Godden Mackay Logan
Heritage Consultants

Concept Plan – University of Technology, Sydney (UTS) Broadway

Aboriginal and Historical Archaeological Assessment

Report prepared for UTS Facilities Management Unit
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Report Register

The following report register documents the development and issue of the report entitled UTS Masterplan—Aboriginal and Historical Archaeological Assessment, undertaken by Godden Mackay Logan Pty Ltd in accordance with its quality management system. Godden Mackay Logan operates under a quality management system which has been certified as complying with the Australian/New Zealand Standard for quality management systems AS/NZS ISO 9001:2000.

Job No.	Issue No.	Notes/Description	Issue Date
08-0366	1	Draft Report	November 2008
08-0366	2	Final Report	January 2009
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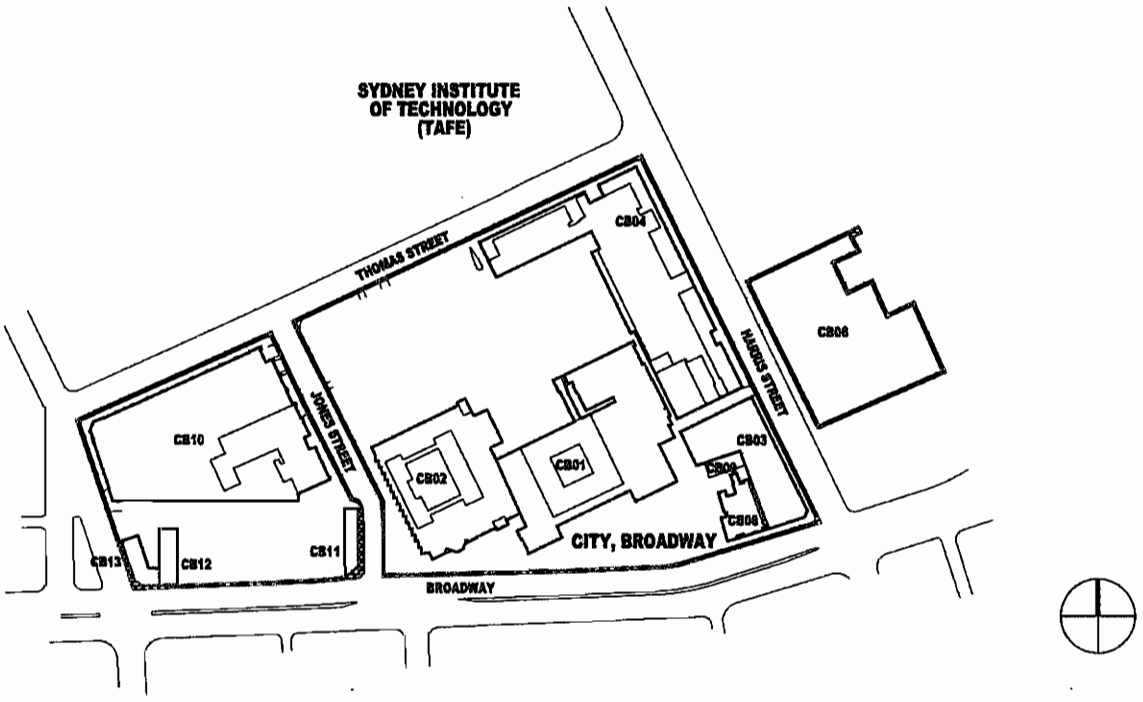

Figure 1.2 Site plan showing the study area in red outline(Source: UTS with GML amendments)

Rate books for the Phillip Ward (which the study area falls into) from the year 1845 indicate a mix of residential and commercial buildings along Parramatta Street. The rate assessments indicate a mix of building types with shops and houses being constructed of wood, brick and some stone, most with shingles. Most had two storeys, probably a combination of shop and residence. Only four along the strip (in the study area) are shown to be owner-occupied—indicated as shops or businesses—with the remainder being leased, many owned by the same landlord.[24]

Sands Sydney Directory for 1855–58 (its first year of publication) gives some indication of the types of businesses that had established themselves along the Parramatta Street frontage during the first twenty years of occupation. As with Maclehose's 1839 directory, the street was still home to a range of businesses and small-scale industry, many housed in small cramped premises. The nature of the ground in this part of the city, with a slope running down towards Blackwattle Creek, also created problems with drainage and sanitation, which were addressed by the city council in large-scale resumptions and demolitions. The businesses included Thomas Berwick, farrier close to the junction with Harris Street; John Goodlet, timber merchant next door; three butchers who probably got meat from the slaughter yards further down Parramatta Street; nine drapers, clothiers or upholsterers; four hotels; three boot makers; a cooper; an ironmonger; a corn dealer; a hairdresser; a surgeon; a druggist; a pawnbroker; seven grocers; and a glazier and printer.[25]

A plan of 1865 shows these buildings crowding onto the street, the majority constructed of brick, most with outbuildings at the rear. A sewer ran along the front of Parramatta Street, with connections extending into the study area from Parramatta Street and Wattle Street. Small lanes also ran from Parramatta Street into the study area, such as Maitland Place, Murphys Lane, Ultimo Lane and other unnamed passages. Small houses faced out onto these lanes, most shown as being of timber construction. The land to the rear of what is now Thomas Street remained largely undeveloped, with a few stone dwellings and yards (see Figure 4.5).

The use of the shops and businesses along Parramatta Street remained largely unchanged throughout the nineteenth century. The street was dominated by small-scale industrial buildings and commercial shops trading to locals and those travelling along Parramatta Street between Sydney town and the western districts. Many of the shops included an upstairs domestic dwelling. Hotels were interspaced along the street, with the Volunteer Hotel having been trading since 1848. The Volunteer Hotel, although altered in the 1930s and again in the later 1950s, remained on site until at least the 1960s when it was demolished to make way for the NSW Institute of Technology, later to become the University of Technology.[26] The former Regent Hotel, which remains on the corner of Broadway and Wattle Street was a relative latecomer, being constructed by Tooheys in 1936.

