University of Sydney Proposed Carslaw Building Extension (F07)

Statement of Heritage Impact

Prepared by

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(May 2016)

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Executive Summary

This Statement of Heritage Impact (SHI) for the Carslaw Building Extension (F07) at the University of Sydney Campus (Camperdown) has been prepared to accompany the State Significant Development Application (SSD 7054).

The SEARS issued by the Department of Planning & Environment (dated 28 May 2015) requires the SHI to address the impact of the Administrative Building (F23) on the following:

- · the significance of adjacent heritage items;
- the cultural landscape of the University campus, St Paul's College and Victoria Park;
- potential archaeological relics; and Aboriginal cultural heritage values; and
- significant view corridors.

In preparing the HIS reference was made to Drawings 15H-DA-01 (Issue 1) to 15H-DA-18 (Issue A) inclusive, prepared by Rice Daubney (dated 12.05.16).

With reference to the issues identified in the SEARS the HIS concludes the following:

Adjacent heritage items:

The impact of the proposed Carslaw Building Extension (F07) on the cultural significance of the adjacent heritage items, including City Road palisade boundary fence; Victoria Park; City Road Vehicular Gates; former Gatekeeper's Lodge and Gates; St Paul's College Oval; Madsen Building; and Carslaw Building is generally acceptable.

- ii) Cultural landscape of the University campus, St Paul's College and Victoria Park: The impact of the proposed Carslaw Building Extension (F07) on the cultural landscape of the University campus, St Paul's College and Victoria Park is generally acceptable.
- iii) Potential archaeological relics and Aboriginal cultural heritage values:
 The likely impact of the proposed Carslaw Building Extension (F07) on potential archaeological relics is low and the identified Aboriginal cultural heritage values are not associate with the subject site (refer to p.51, University of Sydney Buildings Aboriginal Heritage Due Diligence Report, prepared by GML Heritage (September 2015) and the Aboriginal Heritage Impact Assessment prepared by AHMS (February 2016).
- iv) Significant view corridors:

Eastern Avenue is ranked in the Grounds CMP (2015) as one of the major view corridors on the University's Camperdown campus. Levels 5, 6, 7 and 8 of the proposed F07 building project approximately 2.0m beyond the eastern building alignment on Eastern Avenue into the view corridor.

Taking into account the position of the F07 building anchoring the City Road end of Eastern Avenue; the width of Eastern Avenue; and the continuation of the view corridor across City Road to the Darlington campus buildings, the visual impact of the projection of Levels 5, 6, 7 & 8 into the southern Eastern Avenue view corridor is considered to be relatively minor and, therefore, acceptable..

The conclusion of this assessment is that the proposed Carslaw Building Extension (F07) has a minimal impact on the overall heritage significance of the University of Sydney campus and could be approved.

1.0 Introduction

1.1 Background and Purpose of the Statement of Heritage Impact

This Statement of Heritage Impact (SHI) has been prepared to accompany the Environmental Impact Statement for the proposed Carslaw Building Extension (F07) at the University of Sydney, Camperdown (SSD 7054).

The location of the proposed building has been informed by the University of Sydney Grounds Conservation Management Plan (GCMP, 2015), prepared by the Planning Team, Campus Infrastructure and Services, based on information provided by Clive Lucas, Stapleton and Partners and additional material prepared by Circle Square Design. The GCMP was prepared in accordance with the guidelines issued by the NSW Heritage Office, the requirements of the EP&A Act and the NSW Heritage Act, and was submitted to the Heritage Council for endorsement in accordance with the D-G requirements for SSD 6123.

1.2 Report Objectives

The SEARS issued by the Department of Planning & Environment (SSD 7055, dated 28 May 2015) requires the SHI to address the following matters:

9. Heritage

- Include a statement of heritage impact prepared in accordance with the guidelines in the NSW
 Heritage Manual and include a statement of significance of The University of Sydney and its
 conservation area (C8), St Paul's College (I52) and Victoria Park (I39) and consider the
 accumulative material effect of the proposed development and proposed F23 Building (SSD
 7055) on significance.
- Provide a landscape heritage assessment, including consideration of the cultural landscape of The University of Sydney and St Paul's College.
- The assessment shall address any archaeological potential and significance on the site and the impacts the development may have on this significance.

3. Built Form and Urban Design

Address the height, density, bulk and scale, and setbacks of the proposal in relation to the
locality and the surrounding development (including SSD 6123 Campus Improvement Program
building envelopes), topography and streetscape, having particular regard to the site's City Road
gateway location, alignment of existing built form along Eastern Avenue, and the significant trees
located adjoining the St Paul's College Oval.

The assessment of Aboriginal archaeology and cultural heritage values is dealt with in a separate report prepared by GML Heritage (September 2015) and the Aboriginal Heritage Impact Assessment prepared by AHMS (February 2016).

1.3 Methodology

This SHI has been prepared generally in accordance with the principles and guidelines of *The Burra Charter (the Australia ICOMOS Charter for Places of Cultural Significance)* and the methodology described in the Statements of Heritage Impact prepared by the NSW Heritage Office.

1.4 Site Location

The proposed Carslaw Building Extension (F07) will be located at the southern end of Eastern Avenue, adjacent to the City Road entrance, on the University of Sydney's Camperdown campus. (Fig.1.1)

In this report reference to the University of Sydney (the University) refers specifically to the Camperdown Campus, as distinct from the adjacent Darlington campus which is located on the southern side of City Road. The Camperdown Campus is bounded on the north by Parramatta Road, east by Victoria Park, south by City Road and St Paul's College, and west by St Andrew's College, Royal Prince Alfred Hospital and St John's and Sancta Sophia Colleges.

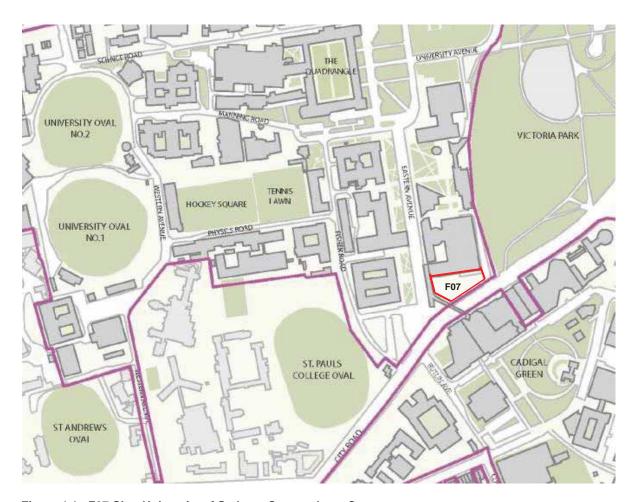


Figure 1.1 F07 Site, University of Sydney- Camperdown Campus

(source: University of Sydney Grounds Conservation Management Plan (2014)

(Note: The purple unbroken line defines the University owned land.)

1.5 Heritage Status

Various statutory and non-statutory heritage registers, schedules and lists have been checked to ascertain whether The University of Sydney campus and its component buildings and landscape spaces are listed. These listings are outlined below.

1.5.1 Statutory Listings

i) Register of National Heritage Places

The Register of National Heritage Places is maintained by the Australian Heritage Council, under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The University of Sydney, its grounds and buildings are <u>not</u> listed on the Register of National Heritage Places. (Note: A number of University buildings were listed as having heritage value on the Register of the National Estate [RNE]. However, since 2007 the RNE has been a non-statutory archive. All the University buildings listed on the RNE archive are included in the University's Section 170 Heritage and Conservation Register. [see below.])

ii) State Heritage Register

Under the NSW Heritage Act 1977, the Heritage Council maintains the State Heritage Register (SHR), a register of items and places considered to be of heritage significance to the State of NSW.

The University's Camperdown and Darlington campuses are currently <u>not</u> listed in whole, or in part, on the SHR, nor are any individual items listed on the SHR. However, the Heritage Council recently (February 2016) resolved to recommend to the Minister for Heritage to list the University of Sydney, the University Colleges and Victoria Park as a collective heritage item on the State Heritage Register. (Note: the

proposed SHR listing has not yet occurred.)

iii) Section 170 Heritage and Conservation Register

The University of Sydney, as a Crown body, is required under Section 170 of the NSW Heritage Act 1977 to identify, conserve and maintain those heritage items under its ownership and control.

The University's Heritage and Conservation Register (commonly referred to the Section 170 Register) lists 52 heritage items located within the Camperdown-Darlington campus (Appendix A). The Section 170 Register does not assign a level of significance to each heritage item, however the recent revision of the *University of Sydney Grounds Conservation Management Plan (2014)* has addressed this issue and has ascribed a relative grading of heritage significance to each of the heritage items that contribute to the overall cultural significance of the University campus.

This grading of significance - Exceptional, High, Moderate, Some or Little –assists the University in making decisions to minimise an adverse impact on an item of heritage significance. (Fig. 1.2) It should be noted that a number of more recent buildings on the University campus are too new to have been assessed for their heritage significance.

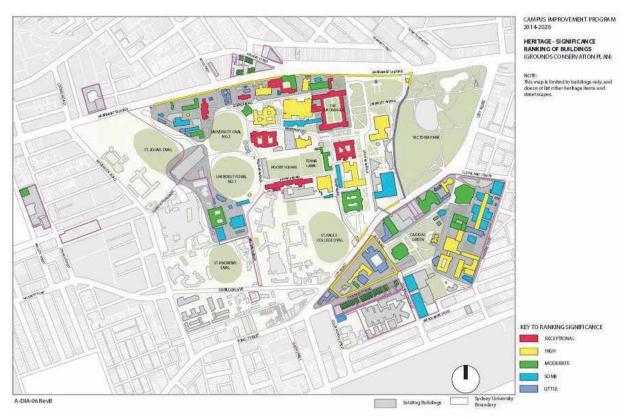


Figure 1.2 Relative grading of heritage significance of buildings across the University campus (source: University of Sydney Grounds Conservation Management Plan (2014)

iv) City of Sydney Local Environment Plan 2012

The University of Sydney is located within the jurisdiction of the City of Sydney Council. The University's Camperdown campus is listed as a General Conservation Area on the City of Sydney LEP 2012 heritage inventory (C5 - Sydney University Conservation Area). Numerous individual heritage items are also listed in the LEP 2012. All the heritage items listed in the City of Sydney LEP 2012 are also listed in the University's Section 170 Register.

1.5.2 Non-Statutory Listings

National Trust of Australia (NSW) Classified Buildings.

The National Trust has classified 32 individual buildings, precincts or items located within the University campus as having heritage value. With the exception of the Darlington Road terrace houses,

International House and the Greenwood & Batley Materials Testing Machine (located in the School of Civil Engineering), all the other classified items are listed in the University's Section 170 Register.

The National Trust's classification of a heritage item does <u>not</u> have any legal force; however the heritage significance of any of the classified items impacted by this application (SSD 7054) has been taken into consideration in this Heritage Impact Assessment.

ii) Australian Institute of Architects (NSW) Register of Significant Architecture in NSW The AIA Register of Significant Architecture in NSW lists 34 heritage items on the University campus, 25 of which are listed on the University's Section 170 Register. The other 9 buildings on the AIA list are all post-WWII buildings located within the Engineering Precinct on the Darlington campus and, therefore, outside the scope of this report.

1.5.3 Historical Archaeology

The NSW Heritage Act 1977 provides for the management of archaeological relics. The disturbance or development of a site containing archaeological relics may require the issue of a permit under section 140 of the Heritage Act. The Heritage Division is responsible for the issuing of permits to undertake archaeological excavation.

There are <u>no</u> statutory heritage listings that identify any archaeological relics or archaeological sites within the University of Sydney campus.

1.5.4 Aboriginal Cultural Significance

There are <u>no</u> statutory heritage listings that identify any indigenous archaeological relics or archaeological sites within the University of Sydney campus.

1.6 Statutory Controls

Planning controls under the City of Sydney LEP are limited to the zoning of the University campus as 'SP2 Educational Establishment' and the identification of heritage items on the Heritage Maps. There are no LEP planning controls pertaining to building heights and no Floor Space Ratio (FSR) relevant to the F23 site.

SSD 6123 (Campus Improvement Program) established the building footprints and building envelopes for seven major redevelopment projects around the perimeter of the University campus. The subject site (F07) is outside the scope of SSD 6123.

1.7 Authorship

This Heritage Impact Assessment has been prepared by Ian Kelly (M.Arch), Heritage Consultant for Campus Infrastructure and Services, University of Sydney.

The following documents, prepared by experienced heritage consultants, have supported the preparation of this report:

- University of Sydney Grounds Conservation Management Plan, prepared by the Planning Team,
 Campus Infrastructure and Services (2014).
- University of Sydney Campus Improvement Program Aboriginal Due Diligence Report, prepared by Godden Mackay Logan (October 2013).
- University of Sydney Buildings Aboriginal Heritage Due Diligence Report, prepared by GML Heritage (September 2015).
- University of Sydney Aboriginal Heritage Impact Assessment prepared by AHMS (February 2016)
- St Paul's College Conservation Management Plan, prepared by Clive Lucas, Stapleton and Partners (September 2012).
- Victoria Park Conservation Assessment, prepared by Geoffrey Britton (2009).
- Victoria Park Gates, University of Sydney, Heritage Assessment, prepared by Tanner Architects (March 2005).

In preparing the HIS reference was made to Drawings 15H-DA-01 (Issue 1) to 15H-DA-18 (Issue A) inclusive, prepared by Rice Daubney (dated 12.05.16).

2.0 Historical Summary

The following historical summary is a précis of the University campus history as detailed in the University of Sydney Grounds Conservation Management Plan (2014).

2.1 Contact and Initial European Occupation (1788- 1850)

The land on which the University of Sydney is located within the traditional land of the Cadigal people.

There are no detailed descriptions of the vegetation and animal communities that inhabited this district, nor has any archaeological evidence relating to pre-colonial Aboriginal occupation or use of the area been found within the University grounds.

Although historical records provide many descriptions of early British colonial life around Port Jackson, none of them identify any definitive associations with the land that was set aside as the site for the University of Sydney.

In 1789 Governor Phillip formally divided one thousand acres around Petersham Hill for Crown, church and school purposes. In 1792 Lieutenant-Governor Francis Grose was granted 30 acres out of the 400 acres that had been designated for church or glebe land, which he then farmed. Grose sold the leasehold when he left the colony in 1794, but the land continued to be known, and marked on maps, as Grose Farm until the mid-1800s.

During Governor Macquarie's administration the land surrounded by Parramatta, Newtown, St Paul's and Missenden Roads (some 194 acres) was fenced for the agistment of horses and cattle. The area to the south east was later developed into part of the suburb of Darlington.

2.2 Establishment of Campus (1850-1900)

In the 1840s the rising class of bankers, manufacturers and professional men saw a growing need for the state to provide a higher level (tertiary) of education. At the time it was necessary to travel abroad to acquire a university education. In particular the legal and medical professions saw a need to provide local education in these fields. As a result of local agitation an Act to incorporate and endow the University of Sydney was passed on 1 October 1850.

The structure and philosophy of the University of Sydney was based on the models of London, Edinburgh and Dublin universities, which provided a non-denominational, non- residential, education in fields more appropriate to the commercial, scientific and professional interests of an industrial democracy. In the early years the University offered a narrow curriculum.

In 1854 the University was authorised to take possession of 126 acres of land at Grose Farm, an area bounded by Parramatta Road, St Paul's Road (Carillon Avenue), Newtown (City) Road and Missenden Road, on which to construct the university and university college buildings. A building fund of £50,000 was established, originally to be provided in annual installments of £5,000 - £10,000, but this requirement was waived to enable a more rapid completion of the buildings.

In the mid -19thC British architects were immersed in a heated debate on the appropriate architectural style ((the Battle of the Styles - Classicism versus Gothic/Elizabethan) for public buildings. In Sydney, the Gothic Revival style was recommended for the University buildings because the building form could more easily be extended as the University's needs grew.

The Great Hall and the East Wing, built between 1855 and 1863, established the stylistic template for the rest of the Quadrangle and several, later, substantial campus buildings. Situated on the eastern hill, the tall sandstone buildings created a complex that echoed the form of the great English universities and was clearly visible from the city.

Between 1856 and 1876 the residential colleges of St Paul's (Anglican), St John's (Roman Catholic) and St Andrew's (Presbyterian) were built on land specifically set aside on the southern and western sides of the university campus. These college buildings were also designed in the Gothic Revival style.

By 1880's there was a shift from the concept of the University being a 'gentlemen's university' to a

'professional university'. This was reflected in the range of courses (Medicine and Science) and the teaching (night time classes) on offer.

This educational growth was reflected in the construction of the Medical School (Anderson Stuart, 1889), Physics Laboratory (Badham, 1887), Chemistry (1890), the Natural History Museum (Macleay, 1891), and the School of Mines (old Geology, 1895). The construction of the Attendant's Lodge (now known as the Gatekeeper's Lodge) on Newtown (City) Road formally signified the southern entrance to the university campus. (Fig.2.1) One of the Attendant's key tasks was to oversee the delivery of cadavers to the Medical School.



Figure 2.1 University Campus development (1890-1899)

(source: University of Sydney Grounds Conservation Management Plan [2014])

2.3 Development of Campus (1900-1920)

Professional education continued to expand in the early 20th Century. New courses, a number which led to their own degrees, were introduced including dentistry, agricultural science, veterinary science, architecture, economics and commerce, and education.

This growth in courses and student numbers was matched by the construction of new buildings in the northern sector of the campus: Biology (Zoology, 1903), Engineering School (John Woolley, 1909), Fisher Library (MacLaurin Hall, 1909), Veterinary Science School (J.D.Stewart, 1912), Student Union Building (Holme, 1912), Agriculture (R.D.Watt, 1916) and the Teachers' College (1920). Meantime the southern portion of the University grounds remained basically as unaltered paddocks. (Fig.2.2)

2.4 Campus Master Plans (1900-1920)

It was the construction of these new buildings, however, that prompted the University to develop a campus master plan. In 1910 W.L.Vernon, the Government Architect, prepared a general plan for the development of the University grounds. A few years later his successor, George McRae, prepared another campus plan (1913) showing existing and future buildings.

In 1915 Walter Burley Griffin was appointed to prepare a campus master plan. Griffin's campus plan was described as an "admirable harmonious scheme", but it was criticised on the grounds of practicality and cost. Consequently, in 1917, Gorrie Blair redrew and refined McRae's plan, but due to war restrictions this plan was not implemented.



Figure 2.2 Prof. Leslie Wilkinson's Plan of the existing University Campus (1919) (source: University of Sydney Archives)

2.5 **Development of Campus (1920-1929)**

Following the cessation of WWI the University experienced unprecedented growth in student numbers. The University's capital works program was partly funded by the University (Building) Act (1919) whereby the NSW government voted to provide £50,000 annually for five years to enable the University to accommodate the doubling of students numbers.

In response the University requested Professors Leslie Wilkinson, Madsen and Craig to advise on the general layout of the University grounds. Their report, titled "A Plan showing suggested scheme for development", was presented to the Senate in 1920. (Fig.2.3)

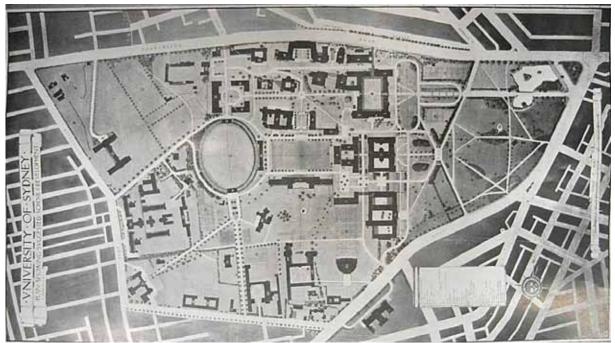


Figure 2.3 Prof. Leslie Wilkinson's Campus Master Plan (1920)

(source: University of Sydney Archives)

Prof.Wilkinson, the first Chair of Architecture (1918) and the University Architect (1920), believed that "the peaceful order of good buildings in beautiful surroundings is of paramount importance in creating the right environment for university life" and this ideal was reflected in his campus master plan. Wilkinson's influence on campus development is most evident in the Science Road Precinct (1920-27) and the Physics Building (1925). Professors Madsen and Waterhouse took responsibility for campus road alignments and grounds planting respectively.

The Wilkinson plan shows a new large building sited south of the Anderson Stuart Building (in the area now occupied by the Chemistry and Madsen buildings), which would reinforce the eastern ridgeline of the campus, bounded by a straightened Eastern Avenue. The problem with this part of Wilkinson's plan was that it showed university buildings situated on Victoria Park land, which was owned by the City of Sydney.

Wilkinson's master plan prompted the University to enter into discussions with the Sydney City Council for an exchange of land, culminating in 1924 when the University exchanged 7 ¾ acres, including the lake and the Grand Drive, with the Sydney City Council for 9 acres of Victoria Park, primarily along the edge of Eastern Avenue. (Fig.2.4)

Included in the Victoria Park land transferred to the University was the former Gardener's Cottage, located directly opposite the Gatekeeper's Lodge at the southern end (City Road) of Eastern Avenue. (Note: The former Victoria Park Gardener's Cottage was demolished in 1974 to enable the Eastern Avenue vehicular entrance to be re-aligned with Codrington Street.)

