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URBAN DESIGN, LANDSCAPE, & VISUAL ASSESSMENT FOR THE NOTICE OF REQUIREMENT FOR THE

# LINCOLN ROAD CORRIDOR IMPROVEMENTS

AUCKLAND TRANSPORT

MAY 2016


BY:

**Urbanismplus Ltd**
**MWH New Zealand Ltd**

SUB CONSULTANTS OF:

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*DISCLAIMER: This report contains an Urban Design, Landscape, and Visual Effects Assessment for the Lincoln Road Corridor Improvements developed by Urbanismplus Ltd and MWH New Zealand Ltd, based on information provided by MWH New Zealand Ltd between July 2015 and May 2016.*


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# EXECUTIVE SUMMARY

This report details the Urban Design, Landscape and Visual Assessment for the Notice of Requirement (NOR) process for the Lincoln Road Corridor Improvements (LRCI) project being undertaken by Auckland Transport.

The assessment identified that the Urban Design, Landscape and Visual impacts of the NOR for widening Lincoln Road can be appropriately addressed through the implementation of conditions to avoid, remedy or mitigate the effects of the project at the outline plan of works stage.

**Urban design**

The scale of the potential urban design effects of the LRCI Projects on the public realm is considered to be generally low. The main function of the current road corridor is to provide for a high level of linear vehicle through-movement rather than local or pedestrian amenity, and the current character of the road reflects this. It is expected that the widened corridor will have a character that is very similar to the current one.

It is considered that pedestrian and cyclist connectivity may moderately benefit through an improvement in signalised pedestrian crossings and cycling facilities, however the removal of some trees, the grass berm, and some earthworks will negatively affect the public realm amenity of the corridor and streetscape. The planting of new street trees and other vegetation in the raised median is considered to be an effective form of mitigation of these effects.

There will be some effects on the access to a number of properties around Daytona Reserve, however this effect will be mitigated by a new access road located along the edge of Daytona Reserve. This will have the positive effect of providing for enhanced access to this reserve and an opportunity to undertaken plantings to mitigate for the loss of vegetation as a result of the project. The effects on private property will be moderate as the frontage of a number of private properties will be reduced, which will also result in the removal of trees and vegetation, as well as reducing the buffer between buildings and the road. A small number of properties will require full acquisition in order to undertake the project.

The overall level of effects on the public realm is considered to be generally low. The main function of the current road corridor is to provide for a high level of linear vehicle through-movement rather than local or pedestrian amenity, and the character of the road reflects this. It is expected that the widened corridor will have a character that is very similar to the current one.

**Landscape and Visual**

It is considered the overall landscape and visual effects (without mitigation) will be, at most, moderate. The main effect to amenity, in terms of aesthetic values, will be the removal of up to 140 trees along the corridor. There is however potential for a minimum of 96 new trees to be planted in the central median and green spaces and further trees in residual spaces along property frontages throughout the corridor to replace these. With this mitigation, landscape effects can be regarded as being low at the most.

At a property scale, the reduction in the generous setbacks and subsequent removal of vegetation from within the road corridor, may result in a loss of amenity in terms of outlook from properties at some residential locations, however replacement planting to frontages will provide some mitigation. There will be negligible adverse visual effects on community facilities such as Laidlaw Bible College, and these can be mitigated by landscape design.

With regards to the visual effects (with mitigation) to individual residential properties (less those 14 properties that fall within the designation), there will be moderate adverse visual effects on two properties that can be effectively mitigated through landscape design. Any adverse visual effects on the remaining properties (40) in the vicinity of the Project will be moderate to low or less. In each case the adverse effects are able to be effectively mitigated by proposed landscape design, particularly the ability to replant in reinstated berms and reinstatement of consistent property frontages.

The removal of commercial frontages from the corridor will also affect the experience of street users. To

mitigate this effect Auckland Transport will look to negotiate with property owners and undertake frontage reinstatement where possible.

The Landscape plans (Appendix 4) show the following features as proposed mitigation for landscape and visual effects:

- The retention of three heritage trees,
- New tree and shrub planting in the central median,
- Replacement planting at the Triangle Road frontage / berm,
- Replacement planting at Daytona Reserve and Te Pai Park,
- A new open space proposed for 308 –312 Lincoln Road, including trees and other soft landscape treatment. A bio-retention device may also be possible at this location,
- New planting along the service lane at Daytona Reserve.

There is also potential for the following at detailed design stage:

- Specific design at intersections (footpaths, fences, barriers, walls etc.),
- Consistent treatment of frontages to be replaced, post works, in agreement with landowners,
- Replacement tree planting in reinstated roadside berms.

# 1. INTRODUCTION & SCOPE

## 1.1 INTRODUCTION

This report details the Urban Design, Landscape and Visual Assessment for the NOR process for the LRCI project being undertaken by Auckland Transport in the west of the Auckland city area.

## 1.2 REPORT STRUCTURE

Due to the overlap between disciplines, this report is a joint assessment for urban design, landscape, and visual effects.

The report uses one framework to assess the urban design, landscape and visual elements and combines sections where there is significant overlap in content. However, the assessments are completed and detailed separately, with the urban design assessment set out in Section 5, the landscape assessment set out in Section 6, and the visual effects assessment in Section 7.

A discussion on the consideration of alternatives is set out in Section 8 and combined conditions are detailed in Section 9.

## 1.3 REPORT SCOPE

### 1.3.1 Urban Design Scope

The Urban Design Assessment for this project has included the development of an urban design framework (methodology) of transport-related urban design principles and elements that has been used to undertake an assessment of the urban design impacts and opportunities from construction and operation of the LRCI (refer to Section 4). As part of this work we have liaised with the project managers, MWH, and planners, Hill Young Cooper (HYC), as well as other specialists to provide urban design input into the preliminary design.

### 1.3.2 Landscape and Visual Effects Scope

The landscape and visual assessment (LVA) for the Lincoln Road Corridor draws upon the *Best Practice Guide - Landscape Assessment and Sustainable Management* (NZILA, 2010) and those contained in Appendix 1 of the *Landscape Guidelines* (NZTA, 2014). The LVA has been developed together with the urban design framework and guides landscape recommendations. It also responds to requirements in Part 2 (Sections 6 and 7) of the RMA, district plans and feedback from other experts namely ecological, drainage, cultural, geotechnical and arboriculture. Landscape Plans have also been developed, and can be found in Appendix 4.

The outcome is this Urban Design, Landscape and Visual Assessment Report which form part of the assessment of effects attached to the Notice of Requirement.

## 1.4 PROJECT DESCRIPTION

The LRCI project aims to improve the efficiency of Lincoln Road, Henderson, improve public transport reliability in this area, and improve safety for all road users.

The LRCI project applies to a 1.3 kilometre length of Lincoln Road, between its intersection with Te Pai Place / Pomaria Road to the south and the State Highway 16 on ramp to the north. The project will upgrade Lincoln Road to maintain two lanes for general traffic in each direction, while also providing for a transit lane, dedicated cycle lane and footpath in each direction. Additional and/or longer turning lanes will be constructed at controlled intersections. A raised median will be installed in the centre of the road, and U turns will be enabled at controlled intersections. The improvements will be integrated with the New Zealand Transport Agency's upgrades of State Highway 16 at the Lincoln Road interchange.

The LRCI project will also involve the collection and treatment of stormwater generated from the road at 312 Lincoln Road and discharge to a new coastal outfall at Daytona Strand. The resource consents necessary to undertake this work will be applied for at a later date. There will be a new public road formed to the rear of 300-312 Lincoln Road, which will provide access to Daytona Reserve and existing properties that will be unable to be accessed directly from Lincoln Road.

In order to construct the improvements, the existing road reserve will be widened by varying amounts on each side (generally around 2 to 3 metres, up to approximately 8 metres). A greater area of land is required in the vicinity of intersections.

A fuller description of the project is provided in the Assessment of Environmental Effects which supports the Notice of Requirement.

## 1.5 PROJECT OBJECTIVES

The project objectives are:

1. To accommodate more people travelling to and along Lincoln Road by improving corridor efficiency.
2. To improve public transport reliability within the Project area.
3. To improve safety for all road users, including by providing cycling infrastructure.
4. To integrate Auckland Transport's Lincoln Road improvements with the NZTA Western Ring Route upgrade via the Lincoln Road Motorway Interchange.

# 2. CONTEXT

## 2.1 EXISTING URBAN DESIGN AND LANDSCAPE CONTEXT

The existing context as detailed below will be used to assess the urban design and landscape effects of the proposed project.

### 2.1.1 Corridor Function

*Linear Movement Function*
Lincoln Road is a primary arterial road located approximately 14 kilometres west of the Auckland Central Business District (CBD). Lincoln Road is a key feeder route from the Henderson Town Centre, Great North Road, and the wider Waitakere area to the North-Western Motorway / State Highway 16 which connects directly to Auckland CBD eastbound and to Westgate and Albany west and northbound. This section of motorway is currently the focus of the Western Ring Route project which is a NZ Transport Agency 'Road of National Significance'. Universal Drive and Triangle Road in particular feed high numbers of vehicles onto Lincoln Road.

Lincoln Road has a number of bus routes along it that connect north to Hobsonville and Takapuna, as well as to Henderson Town Centre and the Waitakere area, and the Auckland CBD and Isthmus. The corridor is identified as a frequent public transport service network and a proposed cycling connector in the Regional Land Transport Plan 2015-2025.

As such, the primary function of the road is to allow for linear through-movement for both private vehicles and buses. The corridor consists of four lanes of vehicle traffic, with additional right and left turning lanes at intersections, and a central median. It does not provide on-street parking or dedicated cycle lanes and is characterised by high levels of vehicle movement traveling at maximum allowed speeds (when not inhibited by traffic volumes).

*Access Function*
The corridor also provides for access to a variety of adjacent land uses. Commercial and retail land uses are grouped in 'nodes' along the corridor with the largest 'node' located at the intersection with Universal Drive, extending to Daytona Road on both sides of the road, and a second 'node' around the intersection with Central Park Drive on the eastern side. Other commercial land uses are located in residential buildings at various places along the corridor. There is also a small number of residential dwellings fronting onto Lincoln Road.

As a result of the absence of on-street parking and the vehicle dominated nature of the corridor, commercial land uses on the corridor generally provide off-street parking at the front of sites adjacent to Lincoln Road. Therefore, there are a high number of vehicle access points crossing the footpath.

A number of other key land uses, in addition to the predominately commercial, retail, and residential uses on Lincoln Road, are located within a close distance of the project area (refer to **Appendix 1**), therefore Lincoln Road provides a function in providing access to or connecting these uses. These include:





**FIG. 1.1**: Lincoln Road City-wide context .
**1:** Entrance to North-Western Motorway.
**2:** Bus shelter on Lincoln Road.
**3:** Te Pa Park which links into Central Park and The Trusts Arena.
**4:** Entrance to Waitakere Hospital on Lincoln Road.

- → Waitakere Hospital and a large number of health-related businesses and services located on Lincoln Road to the south of the project area.
- → Henderson Town Centre, located approximately 2 kilometres south of the project area.
- → A number of schools on both the west and the east sides of Lincoln Road, including Henderson Intermediate which is located on Lincoln Road to the south of the project area and Pomaria Primary which is located within 250m of the intersection of Lincoln Road and Pomaria Road.
- → Central Park and The Trusts Arena, a large recreational and sporting facility, located on Central Park Drive, which connects directly to Lincoln Road, and is less than 1 kilometre from the project area.
- → The Henderson and Sturges Road Train Stations, both located within approximately 2.2 kilometres south of the project area.

*Local Movement Function*
Residential areas (part of the suburb of Henderson) are located to the west and east of Lincoln Road. The larger residential area to the west is sandwiched between Huruhuru Creek on the west and Lincoln Road and accessibility from this area to key facilities, including Waitakere Hospital, Henderson Town Centre, some of the schools, Central Park and The Trusts Arena, and the Henderson Creek area requires residents to cross Lincoln Road.

The existing corridor provides limited opportunities for lateral connectivity (cross-movement), particularly for pedestrians, due to the limited number of signalised intersections at Te Pai Place / Pomaria Road, Universal Drive, Central Park Drive / Triangle Road, and the entrance to Mitre10 / Pak'n Save (refer to **Appendix 3**). In places these signalised intersections have free left turns for traffic without pedestrian 'zebra' crossings, potentially leaving a pedestrian in a dangerous situation. The width of the carriageway increases the severance effect for pedestrians crossing over the corridor.

The pedestrian environment on Lincoln Road is compromised as a result of narrow footpaths and a vehicle dominated environment. The lack of on-street parking and dedicated cycle lanes removes the opportunity for a buffer between vehicles and the footpath, as well as a safer environment for cyclists, and encourages a faster vehicle speed environment. Existing bus shelters provide some refuge for pedestrians, however there are few other opportunities for pedestrian amenity on the corridor, refer to **Section 2.1.4** for a discussion on the amenity and character of the project area.

### 2.1.2 Open space and landscape

The existing landscape can be described in terms of the following aspects:

*Biophysical Aspects*
Lincoln Road is located inland from the coast, on gently rolling, undulating country. The Project area is separated from the coast by the Te Atatu Peninsula to the north east and Massey to the north west, that also exhibit flat to gently rolling characteristics. The Waitakere Ranges provide a distant backdrop to the south and west.

The existing Lincoln Road corridor exhibits typical urban arterial road characteristics, and passes through a highly developed (in terms of suburban character) landscape between the Lincoln Road motorway interchange with State Highway 16, in the north, through to just south of Te Pai Place. The road climbs slightly from the northern end towards Henderson in the south, as it moves away from the coast. These landforms are already modified by the existing highway and other human activity such as buildings, car parking, the corridor itself and associated access ways off the road. The topography of the area can be seen in **Figure 1.4**.

There are few natural features of note in the vicinity. The most notable features are the individual trees (primarily two historic Rimu and an historic Himalayan Cedar) and exotic Norfolk Pines that are dotted down the corridor. There are also a number of street trees of a variety of ages and sizes located in berms at the edge of the road and a number of trees along the street frontage on private properties, many of which are large or established that contribute some amenity and coherence to the Lincoln Road corridor environment. It is estimated that 140 of these trees along the corridor will be removed as a result of the project (refer to the landscape drawings in **Appendix 4**). An assessment of these trees has been completed by an arborist and is included in the Arboricultural Report.

The Project is not affected by the RPS Visual Protection of Volcanic Cones areas.

There are two reserves adjacent to the corridor, Te Pai Park and Daytona Reserve, that form part of a wider matrix of local reserves in the suburban areas of West Auckland. The primary green space is at Te Pai Park which tenuously links into the Central Park, located on Central Park Drive. Te Pai Park has a number of established trees located on a grassy area fronting Lincoln Road.

Daytona Reserve is the second area of green open space within the area of works. The Reserve, located to the west, is set back from Lincoln Road by the depth of two properties and is currently only accessible from Lincoln Road via a pedestrian walkway. However, the proposed road widening will result in a new access street that will provide direct vehicle access from Lincoln Road to Daytona Reserve.

An area of privately owned vacant land is located on the eastern side of Lincoln Road, before the intersection with Universal Drive. Although it is not publicly accessible, the site provides for some visual relief from the built environment along the corridor, however this cannot be considered a permanent arrangement as it is likely that this land will be developed in the future.






**ABOVE FIG. 1.2**: Lincoln Road Open Space and Landscape Context

There is one additional green space area of note that accommodates a communications mast, just north of the project area. The mast itself is a prominent feature over the length of the corridor and from Daytona Strand.

The natural drainage in the surrounding area towards Daytona Strand has been substantially modified – typified by engineered pipes and drains. Currently storm water drains to both east and west branches of Henderson Creek, on both sides of Lincoln Road.

*Perceptual Aspects*
In terms of urban character and amenity, aesthetically the area has the ordinary urban character of a heavily trafficked arterial road. There is a mixture of commercial, retail and residential land uses, with little pervious surfaces or areas of natural ecology, other than those previously stated. It includes areas of green space and street trees.

In terms of character the wide roadway and expanse of asphalt is typical to that of an arterial road and the roadway responds to the gently rolling landform (but sits above the level of some residential properties on the western side of the road). On first inspection, the linear nature of the road and the lack of views out to any outstanding features, leaves the corridor unable to be distinguished from any other arterial road in any other suburb of any other New Zealand city. However there are views out from the corridor, especially at the junctions that run east—west, to the rolling green Massey hills in the west and back towards the Sky Tower in the east. The Waitakere Ranges in the south are also a feature that places Lincoln Road firmly in Auckland. Land uses, as stated in **Section 2.1.3**, are also typical of arterial roads (residential / commercial). Residential dwellings and business buildings tend to be distributed parallel with, and set back from, the road.

Refer to **Section 2.1.1** City Wide Context for information on schools, health facilities, community facilities and transport infrastructure.

*Associative aspects*
While no historic heritage items are recorded along the route, there are a variety of community facilities that are referenced in **Section 2.1.1** in terms amenity and character context. There are no sites of significance or value to mana whenua identified in the PAUP in the project area. The Cultural Impact Assessment from Te Kawerau a maki, notes that values are primarily spiritual, in relation to mauri ('energy that binds and animates all things' - *http://www.teara.govt.nz/en/te-ao-marama-the-natural-world/page-5)* of the heritage trees and stormwater.

The European history of the area includes the development around the Henderson Timber Mill, schools, rail, recreation and horticultural industries e.g. wineries and orchards. Over recent times land use has changed from horticulture (refer to the Land Contamination report—[MWH, 2015]) to commercial and retail. Mazuran's New Zealand Wines and the greenspace at 225-229 Lincoln Road are the only remnants from the road corridor itself of the rich horticultural heritage of Henderson.

