

A1 Introduction

A1.1 The Western Ring Route

The Western Ring Route is planned to provide an alternative route through the Auckland region and reduce dependency on State Highway 1 (SH1). It comprises the State Highway 16, 18 and 20 corridors and, once completed, will consist of 48km of motorway linking Manukau, Auckland, Waitakere and North Shore. This project is key to implementing transport and land use strategies for the region, and is being delivered by the New Zealand Transport Agency (NZTA).

The first corridor is the new designation for SH20. This will connect the existing Mt Roskill section to the interchange with SH16. The SH20 corridor will be an all-new 4.5km route through an existing urban area. This section has also made design provisions for the Avondale Southdown rail line to be built in the future.

SH16 is the second state highway corridor. Corridor improvements for this section include the widening and improvements to the existing causeway and reconfiguration of the interchanges at Te Atatu and Waterview. This will increase capacity and improve multi-modal provision (bus, freight, cycle and pedestrian) between St Lukes and Henderson Creek, and protect the route from inundation in a sensitive coastal areas.

The WRR – Waterview Connection Project (‘the project’) is the final project to complete the WRR, providing for works on both SH20 and SH16 corridors (refer Figure A-1).

Project objectives are in place for the WRR – Waterview Connection that reflect the economic and transportation outcomes the NZTA requires from the project. They are:

- To contribute to the region's critical transport infrastructure and its land use and transport strategies;
- To improve accessibility for individuals and businesses and support regional economic growth and productivity;
- To improve resilience and reliability of the State Highway network;
- To support mobility and modal choices within the wider Auckland Region; and
- To improve the connectivity and efficiency of the transport network.



Figure A-1: Wider context and project route

A2 Purpose of this Framework

A2.1 Purpose

The overall purpose of the Urban and Landscape Design Framework (ULDF) is to:

- Demonstrate how the design of the Waterview Connection Project supports the NZTA's strategic commitment to high quality urban design outcomes; and
- Demonstrate alignment between the NZTA and other agencies (e.g. the Waitakere and Auckland City Councils, Housing New Zealand and others) in their planning, transport and urban design initiatives for the area.

The ULDF illustrates the guiding landscape and urban design principles for this project, together with proposed concept design responses. It sets out an overall urban design vision both for the project and its integration with wider aspirations and plans in the surrounding area including wider land use and development. In this regard, the ULDF reflects a wider strategic direction and has a longer term urban and landscape design vision than just the WRR - Waterview Connection Project. Aspects of that design vision may be delivered in the future by others or in partnership with the NZTA.

By providing guidance and clarity on the expected design outcomes, this Framework aims to promote consistent design quality throughout the development and delivery of the project.

A2.2 Document structure

The Framework documents the development of the urban and landscape concept design. The design process is reflected in the structure of the document; the design proposals are underpinned by a comprehensive understanding of the place and the design cues it offers. It also identifies and illustrates options for key aspects of the concept design. The ULDF has three sections.

Section A: Background

- a review of relevant NZTA and other documents to identify the implications of national, regional and local policy and strategies on the design of the motorway corridor
- analysis of the urban context, identifying environmental, ecological, social and community, landscape and built elements that constitute issues, challenges and opportunities
- consideration of key outcomes from the Stage 1 environmental assessment.

Section B: Design Vision and Principles

- urban and landscape vision
- over-arching project principles that reflect the strategic and urban analysis, and NZTA's urban design objectives
- corridor-wide design principles for: ecology, planting, bridges, noise walls, retaining walls, and other structures.

Section C: Sector Design Concepts

- sector by sector design concepts, including a description of the existing condition and potential design responses
- design developed in consultation with engineering, planning and environmental teams to ensure viable design solutions
- structures and landscape design, with sufficient detail for important design features to clearly convey the desired built outcome.

A2.3 Statutory requirements

This Framework is a reference document for the Assessment of Environmental Effects (AEE) that supports the designation and consent applications lodged under the Resource Management Act. The AEE will identify recommended measures to avoid, remedy or mitigate any adverse effects of the proposed works.

It is not the purpose of this document to determine or describe the extent of mitigation for identified effects of the project. The ULDF does however provide details and concepts which have been used in the AEE to assess the project and, where appropriate, in the recommendation of mitigation for the project (in other words, it has informed design concepts for mitigation planning).

The ULDF has been a source document which has informed elements of the Project design and will continue to do so beyond the Scheme Design which is submitted as part of this statutory process. By providing clarity on the expected design outcomes, the ULDF will promote consistent design quality throughout the development and delivery.

Aspects of the ULDF considered part of the core project (that is, the project to be consented) will be further developed on the basis of the design principles in this document, and included in Part E of the AEE: Drawings and Plans informing the suite of mitigation plans for the project (e.g. for landscaping, noise walls, design and appearance of the ventilation building).

Figure A-2 illustrates how the Urban and Landscape Design Framework relates to the statutory process and detailed design phase of the project.

A2.4 NZTA Urban Design Policy

The NZ Transport Agency (then Transit) became a signatory of the New Zealand Urban Design Protocol in 2005, making a voluntary commitment to undertake specific urban design initiatives to protect and enhance the quality of towns and cities. The NZTA Urban Design Policy (2007) requires urban design to be considered at all project stages.

The ULDF responds to this Policy by aiming to ensure that:

- Roads fit in sensitively with the landform and the built, natural and community environments through which they pass
- All systems of movement along and across the corridor are integrated into the design of projects with good connections and access to communities
- The design contributes to the quality of public space and to the road user's experience.

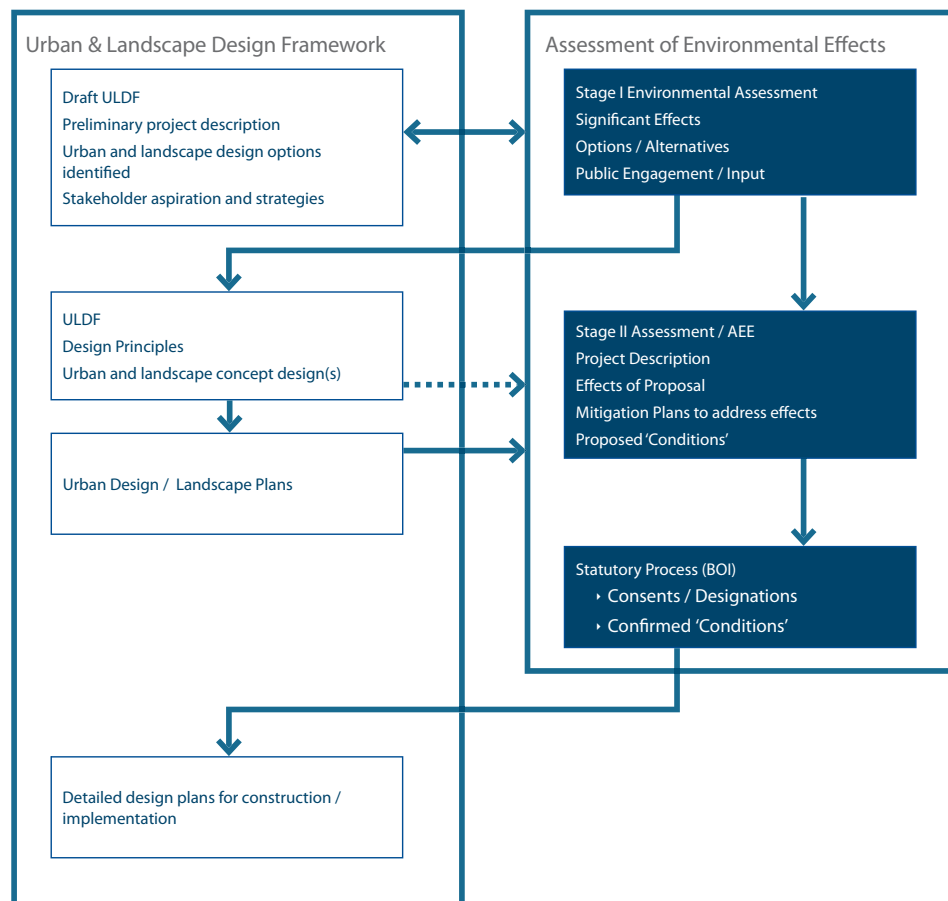


Figure A-2: Summary of relationship between ULDF and AEE

A2.4 Design and consultation

Concepts in this document have been developed by a multi-disciplinary urban design team liaising with a broad range of other specialists including geometric, engineering, stormwater designers, environmental specialists and resource management planners.

The urban and landscape design has sought to align where possible with the strategic initiatives of key stakeholders, and has been presented to various of those stakeholders and to the public through the following forums:

- Sectors 1 to 4 (SH16) design proposals have been reviewed in workshop consultations with territorial and statutory bodies. The proposals have been exhibited publicly in local area events
- Sector 6 was added to the current project and has been exhibited publicly in local area events in 2010
- Sectors 5, 7, 8 and 9 (the Waterview Connection) were studied in the 2008 full tunnel proposal. Earlier proposals reflected the input of a stakeholder working group including Auckland City Council, ARTA / OnTrack and Auckland Regional Council, local iwi and Housing New Zealand. For the current project, Auckland City Council was represented at regular design development meetings by a team of staff and specialist consultants
- The NZ Transport Agency has been working with the Department of Conservation, ARC and ACC implementing a joint Traherne Island / Te Kou Natural Heritage Restoration Plan to ensure that the areas of high conservation values are maintained and support the wider marine reserve goals. The Restoration Plan promotes a management approach to restoration which this Framework includes provisions to support.