In 1886 the Sydney Metropolitan Fire Brigade erected a fire station on the site, two doors up from the Volunteer Hotel, to serve as a station for the southern end of the city. The station had four storeys with accommodation for six married and two single firemen, stalls for two horses and engine bays for two steamer engines and a manual engine.[27] The station was badly damaged by fire in January 1901 but was restored and remained in service until it was closed in 1955 and then demolished to make way for the Institute of Technology.[28]

In Thomas Street the development was similar, although it had more residential development which began later in the 1860s and 1870s. Houses with attached stables, small stand-alone industrial sites such as cooperages, stores and a coach factory in Mews Street off Thomas Street, all recorded in the Denison Ward rate books through the 1870s and into the early years of the

twentieth century. During the 1890s the Thomas Street area was sold in a number of subdivisions as freehold land from the Ultimo Estate, from which they had previously been leased. From the 1920s, many of the houses were replaced by larger stores and a depot of the Sydney Municipal Council, Dairy Farmers Co-op and later the Department of Instruction as part of the Sydney Institute of Technology development.

4.4.3 Fairfax and the University of Technology 1950–1985

In 1954 Fairfax Newspapers purchased the land bounded by Jones Street, Thomas Street, Wattle Street and Bishop Lane for the site of their new Sydney headquarters. Fairfax had intended to purchase the allotments fronting Broadway as well, but was unable to secure the properties at this juncture. While combined shops and dwellings lined Broadway, the allotments fronting Thomas and Wattle Streets and Harris Lane included assorted brick factories and offices. All the buildings on site were demolished between September 1954 and January 1955 when construction of the new building began. Although partially occupied from September 1955, the new building was not completed until 1956-57.

In March 1967 Fairfax applied to Sydney City Council to demolish the buildings it now owned facing Broadway for the construction of a carpark on the cleared area. Fairfax had purchased the lots in separate transactions between 1954 and 1964, and by 1967 most had been vacated and stood empty. Demolitions commenced in 1969 with a carpark built to accommodate 21 trucks and 40 cars. During 1969 Fairfax also purchased from the council a portion of Bishop Lane from its eastern end to the boundary of the Regent Hotel, with the rest of the lane being bought in 1970.

From the 1940s the NSW Government, Department of Public Instruction had also been purchasing land along Broadway and Harris, Jones and Thomas Streets. An institute of technology had been proposed in 1940, with an Act in the NSW Parliament establishing the institute within the Department of Public Instruction, expanding the training and educational facilities being run by the Sydney Technical College. Rate books for the Phillip Ward in 1948 show that the department had ownership of all the lots from numbers 15 to 57 Broadway, leasing the majority to shops and workshops. The Sydney Technical College occupied 43–49 Broadway.

In the early 1960s the department proposed a series of seven twelve-storey tower buildings for the site. Between 1963 and 1969 this was reworked to a single twenty-seven storey tower. Work began in 1967 on the excavations for the site. As part of the preparations, the shops and workshops that fronted Broadway (just west of numbers 9–11 Broadway) were demolished. Deep excavation for basements was carried out between these terraces and Jones Street, removing any evidence of the previous occupation. Construction commenced in 1969 with the tower finally completed in 1979. A second building of eleven floors was added to the site between 1980 and 1984 and extended to Jones Street.

4.5 Aboriginal Archaeological Context

4.5.1 AHIMS Sites

A search of the Aboriginal Heritage Information Management System (AHIMS) confirmed that there are no recorded Aboriginal sites within the study area, but revealed a total of 23 known sites within a 5km x 5km search area surrounding the study area. These sites are summarised by site type and site features in Table 4.1 below.

Table 4.1 AHIMS registered sites within a 5km x 5km search area surrounding the study area.

Site Context	Site Features	Site Types	Number
Open site	Potential archaeological deposit	None	10
Open site	Artefact	None	3
Open site	Artefact, earth mound, shell	Midden	2
Open site	Artefact	Open camp site	2
Open site	Artefact, potential archaeological deposit	None	2
Open site	Aboriginal ceremony and dreaming, burial	Burial/s, historic place	1
Enclosed shelter	Art, artefact	None	1
Open site	Aboriginal resource and gathering	None	1
Open site	Art	Rock engraving	1
TOTAL			**23**

As shown in Table 4.1, the majority of site types within the vicinity of the study area are potential archaeological deposits (PADs) and artefact sites. Identified artefact sites occur in a range of contexts including as isolated artefacts; in concentrations known as open camp sites; or in association with earth mounds, shell middens, art or PADs. One Aboriginal ceremony and dreaming site and burial is also known to exist in the area, as well as one Aboriginal resource gathering place and one rock engraving site.

Mapping of these sites in a Geographical Information System (GIS) provides valuable information as to the distribution of these site types around the study area. It reveals that four sites are located in very close proximity to the study area:

- Mountain Street Ultimo—an open artefact site and PAD, comprising three isolated artefacts (not in situ) recovered during historical archaeological excavations (AHIMS # 45-6-2663).
- Wattle Street PAD 1—an area assessed to be a PAD because of its adjacency to the former alignment of Blackwattle Creek. Whilst the site was covered by an extensive depth of fill, it was considered to have potential to contain sections of the original creek bank and flats associated with this watercourse (AHIMS # 45-6-2668).
- Broadway Picture Theatre PAD 1—an area assessed to be a PAD because of its potential for open artefact scatters and isolated finds within remnant A horizon soils beneath current building footprints (AHIMS # 45-6-2680).
- Broadway 1—an artefact site comprising a remnant patch of topsoil containing up to 15 small fragments of flaked silcrete and quartz (AHIMS # 45-6-2629).

The number of sites in the vicinity of the study area indicates that a body of archaeological research exists for the local area. This provides an important archaeological context for the study area, as summarised below.

artefacts would certainly have been recovered.[35] The distribution of artefacts was interpreted to indicate that a contiguous distribution of lithics alongside the banks of the original creek, deposited from repetitive or continuous Aboriginal occupation, was highly likely.[36]

The KENS Site (Kent, Erskine, Napoleon and Sussex Streets)

Historical archaeological investigations of the KENS site in 2003 identified a buried soil deposit, which on subsequent investigation was found to contain considerable concentrations of Aboriginal stone artefacts (AHIMS # 45-6-2647).[37] Test and salvage excavation of the identified Aboriginal cultural material was subsequently undertaken in advance of redevelopment of the site. Three areas of concentrated salvage excavation revealed the remains of past Aboriginal knapping, including evidence of pre- and post-contact activities, with the latter being evidenced by the presence of flaked glass.[38] Recovered artefacts were interpreted to indicate a late Bondian to early post-contact date, providing an important example of Aboriginal settlement remaining in Sydney after contact despite the impact of the early historical period on Aboriginal communities.[39]

4.5.3 Site Types Considered in the Study Area

A wide range of site types can be encountered during archaeological investigations in NSW, and these reflect the range of activities carried out by Aboriginal people in the past. The AHIMS sets out 20 site types which are defined by the cultural activities associated with the use of a place. These site types reflect the diverse range of evidence that may be encountered relating to past Aboriginal activity. It is important to note that one site may comprise a number of different site types or attributes, indicating the diverse range of cultural activities that can be undertaken in one place.