Stone wall near Pak'n Save

Winery signage

Street frontage 325 Lincoln Rd


Daytona Strand


Existing lane 260 Lincoln Rd

**ABOVE FIG. 1.3**: Lincoln Road Open Space and Landscape Context (2)

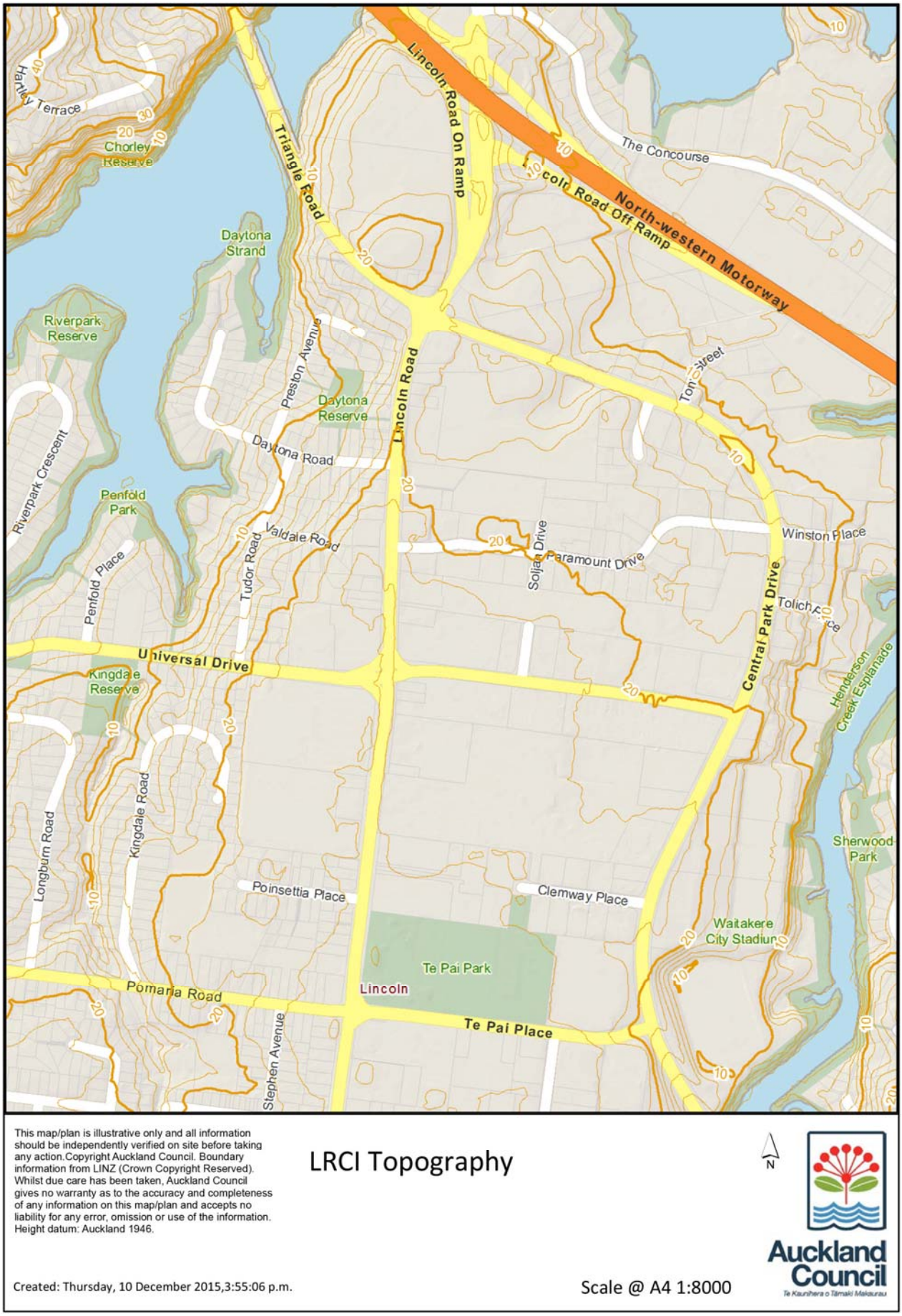



**FIG. 1.4**: Lincoln Road Topography. *Source Auckland Council*

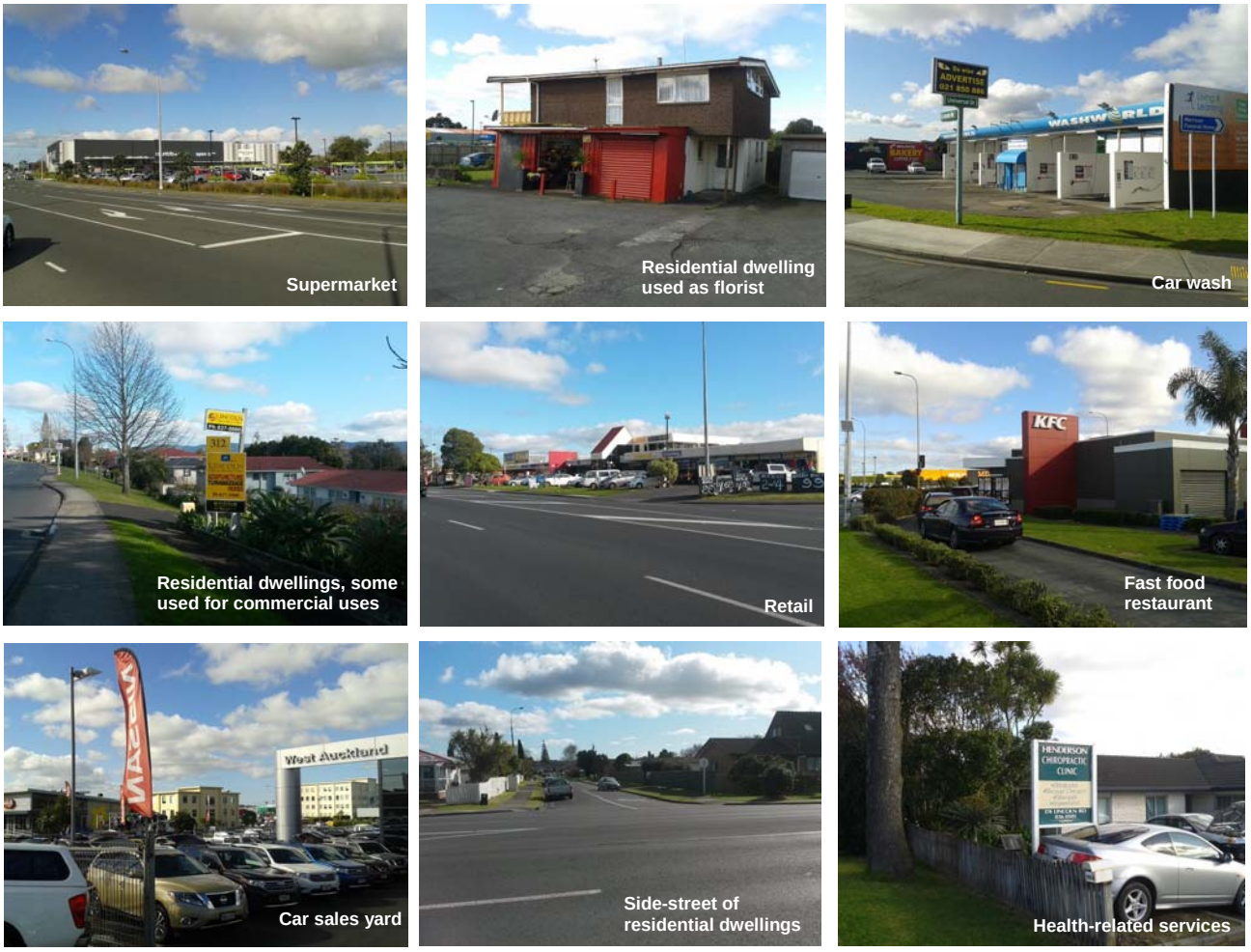
### 2.1.3 Land-use context

The land-uses within the area of works are a mix of commercial and retail, residential, institutional, and light industrial (**Appendix 2** and **Figure 1.3**). There is also a park, Te Pai Park, on the corner of Lincoln Road and Te Pai Place which includes a skate park, and netball and tennis facilities.

The land uses are generally grouped with residential dwellings occurring primarily on the western side of the road and at the northern end, between Daytona and Triangle Roads, and southern end, just before Poinsettia Place to Pomaria Road and beyond. While these areas are predominately residential there is a noticeable use of residential dwellings being used for commercial or service uses in these locations.

Retail and commercial premises, including supermarkets, Mitre 10, strip retail, fast-food restaurants, car sales yards and services including accountants and childcare facilities, often with extensive areas of parking located directly on the street front, dominate the eastern side and central section of the area of works, with some institutional uses also present. These commercial areas are grouped around the intersections with Universal Drive and Central Park Drive.

In general the area is seeing a steady replacement of older buildings on less developed sections with newer commercial or retail buildings with an emphasis on parking and access.




**ABOVE FIG. 1.3**: Lincoln Road Land-use Context

### 2.1.4 Amenity and character context

The existing built environment on Lincoln Road is generally low quality particularly for pedestrian, cyclist, or public transport users due to the high traffic volumes and wide corridor with no buffer between vehicles and pedestrians, limited pedestrian facilities, and built form (**Figure 1.4**). The existing corridor provides for some amenity through a grass berm between the footpath and private properties and street trees, including some large, tall trees.

The land uses and built form result in a poor interface between buildings and the footpath, large areas of car parking dominate the street frontage with little visual interest or protection from sun, rain, or wind. However, there has been an attempt in places to mitigate the interface of onsite car parking through landscape strips. There are few buildings of architectural merit or interest, or built features that create a landmark, sense of place, or local identity for pedestrians. The corridor is dominated by business signage, on buildings, elevated boards, and freestanding signs which clutter the berms and frontages of many sites. The scale of the signage is focused attracting vehicle attention which further reduces the quality of the pedestrian environment.

Road users and pedestrians traveling south enjoy views of the Waitakere Ranges in the distance through the view created by the road corridor. A radio tower at the northern end of Lincoln Road is a prominent feature.

*Te Pai Park*
Te Pai Park provides an exception to the low quality environment. As described in the land-use and open space and landscape context sections, the park provides open space and visual relief from the built environment through small grassed mounds and established trees fronting a skate park and other sporting facilities behind.

*Laidlaw Bible College*
One entrance to the College is via Lincoln Road. This entrance, while low-key, provides an area of moderately higher quality public amenity amongst the large-format retail environment through the use of a low brick wall and entrance alcove combined with a line of large, established trees. The trees in particular provide a highly visible landmark due to their verticality in a environment with predominately low-level structures and large areas of at-grade parking (**Figure 1.6**).

*Small public spaces*
Benches and street trees located around a bus shelter and at the front of retail businesses provide a small, moderately higher quality public space outside 226-250 Lincoln Road (**Figure 1.5**), although the level of amenity is still generally low.

**ABOVE FIG. 1.4**: Low-amenity environment on Lincoln Road

**ABOVE FIG. 1.5**: Small public space at 226-250 Lincoln Road

**ABOVE FIG. 1.6**: Entrance to Laidlaw Bible College providing a small area of moderately higher amenity

## 2.2 POLICY CONTEXT

*Auckland Council District Plan (Waitakere Section)*
The Auckland Council District Plan (Waitakere Section) is the operative land use plan for the project area. **Figure 1.7** shows the Waitakere Plan's Human Environments that are applied to the land alongside the project route. Lincoln Road is zoned Transport Environment.

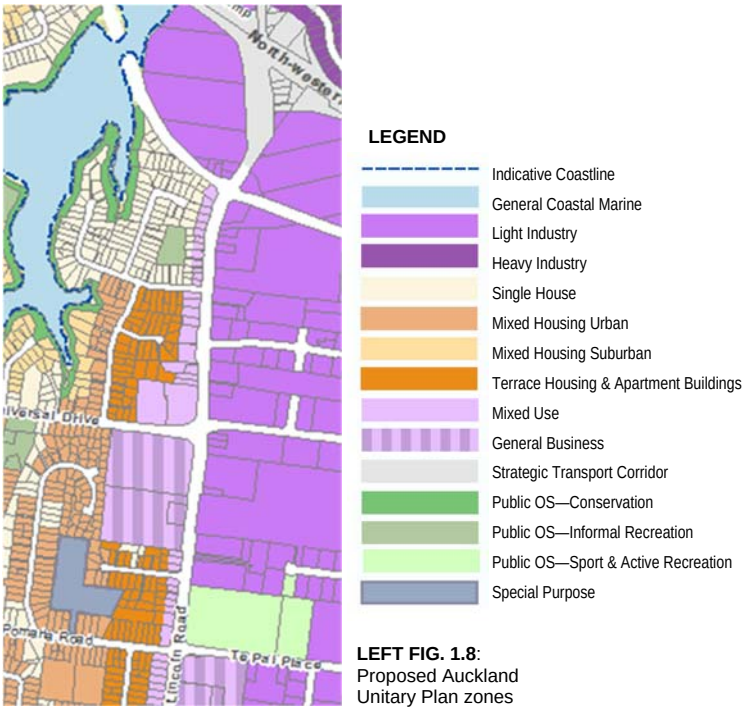
Land on the western side of Lincoln Road to the north of Daytona Road and fronting Poinsettia Place to Pomaria Road is Living Environment, the main residential zone. The land on the west, to the south of Daytona and north of Universal Drive, is Community Environment, catering for employment activities. A Special Area, Lincoln Park Environment, is applied to the south of Universal Drive and north of Poinsettia. Working Environment - Lincoln is applied to the east side of Lincoln Road from the motorway to the open space north of Te Pai Place, except for the Bible College Special Area. The Working Environment is characterised by industrial land uses and employment activities. Te Pai Park is located on the eastern corner of Te Pai Place and Lincoln Road. It is shown as Open Space.

*Proposed Auckland Unitary Plan (PAUP)*
The PAUP is the proposed plan applying to the project area. Zoning provisions in the PAUP do not currently have legal effect, however they provide an indication of future intentions for the area. **Figure 1.8** shows the notified PAUP proposed zonings for land alongside the project route. The PAUP is one of the Auckland Council mechanisms to achieve the Auckland Plan vision of to be the 'worlds most liveable city'.

Under the notified PAUP, a Mixed Use zone is applied to most of the western side of Lincoln Road, except to the south of Universal Drive and north of Poinsettia which is zoned General Business. The Mixed Use zone allows for residential and smaller scale commercial activities with a four storey height limit. Land on the east of Lincoln Road is zoned Light Industry apart from the Public Open Space - Sport and Active zone applied to Te Pai Park. In the vicinity of the stormwater treatment area around Daytona Road the single house zone applies and there is an area of Public Open Space - Conservation zone at the coast (Daytona Strand).

The new PAUP zones, if carried through to the operative version of the plan, will likely result in the provision of more mixed use on the western side of Lincoln Road, where as this area is zoned for residential under the Operative Plan. However many of these residential sites in this location are in fact already used by businesses. The PAUP also signals a land use change in the wider areas to the north and west of the project area, which may be intensified under the PAUP's Terraced Housing and Apartment Building zone with unlimited density, and under the Mixed Housing Urban zone, which is also intended to allow greater density, than the Operative Plan allows. The number of dwellings / population is therefore


**LEFT FIG. 1.7**: Waitakere District Council zones




**LEFT FIG. 1.8**: Proposed Auckland Unitary Plan zones

### 2.2.1 Urban Design Policy Context

*Waitakere District Plan*
The following District Plan objectives and policies have been considered in relation to the urban design assessment:

| | |
|---|---|
| Policy 10.7 | New public and semi-public spaces should be designed in a way that ensures the safety of all users and, in particular, should provide for:<br>• overlooking (surveillance) of public and semi-public spaces from surrounding buildings during the day and where possible at night;<br>• direct and efficient movement routes through such spaces;<br>• adequate signage indicating connections with other routes, and the location of the space within the surrounding area for public reserves, walkways, and in Community Environments;<br>• adequate lighting;<br>• integration of pedestrian systems with vehicle routes;<br>• the minimisation of any physical barrier to the reasonable movement of people within any public space. |
| Policy 11.3 | Buildings and structures should be located so that they maintain the neighbourhood character, visual amenity of the surrounding area and the characteristic streetscape of the area, including providing for:<br>• the overlooking of streets by buildings;<br>• maintaining characteristic links between private and public space arising from the orientation of buildings and the way they face the street;<br>• the setback of buildings from the road boundary where appropriate;<br>• planting of section frontages;<br>• the expectation that buildings be constructed according to a street frontage typology where such streets have been identified within the plan.<br>in a way that gives particular regard to variations in amenity values, and neighbourhood character. |
| Policy 11.4 | Structures (including infrastructure) within the Transport Environment should be of a scale (height, form and bulk), and designed, located and managed in a way that the adverse effects on the amenity values and neighbourhood character of any surrounding Environments and which enhances the amenity of the Transport Environment itself. In particular, structures should:<br>• be compatible with the existing streetscape, including the links between streetscape and the neighbourhood character and amenity of the surrounding Environments;<br>• minimise impact on views from adjacent sites;<br>• minimise the removal or damage to existing native and exotic vegetation;<br>• minimise physical domination and intrusion into the privacy of adjoining sites;<br>• located so that planting of road berms can be provided for. |
| Policy 11.5 | New public open space should be designed and located in a way that:<br>• minimises isolation and separation of such space from public roads;<br>• maximises access to local neighbourhoods (where that is compatible with the role such open space may have within the Green Network);<br>• where possible, creates or contributes to a neighbourhood focal point;<br>• ensures, where appropriate, integration with the objectives and policies relating to the Green Network;<br>• enhances practical public access linkages between areas of public open space, roads, and to and along waterways and the coast;<br>• enhances the amenity values of the surrounding Environment and neighbourhood character. |
| Policy 11.7 | Infrastructure should be designed and managed in a way that:<br>• will maintain, and not adversely affect the amenity values and neighbourhood character of the surrounding area, including streetscape character;<br>• placement on sensitive ridgelines in a way that visual intrusion above that ridgeline when viewed from a public place is avoided, or where unavoidable, remedied or mitigated;<br>• does not detract from the significance to tangata whenua of any ridgeline;<br>• minimises disturbance of natural and physical features;<br>• does not physically dominate adjoining sites;<br>• minimises adverse effects on the Upper Waitemata Harbour. |

