



Riverhead

Plan Change

URBAN DESIGN STATEMENT

25 September 2023

FINAL

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1.0 INTRODUCTION

This document is prepared on behalf of the Riverhead Landowner Group to support the private plan change application for the Riverhead Future Urban Zone. The members of this group own a significant proportion (60% approx) of the future urban zone, and this provides an opportunity for development to occur in an efficient and managed way.

This design report includes the urban design input into the development of a structure plan as required by Appendix 1 of the AUP to identify, investigate and address the following:

- urban growth
- natural resources
- natural and built heritage
- use and activity
- urban development
- transport networks
- infrastructure
- feedback from stakeholders

This design statement forms part of a suite of technical documents prepared to support the development of a structure plan to guide the development of the Riverhead Future Urban Area, and in turn, the proposed plan change. For the purposes of Appendix 1 of the Auckland Unitary Plan, this document constitutes the Neighbourhood Design Statement for the Structure Plan.

The purpose of this document is to outline the contextual issues relating to the potential development of the site which have informed the decision-making process. It identifies opportunities and constraints in response to the site's unique location and environment and establishes design intentions to guide an appropriate development response. It also describes the conceptual masterplan which illustrates and tests potential outcomes, and forms the basis for the proposed structure plan.

By nature, urban design is a multidisciplinary process and relies upon, and is enriched by, collaboration with all built and natural environment professionals. This report relies upon and should be read in conjunction with other specialist reports informing the structure plan and plan change application.

Best practice urban design principles and concepts, along with those established through consultation with stakeholders, have been integral to the design-led process of developing the structure plan.

This process has been informed by national and local urban design policy and guidance including (but not limited to):

- NZ Urban Design Protocol, Ministry for the Environment, 2005
- The Auckland Unitary Plan, Auckland Council, 2016
- Auckland Urban Design Manual, on-line resource, Auckland Council
- National Policy Statement on Urban Development 2020

The methodology for urban design input into this planning process includes the following steps:

- understanding the location of the site and its existing and future context including a "place statement" on Riverhead
- describing and illustrating the site itself with respect to physical characteristics, natural features, and interfaces etc.
- analysing the site and identifying opportunities and constraints to inform the structure planning process
- contributing to the definition of a vision for the site
- consulting and collaborating with the wide project team and stakeholders to develop a shared vision
- developing a masterplan to inform the development of a structure plan and precinct plan to support the plan change and ensure desired urban design outcomes are delivered
- exploring and testing options for structure plan components
- making recommendations and contributing to the development of precinct provisions proposed in the plan change



2.0 SITE LOCATION

“By way of its location, Riverhead forest provides excellent opportunities for recreational users, and has done so for many years. Although the land is state owned, the forest is administered by Carter Holt Harvey Forests, which purchased the cutting rights in 1990. The company encourages recreational use of the forest.

Riverhead forest remains an oasis of land ignored by most but regarded by its regular users as one of Auckland’s best recreational outlets. Those users would prefer the forest to stay in the “best kept secret” category. But as the city boundaries shift outwards, this is one playground that is going to see a lot more use.”

New Zealand Geographic

<https://www.nzgeo.com/stories/riverhead-an-urban-forest/>

The site is located immediately adjacent to the west of the existing settlement of Riverhead, a community of approximately 3000 people. Riverhead sits in the upper reaches of the Waitamata Harbour, about 30km/30min drive from Auckland’s CBD. It is also accessible by ferry or private boat.

Riverhead is surrounded by rural landscape. It is one of the satellite townships in Auckland’s north west, it neighbours including Kumeu/Huapai and Whenuapai, both of which have experienced significant growth over recent years.

The Riverhead-Coatesville Highway (SH28) connects Riverhead to the wider region, including Albany to the north. Massey/Westgate is the nearest metropolitan centre, located approximately 10km to the south, via State Highway 16.

Riverhead sits at the base of Riverhead Forest, one of the northern region state forests, which include Woodhill and Maramarua. Riverhead Forest was part of a nationwide scheme to ensure the supply of timber to future generations of New Zealanders.

At nearly 5000 hectares in area, and with an elevation of up to 109m, this pine forest provides an ever-present green backdrop to the village of Riverhead as well as those of Kumeu and Huapai.

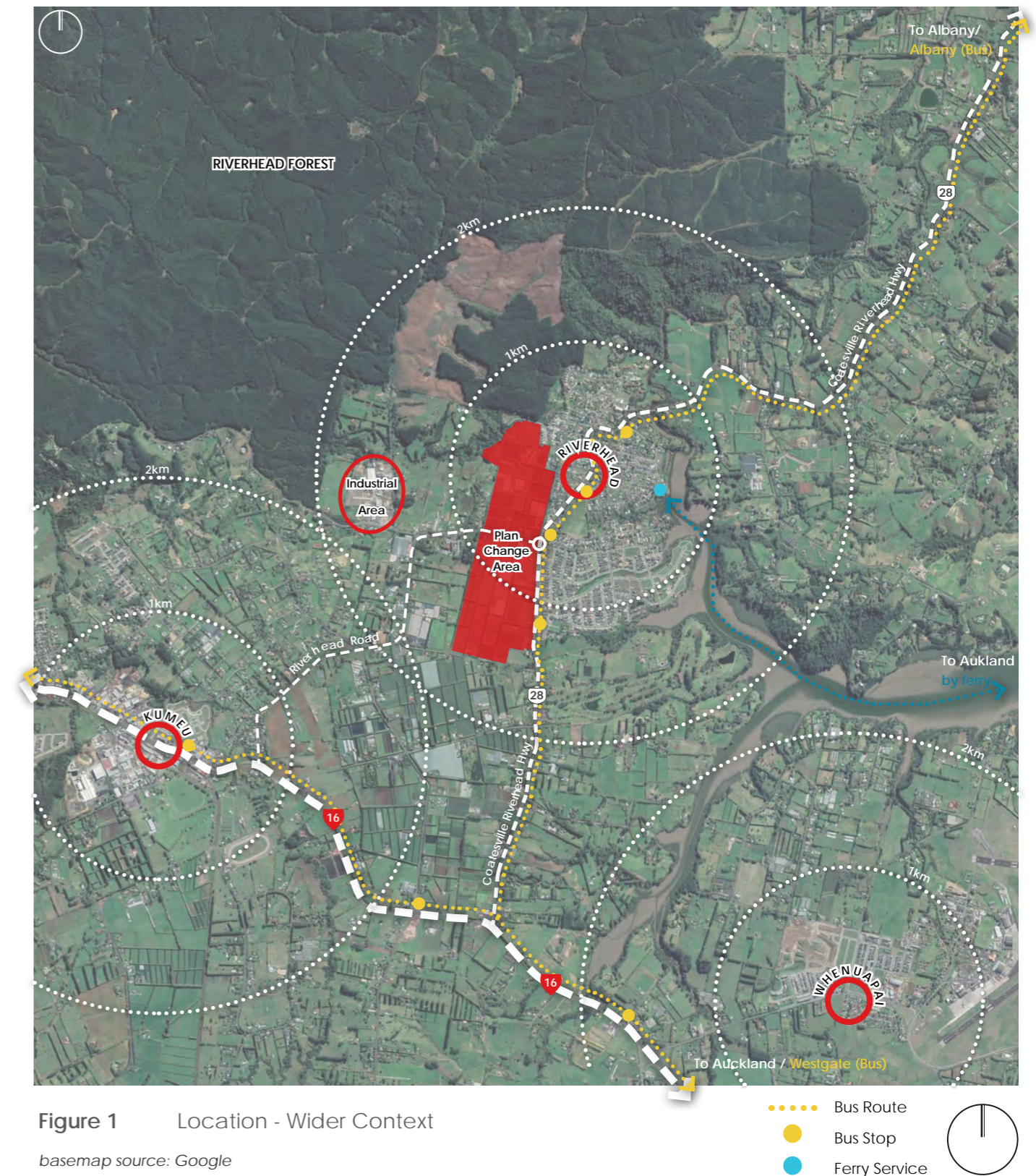


Figure 1 Location - Wider Context

basemap source: Google



basemap source: Google

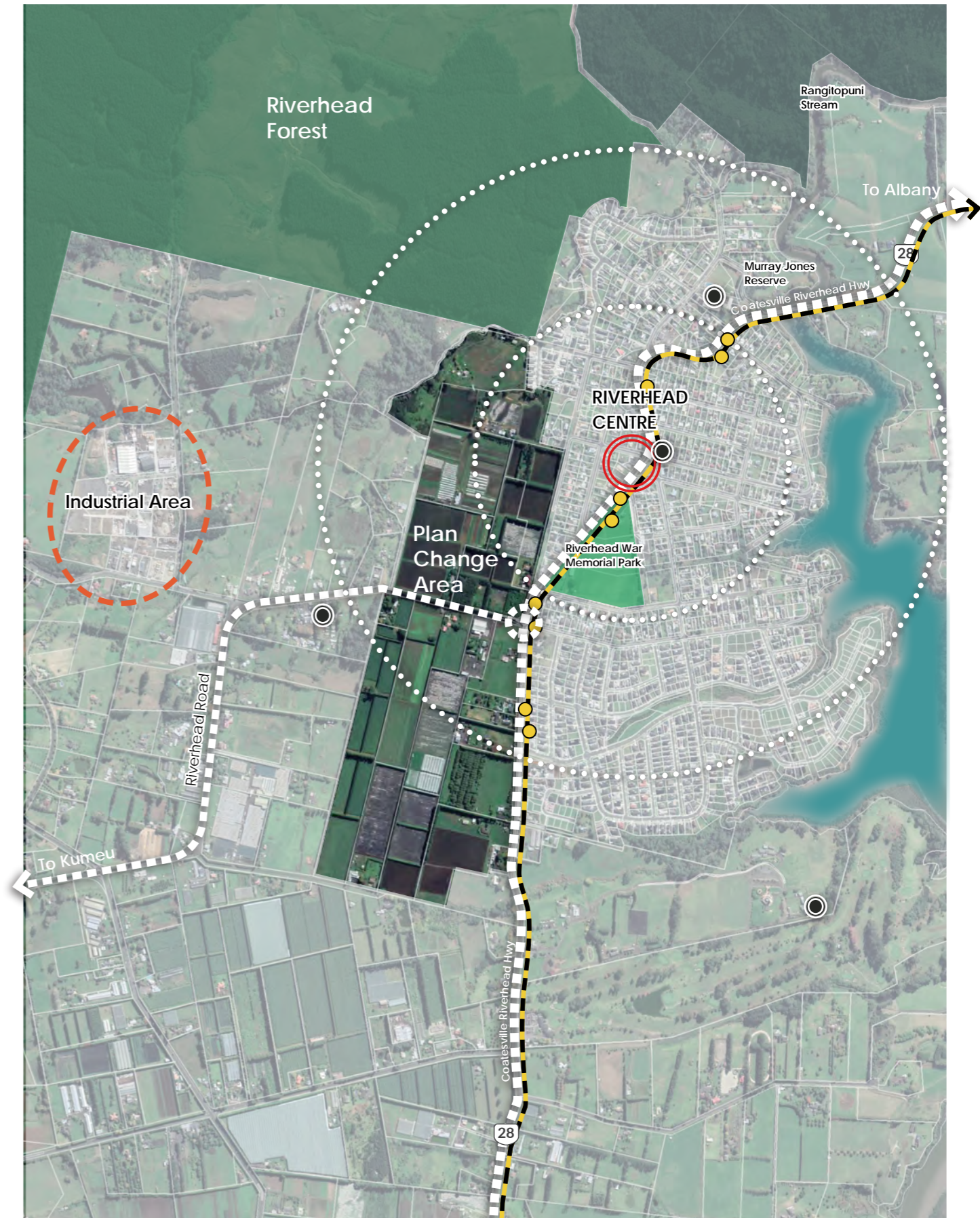


Figure 2 Local context
basemap source: Google

- 126 Bus Route (Westgate-Albany)
- Bus Stop
- community infrastructure (e.g. school, kindy...)

3.0 SITE DESCRIPTION

The plan change site is comprised of 19 different land parcels, across over a dozen different land owners. In total, it measures approximately 80 hectares.



Figure 3 Aerial photo with contour (2m interval)
basemap source: Auckland Council GIS

The site relatively flat rural land, currently used for farming and horticulture. It is regular in shape, with individual land parcels creating a geometric pattern of shelterbelts and other farm boundary definitions.



Figure 4 Aerial photo
basemap source: Google

4.0 SITE ANALYSIS

- 4.1 Place Statement
- 4.2 Access and Connectivity
- 4.3 Landform, vegetation and drainage
- 4.4 Land use and social infrastructure
- 4.5 Constraints
- 4.6 Opportunities

This report addresses the full future urban zone area, together with live zoned land with the intention of understanding and describing the constraints and opportunities presented by the site itself as well as the potential impact and integration with the existing context.

