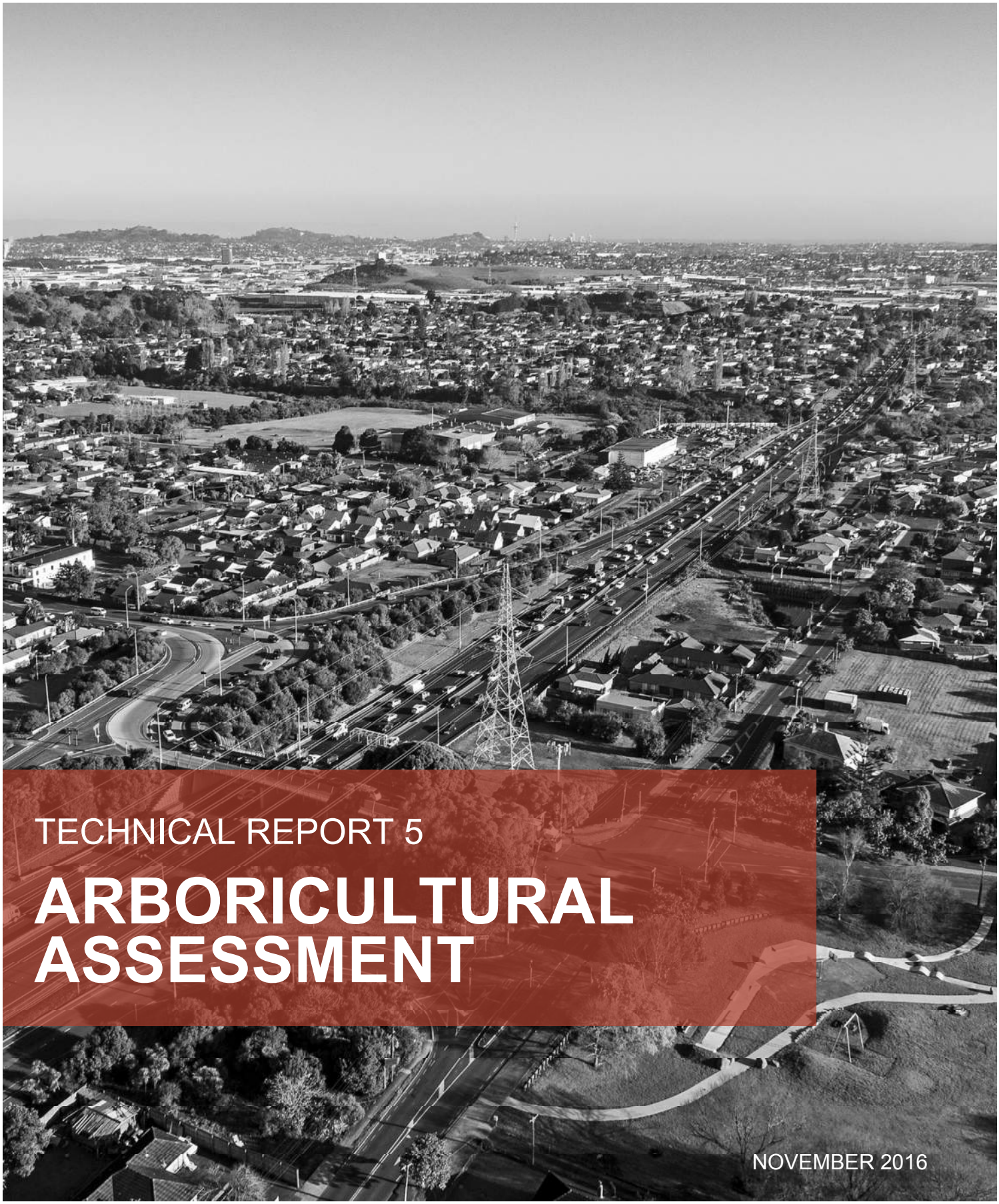

TECHNICAL REPORT 5

ARBORICULTURAL ASSESSMENT

NOVEMBER 2016

NZ TRANSPORT AGENCY WAKA KOTAHI

East West Link

GREENSCENENZ

ENHANCING AND PROTECTING LIVING ENVIRONMENTS

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Revision schedule					
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EXECUTIVE SUMMARY

Purpose

1. To provide arboriculture advice to support consent applications and/or Notices of Requirement.

2. To provide arboriculture advice to inform the Project design team by identifying tree locations and identifying avoidance and mitigation measures.

Findings

3. The trees that are readily accessible from public areas have been catalogued, as attached in Appendix B, and located by number on the maps attached as Appendix C. Trees have been grouped into two categories 1) individual trees and 2) groups of trees.

4. The individual group of trees have three sub categories: privately-owned trees; reserve or park trees; and street trees, indicating the ownership of the land on which the trees are located.

5. The groups of trees have two sub categories: privately-owned and reserve, indicating the ownership of the land on which the trees are located.

6. There is also a collection of trees in the vicinity of the EWL Project, being singular trees and groups of trees that are scheduled within the District Plan. These trees have been listed in Table 3. Appendix D has the planning map from the ACDP:IS showing the locations of the scheduled trees in close proximity to the Project.

7. The survey and data analysis established 315 individual points and 51 polygons representing individual trees and groups of trees that are potentially affected by the Project.

8. A large number of trees and groups of trees are anticipated to require removal due to their position in relation to the Project works. Significant mitigation measures involving landscaping, restoration, replanting, transplanting and protection of existing trees is required in order to address the potential effects of the Project.

9. Tree protection methodologies and protocols for identifying trees, confirming construction requirements and detailing the proposed works affecting trees and mitigation measures are required in order to address arboricultural management issues during implementation of the EWL Project.

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Glossary of Technical Terms/Abbreviations

Abbreviation	Term
AEE	Assessment of Effects on the Environment
CMA	Coastal Marine Area
EWL	East West Link
EWLA	East West Link Alliance
NoR	Notice of Requirement
The NZ Transport Agency	New Zealand Transport Agency
ONFs	Outstanding Natural Features
ONLs	Outstanding Natural Landscapes
PAUP	Proposed Auckland Unitary Plan
PPFs	Protected Premises and Facilities
RMA	Resource Management Act 1991
SEA	Significant Ecological Area
SH(x)	State Highway (number)
The Plan	The Auckland Plan

1 Introduction

GreensceneNZ Limited has been commissioned by the NZ Transport Agency to conduct a preliminary arboricultural assessment of trees within the proposed East West Link Project (EWL or Project) connection from the Southern Motorway (SH1) to the South Western Motorway (SH20).

1.1 Purpose and scope of this report

This report forms part of a suite of technical reports prepared for the NZ Transport Agency's EWL. Its purpose is to inform the Assessment of Effects on the Environment Report (AEE) and to support the resource consent applications, two new Notice of Requirements and an alteration to existing designation required for the Project.

This report assesses the arboricultural effects of the proposed alignment of the Project, as shown on the Project Drawings in *Volume 2: Drawing Set*.

The purpose of this assessment is to identify trees that may be affected by the proposed works, particularly during construction works, and to provide recommendations for consideration of retention of trees, protection and mitigation measures.

This report identifies the significant trees and all potentially affected trees within and adjacent to the Project footprint, as shown on the referenced plans. This report includes a schedule of identified trees (within Appendix A of this report) and an overview location plan to show tree positions (within Appendix C of this report). GIS data has been provided to allow the Project team to identify the position of the trees and groups of trees in relation to the proposed road and road improvement works.

1.2 Project description

The Project involves the construction, operation and maintenance of a new four lane arterial road from SH20 at the Neilson Street Interchange in Onehunga, connecting to SH1 at Mt Wellington as well as an upgrade to SH1 between the Mt Wellington Interchange and the Princes Street Interchange at Ōtāhuhu. New local road connections are provided at Galway Street, Captain Springs Road, the ports link road and Hugo Johnston Drive. Cycle and pedestrian facilities are provided along the alignment.

The primary objective of the Project is to address the current traffic congestion problems in the Onehunga, Penrose and Mt Wellington commercial areas which will improve freight efficiency and travel reliability for all road users. Improvements to public transport, cycling and walking facilities are also proposed.

For description purposes in this report, the Project has been divided into six sectors. These are:

Sector 1. Neilson Street Interchange and Galway Street connections;

Sector 2. Foreshore works along the Māngere Inlet foreshore including dredging;

Sector 3. Anns Creek from the end of the reclamation to Great South Road;

Sector 4. Great South Road to SH1 at Mt Wellington;

Sector 5. SH1 at Mt Wellington to the Princes Street Interchange; and

Sector 6. Onehunga local road works.

A full description of the Project including its design, construction and operation is provided in Part C: Description of the Project in the Assessment of Effects on the Environment Report contained in *Volume 1: AEE* and shown on the Drawings in *Volume 2: Drawing Set*.

1.3 Methodology

The arboricultural survey method involved:

a) A desk-top review of aerial photography within the defined Project area;

b) Identification of existing scheduled trees within and adjacent to the defined Project area;

c) Site surveying to assess and identify trees and other vegetation;

d) Data collection using hand-held GIS data logging device (Collector for ArcGIS) and

e) Collation and review of data and assessment of possible effects of construction activities within the designation.

Data relevant to individual trees, groups of trees and mass-planted vegetation is presented in the tables provided in Appendix A of this report. This includes approximate dimensions, comments on the health, form and other characteristics of the tree/group and recommendations.

Appendix B of this report contains plans that show the location of the identified individual trees and groups of trees/vegetation. This includes three categories of trees, as follows:

a) Trees demarcated by pink circle to identify the location of trees on privately-owned sites;

b) Trees demarcated by green circle to identify the location of trees on reserve land;

c) Trees demarcated by yellow circle to identify the location of trees on streets/road reserve;

d) Groups of trees demarcated by pink polygons to identify the approximate extent of mass-planted vegetation and trees that are located on private sites;

e) Groups of trees demarcated by green polygons to identify the approximate extent of mass-planted vegetation and trees that are located on reserve land;

f) Individual trees have been allocated numerical tags (1-314); and

g) Groups of trees have been allocated alphabetical tags (A-AX)

1.4 Limitations

Site visits to collect data were completed from public roads and reserves only, and did not involve entry into any private property or collection of tree data within the existing motorway corridor where access is restricted for health and safety reasons. Further details of trees may be added to the schedule as and when access has been arranged with relevant parties and specific Project requirements have been confirmed.

This report has not assessed the vegetation within the Anns Creek East area as that has been addressed in the Ecological Impact Assessment Report (*Volume 3: Technical Report 16*).

The arboricultural survey is restricted to trees on the fringe of the Coastal Marine Area (CMA), but excluding marine species such as mangroves which are addressed in the Ecological Impact Assessment Report.

2 Arboricultural Assessment

2.1 Overview

The majority of the trees and vegetation within the Project works area are not significant trees in their own right, due to being parts of larger groups of trees or mass-plantings for ecological restoration and screening purposes.

Most of the vegetation has been planted in groups and along boundaries, so have a dual role with providing screening and separation between sites and for the general greening of the area within which they are located. While most plantings appear to have been planted by Auckland Council (Council), there are some plantings that are privately-owned within sites affected by the proposed designation.

Some of the plantings within the Council areas could be considered for transplanting as there are many small to medium specimen trees, mainly pōhutukawa that could be moved relatively easily. This may be useful when considering the landscaping of the areas of works post-construction where instant landscapes could be provided to complement the mass of smaller plants that would typically be utilised for replanting. A transplant feasibility study will be required to confirm the viability of any transplant exercise as part of tree management protocols.

2.2 Location of scheduled trees

Table 2-1 outlines the list of scheduled trees afforded protection according to the operative ACDP:IS and PAUP.

Table 2-1: Location, map references and species identification and number of scheduled trees.

Location	ACDP Map Reference	PAUP – ID	Species / (Number of trees) / Category	Sheet number
Alfred Street 9, Onehunga	H10-19	626	Phoenix Palm (2) C	18 of 18
Hugo Johnston Drive (O'Rorke Road ext Southdown)	H12-01	633	Poplar (22) C Plane tree (7) C	8 of 18 North of Autumn Place
Princes Street 120 Sikh Temple	I14-10	652	Phoenix Palm (3) C	14 of 18

Please refer to Appendix C for the appropriate ACDP:IS Map reference to see the location of the associated scheduled tree(s). GreensceneNZ Limited has chosen to use the ACDP:IS planning maps to indicate the location of scheduled trees, as the icons (tree symbol) on these maps show a more accurate location than the icons (green triangles) on PAUP maps.

The Alfred Street Phoenix palms and the Princes Street Phoenix palms are outside of the designation boundary, but are within close proximity to the area of works. Effects on these trees will be managed by monitoring and other measures that will be specified in the Tree Management Plan discussed in section 3.2 of this Report.

The Hugo Johnston Drive scheduled trees are away from the area of works but could be a restriction to plant and machinery access down to the EWL construction area. No works are proposed in the vicinity of the scheduled trees on Hugo Johnston Drive.

The other groups of scheduled trees are away from the works area in general, but could be located along desired access routes that may be a restriction to the EWL construction area.

