

# Appendix H

## Non-Aboriginal Heritage Assessment (Local)



Pacific Highway Intersection Improvements in Wahroonga / Warrawee /  
Turrumurra  
Statement of Heritage Impact for Locally Significant Heritage Items within  
Ku-ring-gai Local Government Area

For Roads and Maritime Services

28<sup>th</sup> September 2018

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## Document control

<b>Version</b>	<b>Date issued</b>
First issue of the Document	18/06/2018
Second issue of the Document	30/07/2018
Third issue of the Document	26/09/2018
Final issue of the Document	28/09/2018

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## Glossary

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<b>c.</b>	Circa
<b>CBD</b>	Central Business District
<b>CHL</b>	Commonwealth Heritage List
<b>DEE</b>	Department of Environment and Energy
<b>DP</b>	Deposited Plan
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<b>Heritage Act</b>	<i>Heritage Act 1977</i>
<b>Heritage curtilage</b>	Entire area of the heritage listing identified as heritage curtilage
<b>LEP</b>	Local Environmental Plan
<b>NHL</b>	National Heritage List
<b>NSW</b>	New South Wales
<b>OEH</b>	NSW Office of Environment and Heritage
<b>Proposal area</b>	Extent of the proposed works area. This includes any ancillary facilities (such as compound sites) used for the proposal.
<b>REF</b>	Review of Environmental Factors
<b>SHR</b>	State Heritage Register
<b>Study area</b>	The potential area of impact within the identified heritage curtilage as a result of the proposed works. This includes impacts from compound site activities associated with the proposal.

## Summary

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Phillips Marler has been commissioned by Roads and Maritime Services to undertake a Statement of Heritage Impact to include landscape and non-Aboriginal historical archaeological impact assessment of the Pacific Highway intersection improvements project located in Wahroonga, Warrawee and Turramurra, New South Wales (NSW) (Figure 1), referred to as the 'proposal area' herein. Built heritage and items of State heritage significance have not been assessed in this report.

The proposal area is located approximately 2.3 kilometres south-east of Hornsby and approximately 16.8 kilometres north-west of Sydney (CBD). The assessment will support a Review of Environmental Factors (REF) under Division 5.1 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

The assessment specifically covers the potential impacts of the proposal on existing local heritage items which are all located within the Ku-ring-gai local government area. The heritage curtilage of these items potentially impacted by the proposal is referred to as 'the study area' within this report.

The proposal involves intersection improvements, including road widening, adjustments to traffic lanes and turning bays, median extensions and reconstructions, utility relocations, street tree removals, drainage upgrades and new road pavement. The proposal would also require strip adjustments on private properties on the northbound side of the Pacific Highway including clearance of roadside vegetation and reconstruction of retaining walls, driveway accesses and fences. The proposal would also require the use of a local heritage item (known as 'Hillview/Hillview Garages') as a temporary compound site during construction located at 1334 Pacific Highway in Turramurra.

This assessment has been undertaken to assess the areas of proposed works for their impact on potential archaeological resources which may be present within the proposal area, and the potential heritage significance these may hold.

The proposed intersection improvements on the Pacific Highway corridor would occur at the following locations (from south to north):

1. Pacific Highway at Finlay Road, Warrawee/Turramurra
2. Pacific Highway at Fox Valley Road, Wahroonga/Warrawee
3. Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga

Portions of the proposal area are listed as items of State and local heritage significance under the State Heritage Register, Ku-ring-gai (Local Centres) Local Environmental Plan 2012 and Ku-ring-gai Local Environmental Plan (LEP) 2015. The proposal area is also contained within several conservation areas

within Wahroonga, Warrawee and Turramurra under the Ku-ring-gai LEP 2015 and Ku-ring-gai LEP (Local Centres) 2012. The historical research undertaken as part of this assessment has identified that the proposal area may contain archaeological material relating to the mid-19th to early-20th century residential settlement of the area, and the old Lane Cove Road which preceded the Pacific Highway.

Four locations were assessed as having the potential to hold local heritage value, should archaeological resources be encountered during any subsurface works. The likelihood of encountering these archaeological resources in three of these locations is considered low due to potential disturbances resulting from earlier road works in establishing and maintaining the Pacific Highway from the 1920s. These previous works are likely to have damaged the integrity of any archaeological material which may be present, such as removal or damage of archaeological deposits and truncating walls or building foundations and footings, resulting in a reduced level of research potential for these possible archaeological remains. However, should undisturbed archaeological remains be present in these areas, they have the potential to hold local heritage significance.

The impact to these areas has been assessed as acceptable, provided that an unexpected finds policy is implemented to record any archaeological materials which may be encountered during works.

Due to potentially low levels of disturbance within the north-western and north-eastern portions of the Hillview complex at 1334 Pacific Highway, Turramurra (proposed compound site), there is moderate potential to find relatively intact archaeological remains of former shed store structures and associated deposits and features in the north-western corner of the property. Disturbance to a further structure in the north-eastern portion of the property has not been assessed due to inaccessibility for inspection. Should undisturbed archaeological remains associated with these former structures be present, they have the potential to hold local heritage significance.

The remaining areas throughout the proposal area which may contain archaeological material were assessed as holding no heritage significance. .

The proposed works would impact the boundary fences, retaining walls and front gardens of several heritage listed properties fronting the northbound side of the Pacific Highway road corridor. The cumulative loss of trees and overall vegetation would mean that properties would be more visually exposed to the road corridor. The cumulative loss of trees within the various sections of the road corridor could diminish the aesthetic values of the Pacific Highway as a green corridor between Wahroonga and Turramurra. The mitigation of this impact could be undertaken with the preparation of a Tree Canopy Enhancement Plan (in consultation with the property owners and council) to recommend tree replacements along the corridor where vegetation is removed as a result of the proposal.

The proposal has the potential to indirectly impact upon the areas which may contain archaeological resources. The impact to these areas has been assessed as acceptable, provided that the Unexpected Finds Procedure under Recommendations 1 and 2 (outlined below) are implemented.

The following recommendations have been formulated to respond to client requirements regarding management of and fulfilling environmental obligations under the EP&A Act, and the significance of the local heritage items that are impacted by the works. They are guided by the ICOMOS *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.<sup>1</sup>

### **Recommendation 1 Heritage Management Plan for Construction**

A Heritage Management Plan (HMP) should be prepared for the proposal area as a whole (as part of the Construction Environmental Management Plan (CEMP)) to mitigate any construction-related impacts to these areas and their wider heritage curtilage during construction.

A key objective of the HMP would be to ensure that any impacts to heritage values / features of the Mahratta site during construction are minimised and carried out within the scope permitted by the approval instruments.

The HMP should include (as a minimum):

- Purpose and objectives for the protection and management of the study area during construction
- Acknowledgement of relevant legislative requirements and guidelines, including any conditions of approval and permits
- Details on any necessary pre-construction consultation and landowner approvals
- Details on the construction activities to be undertaken and proposed construction methodology
- Heritage management and mitigation measures to be applied during construction (such as staff training, implementation of unexpected finds procedures, proposed access, work method statements, exclusion zones and setback areas, proposed reinstatement works)

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<sup>1</sup> Australia ICOMOS 2013

- Compliance management including roles and responsibilities, staff training, monitoring, inspections, auditing and reporting

The HMP should make specific reference to the heritage assessment prepared for the Project REF and any conditions of approval outlined by State agencies. The HMP must be prepared by a suitably qualified heritage specialist.

#### *Unexpected Heritage Items*

The HMP must include a procedure for the management of unexpected potential archaeological relics discovered during construction. The management of unexpected potential archaeological relics must be in accordance with Roads and Maritime's "Unexpected Heritage Items" documentation (refer Appendix 1). The procedure for unexpected finds must include the following steps:

- (a) Cease work in the immediate area of the identified potential heritage object immediately;
- (b) Notify Roads and Maritime immediately;
- (c) Provide access to the affected works area to any heritage specialist to assess the finds;
- (d) Provide temporary exclusion (pedestrian) fencing;
- (e) Implement additional safeguards as required.

The Non-Aboriginal Heritage Management Plan must provide for all personnel working within the study area on their responsibilities under the *Heritage Act 1977* (NSW) (Heritage Act). Make personnel aware of all non-Aboriginal heritage sites/areas including cultural plantings and areas of archaeological potential, which are identified in the Environmental Assessment documents provided in the Review of Environmental Factors.

Where the remains are identified as being 'relics', the Heritage Council of NSW must be notified in accordance with section 146 of the Heritage Act. Failure to notify the Heritage Council is considered an offence under the Act, with penalties including fines and imprisonment. After contacting the Heritage Council, a permit or exemption should be sought under the relevant section of the Act to allow works to recommence.

All Aboriginal objects and places are protected under the *National Parks and Wildlife Act 1974* (NSW). It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the Office of Environment and Heritage (OEH). If the find is determined to be an Aboriginal object, the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

**Recommendation 2    Avoidance of impacts to former ‘Hillview’ shed store structures within Compound Site at 1334 Pacific Highway, Turramurra**

Under the Heritage Act, a person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit. It is recommended that no disturbance or excavation be permitted in areas assessed as holding moderate archaeological potential as part of a Construction Heritage Management Sub-Plan (Recommendation 1). The location and significance of the potential archaeological remains should also be referenced in site inductions for all staff and contractors.

Ground disturbance or excavation in areas of moderate archaeological potential would only be permitted with a s139 excavation exception or s140 excavation permit (as relevant) (see Figure 38). Should the temporary relocation and reinstatement of the northern boundary wall of the Hillview complex be required and also involve disturbance or excavation in the area of moderate archaeological potential, a s139 excavation exception or s140 excavation permit (as relevant) will be required to undertake these works. Depending on the scale of works, archaeological monitoring or excavation may be required to identify and assess the significance of any archaeological material encountered during these works.

**Recommendation 3    Property Adjustment works - reinstatement of boundary walls and vegetation - former Estha 1614-1634, Pacific Highway, Wahroonga, Kyeamba 1548 Pacific Highway Wahroonga, Yaamba 1544 Pacific Highway Wahroonga, Curtilage Park 1534 Pacific Highway Wahroonga, Mahratta, 1526 Pacific Highway, Wahroonga and Dwelling House, 1548 Pacific Highway, Warrawee**

Property adjustments should include reinstatement of boundary walls, trees and vegetation within the boundaries to all the above properties. The properties will be reinstated in consultation with property owners and RMS.

**Recommendation 4    Former Hillview Community Health Centre (formerly Hillview Garages & Precinct) 1334 - 1440 Pacific Highway, Turramurra - Reinstatement of entry posts, walls, gardens and lawn within the proposed compound site**

If the landscape of this property is removed during construction the reinstatement should include the following:

- The front entry walls and gates should be photographed by an appropriate heritage specialist in accordance with NSW Heritage guidelines. The dismantled stonework should be stored safely in an

appropriate location. When the wall and gates are reinstated the reconstruction of the stonework should match the original as closely as possible.

- If the turf areas across the lawn are impacted and the ground compacted, then the ground should be de-compacted, and the turf reinstated to match existing. Garden beds and planting affected by the compound site activities should be re-instated with soil improvements, and ground covers, and shrubs as required.

### **Recommendation 5 Tree Canopy Enhancement Plan**

The potential loss of vegetation within private property and the road corridor with the loss of large tree species would be widespread throughout all of the sections of proposed road widening. The cumulative effect of the potential canopy loss would impact on the aesthetic significance of the Pacific Highway as a historic tree lined corridor. A Tree Canopy Replacement Plan would review the species to be removed and recommend locations, species and sizes of replacement trees to mitigate potential losses.



# 1 Introduction

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## 1.1 Project background

Phillips Marler in association with Biosis Pty Ltd have been commissioned by Roads and Maritime Services (Roads and Maritime) to undertake a statement of heritage impact including landscape historical archaeological impact assessment of the Pacific Highway intersection improvements project located in Wahroonga, Warrawee and Turramurra, New South Wales (NSW) (Figure 1), referred to as the 'proposal area' herein. The assessment specifically covers the potential impacts of the proposal on existing local heritage items and archaeological features located within the proposal area. The 'study area' comprises of the local heritage items directly impacted by the proposal.

The report preparation has been undertaken as a collaboration. Biosis have prepared the history and chronology, described statements of significance as available and have prepared the historical archaeological impact assessment. Phillips Marler has provided landscape descriptions of affected items and assessment of impacted boundaries and vegetation with additional photography and mapping of the works and the heritage items. Items of State heritage significance have not been assessed in this report.

The proposed intersection improvements on the Pacific Highway corridor would occur at the following locations (from south to north) within the suburbs of Wahroonga, Warrawee and Turramurra:

1. Pacific Highway at Finlay Road, Warrawee/Turramurra
2. Pacific Highway at Fox Valley Road, Wahroonga/Warrawee
3. Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga

The proposed works are part of the Pinch Points program within Roads and Maritime's Easing Sydney's Congestion Program Office. The intersection locations subject to this proposal have been identified as traffic congestion points in a traffic corridor study carried out by Roads and Maritime in 2016<sup>2</sup>. It was identified that the Pacific Highway experiences excessive queuing and delays in both the northbound and southbound directions at all times of the day, particularly during peak hours. The

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<sup>2</sup> *Pacific Highway North Pinch Point Corridor Study* in March 2016 (Roads and Maritime, 2016a and b).

proposal would ultimately result in the provision of three continuous northbound through lanes along the Pacific Highway between Turramurra and Wahroonga over a length of about 2.5 km.

The proposal will be assessed in accordance with Division 5.1 of the EP&A Act. This assessment has been prepared as part of the Project Review of Environmental Factors (REF) for the proposal.

## 1.2 Location of the proposal and scope of works

The proposal (as a whole) would ultimately provide three continuous through lanes northbound on the Pacific Highway from the M1 Pacific Motorway to the suburb of Turramurra for a length of about 2.5 kilometres.

The proposed intersection improvements on the Pacific Highway corridor would occur at the following locations (from south to north):

- Pacific Highway at Finlay Road, Warrawee/Turramurra (referred to as 'Intersection 1')
- Pacific Highway at Fox Valley Road, Wahroonga/Warrawee (referred to as 'Intersection 2')
- Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga (referred to as 'Intersection 3')

The key features and the extent of the proposal (by intersection location) are detailed below.:

### Intersection 1: Pacific Highway at Finlay Road, Warrawee/Turramurra

The proposal would extend along about 210 metres of the Pacific Highway in this location between Blytheswood Avenue and Kirawa Close and would include:

- Widening to the western side of the Pacific Highway to provide an additional northbound through lane resulting in three continuous northbound through lanes along the Pacific Highway in this location
- Provision of new central raised median on the Pacific Highway between Finlay Road and Lowther Park Avenue
- Modifications to the existing central median on the Pacific Highway south of Lowther Park Avenue
- Banning the existing right-turn movement from the Pacific Highway onto Finlay Road
- Banning the existing right-turn movement from Finlay Road onto the Pacific Highway
- Partial property acquisition from two properties and associated property adjustments (including adjustments to retaining/boundary walls, safety barriers and driveways and vegetation clearance):

- 1466-1486 Pacific Highway, Warrawee [Lots 2, 3 and 4 DP21398 and Lot 5 DP21700] also known as 'Warrawee Public School' (about 52 sqm)
- 1458 Pacific Highway, Warrawee [Lot A DP374006] also a local heritage item containing a vacant dwelling to be redeveloped (about 35 sqm)
- Removal of a street tree and collection of roadside shrubs on the western side of the Pacific Highway within the existing road corridor
- Modifications to the western kerbside footpath on the Pacific Highway
- Milling and re-sheeting within the proposal area
- Relocation of traffic signal poles and the provision of new traffic mast arms
- Relocation of aboveground and underground utilities including gas, water mains, local communication cables and above ground and underground electricity
- New stormwater pits and pipes
- New traffic signs, line markings and road furniture.

## **Intersection 2: Pacific Highway at Fox Valley Road, Wahroonga/Warrawee**

The proposal would extend along about 500 metres of the Pacific Highway in this location between Gilda Avenue and Heydon Avenue and would include:

- Provision of an additional northbound lane by widening to the western side along the Pacific Highway resulting in three continuous northbound through lanes on the Pacific Highway in this location
- Extension of the right-turn bay from the Pacific Highway southbound approach onto Fox Valley Road by adjusting the existing central median from about 95m to 190m
- Provision of a dedicated left-turn lane (about 60 m in length) from the Pacific Highway northbound approach onto Fox Valley Road
- Partial property acquisition from ten properties and associated property adjustments (including adjustments to retaining/boundary walls and driveways and vegetation clearance):
  - 2 Marshall Avenue, Wahroonga [SP76417] (about 80 sqm)
  - 2 Fox Valley Road, Wahroonga [Lot 1 DP4696] (about 40 sqm)
  - 25 Fox Valley Road / 1526 Pacific Highway, Wahroonga [Lot 1 DP62488] also known as the 'Mahratta' and a State and local heritage site (about 270 sqm)
  - 1536 Pacific Highway, Wahroonga [Lot 14 DP810712] also known as 'Curtilage Park' and a local heritage site (about 75 sqm)

- 1544 Pacific Highway, Wahroonga [Lot A DP354970] (about 110 sqm) also known as “Yaamba” dwelling house and a local heritage site
  - 1548 Pacific Highway, Wahroonga [Lot 4 DP523216] also known as “Kyeamba” dwelling house and a local heritage site (about 140 sqm)
  - 1550 Pacific Highway, Wahroonga [Lot 2 DP9991] (about 70 sqm)
  - 1552 Pacific Highway, Wahroonga [Lot 1 DP9991] (about 60 sqm)
  - 1558 Pacific Highway, Wahroonga [Lot 2 DP527984] (about 90 sqm)
  - 1560 Pacific Highway, Wahroonga [Lot A DP385263] (about 35 sqm)
- Removal of street trees and roadside vegetation on the western side of the Pacific Highway within the existing road corridor
  - Modifications to the western kerbside footpath on the Pacific Highway to accommodate the modified road alignment
  - Modifications the central raised median on the Pacific Highway (including lengthening, extending, widening and reconstruction) between Borambil Street and Fox Valley Road
  - Providing a ‘Do Not Queue Across Intersection’ sign on Pacific Highway southbound at Borambil Avenue
  - Connecting the central raised median along Pacific Highway south of the intersection with Fox Valley Road to Marshall Avenue to prohibit the right-turn movement from Marshall Avenue onto the Pacific Highway
  - Realignments to existing signalised pedestrian crossings at the intersection of Fox Valley Road and Pacific Highway
  - Milling and re-sheeting within the proposal area
  - Relocation of traffic signal poles and the provision of new traffic mast arms at the intersection of Fox Valley Road and the Pacific Highway
  - Relocation of aboveground and underground utilities including gas, water mains, local communication cables and above ground and underground electricity
  - New stormwater pits and pipes
  - New traffic signs, line markings and road furniture.

### **Intersection 3: Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga**

The proposal would extend along about 150 metres of the Pacific Highway in this location between Neringah Avenue and Woodville Avenue and would include:

- Provision of an additional northbound lane by widening to the western side of the Pacific Highway resulting in three continuous northbound through lanes on the Pacific Highway in this location
- Reconfiguration of the right-turn bay onto Coonanbarra Road from the Pacific Highway northbound approach to a through lane by banning the right-turn
- Provision of a high entry angle left-turn lane from Redleaf Avenue onto the Pacific Highway by modifying the existing intersection in this location to eliminate the traffic island and build out the kerb. Works would include a new pedestrian crossing island across Redleaf Avenue
- Partial property acquisition (about 380 sqm) and property adjustments from a local heritage item located at 1614-1634 Pacific Highway, Wahroonga (occupied by Thomas and Rosetta Agst Aged Care Facility) including:
  - maximum encroachment in the existing property by about 5 m (tapering away towards the northern and southern extents of the property)
  - relocation and reconstruction of an existing pedestrian stair access on the northern road frontage boundary
  - removal of an existing masonry retaining wall on the northern road frontage boundary extending 130 m in length with a varying height of up to 2.4 metres
  - establishment of new replacement retaining wall along the new northern property boundary (a minimum 3.6 m offset would be provided to the existing Aged Care Building on this property)
  - vegetation and tree clearance along the northern extent of the property next to the road frontage (within the area of acquisition and part of the adjoining land to this which is to remain under private ownership following the works)
- Property adjustments to the driveway at 1565 Pacific Highway (a residential property) to accommodate the kerb adjustments required for the high-entry angle left-turn from Redleaf Avenue onto the Pacific Highway
- Modifications to the existing raised central medians on the Pacific Highway including:
  - narrowing the existing median from about 1.2 m to 0.5 m either side of Ada Avenue and Coonanbarra Road
  - narrowing the existing median from about 1.2 m to 0.5 m south of the right-turn bay into Redleaf Avenue

- modifying the nose and widening the existing median to provide a larger turn radius at Redleaf Avenue
- Modifications to the western kerbside footpath on the Pacific Highway to accommodate the modified road alignment
- Removal of street trees and vegetation on the western side of the Pacific Highway within the existing road corridor opposite 1614-1634 Pacific Highway, Wahroonga occupied by Thomas and Rosetta Agst Aged Care Facility and street trees on the eastern side of the Pacific Highway within the Redleaf Avenue works area
- Relocation of traffic signal poles and provision of new mast arms at the intersection of the Pacific Highway, Ada Avenue and Coonanbarra Road
- Milling and re-sheeting within the proposal area
- Relocation of above and below ground utilities including gas, water mains, local communication cables, street lighting and electricity
- Stormwater infrastructure upgrades within the northbound kerb and channel of the road corridor to accommodate the widened carriageway extending south of the road widening up to Mundarah Street
- New traffic signs, line markings and road furniture.

A construction compound site would be required close to the proposed works areas. At present, one site has been proposed which is located at 1334 Pacific Highway in Turramurra (the community health centre and a locally listed heritage item 'Hillview').

This exact layout and configuration of the compound site is to be decided, but it is assumed that the gateway may need to be dismantled and stored so that the site entry can be used for larger vehicles. No tree removal would be required for the purposes of the site compound; however, some minor tree trimming may be required to trees within the property and road frontage boundary near the vehicle access points and within the road corridor to facilitate access for heavy vehicles from the Pacific Highway.

The proposal area is located within the Ku-ring-gai Local Government Area (LGA), Parish of Gordon, County of Cumberland (Figure 1). It includes both public and private land currently zoned 'SP2 – Infrastructure – Classified Roads/Educational Establishment', 'R2 – Low Density Residential', 'R3 – Medium Density Residential', 'R4 – High Density Residential', and 'RE1 – Public Recreation' under the Ku-ring-gai Local Environmental Plan 2015 and Ku-ring-gai Local Environmental Plan (Local Centres) 2012.

The area of impact to the locally listed heritage items situated within the proposal area is referred to as the 'study area' (as identified above).

### 1.3 Scope of assessment

This report was prepared in accordance with current heritage guidelines including *Assessing Heritage Significance*, *Assessing Significance for Historical Archaeological Sites and "Relics"* and the *Burra Charter*.<sup>3</sup> This report provides a heritage assessment to identify if any heritage items or relics exist within or in the vicinity of the proposal area. The heritage significance of these heritage items has been investigated and assessed in order to determine the most appropriate management strategy.

This assessment focuses on local non-Aboriginal heritage listed items located within or in the vicinity of the proposal area. An assessment of State heritage listed items has not been undertaken within this report. A separate heritage assessment has been prepared by Phillips Marler and Biosis in relation to the State heritage listed item 'Mahratta' as part of a Section 60 application under the Heritage Act dated September 2018 and the Project REF.<sup>4</sup>

The following is a summary of the major objectives of the assessment:

- Identify and assess the local heritage values associated with the study area and proposal area. The assessment aims to achieve this objective through providing a brief summary of the principal historical influences that have contributed to creating the present – day built environment of the study area and proposal area using resources already available and some limited new research.
- Assess the impact of the proposed works on the cultural heritage significance of the study area.
- Identify sites and features within the study area and proposal area which are already recognised for their heritage value through statutory and non – statutory heritage listings.
- Recommend measures to avoid or mitigate any negative impacts on areas of local heritage significance of the study area.

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<sup>3</sup> NSW Heritage Office 2001; NSW Heritage Branch, Department of Planning 2009; Australia ICOMOS 2013

<sup>4</sup> Phillips Marler and Biosis Pty Ltd, Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga, 2018

## 1.4 Limitations

This report is based on historical research and field inspections. It is possible that further historical research or the emergence of new historical sources may support different interpretations of the evidence in this report.

The historical research undertaken for this report is based on primary documents including Crown and deposited plans, Certificates of Title and historical parish maps. This information was supplemented by existing studies and sources in order to present a history of the study area and proposal area. Issues were encountered with access to several primary documents, including aerial photographs prior to 1943, and as such there may be additional data which has not been incorporated into this assessment. The archaeological survey was constrained by the presence of built fabric and modified ground surface areas in some locations, limiting the observations of ground surface and identification of potential archaeological resources.

Although this report was undertaken to best archaeological practice and its conclusions are based on professional opinion, it does not warrant that there is no possibility that additional archaeological material would be located in subsequent works on the site. This is because limitations in historical documentation and archaeological methods make it difficult to accurately predict what is under the ground.

## 1.5 Report authorship

This assessment was completed jointly by Phillips Marler and Biosis. Table 1 provides a summary of the author responsible for each section of this assessment.

Phillips Marler staff involved in the assessment were Julie Marler, Principal Landscape Architect for field investigation and reporting and Daniel Hughes for additional written material, research and graphic support.

Biosis staff involved in the assessment were James Cole, Archaeologist for field investigation and reporting, Charlotte Allen, Field Archaeologist for background research and reporting, Gareth Davies, GIS Operator for mapping, and Alexander Beben, Principal Archaeologist for quality assurance.

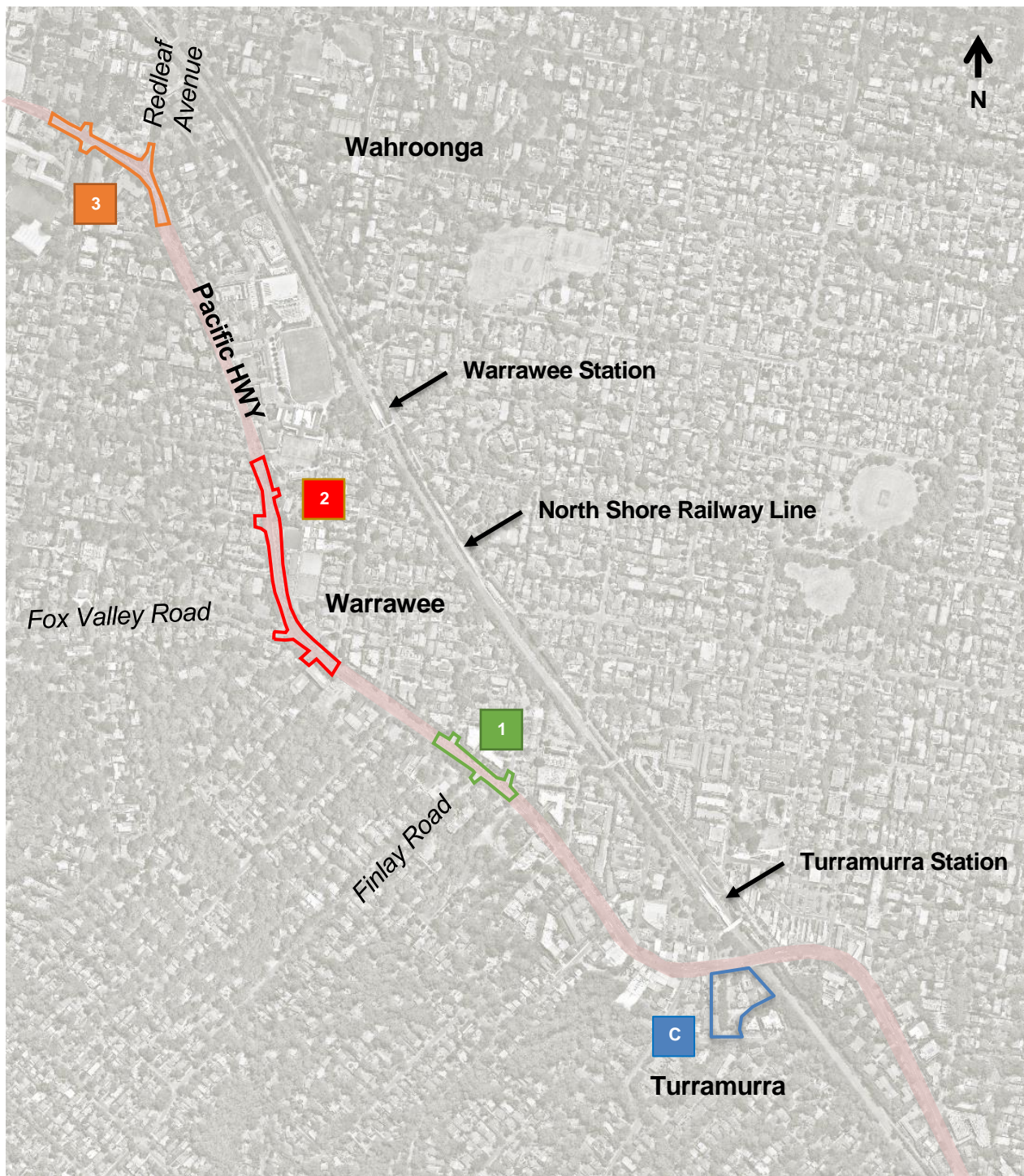
**Table 1 Report authorship**

Section	Authorship
Summary	Phillips Marler and Biosis
1.1	Phillips Marler and Biosis
1.2	Phillips Marler
1.3	Biosis



Section	Authorship
1.4	Biosis
2	Biosis
3	Biosis
4.1	Phillips Marler and Biosis
4.2	Phillips Marler and Biosis
4.3	Biosis
5	Biosis
6	Biosis
6.3	Phillips Marler and Biosis
6.4.2	Phillips Marler
7	Phillips Marler and Biosis

**Figure 1** Location of the proposal area



**Legend:**

- 3 Pacific Highway at Coonabarra Road & Redleaf Avenue, Wahroonga
- 2 Pacific Highway at Fox Valley Road, Wahroonga/Warrawee
- 1 Pacific Highway at Finlay Road, Warrawee/Turramurra
- C Compound Site at 1334 Pacific Highway, Turramurra

## 2 Consultation

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### 2.1 Consultation with Ku-ring-gai Council under State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 94 of ISEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposal is for a road and road infrastructure facilities and is to be carried out on behalf of Roads and Maritime, it can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Development consent from council is not required.

Part 2 of the ISEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Ku-ring-gai Council is currently been consulted with about the proposal as per the requirements of Part 2, Division 1 Clause 14 of the ISEPP in relation to the potential impacts of the proposal on local heritage items within their LGA.

A meeting was held on 17 August 2018 with representatives from Ku-ring-gai Council (which included a council heritage officer) to brief them on the proposal. Following the meeting, Roads and Maritime issued a formal ISEPP letter to council with details on the proposal, including a final draft version of this report. At the date of finalising this report no response has been received from Ku-ring-gai Council to date about heritage related matters, however consultation with Ku-ring-gai Council remains on-going.

### 2.2 Consultation with the Office of Environment and Heritage

Roads and Maritime has met with the Office of Environment and Heritage (OEH) on two occasions (11 May 2018 and 14 June 2018) to discuss the proposal and its potential impacts to the Mahratta heritage curtilage (both a local and State listed heritage item). These meetings were also supplemented with associated email correspondence and phone conversations.

### **2.3 Consultation with directly impacted property owners on locally listed heritage properties**

Consultation with impacted property owners directly affected by the proposal has been on-going. The purpose of the communications date has been to undertake pre-condition surveys and discuss the extent of potential property acquisition/adjustments and remediation requirements.

### **2.4 Consultation with the local community**

Consultation with the wider community is currently being undertaken via a 'Have Your Say' process. The outcomes of this consultation will be provided in the Community Engagement Report for the project.

## 3 Statutory framework

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This assessment will support a REF under Division 5.1 of the EP&A Act. In NSW, cultural heritage is managed in a three-tiered system: national, state and local. Certain sites and items may require management under all three systems or only under one or two. The following discussion aims to outline the various levels of protection and approvals required to make changes to cultural heritage in the state.

### 3.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environmental Protection and Biodiversity Act 1999* (EPBC Act) is the national Act protecting the natural and cultural environment. The EPBC Act is administered by the Department of Environment and Energy (DEE). The EPBC Act establishes two heritage lists for the management of the natural and cultural environment:

- The National Heritage List (NHL) contains items listed on the NHL have been assessed to be of outstanding significance and define "critical moments in our development as a nation".<sup>5</sup>
- The Commonwealth Heritage List (CHL) contains items listed on the CHL are natural and cultural heritage places that are on Commonwealth land, in Commonwealth waters or are owned or managed by the Commonwealth. A place or item on the CHL has been assessed as possessing "significant" heritage value.<sup>6</sup>

A search of the NHL and CHL did not yield any results associated with the study area.

### 3.2 NSW Heritage Act 1977

Heritage in NSW is principally protected by the Heritage Act (as amended) which was passed for the purpose of conserving items of environmental heritage of NSW. Environmental heritage is broadly defined under Section 4 of the Heritage Act as consisting of the following items: *"those places, buildings, works, relics, moveable objects, and precincts, of State or Local heritage significance"*. The Act is

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<sup>5</sup> "About National Heritage" <http://www.environment.gov.au/heritage/about/national/index.html>

<sup>6</sup> "Commonwealth Heritage List Criteria" <http://www.environment.gov.au/heritage/about/commonwealth/criteria.html>

administered by the NSW Heritage Council, under delegation by the Heritage Division, Office of Environment and Heritage. The Heritage Act is designed to protect both known heritage items (such as standing structures) and items that may not be immediately obvious (such as potential archaeological remains or 'relics'). Different parts of the Heritage Act deal with different situations and types of heritage and the Act provides a number of mechanisms by which items and places of heritage significance may be protected.

### 3.2.1 State Heritage Register

Protection of items of State significance is by nomination and listing on the State Heritage Register (SHR) created under Part 3A of the Heritage Act. The Register came into effect on 2 April 1999. The Register was established under the *Heritage Amendment Act* 1998. It replaces the earlier system of Permanent Conservation Orders as a means for protecting items with State significance.

A permit under Section 60 of the Heritage Act is required for works on a site listed on the SHR, except for that work which complies with the conditions for exemptions to the requirement for obtaining a permit. Details of which minor works are exempted from the requirements to submit a Section 60 Application can be found in the Guideline "Standard Exemptions for Works requiring Heritage Council Approval". These exemptions came into force on 5 September 2008 and replace all previous exemptions.

The proposal area contains parts of the following items listed on the SHR:

- Mahratta and site, (Item No. 708), 1526 Pacific Highway, Wahroonga, NSW, Lot 29, Section 1, DP 3312, Lot 30, Section 1, DP 3312, Lot 1, D P62488, Lots 1-14, DP 810712, immediately adjacent and within the proposal area on the western extent of the proposed works at Intersection 2 (Pacific Highway and Fox Valley Road).

A Section 60 application will be submitted by Roads and Maritime to the OEH for the works proposed to this heritage item. A separate heritage assessment has been prepared by Phillips Marler and Biosis as part of the Section 60 application under the Heritage Act.<sup>7</sup>

There are no items of State heritage significance within the vicinity of the proposal area.

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<sup>7</sup> Phillips Marler and Biosis Pty Ltd, Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga, 2018

### 3.2.2 Archaeological relics

Section 139 of the Heritage Act protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. This section applies to all land in NSW that is not included on the State Heritage Register.

Amendments to the Heritage Act made in 2009 changed the definition of an archaeological 'relic' under the Act. A 'relic' is defined by the Heritage Act as:

*"Any deposit, object or material evidence:*

*(a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*

*(b) which is of State or Local significance"*

It should be noted that not all remains that would be considered archaeological are relics under the NSW Heritage Act. Advice given in the Archaeological Significance Assessment Guidelines is that a "relic" would be viewed as a chattel and it is stated that:

*"In practice, an important historical archaeological site will be likely to contain a range of different elements as vestiges and remnants of the past. Such sites will include 'relics' of significance in the form of deposits, artefacts, objects and usually also other material evidence from demolished buildings, works or former structures which provide evidence of prior occupations but may not be 'relics'.<sup>8</sup>"*

If a relic, the discoverer is required to notify the NSW Heritage Council.

Section 139 of the Heritage Act requires any person who knows or has reasonable cause to suspect that their proposed works will expose or disturb a 'relic' to first obtain an Excavation Permit from the Heritage Council of NSW (pursuant to Section 140 of the Heritage Act), unless there is an applicable exception (pursuant to Section 139(4)). Excavation permits are issued by the Heritage Council of NSW in accordance with sections 60 or 140 of the Heritage Act. It is an offence to disturb or excavate land to discover, expose or move a relic without obtaining a permit. Excavation permits are usually issued

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<sup>8</sup> NSW Heritage Branch, Department of Planning 2009, 7

subject to a range of conditions. These conditions will relate to matters such as reporting requirements and artefact cataloguing, storage and curation.

Exceptions under Section 139(4) to the standard Section 140 process exist for applications that meet the appropriate criterion. An application is still required to be made. The Section 139(4) permit is an exception from the requirement to obtain a Section 140 permit and reflects the nature of the impact and the significance of the relics or potential relics being impacted upon.

If an exception has been granted and, during the course of the development, substantial intact archaeological relics of State or local significance, not identified in the archaeological assessment or statement required by this exception, are unexpectedly discovered during excavation, work must cease in the affected area and the Heritage Office must be notified in writing in accordance with Section 146 of the Heritage Act. Depending on the nature of the discovery, additional assessment and, possibly, an excavation permit may be required prior to the recommencement of excavation in the affected area.

### **3.2.3 Section 170 Heritage and Conservation Registers**

Section 170 of the *Heritage Act* requires that culturally significant items or places managed or owned by Government agencies are listed on departmental Heritage and Conservation Register. Information on these registers has been prepared in accordance with Heritage Division guidelines.

Statutory obligations for archaeological sites that are listed on a Section 170 Register include notification to the Heritage Council in addition to relic's provision obligations

There are three items within the proposed compound area which are listed on the State government instrumentality Section 170 Register:

- Hillview Garages & Precincts, (Department of Planning and Infrastructure, Item No. 3490028), 1334-1340 Pacific Highway, Turramurra NSW (proposed compound site).
- Hillview, (NSW Department of Health), 1334 Pacific Highway (Hillview), Turramurra NSW (proposed compound site)..
- Hillview Garages, (Roads and Maritime Services), 1334-1340 Pacific Highway, Turramurra NSW (proposed compound site).

There is one item in the vicinity of the proposal area which is listed on a State government instrumentality Section 170 Register:

- Wahroonga Railway Station group, (RailCorp, Item No. SRA940), North Shore railway, Wahroonga, NSW, DP 1133894, approximately 182 metres north of the proposal area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue).



### 3.3 Environmental Planning and Assessment Act 1979 and State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 94 of ISEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposal is for a road and road infrastructure facilities and is to be carried out on behalf of Roads and Maritime, it can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979*. Development consent from council is not required.

A summary of the Local Environmental Plan and Development Control Plan provisions relevant to the identification and assessment of the local heritage items and conservation areas potentially impacted by the proposal are described below.

#### 3.3.1 Ku-Ring-Gai (Local Centres) Local Environmental Plan 2012

The Ku-Ring-Gai LEP (Local Centres) 2012 contains schedules of heritage items that are managed by the controls in the instrument. Heritage items in the vicinity of the proposal area are identified in Figure 2, Figure 3, Figure 4 and Figure 5.

The proposal area contains parts of the following listed items of local and State significance on the Ku-Ring-Gai LEP (Local Centres) 2012 Schedule 5:

- Hillview Garages, (Item No. I156), 1340 Pacific Highway, Turrumurra NSW, Lot 6, DP 26828. Item of local significance (proposed compound site).
- “Hillview”, (Item No. I155), 1334 Pacific Highway, Turrumurra NSW, Lot 7, DP 214733. Item of local significance located immediately west of the proposal area (proposed compound site).
- Dwelling house, (Item No. I160), 1458 Pacific Highway, Turrumurra NSW, Lot A, DP 374006. Item of local significance located within the proposed works area at Intersection 1 (Pacific Highway and Finlay Road).

The study area includes the following heritage conservation areas of local significance:

- Hillview Conservation Area, (Conservation Area No. C40). Area of local significance (proposed compound site).

The proposal area is also situated within the vicinity of heritage items/conservation area of local significance:

- Rohini House gates, (Item No. I161), Railway lands, Turrumurra NSW, Part Lot 1, DP 1129573. Item of local heritage significance (10 m to the north of the proposed compound site).
- “Milnerroyd”, residential flat building, (Item No. I167), 1–3 Lowther Park Avenue, Warrawee NSW, Lot A, DP 401969. Item of local significance located immediately east of the proposed works area at Intersection 1 (Pacific Highway and Finlay Road).
- Commercial buildings, (Item No. I158), 1358 and 1360 Pacific Highway, Turrumurra NSW, Lots A and B, DP 445374; Lot 8, DP 237813. Item of local significance located immediately west of the proposed compound site.
- Former Commonwealth Bank building, (Item No. I157), 1356 Pacific Highway, Turrumurra NSW, Lot 5, DP 132873. Item of local significance located immediately west of the proposed compound site.
- Dwelling house (Item No. I139), 8 Kissing Point Road Turrumurra NSW. Lot 1 Dp743998 Item of local significance located south west of the proposed compound site.
- Residential flat building (Item No. I132), 2-4 Boyd Street Turrumurra NSW. Lot 2 DP596228

### **3.3.2 Ku-Ring-Gai (Local Centres) Development Control Plan 2016**

The Ku-Ring-Gai (Local Centres) Development Control Plan 2016 (‘KLCDCP’) outlines built form controls to guide development. The KLCDCP supplements the provisions of the Ku-Ring-Gai (Local Centres) LEP 2012.

The heritage controls within the KLCDCP aims to:

- retain, conserve and enhance Heritage Items, Heritage Conservation Areas (HCA) and their associated settings
- ensure the heritage significance, streetscape and landscape character of HCAs are maintained
- ensure alterations and additions to Heritage Items and within HCAs respect those buildings and do not compromise the significance and character of the individual Heritage Items or HCAs and
- ensure new development in the vicinity of Heritage Items and HCAs respects the heritage context and is sympathetic in terms of form, scale, character, bulk, orientation, setback, colours and textures and does not mimic or adversely affect the significance of Heritage Items or HCAs and their settings.

Any works to a heritage item, within an HCA or in the vicinity of a heritage item, a Heritage Impact Statement (HIS) is required. A Conservation Management Plan (CMP) may be required for works to a Heritage Item or significant works within an HCA. Heritage impact statements and CMPs are to be completed by an experienced heritage consultant. The HIS is to address the effect of the proposed development on a Heritage Item or HCA and demonstrate that the proposed works will not adversely impact upon significance, including any related heritage features within the identified curtilage and setting.

A number of conditions are in place regarding development within a conservation area:

- Applications must not have an adverse effect on the significance of a HCA or heritage item, and should retain the typical block width characteristics and historic subdivision pattern of the area.
- Setting and curtilage of Heritage Items or significant buildings in the vicinity, including important structures and landscape elements, must be retained, while vistas and views to and from Heritage Items and contributory properties, especially the principal elevations of buildings, are not to be interrupted or obscured.
- The landscape quality of the streetscape must be retained, and the contours and any natural features of the site should be retained and respected.
- Applications must ensure that any future development will not adversely affect the significance, character or appearance of the HCA.
- The setting or curtilage of any Heritage Items and contributory properties within or adjoining the heritage item should not be compromised. Any applications within an HCA will require a curtilage assessment.

Demolition of a Heritage Item, including buildings, other structures, trees and landscape features, will not be supported. However, applications may be considered which demonstrate that demolition will not result in any adverse impacts on the streetscape or character of the HCA, that the retention and stabilisation of the building or structure is unreasonable, taking into consideration the heritage significance of the property and whether the building constitutes a danger to the public, and that all alternatives to demolition have been considered with reasons provided as to why the alternatives are not acceptable. Applications for partial demolition will be assessed against the significance of the building part or structure and/or landscape features and whether its retention is considered necessary, its contribution to the significance of the streetscape or heritage item as a whole, and whether all alternatives to demolition have been considered with reasons provided as to why the alternatives are not acceptable. Archival recording may be required should permission be granted for partial or whole demolition of a heritage item in accordance with NSW Heritage Branch guidelines, both before and during works.

The established landscape character (height of the tree canopy, early gardens, remnant trees, historic tree plantings) that contributes to the significance of the streetscape and HCA as a whole are to be retained and conserved in any new development.

The reinstatement of original planting, where known, is encouraged. Original garden features such as gates, paths, stonework, garden terracing, tiling, cement crazy paving, walling and garden edging are to be retained and conserved; this also applies to elements which contribute to the significance of a heritage item. New gardens should be horticulturally and stylistically sympathetic to the period of the HCA. The use of similar materials such as sandstone, brick and gravel is encouraged, as is the use of a variety of plant species to avoid mono-cultural plantings along street frontages as screen planting. High solid hedges that screen the dwelling from the street are not permitted. New paving and hard surfacing, particularly to front setbacks is to be limited. Front gardens are to have a minimum of 70% landscaped area include substantial tree and shrub planting along street frontages. Materials for new garden paving or pathways are to be appropriate to the architectural style of the HCA, such as gravel for Federation style and sandstone flagging for Inter-war styles. Plain or stencilled concrete is not acceptable.

Original and early fences, piers, gates and retaining walls are to be retained and conserved. Original face brick or sandstone fences are not to be rendered, coated or painted. The configuration, finishes and details of original sandstone retaining walls that are located at the street front boundaries (whether identified as contributory properties or not) are to be retained and conserved. New front fencing is not encouraged in areas where it does not form part of the streetscape. In such areas, the front boundary can be defined by low hob walls, by garden beds or planting to allow private gardens to merge with their neighbours and support the landscape character of the area. Replacement of unsympathetic fences, gates and walls with new elements of appropriate height, style and materials is encouraged. Where historic records and physical evidence exists, new front fencing is to reinstate the original. Where no evidence is available to guide reconstruction of missing fences to contributory properties, new front fencing is to match the architectural style of the house, the period of construction and the character of the immediate streetscape. No metal panel fencing is to be constructed on any boundary within an HCA or heritage item.

There are additional controls for the HCAs relevant to the proposal area:

- *'HCA C40 – Hillview, Turrumurra'*, all individually listed heritage items are to be retained, while original face brickwork and sandstone is also to be retained and not rendered or painted; removal of paint from original face brick is encouraged. Gardens, gardens structures and landscaping which contribute to the significance of individual items and the conservation area as a whole must be retained and conserved.

### 3.3.3 Ku-Ring-Gai Local Environmental Plan 2015

The Ku-Ring-Gai LEP 2015 contain schedules of heritage items that are managed by the controls in the instrument. Heritage items in the vicinity of the proposal area are identified in Figure 2, Figure 3, Figure 4 and Figure 5.

The proposal area contains parts of the following listed items of local and State significance on the Ku-Ring-Gai LEP 2015 Schedule 5:

- Gateposts to the former “Estha”, dwelling house (Item No. I976), 1614–1634 Pacific Highway, Wahroonga NSW, Lot 102, DP 1034668. Item of local heritage significance located within the north-eastern extent of the proposed works area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue).
- Dwelling house, “Kyeamba” (Item No. I966), 1548 Pacific Highway, Wahroonga NSW, Lot 4, DP 523216. Item of local heritage significance located within the north western extent of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road).
- “Yaamba”, dwelling house, (Item No. I965), 1544 Pacific Highway, Wahroonga NSW, Lot A, DP 354970, Item of local heritage significance located within the north western extent of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road).
- “Mahratta”, dwelling house, (Item No. I964), 1536 Pacific Highway, Wahroonga NSW, Lot 14, DP 810712. Item of State and local significance located within the western extent of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road).
- Mahratta, (Item No. I913), 25 Fox Valley Road, Wahroonga NSW, Lot 1, DP 62488. Item of State and local significance located within the western extent of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road).

The proposal area is situated within the following heritage conservation areas of local significance:

- Mahratta Conservation Area, (Conservation Area No. C4). Area of local significance located within the western extent of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road).
- Heydon Avenue, Warrawee and Woodville Avenue, Wahroonga Conservation Area, (Conservation Area No. C2). Area of local significance located within the eastern extent of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road) and Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue).

The proposal area is also situated within the vicinity of heritage items/conservation area of local significance:

- “Redleaf”, dwelling house and grounds (Item No. I1008), 28–30 Woodville Avenue, Wahroonga NSW, Lot 4, DP 16893; Lots 1 and 2, DP 746487; Lot 12, DP 615524. Item of local significance located immediately east of the proposed works area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue).
- Dwelling house, (Item No. I969), 1565 Pacific Highway, Wahroonga NSW, Lot 4, DP 229736. Item of local significance located immediately east of the proposed works area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue).
- Dwelling house, (Item No. I967), 1551 Pacific Highway, Wahroonga NSW, Lots 4, 5, 6, 11 and 12, DP 16715. Item of local significance located immediately east of the proposed works area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue).
- “Inglewood”, dwelling house, (Item No. I1059), 1485 Pacific Highway, Warrawee NSW, Lot 11, DP 1009885. Item of local significance located immediately east of the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road).

#### **3.3.4 Ku-Ring-Gai Development Control Plan 2016**

The Ku-Ring-Gai Development Control Plan 2016 (KDCP) outlines built form controls to guide development. The KDCP supplements the provisions of the Ku-Ring-Gai LEP 2015.

The heritage controls within the KDCP largely mirror those specified within the KLCDCP, which are described above in Section 3.1.2. However, there is an additional provision which stipulates that any detail or important elements which contribute to the significance and character of a heritage item property or HCA must be reinstated following unauthorised removal. There are no specific controls provided for C4 - Mahratta Conservation Area or C2 - Heydon Avenue, Warrawee and Woodville Avenue, Wahroonga Conservation Area.

### **3.4 Summary of heritage listings**

A summary of heritage listings within and in the vicinity of the proposal area is presented in Table 2 and Figure 2, Figure 3, Figure 4 and Figure 5.

**Table 2 Summary of heritage listings within and directly adjacent to the proposal area**

Item name	Address / Property description	Listings		Item number	Significance	Location relative to the proposal area
		Individual item	As a Conservation Area			
<b>“Mahratta”, dwelling house / Mahratta / Mahratta Conservation Area</b>	1526 Pacific Highway, Wahroonga, NSW	State Heritage Register	-	708	State	Within the proposal area at Intersection 2 (Pacific Highway and Fox Valley Road)
	1536 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	1964	State	
	25 Fox Valley Road, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	1913	State	
	Pacific Highway and Fox Valley Road, Wahroonga NSW	-	Ku-Ring-Gai LEP 2015	C4	Local	
<b>Wahroonga Railway Station group</b>	North Shore railway, Wahroonga, NSW	State Heritage Register	-	1280	State	Outside of the proposal area near Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)
		RailCorp Section 170 Register	-	SRA940	State	
<b>Hillview / Hillview Garages / Hillview Garages &amp; Precincts / Hillview Conservation Area</b>	1334-1340 Pacific Highway, Turramurra NSW	Department of Planning and Infrastructure S170 Register	-	3490028	Local	Within the proposal area (proposed compound site)
	1334-1340 Pacific Highway, Turramurra NSW	Roads and Maritime Services S170 Register	-	N/A	Local	
	1334 Pacific Highway, Turramurra	NSW Department of Health S170 Register	-	N/A	Local	
	1340 Pacific Highway, Turramurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012 S170 Register	-	1156	Local	

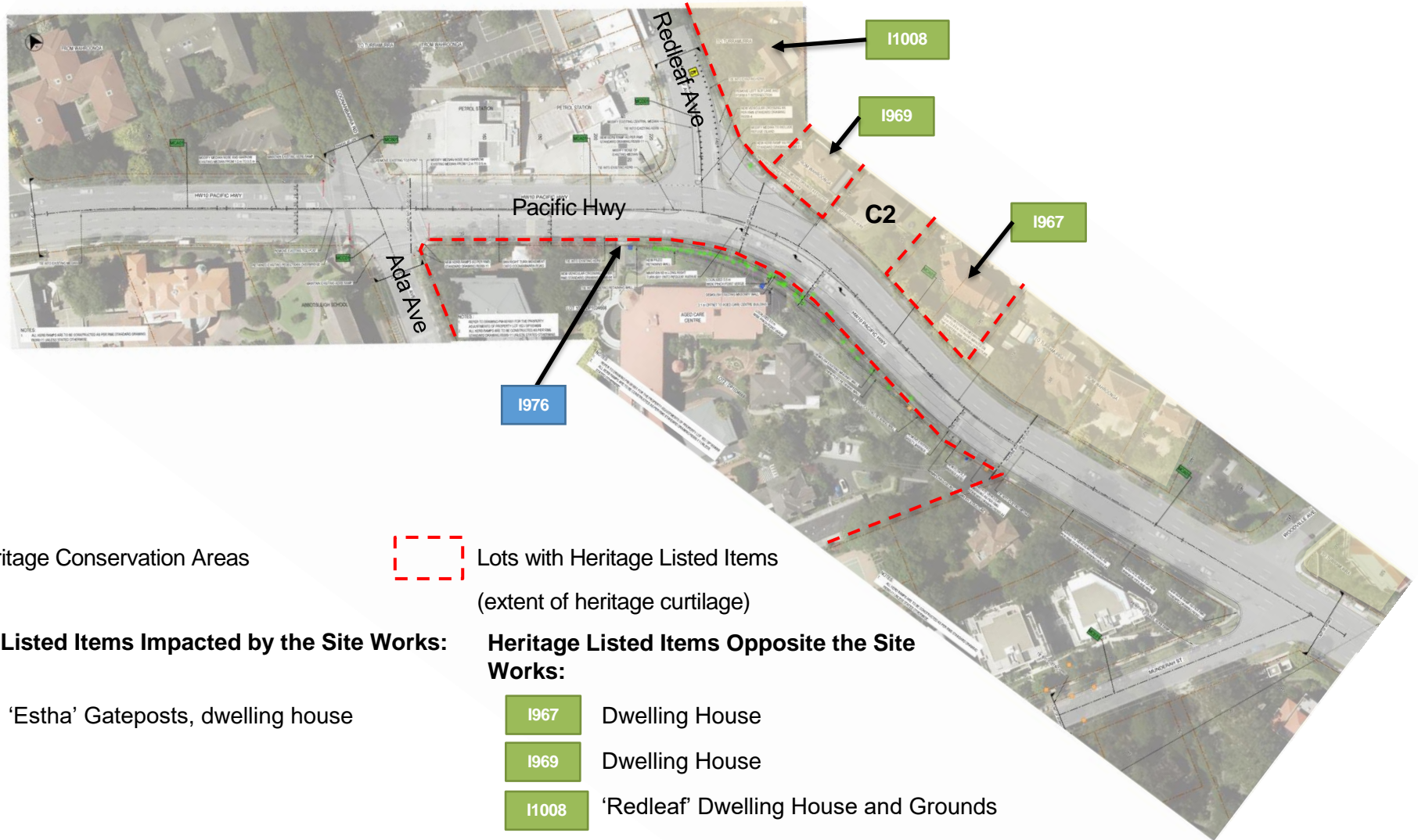
Item name	Address / Property description	Listings		Item number	Significance	Location relative to the proposal area
		Individual item	As a Conservation Area			
	1334 Pacific Highway, Turrumurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012 S170 Register	-	I155	Local	
	Pacific Highway, Turrumurra NSW	-	Ku-Ring-Gai LEP (Local Centres) 2012	C40	Local	
<b>Dwelling house</b>	8 Kissing Point Road Turrumurra NSW..	Ku-Ring-Gai LEP (Local Centres) 2012	-	I139	Local	Item of local significance located south west of the proposed compound site
<b>Residential flat building</b>	2-4 Boyd Street Turrumurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012		I132	Local	Item of local significance located south west of the proposed compound site
<b>Dwelling house</b>	1458 Pacific Highway, Turrumurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012	-	I160	Local	Within the proposed works area at Intersection 1 (Pacific Highway and Finlay Road)
<b>“Milneroyd”, residential flat building</b>	1–3 Lowther Park Avenue, Warrawee NSW	Ku-Ring-Gai LEP (Local Centres) 2012	-	I167	Local	Adjacent to the proposal area at Intersection 1 (Pacific Highway and Finlay Road)
<b>Commercial buildings</b>	1358 and 1360 Pacific Highway, Turrumurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012	-	I158	Local	Adjacent to the proposal area (proposed compound site)



Item name	Address / Property description	Listings		Item number	Significance	Location relative to the proposal area
		Individual item	As a Conservation Area			
<b>Former Commonwealth Bank building</b>	1356 Pacific Highway, Turramurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012	-	I157	Local	Adjacent to the proposal area (proposed compound site)
<b>Gateposts to the former “Estha”, dwelling house</b>	1614–1634 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	I976	Local	Within the proposed works area at Intersection 3 (Pacific Highway at Coonanbarra Road/Redleaf Avenue)
<b>Dwelling house (also known as “Kyeamba”)</b>	1548 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	I966	Local	Within the proposed works area at Intersection 2 (Pacific Highway at Fox Valley Road)
<b>“Yaamba”, dwelling house</b>	1544 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	I965	Local	Within the proposed works area at Intersection 2 (Pacific Highway at Fox Valley Road)
<b>Heydon Avenue, Warrawee and Woodville Avenue, Wahroonga Conservation Area</b>	Heydon Avenue, Warrawee and Woodville Avenue, Wahroonga	-	Ku-Ring-Gai LEP 2015	C2	Local	Within the proposed works area at Intersection 2 (Pacific Highway and Fox Valley Road) and Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)
<b>“Redleaf”, dwelling</b>	28–30 Woodville Avenue,	Ku-Ring-Gai LEP 2015	-	I1008	Local	Adjacent to the proposal

Item name	Address / Property description	Listings		Item number	Significance	Location relative to the proposal area
		Individual item	As a Conservation Area			
<b>house and grounds</b>	Wahroonga NSW					area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)
<b>Dwelling house</b>	1565 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	I969	Local	Adjacent to the proposal area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)
<b>Dwelling house</b>	1551 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	I967	Local	Adjacent to the proposal area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)
<b>“Inglewood”, dwelling house</b>	1485 Pacific Highway, Warrawee NSW	Ku-Ring-Gai LEP 2015	-	I1059	Local	Adjacent to the proposal area at Intersection 2 (Pacific Highway at Fox Valley Road)

Figure 2 Pacific Highway at Coonabarra Road and Redleaf Avenue, Wahroonga



Legend:

**C2** Heritage Conservation Areas

  Lots with Heritage Listed Items  
(extent of heritage curtilage)

**Heritage Listed Items Impacted by the Site Works:**

1976 'Estha' Gateposts, dwelling house

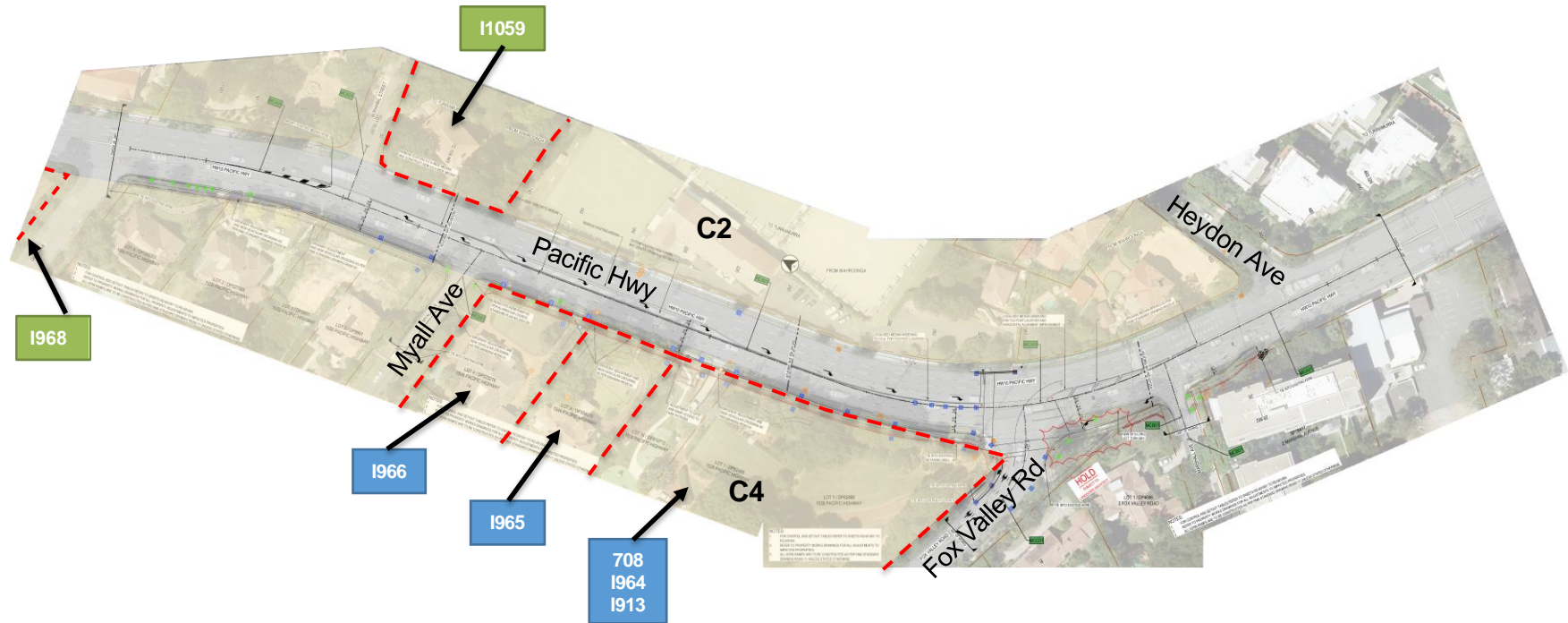
**Heritage Listed Items Opposite the Site Works:**

1967 Dwelling House

1969 Dwelling House

I1008 'Redleaf' Dwelling House and Grounds

Figure 3 Pacific Highway at Fox Valley Road, Wahroonga/Warrawee



**Legend:**

**C2** Heritage Conservation Areas

**Heritage Listed Items Impacted by the Site Works:**

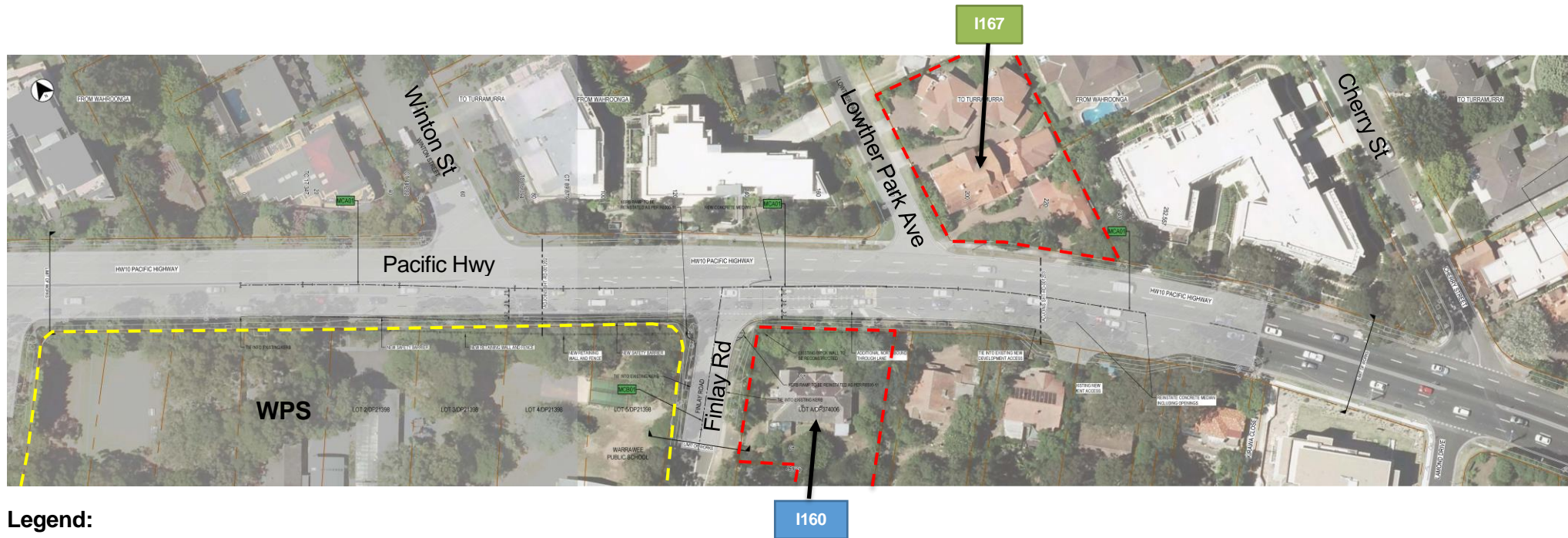
- 1966 'Kyeamba' Dwelling House
- 1965 'Yaamba' Dwelling House
- 708 1964 1913 'Mahratta' Site & Dwelling House

Lots with Heritage Listed Items (extent of heritage curtilage)

**Heritage Listed Items Opposite the Site Works:**

- 11059 'Inglewood' Dwelling House
- 1968 'Illilliwa' Dwelling House

Figure 4 Pacific Highway at Finlay Road, Warrawee/Turramurra



Legend:

**WPS** Warrawee Public School

**[Red dashed line]** Lots with Heritage Listed Items (extent of heritage curtilage)

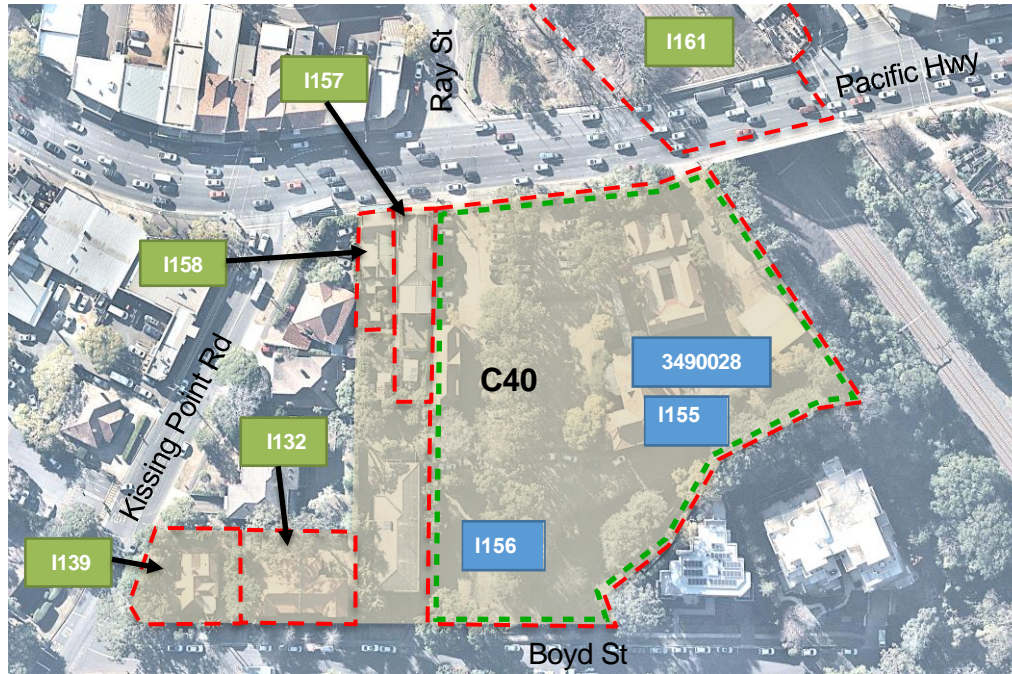
Heritage Listed Items Impacted by the Site Works:

Heritage Listed Items Opposite the Site Works:

**1160** Dwelling House

**1167** 'Milneroyd' Residential Flat Building

Figure 5 Proposed compound site, Turramurra



Legend:

- C2 Heritage Conservation Areas
- Lots with Heritage Listed Items (extent of heritage curtilage)
- Potential Compound Site

**Heritage Listed Items Impacted by the Site Compound:**

- 3490028 Hillview Garages & Precinct
- I155 "Hillview"
- I156 Hillview Garages

**Heritage Listed Items Opposite the Site Compound:**

- I157 Former Commonwealth Bank Building
- I158 Commercial Buildings
- I132 Residential Flat Building
- I139 Dwelling House
- I161 Rohini House gates

## 4 Historical context

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Historical research has been undertaken to identify the land use history of the proposal area, to isolate key phases in its history and to identify the location of any built heritage or archaeological resources which may be associated with the proposal area and the specific local heritage items that the proposal is impacting (ie. the study area). The historical research places the history of the proposal area into the broader context of the Ku-ring-gai district.

### 4.1 Topography and resources

The proposal area is situated in an urban environment, surrounding by dense suburban housing and associated infrastructure including the northern railway line. The land within and around the proposal area traverses a series of slopes and undulating ridgelines, which increase in height above sea level towards the northern part of the proposal area in Wahroonga. There are several non-perennial water sources in the vicinity, including the Coups Creek (approximately 550 metres south-south-west of the proposal area) and Cowan Creek (approximately 1 kilometre east of the proposal area).

### 4.2 Aboriginal past

It is generally accepted that people have inhabited the Australian landmass for the last 50,000 years.<sup>41</sup> Dates of the earliest occupation of the continent by Aboriginal people are subject to continued revision as more research is undertaken. The timing for the human occupation of the Sydney Basin is still uncertain. While there is some possible evidence for occupation of the region around 40,000 years ago, the earliest known radiocarbon date for the Aboriginal occupation of the Sydney Basin is associated with a cultural / archaeological deposit at Parramatta, which was dated to 30,735 ± 407 BP.<sup>42</sup>

Despite a proliferation of Aboriginal heritage sites there is considerable ongoing debate about the nature, territory and range of pre-contact Aboriginal language groups in the greater Sydney region. These debates have arisen largely because, by the time colonial diarists, missionaries and proto-

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<sup>41</sup> Allen et al. 2003

<sup>42</sup> Jo McDonald Cultural Heritage Management 2005a; Jo McDonald Cultural Heritage Management 2005b

anthropologists began making detailed records of Aboriginal people in the late 19th century, pre-European Aboriginal groups had been broken up and reconfigured by European settlement activity. Even with conflicting views between historical sources of the exact boundaries of tribal groups in the region, the linguistic evidence does identify distinct language groups at the time of European contact. Based on this information it appears that the proposal area was situated within the Dharug linguistic group. The Dharug language group consisted of two dialects, one which was used east of Parramatta and between Sydney Harbour and Botany Bay, and the other which was spoken in the west. Although there is some confusion concerning the pre-European tribal organisation around Sydney, the Guringai tribe is believed to have inhabited the coastal area from Lake Macquarie to Botany Bay.<sup>43</sup>

The areas inhabited by each of the groups are considered to be indicative only and would have changed through time and possibly also depending on circumstances (i.e. availability and distribution of resources). Interactions between different types of social groupings would have varied with seasons and resource availability. It has been noted that interactions between the groups inhabiting the many resource zones of the Sydney Basin (coastal and inland) would have varied but were continuous. This is reflected in the relatively homogenous observable cultural features such as art motifs, technology and resource use.<sup>44</sup>

### **4.3 Historical development**

#### **4.3.1 Exploration**

The route of the Pacific Highway likely originated as the tracks utilised by local Aboriginal people, the Guringai, following the topography of the ridgelines, and staying within close proximity to water sources. The early European explorers and timber-getters appropriated these paths for their own purposes, with timber-getters settling in the Ku-ring-gai region to exploit the timber resources available within the area.<sup>45</sup>

#### **4.3.2 Early development (c.1809 to 1854)**

The timber industry in the Ku-ring-gai region was important in the early history of Sydney. These activities also cleared the land for cultivation and settlement, thus allowing for grants and subdivisions to

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<sup>43</sup> Tindale 1974; National Parks and Wildlife Service 1999

<sup>44</sup> McDonald 1992

<sup>45</sup> Cushing 2002



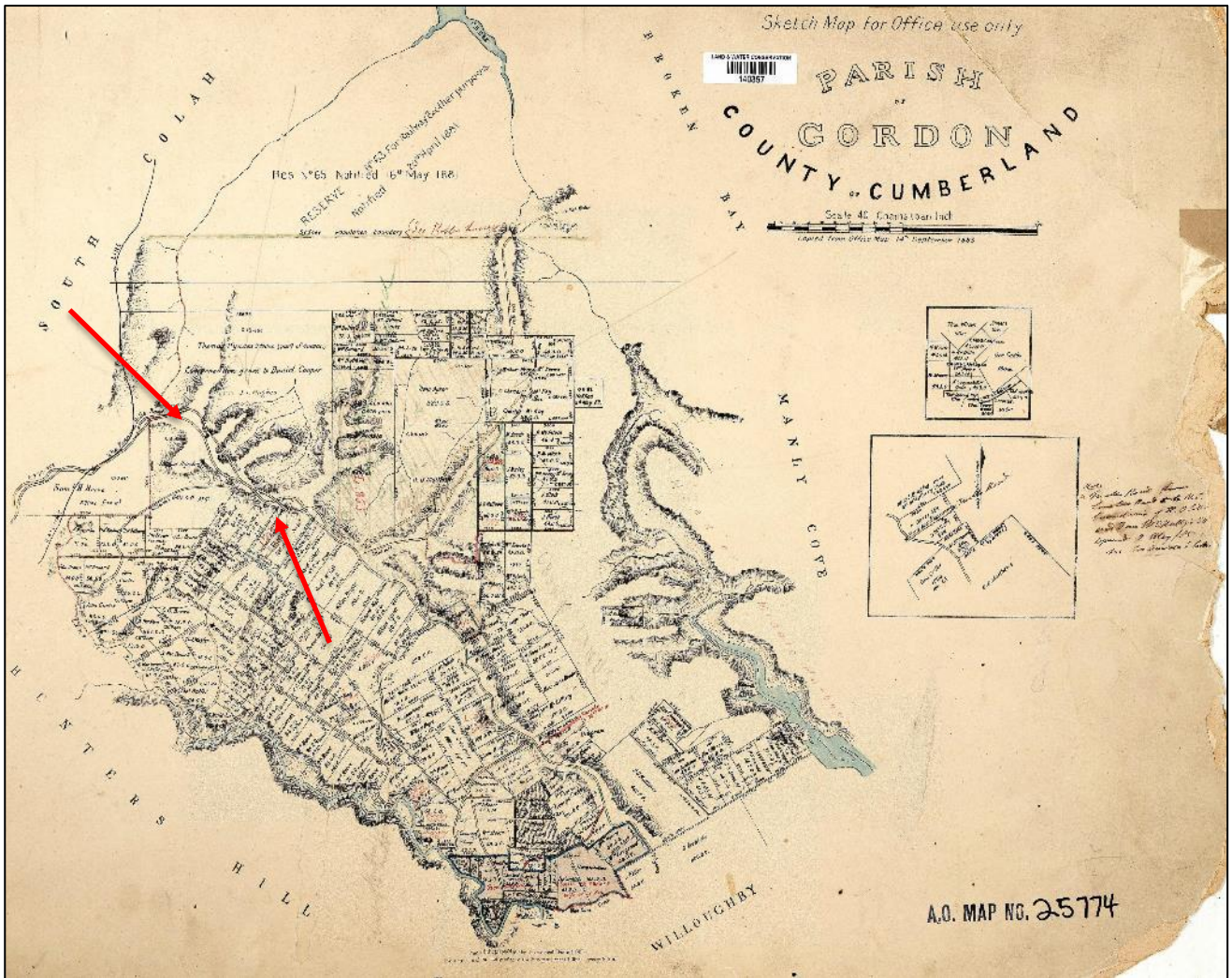
be made more readily. The Wahroonga area is noted as one of Ku-ring-gai's richest areas for timber, containing large stands of cedar, mahogany, turpentine, ironbark, and blue gum. In order to encourage and support this industry, a government sawmill was established within the Ku-ring-gai region in c.1809. The mill closed in c.1814, following which a subsequent sawmill was commissioned by Governor Lachlan Macquarie in the current area of Pennant Hills, which at the time was on the northern edge of the Field of Mars Common, south-west of the proposal area.<sup>46</sup>

Around 1822, Thomas Hyndes leased 2000 acres (809 hectares) of land north of the Lane Cove Road, which encompassed much of present-day Wahroonga, and also parts of Turramurra; the lease became known as the Big Island Estate. Hyndes arrived in Sydney on 11 March 1803, having been convicted for life at the Surry Assizes in August 1800. Hyndes was also granted 640 acres (around 259 hectares) south of his leased land, known as Fox Grounds Estate, in 1838, which he had been in possession of since 1830. Hyndes exploited the timber resources on his leased and granted land using convict labour, having worked his way up to master sawyer in 1822 since receiving a conditional pardon in 1808. It has been said that Hyndes constructed a house near the junction of the current Pacific Highway and Fox Valley Road (adjacent to the proposal area). In 1840, Hyndes sold his 640 acres (259 hectare) grant to Adolphus William Young.<sup>47</sup> Other early grants adjacent to the proposal area were made to George Wood, John Beattie, Thomas Boyd and John McMahon (Figure 6).

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<sup>46</sup> Paul Davies Pty Ltd 2010; Kass 1993, cited by AECOM Australia Pty Ltd 2014, 5; Thorp 1987, 4; Cushing 2002

<sup>47</sup> Paul Davies Pty Ltd 2010; Ku-ring-gai Historical Society Inc. (n.d.)a; City of Sydney Council 2018; Ku-ring-gai Historical Society Inc. (n.d.)b; Godden Mackay Logan and Keys Young 2000, 379, cited by Paul Davies Pty Ltd 2008, 26; SHR listing for Mahratta and Site, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018; John Oultram Heritage & Design 2013, 5



**Figure 6** An 1883 map of Gordon parish with the proposal area situated along the road between the red arrows (Source: NSW Department of Lands)

It should be noted that early maps and plans apply several different names to the current Pacific Highway. An 1829 grant to the Clergy and School Lands in Gordon named the road as Hunters Hill

Road. It was also referred to as Pennant Hills Road in an 1858 plan of Fox Valley Road. However, Lane Cove Road became the more commonly used name until it was superseded by the Pacific Highway.<sup>48</sup>

In 1840, John Terry Hughes re-leased Hyndes' land, and received the grant from Governor Sir George Gipps in August 1842. Due to the economic downturn of the 1840s, Hughes' lost his property to Adolphus William Young, who retained ownership until Power of Attorney was given to William Whaley Billyard in 1854.<sup>49</sup> In the same year, John Brown, a timber merchant, purchased the Hyndes' 640 acre (259 hectare) grant south of the Lane Cove Road from Young. Brown cleared areas of land for orchards and timber.<sup>50</sup>

In 1839, Thomas Boyd, a former Lieutenant in the Royal Veteran's Corp, was granted 100 acres of land in what is currently Turramurra; Boyd named his property Toulouse Farm after the battle of Toulouse in the Napoleonic War, in which he fought. Boyd and his sons cleared the land of timber and established an orchard, and established a timber-selling business in Sussex Street, Sydney, in 1845. Subdivision plans dating to 1882 show the location of the Boyd's residence as being adjacent to Kissing Point Road, south-west of the proposal area (ie. compound site).<sup>51</sup>

#### **4.3.3 Subdivision and orchards (1855 to 1889)**

Citrus and stone fruit overtook the timber-getting industry after 1850, and as a result villages were established in several locations, including Wahroonga, to support the farmers and their workers.<sup>52</sup> Early settlement within the Ku-ring-gai area generally gravitated towards the major roads.<sup>53</sup> The Big Island Estate was advertised for auction in April 1855, to be sold as farm lots sized between 12 and 50 acres (4.9 and 20.2 hectares) and described as ideal for orchards and market gardening, with an abundance of fuel and timber available. The estate was divided into five sections, which featured between two and 13

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<sup>48</sup> Cushing 2002

<sup>49</sup> Paul Davies Pty Ltd 2010; Godden Mackay Logan and Keys Young 2000, 379, cited by Paul Davies Pty Ltd 2008, 26; NSW Department of Lands, Primary Application 6519; John Outram Heritage & Design 2013, 5

<sup>50</sup> SHR listing for Mahratta and Site,

<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018

<sup>51</sup> SHR listing for Hillview Garages,

<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4309663>, viewed 16 April 2018; NSW Land Registry Services, Certificate of Title Volume 5326 Folio 177

<sup>52</sup> Kass 1993, cited by AECOM Australia Pty Ltd 2014, 5; Ku-ring-gai Historical Society Inc. (n.d.)a; Ku-ring-gai Historical Society Inc. (n.d.)b; Cushing 2002

<sup>53</sup> Paul Davies Pty Ltd 2010a, 5

farms each.<sup>54</sup> Unfortunately it has not been possible to locate a plan of this subdivision. However, it appears that John Brown acquired several portions of land from Young over time.<sup>55</sup> While two 1858 Crown plans for Kissing Point Road and Fox Valley Road do not record any structures on either side of the road, or where they intersect with the Lane Cove/Pennant Hills Road, an 1862 survey of the St Leonards to Pennant Hills Road shows a number of structures adjacent to this road, with one potentially within the proposal area [1] (Figure 7 and Figure 8).<sup>56</sup>

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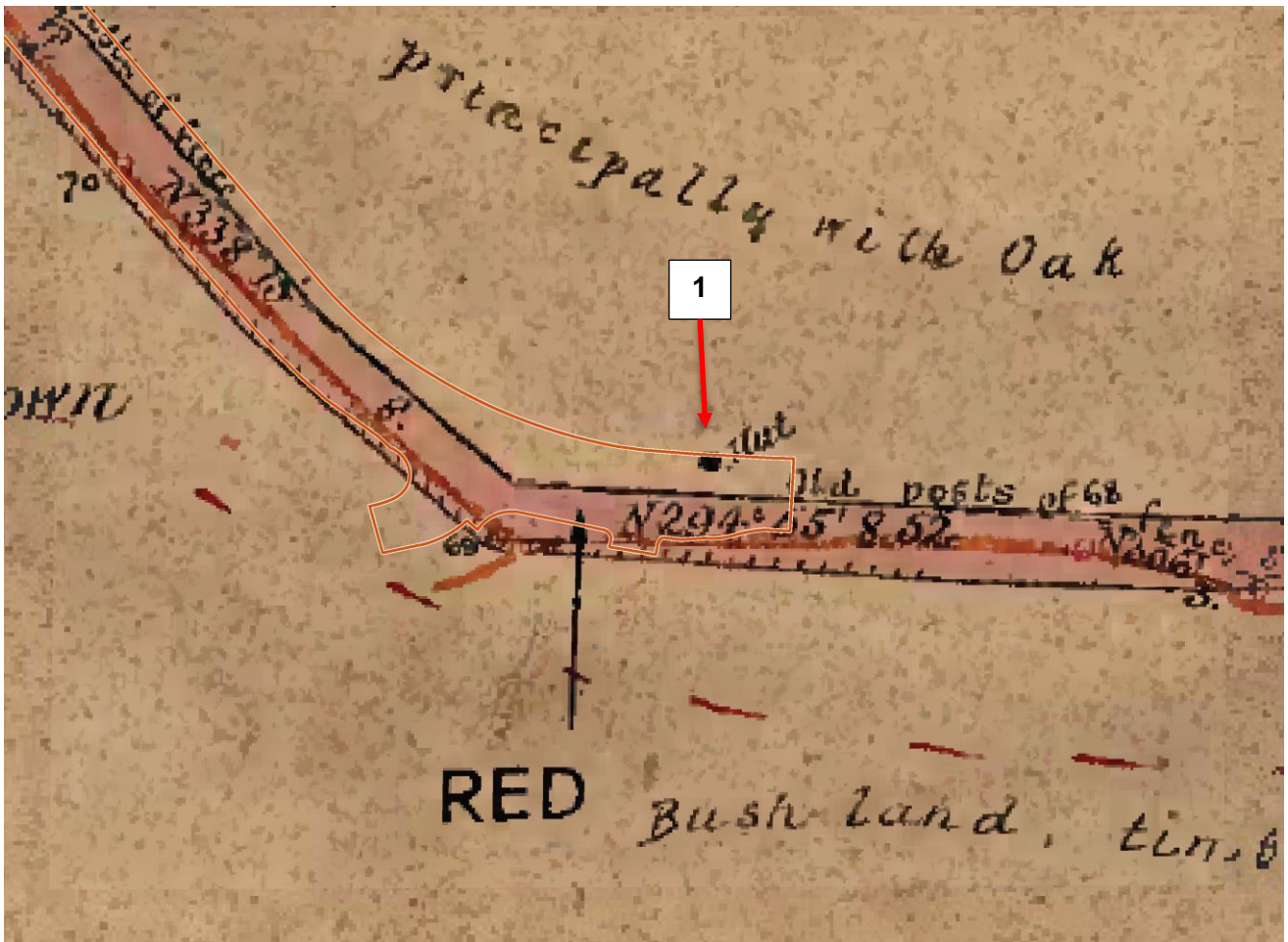
<sup>54</sup> 1855 "Advertising" *Sydney Morning Herald* (NSW : 1842 - 1954), 5 April, p. 7, <http://nla.gov.au/nla.news-article12967646>, viewed 20 April 2018

<sup>55</sup> NSW Department of Lands, Primary application 6519; NSW Land Registry Services, Primary Application 4835

<sup>56</sup> NSW Land Registry Services, Crown Plan R290.1603



**Figure 7** An 1862 survey of the St Leonards to Pennant Hills Road, with the proposal area highlighted; several structures are present on the plan, but only one may be located within the proposal area (Source: NSW Land Registry Services, Crown plan R290.1603)



**Figure 8** Detail from an 1862 survey of the St Leonards to Pennant Hills Road, showing a hut [1] near the junction of Fox Valley Road and Lane Cove Road; it appears this hut [1] may be partially within the proposal area at Fox Valley Road (Intersection 2) (Source: NSW Land Registry Services, Crown plan R290.1603)

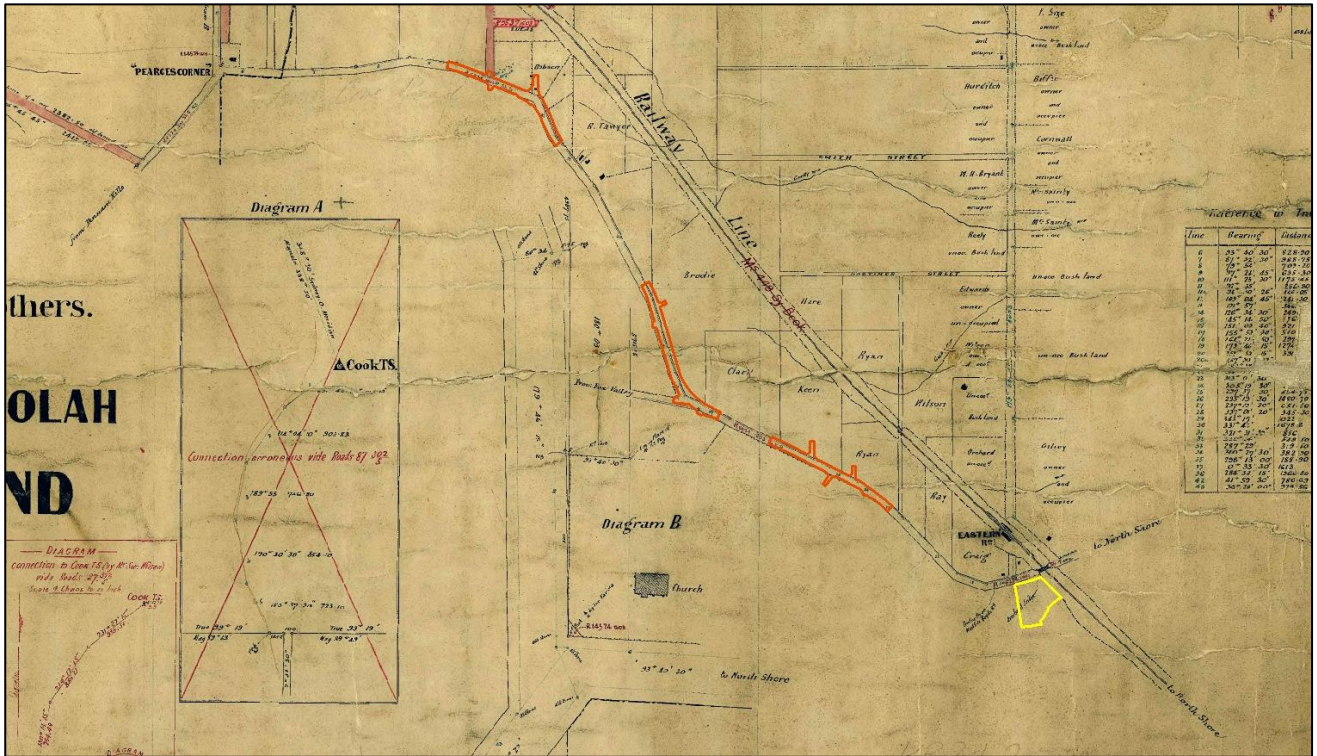
In 1872, certain parts of the former Big Island Estate were subdivided, with secondary subdivisions following soon after. The Upper North Shore remained a rural area in 1880, with limited avenues of access and communication with the city. The local population mainly consisted of those working in

primary industries and those employed in education or religious institutions.<sup>57</sup> This can be seen in an 1888-1889 Crown plan for roads within parishes of Gordon and South Colah (Figure 9). The plan records several structures in the vicinity of Lane Cove Road, with one structure [2] within the current road alignment of Redleaf Avenue.<sup>58</sup>

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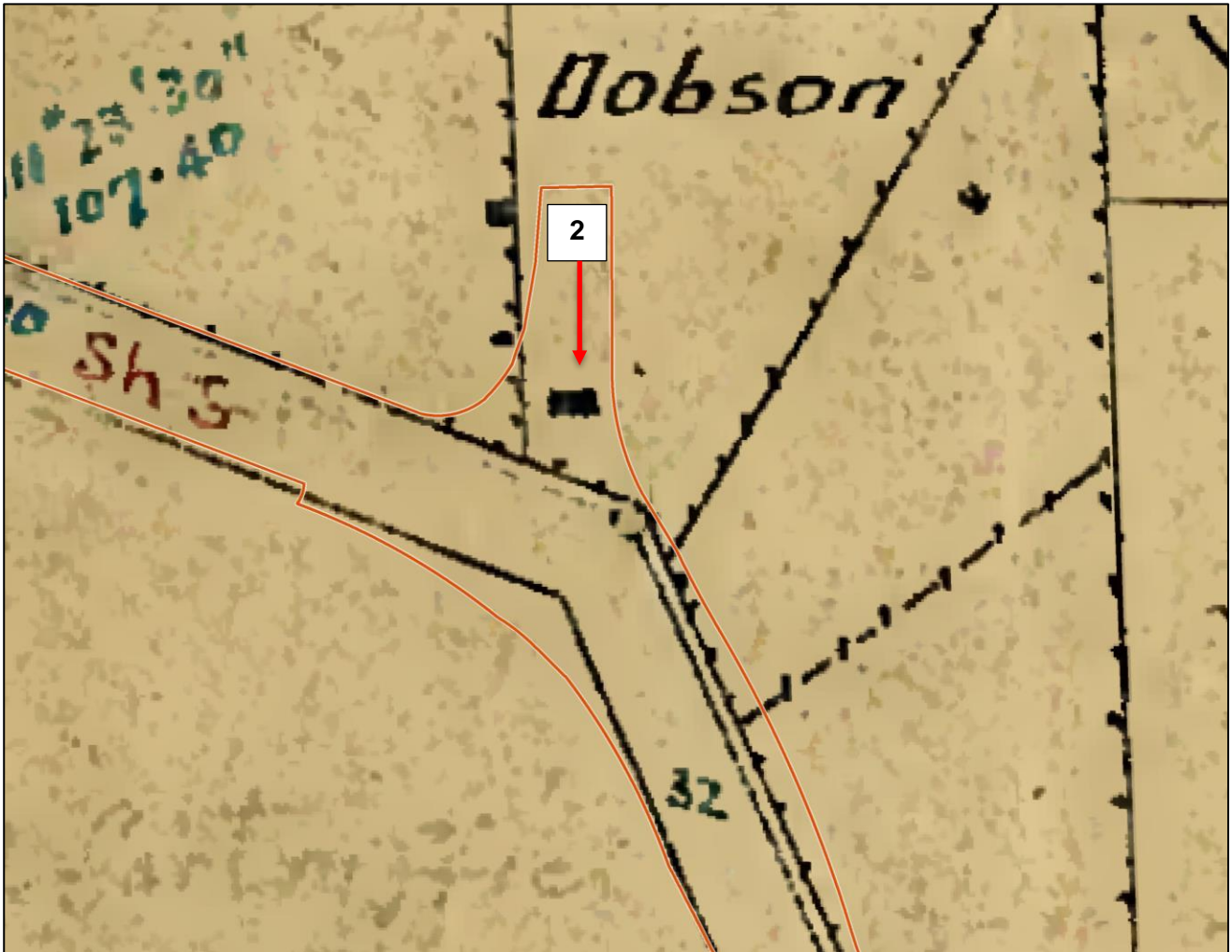
<sup>57</sup> Cushing 2002

<sup>58</sup> NSW Land Registry Services, Crown plan R3842.1603



**Figure 9** Extract from an 1888-1889 survey for the roads within the parishes of Godon and South Colah, with the proposal area highlighted; several structures are recorded near the proposal area (Source: NSW Land Registry Services, Crown plan R3824.1603)





**Figure 10** Detail from an 1888-1889 survey for the roads within the parishes of Gordon and South Colah, showing a structure [2] recorded within the current alignment of Redleaf Avenue (Source: NSW Land Registry Services, Crown plan R3824.1603)

Toulouse Farm remained in the Boyd family until its subdivision in 1882, when it was known locally as Boyd's Orchard. No sales resulted from this subdivision, and a second attempt was made in 1884.<sup>59</sup>

<sup>59</sup> SHR listing for Hillview Garages, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4309663>, viewed 16 April 2018

#### 4.3.4 The North Shore Rail Line and beginnings of a gentile villages (1890 to 1920s)

The establishment of the North Shore Rail Line sparked significant changes to the Ku-ring-gai district. Prior to its completion in 1890, land along the rail line, particularly near railway station sites were subdivided and sold off, including the large estates and orchard properties adjacent to the proposal area. The upper-middle classes were attracted to the Upper North Shore for its semi-rural environment away from the industry and business activity of the city and suburbia, and the fact it excluded those of lower financial means due to the cost of commuting. Like the major roads before them, the new railway stations became the focus of late-19th and early-20th century development within the region, with small lots being offered for sale.<sup>60</sup> One of the earliest of these appears to be the Wahroonga Estate, which was established and sold by auction from early 1890. No structures were recorded on Lots 1-6 on Lane Cove Road on the auction advertisement poster or subdivision plan.<sup>61</sup> In the same year, the Fox Ground Estate was reconveyed to John Thomas Brown and others, likely William Henry Brown, Sophie Laing and Charlotte Mary Ann Brown, who later became the trustees of Brown's will upon his death in c.1894.<sup>62</sup> It has been noted that a photograph dating to c.1890 shows a small weatherboard building with verandah [3] on the southern side of Lane Cove Road at Turramurra. It is believed that this building functioned as a shop, and was demolished in the mid-1930s and replaced by the Art Deco style Commonwealth Bank building.<sup>63</sup>

In 1893, it appears the Fox Ground Estate was split, with Francis Gerard, a pastoralists' agent, acquiring the 6 acres (2.4 hectares) of land at the junction of Lane Cove Road (Pacific Highway) and Fox Valley Road. In the same year, Gerard sold his property to Adelaide Langtree and her husband Michael, a civil engineer and pastoralist (Figure 11).

