location of the future Mill Road corridor. This is addressed later in this report in the Movement Network section.

CONTEXT & ACCESSIBILITY OPPORTUNITIES AND CONSTRAINTS

- Opportunity to connect to the existing interchange on and off SH1 for regional access.
- Opportunity to connect to employment opportunities at Drury South and Drury Centre.
- Opportunity of repurposing existing grid of rural roads into collector roads and infilling a connected network of local roads within these blocks to create six ‘sub-precincts’ with their own character.
- Opportunity to create a new central east-west collector road as a slow-speed high-amenity environment to connect the precinct directly to Drury Township.

2.2 EXISTING AND PROPOSED ZONING - COUNCIL STRUCTURE PLAN

The Drury East area under consideration is currently zoned Future Urban. The Drury foothills to the east are zoned Rural- Countryside Living. The existing land use is primarily peri-urban pastoral and horticultural farmland with houses sparsely distributed across the area, both older farmhouse and newer ‘lifestyle’ residences.

The existing Drury Centre is zoned light industrial and reflects it’s character as a largely service-related collection of light industrial buildings, with service retail along Great South Road in converted houses with a mix of hospitality and some traveller accommodation. Further north is a large area of existing residential zoned Mixed Housing Suburban.

As FHLD have shared information with Kiwi Property and Oyster, and noting the Council’s Drury Opāheke Structure Plan, they are aware of Kiwi Property’s aspiration to convert their existing Future Urban zoned land to the equivalent of a Metropolitan Centre, with a large area of Mixed-Use zoning for land west of Fitzgerald Rd and THAB zoning east of the mixed use zone, on the east side of Fitzgerald Road. Auckland Council show a Large Centre zone for Kiwi Property’s land and land north of Opaheke (Slippery Creek).

Oyster Capital had proposed that their land, while relatively close to the Drury Town Centre, should show a gradient of zoning with half the area as THAB zone to the south adjacent to Waihoehoe Rd , then Mixed Housing Urban zone on the balance land out to the coastal edge (show on Fig. 5). Council’s final Structure Plan showed the south-western corner of Town Centre zoning with the balance of Oyster’s land as THAB (Fig. 4).

Accordingly, the residential zoning that Council propose in the Plan shows increasing intensity of zoning from Drury Hills Rd on the eastern edge moving west. This eastern area is shown as Mixed Housing Suburban (MHS) zoning for approximately half of the overall 187.4 hectares, changing to Mixed Housing Urban (MHU) in the middle of the Precinct area, then Terrace Housing and Apartment Building (THAB) zoning adjacent to Fitzgerald Road at the western edge of the Precinct to halfway across to Fielding Rd. FHLD agree with the proposed residential zoning for the MHS, MHU & THAB zones. Stormwater modelling has confirmed issues of flooding and additional impermeable area would need to be managed onsite for the THAB zone.

As the Drury Centre zone will become the destination for retail and commercial activities, the only non-residential zoning proposed by Council in the Drury Opāheke Structure Plan for land in the Drury East area is for a small centre at the southern edge which will also serve the adjacent Light and Heavy Industry Zone. This location ensures that any convenience shopping here will not only serve residential customers, but also have day-time patronage from nearby businesses in these areas south of Fitzgerald Rd. Given the Kiwi proposal, FHLD are seeking a Mixed-Use zoning here to give flexibility for a range of uses should retail not be required.

We note that Drury South Crossing (Stevensons) are submitting to refine some of their Light & Heavy Industrial zoning, to reduce the area of Heavy Industry Zone and introduce a small zone of Mixed-Use along Quarry Road, instead of Light Industrial zone.

ZONING OPPORTUNITIES & CONSTRAINTS

- ▶ Opportunity for residents to obtain employment in the growing Drury South industrial- commercial area.
- ▶ Opportunity to integrate with the proposed metropolitan centre to the west and to concentrate densities to develop a compact urban form.
- ▶ Opportunity to develop a mixed use centre to provide convenience retail and services for the residential areas and also to serve the industrial and commercial-zoned areas to the south.

The existing zoning and Structure Plan maps adjacent detail the proposed zoning in Future Urban Zones.

Figure 3: Existing Zoning

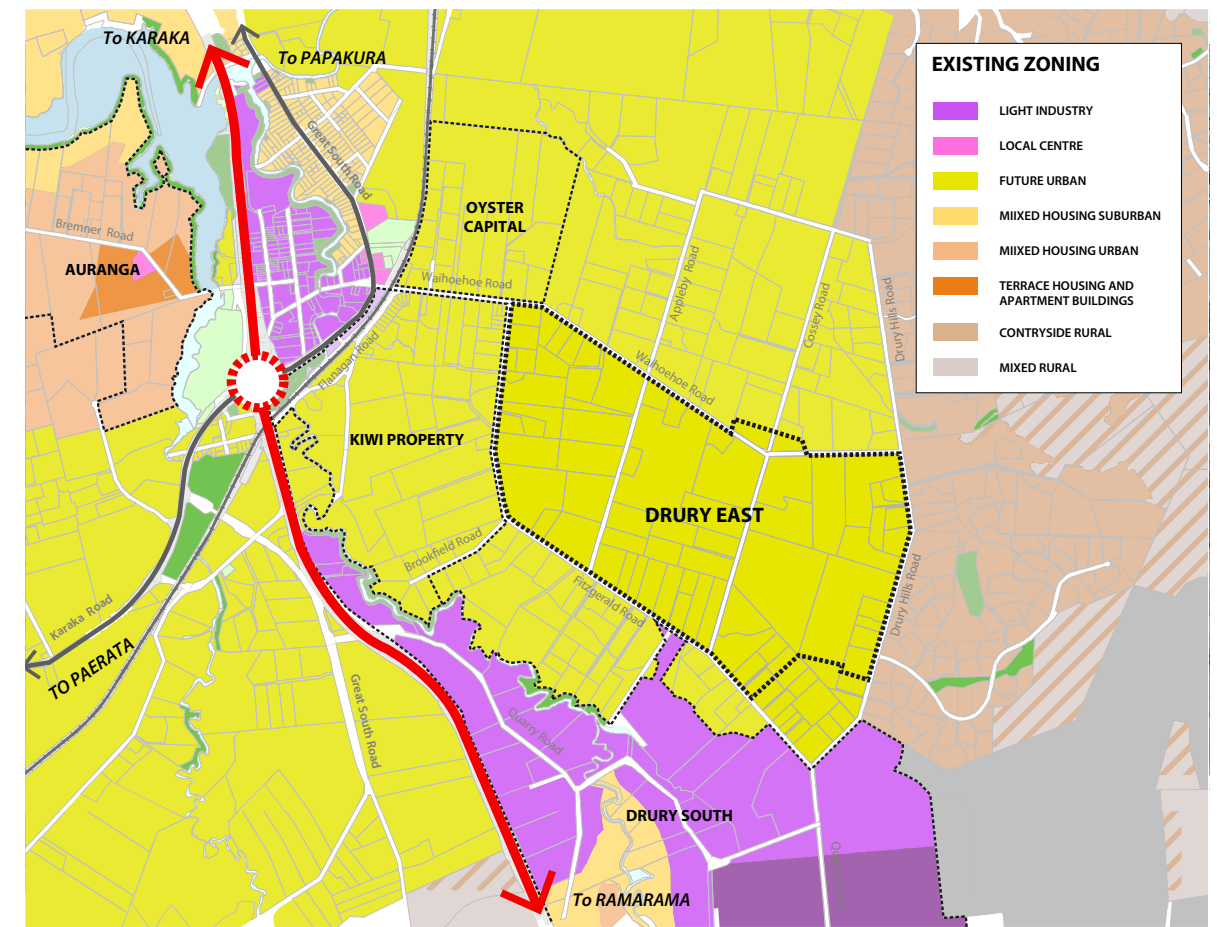


Figure 4: Council draft Structure Plan Zoning

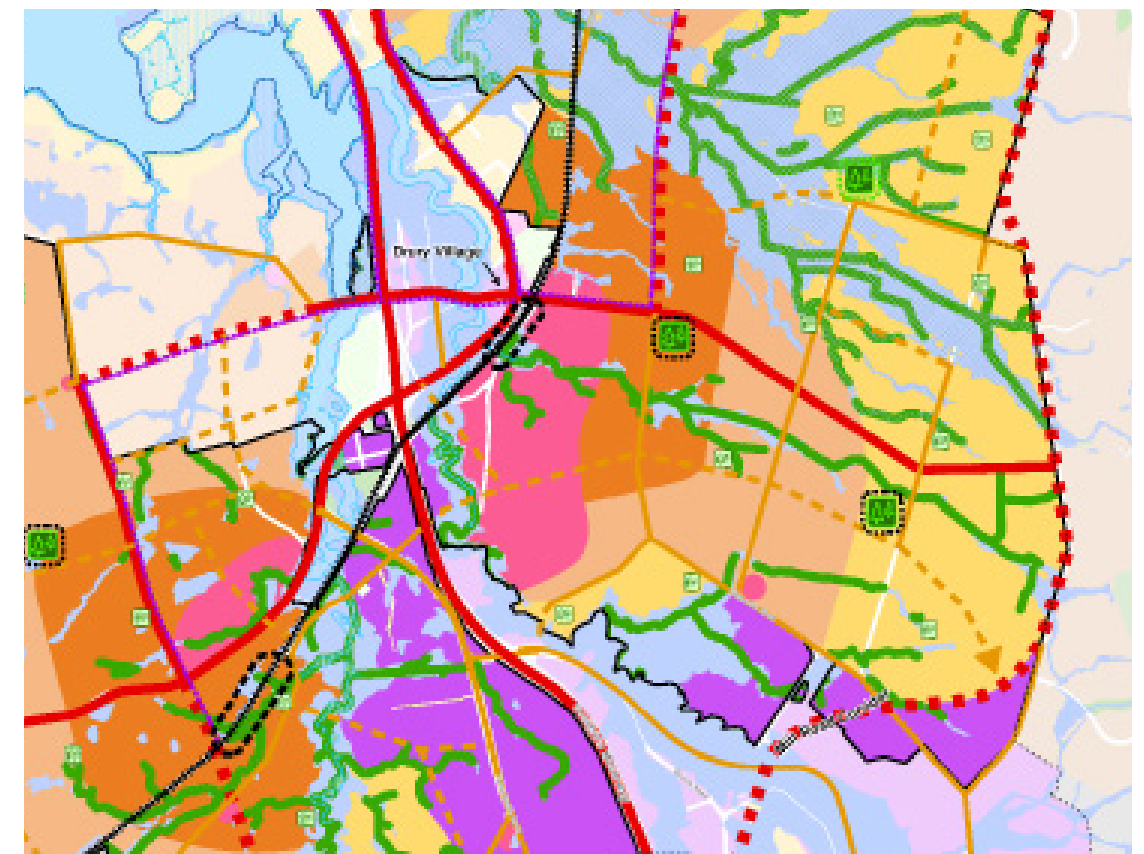
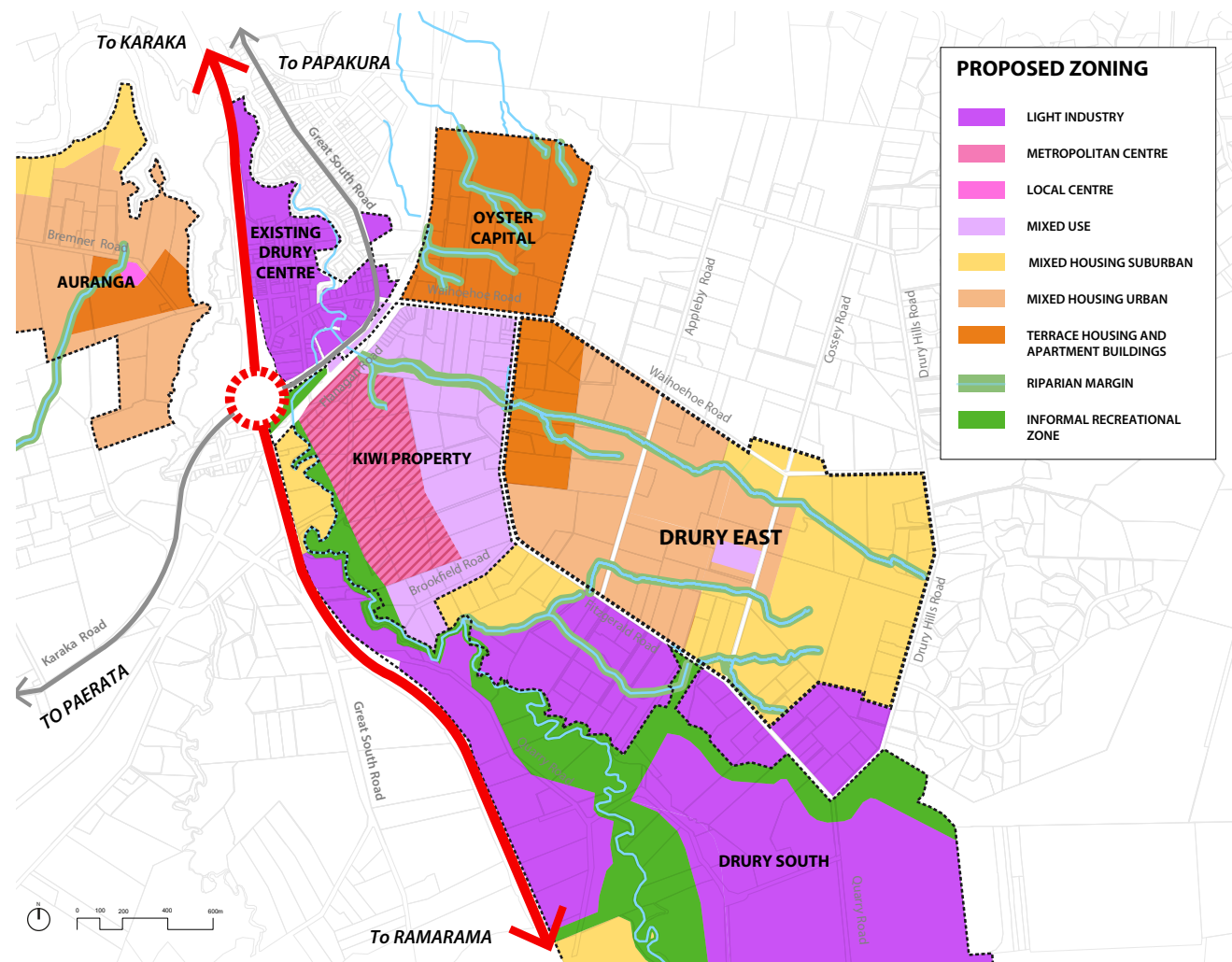


Figure 5: Proposed zoning from various Drury developers



2.3 NATURAL FEATURES

The distinctive high ground of the Drury foothills at the eastern edge represents the extent of lava flows from the south Auckland volcanic field. Soils are generally alluvial on the plains below the foothills moving towards the Drury township. The area is permeated by numerous streams and watercourses discharging to the Pahurehure inlet and creating areas of swamp and floodplains particularly in the northern areas of Opaheke.

