AHMS
ARCHAEOLOGICAL & HERITAGE MANAGEMENT SOLUTIONS
SYDNEY
349 Annandale St,
Annandale, NSW 2038
P: (02) 9555 4000
F: (02) 9555 7005
MELBOURNE
2/35 Hope St,
Brunswick, VIC 3056
P: (03) 9388 0622
PERTH
13/336 Churchill Ave
Subiaco, WA 6008
P: (08) 6262 2025
W: www.ahms.com.au E: info@ahms.com.au ABN: 45 088 058 388 ACN: 088 058 388

15 May 2012

Our ref: 120229-1

Mr William Gao,
Campus Infrastructure and Services,
The University of Sydney,
G12 Services Building,
The University of Sydney, NSW 2006.

Re: Aboriginal Heritage and Historical Archaeology Preliminary Assessment – Proposed Australian Institute of Nanoscience Building, University of Sydney

Dear Mr Gao,

This document provides a preliminary Aboriginal heritage and historical archaeology assessment for the proposed construction of the Australian Institute of Nanoscience building, on the Camperdown Campus of the University of Sydney, as specified in the Director-General's Requirements (DGRs) for the project. The assessment has been undertaken following the relevant guidelines (including those specified in the DGRs), as follows:

- *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*, draft (DEC, July 2005);
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, April 2011);
- *NSW Heritage Manual* (Heritage Office & DUAP, 1996);
- *University of Sydney Grounds Conservation Management Plan;*
- Relevant individual Conservation Management Plans.

The preliminary assessment has the following objectives:

1. To identify whether or not Aboriginal objects and values are, or are likely to be, present in the proposed development area;
2. To identify whether or not the proposed development area has historical (non-Indigenous) archaeological potential;
3. To determine whether or not the proposed development is likely to harm Aboriginal objects (if present) and/or historical archaeological potential.

Please be advised that the preliminary assessment is **not** a comprehensive Aboriginal heritage or historical archaeological assessment. Instead, it provides a **guide** to Aboriginal cultural heritage and historical archaeological issues that may be encountered during the proposed development, in addition to providing our opinion regarding whether or not further and more detailed heritage assessment is warranted to inform a proposal and/or to assess its impacts.

If you have any further questions or enquiries, please contact Fenella Atkinson on 02 9555 4000.

Yours sincerely,

Lisa Newell

Associate Director, AHMS

INTRODUCTION

Site Location

The subject area consists of the location of a proposed building within the Camperdown Campus of the University of Sydney (**Figure 1**). The property consists of part of Lot 1966 in Deposited Plan 1117595 and part of an unidentified parcel to the north (**Figure 2**). The property is in the City of Sydney Local Government Area, and in the Parish of Petersham, County of Cumberland.

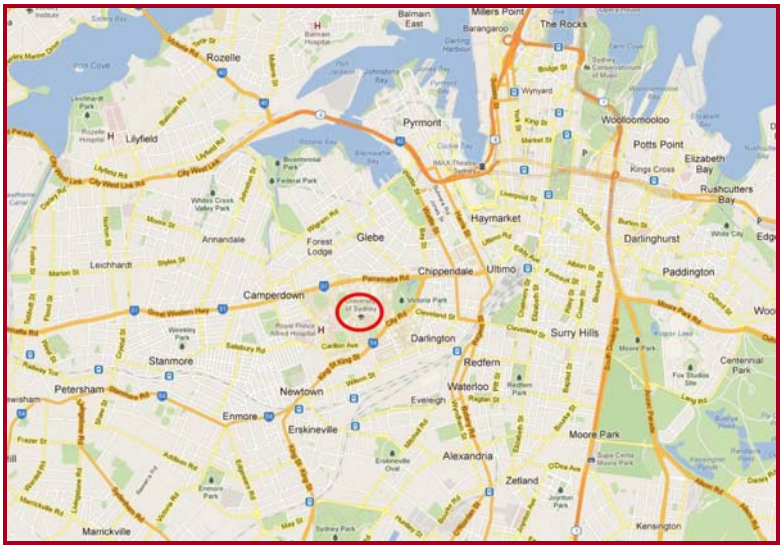

Figure 1. The general location of the subject area, circled in red (source of map: Google Maps).

Figure 2. The subject area, marked in blue (source of photograph: LPI, SIX Viewer).

Proposed Development

It is proposed to construct a building for the Australian Institute of Nanoscience, on the Camperdown Campus of the University of Sydney. The proposed location is to the rear (south) of the present Physics Building (A28), and to the west of the Edward Ford Building (A27). The proposed structure will be four storeys in height, with a basement, and a footprint of approximately 4000m². Construction will require excavation to a depth of approximately 12m from the current ground surface. It will also involve the demolition of three structures; St Paul's Garden Shed, Cosmic Ray Hut No. 1 (A28A), Physics Annex (A29); and the removal of a basketball court and a bitumen path. The construction may also require the demolition of the Animal House (A27).

Approvals Context

The proposed development has been determined to be State significant development, according to the provisions of *State Environmental Planning Policy (State and Regional Development) 2011*. The development application will be determined under Part 4.1 of the *Environmental Planning and Assessment Act 1979*.

The Director-General's Requirements for the preparation of an Environmental Impact Statement for the proposed development include the following requirements regarding cultural heritage:

> *An heritage impact statement of the likely impacts of the proposal on surrounding/nearby heritage items, including:*
>
> - *an assessment on the character and significance of the heritage items, their setting and the Sydney University Conservation Area;*
> - *the relationship to any heritage items;*
> - *construction and operational impacts on adjoining heritage items;*
> - *assessment of the impacts on views to and from heritage listed buildings;*
> - *assessment of any impacts on the Wilkinson axis;*
> - *any impacts on natural areas and places of Aboriginal historic or archaeological significance and consideration of the wider heritage impacts on the surrounding area; and*
> - *proposed conservation and mitigation measures.*

The present report addresses the Aboriginal and historical archaeological potential of the subject area. Built heritage and landscape values are addressed in a separate report (Graham Brooks & Associates, in preparation).

PRELIMINARY ABORIGINAL HERITAGE ASSESSMENT

Assessment Guidelines

The draft *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*, draft (DEC, July 2005), outline the information required for a preliminary Aboriginal heritage assessment of a proposed State significant development (formerly Part 3A Projects now Part 4.1 Projects). Preliminary assessments are intended to identify whether there are Aboriginal cultural heritage values associated with a particular subject area. They are required to include:

- a description of the location and nature of the proposed development;
- a description of any social and cultural values including the spiritual, traditional, historical or contemporary associations and attachments which the place or area has for the present-day Aboriginal community; and
- an assessment of which of the Aboriginal cultural heritage values that are known or likely to occur are likely to be directly or indirectly affected by the proposal.