*Proposed Auckland Unitary Plan (PAUP)*
The following PAUP objectives and policies have been considered in relation to the urban design assessment:

| | |
|---|---|
| B2.2 A Quality Built Environment Objective | 1. A quality built environment where development, including subdivision, across the site, street, block, neighbourhood and city scales:<br>a. recognises Auckland's sense of place and enriches its landscape, character, heritage and legibility (identity).<br>b. provides for a rich mix of choice and opportunity for our communities and can adapt to changing needs (diversity).<br>c. considers and reinforces use, activity centres, energy systems and movement networks which are well connected and provide convenient and equal access for all (integration).<br>d. supports and optimises the full potential of a site's intrinsic qualities, including its shape, landform, outlook and relationship to its surroundings (efficiency). |
| B2.2 A Quality Built Environment Policies | 1. Require development to be designed to integrate all elements of a place, buildings or space into a coherently designed solution.<br>2. Design development to respond positively to the site, its context and the planned future character of the place, and to reinforce the role of the public realm as the primary place for public interaction.<br>3. Require development to contribute to the safety of the street and neighbourhood.<br>4. Encourage development which is designed for change of use through time.<br>5. Design development with a level of amenity that enables long term options for living and working.<br>6. Encourage development to be designed to have equal access for people of all ages and abilities.<br>7. Require a high standard of design in areas of residential and business intensification.<br>9. Design streets and block patterns that maximise connectivity, provide for a range of travel options and have a high standard of amenity and safety for pedestrians and cyclists to promote walking and cycling. |
| B2.6 Public open space and recreation Policies | 5.Ensure public open space and recreation facilities are in locations accessible to users.<br>6.Connect public open spaces physically and visually, to create a network that enables people and wildlife to move around efficiently and safely. |
| B3.3 Transport Policy 12 | 12. Avoid, remedy or mitigate the potential adverse effects of transport infrastructure on amenity values and ensure that transport infrastructure is designed, located and managed to:<br>a. integrate with adjoining land uses taking into account their planned use, intensity, scale, character and amenity.<br>b. effectively provide pedestrian and cycle connections. |
| C1.1 Infrastructure Policy 12 | 12. Undertake or require works to be undertaken in an existing or planned road, in a manner which will achieve positive movement, access and place making outcomes taking into account:<br>a. the functions, priorities and operational characteristics of the road.<br>b. the characteristics of the location.<br>c. the place/context design typology which is appropriate to the design of a road in the particular location.<br>d. any historic heritage or special character context.<br>e. the selection, location and installation of streetscape amenities, such as seating, cycle parking, plaques and memorials, public art, litter bins, public toilets and drinking fountains, to:<br>i. enhance the street environment.<br>ii. avoid visual clutter.<br>iii. avoid impeding or causing a hazard for people including those with mobility or visual impairments, aged people or children.<br>f. design principles for streets and the street design process. |

### 2.2.2 Landscape Policy Context

The Resource Management Act (RMA) sets out policy context, setting up a framework for statutory documents. Many of the landscape issues identified relate to section 7 of the RMA. The over-arching purpose and principles set out in section 5 of the RMA are relevant to landscape and visual matters, as are provisions in sections 7(c) and 7(f) relating to amenity values and quality of the environment. There are no outstanding natural features or landscapes in the vicinity so section 6(b) is not relevant. The Project avoids areas of significant indigenous vegetation and significant habitats of indigenous fauna, due to the location in an urban environment that would otherwise have brought section 6(c) into play.

Statutory documents relevant to landscape matters include the Waitakere District Plan, and Proposed Auckland Unitary Plan. Policies from the two council plans are listed on the pages following. The Project area already accommodates a road corridor within a suburban area.

While there are no identified Outstanding Natural Features or Landscapes (ONFL) present in the project area, there are localised features; namely two native trees that are noted as heritage trees along the Lincoln Road corridor itself and the two reserves on the Lincoln Road corridor and the entrance feature at Laidlaw Bible College. The localised design issues surrounding the heritage trees are discussed in the arboriculture report. The two parks are significant in that they are part of a wider matrix of smaller neighbourhood reserves in the Auckland region. Daytona Reserve in the northern part of the project area is sits behind residential properties and whilst accessible, is currently not able to be seen from Lincoln Road. Te Pai Park in the south is more visible and contains a number of recreational facilities.

There are no notable physical features remaining in the project area that pertain to the Maori cultural landscape, however these relate to perceptual and associative aspects in the wider landscape as noted in the Cultural Impact Assessment.

The following technical reports are relevant background.

**Appendix 3.19.1—Auckland Regional Landscape Assessment for ARC (July 2006)**

Parts 1 and 2 of the report outlines research into what constitutes a ONFL in natural landscapes of the Auckland region, measured by a preferential survey method. The study excludes urban and suburban areas reflecting the desire to focus upon outstanding *natural* landscapes. Part 3 is a delineation of the ONFL's of the Auckland region, of which Lincoln Road and its surrounds is not noted.

**Beca, Jasmax, SBEL and NZTA (June 2010)**

The Urban Design and Landscape Framework (ULDF) for the Western Ring Route to Waterview Connection identifies the 'historic hub' of Henderson, initiatives for 'living arterial' routes and Lincoln Road as part of the Quality Transport Network. It also notes of Lincoln Road, that it hosts a wide variety of land uses and is experiencing changes and growth. Hence it was identified as a growth area in the Auckland Regional Growth Strategy, and affected the upgrade of the SH16 interchange as part of that project. The ULDF contains design principles, planting strategies and design for hard landscape elements that continue to be refined in construction and detailed design. These can be adopted to tie into, and adapted to suit the scale of Lincoln Road, during detailed design.

**Lincoln to Westgate (L2W) tie in discussions —Aurecon (January 2016)**

The author met with Robin Simpson, from Aurecon (Urban Designer for the L2W section of SH16 for NZTA) that includes the junction with Lincoln Road. Discussions centred around the planting existing (part of the Causeway project), what is being proposed for L2W and what current proposals are for Lincoln Road. It was concluded that the junction is a confluence of all of three projects and that planting concepts should tie in with each other to some degree, but that each has its own character.

**Waitakere District Plan**

The following District Plan objectives and policies have been considered in relation to the landscape and visual assessment (in addition to those in the Urban Design Assessment):

| | |
|---|---|
| Policy 2.4 | Where native vegetation is cleared, this should be carried out in a way that:<br>• avoids high quality bush and locates in lower quality bush - clearing should take place in areas which avoid native vegetation on the site which may have greater significance than other native vegetation, as assessed in an ecological or landscape context.<br>• avoids notable trees, - the tree's significance being measured by whether it is: - highly representative of its species, or - of a rare species, or - of high value in providing for the local diversity of species, or - of a significant size and/or shape, or - of significance in a landscape context.<br>• minimises any edge effect on remaining native vegetation;<br>• minimises adverse effects on ecosystems;<br>• does not isolate or remove linkages between areas of native vegetation or fauna habitat;<br>• does not impede the movement of native fauna;<br>• avoids disturbance of root systems of remaining native vegetation. |
| Objective 7 | To preserve and enhance the natural character of the City's coastal environment and lakes, rivers and wetlands and their margins, including preserving the action on the land of those processes which form that natural character. |
| Policy 7.7 | Where adverse effects on the natural character of coastal or freshwater areas cannot be avoided, there may be a requirement to remedy or mitigate these adverse effects. |
| Policy 11.2 | Activities should be managed in a way that avoids the clearance of or damage to trees and vegetation, to extent that the following characteristics are adversely affected:<br>• the visual dominance of trees on private property within the neighbourhoods of the Living Environment;<br>• the remnant native vegetation within the urban Human Environments;<br>• the remaining native vegetation along riparian margins and coastal edges in the urban area and Foothills Environment;<br>• the shelter trees along fencelines and clumps of vegetation within the pastoral landscape of the Countryside Environment;<br>• the mixture of native and exotic vegetation and the scattering of native vegetation along ridgelines and stream edges in the Foothills Environment;<br>• the lines of trees along road edges within the Transport Environment;<br>• the amenity value associated with native vegetation and its relative significance in all parts of the City;<br>• the historic and cultural value of trees associated with the above characteristics; provided that nothing in this policy should prevent the removal of species identified in the Environmentally Damaging Plants List. |
| Policy 11.9 | Structures and accessways should be placed in such a way that they do not encroach visually on those natural landscape elements that have been identified as contributing to the amenity of an area. Particular regard should be had for the placement of structures so that intrusion above any sensitive ridgeline when viewed from a public place is avoided, or where unavoidable, remedied or mitigated. |

**Proposed Auckland Unitary Plan (PAUP)**

The following PAUP objectives and policies have been considered in relation to the landscape and visual assessment (in addition to those in the urban design assessment):

| | |
|---|---|
| B3.2 Significant Infrastructure and Energy Objectives | 2. The benefits of significant infrastructure which service the wider community, Auckland or New Zealand are recognised, including:<br>a. the essential services provided by infrastructure networks, which provide for the functioning of communities, businesses and industry<br>b. enabling economic growth<br>c. providing for public health, safety and the well-being of people and communities<br>d. contributing to a well functioning and liveable Auckland<br>e. protecting the quality of the natural environment<br>f. enabling interaction and communication.<br>3. Development, operation, maintenance, and upgrading of significant infrastructure is provided for and enabled, while managing any adverse effects it may have on:<br>a. areas with significant landscape, cultural and historic heritage, and natural ecological and biodiversity values<br>b. the health, safety and amenity of communities. |
| B3.2 Significant Infrastructure and Energy Policies | 1. Provide for the efficient development, use, operation, maintenance and upgrading of secure and reliable infrastructure.<br>9. Manage the adverse effects on the health and safety of communities and amenity values from new and/or major upgrades to significant infrastructure. |
| B4.3.3 Trees and vegetation Objectives | 1. Auckland's sense of place and identity is maintained and enhanced through the recognition and protection of the contribution of trees and vegetation to our cultural and natural heritage.<br>2. The contribution of trees and vegetation to the maintenance of indigenous biodiversity, and the provision of ecosystem services including soil conservation, water quality, stormwater control and the mitigation of natural hazards is recognised and enhanced.<br>3. The retention of trees and groups of trees in urban areas which contribute to neighbourhood amenity and character are promoted. |
| C1.1 Infrastructure Policy 4 | 4. Require the development, upgrading, operation, repair and maintenance of infrastructure to avoid or mitigate adverse effects on the:<br>a. health, well-being and safety of people as a result of nuisance from noise, vibration, dust and odour emissions and light spill<br>b. safe and efficient operation of other networks<br>c. visual amenity values of the streetscape and/or adjoining properties<br>d. natural and physical environment from temporary and ongoing discharges<br>e. intrinsic values of any scheduled sites or overlay areas. |
| C4.1 Trees in streets and public open space Objectives | 1.Trees in streets and public open space that contribute to cultural amenity, landscape and ecological values are protected.<br>2.There is an increase in the quality and numbers of trees planted in streets and public open space particularly within areas identified for intensified living. |
| C4.1 Trees in streets and public open space Policies | 1. Balance the efficient maintenance and upgrading of infrastructure and utilities with the protection of trees and groups of trees in streets.<br>2. Encourage ongoing planting and maintenance to enhance trees in public open space.<br>3. Manage trees within streets and public open space to protect their ecological and amenity values while acknowledging that multiple uses occur in streets and public open space.<br>4. Encourage the use of indigenous trees and vegetation for planting within streets and public open space, where appropriate, to recognise and reflect cultural, amenity, landscape and ecological values. |

# 3. EXPECTED CHANGES WITH THE PROJECT

## 3.1. EXPECTED URBAN DESIGN CHANGES

The expected changes with the project, as described in **Section 1.4**, from an urban design perspective include the following:

*Function changes*
The changes will reinforce the primarily linear movement function of the corridor. There will be an increased number of lanes on the corridor as well as an inclusion of a T3 lane and separated cycle way.

The widening will change the access to some adjacent uses, reducing the parking at the front of some businesses. The access to site at 320 Lincoln Road, on the corner of Triangle Road, may need to be via an access road. There will be a reduction in access to private properties from Lincoln Road between Daytona Road and Triangle Road. A new road will be constructed to accommodate access to these properties which will provide vehicle access to Daytona Reserve.

Lincoln Road will be wider and provide for a higher number of vehicle movements which will result in a small change in at least the perceived ability to easily cross the corridor for local movements. The changes will provide for large intersections, including at the large commercial node around Universal Drive. There will be an increase in signalised pedestrian crossings and zebra crossings or free left turns at intersections and fewer driveway access points crossing the footpath on Lincoln Road where new access roads will be instated between Daytona and Triangle Roads. Separated cycle way infrastructure will be instated for Lincoln Road and for roads crossing Lincoln Road, including Universal Drive.

*Land-use changes*
The design will result in a loss of space at the front of private properties which is currently generally landscaping for residential properties and landscaping or parking areas for commercial properties. This will result in a reduction of what is, in many cases, a buffer between the private property uses and the road corridor.

The project may increase the number of redevelopments of older buildings or conversions to commercial or retail uses on the corridor as residential amenity may further decrease and the opportunities related to the 'movement economy' increase. Where the project requires the removal of a building the land will be acquired. In some cases this may provide potential re-development opportunities, which may contribute to land use changes currently taking place. This would also provide an opportunity to undertake developments with new buildings that are more appropriately designed for the current environment.

*Amenity and character changes*
There will be a loss of existing street trees and the grass berm currently located between the footpath and private properties as well as a loss of existing trees and vegetation on private properties. New street trees will likely be instated in the central median and to replace the trees removed on private properties.

A low brick wall and entrance alcove combined with a line of large, established trees at the Lincoln Road entrance to Laidlaw Bible College will be removed. The small public space consisting of benches and street trees located around a bus shelter at 226-250 Lincoln Road will also be removed.

*Changes during construction*
Temporary alternative pedestrian access and bus stop locations, and temporary alternative access to private properties may be required. There may also be potential disruption or loss of on-site parking for businesses.

## 3.2. EXPECTED LANDSCAPE AND VISUAL CHANGES

In turn, from a landscape and visual perspective, the changes will be experienced in the context of an existing arterial road where such periodic upgrading might be reasonably anticipated – bearing in mind that the modern urban landscape has developed with reference to Lincoln Road. There may also be a loss of

residential coherence (isolation and severance) caused by the removal of houses near the Triangle Road – Central Park Drive intersection. Properties at 1/370 and 2/370 Triangle Road, are already in Auckland Transport ownership. AT are currently in negotiation for the acquisition of 322 and 324 Lincoln Road and 368 and 366 Triangle Road, 326 Lincoln Road (part of the Radio New Zealand site), and part of 327 Lincoln Road.

*Open Space and Landscape Changes*

*Biophysical changes*
The road widening will entail earthworks on some of the properties. Some of the houses at the northern end of the Project have their floor level set below the existing level of the crown of the road. Earthworks will result in the appearance of new structures in the landscape, for example, retaining walls. Most of the retaining walls are to be less than one meter high. Three of these; 337-329 Lincoln Road, 314-292 Lincoln Road and 325-283 Lincoln Road, are going to be of heights up to 3.5 metres.

The Project proposes the removal of 140 trees. There are however, no heritage trees being removed. Please refer Section 5 of the Arboricultural Report for further detail. The street trees on Lincoln Road form a relatively regular (in that trees are more frequent on the western side of the road, buffering smaller residential type properties) linear pattern that reflects the road development and settlement patterns. The existing trees, despite being different species and a mix of native and exotic, provide legibility and consistency to the streetscape, and softening to the similarly linear edges of the adjacent buildings and the hard elements of the road (surfacing, kerbs, footpath and carparking). Street trees also provide local amenity, and can assist to create a visual perception of narrower carriageways without physically narrowing the road (*ATCOP Chapter 8 -Traffic Calming Devices and Local Area Traffic Management, p 221*). The cultural significance of native trees, relates to their mauri (refer **Section 2.1.2** - Associative Aspects). Removal of the street trees is easily the most visible change and has the greatest potential to produce adverse landscape effects.

The arboriculture report confirms that the effects of such vegetation removal on amenity is adverse, and recommends replacement. Of particular concern are the heritage rimu tree, and the Himalayan cedar opposite Te Pai Park. These trees are to be retained as matters of heritage and amenity. Relocation of such mature trees was considered, but is now not being proposed, due to survival not being able to be guaranteed.

Likewise, there will be little effect on watercourses as landscape elements. The drainage patterns and processes in the area are already substantially modified. Stormwater treatment is a significant issue for mana whenua. The proposed open space at 308 –312 Lincoln Road will provide opportunity to include soft landscape features such as trees, low planting and grassed areas. In terms of landscape, the effects of removing these three houses will affect the amenity from the houses on Preston Avenue that were previously screened from Lincoln Road.

*Changes to human (community) places*
The Laidlaw Bible College, at 211-221 Lincoln Road will likely lose some of the trees to the street front, their entrance signage and their brick entrance wall. There will be changes from an amenity perspective as well in terms of community associations. Cross reference with **Table E1, P4**.

Vegetation located immediately adjacent to Lincoln Road in Te Pai Park is also likely to be removed, but all three heritage trees are to be retained. Further tree planting is proposed.

*Changes during construction*
There will be some visual effects during construction as a consequence of the appearance of construction activity, machinery, storage of materials, and exposed earthworks. Such effects will be temporary in nature and will occur within the context of the existing road corridor where one might reasonably anticipate periodic major works (reconstruction upgrades or major maintenance works).

# 4. URBAN DESIGN AND LANDSCAPE ASSESSMENT METHDOLOGY

A methodology has been developed to assess the urban design and landscape effects of the project. The methodology consists of transport principles, which the project will be assessed against, and transport elements, which divide up the different aspects of the project for assessment. As the methodology does not incorporate a scale of effects, a qualitative assessment against the principles has been undertaken.