The existing modified environment is generally comprised of rural residential lifestyle blocks, within larger blocks of horticulture and pastoral farming. The contour is predominantly flat to moderate sloping ground. However, there are areas leading down to streams that are greater than 1 in 5 gradient.

The permanent streams generally run east to west, with the Hingaia secondary permanent stream making a right-turn south to pass under Fitzgerald Road. The other stream catchment central to the area is the Waihoehoe which runs into the Drury Township, and is constrained by various culverts along its length, the railway culvert being the most significant at its western end. As the general topography is flat, and the catchments of the streams originate from the eastern foothills, parts of the area are prone to flooding, and this consideration is covered in the stormwater reporting. The land is considered to have low to moderate landscape and ecological value. A low level of riparian planting to protect existing streams has occurred. Existing vegetation is grazed pastureland with a small proportion of mature exotic shelterbelts and a scattering of exotic and native trees dispersed throughout the area.

The ecologist's report has identified a stand of Puriri of approximately 0.4 ha, with adjacent single trees spread over approximately 2 ha of land in the north-east corner of land adjacent to Drury Hills Road. These trees are going to be impacted by the Mill Road alignment, although these are not listed in the Auckland Unitary Plan - Operative in Part (AUP: OP).

OPPORTUNITIES AND CONSTRAINTS

- ▶ Restore the existing stream networks where practicable and identify ecological corridors to provide both open space amenity for residents and areas for stormwater management.
- ▶ Potential to retain the small cluster of native vegetation identified in the north-east corner by Drury Hills Road. These trees are going to be impacted by the Mill Road alignment
- ▶ Opportunity to offer pedestrian and cycle connectivity along Waihoehoe and Hingaia permanent stream networks towards Fitzgerald Road to the west and south, and link these to the proposed neighbourhood and suburban parks.

Figure 6: Existing natural features

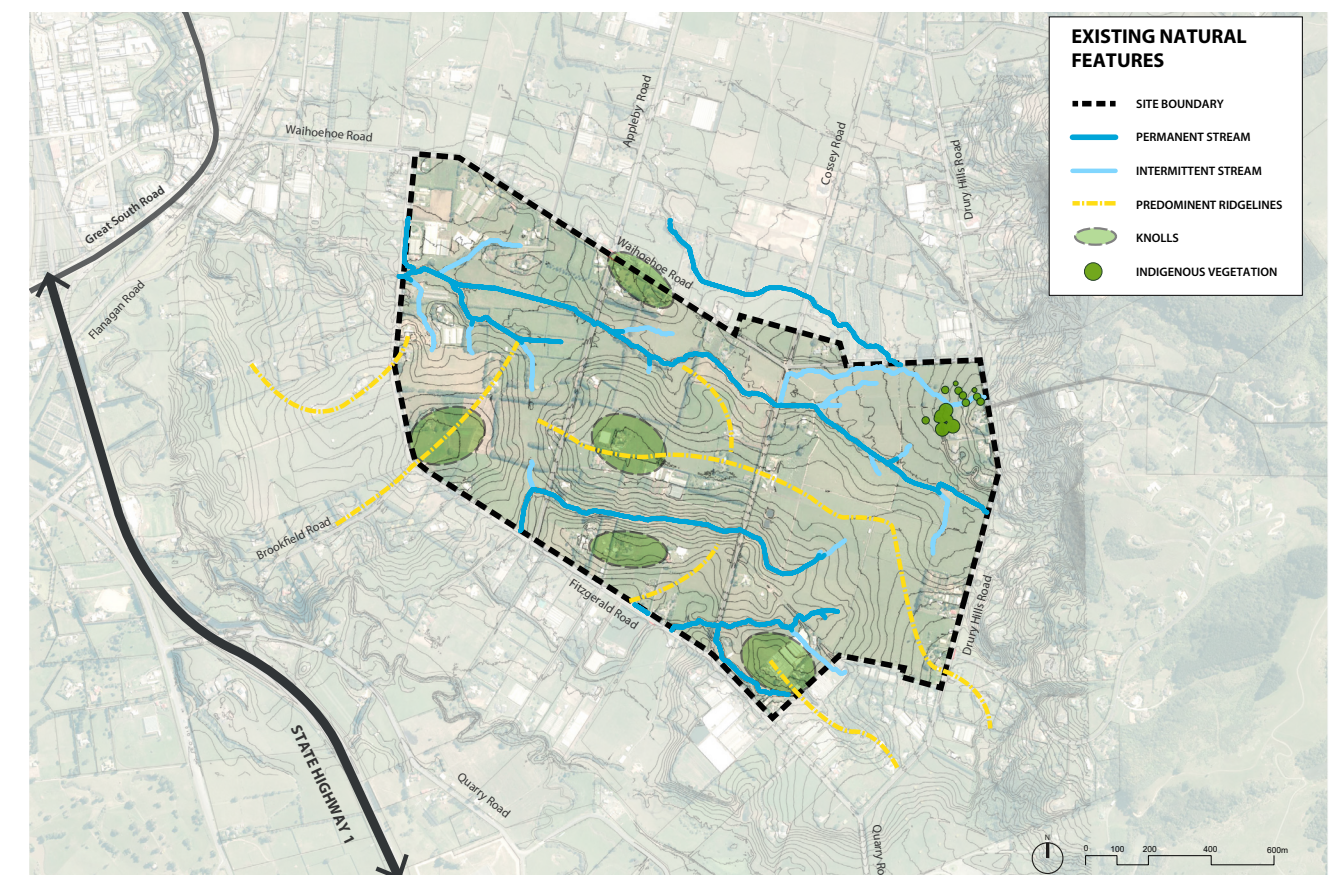


Figure 7: Existing land form slope analysis

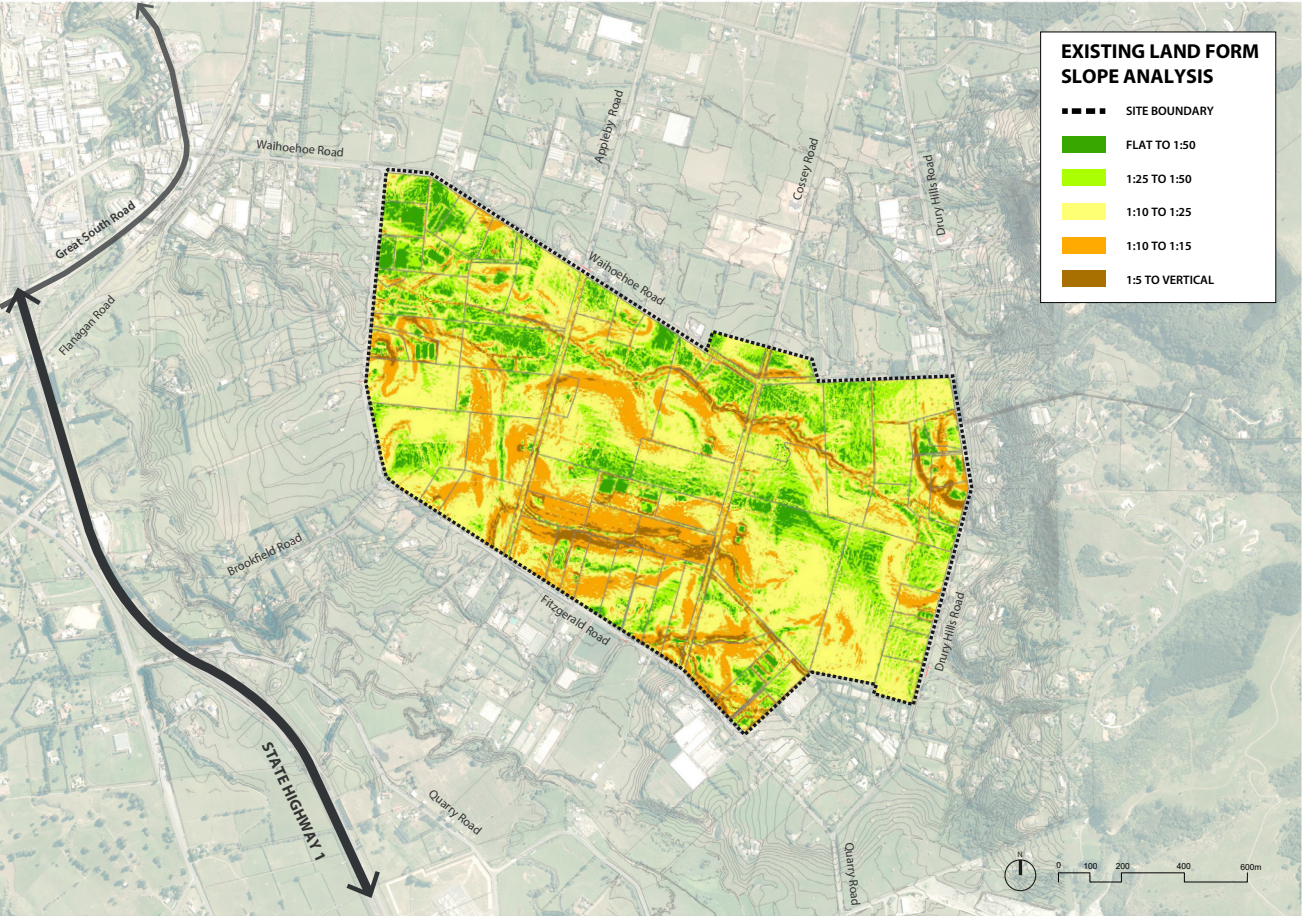
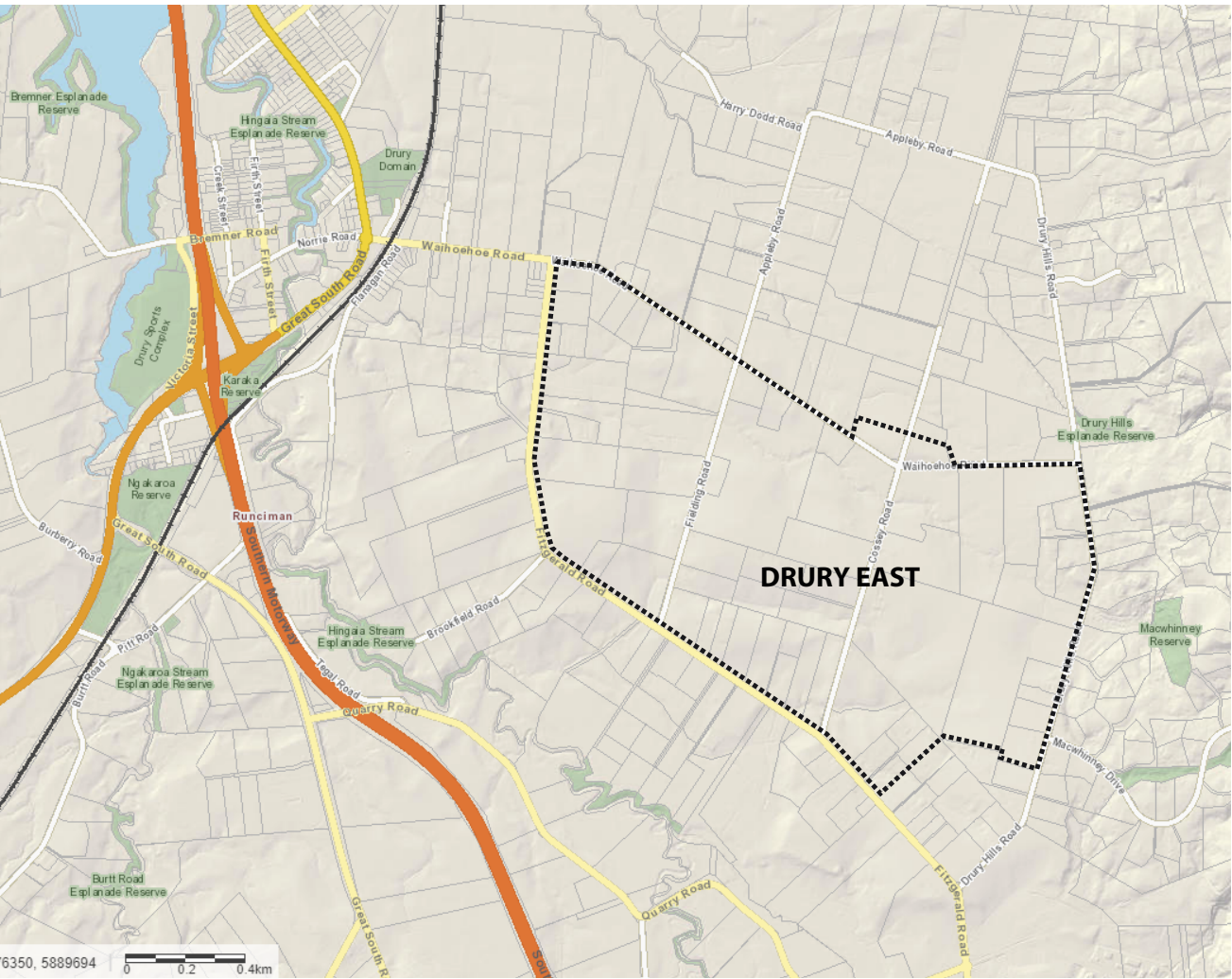


Figure 8: Open Space wider context map



2.4 HISTORICAL AND CULTURAL CONTEXT

The Papakura/ Drury area and surrounds were an important access area for travellers in pre-European times and later in early settler and military periods. The Manukau Harbour shores were the entrance to the inland route to Wairoa (Clevedon) and the Hauraki Gulf. Te Akitai, Ngai Tai Ki Tamaki, Ngati Te Ata, Ngati Tamaoho and Ngati Pou are iwi who formed part of a wider confederation known as Te Waiohau and have associations with the area.

The locations of Maori settlement were concentrated along the harbour shores and navigable waterways, on arable land, and the foothills of the Drury-Papakura Hills.

Consultation with Mana Whenua through their Cultural Values Assessments and hui has helped form a matrix of themes and recommendations which dovetail with many of the principles outlined in this report, namely;

- Protection of streams, wetlands and swamps with riparian setbacks and the use of native trees and plants is possible.
- Reserve edge roads beside these streams where possible.
- The use of historical names and/or physical markers for places and landmarks.
- Stormwater treatment train and reuse/ recharge of groundwater using roof water.