All site types listed on the AHIMS database were considered prior to commencement of the site inspection in order to determine the site types most likely to be encountered within the study area. This was informed by a review of the AHIMS search results (which indicate the type of sites and distribution patterns that typically occur within the immediate vicinity of the study area) as well as a desktop assessment of the landforms and environment within the study area. The highly developed and modified nature of the study area indicated that the occurrence of any Aboriginal site types would be relatively unlikely, however stone artefact sites and PADs were considered possible. Although artefact sites can occur in a range of contexts, as described below, it was considered that given the highly disturbed nature of the study area, artefacts would most likely occur in disturbed contexts as isolated occurrences. Middens were considered unlikely because of the distance between the study area and the edge of Blackwattle Creek. All other site types (scarred trees, burials, natural/mythological sites, stone arrangements, ceremonial grounds, traditional resource use places) were not considered to be possible within the highly modified and built environment of the study area.

The potential site types are discussed below.

Open Camp Sites, Artefact Scatters and Isolated Artefacts

Stone artefacts occur across much of the NSW landscape in varying densities, and are typically classified as artefact scatters, open camp sites or isolated occurrences of individual artefacts. These sites provide a record of past Aboriginal occupation and activity across the landscape. Artefact scatters comprise visible concentrations of artefacts (although these sites often have a significant sub-surface element) and typically reflect areas of concentrated Aboriginal activity and occupation in the past, either as camp sites or more transient places of concentrated activity. Open camp sites are typically scatters of stone artefacts which may be associated with hearths, and can

occur in a variety of landforms. These contrast with isolated artefacts, which occur in much lower densities and are generally considered a 'background scatter' across the landscape in many areas of NSW. Thus, an open camp site can be defined as a concentration of artefacts that occur in a greater density than the surrounding low-density 'background scatter'.

Potential Archaeological Deposits

The term 'potential archaeological deposit' was first coined to deal specifically with potential archaeological deposits within rock shelters and aggrading landforms, but has since been used more broadly to describe areas of archaeological potential in open contexts. In the context of this broader application, PADs are usually defined as areas where there are no identifiable archaeological materials, but where there may be intact soil strata with potential for subsurface archaeological deposits.

Figure 4.1 c1850s plan of part of the Ultimo Estate showing the old Parramatta Street's alignment as a broken line running at an angle toward Ultimo House. This alignment marked the southern boundary of John Harris's first land grant. The old road alignment is annotated as 'Old Road to Parramatta'. This old alignment crosses the UTS site and Jones Street. The wider site boundary (blue) and basement excavations (red) are shown. (Source: Mitchell Library ZM4 811.173/1866?/1)