In addition, the DGRs for this project recommend the use of the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, April 2011). With regard to preliminary assessment, the *Guide* refers to the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, September 2010). The *Code of Practice* outlines a due diligence process involving the following questions:

1. Will the activity disturb the ground surface or any culturally modified trees?
2. Are there any:
    a) relevant confirmed site records or other associated landscape feature information on AHIMS? and/or
    b) any other sources of information of which a person is already aware? and/or
    c) landscape features that are likely to indicate presence of Aboriginal objects?
3. Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?
4. Does a desktop assessment and visual inspection confirm that there are Aboriginal objects or that they are likely?

The following assessment provides information to address both the *Part 3A Guidelines* preliminary assessment requirements, and the *Due Diligence Code of Practice* process.

Landforms and Environment

The subject area is within the Blacktown Soil Landscape (Chapman & Murphy, 1989, pp.30-33). The A1 horizon is a friable loam, overlying an A2 horizon of brown clay loam, a B horizon of mottled brown light clay, and a B3 or C horizon of light grey mottled clay. The soils overlie Wianamatta Group shales and Hawkesbury shale, in turn overlying Hawkesbury sandstone, but rock outcrop is generally absent.

The results of geotechnical testing (eight boreholes) indicated a subsurface profile consisting of shallow fill over silty clay over shale bedrock (Jeffery & Katauskas, April 2011). The uppermost fill was described as a silty clay, while the descriptions of the underlying clay are consistent with the B3 or C horizon present in the Blacktown Soil Landscape. The results suggest that the original topsoil has been largely or entirely removed from the tested area.

The topography of the Blacktown Soil Landscape consists of gently undulating rises (Chapman & Murphy, 1989, pp.30-33). The native vegetation would have consisted of tall open-forest (wet sclerophyll forest) and open-woodland (dry sclerophyll forest). The drainage of the area has been significantly altered by development. However, it appears that the location of the subject area was in the vicinity of the junction of two first-order tributaries of Orphan School Creek (**Figure 3**), which itself ran to Johnsons Creek and then into Rozelle Bay. These watercourses remained open through to at least the late nineteenth century, running in places in gullies over twenty feet deep (OCP, March 2008, p. 20). There were areas of swamp roughly in the present locations of Victoria Park and Darlington School. The general area would therefore have been rich in resources valuable to the Aboriginal occupants of the Sydney region; fresh water, and a diversity of flora and fauna.

The *Code of Practice* identifies several landscape features with high potential for the presence of Aboriginal objects, where the land has not been previously disturbed. The features are as follows:

- Within 200m of waters, or
- Located within a sand dune system, or
- Located on a ridge top, ridge line or headland, or
- Located within 200m below or above a cliff face, or
- Within 20m of or in a cave, rock shelter, or a cave mouth.

The location of the subject area is likely to have been within 200 m of waters (tributaries of Orphan School Creek). However, the subject area appears to have been substantially

disturbed as a result of construction and landscaping, and the results of the geotechnical testing support this interpretation.

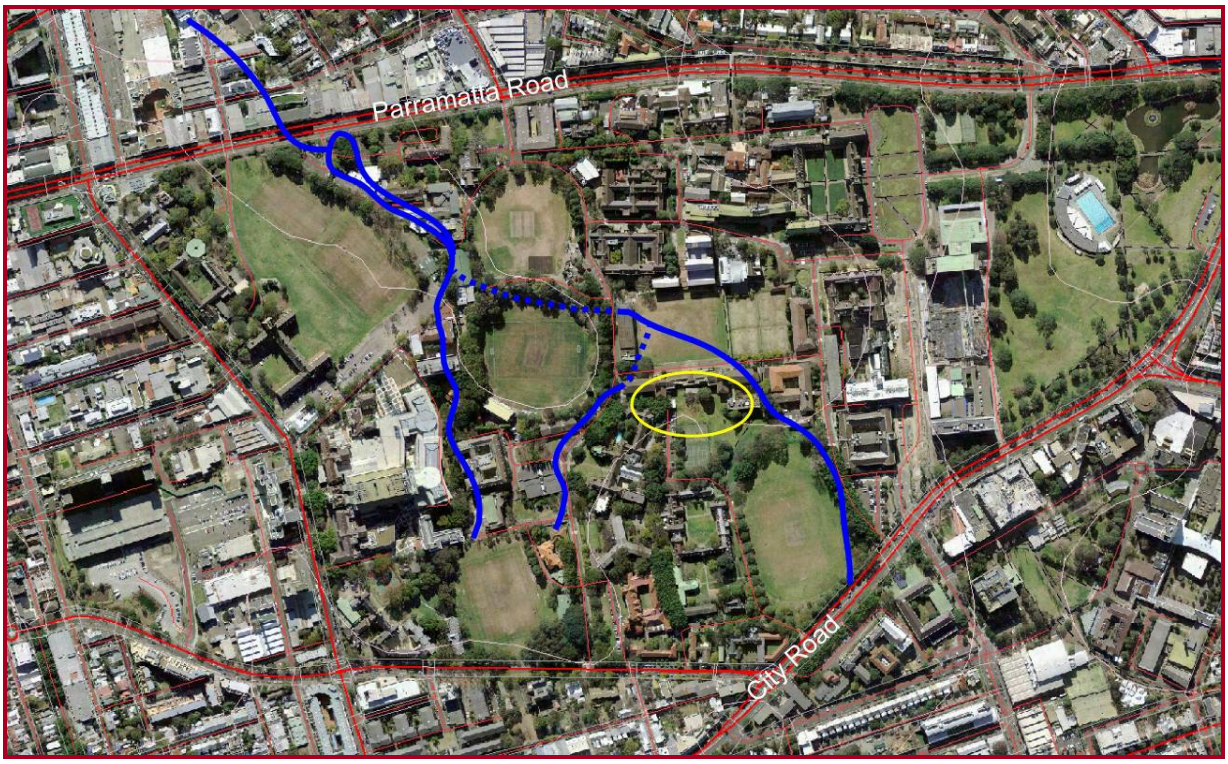

Figure 3. The University of Sydney Camperdown Campus, showing the approximate location of former watercourses, taken from a historic map of the Parish of Petersham. The subject area is circled in yellow (source of photograph: LPI, SIX Viewer).

Previous Archaeological Work

In 2002 a Grounds Conservation Plan was finalised for the Camperdown and Darlington Campuses of the University (Pearson et al., October 2002). The study did not include Lot 1966 DP 1117595, and therefore did not include the main part of the present subject area. In general, it was thought unlikely that major Aboriginal campsites would have been established in the area, as the natural resources were probably less abundant than nearby areas along the foreshores of Port Jackson and Botany Bay, along the coastline, and adjacent to the lower reaches of creeklines with more permanent water sources (Pearson et al., October 2002, p. 53). Further, as a result of the intensive development of the University grounds, few, if any,

undisturbed archaeological sites were likely to remain (Pearson et al., October 2002, pp. 28 & 54).