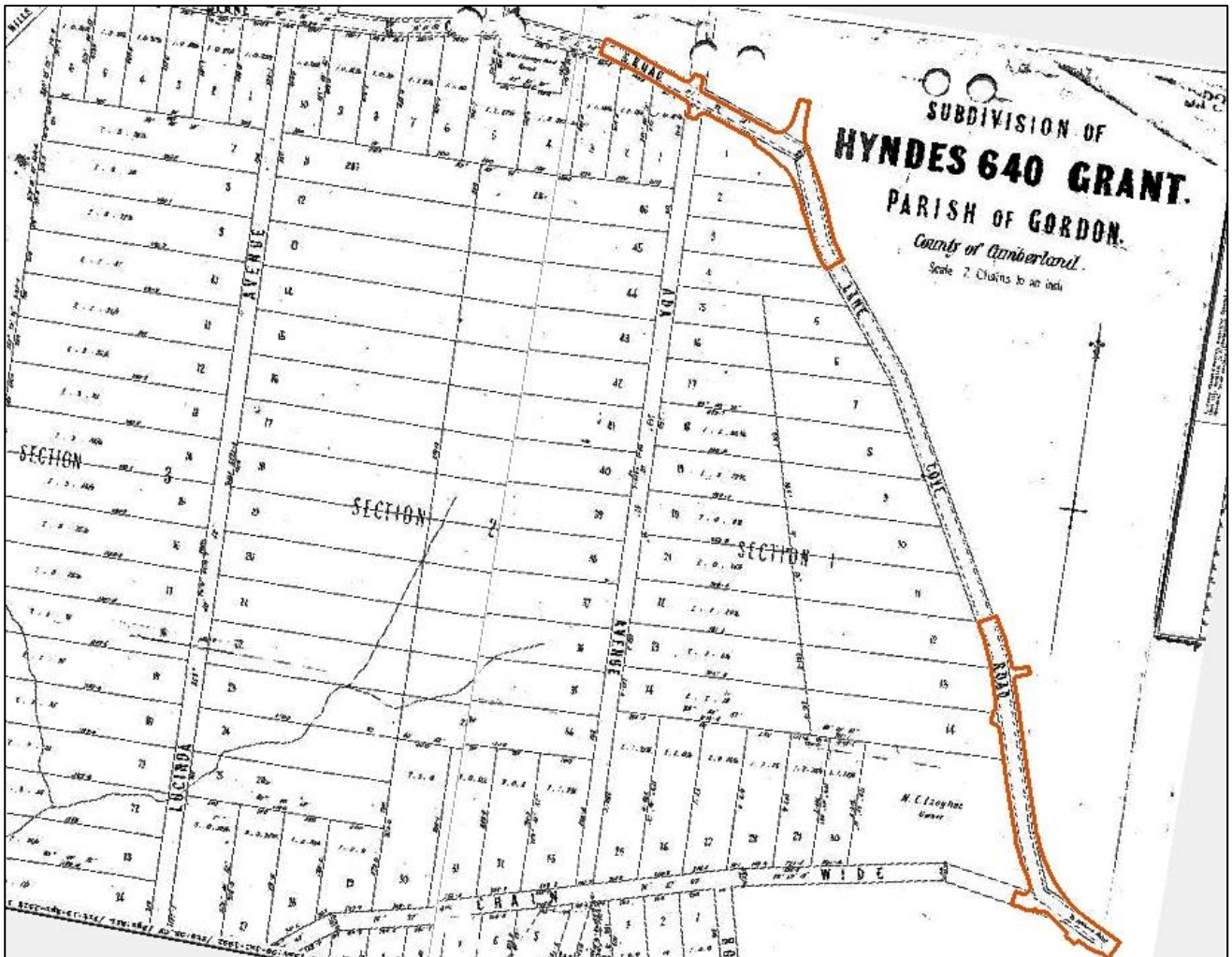
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<sup>60</sup> Paul Davies Pty Ltd 2010a, 5; Cushing 2002

<sup>61</sup> 1889 "Advertising." *Sydney Morning Herald* (NSW : 1842 - 1954), 19 December, p. 15, <http://nla.gov.au/nla.news-article28275689>, viewed 19 April 2018; NSW Land Registry Services, DP 2666

<sup>62</sup> NSW Department of Lands, Primary Application 9939; John Oultram Heritage & Design 2013, 6

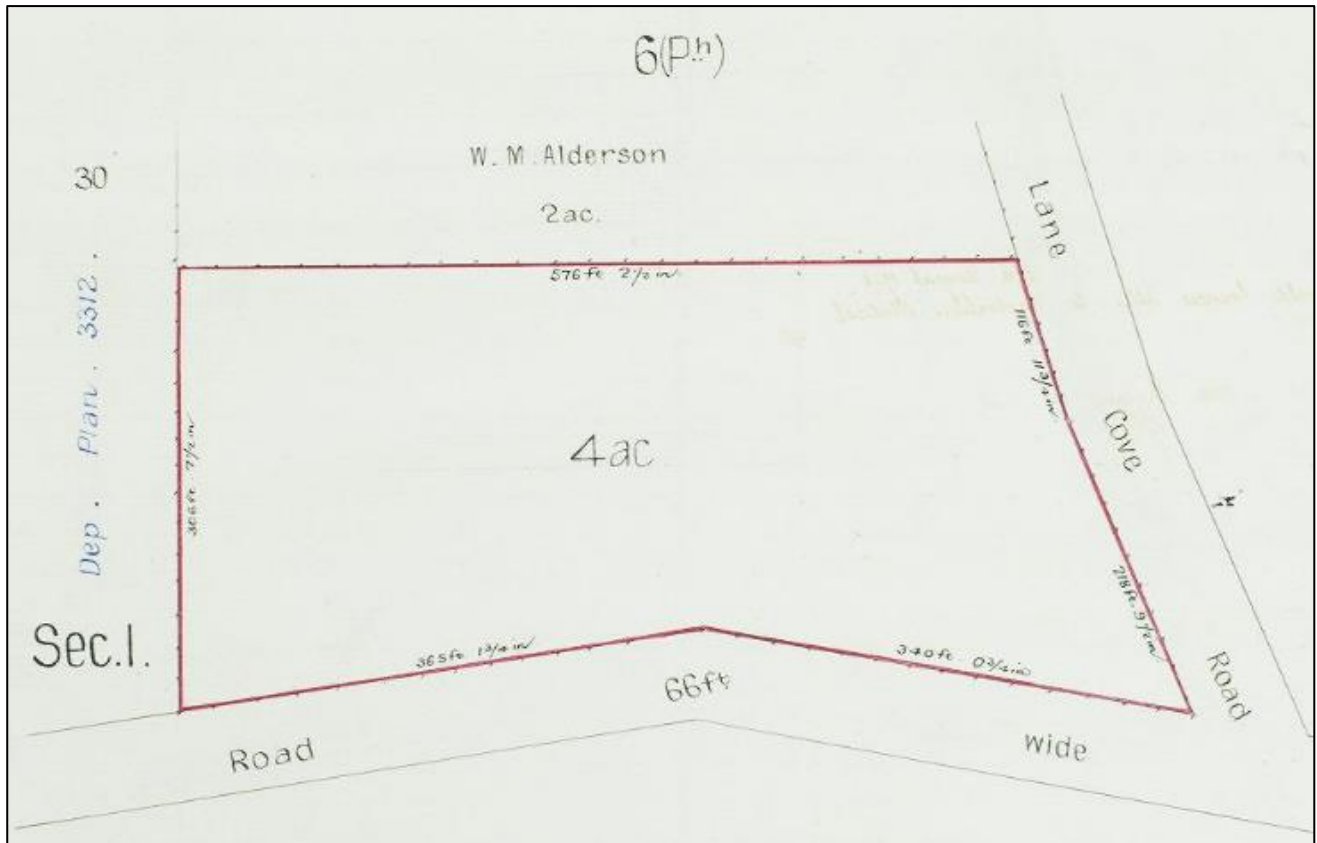
<sup>63</sup> SHR listing for Hillview Garages, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4309663>, viewed 16 April 2018



**Figure 11 Extract from an 1893 subdivision plan of Hyndes' grant south of Lane Cove Road, with the study area highlighted (Source: NSW Department of Lands, DP 3312)**

Langtree built Yaamba on the northern side of the property and sold the southern portion to Constance Maria Beckx in 1902 (Figure 12) who built a large residence Haverlee [4] <sup>64</sup>.

<sup>64</sup> NSW Land Registry Services, Certificate of Title Volume 1470 folio 115; Taylor Brammer Landscape Architects Pty Ltd 2011, 10



**Figure 12 Plan of the land acquired by owned by Beckx in 1902 (Source: NSW Department of Lands, Certificate of Title Volume 1470 Folio 115)**

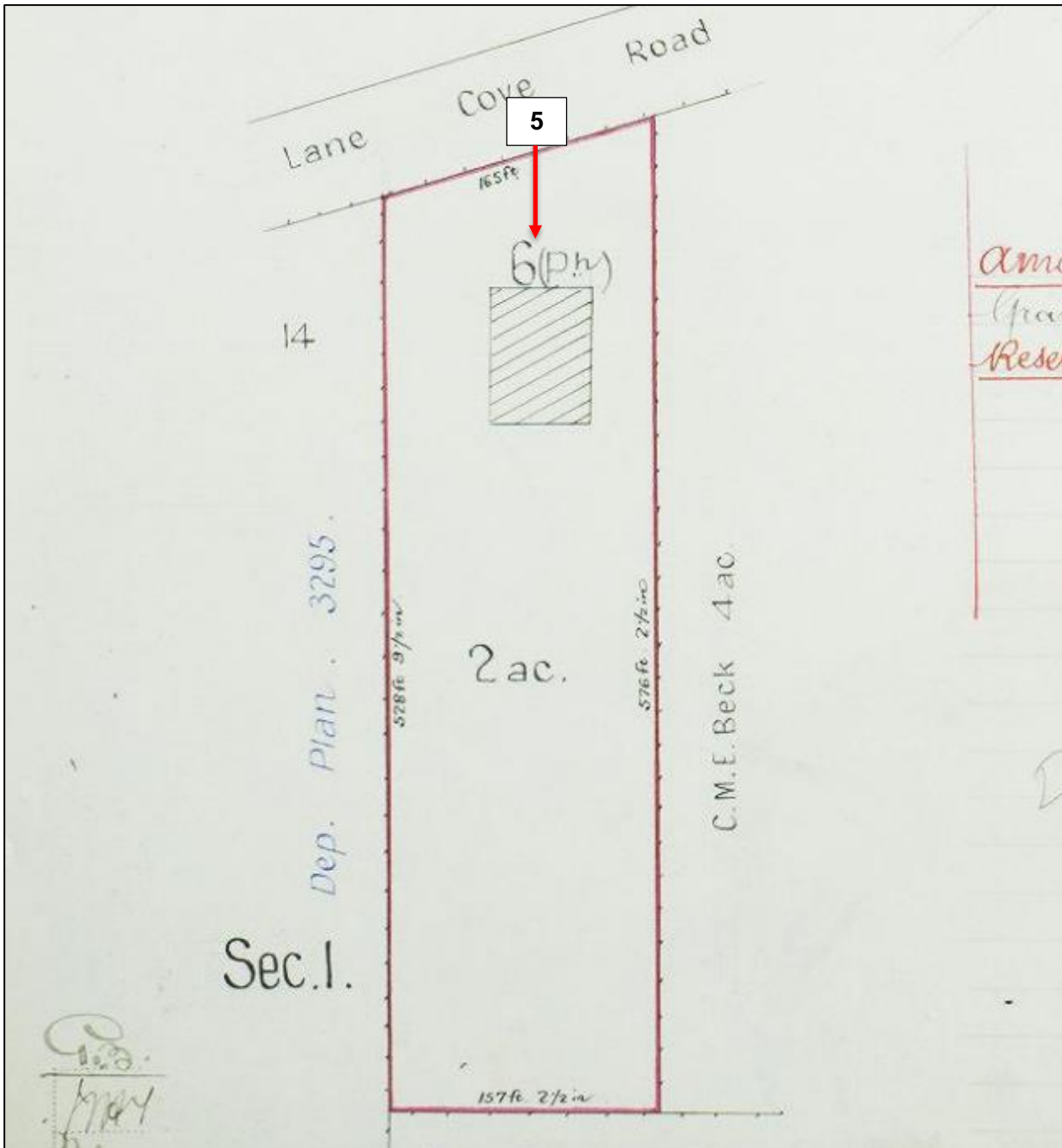
Another portion of the Fox Ground Estate was acquired by William Mitford Alderson in the same year. The plan contained within Certificate of Title for Alderson’s land records a structure [5] facing Lane Cove Road (Figure 13).<sup>65</sup> The estate was subdivided several times within several years and in 1896, a large portion of the former estate was subdivided sold off as Brown’s Estate, with Lots 1-28 of Section 1

<sup>65</sup> NSW Land Registry Services, Primary application 12488; NSW Land Registry Services, Certificate of Title Volume 1470 Folio 115; NSW Land Registry Services, Certificate of Title Volume 1470-116; SHR listing for Mahratta and Site, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018

forming their own subdivision within the same year. No structures are recorded on either of the subdivision plans.<sup>66</sup>

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<sup>66</sup> NSW Land Registry Services, Primary Application 12488; NSW Land Registry Services, DP 3312; NSW Land Registry Services, Certificate of Title Volume 1196 Folio 151; NSW Land Registry Services, DP 3295

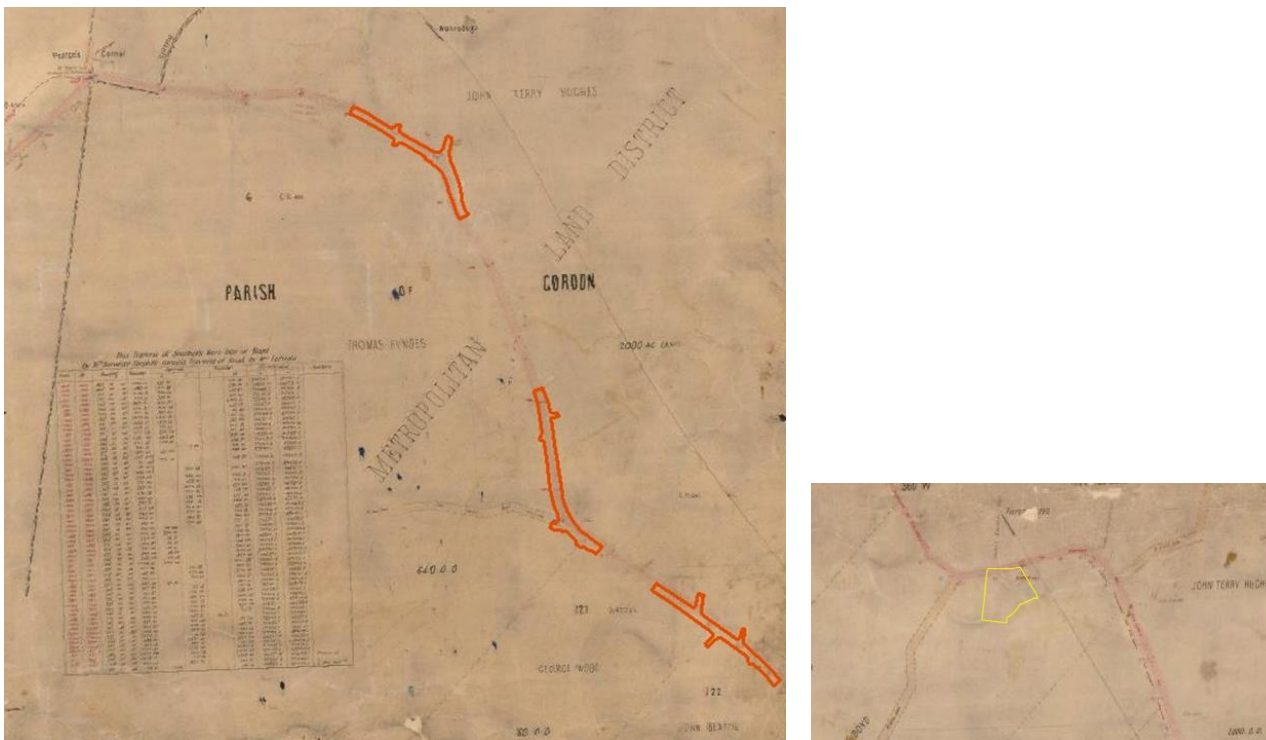


**Figure 13 A Certificate of Title plan dating to 1893 records a structure [5] in the vicinity of Lane Cove Road (Source: NSW Land Registry Services, Certificate of Title Volume 1470 Folio 116)**

Another attempt at selling off a subdivided Boyd's Orchard was made in 1893. Part of the subdivision located between Kissing Point Road and the North Shore railway line was purchased by Ian AuPrince and Edmund Sheffield Willoughby Paul. It has been suggested that the original cottage [6] was built

around this time<sup>67</sup>. As a result of the rising population and changing demographic, large grand houses began to be built along Lane Cove Road<sup>36</sup>.

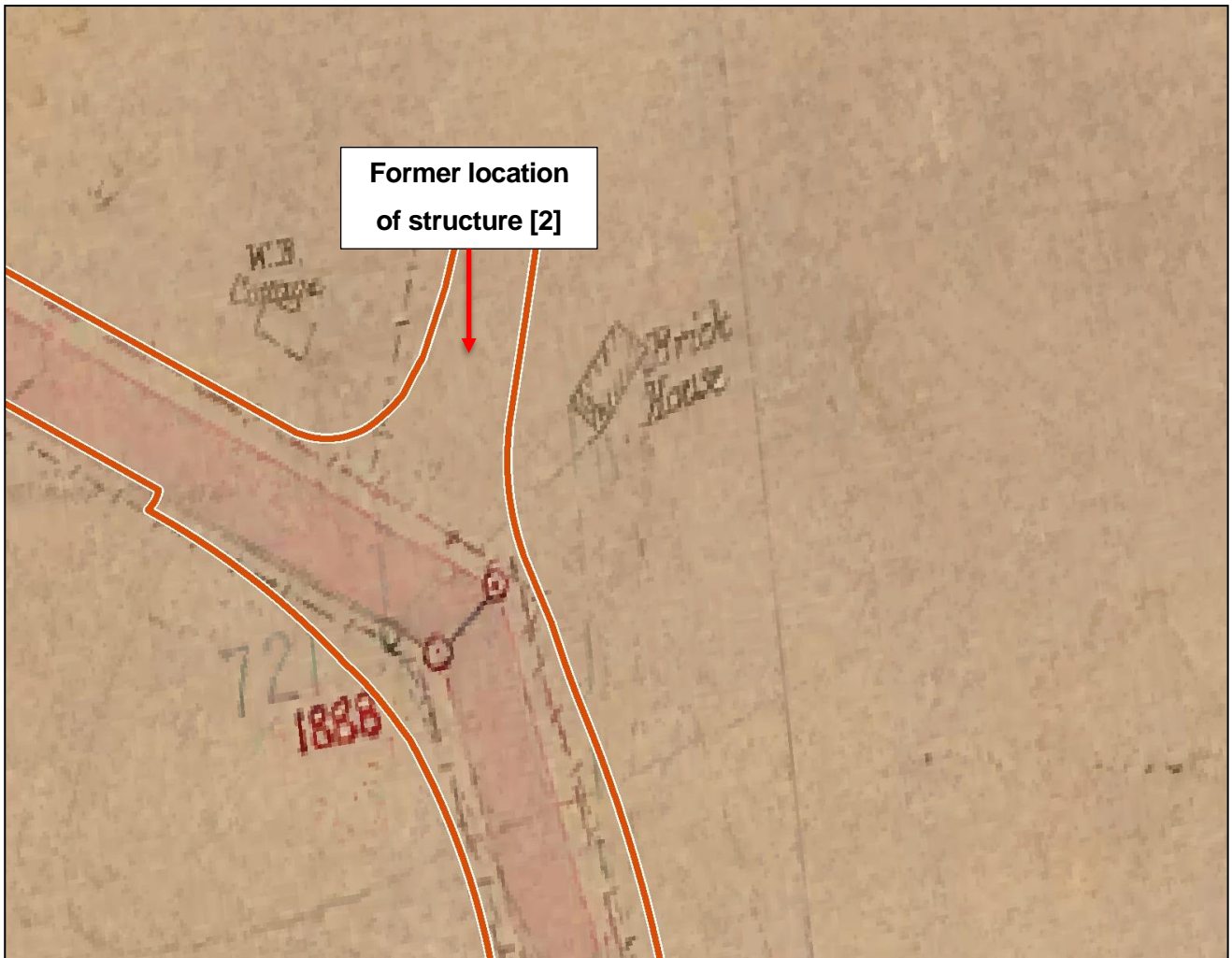
An 1881, a Crown plan for the Lane Cove Road, revised in 1899, shows two brick houses, a weatherboard cottage and a structure of unspecified materials [7] in the vicinity of the proposal area (Figure 14, Figure 15 and Figure 16). It appears that the earlier structure [2] from the 1888-1889 Crown plan (Figure 10) is no longer present (Figure 15).



**Figure 14 Extracts from an 1881/1899 survey for the Lane Cove Road, with the proposal area highlighted; several structures of brick and weatherboard are recorded near the proposal area (Source: NSW Land Registry Services, Crown plan R6224.1603)**

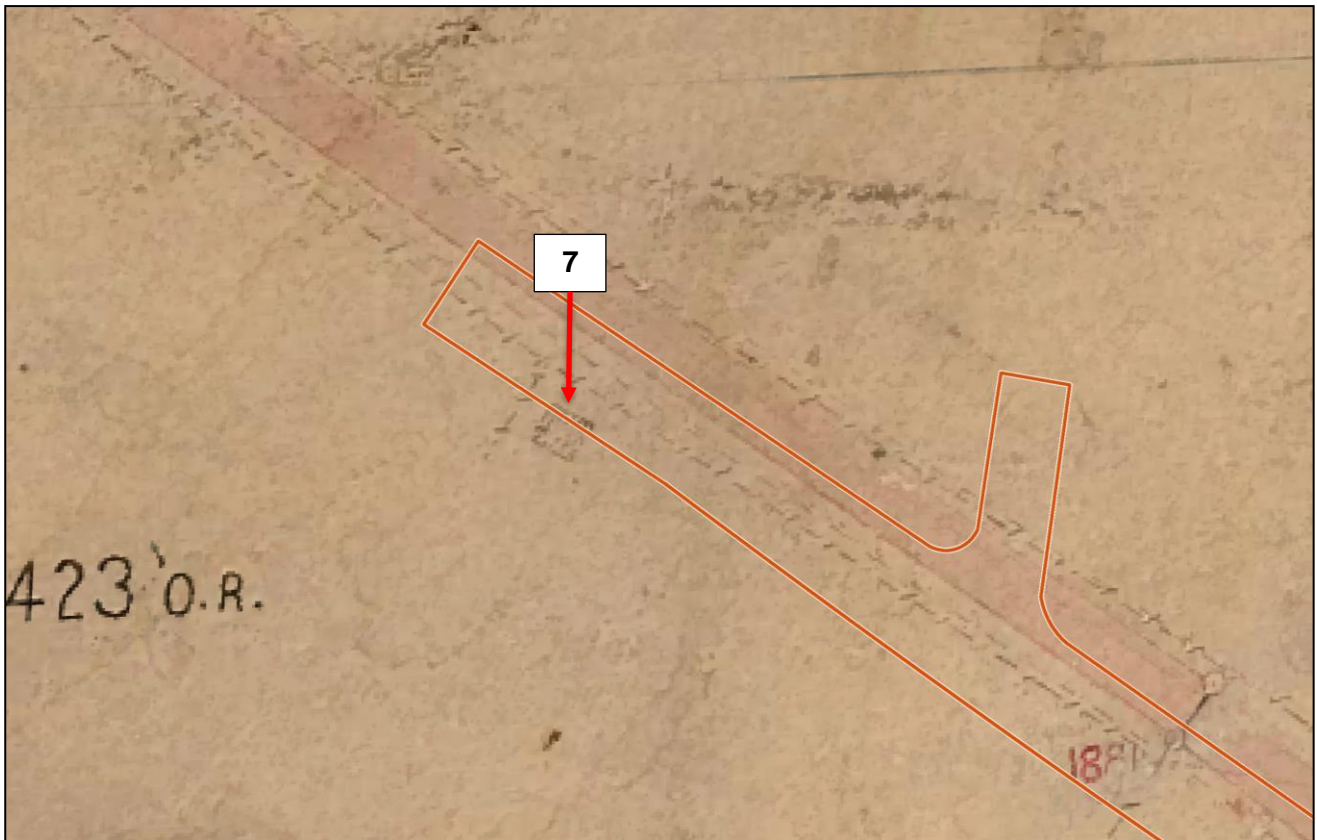
<sup>67</sup> SHR listing for Hillview Garages & Precinct, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=3490028>, viewed 16 April 2018

<sup>36</sup>Cushing 2002



**Figure 15 Detail from an 1881/1899 survey for the Lane Cove Road, showing a weatherboard cottage and brick house positioned on either side of the current Redleaf Avenue; the earlier structure [2] is no longer present (Source: NSW Land Registry Services, Crown plan R6224.1603)**

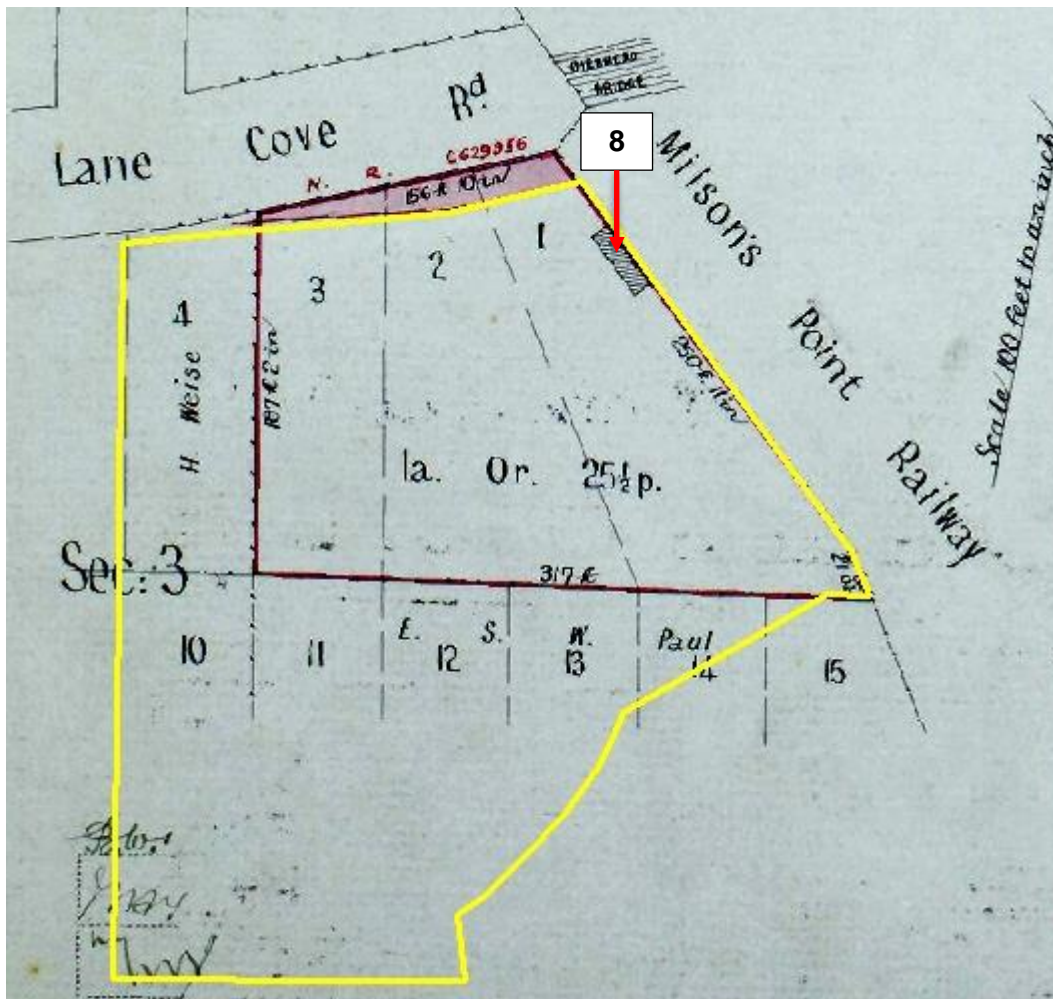




**Figure 16 Detail from an 1881/1899 survey for the Lane Cove Road, showing an unspecified structure [7] near the current Winton Street (Source: NSW Land Registry Services, Crown plan R6224.1603)**

Further land was acquired by Auprince in Turramurra in 1899 and 1902. From 1902, the property appears to have been established and run as a large boarding house and health resort, with joint property owners Ian Auprince and E.S.W. Paul taking advantage of the proximity of the Turramurra railway station and the exceptional views from the property which became known as Hill View. It has been suggested that at this time the original c.1830 cottage [6] was extended, with eastern and western wings added to the dwelling. The property was leased to Miss Jean Murray in 1905, who ran the boarding house on behalf of Auprince. In 1907, Auprince sold his share of the property to Paul, who purchased further land in the same year, and again in 1913: the property remained at that size until the 1960s. The plan contained within the 1907 Certificate of Title records a structure adjacent to the eastern property boundary [8] (Figure 17), while the 1913 Certificate of Title records a structure [9] adjacent to the Lane Cove Road, and two more south of it [10] [11] (Figure 18). It is likely that these structures were related to the occupation and use of Lot 4 of Boyd’s subdivision by Herman Weise, who had established a store there; several sheds in this location are visible in a c.1900 photograph of Lane Cove Road, and a

store is recorded on a 1902 subdivision auction advertisement of Boyd's Orchard in approximately the same location (Figure 19).<sup>69</sup>



**Figure 17 Plan from the 1907 Certificate of Title to Paul for the Hillview Property, recording a structure [8] adjacent to the rail line and an area later resumed for road purposes (Source: NSW Land Registry Services, Certificate of Title Volume 1821 Folio 94)**

<sup>69</sup> SHR listing for Hillview Garages & Precinct, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=3490028>, viewed 16 April 2018; SHR listing for Hillview Garages, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4309663>, viewed 16 April 2018; NSW Land Registry Services, Certificate of Title Volume 1821 Folio 94; NSW Land Registry Services, Certificate of Title Volume 2434 Folio 3

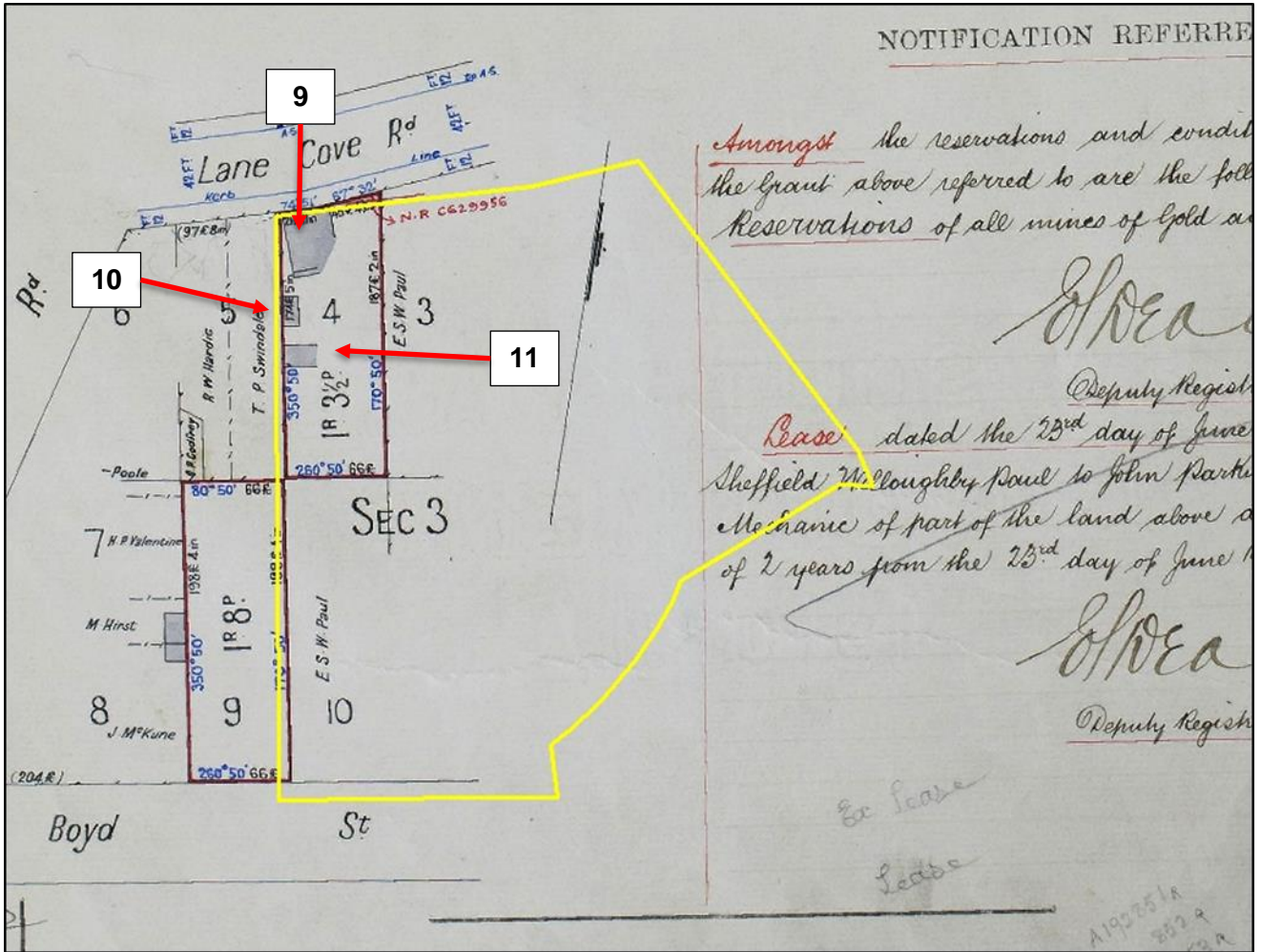
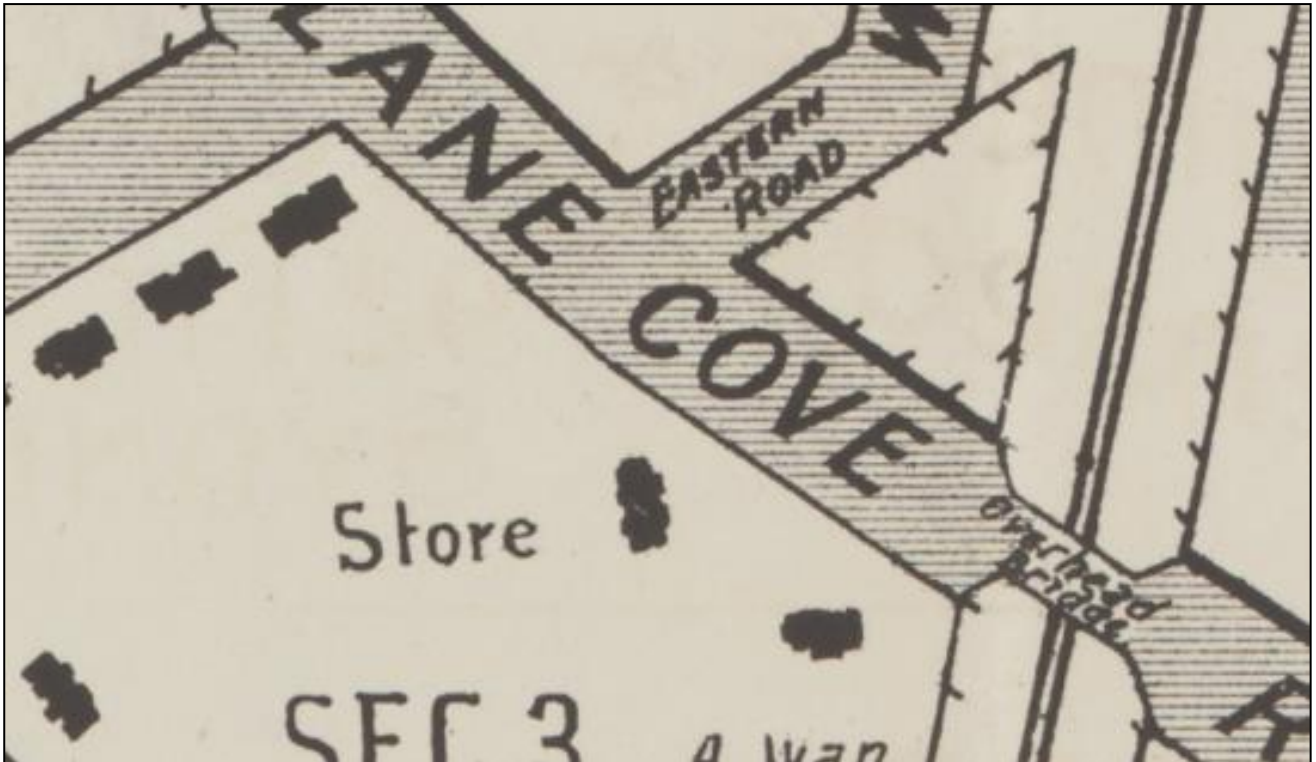


Figure 18 Plan from the 1913 Certificate of Title to Paul, showing a structure [9] adjacent to the Lane Cove Road, and two more south of it [10] [11], which are likely to have been buildings associated with Weise’s store business (Source: NSW Land Registry Services, Certificate of Title Volume 2434 Folio 3)



**Figure 19** Weise's store on Lane Cove Road, recorded on the 1902 auction advertisement for Boyd's Orchard subdivision (Source: National Library of Australia)

A series of photographs taken in 1908 show the condition of Lane Cove Road in Wahroonga, Turramurra and Warrawee. The road appears to be a dirt surface at this time, with some possible instances of kerbing but also soft verges. Kerbside plantings are also present, as are electricity poles and wires, and street lamps (Plate 1).



**Plate 1 Typical view of Lane Cove Road through Wahroonga, Warrawee and Turramurra, 1908 (Source: NSW State Archives)**

In 1912, the corner of land at the junction of Lane Cove Road and Fox Valley Road, as shown in Figure 12 was acquired by Gerald Allen, renaming the property from 'Heverlee' to 'Mahratta' after the sheep station Bombala where his grandfather was employed as overseer. Allen extended and upgraded the house on the property and established exotic gardens. Sir James Joynton Smith acquired Mahratta from Allen in 1930 for £32,500. In addition to the main house [4] itself, garages, a head gardener's home and other structures had also been established on the property. Nine years later Thomas Alfred Field and the Carabagal Pastoral Company purchased the property. The following year in 1940, Field had the house

[4] demolished and constructed a new mansion [12] in the earlier building's footprint, which is the current State and local heritage item, Mahratta.<sup>70</sup>

From 1913 to 1927, further structures and improvements were made to the Hillview property in Turramurra, including the construction of a two-storey guesthouse [13] south of the cottage, as well as terracing to yard and garden areas and installation of a croquet lawn and carriage loop; the property also contained an orchard, vegetable garden, a cow and poultry. Car garages [14] had been constructed by 1915 in the recently acquired western portion of the property.<sup>71</sup>

#### 4.3.5 The Pacific Highway and suburban growth (1920s to present)

Prior to the rise of automobiles, Lane Cove Road remained largely a quiet local road, with much freight being transported via rail. However, once vehicles became more common, particularly amongst the affluent communities of the Upper North Shore, the road soon became damaged by narrow tyres creating ruts, with dust becoming a considerable issue in dry weather and creating a nuisance with their noise and pollution.<sup>72</sup> During the early 1920s, works were undertaken on the Lane Cove Road in preparation for an anticipated rise in traffic once the Harbour Bridge opened in 1932; the road was sealed and upgraded, and opened as the Pacific Highway in 1931.<sup>73</sup>

As part of this, areas of private property along the realignment were resumed for the purpose of the road reserve. There was considerable local opposition to the upgrading of Lane Cove Road from local residents, which prompted the founding of numerous resident action groups.<sup>74</sup> The boundaries of several properties which are now listed heritage items were changed. In 1928 and 1929, a portion of land was resumed from the Estha dwelling [15] (Ku-ring-gai LEP local heritage item no. I976), which dates to the

<sup>70</sup> SHR listing for Mahratta and Site, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018; 1930 "Warrawee Mansion." *Sydney Morning Herald* (NSW : 1842 - 1954), 8 February, p. 21, <http://nla.gov.au/nla.news-article16624299>, viewed 30 April 2018

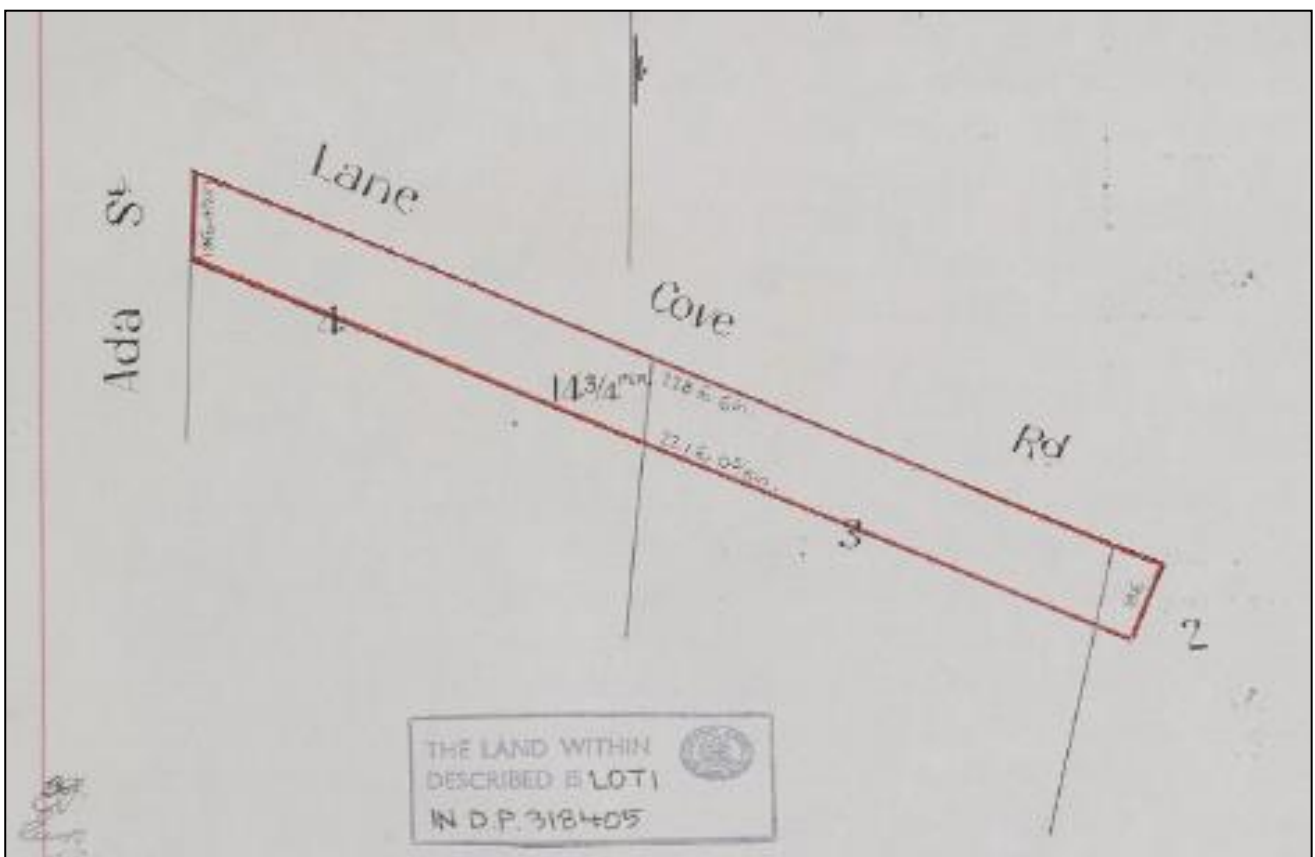
<sup>71</sup> SHR listing for Hillview Garages & Precinct, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=3490028>, viewed 16 April 2018

<sup>72</sup> Cushing 2002; NSW Land Registry Services, Certificate of Title Volume 1470 Folio 115

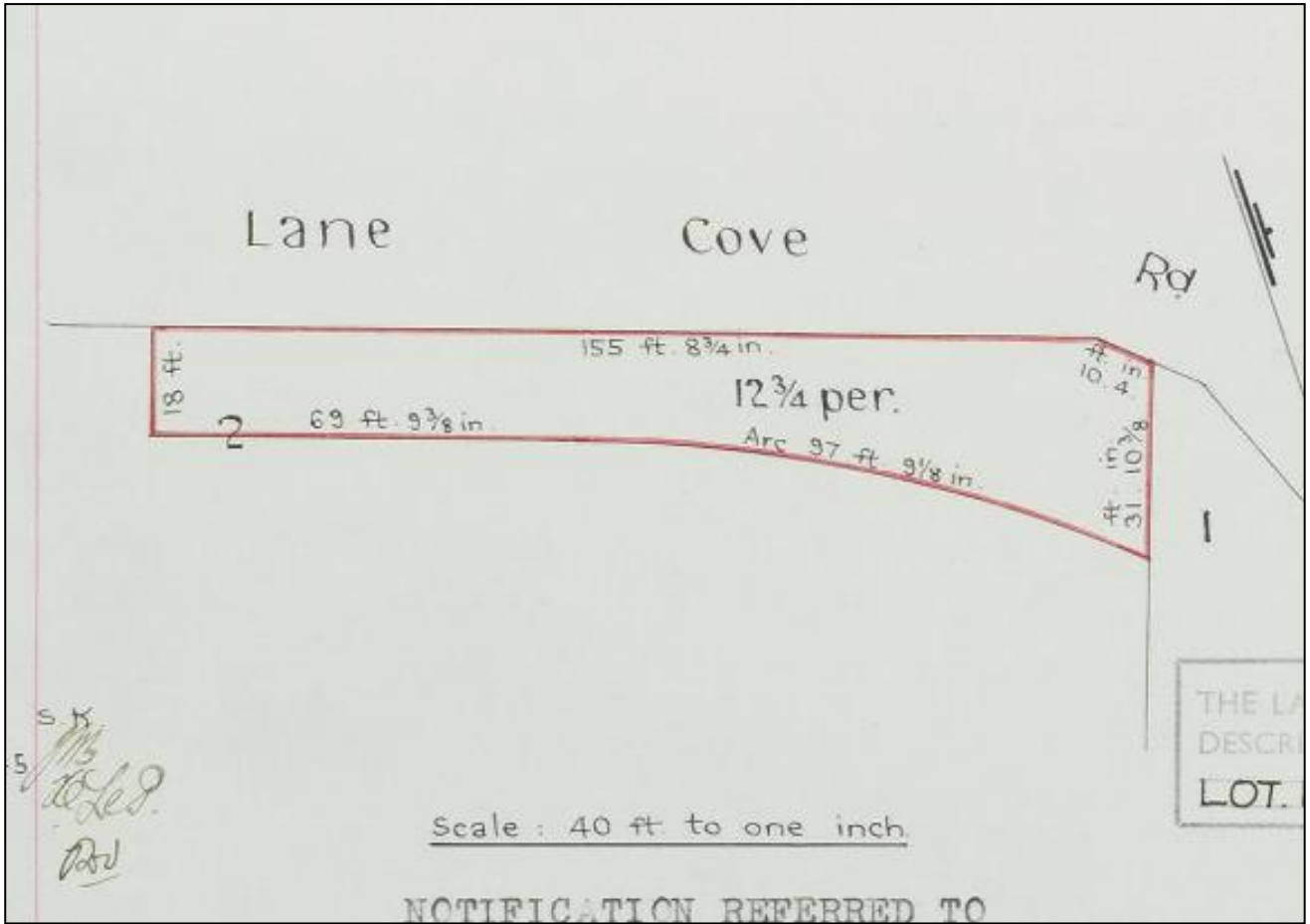
<sup>73</sup> Paul Davies Pty Ltd 2010a, 6; Cushing 2002

<sup>74</sup> NSW Land Registry Services, Certificate of Title Volume 4062 Folio 192; NSW Land Registry Services, Certificate of Title Volume 3415 Folio 173; NSW Land Registry Services, Certificate of Title Volume 3408 Folio 174; NSW Department of Lands, Certificate of Title Volume 4182 Folio 86; Paul Davies Pty Ltd 2010, 6; Cushing 2002; NSW Land Registry Services, DP 26828; NSW Land Registry Services, Certificate of Title Volume 1821 Folio 94; NSW Land Registry Services, Certificate of Title Volume 2434 Folio 3; NSW Land Registry Services, Crown plan 7942.3000; SHR listing for Commonwealth Bank (former), <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=1880282>, viewed 27 April 2018

period 1901-1920 (Figure 20). In 1938, land was acquired by the Commissioner of Roads from the Hillview property. Several other resumptions were also made for non-heritage properties, including within the current 1666-1670 Pacific Highway Wahroonga in 1929 (Figure 21). As a result of proposed resumptions to Hillview, the front stone wall [16] was disassembled in 1936 and reconstructed closer to the house itself. The position of the new wall can be seen on a 1955 subdivision plan which also shows the Hillview Garages [14], noted as being of brick construction. The plan does not record the three structures [9] [10] [11] which were present on the 1913 Certificate of Title, suggesting they had been demolished prior to 1955 (Figure 23).

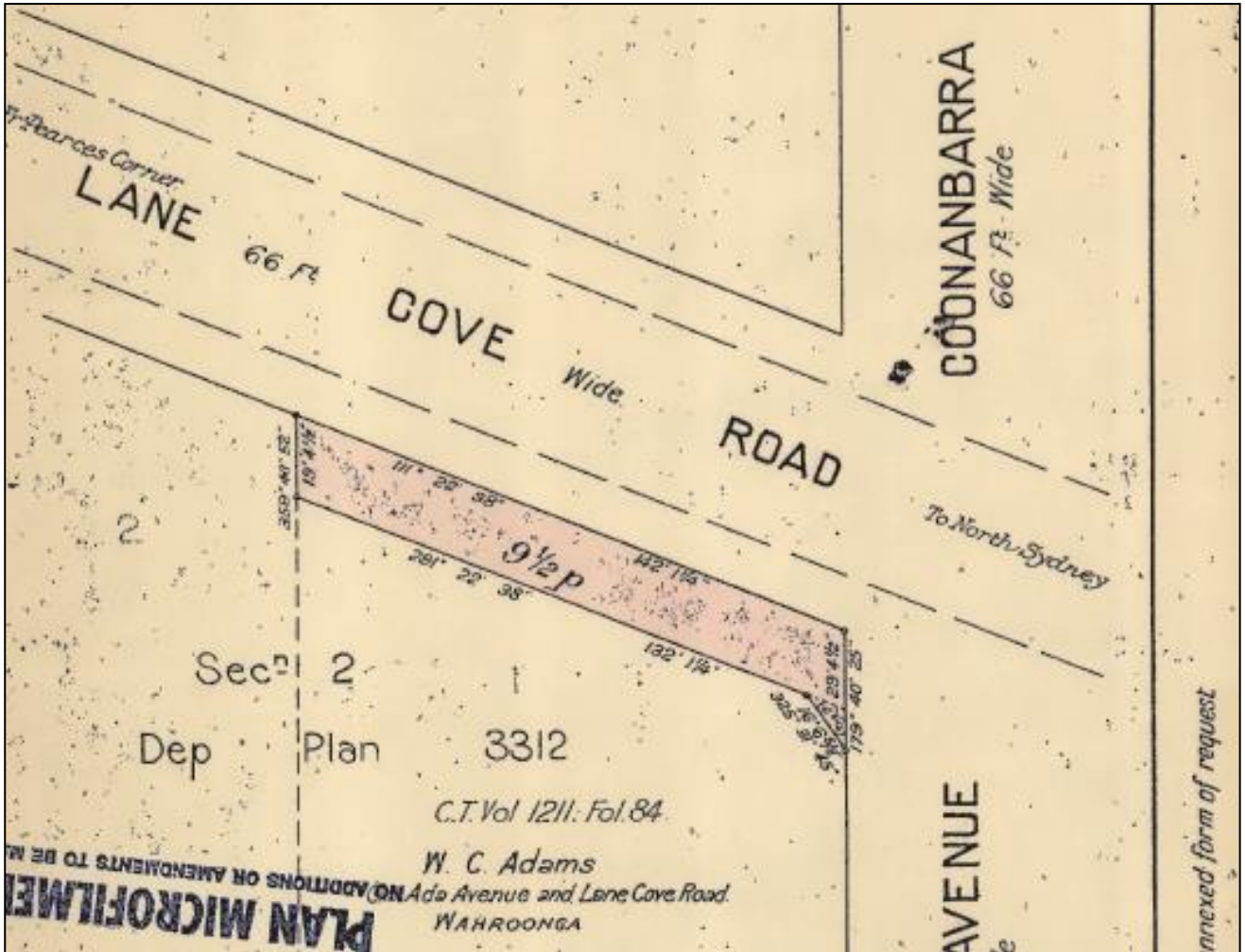


**Figure 20 Plan of area resumed in 1928-1929 from Estha [15] for the widening of Lane Cove Road for the Pacific Highway (Source: NSW Land Registry Services, Certificate of Title Volume 4062 Folio 192)**

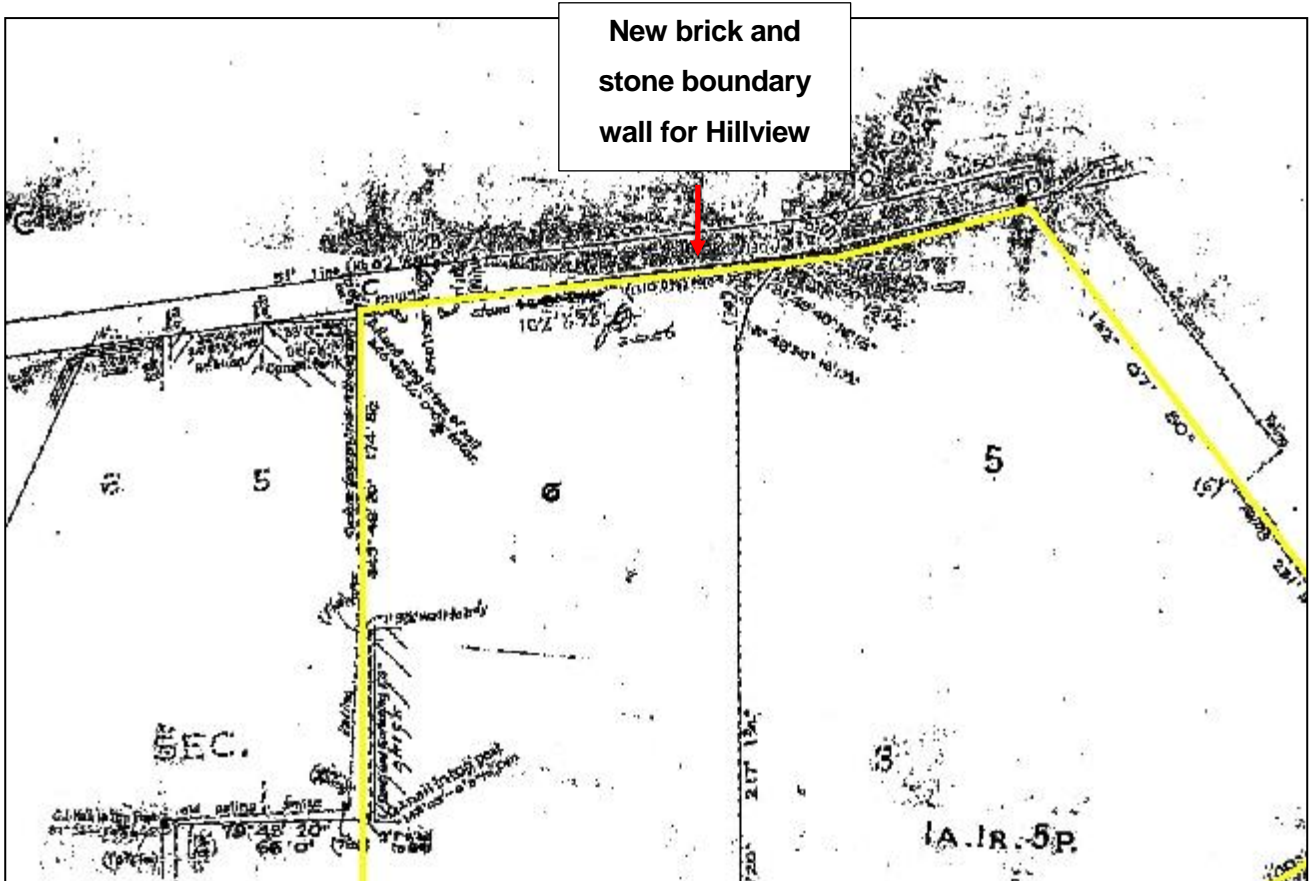


**Figure 21 Plan of area resumed in 1938 from the Hillview property for the widening of Lane Cove Road for the Pacific Highway (Source: NSW Land Registry Services, Certificate of Title Volume 4182 Folio 86)**





**Figure 22** Area of land resumed in 1929 from current Lot 1 of DP 3312 for the widening of Lane Cove Road for the Pacific Highway (Source: NSW Land Registry Services, Crown plan 7942.3000)



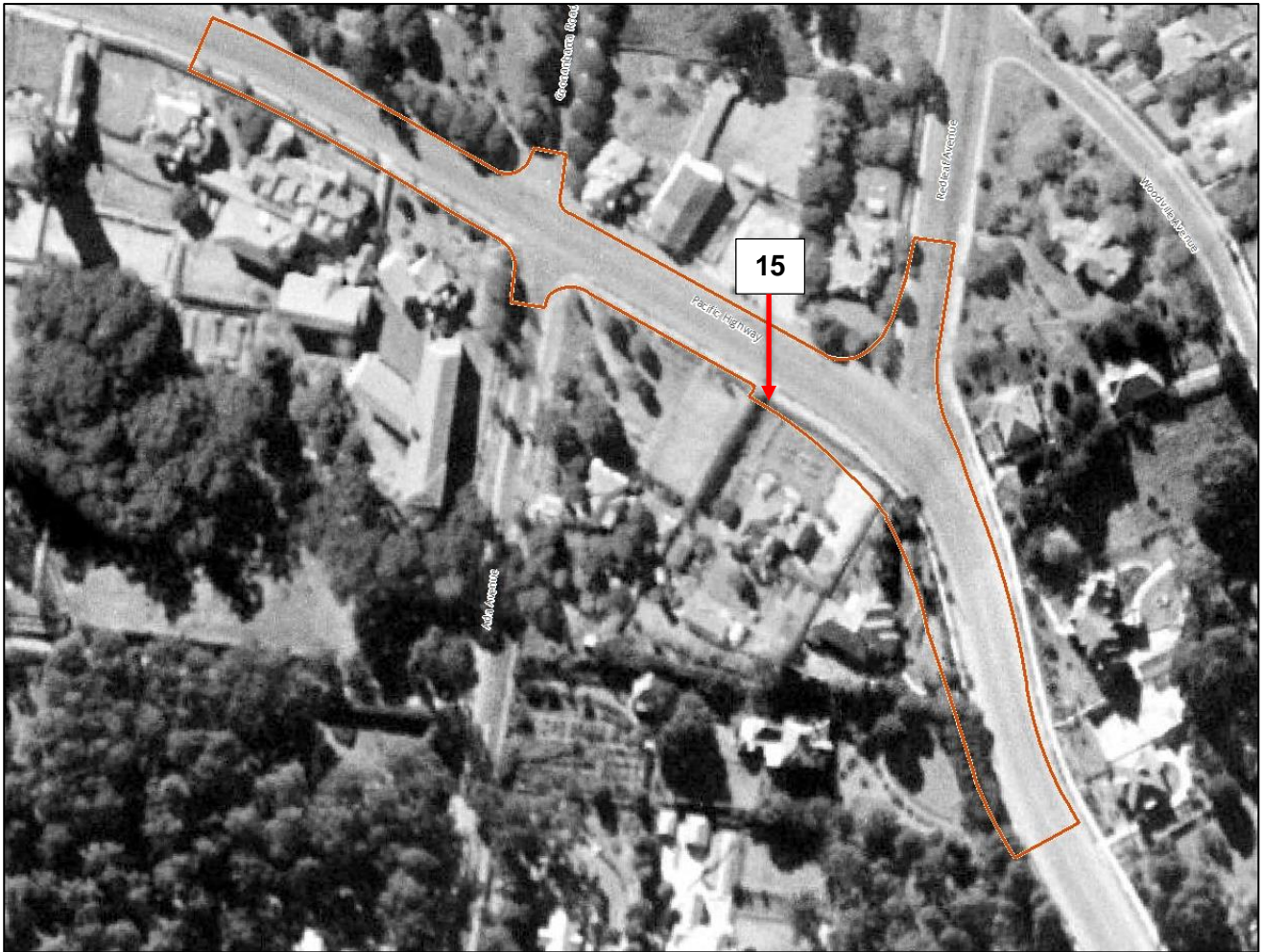
**Figure 23 A 1955 subdivision plan of Hillview, showing stone and brick walls marking the boundary of the property (Source: NSW Land Registry Services, DP 26828)**

Aerial photographs dating to 1943 provide an indication of the land use within the proposal area and vicinity. Areas of Wahroonga, Warrawee and Turramurra have developed a suburban character, featuring large residential lots with substantial domestic dwellings and landscaped gardens with driveways fronting the Pacific Highway (Plate 2, Plate 3, Plate 4 and Plate 5). A number of locally listed heritage items are visible on the aerials which are contained within the proposal area and directly adjoining this. These include: Estha [15], a Kyeamba [17] (Ku-ring-gai LEP item no. 1966), Yaamba [18], a grand house dating to 1897 (Ku-ring-gai LEP item no. 1965), Mahratta [12] and Milneroyd [19], an early

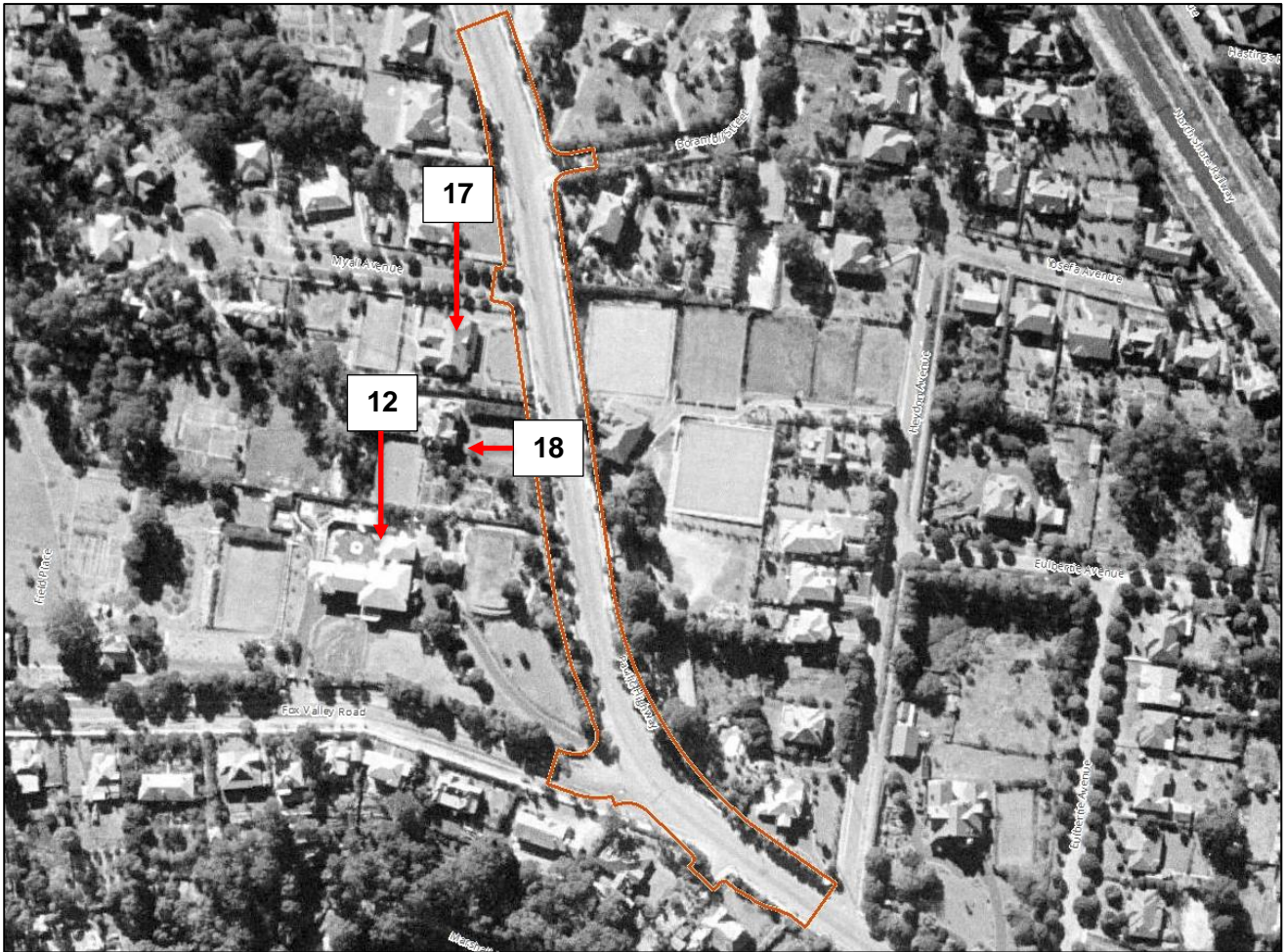
20th century flat building (Ku-ring-gai (Local Centres) LEP item no. I167).<sup>75</sup> The Hillview complex is also visible [6] [13] [14] with its various landscape features, including some potential garden walls [20] and an indistinct garden feature [21], and facilities is also visible: the structure [8] from the 1907 Certificate of Title plan (Figure 17) does not appear to be present.

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<sup>75</sup> Ku-ring-gai Council 2014; SNH listing for Milneroyd, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=188010Z>, viewed 30 April 2018



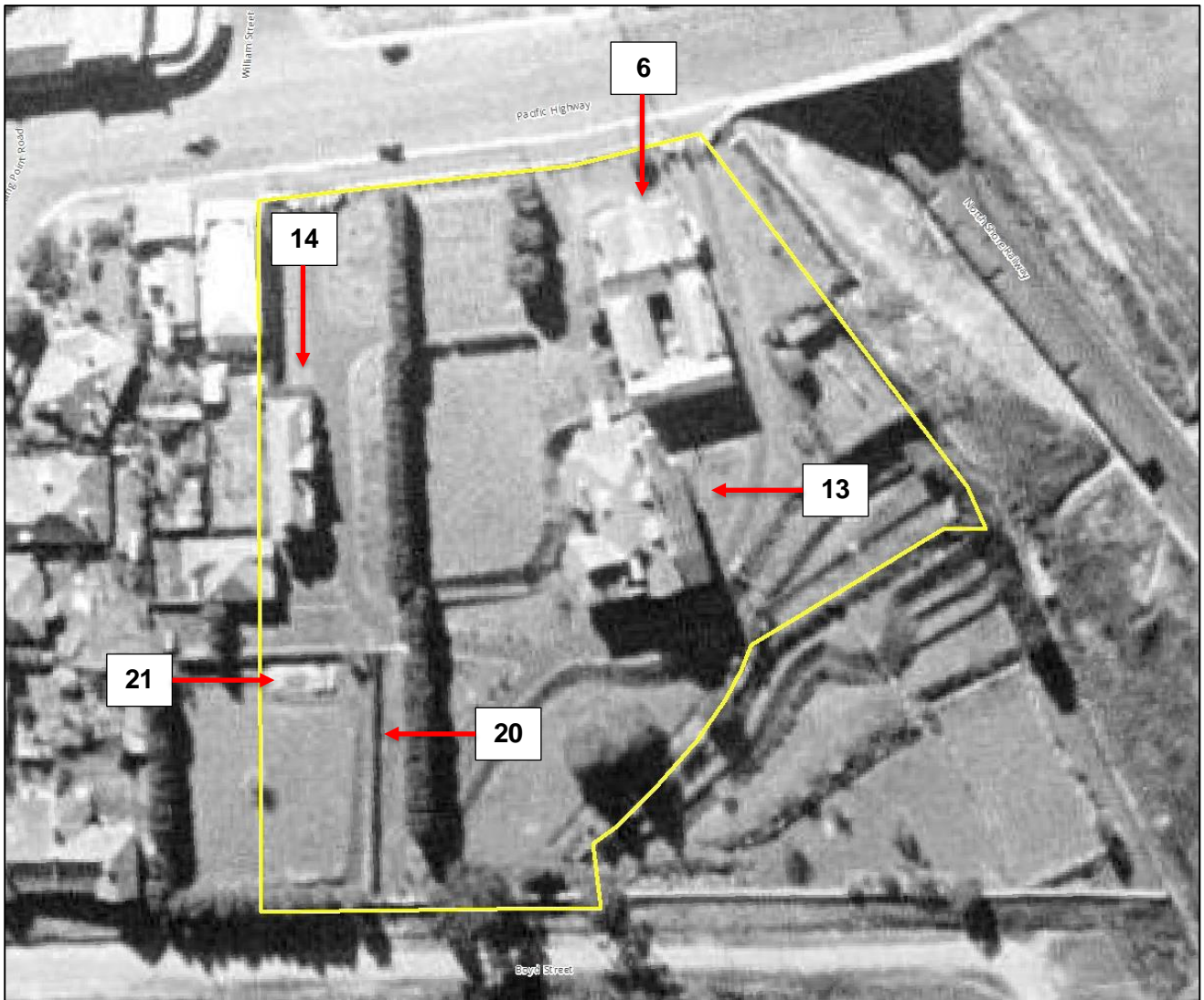
**Plate 2** Detail from a 1943 aerial photograph of the proposal area at Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue) featuring local heritage item Estha [15], which is situated within the proposal area (Source: SIX Maps)



**Plate 3** Detail from a 1943 aerial photograph of the proposal area at Intersection 2 (Pacific Highway and Fox Valley Road), featuring local heritage items within the proposal area including dwellings ‘Kyeamba’ [17] and Yaamba [18], and the State and local heritage item Mahratta [12] (Source: SIX Maps)



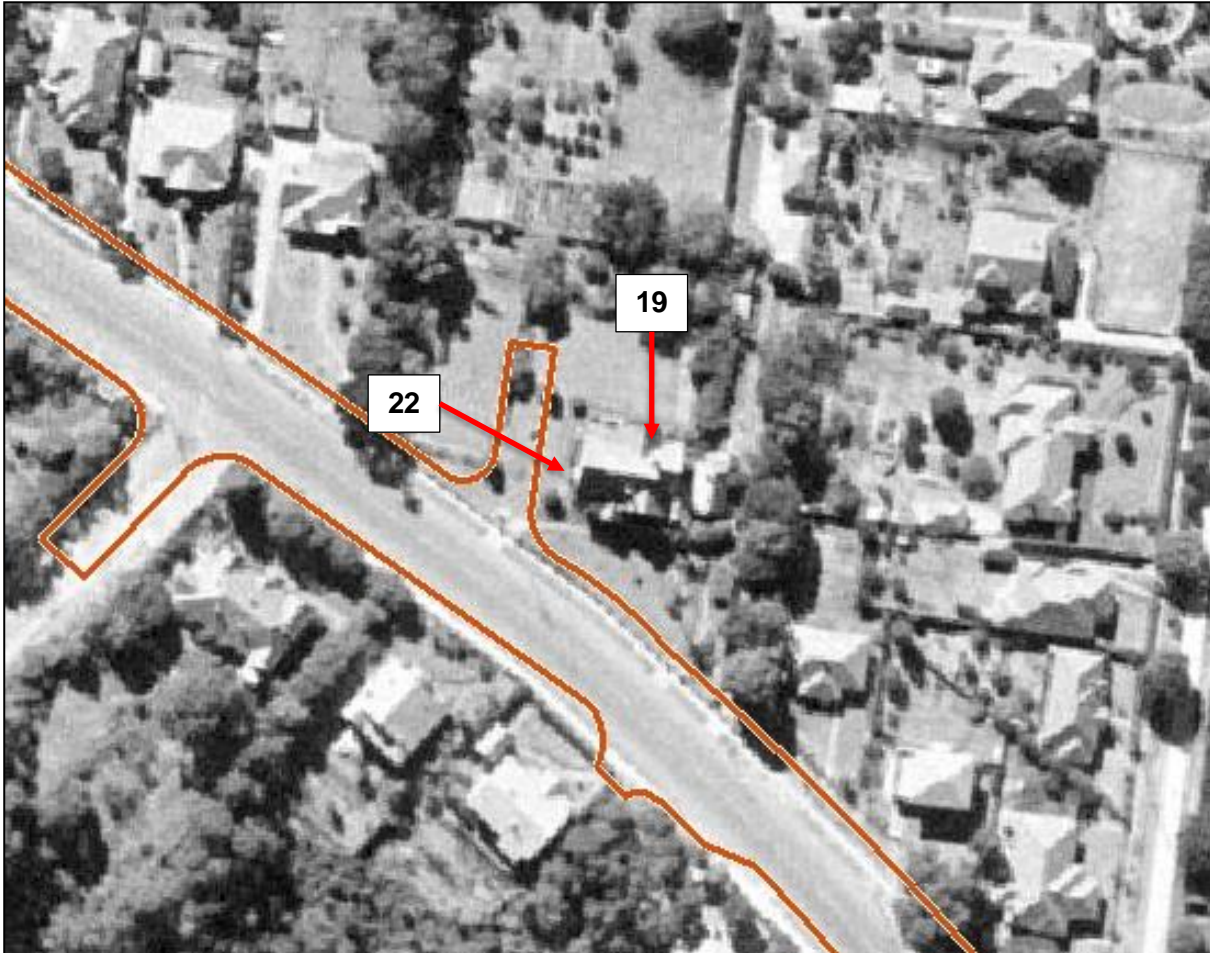
**Plate 4** Detail from a 1943 aerial photograph of the proposal area at Intersection 1 (Pacific Highway at Finlay Road) showing Milneroyd [19] (Source: SIX Maps)



**Plate 5** Detail from a 1943 aerial photograph of the proposal area (compound site location), showing Hillview cottage [6], guesthouse [13] and garages [14], some potential garden walls [20] and indistinct garden feature [21] (Source: SIX Maps)

It appears that at this date in 1943 Lowther Park Avenue has not yet been established (see Plate 4). Lowther Park Avenue is situated adjacent to Milneroyd [19], and, prior to a 1955 subdivision, the road appears to have been partially part of the Milneroyd property. The 1943 aerial shows what might be a

garden feature [22], such as a fountain, lying within the path of the newly created Lowther Park Avenue (Plate 6).<sup>76</sup>



**Plate 6** Detail of the 1943 aerial, identifying the area currently occupied by Lowther Park Avenue and a potential garden feature [22], next to Milneroyd [19] (Source: SIX Maps)

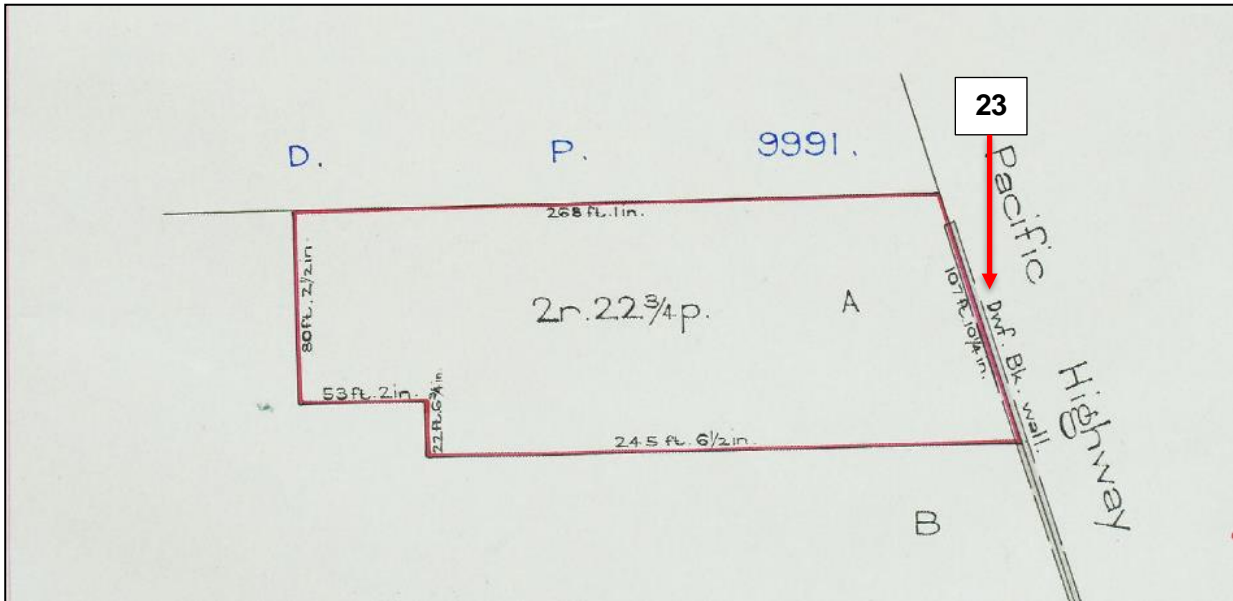
Plans dating from the mid-20th century provide further information about structures adjacent to the Pacific Highway, and changes to the road’s alignment. A 1947 plan contained within a Certificate of Title for Yaamba [18] records a dwarf brick wall [23] which runs adjacent to the Pacific Highway for the

<sup>76</sup> NSW Land Registry Services, Certificate of Title, Volume 3159 Folio 213



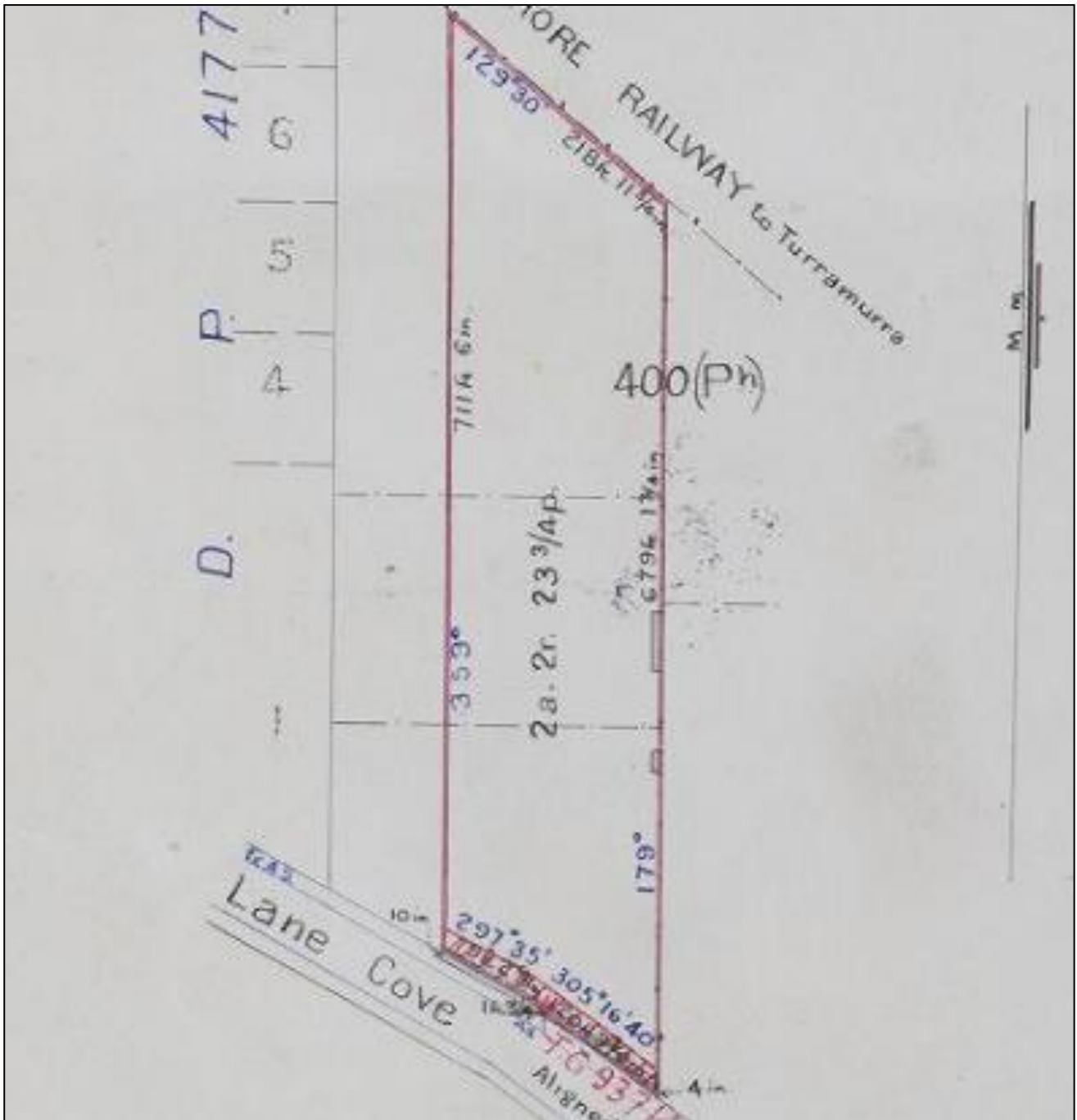
majority of the property's eastern boundary (Figure 24).<sup>77</sup> Further resumptions were made along the Pacific Highway in the 1950s. A portion of land within the lot containing Milneroyd [19] was acquired by the Commissioner for Main Roads in 1956(Figure 25)<sup>78</sup>.

The 1943 historical aerial does not indicate that there were any structures present in this resumed portion of land (see Plate 6). A subdivision was established using this neighbouring lot and part of the Milneroyd [19] property two years later in 1958, with Lowther Park Avenue created by the Council of the Municipality of Ku-ring-gai.<sup>79</sup>



**Figure 24 A 1947 plan from a Certificate of Title for Yaamba [18], showing a dwarf brick wall [23] marking the boundary of the property on the Pacific Highway (Source: NSW Land Registry Services, Certificate of Title Volume 5667 Folio 13)**

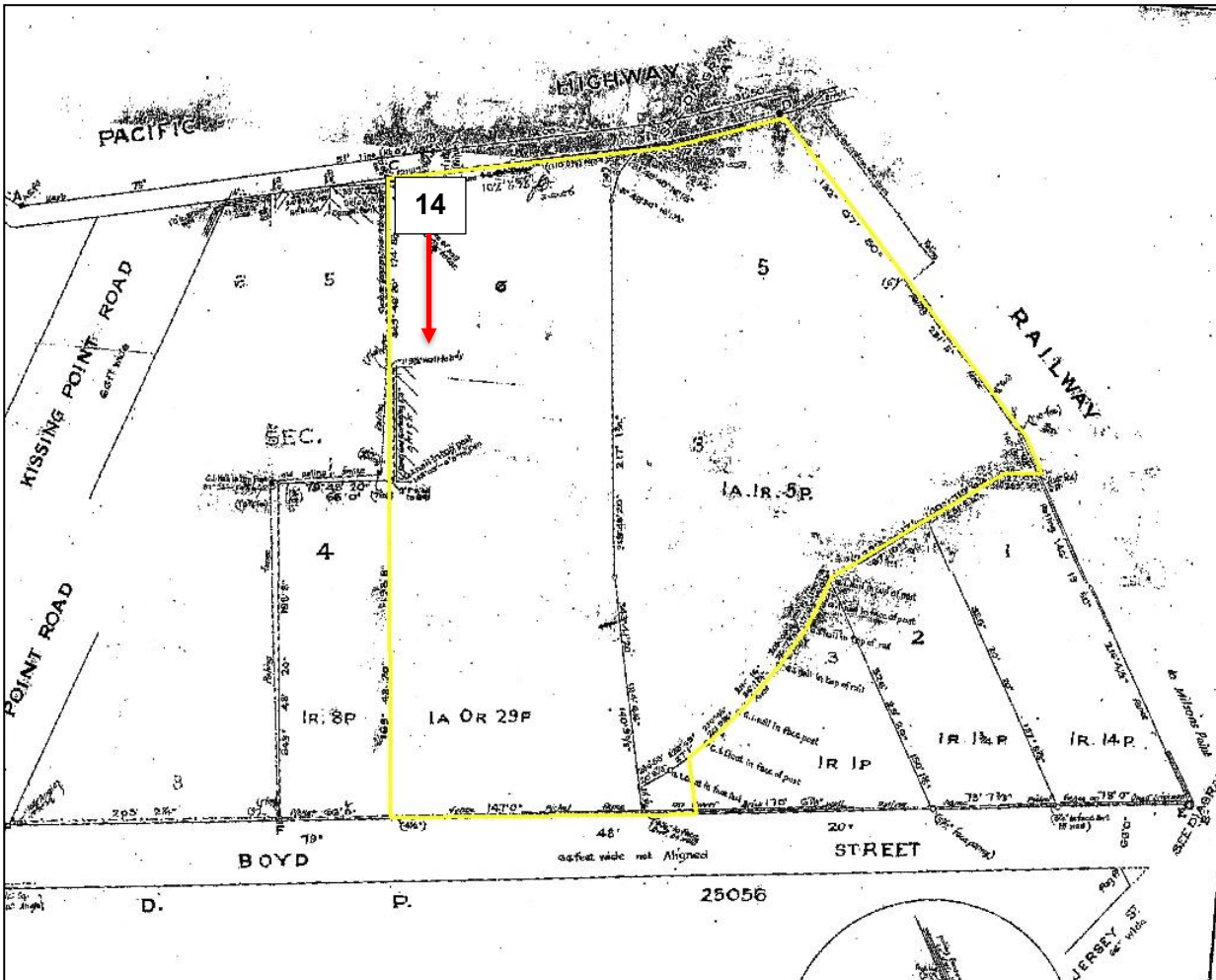
<sup>77</sup> NSW Land Registry Services, Certificate of Title Volume 5667 Folio 13  
<sup>78</sup> NSW Land Registry Services, Certificate of Title Volume 3130 Folio 213  
<sup>79</sup> NSW Land Registry Services, Certificate of Title, Volume 3159 Folio 213;



**Figure 25 A plan from the Certificate of Title for the Milneroyd [19] property, showing the portion of land resumed by the Commissioner for Main Roads in 1956 (Source: NSW Land Registry Services, Certificate of Title Volume 3130 Folio 213)**

The Hillview property was subdivided following Paul’s death in 1955 (Figure 26). However, acquisition of the subdivided lots did not take place until 1963-1964. The western portion of the property, containing the garages [14], was rezoned for the purposes of a road planned by the Department of Main Roads, while in 1974 the Cumberland County Council purchased the eastern part of the estate, including the converted guesthouse [13] and cottage [6], and leased out the properties for a short period. The Hornsby

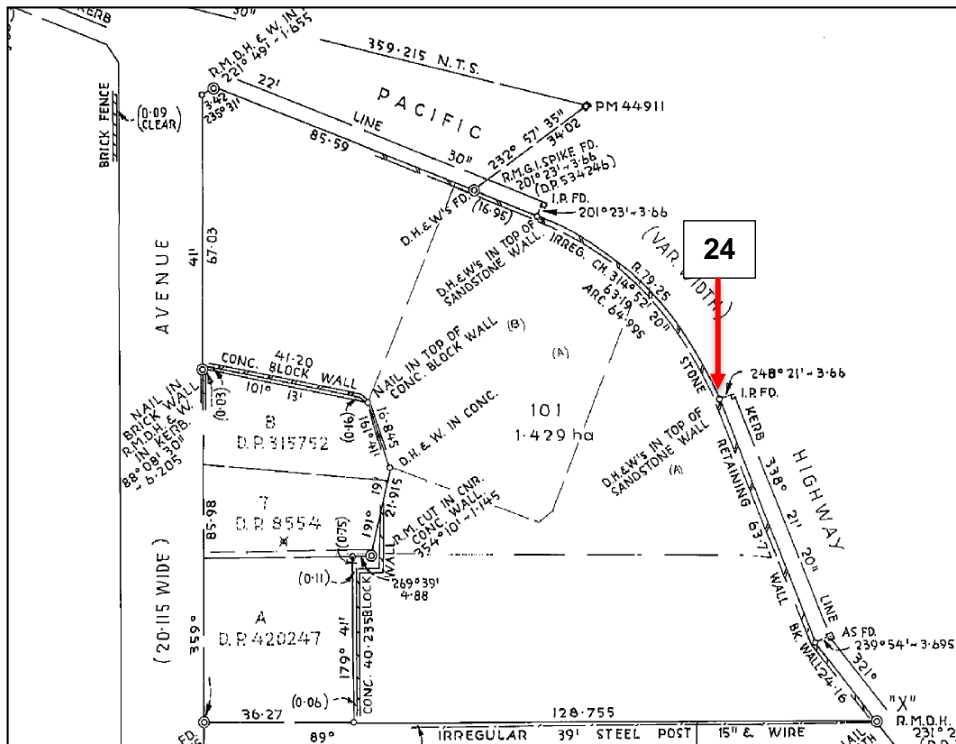
Ku-ring-gai Hospital entered into a lease with the Council and established the Hillview Community Health Resource and Information Centre. The Hospital acquired the site in 1980, with the western portion remaining under the ownership of the Department of Main Roads and Department of Urban Affairs and Planning.<sup>80</sup>



**Figure 26 Complete 1955 subdivision plan for the Hillview estate, showing the car garage [14] (Source: NSW Land Registry Services, DP 26828)**

<sup>80</sup> SHR listing for Hillview Garages & Precinct, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=3490028>, viewed 16 April 2018

Between 1957 and 1967, the United Protestant Association Trust Limited acquired several lots which are now part of DP 1034668 (Estha [15]). The plans contained within the certificates of title related to this location do not record any structures within the proposal area.<sup>81</sup> However, a 1987 plan relating to the consolidation of several lots does record the locations of a sandstone and retaining wall [24] on the boundary of the property (Figure 27). These walls are present in the 1943 aerial photograph of the study area (Plate 2).



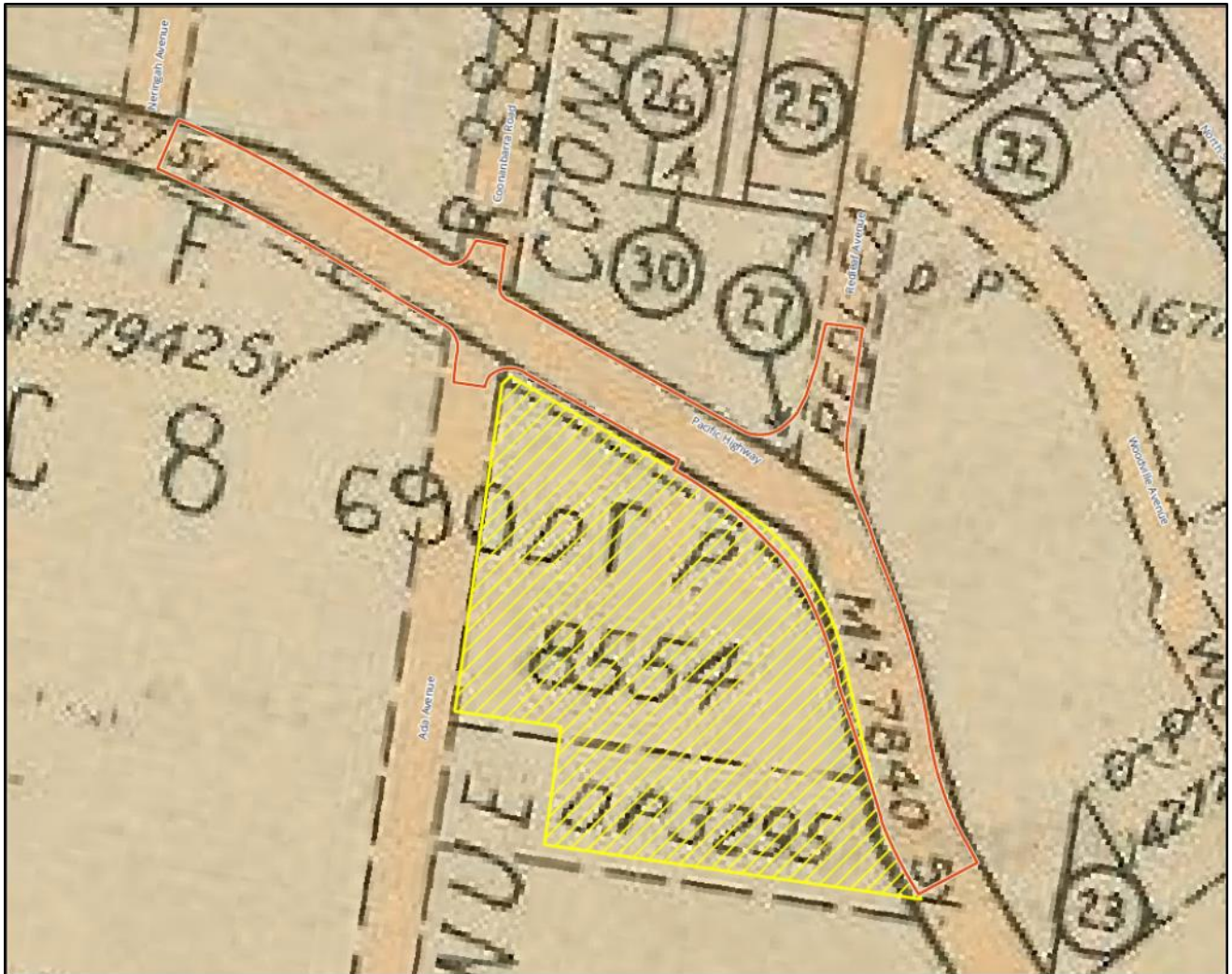
**Figure 27 A 1987 subdivision plan for the current DP 1034668 (which contains Estha [15]), showing the presence of a sandstone wall [24] marking the boundary of the property on the Pacific Highway (Source: NSW Land Registry Services, DP 740329)**

<sup>81</sup> NSW Land Registry Services, Certificate of Title Volume 4385 Folio 237; NSW Land Registry Services, Certificate of Title Volume 4323 Folio 111; NSW Land Registry Services, Certificate of Title Volume 5044 Folio 152; NSW Land Registry Services, Certificate of Title Volume 6382 Folio 73; NSW Land Registry Services, Certificate of Title Volume 7303 Folio 103; NSW Land Registry Services, Certificate of Title Volume 8325 Folio 190

Further changes were made to the alignment of the Pacific Highway in the mid-1960s. A regional charting map for the parish of Gordon dating to 1966 provides an indication of some of the road resumptions which have taken place within and adjacent to the northern part of the proposal area in Warrawee (Figure 28).



**Figure 28 Extract from a 1966 map of Gordon Parish, with the proposal area highlighted (Source: NSW Land Registry Services)**



**Figure 29** Detail from a 1966 map of Gordon Parish, showing areas of road resumptions from the Estha [15] property (Source: NSW Land Registry Services)

#### 4.4 Chronology of archaeological features within the proposal area

Based upon the historical research presented, it is possible to summarise the chronology of the buildings and structures which were developed within the proposal area over time. This is presented in Table 3.

**Table 3 Chronological development of the buildings and structures within the proposal area**

N o.	Structure	Date	Location
1	Hut	pre-1862	Potentially within the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
2	Structure	pre-1888	Within the study area - Intersection 3 Pacific Highway and Coonanbarra Road/Redleaf Avenue)
3	Weatherboard store	Pre-1890	Adjacent to the study area - Compound site
4	Heverlee property	c.1900	Within the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
5	Structure, likely house	pre-1893	Adjacent to the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
6	Hillview cottage	c.1893	Within the study area - Compound site
7	Structure	c.1881/1899	Potentially within the study area - Intersection 1 (Pacific Highway and Finlay Road)
8	Structure	pre-1907	Within the study area - Compound site
9	Structure	1902-1913	Within the study area - Compound site
10	Structure	1902-1913	Within the study area - Compound site
11	Structure	1902-1913	Within the study area - Compound site
12	Mahratta property	1940	Within the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
13	Hillview guesthouse	1913-1927	Within the study area - Compound site
14	Hillview car garages	1915	Within the study area - Compound site
15	Estha property	1901-1920	Within the study area - Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)
16	Former stone wall, Hillview property	c.1890	Adjacent to the study area - Compound site
17	Kyeamba	pre-1943	Within the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
18	Yaamba property	1897	Within the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
19	Milneroyd property	early 20th century\	Adjacent to the study area - Intersection 1 (Pacific Highway and Finlay Road)
20	Potential garden walls	pre-1943	Within the study area - Intersection 1 (Pacific Highway and Finlay Road)

N o.	Structure	Date	Location
21	Garden feature, Hillview	pre-1943	Within the study area - Compound site
22	Garden feature, Milneroyd property	pre-1943	Within the study area - Compound site
23	Dwarf brick wall, Yaamba property	pre-1947	Within the study area - Intersection 2 (Pacific Highway and Fox Valley Road)
24	Sandstone retaining wall, Estha property	pre-1943	Within the study area - Intersection 3 (Pacific Highway and Coonanbarra Road/Redleaf Avenue)

## 4.5 Research themes

Contextual analysis is undertaken to place the history of a particular site within relevant historical contexts in order to gauge how typical or unique the history of a particular site actually is. This is usually ascertained by gaining an understanding of the history of a site in relation to the broad historical themes characterising Australia at the time. Such themes have been established by the Australian Heritage Commission and the NSW Heritage Office and are outlined in synoptic form in New South Wales Historical Themes.<sup>82</sup>

There are 38 State Historical Themes, which have been developed for NSW, as well as nine National Historical Themes. These broader themes are usually referred to when developing sub-themes for a local area to ensure they complement the overall thematic framework for the broader region.

A review of the contextual history in conjunction with the local historical thematic history has identified a number of historical themes which relates to the occupational history of the proposal area.<sup>83</sup> These are summarised in Table 4.

<sup>82</sup> NSW Heritage Council 2001

<sup>83</sup> Proudfoot 1987



**Table 4 Identified historical themes for the proposal area**

Australian Theme	NSW Theme	Local Theme
Developing local, regional and national economies	Transport	Utilities
	Health	Key residences
Building settlements, towns and cities	Towns, suburbs and villages	Suburban consolidation
	Land tenure	Suburban consolidation
	Accommodation	Suburban consolidation
Developing Australia's cultural life	Domestic life	Suburban consolidation

## 5 Physical inspection and potential impacts to local heritage items

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A physical inspection of the proposal area was undertaken on 10 April 2018 by Julie Marler (Phillips Marler) and James Cole (Biosis). Roads and Maritime later requested additional inspections of the Hillview Garages site in July 2018 which was undertaken by Daniel Hughes (Phillips Marler) on 10 July 2018 and by Charlotte Allen (Biosis) on 16 July 2018. Further scope changes resulted in the addition of L07, DP 214733 to the area proposed for the compound site. This additional area of the Hillview complex was not inspected. The principal aims of the site inspections were to identify the heritage items and the surrounding landscape context within which the items are situated; this included any heritage items and places (Heritage items can be buildings, structures, places, relics or other works of historical, aesthetic, social, technical/research or natural heritage significance. 'Places' include conservation areas, sites, precincts, gardens, landscapes and areas of archaeological potential).

### 5.1 Proposal area

The proposal area consists of the compound site at 1334 Pacific Highway, Turramurra and three sections of the Pacific Highway road corridor, focusing on the following intersection locations:

- Intersection 1: Finlay Road, Warrawee/Turramurra;
- Intersection 2: Fox Valley Road, Wahroonga/Warrawee; and
- Intersection 3: Coonanbarra Road and Redleaf Avenue, Wahroonga.

The proposal area also contains land on private properties including:

- 1340 Pacific Highway, Turramurra [Lot 6, DP 26828] also known as 'Hillview Garages' and a local heritage site (about 930sqm)

And portions of:

- 1614-1634 Pacific Highway, Wahroonga [Lot 102, DP 1034668] also known as Thomas and Rosetta Agst Aged Care Facility Apartments (about 380 sqm)
- 1560 Pacific Highway, Wahroonga [Lot A DP385263] (about 35 sqm)
- 1558 Pacific Highway, Wahroonga [Lot 2 DP527984] (about 90 sqm)
- 1550 Pacific Highway, Wahroonga [Lot 2 DP9991] (about 70 sqm)
- 1552 Pacific Highway, Wahroonga [Lot 1 DP9991] (about 60 sqm)

- 1548 Pacific Highway, Wahroonga [Lot 4 DP523216] also known as “Kyeamba” dwelling house and a local heritage site (about 140 sqm)
- 1544 Pacific Highway, Wahroonga [Lot A DP354970] also known as “Yaamba” dwelling house and a local heritage site (about 110 sqm)
- 1536 Pacific Highway, Wahroonga [Lot 14 DP810712] also known as ‘Curtilage Park’ and a local heritage site (about 75 sqm)
- 25 Fox Valley Road / 1526 Pacific Highway, Wahroonga [Lot 1 DP62488] also known as the ‘Mahratta’ and a State and local heritage site (about 270 sqm)
- 2 Fox Valley Road, Wahroonga [Lot 1 DP4696] (about 40 sqm)
- 2 Marshall Avenue, Wahroonga [Lot 1 DP1086440 SP76417] (about 80 sqm)
- 1482 Pacific Highway, Warrawee [Lot 2,3,4&5 DP 21398] also known as ‘Warrawee Public School (about 52 sqm)
- 1458 Pacific Highway, Turramurra [Lot A DP 374006] a local heritage site (about 35 sqm)

The proposal area consists largely of roadways and footpaths within the road reserve, with some boundary walls, fences and garden areas within those parts of the study area which extend outside of the road reserve (ie. within private land). Lot 6 DP 26828 is currently used as an access area and car park area for the Hillview Community Health Centre.