## 4.1 TRANSPORT-RELATED PRINCIPLES

The Auckland Transport Urban Design Principles have been used as the base for developing principles to assess the proposed design. These principles have been cross checked against the principles set out in the New Zealand Transport Agencies 'Bridging the Gap' for assessing highway designs, principles used for previous urban design assessments undertaken by Urbanismplus for large transport projects, as well as the Resource Management Act Part 2, Sections 5, 6, 7 and relevant District Plan and PAUP objectives and policies. In addition to these principles and policies the following manuals and guidelines, which are considered to provide the most relevant best practice information for this assessment, have been used to inform the philosophy and approach used:

- Auckland Council's Design Manual.
- Auckland Transport's Design Manual / Auckland Transport's Code of Practice
- NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities'.
- RTS 14 – 'Guidelines for facilities for blind and vision impaired pedestrians'.
- Auckland City Council's 'Liveable Arterials'.
- CPTED principles from the Ministry of Justice National Guidelines for Crime Prevention Through Design.

The Urban Design and Landscape Principles for the Lincoln Road assessment are set out below:

**P1. Fitting into, and enhancing, the built fabric**
- Consider the role of networks in the structuring of neighbourhoods, towns, cities and regions, including promoting connectivity and avoiding urban sprawl.
- Consider the unique local environment, characteristics and place-specific opportunities.
- Integrate transport, surrounding land uses and desired land use outcomes, and community needs.
- Create streets and boulevards that provide quality built form and a sense of place by keeping the footprint of the street to a minimum.
- Avoid adverse impacts (incl. visual and noise) in the planning and design of all streets.

**P2. Connecting modes and enhancing communities**
- Consider connectivity and choice within and through surrounding environments for all modes including walking, cycling, public transport, freight traffic and the private automobile.
- Consider connectivity between modes.
- Limit negative environmental effects for communities, and retain, enhance, and provide access to community facilities and connections within the community, including considering where people want to cross and the quality of crossing points along a busy road.

**P3. Design Sustainably**
- Form all streets in response to topography and landform.
- Integrate natural patterns, systems and minimise ecological footprints in all street and station designs.
- Maximise local resource use and minimise waste.
- Ensure physical continuity of natural systems.
- Consider slope stabilisation design as part of the project.
- Use natural characteristics in the street's landscape design (e.g. low impact design / GI).

**P4. Incorporating local identity, heritage and cultural contexts**
- Preserve and integrate historic streets, buildings, structures and precincts into overall street design.
- Adapt and reuse heritage infrastructure in projects.
- Protect and incorporate local identity and cultural and natural heritage, or features of significance, along

the selected corridor, and ensure works are carried out in such a way that significant sites are protected.

**P5. Designing an experience in movement along streets**
- Create/enhance the views to and from the street.
- Provide visual stimuli within the street corridor.
- Create a progressive sequence of visual events and provide visual amenity including a sense of place.

**P6. Creating self-explaining road environments**
- Create streets that provide both place and movement functions along the full corridor.
- Distinguish between the different functions and speeds of streets by differentiating their appearance.
- Improve the legibility of streets and provide movement choice, connectivity, and safety through a clear hierarchy, and avoiding severance.

**P7. Achieving integrated and minimal maintenance design**
- Use robust durable materials fit for purpose and place.
- Provide a relatively self-reliant and minimal maintenance natural landscape.
- Avoid opportunities for vandalism.
- Create a simple, coordinated and neat composition of street elements along a corridor.
- Consider the design quality of major street components and individual street elements.

**P8. Designing for safety and accessibility for vulnerable road users**
- Use designs that provide for universal access for all users.
- Use Crime Prevention through Environmental Design principles to minimise personal safety risks.
- Ensure the safety of those walking, cycling, or using public transport is prioritised in the design.

## 4.2 TRANSPORT-RELATED ELEMENTS

The transport design elements for the urban design and landscape assessment have been developed using elements set out in the best practice manuals and guidelines listed under 2.1 as well as the New Zealand Transport Agency's Urban and Landscape Design Frameworks - Highways and Network Operations Guideline. The elements have been modified in order to reflect those characteristics that will be present in the proposed design of Lincoln Road. The final Urban Design Elements for the Lincoln Road assessment are set out below:

**E1. Street Design** - a sensitive and cost effective design will help reduce visual, noise, severance and environmental impacts on the surrounding environment and communities.

**E2. Streetscape elements** - elements such as lighting, sign gantries and signage, retaining walls, guard rails, fences, wire rope barriers and median barriers should respond to the scale and character of the areas through which the project passes.

**E3. Land use implications** - often on projects there is an opportunity for reinstatement/rezoning of commercial, residential or open spaces landuses in suitable locations. Such reinstatement/rezoning reduces the long-term impact of a project on the surrounding communities.

**E4. Landscape** - landscape is an important component of road design. It is valuable in terms of public space planning, restoring and enhancing biodiversity, screening and softening undesirable views of roads and traffic, filtering air and water pollutants and suppressing weed growth.

**E5. Stormwater Infrastructure** - stormwater wetlands and other LID are required to treat/retain surface waters before they are released in nearby waterways. Beside their drainage function, the primary function of a wetland is to restore native biodiversity and in doing so, create attractive amenity features.

Note: This element is not being considered as part of the NOR process and therefore was not assessed, however it will be a design consideration at a later stage of the process.

**E6. Passenger transport integration** - how a project will integrate with the surrounding landuse and how it will support and provide for passenger transport, through enhanced infrastructure provision. The strategic, urban and rural context of a project will assist in determining how the project will achieve this.

**E7. Pedestrian and cycle facilities** - road projects can result in the severance of communities and landuse. The design should provide for pedestrian and cycle movement and amenity. This includes suitable pedestrian and cycle crossing facilities as well as measures to improve the amenity and

## 4.3 URBAN DESIGN AND LANDSCAPE ASSESSMENT FRAMEWORK

Setting the design elements (E1-E8) against the criteria, derived from the principles (P1-P8), leads to the assessment framework below.

| **URBAN DESIGN** | P1. Fitting into, and enhancing, the built fabric | P2. Connecting modes and enhancing communities | P3. Design Sustainably | P4. Incorporating local identity, heritage and cultural contexts | P5. Designing an experience in movement along streets | P6. Creating self-explaining road environments | P7. Achieving integrated and minimal maintenance design | P8. Designing for safety and accessibility for vulnerable road users |
|---|---|---|---|---|---|---|---|---|
| E1. Street design | | | | | | | | |
| E2. Streetscape Elements | | | | | | | | |
| E3. Land use Implications | | | | | | | | |
| E4. Soft Landscape | | | | | | | | |
| E5. Stormwater | | *Not included in this assessment* | | | | | | |
| E6. Passenger transport | | | | | | | | |
| E7. Pedestrian & cycle facilities | | | | | | | | |
| E8. Public spaces | | | | | | | | |

# 5. URBAN DESIGN ASSESSMENT

## 5.1 RELEVANCE OF EACH CRITERION TO DESIGN ELEMENTS

The table below provides an overview of which criteria derived from the design principles (P1-P8) are most relevant to the key design elements (E1-E8) that form part of the project.

| URBAN DESIGN | P1. Fitting into, and enhancing, the built fabric | P2. Connecting modes and enhancing communities | P3. Design Sustainably | P4. Incorporating local identity, heritage and cultural contexts | P5. Designing an experience in movement along streets | P6. Creating self-explaining road environments | P7. Achieving integrated and minimal maintenance design | P8. Designing for safety and accessibility for vulnerable road users |
|---|---|---|---|---|---|---|---|---|
| E1. Street design | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| E2. Streetscape Elements | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| E3. Land use Implications | ✓ | | ✓ | | | | | ✓ |
| E4. Landscape | | *Refer to Landscape Assessment in Section 6* | | | | | | |
| E5. Stormwater | | *Not included in this assessment* | | | | | | |
| E6. Passenger transport | | ✓ | | | | | | ✓ |
| E7. Pedestrian & cycle facilities | | ✓ | | | ✓ | | | ✓ |
| E8. Public spaces | ✓ | ✓ | ✓ | ✓ | | | | ✓ |

## 5.2 URBAN DESIGN: ACTUAL AND POTENTIAL EFFECTS, OPPORTUNITIES, RESPONSES OR PROPOSED CONDITIONS

Resulting from the Lincoln Road widening design, the following actual and potential **urban design** effects

| **E1. Street design** | P1. | P2. | P3. | P4. | | | | |
|---|---|---|---|---|---|---|---|---|

| **Principles** | **Urban design effects / opportunities** | **Response / condition / comment** |
|---|---|---|
| *P1. Built fabric* | The design has the potential to provide an important function in its primary role in the transport network of efficiently accommodating more people travelling between Henderson and the Waitakere area onto the North-Western Motorway by improving corridor efficiency and integrating with the NZTA Western Ring Route upgrade. | |
| | The new street that will provide access for properties between 300 - 314 Lincoln Road will be located so that the street is along the edge of Daytona Reserve between 298 and 306a Lincoln Road, which will provide better access to the park. This alignment allows for a future opportunity for apartment or mixed-use development fronting onto both Lincoln Road and the park. When the new street loops back it is located to the back of the sites at 308 - 310 Lincoln Road, resulting in an area at the front to be used for planting or a rain garden (312 will be the turning circle). This arrangement will result in the back fences of 31, 33, and 35 Preston Avenue being exposed to Lincoln Rd. This will have a negative amenity effects on these properties and not align with Crime Prevention Through Environmental Design (CPTED) principles. At the same time, the arrangement will provide opportunities for an alternative way of accessing these properties, which may be utilised in the case these properties were to be redeveloped. | Mitigation of visual amenity effects will be achieved through vegetation or landscape details.<br><br>Input by a suitably qualified person of CPTED principles in the landscape design of the new public area (308 - 310), particularly regarding surveillance from the street, walkway, and public places will mitigate some safety effects.<br><br>A multi-criteria evaluation assessment determined the most appropriate location of the new road. A discussion of alternative options is set out in **Section 8**. |
| | The design will result in land take from the front of many private properties along the corridor. While this is generally a small area and will not impact significantly on the use of the site, the frontage of many properties will be impacted, affecting the aesthetic values of the local environment, particularly in regards to a loss of existing fencing, landscaping, or parking. | The detailed design stage should include the development of a consistent palette of replacement frontage elements affected by the widening such as preferred fencing and planting typologies, for discussion with landowners. The typologies (developed by a landscape architect and urban designer) should ensure appropriate, quality design and balance the needs of the landowner with providing for a quality public interface i.e. maximum 1.6 m height and a pedestrian gate onto Lincoln Road to increase legibility and avoid the use of driveways for pedestrian access (cross reference with **Section 6**). |
| | There may be a potential temporary effect on access to private properties. | This issue is to be covered in the Construction Traffic Management Plan. |

| E1. Street design | P1. | P2. | P3. | P4. | | | | |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P2. Connecting modes, enhancing communities* | The road design may increase the perception of severance, particularly for pedestrians and cyclists, for lateral movement / crossing of Lincoln Road as the road will be wider and will have higher levels of vehicle movement. | Signalised pedestrian crossings and cycle ways on roads that intersect with Lincoln Road will promote connectivity / accessibility. The detailed design should ensure that they maximise the opportunity for pedestrians to cross the road (lateral movement) whilst maintaining efficient traffic flow. |
| | The distribution of mid-block crossings does not include a new crossing in the southern end of the project area where the distance between crossings is the greatest, our measurements show the other crossings (including the new mid-block crossing) have a distance of between approx. 135 and 285 metres while the distance between the Pak'n Save / Laidlaw College and the Te Pai Place crossings is 390 metres. A residential area is separated from Te Pai Park, and other facilities, by Lincoln Road. Widening will increase this severance. There is an opportunity to improve walkability. | Auckland Transport instructed that adding more crossings (at other locations than one outside 283 Lincoln Road) is not justifiable or warranted on a regional arterial road, cross referenced to E7, P2.<br><br>Urban design good practice would consider locating a mid-block crossing near Poinsettia Place (residential area) and Te Pai Park which would be approx. 160 metres from the Te Pai crossing and 230 metres from the Pak'n Save / Laidlaw College crossing, in line with the other crossing distances in the project area. |
| | An additional mid-block crossing between Daytona Road and Paramount Drive will increase accessibility for pedestrians across Lincoln Road. | |
| | The design includes a provision for cyclists to negotiate intersections through a resting strip for on-street cyclists, in addition to the off-street separated cycle lane. | |
| *P3. Design sustainably* | The landform is relatively flat and therefore there will be minimal need for significant earthworks or slope stabilisation. The exception is the western side of Lincoln Road between Daytona Reserve and the motorway on-ramp, particularly at 320, 322, and 324 Lincoln Road, where sloped batters will be required which could impact on the amenity of the streetscape in this location. | The sloped batters to address the level difference will result in a softer edge and provide some visual relief to the start of the motorway area through planting / grass. Mitigation of negative impacts of the batters on the public realm should be further considered at the detailed design stage (cross -referenced to E2, P1 and **Section 6**). |
| | The new access street at Daytona Reserve located towards the back of the sites at 308 - 310 Lincoln Road will result in an area at the front that can be used as a public space, for planting, and / or for stormwater treatment. | The detailed design stage should ensure the new open space at 308 - 310 is designed to incorporate sustainable design, reflect local identity, and ensure CPTED principles (cross referenced with E1, P8; E3, P3, P8; E8, P3, P8 and **Section 6**). |
| *P4. Local identity, heritage and culture* | There are no significant local identity, heritage, or cultural areas that will likely be impacted by the project. | |

| E1. Street design | P1. | P2. | P3. | P4. | | | | |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| | Small remnants of local identity located 211 - 221 Lincoln Road (including some large, tall trees located on the private property boundary and a low brick wall and entranceway to Laidlaw College) may need to be removed as a result of the design. | A discussion of alternative options is set out in **Section 8**. In the detailed design stage consideration should be given to appropriate frontage treatment, subject to negotiations with the landowner of 211-221 Lincoln Rd (cross reference with **Section 6**). |
| *P5. Designing an experience in movement along streets* | The final design response to protecting three heritage trees at 158 and 172 Lincoln Road may impact on the experience moving along the street by encroaching onto the park and removing trees. | The design and re-planting will mitigate some effects.<br><br>A multi-criteria assessment considered potential responses to protecting the trees. A discussion of alternative options is set out in **Section 8**. |
| *P8. Safety and accessibility for vulnerable road users* | The final design response to protecting three heritage trees at 158 and 172 Lincoln Road in the portion of road between Poinsettia Place and Pomaria Road / Te Pai Place may result in some conflicts between pedestrians and cyclists arising from the shared nature of the path. | Clear demarcation of the footpaths and cycle path could help to reduce the potential for conflict.<br><br>A multi-criteria assessment considered potential responses to protecting the trees. A discussion of alternative options is set out in **Section 8**. |
| | The new street that will provide access for properties between 300 - 314 Lincoln Road will reduce the number of access ways crossing the footpath on Lincoln Road which could have a positive impact on pedestrian safety (cross referenced with E7, P8). | |
| | The new access street at Daytona Reserve located towards the back of the sites at 308 - 310 Lincoln Road will result in an area at the front that can be used as a public space, for planting, or for stormwater treatment. | The detailed design stage should ensure the new open space at 308 - 310 is designed to incorporate sustainable design, reflect local identity, and ensure CPTED principles (cross referenced with E1, P3; E3, P3, P8; E8, P3, P8 and **Section 6**). |

| E2. Streetscape elements | P1. | P2. | P3. | P4. | P5. | P6. | P7. | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P1. Fitting into, and enhancing, the built fabric* | The existing buildings at 320, 322, and 324 Lincoln Road will be removed to widen the road and earthworks will be required due to the slope. | The sloped batters to address the level difference will result in a softer edge and provide some visual relief to the start of the motorway area through planting / grass. Mitigation of negative impacts of the batters on the public realm should be further considered at the detailed design stage (cross-referenced E1,P3 and **Section 6**). |
| *P2. Connecting modes and enhancing communities* | The experience for public transport users may be improved due to the inclusion of bus shelters at every bus stop in the project area. | The detailed design stage should ensure bus shelters are included at every bus stop in the project area (cross-reference to E6, P2). |
| | The additional mid-block crossing (between Daytona Road and Paramount Drive) will allow for greater accessibility for pedestrians to cross the road. However the design has the potential to impact on the accessibility, safety, and perception of safety, for pedestrians. | Consideration of the design of all signalised crossings to encourage the use of the crossing. The provision of a raised median will encourage the use of the crossing facility by reducing the width of road to be crossed (cross referenced to E7, P2). |
| | Signalised intersections will allow for pedestrians to cross the road, however their design has the potential to impact on accessibility, safety, and perception of safety, for pedestrians. | Consideration of the design of all signalised crossings to encourage the use of the crossing. The provision of a raised median will encourage the use of the crossing facility by reducing the width of road to be crossed. Urban design best practice would prefer a median that is split into two halves allowing pedestrians to cross between (cross referenced to E7, P2). |
| | The design of streetscape elements along Lincoln Road has the potential to impact on the pedestrian, cyclist, and public transport experience. | The location of and placement of street furniture, lighting, signage, rubbish bins etc. that will provide for public amenity along Lincoln Road and enhance pedestrian, cyclist, and public transport usability should be decided by an urban designer and landscape architect at the detailed design stage (cross reference E7, P2 and Section 6). |
| | The treatment of driveways and other vehicle access ways that cross over the footpath has the potential to impact on the accessibility and connectivity for pedestrians. | The detailed design should ensure the treatment of driveways and other vehicle access that crosses over the footpath provides for pedestrian priority through continuing the footpath (and possibly the off-street cycle lane) along the street (both in terms of its level - higher than the carriageway, and in terms of materiality), while traffic moving in and out driveways has to cross this raised footpath (cross reference E7, P2 and E7, P8). |
| | There may be a potential temporary effect on pedestrian access. | Appropriate temporary pedestrian access should be considered at the detailed design stage (cross reference with E7, P2 and P8). |
| *P3. Design sustainably* | Streetscape elements along Lincoln Road, such as street furniture and paving, will impact on the sustainability of the design. | Specify elements at detailed design stage that are made from durable materials, and integrate natural patterns to minimise the ecological footprint (cross referenced to **Section 6**). |