2.3 Specific areas of arboricultural interest

2.3.1 Sector 1 Neilson Street Interchange

Table 2-2: Specific areas of arboricultural interest for Sector 1

Location	Tree Description	Special values	Implications
Opposite the Aotea Sea Scouts Hall on the Onehunga foreshore between Orpheus Drive, Onehunga Harbour Road off-ramp and SH20	Row of pōhutukawa trees (trees 81, 82 & 84-89, map 1) and of particular interest is the large Holm oak (tree 83) in the middle	Visually prominent group of trees	In close proximity to the location of the new bridge over the motorway for the new Neilson Street on–ramp and the stormwater pond. The bridge approach will most likely require the removal of these trees due to the degree of conflict that the scale of construction and site access requires.
Northwest corner of Gloucester Park South, south east of the Aotea Sea Scouts Hall on the Onehunga Foreshore	Single large pōhutukawa (tree 92, map 1) specimen tree	Visually prominent tree	Removal likely to be required due to the degree of conflict that the scale of construction and site access requires.
Street trees (trees 21-41 & 42-58, map 1) on Onehunga Mall and Galway Street	Multiple trees	Public road reserve assets	Installation of the 3m wide shared path conflicts with trees on the western side of Onehunga Mall and is likely to require removal and replacement. Creation of dual carriageway with footpaths on both sides of Galway Street conflicts with trees on both sides of the street and is likely to require removal and replacement.
Gloucester Reserve (South)	Multiple trees	In group plantings adjacent to Onehunga Harbour Road	Some trees are outside of the designation and some on the edge of the proposed eastbound road on onramp. Retention of trees possible where space permits. Selected trees could be utilised in other areas of the reserve if transplantation is feasible.
Between the Airport Harbour View Motel and Onehunga Harbour Road	Collection of pōhutukawa trees (trees 101-104, 107-108, map 1)	Visually prominent trees	Within the alignment of the EWL. Could be relocated to other areas to be landscaped or moved to improve separation between the Airport Harbour View Motel and the new road layout if transplantation is feasible.

2.3.2 Sectors 2 Waikaraka Park, Waikaraka Cemetery and 6 Local Roads

Table 2-3: Specific areas of arboricultural interest for Sectors 2 and 6

Location	Tree Description	Special values	Implications
Foreshore east of proposed Galway Street extension intersection	Collection of small trees (trees 62, 63, 76, 123 - 129, 131, 150-153, 155-157, map 1 and 2) around the existing coastal walkway	Coastal fringe revegetation	Within the alignment of the EWL. Could be transplanted into the proposed landscape as required, if transplantation is feasible.
Across the rear and southern boundary of the Waikaraka Cemetery	Several groups of significant pōhutukawa (trees 132-148 & tree groups Z – AC, map 2)	Important to the visitors to the cemetery, the effects of the proposed works to the context of these trees could be important	The trees will be unaffected if no works occur beyond the existing rock sea wall. Pruning likely to be required to avoid conflict with machinery.
Perpendicular line from the foreshore into the cemetery	Mature group of pōhutukawa (tree group AD)	Important screen and wind break	Outside of the designation and unaffected by the works.
East of the above group and at a 45 degree angle to the foreshore along the boundary with the cemetery and the adjacent site to the east	Line of young pōhutukawa (tree group AE, map 2)	The pōhutukawa define this boundary and are visually prominent	There is vertical separation provided by topography. Outside of the designation and unaffected by the works.
Adjacent to a building on the corner of Neilson Street and Captain Springs Road	Large mature pōhutukawa (tree 288, map 3)	Visually prominent specimen	Outside of the designation but overhangs the designation boundary. Unlikely to be affected by the works but pruning may be required to install footpath along southern side of Neilson Street.
Street trees on Alfred Street and Neilson Street	Multiple specimens (trees 289-313, map 2)	Public road reserve assets	Installation of the 3m wide shared path conflicts with trees on the eastern side of Alfred Street and may require removal and replacement. Creation of dual carriageway with footpaths and/or shared path on both sides of Captain Springs Road conflicts with trees on both sides of the street and is likely to require removal and replacement.

2.3.3 Sector 3 Sylvia Park Road and Great South Road

Table 2-4: Specific areas of arboricultural interest for Sector 3

Location	Tree Description	Special values	Implications
Against the adjacent building off Sylvia Park Road at the Great South Road end	Two developing pōhutukawa (trees 282 & 283, map 5)	Visually prominent trees	Installation of the 3m wide shared path on the southern side of Sylvia Park Road requires removal of these trees.

2.3.4 Sector 4 Clemow Drive

Table 2-5: Specific areas of arboricultural interest for Sector 4

Location	Tree Description	Special values	Implications
Private planting at the front of the factory at the southern end of Clemow Drive	Groups of various trees (250, 257, 258, 264 & 268, map 6)	Visually prominent trees	Located on both sides of the designation boundary. Should be retained as no changes to the southern side of Clemow Drive.
Within road reserve strip and traffic islands between Mt Wellington Highway and Clemow Drive	Groups of various specimens (tree group AR) and solitary puriri (271, map 7)	Visually prominent road reserve trees	Should be retained as no changes to the western side of Clemow Drive, however the extent of the anticipated construction yard may impact on these trees.
Street trees on Sylvia Park Road	Multiple specimens (trees 274-281, map 5)	Public road reserve assets	Installation of the 3m wide shared path and Sylvia Park Road westbound lanes conflicts with trees and require their removal.

2.3.5 Sector 5 Princes Street Interchange

Table 2-6: Specific areas of arboricultural interest for Sector 5

Location	Tree Description	Special values	Implications
Existing motorway embankment, either side of Princes Street Bridge on the eastern side of SH1	Groups of large pōhutukawa (185 & 187, map 10) and other native species (186, map 10)	Visually prominent and screening values	These trees are in close proximity to the location of the new bridge over the motorway. The bridge approach will most likely require the removal of these trees due to the degree of conflict that the scale of construction and site access requires.
Adjacent roads reserve and reserve land and private land around the Frank Grey Place and Princes Street East intersection and Bedingfield Memorial Park	Chinese elms (162-164, 166 & 170, 171, map 10) and Mexican hand tree (172-175, map 10) groups, mixture of large ornamentals (176, map 10)	Visually prominent trees, rarity value	Located in reserve so could be clear of services and a candidate for transplanting if in conflict with EWL works. The addition of 3m shared paths to both sides of Princes Street East will conflict with these trees to varying degrees. The trees should be retained and protected where possible.
Street trees on both sides of Frank Grey Place	Multiple specimens (trees 158-161 & 177-181 & 188-194, map 10)	Public road reserve assets	The widening of Frank Grey Place and new southbound on and off ramp intersection north of Princes Street and the addition of 3m shared paths south of Princes Street will require the removal of some of these trees.

Location	Tree Description	Special values	Implications
Between SH1 and Hillside Road, south of the Panama Road overbridge	Mixture of native and exotic trees (199-227, map 8)	Visual amenity and screening values	Several specimens could be appropriate to transplant if works were to compromise their retention in this location. Widening of the motorway and the associated construction yard will reduce the width of the strip of land and require tree removal.

2.3.6 General Construction and Tree Protection

Tree retention within the context of major land/infrastructure development projects requires significant investment, in terms of space and detailed arboricultural input. Details of the spatial requirements and specific means to ensure safe, healthy retention of trees within the site are required to be developed in consultation with an arboricultural consultant as the specific Project design and construction methodologies are refined. Other comments on effects on trees during construction works are:

- It is generally expected that there will be significant earthworks required in most locations along the line of proposed Project to achieve the required ground levels for the proposed EWL;
- It is expected that an important element of the EWL will be landscaping;
- The landscaping will be required to fulfil several roles, such as mitigation for landscape and ecology and other values lost through the development of the EWL, integration of the Project into the surrounding environment, beautification of what will generally be an engineered environment once the EWL is completed;
- The landscape will include existing and proposed trees. It is anticipated that detailed landscape plans will be produced to show what is proposed and how the landscape will look once the Project is finished. With forward planning, some existing trees could be retained and incorporated into the overall landscape design. Existing mature and semi-mature trees may help to provide scale, size and consistency to the overall landscape design;
- There is an opportunity to transplant some desirable trees away from areas of conflict and into areas where they may complement the overall landscape theme; and
- The feasibility and viability of tree transplanting and the methodology that is to be used will need to be confirmed as part of specific Project requirements. While some trees may be suitable for transplanting, any such proposal would need be discussed further as the Project develops and the areas of conflict between construction and trees can be more precisely anticipated.

3 Conclusions and Recommendations

3.1 Tree removal

It is anticipated that the EWL will involve the removal of a large numbers of trees, including some trees that are significant individuals.

The majority of the trees that will need to be removed are small trees and mass plantings or continuous lines along boundaries that provide screening to adjacent industrial sites and the motorway corridor.

The majority of the trees to be removed are located within the existing local road network and within Council Parks and Reserves. This will trigger the need for consultation with the relevant asset managers. Many of these trees are specimen trees that have developed to a size and/or are in a location where their loss will have noticeable adverse effects on public amenity values.

Some trees are located within private land where sites meet the definition of an urban environment so no tree protection applies.

3.2 Tree Management Protocol

As the Project progresses, it is expected that details on the protection and/or transplantation of trees within the Project area will be refined with input from Council's Arborist and the Project Arborist. Trees that are proposed to be retained and growing in close proximity to the proposed works may be required to be protected in a manner that ensures that potential adverse effects are avoided and/or minimised. As such, the works should be carried out in accordance with tree protection methodologies suitable for the Project.

For each portion of the Project, a Tree Management Plan should be compiled by the Project Arborist to detail all relevant aspects of the Project relating to trees within the Project area. The Tree Management Plan is to be compiled with input from the Project engineer, Council's arborist and other relevant members of the Project team. The Tree Management Plan for each portion of the Project should include: details of the trees affected and the works affecting them, specific tree protection methodologies, tree transplant feasibility (where applicable), tree removal and replacement planting.

Generally, the Tree Protection Methodology would include the following:

- A suitably qualified arborist employed by the Project to direct tree protection measures and monitor and supervise works within the dripline of the trees to be retained for the duration of the works;
- Prior to works commencing on any stage of the Project, there should be a pre-commencement meeting on-site to discuss the proposed work and confirm works methodologies;
- Site compounds and areas for access, stockpiling materials and storing machinery are to be confirmed and should avoid the dripline area of trees, where possible. Measures to avoid soil excavation, modification and compaction should include emplacement of materials such as geotextile fabric, coarse metal aggregates and/or wood-chip mulch on existing ground level to prevent compaction of top soil where any land within the dripline of trees is to be used;
- The site compounds should be confirmed with the appointed arborist prior to commencement of the works on each site. The appointed arborist will at this stage confirm tree protection and protective fencing requirements, tree transplanting methodologies and tree relocation and storage areas;
- Where appropriate, protective fencing is to be erected and positioned between the line of works and all permeable areas within the dripline of protected trees so as to restrict access to / storage in such areas. The protective fencing is to be erected prior to any works occurring in close proximity to trees to be retained.

- All excavation machinery is to operate from outside the dripline of trees unless the machinery can operate from and remain fully on top of an existing impermeable hard surface or temporary surface, such as track-mats emplaced for this purpose.

Treatment of tree roots associated with the EWL construction excavation works is to be undertaken in the following manner:

- Where possible, exposed tree roots are to be retained and protected from damage and from drying-out by a covering of hessian (or accepted equivalent) that is to be kept damp until the excavated area can be backfilled;
- Tree roots that require removal will be cleanly cut back to the edge of excavations with a sharp implement such as a handsaw or a pair of secateurs. All root pruning that is required will be undertaken by the appointed arborist;
- No washing of equipment or machinery should be undertaken within the dripline or within seepage range of any tree that is to be retained. Special attention should be paid to concrete products and petrol/diesel operated machinery so as to not contaminate the soil within the dripline of any protected tree;
- Removal of trees within the works site areas should be mitigated by replacement planting of quality trees in suitable locations in accordance with the approved Landscape Plan. The final landscape plans should demonstrate a level of tree planting commensurate with the scale and number of trees that are required to be removed, based on the Tree Replacement Protocol; and
- Any tree transplanting, pruning or removal works required should be carried out by Council-approved arborists in accordance with correct arboricultural practices. The appointed arborist should complete tree transplant feasibility studies and confirm the viability of transplantation operations with the Project engineer, in accordance with the Tree Transplant Protocol.

3.2.1 Tree Replacement Protocol

Planting of suitable tree species is proposed to be undertaken on completion of the works in distinct sections of the EWL Project to compensate for the removal of the trees within and adjacent to the site.

The arborist appointed to oversee the Project will record the species and size of all trees/plants that are required to be removed. Where the trees are on road reserve or public reserve land, these details will be provided to Council's Arboriculture and Landscape Advisor: Central Area. The recorded numbers and species should form the basis of the replacement planting scheme.

As the Project proceeds, any additional approved tree removal will be recorded and the updated records sent to Council's Arborist.

The location, species selection and tree grades for the replacement planting scheme should be undertaken to the satisfaction of Council's Arboriculture and Landscape Advisor: Central Area. The replacement planting should aim to establish trees with a size, species and growing environment that is commensurate with the existing trees. All tree planting plans for trees removed from Council properties and local roads will assume planting on a 'one-for-one' basis for replacement of small and medium sized street trees. Where larger trees are required to be removed, larger grade trees, transplants, or additional numbers of trees should be planted, where possible. The replacement trees should be a minimum of 150 litre planter bags, or equivalent. Trees should be pre-ordered or contract-grown where possible to ensure the availability of correct species, size and numbers and consistent quality trees for mass planting situations.

The planting should be implemented within the planting season immediately following the completion of the works in distinct sections of the EWL Project.

The replacement trees should be protected by tree protection fencing for the duration of all works on site that occurs after the planting.

The planted trees should be maintained in accordance with correct arboricultural practices, including watering, mulching, weeding and replacement of trees that fail to establish for two years following planting.

3.2.2 Tree Transplant Protocol

As mentioned above, the Tree Management Plan for each portion of the Project should include details about tree transplant feasibility (where applicable). It is recommended that prior to commencement of any site works in distinct sections of the Project the requiring authority should provide to Council a detailed report on the feasibility of transplanting trees within the site.

It is recommended that the tree transplant feasibility report be compiled by a suitable qualified and experienced arborist and should include comments relating to, but not be limited to, the following:

- The existing health and structure of the trees;
- The relocation of trees is at a suitable time of the year;
- Soil type and profile and its influence on obtaining a viable rootball for tree transplanting;
- Location of underground services in close proximity to the trees;
- Access limitations or requirements for the required transplant machinery and vehicles;
- Whether off-site storage or direct transplant methodologies are available;
- Whether new locations suitable for the transplant candidates are available;
- Confirming methodologies for transplantation and associated works;
- Aftercare maintenance requirements following the transplant operation; and
- Cost/benefit analysis.