However, several areas of open land in the vicinity of former water sources were thought to have slightly higher archaeological potential than the remainder of the study area. Although no Aboriginal objects were found, several areas of potential archaeological deposit (PAD) were identified. This identification was based on proximity to original water sources, and relatively low apparent disturbance (Pearson et al, October 2002, p. 30). The identified PADs were in the St Johns College sports ground, the areas around old Darlington School, and the Darlington Road terraces.

An assessment of part of the Darlington and Camperdown campuses (not including the subject area) of the University was undertaken by Jo McDonald Cultural Heritage Management in 2004. Most of the 2004 study area was assessed as highly disturbed, with a small area possibly moderately disturbed. Although the areas to be impacted were assessed as having a low-moderate potential to contain intact archaeological deposit, any such deposit was likely to be of high archaeological significance, given the rarity of such sites in the immediate region. A program of test excavation was therefore recommended in advance of impact.

Test excavation was carried out in 2005 at the Geology Lawn and Maze Green. Excavation of the USyd Law PAD1 (AHIMS No. 45-6-2745) at the Geology Lawn consisted of seven 1m² test pits, and resulted in the discovery of a single silcrete artefact. The site was removed by the construction of the new law building. Test excavation in 2006 at the Central building site consisted of nine 1m² test pits, and resulted in the recovery of a single flaked silicified tuff artefact (JMcDCHM, October 2006). The results of the excavations indicated that no intact archaeological deposits remained in the three areas investigated (JMcDCHM, October 2006, pp. 10, 15). However, it was noted that, given the varied land use across the University grounds, areas of intact deposit with higher archaeological potential may remain in other places (JMcDCHM, October 2006, p. 17).

A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 12 March 2012 (Ref. No. USYD-AIN 120229-1). The search found 18 registered sites within a 5km square centred on the subject area (**Table 1** and **Figure 19**), although there were no registered sites within the subject area itself. The registered site types are predominantly potential archaeological deposits (10) and artefact(s) (8); shell, art and a resource and gathering site (the tent embassy site in Victoria Park) are also noted.

Two of the registered Aboriginal sites fall within the University grounds; 45-6-2745 and 45-6-2822. AHIMS site no. 45-6-2745 was the potential archaeological deposit identified during the 2004 assessment (JMcDCHM, July 2004) and subject to test excavation in 2005. AHIMS site no.

45-6-2822 is a single artefact, and was identified during the same test excavation program, within a heavily disturbed A-horizon.

Table 1. Sites registered in AHIMS within a 5km square centred on the subject area.

Site ID	Site name	Site features
45-6-2597	Wynyard St Midden	Shell, Artefact
45-6-2278	Lilyfield Cave	Shell, Artefact
45-6-2629	Broadway 1	Artefact
45-6-2637	George street 1	Artefact
45-6-2647	KENS Site 1	Artefact, Potential Archaeological Deposit (PAD)
45-6-2652	Ultimo PAD 1	Potential Archaeological Deposit (PAD)
45-6-2676	Johnstons Creek	Art (Pigment or Engraved), Artefact
45-6-2666	Wattle Street PAD 1	Potential Archaeological Deposit (PAD)
45-6-2663	Mountain Street Ultimo	Artefact, Potential Archaeological Deposit (PAD)
45-6-2680	Broadway Picture Theatre PAD 1	Potential Archaeological Deposit (PAD)
45-6-2745	University of Sydney Law Building PAD	Potential Archaeological Deposit (PAD)
45-6-2767	Tent Embassy	Aboriginal Resource and Gathering
45-6-2796	320-328 George St PAD	Potential Archaeological Deposit (PAD)
45-6-2822	USYD: Central	Artefact
45-6-2838	420 George Street PAD	Potential Archaeological Deposit (PAD)
45-6-2960	Jackson Landing Shelter	Potential Archaeological Deposit (PAD)
45-6-2979	UTS PAD 1 14-28 Ultimo Rd Syd	Potential Archaeological Deposit (PAD)
45-6-2987	Poultry Market 1	Artefact

Aboriginal Community Consultation

Formal Aboriginal community consultation is not required for the purposes of a preliminary assessment or due diligence advice. However, the Metropolitan Local Aboriginal Land Council (LALC) was informed of the project, and Paul Morris (Chief Executive Officer) expressed an interest in the investigation. Although the Metropolitan LALC was not able to send a site officer to inspect the proposed activity area, they have been informed of the results of the survey.

Site Inspection

The subject area was inspected by Fenella Atkinson (AHMS), in company with William Gao (Campus Infrastructure and Services) on 23 March 2012.

The subject area consists of a large grassed area, with structures on the western, northern and eastern boundaries (**Figure 4**). Several of these structures fall partly, or entirely, within the subject area. It appears that the ground originally sloped down from the south-east to the north-west. This slope has since been significantly modified by substantial earthworks to create level building areas, and control drainage. A large drainage ditch runs through the centre of the site, with grids indicating a stormwater drain beneath. Parallel to the ditch is an embankment, running behind the Physics Building and Physics Annexe (**Figure 5** and **Figure 6**).

In general, the open area is heavily grassed, with no ground visibility. However, there are some areas of surface exposure; under the trees to the south of the Cosmic Ray Hut (A28A), to the north-east and south-east of St Paul's Garden Shed, and at the gateway through to the western carpark (**Figure 7**). The soil evident in these areas was a silty clay, containing a large amount of rubble including fragments of concrete and dry-pressed brick. A very thin topsoil, likely to be a recent soil, was apparent in places. This suggests that the embankment consists of an introduced fill.

On the western edge of the subject area are St Paul's Garden Shed, and a bitumen car park (**Figure 8**). The Shed sits on a concrete slab. Although the surface of the car park slopes down slightly to the north, it appears that some excavation for levelling has taken place in this area. To the south is a basketball court, on a terrace which is likely to have been formed by the introduction of a substantial amount of fill (**Figure 9**).

To the north and north-east are the Physics Building (A28), Physics Annexe (A29), and Cosmic Ray Hut No.1 (A28A). Construction of these three buildings has involved excavation in order to create level building sites (**Figure 10**, **Figure 11**, **Figure 12**). Between the Physics Building (A28) and Physics Annexe (A29) is a second bitumen carpark (**Figure 13**). Again, the construction of this carpark is likely to have involved excavation for levelling.

