

ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

LINDFIELD LEARNING VILLAGE, LINDFIELD

29 AUGUST 2018
SH801
FINAL
PREPARED FOR NSW DEPARTMENT OF EDUCATION

URBIS

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EXECUTIVE SUMMARY

This Aboriginal Cultural Heritage Assessment Report ('ACHAR') has been prepared by Urbis on behalf of the NSW Department of Education (DoE) (the 'Applicant') in support of State Significant Development Application (SSD 8114) for the development of the 'Lindfield Learning Village' within the former UTS Ku-ring-gai Campus at 100 Eton Road, Lindfield (the 'Study Area').

Preparation of this ACHAR has included:

- Research into the historical and environmental context of the Study Area. This research found that the Study Area would have had the potential to contain Aboriginal sites/objects prior to disturbance. However, this research also found that the Study Area has been subject to severe and extensive disturbance;
- A search of the NSW Aboriginal Heritage Information Management System (AHIMS). The AHIMS search conducted shows that no Aboriginal archaeological sites or places are recorded in or within 50 metres of the Study Area. The closest registered site is located outside of the Study Area, approximately 60 metres to the south of the southern boundary of the Study Area and well outside of any of the proposed impact areas. This site, being AHIMS #45-6-2210, is registered as a rock shelter site containing a shell midden deposit.
- A desktop assessment, including a review of previous archaeological and heritage studies in the vicinity of the Study Area, was undertaken. This review suggested that rock shelter and artefact sites were the most commonly encountered site types in the area, though the results of previous investigations as well as the extent to which the Study Area has been disturbed (and the absence of suitable rock shelters, rock outcrops and rock platforms within the Study Area and proposed impact areas specifically) indicates that the potential for such sites to be encountered within the Study Area is low to nil;
- A visual inspection of the Study Area. During this inspection, no Aboriginal objects were identified. The visual inspection assessed that the Study Area had been severely disturbed, and that the archaeological potential of the Study Area is low. The visual inspection also confirmed that AHIMS #45-6-2210 is located well outside of the any of the proposed impact areas;
- Consultation with the Metropolitan Local Aboriginal Land Council (LALC). The Metropolitan LALC has acknowledged that the Study Area is disturbed, and is unlikely to contain any intact archaeological material or deposits. Through consultation with the LALC, it was determined that the Study Area specifically, owing to the extent of disturbance that has occurred, was not considered to be of any particular cultural or spiritual significance to the community. This consultation is documented within **Table 1** and discussed at **Section 10**, with relevant recommendations incorporated at **Section 12**.

Overall, the archaeological potential and sensitivity of the Study Area has been assessed as low. No Aboriginal sites or objects were identified within the Study Area as part of the current assessment, and no previously recorded sites, as registered on AHIMS, are located within the Study Area or in proximity to proposed impact areas.

Based on the above, there is limited to no identified risk of harm to any Aboriginal sites or objects associated with the proposed works. It has therefore been determined that no further Aboriginal archaeological investigation is required for the currently proposed works, provided that the recommendations presented at **Section 12** of this report are followed. It is noted that these recommendations have been developed in consultation with the Metropolitan LALC.

1. INTRODUCTION

1.1. BACKGROUND

This Aboriginal Cultural Heritage Assessment Report ('ACHAR') has been prepared by Urbis on behalf of the NSW Department of Education (DoE) (the 'Applicant') in support of State Significant Development Application (SSD 8114) for the development of the 'Lindfield Learning Village' within the former UTS Ku-ring-gai Campus at 100 Eton Road, Lindfield (the 'Study Area').

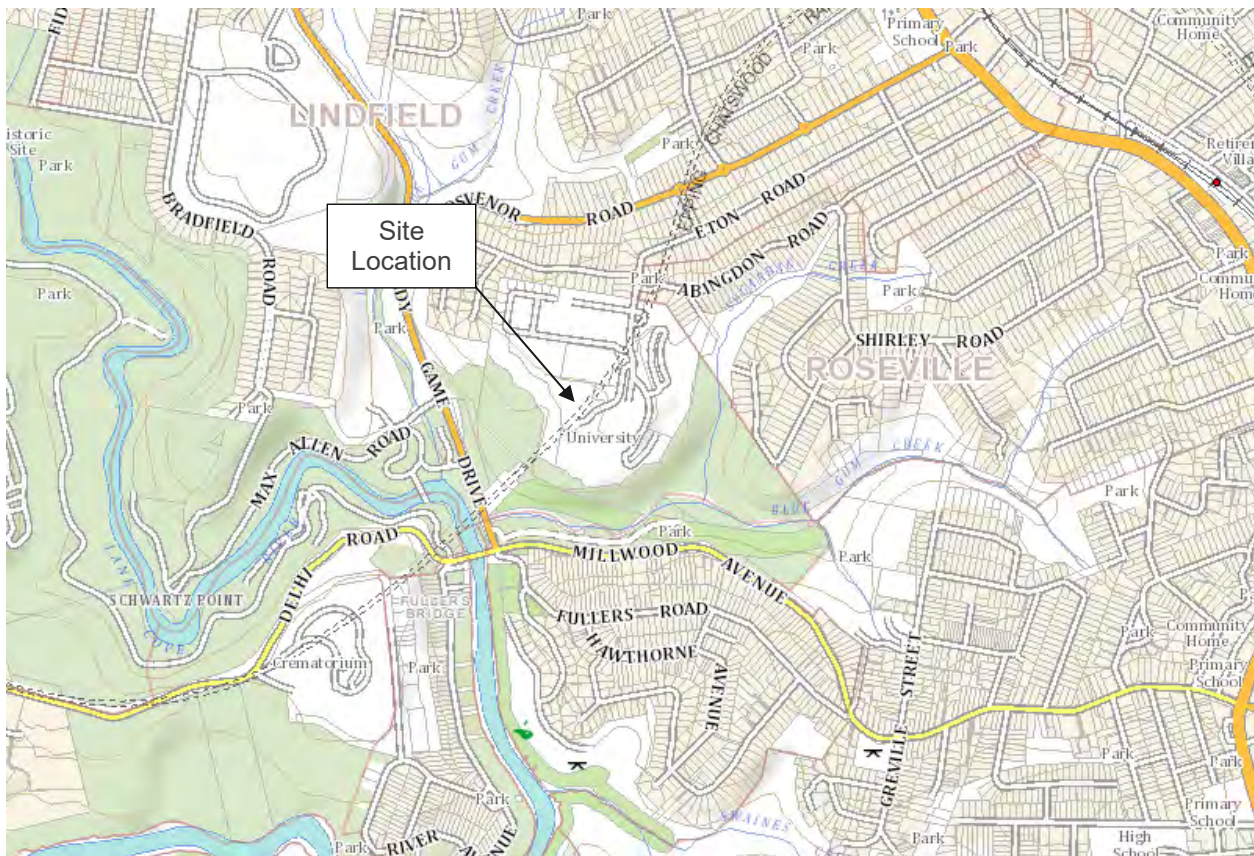
This ACHAR has been prepared as a requirement of the Secretary's Environmental Assessment Requirements (SEARs) for the project.

1.2. SITE LOCATION

The Study Area (**Figure 1**) comprises the former UTS Ku-ring-gai Campus, located within the suburb of Lindfield, and within the Ku-ring-gai Local Government Area (LGA). It comprises Lot 2 and Lot 4 DP1151638.

The Study Area is bounded by Dunstan Grove and Eton Road to the north, by two carpark areas to the east, and by the Lane Cove National Park to the west and south.

Figure 1 – Site location map



Source: <https://maps.six.nsw.gov.au/>

1.3. THE PROPOSAL

The proposal involves the redevelopment of the former UTS Ku-ring-gai Campus for the purposes of a new school to be known as the Lindfield Learning Village.

To address submissions from Council and RFS following the exhibition of the Environmental Impact Statement (EIS) and to ensure a school can open in time for Term 1 2019, the proposal has been amended as follows:

- Removal of the childcare centre from the SSD application; and
- New phasing within Construction Stage 1, detailed below. Construction Stage 2 remains as previously proposed.

Construction Stage 1

Phase 1 will comprise

- One home-base accommodating 350 students from Kindergarten to Year 12;
- All requisite technical spaces to support a full primary and secondary curriculum;
- Administration space for approximately 30-50 staff;
- Construction of a 4m wide access trail for bushfire trucks to the south of the building;
- Fencing of the green space around the perimeter of the site.
- Remediation of targeted roof areas to create additional outdoor play areas; and
- Traffic and transport infrastructure associated with the parking and drop-off/pick-up area.
- Tree removal to establish a 100m APZ around the perimeter of Phase 1.

Phases 2A and 2B:

Phase 2A includes the remainder of the original Construction Stage 1, while Stage 2B includes the repurposing of the Phase 1 area. Phases 2A and 2B will comprise

- Three home-bases totalling approximately 1,000 students (inclusive of the 350 students in Phase 1) from K-12 in the eastern wing of the building.
- All requisite technical spaces to support a full primary and secondary curriculum for 1,000 students;
- Administration space for approximately 80 staff;
- Fencing of the green space around the perimeter of the site, if any remains to be fenced after Phase 1 fencing has been completed;
- Remediation of any targeted roof areas to create additional outdoor play areas if they have not already been remediated under Phase 1; and
- Traffic and transport infrastructure associated with the parking and drop-off/pick-up area if it has not been provided under Phase 1.

Construction Stage 2

Phase 3 will comprise:

- Three home-bases totalling approximately 1,100 students from K-12 in the western wing of the building;
- Additional administration space for approximately 80 staff; and
- Remediation of targeted roof areas to expand outdoor play areas.

The following changes have been made to the proposed development since the exhibition of the EIS and are generally in response to the submissions received:

- The extent of 'coloured' external cladding has been reduced and has been applied to discrete areas of the external facades and COLA structures to minimise the prominence and visual impact on the heritage significance of the building.
- The proposed landscaping and design of the rooftop terrace areas has now been resolved and is documented in the landscape plans at **Appendix B**. The proposal now incorporates a designated fire track around the southern perimeter of the school.

The proposed works will occur within previously disturbed areas of the overall site, or in areas that do not demonstrate any evidence of sub-surface conditions that indicate the likely presence of Aboriginal archaeological deposits (e.g. shallow [< 5 centimetres] soils). This ACHAR is based on the proposed works described above and shown within the plans included at **Appendix B**. It is noted that all works are confined to the Study Area boundary shown in **Figure 1**.

It is also noted that the Remediation Action Plan (prepared by Environmental Investigation Services) for the Study Area notes that relevant vibration and noise impact limits will be adhered to, effectively avoiding any risk of indirect impact to the rock shelter site located 60 metres to the south of the Study Area as a result of vibration works associated with construction.

1.4. METHODOLOGY

This report has been prepared in accordance with the following documents prepared by the NSW OEH:

- *Due Diligence Code of Practice for Protection of Aboriginal Objects in NSW*
- *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW*
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents*

As required by the relevant SEARs, this report has been prepared in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*, and includes consultation with the relevant Local Aboriginal Land Council (LALC) (refer to **Section 2.5**).

1.5. AUTHOR IDENTIFICATION

The following report has been prepared by Karyn Virgin (Senior Heritage Consultant/Archaeologist) with 2018 amendments by Holly Maclean (Senior Heritage Consultant) and Erin Dethridge (Senior Consultant). Stephen Davies (Heritage Director) has reviewed and endorsed its content.

Unless otherwise stated, all drawings, illustrations and photographs are the work of Urbis.

2. LEGISLATIVE CONTEXT

2.1. THE NATIONAL PARKS AND WILDLIFE ACT 1974 (NSW)

The *National Parks and Wildlife Act 1974* (NSW) (the 'NPW Act') is the primary piece of legislation for the protection of Aboriginal cultural heritage in New South Wales. The Office of Environment and Heritage (OEH) administer the NPW Act. The NPW Act provides statutory protection for Aboriginal objects by making it illegal to harm Aboriginal objects and Aboriginal places, and by providing two tiers of offence against which individuals or corporations who harm Aboriginal objects or Aboriginal places can be prosecuted. The NPW Act defines Aboriginal objects and Aboriginal places:

Aboriginal object means 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.

Aboriginal place means any place declared to be an Aboriginal place under section 84. The highest tier offences are reserved for knowledgeable harm of Aboriginal objects or knowledgeable desecration of Aboriginal places. Second tier offences are strict liability offences—that is, offences regardless of whether or not the offender knows they are harming an Aboriginal object or desecrating an Aboriginal place—against which defences may be established under the National Parks and Wildlife Regulation 2009 (NSW) (the 'NPW Regulation').

Section 87 of the NPW Act establishes defences against prosecution under s.86 (1), (2) or (4). The defences are as follows:

- An Aboriginal Heritage Impact Permit (AHIP) authorising the harm (s.87(1))
- Exercising due diligence to establish Aboriginal objects will not be harmed (s.87(2))

Due diligence may be achieved by compliance with requirements set out in the National Parks and Wildlife Regulation 2009 (the NPW Regulation) or a code of practice adopted or prescribed by the NPW Regulation (s.87(3))

2.2. THE NATIONAL PARKS AND WILDLIFE REGULATION 2009 (NSW)

The NPW Regulation 2009 (cl.80A) assigns the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (NSW Department of Environment, Climate Change and Water (DECCW) 2010, now OEH) (the DDCoP) as one of the codes of practice that can be complied with pursuant to s.87 of the NPW Act.

Disturbed land is defined by cl.80B (4) as "disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable". Examples given in the notes to cl.80B (4) include "construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure)".

2.3. THE DUE DILIGENCE CODE OF PRACTICE FOR THE PROTECTION OF ABORIGINAL OBJECTS IN NEW SOUTH WALES 2010

The DDCoP describes the process that must be followed and the actions that must be taken by a proponent, and the site conditions that must be satisfied, to show due diligence in the consideration of potential harm to Aboriginal objects.

The DDCoP sets out a basic framework with the following steps followed in order to make an assessment of whether or not proposed activities may impact Aboriginal objects:

- **Step 1.** Will the activity disturb the ground surface?
- **Step 2a.** Search the AHIMS database and use any other sources of information of which you are already aware

- **Step 2b.** Activities in areas where landscape features indicate the presence of Aboriginal objects
- **Step 3.** Can the harm or the activity be avoided?
- **Step 4.** Desktop assessment and visual inspection
- **Step 5.** Further investigations and impact assessment

The process set out in the DDCoP involves consideration of harm to Aboriginal objects at increasing levels of detail, with additional information incorporated at each step and used to support the decisions being made. If the proposed activities are not “low impact activities” (a defence for which is provided under the Regulation) the considerations result in a determination of whether or not:

- further approval (an AHIP) under the NPW Act is required, or;
- Due Diligence obligations for the protection of Aboriginal objects are discharged by the process under the DDCoP.

Aboriginal consultation is not required for an investigation under the DDCoP.¹ However, if the due diligence investigation shows that the activities proposed for the area are likely to harm known or unknown objects within the landscape, then an AHIP will be required with full consultation.

A record of the due diligence procedure followed must be kept to ensure it can be used as a defence from prosecution.²

Following a due diligence assessment (where an AHIP application was not required), an activity must proceed with caution. If any Aboriginal objects are identified during the activity, then works should cease in that area and OEH notified.³ The due diligence defence does not authorise continuing harm.

2.4. NATIONAL NATIVE TITLE REGISTER (NNTR)

The *Native Title Act 1993* (Cth) (NTA) provides the legislative framework to:

1. recognise and protect native title
2. establish ways in which future dealings affecting native title may proceed and to set standards for those dealings, including providing certain procedural rights for registered native title claimants and native title holders in relation to acts which affect native title
3. establish a mechanism for determining claims to native title
4. provide for, or permit, the validation of past acts invalidated because of the existence of native title.

The NSW *Native Title Act 1994* was introduced to make sure the laws of NSW are consistent with the Commonwealth’s NTA on future dealings. It validates past and intermediate acts that may have been invalidated because of the existence of native title. The National Native Title Tribunal has a number of functions under the NTA, including maintaining the Register of Native Title Claims, the National Native Title Register and the Register of Indigenous Land Use Agreements and mediating native title claims.

A search of the National Native Title Register showed that there are no registered Native Title claims that apply to the Study Area.

2.5. ABORIGINAL COMMUNITY CONSULTATION

This ACHAR has determined that no known Aboriginal heritage places exist within the Study Area (refer **Section 7**), the Study Area has low potential to contain as yet unidentified Aboriginal sites or objects (refer **Section 9**), and that the current proposal therefore poses minimal to no identified risk of harm to known or potential Aboriginal sites or objects.

¹ DECCW 2010:3

² DECCW 2010:15

³ DECCW 2010:13

This is supported by the findings of a previous assessment of the Study Area which included consultation with Metropolitan Local Aboriginal Land Council (Jo McDonald Cultural Heritage Management 2004; refer **Section 7.3**) as well as other assessments/investigations undertaken in the immediate landscape which have formed similar conclusions.

However, the relevant SEAR requires consultation be undertaken with the Aboriginal community in order to appropriately assess the cultural heritage significance and values of the wider local area and the Study Area more specifically. Recent correspondence received from OEH (DOC18/454944, dated 16 August 2018) states, with regard to consultation requirements, that:

'To be consistent with the SEARs, an Aboriginal Cultural Heritage Assessment Report (ACHAR) is required to be prepared and extensive consultation should be undertaken. OEH recommended in its submission that at a minimum consultation should be undertaken with the LALC to fulfil the requirement of the SEARs to consult with Aboriginal people, and this should be documented in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.

The Aboriginal Cultural Heritage Impact Assessment (ACHIA) that was provided with the RTS should be sent to the Metropolitan LALC and they should be invited to comment on this report. Advice from the LALC should be sought as to whether there are any Aboriginal people that have cultural knowledge, historical information about the site that needs to be investigated.'

In accordance with the above requirement for consultation, consultation has been undertaken with the Metropolitan LALC. This consultation is summarised for reference in **Table 1**, below. The outcomes of the consultation, as they relate to cultural heritage and values, are discussed in **Section 10**.

Table 1 – Consultation log

Date	Type of Consultation	Consultation
10 August 2018	Phone	Metropolitan LALC contacted via phone. No answer and no voicemail option.
14 August 2018	Email	Email sent to the Metropolitan LALC containing a copy of the Aboriginal Cultural Heritage Impact Assessment (ACHIA) previously prepared for the Study Area/project, and inviting them to provide comment and input on the previous report, as well as the ACHAR report in preparation.
14 August 2018	Phone	Contacted the LALC via phone to follow up on email sent that earlier day. Was advised that the LALC would consider the matter internally and respond.
15 August 2018	Phone	Contacted the LALC via phone to follow up on email sent and phone call made on 14 August 2018. Was advised to send the original email (14 August) to an alternate email address. Was advised that representatives of the LALC would discuss the matter internally, and respond when available.
16 August 2018	Email	Email originally sent on 14 August, containing the previously prepared report, re-sent to alternate email address provided on the 15 August via phone.
21 August 2018	Email	A copy of the revised ACHAR report was sent to the LALC (to all known email addresses) for their final review and comment.
23 August 2018	Phone	Phone call to the LALC to enquire as to any comments or input on the revised ACHAR report sent via email. Was advised that the LALC's

Date	Type of Consultation	Consultation
		Culture and Heritage Officer, Selina Timothy, was not in the office, and to try the next day.
24 August 2018	Phone	Phone call to the LALC to speak with the Culture and Heritage Officer Selina Timothy as advised the previous day. Was advised that Selina was not available, but to email the ACHAR report through to their direct email address again.
24 August 2018	Email	Re-sent the revised ACHAR report to the LALC's Culture and Heritage Officer Selina Timothy's direct email.
24 August 2018	Phone	Phone call to LALC CEO Nathan Moran (via mobile) to discuss the project. The phone was not answered, and a voicemail was left.
27 August 2018	Phone	Phone call to LALC CEO Nathan Moran (via mobile) to discuss the project. The phone was not answered, and a voicemail was left.
27 August 2018	Phone	Phone call to the LALC to speak with Culture and Heritage Officer Selina Timothy as advised the previous Friday. Was advised that Selina was not available and to try again the next day.
27 August 2018	Phone	Phone call to the LALC to speak with Culture and Heritage Officer Selina Timothy as advised the previous day. Spoke to Selina Timothy, LALC Culture and Heritage Officer. Selina was provided with a brief verbal overview of the project; Selina asked for a contact number, and advised she would be in touch.
28 August 2018	Phone	Phone call to the LALC to speak with Culture and Heritage Officer Selina Timothy to follow-up on the consultation process. Selina asked for the ACHAR report to be emailed through again for review.
29 August 2018	Email	<p>Email received from Nathan Moran, Metropolitan LALC CEO, and Selina Timothy, Culture and Heritage Officer, in response to the ACHAR provided for review (Appendix D).</p> <p>The Metropolitan LALC provided a number of recommendations which have been incorporated at Section 12 of this ACHAR. They also provided additional, clarifying ethnohistorical and cultural information which has been included at Section 10 of this ACHAR.</p> <p>The Metropolitan LALC did not dispute any of the findings or conclusions of this ACHAR as they relate to Aboriginal archaeological potential, and did not indicate that any other groups or Aboriginal parties were required to be consulted as part of this ACHAR.</p>

3. SITE DESCRIPTION

The Study Area comprises the former UTS Ku-Ring-Gai campus, as well as a relatively limited area of surrounding bushland to the south/south-east.

The former campus is located on a ridgeline set above the Lane Cove River. The surrounding bushland forms part of the eastern extremity of the Lane Cove National Park, with the eastern, southern and western edges of the Study Area falling into valleys above the Lane Cove River. These areas are steeply sloped, and comprise heavily wooded bushland and a number of sandstone outcrops and exposed sandstone bedrock.

To the immediate north of the Study Area, on the opposite side of Dunstan Grove, are relatively recently completed residential flat buildings. Further north of this is a playing field (Charles Bean Oval), and further north again is high density residential development situated within Lindfield proper.

The former campus contains a number of buildings, parking areas (Carpark A and B, both located on the eastern side of the Study Area), outdoor recreation areas and the Charles Bean Oval mentioned above. Former campus buildings include a large auditorium, several lecture theatres and practical teaching class rooms/laboratories, administrative and faculty offices, cafeteria, library, conference facilities, gymnasium, sporting oval and tennis courts, boat shed as well as other auxiliary buildings.

Further information regarding the landscape and environmental context of the Study Area is provided at **Section 6**.

Figure 2 – Aerial view of the Study Area, showing both allotments (indicated by red dashed line)



Source: <https://maps.six.nsw.gov.au/>

4. ETHNOHISTORICAL CONTEXT

The following ethnohistorical context has been sourced, in its entirety, from the *Central Region Aboriginal Sites Planning Study: Lane Cove River State Recreation Area*, prepared by the NSW National Parks and Wildlife Service in 1990.

Members of the First Fleet and other settlers and explorers made records of their observations of the Aboriginal people of Port Jackson. These records can be used, with information from linguistics and archaeology, to reconstruct different aspects of the culture of the original inhabitants of Sydney. While these ethnohistorical records are a valuable source of information they cannot be uncritically used for a number of reasons. Europeans were not unbiased recorders, being overly influenced by the concept of the noble savage or prone to denigrate a culture of which they had little understanding.

They also tended to emphasise the notable or visible at the expense of the commonplace. One example is fishing and shell fish gathering frequently referred to by early writers. Hunting by comparison is rarely mentioned, one can assume it took place in woodland or bush settings at some distance from European settlements, which would have displaced game. It was therefore an activity difficult to observe, unlike the exploitation of marine and estuarine resources, which took place on the open waters and shores of the harbour. We know from archaeological evidence that the inhabitants of Port Jackson did not rely solely on marine resources.

Women's activities are also under-reported, perhaps because women took pains to avoid Europeans in early months of European settlement, rather than any lack of interest on the part of recorders.

The reports also contain some terms, such as tribe, which were used indiscriminately. A tribe is a group of people who speak a common language and share certain customs. A clan is a subgroup of a tribe, in whom ownership of land is vested and through whom descent is reckoned. Clans consist of a number of family groups (sometimes referred to as hordes), and around Port Jackson they numbered 30 or 40 people. British settlers seem to have believed that Aboriginal tribes were more hierarchical and authoritarian than was the case. Their habit of selecting elders as "chiefs", on whom they conferred breast plates so inscribed,⁴ supports this misinterpretation. They also used the term to describe different clans or even hordes of the one tribe.

Finally, the evidence from these early sources can only be used to reflect the situation around the time of contact with Europeans and not to extrapolate into the distant past.

4.1. CLARIFICATION ON ETHNOHISTORICAL CONTEXT PROVIDED BY METROPOLITAN LALC

It is noted that review and comment provided by the Metropolitan LALC (refer to **Section 10.1**) has provided further information regarding the ethnohistorical information provided below, as sourced directly from the *Central Region Aboriginal Sites Planning Study: Lane Cove River State Recreation Area*, prepared by the NSW National Parks and Wildlife Service in 1990.

Comments from the Metropolitan LALC in this regard are:

- Metropolitan LALC (MLALC) acknowledges Gamaragal aka Cameragal of the Eora Nation as traditional owners of Lindfield being the site of the proposed development.
- MLALC affirms that Guringai is actually the 1st Nations of the Barrington Tops area. And notes that Guringai has been misappropriated by Non 1st Nations people as Traditional owners of the North Shore & Northern area of Sydney as it is known today. MLALC acknowledges Penal colony records attesting that Newcastle and Port Stephens 1st Nations people and or Aboriginal people were in Sydney's Domain and or Government house area in 1828 and more than likely is the cause of the misapprehension and wrongful application of the Guringai being Traditional owners of the Northern Sydney Metropolitan area. Attached is paper Filling the Void, by Aboriginal Heritage Office, to assist informing the misuse of Guringai as Traditional owners in Sydney

⁴ Novosil'sky in Barratt, 1981: 29

- Dharug is a creation of Non Aboriginal R H Mathews in 1905 as a untrained anthropologist whom created the word Dharug without any reference of Aboriginal & or 1st Nations informants or sources. MLALC notes this is promoted by Macquarie University academics without any consolation and or authority of Metropolitan LALC as the legislated authority for protection & preservation of Aboriginal Culture & Heritage for the area of this proposed development.
- MLALC notes that the Colony records attest that the Garinggal people resisted Colonisation of subject area for approximately 20 years until being forced by military and militias out of the area.

4.2. TRIBES AND CLANS OF PORT JACKSON

There is good historical and linguistic evidence for the existence of two tribes on the northern shore of Port Jackson. Along the coast lived the Guringai, whose territory extended from the southern shores of Broken Bay to the northern shores of Port Jackson and inland to the Lane Cove River, perhaps as far as Parramatta. The Dharug lived to the west, on the northern Cumberland Plain, as far as the Blue Mountains.⁵ This evidence is outlined below.

Tribes

The Guringai seem to have shared the custom of ceremonial tooth evulsion. In 1788 Collins wrote:

*"to the tribe of Cammeray also belonged the exclusive privilege of extracting a tooth from the natives of the other tribes inhabiting the sea coast"*⁶

The latter part of his statement implies that those people living away from the coast did not share this custom, however it may not have been universal amongst the Guringai as Tench noted:

*"the deficiency of one of the foreteeth of the upper jaw seen in almost all men"*⁷

The rite evidently survived for at least a generation after contact because it was reported by Rossiysky (in 1814) as a marriage custom (incorrectly - it was an initiation ritual) and by Novosil'sky (in 1820). However both these writers report that two front teeth were removed in the ceremony not one.⁸

The people living inland on the northern Cumberland Plain did not have a custom of tooth evulsion. Tench and Phillip made a number of journeys to the west and the men they met around the Hawkesbury River possessed all their teeth.⁹

Supporting evidence for the tribal division is provided by linguistics. In 1820 Bellinghausen reported:

*"Their language is not everywhere the same: the natives who live around Sydney understand each other but those who occupy the territories by Newcastle or Port Stephens, or who come from the other bank of the Nepean River, cannot understand the Sydney natives at all"*¹⁰

The people living inland spoke a different language to those in Sydney (Ross, 1976: 20). In 1970 Capell used this evidence, word lists compiled by Collins and Hunter in the 1790's, and lists compiled by Threlkeld in 1824, to compile a map of the Sydney tribes. He concluded that the Guringai occupied the northern shore of Port Jackson on the coast and that the Dharug bordered them on the west.¹¹ He placed the boundary between the tribes in the vicinity of Lane Cove, though ethnohistorical records suggest it was further west near Parramatta.

Additional evidence for the tribal division comes from a number of other sources, though is somewhat less conclusive. Two men from the south side of Port Jackson accompanied Tench and Phillip on some of their expeditions to the west. Colbe and Ballederry (who both had their upper right incisors missing) were reported to know nothing of the western countryside or its people, whom they feared and disliked.¹² Also

⁵ Ross, 1988: 5

⁶ Collins, 1788: 453

⁷ Tench 1793: 46

⁸ Barratt, 1981: 25 and 30

⁹ Ross, 1988: 7

¹⁰ Barratt, 1981: 39

¹¹ Ross, 1988: 9

¹² Ross, 1988: 5

the "native paths" through the bush around Sydney, which were kept clear for travelling, were mainly aligned in a north-south direction¹³ indicating little movement east to west.

It is worth emphasising that the tribe who lived in the Lane Cove area was the Guringai not the Kamilaroi, who lived in northern inland New South Wales. Lind¹⁴ states that the north shore of Sydney Harbour was the southern limit of the Kamilaroi and this error has unfortunately been enshrined in some of the names in the Municipality, as well as being quoted elsewhere.

Clans

The names of the clans living around the Harbour and their territories are generally less well known. Collins recorded that:

*"those who live on the north shore of Port Jackson are called Cam-mer-ray-gal ... we have heard Bennilong and other natives speak (before we knew them ourselves) as of a very powerful people"*¹⁵

Tench also referred to the Cam-mer-ray-gal as a numerous and powerful people.¹⁶ Their territory seems to have been the lower north shore from the coast to near Lane Cove. They are one of the clans most frequently referred to in the early accounts. As described above by Collins they were responsible for the initiation of other clans of the Guringai:

*"through the exclusive and extraordinary privilege of extracting a tooth from the natives of other tribes of the sea coast, or of all such as were within their authority"*¹⁷

Whether their reported predominance extended into the recent prehistoric past cannot be determined from ethnography. It is possible that they were less immediately affected by the settlement at Sydney Cove than some of the groups on the south side of Port Jackson, and managed to retain ceremonies and traditions (such as initiation) for a longer period.

To the west of the Cam-mer-ray-gal was the Wal:urnedegal. They lived west of Lane Cove, according to Capell,¹⁸ and their territory extended up the Parramatta River past Ryde.¹⁹ The name of this clan was reported in a letter by Phillip, but little else is known about the group.

The evidence for the existence of these two clans in the study area is reasonable and it is possible that the boundary between them was marked by the Lane Cove River but this must still be considered speculative.

In view of the Kamilaroi error, mentioned above, it seems worthwhile to consider a report of a third clan or group in the study area. The existence of this third group was reported to the Trust in a letter from Rosemary Taplin, an amateur site recorder. The evidence for this group was said to be stylistic variation in the art in the Lane Cove River Valley. This was uncritically quoted by McLoughin and Wyatt in a report to the Trust in 1989. There is no archaeological, linguistic or ethnographic evidence of a third group. It should be clear from the foregoing discussion that the identification of different tribes (let alone clans) around Sydney is complex and requires the evaluation of a great deal of evidence. While tribal differences may be reflected in art styles (and this will be discussed later) Taplin provided no information to support her contention. A claim based on the consideration of a few art sites (which have not been properly recorded) and which is unsupported by other sources of evidence, cannot be seriously considered.

4.3. ECONOMY

The Guringai were hunter-gatherers whose territory on the coastal strip ensured a different economic emphasis to the inland Dharug. As noted above the Guringai exploited maritime/estuarine resources to the extent that:

¹³ Ross, 1976: 21

¹⁴ Lind 1983: 1

¹⁵ Collins 1798: 453

¹⁶ Tench 1789: 285

¹⁷ Collins 1798: 453

¹⁸ Turbet, 1989: 22

¹⁹ Morris in Rich, 1986: 38

"fishing engrosses nearly the whole of their time"²⁰, and

"near Sydney the poor women have to sit all day in little craft and fish"²¹

"their diet is chiefly fish which is immediately thrown onto burning coals in their boat"²²

Novosil'sky also reported that the two joints of the little finger of the left hand of girls was removed supposedly to help winding in fishing line,²³ though this ceremony may in fact have been part of the initiation of girls, similar to tooth evulsion for boys.