Should the transplantation of specific trees prove to be unviable, replacement planting with large grade trees in accordance with the Tree Replacement Protocol should be undertaken.

Should the transplantation of trees prove to be viable, the transplant feasibility report should include a detailed transplant and aftercare maintenance methodology. The transplant operation should be carried out according to the methodology provided by arboricultural contractors that are suitably equipped and experienced. The transplanted trees should be maintained for the duration stipulated in the methodology statement.

The transplanted trees should be protected by tree protection fencing for the duration of all works on site that occurs after the transplanting operation.

Appendix A

List of Tree Species

FID	Shape	OBJECTID	Tree_Species	Tree_Healt	Tree_Struc	Tree_Heigh	Tree_Girth	Tree_Canop	Comments	Protection
0	Point	5	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	1200	12	Typical multiple leaders, behind Mitre ten and adjacent to power pylon, one of two trees adjacent to each other, Neilson Street motorway off ramp.	Motorway Designation
1	Point	6	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	1200	12	Typical multiple leaders x7, second of two trees adjacent to each other, Neilson Street motorway off ramp.	Motorway Designation
2	Point	7	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	900	11	Typical multiple leaders with no access to tree, located behind building and Neilson Street motorway off ramp.	Motorway Designation
3	Point	8	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	900	12	Typical multiple leaders. No access to tree, located behind building and Neilson Street motorway off ramp.	Motorway Designation
4	Point	9	Karo (*Pittosporum crassifolium*), Coprosma (*Coprosma* sp.), Puka (*Meryta sinclairii*) plantings	Good	Fair	1	0	3	Mass planting hedge/screen between building and carpak and Neilson Street motorway off ramp.	Private. Not protected by size
5	Point	10	Redwood (*Sequoia sempervirens*)	Good	Fair	8	990	7	3 trunks adjacent to power pylon at the corner of Glouster Park road and Neilson Street, 3m between pylon and trunk.crown raised 2.5mh epicormic regrowth to base.	Private
6	Point	11	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	4	0	3	Planting with Karo trees to the base, on Glouster Park Road.	Private. Not protected by size
7	Point	12	Puka (*Meryta sinclairii*)	Good	Good	3	100	3	Managed tree on entrance to site, on Glouster Park Road.	Street
8	Point	13	Ash (*Fraxinus* sp.)	Good	Good	3	60	2	Newly planted specimen tree, off Glouster Park Road.	Private. Not protected by size
9	Point	14	Ash (*Fraxinus* sp.)	Good	Good	3	20	2	New planted specimen tree off Glouster Park Road.	Private. Not protected by size
10	Point	15	Hibiscus (*Hibiscus* sp.) & Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	3	30	1	2 street trees located by power pole within the road reserve on Glouster Park Road.	Street
11	Point	16	Ash (*Fraxinus* sp.)	Good	Good	3	50	2	Newly planted specimen tree off Glouster Park Road.	Private. Not protected by size
12	Point	17	Ash (*Fraxinus* sp.)	Good	Good	3	50	1	Newly planted specimen tree off Glouster Park Road.	Private. Not protected by size
13	Point	18	Ash (*Fraxinus* sp.)	Good	Good	3	50	1	Newly planted specimen tree off Glouster Park Road.	Private. Not protected by size
14	Point	19	Grisellinia (*Grisellinia* sp.) hedge- no trees	Good	Good	0	0	0	Hedge.	Street
15	Point	20	Myoporum (*Myoporum* sp.)	Good	Good	4	300	6	Typical specimen located adjacent to on ramp at the southern end of Glouster Park Road in Glouster Park.	Reserve
16	Point	21	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	600	3	Multiple leaders, upright form, located in line of the myoporums along the boundary of the Neilson Street On Ramp in Glouster Park.	Reserve
17	Point	22	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	1000	8	Maturing tree, located in line of the myoporums along the boundary of the Neilson Street On Ramp in Glouster Park.	Reserve
18	Point	23	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	150	3	Multiple leaders, upright form, located in line of the myoporums along the boundary of the Neilson Street On Ramp in Glouster Park.	Reserve
19	Point	24	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	700	4	Twin leader nice uptight form, located in line of the myoporums along the boundary of the Neilson Street On Ramp in Glouster Park.	Reserve
20	Point	25	Pohutukawa (*Metrosideros* sp.) and Myoporum (*Myoporum* sp.)	Good	Fair	6	1200	7	Typical Pohutukawa *(Metrosideros),* located in line of the myoporums along the boundary of the Neilson Street On Ramp in Glouster Park.	Reserve
21	Point	26	Kohuhu (*Pittosporum* sp.) and Myoporum (*Myoporum* sp.) x2	Fair	Poor	4	100	2	Planting of three trees in road reserve below retaining wall of private property along Onehunga Harbour Road.	Street
22	Point	27	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	800	5	Multiple leaders, located in road reserve below retaining wall of private property along Onehunga Harbour Road.	Street
23	Point	28	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	1300	8	Multiple leaders, located in road reserve between fence and footpath along Onehunga Harbour Road.	Street
24	Point	29	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	1000	8	Multiple leaders, located in road reserve between fence and footpath along Onehunga Harbour Road.	Street
25	Point	30	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	300	6	Multiple leaders, located in road reserve between fence and footpath along Onehunga Harbour Road.	Street
26	Point	31	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	650	8	Multiple leaders, located in road reserve along Onehunga Harbour Road.	Street
27	Point	32	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	750	7	Multiple leaders, located in road reserve along Onehunga Mall Road.	Street
28	Point	33	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	7	350	6	Flat sided off boundary, outside vacant lot along Onehunga Mall Road.	Street
29	Point	34	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	6	300	4	Flat sided off boundary, crown raised 2m high along Onehunga Mall Road.	Street
30	Point	35	Titoki (*Alectryon excelsus* subsp. *excelsus*) and karo (*Pittosporum crassifolium*)	Good	Poor	5	10	2	Flat sided off building, crown raised 2m high along Onehunga Mall Road.	Street
31	Point	36	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	6	300	5	Open canopy located within the road reserve has been crown raised 2mh along Onehunga Mall Road at the front of Glouster Park.	Street
32	Point	37	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	5	250	3	Located in planter within footpath, typical of the species crown raised 2mh along Onehunga Mall Road at the front of Glouster Park, suppressed by Park trees.	Street
33	Point	38	Karo (*Pittosporum crassifolium*) & Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	5	200	3	Planted within road reserve at entrance to Gloster Park, adjacent to the concrete block power transformer.	Street
34	Point	39	Titoki (*Alectryon excelsus* subsp. *excelsus)*	Good	Fair	6	300	7	Located within the road reserve in raised timber planter along Onehunga Mall Road.	Street
35	Point	40	Queen palm (*Syagrus romanzoffiana*) x3	Good	Good	6	300	5	Located in raised tiled garden at the front of the building along Onehunga Mall Road.	Private
36	Point	41	Pohutukawa (*Metrosideros* sp.) x2	Good	Poor	6	1400	8	2x Pohutukawa (*Metrosideros*) trees adjacent to each other flat sided off Neilson Street located in the north east corner of Neilson Street and Onehunga Mall.	Street
37	Point	42	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Good	4	10	2	Young street tree located between the road and footpath along Onehunga Mall Road.	Street
38	Point	43	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Good	6	300	7	Flat sided off entrance to site, adjacent to power pole along Onehunga Mall Road.	Street
39	Point	44	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Good	5	100	4	Young street tree along Onehunga Mall Road.	Street
40	Point	45	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	6	300	9	Leans to the north, prevailing wind, adjacent to power pole along Onehunga Mall Road.	Street
41	Point	46	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Good	6	300	7	More growth to the north side of tree canopy, along Onehunga Mall Road.	Street
42	Point	47	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	400	7	Flatsided off Galway Street, crown raised, adjacent to street light.	Street
43	Point	48	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	450	8	Crown raised over Galway Street, adjacent to street light.	Street

44	Point	49	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	500	7	Crown raised over Galway Street, adjacent to street light.	Street
45	Point	50	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	600	7	Crown raised over Galway Street, adjacent to vehicle entrance to site.	Street
46	Point	51	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	600	7	Crown raised over Galway Street.	Street
47	Point	52	Pohutukawa (*Metrosideros* sp.)		Fair	5	200	4	Located on island in Galway Street, southern tree of the two trees.	Street
48	Point	53	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	350	5	Located on an island in Galway Street, northern of the two trees.	Street
49	Point	54	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	500	7	Located in footpath along Galway Street and the boundary fence has been set back and around this tree.	Street
50	Point	55	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	450	8	Located in footpath along Galway Streetand the boundary fence has been set back and around this tree.	Street
51	Point	56	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	500	8	Located in the footpath along Galaway Street, adjacent light pole.	Street
52	Point	57	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	550	7	Located in the footpath area along Galaway Street, adjacent to the drive entrance to the site, tree has been flatsided to the edge of the gate.	Street
53	Point	58	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	550	6	Located in the footpath area along Galaway Street.	Street
54	Point	59	Karaka (*Corynocarpus laevigatus*)	Fair	Fair	2	50	1	Located in the footpath area along Galaway Street, dead top.	Street
55	Point	60	Karaka (*Corynocarpus laevigatus*)	Good	Fair	5	20	3	Located in the footpath area along Galaway Street, adjacent to power and light pole. North of area of works.	Street
56	Point	61	Karaka (*Corynocarpus laevigatus*)	Good	Good	6	200	5	Located in the footpath area along Galaway Street, adjacent to power and light pole.	Street
57	Point	62	Puriri (*Vitex lucens*)	Good	Good	3	10	1	Young street tree located in the footpath area along Galaway Street.	Street
58	Point	63	Puka (*Meryta sinclairii*)	Good	Fair	4	20	3	Planting located in private carpark on the corner of Galoway and Neilson Street.	Private
59	Point	64	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	500	7	Located in Road Reserve, flat sided to provide a clerance to Onehunga Harbour Road.	Street
60	Point	65	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	600	8	Located in Road Reserve, flat sided to provide a clerance to Onehunga Harbour Road.	Street
61	Point	66	Karo (*Pittosporum crassifolium*)	Good	Fair	3	80	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
62	Point	67	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
63	Point	68	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway, by seat.	Reserve
64	Point	69	Pohutukawa (*Metrosideros* sp.)	Good	Good	2	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
65	Point	70	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located to the north of the path along the Manukau Foreshore West Walkway.	Reserve
66	Point	71	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
67	Point	72	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway by seat, damaged canopy.	Reserve
68	Point	73	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
69	Point	74	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	3	Located to the north of the path along the Manukau Foreshore West Walkway, opposite cycle sign.	Reserve
70	Point	75	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
71	Point	76	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Three young trees located to the north of the path along the Manukau Foreshore West Walkway, opposite cycle sign.	Reserve
72	Point	77	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
73	Point	78	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
74	Point	79	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
75	Point	80	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
76	Point	81	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	3	Located between path and high tide along the Manukau Foreshore West Walkway.	Reserve
77	Point	84	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	500	5	Multiple leaders x10, located north of scout hall on Onehunga Harbour Road.	Street
78	Point	85	Karo (*Pittosporum crassifolium*) x3	Good	Good	3	10	2	3x karo trees by power pylon and guard rail for the on ramp to South Eastern motorway .	Street
79	Point	86	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	600	9	Located in the southern group to the east of Orpheus Drive, Co Dominate to base pruned to clear power lines, macrocarpa to the east, canopy conflict between the two trees.	Designation
80	Point	87	Macrocarpa (*Cupressus macrocarpa*)	Good	Fair	12	1200	12	Surrounded by Pohutukawa (*Metrosideros*) typical old Macrocarpa.	Designation
81	Point	88	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	1100	15	Suppressed by Macrocarpa growth and leaning to the north, tag 3184 sptc.	Designation
82	Point	89	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	650	9	Located at the northern end of the southern group to the east of Orpheus Drive, Co-Dominate stems pruned to clear lower lines and Macrocarpa.	Designation
83	Point	90	Holm oak (*Quercus ilex*)	Good	Good	12	3000	25	Three trunks to base, upright form for the western canopy due to power lines, weeping from for the eastern canopy.	Designation
84	Point	91	Pohutukawa (*Metrosideros* sp.)	Good	Fair	9	600	9	Pruned for line clearance.	Designation
85	Point	92	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	900	8	Pruned to clear lines & lost several lower limbs.	Designation
86	Point	93	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	900	8	Pruned to clear service lines.	Designation
87	Point	94	Pohutukawa (*Metrosideros* sp.)	Good	Fair	9	900	10	Pruned to clear power lines.	Designation
88	Point	95	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	900	7	Northern tree of this group, located closest to the motorway	Designation
89	Point	96	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	800	10	Located towards the motorway and storm water ponds.	Designation
90	Point	97	Karo (Pittosporum crassifolium), Coprosma (Coprosma sp.), Pohutukawa (Metrosideros sp.), Cabbage tree (Cordyline australis)	Good	Good	2	0	0	Mixed planting from the specimen trees north towards the motorway.	Designation
91	Point	98	Karo (Pittosporum crassifolium), Coprosma (Coprosma sp.), Pohutukawa (Metrosideros sp.), Cabbage tree (Cordyline australis)	Good	Good	2	0	0	Mixed planting from the specimen trees east towards the S/W ponds and motorway.	Reserve
92	Point	99	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	2500	12	Older tree at the edge of existing road and with a street light between tree and road, crown raised over road.	Reserve
93	Point	100	Karo (Pittosporum crassifolium), Coprosma (Coprosma sp.), Cabbage tree (Cordyline australis)Mass planting	Good	Good	4	0	0	Mass planting screen between park and motorway off ramp opposite entrance to the port.	Reserve
94	Point	101	Pohutukawa (*Metrosideros* sp.) x6	Good	Good	2	0	2	Six smaller trees	Reserve
95	Point	102	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	1100	6	Flat sided off the Port boundary fence and Onehunga Harbour Road.	Street
96	Point	103	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	700	6	Flat sided off the Port boundary fence and Onehunga Harbour Road.	Street
97	Point	104	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	200	5	Flat sided off the Port boundary fence and Onehunga Harbour Road.	Street