Between the Physics Annexe (A29) and the Edward Ford Building (A27; outside the subject area) are three smaller structures, two timber compost bays, and a shipping container (**Figure 14**, **Figure 15**, **Figure 16**). Construction and/or installation of these features is likely to have involved localised impact, but not excavation on the scale required for the larger buildings.

In the eastern part of the subject area is the Animal House (A27A). Again, construction of this building has involved significant excavation, leaving large embankments to the south and east of the building (**Figure 17** and **Figure 18**).

Figure 4. The subject area, with the existing features labelled (source of photograph: LPI, SIX Viewer).

Figure 5. Looking north across the drainage ditch and embankment towards the Physics Building (A28) and Cosmic Ray Hut (A28A).

Figure 6. Looking east along the ditch and embankment, towards the Physics Annexe (A29).

Figure 7. An area of exposure under the trees on the embankment.

Figure 8. Looking west towards the carpark and St Paul's Garden Shed.

Figure 9. Looking south-east towards the basketball court (screened by bushes).

Figure 10. The southern wall of the Physics Building (A28).

Figure 11. Looking west towards the Cosmic Ray Hut (A28A).

Figure 12. The southern wall of the Physics Annexe (A29).

Figure 13. The carpark between the Physics Building (A28) and the Physics Annexe (A29).

Figure 14. Flammable Store (A29A), looking north.

Figure 15. Flammable Store (A27C), looking east.

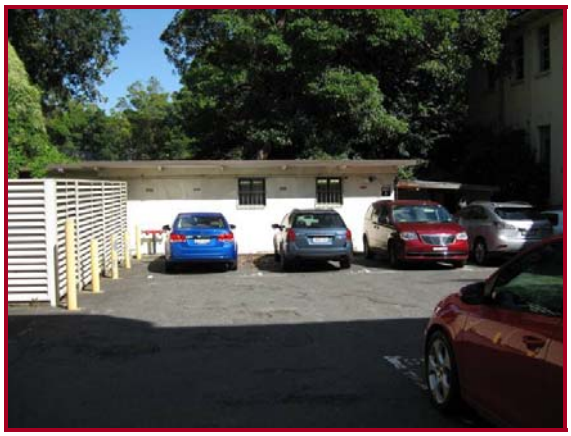

Figure 16. Virology Laboratory (A27B), looking west.

Figure 17. The Animal House (A27A), looking south, with the embankment to the rear.

Figure 18. The Animal House (A27A), looking south-west, down from Fisher Road.

Results

The *Due Diligence Code of Practice* includes a generic process to determine whether or not further investigation is required to address the potential Aboriginal heritage impact of a proposed development. The relevant questions are addressed below, with regard to the proposed development in the subject area. These responses also address the information required for a preliminary assessment under the draft *Part 3A Guidelines*.

1. *Will the activity disturb the ground surface or any culturally modified trees?*

The proposed activity will disturb the ground surface through demolition of existing structures, and excavation for construction (including construction of a basement). No culturally modified trees have been identified in the subject area.

2. *Are there any:*
    a) *relevant confirmed site records or other associated landscape feature information on AHIMS? and/or*
    b) *any other sources of information of which a person is already aware? and/or*
    c) *landscape features that are likely to indicate presence of Aboriginal objects?*

A search of the AHIMS database indicated that there are no registered sites or objects within the subject area.

The subject area is likely to be in the vicinity of a former watercourse, which was a tributary of Orphan School Creek. In general, proximity to a watersource is thought to indicate the likely presence of Aboriginal objects. However, in this case, significant existing disturbance, indicates that the presence of Aboriginal objects is unlikely.

3. *Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?*

As no identified Aboriginal objects are present within the subject area, and the relevant landscape feature has been subject to substantial disturbance, it is unlikely that the proposed development will involve harm to Aboriginal objects.

4. *Does a desktop assessment and visual inspection confirm that there are Aboriginal objects or that they are likely?*

The desktop assessment and visual inspection indicate that the subject area has been heavily disturbed in the past, through excavation for construction, drainage, and installation of services. This disturbance indicates that the presence of Aboriginal objects within the subject area is unlikely.

The results of the preliminary assessment, and generic due diligence process, indicate that the proposed development is unlikely to involve harm to Aboriginal objects, and that further investigation is not required.

Recommendations

The following recommendations are made:

- This report should be submitted to the Metropolitan Local Aboriginal Land Council, for their information. Any comments or concerns raised by the Land Council should be incorporated into the report.
- No further Aboriginal archaeological investigation or assessment is required in advance of the proposed development.
- Should the subject area be extended, assessment of the additional areas will be required.
- Should any unexpected Aboriginal objects be encountered in the course of the proposed development, work should cease in the immediate vicinity, and the Office of Environment and Heritage should be contacted for advice.