Western Ring Route ▶ Waterview Connection

A3 Project description

The WRR - Waterview Connection Project relates to 4.5km of new motorway and some 11 km of motorway upgrade. It connects the existing motorway network at Maioro Street, Mt Roskill, St Lukes Road and Henderson Creek Bridge.

Recognising the variety of contextual conditions which the route traverses, and the related variety of consents required in these different conditions, the project has been divided into nine sectors. These are shown in Figure A-3. The Maioro Street Interchange is included in the ULDF to demonstrate the relationship between the urban and landscape design approach to the adjoining Sector 9.

A broad overview of the context and project proposals for each sector is set out below. Section C contains more, and more detailed, urban and landscape design concepts for each sector than are in the core project.

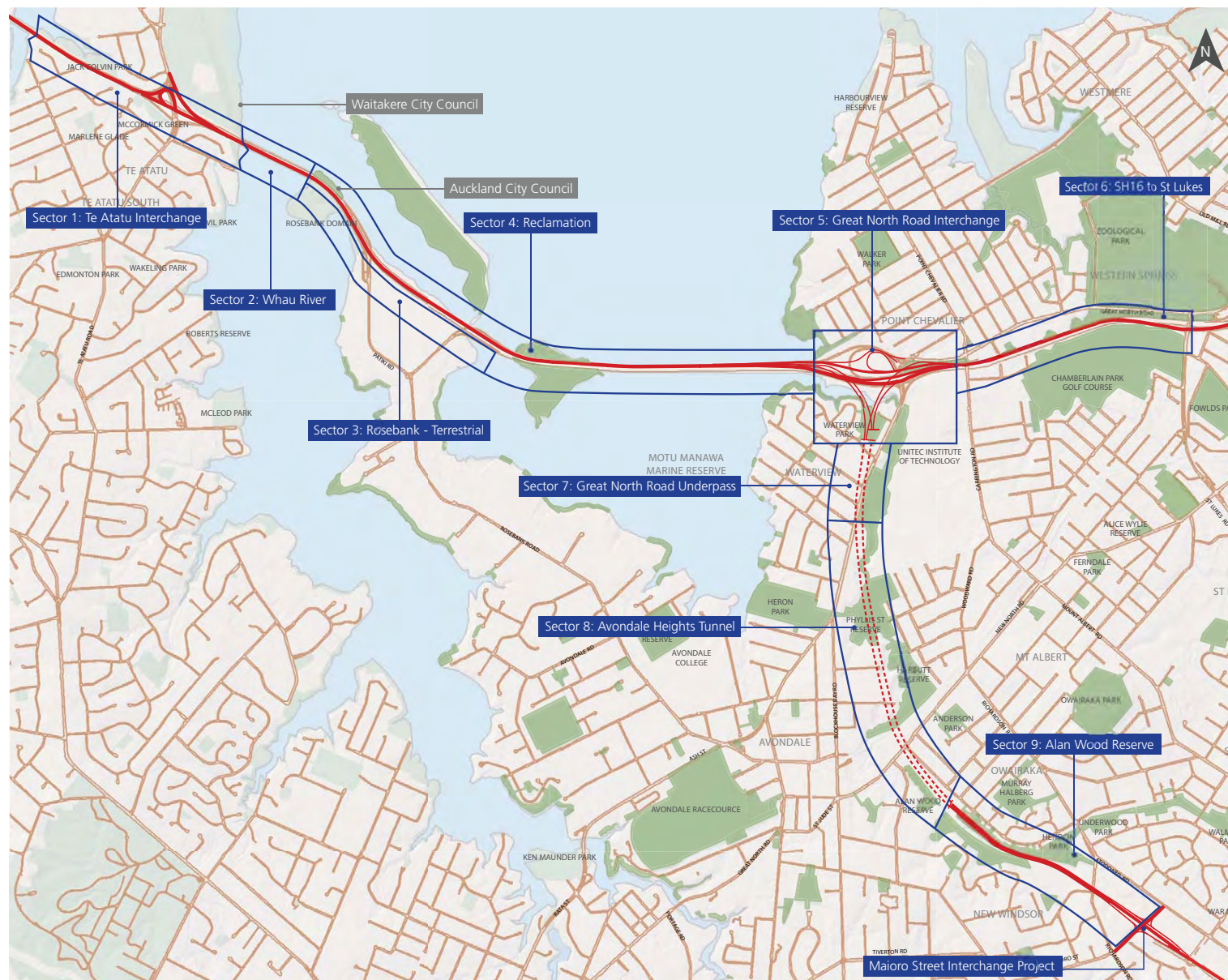


Figure A-3: Project sectors

A3.1 Sector 1 – Te Atatu Interchange

Context: residential and open space surroundings; interchange is the sole local motorway crossing.

Proposals: widening and reconfiguring existing interchange, provision of bus shoulders, improved pedestrian and cycleway links, stormwater ponds, noise walls, street furniture and planting.

A3.2 Sector 2 – Whau River crossing

Context: navigable river; public open space along coastal edges; adjacent marine reserve areas.

Proposals: widening and raising the existing motorway bridge, planting; new cycleway bridge; lighting and motorway furniture.

A3.3 Sector 3 – Rosebank Terrestrial

Context: headland; industrial development; existing pair of single-sided interchanges.

Proposals: widening and raising the existing motorway, planting; new cycleway bridges; improved access to Rosebank Domain; lighting and motorway furniture.

A3.4 Sector 4 – Reclamation

Context: existing man-made causeway; low-lying island; adjacent marine reserve; Oakley Creek outlet.

Proposals: widening and raising the existing motorway causeway, planting; new cycleway bridge; lighting and motorway furniture.

A3.5 Sector 5 – Great North Road Interchange

Context: existing interchange; residential and campus surroundings; open space; heritage sites; Oakley Creek; Waterview Primary School.

Proposals: revised interchange arrangement with extensive flyover ramps; noise walls; public open space works; stormwater ponds; planting; revised cycleway routing and bridges; lighting and motorway furniture.

A3.6 Sector 6 – SH16 to St Lukes

Context: existing residential and urban centre; public open space and golf course; Meola Creek.

Proposals: widening existing motorway; noise walls; cycleway; stormwater pond; planting; lighting and motorway furniture.

A3.7 Sector 7 – Great North Road Underpass

Context: arterial road; existing residential and campus; heritage sites; public open space; Oakley Creek; Waterview Primary School.

Proposals: ventilation control building; ventilation stack; tunnel portals, cut and cover tunnel; public open space works.

A3.8 Sector 8 – Avondale Heights Tunnel

Context: existing residential and campus; heritage sites; public open space; Oakley Creek.

Proposals: two deep tunnels.

A3.9 Sector 9 – Alan Wood Reserve

Context: existing residential and local centre; public open space; Oakley Creek.

Proposals: tunnel portals; ventilation building and stack; new at-grade motorway; noise walls; new shared cycle and pedestrian bridge; three creek bridges; plantings; public open space works; stormwater ponds; lighting and street furniture.

Western Ring Route ▶ Waterview Connection

A4 Strategic Context

The urban and landscape design has been informed by a number of strategic plans developed by Auckland Regional Council (ARC), Auckland City Council (ACC), Waitakere City Council (WCC) and other key stakeholders. The documents set out below are particularly relevant as they contain key drivers for change in the project area.

The urban and landscape design seeks to provide broad alignment with the spirit of the plans. While there may be specific outcomes that are not able to be readily achieved through the project, the aim in general is to:

- Deliver against a number of the outcomes sought in these documents; and
- Support outcomes which will be delivered by other parties through a facilitating or accommodating design.

A4.1 Auckland Regional Growth Strategy 1999

The Auckland Regional Growth Strategy (RGS) is a 50 year strategy outlining the broad desire for regional growth patterns which achieve a more compact urban form. It outlines desired growth outcomes, priorities and principles. Designated growth areas which will significantly affect the project include:

- The SH20, Great North Road, New North Road, Blockhouse Bay and Lincoln Road corridors
- New Lynn, Te Atatu, Henderson and Westgate.

Growth is also anticipated further north at Kumeu, Huapai, Waimauku and Helensville. The RGS anticipates industrial and business growth along SH20 and Lincoln Road, at Rosebank and Westgate.

A critical outcome the Strategy seeks to achieve is access and transport efficiency. The RGS anticipates this will allow for more transport choices, an increased level of access for all sections of the community, a closer relationship between home and activities (e.g. work, shopping, open space), the management of traffic congestion and an improved passenger transport system through the integration of land use and transport planning.

The project objectives are in keeping with the RGS's desired outcomes for increased access and transport efficiency and the completion of the WRR – Waterview Connection will achieve these.

A4.2 Auckland City Growth Management Strategy 2003

The Auckland City Growth Management Strategy (ACGMS) sets out where, when and how Auckland will grow, and seeks to allow future growth to happen in a managed and effective way. The ACGMS seeks to build a 'compact' city that allows Auckland to grow around town centres that can support growth. This approach reduces urban sprawl and protects the unique natural heritage of the city.

The Strategy identifies Point Chevalier, Avondale, Mt Albert and Stoddard Road as areas for potential residential and mixed use growth. Rosebank Peninsula and Roma Road/Stoddard Road are identified as business development areas. The Regional Policy Statement Proposed Plan Change 6 (2005) also identified these areas as potential high density growth centres.

The proposed Maioro Street interchange will increase access to the regional road network from the Roma Road / Stoddard Road business development area.

The project design anticipates the growth areas identified by the ACGMS and responds by placing transport links to the project in key locations allowing movement to and from these growth nodes. Additionally, the urban design recognises adjacent growth areas and seeks to alleviate the impact of the project on the adjacent land uses through an appropriate interface between the landscape, alignment of pedestrian and cycle paths, and elements such as noise walls.