OPPORTUNITIES AND CONSTRAINTS

- Opportunity to name features and the overall development in consultation with mana whenua.
- Opportunity to collaborate with Mana Whenua and Council on landscaping approaches and species.
- While reserve edge roads can be accommodated beside main streams, if all intermittent stream tributaries were kept and reserve edge roads provided beside them, the resulting road geometries would not be acceptable to Auckland Transport for vested public roads.

2.5 OPEN SPACE WIDER CONTEXT

As the Plan Change area is currently working farmland, the only adjacent reserves are stream reserves that have a conservation/ ecological function. The closest recreation reserves are the 2.77 ha Drury Domain, which is 750 metres from the corner of Waihoehoe Rd & Fitzgerald Rds, and the 8 ha Drury Sports Fields on the west side of motorway, which is 1.5 km from the Waihoehoe & Fitzgerald Rds corner. Both of these parks are deemed Suburb Parks as per Council's Open Space 2016 policy.

3.0 PROJECT VISION

Conventional subdivision often segregates land uses in an effort to protect one area from any possible negative impacts of another. Unfortunately, this approach does not reflect the diversity of our society. It forces residents to undertake excessive travelling by vehicle to get to various locations and does not create walkable streets where neighbours can socialise and interact with each other.

Low density suburban developments initially gained popularity because they were thought to offer privacy, mobility, security and independent home ownership away from the city centre. The resultant social impacts of low density 'suburban sprawl' are becoming more well-known. Residents living in these developments can feel isolated from liveable communities.

The vision for Drury East Precinct is to create sustainable and integrated neighbourhoods that form strong communities and offer affordable and quality urban lifestyles to accommodate Auckland's growth and demand for housing supply.

The new community would be integrally linked to the adjacent Drury South Crossing Industrial Area for potential employment, the existing Drury centre, and Kiwi Property's proposed Metropolitan Centre, which will provide local employment and retail opportunities for the development. Integrated bus route and cycle networks could provide alternative transport options to these employment areas.

3.1 PROJECT GOALS

The goals for the overall development are:

- ▶ Restore and enhance existing damaged ecological systems and create bio-diverse environments within the retained waterways and margins
- ▶ Create defined, strong neighbourhoods for people of all ages for current and future generations
- ▶ Improve connections to existing and future urban areas
- ▶ Provide a range of streets for a range of movement functions and place-making
- ▶ Provide a safe pedestrian and cycling network that is integrated with road networks and public transport
- ▶ Provide quality public spaces easily accessible to residents

3.2 DEVELOPMENT PRINCIPLES

The development principles aim to achieve the project goals and overall vision. They are listed below:

Goal 1: Respect local iwi's aspirations of kaitiakitanga (guardianship);

- ▶ Incorporate Te Aranga Design Principles where possible (Mana-Recognise iwis' relationship as a partner; Whakapapa-involved in naming processes; incorporate Tohu -noting landmarks and their celebration; Taiao- Bring natural flora and fauna into urban landscapes; Mauri tu- Enhance the environmental health of the wider site; Ahi ka- explore opportunity for living kaitiaki roles

Goal 2: Create strong neighbourhood communities for people of all ages;

- ▶ Create a range of housing choices by varying density through different residential zone types
- ▶ Provide neighbourhoods defined by the grid of collector roads and ecological corridors that establish a sense of place

Goal 2: Improve connections to existing and future urban communities;

Improve connections to Future Urban areas to the North, proposed employment zones in the existing Drury township and Drury South.

Goal 3: Establish a healthy and socially connected community focused on pedestrians and cyclists;

- ▶ Encourage efficient use of land and accessibility by providing higher intensity of housing around centres, and open space amenities.
- ▶ Concentrate intensity around the local and neighbourhood centres to encourage activity and vibrancy

Goal 4: Focus on pedestrians, cyclists and integration with public transport;

- ▶ Create compact and walkable neighbourhoods that are pleasant and safe to move around, reducing dependency on cars.
- ▶ Deliver a permeable movement network that is designed to encourage pedestrian and cycle activity and responds to the topography

Goal 5: Provide quality public spaces easily accessible to residents;

- ▶ Protect and enhance existing stream networks and native vegetation.
- ▶ Within the protected ecological corridors offer visual and recreational amenity.
- ▶ Provide a range of high quality suburb and neighbourhood parks in locations that are legible and walkable, bounded by both roads and ecological corridors.

4.0 DESIGN FRAMEWORK

There are numerous considerations relevant to the design of Drury East from the strategic level to very local conditions. They all form the criteria that has informed the design process and against which the outcomes developed have been tested.

Key considerations relevant to the urban design outcomes proposed are;

- ▶ The AUP: OP strategic framework for urban development.
- ▶ The priorities outlined in the AUP:OP's respective land use zones.
- ▶ The principles of the wider Drury East structure plan exercise undertaken to support this private Plan Change.
- ▶ The Council's Drury Opāheke Structure Plan released August 2019.
- ▶ The consulted iwis' requests as outlined in their Cultural Values Assessments.
- ▶ Best practice urban design guidelines outlined in The NZ Urban Design Protocol and the Auckland Design Manual.

AUP: OP strategic framework

The AUP:OP Regional Policy Statement (RPS) Chapter B2 establishes a strategic goal for a "quality compact urban form" in Auckland. The policies in the RPS include the following issues relevant to Drury East.

- ▶ Providing for the re-zoning of Future Urban zoned land to urban zoned land where, amongst other things, it supports a quality compact urban form;
- ▶ Linking density to amenities, notably centres, community facilities, open spaces and passenger transport corridors;
- ▶ Ensuring that infrastructure is in place or can be provided for new development; and
- ▶ Promote the efficient use of land

AUP:OP Subdivisions

The AUP:OP has separate provisions for subdivisions (E38), covered in detail in the planning Section 32 Assessment Report. The key outcomes identified for new subdivisions focus on;

- ▶ Layouts that are safe, convenient and accessible;
- ▶ Managing adverse effects on landscape, natural resources, natural hazards or historic heritage;
- ▶ Providing adequate infrastructure;
- ▶ Prioritising water-sensitive design; and
- ▶ Contributing to or creating a sense of place

The 'Key Moves' in this urban design report aims to achieve the visions set out in the Drury-Opāheke and Paerata-Pukekohe Structure Plans as well as the outcomes of the Auckland Plan and the NDS:

4.1 KEY MOVES

KEY MOVE 1: PROTECT AND ENHANCE THE NATURAL ENVIRONMENT WHILE ENABLING URBANISATION.

- ▶ Retain the natural values of the existing streams without degradation of sense of place and identity associated with the landscape.
- ▶ Identify the key ecological corridors that will provide recreational and visual amenity and enhance the existing biodiversity and vegetation. These ecological corridors will also provide areas for stormwater management.
- ▶ Provide the opportunity to extend continuous linkages to the wider ecological network and that connects to Drury South, Drury Centre and the existing Drury Village.
- ▶ Provide a series of open spaces along the existing stream corridors.
- ▶ Celebrate and retain the natural landform elements such as rivers and streams, escarpments, ridgelines and other landmarks where practical.
- ▶ Open spaces are logically located with regards to equitable access from within a neighbourhood, and proximity to nodal centres of public transport access points.

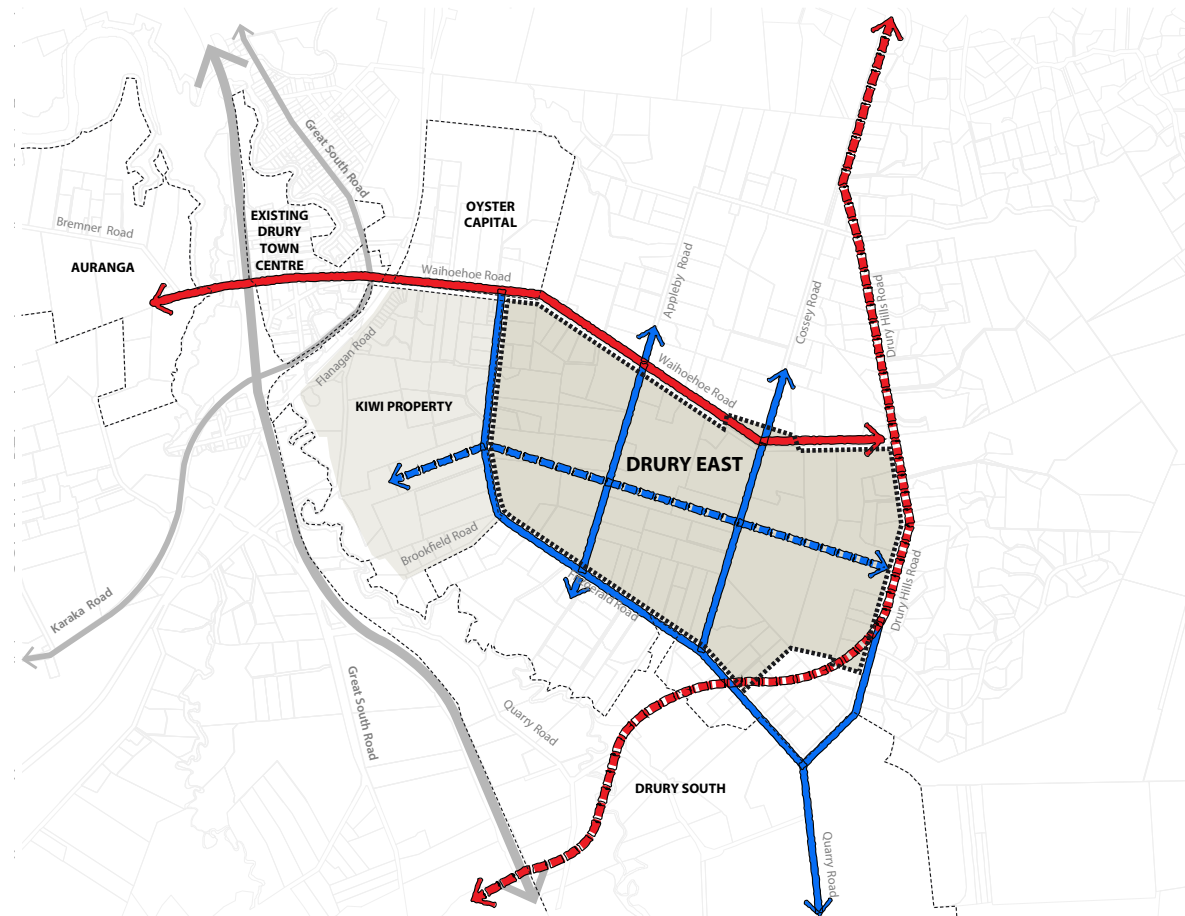
Figure 9: Key move 1



KEY MOVE 2: UTILISE EXISTING ROADS, MAKE CONNECTIONS TO ADJACENT LAND AND DEVELOP A PERMEABLE GRID. PROMOTE SAFE CHOICES OF MOVEMENT WITH GOOD ACCESS TO SERVICES AND AMENITY.

- ▶ Upgrade Waihoehoe road from a rural road to an arterial road that will link to Drury West over the Bremner road overbridge to the west and to the proposed mill road to the east.
- ▶ Utilise existing fielding and Cossey road reserves, upgrading them to north-south collector roads and connect them to Waihoehoe and Fitzgerald road. This will improve connectivity to the adjacent Drury South precinct.
- ▶ Establish a new central east-west collector road connecting Drury East precinct and the Drury Centre as a high-amenity lower-speed collector road leading directly into the proposed new metropolitan centre. This will avoid existing streams, so will not require new culverts.
- ▶ Within the six areas defined by the collector and arterial roads, develop a fine-grained grid of local and reserve-edge roads that is both permeable and limits new crossings over existing ecological corridors/ streams.

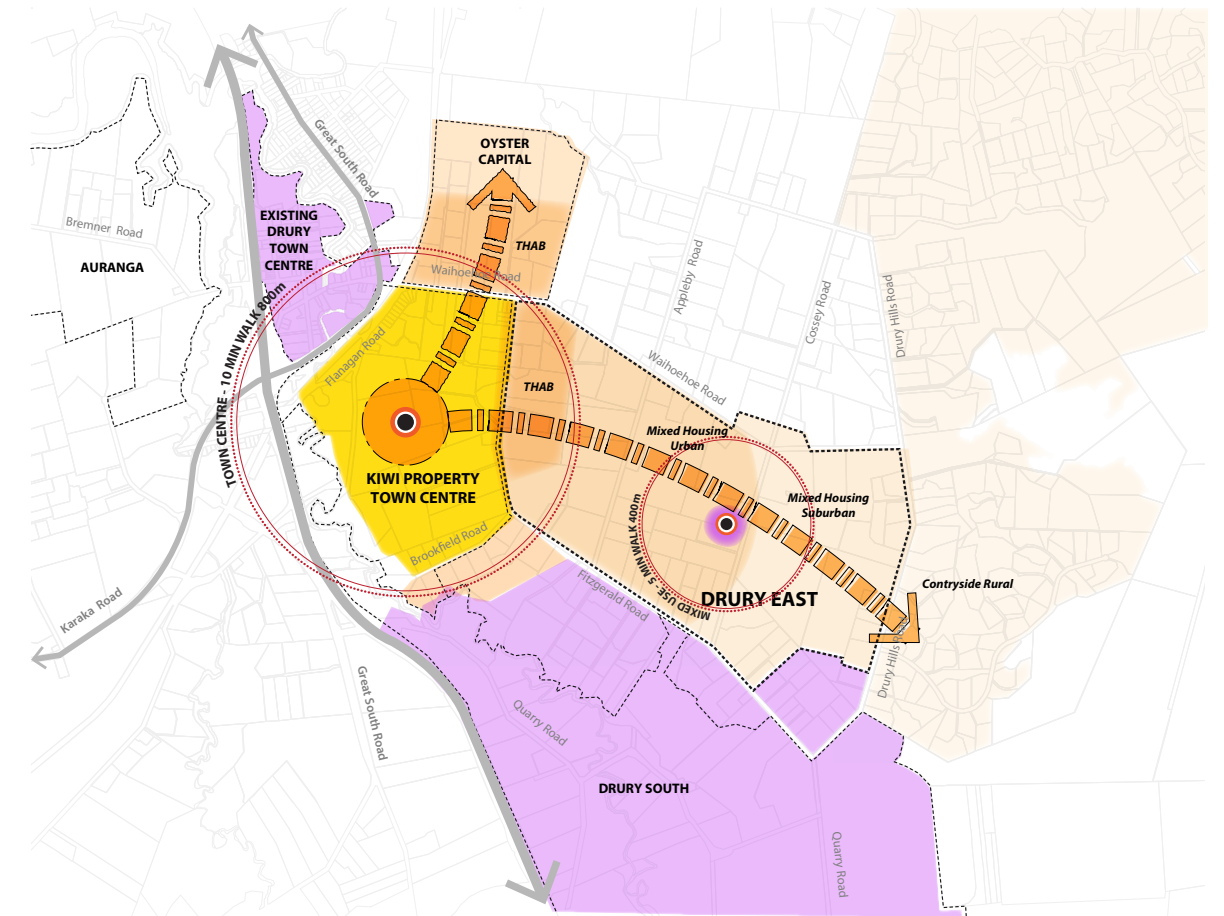
Figure 10: Key move 2



KEY MOVE 3: PROVIDE CONNECTIONS AND INCREASING DENSITY TOWARDS THE FUTURE METROPOLITAN CENTRE, LOCATE A MIXED-USE CENTRE FOR LOCAL RESIDENTS.

