

VOLUME 4

South Frequent Transit Network

Assessment of Archaeological and Heritage Effects

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Disclaimer

This is a draft document for review by specified persons at Auckland Transport and the New Zealand Transport Agency. This draft will subsequently be updated following consideration of the comments from the persons at Auckland Transport and the New Zealand Transport Agency. This document is therefore still in a draft form and is subject to change. The document should not be disclosed in response to requests under the Official Information Act 1982 or Local Government Official Information and Meetings Act 1987 without seeking legal advice.

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Glossary of Defined Terms and Acronyms

We note that 'Takaanini' (with double vowels) is used throughout the Report Acknowledging the ongoing kōrero and guidance from Manawhenua on the cultural landscape. 'Takanini' is used where reference is made to a specific and existing named place (e.g., Takanini Road, Takanini Town Centre etc.). Manawhenua is also used throughout the Report as while gifting the programme name as Te Tupu Ngātahi, Manawhenua confirmed this was an appropriate spelling (capital 'M' and one word). Notwithstanding this, the term is spelled as two words in other fora and the proposed designation conditions – Mana Whenua.

Acronym/Term	Description
AEE	Assessment of Effects on the Environment
AT	Auckland Transport
AUP:OP	Auckland Unitary Plan: Operative in Part
CHI	Cultural Heritage Inventory
FTN	Frequent Transit Network
GIS	Geographic Information System
GPS	Global Positioning System
GSR	Great South Road
HHMP	Historic Heritage Management Plan
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA	Heritage New Zealand Pouhere Taonga Act (2014)
LINZ	Land Information New Zealand
NIMT	North Island Main Trunk
NoR	Notice of Requirement
NoR 1	Notice of Requirement 1: Great South Road FTN Upgrade
NoR 2	Notice of Requirement 2: Great South Road Upgrade (Drury section)
NoR 3	Notice of Requirement 3: Takaanini FTN – Weymouth Road, Alfriston Road and Great South Road Upgrades
NoR 4	Notice of Requirement 4: Takaanini FTN - Porchester Road and Popes Road Upgrades
MDRS	Medium Density Residential Standards
NPS-UD	National Policy Statement on Urban Development
NZAA	New Zealand Archaeological Association

Acronym/Term	Description
The Project	The Four NoRs proposed to authorise transport upgrades along key sections of roads which fall within the South FTN network (subject of this report / application).
RMA	Resource Management Act 1991
SH1	State Highway 1
South FTN	South Frequent Transit Network
SRF	Site Record Form
SRS	Site Record System

Executive Summary

Four Notices of Requirement (**NoRs / the Project**) are proposed for the South Frequent Transit Network (**South FTN**).

Archaeological research undertaken for the Project included desktop assessment of archaeological reports, databases maintained by the NZAA (**ArchSite**), Auckland Council Cultural Heritage Inventory (**CHI**), the New Zealand Heritage List/Rārangi Kōrero and other resources to better understand the landscape surrounding the corridor. This was followed by a field survey to assess the results of the research and to determine if any unrecorded archaeological sites or heritage items were visible. The survey was limited to publicly accessible areas and was a surface assessment only; invasive techniques such as probing and test pitting were not used due to the high likelihood of services being present near the road.

Across the NoRs, there are 25 recorded archaeological sites within 200m of the Project corridors, 19 of which are outside of the proposed scope of works. Six of these sites have potential to be affected by construction for the Project (see Table below). Nine sites scheduled in the AUP:OP were also identified within 200 m of the Project corridors, three of which have potential to be affected by construction for the Project. In addition to this, 38 items listed in the CHI were identified within 200 m of the Project corridors. Twenty of these were found to be outside of the scope of works, and fourteen were trees with potential heritage values that are the subject of a separate Assessment of Arboricultural Effects. Any effects on notable trees are discussed in the Assessment of Arboricultural Effects for the Project. Four CHI items have potential to be affected by construction for the Project (see Table below).

During the field assessment, six houses with potential unrecorded built heritage values were identified. It is recommended these are 'assessed by a built heritage specialist to determine if there are any potential constraints on the Project.

Based on the consideration of the statutory requirements discussed in this Report related to archaeology and historic heritage, the following key mitigation and management measures are recommended:

- A Historic Heritage Management Plan (**HHMP**) should be prepared and implemented during construction to guide works including induction requirements for contractors (and sub-contractors) and procedures for archaeological monitoring, inspection and investigation;
- A General Archaeological Authority to modify or destroy potential archaeological sites that may be encountered within the Project corridor should be applied for from Heritage New Zealand Pouhere Taonga under section 44 of the Heritage New Zealand Pouhere Taonga Act 2014. The Authority should be obtained in advance of any earthworks commencing to minimise delays should archaeological remains be exposed once works are underway; and
- Where effects on known (or unknown) archaeological sites cannot be avoided, archaeological investigation and recording of any affected archaeological sites utilising archaeological best practice should be undertaken in accordance with the Authority.

Summary of Assessment of Effects and Recommendations

NoR	ID	Source	Name / Site Type	Possible effects	Recommendations
NoRs 1, 2, 4	Potential unrecorded pre-European Māori site	Desktop assessment and field visit	e.g. midden, postholes, fire features, artefactual material	Possible subsurface material related to pre-European Māori land-use around waterways to be encountered and removed / destroyed.	Archaeological authority and monitoring, management under HHMP
NoR 1	R12/1154 (02830)	NZAA (AUP:OP)	Papakura Old Central School	1920s stone gate has potential to be destroyed.	Monitoring, management with HHMP
NoR 1	R12/1159	NZAA	Building	Possible subsurface material to be encountered and removed / destroyed.	Archaeological authority and monitoring, management with HHMP
NoR 1	R12/1161	NZAA	Papakura Library	Possible subsurface material to be encountered and removed / destroyed.	Archaeological authority and monitoring, management with HHMP
NoR 1	3048	CHI	Milepost 20	Low possibility for some subsurface material to be encountered and removed.	Monitoring, management with HHMP
NoR 1	12924 (02801)	CHI (AUP:OP)	WWI Memorial	Modifications to edges of memorial structure.	Monitoring, management with HHMP
NoR 1	20290	CHI	Milepost 21	Low possibility for some subsurface material to be encountered and removed.	Monitoring, management with HHMP
NoR 1	355 Great South Road	Field visit	Moderne style house	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist

NoR	ID	Source	Name / Site Type	Possible effects	Recommendations
NoR 1	359 Great South Road	Field visit	Spanish Mission style house	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 1	361 Great South Road	Field visit	Spanish Mission style house	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 2	257 Great South Road	Field visit	Bungalow	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 3	R11/3477	NZAA	Manurewa Railway Station	Possibility for subsurface material related to station to be encountered and removed.	Archaeological authority and monitoring, management with HHMP
NoR 3	12481	CHI	11 Alfriston Road	Building is within the proposed designation and would be destroyed by construction.	Further assessment by built heritage specialist
NoR 4	R11/2077	NZAA	Gorrie McInnes Homestead	Possible subsurface material to be encountered and removed / destroyed.	Monitoring, management under HHMP
NoR 4	R11/2078	NZAA	John de Carteret Flax Mill	Possible subsurface material to be encountered and removed / destroyed.	Archaeological authority and monitoring, management with HHMP
NoR 4	279 Porchester Road	Field visit	Bungalow	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 4	281 Porchester Road	Field visit	House	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist

1 Introduction

1.1 Purpose and scope of this report

This assessment of Archaeological and Heritage effects report has been prepared to inform the Assessment of Effects on the Environment (**AEE**) for Notice of Requirement (**NoR**) being sought by Auckland Transport (**AT**) for the South Frequent Transit Network (**South FTN**) under the Resource Management Act 1991 (**RMA**). Four NoRs are proposed to authorise transport upgrades along key sections of roads which fall within the South FTN network. The transport upgrades authorised by the NoRs are referred to in this report as the **Project**.

Specifically, this report considers the actual and potential effects associated with the construction and operation of the Project on the existing and likely future environment as it relates to Archaeological and Heritage effects and recommends measures that may be implemented to avoid, remedy and/or mitigate these effects.

This report should be read alongside the AEE, which contains further details on the history and context of the Project. The AEE also contains a detailed description of works to be authorised within the NoR, and the typical construction methodologies that will be used to implement this work. These have been reviewed by the author of this report and have been considered as part of this assessment of Archaeological and Heritage effects. As such, they are not repeated here. Where a description of an activity is necessary to understand the potential effects, it has been included in this report for clarity.

1.2 Report Structure

In order to provide a clear assessment of the NoRs, this report follows as appropriate, the structure set out in the AEE. This report contains an assessment of the actual and potential effects of the Project as a whole (the four NoRs). Where appropriate, measures to avoid, remedy or mitigate effects are recommended. The sections of this report are arranged accordingly. Table 1-1 below provides an overview of the report structure and where the description of effects can be found in this report.

The report follows a nested structure where each of the four proposed NoRs is assessed.

Table 1-1: Report Structure

Report Section #	Extent Assessed (Route and/or NoR)
5	NoR 1 – Great South Road FTN Upgrade
6	NoR 2 – Great South Road Upgrade (Drury section)
7	NoR 3 – Takaanini FTN – Weymouth Road, Alfriston Road, and Great South Road Upgrades
8	NoR 4 – Takaanini FTN – Porchester Road and Popes Road Upgrades

2 Project Description

2.1 Context – South FTN network

As described further in the AEE, the South FTN is one of the transport works packages proposed for South Auckland between Manukau and Drury as part of Te Tupu Ngātahi Supporting Growth (**Te Tupu Ngātahi**) programme.¹ The South FTN is in turn part of a wider planned multi-modal transport network intended to support growth and enable mode shift in South Auckland.

The South FTN comprises a range of road upgrades including bus priority measures, new and upgraded active mode facilities, and intersection improvements along existing arterial road corridors in South Auckland. In particular, the proposed road upgrades provide for:

- Operation of high-quality FTN² bus services along Great South Road between Manukau and Drury (the Great South Road FTN route);
- Operation of high-quality FTN bus services along existing roads between Manurewa, Takaanini, and Papakura (the Takaanini FTN route); and
- Urbanisation of adjoining key connections to FTN routes – Popes Road West, and the Drury section of Great South Road between Waihoehoe Road and State Highway 1 (**SH1**).

The total extent of the South FTN network is shown in Figure 2-1.

2.2 The NoRs – proposed spatial extent

Of the full South FTN network extent shown in Figure 2-1, only a portion falls within the NoRs/Project. This is because the proposed corridor upgrades do not always require additional land take, can be undertaken within the existing road reserve, and therefore do not require new designations.³

Accordingly, this assessment is focussed on the activities proposed to be authorised by the four NoRs. The NoRs seek generally to provide for road widening to accommodate bus priority measures, walking, and cycling facilities, key intersection upgrades, replacement of existing bridges and other associated works. These are described in more detail in Table 2-1.

Further detail on the proposed activities and works in each NoR are provided in the AEE.

Table 2-1: South FTN – Summary of NoRs

NoR reference	Project component	Description
NoR 1	Great South Road FTN Upgrade	<ul style="list-style-type: none"> • Road upgrades and transport upgrades providing for the Great South Road FTN route along Great South Road between Manukau and Drury. • NoR comprises eight separate areas along Great South Road (see Figure 2-2Error! Reference source not found.) providing for bus priority measures, walking and cycling facilities, key intersection upgrades,

¹ The Programme is a collaboration between Auckland Transport (**AT**) and Waka Kotahi NZ Transport Agency (**Waka Kotahi**) to investigate, plan, and undertake route protection for the strategic transport networks needed to support Auckland's growth over the next 30 years.

² FTN services are defined in AT's Regional Public Transport Plan (**RPTP**) as bus routes operating at least every 15 minutes between 7am-7pm, 7 days-a-week, often supported by priority measures such as bus or transit lanes.

³ Some limited additional third-party land may be required in the future to provide for intersection upgrades between Takaanini and Ōpaheke. The relative cost-benefit assessment of these areas did not favour route protection at this time given the projected time scale for future urban growth in this area.

NoR reference	Project component	Description
		replacement of the existing Otūwairoa / Slippery Creek bridge, and stormwater management devices.
NoR 2	Great South Road Upgrade (Drury section)	<ul style="list-style-type: none"> Road upgrades and transport upgrades providing for upgrade of a 520m section of Great South Road in Drury between Waihoehoe Road and the SH1 Drury Interchange. NoR enables road widening to provide for four lanes, active mode facilities, replacement of the existing Hingaia Stream bridge, and stormwater management devices.
NoR 3	Takaanini FTN – Weymouth Road, Alfriston Road, and Great South Road Upgrades	<ul style="list-style-type: none"> Road upgrades and transport upgrades providing for the Takaanini FTN route along Weymouth and Alfriston Roads between Selwyn Road and Saralee Drive; and for an adjoining section of the Great South Road FTN route between Halver Road and Myers Road. NoR enables road widening to accommodate bus priority measures, walking and cycling facilities, key intersection upgrades, replacement of existing bridges along Weymouth Road over the North Island Main Trunk (NIMT) and Alfriston Road over SH1, and stormwater management devices.
NoR 4	Takaanini FTN – Porchester Road and Popes Road Upgrades	<ul style="list-style-type: none"> Road upgrades and transport upgrades providing for the Takaanini FTN route along Porchester Road generally between Alfriston Road and Walters Road; and for the urbanisation of Popes Road generally between Takaanini School Road and Porchester Road. NoRs provide for urbanisation of both corridors – two traffic lanes, walking and cycling facilities, key intersection upgrades, and stormwater management devices.