The majority of the proposal area has been used for road transportation through the suburbs of Turramurra, Warrawee and Wahroonga, the history of which has revolved around timber-getting, orchard farming and residential development. The topography of the Pacific Highway within this proposal area traverses a series of slopes and undulating ridgelines, which increase in height towards the northern part of the proposal area in Wahroonga.

The areas inspected in more detail were those locations that would be directly impacted by the proposed works (ie. the ‘study area’), with particular attention paid to areas containing heritage-listed items where the road resumptions and compound site are proposed. Sub surface remains were found to be invisible. Plate 7 to Plate 26 demonstrates the current setting of the proposal area and presents a level of development in both the road reserve and adjacent areas.

## 5.2 Proposal Description by Intersection Location and Impacted Heritage Items

### 5.2.1 Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga

#### Description of proposed works:

The proposal would extend along about 150 metres of the Pacific Highway in this location between Neringah Avenue and Woodville Avenue and would include:

- Provision of an additional northbound lane by widening to the western side of the Pacific Highway resulting in three continuous northbound through lanes on the Pacific Highway in this location
- Reconfiguration of the right-turn bay onto Coonanbarra Road from the Pacific Highway northbound approach to a through lane by banning the right-turn
- Provision of a high entry angle left-turn lane from Redleaf Avenue onto the Pacific Highway by modifying the existing intersection in this location to eliminate the traffic island and build out the kerb. Works would include a new pedestrian crossing island across Redleaf Avenue
- Partial property acquisition (about 380 sqm) and property adjustments from a local heritage item located at 1614-1634 Pacific Highway, Wahroonga (occupied by Thomas and Rosetta Agst Aged Care Facility) including:
  - maximum encroachment in the existing property by about 5m (tapering away towards the northern and southern extents of the property)
  - relocation and reconstruction of an existing pedestrian stair access on the northern road frontage boundary
  - removal of an existing masonry retaining wall on the northern road frontage boundary extending 130m in length with a varying height of up to 2.4 metres
  - establishment of new replacement retaining wall along the new northern property boundary (a minimum 3.6m offset would be provided to the existing Aged Care Building on this property)
  - vegetation and tree clearance along the northern extent of the property next to the road frontage (within the area of acquisition and part of the adjoining land to this which is to remain under private ownership following the works)
- Property adjustments to the driveway at 1565 Pacific Highway (a residential property) to accommodate the kerb adjustments required for the high-entry angle left-turn from Redleaf Avenue onto the Pacific Highway
- Modifications to the existing raised central medians on the Pacific Highway including:

- narrowing the existing median from about 1.2m to 0.5m either side of Ada Avenue and Coonanbarra Road
- narrowing the existing median from about 1.2m to 0.5m south of the right-turn bay into Redleaf Avenue
- modifying the nose and widening the existing median to provide a larger turn radius at Redleaf Avenue
- Modifications to the western kerbside footpath on the Pacific Highway to accommodate the modified road alignment
- Removal of street trees and vegetation on the western side of the Pacific Highway within the existing road corridor opposite 1614-1634 Pacific Highway, Wahroonga occupied by Thomas and Rosetta Agst Aged Care Facility and street trees on the eastern side of the Pacific Highway within the Redleaf Avenue works area
- Relocation of traffic signal poles and provision of new mast arms at the intersection of the Pacific Highway, Ada Avenue and Coonanbarra Road
- Milling and re-sheeting within the proposal area
- Relocation of above and below ground utilities including gas, water mains, local communication cables, street lighting and electricity
- Stormwater infrastructure upgrades within the northbound kerb and channel of the road corridor to accommodate the widened carriageway extending south of the road widening up to Mundarah Street
- New traffic signs, line markings and road furniture.

#### **Impacted Local Heritage Listed Item:**

#### **Gateposts to the Former “Estha” Dwelling – Item 1976**

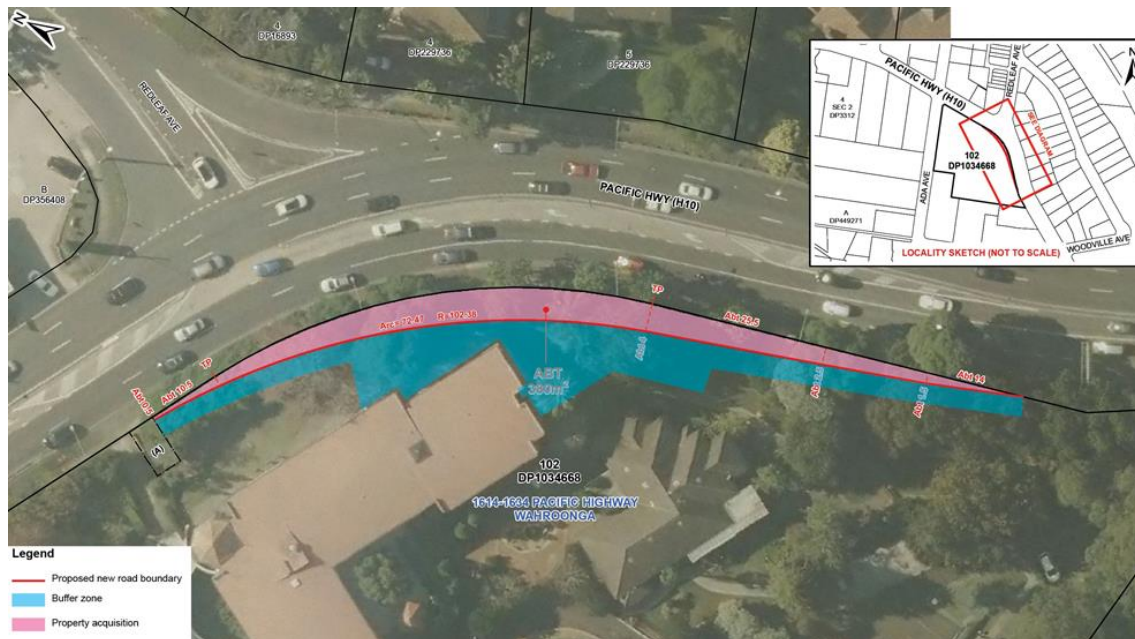
Address: 1614-1634 Pacific Highway, Wahroonga

#### **Description:**

- Sandstone gate posts (Plate 7) and retaining wall (Plate 8) are situated on the road frontage boundary of Rosetta Park and the Thomas and Rosetta Agst Aged Care Facility.
- The gate posts were originally built with the Estha House, the original building on the site (built post-1901), which has since been demolished.

- The gate posts (located on the north eastern extent of the property) are in good condition and remain at the entry to the property from the Pacific Highway.
- Plantings behind the retaining wall are on a slope rising up from the pavement and include a variety of trees including *Quercus robur*, English Oaks, *Syzygium* Lilly pillys of various varieties, *Cinnamomum camphora*, *Jacaranda mimosifolia*, *Celtis occidentalis* and *Acacia baileyana* and several palms including *Setaria palmifolia*. Various natives and exotic shrubs including *Camelia* spp, *Prunus* spp, *Murraya paniculata*, *Pittosporum undulatum*, *Cotoneaster* spp, and various grasses and ground covers including *Hedera helix*, *Setaria palmifolia* and *Nephrolepis cordifolia*.
- The ground cover vegetation is extensive beneath the trees and spills over the sandstone retaining wall on the boundary. The vegetation and retaining wall form a closed edge on the western side of the road corridor and forms a screen to the buildings in the aged care facility.
- The sandstone wall is not original but forms a contiguous built element along the eastern boundary.

**Impacts of the proposed works on heritage curtilage:**



**Figure 30 Area of former Estha site [15] showing the impact area and buffer zone resulting from the proposed works for Pacific Highway at Coonanbarra Road and Readleaf Avenue, Wahroonga**

The intended work would cut into the site, reaching a maximum of about 4m into the slope and garden beds, the works would form a taper ending just before the driveway and gate post structure at the northern end of the site. The works would remove approximately 380m<sup>2</sup> of vegetation. The existing gate posts would remain unaltered in their current location during and after construction. The buffer zone between the vegetated planting area and the proposed works is car parking area and a new vegetated buffer would need to be less than 2m in width.

**The addition of a third northbound through lane on the Pacific Highway and the relocation of the pavement and services would necessitate the relocation of the wall as well as the removal of trees, ground cover and shrub planting in the area of encroachment as shown on Figure 2.**

- Extent of land acquisition of the new proposal is 380 m<sup>2</sup>- the extent of encroachment would include the existing sandstone retaining wall and boundary planting bed.
- The vegetation to be cleared is extensive along the boundary. There would be a loss of up to thirty (30) medium and large trees, around twenty (20) medium sizes shrubs and all ground covers.
- Extent of modifications to structures/retaining wall -- the sandstone boundary wall along the eastern boundary would be demolished with a new sandstone faced piled retaining wall built on the new alignment, with a 3.6m offset from the aged care centre. This tapers to 3.1m offset

between the aged care centre and the new retaining walls at the eastern end of the building. The sandstone gate posts will not be affected by the proposed works as the encroachment area tapers off close to the main entry gate.

- Impact Level to aesthetic significance: moderate



**Plate 7 Detail of the gatepost wall to Estha [15]**





**Plate 8** Detail of stone boundary wall [24] to Estha [15]



**Plate 9** Evidence of sub-surface works within the road reserve in the vicinity of the stone boundary wall of Estha [15], facing north-west

## 5.2.2 Pacific Highway at Fox Valley Road, Wahroonga/Warrawee

### Description of proposed works:

The proposal would extend along about 500 metres of the Pacific Highway in this location between Gilda Avenue and Heydon Avenue and would include:

- Provision of an additional northbound lane by widening to the western side along the Pacific Highway resulting in three continuous northbound through lanes on the Pacific Highway in this location
- Extension of the right-turn bay from the Pacific Highway southbound approach onto Fox Valley Road by adjusting the existing central median from about 95 m to 190 m
- Provision of a dedicated left-turn lane (about 60 m in length) from the Pacific Highway northbound approach onto Fox Valley Road
- Partial property acquisition from ten properties and associated property adjustments (including adjustments to retaining/boundary walls and driveways and vegetation clearance):
  - 2 Marshall Avenue, Wahroonga [SP76417] (about 80 sqm)
  - 2 Fox Valley Road, Wahroonga [Lot 1 DP4696] (about 40 sqm)
  - 25 Fox Valley Road / 1526 Pacific Highway, Wahroonga [Lot 1 DP62488] also known as the 'Mahratta' and a State and local heritage site (about 270 sqm)
  - 1536 Pacific Highway, Wahroonga [Lot 14 DP810712] also known as 'Curtilage Park' and a local heritage site (about 75 sqm)
  - 1544 Pacific Highway, Wahroonga [Lot A DP354970] (about 110 sqm) also known as "Yaamba" dwelling house and a local heritage site
  - 1548 Pacific Highway, Wahroonga [Lot 4 DP523216] also known as "Kyeamba" dwelling house and a local heritage site (about 140 sqm)
  - 1550 Pacific Highway, Wahroonga [Lot 2 DP9991] (about 70 sqm)
  - 1552 Pacific Highway, Wahroonga [Lot 1 DP9991] (about 60 sqm)
  - 1558 Pacific Highway, Wahroonga [Lot 2 DP527984] (about 90 sqm)
  - 1560 Pacific Highway, Wahroonga [Lot A DP385263] (about 35 sqm)
- Removal of street trees and roadside vegetation on the western side of the Pacific Highway within the existing road corridor
- Modifications to the western kerbside footpath on the Pacific Highway to accommodate the modified road alignment
- Modifications the central raised median on the Pacific Highway (including lengthening, extending, widening and reconstruction) between Borambil Street and Fox Valley Road

- Providing a 'Do Not Queue Across Intersection' sign on Pacific Highway southbound at Borambil Avenue
- Connecting the central raised median along Pacific Highway south of the intersection with Fox Valley Road to Marshall Avenue to prohibit the right-turn movement from Marshall Avenue onto the Pacific Highway
- Realignments to existing signalised pedestrian crossings at the intersection of Fox Valley Road and Pacific Highway
- Milling and re-sheeting within the proposal area
- Relocation of traffic signal poles and the provision of new traffic mast arms at the intersection of Fox Valley Road and the Pacific Highway
- Relocation of aboveground and underground utilities including gas, water mains, local communication cables and above ground and underground electricity
- New stormwater pits and pipes
- New traffic signs, line markings and road furniture.

**Impacted Local Heritage Listed Items:**

**“Dwelling house” (also known as Kyeamba) – Item 1966:**

1548 Pacific Highway, Wahroonga (on the corner with Myall Avenue)

**Description:**

Kyeamba is a 1930's double brick bungalow set back from the road corridor by approximately 20 metres (refer Plate 11). It is only slightly visible from a low stepped sandstone wall on the Pacific Highway boundary (Plate 10) with a timber arbor and wrought iron gate for pedestrians located on the corner with Myall Avenue. The road frontage boundary of the property is planted very densely with a range of trees, shrubs and ground covers including a *Brachychiton acerifolius* Illawarra Flame Tree. A large variegated Cupressus tree is located close to the corner with Myall Lane and a range of *Syzygium* lilly pilli forming a hedge and a range of other vegetation including:-

- *Brachychiton acerifolius* feature tree.
- *Cupressus* trees either side of the Arbor
- *Syzygium* spp lilly pillies planted along the rear of the wall.
- *Agapanthus* line the front of the wall.

The vegetation and retaining wall, combined with similar elements on the adjacent property boundary to the south, form a closed edge on the western side of the road corridor and acts as a screen for the building.

Impacts of the proposed works on heritage curtilage:



**Figure 31 Area of Kyeamba site impacted by the proposed works for Pacific Highway at Fox Valley Road, Wahroonga/Warrawee**

- The proposed land acquisition totals 140 m<sup>2</sup> on the eastern boundary
- An additional northbound lane and pedestrian path construction would impact the sandstone wall and the planting. The road widening and land acquisition is 140 m<sup>2</sup> with excavation up to 5.5m along the eastern boundary.
- The removal of the retaining wall, including the timber arbor and the trees and vegetation, would open up views directly to the Pacific Highway and remove all screening between the house and the road corridor.
- The remaining garden and driveway directly behind the proposed acquisition zone forms a buffer to the proposed works and will need to accommodate new retaining wall, shrubs and vegetation. The nature and extent of reinstatement of these works will need to be discussed with the owners and RMS.

Impact Level to aesthetic significance: moderate



**Plate 10** View of stone boundary wall of heritage listed Kyeamba dwelling [17] adjacent to Yaamba [29] and road reserve area with evidence of sub-surface infrastructure works, facing north-west



**Plate 11** View of Kyeamba dwelling [17] adjacent to Yaamba [18].



- The proposed land acquisition totals 110m<sup>2</sup> along the eastern boundary
- The site works would impact the site with construction of the new footpath and road carriageway
- The addition of a third through lane to the outside edge of northbound side of the road would result in an encroachment into the property by up to 3.5 metres and require the removal of fencing and vegetation along the existing road frontage boundary.
- Removal of site fence and boundary planting would result in direct views from the road to Yaamba.
- The remaining garden and driveway directly behind the proposed acquisition zone forms a buffer to the proposed works and will need to accommodate new retaining wall, shrubs and vegetation. The nature and extent of reinstatement of these works will need to be discussed with the owners and RMS.

Impact Level to aesthetic significance: moderate



**Plate 12 Fencing leading to gate entry of Yaamba [18], and adjacent footpath within road reserve**



**Plate 13 Gate entry to and fencing of heritage listed Yaamba dwelling [18]**



**Plate 14 View of Yaamba dwelling [18]**



## Curtilage Park (part of Item 1964)

Address: 1534 Pacific Highway, Wahroonga

### Description:

- Opened as a public park in early 2014.
- Part of the visual curtilage of the neighbouring state-listed heritage site Mahratta and locally listed heritage site Yaamba.
- A stepped brick retaining wall is present on the Pacific Highway (Plate 15) frontage with two wrought iron gates that allow pedestrian access (disabled access ramp) to the park and vehicle access to the Mahratta site directly to the south.
- The existing brick retaining wall was styled to look like an extension of the Mahratta boundary wall to the south.
- Garden beds behind the wall are located behind the wall.
- The retaining wall, combined with similar elements on the adjacent property boundaries, form a closed edge on the western side of the road corridor.

### Impacts of the proposed works on heritage curtilage:

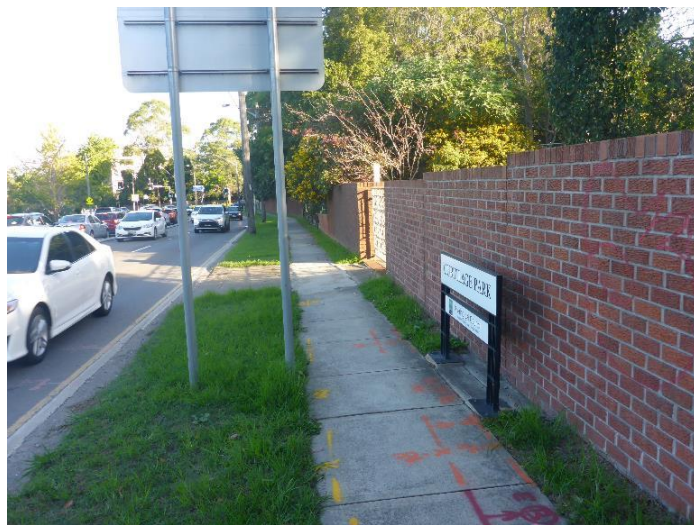


**Figure 33 Area of Curtilage Park site impacted by the proposed works for Pacific Highway at Fox Valley Road, Wahroonga/Warrabee**

- The proposed land acquisition is 75 sqm<sup>2</sup> on the eastern boundary
- The extent of encroachment is about 3.5m into the boundary with the Pacific Highway.
- The impact of construction is the removal and relocation of the eastern boundary brick retaining wall (and associated ramp structure) as well as the removal of a garden bed with a range of shrub and ground cover plantings. The planting bed and ramp would require rebuilding and the plants either transplanted or replanted.

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Impact Level to aesthetic significance: moderate



**Plate 15 Modern brick boundary wall of Curtilage Park and the Mahratta site [12] and adjacent road reserve, facing south-east**



**Plate 16 Gardens within Curtilage Park (previously part of the historical Mahratta [12] property) adjacent to Pacific Highway, facing south-east**

**Mahratta – Item 708**

Address: 1526 Pacific Highway, Wahroonga

**Description:**

Mahratta is within the C4 Mahratta Conservation Area. The boundary fencing and boundary tree plantings are contributing to the character of the streetscape of Fox Valley Road as well as the Pacific Highway.<sup>84</sup>

The proposed intersection improvements at the intersection of Fox Valley Road and the Pacific Highway would include road widening, median works, clearance of roadside vegetation, utility relocations, property adjustments and property acquisitions.

The proposed works in the portion of the study area would involve clearance of trees and vegetation within the eastern boundary planting bed, relocation and reconstruction of the eastern brick retaining wall and property adjustments and acquisitions.

Four options for the reconstruction of the Mahratta boundary retaining wall were considered in relation to the proposed works within the study area:

- Option 1 – Pad footing wall
- Option 2 – Piled footing wall
- Option 3 – Steel sheet piling
- Option 4 – Secant pile wall

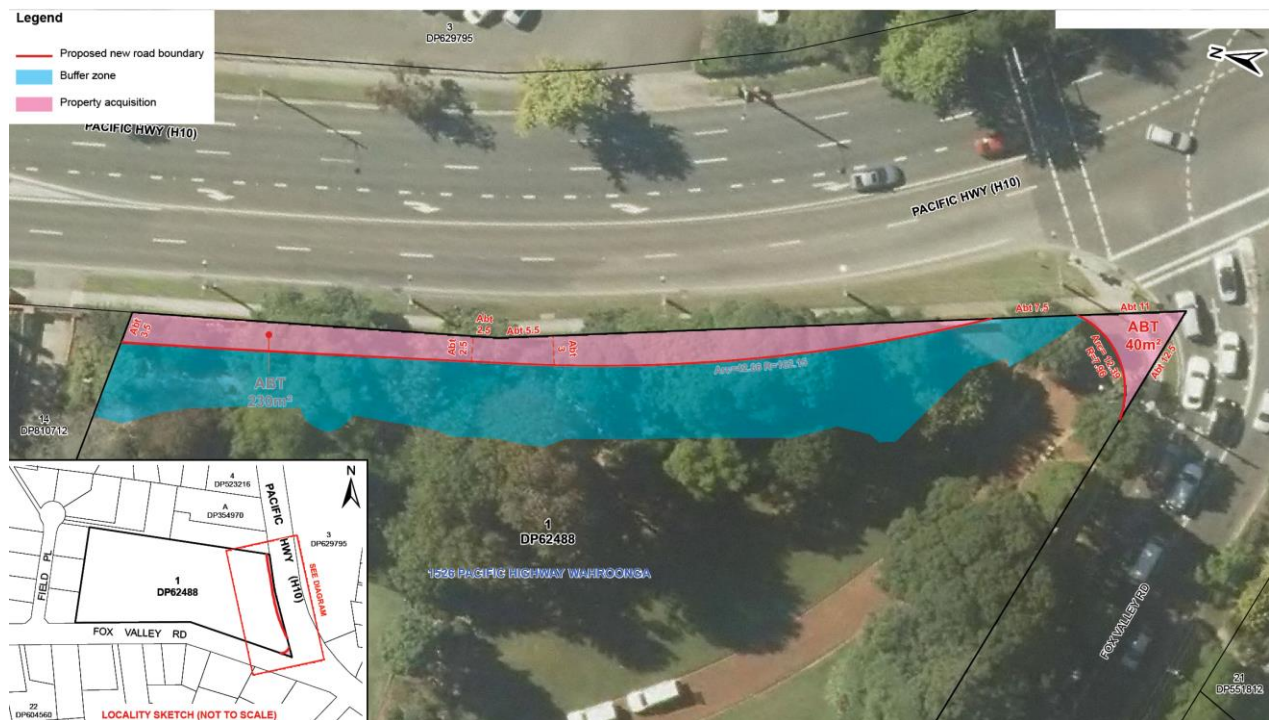
Option 3 and 4 were discarded as their construction would produce high noise and vibration and would require machinery to be located within the Mahratta property beyond the existing study area. Option 1 is the preferred solution as it would involve a standard method of construction, would be quicker and safer

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<sup>84</sup> Phillips Marler and Biosis Pty Ltd, Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga, 2018

to construct, result in less disturbance to the neighbourhood (noise and vibration) and would have the same tree impacts as all other options. <sup>85</sup>

**Impact of the proposed works on heritage curtilage:**



**Figure 34 Area of Mahratta [12] site impacted by the proposed works of Pacific Highway at Fox Valley Road, Warrawee**

As Mahratta is a state heritage item, Philips Marler and Biosis have prepared a Statement of Heritage Impact for this site<sup>86</sup>. Research for this indicates that archaeological material may be present within the study area, largely relating to the historical use of residential areas adjacent to the Lane Cove Road. The study area would likely have contained garden spaces and property boundaries, as the previous house,

<sup>86</sup> Phillips Marler and Biosis Pty Ltd, Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Warrawee, 2018

Heverlee [1], was located in the footprint of the current house. Any associated outbuildings are likely to have been located close to the main house away from Lane Cove Road. Archaeologically, these garden features and property boundaries would present as wall foundations of garden walls, fencing postholes, yard surfaces and evidence of landscaping or gardens such as fill layers and garden beds.

It should also be noted that modern services are likely to be contained within the study area. These may include sub-surface electricity or telephone wiring, drainage channels and tunnels, as well as sewerage and water services.

### **Summary of archaeological potential**

Where areas of low, moderate or high archaeological potential have been identified, these have been delineated with references to specific features to which they are related. Specific features have not been identified in areas of low potential as it is considered unlikely that archaeologically significant remains relating to the historical site of the study area would be present in these areas.<sup>87</sup>

### **Landscape heritage impact assessment**

Up to twenty trees would be removed as a result of the proposed road widening work and Appendix 1 for locations and species). As described, the high significance trees are noted for their landscape contribution to the garden as a whole, especially as a screen from the house across the lawn to the Pacific Highway. The mix of trees, particularly several species of *Syzygium* Lilly Pilly contribute to the aesthetics of the garden.

The planting bed on the western side of the brick path would be affected by the likely removal of the *Liquidamber styraciflua* and the *Syzygium paniculatum*. These two removals would result in the loss of canopy in the overall planting bed.

The encroachment of the road widening into the eastern garden of Mahratta would substantially reduce the amount of tree canopy and vegetation cover along the eastern boundary and would expose the house to views of the Pacific Highway. Many low shrub plantings including *Azalea* spp. are close to the

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<sup>87</sup> Phillips Marler and Biosis Pty Ltd, Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga, 2018

boundary within the eastern garden area of Mahratta and would be affected by the removal of the trees. The large lawn that sweeps from the house to the eastern boundary would not be affected by the works and would be retained in the form and scale it is currently.

### **Historic Significance**

The proposed tree and vegetation removals would impact and substantially remove a key element in the Paul Sorensen landscape design for the garden particularly as these plantings may have been embellished when Sorensen returned to the site in the 1960s to continue the work.

**Impact Level:** Moderate

### **Aesthetic Significance**

The lot boundary curtilage of Mahratta as described in the State Heritage Register listing would be encroached upon by the works reducing the curtilage for the entire landscape. As described in the listing *'The open lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house'*.<sup>88</sup>

The existing brick boundary wall alongside the Mahratta site's eastern road frontage boundary would be demolished and relocated about 3.5m into the garden, effectively removing the wall from the boundary edge to within the garden itself. The existing boundary wall has structural issues and has been removed in places as a result of this. The new wall would be of a similar height and form to the existing (about 1.8m in height) and would form a more continuous, robust and consistent façade across the entire new eastern boundary following the works. It would be reinforced with brick facing to match existing.

The removal and relocation of the eastern boundary wall westwards between 2.5 and 3.5 metres and the incursion of the roadworks into the Mahratta landscape would effectively narrow the garden to the east and remove all the trees and ground cover vegetation which is providing a vegetated screen to the Pacific Highway from the house and garden. Four trees are located in a narrow garden bed between the

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<sup>88</sup> Heritage Division, SHR listing for Mahratta and Site <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045079>, viewed 28 August 2018

brick path and the existing lawn. These trees would offer limited capacity to screen views to the east towards the proposed replacement brick wall and the Pacific Highway.

The lot boundary curtilage of the site as described in the State Heritage Register listing would be encroached upon by the proposed works by up to approximately 3.5m. The lot boundary curtilage is 34,803m<sup>2</sup>. The property acquisition area at 217m<sup>2</sup> is approximately 0.8% of the SHR Listing with a wider area of impact in the Mahratta garden of 696m<sup>2</sup>. Therefore, the combined impact of the acquisition and the impact area s there is a 2.4% impact on the SHR curtilage and approximately 6.1% impact on the Mahratta property. Therefore, the overall setting of the Mahratta site would be reduced by the proposal.

**Impact Level:** The removal of the existing wall is considered moderate but the removal of the trees and vegetation are considered high. So, the overall impact remains as high for aesthetic significance.



**Plate 17** View of Mahratta [12] gardens, in area without brick boundary wall, facing east



**Plate 18** Typical view of gardens within Mahratta [12] grounds with brick boundary wall





**Plate 19** Brick boundary wall of Mahratta [12] and adjacent road reserve, facing north-west



**Plate 20** Evidence of sub-surface drainage infrastructure within the Mahratta [12] grounds

### 5.2.3 Pacific Highway at Finlay Road, Warrawee/Turramurra

#### Description of proposed works:

The proposal would extend along about 210 metres of the Pacific Highway in this location between Blytheswood Avenue and Kirawa Close and would include:

- Widening to the western side of the Pacific Highway to provide an additional northbound through lane resulting in three continuous northbound through lanes along the Pacific Highway in this location
- Provision of new central raised median on the Pacific Highway between Finlay Road and Lowther Park Avenue
- Modifications to the existing central median on the Pacific Highway south of Lowther Park Avenue
- Banning the existing right-turn movement from the Pacific Highway onto Finlay Road
- Banning the existing right-turn movement from Finlay Road onto the Pacific Highway
- Partial property acquisition from two properties and associated property adjustments (including adjustments to retaining/boundary walls, safety barriers and driveways and vegetation clearance):
  - 1466-1486 Pacific Highway, Warrawee [Lots 2, 3 and 4 DP21398 and Lot 5 DP21700] also known as 'Warrawee Public School' (about 52 sqm)
  - 1458 Pacific Highway, Warrawee [Lot A DP374006] also a local heritage item containing a vacant dwelling to be redeveloped (about 35 sqm)
- Removal of a street tree and collection of roadside shrubs on the western side of the Pacific Highway within the existing road corridor
- Modifications to the western kerbside footpath on the Pacific Highway
- Milling and re-sheeting within the proposal area
- Relocation of traffic signal poles and the provision of new traffic mast arms
- Relocation of aboveground and underground utilities including gas, water mains, local communication cables and above ground and underground electricity
- New stormwater pits and pipes
- New traffic signs, line markings and road furniture.

It is noted that a large number of trees would need to be removed from the property boundary with Warrawee School including *Eucalyptus saligna* and other large specimens.

These trees contribute to the aesthetic values of the western boundary of the Pacific Highway and provide boundary screening from the school to the road and should be assessed for their arboricultural qualities as well as the visual impact for their removal.

**Dwelling House: 1548, Pacific Highway, Warrawee**

**Site Description**

Freestanding single storey Federation house surrounded by garden

Low brick boundary wall with decorative columns.

Boundary planting beds with trees, shrubs and ground covers.

**Impacts of the proposed works on heritage curtilage:**



**Figure 35 Area of Dwelling House site impacted by the proposed works of Pacific Highway at Finlay Road, Warrawee/Turramurra**

- The proposed land acquisition totals 35m<sup>2</sup> along the eastern boundary.
- The site works would impact the site with construction of the new footpath and road carriageway resulting in an encroachment of 0.5m tapering to 2m.

- Removal of brick boundary fence and high shrub planting on the boundary planting would remove some screening from the house.

Impact Level to aesthetic significance: low

**Milneroyd – Item No: 1167 Address 1-3 Lowther Park Road Warrawee**

Former residence now residential flat building

**No proposed works on the property**

Kerb adjustments works on the street

Impacts of the proposed works on heritage curtilage: (include mapping)

No impact is proposed on this item



**Plate 21 Typical view Milneroyd [19] from the Lowther Park Avenue road reserve**

**5.2.4 Proposed compound site, 1334-1354 Pacific Highway, Turrumurra**

A construction compound site would be required close to the proposed works areas. At present, one site is being considered and assessed which is located at 1334 Pacific Highway in Turrumurra (the community health centre and carpark, all of which is heritage listed and located within a heritage conservation area).

Figure 36 below depicts the location and extent of the proposed compound site in relation to the surrounding area and the general layout/features/considerations. No earthworks or tree removals are proposed for the purposes of the site compound; however, some minor tree trimming may be required to trees within the property and road frontage boundary near the vehicle access points and within the road corridor to facilitate access for heavy vehicles from the Pacific Highway.

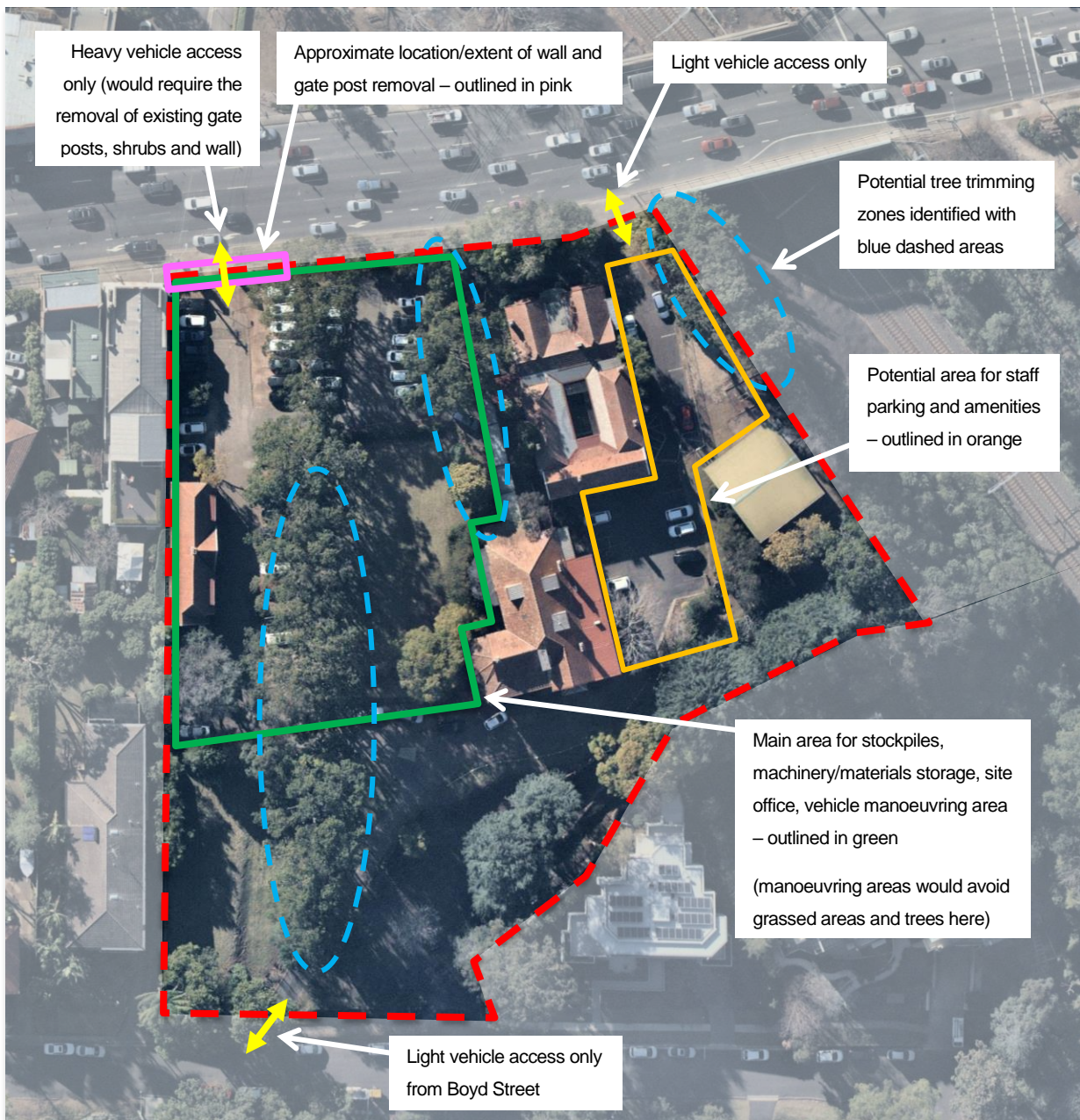
The compound site would likely include some of the following: a site office, stockpile areas, concrete washout areas, a laydown hardstand for materials, staff parking, generators, fuel stores, vehicle circulation areas, amenity areas and refuelling of plant and equipment.

Vehicle manoeuvring areas would generally be located on relatively level ground and on existing hardstand areas where possible with some existing grass areas temporarily gravelled where needed.

No utility relocations would be required for the purposes of the site compound. Stockpiling of excavated or raw material may be required at the site compound. Any stockpiles would be managed in accordance with the Roads and Maritime's Stockpile Site Management Guideline (EMS-TG-10).

Access to the compound site would be via the existing formed vehicle crossings from Pacific Highway and Boyd Street. A small section of the existing sandstone wall and gate posts along the site's road frontage boundary may need to be removed to widen the entrance for larger vehicles to utilise the site during construction. Once the works are complete, the wall and gate would be reinstated. The site access points and vehicle manoeuvring areas may require some additional stabilisation for heavy vehicle movements, particularly where there are unsealed surfaces. Standard tree protection measures would be in place within the site for the duration of construction.

Pedestrian access would be maintained during operation of the compound site with appropriate traffic controls at the site access points to avoid pedestrian conflicts. The site would be securely confined with temporary fencing. Signage would be erected advising the general public of access restrictions. Upon completion of the construction work, the temporary site compound, work area and stockpiles would be removed, the site cleared of all rubbish and materials and rehabilitated.



**Figure 36 Proposed compound site location at 1334-1354 Pacific Highway, Turramurra (extent shown in red, potential access points shown in yellow)**

**Hillview Community Health Centre (formerly Hillview Garages & Precinct) – Items 1155 and 1156:**

Address: 1334-1340 Pacific Highway, Turramurra

**Description:**

**The SHR listing description of the property is as follows:**

### **1334 Pacific Highway, Turramurra –**

*1913 Guesthouse: Federation Queen Anne style building, of face brick with a terra cotta tiled roof. The elevations are asymmetrically arranged with projecting timber verandahs and bay windows. It has a grand front entrance with substantial stone columns, stone quoining and arch.*

*The building is well detailed and constructed of high-quality materials and finishes throughout. There is a c.1926 two storey addition to the eastern side of the building, which facilitated its conversion to flats. Although not of the same quality as the original construction, the addition does not detract from the overall architectural integrity of the place.*

#### **Cottage:**

*A late Victorian brick cottage probably built on speculation c.1890. The building has had a number of additions, mostly at the turn of the century and the overall character of the building is of the Federation rather than Victorian era.*

*The house features unusual terra cotta block wings and it appears that the main facade may originally have featured the same material. A rear wing was added in 1915 and in 1926 the building was converted into four flats. Substantial internal alterations were made in 1996.*

### **1340 Pacific Highway**

*Hillview Garages: the building consists of six garages with a three-bedroom residence above.*

*The style is reminiscent of a coach house with large central doors balanced by lower openings on both sides.*

*The garages retain the following original details: timber roller shutters to the two northern garages; arched timber, ledged, braced and sheeted doors to the two central garages; a mechanic's pit; two unusual cast iron and tile chimney pieces in the flat above; quality joinery including awning windows that sit under the eaves; early gas lighting filaments in the garages.*

*The original spatial arrangement of the residence has been retained, although the opening between the two main living spaces has been infilled.*

## Pacific Highway frontage

- A sandstone wall of random rubble construction with rubble faced pillars is located on the road frontage boundary to the Pacific Highway with large feature pillars, square-cut blocks and planter beds marking the entry (Plate 22). The wall was a later addition to the precinct being built sometime between 1913 and 1927.
- The sandstone wall forms a contiguous built element along the boundary with the Pacific Highway. Overall, the wall is in good condition. The wrought iron gates have been removed and replaced with bollards in the ground but the fixing points to the pillars are still visible.

Frangipanis are planted in the small garden beds on either side of carpark entry while screening plants such as *Syzygiums* are planted behind the wall.

## Carparking

The main carpark is on the western boundary of the Hillview precinct and is approximately 70m long by 18m wide with space for up to 28 vehicles. There are two vehicle entries to the carpark, one at the northern end via the Pacific Highway and the second at the southern end from the driveway off Boyd Street. The Pacific Highway entrance is currently blocked with bollards. The Hillview Garages building is in the south-west corner of the carpark.

The secondary carpark is situated between the main carpark on its western edge, the Hillview buildings on its eastern edge and the Pacific Highway on its northern edge. It is approximately 20m long by 18m wide with space for up to 14 vehicles.

The secondary car park is screened by plants on the boundary in front of the secondary carpark, looking south from the Pacific Highway. Plantings include Frangipani, *Jacaranda mimosaeifolia*, *Syzygium spp.* and *Melaleuca spp.*

- The carparks are made up of several types of surfaces including bitumen, exposed concrete aggregate and loose gravel (Plate 24).
- A mature row of Camphor Laurel trees runs the length of the eastern boundary of the secondary carpark and gives screened views onto the formal lawn and gardens as well as the main house (Plate 29).

## Garden

- Jacaranda trees and gardens beds separate the lawn from the residence on the eastern edge of the site.



- The southern edge of the lawn is open and drops off to a steep slope with views of vegetation. (Plate 26).
- The northern edge of the lawn is separated from the carpark with a small embankment planted primarily with agapanthus and several pruned rose bushes.

### Proposed impact to the heritage item

The proposal for compound activities on the site are temporary and additional hardstand areas for the manouvering of works will be laid down. The compound would be fenced and unauthorised vehicle and pedestrian access will be controlled. The site will be reinstated when works are complete.

Activities such as site office, general parking and storage of materials will need to be carefully located to avoid the tree roots and canopies of trees and trampling of garden beds and vegetation where possible. Trimming of tree canopies can be damaging to the form of trees and should be undertaken with due consideration to the species and form of the tree with the expectation that the tree will regain that growth following construction.

As no excavations are being considered or utility relocations, ground disturbance should be minimal. Proposed concrete wash outs, storage of fuel and refueling operations should be managed to avoid spills.

Impact Level to aesthetic significance: Moderate (during use as compound site only). The views into the Hillview Precinct from north and south would be changed by the proposed compound structures and equipment. This will change the landscape character from buildings and garden with small car parks to an industrial environment with increased activity during the construction period.



Plate 22 View south at the entry of Hillview Community Centre car park showing sandstone wall and gates



Plate 23 View north from Hillview Community Centre car park showing boundary planting including Syzgiums



Plate 24 View south across Hillview Community Centre car park with *Camphor laurels* on the eastern boundary



**Plate 25 View north-west across the Hillview Community Centre gardens**



**Plate 26 View south-west across the Hillview Community Centre lawn and gardens**

### 5.3 Archaeological assessment

The potential non-Aboriginal archaeological resource relates to the predicted level of preservation of archaeological resources within the proposal area. Archaeological potential is influenced by the geographical and topographical location, the level of development, subsequent impacts, levels of onsite fill and the factors influencing preservation such as soil type. An assessment of archaeological potential has been derived from the historical analysis undertaken during the preparation of this report. Only those sites identified as being contained within the proposal area (see Table 3) have been considered in this assessment. Aboriginal heritage within the proposal area will be addressed in the Roads and Maritime Procedure for Aboriginal Cultural Heritage Consultation and Investigation in the REF for the proposal.

#### 5.3.1 Archaeological resource

This section discusses the non-Aboriginal archaeological resource within the proposal area. The purpose of the analysis is to outline what archaeological deposits or structures are likely to be present within the proposal area and how these relate to the history of land use associated with the proposal area.

The historical context presented in this report indicates that archaeological material may be present within the proposal area. These can be divided into two categories: items related to the historical use of Lane Cove Road, and material from former residential land which was resumed or acquired for the purposes of road widening between the 1920s and 1960s. Photographs dating to 1908 (Plate 1) appear to show a dirt road surface, with some possible stone kerbing. As such, it is possible that compacted dirt road surfaces and stone kerbing may be present. Regarding the former residential land, much of what was contained within resumed areas would likely have been garden spaces and property boundaries; archaeologically, these would present as wall foundations of garden walls, fencing postholes, and evidence of landscaping or gardens such as fill layers and garden beds. The 1943 aerials (Plate 2, Plate 3, Plate 4 and Plate 5) show potential garden walls [21] and an indistinct garden feature [22] within the Hillview complex proposed for the compound site. These items could not be relocated during the physical inspection. It is also possible that the Hillview complex proposed for the compound site may contain evidence of occupation in the form of yard surfaces or secondary rubbish dump deposits containing domestic archaeological material related to the historical occupation of Hillview and the Boyd farm.

Several structures [1] [2] [7] [8] [9] [10] [11] dating from the mid- to late-19th century and early 20th century were identified as being located within the proposal, partially located or potentially located within the proposal area. Potential archaeological material from these structures may include building

foundations or footings, underfloor occupation deposits in the area of structure footprints, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, and fencing postholes.

It should also be noted that modern services are likely to be contained within the proposal area. These may include sub-surface electricity or telephone wiring, drainage channels and tunnels, as well as sewerage and water services.

### **5.3.2 Integrity of sub-surface deposits**

Sub-surface deposits can be disturbed or damaged by later development or taphonomic processes. Works undertaken within the road reserve since the 1920s have likely impacted the integrity of any sub-surface deposits for those structures identified as being within or partially within the proposal area [1] [2] [7] [8] [9] [10] [11]. These disturbances would likely have been caused by the construction of new road surfaces and footpaths which may incorporate some level of excavation for foundations. The installation of underground services and infrastructure, such as piping and cabling, both underneath the road surface and road verges, would also involve targeted excavation at varying depths and would have significantly impacted any archaeological material. It is also possible that the demolition of the structures may have removed any sub-surface deposits or features or disturbed their placement, so they are no longer in-situ. These impacts may have removed/partially removed or disturbed archaeological deposits such as underfloor occupation deposits, yard surfaces, postholes and secondary deposits, and truncated walls and building foundations or footings. As a result, the potential heritage value of and research potential of any subsurface remains of former structures would be significantly reduced.

For those portions of residential properties proposed to be resumed, the integrity of any sub-surface deposits may be in relatively good condition; however, the installation of services or infrastructure may have disturbed any intact deposits. Furthermore, significant landscaping works in the form of terracing, garden features and installation of driveways and parking facilities has been undertaken within the Hillview complex proposed for the compound site; most of these works date from 1913-1927 and later. However, it is possible that the north-western portion of this area may have relatively little disturbance as it has functioned as a driveway and carpark from at least 1943; any introduced fill layers may have preserved sub-surface remains of the shed store structures [8] [9] [10] [11]. Disturbance within the eastern portion of the Hillview complex proposed for the compound could not be assessed due to no inspection being undertaken.

### **5.3.3 Research potential**

Archaeological research potential refers to the ability of archaeological evidence to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site. Archaeological research potential differs from archaeological potential in that the presence of an archaeological resource (i.e. archaeological potential) does not mean that it can provide

any additional information that increases our understanding of a site or the past (i.e. archaeological research potential).

The research potential of a site is also affected by the integrity of the archaeological resource within a proposal area. If a site is disturbed, then vital contextual information that links material evidence to a stratigraphic sequence may be missing and it may be impossible to relate material evidence to activities on a site. This is generally held to reduce the ability of an archaeological site to answer research questions.

Assessment of the research potential of a site also relates to the level of existing documentation of a site and of the nature of the research done so far (the research framework), to produce a 'knowledge' pool to which research into archaeological remains can add.

Of the research themes (Australian, State and local) identified in Section 4.5, the following are relevant to the potential archaeological resource within the proposal area.

#### **Developing local, regional and national economies – Transport - Utilities**

The proposal area follows the old Lane Cove Road, which was realigned to its current path in 1862 (**Figure 7**). While the presence of the road is an important component in the history and development of the Ku-ring-gai district, it is unlikely that any archaeological material relating to former road surfaces and kerbing will provide further information regarding transport within the Ku-ring-gai district that cannot be gained from historical documentation.

#### **Developing local, regional and national economies – Health – Key residences**

Several parts of the proposal area contain areas that were resumed on several instances during the 20th century for widening of the Pacific Highway. These portions of land are likely to have been part of landscaped gardens or grounds for the large properties which lined the old Lane Cove Road prior to the Pacific Highway. These landscaped areas can be considered to be places and settings in which the wellbeing of the property's occupants was considered and promoted. Should any evidence of these landscaped areas be encountered, they are unlikely to contribute to research questions relating to health activities within the Ku-ring-gai district that cannot be gained from historical documentation.

#### **Building settlements, towns and cities – Towns, suburbs and villages – Suburban consolidation**

The proposal area forms part of the old Lane Cove Road, and as the main road running through the suburbs of Wahroonga, Warrawee and Turramurra, it played a vital role in the development of these communities. However, it is unlikely that any archaeological material associated with former road or residential property boundaries and garden spaces are likely to contribute to research questions

regarding the development of towns, suburbs and villages within the Ku-ring-gai district that cannot be gained from historical documentation.

### **Building settlements, towns and cities – Land tenure - Suburban consolidation**

The proposal area may contain archaeological material relating to former property boundaries, such as stone and brick walls or former fence lines, which were changed following widening of the Pacific Highway on several occasions throughout the 20th century. While physical evidence of these former property boundaries is valuable, it would be unlikely to provide further information regarding land tenure of properties adjacent to the proposal area.

### **Building settlements, towns and cities – Accommodation - Suburban consolidation**

The proposal area may contain the archaeological remains of several mid- to late-19th century structures [1] [2] [7], most likely domestic dwellings or small businesses. Should any archaeological remains associated with these structures be present and encountered during works, they could potentially contribute to research questions relating to the range of accommodation present within Wahroonga, Warrawee and Turramurra prior to or during the subdivision of the larger estates in the 1880s and 1890s, which may relate to the occupation of the study area by timber-getters and orchardists.

It is highly likely that sub-surface archaeological remains have been impacted by 20th century road and infrastructure works involving excavation for road construction and maintenance, and for underground services and cabling within the proposal area. These works are likely to have damaged the integrity of any archaeological material which may be present, such as removal or damage of archaeological deposits and truncating walls or building foundations and footings. This results in a reduced level of research potential for these possible archaeological remains.

### **Developing Australia's cultural life – Domestic life - Suburban consolidation**

The proposal area may contain the archaeological remains of several mid- to late-19th century or early-20th century structures [1] [2] [7] [8] [9] [10] [11], most likely domestic dwellings or small businesses. Should any archaeological remains associated with these structures be encountered during works, they could potentially contribute to research questions relating to the domestic and working lives and practices of the early residents of Wahroonga, Warrawee and Turramurra, such as timber-getters and orchardists, and their consumer choices, both prior to and during the subdivision of the larger estates in the 1880s and 1890s.

It is highly likely that sub-surface archaeological remains have been impacted by 20th century road and infrastructure works involving excavation for road construction and maintenance, and for underground services and cabling within the study area. These works are likely to have damaged the integrity of any

archaeological material which may be present, such as removal or damage of archaeological deposits and truncating walls or building foundations and footings. This results in a reduced level of research potential for these possible archaeological remains.

However, it is possible that the north-western portion of the Hillview complex proposed for the compound site may have relatively little disturbance as it has functioned as a driveway and carpark from at least 1943; any introduced fill layers may have preserved sub-surface remains of the shed store structures [9] [10] [11].

#### 5.3.4 Summary of archaeological potential

Through an analysis of the above factors a number of assumptions have been made relating to the archaeological potential of the study area, these are presented in Table 5.

The assessment of archaeological potential has been divided into three categories:

- **High archaeological potential** – based upon the historical context and documentary evidence presented within this report there is a high degree of certainty that archaeologically significant remains relating to this period, theme or event will occur within the proposal area.
- **Moderate archaeological potential** – based upon the historical context and documentary evidence presented within this assessment it is probable that archaeological significant remains relating to this period, theme or event could be present within the proposal area,
- **Low archaeological potential** – based upon the historical context and documentary evidence presented within this assessment it is unlikely that archaeological significant remains relating to this period, theme or event will occur within the proposal area.

Where areas of low, moderate or high archaeological potential have been identified, these have been delineated with references to specific features to which they are related. Specific features have not been identified in areas of low potential as it is considered unlikely that archaeologically significant remains relating to the historical site of the proposal area would be present in these areas.

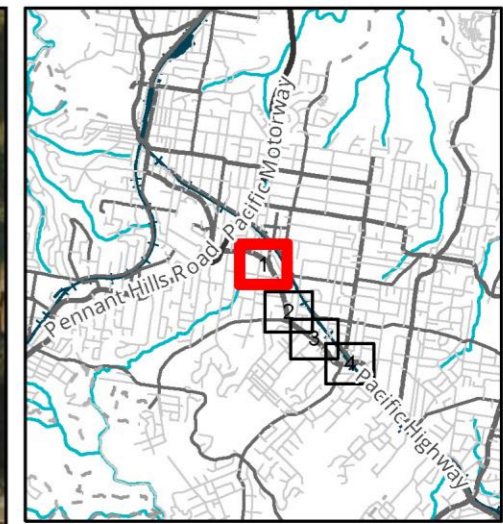


**Table 5 Assessment of archaeological potential**

Designation	Description	Probable feature(s)	Possible construction date	Likely sub-surface integrity	Archaeological potential
<b>Pacific Highway / Lane Cove Road</b>	Former road surfaces, kerbing	Compacted surface deposits, stone kerbing	Post-1862	Disturbance or removal of surface deposits; truncation or removal of stone kerbing	Low
<b>Lot 1, DP 3312</b>	Property boundaries, gardens	Wall foundations, post holes, garden beds, cuts, fill deposits	Pre-1929	Disturbance or removal of post holes, garden beds, cuts and fill deposits; truncation or removal of garden wall foundations	Low
<b>Hut [1]</b>	Pre-1862 dwelling, yard and boundary fencing	Building foundations or footings, underfloor occupation deposits, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes	Pre-1862	Disturbance or removal of underfloor occupation deposits, yard surfaces, secondary deposits, fencing postholes; truncation or removal of walls, building foundations and footings	Low
<b>Structure [2]</b>	Pre-1888 structure, yard and boundary fencing	Building foundations or footings, underfloor occupation deposits, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes	Pre-1888	Disturbance or removal of underfloor occupation deposits, yard surfaces, secondary deposits, fencing postholes; truncation or removal of walls, building foundations and footings	Low
<b>Structure [7]</b>	Pre-1881/1899 structure, yard and boundary fencing	Building foundations or footings, underfloor occupation deposits, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes	Pre-1899	Disturbance or removal of underfloor occupation deposits, yard surfaces, secondary deposits, fencing postholes; truncation or removal of walls, building foundations and footings	Low

<b>Shed store structures</b> <b>[8] [9] [10]</b> <b>[11]</b>	c.1900-1913 shed structures	Building foundations or footings, Structural postholes, compacted floor surfaces, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes	c.1900-1913	Disturbance or removal of underfloor occupation deposits, yard surfaces, secondary deposits, fencing postholes; truncation or removal of walls, building foundations and footings. Potentially preserved through possible introduced fill layers for the carpark and driveway;	Moderate
<b>Former stone wall</b> <b>[16],</b> <b>potential garden walls [20],</b> <b>garden feature [21],</b> <b>Hillview property</b>	Former stone wall property boundary, garden walls, landscaped gardens and features	Wall foundations, garden beds, cuts, fill deposits, footings or foundations	c.1890 [22] pre-1943 [26] [27]	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low
<b>Heverlee property</b> <b>[4]</b>	Property boundary, landscaped gardens	Wall foundations, post holes, garden beds, cuts, fill deposits	c.1900	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low
<b>Mahratta property</b> <b>[12]</b>	Current brick wall property boundary, landscaped gardens	Wall foundations, garden beds, cuts, fill deposits	c.1939	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low

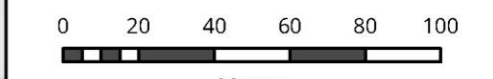
<b>Estha property [15] and sandstone retaining wall in Estha [24]</b>	Current and previous stone wall property boundaries, landscaped gardens	Wall foundations, garden beds, cuts, fill deposits	Post-1901	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low
<b>Kyeamba [17]</b>	Stone wall property boundaries, landscaped gardens	Wall foundations, garden beds, cuts, fill deposits	Pre-1943	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low
<b>Yaamba property [18] and dwarf brick wall [23]</b>	Stone wall property boundaries, landscaped gardens	Wall foundations, garden beds, cuts, fill deposits	c.1897	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low
<b>Milneroyd property [19] and garden feature [22]</b>	Property boundaries, landscaped gardens, garden feature	Wall foundations, post holes, garden beds, cuts, fill deposits	Post-1901	Disturbance or removal of postholes, cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low



- Legend**
- Proposal area
  - Compound area
- Archaeological potential**
- Low

**Figure 37.1 Assessment of archaeological potential**

**Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga**

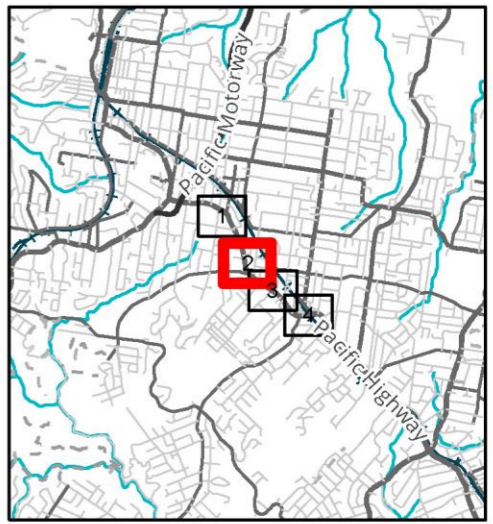


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Coordinate System: GDA 1994 MGA Zone 56



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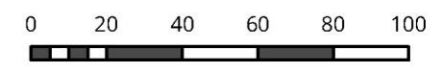
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- Legend**
- Proposal area
  - Compound area
- Archaeological potential**
- Low

**Figure 37.2 Assessment of archaeological potential**

**Pacific Highway at Fox Valley Road, Wahroonga**

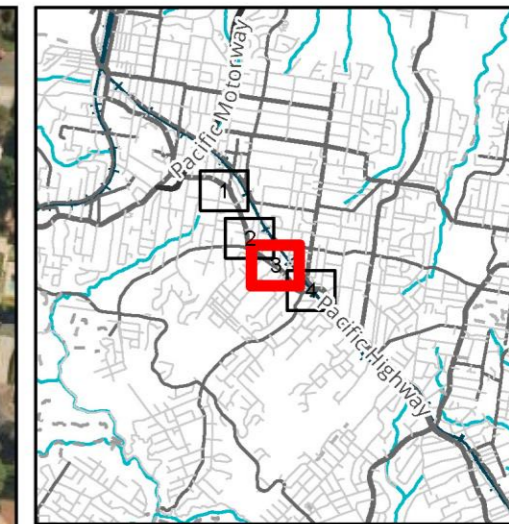


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**Legend**

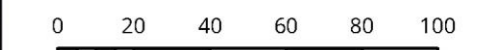
- Proposal area
- Compound area

**Archaeological potential**

- Low

**Figure 37.3 Assessment of archaeological potential**

**Pacific Highway at Finlay Road, Warrawee**

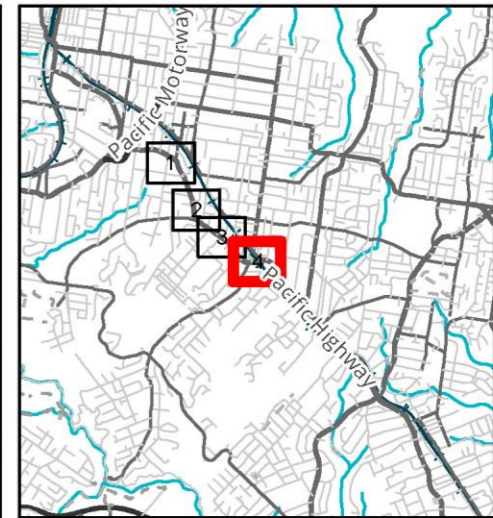


Metres  
 Scale: 1:2,000 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56



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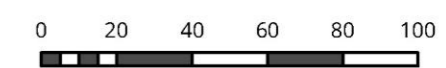
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- Legend**
- Proposal area
  - Compound area
- Archaeological potential**
- Low
  - Moderate

**Figure 37.4 Assessment of archaeological potential**

**Pacific Highway between Ray Street and Ku-Ring-Gai Avenue, Turramurra**



Metres  
 Scale: 1:2,000 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56

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## 6 Significance assessment

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An assessment of heritage significance encompasses a range of heritage criteria and values. The heritage values of a site or place are broadly defined as the ‘aesthetic, historic, scientific or social values for past, present or future generations’<sup>57</sup>. This means a place can have different levels of heritage value and significance to different groups of people.

The archaeological significance of a site is commonly assessed in terms of historical and scientific values, particularly by what a site can tell us about past lifestyles and people. There is an accepted procedure for determining the level of significance of an archaeological site.

A detailed set of criteria for assessing the State’s cultural heritage was published by the (then) NSW Heritage Office. These criteria are divided into two categories: nature of significance, and comparative significance.

Heritage assessment criteria in NSW fall broadly within the four significance values outlined in the Burra Charter. The Burra Charter has been adopted by State and Commonwealth heritage agencies as the recognised document for guiding best practice for heritage practitioners in Australia. The four significance values are:

- Historical significance (evolution and association).
- Aesthetic significance (scenic/architectural qualities and creative accomplishment).
- Scientific significance (archaeological, industrial, educational, research potential and scientific significance values).
- Social significance (contemporary community esteem).

The NSW Heritage Office issued a more detailed set of assessment criteria to provide consistency with heritage agencies in other States and to avoid ambiguity and misinterpretation. These criteria are based

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<sup>57</sup> NSW Heritage Office, 2001



on the Burra Charter. The following SHR criteria were gazetted following amendments to the Heritage Act that came into effect in April 1999:

- Criterion (a) - an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (b) - an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (c) - an item is important in demonstrating the aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).
- Criterion (d) - an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.
- Criterion (e) - an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (f) - an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (g) - an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments; or a class of the local area's cultural or natural places; or cultural or natural environments.

## 6.1 Levels of heritage significance

Items, places, buildings, works, relics, movable objects or precincts can be of either local or State heritage significance or have both local and State heritage significance. Places can have different values to different people or groups.

### Local heritage items

Local heritage items are those of significance to the local government area. In other words, they contribute to the individuality and streetscape, townscape, landscape or natural character of an area and are irreplaceable parts of its environmental heritage. They may have greater value to members of the local community, who regularly engage with these places and/or consider them to be an important part of their day-to-day life and their identity. Collectively, such items reflect the socio-economic and natural history of a local area. Items of local heritage significance form an integral part of the State's environmental heritage.

## State heritage items

State heritage items, places, buildings, works, relics, movable objects or precincts of State heritage significance include those items of special interest in the State context. They form an irreplaceable part of the environmental heritage of NSW and must have some connection or association with the State in its widest sense.

The following evaluation attempts to identify the cultural significance of the study area. This significance is based on the assumption that the site contains intact or partially intact archaeological deposits.

## 6.2 Statements of significance

The proposal area contains and is in the vicinity of a number of listed heritage items of State and local significance. Existing statements of significance for these items are provided in **Table 6**. **Table 7** presents an evaluation and subsequent statements of significance for the areas identified as holding archaeological potential in **Table 5**.

**Table 6 Statements of significance for listed heritage items, where available**

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
1964	"Mahratta", dwelling house	1536 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	State	<p>Defaults to State statement of significance:</p> <p>Mahratta is a large, intact, 2 storey mansion erected in 1941 in an unusual style which combines Art Deco and Classical Georgian Revival elements. It is perhaps the largest and finest property of its type erected in wartime Sydney. The house replaced a substantial Federation period residence situated on an 8.6 acre site in Warrawee but retained and incorporated the majority of the earlier landscape elements including a sunken rose garden and outbuildings. It was built for T.A.Field, a notable figure in the retail and wholesale meat industry, by the architect Douglas Agnew.</p> <p>The house is substantially intact exhibiting a high degree of face brick, bronze and wrought iron detailing externally and is characterised by a dramatic porte cochere on the south and an enclosed Pompeian Court on the north. Extended in 1964 by the addition of a west wing, the whole achieves a unity of style, form, texture and materials from the sensitively designed additions.</p> <p>Internally the house retains a series of superb public spaces and rooms of fluid design and highly crafted materials. The oval staircase executed in marble and scagliola, the well-proportioned ball room and elliptical dining room, finely detailed joinery and original fittings all combine to achieve a very rare and dramatic domestic interior from the period.</p> <p>The property has historic associations and aesthetic values due to the involvement and</p>

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
					<p>advice of landscape designer Paul Sorensen in its garden. The open landscaped setting and mature plantings provide a fine setting and backdrop to the house. Red gravel driveways snaking through the open lawns reinforce the colour and texture of the house.</p> <p>Occupation by the Westpac Banking Corporation since the 1960s, using the house as a Staff Training College has ensured a high level of maintenance to both the house and grounds. This has ensured that Mahratta has retained all of the essential characteristics of its cultural significance.</p> <p>NB: separate statements of significance exist for the garage and chauffeur's quarters, gardener's cottage, tennis pavilion, laundry, sheds and greenhouses. (see Schweger Brooks, 1989 sections 5.2-5.5)</p> <p>The open lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house. To the west the Croquet Lawn and Rose Garden with their backdrop of dense mature trees and shrubs are a key component of the cultural and historic setting having survived almost intact from the original (Federation era) house.</p> <p>The open areas to the west of the property are of little cultural significance to the main house, but contain a series of very large native trees. (Schweger Brooks, 1989).</p> <p>Reasons for listing; cultural, architectural, landmark value, state significance Note: grounds, fence, outbuilding to Fox Valley Road &amp; garage building (LEP, 1992).</p>
1913	Mahratta	25 Fox Valley Road, Wahroonga NSW	Ku-Ring-Gai LEP 2015	State	Defaults to State statement of significance.

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
3490028	Hillview Garages & Precincts	1334-1340 Pacific Highway, Turramurra NSW	Department of Planning and Infrastructure S170 Register	State	The Hillview Group, including the original cottage, the c.1913 guesthouse, the garages, and the various landscape elements, are an excellent and rare example of a grand private boarding house, built on the Upper North shore following the opening of the railway. The prominent hilltop setting of the house and the spectacular views over the harbour, add to the significance of the property. The garages are a significant element of the Hillview Group, having maintained their setting in relationship to the main house. They are indicative of the grand stature of the place and the aspirations of its wealthy owner.
N/A	Hillview Garages	1334-1340 Pacific Highway, Turramurra NSW	Roads and Maritime Services S170 Register	State	<p>The Hillview Group, including the original cottage, the c1913 guesthouse, the garages, the stone wall and gates to the Pacific Highway, carriage loop, croquet lawn, terracing and mature landscape setting, is of Local significance. It is an excellent and rare example of a grand private boarding house built in the Upper North Shore following the opening of the railway. Hillview had even greater significance than most boarding or guesthouses in the area given its prominent and very visible position adjacent to the railway line and its spectacular views over the whole of Sydney from the coast to the mountains and south to Botany Bay.</p> <p>The garages are a significant element in the Hillview Group. They were built by Mr E.S.W. Paul, a Managing Director of Schweppes Limited, to accommodate his Rolls Royce and Chauffeur. They are indicative of the grand stature of the place and the aspirations of its wealthy owner.</p> <p>The garages have been built to a good design (probably architect designed) with high-quality finishes which are extremely rare for a building of this type, but reflect the quality of finishes in the c1913 guesthouse. The garages are substantially intact, with only minor alterations.</p>
N/A	Hillview	1334 Pacific	NSW	State	This modest Federation style cottage is historically related to adjacent Hillview and

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
		Highway, Turramurra	Department of Health S170 Register		enhances its setting.
<b>I156</b>	Hillview Garages	1340 Pacific Highway, Turramurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012 S170 Register	Local	Defaults to State statement of significance.
<b>I155</b>	"Hillview"	1334 Pacific Highway, Turramurra NSW	Ku-Ring-Gai LEP (Local Centres) 2012 S170 Register	Local	Defaults to State statement of significance.
<b>I167</b>	"Milneroyd", residential flat building	1–3 Lowther Park Avenue, Warrawee NSW	Ku-Ring-Gai LEP (Local Centres) 2012	Local	Reasons for listing; cultural, architectural, landmark value, municipal significance
<b>I976</b>	Gateposts to the former "Estha", dwelling house	1614–1634 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	Local	Reasons for listing; cultural, architectural, municipal, state (?) significance
<b>I966</b>	Dwelling house	1548 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	Local	Reasons for listing; architectural, municipal significance Note: fine wicket & vehicle gates with pergolas
<b>I965</b>	"Yaamba", dwelling house	1544 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	Local	Not available.

**Table 7 Evaluation and statement of significance for areas of archaeological potential in areas of proposed works**

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Pacific Highway / Lane Cove Road</b>								Nil	S139 'Relics Provision' Heritage Act	<p>The potential archaeological material associated with the old Lane Cove Road, such as former road surfaces and kerbing, is not considered an important component or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with the Pacific Highway / Lane Cove Road do not hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Lot 1, DP 3312 (1666 Pacific Highway, Wahroonga)</b>								Nil	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with the Lot 1, DP 3312, such as former property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class in NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with Lot 1, DP 3312 do not hold heritage significance.</p>



Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
Hut [1]					X			Local	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with the former hut [1], such as building foundations or footings, underfloor occupation deposits, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes, may be able to yield information that will contribute to the understanding of the cultural history of Ku-ring-gai and the areas of Wahroonga, Warrawee and Turramurra, specifically regarding the range of accommodation and the domestic life, practices and consumer choices of the area's occupants, such as timber-getters and orchardists, during or prior to the mid-19th century.</p> <p>However, there is a high likelihood that sub-surface archaeological remains have been impacted by 20th century road and infrastructure works which are likely to have damaged the integrity of any archaeological material present, resulting in a reduced level of research potential for these possible archaeological remains.</p> <p>Should undisturbed archaeological materials associated with the former hut [1] be present, they would be considered to hold heritage significance at a <b>local</b> level. However, if archaeological material has been disturbed or are not present at all, they would not be considered to hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
Structure [2]					X			Local	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with the former structure [2], such as building foundations or footings, underfloor occupation deposits, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes, may be able to yield information that will contribute to the understanding of the cultural history of Ku-ring-gai and the areas of Wahroonga, Warrawee and Turramurra, specifically regarding the range of accommodation and the domestic life, practices and consumer choices of the area's occupants, such as timber-getters and orchardists, prior and/or during the subdivision of larger estates in the 1880s and 1890s.</p> <p>However, there is a high likelihood that sub-surface archaeological remains have been impacted by 20th century road and infrastructure works which are likely to have damaged the integrity of any archaeological material present, resulting in a reduced level of research potential for these possible archaeological remains.</p> <p>Should undisturbed archaeological materials associated with the former structure [2] be present, they would be considered to hold heritage significance at a <b>local</b> level. However, if archaeological material has been disturbed or are not present at all, they would not be considered to hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
Structure [7]					X			Local	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with the former structure [7], such as building foundations or footings, underfloor occupation deposits, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, fencing postholes, may be able to yield information that will contribute to the understanding of the cultural history of Ku-ring-gai and the areas of Wahroonga, Warrawee and Turramurra, specifically regarding the range of accommodation and the domestic life, practices and consumer choices of the area's occupants, such as timber-getters and orchardists, prior and/or during the subdivision of larger estates in the 1880s and 1890s.</p> <p>However, there is a high likelihood that sub-surface archaeological remains have been impacted by 20th century road and infrastructure works which are likely to have damaged the integrity of any archaeological material present, resulting in a reduced level of research potential for these possible archaeological remains.</p> <p>Should undisturbed archaeological materials associated with the former structure [7] be present, they would be considered to hold heritage significance at a <b>local</b> level. However, if archaeological material has been disturbed or are not present at all, they would not be considered to hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
Shed store structures [8] [9] [10] [11]					X			Local	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with the former shed store structures [8] [9] [10] [11], such as building foundations or footings, structural postholes, compacted floor surfaces, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, and fencing postholes may be able to yield information that will contribute to the understanding of the cultural history of Ku-ring-gai and the areas of Wahroonga, Warrawee and Turramurra, specifically regarding the domestic and working lives, practices and consumer choices of the area's occupants, such as timber-getters and orchardists, prior and/or during the subdivision of larger estates in the 1880s and 1890s.</p> <p>The introduction of services and infrastructure may have disturbed or removed compacted floor and yard surfaces, secondary deposits, fencing postholes, or truncated or removed building foundations and footings. However, should fill layers have been introduced for the creation of the driveway and carpark, sub-surface remains may be relatively intact.</p> <p>Should undisturbed archaeological materials associated with the former shed store structures [8] [9] [10] [11], be present, they would be considered to hold heritage significance at a <b>local</b> level. However, if archaeological material has been disturbed or are not present at all, they would not be considered to hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Former stone wall [16], potential garden walls [20], garden feature [21], Hillview</b>								Nil	Section 60, Heritage Act or exemption under the Heritage Act S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with the former stone wall, [16], potential garden walls [20], garden feature [21], Hillview property, such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with the former stone wall, [16], potential garden walls [20], garden feature [21], Hillview property] do not hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Heverlee property [4]</b>								Nil	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with Heverlee [4], such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class in NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with Heverlee [4] do not hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Mahratta property [12]</b>								Nil	<p>Section 60, Heritage Act or exemption under the Heritage Act</p> <p>S139 'Relics Provision' Heritage Act</p>	<p>The potential archaeological materials associated with Mahratta [12] (gardens and wall), such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with Mahratta [12] do not hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Estha property [15] and sandstone retaining wall in Estha [24]</b>								Nil	Ku-ring-gai LEP 2015 or ISEPP S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with Estha [15] and the sandstone retaining wall [24], such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with Estha [15] and the sandstone retaining wall [24] do not hold heritage significance.</p>



Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
Kyeamba [17]								Nil	<p>Ku-ring-gai LEP 2015 or ISEPP</p> <p>S139 'Relics Provision' Heritage Act</p>	<p>The potential archaeological materials associated with Kyamba [17], such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with Kyamba [17] do not hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Yaamba property [18] and dwarf brick wall [23]</b>								Nil	<p>Ku-ring-gai LEP 2015 or ISEPP</p> <p>S139 'Relics Provision' Heritage Act</p>	<p>The potential archaeological materials associated with Yaamba [18] and dwarf brick wall [23], such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with the Yaamba [18] and dwarf brick wall [23] do not hold heritage significance.</p>

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Milneroyd property [19] and garden feature [22]</b>								Nil	<p>Ku-ring-gai LEP 2015 or ISEPP</p> <p>S139 'Relics Provision' Heritage Act</p>	<p>The potential archaeological materials associated with Milneroyd [19] and the garden feature [22], such as former stone wall property boundaries and landscaped garden areas, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with the Milneroyd [19] and the garden feature [22] do not hold heritage significance.</p>

## 7 Archaeological impact assessment

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This archaeological impact assessment has been prepared to address impacts to potential archaeological materials resulting from the proposed redevelopment of the study area.

Several parts of the proposal area may contain archaeological material. Of these, four locations (Hillview complex; west of the intersection of Winton Street and the Pacific Highway; opposite the intersection of Fox Valley Road and the Pacific Highway; Redleaf Avenue) have the potential to hold local heritage value. Several structures [1] [2] [7] [8] [9] [10] [11] dating from the mid- to late-19th century or early 20th century were identified as being or potentially being located or partially located within the proposal area. Potential archaeological material from these structures may include building foundations or footings, underfloor occupation deposits in the area of structure footprints, yard surfaces, secondary deposits from backfilled privies, cesspits or dump pits, and fencing postholes. Should any archaeological remains associated with these structures be encountered during works, they could be a valuable resource in answering research questions relating to the range of accommodation within Wahroonga, Warrawee and Turramurra and the domestic life, practices and consumer choices of the early residents of these areas, such as timber-getters and orchardists, prior to or during the subdivision of the larger estates in the 1880s and 1890s.

It is highly likely that sub-surface archaeological remains have been impacted by 20th century road and infrastructure works involving excavation for road construction and maintenance, and for underground services and cabling within the proposal area. These works are likely to have damaged the integrity of any archaeological material which may be present, such as removal or damage of archaeological deposits and truncating walls or building foundations and footings. This results in a reduced level of research potential for these possible archaeological remains. However, it is possible that the northern portion of the Hillview Precinct at 1334-1340 Pacific Highway, Turramurra NSW, proposed for the compound site may have relatively little disturbance as it has functioned as a driveway and carpark from at least 1943; any introduced fill layers may have preserved sub-surface remains of the shed store structures [9] [10] [11].

Other areas which were identified as possibly containing sub-surface archaeological material have not been considered in this assessment, as they have been assessed as holding no heritage significance and are therefore have low archaeological potential. However, any impacts which may occur within the curtilage of a State heritage item (i.e. Mahratta), regardless of archaeological potential or impacts, will require an exemption or permit from the NSW Heritage Council.

The archaeological impact assessment identifies the level of impact arising from the proposed development and discusses mitigation measures which must be taken to avoid or reduce those impacts.

This section of the report has been prepared in accordance with the Heritage Manual guideline *Statements of Heritage Impact*.<sup>58</sup>

## 7.1 Proposal details

As described in earlier sections of this report, the proposed works involve intersection improvements, including road widening, additional traffic lanes and medians, clearance of roadside vegetation, reconstruction of retaining walls, and property adjustments and acquisitions. A compound site would also be temporarily established in Lot 6, DP 26828, and Lot 7, DP 214733, which contains several local heritage items as part of the Hillview complex in Turramurra.

The most significant of these proposed works with regards to potential archaeological materials would be:

- the resumption of land
- the demolition and reconstruction of property boundary walls within the curtilage of heritage items
- any sub-surface excavations, particularly within the road reserve (including verges); the proposal would not involve any excavation within the compound area.

## 7.2 Assessing impact to heritage item(s)

### 7.2.1 Discussion of heritage impact(s)

The discussion of impacts to heritage can be centered upon a series of questions which must be answered as part of an archaeological impact assessment which frame the nature of impact to a heritage item. The Heritage Manual guideline *Statements of Heritage Impact* includes a series of questions in relation to indicate the criterion which must be answered.<sup>59</sup> These are:

- *Is the addition sited on any known, or potentially significant archaeological deposits? If so, have alternative positions for the additions been considered?*

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<sup>58</sup> Heritage Office and Department of Urban Affairs & Planning 1996

<sup>59</sup> *ibid*

- *Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected?*
- *Are any known or potential archaeological deposits (underground or under floor) affected by the proposed new services?*
- *Are any known or potential archaeological deposits affected by the landscape works? If so, what alternatives have been considered?*

The proposed works may have a number of impacts on the potential archaeological materials within the proposal area. This would largely involve the demolition of existing walls and their reconstruction within the curtilage of heritage items, as well as any sub-surface excavations and vegetation clearance for road works and widening. Some of these walls fall within the curtilage of State and local heritage items. These activities may potentially disturb or destroy any archaeological material or deposits which may be present within the proposal area.

In assessing the proposed works, the questions outlined in the Heritage Manual have been considered to determine if the impacts to potential archaeological resources are acceptable, and to ensure that measures have been taken to mitigate these impacts. Road works, installation of services and infrastructure and urban development undertaken throughout the 20th century may have disturbed or destroyed potential archaeological material within the road reserve and verges. These works are likely to have damaged the integrity of any archaeological material which may be present, such as removal or damage of archaeological deposits and truncating walls or building foundations and footings. As such, the likelihood of encountering intact and undisturbed archaeological remains associated with the former mid- to late-19th century structures [1] [2] [7] which may hold heritage value and contribute to research questions is considered to be low. The impacts of the proposed works to the former mid- to late-19th century structures [1] [2] [7] have been assessed as acceptable. However, there is potential for relatively intact archaeological remains to be present in the north-western and north-eastern portions of the Hillview Precinct at 1334-1340 Pacific Highway, Turramurra NSW, proposed for the compound site. Under the Heritage Act, a person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit. It is therefore recommended that no ground disturbance or excavation be permitted within those areas of moderate archaeological potential as indicated in Figure 32, without a s139 excavation exception or s140 excavation permit (as relevant) (see Figure 38).

### 7.3 Assessment of impacts

An assessment and mitigation of impacts to potential archaeological resources which may hold local heritage significance within the proposal area is presented in **Table 8**. An assessment and mitigation of impacts to landscape of heritage items within and opposite the proposal area is presented in **Table 9**.

Based upon the discussion of impacts to heritage items, impact to these items can be quantified under three main categories: direct impacts, indirect impacts and no impact. These kinds of impacts are dependent on the proposed impacts, nature of the heritage item and its associated curtilage.

#### Direct impacts

Direct impacts are where the completion of the proposed development will result in a physical loss or alteration to a heritage item which will impact the heritage value or significance of the place. Direct impacts can be divided into whole or partial impacts. Whole impacts essentially will result in the removal of a heritage item as a result of the development where as partial impacts normally constitute impacts to a curtilage or partial removal of heritage values. For the purposes of this assessment direct impacts to heritage items have been placed into the following categories:

- Physical impact - whole: where the development will have a whole impact on a heritage item resulting in the complete physical loss of significance attributed to the item.
- Physical impact - partial: where the project will have a partial impact on an item which could result in the loss or reduction in heritage significance. The degree of impact through partial impacts is dependent on the nature and setting of a heritage item. This typically these impacts are minor impacts to a small proportion of a curtilage of an item or works occurring within the curtilage of a heritage item which may impact on its setting (i.e. gardens and plantings).

#### Indirect impacts

Indirect impacts to a heritage item relate to alterations to the environment or setting of a heritage item which will result in a loss of heritage value. This may include permanent or temporary visual, noise or vibration impacts caused during construction and after the completion of the development. Indirect impacts diminish the significance of an item through altering its relationship to its surroundings; this in turn impacts its ability to be appreciated for its historical, functional or aesthetic values.

#### Cumulative impacts

Cumulative impacts relate to minimal or gradual impacts from a single or multiple developments upon heritage values. A cumulative impact would constitute a minimal impact being caused by the proposed development which over time may result in the partial or total loss of heritage value to the study area or associated heritage item. Cumulative impacts may need to be managed carefully over the prolonged period of time.

## No impact

This is where the project does not constitute a measurable direct or indirect impact to the heritage item.

**Table 8 Assessment of impacts to potential archaeological material within the proposal area**

Area of potential archaeological resource	Significance	Archaeological potential	Probably impact	Mitigation measures
Hut [1]	Local	Low	Indirect – vibration during works	Roads and Maritime Unexpected Heritage Items Procedure (see Recommendation 1)
Structure [2]	Local	Low	Indirect – vibration during works	Roads and Maritime Unexpected Heritage Items Procedure (see Recommendation 1)
Structure [7]	Local	Low	Indirect – vibration during works	Roads and Maritime Unexpected Heritage Items Procedure (see Recommendation 1)
Shed store structures [8] [9] [10] [11]	Local	Moderate	Indirect – vibration during works	Disturbance or excavation of areas of moderate archaeological potential not permitted without a s139 excavation exception or s140 excavation permit (see Recommendation 2).






- Legend**
- Compound area
  - Areas where no ground disturbance or excavation is permitted without a s140 excavation permit

**Figure 38** Areas where no ground disturbance or excavation is permitted without a S140 excavation permit

0 10 20 30 40 50  
 Metres  
 Scale: 1:1,000 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56



Biosis Pty Ltd  
 Albury, Ballarat, Melbourne,  
 Newcastle, Sydney, Wangaratta & Wollongong

**Table 9 Assessment of landscape impacts to Heritage Listed items within and opposite the proposal area**

Landscape items	Significance	Landscape impact	Probable impact	Mitigation measures (all to be carried out in consultation with property owners in consultation with RMS) (Refer Recommendations Section)
<b>1976 Estha gateposts,,wall and gardens</b>	Local	Moderate aesthetic significance	Indirect	Gateposts to be protected during construction Reinstatement of wall and garden beds Refer Recommendation 3
<b>I1008 'Redleaf' Dwelling House &amp; Grounds</b>	Local	Moderate aesthetic significance	Direct	Garden reinstatement and tree canopy enhancement Refer Recommendation 3
<b>1969 Dwelling House</b>	Local	Negligible	Indirect	None required
<b>1967 Dwelling House</b>	Local	Negligible	Indirect	None required
<b>1966 Kyeamba' Dwelling House (and garden)</b>	Local	Moderate aesthetic significance	Direct	Boundary wall, garden reinstatement and tree canopy enhancement Refer Recommendation 3
<b>1965 Yaamba' Dwelling House (and garden)</b>	Local	Moderate	Direct	Boundary fence garden reinstatement and tree canopy enhancement Refer Recommendation 3
<b>Curtilage Park (part of Mahratta Heritage listing)</b>	Local	Moderate	Direct	Reinstatement of walls, garden beds and accessible paths and tree canopy enhancement Refer Recommendation 3
<b>708 1964 1913 Mahratta' Site &amp; Dwelling House</b>	State	Moderate historic significance. High aesthetic significance	Direct	Reinstatement of wall, garden beds and accessible paths. Tree canopy enhancement Refer Recommendation 3
<b>No. I160 – Dwelling House 1458 Pacific Highway, Turrumurra NSW, Lot A, DP 374006.</b>	Local	Moderate aesthetic impact	Direct	Reinstatement of wall, garden beds and accessible paths. Tree canopy enhancement Refer Recommendation 3
<b>I1059 Inglewood' Dwelling House</b>	Local	Negligible	Indirect	None required

Landscape items	Significance	Landscape impact	Probable impact	Mitigation measures (all to be carried out in consultation with property owners in consultation with RMS) (Refer Recommendations Section)
<b>I167 Milneroyd' Residential Flat Building</b>	State	Negligible	Indirect	None required
<b>I160 Dwelling House</b>	Local	Negligible	Indirect	None required
<b>I157 Former Commonwealth Bank Building</b>	Local	Negligible	Indirect	None required
<b>I158 Commercial Buildings</b>	Local	Negligible	Indirect	None required
<b>3490028 Hillview Garages &amp; Precinct</b>	State	Moderate aesthetic significance (during use as a compound site only)	Direct	Reinstatement of sandstone entry gate posts and walls Reinstatement of any ground covers, and turf as required. Refer Recommendation 4
<b>I154 Masonic Temple</b>	Local	Negligible	Indirect	None required
<b>I143 Dwelling House</b>	Local	Negligible	Indirect	None required

## 7.4 Impact assessment statement

### 7.4.1 Impact to Archaeological Values

The proposed works as part of the project would involve road widening, additional traffic lanes and medians, clearance of roadside vegetation, reconstruction of retaining walls and property adjustments and acquisitions. A compound site would also be established in Lot 6, DP 26828, and Lot 7, DP 214733, which contains several local heritage items as part of the Hillview complex in Turrumurra. The most significant of these with regards to potential archaeological materials would be the resumption of land, demolition and reconstruction of property boundary walls within the curtilage of heritage items, and any sub-surface excavations, particularly within the road reserve (including verges). The proposal would not involve any excavation within the compound area.

It has been assessed that there is low potential for archaeological resources to be present throughout the proposal area, with two areas of moderate potential within the Hillview complex proposed for the compound site. Five areas have been identified which have the potential to hold local heritage significance: the former hut [1]; a former structure [2]; another former structure [7] and four former shed / store structures [8] [9] [10] [11] within the proposed compound site within the Hillview complex. The likelihood of encountering undisturbed archaeological resources for the hut [1] and structures [2] [7] is considered low due to potential disturbances resulting from earlier road works in establishing and maintaining the Pacific Highway from the 1920s onwards. These previous works are likely to have damaged the integrity of any archaeological material which may be present, such as removal or damage of archaeological deposits and truncating walls or building foundations and footings, resulting in a reduced level of research potential for these possible archaeological remains. However, should undisturbed archaeological remains associated with these former structures [1] [2] [7] be present, they have the potential to hold local heritage significance. The impact to these areas has been assessed as acceptable, provided that an Unexpected Finds Policy is implemented to record any archaeological materials which may be encountered during works.

Due to potentially low levels of disturbance within the north-western and north-eastern portions of the Hillview complex proposed for the compound site, there is moderate potential to find relatively intact archaeological remains of three former shed store structures [9] [10] [11] and associated deposits and features in this location. Disturbance to a further structure [8] has not been assessed due to inaccessibility for inspection. Should undisturbed archaeological remains associated with these former structures [8] [9] [10] [11] be present, they have the potential to hold local heritage significance. Under the Heritage Act, a person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an

excavation permit. It is therefore recommended that no ground disturbance or excavation be permitted within those areas of moderate archaeological potential as indicated in Figure 37.4, without a s139 excavation exception or s140 excavation permit (as relevant) (see Figure 38). The current wall and gate posts at the northern boundary of the Hillview complex are proposed be temporarily relocated to enable the access of heavy goods vehicles into the proposed compound site. Should any planned works associated with the removal or reinstatement of the wall involve the disturbance or excavation of the land contained within the area of moderate potential, a s139 excavation exception or s140 excavation (as relevant) permit will be required and archaeological monitoring undertaken during both the removal and reinstatement of the wall.

### **7.4.2 Impact to Landscape Values**

The potential widening of the Pacific Highway in the three intersection locations identified in this report would have impacts to the landscape values of the locally heritage items directly affected by the proposed works.

The intersection improvements between Coonanbarra Road and Redleaf Avenue would impact the former Redleaf property now known as the Thomas and Rosetta Agst Aged Care Facility. The sandstone wall on the northern and eastern extents of this property would need to be removed and replaced closing to the existing building on this property and all the plantings on the slope removed for re-grading. Vegetation would need to replace the existing vegetation screening that would be removed in this location. This should be a mixture of trees, shrubs and ground cover vegetation.

The intersection location with the most landscape heritage impact is the road widening proposed for the Fox Valley Road intersection improvements.

Boundary fences and gardens would be impacted with significant tree removals within the gardens of Kyeamba, Yaamba, Curtilage Park and Mahratta. The reinstatement of boundary walls would also be required to emulate the character and construction of the existing fences and walls and maintain the aesthetic qualities of the western boundary. These actions will positively contribute to mitigating the proposed works.

The level of impact of the proposed works on the landscape and designs by Paul Sorensen in the Mahratta landscape is assessed as a moderate impact because Mahratta is a large garden and many elements that Sorensen designed such as the Sunken Garden and other shrubberies remain intact and are not affected by the proposal. To maintain historic significance, consideration should be given to the loss of vegetation, and considering infill plantings in the garden that emulate Sorensen's style. These actions should be considered by RMS in consultation with the site owners. The remaining areas of the

Mahratta garden should be enhanced to retain the historic significance of Paul Sorensen's work in the garden.

Although the new brick wall is proposed to replace the old brick wall, the impact locating the wall closer to the garden with limited opportunity for planting beds in front does have a moderate aesthetic impact. The high level of proposed impact to aesthetic significance is due to the substantial loss of trees on the eastern boundary and the overall impact this has on the screening of the eastern façade of the house and the garden. The removal of the eastern boundary planting bed means that the opportunities to replant trees and vegetation close to the eastern boundary is limited.<sup>60</sup> Consideration should be given to a tree and vegetation strategy to reinstate the tree canopy. These actions will positively contribute to mitigating the proposed works.

The Finlay Road intersection improvements affects one property - 1548 Pacific Highway where boundary fence and planting will be impacted by the works and would need to be reinstated. This would positively contribute to mitigating the proposed works.

The loss and reinstatement of trees across the entire proposal area would need to be addressed through replacement tree plantings within all gardens affected by the proposed road widening. It is essential that tree plantings are a mix of native and exotic vegetation, and where possible, advanced tree stock should be considered and implemented where possible to ensure reinstatement of the tree canopy along the impacted road corridor.

Roads and Maritime are proposing the temporary use of Hillview Community Health Centre (formerly Hillview Garages & Precinct) – Items 1155 and 1156: as a construction compound. The use of the site would include car parking, materials and equipment storage, stockpile areas and temporary office buildings.

The proposal for compound activities on the site are temporary and additional hardstand areas to accommodate activities such as vehicle manoeuvring would be laid down. The compound would be

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<sup>60</sup> Phillips Marler and Biosis Pty Ltd, Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga, 2018

fenced and unauthorised vehicle and pedestrian access would be controlled. The site would be reinstated when works are complete.

It is proposed that the sandstone entry gate posts and part of the boundary wall may need to be removed to allow access for larger vehicles. The gate posts and the wall are intended on being reinstated at the end of the works.

Activities such as site office, general parking and storage of materials would need to be carefully located to avoid the tree roots and canopies of trees and trampling of garden beds and vegetation where possible.

As no excavations are being considered or utility relocations, ground disturbance should be minimal. Proposed concrete wash outs, storage of fuel and refueling operations should be managed to avoid spills.

The works do not propose to remove trees at the proposed compound site. Tree trimming should be kept to a minimum where possible with only 10 per cent of the tree canopy removed from any tree that requires trimming. Garden beds and lawns that may be affected by the works should be re-instated with ground covers and shrubs as required.

## 8 Recommendations

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These recommendations have been formulated to respond to client requirements and the significance of the site. They are guided by the ICOMOS *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.<sup>61</sup>

### **Recommendation 1 Heritage Management Plan for Construction**

A Heritage Management Plan (HMP) should be prepared for the proposal area as a whole (as part of the Construction Environmental Management Plan (CEMP)) to mitigate any construction-related impacts to these areas and their wider heritage curtilage during construction.

A key objective of the HMP would be to ensure that any impacts to heritage values / features of the Mahratta site during construction are minimised and carried out within the scope permitted by the approval instruments.

The HMP should include (as a minimum):

- Purpose and objectives for the protection and management of the study area during construction
- Acknowledgement of relevant legislative requirements and guidelines, including any conditions of approval and permits
- Details on any necessary pre-construction consultation and landowner approvals
- Details on the construction activities to be undertaken and proposed construction methodology
- Heritage management and mitigation measures to be applied during construction (such as staff training, implementation of unexpected finds procedures, proposed access, work method statements, exclusion zones and setback areas, proposed reinstatement works)
- Compliance management including roles and responsibilities, staff training, monitoring, inspections, auditing and reporting

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<sup>61</sup> Australia ICOMOS 2013



The HMP should make specific reference to the heritage assessment prepared for the Project REF and any conditions of approval outlined by State agencies. The HMP must be prepared by a suitably qualified heritage specialist.

#### *Unexpected Heritage Items*

The HMP must include a procedure for the management of unexpected potential archaeological relics discovered during construction. The management of unexpected potential archaeological relics must be in accordance with Roads and Maritime's "Unexpected Heritage Items" documentation (refer Appendix 1). The procedure for unexpected finds must include the following steps:

- (a) Cease work in the immediate area of the identified potential heritage object immediately;
- (b) Notify Roads and Maritime immediately;
- (c) Provide access to the affected works area to any heritage specialist to assess the finds;
- (d) Provide temporary exclusion (pedestrian) fencing;
- (e) Implement additional safeguards as required.

The Non-Aboriginal Heritage Management Plan must provide for all personnel working within the study area on their responsibilities under the Heritage Act. Make personnel aware of all non-Aboriginal heritage sites/areas including cultural plantings and areas of archaeological potential, which are identified in the Environmental Assessment documents provided in the REF.

Where the remains are identified as being 'relics', the Heritage Council of NSW must be notified in accordance with section 146 of the Heritage Act. Failure to notify the Heritage Council is considered an offence under the Heritage Act, with penalties including fines and imprisonment. After contacting the Heritage Council, a permit or exemption should be sought under the relevant section of the Heritage Act to allow works to recommence.

All Aboriginal objects and places are protected under the *National Parks and Wildlife Act 1974*. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the OEH. If the find is determined to be an Aboriginal object, the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

#### **Recommendation 2    Avoidance of impacts to former 'Hillview' shed store structures within Compound Site at 1334 Pacific Highway, Turramurra**

Under the Heritage Act, a person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit. It is recommended that no disturbance or excavation be permitted in areas assessed as holding moderate archaeological potential as part of a Construction Heritage Management Sub-Plan (Recommendation 1) (see Figure 38). The location and significance of

the potential archaeological remains should also be referenced in site inductions for all staff and contractors.

Ground disturbance or excavation in areas of moderate archaeological potential would only be permitted with a s139 excavation exception or s140 excavation permit (as relevant). Should the temporary relocation and reinstatement of the northern boundary wall of the Hillview complex be required and also involve disturbance or excavation in the area of moderate archaeological potential, a s139 excavation exception or s140 excavation permit (as relevant) will be required to undertake these works. Depending on the scale of works, archaeological monitoring or excavation may be required to identify and assess the significance of any archaeological material encountered during these works.

**Recommendation 3 Property Adjustment works - reinstatement of boundary walls and vegetation - former Estha 1614-1634, Pacific Highway, Wahroonga, Kyeamba 1548 Pacific Highway Wahroonga, Yaamba 1544 Pacific Highway Wahroonga, Curtilage Park 1534 Pacific Highway Wahroonga, Mahratta, 1526 Pacific Highway, Wahroonga and Dwelling House, 1548 Pacific Highway, Warrawee**

Property adjustments should include reinstatement of boundary walls, trees and vegetation within the boundaries to all the above properties. The properties will be reinstated in consultation with property owners and RMS.

**Recommendation 4 Former Hillview Community Health Centre (formerly Hillview Garages & Precinct) 1334 - 1440 Pacific Highway, Turramurra - Reinstatement of entry posts, walls, gardens and lawn within the proposed compound site**

If the landscape of this property is removed during construction the reinstatement should include the following:

- The front entry walls and gates should be photographed by an appropriate heritage specialist in accordance with NSW Heritage guidelines. The dismantled stonework should be stored safely in an appropriate location. When the wall and gates are reinstated the reconstruction of the stonework should match the original as closely as possible.
- If the turf areas across the lawn are impacted and the ground compacted, then the ground should be de-compacted, and the turf reinstated to match existing. Garden beds and planting affected by the compound site activities should be re-instated with soil improvements, and ground covers, and shrubs as required.

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**Recommendation 5 Tree Canopy Enhancement Plan**

The potential loss of vegetation within private property and the road corridor with the loss of large tree species would be widespread throughout all of the sections of proposed road widening. The cumulative effect of the potential canopy loss would impact on the aesthetic significance of the Pacific Highway as a historic tree lined corridor. A Tree Canopy Replacement Plan would review the species to be removed and recommend locations, species and sizes of replacement trees to mitigate potential losses.

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## Appendices

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## Appendix 1 Roads and Maritime Unexpected Heritage Items Procedure

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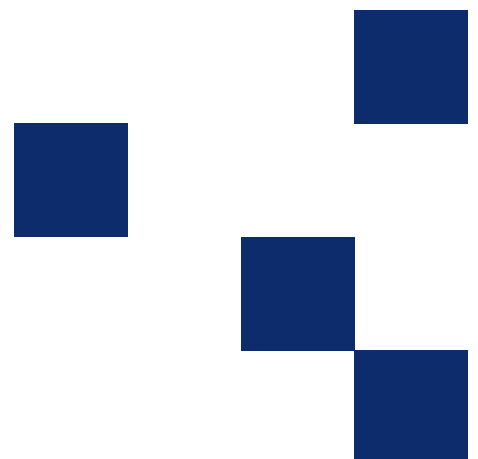


**Transport**  
Roads & Maritime  
Services

# STANDARD MANAGEMENT PROCEDURE

## Unexpected Heritage Items

March 2015





# About this release

<b>RMS/ISBN numbers</b>	RMS 12.003   ISBN 9781922040305
<b>Title</b>	Unexpected Heritage Items Procedure

Approval and authorisation		Name
Prepared by	Environmental Officer (Heritage)	Gretta Logue
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Approved by	Manager Environmental Policy	Michael Crowley

File location	File name
Objective - SF2013/153770	Unexpected heritage items procedure.doc

Document status	Date
Final	16 March 2015

Version	Date	Revision Description
Final	1 November 2011	First Draft
Revised	23 July 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Environment must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.
Revised	09 October 2013	Amended to clarify that the procedure applies to all types of unexpected heritage items, not just archaeological items. The procedure introduces the term 'Historic Items' to cover both 'archaeological relics' and 'other historic items' such as works, structures, buildings and movable objects. The title of the document has been amended to better reflect this clarification.
Revised	16 March 2015	The procedure was streamlined to address all project types including maintenance works. The separate maintenance procedure (formerly Appendix B) was removed. Names and titles updated throughout.