| E2. Streetscape elements | P1. | P2. | P3. | P4. | P5. | P6. | P7. | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P4. Local identity, heritage and cultural contexts* | Streetscape elements, such as street furniture and paving, along Lincoln Road may impact on how local identity, and cultural and natural heritage are represented. | The detailed design stage should determine how streetscape elements can incorporate local identity and cultural and natural heritage into the landscape design (cross referenced to Section **6**). |
| *P5. Designing an experience in movement along streets* | Streetscape elements (including vegetation) along Lincoln Road will impact on the experience of movement along the street, visual interest, and a sense of place. | The trees in the central median will provide visual interest and help to develop a sense of place (cross referenced E7, P5 and **Section 6**). |
| *P6. Self-explaining road environments* | The design will provide for clear and legible movement functions. | |
| | The new road environment could create the perception of a focus on accommodating vehicular traffic. This could have a negative impact on pedestrian and cyclist safety and amenity. | This effect will be mitigated by off-street cycle lanes and footpaths of appropriate width (and a shared off-street path for the southern portion of the project area). There is provision for tree planting in the central median. This will create the perception of a narrower carriageway, sending cues to vehicle users that the road is not a high speed environment (cross reference **Section 6**). |
| | Smaller side-streets off Lincoln Road that contain primarily residential dwellings could be negatively impacted by vehicles entering these streets from Lincoln Road, travelling at higher speeds due to not appropriately transitioning from the vehicle-dominated and higher-speed Lincoln Road environment into the pedestrian-oriented, low-speed, residential environment. | The design includes the treatment of T-intersections along Lincoln Road (the new street / lane leading past the edge of Daytona Reserve, Daytona Rd, Paramount Dr, and Poinsettia Pl) so that the footpath (and possibly the off-street cycle lane) is continued along the street (both in terms of its level - higher than the carriageway, and in terms of materiality), while traffic moving in and out of side streets has to cross this raised footpath as a threshold, sending a clear signal and making motorists aware of a change in environment to a pedestrian-oriented low-speed environment (cross reference E7, P2). |
| *P7. Integrated and minimal maintenance design* | The choice of streetscape elements used along Lincoln Road has the potential to impact on the integration and future maintenance of the corridor. | The detailed design stage should determine the quality, materials and arrangement of elements to achieve a low maintenance and durable design (cross reference with **Section 6**). |
| *P8. Safety and accessibility for vulnerable road users* | The streetscape elements used along Lincoln Road have the potential to impact on the safety and accessibility for vulnerable road users. | The detailed design should ensure streetscape elements achieve, as much as possible, the specifications set out in NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities', RTS 14 – 'Guidelines for facilities for blind and vision impaired pedestrians, and incorporate the principles set out in the National Guidelines for Crime Prevention Through Design in NZ (cross reference E7, P8). |

| E3. Land use implications | P1. | | | | | | | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P1. Fitting into, and enhancing, the built fabric* | The project leaves open and has considered the possibility of a future redevelopment of the sites at 300 - 304/306 Lincoln Road which will be affected by a new street that will provide access for these properties in response to the loss of direct vehicle access onto Lincoln Road. While these properties will not be acquired as part of this project, the opportunity for this land to be developed in the future is further improved due to a rearrangement of access. | |
| | The project will provide for a future land use opportunity on the sites at 322 and 324 Lincoln Road where land will be acquired so that the existing buildings can be removed. The residual land could be sold by Auckland Transport for development. The removal of the building on 320 Lincoln required by the project is expected to be undertaken by the current land owner for the purpose of redevelopment coinciding with the project. | In the case of redevelopment of the sites at 322 and 324 Lincoln Road, it is noted that good urban design practice would ensure that buildings enhance the public realm through well-designed and active street frontages promoting security and encouraging walking and cycling. |
| *P2. Connecting modes and enhancing communities* | There may be a potential temporary effect on access to on-site parking for businesses along the corridor. | This issue is to be covered in the Construction Traffic Management Plan. |
| *P3. Design sustainably* | The new access street at Daytona Reserve located towards the back of the sites at 308 - 310 Lincoln Road will result in an area at the front that can be used as a public space, for planting, and / or for stormwater treatment. | The detailed design stage should ensure the new open space at 308 - 310 is designed to incorporate sustainable design, reflect local identity, and ensure CPTED principles (cross referenced with E1, P3, P8; E3, P8; E8, P3, P8 and **Section 6**). |
| *P8. Safety and accessibility for vulnerable road users* | The design of the sites that may become available for potential redevelopment or landscaping may potentially impact on the safety and accessibility of vulnerable road users. | Input by a suitably qualified person of CPTED principles in the landscape design of new public areas, particularly regarding surveillance from the street, walkway, and public places. It is good urban design practice for new development to ensure frontages onto both Lincoln Road and Daytona Reserve. |
| | The new access street at Daytona Reserve located towards the back of the sites at 308 - 310 Lincoln Road will result in an area at the front that can be used as a public space, for planting, and / or for stormwater treatment. | The detailed design stage should ensure the new open space at 308 - 310 is designed to incorporate sustainable design, reflect local identity, and ensure CPTED principles (cross referenced with E1, P3, P8; E3, P3; E8, P3, P8 and **Section 6**). |

| E4. Soft Landscape | | | | | | | | |
|---|---|---|---|---|---|---|---|---|

*Refer to Landscape Architecture assessment in Section 6.*

| E5. Stormwater | | | | | | | | |
|---|---|---|---|---|---|---|---|---|

*Not included in this assessment.*

| E6. Passenger transport | | P2. | | | | | | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P2. Connecting modes and enhancing communities* | The experience for public transport users may be improved due to the inclusion of bus shelters at every bus stop in the project area. | The detailed design stage should ensure bus shelters are included at every bus stop in the project area (cross-reference to E2, P2). |
| *P8. Safety and accessibility for vulnerable road users* | The design of the public transport facilities has the potential to impact on the safety and accessibility of vulnerable road users.<br><br>Bus stops at 302, 255, 226-250, 225-229, and 207-209, could be problematic from a CPTED perspective depending on the property boundaries which could result in the fencing being staggered. This would be due to the bus stop being pushed back onto current private property to provide space for a bus stop. Entrapment can occur if the bus stop materials create an area to the side of the bus stop where a person could stand obscured to pedestrians walking from the other direction by the bus shelter. | Ensure the material used for the bus shelters are transparent to ensure visibility.<br><br>The detailed design stage should ensure all public transport facilities comply as much and where possible the specifications set out in NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities', RTS 14 – 'Guidelines for facilities for blind and vision impaired pedestrians, and incorporate the principles set out in the National Guidelines for Crime Prevention Through Design in NZ. |

| E7. Pedestrian &cycle facilities | | P2. | | | P5. | | | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P2. Connecting modes and enhancing communities* | The signalised intersections to provide for lateral / cross movement for pedestrians across the corridor include 'zebra' crossings on all free left turns at signalised crossings. The position of these crossings, which allow for the length of one car between the limit line and the crossing, has the potential to impact on the accessibility and safety of pedestrians as longer vehicles obstruct the crossing when waiting to turn. | 'Zebra' crossing on free left turns are an improvement on the existing pedestrian condition. |
| | Signalised intersections will allow for pedestrians to cross the road, however their design has the potential to impact on accessibility, safety, and perception of safety, for pedestrians. | Consideration of the design of all signalised crossings to encourage the use of the crossing. Provision of a raised median will encourage use of the crossing facility by reducing the width of road. Urban design best practice would prefer a median that is split into two halves allowing pedestrians to cross between (cross reference to E2, P2). |
| | The additional mid-block crossing (between Daytona Road and Paramount Drive) will allow greater accessibility for pedestrians to cross. However the design has the potential to impact on the accessibility, safety, and perception of safety, for pedestrians. | Consideration of the design of all signalised crossings to encourage the use of the crossing. Provision of a raised median will encourage use of the crossing facility by reducing the width of road to be crossed (cross reference to E2, P2). |
| | The distribution of mid-block crossings does not include a new crossing in the southern end of the project area where the distance between crossings is the greatest, our measurements show the other crossings (including the new mid-block crossing) have a distance of between approx. 135 and 285 metres while the distance between the Pak'n Save / Laidlaw College and the Te Pai Place crossings is 390 metres. A residential area is separated from Te Pai Park, and other facilities, by Lincoln Road. Widening will increase this severance. There is an opportunity to improve walkability. | Auckland Transport instructed that adding more crossings (at other locations than one outside 283 Lincoln Road) is not justifiable or warranted on a regional arterial road, cross referenced to E1, P2.<br><br>Urban design good practice would consider locating a mid-block crossing near Poinsettia Place (residential area) and Te Pai Park which would be approx. 160 metres from the Te Pai crossing and 230 metres from the Pak'n Save / Laidlaw College crossing, in line with the other crossing distances in the project area. |
| | The signalised intersection to Mitre10 and Pak'n Save (206 Lincoln Road) does not allow for pedestrians to cross on the southern side which reduces connectivity. | Auckland Transport have instructed this crossing will negatively affect the operation of the signal set and the phasing and reduce the intersection level of service. |
| | Smaller side-streets off Lincoln Road that contain primarily residential dwellings could be negatively impacted by vehicles entering these streets from Lincoln Road, travelling at higher speeds due to not appropriately transitioning from the vehicle-dominated and higher-speed Lincoln Road environment into the pedestrian-oriented, low-speed, residential environment. | The detailed design should consider the treatment of T-intersections along Lincoln Road (the new street / lane leading past the edge of Daytona Reserve, Daytona Rd, Paramount Dr, and Poinsettia Pl) which should be designed so that the footpath (and possibly the off-street cycle lane) is continued along the street (both in terms of level - higher than the carriageway, and materiality), while traffic moving in and out of side streets has to cross this raised footpath as a threshold, sending a clear signal to motorists of a change to a pedestrian-oriented low-speed environment (cross reference E2, P6). |

| E7. Pedestrian &cycle facilities | P1. | P2. | | | P5. | | | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| | | sending a clear signal to motorists of a change to a pedestrian-oriented low-speed environment (cross reference E2, P6). |
| *P2. Connecting modes and enhancing communities* | The treatment of driveways and other vehicle access ways that cross over the footpath has the potential to impact on the accessibility and connectivity of the pedestrian environment. | The detailed design should ensure the treatment of driveways and other vehicle access that crosses over the footpath provides for pedestrian priority through continuing the footpath (and possibly the off-street cycle lane) along the street (both in terms of its level - higher than the carriageway, and in terms of materiality), while traffic moving in and out driveways has to cross this raised footpath (cross reference E2, P2 and E7, P8). |
| | The design of streetscape elements along Lincoln Road has the potential to impact on the pedestrian, cyclist, and public transport experience. | The location of and placement of street furniture, lighting, signage, rubbish bins etc. that will provide for public amenity along Lincoln Road and enhance pedestrian, cyclist, and public transport usability should be decided by an urban designer and landscape architect at the detailed design stage (cross reference E2, P2 and **Section 6**). |
| | There may be a potential temporary effect on pedestrian access. | Appropriate temporary pedestrian access should be considered at the detailed design stage (cross reference with E2, P2 and E7,P8). |
| *P5. Designing an experience in movement along streets* | Tree planting in the central median will effect the pedestrian and cyclist movement experience. | The trees in the central median will provide visual interest and help to develop a sense of place (cross reference with E2, P5 and Section 6). |
| | The final design response to protecting three listed trees at 158 and 172 Lincoln Road may impact on the experience moving along the street by encroaching onto the park and removing trees. | The design and re-planting will mitigate some effects.<br><br>A multi-criteria assessment considered potential responses to protecting the trees. A discussion of alternative options is set out in **Section 8**. |
| *P8. Safety and accessibility for vulnerable road users* | The design of pedestrian and cyclist facilities has the potential to impact on the safety and accessibility of vulnerable road users. | The detailed design should ensure all pedestrian and cycle facilities will meet, as much as possible, the specifications set out in NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities', RTS 14 – 'Guidelines for facilities for blind and vision impaired pedestrians, and incorporate the principles set out in the National Guidelines for Crime Prevention Through Design in NZ (cross reference E2, P8). |

| E7. Pedestrian &cycle facilities | P1. | P2. | | | P5. | | | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P8. Safety and accessibility for vulnerable road users* | The design of parallel off-street pedestrian and cyclist facilities has the potential to result in safety and accessibility issues. | The detailed design separates the footpath from the cycle lane by a small level difference, and the cycle lane from the road by a small level difference (Copenhagen style) for most of the project area length. This reduces the potential conflicts between users and also provides those pedestrians using a cane or other non-visual cues with a footpath guide. The safety and accessibility issues will remain for the area of shared path in the southern section. |
| | The new street that will provide access for properties between 300 - 314 Lincoln Road will reduce the number of access ways crossing the footpath on Lincoln Road which could have a positive impact on pedestrian safety (cross referenced with E1, P8). | |
| | The treatment of driveways and other vehicle access ways that cross over the footpath has the potential to impact on the accessibility and connectivity for vulnerable road users. | The detailed design should ensure the treatment of driveways and other vehicle access that crosses over the footpath provides for pedestrian priority through continuing the footpath (and possibly the off-street cycle lane) along the street (both in terms of its level - higher than the carriageway, and in terms of materiality), while traffic moving in and out driveways has to cross this raised footpath (cross reference E2, P2 and E7, P2). |
| | There may be a potential temporary effect on pedestrian access. | Appropriate temporary pedestrian access should be considered at the detailed design stage taking into consideration the specifications set out in NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities', RTS 14 – 'Guidelines for facilities for blind and vision impaired pedestrians, and incorporate the principles set out in the National Guidelines for Crime Prevention Through Design in NZ (cross reference with E2, P2 and E7, P2). |
| | The final design response to protecting three listed trees at 158 and 172 Lincoln Road will result in some conflicts between pedestrians and cyclists arising from the shared nature of the path. | The detailed design will include a painted line to separate pedestrians and cyclists which will somewhat improve safety although will not provide a non-visual aid for users.<br><br>A multi-criteria assessment considered potential responses to protecting the trees. A discussion of alternative options is set out in Section 8. |

| E8. Public spaces | P1. | P2. | | | | | | P8. |
|---|---|---|---|---|---|---|---|---|

| Principles | Urban design issues / opportunities | Response / condition / comment |
|---|---|---|
| *P1. Fitting into, and enhancing, the built fabric* | The design treatment of public spaces has the potential to impact on how the design fits into and enhances the built fabric of the area. | The detailed design should consider how the project's treatment of public spaces enhances these environments. We recommend a clear edge to the park is provided. Urban design principles would ensure Daytona Reserve has clear paths into it (cross referenced with **Section 6**). |
| | The final design response to protecting three listed trees at 158 and 172 Lincoln Road will impact on Te Pai Park as the response encroaches on this open space. | There is an opportunity for replanting trees in the park.<br><br>A multi-criteria evaluation assessment considered potential responses to protecting the trees. A discussion of alternative options is set out in **Section 8**. |
| *P2. Connecting modes and enhancing communities* | There will be a loss of benches (the only benches in the public realm apart from bus stops) on the footpath outside 226-250 Lincoln Road. There may be potential to provide streetscape elements along Lincoln Road. | The detailed design should include the placement of street furniture, lighting, and the landscape treatment and pavement surfaces with a focus on intersections, pedestrian crossing points, and the service lane to provide for public amenity along Lincoln Road to enhance pedestrian environment. |
| *P3. Design sustainably* | The new access street at Daytona Reserve located towards the back of the sites at 308 - 310 Lincoln Road will result in an area at the front that can be used as a public space, for planting, and / or for stormwater treatment. | The detailed design stage should ensure the new open space at 308 - 310 is designed to incorporate sustainable design, reflect local identity, and ensure CPTED principles (cross referenced with E1, P3, P8; E3, P3; E8, P8 and **Section 6**). |
| *P8. Safety and accessibility for vulnerable road users* | The design of public spaces and facilities on Lincoln Road has the potential to impact on the safety and accessibility of vulnerable road users. | The detailed design should ensure that all public spaces comply as much as possible with the specifications set out in NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities', RTS 14 – 'Guidelines for facilities for blind and vision-impaired pedestrians, and incorporate the principles set out in the National Guidelines for Crime Prevention Through Design in NZ. |
| | The new access street at Daytona Reserve located towards the back of the sites at 308 - 310 Lincoln Road will result in an area at the front that can be used as a public space, for planting, and / or for stormwater treatment. | The detailed design stage should ensure the new open space at 308 - 310 is designed to incorporate sustainable design, reflect local identity, and ensure CPTED principles (cross referenced with E1, P3, P8; E3, P3; E8, P3 and **Section 6**). |

## 5.3 URBAN DESIGN: ACTUAL AND POTENTIAL EFFECTS CONCLUSION

The level of effects on the public realm is considered to be generally low. Overall the potential adverse effects can be addressed at the detailed design stage or through conditions, refer to Section 9. A detailed Urban Design conclusion is provided alongside the Landscape and Visual Effects conclusion in Section 10.