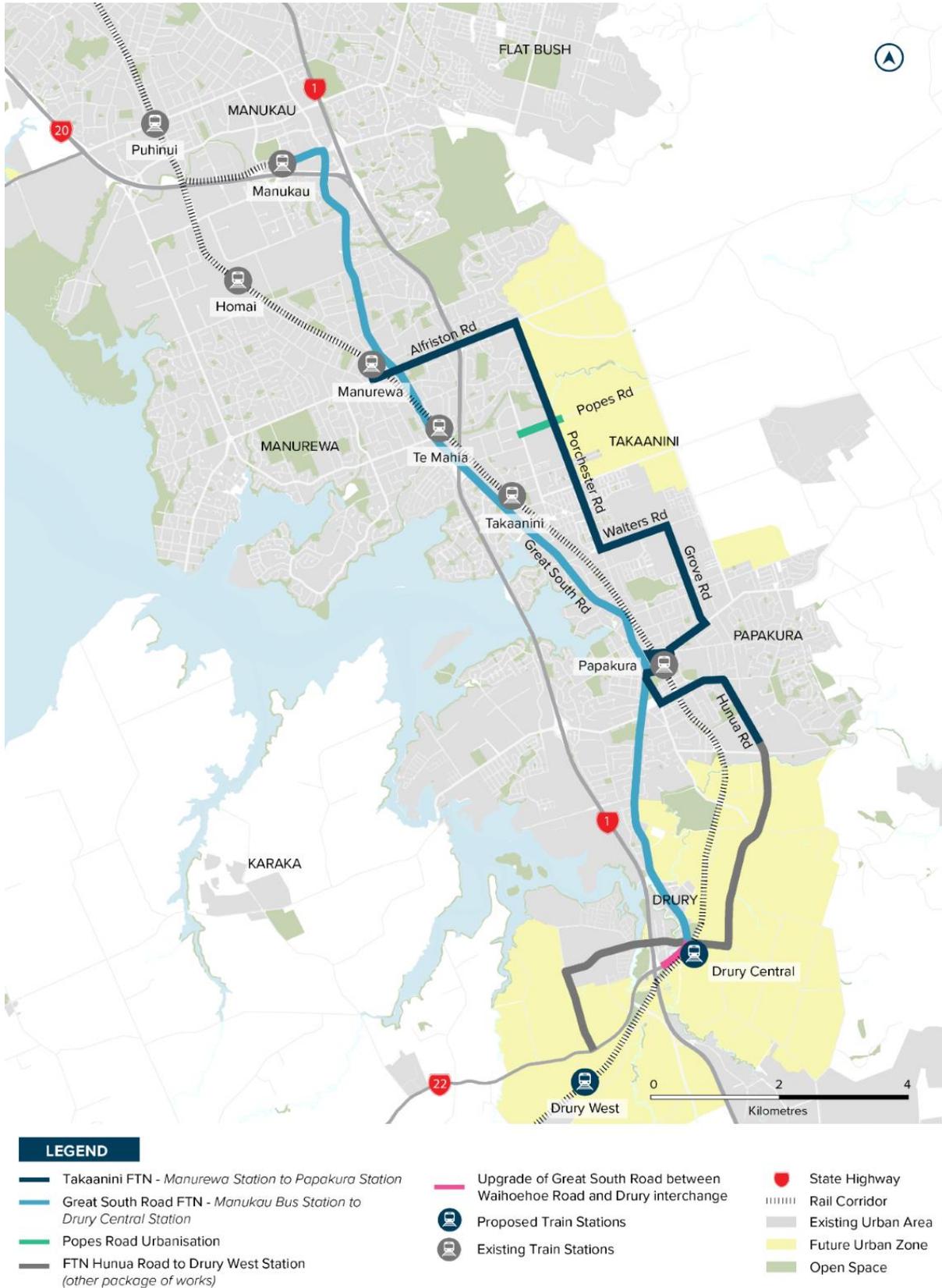


Figure 2-1: South FTN – overall project extent



Figure 2-2: South FTN – proposed NoRs

3 Assessment methodology and parameters

3.1 Preparation for this report

Work undertaken for this report commenced in July 2022. In summary, the preparation for this work has included:

- Desktop research of the NoRs using multiple online and paper resources. These are listed in the methodology section below; and
- A site visit / field assessment was undertaken on 19 July 2023 by Hayley Glover of CFG Heritage Ltd.

3.2 Methodology

The following resources were considered in this assessment:

- All recorded sites in the New Zealand Archaeological Association (**NZAA**) Site Recording Scheme (**SRS**) in the general vicinity were accessed from the New Zealand Archaeological Association Site Recording Scheme through ArchSite (<https://archsite.org.nz>) and incorporated into the Project specific Geographic Information System (**GIS**) workspace maintained by CFG Heritage;
- The Heritage New Zealand Pouhere Taonga (**HNZPT**) digital library (<https://www.heritage.org.nz/protecting-heritage/archaeology/digital-library>) was searched for records of archaeological investigations in the area;
- The HNZPT List / Rārangī Kōrero (<https://www.heritage.org.nz/the-list>) was searched to see if any listed items were within the proposed NoRs;
- Old maps and survey plans held by Land Information New Zealand (**LINZ**) were accessed using QuickMap software;
- Aerial Photographs held by LINZ (<https://data.linz.govt.nz/>), Auckland Council (<https://geomapspublic.aucklandcouncil.govt.nz/>) and Retrolens (<https://retrolens.co.nz/>) were searched;
- Local soil information was searched on the S-Map Online database maintained by Landcare Research (<https://smap.landcareresearch.co.nz/>);
- The Auckland Council Cultural Heritage Inventory (**CHI**) (<https://chi.net.nz/>), the Auckland Council GeoMaps GIS viewer (<https://geomapspublic.aucklandcouncil.govt.nz/>) and Auckland Unitary Plan Viewer (<https://unitaryplanmaps.aucklandcouncil.govt.nz/>) were accessed;
- Papers Past online database (<https://paperspast.natlib.govt.nz/>) was accessed for historic newspaper articles;
- The National Library of New Zealand's DigitalNZ website (<https://digitalnz.org/>) was accessed for old drawings, photographs, and plans;
- Several written texts on the history of the area; and
- South FTN Technical Specialist AEE briefing pack.

A field assessment was undertaken on 19 July 2023 by Hayley Glover of CFG Heritage Ltd. This was a pedestrian survey, though some sections of road were unsafe to walk through and had to be driven through instead. The survey was limited to publicly accessible areas, primarily road reserves. The purpose of this field work was to relocate recorded sites where possible and identify any potential

unrecorded sites. It was a surface assessment only, no invasive techniques like probing or test pitting were used due to the high likelihood of services being present.

3.2.1 Limitations and accuracy of data

Archaeological sites have been recorded since the 1950s and the quality of site information is variable. Sites were initially recorded on 100yd grid references, which were converted to 100m grid references as the map data became metricated in the 1980s. This has led to sites potentially only having a 200m accuracy. Therefore, all recorded archaeological and heritage sites within 200m of the proposed designations were assessed for potential to be present within the proposed designation boundaries.

Since the mid-1990s, sites recorded by hand-held GPS are generally located to $\pm 5\text{m}$. To ensure all archaeological sites that could be impacted by works are assessed, a 200m buffer was placed around the Project area and all sites contained within that buffer were subject to categorical desktop assessment to see if they were likely to be impacted by the proposed extent of works. Any sites within 200m of the Project which could not be ruled out by this method will be considered as within the Project corridor until able to be proven otherwise.

This report only assesses tangible archaeological and heritage values within the proposed extent of works. The report does not address Te Ao Māori or intangible values associated with the cultural landscape. It is acknowledged that only Manawhenua can comment on these values.

3.3 Statutory Requirements

3.3.1 Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA)

All archaeological sites, whether recorded or not, are protected by the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 (**HNZPTA**) and may not be destroyed, damaged or modified without an authority issued by Heritage New Zealand Pouhere Taonga (**HNZPT**).

An archaeological site is defined in the HNZPTA as:

(a) any place in New Zealand, including any building or structure (or part of a building or structure), that—

(i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and

(ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and

(b) includes a site for which a declaration is made under section 43(1).

Any HNZPTA authorities will be applied for at a later date, after detailed design and before any ground disturbance and construction works.

3.3.2 Resource Management Act 1991

The RMA requires District and Regional Councils to manage the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while

sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations. The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance (section 6(f)).

Historic heritage is defined in section 2 of the RMA as:

Those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from any of the following qualities: archaeological, architectural, cultural, historic, scientific, or technological.

Historic heritage includes:

- *historic sites, structures, places, and areas; and*
- *archaeological sites; and sites of significance to Māori, including wāhi tapu; and*
- *surroundings associated with the natural and physical resources.*

These categories are not mutually exclusive, and some archaeological sites may include above ground structures or may also be places that are of significance to Māori.

3.3.3 Auckland Unitary Plan: Operative in Part

The Auckland Unitary Plan: Operative in Part (**AUP:OP**) contains several applicable provisions regarding historic heritage. In the AUP:OP, archaeological sites are defined in accordance with the definitions outlined in the HNZPTA.

A scheduled historic heritage place can be an individual feature, or encompass multiple features and/or properties, and may include public land, land covered by water and any body of water. A historic heritage place may include cultural landscapes, buildings, structures, monuments, gardens and plantings, archaeological sites and features, traditional sites, sacred places, townscapes, streetscapes and settlements. The criteria for the identification and scheduling of these places is discussed in Chapter B5 2.2 of the AUP:OP.

Additionally, there are heritage provisions in Chapters E26 Infrastructure and E11 / E12 land disturbance of the AUP:OP.

3.4 Existing and future environment

The existing and anticipated future environment is further discussed in the accompanying AEE. In summary, the implementation timeframe for the Project has yet to be confirmed but is likely to be in approximately 10-15 years' time subject to funding availability. The assessment considers the effects of the Project at both the existing environment (as it exists today) and the likely future (planned) environment which consider potential urban development and intensification sought under proposed Plan Change 78.

The Project will be constructed and will operate in the existing urban environment or planned environment (i.e. what can be built under the existing AUP:OP live zones):

- a) **Existing environment:** The corridors are situated primarily within existing urban areas with live zoning including residential, commercial, and open space zones. There is some Future Urban Zone land in the wider area to the northeast/east. The existing activities within the area are generally reflective of the existing underlying zoning; and

- b) **Planned environment:** The planned environment is anticipated to remain urban and comprised of similar activities as the existing environment. The density of residential development is however anticipated to change and increase in future. In particular, this includes in the residential zones around Te Mahia and Takaanini stations, in line with the implementation of the National Policy Statement on Urban Development (**NPS-UD**) in the AUP:OP. The remaining residential areas will experience an uplift of density through the implementation of the Medium Density Residential Standards (**MDRS**) through the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021. Plan Change 78 (notified at the time of assessment) seeks to give effect to the NPS-UD and incorporate the MDRS into residential zoning. It is noted that there are some areas of existing residential zoned land (particularly east of the NIMT) that have recently been intensified (i.e., new builds), as such are unlikely to change in the near future

The likelihood and magnitude of land use change regarding the land use planning context has been identified in Table 3-1 below. This has been used to inform the assumptions made on the likely future environment.

Table 3-1: South FTN – existing and future environment

Existing environment	Current AUP:OP Zoning	Likelihood of Change for the environment ⁴	Magnitude of potential change	Likely Receiving Environment ⁵
Residential ⁶	Residential (Mixed Housing Suburban)	Low - Moderate ⁷	Low - Moderate	Residential
	Residential (Mixed Housing Urban)	Low - Moderate ⁸	Low - Moderate	Residential
	Residential (Mixed Housing Suburban and Urban) around train stations	Moderate	Moderate - High	Residential and Commercial/Retail ⁹
Business	Business (Heavy Industry)	Low	Low	Business (Industrial)
	Business (Light Industry)	Low	Low	Business (Industrial)
	Business (Neighbourhood Centre)	Low	Low	Business (Neighbourhood Centre)
	Business (Town Centre)	Low	Low	Business (Town Centre)
Open Space	Informal Recreation	Low	Low	Informal Recreation
	Community	Low	Low	Community
Greenfield areas	Future Urban	Low - Moderate	High	Urban

⁴ Based on AUP:OP zoning/policy direction.

⁵ Based on AUP:OP zoning/policy direction.

⁶ Based on the NPS-UD and MDRS, these residential areas are likely to experience increased density.

⁷ There are areas of existing Residential Zone land that has recently been intensified (i.e. new build developments), as such is unlikely to change in the near future.

⁸ There are areas of existing Residential Zone land that has recently been intensified (i.e. new build developments), as such is unlikely to change in the near future.

⁹ Note that much of the commercial operations between Manuia Road and Taka Street occur on residentially zoned land.

4 Background

The Project area lies within the Manukau Lowlands, an area of relatively flat land which is situated along the southern edge of the Manukau Harbour, near the Pahurehure Inlet. The Manukau Harbour is New Zealand's second largest harbour, with an area of about 365 km² and a shore length of approximately 460 km. It was formed by the development of a Quaternary dune barrier (Awhitu Peninsula) that enclosed a large bay between Port Waikato and the Waitakere Ranges (Kelly 2008: 3). The Project area has several waterways within it, notably the Papakura Stream, Ngakoroa / Ōtūwairoa (Slippery Creek) Stream and Hingaia Stream, which flow out to the Pahurehure Inlet through the Drury Creek (Trilford 2021).

4.1 Pre-European Māori

Pre-European Māori occupation across the Manukau lowlands was extensive, and was focused in large part along waterways and coastlines, with gardening taking place in those areas with fertile volcanic soils, such as the large gardening complex at the Matukurua Stonefields or the foothills of the Hūnua Ranges. An in-depth history of pre-European settlement of the wider Manukau lowlands area has been discussed in previous reports (see Murdoch 1990; Te Roopu Kaitiaki o Papakura 2010).

Settlement of the Manukau lowlands can be traced back to the arrival of the Tainui waka, which entered the Manukau Harbour in the 14th century (Murdoch 1990). The Harbour is thought to have been first pointed out by a priest aboard the waka, Taiekehu, and was named by the Tainui captain Hoturoa. The strategic location meant that multiple different iwi occupied the area intensively with seasonal settlements (Harlow et al. 2007; Murdoch 1990).