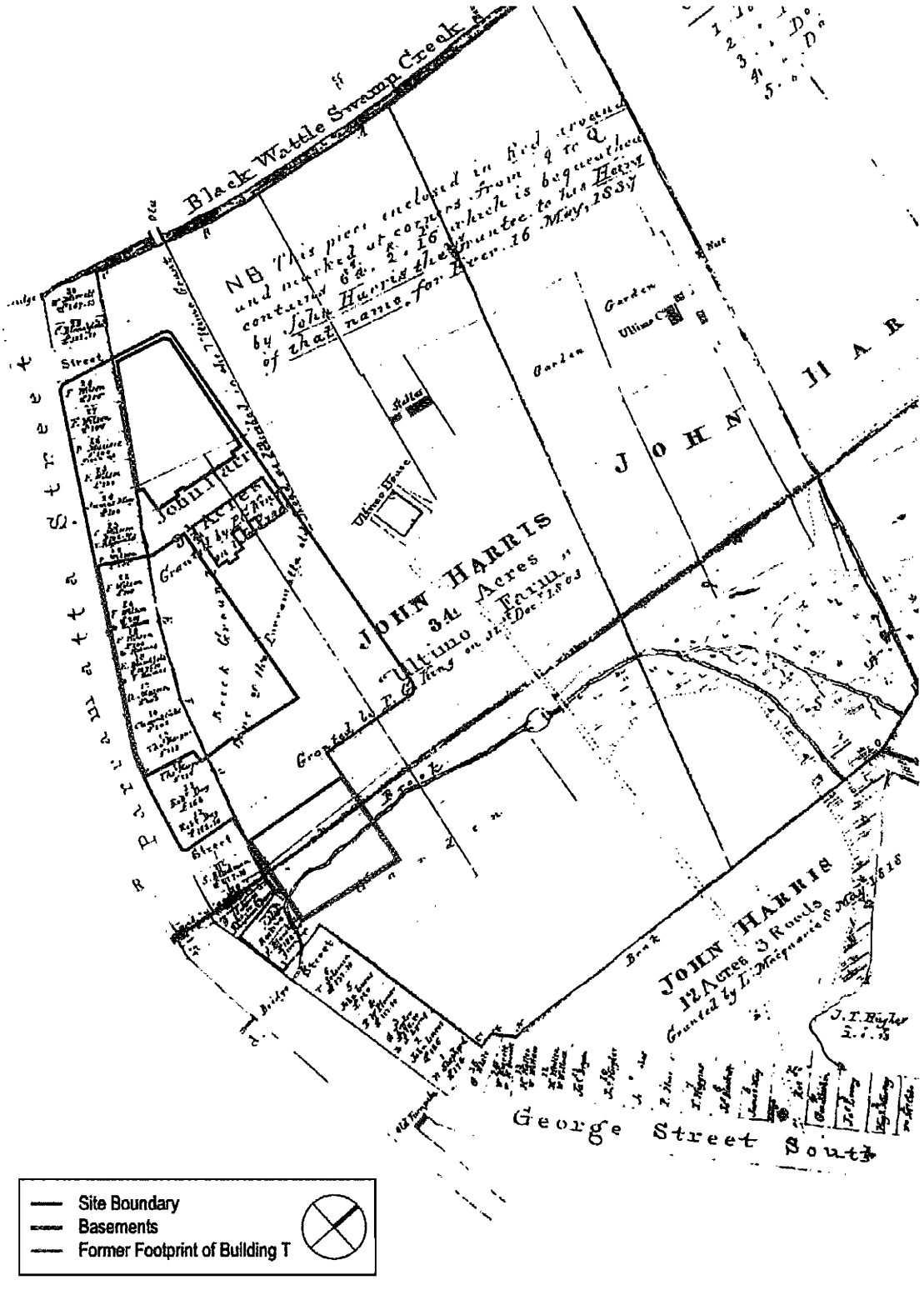

Figure 4.2 1837 plan of the subdivision of John Harris's Ultimo Estate, showing the allotments along George Street South and Parramatta Street. Harris Street is shown intersecting with Parramatta Street with a stream running parallel on the northern side through part of the study area. The old alignment of Parramatta Street is also shown running through the study area. The current alignment of Parramatta Road (as shown on this plan) was established in 1806 with a grant of a further 9¼ acres to Harris. The overall study site is shown, with areas previously excavated for building basements marked within. (Source: AONSW)

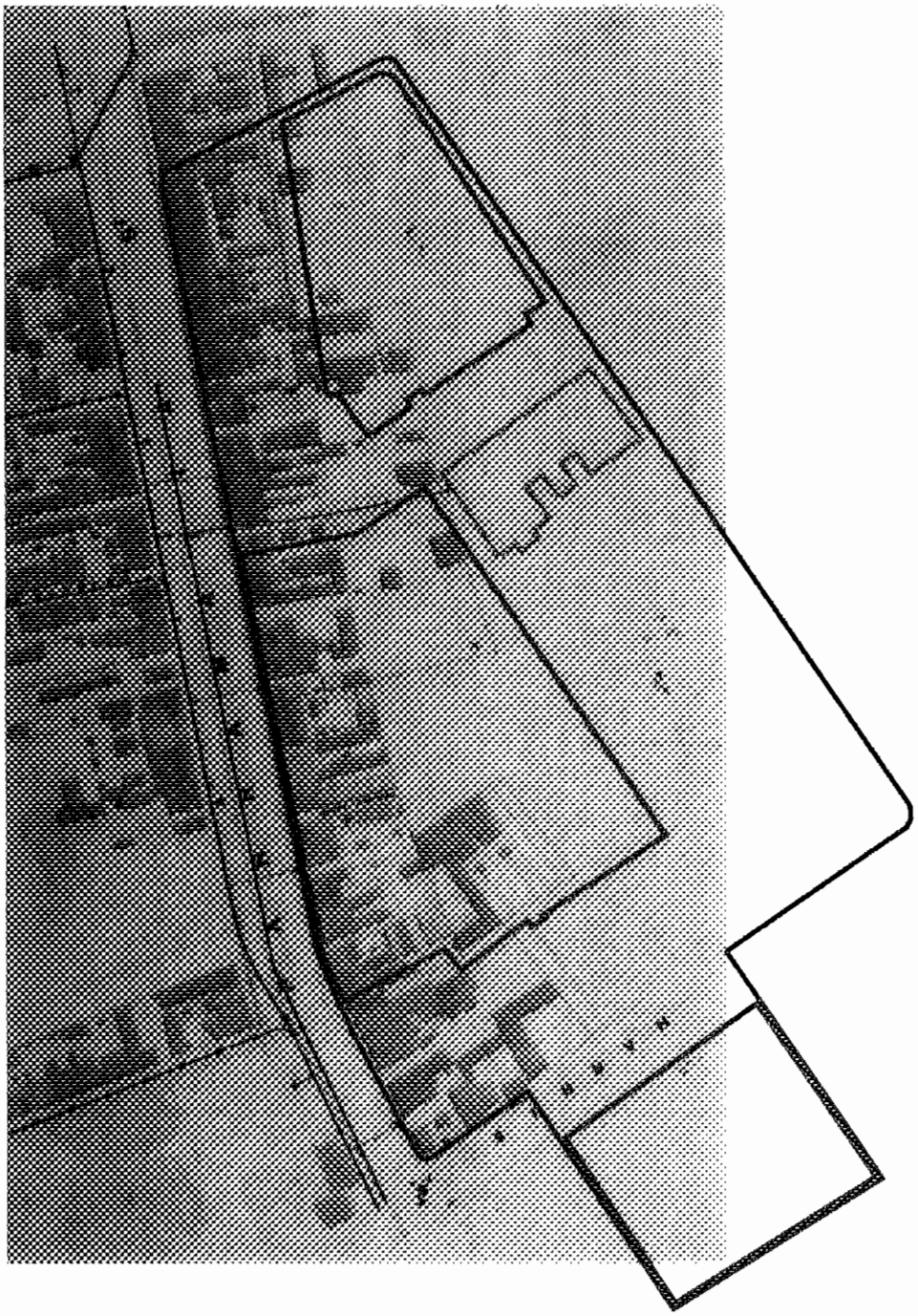

Figure 4.5 1865 trigonometrical survey of Parramatta Street showing the outline of buildings, sewer and water lines, outbuildings, lanes and passageways. By this time the study area was crowded with a variety of building types, the majority being two-storey brick shops and residences. The study area is shown with areas excavated for basements. It can be seen that the buildings and their associated outbuildings west of Jones Street were largely unaffected by basement excavation. (Source: State Records)