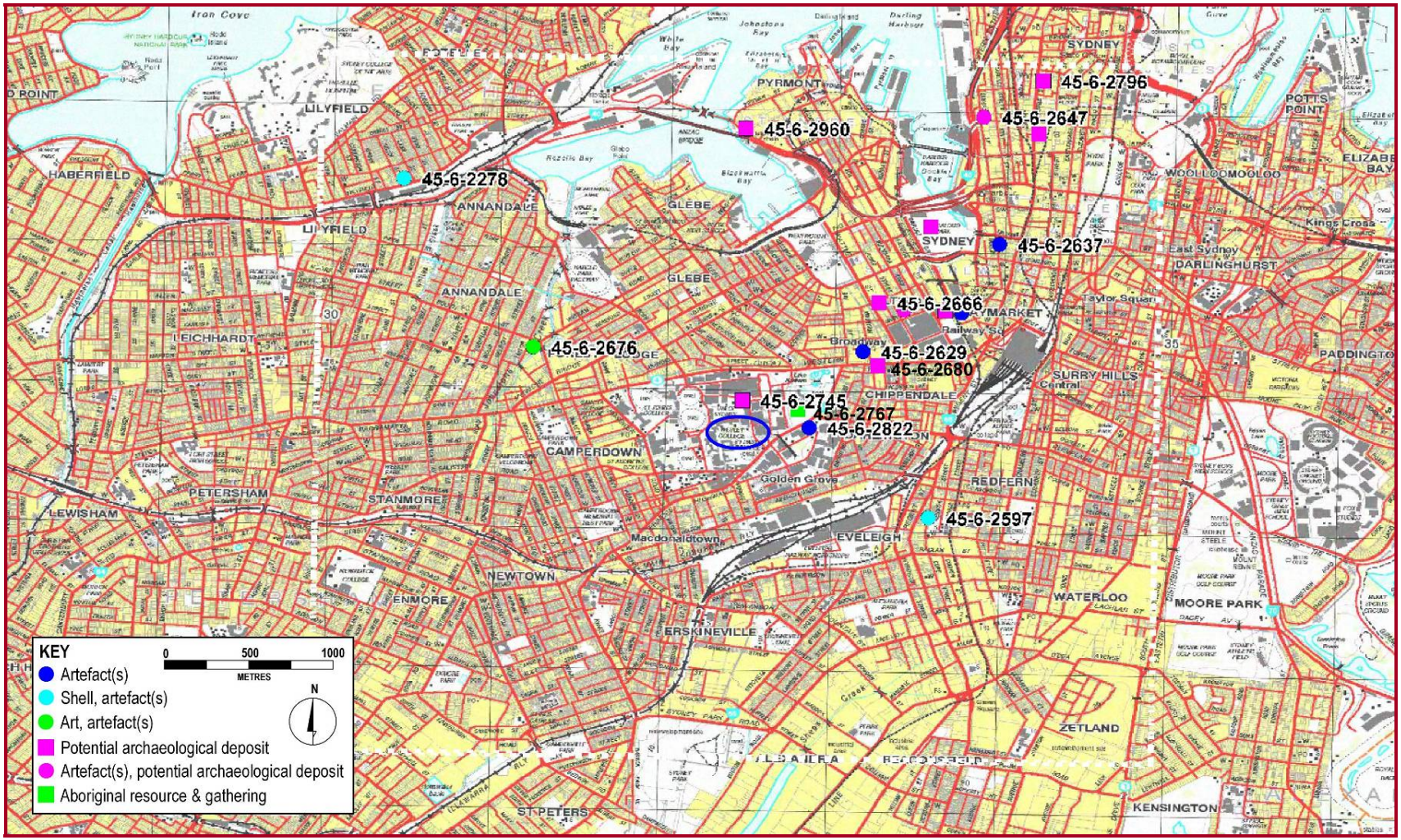

Figure 19. AHIMS sites within a 5km square centred on the subject area, circled in blue (source of base map: LPI, TopoView).

PRELIMINARY HISTORICAL ARCHAEOLOGICAL ASSESSMENT

Heritage Listings

The following heritage lists were searched for items within or in the vicinity of the subject area:

Statutory	World Heritage List
	National Heritage List
	Commonwealth Heritage List
	State Heritage Register
	South Sydney Local Environmental Plan 1998
Non-Statutory	Register of the National Estate
	State Heritage Inventory

Relevant listed items are summarised in **Table 2**. The State Heritage Inventory listing for the Sydney University Conservation Area notes the 'archaeological potential of redeveloped sites for rebuilding on former Grose farm sites'. The remainder do not note any historical archaeological potential associated with the items, however, listings are rarely comprehensive.

Table 2. Heritage listed items within or in the vicinity of the subject area.

Item	Register
University of Sydney (Camperdown & Darlington campuses)	University of Sydney s170 Register State Heritage Inventory
Sydney University Conservation Area (CA47)	*South Sydney LEP 1998* State Heritage Inventory
St Paul's College	*South Sydney LEP 1998* (Item 234) State Heritage Inventory Register of the National Estate
Physics Building	*South Sydney LEP 1998* (Item 835) State Heritage Inventory Register of the National Estate
Edward Ford Building and Curtilage	*South Sydney LEP 1998* (Item 863) State Heritage Inventory
Animal House	State Heritage Inventory

History

In about 1789, 400 acres of land, including the present Camperdown Campus of the University of Sydney, was set aside as a reserve. The reserve was, at least in part, used as pasture. In 1792, a 30-acre parcel of the reserve was leased to Lieutenant-Governor Grose, and the area as a whole appears to have been known as Grose Farm. Subsequently, several other parcels within the reserve were leased to other officers for cultivation. A sketch plan showing the layout of the reserve and the leases in 1789-98 indicates that the subject area was within the reserve, but not within the leased parcels (**Figure 20**).

Adjacent to Orphan School Creek, which ran through the reserve, a timber yard was established in 1793. The establishment also included nine huts for convict accommodation. Sixty acres of the reserve were cleared of timber, and 20 acres of this were sown with Indian corn (Pearson et al., October 2002, p. A15). In 1801, the greater part of the reserve was granted to the Female Orphan Institution, which established a farm on Orphan School Creek.

In 1819, the Female Orphan School was moved to Parramatta, and in 1823 the area known as Grose Farm reverted to the government (Pearson et al., October 2002, pp. A16-17). The dwelling house was enlarged, and farm buildings and convict accommodation were built (Pearson et al., October 2002, p. A16). The land was gradually cleared of trees and stumps (Pearson et al., October 2002, p. A16). In the early 1830s, Grose Farm was divided for lease into grazing paddocks, for stock intended for slaughter and sale in Sydney (Pearson et al., October 2002, p. A18). It remained in this use through to the early 1850s (Pearson et al, October 2002, p. 6).

It appears that the main structures built on the property (including the convict stockade) were located on the southern side of Parramatta Road, adjacent to Orphan School Creek. No development is known to have occurred in the subject area, although it is likely to have been cleared in this early period, and may have been used for grazing (see **Figure 21**).

Between 1855 and 1856 about 126 acres of Grose Farm were granted to the University of Sydney, which had been established in 1850 (Pearson et al., October 2002, pp. 6 & A18). The first University buildings, forming the basis of what is now the Quadrangle, were designed by Edmund Blacket between 1855 and 1862 (Pearson et al, October 2002, p. 6).

In the late 1850s, St Paul's College was constructed (Pearson et al., October 2002, p. A26) to the south of the subject area, on land that was reserved for the College from the University grounds. The subject area is within the original extent of the College land, and at the northern end of what was referred to as St Paul's Meadow (OCP, March 2008, p. 35). This was a boggy area (OCP, March 2008, p. 34), and the adjacent creek (a tributary of Orphan School

Creek) ran through a substantial gully (Pearson et al., October 2002, p. A34). Presumably for these reasons, the vicinity of the subject area remained undeveloped well into the twentieth century (see **Figure 22**). At least in the late nineteenth century, the greater part of the land between the University (now the Main Quadrangle) and the colleges was leased as grazing land to a dairy proprietor (Pearson et al., October 2002, p. A34).

In 1925 the Physics Building (A28) was constructed to the north of the subject area (OCP, March 2008, p. 33). Construction involved channeling the adjacent creek into a stormwater drain (OCP, March 2008, p. 42). In 1930, the Edward Ford Building (A27) and the Animal House (A27A) were built to the east of the Physics Building (CLSP, November 2006, p. 1). The Animal House is within the subject area. An undated image, possibly from the 1930s, shows that a small incinerator stood at the western end of the Animal House (**Figure 24**).