4.1.1 Manurewa / Takaanini

The name of Manurewa, or Te Manurewa o Tamapahore, means 'rising kite' or 'the rising kite of Tamapahore' and refers to an incident during a kite flying competition where the kite of chief Tamapahore drifted away after its line was severed by rival brother Tamapahure (Calman 2013).

Much of the Māori occupation in Manurewa from the 15th century onwards was centred around the volcanic cone pa sites of Matukutūruru / Wiri Mountain (R11/32) and Matukutūreia / McLaughlins Mountain (R11/25). Gardening was conducted within the surrounding Matukurua stonefields utilising the rich volcanic soils (Bickler et. al. 2013; Sullivan 1975). These settlements were supported by intensive gardening of the fertile volcanic soils, in addition to the estuarine shellfish beds and other marine resources of the inner Manukau Harbour. The Papakura Stream, between Manurewa and Takaanini, was also an important transport route and another source of fish, eels, and water birds, as well as building and weaving materials (Te Roopu Kaitiaki o Papakura 2010).

Takaanini, named for Te Ākitai Waiohua chief Ihaka Takaanini, was mostly swampland upon initial Māori settlement, cut with a myriad of small waterways. These wetlands would have been rich in resources and would have been used for hunting waterfowl and eels, for transportation, storage, and near the edges of some wetlands, the cultivation of taro. There was also once a large kauri forest across Takaanini, as ancient stumps have been unearthed. It is likely the forest was destroyed by a natural catastrophe, well before human settlement (Craig 1982).

One important 17th century figure who was present in Takaanini was Tainui chief, Maki. Maki was from Kawhia but later lived near Waikato Heads and had interactions with the tribes of Manukau. Maki

aimed to reassert Tainui claims to the Manukau area, so went and lived with chief Whauwhau, in his kāinga at Takaanini. When Maki was visited by Taihua, one of his kin from Tamaki, he learned that Taihua's son had been killed by Whauwhau's people. Maki and his people went on to kill Whauwhau and gain a foothold in the area (Craig 1982).

4.1.2 Papakura / Drury

The Papakura / Drury area and surrounds provided access to inland areas for both Māori and later settlers to the Hunua Ranges, Clevedon and on into the Waikato. Ōpaheke / Slippery Creek was a strategic location with a complex Māori history (Murdoch 1990:1). The Papakura portage was located between Takaanini and Papakura, and was a major over-land route connecting the Manukau Harbour and the Tīkapa Moana / Hauraki Gulf. The portage started from the Pahurehure Inlet, following Old Wairoa Road, heading to the Wairoa River at Clevedon (Te Roopu Kaitiaki o Papakura 2010).

Māori settlement was concentrated around the harbour shores and navigable waterways, where there was arable land, and on the slopes of the Hunua Hills. The name Papakura refers to the rich fertile soils, translating to 'flat area of red soil' or 'ruddy plains' (Ngāti Te Ata 2021). This may however be a relatively recent name, with the traditional name for the area being Wharekawa (Ngāti Te Ata 2021).

In the early contact period, there was a major settlement at Pukekiwiriki / Pukekōiwiriki Pā, and there would have been seasonal occupation in the surrounding areas (Foster 2015). According to environmental factors including soil types, climate, and similar factors, there were large historic wetland ecosystems around the area (Whenua Māori Visualisation Tool, n.d). In precontact Māori settlement, these wetlands were utilised for hunting of waterfowl and eels, transportation, storage, and the edges of some wetlands are suitable to cultivate taro (Trilford 2021).

4.2 19th century

From 1834, missionaries began travelling through the general area, notably staying at Ōpāheke, a kāinga near Ōtūwairoa / Slippery Creek (Harlow et al. 2007). The strategic location of the area was noted by the government and in 1842 the 'Papakura Block,' stretching from what is now Papatoetoe to Papakura, was purchased, beginning a series of land purchases that would take place across South Auckland (Harlow et al. 2007; Murdoch 1990). In 1852 and 1854, additional land was purchased by the Crown, including the whole upland section of the Hunua Block. The Kirikiri Block remained in possession of the Māori owners at this time (Murdoch 1990).

Māori had been alienated from their land and unease had been building from the 1850s. By 1856, the concept of a Māori king was being discussed openly. However, the Crown saw the Kīngitanga movement as a direct attack on British sovereignty and by the late 1850s the seeds of the land war had already taken root. The Kīngitanga movement opposed the sale of Māori land and although some were receptive to leasing, the Crown saw this as a further obstruction to development.

4.2.1 1860s Waikato Campaign

Construction of Great South Road begun at the end of 1861 under the orders of Governor Grey who was preparing for war with Māori (O'Malley 2019: 259). The road was constructed by British Army troops and provided access to north Waikato from Auckland. By March 1863 the road construction was complete, and Grey had by then obtained additional British troops and armour-plated steamers (O'Malley 2019: 103).

Tensions between Māori and Europeans in the Auckland and Waikato districts gradually increased and in July 1863 Governor Grey issued an ultimatum to the Waikato tribes around Auckland to immediately swear an oath of allegiance to the Queen and to put down their arms. Those who did not comply were told to remove themselves to the Waikato, beyond the Mangatāwhiri, effectively declaring themselves as rebels against the Government (O'Malley 2019).

Papakura and Drury both became military garrisons, acting as supply bases and staging posts, and there was an influx of people associated with the British military. Several military and commissariat redoubts were established, as well as a headquarters for General Cameron's 65th Regiment Camp (R12/755) (Harlow et al. 2007). Shortly after Grey's ultimatum was announced, British troops crossed the Mangatāwhiri River and a battle broke out between the militia and Māori occupants of Te Apārangi. European settlers were temporarily evacuated (Murdoch 1990), and over the next eight months soldiers based in Drury were actively engaged in the war (Clarke 1982). By March 1864 General Cameron had moved well into the Waikato, and after battles like those of Ōrākau and Gate Pā, he took hold of the region (Clark 1982).

In an effort to increase security, consolidate territorial gains, and display government presence, in 1864 the New Zealand Government encouraged South African and British migrants to move to New Zealand by offering free 10 acre and ¼ acre blocks. These immigrants were to occupy Waikato lands that had been confiscated following the land wars. However, the scheme did not take off, after the promised financial incentives were not provided (Morris 1965).

4.2.2 Manurewa / Takaanini

European settlement around Manurewa was very sparse until the completion of the NIMT in 1875 (Scoble 2010). While the land had been part of the extensive Fairburn Purchase in the late 1830s, it had then become part of Clendon's Grant (DP 9075) in 1842. The land was subdivided and sold as smaller farms from 1885 onwards (Brassey 2015), including a large sale of land to the Martin brothers, who went on to further subdivide and sell this land in the mid-1900s, forming much of current-day Manurewa (Wichman 2001).

Industry in Manurewa was largely focussed on farming, later becoming a major centre for the dairy industry with the first creamery opening in 1905 (Wichman 2001).

4.2.3 Papakura / Drury

During the New Zealand Wars in the 1860s there was an influx of people to Papakura and Drury, with both towns becoming military garrisons, acting as supply bases and staging posts. Great South Road was the main land transport route to the Waikato, and improvements and extensions were made, particularly around Papakura. Drury had access to the Manukau Harbour through the Pāhurehure Inlet (Harlow et al. 2007). Several military and commissariat redoubts were established, as well as a headquarters for General Cameron's 65th Regiment Camp (R12/755) (Harlow et al. 2007).

The discovery of a coal seam in Drury would be one of the most significant impacts on the local economy, spurring development in the area as well as a related clay industry (Cruickshank 2017). In 1866 Henry Chamberlain purchased a block of land containing the coal mines (Platts 1971) before selling this to the Mawhinney Brothers (Coalfield Notes, PDHS). The industry would be short lived as more productive coal mines would later be discovered at Huntly. The original brickworks in Drury had closed by 1910 or slightly afterwards, though clay pit extraction remained a profitable business resulting in the construction of Drury Potter and Fireclay Works, where clay was processed for pottery.

The building was on land belonging to the Mawhinneys (Coalfield Notes, PDHS). This business was purchased by an Auckland firm in 1930 and shut down (Auckland-Waikato Historical Journal April 1984: 19, cited in Harlow et al. 2007).

Following the coal mining and clay works, several basalt quarries were established, with at least two linked to the clay works via roads or tramways. These were small-scale operations, and primarily provided kerbstones for Auckland. In addition to this, extensive gum digging occurred in surrounding areas like Karaka, Waiau Pa and Glenbrook (Wiley 1939:67), and other industries like timber milling, land clearance, pastoral farming and agriculture were present in Drury (Harlow et al. 2007). The development of many of these industries, particularly agriculture, was boosted by the construction of the railway line from Auckland to Mercer in the early 1870s. Urban growth increased in Papakura township, while Drury declined somewhat in importance (Murdoch 1990).

4.3 Archaeological background

Overall, targeted archaeological research in the area has been limited, with no large-scale archaeological surveys taking place in the Manukau Lowlands. More recently, an increase in proposed housing developments in the outskirts of Auckland has led to a number of archaeological surveys in the general area.

Despite this, there remains a lack of recorded archaeological sites, particularly pre-European Māori sites, and many of those which are recorded are out of date and have never been subject to proper investigation. The use of the area for farming over the last 50 years would have modified the landscape considerably. As wetlands are drained and turned into farmland, any high points would have been cut and used to fill hollows, and the area would have been ploughed extensively. This would obscure much of the surface evidence of any archaeological sites (Cruickshank 2017).

4.3.1 Manurewa / Takaanini

Very little archaeology has been done near the Project area within Manurewa / Takaanini, with more surveys and archaeological investigation having taken place to the west, around Weymouth (e.g. Bickler et al. 2008; Clough 2005; Cruickshank and Harris 2014; Foster 1997; 1998a).

More significant and focused investigation has taken place around Matukutūruru / Wiri Mountain and the surrounding Matukurua Stonefields. Several excavations have taken place at Matukutūruru over the years, initially led by Sullivan's research and excavations from the early 1970s onwards (e.g., Sullivan 1974, 1975, 1985). Continued excavations were carried out in the surrounding stonefield garden areas (such as the Wiri Railway site and the Wiri Oil terminal site) over the next twenty years (e.g., Bulmer 1983; Clough and Turner 1998; Coates 1985; Lawlor 1980; Rickard 1985; Veart 1986). In 1988 Foster conducted a survey of the remnants of Matukutūruru and mapped all visible features including terraces, middens, walls and mounds (Foster 1988b). More recent survey has taken place at the Matukurua stonefields by Cruickshank (2023), including the digitisation of Sullivan's earlier maps.

The most comprehensive archaeological investigation that has taken place around Alfriston / Takaanini is the cultural heritage investigation carried out by Clough and Baquié for the Takanini Structure Plan (Clough and Baquié 2000). They recorded fifteen colonial and early 20th century sites within the proposed study area, with a marked lack of visible archaeology related to pre-European Māori settlement (Clough and Baquié 2000).

Further south, Russell Foster assessed a proposed subdivision in 2006 which determined most archaeological evidence that is available suggested that pre-European Māori occupation was greater south towards Pukekoiwiriki Pā and none were at risk within the subdivision (Foster 2006a). Foster also assessed the extension of waste and stormwater works nearby (Foster 2006b). No new sites were recorded during the works.

Another relatively large survey nearby the Project area for NoR 4 was carried out in 2015 by Tatton et al. along Mill Road. The sites at the Alfriston and Mill Road junction were researched further and their condition recorded, but no new sites were recorded within the study area. The authors recommended a route that would avoid damage to known sites (Tatton et al. 2015).

4.3.2 Papakura / Drury

Recent increases in proposed housing developments in the outskirts of Auckland have led to several archaeological surveys in this area (Bickler et al. 2013; Clough and Baquié 2000; Cruickshank 2014; Cruickshank et al. 2017; Foster 2014; 2015; Prince and Clough 2003). Other surveys have included those for infrastructure work (e.g., Clough 1995).

In 1995 an archaeological survey along the route of the proposed Waikato River Pipeline was carried out by Clough. This route extended from east of Manurewa to south of Tuakau, crossing through the centre of Papakura and Drury. Archaeological sites along the route were relatively limited, and 80% of the proposed route followed roads. However, several historic buildings were identified, including churches, railyards, and schools. Most of the pre-European Māori sites were at a greater distance from the pipeline route, with the majority situated on the Waikato River. No new sites were recorded during the survey (Clough 1995).

As part of the Hingaia Structure Plan, a Cultural Heritage Investigation was undertaken to identify heritage constraints on the future development of the area (Clough et al. 2000). The study area extended from the coastline to the present-day motorway. The area was surveyed, and new archaeological sites, buildings and trees were recorded, and previous or existing data was updated.

In 2013, Clough and Associates also monitored works around the pump station on Flanagan Road, Drury, as it was near a recorded site R12/742, where the Drury Railway Station and Yards were situated (Bickler et al. 2013). However, this site refers to the station and yards built in 1918, not the original station, which was located further north near Waihoehoe Rd (R12/1139).

West of the Project area, near Pararekau Island, a midden (R12/914) was investigated as part of ground disturbance works for a subdivision (Baquié and Clough 2008b). Before this, the earthworks began without notifying the archaeologists, and a large amount of works had been completed which had destroyed evidence of sites R12/676, R12/677, R12/678 and R12/929. The investigation of R12/914 did not generate enough data to qualify for additional analysis, and evidence of ploughing and discing from previous land working suggested the midden had been too modified for analysis (Baquié and Clough 2008b).