Bradley and Phillip reported the following fish as being caught and eaten by the Guringai: jewfish, snapper, mullet, mackeral, whiting, dory, rock cod and leather-jackets. They said that stingrays and sharks were not eaten.²⁴ The stranding of a whale was the opportunity for a feast, with gatherings of up to two hundred people. Simonov wrote in 1820:

"they treat it as a festive occasion when a dead whale or fish is driven ashore by waves"²⁵

A few references have noted the use of other estuarine and land resources. Tench wrote that if the weather prevented fishing, then people collected shell fish and hunted reptiles and small animals.²⁶ Rossiysky saw a small party gathering mussels, which they roasted on a fire and then ate.²⁷ Lazarev and Bellinghausen also refer to the collection of mussels. Earlier, Cook reported that oysters, cockles and mussels were the most commonly eaten shell fish around Botany Bay.²⁸ On Port Jackson cockles were also used as bait or burley.²⁹ Phillip also saw crawfish and lobsters being caught in small hoop nets. Ant eggs, some insects, birds, snakes and other reptiles and "animals of all kinds" were also exploited.³⁰

These accounts do not provide much support for Poiner's hypothesis that winter was a time when the depletion of marine resources led to the fragmentation of clans into smaller, more mobile groups. These groups were thought to move into the coastal hinterland, where they relied on terrestrial resources. Summer, by contrast, was a time when the resources of the coast were able to support larger groups of people who lived a semi-nomadic existence. There clearly were times when terrestrial resources were important, but this is not on a well-defined seasonal basis. The other complicating factor in the Sydney area was the existence of an inland tribe, the Dharug. There is no evidence at all of Guringai movement into the territory of their neighbours, and a fair amount to indicate restrictions on east-west movement (discussed above).

It also seems to have been accepted that winter is a time when marine resources are seriously depleted. While shell fish lose condition during this period some fish species seem to be more plentiful (flathead for example) or unaffected.

Evidence from archaeological and ethnohistorical sources indicate that the plant foods gathered by women played an important role as reliable staples, when faunal resources were scarce or hunting unsuccessful. From the ethnohistorical accounts of the Sydney people it appears that faunal resources were exploited when the weather allowed, but that plant foods became important when bad weather prevented fishing. There does not appear to have been a clear correlation between the resources being exploited and the season. Accounts made in March, April and May all refer to fishing and the role of fish in the diet, though it may be that winter storms prevented access to this resource and that vegetable foods became correspondingly important at this time of year.

The Aborigines living around Port Jackson were reported to dig up roots in swamps and to broil vegetable foods to render them edible, many of them being poisonous without processing.³¹ Other plant foods

²⁰ Tench, 1793: 48

²¹ Bellinghausen in Barratt, 1981: 42

²² Novosil'sky in Barratt, 1981: 30

²³ Barratt, 1981: 30

²⁴ Rich, 1986: 39

²⁵ Barratt, 1981, 48

²⁶ Tench 1793: 285

²⁷ Barratt, 1981: 25

²⁸ Rich, 1986: 39

²⁹ Tench, 1793: 286

³⁰ Bellinghausen in Barratt, 1981: 35

³¹ Tench, 1793: 48

included berries, fern roots (probably bracken), figs and banksia flowers used to make a sweet drink. As well as the food plants "various medicinal herbs were known".³²

4.4. MATERIAL CULTURE

In contrast to the evidence which survives archaeologically the historical accounts of the Guringai tool kit refer, with two exceptions, to organic items which would rarely survive in the archaeological record.

Just as fishing is emphasised in these accounts so too is the fishing kit. There was a sexual division of labour in fishing methods, with women using a handline from canoes while men speared fish, either from canoes or the shore. Fishhooks were made from bone³³ or shell and the women's handlines were made from bark fibre.³⁴ Women taught their daughters how to plait the fishing lines.³⁵ Fishing spears were described by Bellinghausen as being long and made from a 'gummy plant' stem (probably a *Xanthorrea* flower spike), with a tip like a fork to which small, sharply serrated ones were attached.³⁶ Shell and hardwood barbs have also been reported.

Hunting spears were quite different to fishing spears being tipped with a single prong.³⁷ They were sometimes composites of two pieces of ordinary wood with an ironwood sharpened tip. Examples 4', 8' and 10' long were described by Rossisky in 1814.³⁸

The canoes used for fishing and transport were made from flattened sheets of bark, with stretchers near the ends which were tied with bark fibre.³⁹ They were about 12 feet long and nearly always contained a fire, laid on a bed of clay. Rossisky noted that they were propelled with "a little ti tree paddle".⁴⁰

Guringai weapons, in addition to the spears described above, included hardwood shields, which were oval and convex in shape, and clubs of different sizes, also made of hardwood.⁴¹ Spearthrowers were made of wood and were oval, with a stone or shell adze mounted at one end, this adze being the most frequently reported cutting implement.⁴² Shells were used for a variety of tasks: Tench reported a spear being repaired by a man who converted an oyster to a tool using his teeth. Shell scrapers have also been found in archaeological sites. Containers were made from bark or tree boles, while bags and nets were made from plaited bark fibre. Symmetrical boomerangs were not reported for the Sydney area, although they are depicted in art and engraving sites.

Apart from stone adze flakes mounted on spearthrowers the only stone implements reported in the Sydney area were edge ground axes, hafted to a wooden handle, which were used as a chopping tool. Bellinghausen claimed that these were preferred over European metal axes.⁴³

4.5. PERSONAL ORNAMENTATION

The Aborigines of Port Jackson adorned themselves with scars, pigments, teeth and bone and wooden ornaments. They sometimes cicatrized the body, with two longitudinal incisions made with a sharpened shell,⁴⁴ and pierced the nasal septum, in which a bone or stick was then worn.⁴⁵ Tench believed red body painting to be for everyday use, while white pigments were reserved for dancing.⁴⁶ Later observers described body painting as follows:

³² Bellinghausen in Barratt, 1981: 40

³³ Tench, 1793: 47

³⁴ Ross, 1976: 51

³⁵ Novosil'sky in Barratt, 1981: 30

³⁶ Barratt, 1981: 36

³⁷ Ross, 1976: 5

³⁸ Barratt, 1981: 23

³⁹ Tench, 1793: 48 and Bellinghausen in Barratt, 1981: 38

⁴⁰ Barratt, 1981: 26

⁴¹ Rossisky in Barratt, 1981: 23

⁴² Rich, 1986: 41

⁴³ Barratt, 1981: 39

⁴⁴ Tench, 1793: 277

⁴⁵ Rossisky and Novosil'sky in Barratt, 1981: 25 & 29

⁴⁶ Tench 1793: 278

"painted their faces with white lines and other figures and their noses red women decorated their face and breast with red, yellow and white pigments"⁴⁷, and

the Aborigines stained their faces and bodies with "red earth" on which long white stripes were drawn. Chests, arms and backs were decorated with a fish scale or mussel design, and the body was then smeared with fish oil.⁴⁸

As well as body painting the Aborigines were reported to adorn their heads with bird or fish bones, dog tails or kangaroo teeth, sometimes plaiting the hair and smearing it with a gummy sap,⁴⁹ so that it looked like dreadlocks. Cicatrizing is not mentioned by any of the later Russian observers and it is possible that this tradition broke down soon after contact. People usually went naked or covered in the case of women by "something like a blanket".⁵⁰ The possum skin cloaks, which Aborigines of the mountains were often reported wearing, have not been reported for the Guringai.

4.6. DWELLINGS

Evidence from the archaeological record alone, would suggest that the Guringai lived in the rock shelters formed by weathering in Hawkesbury sandstone. The historical accounts suggest however, that occupation of shelters was on an intermittent basis only. At one extreme Lazarev wrote that the Guringai had neither huts nor dwellings, living by day on the sea shore and by night in the bush by an open fire.⁵¹ Tench recorded that huts were made from pieces of bark laid together in the form of an oven, low and open at one end. The huts were long enough for people to lay down, but they purportedly depended more on the caverns in rocks.⁵² Bellinghausen and Novosil'sky noted that people sheltered in caves in poor weather, or built a semicircular windbreak with a fire within.⁵³ Bellinghausen visited the camp of Boongaree (Bungaree) and described the windbreaks as being of bark up to 1.5 m high with a fire protected within. It does not appear from any of these later reports that shelters were used as base camps.

4.7. FAMILY/SOCIAL LIFE

Few of the First Fleet recorders made much mention of this aspect of Guringai life, whether through disinterest or because women and children avoided Europeans during the first years of contact. The most detailed accounts are those made by the Russian explorers who visited Port Jackson between 1814 and 1820, virtually a generation after the British settlement of Sydney (and after the 1789 small pox epidemic). The extent to which social traditions had broken down is hard to determine, but it cannot be assumed that these accounts necessarily reflect the situation at contact or in the recent prehistoric past.

The Aborigines of Port Jackson lived in groups of 30, 40, 50 or more people. These groups probably comprised several families which made up a clan. They were reported to be:

"ruled by their own elders, nowadays selected by the English government who give them a copper plate"⁵⁴

When the family groups travelled the men went ahead with the women and children walking behind. If Europeans were encountered the women and children moved aside. Babies of one month or more were carried on their mother's shoulders, sometimes lashed there with grass fibres. After six weeks of age the children were named for a- bird, fish or object.⁵⁵ Bellinghausen wrote that men usually chose their wives from another community (clan) and that women were treated "like slaves ... having to sit all day in little craft and fish while their menfolk wander about or sleep".⁵⁶ Women also collected firewood, prepared the fires and collected banksia flowers from which they prepared a drink.

⁴⁷ Rossisky in Barratt, 1981: 25-6

⁴⁸ Novosil'sky in Barratt, 1981: 30

⁴⁹ Novosil'sky in Barratt, 1981: 29

⁵⁰ Vasilyev in Barratt, 1981: 27

⁵¹ Barratt, 1981: 28

⁵² Tench 1793: 48

⁵³ Barratt, 1981: 30

⁵⁴ Novosil'sky in Barratt, 1981: 29

⁵⁵ Novosil'sky in Barratt, 1981: 33

⁵⁶ Barratt, 1981: 42

4.8. CEREMONIAL/RELIGIOUS LIFE

Again little is known of the ceremonial or religious life of the Guringai, apart from the initiation ceremony of tooth evulsion and the removal of the digits from the little finger of the left hand of girls. There are a few references to dances⁵⁷ but little other information about ceremonial or religious gatherings. Burial practises were one aspect of their religious life which interested Europeans.

Phillip had a burial mound disturbed and found evidence for the cremation of bodies:

*"from the ashes had no doubt that they burn their dead. From the appearance of the ashes the body must be laid at length only a few inches below the surface and is, with the wood ashes made by the burning of the body covered lightly over with mould, fern and a few stones"*⁵⁸

Bellinghausen, writing thirty years later, reported that the custom of burning corpses had been almost eradicated. In that year, Simonov wrote that Bungaree's people used to burn their dead.⁵⁹ Collins had previously reported that young people were buried, but that those past middle age were burned.⁶⁰

4.9. CONTACT HISTORY OF LANE COVE

None of the foregoing observations were made within the local area, although they do refer to the same tribe, and at least one of the clans who lived in the local area. There are a few observations that were made in the local or study area. Lt. Bradley named Lane Cove a week after the arrival of the First Fleet,⁶¹ when he saw a number of canoes on the river. As the settlement on the south side of the Harbour grew, so did the need for building resources and the north shore was rich in such materials. Phillip was mindful of his instructions to establish good relations with the Aborigines and, with a view to the exploitation of its resources, he sent Lt. Ralph Clark to Lane Cove to make contact with the Aboriginal residents.

In February 1790 Clark made a number of journeys up the Lane Cove River. He met Dourrawan and Terriwan who gave him two spears in exchange for a hatchet. He visited their camp the following day, where he found them eating mussels roasted on a fire, and shared their meal.⁶² Clark requested their children to be brought to him and Dourrawan's son was brought from where he had been hiding, near the camp. Clark was told that the boy's mother had died from small pox and that Terriwan's son also had the disease.⁶³ A few days later Clark saw a man on the shore with two spears and a throwing stick in his hand. He pulled ashore but the man disappeared at his approach.

While this early contact seemed amicable enough the Aborigines in the area actively resisted Europeans, once it became apparent that they intended to take their lands. The north shore provided important resources for the colony and:

*"a regular shuttle service of timber from the dense bushland and lime shells from the beaches were sent across the Harbour in boats"*⁶⁴

The exploitation of these resources in the early 1790's coincided with the period of harassment and resistance by the Aborigines, which continued for about a decade. Two incidents were recorded in detail.

In May 1797 Collins wrote that the Aborigines had become exceedingly troublesome to the settlers in Lane Cove, burning a house and killing some hogs.⁶⁵ The settlers banded together and set out with a few soldiers to 'teach them a lesson':

"being directed by their fires to the place where they lay, discovered a large body of natives, collected no doubt, for the purpose of attacking and plundering the settlers."

⁵⁷ Tench, 1793: 278, Novosil'sky in Barratt, 1981: 30

⁵⁸ Rich, 1986: 42

⁵⁹ Barratt, 1981: 40 & 51

⁶⁰ Collins 1798: 601

⁶¹ Lenehan, 1987: 12

⁶² Russell, 1970: 14

⁶³ Thompson et al, 1988: 3

⁶⁴ Lenehan, 1987: 11

⁶⁵ Russell, 1970: 23

*Being unwilling to take any of their lives a volley of musketry was fired over their heads, which so alarmed and terrified them, that they instantly fled"*⁶⁶

A few years later, in 1804, the Aborigines were again being 'troublesome'. A group went to the farm of James Wilshire where:

*"after making one of the farm labourers prepare a feast for them, they bound them all and spent several hours of mirth and jocularly"*⁶⁷

Wilshire heard of this in Sydney and returned to his farm that afternoon, where he was met by shouts of defiance and spear brandishing by 200 Aborigines. They reportedly resisted all intimidation until shots were fired over their heads, then they fled taking stolen bedding and other items.⁶⁸

This is an extremely interesting report because of the large number of people gathered together, if 200 Aborigines was not an exaggeration. It suggests an alliance of different clans, if not different tribes, to resist Europeans. Assuming that the group were all adult males, that Aborigines lived in groups of related families numbering 30 or so people (a quarter of whom were men), then the raiding party comprised all the men from 25 different hordes, or some of the men from an even larger number of hordes. Resistance to loss of territory must have been both more widespread and better organised than has been generally assumed, though futile in view of the technological advantage of guns. "Native raiders" were mentioned again in 1809 but no more recent references to Aborigines living in the area have been found, though more research may be fruitful.

⁶⁶ Collins in Russell, 1970: 23

⁶⁷ Lenehan, 1987: 14

⁶⁸ Lenehan, 1987: 14

5. HISTORICAL OVERVIEW

The following site history has been sourced, in its entirety, from the *Heritage Assessment and Conservation Strategy: UTS Campus Ku-ring-gai*, prepared by Graham Brooks and Associates Pty Ltd in 2004.

5.1. 19TH CENTURY PASTORAL USES AND LAND OWNERSHIP

Early Days, 1806

The site originally formed part of a one thousand acre parcel of land promised to settler William Henry by Governor William Bligh. In 1806, Governor Bligh offered Henry the position of principal overseer of public works, together with 1,000 acres of land situated on the north side of the Lane Cove River. Henry immediately took possession of the land.

In 1813, he received a grant of forty acres from Macquarie, adjacent to his 1,000 acre property, and by December 1828 was able to lease a further 1,000 acres adjoining the land promised by Bligh. Within a short space of time Henry sold his 40 acre grant and moved his family and business wholly onto the leased 1,000 acres and Bligh's 1,000 acres.

In addition to land clearing, cultivation and rudimentary construction of Millwood Farm, he claimed responsibility for the construction of three roads or tracks in the local area. Henry is believed to have made Fullers Road in about 1814 as an access way to the river.

Jenkins' Estate, 1869

Thomas Jenkins acquired a significant part of William Henry's original holdings, including the forty acres granted to Henry by Macquarie and portion 441, granted to him in 1869. The adjoining Portion 440 was granted to him on 29 August 1872. Their farm, radiating outwards from the present day administration area of the Lane Cove National Park, was the cornerstone of a noted market enterprise, with the produce of their orchards and livestock sent to Sydney via the family riverboat Nellie on the Lane Cove River to the fish, fruit and farm produce markets in York Street. Following his death in 1890, the lands were held by his widow Maria, who also acquired another grant, of one acre, one rood and twenty-one perches, in March 1895.

In May 1914, a transfer of mortgagee occurred, from William Plunkett to the Perpetual Trustee Company Ltd, with the mortgage itself discharged shortly thereafter and a subsequent mortgage taken out in July 1914, from Maria Jenkins to Wilhemina Stewart Hogan of Strathfield. Throughout the 1913-1914 period, the transferral of numerous lots was recorded.

5.2. COMMONWEALTH OWNERSHIP, 1915

A gradual process of resumption on the part of the Government commenced during World War One, and added to Crown holdings sporadically until 1939.

On 18 May 1925, the Commonwealth of Australia laid further claim to land in the Lane Cove area. It included land granted to Maria Elizabeth Jenkins in 1895, as well as Lots 17-20 purchased by John Jenkins in 1914.

The Commonwealth used part of their overall site as a rifle range following the resumption. The exact location of the range has not been identifiable from the available documentary research; however it is unlikely to have been on the flatter ridge-top land now occupied by the former UTS Campus.

Commonwealth uses remain on the site to the north of the former UTS campus, where Film Australia continue to occupy a series of buildings within a rectangular site. Some of these buildings appear to date from the immediate post World War Two years, when they may have been used as an Army training facility. The remainder of the current buildings were erected progressively over the latter decades of the 20th century.

5.3. WILLIAM BALMAIN TEACHER'S COLLEGE, BALMAIN, 1946

The William Balmain Teacher's College began its life in the suburb of Balmain in 1946, occupying the buildings formerly known as the Smith Street School. It opened in 1887 and served as a public school

until 1945, with only a small interruption of activities from 1890 to the beginning of 1915 when it was known as a Superior Public School.

As early as 1956 the poor educational conditions across the state became a subject for discussion at the NSW Teachers' Federation conferences. In that year a motion was passed to intensify a campaign for new teachers' colleges to be built in NSW, including one at Wollongong, but it took a further fifteen years before a Commonwealth grant provided an opportunity to achieve this proposal.

Ku-ring-gai was part of what became a family of bushland campuses built throughout Australia in the late 1960s and 1970s that were linked through their siting and designs. Such institutions included the Macquarie University in the nearby suburb of Ryde, Mitchell College of Advanced Education in Bathurst, the Townsville Teachers' College (later College of Advanced Education, then James Cook University), Curtin University in Western Australia, and Griffith University in Brisbane, Queensland.

5.4. SITE SELECTION, 1955-1967

Dr Harold Wyndham, Director-General of Education in NSW between 1952 and 1968 indicated in 1955 that a new site for the Balmain college had been under consideration and that a possible new site had been identified. He was apparently aware that the Chatswood Rifle Range had been abandoned by the Army and possibly available for purchase by the State. Although a number of alternative sites were considered for a possible teachers' college on the North Shore, it is apparent that Wyndham had already determined that the old rifle range site would be the most suitable. The land was transferred from the Commonwealth to the NSW Minister of Education on 3 February 1961.

By 1964, there seemed to be a widely held belief within the staff at Balmain that their new college would inevitably be erected at the Chatswood site. Despite his strong support for the selection of the site, lack of funding meant that the new college was not erected until after Wyndham had retired.

The 1963 choice of Ryde as the site for the new Macquarie University may have also influenced the choice of the former Chatswood Rifle Range site. By the early 1950s some 42% of the first year enrolments at Sydney University came from the greater North Shore area, stretching from Hornsby to Warringah. On 14 February 1967 the Government formally announced that the Balmain Teachers' College would be relocated to Lindfield.

5.5. PROJECT FORMULATION, 1967

On 14 February 1967 the Commonwealth Government announced the provision of \$7.5 million in unmatched grants to the NSW Government for the building of three new teachers' colleges, at Ku-ring-gai, Goulburn and Newcastle.

From 1967 David Don Turner, an Architect within the NSW Department of Public Works, was administratively responsible for the architectural supervision of the new colleges at Newcastle and Goulburn. He was however personally responsible for the design of the new Lindfield college.

The planning and design of the new Ku-ring-gai College was thus carried out simultaneously with that for the two other institutions. The architectural imagery for each college varied considerably from its sisters, due in part to discussions held with existing college staff to determine their individual needs: The William Balmain College was intended as a secluded structure, to be set discreetly within the natural landscape rather than creating a visual impact. As the third of the colleges, William Balmain would keep the focus on secondary teachers, specialising in science-related disciplines.

5.6. DEVELOPMENT OF THE CAMPUS

5.6.1. Stage 1, 1971

As early as September 1967, Minister for Education Charles Cutler announced that sketch plans for the new college had been completed. On 13 December 1968, The Sydney Morning Herald carried an announcement by the Minister for Education that a contract had been let to build Stage One of the project. He said that the contract was the biggest ever approved by the Education Department. Stage One was to consist of lecture rooms and facilities, a library, an art-craft centre, TV studios, playing fields and temporary administration and students' union facilities.

Before construction work commenced the construction area was clearly marked out on site and all the trees labelled as either 'to be removed' or preserved. Access routes and open areas had been carefully

planned on the basis of vegetation that was worthy of being preserved. Just before construction commenced, a severe bushfire razed most of the site, and destroyed the vast majority of the vegetation.

Students began to occupy the campus in 1971 due to the overcrowding on the original Balmain College site, despite the construction works still uncompleted. This echoed the early days of operation of the original Balmain Teachers' College, which had also seen its first students studying amidst the construction works and debris. Relocation was imperative given that in 1971 about 900 students were crammed into Balmain, which had been designed for 200 students and could at best accommodate 400. In consequence, Stage One of the Lindfield campus commenced classes in mid-1971 with a skeleton staff. The library was not opened to the students until six weeks before end-of-year exams.

The success of the design of the former Ku-ring-gai campus earned a Merit Award from the RAIA NSW Chapter for Commercial and Public Buildings in 1972, and an Honourable Mention in 1973 in Japan.

5.6.2. Stage 2, 1972

The construction of Stage Two followed almost immediately on the completion of Stage One, with the expectation that Stage Three would be hard on its heels. Stage Two added an Assembly Hall, Students' Union, offices and more lecture rooms. It was anticipated that the Stage Two construction phase would complete the Lindfield College, to be used by 900 students, bringing the total Government commitment for teachers' colleges at Lindfield, Goulburn and Newcastle to \$15.5 million.

On 1 July 1973 it was announced that the College would become autonomously governed and multi-purpose, in a clear departure from its hitherto existing role as a teacher training college. By 1974, the William Balmain College had become the Ku-ring-gai College of Advanced Education, despite opposition from the Principal, who felt that teachers' colleges needed to retain their identity as separate institutions rather than being absorbed into the multi-purpose Colleges of Advanced Education. The name change also served to identify the college with its location and its surrounding community.

5.6.3. Stage 3, 1976

David Turner's association with the college continued over an unusually long period. He had left the Public Works Department by the time Stage Three, which comprised the Gymnasium and additional teaching spaces, was completed. He did the design and documentation of Stage Three but had no direct involvement with the construction. In total, the Stage 3 Gymnasium block cost \$1.2 million.

In 1978 the by then Ku-ring-gai College of Advanced Education was awarded the Sulman Award by the NSW Chapter of the Royal Australian Institute of Architects. This is the highest level of recognition given by the NSW Chapter.

5.6.4. Stage 4, 1980

David Turner recollected that he was involved with the design of the Dining Terraces in 1977. Stage Four also comprised a small structure that linked the northern extension of Stage Two with the Greenhalgh Theatre, as well as more lecture rooms and a staff office wing.

Other changes to the site in this period related to car parking at the campus: in 1979 development consent was given for a 120-space extension to the north-western car park, and in 1983 another 32 car spaces were approved. The layout of the north-western carpark was carefully undertaken to protect the main trees.

6. ENVIRONMENTAL CONTEXT

An understanding of environmental context is important for the predictive modelling of Aboriginal sites, as well as for their interpretation. The local environment provided natural resources for Aboriginal people, such as stone (for manufacturing stone tools), food and medicines, wood and bark (for implements such as shields, spears, canoes, bowls, shelters, amongst others), in addition to areas for camping and other activities.

The nature of Aboriginal occupation and resource procurement is related to the local environment; understanding the local environment is therefore a critical component in undertaking an Aboriginal cultural heritage assessment.

6.1. DISTURBANCE

The Study Area, and specifically the areas of proposed impact, have been subject to extensive disturbance in association with the construction of the former UTS campus buildings from 1968 to 1989.

To facilitate the development of the former UTS campus, the Study Area was subject to extensive vegetation clearance and re-grading. This is clearly shown in the below photographs, taken during the construction of the former campus buildings.

As is shown, the vast majority of original topsoil in the Study Area was removed and/or severely disturbed by these works. This, combined with subsequent re-landscaping works, including the introduction of fill to the Study Area to create a more level terrain, has resulted in severe disturbance across the entire Study Area. In areas where new fencing is proposed, a sandstone retaining wall that was introduced in association with the establishment of the former campus is present, further indicating the modifications to the landscape that have occurred.

Figure 3 – Extensive disturbance associated with the construction Dunstan Road



Source: UTS Archives

Figure 4 – Extensive disturbance associated with the construction of the former UTS buildings, facing north. Remnant vegetation stands visible



Source: UTS Archives

Figure 5 – Clear disturbance associated with the construction of the former UTS buildings, showing general site preparation works



Source: UTS Archives

Figure 6 –Disturbance associated with the construction of the former UTS buildings



Source: UTS Archives



Source: UTS Archives



Source: UTS Archives



Source: UTS Archives

6.2. GEOLOGY AND SOILS

6.2.1. Geology

Aboriginal people often made stone tools using siliceous, metamorphic or igneous rocks, as such, understanding the local geology can provide important information regarding resources in a project area. The nature of stone exploitation by Aboriginal people depends on the characteristics of the source, for example, whether it outcrops on the surface (a primary source), or whether it occurs as gravels (a secondary source).⁶⁹

As already mentioned, the Study Area is underlain by the Wiannamatta group of sedimentary rocks in the Sydney Basin, which directly overlies Hawkesbury Sandstone. These rock types were formed in the Triassic Period, and are characterised by shale with sporadic thin lithic sandstone (Wianamatta Group) and medium to coarse grained quartz sandstone with minor shale and laminate lenses (Hawkesbury Sandstone).

In association with this geology and prior to disturbance, the Study Area may have contained a limited amount of raw stone material, particularly sandstone, which is known to have been used by Aboriginal people in the past. For example, sandstone sheets were often used for sharpening hatchets; this process results in depressions in the sandstone identified as ‘grinding grooves’.⁷⁰ Grinding grooves are typically located on suitable sandstone platforms in proximity to watercourses.

However, materials such as shale and ironstone, also present in these areas, were not generally used as a resource by Aboriginal people in the past due to their relative fragility; preferred raw stone materials, such as quartz, silcrete, chert, tuff and mudstone, are generally fine-grained and siliceous.⁷¹ This relative

⁶⁹ Doelman, Torrence et al. 2008

⁷⁰ Attenbrow 2003: 120-122

⁷¹ Attenbrow 2003: 120

absence of preferred geological resources means that the Study Area is unlikely to have been subject to particularly intensive or long-term habitation or use by Aboriginal people in the past, though it may have been subject to transient occupation or use.

6.2.2. Soils

In association with the Wianamatta Group and Hawkesbury Sandstone, soil profiles are typically characterised as follows:

- A horizon: The topsoil. This has the highest fertility, organic matter content and biological activity. It is generally sandy, and ranges from 10 to 40 centimetres in depth from the ground surface.
- B horizon: The subsoil. This is typically a yellow clayey sand with little to no organic matter. Its fertility is low. It ranges from 40 to 100 centimetres below the surface.
- C horizon: Decomposed rock. This is typically clayey sand to sandy clay in texture and provides little more than moisture storage for plants. It ranges from one to four metres below the surface.

As subsoil (B horizon) layers are typically archaeologically sterile, it is not anticipated that any archaeological material would be present within these soil layers. This means that archaeological deposits, if present, are likely to be limited to the upper 10 to 40 centimetres of soil.

However, the historic removal of vegetation in the area, as well as the known disturbance of the Study Area, strongly suggests that the majority of topsoil layers within the Study Area would have either been severely disturbed or removed. This further limits the potential for *in situ* archaeological deposits to be present within the Study Area. In addition, topsoil layers in this landscape context are typically shallow and, particularly on sloping land, overlie sandstone bedrock that is exposed in many areas; such sandstone presents as outcrops and/or overhangs. The potential for sub-surface Aboriginal archaeological deposits within this kind of landscape is therefore limited, with more likely site types being PADs within rock shelters, rock art, or grinding groove sites in proximity to water courses.

This is supported by the findings of archaeological assessments undertaken in the general vicinity of the Study Area, in which similarly developed/used land has been found to be disturbed and to contain a very limited amount of *in situ* archaeological material, if any (refer **Section 7.2**, below).

6.3. TOPOGRAPHY AND HYDROLOGY

Prior to disturbance, the topography of the Study Area would have been characterised by gently undulating rises on Wianamatta Shale, with local relief of 10 – 30 metres, and relatively gentle slopes (<5% up to 10%). Crests and ridges are broad and rounded with convex upper slopes grading into concave lower slopes.

The height of the Study Area above sea level, being approximately 50 metres, means that it is a relatively elevated site within the landscape. means that it would have been easily accessible and navigable in the past. The land to the south, east and west of the former UTS campus slope steeply down into surrounding valley areas and associated watercourses.

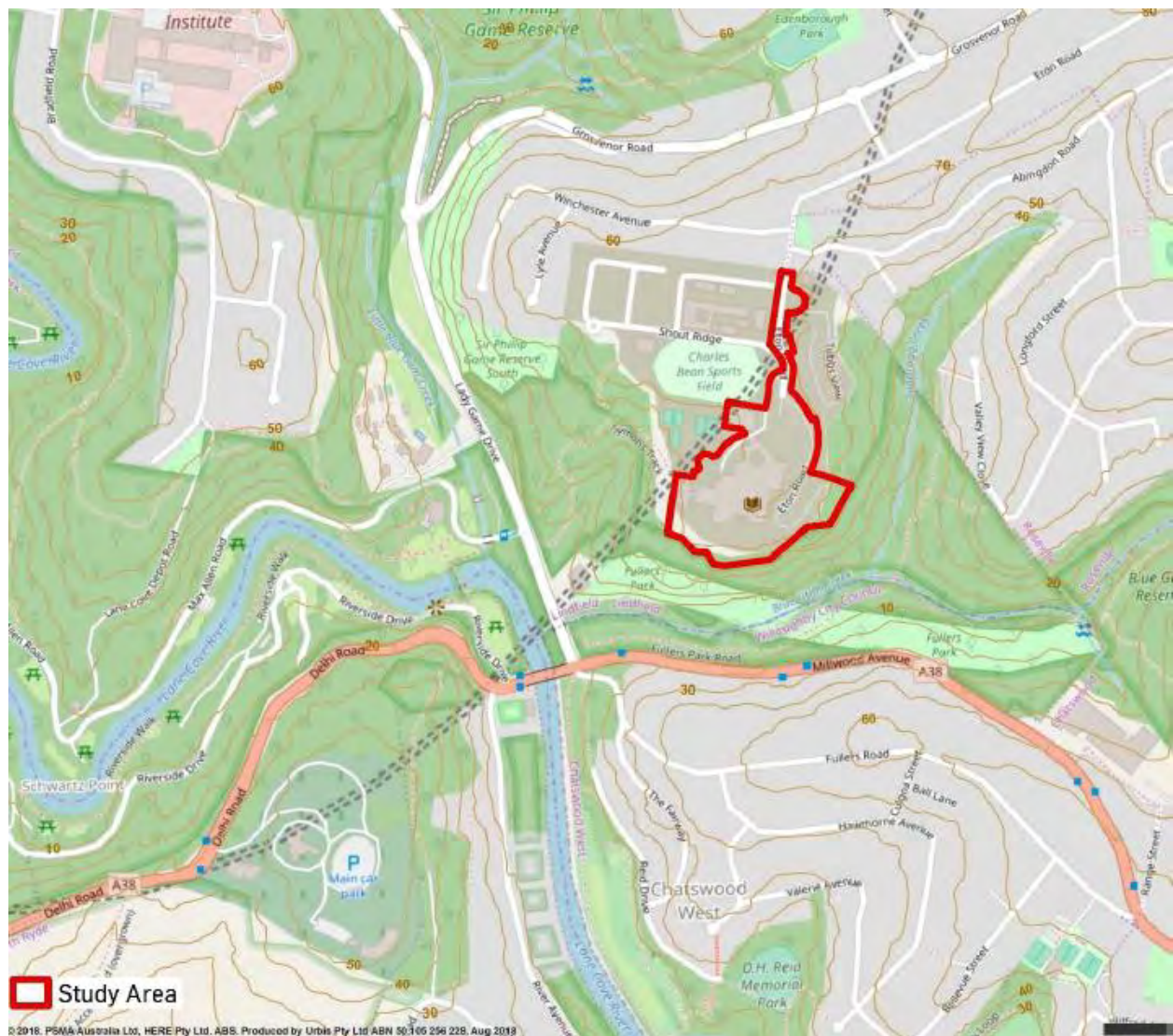
The Study Area is therefore also surrounded by a number of watercourses, which it is located in very close proximity to, including:

- Lane Cove River (major watercourse), approximately 260 metres to the west;
- Blue Gum Creek (tributary), approximately 90 metres to the south;
- Little Blue Gum Creek (tributary), approximately 300 metres to the west
- Sugarbag Creek (tributary), approximately 100 metres to the east;
- Cabramatta Creek, approximately 2.8 kilometres to the west.