Images from the 1930s indicate that the subject area itself remained largely vacant (apart from the Animal House and incinerator), and grassed area in this period, with a few small trees, some post-and-wire fencing, and a dirt footpath running through the eastern end (**Figure 23**, **Figure 24**, **Figure 25**). The 1943 aerial photograph shows that a series of slot trenches had been excavated through the subject area, with the spoil piled up on either side (**Figure 26**). This type of trench was common in public open spaces in Sydney during the Second World War, and was intended to provide protection in the event of aerial attack.

Two small structures were built at the south-western corner of the Edward Ford Building during the Second World War; the Virology Laboratory (A27B, originally an air-raid shelter), and the Flammable Store (A27C) (CLSP, November 2006, p. 1). These structures both fall just outside the subject area.

A photograph from c1960 shows that the slot trenches had been backfilled, and the subject area was still largely vacant (**Figure 27**). Tall fences are evident, suggesting that tennis courts had been constructed by this time, roughly in the location of the present courts. The photograph suggests that the location of the courts had been built up through the introduction of fill. Construction of the Physics Annex (A29), falling partly within the subject area, began in 1963 and was completed in 1964 (OCP, March 2008, p. 66).

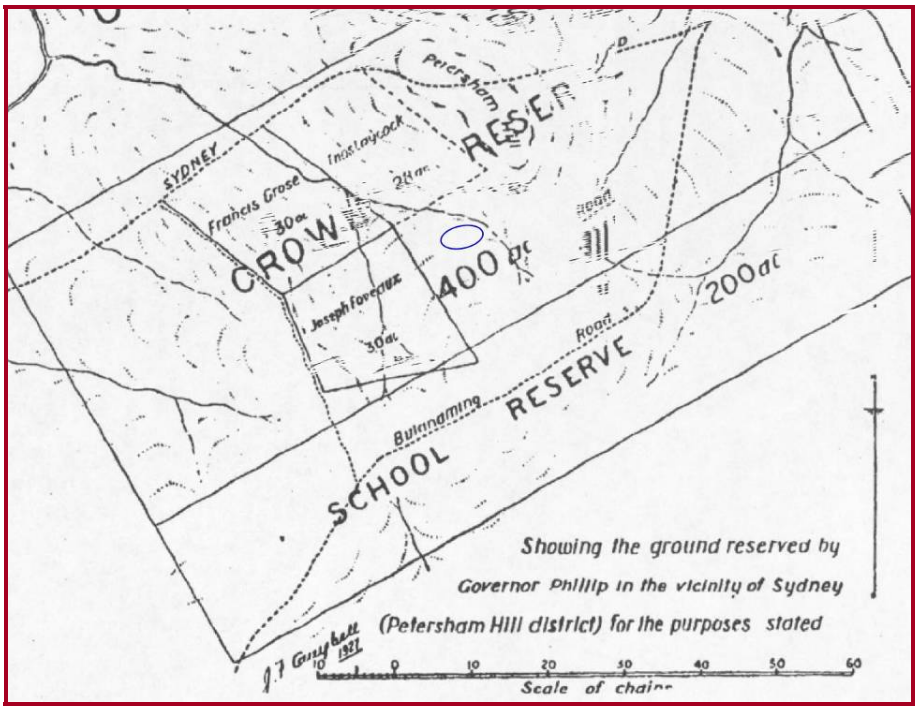

Figure 20. A sketch plan showing the layout of the area in 1789-1798, with the approximate location of the subject area circled in blue (reproduced in Pearson et al., October 2002, following p. 12).

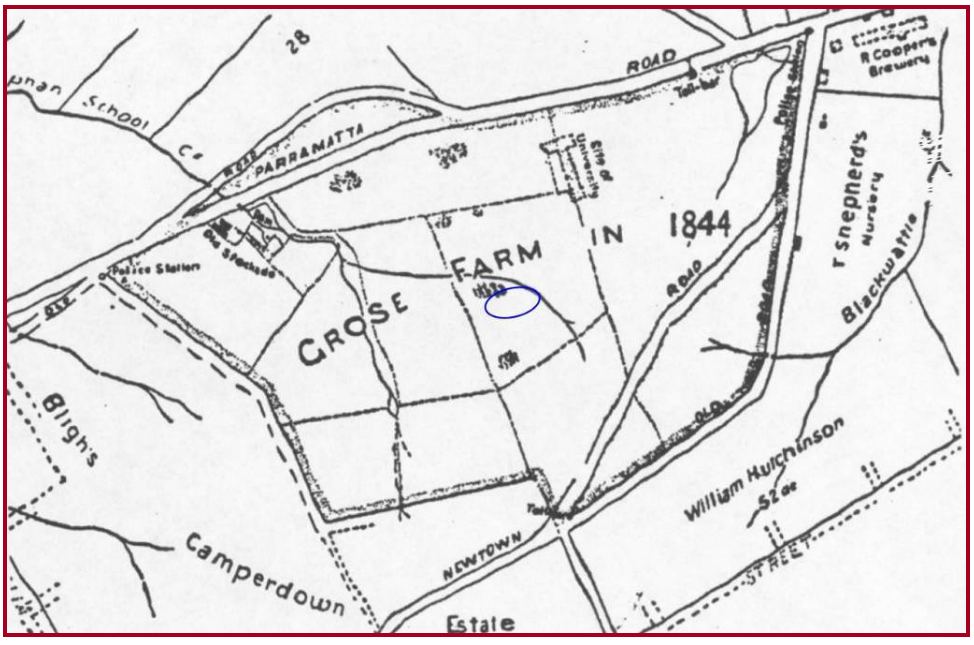

Figure 21. A sketch plan showing the layout of Grose Farm in 1844, with the approximate location of the subject area circled in blue (reproduced in Pearson et al., October 2002, following p. 12).

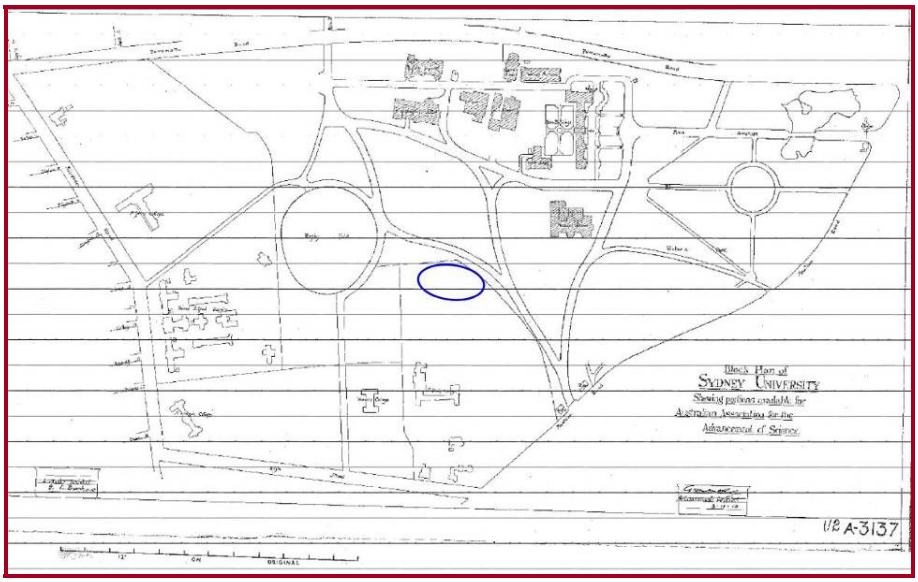

Figure 22. A 1910 plan of the Camperdown campus, with the approximate location of the subject area circled (source: reproduced in Otto Cserhalmi & Partners, March 2008, p. 27).