Recent growth in the area has led to the development of the Drury-Ōpaheke Structure Plan. This was developed to guide growth for the next 30 years and commissioned the first large scale desktop study of the area (Brown and Brown 2017). This desktop study discussed general themes and the history of the area, and likely places of settlement. Although the study was extensive and sets a good foundation for future research, it was hampered by the lack of previous systematic survey in the area. Additional archaeological and heritage assessments have been undertaken or are currently underway

for various Te Tupu Ngātahi projects within the Drury-Ōpaheke Structure Plan area including the Drury Arterials AEE (Trilford, 2021) and the Drury Central Train Station (Cruickshank 2021) which will also increase the overall understanding of the landscape.

5 NoR 1 - Great South Road FTN Upgrade

As outlined in the Project description (Section 2), NoR 1 comprises a range of interventions providing for the Great South Road FTN route along Great South Road between Manukau and Drury. These include eight intersection upgrades, and the replacement of the Otūwairoa / Slippery Creek bridge. The wider corridor will provide for either three or four lanes in the midblock including bus lanes in one or both directions, and active mode facilities.

5.1 Desktop Assessment

Within 200m of the proposed designation for NoR 1, fourteen recorded archaeological sites were identified, eleven of which were confirmed to be outside of the proposed designation (refer to Figure 5-1 and Table 5-1). Seven items scheduled in the AUP:OP were identified, four of which are outside of the proposed designation. Twenty-three items listed in the CHI were identified. Fourteen of these items were heritage trees which are not assessed in this document. Of the remaining nine items, six were outside of the proposed designation.

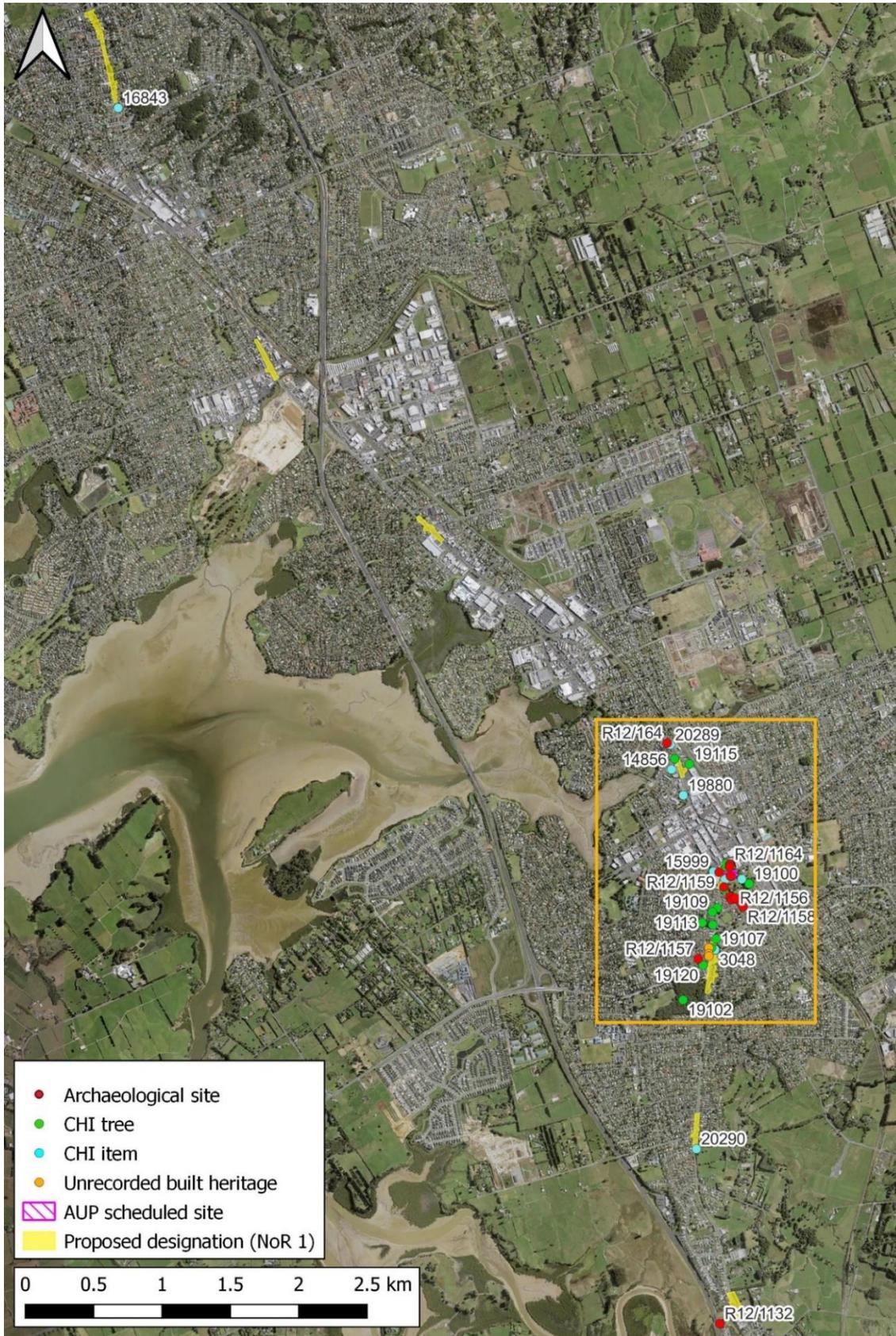


Figure 5-1: Recorded archaeological and heritage sites within 200m across NoR 1. Detail of orange box shown in Figure 5-2.

Table 5-1: Summary of archaeological and heritage sites at NoR 1.

ID	Source	Name / Site Type	Scope
R12/164	NZAA	Midden	Outside designation
R12/961	NZAA	Coles Flour Mill	Outside designation
R12/1132	NZAA	Ōpaheke Pā	Outside designation
R12/1154	NZAA	Papakura Old Central School	Assessed further
R12/1155	NZAA	Building	Outside designation
R12/1156	NZAA	Building	Outside designation
R12/1157	NZAA	Presbyterian Church	Outside designation
R12/1158	NZAA	Building	Outside designation
R12/1159	NZAA	Building	Assessed further
R12/1161	NZAA	Papakura Library	Assessed further
R12/1162	NZAA	Building	Outside designation
R12/1163	NZAA	Building	Outside designation
R12/1164	NZAA	Papakura Police Station	Outside designation
R12/1165	NZAA	Papakura Courthouse and Lockup	Outside designation
00706	AUP:OP	Military Milestone Plaque	Assessed further
00708	AUP:OP	Christ Church Anglican Church	Outside designation
02789	AUP:OP	Papakura Centennial Restrooms	Outside designation
02800	AUP:OP	Papakura Presbyterian Church	Outside designation
02801	AUP:OP	Papakura / Karaka WWI Memorial	Assessed further
02830	AUP:OP	Papakura Old Central School	Assessed further
02831	AUP:OP	Papakura Courthouse and Lockup	Outside designation
3048	CHI	Milepost 20	Assessed further

ID	Source	Name / Site Type	Scope
12924	CHI	WWI Memorial Oak	Assessed in separate Arboricultural Assessment
15999	CHI	Catholic Convent	Outside designation
16003	CHI	Papakura / Karaka WWI Memorial	Assessed further
16843	CHI	Milepost	Outside designation
19100	CHI	Grove of Oaks	Outside designation
19102	CHI	Kirk's Bush	Assessed in separate Arboricultural Assessment
19105	CHI	Phoenix Palm	Assessed in separate Arboricultural Assessment
19106	CHI	Plane and Acmena trees	Assessed in separate Outside designation
19107	CHI	Scarlet Gums	Assessed in separate Arboricultural Assessment
19108	CHI	Rimu, Kauri, Phoenix Palm, and Oaks	Assessed in separate Arboricultural Assessment
19109	CHI	Kauri	Outside designation
19110	CHI	Phoenix Palm	Outside designation
19113	CHI	Oak	Outside designation
19115	CHI	Oak	Outside designation
19116	CHI	Jacaranda and Puriri	Outside designation
19120	CHI	Walnut	Outside designation
19121	CHI	Phoenix Palm	Assessed in separate Arboricultural Assessment

ID	Source	Name / Site Type	Scope
19880	CHI	Christ Church Anglican Church	Outside designation
20289	CHI	Milepost 19	Outside designation
20290	CHI	Milepost 21	Assessed further
20311	CHI	Papakura Centennial Restrooms	Outside designation
21912	CHI	Papakura Courthouse and Lockup	Outside designation

5.2 Field Assessment

In general, this NoR is within highly developed residential and industrial areas. Buildings and modified land are present either side of the road along the NoR boundaries, with the exception of the Slippery Creek crossing, where less modified land is present on the eastern side.

During desktop research (Section 5.1), three archaeological sites and three CHI items (two of which have AUP:OP scheduled extents), as well as one AUP:OP item, were found to have potential to be within the proposed designation boundaries, and these locations were inspected during the field assessment (Figure 5-3). In addition to these sites, three buildings with potential heritage values were identified during the field survey in the vicinity of the proposed designation boundaries and are discussed below. No other archaeological sites were identified during the survey, but there is potential for unrecorded subsurface archaeology to be present across the NoR, particularly in close proximity to waterways such as Ōtuwairoa / Slippery Creek.



Figure 5-3: Archaeological and heritage sites assessed in NoR 1.

5.2.1 Archaeological sites

5.2.1.1 R12/1154 – Papakura Old Central School (AUP:OP Scheduled extent 2830)

Papakura School opened in 1877 and was the only school in Papakura until 1954. It remained in use until 1972. The building illustrates a mixture of Edwardian and Queen Anne styles. This site was recorded in the SRS by Trilford in 2020 and is also scheduled in the AUP:OP (item 2830) and the proposed designation extends into the scheduled extent of place. While the school building itself, now in use as a community hall (Figure 5-4). Figure 5-4: Papakura Old Central School (R11/1154) – outside of the proposed designation.

Although Papakura Old Central School (R11/1154) is outside of the proposed designation, the stone wall and gate used as an entrance to the property do fall within the proposed designation and could be affected by construction (Figure 5-5). The four central pillars and gate were constructed in 1926, with the walls on either side constructed sometime after this, and are contributing features to the wider scheduled site (Auckland Council 2017).



Figure 5-4: Papakura Old Central School (R11/1154) – outside of the proposed designation.



Figure 5-5: Entrance gate to Papakura Old Central School (R11/1154).

5.2.1.2 R12/1159 – Building

An 1886 map (Auckland Libraries Heritage Collections Map 9324) shows a building in this location. No surface remains are present, but subsurface material could remain. This site was recorded by Trilford in 2020 and is now a large modern building occupied by several businesses, entirely surrounded by paved / tar sealed surfaces. No surface evidence of the pre-1900 building was visible, but subsurface material may be present within the proposed designation.

5.2.1.3 R12/1161 – Papakura Library

There is no surface evidence of the Papakura Library, which was recorded by Trilford in 2020 based on its location in a map from 1886 (Auckland Libraries Heritage Collections Map 9324) and is now the location of a WWI Memorial (CHI item 16003) (Figure 5-6). However, the proposed designation does extend into the extent marked on the 1886 map and it is possible that pre-1900 subsurface material is present within the designation (Figure 5-7).



Figure 5-6: Location of Papakura Library (R12/1161), now a war memorial (16003).

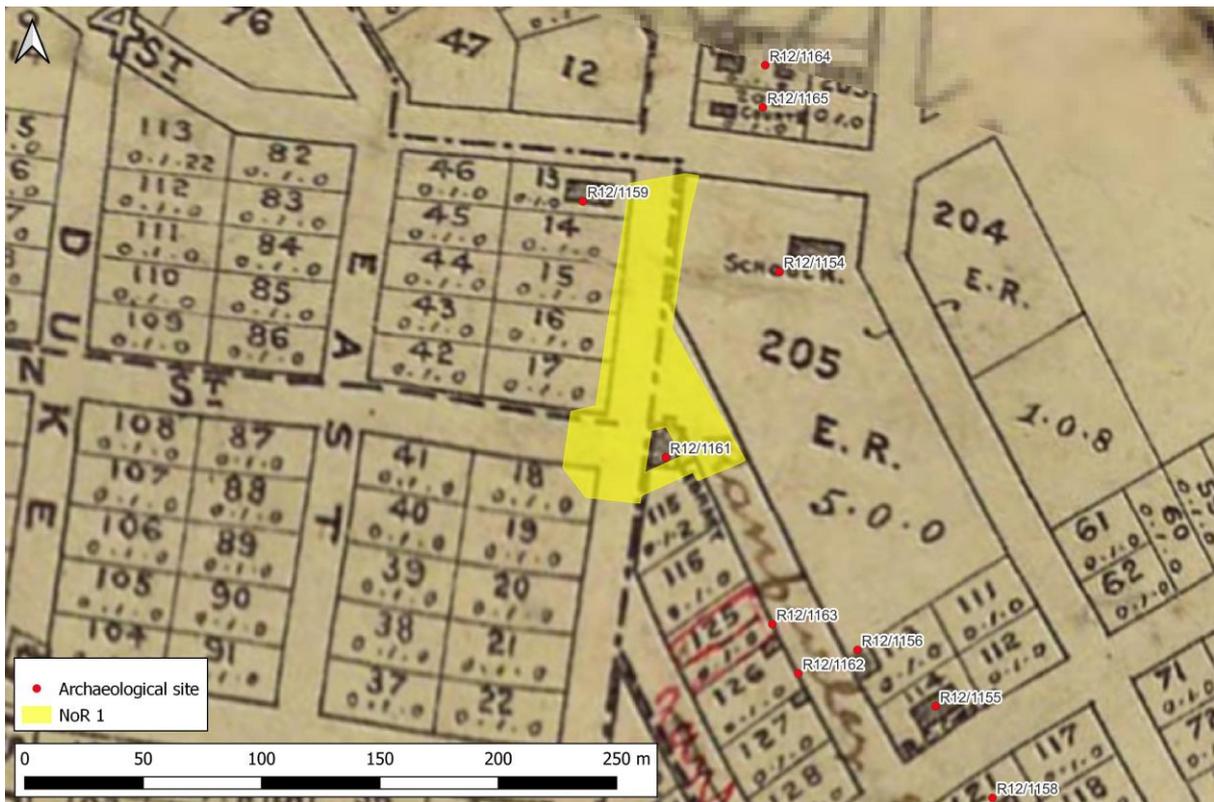


Figure 5-7: Proposed designation for NoR 1 overlain on Map 9324 from 1886, showing extent of library building (R12/1161).