4.3 Auckland City Council Future Planning Framework 2008

The Future Planning Framework (FPF) supports ACC's overarching vision and high level strategies such as the ACGMS, and aligns with the Regional Growth Strategy. The FPF has developed Area Plans for specific geographic areas in Auckland. Each describes and illustrates the aspirational features that Council seeks for the area by 2030.

The project alignment spans four Area Plans including Mt Roskill/Hillsborough; Avondale/Blockhouse Bay, Eden/Albert and Western Bays (refer Figures A-4 – A-7).

Specific outcomes sought by these plans include:

- A town centre node at Stoddard, a rail station between Stoddard Road and Maioro Road, and the motorway continuing in a tunnel through Alan Wood Reserve
- A local centre at Point Chevalier (focussed north of SH16)
- Continuous 'urban forest' along the length of Waterview Connection and Waterview to St Lukes
- Pedestrian and cycle improvements at Maioro Road, Richardson Road, Stoddard Road
- A pedestrian and cycle network through Oakley Creek corridor to Walmsley Park, including:
 - A connection across Alan Wood Reserve linking local parks via Olympus Street and Methuen Road
 - An enhanced link from Heron Park to Phyllis Street
 - Two links across Great North Road to Oakley Creek
 - Improved links over SH16 and Great North Road at Carrington Road, Meola Creek and St Lukes Road
 - An improved link from Waterview Creek to Chamberlain Park Golf Course via Unitec.

Auckland City has also promoted a future vision for Rosebank Business Precinct, developed in partnership with local stakeholders, which seeks to improve the area and attract new business investment.

Each of these Area Plans has been subject to public consultation. Once feedback has been received these plans are further developed in Precinct Plans which provide a more detailed view of how the area can be developed in the future. The Mt Albert and Point Chevalier/Western Springs Precinct Plans have recently been developed. They set key assumptions for the future growth of these areas and prioritise 'key moves' that could be achieved over time to allow them to achieve the outcomes discussed above.

Pedestrian / cycle network

The ULDF responds to area character and land use aspirations in the FPF by enabling the continuous north-south pedestrian and cycle network linking the open space corridor(s); by supporting east-west connections across the motorway linking neighbourhoods and open spaces; and by planting that supports an urban forest corridor along SH16. A cross-motorway pedestrian / cycle bridge from Point Chevalier into Chamberlain Park is not included, given that Chamberlain Park remains private land and there is no connecting open space / pedestrian network to link to.

Waterview neighbourhood node

In conjunction with replacement housing, the provision of a commercial edge to Great North Road, and community facilities either co-located with these uses or around Saxon Reserve, was explored in the early stages of the urban and landscape design process. A change to the land use character and density along Great North Road however remains outside Council's aspirations for the area.

Section A ▶ Background



Figure A-5: Western Bays Area Plan (ACC Future Planning Framework, 2009; <http://www.itsmybackyard.co.nz/area>)



Figure A-4: Avondale Blockhouse Bay Area Plan (ACC Future Planning Framework (FPF), 2009; <http://www.itsmybackyard.co.nz/areaplans/>)

Western Ring Route ▶ Waterview Connection



Figure A-6: Eden Albert Area Plan (ACC PPF 2009)



Figure A-7: Mt Roskill Hillsborough Area Plan (ACC PPF 2009)

The ACC Transport Committee moved on 6 May 2010 to endorse “ensuring that isolated residential ‘pockets’ are avoided and replacement residential housing, particularly family homes in the vicinity of Waterview primary school, is provided within the local community” (reference B5vi). This endorsement reflects Council’s expectation that NZTA address a range of ‘Social and Community’ matters as mitigation or enhancement.

Stoddard town centre

There are challenges to the PPF vision for a town centre node at Stoddard Road (refer Figure A-7) that would be enabled by redevelopment of key sites around the Stoddard / Richardson Road intersection. The area plan for Mt Roskill / Hillsborough shows the Waterview motorway going into tunnel just south of Richardson Road, resulting in potential surplus land above and around the corridor that could trigger intensification. Allied to this vision, and explored through an earlier consultation and concept design process, was an identified opportunity for higher density residential uses towards the Richardson Road / Stoddard Road intersection, reinforcing its town centre role.

With the current vertical alignment resulting in the motorway remaining at grade through this area the design of the Richardson Road overbridge in the ULDF aims to create, at minimum, an attractive approach to what will be the future centre.

Residential intensification

The PPF identifies areas suitable for higher-intensity residential uses in the future, co-located with or adjacent to centres. The WRR – Waterview Connection urban design process supports this, and also included proposals for higher intensity residential uses in two locations not nominated by the PPF, in areas affected by the motorway. These proposals were to replace the quantum of housing lost. They were:

- along Hendon Avenue, to enable consolidation of open spaces adjacent to Alan Wood Reserve, and to provide for compact housing designed to minimise the impacts of the motorway and the future railway line.
- around Waterview Primary School to replace housing lost to the motorway ramps.

A4.4 Auckland City Council – Our Collective Taonga: Places for People, Places for Nature 2008

This document provides a framework for the future of Auckland’s open space and is supported by Action Plans. The framework seeks an integrated network of open spaces across the City, and aims to provide quality open spaces which achieve a wide range of outcomes. Design principles include:

- Respect for the natural landscape
- Linking people to places
- Creation of sustainable places.

Objectives in the Urban Forest Action Plan (UFAP) also relate to sections of the WRR, including:

- Strengthening Auckland’s urban forest
- Increasing the range of native biodiversity
- Celebrate Auckland’s urban forest.

Associated with the Waterview Connection are opportunities for improved native biodiversity, urban forestry and pedestrian connectivity by creating urban forestry around Waterview Interchange, and open space improvements in related site areas.

A4.5 North-West Wildlink 2006

The North-West Wildlink is a vision which aims to link biodiversity hotspots in the Hauraki Gulf and the Waitakere Ranges. An accord between signatory agencies has the following goals:

- Increase the ecological health and connectivity of native habitats throughout the area
- Increase meaningful community participation in environmental care
- Increase collaboration and communication between agencies, groups and individuals.

The project relates to areas identified in this vision at Orangihina Park and Te Atatu interchange and supports Northwest Wildlink through seeking to enhance and / or introduce intensive areas of native planting along SH16 - the “green route”.

A4.6 Auckland Regional Land Transport Strategy (draft) 2009

The ARLTS sets the direction for the region’s transport system through to 2040, using objectives and policies. Key objectives of the Strategy are:

- Assist economic development
- Assist safety and personal security
- Improve access and mobility
- Protect and promote public health
- Ensure environmental sustainability
- Support the Auckland Regional Growth Strategy
- Achieve economic efficiency.

The project is identified in the Strategy as a major road project for completion, with connectivity and network resilience benefits. The project also achieves benefits and efficiencies for public transport, and helps ensure that other urban routes can operate at an optimal level.

The urban design objectives also seek to achieve accessibility and mobility and are aligned with the outcomes the ARLTS is seeking to achieve.

A4.7 ARTA – Auckland Transport Plan 2009

The Auckland Transport Plan (ATP) is the main method used by the Auckland Regional Transport Authority (ARTA) to implement the RLTS. The Plan unites the strategies, plans, projects and packages developed by agencies such ARTA, local authorities and The NZ Transport Agency relating to a range of transport modes.

The ATP endorses the ARLTS commitment to the Western Ring Route, and in particular identifies the high priority associated with completing the ‘missing link’ of the Waterview Connection.

A4.8 ARTA – Auckland Passenger Transport Network Plan 2006

ARTA’s Passenger Transport Network Plan (PTNP) sets out a detailed 10 year plan for transit networks which will support regional development.

The Rapid Transit Network (RTN) is high frequency, high quality passenger transport operating along ‘spines’, and includes electrified rail and expanded busway systems. The Quality Transit Network (QTN) will primarily be based on major bus corridors with extensive bus priority measures between centres.

The network plan has designated QTN routes along Great North Road, Dominion Road, Carrington / Mount Albert Road, Te Atatu Road, Lincoln Road and SH16 west of Waterview interchange. A RTN route is identified along the western line railway.

The project will reduce the number of private vehicles on Great North Road by diverting them onto the state highway network. This will greatly increase the efficiency of public transport along the Great North Road QTN route.

A4.9 Auckland City Council – Auckland City Liveable Arterials Plan 2007

The Liveable Arterials Plan (LAP) provides a guide to delivering more efficient and integrated packages of improvement proposals for the arterial road network. It considers imulti modal transport, urban growth, urban design, open space and streetscape to produce a number of arterial typologies:

- Stoddard Road, Carrington Road and part of New North Road are considered arterials with a ‘community emphasis’, reflecting their sense of place, pedestrian use and community interaction
- Richardson Road, Blockhouse Bay Road and New North Road are identified as arterials with a ‘general traffic’ emphasis
- Tiverton Road and Wolverson Street are identified as arterials with a ‘freight’ emphasis
- Great North Road is identified as having a Passenger Transport emphasis.

Completing the project will change the travel patterns on local and arterial roads. The project does not compromise the ability of Great North Road to be reconfigured with permanent bus lanes, as envisaged in the Liveable Arterials Plan. This vision is consistent with the Quality Transit Network aspiration in the Auckland Passenger Transport Network Plan.

A4.10 Walking and Cycling Strategies

ARTA’s Sustainable Transport Plan 2007 (STP) focuses on working with people and communities to improve travel opportunities and reduce car journeys. The plan aims to integrate sustainable transport activities with each other. It highlights developing and operating walking, cycling, passenger transport and vehicle networks as an integrated way to form an overall transport system.