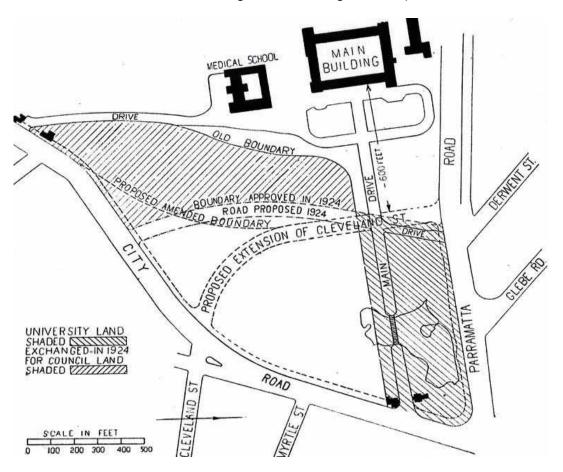


Figure 2.4 Plan showing the land transferred between the University and City of Sydney (1924) (source: University of Sydney Archives) Note: The City Council's proposals for a new road connecting City and Parramatta roads, as shown on this plan, were dropped due to considerable public resistance. (Victoria Park Heritage Assessment 2010)

2.6 **Development of Campus (1929-1940)**

The Depression years saw the campus building program slow down, with the exception of co- operative ventures with Commonwealth agencies. The Animal Health laboratory (McMaster, 1929) was a joint venture with the newly established Council for Scientific and Industrial Research. (CSIR) The Public Health and Tropical Diseases (Ford, 1930) was supported by the Commonwealth Government. The new Medical School building (Blackburn, 1933) was funded by the Rockefeller Medical Foundation and the CSIR building (Madsen, 1940) was the result of a Commonwealth decision to locate its National Standards Laboratory at the University.

2.7 Expansion of Campus (1945-75)

By mid-1940s, a number of elements of Wilkinson's plan had been completed. The Madsen building on Eastern Avenue, the Physics building and part of the Edward Ford building had been constructed. Manning House lay to the west of the Quadrangle, and Anderson Stuart building had reached its present stage of construction. Baxter's Lodge (1939), on Parramatta Road, clearly marked the principal entrance to the University.

In an aerial photograph of the University (c.1943) the land transferred to the University from Victoria Park in 1924 remained as an open landscape, distinguished only by the darker colour of the ground. (Fig.2.5)

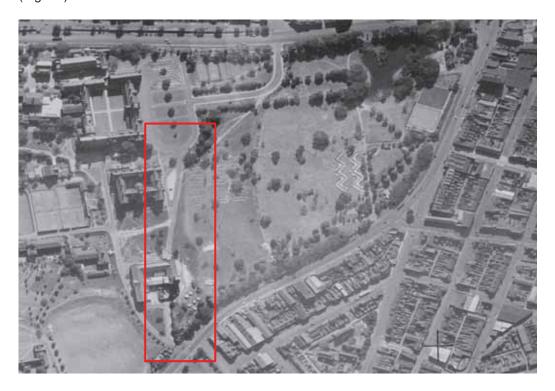


Figure 2.5 Aerial photograph of the University of Sydney and Victoria Park (c.1943) (source: City of Sydney Archives)

The CSIR (Madsen) Building (1939-44), with Stage 4 still under construction, disrupted the flow of Eastern Avenue to the Gatekeeper's Lodge entrance, off City Road. Consequently, sometime between 1944 and 1951, Eastern Avenue was repositioned to form a straight road, in accordance with Wilkinson's Plan (Fig.2.3), but with a new City Road entrance featuring the University's former Victoria Parks gates. (Fig.2.6)

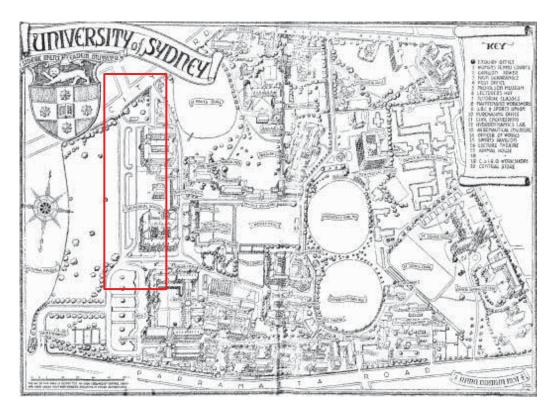


Figure 2.6 University of Sydney Calendar (1952) (source: University of Sydney Archives)

Immediately after the Second World War, the large influx of students, including returned servicemen and women (by 1946 enrolments had doubled to 8,000 students) required a rapid expansion of teaching facilities. In some instances this was achieved through the erection of temporary timber frame buildings, most notably at Ross Street and on Fisher Road, but the biggest growth occurred across City Road in Darlington. Following the adoption of the Cumberland County Planning Scheme (1951) the State Government re-zoned part of Darlington for 'special uses' (aka. the University Extension area), which enabled the University to extend its campus across City Road. The new engineering precinct, starting with Civil Engineering (1963), consisted of off-form concrete and brick buildings of two or three storeys, located along a spine on the alignment of the former Rose Street. By 1975 the University's entire engineering faculty had been relocated to the new Darlington campus.

On the Camperdown campus, the construction of several new buildings, including Chemistry (1958), Edgeworth David (1961) and Carslaw (1965) buildings, the Stephen Roberts lecture theatre (1962) and the new Fisher library (1962) and its associated Book Stack (1967) established the University's "east front". (Fig.2.7)

The Chemistry Building, in particular, was notable because: a) the building footprint projected beyond the building line established by the Anderson Stuart (1883-1922) and Madsen (1939-1944) buildings; and b) its Modernist form and materials were in stark contrast to the University's more traditional brick and sandstone collegiate Gothic style.

The construction of these new buildings firmly established the physical alignment and visual character of the Eastern Avenue as it exists today. Consequently, this area became one of the most intensely used precincts on campus. In 1961, following the departure of the resident Department of Anatomy technician (whose task it was to receive cadavers for the Medical School), the University transferred the Gatekeeper's Lodge on City Road to St Paul's College in exchange for a parcel of land behind the Physics Building, to enable construction of the Physics Annexe (demolished in 2012 to make way for the AIN Building). The University, however, retained ownership of the Lodge Gate and Fisher Road.

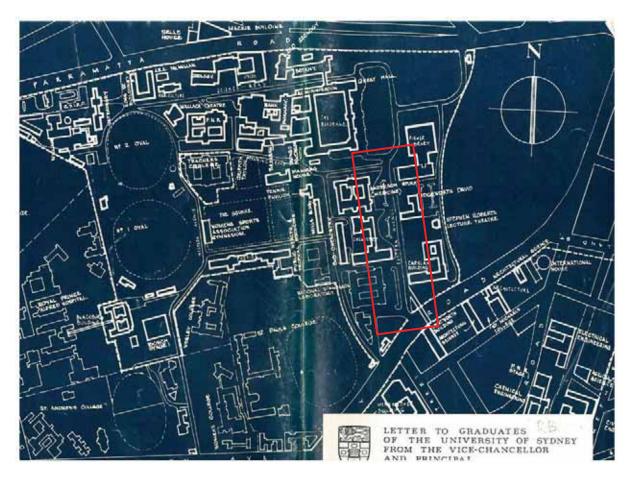


Figure 2.7 Campus Plan on the cover of the Vice-Chancellor's Newsletter (1967) (source: University of Sydney Archives)

The next phase of campus construction was funded by Commonwealth triennial grants to Australian tertiary institutions. The Bio-Chemistry and Microbiology Building (1970), the Wentworth Building (1972) and the Seymour Centre (1975), built with funds from the Seymour Foundation, epitomized this era of campus construction. As part of this continuing growth on the Darlington campus an elevated pedestrian walkway was built over City Road (from the Wentworth Building to land in front of the Carslaw Building), physically linking the University's Darlington and Camperdown campuses.

It was at this time that the City Road end of Eastern Avenue underwent a major modification to provide a new loop road and vehicular entrance in alignment with Codrington Street. The extensive ground works included: the demolition of the former Victoria Park Gardener's Cottage, the temporary weatherboard CSIRO workshops (south of the Madsen Building) and some outbuildings; construction of a loop road connecting to Eastern Avenue; the installation of a guard station; the closure of both the former Victoria Park gate and the Gatekeeper's Lodge gate to vehicles; and the relocation of the City Road pedestrian crosswalks. (Fig. 2.8)

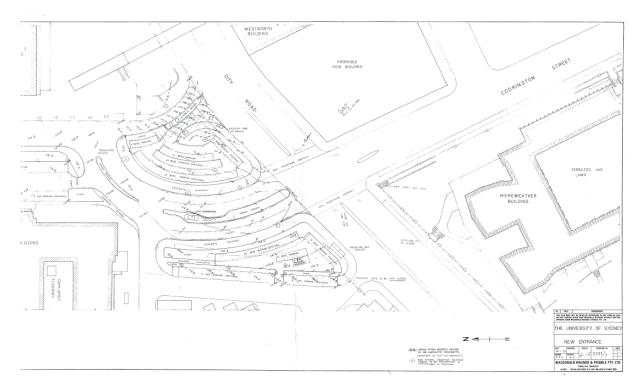


Figure 2.8 Plan (1973) of the new loop road and City Road vehicular entrance, positioned to align with Codrington Street (now known as Butlin Avenue).

(source: City of Sydney Archives)

2.8 Development of Campus (1975-90)

Australian universities faced a difficult financial time from the mid-1970s. In August 1975 the Commonwealth Government suspended the triennial grants. Funding cut backs resulted in the postponement of major building projects. Construction work over the following years was largely limited to the renovation and extension of existing buildings.

2.9 Expansion of Campus (1990-2000)

Student enrolments in 1989 had reached 19,076, with 3,846 full time staff and the University campus had increased to 72 hectares, a sizeable increase on the original 51 hectares of the Grose Farm site. Anticipating further development of the University campus, Conybeare Morrison was commissioned to prepare a University Strategy Plan (1990), followed by a Landscape Master Plan (1993). (Fig.2.9)

The community's notion of a university was changing; gaining a tertiary education was considered to be the norm, rather than elitist; enrolment fees were re-introduced by way of the Higher Education Contribution Scheme in 1990; and universities across Australia became active in the enrolment of full fee paying overseas students. The post-Modernist Education Building (1991) and the Economics and Business Building (2002) reflected the continuing growth in university teaching and also the divergent architectural styles for campus buildings.

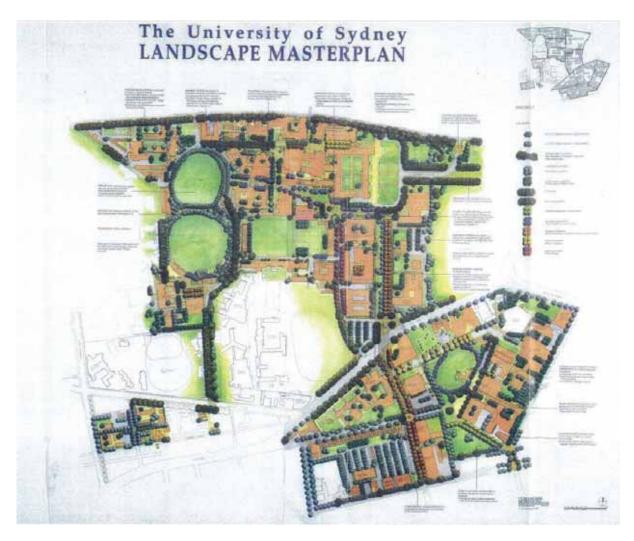


Figure 2.9 University Landscape Master Plan (1993), prepared by Conybeare Morrison & Partners (source: University of Sydney Archives)

2.10 Development of Campus early 21st Century (2000-2015)

Over the next fifteen years a series of new buildings were constructed, including the School of Information Technology Building (2006), the Jane Foss Russell Building (2008), the new Law Building (2008) and the Charles Perkins Centre for Obesity and Cardiovascular Disease (2013). Most recently two significant transformational projects - the Australian Institute of Nanoscience (behind the Physics Building); and the Abercrombie Business School (at the corner of Abercrombie and Codrington Streets) - have been completed.

The construction of the Jane Foss Russell and Law Buildings prompted a further redesign of the Eastern Avenue urban landscape (2008). In accordance with the Conybeare Morrison Landscape Masterplan (1993) Eastern Avenue was transformed into the University's major north south pedestrian zone linking the Camperdown and Darlington campuses. As part of these works the Wentworth pedestrian overpass was demolished and replaced by a new overpass connected to the Jane Foss Russell building; cars entering the Camperdown campus were diverted from Eastern Avenue to Fisher Road; the old University gates were transferred to the City of Sydney, who reconstructed the gates in their original location at the entrance to the University's former grand drive up through Victoria Park; and a large entry plaza created off City Road. (Fig.211)



Figure 2.10 View of the two City Road gates at the southern end of Eastern Avenue (c.2005), prior to the redesign of the Eastern Avenue entrance.

(source: University of Sydney Archives)

The photo (Fig.2.10) shows the Gatekeeper's Lodge and Gate (1898) off City Road [top left.], the main vehicular gates constructed in 1974 [centre]; and the original university gates, which had been removed from Victoria Park and installed (c.1950) at the end of eastern Avenue [right centre].



Figure 2.11 The main City Road vehicular gates and pedestrian forecourt (2015), viewed from the Wentworth Building, diagonally across City Road.

(source: Author) Note the Victoria Park gates and roadway have been removed and the area paved.(centre right)

In 2012 the University developed the Campus Improvement Program (2014-20), which identified seven precincts suitable for redevelopment over the following decade. The CIP was lodged as a Stage 1 State Significant Development and approved by the Minister for Planning in March 2015.

The construction of the Carslaw Building Extension (F07), the subject of this SHI, was not part of the CIP and is, therefore, the subject of a separate SSD application (SSD 7054).

3.0 Analysis of Physical Evidence

3.1 Description of the Site

The subject site (F07) is located at the south-eastern end of Eastern Avenue. It is bounded by Eastern Avenue (west), the Carslaw Building (north), Barff Road / Victoria Park (east) and City Road (south). It is diagonally opposite the site of the proposed Administrative Building (F23). The site is currently landscaped open space. (Fig.3.1)



Figure 3.1 F07 Site (source: Google maps)

From 1855, when the University was granted its Camperdown land, until 1924 the subject land was part of Victoria Park; owned by the City of Sydney and maintained as open parkland. Even after the land swap (1924) the University did not construct any buildings in the vicinity until the Madsen Building (1939-44). Consequently, sometime between 1944 and 1951, Eastern Avenue was repositioned to form a straight road, and a new City Road entrance was built, featuring the University's former Victoria Park gates. (Fig.2.6)

But it was the post-WWII construction of a number of buildings on the University's 'eastern front', including the Carslaw Building (1960-65), which really established the physical and visual character and identity of Eastern Avenue as the University's principal north-south axis and reflected a reorientation of the campus hub away from Science Road towards the Darlington campus.

The repositioning of the City Road entrance in 1974, which included the construction of a loop road and the erection of an additional set of gates in alignment with Codrington Street (aka. Butlin Avenue) (Fig.2.10), had a relatively minor impact on the F07 site. Rather it was the construction of the new Jane Foss Russell pedestrian over-bridge and the associated transformation of Eastern Avenue into a paved pedestrian zone in 2008 (including the removal of the Victoria Park gates and associated roadway) which created the present wide open space fronting City Road (Fig.2.11) and the adjacent landscaped area (F07). (Fig.3.3)

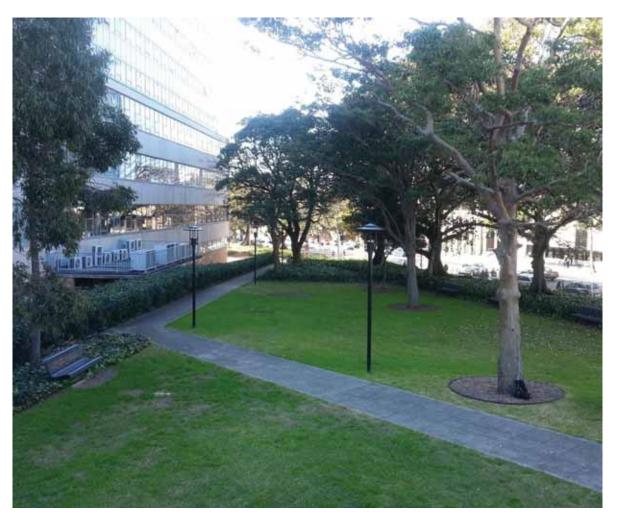


Figure 3.2 Existing landscaped site, looking east, with the Carslaw Building and its access road parapet (left) and Victoria Park in the background.

(source: Author)

4.0 Assessment of Significance

The University of Sydney Grounds Conservation Management Plan, 2015 (GCMP), prepared by the Planning Team, Campus Infrastructure and Services, provides a thorough description of the University campus. (Appendix B)

The GCMP ranks the heritage significance of campus buildings and identifies significant landscapes and landscape elements, key view corridors and planning axes, etc. The GCMP also provides conservation policies to ensure that the heritage significance of these buildings, significant landscapes and landscape elements, key view corridors and planning axes are appropriately managed as an integral part of the future developments on the University campus.

4.1 Statement of Significance

The following summary Statement of Significance is taken from the Grounds Conservation Management Plan (2014). This Statement of Significance provides an overview of the heritage significance of the University campus:

The University of Sydney, University Colleges and Victoria Park is regarded to be of state historical significance, as a vestige of Governor Phillip's original 1,000 acres (404 ha) 'Kanguroo Ground' Crown reserve of 1790 and for its connection to the 18th century British government's approach to colonialism and its concept of 'terra nullius' as the foundation for dispossession of Aboriginal land in the immediate area of Sydney.

The cultural landscape is regarded to be of state heritage significance for its ability to demonstrate activities of the colonial era (1792–1855) associated with Grose Farm, orphan school and convict stockade.

The place is regarded to be of state heritage significance in demonstrating the aspirations of colonial Sydney to shape its own society, polity and ideals that ultimately led to the establishment of the University of Sydney by Act of Parliament in 1850 and being granted land at Grose Farm in 1855.

The University of Sydney is regarded to be of state historical significance as the first and oldest university in Australia, dating from 1850. Reflecting in the cultural landscape changes in tertiary education, landscape design, institutional architecture, economic development and social attitudes; including the establishment of the first university college for women in Australia, Women's College in 1892.

The Main Quadrangle Building, the Anderson Stuart Building and the Gate Lodges, together with St Paul's, St John's and St Andrew's Colleges, as a rare composition, comprise what is the most important group of Gothic and Tudor Revival style architecture in New South Wales and potentially Australia; the landscape and grounds features associated with these buildings contribute to and support the existence and appreciation of their state aesthetic significance.

The cultural landscape is regarded to be aesthetically significant at a state level reflecting directly the influence of E.T. Blacket (1850s), Sir J. Sulman (1890s), W.B. Griffin (1910s), Professor L. Wilkinson (1920s) and the Government Architect's Office (1960s) in shaping the place. In particular, Blacket's location of the Great Hall and East Range of the Quadrangle (1854–1862) utilised the site's topography to provide a dramatic presentation of the University on approach from the city, a setting with planning axis that still remains.

The University of Sydney and Victoria Park as connected landscapes have tangible links to Charles Moore Director of the Royal Botanic Gardens (1848–1896) and subsequent designers using prevalent 19th century theories of landscape design, plant material and horticultural techniques.

Strongly associated with Professor Leslie Wilkinson and the implementation of his 1920 master plan, the University grounds, more than any other site, reflect Wilkinson's work in beautifying and unifying buildings and their settings. This pursuit of beauty can also be seen in the work of Professor E. G. Waterhouse, who made a significant contribution to the planning and planting of gardens in the Inter-war years.

The University of Sydney is regarded to be of state social significance for its role as a site for student activism during the 20th century, in particular, the 1965 Freedom Ride, Vietnam War and conscription protests.

The 1965 Freedom Ride, a bus tour of University of Sydney students led by Charles Perkins—the first Aboriginal person to head an Australian Government department—shone a spotlight on the parlous state of Australia's race relations and is now recognised as one of Australia's most significant civil rights events.

The University of Sydney Grounds contain part of the land developed during the 19th and early 20th centuries as the Sydney suburb of Darlington. Substantial remains of Darlington survive, represented by the Old Darlington School Building (G18), terraced housing along Darlington Road, several light industrial buildings and remnants of the former street pattern.

The University of Sydney Grounds are held in regard by many Australians and other individuals and groups as a place of high university education, the place of their higher education, as the site of past events, including social protest, and especially for its research potential and for its fine buildings and landscape.

4.2 Grading of Elements Contributing to Heritage Significance

The significance of the University grounds is complex – the grounds are extensive and contain a large number and variety of buildings and landscape features. These items may have individual heritage significance, significance as part of a group, a precinct, or a linear feature (i.e., an axis or view corridor), as well as contributing to the overall significance of the whole University campus.

4.2.1 Significant Heritage Items

There are no heritage items on the F07 development site, however east of the pedestrian overbridge the site is bounded by the City Road palisade fence (High significance). Also, there are a number of other heritage items in the immediate vicinity. (Fig.4.1)

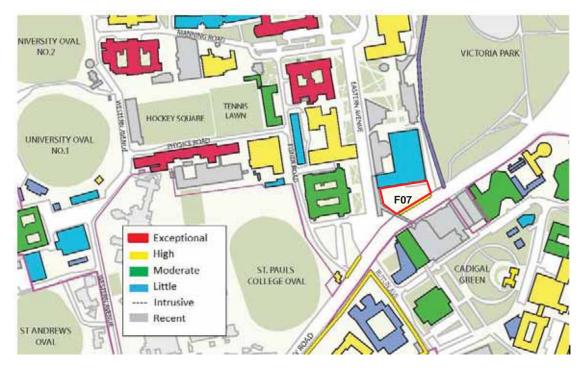


Figure 4.1 Relative grading of heritage significance of buildings adjacent to the development site (source: University of Sydney Grounds Conservation Management Plan (2014)

4.2.2 Significant Views

The GCMP identifies a number of significant views to and from the expanded curtilage and within the University grounds that "should be retained and if possible enhanced." (GCMP Policy 18) (Fig.4.2) Eastern Avenue is one of these significant view corridors.