The Lane Cove River would have been a major resource for Aboriginal people in the past, providing both a water source and access to flora and fauna resources. Tributary creeks would have also provided intermittent access to resources, particularly during sustained periods of heavy rainfall. This is demonstrated by the results of the AHIMS search, which show a greater frequency of registered sites in proximity to these watercourses (refer **Section 7.1**, below). This is also generally in accordance with predictive models for the regional landscape (refer **Section 8**, below).

Generally speaking, the topography and hydrology of the Study Area, and particularly the proximity of the Lane Cove River, demonstrate that the surrounding landscape would have provided sufficient subsistence resources and been generally accessible and navigable enough to sustain human occupation and use. This is despite the Study Area featuring relatively steep terrain on its southern, eastern and western sides.

Figure 7 – Topographical map of the Study Area showing watercourses and relative land heights



Source: <https://maps.six.nsw.gov.au/>

6.4. FLORA AND FAUNA

As has been discussed, the majority of the Study Area has been subject to vegetation clearance in association with its development as an educational facility.

Vegetation distribution within the Sydney Basin is generally related to underlying soils landscapes, and is also influenced by moisture, aspect and European land use (including clearance, agriculture, weeds, etc). Remnant vegetation within the immediate Study Area comprise Sydney Sandstone Gully Forest, which is likely to be found wherever deep gullies have been eroded into sandstone and in association with the Lane Cove River and its tributaries.

Common tree species include the blackbutt, Sydney red gum, turpentine and watergum. Other species that may be present include Sydney peppermint, grey gum. Common understorey species include sally wattle, black she oak, blueberry ash, and grey myrtle. Dominant shrub species include sunshine wattle, old man banksia, yellow tea-tree and heath species.

Areas of Hawkesbury Sandstone, like the Study Area, were generally unsuited for agriculture due to underlying soils, and it is therefore likely that good natural stands of extant bushland are similar to original vegetation.

Prior to European settlement and the subsequent clearance of vegetation, this vegetation community would have provided habitats for a variety of animals, as well as potential food and raw material sources for Aboriginal people. Eucalyptus trees were a particularly important resource; leaves were crushed and soaked for medicinal purposes, bowls, dishes, and canoes were made from the bark, and spears, boomerangs and shields were crafted from the hard wood.⁷²

Typical animals which may have been harvested by Aboriginal people include kangaroos, wallabies, sugar gliders, possums, echidnas, a variety of lizards and snakes, birds, as well as rats and mice. The bones of such animals have been recovered from Aboriginal sites excavated in the Sydney region suggesting that they were sources of food,⁷³ although the hides, bones and teeth of some of the larger mammals may have been used for Aboriginal clothing, ornamentation, or other implements.

6.5. SYNTHESIS OF ENVIRONMENTAL CONTEXT

The geology of the Study Area suggests that it is unlikely to have been specifically targeted or frequented for resource procurement, with stone quarry sites/raw stone resource sites located elsewhere within the Cumberland Plain. The absence of rock shelters (and therefore a lack of shelter) within the Study Area supports this, and further suggests that the *immediate* area may not have been suitable for sustained habitation or use.

However, it is still likely that the landscape would have been subject to transient use and/or occupation by Aboriginal people in the past, particularly due to the relative proximity of major watercourses, availability of flora resources such as eucalyptus trees, and the gentle topography. Known rock shelter sites are located in proximity to, but outside of the Study Area, in less disturbed areas in which more generous shelters suitable for more frequent use are present in closer proximity to watercourses. Similarly, grinding groove sites are only predicted to be located on suitable sandstone platforms in closer proximity to watercourses.

As discussed, the topography of the landscape means that it would have been relatively easily accessible and navigable, while the native vegetation coupled with the presence of a number of watercourses in the general vicinity, including the major Lane Cove River, would have provided sufficient resources for general subsistence activities.

It is reiterated, however, that archaeological material is generally more likely to have been deposited in closer proximity to these watercourses and on relatively flat land in association with campsites and resource procurement sites; this is clearly demonstrated by the results of the AHIMS search. Further, the relatively shallow soils typical of this landscape further limit the potential for intact, sub-surface archaeological deposits to be present.

A review of the environmental context of the Study Area suggests that, prior to European settlement and associated land disturbance, the surrounding landscape would have been suitable for transient occupation and use. However, general disturbance, modification of the landscape, the absence of suitable rock shelters and the removal of topsoil layers throughout the Study Area is likely to have significantly reduced the potential for *in situ* Aboriginal archaeological deposits to be present within the Study Area and particularly within/in the vicinity of proposed impact areas.

⁷² Nash 2004: 4-8

⁷³ Attenbrow 2003:70-76

7. ABORIGINAL ARCHAEOLOGICAL CONTEXT

The purpose of reviewing the relevant heritage information is to assist in identifying whether Aboriginal objects or places are present within the Study Area. An understanding and review of the relevant archaeological context is critical in formulating predictive models and assessing the archaeological potential of an area.

7.1. ABORIGINAL HERITAGE INFORMATION MANAGEMENT SYSTEM (AHIMS)

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 3 November 2017. This search was updated on 17 August 2018. The search was conducted for Lot 2 DP 1151638, with a buffer of 1000 metres, which comprises the entirety of the Study Area. The results of this AHIMS search showed that no Aboriginal sites have been recorded in or within 50 metres of the Study Area. Copies of these searches are attached at **Appendix A**.

It also revealed that a total of 16 Aboriginal archaeological sites have previously been recorded within the wider search area. Registered sites include potential archaeological deposits (PADs), art (pigment or engraved) sites, and shelter sites containing both shell midden and stone artefact deposits. The relative frequency of these site types is shown in the below table.

As the table demonstrates, shelter sites are the most common site type, collectively accounting for over 40% (43.75%) of site types in the search area. The results of the AHIMS search undertaken are shown in **Figure 8**, overleaf.

Table 2 – Frequency of site types registered in the wider search area

Site Type	Number	Frequency (%)
Potential Archaeological Deposit	4	25
Shelter with Artefact Deposit (Unspecified)	3	18.75
Shell Midden with Artefact(s) (Unspecified)	3	18.75
Art (Pigment or Engraved)	2	12.5
Shelter with Art (Pigment or Engraved)	2	12.5
Shelter with Shell Midden	2	12.5
Total	16	100%

The closest registered site to the Study Area is AHIMS #45-6-2210, which is registered as a rock shelter site containing a shell midden deposit. Though the co-ordinates provided in the AHIMS search place this site within 10 metres of the current Study Area, further assessment and rectification of the originally recorded location undertaken by the Aboriginal Heritage Office and Ku-ring-gai Council have shown that the shelter is actually located over 60 metres to the south of the Study Area's southern boundary, and in proximity to Blue Gum Creek. The site card has been attached at **Appendix C** for reference, and the actual location of the site is shown in **Figure 8**.

The site card for AHIMS #45-6-2210 describes it as:

"Large overhang formed by cavernous weathering in a five metre high cliff line. The shelter is c. 30m (l) by 4m (deep) by 4m (high). The floor is uneven with a lot of roof fall and depressions caused by animals, humans, and water scour. Deposit is sandy and grey with a recent thin red layer of granular disintegration. The surface evidence is sparse and midden material only evident in disturbed locations.

Shell and bone present by no art or stone artefacts. Shelter walls are uneven and not really suitable for art, though it was very dark when the site was recorded. Deposit is

10cm deep in places. Rock oyster is c. 90% of the shell, the remainder being comprised of Anadara and giant whelk. The bone was not identified – it consisted of 2 small long bones and 1 jaw fragment, possibly from a small marsupial – this cannot be confirmed as being of Aboriginal origin; it may have been brought in by a predator.

An updated description of the site provided in 2012 and appended to the original site card described it as:

Relocated site and completed section! No signs of human visitation (not easily accessible). Collapsed stone blocks near centre. Shell material located against back wall on Western side of collapsed rock material near alcove. Thick lantana in surrounding area. Relatively dry except for a few small drip lines. Wall of dirt roughly 1.5 m tall between shelter and creek. Large nail protruding from back wall on Western end of shelter.

7.2. ARCHAEOLOGICAL CONTEXT

The Study Area is located within the Cumberland Plain, which over the last few decades and in association with the increasing spread of urban development, has become the most intensively investigated archaeological landscape in Australia.

Through previous archaeological studies a number of predictive models relating to Aboriginal occupation patterns and site locations across the Cumberland Plain have been formulated, and more recent works have contributed to refining these models.⁷⁴

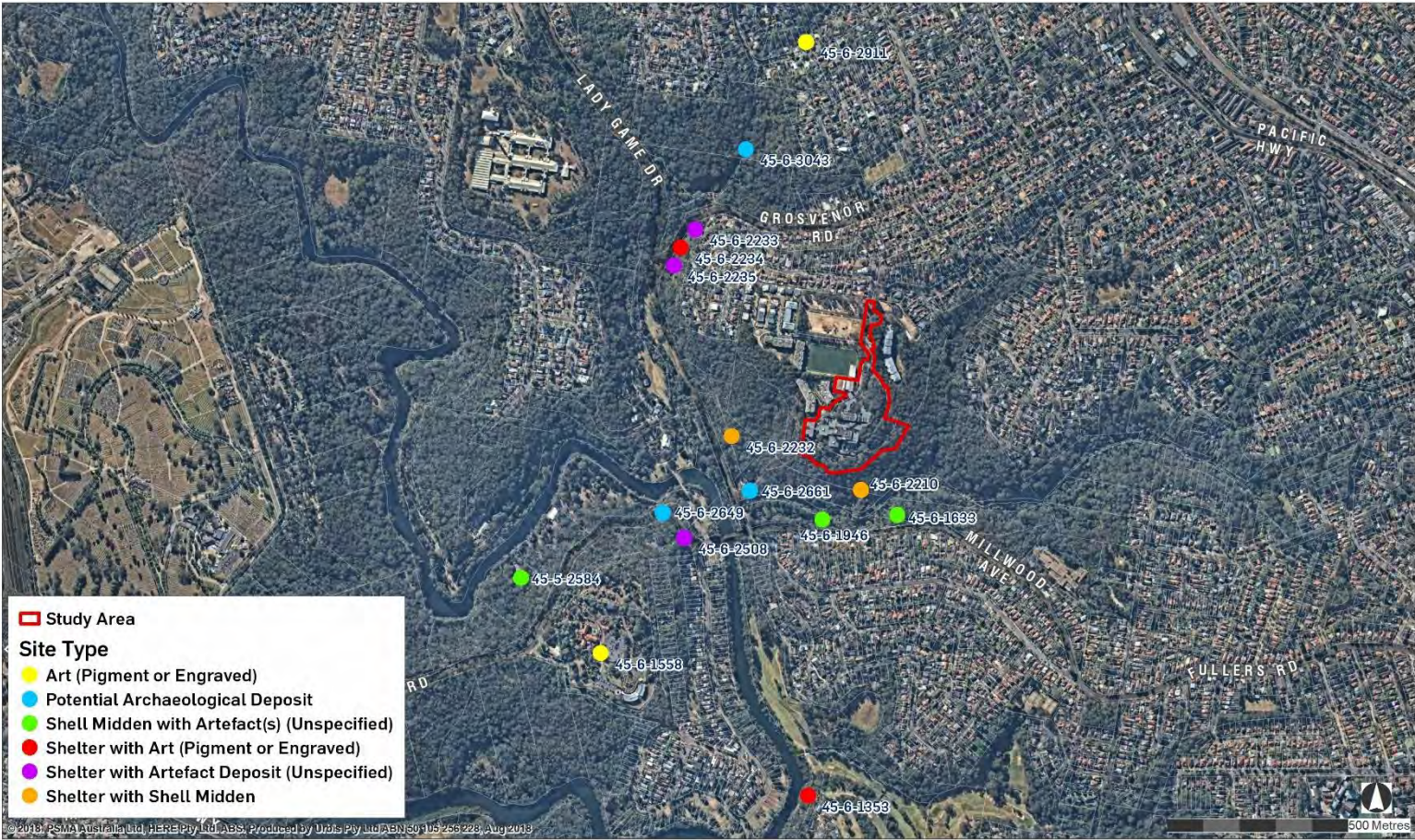
The most common site types found on the Cumberland Plain are open artefact scatters/open camp sites, followed by scarred trees and isolated finds. Shelter sites and grinding grooves are also found, although mainly around the periphery of the Plain in sandstone geology. Key trends are summarised below:

- Site frequency and density are directly related to the location of sites within the landscape;
- Complex sites are usually located close to permanent water sources, with major confluences being a key requirement for occupation sites, and would have been used intensively by larger groups, or used repeatedly by smaller groups over a longer period of time;
- Sites with large numbers of artefacts can occur on ridge tops and hill crests;
- Sites situated in alluvial soils retain the potential for stratified deposits;
- Potential Archaeological Deposits (PADs) are most likely to be located along valley floors and low slopes in well-drained areas; and surface artefact distribution does not accurately reflect the composition or density of subsurface archaeological deposits. Some areas with few or no surface manifestations have often been shown to contain subsurface archaeological deposits;
- Artefact scatters are most commonly linked to the close proximity of permanent water sources in areas such as creek and river banks and alluvial flats. The majority of these sites are located within 100 metres of permanent fresh water;
- Artefact assemblages generally comprise a small proportion of formal tool types with the majority of assemblages dominated by unretouched flakes and debitage;
- High concentrations of artefacts are more likely to be located within resource rich areas;
- Silcrete is the dominant raw material used for tool manufacture, followed by chert (also known as tuff). Silcrete sources are located in the north-western Cumberland Plain at places such as St Marys, Plumpton Ridge, Marsden Park, Schofields, Riverstone, Deans Park, Llandilo and Ropes Creek. Other raw materials include indurated mudstone from Nepean River gravels, quartz, porphyry and hornfels which may be derived from Rickaby's Creek gravels, and basalt;

⁷⁴ AMBS 2013: 27

- Stands of remnant old growth vegetation retain the potential for scarred trees to be present; however, large scale land clearance of the plain in general means that such stands of vegetation are rare; and
- Evidence of post-contact camp sites may be located in close proximity to early European houses and farms, or official buildings.

Figure 8 – Results of the AHIMS search



SH801 – SECONDARY SCHOOLS RENEWAL – ETON ROAD, LINDFIELD
AHIMS SEARCH RESULTS

Source: Urbis 2018

7.2.1. Clarification of the Cumberland Plan Predictive Model

More recent archaeological studies across the Cumberland Plain have resulted in a refinement of the above described model, and a move away from the strict assumption that Aboriginal sites will only be found in close proximity to permanent water courses; on creek banks and alluvial flats, or on high ground, and within range of food resources and the raw materials for tool making.⁷⁵

More recent studies at Mungerie Park and Parklea Leisure Centre have proven that large artefact scatters may also be found up to 250 metres away from major watercourses, and it has been suggested that the more traditional predictive model may reflect surface visibility and site formation processes, rather than the actual ways in which Aboriginal people used the landscape in the past.

A recognition of this clarification of the traditional predictive model is now commonly considered as part of Aboriginal archaeological assessments within the Cumberland Plain, and has been considered as part of this ACHAR.

7.3. RELEVANT ARCHAEOLOGICAL STUDIES/LITERATURE REVIEW

A review of previous archaeological and heritage reports is required to provide a sound understanding of the archaeological potential of the Study Area.⁷⁶ The most relevant publications are outlined below.

Jo McDonald Cultural Heritage Management Pty Ltd, 2004, *UTS Ku-ring-gai, Rezoning Application, Indigenous Heritage Issues*.

In 2004 JMCHM undertook an Aboriginal archaeological assessment to inform the proposed rezoning of land to the immediate northwest of the former UTS campus, which has since been developed with residential flat buildings. It is noted that this assessment **included the current Study Area**, and that therefore the conclusions presented in the 2004 assessment are directly relevant to the current Assessment.

The 2004 assessment did not identify any new archaeological sites during a visual survey of the proposed development area, and no previously recorded sites were identified to be affected by the redevelopment proposal. While a low level of effective survey coverage was acknowledged, it was also noted that the lands that were to be impacted by the development proposal were assessed as having low to no archaeological sensitivity in terms of Indigenous heritage.

The bushland beyond the proposed residential development zone, which is similar to that which defines the southern perimeter of the current Study Area, was described as steeply sloping with few likely foci for habitation. No evidence was found along creek lines (where there may be an increased amount of run-off) for archaeological sites.

Overall, the archaeological potential of the study area was assessed as low, and no further investigation was recommended.

Consultation with the local Aboriginal community (representatives of the Metropolitan LALC) was undertaken as part of the 2004 assessment; the assessment concluded that

“The social significance of the area is to be addressed by the MLALC. Preliminary discussions with MLALC representatives would suggest that these are unlikely to be high within the current development area.”

No other comments were received by the community representatives, who did not dispute or query the report findings.

Haglund & Associates, 1989, *Preliminary survey for Aboriginal sites along F2-Castlereagh Freeway. Pennant Hills Road to Lane Cove Road*, report to DMR

During an archaeological survey along the route of the F2 (now M2)-Castlereagh Freeway in 1989 Laila Haglund located two rock shelters with deposit. Both shelters (AHIMS #45-6-1855 and AHIMS #45-6-1854) contained middens with oyster and whelk shell recorded, while the latter also had possible remnants of stencil art along the back wall.

⁷⁵ AMBS 2011: 14

⁷⁶ DECCW 2010:13

Conyers, B, 1990, *Survey for Aboriginal Archaeological Sites: Lane Cove River State Recreation Area*, unpublished report prepared for the State Recreation Area Trust and NSW National Parks and Wildlife Service

In 1990 Conyers conducted a comprehensive survey of the Lane Cove River State Recreation Area (SRA), now known as Lane Cove National Park. Approximately one third of the SRA was surveyed during a twelve-day survey. Seven previously unrecorded Aboriginal sites were located – two engraving sites, two middens, and three rock shelters with deposit. Five potential habitation sites were also recorded along with three engraving sites which had previously been recorded.

Wirrina Consulting, 1995, *Archaeological survey for Aboriginal sites. Delhi Rd – Main Rd No. 191, CSIRO to Northern Suburbs Crematorium, Lane Cove, NSW*, report to RMS

In 1995 Wirrina Consulting conducted a survey for Aboriginal sites for the widening of Delhi Rd, Ryde by the RTA. A rock shelter with midden (AHIMS #45-6-2211), which was first recorded by Conyers, was relocated.

Corkill, T, 1997, *Test Excavation of Rockshelter, CSIRO PAD 1, site 2 Riverside Corporate Park, North Ryde, NSW*, report to Australia Pacific Projects

In 1997 Tessa Corkhill conducted an excavation of a rock shelter with potential archaeological deposit (CSIRO PAD1) at Riverside Corporate Park. The PAD was first located in 1991 and it was recommended at that time that further investigation would be required if the site was to be affected by development. Ten test pits were excavated to bedrock at depths varying from 47 centimetres to 18 centimetres. Fourteen stone artefacts were recovered although the deposit was found to be relatively disturbed with evidence of European material throughout much of the profile.

Oakely, B, 2000, *Indigenous Heritage Assessment – Proposed Sewerage Upgrade REF, Lane Cove National Park*, report to Australian Water Technologies Pty. Ltd

In 2000 Bobbie Oakley completed a survey for a proposed sewerage upgrade within Lane Cove National Park. Two new Aboriginal sites were located in the southern portion of the National Park. Both new sites (LCRM1 and LCRM2) are shell midden scatters and associated areas of potential archaeological deposit (PAD). It was recommended that the sewer line should be redirected to avoid these sites, or if this was not possible that further archaeological work, such as a test excavation, should be conducted.

HLA-Envirosciences Pty Ltd, 2003, *Archaeological Subsurface Testing Program: Eden Gardens, Macquarie Park, NSW*, prepared for Eden Garden Botanicals Pty Ltd

Archaeological excavation was undertaken at the (now) Eden Gardens Botanicals site, located on the eastern side of the junction of Lane Cove Road and the M2 Motorway. Excavations across multiple 50 x 50 centimetre test pits were undertaken to a maximum depth of 20 centimetres before sandstone was reached; these test pits were excavated in a relatively undeveloped area of bushland.

The excavations revealed that soils were typically disturbed across the entire topsoil layers within all test pits, and only one quartz flake was uncovered as a result of the investigations.

AECOM, 2010, *M2 Upgrade Project – Preliminary Aboriginal Heritage Assessment*, report to Leighton Contractors

The route of the proposed M2 upgrade was investigated by AECOM in 2009/2010. The route was from Lane Cove Road in North Ryde, to Windsor Road at Baulkham Hills. Fifteen Aboriginal sites were found or previously recorded within the M2 corridor.

Artefact Heritage, 2011, *150 Epping Rd, Lane Cove West–Heritage Study Aboriginal Cultural Heritage Assessment and Assessment of non-Indigenous heritage for a Concept Plan application*, report to Rose Group.

In 2011 Artefact Heritage conducted a survey of an area along the northern edge of Stringybark Creek in Lane Cove West. A previously recorded rock shelter with a charcoal drawing of two fish was relocated. Although the shelter had been disturbed by construction of a sewer pipe, the art remained in good condition. No new Aboriginal sites were located during the study.

Artefact Heritage, 2012a, *North Ryde Station Precinct Rezoning Study*, report to Transport for NSW

Artefact Heritage (2012a) prepared an archaeological assessment of the North Ryde Station Precinct for a rezoning study. The investigation concluded that there were no recorded Aboriginal objects within the

Precinct and that overall limited archaeological potential. The study area was assessed as demonstrating low archaeological significance.

Artefact Heritage, 2012b, *Northern Sydney Freight Corridor: Epping to Thornleigh Third Track Project*, report to Parson Brinckerhoff

An Aboriginal cultural heritage assessment prepared by Artefact Heritage (2012b) for the Epping to Thornleigh Third Track Project (ETTT) did not identify any Aboriginal sites and concluded that the entire rail easement between Epping and Thornleigh demonstrated low/ no archaeological potential.

Artefact Heritage, 2014, *Lindfield Substation – Aboriginal Heritage Due Diligence Assessment*, report to Parson Brinckerhoff

Artefact Heritage was commissioned by Parsons Brinckerhoff to conduct an Aboriginal Heritage Due Diligence Assessment for the construction of a proposed traction power substation at a site in Lindfield in Sydney, NSW and ancillary electrical works, generally between Killara Station and the Clanville Road overbridge. The assessment found that there were no previously recorded Aboriginal sites within the study area, the study area had been heavily modified with high levels of ground disturbance, and the study area had a low Aboriginal archaeological sensitivity overall. The report therefore recommended that no further archaeological investigation was required.

7.4. SYNTHESIS OF ABORIGINAL CULTURAL HERITAGE CONTEXT

Previous archaeological work in the general area suggests that the broader landscape was utilised by Aboriginal communities in the past. This is in part due to the relatively navigable terrain of the surrounding landscape, as well as the ready availability of food, water and other resources, the availability of water being a crucial factor in the frequency of occupation as rivers and creeks are markers of community identity, traditional meeting places and the chosen location of campsites.⁷⁷

In line with this, the majority of recorded sites located elsewhere within the surrounding landscape were identified in association with watercourses and/or in relatively undisturbed land; for example, a relatively large number of sites have previously been recorded in association with the Lane Cove River, as well within the associated National Park, which has been maintained as relatively undisturbed land. Sites identified in association with such landscape features include middens (in association with watercourses) and rock shelter sites where suitable rock overhangs etc are present.

In contrast, the Study Area has generally been subject to relatively severe disturbance (including the partial or potentially complete removal of topsoil, deposition of fill, development, and substantial vegetation clearance in large areas). As has been demonstrated, previous studies have established that urbanised and/or developed areas like the Study Area have low potential to contain Aboriginal archaeological sites or cultural material due to disturbance and/or the absence of sensitive landscape features within the proposed impact areas.

In addition, topsoil layers in this landscape context are typically shallow and, particularly on sloping land, overlie sandstone bedrock that is exposed in many areas; such sandstone presents as outcrops and/or overhangs. The potential for sub-surface Aboriginal archaeological deposits within this kind of landscape is therefore limited, with more likely site types being PADs within rock shelters, rock art, or grinding groove sites in proximity to water courses.

As noted at **Section 6.3**, the closest water courses are located around 100 metres downslope of the Study Area, below relatively steep and heavily vegetated terrain. Additionally, the less disturbed areas of the Study Area where such sites have greater potential to be present (i.e. within less disturbed bushland along southern boundary of the Study Area) are steep and relatively unstable due to shallow soils and loose rock, meaning that they are less likely to have been suitable as habitation loci.

Based on a review of the archaeological context of the Study Area, as well as the known extent to which the Study Area has been disturbed, it is considered unlikely that any Aboriginal sites or objects will have been retained within or in the immediate vicinity of the Study Area, either above or below the ground. This has been confirmed by the visual inspection of the Study Area.

Therefore, the potential for as yet unidentified Archaeological sites or objects to be present within the Study Area and particularly within the proposed impact areas is assessed as low. It is acknowledged that artefacts

⁷⁷ Attenbrow 2003: 50

have been recovered from disturbed soil profiles in the local area previously, though the likelihood of this occurring is generally relatively low, particularly given the known extent of previous disturbance.

The AHIMS search conducted shows that no Aboriginal archaeological sites or places are recorded in or within 50 metres of the Study Area. The closest registered site is located outside of the Study Area, approximately 60 metres to the south of the southern boundary of the Study Area and well outside of any of the proposed impact areas. This site, being AHIMS #45-6-2210, is registered as a rock shelter site containing a shell midden deposit. As the proposed works are relatively minor in terms of their sub-surface impact, they do not have any identified potential to result in any incidental or inadvertent impacts to this site.

8. PREDICTIVE MODEL

In terms of archaeology, predictive modelling is used to present a model, or series of testable statements, about the nature and distribution of evidence of Aboriginal land use in the Study Area, based on the historical, environment and archaeological context. To achieve this, a predictive model must characterise the patterning of material traces across the local and/or regional area, consider the distribution of natural resources and probable land-use strategies employed by Aboriginal people in the past, and consider the spatial and temporal relationships of sites.

Based on this, an identification of the material traces that are likely to be present in the Study Area can be made, along with inferences as to the nature of Aboriginal occupation of the landscape in the past.

8.1. SITE TYPES

The following descriptions of Aboriginal site types is not exhaustive, but does include the most commonly encountered/recording site types, as they appear on the AHIMS.

Artefact Scatters

Artefact scatters are defined by the presence of two or more stone artefacts in close association (i.e. within fifty metres of each other). An artefact scatter may consist solely of surface material exposed by erosion, or may contain sub-surface deposit of varying depth. Associated features may include hearths or stone-lined fireplaces and heat treatment pits.

- Artefact scatters may represent:
- Camp sites: involving short or long-term habitation, manufacture and maintenance of stone or wooden tools, raw material management, tool storage and food preparation and consumption;
- Hunting or gathering activities;
- Activities spatially separated from camp sites (e.g. tool manufacture or maintenance); or
- Transient movement through the landscape.

The detection of artefact scatters depends upon conditions of surface visibility, including vegetation cover, ground disturbance and recent sediment deposition. Factors such as poor light, vegetation, and leaf litter may obscure artefact scatters and prevent their detection during surface surveys. In addition, because artefact scatters are located on the ground surface, and are not fixed to the ground or any other surface, they can be easily disturbed and/or moved from their original contexts, or damaged. The likelihood of identifying artefact scatters in highly disturbed and intensively used areas is generally very low.

Bora/Ceremonial Sites

Bora grounds are a type of ceremonial site associated with initiation ceremonies. They are usually made of two circular depressions in the earth, sometimes edged with stone. Bora grounds can occur on soft sediments in river valleys and elsewhere, although occasionally they are located on high, rocky ground where they may be associated with stone arrangements.

Burials

Human remains tended to be placed in hollow trees, caves or sand deposits. Usually burials are only identified when eroding out of sand deposits or creek banks, or when disturbed by development. Aboriginal communities are strongly opposed to the disturbance of burial sites. The probability of detecting burials during archaeological fieldwork is typically extremely low.

Carved/Scarred Trees

Scarred trees contain scars caused by the removal of bark for use in manufacturing canoes, containers, shields or shelters. Ethnographic records suggest that carved trees were still relatively common in NSW in

the early 20th century. They were commonly used as markers for ceremonial or symbolic areas, including burials.

Grinding Grooves

Grinding groove are elongated, narrow depressions in soft rocks (particularly sedimentary), generally associated with watercourses. They are most often found in association with sandstone. The depressions are created by the shaping and sharpening of ground-edge hatchets.

Lithic Quarries

A lithic quarry is the location of an exploited stone source. Sites will only be located where exposures of a stone type suitable for use in artefact manufacture occur; this includes chert, quartz, mudstone, and silcrete. Reduction sites, where the early stages of stone artefact manufacture occur, are often associated with quarries.

Rock Shelters with Art/Engravings and/or Occupational Deposits

Rock shelters include rock overhangs, shelters or caves, which were used by Aboriginal people for shelter, temporary occupation, and resource processing and/or preparation. Rock shelter site may contain artefacts, midden deposits and/or rock art/engravings. These sites will only occur where suitable geological formations are present.

Stone Arrangements

Stone arrangements include circles, mounds, lines or other patterns of stone arranged by Aboriginal people. Some were associated with bora grounds or ceremonial sites, and others with mythological or sacred sites. Hill tops and ridge crests which contain stone outcrops or surface stone, and have been subject to minimal impacts from recent land use practices, are potential locations for stone arrangements. Stone arrangements are also typically located on relatively flat, open land.

8.2. PREDICTIVE MODEL

The potential for each of the above identified site types to be present within the Study Area is assessed in **Table 3**, below. This assessment has been informed by the historical, archaeological and environmental context of the Study Area, the development and current and past uses of the Study Area, and the results of the AHIMS search.