The Auckland City Council Cycling and Walking Strategy 2007 (CWS) is a framework for planning, improving and enhancing pedestrian and cycling initiatives and facilities, and is supported the Cycling Action Plan and the Walking Action Plan. The cycling strategies have now been incorporated into the Auckland Transport Plan 2009. Elements in the WRR area include future cycle routes along Richardson Road and Blockhouse Bay Road.

The Waitakere City Council’s Walking and Cycling Strategy 2003 (WCS) aims to increase walking and cycling trips by improving the local network cycleway and pedestrian routes and increasing education and awareness.

NZTA’s Auckland Region Walking and Cycling Strategy 2008 identifies priority projects for investigation relating to the WRR that include:

- SH16 Cycleway connection at Carrington Road
- SH16 Cycleway connection crossing St Lukes Road
- SH20 Mount Roskill – Maoro Street diagonal cycle crossing
- SH20 Waterview Connection – Connection to SH16 Cycleway.

The project enables improvements to, or the delivery of, related walking and cycling facilities.

Western Ring Route ▶ Waterview Connection

A5 Urban Context

A5.1 Historic background

The western side of the Auckland isthmus and the Waitemata harbour were subject to early Maori settlement.

The Whau River provided access to one of the key portage routes across the isthmus. Te Kawerau a Maki are the tangata whenua in the Waitakere district, having settled in various locations around Henderson Creek and the Whau in the 1600s. Occupation, kinship and significant events also bond Ngati Whatua to the Waitakere district and Te Kawerau a Maki. There are recorded archaeological sites, primarily consisting of shell middens, around Rosebank and both east and west sides of Te Atatu Peninsular.

European settlement of western Auckland was supported by early industrial operations around the waterways of Henderson Creek and the Whau River. The remains of two brickworks are located near to the motorway corridor, to the east and west side of the peninsula. The brickwork located on the Whau has not suffered later redevelopment, and is located within the area of a draft masterplan for expanding Orangihina Park. The western site is located on the opposite bank of Henderson Creek, away from the current project's extents.

Te Atatu developed slowly between 1900 and the 1940s. Construction of the northwestern motorway in the 1950s facilitated rapid growth of the residential area, from 1,000 to 15,000 residents over a 20 year period.

Te Auaunga (whirlpools) is the Maori name for the Oakley Creek, and settlement sites have been found along its banks and the headlands. There are more than 20 recorded archaeological sites along the creek including ancient Karaka plantations, middens, pits and terraces. The settlements were used seasonally to harvest eels and Kuaka (godwit) while the upper Waitemata and therefore Kaipara could be easily accessed by waka. North-south walking tracks connected with Pt Chevalier while those east-west connect to the Whau river and portage to access the Manukau harbour.

Te Wai o Rakataura (Rakataura's wetlands) were the wetlands that fed Te Auaunga. Rakataura arrived on the Tainui waka leaving his name and mark here during his reconnaissance of the isthmus. The remnants of the wetlands exist in pipes and concrete channels in Underwood, Hendon, Alan Wood and Valonia Street reserves. In 1820, Ngati Whatua chief Apihai Te Kawau walked Reverend Samuel Marsden to the summit of Owairaka to survey the land. Twenty years later Te Kawau gifted to Governor Hobson two massive tracts of land including the study area which enabled rapid Pakeha settlement. Over time Ngati Whatua lost all of their land though in recent years has purchased blocks in the Unitec grounds.

In more recent times, sites along Oakley Creek have been used by early Europeans for farming and industry. From Cowley Street through to New North Road sites indicative of early Auckland industry (flour milling, tannery, quarrying, water supply, remnant dams and railway alignment) are found. These sites are further supplemented by drystone walls that attest to early European farming practice.

The Waterview interchange coincides with the lower reaches of Oakley Creek and upper reaches of Waitemata Harbour. Like most of the creeks and rivers running into the harbour, it was the scene of both Maori and early European activities, as control of communication, transport and often power was based on control of and access to water. Oakley Creek was bordered by fertile volcanic soils and was also an obvious link between the Waitemata and the Maori settlement at Owairaka (Mt Albert). Maori midden/Karaka trees/landing site (R11/2202) and a settlement site (R11/2203) are found around Oakley Creek in the Waterview area.

A 19th century flour mill and tannery site (R11/2191 Thomas's Star Mill and Garrett Brothers' Tannery), sometimes referred to as the Star Mill, is situated on both sides of Oakley Creek, west of Great South Road, south of the SH16 interchange (refer Figure A-8). The mill was powered by water fed by a dam on Oakley Creek believed to have been located around the current basalt culvert below Great South Road. The mill was burnt down and replaced by a second mill in 1873. This was converted to a tannery in 1879.

There is extensive evidence of quarrying of basalt from the lava flow on the northern side of Oakley Creek. While much of this relates to the 20th century it is likely that the basalt relating to the mill/tannery site was quarried from this locality. Elsewhere in the study area, there are signs of quarrying in the reserve behind Newcastle Terrace and in the reserve between Phyllis St and the Unitec grounds.

Important to the social and built history of the area is the former Whau Lunatic Asylum, first constructed in 1865/66 and at the time the largest building in the new colony. Now part of the campus of Unitec, the building sits within landscaped grounds adjacent to Oakley Creek and is a landmark for pedestrians and cyclists moving between Waterview and Point Chevalier.

Historic and heritage features are summarised from the Archeological Survey undertaken for the AEE (2009) and shown in Figure A-9.

Section A ▶ Background



Figure A-8: Star Mill (from Archaeology Peer Review Report)

HISTORICAL KEY

- Signs of Maori occupation (middens & Karaka trees)
- Settlement
- Stone wall
- Geological feature for protection
- ✳ Quarried area



Figure A-9: Historic and Heritage Features

Western Ring Route ▶ Waterview Connection

A5.2 Underlying environment

A5.2.1 Geology

The geology around the western part of the Auckland isthmus is shaped by the Owairaka (Mount Albert) and Pukewiwi (Mount Roskill) volcanic cones and associated tuff rings and lava flows. Both volcanic cones consist of scoria. Around Owairaka cone is an area of volcanic tuff extending to the Unitec campus to the north, Phyllis Street / Hendon Avenue to the west and south, and Alexis Avenue / Haverstock Road to the east. Volcanic tuff is widespread across the project area as a mantle deposit overlying basalt lava and alluvium.

Basalt lava associated with the multiple stages of eruption of Owairaka volcano underlies the majority of the tunnel alignment between Hendon Reserve and Phyllis Street Reserve. Outcrops of basalt are also located on the southern edge of SH16 interchange at Waterview. Areas of the basalt flow have been quarried and subsequently backfilled with landfill at Phyllis Reserve and Harbutt Reserve. The basalt lava flows of Mount Roskill influence the southern extent of the route.

The coastal areas of Oakley Creek, inner Waitemata Harbour, Rosebank and Te Atatu are composed of marine and stream alluvium containing silts and clays with varying sand and/or organic content.

The SH20 section of the project takes its design inspiration for structures and landscape elements from the volcanic geology, acknowledging the Owairaka tuff ring in the surrounding environment (Refer to Figure A-10).

A5.2.2 Topography

Owairaka (Mt Albert) cone is the dominant topographic feature, rising to a height of 130m above datum. From Maioro Street SH20 skirts around the cone, following the shallow valley in which Oakley Creek runs. On either side of the creek valley, main roads run parallel to the creek along the valley ridges.

Unitec campus, Waterview and Point Chevalier neighbourhoods are relatively low lying, with Oakley Creek running in a deeply incised valley. The land around the northern tunnel portal has a gentle gradient across Waterview Park but drops steeply along Oakley Creek. Richardson Road starts from a relatively low level at the Stoddard Road junction and has a steep gradient as it runs south towards Maioro Street. It follows a local ridge with the land falling away on either side.

The existing causeway is a man-made topographical feature linking the route onto the Rosebank headland via the low-lying Traherne Island. At Rosebank the route rises, overlooking Pollen Island (Motu Manawa). Further low-lying and reclaimed land supports the route before it rises to cross the Whau River and cut through Te Atatu coastal escarpment. SH16 needs to be elevated further, future-proofing it against predicted sea level rise.

The urban and landscape design responds to the view opportunities created by the topography by capitalising on the sequence of open and more contained views along SH16, in particular panoramic views towards the harbour(s) and city skyline; and through locating pedestrian / cycle bridges to provide new views towards Owairaka (Mount Albert) and along the Oakley Creek corridor.

A5.2.3 Hydrology

Oakley Creek currently flows parallel to the proposed SH20 alignment from south at the Maioro Street Interchange to the north at the Great North Road Interchange. The creek has been highly modified over time and is channeled for most of its length and culverted under Great North Road. The southern section flows through the Alan Wood Reserve in a shallow valley which also acts as a 1 in 100 year flood plain. The creek reemerges of the northern extent of SH20 and discharges into the Waitamata Harbor.

From where the creek reemerges under Great North Road it is recognised as a Coastal Protection Area 1 (CPA1). The CPA1 extends from Oakley Creek at Great North Road to the harbour, traversing the causeway and Rosebank peninsula. Motu Manawa Marine Reserve extends from the mouth of the creek to the Whau river. South of the Whau Bridge, the area following Te Atatu peninsula north of the bridge, and the Henderson Creek are within Coastal Protection Area 2 (CPA2). The centre of the Whau south of the bridge is designated as a Mooring Management area.