# 6. LANDSCAPE ASSESSMENT

## 6.1 RELEVANCE OF EACH CRITERION TO DESIGN ELEMENTS

The table below provides an overview of which criteria derived from the design principles (P1-P8) are most relevant to the key design elements (E1-E8) that form part of the project.

| URBAN DESIGN | P1. Fitting into, and enhancing, the built fabric | P2. Connecting modes and enhancing communities | P3. Design Sustainably | P4. Incorporating local identity, heritage and cultural contexts | P5. Designing an experience in movement along streets | P6. Creating self-explaining road environments | P7. Achieving integrated and minimal maintenance design | P8. Designing for safety and accessibility for vulnerable road users |
|---|---|---|---|---|---|---|---|---|
| E1. Street design | | | | | | | | |
| E2. Streetscape Elements | | Refer to Urban Design Assessment in Section 5 | | | | | | |
| E3. Land use Implications | | | | | | | | |
| E4. Landscape | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| E5. Stormwater | | *Not included in this assessment* | | | | | | |
| E6. Passenger transport | | | | | | | | |
| E7. Pedestrian & cycle facilities | | Refer to Urban Design Assessment in Section 5 | | | | | | |
| E8. Public spaces | | | | | | | | |

## 6.2 LANDSCAPE: ACTUAL AND POTENTIAL EFFECTS, OPPORTUNITIES, RESPONSES OR PROPOSED CONDITIONS

Resulting from the Lincoln Road widening design, the following actual and potential **landscape** effects (including temporary effects) and / or opportunities apply to the eight design elements.

| **E4. Landscape** | P1. | P2. | P3. | P4. | P5. | P6. | P7. | P8. |
|---|---|---|---|---|---|---|---|---|

| **Urban Design Principles in relation to (Landscape and Visual Effects)** | **Landscape design issues / opportunities** | **Response / condition / comment** |
|---|---|---|
| *P1. Built fabric*<br><br>(Urban Character & Amenity) | There are character and place specific opportunities to enhance amenity in spatial design decisions and in design detailing, including location and details of street furniture, lighting, wayfinding, bus stops, fencing and retaining walls. | • It is desirable to integrate the landscape design of Lincoln Road with that of the New Zealand Transport Agency's SH16 Junction.<br>• Detailed design is to be as per ATCOP.<br>• Higher quality durable surface treatments at junction nodes.<br>• Opportunity to include streetscape elements in the public space at 226-250 Lincoln Road, associated with the bus stop. To be designed with input from landscape architect and urban designer. Cross reference with E8 P2.<br>• Site planning input on sites where existing buildings will be removed (322, 324 Lincoln Road).<br>• Retain the **heritage** native (Rimu trees), and exotic Himalayan Cedar.<br>• Currently the landscape plans **(Appendix 4)** show 47 trees planted in the median: 8 at the junction with Triangle Road (east of number 385), 41 between 300 and 312 Lincoln Road (to replace those removed from Daytona Reserve, and to green the edge of the cul-de-sac, for a total of 96 trees within the designation.<br>• Continue the strong theme noted in the arborists report of Tulip trees extensively used in the area.<br>• The detailed design stage should include a plan for replacing frontage elements (cross reference with E1 P1).<br>• It is proposed to mitigate effects of the earthworks by contouring and grading any batters to blend into the existing levels and recreate natural profiles. Front of properties are to be reinstated as per arrangements with individual property owners. Most of the retaining walls are to be less than one meter high. See section 7. Where retaining walls are unavoidable, they will be designed to suit the amenity and character of the street, as a suburban arterial road, and to tie in with the appearance of proposed street furniture and surfacing.<br>• Design of the proposed bus stop at 174 Lincoln Road will require landscape and urban design input to reduce effects of entrapment. Cross reference with E1 P8, E7 P8. |

| E4. Landscape | P1. | P2. | P3. | P4. | P5. | P6. | P7. | P8. |
|---|---|---|---|---|---|---|---|---|

| Urban Design Principles in relation to (Landscape and Visual Effects) | Landscape design issues in response to Principles | Response / condition / comment |
|---|---|---|
| *P2. Connecting modes, enhancing communities*<br><br>(Urban Character & Amenity) | Quality of pedestrian crossing points | • Locate crossing points in convenient positions to suit the anticipated movement patterns of users (relate to residential users, location of parking and services provided.<br>• Locate crossings at regular intervals to provide safe crossing points at junction nodes and mid-block, to avoid crossing events where people don't use the crossings provided at the junctions.<br>• Integrate cycle infrastructure into crossing points.<br>• Reinforce the intended crossing points at nodes and at mid-block by increasing the amenity (quality of materials).<br>• That ATCOP standards and best practise crossing details are undertaken to ensure that crossings allow accessibility and comfort for all users.<br>• Plant trees in the central median along the length of the road to enhance amenity and character and soften the bulky appearance of the big box retail buildings. Cross reference with E2 P5, E2 P6, E7, P5.<br>• Effects on the access to a number of properties around Daytona Reserve will be mitigated by a new access road located along the edge of Daytona Reserve. |
| *P3. Design sustainably* (Biophysical Landscape) | Respond to existing topography and landform. | • The design for the roadway is to follow largely the existing contours, minimise earthworks and rationalise drainage patterns. Cross reference with E5. |
| | Integrate natural patterns & minimise ecological footprint | • Minimise impermeable surfacing, that is not part of Lincoln Road itself, wherever practicable.<br>• Retain as much existing street vegetation as possible, and plant trees and ground cover vegetation on in the central median islands. Cross reference with E2 P5, E2 P6, E7, P5. |
| *P4. Local identity, heritage and cultural contexts (Community Places)* | Protect and incorporate local identity and heritage, or features of significance. | • Recognise local narratives and themes as identified in Section 2.1.2, especially with regards to the perceptual and associative aspects, in concept design. As the detailed design develops, integrate design elements into the street. Cross reference with E2, P4.<br>• The three heritage trees are to be retained. |

| E4. Landscape | P1. | P2. | P3. | P4. | P5. | P6. | P7. | P8. |
|---|---|---|---|---|---|---|---|---|

| Urban Design Principles in relation to (Landscape and Visual Effects) | Landscape design issues in response to Principles | Response / condition / comment |
|---|---|---|
| *P4. Local identity, heritage and cultural contexts (Community Places)* | Protect and incorporate local identity and cultural and natural heritage or features of significance. | • At 211-221 Lincoln Road (Laidlaw College) with regards to the loss of the remnants of local identity (large trees and brick wall). Cross reference with E1, P4.<br>• Include soft landscape treatments at 308-310 Lincoln Road. Cross reference with E3 P3, E3 P8, E5 P4.<br>• Investigate the relocation of the existing small Kahikatea tree in Te Pai Park. Cross reference with 8.1.3 in the Arboricultural Report.<br>• Enhance the amenity and legibility of Te Pai Park from Lincoln Road by providing a formal entranceway into the park. |
| *P5. Designing an experience in movement along streets* (Urban Character & Amenity) | Enhance views and provide visual amenity. | • Despite the flat nature of the corridor, there are views to Massey in the west and back to Auckland city, visible from the junction nodes especially. Existing views to the Waitakere Ranges are to be maintained.<br>• Views will be maintained from Lincoln Road to the two parks to reinforce the wider matrix of urban green space.<br>• Opportunities with planting in the raised central medians to enhance visual amenity of the corridor. Cross reference with E2 P5, E2 P6, E7 P5. |
| *P6. Self-explaining road environments* (Urban Character & Amenity) | Design for street appearance and create a positive and balanced hierarchy of space. | • The space for people walking, people on bikes and people in cars are clearly defined using kerb height, marking and colour / texture.<br>• Opportunities at nodes to emphasise priority for pedestrians and cyclists by placement and convenience of crossings at signalised junctions.<br>• Prioritise surfacing treatments at nodes and bus stops to reinforce hierarchy and improve the appearance of the street.<br>• Use of planting to soften the edges and create perception of narrower carriageway. Cross reference with E2 P5. |
| *P7. Integrated and minimal maintenance design* | | • Select robust, durable hard landscape materials<br>• Self-reliant and minimal maintenance natural landscape (planting) that is fit for place.<br>• Design out opportunities for vandalism<br>• Select a coordinated palette of street elements and furniture. Cross reference with E2 P3, and E4 P8.<br>• Plant species for all areas, other than private frontages, whether new or as reinstatement, is to suit natural conditions, promoting a low maintenance design. |

| E4. Landscape | P1. | P2. | P3. | P4. | P5. | P6. | P7. | P8. |
|---|---|---|---|---|---|---|---|---|

| Urban Design Principles in relation to (Landscape and Visual Effects) | Landscape design issues in response to Principles | Response / condition / comment |
|---|---|---|
| *P8. Safety and accessibility for vulnerable road users* | Use CPTED and Safety In Design principles and safety in design to minimise personal safety risks. | • Design of the new access at Daytona Reserve to be cross referenced with E8 P8. |

## 6.3 LANDSCAPE: ACTUAL AND POTENTIAL EFFECTS CONCLUSION

The level of effects on the landscape is considered to be generally low. Overall the potential adverse effects can be addressed at the detailed design stage or through conditions, refer to Section 9. A detailed Landscape conclusion is provided alongside the Urban Design conclusion in Section 10.

# 7. VISUAL EFFECTS ASSESSMENT

## 7.1 VISUAL EFFECTS ON USER GROUPS / INDIVIDUAL RESIDENTIAL PROPERTIES

Lincoln Road is one of the main entrances into Henderson and the wider residential area of West Auckland. Users of the corridor have been identified and grouped into types and locations. These are people who live there, people who work there, people passing through on the road and people engaged in various recreation activities.

People who work on Lincoln Road are less likely to be sensitive to change due to the fact that their attention will be focused on their work or activity, and not necessarily on their surroundings *(Guidelines for Visual and Landscape Impact Assessment [3rd Ed.] Landscape Institute and IEMA, 2013)*. A relatively short duration of effects (the length of the work day, or temporary workers undertaking shorter tasks on Lincoln Road) can also tend towards less sensitivity. Therefore the setting is not as important to the quality of working life (although there may be occasions where views are an important contributor to the setting and quality of working life, for example the mixed use properties at the southern end of the corridor). Given that, people who work on Lincoln Road are considered to have a low visual sensitivity to the proposal and resulting visual impact. The mixed use properties are assessed in the residential table 7.1 below.

Some commercial businesses on the eastern side of Lincoln Road will be in breach of their requirements to provide a landscaped buffer strip to the road frontage. Many are well planned, at 'human scale' and add to the character and visual amenity for users of the street. Some of these buffer strips will be able to be reinstated as part of the proposed works.

People using the road to travel on are also less likely to be sensitive to change, and enjoy the positive effects of a modern road corridor, for example a smooth road surface. Streetscape treatments at the junctions and tree planting in the central median will enhance the road user experience by providing a link to the wider landscape and highlighting views.

People walking and riding bikes and other recreational users will also notice benefits in the spatial arrangement of the project, for example wider footpaths and dedicated (in some case separated) cycleways. Again, higher levels of treatment at junction nodes, inclusion of wayfinding and replacement tree planting will enhance the user experience, affording Lincoln Road as a gateway to the residential areas of West Auckland. The loss of frontages will affect the visual experience of pedestrians using the street. These frontages often provide an important visual separation and reduction in scale to buildings and / or carparks of commercial sites and big box retail. Planting provides interest and greening to an otherwise modified urban landscape. To mitigate this effect Auckland Transport will look to negotiate with property owners and undertake frontage reinstatement where possible.

Residential users are likely to be the most affected. 15 houses are scheduled for removal due to encroachment of the project construction footprint. To mitigate the effects of encroachment, Auckland Transport proposed to purchase the affected properties. There are some properties where houses need to be removed and these will be purchased in full. There are other properties form which a strip is required, these will be part purchased. In terms of the properties in Auckland Transport ownership or in various stages of negotiation these are as follows:

Properties currently owned by Auckland Transport:
1- 1/370 Triangle Rd (Full)
2- 2/370 Triangle Rd (Full)

Properties currently being negotiated for acquisition by Auckland Transport:
1- 306 Lincoln Rd (Full)
2- 322 Lincoln Rd (Full)
3- 324 Lincoln Rd (Full)
4- 326 Lincoln Rd (Radio New Zealand site) (Partial)
5- 327 Lincoln Rd (Partial)

6- 368 Triangle Rd (Full)
7- 366 Triangle Rd (Full)

Properties for full acquisition (negotiation for acquisition not likely until mid-2020 onwards):
298 Lincoln Rd
306A Lincoln Rd
308 Lincoln Rd
310 Lincoln Rd
312 Lincoln Rd

Where houses are to be removed to make way for the Project, these properties have not been included in the visual assessment.

The visual assessment of landscape effects is based on what will be seen of the project from the remaining residential properties. For the remaining residential users, when at home throughout the day, are likely to experience views for longer, in occupation of rooms facing Lincoln Road. The visual effects of tree removal, in that trees act as a visual buffer between houses and the road, has an effect of loss of the 'green edge' to the street and residential users will have a greater degree of visual exposure to the street. Where frontage reinstatement is proposed and agreed with property owners, there will still be temporary effects for a period of time until the planting is able to establish.

Properties in the vicinity of the Project are listed below in table 7.1 and labelled on the landscape drawings for this report in **Appendix 4**. The table assesses the nature and magnitude of visual effect for each property derived from road-side observations and desk-top analysis. Potential effects are largely a function of (i) actual encroachment, and resulting loss of frontage, onto a small number of properties (ii) changes in proximity of the road corridor to houses (iii) the incremental increases in visual prominence of the highway and (iv) temporary effects to views during the construction phase of the project. Other relevant factors include the orientation of houses and the presence or otherwise of buffer vegetation. Planting in the median will assist with the visual effects on the road corridor of the loss of street trees in the existing roadside berms. However, this measure may not mitigate the visual effects (proximity and visual prominence) of the project from houses with reduced frontages. Where possible, and noted as mitigation in the following table, street trees can be re-established in berms, and other such residual spaces, not required for operation of the Lincoln Road corridor.

Reinstatement of frontages would benefit from a consistent approach to design. This will ensure that elements to be reinstated (walls, fences, planting etc.) are appropriate in the context of an urban environment, and add to the character and amenity of Lincoln Road as an important gateway.

The scale of effects in **Appendix 6** is used as the basis for this assessment.

**Table 7.1—Residential Property Visual Assessment**

| Address | Notes on changes | Degree of effect |
|---|---|---|
| 146 -156 Lincoln Road *(6 properties)* | These properties are a mix of residential and business. They will remain the same physically, with new accessways. The green berm outside numbers 150,152,154 and 156 Lincoln Road will reduce in width due to the addition of a left turn lane and subsequent realignment of the footpath. Street trees outside numbers 148, 150 and 152 will be removed but are able to be replaced in the residual berm space. There are likely to be positive effects resulting from the new footpath and cycleway arrangements in that streetside amenity will be improved. | Negligible (potentially positive) |
| 158 Lincoln Road | This property is also a business. It will remain the same physically, aside from the visual impact of temporary construction effects as noted in section 3.2. The reclaimed land on the roadside boundary will be reinstated to berm. The heritage Himalayan Cedar tree is to be retained. The remaining trees are recommended for removal by the Arborist but are able to be replaced in the residual berm space. | Low |
| 168, 170 Lincoln Road *(2 properties)* | These two properties are businesses. There will be no loss of land due to the widening and no loss of off street parking. There will be some temporary construction effects in the front yards, mitigated by reinstatement of the frontages. The green berm will reduce in width however, and the road will appear slightly closer to the houses. Again the street trees are recommended for removal by the Arborist due to ill health and / or the alignment of the new footpath, but are able to be replaced in the residual berm space. | Very low—Negligible |
| 172-178 Lincoln Road *(6 properties)* | There will be no loss of land due to the widening and some temporary construction effects in the front yards, mitigated by reinstatement of the frontages. The green berm will reduce in width however, and the road will appear slightly closer to the houses. however the berm will be reinstated to the proposed designation boundary. The second historic rimu tree is also retained, however the other street trees are recommended for removal by the Arborist due to ill health and / or the alignment of the new footpath, but are able to be replaced in the residual berm space. Reinstatement of private property to the temporary designation will be arranged with the property owners. | Very low—Negligible |
| 180-184 Lincoln Road *(4 properties)* | There is land take of an average of 3m outside these properties to accommodate the inclusion of the cycleway, footpath and subsequent road widening. The existing street trees and berm will be removed and not reinstated, with the back of footpath hard against the designation boundary. In addition, temporary construction works will come very close to the front of number 184. The other properties will also experience temporary construction effects. Reinstatement of private property to the temporary designation will be arranged with the property | Moderate—Low |

**Table 7.1—Residential Property Visual Assessment**

| Address | Notes on changes | Degree of effect with mitigation |
|---|---|---|
| 211-221 Lincoln Road<br>*(6 properties—by numbering convention)* | The amenity to residential properties on the Laidlaw Bible College Site will be affected by land take, subsequent tree removal and removal of the existing wall and hedge to enable construction of the project. There will also be temporary effects during construction. Of the nine trees existing, five of these (largely small tulip trees) will be removed, leaving the larger specimens closest to the buildings, those that provide the most amenity to the street. Dependent on agreement with the landowner, effort should be made to retain these remaining four trees, and to reinstate the wall and hedge to provide some separation between the road and the houses, should the existing residential use continue. | Very Low—Negligible |
| 2 Daytona Road, 292 Lincoln Road, 294 Lincoln Road (2 houses), 296 Lincoln Road and 296A Lincoln Road<br>*(6 properties)* | Access will remain off Daytona Road for number 2, 292 Lincoln Road and the two houses at 294 Lincoln Road. For numbers 296 and 298A Lincoln Road access will now also be possible from the new cul-de-sac. There will be no land take, however the street trees will be removed, and there will also be temporary effects during construction. The removal of the two properties at 298 Lincoln Road, and the inclusion of the cul-de-sac access road will change the outlook from these properties. Street trees are proposed in the new berm of the cul—de–sac to provide amenity. | Very Low |
| 300-302 Lincoln Road<br>*(2 properties)* | The back fences of these properties will now face the new cul-de-sac, although there will be breaks in the fences for access. Frontages are to be reinstated under individual agreements. Recommend planted buffer to new back fences facing the cul-de-sac and Daytona Reserve. Houses will now need to be accessed from the back—this will also affect garaging and accessibility e.g. front door. Retain existing trees where possible in Daytona Reserve. | Moderate—Low |
| 304 & 304A Lincoln Road<br>*(2 properties)* | The cul-de-sac road comes within three metres of 304A. Access will now be off the bend and the existing back fence will now become a front fence and require construction closer to the house. | Moderate |
| 31,33 and 35 Preston Avenue | With the addition of the new cul-de-sac, there will be no land take, there will however be temporary construction effects. The acquisition and removal of properties of 308, 210 and 312 Lincoln Road, and replacement of these with a new open space will represent a change in outlook, however soft landscape proposals can assist to mitigate visual | Moderate—Low |

**Table 7.1—Residential Property Visual Assessment**

| Address | Notes on changes | Degree of effect with mitigation |
|---|---|---|
| 314 Lincoln Road | Roadside trees will be removed affecting access and privacy. There will be land take and street tree removal from Lincoln Road to enable widening works. The acquisition and removal of properties of 308, 210 and 312 Lincoln Road, and replacement of these with a new open space will represent a change in outlook to the south from this property, however soft landscape proposals can assist to mitigate visual effects. | Moderate-Low |
| 46 Preston Avenue | This property will be affected by a temporary designation. Visual effects of construction will be for a relatively short period of time. Temporary works in this area will be made safe in reinstatement. | Very low—Negligible |
| 320 Lincoln Road | It is acknowledged that 320 Lincoln Road is likely to be redeveloped by the owner, the existing house will still require removal to enable the works. The proposed retaining wall and earthworks proposed for this site may have a visual impact on the property at 314 Lincoln Road. Any effects will be mitigated by soft landscape treatment to integrate the retaining walls. | Moderate—Low |
| 385 Triangle Road | This property will be affected by a temporary designation. Visual effects of construction will be for a relatively short period of time. Temporary works in this area will be reinstated in agreement with the land owner. | Very low—Negligible |

To summarise, 14 properties are likely to require removal, in addition to properties in Auckland Transport ownership, each of which fall within the proposed designation and are anticipated to be acquired by Auckland Transport. Otherwise, there will be moderate visual effects on two properties. Any adverse landscape/visual effects on the remaining 40 properties assessed will be moderate—low or less; eleven moderate—low, one Low, six Very Low, 16 Very Low to Negligible and six Negligible). In each case the adverse effects are able to be effectively mitigated by proposed landscape design, particularly the ability to replant in reinstated berms and reinstatement of consistent property frontages.