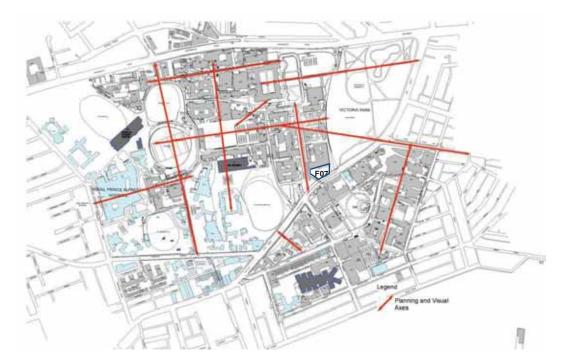


Figure 4.2 Significant views to and from the expanded curtilage and within the University grounds (source: University of Sydney Grounds Conservation Management Plan (2014)

4.2.1 Significant Trees and Landscapes

The University Grounds Conservation Management Plan (2014) identified the Significant Trees and Types of Open Spaces and Landscapes across the University campus. The row of trees along the Fisher Road boundary between St Paul's College oval and the University are ranked as having Exceptional significance. (Fig.4.3) These trees are also listed (Register No.C265) on the City of Sydney's *Register of Significant Trees (2013)*.



Figure 4.3 Significant Trees and Types of Open Spaces and Landscapes (source: University of Sydney Grounds Conservation Management Plan (2014)

4.3 Aboriginal Heritage Assessment

Aboriginal heritage assessments, prepared over the past decade for the university campus in general and for specific work sites, have concluded that no archaeological sites or artefacts relating to Aboriginal occupation have been found within the University grounds.

The Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (September 2015), concludes:

"As all three precincts (A02, F07 and F23) are identified as having very low to no potential to retain Aboriginal archaeological deposits and/or objects, it is the finding of this assessment that Aboriginal objects are unlikely to be present and thus would not be impacted by the proposed work." (AHDDR, p.43.)

4.4 Archaeology Assessment

Over the past decade a number of archaeological reports have been prepared for the University campus, both in general and for specific work sites. Based on these previous reports, and given the amount of development that has occurred at the place, the GCMP concluded "the potential for archaeology, either Aboriginal or European, is considered to be low." (GCMP, p.120) There are, however, a number of areas within the University grounds which, because they have remained generally undisturbed, are regarded as being archaeologically sensitive. (Fig.4.4) These areas are primarily ovals and playing fields, none of which are impacted by the proposed development.

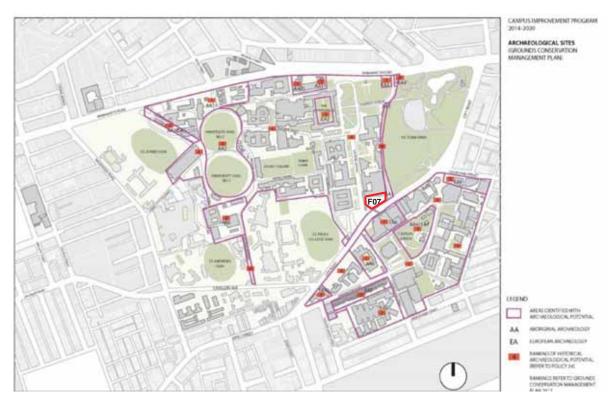


Figure 4.4 Archaeological sensitive areas on the Camperdown – Darlington Campus (source: University of Sydney Grounds Conservation Management Plan (2014)

4.5 Heritage Items in the Vicinity

There are several heritage items of varying levels of significance in the vicinity of the F07 site. (Fig 4.1) The items immediately adjacent to the F07 site include:

- City Road palisade boundary fence (High significance);
- Victoria Park (High significance);
- · City Road Vehicular Gates (Moderate significance);
- former Gatekeeper's Lodge and Gates (High significance);
- St Paul's College Oval (High significance);
- Madsen Building (Moderate significance); and
- Carslaw Building (Little significance).

This Heritage Impact Assessment addresses any adverse impact of the proposed development upon these adjacent heritage items and recommends the means to mitigate any adverse impacts.

5.0 Description of the Proposal

5.1 Carslaw Building Extension (F07)

The proposed development, replacing landscaped open space, is for an eight storey building, with one basement level, of approximately 10,000m². The extension will accommodate approximately 150 University staff relocated from elsewhere on the campus. (Fig.5.1)

Together with the proposed extension to the Administrative Building (F23) on the opposite side of Eastern Avenue, the Carslaw Building Extension will provide a coordinated, cohesive City Road entrance to the University's Camperdown campus.

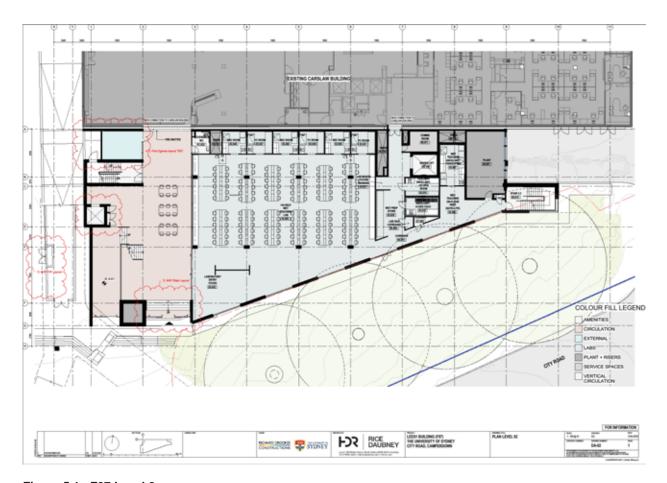


Figure 5.1 F07 Level 2

(source: Drawing 15H-DA-02 (Issue 1) prepared by Rice Daubney - dated 12.05.16)

6.0 Assessment of Heritage Impact

6.1 Heritage Impact Analysis

The SEARs requires the documentation for SSD 7054 to include:

- a statement of heritage impact prepared in accordance with the guidelines in the NSW
 Heritage Manual and include a statement of significance of The University of Sydney and
 its conservation area (C5), St Paul's College (I52) and Victoria Park (I39) and consider the
 accumulative material effect of the proposed development and proposed F23
 (Administrative) Building (SSD 7055) on significance;
- a landscape heritage assessment, including consideration of the cultural landscape of The University of Sydney and Victoria Park; and
- an assessment of any archaeological potential and significance on the site and the impacts the development may have on this significance.

In addition:

 all Aboriginal cultural heritage values that exist within the development site shall be identified, described and documented.

Accordingly, the SHI assesses the impact of the proposal on any heritage (archaeological, indigenous and built) item within the curtilage of the development; and the impact on significant landscapes; reaches conclusions; considers appropriate mitigation measures; and makes recommendations to resolve any outstanding matters.

The site of the proposed F07 development is currently landscaped open space. The site, bounded by a section of the heritage listed City Road palisade fence, contains a number of trees identified as having

heritage significance. These trees will be retained in the development.

6.2 Potential Impacts on Heritage Items in the Vicinity

The SEARs require the SHI to address any impact of the proposed development on the adjacent heritage items: specifically St Paul's College and Victoria Park. There are a number of other heritage items of varying levels of significance immediately adjacent to the F23 site, including:

- City Road palisade boundary fence (High significance);
- Victoria Park (High significance);
- City Road Vehicular Gates (Moderate significance);
- former Gatekeeper's Lodge and Gates (High significance);
- St Paul's College Oval (High significance);
- Madsen Building (Moderate significance); and
- Carslaw Building (Little significance).

6.2.1 City Road Boundary Fence (High significance)

Discussion: The City Road boundary fence has been subject to several re-configurations over the past century as the City Road entrance to the Camperdown campus has been repositioned in response to campus developments. (see Figs.2.6, 2.10 & 2.11) The section of the City Road boundary palisade fence, east of the City Road over-bridge, will be unaffected by the proposed development.

Conclusion: The proposed F07 development will have no impact on the heritage significance of this section of the City Road boundary fence.

6.2.2 Victoria Park (High Significance)

Discussion: Barff Road, on the University grounds, provides a physical buffer between the proposed F07 development and Victoria Park, but it is the visual connection between Victoria Park and the University that has been an issue of some contention. The Victoria Park Conservation Assessment (2009) makes no specific reference to the significance of the landscape and the trees along the park's (western) boundary with the University, although there is a criticism that the construction of a series of post-WWII Modernist university buildings along the eastern side of Eastern Avenue effectively screened out the earlier relationship between Victoria Park and the picturesque ensemble of Gothic buildings across the Petersham ridgeline. The Carslaw Building (1960-65) is specifically cited as presenting "large blank walls to the Park" (VPCA, p.3). While this situation is unlikely to change in the immediate future, it is preferable that new buildings on the eastern side of Eastern Avenue establish a better visual relationship with Victoria Park (as demonstrated by the recent Law Building).

The proposed Carslaw Building Extension (F07) is located on a small wedge of land in the south-eastern corner of the University's Camperdown campus. The eastern façade of the proposed building (F07), facing Victoria Park, is a relatively narrow (4.0m wide) glazed double fronted elevation. This elevation will be broadly screened by the large trees along the western boundary of Victoria Park. (Fig.6.1)

Views into Victoria Park from the City Road end of Eastern Avenue are blocked by the City Road overbridge. Views into Victoria Park from City Road are screened by the large Morton Bay fig trees that line the University's City Road boundary fence. These trees are proposed to be retained in the development.



Figure 6.1 View of F07 site from Victoria Park (source: Author)



Figure 6.2 Montage of the Carslaw Extension (F07) eastern elevation, as seen from City Road and Victoria Park (source: Rice Daubney)

Conclusion: Due to its narrow wedge shape, double front and set back, the proposed Carslaw Building Extension (F07) will have a minimal physical and visual impact on the overall heritage significance of Victoria Park.

6.2.3 City Road Vehicular Entrance Gates

Discussion: Although they appear to be quite old, the City Road vehicular entrance gates were actually constructed in 1974, incorporating gate posts salvaged from elsewhere on campus. (see Figs. 2.10 & 3.3) The role of the gates in designating the major southern entrance to the Camperdown campus is more symbolic than historic. But with Eastern Avenue now a pedestrian zone, the location of the proposed Administrative Building (F23) and the proposed reinstatement of the Gatekeeper's Lodge gateway (Fisher Road) as the principle southern vehicular entrance to the Camperdown campus the City Road vehicular entrance gates will become redundant.

It is proposed that the smaller two outer gate posts, which have Victoria Park inscribed on one face, will be relocated to the proposed Barff Road entrance to Victoria Park (opposite the Law Building). The main gates posts will be dismantled and stored until such time as a suitable location for their reuse is determined.

Conclusion: The removal of the City Road vehicular entrance gates will result in the symbolic loss of the Eastern Avenue gateway, rather than a loss of significant heritage fabric. This loss will be partially mitigated by the relocation of the minor outer (Victoria Park) gate posts to the proposed gateway into Victoria Park off Barff Road, while the inclusion of a new campus 'entry statement' at the southern end of Eastern Avenue is part of a broader urban design issue that has yet to be determined.

6.2.4 former Gatekeeper's Lodge and Gates (1898) (High Significance)

Discussion: The Gatekeeper's Lodge (originally known as the Attendant's lodge) is solid single storey sandstone eclectic "Gothick" building, constructed in 1898 to accommodate the Medical School Attendant, whose task it was to monitor the deliveries of cadavers to the Medical School. Until the late 1940s this gateway served as the southern (City Road) entrance to the university campus, a role then taken over by the new Eastern Avenue entrance.

In 1961 ownership of the Gatekeeper's Lodge was transferred to St Paul's College as part of a land swap related to the construction of the Physics Building annexe, however the Lodge Gates and Fisher Road were retained by the University.

There is a considerable physical and visual distance between the Gatekeeper's Lodge and Gates and the Carslaw Extension (F07) site. They are separated by Eastern Avenue and the proposed Administrative Building (F23), which is sufficient to ensure that the proposed F07 development will have minimal adverse impact on the heritage significance of Gatekeeper's Lodge and Gates. (Fig.6.3)

Conclusion: Due to the distance between the Gatekeeper's Lodge and Gates and the proposed Carslaw Building Extension (F07) the latter will have a minimal physical and visual impact on the heritage significance of the Gatekeeper's Lodge and Gates.



Figure 6.3 View looking northeast along City Road, with Gatekeeper's Lodge (left), proposed Administrative Building (centre) and Carslaw Extension (right).

(source: Grimshaw Architects)

6.2.5 St Paul's College and Oval (High Significance)

Discussion: St Paul's College Conservation Management Plan ranks both the College Oval and the former Gatekeeper's Lodge as having High Significance.

The row of mature, heritage listed, trees along the Fisher Road boundary ensure the Madsen and Carslaw buildings are not visible from St Paul's College. (Fig.6.4) This row of significant trees will similarly shield views of the proposed Carslaw Extension (F07) from St Paul's College.



Figure 6.4 View from St Paul's College, across the college oval, to the F23 and F07 sites. (The former Gatekeeper's Lodge can be seen behind the cricket screen.) (source: Author)

Conclusion: The row of mature, heritage listed, trees along the Fisher Road boundary and the proposed Administrative Building (F23) will screen all views of the proposed Carslaw Building Extension (F07) from St Paul's College.

6.2.6 Madsen Building (Moderate Significance)

Discussion: The Madsen Building (1939-44) was the last campus building designed in the sandstone collegiate 'Gothick' style; an architectural style which had dominated the University's early architecture. The intention was to maintain the stylistic tradition established by the Quad and Anderson Stuart buildings, but wartime austerity resulted in the Madsen Building being a 'thin' example of this style. This disconnect was further reinforced by the construction of the post-war Chemistry (1958) and Carslaw (1960) buildings in a starkly Modernist style.

The Madsen and Carslaw buildings have always had an uneasy visual relationship across Eastern Avenue, mitigated largely by the distance between the two. The proposed Carslaw Building Extension (F07) is on the City Road side of the Carslaw Building and therefore slightly further away from the Madsen Building. Views of the Madsen Building from City Road east are already disrupted by the City Road overbridge, consequently the proposed Carslaw Building Extension will have little additional impact.

Conclusion: The proposed Carslaw Building Extension (F07) will have a minimal physical and visual impact on the heritage significance of the Madsen Building.

6.2.7 Carslaw Building (Little Significance)

Discussion: The Carslaw Building is ranked as having Little heritage significance and is described by Trevor Howells as presenting "an overpowering and disconnected face to City Road." (*The University of Sydney Architecture*, p.81) The proposed extension (F07), positioned on the road (southern) side of the Carslaw Building has provided an opportunity to improve a primary view towards Sydney University from City Road.

Conclusion: The proposed Carslaw Building Extension (F07) will have no adverse impact on the heritage significance of the Carslaw Building, but it will improve the University's presence on City Road.

6.3 Potential Impacts on significant Views and Landscapes

6.3.1 Significant Views

Discussion: Eastern Avenue is identified in the GCMP (2014) as one of several significant view corridors within the University grounds that "should be retained and, if possible, enhanced." (GCMP Policy 18) (see Fig.4.2) Accordingly, the SEARs requires the SHI to have "particular regard to the site's City Road gateway location, (and) alignment of existing built form along Eastern Avenue."

Following a presentation of the F07 and F23 development schemes, the Heritage Council advised "the proponent should consider options to retain the established axial arrangement along Eastern Avenue by not protruding the building past the alignment of the Carslaw Building." (HC letter, 26 August 2015)

Resolution of the Eastern Avenue façade of the F07 building is part of the broader issue of establishing a stronger visual and physical connection between the University's Camperdown and Darlington campuses across the Eastern Avenue, City Road and Butlin Avenue intersection. In the approved CIP (SSD 6123) both the Wentworth and Merewether buildings are due to be replaced by new buildings, with the potential for the Merewether replacement building to be a distinctive focal point terminating the southern Eastern Avenue vista. These buildings, together with the proposed F23 and F07 buildings, will better define this critical intersection and the significant Eastern Avenue vista.

After further discussions and design development the Eastern Avenue side of the Carslaw Extension (F07) has been amended to improve the ground access points and the projecting upper levels of the western façade. Levels 5, 6, 7 and 8 of the building project approximately 2.0m beyond the eastern building alignment on Eastern Avenue. (Fig.6.5)



Figure 6.5 Photomontage of F07, looking south along Eastern Avenue. (source: Rice Daubney)

Conclusion: Taking into account the position of the F07 building anchoring the City Road end of Eastern Avenue; the width of Eastern Avenue; and the continuation of the view corridor across City Road to the Darlington campus buildings, the visual impact of the projection of Levels 5, 6, 7 & 8 into the southern Eastern Avenue view corridor is considered to be relatively minor and, therefore, acceptable.

6.3.2 Significant Landscapes

Discussion: The SEARs require the SHI to "provide a landscape heritage assessment, including consideration of the cultural landscape of The University of Sydney and St Paul's College."

The University Grounds Conservation Management Plan (2014) identified the Significant Trees and Types of Open Spaces and Landscapes across the University campus. (Fig.6.6) The row of *Ficus macrophylla* (Moreton Bay Fig) trees along the City Road boundary of the F07 site are ranked as having High significance. In addition, the Moreton Bay Figs that extend along City Road to Broadway are listed within the Council's *Register of Significant Trees 2013* (Victoria Park – Broadway Listing.

The proposed development on the F07 site has been designed so as to have minimal physical impact on these four trees. The Arboricultural Impact Assessment, prepared by Tree IQ (Rev.B, April 2015), concludes the proposed works should not significantly impact the health or Useful Life Expectancy (ULE) of the trees. (AIA, p.8)

The SEARs also requires reference to the Sydney University Concept Landscape Plan. At the time the Clouston Landscape Concept Plan (2014) was prepared the University did not contemplate the F07 site as being a development site and, therefore, the landscape plan proposed to retain the existing use of the area, ie. the F07 site is designated as a "expansive public domain". (Fig.6.7)

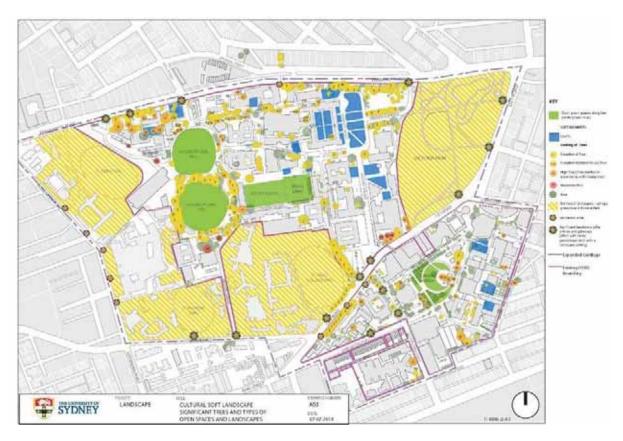


Figure 6.6 Significant Trees and Types of Open Spaces and Landscapes (source: University of Sydney Grounds Conservation Management Plan (2014)



Figure 6.7 Detail of the Concept Landscape Plan (2014), prepared by Clouston Associates for the CIP (SSD 6123)

(source: CIS, University of Sydney)

Conclusion: The proposed development and its associated landscaping reflects a shift from the Clouston Landscape Concept Plan (2014), in that the site was proposed to remain as public domain, albeit one that was little used by staff and students. The proposed F07 development retains the four significant trees along the City Road boundary and maintains the City Road line of trees to Broadway.

6.4 Aboriginal Archaeology and Cultural Values

Discussion: Aboriginal heritage assessments, prepared over the past decade for the university campus in general and for specific work sites, have concluded that no archaeological sites or artefacts relating to Aboriginal occupation have been found within the University grounds.

The Aboriginal Heritage Due Diligence Report (AHDDR), prepared by GML Heritage (September 2015), concludes:

"As all three precincts (A02, F07 and F23) are identified as having very low to no potential to retain Aboriginal archaeological deposits and/or objects, it is the finding of this assessment that Aboriginal objects are unlikely to be present and thus would not be impacted by the proposed work." (AHDDR, p.43)

The AHDDR also states: ".....the Aboriginal community have identified cultural values which are not directly associate with the study area" (AHDDR, p.51)

In addition, the Aboriginal Heritage Impact Assessment (AHIA) prepared by AHMS (February 2016), which covers Aboriginal cultural heritage values across the University's Camperdown and Darlington campuses, concludes:

"Consultation with RAPs identified six places retaining cultural values within the subject area. (It is highlighted that while the discussions focused on the six CIP precincts, it also considered the wider Camperdown and Darlington Campuses). These include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances." (AHIA, p.64.)

With the exception of the generic reference to "the university entrances", the places identified in the AHIA as retaining Aboriginal cultural values are located away from the subject site. The Eastern Avenue entrance off City Road will be re-configured, however both its functional role and cultural value as "an entrance" to the University grounds will not alter.

Conclusion: The proposed Carslaw Building Extension (F07) is unlikely to have any adverse impact on the Aboriginal cultural heritage values of this particular part of the University campus.

6.5 Historical Archaeology

Discussion: Prior to the 1924 land swap the F07 site was part of Victoria Park landscape. There is no documentary evidence indicating any buildings having ever been constructed on the F07 site, therefore the likelihood of there being any archaeological remnants on site is minimal.

Conclusion: Ground disturbance in this area could proceed without prior consultation with an archaeologist. However, if any sub-surface deposit is revealed, an archaeologist should be consulted and the site managed in accordance with Heritage Branch archaeological procedures.

7.0 Conclusions and Recommendations

7.1 Conclusion

With reference to the issued identified in the SEARS the HIS concludes the following:

Adiacent heritage items:

The impact of the proposed Carslaw Building Extension (F07) on the cultural significance of the adjacent heritage items, including City Road palisade boundary fence; Victoria Park; City Road Vehicular Gates; former Gatekeeper's Lodge and Gates; St Paul's College Oval; Madsen Building; and Carslaw Building is generally acceptable.

ii) Cultural landscape of the University campus, St Paul's College and Victoria Park: The impact of the proposed Carslaw Building Extension (F07) on the cultural landscape of the University campus, St Paul's College and Victoria Park is generally acceptable.

iii) Potential archaeological relics and Aboriginal cultural heritage values:

The likely impact of the proposed Carslaw Building Extension (F07) on potential archaeological relics is low and the identified Aboriginal cultural heritage values are not associated with the subject site (refer to p.51, University of Sydney Buildings Aboriginal Heritage Due Diligence Report, prepared by GML Heritage (September 2015).

iv) Significant view corridors:

Taking into account the position of the F07 building anchoring the City Road end of Eastern Avenue; the width of Eastern Avenue; and the continuation of the view corridor across City Road to the Darlington campus buildings, the visual impact of the projection of Levels 5, 6, 7 & 8 into the southern Eastern Avenue view corridor is considered to be relatively minor and, therefore, acceptable..