- ▶ Identify a central location for a mixed-use centre that provides service and convenience retail for residents.
- ▶ Encourage higher residential intensity in areas within close proximity to the mixed-use centre to create a compact urban form and ensure vibrancy with the centre.
- ▶ Provide connections and increasing density towards the future Drury Centre, locate a mixed-use centre for local residents.

Figure 11: Key move 3



KEY MOVE4: PROMOTE AND CELEBRATE DRURY UNIQUE IDENTITY BY MAKING THE DEVELOPMENT SAFE, ATTRACTIVE AND EASILY UNDERSTOOD.

- Design legible, safe, inclusive and accessible environments for all ages and abilities that offer privacy and security.
- Display a strong local identity and appropriate visual character while emphasising visual and function character differences between nodes and communities.

Figure 12: Key move 4



4.2 OVERVIEW OF THE STRUCTURE PLAN

The Drury East Proposed Zoning Plan (Figure 13) illustrates the design framework and key moves. The Drury East Proposed Structure Plan guides the location, type, shape and size of the underlying zones in the Drury East Precinct. It was prepared to take into consideration the existing site analysis, as well as the vision, objectives, and development principles that were identified in Section 3. It also considers and addresses the Structure Plan requirements in Appendix 1.1 of the AUP:OP.

The key urban design matters of movement networks, natural environment, urban structure, use and activity are addressed in Sections 5 to 8 of this Design Statement.

The Precinct Plans attached as a part of the Plan Change application will give effect to those elements in the Drury East Proposed Structure Plan appropriately implemented through the AUP:OP.

Detailed design was done to test the integrity of the Drury East Proposed Structure Plan and to give confidence that key elements such as the proposed roads adopted in the Precinct Plan can accommodate good block sizes and urban outcomes.

The Drury East Proposed Structure Plan is a suite of plans containing the following:

MOVEMENT NETWORK (SECTION 5)

- (a) Primary and Secondary Connectors and the key Local road network
- (b) Key pedestrian and cycle connections and the “Green Street”
- (c) Indicative Public Transport routes

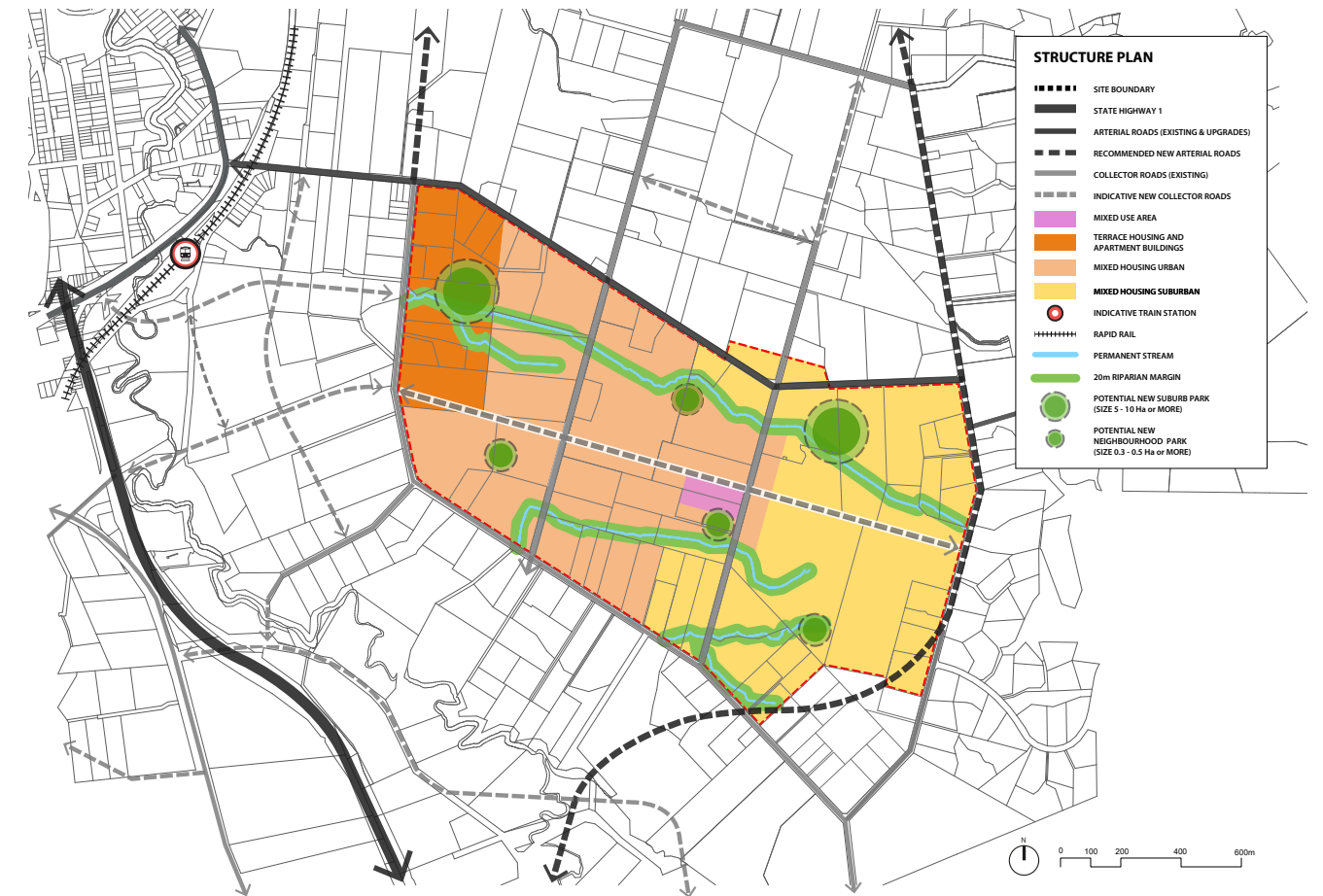
NATURAL ENVIRONMENT (SECTION 6)

- (d) Key proposed ecological corridors
- (e) Retained permanent and intermittent streams as identified by garry Bramley streams
- (f) Possible Suburban Parks
- (g) Possible Neighbourhood Parks

USE AND ACTIVITY (SECTION 7)

- (h) Underlying residential and centre zones

Figure 13: Drury East Proposed Structure Plan



5.0 MOVEMENT NETWORKS

The scale of the Drury East Precinct offers an opportunity to comprehensively design for and deliver a strong and logical movement network that offers multi-modal transport options and a connected pedestrian and cycle network to help reduce dependency on cars for travel.

The movement network aims to;

- ▶ Provide and improve connections to existing and future urban areas.
- ▶ Provide multi-modal transport options.
- ▶ Provide a connected roading network with a range of movement and place-making functions.
- ▶ Encourage pedestrian and cycle activity through street typology design.
- ▶ Encourage active street edges along parks and reserves.
- ▶ Utilise existing road reserves and follow natural topography where possible.
- ▶ Upgrade existing stream culvert crossings and minimize new crossings to preserve ecological corridors.

5.1 ROADING NETWORK

The Movement Network Plan (Refer to Figure 16) has been developed in conjunction with Mott McDonald, the transport engineer consultant for FHLD. This shows the hierarchy and typologies of primary and secondary connector roads (arterial and collector roads) and a slower speed local network (local and reserve edge roads).

The roading pattern creates a permeable, connected grid for movement, sets the block structure for the graduated density envisaged by the different residential zones and provides defined boundaries for the changes between zones.

The alignment of the key roads identified in the Movement Network Plan require the flexibility to move up to 20 metres, or greater depending on the final Mill Road position. All road cross-sections are subject to later detailed design.

The roading pattern creates a permeable, connected grid for movement, sets the block structure for the graduated density envisaged by the different residential zones and provides defined boundaries from the changes between zones.

5.1.1 Primary and Secondary Connectors

The future Mill Road is a regional arterial that provides an alternative to SH1 and will eventually connect from Manukau City to Pukekohe. As this design is outside the control of FHLD, it is not included beyond discussion below of its optimum position.

Waihoehoe Road is indicated as a District Arterial Road on Council's Structure Plan. This provides a direct connection between SH1, Drury town centre and the proposed Mill Road.

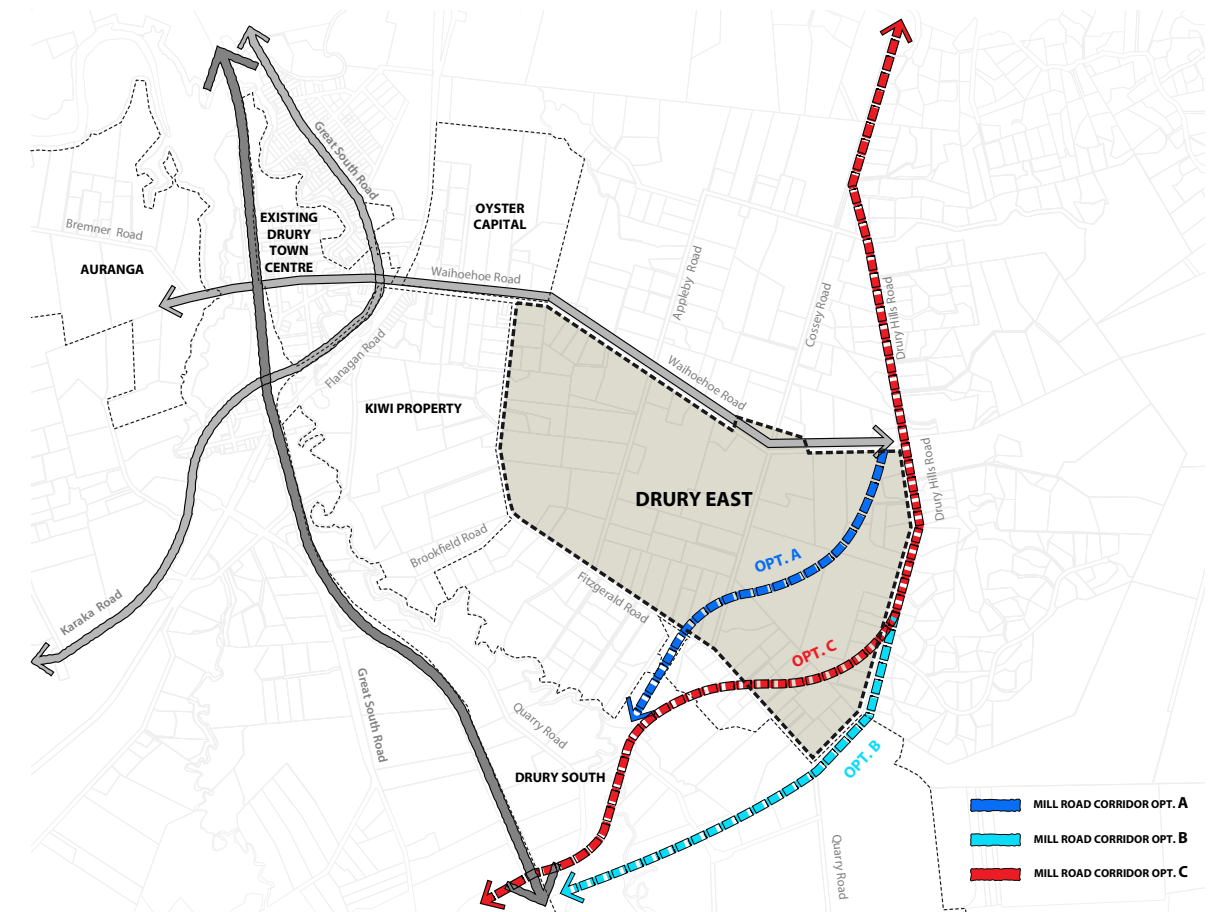
The main impact of arterial roads is the requirement in the AUP:OP (E27.6.4) for no vehicle access along the street frontage. These roads then require rear lane access to lots, so block depths need to be approximately 60 metres minimum block depth, which is proposed on the Drury East Proposed Structure Plan for all blocks facing Waihoehoe Road and Drury Hills Road (future Mill Road). While this avoids driveways interrupting the footpath and cycleways it also results in private back yards facing arterial roads, which is a poor urban design outcome, unless fence heights are controlled and landscaping required for privacy.

5.1.2 Future Mill Road Position

The proposed Mill Road corridor will provide an additional strategic north-south corridor for southern Auckland, connecting Manukau and Drury with a route approximately parallel to the east of SH1.

Te Tupu Ngātahi (the Supporting Growth Alliance) is undertaking a detailed Prioritisation Assessment to confirm the location, indicative concepts and proposed timing for improvements on the corridor within current funding allocations.

Figure 14 : Mill Road Corridor Option A, B & C



Early consideration under the Transport for Urban Growth (TFUG) had a central route for the proposed Mill Road corridor, approximately one block west of existing Cossey Road.

The 5 April 2019 draft Drury-Opaheke Structure Plan had 2 routes presented as options A & B (Fig 13);

Option A: From the overbridge at SH1, Option A swung north to enter the subject area west of Cossey Road then swung east to cross Cossey Rd travelling diagonally across proposed urban blocks formed by collector roads, then straightened north to meet Drury Hills Road at an acute angle. In urban design terms this has the following effects;

- ▶ The collector road function of Cossey Road on the draft Council Structure Plan stops in the middle of the Precinct area to avoid an angled intersection with Mill Road.
- ▶ It cuts a diagonal swathe through the rectangular urban blocks, to create intersection clashes at all the local roads.
- ▶ It cuts through the stand of Puriri noted by the ecologist in their report.
- ▶ It creates an acutely-angled leg to the future round-about at Waihoehoe Rd

Option B: This originated in the same location as Option A, the overbridge at SH1, Option B then arced eastward to meet Drury Hills Road, and followed this existing road reserve to the north-east corner. This was originally Fulton hogan's preferred option.