# 8. CONSIDERATION OF ALTERNATIVES

The design for the road widening as set out in the Notice of Requirement (NoR) included three locations where a consideration of alternative design options was required. A detailed consideration was undertaken for these options, as discussed below.

## 8.1 NEW ACCESS ROAD FOR 300-314 LINCOLN ROAD

A new street is required to provide access to properties at 300 - 314 Lincoln Road that will be impacted by the Lincoln Road widening project and to for installation of the stormwater treatment devices. An initial investigation of the potential alignment and land redevelopment options was undertaken by Urbanismplus for Auckland Transport between June 2014 and March 2015. This process included the facilitation of a multi-disciplinary exercise to identify and assess options. The preferred option produced through this exercise was subsequently taken forward, and, with adjustments, partially (the portion between 296 and 306 Lincoln Road) incorporated in the design for the Lincoln Road corridor improvements as part of the NoR process.

A Multi Criteria Analysis (MCA) was undertaken in November 2015 for the NoR process which reviewed four options for the alignment. All four options considered included the new street along the edge of Daytona Reserve between 298 and 306a Lincoln Road. This is supported from an urban design perspective as it will provide better access to the Reserve and result in an opportunity for apartment or mixed-use development fronting onto both Lincoln Road and the Reserve, capitalising on this location and providing for attractive frontages to both the park and Lincoln Road, offering opportunities for passive surveillance.

The variations considered in the MCA were in regards to the exact alignment of the proposed street where this will loop back towards Lincoln Road at 308 - 312 Lincoln Road. The options considered designs where the road is located towards the back of the sites, towards the front of the sites, and through the centre of the sites. All options included a large turning head located at the 312 Lincoln Road in order to accommodate vehicle turning movements as well as provide for significant stormwater detention facility, and the servicing of the facility, in that location.

The option to locate the road towards the back of the sites and allow for redevelopment to occur was the least favoured option from an urban design perspective as it would result in a poor street condition with sites backing onto the street (from 31, 33, and 35 Preston Avenue and from the redeveloped sites) or the redeveloped sites backing onto Lincoln Road. This outcome would have negative / undesirable safety and amenity implications.

The option to locate the road to the front of the sites was originally preferred from an urban design perspective as this would allow redevelopment to front onto the new road and onto Lincoln Road, and back onto the sites on 31, 33, and 35 Preston Avenue, providing for good safety outcomes and a strong visual connection between the site and the road.

The new road located in the middle of the site would lead to a loss of redevelopment potential on the sites and could have a negative impact on the properties on Preston Avenue backing onto the open space, however it would allow for opportunities for landscaping and or an area for stormwater treatment which would have amenity and sustainability benefits.

The option selected from the outcome of the MCA (which involved the input of experts from various disciplines) located the new road to the back of the sites, however it will use the sites at 308 and 310 Lincoln Road for planting and possibly stormwater treatment. This option is acceptable from an urban design perspective as, although it does not provide for redevelopment of the sites which would be preferred, it does not allow for development to occur that would have a negative impact on the condition of the new lane or Lincoln Road. The proposed planting will have the benefit of mitigating for the loss of some of the vegetation along Lincoln Road due to the widening project and provide for some softening of the corridor in this location. It is not ideal that the properties at 31, 33, and 35 Preston Avenue will have backyards directly adjacent to the street and this open space. However, the location of the new road closer to the boundaries of these properties, rather than in the middle of the sites, means that the design provides

for access and does not preclude frontage onto Lincoln Road, in a possible future situation of redevelopment of the Preston Avenue sites.

In addition, from a landscape and visual perspective, the expected effects for all options presented would be the same or similar. These related primarily to visual effects including; removal of properties (and associated severance / isolation effects for 314 Lincoln Road, closer proximity of the access road surface to houses (306 and 304A), and in the visual and perceptual effects of properties now requiring access from the new road to what is currently the back of their properties (300-306 Lincoln Road). The proposed Option 4 offers an area of planting within 308-310 Lincoln Road that, with careful design in the detailed phase, can offer benefits from a landscape perspective as it will soften the edge of the road corridor, promote greater visual and physical connection between Lincoln Road and Daytona Reserve, and enable tree planting as mitigation for the loss of street trees in that section.

## 8.2 HERITAGE TREES AT 158 AND 172 LINCOLN ROAD

The project area includes three heritage trees included in the Waitakere District Plan and Proposed Auckland Unitary Plan. These are located near the intersection of Lincoln Road and Pomaria Road and consist of a Himalayan cedar at Bird Barn, 1 Pomaria Road; a rimu at 170 Lincoln Road and another rimu at 172 Lincoln Road. The initial preliminary design required the removal of the cedar at 1 Pomaria Road and the rimu at 172 Lincoln Road.

A MCA was undertaken in November 2015 to consider the alternative options to removing the two heritage trees. The eight options included the following:

- → Option 1: the realignment of Lincoln Road towards the East into Te Pai Park to avoid the two trees.
- → Option 2A: the realignment of the Lincoln Road northbound segregated cyclist/pedestrian path towards the west to avoid the Himalayan cedar tree.
- → Option 2B: starting the T3 Lane at a location that avoids any conflict with the Himalayan cedar tree located outside property no.158/1 Pomaria.
- → Option 2C (alternate to 'Option 2B'): starting the T3 Lane at a location that avoids any conflict with the Himalayan cedar tree located outside property no. 158/ 1 Pomaria. However in addition, the pedestrian path has been realigned to pass around the tree on the western side.
- → Option 3A (exact copy of Option 1).
- → Option 3B: starting the T3 Lane at a location that avoids any conflict with the tree located outside property no. 158 and 172. In addition, locating the bus stop further towards the north due to need to position it within the T3 Lane rather than close to the diverge area.
- → Option 4A: relocation of both trees to Te Pai Park.
- → Option 4B: removal of both the Himalayan cedar and the rimu trees.

The main differences between the options were the level of impact on the heritage trees, which was particularly bad for Options 4A and 4B, and good for Options 1, 2B, 3A and 3B, the impact on visual amenity factors, which was also good for Option 2B and 3B, and particularly bad for Option 4B, as well as the impact on public open spaces, which was particularly bad for Options 1 and 4B. Option 1 was good against economic criteria whereas options involving removal of these heritage trees would increase the consent risk and compliance costs.

Option 3B was identified as the preferred option in terms of environmental effects. It protects the trees, and retains the amenity benefits they provide to the public realm, without negatively impacting on the pedestrian or cyclist facilities. There may be some CPTED implications of this option as the bus stop at 174 Lincoln Road will be located on what is now private property which may result in the staggering of the front boundary, creating an entrapment spot. However, this issue can be mitigated at the detailed design stage. Option 3B was also preferred from a landscape and visual perspective as it promotes the retention of the trees and maintains visual coherence and responds to pedestrian desire lines (the most direct or easily navigable route for pedestrians).

While Option 3B was identified as the preferred option in terms of environmental effects, it scored the worst in terms of achieving the project objectives. Options 1 and 4A were considered further by Auckland Council Parks and the project's arborist. From an urban design perspective, Option 1 would provide an acceptable balance of outcomes, although it would impact on Te Pai Park by encroaching onto this land and potentially result in the loss of a number of trees in this open space, which can be replanted but would not provide the

benefits of the existing established trees for the number of years. Option 4A would not achieve an ideal outcome from an urban design perspective as while it would potentially save the two trees (although relocation is likely to put this at risk), it would remove the benefits of the trees in their existing locations, which help to provide visually coherent road corridor, and would also reduce the ability for street trees within the new road corridor.

A hybrid solution was developed that minimised the land take from Te Pai Park whilst ensuring the retention of the trees. From an urban design perspective, the hybrid option now pursued would provide an acceptable balance of outcomes. A key disadvantage is the potential conflict between cyclists and pedestrians arising from the shared nature of the cycling / footpaths, and especially around the bus stop which will be somewhat improved through marking lines on the footpath. The advantages of this option are the retention of the heritage trees, less impact on the park and its trees, and therefore a more visually coherent road corridor.

## 8.3 ADDRESSING LOCAL IDENTITY AT 211 - 221 LINCOLN ROAD (LAIDLAW COLLEGE)

The context analysis undertaken for the urban design assessment identified that Lincoln Road currently has low amenity and few features of local identity or place-making. However, the site at 211 - 221 Lincoln Road provides some small remnants of local identity which includes a group of large, tall trees located on the private property boundary and a low brick wall and entranceway to Laidlaw College.

The detailed design stage should look to minimise the number of trees that need to be removed in the land adjacent to the designation. Negotiations with the landowner over compensation for the land take should include consideration of an appropriate replacement frontage treatment, which could involve new planting to address the local identity benefits of the trees and replacement wall. If other treatments are sought by the landowner, then their integration with other replacement treatments along the corridor should be considered to help promote a coherent street edge. Otherwise mitigation for the public amenity effects from removal of the larger trees and vegetation in this area will be addressed by the proposed landscape concept and its emphasis on median planting.

# 9. URBAN DESIGN & LANDSCAPE NOR CONDITIONS

The assessment identified that the urban design, landscape and visual impacts of the Notice of Requirement (NOR) for widening Lincoln Road are acceptable based on the implementation of recommendations to avoid, remedy or mitigate the effects of the project. As such, the NOR draft condition 3 requires a Detailed Urban Design and Landscape Plan(s) to be lodged as part of the outlined plan process. Draft condition 20 requires that the plan includes the following principles (outlined below).

The principles are a combination of urban design, landscape and visual effects recommendations to be carried forward into the Urban Design and Landscape Plan(s). Where a principle includes both an urban design and landscape component, this has been identified by through tagging the text with '**UD & LA'**, while individual principles are tagged with **'UD'** or **'LA'**:

| **Principles for Urban Design and Landscape Plans for LRCI** | **UD / LA** |
|---|---|
| The development of a consistent palette of **replacement frontage elements** affected by the widening such as preferred fencing and planting typologies, for discussion with landowners. The typologies (developed by a landscape architect and urban designer) should ensure appropriate, quality design and balance the needs of the landowner with providing for a quality public interface i.e. maximum 1.6 metre height and a pedestrian gate onto Lincoln Road to increase legibility and avoid the use of driveways for pedestrian access. | **UD&LA** |
| The **signal timings** are to be designed to ensure that they maximise the opportunity for pedestrians to cross the road (lateral movement) whilst maintaining efficient traffic flow. | **UD** |
| Consideration of the **design of all signalised crossings** to encourage the use of the crossing. The provision of a raised median will encourage the use of the crossing facility by reducing the width of road to be crossed. | **UD** |
| The design for **sloped batters and retaining walls** to integrate with other streetscape elements and ensure that amenity of directly adjoining sites is maintained and ensure they mitigate the negative effects on the public realm. Provision for landscape architect and urban designer to be involved with the design. | **UD&LA** |
| In the detailed design stage consideration should be given to appropriate frontage treatment, subject to negotiations with the landowner of **211 - 221 Lincoln Rd**. | **UD&LA** |
| Inclusion of an urban designer and landscape architect to decide the design (and placement) of street **furniture, lighting, and the landscape treatment and pavement surfaces** with a focus on intersections, pedestrian crossing points, and the service lane **to provide for public amenity** along Lincoln Road to enhance pedestrian environment, including appropriate replacement of the benches and street trees at 226-250 Lincoln Road. | **UD&LA** |
| **Streetscape and public space elements** (pedestrian, cyclist, and public transport facilities) to comply where possible with the specifications set out in NZS 4121:2001 – 'Design for Access and Mobility – Buildings and Associated Facilities', RTS 14 – 'Guidelines for facilities for blind and vision impaired pedestrians, and to incorporate the principles set out in the National Guidelines for Crime Prevention Environmental Through Design in NZ. | **UD&LA** |
| Provision for the **quality, materials and arrangement of elements** to achieve a low maintenance and durable design. | **UD&LA** |
| Integration of the treatment of Lincoln Road with the landscape treatment of **Te Pai Park and Daytona Reserve** to enhance these environments. Good Urban Design practice would ensure a clear edge to **Te Pai Park**. **Daytona Reserve** should be connected visually to Lincoln Road. | **UD&LA** |

| Principles for Urban Design and Landscape Plans for LRCI | UD / LA |
|---|---|
| Provision for the **new open space at 308 - 310** to be designed to incorporate sustainable design and reflect local identity. | **UD&LA** |
| Implementation of **driveway treatment and other vehicle access** that crosses the footpath to ensure they provide for pedestrian priority through continuing the footpath (and possibly the off-street cycle lane) along the street (both in terms of its level - higher than the carriageway, and in terms of materiality), while traffic moving in and out driveways has to cross this raised footpath. | **UD** |
| Implementation of the **treatment of T-intersections** along Lincoln Road (the new street / lane leading past the edge of Daytona Reserve, Daytona Rd, Paramount Dr, and Poinsettia Pl) to be designed so that the footpath (and possibly the off-street cycle lane) is continued along the street (both in terms of its level - higher than the carriageway, and in terms of materiality), while traffic moving in and out of side streets has to cross this raised footpath threshold, sending a signal to make motorists aware of a change in environment. | **UD&LA** |
| Provision for a landscape architect to investigate prior to the detailed design of proposals for **tree planting in the central median**. This will confirm the quantity, spacing and type of trees that are proposed. | **LA** |
| Input by a suitably qualified person of CPTED principles in the landscape design of **the new public area at 308 - 310**, particularly regarding surveillance from the street, walkway, and public places. | **UD** |
| **Integration** of landscape treatment of Lincoln Road with New Zealand Transport Agency's treatment of the **Lincoln Road junction with the State Highway 16 Western Ring Road**. | **LA** |

# 10. CONCLUSION

## 10.1 URBAN DESIGN CONCLUSION

### 10.1.1 Scale of potential effects

The scale of the urban design effects on the public realm is considered to be generally low. The main function of the current road corridor is to provide for a high level of linear vehicle through-movement rather than local or pedestrian amenity, and the character of the road reflects this. It is expected that the widened corridor will have a character that is very similar to the current one.

Changes to note include the wider corridor which will, to a small degree, affect connectivity as it will create a perception of greater severance for cross-movement. However, the design will at the same time somewhat improve actual connectivity and accessibility through an improvement in signalised pedestrian crossings and cycling facilities.

The removal of some trees and the grass berm will negatively affect the public realm amenity of the corridor, which is considered to already be low in the current situation. However, street trees planted in the raised median is considered to be an effective form of mitigation of these effects.

Earthworks and retaining walls related to the level difference on the western side of Lincoln Road between Daytona Reserve and the motorway on-ramp, particularly at 320, 322, and 324 Lincoln Road, could negatively impact the amenity of the streetscape, however this can be mitigated through sloped batters that will result in a softer edge and could provide some visual relief to the start of the motorway area through planting / grass.

The effects on private property, prior to mitigation will be moderate as the frontage of a number of private properties will be reduced. This will also result in the removal of trees on private land. Combined with the removal of the grass berms and landscape strips in car parking area, this will reduce the buffer between the road and private properties.

There will be some effects on the access to a number of properties around Daytona Reserve, however this effect will be mitigated by a new access road located along the edge of Daytona Reserve. This will have the positive effect of providing for enhanced access to this reserve and an opportunity to undertaken plantings on 208 and 210 Lincoln Road to mitigate for the loss of vegetation as a result of the project.

A small number of properties will require full acquisition in order to undertaken the project. These provide opportunities for redevelopment, in keeping with ongoing development towards commercial and retail land uses, and, if designed to contribute to the public realm, are not seen as a negative effect from an urban design perspective.

Mitigation of most of the urban design effects will be feasible at the detailed design stage including replacement of fencing, planting and parking on private property.

### 10.1.2 Residual effects following detailed design stage

The loss of large trees that provide place making and verticality (and therefore an appropriate sense of enclosure) to the public realm at 211 - 221 Lincoln Road may not be avoidable or able to be fully mitigated which would degrade the public realm and further reduce the, particularly pedestrian, environment which may further deter walking along the corridor.

The location of the new road to provide access to the sites at 300 - 314 Lincoln Road will have ongoing effects by exposing the back fences of properties at 31, 33, and 35 Preston Avenue to the new public open space that will be located at 308 and 310 Lincoln Road which could have negative safety and amenity

impacts. However the design also allows for any future redevelopment of these sites to gain access and have frontage onto Lincoln Road.