Table 3 – Predictive model for archaeological sites within the Study Area

Site Type	Discussion	Potential
Artefact Scatters	<p>The extent to which the Study Area has been disturbed, and the steeply sloping terrain of less disturbed areas, severely limits the potential for artefact scatters to be present.</p> <p>Steep slopes are less stable than flat land, and are particularly susceptible to the effects of environmental processes such as water run-off, vegetation and rock fall.</p> <p>Soils within the Study Area, based on the geological context, are typically shallow, meaning that the above described artificial and natural disturbances that have occurred are likely to have highly modified both the ground surface and any previously present topsoil layers.</p> <p>Additionally, the geology of the Study Area does not suggest that raw stone materials preferred for working were readily available within the immediate vicinity. Though stone material is likely to have been sourced from other areas, the absence of readily available sources within the Study Area may further reduce the likelihood for artefact scatters to be present.</p>	Very Low
Bora/Ceremonial	<p>The Study Area has previously been subject to severe disturbance. Additionally, this kind of site type has not previously been identified in</p>	Very Low -

Sites	<p>proximity to the Study Area or in the local area generally, and the Study Area was not identified as having any particular or specific spiritual or cultural significance for the Aboriginal community as part of previous investigations.⁷⁸</p> <p>The potential for bora/ceremonial sites to be present within the Study Area is therefore assessed as very low to nil.</p>	Nil
Burials	<p>Based on previous/current land uses and the associated disturbance, as well as the general absence of substantial sandy creek beds, suitable hollow trees, suitable caves or non-shallow and undisturbed soils more generally, the potential for burial sites to occur within the Study Area is considered to be very low to nil.</p> <p>There is no historical or cultural information to suggest that burials are likely to be present in the area, however the potential presence of burials cannot be completely discounted.</p>	Very Low - Nil
Carved/Scarred Trees	<p>Carved/scarred trees are typically found in association with stands of original vegetation. Land use impacts over time, which have involved the extensive clearance of vegetation across NSW generally, has resulted in this site type becoming extremely rare.</p> <p>Given both the extended time between when this practice was more common, and the extent to which vegetation has been cleared and/or disturbed within the Study Area, it is considered that the potential for carved/scarred trees is very low to nil.</p>	Very Low - Nil
Grinding Grooves	<p>Grinding grooves are most likely to be located in sedimentary bedrock (sandstone) along watercourses.</p> <p>The closest water courses are located outside of the Study Area and around 100 metres downslope, below relatively steep and heavily vegetated terrain.</p> <p>The potential for these sites to be present within the Study Area is therefore assessed as very low.</p>	Very Low
Lithic Quarries	<p>Lithic quarries occur in association with outcrops of suitable stone material. The underlying geology of the Study Area, which is not characterised by an abundance of any of the preferred raw stone materials, suggests that such outcrops are unlikely to be present in the Study Area.</p> <p>The potential for lithic quarries to be present is therefore considered to be very low to nil.</p>	Very Low - Nil
Rock shelters with Art/Engravings and/or Occupation Deposit	<p>Previous assessments of the Study Area, as well as a review of the topography and landscape, suggests that geological formations associated with the presence of rock shelter sites are common within the surrounding landscape, particularly in association with drainage channels/gullies and associated sandstone formations/cliff faces.</p> <p>The potential for this site type to occur within the Study Area itself, which is highly disturbed and does not contain any previously identified sites of this nature, is assessed as low.</p>	Low
Stone Arrangements	<p>Stone arrangements are typically situated on hill tops, or along ridge crests that contain stone outcrops and/or surface stone, and are more likely to be located on relatively flat, open land.</p> <p>Given the extent to which the Study Area has been disturbed due to continuous use, as well as the scarcity of the abovementioned</p>	Very Low - Nil

⁷⁸ Note: information regarding the spiritual and/or cultural significance of any area may be sensitive information. Sharing this information for the purposes of archaeological investigation/reporting is entirely at the discretion of the community, and an absence of documentation should not be assumed to equate to non-significance

	landforms within the Study Area, the potential for stone arrangements to be present within the Study Area is considered to be very low to nil.	
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8.3. SUMMARY

The predictive model presented in **Table 3**, above, demonstrates the potential for Aboriginal archaeological sites within the Study Area is highly dependent upon the presence/absence of particular landscape features, the extent to which the area has previously been disturbed, and the current condition (including ground surface visibility) of the Study Area.

Based on a review of these factors, it has been determined that the rock shelter sites have the highest potential to be present within the Study Area. This is based both on the topography of the Study Area and the presence of sandstone overhangs/outcrops, and the frequency of this site type across the wider landscape as identified in previous studies (refer **Section 7.3**, above).

Previous studies have shown that, if present, rock shelter sites would be expected to be identified in proximity to water courses, and within relatively undisturbed land. As the closest water courses are located outside of the Study Area and around 100 metres downslope below relatively steep and heavily vegetated terrain, and given the extent to which it has been previously disturbed, it is considered that the potential for this site type within the immediate Study Area is low. For similar reasons, the potential for grinding grooves within the Study Area is assessed as very low.

All other site types, including artefact scatters, carved/scarred trees, bora/ceremonial sites and stone arrangements are considered to have a very low to nil level of potential to occur within the Study Area. This is based on a number of factors, including the relatively low number of such site types having been previously identified in the area generally, the limitations associated with poor ground surface visibility in the Study Area, the extent to which the Study Area has been disturbed (including vegetation clearance), and the scarcity of undisturbed, open and relatively flat land within the Study Area.

9. VISUAL INSPECTION AND FIELD RESULTS

9.1. VISUAL INSPECTION AND METHODOLOGY

A visual inspection of the Study Area was undertaken on 9th March 2017 by Urbis Senior Archaeologist Karyn Virgin. This inspection was undertaken on foot (pedestrian survey), and encompassed all proposed impact areas. This includes the proposed fencing route, proposed footpath routes, and proposed play/recreation areas that will require seating and/or shade structures.

The Study Area comprises cleared, landscaped areas interspersed with stands of remnant vegetation. Cleared areas are predominately grassed, and have clearly been modified in association with the construction of the former UTS campus. Evidence of cutting and filling was observed throughout these areas, and this is supported by historical photographs taken during construction of the buildings. Clear evidence of cutting was observed on exposed sandstone bedrock, particularly in close proximity to the buildings on site, and fill was also observed in association with the cleared, grassed areas.

Figure 9 – Photographs of the Study Area showing evidence of landscape modification and cutting/filling



Picture 1 – View of the landscaped area adjacent to the Carpark A



Picture 2 – Typical landscape adjacent to built elements

Figure 10 – Photographs of the Study Area showing evidence of landscape modification and cutting/filling



Picture 3 – View of cut sandstone bedrock, fill, and proximate buildings



Picture 4 – Cleared and modified grassed area adjacent to former campus buildings



Picture 5 – Cleared area adjacent to buildings



Picture 6 – Evidence of landscape modification, with sandstone retaining wall demarcating proposed new fence route

Soils within the proposed impact areas were observed to comprise either a very shallow and loose sandy loam topsoil in association with remnant vegetation stands, or a more tightly compacted clayey fill in association with more disturbed areas. Loose, shallow soils appeared to be highly susceptible to movement, particularly in association with heavy rainfall and given the steeply sloping topography on the fringes of the former campus site. Extensive areas of exposed sandstone bedrock and sandstone outcrops were also observed. Ironstone gravels were also observed throughout the Study Area.

Ground surface visibility was relatively limited (20%) due to leaf litter, built elements, asphalt/footpaths etc, and grass cover. Exposures were minimal (5-10%) and limited to more disturbed areas of the Study Area.

Figure 11 – Soils, geology, and ground cover in the Study Area



Picture 7 – Leaf litter, loose soil and exposed sandstone bedrock/outcrops in the Study Area



Picture 8 – Exposed sandstone bedrock in proximity to built elements



Picture 9 – Detailed view of soils within cleared and landscaped areas of the Study Area



Picture 10 – Demonstration of the difference between cleared, grassed areas, and surrounding retained vegetation (demarcated by low sandstone retaining wall)

As noted above, vegetation within the Study Area comprises stands of remnant vegetation, which are dominated by mature eucalypt trees. Casuarina and acacia species are also represented, as is a sparse shrub layer within the less disturbed (i.e. cleared) areas which featured banksia, acacia and leucopogon (heath) species. None of the trees observed during the visual inspection were of a suitable age or physical composition for scarring and/or engraving.

Generally, the Study Area was observed to be highly disturbed, as shown in the above photos and described at **Section 6.1**, with disturbance being most severe in proximity to built elements and within cleared/landscaped areas.

Figure 12 – Vegetation within the Study Area



Picture 11 – Remnant vegetation in proximity to exposed bedrock and built elements



Picture 12 – Typical vegetation within the Study Area (downslope of cleared/landscaped areas)



Picture 13 – Remnant and regrowth vegetation in the Study Area



Picture 14 – Remnant and regrowth vegetation in the Study Area

9.2. RESULTS OF THE VISUAL INSPECTION

The visual inspection of the Study Area did not result in the identification of any Aboriginal archaeological objects or sites. The developed areas of the Study Area, including the cleared/landscaped areas, were observed to be significantly disturbed.

No vegetation suitable for scarring or carving was identified, despite the presence of sparse stands of remnant, native vegetation within the Study Area's allotment boundaries. A number of sandstone outcrops and sheets were identified, though none were observed to feature or contain any evidence to suggest that they had previously been used or modified by Aboriginal people in the past. No rock shelters or rock platforms suitable for engraving or grinding grooves were observed to be present within the Study Area itself, nor within specific impact areas.

Despite relatively low ground surface visibility and exposures, it was clear that topsoil layers had been completely removed and/or severely disturbed within the majority of the Study Area. Proposed impact areas were observed to be particularly severely disturbed through previously development associated with the former campus.

The description of the landscape as 'severely disturbed' conforms to the Office of Environment and Heritage (OEH) definition of disturbed land as:

"Land is disturbed land if it has been the subject of human activity that has changed the land's surface, being changes that remain clear and observable. Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other

similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure), substantial grazing involving the construction of rural infrastructure, and construction of earthworks associated with anything referred to above."⁷⁹

This visual inspection undertaken to inform this ACHAR confirmed that the land within the majority of the Study Area is severely disturbed. No Aboriginal objects or sites were identified. Within less disturbed areas of the Study Area, which are limited to bushland located along the southern boundary of the campus, soils were observed to be very shallow. In these areas, vegetation was dense, sandstone outcrops were common, and the impacts of water run-off, rock fall, and general surface movement were clear.

The archaeological potential, sensitivity and research potential of the entirety of the Study Area is therefore assessed to be low. This is supported by previous archaeological studies that have been undertaken at or in proximity to the Study Area.

The visual inspection of the Study Area confirmed the predictive model presented at **Section 8**.

⁷⁹ DECCW 2010:18

10. CULTURAL HERITAGE VALUES AND STATEMENT OF ARCHAEOLOGICAL AND CULTURAL SIGNIFICANCE

Cultural significance is a concept that assists appraisal of the value of places. The places that are likely to be of significance are those that help us understand the past, enrich the present, and may be of value to future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects (Australia ICOMOS, 1999).

10.1. CULTURAL HERITAGE SIGNIFICANCE AND VALUES

The cultural heritage significance and values of an area and of any Aboriginal archaeological sites within that area can be assessed using the four criteria outlined in the Burra Charter; aesthetic, historic, scientific and social/ spiritual. These criteria are described below.

Social/Spiritual Value

Social/spiritual value concerns the spiritual, traditional, historical or contemporary associations and attachments which the place or area has for the present-day Aboriginal community. Places of social significance have associations with contemporary community identity. These aspects of heritage significance can only be determined through consultative processes with one or more Aboriginal communities. As such, they are archaeologically invisible and can only be identified with the aid of Aboriginal interpretation. If such sites are known, they hold particular cultural significance to contemporary Aboriginal people. Furthermore, sites of significance are not restricted to the period prior to contact with Europeans. Often events related to the contact period, and at times to the period since European settlement, may be important to the local Aboriginal communities.

Historical Value

Historic value refers to the associations of a place with a person, event, phase or activity of importance to the history of an Aboriginal community. Historic places may or may not have physical evidence of their historical importance, however the significance will be generally greater where evidence of the association or event survives in situ, or where the settings are substantially intact. Some events or associations may be so important that the place retains significance regardless of subsequent treatment. In relation to Aboriginal cultural heritage, many post-contact places and sites have historic value.

Aesthetic Value

Aesthetic value refers to aspects of sensory and may include consideration of form, scale, colour, texture, and material of the fabric or landscape, as well as the smell and sounds associated with the place and its use. With regard to pre-contact Aboriginal cultural heritage sites, the placement within the landscape would be considered under this criterion. Individual artefacts, sites and site features may also have aesthetic significance.

Scientific (Archaeological) Value

Scientific (archaeological) value refers to the importance of a landscape, area, place or object because of its archaeological and/or other technical aspects. Assessment of scientific value is often based on the likely research potential of the area, place or object and will consider the importance of the data involved, its rarity, quality or representativeness, and the degree to which it may contribute further substantial information. Scientific or archaeological significance may be assessed by placing a site, feature or landscape in a broader regional context and by assessing its individual merits in the context of current archaeological discourse.

10.1.1. Assessment of Cultural Heritage Significance and Values

An assessment of cultural heritage significance and values incorporates a range of values which may vary for different individual groups and may relate to both the natural and cultural characteristics of places or sites. Cultural significance and Aboriginal cultural views can only be determined by the Aboriginal community using their own knowledge of the area and any sites present, and their own value system. All Aboriginal heritage evidence tends to have some contemporary significance to Aboriginal people, because it represents an important tangible link to their past and to the landscape.

Consultation with members of the local Aboriginal community (being the Metropolitan LALC) was undertaken to identify the level of spiritual/cultural significance of the Study Area and its components. In acknowledgment that the Aboriginal community themselves are in the best position to identify levels of cultural significance, the Metropolitan LALC were invited to provide comment and input into this ACHAR and to the assessment of cultural heritage significance and values presented therein.

Selina Timothy, the Culture and Heritage Officer of the Metropolitan LALC, has confirmed that the local area generally is of cultural significance. The surrounding landscape, which contains a number of Aboriginal archaeological sites that provide evidence of past occupation and a connection to Aboriginal communities that used and inhabited the area in the past, is identified by the LALC as being culturally significant, in a general sense.

The Study Area specifically, however, was acknowledged to be disturbed, and to be highly unlikely to contain any intact archaeological material or deposits. Through consultation with the LALC, it was determined that the Study Area specifically, owing to the extent of disturbance that has occurred, was not considered to be of any particular cultural or spiritual significance to the community.

In addition to the above, the LALC have provided the below comments with regard to cultural heritage:

- Metropolitan LALC (MLALC) is the legislated authority for protection and preservation of Aboriginal Culture & Heritage for the area of this proposed development and greatly appreciates being engaged for this proposal. MLALC representative for this project is Selina Timothy MLALC Culture Heritage Officer
- MLALC acknowledges Gumeragal aka Cameragal of the Eora Nation as traditional owners of Lindfield being the site of the proposed development.
- MLALC affirms that Guringai is actually the 1st Nations of the Barrington Tops area. And notes that Guringai has been misappropriated by Non 1st Nations people as Traditional owners of the North Shore & Northern area of Sydney as it is known today. MLALC acknowledges Penal colony records attesting that Newcastle and Port Stephens 1st Nations people and or Aboriginal people were in Sydney's Domain and or Government house area in 1828 and more than likely is the cause of the misapprehension and wrongful application of the Guringai being Traditional owners of the Northern Sydney Metropolitan area. Attached is paper Filling the Void, by Aboriginal Heritage Office, to assist informing the misuse of Guringai as Traditional owners in Sydney
- Dharug is a creation of Non Aboriginal R H Mathews in 1905 as a untrained anthropologist whom created the word Dharug without any reference of Aboriginal & or 1st Nations informants or sources. MLALC notes this is promoted by Macquarie University academics without any consultation and or authority of Metropolitan LALC as the legislated authority for protection & preservation of Aboriginal Culture & Heritage for the area of this proposed development.
- MLALC notes that the Colony records attest that the Gumeragal people resisted Colonisation of subject area for approximately 20 years until being forced by military and militias out of the area.

Following their review of this ACHAR, the Metropolitan LALC has also provided the following recommendations. These recommendations have been included at **Section 12** as Recommendations 1 and 2:

- The Metropolitan LALC are to be engaged by the proponent to monitor/supervise any site works that involve sub-surface disturbance (including excavation or the installation of piles, footings, etc) at depths greater than one metre. This is to ensure that the LALC are appropriately involved and consulted in the event that the proposed works interact with/disturb any soil profiles with the potential to be artefact bearing.
- The Metropolitan LALC are to be immediately informed and advised of any cultural heritage material recovered during the development.

A copy of the correspondence received from the Metropolitan LALC has been included at **Appendix D**. The Metropolitan LALC did not dispute any of the findings or conclusions of this ACHAR as they relate to Aboriginal archaeological potential, and did not indicate that any other groups or Aboriginal parties were required to be consulted as part of this ACHAR.

10.2. SCIENTIFIC (ARCHAEOLOGICAL) SIGNIFICANCE

Scientific significance, also referred to as archaeological significance, is determined by assessing an Aboriginal heritage site or area according to archaeological criteria. The assessment of archaeological significance is used to develop appropriate heritage management and impact mitigation strategies.

Criteria for archaeological significance have been developed in accordance OEH guidelines, as shown in **Table 4**, below.

Table 4 – Scientific (archaeological) significance criteria

Significance Criteria	Description
Research Potential	Does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
Representativeness	How much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
Rarity	Is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
Education Potential	Does the subject area contain teaching sites or sites that might have teaching potential?
Condition	What is the condition of the site? Does it appear to have been impacted/altered?

10.2.1. Assessment of Scientific (Archaeological) Significance

In accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW, and in consultation with representatives of the local Aboriginal community, the following assessment of the scientific (archaeological) significance of identified sites within the Study Area has been prepared. Also in accordance with The Guide, this assessment employs gradings of significance, being high, medium, and low, which allow significance to be described and compared.

This assessment is presented in **Table 5**, below.

Table 5 – Assessment of scientific (archaeological) significance

Site	Site Type	Significance Scale	Research Potential	Representativeness	Rarity	Education Potential	Condition	Overall Archaeological Significance
AHIMS #45-6-2210	Rock shelter with shell midden deposit	Local	Low	Medium	Low	Low	Low	Low
		Regional	Low	Medium	Low	Low	Low	Low

Overall, AHIMS #45-6-2210 is considered to have low scientific (archaeological) significance in terms of research potential, rarity, education potential and condition. The site is, however representative in both the local and regional context, as rock shelter sites are particularly common within the local and regional contexts as a result of the underlying topography and geology.

The original recording of AHIMS #45-6-2210 and the 2012 re-location and re-assessment of the shelter site identified that it contained shell material and bone, though it was acknowledged that the placement of this bone within the shelter could not be conclusively identified as being associated with Aboriginal use of the shelter (as it may have been brought in by predators at a later time). Both the original and 2012 description note that midden material was generally disturbed, as was the floor of the shelter more generally.

Despite the above, there is considered to be potential for as yet unidentified sub-surface archaeological deposit to be located within the shelter, given the described depth of soil deposit across the shelter floor (being up to 10 centimetres deep in places). It is, however, is expected that any artefacts recovered from the shelter in the future would be relatively similar in terms of content (artefact types and materials used) and density to other deposits investigated in comparable rock shelter sites in the area. The depth of soil deposit in the shelter (up to 10 centimetres), as well its observed condition, suggests that any deposits are relatively unlikely to be highly intact, and that artefacts, if recovered, may not be found *in situ*.

Aside from its potential to contain artefactual material, the site is considered to be a typical rock shelter, commonly encountered in the local area due to the topography and landscape features. Rock shelter sites, including those with or without artefacts, PADs or art/engravings, are the most common site types identified in the local area. As such, a number of examples of this site type have been recorded. It is noted that the site was not identified to contain any art or engravings, with the walls described as uneven and unsuitable for such evidence of Aboriginal use.

For these reasons, it is considered that AHIMS #45-6-2210 is unlikely to make a significance contribution to an understanding of the local area or region's natural or cultural history. In terms of condition, the shelter was described to display evidence of disturbance, including the long-term effects of animal movement, gradual ground surface movement and rock fall. These long-term and naturally occurring impacts are considered likely to have altered the configuration of the deposit contained within the shelter. The long-term effects associated with these impacts may have resulted in the relocation and or removal of any artefactual material previously located on the ground surface of the shelter.

For the above discussed reasons, AHIMS #45-6-2210 has been assessed to have low scientific (archaeological) significance.

11. IMPACT ASSESSMENT

Previous assessments that have included the current Study Area have demonstrated that the UTS Ku-ring-gai Campus has low potential to contain Aboriginal archaeological objects or sites due to the extent to which it has been disturbed and the absence of particular landscape features such as suitable rock overhangs (i.e. rock shelters) or platforms (that may indicate the presence of rock art, engravings, or grinding grooves).

Further, no Aboriginal archaeological sites or places are recorded in or within 50 metres of the Study Area. The closest registered site is located outside of the Study Area, approximately 60 metres to the south of the southern boundary of the Study Area and well outside of any of the proposed impact areas.

11.1. ASSESSMENT OF DIRECT IMPACTS

Overall, the archaeological potential and sensitivity of the Study Area has been assessed as low. No Aboriginal sites or objects were identified within the Study Area as part of the current ACHAR, and no previously recorded sites, as registered on AHIMS, are located in any of the proposed impact areas.

Based on the above, no direct impacts to Aboriginal archaeology have been identified as part of this ACHAR.

11.2. ASSESSMENT OF INDIRECT IMPACTS

The AHIMS search conducted shows that no Aboriginal archaeological sites or places are recorded in or within 50 metres of the Study Area. The closest registered site is located outside of the Study Area, approximately 60 metres to the south of the southern boundary of the Study Area and well outside of any of the proposed impact areas. This site, being AHIMS #45-6-2210, is registered as a rock shelter site containing a shell midden deposit.

As the proposed works are relatively minor in terms of their sub-surface impact, they do not have any identified potential to result in any incidental or inadvertent impacts to this site.

It is also noted that the Remediation Action Plan (prepared by Environmental Investigation Services) for the Study Area notes that relevant vibration and noise impact limits will be adhered to, effectively avoiding any risk of indirect impact to the shelter as a result of vibration works associated with construction.

There is therefore no identified risk of indirect harm to this site as a result of the current proposal. No potential indirect impacts have been identified for any other registered or potential Aboriginal archaeological sites as a result of the current proposal.

12. CONCLUSION AND RECOMMENDATIONS

This ACHAR has been prepared for proposed works within the Study Area. A summary of the findings of the ACHAR is provided below.

- The historical and environmental context of the Study Area was researched. This research found that the Study Area would have had the potential to contain Aboriginal sites/objects prior to disturbance. However, this research also found that the Study Area has been subject to severe and extensive disturbance.
- The AHIMS search conducted shows that no Aboriginal archaeological sites or places are recorded in or within 50 metres of the Study Area. The closest registered site is located outside of the Study Area, approximately 60 metres to the south of the southern boundary of the Study Area and well outside of any of the proposed impact areas. This site, being AHIMS #45-6-2210, is registered as a rock shelter site containing a shell midden deposit.
- A desktop assessment, including a review of previous archaeological and heritage studies in the vicinity of the Study Area, was undertaken. This review suggested that rock shelter and artefact sites were the most commonly encountered site types in the area, though the results of previous investigations as well as the extent to which the Study Area has been disturbed (and the absence of suitable rock shelters, rock outcrops and rock platforms within the Study Area and proposed impact areas specifically) indicates that the potential for such sites to be encountered within the Study Area is low;
- A visual inspection of the Study Area was undertaken and no Aboriginal objects were identified. The visual inspection confirmed that the Study Area had been severely disturbed, and that the archaeological potential of the Study Area is low.
- No major earthworks or building works are proposed at the Study Area.
- Consultation with the Metropolitan LALC has acknowledged that the Study Area is disturbed, and is unlikely to contain any intact archaeological material or deposits. Through consultation with the LALC, it was determined that the Study Area specifically, owing to the extent of disturbance that has occurred, was not considered to be of any particular cultural or spiritual significance to the community.

Overall, the archaeological potential and sensitivity of the Study Area has been assessed as low. No Aboriginal sites or objects were identified within the Study Area as part of the current ACHAR, and no previously recorded sites, as registered on AHIMS, are located in Study Area or in proximity to proposed impact areas.

Based on the above, there is limited to no identified risk of harm to any Aboriginal sites or objects associated with the proposed works. It has therefore been determined that no further Aboriginal archaeological investigation is required for the currently proposed works, provided that the below recommendations are followed. It is noted that these recommendations have been developed in consultation with the Metropolitan LALC.

Recommendations, Avoidance Measures and Mitigation Measures

Recommendation 1

The Metropolitan LALC are to be engaged by the proponent to monitor/supervise any site works that involve sub-surface disturbance (including excavation or the installation of piles, footings, etc) at depths greater than one metre.

This is to ensure that the LALC are appropriately involved and consulted in the event that the proposed works interact with/disturb any soil profiles with the potential to be artefact bearing.

Recommendation 2

The Metropolitan LALC are to be immediately informed and advised of any cultural heritage material recovered during the development.

Recommendation 3

The location of AHIMS #45-6-2210 is to be made known to all staff, contractors and visitors to the Study Area prior to any works commencing.

Recommendation 4

All on-site staff and contractors should be made aware of their statutory obligations for heritage under *NSW National Parks and Wildlife Act 1974* and the *NSW Heritage Act 1977*, as well as the registered location of AHIMS #45-6-2210.

Recommendation 5

In the event that further proposals are made that have the potential to impact known Aboriginal sites in the vicinity, further assessment and consultation with relevant Aboriginal stakeholders will be required.

Recommendation 6

This ACHAR should be kept by the property owner so that it can be presented, if needed, as a defence from prosecution.

Recommendation 7

If Aboriginal object/s are identified in the Study Area during works, then all works in the immediate area must cease and the area cordoned off. OEH must be notified via the Enviroline 131 555 so that the site can be adequately assessed and managed.

Recommendation 8

In the event that skeletal remains are uncovered, work must cease immediately in that area and the area cordoned off. The NSW Police must be contacted with no further action taken until written advice is provided by the Police. If the remains are determined to be of Aboriginal origin, OEH must be notified via the Enviroline 131 555 and a management plan must be developed prior to works re-commencing in consultation with the relevant Aboriginal stakeholders.

13. BIBLIOGRAPHY AND REFERENCES

13.1. BIBLIOGRAPHY

The report has been prepared in accordance with and/or with reference to the following documents prepared by the NSW OEH (formerly NSW Department of Environment, Climate Change and Water [DECCW]):

- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW 2010;*
- *Due Diligence Code of Practice for Protection of Aboriginal Objects in NSW 2010;*
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010;*
- *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW 2010;*
- *Applying for an Aboriginal Heritage Impact Permit: Guide for Applicants 2010.*

13.2. REFERENCES

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APPENDIX A AHIMS EXTENSIVE SEARCH RESULT

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : sadasd

Client Service ID : 310712

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-5-2584	LC NPM 1	AGD	56	328710	6259000	Open site	Valid	Shell : -, Artefact : -	Midden	
	Contact	Recorders	Permits							
45-6-2232	Depression Cave;	AGD	56	329290	6259390	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	
	Contact	Recorders	Permits							
45-6-2233	LBG Creek 1;	AGD	56	329190	6259960	Closed site	Valid	Artefact : -	Shelter with Deposit	
	Contact	Recorders	Permits							
45-6-2234	LBG Creek 2;	AGD	56	329150	6259910	Closed site	Valid	Art (Pigment or Engraved) : -	Shelter with Art	
	Contact	Recorders	Permits							
45-6-2235	LBG Creek 3;	AGD	56	329130	6259860	Closed site	Valid	Artefact : -	Shelter with Deposit	
	Contact	Recorders	Permits							
45-6-2508	Delhi Road; RYDE 008	GDA	56	329264	6259300	Closed site	Valid	Artefact : -	Shelter with Deposit	102489
	Contact	Recorders	Permits							
45-6-1558	Delhi Road;North Ryde; RYDE 009	GDA	56	329034	6258982	Open site	Valid	Art (Pigment or Engraved) : -	Rock Engraving	102489
	Contact	Recorders	Permits							
45-6-2210	Blue Gum creek	AGD	56	329754	6259430	Closed site	Valid	Shell : -, Artefact : -	Shelter with Midden	1899
	Contact	Recorders	Permits							
45-6-1353	Swaines Creek;Red Arrow Cave;	AGD	56	329500	6258400	Closed site	Valid	Art (Pigment or Engraved) : -	Shelter with Art	2047
	Contact	Recorders	Permits							
45-6-1946	Blue Gum Creek;	AGD	56	329540	6259160	Open site	Valid	Artefact : -, Shell : -	Midden,Open Camp Site	
	Contact	Recorders	Permits							
45-6-1633	Fullers Park Lane Cove River SRA	AGD	56	329745	6259174	Open site	Valid	Shell : -, Artefact : -	Midden	1899
	Contact	Recorders	Permits							
45-6-2649	Lane Cove River PAD 1	AGD	56	329100	6259180	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Permits							
45-6-2661	Lane Cove PAD 1	AGD	56	329340	6259240	Open site	Valid	Potential Archaeological Deposit (PAD) : -	1470	
	Contact	Recorders	Permits							
		Recorders	ERM Australia Pty Ltd- Sydney CBD							
			Permits							
			1689							

Report generated by AHIMS Web Service on 03/11/2017 for Karyn Virgin for the following area at Lot : 2, DP:DP1151638 with a Buffer of 1000 meters. Additional Info : due dil. Number of Aboriginal sites and Aboriginal objects found is 16

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : sadasd

Client Service ID : 310712

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-6-2911	Cocupara Shelter 1	GDA	56	329599	6260665	Closed site	Valid	Art (Pigment or Engraved) : 1		
	<u>Contact</u>	<u>Recorders</u>	Mr.Phil Hunt,Aboriginal Heritage Office					<u>Permits</u>		
45-6-3043	Little Blue Gum Shelter PAD 1 KUR 082	GDA	56	329434	6260370	Closed site	Valid	Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	Aboriginal Heritage Office					<u>Permits</u>		
45-6-3336	Little Blue Gum Shelter PAD 2	GDA	56	329430	6260240	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
	<u>Contact</u>	<u>Recorders</u>	Mr.Phil Hunt					<u>Permits</u>		

Report generated by AHIMS Web Service on 03/11/2017 for Karyn Virgin for the following area at Lot : 2, DP:DP1151638 with a Buffer of 1000 meters. Additional Info : due dil. Number of Aboriginal sites and Aboriginal objects found is 16

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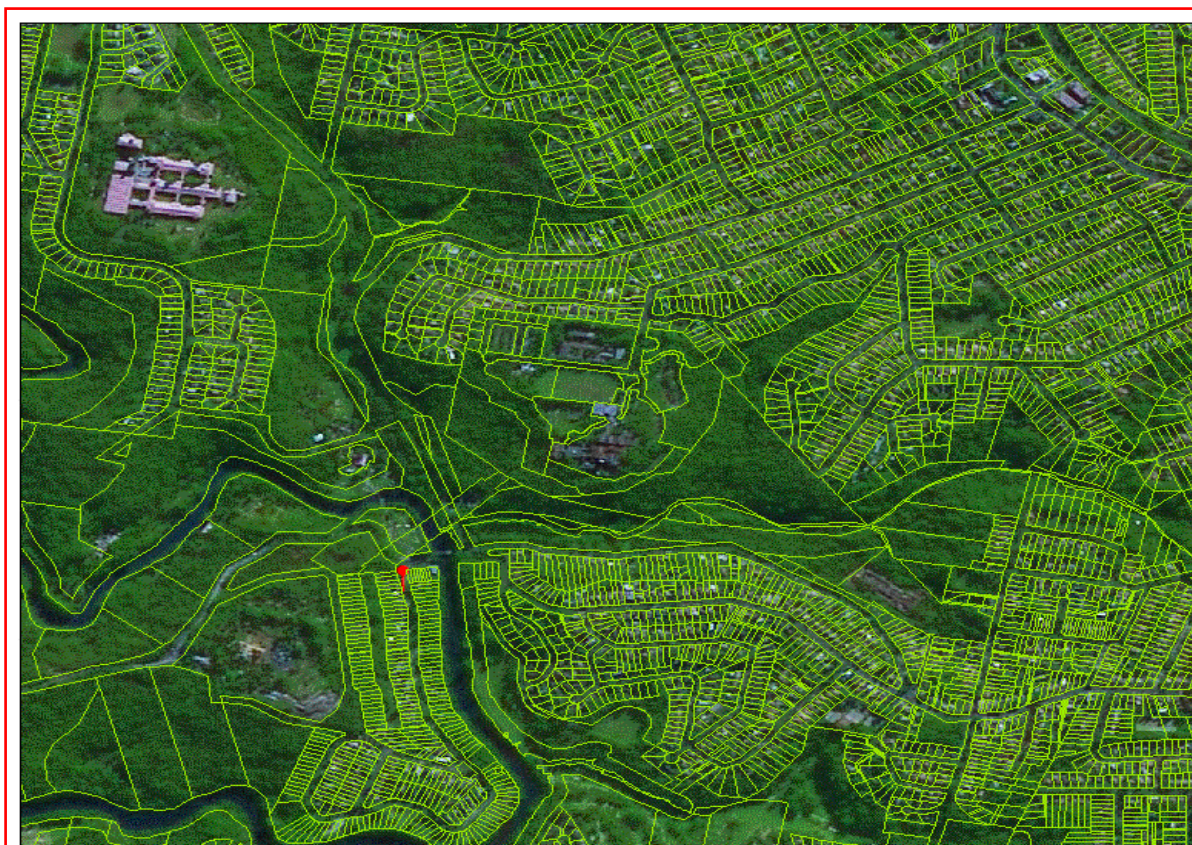
Karyn Virgin
75 York Street
Teralba New South Wales 2284
Attention: Karyn Virgin
Email: kvirgin@umwelt.com.au