5.2.2 CHI items

5.2.2.1 3048 – Milepost 20

This site was recorded by Sally Burgess in 2000 as the approximate location of milepost 20. In the 1860s, a series of 22 mileposts were constructed along Great South Road to mark the mileage from Auckland to Drury. They were triangular in shape and made from totara. Only 2 mileposts remain standing; these are mileposts 15 and 22, but 15 has been moved from its original position and 22 is suspected to be a later replica. The location of this item is within the proposed designation boundaries, in a grass garden near a copse of trees, though there is no surface evidence of this item.

5.2.2.2 16003 – WWI Memorial (Scheduled extent 02801)

This site is scheduled in the AUP:OP (02801)(Figure 5-8) and the proposed designation extends into the scheduled extent of place, including some of the walls and steps of the monument, indicating there is potential for this item to be impacted by construction works (

Figure 5-9: Map showing proposed extent of NoR 1 encroaching into War Memorial (16003).



Figure 5-8: Papakura / Karaka War Memorial (16003).



Figure 5-9: Map showing proposed extent of NoR 1 encroaching into War Memorial (16003).

5.2.2.3 20290 – Milepost 21

This site was recorded by Burgess in 2000 as the approximate location of milepost 21. The roadside where this milepost was recorded is a landscaped grass berm with footpath and dense planting between the road reserve and adjacent property. There is no surface evidence of this item (Figure 5-10).



Figure 5-10: View of approximate location of Milepost 21 (20290).

5.2.3 AUP:OP scheduled items

5.2.3.1 00706 – Military Milestone Plaque

The AUP:OP lists 00706 as a B category scheduled historic heritage site, located at 312 Great South Road, Papakura. The site has been scheduled as a “military milestone plaque” for its knowledge value. This site is not visible in the Auckland Council Geomaps and no spatial extent has been identified. The address provided is Chisholm’s Corner, where several features were noted during the site survey. There is a prominent man-made mound / hill with a damaged metal flower sculpture (possibly a poppy) atop it, a stone-walled ditch through a second mound with a plaque commemorating Chisholm, the first European land-owner in the area, and a flagpole with a plaque commemorating 50 years of the Rotary club in this area.

Nothing which could be considered a military milestone plaque was identified during the site visit. Looking at historic aerial photos accessed from Retrolens and Auckland Council’s Geomaps, this park was not built until sometime between 1989 and 1996. The plaque for the Rotary flagpole is dated to 1998 and is presumably a slightly later addition. However, it is clear that all features at this park date to the early 1990s at the earliest, and have no historic value.

The park, including the Rotary flagpole / plaque and Chisholm's plaque, is within the designation and likely to be affected by construction, but the features have no heritage value, dating to the 1990s, and could be relocated outside of the designation boundary with no loss of any historic context or value. No military milestone plaque exists within the designation at this location, and it seems that there is an error in the AUP:OP listing. As such, this item is not assessed further.



Figure 5-11: Chisholm's Corner with flower sculpture atop main hill.

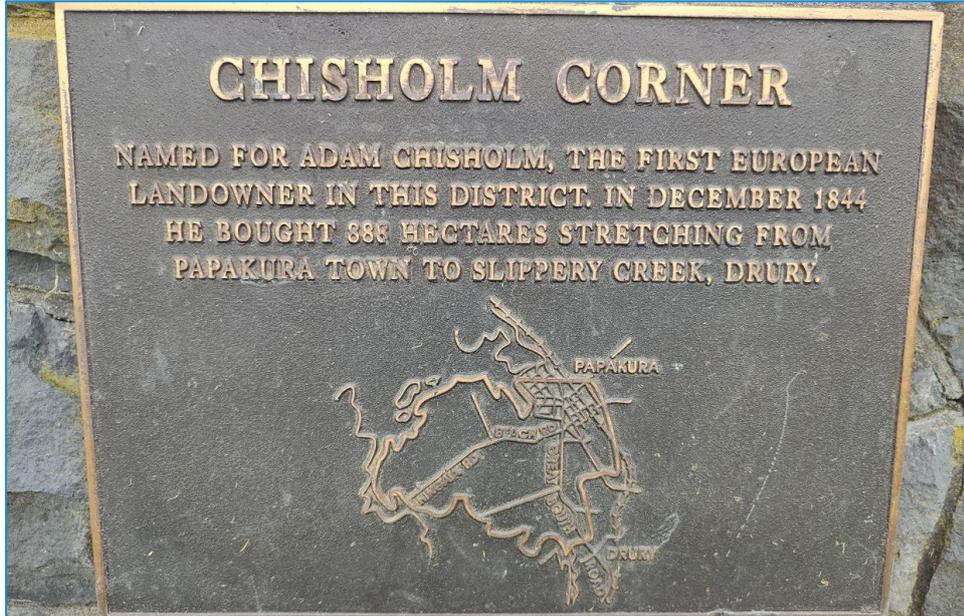


Figure 5-12: Plaque at Chisholm's Corner.

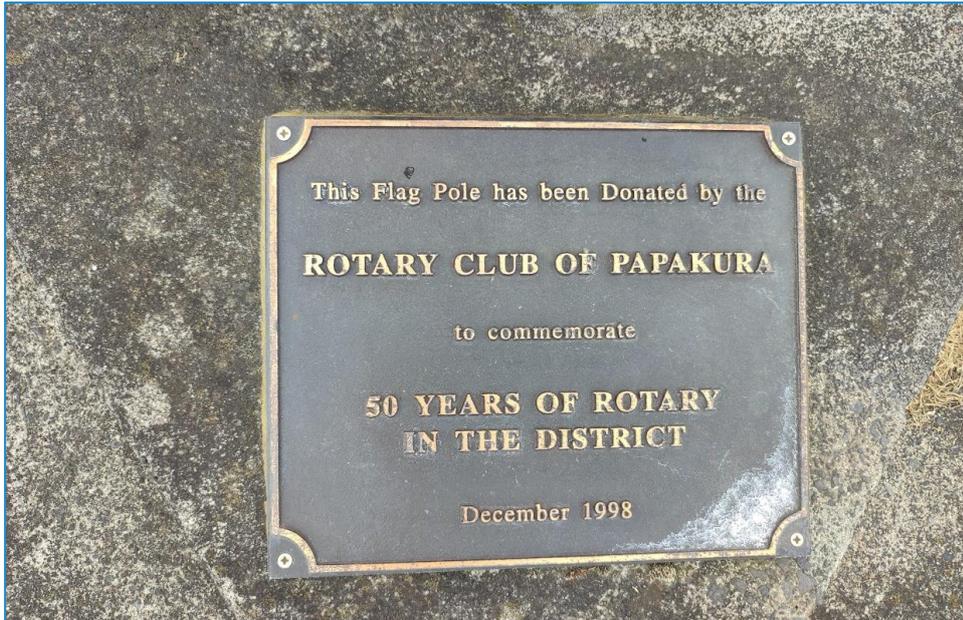


Figure 5-13: Rotary plaque at the flagpole on Chisholm's Corner.

5.2.4 Unrecorded pre-European Māori sites

The proposed designation crosses the Ōtūwairoa / Slippery Creek where a new bridge is required (Figure 5-14 and Figure 5-15). The crossing is immediately west of R12/1132 / Ōpaheke Pā and kāinga, though the proposed designation is separated from the headland by the Hingaia Stream.

It is likely that land use and settlement extended beyond the recorded kāinga and pā, along both the Ōtūwairoa / Slippery Creek and the Hingaia Stream, and it is possible that evidence of this land use remains along the riverbanks and within the proposed designation, where modification (ie. retaining walls around the current bridge abutments) has been limited. If encountered, evidence of this land use would likely be recorded as separate archaeological sites, which could include archaeological features such as, but not limited to, midden, fire features, post holes, and artefactual remains.



Figure 5-14: View east from Slippery Creek overbridge towards wetland area beside stream.



Figure 5-15: Southern abutment of Slippery Creek overbridge showing retaining wall.

5.2.5 Unrecorded built heritage

Three buildings with potential built heritage values were identified during the field survey. While the structures themselves are not within the proposed designation and not subject to any existing statutory protection, the property curtilages will be affected. These buildings are discussed below. Specialist assessment by a built heritage expert may be required for these sites to assess whether the proposed works could impact potential heritage values.

5.2.5.1 355 Great South Road

This is an Art Deco / Moderne style house, now in use as a physiotherapy clinic (Figure 5-16). The Moderne style came into use in New Zealand in the 1930s. It has been very well maintained with the character and style of the house still being very recognisable, with typical features such as the flat roof with parapet, curved stucco walls, and continuous windows flush with the walls. The dark coloured paint is not traditional, as these houses were usually painted bright white or cream (Salmond 1986). This house is visible in historic aerials from 1939 (SN139-36-10). Similar Moderne style buildings along Jervois Road have recently been proposed for scheduling in the AUP:OP (02452).



Figure 5-16: Moderne style house at 355 Great South Road, Papakura.

5.2.5.2 359 Great South Road

This is a Spanish Mission style house (Figure 5-17). The house overall is in relatively good condition, though in need of maintenance, and is largely unmodified from its original appearance. Typical of this style, the house has a plastered exterior, a parapet obscuring the low hipped roof, and decorative half-round Spanish tiles (or the often substituted half drain-pipes) along one edge of the parapet. The house has an arched entrance to the front portico, decorative hooded chimney, and rows of faux beams. The window awnings are a later addition (Salmond 1986). Houses of this style were typically

constructed between 1930 and 1940, and historic aerials show this house being present in 1939 (SN139-36-10). Similar examples of Spanish Mission style houses at 43 and 56 Marsden Avenue, Mount Eden, are scheduled in the AUP:OP as part of historic heritage area 02562.



Figure 5-17: Spanish Mission style house at 359 Great South Road, Papakura.

5.2.5.3 361 Great South Road

This is another Spanish Mission style house (Figure 5-18). The house overall is in reasonable condition, though in need of maintenance. The section of the house shown on the right of Figure 5-18 may be a later addition. Characteristics of this house exhibiting the Spanish Mission style include the stucco exterior, parapet, arched window detailing, and the arched portico entrance with wrought iron gate (Salmond 1986). Houses of this style were typically constructed between 1930 and 1940, and historic aerials show this house being present in 1939 (SN139-36-10).



Figure 5-18: Spanish Mission style house at 361 Great South Road, Papakura.

5.3 Assessment of effects

5.3.1 Positive effects

Although any archaeological or historic heritage sites encountered within the proposed area of works (either known or unknown) are likely to be destroyed, the subsequent investigations undertaken would help provide information about the sites. This information could be presented to the public through interpretive panels or displays.

5.3.2 Adverse construction effects

Three archaeological sites (one of which is also scheduled in the AUP:OP) and three CHI items (one of which is also scheduled in the AUP:OP) have been identified as having potential to be within the proposed designation boundaries. These are a historic building (R12/1159), Papakura Library (R12/1161), Papakura Old Central School (R12/1154; AUP 02830), a WWI memorial (12924; AUP 02801), and two mileposts (3048 and 20290). Three 1930s buildings have also been identified (Section 5.2.5) which are not assessed here but may require further investigation by a built heritage expert.

These sites are assessed below, with sites recorded in the SRS assessed under the criteria set out in HNZPTA (2019) and those recorded in the CHI or scheduled in the AUP:OP assessed under criteria set out in Chapter B.5 of the AUP:OP and the Auckland Council Methodology for Evaluating Historic Heritage Significance (2019).

The following assessments of values and significance relate only to archaeological and historic heritage values. Other interested parties, in particular Manawhenua, may hold different values regarding the sites.

As set out in the AEE, construction activities such as topsoil stripping, pavement removal and other earthworks are anticipated within the designation boundaries. Overall, any remaining archaeological material encountered during construction within the designation boundaries may be destroyed if unable to be preserved or avoided.

5.3.3 Assessment under the HNZPTA

5.3.3.1 R12/1159 – Building

Condition	There is no surviving surface evidence of this building but it is possible that subsurface material remains in situ.
Rarity	Archaeology associated with pre-1900 buildings is not common in this area.
Context	This building was part of the early colonial settlement of Papakura.
Information	Depending on the material retrieved, there is potential to gain information on the use and purpose of this building, methods and styles of construction, and more generally on the colonial history of Papakura.
Amenity	There are no surface remains visible to the public.
Cultural	This is a colonial period site.

5.3.3.2 R12/1161 – Papakura Library

Condition	There is no surviving surface evidence of this building but it is possible that subsurface material remains in situ.
Rarity	Archaeology associated with pre-1900 buildings is not common in this area.
Context	This building was part of the early colonial settlement of Papakura.
Information	Depending on the material retrieved, there is potential to gain information on methods and styles of construction, and more generally on the colonial history of Papakura.
Amenity	There are no surface remains visible to the public.
Cultural	This is a colonial period site.

5.3.3.3 Previously unrecorded pre-European Māori midden/oven

Condition	The condition of any unrecorded sites are unknown, but likely to be entirely subsurface.
Rarity	Surviving evidence of pre-European Māori land-use is rare in this area.
Context	Any unrecorded sites would form part of the archaeological record of the Manukau lowlands and, more specifically, pre-European Māori land-use around the Hingaia and Otūwairoa.

Information	Any unrecorded sites would help to improve knowledge on the distribution of sites in the Manukau lowlands. The most likely type of site to be found would be midden; middens can provide information about the subsistence, resource use, dietary patterns and residential patterns of pre-European Māori populations. If charcoal or other datable material is found within a secure context, it could provide temporal information about the use of the features.
Amenity	The amenity of any unrecorded site is unknown.
Cultural	This assessment refers to potential pre-European Māori sites.