This section of the document addresses the following aspects of the site and its surrounds:

- Riverhead’s sense of place
- cultural values
- access and connectivity
- landform and natural environment
- interfaces
- land uses/activity and social infrastructure
- other infrastructure and land ownership

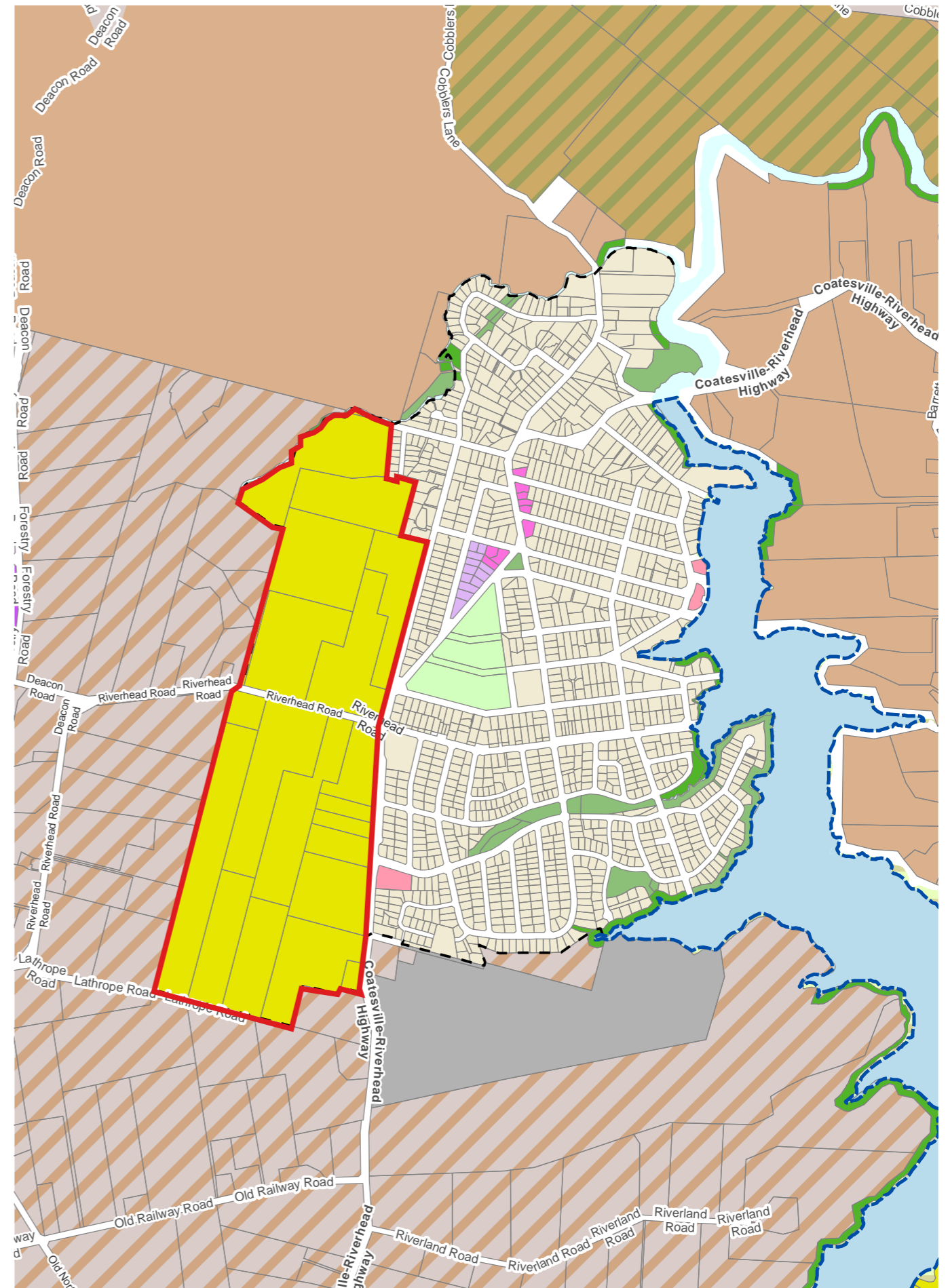


Figure 5 Auckland Unitary Plan Zoning

4.1 RIVERHEAD PLACE STATEMENT

“The traditional name for Riverhead, Rangitopuni, is derived from the presentation of a dog-skin mat (topuni) to the warrior Maki during a peace making ceremony” Graham, 1925

Thomas Deacon came to Riverhead in 1843 and, with his sons, ran several hotels in the area. As the population grew commerce began to increase. John Brigham also acquired land near Riverhead in 1855 and established a flour mill there (Mabbett 1981). By 1885 Deacon had shifted his premises to the location of the present Riverhead Hotel.

Matthew Campbell, Jaden Harris and Andrew McAlister, CFG Heritage Ltd.

The current area of the Riverhead township is approximately 172 ha. With an area of approximately 80 ha, the plan change area represents an increase of nearly 50%. Given the size and location of the plan change area, the potential impact of its development on the existing village of Riverhead needs to be understood, anticipated and accommodated.

Typical of most satellite small villages within the Auckland region, Riverhead has a strong sense of place and community.

Much of Riverhead’s character is associated with its history which dates back to pre-European times when the area was an iwi canoe portage route between the Waitamata and Kaipara harbours and also an important meeting place. (*Auckland Council North and North West Rural Urban Boundary options: cultural heritage overview, for Auckland Council by Matthew Campbell, GFG Heritage, 19 August 2013*).

The most recent development is Stone Mill, a mixed use, medium density housing development located along Coatesville-Riverhead Highway. Three level buildings provide apartments with ground floor retail units facing onto Coatesville-Riverhead Highway. Two storey townhouses face onto Alice Street or are located around a central shared courtyard area.

This development promotes the proximity to vineyards, harbour and forest as well as easy access to Albany and Westgate shopping. It also champions access to ferry, Albany Park and the Ride bus interchange.

Riverhead Tavern - during the development of early New Zealand, the wharf and hotel was the gateway to lands in the north prior to roads and railway infrastructure.



Primary School



older/more established part of the village - traditional weatherboard single storey detached homes



Memorial Park - playground and team sports



Stone Mill - Coatesville-Riverhead Highway - new development of terraces, apartments and ground floor retail



neighbourhood shops, clustered along the highway



recent residential development



rural roads, swales and shelterbelts and views to the forest



food bank, illustrative of a strong community spirit

Like the wider Auckland region, the Riverhead community has experienced significant growth over recent years and is a sought after place to live, with new residential development of various types still ongoing. The recent residential development of Riverhead Point Drive and Deacon Point is evidence of this demand. House builders (e.g. Generation Homes, Golden Homes) are active in the area.

The current settlement exhibits the change of Riverhead over time. The northern area is typically older/more established while new growth has occurred to the south. The Memorial Park and the drainage corridor along the unformed Sussex Terrace form a general boundary between old and new.

Existing sense of place....

The following aspects of the Riverhead environment contribute to its sense of place:

- its Māori history (being defined through iwi narratives and consultation) for example, original portage routes and views towards Kumeu and Riverhead Forest
- its relationship with the coastal environment of the Upper Waitamata harbour - through views to and across it, pedestrian cycle routes along it (albeit limited in the older parts of the village) and coastal esplanade reserves and the scenic ferry trip up through the head of the Waitamata harbour
- its relationship with Riverhead Forest - through visual link to the elevated rural backdrop on the north and east, as well as access for recreation (walking and biking trails)
- its pakeha history as a small working class village and as home to the historic riverside tavern (over 160 years old) and War memorial Park
- surrounding rural land uses, typically associated with food production
- a strong community spirit and active residents association
- Memorial Park and sports and recreation - particularly golf and rugby
- rural type roads with no kerbs, swales and shelterbelts
- wine-making and craft beer (especially Halletau Brewery) make it a destination for food and drink
- a mix of older, established residential area in the north, along with new development, generally in the south
- drainage corridors, connectign to the harbour or Rangitopuni Stream
- exotic street trees which provide autumn colour and change with the seasons

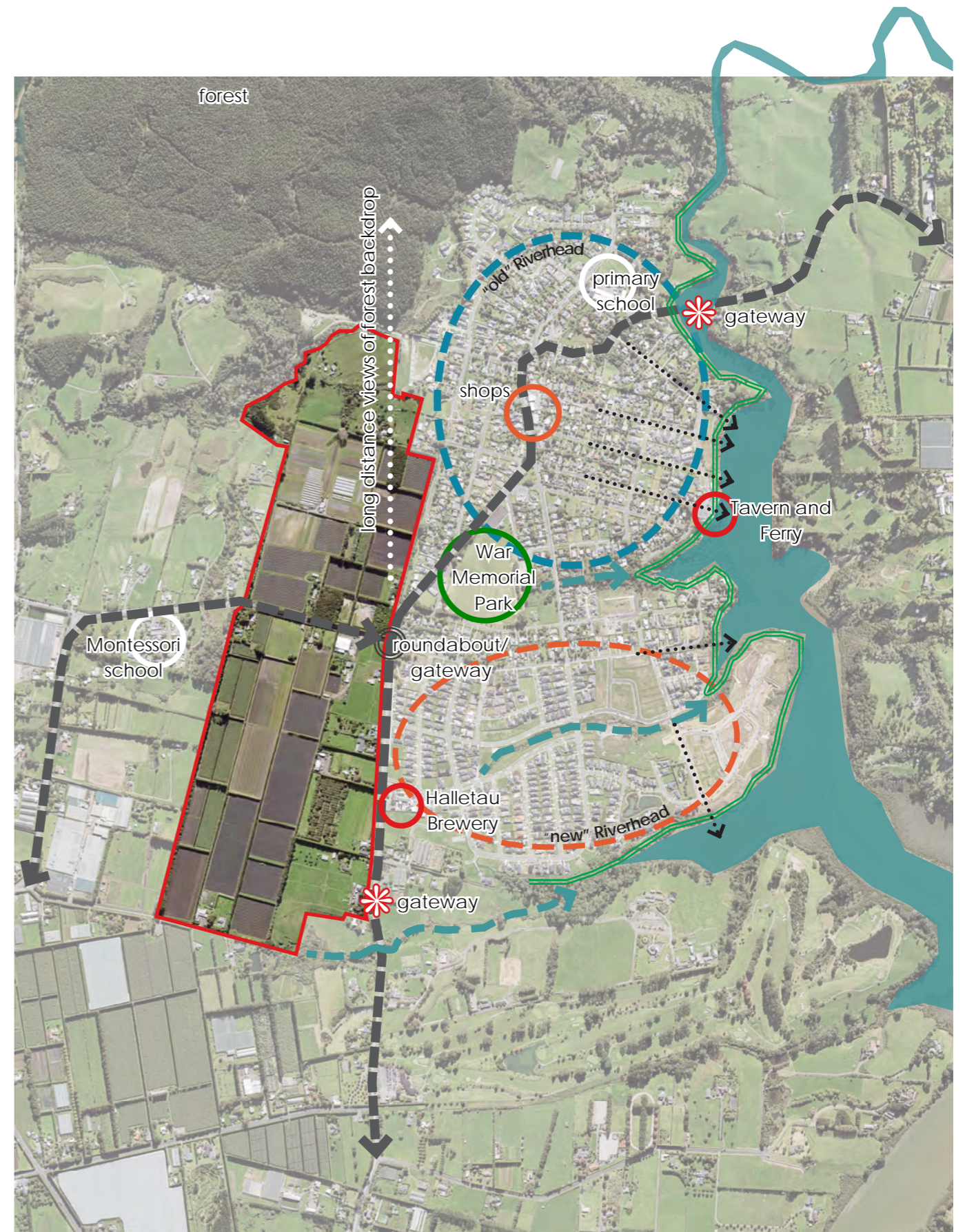


Figure 6 Riverhead Place Analysis

basemap source: AC GIS

4.2 CULTURAL VALUES

Engagement with mana whenua as part of the planning process has been undertaken and through several hui, a preliminary Cultural Overlay Map has been prepared to inform the Structure Plan and precinct plan provisions.

Key feedback comments:

- Mauri of the whenua is most important; notably the two awa, one to the east/coast (with significant wahi tapu) and one to the west;
- there are historic portage routes between the harbours/ headwaters of the meandering Kaipara and Kumeu Rivers
- An important high point in Riverhead Forest (Te Ahu), which used to be used for watching over the portage routes;
- There are no specific sites within the plan change area which warrant scheduling so the focus should be on wider cultural values;
- Stormwater should be regarded as a resource not a problem to be solved, with value for ecology and people;
- Preference is for a treatment train approach (including water reuse), with stormwater and how it sits on the land being an integral part of the design process;
- Other areas of interest include stormwater, biodiversity, energy efficiency and cultural design;
- Opportunities include the wetland to the north and market gardening;
- Support reintroduction of species that formerly existed;
- Important to map cultural values and elements like the portage and views to certain elements;
- Ensure the plan change directs and delivers these ideas (via bespoke precinct provisions); and
- Enable further input at more detailed design stages through workshops and Cultural Values Assessments.

- east - west connections reflecting potential original portage routes, promoting awa ki awa linkage
- existing awa - potential restoration of native vegetation
- potential route for green infrastructure, ecological connections and native habitat and ara hiko for people's health and well being

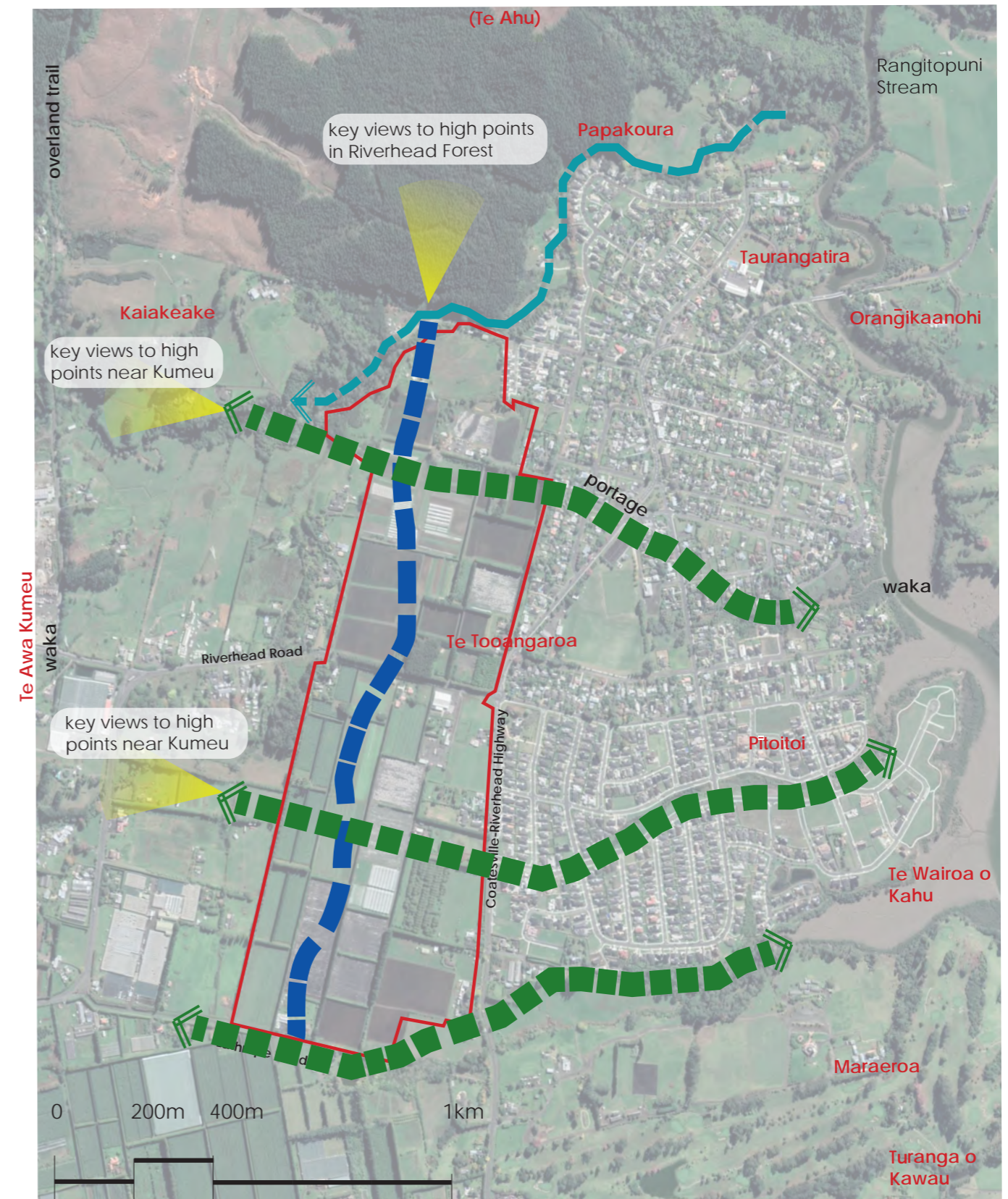


Figure 7 Preliminary Cultural Overlay Map

basemap source: AC GIS

Please note: The identified place names are subject to confirmation

4.2 ACCESS AND CONNECTIVITY

Appendix 1.4 of the AUP - matters to identify, investigate and address through structure planning:

Linkages and integration with existing urban-zoned and/or rural-zoned land adjoining the structure plan area through careful edge or boundary treatment.