Date: 17 August 2018

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 2, DP:DP1151638 with a Buffer of 1000 meters, conducted by Karyn Virgin on 17 August 2018.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

16	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

APPENDIX B LANDSCAPE PLAN

FIELD PARTIAL SCHOOL DEVELOPMENT LANDSCAPE PACKAGE

DRAWING LIST

DWG NO.	REV	DRAWING NAME
LA-0000	5	PARTIAL SCHOOL COVER SHEET AND DRAWING REGISTER
LA-1000	3	PARTIAL SCHOOL MATERIALS, FINISHES AND PLANTING SCHEDULES
LA-1001	6	PARTIAL SCHOOL LANDSCAPE TREE PROTECTION PLAN AND OVERALL LANDSCAPE PLAN (SHEET 1 OF 2)
LA-1002	6	PARTIAL SCHOOL LANDSCAPE TREE PROTECTION PLAN AND OVERALL LANDSCAPE PLAN (SHEET 2 OF 2)
LA-2010	4	PARTIAL SCHOOL KINDERGARDEN OUTDOOR PLAY LANDSCAPE PLAN
LA-2020	4	PARTIAL SCHOOL ROOFTOP OUTDOOR PLAY LANDSCAPE PLAN
LA-5100	2	PARTIAL SCHOOL TYPICAL PLANTING DETAILS
LA-5200	4	PARTIAL SCHOOL TYPICAL DETAILS
LA-5300	3	PARTIAL SCHOOL SEATING SOFTFALL DETAILS
LA-5400	3	PARTIAL SCHOOL PLAY ELEMENTS DETAILS

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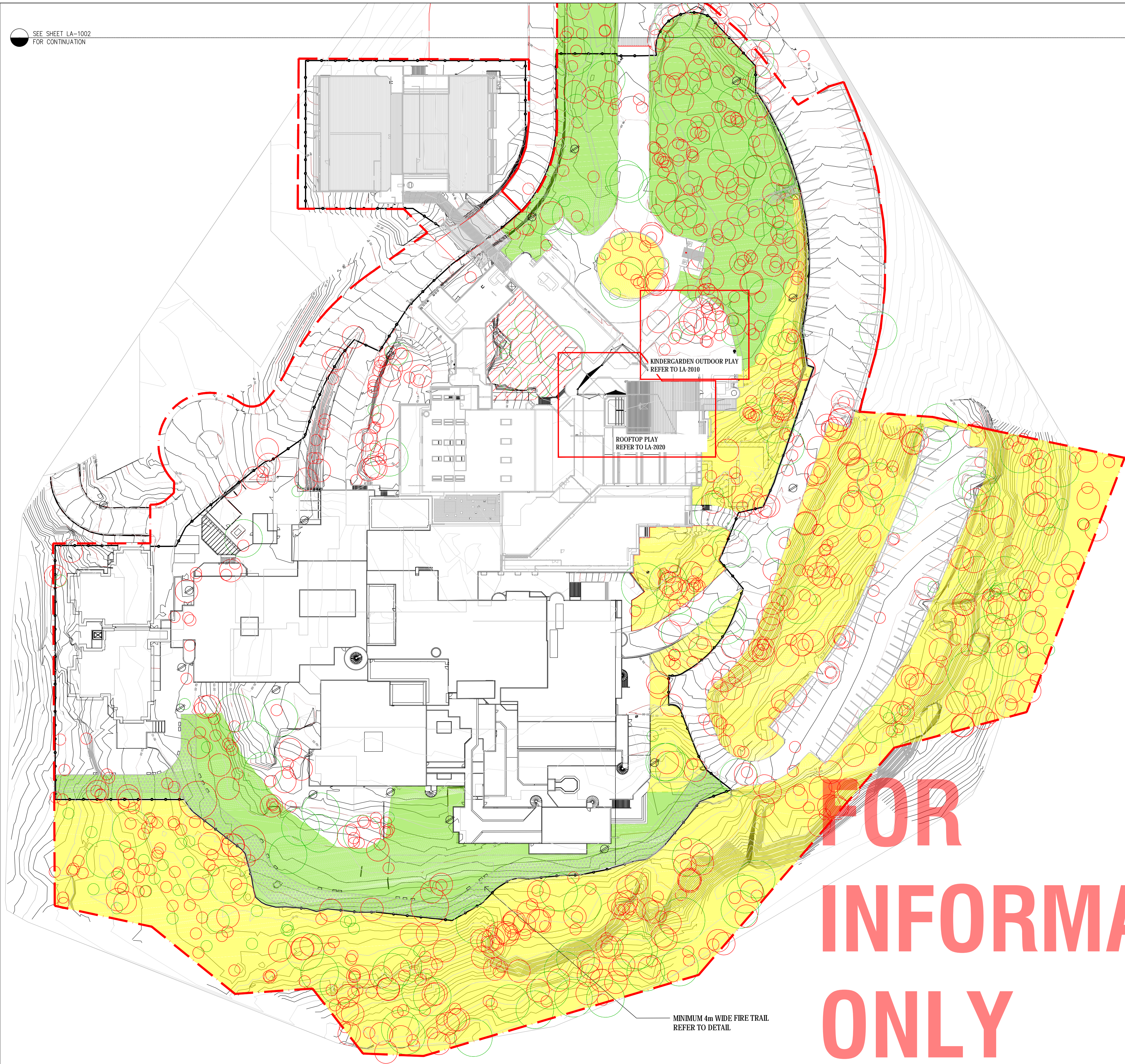
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Nominated Architect:

Anthony Quan 5421 | Sandeep Amin 7337 | Ian Armstrong 7260 | Richard Does 8126

No	DATE	REVISIONS	BY
1	18/06/2018	TENDER ISSUE	IC
2	17/08/2018	ISSUE FOR PLANNING SUBMISSION	IC
3	23/08/2018	ISSUE FOR CONSULTANT COORDINATION	IC
4	27/08/2018	UPDATES TO TREE TREATMENT ALONG PATH	IC
5	28/08/2018	RESPONSE TO SUBMISSION	IC

ARCHITECT			
DesignInc Lacoste + Stevenson bmc2 architects in association			
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CLIENT			
PROJECT		LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL Eton Road, Lindfield NSW 2070	
TITLE		PARTIAL SCHOOL COVER SHEET & DRAWING REGISTER	
	DRAWN BY	IC	
	SCALES	NTS @ A1	
	PLOT DATE	28/08/2018	
PROJECT N°.		P18-023	REVISION
DRAWING N°.		LA-0000	5
DRAWING STATUS FOR INFORMATION ONLY		REVIEWED BY MR	SIGNATURE DATE 28/08/2018
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TREES WILL BE CUT TO GROUND LEVEL. FOR
ALL PLAY AND TURF AREAS, TAKE OUT
STUMPS AND GROUND ROOTS TO 150mm
BELOW FINISH LEVEL. IN OTHER AREAS
RETAIN STUMPS AND ROOTS.

ANY TREES OUTSIDE SITE BOUNDARY TO BE
RETAINED.

THE LANDSCAPE PLANS SHOULD CROSS
REFERENCE THE VEGETATION MANAGEMENT
AND LANDSCAPE MANAGEMENT PLAN AND
SHOULD BE IMPLEMENTED IN CONJUNCTION
TO EACH OTHER WITH AN ECOLOGIST
OVERSEEING THE PROCESS.

THE CONTRACTOR IS TO NOTIFY THE
LANDSCAPE ARCHITECT OF ANY
DISCREPANCIES BETWEEN THE DRAWINGS
AND THE LANDSCAPE MANAGEMENT PLAN
AND REQUEST CLARIFICATION.

ALL MATERIALS TO BE BAL FZ RATED.

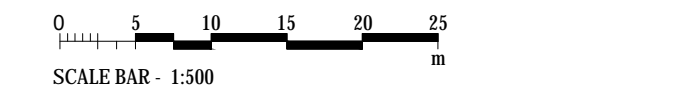
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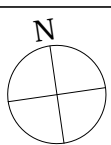
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Nominated Architects
Anthony Quan 5421 | Sealeep Amin 7337 | Ian Armstrong 7260 | Richard Doves 8126

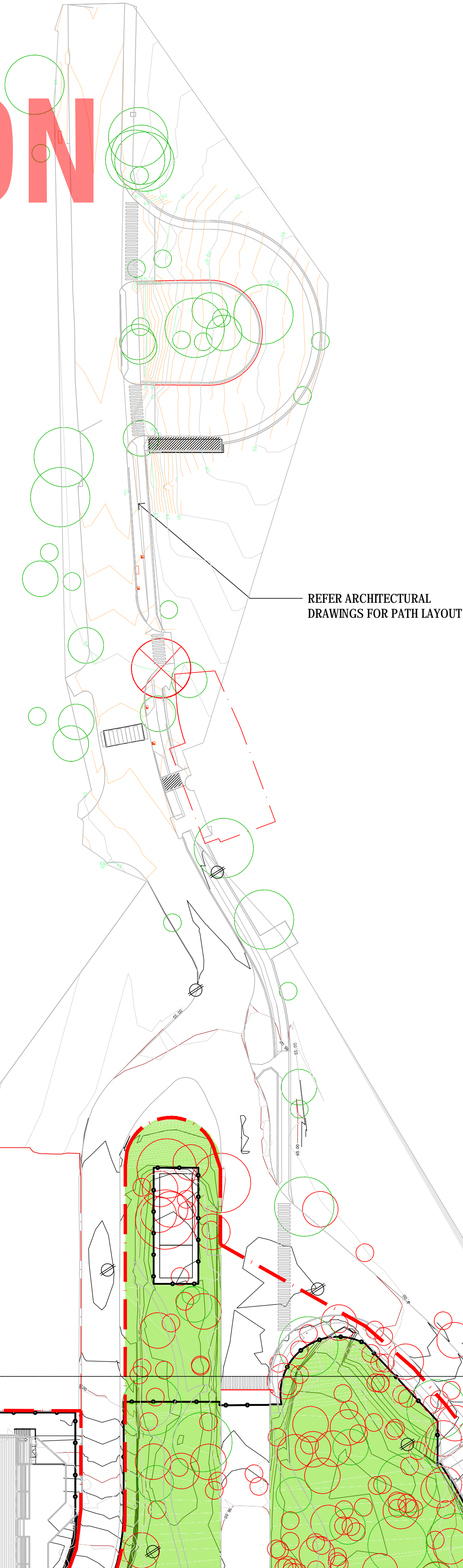
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2	14/08/2018	TENDER ISSUE	IC
3	16/08/2018	REVISED FOR PROJECT MANAGER'S COMMENTS	IC
4	17/08/2018	ISSUE FOR PLANNING SUBMISSION	IC
5	23/08/2018	ISSUE FOR CONSULTANT COORDINATION	IC
6	24/08/2018	UPDATED FROM CONSULTANT COORDINATION	IC
7	28/08/2018	RESPONSE TO SUBMISSION	IC

LEGEND	
	SITE BOUNDARY
	PROPOSED SECURITY FENCE BY ARCHITECT
	ALL PLANTS TO BE RETAINED
	INNER PROTECTION ZONE APZ GRASSY PLAY AREA TO BE PLANTED WITH BUFFALO TURF REFER TO LANDSCAPE MANAGEMENT PLAN
	INNER PROTECTION ZONE APZ NATIVE PLANTS WITH FIRE RETARDANT PROPERTIES: <i>Lomandra tanika</i> <i>Dianella longifolia</i> <i>Dianella revoluta</i> <i>Dianella tarda</i>
	EXISTING TREE TO BE REMOVED DUE TO PATH WIDENING - REFER TO ARBORIST'S REPORT
	EXISTING TREE WITH TREE NUMBERS TO BE REMOVED - REFER TO ARBORIST'S REPORT
	EXISTING TREE TO BE RETAINED
	FIRE TRAIL
	SANDSTONE LOG SEATING (1000 x 450 x 350H)
	FIRE HYDRANT REFER TO ENGINEER'S DRAWINGS



ARCHITECT				DesignInc Lacoste + Stevenson bmc2 architects in association DesignInc Sydney PTY LIMITED ACN 003008820 L12 / 77 PACIFIC HWY NORTH SYDNEY NSW 2060 AUSTRALIA PO BOX 651 NORTH SYDNEY NSW 2059 AUSTRALIA T +612 8905 7100 F +612 8905 7199 www.designinc.com.au E sydney@sydney.designinc.com.au Architecture Urban Design Interiors			
CLIENT							
PROJECT				LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL Eton Road, Lindfield NSW 2070			
TITLE				PARTIAL SCHOOL LANDSCAPE TREE PLAN AND OVERALL LANDSCAPE PLAN (SHEET 1 OF 2)			
				DRAWN BY		IC	
				SCALES		1:500 @ A1	
				PLOT DATE		28/08/2018	
PROJECT N°.		P18-023		REVISION		7	
DRAWING N°.		LA-1001					
DRAWING STATUS		REVIEWED BY		SIGNATURE		DATE	
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No	DATE	REVISIONS	BY
1	14/08/2018	TENDER ISSUE	IC
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4	23/08/2018	ISSUE FOR CONSULTANT COORDINATION	IC
5	24/08/2018	UPDATES FROM CONSULTANT COORDINATION	IC
6	27/08/2018	UPDATES TO TREE TREATMENT ALONG FOOTPATH	IC

LEGEND

SITE BOUNDARY

PROPOSED SECURITY FENCE BY ARCHITECT

ALL PLANTS TO BE RETAINED

INNER PROTECTION ZONE APZ
GRASSY PLAY AREA TO BE PLANTED WITH BUFFALO TURF
REFER TO LANDSCAPE MANAGEMENT PLAN

INNER PROTECTION ZONE APZ
NATIVE PLANTS WITH FIRE RETARDANT PROPERTIES:
Lomandra tanika
Dianella longifolia
Dianella revoluta
Dianella tarda

EXISTING TREE TO BE REMOVED DUE TO PATH WIDENING - REFER TO ARBORIST'S REPORT

EXISTING TREE WITH TREE NUMBERS TO BE REMOVED - REFER TO ARBORIST'S REPORT

EXISTING TREE TO BE RETAINED

FIRE TRAIL

SANDSTONE LOG SEATING (1000 x 450 x 350H)

FIRE HYDRANT
REFER TO ENGINEER'S DRAWINGS

NOTE:
REFER TO NOTES ON LA-1001.

05

10

15

20

25

SCALE BAR - 1:500

m

ARCHITECT

DesignInc| Lacoste + Stevenson| bmc2

architects in association

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Architecture Urban Design Interiors

CLIENT

PROJECT

LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE

PARTIAL SCHOOL LANDSCAPE
TREE PLAN AND OVERALL
LANDSCAPE PLAN (SHEET 2 OF 2)

DRAWN BY

IC

SCALES

1 : 500 @ A1

PLOT DATE

27/08/2018

PROJECT N°.

P18-023

REVISION

6

DRAWING N°.

LA-1002

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REVIEWED BY

MR

SIGNATURE

DATE

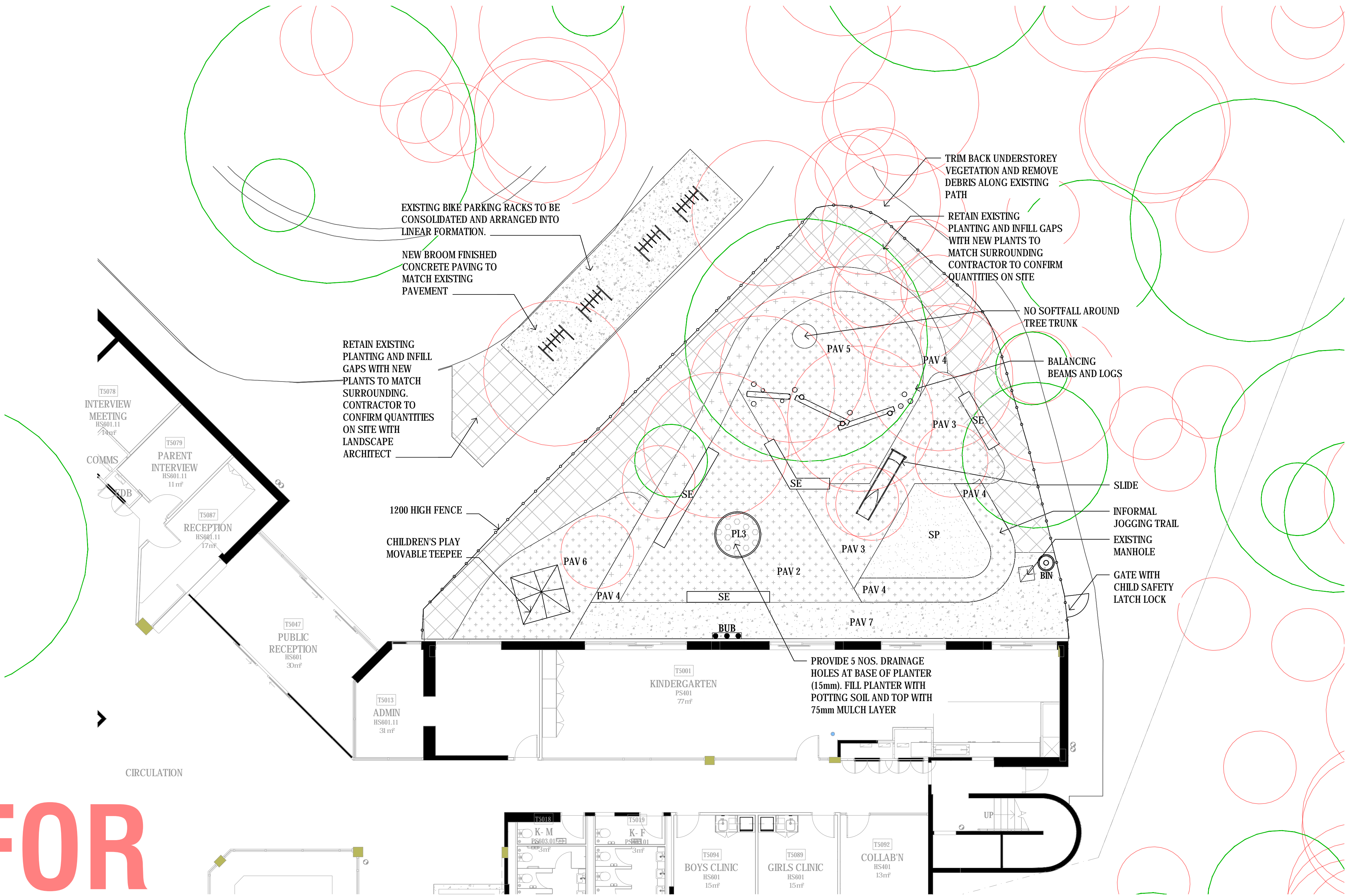
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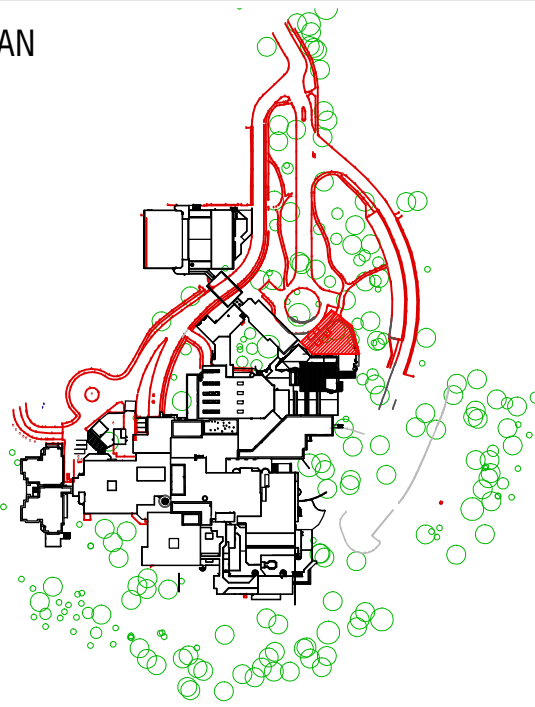
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KEY PLAN



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TREES WILL BE CUT TO GROUND LEVEL. FOR ALL PLAY AND TURF AREAS, TAKE OUT STUMPS AND GROUND ROOTS TO 150mm BELOW FINISH LEVEL. IN OTHER AREAS RETAIN STUMPS AND ROOTS.

ANY TREES OUTSIDE SITE BOUNDARY TO BE RETAINED.

THE LANDSCAPE PLANS SHOULD CROSS REFERENCE THE VEGETATION MANAGEMENT AND LANDSCAPE MANAGEMENT PLAN AND SHOULD BE IMPLEMENTED IN CONJUNCTION TO EACH OTHER WITH AN ECOLOGIST OVERSEEING THE PROCESS.

THE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE LANDSCAPE MANAGEMENT PLAN AND REQUEST CLARIFICATION.

ALL MATERIALS TO BE BAL FZ RATED.

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Nominated Architects
Anthony Quan 5427 | Sushant Amin 7337 | Ian Armstrong 7260 | Richard Doss 8126

No	DATE	REVISIONS	BY
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3	23/08/2018	ISSUE FOR CONSULTANT COORDINATION	IC
4	28/08/2018	RESPONSE TO SUBMISSION	IC

LEGEND

- 1200 HIGH FENCE
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PAV 2 SOFTFALL PAVING TYPE 1
- PAV 3 SOFTFALL PAVING TYPE 2
- PAV 4 SOFTFALL PAVING TYPE 3
- PAV 5 SOFTFALL PAVING TYPE 3
- PAV 7 COLOURED CONCRETE PAVING
- PLANTING AREA WITH EUCY MULCH
- SP SAND
- SE SEAT
- PL3 PLANTER TYPE 3 - VEGETABLE GARDEN TO BE PLANTED BY SCHOOL PROVIDE MULCH ONLY
- BIKE RACK (RECLAIMED FROM SITE)
- WATER BUBBLER (3 NOZZLES) IN TROUGH
- NEW GARBAGE BIN
- THERMOPLASTIC ANIMAL FOOTPRINT

0 1 2 3 4 5
SCALE BAR - 1:100

ARCHITECT
DesignInc| Lacoste + Stevenson| bmc2
architects in association
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Architecture Urban Design Interiors

CLIENT

PROJECT
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

TITLE
PARTIAL SCHOOL
KINDERGARTEN OUTDOOR
PLAY LANDSCAPE PLAN

DRAWN BY IC
SCALES 1:100 @ A1
PLOT DATE 28/08/2018

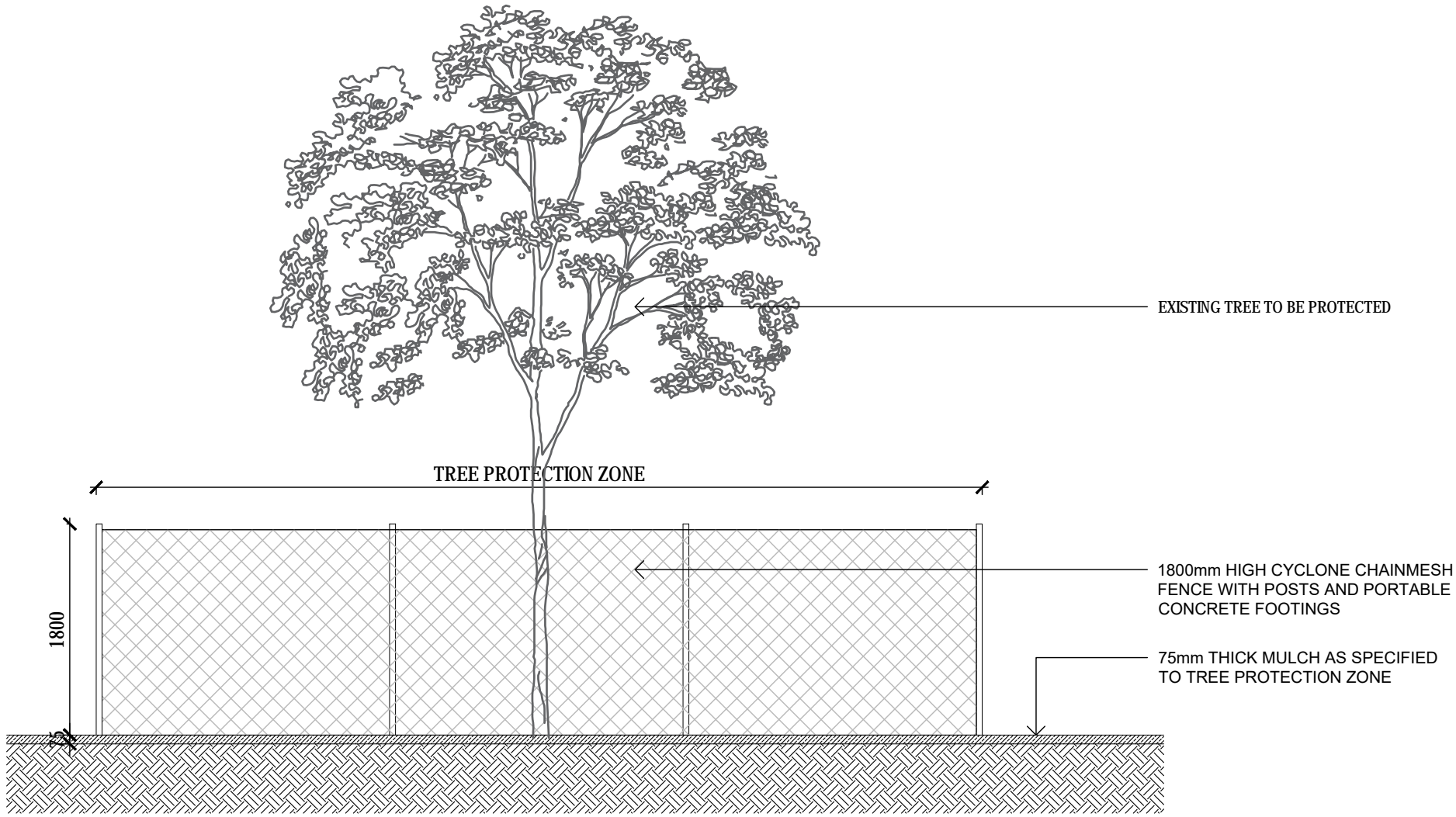
PROJECT N°. P18-023
DRAWING N°. LA-2010
DRAWING STATUS FOR INFORMATION ONLY
REVIEWED BY
SIGNATURE
DATE 28/08/2018

REVISION
4

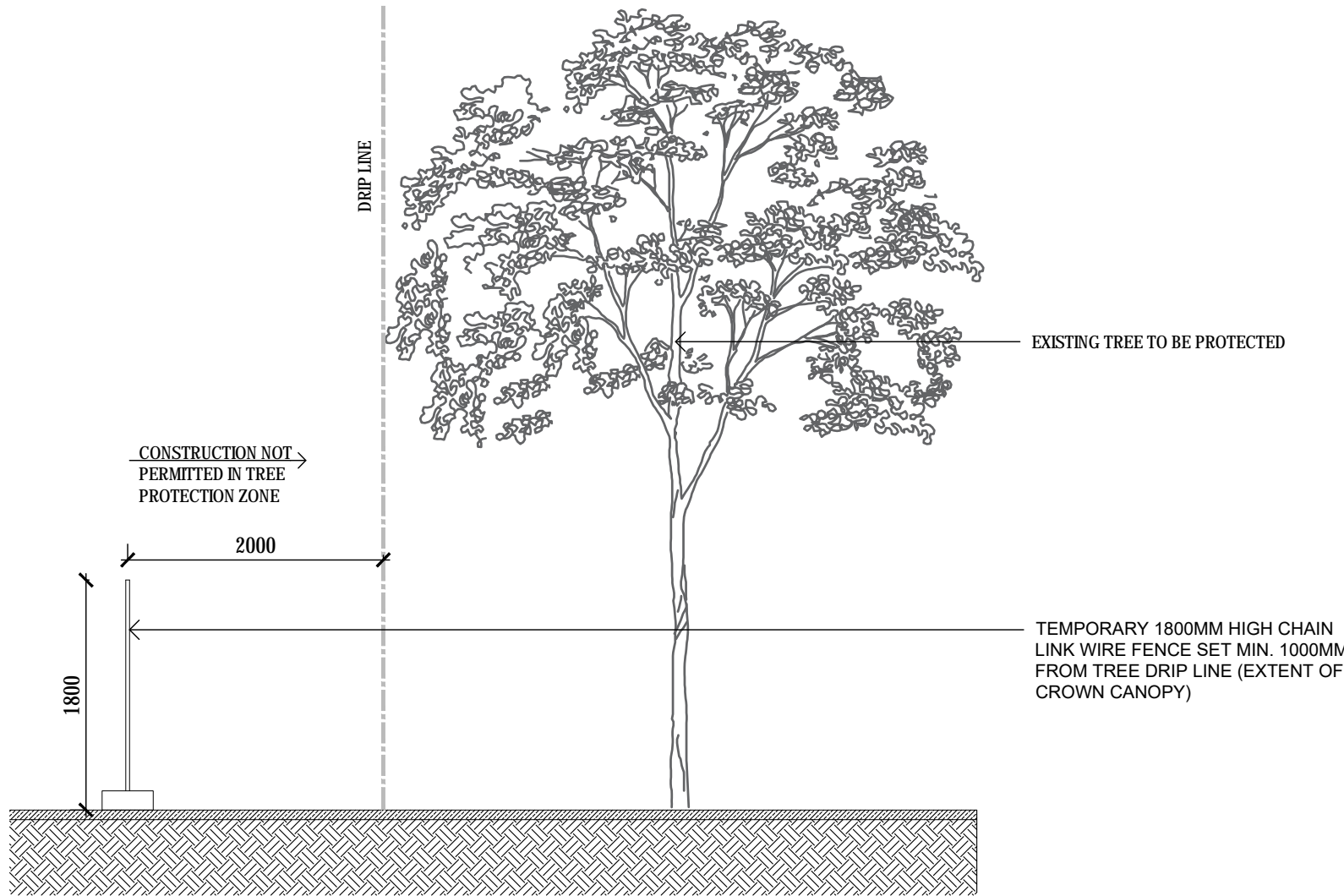
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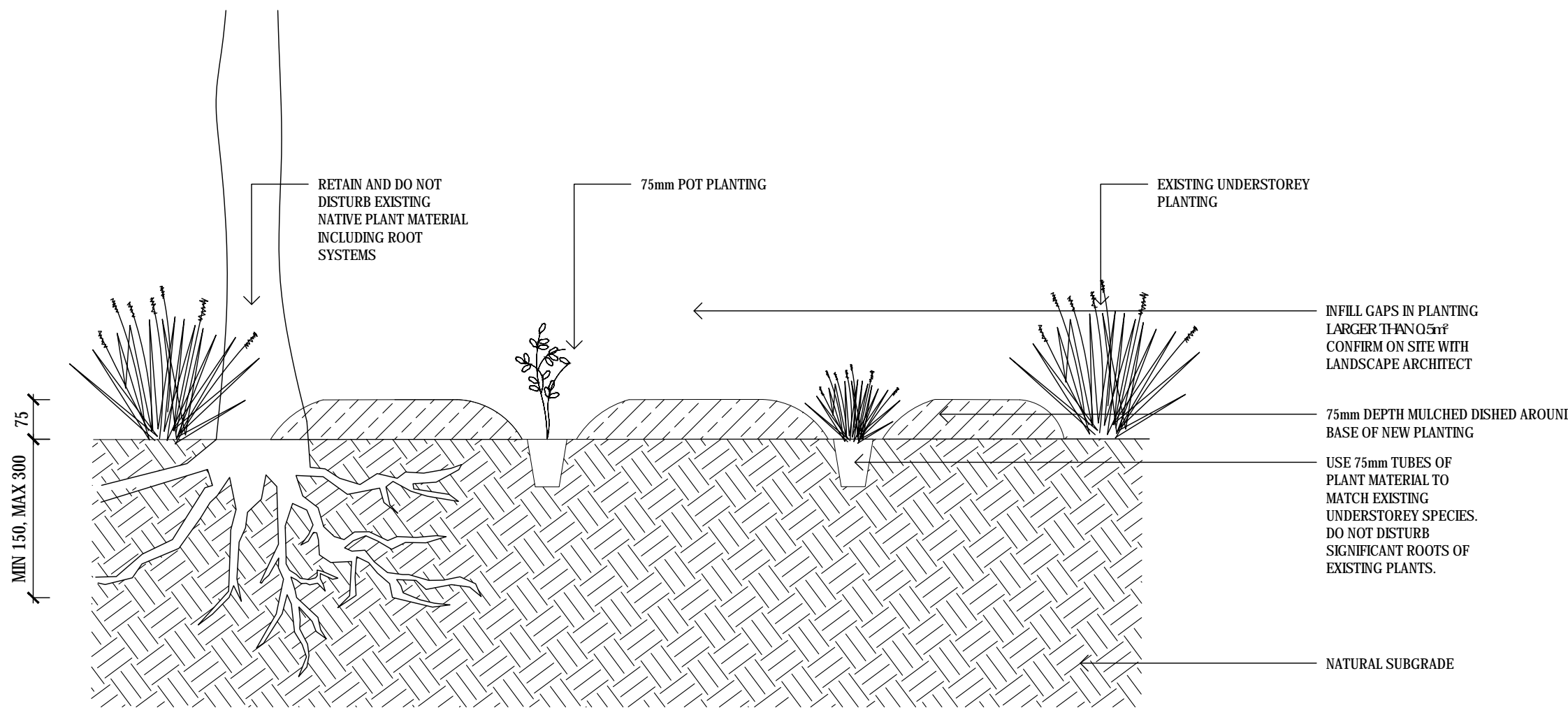




01 TYP. TREE PROTECTION FOR EXISTING TREES - ELEVATION
SCALE 1 : 50



02 TYP. TREE PROTECTION FOR EXISTING TREES - SECTIONAL ELEVATION
SCALE 1 : 30



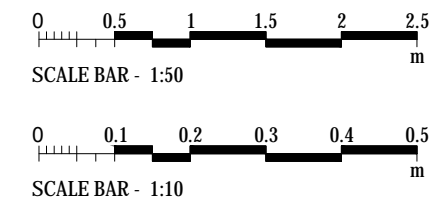
03 INFILL PLANTING
SCALE 1 : 10

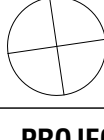
FOR
INFORMATION
ONLY

NOTE:
ALL PLANTING TO BE CONSISTENT WITH RFS ASSET PROTECTION ZONE STANDARDS - APPENDIX B.