5.3.4 Assessment under AUP:OP Chapter B5

5.3.4.1 Papakura Old Central School (R12/1154; Scheduled heritage extent 2830)

Papakura Old Central School is scheduled as a Category B historic heritage place (item 2830) in the AUP:OP based on its Historical, Social and Aesthetic values. These are described below:

Historical	This site was part of the early colonial settlement of Papakura and the local history of the area, being the first purpose built school in the area in 1877 when it opened. It remained in used through to the 1970s and had various alterations and additions throughout this time, including the 1920s gate and wall which are the only element of this site potentially affected by the Project.
Social	This site is now in use as a community hall and gathering space, with a public park surrounding it. The entrance gates provide access to this community space.
Aesthetic	Though modified over time, the building is well maintained and surrounded by well-kept and landscaped park and infrastructure, acting as a green space within the town. The entrance gate and wall is highly visible from the town centre and acts as a border to this part of the park and wider site, providing architectural detail around the green space.

5.3.4.2 WWI Memorial (CHI 12924; Scheduled heritage extent 2801)

The Papakura WWI Memorial is scheduled as a Category B historic heritage place (item 2801) in the AUP:OP based on its historical, social, physical, aesthetic and context values. These are described below:

Historical	This memorial commemorates contributions from the local community to a part of world history.
Social	This site is a highly visible landmark within the community and is a place of remembrance.
Physical	This site is a highly visible landmark within the community.
Aesthetic	This site is a highly visible landmark within the community with artistic and architectural value.

Context This site commemorates contributions from the local community to a part of world history and has high contextual values in both a historical sense and in terms of WWI remembrance and ANZAC.

5.3.4.3 3048 – Milepost 20

Historical This site is part of the construction and use of Great South Road and has moderate historical value as part of the local history of the area.

Social This site is not visible to the public and has no social value.

Manawhenua Only Manawhenua can comment on the value of the site to them.

Knowledge This site has been destroyed on the surface and there is unlikely to be any subsurface remains to investigate. This site likely has no knowledge value.

Technology No unique or innovative technological attributes remain at this site. This site has no technology value.

Physical There are no surface remains at this site. This site likely has no physical value.

Aesthetic There are no surface remains at this site. This site has no aesthetic value.

Context This site has low contextual value as part of the construction and use of Great South Road.

This site has moderate value based on its highest value, which is its historical value. Retention of values is desirable but it does not warrant any special protections and any loss of heritage values can be mitigated by archaeological monitoring and the recording, sampling, analysis, and reporting of any materials or features encountered.

5.3.4.4 20290 – Milepost 21

Historical This site is part of the construction and use of Great South Road and has moderate historical value as part of the local history of the area.

Social This site is not visible to the public and has no social value.

Manawhenua Only Manawhenua can comment on the value of the site to them.

Knowledge This site has been destroyed on the surface and there is unlikely to be any subsurface remains to investigate. This site likely has no knowledge value.

Technology No unique or innovative technological attributes remain at this site. This site has no technology value.

Physical There are no surface remains at this site. This site likely has no physical value.

Aesthetic There are no surface remains at this site. This site has no aesthetic value.

Context This site has low contextual value as part of the construction and use of Great South Road.

This site has moderate value based on its highest value, which is its historical value. Retention of values is desirable, but it does not warrant any special protections and any loss of heritage values can be mitigated by archaeological monitoring and the recording, sampling, analysis, and reporting of any materials or features encountered.

5.3.5 Adverse operational effects

No operational effects on archaeology or heritage have been identified.

6 NoR 2 – Great South Road Upgrade (Drury section)

As outlined in the Project description (see Section 2), NoR 2 comprises a range of interventions providing for the upgrade of Great South Road in Drury between Waihoehoe Road and the SH1 Drury Interchange. These include road widening to provide four lanes, active mode facilities, and the replacement of the Hingaia Stream bridge.

6.1 Desktop Assessment

Within 200 m of the proposed designation for NoR 2, eight recorded archaeological sites were identified, as well as one item scheduled in the AUP:OP and ten CHI items (Figure 6-1 and Table 6-1). All of these sites are outside of the proposed designation.

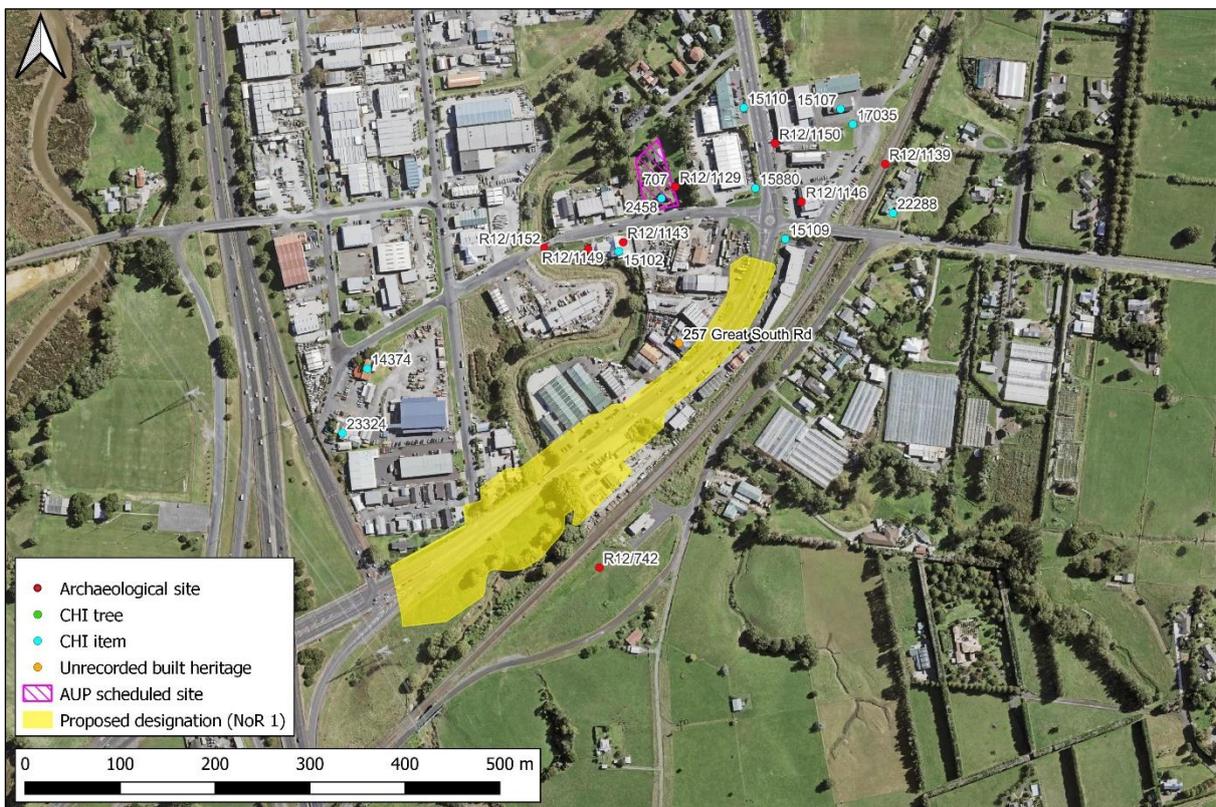


Figure 6-1: Recorded archaeological and heritage sites within 200 m of NoR 2.

Table 6-1: Summary of archaeological and heritage sites at NoR 2

ID	Source	Name / Site Type	Scope
R12/742	NZAA	Drury Railyards	Outside designation
R12/1129	NZAA	Saint John's Anglican Church	Outside designation
R12/1139	NZAA	Drury Railway Station	Outside designation
R12/1143	NZAA	Drury Post Office and Shops	Outside designation

ID	Source	Name / Site Type	Scope
R12/1146	NZAA	Railway Hotel	Outside designation
R12/1149	NZAA	Building	Outside designation
R12/1150	NZAA	Building	Outside designation
R12/1152	NZAA	Bridge	Outside designation
00707	AUP:OP	Saint John's Anglican Church	Outside designation
2458	CHI	Saint John's Anglican Church	Outside designation
14374	CHI	Norrie Street Presbyterian Church	Outside designation
15102	CHI	Drury Cheese and Casein Factory	Outside designation
15107	CHI	Drury Hall	Outside designation
15109	CHI	Drury Commercial Buildings	Outside designation
15110	CHI	Fancombe Parade Shops	Outside designation
15880	CHI	Drury Post Office	Outside designation
17035	CHI	Drury WWI Memorial	Outside designation
22288	CHI	Railway Bungalows	Outside designation
23324	CHI	Drury Manse	Outside designation

6.2 Field Assessment

This NoR is within an industrial area running parallel to the railway line and is bisected by the Hingaia Stream. During desktop research (Section 5.1), no recorded archaeological or heritage sites were found to have potential to be within the proposed designation boundaries. However, during the field assessment a building with possible heritage values was identified in the vicinity of the proposed designation boundaries and is discussed below (Figure 6-2).

6.2.1 Unrecorded pre-European Māori sites

No other archaeological sites were identified during the survey, but there is potential for unrecorded subsurface pre-European Māori archaeology to be present, particularly in close proximity to the Hingaia Stream where there is a section of relatively unmodified land (Figure 6-3

Figure 6-3: View south of Hingaia Stream from the current bridge.

Unrecorded evidence of land use around the Hingaia may include archaeological features such as, but not limited to, midden, fire features, postholes, and artefactual remains.

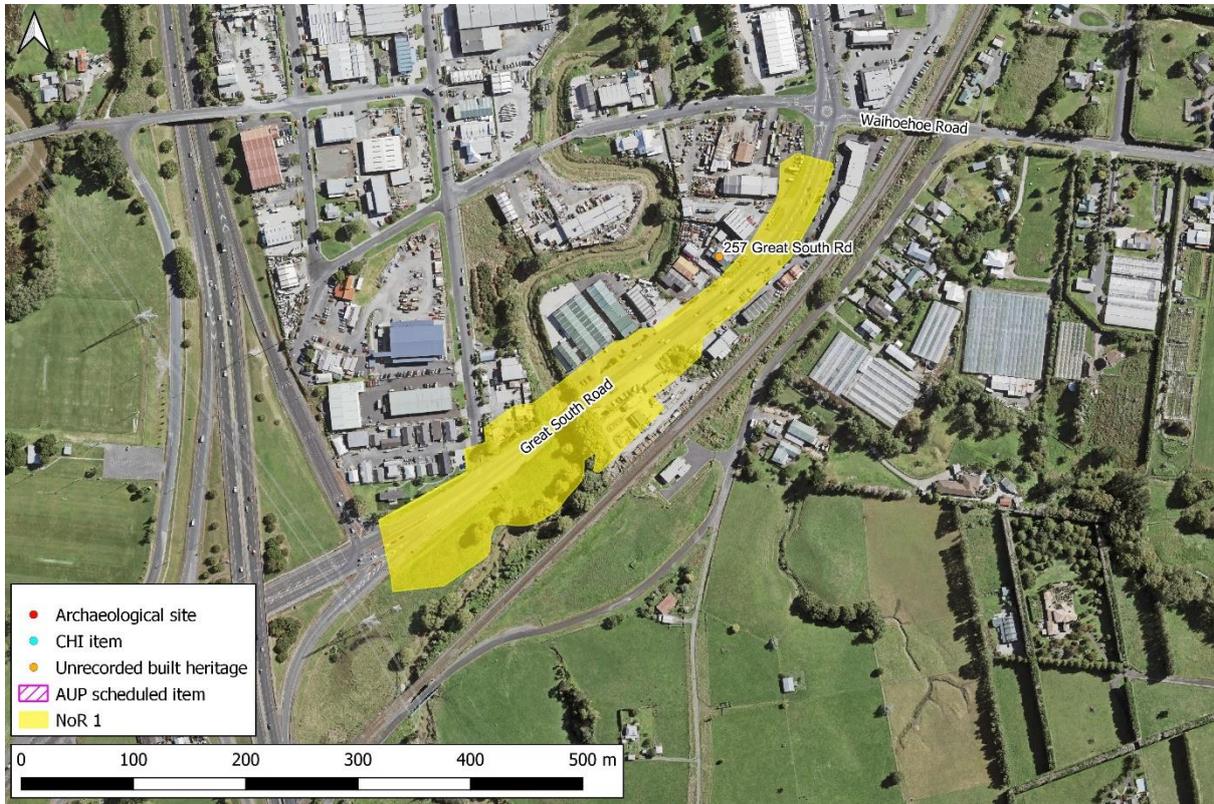


Figure 6-2. Heritage sites assessed at NoR 2.



Figure 6-3: View south of Hingiaia Stream from the current bridge.

6.2.2 Unrecorded built heritage

One building with potential built heritage values was identified during the field survey. While the structure itself is not within the proposed designation and not subject to any existing statutory protection, the property curtilage will be affected. Specialist assessment by a built heritage expert may be required for this site.

6.2.2.1 257 Great South Road

This is an example of a Californian / New Zealand Bungalow style house, now in use as a veterinary clinic (Figure 6-4). This style came into use in New Zealand around 1910, persisting in popularity until c.1940. It has been very well maintained with the character and style of the house still being recognisable, with typical features such as the six-light bow window, weatherboard cladding, projecting faux ceiling joists, the louvered square ventilator at the gable, and enclosed brick porch (Salmond 1986). This house is visible in historic aerials from 1942 (SN192-274-18). Examples of similar bungalow style houses which are scheduled include the Lippiatt Road historic heritage area in Otāhuhu (02564), and at Renall Street in Freemans Bay (02512).



Figure 6-4: Bungalow at 257 Great South Road, Drury.