The plan change area has good access to primary/arterial roads which connect it to the wider area, namely Kumeu/Huapai to the west and Whenuapai/Massey/Auckland to the south east. The Coatesville-Riverhead Highway also provides connection to Albany in the north. The Coatesville-Riverhead Highway supports a bus service between Massey and Albany.

The significant existing and future volume of traffic on these roads does present a potential constraint to accessing development along these frontages. A response to this constraint is evident in the "slip-lane" design of Grove Way and the intersection with Pitoitoi Drive.

The northern portion of the site has some potential for connecting into the suburban fabric of Riverhead through Duke Street, Te Roera Place and Cambridge Road but each of these locations have some limitations, including flood areas, topography and ecological constraints, along with the rural nature of these roads, and limited capacity for both vehicles and pedestrians.



End of Te Roera Place, looking south into PC area



Coatesville-Riverhead Highway (alongside Grove Way)



Central swales in Riverhead Point Drive



Lathrope Road

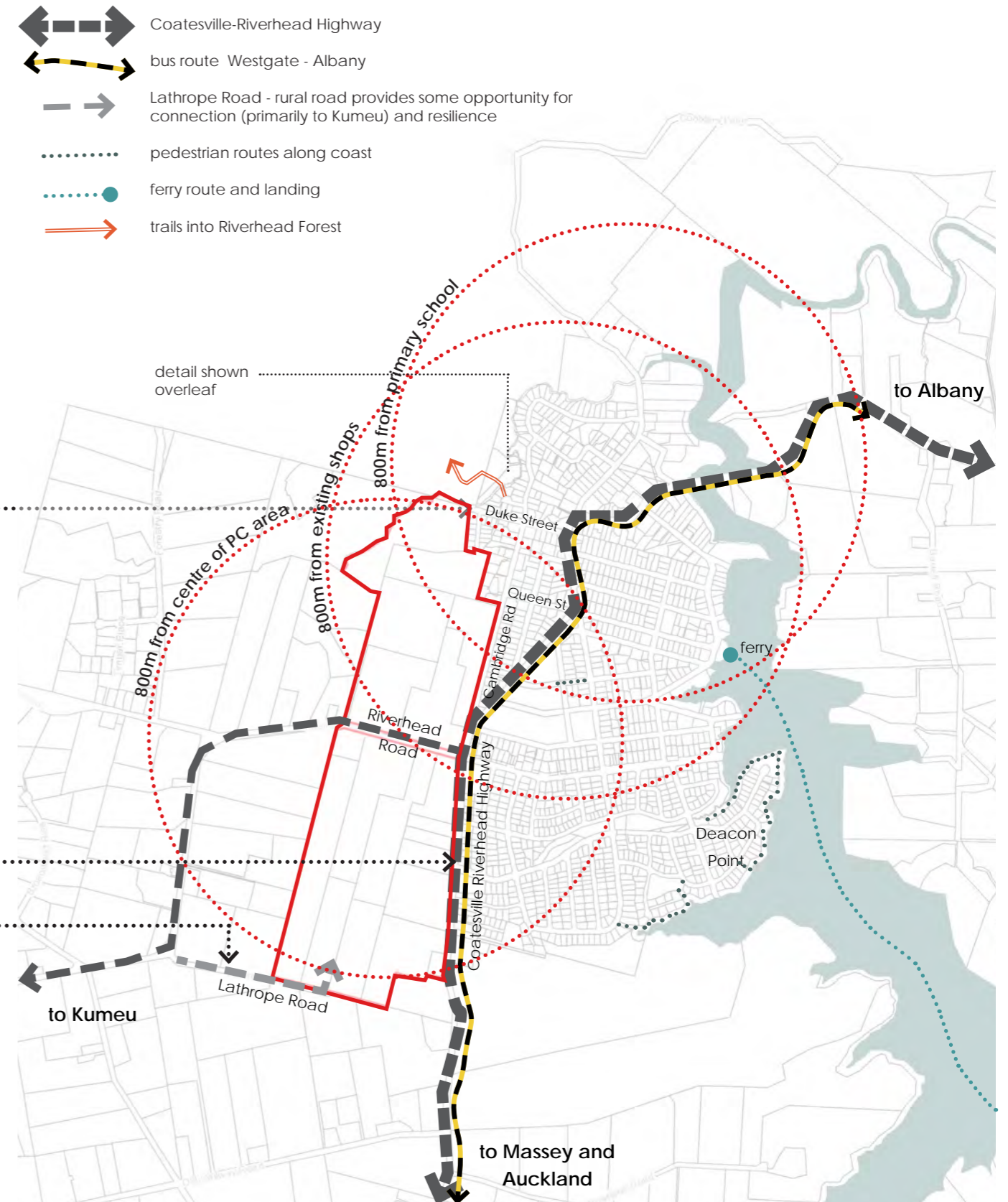


Figure 8 Access Assessment

4.3 LANDFORM, VEGETATION AND DRAINAGE

Appendix 1.4 of the AUP - matters to identify, investigate and address in structure planning:

The integration of green networks (such as freshwater and coastal water systems, and ecological corridors) with open space and pedestrian and cycle networks, showing how they reflect the underlying natural character values and provide opportunities for environmental restoration and biodiversity.

The site slopes gently towards the north where it meets a stream which drains to the Upper Waitamata Harbour. On the other side of this stream, the topography rises steeply as part of Riverhead Forest. This landform terminates northerly views and creates a green backdrop to the northerly portion of the PC area. In the northern part of the site, the land form creates a series of north facing "terraces".

The remaining area is relatively flat. The northern portion of the site has wetlands and flooding constraints.



Mature trees around the Memorial Reserve



typical shelterbelt planting along roads/property boundaries



Figure 9 Topography and existing vegetation

AUDM - Te Aranga Design

- Creating and connecting ecological corridors and webs
- Planting of appropriate indigenous flora in public places, strategies to encourage native planting in private spaces
- Selection of plant and tree species as seasonal markers, providing habitat for all native fauna as attractors of native bird life
- Establishment and management of traditional food and cultural resource areas allowing for active kaitiakitanga
- Daylighting, restoration and planting of waterways

Policy E38.3(14) - AUP encourages the design of subdivision to incorporate and enhance land forms, natural features and indigenous trees and vegetation.

As part of a low lying area close to the coastal reaches of the Upper Waitamata Harbour, northern parts of the site are subject to flooding.

There are a number of overland flow paths that traverse the site. A few pockets of mature vegetation remain, along with the occasional specimen tree, notably a beech tree on 298 Riverhead Road.

The vegetation of the site is highly modified due to food production. Properties are often demarcated through shelterbelt planting.



drainage corridor/swale along Riverhead Point Drive



local named drainage corridor



Figure 10 Drainage

basemap source: AC GIS

contour interval = 1m

Retirement Village

While working alongside Fletchers and Neil Group on the structure plan and plan change process, Matvin are planning to build a retirement village on their land at 1092 Coatesville-Riverhead Highway.

Matvin have consent for their with their specific detailed development project via the COVID-19 Recovery Fast Track Consenting process so they can provide opportunities for retirement village living in Riverhead more quickly.

It is anticipated that construction will begin on the village in the 2024/25 construction season.

RESIDENTIAL DEVELOPMENT

Although there is some recent medium density housing development under construction, Riverhead is essentially a low density residential environment characterised by single storey detached dwellings and lot sizes typically around 800m² in both well established and new parts of the village. All residential land in Riverhead is zoned Single House Zone in the Auckland Unitary Plan, the objectives, policies and rules of which discourage densification.

The plan change provides an opportunity to extend the range of residential living in Riverhead, providing more choice and more affordable lifestyle options, and use the land resource and infrastructure networks more efficiently. This includes the potential to deliver attached housing (terraces), hybrid typologies (turn key), low rise apartments and retirement living.

VILLAGE CENTRE/RETAIL/EMPLOYMENT

Small scale neighbourhood shops are scattered through the village, although there is a clearly perceived focus/heart around the Four Square/food market, cafe and kindy. Typically, the local shops have high visibility due to the passing trade along the highway, and convenient parking either in front (parallel or perpendicular) or on side streets.

Future village retail in the plan change area is likely to benefit from good visibility/passing traffic as well as an additional residential catchment. However, given the potential traffic/access restriction along the highway, placing local shops away from this busy road may provide for greater amenity and pedestrian priority.

OPEN SPACE/RECREATION

Current recreation open space provision in Riverhead includes:

- Riverhead Memorial Park (sport fields, facilities and playground)
- Esplanade walkways around the Upper Waitamata harbour

EDUCATION

Education needs in Riverhead are currently met by Riverhead Primary School, which also includes intermediate years (7 and 8). The Ministry of Education (MoE) is adding capacity to Riverhead School and actively investigating the need for a new primary school in the wider area although location and timing of any new primary school is yet to be confirmed. MoE is also investigating options for a new high school in the Kumeu to open between 2026 and 2030.

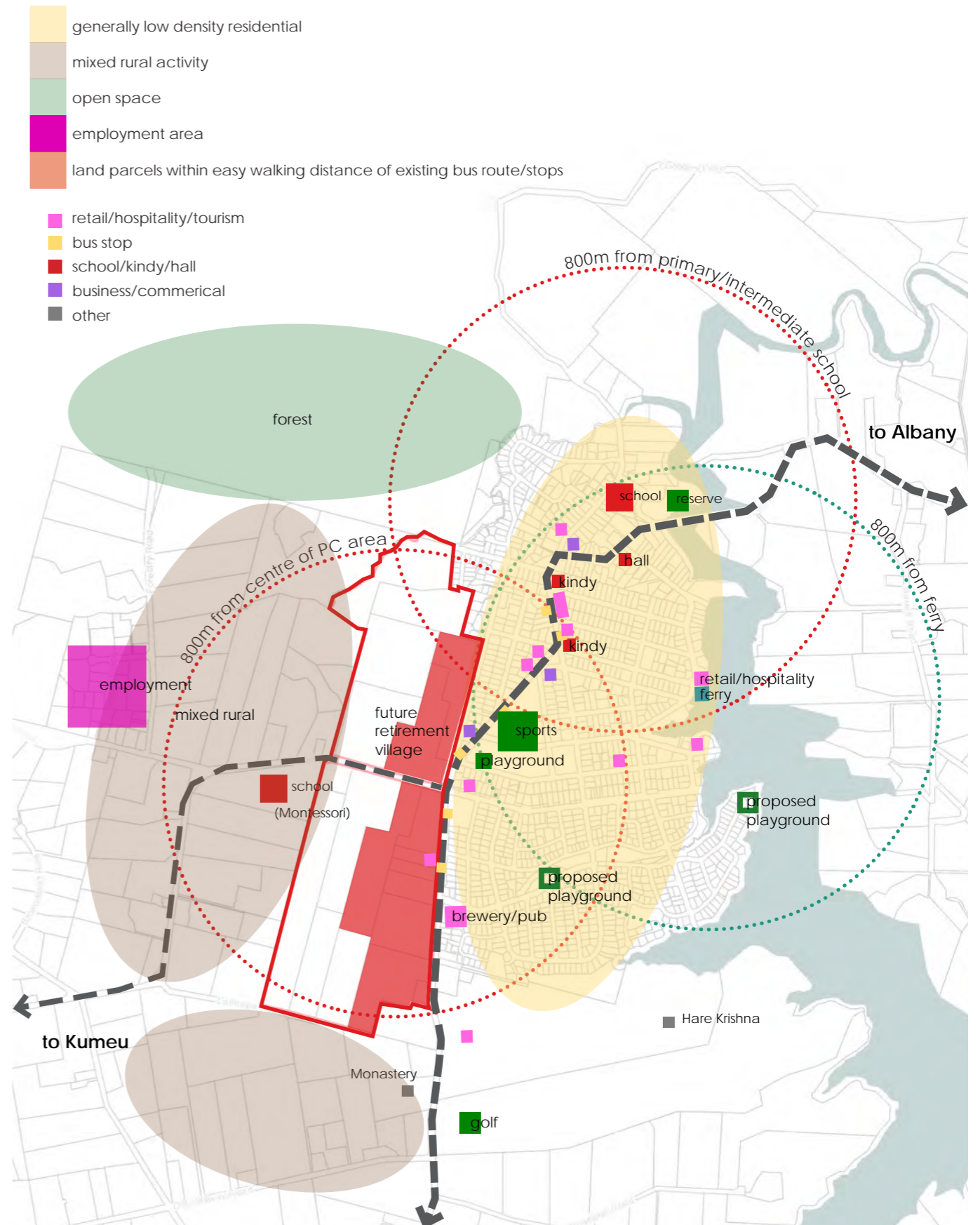




















Figure 11 Existing land use and proximities

4.5 CONSTRAINTS

-  Plan Change Boundary
-  existing village centre

-  individual land ownership
influences location of key routes/access and development staging
-  Arterial routes
traffic speeds, vehicle access restrictions etc. can be a barrier to integration/connectivity
-  drainage corridor
-  intermittent stream
-  flood prone area and/or wetlands
-  mature beech tree
-  existing village centre
constrained with respect to growth and not within easy walking distance of all future urban land
-  steep slope
limits access and/or requires significant earthworks
-  local road - limited capacity
-  unformed paper road
limits vehicle connectivity
-  vehicle access restriction
-  rural interface
-  low density village interface
-  overhead power transmission line
-  future road widening
from 20 to 24m in line with Supporting Growth Alliance expectations
-  retirement village
consent granted through COVID 19 Recovery (Fast Track Consenting) Act 2020