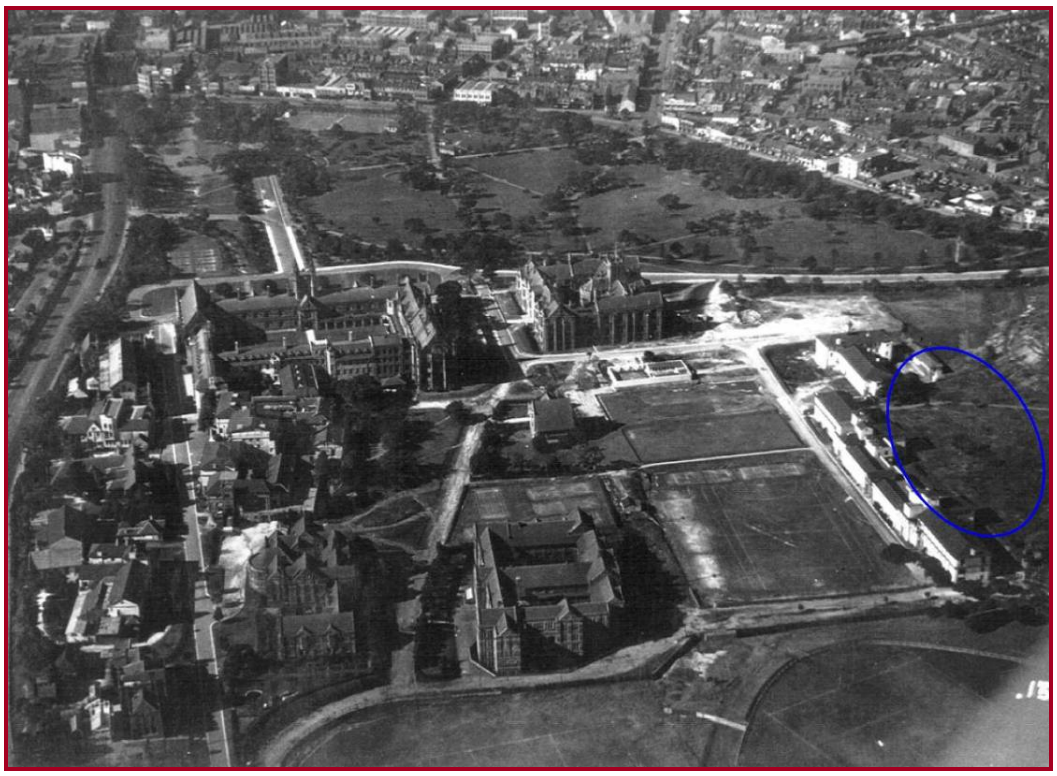

Figure 23. A 1931 aerial photograph of the University, with the approximate location of the subject area circled (source of photograph: reproduced in OCP, March 2008, p. 34).

Figure 24. An undated view of the Edward Ford Building and Animal House from the south-west, showing the eastern part of the subject area (source of photograph: reproduced in CLSP, November 2006, p. 14).

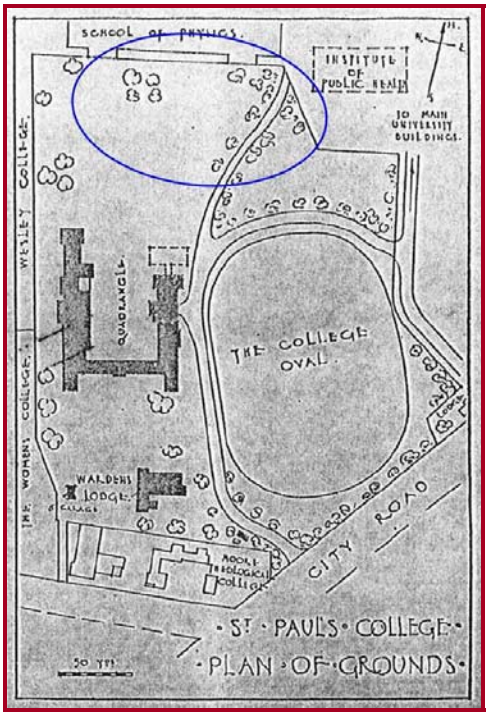

Figure 25. A 1934 sketch plan showing the subject area, circled (reproduced in CLSP, June 1997, p. 6).