7.2 Recommendation

The proposed Carslaw Building Extension (F07) has a minimal impact on the overall heritage significance of the University of Sydney campus and, therefore, could be approved.

8.0 Appendices

Appendix A

The University of Sydney Section 170 Heritage and Conservation Register

Appendix B

The University of Sydney Grounds Conservation Management Plan, prepared by the Planning Team, Campus Infrastructure and Services (2014)

Appendix C

University of Sydney Campus Improvement Program Aboriginal Due Diligence Report, prepared by Godden Mackay Logan (October 2013)

Appendix D

University of Sydney Buildings Aboriginal Heritage Due Diligence Report, prepared by GML Heritage (September 2015)

Appendix E

University of Sydney Aboriginal Heritage Impact Assessment, prepared by AHMS (February 2016)

Appendix A

The University of Sydney Section 170 Heritage and Conservation Register

The University of Sydney, as a state government agency, is required by the NSW Heritage Act 1977 (Section 170) to identify, conserve and maintain those heritage items under its ownership and control.

The following items are listed on the University's Section 170 Register and/or the Sydney LEP 2012:

Statutory Listings [as at February 2016]

Building No.	Campus Name	State Heritage Register (Listing No:)	Local Environment Plan (Heritage Item No:)	LEP Conservation Area (Area No:)	Section 170 Register (Inventory No:)	Level of Significance	CMP (Date)
	CITY:						
	Conservatorium of Music	01849	1863	Yes	Leased Owner: DET	State	1997
	ROZELLE:						
	The Kirkbride Block	00818		Yes	Leased	State	2002
	THE NIKDING BIOCK	00010		165	Owner: Health 1940343 3540009	State	2002
	MALLETT STREET:						
M02G	Former Bonds Head Office Mallet Street		12243	No	2420956	Local	2014
M02D	Building D Mallet Street		12243	No	4726054	Local	2014
M02G	Building G 100 to 106 Mallet Street		12243	No	4726055	Local	2014
M02K	97-99 Church Street, former Bonds Restaurant, now facade incorporated into Building K		12243	No	4726056	Local	2014
M02D	Chesty Bond Mural		12243	No	4726057	Local	2014
M02A, B, C, D & G	Mallet Street A,B, C, D & G		12243	No	4726058	Local	2014
	CAMPERDOWN CAMPUS:			C5	Crown Grant 4726001 2431001		2014
	Parramatta Road Palisade Fence		172	C5			2002
A14	The Quadrangle		184	C5	2431004		2008
F13	Anderson Stuart		189	C5	2431007		1992
A11	Old Geology		I78	C5	2431019		2008
A12	Macleay		179	C5	2431005		2003
A12	Botany		180	C5	2431037		2003
A12-14	Science Road		185	C5	2431010		2012

	Bridge					
A15	Pharmacy	183	C5			1995
A15-16	Bank and Badham	182	C5	2431015		1995
A15	Bank	182	C5	2431040		1995
A20	Woolley	181	C5	2431014		2005
A08	Heydon Laurence	175	C5	2431016		2008
A04	RD Watt	174	C5	2431021		2005
7101	Columns and	172	C5	2421454		2010
	timber pergola	172		2121101		2010
F02	Baxter's Lodge	186	C5	2431009		2006
B01	JD Stewart	173	C5	2431023		2006
D 01	Milestone Marker,	110	C5	Yes		2013
	Science Road			100		2010
	Science Road		C5	Yes		2013
	Precinct			. 55		20.0
B14	McMaster Building		C5	4726027		1995
A22	Old Teachers		C5	4726017		2006
7122	College			1720017		2000
A23	Manning Building		C5	4726026		?
A25	Tennis Pavilion		C5	1720020		1995
A26	RC Mills		C5	4726024		2005
A27	Edward Ford	188	C5	2431034		2006
A28	Physics	187	C5	2431013		2008
D06	Blackburn	107	C5	4726028		1995
F09	Madsen		C5	4726029		1995
F03 &	Fisher Library &		C5	4726006		2008
F04	Bookstack		03	4720000		2000
A09	Holme Building	177	C5	2431036		2002
A09	Refectory	176	C5	2431035		2002
703	Refectory	170	- 03	2431033		2002
	DARLINGTON:					
H03	The Institute	1523		4726012		1995
1103	The institute	1323		2431012		1995
H02	Superintendant's	1523		4726031		1995
1102	Residence	1323		2431012		1995
	Institute Palisade	1523		4726050		1995
	Fence, City Road &	1020		2431012		1995
	Butlin Avenue			2401012		
	Institute Retaining	1523		4726050		2012
	Wall, Darlington	1020		2431012		2012
	Road			2101012		
G15	Old Darlington	1524		2431033		2006
010	School	1021		2101000		2000
H07	IXL Garage [former]	12244				2013
1107	ixe datage [former]	12277				2010
H13 &	86 - 87	1528			Local	2008
H14	Darlington Road	1020			Local	2000
	Bannigton read					
H21	94 Darlington Road	I531			Local	N
. 14 1	2 2 2 3 3 3 7 7 3 4 4	.33.				' '
H22	95 Darlington Road	1532			Local	2008
	22 249.311 1.000	.332				
H23 –	96 – 103 Darlington	1533			Local	2008
H29	Road	1.000				
H30 –	104 – 123	1534			Local	2008
49	Darlington Road	.33				
H50 –	124 – 131	1535			Local	2008
	5.	1.000	i			1 2000

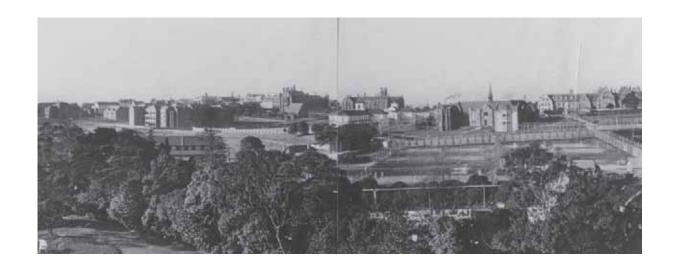
58	Darlington Road				
	GLEBE:				
K21 –	20-26 Parramatta		C33	Local	N
24	Road				
K17 –	6 – 12 Parramatta		C33	Local	N
20	Road				
K08 –	2 – 12 Arundel		C33	Local	N
13	Street				
K14 -16	16 – 20 Arundel	l631	C33	Local	N
	Street	Streetscap			
K06	1 Ross Street	1644	C33	Local	N
K05	61 Arundel Street		C27	Local	N
	Laurel Tree House				
K26	431 Glebe Point	1773	C29	Local	N
	Road				

Appendix B

The University of Sydney Grounds Conservation Management Plan, prepared by the Planning Team, Campus Infrastructure and Services (2014)

The University of Sydney Camperdown, NSW

Grounds Conservation Management Plan (Revised)



Prepared for:
The University of Sydney
Campus Infrastructure Services
Building G12 Codrington Street
DARLINGTON NSW

Prepared by The Planning Team Campus Infrastructure Services

based on information and methodology provided by Clive Lucas, Stapleton and Partners Pty. Ltd

with cultural landscape significance material prepared by Circle Square Design Landscape Architects

Amended date: December 2014

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The University of Sydney Grounds Conservation Management Plan (revised)

Executive Summary

This report is a Conservation Management Plan (CMP) for the Camperdown and Darlington campuses of the University of Sydney, including the grounds of the place. The CMP is a revision of the previous CMP for the place, the *University of Sydney Grounds Conservation Plan* (2002). This report incorporates documentary research and the study of all fabric (Section 2) to provide an understanding of its cultural significance (Sections 3 and 4) as follows:

The University of Sydney Grounds:

- With adjacent lands, is the pre-Colonial land of the local Aboriginal people, the Cadigal and/or Wannigal.
- The significance of this site lies in its topography, and the values, responses and interpretation impressed on it by its custodians and designers, which is evident across its large-scale cultural landscape. In particular, Blacket's location of the Great Hall and East Range of the Quadrangle (1854-1862) utilised the site's topography to provide a dramatic presentation of the University on approach from the city, a setting which remains today.
- With adjacent lands, reflect a fulfilment of Governor Phillip's designated land reserve (1789) for school, Crown and church purposes, after an interim period of colonial usage including stock agistment, Grose Farm, convict stockade and orphan school.
- Granted with an allowance for the "formation of a park and garden in connection therewith", the University grounds are inextricably linked to Victoria Park.
- Contain the first and oldest university in Australia.
- Are the site of the higher education of large numbers of Australians and foreign individuals who have later played key roles in the history of Australia and the World.
- Are the site of many notable events, advanced research and theory development over the 150 years of its existence.
- Are associated with many Australians and other individuals and groups of historical note.
- Reflect directly, changes in tertiary education, landscape design, institutional architecture, economic development and social attitudes over a period of more than 150 years, through the layout and development of the Camperdown Campus.
- Reflect directly the influence of E.T.Blacket (1850s), W.B.Griffin (1910s), Prof. L.Wilkinson (1920s) and the Government Architect's Office (1960s) in planning the campus layout.
- Reflect the influence on the landscape and cultural plantings of Charles Moore and Prof E.G. Waterhouse.
- With the adjacent University Colleges, contain many components of architectural and landscape
 merit, including groups of features, gardens, trees, roads and views and examples of the work of
 many notable and well-known architects and designers that gives the place its distinctive parklike setting and aesthetic character.
- Contain several buildings and landscapes of exceptional aesthetic merit.

- Contain part of the land developed during the 19th and early 20th centuries as the Sydney suburb of Darlington. Substantial remains of Darlington survive, represented by the Old Darlington School Building (G18), terraced housing along Darlington Road, several light industrial buildings and remnants of the former street pattern.
- Contain land with some archaeological potential regarding pre-colonial and post-colonial events, ways of life and research techniques, buildings and landscape now altered.
- Are held in regard by many Australians and other individuals and groups as a place of high
 university education, the place of their higher education, as the locale of past events, including
 social protest, and especially for its research potential and for its fine buildings and landscape.

Opportunities and constraints on the treatment and use of the place are outlined in Section 5. This includes the statutory heritage listings and their legislative requirements, the existing condition of the fabric, the requirements of the owner and the likely expectations of the public.

The CMP provides, in Section 6, a clear set of policies to guide the future care of the place, derived from an understanding of the place's significance. The conservation policies address:

- treatment of the fabric
- interpretation of the place
- use of the place
- intervention in the fabric identified to be conserved
- adaptation of the fabric identified to be conserved
- new landscape elements
- conservation procedures and practices
- adoption and review of the proposed conservation policies

Not all these policies will necessarily be achievable when other external matters, for instance the owner's finances, are taken into account.

Frontispiece: 1930s panorama of the University and grounds from Royal Prince Alfred Hospital (*Source*: University of Sydney Archives G3_224_1551)

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1 Introduction

1.1 Background to the Grounds Conservation Management Plan

The University of Sydney is Australia's first university, having been incorporated under an Act of the Legislature of New South Wales in 1850, "the Act to Encorporate and Endow the University of Sydney". The University is governed by the University of Sydney Senate.

Currently consisting of a network of teaching campuses across Sydney and a number of research stations throughout Australia, the University's original site and the core of the institution is located in the suburb of Camperdown with an adjoining campus directly to the south in the suburb of Darlington. These two core areas of the University are the subject of this report.

This Conservation Management Plan (CMP) has been prepared for the University of Sydney, Campus Infrastructure Services and is an update of the previous CMP for the place, the *University of Sydney Grounds Conservation Plan* (2002). The brief for the report includes:

- General review of the 2002 University of Sydney Grounds Conservation Plan.
- Amendment and updating to reflect changes to the place since 2002.
- Updating of the decade by decade historical landscape and buildings development plans.
- Focus on the assessment of the historical landscape demonstrating landscape typology and landscape significance.
- Focus on assessing the modern and late modern architecture of the Camperdown and Darlington campuses, assessing significance.
- Revision of policies.

For a complete overview of the tasks undertaken for this report refer to Appendix 5.

1.2 Methodology

This report draws on the research and analysis prepared for the previous *Grounds Conservation Plan* 2002 with additional research into the recent history of the place and site recording and analysis of the current configuration of its components.

The form and methodology of this report follows the general guidelines for conservation management plans outlined in J S Kerr, *The Conservation Plan*, The National Trust of Australia (NSW), sixth edition, 2004, the guidelines to the *Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter)* and the NSW Heritage Branch and Planning NSW's publication *Heritage Manual* (November 1996, as amended July 2002).

For a flowchart of this methodology, see Appendix 1.

1.3 Terms & Abbreviations

This report adheres to the use of terms as defined in the Australia ICOMOS *Burra Charter* (see Appendix 1). The following abbreviations have been used throughout this document:

The University The study site: the University of Sydney Camperdown and Darlington

campuses combined.

CMP Conservation Management Plan.

CMP 2002 University of Sydney Grounds Conservation Plan (2002).

GCMP Grounds Conservation Management Plan

CIP Campus Improvement Program (2013)

1.4 Author Identification

This conservation management plan has been prepared by the Planning Team, Campus Infrastructure Services, University of Sydney, based on information provided by Ian Stapleton, Kate Denny, Anthony Geck, Alice Stapleton and Mark Turnbull of Clive Lucas, Stapleton & Partners with additional material prepared by Christine Hay of Circle Square Design Landscape Architects. Unless otherwise stated, photographs are by Clive Lucas, Stapleton & Partners.

1.5 Acknowledgments

The authors wish to acknowledge the following:

- the authors of the *CMP 2002*, from which much of the base information has been taken for this report; specifically the research and analysis prepared by Dr Michael Person, Duncan Marshall, Dr Donald Ellsmore, Dr Val Attenbrow, Sue Rosen, Rosemary Kerr and Chris Betteridge.
- The Heritage Advisory Group, The University of Sydney
- The University of Sydney Archives

Concurrent with the production of this report, individual CMPs were also prepared for some of the precincts and buildings located at the University. As such, the significance of the buildings of the Engineering Precinct and the City Road Precinct, both located in the Darlington Campus has been drawn from the following work:

- Sydney University Engineering Precinct, Preliminary Assessment of Significance, prepared by Graham Brooks & Associates Pty Ltd, dated October 2013.
- City Road Buildings, Darlington Campus Heritage Assessment, prepared by Tanner, Kibble, Denton Architects, dated October 2013 (Issue P2).
- Blackburn and Veterinary Science Precincts, Statement of heritage Impact, prepared by Clive Lucas Stapleton and Partners, dated December 2013.
- Conservation Management Plans (listed in Appendix 3).

Further information on the landscape development of the grounds, its architecture and planning has been drawn from the following works:

- The Science Road Precinct CMP, prepared by C. Hay, A. Simanowsky, X. Luo, A. Vickers, Science Road Precinct, Conservation management Plan Volume 1 and 2, 2013.
- The University of Sydney, Grounds and gardens, from Bushland to the present day, David Curtis, unpublished manuscript, 1981.

1.6 Copyright of Images

The images and photographs (except those of the authors) used in this report have been reproduced for this report only. Copyright continues to reside with the copyright owners and permission must be sought for their use in any other document or publication.

1.7 Definition of the Place and Features

The University of Sydney is located in the suburbs of Camperdown and Darlington, west of the central business district of Sydney, NSW. The study area consists of the whole of the Camperdown and Darlington Campuses of the University of Sydney and includes its grounds, buildings, trees, lawns, fields, and gardens.

There are also a number of residential colleges, including St Pauls College, St Johns College, St Andrews College, the Women's College, Wesley College and Moore College located on the boundaries of the Camperdown Campus which, although intrinsically linked historically to the place, are not part of the University lands. These areas have not been fully addressed within the assessment or conservation policies of this report, but have been included because of their historical connection to the place.

Camperdown Campus

Camperdown campus occupies the eastern portion of Camperdown and is bounded by Parramatta Road to the north, City Road and Carillon Avenue to the south, Victoria Park to the east and the Royal Prince Alfred Hospital and university colleges fronting Missenden Road to the west.

Darlington Campus

Directly to the south of the main Camperdown Campus is the adjoining Darlington Campus, which occupies most of the suburb of Darlington. This area is bounded by City Road to the northwest, Abercrombie Street to the south, Golden Grove Street to the west, Cleveland Street to the north and Shepherd Street to the east. (See Figures 1.1, 1.2 and 1.3)

Expanded Curtilage

The term 'curtilage' is defined in the NSW Heritage Office's Heritage Manual, Terms and Abbreviations as "the geographical area that provides the physical context for an item, and which contributes to its heritage significance." An expanded curtilage is defined as,

"Where the heritage curtilage required is greater than the property boundary. In defining an expanded curtilage, the prominent observation points from which the item can be viewed, interpreted and appreciated must be identified

In the case of the University of Sydney, the public perception of the university grounds extends beyond the University's actual land holdings and encompasses the adjacent university colleges, the Royal Prince Alfred Hospital and Victoria Park. Apart from their strong physical and visual connection, these adjacent places also have an historical connection with the University that dates back beyond the original University land grant (1855) to Gov. Phillip's initial land reserve (1789)².

For these reasons the GCMP encompasses an expanded curtilage as outlined in Figure 1.3.

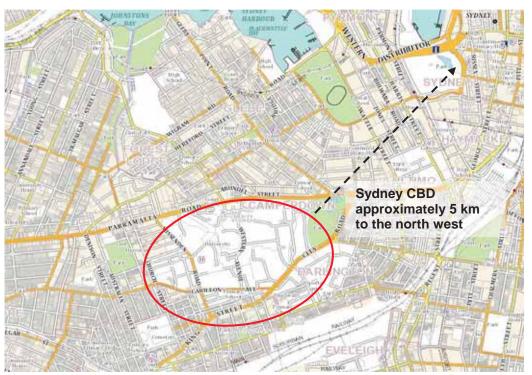


Figure 1. 1: Location plan of the Camperdown and Darlington Campuses of the University of Sydney (circled). (*Source:* GoogleMaps, 2013 < https://maps.google.com.au/>)

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¹ Terms and Abbreviations, Heritage Office and Department of Urban Affairs & Planning, 1996, URL accessed at: http://www.heritage.nsw.gov.au/docs/hm_terms_abbreviations.pdf, accessed 24/6/13.

² P97 Turney, Bygott and Chippendale, 'Australia's first: A history of the University of Sydney Volume 1 1850 – 1939', Hale and Iremonger, 1991.



Figure 1. 2: Aerial view of the Camperdown and Darlington Campuses of the University of Sydney .The separate campuses are circled.

(Source: NSW Land and Property Information, Spatial Information Exchange < http://maps.six.nsw.gov.au/)

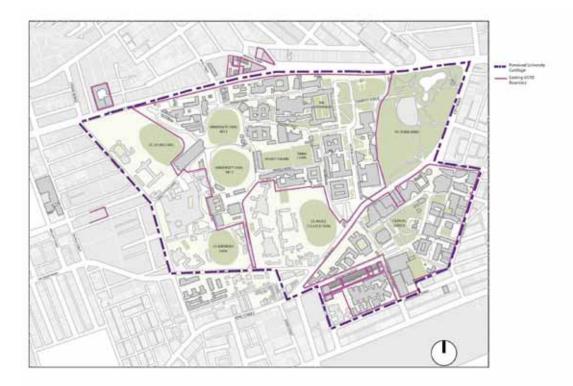


Figure 1. 3: Plan of the study area of the University of Sydney Camperdown - Darlington campus (The land owned by the University is outlined in light purple. The expanded curtilage of the University and associated places, ie. the university colleges and Victoria Park, is defined by the dark broken line.) (*Source*: University of Sydney Campus Infrastructure Services, 2014)

2 Collected Evidence

2.1 Understanding the Place

In order to understand the place, information from both documentary and physical sources has been collected and analysed as follows.

2.2 Documentary Evidence

The following summary of aspects of the development of the University of Sydney provides a brief overview of the history of the place and has been extracted from the *CMP 2002*, unless otherwise indicated. A fuller history of the development of the University of Sydney is located at Appendix 2.

2.3 Summary History

Incorporation of the University of Sydney

The following is drawn from the publications: 'The University of Sydney Architecture' (2007)⁸ and 'Sydney the Making of a Public University' (2012).⁹

Movements towards a colonial university were part of broader discussions about the prospects for responsible government. The idea of responsible government presupposed that ministers be responsible to an elected parliament and the hope was that male colonists from any class might be elected, or undertake leading civic roles. It was presumed therefore that successful self-government required a local university as without one, the likelihood was that the colony's leaders would almost certainly be from the gentry, who had the resources to send their sons to be educated in Britain.¹⁰

This new university was to provide a 'liberal' education in the Classics, Sciences and Mathematics, yet also offer instruction in modern subjects such as French, German and contemporary political thought. A liberal education, argued the university's advocates, was the best instruction for the colony's future leaders. ¹¹

Led by William Charles Wentworth, the Legislative Council brought the University into existence, establishing a committee, calling for submissions and within 15 days a proposal for a colonial university had been prepared. At the crux of the proposal were the principles of

⁸ Howells, T, 2007; *The University of Sydney Architecture*, The Watermark Press, Sydney

⁹ Horne, J and Sherington, G, 2012; *Sydney the Making of a Public University*, The Miegunyah Press, Sydney

¹⁰ Howells, T, 2007; *Op cit.* p.9

¹¹ Ibid.

mid-nineteenth century liberalism, secularism and public endowment as a sound investment for colonial growth and development. ¹²

The foundation of the University of Sydney as a secular and non-denominational institution was integral to its character as a public institution. In the early debate between the university founders and the churches, the argument for a predominantly secular institution eventually won, on the principle that a public university had to be seen to serve all faiths. ¹³ In the spirit of compromise, each of the major Christian denominations: Anglican, Roman-Catholic, Presbyterian and Wesleyan, was sub-granted land from the University's site, upon which each would build a residential college. ¹⁴

When the time came to open the University of Sydney to students on 11th October 1852 a grand function was held in a hall that is now part of Sydney Grammar School and where lectures were first held. ¹⁵ It was not until 1859, following the completion of Blacket's Main Building and Great Hall on the top of ridge at Grose Farm, that the University of Sydney was officially opened at its designated site with a five day festival of music. ¹⁶

The Development of the University of Sydney

Topography and geology

The University grounds are on an arm of a broad ridge system which forms the watershed between Port Jackson and Botany Bay. The ridge tops of these grounds, capped with Wianamatta shales, underlain by Hawkesbury sandstone, where once cloaked by a turpentine-ironbark forest. (Fig 2.8). These broad ridge tops are capped with Wianamatta shales, underlain by Hawkesbury sandstone.