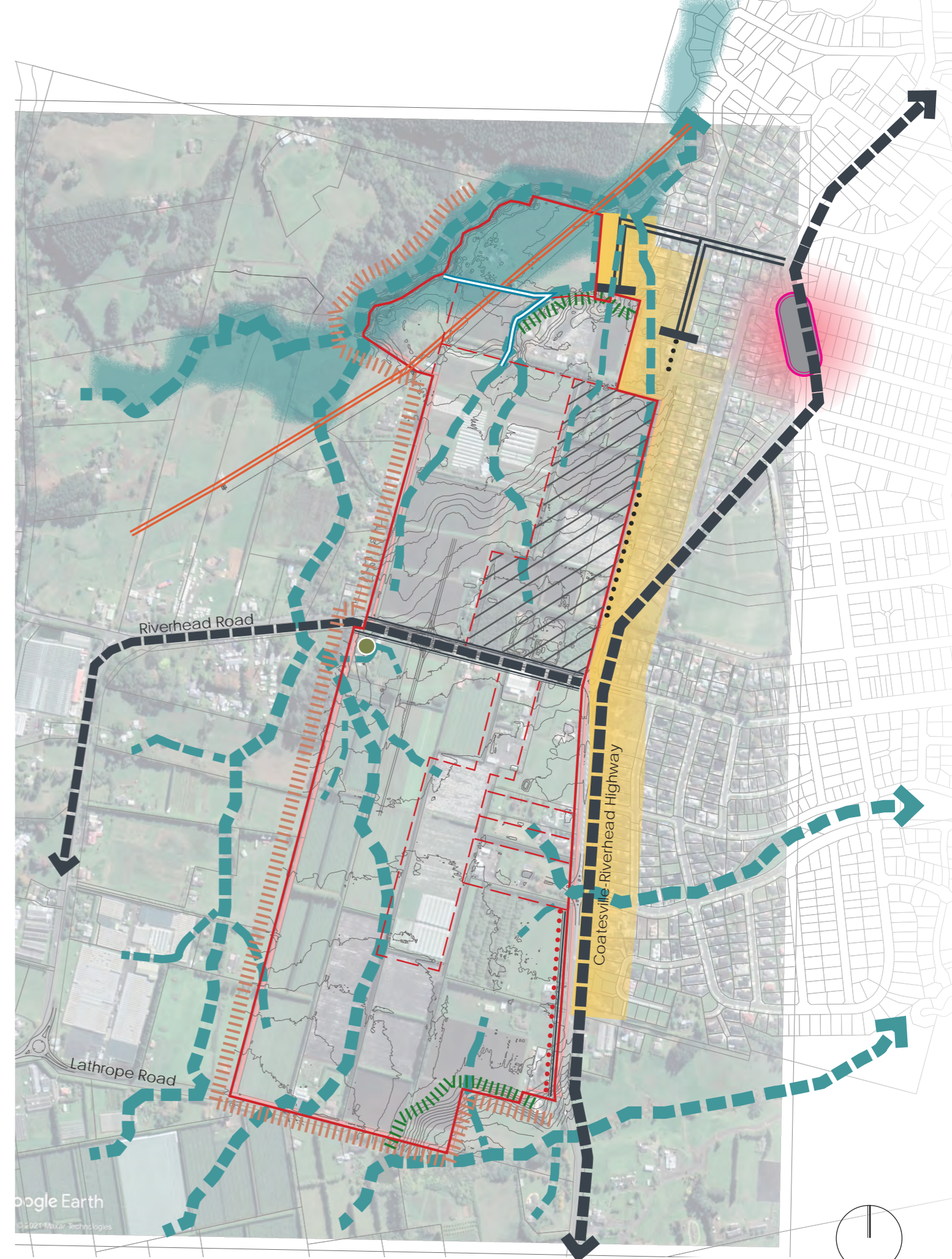

























Figure 12 Constraints

4.6 OPPORTUNITIES

-  Plan Change Boundary
-  existing village centre

-  existing arterial routes
(upgrades to accommodate pedestrian and cycle facilities)
-  key new roading connections
-  key active mode infrastructure linking to public transport routes
-  celebrate key intersection
-  trails into Riverhead Forest
-  pedestrian/cycle connection
-  response to ecological and flooding constraints
-  multi-purpose green corridor/open space and/or stormwater conveyance (indicative location)
-  stormwater reserve/device (indicative location)
-  intermittent stream
-  stream corridor (outside PC area)
-  provide strong links to park/sports
-  potential centre location and higher density residential (local centre and/or neighbourhood centre)
-  potential location of primary school
-  gateway feature (natural open space/landscape boundary)
-  gateway feature (urban gateway/landscaping/public art)
-  benefit from/promote place associated with Halletau
-  maintain viewshafts to Riverhead forest
-  mix of residential densities/typologies
-  appropriate interface with rural activity and stream
-  mature beech tree worthy of retention

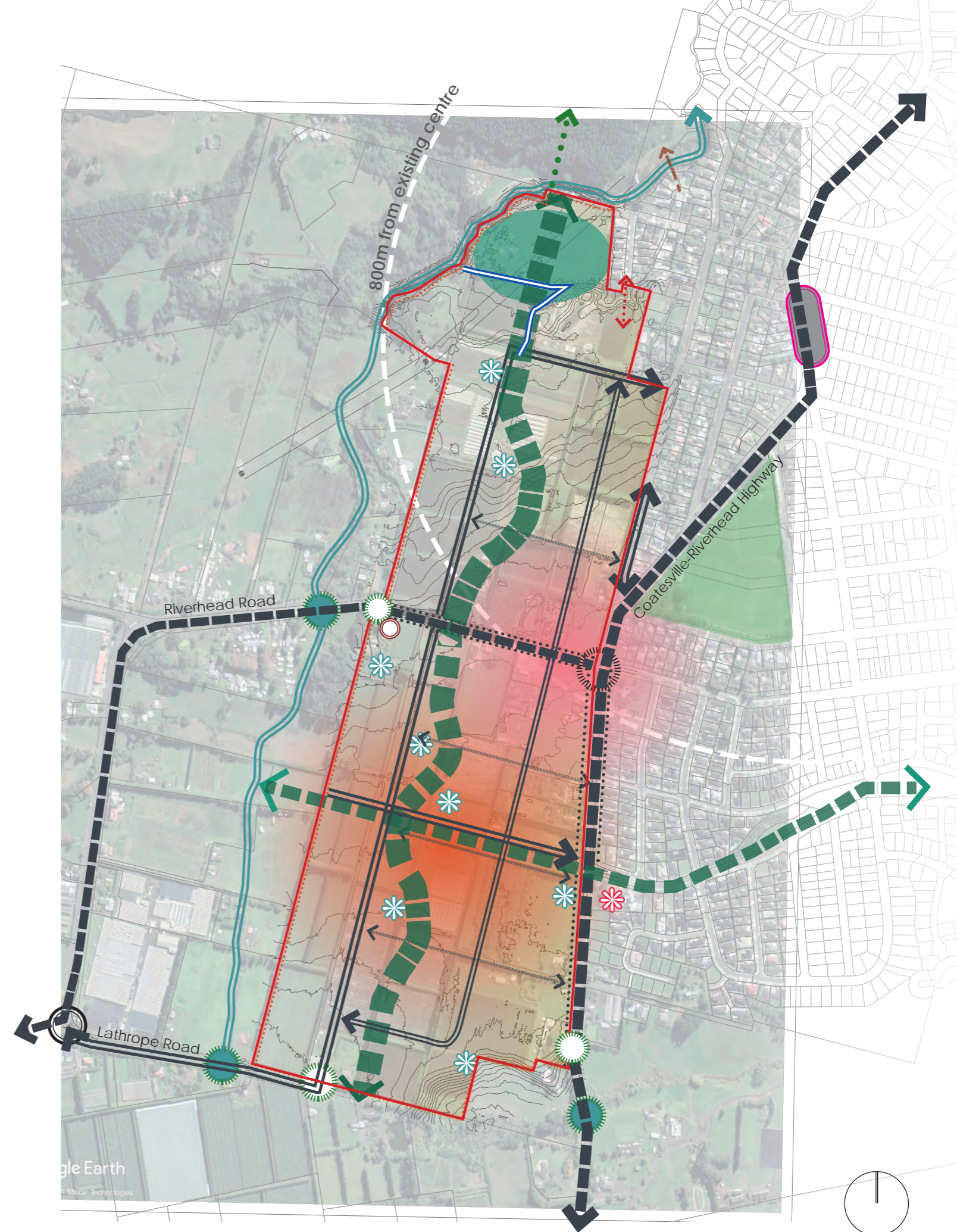


Figure 13 Opportunities

5.0 DESIGN DRIVERS

- 5.1 Vision Statement
- 5.2 Development principles
- 5.3 Key moves
- 5.4 Indicative Masterplan

5.1 VISION STATEMENT

Informed by a clear understanding of the site's unique opportunities and constraints, a vision can be developed which enables the plan change to:

- contribute to accommodating growth within the area and on land that is well located, accessible and within a logical urban area
- maximise the benefits of location, setting, views and access to attractions and destinations
- promote landscape and ecological value and express the water story with respect to stormwater treatment

....an extension to the existing village, providing greater housing choice, better access to facilities and services and enhancing the natural environment....creating a place where existing residents can welcome new ones and together build a

healthy community and a healthy place

5.2 DEVELOPMENT PRINCIPLES

A number of appropriate best practice urban principles have been identified and framed the structure plan to the development of the site.

- **a connected physical environment**

delivering a highly connected new neighbourhood that fosters multi-modal transport choices, including walking and cycling modes with good safety, convenience and amenity

- **an integrated community**

merging old and new, and responding to village and rural context

- **access to nature**

visual and physical access to a variety of multi-functional connected green spaces, and the wider coastal and rural environment

- **vibrant and local**

a mix of uses that supports a variety of activity and uses building on local identity, such as farmers markets, wine and craft beer to reinforce Riverhead as a destination for local food and drink

- **housing choice and affordability**

with a wide range of housing types and residential densities, a mixed demographic and a local character/point of difference

- **proximity/convenience**

to public transport, education, recreation and jobs



5.3 KEY MOVES

The key design moves illustrated below are informed by the vision and development principles and drive the indicative masterplan which, in turn, informs the spatial arrangement of structure plan components.



1

deliver a north-south multi-purpose green corridor which:

- functions as a structural placemaking element
- connects riparian environments and promotes ecological linkages;
- provides opportunities for recreation and co-location of active play spaces and passive areas;
- adds amenity and character to the internal movement network, in particular active modes; and
- restores and protects the mauri and mana of the wai (water) by adopting an exemplar stormwater management approach



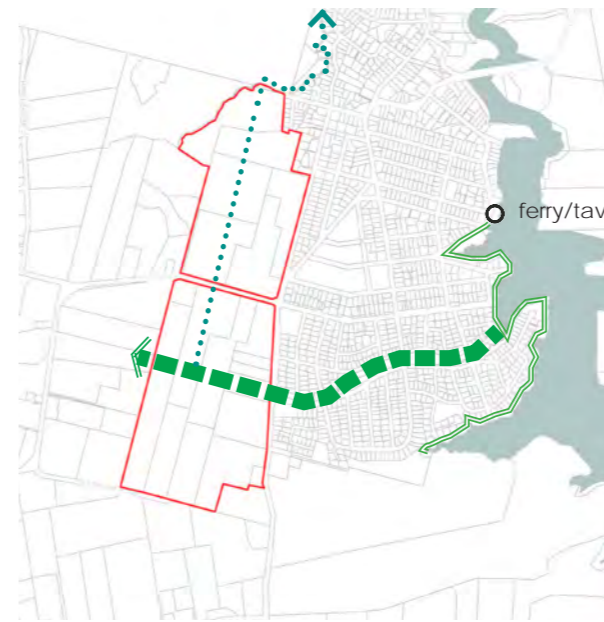
2

provide a new village hub, reinforcing Memorial Park as the heart of the village and supporting this centre with a smaller neighbourhood centre, complementing the existing shops on Coatesville Riverhead Highway



3

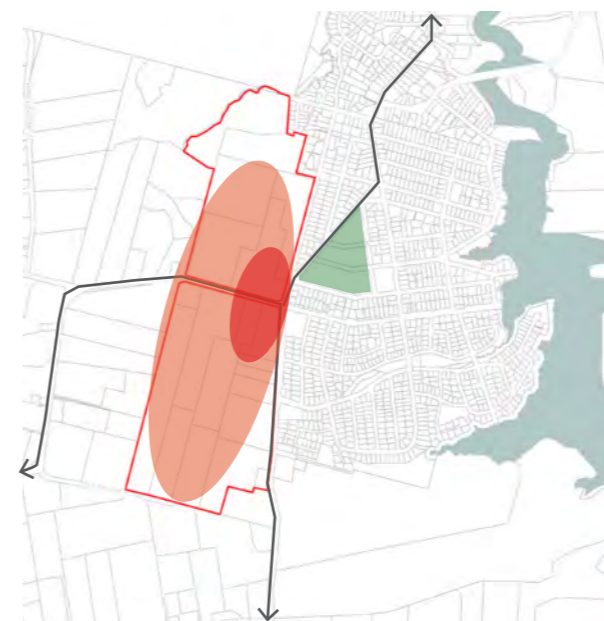
ensure a high level of connectivity and safety for walking and cycling, both internally and to the existing village, particularly Memorial Park, and promote good solar orientation through predominant north-south block alignments



4

promote an ecological corridor between the coastal environment of the upper harbour, Rangitopuni Stream and Riverhead Forest which:

- reflects the original portage route;
- adds amenity and character to movement networks;
- incorporates stormwater management areas where practical



5

provide for housing choice and a range of residential densities, with high density reinforcing the centre and medium density transitioning to the surrounding rural environment

5.4 INDICATIVE MASTERPLAN

The indicative masterplan has been an essential design tool for the multi-disciplinary project team during the structure planning process and has been used to explore and communicate ideas with land owners and a wide range of stakeholders. Through a number of design iterations, various design scenarios have been tested to ensure they can be delivered at a detail design/resource consent level.