98	Point	105	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	700	7	Flat sided off the Port boundary fence and Onehunga Harbour Road.	Street
99	Point	106	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	800	6	Flat sided off the Port boundary fence and Onehunga Harbour Road.	Street
100	Point	107	Karo (*Pittosporum crassifolium*) x 3 trees	Good	Fair	5	200	4	Three x Karo trees adjacent to Port boundary fence and Onehunga Harbour Road.	Street
101	Point	108	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	5	Located to the north of Onehunga Harbour Road in a grass area that they have been crown raised over including the path at 2m high.	Street
102	Point	109	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	700	7	Located to the north of Onehunga Harbour Road in a grass area that they have been crown raised over including the path at 2m high.	Street
103	Point	110	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	6	Located to the north of Onehunga Harbour Road, tree ring needs replacing.	Street
104	Point	111	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	5	Located to the north of Onehunga Harbour Road in a grass area adjacent the path, has been crown raised over path at 2m high.	Street
105	Point	112	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	100	3	Located to the south of Onehunga Harbour Road, covered with a creeper.	Street
106	Point	113	Pohutukawa (*Metrosideros* sp.) x2	Good	Fair	3	300	2	Young trees located between the old and new bridges.	Street
107	Point	114	Pohutukawa (*Metrosideros* sp.) x2	Good	Fair	2	10	2	New plantings, young trees, below spiral access path to footbridge.	Street
108	Point	115	Pohutukawa (*Metrosideros* sp.) x2	Good	Fair	4	20	3	Two young trees developing, close to motorway.	Designation
109	Point	116	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	1700	12	Pruned off adjacent power pylon and motel to provide a clearance.	Reserve
110	Point	117	Pohutukawa (*Metrosideros* sp.), Karo (Pittosporum crassifolium), Cabbage tree (Cordyline australis).	Good	Good	4	0	0	Private located at the front of the motel	Reserve
111	Point	118	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	7	Crown raised over path 2m high, end of Hugo Johnston Drive.	Reserve
112	Point	119	Karo (Pittosporum crassifolium), Coprosma (Coprosma sp.), Pohutukawa (Metrosideros sp.), lemonwood (Pittosporum eugenoides)	Good	Poor	6	0	0	Mass planting along walkway	Reserve
113	Point	120	Pohutukawa (*Metrosideros* sp.) x2	Good	Fair	6	500	5	Multiple leaders to base set outside power plant fence where site opens up to the tidal and mangrove area to the northof the rail loop.	Reserve
114	Point	121	Wattles (*Paraserianthes lophantha*)	Good	Fair	6	0	0	Mass grouping of weeds species between power plant and mangroves.	Reserve
115	Point	122	Cabbage tree (*Cordyline australis*)	Good	Good	5	100	3	Located in a wasteland.	Reserve
116	Point	123	Wattle (*Paraserianthes lophantha*) and gums (*Eucalyptus* sp.)	Fair	Poor	9	300	12	Mixed planting of brush wattle and gum trees.	Reserve
117	Point	124	Mangroves (*Avicennia marina* subsp. *australasica*)	Good	Good	4	0	4	Below high tide and proposed bridge.	Reserve
118	Point	125	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	600	7	Sea side of cycle track, back of container port.	Reserve
119	Point	126	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	600	7	Sea side of walking track.	Reserve
120	Point	127	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*), mass planting		Poor	9	0	0	Container port side of cycle track.	Reserve
121	Point	128	Gum (*Eucalyptus* sp.)	Fair	Fair	12	500	14	At the point of separation of the cycle path and footpath.	Reserve
122	Point	129	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	500	8	Located on the coast edge.	Reserve
123	Point	130	Pohutukawa (*Metrosideros* sp.) x2	Good	Good	4	10	3	Opposite seat, land side of path.	Reserve
124	Point	131	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	3	Opposite cycle sign, land side of path.	Reserve
125	Point	132	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	10	2	Land side of path	Reserve
126	Point	133	Pohutukawa (*Metrosideros* sp.) x3	Good	Good	3	10	3	Line of three small pohutukawa opposite the park seat, land side of the path.	Reserve
127	Point	134	Pohutukawa (*Metrosideros* sp.) x2	Good	Good	3	10	3	Two small pohutukawa, land side of the path.	Reserve
128	Point	135	Pohutukawa (*Metrosideros* sp.) x3	Good	Good	3	10	3	Line of three small pohutukawa, land side of the path.	Reserve
129	Point	136	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	10	3	Pohutukawa tree, seaside of the path.	Reserve
130	Point	137	Pohutukawa (*Metrosideros* sp.) x1 Karo (*Pittosporum crassifolium*) x3	Good	Good	3	10	2	Land side of the path.	Reserve
131	Point	138	Cabbage tree (*Cordyline australis*)	Good	Good	5	10	2	Start of a mixed planting/group behind the units under development.	Reserve
132	Point	139	Pohutukawa (*Metrosideros* sp.) x4	Good	Fair	3	1000	8	Located at the end of Alfred Street between the path into the cemetery access road outside the stone wall of the cemetery.	Reserve
133	Point	140	Silky oak (*Grevillea robusta*)	Good	Fair	8	310	6	Located within the inside stone wall of the cemetery.	Reserve
134	Point	141	Oak (*Quercus* sp.)	Good	Fair	8	400	11	Located within the cemetery.	Reserve
135	Point	142	Kauri (*Agathis australis*)	Good	Good	7	150	2	Located within the cemetery, suppressed by adjacent Eucalyptus.	Reserve
136	Point	143	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	9	450	10	Located within the cemetery, canopy extends well beyond the headstones.	Reserve
137	Point	144	Pohutukawa (*Metrosideros* sp.) x14	Good	Fair	7	1000	8	Row of 14 semi mature pohutukawa located along the stone wall between the carpark and the sea, south of the cemetery and road.	Reserve
138	Point	145	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	13	600	12	Located within the cemetery	Reserve
139	Point	146	Bottlebrush (*Callistemon rigidus*)	Fair	Fair	5	20	5	Located within the cemetery between second Eucalyptus and Magnolia trees.	Reserve
140	Point	147	Magnolia (*Magnolia* sp.)	Good	Good	7	400	8	Located within the cemetery between the bottlebrush trees.	Reserve
141	Point	148	Bottlebrush (*Callistemon rigidus*)	Fair	Fair	5	20	5	Located within the cemetery between second Eucalyptus and Magnolia.	Reserve
142	Point	149	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	8	300	6	Located within the cemetery, smaller upright tree, canopy crown raised over headstones.	Reserve
143	Point	150	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	10	600	8	Located within the cemetery, upright tree, canopy crown raised over headstones.	Reserve
144	Point	151	Albizia (*Albizia* sp.)	Good	Fair	7	600	8	Located within cemetery, small upright tree, canopy conflict with adjacent gum tree, end tree of this group.	Reserve
145	Point	152	Pohutukawa (*Metrosideros* sp.) x4	Good	Fair	4	300	8	Located between two groups of older trees, located south of the cemetery between the road and the stone wall.	Reserve
146	Point	153	Pohutukawa (*Metrosideros* sp.) x7	Good	Fair	6	800	8	Located south of the cemetery between the road and the stone wall.	Reserve
147	Point	154	Pohutukawa (*Metrosideros* sp.) x6	Good	Fair	4	300	4	Located south of the cemetery between the road and the stone wall.	Reserve
148	Point	155	Pohutukawa (*Metrosideros* sp.) x12	Good	Fair	10	1000	8	Line of mature pohutukawa, located east of the headstones in the cemetery in a north south line, and to the north of the road and the stone wall.	Reserve
149	Point	156	Pohutukawa (*Metrosideros* sp.) x22	Good	Fair	6	400	5	Line of young pohutukawa trees located along the east boundary of the cemetery. Adjacent to Waikaraka Park boundary, at the end of Captain Springs Road	Reserve
150	Point	157	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	4	Small pohutukawa, land side of the path.	Reserve
151	Point	158	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	4	Small pohutukawa, land side of the path.	Reserve

152	Point	159	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	4	Small pohutukawa, land side of the path.	Reserve
153	Point	160	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	400	6	Small pohutukawa, land side of the path.	Reserve
154	Point	161	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*)	Good	Fair	7	300	6	Norfolk Island Hibiscus, land side of the path.	Reserve
155	Point	162	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	4	Small pohutukawa, land side of the path.	Reserve
156	Point	163	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	4	Small pohutukawa, land side of the path.	Reserve
157	Point	164	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	4	Small pohutukawa, land side of the path.	Reserve
158	Point	165	Magnolia (*Magnolia* sp.)		Good	4	150	3	Street tree.	Street
159	Point	166	Magnolia (*Magnolia* sp.)		Good	4	150	3	Street tree.	Street
160	Point	167	Magnolia (*Magnolia* sp.)		Good	4	150	3	Street tree.	Street
161	Point	168	Magnolia (*Magnolia* sp.)		Good	4	150	4	Street tree.	Street
162	Point	169	Zelkova (*Zelkova* sp.)	Good	Fair	10	400	11	Reserve tree, 3 stumps between tree and road, northern edge of reserve.	Reserve
163	Point	170	Zelkova (*Zelkova* sp.)	Good	Fair	9	400	9	Reserve tree, southern boundary of reserve .	Reserve
164	Point	171	Zelkova (*Zelkova* sp.)	Good	Fair	8	400	8	Road reserve tree.	Reserve
165	Point	172	Oak (*Quercus* sp.)	Good	Fair	10	400	11	Reserve tree.	Reserve
166	Point	173	Zelkova (*Zelkova* sp.)	Good	Fair	10	400	11	Reserve tree.	Reserve
167	Point	174	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	8	300	7	Reserve tree.	Reserve
168	Point	175	Not Identified	Good	Fair	7	300	7	Park tree	Reserve
169	Point	176	Pohutukawa (*Metrosideros* sp.) x6	Good	Good	4	100	3	Road reserve.	Reserve
170	Point	177	Zelkova (*Zelkova* sp.)	Good	Fair	10	400	11	Park tree	Reserve
171	Point	178	Zelkova (*Zelkova* sp.)	Good	Fair	9	400	11	Reserve tree.	Reserve
172	Point	179	Devil's Hand Tree (*Chiranthodendron pentadactylon*)	Good	Fair	7	300	7	Road reserve tree	Street
173	Point	180	Devil's Hand Tree (*Chiranthodendron pentadactylon*)	Good	Fair	7	300	7	Park tree	Reserve
174	Point	181	Devil's Hand Tree (*Chiranthodendron pentadactylon*)	Good	Fair	7	300	7	Park tree	Reserve
175	Point	182	Devil's Hand Tree (*Chiranthodendron pentadactylon*)	Good	Fair	7	300	7	Park tree	Reserve
176	Point	183	Privet (Ligustrum lucidum)Myoporum (Myoporum sp.)Norfolk Island Hibiscus (Lagunaria patersonia subsp. patersonia) Cedar x 3 (Cedrus sp.)	Fair	Fair	0	0	0	Private located on boundary	Reserve
177	Point	184	Magnolia (*Magnolia* sp.)	Good	Poor	4	300	4	Street tree pruned to clear lines	Street
178	Point	185	Magnolia (*Magnolia* sp.)	Good	Poor	3	300	4	Street tree pruned to clear lines	Street
179	Point	186	Magnolia (*Magnolia* sp.)	Good	Poor	4	200	4	Street tree pruned to clear lines	Street
180	Point	187	Magnolia (*Magnolia* sp.)	Good	Poor	5	300	4	Street tree pruned to clear lines	Street
181	Point	188	Magnolia (*Magnolia* sp.)	Good	Poor	4	200	4	Street tree pruned to clear lines	Street
182	Point	189	Privet (*Ligustrum lucidum*) x3, Agonis (*Agonis flexuosa*)	Good	Poor	3	0	2	Located in private garden	Private
183	Point	190	Karo (Pittosporum crassifolium), Lemonwood (Pittosporum eugenoides x2, Karaka (Corynocarpus laevigatus)	Good	Poor	4	0	4	Located on private boundary	Private
184	Point	191	Myoporum (*Myoporum* sp.) x6	Good	Fair	6	300	4	Street tree road reserve	Street
185	Point	192	Pohutukawa (*Metrosideros* sp.) x13	Good	Fair	7	300	6	Street tree road reserve	Street
186	Point	193	Myoporum (*Myoporum* sp.) x20	Good	Fair	6	300	4	Street tree road reserve	Street
187	Point	194	Pohutukawa (*Metrosideros* sp.) x2	Good	Fair	8	400	5	Street tree road reserve	Street
188	Point	195	Magnolia (*Magnolia* sp.)	Good	Poor	4	200	4	Street tree pruned to clear lines	Street
189	Point	196	Magnolia (*Magnolia* sp.)	Good	Poor	4	200	4	Street tree pruned to clear lines	Street
190	Point	197	Magnolia (*Magnolia* sp.)	Good	Poor	5	300	5	Street tree pruned to clear lines	Street
191	Point	198	Magnolia (*Magnolia* sp.)	Good	Poor	6	300	6	Street tree pruned to clear lines	Street
192	Point	199	Magnolia (*Magnolia* sp.)	Good	Poor	5	200	4	Street tree pruned to clear lines	Street
193	Point	200	Magnolia (*Magnolia* sp.)	Good	Poor	6	200	5	Street tree pruned to clear lines	Street
194	Point	201	Magnolia (*Magnolia* sp.)	Good	Poor	7	300	6	Street tree pruned to clear lines	Street
195	Point	202	Casuarina (*Casuarina* sp.)x4	Good	Fair	8	250	5	Private trees	Private
196	Point	203	Acmena (*Syzygium smithii*) x4	Good	Fair	10	600	6	Private trees	Private
197	Point	204	Washington palm (*Washingtonia robusta*)		Good	7	350	3	Private site and planting, palm and Liquidambar located in front yard.	Private
198	Point	205	No trees			0	0	0		Private
199	Point	206	Coprosma (Coprosma sp.), Kohuhu (Pittosporum sp.)	Fair	Fair	4	0	0	Private planting.	Private
200	Point	207	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	6	200	4	Park tree	Reserve
201	Point	208	Ash (*Fraxinus* sp.)	Good	Fair	6	200	4	Park tree	Reserve
202	Point	209	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	5	100	3	Park tree	Reserve
203	Point	210	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	300	6	Motorway trees	Designation
204	Point	211	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	6	200	5	Park tree	Reserve
205	Point	212	Ash (*Fraxinus* sp.)	Good	Fair	8	300	7	Park tree	Reserve
206	Point	213	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	4	100	2	Park tree	Reserve
207	Point	214	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	4	100	2	Park tree	Reserve
208	Point	215	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	4	100	2	Park tree	Reserve
209	Point	216	Kohuhu (*Pittosporum* sp.)	Good	Fair	4	100	2	Park tree	Reserve
210	Point	217	Coprosma (*Coprosma* sp.), Karo (*Pittosporum crassifolium*)	Good	Fair	4	100	2	Motorway trees	Designation
211	Point	218	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*)	Good	Fair	6	200	5	Park tree	Reserve
212	Point	219	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	200	5	Park tree	Reserve
213	Point	220	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*)	Good	Fair	7	200	7	Park tree	Reserve
214	Point	221	Pohutukawa (*Metrosideros* sp.)	Good	Fair	6	200	7	Park tree	Reserve
215	Point	222	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*)	Good	Fair	7	200	7	Park tree	Reserve
216	Point	223	Coprosma (*Coprosma* sp.)	Good	Fair	4	100	2	Motorway trees	Designation