Option C: The final Council Drury Opaheke Structure plan (Figs. 13 & 14) joins these two options together by taking the south entry point of Option A, then marrying this to the Drury Hills Rd route of Option B. The land to the south-east is then zoned Light Industrial, as any residential zoning is effectively cut off by the corridor.

FHLD supports Option C as this is the option that combines both options to produce the best result. It can be developed by widening the existing road reserve of Drury Hills Rd. This may mean still providing access for existing houses on the east side of the road, or providing a slip lane. This Option avoids the acute angled leg of Option A. It is located at an obvious geographical location at the base of the Drury foothills, at the boundary between the MHS zone and Rural Country-side Living.

5.1.3 Local Road Network

The Local Roads that are outlined in the Drury East Proposed Structure Plan are :

- ▶ Reserve Edge roads along the key ecological corridors provide public access to these open spaces and create an active street edge along these key open spaces.
- ▶ Local roads that establish the urban structure within the standard blocks of the Precinct, and which provide a boundary between the changes in zone.
- ▶ The road cross-sections show 3m traffic lanes
- ▶ Designed to provide speed-calming measures to achieve the 40 km/hr speed limit. These will include mini-roundabouts, raised tables, speed humps/cushion, raised platforms at intersections, and pinch points. These will be provided at detailed design stage.

5.1.4 Flexible Street design

The Plan Change sets out a variety of street typologies with a range of sizes (refer to Appendix 1: Road Cross Section Details), to ensure flexibility. The Plan Change enables a principle-based approach that will focus on the outcomes rather than focusing on one design. For instance, certain design elements might be replaced with other elements, such as on-street kerbside parking may be replaced with cycle parking. Space for pedestrians must always be provided, in the form of a footpath or shared street/ path.

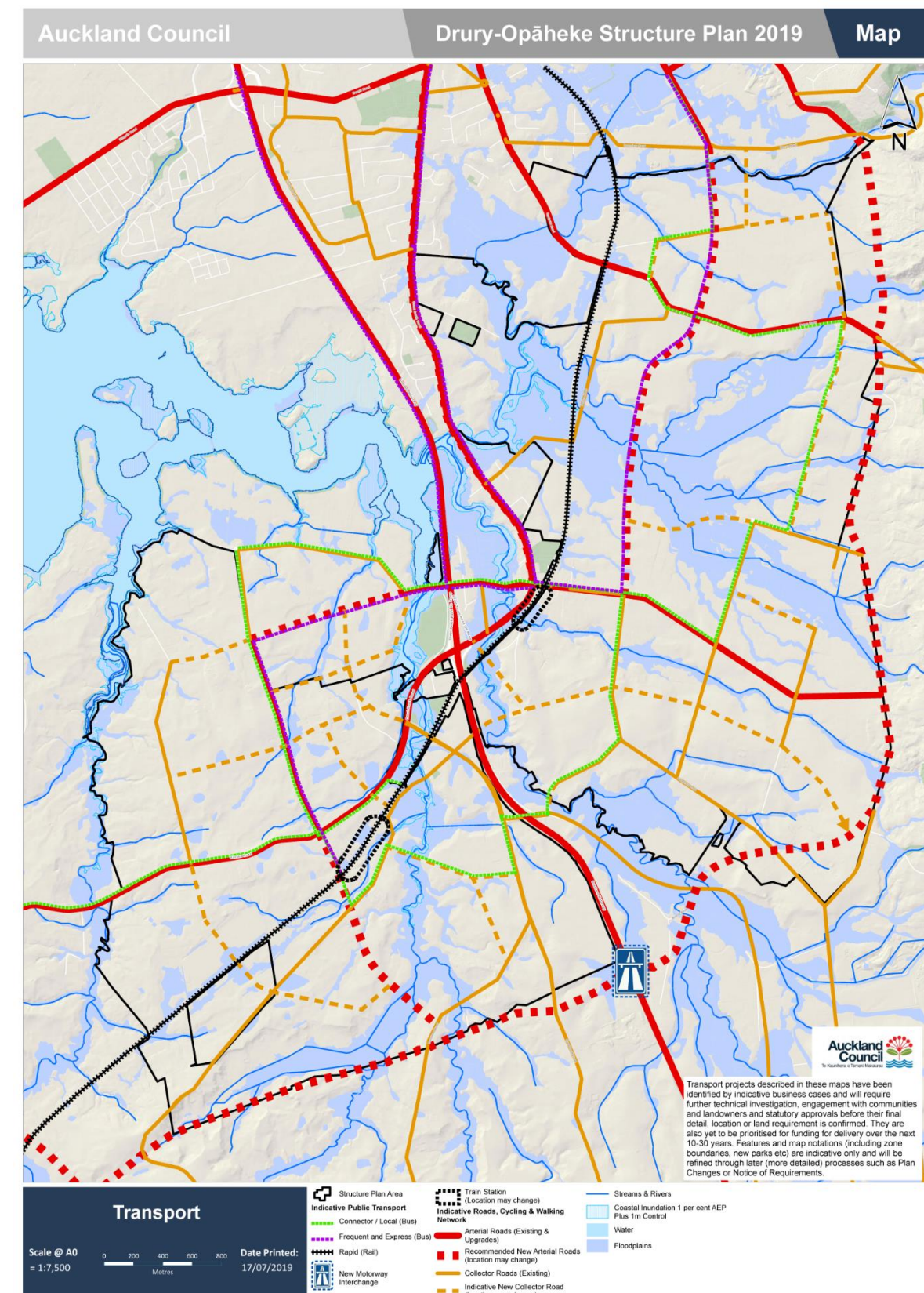
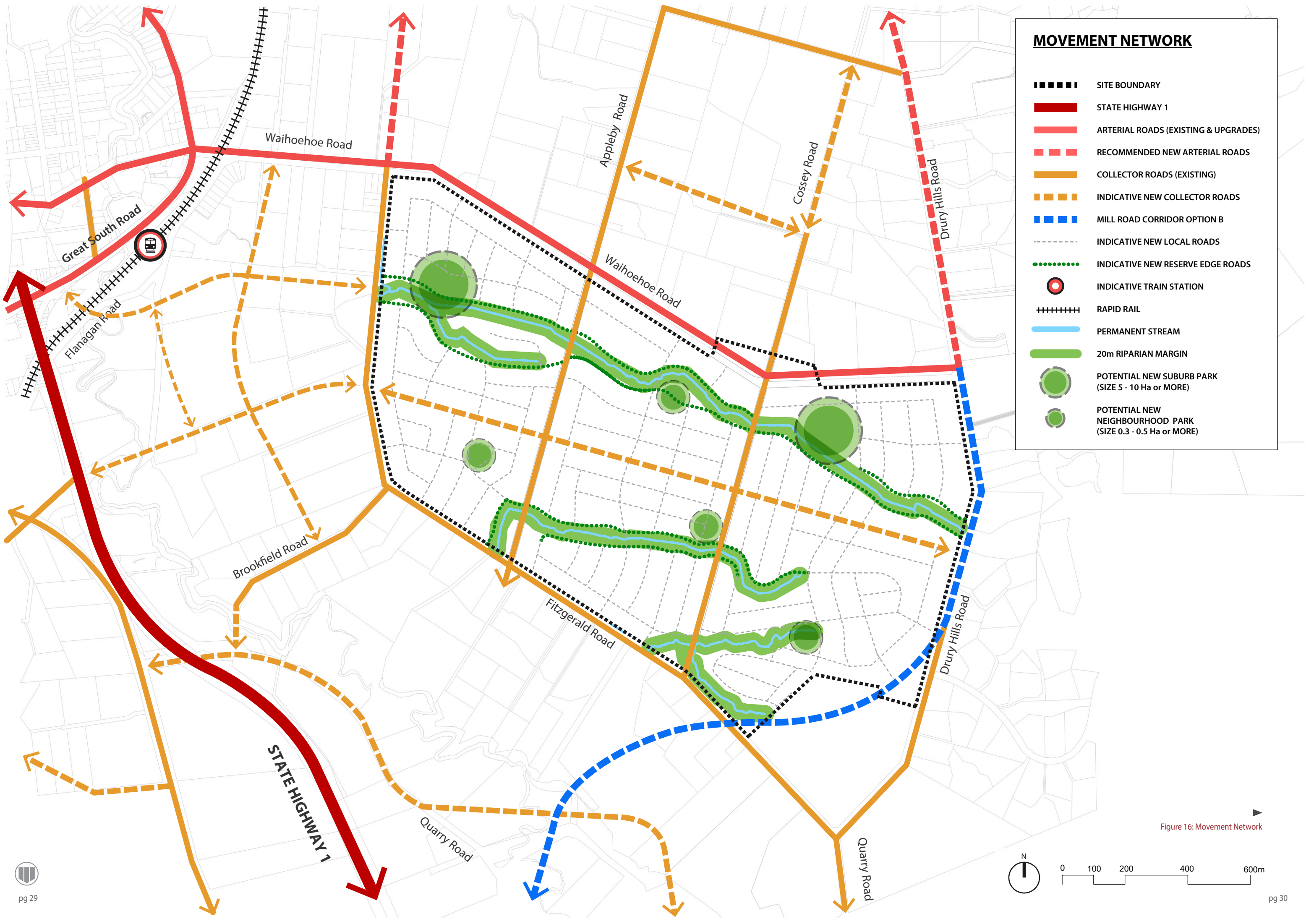


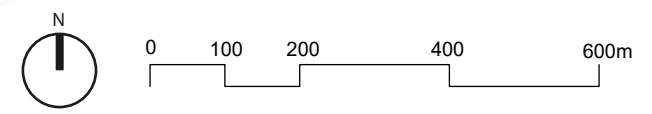
Figure 15: Final draft consultation Structure Plan- Transport



MOVEMENT NETWORK

- SITE BOUNDARY
- STATE HIGHWAY 1
- ARTERIAL ROADS (EXISTING & UPGRADES)
- RECOMMENDED NEW ARTERIAL ROADS
- COLLECTOR ROADS (EXISTING)
- INDICATIVE NEW COLLECTOR ROADS
- MILL ROAD CORRIDOR OPTION B
- INDICATIVE NEW LOCAL ROADS
- INDICATIVE NEW RESERVE EDGE ROADS
- INDICATIVE TRAIN STATION
- RAPID RAIL
- PERMANENT STREAM
- 20m RIPARIAN MARGIN
- POTENTIAL NEW SUBURB PARK (SIZE 5 - 10 Ha or MORE)
- POTENTIAL NEW NEIGHBOURHOOD PARK (SIZE 0.3 - 0.5 Ha or MORE)

Figure 16: Movement Network

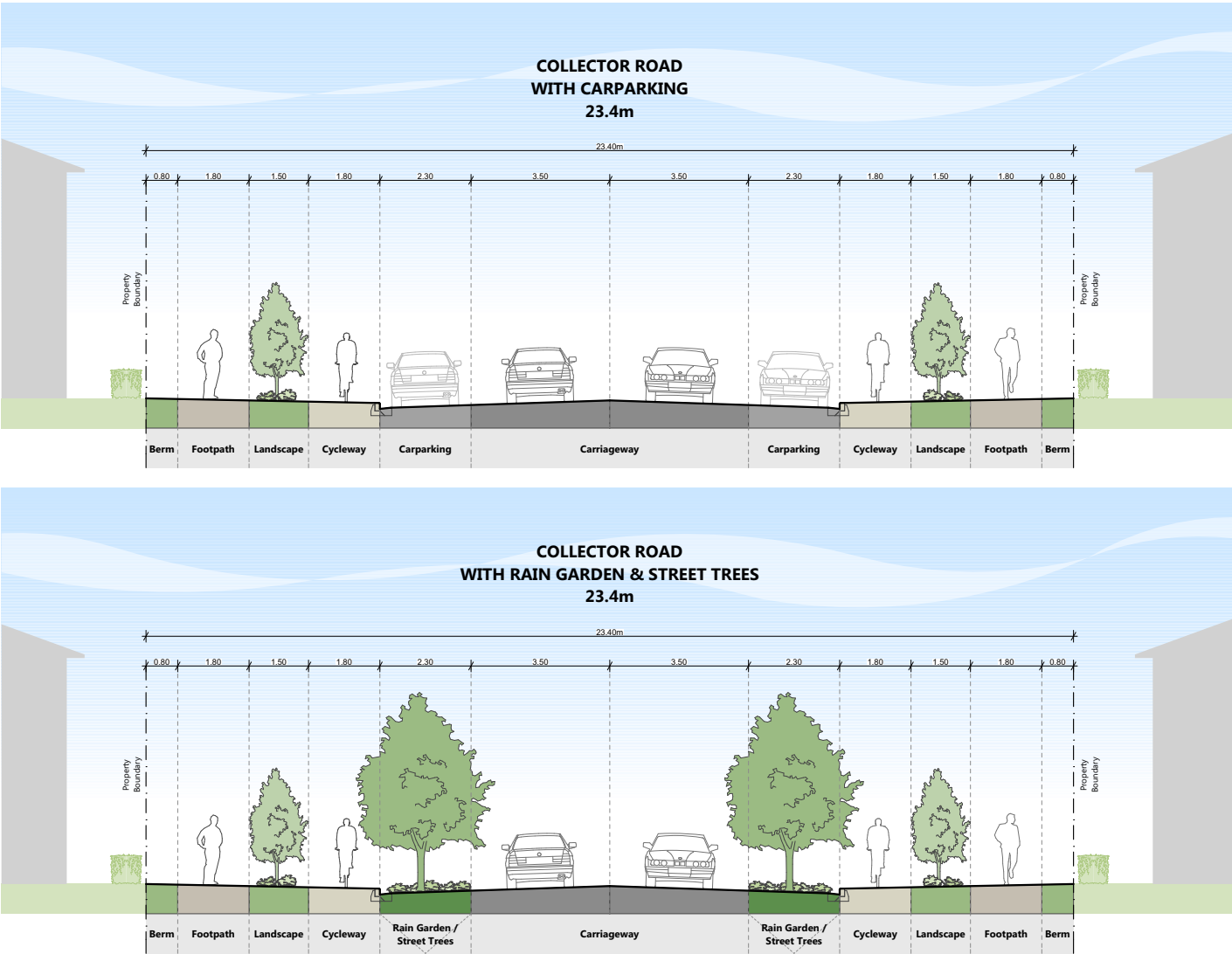


COLLECTOR ROAD		
CRITERIA	SPECIFICATION	COMMENTS
ROAD RESERVE DIMENSIONS	23.4M	REFER CROSS-SECTION OPPOSITE
DESIGN SPEED INTENT	40 KM PER HOUR	
CARRIAGEWAY WIDTH	3.5M (EACH LANE)	2 LANES TOTAL, ONE EACH WAY
JUNCTION RADII	6M KERB RADII	TO ALLOW FOR RUBBISH TRUCK TURNING WITHIN CARRIAGEWAY LANE
MEDIAN	NO	
ON-STREET PARKING	YES	BOTH SIDES, 2.3M TO KERB FACE
FOOTPATH WIDTHS	1.8M BOTH SIDES	FOOTPATH RUNS BETWEEN SERVICE BERM AND FIRST LANDSCAPE BERM
CYCLIST PROVISION	1.8M WIDE SEPARATED CYCLEWAY	LOCATED ON BOTH SIDE, BETWEEN 2 ROWS OF STREET TREES/ LANDSCAPE BERMS
VERGE (SERVICE BERM)	0.8M BOTH SIDES	AVOIDS SERVICES UNDER FOOTPATH & VISIBLE ACCESS POINTS
DIRECT VEHICULAR ACCESS TO PROPERTIES	YES	BOTH SIDES
BUS TRANSPORT	YES	BUS BAY LOCATIONS TO BE AGREED WITH AUCKLAND TRANSPORT
WASTE COLLECTION	NO	COLLECTION IN CENTRE PROPERTIES AND ADJACENT LOCAL STREETS
TRAFFIC CALMING	YES	INDIRECTLY BY PARALLEL PARKING, LANDSCAPING, PEDESTRIAN CROSSINGS