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**Please note**

This procedure applies to all development and activities concerning roads, road infrastructure and road related assets undertaken by Roads and Maritime.

For advice on how to manage unexpected heritage items as a result of activities related to maritime infrastructure projects, please contact the Senior Environmental Specialist (Heritage).

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# Unexpected heritage items procedure

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## 1. Purpose

This procedure has been developed to provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during Roads and Maritime activities. This procedure includes Roads and Maritime's heritage notification obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

This document provides relevant background information in Section 3, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices A-H.

## 2. Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal heritage assessment has been undertaken prior to on site project work commencing. In some case, such as exempt development, detailed heritage assessment may not be required.

Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.

**This procedure applies to all Road and Maritime construction and maintenance activities**

This procedure **applies to**:

- The discovery of any unexpected heritage item (usually during construction), where Roads and Maritime does not have approval to disturb the item or where safeguards for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.
- All Roads and Maritime projects that are approved or determined under Part 3A (including Transitional Part 3A Projects), Part 4, Part 5 or Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), or any development that is exempt under the Act.

This procedure must be followed by Roads and Maritime staff, alliance partners (including local council staff working under Road Maintenance Council Contracts, [RMCC]), developers under works authorisation deeds or any person undertaking Part 5 assessment for Roads and Maritime.

This procedure **does not apply** to:

- The legal discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with OEH's *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (2010); an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act*

1974; or an approval issued under the *Heritage Act 1977*<sup>1</sup>.

- The legal discovery and disturbance of heritage items as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 3A (including Transitional Part 3A Projects) or Part 5.1 of the EP&A Act.
- The legal discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP<sup>2</sup>; an approval issued under the *Heritage Act 1977*; the Minister for Planning's conditions of project approval; or safeguards (apart from this procedure) that are contained in the relevant environmental impact assessment.

All construction environment management plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

### 3. Types of unexpected heritage items and their legal protection

The roles of project, field and environmental staff are critical to the early identification and protection of unexpected heritage items. **Appendix A** illustrates the wide range of heritage discoveries found on Roads and Maritime projects and provides a useful photographic guide. Subsequent confirmation of heritage discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Roads and Maritime does not have approval to disturb<sup>3</sup> or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) Historic (non-Aboriginal) heritage items
- (c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

#### 3.1 Aboriginal objects

The *National Park and Wildlife Act 1974* protects *Aboriginal objects* which are defined as:

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<sup>1</sup> RMS' heritage obligations are incorporated into the conditions of heritage approvals.

<sup>2</sup> RMS *Procedure for Aboriginal cultural heritage consultation and investigation* (2011) recommends that Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.

<sup>3</sup> Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

*“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains”<sup>4</sup>.*

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

### **IMPORTANT!**

#### **All Aboriginal objects, regardless of significance, are protected under law.**

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from the Office of Environment and Heritage (OEH)<sup>5</sup>. Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location<sup>6</sup>. Assistance on how to do this is provided in Section 7 (Step 5).

## 3.2 Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological ‘relics’
- Other historic items (i.e. works, structures, buildings or movable objects).

### 3.2.1 Archaeological relics

The *Heritage Act 1977* protects *relics* which are defined as:

*“any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance”<sup>7</sup>.*

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

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<sup>4</sup> Section 5(1) *National Park and Wildlife Act 1974*.

<sup>5</sup> Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

<sup>6</sup> This is required under s89(A) of the *National Park and Wildlife Act 1974* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

<sup>7</sup> Section 4(1) *Heritage Act 1977*.

## IMPORTANT!

### **All relics are subject to statutory controls and protections.**

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council<sup>8</sup>. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location<sup>9</sup>. Advice on how to do this is provided in Section 7 (Step 5).

### 3.2.2 Other historic items

Some historic heritage items are not considered to be ‘relics’; but are instead referred to as works, buildings, structures or movable objects. Examples of these items that Roads and Maritime may encounter include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. Although an approval under the *Heritage Act 1977* may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under Section 140 of the *Heritage Act 1977* is required to do this. In contrast, ‘other historic items’ either exist above the ground’s surface (e.g. a shed), or they are designed to operate and exist beneath the ground’s surface (e.g. a culvert).

Despite this difference, it should be remembered that relics can often be associated with ‘other heritage items’, such as archaeological deposits within cisterns and underfloor deposits under buildings.

### 3.3 Human skeletal remains

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-contact archaeological Aboriginal burial would be protected under the *National Park and Wildlife Act 1974*, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the *Heritage Act 1977*. For these cases, the relevant heritage approval and notification requirements described in the above sections 3.1 and 3.2 would apply. In addition to the *National Park and Wildlife Act 1974*, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

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<sup>8</sup> Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

<sup>9</sup> This is required under s146 of the *Heritage Act 1977* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

 **IMPORTANT!**

**All human skeletal remains are subject to statutory controls and protections.**

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in s35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old<sup>10</sup> regardless of ancestry (ie both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in **Appendix E**.

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<sup>10</sup> Under s19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.



## 4. Responsibilities

The following roles and responsibilities are relevant to this procedure.

<b>Role</b>	<b>Definition/responsibility</b>
Aboriginal Cultural Heritage Advisor (ACHA)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the Roads and Maritime <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Aboriginal Sites Officer (ASO)	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal Sites Officers, refer to Roads and Maritime <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation etc). Major projects with complex heritage issues often have an on call Project archaeologist.
Project Manager (PM)	Ensures all aspects of this procedure are implemented. The PM can delegate specific tasks to a construction environment manager, Roads and Maritime site representatives or regional environment staff, where appropriate.
Regional Environment Staff (RES)	Provides advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal Parties (RAPs)	RAPs are Aboriginal people who have registered with Roads and Maritime to be consulted about a proposed Roads and Maritime project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
Senior Environmental Specialist (Heritage) (SES(H))	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Team Leader - Regional Maintenance Delivery (TL-RMD)	Ensures Regional Maintenance Delivery staff stop work in the vicinity of an unexpected heritage item. Completes Unexpected Heritage Item Recording Form 418 and notifies WS-RMD.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of

	unexpected heritage find (eg a forensic or physical anthropologist who can identify and analyse human skeletal remains).
Works Supervisor - Regional Maintenance Delivery (WS-RMD)	Ensures Regional Maintenance Delivery staff are aware of this procedure. Supports the Team Leader - Regional Maintenance Delivery during the implementation of this procedure and ensures reporting of unexpected heritage items through environment management systems.

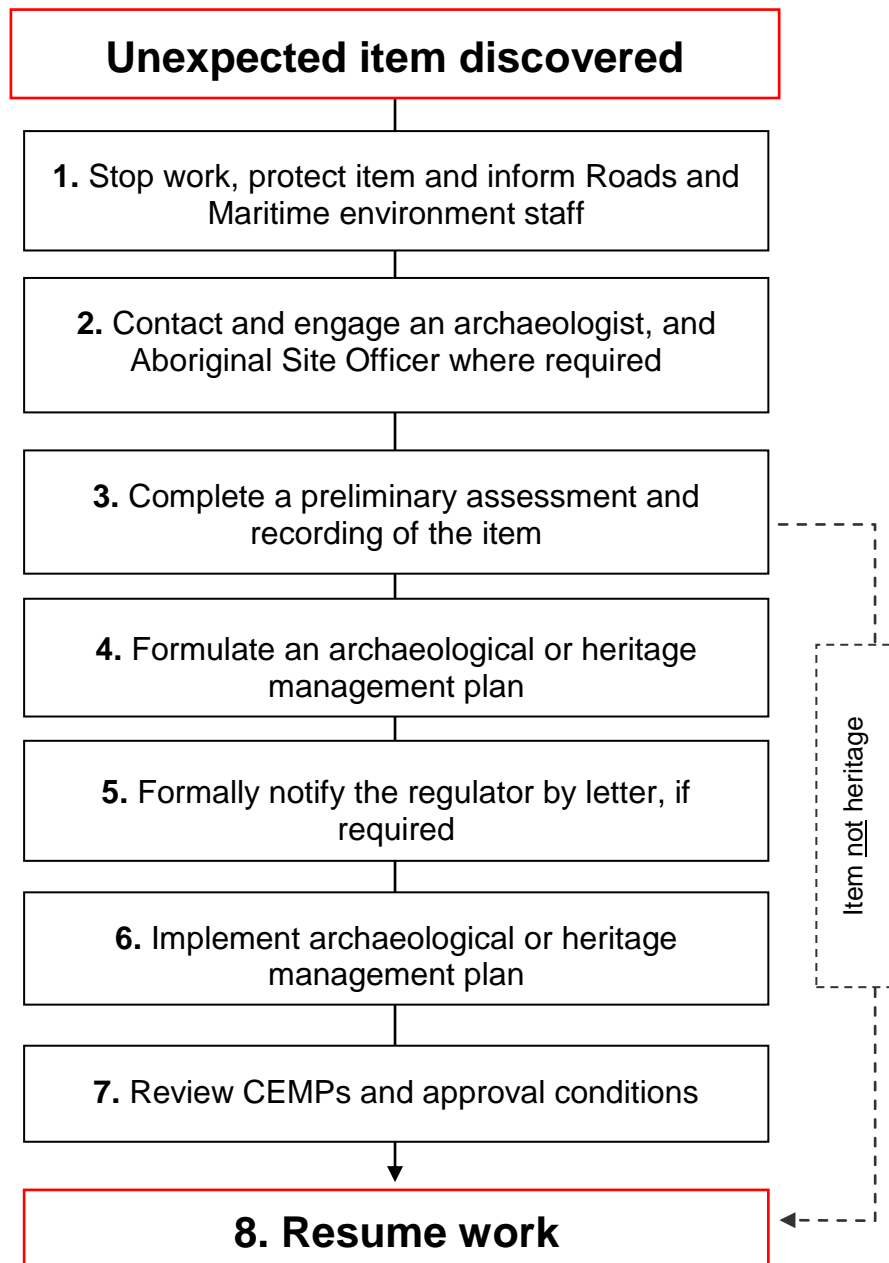
## 5. Acronyms

The following acronyms are relevant to this procedure.

<b>Acronym</b>	<b>Meaning</b>
A	Archaeologist
ACHA	Aboriginal Cultural Heritage Advisor
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
OEH	Office of Environment and Heritage.
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PM	Project Manager
RAP	Registered Aboriginal Parties
RES	Regional Environmental Staff
SES(H)	Senior Environmental Specialist (Heritage)
TL-RMD	Team Leader – Regional Maintenance Division
RMD	Regional Maintenance Delivery
RMS	Roads and Maritime
WS-RMD	Works Supervisor - Regional Maintenance Division

## 6. Overview of the procedure

On discovering something that could be an unexpected heritage item ('the item'), the following procedure must be followed. There are eight steps in the procedure. These steps are summarised in **Figure 1** below and explained in detail in Section 7.



**Figure 1:** Overview of steps to be undertaken on the discovery of an unexpected heritage item.

### **IMPORTANT!**

RMS may have approval or specific safeguards in place (apart from this procedure) to impact on certain heritage items during construction. If you discover a heritage item and you are unsure whether an approval or safeguard is in place, STOP works and follow this procedure.

## 7. Unexpected heritage items procedure

**Table 1:** Specific tasks to be implemented following the discovery of an unexpected heritage item.

*Aboriginal Cultural Heritage Advisor (ACHA); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Regional Environment Staff (RES); Registered Aboriginal Parties (RAPs); Senior Environmental Specialist (Heritage) (SES(H)); Team leader – Roads and Maintenance Division (TL - RMD); Works supervisor – Roads and Maintenance Division (WS - RMD).*

Step	Task	Responsibility	Guidance & Tools
<b>1</b>	<b>Stop work, protect item and inform Roads and Maritime environment staff</b>		
1.1	Stop all work in the immediate area of the item and notify the Project Manager or Team Leader-RMD. (For maintenance activities, the Team Leader is to also notify the Works Supervisor-RMD)	All	<b>Appendix A</b> (Identifying Unexpected Heritage items)
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical.	PM or TL-RMD	
1.3	Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.	PM or TL-RMD	
1.4	Inspect, document and photograph the item using 'Unexpected Heritage Item Recording Form 418'.	PM or TL-RMD	<b>Appendix B</b> (Unexpected Heritage Item Recording Form 418) <b>Appendix C</b> (Photographing Unexpected Heritage items)

Step	Task	Responsibility	Guidance & Tools
1.5	<p>Is the item likely to be bone?</p> <p>If <b>yes</b>, follow the steps in Appendix E – ‘Uncovering bones’. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site.</p> <p>If <b>no</b>, proceed to next step.</p>	PM or WS-RMD	<b>Appendix E</b> (Uncovering Bones)
1.6	<p>Is the item likely to be:</p> <p>a) A relic? (A relic is evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse) and/or</p> <p>b) An Aboriginal object? (An Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree).</p> <p>If <b>yes</b>, proceed directly to Step 1.8</p> <p>If <b>no</b>, proceed to next step.</p>	PM or WS-RMD	<b>Appendix A</b> (Identifying heritage items)
1.7	<p>Is the item likely to be a “work”, building or standing structure? (This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations).</p> <p>If <b>yes</b>, can works avoid further disturbance to the item? (E.g. if historic road base/tram tracks have been exposed, can they be left in place?) If <b>yes</b>, works may proceed without further disturbance to the item. Complete Step 1.8 within 24 hours.</p> <p>If works cannot avoid further disturbance to the item, works must not recommence at this time. Complete the remaining steps in this procedure.</p>	PM or WS-RMD	<b>Appendix A</b> (Identifying heritage items)

Step	Task	Responsibility	Guidance & Tools
1.8	Inform relevant Roads and Maritime Regional Environmental Staff of item by providing them with the completed 'Form 418'.	PM or WS-RMD (RES)	<b>Appendix D</b> (Key Environmental Contacts)
1.9	Regional Environmental Staff to advise Project Manager or Works Supervisor whether RMS has an approval or safeguard in place (apart from this procedure) to impact on the 'item'. (An approval may include an approval under the <i>Heritage Act</i> , the <i>National Parks and Wildlife Act</i> or the <i>Planning and Assessment Act</i> ).  Does RMS have an approval, permit or appropriate safeguard in place to impact on the item?  If <b>yes</b> , work may recommence in accordance with the approval, permit or safeguard. There is no further requirement to follow this procedure.  If <b>no</b> , continue to next step.		
1.10	Liaise with Traffic Management Centre where the delay is likely to affect traffic flow.	PM or WS-RMD	
1.11	Report the item as a 'Reportable Event' in accordance with the Roads and Maritime <i>Environmental Incident Classification and Reporting Procedure</i> . Implement any additional reporting requirements related to the project's approval and CEMP, where relevant.	PM or WS-RMD	RMS Environmental Incident Classification and Reporting Procedure
<b>2</b>	<b>Contact and engage an archaeologist and, where required, an Aboriginal site officer</b>		
2.1	Contact the Project (on-call) Archaeologist to discuss the location and extent of the item and to arrange a site inspection, if required. The project CEMP may contain contact details of the Project Archaeologist.  OR	PM or WS-RMD (A; RES; SES(H))	Also see <b>Appendix D</b> (Key Environmental Contacts)

Step	Task	Responsibility	Guidance & Tools
	Where there is no project archaeologist engaged for the works, engage a suitably qualified and experienced archaeological consultant to assess the find. A list of heritage consultants is available on the RMS contractor panels on the Buyways homepage. Regional environment staff and Roads and Maritime heritage staff can also advise on appropriate consultants.		<u>Buyways</u>
2.2	Where the item is likely to be an Aboriginal object, speak with your Aboriginal Cultural Heritage Advisor to arrange for an Aboriginal Sites Officer to assess the find. Generally, an Aboriginal Sites Officer would be from the relevant local Aboriginal land council. If an alternative contact person (ie a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM or WS-RMD (ACHA; ASO)	
2.3	If requested, provide photographs of the item taken at Step 1.4 to the archaeologist, and Aboriginal Sites Officer if relevant.	PM or WS-RMD (RES)	<b>Appendix C</b> (Photographing Unexpected Heritage items)
<b>3</b>	<b>Preliminary assessment and recording of the find</b>		
3.1	In a minority of cases, the archaeologist (and Aboriginal Sites Officer, if relevant) may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project ( <i>eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i> ). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.2	Arrange site access for the archaeologist (and Aboriginal Sites Officer, if relevant) to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	PM or WS-RMD	
3.3	Subject to the archaeologist's assessment (and the Aboriginal Sites Officer's assessment, if relevant), work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to	A/PM/ASO/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	reflect the extent of the newly assessed protective area. No works are to take place within this area once established.		
3.4	The archaeologist (and Aboriginal Sites Officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project ( <i>eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i> ). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Regional environment staff and/or Roads and Maritime heritage staff can provide contacts for such specialist consultants.	RES/SES(H)	<b>Appendix D</b> (Key Environmental Contacts)
3.6	Where the item has been identified as a 'relic', 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	A	
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist, Project Manager (or delegate) or Works Supervisor - RMD. Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A/WS-RMD	
<b>4</b>	<b>Prepare an archaeological or heritage management plan</b>		
4.1	The archaeologist must prepare an archaeological or heritage management plan (with input from the Aboriginal Sites Officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature, (b) historic context, if data is easily accessible, (c) likely significance, (d) heritage approval and regulatory notification requirements, (e) heritage reporting requirements, (f) stakeholder consultation requirements, (g) relevance to other project approvals and management plans etc.	A/ASO	<b>Appendix F</b> (Archaeological/ Heritage Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of regional environment staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (eg Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected item is consistent with previous heritage/project approval(s)	A/RES/PM	<b>Appendix F</b> (Archaeological/ Heritage Advice Checklist)



Step	Task	Responsibility	Guidance & Tools
	and/or previously agreed management strategies. The Project Manager and regional environment staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.		
4.3	The archaeologist must submit this plan as a letter, brief report or email to the Project Manager outlining all relevant archaeological or heritage issues. This plan should be submitted to the Project Manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the Project Manager.	A	
4.4	The Project Manager or Works Supervisor must review the archaeological or heritage management plan to ensure all requirements can reasonably be implemented. Seek additional advice from regional environment staff and Roads and Maritime heritage staff, if required.	PM/RES/SES(H)/ WS-RMD	
<b>5</b>	<b>Notify the regulator, if required.</b>		
5.1	Review the archaeological or heritage management plan to confirm if regulator notification is required. Is notification required?  If <b>no</b> , proceed directly to Step 6  If <b>yes</b> , proceed to next step.	PM/RES/SES(H)/ WS-RMD	
5.2	If notification is required, complete the template notification letter.	PM or WS-RMD	<b>Appendix G</b> (Template Notification Letter)
5.3	Forward the draft notification letter, archaeological or heritage management plan and the site recording form to regional environment staff and Senior Environmental Specialist (Heritage) for review, and consider any suggested amendments.	PM/RES/SES(H)/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
5.4	Forward the signed notification letter to the relevant regulator (ie notification of relics must be given to the Heritage Division, Office of Environment and Heritage (OEH), while notification for Aboriginal objects must be given to the relevant Aboriginal section of OEH). Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Part 3A and Part 5.1 projects, the Department of Planning and Environment must also be notified.	PM or WS-RMD	<b>Appendix D</b> (Key Environmental Contacts)
5.5	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form should be kept on file by the Project Manager or Works Supervisor- RMD and a copy sent to the Senior Environmental Specialist (Heritage).	PM or WS-RMD	
<b>6</b>	<b>Implement archaeological or heritage management plan</b>		
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM or WS-RMD (RES)	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc, if required.	PM or WS-RMD (RAPs and RES)	PACHCI Stage 3
6.3	Where heritage approval is required contact regional environment staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/RES/WS-RMD	
6.4	For Part 3A/Part 5.1 projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. Seek advice from regional environment staff and Environment Branch specialist staff if unsure.	PM/RES	

Step	Task	Responsibility	Guidance & Tools
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM or WS-RMD	
6.6	Where statutory approval (or Part 3A/Part 5.1 project modification) is not required and where recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM or WS-RMD	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material is removed from site, where required. Interested third parties (eg museums or local councils) should be consulted on this issue. Contact regional environment staff and Senior Environmental Specialist (Heritage) for advice on this matter, if required.	PM or WS-RMD	
<b>7</b>	<b>Review CEMPs and approval conditions</b>		
7.1	Check whether written notification is required to be sent to the regulator before re-commencing work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator.	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (eg retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	
<b>8</b>	<b>Resume work</b>		
8.1	Seek written clearance to resume project work from regional environment staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and/or heritage recommendations (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	RES/A/PM/WS-RMD	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage	PM/A/WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.		
8.3	Forward all heritage/archaeological assessments, heritage location data and its ownership status to the Senior Environmental Specialist (Heritage). They will ensure all heritage items in Roads and Maritime ownership and/or control are considered for the Roads and Maritime S170 Heritage and Conservation Register.	PM/SES(H)/ WS-RMD	
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	PM/TL-RMD	

## 8. Seeking advice

Advice on this procedure should be sought from Roads and Maritime regional environment staff in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Regional environment staff can assist non-Roads and Maritime project environment managers with enquires concerning this procedure.

### IMPORTANT!

**Roads and Maritime Services staff and contractors are not to seek advice on this procedure directly from the Office of Environment and Heritage without first seeking advice from regional environment staff and heritage policy staff.**

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage policy staff within Environment Branch to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

## 9. Related information

**Contact details:** Senior Environmental Specialist (Heritage), Environment Branch, 02 8588 5754

**Effective date:** 01 February 2015

**Review date:** 01 February 2016

This procedure should be read in conjunction with:

- Roads and Maritimes' *Heritage Guidelines 2015*.
- Roads and Maritime Services *Environmental Incident Classification and Reporting Procedure*
- Roads and Maritime's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*
- RTA *Environmental Impact Assessment Guidelines*.

This procedure replaces:

- Procedure 5.5 ("*unexpected discovery of an archaeological relic or Aboriginal object*") outlined in the RTA's *Heritage Guidelines 2004*.

Other relevant reading material:

- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains*.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains*.
- Department of Health (April 2008), *Policy Directive: Burials - exhumation of human remains*<sup>11</sup>.

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<sup>11</sup> [http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008\\_022.pdf](http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008_022.pdf)

## 10. List of appendices

The following appendices are included to support this procedure.

Appendix A	Identifying Unexpected Heritage items
Appendix B	Unexpected Heritage Item Recording Form 418
Appendix C	Photographing Unexpected Heritage Items
Appendix D	Key Environment Contacts
Appendix E	Uncovering Bones
Appendix F	Archaeological Advice Checklist
Appendix G	Template Notification Letter

# Appendix A

## Identifying unexpected heritage items

The following images can be used to assist in the preliminary identification of potential unexpected items (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.



**Top left hand picture continuing clockwise:** Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).



**Wood stave water pipe**



**Tram tracks**



**Retaining wall**



**Cistern**

**Top left hand picture continuing clockwise:** Woodstave water pipe with tar and wire sealing (Horsley Drive); Tram tracks (Sydney); Brick lined cistern (Clyde); Retaining wall (Great Western Highway, Leura).





**Top left hand picture continuing clockwise:** Road pavement (Great Western Highway, Lawson); Sandstone kerbing and guttering (Parramatta Road, Mays Hill); Telford road (sandstone road base, Great Western Highway, Leura); Ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); Corduroy road (timber road base, Entrance Road, Wamberai).



**Alignment pin**



**Survey tree**



**Alignment stone**



**Survey tree**



**Milestone**



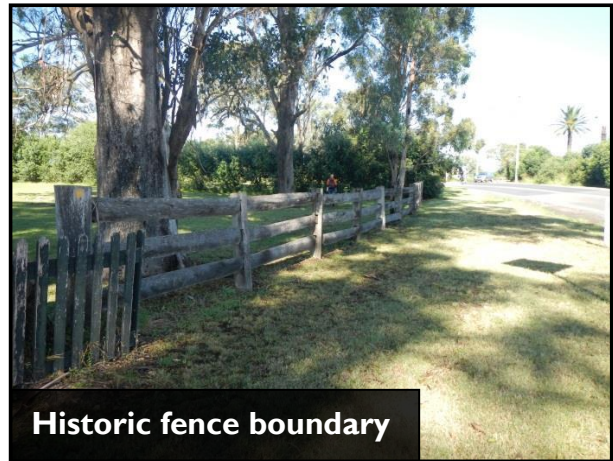
**Top left hand corner continuing clockwise:** Alignment Pin (Great Western Highway, Wentworth Falls); Survey tree (MR7, Albury); Survey tree (Kidman Way, Darlington Point, Murrumbidgee); Survey tree (Cobb Highway, Deniliquin); Milestone (Great Western Highway, Kingswood, Penrith); Alignment Stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.



**Remnant Bridge Piers**



**Mine Shaft**



**Historic fence boundary**



**Dairy shed**

**Top left hand corner continuing clockwise:** Remnant bridge piers (Putty Road, Bulga); Wooden boundary fence (Campbelltown Road, Denham Court); Dairy shed (Ballina); Golden Arrow Mine Shaft.



**Top left hand corner:** Culturally modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images show a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010.

## **Appendix B**

Unexpected heritage item recording form 418

**This form is to be filled in by a project manager (or their delegate) or a team leader – Road and Maintenance Division, on the discovery of an unexpected heritage item during construction or maintenance works.**

<b>Date:</b>		<b>Recorded by:</b> (Include name and position)	
<b>Project name:</b>			
<b>Description of works being undertaken</b> (eg Removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).			
<b>Description of exact location of item</b> (eg Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney).			
<b>Description of item found</b> (What type of item is it likely to be? Tick the relevant boxes).			
<b>A. A relic</b>	<input type="checkbox"/>	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottles, utensils, plates, cups, household items, tools, implements, and similar items.	
<b>B. A 'work, building or structure'</b>	<input type="checkbox"/>	A 'work' can generally be defined as a form infrastructure such as tram tracks, a culvert, road base, a bridge pier, kerbing, and similar items.	
<b>C. An Aboriginal object</b>	<input type="checkbox"/>	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones.	
<b>D. Bone</b>	<input type="checkbox"/>	Bones can either be human or animal remains. <b>Remember that you must contact the local police immediately by telephone if you are <u>certain</u> that the bone(s) are <u>human remains</u>.</b>	
<b>E. Other</b>	<input type="checkbox"/>		

<p><b>Provide short description of item</b> (eg Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).</p>	
<p><b>Sketch</b> (Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken).</p>	
<p><b>Action taken</b> (Tick either A or B)</p>	
<p><b>A. Unexpected item <b>would not</b> be further impacted on by works</b> <input type="checkbox"/></p>	
<p><b>Describe how works would avoid impact on the item.</b> (eg The tram tracks will be left <i>in situ</i>, and recovered with road paving).</p>	
<p><b>B. Unexpected item <b>would be</b> further impacted on by works</b> <input type="checkbox"/></p>	
<p><b>Describe how works would impact on the item.</b> (eg Milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Tram tracks will need to be removed).</p>	
<p><b>Important:</b> It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought. Approvals may also be required to impact on certain works. Contact your regional environment staff for guidance.</p>	
<p><b>Project manager / works supervisor signature</b></p>	

## Appendix C

### Photographing unexpected heritage items

👉 Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.

Photographs of unexpected items in their current context (*in situ*) may assist heritage staff and archaeologists to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

#### Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add much value to the subsequent detailed photographs also required (Figure 2).



**Figure 2:** Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

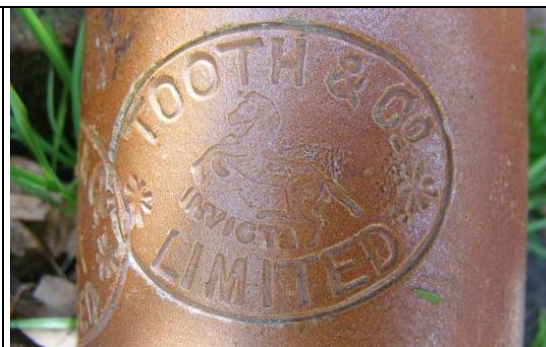
**Figure 1:** Telford road uncovered on the Great Western Highway (Leura) in 2008.

#### Photographing distinguishing features

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of this, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 for examples.



**Figure 3:** Ceramic bottle artefact with stamp.



**Figure 4:** Detail of the stamp allows 'Tooth & Co Limited' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.



## Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, Roads and Maritime must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment Branch can confirm if bones are human or non-human if provided with appropriate photographs. Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.



**Figure 5:** Bone concealed by foliage.



**Figure 6:** Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.



**Figure 7:** Photograph showing complete bone.



**Figure 8:** Close up of a long bone's epiphysis.

## Appendix D

### Key environmental contacts

Hunter region	Environmental Manager (Hunter)	4924 0440
	Aboriginal Cultural Heritage Advisor	4924 0383
Northern region	Environment Manager (North)	6640 1072
	Aboriginal Cultural Heritage Advisor	6604 9305
Southern region	Environmental Manager (South)	6492 9515
	Aboriginal Cultural Heritage Advisor	4221 2767
South West region	Environment Manager (South West)	6937 1634
	Aboriginal Cultural Heritage Advisor	6937 1647
Sydney region	Environment Manager (Sydney)	8849 2516
	Aboriginal Cultural Heritage Advisor	8849 2583
Western region	Environment Manager (West)	6861 1628
	Aboriginal Cultural Heritage Advisor	6861 1658
Pacific Highway Office	Environment Manager	6640 1375
Regional Maintenance Delivery	Environment Manager	9598 7721
Environment Branch	Senior Environmental Specialist (Heritage)	8588 5754

### Heritage Regulators

Heritage Division Office of Environment and Heritage Locked Bag 5020 Parramatta NSW 2124 Phone: (02) 9873 8500	Department of the Environment (Clth) GPO Box 787 Canberra ACT 2601 Phone: (02) 6274 1111
Office of Environment and Heritage (Sydney Metropolitan) Planning and Aboriginal Heritage Section PO Box 668 Parramatta NSW 2124 Phone: (02) 9995 5000	Office of Environment and Heritage (North Eastern NSW) Planning and Aboriginal Heritage Section Locked Bag 914 Coffs Harbour NSW 2450 Phone: (02) 6651 5946
Office of Environment and Heritage (North Western NSW) Environment and Conservation Programs PO Box 2111 Dubbo NSW 2830 Phone: (02) 6883 5330	Office of Environment and Heritage (Southern NSW) Landscape and Aboriginal Heritage Protection Section PO Box 733 Queanbeyan NSW 2620 Phone: (02) 6229 7188

### Project-Specific Contacts

Position	Name	Phone Number
Project Manager		
Site/Alliance Environment Manager		
Regional Environmental Officer		
Aboriginal Cultural Heritage Advisor		
Consultant Archaeologist		
Local Police Station		
OEH: Environment Line		131 555

# Appendix E

## Uncovering bones

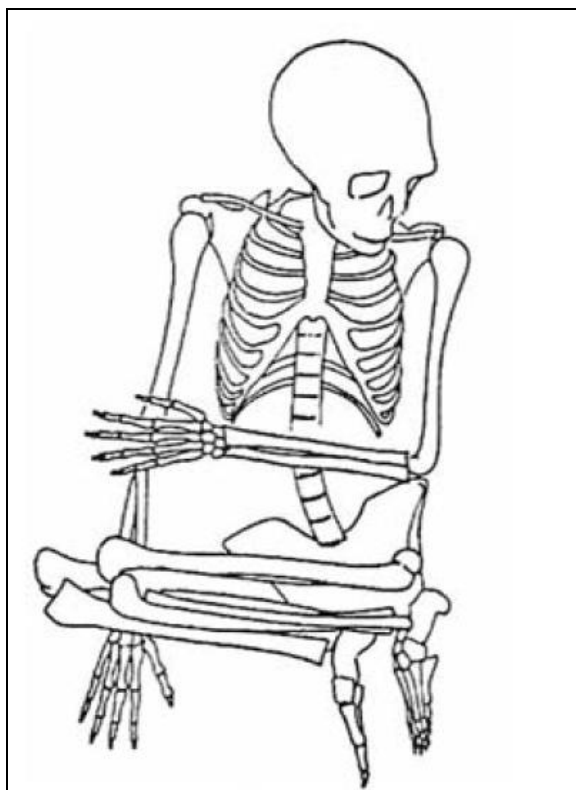
**Hand icon** All matters relating to uncovering bones and RMS' human remains notification obligations should involve RMS regional environment and heritage staff. They will guide Project Managers through occurrences of uncovering bones.

This appendix provides Project Managers with advice (1) on what to do on first uncovering bones (2) the range of human skeletal notification pathways and (3) additional considerations and requirements when managing the discovery of human remains.

### 1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting regional environment staff and/or heritage staff at Environment Branch.

On the very rare occasion where it is *instantly obvious* from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.



**Figure 1:** Schematic of a complete skeleton that is 'obviously' human<sup>12</sup>.



**Figure 2:** Disarticulated bones that require assessment to determine species.

<sup>12</sup> After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains*: 17.

This preliminary phone call is to let the police know that Roads and Maritime is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix C. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the Project Manager or regional environment staff is considered appropriate. This must be followed up later by Roads and Maritime's formal letter notification as per Appendix G when a management plan has been developed and agreed to by the relevant parties.

## 2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

### A. Human bones are from a recently deceased person (*less than 100 years old*).

#### Action

A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed.

### B. Human bones are archaeological in nature (*more than 100 years old*) and are likely to be **Aboriginal** remains.

#### Action

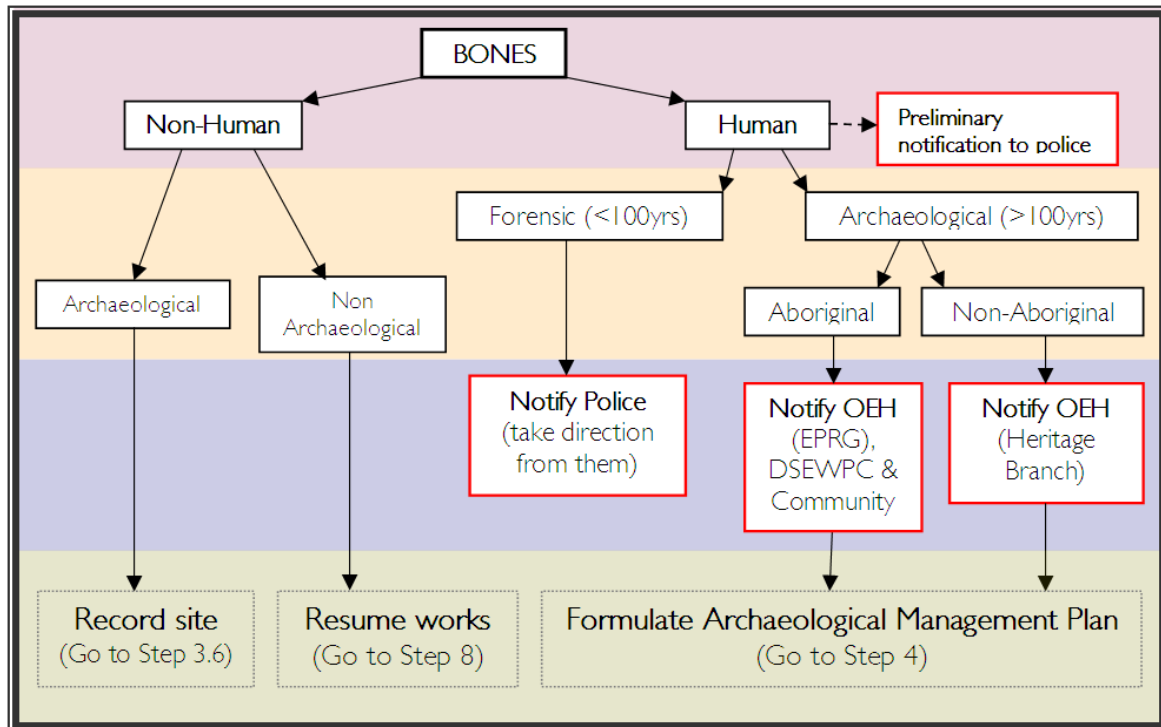
The OEH and the RMS Aboriginal Cultural Heritage Advisor (ACHA) must be notified immediately. The ACHA must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by the RTA's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.

### C. Human bones are archaeological in nature (*more than 100 years old*) and likely to be **non-Aboriginal** remains.

#### Action

The OEH (Heritage Branch, Conservation Team) must be notified immediately.

The simple diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the Project Manager must proceed through the *Unexpected Heritage Items Procedure* to formulate an archaeological management plan (Step 4). Note no archaeological management plan is required for forensic cases (A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

### 3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Roads and Maritime's ACHA can provide advice on this and how to engage with the relevant Aboriginal community. Project Managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Roads and Maritime is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)<sup>13</sup>. Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health [website](#).

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are

<sup>13</sup> This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

## Appendix F

### Archaeological/heritage advice checklist

The archaeologist must advise the Project Manager of an appropriate archaeological or heritage management plan as soon as possible after site inspection (see Step 4). An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance. In discussions with the archaeologist the following checklist can be used by the Project Manager and the archaeologist as a prompt to ensure all relevant archaeological issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly and in the right direction. Archaeological and/or heritage advice on how to proceed can be received in a letter or email outlining all relevant archaeological and/or heritage issues.

	Required	Outcome/notes
<b>Assessment and investigation</b>		
• Assessment of significance	Yes/No	
• Assessment of heritage impact	Yes/No	
• Archaeological excavation	Yes/No	
• Archival photographic recording	Yes/No	
<b>Heritage approvals and notifications</b>		
• AHIPs, Section 140, S139 exceptions etc	Yes/No	
• Regulator relics/objects notification	Yes/No	
• Roads and Maritime's S170 Heritage and Conservation Register listing requirements	Yes/No	
• Compliance with CEMP or other project heritage approvals	Yes/No	
<b>Stakeholder consultation</b>		
• Aboriginal stakeholder consultation requirements and how it relates to RTA <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI)</i> .	Yes/No	
• Advice from regional environmental staff, Aboriginal Cultural Heritage Advisor, Roads and Maritime heritage team.	Yes/No	
<b>Artefact/ heritage item management</b>		
• Retention or conservation strategy (eg items may be subject to long conservation and interpretation) • Disposal strategy (eg former road pavement) • Short term and permanent storage locations (interested third parties should be	Yes/No	

#### Roads & Maritime Services

consulted on this issue).		
• Control Agreement for Aboriginal objects.	Yes/No	
<b>Program and budget</b>		
• Time estimate associated with archaeological or heritage conservation work.		
• Total cost of archaeological/heritage work.		



## **Appendix G**

Template notification letter

[Select and type date]

[Select and type reference number]

[Select and type file number]

[Insert recipient's name and address, see **Appendix D**]

[Select and type salutation and name],

**Re: Unexpected heritage item discovered during Roads and Maritime Services project works.**

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Roads and Maritime Services construction works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: Section 146 of the *Heritage Act 1977* (NSW) or Section 89(A) of the *National Parks and Wildlife Act 1974* (NSW)] **NB:** There may be not be statutory requirement to notify of the discovery of a 'heritage Item that is not a relic or Aboriginal object].

**NB:** On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities (SEWPC) in accordance with notification requirements under Section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the item, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (eg Part 5). Also include any project approval number, if available].

Roads and Maritime Services [or contractor] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Roads and Maritime Services [or contractor] is proposing [provide a summary of the proposed archaeological/heritage approach (eg develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]

[Attach the archaeological/heritage management plan and site recording form].

# Appendix I

## Non-Aboriginal Heritage Assessment (State)



Pacific Highway Intersection Improvements in Wahroonga / Warrawee  
Statement of Heritage Impact for  
State Significant Heritage Item No. 708  
'Mahratta', 1526 Pacific Highway, Wahroonga

For Roads and Maritime Services

27<sup>th</sup> September 2018

Contact: Julie Marler

p: 02 9698 5933 m: 0410 487 193

e: [julie@phillipsmarler.com.au](mailto:julie@phillipsmarler.com.au)

**Document control**

<b>Version</b>	<b>Date issued</b>
First issue of the Document	04/07/2018
Second issue of the Document	27/07/2018
Third issue of the Document	29/08/2018
Final Issue of the Document	27/09/2018

**Acknowledgement of Report Writers**

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## Glossary

---

<b>c.</b>	Circa
<b>CBD</b>	Central Business District
<b>CHL</b>	Commonwealth Heritage List
<b>DEE</b>	Department of Environment and Energy
<b>DP</b>	Deposited Plan
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<b>Heritage Act</b>	<i>Heritage Act 1977 (NSW)</i>
<b>Heritage curtilage</b>	Entire area of the State Heritage Register listing identified as State heritage curtilage
<b>LEP</b>	Local Environmental Plan
<b>NHL</b>	National Heritage List
<b>NSW</b>	New South Wales
<b>OEH</b>	NSW Office of Environment and Heritage
<b>Proposal area</b>	Extent of the entire proposal
<b>REF</b>	Review of Environmental Factors
<b>SHR</b>	State Heritage Register
<b>Site</b>	Refer 'Heritage curtilage'
<b>Study area</b>	The potential area of impact within the heritage curtilage as a result of the proposed works

## Summary

---

Phillips Marler in association with Biosis Pty Ltd have been commissioned by Roads and Maritime Services to undertake a statement of heritage impact including landscape assessment and historical archaeological impact assessment of the Pacific Highway intersection improvements project located at Fox Valley Road within the suburbs of Warrawee and Wahroonga, New South Wales (NSW), referred to as the 'proposal area' within this report. The assessment specifically covers the potential impacts of the proposed road widening works within the existing heritage curtilage of 'Mahratta' located at 1526 Pacific Highway, Wahroonga (identified on the State Heritage Register as 'SHR 708'). The heritage curtilage of Mahratta potentially impacted by the proposed works is referred to as 'the study area' within this report.

The report preparation has been undertaken as a collaboration. Biosis has prepared the history of the road and historical archaeological impact assessment. Phillips Marler has provided landscape descriptions and impact statements for the existing brick wall and affected landscape areas with photography and mapping of the works and the heritage items. Urban Forestry Australia has provided a tree audit and assessment of impacted trees within the study area.

The proposed works are part of the Pinch Point program and are designed to improve traffic flows at major intersections including undertaking road widening, median works and lane reconfigurations to provide an additional northbound through traffic lane on the Pacific Highway. Property adjustments, vegetation clearance and acquisitions would also be required to enable the proposal to occur. The works at the Fox Valley Road intersection are part of a wider scope of proposed road improvements to two other intersections along the Pacific Highway near Fox Valley Road within the suburbs of Wahroonga, Warrawee and Turramurra as part of the Pinch Points program within Roads and Maritime's Easing Sydney's Congestion Program Office.

The proposed works within the study area include the demolition, relocation and reconstruction of the existing brick boundary wall on the eastern boundary with up to a 6m incursion into the Mahratta eastern boundary planting beds, including the subsequent removal of up to 20 trees and related ground covers and shrubs within the existing garden. The intended methodology for the replacement of the eastern boundary wall is a reinforced brick wall with a PAD footing utilising bricks of a similar shape, colour and appearance. The proposed works would be assessed in accordance with Part 5.1 of the *Environmental Planning and Assessment Act 1979 NSW* (EP&A Act).

The archaeological material relating to the historical use of the study area for a residential garden and landscaped area may date to c.1904 onwards (for the Heverlee period of the site) or to 1940 onwards (for the Mahratta period of the site). Prior to this there does not appear to have been any focused occupation or development of the study area.

However, these archaeological materials have been assessed as not holding archaeological heritage significance as they are unlikely to contain relics and hold low archaeological potential to contain significant remains relating to the historical development of the study area or wider region. Furthermore, should these archaeological remains be present, they are not considered to hold any research potential which will further our knowledge of the development of the study area or wider region. The impacts to the study area are considered acceptable as there is a low potential for items of archaeological heritage significance to be present within the study area that would be impacted by the proposed works. Should unexpected archaeological material be identified during the proposed works, the recommendations of this report should be implemented to ensure that it is identified, recorded, and managed appropriately.

The landscape heritage values of the study area in context with the wider heritage curtilage of Mahratta are of high significance. The garden was originally designed by Paul Sorensen who had a long association with the garden periodically working in the garden during 1925, 1941 and 1964 and is renowned across NSW for his landscape work during this period on other properties. The landscape of the eastern boundary would be highly impacted by the proposed works with a substantial encroachment into the existing curtilage of the State Heritage Register item as well as around 20 tree removals and the subsequent loss of planting canopy that currently provides a vegetated screen between the house and the Pacific Highway.

### **Aesthetic Significance**

The existing brick boundary wall alongside the Mahratta site's eastern road frontage boundary would be demolished and relocated about 3.5m into the garden, effectively removing the wall from the boundary edge to within the garden itself. The existing boundary wall has structural issues and has been removed in places as a result of this. The new wall would be of a similar height and form to the existing (about 1.8m in height) and would form a more continuous, robust and consistent façade across the entire new eastern boundary following the works. It would be reinforced with brick facing to match existing.

The removal and relocation of the eastern boundary wall westwards between 2.5 and 3.5 metres and the incursion of the roadworks into the Mahratta landscape would effectively narrow the garden to the east and remove all the trees and ground cover vegetation which is providing a vegetated screen to the Pacific Highway from the house and garden. Four trees are located in a narrow garden bed between the brick path and the existing lawn. These trees would offer limited capacity to screen views to the east towards the proposed replacement brick wall and Pacific Highway.

The lot boundary curtilage of the site as described in the State Heritage Register listing would be encroached upon by the proposed works by up to approximately 3.5m, reducing the curtilage for the entire landscape as well as encroaching on the setting. The SHR describes the setting as '*The open*

*lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house’.*

The lot boundary curtilage is 34,803m<sup>2</sup>. The property acquisition area at 217m<sup>2</sup> is approximately 0.8% of the SHR Listing with a wider area of impact in the Mahratta garden of 696m<sup>2</sup> (refer Figure 2). Therefore, overall there is a 2.4% impact on the SHR curtilage and approximately 6.1% impact on the Mahratta property. Therefore, the overall setting of the Mahratta site would be reduced by the proposal.

The following recommendations have been formulated to respond to legislative and client requirements as well as the significance of the Mahratta site. They are guided by the ICOMOS *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.<sup>1</sup>

**Recommendation 1 - Apply for a permit to carry out works to and change the curtilage boundaries of State heritage item Mahratta under Section 60 of the *Heritage Act 1977 (NSW)***

All State heritage listed items are protected under the *Heritage Act 1977 (NSW)* (Heritage Act) and as such no works proposed for the heritage item or within the curtilage of the item are permitted without a permit. A permit under Section 60 of the Heritage Act would be required in order for the proposed works to proceed within the curtilage of the State heritage item, Mahratta, and also to change the item’s current curtilage boundaries.

**Recommendation 2 - Heritage Management Plan for Construction**

A Heritage Management Plan (HMP) should be prepared for the study area (as part of the Construction Environmental Management Plan (CEMP)) to mitigate any construction-related impacts to this area and the wider curtilage of the Mahratta site during construction.

A key objective of the HMP would be to ensure that any impacts to heritage values / features of the Mahratta site during construction are minimised and carried out within the scope permitted by the approval instruments.

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<sup>1</sup> Australia ICOMOS 2013

The HMP should include (as a minimum):

- Purpose and objectives for the protection and management of the study area during construction
- Acknowledgement of relevant legislative requirements and guidelines, including any conditions of approval and permits
- Details on any necessary pre-construction consultation and landowner approvals
- Details on the construction activities to be undertaken and proposed construction methodology
- Heritage management and mitigation measures to be applied during construction (such as staff training, implementation of unexpected finds procedures, proposed access, work method statements, exclusion zones and setback areas, proposed reinstatement works)
- Compliance management including roles and responsibilities, staff training, monitoring, inspections, auditing and reporting

The HMP should make specific reference to the heritage assessment prepared for the Project REF and any conditions of approval outlined by State agencies. The HMP must be prepared by a suitably qualified heritage specialist.

#### *Unexpected Heritage Items*

The HMP must include a procedure for the management of unexpected potential archaeological relics discovered during construction. The management of unexpected potential archaeological relics must be in accordance with Roads and Maritime's "Unexpected Heritage Items" documentation (refer Appendix 2).

The procedure for unexpected finds must include the following steps:

- (a) Cease work in the immediate area of the identified potential heritage object immediately;
- (b) Notify Roads and Maritime immediately;
- (c) Provide access to the affected works area to any heritage specialist to assess the finds;
- (d) Provide temporary exclusion (pedestrian) fencing;
- (e) Implement additional safeguards as required.

The Non-Aboriginal Heritage Management Plan must provide for all personnel working within the study area on their responsibilities under the *Heritage Act 1977* (NSW). Make personnel aware of all non-Aboriginal heritage sites/areas including cultural plantings and areas of archaeological potential, which are identified in the Environmental Assessment documents provided in the Review of Environmental Factors.

Where the remains are identified as being 'relics', the Heritage Council of NSW must be notified in accordance with section 146 of the Heritage Act. Failure to notify the Heritage Council is considered an

offence under the Heritage Act, with penalties including fines and imprisonment. After contacting the Heritage Council, a permit or exemption should be sought under the relevant section of the Act to allow works to recommence.

All Aboriginal objects and places are protected under the *National Parks and Wildlife Act 1974* (NSW). It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the Office of Environment and Heritage (OEH). If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

### **Recommendation 3 - Replacement of Brick Wall**

The brick wall is to be replaced as part of the proposed works in agreement with the property owner. It is recommended that the construction be a reinforced concrete wall of a similar height and scale to the existing wall which would extend along the entire eastern boundary of Mahratta fronting the Pacific Highway with brick cladding on both the boundary and garden elevations. The brick laying pattern and the white mortar should be replicated in the new wall design.

### **Recommendation 4 - Replacement Planting at Mahratta**

Replacement planting of tree species removed should be considered in the context of replacing the number of trees that would be removed in the study area as a result of the proposal.

- A tree replacement plan for Mahratta should be prepared as part of the Urban Design and landscape requirements for the road widening project. The replacement plan should be prepared in coordination with the site owners and OEH, to find alternative locations for tree planting. One potential replanting location is the planting bed to the west of the brick path which could be enhanced to include additional tree planting to offset some of the tree loss.
- New trees that are replanted should be sourced at an appropriate size (45L or 100L) to ensure that the boundary planting would be substantial following construction.
- As some of the species may be hard to source, a tree procurement strategy should be considered to enable early purchasing of trees from a suitable nursery prior to construction.

### **Recommendation 5 - Investigations and Transplant Options for *Syzygium paniculatum* - Magenta Cherry**

This tree has been assessed as having significant ecological and aesthetic value within the study area and would be impacted by the works. Consideration should be given to relocating this tree which would involve key investigations prior to construction.

- A qualified specialist should undertake root mapping using air spading or another acceptable method, so transplanting options can be documented



- A tree transplanting specialist should assess the tree to ascertain what the transplanting options are and where the transplanting should be carried out.
- A tree replacement plan as noted in Recommendation 4 should include a replacement position for the *Syzygium* Magenta Cherry if the investigations determine that it is feasible to relocate. (Tree 19 in Appendix 1 Tree Audit prepared by Urban Forestry Australia)

### **Recommendation 6 - Brick Path**

The brick path may need to be lifted and then replaced back into its existing location and alignment during construction of the new retaining wall. If so, then a photographic record should be made to ensure that the reconstruction of the path is as close to the existing pattern of brick colours and laying technique as possible. The path joints should be left open.

# 1 Introduction

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## 1.1 Project background

Phillips Marler in association with Biosis Pty Ltd have been commissioned by Roads and Maritime Services to undertake a statement of heritage impact including landscape assessment and historical archaeological impact assessment of the Pacific Highway intersection improvements project located at Fox Valley Road within the suburbs of Warrawee and Wahrenoonga, New South Wales (NSW), referred to as the 'proposal area' within this report. The assessment addresses the potential impacts of the proposed road widening works within the existing heritage curtilage of 'Mahratta' located at 1526 Pacific Highway, Wahrenoonga (identified under the State Heritage Registers as 'SHR 708'). The heritage curtilage of Mahratta potentially impacted by the proposed works is referred to as 'the study area' within this report.

The report preparation has been undertaken as a collaboration. Biosis has prepared the history of the road and historical archaeological impact assessment. Phillips Marler has provided landscape descriptions of the affected heritage item with additional photography and mapping of the works and the heritage items and prepared significance statements and recommendations for mitigation. Urban Forestry Australia has provided a tree audit and assessment of the impacted trees within the study area. Built heritage and items of local heritage significance have not been assessed in this report.

The works at the Fox Valley Road intersection are part of a wider scope of proposed road improvements to two other intersections along the Pacific Highway near Fox Valley Road within the suburbs of Wahrenoonga, Warrawee and Turramurra as part of the Pinch Points program within Roads and Maritime's Easing Sydney's Congestion Program Office. Roads and Maritime propose to make improvements to three intersections located on the Pacific Highway within the suburbs of Wahrenoonga, Warrawee and Turramurra as part of the Pinch Points Program. The intersection locations subject to this proposal have been identified as traffic congestion points in a traffic corridor study carried out by Roads and Maritime in 2016<sup>2</sup>. It was identified that the Pacific Highway experiences excessive queuing and

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<sup>2</sup> *Pacific Highway North Pinch Point Corridor Study* in March 2016 (Roads and Maritime, 2016a and b).

delays in both the northbound and southbound directions at all times of the day, particularly during peak hours.

The proposed road improvements will be assessed in accordance with Part 5.1 of the *Environmental Planning and Assessment Act 1979 NSW* (EP&A Act).

## **1.2 Location of the proposal area, heritage item and study area**

The proposal area is situated on the Pacific Highway at the following location:

1. Pacific Highway at Fox Valley Road, Wahroonga (also referred to as 'Intersection Location 2' for the purposes of this report)

This location is within the Ku-ring-gai Local Government Area (LGA), Parish of Gordon, County of Cumberland.

The heritage item ('Mahratta') curtilage covers an area of approximately 3.52 hectares, comprising of the Mahratta site at 1526 Pacific Highway, Curtilage Park at 1540 Pacific Highway and all properties (1-13) on Field Place (refer Figure 1).

The study area comprises of a 270m<sup>2</sup> area of land (approximately 114m long and up to 3.5m wide) containing a brick boundary wall and a large planting bed that would be acquired for the construction of the proposed works. In addition, the study area includes an adjacent brick path and garden bed that would be partially impacted by tree removals (refer Figure 2).



Figure 1 Outline of the Mahratta Heritage Site

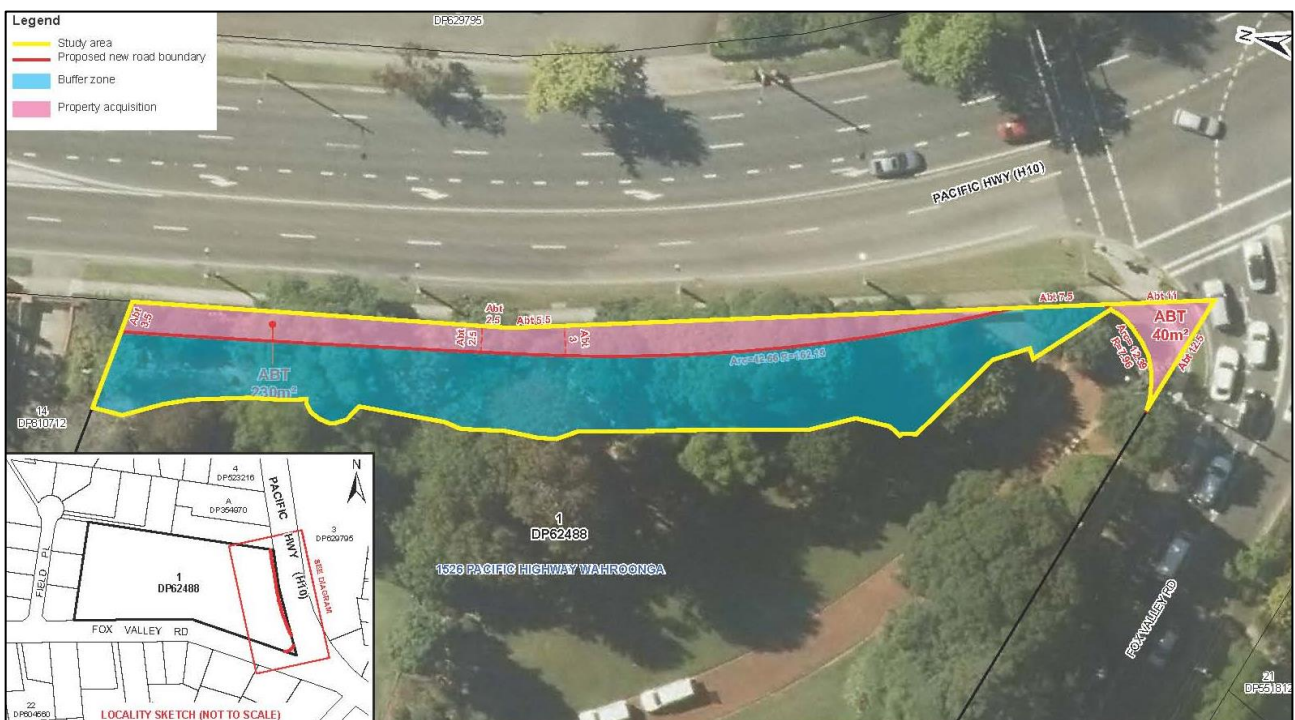


Figure 2 Outline of the Study Area

### 1.3 Scope of assessment

This report was prepared in accordance with current heritage guidelines including *Assessing Heritage Significance*, *Assessing Significance for Historical Archaeological Sites and "Relics"* and the *Burra*

*Charter*.<sup>3</sup> This report provides a heritage assessment to identify if any heritage items or relics exist within or in the vicinity of the study area. The heritage significance of these heritage items has been investigated and assessed in order to determine the most appropriate management strategy.

This report will focus on the State heritage listed item, Mahratta and area within its heritage curtilage affected by the proposed works.

The following is a summary of the major objectives of the assessment:

- Identify and assess the heritage values associated with the study area and wider heritage curtilage. The assessment aims to achieve this objective through providing a brief summary of the principal historical influences that have contributed to creating the present-day built environment of the study area using resources already available and some limited new research.
- Assess the impact of the proposed works on the cultural landscape and heritage significance of the study area and wider heritage curtilage.
- Identifying sites and features within the landscape of the Mahratta site which are already recognised for their heritage value through statutory and non – statutory heritage listings.
- Recommend measures to avoid or mitigate any negative impacts on the heritage significance of the study area and wider heritage curtilage.
- This report supports the preparation of the REF and has been prepared by OEH to assess the impacts under S.60 under the *Heritage Act 1977* (NSW).

## 1.4 Limitations

This report is based on historical research and field inspections. It is possible that further historical research or the emergence of new historical sources may support different interpretations of the evidence in this report.

The historical research undertaken for this report is based on primary documents including Crown and deposited plans, Certificates of Title and historical parish maps. This information was supplemented by

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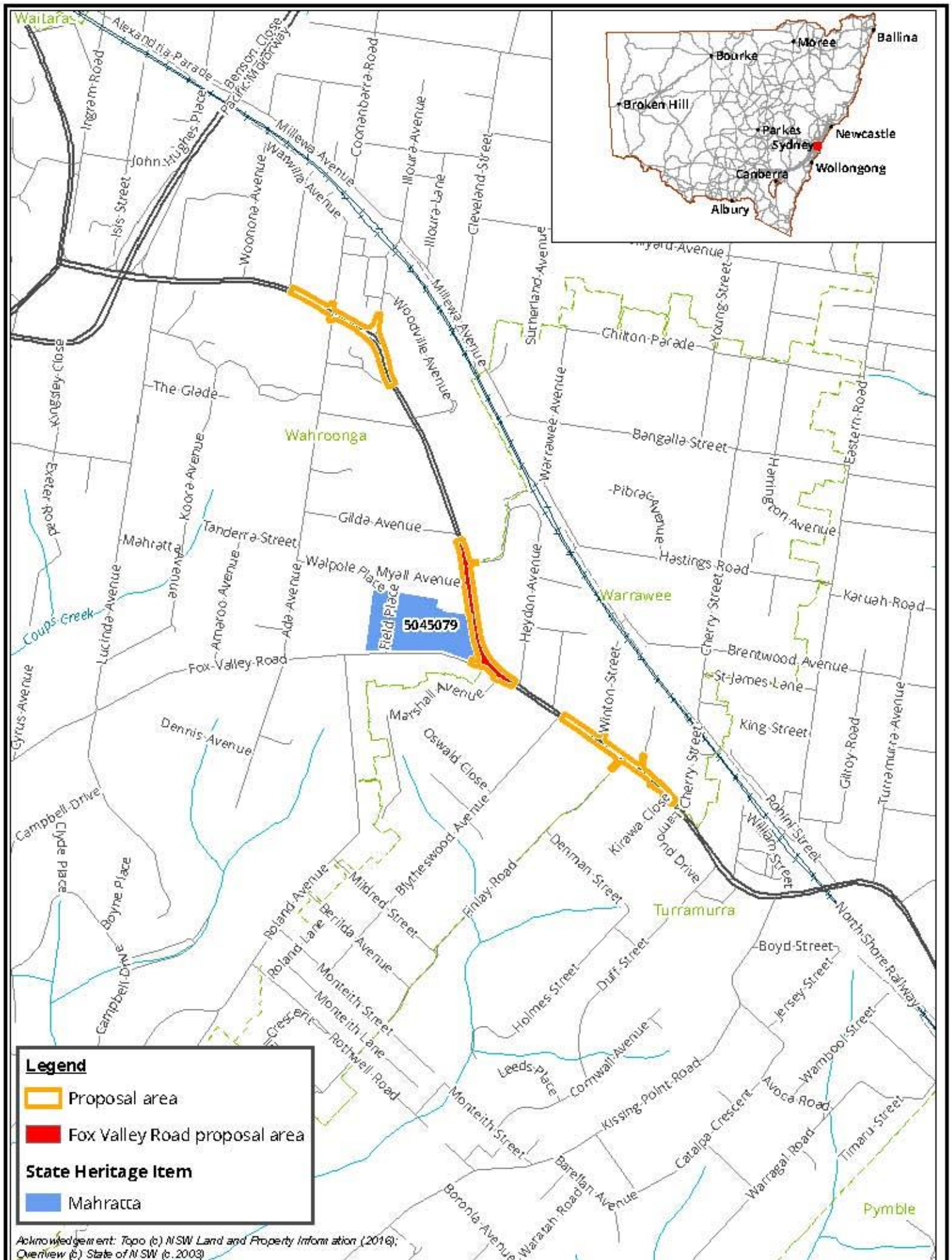
<sup>3</sup> NSW Heritage Office 2001; NSW Heritage Branch, Department of Planning 2009; Australia ICOMOS 2013

existing studies and sources in order to present a history of the study area. Issues were encountered with access to several primary documents, including aerial photographs prior to 1943, and as such there may be additional data which has not been incorporated into this assessment. The archaeological survey was constrained by the presence of built fabric and modified ground surface areas in some locations, limiting the observations of ground surface and identification of potential archaeological resources.

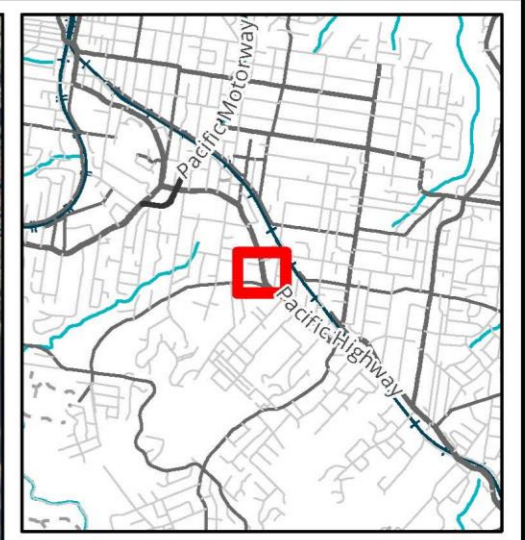
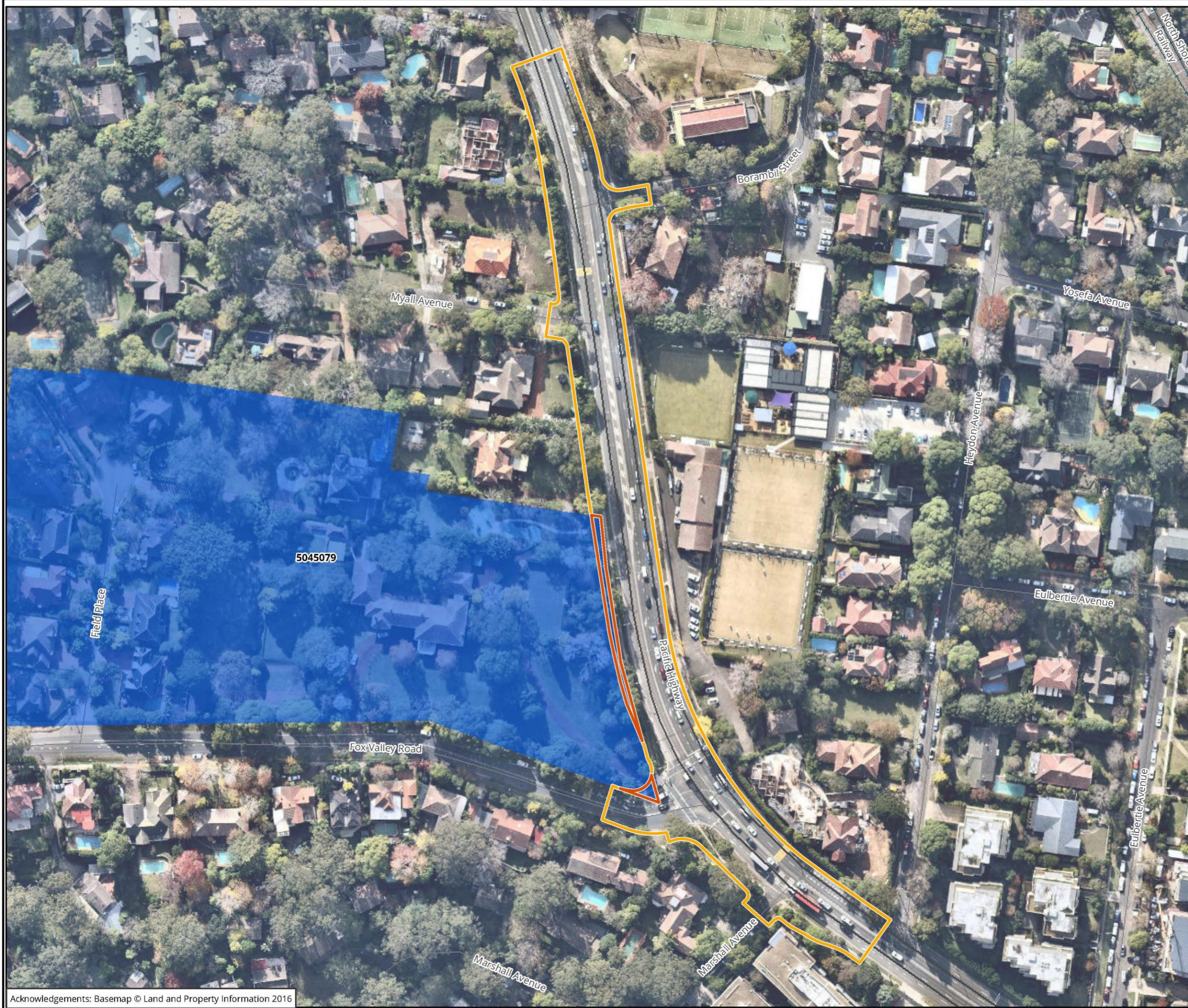
Although this report was undertaken to best archaeological practice and its conclusions are based on professional opinion, it does not warrant that there is no possibility that additional archaeological material will be located in subsequent works on the site. This is because limitations in historical documentation and archaeological methods make it difficult to accurately predict what is under the ground.

The significance assessment made in this report is a combination of both facts and interpretation of those facts in accordance with a standard set of assessment criteria. It is possible that another professional may interpret the historical facts and physical evidence in a different way.

Research to date has not revealed original landscape drawings of the garden which may give a clearer indication of Sorensen's intentions for the garden and his extent of involvement in this area of the Mahratta site.



**Figure 3** Location of the Pacific Highway intersection improvements between Turramurra and Warrawee



- Legend**
- Study area
  - Proposal area
- State Heritage Item**
- Mahratta

**Figure 4 Proposal area detail**

0 10 20 30 40 50  
 Metres  
 Scale: 1:1,500 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56

Biosis Pty Ltd  
 Albury, Ballarat, Melbourne,  
 Newcastle, Sydney, Wangaratta & Wollongong



## 1.5 Report Authorship

This assessment was completed jointly by Phillips Marler and Biosis. Table 1 provides a summary of the author responsible for each section of this assessment.

Phillips Marler staff involved in this assessment are Julie Marler, Principal Landscape Architect for field investigation and reporting and Daniel Hughes for additional written material, research and graphic support.

Biosis staff involved in this assessment included James Cole, Archaeologist for field investigation and reporting, Charlotte Allen, Field Archaeologist for background research and reporting, Gareth Davies, GIS Operator for mapping, and Taryn Gooley for quality assurance.

**Table 1 Report authorship**

Section	Authorship
Summary	Phillips Marler and Biosis
1.1	Phillips Marler and Biosis
1.2	Biosis
1.3	Biosis
1.4	Phillips Marler and Biosis
2	Biosis
3.1	Biosis
3.2	Biosis
3.3	Phillips Marler and Biosis
3.4	Biosis
4.1	Phillips Marler and Biosis
4.2	Phillips Marler and Biosis
4.3	Biosis
5	Phillips Marler and Biosis
6	Phillips Marler and Biosis
7	Phillips Marler and Biosis

## 2 Summary of Consultation – OEH and Property Owners

The following chapter provides a summary of the communications undertaken to date by Roads and Maritime with the Office of Environment and Heritage (OEH) and property trustees of Mahratta between April 2018 and August 2018.

### 2.1 Property owners and trustees

Roads and Maritime’s Property and Communications teams have communicated with the property owners and trustees of Mahratta during April 2018 and July 2018 as outlined in Table 2 below.

**Table 2 Correspondance with the property owners and trustees of Mahratta**

Date	Who was present	What was discussed	Outcomes/actions
6 April 2018	Roads and Maritime Personal Manager Acquisitions	Initial doorknock at site and follow up phone call to property trustees.	Arranged for a meeting with the Mahratta trustees on site.
	Roads and Maritime Communication and Stakeholder Engagement Officer		
10 April 2018	Roads and Maritime Personal Manager Acquisitions	Meeting on site to discuss proposed Pacific Highway upgrades between Turramurra and Wahroonga and potential property impacts.	Mahratta trustees to provide Sorensen landscape design plans. Access granted for survey and heritage specialists.
	Roads and Maritime Communication and Stakeholder Engagement Officer		Roads and Maritime Heritage/Environment specialists subsequently visited the property on the same day (with permission from the property owner/trustee obtained by phone).
12 April 2018	Email correspondence	Signed access consent form returned by property owner/trustee.	Consent form for surveys within the property.
13 July 2018	Roads and Maritime Personal Manager Acquisitions	Follow up phone call re. Sorensen plans.	Property owner/trustee advised that Sorensen plans were unavailable, but not considered by Mahratta to be relevant to frontage of property.

### 2.2 Office of Environment and Heritage

Roads and Maritime’s Environment and Design Teams for the project have met with the Office of Environment and Heritage (OEH) on two occasions (11 May 2018 and 14 June 2018) to discuss the

proposal and its potential impacts to the Mahratta heritage curtilage. These meetings were also supplemented with associated email correspondence and phone conversations. A summary of these communications is provided in Table 3, Table 4, and Table 5 below.

### 2.2.1 Initial Meeting on 11 May 2018

An initial meeting was held with OEH on 11 May 2018 to discuss the Pacific Highway proposal and its potential impacts to the Mahratta heritage curtilage. A brief summary of the discussion points and outcomes from this meeting are provided below.

**Table 3 Summary of initial meeting with Office of Environment and Heritage (OEH)**

Date	Who was present	What was discussed	Outcomes/actions
11 May 2018	Roads and Maritime Environment Officer  Roads and Maritime Environment Manager  Roads and Maritime Design Lead  Roads and Maritime Heritage Officer  Office of Environment and Heritage (OEH) Heritage Officer	OEH requested that further investigations be undertaken into the cost and feasibility of widening into the Bowling Club/Function Centre at 1479 Pacific Highway, Wahroonga rather than the Mahratta heritage curtilage. The costs investigated should include total acquisition cost and rebuild cost.  This information would be used as part of the justification for the impact on Mahratta.	Following this meeting, Roads and Maritime obtained this information from their Property Team.  Roads and Maritime will provide this information separately to OEH with the Section 60 Application.
		OEH requested that Roads and Maritime look into the reusing existing bricks to face the new retaining wall, or sourcing similar look bricks.	Roads and Maritime has investigated the option of reusing the existing bricks for the new retaining wall.  After further consideration, the preference would be to utilise new bricks of a similar colour and form to the existing along the entire frontage. Salvage and re-use may not be feasible/practical

Date	Who was present	What was discussed	Outcomes/actions
			<p>as the current wall in this location already contains different bricks of varying ages in some locations and there may not be enough useable bricks to salvage for use along the entire frontage that is being modified by the proposal. By using new bricks of a similar colour and form a consistent appearance can be achieved along the frontage which could potentially be applied to the Curtilage Park frontage, which is also being modified by the proposal (Curtilage Park was historically part of the Mahratta site and is a local heritage item).</p> <p>Roads and Maritime's design team has investigated some potential brick replacement options which will be provided with the Section 60 Application to OEH. The PGH Bricks Revive option appears to be the closest match to the existing bricks used for the boundary wall within Mahratta.</p> <p>(Note: refer Appendix 7 Brick Comparison Options)</p>
		<p>Discussions were held about the potential design of the replacement retaining wall. It was agreed that a workshop would be held with OEH following the topographical survey.</p>	<p>A workshop was held on 14 June 2018 to discuss the replacement retaining wall design options (refer workshop summary below).</p>
		<p>OEH advised that Roads and Maritime's discussions with council about the proposal should also involve their heritage arboricultural/landscape specialists.</p>	<p>Meetings have occurred with council to discuss the proposal.</p> <p>Roads and Maritime are seeking formal feedback from Kur-ring-gai Council as part of the ISEPP<sup>4</sup> consultation process. The ISEPP letter was issued to council following a meeting with council officers on 17 August 2018.</p>

<sup>4</sup> State Environmental Planning Policy (Infrastructure) 2007

## 2.2.2 Email correspondence pre-workshop on 6 and 7 June 2018

Email correspondence was exchanged between Roads and Maritime and OEH between 6 and 7 June 2018 just prior to the workshop for the replacement retaining wall design options (as mentioned in Table 4).

**Table 4 Email correspondence was exchanged between Roads and Maritime and OEH between 6 and 7 June 2018**

Date	Recipients	Summary of email correspondence	Summary of responses
6 and 7 June 2018	Roads and Maritime Environment Officer	OEH invited by Roads and Maritime to attend a workshop on 14 June 2018 to discuss the options for the replacement of the retaining wall.	
	Roads and Maritime Environment Manager	Further information was requested by OEH about the extent of the affected trees and any other plantings/structures within the Mahratta heritage curtilage affected by the proposed land take, specifically:	OEH were advised by Phillips Marler that an arborist was involved in their assessment of the site and that inspections had already commenced within the site. The inspections considered affected garden elements such as the brick path.
	Roads and Maritime Design Lead	Botanical name Age, condition Significance assessment (with any reference to any previous conservation plan/study)	Noted that a tree audit would be prepared for the affected eastern boundary planting beds of Mahratta with all potentially impacted trees mapped on the plan.
	Roads and Maritime Heritage Officer	Queried why pile footings required a wide rectangular footprint (assumed only pile holes were needed for this).	Phillips Marler agreed to provide some initial analysis and feedback from their archaeologists (Biosis) on the potential re-build impacts at the workshop.
	Office of Environment and Heritage (OEH) Heritage Officer	OEH provided some guidance on what OEH expect to be included as part of the heritage assessment for Mahratta: The assessment should be informed by the following documents (held by the School of Philosophy, the local library and OEH):	This was acknowledged by Roads and Maritime and the Statement of Heritage Impacts has considered and incorporated this feedback and information.
	Phillips Marler Principal Landscape / Heritage Consultant,	2011 Taylor Brammer Landscape Architects, with Roy Lumby: 1536 Pacific Highway, Wahroonga - Conservation Management Plan relevant excerpts re garden/trees/plants; 1989 Schwager Brooks and Partners Pty Ltd. Mahratta Heritage Analysis – draft –	

Date	Recipients	Summary of email correspondence	Summary of responses
		<p>“ “,            2012 arborist report, Arboricultural Tree Services P/L, September/October;            2007 arborist report, Barry Quine for Sydney Garden Craft, Summary Arborist Report - Mahratta, 25 Fox Valley Road, Wahroonga;            2016 David Scobie Architect's Heritage Issues Report – Mahratta</p> <p>Noted that some of the larger trees would be original to the Federation (first) house on the site (i.e. pre-Paul Sorensen's involvement in the mid-20<sup>th</sup> century).            Expectation that any heritage impact statement for the Mahratta site should be rigorous, covering:            Age;            Condition; but <u>more</u> importantly <u>Significance</u> (and thus) <u>Conservation policy</u> (ie. regarding the eastern garden, the wall/fence, plantings not limited to trees along here, in terms of:            Rarity;            Representativeness (of Federation era or Inter-war era garden palette/character).            With consideration of conserving, propagating/replanting, retaining on site, pruning for view retention, etc.            If the proposal was approved, any conditions would likely include requiring replacement trees/shrubs/layouts removed/damaged/obstructed by the land 'take' to realign the road.            OEH highlighted that Mahratta's significance is not just limited to architecture. It was highlighted that (parts of) its statement of significance for SHR listing include other elements:  <i>...perhaps the largest &amp; finest <u>property of its type erected in wartime Sydney. The house replaced a substantial Federation period residence situated on an 8.6-acre site in</u></i></p>	

Date	Recipients	Summary of email correspondence	Summary of responses
		<p><i>Warrabee but <u>retained and incorporated the majority of the earlier landscape elements including a sunken rose garden.</u> The <u>property has historic associations and aesthetic values due to the involvement and advice of landscape designer Paul Sorensen in its garden.</u> The <u>open landscaped setting and mature plantings provide a fine setting and backdrop to the house...</u></i></p> <p><i>ensured <u>a high level of maintenance to both the house and grounds.</u> This <u>has ensured that Mahratta has retained all of the essential characteristics of its cultural significance...</u></i></p> <p><i>The <u>open lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house...</u> key component of the cultural and historic setting having survived almost intact from the original (Federation era) house...</i></p> <p><i>Reasons for listing; cultural, architectural, landmark value, state significance Note: <u>grounds, fence, outbuilding to Fox Valley Road &amp; garage building (LEP, 1992).</u></i></p>	

### 2.2.3 Brick Retaining Wall Reconstruction Workshop on 14 June 2018

Following on from the initial meeting and email correspondence with OEH, a workshop was held on 14 June 2018 to discuss the potential brick retaining wall reconstruction options within the Mahratta heritage curtilage which would form part of the proposal. A brief summary of the discussion points and outcomes from this workshop are provided in Table 5.

**Table 5 Summary of discussion points and outcomes from the brick retaining wall reconstruction workshop on 14 June 2018**

Date	Who was present	What was discussed	Agreed outcomes/actions
14 June 2018	Roads and Maritime Environment Officer	Roads and Maritime's Design Team presented the potential brick retaining wall reconstruction options within the Mahratta heritage curtilage to those present at the	OEH and project team took this information into consideration.

Date	Who was present	What was discussed	Agreed outcomes/actions
	<p>Roads and Maritime Environment Manager</p> <p>Roads and Maritime Design Lead</p>	<p>workshop.</p> <p>(Note: refer Appendix 6 Workshop Slides)</p> <p>Presentation covered the following:</p> <p>Project location and background</p> <p>Retaining wall options</p> <p>Considerations</p> <p>Property impacts</p> <p>Options comparison</p> <p>Preferred option</p>	
	<p>Roads and Maritime Heritage Officer</p> <p>Office of Environment and Heritage (OEH) Heritage Officer</p> <p>Phillips Marler Principal Landscape / Heritage Consultant</p>	<p>Two options were primarily discussed and compared in terms of their potential impacts, constructability and cost:</p> <p>Option 1 – Pad footing wall</p> <p>Option 2 – Piled footing wall</p> <p>Two additional options were investigated but discarded as their construction would produce high noise and vibration impacts and result in machinery needing to locate within the Mahratta heritage curtilage:</p> <p>Option 3 – Steel sheet piling</p> <p>Option 4 – Secant pile wall</p> <p>Preferred solution was Option 1 (pad footing wall):</p> <p>Would require standard method of construction and avoid use of heavy machinery within the Mahratta heritage curtilage</p> <p>Quicker to construct</p> <p>Safer to construct</p> <p>Less noise and vibration impacts to the surrounding area</p> <p>Would have the same tree impacts as all other options, although a slightly larger footprint.</p>	<p>OEH and project team took this information into consideration.</p> <p>The proposed retaining wall design was progressed further based on the preferred design option. Further investigation has occurred into the potential brick replacements for the retaining wall when it is reconstructed (Note: refer Appendix 7 Brick Comparison Options).</p>



## 3 Statutory framework

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This assessment will support a Review of Environmental Factors (REF) under Division 5.1 of the EP&A Act, and a permit application to OEH under Section 60 of the Heritage Act. In NSW, cultural heritage is managed in a three-tiered system: national, state and local. Certain sites and items may require management under all three systems or only under one or two. The following discussion aims to outline the various levels of protection and approvals required to make changes to cultural heritage in the State.

### 3.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environmental Protection and Biodiversity Act 1999* (EPBC Act) is the national Act protecting the natural and cultural environment. The EPBC Act is administered by the Department of Environment and Energy (DEE). The EPBC Act establishes two heritage lists for the management of the natural and cultural environment:

- The National Heritage List (NHL) contains items which have been assessed to be of outstanding significance and define "critical moments in our development as a nation".<sup>5</sup>
- The Commonwealth Heritage List (CHL) contains items which are natural and cultural heritage places that are on Commonwealth land, in Commonwealth waters or are owned or managed by the Commonwealth. A place or item on the CHL has been assessed as possessing "significant" heritage value.<sup>6</sup>

The study area includes a mature *Syzygium paniculatum* Magenta Cherry (Tree 19 refer Tree Appendix 1 Tree Audit and Assessment by Urban Forestry Australia ). This tree is a threatened species with endangered conservation status in NSW (BC Act 2016) and listed as vulnerable under Commonwealth legislation (EPBC Act).

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<sup>5</sup> "About National Heritage" <http://www.environment.gov.au/heritage/about/national/index.html>

<sup>6</sup> "Commonwealth Heritage List Criteria" <http://www.environment.gov.au/heritage/about/commonwealth/criteria.html>

## 3.2 NSW Heritage Act 1977

Heritage in NSW is principally protected by the Heritage Act (as amended) which was passed for the purpose of conserving items of environmental heritage in NSW. Environmental heritage is broadly defined under Section 4 of the Heritage Act as consisting of the following items: *"those places, buildings, works, relics, moveable objects, and precincts, of State or Local heritage significance"*. The Heritage Act is administered by the NSW Heritage Council, under delegation by the Heritage Division, OEH. The Heritage Act is designed to protect both known heritage items (such as standing structures) and items that may not be immediately obvious (such as potential archaeological remains or 'relics'). Different parts of the Heritage Act deal with different situations and types of heritage and the Heritage Act provides a number of mechanisms by which items and places of heritage significance may be protected.

### 3.2.1 State Heritage Register

Protection of items of State significance is by nomination and listing on the State Heritage Register (SHR) created under Part 3A of the Heritage Act. The SHR came into effect on 2 April 1999. The SHR was established under the *Heritage Amendment Act 1998*. It replaces the earlier system of Permanent Conservation Orders as a means for protecting items with State significance.

A permit under Section 60 of the Heritage Act is required for works on a site listed on the SHR, except for that work which complies with the conditions for exemptions to the requirement for obtaining a permit. Details of which minor works are exempted from the requirements to submit a Section 60 Application can be found in the Guideline "Standard Exemptions for Works requiring Heritage Council Approval". These exemptions came into force on 5 September 2008 and replace all previous exemptions.

The study area contains parts of the following items listed on the SHR:

- Mahratta and site, (Item No. 708), 1526 Pacific Highway, Wahroonga, NSW, Lot 29, Section 1, DP 3312, Lot 30, Section 1, DP 3312, Lot 1, DP62488, Lots 1-14, DP 810712, immediately adjacent and within the proposal area in its western extent.

The following State heritage items are listed in the vicinity of the study area containing Mahratta:

- Purulia, (Item No. 184), 16 Fox Valley Road, Wahroonga, NSW, Lot 1, DP 564313, approximately 155 metres west of the heritage curtilage.
- Archaeological relics

Section 139 of the Heritage Act protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. This section applies to all land in NSW that is not included on the State Heritage Register.

Amendments to the Heritage Act made in 2009 changed the definition of an archaeological 'relic' under the Heritage Act. A 'relic' is defined by the Heritage Act as:

*“Any deposit, object or material evidence:*

*(a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*

*(b) which is of State or Local significance”*

It should be noted that not all remains that would be considered archaeological are relics under the NSW Heritage Act. Advice given in the Archaeological Significance Assessment Guidelines is that a “relic” would be viewed as a chattel and it is stated that *“In practice, an important historical archaeological site will be likely to contain a range of different elements as vestiges and remnants of the past. Such sites will include ‘relics’ of significance in the form of deposits, artefacts, objects and usually also other material evidence from demolished buildings, works or former structures which provide evidence of prior occupations but may not be ‘relics’.”*<sup>7</sup>

If a relic, including shipwrecks in NSW waters (that is rivers, harbours, lakes and enclosed bays) is located, the discoverer is required to notify the NSW Heritage Council.

Section 139 of the Heritage Act requires any person who knows or has reasonable cause to suspect that their proposed works will expose or disturb a 'relic' to first obtain an Excavation Permit from the Heritage Council of NSW (pursuant to Section 140 of the Act), unless there is an applicable exception (pursuant to Section 139(4)). Excavation permits are issued by the Heritage Council of NSW in accordance with sections 60 or 140 of the Heritage Act. It is an offence to disturb or excavate land to discover, expose or move a relic without obtaining a permit. Excavation permits are usually issued subject to a range of conditions. These conditions will relate to matters such as reporting requirements and artefact cataloguing, storage and curation.

Exceptions under Section 139(4) to the standard Section 140 process exist for applications that meet the appropriate criterion. An application is still required to be made. The Section 139(4) permit is an

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<sup>7</sup> NSW Heritage Branch, Department of Planning 2009, 7

exception from the requirement to obtain a Section 140 permit and reflects the nature of the impact and the significance of the relics or potential relics being impacted upon.

If an exception has been granted and, during the course of the development, substantial intact archaeological relics of state or local significance, not identified in the archaeological assessment or statement required by this exception, are unexpectedly discovered during excavation, work must cease in the affected area and the Heritage Office must be notified in writing in accordance with section 146 of the Heritage Act. Depending on the nature of the discovery, additional assessment and, possibly, an excavation permit may be required prior to the recommencement of excavation in the affected area.

### **3.2.2 Section 170 Heritage and Conservation Registers**

Section 170 of the *Heritage Act* requires that culturally significant items or places managed or owned by Government agencies are listed on departmental Heritage and Conservation Register. Information on these registers has been prepared in accordance with Heritage Division guidelines.

Statutory obligations for archaeological sites that are listed on a Section 170 Register include notification to the Heritage Council in addition to relic's provision obligations. There are no items within the study area that are entered on a State government instrumentality Section 170 Register. There are no items in the vicinity of the study area which are listed on a State government instrumentality Section 170 Register.

### **3.3 Environmental Planning and Assessment Act 1979 and State Environmental Planning Policy (Infrastructure) 2007**

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 94 of ISEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposal is for a road and road infrastructure facilities and is to be carried out on behalf of Roads and Maritime, it can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979*. Development consent from council is not required.

#### **3.3.1 Ku-Ring-Gai Local Environmental Plan 2015**

The Ku-Ring-Gai LEP 2015 contains schedules of heritage items that are managed by the controls in the instrument. Heritage items in the vicinity of the study area are identified in Table 6.

The proposal area includes heritage items that are associated with the Mahratta site but do not form part of the heritage curtilage. These are listed items of local and State significance on the Ku-Ring-Gai LEP 2015 Schedule 5:

- “Mahratta”, dwelling house, (Item No. I964), 1536 Pacific Highway, Wahroonga NSW, Lot 14, DP 810712. Item of State significance.
- Mahratta, (Item No. I913), 25 Fox Valley Road, Wahroonga NSW, Lot 1, DP 62488. Item of State significance.
- Dwelling house, (Item No. I966), 1548 Pacific Highway, Wahroonga NSW, Lot 4, DP 523216. Item of local heritage significance.
- “Yaamba”, dwelling house, (Item No. I965), 1544 Pacific Highway, Wahroonga NSW, Lot A, DP 354970, Item of local heritage significance.

The study area is situated within the following heritage conservation area of local significance:

- Mahratta Conservation Area, (Conservation Area No. C4). Area of local significance.

### 3.3.2 Ku-Ring-Gai Development Control Plan 2016

The Ku-Ring-Gai Development Control Plan 2016 (KDCP) outlines-built form controls to guide development. The KDCP supplements the provisions of the Ku-Ring-Gai LEP 2015.

The heritage controls within the KDCP aims to:

- retain, conserve and enhance Heritage Items, Heritage Conservation Areas (HCA) and their associated settings
- ensure the heritage significance, streetscape and landscape character of HCAs are maintained
- ensure alterations and additions to Heritage Items and within HCAs respect those buildings and do not compromise the significance and character of the individual Heritage Items or HCAs and
- ensure new development in the vicinity of Heritage Items and HCAs respects the heritage context and is sympathetic in terms of form, scale, character, bulk, orientation, setback, colours and textures and does not mimic or adversely affect the significance of Heritage Items or HCAs and their settings.

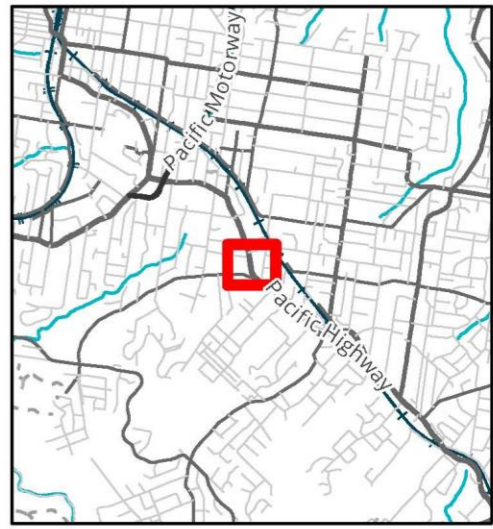
Any works to a heritage item, within an HCA or in the vicinity of a heritage item, require a Heritage Impact Statement (HIS). A Conservation Management Plan (CMP) may be required for works to a Heritage Item or significant works within an HCA. HIS and CMPs are to be completed by an experienced heritage consultant. The HIS is to address the effect of the proposed development on a Heritage Item or HCA and demonstrate that the proposed works will not adversely impact upon significance, including any related heritage features – within the identified curtilage and setting.

## 3.4 Summary of Heritage Listings

A summary of heritage listings within and in the vicinity of the proposal area is presented in Table 6 and Figure 5.

**Table 6 Summary of heritage listings within and adjacent to the proposal area**

Item name	Address / Property description	Listings		Item number	Significance	Location
		Individual item	As a Conservation Area			
<b>Mahratta and site / “Mahratta”, dwelling house / Mahratta / Mahratta Conservation Area</b>	1526 Pacific Highway, Wahroonga, NSW	State Heritage Register	-	708	State	Within the proposal area
	1536 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	1964	State	
	25 Fox Valley Road, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	1913	State	
	Pacific Highway and Fox Valley Road, Wahroonga NSW	-	Ku-Ring-Gai LEP 2015	C4	Local	
<b>Purulia</b>	16 Fox Valley Road, Wahroonga, NSW	State Heritage Register	-	184	State	Approx. 170m west of the proposal area, on the southern side of Fox Valley Road opposite the Mahratta State Heritage area
<b>Inglewood</b>	1485-1493 Pacific Highway, Wahroonga, NSW	Ku-Ring-Gai LEP 2015		11059	Local	Adjacent to the proposal area and approx. 80m north of the Mahratta State Heritage area
<b>Kyeamba, dwelling house</b>	1548 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	1966	Local	Within the proposal area and adjacent to the Mahratta State Heritage area
<b>“Yaamba”, dwelling house</b>	1544 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	-	1965	Local	Within the proposal area and approx. 30m north of the Mahratta State Heritage area



- Legend**
- Study area
  - Proposal area
  - State Heritage Act
  - Conservation Area - General
  - Item - General

**Figure 5** Location of the heritage items within the proposal location and in the vicinity

0 10 20 30 40 50  
 Metres  
 Scale: 1:1,500 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56

**biosis.**  
 Biosis Pty Ltd  
 Albury, Ballarat, Melbourne,  
 Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27217  
 Date: 24 July 2018  
 Checked by: JAC, Drawn by: GD, Last edited by: Iharley  
 Location: P:\27200s\27217\Mapping\27217 State F3 Heritems

## 4 Historical context

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Historical research has been undertaken to identify the land use history of the wider surroundings of the proposal area, to isolate key phases in its history and to identify the location of any built heritage or archaeological resources which may be associated with the study area within the Mahratta site. The historical research places the history of the study area into the broader context of the Ku-ring-gai district.