217	Point	224	Wattle (*Paraserianthes lophantha*) x17	Good	Fair	6	200	5	Park tree	Reserve
218	Point	225	Puriri (*Vitex lucens*)	Good	Fair	7	200	7	Park tree	Reserve
219	Point	226	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	7	200	3	Park tree	Reserve
220	Point	227	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*)	Good	Fair	7	200	7	Park tree	Reserve
221	Point	228	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	7	200	3	Park tree	Reserve
222	Point	229	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	7	200	3	Park tree	Reserve
223	Point	230	Liquid Amber (*Liquidambar styraciflua*)	Good	Fair	7	200	3	Park tree	Reserve
224	Point	231	Magnolia (*Magnolia* sp.)	Good	Fair	6	200	4	Park tree	Reserve
225	Point	232	Acmena (*Syzygium smithii*)	Good	Fair	9	300	7	Park tree	Reserve
226	Point	233	Pohutukawa (*Metrosideros* sp.) x2	Good	Fair	8	200	6	Park tree	Reserve
227	Point	234	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Good	Fair	6	200	6	Park tree	Reserve
228	Point	235	Cherry (*Prunus* sp.)	Good	Poor	4	300	6	Street tree	Street
229	Point	236	Cherry (*Prunus* sp.)	Good	Good	2	30	1	Street tree	Street
230	Point	237	Cherry (*Prunus* sp.)	Good	Poor	4	300	6	Street tree	Street
231	Point	238	Acmena (*Syzygium smithii*)	Good	Fair	4	600	7	Street tree	Street
232	Point	239	Puriri (*Vitex lucens*), Karo (*Pittosporum crassifolium*)	Good	Fair	7	400	8	Private tree	Street Private
233	Point	240	Lemonwood (*Pittosporum eugenoides*), Kohuhu (*Pittosporum* sp.)	Good	Fair	7	200	6	Private tree	Street Private
234	Point	241	Cherry (*Prunus* sp.)	Good	Poor	3	100	6	Street tree	Street
235	Point	242	Cherry (*Prunus* sp.)	Good	Poor	3	200	4	Street tree	Street
236	Point	243	Cherry (*Prunus* sp.)	Good	Poor	3	200	4	Street tree	Street
237	Point	244	Albizia (*Albizia* sp.)	Good	Poor	6	200	8	Street tree	Street
238	Point	245	Cherry (*Prunus* sp.)	Good	Poor	3	200	7	Street tree	Street
239	Point	246	Cherry (*Prunus* sp.)	Good	Poor	5	300	4	Street tree	Street
240	Point	247	Cherry (*Prunus* sp.)	Good	Poor	3	200	4	Street tree	Street
241	Point	248	Cherry (*Prunus* sp.)	Good	Good	2	100	2	Street tree	Street
242	Point	249	Cherry (*Prunus* sp.)	Good	Fair	3	200	4	Street tree	Street
243	Point	250	Bottlebrush (*Callistemon rigidus*)	Good	Fair	4	200	5	Street tree pruned to clear powerlines.	Street
244	Point	251	Bottlebrush (*Callistemon rigidus*)	Good	Fair	3	200	5	Sreet tree pruned to clear powerlines.	Street
245	Point	252	Bottlebrush (*Callistemon rigidus*)	Good	Fair	5	200	6	Street tree pruned to clear powerlines.	Street
246	Point	253	Bottlebrush (*Callistemon rigidus*)	Good	Fair	4	200	5	Street tree pruned to clear powerlines.	Street
247	Point	254	Alder (*Alnus glutinosa*) x3	Good	Poor	3	200	5	Street tree topped to clear powerlines.	Street
248	Point	255	Agonis (*Agonis flexuosa*)	Good	Fair	7	600	8	Street tree pruned to clear powerlines.	Street
249	Point	256	Pohutukawa (*Metrosideros* sp.)	Good	Good	3	200	3	Street tree	Street
250	Point	257	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	200	5	Street tree	Street
251	Point	258	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	200	4	Street tree	Street
252	Point	259	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	200	4	Street tree	Street
253	Point	260	Rata (*Metrosideros robusta*)	Good	Good	5	200	4	Street tree	Street
254	Point	261	Pohutukawa (*Metrosideros* sp.)	Good	Good	6	200	6	Street tree	Street
255	Point	262	Pohutukawa (*Metrosideros* sp.)	Good	Good	7	400	8	Street tree	Street
256	Point	263	Pohutukawa (*Metrosideros* sp.)	Good	Good	7	400	8	Street tree	Street
257	Point	264	Olearia (*Olearia* sp.) x2	Good	Good	6	200	4	Street tree	Street
258	Point	265	Olearia (*Olearia* sp.)	Good	Good	5	200	4	Street tree	Street
259	Point	266	Olearia (*Olearia* sp.)	Good	Good	5	200	4	Street tree	Street
260	Point	267	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	200	4	Street tree	Street
261	Point	268	Titoki (*Alectryon excelsus* subsp. *excelsus*)	Fair	Poor	5	200	6	Street tree in decline	Street
262	Point	269	Karo (*Pittosporum crassifolium*) x2, Coprosma (*Coprosma* sp.)	Good	Fair	5	100	4	Street tree	Street
263	Point	270	Puka (*Meryta sinclairii*)	Good	Good	3	100	3	Street tree	Street
264	Point	271	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	300	5	Street tree	Street
265	Point	272	Pohutukawa (*Metrosideros* sp.)	Good	Good	7	400	6	Street tree	Street
266	Point	273	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	200	4	Street tree	Street
267	Point	274	Pohutukawa (*Metrosideros* sp.)	Good	Good	5	200	4	Street tree	Street
268	Point	275	Kowhai (*Sophora* sp.), Coprosma (*Coprosma* sp.), Wattle (*Paraserianthes lophantha*), Kohuhu (*Pittosporum* sp.), Macrocarpa (*Cupressus macrocarpa*)	Fair	Fair	5	0	0	Street tree mass planting hedge/screen along boundary.	Street
269	Point	276	Pohutukawa (*Metrosideros* sp.) x3, Macrocarpa (*Cupressus macrocarpa*) x3	Good	Good	12	300	8	Street tree	Street
270	Point	277	Pohutukawa (*Metrosideros* sp.), Puriri (*Vitex lucens*)	Good	Fair	5	150	5	Street tree	Street
271	Point	278	Puriri (*Vitex lucens*)	Good	Fair	5	150	5	Street tree located on traffic island.	Street
272	Point	279	Karo (*Pittosporum crassifolium*)	Good	Fair	5	150	5	Street tree	Street
273	Point	280	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	450	7	Street tree	Street
274	Point	281	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	150	3	Street tree	Street
275	Point	282	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	150	4	Street tree	Street
276	Point	283	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	150	4	Street tree	Street
277	Point	284	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	150	4	Street tree	Street
278	Point	285	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	150	4	Street tree	Street
279	Point	286	Euonymus (*Euonymus* sp.)	Good	Fair	5	300	6	Street tree	Street
280	Point	287	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	150	4	Street tree	Street

281	Point	288	Euonymus (*Euonymus* sp.)	Good	Fair	5	300	6	Street tree		Street
282	Point	289	Pohutukawa (*Metrosideros* sp.)	Good	Fair	7	450	16	Street tree		Street
283	Point	290	Lemonwood (*Pittosporum eugenioides*)	Good	Fair	6	300	6	Street tree		Street
284	Point	291	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	15	600	16	Street tree		Street
285	Point	292	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Street tree		Street
286	Point	293	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Street tree		Street
287	Point	294	Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*)	Good	Fair	9	700	10	Street tree		Street
288	Point	295	Pohutukawa (*Metrosideros* sp.)	Good	Fair	8	2000	15	Street tree, quite old historical?		Reserve
289	Point	296	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
290	Point	297	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
291	Point	298	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	200	6	Park tree		Street
292	Point	299	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
293	Point	300	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
294	Point	301	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
295	Point	302	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
296	Point	303	Eucalyptus (*Eucalyptus* sp.)	Good	Fair	11	500	15	Private tree		Street
297	Point	304	Pohutukawa (*Metrosideros* sp.)	Good	Good	4	20	1	Park tree, New planting.		Street
298	Point	305	Pohutukawa (*Metrosideros* sp.)	Good	Fair	4	200	5	Park tree		Street
299	Point	306	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	6	Park tree		Street
300	Point	307	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	200	6	Park tree		Street
301	Point	308	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	200	5	Park tree		Street
302	Point	309	Macrocarpa (*Cupressus macrocarpa*)	Good	Fair	7	200	8	Park tree, Damaged canopy.		Street
303	Point	310	Pohutukawa (*Metrosideros* sp.)	Good	Fair	5	300	7	Park tree		Reserve
304	Point	311	Norfolk Island Pine (*Araucaria heterophylla*)	Good	Good	11	200	5	Park tree		Reserve
305	Point	312	Norfolk Island Pine (*Araucaria heterophylla*)	Good	Poor	6	200	5	Park tree		Reserve
306	Point	313	Karaka (*Corynocarpus laevigatus*)	Good	Fair	6	300	9	Park tree		Reserve
307	Point	314	Coprosma (*Coprosma* sp.) x2	Good	Fair	4	300	5	Park tree		Street
308	Point	315	Phoenix palm (*Phoenix canariensis*)	Good	Good	9	300	7	Park tree		Reserve
309	Point	316	Phoenix palm (*Phoenix canariensis*)	Good	Good	9	300	7	Park tree		Street
310	Point	317	Phoenix palm (*Phoenix canariensis*)	Good	Good	6	300	7	Park tree		Reserve
311	Point	318	Norfolk Island Pine (*Araucaria heterophylla*)	Good	Poor	4	200	5	Park tree		Reserve
312	Point	319	Norfolk Island Pine (*Araucaria heterophylla*)	Good	Good	6	200	10	Park tree		Reserve
313	Point	320	Karaka (Corynocarpus laevigatus), Coprosma (Coprosma sp.), Karo (Pittosporum crassifolium), Flax (Phoriumnsp.)	Good		4	0	0	Street tree garden		Street
314	Point	321	Magnolia (*Magnolia* sp.) x6	Good	Fair	5	200	6	Private trees.		Street