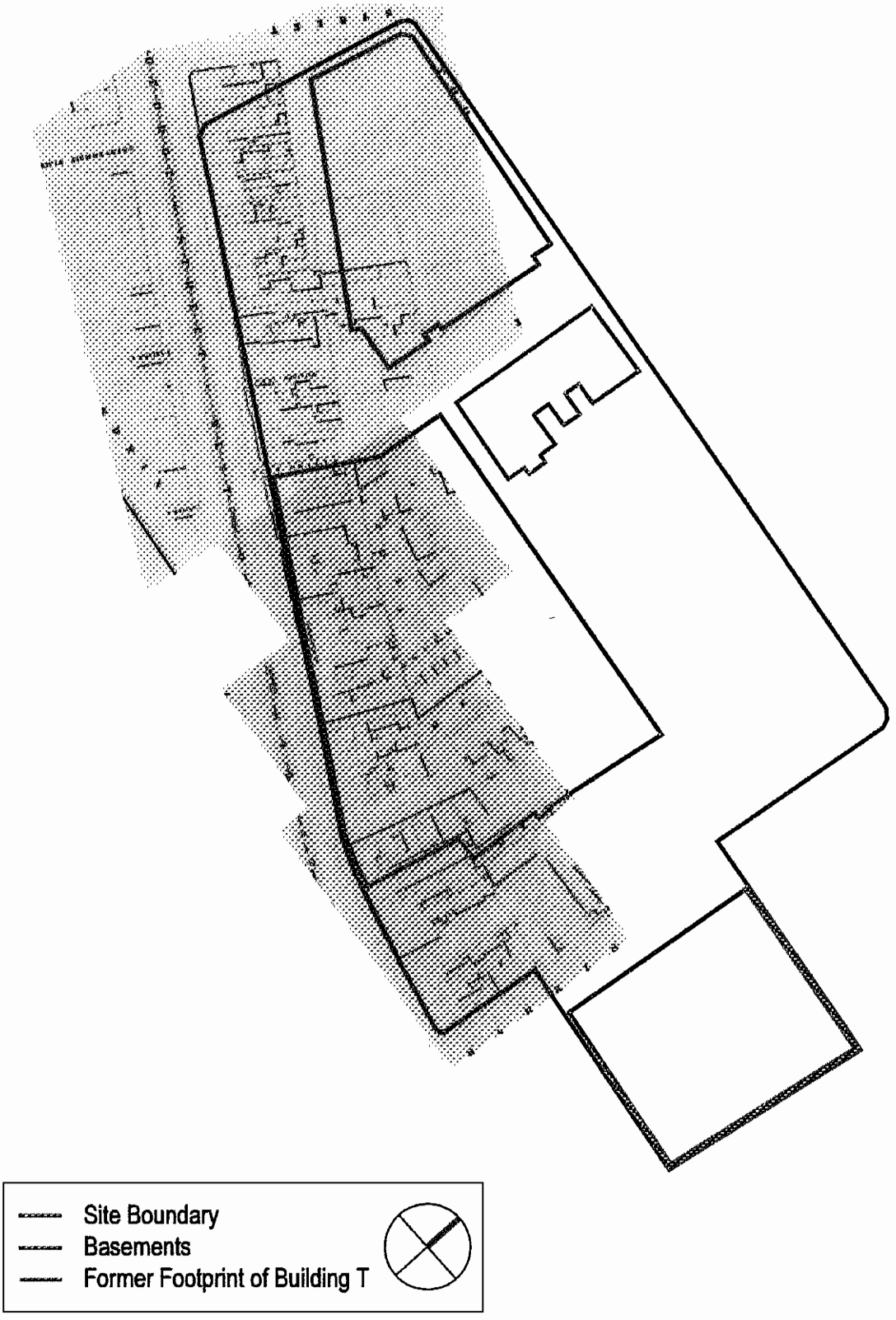

Figure 4.6 Composite plan of the Metropolitan Detail Series Survey 1887–1888 for the Parramatta Street frontage of the study area showing the shop terrace development and associated outbuildings and laneways. Terraces with combined shops and residences were the main form of development along the Parramatta Street frontage from the 1830s until the 1950s. (Source: Mitchell Library)

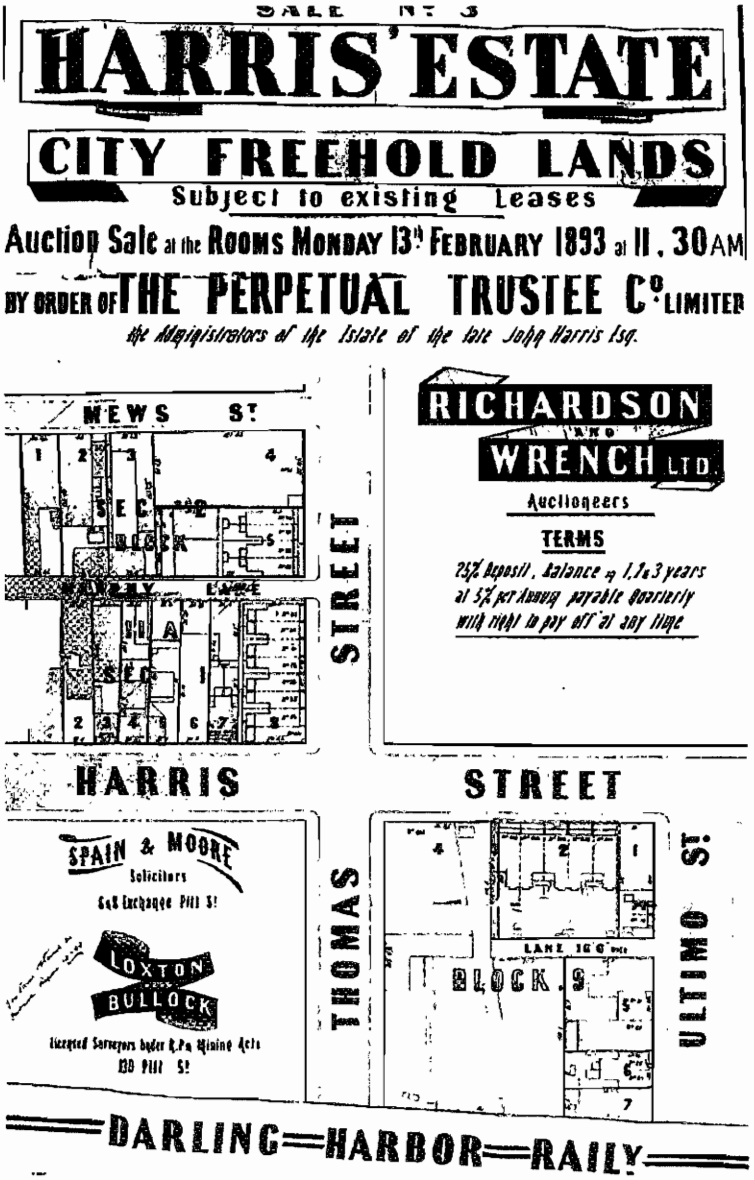

Figure 4.7 1893 subdivision plan showing the study area in Harris and Thomas Streets (Sections 1 and 2), now occupied by UTS (Building CB04). The area included houses and stables, a cooperage and small industrial sites. (Source: Mitchell Library Subdivision Plans Ultimo)

5.1.3 Field Survey Results

The study area was surveyed by Laura Farquharson of GML and Allen Madden of the Metropolitan Local Aboriginal Land Council (MLALC) on Wednesday 12 November, 2008.