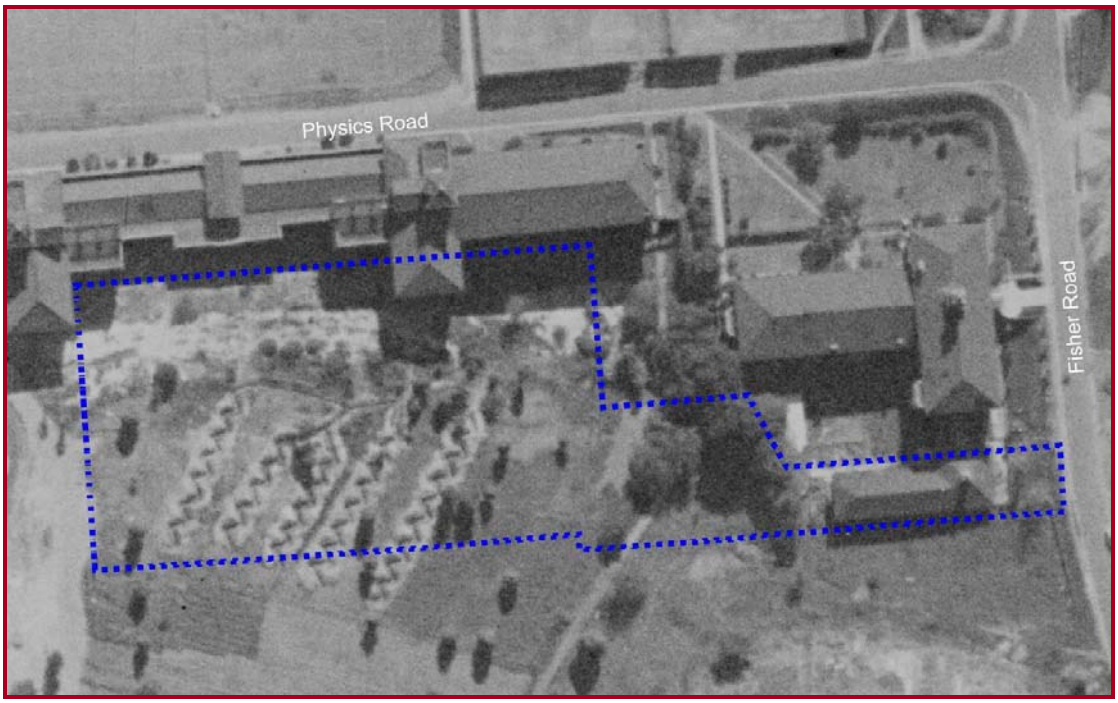

Figure 26. A 1943 aerial photograph showing the subject area, with the approximate location of the proposed building marked in blue (source of photograph: LPI, SIX Viewer).

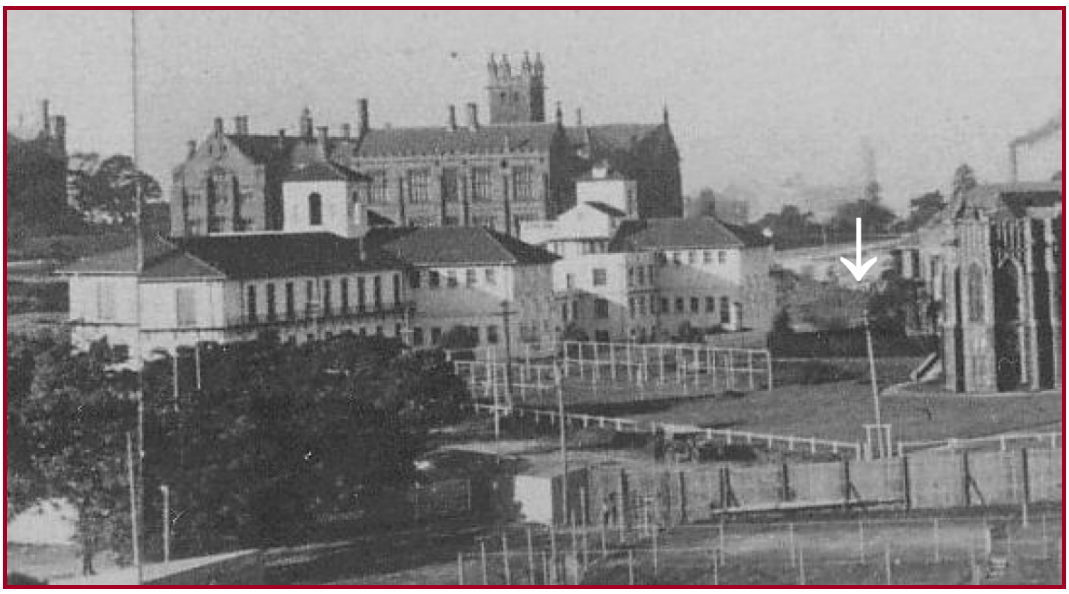

Figure 27. A view of the rear of the Physics Building in c1960, showing the subject area vacant apart from fencing. The arrow indicates the location of the Physics Annex (source of photograph: reproduced in OCP, March 2008, p. 64).

Site Inspection

The subject area was inspected by Fenella Atkinson (AHMS), in company with William Gao (Campus Infrastructure and Services) on 23 March 2012. The results of the site inspection are described above.

The historical features known to have been present within the subject area consist of an incinerator, slot trenches, and possible fencing. No indication of sub-surface historical archaeological remains was noted. The existing disturbance evident within the subject area indicates that remains of these features are unlikely to be present. As the Animal House was constructed in 1930, it is unlikely that associated occupation deposits have been created within the subject area.

Results

The documentary evidence indicates that the subject area remained largely undeveloped well into the twentieth century. To the south it was steep, to the north it was boggy, and it is probable that a watercourse ran through a deep gully in the east. In general, the main structures surrounding and within the subject area were the first and only developments in these particular locations.

Two historical features are known to have been present within the subject area; an incinerator and slot trenches. In addition, it is also likely that fencing has been present. However, substantial earthworks have taken place within the subject area, for terracing and drainage. These are likely to have removed any remains of the known historical features. Occupation deposits associated with the Animal House are unlikely to be present.

The historical archaeological potential of the subject area is therefore assessed as low, and the proposed development is unlikely to have a historical archaeological impact.

Recommendations

The following recommendations are made concerning the historical archaeological potential of the subject area:

- No further historical archaeological investigation or assessment is required in advance of the proposed development.

- Should the subject area be extended, assessment of the additional areas will be required.
- Should any unexpected historical archaeological remains be encountered in the course of the proposed development, work should cease in the immediate vicinity, and the Office of Environment and Heritage should be contacted for advice.

REFERENCES

Chapman GA, & CL Murphy, 1989, *Soil Landscapes of the Sydney 1:100 000* Sheet, Soil Conservation Service of NSW, Sydney.

Clive Lucas, Stapleton and Partners, June 1997, 'St Paul's College, University of Sydney: Conservation Analysis and Guidelines', for St Paul's College.

Clive Lucas, Stapleton and Partners, November 2006, 'Edward Ford Building and Animal House, University of Sydney: Conservation Management Plan', for Campus Property and Services, University of Sydney.

DEC, July 2005, *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*, draft.

DECCW, September 2010, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, DECCW, Sydney.

Jeffery and Katauskas Pty Limited, April 2011, 'Geotechnical Investigation for Proposed AIN Building at University of Sydney, Camperdown', for the University of Sydney.

Jo McDonald Cultural Heritage Management, June 2004, 'Archaeological Survey for an Aboriginal Heritage Assessment, University of Sydney, NSW', for Capital Insight Pty Limited.

Jo McDonald Cultural Heritage Management, October 2006, 'Sydney University Campus 2010: Test Excavations at the University of Sydney Central Site, Darlington Campus', for Capital Insight.

OEH, April 2011, *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*, OEH, Sydney South.

Otto Cserhalmi and Partners, March 2008, 'Conservation Management Plan: School of Physics', for the Facilities Management Office, University of Sydney.

Pearson M, D Marshall, D Ellsmore, V Attenbrow, S Rosen, R Kerr & C Betteridge, October 2002, 'University of Sydney Grounds Conservation Plan', for the Facilities Management Office, University of Sydney.