The opportunities and constraints have informed the ongoing development of the masterplan as well as:

- land ownership and cadastral pattern
- cultural values
- various and uncertain land owner aspirations
- the likely location of intersections on Coatesville-Riverhead Highway and Riverhead Road due to safety/sightlines and necessary separation distances
- other technical reports by the wider project team



Figure 14 Indicative Masterplan

6.0 STRUCTURE PLAN

- 6.1 access and connections
- 6.2 centres
- 6.3 residential density
- 6.4 open space network
- 6.5 interfaces

The key design components and outcomes envisaged by the masterplan have been distilled into the proposed structure plan. The structure plan illustrates the indicative location of key movement corridors, open spaces and land uses. The structure plan will guide future subdivision and development as well as the assessment of subsequent resource consent applications. This section also includes recommendations for precinct plan provisions in order to deliver good urban design outcomes

Note: Due to significant flood risk, some of the land in the northern portion of the Future Urban Zone has been excluded from the Structure Plan Area and rezoned as Mixed Rural Zone.

Legend

- | | |
|---|--|
| Structure Plan Boundary | local centre |
| Plan Change Area Boundary | neighbourhood centre |
| Multi-purpose Green Corridor/
open space and/or Stormwater
Conveyance (indicative location) | Proposed neighbourhood park
(indicative location) |
| collector road (indicative location) | stormwater management area
(indicative location) |
| key local road (indicative location) | stormwater management corridor
(indicative location) |
| key pedestrian connections (indicative location) | gateway |
| upgrades to road and roundabout | properties with notable ecological and
flooding issues to be managed
to be addressed by subsequent design and consenting |
| upgrade to intersection | rural/urban interface control |
| future road widening | National Grid Subdivision Corridor |
| future roundabout | National Grid Yard Uncompromised |
| Residential - medium density | intermittent stream |
| Residential - higher density | permanent stream |

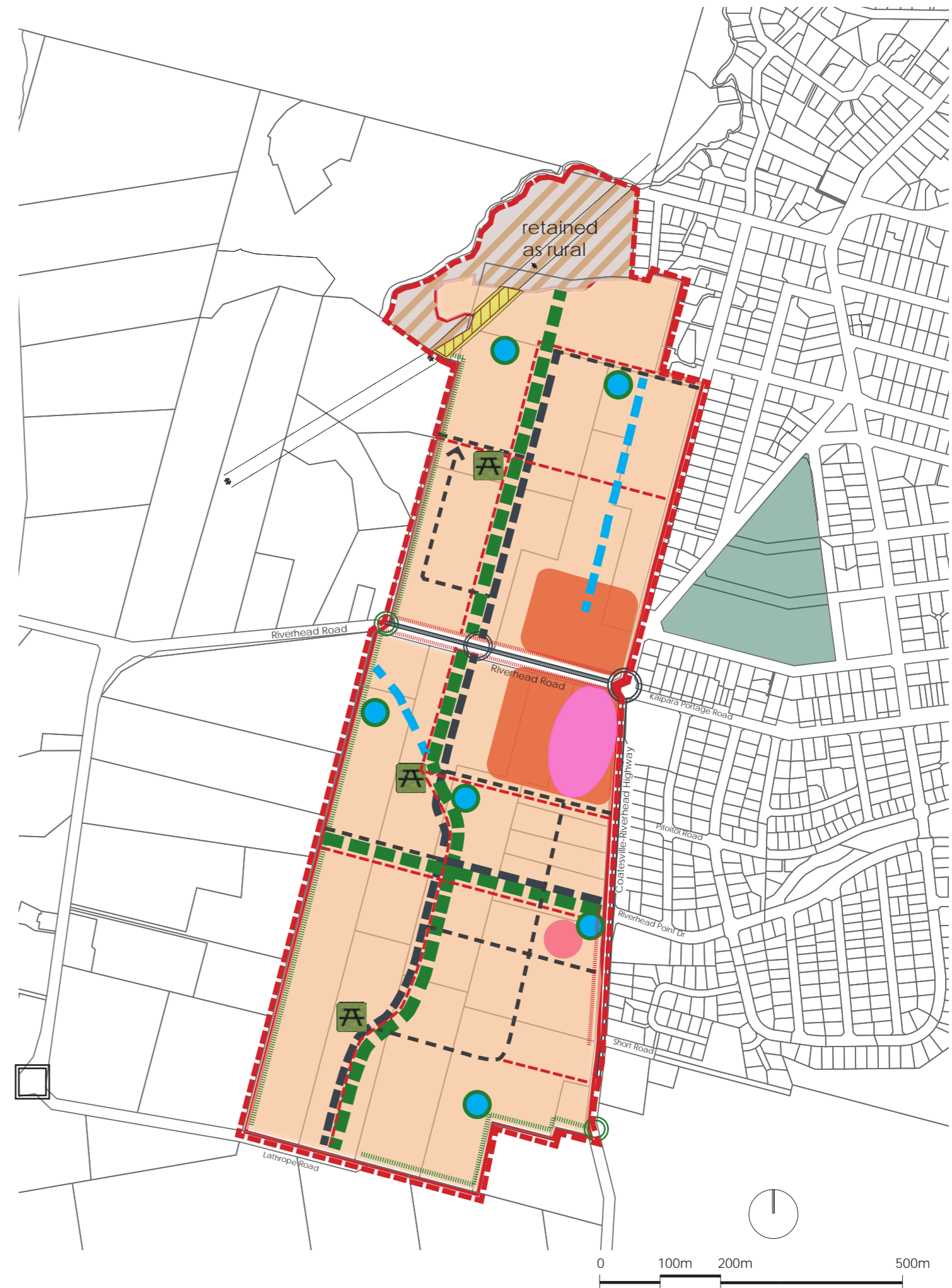


Figure 15 Riverhead Structure Plan

6.1 ACCESS AND CONNECTIONS

The proposed movement network accommodates all travel modes to deliver a connected movement network to support the development of the plan change area. A hierarchy of road typologies are proposed to promote legibility. Along Riverhead Road and Coatesville Riverhead Highway, new roundabouts help to slow traffic and gateways serve to indicate the change from rural to urban and associated need for speed reduction.

Riverhead Road/Coatesville-Riverhead Highway

These arterial roads adjoin the plan change area and will be fully urbanised as part of the development of the site. They accommodate public transport services and also provide the opportunity to provide new walking and cycling facilities. As connections to the wider area, they also have the opportunity to provide gateways and contribute to the overall character of Riverhead.

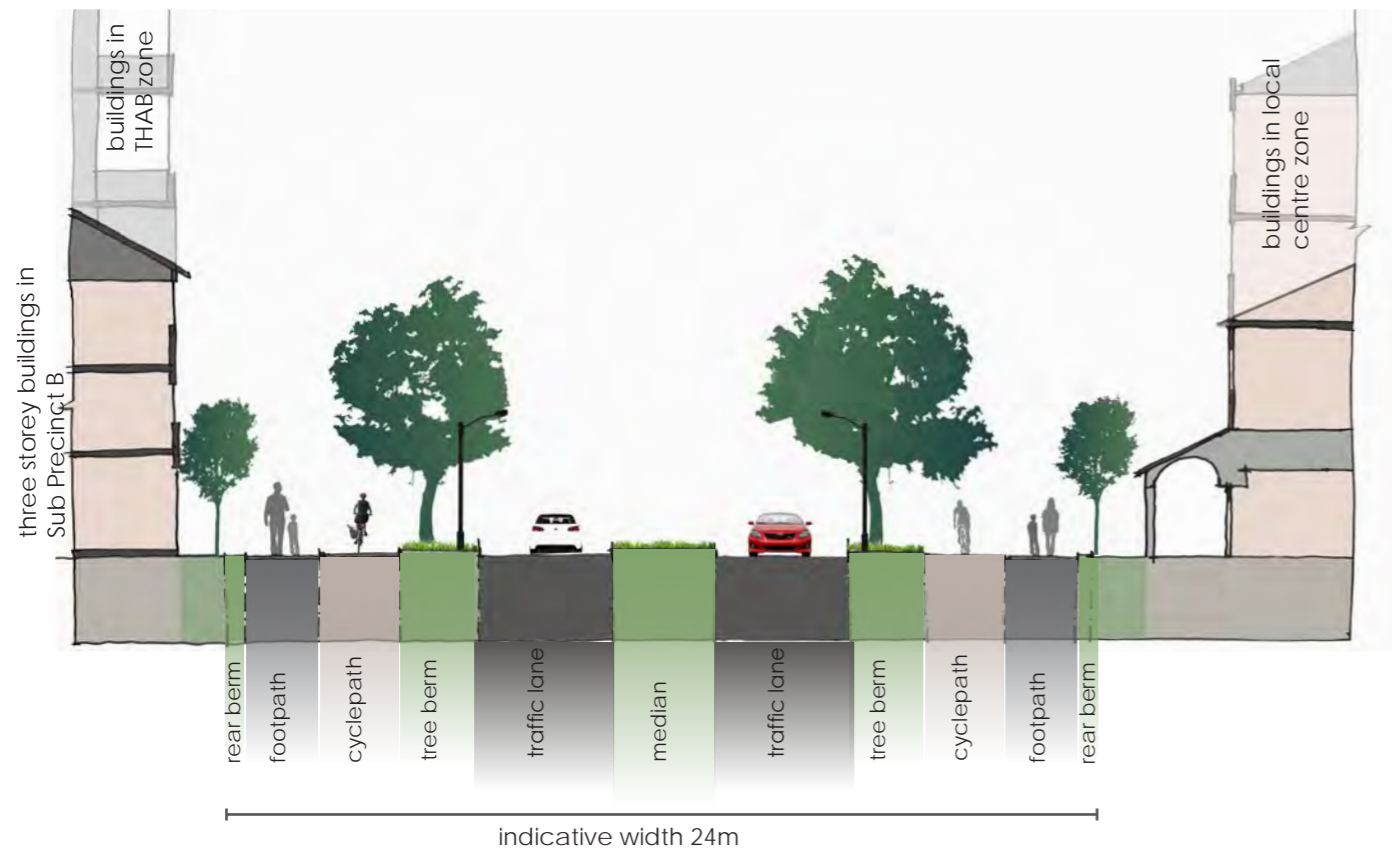


Figure 16 Indicative cross section of Riverhead Road

Collector Road

Collector roads ensure a high level of connectivity across the plan change site and connect the development to the surrounding existing roading infrastructure. They also connect and integrate development on different land parcels (and owners). The “north-south” collector route travels almost the full length of the plan change site, connecting Lathrope Road to the northern portion of the plan change