Initial site inspection revealed the study area to have been a highly modified built environment. Significant portions of the study area are built upon, with a number of large high-rise buildings spread across the property. Other portions of the study area are covered by internal access roads, paving and footpaths, and were not surveyed. Thus field survey was limited to remaining exposed ground surfaces, including a large grassed open space in the centre of the study area (Figures 5.1 and 5.2), as well as small areas of landscaped edging adjacent to this. Remaining portions of the study area were not surveyed due to the lack of exposed ground surfaces in these areas.

The predictive model for the study area indicated that possible site types (artefacts and PADs) would only be expected in areas where original topsoil remained intact or, in the case of isolated artefacts, as singular occurrences in disturbed contexts. Thus field survey particularly focused on the identification of areas where intact topsoil may survive, but also included an inspection of all exposed ground surfaces for the presence of isolated artefacts.

Soil surface visibility in the surveyed area was extremely low (0–5%), with thick grass cover significantly limiting soil surface visibility (Figure 5.2). Landscaped garden beds were covered with imported wood chips and soil surface visibility here was zero (Figure 5.1). Inspection of this central area established it to have been significantly modified with major disturbance to upper soil layers. The central grassed area previously housed a preschool and since its removal the area has been levelled and paving and landscaping installed (Figure 5.3). This area is also undercut by a number of basement access roads and cuttings along the edges of the large buildings (Figures 5.4–5.6), indicating major past impacts to original topsoil. Construction of the UTS tower basement carpark, in particular, involved the excavation of a large cutting into the underlying sandstone bedrock, which resulted in the removal of all overlying original soil deposits in these areas (Figures 5.7 and 5.8). Field survey therefore determined that because of past land use practices and disturbances no original topsoil survives within the surveyed area.

No Aboriginal objects or places were identified during the field survey.

Figure 5.1 Looking northeast across the central grassed area and the woodchipped garden beds, demonstrating the limited ground surface visibility. (Source: GML)

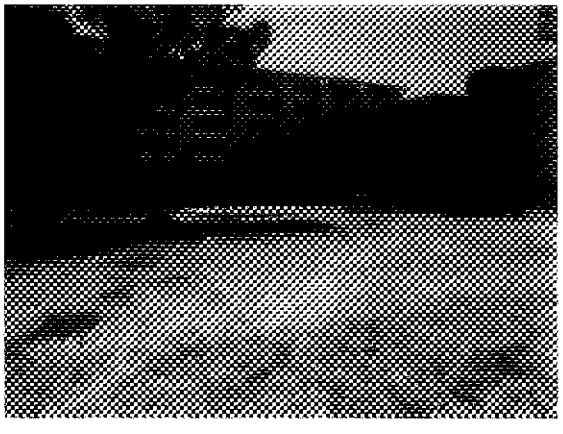

Figure 5.2 Looking southeast across the central grassed area. (Source: GML)

Figure 5.3 Looking north across the open grassed area, showing the extent of ground surface modifications (including levelling) and associated footpaths and paved areas. (Source: GML)

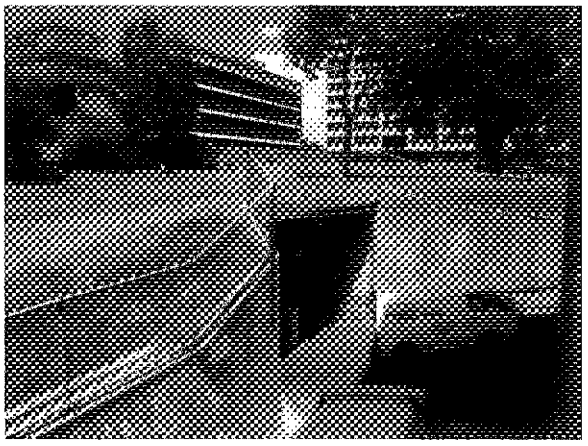

Figure 5.4 View looking southwest showing road access beneath the central grassed area. (Source: GML)

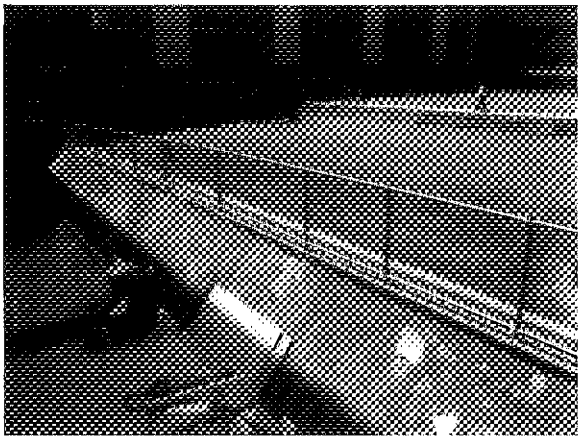

Figure 5.5 Looking southwest across a portion of the central grassed area, showing the extent of cutting into the topsoil around existing buildings, and the level of landscaping and ground surface modification. (Source: GML)

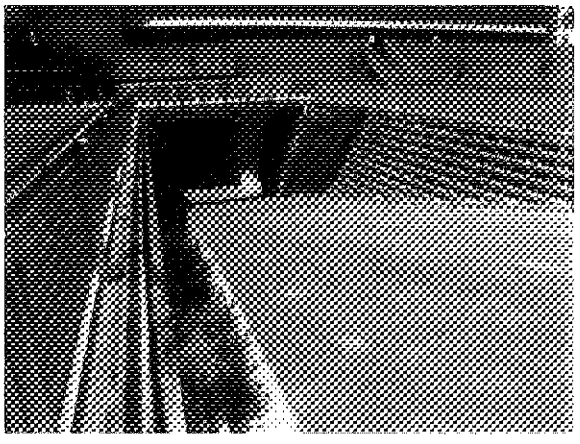

Figure 5.6 Looking south down the basement access road, demonstrating the extent of cutting into soil deposits. (Source: GML)