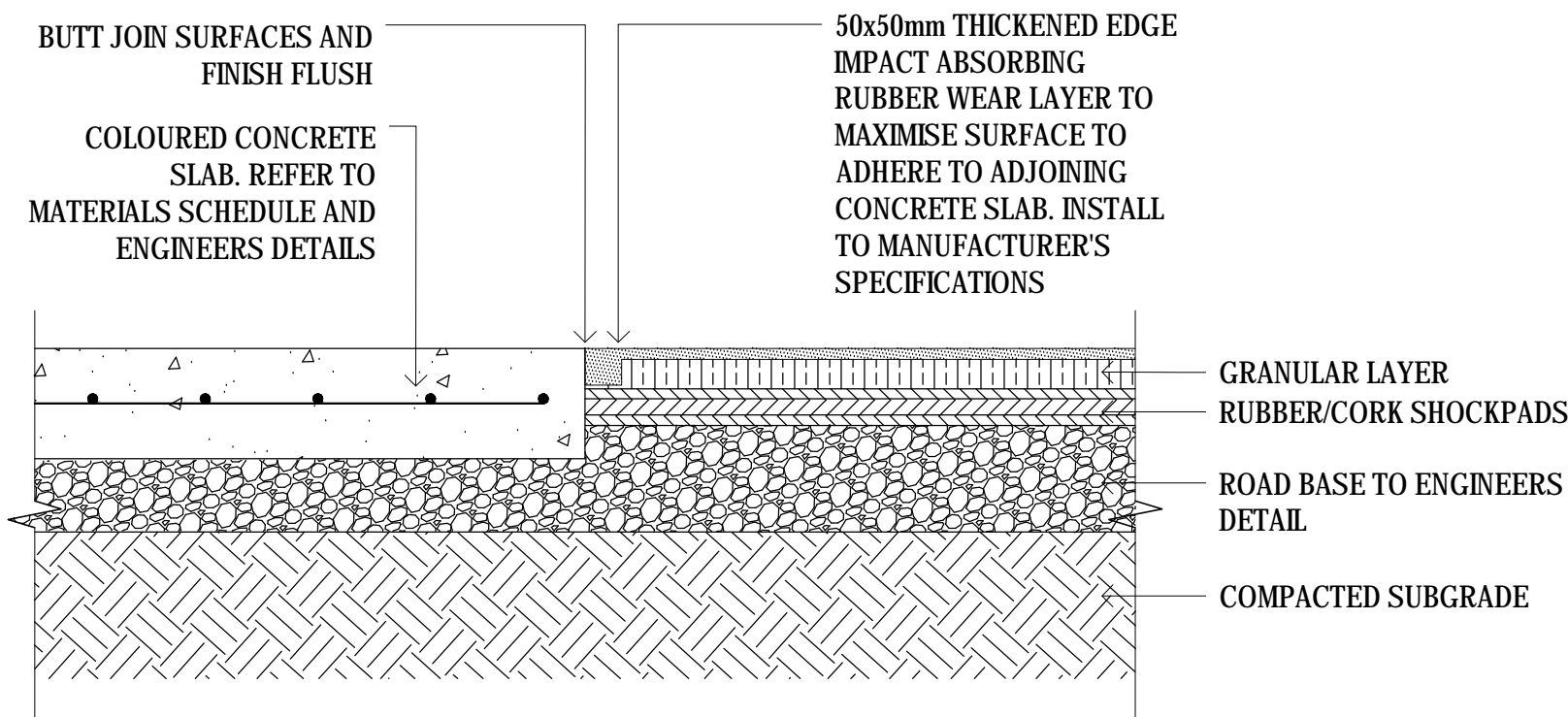
CONFIRM TREE PROTECTION DETAILS WITH ARBORIST REPORT AND LANDSCAPE MANAGEMENT PLAN.

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<small>Figured dimensions take preference to scale readings. Verify all dimensions on site. Report any discrepancies to the Architect for decision before proceeding with the work.</small>			
Nominated Architects <small>Anthony Guan 5421 Sandeep Amin 7337 Ian Armstrong 7260 Richard Dries 8126</small>			
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2	17/08/2018	ISSUE FOR PLANNING SUBMISSION	IC

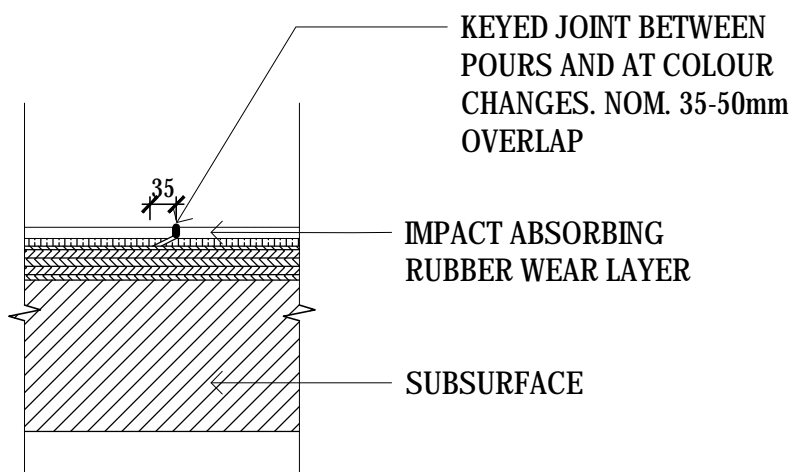


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CLIENT			
PROJECT			
LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL Eton Road, Lindfield NSW 2070			
TITLE			
PARTIAL SCHOOL TYPICAL PLANTING DETAILS			
<div><div><div>N</div><div></div></div><div><div>DRAWN BY</div><div>IC</div></div><div><div>SCALES</div><div>AS SHOWN @ A1</div></div><div><div>PLOT DATE</div><div>28/08/2018</div></div></div>			
PROJECT N°.		P18-023	
DRAWING N°.		LA-5100	
DRAWING STATUS		REVIEWED BY	SIGNATURE
FOR INFORMATION ONLY		MR	DATE
			24/08/2018
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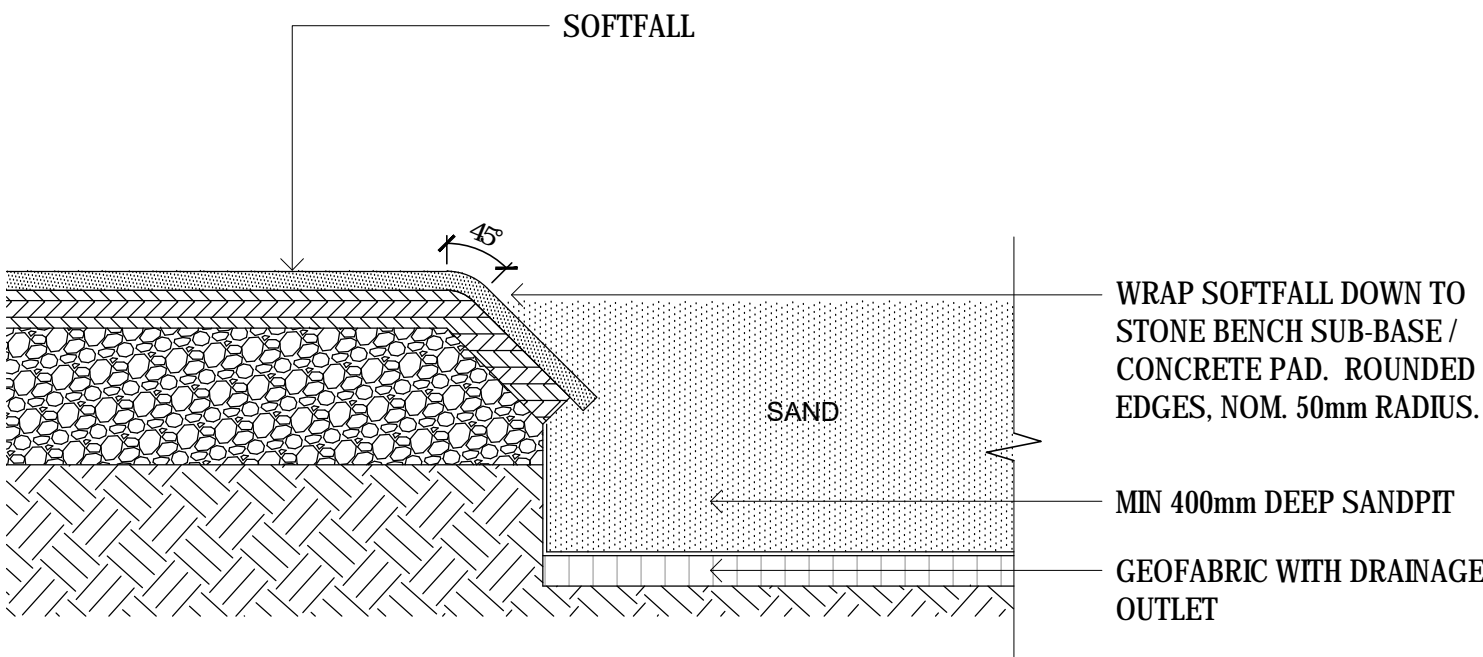
NOT FOR CONSTRUCTION



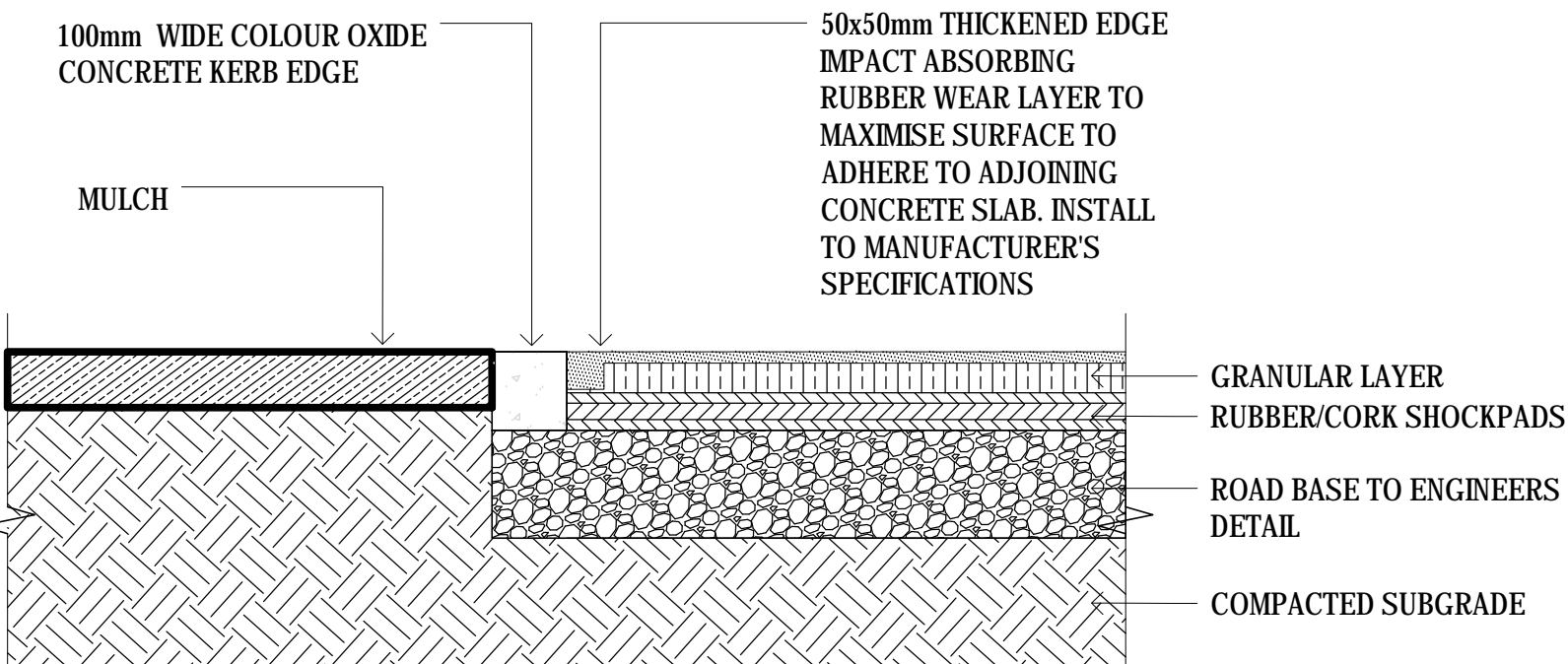
01 TYP. CONCRETE TO SOFTFALL EDGE DETAIL
SCALE 1 : 10



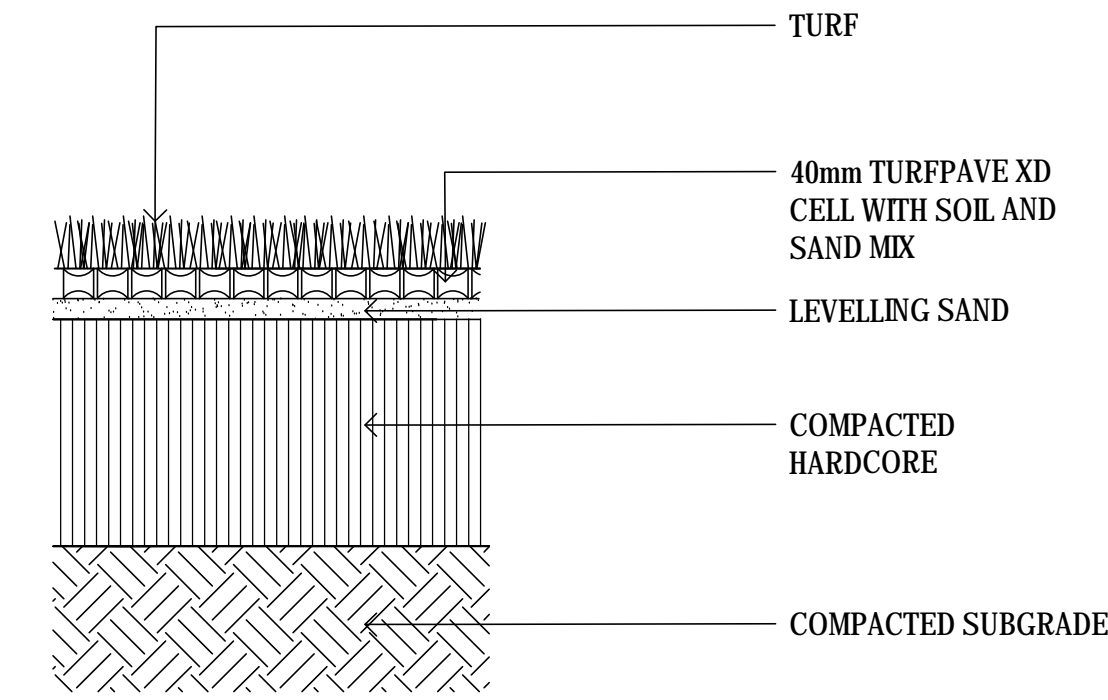
02 TYP. SOFTFALL JOINTING DETAIL
SCALE 1 : 10



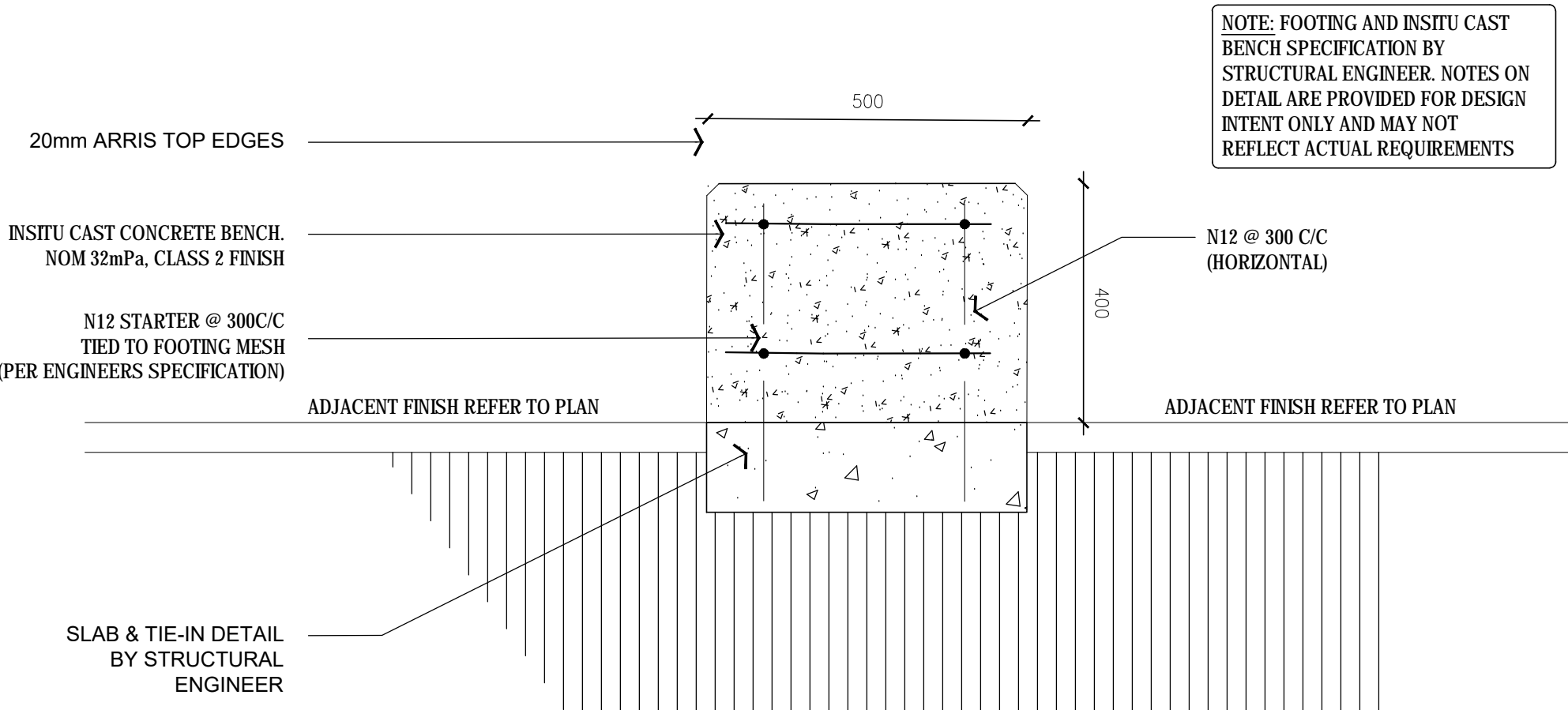
04 TYP. SANDPIT DETAIL
SCALE 1 : 10



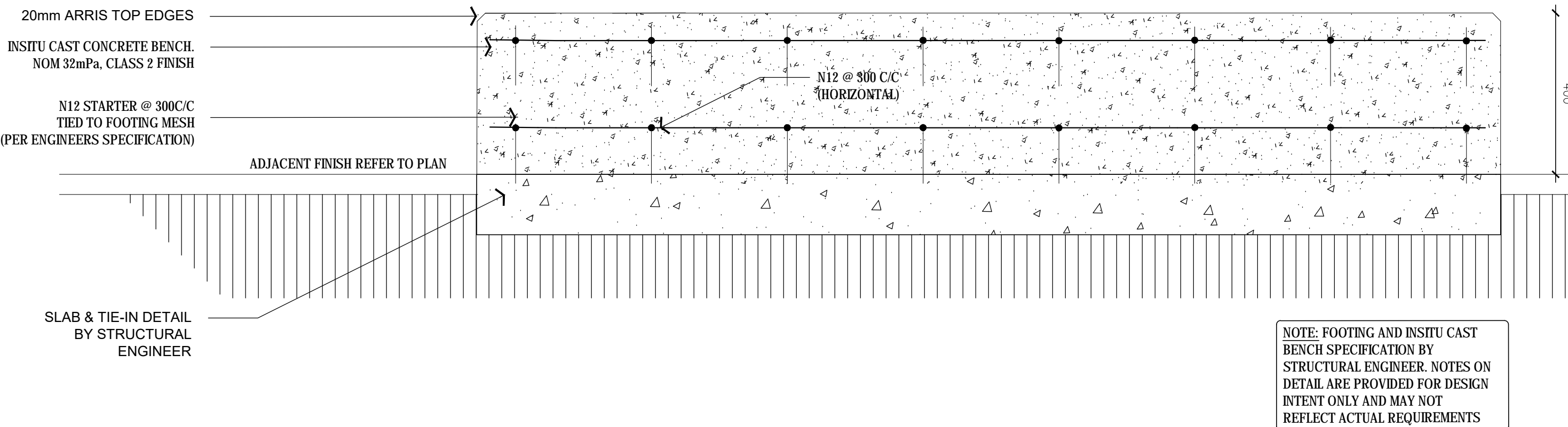
03 TYP. MULCH TO SOFTFALL DETAIL
SCALE 1 : 10



05 TYP. TURF TO FIRE TRAIL EDGE
SCALE 1 : 10



06 CONCRETE SEAT DETAIL - SECTION
SCALE 1 : 10



07 CONCRETE SEAT DETAIL - ELEVATION
SCALE 1 : 10

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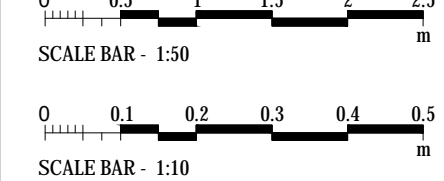
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Nominated Architects

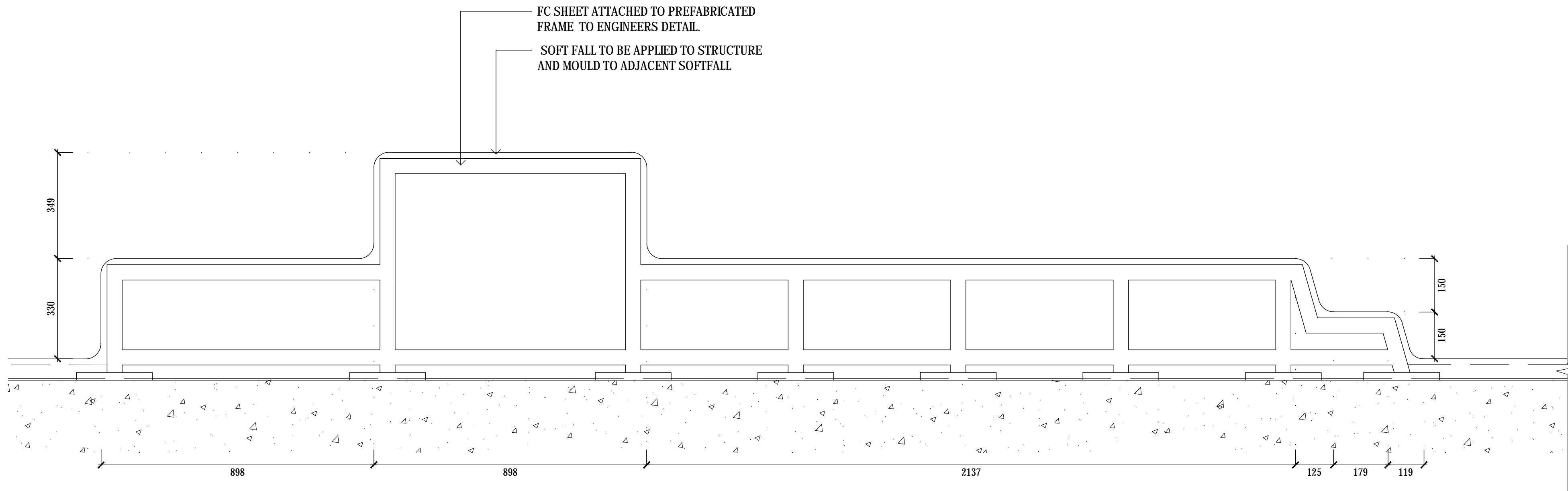
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4	28/08/2018	RESPONSE TO SUBMISSION	IC

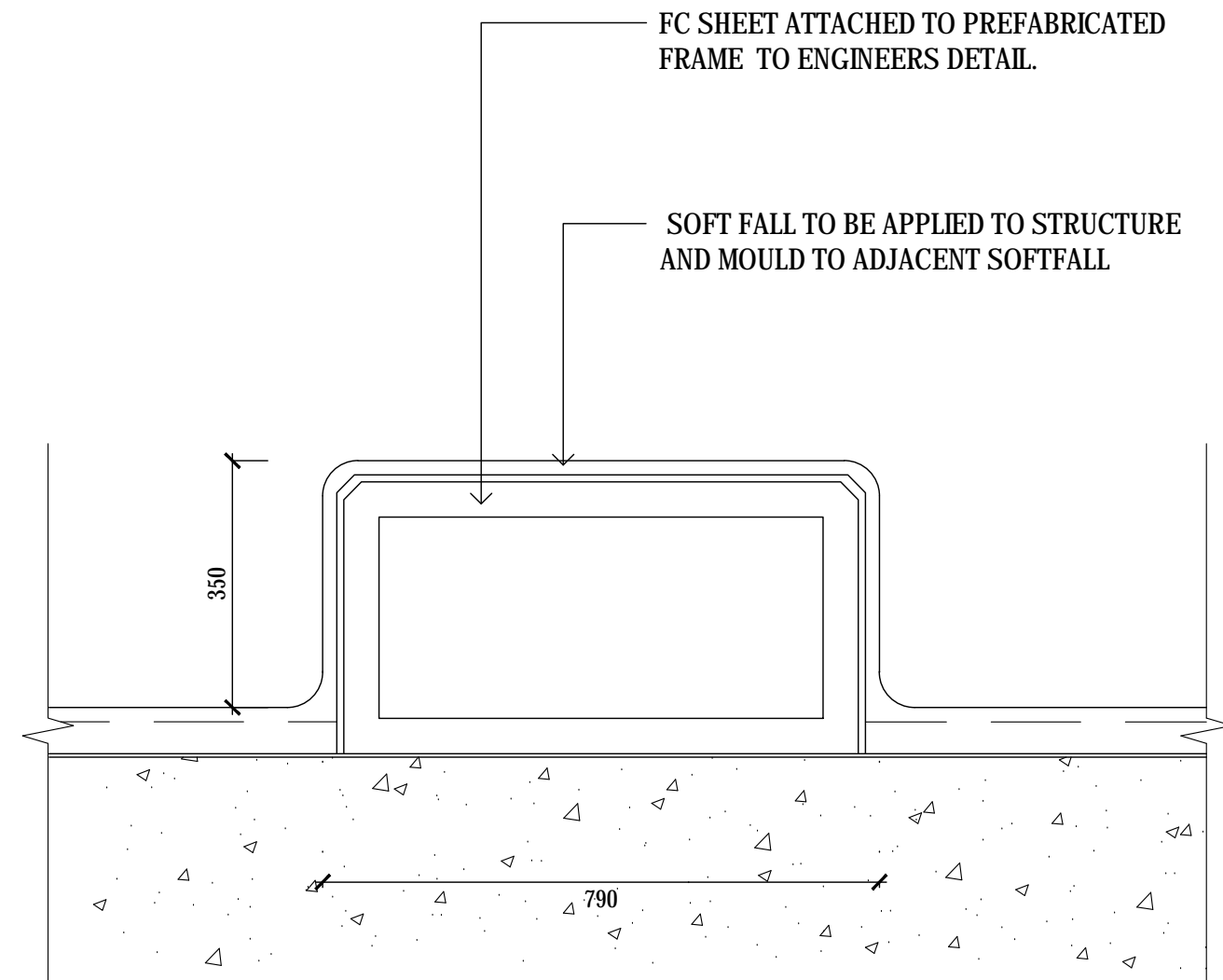
NOTE:
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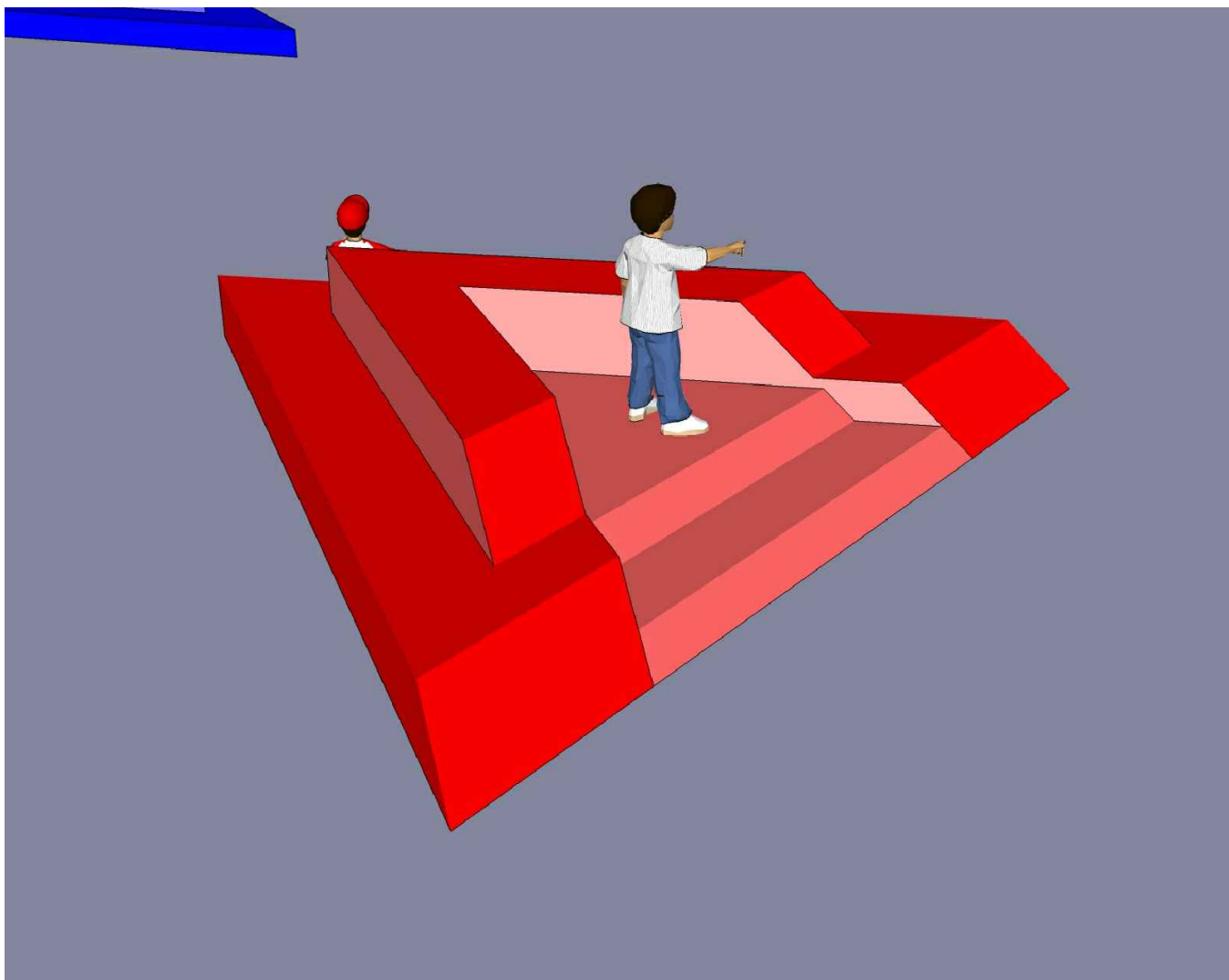
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CLIENT			
PROJECT	LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL Eton Road, Lindfield NSW 2070		
TITLE	PARTICAL SCHOOL TYPICAL DETAILS		
	DRAWN BY	IC	
	SCALES	AS SHOWN @ A1	
PROJECT N°.	P18-023		REVISION
	LA-5200		4
DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
FOR INFORMATION ONLY	MR		28/08/2018
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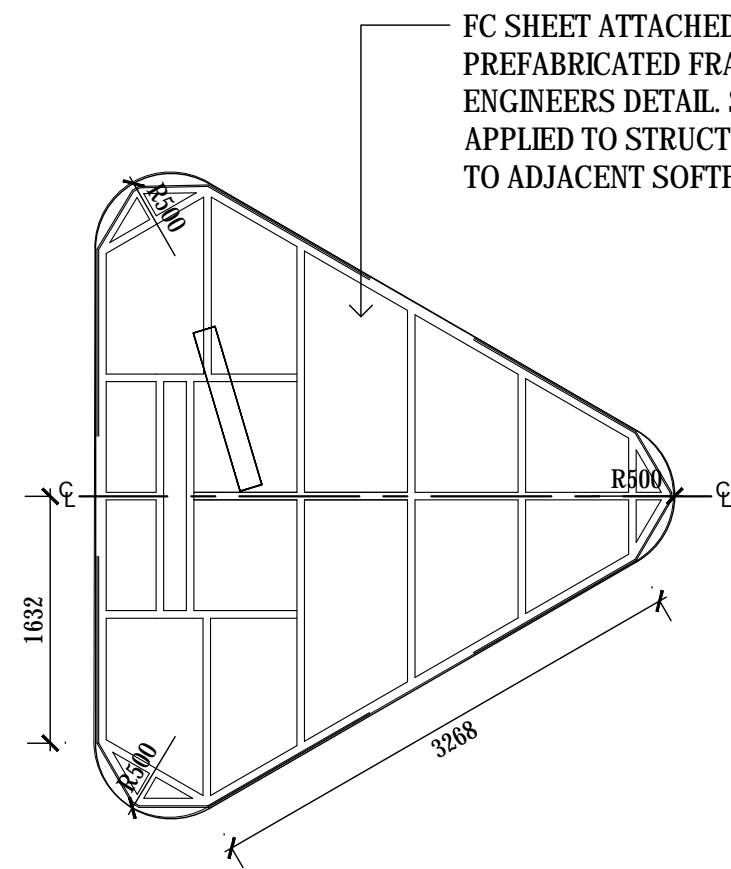
01 SEATING SOFTFALL TYPE 2 TYPICAL - LONG SECTION
SCALE 1:10