Figure 17 Roding Connections

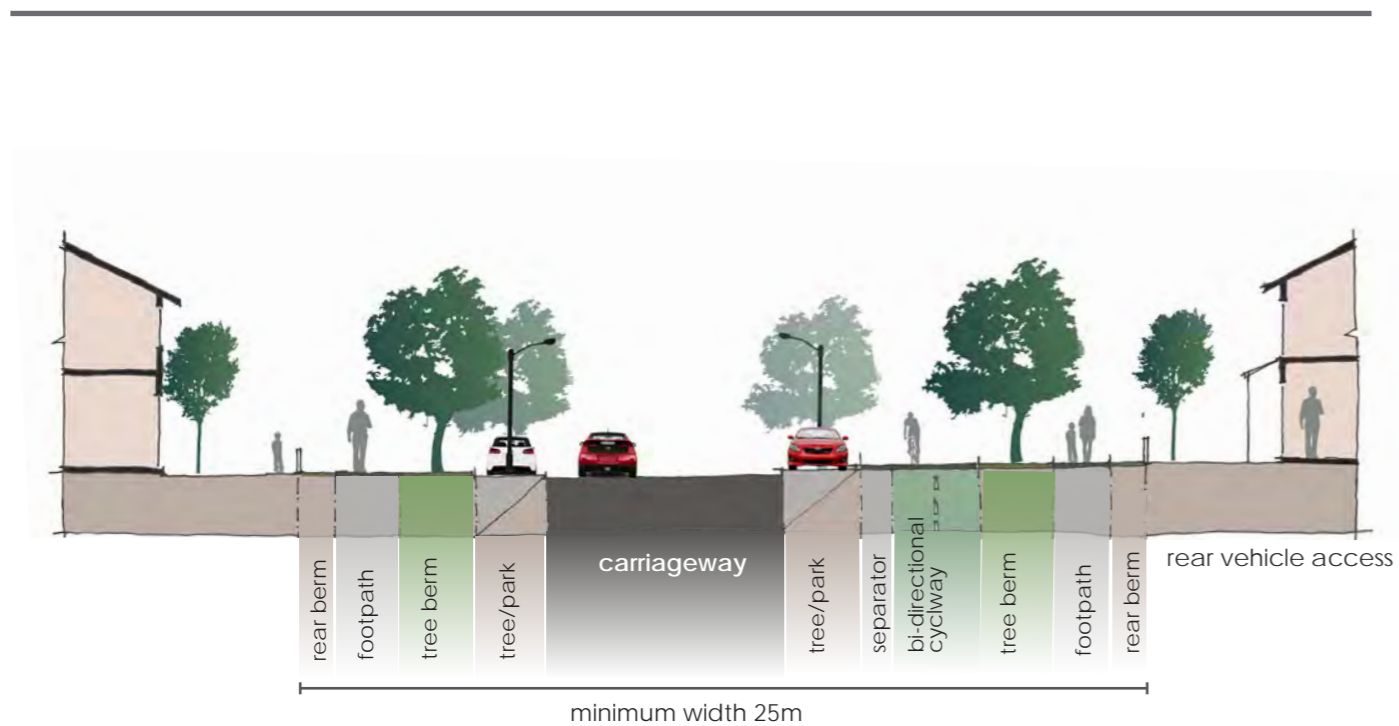


Figure 18 Indicative/potential design of Collector road

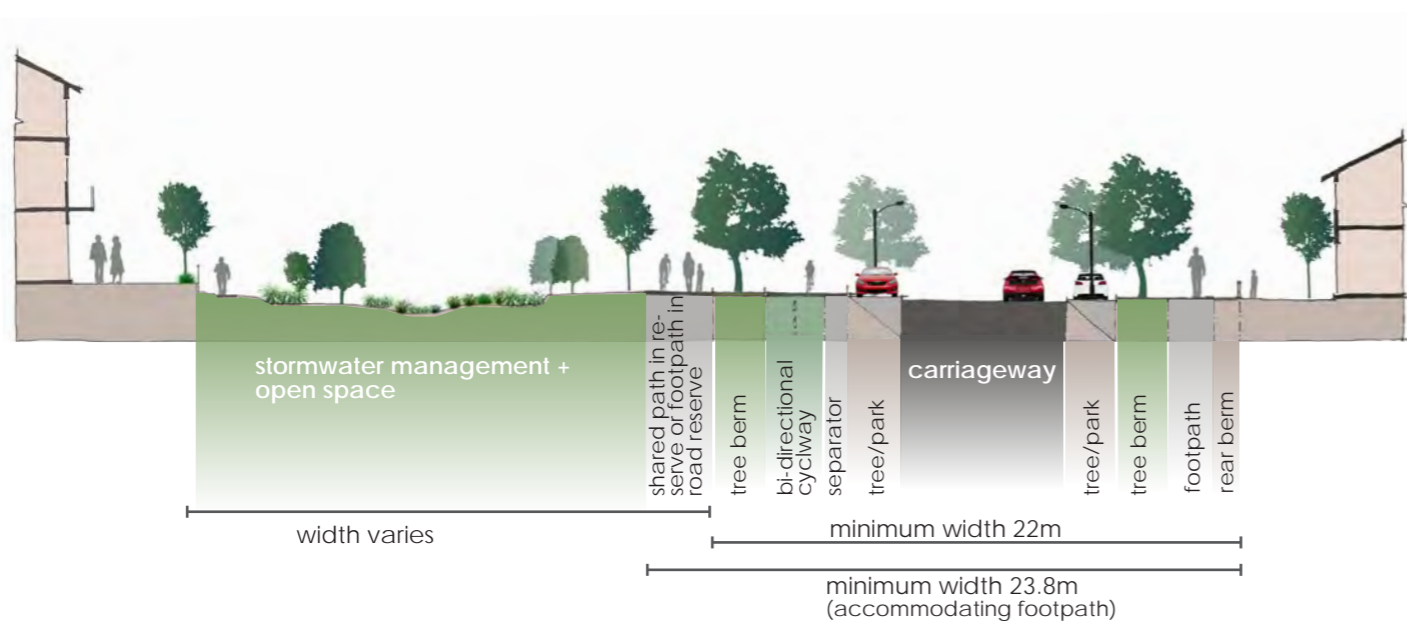


Figure 19 Indicative/potential design for Collector Road adjacent to green corridor

site and promoting views towards Riverhead Forest. It aligns generally with the central multi-purpose open space corridor which enables the open space amenity to be highly accessible and visible and shared by all residents.

The collector road network is not currently proposed to connect to either Duke Street or Cambridge Street. Land in the northern part of the plan change area includes wetlands and is also subject to flooding and these constraints are expected to prevent a collector road from being delivered. Subject to these constraints, future local roads may connect the northern portion of the plan change area to Duke Street. Pedestrian and cycle connectivity to Duke Street is still ensured.

A key east-west collector connects the north-south road to Coatesville Riverhead Highway where a future roundabout is proposed and connection is made to the southern part of the existing village and also to the coastal environment.

Collector roads accommodate pedestrian and cycle paths in both directions to ensure the good provision of safe active travel modes. They also provide good opportunities for street trees which contribute to establishing the green corridors and indicating/reinforcing their collector status.

Key Local Roads

Key local roads connect the north-south collector to the surrounding road network and help to distribute internal traffic towards the surrounding arterial roads. They serve to ensure connections between different land parcels/owners are made thereby ensuring integrated development over time. A key local road also promotes physical and visual connection with the existing village (Pitoitoi Drive).

Two opportunities for local roads to connect to land along the western boundary are proposed, to ensure neighbourhood connectivity should that land be rezoned as urban in the future.

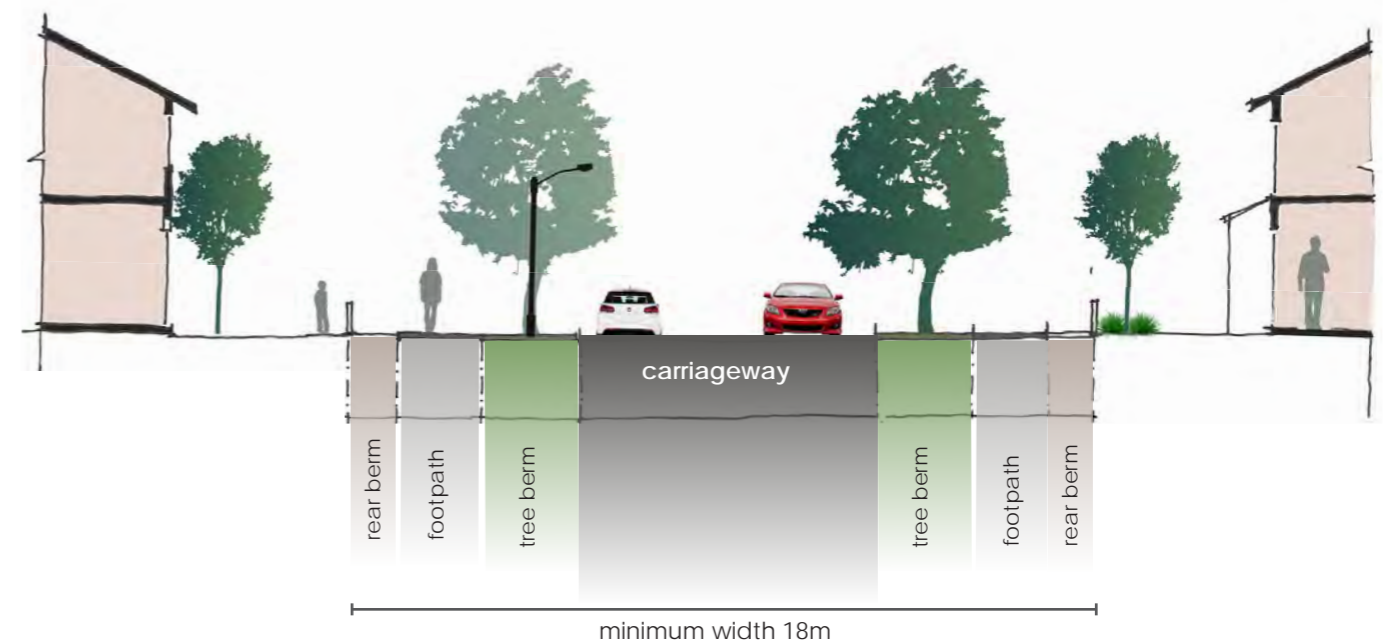


Figure 20 Indicative/potential design for Local Road

Active Mode Provision

Pedestrian connection to Duke Street (and thereafter Riverhead Forest) is indicated on the Structure Plan and the primary north-south open space corridor is also anticipated to accommodate pedestrian and cycle infrastructure.

Collector roads are proposed to accommodate pedestrian footpaths and protected cycleways (in both directions). All local roads will include pedestrian footpaths and their low traffic speeds will allow for safe cycling on the carriageway.



Public Transport

Existing buses routes are located on Riverhead Road and Coatesville Riverhead Highway and the pedestrian and cycle infrastructure on collectors and key local roads connects development in the plan change area to these routes. The proposed collector roads can allow accommodate buses if internal routes prove feasible.

Recommendations for provisions:

- In the interests of connectivity, it is recommended that should a road link to Duke Street prove feasible (from both an economic and ecological/flooding perspective), this link is delivered
- subdivision should limit block length in order to promote accessibility, particularly for active modes
- street trees of significant number and scale are provided in collector roads to indicate their function and also reinforce the adjacent open space corridors
- high quality landscaping, including provision for large trees on Riverhead Road and Coatesville-Riverhead Highway to increase amenity for pedestrians and cyclists and contribute to overall Riverhead character
- the north south collector road is encouraged to adopt a curving alignment in order to differentiate it from other routes, promote speed reduction and create some non-rectilinear spaces for stormwater management areas
- adequate pedestrian and cycling connection should be provided from the northern portion of the plan change area to the existing pedestrian network in the village which provides access to the existing primary school and local centre (along Cambridge Road/Queen Street).

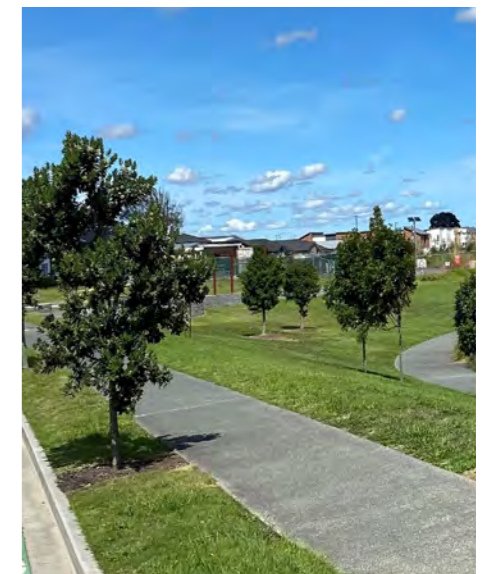
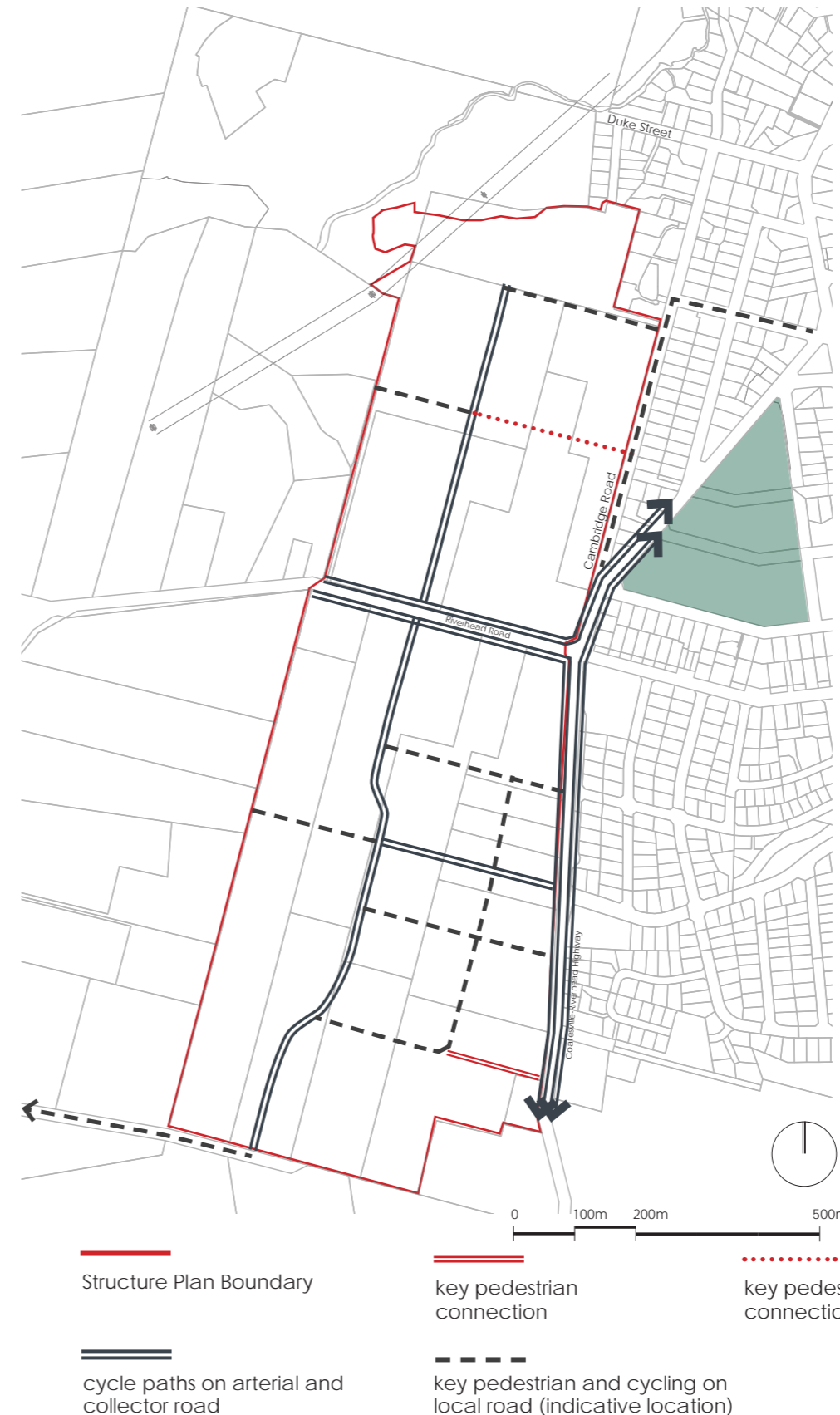


Figure 21 Active Modes

6.2 CENTRES

Two centres are proposed to serve the plan change area as well as offer the existing village residents greater choice and convenience. Both centres are easily accessed and well connected to proposed walking and cycling infrastructure.