Figure 17: An example of an Collector Road typology



Figure 18: Collector Road Cross-Sections

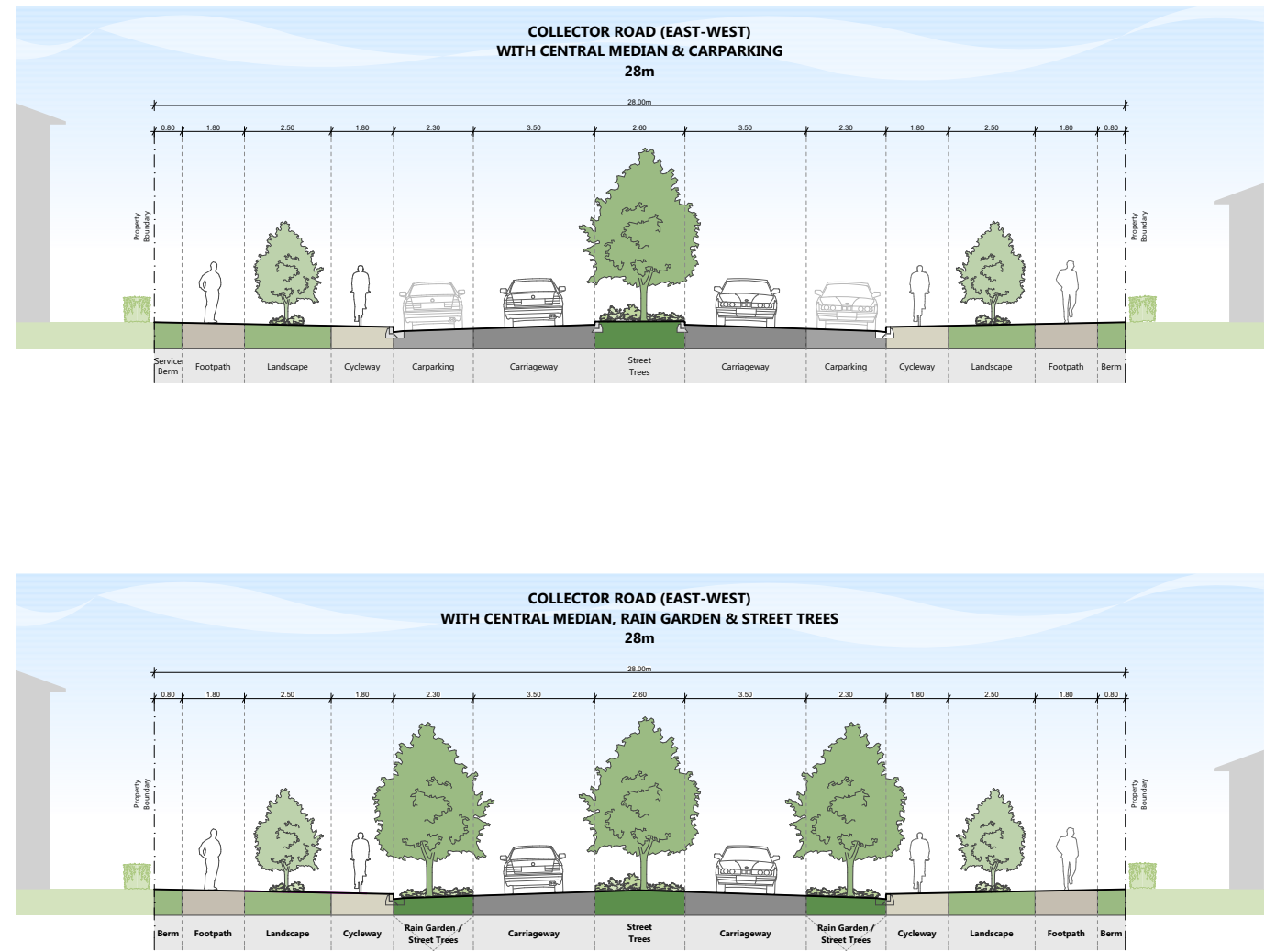


COLLECTOR ROAD (EAST-WEST)		
CRITERIA	SPECIFICATION	COMMENTS
ROAD RESERVE DIMENSIONS	28.0M	REFER CROSS-SECTION OPPOSITE
DESIGN SPEED INTENT	40 KM PER HOUR	
CARRIAGEWAY WIDTH	3.5M (EACH LANE)	2 LANES TOTAL, ONE EACH WAY
JUNCTION RADII	6M KERB RADII	TO ALLOW FOR RUBBISH TRUCK TURNING WITHIN CARRIAGEWAY LANE
MEDIAN	YES	PROVIDES CENTRAL LANDSCAPING, AND CENTRAL FLUSH MEDIAN FOR CONTROLLED TURNING POSITIONS INTO DRIVEWAYS & STREETS
ON-STREET PARKING	YES	BOTH SIDES, 2.3M TO KERB FACE
FOOTPATH WIDTHS	1.8M BOTH SIDES	FOOTPATH RUNS BETWEEN SERVICE BERM AND FIRST LANDSCAPE BERM
CYCLIST PROVISION	1.8M WIDE SEPARATED CYCLEWAY	LOCATED ON BOTH SIDE, BETWEEN 2 ROWS OF STREET TREES/ LANDSCAPE BERMS
VERGE (SERVICE BERM)	0.8M BOTH SIDES	AVOIDS SERVICES UNDER FOOTPATH & VISIBLE ACCESS POINTS
DIRECT VEHICULAR ACCESS TO PROPERTIES	YES	BOTH SIDES
BUS TRANSPORT	YES	BUS BAY LOCATIONS TO BE AGREED WITH AUCKLAND TRANSPORT
WASTE COLLECTION	NO	COLLECTION IN CENTRE PROPERTIES AND ADJACENT LOCAL STREETS
TRAFFIC CALMING	YES	INDIRECTLY BY PARALLEL PARKING, LANDSCAPING, PEDESTRIAN CROSSINGS

Figure 19: An example of an Collector Road typology with a central median



Figure 20: Collector Road East-West Cross-Sections

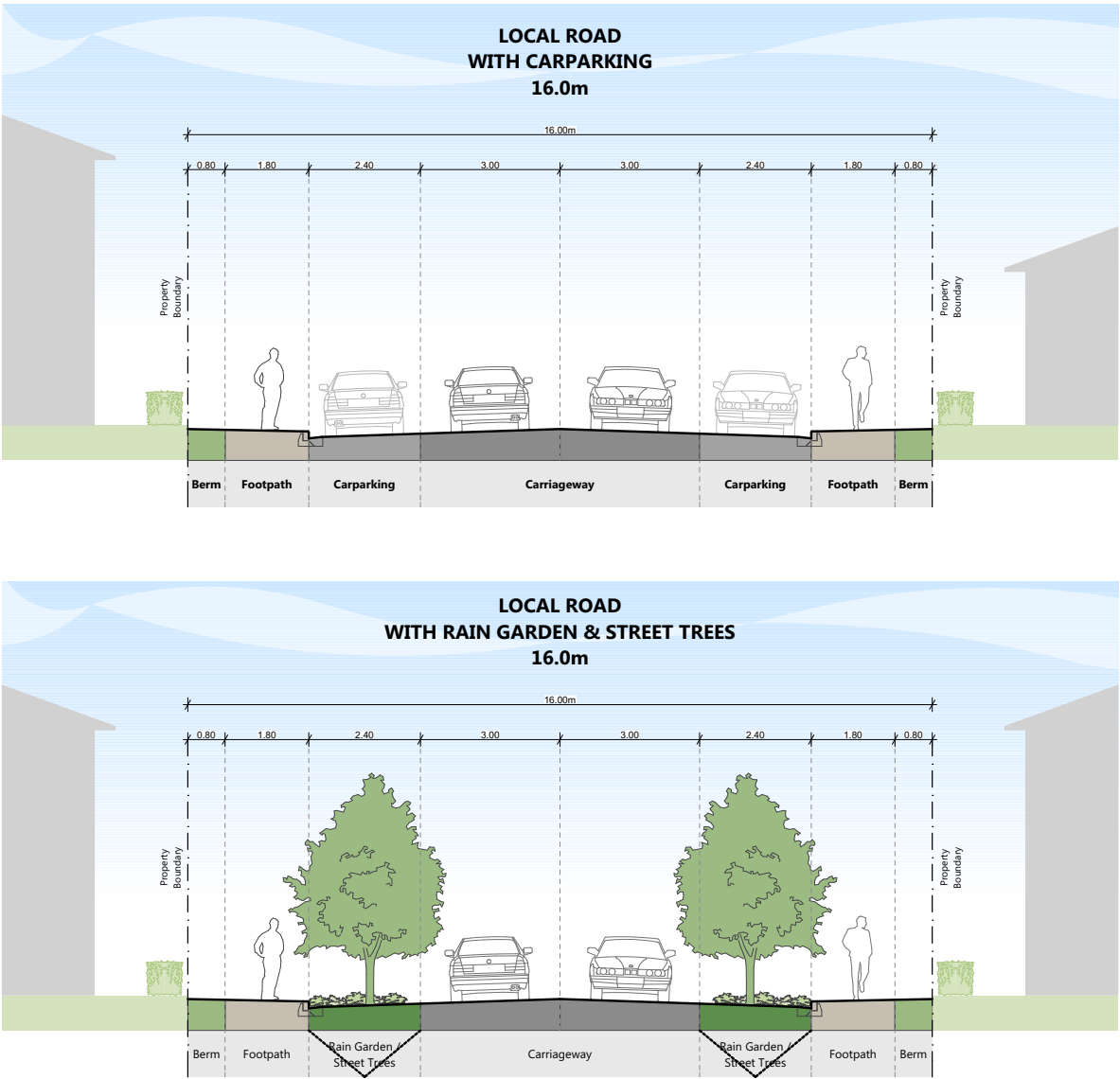


LOCAL ROAD		
CRITERIA	SPECIFICATION	COMMENTS
ROAD RESERVE DIMENSIONS	16.0M	REFER CROSS-SECTION OPPOSITE
DESIGN SPEED INTENT	40 KM PER HOUR	
CARRIAGEWAY WIDTH	3.0M (EACH LANE)	2 LANES TOTAL, ONE EACH WAY
JUNCTION RADII	4M KERB RADII	ENCOURAGES LOW-SPEED CORNERING
MEDIAN	NO	
ON-STREET PARKING	YES	BOTH SIDES, 2.4M TO KERB FACE
FOOTPATH WIDTHS	1.8M BOTH SIDES	FOOTPATH RUNS BETWEEN SERVICE BERM AND FIRST ROW OF STREET TREES/ FRONT BERM
CYCLIST PROVISION	ON ROAD	LOW-SPEED, LOW-VOLUME ENVIRONMENT CONDUCTIVE TO CYCLING
VERGE (SERVICE BERM)	0.8M BOTH SIDES	SERVICES PARTIALLY UNDER FOOTPATHS TO MAXIMISE LANDSCAPE
DIRECT VEHICULAR ACCESS TO PROPERTIES	YES	BOTH SIDES
BUS TRANSPORT	NO	
WASTE COLLECTION	YES	BOTH SIDES
TRAFFIC CALMING	YES	INDIRECTLY BY PARALLEL PARKING, INTERSECTION MATERIAL TREATMENT, LANDSCAPING

Figure 21: An example of a Suburban Local Road



Figure 22: Local Road Cross-Sections



RESERVE EDGE ROAD		
CRITERIA	SPECIFICATION	COMMENTS
ROAD RESERVE DIMENSIONS	13.5M	REFER CROSS-SECTION BELOW
DESIGN SPEED INTENT	40 KM PER HOUR	
CARRIAGEWAY WIDTH	3.0M (EACH LANE)	2 LANES TOTAL, ONE EACH WAY
JUNCTION RADII	4M KERB RADII	ENCOURAGES LOW-SPEED CORNERING
MEDIAN	NO	
ON-STREET PARKING	YES	PARKING BAYS ONE SIDE ONLY
FOOTPATH WIDTHS	1.8M HOUSE SIDE	FOOTPATH RUNS BETWEEN SERVICE BERM AND FIRST ROW OF STREET TREES/ FRONT BERM
CYCLIST PROVISION	ON ROAD & RESERVE SHARED PATH	LOW-SPEED, LOW-VOLUME ENVIRONMENT CONDUCTIVE TO CYCLING
VERGE (SERVICE BERM)	0.8M ONE SIDE ONLY	SERVICES PARTIALLY UNDER FOOTPATHS TO MAXIMISE LANDSCAPE
DIRECT VEHICULAR ACCESS TO PROPERTIES	YES	HOUSE SIDE
BUS TRANSPORT	NO	
WASTE COLLECTION	YES	HOUSE SIDE
TRAFFIC CALMING	YES	INDIRECTLY BY INTERSECTION MATERIAL TREATMENT, LANDSCAPING

5.2 WALKING & CYCLING NETWORK

One of the project goals for Drury East Precinct is to establish a connected, safe walking and cycling network. This network is a key component of the Movement Network. Refer to Figure 24.

- ▶ The arterial and collector roads have separated cycle lanes each side of the road for safe destination cycling
- ▶ The reserve edge roads have a shared walking/ cycling path within the riparian reserve for predominantly recreational cycling.
- ▶ The cycleways and paths will provide connectivity between residential neighbourhoods to the existing and proposed Drury centres and the proposed Rapid and Frequent public transport networks
- ▶ The cycleways will provide connectivity to employment opportunities to industrial-zoned land to the south

Drury East will help facilitate and encourage an active mode connection to the future employment area of Drury south via cycleways and pedestrian paths. This detail will be worked through as part of the resource consent process. Refer to figure 24.