An Auckland City Council Coastal Management Area (CMA) covers the northern reaches of the Oakley Creek and includes the coastal edge around Waterview. The CMA in this area is a modified urban environment with a range of activities including residential and motorway designated land. The WRR project will require the removal of some houses from the CMA. This creates an opportunity to enhance amenity and maintenance access for the coastal margin, increase public access to this section of the Creek and the Star Mill archaeological site, and include wetlands within stormwater systems.

Section A ▶ Background



Figure A-10: Geology, topography, hydrology

Western Ring Route ► Waterview Connection

A5.3 Iwi values

The project contains a number of culturally significant sites and issues. Many archeological sites are scheduled, testament to the desirability of the area for Maori who lived here.

The SH20 route follows the long-since drained wetlands called Te Wai o Raka, in the shadow of the once fortified pa at Owairaka and home to a number of significant ancestors. The SH16 route traverses areas around the mouth of the Whau and near to Henderson Creek which were used as seasonal settlements.

These sites and the stories associated with them are a key part of the tribal identity of the tribes of Auckland including Ngati Whatua o Orakei, Ngati Te Ata, Te Kawerau a Maki, Ngati Paoa and Ngai Tai ki Tamaki.

Since land passed out of the control of Ngati Whatua in 1840 the area has seen much modification including the draining of the wetlands, clearing of native vegetation and fauna, destruction of settlement sites and quarrying of Owairaka-Mt Albert. What is left of the Te Auaunga is polluted and suffering from ongoing poor water quality. Its mauri (life sustaining capacity) therefore is compromised in turn impacting on the ability of Tangata Whenua to maintain a relationship with it.

The project provides Tangata Whenua with the potential to positively influence again the future fortunes of their waterways, former lands, foreshore and flora and fauna. This can be achieved, in part, through engagement in the landscape design process, including species selection.

A5.4 Social environment

A5.4.1 Neighbourhoods

Te Atatu was the location of early European activity with trade along the surrounding waterways, brick yards on the river banks and productive farmland on the peninsula at the turn of the 19th century. A school was established in 1907, and a store in the 1920s, with transport links via the Waitemata harbour and vehicle tracks to Henderson, New Lynn and Glendene. The population was relatively small (around a thousand) in 1950, and significant growth of the area only took place when the first motorway lanes were developed in the next decade. This stimulated rapid growth to 15,000 by 1970, with Rutherford High School opening in 1961 to serve the new community.

The role of the motorway in Te Atatu's urban history is reflected in the way the north and south areas focus on separate activity centres located away from the highway, with the highway located at the abutment of these two separate neighbourhoods. In contrast, school catchments cross the motorway, breaking down the physical division between these two communities.

The residential neighbourhoods around SH20 and SH16 on the isthmus have developed at different times. Development pushed south from the city centre, transforming Mount Eden and touching Mount Albert in the late nineteenth century with the development of the tramway network. Immediately west and south of Mount Albert, the land remained largely rural until the development of inter-war suburban development.

Point Chevalier grew only slowly until the first wave of (speculative) development in the 1920 resulted in the building of small bungalows, followed in the 1930s and 1940s with the development of large state housing areas. Mount Roskill and Waterview saw waves of new state housing between 1944 and 1947; Waterview School dates from 1950 and was built to serve the new suburb.

Mt Roskill was formerly an area of swamp, quarries and scrubland, whose legacy remains in the drainage reserves doubling as public open spaces that weave through the area. Its state housing is edged by modest private homes in the neighbouring suburbs of New Windsor, Blockhouse Bay and Lynfield.

Avondale has an older colonial history. Strategically located near the western edge of the isthmus, it was served by the Great North Road (metalled in the 1870s), the railway (from 1880) and a bridge across the Whau River. Early industry located here to take advantage of river transport. The construction of the racecourse in 1889 created demand both for more land to live on, and facilities for day travellers. Against this background, Avondale has also seen significant post-World War II development in the shopping centre, the residential areas, and in heavy industry in neighbouring Rosebank from the late 1950s.

The demographics of all these areas have continued to change: from the 1980s Maori and Pacific Island people have settled in Avondale, and migration from Asia, Africa and the Pacific has increased the diversity of Hillsborough and Mount Roskill.

As the suburbs developed, they have remained somewhat segregated both by topography (the incised river valley of Oakley Creek and the steep slopes of Heron Park) and by a road network and traffic patterns that create barriers to east-west movement (Great North Road, Blockhouse Bay Road, New North Road).

A5.4.2 Land uses

The WRR – Waterview Connection corridor runs through residential areas, and alongside industrial and coastal areas.

SH16 divides Mount Albert from Point Chevalier, before traversing the harbour past Rosebank industrial area into the residential area at Te Atatu.

SH20 roughly follows an open space corridor which divides the suburbs of New Windsor, Avondale and Waterview to the west, from the suburbs of Owairaka and Mount Albert to the east. The wider catchment includes areas in transition that will continue to change as Auckland's population grows:

- Te Atatu Peninsula is predominantly residential and attracting development due to relatively low densities, affordable land, good amenity and motorway access.
- Henderson town centre is a historic hub for west Auckland, currently experiencing expansion and intensification. SH16 connects with Henderson via Te Atatu Road and Lincoln Road.
- The Lincoln Road corridor hosts a wide variety of land uses, is also experiencing change and growth, and generates a significant number of traffic movements.
- Avondale town centre is also an important centre identified for growth in Auckland City Council's Future Planning Framework. There are connections to Avondale both via Rosebank Road and Great North Road.
- Point Chevalier local centre has low-scale retail and commercial uses on the north of SH16 separated from a small group of shops and services on the south. In the longer term the focus will move more to the north with greater residential intensity around the core area.

The project creates and/or improves regional connections between growth centres in Auckland, supporting north-south and east-west travel with the completion of the Western Ring Route and the upgrade of SH16.

A5.4.3 Community facilities

Education facilities around the project area include Waterview Primary School on Oakley Avenue, Christ the King Primary School on Richardson Road and St Francis School on Montrose Street in Point Chevalier. In addition to these, Avondale College is located on Victor Street on the Rosebank Peninsula. Te Atatu area is served by Rutherford College on Toru Street and Flanshaw Road school.

Places of worship include the Auckland Samoan Assembly of God on Stoddard Road and the Methodist and Presbyterian Church, on the corner of Great North Road and Fir Street. Te Atatu is served by a Baptist Church and Samoan Congregational church near the entrance to Orangihina Park.

Clusters of local shops include the Richardson Road shops, the Point Chevalier shops and the Hendon Avenue shops. Two local centres, both with supermarkets, are distributed along Te Atatu Road to the north and south. A major Pak'n Save store is located on New North Road at the end of Hendon Avenue. Avondale town centre, on Great North Road, is the largest retail centre near the route.

The project results in the removal of housing around the Waterview interchange and potential impact on the catchment for Waterview Primary School. It maintains the existing pedestrian / cycle connection over Great North Road that links Waterview to the southern side of Point Chevalier, and Carrington Road bridge that connects over SH16.

Figure A-11 shows the existing community facilities in the area.