The local centre is situated at the intersection of Riverhead Road and Coatesville-Riverhead Highway as this location has the highest visibility and passing trade. Other benefits to this location include the proximity to Memorial Park (helping to reinforce its role as a community heart) and the future retirement village. It is also within walking distance of a significant area of the existing village. This centre is expected to include a supermarket which, due to its scale and associated car parking, cannot establish in the existing village. A supermarket, in turn, can attract and supports smaller retail services. The size of the local centre (approximately 1.8ha) is sufficient to accommodate a variety of commercial/business activities as well as some residential use.

The better support walkability of the southern portion of the plan change area, a neighbourhood centre (approximately 0.65ha) is proposed along Coatesville-Riverhead Highway, close to the Halletau Brewery and a future key east-west connection. Halletau is a key landmark and contributes to Riverhead sense of place as a destination for food and drink, and a future neighbourhood centre can reinforce this benefit and promote placemaking. Local stormwater management areas can increase the amenity of the local centre.

Recommendations for future design:

- with respect to the local centre, it is recommended that future built form address Riverhead Road (with doors and glazing) as a priority and serve to reinforce this gateway location
- the neighbourhood centre should actively front any open space and future local roads as a priority in order to benefit from landscape amenity and allow convenient short term on-street car parking
- the local centre should provide for employment opportunities and residential use at upper levels
- the neighbourhood centre should prioritise activities that complement the local centre, meet the daily convenience needs of residents and reinforce Riverhead's identity as a destination for food and drink
- the neighbourhood centre should include public open space that can accommodate a variety of activities, including markets
- the architecture of both centres should reflect the village location through building form and materials as well as employ a co-ordinated signage strategy
- car parking for both centres is located away from key public streets and areas

It is anticipated that these outcomes are implemented through the subsequent consenting process for the development of buildings in centres and in line with the applicable AUP zone provisions.



Figure 22 Centres

6.3 HOUSING, BUILT FORM AND YIELD

Housing and Built Form

With the exception of the centres, all land within the plan change area is proposed to be residential. The appropriate residential zoning is determined by a number of factors, including current national policy driving urban development (particularly the need for appropriately located higher densities), residential choice and affordable housing. At the same time, the local context of Riverhead is also a factor informing the ideal nature of future residential development, namely:

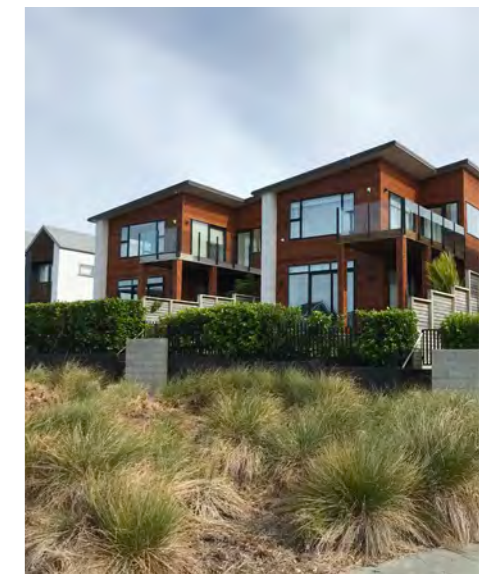
- the generally single storey and low density of the existing village, its Single House zoning and limited capacity to intensify;
- its capacity to absorb change and growth while maintaining/reinforcing village identity and character;
- the proposed Retirement Village which includes built form up to five storeys;
- the rural land to the north, west and south;
- the location/proximity of services and recreation space, particularly Memorial Park

From an urban design perspective, the following outcomes are sought for residential density and built form in the plan change area:

- a variety of housing, including smaller and more affordable dwellings in both detached and attached typologies as well as apartments
- flexibility to allow developers to respond/meet the market
- predominantly one and two storey built form but provision for some three storey development in appropriate/logical locations, for example in close proximity of open spaces, centres/services and public transport
- higher density and taller buildings close to Memorial Park and the Riverhead Road/Coatesville-Riverhead Highway intersection to reinforce the future local centre as the heart of the village, and establish a landmark
- opportunity for non-residential activities on the ground floors of buildings in higher density areas adjacent to the local centre in order to reinforce function and place
- a transition between taller buildings around the centre to lower densities and building forms in the remaining areas of the site
- a high quality and vegetated interface for higher density development along the key movement routes and adjacent to existing residential development which contributes to the current landscaped character of streets in Riverhead



Typical existing housing in Riverhead



Examples of the variety of housing form appropriate in Riverhead

The proposed Structure Plan indicates the location of medium density and higher density residential areas.

Including an area for higher residential density (proposed to be zoned as Terrace Housing and Apartment Zone) has the following benefits:

- it increases potential residential density around Memorial Park which is perceived by the community as the heart of Riverhead and encourages its use
- it promotes a higher population in Riverhead which contributes to the creation of a self-sufficient settlement where residents are less likely to need to leave to access facilities and services
- it allows for greater building height at the intersection of Riverhead Road and Coatesville-Riverhead Highway which could create a landmark and reinforce this location as the new heart of the town, incorporating the new local centre and Memorial Park
- it allows for building height which reflects the height of the existing shelterbelt in this location
- it reflects the potential building height in the adjacent proposed local centre
- it allows for a greater diversity and density of housing which is consistent with national policy and extends the lifestyle choice in Riverhead
- it allows additional building height which can take advantage of views to the harbour and Riverhead Forest
- it allows for apartment buildings which do not require numerous accesses and can more easily establish around/build close to and spatially define the roundabout/landmark
- it recognises and accommodates the consented Retirement Village which includes built form up to 5 storeys

The remaining area is identified as appropriate for variety of housing types and styles, including one, two and three storey development and provision for medium density housing delivered through integrated land use and subdivision design and consenting.

Recommendations for provisions:

- promote/frame/reinforce views to Riverhead Forest through the provision of a central north-south green corridor
- promote visual and physical connections to the multi-purpose green corridor and maximise its amenity and safety
- include provision for dwellings in the medium density zone to utilise greater building height to maximise outlook and benefit from amenity associated with open spaces, including neighbourhood parks and the multi-purpose green corridor
- include provisions to allow for the transition of building height from the THAB zone (5 storeys) to the predominantly one and two storey suburban development surrounding it
- include fencing standards to maintain open front boundaries along the open spaces and corridors with low or no fencing

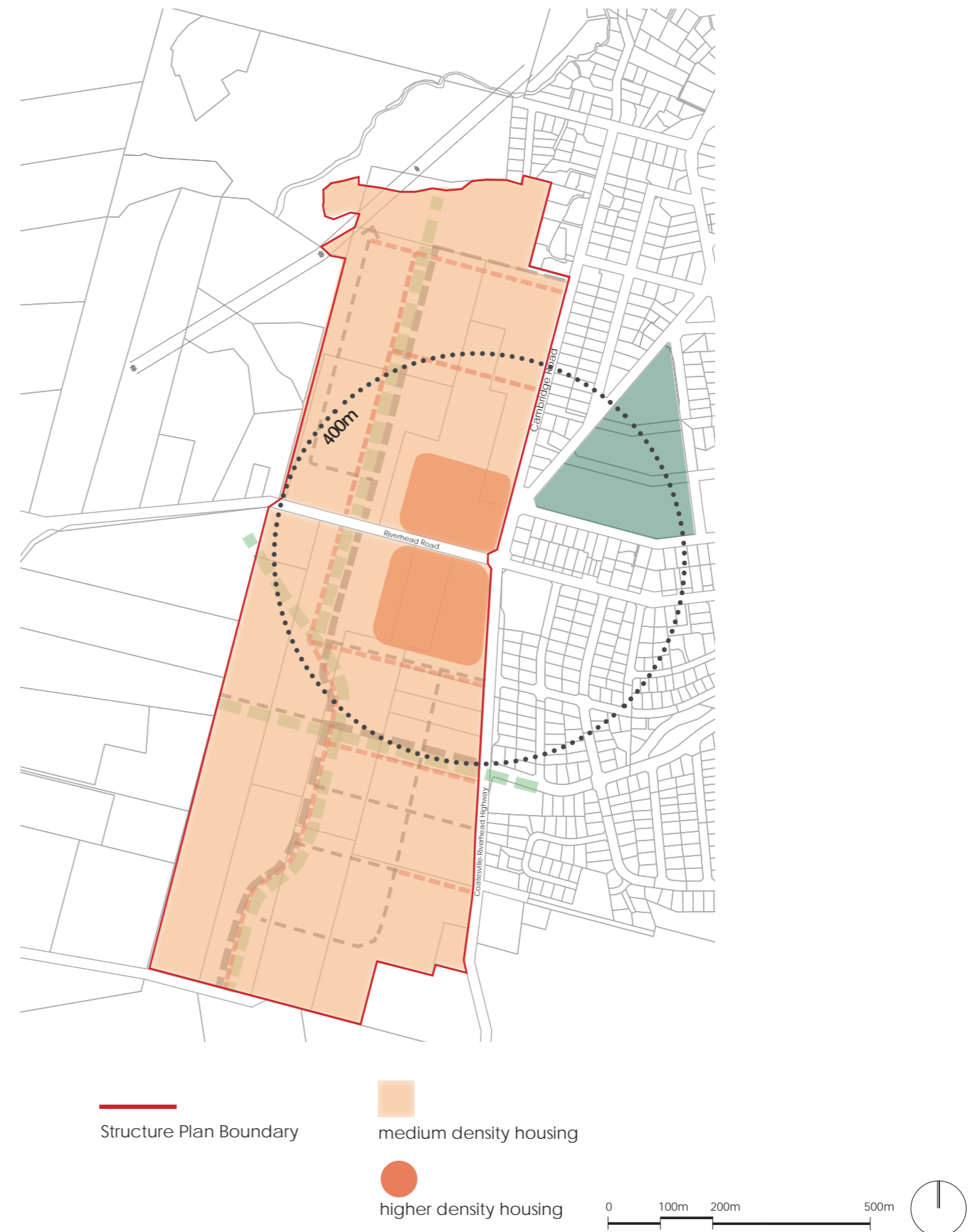


Figure 23 Housing - density distribution

- include criteria to retain notable trees where practical
- include provisions to ensure that the key routes of Riverhead Road and Coatesville-Riverhead Highway have high quality planting/soft landscaping at a scale which adds amenity to the street

Estimating residential yield.....

A number of case studies of the delivered gross density of recent residential developments in comparable locations have informed the potential yield of the plan change area. These are illustrated on the adjacent page and have informed the conclusion to adopt a gross density of 20du/ha in the medium density areas.

Indicative Yield

The estimate of the potential residential yield in the structure plan area is a combination of known developer aspirations (informed by masterplanning and subdivision concept design) and assumptions about the likely yield in the medium density zone and higher density zone. These figures are estimates only as development will occur over a long period of time and adapt to changing market trends.

The approximate extents of the residential zones are:

Higher density (THAB) Zone	4.3ha
Mixed/medium density housing zone	68ha

The estimated yield (rounded figures) is as follows:

Higher density residential area	-	410 dwellings (inc. 310 apartments in retirement village)
Medium density residential area	-	1360 dwellings (inc. 160 villas in retirement village)
Total residential yield	-	1770 (approx) plus 90 care beds

The following calculations and assumptions have been made:

- the medium density zone is assumed to achieve a gross density of **20du/ha**, comparable to typical yield in a Mixed Housing Suburban Zone and recognises likely open space provision, balanced with clusters of comprehensively developed terraces and duplexes
- yield in the THAB zone south of Riverhead Road (1.5ha approx) is assumed to be **50du/ha**
- estimated yield in the THAB zone north of Riverhead Road is known and provided by Matvin (310 apartments and 90 dementia care beds)
- no allowance has been made for residential development in the local centre zone

1 Kumeu (MHS)..... 17du/ha



2 Park Green (MHS)..... 14du/ha



3 Whenuapai (MHU)..... 23 du/ha



6.4 OPEN SPACE

The proposed open space network is integral to placemaking in the plan change area. Access to nature, and the amenity and identity it provides, is a key part of the vision for a healthy attractive neighbourhood that recognises Riverhead's location and character.