Example of separated cycleway along the Collector Road



Example of shared path in ecological corridor/ park

5.3 PUBLIC TRANSPORT NETWORK

At the heart of the proposed network for the south is a well-connected Rapid Transport Network with electric trains extended to Pukekohe and extra rail capacity. Three new locations for rail stations between Drury and Drury West (and Paerata in Pukekohe) will improve access to trains from within the Drury East Precinct, while it is also proposed to provide a high frequency bus corridor between Manukau and Drury West. The Supporting Growth Programme’s preferred southern network option indicates key public transport routes and associated infrastructure for the Drury-Opaheke Structure Plan area.

Within this area, the Supporting Growth project identified the need for a Frequent Transit Network (FTN) from Manukau to Drury West connecting to the surrounding rail stations, town centres and employment areas. This focus sets the overarching parameters for the corridor. It is anticipated that buses will be prioritised within this corridor to help achieve the mode split targets from the Auckland Plan. The provision of a high quality public transport service could utilise an assumed higher density land use to optimise the high level of public transport services.

This high frequency route will be complemented by the smaller scale network, including the collector road network which will be developed through the structure plan process. Refer to Fig. 25.

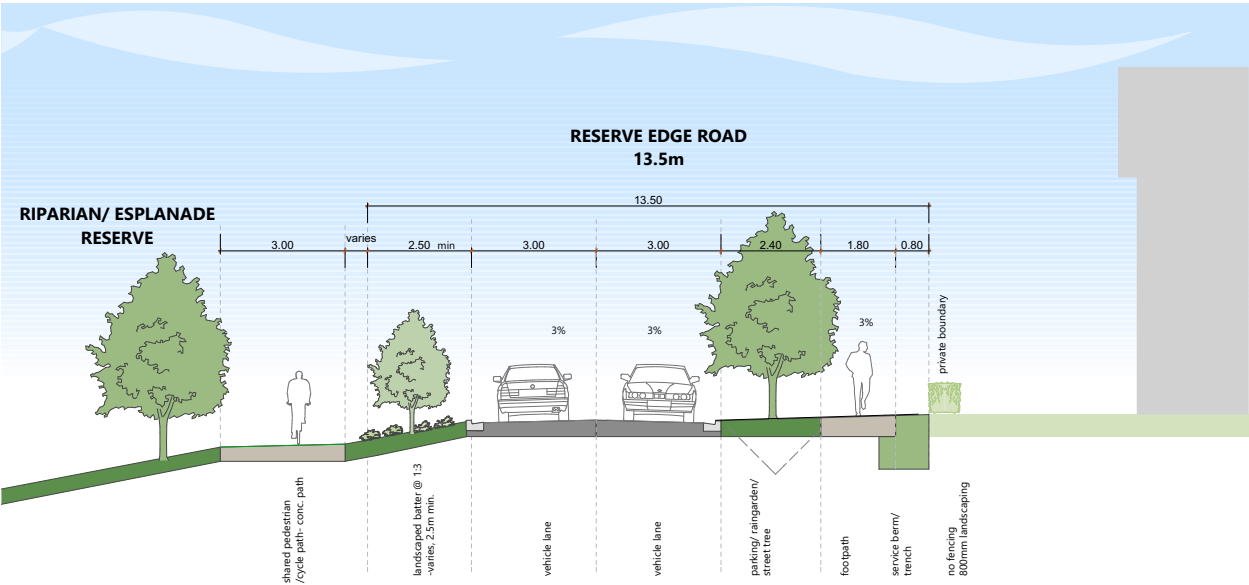


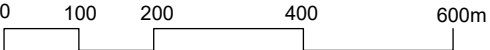
Figure 23: Reserve Edge road Cross-Section

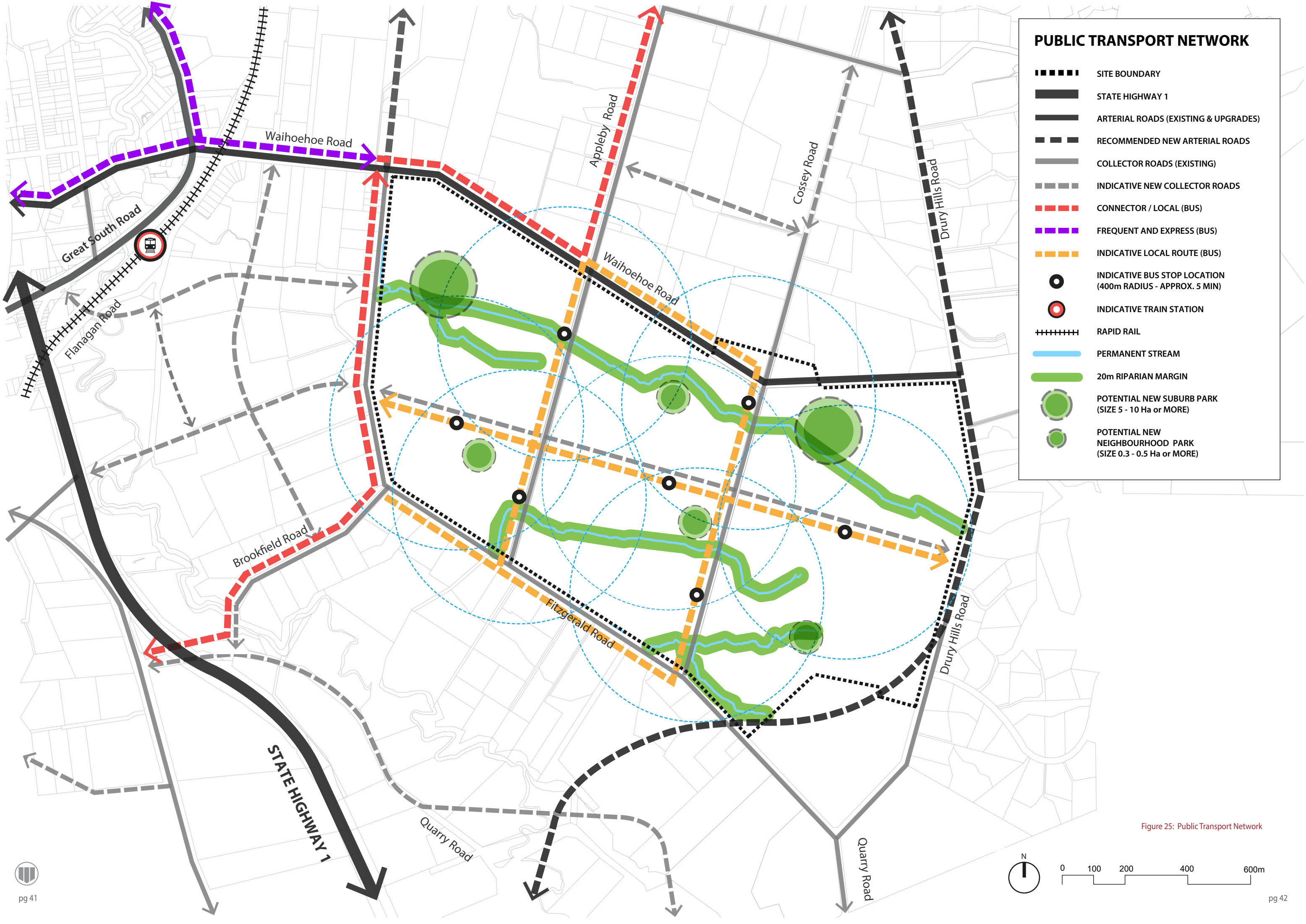


WALKING + CYCLING NETWORK

- SITE BOUNDARY
- ▬ STATE HIGHWAY 1
- INDICATIVE TRAIN STATION
- +++++ RAPID RAIL
- PERMANENT STREAM
- 20m RIPARIAN MARGIN
- - - SEPARATED WALKING AND CYCLING NETWORK
- - - RECREATIONAL SHARED PEDESTRIAN AND CYCLE ROUTE
- POTENTIAL NEW SUBURB PARK (SIZE 5 - 10 Ha or MORE)
- POTENTIAL NEW NEIGHBOURHOOD PARK (SIZE 0.3 - 0.5 Ha or MORE)

Figure 24: Walking + Cycling Network





PUBLIC TRANSPORT NETWORK

- SITE BOUNDARY
- STATE HIGHWAY 1
- ARTERIAL ROADS (EXISTING & UPGRADES)
- - - - RECOMMENDED NEW ARTERIAL ROADS
- COLLECTOR ROADS (EXISTING)
- - - - INDICATIVE NEW COLLECTOR ROADS
- - - - CONNECTOR / LOCAL (BUS)
- FREQUENT AND EXPRESS (BUS)
- - - - INDICATIVE LOCAL ROUTE (BUS)
- INDICATIVE BUS STOP LOCATION (400m RADIUS - APPROX. 5 MIN)
- INDICATIVE TRAIN STATION
- +++++ RAPID RAIL
- PERMANENT STREAM
- 20m RIPARIAN MARGIN
- POTENTIAL NEW SUBURB PARK (SIZE 5 - 10 Ha or MORE)
- POTENTIAL NEW NEIGHBOURHOOD PARK (SIZE 0.3 - 0.5 Ha or MORE)

Figure 25: Public Transport Network



6.0 NATURAL ENVIRONMENT

Open space will play an important role in Drury East Precinct's urban structure, place based character, legibility and distinctiveness. Linear ecological corridors will be formed along key existing stream networks bringing nature into the community and providing areas for recreation, walking and cycling. The Drury East Proposed Structure Plan intends to create an integrated network of parks that connect to the key ecological corridors and road network.

A variety of open spaces is proposed and identified on the Drury East Proposed Structure Plan to provide opportunities for both formal and informal recreation. Parks and ecological corridors should preferably be fronted by roads to preserve public ownership, provide natural surveillance and overlooking. Reserve Edge Roads are identified on the Structure and Precinct Plans along key ecological corridors to provide an active street edge and safe public access to the reserves. Where this is not possible, footpaths with buildings fronting them are encouraged for safe pedestrian activity.

The open space network aims to:

- ▶ Protect and enhance existing damaged stream networks
- ▶ Create identity and sense of place by identifying key ecological corridors to regenerate and create high quality public open space amenity.
- ▶ Provide public access along key ecological corridors
- ▶ Locate larger suburb parks and neighbourhood parks near ecological corridors
- ▶ Offer visual and recreational amenity for the development
- ▶ Offer open space amenity within a five minute walk to most residents
- ▶ Protect existing specimen trees where possible by integrating them in detail design

The following subsections describe the different types of open space proposed in Drury East Precinct;



Example of neighbourhood park edged by roads and medium-density housing

6.1 ECOLOGICAL CORRIDORS

The ecological corridors are an important feature and key open space amenity of Drury East Precinct. They are multi-purpose linear parks that provide an enhanced ecological function within the revegetated native landscaping that attracts local fauna, provides recreational and passive open space, visual amenity, and areas for stormwater treatment and management. The Drury East Proposed Structure Plan shows these ecological corridors a minimum of 20 metres wide and bordered by public reserve edge roads where possible.



Example of landscaped wetland at a lower flood-prone area

There are four ecological corridors of varying lengths proposed .

The main ecological corridor is the existing Waihoehoe Stream which runs from Drury Hills Road in the east to Fitzgerald Rd in the west. At the western end it is likely there will need to be additional capacity in the form of a landscaped wetland to provide additional stormwater capacity, to avoid flooding downstream.

It is proposed that the two suburb parks are located adjacent to this main ecological corridor.

Tributaries to the main Hingaia Stream form the three southern ecological corridors. Their existing landscape and ecological values will be retained and enhanced. The Structure Plan generally proposes reserve edge roads along the sides of ecological corridors. One of the retained streams indicates a neighbourhood park at the eastern end where the stream starts. The ecological corridors may have different landscape characters depending on the location and context.

Refer to Fig 25 for the Open Space Network Plan.



Example of stream and wetland connected to pedestrian path and bridge



OPEN SPACE NETWORK

- SITE BOUNDARY
- STATE HIGHWAY 1
- INDICATIVE TRAIN STATION
- RAPID RAIL
- PERMANENT STREAM
- 20m RIPARIAN MARGIN
- POTENTIAL NEW SUBURB PARK (SIZE 5 - 10 Ha or MORE)
- POTENTIAL NEW NEIGHBOURHOOD PARK (SIZE 0.3 - 0.5 Ha or MORE)
- 400m WALKING RADIUS (APPROX. 5 MINUTES)
- 800m WALKING RADIUS (APPROX. 10 MINUTES)

Figure 26 : Open Space Network

6.2 SUBURB PARKS

The closest larger suburb park in the area is the Drury Sports fields, an 8ha Suburb Park 1.5km away with a range of fields for organised sports. Drury Domain is a 2.77 ha suburb park only 750 metres away from the Waihoehoe and Fitzgerald Rd corner. Based on Council’s Open Space policy, one suburb park centrally placed should be sufficient to serve the Drury East Precinct.

Council’s Structure Plan identifies two large suburb parks (3-5 hectares) at either end of the Drury East Precinct. These parks would logically be located adjacent to the ecological corridor to enable park users to use the walking and cycling network to access the parks. This, in turn, reduces the parking demand for these larger parks that typically have organised sports due to their size. All parks are subject to change with final acquisition at the discretion of Parks & Reserves acquisitions staff at the time of subdivision and Council’s budgetary cycle.

6.3 NEIGHBOURHOOD PARKS

The Drury East Proposed Structure Plan identifies only two smaller scale neighbourhood parks (3000 sq.m minimum size) located to the south of the Suburb Parks. Analysis of the walkable catchments using Council’s Open Space Policy 2016, demonstrates that only providing two neighbourhood parks would leave gaps in the walkable catchments. There are essentially six indicative neighbourhoods, two of which contain the above-mentioned suburb parks. This means that four neighbourhood parks would need to be provided to provide open space within walkable catchments, which is shown on the poposed Structure Plan

Most of these parks are integrated with three key ecological corridors to capitalise on the existing and revegetated future amenity of these linear reserves. There are opportunities to incorporate iwi’s wishes for naming (whakapapa) and tohu (markers) throughout the natural environment to define the interface between the urban and natural and provide a cultural and historical narrative. FHLD is continuing in discussions with iwi to acheive this.

The Open Space Network diagram (Figure 26) shows that almost of all residents in the Precinct are within a five minute walk to the four neighbourhood parks or a ten minute walk to the two Suburb Parks.