Appendix B

Tree Groups

ID	List of Species	Comments	Designation
A	Myoporum (*Myoporum* sp.), Cabbage tree (*Cordyline australis*), Pohutukawa (*Metrosideros* sp.), Flax (*Phormium* sp.).	Group planting between reserve and motorway. Screening element.	Reserve
B	Puriri (*Vitex lucens*), Pohutukawa (*Metrosideros* sp.), Flax (*Phormium* sp.).	Mass planting between reserve and boundary with industry	Reserve
C	Myoporum (*Myoporum* sp.), Cabbage tree (*Cordyline australis*), Pohutukawa (*Metrosideros* sp.), Flax (*Phormium* sp.).	Group planting between reserve and motorway. Screening element.	Reserve
D	Pohutukawa (*Metrosideros* sp.) x9, Cabbage tree (*Cordyline australis*) x3, Myoporum (*Myoporum* sp.) x2.	Mass planting under the old Pohutukawa.	Reserve
E	Myoporum (*Myoporum* sp.) x3, Kohuhu (*Pittosporum* sp.) x7, Pohutukawa (*Metrosideros* sp.) x3.	Mass planting of older trees.	Reserve
F	Cabbage tree (*Cordyline australis*) x1, Kohuhu (*Pittosporum* sp.) x8, Privet (*Ligustrum lucidum*) x1.	Group planting, Tatty.	Reserve
G	Karo (*Pittosporum crassifolium*) x11, Cabbage tree (*Cordyline australis*) x4, Myoporum (*Myoporum* sp.) x2, Kohuhu (*Pittosporum* sp.) x3.	Mass planting with some old Karo.	Reserve
H	Karo (*Pittosporum crassifolium*) x3, Lily pilly (*Syzygium smithii*) x2, Kohuhu variegated (*Pittosporum* sp.) x2.	Screen planting in a raised stone garden.	Private
I	Queen palm? X2, Phoenix palm (*Phoenix canariensis*) in raised wooden planter pvt.	Private palms.	Reserve
J	Wattle (*Paraserianthes lophantha*), privet (*Ligustrum lucidum*), mangroves (*Avicennia marina* subsp. *australasica*).	Waste area below sites and above high tide.	Reserve
K	Mangroves (*Avicennia marina* subsp. *australasica*).	Mass planting between walkway and harbour.	Reserve
L	Privet (*Ligustrum lucidum*), wattle (*Paraserianthes lophantha*) and small Karo (*Pittosporum crassifolium*) .	Mass planting between walkway and back of the industrial area	Reserve
M	Karo (*Pittosporum crassifolium*), Cabbage trees (*Cordyline australis*) and Flax (*Phormium* sp.).	Located between Pohutukawas and mangroves.	Reserve
N	Karo (*Pittosporum crassifolium*), Cabbage trees (*Cordyline australis*) and Flax (*Phormium* sp.) and Pohutukawa (*Metrosideros* sp.)	Mass mixed planting all less than 2m high.	Reserve
O	Flax (*Phormium* sp.), Cabbage tree (*Cordyline australis*), Coprosma (*Coprosma* sp.) and Karo (*Pittosporum crassifolium*).	Mass planting around ponds.	Reserve
P	Myoporum (*Myoporum* sp.), Cabbage trees (*Cordyline australis*), Kohuhu (*Pittosporum* sp.).	Mass planting.	Reserve
Q	Flax (*Phormium* sp.), Karo (*Pittosporum crassifolium*), Cabbage tree (*Cordyline australis*), Wattle (*Paraserianthes lophantha*), Woolly nightshade (*Solanum mauritianum*).	Mass planting along bank up to 4m high.	Reserve
R	Karo (*Pittosporum crassifolium*) x1, Kohuhu (*Pittosporum* sp.) x13, Pohutukawa (*Metrosideros* sp.) x2.	Group planting.	Reserve
S	Karo (*Pittosporum crassifolium*), Cabbage tree (*Cordyline australis*) and Pohutukawa (*Metrosideros* sp.).	Mass planting young and old present.	Reserve
T	Wattle (Paraserianthes lophantha).	Unmaintained area.	Reserve
U	Cabbage tree (*Cordyline australis*) and Wattle (*Paraserianthes lophantha*).	Old quay site rocks and mounds.	Reserve
V	Gum trees (*Eucalyptus* sp.) and Wattles (Paraserianthes lophantha).	Plantings and self sown.	Reserve
W	Mangroves (*Avicennia marina* subsp. *australasica*).	Below high tide.	Reserve

Y	Gum trees (*Eucalyptus* sp.), Wattles (*Paraserianthes lophantha*), Karo (*Pittosporum crassifolium*), Pohutukawa (*Metrosideros* sp.), Woolly nightshade (*Solanum mauritianum*) and Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*).	Plantings and self sown.	Reserve
X	Pohutukawa (*Metrosideros* sp.), Coprosma (*Coprosma* sp.), Lemonwood (*Pittosporum eugenoides*) and Karo (*Pittosporum crassifolium*).	Mass planting along the body severely pruned off the body fence.	Reserve
Z	Pohutukawa (*Metrosideros* sp.)	Mature trees located against the stone wall along the coastal margin.	Reserve
AA	Pohutukawa (*Metrosideros* sp.)	Mature trees located against the stone wall along the coastal margin.	Reserve
AB	Pohutukawa (*Metrosideros* sp.)	Mature trees located against the stone wall along the coastal margin.	Reserve
AC	Pohutukawa (*Metrosideros* sp.)	Semi mature trees located against the stone wall along the coastal margin.	Reserve
AD	Pohutukawa (*Metrosideros* sp.) x12	Mature trees located in a line going away from the coast, screening element.	Reserve
AE	Pohutukawa (*Metrosideros* sp.) x22	Semi mature trees located along the park boundary with the adjacent site, screening element.	Reserve
AF	Privet (*Ligustrum lucidum*), wattle (*Paraserianthes lophantha*) and small Karo (*Pittosporum crassifolium*).	Mass planting between walkway and back of the industrial area	Reserve
AG	Privet (*Ligustrum lucidum*), wattle (*Paraserianthes lophantha*) and small Karo (*Pittosporum crassifolium*).	Mass planting between walkway and back of the industrial area	Reserve
AH	Coprosma (*Coprosma* sp.) and Karo (*Pittosporum crassifolium*).	Mass planting between walkway and back of the industrial area	Reserve
AI	Coprosma (*Coprosma* sp.) and Karo (*Pittosporum crassifolium*).	Mass planting between walkway and back of the industrial area	Reserve
AJ	Coprosma (*Coprosma* sp.) and Karo (*Pittosporum crassifolium*).	Mass planting between walkway and back of the industrial area	Reserve
AK	Pohutukawa (*Metrosideros* sp.) x6	Street trees located at the front of reserve.	Reserve
AL	Privet (*Ligustrum lucidum*), Norfolk Island Pine (*Araucaria heterophylla*), Myoporum (*Myoporum* sp.), Camphor (*Cinnamomum camphora*), x3 Cedar (*Cedrus* sp.).	Boundary planting.	Reserve
AM	Privet (*Ligustrum lucidum*) x3, Agonis (*Agonis flexuosa*).	Private planting along boundary	Private
AN	Karo (*Pittosporum crassifolium*), Oak (*Quercus* sp.), Karaka (*Corynocarpus laevigatus*), Lemonwood (*Pittosporum eugenoides*) x2, Wattle (*Paraserianthes lophantha*).	Private planting along boundary with open area.	Private
AO	Albizia (*Albizia* sp.), Kohuhu (*Pittosporum* sp.) x4, Coprosma (*Coprosma* sp.).	Private planting along boundary.	Private
AP	Wattle (*Paraserianthes lophantha*) by planting.	Desgination trees on boundary with motorway.	Reserve
AQ	Kowhai (*Sophora* sp.), Coprosma (*Coprosma* sp.), Wattle (*Paraserianthes lophantha*), Kohuhu (*Pittosporum* sp.), Flax (*Phormium* sp.), Macrocarpa (*Cupressus macrocarpa*).	Boundary planting screen located within road reserve.	Reserve
AR	Pohutukawa (*Metrosideros* sp.) x6, Wattle (*Paraserianthes lophantha*), Puriri (*Vitex lucens*), Coprosma (*Coprosma* sp.), Karaka (*Corynocarpus laevigatus*), Macrocarpa (*Cupressus macrocarpa*) x3, Acmena (*Syzygium smithii*).		Reserve
AS	Karo (*Pittosporum crassifolium*) x4.	Group planting.	Reserve
AT	Karaka (*Corynocarpus laevigatus*), Karo (Pittosporum crassifolium), Flax (*Phormium* sp.), Coprosma (*Coprosma* sp.).	Mass planting.	Reserve

AU	Magnolia (*Magnolia* sp.)x6.	Private planting on boundary.	Private
AV	Cabbage tree (*Cordyline australis*), Myoporum (*Myoporum* sp.), Coprosma (*Coprosma* sp.), Pohutukawa (*Metrosideros* sp.), Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*), Karo (*Pittosporum crassifolium*).	Mass planting between walkway and industrial area, screening element.	Reserve
AW	Cabbage tree (*Cordyline australis*), Myoporum (*Myoporum* sp.), Coprosma (*Coprosma* sp.), Pohutukawa (*Metrosideros* sp.), Norfolk Island Hibiscus (*Lagunaria patersonia* subsp. *patersonia*), Karo (*Pittosporum crassifolium*).	Mass planting between walkway and industrial area, screening element.	Reserve
AY	Undefined	Mass planting inland between walkway and back into industrial area around inlet, screening element.	Reserve
AX	Myoporum (*Myoporum* sp.), Pohutukawa (*Metrosideros* sp.).	Mass planting between walkway and industrial area, screening element.	Reserve

Appendix C

Tree Location Plans

Tree Location Plan- Nº 1

NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE:** 28/10/2016
PROJECT ADDRESS: Onehunga to Otahuhu	**SCALE** 1:4,000 @ A3
CLIENT: NZ Transport Agency	**CHECKED** CW
FILE: I:\Clients\AUCKLAND TRANSPORT\AUCKLAND TRANSPORT PROJECTS\East West Link - Jul16	**DRAWN** MB
	PROJECT # T14584

 A: *145 Dominion Rd. Mt. Eden, Auckland 1466* ***P:*** *09 623 3514* ***W :*** *www.greenscenez.com*

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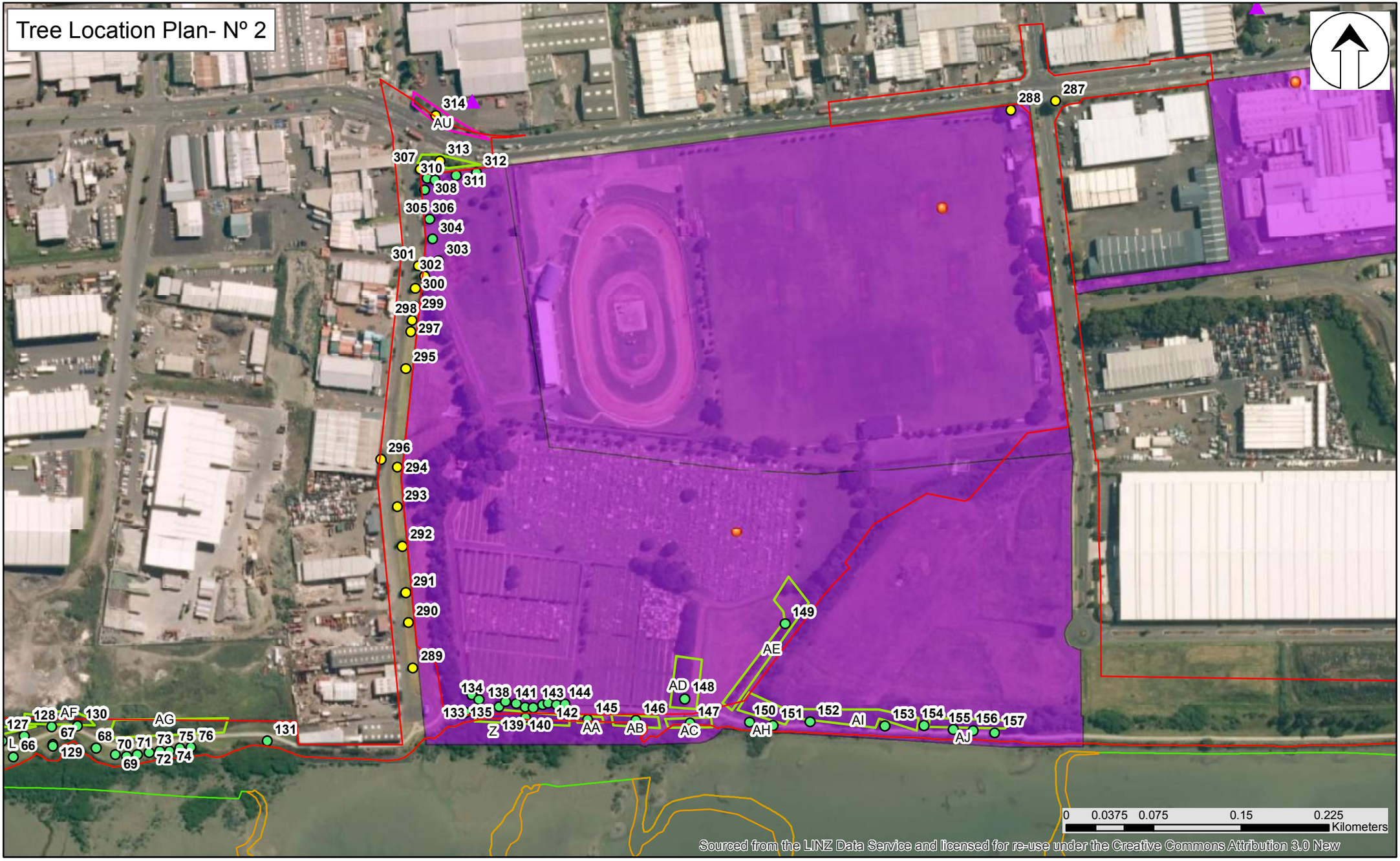
Tree Location Plan- Nº 2



NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
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PROJECT NAME : East West Link	**ISSUE DATE:** 28/10/2016
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CLIENT: NZ Transport Agency	**CHECKED** CW
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	PROJECT # T14584

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Tree Location Plan- Nº 3

NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE:** 28/10/2016
PROJECT ADDRESS: Onehunga to Otahuhu	**SCALE** 1:4,000 @ A3
CLIENT: NZ Transport Agency	**CHECKED** CW
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	PROJECT # T14584

 A: *145 Dominion Rd. Mt. Eden, Auckland 1466* ***P:*** *09 623 3514* ***W :*** *www.greenscenenz.com*

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Tree Location Plan- Nº 4

NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE: 28/10/2016**
PROJECT ADDRESS: Onehunga to Otahuhu	**SCALE 1:4,000 @ A3**
CLIENT: NZ Transport Agency	**CHECKED CW**
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	PROJECT # T14584

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Tree Location Plan- Nº 5

NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE:** 28/10/2016
PROJECT ADDRESS: Onehunga to Otahuhu	**SCALE** 1:4,000 @ A3
CLIENT: NZ Transport Agency	**CHECKED** CW
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	PROJECT # T14584