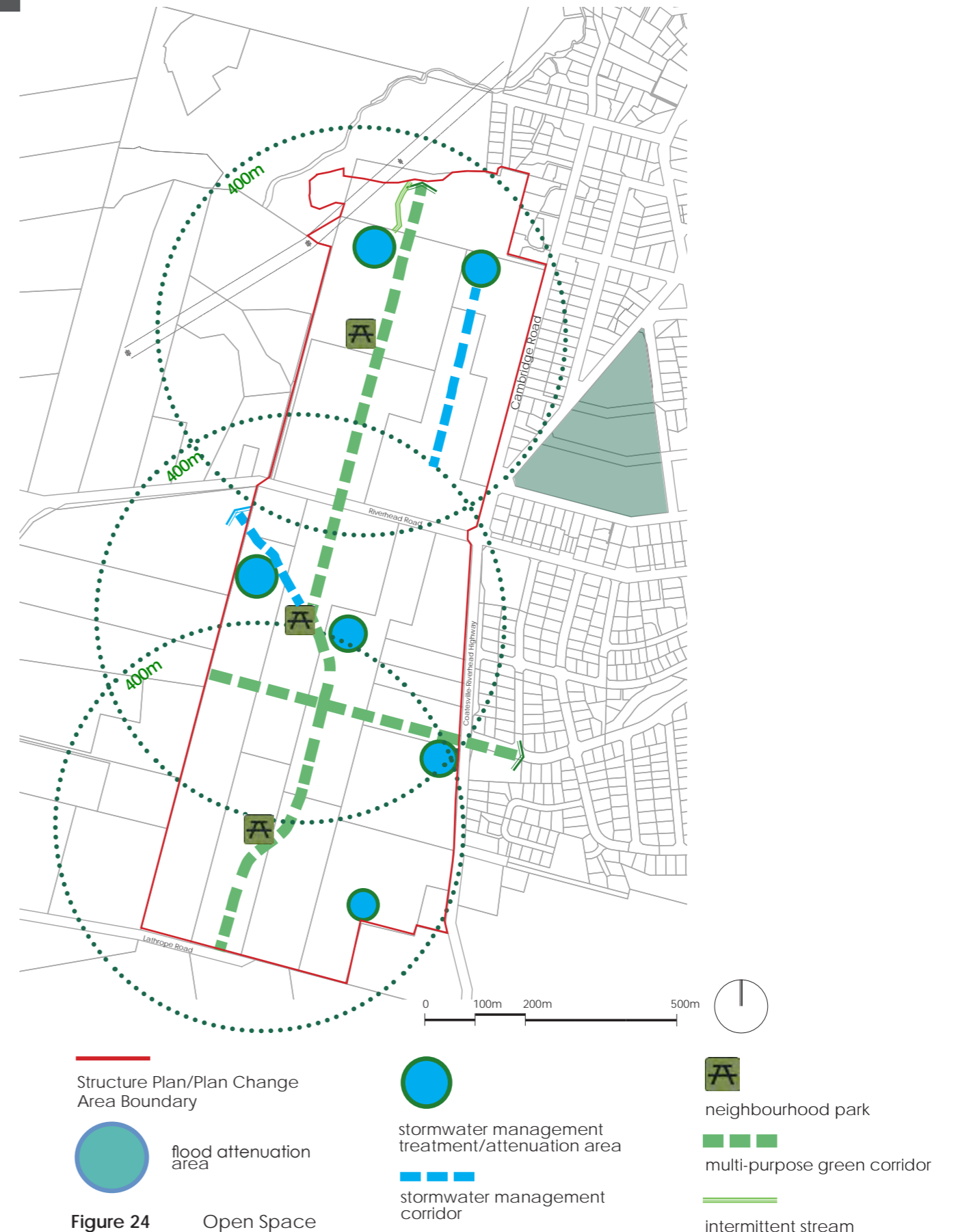
The open space network is comprised of spaces with different functions including stormwater management areas and neighbourhood parks and the conveying and connecting spaces between them. Co-locating open spaces enables a greater visual impact/effect and vegetation of greater stature/scale.

The spine of the network is therefore the multi-purpose green corridors which:

- at the macro-level, connect the site to the wider open space network – namely to the coast (via Riverhead Point Drive) and to the stream in the north
- promote better ecological values/diversity
- supports the road hierarchy and thereby legibility of the movement network
- at an internal level, creates structuring elements which integrates different land parcels/owner/developers to deliver a connected neighbourhood
- has the ability to reflect the character of Riverhead which is partly based on swales and street gardens and thereby promote the integration of "old Riverhead" and new development
- provides open space which increases amenity for higher density residential and provides people with access to nature and opportunities for nature play
- provides amenity for key pedestrian and cycle networks
- integrates stormwater spaces, movement and recreation spaces to promote land use and infrastructure efficiency, maximise openness and safety and enable smaller open spaces to benefit from co-location
- enables spaces to have more than one function (or at least future-proofs this possibility) and provides opportunity for reduced maintenance costs in the future

The primary north-south open space connects a number of different development stages/land owners and connects the site visually and physically to Riverhead Forest. The east-west route provides a visual and ecological connection to Riverhead Point Drive and the adjacent drainage corridor, and ultimately the Upper Waitamata Harbour.

Neighbourhood parks are located (indicatively) on the proposed structure plan to co-locate with the central north-south green corridor. Three neighbourhood parks are proposed (one in the north and two in the south) in order to ensure every future dwelling is within a 400m walking distance (300m radial distance). Given the extent of flooding in the north of the PC area and the assumption that little residential development will eventuate there, one park is considered to adequately serve the northern area. The provision of three neighbourhood parks enables each park to have a slightly different function or focus, thereby providing the plan change area with a fuller range of recreational opportunities (e.g. playgrounds catering for different age groups).



The proposed neighbourhood parks are located to:

- support the development of medium density housing by providing amenity, recreation and social opportunity for dwellings with little private open space
- support the establishment of greenways/the green corridors and connect to the stream and coastal environment
- integrate with stormwater management areas, key pedestrian and cycle infrastructure
- function as placemakers/focal points for the micro-neighbourhoods in the absence of any significant natural features
- benefit from relatively flat land

Recommendations:

- open spaces with different functions and asset managers (Healthy Waters and Parks) should co-locate to deliver a continuous and connected open space corridor
- open spaces have a strong connection to the collector road network which enables the co-location of open space and active mode infrastructure as well as high profile/visibility and good accessibility
- connective spaces form part of the stormwater management strategy and the conveyance, retention and treatment of stormwater echoes existing swales and natural character
- the design of open spaces reflects mana whenua mātauranga and integrates Te Aranga design principles
- the future school locates adjacent to stormwater management areas and the collector road as a potential component of the open space network
- connective spaces should accommodate pedestrians and cyclists, particularly if their alignment diverges from a collector road
- the north-south open space corridor should include vegetation that includes podocarp species that reference Riverhead Forest
- vegetation in the east-west open space corridor should have a focus on productive vegetation/market gardens
- each neighbourhood park should have clear identity and cater to a specific age group
- fences adjacent to open spaces should be low and/or visually permeable to ensure passive surveillance

NORTH/SOUTH CONNECTIONS - CATHEDRAL FOREST



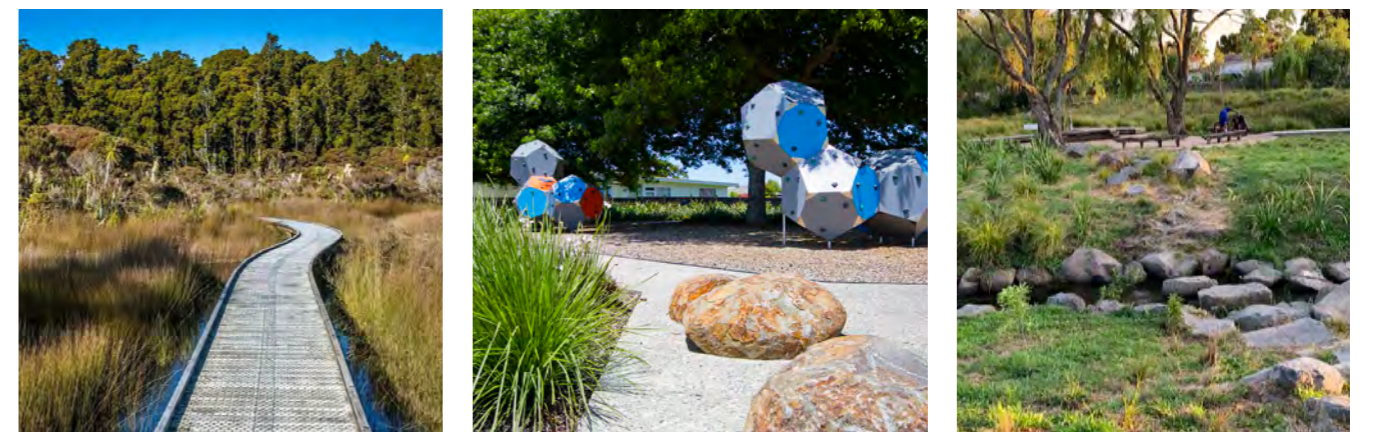
PODOCARP SPECIES THAT CREATE A "CATHEDRAL FOREST" PURIRI MOTH - LIVES ON PURIRI TREES

EAST/WEST CONNECTIONS - MARKET GARDEN



potential planting strategy for green corridors

PRODUCTIVE VEGETATION TO DEVELOP MAHINGA KAI



6.5 RURAL INTERFACES

The long western boundary and the shorter southern boundary of the plan change area adjoins land zoned for and accommodating rural activities, including rural lifestyle properties and productive land. While rezoning of this land is not anticipated in the near future, given its proximity to arterial roads, proposed new centres and open spaces, and current activity/use, it could logically accommodate urban development in the long term (and the proposed structure plan includes connection to it).

Whilst it is likely that future subdivision accommodates a variety of sections along this boundary, the opportunity to restrict residential density along this boundary (e.g. by requiring a larger minimum lot size) is not supported from an urban design perspective. In the future, should the land adjacent to the western boundary be rezoned (possibly to meet the riparian corridor which provides a logical and defensible boundary) there would be an artificial low density zone between neighbourhoods.

Recommendations:

- Given the predominantly north westerly orientation of this boundary, it is likely that dwellings locate private indoor and outdoor space along this boundary. As such, it is recommended that a greater yard/setback (recommend 5m) for buildings along the rural boundary is provided. A yard setback greater than that currently required by the AUP's mixed housing zones (1m) will provide a greater level of separation between future conventional and medium density activity and rural activities.
- an effective landscaping strategy is explored, particularly one which includes specimen trees which will filter views of two storey buildings from the rural environment.

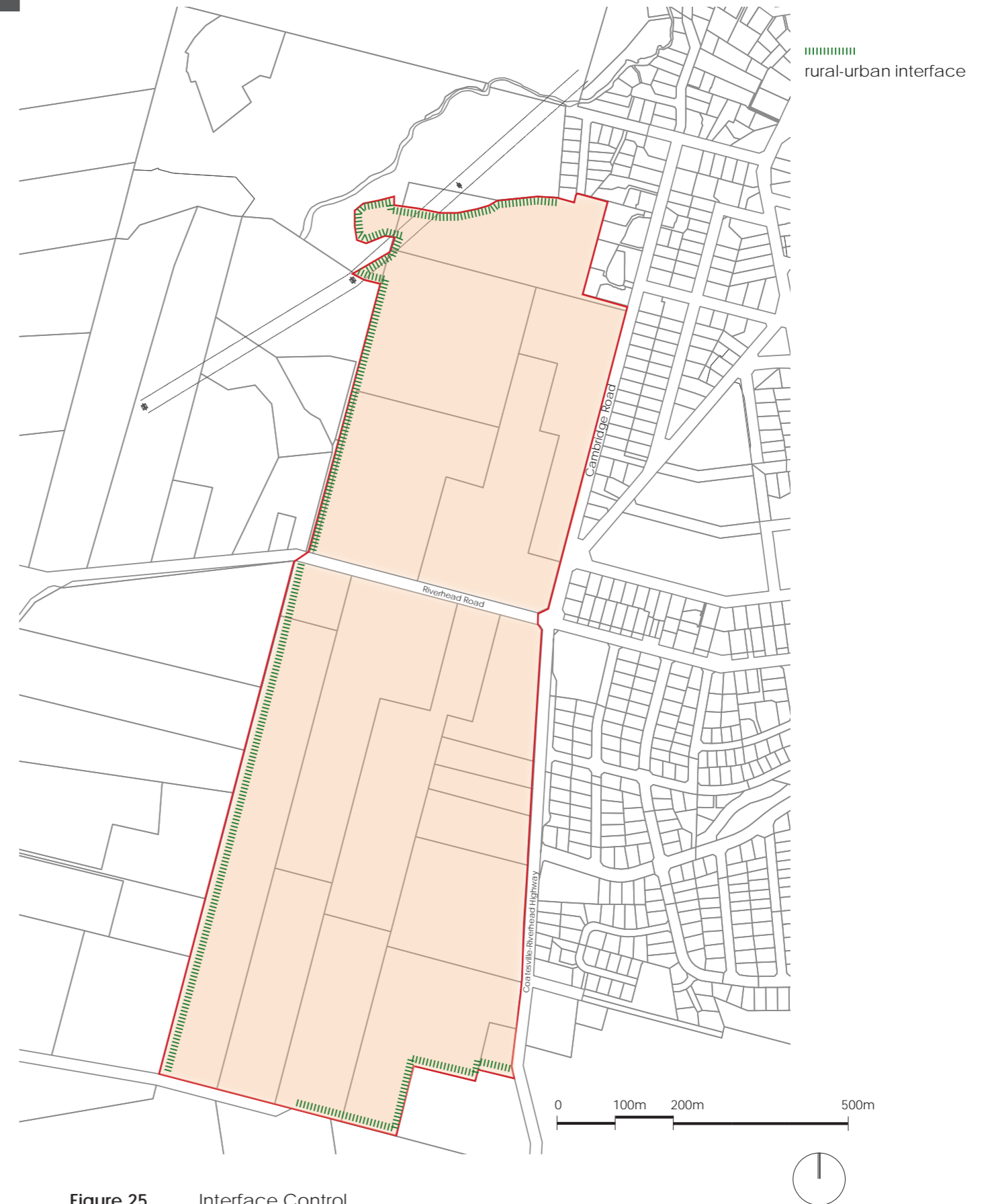


Figure 25 Interface Control

7.0 CONCLUSION

The Plan Change area offers an opportunity for Riverhead to grow in a co-ordinated and efficient way and to provide a wide variety of new housing choice for both existing village residents and those who choose to make Riverhead their new home. It provides for the creation of a new local centre for the village, reinforcing Memorial Park as the heart of the village. Recognising the scale and constraints of the existing retail area, the structure plan provides for a variety of additional retail services and employment opportunities, both of which will increase Riverhead residents' ability to meet their daily convenience needs without leaving the village.

The proposed structure plan will drive a new neighbourhood which integrates with the existing village and promotes visual and physical connections to the upper harbour and Riverhead Forest. It includes features which respond to the unique context of Riverhead and promote placemaking, primarily through a focus on connected multi-purpose open space corridors which connect future residents to both Riverhead Forest and the Upper Waitamata Harbour.

The components of the structure plan ensure connection across multiple land owners, promote the integration of various open spaces and active transport modes and respond appropriately to the adjacent interfaces.