The upper catchments of several creeks running into Port Jackson have their headwaters within the University grounds. Blackwattle Creek, which runs into Blackwattle Bay, began in a swampy area where Darlington School now stands, and another tributary began in Victoria Park. Both ran north-east through Glebe, Chippendale and Ultimo. In the western catchment of the University grounds were the upper reaches of Orphan School Creek which had tributaries starting near St Andrew's and St John's Colleges, which ran north then west into Johnstons Creek (Fig 2.8).

The Camperdown and Darlington campuses of The University of Sydney were originally occupied by Aboriginal people of the Cadigal and/or Wannigal clans. The freshwater sources and swamps within or in close proximity to the University grounds, west and east of the Petersham Ridge, may have attracted occasional Aboriginal occupation. However, there are no sandstone outcrops (commonly utilised by Aborigines in the region) on the campus, no source of stone for tool manufacture have been found, and no Aboriginal sites have yet been located within the area of the grounds.

Colonial Period 1788 - 1850

University of Sydney Grounds Conservation Management Plan

¹² *Ibid*.; p. 10

¹³ Horne, J and Sherington, G, 2012; *op cit.* p.7

¹⁴ Howell, T, 2007; op. cit.; p. 12

¹⁵ Horne, J and Sherington, G, 2012; op. cit.; p.1

¹⁶ *Ibid*.; p.2

About eighteen months after colonisation of Sydney by Europeans in 1788, part of the 'Kanguroo Ground' near the present-day junction of Parramatta and City Roads was set aside as reserves for Crown, church and school purposes by Governor Phillip (Fig 2.1). Aboriginal people were thus alienated from the lands within and around the University grounds very early in the history of British colonisation. In 1792, Lieutenant-Governor Grose was granted a lease of 30 acres out of the 400 acre Crown reserve on which to build a house, though he later changed the purpose of the lease to farming. Subsequently, leases were granted within and surrounding the reserve to several other officers for cultivation (Campbell 1925:119, 1930:274-276). Grose sold his lease to another officer when he left the colony at the end of 1794, but the area that is now the University grounds became known as Grose Farm and is marked as such on maps until the 1850s.



Figure 2.1: Explored Country Map of 1791 (Walker, J. sculpt., 1793, 'A Map of the hitherto explored country contiguous to Port Jackson: lain down from actual survey', http://trove.nla.gov.au/work/11818861)

In 1801 land within the school and Crown reserves was granted to the Female Orphan Institution, who set up a farm on what became known as Orphan School Creek. Over the next thirty years the land was further subdivided, and a convict stockade was established on Orphan School Creek, possibly on the site of the Orphan School farm. This stockade, presumably for the development of Parramatta Road, was located at what is now the north west corner of the University grounds, and north east corner of St John's College grounds, near Parramatta Road.

The University of Sydney

The University of Sydney was founded in 1850, in a period characterised by increasing concern among the newly emerged middle classes for an education system which prepared the 'higher grades' of society for leadership and the professions. It began its teaching in 1852 utilising the premises of the former Sydney College, before obtaining a grant at Grose Farm, then used as grazing land for cattle destined for the Sydney meat market (Fig 2.2).

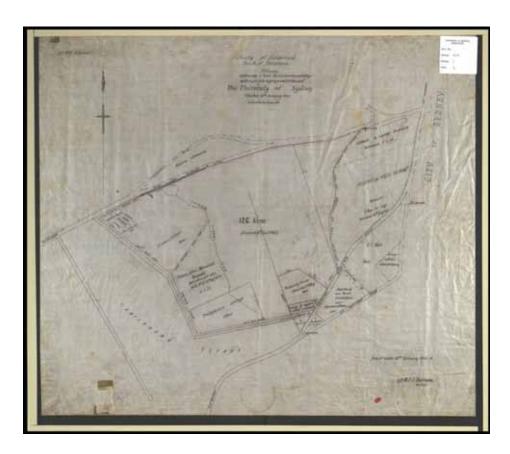


Figure 2.2: Plan of land grants and University, 1855 (Source: University of Sydney Archives G74/1/1)

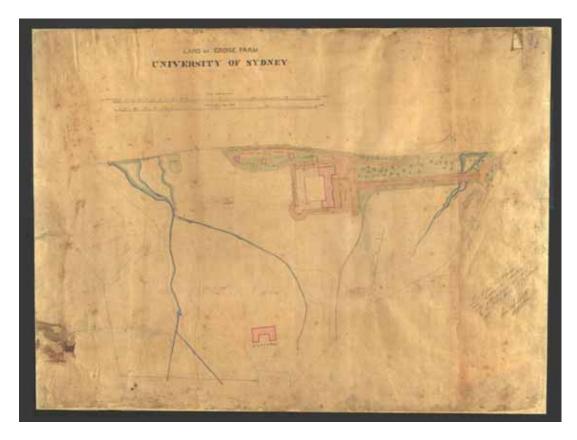


Figure 2.3: Drawing by unknown showing buildings 1857 (Source: University of Sydney Archives, G74/1/)

The first University buildings (the Main Buildings) formed the basis of what is now The Quadrangle, designed and built by Edmund Blacket between 1855 and 1862, and reflected the philosophy and aspirations of the newly established institution. It set a style which would inform the physical development of the University. This grand Gothic Revival architecture and their positioning on a ridge commanding a view over Sydney, with an impressive entrance drive, suggests the founders' desire to emulate the great ancient universities of Oxford and Cambridge. These collegiate influences were present, but so were those of the Scottish universities, and of the University of London, all of which displayed the new colony's commitment to the ideals of higher learning. This philosophy was echoed in a curriculum focussing on classical education, rather than tuition in the professions of Medicine or Law. The structure of the University as a non-denominational, non-residential institution with provision for residential colleges to be located on the ridges, viewed across the valley from the Main Buildings by the four religious denominations represented a uniquely Australian approach to the institution's design (Fig 2.2 and 2.3).

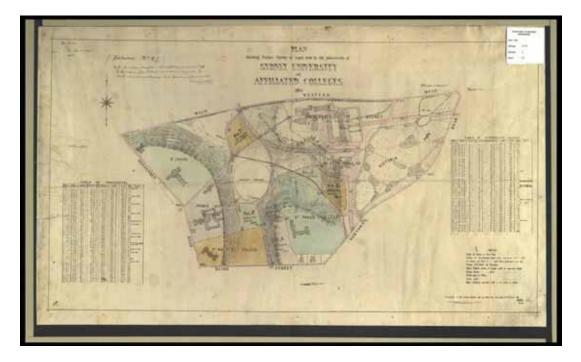


Figure 2.4: Survey of campus buildings and landscape 1885 (Source: University of Sydney Archives G74/1/10)

Victoria Park

In the 1880s the first plantings commenced in Victoria Park attributed to Charles Moore, first director of the Botanic Gardens, and extended onto the grounds of the University along the eastern boundary (Figure 2.4).

Science Road

Towards the end of the nineteenth century the University faced pressure to make its curriculum more relevant to the needs of an increasingly industrialised society. The development of the sciences led to the erection of functional, purpose-built facilities, hidden

behind the Main Buildings, influenced by the Colonial Architect, James Barnet, so as not to impinge on the impressive view from the east. The buildings erected in this period were built as temporary structures, their alignment parallel to Parramatta Road formed the heart of the fine grain of the University and what became Science Road, a major scientific precinct (Fig 2.5 and Fig 2.6).

The Challis Bequest, received by the University in 1890, facilitated much physical and academic development. A significant new work was the establishment of a medical school (Anderson Stuart building) also designed by Barnet, associated with a teaching hospital built within the University grounds (Royal Prince Alfred Hospital). The school's design, workmanship and siting in harmony with the Main Buildings represented the prestigious and dominant role of Medicine within the University and in society generally.

The early years of the twentieth century saw the continued growth of professional education, particularly in the fields of agriculture, veterinary science, engineering and commerce in response to the great pastoral and commercial expansion that had occurred in preceding decades. In turn, the experience of the 1890s depression brought on by drought highlighted the need for expertise in land management and pastoralism, on which the Australian economy very much depended. In this period, facilities were constructed for Veterinary Science, Agriculture, Engineering, Geology and Applied Science.

Sport Fields

In the late nineteenth and early twentieth century sporting and leisure facilities for the growing student population began to develop. A major influence on the nature of that development was the admission of women to the University which had been sanctioned in 1881. The need for segregated common rooms and separate spaces for sporting activities reflected the social mores of the times and impacted upon the development of the Union Building, Manning House, women's tennis courts and the Hockey Square.

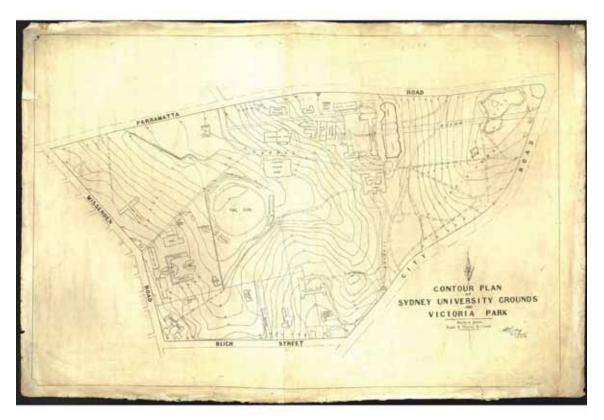


Figure 2.5 Natural landscape features topographic plan based on 1914 Contours Plan, Sydney University grounds and Victoria Park.

(Source: Sydney University Archives: 1914 Contours Plan, Sydney University grounds and Victoria Park, Archives identifier G74/1/21 ID 65082)

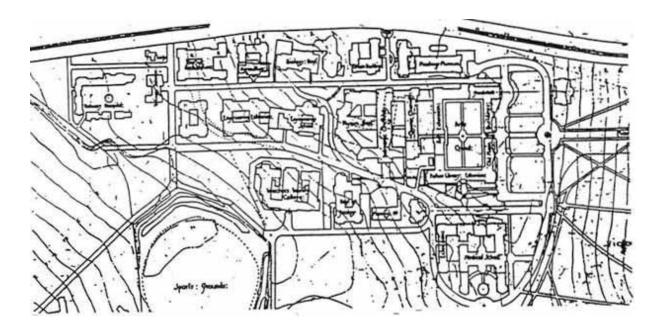


Figure 2.6: Plan by Government Architect in 1917 for extension to Quadrangle. Science Road appears on plan for first time extended to JD Stewart. (Source: Quadrangle CMP 2008)

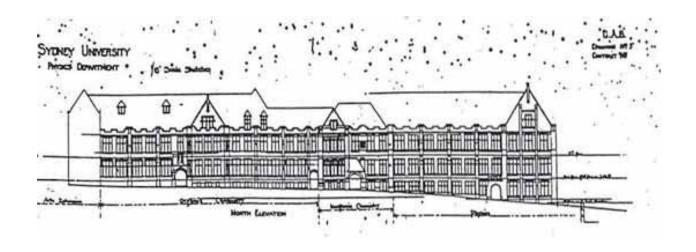


Figure 2.7: Science Road elevation by the Government Architect in 1917 of proposed extension to the Quadrangle showing the continuation of the gothic revival architectural style. (Source: Quadrangle CMP 2008)



Figure 2.8: Leslie Wilkinson: 1919 - Plan of the site with University buildings and landscaping as it existed. This drawing accompanied the Masterplan (Figure 2.12) (Source: University of Sydney Archives)

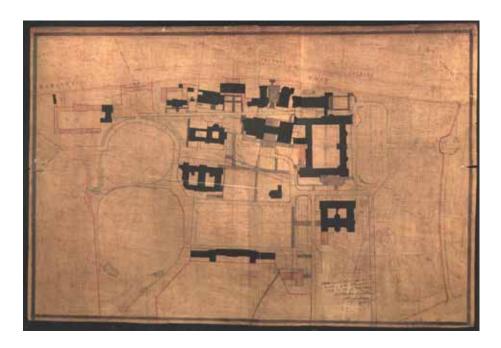


Figure 2.9: 1927: Plan signed by Registrar, 1927, showing for the first time Oval No. 2 and the proposed boundary change for the Victoria Park land swap. (Source: University of Sydney Archives)

The University's architecture in the period from 1900 to World War I was associated with the work of Government Architect Walter Liberty Vernon, and his successor, George McRae. Attempts were made to bring harmony to the campus by continuing the style of the Main Buildings in that area and, in the case of the Fisher Library (now McLaurin Hall), to advance the public's appreciation of art. In the Science Road precinct, the Federation Arts and Crafts style, of which Vernon was a master, was utilised in an effort to provide a sense of order and harmony among the newly constructed buildings, in contrast to the earlier science facilities which had no architectural pretensions.

In 1915 and 1917 respectively Walter Burley Griffin and the Government Architects Office prepared masterplans for the campus which for included elements of landscape design and town planning. Science Road was defined as straight road descending from the Great Hall to the JD Stewart Building (Fig 2.11 and Fig 2.6).

In the period following World War I further attempts were made to bring a sense of unity, order and beauty to the campus through the work of Professor of Architecture and University Architect, Leslie Wilkinson (Fig 2.8).

Wilkinson was perhaps the most influential architect in shaping the physical development of the University from the 1920s onwards. His plans involved the creation of vistas by carefully placed axes, open and closed courtyards and the creation of a harmonious architectural style, with a predominantly Mediterranean influence, which Wilkinson believed to be more suitable to the Australian environment than the earlier Gothic styles. Wilkinson's work included the bringing together of previously disparate styles of architecture, particularly in The Quadrangle-eastern Science Road area; the re-alignment of buildings in Science Road and their treatment in the Mediterranean style; the re-use of historic materials such as the CBC Bank facade and Doric columns; the creation of the Vice-Chancellor's Quadrangle and extension of the Union Building (Fig 2.12). Wilkinson also designed completely new buildings such as those for Physics and Tropical Medicine in a distinctive style and built in previously undeveloped parts of the campus. Integral to his plans was the maintenance of

vistas from various parts of the campus, such as from St Paul's College across the Hockey Square to the Union Refectory; St Paul's College and The Quadrangle; and views down Science Road. Professor E.G. Waterhouse designed the plantings down Science Road, the Pleasaunce and Vice-Chancellors Courtyard. Many of the trees on Science Road are the mature plantings by Waterhouse.

From the late 1920s the University became involved in collaborative arrangements with various Commonwealth Government agencies, whereby facilities were established for research on matters of national importance. The School of Public Health and Tropical Medicine, the McMaster Laboratory and the Madsen Building are examples of such facilities. The first involved the Department of Health, while the other two buildings were established in collaboration with the Council for Scientific and Industrial Research for animal health research and a National Standards Laboratory respectively. The approach of World War II intensified the Commonwealth's interest in scientific and industrial research led to the development of aeronautical engineering at the University, which was of a direct relevance to the defence industry.

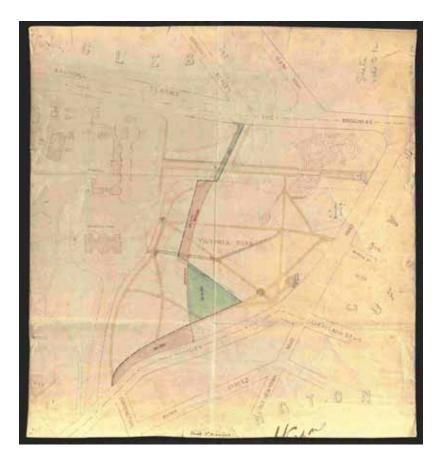


Figure 2.10: c.1930: Plan showing land swap between University and Victoria Park. (Source: University of Sydney Archives G74/1/37)

World War II had an enormous impact on the University. The immediate post-war period saw the construction of several hastily built 'transient' buildings to cope with the influx of exservice personnel under the Commonwealth Reconstruction Training Scheme. The post-war years marked the beginning of a new phase of expansion in student numbers, curriculum and facilities. The increased involvement of the Federal Government in funding universities paved the way for a massive building program and in the late 1950s the University extended its

campus across City Road into Darlington. Darlington was a fully developed suburb, almost all of which was gradually acquired by the University. The only sections of the original suburb not taken up for University use were a small portion bounded by Cleveland, Shepherd and Boundary Streets, and two half-blocks either side of Golden Grove Street. (Darlington had its own development pattern, much of which was retained as University buildings, and open space replaced suburban residential, public and industrial buildings). The majority of university buildings in this area represented a departure from previous construction in that for the first time the University built a large purpose-designed complex using state-of-the-art architecture. (The campus underwent considerable reorganisation into precincts and with the building of the new Fisher Library at one end of Eastern Avenue and the creation of the footbridge across City Road, (linking the campus), Eastern Avenue became a major thoroughfare.) This represented a reorientation of the hub of the campus away from Science Road towards Eastern Avenue and Darlington.

The mid-to-late 1980s to the present have represented a period of reduced Government funding and major structural reorganisation of the tertiary education system. With amalgamations of the Universities and former Colleges of Advanced Education, The University of Sydney acquired several other campuses, necessitating the management and maintenance of a much enlarged physical resource. On the main University campus for some years physical development was concentrated on the modification of buildings for different purposes, reflecting the increasingly diverse curriculum.

With tertiary education now a far more common prerequisite for many fields of employment than it was in the pre-war era, the student population is likely to continue to grow. The constantly changing international environment, global economy and the current emphasis on the development of new technologies is likely to result in further major physical and organisational changes at The University of Sydney.

In 2003 the University commenced the Campus 2010 development which included the SIT Building, Jane Foss Russell Building, Law Building and landscaping in Darlington and Eastern Avenue.

Chronology of the Physical Development of the Camperdown Campus

The following is a chronology of the physical development of the Camperdown Campus of the University of Sydney, drawn from the full history of the place (refer to Appendix 2).

Table 2. 1: Chronology of the Physical Development of the Camperdown Campus

Date	Camperdown Campus: Event
1789	Part of what was known as the 'Kanguroo Ground' near the present-day junction of Parramatta and City Roads was set aside as reserves for Crown, church and school purposes and used for pasturage of stock Fig. 2.1). The arrangement was formalised when in August 1789 one thousand acres (404.69 hectares) was divided as follows: 400 acres (161.87 hectares) on the north fronting the harbour was designated as church or glebe land; 200 acres (80.93 hectares) on the south for the maintenance of a schoolmaster; and 400 acres (161.87 hectares) between, for the Crown. ¹⁷
	The site on which the first campus of the University of Sydney was developed formed part of the 400 acre (161.87 hectares) Crown Reserve, while what later became the Darlington area was situated within the 200 acres (80.93 hectares) of School Reserve.
1792	Lieutenant-Governor Grose was granted a lease of 30 acres(12.14 hectares) out of the 400 acre (161.87 hectares) Crown reserve on which to build a house, though he later changed the purpose of the lease to farming. Grose sold his lease to another officer when he left the colony at the end of 1794, but the area that is now the University grounds became known as Grose Farm and is marked as such on maps until the mid-1800s.
1794	Captain James Foveaux was granted 30 acres (12.14 hectares) adjoining Grose Farm on the south. Nearly four years later another lease of 28 acres (11.33 hectares) was granted to Quartermaster Thomas Laycock, adjoining Grose Farm on the east. 18
1801	Land within the School and Crown reserves was granted to the Female Orphan Institution , who set up a farm on what became known as Orphan School Creek. Over the next thirty years the land was further subdivided, and a convict stockade was established on Orphan School Creek, possibly on the site of the Orphan School farm. This stockade, presumably for the development of Parramatta Road, was located at what is now the north west corner of the University grounds, and north east corner of St John's College grounds, near Parramatta Road.
1850s	Some small grants were dedicated to the Church of England and Roman Catholic Church for purposes of schools, parsonage and presbytery, however no building took place and the area remained very much a wasteland, used for grazing.
1850	The University of Sydney was founded. It began teaching in 1852 utilising the premises of the former Sydney College (now Sydney Grammar School), before

¹⁷J.F. Campbell, "The Early History of the Sydney University Grounds," *Royal Australian Historical Society Journal and Proceedings*, Vol. 16, Part IV, 1930, 274-292, pp.274-276, 282.

¹⁸Campbell, *op. cit.*, pp.277-278.