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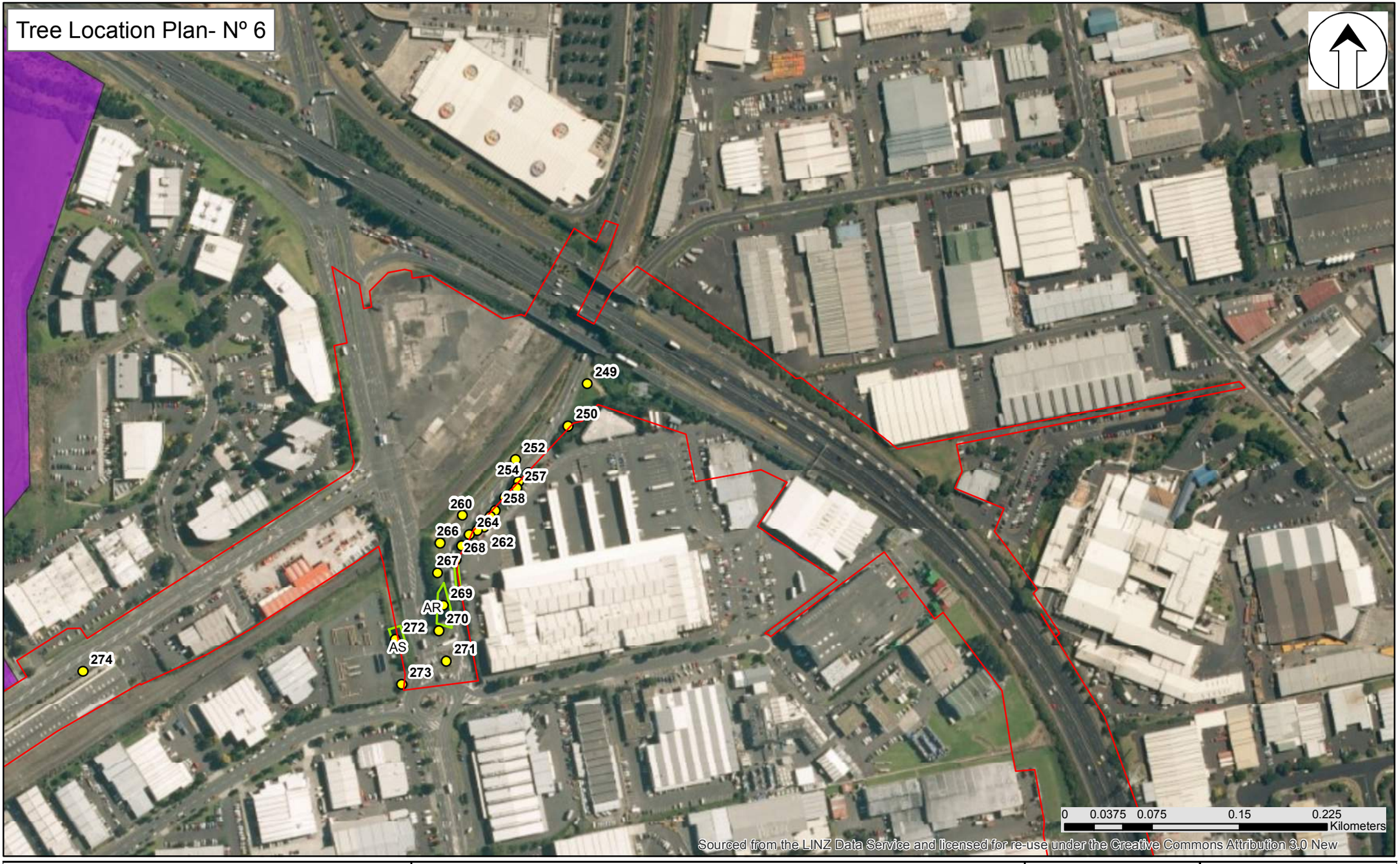
Tree Location Plan- Nº 6



NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

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CLIENT: NZ Transport Agency	**CHECKED CW**
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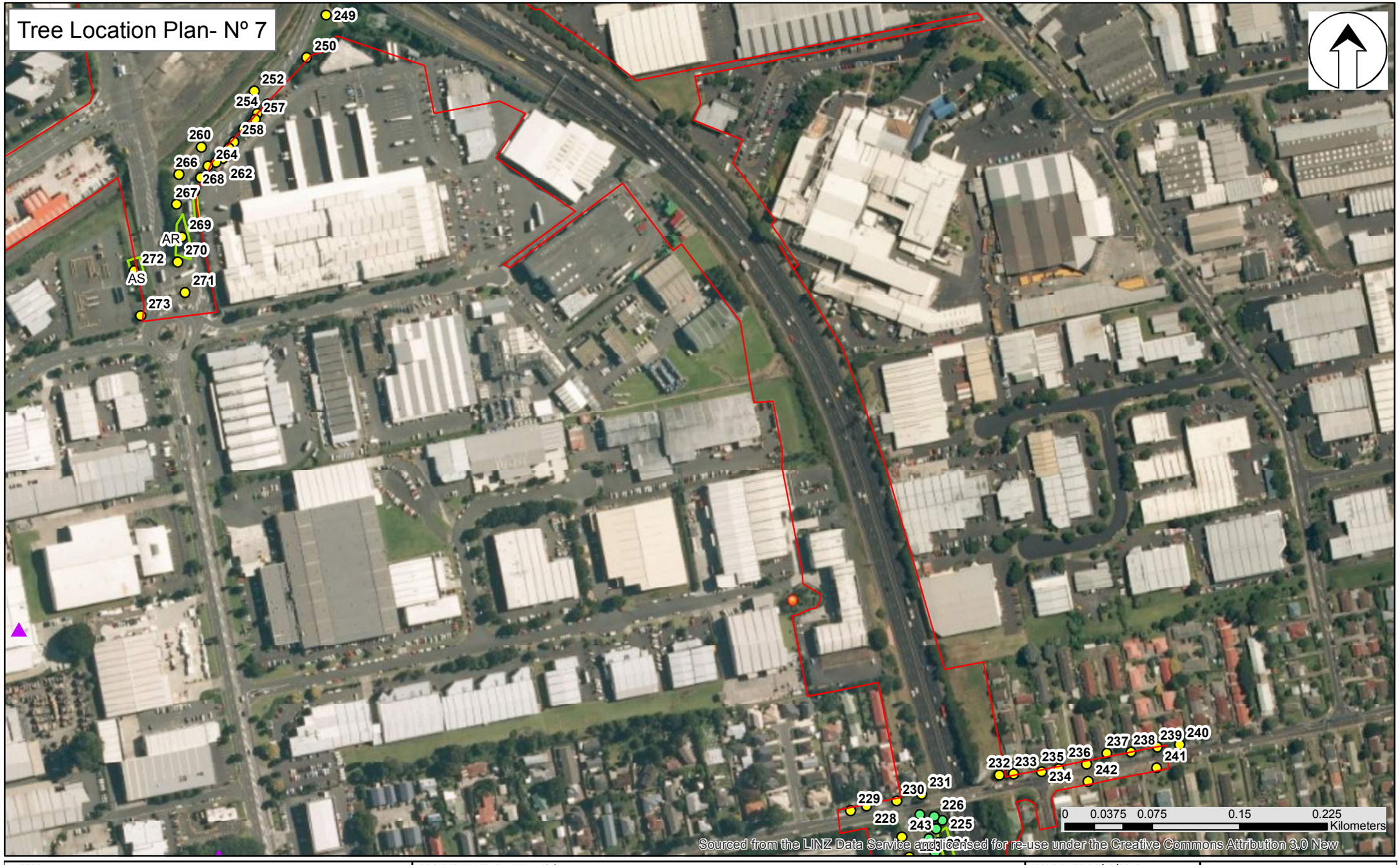
Tree Location Plan- Nº 7



NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE: 28/10/2016**
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	PROJECT # T14584

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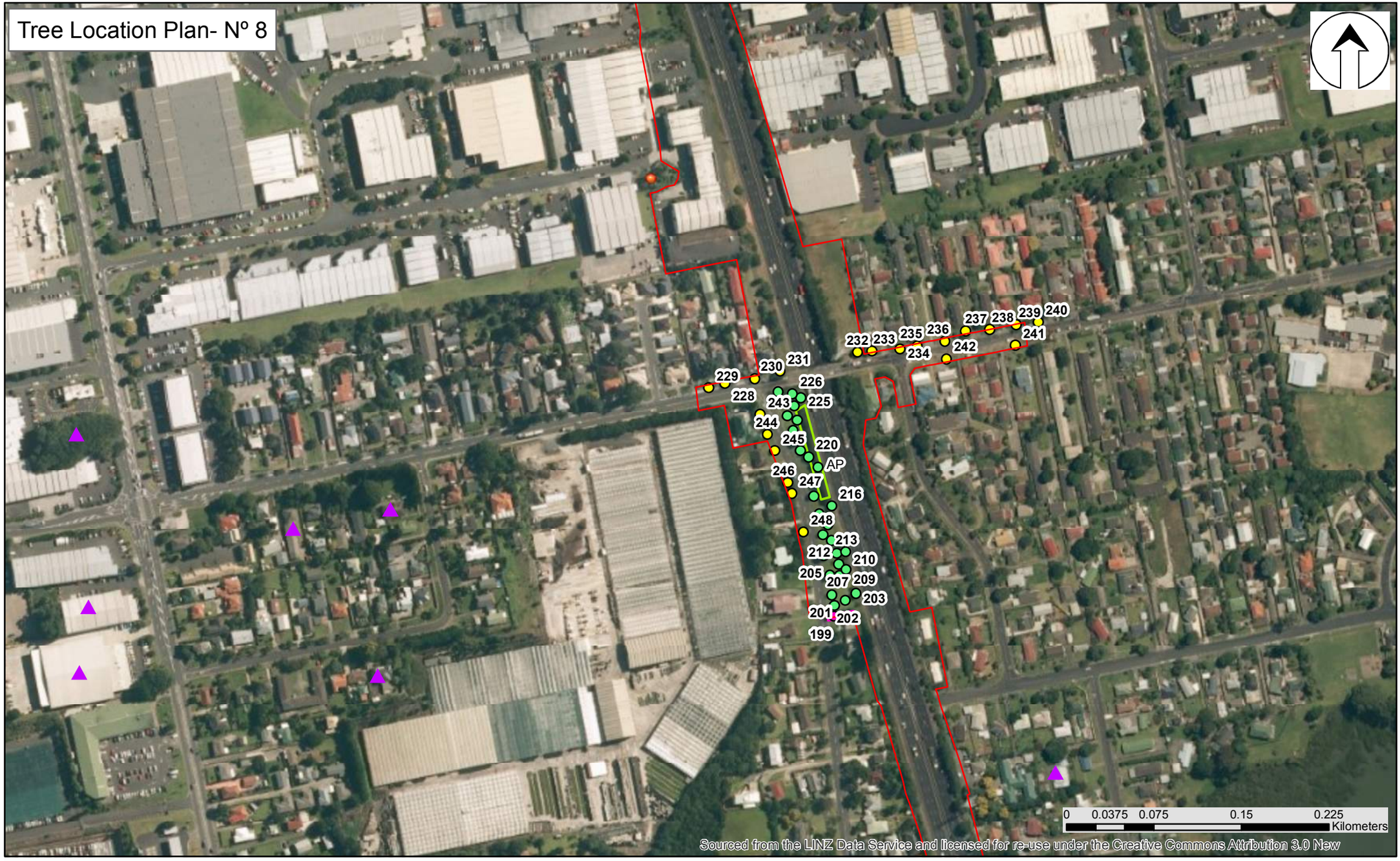
Tree Location Plan- Nº 8



NOTES:

Designatio
- CMA Occupation
- Designation
- Temporary Occupation
- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE: 28/10/2016**
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CLIENT: NZ Transport Agency	**CHECKED CW**
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	PROJECT # T14584

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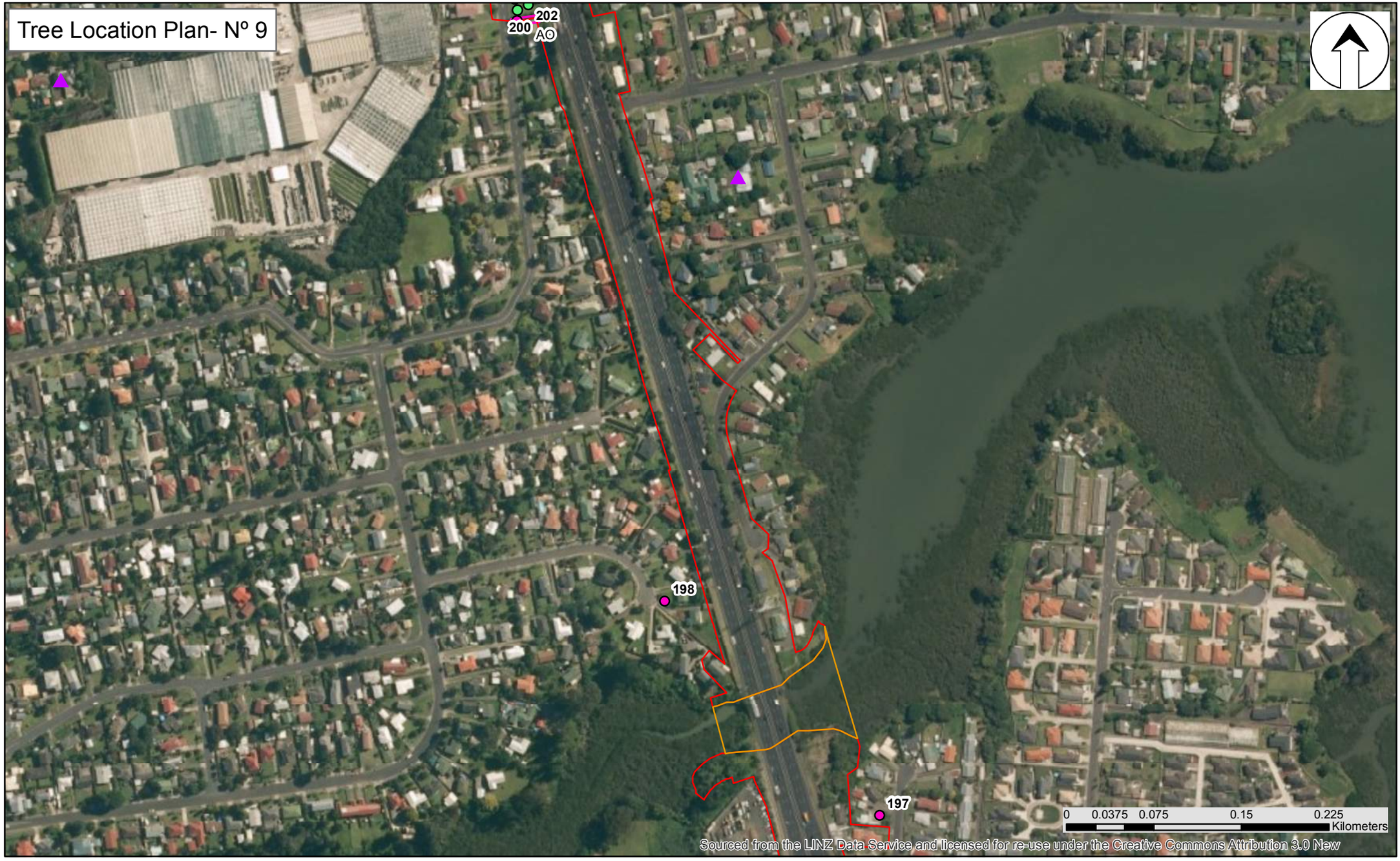
Tree Location Plan- Nº 9