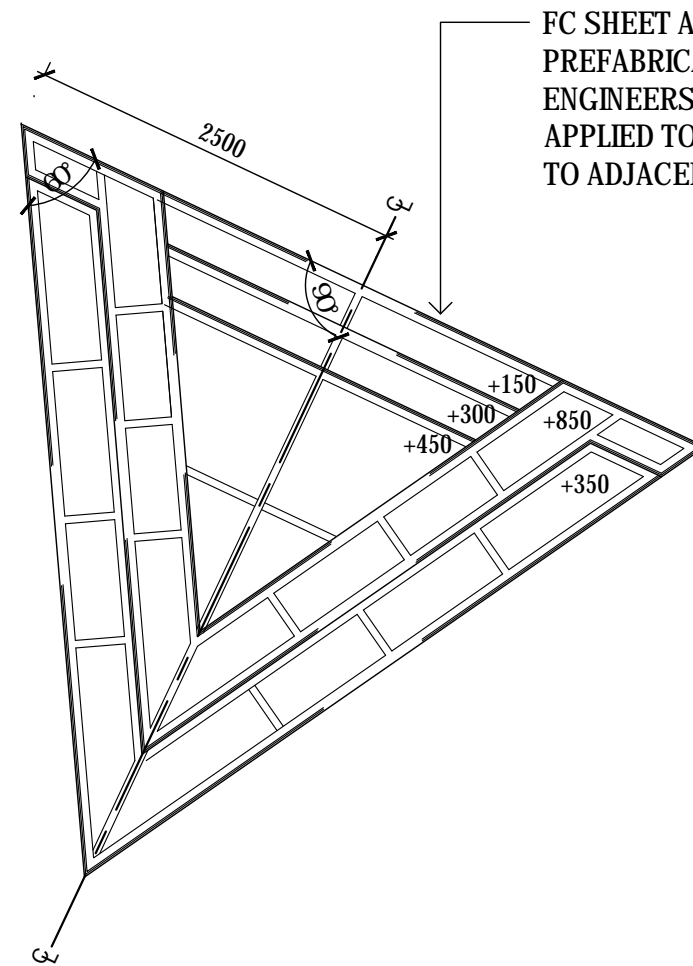
02 SEATING SOFTFALL TYPE 2 TYPICAL - SECTION
SCALE 1:10



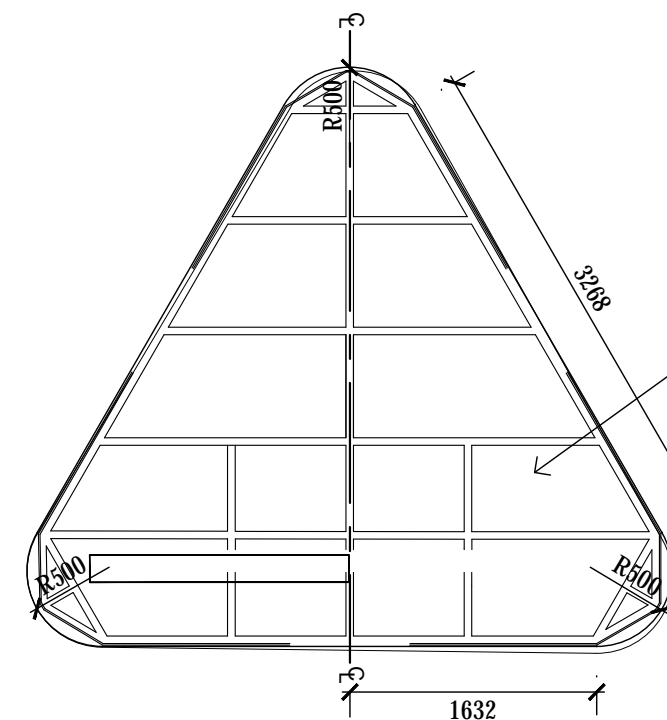
03 SEATING SOFTFALL TYPE 2 - 3D FOR INFORMATION
N.T.S



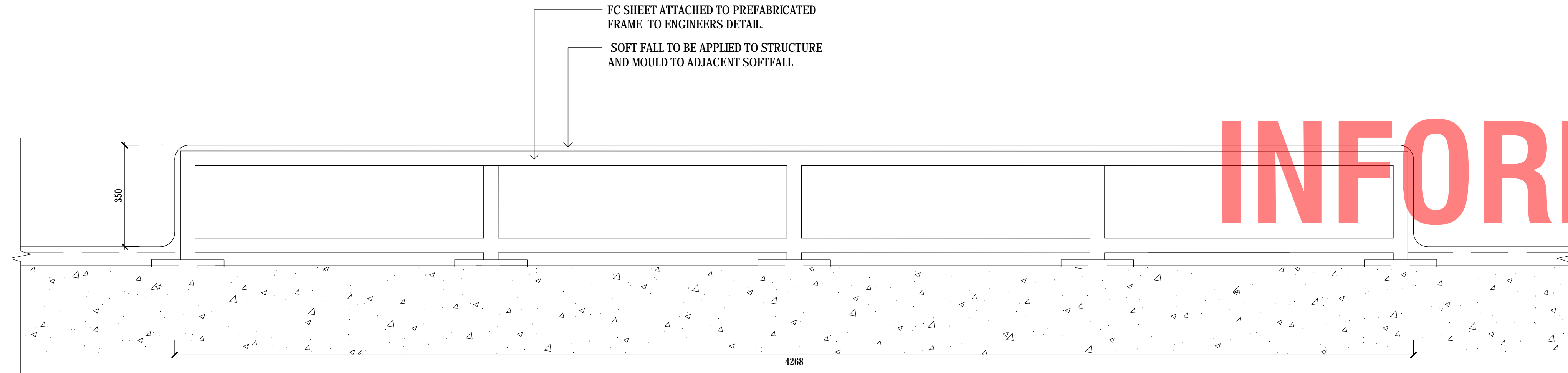
04 SEATING SOFTFALL TYPE 1 - PLAN
1:50



05 SEATING SOFTFALL TYPE 2 - PLAN
1:50



06 SEATING SOFTFALL TYPE 3 - PLAN
SCALE 1:50



07 SEATING SOFTFALL TYPE 4 - TYPICAL
1:10

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3	28/08/2018	RESPONSE TO SUBMISSION	IC

NOTE:
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0 0.5 1 1.5 2 2.5
SCALE BAR - 1:50
m

0 0.1 0.2 0.3 0.4 0.5
SCALE BAR - 1:10
m

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PROJECT
LINDFIELD LEARNING VILLAGE -
PARTIAL SCHOOL
Eton Road,
Lindfield NSW 2070

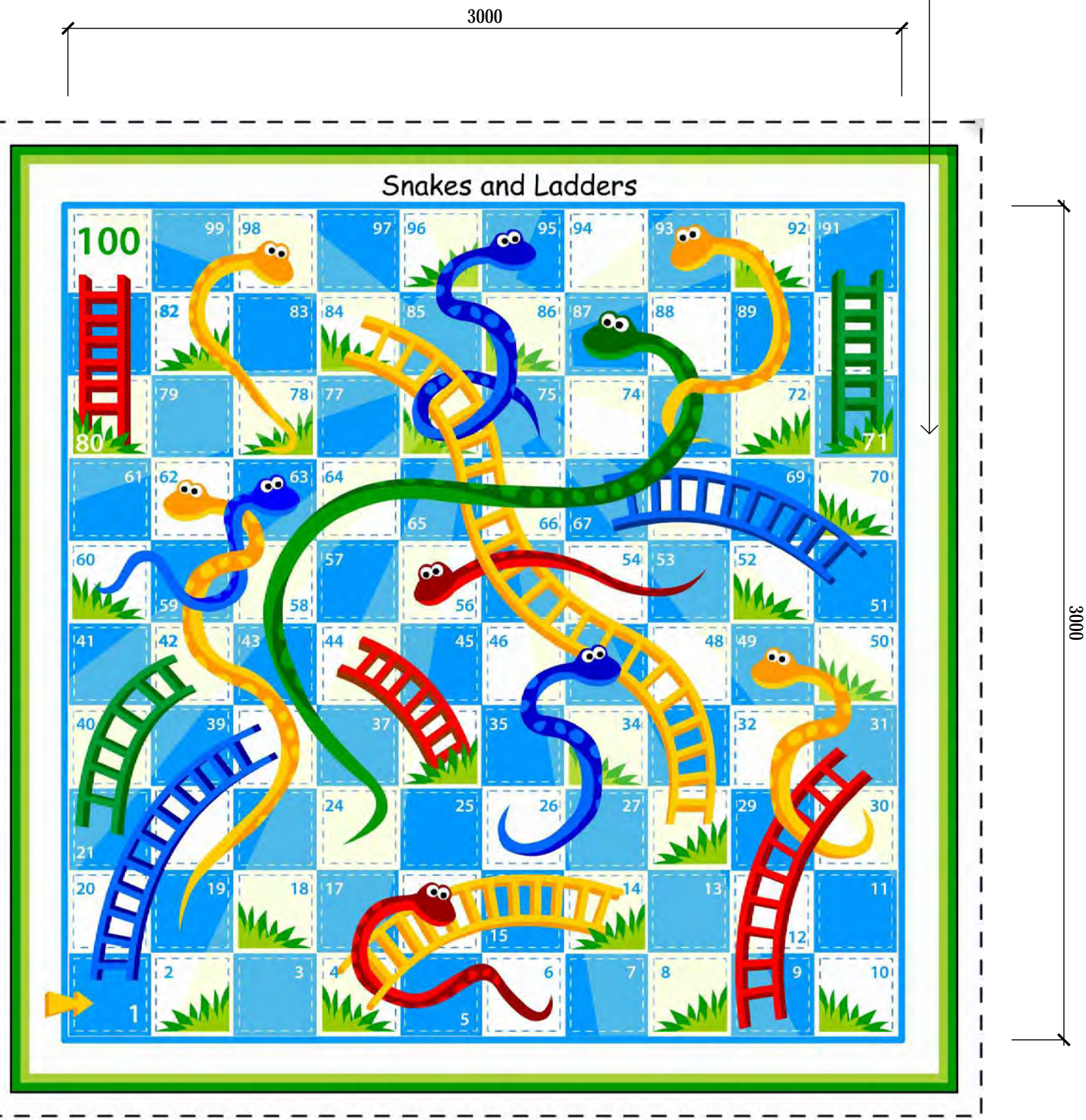
TITLE
PARTIAL SCHOOL
SEATING SOFTFALL DETAILS

PROJECT N°.	P18-023	REVISION
DRAWING N°.	LA-5300	3
DRAWING STATUS	FOR INFORMATION ONLY	
REVIEWED BY	MR	
SIGNATURE		
DATE	28/08/2018	

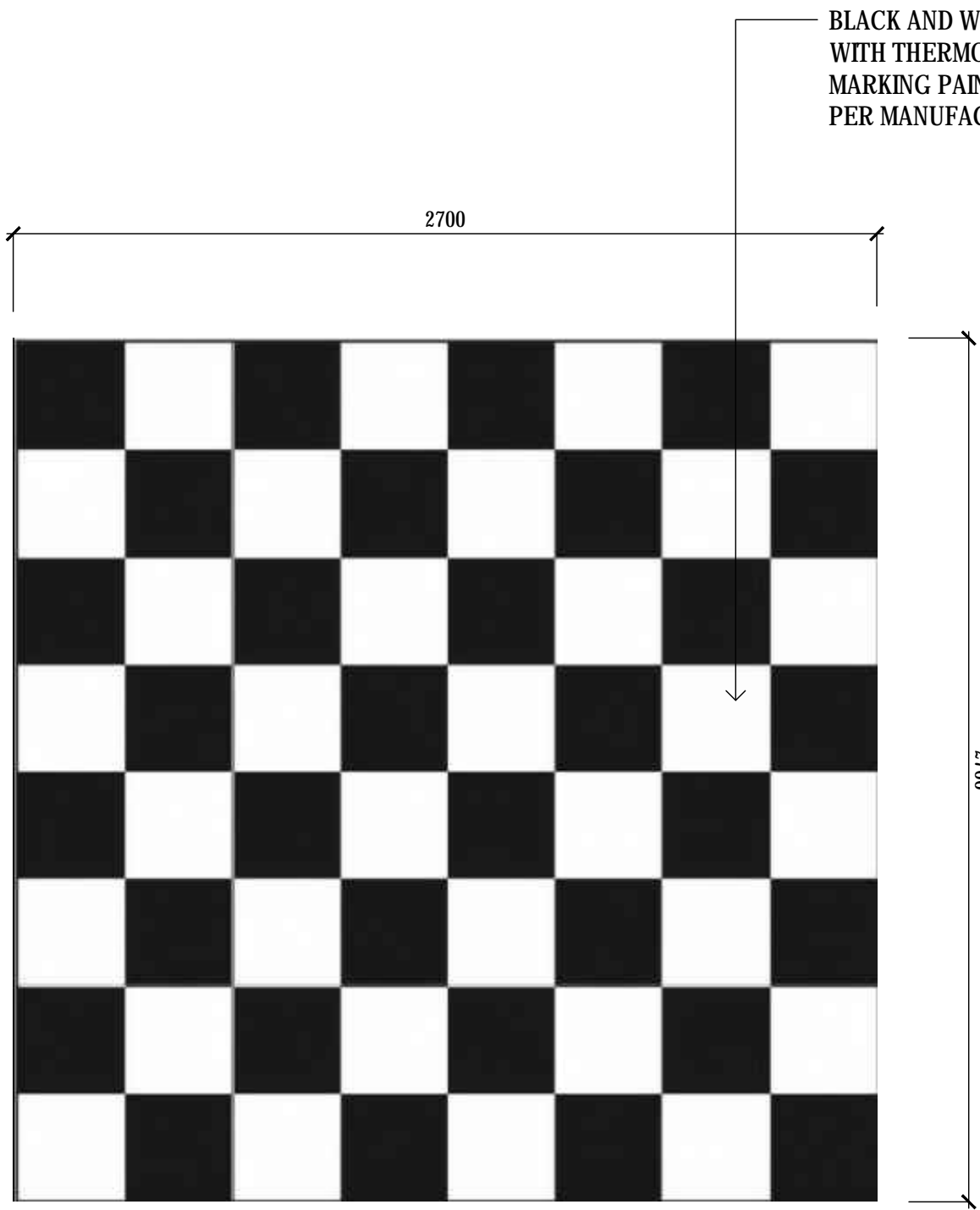
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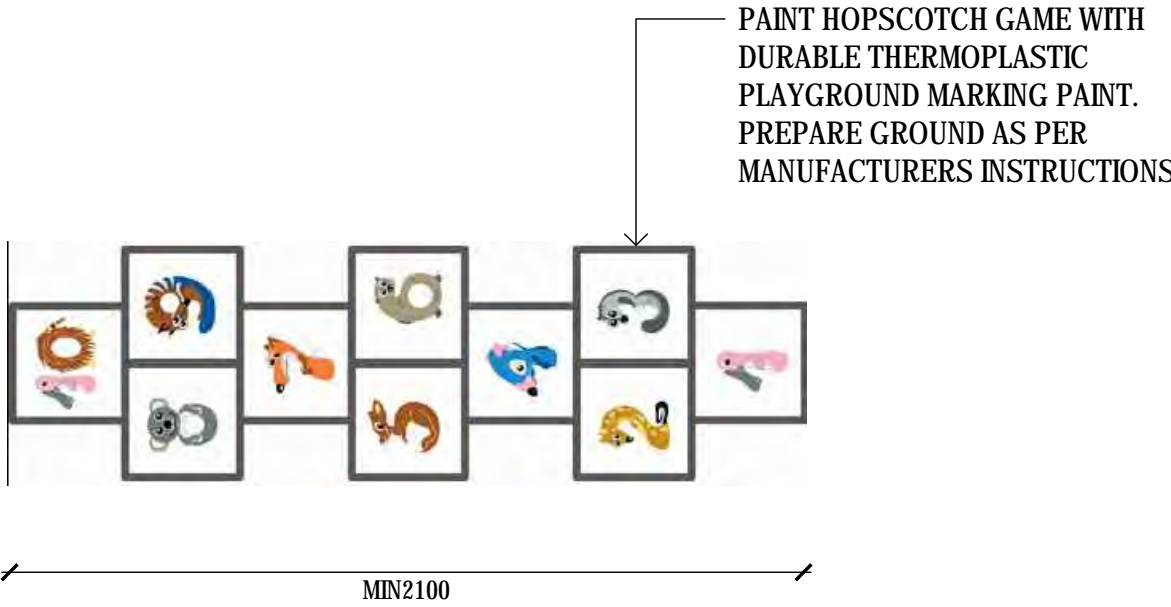
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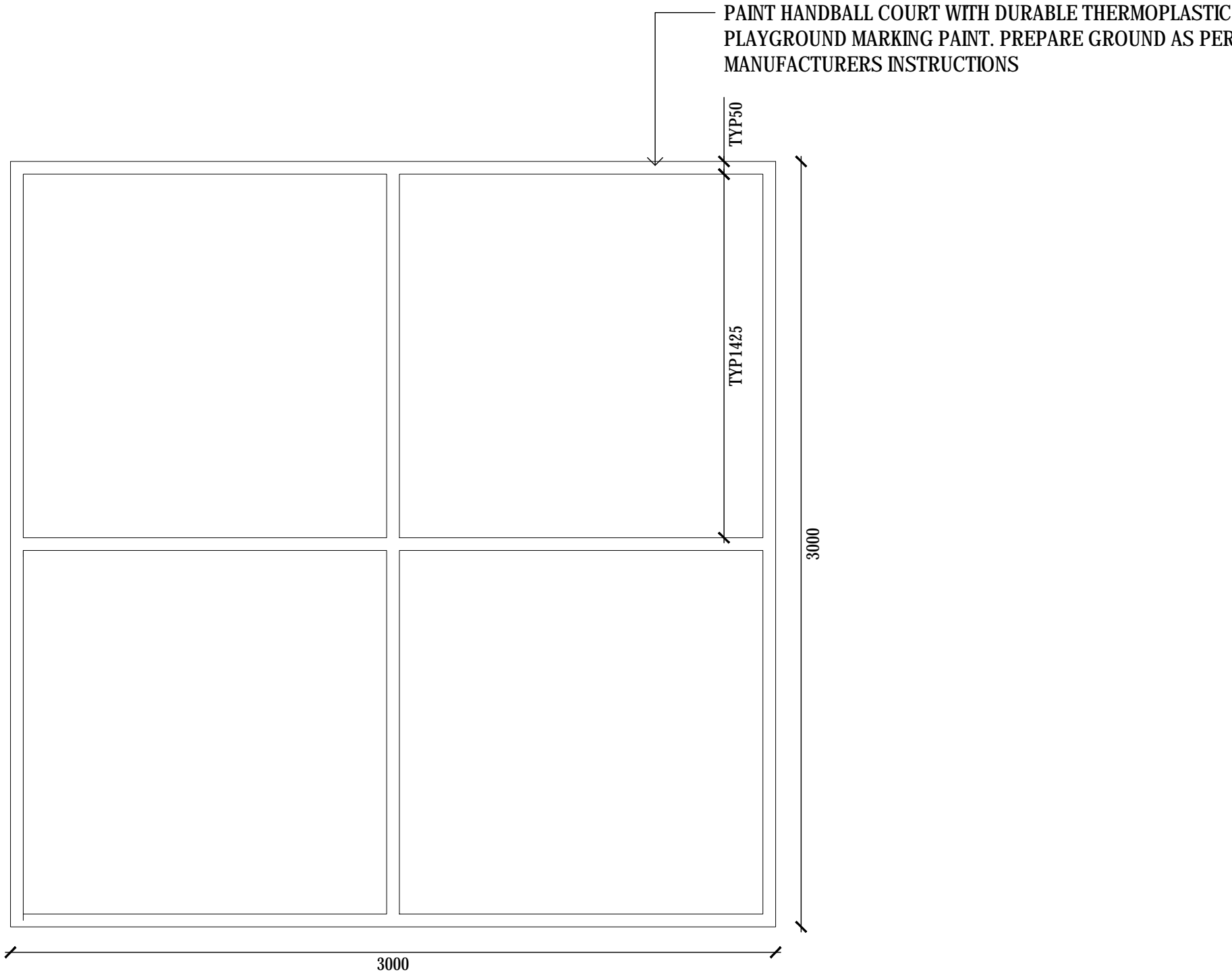
01 SNAKES AND LADDERS PATTERN - PLAN FOR INFORMATION
SCALE 1 : 20



02 GIANT CHESS BOARD - PLAN FOR INFORMATION
SCALE 1 : 20



03 HOPSCOTCH PATTERN - PLAN
SCALE 1 : 20



04 HANDBALL COURT - PLAN
SCALE 1 : 20

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2	23/08/2018	ISSUE FOR CONSULTANT COORDINATION	IC
3	28/08/2018	RESPONSE TO SUBMISSION	IC

NOTE:

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0 0.2 0.4 0.6 0.8 1.0
SCALE BAR - 1:20

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PROJECT	LINDFIELD LEARNING VILLAGE - PARTIAL SCHOOL Eton Road, Lindfield NSW 2070
TITLE	PARTIAL SCHOOL PLAY ELEMENTS DETAILS

DRAWN BY	IC		
SCALES	AS SHOWN @ A1		
PLOT DATE	28/08/2018		
PROJECT N°.	P18-023	REVISION	
DRAWING N°.	LA-5400	3	
DRAWING STATUS	REVIEWED BY	SIGNATURE	DATE
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APPENDIX C

SITE CARD FOR AHIMS #45-6-2210

[☒] New recording

[] Additional Info



National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444.
Standard Site Recording Form Revised 5/88



45-6-2210

1:250,000 map sheet: SYDNEY NPWS Code

AMG Grid reference 329450 mE 6259120 mN
Full reference - please include leading digits
25K 25K 5/5 25K

Scale of map used for grid reference [☒] 25K, 50K (preferred) [] 100K [] 250K
Please use largest scale available

1:25K, 50K, 100K map name: PARRAMATTA RIVER

HEAD OFFICE USE ONLY:

NPWS Site no: 45-6-2210Site types: 4Accessioned by: AS Date: 12-10-90Data entered by: LM Date: 22-10-90Owner/Manager: NPWS

Address:

Site name: BLUE GUM CK Locality/property name: LGRSRANPWS District: NORTH MET. Region: CENTRALReason for investigation SITE MANAGEMENT PLAN FOR TRUST + NPWS.

Portion no:

Parish:

Photos taken? TOO DARK

How many attached?

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. EITHER WALK
(Draw diagram on separate sheet.) ACROSS THE PIPELINE BRIDGE OVER THE CREEK AND
HEAD DOWNSTREAM ON THE NORTHERN BANK OR WALK FROM JUNCTION OF
BLUE GUM CREEK/LADY GARDEN DRIVE TO THE EAST, AT THE 30/40m CONTOUR.
SITE IS 400m FROM L.G.DRIVE, 20m NORTH OF THE CREEK.

Other sites in locality? NO

Site Types include:

Are sites in NPWS Register?

Have artefacts been removed from site? ?

When?

By whom?

Deposited where?

Is site important to local Aborigines? YES.Give contact(s) name(s) + address(es) WAYNE CARR (SITE OFFICER) FOR METRO. LALC.

Contacted for this recording?

(Attach additional information separately) If not, why not?

Verbal/written reference sources (including full title of accompanying report).

NPWS Report
Catalogue #

C-1899

Checklist:
surface visibility,
damage/disturbance/
threat to site

Condition of site: POOR - GRAFFITIED WALLS. DEPOSIT DISTURBED
BY ANIMALS, HUMANS + WATER FLOW, OUTSIDE THE
DRIFLINE.

Recommendations for management & protection (attach separate sheet if necessary): LEAVE AS IS.Site recorded by: B. ConyersDate: JULY 1990Address/institution: NPWS

SITE POSITION & ENVIRONMENT

OFFICE USE ONLY: NPWS site no: 45-6-2210

1. Land form a. beach/hill slope/ridge top, etc:

b. site aspect: S

c. slope: 10° IN FRONT

d. mark on diagram provided or on your own sketch the position of the site:

e. Describe briefly:



f. Local rock type: Sandstone

g. Land use/effect: SRA - minor impact.

2. Distance from drinking water: ?

Source: Blue Gum Ck probably tidal/brackish

3. Resource Zone associated with site (estuarine, riverine, forest etc): Estuarine

4. Vegetation: NOWADAYS LANTANA WITH A BRACKEN UNDERSTORY

5. Edible plants noted: Bracken

6. Faunal resources (include shellfish):

7. Other exploitable resources (river pebbles, ochre, etc):

Site type:

Shelter
Midden.

CHECKLIST TO HELP:
length, width, depth,
height of site, shelter,
deposit, structure,
element eg. tree scar,
grooves in rock.

DEPOSIT: colour,
texture, estimated
depth, stratigraphy,
contents-shell, bone,
stone, charcoal, density
& distribution of these,
stone types, artefact
types.

ART. area of surface
decorated, motifs,
colours, wet, dry
pigment, technique of
engraving, no. of
figures, sizes,
patination.

BURIALS: number &
condition of bone,
position, age, sex,
associated artefacts.

TREES: number, alive,
dead, likely age, scar
shape, position, size,
patterns, axe marks,
regrowth.

QUARRIES: rock type,
debris, recognisable
artefacts, percentage
quarried.

OTHER SITES EG.
structures (fish traps,
stone arrangements,
bora rings, mia mias),
mythological sites, rock
holes, engraved groove
channels, contact sites
(missions massacres
cemeteries) as
appropriate

DESCRIPTION OF SITE & CONTENTS.

Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.

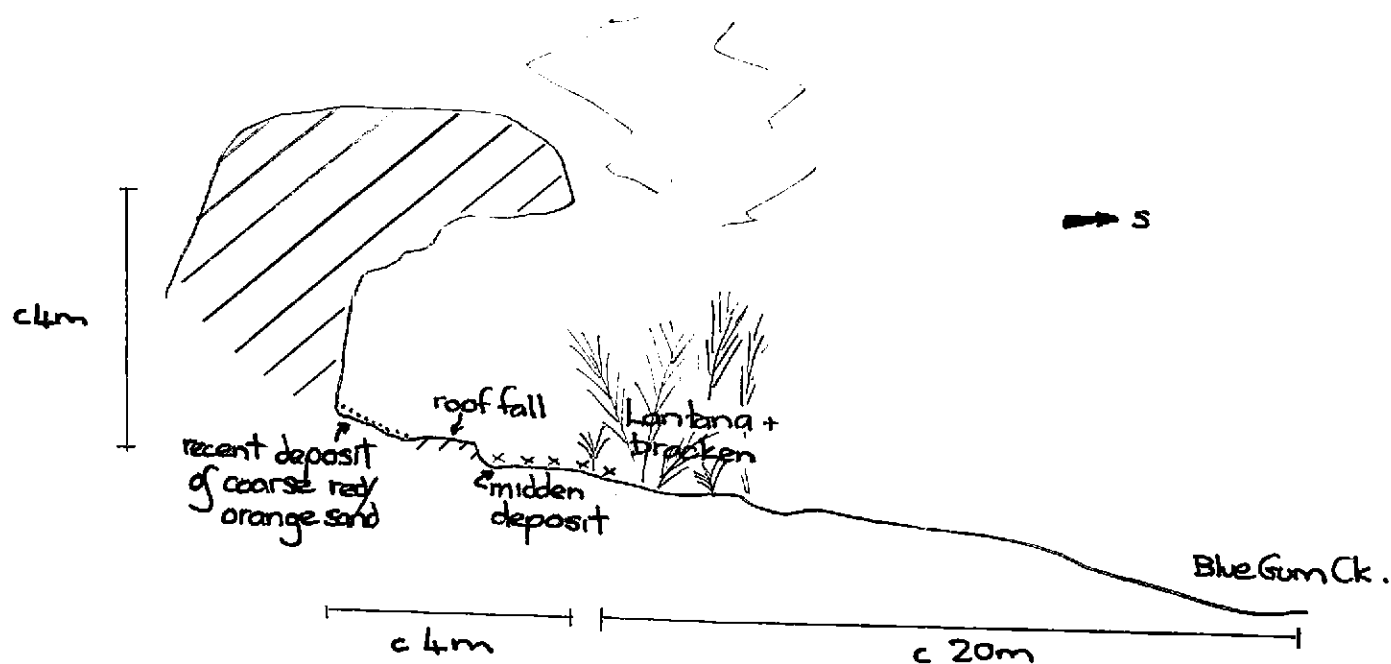
Large overhang formed by cavernous weathering in a 5 m. high cliff line. The shelter is c. 30m (l) x 4 m (deep) x 4 m (h). The floor is uneven with a lot of roof fall and depressions caused by animals, humans and water scour. Deposit is sandy and grey with a recent thin red layer of granular disintegration. The surface evidence is sparse and midden material only evident in the disturbed locations. Shell + bone present but no art or stone artifacts. Shelter walls are uneven and not really suitable for art, though it was very dark when the site was recorded. Deposit is 10cm deep in places. Rock oyster is c. 90% of the shell, the remainder being comprised of Anadara and giant whelk. The bone was not identified - it consisted of 2 small long bones and 1 jaw fragment, possibly from a small marsupial - this cannot be confirmed as being of Aboriginal origin: it may have been brought in by a predator.