## 10.2 LANDSCAPE AND VISUAL EFFECTS CONCLUSION

There will be some incremental adverse effects on urban character and amenity because of the increased scale (footprint) of the road corridor, and the removal of a significant amount of roadside vegetation. To put these effects in perspective, they will occur in the context of the existing suburban arterial road, where it is reasonable to anticipate periodic upgrades and reconstruction as a consequence of increasing use and evolving standards. The main effect to amenity will be the removal of up to 140 trees along the corridor. The road corridor will retain a carriageway with multiple lanes in each direction, and the surroundings will retain their urban character. The increased width will encroach into adjacent land, and will increase visual distance between amenities and facilities on either side of the road. However the inclusion of trees in the median (ensuring integration with services) or to selected roadside areas, can soften the edges of a wider road corridor. The reconfiguration of the intersections also has potential severance effects, however reinforcing the placemaking qualities of the area at the junction nodes can somewhat mitigate these effects.

At a property scale, the reduction in the generous setbacks and subsequent removal of vegetation may result in a loss of amenity at some residential locations (see table in section 7.1). The effects of this can be seen to be dealt with at a local level by replacing street trees and ensuring amenity provisions with individual property owners.

There will be some effects on biophysical elements within the designation, the most noteworthy being the removal of vegetation, including street trees (including Norfolk Pine trees) and private vegetation throughout the corridor, to enable the road upgrade. The adverse effects will be effectively mitigated by proposed measures including; the retention of three heritage trees; new tree and shrub planting in the central median; replacement planting at the Triangle Road frontage / berm; the new open space proposed for 308 –312 Lincoln Road, including trees and other soft landscape treatment such as new planting proposed along the service lane, and replacement planting at Daytona Reserve and Te Pai Park.

There will be negligible adverse visual effects on community facilities which can be mitigated by landscape design.

Taking these matters together, it is considered the overall landscape and visual effects (without mitigation) will be, at most, moderate, and that such effects can be effectively mitigated through landscape design measures.

The removal of commercial frontages from the corridor will affect the experience of street users. These frontages provide visual separation and a reduction in scale to buildings and / or carparks of commercial sites and big box retail. To mitigate this effect Auckland Transport will look to negotiate with property owners and undertake frontage reinstatement where possible.

With regards individual residential properties, 14 houses are to be removed, each of which is traversed by the proposed designation, and which are in ownership or anticipated to be acquired by Auckland Transport. This list includes those at 322 and 324 Lincoln Road most affected by resulting earthworks and retaining walls required to build the road, which will be new permanent features in the landscape. There will be moderate adverse visual effects on two properties, which can be effectively mitigated through landscape design. Any adverse visual effects on the remaining properties in the vicinity of the Project will be low or less.

# APPENDICES

APPENDIX 1. CITY-WIDE CONTEXT

APPENDIX 2. LAND-USE CONTEXT

APPENDIX 3. PEDESTRIAN AND BUS FACILITIES

APPENDIX 4. LANDSCAPE AND OPEN SPACE CONCEPT PLANS

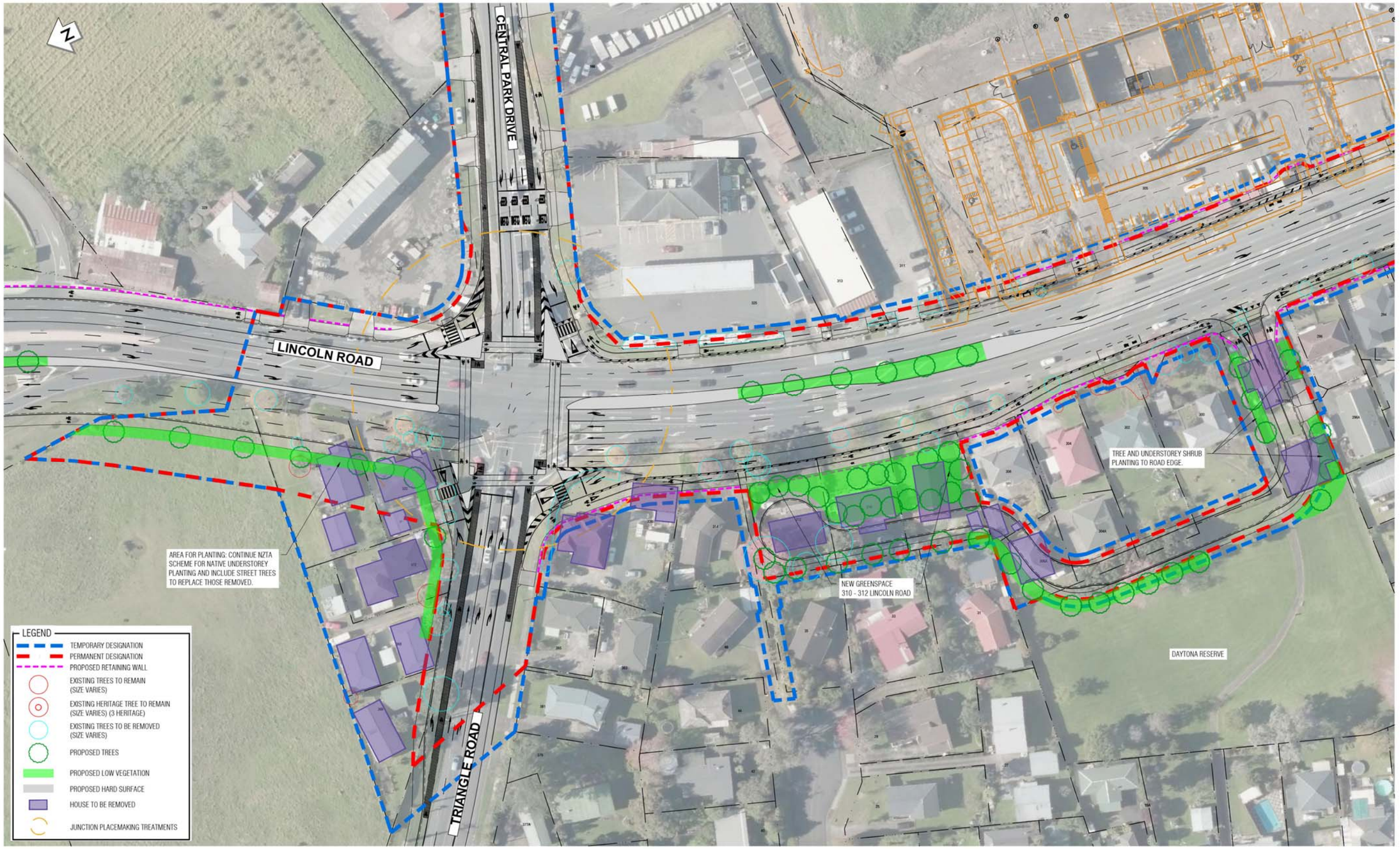
APPENDIX 5. ADDITIONAL REFERENCES

APPENDIX 6. LANDSCAPE RELATED ELEMENTS


Massey East
Massey West
Massey
Te Atatu Peninsular
To North Shore
Triangle Rd
Daytona Reserve
Central Park Drive
Henderson Creek
Lincoln Rd
North-Western Motorway
To City Centre
Te Pai Park
Central Park & The Trusts Arena
Lincoln
Ranui
Te Atatu South
Waitakere Hospital
Swanson
Sturges Rd Station
Henderson
Henderson Park
Great North Rd
Henderson Station

## APPENDIX 2: LAND-USE CONTEXT

# APPENDIX 3: PEDESTRIAN AND BUS FACILITIES




DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

NOT FOR CONSTRUCTION

| REV | REVISIONS | DRN | CHK | APP | DATE |
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| A | FOR ASSESMENT REPORT | GS | | | 2016-05-30 |

| | | |
|---|---|---|
| SURVEYED | By Others (As Built) | |
| DESIGNED | Kirstie Thorpe | 05/2016 |
| DRAWN | Gavin Smit | 05/2016 |
| CAD REVIEW | | |
| DESIGN CHECK | | |
| DESIGN REVIEW | | |
| APPROVED | NOT APPROVED | |
| PROF REGISTRATION: | | |

MWH

Client: AT

LINCOLN ROAD CORRIDOR UPGRADE

LANDSCAPE PLAN FOR UD&LV ASSESMENT REPORT
SHEET 1 OF 3

Status Stamp: FOR CONSULTATION
Date Stamp: 30.05.16
Scales: AS SHOWN
Datum: Mt Eden2000
Drawing No.: 80507651-0301-SK771
Rev.: A



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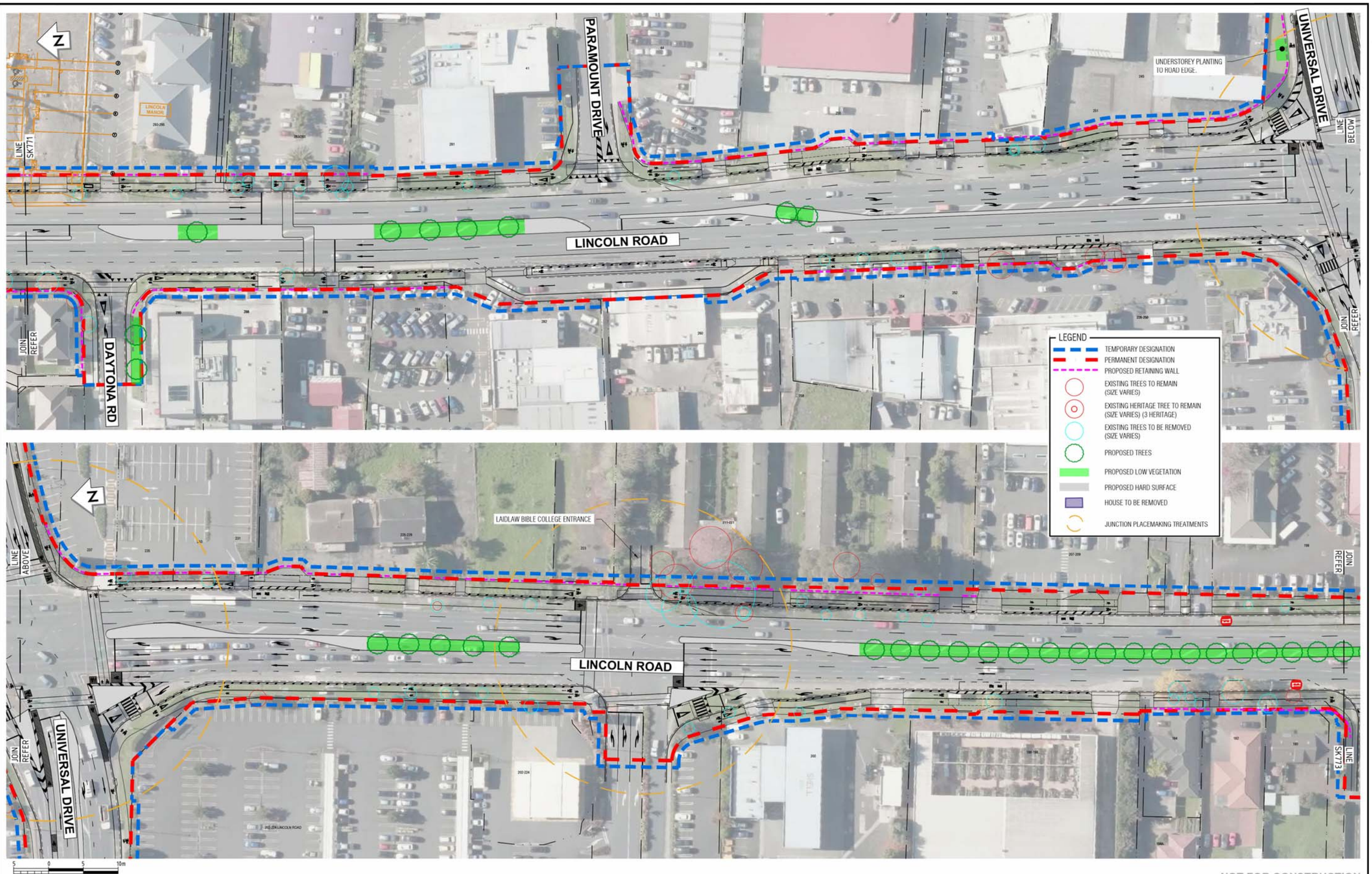
Last modified: Jun 17, 2016, By: Gavin Smit

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| SURVEYED | By Others (As Built) | |
| DESIGNED | Kirstie Thorpe | 05/2016 |
| DRAWN | Gavin Smit | 05/2016 |
| CAD REVIEW | | |
| DESIGN CHECK | | |
| DESIGN REVIEW | NOT APPROVED | |
| APPROVED | | |
| PROF REGISTRATION: | | |

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Client: AT

LINCOLN ROAD CORRIDOR UPGRADE

LANDSCAPE PLAN FOR UD&LV ASSESMENT REPORT
SHEET 2 OF 3

Status Stamp: FOR CONSULTATION
Date Stamp: 30.05.16
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Datum: Mt Eden2000
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Rev.: A



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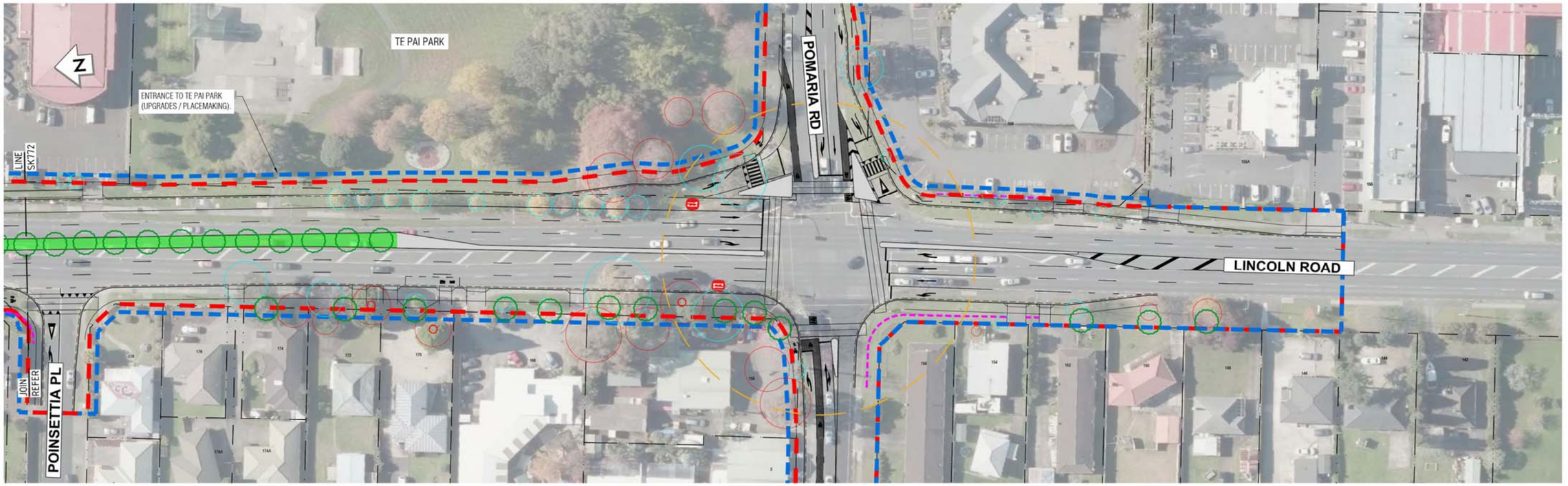


LEGEND

- TEMPORARY DESIGNATION
- PERMANENT DESIGNATION
- PROPOSED RETAINING WALL
- EXISTING TREES TO REMAIN (SIZE VARIES)
- EXISTING HERITAGE TREE TO REMAIN (SIZE VARIES) (3 HERITAGE)
- EXISTING TREES TO BE REMOVED (SIZE VARIES)
- PROPOSED TREES
- PROPOSED LOW VEGETATION
- PROPOSED HARD SURFACE
- HOUSE TO BE REMOVED
- JUNCTION PLACEMAKING TREATMENTS

DO NOT SCALE – IF IN DOUBT, ASK

ORIGINAL SIZE A1

SCALE 1:250 (5 0 5 10m)

NOT FOR CONSTRUCTION

| REV | REVISIONS | DRN | CHK | APP | DATE |
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| A | FOR ASSESMENT REPORT | GS | | | 2016-05-30 |

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| SURVEYED | By Others (As Built) | |
| DESIGNED | Kirstie Thorpe | 05/2016 |
| DRAWN | Gavin Smit | 05/2016 |
| CAD REVIEW | | |
| DESIGN CHECK | | |
| DESIGN REVIEW | | |
| APPROVED | NOT APPROVED | |
| PROF REGISTRATION: | | |

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Client: AT

LINCOLN ROAD CORRIDOR UPGRADE

LANDSCAPE PLAN FOR UD&LV ASSESMENT REPORT
SHEET 3 OF 3

Status Stamp: FOR CONSULTATION
Date Stamp: 30.05.16
Scales: AS SHOWN
Datum: Mt.Eden2000
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# APPENDIX 5 - ADDITIONAL REFERENCES

http://www.nzta.govt.nz/assets/resources/nzta-landscape-guidelines/docs/nzta-landscape-guidelines-20140911.pdf

NZILA. (2010). *Best practise note, Landscape assessment and sustainable management 10.1*. NZILA

# APPENDIX 6 - LANDSCAPE RELATED ELEMENTS

## A. POTENTIAL LANDSCAPE & VISUAL EFFECTS

The table below lists potential landscape and visual effects that were assessed.

| **Potential Landscape Issues considered** | **RMA Provision** |
|---|---|
| Effects on urban character and amenity. | s 7(c) |
| Effects on biophysical landscape elements | s 7(f), 6(c) and 6 (a) |
| Visual effects on community places | s 7(f), (c) |
| Visual and landscape effects on individual properties. | s 7(c) |
| Effects during construction | s 7(c) |

## B. SCALE OF EFFECTS

The scale of effects used in the landscape and visual effects assessment is as noted in *Best practise note, Landscape assessment and sustainable management 10.1* (NZILA, 2010) as

Extreme / Very High / High / Moderate / Low / Very Low / Negligible.