### 4.1 Historical development

#### 4.1.1 Exploration

The route of the Pacific Highway likely originated as the tracks utilised by local Aboriginal people, the Guringai, following the topography of the ridgelines, and staying within close proximity to water sources. The early European explorers and timber-getters appropriated these paths for their own purposes, with timber-getters settling in the Ku-ring-gai region to exploit the timber resources available within the area.<sup>8</sup>

#### 4.1.2 Early development (c.1809 to 1854)

The timber industry in the Ku-ring-gai region was important in the early history of Sydney. These activities also cleared the land for cultivation and settlement, thus allowing for grants and subdivisions to be made more readily. The Wahroonga area is noted as one of Ku-ring-gai's richest areas for timber, containing large stands of cedar, mahogany, turpentine, ironbark, and blue gum. In order to encourage and support this industry, a government sawmill was established within the Ku-ring-gai region in c.1809. The mill closed in c.1814, following which a subsequent sawmill was commissioned by Governor Lachlan Macquarie in the current area of Pennant Hills, which at the time was on the northern edge of the Field of Mars Common, south-west of the study area.<sup>9</sup>

In 1838, Thomas Hyndes was granted 640 acres (around 259 hectares), known as Fox Grounds Estate, which he had been in possession of since 1830, exploiting timber resources and using convict labour. This land was in addition to Hyndes' large lease of 2000 acres (809 hectares) of land north of the Lane Cove Road, which he had obtained around 1822 (Figure 6). This area encompassed much of present-

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<sup>8</sup> Cushing 2002

<sup>9</sup> Paul Davies Pty Ltd 2010; Kass 1993, cited by AECOM Australia Pty Ltd 2014, 5; Thorp 1987, 4; Cushing 2002

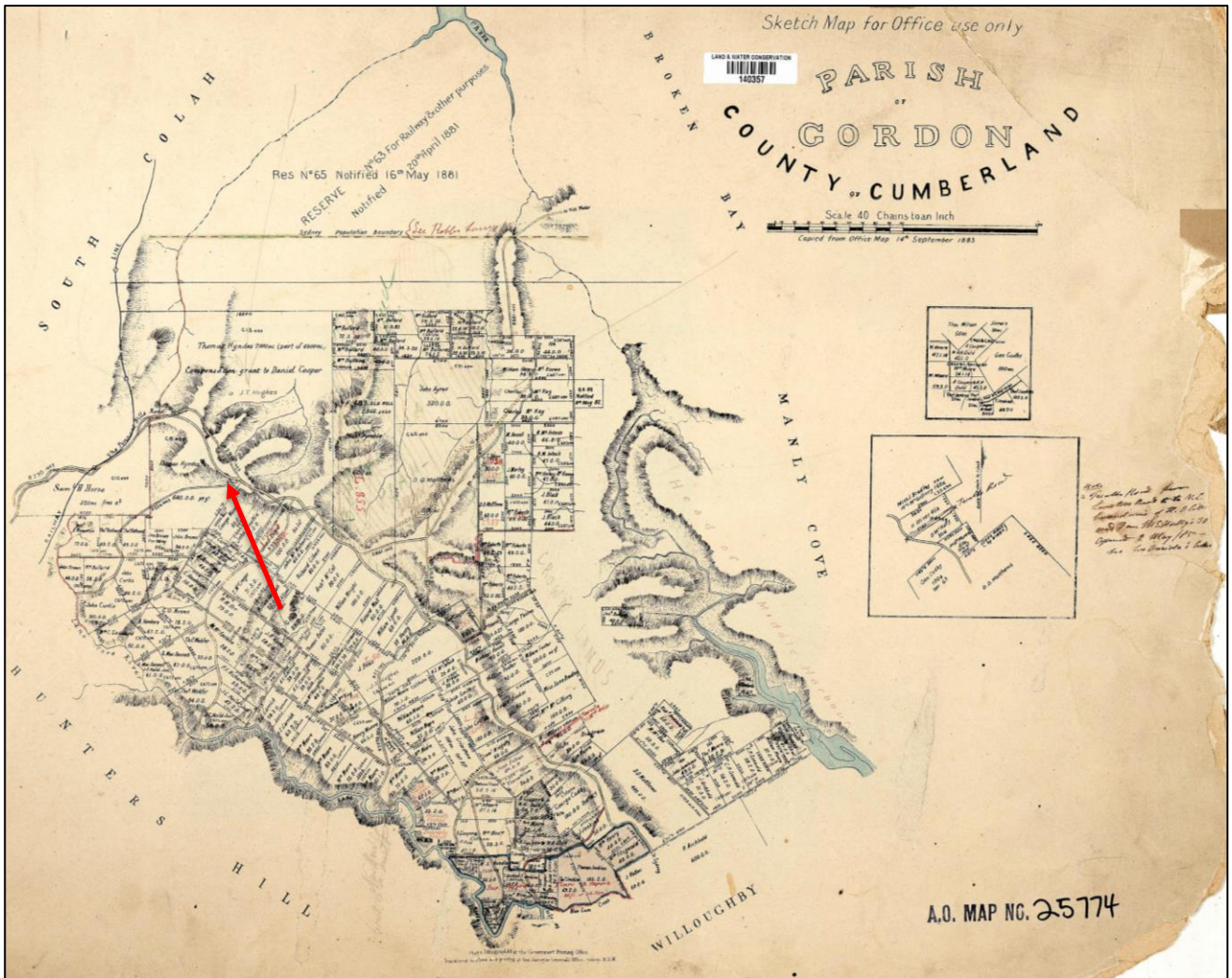


day Wahroonga, and also parts of Turramurra; the lease became known as the Big Island Estate. Hyndes had arrived in Sydney on 11 March 1803, having been convicted for life at the Surry Assizes in August 1800. Following the receipt of a conditional pardon in 1808, Hyndes worked as a clerk in the Lumber Yard, ascending to a master sawyer by 1822, and being listed as a timber merchant in the 1828 census. It has been said that Hyndes constructed a house near the junction of the current Pacific Highway and Fox Valley Road (adjacent to the study area), which was referred to as Mahratta. In 1840, Hyndes sold his 640 acres (259 hectare) grant to Adolphus William Young.<sup>10</sup> In 1854, John Brown, a timber merchant, purchased the Hyndes 640 acre (259 hectare) grant south of the Lane Cove Road from Young. Brown cleared areas of land for orchards and timber.<sup>11</sup>

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<sup>10</sup> Paul Davies Pty Ltd 2010; Ku-ring-gai Historical Society Inc. (n.d.)a; City of Sydney Council 2018; Ku-ring-gai Historical Society Inc. (n.d.)b; Godden Mackay Logan and Keys Young 2000, 379, cited by Paul Davies Pty Ltd 2008, 26; SHR listing for Mahratta and Site, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018; John Oultram Heritage & Design 2013, 5

<sup>11</sup> SHR listing for Mahratta and Site, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018



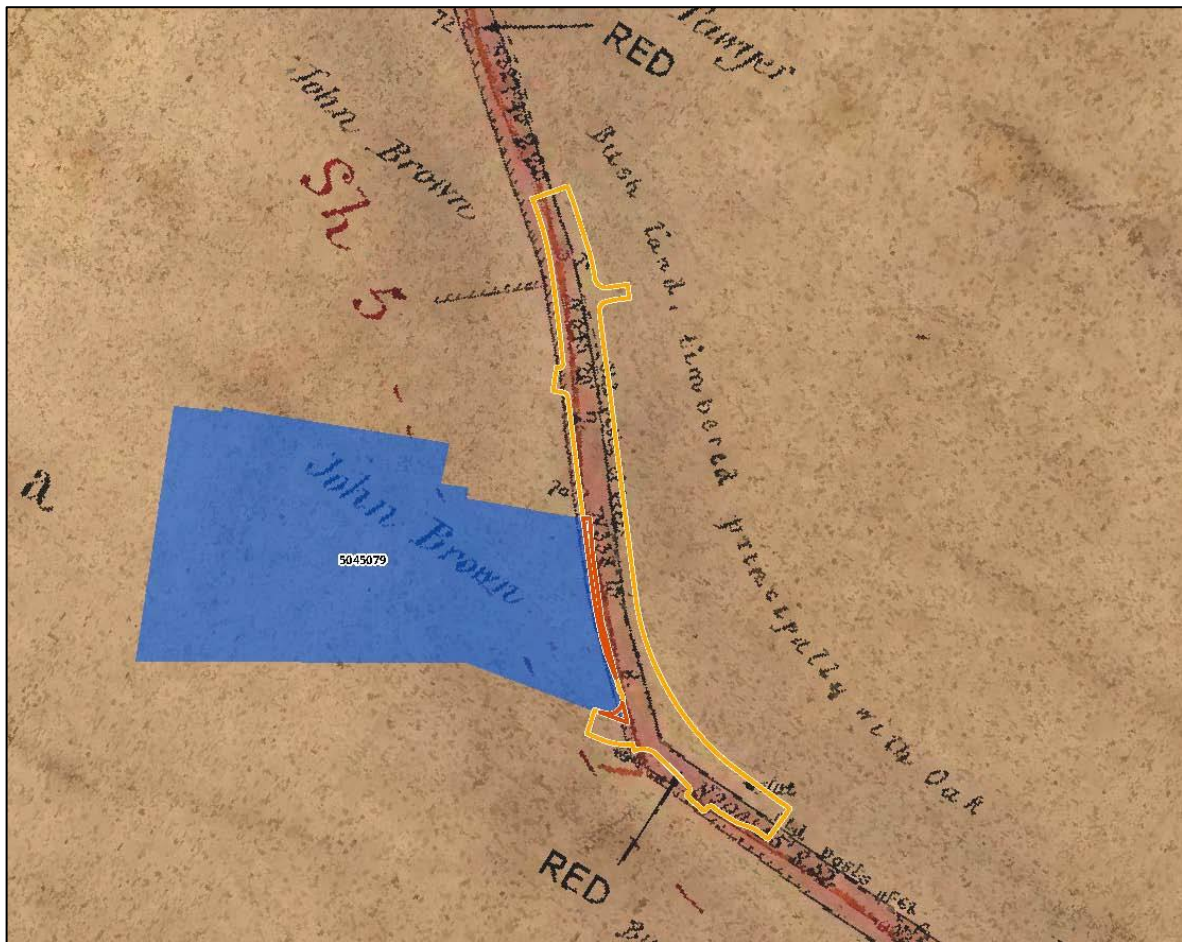
**Figure 6 An 1883 map of Gordon parish with the study area situated along the road between the red arrows (Source: NSW Department of Lands)**

**4.1.3 Subdivision and orchards (1855 to 1889)**

Citrus and stone fruit overtook the timber-getting industry after 1850, and as a result villages were established in several locations, including Wahroonga, to support the farmers and their workers.<sup>12</sup> Early

<sup>12</sup> Kass 1993, cited by AECOM Australia Pty Ltd 2014, 5; Ku-ring-gai Historical Society Inc. (n.d.)a; Ku-ring-gai Historical Society Inc. (n.d.)b; Cushing 2002

settlement within the Ku-ring-gai area generally gravitated towards the major roads.<sup>13</sup> While an 1858 Crown Plan for Fox Valley Road does not record any structures on either side of the road, or where it intersects with the Lane Cove/Pennant Hills Road, an 1862 survey of the St Leonards to Pennant Hills Road shows several structures in the vicinity of the proposal area, but none within it (Figure 7).



**Figure 7** An 1862 survey of the St Leonards to Pennant Hills Road, with the study area highlighted; several structures are present on the plan in the vicinity of the study area (Source: NSW Department of Lands, Crown plan R290.1603)

<sup>13</sup> Paul Davies Pty Ltd 2010a, 5

An 1881 Crown plan for the Lane Cove Road revised in 1899, records several structures of brick and weatherboard in the vicinity of the study area, while fence lines are also present (Figure 8).

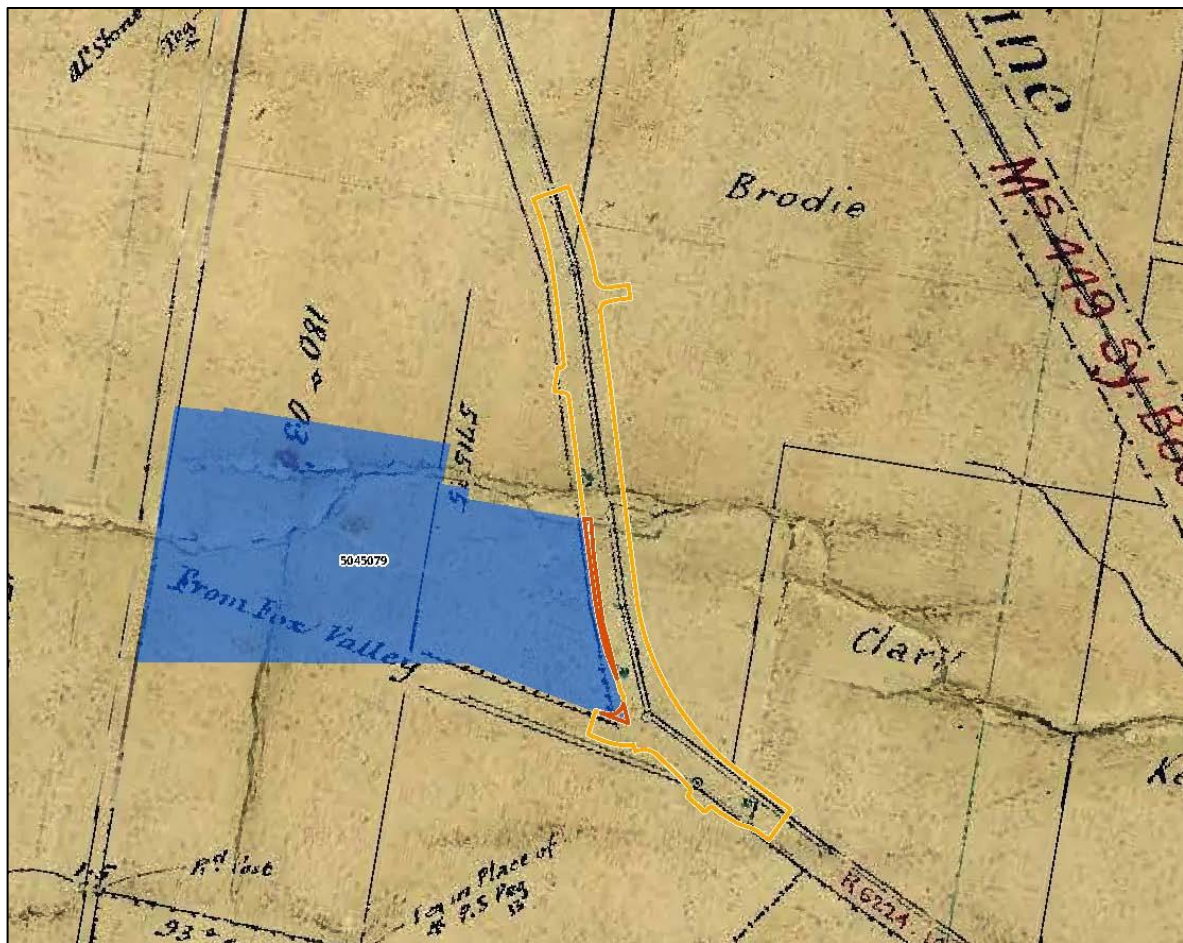


**Figure 8** Detail from an 1881/1899 survey for the Lane Cove Road, showing a brick house opposite Fox Valley Road (Source: NSW Department of Lands, Crown plan R6224.1603)

The Upper North Shore remained a rural area in 1880, with limited avenues of access and communication with the city. The local population mainly consisted of those working in primary industries and those employed in education or religious institutions.<sup>14</sup> This can be seen in an 1888-1889 Crown

<sup>14</sup> Cushing 2002

plan for roads within the parishes of Gordon and South Colah (Figure 9). Unfortunately, no notations have been made in the vicinity of the junction of the current Pacific Highway and Fox Valley Road.<sup>15</sup>



**Figure 9** Extract from an 1888-1899 survey for the roads within the parishes of Gordon and South Colah, with the wider area subject to the proposal highlighted (Source: NSW Department of Lands, Crown plan R3824.1603)

<sup>15</sup> NSW Department of Lands, Crown plan R3842.1603

#### 4.1.4 The North Shore Rail Line and the development of Heverlee and Mahratta (1890 to 1920s)

The establishment of the North Shore Rail Line sparked significant changes to the Ku-ring-gai district. Prior to its completion in 1890, selectors and property developers began purchasing and subdividing land along the rail line particularly near railway station sites; this included the large estates and orchard properties adjacent to the study area. The upper-middle classes were attracted to the Upper North Shore for its semi-rural environment away from the industry and business activity of the city and suburbia, and the fact it excluded those of lower financial means due to the cost of commuting. Like the major roads before them, the new railway stations became the focus of late-19th and early-20th century development within the region, with small lots being offered for sale.<sup>16</sup> As a result of the rising population and changing demographic, large grand houses began to be built along Lane Cove Road.<sup>17</sup>

In 1890, the Fox Ground Estate was reconveyed to John Thomas Brown and others, likely William Henry Brown, Sophie Laing and Charlotte Mary Ann Brown, who became the trustees of Brown's will upon his death in c.1894.<sup>18</sup> In 1893, it appears the Fox Ground Estate was split, with Francis Gerard, a pastoralists' agent, acquiring the 6 acres (2.4 hectares) of land at the junction of Lane Cove Road (Pacific Highway) and Fox Valley Road. In the same year, Gerard sold his property to Adelaide Langtree and her husband Michael, a civil engineer and pastoralist (Figure 10).<sup>19</sup>

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<sup>16</sup> Paul Davies Pty Ltd 2010a, 5; Cushing 2002

<sup>17</sup> Cushing 2002

<sup>18</sup> NSW Department of Lands, Primary Application 9939; John Oultram Heritage & Design 2013, 6

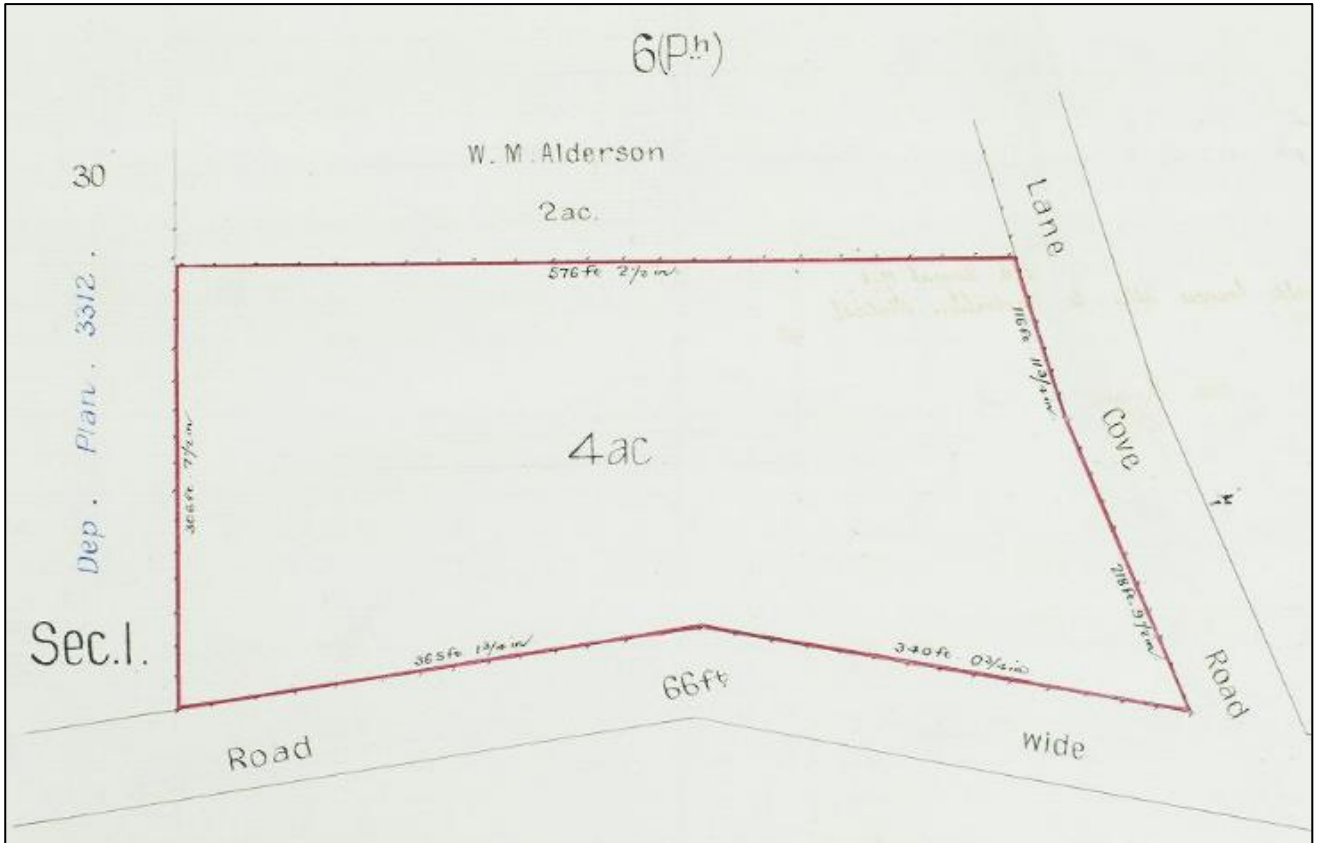
<sup>19</sup> Taylor Brammer Landscape Architects Pty Ltd 2011, 9; NSW Department of Lands, Primary application 12488



**Figure 10 Extract from an 1893 subdivision plan of Hyndes' grant south of Lane Cove Road, with the proposal area highlighted (Source: NSW Department of Lands, DP 3312)**

Langtree built Yaamba on the northern side of the property and sold the southern portion, where Mahratta is now situated, to Constance Maria Elizabeth Beckx in 1902 (Figure 11), who built the first large residence, Heverlee (refer Figure 12) on the Mahratta site.<sup>20</sup>

<sup>20</sup> NSW Land Registry Services, Certificate of Title Volume 1470 folio 115; Taylor Brammer Landscape Architects Pty Ltd 2011, 10



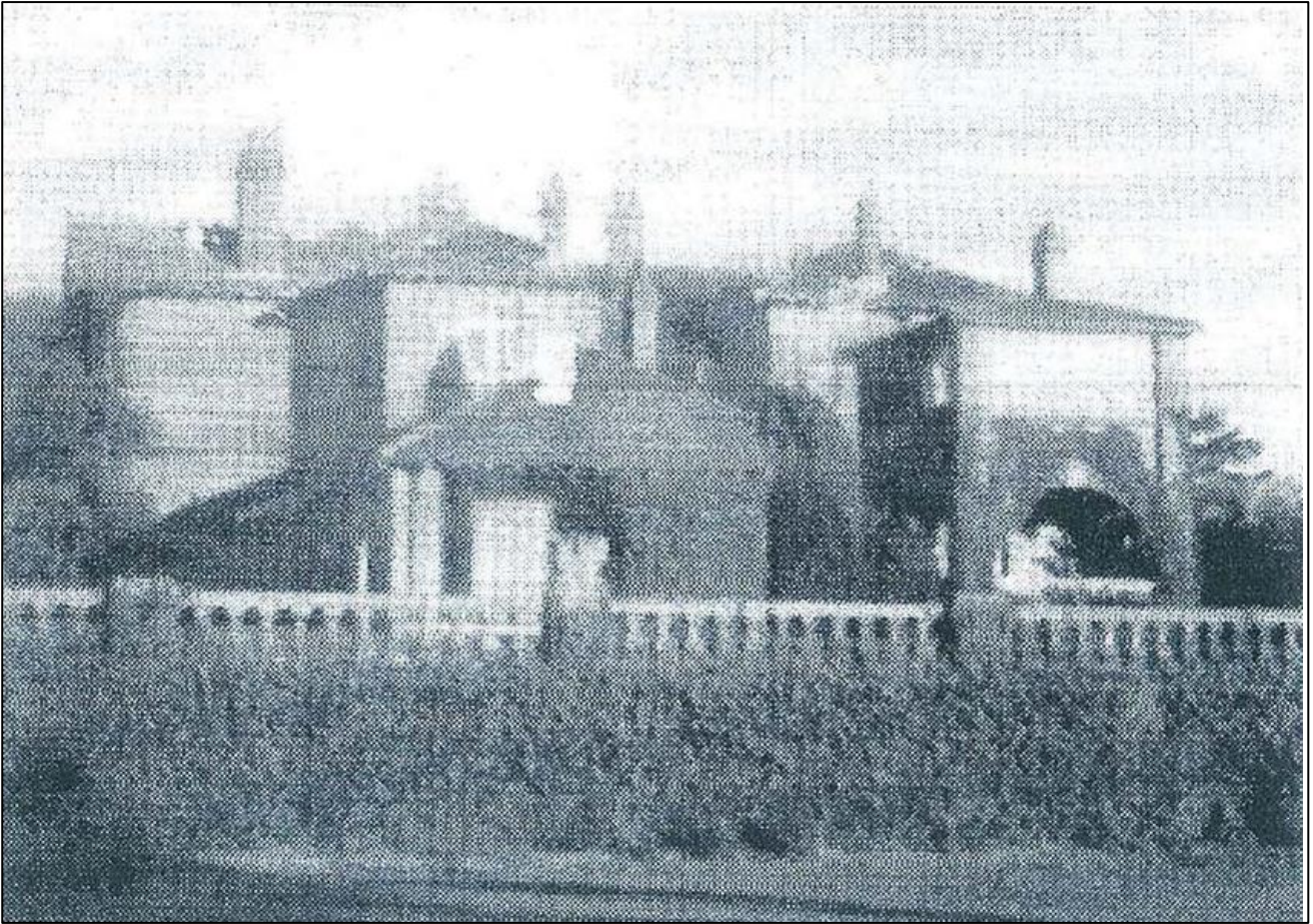
**Figure 11 Plan of the land (Mahratta site) acquired by owned by Beckx in 1902 (Source: NSW Department of Lands, Certificate of Title Volume 1470 Folio 115)**

Designed by Sydney architectural firm Robertson and Marks, the house was completed in 1904 and was described as follows:

- 'Substantially constructed of brick, tuck pointed and, stone facings and stone foundations, tiled roof and contains mosaic tiled verandah, tiled entrance hall, tiled lounge vestibule hall with handsome blackwood staircase...The grounds which compromise an area of four acres have been planted with choice trees, shrubs, flowers etc. now well grown bearing orchard, vine walk, kitchen garden and English grass paddock'.<sup>21</sup>

<sup>21</sup> Taylor Brammer Landscape Architects Pty Ltd 2011, 11





**Figure 12 An undated photograph of Heverlee (Source: Taylor Brammer Landscape Architects Pty Ltd 2011, 11 )**

A series of photographs taken in 1908 provide an indication of the wider development of Wahroonga and Warrawee. Lane Cove Road appears to be a dirt surface at this time; some kerbside plantings are present, as are electricity poles and wires, and street lamps. The properties along Lane Cove Road feature large houses with garden areas and fencing fronting the road (Plate 1).



**Plate 1 Typical view of Lane Cove Road through Wahroonga, Warrawee and Turramurra, 1908 (Source: NSW State Archives)**

In 1909, Constance Beckx moved to Italy and the property was tenanted to James Kidd and then sold to Frederick Albert Moses and then to Gerald Francis Allen, a significant owner who consolidated his land holding with additional blocks on Ada Avenue and west of Haverlee<sup>22</sup>. Allen carried out substantial works to the house, including garages and head gardener's house as well as renaming the house Mahratta, "after the sheep station near Bombala where his grandfather was an overseer."<sup>23</sup> The

<sup>22</sup> Ibid p.12

<sup>23</sup> Ibid p.12

word is derived from the two Sanskrit words “Maha” and “Ratcha” ‘The Great Kingdom’<sup>24</sup>. Allen purchased an additional 9 acres (3.6 hectares) to incorporate into the property.

Allen commissioned garden designer Paul Sorensen in 1925 to lay out its then 8 hectare (now 1.6ha) garden (i.e. Heverlee’s pre-existing garden).<sup>25</sup>

The historical notes in the State Heritage listing describe the design Sorensen created as;

*–two levels divided by a (retained, from Heverlee) graceful stone balustrade wall with steps leading from the upper level down to a sunken rose garden, croquet court and extensive lawns. Exotic trees were planted including cedars (Cedrus deodara/Himalayan cedar and weeping blue Atlas cedar, C.atlantica ‘Pendula’), other conifers, maples (Acer spp.) and oaks (Quercus spp.), many coming from Sorensen’s nursery in Leura. Other trees thought to have been planted at this time include the Queensland firewheel tree (Stenocarpus sinuatus), crows foot ash (Flindersia australis), Bunya Bunya pine (Araucaria bidwillii) and tallowwood (Eucalyptus microcorys). All have matured to become magnificent trees.*<sup>26</sup>

#### **4.1.5 Redevelopment of Mahratta (1930s to present)**

In May 1930, Allen sold Mahratta to Sir James Joynton Smith who was a prominent businessman and owner of several hotels including the Bondi Astra and the Carrington in Katoomba. Joynton Smith invited Paul Sorensen, one of Australia’s most prolific landscape designers to work on the gardens and landscape of Mahratta. Sorensen worked mainly on the plantings in and around the lawn and the planted shrubberies around the periphery of the property. The style of planting including a large range of exotic and native trees which was a signature planting style for Sorensen.<sup>27</sup>

Joynton Smith transferred ownership of Mahratta to Warrawee Equities and Estates Limited in January 1932. Seven years later, the Carabagal Pastoral Company purchased the property in September 1939.

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<sup>24</sup> Friends of Mahratta - information leaflet check date and source

<sup>25</sup> Heritage Division, SHR listing for Mahratta and Site, <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045079>, viewed 28 August 2018

<sup>26</sup> Heritage Division, SHR listing for Mahratta and Site, <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045079>, viewed 28 August 2018

<sup>27</sup> Taylor Brammer Landscape Architects Pty Ltd 2011 p.17

The following year in 1940, T.A. Field had the old house demolished and constructed a new mansion [5] in the earlier building's footprint, which is the current State heritage listed item, Mahratta.<sup>28</sup>

Thomas Alfred Field (1944) was a highly successful pastoralist and owner of wholesale butchering businesses. Field demolished Heverlee in 1940 and commissioned architect Douglas Agnew (Plate 4) to design a new house - Mahratta the house we see today. Agnew was born and trained in England as an architect and migrated to Australia in the early 1920s.<sup>29</sup> Agnew designed several buildings including a bank and residences in the Inter War Georgian style including the former Bank of New South Wales (at No 306 Pacific Highway, Crows Nest). In 1939, Agnew was commissioned by Thomas Field to design Mahratta in Georgian Revival style with Art Deco features (Figure 14). The garden designed by Paul Sorensen remained intact. However additional elements were designed and constructed, including the tennis court, croquet lawn and sunken rose garden.<sup>30</sup> The current house and garden were influenced by the design of a variety of circular and elliptical forms which are demonstrated in the interior and in around the gardens including the form and layout of the Pompeian Court and the design of the Moon Gate.

When the new house was completed in 1941, Field brought Sorensen back and commissioned him to extend and complement his design of the original garden.<sup>31</sup>

The historical notes in the State Heritage listing describe Sorensen's redesign as follows;

*'The curving red gravel driveway was built and Sorensen oversaw planting of the front lawn and the two dawn redwoods (Metasequoia glyptostroboides) and two red Japanese maples (Acer palmatum) that frame the entrance to the house's porte cochere. The wide garden (bed)s facing the house are filled with colourful shrubs set against a backdrop of trees, lily pillies (Syzygium spp.) and other rainforest trees were planted to blend in with the exotics elsewhere in the garden. The walled courtyard at the back (north) of the house leads out through a moon gate to lawns shaded by two Himalayan cedars and on to the pleasant Refectory Courtyard to the left (west). To the right (east) is the tennis court with luxuriant*

<sup>28</sup> NSW Department of Lands, Certificate of Title Volume 1470 Folio 115; SHR listing for Mahratta and Site, <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5045079>, viewed 16 April 2018; 1930 "Warrawee Mansion." *Sydney Morning Herald* (NSW: 1842 - 1954), 8 February, p. 21, <http://nla.gov.au/nla.news-article16624299>, viewed 30 April 2018

<sup>29</sup> Harvey 2013, p.96

<sup>30</sup> Harvey 2013, p.101

<sup>31</sup> Heritage Division, SHR listing for Mahratta and Site, <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045079>, viewed 28 August 2018

plantings of *Rhapis palms* and *rhododendrons* between it and the house and a long garden bed of *azaleas* and *camellias* on the eastern (*Pacific Highway*) boundary.<sup>32</sup>

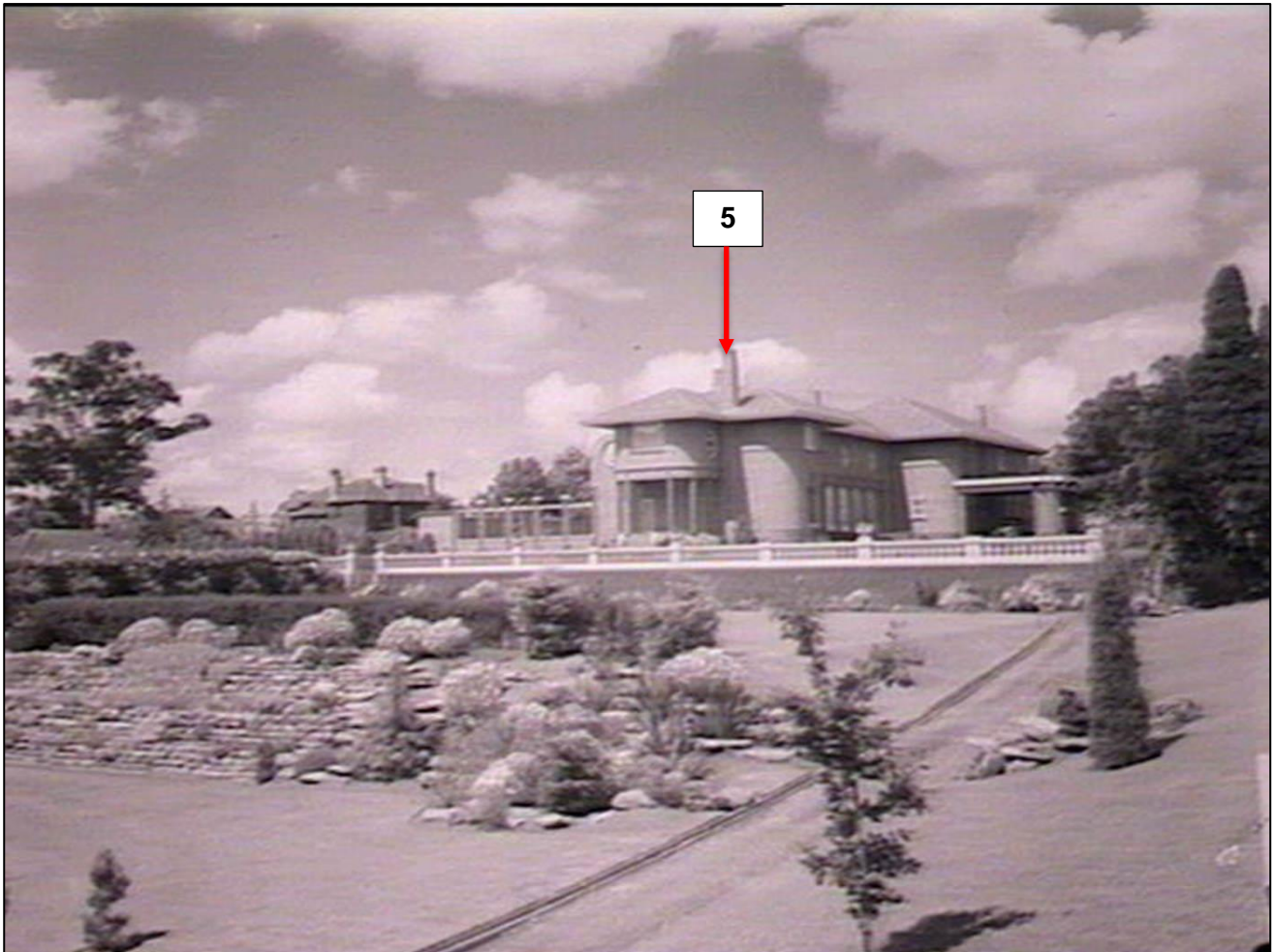
Agnew worked with Sorensen on additional planting design and visited his nursery in the Blue Mountains<sup>33</sup>. The property as it appeared in 1943 can be seen in Plate 2 and Plate 3.



**Plate 2** Detail from a 1943 aerial photograph of the second part of the proposal area, featuring the Mahratta [5] property (Source: SIX Maps)

<sup>32</sup> Heritage Division, SHR listing for Mahratta and Site, <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045079>, viewed 28 August 2018

<sup>33</sup> Morris 2011, p.6



**Plate 3** A photograph of Mahratta [5], dating to 1943; the balustrade from the former Heverlee [1] building is still present (Source: State Library of NSW)



**Plate 4 Image of Douglas Agnew (Source: The Historian – Official journal of the Ku-ring-gai Historical Society Inc. Vol 42 No 1 December 2013)**

At the end of 1960, various allotments of Mahratta were sold off to the Bank of New South Wales. The banks used the site as a training college. The building was extended in 1964 and the original L-shaped plan of the house and the western side of the court was enclosed.<sup>34</sup> The bank engaged Sorensen to redesign the gardens ‘to a high standard’. The brief to Sorensen was to:-

*Supplement the existing garden layout. He did this by planting a range of exotic and native trees in the lawn areas and introduced shrubberies to the periphery of the Mahratta property complimenting the already extensive planting of the garden. Possibly the most significant planting of the time included the*

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<sup>34</sup> Taylor Brammer and R Lumby 2011 Page 9-10

cedars, now mature, planted close to the house. The Bunya Bunya pine near to the Fox Valley Road boundary is a local landmark.<sup>35</sup>

In 1989, Mahratta was sold to the Philosophical Society after the Westpac Banking Corporation vacated the premises. In 1991, Ku-ring-gai Council received 1,915 square metres of land as a Section 94 contribution forming part of the Gerald Allen 1912 purchase.<sup>36</sup>

#### 4.1.6 Paul Sorensen (1891 – 1983)

Paul Edwin Sorensen (Plate 5) was a horticulturist, nursery proprietor and landscape gardener born in Copenhagen, Denmark. After qualifying he worked for a short time in both France and Germany before spending four years in Switzerland working for leading landscape designers and contractors Mertens Brothers, who would influence the style of his later works in Australia. Sorensen migrated to Australia in 1915 and eventually settled in the Blue Mountains, finding work as a gardener at the Carrington Hotel where he would meet his wife. He set up his own nursery at Katoomba in 1917 and relocated it to Leura in 1920 after purchasing land there. During this period his main source of income came from garden maintenance mainly for guesthouses. It was also around this time that Sorensen begun designing gardens and continued to do so up until his death. As he grew older he increasingly relied more on his youngest son Ib, who had joined his father's business after the Second World War to carry out the physical work while he provided design input.<sup>37</sup>

Richard Ratcliffe (Paul Sorensen's biographer), wrote the following about Sorensen's work:

*'gardens were based on the idea of creating outdoor rooms defined by the use of large trees and shrubs or with walls and changes of level. He was not particularly interested in smaller flowering plants, which he considered as furniture to his rooms; he left these very much to the taste of the garden owner, whom he always seemed to be able to enthuse with his ideas. Wherever possible he would borrow views from outside the garden to expand its boundaries but was always conscious that the scale of some scenery, such as in the Blue Mountains, was such that these borrowed views had to be achieved with great care to avoid conflict of scale between nature and the garden. He did not believe that good design could be*

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<sup>35</sup> Heritage Division, SHR listing for Mahratta and Site

<https://www.environment.nsw.gov.au/heritageapp/ViewHeritageltemDetails.aspx?id=5045079>, viewed 28 August 2018

<sup>36</sup> Ratcliffe, 1990 Chap 6, p.94

<sup>37</sup> Atkin.2002 pp 558-559



*done on paper, preferring to carry all of his ideas in his head and virtually design the garden on site. He never wrote about his work and his design philosophies can only be appreciated through his surviving gardens and the memories of those associated with them. With more than forty known gardens in the Blue Mountains and at least thirty more around other parts of NSW and the ACT, his was an important contribution to landscape gardening in Australia. His style, although influenced by the ideas of Mertens Brothers of Switzerland and possibly by Thomas Mawson of England, was distinctive, being more closely attuned to modern Landscape Architecture than to the garden design ideas of his age.*<sup>38</sup>

Generally, Sorensen’s work is under represented in the State Heritage Register with Everglades, Gleniffer Brae and Mahratta the only sites listed in relation to his work (refer Table 7).



**Plate 5 Image of Paul Sorensen in 1936 (photographed by Harold Cazneaux)**

Notable gardens Sorensen designed include:

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<sup>38</sup> Atkin. pp 558-559

**Table 7 Paul Sorensen's Gardens**

Name	Location	Date	Comments	Heritage Listing(s)
Shenstone	Leura	1916	-	-
Westelle Guest House garden	Katoomba	1917	-	-Blue Mountains Local Environmental Plan
Sylvan Mists	Katoomba	1920	Garden removed	-
Gabo	Leura	1923	-	-
Mount Edgecombe		1923	-	-
Metcalfe Garden	Leura	1924	Garden removed	-
Mahratta	Wahroonga	1925, 1941 & 1964	-	-NSW State Heritage Register -Ku-ring-gai Local Environmental Plan
Thompson garden	Leura	1926	Garden removed	-
Tralee	Leura	1926	-	-
Dean Park	Leura	1928-1929	Garden removed	-
Leuralla	Leura	1928	-	-Blue Mountains Local Environmental Plan
La Vista	Wentworth Falls	1928-1931	-	-Blue Mountains Local Environmental Plan
Cheppen	Leura	1929-1931	-	-
Holmwood	Leura	1932	-	-Blue Mountains Local Environmental Plan
Jemmalong	Blackheath	1932	-	-
Heaton Lodge	Mudgee	1932	First garden Sorensen designed outside of the Blue Mountains	-
Everglades	Leura	1933-1947	One of two gardens Sorensen claimed as his masterpieces	-NSW State Heritage Register -Blue Mountains Local Environmental Plan
Fjellheim	Leura	1933	-	-
Sospal	Leura	1933	-	-
Fjellheim II	Wentworth Falls	1936	-	-

Name	Location	Date	Comments	Heritage Listing(s)
<b>Australian Iron &amp; Steel Co. Office grounds</b>	Port Kembla	1936-1937	-	-
<b>Green Hills &amp; Hillside</b>	Figtree	1936-1938	-	-Wollongong Local Environmental Plan
<b>Bresford Grant gardens</b>	Warrawee	1937	-	-
<b>Moreton</b>	Warrawee	1937	-	-
<b>Hoskins Memorial Church gardens</b>	Lithgow	1937-1939	-	-Lithgow Local Environmental Plan
<b>Invergowrie</b>	Exeter	1937 & 1960's	-	-Wingecarribee Local Environmental Plan
<b>Southern Portland Cement Co.</b>	Berrima	1937-1938	-	-
<b>Redlands</b>	Mittagong	c.1937	-	-
<b>Gleniffer Brae</b>	Wollongong	1938	One of two gardens Sorensen claimed as his masterpieces	-NSW State Heritage Register -Wollongong Local Environmental Plan
<b>Feltex House roof garden</b>	Sydney	1939	Garden removed in 1954	
<b>The Old Rectory Nursery</b>	Berrima	c. late 1930's – early 1940's	-	-Wingecarribee Local Environmental Plan (Architectural item only – does not include grounds, garden or nursery)
<b>Mt. Keira Scout Camp</b>	Wollongong	1939	-	-
<b>Remembrance Driveway plantations</b>	Hume Highway south of Berrima	1945	-	-
<b>Cherry Dell</b>	Leura	1946	-	-
<b>Greenslopes</b>	Leura	1946	-	-
<b>Saskatoon</b>	Leura	1946	-	-
<b>Trevlyn</b>	Wentworth Falls	1946	-	-
<b>Neubeck House</b>	Lindsdale	1949	-	-
<b>Black Rock &amp; Pitlochry</b>	Meriwa	1954-1955	-	-

Name	Location	Date	Comments	Heritage Listing(s)
Mereworth	Berrima	1962-1964	-	-
Cherry Bank	Leura	1950	-	-
Pine Hills	Bathurst	1950	-	-
Basllantyre	Leura	1950	-	-
Casillis	Leura	1950	-	-
Boogadah	Leura	1950	-	-
Binnaway	Leura	1950	-	-
Blue Mist	Leura	1951	-	-
Rannock	Blayney	1951	-	-
Bethune	Orange	1951	-	-
Black Rock	Merriwa	1954	-	-
Whispering Pines	Blackheath	1955	-	-Blue Mountains Local Environmental Plan
Pitlochry	Merriwa	1955	-	-
Calleen	Cowra	1960	-	-
Talltrees	Leura	1960	-	-
Field Garden	Wahroonga	1961	-	-
Proctor gardens	Wahroonga	1961	-	-
Mereworth	Berrima	1966	-	-
Fernhill	Mulgoa	1969	-	-
Rock Forest	Bathurst	1969	Garden removed	-
Aola	Peats Ridge	1970	-	-
Barakee	Orange	1971	-	-
Ulinda	Binnaway	1971	-	-
Goollooinboin	Glen Davis	1971	-	-
Rogers Garden	Mt Wilson	1971	Garden removed	-
Forest Park	Kulnura	1982	-	-

#### 4.1.7 Paul Sorensen at Mahratta

The 1960s were the most significant period of work for Sorensen, even though he was in his 70s when he was carrying out work here.<sup>39</sup> Several gardens were created by Sorensen during this period in Sydney at Mahratta and others in Bathurst, Berrima and Cowra. Sorensen was invited to Mahratta by the Bank of New South Wales (now Westpac Banking Corporation) and the staff invited Sorensen to redesign the gardens.

The gardens are noted for their distinct style including the integrated and subtle relationship of local bushland into the garden design with a distinctive and strong style in stone walling, tree planting and decorative details in metalwork that expresses the design of the place. Sorensen demonstrated a striking use of a range of exotic and native plants in a comprehensive design. The exotics include Cedars (*cedrus deodara*) Maples, English Oaks (*Quercus robur*/ Tulip trees (*Liriodendron tulipifera*). Other exotic trees include Dawn Redwoods (*Metsequioa gypstroboides*) and Araucaria with a range of broadleaved exotics including Jacaranda *mimosaefolia* and Cape Chestnuts (*Virgilia capensis*).<sup>40</sup> The eastern boundary planting bed adjacent to the boundary wall is noted as mixed shrubbery in drawings of the gardens from 2007<sup>41</sup> and the planting areas behind the brick path are noted as Azaleas and Camellias.

Unfortunately, there is little evidence of drawn plans and documentation of his designs.<sup>42</sup> There are no extant original plans of his work at Mahratta although the gardens have been mapped in *Paul Sorensen and his Gardens* (Figure 13).

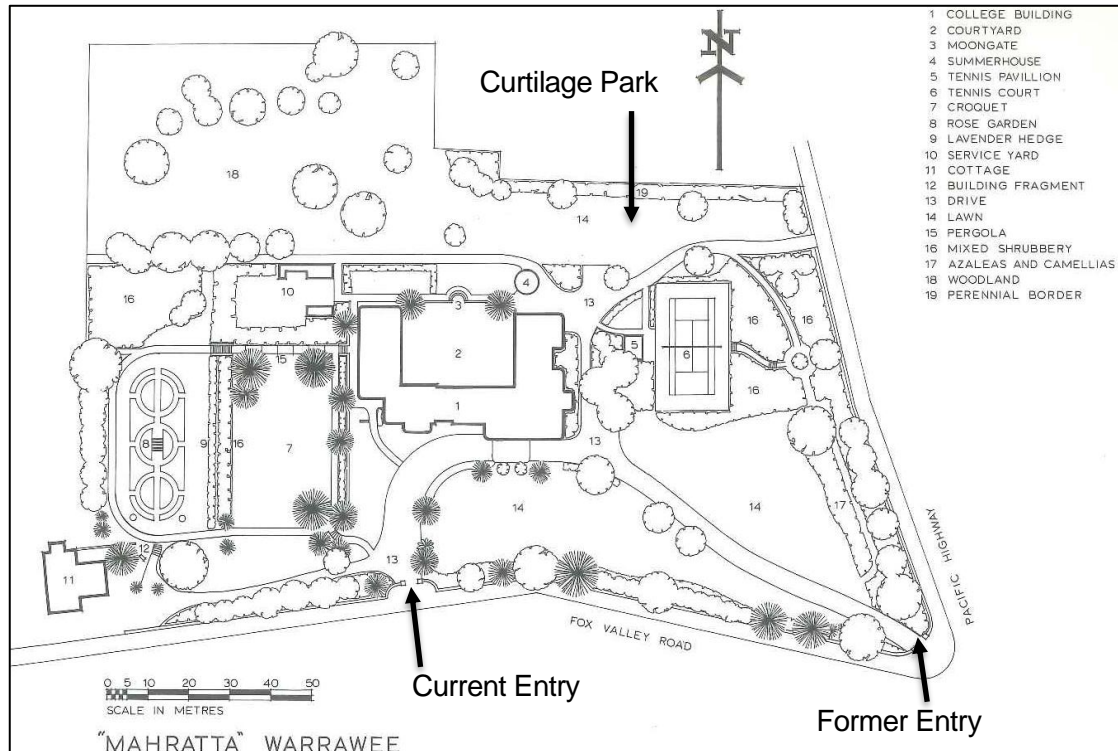
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<sup>39</sup> Harvey. 2013 pp 101-102

<sup>40</sup> Ratcliffe, Chap 6, p.2

<sup>41</sup> Draft Arborists Report 2007

<sup>42</sup> Read S, 2008 p 21



**Figure 13 Plan of Mahratta house and grounds (Source: The Master Gardener, Paul Sorensen and his Gardens, Richard Ratcliffe 1990, p.94)**

The northern lawn is an important component of the visual curtilage and the flower beds and densely planted shrubs provide a backdrop against neighbouring properties to the north. The long-textured brick walls along the Pacific Highway and Fox Valley Road are an important privacy and noise barrier to the busy streets with two important gateways in the wall fronting Fox Valley Road marked by tall brick pillars. A third gateway gives access directly to the Pacific Highway.<sup>43</sup>

<sup>43</sup> Schwager Brooks 2007

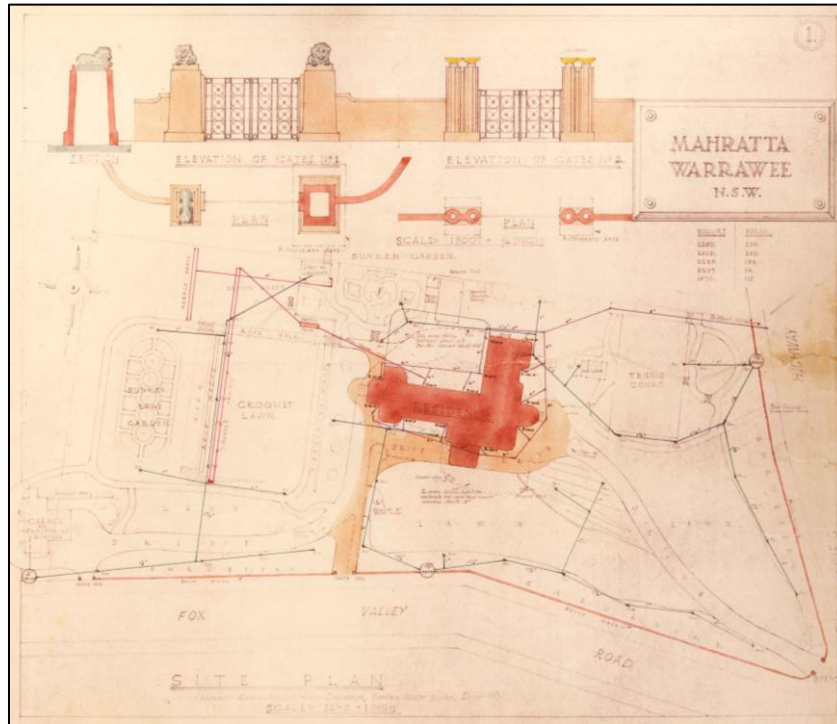


Figure 14 Douglas Agnew’s plan of the Mahratta site (Source: Schwager Brooks Heritage Analysis 1989)

#### 4.2 Chronology of the heritage curtilage (Mahratta)

Based upon the historical research presented it is possible to summarise the chronology of the development of the wider heritage curtilage relevant to the study area, this is presented in Table 8.

Table 8 Chronological development of the heritage curtilage (Mahratta)

No.	Building	Date
1	Heverlee	c.1904 (demolished in 1940)
2	Sorensen commissioned to lay out garden	1925
3	Heverlee/Mahratta garages (existing)	pre-1930
4	Heverlee/Mahratta head gardener's home (existing)	pre-1930
5	Heverlee/Mahratta outbuildings (existing)	pre-1930
6	Mahratta (existing building)	1940
7	Sorensen commissioned to redesign garden	1941
8	Sorensen commissioned to redesign garden as part of Westpac renovation	1964

### 4.3 Research themes

Contextual analysis is undertaken to place the history of a particular site within relevant historical contexts in order to gauge how typical or unique the history of a particular site actually is. This is usually ascertained by gaining an understanding of the history of a site in relation to the broad historical themes characterising Australia at the time. Such themes have been established by the Australian Heritage Commission and the NSW Heritage Office and are outlined in synoptic form in New South Wales Historical Themes.<sup>44</sup>

There are 38 State Historical Themes, which have been developed for NSW, as well as nine National Historical Themes. These broader themes are usually referred to when developing sub-themes for a local area to ensure they complement the overall thematic framework for the broader region.

A review of the contextual history in conjunction with the local historical thematic history has identified historical themes which relates to the occupational history of the study area.<sup>45</sup> This is summarised in Table 9.

**Table 9 Identified historical themes relevant to the study area within Mahratta**

Australian Theme	NSW Theme	Local Theme
Developing local, regional and national economies	Transport	Utilities
	Health	Key residences
Building settlements, towns and cities	Towns, suburbs and villages	Suburban consolidation
	Land tenure	Suburban consolidation
	Accommodation	Suburban consolidation
Developing Australia's cultural life	Domestic life	Suburban consolidation

<sup>44</sup> NSW Heritage Council 2001

<sup>45</sup> Proudfoot 1987



#### 4.4 Recent history of Section 60 application for tree removals and alterations close or on the Mahratta eastern boundary (ie. within the study area) (refer Appendix 4)

*1998: Application to undertake landscape works, demolish a rotunda and erect a carport*

In 1998, a Section 60 application was prepared by Paul Dignam to undertake the following works: -

- Remove the existing iron gate from the disused entrance at the intersection of Fox Valley Road and Pacific Highway to the main entrance at Fox Valley Road and replace the gate in the first position with a fixed wooden gate (within the study area). These works have been undertaken.
- To undertake landscape works, including realignment of a concrete path and reconstruction of a small rockery incorporating a low ramp. These works are outside the study area and have been undertaken.
- To construct two retaining walls to the south western boundary. These works are outside the study area and have been undertaken.
- To demolish a rotunda (these works are outside the study area).
- To erect a carport (these works are outside the study area).

*2007: Application to remove a Eucalyptus tree on the eastern boundary*

In April 2007, a Section 60 application was made to remove a tree (*Eucalyptus citriodora*) on the eastern boundary. The Section 60 application noted that the task was to remove a non-significant lemon scented gum (*Corymbia citriodora*) tree which was in a dangerous condition and location overhanging the Pacific Highway and needed to be removed (See Appendix 4). A site wide arborist's report for Mahratta was prepared at the time by Barry Quine of Sydney Garden Craft for the owner of the property Mr Chris Heeks. The *Eucalyptus citriodora* has been removed. The report also recommended the urgent pruning of two *Cinnamomum camphorum* *Camphor laurels* (noted as trees 44 and 45 in the application plan). These trees are in Curtilage Park and not within the study area.<sup>46</sup>

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<sup>46</sup> Heritage Division Records

2016: Application to repair existing brick boundary wall fronting the Pacific Highway (refer Appendix 4 history of S60 applications)

In 2016, a Section 60 application was prepared and lodged by David Scobie following a work order issued from Ku-ring-gai Council relating to the condition of boundary walls fronting the Pacific Highway requesting action to fix them. The S60 package includes drawings for these repairs and associated landscaping.<sup>47</sup> A copy of these are provided in Appendix 4 Record of Section 60 Applications for Mahratta. The application was approved to remove the damaged section of wall which has been carried out - but the wall has not been replaced (Plate 6).



**Plate 6 Section of removed wall on the Pacific Highway boundary**

<sup>47</sup> Heritage Division Records,

## 5 Physical inspection

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A physical inspection of the study area and wider proposal area was undertaken on 10 April 2018, attended by James Cole (Archaeologist). The principal aims of the survey were to identify heritage values associated with the study area; this includes any heritage items (Heritage items can be buildings, structures, places, relics or other works of historical, aesthetic, social, technical/research or natural heritage significance. 'Places' include conservation areas, sites, precincts, gardens, landscapes and areas of archaeological potential).

The proposal area in this location consists of a section of Pacific Highway road corridor centred around the Fox Valley Road intersection. The proposal area also contains portions of private properties (Lot 102 DP 1034668, Lot 2 527984, Lots 1 and 2, DP 9991, Lot 4 DP 523216, Lot A DP 354970, Lot 14 DP 810712 and Lot 1 DP 52488) in addition to study area.

The proposal area consists largely of roadways and footpaths within the road reserve, however includes some boundary walls, fences and garden areas within those parts which extend outside the current road reserve into private property.

The study area itself is located within the eastern extent of the Mahratta curtilage and consists of a brick wall and landscaped garden area with a brick path running parallel to and within 9m of the brick wall. Plate 7 to 17 demonstrate the current setting of the Mahratta site within the study area.

Landscape features within the Mahratta heritage curtilage that would be impacted by the proposed works (ie. the improvements to the Fox Valley Road/Pacific Highway intersection) include:

- The brick wall on the property boundary fronting the Pacific Highway
- Planting beds and shrubs on the eastern boundary parallel to the brick wall (about 9m deep from the brick wall)
- Large mature trees (27 identified as having landscape significance within the site)
- A brick path running parallel to the eastern boundary and brick wall

These are described further in the sections below.

## **Brick Wall –**

A 1.8m high brick wall (Plate 13 and 15) is located on the eastern and southern boundaries. The walls were designed by Douglas Agnew and built with the house during the Second World War.<sup>48</sup> The bricks are a red brick similar to the house construction. The wall on the southern boundary has two gate openings. The gate on the corner of Fox Valley Road and Pacific Highway has been rebuilt to be permanently closed (refer Appendix 4 - Section 60 application by Paul Dignam in 1998.) The walls on both the southern and eastern boundaries have been repaired in several places which is clear from the difference in brick colours and the changes to the mortar which varies from white to black. There is currently an open section on the eastern boundary within the study area, where the wall has been removed to avoid collapse (refer Appendix 3 - Section 60 application by David Scobie in 2016) and has not been replaced. The open parts of the boundary are secured with temporary fencing (Plate 6 and 12).

## **Planting Beds, Trees and Shrubs**

A wide planting bed (about 9m deep from the eastern boundary) runs from the northern brick boundary wall at the Curtilage Park (Plate 15) boundary to the north of Mahratta to the southern entry gates on the corner of the Pacific Highway and Fox Valley Road.

The planting bed consists of a large number of mature trees of mixed species with a range of native and exotic species. This mix of native and exotic species is highly typical of mixed 'shrubbery' planting beds that Sorensen would have designed and constructed during his time at Mahratta<sup>49</sup> (refer Plate 12). A brick pathway runs to the west of this bed with a narrower planting bed alongside. Adjacent to this is a large lawn which leads up to the house and is a strong design element within the original garden design.

Urban Forestry Australia has prepared a tree audit (Appendix 1 Tree Audit prepared by Urban Forestry Australia) which has examined all the trees in this area including their species, height, age, vigour, comments on any pests and diseases and whether any dieback is evident. The audit is based on a standard Tree Retention Value Assessment (refer Appendix 3 Tree Retention Value Priority Matrix) correlating estimated life expectancy (long, medium and short) with the tree's significance as a contributing asset to the landscape. The tree audit provides information that supports the aesthetic

<sup>48</sup> Harvey 2013, p.101

<sup>49</sup> Atkin. pp 558-559

significance assessment of the trees and provides more certainty around health and longevity and the ability of individual trees to contribute to the overall aesthetic significance of the Mahratta landscape over time.

The audit has evaluated the trees as follows: -

### High Significance Trees

There a number of highly significant trees with mature canopies in the eastern garden bed including a wide range of *Syzygium* specimens including a large *Syzygium paniculatum* Magenta Cherry (Tree No. 19) (Plate 7). This tree is 13.5m high with a spreading canopy of 18m. It is a Threatened species with Endangered Conservation status in NSW and listed as vulnerable under the *Environmental Protection and Biodiversity Conservation Act 2015*. The Magenta Cherry tree is located in the middle of the brick path adjacent to the eastern boundary within the study area. The construction encroachment this tree is at least 30% of the tree canopy and part of the rootball may be affected by the construction works.

Two large trees identified as *Syzygium leosum* (Tree No. 5) and *Syzygium smithii* (Tree No. 6) are also noted as having high significance due to their size and despite some evidence of mould and scale are still good specimens.

Other high significance trees include a *Stenocarpus sinuatus* Queensland Firewheel tree (Tree No. 15) and *Arytera divaricata* (Tree No. 17) which are both native trees and considered as fine specimens within the existing garden setting. Other high significance trees include a *Lophostemon confertus* Brush box (Tree No. 8) which is of the largest specimens in the group. The tree canopy has been poorly pruned on the road side and the size of the tree is conflicting with the growth of the *Illawarra Flame Tree* (Tree No. 14) adjacent to it.

High significance exotic trees include a *Nyssa sylvatica* Tupelo (Tree No. 26), which is an excellent specimen providing a strong autumn colour, and a *Calodendron capenses* Cape Chestnut (Tree No. 9).



**Plate 7** *Syzygium paniculatum* Magenta Cherry located in the middle of the brick path adjacent to the eastern boundary works, facing south (identified as T19 in the Tree Plan provided in Appendix 1)

### Medium Significance Trees

A tree that has been assessed as having medium significance in the study area is a *Syzygium luehmannii* (Tree No. 2) which is smaller in habit (7m high and 8m spread) and experiences pressure on the rootball from surrounding structures. Other medium significance trees include two *Syzygium jambos* Rose Apple (Tree No. 22) (Plate 11). These specimens have spread close to the section of collapsed walls and their proximity to each other has caused constrained canopies.

### Low significance trees

Two of the trees in the eastern planting bed within the study area have been assessed as having low significance due to loss of crown, or compromised root systems. The most significant tree in this group is a large *Liquidamber styraciflua* (Tree No. 16) (Plate 8) which is one of the largest specimens in the group of trees on this boundary. The *Liquidamber* is larger than 22m and is a dominant feature in the planting bed adjacent to the lawn. The tree has been affected by the piling up of lawn clippings at its base reducing oxygen and air exchange to the roots and the poor state of the canopy has reduced the appearance of this specimen.

The eastern planting bed also includes garden shrubs such as *Rondeletia spp* and *Viburnum spp* which are not considered good specimens (Plate 13).



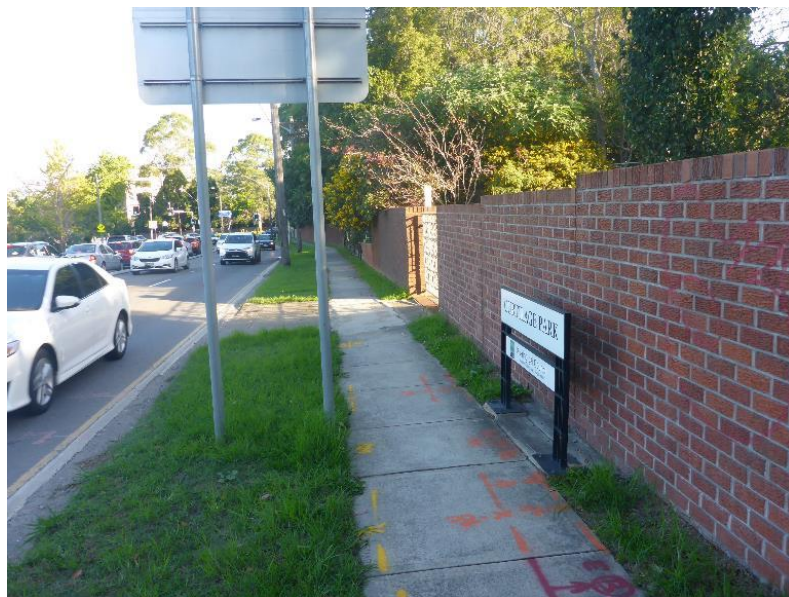
**Plate 8** *Liquidamber styraciflua* in the eastern planting bed, facing east Brick path

**Brick Path**

The brick path (Plate 9) is part of a path network that runs parallel to the brick wall on the eastern boundary of Mahratta and is used as part of a meditation walk by the School of Philosophy. The path is made of bricks which are not mortared. The path is a distinctive feature along the eastern planting bed within the study area and defines the western edge of the garden bed in this area.



**Plate 9** Brick pathway along the eastern planting bed, facing south



**Plate 10** Modern brick boundary wall of Curtilage Park and the Mahratta site [5] and adjacent road reserve, facing south-east





**Plate 11** Gardens within Curtilage Park (part of the historical Mahratta [5] property) adjacent to Pacific Highway, facing south-east



**Plate 12** View of Mahratta [5] gardens within the study area, in area without brick boundary wall, facing east



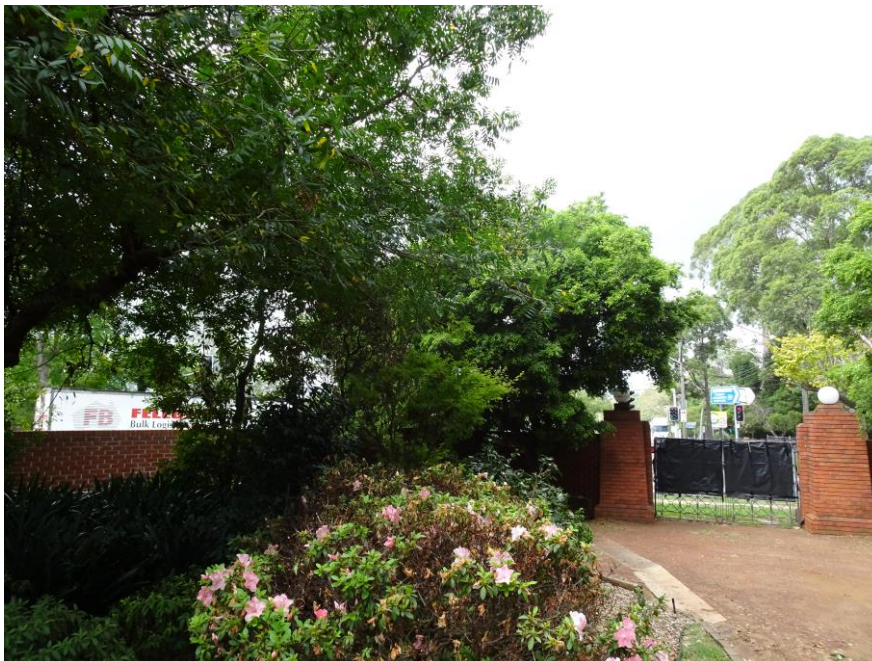
**Plate 13** Typical view of gardens within Mahratta [5] grounds with brick boundary wall, facing south (ie. the study area)



**Plate 14** View of the eastern planting bed within the study area, facing east



**Plate 15** Eastern brick boundary wall of Mahratta and adjacent road reserve, facing north-west (note – the different brick colours and mortar)



**Plate 16** Main entry gate to the Mahratta [5] grounds in the south-east corner of the site with the gardens on the eastern boundary adjacent (looking south east)

## 6 Archaeological assessment

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The potential non-Aboriginal archaeological resource relates to the predicted level of preservation of archaeological resources within the study area. Archaeological potential is influenced by the geographical and topographical location, the level of development, subsequent impacts, levels of onsite fill and the factors influencing preservation such as soil type. An assessment of archaeological potential has been derived from the historical analysis undertaken during the preparation of this report. Aboriginal heritage within the proposal area will be addressed in the Roads and Maritime Procedure for Aboriginal Cultural Heritage Consultation and Investigation which will be provided as part of the REF.

### 6.1.1 Archaeological resource

This section discusses the non-Aboriginal archaeological resource within the study area. The purpose of the analysis is to outline what archaeological deposits or structures are likely to be present within the study area and how these relate to the history of land use associated with the study area.

The historical context presented in this report indicates that archaeological material may be present within the study area, largely relating to the historical use of residential areas adjacent to the Lane Cove Road. The study area would likely have contained garden spaces and property boundaries, as the previous house, Heverlee [1], was located in the footprint of the current house. Any associated outbuildings are likely to have been located close to the main house away from Lane Cove Road. Archaeologically, these garden features and property boundaries would present as wall foundations of garden walls, fencing postholes, yard surfaces and evidence of landscaping or gardens such as fill layers and garden beds.

It should also be noted that modern services are likely to be contained within the study area. These may include sub-surface electricity or telephone wiring, drainage channels and tunnels, as well as sewerage and water services.

### 6.1.2 Integrity of sub-surface deposits

Sub-surface deposits can be disturbed or damaged by later development or taphonomic processes. The integrity of any sub-surface deposits may be in relatively good condition, as it is possible that the current gardens within the study area are situated over earlier surfaces and deposits from occupation of the property prior to the 1930s. However, the installation of underground services and infrastructure, such as sub-surface electricity or telephone wiring, drainage channels and tunnels, would likely have involved targeted excavation at varying depths, which would significantly impact any archaeological material (Plate 15). These impacts may have removed/partially removed or disturbed archaeological deposits such as yard surfaces, fencing postholes, fill layers and garden bed deposits, and truncated walls and

wall foundations or footings. As a result, the potential heritage value of and research potential of any subsurface remains of former structures would be significantly reduced.

### **6.1.3 Research potential**

Archaeological research potential refers to the ability of archaeological evidence to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site. Archaeological research potential differs from archaeological potential in that the presence of an archaeological resource (i.e. archaeological potential) does not mean that it can provide any additional information that increases our understanding of a site or the past (i.e. archaeological research potential).

The research potential of a site is also affected by the integrity of the archaeological resource within a study area. If a site is disturbed, then vital contextual information that links material evidence to a stratigraphic sequence may be missing and it may be impossible to relate material evidence to activities on a site. This is generally held to reduce the ability of an archaeological site to answer research questions.

Assessment of the research potential of a site also relates to the level of existing documentation of a site and of the nature of the research done so far (the research framework), to produce a 'knowledge' pool to which research into archaeological remains can add.

#### **Building settlements, towns and cities – Land tenure - Suburban consolidation**

The study area may contain archaeological material relating to former property boundaries, such as stone and brick walls or former fence lines, which may belong to the previous occupation of the property. While physical evidence of these former property boundaries is valuable, it would be unlikely to provide further information regarding land tenure of properties adjacent to the study area.

#### **Building settlements, towns and cities – Towns, suburbs and villages – Suburban consolidation**

The study area forms part of the old Lane Cove Road, and as the main road running through the suburbs of Wahroonga, Warrawee and Turramurra, it played a vital role in the development of these communities. However, there is a low potential that any archaeological material associated with former road or residential property boundaries and garden spaces would contribute to any research questions regarding the development of towns, suburbs and villages within the Ku-ring-gai district that cannot already be gained from existing historical documentation.

### **Developing local, regional and national economies – Health – Key residences**

The study area currently features landscaped gardens and grounds. These landscaped areas can be considered to be places and settings in which the wellbeing of the property's occupants was considered and promoted. However, should any evidence of these landscaped areas be encountered, they are unlikely to contribute to any research questions relating to health activities within the Ku-ring-gai district that cannot already be gained from existing historical documentation.

### **Summary of archaeological potential**

Through an analysis of the above factors, a number of assumptions have been made relating to the archaeological potential of the study area, these are presented in Table 10 and Figure 15.

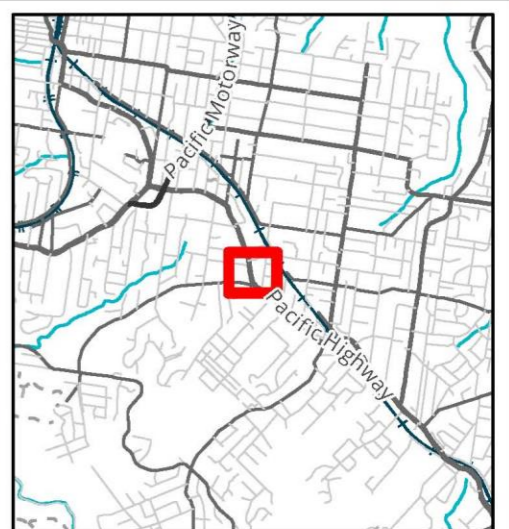
The assessment of archaeological potential has been divided into three categories:

- **High archaeological potential** – based upon the historical context and documentary evidence presented within this report there is a high degree of certainty that archaeologically significant remains relating to this period, theme or event will occur within the study area.
- **Moderate archaeological potential** – based upon the historical context and documentary evidence presented within this assessment it is probable that archaeological significant remains relating to this period, theme or event could be present within the study area,
- **Low archaeological potential** – based upon the historical context and documentary evidence presented within this assessment it is unlikely that archaeologically significant remains relating to this period, theme or event will occur within the study area.

Where areas of low, moderate or high archaeological potential have been identified, these have been delineated with references to specific features to which they are related. Specific features have not been identified in areas of low potential as it is considered unlikely that archaeologically significant remains relating to the historical site of the study area would be present in these areas.

**Table 10 Assessment of archaeological potential**

Designation	Description	Probable feature(s)	Possible construction date	Likely sub-surface integrity	Archaeological potential
Heverlee property [1]	Property boundary, landscaped gardens	Wall foundations, post holes, garden beds, cuts, fill deposits	c.1900	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low
Mahratta property [5]	Current brick wall property boundary, landscaped gardens	Wall foundations, garden beds, cuts, fill deposits	c.1939	Disturbance or removal of cuts, garden bed and fill deposits; truncation or removal of garden wall foundations	Low



- Legend**
- Study area
  - Proposal area
  - State Heritage Item**
  - Mahratra
  - Archaeological potential**
  - Low

**Figure 15 Assessment of archaeological potential**

0 10 20 30 40 50  
 Metres  
 Scale: 1:1,500 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56

**biosis**  
 Bios Pty Ltd  
 Albury, Ballarat, Melbourne,  
 Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27217  
 Date: 24 July 2018,  
 Checked by: CLA, Drawn by: GD, Last edited by: Iharley  
 Location: P:\27200s\27217\Mapping\27217 State 15 Potential



## 7 Significance assessment

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An assessment of heritage significance encompasses a range of heritage criteria and values. The heritage values of a site or place are broadly defined as the 'aesthetic, historic, scientific or social values for past, present or future generations'.<sup>50</sup> This means a place can have different levels of heritage value and significance to different groups of people.

The archaeological significance of a site is commonly assessed in terms of historical and scientific values, particularly by what a site can tell us about past lifestyles and people. There is an accepted procedure for determining the level of significance of an archaeological site.

A detailed set of criteria for assessing the State's cultural heritage was published by the (then) NSW Heritage Office. These criteria are divided into two categories: nature of significance, and comparative significance.

Heritage assessment criteria in NSW fall broadly within the four significance values outlined in the Burra Charter. The Burra Charter has been adopted by State and Commonwealth heritage agencies as the recognised document for guiding best practice for heritage practitioners in Australia. The four significance values are:

- Historical significance (evolution and association).
- Aesthetic significance (scenic/architectural qualities and creative accomplishment).
- Scientific significance (archaeological, industrial, educational, research potential and scientific significance values).
- Social significance (contemporary community esteem).

The NSW Heritage Office issued a more detailed set of assessment criteria to provide consistency with heritage agencies in other States and to avoid ambiguity and misinterpretation. These criteria are based

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<sup>50</sup> NSW Heritage Office, 2001

on the Burra Charter. The following SHR criteria were gazetted following amendments to the Heritage Act that came into effect in April 1999:

- *Criterion (a) - an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).*
- *Criterion (b) - an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).*
- *Criterion (c) - an item is important in demonstrating the aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).*
- *Criterion (d) - an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.*
- *Criterion (e) - an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).*
- *Criterion (f) - an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).*
- *Criterion (g) - an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments; or a class of the local area's cultural or natural places; or cultural or natural environments.*

## 7.1 Levels of heritage significance

Items, places, buildings, works, relics, movable objects or precincts can be of either local or State heritage significance or have both local and State heritage significance. Places can have different values to different people or groups.

### State heritage items

State heritage items, places, buildings, works, relics, movable objects or precincts of State heritage significance include those items of special interest in the State context. They form an irreplaceable part of the environmental heritage of NSW and must have some connection or association with the State in its widest sense.

The following evaluation attempts to identify the cultural significance of the study area. This significance is based on the assumption that the site contains intact or partially intact archaeological deposit

## 7.2 Statements of significance

The existing statement of significance for Mahratta is provided in Table 11. Table 12 presents an evaluation and subsequent statements of significance for the areas identified as holding archaeological potential in Table 10. Table 13 presents an evaluation and subsequent statements of significance for the areas identified as holding Landscape Heritage Values.

**Table 11 Statements of significance for listed heritage items, where available – Mahratta heritage curtilage**

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
1964	"Mahratta", dwelling house	1536 Pacific Highway, Wahroonga NSW	Ku-Ring-Gai LEP 2015	State	<p>Defaults to State statement of significance:</p> <p>Mahratta is a large, intact, 2 storey mansion, erected in 1941 in an unusual style which combines Art Deco and Classical Georgian Revival elements. It is perhaps the largest and finest property of its type erected in wartime Sydney. The house replaced a substantial Federation period residence situated on an 8.6-acre site in Warrawee but retained and incorporated the majority of the earlier landscape elements including a sunken rose garden and outbuildings. It was built for T.A.Field, a notable figure in the retail and wholesale meat industry, by the architect Douglas Agnew.</p> <p>The house is substantially intact exhibiting a high degree of face brick, bronze and wrought iron detailing externally and is characterised by a dramatic porte cochere on the south and an enclosed Pompeian Court on the north. Extended in 1964 by the addition of a west wing, the whole achieves a unity of style, form, texture and materials from the sensitively designed additions.</p> <p>Internally the house retains a series of superb public spaces and rooms of fluid design and highly crafted materials. The oval staircase executed in marble and scagliola, the well-</p>

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
					<p>proportioned ball room and elliptical dining room, finely detailed joinery and original fittings all combine to achieve a very rare and dramatic domestic interior from the period.</p> <p>The property has historic associations and aesthetic values due to the involvement and advice of landscape designer Paul Sorensen in its garden. The open landscaped setting and mature plantings provide a fine setting and backdrop to the house. Red gravel driveways snaking through the open lawns reinforce the colour and texture of the house.</p> <p>Occupation by the Westpac Banking Corporation since the 1960s, using the house as a Staff Training College has ensured a high level of maintenance to both the house and grounds. This has ensured that Mahratta has retained all of the essential characteristics of its cultural significance.</p> <p>NB: separate statements of significance exist for the garage and chauffeur's quarters, gardener's cottage, tennis pavilion, laundry, sheds and greenhouses. (see Schweger Brooks, 1989 sections 5.2-5.5)</p> <p>The open lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house. To the west the Croquet Lawn and Rose Garden with their backdrop of dense mature trees and shrubs are a key component of the cultural and historic setting having survived almost intact from the original (Federation era) house.</p> <p>The open areas to the west of the property are of little cultural significance to the main house but contain a series of very large native trees. (Schweger Brooks, 1989).</p>

Site number	Site name	Address / Property description	Listings	Significance	Statement of significance
					Reasons for listing; cultural, architectural, landmark value, state significance Note: grounds, fence, outbuilding to Fox Valley Road & garage building (LEP, 1992).
1913	Mahratta	25 Fox Valley Road, Wahroonga NSW	Ku-Ring-Gai LEP 2015	State	Defaults to State statement of significance.

**Table 12 Evaluation and statement of significance for areas of archaeological potential in study area**

Site name	Significance assessment criteria							Level of significance	Statutory requirements	Statement of significance
	A	B	C	D	E	F	G			
<b>Heverlee property [1]</b>								Nil	S139 'Relics Provision' Heritage Act	<p>The potential archaeological materials associated with Heverlee [8], such as former stone wall property boundaries and landscaped gardens, are not considered an important component of or will yield information that will contribute to an understanding of the cultural history of NSW or Ku-ring-gai, nor hold associations with the life or works of a person(s) of importance in NSW or Ku-ring-gai's cultural history. The potential archaeological materials are unlikely to demonstrate aesthetic characteristics or a high degree of creative or technical achievement in NSW or Ku-ring-gai, and they do not hold a strong or special association with a community or cultural group in NSW or Ku-ring-gai for social, cultural or spiritual reasons. The potential archaeological materials are not considered to possess uncommon, rare or endangered aspects of NSW or Ku-ring-gai's cultural history, nor do they demonstrate the principal characteristics of a class of NSW or Ku-ring-gai's cultural places or environments.</p> <p>The potential archaeological materials associated with Heverlee [8] do not hold</p>





## 8 Statement of heritage impact

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### 8.1 Proposal details

The proposed intersection improvements at the intersection of Fox Valley Road and the Pacific Highway would include road widening, median works, clearance of roadside vegetation, utility relocations, property adjustments and property acquisitions.

The proposed works in the portion of the study area would involve clearance of trees and vegetation within the eastern boundary planting bed, relocation and reconstruction of the eastern brick retaining wall and property adjustments and acquisitions.

Four options for the reconstruction of the Mahratta boundary retaining wall were considered in relation to the proposed works within the study area:

- Option 1 – Pad footing wall
- Option 2 – Piled footing wall
- Option 3 – Steel sheet piling
- Option 4 – Secant pile wall

Option 3 and 4 were discarded as their construction would produce high noise and vibration and would require machinery to be located within the Mahratta property beyond the existing study area. Option 1 is the preferred solution as it would involve a standard method of construction, would be quicker and safer to construct, result in less disturbance to the neighbourhood (noise and vibration) and would have the same tree impacts as all other options. Details of the proposed construction of the pad footing wall are shown in Figure 16.

The height of the proposed wall differs slightly from the existing wall in some locations (refer to Appendix 8). This is to ensure that the height above ground level from inside the property is a minimum of 1.4 metres to satisfy minimum height requirements for pedestrian fences according to Roads and Maritime standards (refer to Standard Drawing – R0800 Fencing series (Pedestrian Fence) in Appendix 9).

The proposed wall is a double leaf brick wall to match the existing brickwork with heavy duty metal wall ties in between the two brick faces. The width of the wall would increase from about 231mm to about 270mm due to amount of mortar required in between the two brick faces and the size of the bricks.



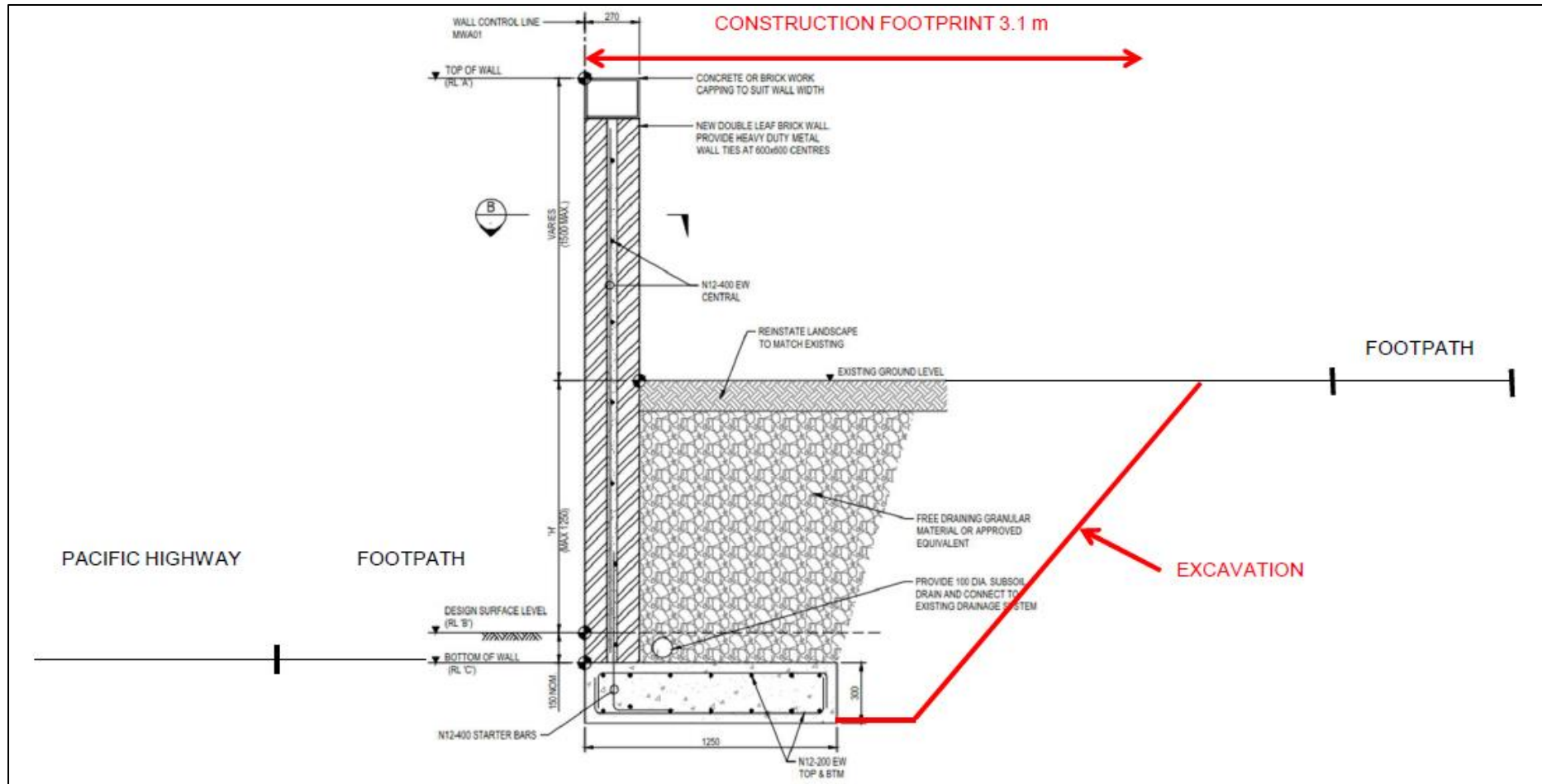


Figure 16 Section drawing of proposed pad footing retaining wall (Source: Roads and Maritime Services, 2018)

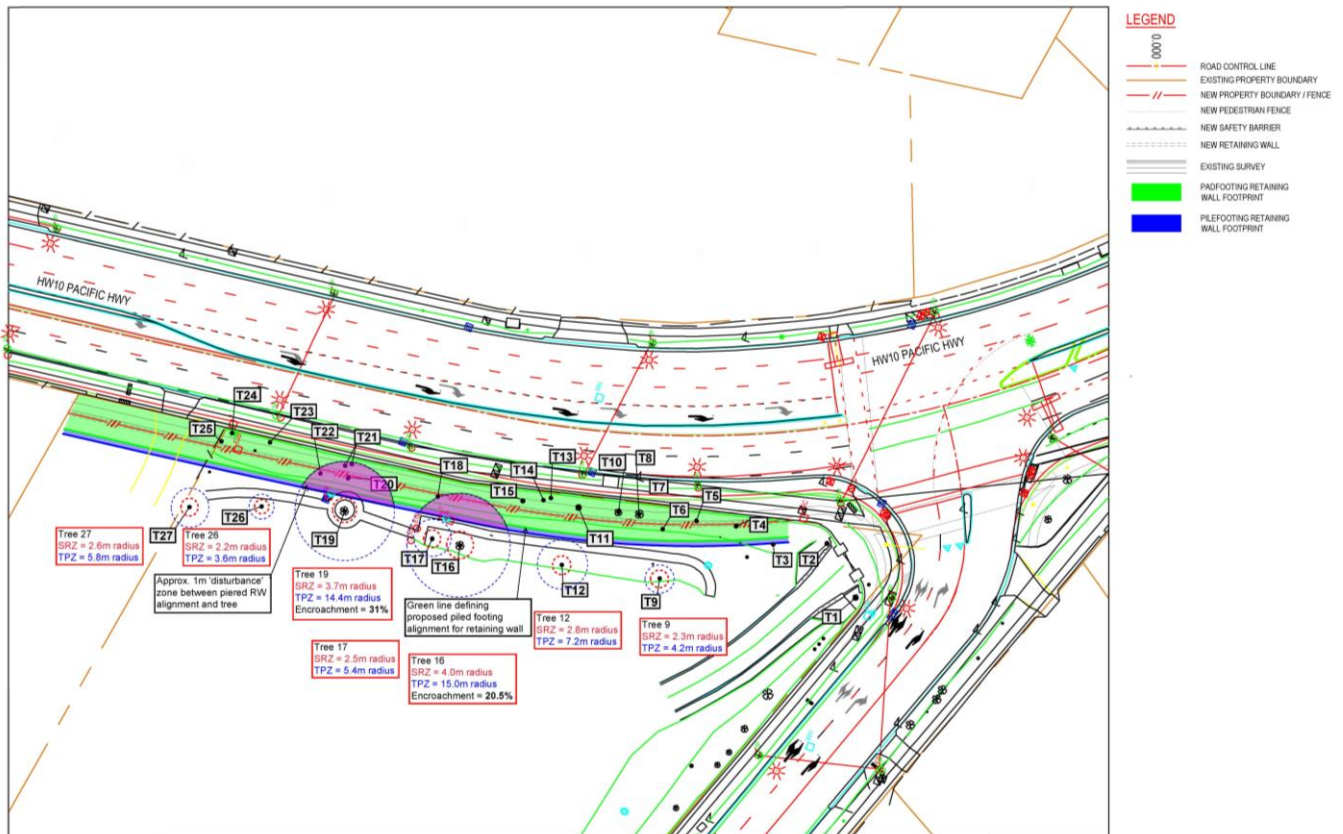


Figure 17 Plan drawing of proposed pad footing retaining wall and impacted trees (Source: Roads and Maritime Services, 2018)

## 8.2 Archaeological impact assessment

This assessment has identified that there may be archaeological material present within the study area related to the historical use of the land for residential garden and landscape areas, such as wall foundations, postholes, garden beds, cuts and fill deposits. However, these archaeological materials have been assessed as not holding heritage significance. The potential impacts to the study area are considered acceptable as there are no items of heritage significance within this part of the study area that would be likely impacted by the proposed works, provided that the Roads and Maritime Unexpected Heritage Items Procedure (see Appendix 2) is implemented to identify and record any unexpected archaeological material that may be encountered during the proposed works.

## 8.3 Landscape heritage impact assessment

Up to twenty trees would be removed as a result of the proposed road widening work (refer Figure 17 and Appendix 1 for locations and species). As described, the high significance trees are noted for their landscape contribution to the garden as a whole, especially as a screen from the house across the lawn

to the Pacific Highway. The mix of trees, particularly several species of *Syzygium* Lilly Pilly contribute to the aesthetics of the garden.

The planting bed on the western side of the brick path would be affected by the likely removal of the *Liquidamber styraciflua* and the *Syzygium paniculatum*. These two removals would result in the loss of canopy in the overall planting bed.

The encroachment of the road widening into the eastern garden of Mahratta would substantially reduce the amount of tree canopy and vegetation cover along the eastern boundary and would expose the house to views of the Pacific Highway (refer Figure 18). A large number of low shrub plantings including *Azalea* spp are on the boundary within the eastern garden area of Mahratta and would be affected by the removal of the trees. The large lawn that sweeps from the house to the eastern boundary would not be affected by the works and would be retained in the form and scale it is currently.

### 8.3.1 Historic Significance

The proposed tree and vegetation removals would impact and substantially remove a key element in the Paul Sorensen landscape design for the garden particularly as these plantings may have been embellished when Sorensen returned to the site in the 1960s to continue the work.

Impact Level: Moderate

### 8.3.2 Aesthetic Significance

The lot boundary curtilage of Mahratta as described in the State Heritage Register listing would be encroached upon by the works reducing the curtilage for the entire landscape. As described in the listing *'The open lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house'*.<sup>51</sup>

The existing brick boundary wall alongside the Mahratta site's eastern road frontage boundary would be demolished and relocated about 3.5m into the garden, effectively removing the wall from the boundary edge to within the garden itself. The existing boundary wall has structural issues and has been removed in places as a result of this. The new wall would be of a similar height, at least 1.4m high from inside the

<sup>51</sup> Heritage Division, SHR listing for Mahratta and Site <https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5045079>, viewed 28 August 2018

property boundary as described. The form of the wall would aim to match existing and would form a more continuous, robust and consistent façade across the entire new eastern boundary following the works. It would be reinforced with brick facing to match existing.

The removal and relocation of the eastern boundary wall westwards between 2.5 and 3.5 metres and the incursion of the roadworks into the Mahratta landscape would effectively narrow the garden to the east and remove all the trees and ground cover vegetation which is providing a vegetated screen to the Pacific Highway from the house and garden. Four trees are located in a narrow garden bed between the brick path and the existing lawn. These trees would offer limited capacity to screen views to the east towards the proposed replacement brick wall and Pacific Highway.

The lot boundary curtilage of the site as described in the State Heritage Register listing would be encroached upon by the proposed works by up to approximately 3.5m. The lot boundary curtilage is 34,803m<sup>2</sup>. The property acquisition area at 217m<sup>2</sup> is approximately 0.8% of the SHR Listing with a wider area of impact in the Mahratta garden of 696m<sup>2</sup> (refer Figure 2). Therefore, the combined impact of the acquisition and the impact area is a 2.4% impact on the SHR curtilage and approximately 6.1% impact on the Mahratta property. Therefore, the overall setting of the Mahratta site would be reduced by the proposal.

The following recommendations have been formulated to respond to legislative and client requirements as well as the significance of the Mahratta site. They are guided by the ICOMOS *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.<sup>52</sup>

The proposed removal and reconstruction of the boundary brick wall will replace the existing brick wall which has sections missing and has signs of dilapidation generally. Whilst replacing the wall has a positive impact, the new wall is not on the original alignment and is one of the elements of encroachment. The overall impact of the new wall on the site is assessed as moderate.

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<sup>52</sup> Australia ICOMOS 2013

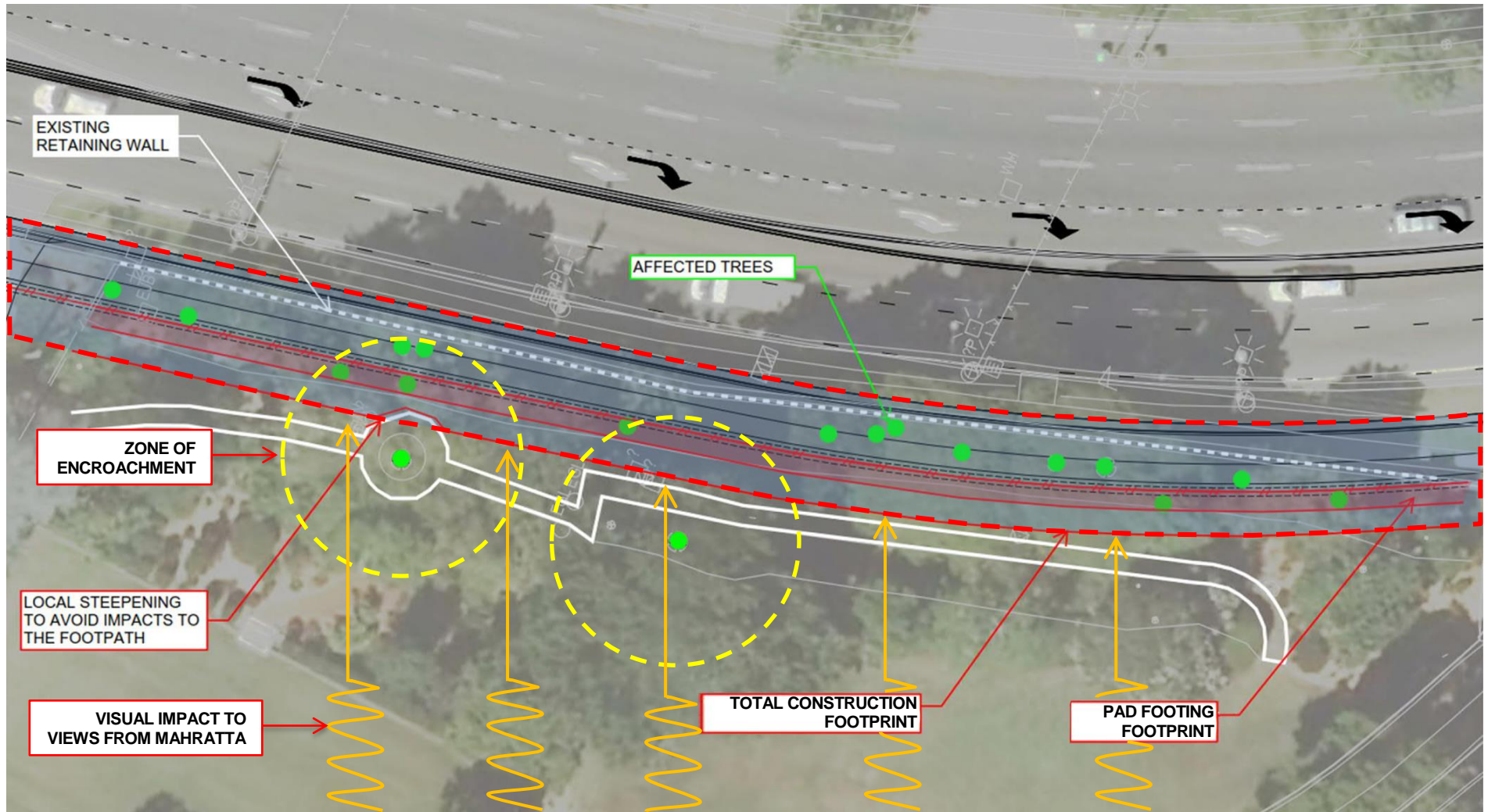
The removal of such a large number of trees of varying sizes impacts the overall tree canopy of the site, changes view corridors and alters the balanced planting scheme of vegetation on the Mahratta boundaries to the east, south and west

**Impact Level:** The removal of the existing wall is considered moderate but the removal of the trees and vegetation is considered high. So, the overall impact remains as high for aesthetic significance.

## Conclusion

The level of impact of the proposed works on the landscape and designs by Paul Sorensen in the Mahratta landscape is assessed as moderate impact because Mahratta is a large garden and many elements that Sorensen designed such as the Sunken Garden and other shrubberies remain intact and are not affected by the proposal. To maintain historic significance, consideration should be given to the loss of vegetation, and considering infill plantings in the garden that emulate Sorensen's style. These actions should be considered by RMS in consultation with the site owners. The remaining areas of the Mahratta garden should be enhanced to retain the historic significance of Paul Sorensen's work in the garden.

Although the new brick wall is proposed to replace the old brick wall, the impact of locating the wall closer to the garden with limited opportunity for planting beds in front does have a moderate aesthetic impact. The high level of proposed impact to aesthetic significance is due to the substantial loss of trees on the eastern boundary and the overall impact this has on the screening of the eastern façade of the house and the garden. The removal of the eastern boundary planting bed means that the opportunities to replant trees and vegetation close to the eastern boundary is limited.



**Figure 18 Trees within and encroaching on the construction zone to be removed**

## 9 Recommendations

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The following recommendations have been formulated to respond to legislative and client requirements as well as the significance of the Mahratta site. They are guided by the ICOMOS *Burra Charter* with the aim of doing as much as necessary to care for the place and make it useable and as little as possible to retain its cultural significance.<sup>53</sup>

### **Recommendation 1 - Apply for a permit to carry out works to and change the curtilage boundaries of State heritage item Mahratta under Section 60 of the *Heritage Act 1977 (NSW)***

All State heritage listed items are protected under the *Heritage Act 1977 (NSW)* (Heritage Act) and as such no works proposed for the heritage item or within the curtilage of the item are permitted without a permit. A permit under Section 60 of the Heritage Act would be required in order for the proposed works to proceed within the curtilage of the State heritage item, Mahratta, and also to change the item's current curtilage boundaries.

### **Recommendation 2 - Heritage Management Plan for Construction**

A Heritage Management Plan (HMP) should be prepared for the study area (as part of the Construction Environmental Management Plan (CEMP)) to mitigate any construction-related impacts to this area and the wider curtilage of the Mahratta site during construction.

A key objective of the HMP would be to ensure that any impacts to heritage values / features of the Mahratta site during construction are minimised and carried out within the scope permitted by the approval instruments.

The HMP should include (as a minimum):

- Purpose and objectives for the protection and management of the study area during construction
- Acknowledgement of relevant legislative requirements and guidelines, including any conditions of approval and permits

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<sup>53</sup> Australia ICOMOS 2013

- Details on any necessary pre-construction consultation and landowner approvals
- Details on the construction activities to be undertaken and proposed construction methodology
- Heritage management and mitigation measures to be applied during construction (such as staff training, implementation of unexpected finds procedures, proposed access, work method statements, exclusion zones and setback areas, proposed reinstatement works)
- Compliance management including roles and responsibilities, staff training, monitoring, inspections, auditing and reporting

The HMP should make specific reference to the heritage assessment prepared for the Project REF and any conditions of approval outlined by State agencies. The HMP must be prepared by a suitably qualified heritage specialist.

#### *Unexpected Heritage Items*

The HMP must include a procedure for the management of unexpected potential archaeological relics discovered during construction. The management of unexpected potential archaeological relics must be in accordance with Roads and Maritime’s “Unexpected Heritage Items” documentation (refer Appendix 2). The procedure for unexpected finds must include the following steps:

- (f) Cease work in the immediate area of the identified potential heritage object immediately;
- (g) Notify Roads and Maritime immediately;
- (h) Provide access to the affected works area to any heritage specialist to assess the finds;
- (i) Provide temporary exclusion (pedestrian) fencing;
- (j) Implement additional safeguards as required.

The Non-Aboriginal Heritage Management Plan must provide for all personnel working within the study area on their responsibilities under the *Heritage Act 1977* (NSW). Make personnel aware of all non-Aboriginal heritage sites/areas including cultural plantings and areas of archaeological potential, which are identified in the Environmental Assessment documents provided in the Review of Environmental Factors.

Where the remains are identified as being ‘relics’, the Heritage Council of NSW must be notified in accordance with section 146 of the Heritage Act. Failure to notify the Heritage Council is considered an offence under the Heritage Act, with penalties including fines and imprisonment. After contacting the Heritage Council, a permit or exemption should be sought under the relevant section of the Act to allow works to recommence.

All Aboriginal objects and places are protected under the *National Parks and Wildlife Act 1974* (NSW). It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the Office of



Environment and Heritage (OEH). If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

### **Recommendation 3 - Replacement of Brick Wall**

The brick wall is to be replaced as part of the proposed works in agreement with the property owner. It is recommended that the construction be a reinforced concrete wall of a similar height and scale to the existing wall which would extend along the entire eastern boundary of Mahratta fronting the Pacific Highway with brick cladding on both the boundary and garden elevations. The brick laying pattern and the white mortar should be replicated in the new wall design.

### **Recommendation 4 - Replacement Planting at Mahratta**

Replacement planting of tree species removed should be considered in the context of replacing the number of trees that would be removed in the study area as a result of the proposal.