Date	Camperdown Campus: Event
	obtaining a grant at Grose Farm, then used as grazing land for cattle destined for the Sydney meat market.
1853	A Building Fund had been established in 1853, providing for £50,000, originally to be paid in instalments of £5,000 to £10,000 per annum. While it was always intended to build on a grand scale, it was recommended that initial construction be limit to buildings that were essential for the working of the University - a library, lecture rooms, a laboratory, apartments for an office and residence for the Registrar and a room for meetings of the Senate. The "Elizabethan" style of architecture was recommended as it could be extended without damaging the appearance of the whole.
1853 cont.	The committee also recommended that Mr Edmund Blacket , Colonial Architect, 'whose great ability and taste in Medieval Architecture is widely known' should be commissioned as Architect for the University. ¹⁹
1855- 1862	The first University buildings (the Main Buildings) formed the basis of what is now The Quadrangle , designed by Edmund Blacket, and reflected the philosophy and aspirations of the newly established institution. It set a style which would inform the physical development of parts of the University over a long period (Fig 2.2 and 2.3).
	Several minor outbuildings were also built around the main buildings. These included stone-built privies and temporary structures such as stables and huts with paling and rail fences to keep out livestock which grazed in the grounds. ²⁰
1863	Football Club formed.
1865	Cricket Club formed.
1870	The Institute Building was built on five acres of land granted on the Newtown Road in 1870 to the NSW Institution for the Deaf, Dumb and Blind . After a limited architectural competition, Benjamin Backhouse was appointed architect for the first stage of construction to accommodate 70 children. The grounds of the Institute encompassed most of the triangular block fronting City Road and were originally bounded by a picket fence and later permanent fencing was erected. The stone piers of the fence feature the signature motif of architect Benjamin Backhouse and some of the fencing survives as an important indication of the original boundary. ²¹
1881	University's Senate resolved to "admit women to all University privileges, and to place them in all respects as regards University matters on an equal footing with men".
1881 cont.	The University was among the earliest in the world to do so, and many decades before either the University of Oxford or the University of Cambridge. ²²
1882	Isola Florence Thompson and Mary Elizabeth Brown were the first two women to enrol at the University in 1882, graduating in 1885 each with a Bachelor of Arts degree.
Mid 1880s to	Towards the end of the nineteenth century the University faced pressure to make its curriculum more relevant to the needs of an increasingly industrialised

¹⁹Turney, Bygott, Chippendale, *op. cit.*, pp.98-99.
²⁰Phillips, Thorp, *op. cit.*, p.7; McKenzie, *op. cit.*, p.18.
²¹*Ibid.*²² The University of Sydney website < http://sydney.edu.au/about/profile/history/origins.shtml>, downloaded, September 2013

Date	Camperdown Campus: Event
1894	society. A number of new 'temporary' purpose-built facilities for professional subjects were out of sight of the main building. As they were strictly functional and made no pretensions to contribute to the University's architecture, they were 'hidden' so as not to disfigure the grand buildings of the main complex. The buildings constructed in this period formed the genesis of what was to become Science Road , lined with science facilities. ²³
1884 - 1885	In the 1880s many new sporting clubs were founded, including the Boat Club in 1884 and the Athletic Club in 1885. The most successful of the new clubs was the Tennis Club, also founded in 1885. The club was allocated four grass courts where The Quadrangle was situated, close to the Men's and Ladies' common rooms, allowing the men to watch the women playing and make disparaging comments on their game.
1887	A separate Ladies' Tennis Club was formed, the first women's sporting club at the University. ²⁴
1890	The Challis Bequest enabled an expansion of the University in new disciplines and in new buildings.
1891	Decision made to extend west to Ross Street.
1900	University Act 1900 enacted.
Early 1900s	The experience of the 1890s depression brought on by drought highlighted the need for expertise in land management and pastoralism, upon which the Australian economy very much depended. In this period, facilities were constructed for Veterinary Science , Agriculture , Engineering , Geology and Applied Science .
1901- 1910	Between 1901 and 1910 the Government Architect's office under Walter Liberty Vernon , developed a plan for the University which involved expansion to the west of the main buildings. Part of the plan included the demolition of the temporary science facilities that had been constructed in the 1880s and 1890s in an attempt to bring that part of the campus extending along Science Road into harmony with the general design of the main complex.
	Science Road was created when the paths around the 'temporary' science buildings built between 1899 and 1916 were replaced by a straight line of road running from the Macleay Museum to a proposed entrance opposite Ross Street. Newer buildings were aligned to this frontage. ²⁵
	Vernon made the first attempt to tidy up the campus through the planning of individual buildings and by the establishment of a new east west axis along which the science faculties were consolidated. (The direct results of Vernon's work were limited.)
1908	Women's Hockey Club formed.
1910	Parramatta Road widened and Women's Sports Association founded with tennis courts and club located east of the Main Quadrangle Building.
1916	Senate approves use of area of land that is become the Hockey Square for women's use.

²³Annable, Cable, *op. cit.*, Table of themes 1880-1910; Turney, Bygott, Chippendale, *op. cit.*, pp.257-265, 267-268, DPWS, *op. cit.*, Item 4726015.

²⁴Turney, Bygott, Chippendale, *op. cit.*, p.312; Lilienthal, *op. cit.*, pp.3-7.

²⁵DPWS, *op. cit.*, Items 4726014 & 4726018.

Date	Camperdown Campus: Event
1913- 1917	George McRae, successor to Government Architect Walter Liberty Vernon, laid out the first plan for the whole University site in 1913, in which he proposed new buildings in conjunction with a full layout of the grounds. His plan included demolition of James Barnet's Physics and Chemistry buildings, which were to be replaced with an impressive range of Gothic style buildings, and the straightening of Science Road. The plan also included the completion of the Main Quadrangle Building, and an arch structure over Science Road to link the Macleay Building with the Main Quadrangle Building.
	The plan ²⁶ was a building master plan that failed to deal with landscaping issues. It nevertheless remained in use until 1917 when it was re-drawn to include completed works and refinements in planning details.
1915	By 1915 the University administrators sensed the need for an over-arching landscape plan and they engaged Walter Burley Griffin to prepare such a plan for the whole campus. Although Griffin's plan was not adopted, its principals were acknowledged by the University and followed quite closely by University Architect Leslie Wilkinson.
1919- 1920	In 1919 it had been agreed by the University Building and Grounds Committee that Professor of Architecture and University Architect, Leslie Wilkinson with Assistant Professor Madsen of the School of Engineering and A.D. Craig , Lecturer in Surveying, should advise on the general layout of the University grounds.
	Their report was presented to the Senate in 1920 and some of the recommendations included: keeping roads narrow like park drives, planting trees, placing wires underground, providing fences and keeping out grazing animals. It also reviewed the accommodation needs of all departments and located spaces for them.
	Their plans involved the creation of vistas by carefully placed axes, open and closed courtyards and the creation of a harmonious architectural style, with a predominantly Mediterranean influence, which Wilkinson believed to be more suitable to the Australian environment than the earlier Gothic styles.
	Integral to the plan was the maintenance of vistas from various parts of the campus, such as from St Paul's College across the Hockey Square to the Union Refectory; St Paul's College to the Quadrangle; and views down Science Road.
	While some of the plan was implemented, the pressures for growth in the post- World War II period meant that much of it was never implemented. ²⁷
1924	Portion of Victoria Park exchanged for land that became Eastern Avenue .
1926	Hockey Square restricted to women's use.
Late 1920s	From the late 1920s the University became involved in collaborative arrangements with various Commonwealth Government agencies, whereby facilities were established for research on matters of national importance. The School of Public Health and Tropical Medicine , the McMaster Laboratory and the Madsen Building are examples of such facilities. The first involved the Department of Health, while the other two buildings were established in collaboration with the Council for Scientific and Industrial Research for animal

²⁶ University of Sydney Site Plan showing existing and suggested future buildings in conjunction with the lay out of the grounds. Drawn by Gorrie M. Blair and signed by George McRae, dated 3rd July 1913. ²⁷M. Dupain, P. Johnson, G. Molnar, D. Wilkinson, *Leslie Wilkinson, A Practical Idealist*, Valadon Publishing,

Sydney, 1982, pp.66-67.

Date	Camperdown Campus: Event
	health research and a National Standards Laboratory respectively.
	The approach of World War II intensified the Commonwealth's interest in scientific and industrial research which led to the development of aeronautical engineering at the University, and was of direct relevance to the defence industry.
Late 1940s	World War II had an enormous impact on the University. The immediate postwar period saw the construction of several hastily built 'transient' buildings to cope with the influx of ex-service personnel under the Commonwealth Reconstruction Training Scheme. The post-war years marked the beginning of a new phase of expansion in student numbers, curriculum and facilities.
1951	In 1951 the State Government formally adopted the County of Cumberland Plan in which areas adjacent to the University in the suburb of Darlington were designated as special Zones for University expansion.
1954	In 1954 the Vice-Chancellor's Policy and Planning Committee considered the University's land requirements up to 1964 and indicated that it would need to acquire the area south and east of City Road up to Darlington Road, including the site of the Institute for the Deaf, Dumb and Blind Children as well as an area to the north of Parramatta Road up to Catherine and Beaver Streets. The Committee suggested that the land south of Darlington Street and east to Cleveland Street should also be acquired at a later date. ²⁸
1958	The delivery of the Murray Report of 1958 which assessed the needs of all Australian universities ²⁹ heralded an era of permanent and growing involvement of the Commonwealth and the Universities Commission in university funding. The increased involvement of the Federal Government in funding universities paved the way for a massive building program and in the late 1950s the University extended its campus across City Road into Darlington . Darlington had its own development pattern, much of which was retained as University buildings, and open space replaced suburban residential, public and industrial buildings.
	The majority of university buildings in this area represented a departure from previous construction in that for the first time the University built a large purpose-designed complex using state-of-the-art architecture.
1958	The road which came to be known as Eastern Avenue ran beside an extensive vacant area bordering on Victoria Park and ending at the City Road gates. In 1958 it was decided that this area would be used for the construction of buildings for first-year Science courses, Geology and Geophysics and for a new library block. ³⁰
1958	Between 1950 and 1990 the Chemistry School became one of the most distinguished centres of research and teaching in the University. ³¹ In 1958 a large new Chemistry School in modern architectural style was completed to the south of the Old Medical School.
1958	An area of some 70 acres, including a large part of Darlington , was set aside under the Cumberland County Council Plan for 'Special Uses - Educational and Medical,' to ensure that land was available for any necessary expansion of the

²⁸Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.76-77.
²⁹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.57; Annable, Cable, *op. cit.*, para.5.9.
³⁰Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.77-78.
³¹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp. 254, 255-256.

Date	Camperdown Campus: Event
	University.
1959	The first building in the University extension area in Darlington was completed for Architecture and this became the first faculty to relocate to the opposite side of City Road in 1960. The eastern section of the Darlington area, towards Cleveland Street, was designated for development as a large Engineering precinct.
1960	In 1960 the special uses area was reduced to 35 acres, later called the University Extension Area , after opposition to the extensive purchasing program from local land owners and tenants.
1963	A building for Civil and Mining Engineering was established followed by Chemical Engineering in 1964; Mechanical and Aeronautical Engineering and Electrical Engineering in 1965 and the new Peter Nichol Russell Building in 1966. By 1975 the entire Engineering faculty had been relocated to new premises in Darlington. ³²
1961- 1965	In the early 1960s other science facilities were completed on the east side of Eastern Avenue including the Edgeworth David Building for Geology and Geophysics, completed in 1961. The Carslaw Building for first-year Science and Mathematics was begun in 1960 and completed in 1965, occupying the southern end of Eastern Avenue. The Stephen Roberts Theatre partly filled the space between the other two buildings by 1962. 33
1961-65 cont.	The construction of the new Fisher Library in 1961-1962 completed the Eastern Avenue precinct. Fisher was a building of striking and innovative design for which its architects were awarded the Sulman Medal and the 1962 Royal Institute of British Architects Bronze Medal. ³⁴
1962- 1965	The University acquired the buildings of the Royal NSW Institute for Deaf and Blind Children , which dated from 1870, following its removal to new premises in 1962. The main building (H03) was remodelled to provide accommodation for some Faculty of Arts departments, the student medical service and later, the Department of Geography. Other University buildings were built within the original curtilage of the Institute; these include: the University Regiment Building (H01) in 1964 and the Merewether Building (H04) in 1965, which housed the Faculty of Economics. ³⁵
1968	In 1968 the area up to Golden Grove Street was restored to the University Extension Area , and another 9 acres were added. By this time, the University had acquired about ten per cent of the area bounded by Darlington Road, Golden Grove, Abercrombie and Codrington Streets. ³⁶
Mid 1970s	By the mid-1970s, as many departments and facilities had relocated to the southeast of the old campus or across City Road, Eastern Avenue became the University's main thoroughfare rather than Science Road. The south end of Eastern Avenue was re-aligned during 1974. ³⁷

³²Connell, Sherrington, Fletcher, Turney & Bygott, op. cit., p.79; Annable, Cable, op. cit., Table of themes 1940-

³³Connell, Sherrington, Fletcher, Turney & Bygott, op. cit., p.78; Annable, Cable, op. cit., Table of themes 1960-

<sup>1990.

34</sup>Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.78; "Fisher Library Sydney University," *Architecture*

³⁵Connell, Sherrington, Fletcher, Turney & Bygott, op. cit., pp.78-79; DPWS, op. cit., Item 4726012.

³⁶Casey and Lowe, *op. cit.*, pp.10-11.
³⁷Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.78, 80; Annable, Cable, *op. cit.*, Table of themes 1960-1990.

Date	Camperdown Campus: Event	
1970	Men's and Women's Unions amalgamate	
1975- 1978	The Old Darlington School was transferred to the University. In 1976 several outbuildings were demolished and the site cleared in preparation for the construction of a new building for Biological Sciences, which was to relocate from Science Road. Protests from locals and some within the University ensured that the original school building was preserved. The building was renovated for use by the Department of Music and as a theatre workshop in 1978. ³⁸	
1980s	University resources were spent on facilities at the newly acquired campuses, however provision also had to be made for construction on the traditional campus. Considerable reconstruction of older buildings occurred and, for the first time, an official policy of heritage maintenance was adopted. ³⁹	
c. 2009	The University completed the Campus 2010 project , transforming the configuration and visual aspect of the central Sydney campuses. This project included the construction of the New Law Building and Jane Foss Russell building , a new pedestrian bridge over City Road, reconfiguration and landscaping of the City Road entry and Eastern Avenue, and the reestablishment of the main axis through Victoria Park leading to the Main Quadrangle Building.	
2013- ongoing	New buildings currently underway or recently completed, include the Charles Perkins Centre for research and education hub to support academics and students from all disciplines working in obesity, diabetes and cardiovascular diseases; the Abercrombie Precinct Redevelopment providing for an amalgamation of the University's Business School, and a new building for the Australian Institute of Nanoscience.	

Chronology of the Physical Development of the Darlington Campus

The following is a chronology of the physical development of the Darlington Campus of the University of Sydney, drawn from the full history of the place (refer to Appendix 2).

Table 2. 2: Chronology of the physical development of the Darlington Campus

Date	Darlington Campus: Event
1820s	During Governor Macquarie's administration, when land in the <i>Grose Farm</i> area was fenced for pastoral purposes the land to the south-east of Newtown Road was granted to various individuals.
	William Hutchinson received 52 acres, known as 'Golden Grove'. The Golden Grove Estate was also known as the 'Bullock Paddock' as it was used to pasture cows destined for the Sydney meat market. Thomas Shepherd, a botanist, received 28 ½ acres and Robert Cooper, 17 ½ acres on which he established a brewery. The remainder of the area was included in William Chippendale's grant. 40
1827	Shepherd establish a garden and nursery business at Darlington and named his

³⁸Sutherland, *op. cit.*, pp.11-12; DPWS, *op. cit.*, Item 4726033.

³⁹Annable, Cable, *op. cit.*, para. 6.15.

⁴⁰Casey & Lowe Associates, *Archaeological Assessment Sections of the Darlington Campus, University of Sydney*, Unpublished report for University of Sydney, n.d., p.9; Campbell, op. cit., pp. 283-284; Shirley Fitzgerald, Chippendale, Beneath the Factory Wall, Hale & Iremonger, Sydney, 1990, pp.13-16.

Date	Darlington Campus: Event
	property the Darling Nursery , presumably in honour of the then incumbent Governor Darling. The nursery became a landmark in the area and is commemorated by the streets named Shepherd, Pine, Ivy, Vine, Myrtle and Rose. It is believed that the name Darlington was derived from Shepherd's Darling Nursery. ⁴¹
1850s	The beginnings of residential development in the area and the establishment of hotels and commercial buildings.
1864	The municipality of Darlington was established, its boundaries being Blackwattle Creek, Cleveland Street and Codrington Street.
1879	'Golden Grove' Estate was subdivided into 36 sections for housing. ⁴²
1878	The school, located on half an acre next to the Town Hall on the Old Newtown Road, was opened. The school was designed by George Allen Mansfield, architect to the Council of Education.
1880s	Further school buildings and a teacher's residence were erected on land next to the original school, purchased from a Roman Catholic trust. 43
1950s	Following the adoption of the Cumberland County Planning Scheme, the State Government re-zoned part of the Darlington area as a 'special uses' or University Extension Area, enabling the University of Sydney to extend its campus across City Road into Darlington (refer to above). This expansion, which began in the late 1950s and continued throughout the next decades resulted, despite increasing community opposition and resentment, in the loss of about 650 dwellings as well as shops, factories, bank, post office, Town Hall and other amenities, which were demolished. Roads and lanes were progressively closed or removed and the population of Darlington decreased by about 2,000.

Chronology of the Development of the Landscape of the **Camperdown Campus**

The following is a chronology of the physical development of the Landscape of the Camperdown Campus of the University of Sydney, drawn from the full history of the place (refer to Appendix 2).

Table 2. 3: Chronology of the development of the Landscape of the Camperdown Campus

Date	Camperdown Campus Landscape: Event
Pre - 1788	The upper reaches of several creeks running into Port Jackson have their headwaters on the watershed ridge between Port Jackson and Botany Bay. Most of these creeks are now concrete canals or landscaped, particularly in their upper reaches, so that they are no longer recognisable as creek lines.
	Blackwattle Creek , which runs into Blackwattle Bay, began in a swampy area where Darlington School now stands. It ran north-east through what is now the

⁴¹Norman, op. cit., p.45; Ann Sutherland, Darlington Public School, 1878-1978, Darlington Public School Parents & Citizens Association, Sydney, 1978, p.7.

⁴²Sutherland, *op. cit.*, p.7; Casey and Lowe, *op. cit.*, pp.9, 11.

⁴³Sutherland, *op. cit.*, pp.8-9.

Date	Camperdown Campus Landscape: Event
	Engineering Faculty towards Victoria Park and Chippendale, where there were several other freshwater swampy areas, before it ran into the estuarine Blackwattle Swamp at its mouth.
	On the western side of the University grounds were the upper reaches of watercourses running into Johnstons Creek, in particular Orphan School Creek which started where Ovals No 1 and 2 were built. The University grounds are on a ridge top with freshwater sources and swamps present in or in close proximity to most parts of the grounds.
1819	The Female Orphan School was removed to Parramatta upon completion of its new premises and the land at Grose Farm was gradually cleared of trees and stumps.
1823	When Grose Farm reverted to the Government in 1823 an attempt was made to instruct the male orphans in cultivation of vineyards, with a view to introducing their cultivation in the colony. However, with little prospect of return this idea was abandoned and it was decided to break up the establishment and to use the greater part of the area for pastoral purposes only. ⁴⁴
	In order to secure it for the agistment of horses and cattle it was necessary to fence off the Parramatta, Newtown, St Paul's and Missenden Roads. This reduced the enclosed area to 194 acres, including Foveaux's lease. The marginal area to the south-east which later developed into the part of the suburb of Darlington was then granted to various individuals. ⁴⁵
1827	Probably in association with the convict stockade, a series of tanks had been formed by 'deepening and widening the course of a small rivulet that traverses a portion of the farm' and a reservoir was made in the lowest part where it adjoined the public road (Parramatta Road). 46
	The old fence surrounding the farm was replaced by a four-rail fence and efforts were made to make Grose Farm an example of the best methods of English modes of agriculture and husbandry through use of the best labourers and implements. ⁴⁷
Early 1830s	Extensive improvements were made to the road system by the Surveyor-General, Major Mitchell.
1850s	During the 1850s the course of Parramatta Road was altered and the cutting through which it now passes was created. The old road, now Arundel Street, once passed very close to the site on which the Botany buildings are now located. It is possible that remnants of the old road may be found beneath this area. ⁴⁸
1850s	The first plantings in the University grounds took place in the late 1850s and included Port Jackson Figs and pines in a large plantation which stretched along Parramatta Road from the site of the Old Geology building to the corner of City

⁴⁴Campbell, *op. cit.*, pp.283-285.

⁴⁵Campbell, *op. cit.*, pp.283-284.

⁴⁶John Ritchie (ed.), *The Evidence to the Bigge Reports, NSW Under Governor Macquarie, Volume 1 the Oral Evidence*, Heinemann, Melbourne, 1971, pp.31-32; Campbell, *op. cit.*, pp.282, 283; Tunnicliffe, *op. cit.*, pp.262, 264; SR: Surveyor's Sketchbooks, Vol. I, Folio 7, Sketch by Surveyor P. Elliott, "Grose Farm" 10 December 1827.

⁴⁷Campbell, *op. cit.*, p.282.

⁴⁸Campbell, *op. cit.*, pp.286, 291;, SR: Surveyor's Sketchbooks, Vol. I, Folio 7, Sketch by Surveyor P. Elliott, "Grose Farm" 10 December 1827; David Curtis, "The University of Sydney Grounds & Gardens >From Bushland to the Present Day," unpublished manuscript, 1981, (SUA: R.387), p.17. Curtis cites Sam McKay, an ex-collector of the Botany Department as his informant re the possibility of finding remains of the old Parramatta Road under the Botany precinct.