COMMUNITY FACILITIES KEY

- education
- childcare
- ✦ places of worship
- + medical
- ✱ shops

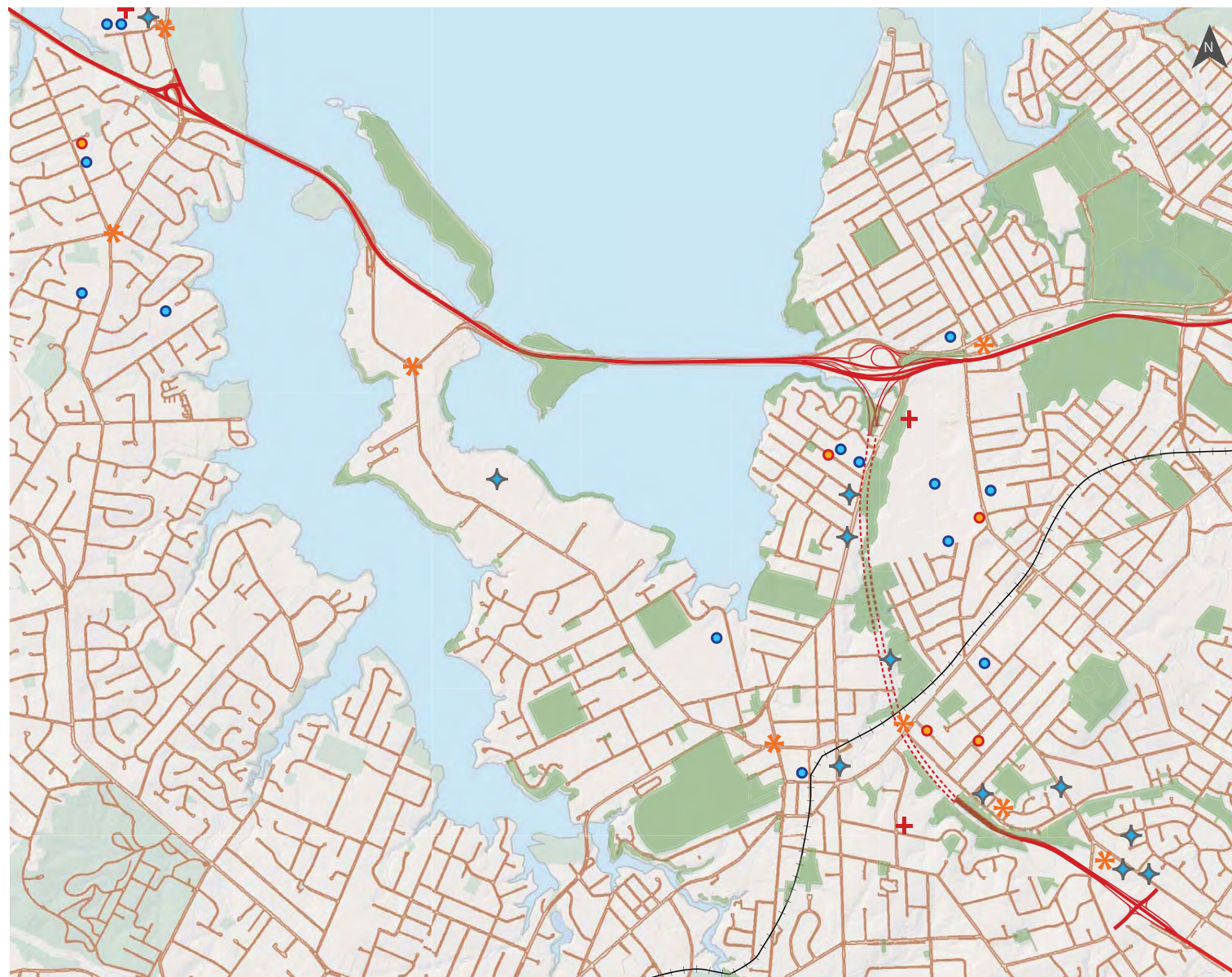


Figure A-11: Community Facilities

Western Ring Route ▶ Waterview Connection

A5.4.4 Built form character

The majority of the residential areas comprise single storey dwellings, with occasional double storey units.

Many areas are relatively low density featuring larger lots with mature planting, interspersed with pockets of development which have taken advantage of more intense zoning provisions. There is a variety of ages of development represented in the area, reflecting the concentric development of Auckland, with noticeable differences between older buildings near Avondale, Mount Albert and Point Chevalier, and the newer character which predominates in New Windsor and Te Atatu.

The character and built form of residential areas also interact with the landscape, resulting in generally less intense development around the coastal edges. The open spaces around Oakley Creek form a significant break in the urban form, providing essential amenity and lending identity to the surrounding extensively developed areas. The Unitec campus extends this landscape attribute, with a very low density of development.

The industrial and commercial development at Stoddard Road and Rosebank contrasts greatly with the residential zones, in form and character. The isolation of the Rosebank industrial area is a positive attribute with respect to the character of the area, while at Stoddard Road there are more direct interface issues between the motorway and residential areas.

The design of motorway elements, including pedestrian / cycle bridges, retaining walls and noise walls, considers the character, bulk and scale of adjacent uses, as well as of the motorway corridor itself.

Figure A-12 shows the character areas identified in a visual assessment by R A Skidmore & Associates (2008). Figure A-13 illustrates the grain of development, ranging from small residential to large industrial footprints, for the wider study area.

The SH20 character areas are explained below:

Stoddard Road - Industrial and infrastructure corridor:

- ▶ Bulky and utilitarian buildings
- ▶ Little vegetation
- ▶ Activity oriented to front Stoddard Road
- ▶ Group of small scale retail units at the corner of Stoddard Road and Richardson Road
- ▶ Industrial development backing onto a railway designation corridor
- ▶ An unnamed tributary of Oakley Creek runs to the rear of industrial and commercial properties. The margins are unkempt and weed infested
- ▶ Mt Roskill Extension construction area to the south.

Mount Roskill - Residential area:

- ▶ Undulating topography, generally rising to the west
- ▶ Little vegetation
- ▶ The busy arteries of Maioro Street and New Windsor Road which form the edge to the character area
- ▶ The busy artery of Richardson Road which crosses the middle of the character area
- ▶ Poorly connected local street network due to the topography and the era of development
- ▶ Mix of stand-alone houses and multi-unit buildings
- ▶ East of Richardson Road, the properties look over the industrial area to expansive views of the City which includes landmarks such as Mount Albert, Mount Eden and the CBD skyline
- ▶ Christ the King School elevated above the motorway.

New Windsor - Residential area:

- ▶ Undulating topography and resulting circuitous local street network
- ▶ Relatively quiet streets
- ▶ Established, stand alone dwellings set in mature gardens
- ▶ Overlooking of the open space corridor by the properties adjoining it to the west
- ▶ Neighbourhood reserves scattered through the area which include Dickey Reserve, Brydon Reserve and Waitati Reserve
- ▶ Poor physical and visual links between the street network and the open space corridor
- ▶ Strong visual connection to Mount Albert.

Hendon Park and Alan Wood Reserve - Open space and railway designation corridor:

- ▶ An open, park like character, even in the portion designated for railway purpose
- ▶ Irregularly shaped parks which accommodate a mix of active (soccer and rugby) and passive recreation
- ▶ Meandering Oakley Creek which is channelled and does not form an amenity feature. The creek also forms a barrier to movement as there are limited pedestrian crossings of the creek
- ▶ Convoluted western edge to the corridor which follows the alignment of Oakley Creek
- ▶ Poor physical and visual linkages to the surrounding neighbourhoods due to limited streets frontage
- ▶ Overlooking of the open space corridor by the elevated properties adjoining it to the east
- ▶ Limited vegetation of mostly exotic species. The southern end of the corridor is an exception to this and is heavily vegetated.

Owairaka / Mount Albert - Residential area:

- ▶ Traditional stand alone single storey dwellings
- ▶ Relatively flat topography rising gently to the east. Towards Mount Albert the land rises more steeply and properties on the side of the mountain are elevated
- ▶ Regular and well connected street network
- ▶ A well vegetated character with street trees and large stands of trees in parks
- ▶ The important road corridors of Richardson Road and New North Road.

New North Road - Residential and commercial corridor:

- ▶ Both the busy arterial (New North Road) to the south and railway line to the north create barriers to pedestrian movement preventing connections to the open space corridor to the north and south
- ▶ Visual dominance of the transport corridors
- ▶ Densely planted residential front yards along New North Road

- ▶ Dominance of commercial activity east of Richardson Road. West of the junction, the area is predominantly residential
- ▶ Large Pak n Save supermarket which creates a visual focal point in the area.

Avondale Heights - Residential area:

- ▶ Mix of housing types from different eras including stand-alone houses and multi-unit buildings
- ▶ Undulating topography with the land generally rising from Oakley Creek to Blockhouse Bay Road
- ▶ Heavily trafficked arteries of Great North Road and Blockhouse Bay Road
- ▶ The Church of Christ (now Avondale Lions Hall) which is a scheduled heritage item
- ▶ Overlooking of open space corridor by elevated properties adjoining it to the east
- ▶ Poor pedestrian access to the open space corridor
- ▶ Informal pedestrian access along the northern side of the railway line to reach the open spaces
- ▶ Heron Park which separates the area from the Waterview neighbourhood.

Oakley Creek - Open space corridor:

- ▶ The deeply incised valley of the Creek. The topography and vegetation within the corridor contribute to the strong sense of enclosure.
- ▶ The well vegetated Creek margins. The corridor contains large specimen trees including a stand of Oak trees at the northern end of the character area which are visually significant
- ▶ Pedestrian path along most of the length of the Creek but few crossing points
- ▶ Strong visual connection between the pedestrian path and the Unitec campus to the east
- ▶ A spectacular waterfall creates a distinctive natural feature along the Creek
- ▶ Heavily trafficked artery of Great North Road
- ▶ Albie Turner Reserve which is elevated above the eastern edge of the Creek
- ▶ Poor physical and visual links between the elevated open space and the neighbourhood to the east (Springleigh)

Section A ▶ Background

Waterview - Residential area:

- Post-war state housing suburb
- Stand alone single and two storey houses.
- A well vegetated character due to street trees and private gardens
- Low lying topography gently sloping down towards the coast.

Unitec and Mason Clinic - Institutional campus:

- A collection of large and diverse buildings that have been adapted and added to over time
- The park like setting of the campus with a number of stands of mature specimen trees. In particular, large specimen trees are located adjacent to the Oakley Creek corridor and northern area boundary
- Undulating topography which generally slopes down towards the Creek. The campus sits above the creek corridor and in places drops steeply to the Creek
- Hard, traffic dominated edges to the campus along the Northwestern Motorway, Carrington Road and Great North Road
- The campus severs Waterview from Mount Albert and Point Chevalier.

Enclosed coastal environment

- Visual dominance of the roading infrastructure
- Visual connection with adjoining properties in Waterview and to Waterview Park
- No visual connection to the harbour
- No visual connection between the North-western cycleway and the coastal environment or Waterview Park.

North-western Motorway corridor

- Open expanse of land dominated by roading structures
- Open grassed areas within motorway on and off ramps
- Strong physical and visual segregation between Point Chevalier and Waterview / Unitec
- Pedestrian connection over the Northwestern Motorway between Point Chevalier shops and Unitec via Carrington Road
- Pedestrian connection under the Northwestern Motorway along Great South Road. The amenity of this environment is poor
- Northwestern cycleway which follows the southern edge of the motorway and bridges over Great North Road.

Open coastal environment

- Visual link to the wider harbour environment
- Modification of coastal environment created by the motorway and ramps
- No pedestrian access to this area.

Point Chevalier: Residential area

- Established coastal neighbourhood.
- Single and two storey stand alone dwellings.
- The area is elevated above the motorway, with the land sloping gently down towards the coast.
- Commercial node located at the corner of Great North Road and Point Chevalier Road.
- Strong area boundaries created by Great North Road, the coastal edge and SH16
- Heavily trafficked artery of Great North Road which severs the neighbourhood from the Oakley Creek corridor
- Poor pedestrian amenity along Great North Road
- Regular grid of interconnected streets modified to respond to the topography and alignment of the coastal edge
- Relatively large active recreation area at Waterview Park which adjoins the coastal environment
- Modified coastal edge along the North-western motorway (SH16)

Springleigh - Residential area:

- Stand alone dwellings
- A well vegetated character due to private gardens with mature specimen trees
- Gentle topography
- Well connected local street network
- Visual relationship between the Oakley Creek corridor and those properties directly adjoining it.