- A tree replacement plan for Mahratta should be prepared with reference to the Visual Impact Assessment (Appendix 5) and urban design and landscape requirements for the road widening project. The replacement plan should be prepared in coordination with the site owners and OEH, to find alternative locations for tree planting. One potential replanting location is the planting bed to the west of the brick path which could be enhanced to include additional tree planting to offset some of the tree loss.
- New trees that are replanted should be sourced at an appropriate size (45L or 100L) to ensure that the boundary planting would be substantial following construction.
- As some of the species may be hard to source, a tree procurement strategy should be considered to enable early purchasing of trees from a suitable nursery prior to construction.

### **Recommendation 5 - Investigations and Transplant Options for *Syzygium paniculatum* - Magenta Cherry**

This tree has been assessed as having significant ecological and aesthetic value within the study area and would be impacted by the works. Consideration should be given to relocating this tree which would involve key investigations prior to construction.

- A qualified specialist should undertake root mapping using air spading or another acceptable method, so transplanting options can be documented
- A tree transplanting specialist should assess the tree to ascertain what the transplanting options are and where the transplanting should be carried out.

- A tree replacement plan as noted in Recommendation 4 should include a replacement position for the *Syzygium* Magenta Cherry if the investigations determine that it is feasible to relocate. (Tree 19 in Appendix 1 Tree Audit prepared by Urban Forestry Australia)

### **Recommendation 6 - Brick Path**

The brick path may need to be lifted and then replaced back into its existing location and alignment during construction of the new retaining wall. If so, then a photographic record should be made to ensure that the reconstruction of the path is as close to the existing pattern of brick colours and laying technique as possible. The path joints should be left open.



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## Appendices

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## Appendix 1 Tree Audit prepared by Urban Forestry Australia

Tree No.	Genus and species Common Name	Ht (m)	Sp (m)	DBH (mm)	Age	V	C	Observations/Comments	ULE	TSR	RV	SRZ (m)	TPZ (m)	TPZ (area)
1	<i>Syzygium luehmannii</i> Riberry	8 – 9	9	250 & 350 (450)	M	G	F	Restricted <b>structural root zone</b> – 3 sides. Slight stem <b>sweep</b> to N. Large stem wound to S. Impacting upon wall to S. Tip <b>dieback</b> to S.	2D	M	M	2.5	5.4	92
2	<i>Syzygium luehmannii</i> Riberry	7	8	250 & 325 (425)	M	G	F	Restricted structural root zone – 3 sides. Wall to E. <b>Co-dominant, included</b> stems. Soil stockpiled/dumped over root zone.	2D	M	M	2.5	5.1	84
3	<i>Rhododendron</i> sp. Rhododendron	5.5	4	300 GL (275)	M	F	F	Some dieback from exposure E side (gap in garden suggests largish tree/shrub removed in past few years). <b>Suppressed</b> to W by Ash tree. <b>Spider mite</b> infestation.	2C	L	L	2.0	3.3	35
4	<i>Fraxinus</i> sp. Ash	8	9	325	EM	G	F	Co-dominant stems @ 2.5m. Crown lifted and poorly pruned – stubs remain. Slight stem sweep to W.	2C	M	M	2.2	3.9	48
5	<i>Syzygium oleosum</i> Blue Lilly Pilly	11	6	350	EM	G	F – G	Some <b>sooty-mould</b> and white wax <b>scale</b> over leaves and twigs. Very close to boundary wall. Wound lower stem E side.	2A	M	H	2.3	4.2	55
6	<i>Syzygium smithii</i> Common Lilly Pilly	7	8	2 x 175, 2 x 250 (425)	EM	G	F	Pink wax scale on twigs and leaves. Poorly pruned – <b>topped</b> in the past and <b>lopped</b> over public footpath area.	2A	M	H	2.5	5.1	84

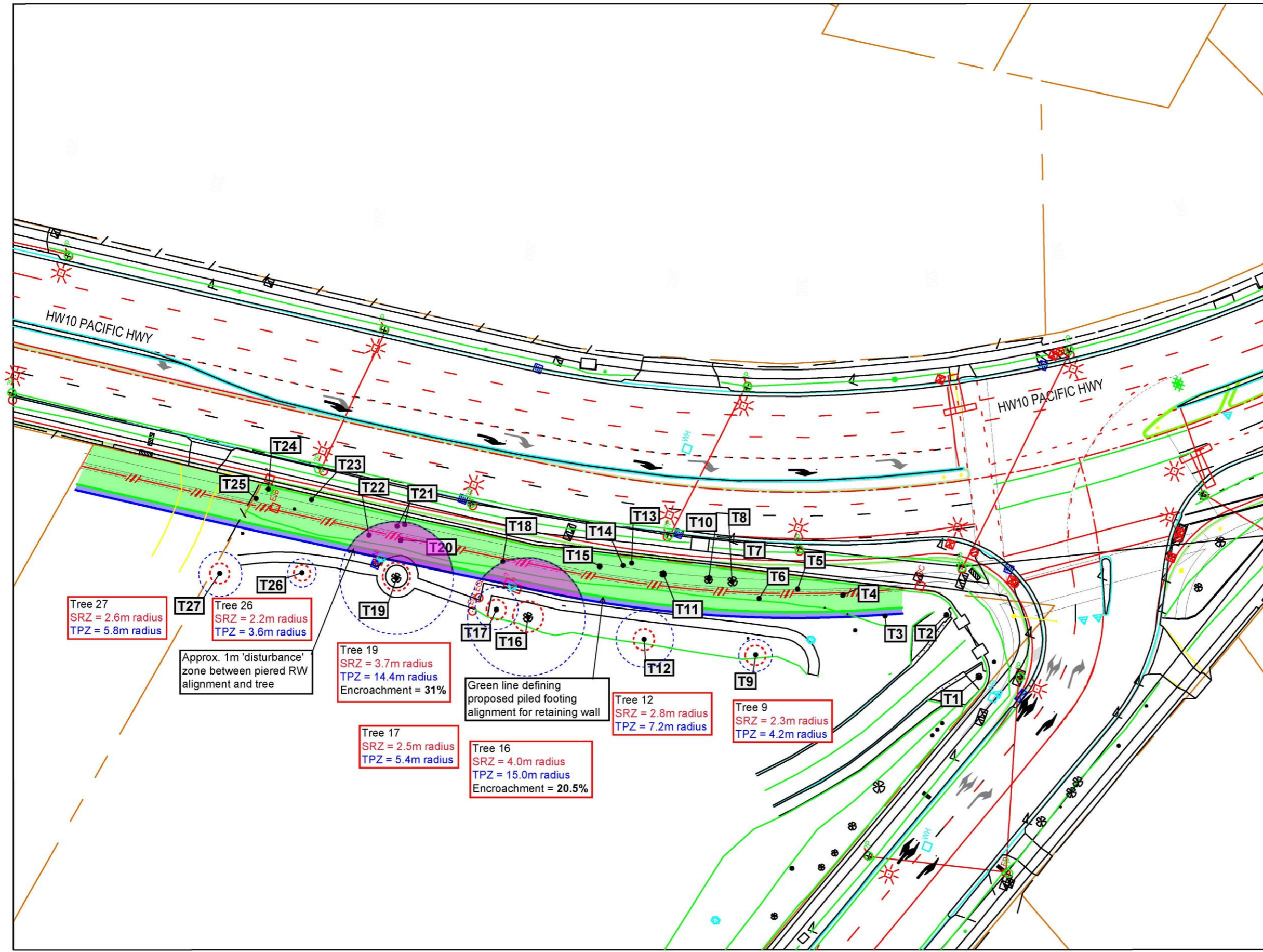
7	<i>Brachychiton acerifolius</i> <b>Illawarra Flame Tree</b>	16	6	375	EM	G	F – G	Suppressed to N. <b>Crown</b> conflicting with that of Brush Box (T8)	2B	M	<b>M</b>	2.4	4.5	64
8	<i>Lophostemon confertus</i> <b>Brush Box</b>	16	14	800	M	G	F – G	<b>Emergent</b> crown. Pruned over road; poorly done – lopped.	2D	H	<b>H</b>	3.2	9.6	290
9	<i>Calodendron capense</i> <b>Cape Chestnut</b>	10.5	10	350	M	G	G	Tentative identification – no fruits or flowers to assist. Overtopped with subsequent crown bias to W over lawn. Small <b>cavity</b> @ 1.8m S side. Small Ø <b>deadwood</b> .	2A	M	<b>H</b>	2.3	4.2	55
10	<i>Waterhousea floribunda</i> <b>Weeping Lilly Pilly</b>	15	12	650	M	G	F – G	Poorly pruned over public path. <b>Epicormic</b> shoots abound from pruning points. Crown bias to N/NE.	2B	H	<b>H</b>	2.9	7.8	191
11	<i>Lophostemon confertus</i> <b>Brush Box</b>	14	10	575	M	G	F – G	Ascending branch habit due to proximity of flanking trees. Badly pruned. Low volume of deadwood to 100mm Ø.	2B	H	<b>H</b>	2.8	7.0	154
12	<i>Coryanocarpus laevigatus</i> <b>Karaka</b>	8	6	*600	M	G	G	Species not identified at time of inspection – no flowers or fruits to assist. Consists of six (6) stems arising at/close to ground level. Some stem wounds noted.	2A	M	<b>M</b>	2.8	7.2	163
13	<i>Cinnamomum camphora</i> <b>Camphor Laurel</b>	8.5	8	350	SM	G	F	Crown bias over to road, public path. Very close to boundary wall.	2B	M	<b>M</b>	2.3	4.2	55
14	<i>Brachychiton acerifolius</i> <b>Illawarra Flame Tree</b>	6.5	4	225	SM	G	F	Conflicting with crown of Camphor Laurel. Very suppressed.	2C	M	<b>L</b>	1.9	2.7	23
15	<i>Stenocarpus sinuatus</i> <b>Queensland Firewheel Tree</b>	15	8	425	M	G	G	Co-dominant stems @ 7 – 8m AGL. Some small, isolated areas of branch and tip dieback.	2B	H	<b>H</b>	2.5	5.1	82
16	<i>Liquidambar styraciflua</i> <b>Liquidambar</b>	22	22 – 24	1350	OM	F – G	P	Spreading crown with open appearance due to the extensive loss of structural limbs (failures, pruning, etc.) leading to poor and, in some cases, hazardous re-growth.	3A	H	<b>L</b>	4.0	15.0	707



								Excessively thick/deep layers of lawn clippings around base and root zone. This leads to poor oxygen and water infiltration as well as other issues, which are likely to contribute to the current poor state of tree.						
17	<i>Arytera divaricata</i> <b>Coogera / Rose Tamarind</b>	12	13	450	M	G	G	Overtopped by T17. Low, spreading crown drops to as little as 1.5m AGL at several locations. Very attractive tree.	2A	H	H	2.5	5.4	92
18	<i>Fraxinus</i> sp. <b>Ash</b>	7.5	9	250	EM	F	F	Heavily biased to E over public path due to suppression from W side. Poorly pruned. Epicormic shoots from low on stem W side.	3C	M	L	2.1	3.0	28
19	<i>Syzygium paniculatum</i> <b>Magenta Cherry</b>	13.5	18	1350 GL (1200)	LM	F– G	F	Threatened species with <i>Endangered</i> conservation status in NSW (BC Act 2016) and listed as <i>Vulnerable</i> under Commonwealth legislation (EPBC Act). Substantial <b>cambium</b> dieback to lower main stems. <b>Aerial roots</b> noted (these are cut in places but should be left intact to grow naturally). Some epicormic shoots on lower stems. Generally, vigour is good with some scattered tip dieback and very small deadwood.	2D	H	H	3.7	14.4	651
20	<i>Brachychiton populneus</i> <b>Kurrajong</b>	9	13	400	EM	G	F	Heavy crown bias to E. Suppressed by T19 and T21.	2D	M	M	2.4	4.8	72
21	<i>Syzygium jambos</i> <b>Rose-apple</b>	8	14	*1000 GL (875)	LM	F– G	F	Multiple stems clustered near base. Adjacent to collapsed section of boundary wall. Infested with <b>Mealy bug</b> .	2B	M	M	3.3	10.6	350

22	<i>Syzygium jambos</i> <b>Rose-apple</b>	7 – 8	6	*300 GL (275)	EM	G	F	Suppressed by T19, with heavy bias to N.	2D	L	<b>M</b>	2.0	3.3	35
23	<i>Viburnum</i> sp. <b>Viburnum</b>	4	6	*1000 GL (875)	M	G	G	Large shrub, possibly two plants close together forming clump. Close to boundary wall.	5A	M	<b>L</b>	3.3	10.6	350
24	<i>Rondeletia amoena</i> <b>Pink Rondeletia</b>	4	5	400 GL (350)	M	G	G	Large shrub with typical habit. No special problems readily visible at time of inspection.	5A	L	<b>L</b>	2.3	4.2	55
25	<i>Hymenosporum flavum</i> <b>Native Frangipani</b>	12	6	125 & 225 (250)	M	F – G	G	Some tip dieback and sparse foliage to secondary stem. Remainder of tree is good.	2D	M	<b>M</b>	1.9	3.0	28
26	<i>Nyssa sylvatica</i> <b>Tupelo</b>	8.5	10	300	M	G	G	No special problems readily visible at time of inspection.	1A	M	<b>H</b>	2.2	3.6	41
27	<i>Cedrus atlantica</i> <b>Atlas Cedar</b>	15	11	475	M	F – P	F	Very sparse crown /notable branch dieback and a high volume of deadwood. Lower crown declining.	3C	H	<b>M</b>	2.6	5.8	106

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**LEGEND**

	ROAD CONTROL LINE
	EXISTING PROPERTY BOUNDARY
	NEW PROPERTY BOUNDARY / FENCE
	NEW PEDESTRIAN FENCE
	NEW SAFETY BARRIER
	NEW RETAINING WALL
	EXISTING SURVEY
	PADFOOTING RETAINING WALL FOOTPRINT
	PILEFOOTING RETAINING WALL FOOTPRINT

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

DRAWING FILE LOCATION / NAME PW/P0021513-SHT-RD-001203.DWG		DESIGN LOT CODE		DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME		PLOT BY		CLIENT		KU-RING-GAI COUNCIL PACIFIC HIGHWAY PINCH POINTS UPGRADE AT INTERSECTION OF PACIFIC HIGHWAY AND FOX VALLEY ROAD TREES IMPACT ASSESSMENT SKETCH SHEET 1 OF 1	
EXTERNAL REFERENCE FILES		REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY		TITLE	NAME		DATE
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							CO-ORDINATE SYSTEM MGA ZONE 56			DRG CHECK	K.TAYLER	31.05.2018	ISSUE STATUS
							HEIGHT DATUM AHD			DESIGN	J.DUNGEN	31.05.2018	CONCEPT DESIGN
										DESIGN CHECK	A.PEREZ	28.05.2018	EDMS No.
										DESIGN MNGR	J.CALDERON	31.05.2018	SHEET No.
										PROJECT MNGR	T.HAZARI	31.05.2018	ISSUE
													SKT-EN-001001
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**FOR INFORMATION ONLY**

**Tree location plan**



## Appendix 2 Roads and Maritime Unexpected Heritage Items Procedure

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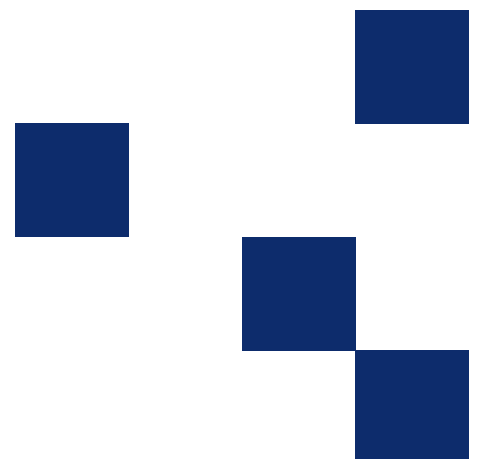


**Transport**  
Roads & Maritime  
Services

# **STANDARD MANAGEMENT PROCEDURE**

## **Unexpected Heritage Items**

**March 2015**



# About this release

<b>RMS/ISBN numbers</b>	RMS 12.003   ISBN 9781922040305
<b>Title</b>	Unexpected Heritage Items Procedure

Approval and authorisation		Name
Prepared by	Environmental Officer (Heritage)	Gretta Logue
Revised by	Environmental Officer (Heritage)	Daniel Percival
Approved by	Manager Environmental Policy	Michael Crowley

File location	File name
Objective - SF2013/153770	Unexpected heritage items procedure.doc

Document status	Date
Final	16 March 2015

Version	Date	Revision Description
Final	1 November 2011	First Draft
Revised	23 July 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Environment must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.
Revised	09 October 2013	Amended to clarify that the procedure applies to all types of unexpected heritage items, not just archaeological items. The procedure introduces the term 'Historic Items' to cover both 'archaeological relics' and 'other historic items' such as works, structures, buildings and movable objects. The title of the document has been amended to better reflect this clarification.
Revised	16 March 2015	The procedure was streamlined to address all project types including maintenance works. The separate maintenance procedure (formerly Appendix B) was removed. Names and titles updated throughout.

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**Please note**

This procedure applies to all development and activities concerning roads, road infrastructure and road related assets undertaken by Roads and Maritime.

For advice on how to manage unexpected heritage items as a result of activities related to maritime infrastructure projects, please contact the Senior Environmental Specialist (Heritage).



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# Unexpected heritage items procedure

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## 1. Purpose

This procedure has been developed to provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during Roads and Maritime activities. This procedure includes Roads and Maritime's heritage notification obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

This document provides relevant background information in Section 3, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices A-H.

## 2. Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal heritage assessment has been undertaken prior to on site project work commencing. In some case, such as exempt development, detailed heritage assessment may not be required.

Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.

**This procedure applies to all Road and Maritime construction and maintenance activities**

This procedure **applies to**:

- The discovery of any unexpected heritage item (usually during construction), where Roads and Maritime does not have approval to disturb the item or where safeguards for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.
- All Roads and Maritime projects that are approved or determined under Part 3A (including Transitional Part 3A Projects), Part 4, Part 5 or Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), or any development that is exempt under the Act.

This procedure must be followed by Roads and Maritime staff, alliance partners (including local council staff working under Road Maintenance Council Contracts, [RMCC]), developers under works authorisation deeds or any person undertaking Part 5 assessment for Roads and Maritime.

This procedure **does not apply** to:

- The legal discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with OEH's *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (2010); an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act*

1974; or an approval issued under the *Heritage Act 1977*<sup>1</sup>.

- The legal discovery and disturbance of heritage items as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 3A (including Transitional Part 3A Projects) or Part 5.1 of the EP&A Act.
- The legal discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP<sup>2</sup>; an approval issued under the *Heritage Act 1977*; the Minister for Planning's conditions of project approval; or safeguards (apart from this procedure) that are contained in the relevant environmental impact assessment.

All construction environment management plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

### 3. Types of unexpected heritage items and their legal protection

The roles of project, field and environmental staff are critical to the early identification and protection of unexpected heritage items. **Appendix A** illustrates the wide range of heritage discoveries found on Roads and Maritime projects and provides a useful photographic guide. Subsequent confirmation of heritage discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Roads and Maritime does not have approval to disturb<sup>3</sup> or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) Historic (non-Aboriginal) heritage items
- (c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

#### 3.1 Aboriginal objects

The *National Park and Wildlife Act 1974* protects *Aboriginal objects* which are defined as:

---

<sup>1</sup> RMS' heritage obligations are incorporated into the conditions of heritage approvals.

<sup>2</sup> RMS *Procedure for Aboriginal cultural heritage consultation and investigation* (2011) recommends that Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.

<sup>3</sup> Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

*“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains”<sup>4</sup>.*

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

### **IMPORTANT!**

#### **All Aboriginal objects, regardless of significance, are protected under law.**

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from the Office of Environment and Heritage (OEH)<sup>5</sup>. Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location<sup>6</sup>. Assistance on how to do this is provided in Section 7 (Step 5).

## 3.2 Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological ‘relics’
- Other historic items (i.e. works, structures, buildings or movable objects).

### 3.2.1 Archaeological relics

The *Heritage Act 1977* protects *relics* which are defined as:

*“any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance”<sup>7</sup>.*

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

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<sup>4</sup> Section 5(1) *National Park and Wildlife Act 1974*.

<sup>5</sup> Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

<sup>6</sup> This is required under s89(A) of the *National Park and Wildlife Act 1974* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

<sup>7</sup> Section 4(1) *Heritage Act 1977*.

## IMPORTANT!

### **All relics are subject to statutory controls and protections.**

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council<sup>8</sup>. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location<sup>9</sup>. Advice on how to do this is provided in Section 7 (Step 5).

### 3.2.2 Other historic items

Some historic heritage items are not considered to be ‘relics’; but are instead referred to as works, buildings, structures or movable objects. Examples of these items that Roads and Maritime may encounter include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. Although an approval under the *Heritage Act 1977* may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under Section 140 of the *Heritage Act 1977* is required to do this. In contrast, ‘other historic items’ either exist above the ground’s surface (e.g. a shed), or they are designed to operate and exist beneath the ground’s surface (e.g. a culvert).

Despite this difference, it should be remembered that relics can often be associated with ‘other heritage items’, such as archaeological deposits within cisterns and underfloor deposits under buildings.

### 3.3 Human skeletal remains

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-contact archaeological Aboriginal burial would be protected under the *National Park and Wildlife Act 1974*, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the *Heritage Act 1977*. For these cases, the relevant heritage approval and notification requirements described in the above sections 3.1 and 3.2 would apply. In addition to the *National Park and Wildlife Act 1974*, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

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<sup>8</sup> Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

<sup>9</sup> This is required under s146 of the *Heritage Act 1977* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

 **IMPORTANT!**

**All human skeletal remains are subject to statutory controls and protections.**

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in s35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old<sup>10</sup> regardless of ancestry (ie both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in **Appendix E**.

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<sup>10</sup> Under s19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

## 4. Responsibilities

The following roles and responsibilities are relevant to this procedure.

<b>Role</b>	<b>Definition/responsibility</b>
Aboriginal Cultural Heritage Advisor (ACHA)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the Roads and Maritime <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Aboriginal Sites Officer (ASO)	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal Sites Officers, refer to Roads and Maritime <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation etc). Major projects with complex heritage issues often have an on call Project archaeologist.
Project Manager (PM)	Ensures all aspects of this procedure are implemented. The PM can delegate specific tasks to a construction environment manager, Roads and Maritime site representatives or regional environment staff, where appropriate.
Regional Environment Staff (RES)	Provides advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal Parties (RAPs)	RAPs are Aboriginal people who have registered with Roads and Maritime to be consulted about a proposed Roads and Maritime project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
Senior Environmental Specialist (Heritage) (SES(H))	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Team Leader - Regional Maintenance Delivery (TL-RMD)	Ensures Regional Maintenance Delivery staff stop work in the vicinity of an unexpected heritage item. Completes Unexpected Heritage Item Recording Form 418 and notifies WS-RMD.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of

	unexpected heritage find (eg a forensic or physical anthropologist who can identify and analyse human skeletal remains).
Works Supervisor - Regional Maintenance Delivery (WS-RMD)	Ensures Regional Maintenance Delivery staff are aware of this procedure. Supports the Team Leader - Regional Maintenance Delivery during the implementation of this procedure and ensures reporting of unexpected heritage items through environment management systems.

## 5. Acronyms

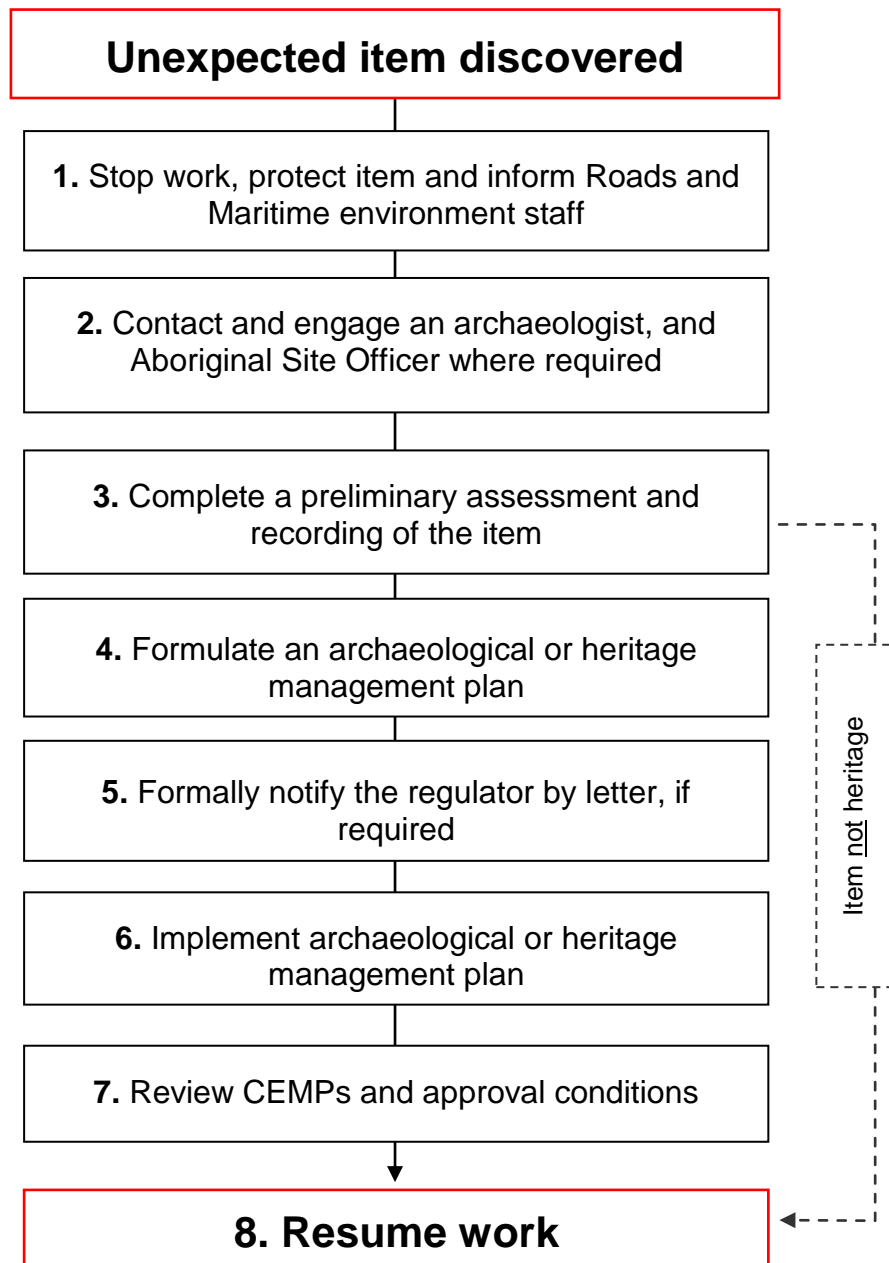
The following acronyms are relevant to this procedure.

<b>Acronym</b>	<b>Meaning</b>
A	Archaeologist
ACHA	Aboriginal Cultural Heritage Advisor
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
OEH	Office of Environment and Heritage.
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PM	Project Manager
RAP	Registered Aboriginal Parties
RES	Regional Environmental Staff
SES(H)	Senior Environmental Specialist (Heritage)
TL-RMD	Team Leader – Regional Maintenance Division
RMD	Regional Maintenance Delivery
RMS	Roads and Maritime
WS-RMD	Works Supervisor - Regional Maintenance Division



## 6. Overview of the procedure

On discovering something that could be an unexpected heritage item ('the item'), the following procedure must be followed. There are eight steps in the procedure. These steps are summarised in **Figure 1** below and explained in detail in Section 7.



**Figure 1:** Overview of steps to be undertaken on the discovery of an unexpected heritage item.

### **IMPORTANT!**

RMS may have approval or specific safeguards in place (apart from this procedure) to impact on certain heritage items during construction. If you discover a heritage item and you are unsure whether an approval or safeguard is in place, STOP works and follow this procedure.

## 7. Unexpected heritage items procedure

**Table 1:** Specific tasks to be implemented following the discovery of an unexpected heritage item.

*Aboriginal Cultural Heritage Advisor (ACHA); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Regional Environment Staff (RES); Registered Aboriginal Parties (RAPs); Senior Environmental Specialist (Heritage) (SES(H)); Team leader – Roads and Maintenance Division (TL - RMD); Works supervisor – Roads and Maintenance Division (WS - RMD).*

Step	Task	Responsibility	Guidance & Tools
<b>1</b>	<b>Stop work, protect item and inform Roads and Maritime environment staff</b>		
1.1	Stop all work in the immediate area of the item and notify the Project Manager or Team Leader-RMD. (For maintenance activities, the Team Leader is to also notify the Works Supervisor-RMD)	All	<b>Appendix A</b> (Identifying Unexpected Heritage items)
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical.	PM or TL-RMD	
1.3	Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.	PM or TL-RMD	
1.4	Inspect, document and photograph the item using 'Unexpected Heritage Item Recording Form 418'.	PM or TL-RMD	<b>Appendix B</b> (Unexpected Heritage Item Recording Form 418) <b>Appendix C</b> (Photographing Unexpected Heritage items)

Step	Task	Responsibility	Guidance & Tools
1.5	<p>Is the item likely to be bone?</p> <p>If <b>yes</b>, follow the steps in Appendix E – ‘Uncovering bones’. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site.</p> <p>If <b>no</b>, proceed to next step.</p>	PM or WS-RMD	<b>Appendix E</b> (Uncovering Bones)
1.6	<p>Is the item likely to be:</p> <p>a) A relic? (A relic is evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse) and/or</p> <p>b) An Aboriginal object? (An Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree).</p> <p>If <b>yes</b>, proceed directly to Step 1.8</p> <p>If <b>no</b>, proceed to next step.</p>	PM or WS-RMD	<b>Appendix A</b> (Identifying heritage items)
1.7	<p>Is the item likely to be a “work”, building or standing structure? (This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations).</p> <p>If <b>yes</b>, can works avoid further disturbance to the item? (E.g. if historic road base/tram tracks have been exposed, can they be left in place?) If <b>yes</b>, works may proceed without further disturbance to the item. Complete Step 1.8 within 24 hours.</p> <p>If works cannot avoid further disturbance to the item, works must not recommence at this time. Complete the remaining steps in this procedure.</p>	PM or WS-RMD	<b>Appendix A</b> (Identifying heritage items)

Step	Task	Responsibility	Guidance & Tools
1.8	Inform relevant Roads and Maritime Regional Environmental Staff of item by providing them with the completed 'Form 418'.	PM or WS-RMD (RES)	<b>Appendix D</b> (Key Environmental Contacts)
1.9	<p>Regional Environmental Staff to advise Project Manager or Works Supervisor whether RMS has an approval or safeguard in place (apart from this procedure) to impact on the 'item'. (An approval may include an approval under the <i>Heritage Act</i>, the <i>National Parks and Wildlife Act</i> or the <i>Planning and Assessment Act</i>).</p> <p>Does RMS have an approval, permit or appropriate safeguard in place to impact on the item?</p> <p>If <b>yes</b>, work may recommence in accordance with the approval, permit or safeguard. There is no further requirement to follow this procedure.</p> <p>If <b>no</b>, continue to next step.</p>		
1.10	Liaise with Traffic Management Centre where the delay is likely to affect traffic flow.	PM or WS-RMD	
1.11	Report the item as a 'Reportable Event' in accordance with the Roads and Maritime <i>Environmental Incident Classification and Reporting Procedure</i> . Implement any additional reporting requirements related to the project's approval and CEMP, where relevant.	PM or WS-RMD	RMS Environmental Incident Classification and Reporting Procedure
<b>2</b>	<b>Contact and engage an archaeologist and, where required, an Aboriginal site officer</b>		
2.1	<p>Contact the Project (on-call) Archaeologist to discuss the location and extent of the item and to arrange a site inspection, if required. The project CEMP may contain contact details of the Project Archaeologist.</p> <p>OR</p>	PM or WS-RMD (A; RES; SES(H))	Also see <b>Appendix D</b> (Key Environmental Contacts)

Step	Task	Responsibility	Guidance & Tools
	Where there is no project archaeologist engaged for the works, engage a suitably qualified and experienced archaeological consultant to assess the find. A list of heritage consultants is available on the RMS contractor panels on the Buyways homepage. Regional environment staff and Roads and Maritime heritage staff can also advise on appropriate consultants.		<u>Buyways</u>
2.2	Where the item is likely to be an Aboriginal object, speak with your Aboriginal Cultural Heritage Advisor to arrange for an Aboriginal Sites Officer to assess the find. Generally, an Aboriginal Sites Officer would be from the relevant local Aboriginal land council. If an alternative contact person (ie a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM or WS-RMD (ACHA; ASO)	
2.3	If requested, provide photographs of the item taken at Step 1.4 to the archaeologist, and Aboriginal Sites Officer if relevant.	PM or WS-RMD (RES)	<b>Appendix C</b> (Photographing Unexpected Heritage items)
<b>3</b>	<b>Preliminary assessment and recording of the find</b>		
3.1	In a minority of cases, the archaeologist (and Aboriginal Sites Officer, if relevant) may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (eg <i>the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i> ). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.2	Arrange site access for the archaeologist (and Aboriginal Sites Officer, if relevant) to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	PM or WS-RMD	
3.3	Subject to the archaeologist's assessment (and the Aboriginal Sites Officer's assessment, if relevant), work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to	A/PM/ASO/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	reflect the extent of the newly assessed protective area. No works are to take place within this area once established.		
3.4	The archaeologist (and Aboriginal Sites Officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project ( <i>eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i> ). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Regional environment staff and/or Roads and Maritime heritage staff can provide contacts for such specialist consultants.	RES/SES(H)	<b>Appendix D</b> (Key Environmental Contacts)
3.6	Where the item has been identified as a 'relic', 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	A	
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist, Project Manager (or delegate) or Works Supervisor - RMD. Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A/WS-RMD	
<b>4</b>	<b>Prepare an archaeological or heritage management plan</b>		
4.1	The archaeologist must prepare an archaeological or heritage management plan (with input from the Aboriginal Sites Officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature, (b) historic context, if data is easily accessible, (c) likely significance, (d) heritage approval and regulatory notification requirements, (e) heritage reporting requirements, (f) stakeholder consultation requirements, (g) relevance to other project approvals and management plans etc.	A/ASO	<b>Appendix F</b> (Archaeological/ Heritage Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of regional environment staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (eg Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected item is consistent with previous heritage/project approval(s)	A/RES/PM	<b>Appendix F</b> (Archaeological/ Heritage Advice Checklist)

Step	Task	Responsibility	Guidance & Tools
	and/or previously agreed management strategies. The Project Manager and regional environment staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.		
4.3	The archaeologist must submit this plan as a letter, brief report or email to the Project Manager outlining all relevant archaeological or heritage issues. This plan should be submitted to the Project Manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the Project Manager.	A	
4.4	The Project Manager or Works Supervisor must review the archaeological or heritage management plan to ensure all requirements can reasonably be implemented. Seek additional advice from regional environment staff and Roads and Maritime heritage staff, if required.	PM/RES/SES(H)/ WS-RMD	
<b>5</b>	<b>Notify the regulator, if required.</b>		
5.1	Review the archaeological or heritage management plan to confirm if regulator notification is required. Is notification required?  If <b>no</b> , proceed directly to Step 6  If <b>yes</b> , proceed to next step.	PM/RES/SES(H)/ WS-RMD	
5.2	If notification is required, complete the template notification letter.	PM or WS-RMD	<b>Appendix G</b> (Template Notification Letter)
5.3	Forward the draft notification letter, archaeological or heritage management plan and the site recording form to regional environment staff and Senior Environmental Specialist (Heritage) for review, and consider any suggested amendments.	PM/RES/SES(H)/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
5.4	Forward the signed notification letter to the relevant regulator (ie notification of relics must be given to the Heritage Division, Office of Environment and Heritage (OEH), while notification for Aboriginal objects must be given to the relevant Aboriginal section of OEH). Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Part 3A and Part 5.1 projects, the Department of Planning and Environment must also be notified.	PM or WS-RMD	<b>Appendix D</b> (Key Environmental Contacts)
5.5	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form should be kept on file by the Project Manager or Works Supervisor- RMD and a copy sent to the Senior Environmental Specialist (Heritage).	PM or WS-RMD	
<b>6</b>	<b>Implement archaeological or heritage management plan</b>		
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM or WS-RMD (RES)	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc, if required.	PM or WS-RMD (RAPs and RES)	PACHCI Stage 3
6.3	Where heritage approval is required contact regional environment staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/RES/WS-RMD	
6.4	For Part 3A/Part 5.1 projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. Seek advice from regional environment staff and Environment Branch specialist staff if unsure.	PM/RES	



Step	Task	Responsibility	Guidance & Tools
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM or WS-RMD	
6.6	Where statutory approval (or Part 3A/Part 5.1 project modification) is not required and where recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM or WS-RMD	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material is removed from site, where required. Interested third parties (eg museums or local councils) should be consulted on this issue. Contact regional environment staff and Senior Environmental Specialist (Heritage) for advice on this matter, if required.	PM or WS-RMD	
<b>7</b>	<b>Review CEMPs and approval conditions</b>		
7.1	Check whether written notification is required to be sent to the regulator before re-commencing work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator.	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (eg retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	
<b>8</b>	<b>Resume work</b>		
8.1	Seek written clearance to resume project work from regional environment staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and/or heritage recommendations (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	RES/A/PM/WS-RMD	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage	PM/A/WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.		
8.3	Forward all heritage/archaeological assessments, heritage location data and its ownership status to the Senior Environmental Specialist (Heritage). They will ensure all heritage items in Roads and Maritime ownership and/or control are considered for the Roads and Maritime S170 Heritage and Conservation Register.	PM/SES(H)/ WS-RMD	
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	PM/TL-RMD	

## 8. Seeking advice

Advice on this procedure should be sought from Roads and Maritime regional environment staff in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Regional environment staff can assist non-Roads and Maritime project environment managers with enquires concerning this procedure.

### IMPORTANT!

**Roads and Maritime Services staff and contractors are not to seek advice on this procedure directly from the Office of Environment and Heritage without first seeking advice from regional environment staff and heritage policy staff.**

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage policy staff within Environment Branch to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

## 9. Related information

**Contact details:** Senior Environmental Specialist (Heritage), Environment Branch, 02 8588 5754

**Effective date:** 01 February 2015

**Review date:** 01 February 2016

This procedure should be read in conjunction with:

- Roads and Maritimes' *Heritage Guidelines 2015*.
- Roads and Maritime Services *Environmental Incident Classification and Reporting Procedure*
- Roads and Maritime's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*
- RTA *Environmental Impact Assessment Guidelines*.

This procedure replaces:

- Procedure 5.5 ("*unexpected discovery of an archaeological relic or Aboriginal object*") outlined in the RTA's *Heritage Guidelines 2004*.

Other relevant reading material:

- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains*.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains*.
- Department of Health (April 2008), *Policy Directive: Burials - exhumation of human remains*<sup>11</sup>.

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<sup>11</sup> [http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008\\_022.pdf](http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008_022.pdf)

## 10. List of appendices

The following appendices are included to support this procedure.

Appendix A	Identifying Unexpected Heritage items
Appendix B	Unexpected Heritage Item Recording Form 418
Appendix C	Photographing Unexpected Heritage Items
Appendix D	Key Environment Contacts
Appendix E	Uncovering Bones
Appendix F	Archaeological Advice Checklist
Appendix G	Template Notification Letter

# Appendix A

## Identifying unexpected heritage items

The following images can be used to assist in the preliminary identification of potential unexpected items (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.



**Top left hand picture continuing clockwise:** Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).



**Wood stave water pipe**



**Tram tracks**



**Retaining wall**



**Cistern**

**Top left hand picture continuing clockwise:** Woodstave water pipe with tar and wire sealing (Horsley Drive); Tram tracks (Sydney); Brick lined cistern (Clyde); Retaining wall (Great Western Highway, Leura).



**Road pavement**



**Kerbing**



**Telford road base**



**Corduroy timber road base**



**Culvert**

**Top left hand picture continuing clockwise:** Road pavement (Great Western Highway, Lawson); Sandstone kerbing and guttering (Parramatta Road, Mays Hill); Telford road (sandstone road base, Great Western Highway, Leura); Ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); Corduroy road (timber road base, Entrance Road, Wamberai).



Alignment pin



Survey tree



Alignment stone



Survey tree



Milestone



**Top left hand corner continuing clockwise:** Alignment Pin (Great Western Highway, Wentworth Falls); Survey tree (MR7, Albury); Survey tree (Kidman Way, Darlington Point, Murrumbidgee); Survey tree (Cobb Highway, Deniliquin); Milestone (Great Western Highway, Kingswood, Penrith); Alignment Stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.

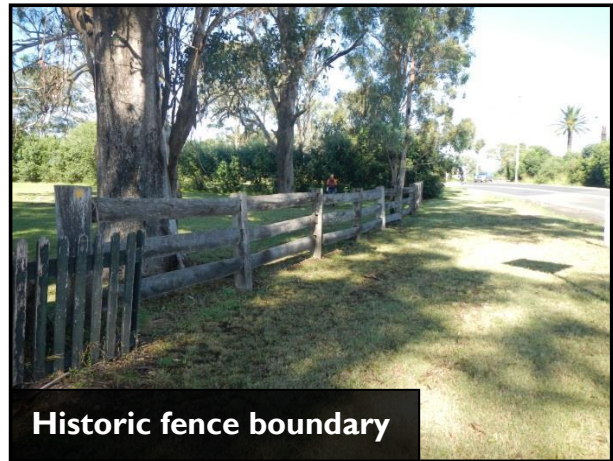




**Remnant Bridge Piers**



**Mine Shaft**



**Historic fence boundary**



**Dairy shed**

**Top left hand corner continuing clockwise:** Remnant bridge piers (Putty Road, Bulga); Wooden boundary fence (Campbelltown Road, Denham Court); Dairy shed (Ballina); Golden Arrow Mine Shaft.



**Top left hand corner:** Culturally modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images show a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010.

## **Appendix B**

Unexpected heritage item recording form 418

**This form is to be filled in by a project manager (or their delegate) or a team leader – Road and Maintenance Division, on the discovery of an unexpected heritage item during construction or maintenance works.**

<b>Date:</b>		<b>Recorded by:</b> (Include name and position)	
<b>Project name:</b>			
<b>Description of works being undertaken</b> (eg Removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).			
<b>Description of exact location of item</b> (eg Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney).			
<b>Description of item found</b> (What type of item is it likely to be? Tick the relevant boxes).			
<b>A. A relic</b>	<input type="checkbox"/>	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottles, utensils, plates, cups, household items, tools, implements, and similar items.	
<b>B. A 'work, building or structure'</b>	<input type="checkbox"/>	A 'work' can generally be defined as a form infrastructure such as tram tracks, a culvert, road base, a bridge pier, kerbing, and similar items.	
<b>C. An Aboriginal object</b>	<input type="checkbox"/>	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones.	
<b>D. Bone</b>	<input type="checkbox"/>	Bones can either be human or animal remains. <b>Remember that you must contact the local police immediately by telephone if you are <u>certain</u> that the bone(s) are <u>human remains</u>.</b>	
<b>E. Other</b>	<input type="checkbox"/>		

<p><b>Provide short description of item</b> (eg Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).</p>	
<p><b>Sketch</b> (Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken).</p>	
<p><b>Action taken</b> (Tick either A or B)</p>	
<p><b>A. Unexpected item <b>would not</b> be further impacted on by works</b> <input type="checkbox"/></p>	
<p><b>Describe how works would avoid impact on the item.</b> (eg The tram tracks will be left <i>in situ</i>, and recovered with road paving).</p>	
<p><b>B. Unexpected item <b>would be</b> further impacted on by works</b> <input type="checkbox"/></p>	
<p><b>Describe how works would impact on the item.</b> (eg Milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Tram tracks will need to be removed).</p>	
<p><b>Important:</b> It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought. Approvals may also be required to impact on certain works. Contact your regional environment staff for guidance.</p>	
<p><b>Project manager / works supervisor signature</b></p>	

## Appendix C

### Photographing unexpected heritage items

**👉 Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.**

Photographs of unexpected items in their current context (*in situ*) may assist heritage staff and archaeologists to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

#### Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add much value to the subsequent detailed photographs also required (Figure 2).



**Figure 2:** Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

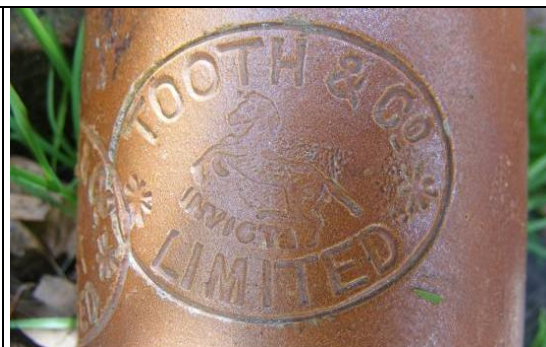
**Figure 1:** Telford road uncovered on the Great Western Highway (Leura) in 2008.

#### Photographing distinguishing features

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of this, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 for examples.



**Figure 3:** Ceramic bottle artefact with stamp.



**Figure 4:** Detail of the stamp allows 'Tooth & Co Limited' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

## Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, Roads and Maritime must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment Branch can confirm if bones are human or non-human if provided with appropriate photographs. Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.



**Figure 5:** Bone concealed by foliage.



**Figure 6:** Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.



**Figure 7:** Photograph showing complete bone.



**Figure 8:** Close up of a long bone's epiphysis.

## Appendix D

### Key environmental contacts

Hunter region	Environmental Manager (Hunter)	4924 0440
	Aboriginal Cultural Heritage Advisor	4924 0383
Northern region	Environment Manager (North)	6640 1072
	Aboriginal Cultural Heritage Advisor	6604 9305
Southern region	Environmental Manager (South)	6492 9515
	Aboriginal Cultural Heritage Advisor	4221 2767
South West region	Environment Manager (South West)	6937 1634
	Aboriginal Cultural Heritage Advisor	6937 1647
Sydney region	Environment Manager (Sydney)	8849 2516
	Aboriginal Cultural Heritage Advisor	8849 2583
Western region	Environment Manager (West)	6861 1628
	Aboriginal Cultural Heritage Advisor	6861 1658
Pacific Highway Office	Environment Manager	6640 1375
Regional Maintenance Delivery	Environment Manager	9598 7721
Environment Branch	Senior Environmental Specialist (Heritage)	8588 5754

### Heritage Regulators

Heritage Division Office of Environment and Heritage Locked Bag 5020 Parramatta NSW 2124 Phone: (02) 9873 8500	Department of the Environment (Clth) GPO Box 787 Canberra ACT 2601 Phone: (02) 6274 1111
Office of Environment and Heritage (Sydney Metropolitan) Planning and Aboriginal Heritage Section PO Box 668 Parramatta NSW 2124 Phone: (02) 9995 5000	Office of Environment and Heritage (North Eastern NSW) Planning and Aboriginal Heritage Section Locked Bag 914 Coffs Harbour NSW 2450 Phone: (02) 6651 5946
Office of Environment and Heritage (North Western NSW) Environment and Conservation Programs PO Box 2111 Dubbo NSW 2830 Phone: (02) 6883 5330	Office of Environment and Heritage (Southern NSW) Landscape and Aboriginal Heritage Protection Section PO Box 733 Queanbeyan NSW 2620 Phone: (02) 6229 7188

### Project-Specific Contacts

Position	Name	Phone Number
Project Manager		
Site/Alliance Environment Manager		
Regional Environmental Officer		
Aboriginal Cultural Heritage Advisor		
Consultant Archaeologist		
Local Police Station		
OEH: Environment Line		131 555



# Appendix E

## Uncovering bones

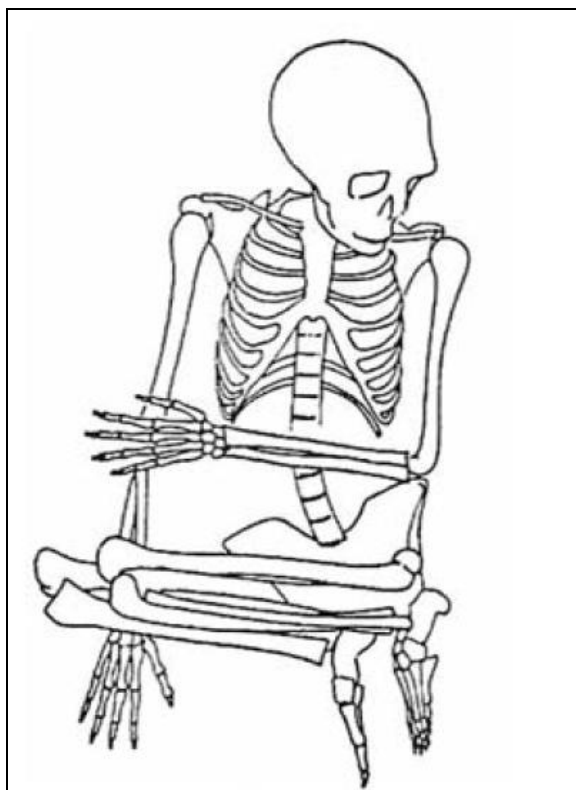
**Hand icon** All matters relating to uncovering bones and RMS' human remains notification obligations should involve RMS regional environment and heritage staff. They will guide Project Managers through occurrences of uncovering bones.

This appendix provides Project Managers with advice (1) on what to do on first uncovering bones (2) the range of human skeletal notification pathways and (3) additional considerations and requirements when managing the discovery of human remains.

### 1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting regional environment staff and/or heritage staff at Environment Branch.

On the very rare occasion where it is *instantly obvious* from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.



**Figure 1:** Schematic of a complete skeleton that is 'obviously' human<sup>12</sup>.



**Figure 2:** Disarticulated bones that require assessment to determine species.

<sup>12</sup> After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains*: 17.

This preliminary phone call is to let the police know that Roads and Maritime is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix C. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the Project Manager or regional environment staff is considered appropriate. This must be followed up later by Roads and Maritime's formal letter notification as per Appendix G when a management plan has been developed and agreed to by the relevant parties.

## 2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

### A. Human bones are from a recently deceased person (*less than 100 years old*).

#### Action

A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed.

### B. Human bones are archaeological in nature (*more than 100 years old*) and are likely to be **Aboriginal** remains.

#### Action

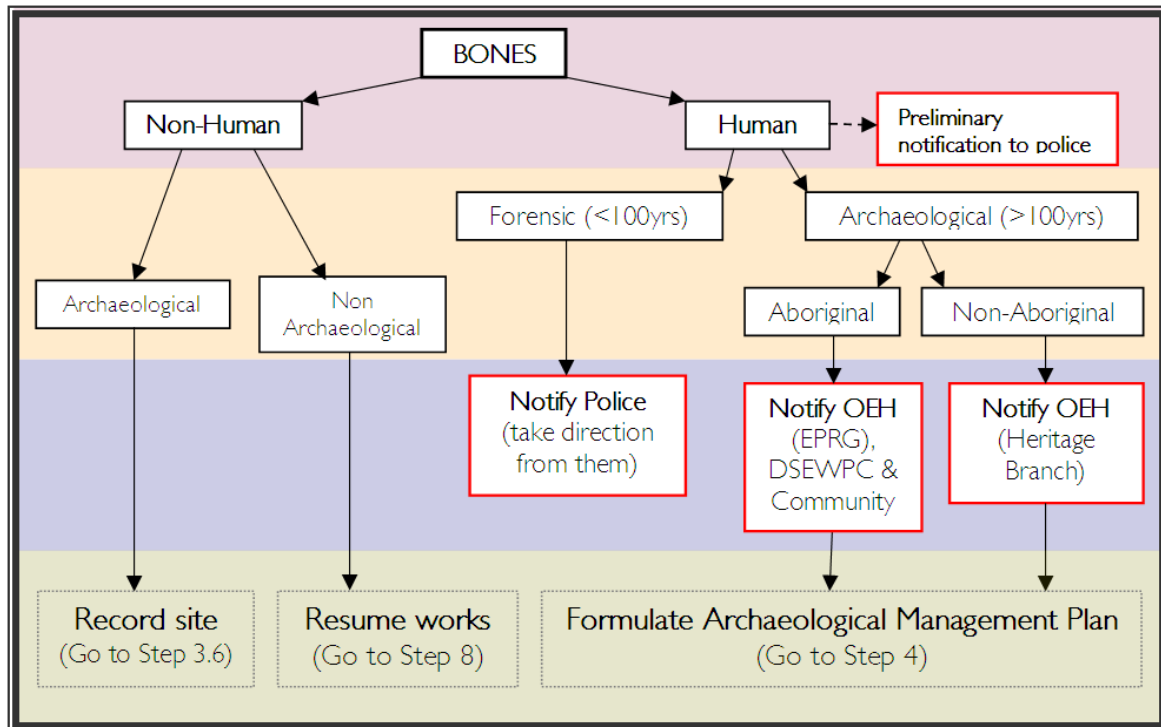
The OEH and the RMS Aboriginal Cultural Heritage Advisor (ACHA) must be notified immediately. The ACHA must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by the RTA's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.

### C. Human bones are archaeological in nature (*more than 100 years old*) and likely to be **non-Aboriginal** remains.

#### Action

The OEH (Heritage Branch, Conservation Team) must be notified immediately.

The simple diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the Project Manager must proceed through the *Unexpected Heritage Items Procedure* to formulate an archaeological management plan (Step 4). Note no archaeological management plan is required for forensic cases (A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

### 3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Roads and Maritime's ACHA can provide advice on this and how to engage with the relevant Aboriginal community. Project Managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Roads and Maritime is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)<sup>13</sup>. Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health [website](#).

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are

<sup>13</sup> This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

## Appendix F

### Archaeological/heritage advice checklist

The archaeologist must advise the Project Manager of an appropriate archaeological or heritage management plan as soon as possible after site inspection (see Step 4). An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance. In discussions with the archaeologist the following checklist can be used by the Project Manager and the archaeologist as a prompt to ensure all relevant archaeological issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly and in the right direction. Archaeological and/or heritage advice on how to proceed can be received in a letter or email outlining all relevant archaeological and/or heritage issues.

	Required	Outcome/notes
<b>Assessment and investigation</b>		
• Assessment of significance	Yes/No	
• Assessment of heritage impact	Yes/No	
• Archaeological excavation	Yes/No	
• Archival photographic recording	Yes/No	
<b>Heritage approvals and notifications</b>		
• AHIPs, Section 140, S139 exceptions etc	Yes/No	
• Regulator relics/objects notification	Yes/No	
• Roads and Maritime's S170 Heritage and Conservation Register listing requirements	Yes/No	
• Compliance with CEMP or other project heritage approvals	Yes/No	
<b>Stakeholder consultation</b>		
• Aboriginal stakeholder consultation requirements and how it relates to RTA <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI)</i> .	Yes/No	
• Advice from regional environmental staff, Aboriginal Cultural Heritage Advisor, Roads and Maritime heritage team.	Yes/No	
<b>Artefact/ heritage item management</b>		
• Retention or conservation strategy (eg items may be subject to long conservation and interpretation) • Disposal strategy (eg former road pavement) • Short term and permanent storage locations (interested third parties should be	Yes/No	

#### Roads & Maritime Services

consulted on this issue).		
• Control Agreement for Aboriginal objects.	Yes/No	
<b>Program and budget</b>		
• Time estimate associated with archaeological or heritage conservation work.		
• Total cost of archaeological/heritage work.		

## **Appendix G**

Template notification letter

[Select and type date]

[Select and type reference number]

[Select and type file number]

[Insert recipient's name and address, see **Appendix D**]

[Select and type salutation and name],

**Re: Unexpected heritage item discovered during Roads and Maritime Services project works.**

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Roads and Maritime Services construction works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: Section 146 of the *Heritage Act 1977* (NSW) or Section 89(A) of the *National Parks and Wildlife Act 1974* (NSW)] **NB:** There may be not be statutory requirement to notify of the discovery of a 'heritage Item that is not a relic or Aboriginal object].

**NB:** On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities (SEWPC) in accordance with notification requirements under Section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the item, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (eg Part 5). Also include any project approval number, if available].

Roads and Maritime Services [or contractor] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Roads and Maritime Services [or contractor] is proposing [provide a summary of the proposed archaeological/heritage approach (eg develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]



[Attach the archaeological/heritage management plan and site recording form].

## Appendix 3 Tree Retention Value Priority Matrix

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### Part 1 of 3—Useful Life Expectancy (ULE)

In a planning context, the time a tree can expect to be usefully retained is the most important long-term consideration. ULE i.e. a system designed to classify trees into a number of categories so that information regarding tree retention can be concisely communicated in a non-technical manner. ULE categories are easily verifiable by experienced personnel without great disparity.

A tree's ULE category is the life expectancy of the tree modified first by its age, health, condition, safety and location (to give the life expectancy); then by economics (i.e. cost of maintenance - retaining trees at an excessive management cost is not normally acceptable); and finally, effects on better trees, and sustained amenity (i.e. establishing a range of age classes in a local population).

ULE assessments are not static but may be modified as dictated by changes in tree health and environment. Trees with a short ULE may at present be making a contribution to the landscape, but their value to the local amenity will decrease rapidly towards the end of this period, prior to them being removed for safety or aesthetic reasons.

**ULE categories (modified from Barrell 2001)** The five categories and their sub-groups are as follows:

1. **Long ULE** - tree appeared retainable at the time of assessment for over 40 years with an acceptable degree of risk, assuming reasonable maintenance:
  - A. structurally sound trees located in positions that can accommodate future growth
  - B. trees which could be made suitable for long term retention by remedial care
  - C. trees of special significance which would warrant extraordinary efforts to secure their long term retention
  
2. **Medium ULE** - tree appeared to be retainable at the time of assessment for 15 to 40 years with an acceptable degree of risk, assuming reasonable maintenance:
  - A. trees which may only live from 15 to 40 years
  - B. trees which may live for more than 40 years but would be removed for safety or nuisance reasons
  - C. trees which may live for more than 15 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting
  - D. trees which could be made suitable for retention in the medium term by remedial care
  
3. **Short ULE** - tree appeared to be retainable at the time of assessment for 5 to 15 years with an acceptable degree of risk, assuming reasonable maintenance:
  - A. trees which may only live from 5 to 15 years
  - B. trees which may live for more than 15 years but would be removed for safety or nuisance reasons
  - C. trees which may live for more than 15 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting
  - D. trees which require substantial remediation and are only suitable for retention in the short term
  
4. **Removal** - trees which should be removed within the next 5 years.
  - A. dead, dying, suppressed or declining trees because of disease or inhospitable conditions.
  - B. dangerous trees through instability or recent loss of adjacent trees
  - C. dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form.
  - D. damaged trees that are clearly not safe to retain.
  - E. trees which may live for more than 5 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting.
  - F. trees which are damaging or may cause damage to existing structures within the next 5 years.
  - G. trees that will become dangerous after removal of other trees for the reasons given in (a) to (f).

H. trees in categories (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.

**5. Small, young or regularly pruned** - Trees that can be reliably moved or replaced.

- A. small trees less than 5m in height.
- B. young trees less than 15 years old but over 5m in height.
- C. formal hedges and trees intended for regular pruning to artificially control growth

## Part 2 of 3—IACA Significance of a Tree, Assessment Rating System (STARS)©

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined.



**Tree Significance - Assessment Criteria**

<b>1. HIGH SIGNIFICANCE IN LANDSCAPE</b>
The tree is in good condition and good vigour
The tree has a form typical for the species
The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age
The tree is listed as a Heritage Item, Threatened Species or part of an Endangered Ecological Community, or listed on Councils Significant Tree Register
The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity
The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values
The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa <i>in situ</i> - tree is appropriate to the site conditions
<b>2. MEDIUM SIGNIFICANCE IN LANDSCAPE</b>
The tree is in fair-good condition and good or low vigour
The tree has a form typical or atypical for the species
The tree is a planted locally indigenous or a common species with its taxa commonly planted in the area
The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street.
The tree provides a fair contribution to the visual character and amenity of the local area.
The tree's growth is moderately restricted by above and/or below ground influences, reducing its ability to reach dimensions typical for the taxa <i>in situ</i> .
<b>3. LOW SIGNIFICANCE IN LANDSCAPE</b>
The tree is in fair-poor condition and good or low vigour
The tree has a form atypical for the species
The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings
The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area.
The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen
The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa <i>in situ</i> - tree is inappropriate to the site conditions
The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms
The tree has a wound or defect that has potential to become structurally unsound.

<b>Environmental Pest / Noxious Weed Species</b>
–The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties
–The tree is a declared noxious weed by legislation
<b>Hazardous/Irreversible Decline</b>
–The tree is structurally unsound and/or unstable and is considered potentially dangerous
–The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term

The tree is to have a minimum of three (3) criteria in a category to be classified in that group. The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

In the development of this document IACA acknowledges the contribution and original concept of the Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd and Andrew Morton in June 2001.

### Part 3 of 3—Tree Retention Value Priority Matrix

		SIGNIFICANCE										
		1. High			2. Medium			3. Low				
		Significance in landscape			Significance in landscape			Significance in landscape		Environmental pest / Noxious weed species		Hazardous / Irreversible decline
ESTIMATED LIFE EXPECTANCY	1. Long >40 years	[Vertical lines]			[Vertical lines]			[Horizontal lines]		[White]		[Grey]
	2. Medium 15–40 years	[Vertical lines]			[Horizontal lines]			[White]		[White]		[Grey]
	3. Short <1–15 years	[White]			[White]			[White]		[White]		[Grey]
	Dead	[White]			[Grey]			[White]		[White]		[Grey]
LEGEND FOR MATRIX ASSESSMENT												
[Vertical lines]		<b>Priority for Retention (High)</b> -These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by AS4970 <i>Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented e.g. pier and beam etc. if works are to proceed within the Tree Protection Zone.										
[Horizontal lines]		<b>Consider for Retention (Medium)</b> -These trees may be retained and protected. These are considered less critical; however, their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.										
[White]		<b>Consider for Removal (Low)</b> -These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.										
[Grey]		<b>Consider for Removal (Low)</b> -These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.										



IACA, 2010, *IACA Significance of a Tree, Assessment Rating System (STARS)*, Institute of Australian Consulting Arboriculturists, Australia, [www.iaca.org.au](http://www.iaca.org.au)

## REFERENCES

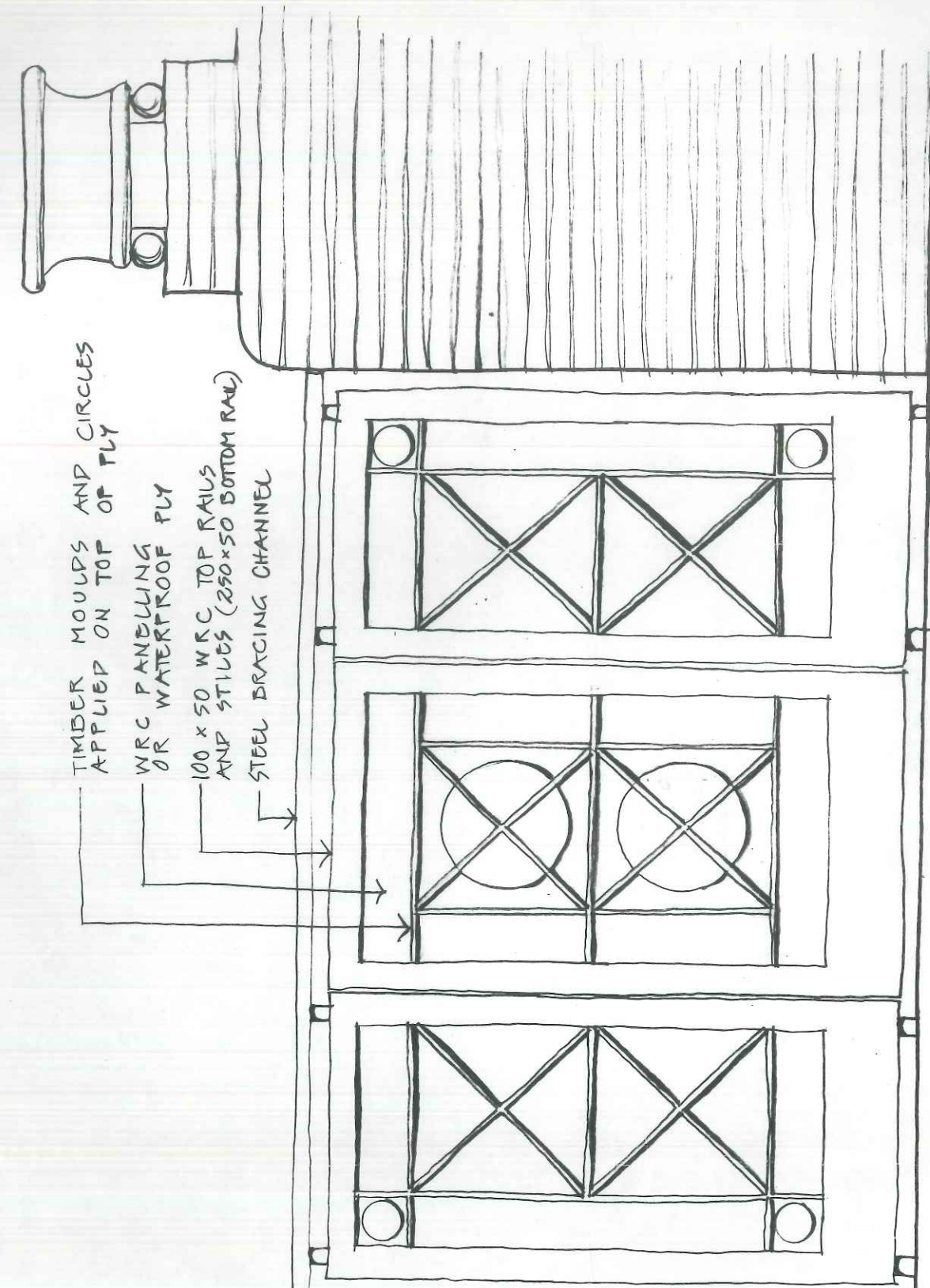
Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, [www.icomos.org/australia](http://www.icomos.org/australia)

Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

Footprint Green Pty Ltd 2001, *Footprint Green Tree Significance & Retention Value Matrix*, Avalon, NSW Australia, [www.footprintgreen.com.au](http://www.footprintgreen.com.au)

## Appendix 4 Record of Section 60 Applications for Mahratta

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TIMBER MOULDS AND CIRCLES  
APPLIED ON TOP OF FLY

WRC PANNELLING  
OR WATERPROOF FLY

100 x 50 WRC TOP RAILS  
AND STILES (250 x 50 BOTTOM RAIL)

STEEL BRACING CHANNEL

FIXED OPENING FIXED  
SECOND ALTERNATIVE 1:20

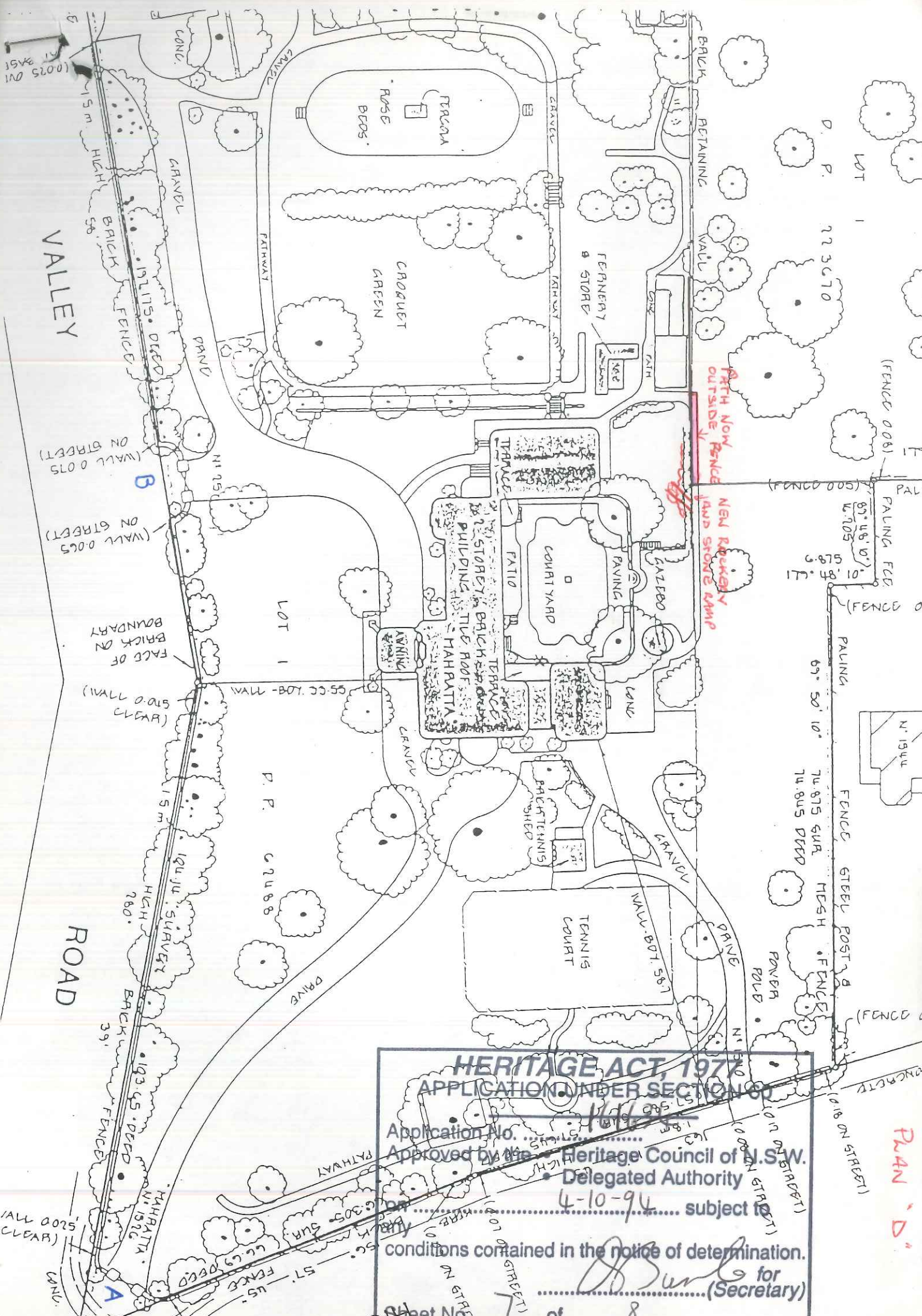
**HERITAGE ACT, 1977**  
**APPLICATION UNDER SECTION 60**

Application No. 161634

Approved by the • Heritage Council of N.S.W.  
• Delegated Authority

on 4-10-94 subject to  
any conditions contained in the notice of determination.

*[Signature]* for  
..... (Secretary)



**HERITAGE ACT, 1977**  
**APPLICATION UNDER SECTION 60**

Application No. 141/94  
 Approved by the Heritage Council of N.S.W.  
 Delegated Authority  
4-10-94 subject to  
 conditions contained in the notice of determination.

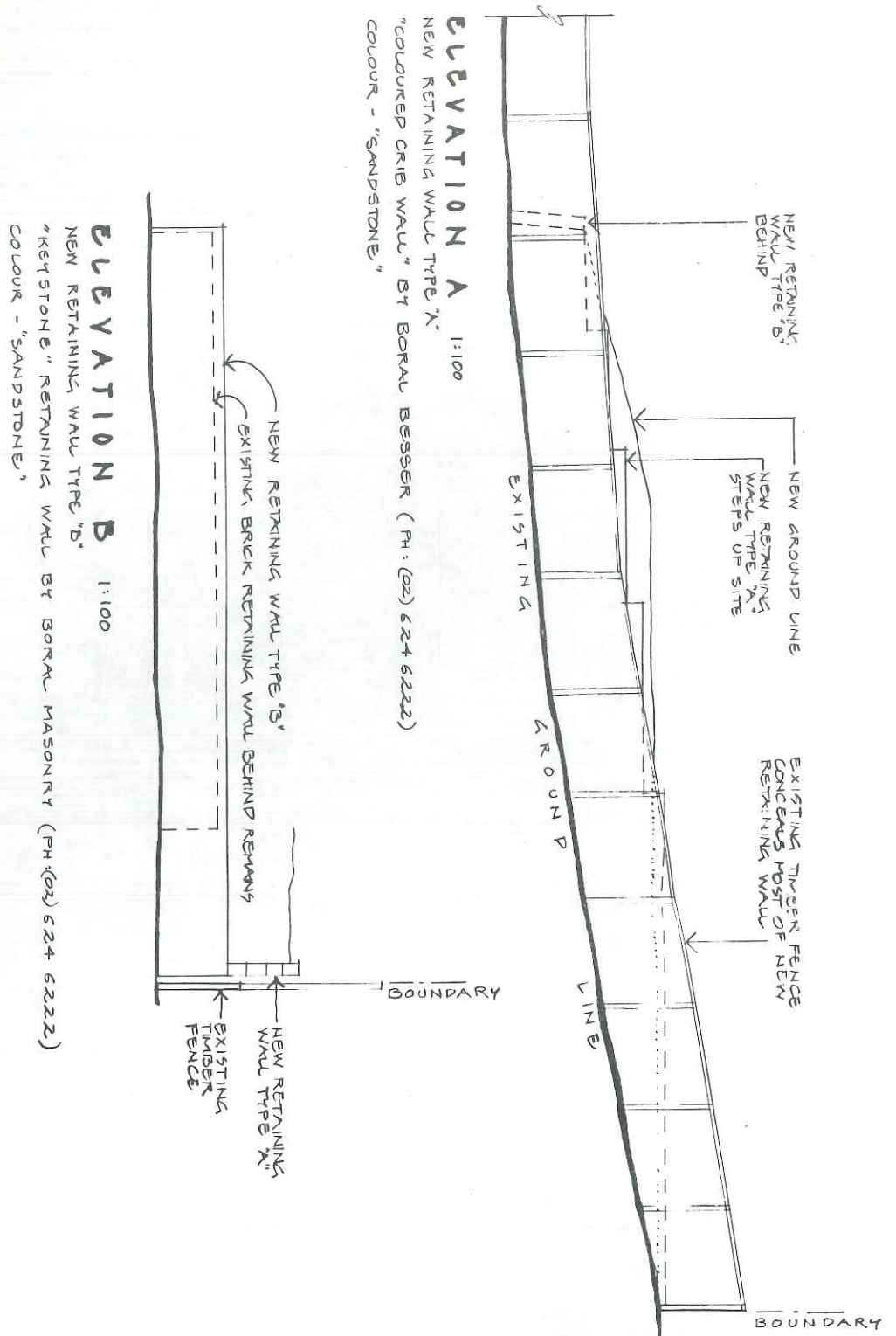
..... for  
 (Secretary)

Sheet No. 7 of 8

PLAN 'D'







**HERITAGE ACT, 1977**  
 APPLICATION UNDER SECTION 60

Application No. 161634

Approved by the • Heritage Council of N.S.W.  
 • Delegated Authority

on 4-10-94 subject to any conditions contained in the notice of determination.

*[Signature]* for (Secretary)

Sheet No. 3 of 8

NEW RETAINING WALLS FOR  
 "MAHRATTA"  
 25 FOX VALLEY ROAD,  
 WARROON G.A.

ELEVATION 2

JUNE 1994

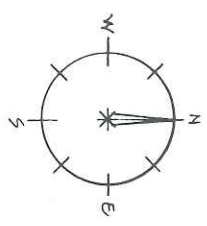
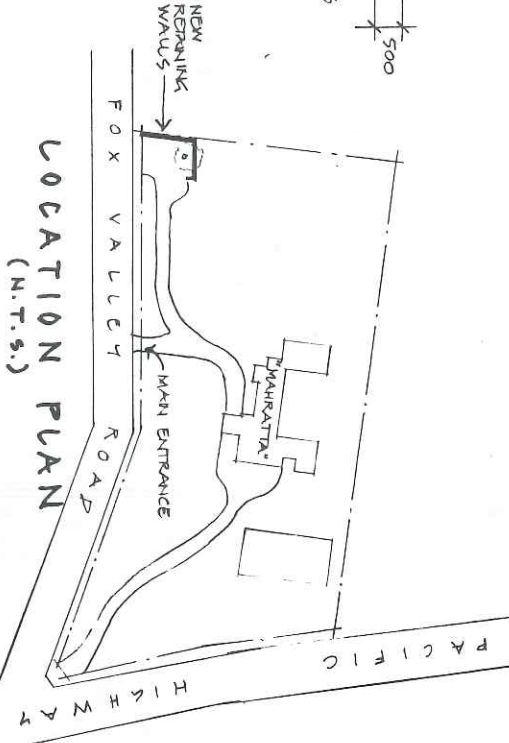
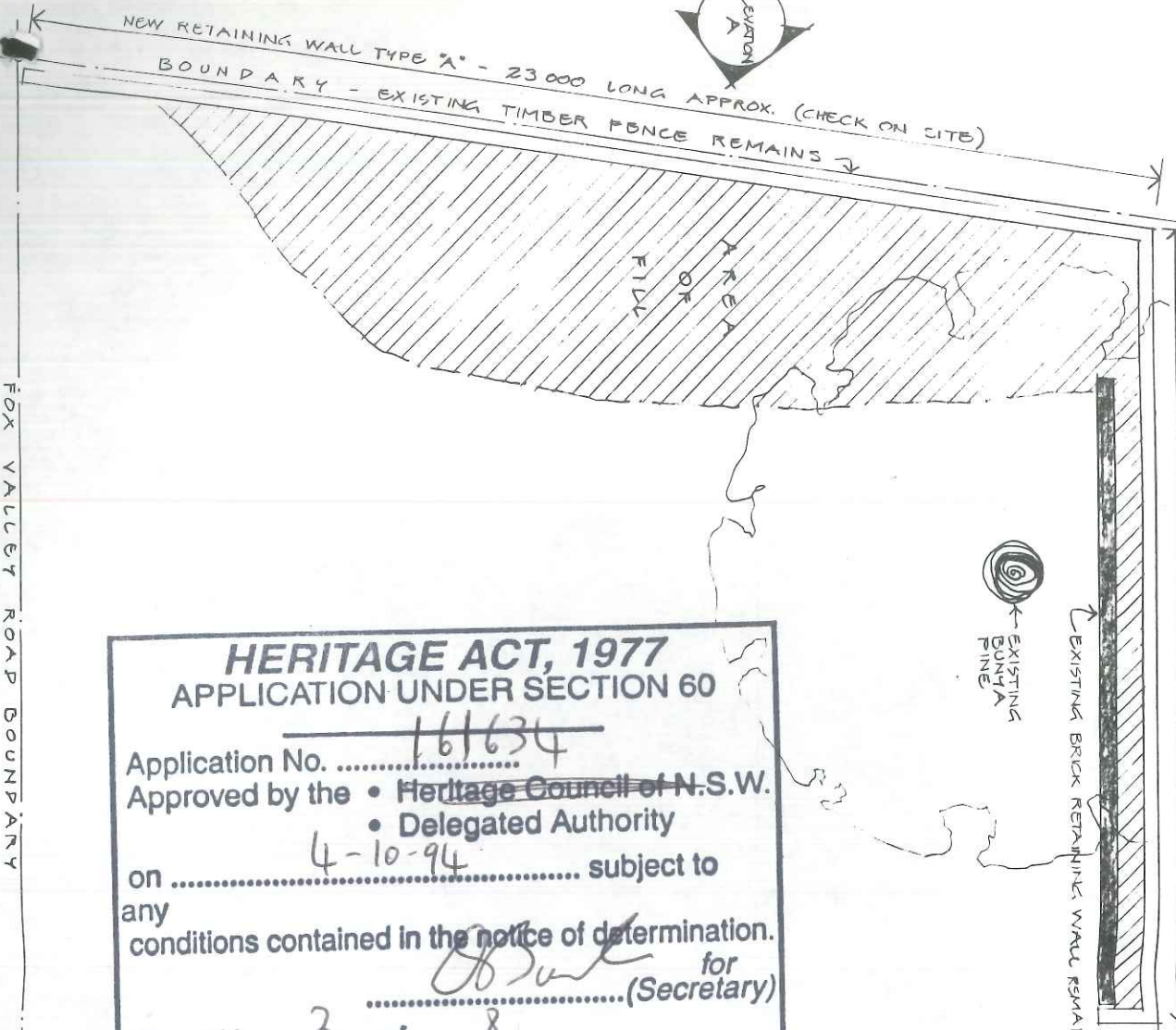
Dimitrius Condos  
 B. Arch. (Hons.)

TEMPLUM DESIGN  
 ARCHITECTS

21 Rosebery Street  
 Mosman, NSW 2088  
 Telephone (02) 969 3052

FOX VALLEY ROAD BOUNDARY  
 PLAN 1:100

**HERITAGE ACT, 1977**  
**APPLICATION UNDER SECTION 60**  
 Application No. 161634  
 Approved by the • **Heritage Council of N.S.W.**  
 • **Delegated Authority**  
 on 4-10-94 subject to  
 any conditions contained in the notice of determination.  
 ..... for  
 ..... (Secretary)  
 Sheet No. 2 of 8



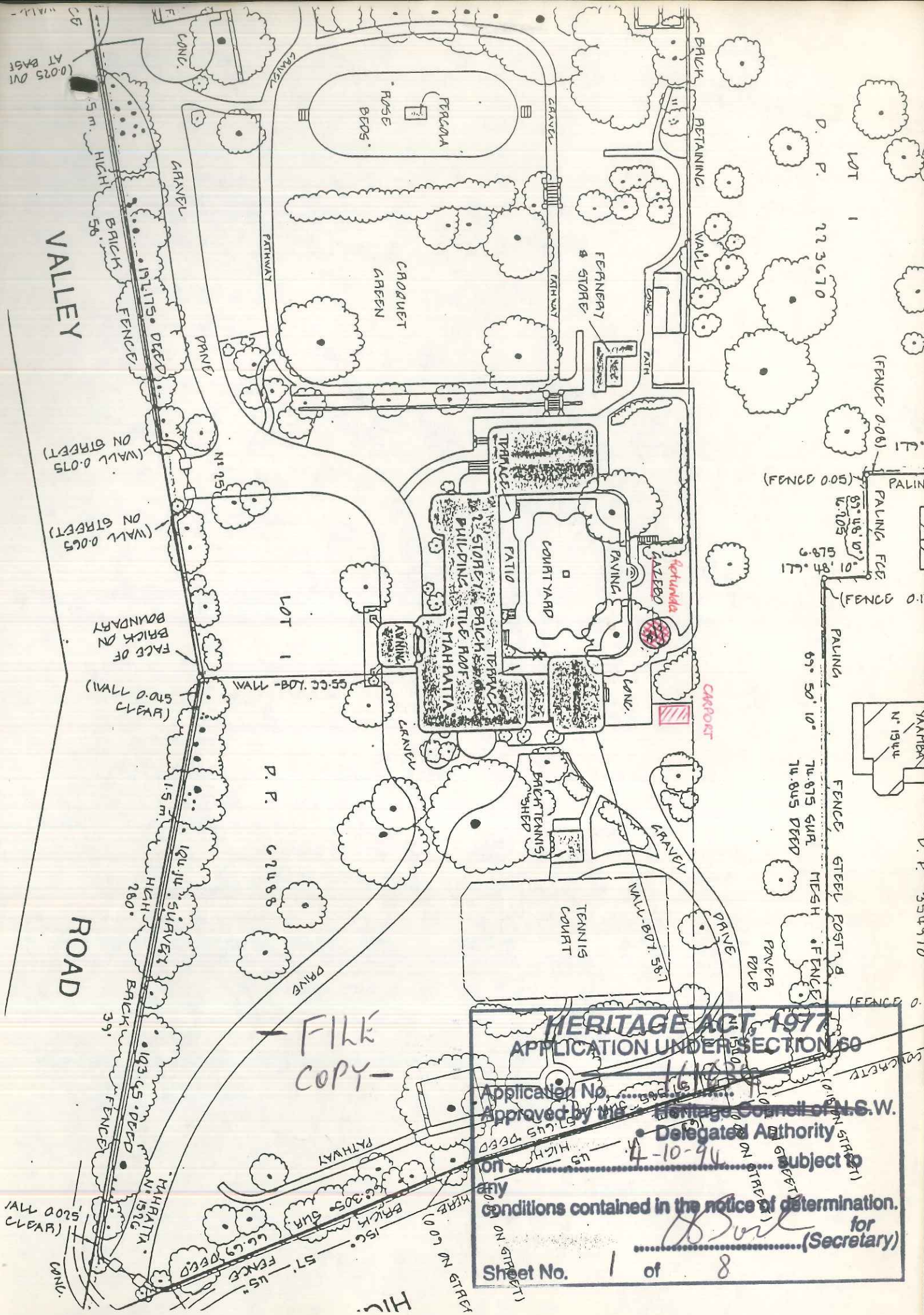
NEW RETAINING WALLS FOR  
 "MAHRATTAN"  
 25 FOX VALLEY ROAD,  
 WAHRROONGA

PLANS  
 JUNE 1994

Demetrius Condos  
 B. Arch. (Hons.)

TEMPLEUM DESIGN  
 ARCHITECTS

21 Rosebery Street  
 Mosman NSW 2088  
 Telephone (02) 969 3072



**HERITAGE ACT, 1977**  
**APPLICATION UNDER SECTION 60**

Application No. ....  
 Approved by the Heritage Council of N.S.W.  
 Delegated Authority

on 4-10-94 subject to  
 any conditions contained in the notice of determination.

.....  
 (Secretary)

Sheet No. 1 of 8

FILE COPY

HERITAGE ACT, 1977

APPLICATION UNDER SECTION 60 - DELEGATED DECISION

**PROPERTY:** MAHRATTA - 25 FOX VALLEY RD, WAHROONGA

**APPLICATION:** 161 364 **PCO:** 667

- PROPOSAL:**
- 1) To move the existing iron gate from the disused entrance at the intersection of Fox Valley Road and Pacific Highway to the main entrance at Fox Valley Road and replace the gate in the first position with a fixed wooden gate.
  - 2) To undertake landscape works, including re-alignment of a concrete path and construction of a small rockery, incorporating a low ramp.
  - 3) To construct two retaining walls to the south-western boundary.
  - 4) To demolish a rotunda.
  - 5) To erect a carport.

**COMMENTS:** "Mahratta" is a large, intact, two storey mansion erected in 1941 in an unusual style which combines Art Deco and Classical Georgian Revival elements. The building contains a rare and dramatic domestic interior from the period. The open landscaped setting and mature trees provide a fine setting and backdrop to the house.

In 1989, Schwager Brooks and Partners prepared a document entitled "Heritage Analysis" for Mahratta. The document includes a statement of significance and conservation guidelines. Exemptions under S57(2) have been granted for works in accordance with these conservation guidelines.

- 1) The relocation of the gate is considered acceptable. The existing gate is to be moved from position A (the intersection of Fox Valley Road and Pacific Highway) to the main entrance at position B, as the former entrance is no longer accessible and the gate at the main entrance has been lost. The applicant states that the headlights from cars on Pacific Highway cause a nuisance to the users of the building. The gate at position A is to be replaced with a solid wooden gate designed to reflect images of the original gate.
- 2) The proposed re-alignment of the path, construction of the rockery and ramp to the north of Mahratta are in an area identified in Schwager Brooks' Heritage Assessment as essential components of a fine open setting. It is considered that the proposed works, if approved, will not adversely affect the open setting of Mahratta.
- 3) Schwager Brooks identifies the area where the retaining wall is proposed (to the far west of Mahratta) to be of little significance, but mentions the existence of some large, native trees. The applicant states that the retaining wall is necessary to retain existing soil levels undermined as a consequence of the subdivision and adjoining development and that the existing trees are retained. The type of retaining wall is considered to be visually undesirable in a residential area. However, this is not a heritage issue, the wall

is hidden by an existing boundary fence and Ku-ring-gai Council did not state any concerns about the proposed wall.

- 4) The demolition of the rotunda (also identified as "gazebo" or "fernhouse") is an option recommended in the conservation guidelines of Schwager Brooks' Heritage Assessment. It is therefore exempted from approval requirements under S57(2).
- 5) The location of the proposed carport (to the north of Mahratta, near the servant's quarter) is considered discrete. Subject to detailing, it will not significantly affect the setting of Mahratta. It is noted that no under cover parking is available on the site. Cars currently park at the location for the proposed carport. Schwager Brooks Heritage Assessment recommends that no new structures within the curtilage of Mahratta be built and that a garage be located at the site of a previous garage to the far west of the site. However, this location is considered to be too far from Mahratta to be practical. It should be noted that Schwager Brooks' Heritage Assessment was written when the property was to transfer ownership and subdivision and development of the site was considered. For the above reasons, this variation from Schwager Brooks' recommendations is considered appropriate.

The current S60 application has been on hold for about 12 months on the applicant's request, but the applicant now wishes to proceed with the works.

Ku-ring-gai Council is in receipt of a development application (DA) for the retaining walls and relocation of the gate. The DA has not yet been processed. The details of the S60 application have been discussed with Council's planning department and it raised no concerns. Comments from Council's heritage advisor are not available, as Council considers the application too insignificant to justify the cost of referring it to its heritage advisor.

#### RECOMMENDATION:

The application is considered to be acceptable and approval is recommended. A draft letter of approval containing conditions at attached hereunder and is recommended for issue.

Daniela Bantle, Architect.

#### Endorsed:

*M. Kruggo* 30/9  
Acting Deputy  
R. POWER  
Manager, Heritage Branch

\* Sam  
This aspect of the Conservation Plan was probably written to prevent potential purchases considering the possibility of major extensions to or new buildings in the vicinity of Mahratta. Carport is a minor structure.

DETERMINED AS DELEGATE OF HERITAGE COUNCIL OF NSW:

*Shaddad* Director/Assistant Director,

Date *4/10*

*M. Kruggo*

Carport position is at Tag A

DELEGATED DECISION NO. 94/LEP referral: S21(2)(a)(ii)

94/563/40.

Mr John Fisher  
Champion and Partners  
DX 8220 PARRAMATTA

L. Dubsy

S90/02455/002

Dear Mr Fisher

**RE: 'MAHRATTA' - 1526 PACIFIC HIGHWAY, WARRAWEE**

Further to your enquiry in regard to the proposed works for the abovementioned property, it is considered that an application under Section 60 of the Heritage Act, 1977 is required. A Section 60 application and Guidelines are enclosed with this letter.

As part of the application, you are requested to submit a Heritage Impact Assessment, including photographs of the areas of proposed work to enable assessment of the application.

If you have any queries on this matter, please contact Ms Lenka Dubsy on 391 2054.

Yours sincerely

MR

Rob Power  
Manager, Heritage Branch

13/12/95.

# HERITAGE COUNCIL OF NEW SOUTH WALES

APPLICATION FOR APPROVAL UNDER SECTION 60,  
(TO CARRY OUT AN ACTIVITY PURSUANT TO SECTION 60)

**NOTE:**

- This application must be submitted in duplicate and accompanied by a cheque for the fee made payable to the "Heritage Council of N.S.W."
- A plan must be submitted in triplicate with a defined boundary sheet.
- The provision of full particulars on this form and accompanying plans is essential for consideration.

The tagged drawings form part of the 560 approval and should be copied and sent out. (8 drawings in total)  
 Thanks Daniela

**1 PARTICULARS OF APPLICANT (please print)**

(Surname) (First names)  
 Name SCHOOL OF PHILOSOPHY INC.  
 Address 25 FOX VALLEY RD WAHROONGA 2074

**2. PURPOSE OF APPLICATION (delete whichever is not applicable).**

- I hereby apply for approval to:
- (a) demolish the building/work described below;
  - (b) carry out work which will require me to damage/despoil -
    - (i) the relic/place/land described below; (ii) part of the relic/place/land described below;
  - (c) excavate land for the purpose of exposing/moving a relic described below; (see note A (c))
  - (d) carry out development in relation to - (i) the land on which the building/work/relic described below is situated;
    - (ii) the land which comprises the place described below; (iii) the land described below;
  - (e) alter the building/work/relic described below;
  - (f) display a notice/advertisement on the building/work/relic/place/land described below;
  - (g) carry out work which will require me to -
    - (i) damage/destroy trees on the place/land described below; (ii) remove trees from the place/land described below.

**3. DESCRIPTION OF LAND ON WHICH THE BUILDING/WORK/RELIC/PLACE IS SITUATED.**

city, municipality or shire <u>KU-RING-GAI</u>		suburb, town or village <u>WARRAWEE</u>		
street <u>FOX VALLEY RD</u>		side of street <u>N</u>	house no. or name <u>25</u>	postcode <u>2074</u>
lot or portion <u>1</u>	section <u>115</u>	d.p. or s.p. <u>62488</u>	county <u>CUMBERLAND</u>	parish <u>GORDON</u>
vol./book <u>1470</u>	fol./no. <u>115</u>	frontage <u>300.82</u> <u>M</u>	depth <u>124.33</u> <u>M</u>	nearest cross street <u>CNR. PACIFIC HIGHWAY</u>
area <u>1 ACRES</u>		nature of property (whether vacant land, house etc.) <u>HOUSE</u>		

**4. DESCRIPTION OF BUILDING, WORK, RELIC OR PLACE INVOLVED.**


BRONZE GATE.

**5. CONSERVATION INSTRUMENT NO.** 667

**6. PARTICULARS OF PROPOSED ACTIVITY (if space insufficient, attach separate sheet).**

IMPORTANT. PLEASE REFER TO NOTE "A" ON BACK OF FORM, THEN ENTER THE REQUIRED INFORMATION IN THE APPROPRIATE SPACE BELOW.

- I MOVE EXISTING GATE FROM POSITION A ON PLAN TO POSITION B ON PLAN.
- II REPLACE THE GATE AT POSITION A WITH A RAISE WOODEN GATE SYMPATHETICALLY DESIGNED TO SUIT ARCHITECTURE
- III OF THE BUILDING. PLAN OF PROPOSED DESIGN OF WOOD GATE ATTACHED.
- IV SEE ANNEXED LETTER.

Signature of Applicant 

**6. CONSENT OF OWNER (see note "B" on back of form).**

I, \_\_\_\_\_ of \_\_\_\_\_ being the owner of the building, work, relic, land or place which is the subject of this application, hereby consent to the making of this application.

Signature of owner.....Date.....

• Need to put in DA. ✓  
 • ~~iron~~ instead of timber?  
 From end of next week Mr Fisher should be back & it will be possible to see the whole building.  
 Left message for Mr Fisher to ring back. 15.7.93





# School of Philosophy

F3101

JHF

25/6/1993

The Heritage Council of N S W  
Remington Centre  
175 Liverpool Street  
SYDNEY NSW 2000

ATTENTION: MS DANIELLA BANTLE

Dear Sir,

RE: MAHRATTA  
25 FOX VALLEY ROAD, WAHROONGA

As you are aware the above property is the subject of a Permanent Conservation Order. The School as the Owner of the property is concerned about the security of the building. In recent times, particularly when the adjoining land was opened up by subdivision, people tended to enter the grounds either as a short-cut or simply out of curiosity and a number of vehicles have been entering the driveway.

Fortunately most of the boundaries have now been fenced and security has improved. However, the main entrance on to Fox Valley Road does not have a gate and it would be very desirable to secure this entrance as well. The School understands that originally there was a gate at this entrance similar to the one now enclosing the defunct entrance at the intersection of the Pacific Highway with Fox Valley Road. That gate appears to be functional although it is of no use in that position because the entrance is not accessible.

The School would very much like to physically move that gate to the main entrance now in use in Fox Valley Road and replace it with a solid wooden panel giving the appearance of a gate. Enclosed is a drawing showing the design of the gate and how it would appear at that entrance. The design has been carefully considered by an Architect in order to compliment the existing art deco architecture of the main building, but can be changed if you considered another design or style is more appropriate.

D. BANTLE  
FOR ACTION PLS

AT

6.7.93

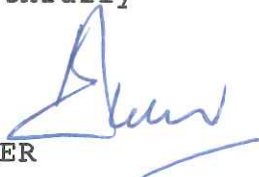
-2-

We also enclose two photographs showing the existing gate in its present position marked "A" on the attached Site Plan and of the entrance to which it is proposed to move the gate, marked "B" on the Site Plan.

It would appear that the two entrances are identical in width so that the gate will fit perfectly and there are still attached to the entrance the original fittings which will adequately support the gate. There seems no reason why the gates could not be changed with a minimum of effort.

We would be pleased if you would give consideration to this request and if there is any further information which you might require please let us know.

Yours faithfully

A handwritten signature in blue ink, appearing to read "John Fisher", with a horizontal line underneath.

JOHN FISHER



*Present Position of gate*



*Proposed Position of gate*

MAHRATTA, 25 FOX VALLEY RD, WAHROONGA

# School of Philosophy

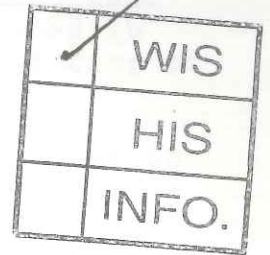
FCB11

JHF:DH

Daniella La Wenta

3rd August, 1994

The Heritage Council of New South Wales  
Remington Centre  
175 Liverpool Street  
SYDNEY NSW 2000



Dear Sir,

RE: MAHRATTA - 25 FOX VALLEY ROAD, WAHROONGA

We refer to our letter in 1993 concerning the application to move a gate from one entrance of the above property to another. We note you are holding that letter in abeyance pending a Development Approval from the Council. We advise that the Application for a Development Approval has been lodged with the Council and as soon as it is received we shall forward it on to you.

There are also three other items of work which the School would like to carry out to the property and which involve the construction of:

1. A retaining wall,
2. A pathway, and
3. A small rockery incorporating a stone ramp.

The retaining wall is to be constructed in the south-western corner of the property as indicated on the location plan prepared by Templum Design, Architects. The wall is necessary to retain existing soil levels undermined as a consequence of the subdivision of the property. Along the western boundary immediately adjacent to the timber dividing fence it is proposed to use a boral besser coloured crib wall as indicated in the attached brochure marked "A". This retaining wall is at the very end of the property and will be hidden from view from adjoining properties by the timber dividing fence. As a return from this wall facing the north in front of the existing but damaged retaining wall it is proposed to construct a boral masonry keystone retaining wall as indicated in the attached brochure marked "B". By reason of the height of this wall it is

necessary to use a product which involves strong construction and yet will be aesthetically pleasing. It is proposed that this area of the garden will be appropriately redesigned in sympathy with the rest of the garden and including planting of shrubs to disguise the wall.

A Development Application has been lodged with the Council in respect of this wall.