The character and size of the neighbourhood parks will be designed in detail during consent stage and should align with Auckland Council’s Parks and Open Spaces Policy Guidelines for greenfield developments and urban areas.

6.4 STAND OF PURIRI

The map below shows the significant stand of puriri trees at the north-east corner that the ecology report notes to be of value but likely impacted by the Mill Road alignment.

6.5 EXISTING TERRAIN

Drury East is situated on land that is largely comprised of gentle rolling terrain, it is dispersed with permanent streams running east to west and out to the creek next to Drury. The natural topography of the area will enable any future development to achieve good built form outcomes, such as appropriate block sizes, shape, and slope.

A small portion of these streams run through topography that is flat and is prone to significant flooding (Refer to Figure 15), restricting the use of land in and around them. Development will be limited within these flood plains to ensure stormwater functions are not adversely impacted. In addition, the streams will form as a visual and physical buffer for any future urban development in this location.

Identified streams have been integrated into the development structures. These streams help break up and provide open space relief to the super blocks and ultimately will function in some form to manage the storm water requirements for the development. For example, the western end of the main stream that flows through the Plan Change area is prone to flooding and it is proposed at this high level and early stage that a wetland approach be adopted to deal with future storm water requirements, while providing valuable open space relief. However, this may change through further detailed design investigations and discussions with key stake holders.

7.0 LAND USE AND ACTIVITY

Drury East Precinct will offer a range of housing types that will support whole-of-life options and affordable living solutions. A diverse mix of housing types will promote social diversity, urban vitality, and affordability. The precinct provisions and underlying zones will encourage residential variety throughout the development.

Standard Unitary Plan zones with their objective, policies and rules are adopted in the Drury East Precinct. Council’s Drury Opaheke Structure Plan proposes Centre to the south, which FHLD are requesting to be zoned Mixed Use. Residential zones in the Precinct comprise THAB, MHU and MHS zones, which is consistent with Council’s Structure Plan and which FHLD support.

Through the design framework and Drury East Proposed Structure Plan process, suitable zones and their location and size were identified based on proximity to service, open space amenity, site topography and constraints and development feasibility. The Drury East Proposed Structure Plan and zones have been tested through a detailed design process to provide certainty that good urban design outcomes can be produced.

Figure 33 shows the proposed zones.



Figure 27: Location of Puriri trees

7.1 MIXED USE CENTRE

The urban design report has analysed the five overarching themes in the Neighbourhood Design Statement: Drury – Opaheke (2018). This report refers the five key themes as 'key moves'. The 'key Moves' aim to achieve the visions set out in the Drury-Opaheke and Paerata-Pukekohe Structure Plans as well as the outcomes of the Auckland Plan and within the NDS:

KEY MOVE 1: MIXED- USE CENTRE THAT PROTECTS AND ENHANCES THE NATURAL ENVIRONMENT WHILE ENABLING URBANISATION.

- ▶ Celebrate and retain the natural landform elements such as rivers and streams, escarpments, ridgelines and other landmarks where practical.
- ▶ Provide public access, where ecological conditions permit, along open space corridors.
- ▶ Open space designed to be located in a prominent and logical location, easy to find. Promoting legibility within the development.



Figure 28: Illustrative green network Plan around the Mixed-use centre.

KEY MOVE 2 & 3: PROVIDE A VARIETY OF DENSITY AND MIX OF USES ACCORDING TO THEIR LOCATION AND PROVIDE CHOICES OF USE AND ACTIVITY THAT REFLECT THE NEEDS OF THE COMMUNITY AND THE SUB-REGION.

- ▶ Provide a diverse range of uses.
- ▶ Offer a diverse range of housing types will promote social diversity, urban vitality, and affordability. The precinct provisions and underlying zones will encourage residential variety throughout the development.
- ▶ Mixed-use centre is centrally located and will provide services and convenience retail for residents.
- ▶ Locate higher/medium densities and diversity of use within a walkable catchment of 400m from a Mixed-use centre to create a compact urban form and ensure vibrancy with the centre.
- ▶ Locate public transport stops (PT) where there is safe access and they are overlooked by adjacent development.



Figure 29: Illustrative Density and diversity Plan around the Mixed-use centre.

KEY MOVE 4: PROMOTE SAFE CHOICES OF MOVEMENT WITH GOOD ACCESS TO SERVICES AND AMENITY.

- ▶ A well-connected street network which accommodates all forms of movement, with streets that are designed to reflect their function within the hierarchy.
- ▶ A safe, well-connected pedestrian and cycle routes to all amenity and services destinations.

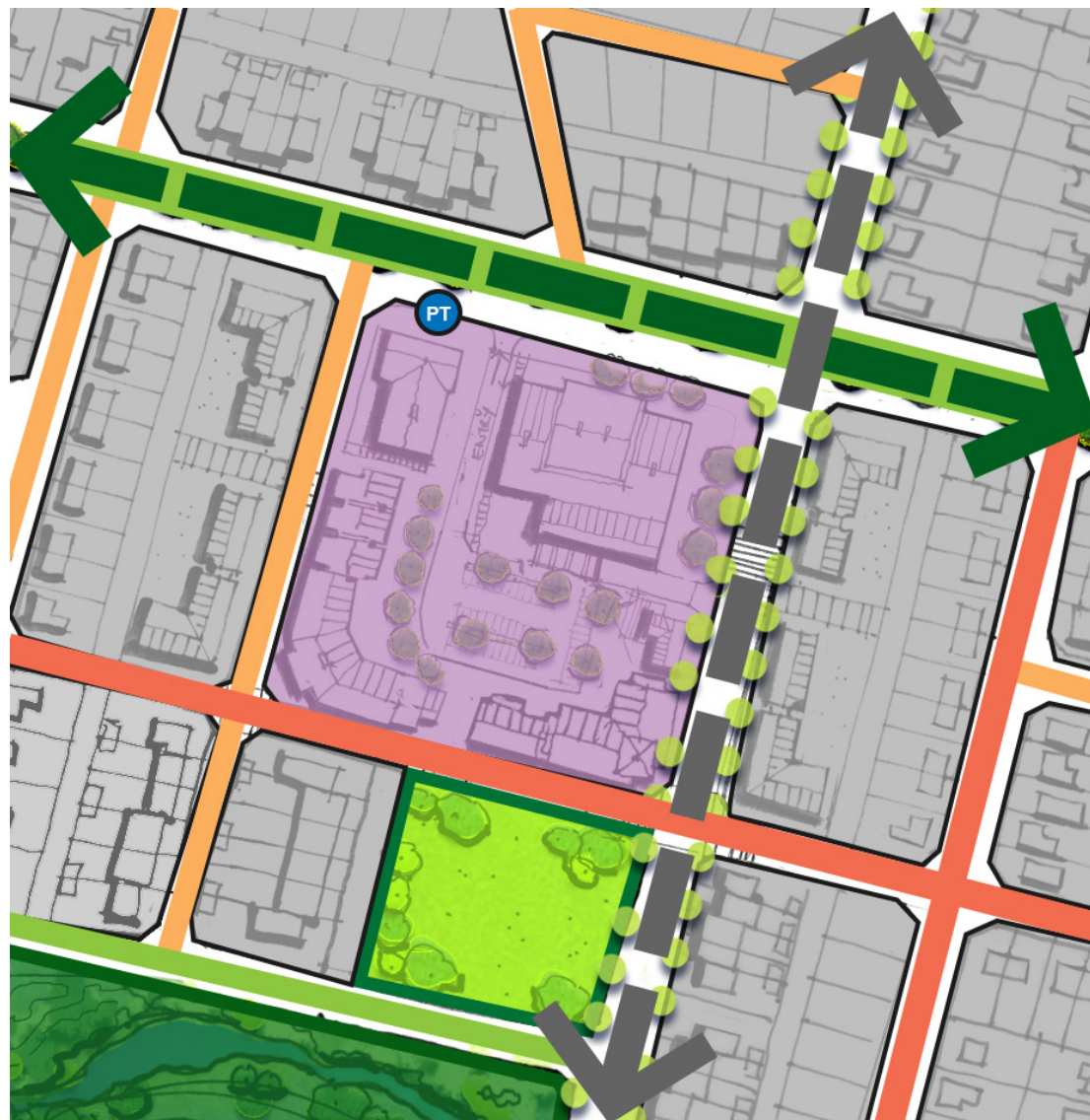


Figure 30: Illustrative Permeable Street Network diagram.

KEY MOVE 5: PROMOTE AND CELEBRATE DRURY UNIQUE IDENTITY BY MAKING THE DEVELOPMENT SAFE, ATTRACTIVE AND EASILY UNDERSTOOD.

- ▶ Streets and neighbourhoods throughout Drury East should have distinctive design styles and features. Road axes should be laid out to be direct and convenient.
- ▶ Provide legible, safe, inclusive and accessible environments for all ages and abilities that offer privacy and security.
- ▶ Provide high quality landscaping with a preference for utilisation of native species, preferably diverse and suitable to the area.
- ▶ Display a strong local identity and appropriate visual character while emphasising visual and function character differences between nodes and communities.



Figure 31: Illustrative Combined Network diagram.

7.2 MIXED USE CENTRE

The Drury East Mixed-Use area is located at the 'heart' of the residential community and is highly connected via a collector to its north which runs in an east-west direction. The Mixed-Use centre is more or less in the same position as shown in the TFUG (2017), along Cossey road and to the south of Waihoehoe road. This location is determined to be optimum, as is central to the proposed structure plan area. To personalise this mixed-use centre a park is located adjacent to the centre giving this half of the development a real sense of identity and community. This has been further supported by increasing the zone to mixed housing urban to maximise the available amenity. The proposed development will contribute positively to the urbanisation of the Drury area whilst providing a defined urban edge that respects adjacent rural land and provides an opportunity to create an integrated approach to urban design. Refer to Figure 32 for illustrative plan of mixed-use centre and park.



Figure 32: Mixed-use Centre and Park Illustrative Plan

7.3 RESIDENTIAL ACTIVITY

The Plan Change Area has the capacity to provide between approximately 2,200 to 2,500 dwellings. The mix of development typologies and densities responds to specific locations and proximity to the amenity provided by open space and the natural environment, transport networks, employment opportunity and retail/ commercial amenity.

7.3.1 MIXED HOUSE SUBURBAN

The MHS zone creates a transition between the MHU and Rural Countryside Living zone in the Drury foothills. It is located in areas that are slightly further from the Local Centre. The Mixed Housing Suburban zone boundary is defined at the east by Drury Hills Road, and the west boundary with MHU zone is roughly in the middle of the Drury east Precinct Area.

There is a level of flexibility in the existing MHS zone development controls to create various densities that range from larger standalone houses to smaller terrace houses, particularly as there is no density control for integrated developments.

In addition, although vacant lot subdivision results in an average minimum lot size of 400 sq.m, there is allowance for lots to be 20% above and 20% below this area, ie, 320 sq.m. up to 480 sq.m.

7.3.2 MIXED HOUSE URBAN

The MHU zone encourages compact urban form and medium density development. This zone encourages higher densities in a large area east of the northern section of Fitzgerald Road covering approximately half of the Drury East area, and provides a transition between THAB and MHS Zones and is within walking distance of the rapid and frequent transport network and the Drury Centre.

This MHU area has relatively flat topography. The AUP:OP describes the MHU zone as follows;

"The Residential- Mixed Housing Urban zone is a reasonably high-intensity zone enabling a greater intensity of development than previously provided for. Over time the appearance of neighbourhoods within this zone will change, with development typically up to three storeys in a variety of sizes and forms, including detached dwellings, terraces and low-rise apartments. This supports increasing the capacity and choice of housing within neighbourhoods as well as promoting walkable neighbourhoods, fostering a sense of community and increasing the vitality of centres".

From this text, the zone was primarily premised on existing residential areas rather than new green field areas. The key outcomes required in the AUP:OP are;

- ▶ the form, scale and appearance of development relates positively to the neighbourhood;
- ▶ ensure reasonable amenity is provided to neighbours and on sites for residents to enjoy;
- ▶ encourage a variety of housing types and sizes; and
- ▶ require development to have available connections to water and wastewater networks.

7.3.3 TERRACE HOUSE & APARTMENT ZONE (THAB)

The THAB zone provides a transition between the Mixed Use zone adjacent to the Drury Centre and the MHU zone further east.

The THAB zone provides for higher residential densities in buildings up to five storeys. This zone is appropriately applied to Fitzgerald Road where it is closest to the future rapid and frequent transport network and the Drury Centre.

7.4 ZONING

The Plan change area has analysed the compatibility of the location of the THAB and MHU zones across the road from the Business – Mixed Use zone, on the western edge of Fitzgerald Road. This arrangement is anticipated within the AUP. The Mixed-Use zone includes a standard to impose a higher activity status on land use activities which might not necessarily be compatible with residential amenity where they are proposing to locate within 30m of a residential zone. Furthermore, the Mixed-Use zone requires buildings to be setback 6m when a building is above 18m in height and opposite a residential zone. By consolidating the mixed-use area with the centre to one side this arrangement will increase the opportunities for local communities, businesses, and public transport to be strengthened. The development believes that high to medium density activities can be located across from the mixed-use areas to promote local services, walkability, and vitality in the future Drury Centre.

8.0 CONCLUSION

In conclusion, this Plan Change request aligns closely with the Council's Drury Opaheke Structure Plan.

The Plan Change Area has benefited from a collaborative process with Mana Whenua, adjacent landowners, specialist consultants and the Council documents available.

The proposed Plan Change requests from FHLD, Oyster Capital and Kiwi Property fill in the gaps of other recent zoned areas including Auranga and Drury South, resulting in a connected zoned area with a broad range of zones that will allow the development of a sizable Town Centre, with large adjacent Industrial zoning for employment, and a range of residential zones to encourage a diversity of housing types.

The proposed residential zoning fits within the gradient from the lower density foothills to the east of the Plan Change area, to suburban density at the east end (MHS) to Mixed Housing Urban (MHU) zone from the middle to the western third of the Plan Change area, with the area east of Fitzgerald Rd as the most dense zone of higher intensity zoning of Terrace Housing and Apartment Building (THAB) through to Mixed Use and Metropolitan Centre zones around the proposed and existing town centre.

There has been significant work to identify streams within the existing farmland that can logically be protected within the development, and incorporated with parks that can create open space networks for passive recreation.

Larger suburban parks serving wider population catchments that will offer a range of passive and active recreational opportunities.

The proposed Mill Road can be accommodated with an increase in width to the existing Drury Hills Road corridor at the interface between the Drury foothills and flat farmland, without disrupting the proposed residential areas, whilst turning west at the south end, forming an area of Light Industrial zone outside of the Plan Change area.

The existing grid arrangement of rural roads can be used to create collector roads that define neighbourhoods with their own character.