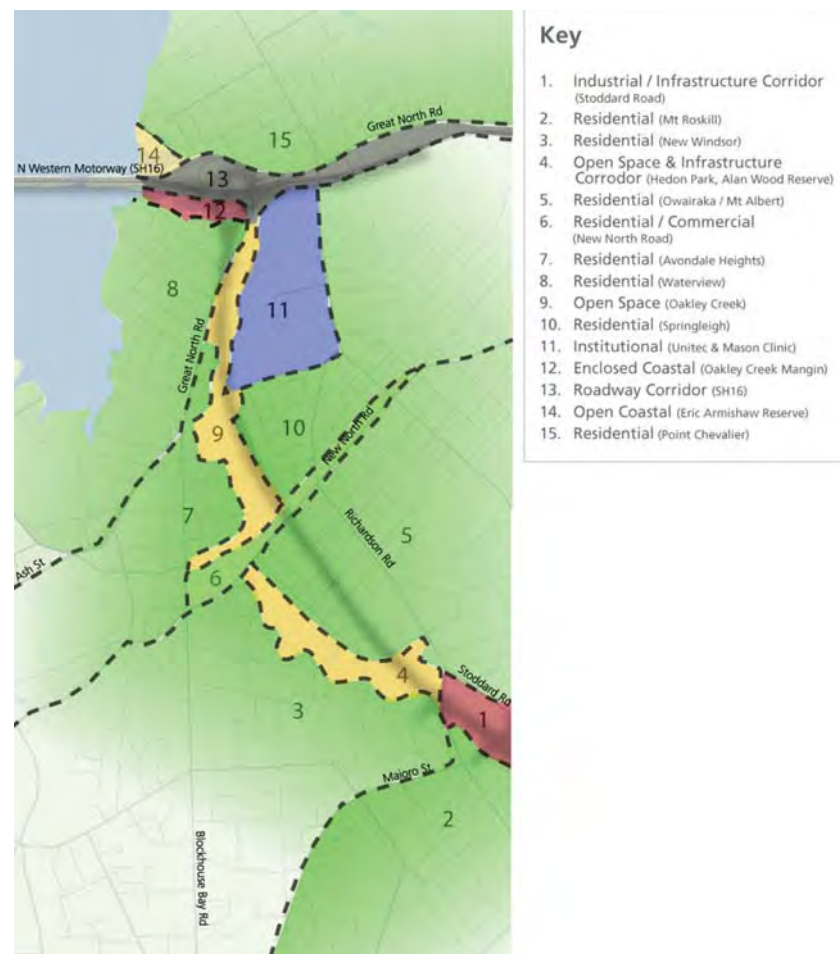


Figure A-12: Character areas (SH20)

Western Ring Route ► Waterview Connection

A5.5 Open space network

Open spaces perform a range of active and passive recreation functions around the project area. Some of these open spaces are poorly configured in relation to their surrounding context and have limited physical and visual connections to the surrounding urban environment (e.g. Phyllis Street Reserve, Harbutt Reserve, Alan Wood Reserve, Hendon Park and Underwood Park). These reserves offer significant potential for bio-diversity and ecological restoration and enhancement. Historically Auckland City Council has limited its investment in a number of the local parks due to uncertainty over the alignment of the proposed Waterview Connection.

The key issues and opportunities related to the open space network around the project area are as follows:

- Oakley Creek is a significant watercourse that meanders through the open space corridor. In some locations it retains a natural form, although in many areas its alignment has been modified and is channelled (through Underwood Park and Alan Wood Reserve). A waterfall is located in the northern reaches of the creek. This is the tallest waterfall in the Auckland City metropolitan area. Oakley Creek is the longest publicly accessible open waterway on the isthmus.
- The designation for railway purposes through Hendon Park and Alan Wood Reserve limits the potential future use of this portion of the open space corridor.
- In the area of the southern tunnel portal, the project requires land within Alan Wood Reserve that is subject to the Reserves Act. In the area of the northern tunnel portal, part of Waterview Park, also subject to the Reserves Act, will be required permanently for the ramps connecting to SH16. Additional area will also be required during the construction phase of the project.
- Auckland City Council has expressed concern about the level of expected impacts on remnant open space at Waterview Park and seeks relocation of the community and formal recreation function of the reserve elsewhere within the study area. Auckland City Council also seeks to maintain quality access to the coast and Oakley creek esplanade reserve, and heritage sites.
- The project area contains a number of significant trees. A schedule of significant trees within Auckland City Council area that may potentially be affected has been prepared separately.
- The area contains a number of significant open spaces, many of which are linked to one another. Significant public open spaces within – or bordering – the project area are keyed to Figure A-12.

Section A ▶ Background

- 1 Jack Colvin Park, adjacent to Henderson Creek
- 2 McCormick Green, adjacent to Te Atatu Interchange
- 3 Harbourview-Orangihina Park / Orangihina Park, along the Waitemata foreshore on Te Atatu peninsula
- 4 Bridge Road Reserve
- 5 Moto Manawa Marine Reserve
- 6 Rosebuan Road Domain, at the end of the peninsula
- 7 Pollen Island
- 8 Traherne Island
- 9 Waterview Esplanade
- 10 Eric Armishaw Reserve
- 11 Waterview Park
- 12 Cowley Reserve, at the north end of Oakley Creek
- 13 Unnamed Reserve
- 14 Western Springs Gardens
- 15 Chamberlain Park
- 16 Saxon Reserve
- 17 Oakley Creek Esplanade Reserve, along Great North Road on the eastern side
- 18 Phyllis Reserve, between Phyllis Street and Great North Road
- 19 Heron Park, between Waterview and Avondale
- 20 Harbutt Reserve, north of New North Road and the Western Railway line
- 21 Alan Wood Reserve, west of Hendon Avenue
- 22 Murray Halberg Park, between Richardson Road and Hendon Avenue
- 23 Owairaka Park
- 24 Hendon Park, south of Hendon Avenue
- 25 Valonia Reserve
- 26 Underwood Park, north of O'Donnell Avenue
- 27 Walmsley Park



Figure A-13: Open space and built form character

Western Ring Route ► Waterview Connection

A5.6 Movement networks

A5.6.1 Road hierarchy

The WRR – Waterview Connection will provide regional vehicular connections for the wider area. It will interact with a network of regional and district arterial roads. Great North Road, Blockhouse Bay Road, New North Road, Carrington Road, Richardson Road, Stoddard Road, Maioro Street, Rosebank Road and Te Atatu Road are the major road connections to the project route.

A5.6.2 Public transport

Bus services run along Great North Road, Blockhouse Bay Road, Point Chevalier Road, Carrington Road, Woodward Road, New North Road, Richardson Road, Stoddard Road, Sandringham Road, Rosebank Road and Te Atatu Road. Less frequent services run along local roads including part of Hendon Avenue and Range View Road.

The western railway line provides commuter services between Auckland CBD and Waitakere with stops in the study area at Avondale and Mount Albert stations. Land is also designated for future rail provisions including rail stations for an Avondale-Southdown line that would pass through Onehunga and Mount Roskill, connecting to the North Auckland rail line between the Avondale and Mount Albert stations. Completion of this connection would provide a western loop to the North Island main Trunk (NIMT) line within the Auckland region. The route commences just west of the New North Road and Hendon Avenue intersection and follows Oakley Creek and the SH20 alignment to Hillsborough Road.

A5.6.3 Cycle routes

The main dedicated cycle facility in the area is the 10km “North-western Cycleway” which follows SH16 on the southern side, including bridges over Great North Road and Patiki Road. Other facilities include a shared bus and cycle lane along Great North Road east of Point Chevalier Road, an on-road cycle lane along Carrington Road between Great North Road and New North Road, and a recent cycle route along Te Atatu Road north of the interchange.

There is an off road cycle path through Underwood and Walmsley Reserves, connecting Sandringham Road Extension and Richardson Road via both parks; and on-road cycle lanes in both directions along Mount Albert Road between New North Road and Sandringham Road. A cycle route along the Mount Roskill Extension has been recently completed.

The Regional Cycle network includes plans to realign the route west of Te Atatu interchange to be within the motorway corridor rather than on local streets. It also plans to link the off-road facilities of the North-western cycle way with the Underwood / Walmsley and Mount Roskill route with a new cycle route which will roughly follow Oakley Creek. This is consistent with Auckland City Council aspirations for an enhanced pedestrian and cycle network the length of the Waterview alignment. An on-road cycle lane (shared with bus lane) along Great North Road, south of SH16, is also in the plan.

Refer to Figure A-14 Movement Network for the existing public transport, cycleway and pedestrian routes.

A5.6.4 Pedestrian routes

Off-road walking paths in the area include:

- The North-western cycle way which provides access along the southern side of SH16 for pedestrians
- The Oakley Creek Walkway which connects the North-western cycle way with Phyllis Street Reserve
- The Alan Wood Reserve Walkway which connect New North Road with Hendon Reserve
- An extensive network of paths around Orangihina Park.

There are opportunities, captured in the design concepts following, for a number of new pedestrian paths, shared cycle / pedestrian paths, and links to and through the open space network and adjoining neighbourhoods.