The northern boundary of the garden toward the north-western corner needs to be redesigned in a small way because it now overlooks the adjoining subdivision. This area is identified on the plan marked "C". It is proposed to remove the present deteriorating concrete pathway which is situated along the northern boundary and replace it with trees and shrubs to enhance and define that boundary of the garden. There will then be a need to construct a further pathway by extending the existing pathway from the garden shed across the edge of the lawn and down a slope to adjoin the stone pathway in that area. The pathway would be made of concrete where it adjoins the existing garden shed pathway and then made of sandstone where it passes through the garden to adjoin the existing stone pathway. It is possible to construct the pathway through the existing short section of garden so it will not disturb any major shrubs or trees and will be well disguised. The view is that this pathway will then be more in keeping with the general nature of the garden and will not detract from its heritage value or original concept.

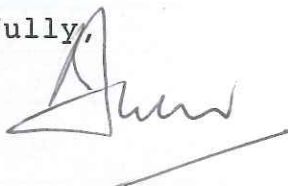
The small rockery is to be constructed in the courtyard opposite the basement room, as indicated on the plan marked "D", so as to enable the planting of small shrubs to hide the new timber dividing fence. The ramp will allow access to the pathway which was removed by reason of the subdivision. All this work will be carried out in a very sympathetic manner to match the existing stonework in the courtyard. Once again the need for this work is caused by the redesign of the garden resulting from the subdivision and will completely enhance that area.

No application has been lodged with the Council for the last two items as they are of minor nature and do not require approval of the Council.

We would be pleased to receive your views on these matters as soon as possible.

Yours faithfully,

J.H. FISHER



D. BANTUE  
FOR ADVICE PLEASE



GARDEN ROTUNDA (TO BE DEMOLISHED)

# School of Philosophy

F6534

x	WIS
	HIS
	INFO

22nd August 1994.

The Heritage Council Of N.S.W.  
Remington Centre,  
175 Liverpool Street,  
SYDNEY NSW 2000

DEPARTMENT OF  
PLANNING  
RECEIVED  
30 AUG 1994

Dear Sir,

RE: MAHRATTA 25 FOX VALLEY ROAD WAHROONGA

We refer to our letter of 3rd August 1994 and your inspection of the property today and as you have suggested, we would like to include in our current application the following two matters:

1. The demolition and removal of the garden rotunda. As you will have observed it has little heritage or architectural significance, it is situated in a position which does not enhance the main residence and is in a bad state of repair. The space will be left unoccupied which will improve the northern aspect of the residence.
2. The erection of a carport in the carparking area at the rear of the house outside the kitchen. It will not adjoin the residence but will be partially hidden by the bamboo and the fence. It will not be enclosed but will comprise a steel roof with a light steel truss on steel posts painted in sympathetic but low impact colours. There is no other undercover car parking on the property and it is suggested that the proposed position is the most sensible and least obvious. The roof dimensions will measure 4.5m by 5.4m.

The position of each of the above structures is shown on the attached plan and a photograph of the rotunda is enclosed. We would be pleased to receive your response to all of our proposals as soon as possible.

Yours faithfully,

*D. Bantle*  
*For action please*  
*is s60 required?*  
*M-Krengys 30/8*

File No.	590	02455	002
ACT. OFFICER	M. Gray		
MARKING	D. Bantle		
LOCATION			
TITLE			





## Heritage Council of New South Wales

Mr J Fisher  
School of Philosophy Inc.  
PO BOX 4244  
GPO SYDNEY NSW 2001

Remington Centre  
175 Liverpool Street, Sydney 2000  
G.P.O. Box 3927,  
Sydney N.S.W. 2001

Telephone :(02) 391 2000 Ext:

Fax No. :(02) 391 2336

Contact :

Ms D. Bantle  
S90/02455/002

Dear Mr Fisher

### MAHRATTA, 25 FOX VALLEY ROAD, WAHROONGA

I refer to your application under Section 60 of the Heritage Act, 1977, dated 25 June, 1993 for the relocation and replacement of a gate within the site, construction of two retaining walls, demolition of a gazebo (it is noted that the demolition of the gazebo is exempted under S57(2) from obtaining approval), erection of a carport and landscape works (including a new ramp, rockery and realignment of a footpath) in respect of the above property (Application No.161364).

Pursuant to Section 63 of the Heritage Act, 1977, approval has been granted for the works shown on the plan and elevation of the proposed retaining walls, drawn by Templum Design, Architects, dated June 1994, plan "C" and "D" showing landscape works, and the drawing "second alternative" showing the proposed timber gate, subject to the following conditions:

- (i) this approval shall be void if the activity to which it refers is not physically commenced within five years after the date of the approval or within the period of consent specified in any development consent granted under the Environmental Planning and Assessment Act, 1979; and
- (ii) the proposed carport shall be designed to be aesthetically complimentary to Mahratta; details of the structure and materials shall be submitted for the approval of the Manager, Heritage Branch prior to commencement of any works.

The above conditions have been imposed to ensure compatibility of the proposed work with the existing heritage qualities of the property. Your attention is drawn to your right of appeal against these conditions.

It should be noted that an approval under the Heritage Act is additional to that which may be required from other Local Government and State Government Authorities. Enquiries about other approvals that may be required should be directed to Ku-ring-gai Council.

Please contact Ms Daniela Bantle on telephone number (02) 391-2054, should you require further information about this approval.

Yours faithfully,

*M. Keeggs 5/10/99*

for Secretary.

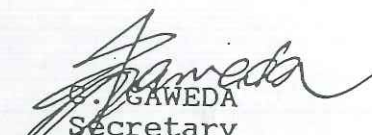
cc. Ku-ring-gai Council

HERITAGE ACT, 1977

NOTIFICATION OF ORDER UNDER SECTION 57(2)

The Minister for Local Government and Minister for Planning on the recommendaiton of the Heritage Council of New South Wales, in pursuance of section 57(2) of the Heritage Act, 1977, has granted an exemption from section 57(1) of the said Act in respect of the engaging in or carrying out of any activities described in Schedule "C" by the owner, mortgagee or lessee of the land described in Schedule "B" on the items described in Schedule "A". ( HC 88.1404 ).

The order was published in the Government Gazette on 28th July, 1989 and took effect on that date.

  
E. GAWEDA  
Secretary  
for the Minister

SCHEDULE "A"

The item known as 'Mahratta' and its site, 1526 Pacific Highway, Warrawee situated on the land described in described in Schedule "B".

SCHEDULE "B"

All those pieces or parcels of land as shown edged heavy black on the plan catalogued H.C.1712 in the office of the Heritage Council of New South Wales.

SCHEDULE "C"

- \* the change of use of any building on the site;
- \* subdivision and development of the site in accordance with the conservation Guidelines contained in the document entitled "Heritage Analysis - Mahratta", prepared by Schwager Brooks and Partners Pty. Ltd.
- \* the maintenance of any building or item on the site, where maintenance means the continuous protective care of existing fabric, but excluding renovation, major repairs, restoration or repainting;
- \* garden maintenance, including cultivation, pruning, weed control, the repair and maintenance of existing fences, gates and garden walls, tree surgery, but not extensive lopping.



H550581

Contact: Stuart Read  
Telephone: 02 9873 8554  
Stuart.read@heritage.nsw.gov.au  
File: S90/02455/2  
Our Ref: HRL45994  
Your Ref: -

- Rego!  
- not a shelf  
SR

PWP

Mr Chris Weeks  
The School of Philosophy  
Mahratta  
1526 Pacific Highway / 25 Fox Valley Road  
WAHROONGA NSW 2074

Dear Mr Weeks

**Tree removal proposals and arborist's report, Mahratta, SHR item # 708**

Thank you for providing the office with a copy of an Arborist's report prepared by Sydney Garden Craft, dated May 2007. This document is a helpful guide to the stock of trees on site, their size, condition and recommended future management.

Thank you also for the opportunity to visit Mahratta and inspect the trees marked as needing to be considered for urgent or short term removal. The Office realises that this is subject to the School's further consideration and budgetary priorities. The Office would be happy to consider individual or a collective application to remove trees, whichever the School prefers.

As noted on site, some tree removals are able to be handled as standard exemptions from the normal requirement for Heritage Council approval under section 57(2) of the Heritage Act. This will apply to trees that are young or demonstrated to be of low significance.

Where trees are identified as mature and of some heritage significance, these may require a 'works' application to remove them, under section 60 of the Heritage Act, accompanied by public notification and advertising. This gives the public an opportunity to comment, although at the end of the advertising period, approval may still be given to remove trees that are aging, unsafe or unlikely to survive much longer. More important is the issue of whether these should be replaced, with what species and in the same or other locations.

Mr Stuart Read of this office noted some errors on the annotated plan and some additional trees on site which were omitted. These are outlined in a separate attachment enclosed with this letter for your consideration.

If you have any questions in relation to this letter please contact Stuart Read on telephone 9873 8554 in the first instance.

Yours sincerely

*Vincent Sicari* for

24/07/07

A/

Vincent Sicari  
Manager  
Conservation Team



**Additions and omissions in the 5/07 Arborist's report and annotated plan.  
Notes by Stuart Read, NSW Heritage Office  
18/7/07.**

**Alterations:**

1. *Cedrus deodara* marked on plan (un-numbered) removed after storm in 1990s;
2. tree marked 'Tsuga' on plan (un-numbered, near tree 16) is actually a *Sequoia sempervirens*, coastal redwood;
3. tree 20 is wrongly identified and is more likely *Pinus roxburghii*, Himalayan chir pine, or possibly *P.canariensis*, Canary Island pine;
4. tree 21 *Cupressus torulosa* is no longer there;
5. that trees 23-25 are marked in the wrong location on the plan provided, being in fact east of tree 21 towards the gates on the corner of the Pacific Highway;
6. tree 27 is in fact two lily pillies, not one as listed;
7. trees 18 & 35 are actually both *Waterhousia floribunda*, weeping lily pillies;
8. tree 55 should be coded R for removal, not M for moderate, per the recommendation in the comment column, given it will damage the wall;
9. tree 70 is likely to be *Ficus virens*, white fig;
10. tree 71 is *Washingtonia robusta*, fan palm;
11. *Syzygium leuhmanii* beside western gate post on corner of Pacific Highway/Fox Valley Road is damaging the brick perimeter wall and needs to be removed;
12. tree 34 on the plan is incorrectly placed – it should be marked on the Jacaranda shown (un-numbered) on the plan near tree 29 (= tree 34 on list);
13. tree 39 is wrongly placed on the plan – it should be east of the *Liquidambar styraciflua* shown on plan near tree 32;
14. tree 40 should be marked on the plan where tree 34 is marked;
15. tree 59 (*Photinia serratifolia*) is wrongly numbered on plan – it should read as tree 60 (this is due to there being two *Chamaecyparis obtusa* 'Crippsii' at tree 58 (one of these two trees should be numbered as 59 on the plan));
16. The *Aesculus glabra* shown on plan below tree 59 is no longer there;
17. tree 64 is wrongly located – it is shown as *Eucalyptus microcorys* on plan, tree 62;
18. tree 65 is wrongly located – it is actually tree 63 shown on the plan;
19. trees 66 & 67 (2 firewheel trees) are wrongly located on the plan – one is marked as un-numbered *Stenocarpus sinuatus* on the plan (wrongly numbered no.64 – see 17 above), the other's location is listed under 'additional trees' no. 25 below;
20. *Alnus jorullensis* on the plan (un-numbered, near tree 65) has gone;
21. The *Harpephyllum caffrum* tree, *Araucaria bidwillii* and *Quercus robur* trees south west of the rose garden are all still there, as marked (un-numbered but named, on the plan). The first two trees correspond to trees 68 & 69 as listed;
22. the two *Acer palmatum*, Japanese maples, un-numbered but shown south-east of the rose garden, are no longer there;
23. Tree 70 is a *Ficus virens*, white fig, cf *Ficus sp.* as listed, = *F.macrophylla* as shown (un-numbered) on the plan;
24. tree 71 (*Washingtonia robusta*, fan palm, (NB: cf *Washingtonia sp.* as listed) is wrongly located on the plan – is actually growing west of Tree 70/*Ficus virens* (as above);
25. Tree 80 (*Eucalyptus saligna*) is wrongly located on the plan – it is growing to the north of tree 77 and west of the curving stepped path;
26. Where tree 80 is marked on the plan is a pair of *Callitris columellaris*, Port Jackson cypress pine/ native cypress trees;
27. Tree 83 (*Cedrus atlantica* 'Glauca') is not marked on the map but corresponds to the hand-marked 'Cedrus' west of the western gate to Fox Valley Road.

**Additional trees/major plants not shown on the plan:**

1. An additional tree, *Leptospermum sp.*, tea tree (between tree no.s 18 & 19);
2. an additional tree, *Acacia baileyana*, Cootamundra wattle (between trees 18 & 19);
3. additional plant, *Heteropteris nitida*, rare tropical climber, growing east of tree 21 on plan (only two other instances of this plant are known in Sydney – one in the Royal Botanic Gardens, Sydney, one in Yaralla, Concord (Dame Eadith Walker estate);
4. additional tree, *Gordonia axillaris*, 'poached egg tree' between trees 25 & 26;
5. additional tree, *Calodendron capense*, cape chestnut, west of (k) above;
6. additional tree, *Corynocarpus laevigatus*, NZ karaka, west of tree 28;
7. additional tree, *Cupaniopsis anacardioides*, tuckeroo, north of tree 33;
8. additional tree, *Acer palmatum*, Japanese maple, east of tree 38 (aging);
9. additional tree, *Syzygium jambos*, rose apple, north of (q) above;
10. additional tree, *Brachychiton populneum*, kurrajong, north of (r) above;
11. additional shrub, *Acokanthera oppositifolia*, poison bush, north of (s) above;
12. additional shrub, *Viburnum odoratissimum*, north of (t) above;
13. additional shrub, *Rondeletia amoena*, north of (u) above;
14. additional tree, *Nyssa sylvatica*, tupelo/sour gum, west of tree 41;
15. additional tree, *Hymenosporum flavum*, native frangipani, between *Cedrus atlantica* 'Glauca' NE of tennis court and southern Pacific Highway gate post;
16. additional 'tree', *Strelitzia nicolae*, bird of paradise flower, north of drive west of tennis court;
17. additional tree, *Rhododendron sp./cv.* east of house, north of bay window;
18. additional shrubs, *Camellia japonica cv.s*, on south-east corner of house;
19. additional shrubs, *Taxus baccata*, yew, pruned into 3 balls south of house;
20. additional trees, *Acer palmatum 'Dissectum'*, cut leaf Japanese maples beside porte cochere, inside two swamp cypresses (trees 8 & 9), a third west of here;
21. additional tree, *Cedrus deodara*, Himalayan cedar, west of porte cochere;
22. additional shrub, *Taxus baccata*, yew, pruned into a ball south-west of house;
23. an additional tree, *Cedrus atlantica 'Glauca Pendula'*, weeping blue Atlas cedar, trained over the steps west of tree 57 leading down into the rose garden is a very rare, large specimen of this tree – one rarely seen in Australian gardens;
24. additional tree, *Magnolia grandiflora*, between trees 64A and 63;
25. additional tree, *Ficus rubiginosa*, Port Jackson fig, south of tree 64;
26. additional tree, *Stenocarpus sinuatus*, firewheel tree, south of the above #24;
27. additional tree, *Juniperus communis cv.*, south west of *Quercus robur* shown (un-numbered) on the plan south of the rose garden, adjoining the outer drive;
28. additional plants, *Strelitzia nicolae* (2), bird of paradise flower, each side of the drive, one near trees 77 & 78, on near tree 75;
29. additional tree, *Pittosporum undulatum*, mock orange/sweet pittosporum, growing between tree 55 and the curving path/steps. This is probably only a bird-dropped seedling which has grown up in this location
30. additional tree, *Brachychiton populneum*, Illawarra flame tree, west of tree 79;
31. additional shrub, *Rondeletia amoena*, beside western gate on Fox Valley Rd..

Take home  
Mow  
16/7

WED  
18/7/07  
gan

kin - please register @  
Pre-560  
(SHR item)

# SYDNEY GARDEN CRAFT

+ ① Vine 18/6/7se  
② Stuart

**Barry Quine**  
40 Austin Blvd Picnic Point  
Ph: 9773-4366 / 040 777 1175



Ta  
SR

ABN: 27104265306

HL 45994

## SUMMARY ARBORIST REPORT

HO D 5060480

Prepared For:

5/7/7 called CH to arrange  
a site visit (m)/landline

**Mr Chris Heeks - 'Mahratta'**  
25 Fox Valley Road, Wahroonga

S90/02455/

May 2007

### CONTENTS

- 1 SYNOPSIS
- 2 TREE INVENTORY / SCHEDULE & SULE CATEGORY
- 3 ASSESSMENT OF TREES
- 4 RECOMMENDATIONS
- 5 ASSUMPTIONS AND LIMITING CONDITIONS

## 1 SYNOPSIS

The report provides an initial assessment of eighty three trees of significance on the site, and provides a basis for a more detailed assessment of the trees for hazard identification and budgetary purposes. Trees have been identified to species level and their location has been mapped to a working drawing used on site. An estimate of tree height, diameter at breast height, and canopy spread has been recorded. These figures are then used to determine estimates of root zones which in turn help to estimate tree health and the likely impact of development around the trees. The report adopts the Safe Useful Life Expectancy (SULE) method for tree assessment and gives an indication of priority for action along with recommendations. An assessment has been made as to the vigor of the trees at the time of inspection. Recommendations are based on a visual ground assessment only. Further inspections and reports are required to complete hazard identification and risk assessment reports & to provide more detailed information on remedial and maintenance practices. Recommendations should therefore be viewed as a guide only until these reports are completed.

## 2 TREE INVENTORY / SCHEDULE & SULE CATEGORY

The following notes provide an explanation of how to interpret the Tree Inventory which has been tabulated for the eighty three trees.

**Tree Inventory:** The objectives of the tree inventory is to:

- Determine the tree species, number & approximate location of selected trees. Not all trees on the site have been included in the inventory.
- Estimate the tree height, trunk diameter at breast height (DBH) and crown spread.
- Estimate Safe Useful Life Expectancy (SULE) category of each tree.

**Tree Location:** The trees were plotted onto a base plan supplied by Mr Chris Heeks. Trees were plotted by estimating the position of the trees onto the plan, by walking the site. A detailed survey of the site is required to accurately plot the trees to plan. See recommendations.

**Tree Height:** Height was estimated and recorded in meters.

**Tree Trunk Diameter:** Tree trunk diameter has been estimated at approximately 1.4 meters above ground level. Diameter at breast height (DBH)

**Tree Canopy Spread:** Canopy spread was estimated and recorded in meters.

**Vigor: Good (G), Fair (F), Poor (P)** The appearance of the tree at the time of inspection.

**CRZ: Critical Root Zone.** This is a radial offset in metres of five times the trunk diameter. Woody roots are usually encountered within this area / offset. Damage and disturbance to the tree roots within this area can lead to tree instability. Fully elevated construction is possible within the CRZ with specific root zone assessment.

**Palm trees** have a fibrous root system and due to their fibrous root growth characteristics generally the CRZ are smaller in size. Fully elevated construction is possible within the CRZ with specific root zone assessment.

**Primary Root Zone (PRZ).** This is a radial offset in metres of ten times the trunk diameter. Construction activity and cut and fill operations should be restricted within this area offsets. After specific root zone assessment construction activity (cut, fill or trenching) to five times (5X) trunk DBH may be possible.

**Assessment of tree health & condition:** Tree health and condition was determined by a visual ground inspection observing:

- Tree age
- Foliage colour, density, leaf size, and epicormic growth.
- Annual shoot growth where possible
- Vigour class
- Evidence of major pests & diseases
- Site conditions
- Evidence of tree defects

**Safe Useful Life Expectancy (SULE):** This a pre- planning / development tree assessment methodology developed by Jeremy Barrell, England 1996. SULE is an acronym for Safe Useful Life Expectancy, which refers to the length of time (under an arborist's assessment), an individual tree, can be retained with an acceptable level of risk, based upon the information available at the time of inspection.

**SULE ratings** are **LONG** (retainable for 40 years or more with an acceptable level of risk), **Medium** (retainable for 15 to 40 years), **Short** (retainable for 5 to 15 years) and **Removal** (trees which should be removed immediately due to imminent hazard or within the next five years).



TREE INVENTORY / SCHEDULE & SULE CATEGORY

TREE No	GENIUS SPECIES	COMMON NAME	DBH m	HEIGHT m	SPREAD m	VIGOUR	CRZ (m)	PRZ (m)	SULE	RECOMMENDATIONS / COMMENTS
1	Arecastrum Romanzoffianum	Cocos palm	1	20	6	Low	5	10	R	Palm to be removed. Evidence of insect activity at base, suppressed growth, poor health & taper. Potential damage to driveway & paved edge.
2	Ulmus parvifolia	Chinese elm	1	10	10	Good	5	10	M	Retain. In good health & condition. Requires some remedial pruning to remove deadwood & to improve shape.
3	Cedrus deodara	Himalayan cedar	0.5	3	2.5	Low	2.5	25	R	Remove. Insufficient space to allow development. Damage to terminal branch & overshadowing by Ulmus
4	Photinia X fraserii	Photinia	0.7	6	8	Fair	3.5	7	S	Multi trunked. In very close proximity to masonry perimeter wall – potential to damage walling. Prune for path clearance – potential to drop branches. Requires rejuvenation pruning and assessment for potential to cause structural damage.
5	Pyrus calleryana	Pyrus	0.6	4	2.5	Poor	3	6	R	Terminal branch damage. Overcrowded by Photinia. Prune for path clearance. Remove & replant with a more suitable species.
6	Cedrus deodara	Himalayan cedar	1.7	20	15	Fair	8.5	17	M	Appears in reasonable health. Remedial pruning to correct previous poor pruning practices. 0.2m from masonry wall – potential to cause damage. Prune for path clearance. Monitor.
7	Liriodendron tulipifera	Tulip Tree	1.7	15	15	Poor	8.5	17	R	Severe damage to terminal crown. Terminal branch is dead & requires removal. Remedial pruning to canopy. Fungi present at base. Recommend removed

removal & replacement with a more suitable species.

8 Metasequoia Glyptostrobooides Dawn Redwood 4 20 7 Good 20 40 M

Tree to be retained. Appears to be in good health. Twin fork 6m from ground level. May cause damage to driveway & Porte Caster over time. Monitor

*cocker*

9 Metasequoia Glyptostrobooides Dawn Redwood 3 20 7 Good 15 30 M

Tree to be retained. Appears to be in good health. Single trunk. May cause damage to driveway & Porte Caster over time. Monitor.

*a pair of 57m naturally forked*

10 Ficus elastica 'Variegata' Variegated Fig 1.1 15 10 Poor 5.5 11 R

1.5m from perimeter fence - potential to cause damage. Recommend removal & replacement with a more suitable species. Remedial pruning required if retained.

11 Aemena smithii Lilly Pilly 2.1 25 15 Good 10.5 21 M

Retain & protect. Deadwood & prune for roadway / path / & wire clearance. Some trunk damage from insect activity evident. Requires further analysis & aerial assessment to determine action.

12 Cedrus deodara Himalayan cedar 2.1 25 10 Poor 10.5 21 S

Has significant dieback & dead branches requiring remedial pruning. Shape destroyed by competition. Assess for weight distribution. Prune for path & road clearance if retained.

13 Aemena smithii Lilly Pilly 3.1 25 20 Good 15.5 31 M

Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - potential to damage walling. Prune for path clearance.

14 Lophostemon confertus Brushbox 3.4 25 20 Fair 17 34 M

Remedial pruning required. Forked. In very close proximity to masonry perimeter wall - potential to damage walling. Prune for path / wire clearance. Requires further analysis & aerial assessment to determine action. Some

basal insect fungal activity noted.

15 Cinomomum camphora Camphor laurel 3 25 12 15 30 M Twin forks 1.5 m from ground level. 1 major dead & requires removal. Major dead wooding required. Requires further analysis & aerial assessment to determine action.

16 Macadamia tetraphylla Macadamia ~~sidwnt~~ 3.2 12 4 16 32 M Clear turf to drip line & mulch. Appears in good condition. Some insect activity evident in base. Retain & monitor.

17 Syzygium paniculatum ~~Syzygium~~ ~~filig pills~~ 1.7 12 10 8.5 17 M Some remedial pruning required. Appears in good health & condition. Retain & monitor. Requires aerial assessment.

18 ~~Syzygium~~ ~~mooerei~~ ~~Syzygium~~ ~~filig pills~~ 4.5 30 18 22.5 45 M Some remedial pruning required. Appears in good health & condition. Retain & monitor. Requires aerial assessment.

19 Lophostemon confertus ~~Acacia~~ ~~baileyana~~ ~~in~~ ~~giling~~ Brushbox 2.1 25 10 10.5 21 M Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - damage to walling evident. Prune for path & road clearance.

20 Pinus sp (parula) Mexican Pine 2.4 25 10 12 24 M Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - damage to walling evident. Prune for path & road clearance.

21 Cinomomum camphora Camphor laurel 3 20 10 15 30 M Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - damage to walling evident. Prune for path & road clearance.

*Canneles  
[noxburgui]*

*Leptospermum spp. in 300m*

*water house  
Acacia baileyana weeps filig pills*

*filig pills*

clearance. Overhanging roadway - requires further assessment.

Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - damage to walling evident. Prune for path & road clearance.

Appears to be in good health. Very close to perimeter walling - will require further assessment

Appears to be in good health. Very close to perimeter walling - will require further assessment

Appears to be in good health. Very close to perimeter walling - will require further assessment

Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - potential damage to walling.

Appears in good health & condition. Some remedial pruning required. In very close proximity to masonry perimeter wall - potential damage to walling. Included trunk.

Large spreading canopy. Prune for road/wire/path clearance. Some insect activity evident - Requires further analysis & aerial assessment to determine action.

Appears in good health. Retain & monitor.

Appears in good health. Prune for path

22	Cinmomum camphora	Camphor laurel	4	25	25	Good	20	40	M
23	Cupressus torulosa	Bhutan Cypress	0.6	25	3	Good	3	6	M
24	Cupressus torulosa	Bhutan Cypress	0.6	25	3	Good	3	6	M
25	Cupresses torulosa	Bhutan Cypress	0.6	25	3	Good	3	6	M
26	Syzygium leuhmanni	Syzygium lilly pills	0.4	7	6	Good	2	4	M
27	Syzygium leuhmanni	Syzygium lilly pills	0.4	5	5	Good	2	4	M
28	Syncarpia glomifera	Turpentine	2.8	25	20	Fair	14	28	M
29	Pistachia chinensis		0.2	3	6	Good	1	2	M
30	Acmena smithii	Lilly Pilly	0.6	10	3	Good	3	6	M

~~Imported to the changing way~~

Show in wrong place on map

X 2 "

✓ 31	Acmena smithii	Lilly Pilly	0.6	10	3	Good	3	6	M	clearance. Appears in good health. Prune for path clearance.
✓ 32	Brachychiton acerifolius	Illawarra Flame Tree	0.5	17	4	Good	2.5	5	M	Appears in good health. Retain & protect. Monitor new growth.
✓ 33	Lophostemon confertus	Brushbox	1	25	10	Good	5	10	M	Remedial pruning required. In very close proximity to masonry perimeter wall - potential to damage walling. Prune for path clearance. Requires further analysis & aerial assessment to determine action.
✓ 34	Jacaranda mimosifolia	Jacaranda	0.3	15	4	Fair	1.5	3	M	Very poor shape - requires assessment for weight. Appears healthy.
✓ 35	Acmena smithii	Lilly Pilly	0.4	15	6	Good	2	4	M	Appears healthy. Deadwooding & prune for pathway clearance
✓ 36	Lophostemon confertus	Brushbox	0.5	20	10	Good	2.5	5	M	Deadwooding. Prune for path clearance.
✓ 37	Cinmomum camphora	Camphor laurel	1.5	5	2	Good	7.5	15	M	In very close proximity to masonry perimeter wall - damage to walling evident. Prune for path clearance. Recommend removal to prevent further problems.
✓ 38	Liquidamber styraciflua	Liquidamber	4	30	20	Good	20	40	M	Mature. Remedial pruning for dead wood. Appears in good health.
✓ 39	Eucalyptus citriodora	Lemon scented gum	1.5	20	10	Very poor	7.5	15	R	Hazardous & dangerous. Immediate removal required. Refer to documentation submitted re removal.

HC-Approved 5.57(2) 5/4/7  
 + remove + (SR)

40	Stenocarpus sinuatus	Firewheel tree	0.3	20	6	Good	1.5	3	M	Assess for further deadwood. Appears in good health. <u>Prune</u> for clearance.
41	Acmena smithii	Lilly Pilly	2	20	20	Good	10	20	M	Prune for deadwood & to improve shape. Appears healthy. <u>Prune</u> for path clearance.
42	Nyssa sylvatica	<i>Sour Gum</i> Tupelo	0.2	7	4	Good	1	2	M	Appears healthy. Retain & protect.
43	Cedrus atlantica glauca	Atlas Cedar	0.3	12	6	Fair	1.5	3	M	Has <u>dropped branches over pathways</u> - requires further assessment.
44	Cinmomum camphora	Camphor laurel	2	18	10	Poor	10	20	<u>R</u>	On Council land. Possible termite activity. Will cause problems in the future. <u>Remove</u> . <i>Replace?</i>
45	Cinmomum camphora	Camphor laurel	2	18	10	Poor	10	20	<u>R</u>	On Council land. Possible termite activity. Will cause problems in the future. <u>Remove</u> . <i>Replace?</i>
46	Jacaranda mimosifolia	Jacaranda	0.5	7	6	Poor	2.5	5	M	In poor condition due to proximity to roadway. <u>Prune</u> to correct wayward growth. Assess cavity
47	Cinmomum camphora	Camphor laurel	5	30	20	Good	25	50	M	Mature. Dead wooding & remedial pruning required. Further assessment required.
48	Acer negundo	Box Elder	0.4	8	6	Good	2	4	M	Prune to improve shape. Remedial pruning.
49	Ginkgo biloba	Maidenhair Tree	0.4	10	4	Good	2	4	M	Prune to improve shape. Remedial pruning.



50	Lophostemon confertus 'Variegata'	Variegated brushbox	0.4	10	4	Good	2	M	Prune to improve shape. Remedial pruning.
51	Cedrus deodara	Himalayan cedar	3	30	20	Good	15	M	Remedial pruning of old pruning cuts. Assess existing cabling. Further assessment required due to size, position in property & <u>historical</u> significance.
52	Cedrus deodara	Himalayan cedar	3	30	20	Good	15	M	Remedial pruning of old pruning cuts. Assess existing cabling. Further assessment required due to size, position in property & <u>historical</u> significance.
53	Juniperus chinensis 'Variegata'	Chinese Juniper	0.4	10	5	Good	2	M	Don't prune. Further assessment required to determine possible damage to retaining wall. Appears in good health.
54	Juniperus chinensis 'Variegata'	Chinese Juniper	0.4	10	5	Good	2	M	Don't prune. Further assessment required to determine possible damage to retaining wall. Appears in good health.
55	Cedrus atlantica 'Glauca'	Atlas Cedar	1	25	8	Good	5	M	Shape destroyed by competition. Very close to existing retaining walls. Further assessment required to determine possible damage to retaining wall. <u>Recommend removal</u> .
56	Cedrus deodara	Himalayan cedar	3	30	20	Good	15	M	Remedial pruning of old pruning cuts. Further assessment required due to size, position in property & <u>historical</u> significance.
57	Cedrus deodara	Himalayan cedar	3	30	20	Good	15	M	Remedial pruning of old pruning cuts.

Symmetrical  
PHG  
x  
Court-  
yard

Further assessment required due to size, position in property & historical significance.

58	Chamaecyparis obusa 'Crippsii'	Hinoki Cypress	0.5	15	6	Good	2.5	5	M	Don't prune. Appears in good health. Monitor.
59	Chamaecyparis obusa 'Crippsii'	Hinoki Cypress	0.5	15	6	Good	2.5	5	M	Don't prune. Appears in good health. Monitor.
60	Photinia serratifolia	Chinese Hawthorn	0.2	10	4	Good	1	2	M	Remedial pruning & to rejuvenate plant. Appears in reasonable health for age.
61	Schefflera actinophylla	Queensland Umbrella Tree	0.2	10	4	Good	1	2	M	Remedial pruning & to rejuvenate plant. Appears in reasonable health. Assess for possible damage to wall.
62	Photinia serratifolia	Chinese Hawthorn	0.2	10	4	Good	1	2	M	Remedial pruning & to rejuvenate plant. Appears in reasonable health for age. Assess for possible damage to adjacent retaining wall.
63	Syzygium jambos	Rose Apple	1	8	12	Good	5	10	M	Remedial pruning & to rejuvenate plant. Appears in reasonable health. For age. Assess for possible damage to walling. Prune for driveway clearance.
64	Eucalyptus microcory's	Tallowwood	6	30	25	Good	30	60	M	Mature. Further assessment required due to age, size, and historical significance. Assess impact of adjacent development. Aerial assessment required.
65	Flindersia australis	Flindersia <i>Austr. Oak</i>	6	25	12	Fair	30	60	S	Mature. Further assessment required due to age, size, and historical significance. Assess impact of adjacent development. Aerial assessment required. Evidence of significant insect <i>Replac?</i>

*Replac?*



activity.

66	Stenocarpus sinuatus	Queensland Firewheel Tree	2	15	4	Good	10	20	M	Further assessment required. <u>Assess impact of adjacent development.</u> <i>+ replace?</i>
67	Stenocarpus sinuatus	Firewheel tree	2	15	4	Good	10	20	M	Further assessment required. <u>Assess impact of adjacent development.</u>
68	Harpephyllum caffrum	Kaffir Plum	0.150	6	3	Good	0.75	1.5	M	Appears in good health. A relatively young planting. Monitor.
69	Araucaria bidwillii	Bunya Bunya	4	30	10	Good	20	40	M	Mature. Requires further assessment due to age, size & <u>historical significance</u> . Remove building materials from base. Reduce turning circle or eliminate to reduce compaction. Remove fruit to eliminate hazard to onsite persons. Assess impact of adjacent development & for structural integrity. Significant danger from falling cones require management.
70	Ficus sp	<i>Virens?</i>	0.4	15	10	Good	2	4	M	Congested plantings in this area affecting growth of some plants. <u>Prune</u> for path & roadway clearance. Assess for dangerous branches. <u>Remedial pruning</u> .
71	<i>W</i> <sup>h</sup> <i>Washingtonia</i> sp <i>rhynchos</i>		0.5	25	3	Fair	2.5	5	M	<u>Taper &amp; crown suggest suppressed growth. Further assessment required.</u>
72	Syzygium leuhmannii	Syzygium	0.3	8	3	Good	1.5	3	M	Small tree in good health. Retain & protect.
73	<i>M</i> <sup>h</sup> <i>Cinomonnum</i> <i>camphora</i>	Camphor laurel	2	25	6	Good	10	20	R	Has significant deadwood to major branches that require immediate removal. Assess for possible damage to walling. <u>Prune</u> for path & road clearance.

74	Lophostemon confertus	Brushbox	1	25	8	Good	5	10	M	Requires further assessment for possible damage to walling. Requires pruning for clearance to path & roadway.
75	Lophostemon confertus	Brushbox	1	20	6	Good	5	10	M	Requires further assessment for possible damage to walling. Requires pruning for clearance to path & roadway.
76	Lophostemon confertus	Brushbox	1	20	6	Good	5	10	M	Requires further assessment for possible damage to walling. Requires pruning for clearance to path & roadway.
77	Lophostemon confertus	Brushbox	1	20	6	Good	5	10	M	Requires further assessment for possible damage to walling. Requires pruning for clearance to path & roadway.
78	Lophostemon confertus	Brushbox	1	20	6	Good	5	10	M	Requires further assessment for possible damage to walling. Requires pruning for clearance to path & roadway.
79	Quercus robur	English oak	0.8	8	8	Good	4	8	M	Remedial pruning of old pruning cuts. Deadwooding. Reduce compaction in CRZ. Monitor
80	Eucalyptus saligna		0.5	12	6	Poor	2.5	5	S	In decline. Reduce factors contributing to tree decline - compaction, competition, existing maintenance practices. Remedial pruning. Monitor. Consider removal.
81	Casuarina species <i>glauca</i>	She Oak	0.5	12	6	Poor	2.5	5	S	Mature. Remedial pruning. Monitor.
82	Ulmus parvifolia	Chinese Elm	0.4	7	7	Good	2	4	M	Remedial pruning for storm damage. Prune for path clearance. Assess for possible damage to walling.

*Cedrus atlantica*  
'Glauca'

Atlas Cypress

1

25

8

Good

5

10

M

Further assessment required

### 3 ASSESSMENT OF TREES

The trees on the Mahratta site can be categorized into four groups.

#### Group 1:

Trees which have been identified as being hazardous and which require immediate removal. Tree No 39 has been identified as being in this category & a quotation has been supplied by Mr Graham Brooks of Arboricultural Tree Services along with the appropriate approvals for the immediate removal of this tree. Trees with a SULE rating of (R) require immediate investigation to determine risk levels and to determine priority for action in their removal. See recommendations in the inventory.

#### Group 2:

Trees which require further assessment due to their size, location, historical significance and condition. Trees in this group may be hazardous & require removal. Further assessment to determine the degree of risk, structural integrity, potential for structural damage, and remedial works is required. Trees in the inventory with a SULE rating of (R) or (S) or (M) may be in this category. See recommendations.

#### Group 3:

Trees in this category require remedial &/or rejuvenation pruning to overcome a number of problems; however they pose a lesser risk to persons or property due to location and/or condition. Generally these have been indicated in the inventory as appearing to be in good health at the time of inspection & require monitoring. Trees in this category generally have a SULE rating of M.

#### Group 4

Trees which are young and require formative pruning, regular maintenance & monitoring. There are few of these trees in the inventory due to the age of the garden. Refer to the points on general maintenance in the recommendations.

## 4 RECOMMENDATIONS

### Survey

A professional survey is required to accurately plot the trees within the site. The survey could employ GPS technology to position trees and give accurate height, spread and DBH measurements. This will result in a more accurate definition of the trees primary and critical root zones, and SULE rating. This will give a more accurate determination of development impact in the vicinity of the trees, tree longevity, current health status, and budget.

### Group 1 – Priority One

Trees in this group are either hazardous, dead or in severe decline, or have a high potential to cause structural damage. In the case of some trees (Tree 39 and possibly others yet to be determined – Trees 44, 45, 65, 66) require immediate removal to prevent damage or injury to property and/or persons both on & off site. Recommend immediate action on tree 39. A quotation has been supplied by Mr Graham Brooks of Arboricultural Tree Services along with the appropriate approvals for the immediate removal of this tree. Refer to previous correspondence regarding this tree. Trees indicated in the inventory as requiring further assessment require immediate action to assess for structural integrity as it is suspected that they should be included in this category. Recommend the commissioning of a detailed tree report on these trees that will provide advice on the most appropriate action. Maintenance recommendations regarding these trees cannot be reasonably made at this point until more is known about the condition of the trees. Tree 69 represents a significant risk from falling cones which can weigh up to five kilograms. This requires further assessment. Recommend signage and removal of cones to reduce the hazard, pending the report.

Replace?

Bungee pine

### Group 2 - Priority Two

There are a large number of trees in this category that are located within close proximity of the perimeter walling of the property. Further assessment to determine the degree of risk, structural integrity, potential for structural damage, and remedial works is required. Many of the trees have been assigned a SULE rating of (M) but have the potential to cause damage. Trees with a SULE rating of (S) also require immediate investigation to determine risk levels, and to determine priority for action. All trees which are overhanging buildings, pathways, roadways and wires along Fox Valley Road, the Pacific Highway and internally on the site should be assessed further for structural integrity and removal of dead &/or dangerous branches. Trees in this category also require remedial pruning to correct previous poor pruning practices and to improve shape. Trees in this category have been identified in the tree inventory. Trees identified in the inventory in this category will require further assessment by a consulting arborist and a consulting structural engineer to determine the extent of existing damage to walling and potential future damage. Although not the subject of this report, it was noted that there is damage to the perimeter masonry walling in some sections of the property and in cases this damage is significant. Future problems will be encountered if this is not addressed. Many of the trees in this category require immediate deadwooding to remove dead & potentially hazardous branches that may fall causing damage to property and persons both on & off site. These trees are established trees and so the majority of maintenance practices involves pruning works. Supplementary watering in extended dry periods should be the major maintenance practice required for these trees pending the results of a detailed soil analysis. See recommendations

### Group 3- Priority Three

Trees in this category have been noted as being in good health at the time of inspection and require minor pruning works to correct problems and monitoring.

## Group 4 – Priority Four

Trees in this group may require some formative pruning and the most intensive maintenance due to their age. Many of the trees on the site have not been recorded in the inventory.

### Summary of Recommendations

- Commission a professional tree survey of the property to accurately position trees on a plan.
- Commission a tree management plan for the site.
- Immediate removal of Tree 39 – Refer separate documentation *approved done in 4/07.*
- Immediate assessment of Trees 44, 45, 65, 66 & those trees identified in the inventory requiring further assessment.
- Immediate removal of dead, dying, damaged and dangerous limbs for public safety and tree health – (Deadwooding) indicated in the inventory. This especially applies to trees located on the Fox Valley Road and Pacific Highway frontages and around the public spaces of the property.
- Remedial pruning works including the removal of selected branches from within the canopy of the trees to allow more light to penetrate and/to minimize storm damage.
- Remedial pruning works to improve the shape of selected trees, to correct prior poor pruning practices, to correct wayward growth, or to limit size.
- Formative pruning to young trees to reduce future pruning problems or to establish a tree framework.
- Nutritional requirements of existing trees based on a professional soil analysis being conducted.
- Formulation of a suitable tree replacement program including species recommendations.
- Maintenance of existing trees and especially young trees to be implemented.
- Establish budget for tree assessment and maintenance practices
- A projected budget is estimated at approx \$20,000 for three years with a review annually to implement the recommendations.

## 5 ASSUMPTIONS AND LIMITING CONDITIONS

1. All standing trees are inherently dangerous and require ongoing maintenance for their life span. Regular checks by qualified Arborists should be carried out on all trees to reduce risks.
2. This report does not identify hazards and assess risks of individual trees, it forms the basis for further detailed assessments indicated in the recommendations.
3. Tree assessment has been made from a visual ground inspection only. Assessments in no way indicate the structural integrity of individual trees and their potential to cause damage. Further assessments are required as indicated in the report.
4. The consultant cannot be held responsible for damage caused by trees as a result of this report as it intent is as an initial guide for a more detailed tree management plan of the site.
5. Not all trees on the site have been included in the inventory.
6. It is assumed that any property is not in violation of any applicable codes, statutes, or any other Local, State or Federal Government regulations.
7. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information supplied by others.
8. The consultant shall not be required to give testimony or to attend by reason of this report unless subsequent contractual arrangements are made including payment of an additional fee for such services.
9. Loss or alteration of any part of this report invalidates the entire report. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written consent of the consultant.
10. Any legal description provided to the consultant is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised as though free and clear, under responsible ownership and competent management.

Yours faithfully

*Barry Quine*

Barry Quine





# Heritage Office

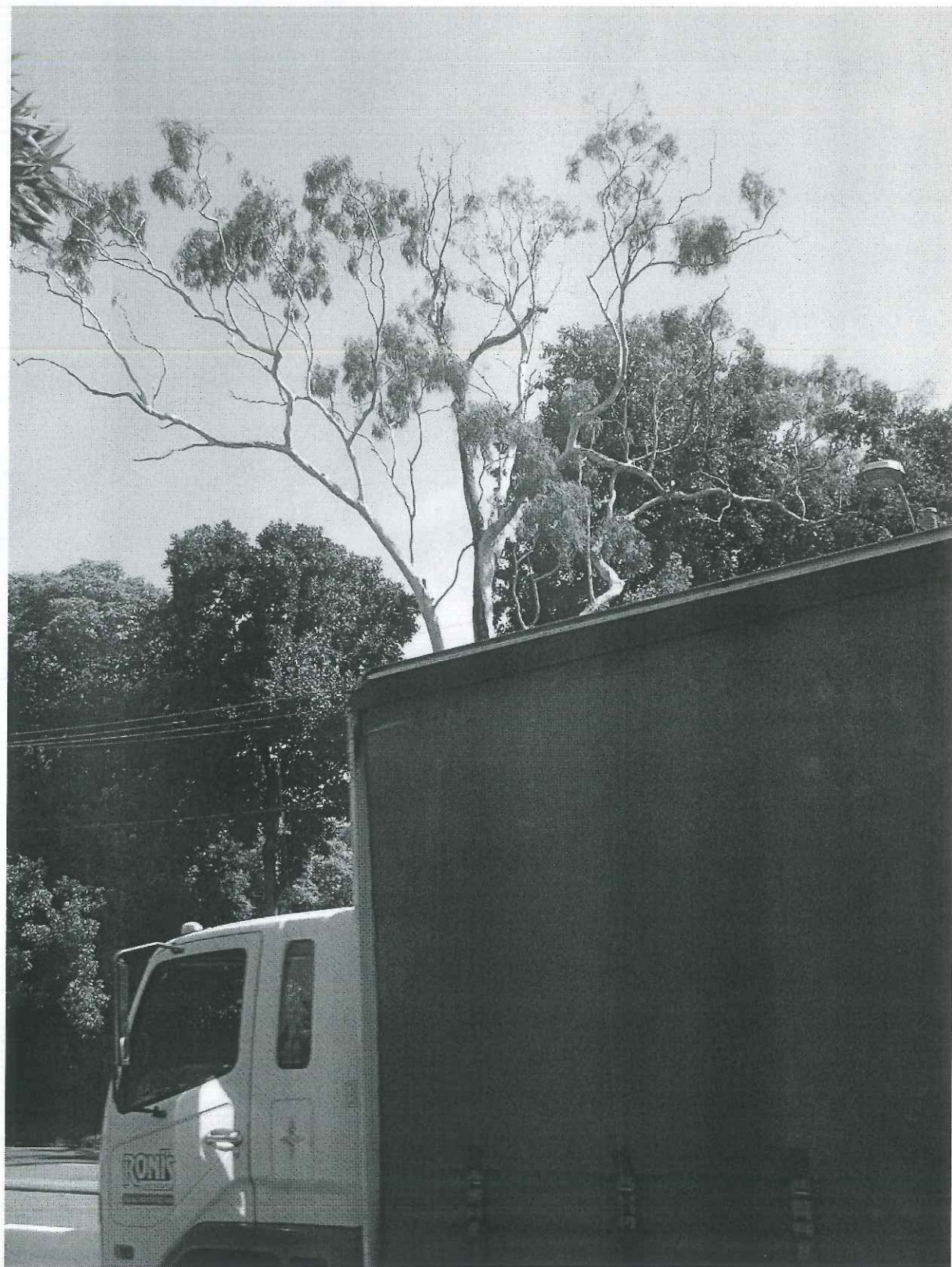
## Record of Conversation / Meeting

Not  
in logs  
shelf

Name: <u>Steven McKay</u> <sup>KuRing Gai Council</sup>	Date: <u>21/2/2007</u>
Telephone Number:	File: <u>S90/02455/22</u>
Subject: <u>Mohratta, Wahroonga</u> <u>Gum tree removal?</u>	Emerging Issue / Action: No / Yes <input checked="" type="radio"/>
<u>Want to remove a large gum tree</u>	
<u>SR. Need S57(2) &lt; 20% pruning</u>	
<u>S57(1)(b) 60 wks approval</u>	
<ul style="list-style-type: none"> <li>- site plan</li> <li>- photos</li> <li>- notification</li> <li>- replacement</li> </ul>	
<u>forms downloadable off www</u>	
<u>AS WELL AS any Ku-Ring-Gai Cd. TPO permit/DA.</u>	
<u>IF KRGC need a DA, it's integrated</u>	
RecFind Information:	
Next Step/s:	
Officer: <u>Stuart Read</u>	
1. <u>SM to advise owners.</u>	
2. <u>owners to lodge S60...</u>	
3.	
4.	

risk x footpath unsafe...  
I may need to advertise it 21 days if material affect







# FAX

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Fax +61 2 9715 8111  
www.tafensw.edu.au/oten  
ABN 364 5904 9947

To: **STUART REED**  
Direct fax number: ~~46738554~~  
Number of Pages including this one

From: **BARRY QUINE**  
Date: **4 APRIL, 2007**

2.

Message:

**URGENT.**

*Fax (w)  
9715.8522*

*Stuart*

*Exemption notification form  
as requested.*

*Regards  
Barry*

This facsimile is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this facsimile are those of the individual sender, and are not necessarily the views of the NSW Department of Education and Training



# HERITAGE COUNCIL OF NEW SOUTH WALES EXEMPTION NOTIFICATION FORM (S.57(2) NSW Heritage Act)

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• This form should be completed and submitted to the Executive Director, Heritage Office to notify the Heritage Council of a proposed development that may be exempt under section 57(2) of the Heritage Act.</li> <li>• An application is required under section 60 of the Heritage Act if the proposed development is not covered by the Standard Exemptions Type listed on page 2.</li> <li>• More information is available in the publication "Standard Exemptions for Works Requiring Heritage Council Approval" on the Heritage Office website at <a href="http://www.heritage.nsw.gov.au">http://www.heritage.nsw.gov.au</a></li> <li>• The Submission Requirements depend on the Standard Exemption Type.</li> <li>• Two copies of the submission are required.</li> <li>• Drawings and photographs may be attached to the submission to explain the proposed development.</li> </ul> | <ul style="list-style-type: none"> <li>• A brief statement of heritage significance of the affected item is required to accompany this form.</li> <li>• This form must be signed by the applicant and land owner.</li> <li>• If the Executive Director of the Heritage Office is satisfied with the proposed development and accompanying submission, a copy of this form will be endorsed by the Heritage Office and returned to the applicant within 14 days.</li> <li>• If the Executive Director of the Heritage Office is not satisfied with the proposal and accompanying submission, more information will be requested which may delay endorsement</li> <li>• This form should be sent by mail, fax or email to:<br/>Heritage Office<br/>Locked Bag 5020<br/>PARRAMATTA NSW 2124<br/>Fax: 98738599 Phone: 98738500<br/>email: <a href="mailto:heritageoffice@heritage.nsw.gov.au">heritageoffice@heritage.nsw.gov.au</a></li> </ul> |
|--|---|

**ITEM AFFECTED BY PROPOSED DEVELOPMENT:**

Name of Heritage Item: Eucalyptus citradora <sup>Mahratta</sup> SHR No: 708  
 Address: 25 Fox Valley Road Wahroonga  
 Lot Number: ..... Plan Code (DP / SP): ..... Plan Number: .....

DESCRIPTION OF THE PROPOSAL (attach drawings and photographs if needed):  
Removal of hazardous tree as per section 60 documentation. The tree is not a known heritage item. See email re standard exemption No 7  
 EXEMPTION UNDER WHICH NOTICE IS GIVEN: Exemption No 7

COST OF PROPOSAL: \$ 7,500 SUBMISSION REQUIREMENTS ATTACHED? ?

<b>APPLICANT</b>	Name: <u>Chris Heers on behalf of the School of Philosophy</u>
Address:	<u>25 Fox Valley Road, Wahroonga</u>
Telephone:	Mobile: <u>0410 627463</u> Fax: .....
Email:	Signature: .....
<b>LAND OWNER</b>	Name: <u>School of Philosophy (as above)</u>
Address:	.....
Telephone:	Mobile: ..... Fax: .....
Email:	Signature: <u>[Signature]</u>

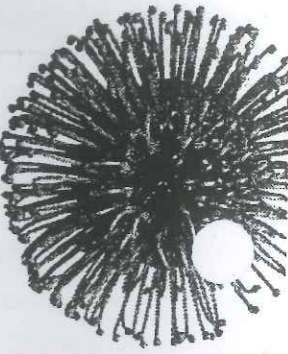
**ENDORSEMENT BY HERITAGE OFFICE (Office Use Only)**

The proposed development described on this form has been assessed by the Heritage Office. The proposed development does not require approval under section 57(1) of the Heritage Act as it is exempt under *Standard Exemption No.* 7 granted under section 57(2) of the Heritage Act by the Minister for Planning by Order published in the Government Gazette on 4 April 2006, as amended on 28 April 2006, and the relevant criteria have been satisfied. See reverse side for general conditions. An endorsed copy of the information lodged with this form is attached.

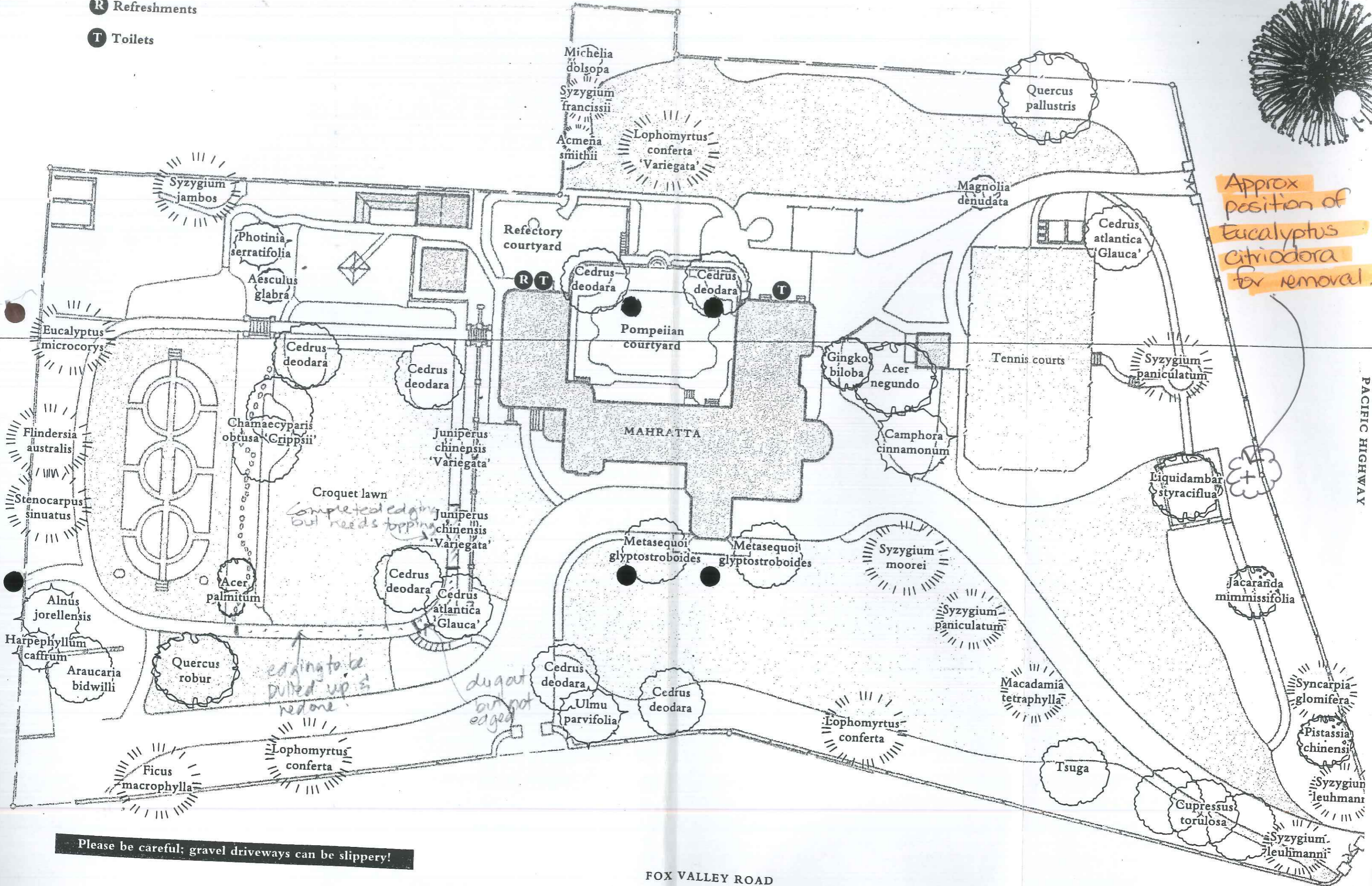
[Signature] 5/04/07  
 EXECUTIVE DIRECTOR / DIRECTOR / MANAGER  
 Heritage Office  
 Department of Planning

R Refreshments

T Toilets



Approx position of Eucalyptus citriodora for removal.



Please be careful; gravel driveways can be slippery!

FOX VALLEY ROAD

DETAILS AND LOCATION OF TREE/S

BLOCK PLAN

Site plan indicating and numbering trees to be assessed and showing dwelling, street frontage & driveway. Please number clearly, trees to be removed and trees to be pruned. To assist in identification of trees to be assessed, please mark with a ribbon/rope or non-permanent marking.

Please see attached plan.

Reasons for removal/pruning:

80% basal rot to existing Euc Citriodora.  
Dangerous & hazardous branches. (Some dead)  
Inspected by two Arborists (Barry Quine & Graham Brooks) Inspected by Council's tree management officer - all recommend immediate removal.

FEEES FOR 2006/2007

Tree Removal Fee (one (1) tree) .....	\$78.00
Tree Pruning Application Fee (one (1) tree) .....	\$38.00
For each tree in excess of 1 (removal or pruning).....	\$12.00
Tree Review Application (for each tree).....	\$53.00
*Applications by Pensioners - Tree Removal .....	\$37.00
*Applications by Pensioners - Tree Pruning .....	\$16.00
*Applications by Pensioners - Review of Application .....	\$37.00
* Pension Concession Card must be produced	

Pension Number: .....

PRIVACY NOTIFICATION

PURPOSE:  
INTENDED RECIPIENTS:  
  
SUPPLY:  
STORAGE:

To process the application under the Tree Preservation Order  
Councillors, Council staff and public access may be available under various  
legislation and through Council's Business Paper  
Voluntary, however Council may be limited in dealing with the request  
Council's Main Office

The information may be corrected/updated by contacting Council

(For Office Use: RC 570 GL 208.132.755)



# KU-RING-GAI COUNCIL

Council Chambers, 818 Pacific Highway, Gordon NSW 2072  
Phone: (02) 9424 0888 DX 8703 GORDON Fax: (02) 9418 1117

## REQUEST FOR TREE WORKS APPROVAL

**PLEASE NOTE:**

**THE CORRECT FEE MUST BE PAID AT THE TIME OF LODGEMENT OF THE APPLICATION**

Address of property containing trees: 25 FOX VALLEY ROAD

WAHROONGA Postcode 2176

Applicant's name (Mr/Mrs/Ms): SCHOOL OF PHILOSOPHY INC  
*(If you are not the property owner, please provide authorisation from owner)*

Telephone: Home: \_\_\_\_\_ Business: \_\_\_\_\_ Mobile: 040 777 1175

Nearest cross street: PACIFIC HIGHWAY

Applicant's postal address: 25 FOX VALLEY RD  
WAHROONGA Postcode: 2176

Has a previous application under council's tree preservation for this tree/s been refused?  
Yes  No

Has the retention of the tree/s been the subject to a condition of a Development Application that has been lodged with Council within the last 5 years.  
Yes  No

If yes, please provide details: \_\_\_\_\_  
\_\_\_\_\_

Number of trees you wish to remove:  /  Number of trees you wish to prune:

*Please Note: - it is not necessary for the applicant to be present at time of inspection, as written confirmation of determination will be forwarded.*

Is access to the tree/s available? (eg. security gates) Yes  No

Do you have a dog that may threaten the inspector Yes  No

Tree Owner's Name (please print): SCHOOL OF PHILOSOPHY INC.

Tree Owner's Signature: [Signature] J. H. FISHER (CHAIRMAN)

Date: 29/3/07



**From:** "Quine, Barry" <barry.quine@tafensw.edu.au>  
**To:** <stuart.read@heritage.nsw.gov.au>  
**Date:** 5/04/2007 11:07 am  
**Subject:** Tree removal at 25 Fox Valley Road Wahroonga - Mahratta  
**Attachments:** murata230207.JPG; murata feb07 (1).JPG; Mahratta Tree work letter to Heritage Council.doc

**CC:** "Heeks, Chris" <Chris.Heeks@tafensw.edu.au>  
 Hi Stuart

Please find attached photo's of the affected tree at the above address as requested. I have also attached the covering letter I sent thru with the section 60 form. I posted this priority paid last Friday so it should have arrived at your office??

I have also passed on the quotation details to the client & have received verbal approval from Steve McKay at Ku- Ring - Gai Council to remove the tree.

Please contact Chris Heeks on 0410 627 463 if require further information regarding the works onsite.

Approval advice should also go directly to Mahratta via Chris.

Thanks Stuart for your assistance in this matter.

Regards

Barry

\*\*\*\*\*  
 This message is intended for the addressee named and may contain privileged information or confidential information or both. If you are not the intended recipient please delete it and notify the sender.  
 \*\*\*\*\*

# APPLICATION UNDER SECTION 60, HERITAGE ACT 1977

For approval to carry out a section 57(1) activity to an item or land listed on the State Heritage Register or to which an Interim Heritage Order applies.

Please complete all relevant parts of this form and attach:

- 2 copies of all drawings and/or documents (one set full size and one set A3 size) necessary to describe your proposal. Show clearly what you propose to demolish, remove, destroy or excavate, what will remain without change, and what you propose to construct, create, plant or alter. Show the relationship of your proposals to the site boundaries and existing site features. Please include photographs of the building and areas affected by your proposal.
- 1 copy of a heritage impact statement and any other supporting documentation. Information to assist you to prepare your application and documentation is available from the Heritage Office.
- 1 copy of a conservation management plan (CMP), if your proposal will have a major impact on the heritage significance of an item listed on the State Heritage Register.
- If archaeological excavation is proposed, complete the section entitled Excavation Director on page two.
- Application fee (no GST is applicable)--- see page 3.

Note: Additional copies of drawings and other documentation may be required if the application requires public notification.

OFFICE USE ONLY

Application No: .....

File No: .....

Date received: .....

## ITEM AND/OR PROPERTY

Name of item or property (or shipwreck no.): MAHRATTA SHR No: 708

Address: 25 FOX VALLEY ROAD

Suburb or Town: WATROONGA Postcode: 2176 Council: KUYING GAI

Was the Interim Heritage Order made by the local council? NO If so, this application should be submitted to council.

Type and/or description of the item (vacant land, house, movable item, etc): .....

Is there a CMP for the item? NOT KNOWN, PLEASE SEE COVERING LETTER Who prepared it?: Date: .....

Has the CMP been endorsed by the Heritage Council? Date: .....

## PROPOSAL

Description of the proposal: .....

Estimated cost of works: .....

APPLICANT

Name: School of Philosophy Incorporated Company name (if applicable):

Address: 25 FOX VALLEY RD. WAHROONGA Postcode: 2076

Person responsible for project: C. HEEDS ON BEHALF OF SCHOOL OF PHILOSOPHY  
0410627463

Telephone: ( ) Mobile: Facsimile: ( )

Email: Signature: J. FISHER  
CHAIRMAN Date:

INTEGRATED DEVELOPMENT

Has consent for integrated development been granted? If so: IDA No: Date:

Please attach a copy of the consent.

Is this application consistent with the consent?

CONSENT OF OWNER (WHERE THE APPLICATION IS NOT MADE BY THE OWNER)

Note: The owner's consent must relate specifically to the making of this application. It may be provided in a separate letter. If the item is situated on Crown Land, this section should be completed by the lawful occupier.

I, C. Heeds on behalf of School of Philosophy the owner of the item to which this application relates, hereby consent

to the making of this application. Signature: J. FISHER CHAIRMAN Date: 29/3/07

Address: 25 FOX VALLEY RD. WAHROONGA Postcode: 2176

Telephone: ( ) Mobile: 0410627463 Facsimile: ( )

EXCAVATION DIRECTOR

Note: Complete this section if your proposal involves building cavities or excavation of land which will or is likely to disturb relics

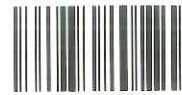
Name: Company Name (if applicable):

Address: Postcode:

Telephone: ( ) Mobile: Facsimile: ( )

Signature of Excavation Director: Date:

Please attach CV of Excavation Director if this has not been lodged with the Heritage Office within the last 12 months. A Research Design may be needed for Archaeology - check with the Heritage Office.



A660387

1. Vince  
2. Stuart  
S60 4/14/7 SR  
CO  
HRL 45070

# SYDNEY GARDEN CRAFT

BARRY QUINE  
40 Austin Blvd Picnic Point  
Ph: 9773-4366 / 040 777 1175  
ABN: 27104265306



30 March 2007

Stuart Reid  
Heritage Officer  
Heritage Council of NSW

**Re:- Section 60 -request for tree works approval – “Mahratta” – 25 Fox Valley Road Wahroonga.**

Dear Stuart

Please find attached the section 60 application form for the proposed removal of the affected Eucalyptus citriodora as discussed. I have included copies of a site plan indicating the location of the tree within the property.

I have also included the application to Ku-Ring-Gai Council to remove the tree as discussed. The tree has been assessed by a consulting Arborist and Ku-Rin-Gai Council’s Tree Management Officer, Mr. Steve McKay and both have assessed the tree as being hazardous to the point where immediate removal has been recommended. The urgency of the works is compounded by the fact that if the tree fails damage to power lines and vehicles traveling along the Pacific Highway may occur. The situation requires your consideration to allow the immediate removal of the tree, to avoid potential damage to property & persons within the drop zone of the tree.

As discussed, because of the urgency of the situation a detailed heritage impact statement and conservation management plan as required under Section 60 is not possible in the time frame the above factors impose. After discussions with you by telephone the following is however tabled in support of the application:-

**Heritage impacts**

It is not known if the tree is an original planting. The fact that it does not occur on original drawings supports the view that it is not part of the original Paul Sorenson design. The trees location within the garden is problematic for removal for the reasons outlined above, but also because of potential damage to other plants in the garden. In briefing contractors who are preparing quotations for the works, the contractors have been made aware of the sensitivity of the site and the need to comply with Heritage Council’s requirements. Essentially this means that as far as practicable in safely removing the tree, no damage is to be done to existing heritage items on the property.

**Conservation Management plan**

It is not known if a Heritage Impact Statement or Conservation Management plan exists for the site, however a preliminary visual tree assessment report is currently being prepared for the client. This report has identified 80 trees of significance on the site and is an initial report to assess priority for action for these trees, and in preparation for a more detailed report on the garden. I will forward you a copy of the report on permission from the client once finalised.

Quotations for the works should be finalised mid next week so I'm hoping we may be in a position to execute the work within 2 weeks.

Thank you for your assistance in this matter. Please advise if you require any further information to process the application.

Yours Sincerely



Barry Quine



NSW GOVERNMENT  
**Department of Planning**

**Heritage Office**  
 3 Marist Place, Parramatta NSW 2150  
 Locked Bag 5020, Parramatta NSW 2124  
 DX 8225 PARRAMATTA  
 Phone 61 2 9873 8500 Fax 61 2 9873 8599  
 Email: [heritageoffice@heritage.nsw.gov.au](mailto:heritageoffice@heritage.nsw.gov.au) Website: [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)

**FAX COVER SHEET**

DATE:	04/04/2007	TIME:	16:15:12
TO:	Barry Quine, for Chris Heeks, on behalf of the School of Philosophy		
		FAX:	02 9715 8522
FROM:	Stuart Read		
		PHONE:	02 9873 8554
		FAX:	02 9873 8599
RE:	Mahratta – gum tree removal – Heritage Council exemption approval		
CC:	Ku-Ring-Gai Council, fax [9424.0880 Attention: Steve McKay] " 1117		

Number of pages including cover sheet: 2

**Message**

As hoped for, here follows Heritage Council exemption approval.

It would be good if the owners see fit to prepare either a conservation management plan or a conservation management strategy for Mahratta's grounds, that itemises all components (layout, built elements such as walls, fences, structures, planted elements such as trees, shrubs, etc), ranks their relative significance, and makes conservation policies such as replacement required/not, staged succession plan for trees, etc.

This would assist all such decisions in future being made in a context of what is significant on site, and help prioritise management and budgetary decisions.



Heritage Office

*Working with the community to know, value and care for our heritage*

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of the Heritage Office, Department of Planning.

**ASSESSMENT CHECKLIST FOR EXEMPT DEVELOPMENT  
(Section 57(2) of the Heritage Act)**

File No.: S90/02455/  
HRL No.s: 45070,

**Land Affected by Proposed Development:**

Name of Heritage Item Mahratta.....SHR No: 708.

Address: 1526 Pacific Highway, Wahroonga (corner of Fox Valley Road).....

Description of Proposal: Remove a non-significant lemon scented gum (*Corymbia citriodora*) tree which is in a dangerous condition and location – overhanging the Pacific Highway.

Cost of Work \$7500:00

Applicable Standard Exemption: 7 (minor works with no adverse heritage impact)

Is written notice to the Director required for the use of this exemption? Yes

Has a statement of heritage significance been submitted? Yes

Has the required documentation been submitted? Yes

Does the proposal satisfy the criteria for eligibility for the exemption? Yes

Comment: A section 60 was applied for but is not considered necessary – the matter being treated as an exemption. The tree is relatively young (20-30 years) so does not appear to relate to the major period of significance of Mahratta, nor to Paul Sorensen involvement in its garden. Its poor condition (80% basal rot, many dead limbs) and location overhanging the Pacific Highway mean its immediate removal is recommended. Care will need to be taken to avoid machinery damage to other plants and elements in the garden nearby. This proposal is supported for exemption. Longer term a conservation management plan or strategy for Mahratta's grounds is required to inform any future proposed tree removals. A previous CMP only covers the buildings. A preliminary tree visual assessment of trees on site is underway and has identified 80 trees of significance on site.

(Please remember to record the above comments in the "Heritage Office Assessment" field in "S57(2) Procedure" in HOD)



**Recommendation:**

- (A) The proposed development does not require approval under section 57(1) of the Heritage Act as it is exempt under Standard Exemption No. 7. granted under section 57(2) of the Heritage Act by the Minister for Planning by Order published in the Government Gazette on 4 April 2006, as amended on 28 April 2006, and the relevant criteria have been satisfied.
- (B) The applicant be advised accordingly.

Stuart Read  
Heritage Officer

 5/04/07

.....  
Approved by Manager  
(on behalf of the Executive Director)



# Section 60 Application

## Registration

- Application Form
- Correct Fee *Applied for a waiver - \$60 not*
- Statement of Heritage Impact *Considered*
- Drawings (2 sets A3, 1 set full size) *necessary*

## Action Officer

- SHR listing (HOD - is item on the SHR?)
- Nomination status (HOD - SHR nomination received?)
- IHO status (HOD - is item subject to an IHO?)
- Site specific exemptions (HOD - is work exempted?)
- General Exemptions (is work exempted?) *✓ 7 (minor wks)*
- Recfind (is anyone else working on this?)
- Additional information (is more information needed?) -
- Advertising (is the item materially affected?)

*Recommended @ s57(2)7 exn.*

*(waiting  
a  
emailed  
photos*

Signed.....*Frank Lead*.....date.....*5/4/17*



# APPLICATION UNDER SECTION 60, HERITAGE ACT 1977

For approval to carry out a section 57(1) activity to an item or land listed on the State Heritage Register or to which an Interim Heritage Order applies.

Please complete all relevant parts of this form and attach:

- 2 copies of all drawings necessary (one set full size and one set A3 size) to describe your proposal. Show clearly what you propose to demolish, remove, destroy or excavate, what will remain without change, and what you propose to construct, create, plant or alter. Show the relationship of your proposals to the site boundaries and existing site features.

Please include photographs of the building and areas affected by your proposal.

- 1 copy of a **heritage impact statement** and any other supporting documentation. Information to assist you to prepare your application and documentation is available from the Heritage Branch.
- 1 copy of a **conservation management plan (CMP)**, if your proposal will have a major impact on the heritage significance of an item listed on the State Heritage Register.
- If **archaeological excavation** is proposed, complete the section entitled 'Excavation Director' on page 2. The Excavation Director cannot be the applicant. An Archaeological Assessment/Research Design may be required.
- **Application fee** (no GST is applicable) -- see page 3.

Note: Additional copies of drawings and other documentation may be required if the application requires public notification.

BRANCH  
USE ONLY

Application No: .....

File No: .....

Date received: .....

## ITEM AND/OR PROPERTY

Name of item or property (or shipwreck no.): Mahratta SHR No: .....

Address: 1526 PACIFIC HIGHWAY .....

Suburb or Town: WARRAWEE Postcode: 2076 Council: KOONINGGAI .....

Was the Interim Heritage Order made by the local council? ..... If so, this application should be submitted to council.

Type and/or description of the item (vacant land, house, movable item, etc): Originally residence and grounds including garden & tennis court .....

Is there a CMP for the item? YES. Who prepared it?: GRAHAM BROOKS Date: 1989 .....

Has the CMP been endorsed by the Heritage Council? NO Date: HERITAGE ANALYSIS .....

## PROPOSAL

Description of the proposal: DEMOLISH SEVEN DOUBLE SKIN BRICK FENCE PANELS NOM 2200MM HIGH & 3000MM LONG, DOWN TO A REMAINING BASE 400-600MM TO RETAIN REAR GARDEN BEDS, RETAINING WALLS .....

Estimated cost of works: \$3,500 .....

## APPLICANT

Name: School of Philosophy Inc. Company Name (if applicable): .....

Address: 25 Fox Valley Rd, Warrawee NSW Postcode: 2121 .....

Person responsible for project: Ron Proft .....

Telephone: (02) 9876 1050 Mobile: 0412211257 Facsimile: (02) n/a .....

Email: ronenewfrontier.net.au Signature: [Signature] Date: 23.8.2016 .....

**INTEGRATED DEVELOPMENT**

Has consent for integrated development been granted? ..... If so: IDA No: ..... Date: .....  
Please attach a copy of the consent.  
Is this application consistent with the consent? ..... *n/a* .....

**CONSENT OF OWNER (WHERE THE APPLICATION IS NOT MADE BY THE OWNER)**

**Note:** The owner's consent must relate specifically to the making of this application. It may be provided in a separate letter. If the item is situated on Crown Land, this section should be completed by the lawful occupier.

I, ..... the owner of the item to which this application relates, hereby consent to the making of this application. Signature: ..... Date: .....  
Address: ..... *n/a* ..... Postcode: .....  
Telephone: ( ) ..... Mobile: ..... Facsimile: ( ) .....

**EXCAVATION DIRECTOR**

**Note:** Complete this section if your proposal involves building cavities or excavation of land which will or is likely to disturb relics

Name: ..... Company Name (if applicable): .....  
Address: ..... *n/a* ..... Postcode: .....  
Telephone: ( ) ..... Mobile: ..... Facsimile: ( ) .....  
Signature of Excavation Director: ..... Date: .....

Please attach CV of Excavation Director if this has not been lodged with the Heritage Branch within the last 12 months.

An Archaeological Assessment/Research Design may be needed for Archaeology – check with the Heritage Branch.



Office of  
Environment  
& Heritage

## EFTPOS / CREDIT CARD AUTHORISATION FORM

Please fill in the details and scan back to [heritage@heritage.nsw.gov.au](mailto:heritage@heritage.nsw.gov.au)

### Details of payment - all applications are GST Exempt

Application Type (eg: S60, S140, S167)	Item / Property Details	\$ Amount
S60	'Mahratta', 25 Fox Valley Rd. Wahroonga 2076	300

Has application been sent? Please circle  YES / NO      Date sent: 23-8-16

### Receipt Recipient Details (Receipt / Tax Invoice will be issued to these details)

Company Name	School of Philosophy Inc
To the attention of	Ron PROFT
Postal Address	Po Box 1373, Wahroonga 2076
Phone	02 9876 1050

HERITAGE ISSUES REPORT

***Mahratta***



Prepared for  
School of Philosophy Inc.  
Committee of Management  
*Mahratta*

David Scobie Architects Pty Ltd  
Level One, 177A Sailors Bay Road,  
Northbridge NSW 2063

## **Contents**

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3	Heritage Impact Issues .....	10
4	Planning Issues .....	11
5	Heritage Impact Assessment.....	12
6	SUMMARY .....	14
7	Appendix.....	<b>Error! Bookmark not defined.</b>

## 1 Introduction

### 1.1 Executive Summary

The statement of heritage impact is provided for the works which involve the demolition of seven brick panels on the boundary wall along the Pacific Highway. The panels have been de-stabilised by recent wet weather and additional movement has been observed in the subject panels. A report provided by a structural engineer has assessed the movement and recommended demolition of the wall panels. The wall panels are a minor portion of a similar wall which continues the lengths of the property boundary to the Pacific Highway and Fox valley Road. A proposal is under development for the replacement of affected walls and the support of other wall panels however it is not completed or in a form suitable for submission. The urgency of the work has been supported by Ku-ring-gai Council who support the proposal and the report provided by the structural engineer who is familiar with the site, having assessed the situation several times in recent years.

### 1.2 Brief

The SoHI was commissioned by the Mahratta Committee with a view to resolving a suitable strategy for addressing the immediate safety concerns on the Pacific Highway frontage.

### 1.3 Documentation

The report provides the following:

- A Heritage Impact assessment of the works;
- Options to be reviewed in future to resolve the issues.

### 1.4 Author

David Scobie has prepared the report. David has considerable experience in Heritage Management and Conservation, including positions as a Heritage Advisor.

### 1.5 References

Procedures and practices are as recommended in the document '*Statements of Heritage Impact*' from the NSW Heritage Manual, Heritage Office and Department of Urban Affairs and Planning, 1996.

The report follows the methodology illustrated in '*The Conservation Plan*', J.S.Kerr, Sydney, National Trust of Australia (NSW), 1996. Definitions and procedures are as presented in the Australia ICOMOS Guidelines to the Burra Charter-Cultural Significance and Conservation Policy

### 1.6 Definitions

The definitions used in the report are those presented in Article 1 of The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter).

**"Place** means site, area, building or other work, group of buildings or other works together with associated contents and surrounds.

**Cultural significance** means aesthetic, historic, scientific or social value for past, present or future generations.

**Fabric** means all the physical material of the place.

**Conservation** means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of these.

**Maintenance** means the continuous protective care of the fabric, contents and setting of a place, and is to be distinguished from repair. Repair involves restoration or reconstruction and it should be treated accordingly.

**Preservation** means maintaining the fabric of a place in its existing state and retarding deterioration.

**Restoration** means returning the fabric of a place to a known earlier state and is distinguished by the introduction of materials (new or old) into the fabric. This is not to be confused with either recreation or conjectural reconstruction, which are outside the scope of the Charter.

**Adaptation** means modifying a place to suit proposed compatible uses.

**Compatible uses** means a use which involves no change to the culturally significant fabric, changes which are substantially reversible, or changes which require a minimal impact."

## 2 Property Description

### 2.1 The Site

The site is located at 1526 Pacific Highway, Wahroonga



Plan courtesy Google Maps

### 2.2 Setting

The character of the vicinity is mixed residential at single and two stories south of the site opposite the boundary on Fox Valley Road while opposite the eastern boundary is the Warrawee Function Centre and Bowling Club, consisting of four greens and single storey Club House and car park.

The Fox Valley Road verge is heavily planted and the residential gardens are also well developed with substantial trees and mature planting.

Within the subject property, the eastern and eastern boundaries are heavily planted with substantial mature trees generally within 2 – 4m of the boundary.



### 2.3 The Physical description



1. The entry gates in Fox Valley Road



2. View looking down Fox Valley Road to the Pacific Highway. The wall is nominally 1200mm high to this portion of the boundary.



3. An example of major movement, noting previous restraints.



4. The view looking back from the Pacific Highway illustrating the extent of typical movement. The panels are nominally 3000mm long and between 1200mm and 1500mm high.



5. A general view looking up the Pacific Highway illustrating the number of panels with movement.

Various studies and reviews over the last 12 years have investigated the issue and the general conclusions are as follows;

- The cause of the wall rotations together with their associated brick footings is the close proximity of the trees, earth and planting and the effects of the tree roots on the soil moisture content.
- The movement has occurred due to a combination of root heave and the tree roots taking moisture from the soil resulting in a change of volume of the underlying clays and thus differential footing movement and rotation.
- In some cases tree branches are in contact with the wall and movement is a direct result of the tree branch growth pushing the walls outward.
- In some cases in particular along Fox Valley Road the earth is higher than the footing causing pressure to be applied to the wall.

The extent of work required includes the following:

- Structural engineering design for the replacement panel and footing;
- Structural design and supervision for re-use of the brickwork where possible;
- Review by Landscape Architect & Heritage Architect of design options;
- Tree pruning;
- Tree removal and stump grinding;
- Planting of replacement trees and associated earthworks and drainage
- Excavate and remove material and concrete and brick
- Pour new concrete footings, gravel and drainage
- Construct new steel screen wall panels.

The Heritage Review also recommends consideration of additional works to ensure the long term retention of heritage significance:

- Replacing particular trees in the vicinity of the perimeter wall causing damage and supplementing the area with appropriate new trees and planting. Earthwork and drainage would be carried out to relieve pressure on the walls and resolve site drainage in the vicinity of the boundary wall;
- Replacing particular brick walls above stipulated heights along Fox Valley Road and the Pacific Highway and replacement with steel palisade screen panels based on the design and materials evident within the existing gates

While the extent of replacement of the wall is not extensive, the options are minimal given the significance of both the trees and landscape and the brick wall. The continued propping and tie back approach which has been in place for in excess of 14 years has not proven to be a lasting or visually acceptable solution. The large scale retention of as much brickwork as is possible and the replacement of those elements which cannot be certified as being sound and stable is regarded as being the preferred solution.

It will not provide a uniform result in relation to the visual appearance of the wall however it does address the historic character and significance of the wall, the house and the garden.

## **2.4 Heritage Significance**

*Mahratta is a large, intact, 2 storey mansion erected in 1941 in an unusual style which combines Art Deco and Classical Georgian Revival elements. It is*

*perhaps the largest and finest property of its type erected in wartime Sydney. The house replaced a substantial Federation period residence situated on an 8.6 acre site in Warrawee but retained and incorporated the majority of the earlier landscape elements including a sunken rose garden and outbuildings. It was built for T.A.Field, a notable figure in the retail and wholesale meat industry, by the architect Douglas Agnew.*

*The house is substantially intact exhibiting a high degree of face brick, bronze and wrought iron detailing externally and is characterised by a dramatic portecochere on the south and an enclosed Pompeian Court on the north. Extended in 1964 by the addition of a west wing, the whole achieves a unity of style, form, texture and materials from the sensitively designed additions.*

*Internally the house retains a series of superb public spaces and rooms of fluid design and highly crafted materials. The oval staircase executed in marble and scagliola, the well proportioned ball room and elliptical dining room, finely detailed joinery and original fittings all combine to achieve a very rare and dramatic domestic interior from the period.*

*The property has historic associations and aesthetic values due to the involvement and advice of landscape designer Paul Sorensen in its garden. The open landscaped setting and mature plantings provide a fine setting and backdrop to the house. Red gravel driveways snaking through the open lawns reinforce the colour and texture of the house.*

*Occupation by the Westpac Banking Corporation since the 1960s, using the house as a Staff Training College has ensured a high level of maintenance to both the house and grounds. This has ensured that Mahratta has retained all of the essential characteristics of its cultural significance.*

*NB: separate statements of significance exist for the garage and chauffeur's quarters, gardener's cottage, tennis pavilion, laundry, sheds and greenhouses. (see Schwager Brooks, 1989 sections 5.2-5.5)*

*The open lawns and gardens to the north, east and south of the main house are an essential component in achieving a fine open setting for the house. To the west the Croquet Lawn and Rose Garden with their backdrop of dense mature trees and shrubs are a key component of the cultural and historic setting having survived almost intact from the original (Federation era) house.*

*The open areas to the west of the property are of little cultural significance to the main house, but contain a series of very large native trees. (Schwager Brooks, 1989).*

*State Heritage Register, 2012*

While the Statement of significance does not mention the Perimeter boundary walls, the Conservation Guidelines in section 10.00 provide specific advice as follows:

#### *10.9 Walls and Gates*

*The existing red brick boundary walls and gates shall be retained. When damaged or subsiding they should be repaired in matching or salvaged brickwork.*

*The walls and gate pillars shall remain unpainted and without any secondary coating, finishes or secondary additions.*

### 3 Heritage Impact Issues

#### 3.1 Constraints

Constraints arising from the Planning Provisions:

- The site at 1526 Pacific Highway is listed on the State Heritage Register;
- The site is not listed on the Ku-ring-gai LEP 2015

#### 3.2 Opportunities

Opportunities arising from the site and Heritage Assessment include the following:

- The site has potential for further development as follows:
  - The majority of eastern and southern boundary located brick fence panels have failed and will require repair or replacement;
  - Given the age and construction with high cement content mortar the potential for re-use of the existing bricks is minimal;
  - Seven panels have been nominated for urgent demolition due to recent movement caused by wet weather as a matter of providing for public safety

#### 3.3 Analysis & Assessment of Heritage Impact

- **The heritage significance of the Mahratta Property**
  - The significance is assessed in a preliminary manner against the standard criteria and summaries follow:
    - A: Historic:
      - Demonstrates the lifestyle and aspirations of T.A.Field as owner and resident – high due to good condition and integrity
      - Demonstrates the status of house staff and social structures – high due to condition and integrity of rear stair and service wing and all capable of interpretation;
      - Archaeological significance – slight and capable of interpretation subject to potential for revealing elements of the previous residence, and the garden.
    - B: Associations: Westpac - high and capable of enhancement through conservation of the interiors and exteriors of the sympathetic extension
      - Significance for associations with Westpac - High
    - C: Aesthetics - architecture
      - Architectural significance as representative example of a mansion combining elements of Art Deco and Georgian Revival styles, a work by Douglas Agnew Architect – High and capable of interpretation;
      - Streetscape significance as a representative example of the type and complementary to the streetscape as both a mansion residence and a substantial garden – High and easily interpreted and capable of enhancement;
    - D: Social
      - Significance for the community via the listings by various Heritage Agencies – High and capable of interpretation with local associations through open days
    - E: Archaeology
      - Moderate significance with interpretation capable through remnants and the gardens – all capable of interpretation and enhancement
    - F: Rarity
      - High significance as a representative and intact Mansion in the Art Deco/Georgian Revival style from 1941 and garden – high to moderate and capable of interpretation and enhancement

G: Comparative

- Significance in demonstrating the principal characteristics of a class of such places: Architecturally designed Mansion residences on the upper North Shore – easily interpreted – High significance

## 4 Planning Issues

### 4.1 The State Heritage Register Listing

- The Heritage Council of NSW is the Consent Authority for all development on the site under the NSW Heritage Act;
- The process involves the submission of a development application (DA) to Ku-ring-gai Council with a S60 Application;
- The Heritage Listing covers the entire property including the gardens, garden walls, building exterior and building interiors.

### 4.2 Ku-ring-gai Council

- Council manages the Development Application process and takes advice from the Heritage Council and incorporates it into the Conditions of Consent for the property to cover the work proposed.
- Council have advised via email after a site visit and consulting with their Heritage Advisor that demolition is appropriate in these circumstances

### 4.3 Works proposed

Hoarding and fencing plan, David Scobie Architects, August 2016

As general information, the following information has also been provided indicating the current design process:

- |   |         |
|---|---------|
| • Landscape report, June 2016, Carolyn Tallents Landscape Architect |         |
| • Fox Valley Road, Landscape Plans – West, East and corner          | L-SK-01 |
| • Pacific Highway, Landscape Plan, Elevation & Section              | L-SK-02 |
| • Fox Valley Road East, Landscape Elevations                        | L-SK-03 |

Dennis Bunt Consulting Engineers Pty Ltd

- Letter and certificate with recommendation

## 5 Heritage Impact Assessment

### 5.1 Statement of Heritage Impact

Description of works and discussion of impact issues:

A series of elements of the perimeter brick wall are proposed for demolition due to structural failure and there being no reasonable alternative but to remove them to protect users of the public verge and footpath.

- The design and construction of the brick walls was unsuitable for the location and purpose while inappropriate trees and plants were placed too close to the boundary wall and the garden in the vicinity of the perimeter failed to account for drainage;
- It would be foolhardy to repeat these design and construction errors;
- The red brick material is a defining element of the house exteriors and of the boundary walls. The critical brick elements however are those which abut the three sets of entrance gates and the ends of the two street frontages at the neighbouring properties. The intermediate walls are infills and do not make an individual contribution to the significance of the site presentation other than to repeat the brick character

The following format for a Heritage Impact Statement is supplied by the NSW Heritage Branch of the Department of Planning.

*The following aspects of the proposal respect or enhance the heritage significance of the heritage item:*

- The retention of the largest number of significant plants and trees within the perimeter of the garden will enhance the significance of the garden, the relationship with the house and the streetscape views;
- The provision of a permanent boundary fence will reduce the maintenance budget for this element allowing appropriate funds to be expended upon appropriate maintenance aspects of the house and grounds

*The following aspects of the proposal could detrimentally impact on heritage significance:*

- The loss of a substantial length of original red brick fencing will change the integrity and character of the street presentation of the property;

*The following sympathetic solutions have been investigated and discounted for the following reasons:*

- The retention of the walls would require bracing on both sides of the walls and this would obstruct the footpath and be located on public land. A level of risk would remain in further extreme weather events

*Have all the options for retention and adaptive re-use been explored?*

- The conditions were initially identified in the late 1990s. The galvanised rod and plate ties were installed in an attempt to brace the panels and the first Engineering Report recommended demolition of three panels in 2000.
- No works related to tree removal have been undertaken. Some work to remove earth from the vicinity of the wall panels along Pacific Highway has been undertaken.
- Engineering advice has been provided to indicate that righting existing panels may be possible but is generally not advised due to the extent of work required including access for cranes and heavy lifting equipment and the likelihood of damage during the movement and re-erection.
- In view of the high cement content of the mortar it has been assumed that the bricks would be substantially damaged when attempting to remove them for re-use. This would

be undertaken as a form of destructive testing as part of the replacement of the initial three panels at the Pacific Highway corner.

*Is minor partial demolition an option?*

- The replacement of individual wall panels is an option however structural engineering advice currently indicates that many wall panels along the Pacific Highway will require replacement.
- The visual impact is expected to be medium term as a replacement strategy is under development;
- Partial demolition is proposed for the panels.

*Is demolition necessary for the heritage item to function?*

- Ku-ring-gai Council has previously taken out an Order for demolition of the wall panels on the Pacific Highway, regarded as being hazardous to the public;
- The panels were initially identified as being structurally problematic in 2000 and minor mitigation measures were undertaken and these have not been successful in preventing further movement and the appearance of being hazardous;
- The Brick walls and the tree roots are in conflict with each being regarded as having significance.

*Is the resolution to partially demolish sympathetic to the heritage significance of the item?*

- The retention of the wall base elements is suitable as it responds to the earth behind the existing walls and avoids further erosion and damage to the verge and footpath.

*If the partial demolition is a result of the condition of the fabric, is it certain that the fabric cannot be repaired?*

- Only destructive testing of the brick will determine whether the bricks can be cleaned and re-used.
- Previous steel rod and wire tie backs have failed to arrest the movement and visually detract from the significance of the wall and garden.

*Can all of the significant elements of the heritage item be kept and any development be located elsewhere on the site?*

- The general landscape character of the site will be maintained;

*Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible?*

- The situation is essential currently as Council has previously taken out an Order to remedy the situation on the Pacific Highway frontage and has provided recent advice in support of the demolition.

*Has the advice of a heritage consultant been sought? Have the consultant's recommendations been implemented? If not why not?*

- David Scobie has inspected the site, reviewed the previous reports and advised the Client in recent years and in the current situation in 2016 in conjunction with Carolyn Tallents, Landscape architect and Dennis Bunt, Structural Engineer.
- The current situation is that a minimum of seven panels require urgent removal to comply with the structural advice.



## **6 SUMMARY**

- *The majority of the 38 brick wall panels along The Pacific Highway frontage and the Fox Valley Road frontage have suffered movement caused by trees and tree roots and replacement is recommended;*
- *Demolition of seven brick panels is recommended in order that public safety is protected.*

*David Scobie*

*David Scobie Architects Pty Ltd  
Heritage Consultant*

*Friday, August 19, 2016*



## Appendix 5A Visual Impact Assessment

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## Memorandum

To	Roads and Maritime Services	Page	1
Subject	Pacific Highway Intersection Upgrades at Fox Valley Road, Wahroonga / Warrawee: Visual impact assessment - Mahratta' State Heritage Site (SHR No. 708 at 25 Fox Valley Road (1526 Pacific Highway), Wahroonga: Final		
From	Gabi Parke (AECOM)		
File/Ref No.	60491201	Date	4-Sep-2018

AECOM has been appointed by Roads and Maritime Services NSW (Roads and Maritime) to undertake a Landscape Character and Visual Impact Assessment (LCVIA) to assess the impact of the Pacific Highway Intersection Upgrades project in Wahroonga, Warrawee, and Turramurra (hereafter known as 'the Proposal') on landscape character and views, in order to inform the Project Review of Environmental Factors (REF) for the proposed works. This memo is an excerpt from this report outlining the visual impact from the Proposal on the State Heritage listed site known as 'Mahratta' (SHR No. 708) at 25 Fox Valley Road (1526 Pacific Highway), Wahroonga, 2076, to accompany an application to the Heritage Council of NSW for a permit to carry out works to a State heritage item..



**Gabrielle Parke**  
Senior Landscape Architect  
Gabi.parke@aecom.com

## 1.0 Proposal Description

Roads and Maritime propose to upgrade three intersections along the Pacific Highway between Turramurra and Wahroonga to better manage traffic congestion and improve road safety within the road corridor in this location. The Proposal would result in three continuous northbound through lanes on the Pacific Highway between Finlay Road in the suburb of Warrawee/Turramurra to the M1 Pacific Motorway in Wahroonga for a length of about 2.5 km.

The proposed intersection improvements on the Pacific Highway corridor would occur at the following locations in Wahroonga, Warrawee and Turramurra (from south to north):

- Pacific Highway at Finlay Road, Warrawee/Turramurra (Intersection 1);
- Pacific Highway at Fox Valley Road, Wahroonga/Warrawee (Intersection 2); and
- Pacific Highway at Coonanbarra Road and Redleaf Avenue, Wahroonga (Intersection 3).

The State Heritage listed Mahratta site is situated at the intersection of the Pacific Highway and Fox Valley Road, within the section of road affected by the proposed changes at Intersection 2.

The Proposal at Intersection 2 (Pacific Highway at Fox Valley Road) would include the following features:

- Widening on the northbound side of the Pacific Highway (north and south of Fox Valley Road) to provide three continuous northbound through lanes;
- Maintaining the left-turn lane from Pacific Highway northbound into Fox Valley Road;
- Extending the right-turn bay from Pacific Highway southbound into Fox Valley Road;
- Widening the raised median on Pacific Highway northbound (north and south of Fox Valley Road) to improve road curve and lane alignment;
- Removing the right-turn from Marshall Avenue onto Pacific Highway southbound; and
- Providing a 'Do Not Queue Across Intersection' sign on Pacific Highway southbound at Borambil Avenue.

The proposed works at this intersection would result in the following changes to the eastern extent of the Mahratta State heritage curtilage including:

- Property acquisition of approximately 270 sqm of land;
- Removal of the existing red brick wall at the eastern boundary of the site and rebuilding of a similar wall approximately 3.5 metres westwards of its existing location (at its greatest extent), including rebuilding an existing section of wall which has fallen away on the north eastern extent of the site);
- Temporary removal of the existing brick path within the eastern extent of the site during construction (to be reinstated back in its existing location following construction);
- Excavations and vegetation clearance including the removal of up to 20 mature trees west of the existing eastern brick boundary wall.

## 2.0 Methodology

This LCVIA has been undertaken in accordance with the *Roads and Maritime Environmental Impact Assessment Practice Note – Guideline for Landscape Character and Visual Impact Assessment* (Reference number EIA-N04, 2013). This method is widely accepted by NSW government authorities.

Visual impact assessment defines the day to day visual effects of a Proposal on receptors. It is assessed for a viewpoint using the visual impact assessment matrix (refer Table 1), which examines sensitivity against magnitude to give a combined impact rating between Negligible and High. A higher impact rating indicates the likelihood of a visual change being detectable. Importantly, it does not contain a value judgement regarding the nature of the visual change (i.e. if the change in magnitude is a positive or negative impact on the landscape character or on the views seen by receptors).

**Table 1 Landscape Character and Visual Impact Assessment matrix**

		Magnitude			
		High	Moderate	Low	Negligible
Sensitivity	High	High	High - Moderate	Moderate	Negligible
	Moderate	High - Moderate	Moderate	Moderate - Low	Negligible
	Low	Moderate	Moderate - Low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

### Sensitivity

The sensitivity of views would be dependent on:

- the location and context of the viewpoint;
- the expectations and activity of the receptor; and
- the importance of the view.

The most sensitive receptors may include:

- users of outdoor recreational facilities;
- communities where the development results in changes in the landscape setting or valued views enjoyed by the community; and
- occupiers of residences with views affected by the Proposal.

The number of viewers is also considered when assessing sensitivity of the landscape.

### Magnitude

The magnitude of change affecting visual receptors depends on factors such as the nature, scale and duration of the particular change that is expected to occur. The impact on a view would depend on factors such as the extent of visibility, degree of obstruction of existing features, degree of contrast with the existing view, angle of view, duration of view and distance from the Proposal.

### Mitigation measures

Measures to mitigate visual impacts of the Mahratta State Heritage site at this location have been informed by the outcomes of this assessment and the *Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga* prepared by Phillips Marler / Biosis, dated August 2018.

### 3.0 Visual Impact Assessment

Changes to the views from within and outside the Mahratta site as a result of the Proposal are assessed using five viewpoints (refer Figure 1):

1. From within the Mahratta heritage curtilage (to the east of the house on the driveway leading to the front gates);
2. From the Pacific Highway at the driveway of the Warrawee Bowling Club and Function Centre (north of Fox Valley Road);
3. From the Warrawee Bowling Club and Function Centre on the Pacific Highway (north of Fox Valley Road);
4. From the Pacific Highway opposite the Mahratta site (just north of the Fox Valley Road intersection); and
5. From the Pacific Highway (south of Fox Valley Road).