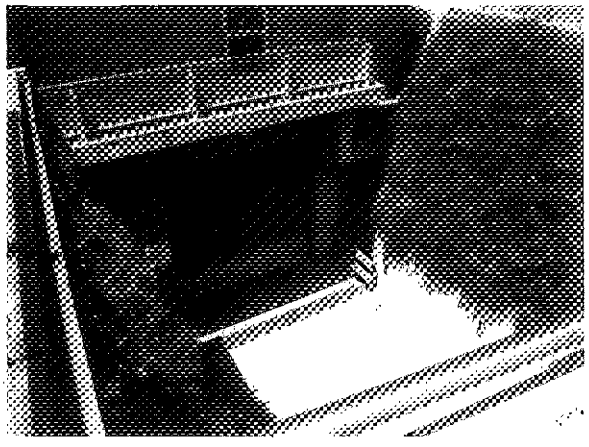

Figure 5.7 Looking down from the central grassed area to the base of the UTS tower, showing the extent of cutting into the underlying bedrock. (Source: GML)

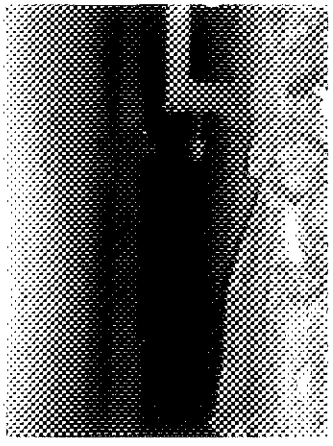

Figure 5.8 Looking into the cavity between the edge of the UTS tower (on the left) and the cutting in the surrounding bedrock (on the right). (Source: GML)

5.1.4 Assessment of Aboriginal Archaeological Potential

The study area is a highly modified built environment with a complex history of site disturbances including construction and landscaping works. Field survey identified significant levels of ground disturbance (including deep cutting into underlying sandstone bedrock) across the surveyed area, leading to the conclusion that little or no surviving topsoil remains within the surveyed area.

Portions of the study area were not surveyed because there was no ground surface visible (ie existing buildings and paved/surfaced areas such as roads and footpaths). However the extent of building disturbance across these areas indicates that surviving topsoil is also unlikely in these areas.

The archaeological potential of the study area to contain Aboriginal objects or places is therefore considered to be very low. Remaining intact topsoil deposits in the area are considered extremely unlikely; however, given the limitations of the field survey this cannot be entirely discounted. It is also possible that isolated Aboriginal objects may survive within the study area in disturbed contexts.

5.2 Potential Non-Aboriginal Archaeological Heritage

5.2.1 Potential Relics

The historical research indicates that at one time the following kinds of relics may have existed in the study area:

- Isolated structures and garden remains from the Ultimo House period.
- Wall footings, cellars, piers, post holes etc belonging to the structures on the Broadway frontage post-c1830 to the early twentieth century.
- Cesspits, refuse pits or cisterns belonging to the nineteenth-century structures that existed on the site (these would generally be located at the rear of such structures, some distance from the street frontages).
- The earliest alignment of Parramatta Road, which once traversed the study area. At the time, Parramatta Road (then 'Parramatta Street') was of rudimentary construction, being little more than a dirt track. Evidence of kerb stones, sealants (gravels and stones), and drainage may have existed but in other respects the road alignment would probably be difficult to discern.
- Laneways and alleys from the nineteenth century. These can be reflected in the archaeological record by road base, bitumen surfaces, kerb stones and gutters.

5.2.2 Site Formation Processes

The study area has been the subject of a number of activities with the potential to significantly disturb the potential historical archaeological resource including:

- Phases of demolition in the 1920s, 1950s and late 1960s—Demolition commonly involved removal of the above-ground structure only, with the result that deeper wall footings, cellars, cesspits etc often survived the demolition process. Therefore, demolition alone should not always be regarded as having disturbed or destroyed the potential archaeological resource. Nevertheless, it is likely to have disturbed or destroyed archaeological relics in many places across the study area.

- Construction of the Fairfax buildings, the UTS buildings and their basements—Construction of the substantial Fairfax and UTS buildings will have involved excavations for the foundations to a considerable depth, which is likely to have disturbed or destroyed archaeological relics within and adjacent to those footprints. This is confirmed by Figure 4.12 which demonstrates that the construction of the Institute of Technology (UTS) tower block in 1967 resulted in the complete clearance of the site in at least some places up to the Broadway frontage prior to deep excavation for the basements and tower foundations. The construction of the basements will have destroyed any archaeological relics within those areas (see the overlays in Figures 4.4–4.6). These observations were confirmed by the field survey undertaken for the Aboriginal archaeological assessment (Section 5.1 above).

5.2.3 Assessment of Non-Aboriginal Archaeological Potential

The study area was once:

- occupied by a large number of nineteenth-century, predominantly brick buildings fronting Broadway, with a small number of other structures (outdoor toilets, stables etc) to their rear; and
- partially traversed by the original alignment of Parramatta Street and a number of nineteenth-century laneways.

The construction of the Fairfax building and the UTS buildings and basements will have significantly disturbed or destroyed the potential archaeological resource within the footprint of each building. There is therefore generally low potential for in-situ non-Aboriginal archaeological relics to survive in these areas. Where archaeological relics do survive they are likely to have been disturbed and to survive in patches only.

The potential is somewhat higher on the western third of the site's Broadway frontage where structural evidence of the demolished nineteenth-century structures may survive. The archaeological potential of this area is moderate.

The potential for archaeological evidence of the original alignment of Parramatta Road ('Street') to survive is low.

6.2 Significance Assessment—Historical Heritage

6.2.1 Assessment Criteria

Assessments of cultural significance endeavour to identify the heritage values that a place may embody.

The Heritage Council of New South Wales has adopted criteria to be applied in the assessment of heritage significance. An item (including an archaeological relic) will be of heritage significance if it meets one or more of the following criteria:

Criterion (a)—an item is important in the course, or pattern, of NSW's cultural or natural history;

Criterion (b)—an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history;

Criterion (c)—an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW;

Criterion (d)—an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons;

Criterion (e)—an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history;

Criterion (f)—an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history; and

Criterion (g)—an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments.