Date	Camperdown Campus Landscape: Event
	Road. Young trees for this plantation and the avenue of trees lining the main drive were raised in a nursery on the site of the present Veterinary precinct. ⁴⁹
1859- 1870	The main entrance to the University was intended to create an impression of grandeur. It was planned that an imposing carriageway and walkway shaded by a double avenue of trees on each side would lead up from a main gateway on the Newtown Road (City Road) directly to the clock tower. In April 1859 land from the recreation reserve adjoining the University was requested for this purpose, it was not formally dedicated until 1863 and the planting of trees did not occur until 1870. ⁵⁰
1863	Tradition has it that the first University sporting club formed was the football club dating from 1863. A cricket club was founded 1865 and in 1866 the Senate resolved that part of the University grounds be reserved temporarily as a cricket ground. The area chosen (now No. 1 Oval) was in a low lying part of the grounds between Orphan School Creek and the water course which fed into it on the east side and which formed the northern boundary of the grounds of St Paul's College. ⁵¹
1884- 1890	A cricket ground (now Oval No. 1), originally set aside in 1866, was properly formed during improvements to the University grounds carried out as part of unemployment relief works at the instigation of Chancellor, Sir William Manning. With a team of about 60 men under the supervision of the Yeoman Bedell the ground was levelled, cut back, sloped banks built, drained and turfed. ⁵² In 1886 new north-to-south turf wickets were laid. ⁵³
1886	The Senate constructed for the Football Club a level ground for a playing field close to the colleges midway between the Prince Alfred Hospital and the new Medical School, as it was impressed with the success of the clubs. A map of the University (c. 1890s) shows the Football Ground located in approximately the same area that became the Hockey Square in later years. ⁵⁴
1880s	The University grounds remained very rough. In the gully behind the University a creek ran through paddocks from below St Paul's College to Parramatta Road, in some places forty feet wide and eight feet deep. The greater part of the land between the University and the colleges had been let to a dairy proprietor for grazing purposes. Some students surmised that the grounds leased for grazing must have included the football field since 'the lowing herd preferred this sequestered spot to any other in their wide domain.'55
1883- 1885	Improvements were made to the main approaches to the University in the 1880s with the construction of lodges and gates . Between 1883 and 1885 two lodges, for the gardener and messenger, were built. They flanked the grand drive from Newtown Road which had been planted with fig trees and aligned on the central archway of the main building. However, the road leading from the entrance was rugged and strewn with loose stones and pebbles. This track led past the partially completed front lawn to the portico of the centre tower.
1890s	Other works were carried out in the grounds during the 1890s as part of the

⁴⁹Curtis, *op. cit.*, p.26.
⁵⁰Turney, Bygott, Chippendale, *op. cit.*, p.102; McKenzie, *op. cit.*, pp.88-90; Annable, Cable, *op. cit.*, Table of themes 1850-1880; DPWS, *op. cit.*, Item 4726009.
⁵¹Annable, Cable, *op. cit.*, para. 2.8.6; Turney, Bygott, Chippendale, *op. cit.*, pp.137, 166; DPWS, *op. cit.*, Item

<sup>4726008.

52</sup>DPWS, *op. cit.*, Item 4726008.

53Turney, Bygott, Chippendale, *op. cit.*, p.312.

54SUA: Plan 413/165/003, Group G.074, Series 1, Folder 1.

⁵⁵Turney, Bygott, Chippendale, *op. cit.*, p.175.

Date	Camperdown Campus Landscape: Event
	unemployment relief scheme, involving at least 150 men:
	The plantation to Derwent Street was widened and more shrubs planted.
	On each side of the main entrance avenue fig trees were cut down; later, the pines were removed and replaced with Port Jackson Figs.
	Beside the main road trenches were dug for drainage and borders were planted with shrubs from the Royal Botanic Gardens and Chancellor Manning's own garden.
	Paling fences were replaced with iron fences.
	• The pond at the bottom of Victoria Park that had once been a stock watering hole, was turned into a large ornamental lake by deepening and raising the water level.
	A bridge across the lake carried the entrance drive up to the main buildings.
	 Moreton Bay and Port Jackson Fig trees were planted to line the lake and Parramatta Road.⁵⁶
1916- 1921	The Senate granted the SUWSA's application, allowing 'use of the sparse and lumpy piece of ground known as the Square , which lay between the Oval and Manning House.'57
	Progress in developing the ground was delayed by the First World War. After WWI the SUWSA grounds committee organised the work to transform the area into a hockey square, including fencing, building, levelling, draining and top dressing.
	By 1921 the Hockey Square was ready for use, available at all times to the women's sports clubs, it was also hired out on Saturday afternoons to provide a further source of income to the Association. In the long vacation of 1922 a dressing shed was erected at the end of the Square nearest the Medical School to provide facilities for meetings, dressing and showering. ⁵⁸
1926	As well as designing buildings, Wilkinson also played a major role in shaping the grounds of the University. His concept of small scale areas of visual interest or 'courts' is exemplified by the Vice-Chancellor's Quadrangle , plans for which were approved in 1926. Its paths of re-used stone, probably from Darlinghurst Gaol, were laid in 1927.
	At the request of Vice-Chancellor, Sir Mungo MacCallum, a garden was designed by Professor Eben Gowrie Waterhouse , a staff member, linguist and camellia expert who made substantial contributions to the improvement of the campus. The garden included azaleas, fuchsias in black and white tubs, camellias, hydrangeas, oleanders and Christmas bush. ⁵⁹
1924	Within the Union Building complex a courtyard was formed by extensions made during the 1920s and the area was known as the Union Pleasaunce . From 1924 until 1952 the gardens in the Pleasaunce were extensively cultivated and well maintained under the supervision of Professor E. G. Waterhouse . Over the years, however, the pressure of growing student numbers meant that the Union's building

⁵⁶Curtis, *op. cit.*, p.34. ⁵⁷Lilienthal, *op. cit.*, pp.21-22. ⁵⁸Lilienthal, *op. cit.*, p.22. ⁵⁹DPWS, *op. cit.*, Item 4726049.

Date	Camperdown Campus Landscape: Event
	began to encroach more and more on the Pleasaunce until little of the original remained. ⁶⁰
1924	The University exchanged 7 3/4 acres of lake and main drive with the Municipal Council of Sydney for 9 acres of Victoria Park in the Eastern Avenue area as this provided more suitable land for building extensions. A condition of the exchange was that the lake remain as an ornamental feature and that the land exchanged be used by the Council for park purposes. When the Council decided to fill the lake and chop down the Moreton Bay figs lining Parramatta Road a public outcry forced it to change its plans, however many of the trees were lopped. 61
1925- 1926	The main responsibility for the alignment of roads and planting of shrubs rested with Professors Madsen and Waterhouse . The plantings that occurred during the 1920s represented the first attempts at beautifying areas of the campus other than the main approaches.
	Waterhouse was responsible for many of the plantings in front of the main building and down Science Road including camellias, azaleas and Japanese Maples. He also planted white cedars, poplars, oaks and jacarandas, including the one in the Main Quadrangle Building; much of the work being prompted by the proposed visit of the Duke of York in 1927. Funds were provided for the improvement of paths and unemployment relief was used for works in the Main Quadrangle Building. ⁶²
1931- 1932	The Women's Sports Association's basketball courts on the eastern end of the Square had to be demolished to make way for eight lawn tennis courts for the Men's Sports Union. In return, the old Hockey House was relocated to the northern bank of the Square. In October 1931 building began on a new clubhouse for the association at the western end of the Square, the site of the current Arena Sports Centre.
	The Women's Sports Pavilion was officially opened in May 1932 and this new facility created a 'home' for the association for many years. At this time the No. 2 Oval was built to the north-east of the existing oval. ⁶³
	Soil relocated from the building site of the new sports pavilion was used to elevate the eastern and southern banks of the Hockey Square to improve drainage and the entire Square was top-dressed at the same time.
1939- 1940	A new entrance gate and two-storey lodge, designed by Leslie Wilkinson, were built on Parramatta Road to create a new formal entrance to the University. The new lodge is thought to have been constructed using some of the stone from the messenger's lodge, which was one of two lodges flanking the original City Road entrance, which was demolished in 1939. A single-storey bedroom extension was built on the east side in 1958. Baxter's Lodge is named after the Yeoman Bedell, George Baxter, who lived there. ⁶⁴
1953	In 1953 the Isabel Fidler Memorial Garden was constructed on the corner of Manning and Fisher Roads to commemorate Fidler, who had died in 1952. Fidler held the position of Tutor to Women Students since 1900 and had been actively associated with the University for most of her life as a powerful figure in the women's graduates' association and other women's organisations in Sydney. The garden was designed by Professor

⁶⁰Good, *Holme Sweet Holme, op. cit.*, p.31. ⁶¹Turney, Bygott, Chippendale, *op. cit.*, p.469. ⁶² Curtis, op. cit. p.54; Annable, 'Pharmacy, Bank, Badham,' pp.29-30 ⁶³Lilienthal, *op. cit.*, p.54; DPWS, *op. cit.*, Item 4726008. ⁶⁴DPWS, *op. cit.*, Item 4726009.

Date	Camperdown Campus Landscape: Event			
1953 cont.	Denis Winston, Chair of Town and Country Planning, in the form of a small amphitheatre of lawn surrounded by yellow jasmine.			
1950s- 1960s	Attempts were made at landscaping various parts of the campus however the expansion of construction activity often meant the loss of earlier plantings.			
	In the 1950s members of the Botany Department planted a 20 to 40 ft. wide strip of trees along the edge of Victoria Park near Eastern Avenue to provide specimens for Botany classes. This was bulldozed in the 1960s to make way for the Carslaw Building and the only surviving remnant of those plantings is a single Honey Myrtle.			
	Prior to the construction of the new Fisher Library a large grove of trees grew on the site. Most of these were lost when the library was built, the only survivors being a pine and Moreton Bay Fig, the latter of which was labelled in 1981. ⁶⁵			
	The Hockey Square was enlarged by excavating part of the Teachers' College garden and the hard tennis courts on the northern side. The remaining high ground was used to make space for two golf practice enclosures and two cricket practice wickets.			
	New paths and steps were constructed to provide a more direct route to the Square from Manning House; the Teachers' College linked the high ground with the Square, which was by then used for cricket, soccer, softball and archery as well as hockey. ⁶⁶			
1968	The 'Chancellor's Garden' on the northern side of Fisher Library is another commemorative garden. It was opened in 1968 as a tribute to Sir Charles Blackburn, who was Chancellor from 1941 to 1964. ⁶⁷			
Post 1960s	Gardens along Eastern Avenue , which have mainly been planted since the 1960s represent a change in style from earlier gardens such as those in Science Road. Eastern Avenue plantings are characterised by a large number of natives reflecting a more modern approach to landscaping, consistent with the contemporary architectural style of that area of the campus. ⁶⁸			

⁶⁵ Curtis, *op. cit.*, p.125, 134.
66 Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p. 365; Lilienthal, *op. cit.*, p.86.
67 Curtis, *op. cit.*, pp.135, 160; Turney, Bygott, Chippendale, *op. cit.*, p.608; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.277.
68 Curtis, *op. cit.*, p.124.

History of Master Plans of the University of Sydney

The following is a chronology of the Master Plans developed for the University of Sydney drawn from the full history of the place (refer to Appendix 2) together with notes prepared and provided by Campus Infrastructure Services, the University of Sydney, 2013.

Table 2. 4: History of Master Plans of the University of Sydney

Date	Master Plan
1891	The question of an overall plan for the future development of the University had first been considered in 1891 when deliberations over possible sites for the Women's College forced the University to address its own needs for the future. While the first known plan for the completion of The Quadrangle and other buildings was prepared in November 1890 by J. L. Bruce , foreman of works in the Government Architect's Branch of the Public Works Department, it was never used. An earlier plan from 1885 is shown in Figure 2.4.
	However, in 1891 Bruce was involved in assisting the Buildings, Grounds and Improvements Committee with planning. The Committee resolved to reserve the area between the proposed roadway from the Ross Street entrance and the University buildings. Bruce provided advice and pegged out sites for the Committee's deliberations. ⁶⁹
1904	When plans were prepared for the new Engineering School, a 'general plan prepared by the Government Architect for future extensions of the University buildings' was also submitted by the Building, Grounds and Improvements Committee to the Senate. It is not clear, however, whether the plan was for extensions to existing buildings only.
1907	The Government Architect (W. L. Vernon) was asked to prepare a 'general survey of the whole university grounds showing proposed roadways and sites that could be used for future additional buildings or extensions of existing buildings including also portions of the grounds of St Paul's and St John's colleges at present unused.'
1910	A general plan for the development of the University grounds had been prepared by W. L. Vernon and approved by Senate. However, no surviving drawn plans from the period 1907-1910 have been located. ⁷⁰
1913	A plan of the whole University 'showing existing and suggested future buildings in conjunction with the layout of the grounds' was prepared in 1913 by George McRae, who succeeded Vernon as Government Architect.
	The plan proposed demolition of the existing physics and chemistry laboratories (by Barnet) and the construction of the same site of an impressive range of Gothic style buildings. Science Road was to be straightened and adorned with a new archway at the eastern end running between the Macleay Museum and the Main Quadrangle Building. The Veterinary Science building terminated the vista down Science Road.

⁶⁹Rosemary Annable, A History of the Pharmacy, Badham and Bank Buildings in the Science Road precinct and of the adjacent part of the Main Quadrangle surrounding the Vice-chancellor's Garden, for the Office of Facilities Planning, University of Sydney, 1995, pp.14-15.

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⁷⁰Annable, 'Pharmacy, Bank, Badham', p.15; Minutes of the Buildings, Grounds and Improvements Committee 15 July, 1904, 7 November 1907, 21 April 1910 (SUA: G1/5/1).

Date	Master Plan
1914	The Buildings, Grounds and Improvements Committee turned its attention to landscaping issues and recommended that a landscape architect be engaged to advise on the best method of laying out the grounds, including sites for buildings, roads and areas for playing fields. This was the first occasion on which planning for the whole area bounded by Parramatta Road, City Road and Missenden Road was addressed. The adviser appointed was Walter Burley Griffin, who presented a master plan in 1915 (Fig. 2.11).
1914 cont.	Griffin's plan (Fig 2.11) retained the dominant axial alignments of University Avenue, Eastern Avenue and Science Road and overlaid a system of circular pathways bordered with dense plantings to introduce a strong landscaped garden feeling. A new east-west axis was established on the alignment of the Anderson Stuart Building and down through the disputed land, which he labelled 'campus' on the plan, and terminated, in a Quadrangle on the site of ovals. It was an ambitious plan that went a little further than had been intended by the University.
	Although the scheme was not implemented, it did influence later planners, particularly Leslie Wilkinson, who embraced parts of Griffin's plan in his work as University Architect in the 1920s. ⁷¹
1917	Vernon's 1910 plan was refined and re-drawn in 1917 by Gorrie Blair of the Government Architect's Branch (Fig 2.6 and 2.7). The plan also shows a more formal approach to the roadways and pathways and the sporting fields but not the hockey square. The plan indicates that McRae was attempting to maintain a green buffer between the colleges and the University.
1920	Leslie Wilkinson (1882-1973) took up the newly created chair of Architecture in 1918. He soon became involved in University planning issues, including master planning. In 1919 a recommendation was accepted by the Senate that Wilkinson, with Assistant Professor Madsen of the School of Engineering and Mr A.D. Craig, Lecturer in Surveying, should advise on the layout of the University grounds (Fig. 2.8).
	Wilkinson's plan (Fig. 2.12) gave the University much of the substantial order that lasted until the post-World War II explosion of works and the indiscriminate placement of many buildings that are wholly out of scale with the Griffin/Wilkinson vision for the place.
	Surviving elements include the east-west axis through the Anderson Stuart Building and the open Hockey Square , as well as the view from the Refectory Building across the valley to his new Physics building and St Paul's College beyond.
1957	A committee was appointed by the Senate in 1957 to prepare a plan for the future overall development of the University site; this was presented in 1961.
	The plan (Fig 2.13 and 2.14) for the future was based on the following <u>four principles</u> : the redesign of the University into functional precincts so that each faculty would have a recognisable area in which staff and related facilities could be conveniently found; buildings would cater for larger numbers of students on floors at or near ground level, while higher storeys would provide for small classes, seminars and staff offices; spaces around and between buildings were to be attractively landscaped and planted ; and within the University grounds pedestrians were to take precedence over vehicular traffic. ⁷²

⁷¹Annable, 'Pharmacy, Bank, Badham', pp.16-17.
72Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.77.

Date	Master Plan
1961	A plan was prepared in the office of the Assistant Principal W.H. Maze under the direction of the Architect-Planner, W.V. Abraham and presented in 1961 (Fig 2.13 and 2.14).
1988- 1990	The University commissioned Conybeare Morrison & Partners to undertake a detailed Master Planning exercise. The final Strategic Plan (Fig. 2.15) was presented to the University in March 1990. The strategy set in place a number of principle and controls that were adopted and guided development over the following 13 years.
	Two major departures from the previous master plan was the identification of heritage buildings that under the new Heritage Act needed to be retained and the need to better integrate the Camperdown and Darlington Campuses.
1993	A Landscape Master Plan (Fig 2.16), produced by Conybeare Morrison and Partners for the systematic development, management and enhancement of the public domain areas on campus.
2001	A Limited Campus Planning Review of the 1990 Conybeare Morrison Strategy Plan prepared by MGT (now FJMT) Architects. The terms of reference for this study were limited initially to assisting the University in determining the capacity and suitability of selected development sites to accommodate projects predetermined as being of immediate priority for the University to undertake in order to retain its competitive advantage. The commission was later extended to cover the whole of the area covered by both campuses in an attempt to identify the remaining capacity to cater for future growth and facilities development.
	This work ultimately informed the feasibility study and project definition plan for what became known as the Campus 2010 + Building for the Future Program which was presented to and approved by Senate in October 2002.
2002	Following on from a recommendation of the Conybeare Morrison & Partners Strategic Plan, The University of Sydney Grounds Conservation Plan undertaken by the Facilities Management Office was presented to the University.
	The plan was the first time that a holistic or campus-wide policy guiding the conservation and management of the grounds of Camperdown and Darlington Campuses had been prepared.
2003	The University Facilities Management Office re-examined the planning work undertaken over the previous 13 year period with the view of updating the 1990 Strategy Plan.
	The key features of the revised Campus Planning Strategy (CPS) was to introduce concepts of community impacts and organisational goals, rather than just to focus on physical attributes, development potential and infrastructure.
2008	The Campus 2020 Masterplan was prepared by Cox Architects in association with Campus Infrastructure Services to address the key challenge of providing sufficient accommodation for the needs of research and teaching during the next 50 years, by mapping the capital development envelopes which may be utilised. The 2020 Masterplan also addressed the issues of motor vehicle access, parking and traffic management, which did not exist in Wilkinson's day.
	The 2020 Masterplan sought to remedy the errors of the past, by providing for restoration and adaptive reuse of heritage buildings, removal of intrusive works, restoration of green space and visual and pedestrian linkages across the

Date	Master Plan
	Camperdown campus. In addressing these issues, the masterplan moved away from the previous approach of infill and small footprint development, to a new principle of precinct development.
2013- currently underway	A Campus Improvement Program (CIP) is currently under development by the Campus Infrastructure Services Design Studio with the aim of providing a 7-year development and infrastructure program.
	This revised Grounds Conservation Management Plan forms part of the strategy embodied in the CIP .

The Surviving Master Plans

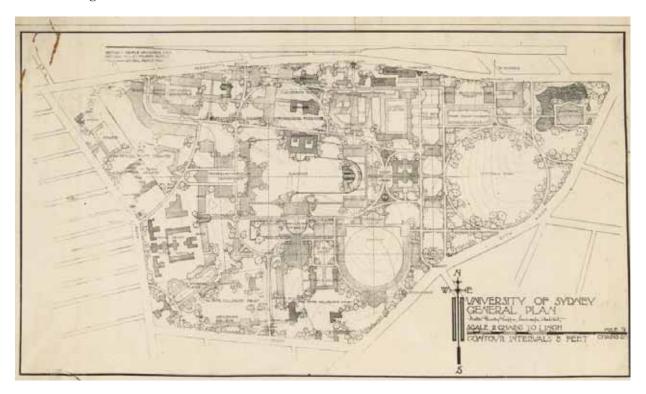


Figure 2. 11: Walter Burley Griffin's General Plan for the University of Sydney, 1915. (Source: Part of Eric Nicholls Collection, National Library of Australia, nla.pic-vn3603884-s210)

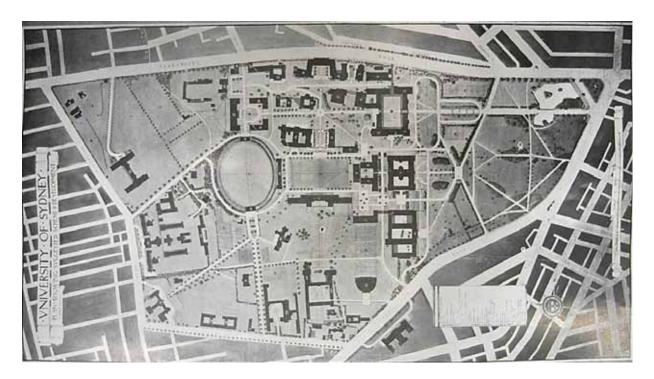


Figure 2.12: Leslie Wilkinson's master plan, submitted to the University Senate in January, 1920. (Source: University of Sydney Archives)

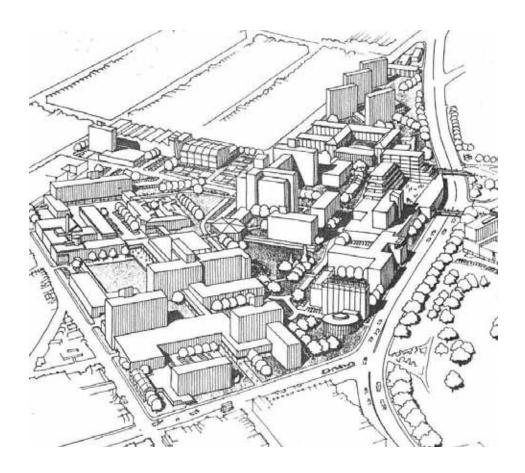


Figure 2.13: Aerial perspective of Darlington 1971 (Source: *The University of Sydney Strategy Plan*, Conybeare Morrison & Partners 1990)

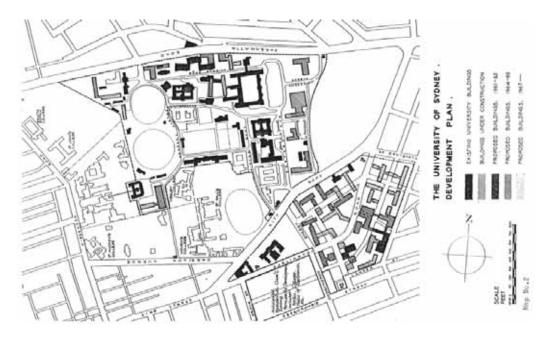


Figure 2.14: Draft Report on the Development of the University Site, prepared in the office of the Assistant Principal, W.H. Maze, May 1961. (Source: *The University of Sydney Strategy Plan*, Conybeare Morrison & Partners 1990)

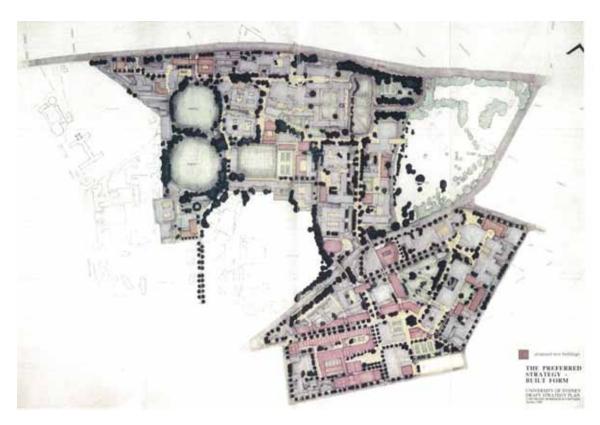


Figure 2.15: University Strategy Plan 1990

(Source: *The University of Sydney Strategy Plan*, Conybeare Morrison & Partners 1990)

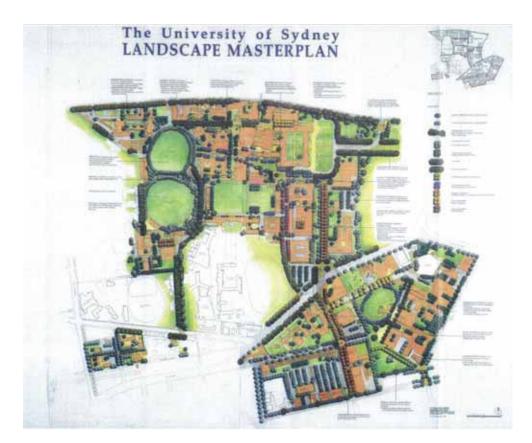


Figure 2.16: Landscape Master Plan 1993

(Source: The University of Sydney Landscape Master Plan, Conybeare Morrison & Partners)

2.4 Understanding the Development of the Place

Physical Development of the Camperdown and Darlington Campuses

The following drawings illustrate the early land grants and subdivision of the land that eventually became the University of Sydney and the associated places.