**Figure 1 Viewpoints in relation to the Mahratta site and the location of the proposed changes to Mahratta as a result of the Proposal**

### 3.1 Viewpoint 1: Within Mahratta Heritage Curtilage

<b>Receptors</b>	Receptors from this location comprise students and staff at the School of Practical Philosophy at Mahratta at 25 Fox Valley Road, Wahroonga, 2076, looking south east towards the Pacific Highway from the grounds just east of the main entrance to the house.
<b>Existing views</b>	<p>Views within the grounds of Mahratta include tranquil, sweeping lawns with scattered feature trees and mature garden beds with shrubs. The grounds include a tennis court and maze, as well as densely planted edge shrubberies which help screen the garden and house from surrounding properties and roads.</p> <p>From the eastern façade of the house, the land slopes gently down to the eastern boundary. The view to the Pacific Highway is screened by a number of mature trees, a garden bed with mature Azaleas, and the tennis courts (refer Figure 2). A tall red brick wall (about up to 3 m high in some locations) borders the site in this location, but is failing in a number of locations along the eastern boundary due to tree root encroachment (particularly in its north eastern extent towards Curtilage Park, refer Figure 1).</p> <p>A wide crushed red gravel path curves between two lawns and meets the gate at the intersection between Fox Valley Road and the Pacific Highway. The gateposts are solid red brick pillars topped with spherical glass lights. Although the gates are metal, they are covered by an advertising poster which blocks views to the road and intersection from inside the grounds.</p> <p>A narrow red brick path (described as a therapeutic meditation path) weaves between shrubberies along the eastern edge of the site.</p>
<b>Changes to the view</b>	<p>At completion, the eastern boundary wall would have been removed and replaced, with the boundary line shifted westwards into the existing site by approximately 3.5 metres to accommodate the widened road corridor. This shift would require the removal of about 20 mature trees and a band of mature shrubs along the eastern boundary garden. The existing brick boundary wall would be replaced (similar to the existing in terms of form, scale and appearance) and situated along the new eastern boundary and appropriate tree replanting would be done in accordance with recommendations made by the project landscape heritage specialist<sup>1</sup> and landscape architect, in agreement with the site owners.</p> <p>The therapeutic meditation path (not visible from much of the garden due to its position between existing shrubs) would be retained but the relationship of the path to the surrounding shrub planting would change, with the path lying closer to the reinstated boundary wall with a narrower vegetation strip on the eastern side of the path closest to the wall. The planting to either side of the path would be finalised during detailed design, in agreement with the property owners.</p> <p>The most obvious change in the view would be the gaps in the canopy that would open up due to the removal of mature trees (refer Figure 3). Figure 4 shows the changes potentially seen along the eastern boundary after indicative planting shown in Figure 3 has matured.</p>
<b>Sensitivity of receptors</b>	<p>The sensitivity of the view and receptors at this location has been assessed as 'High' due to the following:</p> <ul style="list-style-type: none"> <li>• A moderate number of receptors would be on the grounds every day, with receptors in the garden focussed on views within the gardens;</li> <li>• The high quality, picturesque nature of the gardens and house, coupled with the State heritage listing of the site increases the sensitivity of receptors at this</li> </ul>

<sup>1</sup> As outlined in the *Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga*, Phillips Marler/Biosis, dated August 2018



	<p>location;</p> <ul style="list-style-type: none"> <li>The changes as a result of the Proposal would be seen at close proximity, particularly as the eastern edge landscape contains a ‘therapeutic meditation walk’ through the trees and shrubs.</li> </ul>
<b>Magnitude of change</b>	<p>The magnitude of change to the view from this location would be ‘High’.</p> <p>The removal of boundary trees and shrubs would leave gaps in the canopy which would open up views to the road corridor and passing tall vehicles, and views to the brick wall from inside the site, however, some of the trees to be removed have already been damaged from a storm event or are currently ailing. The changes as a result of the Proposal would be confined to the eastern boundary of the site.</p> <p>Part of the change in the boundary landscape to be removed would be behind the tennis courts, which would screen changes to some of the landscape. However, the eastern boundary shrubbery would still contain the therapeutic meditation path, which would continue to be a destination within the garden, although being positioned closer to the new brick wall and Highway.</p>
<b>Overall assessment</b>	<p>Using the Landscape Character and Visual Impact Assessment Matrix (refer Table 1) the overall visual impact would be ‘High’.</p>



**Figure 2 Viewpoint 1 (existing): Existing view from within the Mahratta heritage curtilage looking towards the eastern boundary and corner gateposts at the intersection of the Pacific Highway and Fox Valley Road (looking south east)**



**Figure 3 Viewpoint 1 (just after construction): Visual simulation showing the extent of the changes to the viewpoint due to the Proposal (just after construction, with indicative tree and shrub planting), including removal of about 20 trees and the shifting of the boundary wall about 3.5 metres westwards towards the house, reducing the garden bed along the boundary**



**Figure 4 Viewpoint 1 (established vegetation):** Visual simulation showing the eastern boundary of the Mahratta site with more established mature shrub and tree growth (based on tree and shrub planting included as mitigation in Figure 3)

### 3.2 Viewpoint 2: Pacific Highway at the driveway of the Warrawee Bowling Club and Function Centre (north of Fox Valley Road)

<b>Receptors</b>	Receptors from this location include southbound travellers on the Pacific Highway, including motorists, cyclists and pedestrians.
<b>Existing views</b>	<p>The existing view south along the Highway is visually dominated by the road corridor itself, with the road comprising a five-lane road with a narrow concrete median strip, with an inside turning lane for traffic waiting to turn right onto Fox Valley Road.</p> <p>The verge on the eastern side of the road is planted with turf and a couple of small deciduous trees. Road signage and an electricity / street lighting pole are present on the grass verge between the footpath and the carriageway. A green metal safety fence separates the Warrawee Bowling Club and Function Centre car park from the pedestrian footpath.</p> <p>The western verge of the Highway comprises a turf strip and concrete pedestrian footpath, but no street trees. A red brick wall up to about two metres tall lies along the Mahratta and Curtilage Park boundaries adjacent to the footpath, with a dense, high 'wall' of vegetation protruding above it. Mature trees line the eastern extent of Mahratta site behind the brick wall and are visually dominant within the view from this viewpoint, framing the road corridor (refer Figure 5). The combination of mature trees and formal red brick wall provides a visually contrasting landmark element for this part of the Pacific Highway.</p> <p>Electricity / street lighting poles are present on the grass verge between the footpath and the carriageway in front of the Mahratta site.</p> <p>The view along the road corridor culminates at the Fox Valley Road intersection, where the road bends to the east. The view along the road is often blocked by traffic, particularly during morning and evening peak hours.</p>
<b>Changes to the view</b>	<p>Along this stretch of the Highway the greatest change seen by travellers would be the widening of the road pavement by an extra northbound through lane to the west encroaching into the Mahratta site, resulting in the removal of mature trees and an adjustment to the eastern brick boundary wall to accommodate the proposed road widening in this location. Gaps in the almost continuous tree canopy fringing the road would occur at the Mahratta site, where about 20 trees would be removed. This loss of vegetation would result in a less 'bushy' or 'leafy' character of the view from this location.</p> <p>The intersection of Fox Valley Road would not be seen from this location.</p>

<p><b>Sensitivity of receptors</b></p>	<p>The sensitivity of the view seen by road users has been assessed as 'Moderate' due to the following:</p> <ul style="list-style-type: none"> <li>• The Pacific Highway road corridor is somewhat scenic at this location given the 'bushy' character of the area, which is expressed in the well-established vegetation predominantly within private properties on either side of the Highway;</li> <li>• The Highway passes through a Heritage Conservation Area (HCA) at this location, with a high quality of housing stock with mature landscaped gardens, however, the view heading south at this viewpoint is looking away from the HCA, albeit past a State listed heritage item;</li> <li>• A large number of receptors would obtain views to the Proposal, including motorists, cyclists and pedestrians, but these individual views to the changes would be seen as a series of individual, 'snapshot' views within their greater journey;</li> <li>• The formal gates, solid red brick wall and mature exotic trees at this location comprise a landmark view along the Pacific Highway;</li> <li>• Cyclists and pedestrians would obtain more prolonged views to the Proposal than motorists as they pass the site heading south, although as with motorists, the view seen from this viewpoint would be a small proportion of the views experienced within their overall journey, and lower numbers of cyclists are anticipated; and</li> <li>• Changes due to the Proposal would be seen at close proximity as the receptor passes the Mahratta site southbound along the Highway.</li> </ul>
<p><b>Magnitude of change</b></p>	<p>The magnitude of change to the view from this location would be 'High'. The road pavement itself would be widened to three lanes at this location, with the turning lane at Fox Valley Road lengthened towards the north.</p> <p>Along the road corridor a thick band of mixed screening vegetation within the Mahratta site would be removed, including mature trees which make up an almost continuous canopy along the Highway. The road pavement would extend further to the west of the existing road carriageway due to the widening of the Highway. The red brick wall on the eastern boundary of the Mahratta site would be moved westwards to accommodate the road widening. The brick wall would be rebuilt to be similar to the existing in terms of height, form and appearance.</p> <p>However, the number of trees remaining within the Mahratta site and within private properties on the south western corner of the Fox Valley Road intersection, provide a dark leafy backdrop which visually softens the impact of the removal of these trees. While the gaps in the tree canopy within Mahratta are visible, the overall 'leafy' character of the view is retained due to the remaining trees.</p> <p>Over a significant period of time, the replacement of a number of the trees lost would reduce the visual impact of the change.</p>
<p><b>Overall assessment</b></p>	<p>Using the Landscape Character and Visual Impact Assessment Matrix (refer Table 1) the overall visual impact would be 'High to Moderate'.</p>



**Figure 5 Viewpoint 2 (existing): Viewpoint southbound along the Pacific Highway which is positioned at the entry driveway of the Warrawee Bowling Club and Function Centre**

### 3.3 Viewpoint 3: Warrawee Bowling Club and Function Centre (north of Fox Valley Road)

<b>Receptors</b>	Receptors from this location include visitors to the Warrawee Bowling Club and Function Centre as they enter and leave the venue in the carpark.
<b>Existing views</b>	<p>The Warrawee Bowling Club and Function Centre is situated on a terraced site at 1479 Pacific Highway, Warrawee, 2074. The site slopes to the east away from the Pacific Highway. Entry to the bowling club and function centre is via a driveway which passes the main entry door to the clubhouse (refer Figure 5).</p> <p>Views to the Pacific Highway from the bowling club and function centre are only available from the carpark and the entry to the club house / function venue. Views to the Highway are seen from the carpark and from the clubhouse entry, although these are seen partially screened by an approximate one metre ground level change and a fence with temporary signage hanging from it (refer Figure 6).</p> <p>This view comprises the following elements:</p> <ul style="list-style-type: none"> <li>• The carpark itself and retaining wall to the Pacific Highway road corridor in the foreground;</li> <li>• Road signage, street lighting and above ground electricity lines / posts in the middle and background;</li> <li>• The street trees, fencing and passing traffic in the middle ground; and</li> <li>• The boundary wall of the Mahratta site with mature tree canopies protruding from above it in the background. The house itself is screened from view.</li> </ul> <p>The combination of mature trees and formal red brick wall provides a visually contrasting landmark element for this part of the Pacific Highway.</p> <p>The bowling greens are at a lower ground level again, screening all views to the Highway from this location. Likewise, existing views within the clubhouse face east towards the bowling greens and manicured garden beds surrounding them. Views from within the bowling greens would be contained by the existing ground level change between the road corridor and the bowling club site, as well as the existing gardens, including hedging.</p>
<b>Changes to</b>	From the carpark looking south and west, the changes due to the Proposal would comprise the removal of some mature trees along the eastern boundary of the

<p><b>the view</b></p>	<p>Mahratta site, the shifting of the red brick boundary wall of Mahratta to the west, the widening of the Pacific Highway road corridor to the west, and the reconfiguration of the signalised intersection at Fox Valley Road.</p> <p>However, due to the partial screening of the Pacific Highway and Mahratta boundary fence by the ground level change, fencing and street trees in this location, the only element that would be particularly noticeable from this location would be the removal of trees, which would be seen as an opening up of the canopy along the boundary of the Mahratta site.</p>
<p><b>Sensitivity of receptors</b></p>	<p>The sensitivity of the view and the receptors has been assessed as ‘Moderate’. Although visitors to a recreational venue would typically have a ‘High’ sensitivity, the rating at this location is lowered due to the partial screening of the Proposal from a ground level change within the carpark, and the fact that the view to the Proposal (and Mahratta) are not seen from the clubhouse / function centre or from the bowling greens.</p> <p>The view from this location is not particularly sensitive as it is a view from a carpark to a busy road corridor with a concrete retaining wall and safety fencing in the foreground, partially screening the view across the road.</p>
<p><b>Magnitude of change</b></p>	<p>The magnitude of change to the view from this location would be ‘Low’. The changes seen would primarily be confined to the removal of the tree canopies along the eastern boundary of the Mahratta site.</p> <p>Changes to the road pavement and verge would not be seen from within the bowling club and function centre, nor from the bowling green due to the existing buildings and ground level difference in this location.</p> <p>The Proposal primarily affects the western side of the Highway on the opposite side of the road, meaning they would not be seen from close proximity.</p>
<p><b>Overall assessment</b></p>	<p>Using the Landscape Character and Visual Impact Assessment Matrix (refer Table 1) the overall visual impact would be ‘Moderate to Low’.</p>

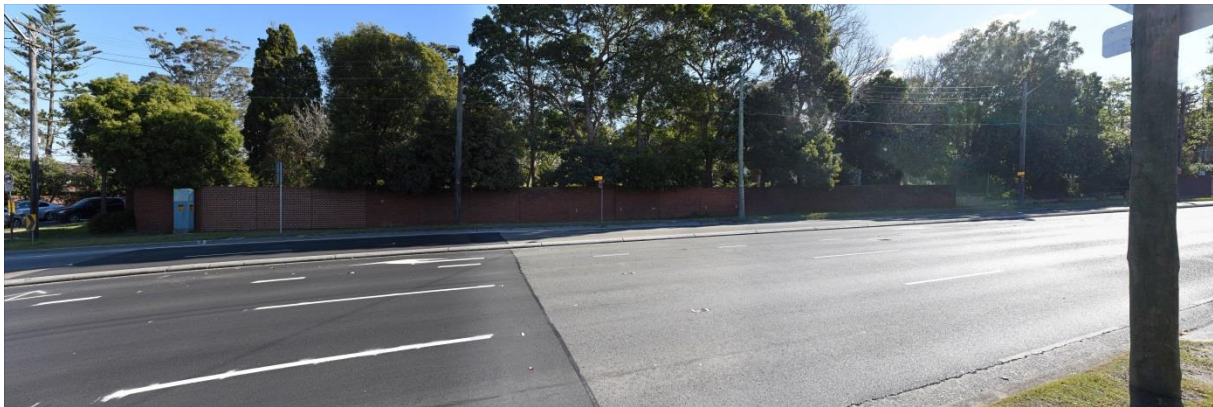


**Figure 6 Viewpoint 3 (existing):** Viewpoint towards the Pacific Highway from the carpark of the Warrabee Bowling Club and Function Centre with the Mahratta site (including the brick boundary wall and vegetation) in the background (looking south west)

### 3.4 Viewpoint 4: Pacific Highway (north of Fox Valley Road opposite the Mahratta site)

<b>Receptors</b>	Receptors from this location include pedestrians on the Pacific Highway heading north along the road.
<b>Existing views</b>	<p>The existing view from this viewpoint is visually dominated by the road pavement in the foreground, comprising a six-lane road with a narrow concrete median strip (refer Figure 7). Two northbound lanes and three southbound lanes are positioned adjacent this viewpoint, with a turning lane in the middle of the road for vehicles turning right into Fox Valley Road. The eastern and western verges of the road are planted with turf adjacent to a concrete pedestrian footpath.</p> <p>The red brick wall of the Mahratta site with a mix of mature trees (predominantly exotic species) rising from behind it are seen in the middle ground of the view, and frame the western side of the road corridor. The combination of mature trees and formal red brick wall provides a visually contrasting landmark element for this part of the Pacific Highway. Road signage and above ground utilities are present including street lighting posts, electricity lines and a traffic signal control box. The red brick wall and mature trees screen the Mahratta House from the road (refer Figure 9).</p> <p>The view along the road corridor to the north and south is often blocked by traffic, particularly during morning and evening peak hours.</p>
<b>Changes to the view</b>	<p>Changes in the view from this viewpoint would include:</p> <ul style="list-style-type: none"> <li>• Widening of the road pavement by one lane to the west (an additional northbound through lane);</li> <li>• Removal of trees within the Mahratta site and the associated boundary adjustment to accommodate the proposed road widening in this location; and</li> <li>• Replacement of the red brick wall on the eastern site boundary.</li> </ul> <p>Gaps in the almost continuous tree canopy fringing the road corridor would occur at the Mahratta site, where about 20 trees would be removed (refer Figure 8).</p>
<b>Sensitivity of receptors</b>	<p>The sensitivity of the view seen by road users have been assessed as ‘Moderate’ due to the following:</p> <ul style="list-style-type: none"> <li>• The Pacific Highway road corridor is somewhat scenic at this location given the ‘bushy’ character of the area, which is expressed in the well-established vegetation predominantly within private properties on either side of the Highway;</li> <li>• The Highway passes through a HCA at this location, with a high quality of housing stock with mature landscaped gardens;</li> <li>• The formal gates, solid red brick wall and mature exotic trees at this location comprise a landmark view along the Pacific Highway;</li> <li>• A moderate number of receptors (pedestrians) would obtain views to the Proposal, but this individual view would be seen as a series of individual, ‘snapshot’ views within their greater journey;</li> <li>• Pedestrians would obtain a brief view to the Proposal as they passed the Mahratta site heading north or south, although as with motorists, the view seen from this viewpoint would be a small proportion of the views experienced within their overall journey; and</li> <li>• Changes due to the Proposal would be seen at close proximity as the receptor passed the Mahratta site along the Highway.</li> </ul>

<p><b>Magnitude</b></p>	<p>The magnitude of change to the view from this location would be ‘High’. The road pavement itself on the western side of the corridor would be widened to three lanes at this location, and the lane markings would be reconfigured at the approach to Fox Valley Road from the north.</p> <p>Along the road corridor in this location the thick band of mixed screening vegetation on private property would be removed, including mature trees which make up an almost continuous canopy along the Highway at the Mahratta site. The road pavement would extend westwards from the widening of the Highway. The red brick wall on the eastern boundary of the Mahratta site would be moved westwards to accommodate the road widening.</p> <p>The gaps in the tree canopy within the Mahratta site would be visible, but the overall ‘leafy’ character of the view would be retained due to the remaining trees and replacement planting.</p> <p>Over time, the replacement of a number of the trees removed from within the Mahratta site as a result of the Proposal would reduce the visual impact of the change, as shown in Figure 9.</p>
<p><b>Overall assessment</b></p>	<p>Using the Landscape Character and Visual Impact Assessment Matrix (refer Table 1) the overall visual impact would be ‘High to Moderate’.</p>



**Figure 7 Viewpoint 4 (existing):** Viewpoint from the eastern footpath of the Pacific Highway looking north west towards the Mahratta site



**Figure 8 Viewpoint 4 (just after construction):** Visual simulation showing the changes to the view towards the Mahratta site boundary (with indicative tree and shrub planting included as mitigation) showing the gaps in the mature tree canopy from the removal of trees along the boundary of this site just after construction



**Figure 9 Viewpoint 4 (established vegetation): Visual simulation showing the changes to the Mahratta site boundary showing more mature plant growth of the indicative tree and shrub planting shown in Figure 8**

### 3.5 Viewpoint 5: Pacific Highway (south of Fox Valley Road)

<b>Receptors</b>	Receptors from this location include road users on the Pacific Highway just south of the Fox Valley Road intersection, including motorists, cyclists and pedestrians.
<b>Existing views</b>	<p>The existing view north along the Highway is visually dominated by the road corridor itself, with the road comprising a six-lane road with a narrow concrete median strip, narrowing to five lanes north of the Fox Valley Road intersection.</p> <p>The verge on the eastern side of the road is planted with turf, with a tall hedge and advertising signage positioned along the boundary of the private property to the east of the Highway which frames the road corridor. The western verge and intersection verge is planted with taller grasses and occasional eucalypt trees within the road reserve, and tall brick boundary walls to private properties to the west. Electricity / street lighting poles are visible on the western verge of the Highway, with road signage and traffic lights seen in the middle to background of the view. Street lighting poles are also positioned on the eastern grass verge between the footpath and the carriageway in the foreground of this view.</p> <p>A mix of mature trees (predominantly exotic species) frame the road on the western side at Mahratta just north of the Fox Valley Road intersection, with the tall red brick wall and gate posts of Mahratta screening the view into the site from the road (refer Figure 10). The combination of mature trees and formal red brick wall provides a visually contrasting landmark element for this part of the Pacific Highway.</p> <p>The view along the road corridor to the north is often blocked by traffic, particularly during morning and evening peak hours, and the existing bend in the road at this location.</p>
<b>Changes to the view</b>	<p>Along this stretch of the Highway, the greatest change seen by travellers would be the widening of the road pavement by one lane to the west (an additional northbound through lane), and the removal of trees within the Mahratta site and associated boundary wall adjustment to accommodate the proposed road widening in this location. Gaps in the almost continuous tree canopy fringing the road would occur at the Mahratta site, where about 20 trees would be removed (refer Figure 11).</p> <p>The intersection of Fox Valley Road would be reconfigured, with some loss of landscape (including one street tree) on the south western side of the intersection.</p> <p>Overall, the view along the Highway north would be less ‘bushy’ or ‘leafy’, and with more emphasis on built form adjacent to the Highway. However, the built form in this wider stretch of road includes high quality homes within a heritage conservation area with mature, landscaped gardens.</p>



<p><b>Sensitivity of receptors</b></p>	<p>The sensitivity of the view seen by road users has been assessed as 'Moderate' due to the following:</p> <ul style="list-style-type: none"> <li>• The Pacific Highway road corridor is somewhat scenic at this location given the 'bushy' character of the area, which is expressed in the well-established vegetation predominantly within private properties on either side of the Highway;</li> <li>• The Highway passes through a HCA at this location, with a high quality of housing stock with mature landscaped gardens;</li> <li>• The formal gates, solid red brick wall and mature exotic trees at this location comprise a landmark view along the Pacific Highway;</li> <li>• A large number of receptors would obtain views to the Proposal and the Mahratta site, including motorists, cyclists and pedestrians, but these individual views to the changes would be seen as a series of individual, 'snapshot' views within their greater journey;</li> <li>• Cyclists and pedestrians would obtain more prolonged views to the Proposal than motorists as they passed the Mahratta site heading north, although as with motorists, the view seen from this viewpoint would be a small proportion of the views experienced within their overall journey, and lower numbers of cyclists and pedestrians are anticipated; and</li> <li>• Changes to Mahratta site due to the Proposal would be seen at close proximity as the receptor passed the Mahratta site northwards along the Highway.</li> </ul>
<p><b>Magnitude</b></p>	<p>The magnitude of change to the view from this location would be 'High'. The road pavement itself would be widened to three lanes at this location, and the signalised intersection would be reconfigured at Fox Valley Road.</p> <p>Along the road corridor a thick band of mixed screening vegetation on private property would be removed, including mature trees which make up an almost continuous canopy along the Highway, including at the Mahratta site. The road pavement would move closer to the western side of the road due to the widening of the Highway. The red brick wall on the eastern boundary of Mahratta would be moved westwards to accommodate the road widening.</p> <p>However, the number of trees remaining within the Mahratta site and within private properties on the south western corner of the Fox Valley intersection provide a dark leafy backdrop which visually softens the impact of the removal of the trees. The intersection appears visually wider due to the removal of the two mature eucalypts on the south western corner of the intersection, and the gaps in the tree canopy within the Mahratta site are visible. However, the overall 'leafy' character of the view is retained due to the remaining trees.</p> <p>Over time, the replacement of a number of the trees lost would reduce the visual impact of the change, as shown in Figure 12.</p>
<p><b>Overall assessment</b></p>	<p>Using the Landscape Character and Visual Impact Assessment Matrix (refer Table 1) the overall visual impact would be 'High to Moderate'.</p>



**Figure 10 Viewpoint 5 (existing):** Viewpoint on the Pacific Highway from the footpath looking north west towards Fox Valley Road intersection and the Mahratta site



**Figure 11 Viewpoint 5 (just after construction):** Visual simulation showing the change to Fox Valley Road intersection and the Mahratta site boundary (with indicative tree and shrub planting included as mitigation), showing the gaps in the canopy from the removal of trees along the boundary of this property



**Figure 12 Viewpoint 5 (established vegetation):** Visual simulation showing the change to Fox Valley Road intersection and the Mahratta site boundary, showing more mature plant growth in the indicative planting shown in Figure 11)

## 4.0 Conclusion and Recommended Mitigation Measures

### 4.1 Mitigation Measures

Mitigation of the changes to the views seen from within the Mahratta site, and from the surrounding areas to the east of Mahratta, comprise:

- the replacement of the brick boundary wall similar to the existing wall;

- replanting of trees and shrubs within Mahratta (which would, over time, visually fill the gaps in the tree canopy seen above the wall from outside the site boundary and screen views to the road corridor from inside the site); and
- the reinstatement of the brick path within Mahratta back to its original location following construction.

Details of how these measures should be undertaken have been outlined in the *Statement of Heritage Impact for State Significant Heritage Item No. 708 'Mahratta', 1526 Pacific Highway, Wahroonga*, Phillips Marler/Biosis, dated August 2018.

The recommendations are summarised below:

#### 4.1.1 Replacement of Eastern Boundary Brick Wall

The brick wall is to be replaced as part of the proposed works in agreement with the property owner. It is recommended that the construction be a reinforced concrete wall of a similar height and scale to the existing wall which would extend along the entire eastern boundary of the Mahratta site fronting the Pacific Highway with brick cladding on both the boundary and garden elevations. The brick laying pattern and the white mortar should be replicated in the new wall design.

#### 4.1.2 Replacement Planting (Tree Canopy Enhancement)

A plan would be developed in consultation with the New South Wales Office of Environment and Heritage (OEH) and the landowner to:

- preserve the design intent of the garden to the fullest extent possible;
- visually 'repair' the gaps in the canopy to enhance the almost continuous canopy lining the Highway;
- screen views from within the property to the road corridor; and
- address road safety and maintenance requirements for the road corridor.

Recommended trees for replacement planting along and adjacent to the eastern boundary should include a number of species to preserve the horticultural makeup of the original garden, including both evergreen and deciduous species. Tree placement should also consider maintenance considerations for the replacement wall to avoid tree root encroachment and damage to the replacement structure as well as address road safety standards for the Pacific Highway.

Recommended species are outlined in Table 2, and have been chosen as the most horticulturally appropriate species for the site based on the species list of trees to be removed, while allowing the healthy growth of the shrubbery underneath. A mix of Azalea and Rhododendron species to replace the existing understorey shrubs should be considered as part of the replanting in this area.

New trees that are replanted should be sourced at an appropriate size (45L or 100L) to ensure that the boundary planting would be substantial following construction.

**Table 2 Recommended tree species to replace trees removed along the eastern boundary of the Mahratta site**

Deciduous tree species	Evergreen tree species
<i>Nyssa sylvatica</i>	<i>Syzygium paniculatum</i>
<i>Calodendron capense</i>	<i>Stenocarpus sinuatus</i>
<i>Liquidamber styraciflua</i>	<i>Brachychiton populneus</i>

#### 4.1.3 Reinstatement of Brick Path

The existing brick path may need to be lifted during construction and then replaced back into its original location and alignment following construction of the new brick wall. If so, then a photographic record should be made to ensure that the reconstruction of the path is as close to the existing pattern of brick colours and laying technique as possible. The path joints should be left open.

## **4.2 Conclusion**

Overall, the visual changes to the State Heritage listed site 'Mahratta' as a result of the Proposal are limited to the eastern extent of this site. The changes include the removal of a number of mature trees (up to 20 trees) and part of a shrub bed and the relocation of the existing boundary wall by up to approximately 3.5 metres westwards into the eastern garden area within the site.

Visually, the greatest of these changes would be the removal of the mature trees, which are currently seen projecting from above the boundary wall. These contribute to the almost continuous canopy of trees seen along the Highway from the road corridor, and play a role in visually containing views within the Mahratta site.

These changes would result in a 'High' visual impact when seen from within the site, a 'High to Moderate' change when viewed from viewpoints along the Pacific Highway from the north and south, and a 'Moderate to Low' change when seen from the carpark of the Warrawee Bowling Club and Function Centre.

With the adoption of mitigation measures recommended above, the visual impact of the changes due to the Proposal would be reduced over time as the trees mature and fill the gaps in the canopy (as viewed from the road and within the site), and as the shrubs planted within the site west of the boundary wall mature and screen the views from Mahratta house and gardens to the boundary wall and road beyond. The replacement of the collapsed section boundary wall along the north eastern extent of the Mahratta site (which at present is failing due to tree roots) would improve the view of the existing wall from the road.

## Appendix 5B Design Visualisations

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# Pacific Highway and Fox Valley Road, Wahroonga/Warrawee



Existing –  
North of Fox Valley Road intersection opposite “Mahratta” / School of Practical Philosophy - Wahroonga (looking north west)



Visualisation of Proposal (Just After Construction) –  
North of Fox Valley Road intersection opposite “Mahratta” / School of Practical Philosophy - Wahroonga (looking north west)

*\*Proposed roadside planting indicative only and subject to future consultation with property owners*



Visualisation of Proposal (Established Vegetation) -  
North of Fox Valley Road intersection opposite “Mahratta” / School of Practical Philosophy - Wahroonga (looking north west)

*\*Proposed roadside planting indicative only and subject to future consultation with property owners*

# Pacific Highway and Fox Valley Road, Wahroonga/Warrawee



Existing –  
Within “Mahratta” / School of Practical Philosophy - Wahroonga (looking east from main building entrance/driveway)



Visualisation of Proposal (Just After Construction) –  
Within “Mahratta” / School of Practical Philosophy - Wahroonga (looking east from main building entrance/driveway)

*\*Proposed roadside planting indicative only and subject to future consultation with property owners*



Visualisation of Proposal (Established Vegetation) -  
Within “Mahratta” / School of Practical Philosophy - Wahroonga (looking east from main building entrance/driveway)

*\*Proposed roadside planting indicative only and subject to future consultation with property owners*

## Appendix 6 Workshop Slides

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# Pacific Highway / Fox Valley Road, Wahroonga

P.0021513

Mahratta SHR item – Retaining wall workshop



# Introduction

## Presentation Overview

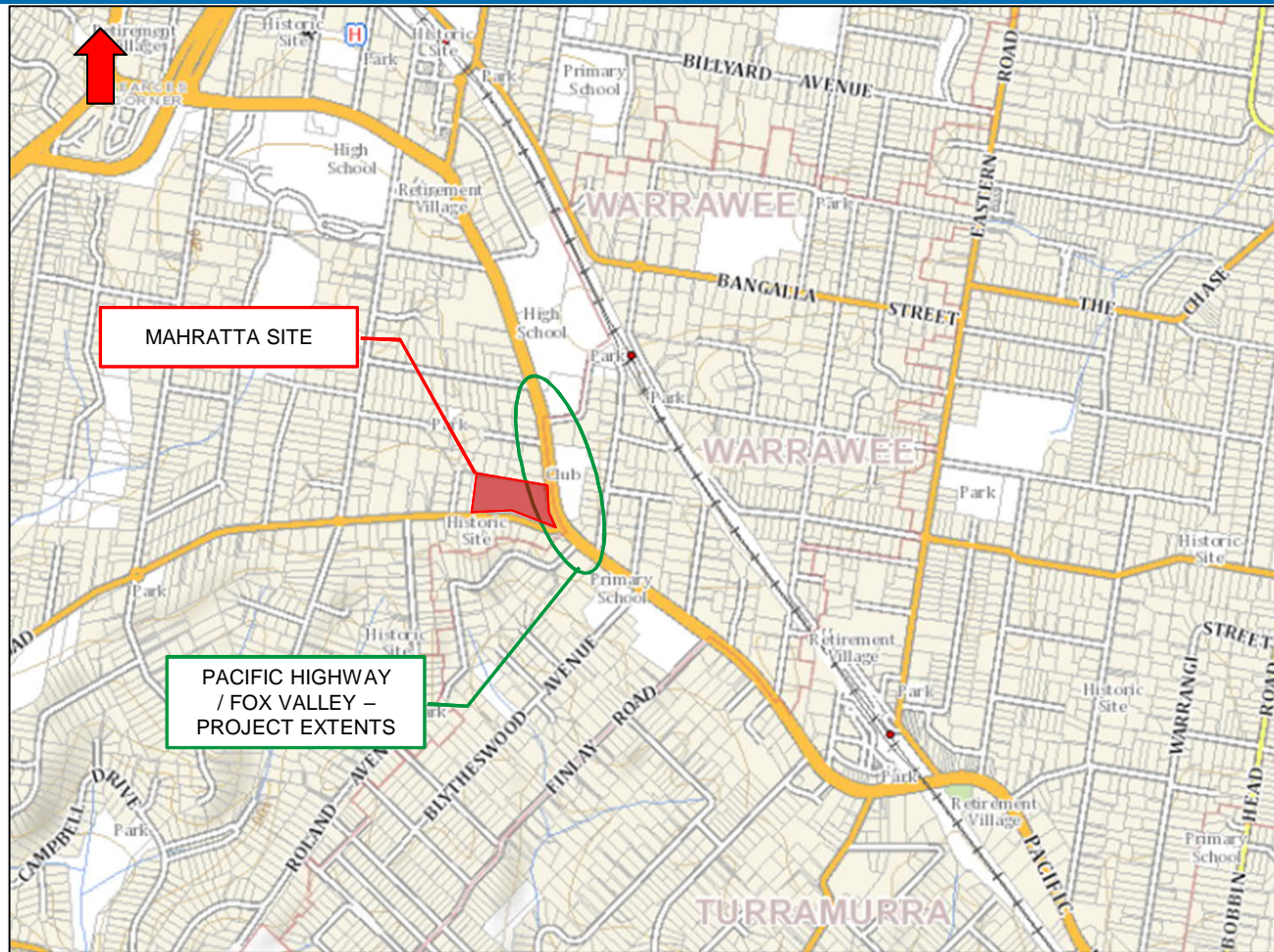
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### Mahratta Site Retaining wall, Wahroonga

- Project location and background
- Retaining wall options
- Considerations
- Property impacts
- Options comparison
- Preferred option

# Introduction

## Project Location – Suburb: Warrawee



# Introduction

## Project background & objectives

### Background

The intersection of Pacific Highway and Fox Valley Road has been identified as a potential pinch point for the ESC Program following the 'Pacific Highway Corridor Study'.

The Strategic Design Phase was completed by the ESCPO and identified a preferred solution.

Current congestion issues identified include:

- Heavy queuing along Pacific Highway northbound approach
- Heavy queuing at the right turn from Pacific Highway southbound onto Fox Valley Road.

### Objectives

- Provide three continuous lanes on the northbound direction by:
  - Widening to the west side of the Pacific Highway
- Increase the capacity of the right turn lane onto Fox Valley Road by
  - Extending the right turn bay into the existing median.



# Introduction

## Retaining wall at Mahratta Site



# Retaining wall options

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Options discussed on today's workshop:

- Option 1 – Pad footing wall
- Option 2 – Piled footing wall

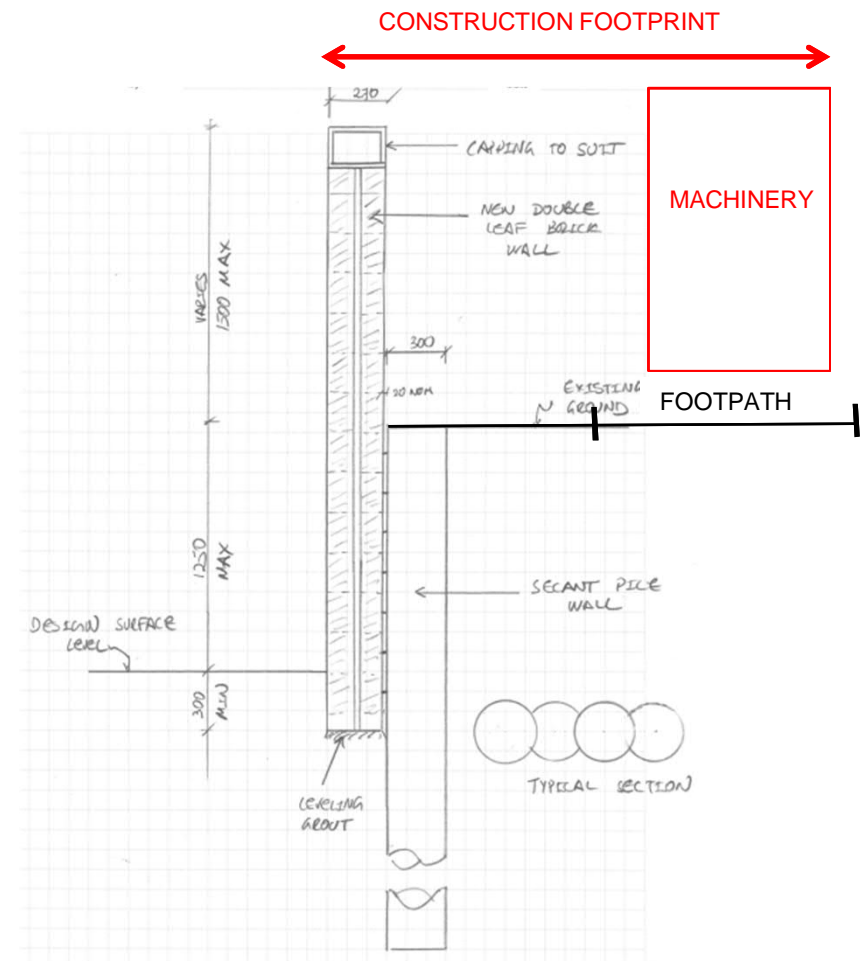
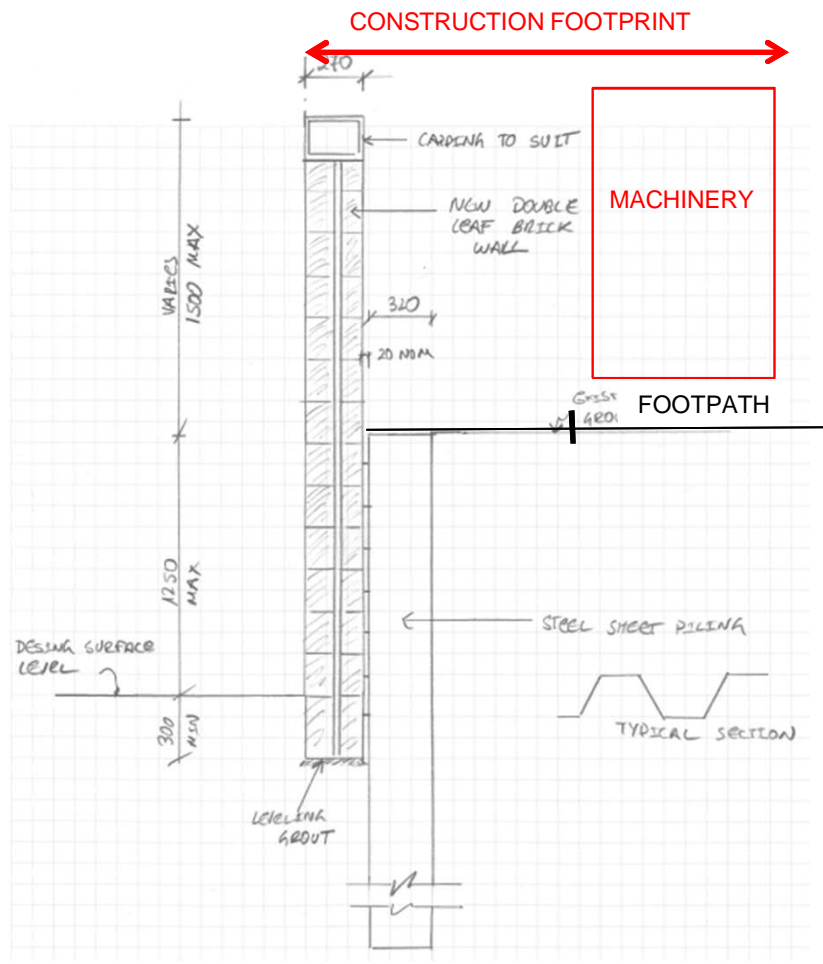
Two additional options were investigated but discarded as their construction produced high **noise and vibration** and would require **machinery into the Mahratta Site.**

- Option 3 – Steel sheet piling
- Option 4 – Secant pile wall

# Other alternatives

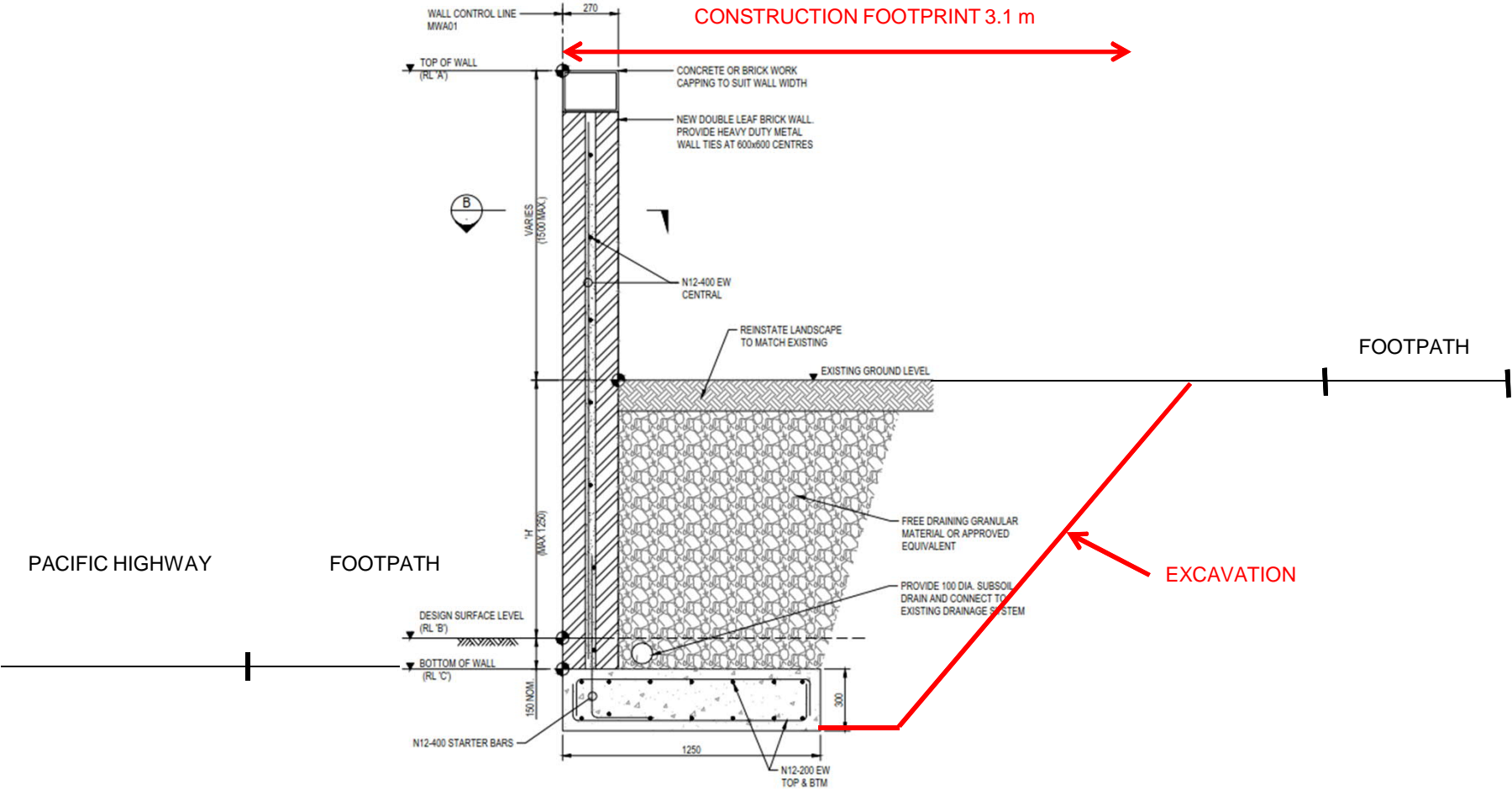
Option 3 - Steel sheet piling

Option 4 - Secant pile wall



# Option 1

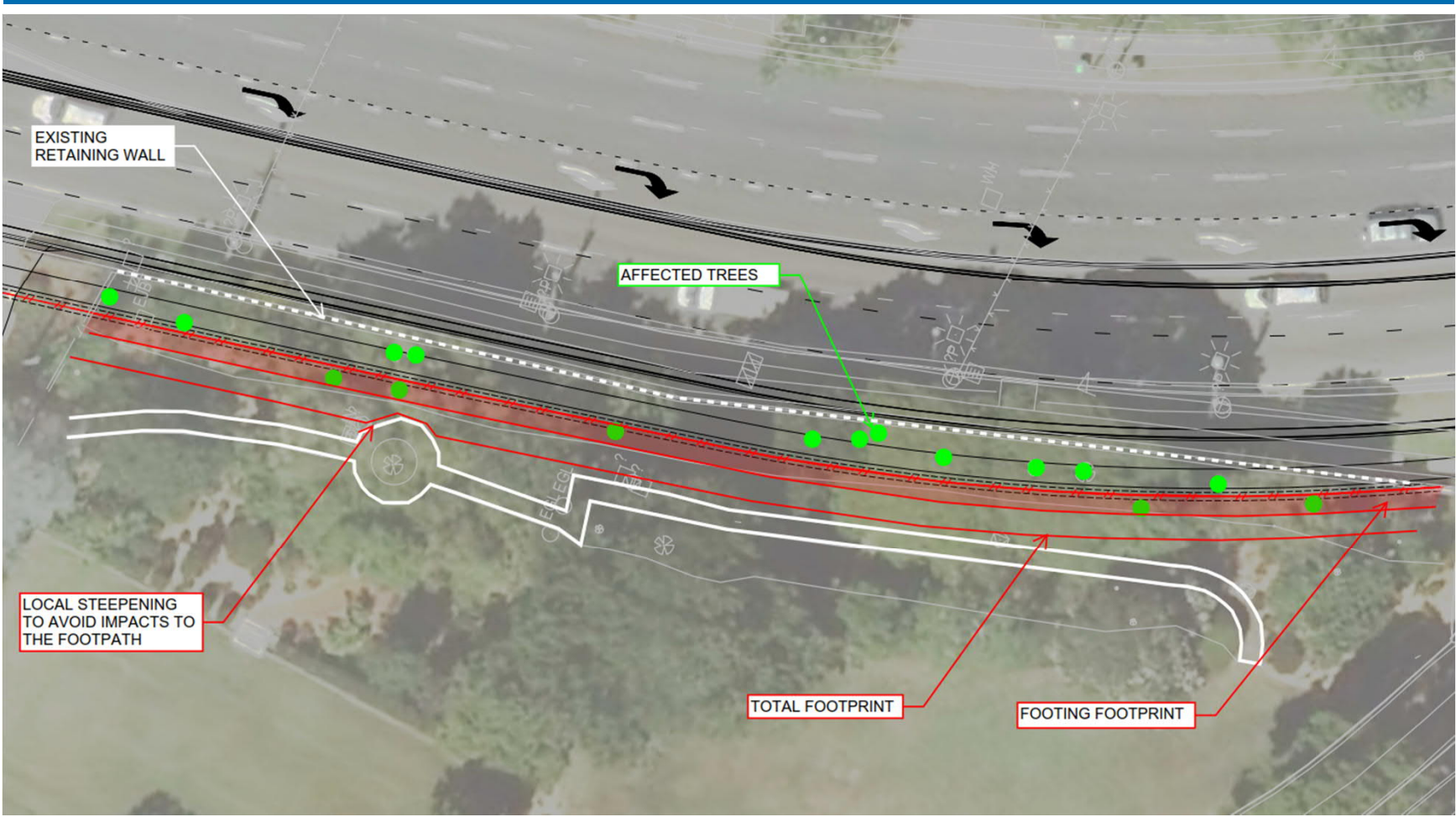
## Pad footing retaining wall - Section





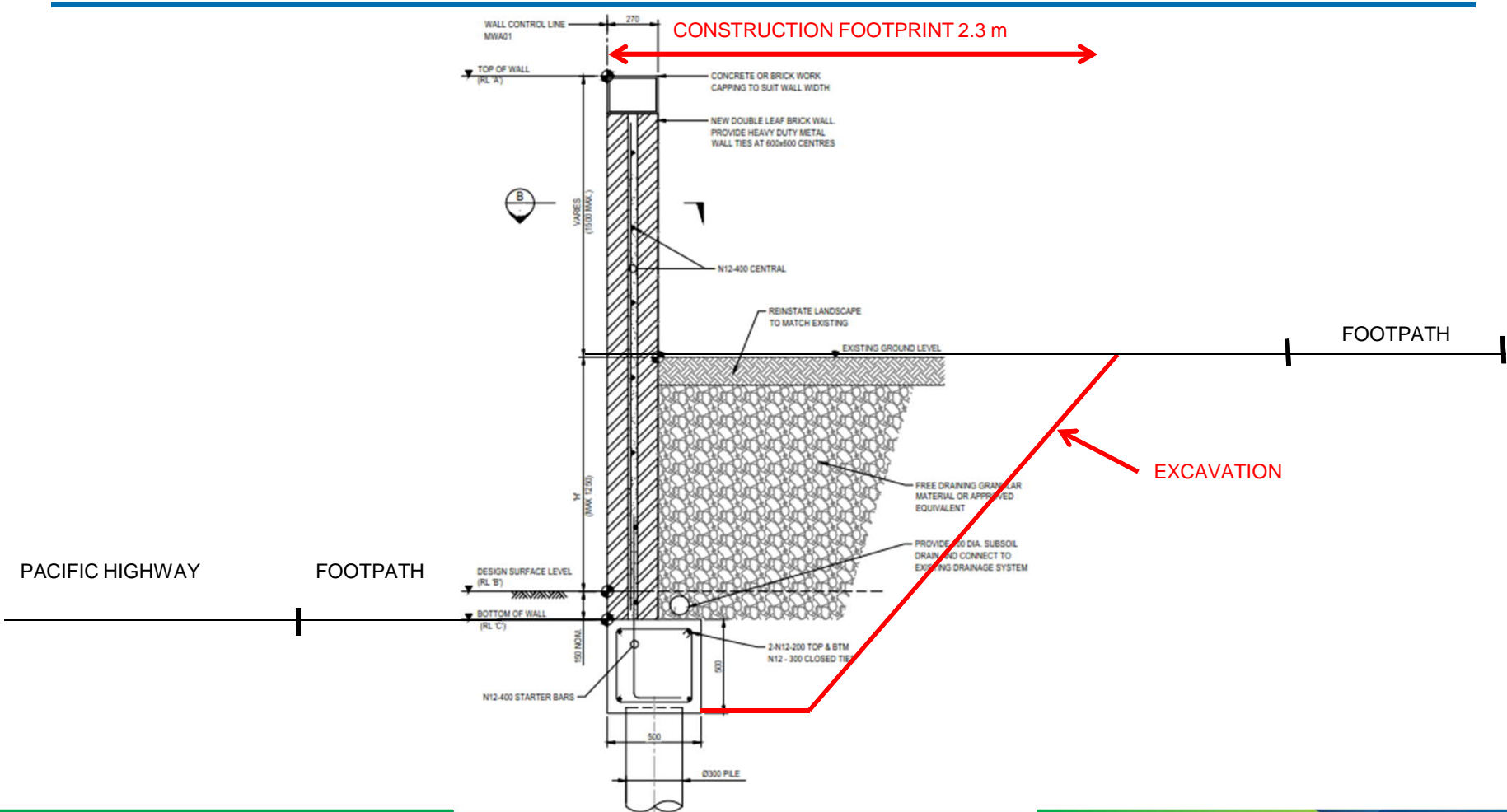
# Option 1

## Pad footing retaining wall - Plan



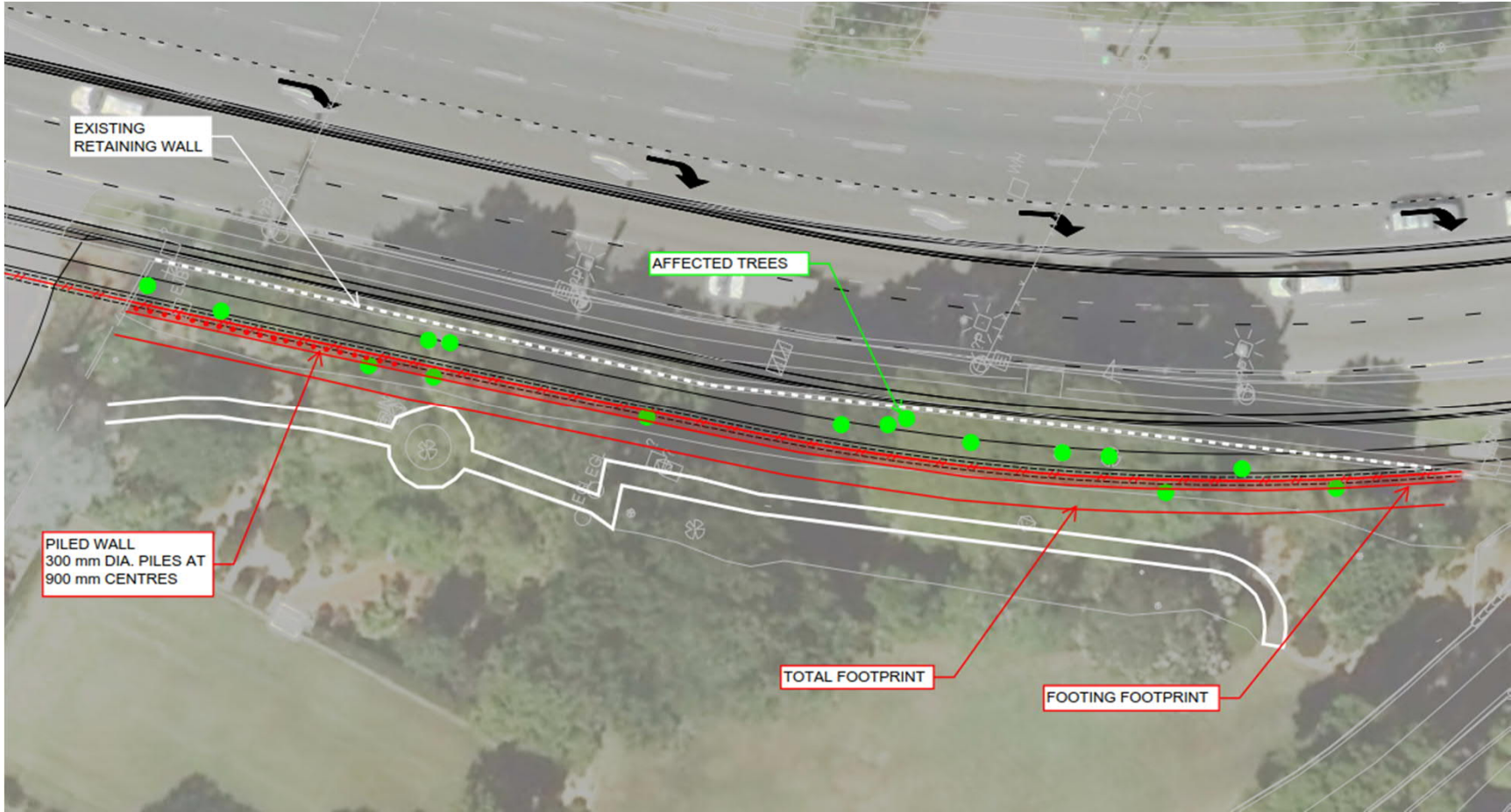
# Option 2

## Piled footing retaining wall



# Option 2

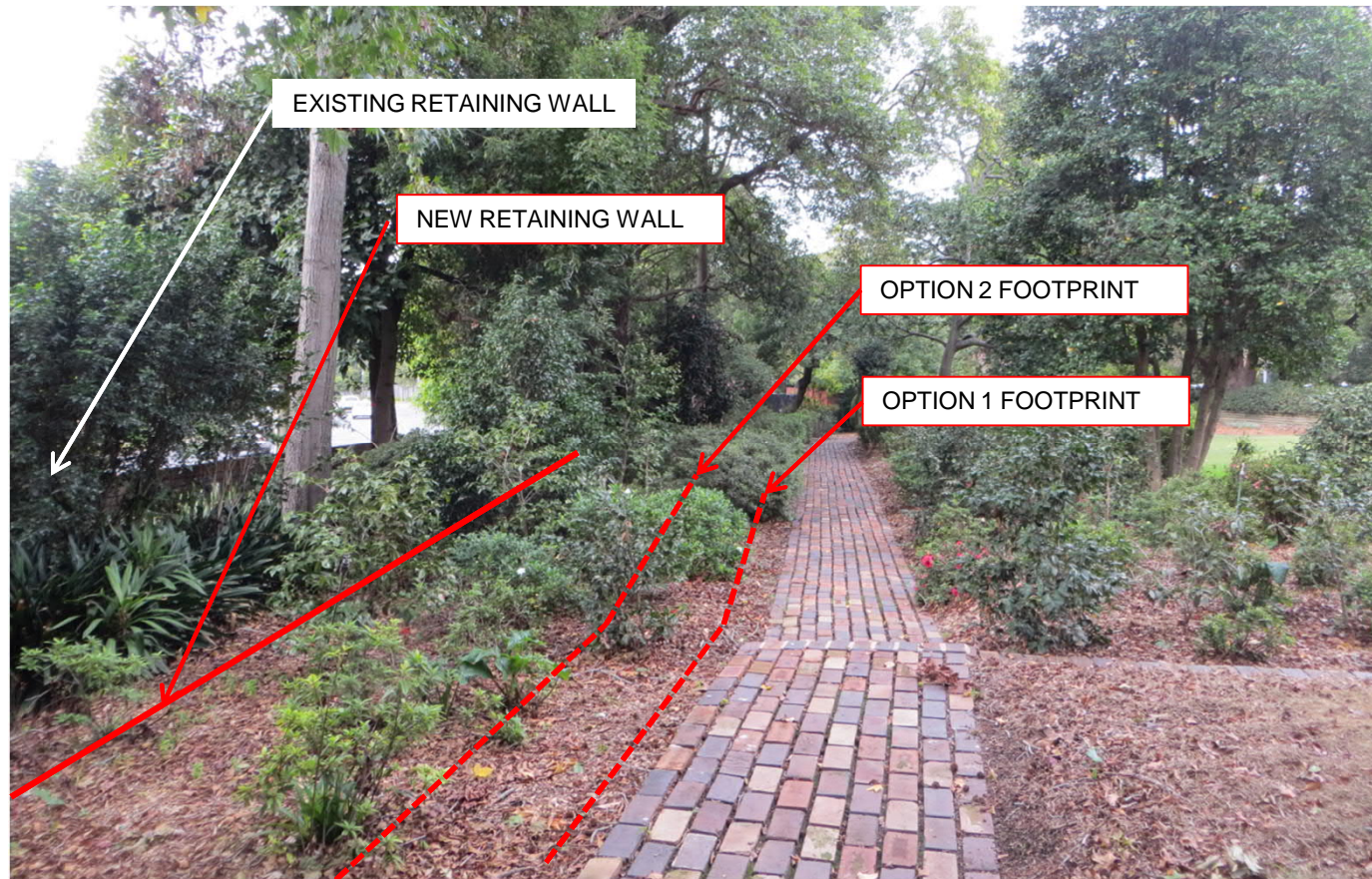
## Piled footing retaining wall - Plan



# Considerations



Option 1 – Pad footing		Option 2 – Piled footing	
Advantages	Disadvantages	Advantages	Disadvantages
Quicker to construct	Larger construction footprint (470 m <sup>2</sup> )	Less construction footprint (412 m <sup>2</sup> )	Less safe to construct (pile rigs and OH cables)
Safer to construct	18 trees to be removed	Footpath in Mahratta intact	Slower to construct
Less traffic management			More traffic management
Footpath in Mahratta intact			18 trees to be removed
Less cost			More cost (3X)

# Property impacts



# Options comparison

Option 1:      Option 2:  
Pad footing    Piled footing

<b>Constructability</b> <ul style="list-style-type: none"><li>• Safety</li><li>• Time</li><li>• Method</li></ul>		
<b>Construction footprint</b>	470 m2	412 m2
<b>Trees affected</b>	18	18
<b>Footpath inside property</b>		
<b>Cost</b>		

# Preferred Solution

## Option 1: pad footing wall

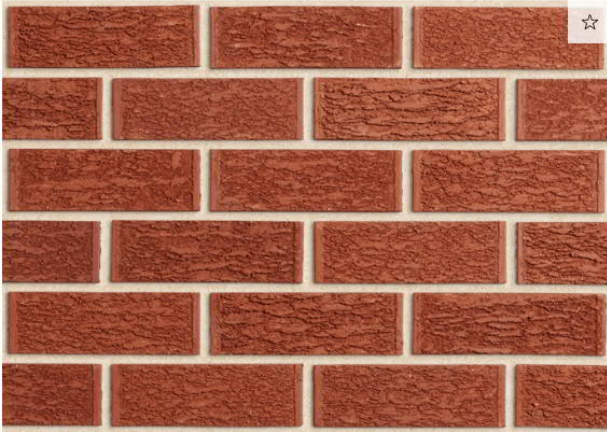
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- Standard method of construction
- Quicker to construct
- Safer to construct
- Less disturbance to the neighbourhood (noise and vibration)
- Same tree impacts as all other options.

## Appendix 7 Brick Comparison Options

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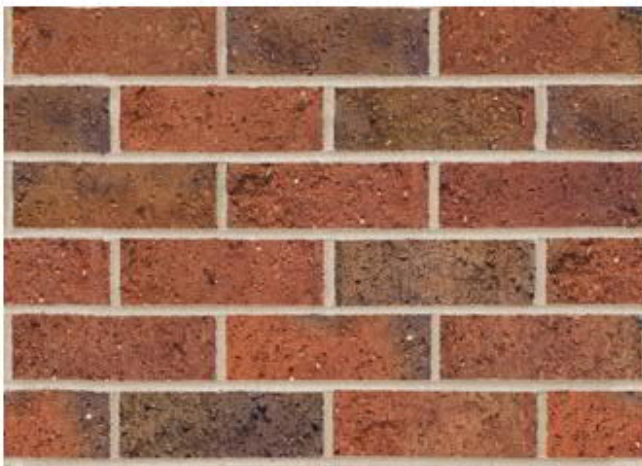




PGH Bricks - Revive  
<https://www.pghbricks.com.au/bricks/select-by-collection/revive>



EXISTING RETAINING WALL



Austral Bricks - Traditional  
<https://australbricks.com.au/nsw/product/traditional>



EXISTING RETAINING WALL



PGH Bricks - Uluru  
<https://www.bricksblockspaversonline.com.au/bricks-c2/pgh-bricks-uluru-brick-sold-in-full-packs-of-460-only-p442/>



EXISTING RETAINING WALL



Midland Brick – Traditional

<https://www.midlandbrick.com.au/Shop/Product/Bricks/All/Restoration%20Red%20Coach/2632/3033/6042/2880/Core d?mbcID=ST8609C>



EXISTING RETAINING WALL



Austral Bricks – Bowral – Capitol Red

<https://australbricks.com.au/nsw/product/bowral50/?swatchid=4293>



EXISTING RETAINING WALL

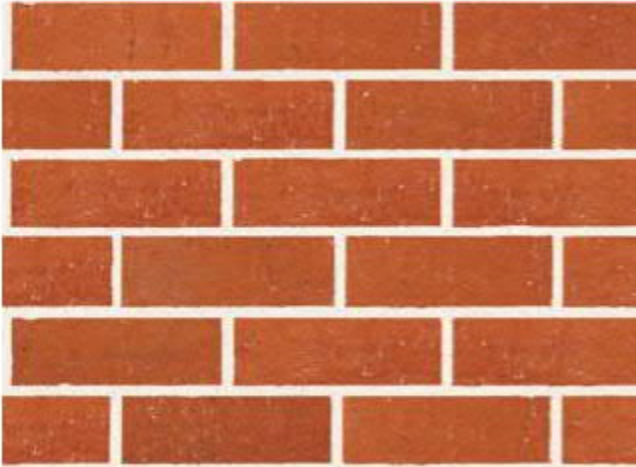


Austral Bricks – Nubrik Chapel Red

<https://australbricks.com.au/nsw/product/nubrik-pressed-bricks/?swatchid=4883>



EXISTING RETAINING WALL

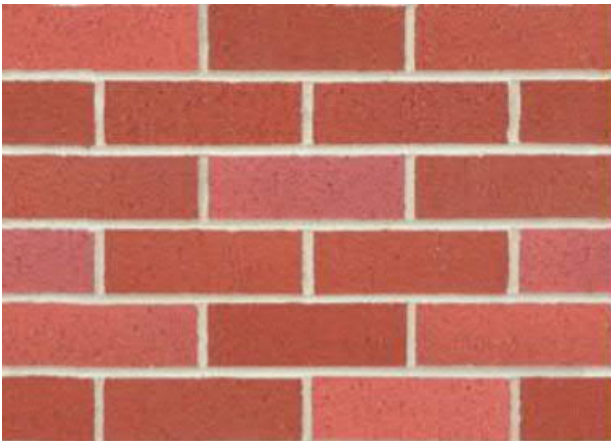


Midland Brick – Amber Pearl

<https://www.midlandbrick.com.au/Shop/Product/Bricks/All/Amber%20Pearl/2815/3227/6139/3102/Cored?mbclD=ST4602C>



EXISTING RETAINING WALL



Austral Bricks – Metallix Cherry Red

<https://australbricks.com.au/nsw/product/metallix/?swatchid=4157>



EXISTING RETAINING WALL



NSW Bricks – Uluru

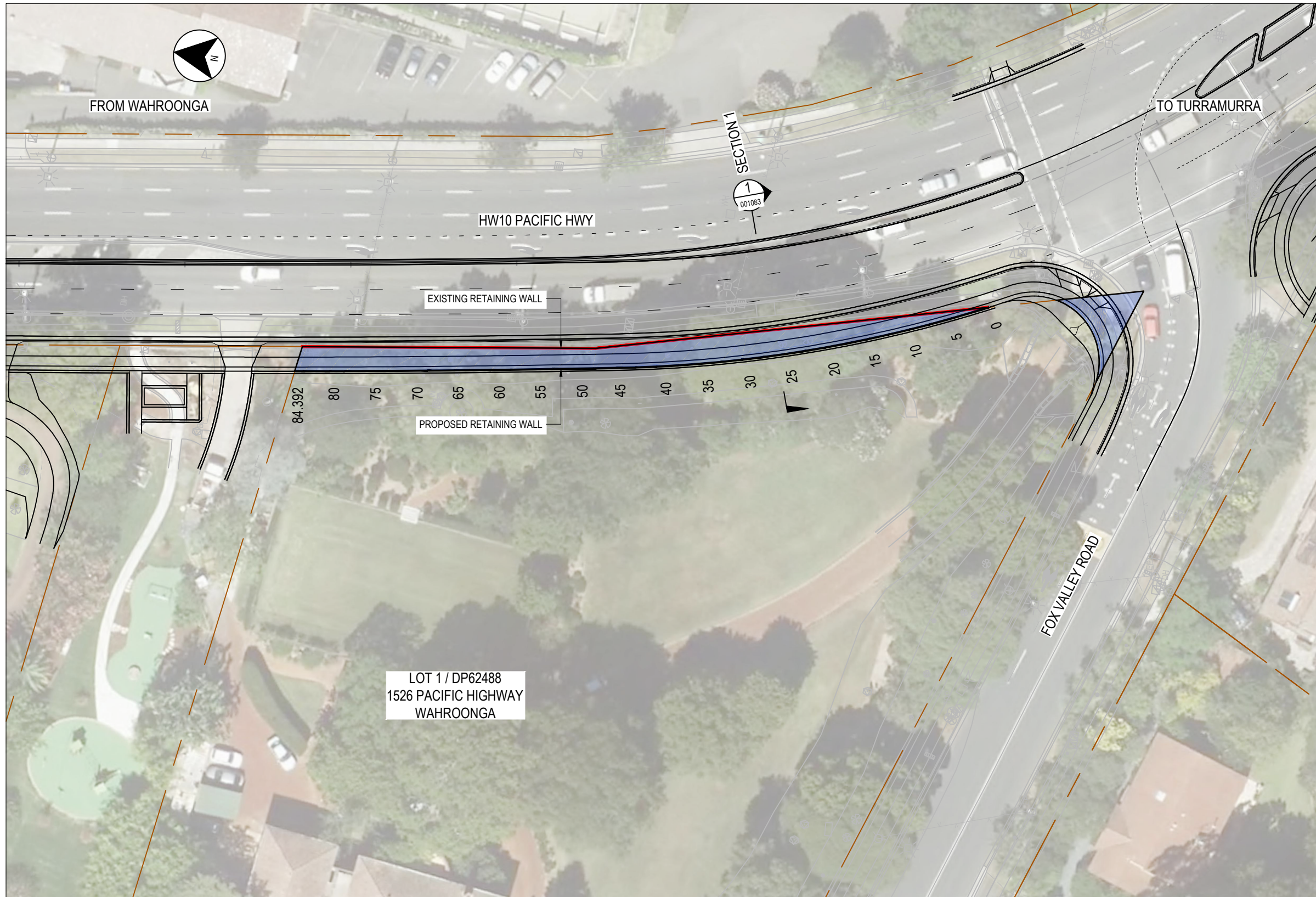
<https://www.nswbricks.com.au/shop/bricks/uluru/>



EXISTING RETAINING WALL

## Appendix 8 New brick boundary wall

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**LEGEND**

- EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- EXISTING SURVEY
- PROPOSED ROAD
- PROPOSED PROPERTY ACQUISITION

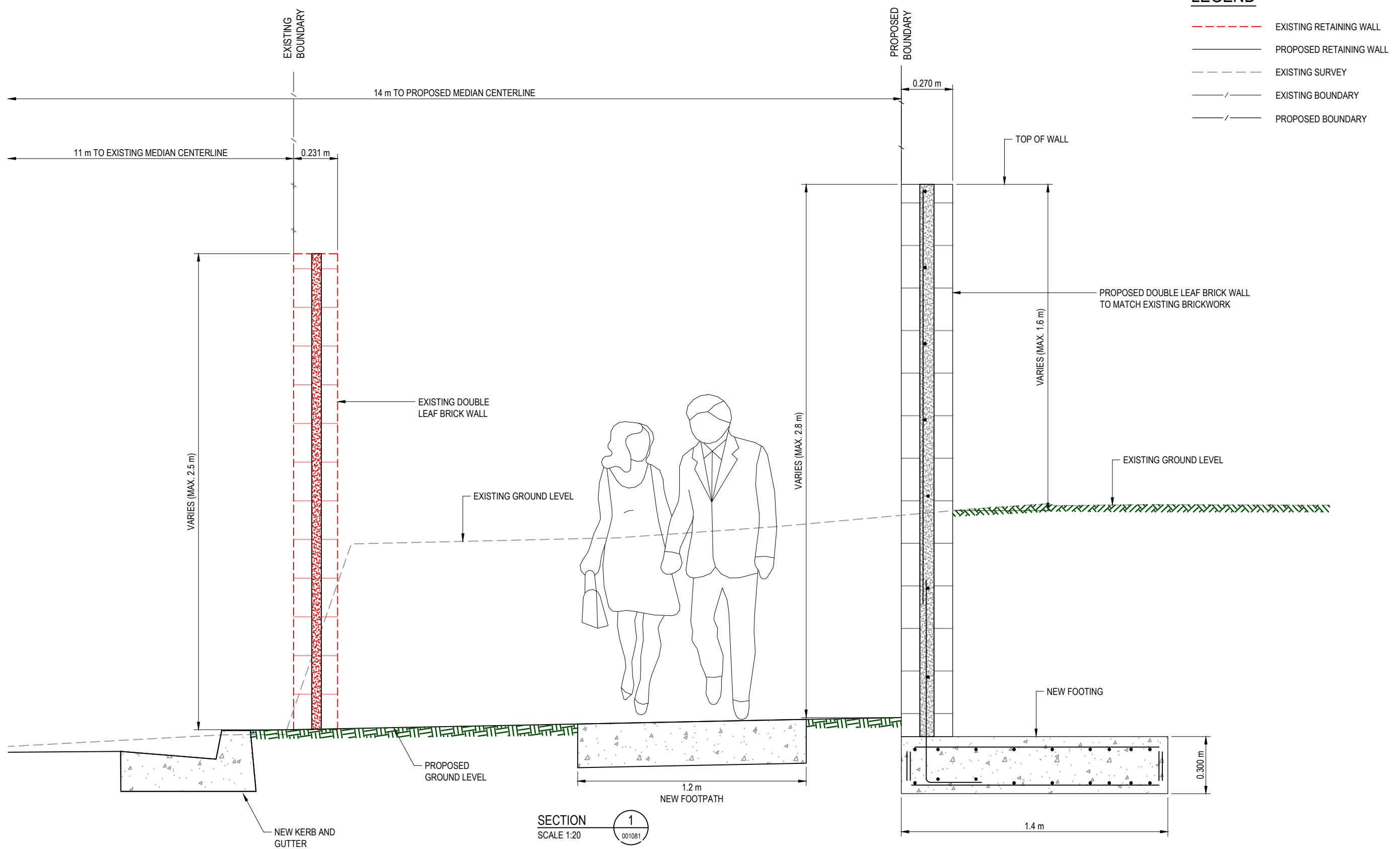
**RETAINING WALL PLAN**  
SCALE 1:500

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED  
50mm ON A3 SIZE ORIGINAL

**FOR INFORMATION ONLY**

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													DESIGN MNGR	J.CALDERON	31.08.2018			ISSUE	0		
													PROJECT MNGR	R.COLLINS	31.08.2018			ISSUE	0		





LEGEND	
	EXISTING RETAINING WALL
	PROPOSED RETAINING WALL
	EXISTING SURVEY
	EXISTING BOUNDARY
	PROPOSED BOUNDARY

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FOR INFORMATION ONLY

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												DRG CHECK	A.PEREZ	31.08.2018	
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								MGA ZONE 56				DESIGN CHECK	A.PEREZ	31.08.2018	
								HEIGHT DATUM				DESIGN MNGR	J.CALDERON	31.08.2018	
								AHD				PROJECT MNGR	R.COLLINS	31.08.2018	
												 Transport Roads & Maritime Services		KU-RING-GAI COUNCIL PACIFIC HIGHWAY PINCH POINTS UPGRADE AT INTERSECTION OF PACIFIC HIGHWAY AND FOX VALLEY RD, WAHROONGA EXISTING AND PROPOSED RETAINING WALLS SECTIONS 1526 PACIFIC HWY WAHROONGA	
												PREPARED FOR SYDNEY DIVISION EASING SYDNEY'S CONGESTION PINCH POINTS NORTH		RMS REGISTRATION No. <b>FOR INFORMATION ONLY</b> SHEET No. <b>A</b> ISSUE No. <b>0</b>	
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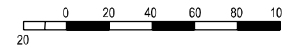
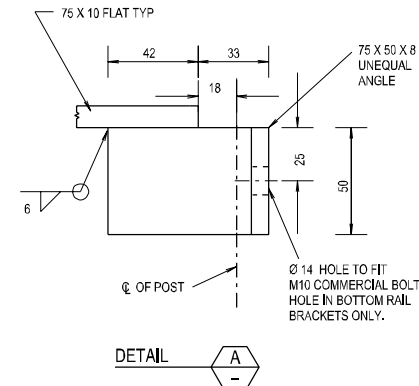
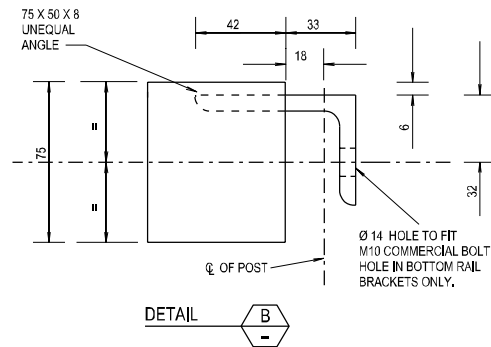
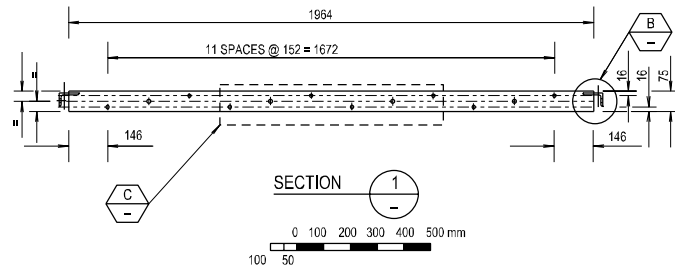
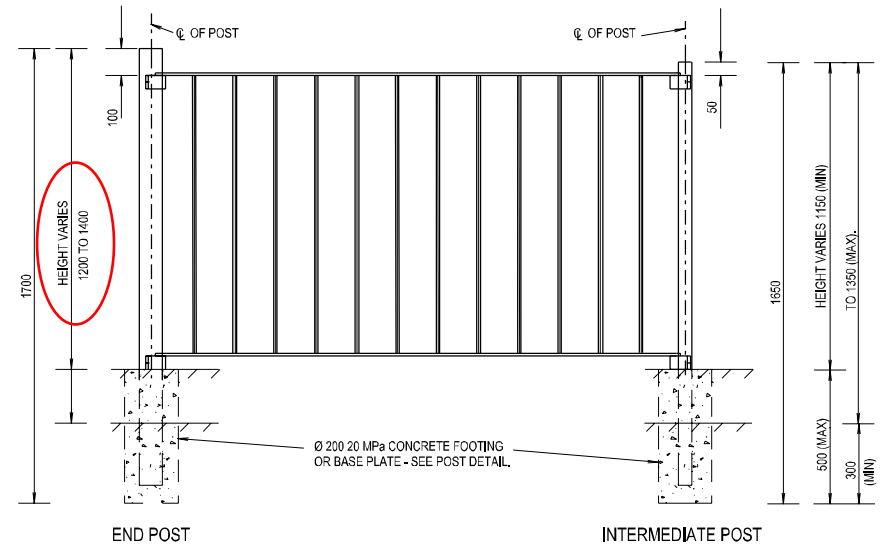
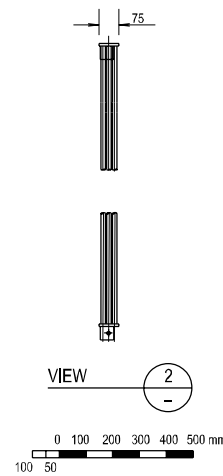
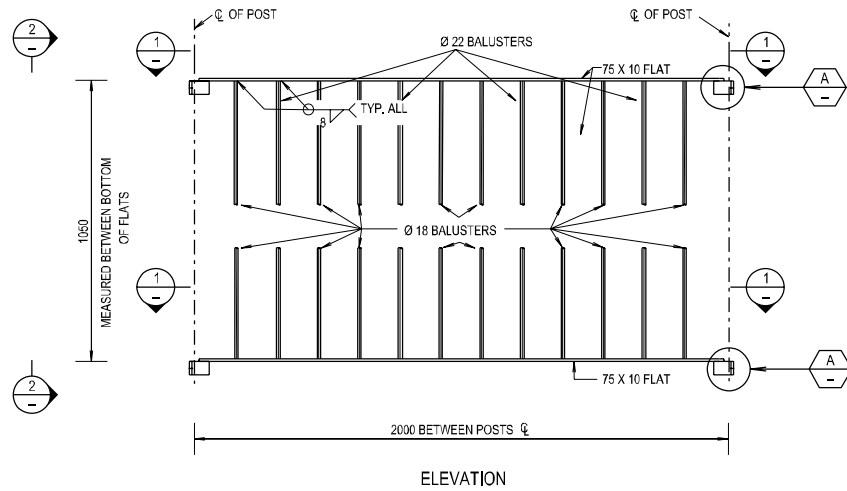
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## Appendix 9 Standard drawing - R0800 Fencing series (Pedestrian Fence)

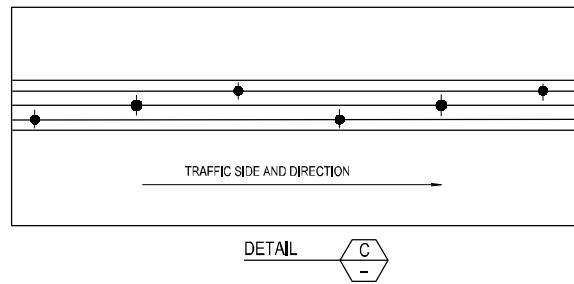
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**ANGLE BRACKETS**



ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN

SCALES ON A3 SIZE DRAWING

CONTACT DETAILS  
SEND FEEDBACK ON THIS STANDARD DRAWING TO:  
technologystandards@rms.nsw.gov.au

ISSUED  
SFR  
MANAGER ROAD POLICY, SPECIFICATIONS & TECHNOLOGY

DATE: 20/1/17



PREPARED BY  
ENGINEERING SERVICES  
ROAD POLICY, SPECIFICATIONS AND  
AND TECHNOLOGY

**STANDARD DRAWING**  
ROAD DESIGN ENGINEERING  
R0800 FENCING SERIES  
PEDESTRIAN FENCE  
TYPE 1 - VERGE

STANDARD DRAWING No. **R0800-15**

STATUS  
ISSUED

EDMS No.  
DS2014/006002

ORIGINAL ISSUE DATE  
JANUARY 2017

SHEET 1 OF 1

A3



Sasha Kovacina  
Project Manager  
Roads and Maritime Services  
Level 9, 10-14 Smith Street  
Parramatta NSW 2150  
Address

Via email: [sasha.kovacina@rms.nsw.gov.au](mailto:sasha.kovacina@rms.nsw.gov.au)  
cc: Maria Doumit, [maria.doumit@rms.nsw.gov.au](mailto:maria.doumit@rms.nsw.gov.au)  
Ronald Proft, [ron@newfrontier.net.au](mailto:ron@newfrontier.net.au)

Dear Sasha,

**APPLICATION UNDER S60 OF THE HERITAGE ACT 1977  
MAHRATTA AND SITE, STATE HERITAGE REGISTER ITEM No 00708**

**Proposal:** Road widening, impacting up to 3.5 m into the curtilage of Mahratta  
Dismantling existing brick wall along eastern boundary and repositioning  
Impact and reinstatement of vegetation at newly established eastern boundary.

**Section 60 application no:** S60/2018/231, received 20 November 2018

**Information received with the application:** As per Condition No. 1

**Additional information requested:** No

As delegate of the Heritage Council of NSW (the Heritage Council), I have considered the above section 60 application. Pursuant to section 63 of the *Heritage Act 1977*, approval is granted subject to the following conditions:

**APPROVED DEVELOPMENT**

1. Development must be in accordance with:
  - a) Architectural drawings prepared for Roads and Maritime Services, as listed in the table below.

Dwg No	Dwg Title	Date	Rev
<b>Project Name: PINCH POINTS UPGRADE AT INTERSECTION OF PACIFIC HIGHWAY AND FOX VALLEY RD, WAHROONGA</b>			
SKT-PW-001081	EXISTING AND PROPOSED RETAINING WALLS PLAN - 1526 PACIFIC HWY WAHROONGA	01.10.2018	0
SKT-PW-001082	EXISTING AND PROPOSED RETAINING WALLS ELEVATIONS - 1526 PACIFIC HWY WAHROONGA	01.10.2018	0
SKT-PW-001083	EXISTING AND PROPOSED RETAINING WALLS SECTIONS - 1526 PACIFIC HWY WAHROONGA	01.10.2018	0

- b) *Pacific Highway Intersection Improvements: Statement of Heritage Impact for Mahratta, 1526 Pacific Highway, Wahroonga, Phillips Marler, September 2018.*

**EXCEPT AS AMENDED by the conditions of this approval.**

**LANDSCAPE PLAN**

2. A landscape plan must be completed prior to the commencement of works. The landscape plan must provide detailed drawings, specifications and timelines for the removal of trees, restoration of impacted gardens beds, path and new tree plantings. It must encompass Recommendations 4 and 5 within the *Statement of Heritage Impact*, prepared by Phillips Marler, 27 September 2018. The plan must be developed by an experienced landscape heritage specialist with knowledge of the site. The plan is to be developed to the satisfaction of the Owners and the Heritage Division. Evidence indicating the Owner's agreement to the final design is to be submitted to the Heritage Division.

*Reason: These conditions will act to ensure that the impact on the of the Eastern garden is minimised and visual character of the site is maintained.*

### **RECONSTRUCTION WORKS**

3. The reconstructed perimeter brick wall must match the existing like for like using bricks that are as close as possible to the original colour and texture. It must also match bond pattern and brickwork detailing. The finalised design including finishes must be provided to the satisfaction of the Heritage Division.
4. Archival recording, including detailed drawings, must be undertaken prior to demolition of the existing brick wall to enable accurate reconstruction of the wall including bond patterning and brickwork detailing.
5. Should the existing brick 'meditation' path require removal to undertake the broader works program, it must be reinstated using the existing brick paving, and utilise the existing pattern including arrangement of the polychromatic brickwork, laying technique, and open joints. Prior to removal, a photographic recording must be undertaken to ensure reconstruction is as accurate to the original configuration as possible. Provision must also be made for the safe storage of the bricks on site until they can be reused.

*Reason: To ensure that the impact on the visual character of the perimeter wall and path is minimised and that the demolition of the Pacific Highway boundary will not have a materially detrimental effect on the heritage significance of the site.*

### **SITE PROTECTION**

6. Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed.

*Reason: To ensure significant fabric including vegetation is protected during construction.*

### **UNEXPECTED HISTORICAL ARCHAEOLOGICAL RELICS**

7. The applicant must ensure that if unexpected archaeological deposits or relics not identified and considered in the supporting documents for this approval are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

*Reason: This is a standard condition to identify to the applicant how to proceed if historical archaeological deposits or relics are unexpectedly identified during works.*

## COMPLIANCE

8. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

*Reason: To ensure that the proposed works are completed as approved.*

## DURATION OF APPROVAL

9. This approval will lapse five years from the date of the consent unless the building works associated with the approval have physically commenced.

*Reason: To ensure the timely completion of works.*

## ADVICE

Section 148 of the *Heritage Act 1977* (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

## RIGHT OF APPEAL

If you are dissatisfied with this determination appeal may be made to the Minister for Heritage under section 70 of the *Heritage Act 1977*.

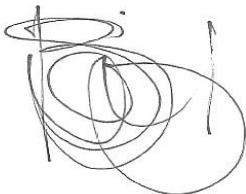
## NOTE

**The property acquisition and change of curtilage cannot be undertaken under a Section 60 application. Curtilage changes come under Section 32 of the NSW *Heritage Act 1977*. For information on how to modify State Heritage Register curtilages, please contact Regional Heritage Operations, North Metro, Heritage Division at [heritagemailbox@environment.nsw.gov.au](mailto:heritagemailbox@environment.nsw.gov.au)**

It should be noted that an approval under the *Heritage Act 1977* is additional to that which may be required from other Local Government and State Government Authorities in order to undertake works.

If you have any questions regarding this approval for Mahratta and Site (S60/2018/231) please contact Verena Mauldon, Senior Heritage Officer at the Heritage Division, Office of Environment and Heritage, on telephone 9895 6512 or by e-mail: [verena.mauldon@environment.nsw.gov.au](mailto:verena.mauldon@environment.nsw.gov.au)

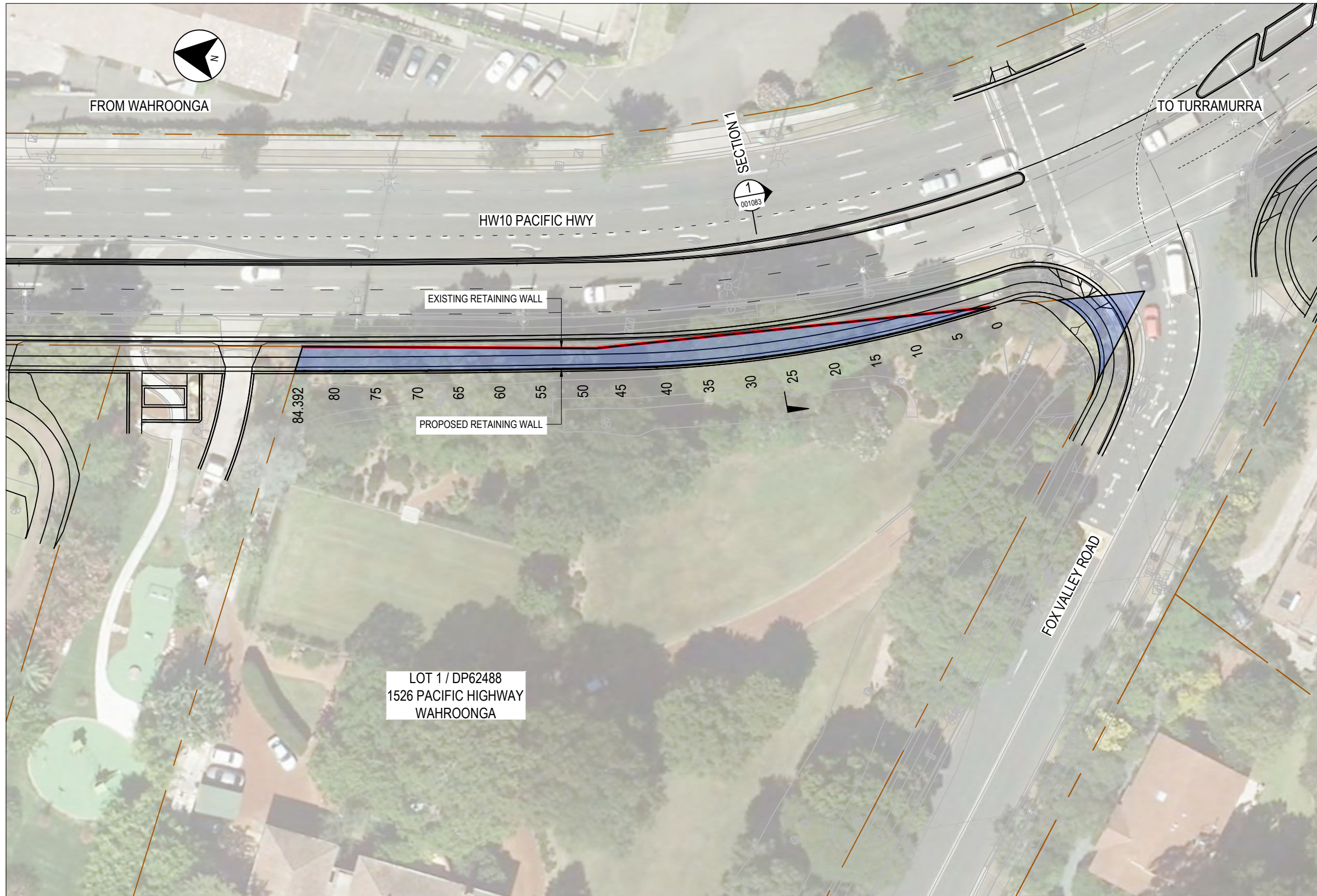
Yours sincerely



**Sarah Jane Brazil**

Senior Team Leader Major Projects  
Heritage Division, Office of Environment and Heritage  
**As Delegate of the Heritage Council of NSW**

31 January 2019



LEGEND	
	EXISTING RETAINING WALL
	PROPOSED RETAINING WALL
	EXISTING SURVEY
	PROPOSED ROAD
	PROPOSED PROPERTY ACQUISITION

**HERITAGE ACT 1977  
APPLICATION UNDER SECTION 60**

**Application No:** 2018/S60/231  
**Approved by:** the Heritage Council of NSW  
 Delegated Authority  
**On:** 31/01/2019  
 These plans should be read in conjunction with  
 the decision notice  
  
 (for) Delegate  
 Heritage Council

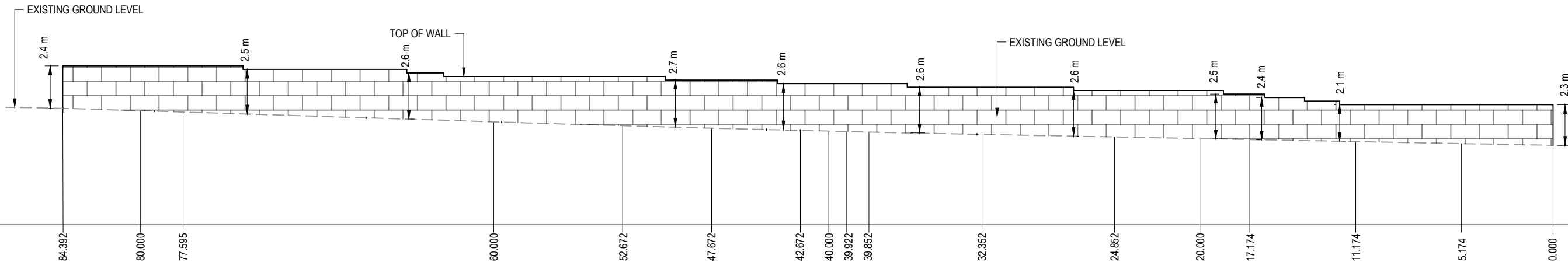
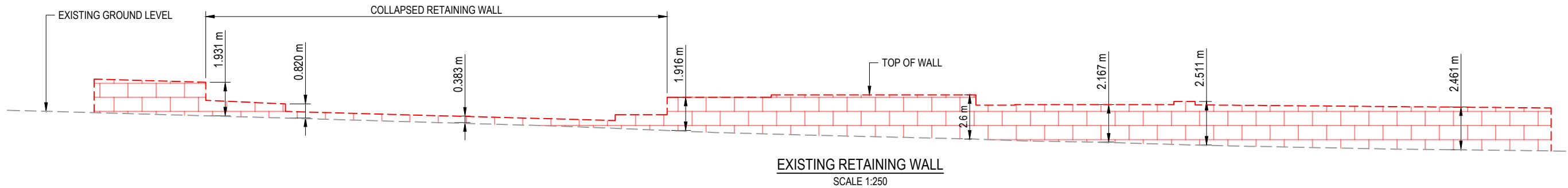
**RETAINING WALL PLAN**  
SCALE 1:500

FOR INFORMATION ONLY

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EXTERNAL REFERENCE FILES	REV / DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE
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							DESIGN CHECK	A.PEREZ	31.08.2018
							DESIGN MNGR	J.CALDERON	31.08.2018
							PROJECT MNGR	R.COLLINS	31.08.2018
							Transport Roads & Maritime Services	PREPARED FOR SYDNEY DIVISION EASING SYDNEY'S CONGESTION PINCH POINTS NORTH	RMS REGISTRATION No. <b>FOR INFORMATION ONLY</b> SHEET No. SKT-PW-001081 ISSUE No. 0

**LEGEND**

- EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- EXISTING SURVEY



**PROPOSED RETAINING WALL**  
SCALE 1:250

**HERITAGE ACT 1977**  
**APPLICATION UNDER SECTION 60**

**Application No: 2018/S60/231**

**Approved by: the Heritage Council of NSW**  
Delegated Authority

On: 31/01/2019

These plans should be read in conjunction with  
the decision notice

(for) Delegate  
Heritage Council

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**LEGEND**

- - - - - EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- EXISTING SURVEY
- EXISTING BOUNDARY
- PROPOSED BOUNDARY

**HERITAGE ACT 1977**  
**APPLICATION UNDER SECTION 60**

**Application No:** 2018/S60/231

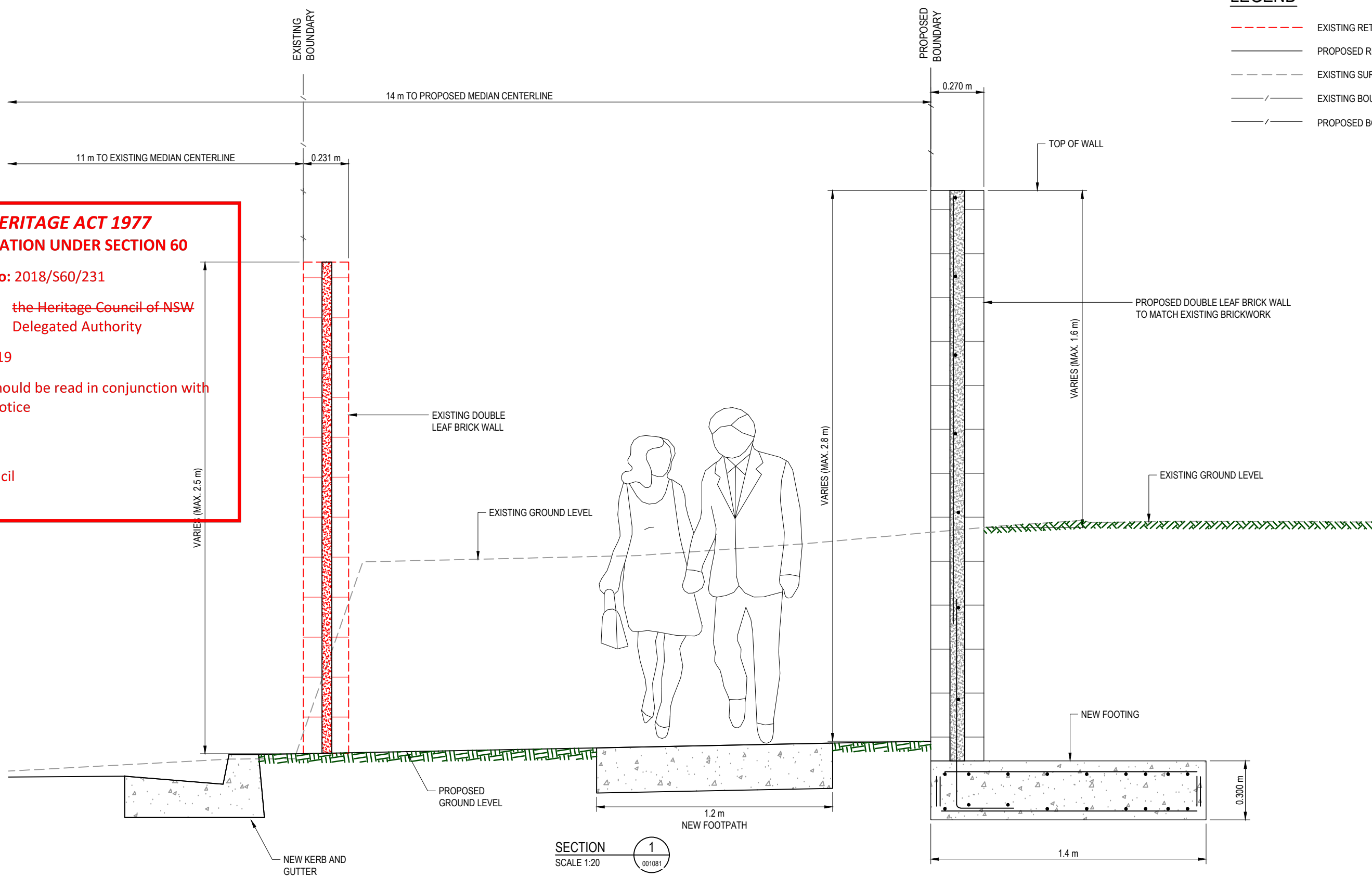
**Approved by:** the Heritage Council of NSW  
Delegated Authority

**On:** 31/01/2019

These plans should be read in conjunction with  
the decision notice

*[Signature]*

(for) Delegate  
Heritage Council



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