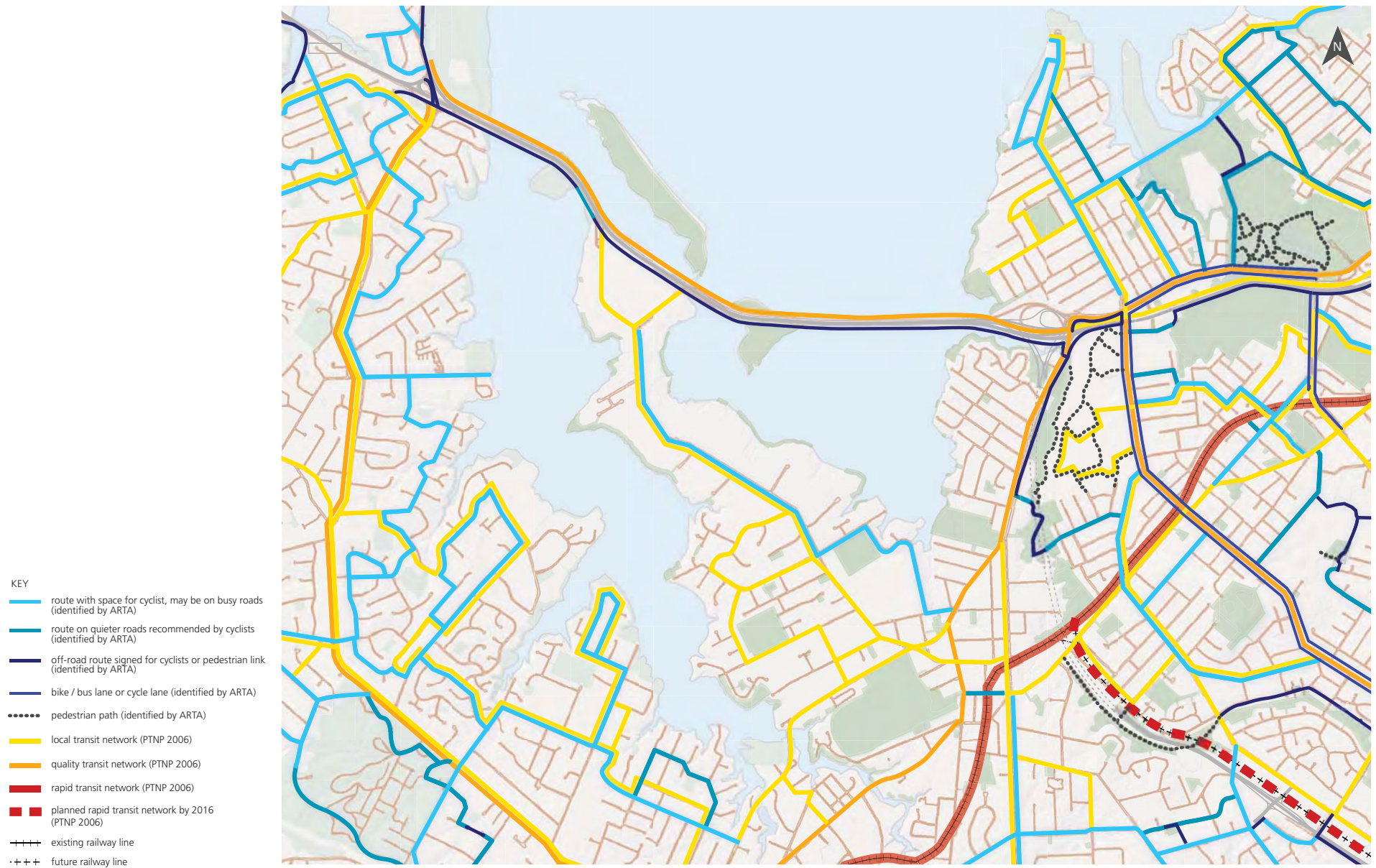


Figure A-14: Movement network

Western Ring Route ▶ Waterview Connection

A5.7 Views

A5.7.1 Protected views

Mt Albert (Owairaka) is a visually significant volcanic feature located to the east of the study area. Both the isthmus section of the Auckland City District Plan and the Auckland Regional Policy Statement identify a number of protected viewshafts to Mt Albert. The Assessment of Environmental Effects will describe the proposed project design and its relation to the views of Mt Albert in detail.

Mt Albert has a strong visual presence from a number of locations in the local neighbourhoods around the SH20 corridor. In particular, from the elevated predominantly residential neighbourhoods to the south of the alignment, clear views are obtained to the volcanic cone.

The southern portal, within Alan Wood Reserve, is close to protected viewshaft A1, which imposes height limits of 15m and 18m to structures in this area. Viewshaft A2 is under review. Viewshaft A13 has a direct relationship with SH16 where it traverses Rosebank peninsula and Traherne Island, and crosses the SH20 corridor. In viewshaft A13, the motorway is outside the most stringent height controls of 10 and 15m along SH16, and it is in tunnel through the Waterview (SH20) portion (refer Figure A-15).

A5.7.2 Neighbourhood views

Towards the Waterview interchange there are very poor visual connections to the coastal and creek environment. While the northern area of the Unitec and Mason Clinic sites are elevated, views to the Harbour and the Waitakere Ranges in the distance are partially obscured by mature trees. Private properties and weed infestation of the margins of Oakley Creek currently obscure a visual connection between Waterview Park and the coastal environment of Oakley Creek. In contrast, the cycleway within the SH16 corridor before it descends to the bridge over Great North Road affords good views to the coast and the distant horizon.

The urban and landscape concept seeks to protect the outlook of neighbours towards the harbour, the hills and the city, and to enhance those views where possible.

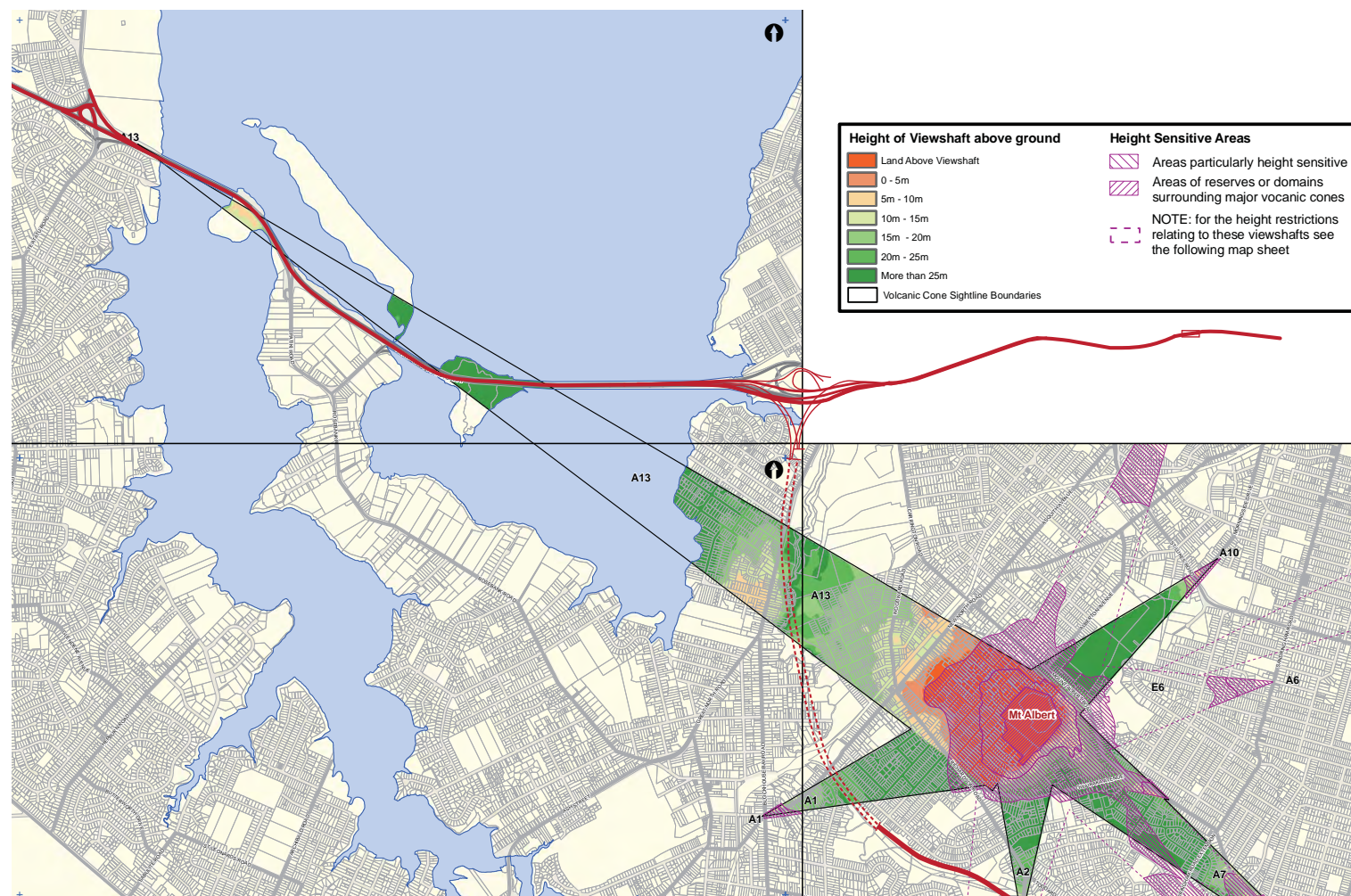


Figure A-15: Mt Albert Protected viewshafts –Auckland City Council District Plan