6.3 Assessment of effects

6.3.1 Positive effects

Although any archaeological sites encountered within the proposed area of works (either known or unknown) are likely to be destroyed, the subsequent archaeological investigations undertaken would help provide information about the sites. This information could be presented to the public through interpretive panels or displays.

6.3.2 Adverse construction effects

No previously recorded archaeological or heritage sites have been identified within the proposed designation. However, there is potential for unrecorded pre-European Māori sites to be encountered, particularly around Hingaia Stream. The following assessment of values and significance relates only to archaeological values. Other interested parties, in particular Manawhenua, may hold different values regarding the sites.

A bungalow at 257 Great South Road, Drury, with potential heritage values has also been identified which is not assessed here, but may require further investigation by a built heritage expert.

As set out in the AEE, construction activities such as topsoil stripping, pavement removal and other earthworks are anticipated within the designation boundaries. Overall, any remaining archaeological material encountered during construction within the designation boundaries could be destroyed if unable to be preserved or avoided.

6.3.3 Assessment under the HNZPTA

The following assessment of archaeological values is based on the criteria set out in the HNZPTA (2019).

6.3.3.1 Previously unrecorded pre-European Māori midden/oven

Condition	The condition of any unrecorded sites are unknown, but likely to be entirely subsurface.
Rarity	Surviving evidence of pre-European Māori land-use is rare in this area.
Context	Any unrecorded sites would form part of the archaeological record of the Manukau lowlands and, more specifically, pre-European Māori land-use around the Hingaia.
Information	Any unrecorded sites would help to improve knowledge on the distribution of sites in the Manukau lowlands. The most likely type of site to be found would be midden; middens can provide information about the subsistence, resource use, dietary patterns and residential patterns of pre-European Māori populations. If charcoal or other datable material is found within a secure context, it could provide temporal information about the use of the features.
Amenity	The amenity of any unrecorded site is unknown.
Cultural	This assessment refers to potential pre-European Māori sites.

6.3.4 Adverse operational effects

No operational effects on archaeology and heritage were identified.

7 NoR 3 – Takaanini FTN – Weymouth Road, Alfriston Road and Great South Road Upgrades

As outlined in the Project description (see Section 2), NoR 3 comprises a range of interventions providing for the Takaanini FTN route along Weymouth and Alfriston Roads generally between Selwyn Road and Alfriston Park; as well as for the Great South Road FTN route between Alfriston Road and Myers Road. These interventions include road widening to provide for four lanes (general traffic and bus lanes in both directions), active mode facilities, eight intersection upgrades, stormwater treatment wetlands, and replacements of bridges over the NIMT and SH1.

7.1 Desktop Assessment

Within 200m of the proposed designation for NoR 3, one archaeological site, one item scheduled in the AUP:OP, and five items in the CHI were identified (Figure 7-1 and Table 7-1). The AUP:OP scheduled extent and four of the CHI items were determined to be outside of the proposed designation. The remaining three items are discussed below.

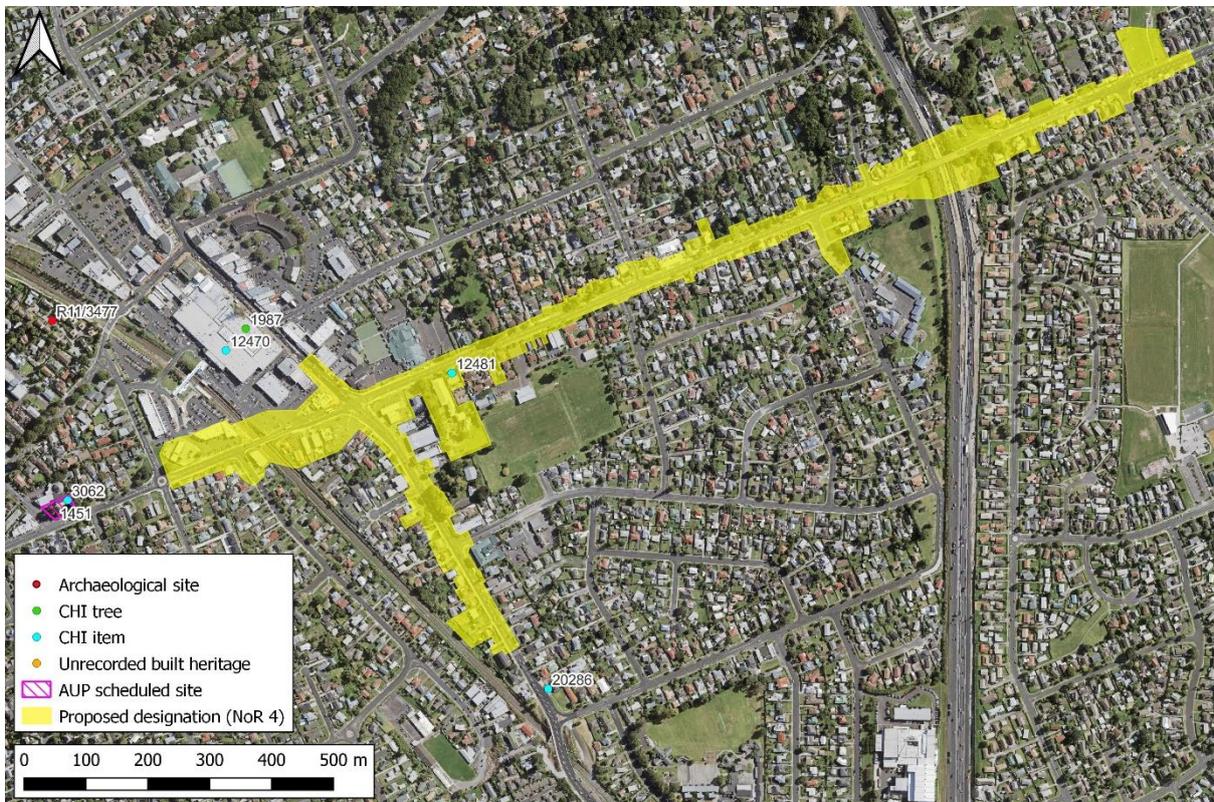


Figure 7-1: Recorded archaeological and heritage sites within 200 m of NoR 3.

Table 7-1: Summary of archaeological and heritage sites at NoR 3.

ID	Source	Name / Site Type	Scope
R11/3477	NZAA	Manurewa Railway Station	Assessed further
01451	AUP:OP	Saint Luke's Anglican Church	Outside designation
1987	CHI	Norfolk Pine	Outside designation
3062	CHI	Saint Luke's Anglican Church	Outside designation
12470	CHI	Tyre Ring Platform	Outside designation
12481	CHI	House	Assessed further
20286	CHI	Milepost 16	Outside designation

7.2 Field Assessment

This NoR is within a significantly developed residential area (Figure 7-2). Buildings and modified land are present either side of the road along the entire NoR boundaries. Within 200 m of the proposed designation, one archaeological site, five CHI items and one AUP:OP listed site were identified during desktop research. The majority of the sites were found to be outside of the scope of works, as described in Section 7.1 above.

The archaeological site and one CHI item were identified as having the potential to be within the proposed designation. No further archaeological sites or heritage items were identified during the survey.

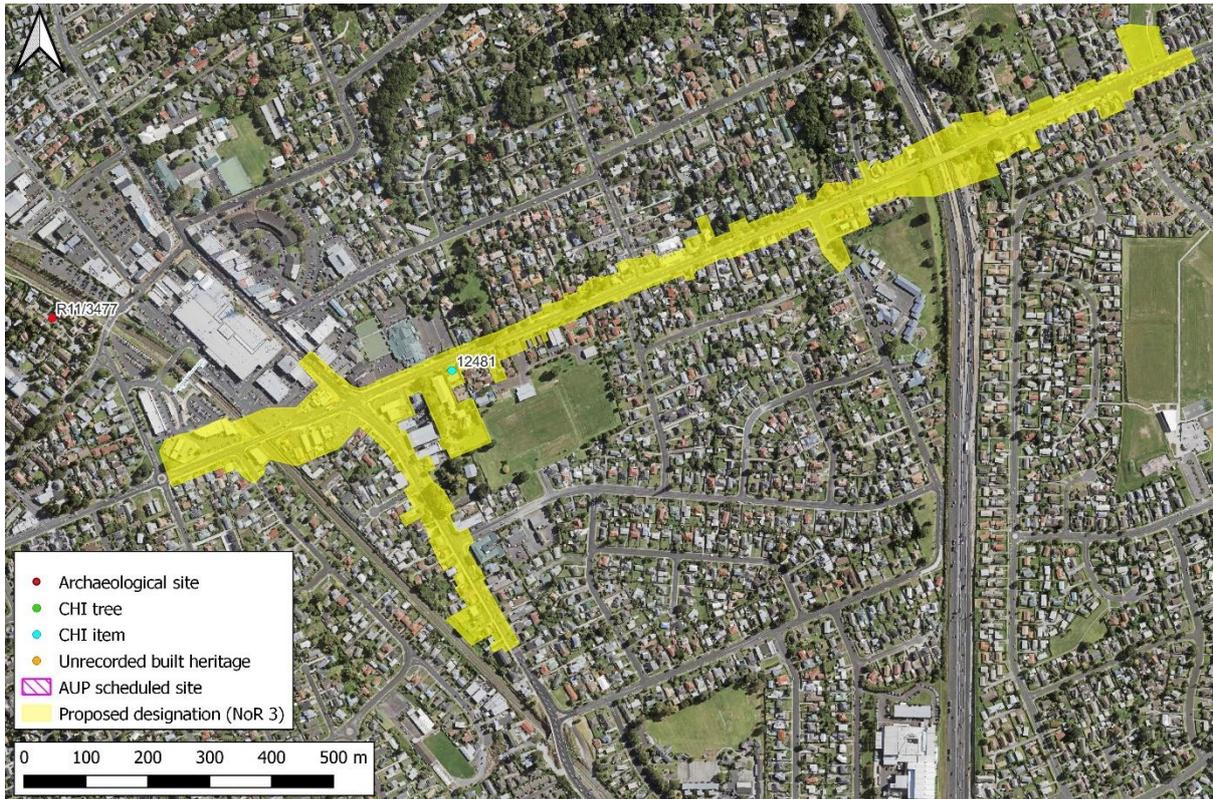


Figure 7-2: Heritage items assessed in NoR 3.

7.2.1 Archaeological sites

7.2.1.1 R11/3477 Manurewa Railway Station

This is the original location of the Manurewa Railway Station. The Station opened in 1875 and closed in 1993 (Scoble, 2010). As of 1899, the station was a 4th class station including passenger platform, cart approach, goods shed, loading bank, urinals, stationmasters house, and post office (Scoble, n.d).

No surface evidence of this site remains, but subsurface material may still be present. While the platform itself is outside of the proposed designation, materials from associated station features such as those listed above may be present within the proposed designation.

7.2.2 CHI items

7.2.2.1 12481 – House

This house, at 11 Alfriston Road, was constructed in the 1940s or 1950s and has been listed in the CHI for its use of clay bricks in its construction (Figure 7-3). The house is within the proposed designation and would likely be demolished during construction for the Project.



Figure 7-3: 11 Alfriston Road (12481).

7.3 Assessment of effects

7.3.1 Positive effects

Although any archaeological sites encountered within the proposed area of works (either known or unknown) would likely be modified or destroyed, the subsequent archaeological investigations undertaken would help provide information about the sites. This information could be presented to the public through interpretive panels or displays.

7.3.2 Adverse construction effects

One archaeological site (R11/3477) and one CHI item (12481) were identified within the proposed designation. These sites are assessed below under the HNZPTA and the AUP:OP, Chapter B5, respectively. The following assessments of values and significance relate only to archaeological values. Other interested parties, in particular Manawhenua, may hold different values regarding the sites. It is recommended that further assessment of the house (12481) be undertaken by a built heritage expert.

As set out in the AEE, construction activities such as topsoil stripping, pavement removal and other earthworks are anticipated within the designation boundaries. Overall, any remaining archaeological material encountered during construction within the designation boundaries could be destroyed if unable to be preserved or avoided.

7.3.3 Assessment under the HNZPTA

The following assessment of archaeological values is based on the criteria set out in the HNZPTA (2019).

7.3.3.1 R11/3477 Manurewa Railway Station

Condition	All surface evidence has been destroyed but subsurface material may be present, though the condition of any subsurface material is unknown.
Rarity	Evidence related to pre-1900 railway stations in Auckland is not common. Any archaeological evidence related to the original station would be relatively uncommon.
Context	This site should be considered as having high contextual values, as it relates to the construction and development of the railway lines in Auckland, which are still in operation, and the pre-1900 railway industry.
Information	This site could provide information regarding the design and construction processes, as well as the use, of railway stations from the 1880s onwards. The station grew over time and different features from this site would show how the station grew and changed to cope with the needs of the surrounding settlers and industries, including the need to accommodate passengers and stock, and to be able to store and move goods.
Amenity	There is no visible surface evidence and this site is unlikely to have amenity values.
Cultural	This assessment refers to a colonial era site.

7.3.4 Assessment under AUP:OP Chapter B5

The following assessments of values follow the Auckland Council Methodology for Evaluating Historic Heritage Significance (2019).

7.3.4.1 12481 – House

Historical	This house was built in the 1940s or 1950s and has no historical value.
Social	This site is a private residence and has no association to any particular community or cultural group. This site has little to no social value.
Manawhenua	Only Manawhenua can comment on the value of the site to them.
Knowledge	This site appears to be in relatively original condition, though bricks have been painted, and is of relatively modern construction, therefore having low knowledge value.
Technology	No unique or innovative technological attributes remain at this site. This site has no technology value.
Physical	This site is an example of the use of clay bricks in construction but is not rare or unique, being a relatively recent construction (1940s or 1950s). This site has low physical value.

Aesthetic	This site is not notable or distinctive for its visual qualities. This site has no aesthetic value.
Context	This site does not contribute to the wider historical or cultural context of the community and has no contextual value.