Attach sketches etc. eg. plan & section of shelter, show relation between site contents, indicate north, show scale.

Attach annotated photos (stereo where useful) showing scale, particularly for art sites.

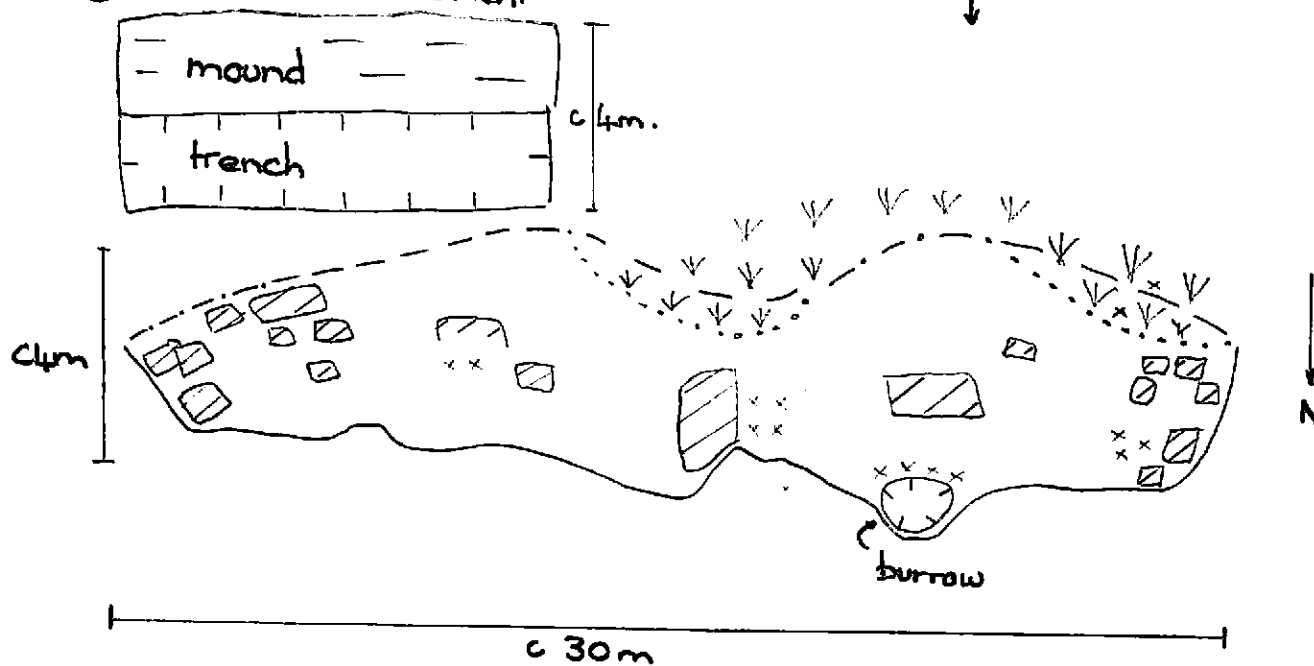
Blue Gum Ck

x-section and plan (not to scale)



Disturbed area at eastern
end of shelter - ? for easement

x-section.



x x x midden

--- max extent of overhang

.... dripline

— junction of back wall and floor

▨ roof fall

Y bracken

X

55-2-74



x

AHO#	SITE_ID	Duplicate_T	SITE_NAME	ASRType1	discrepancy	GDAmE	GDAmN	Accuracy	Method
KUR-001	45-6-0342	45-6-0865	Asquith;	Engraving	590	325850	6269890	B1	GPS/GIS
KUR-002	45-6-0343		Grosvenor St;Wahr	Engraving	800	326400	6270080	C3	Estimate
KUR-005	45-6-0865	45-6-0342	Wahroonga;	Engraving	960	325850	6269900	B1	GPS/GIS
KUR-008	45-6-1487		Golf Links Track;HB	Grinding Grc	1800	325650	6271140	A3	Imperial
KUR-009	45-6-1488		HB-17;Cockle Ck;	Grinding Grc	600	325630	6268850	C3	Estimate
KUR-012	45-6-1888		CB.1.;	Shelter Art	270	327024	6269440	B1	GPS/GIS
KUR-027	45-6-0341		Pymble;Turramurra	Engraving	190	325839	6264120	B2	original card
KUR-028	45-6-0608		Lane Cove River;Tu	Grinding Grc	750	325351	6264430	B1	GPS/GIS
KUR-029	45-6-0928		Catalpa Crescent;Ti	Scarred Tree	380	326344	6265030	B2	GIS
KUR-030	45-6-2034		English house	Shelter Art	60	325480	6265070	B1	GPS/GIS
KUR-035	45-6-0980		Pennant Hills;Pymb	Shelter Art	430	326694	6264065	B1	GPS/GIS
KUR-043	45-6-1109		North Turramurra;	Shelter Art	300	331504	6268375	B1	GPS/GIS
KUR-050	45-6-0978		Lane Cove River;	Grinding Grc	750	324504	6262690	D3	Estimate
KUR-051	45-6-1235		Epping	Engraving	1630	324644	6262720	B1	GPS/GIS
KUR-055	45-6-0611		Lane Cove River;Wi	Engraving	290	327715	6261925	B2	GIS
KUR-056	45-6-1053		Lane Cove River;	Engraving	500	326000	6262000	D3	Imperial
KUR-057	45-6-1054		Lane Cove;Man Go	Shelter Art	160	325690.5	6263590	B1	Survey
KUR-058	45-6-1893		KP.1.;	Shelter Depo	100	326239.4	6262975	B1	Survey
KUR-065	45-6-0882		Lane Cove River;Go	Not a Site	300	328134	6263010	B1	GPS/GIS
KUR-068	45-6-2213		DeBurghs Bridge;	Shelter Depo	100	327454	6261230	B1	GPS/GIS
KUR-081	45-6-2210		Blue Gum Ck	Shelter Mide	230	329754	6259430	B1	GPS/GIS
KUR-083	45-6-2911		Cocupara Shelter 1	Shelter Art	210	329599	6260665	A1	GIS
KUR-088	45-6-1078		Pymble;Tin Abrade	Shelter Art	1030	330834	6263930	B1	GPS/GIS
KUR-095	45-6-0883		Middle Harbour Cr	Shelter Mide	100	332726.8	6262834	B1	Survey
KUR-099	45-6-2115		MCW 6;East Lindfie	Engraving	90	332964	6262770	B1	GPS
KUR-100	45-6-2129		MCW 5;	Midden	260	333189	6262490	B1	GPS/GIS
KUR-104	45-6-0926		Echo Point Park;Ol	Shelter Art	640	333794	6261350	B1	GPS/GIS
KUR-106	45-6-1122		Biology Book Cave	Shelter Art	250	333265.4	6261835	B1	Survey
KUR-107	45-6-1123	45-6-2109	Lindfield;This Is The	Shelter Mide	600	333265	6261790	B1	GPS/GIS
KUR-108	45-6-1124		Lindfield	Shelter Mide	540	333554	6261750	B1	GPS/GIS
KUR-109	45-6-1125		Waterfall Cave; Lin	Shelter Mide	490	333450	6261670	B1	GPS/GIS
KUR-110	45-6-1126		Lindfield	Midden	880	333634	6261470	B1	GPS/GIS
KUR-111	45-6-1127		Lindfield;Collapsed	Shelter Art	760	333744	6261420	B1	GPS/GIS
KUR-113	45-6-2105		Paperbark cave;	Shelter Mide	120	333485	6261885	B1	GPS/GIS
KUR-114	45-6-2109	45-6-1123	Ormonde Rd cave;	Shelter Mide	200	333259.9	6261784	B1	Survey
KUR-115	45-6-2116		Babbage Rd. Cave;	Shelter Art	110	333484	6261350	B2	Estimate
KUR-116	45-6-2125		MHT 1;	Midden	60	333470	6261890	B1	GPS/GIS
KUR-117	45-6-2127		Gnat Orchid Cave;	Shelter Mide	140	333539	6261755	B1	GPS/GIS
KUR-118	45-6-2128		East Roseville;	Midden	140	333530	6261775	B1	GPS/GIS
KUR-120	45-6-2131		SSM 24418;	Midden	100	333259	6262035	B1	GPS/GIS
KUR-122	45-6-2133		MHT 3;	Shelter Mide	80	333274	6262020	B1	GPS/GIS
KUR-128	45-6-2410		east roseville;MHT	Midden	100	333385	6261995	B1	GPS/GIS
KUR-129	45-6-2502		Baths 2;	Shelter Mide	70	333854	6261320	B1	GPS/GIS
KUR-133	45-6-2150		Walled-up Midden;	Midden	4500	334000	6261080	B3	Estimate
KUR-135	45-6-2126		East Roseville	Midden	80	333564	6261740	B1	GPS/GIS



Aboriginal Heritage Office
Aboriginal Site Update

Date: 17 September 2015

AHO Site # KUR-081 AHIMS Site # 45-6-2210

UPDATE AHIMS Information in following:

This site is incorrectly located. It should be

Location: Based on GPS and GIS check. Accuracy of new figures = 1 (good)

AMG 66

--	--	--	--	--	--

 mE

GDA 94

3	2	9	7	5	4
---	---	---	---	---	---

 mE

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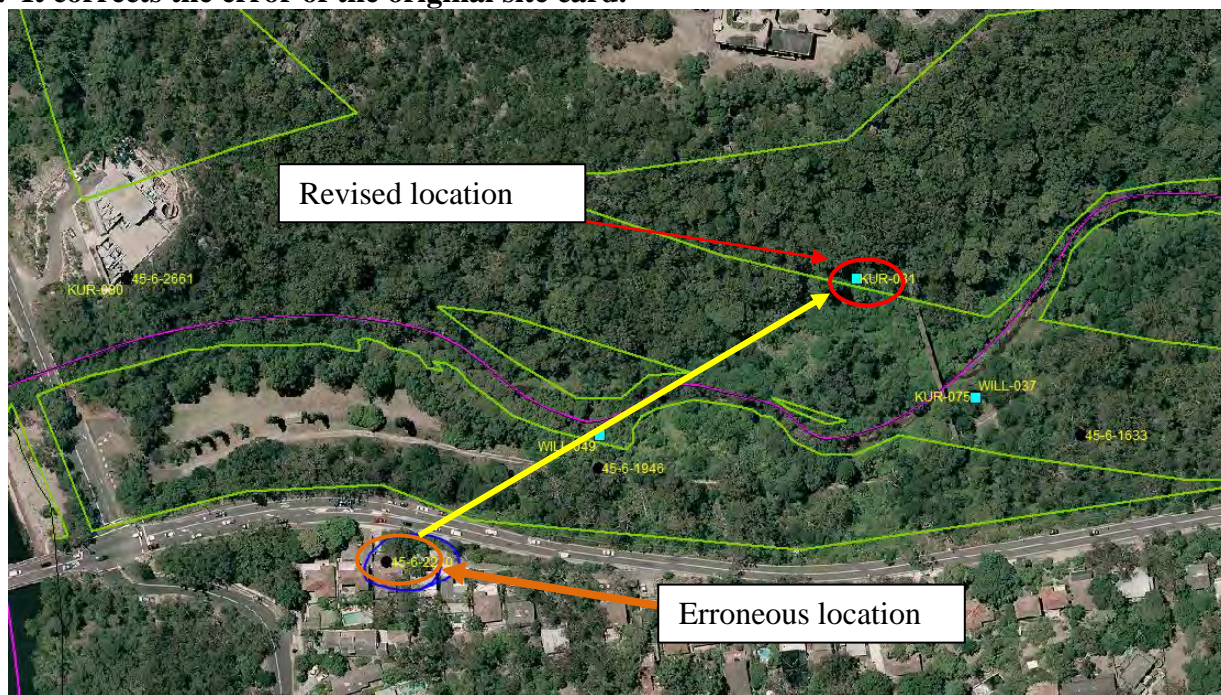
 mN

6	2	5	9	4	3	0
---	---	---	---	---	---	---

 mN

Previous AMG: 329450 6259120. Accuracy of old figures is poor (230m error).

This location for the site has been revised using GPS & GIS checked coordinates to a more accurate location. It corrects the error of the original site card.



Area of site.

Phil Hunt

Aboriginal Heritage Office,
Ku-ring-gai, Lane Cove, Manly, North Sydney, Pittwater, Warringah, Willoughby and City of Ryde Councils
PO Box 12 North Sydney NSW 2059 Ph: 9936 8262 aho@northsydney.nsw.gov.au



Ku-ring-gai Council

ABORIGINAL HERITAGE SITE RE-RECORDING FORM

SITE: KUR 081

NPWS SITE NO: 45-6-2210 [National Park]
SITE NAME: Blue Gum Creek
SITE TYPE: Shelter Midden
DATE RE-RECORDED: 17/7/2012

Grid Reference:

GDA recorded by GPS. GIS checked. Accuracy = 1 (good).

AHIMS AMG 329450 6259120. Incorrect.

AMG 66

3	2	9	6	5	0
---	---	---	---	---	---

 mE

GDA 94

3	2	9	7	5	4
---	---	---	---	---	---

 mE

6	2	5	9	2	4	0
---	---	---	---	---	---	---

 mN

6	2	5	9	4	3	0
---	---	---	---	---	---	---

 mN

LOCATION

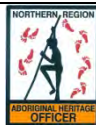
Either walk across the pipeline bridge over the creek and head downstream on the northern bank [not possible] OR walk from the junction of Blue Gum Ck/Lady Game Drive to the east, at the 30-40m contour. Site is c400m [330m] from L.G.Drive, 20m [50m] north of the creek.

Map showing location of site.



DESCRIPTION:

Shelter 34m long, up to 5m deep and 4m high. Shelter faces south. The floor is uneven with lots of roof fall and depressions caused by humans, animals and water scour. Deposit sandy and grey 10cm deep with a recent thin red layer of granular disintegration. Little surface evidence except in disturbed areas. Midden 90% rock oyster, remainder Anadara and giant whelk. Bones seen – two long bones and jaw fragment – possibly from predator but no stone artefacts or art.

**CONDITION****Aboriginal Heritage Office****Aboriginal Site Monitor**

AHO Site # **KUR-081** AHIMS Site # **45-6-2210**

DATE	REASON	OFFICER/VOL	COMMENTS
	Eg track work, reg monitor etc	AHO officer, Council or volunteer	Brief comment, eg no change; new graffiti; etc
			National Park.
18/7/11	Review	Kiyomi Juillerat AHO	Adding scans from 1994 Margrit Koettig report.
29/6/2012	Monitor	Geoff Hunt, James Webb	Site possibly not in national park. Walked through the area but were unable to access site area from east due to lantana on scarp around pipeline crossing point. No track on north side of creek.

DATE	REASON	OFFICER/VOL	COMMENTS
17/7/2012	Monitor	Geoff Hunt, James Webb	
	Relocated site and completed section! No signs of human visitation (not easily accessible). Collapsed stone blocks near centre. Shell material located against back wall on Western side of collapsed rock material near alcove. Thick lantana in surrounding area. Relatively dry except for a few small drip lines. Wall of dirt roughly 1.5 m tall between shelter and creek. Large nail protruding from back wall on Western end of shelter. GDA: 329756mE, 6259430mN		
17/8/15	Review	Phil Hunt	Original NPWS card has incorrect
	coordinates by about 230m, which put the site on south side of creek and Millwood Ave. Use AHO GDA figures from 2012.		

MANAGEMENT ISSUES

PHOTOGRAPHS

2012: IMG_8744-8759



New clearance due to upgrade of sewer line above site area



8744

Views of eastern end of shelter



8751



8750 Western end of shelter



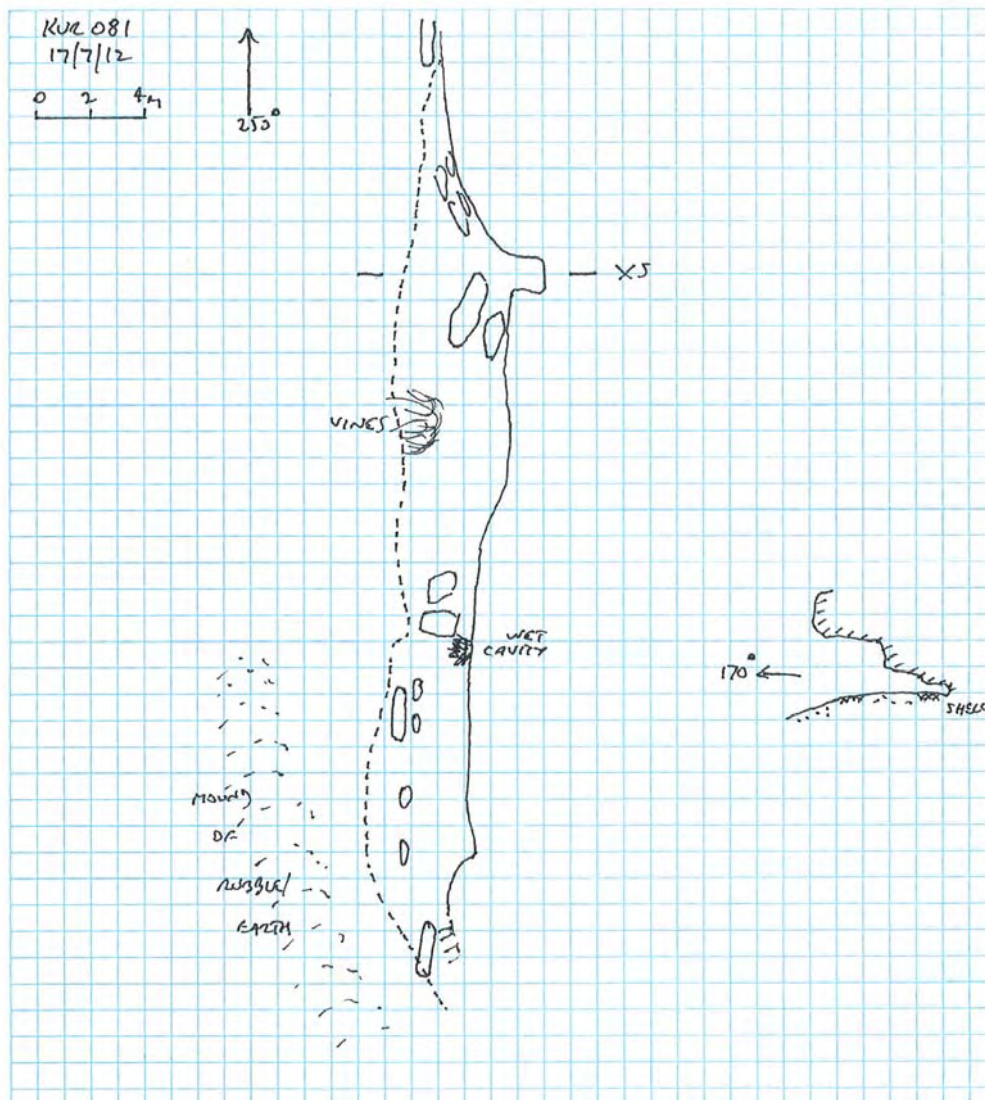
8745 Floor of shelter showing bird prints



8746 Floor of shelter



8757 Alcove in back wall with scattered shell



Plan and section of shelter

WILLBY #66.

[✓] New recording

[] Additional Info



National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444

Standard Site Recording Form Revised 5/88

250,000 map sheet: SYDNEY

NPWS Code

MG Grid reference

1 reference - please
include leading digits

250K 250K
 3 2 9 4 5 0 mE 6 2 5 9 1 2 0 mN
 25K 5/6 25K

Scale of map used for grid reference
Please use largest scale available
☒ 25K, 50K (preferred)
 ☐ 100K
 ☐ 250K
5K, 50K, 100K map name: PARRAMATTA RIVERname: BLUE GUM CKLocality/property name: LCRSRA'S District: NORTH MET.Region: CENTRALon for investigation SITE MANAGEMENT PLAN FOR TRUST + NPWS.

on no:

n:

Photos taken? TOO DARK

How many attached?

to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. EITHER WALK
 diagram on separate sheet.) ACROSS THE PIPELINE BRIDGE OVER THE CREEK AND
DOWNSTREAM ON THE NORTHERN BANK OR WALK FROM JUNCTION OF
E GUM CREEK/LADY GAME DRIVE TO THE EAST, AT THE 30/40m CONTOUR.
IS 400m FROM L.G.DRIVE, 20m NORTH OF THE CREEK.

sites in locality? NO

Site Types include:

sites in NPWS Register?

artefacts been removed from site? ?

When?

When?

Deposited where?

important to local Aborigines? YES.contact(s) name(s) + address(es) WAYNE CARR (SITE OFFICER) FOR METRO. LALC.

used for this recording?

additional information separately? If not, why not?

written reference sources (including full title of accompanying report)

NPWS Report
Catalogue #

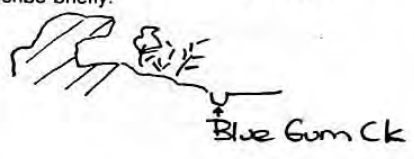
C-1899

 st:
 visibility,
 and disturbance/
 of site

 Condition of site: POOR - GRAFFITIED WALLS. DEPOSIT DISTURBED
BY ANIMALS, HUMANS + WATER FLOW, OUTSIDE THE
DRIPLINE.

 recommendations for management & protection (attach separate sheet if necessary): LEAVE AS IS.

 ordered by: B. Conyers
 institution: NPWS
Date: JULY 1990

ENVIRONMENT		OFFICE USE ONLY: NPWS site no: 45-6-2210
beach/hill slope/ridge top, etc: Diagram provided or on your own sketch the position of the site:	b. site aspect: S c. slope: 10° IN FRONT e. Describe briefly: <div style="text-align: right; margin-top: 10px;">  </div>	
Local rock type: Sandstone	g. Land use/effect: SRA - minor impact.	
Distance from drinking water: ?	Source: Blue Gum Ck probably tidal/brackish	
Resource Zone associated with site (estuarine, riverine, forest etc): Estuarine		
Vegetation: NOWADAYS LANTANA WITH A BRACKEN UNDERSTORY		
Edible plants noted: Bracken		
Faunal resources (include shellfish):		
Other exploitable resources (river pebbles, ochre, etc):		
e type shelter midden.	DESCRIPTION OF SITE & CONTENTS. Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.	
CHECKLIST TO HELP gth, width, depth, ight of site, shelter, posit, structure, ment eg. tree scar, oves in rock. POSIT: colour, ture, estimated pth, stratigraphy, ntents-shell, bone, ne, charcoal, density distribution of these, ne types, artefact es. IT: area of surface corated, motifs, ours, wet, dry yment, technique of raving, no. of ures, sizes, tination. JRIALS: number & ndition of bone, sition, age, sex, sociated artefacts. EES: number, alive, ad, likely age, scar ape, position, size, tterns, axe marks, growth JARRIES: rock type, bris, recognisable efacts, percentage arried. THER SITES EG. uctures (fish traps, ee arrangements	Large overhang formed by cavernous weathering in a 5 m. high cliffline. The shelter is c. 30m (l) x 4 m (deep) x 4 m (h). The floor is uneven with a lot of roof fall and depressions caused by animals, humans and water scour. Deposit is sandy and grey with a recent thin red layer of granular disintegration. The surface evidence is sparse and midden material only evident in the disturbed locations. Shell + bone present but no art or stone artifacts. Shelter walls are uneven and not really suitable for art, though it was very dark when the site was recorded. Deposit is 10cm deep in places. Rock oyster is c. 90% of the shell, the remainder being comprised of Anadara and giant whelk. The bone was not identified - it consisted of 2 small long bones and 1 jaw fragment, possibly from a small marsupial - this cannot be confirmed as being of Aboriginal origin: it may have been brought in by a predator.	

KU-RING-GAI LGA:
ABORIGINAL SITES

NPWS NUMBER: 45-6-2210

SITE TYPE: Shelter/ Midden
SITE NAME: Blue Gum Creek

LOCALITY: West Lindfield

GRID REF: Parramatta River
1:25,000: 329450.6259120

LAND STATUS: National Park: Lane Cove
PROPERTY: LOT DP

DESCRIPTION: This large shelter is approximately 20m north of the creek. The apparently small midden has been disturbed by animals (possibly humans), erosion and construction of a water main. The site was recorded by Conyers in 1990 as part of a survey of the Lane Cove NP. She assessed the site as having limited research value because of the degree of disturbance.

CONDITION: Disturbed.

TYPE OF EUROPEAN IMPACT: Digging, camping?, graffiti.

CURRENT CONSERVATION MEASURES: None

RECOMMENDATIONS: Conyers recommended that no action was required at this time. If future development or increased access was proposed for the site then additional assessment would be required.

APPENDIX D CORRESPONDENCE RECEIVED FROM THE METROPOLITAN LALC

From: Karyn Virgin
Sent: Wednesday, 29 August 2018 3:13 PM
To: Karyn Virgin
Subject: FW: Lindfield Learning Village SSD 8114 - OEH comments on Aboriginal archaeology and cultural heritage

From: Nathan Moran [mailto:nmoran@metrolalc.org.au]
Sent: Wednesday, 29 August 2018 7:32 AM
To: aroff@urbis.com.au; Karyn Virgin
Cc: Cultural Heritage
Subject: Re: Lindfield Learning Village SSD 8114 - OEH comments on Aboriginal archaeology and cultural heritage

Hi Allan & Karyn,

My apologies for typo as meant to read:

- MLALC acknowledges Gumeragal aka Cameragal of the Eora Nation as traditional owners of Lindfield being the site of the proposed development.

Look forward to speaking soon.

Yours In Unity
Nathan Moran
Chief Executive Officer
Metropolitan Local Aboriginal Land Council (MLALC)
36-38 George St, Redfern NSW 2016 | PO Box 1103, Strawberry Hills NSW 2012
B:(02) 8394 9666 | F: (02)8394 9733 | W: www.metrolalc.org.au

From: Nathan Moran
Sent: Wednesday, 29 August 2018 7:30 AM
To: aroff@urbis.com.au; ~~lvirgin@metrolalc.org.au~~
Cc: Cultural Heritage
Subject: Re: Lindfield Learning Village SSD 8114 - OEH comments on Aboriginal archaeology and cultural heritage

Hi Allan & Karyn,

On behalf of Metropolitan Local Aboriginal Land Council (MLALC) I provide the following comments on Aboriginal archaeology and cultural heritage regarding the proposed Lindfield Learning Village SSD 8114:

- Metropolitan LALC is the legislated authority for protection & preservation of Aboriginal Culture & Heritage for the area of this proposed development and greatly appreciates being engaged for this proposal. MLALC representative for this project is Selina Timothy MLALC Culture Heritage Officer
- MLALC requests to be included for supervision of any site works disturbing soil below 1metre to ensure any when any original soils are disturbed that may contain Gumeragal Culture Heritage is potentially disturbed.
- MLALC request to be informed and advised of any Cultural Heritage material recovered and or unearthed during the development immediately.

- MLALC acknowledges Gamaragal aka Cameral of the Eora Naon as traditional owners of Lindfield being the site of the proposed development.
- MLALC affirms that Guringai is actually the 1st Naons of the Barring ton Tops area. And notes that Guringai has been misappropriated by Non 1st Naons people as Tradional owners of the North Shore & Northern area of Sydney as it is known today. MLALC acknowledges Penal colony records as being that Newcastle and Port Stephens 1st Naons people and or Aboriginal people were in Sydney's Domain and or Government house area in 1828 and more than likely is the cause of the misapprehension and wrongful application of the Guringai being Tradional owners of the Northern Sydney Metropolitan area. Attached is paper Filling the Void, by Aboriginal Heritage Office, to assist in informing the misuse of Guringai as Tradional owners in Sydney
- Dharug is a creation of Non Aboriginal R H Mathews in 1905 as a untrained anthropologist whom created the word Dharug without any reference of Aboriginal & or 1st Naons in formants or sources. MLALC notes this is promoted by Macquarie University academics without any consultation and or authority of Metropolitan LALC as the legislated authority for protection & preservation of Aboriginal Culture & Heritage for the area of this proposed development.
- MLALC notes that the Colony records attest that the Gamaragal people resisted Colonisation of subject area for approximately 20 years until being forced by military and militias out of the area.

And should you need and or require any additional information please advise.

Yours In Unity

Nathan Moran

Chief Executive Officer

Metropolitan Local Aboriginal Land Council (MLALC)

36-38 George St, Redfern NSW 2016 | PO Box 1103, Strawberry Hills NSW 2012

B:(02) 8394 9666 | F: (02)8394 9733 | W: www.metrolalc.org.au

From: Cultural Heritage

Sent: Tuesday, 28 August 2018 4:04 PM

To: Nathan Moran

Subject: FW: Lindfield Learning Village SSD 8114 - OEH comments on Aboriginal archaeology and cultural heritage

Good afternoon Nathan I am needing assistance on this one a Due Diligence report has been requested could you please have a read over important highlighted bits and let me know what I need to do.

Thanks

Kind Regards

Selina Timothy

Culture and Heritage Officer

Metropolitan Local Aboriginal Land Council (MLALC)

36-38 George St, Redfern NSW 2016 | PO Box 1103, Strawberry Hills NSW 2012

B:(02) 8394 9666 | F: (02)8394 9733 | W: www.metrolalc.org.au

From: Alaine Roff [<mailto:aroff@urbis.com.au>]

Sent: Friday, 24 August 2018 2:19 PM

To: culturalheritage@metrolalc.org.au

Cc: metrolalc@metrolalc.org.au; officeadmin@metrolalc.org.au; Karyn Virgin

Subject: FW: Lindfield Learning Village SSD 8114 - OEH comments on Aboriginal archaeology and cultural heritage

Dear Selina,

As per earlier correspondence, please see the attached revised ACHAR for the proposed Lindfield Learning Village (under SSD 8114) for the review and comment of the Metropolitan LALC. Your office advised that we should send a copy directly to your inbox.

The Department of Education are required to submit the assessment by COB today as part of their deliverables package. We absolutely acknowledge and appreciate that this is a very short turnaround for your review and comment; however we are hoping that you might be able to get back to us today with any written or verbal comments regarding the attached document.

Please don't hesitate to contact Karyn Virgin on 0402284070 to discuss the above, and we appreciate any assistance you can provide us with in closing this out today.

Regards

ALAINE ROFF
ASSOCIATE DIRECTOR

T +61 2 8233 9900

D +61 2 8233 9927

M +61 450 264 097

E aroff@urbis.com.au

**SHAPING
CITIES AND
COMMUNITIES**



LEVEL 23, DARLING PARK TOWER 2, 201 SUSSEX STREET
SYDNEY, NSW 2000, AUSTRALIA

Urbis recognises the traditional owners of the land on which we work.
Learn more about our [Reconciliation Action Plan](#).



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