NOTES:

Designatio
- CMA Occupation
- Designation
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- Reclamation

Individual Trees
- Private
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- Street

Groups of Trees
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- PUP_HistoricHeritage
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PROJECT NAME : East West Link	**ISSUE DATE: 28/10/2016**
PROJECT ADDRESS: Onehunga to Otahuhu	**SCALE 1:4,000 @ A3**
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	PROJECT # T14584

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Tree Location Plan- Nº 10

NOTES:

Designatio
- CMA Occupation
- Designation
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- Reclamation

Individual Trees
- Private
- Reserve
- Street

Groups of Trees
- Private
- Reserve

- PUP_NotableTrees
- PUP_HistoricHeritage
- PUP_HistoricHeritageExtentOfPlace

PROJECT NAME : East West Link	**ISSUE DATE:** 28/10/2016
PROJECT ADDRESS: Onehunga to Otahuhu	**SCALE** 1:4,000 @ A3
CLIENT: NZ Transport Agency	**CHECKED** CW
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	PROJECT # T14584

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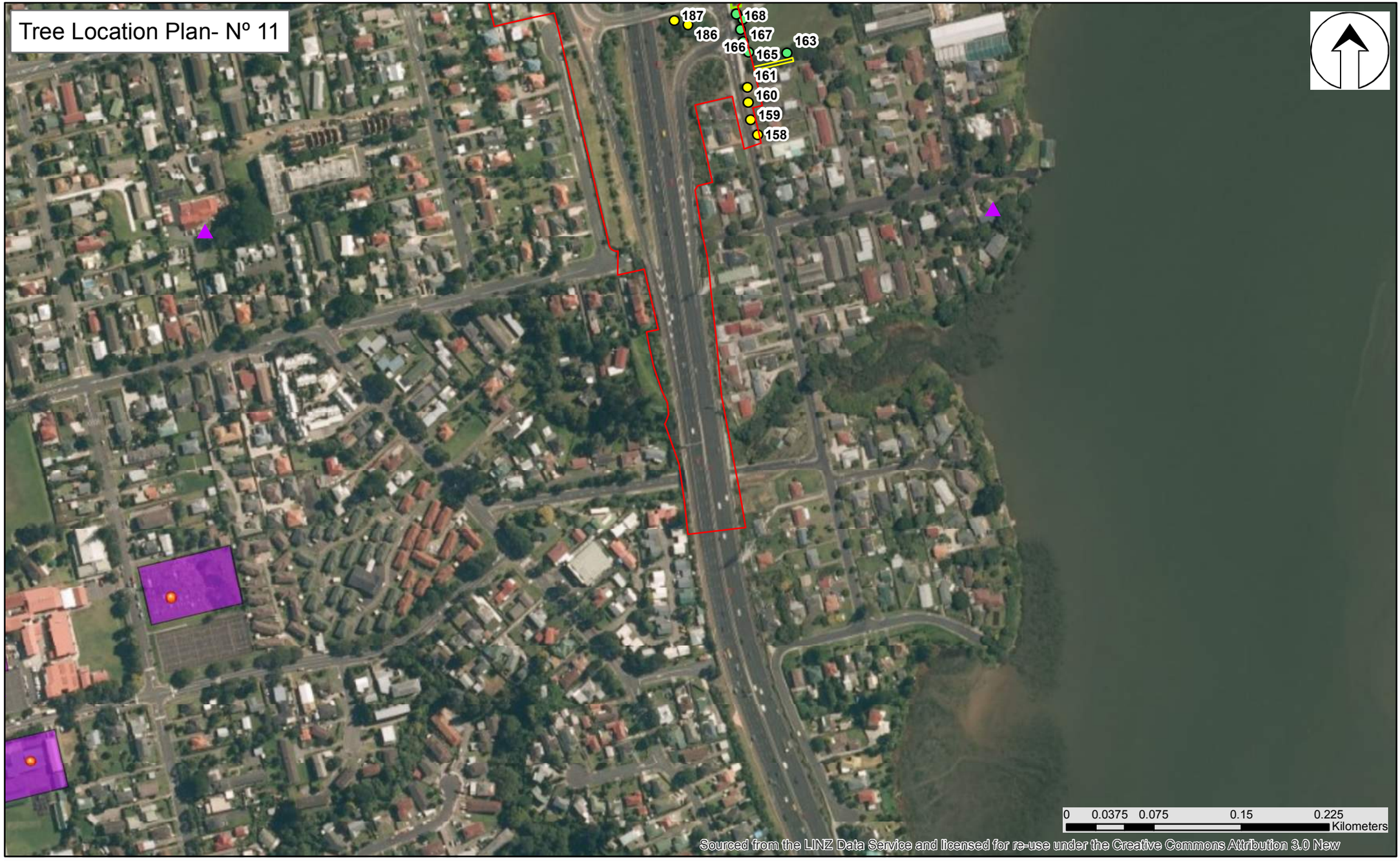
Tree Location Plan- Nº 11



NOTES:

Designatio
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- Designation
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- Reclamation

Individual Trees
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Groups of Trees
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PROJECT NAME : East West Link	**ISSUE DATE:** 28/10/2016
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Appendix D

Location of Scheduled Trees

Figure 1 - The location (circled) of the Scheduled Phoenix palms (x2) - [H10-19] on ACDP:IS planning map H10

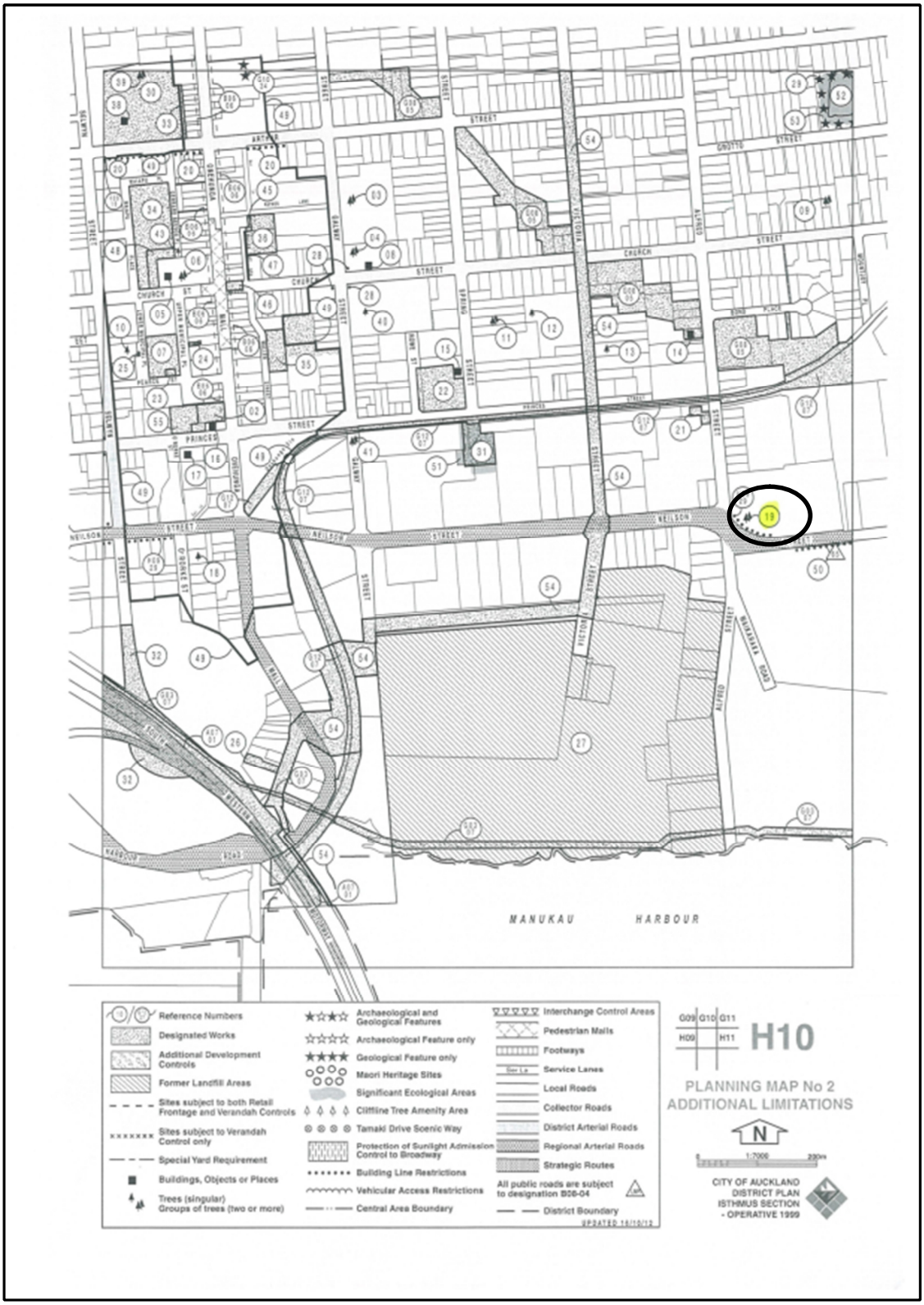

Figure 2 - The location (circled) of the Scheduled poplar (x22) and London plane (x7) - [H12-01] on ACDP:IS planning map H12

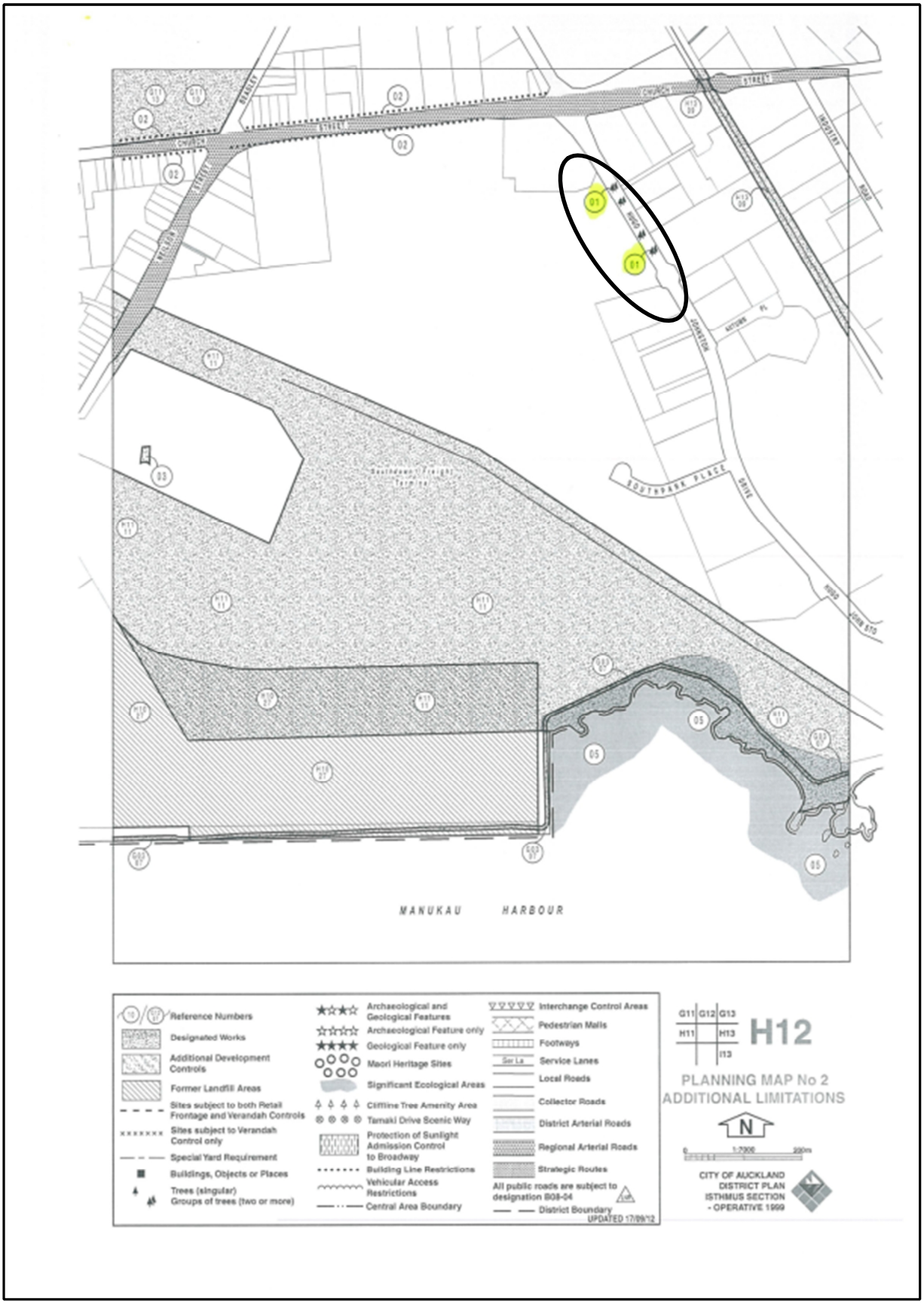

Figure 3 - The location (circled) of scheduled Phoenix palms (x2) - [I14-10] on ACDP:IS planning map I14