This site has low values based on its highest values, which are its knowledge and physical values. Retention of values is desirable, but it does not warrant any special protections and any loss of heritage values can be mitigated by archaeological monitoring and the recording, sampling, analysis, and reporting of any materials or features encountered.

7.3.5 Adverse operational effects

No operational effects on archaeology and heritage have been identified.

8 NoR 4 – Takaanini FTN – Porchester Road and Popes Road Upgrades

As outlined in the Project description (see Section 2), NoR 4 comprises a range of interventions providing for the Takaanini FTN route along Porchester Road generally between Alfriston Road and Walters Road; and for the urbanisation of Popes Road generally between Takanini School Road and Mill Road. These interventions provide for the urbanisation of both corridors, with two traffic lanes, widening for active mode facilities, seven intersection upgrades, and stormwater treatment wetlands.

8.1 Desktop Assessment

Within 200m of the proposed designation for NoR 4, two archaeological sites were identified, all of which have potential to be within the proposed designation (Figure 8-1 and Table 8-1). These are discussed in more detail below.



Figure 8-1: Archaeological and heritage sites within 200 m of NoR 4.

Table 8-1: Summary of archaeological and heritage sites at NoR 4.

ID	Source	Name / Site Type	Scope
R11/2077	NZAA	Gorrie McInnes Homestead	Assessed further
R11/2078	NZAA	John de Carteret Flax Mill	Assessed further

8.2 Field Assessment

This NoR is in a less developed area, with rural residential land remaining to the east, and dense residential lots in the west and south. This NoR crosses the Papakura Stream midway down.

During desktop research (Section 8.1), two archaeological sites were found to have potential to be within the proposed designation boundaries, and these locations were inspected during the field assessment from the roadside (Figure 8-1). In addition to these sites, two buildings with possible heritage values were identified during the field survey in the vicinity of the proposed designation boundaries and are discussed below. No other archaeological sites were identified during the survey, but there is potential for unrecorded subsurface archaeology to be present across the NoR, particularly north of Popes Road, where the land is less developed and in close proximity to the Papakura Stream.

8.2.1 Archaeological sites

8.2.1.1 R11/2077 – Gorrie McInnes Homestead

An attempt was made to view this site from the roadside but it was not visible. This homestead was built in the early 20th century and is not protected under the HNZPT. There is potential for some subsurface material such as household or farming items to be present within the proposed designation, though the house itself is outside of the designation boundaries.

8.2.1.2 R11/2078 – John de Carteret Flax Mill

The exact location of this site is not clear, but was located near the corner of Alfriston and Porchester Roads. There has been significant development of this area, including the removal / alteration of numerous tributaries of the Papakura Stream which are visible cross cutting this entire area in 1939 aerials (Figure 8-2). One of these tributaries cuts directly through the Alfriston and Porchester Road intersection, following along Porchester Road for a distance and may have been the stream used by the mill. If so, there has been significant modification and destruction around the site.

However, it is possible that materials related to use of the mill, or building materials from the mill, could be present subsurface and be within the proposed designation boundaries.



Figure 8-2: General location of John de Carteret Flax Mill (R11/2076) and 1939 streams.

8.2.2 Unrecorded pre-European Māori sites

The proposed designation crosses the Papakura Stream and passes through land which is less developed than much of the Project area. It is possible that evidence of land use and settlement remains near the historic riverbanks and within the proposed designation, where modification has been limited. If encountered, evidence of this land use would be identified as a new archaeological site, which could include archaeological features such as, but not limited to, midden, fire features, post holes, and artefactual remains.

8.2.3 Unrecorded built heritage

Two buildings with potential built heritage values were identified during the field survey. While the structures are not within the proposed designation boundaries and not subject to existing statutory protection, the property frontages may be affected. Specialist assessment by a built heritage expert may be required for these sites.

8.2.3.1 279 Porchester Road

This house exhibits some features characteristic of a Californian / New Zealand Bungalow style house, though is not a traditional example. This style came into use in New Zealand around 1910, persisting in popularity until c.1940. The house is in reasonable condition, though in need of maintenance. Typical features of this style represented include the tapered piers or pylons supporting the porch roof, the slightly scalloped bargeboards on the porch roof, the casement and fanlight windows with coloured leadlight glass, which is also present in the fixed window beside the front door, and the bay window on the side of the house (Salmond 1986). This house is visible in historic aerials from 1939 (SN139-35-8).



Figure 8-3: Bungalow at 279 Porchester Road.

8.2.3.2 281 Porchester Road

This house is visible in historic aerials from 1939 (SN139-35-8) but does not immediately appear to be representative of a particular style. The house is in need of maintenance, with degradation of cladding and rotting of window frames, and appears to have undergone some degree of modification over time.



Figure 8-4: House at 281 Porchester Road.

8.3 Assessment of effects

8.3.1 Positive effects

Although any archaeological sites encountered within the proposed area of works (either known or unknown) would likely be destroyed, the subsequent archaeological investigations undertaken would help provide information about the sites. This information could be presented to the public through interpretive panels or displays.

8.3.2 Adverse construction effects

Two archaeological sites have been identified as having potential to be within the proposed designation boundaries. These are two are the flax mill (R11/2078) and homestead (R11/2077). These sites are assessed below, with the pre-1900 site recorded in the SRS assessed under the HNZPTA and the post-1900 site under the AUP:OP, Chapter B5. The following assessments of values and significance relate only to archaeological values. Other interested parties, in particular Manawhenua, may hold different values regarding the sites.

Two 1930s buildings have also been identified (Section 8.2.3) which are not assessed here but may require further investigation by a built heritage expert.

As set out in the AEE, construction activities such as topsoil stripping, pavement removal and other earthworks are anticipated within the designation boundaries. Overall, any remaining archaeological material encountered during construction within the designation boundaries could be destroyed if unable to be preserved or avoided.

8.3.3 Assessment under the HNZPTA

The following assessment of archaeological values is based on the criteria set out in the HNZPTA (2019).

8.3.3.1 R11/2078 – John de Carteret Flax Mill

Condition	Surface evidence of this site has been destroyed but subsurface material may still be present.
Rarity	Physical remains from mill sites are very uncommon locally.
Context	This site is part of the early colonial history, industry, and settlement of Manurewa.
Information	This site has potential to inform on the land-use and lifestyle of colonial settlers in the area as well as the milling industry.
Amenity	This site is on a private property.
Cultural	This is a colonial era site.

8.3.3.2 Previously unrecorded pre-European Māori midden/oven sites

Condition	The condition of any unrecorded sites are unknown, but likely to be entirely subsurface.
Rarity	Surviving evidence of pre-European Māori land-use is rare in this area.
Context	Any unrecorded sites would form part of the archaeological record of the Manukau lowlands and, more specifically, pre-European Māori land-use around the Papakura Stream.
Information	Any unrecorded sites would help to improve knowledge on the distribution of sites in the Manukau lowlands. The most likely type of site to be found would be midden; middens can provide information about the subsistence, resource use, dietary patterns and residential patterns of pre-European Māori populations. If charcoal or other datable material is found within a secure context, it could provide temporal information about the use of the features.
Amenity	The amenity of any unrecorded site is unknown.
Cultural	This assessment refers to potential pre-European Māori sites.

8.3.4 Assessment under AUP:OP Chapter B5

The following assessments of values follow the Auckland Council Methodology for Evaluating Historic Heritage Significance (2019). While site R11/2077 is listed in the NZAA SRS, as a pre-1900 site it is not legally protected under the HNZPTA and is thus assessed under the AUP:OP, Chapter B5.

8.3.4.1 R11/2077 – Gorrie McInnes Homestead

Historical	This site is part of the early 20 th century settlement and history of Takaanini. This site has moderate historical value.
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Social	This site is not visible to the public and has no social value.
Manawhenua	Only Manawhenua can comment on the value of the site to them.
Knowledge	There is potential for the site to inform on early 20 th century construction and land-use. This site has moderate knowledge value.
Technology	There are unlikely to be any unique technological attributes at this site. This site likely has no technology value.
Physical	The physical condition, style, and quality of this site is unknown. The physical value of this site is unknown.
Aesthetic	The visual condition of this site is unknown. The aesthetic value of this site is unknown.
Context	This site has moderate contextual value as part of the historic settlement of Takaanini.

This site has moderate values based on its highest values, which are its historical, knowledge, and context values and does not meet the criteria for scheduling. Retention of values is desirable but it does not warrant any special protections and any loss of heritage values can be mitigated by archaeological monitoring and the recording, sampling, analysis, and reporting of any materials or features encountered.

8.3.5 Adverse operational effects

No operational effects on archaeology and heritage have been identified.

9 Recommended measures to avoid, remedy, or mitigate construction effects

The following recommendations are made on the basis of the archaeological values that have been outlined above. Any other values associated with special interest groups, including Manawhenua, can only be determined by them. It is recommended that:

- An authority to destroy, damage or modify recorded (R11/2078, R11/3477, R12/1154, R12/1159, R12/1161) and previously unrecorded archaeological sites that may be encountered within the identified works areas be applied for from HNZPT under Section 45 of the HNZPTA (note that this is a legal requirement);
- A HHMP be prepared alongside other relevant disciplines (e.g., urban design) and implemented during construction to guide works including induction requirements for contractors (and sub-contractors), methods for managing effects on the sites and procedures for archaeological monitoring, inspection, and investigation. The HHMP would be developed during the outline plan phase of this project in conjunction with Manawhenua, Auckland Council and Heritage New Zealand;
- No authority should be applied for without consultation with the appropriate Manawhenua authorities; evidence of consultation, and views expressed, will be required by HNZPT, and will be taken into account when making a decision about the granting of the authority;
- Appropriate tikanga (protocols) should be followed during works – Manawhenua may make recommendations outlining these;
- Since archaeological survey cannot always detect sites of traditional significance to Māori, or wāhi tapu, Manawhenua should be consulted regarding the possible existence of such sites, and the recommendations in this report; and
- It is also recommended that a built heritage expert assesses potential effects on the houses identified with potential heritage values (257, 355, 359, 361 Great South Road, 279 and 281 Porchester Road, 11 Alfriston Road [CHI 12481] and Gorrie McInnes Homestead [R11/2077]).

During construction, archaeological monitoring should take place in higher-risk areas and around known archaeological or heritage sites (including post-1900 sites). These areas will be identified in the HHMP. If any unrecorded archaeological or heritage material is encountered, it can be recorded, sampled, and analysed as is appropriate in order to mitigate any damage to archaeology following standard archaeological best practice.

10 Conclusion

Across the Project area, there is potential for unrecorded archaeological and heritage sites to be encountered during construction, particularly in undeveloped paddocks and near waterways. There are also several recorded archaeological and heritage sites within the proposed designation boundaries that have potential to be damaged and/or destroyed by construction of the Project.

All works should be undertaken under an archaeological authority obtained from HNZPT and should be guided by a HHMP. Where there is heightened risk of encountering archaeology or post-1900 heritage, archaeological monitoring should take place. Any archaeological or heritage material identified during works should be investigated, recorded, sampled and analysed as relevant, following archaeological best practice.

While there is a risk of damage to archaeological/heritage sites, which is a negative effect, by having an archaeologist on site and available to record and analyse material encountered, there will be potential to learn more about the history of the area, partially mitigating the adverse effects that may be generated.

Table 10-1: Summary of sites with potential to be affected.

NoR	ID	Source	Name / Site Type	Possible effects	Recommendations
NoRs 1, 2, 4	Potential unrecorded pre-European Māori site	Desktop assessment and field visit	e.g. midden, postholes, fire features, artefactual material	Possible subsurface material related to pre-European Māori land-use around waterways to be encountered and removed / destroyed.	Archaeological authority and monitoring, management under HHMP
NoR 1	R12/1154 (02830)	NZAA (AUP:OP)	Papakura Old Central School	1920s stone gate has potential to be destroyed.	Monitoring, management with HHMP
NoR 1	R12/1159	NZAA	Building	Possible subsurface material to be encountered and removed / destroyed.	Archaeological authority and monitoring, management with HHMP
NoR 1	R12/1161	NZAA	Papakura Library	Possible subsurface material to be encountered and removed / destroyed.	Archaeological authority and monitoring, management with HHMP

NoR	ID	Source	Name / Site Type	Possible effects	Recommendations
NoR 1	3048	CHI	Milepost 20	Low possibility for some subsurface material to be encountered and removed.	Monitoring, management with HHMP
NoR 1	12924 (02801)	CHI (AUP:OP)	WWI Memorial	Modifications to edges of memorial structure.	Monitoring, management with HHMP
NoR 1	20290	CHI	Milepost 21	Low possibility for some subsurface material to be encountered and removed.	Monitoring, management with HHMP
NoR 1	355 Great South Road	Field visit	Moderne style house	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 1	359 Great South Road	Field visit	Spanish Mission style house	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 1	361 Great South Road	Field visit	Spanish Mission style house	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 2	257 Great South Road	Field visit	Bungalow	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 3	R11/3477	NZAA	Manurewa Railway Station	Possibility for subsurface material related to station to be encountered and removed.	Archaeological authority and monitoring, management with HHMP
NoR 3	12481	CHI	11 Alfriston Road	Building is within the proposed designation and would be destroyed by construction.	Further assessment by built heritage specialist
NoR 4	R11/2077	NZAA	Gorrie McInnes Homestead	Possible subsurface material to be encountered and	Monitoring, management under HHMP

NoR	ID	Source	Name / Site Type	Possible effects	Recommendations
				removed / destroyed.	
NoR 4	R11/2078	NZAA	John de Carteret Flax Mill	Possible subsurface material to be encountered and removed / destroyed.	Archaeological authority and monitoring, management with HHMP
NoR 4	279 Porchester Road	Field visit	Bungalow	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist
NoR 4	281 Porchester Road	Field visit	House	Building avoided, possible effects to context / frontage.	Further assessment by built heritage specialist

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