Assessing the heritage values of archaeological relics is made more difficult by the fact that the extent and nature of the archaeological features is often unknown. It becomes necessary for judgments to be formulated on the basis of expected or potential attributes. The element of judgment can be enhanced by research and archaeological test excavation, as has been carried out in the current study.

Where archaeological relics are found to embody significant heritage values, it is usually because they have satisfied Criterion (e) above (although relics may also satisfy other criteria).

6.2.2 Additional Criteria

While the above assessment criteria provide an overall framework for significance assessment, they are less specific with regard to archaeological sites and historical archaeological sites in particular. This is a matter that has been considered in an influential paper by Bickford and Sullivan, published in 1984.[2] Bickford and Sullivan draw attention to the dilemma faced by archaeologists and developers in connection with sites that are to be destroyed as a result of development and discuss effective means of assessing those sites' heritage value. Archaeological significance has long been accepted in the United States as linked directly to scientific research value:

A site or resource is said to be scientifically significant when its further study may be expected to help answer questions. That is scientific significance is defined as research potential.[3]

This is a concept that has been extended by Bickford and Sullivan in the Australian situation and redefined as the following three questions which can be used as a guide for assessing the significance of an archaeological site within a relative framework:

- Can the site contribute knowledge that no other resource can?
- Can the site contribute knowledge that no other site can?
- Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

The evaluation of heritage significance below is based on the criteria provided by the NSW Heritage Council, augmented by the questions posed by Bickford and Sullivan.

6.2.3 Assessment of Significance—The Potential Non-Aboriginal Archaeological Resource

The potential non-Aboriginal archaeological resource in the study area would relate principally to nineteenth-century development from after the 1830s subdivision of the Ultimo Estate. At that time, the study area (especially the present Broadway frontage) was occupied by a mix of residential and commercial/industrial enterprises. Should any relics survive from this period and these activities, they would have the potential to make a contribution to research into the development of this part of Sydney. However, given the predicted levels of disturbance it is likely that the contribution would be a modest one. Relics dating to the earlier period of nineteenth-century occupation (c1830–1860) would generally have a higher value for this area of research, as relics belonging to the later period are generally well-represented elsewhere in the immediate area.

The potential for archaeological evidence of the original alignment of Parramatta Road to survive is low. Historical records indicate that the original road form was rudimentary—little more than a dirt track. However, it is possible that previously unrecorded kerbs, flagging and gutters might survive. If undisturbed elements of such a road were to survive in the study area, these might contribute to a study of the evolving road layouts of the city and road construction techniques. They would also reflect significant historical developments for the city and state. The significance of such relics would reside in their value as research tools and in their historic values and rarity (criteria (a) and (f) above). In exceptional circumstances the Heritage Council may require in-situ retention and conservation of relics (for example, where a well-preserved section of convict-built road is exposed). However, given the rudimentary form of the original road and the anticipated levels of disturbance, a requirement for in-situ retention would be unlikely.

In response to the three questions posed above, the following observations can be made:

Can the site contribute knowledge that no other resource can?

The development of the area in which the study area is located has been well documented in recent years by historical research, including research used to inform archaeological excavations in Glebe, Ultimo and the former Carlton & United Brewery on Broadway. A large body of historical plans has been collated with the result that the nature and extent of residential and commercial/industrial development in the area is well-documented and understood. This data has been augmented with material from other sources including land titles registers, the Sands Directory, historic newspapers, rate books and journals. The potential archaeological resource would therefore be likely to augment alternative sources of information rather than contribute new, otherwise unobtainable data.

Can the site contribute knowledge that no other site can?

The Glebe, Ultimo and Broadway area has been the subject of a number of recent archaeological excavations including projects at the Quadrant site on Broadway (Dana Mider & Associates) and

the Mountain Street site (Godden Mackay Logan). These sites have yielded large quantities of data relating to the development of the area. It is unlikely that the potential archaeological resource of the study area would contribute significantly to this data set. However, if archaeological evidence of the original alignment of Parramatta Road were to survive, this would be a highly unusual archaeological find.

Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

If undisturbed relics dating to the 1830–1890s occupation of the site were to survive, they may provide data relating to the following areas of research:

- The modification of the natural landform in the area to suit residential and commercial/industrial development, including the upstream impacts of land reclamation.
- The nature of early Sydney industrial activity, including the types of materials produced by local industrialists as opposed to those imported for local use.
- Relationships between the slum areas a short distance to the west of the study area (eg sites excavated at Mountain Street and Broadway, Ultimo) and industrial areas to the south (eg the former Carlton & United Brewery).

However, given predicted levels of disturbance it is likely that the contribution would be a modest one.

If evidence of the original Parramatta Road alignment were to survive, this would reflect a significant phase in the development of the colony, being symbolic of its westward expansion.

6.2.4 Summary Statement of Significance

If undisturbed historical archaeological relics were to survive in the study area dating to the post-1830s subdivisions, they would have research value but would embody few other heritage values. They would generally augment data obtainable from other sources and sites, and their value would relate principally to research questions relevant to the local area rather than to the state.

If relics relating to the original alignment of Parramatta Road were to survive, these would have research value and would be rare physical evidence of Sydney's historic development. The level of significance of any such relics would depend on their nature and extent. For example, a gravel deposit indicating a sealed dirt road would have lower values than a well-preserved stretch of flagged road surface. In any event, evidence of the original road alignment would be symbolic of an important phase in the colony's development, reflecting westward expansion and communication routes, of possible State significance.

In conclusion:

- Archaeological evidence of post-1830s development—Moderate significance at the local level.
- Evidence of the original Parramatta Road alignment—Possible State significance (depending on the physical integrity, nature and extent of the relics).

6.3 Endnotes

1 Department of Environment and Conservation (NSW) 2005, Interim Community Consultation Requirements for Applicants.

2 Bickford, A and S Sullivan 1984, 'Assessing the Research Significance of Historic Sites', in S Sullivan and S Bowdler (eds) *Site Surveys and Significance Assessment in Australian Archaeology* (proceedings of the 1981 Springwood Conference on Australian Prehistory), Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra.

3 Bickford and Sullivan, ibid, pp 23–24.