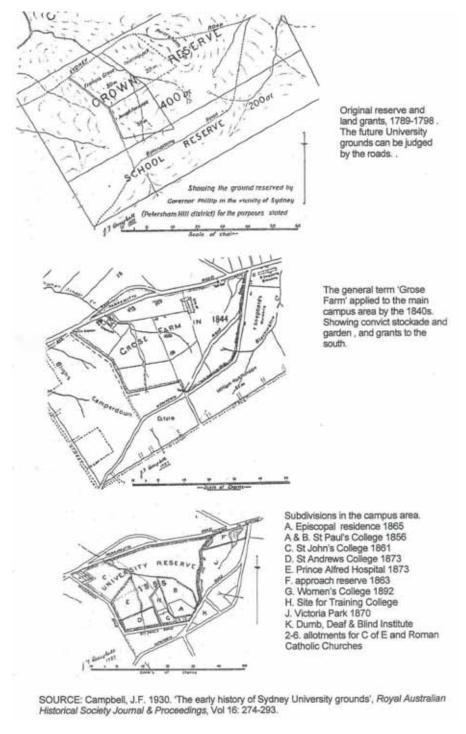


Figure 2.17: The early subdivision of land and the establishment of the University grounds.

Landscape and Setting

The landscape and setting of the University precinct originates with the natural systems that shaped the Sydney Basin, a geological formation on the NSW coast. These systems developed the natural landscape character of Sydney including the local environment of University of Sydney.

Climate

Sydney lies within a high rainfall zone which runs parallel to the coast, ⁷³ and experiences warm wet summer-autumns and cool drier winter-springs. ⁷⁴

Sydney's Climate	Annual average maximum	Annual Average minimum
TEMPERATURE	22.2 C	13.4 C
MONTH. ⁷⁵	January is the hottest	July the coldest
RAINFALL 1083mm. ⁷⁶	-	-

Geology and soil

The Sydney Basin consists of a number of distinct geomorphic units. Sydney and therefore Sydney University occurs on the unit known as the Cumberland Plain.

The rolling landscape of the University is characterised by rounded hills, broad ridges, wide valleys and (once) swampy lowlands. This landform is typical of the Cumberland Plain and its deeply weathered Wianamatta Group shales. This geology overlays the University from Victoria Park to Oval No.1 and encompasses the study site of the Camperdown/Darlington Campus precinct. These clay soils retain moisture and are reasonably fertile. Alluvial soils occur around the site of Orphan School Creek.

Topography

Petersham Hill is 40m above sea level,⁷⁹ a highpoint in the broad, north-south aligned Petersham ridgeline (Eastern Avenue) that crosses the University grounds (Fig 2.18). This ridgeline forms a watershed between two sub catchments, the creeks of which once flowed into the bays of Sydney Harbour dropping off from the main flat ridge is the line of a spur (Science Road precinct), sloping gradually and steeper in parts, down from its highest point near the Great Hall to its lowest levels near the original Orphan School Creek line (south of J.D. Stewart, Veterinary Science building). The natural form of the spur is as a long gentle slope running down the middle of a 'tongue' to lower ground, with steep gradients falling off to the side. These steeper slopes are found in the vicinity of the Woolley Building and Russell Place.

⁷⁶ Australian Government Bureau of Meteorolgy, URL accessed at: http://www.bom.gov.au/climate/averages/tables/cw_066037.shtml ,April 2013

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⁷³Australian Government Bureau of Meteorology, URL accessed at: http://www.bom.gov.au/climate/averages/tables/cw-066037.shtml, April 2013

⁷⁴ Benson, D & Howell, J, *Taken for Granted: The bushland of Sydney and its suburbs*, Kangaroo Press, 1995, pg 11

⁷⁵ Benson, D. & Howell, J, Taken for Granted: The bushland of Sydney and its suburbs, pg 11

Walker, P.H., A Soil Survey of the County of Cumberland, Sydney Region, New South Wales, NSW Department of Agriculture, 1972, pg 18

⁷⁸ Kerr,R., Attenbrow,V., & Stanborough, C., *University of Sydney Grounds Conservation Plan, Appendix A, Volume 1, University of Sydney Overview History,* 2002, pg A8-A9.

⁷⁹ *University of Sydney Grounds CP, Appendix A*, pg A8

Microclimate

Sydney is influenced by its position near the ocean, northeast and southeast winds carry moisture from the sea, and salt that dissipates over the coastal land area. Exposed to cold westerlies in the winter and hot north-westerlies/westerlies in summer, these winds increase the evaporation rate on exposed ridge tops and rob the soil and vegetation of moisture. The elevated grounds of the University are exposed to these drying prevailing winds. The sloping sides of the University's wide valleys are sheltered to a limited degree.

Geographic Aspect

The spur is oriented to the west, its steeper side slopes face south-west. This aspect is exposed to the hot winds from the west in summer and cold westerlies in winter. Cool north easterly breezes in the summer and southerly busters are also characteristic of Sydney's weather patterns in summer.

Original vegetation

The Wianamatta shale soils of the University supported a Turpentine-Ironbark Forest (Fig 2.19). This group of species was characteristically a forest with big trees, some of which probably reached over 20-30m high. ¹⁵ Refer to Table 1 below for tree species of the original forest. ¹⁶ There are no known remnants of the Turpentine-Ironbark forest community in the University grounds.

Table 2.1 Turpentine-Ironbark Forest

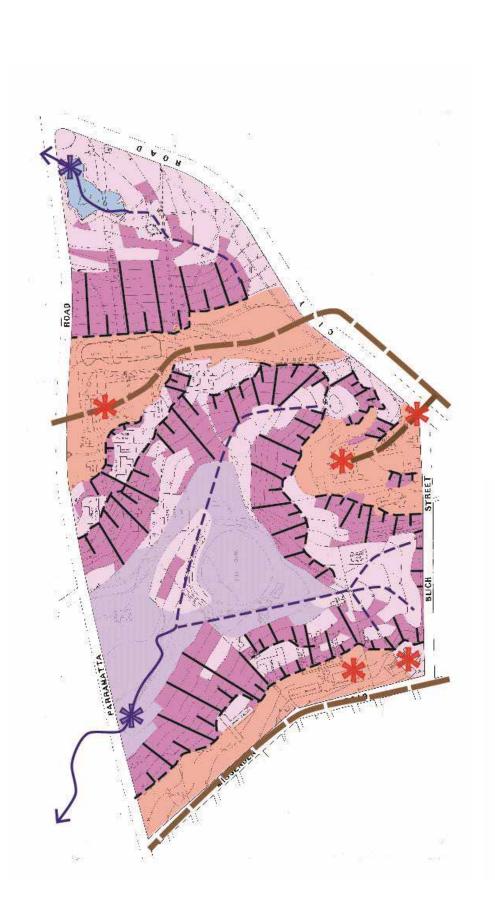
Forest Trees			
Common name	Species		
Angophora costata	Smooth Barked Apple		
Red Bloodwood	Corymbia gummifera		
White Stringybark	Eucalyptus globoidea		
Scribbly Gum	Eucalyptus haemastoma		
Red Mahogany	Eucalyptus resinifera		
Grey Ironbark	Eucalyptus paniculata		
Turpentine	Syncarpia glomulifera		

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¹⁵ University of Sydney Grounds CMP, Appendix A, pg A9-A14.

¹⁶ University of Sydney Grounds CMP, Appendix A, pg A9-A14.

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KEY

Figure 2.18: The topography of the University and its expanded curtilage (pre-1850).

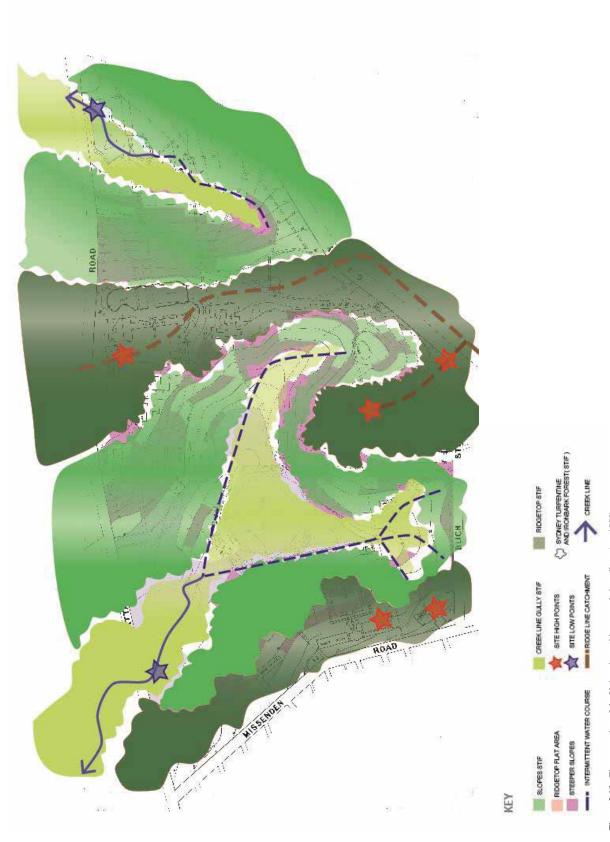
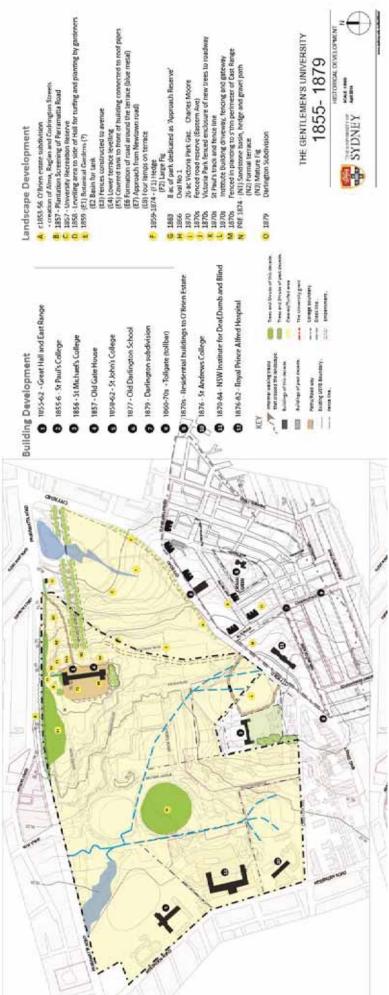


Figure 2.19: The vegetation of the University and its expanded curtilage (pre-1850)

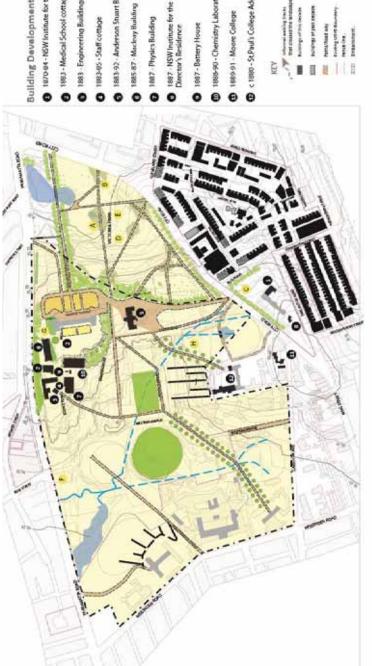
2.5 Staged development drawings The following plans illustrate the sequential development of buildings and landscape elements across the University campus.



THE GENTLEMEN'S UNIVERSITY







1870-84 - NSW Institute for the Deaf, Dumb and Blind

Willows planted in Victoria Park by Charles Moore

A 1880

Landscape Development

Thre guands to Victoria Park

B 1884 C 1884

- 1993 Medical School cottage(demolished c1895)
 - 1883 Engineering Building(demolished c1907)
- § 1883-92 Anderson Stuart Building

First formal design to Victoria Park by Charles Moore

Ross Street gate (unemployment relief scheme) Formal Issus on north side of Greet Hall. This is the first formal landscape design

F 1880's

Tree Uned Tracks

H 1880s

Victoria Park rededicated

E 1887

D 1885

Perimeter fencing and planting of Moneton Bay fig trees to institute Building land.

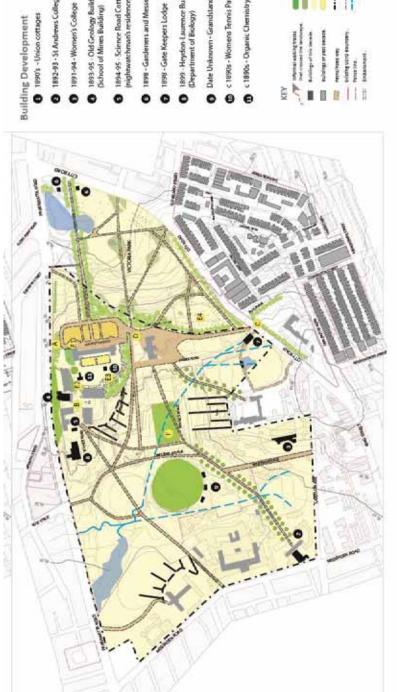
- 1887 Battery House
- 1888-90 Chemistry Laboratory (Pharmacy Building)
 - **⊕** 1889-91 Moore College
- C 1880 StPaul's College Additions



THE PROFESSIONAL UNIVERSITY 1880-1889







- 1890's -Union cottages
- 8 1892-93 St Andrews College
- 1891-94 Women's College

3rd gatehouse for University sth of Victoria Park

A c1895 Enclosed Formal lawn with Chinese Elm

Landscape Development

Tree Planting to Science Road

B c1895 C 1898 D c1890 Large group of trees (Brushbox and conifers) north of Anderson Squart Building E. Pre-1900 -(E1) Planting Against Great Hall

Cutting and Leveling: Hockey Ground (E2)Planting Around Madeay Buildin (E3) Old Engineering Building, Shrub (E4) Broad Mass Tree Planting

c 1895

- 1893-95 Old Geology Building (School of Mines Building)
- 1894-95 Science Road Cottage (nightwatchmarts residence)
- 1898 Gardeners and Messengers Lodge
- 1899 Heydon-Laurence Building (Department of Biology)
- Date Unknown Grandstands
- C 1890s Womens Tennis Pavilion



THE PROFESSIONAL UNIVERSITY 1890-1899



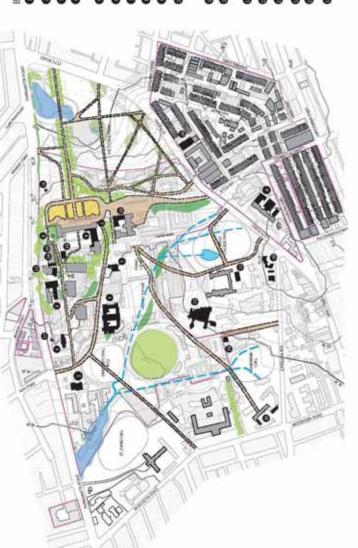


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Building Development



University of Sydney



- B 1910 ID Stewart Suiding/Veternary Scienced
- 1911-21 South Range of Guadrangle

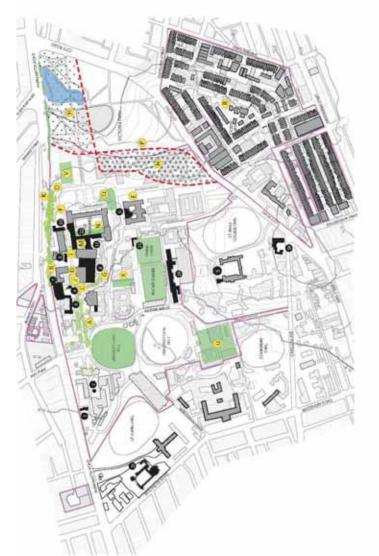
Standment College - Males Home
 Standment College
 Tennis Paviton

- 1912-21 Old Teachest Citings Building
- 1912 NSW Institute for the Deaf, Dumb and Bind additions
- 1912-14-11DWatt Building

 - 1919-20 Holme Building 1914 - Manning House
- 1914 Botany Department moves
 - 1915 Costter to Quadrangle
- 1915 Madeay Building additions and annendment fecture Eleatricipations
- 1915- St Pault Citege Timber Chapel 1915-46
- 1915-12-Old Geology Building -additions and arthed ipan over Gospel Lane
 - 1917-22 Westey College
- 1918 Botany Departments
- 1911-13 Anderson Stuart
- c1910 ItANchaetr College
 - cHIII Substation

SYDNEY

THE PROFESSIONAL UNIVERSITY. ARTS &CRAFTS 1910 - 1918



Landscape Development

E (1920)

1919-23 - Veterinary Sciences, Cerebber's cottage

1920 - Old Geology Building 9 1920 - Nound House

1929 - Science Road Cottage

1922 - Anderson Stuert Buildin 1921 - StPsuft College

10010000

B 1922-24 - Refectory

1923-24 - Remodeled Chemitry and Physical Laboratory (Willand

M 1900

1923 - Heydon-Listence Boilding Laboratory (Willyman)

9 1923-34 - Botany Wing to Madeig Bidg

■ 1924 - Western & Northern Ranges 1924-25 - Final stage of Clasters

■ 1929,1928 - Sancta Sophia College

B 1925 - Physics Building

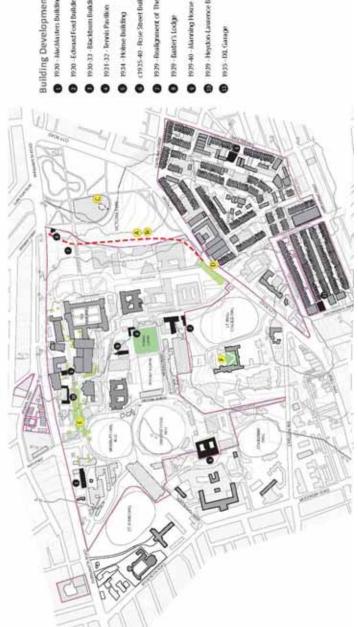
of the relation of the Colombia of the Colombia of the relation of the relatio

THE INTER WAR UNIVERSITY: WILKINSON POST WAR EXPANSION





University of Sydney



Landscape Development

A 1932 CE 1937

8 1930 - MacMasters Building

8 1930 - Edward Ford Building

@ 1930-33 - Blackburn Bulkfing

Vectors that shad yough Instituted Boundary construct boundary locate behavior in location in the and university construct regrading of adjacent ground in Vectoria Park. Never appeal and in, Vectoria Park. Mercanipari's dare Lodge plant enfortated to Earterian Jovenset never Cay Board. Seeince Road passing and tree planting.

B 1931-32 - Tennis Pavillon

9 1934 - Holme Building

C1935-40 - Rose Street Building

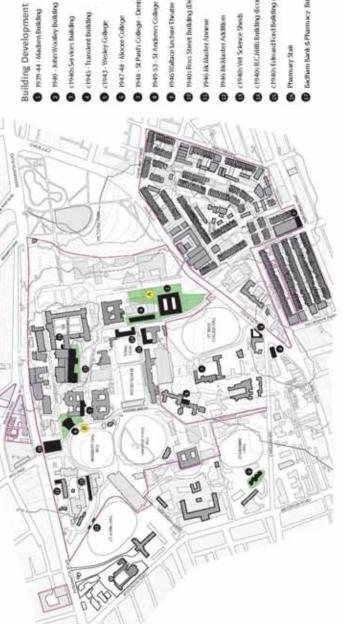
9 1939 - Realignment of The Main Vehicular Entrance.

1939 - Bater's Lodge

1939 - Hrydon Laurence Building

B 1935 - DQ Garage





- 9 1939-44 Machen Building
- 9 1940 John Woolley Building

(A) 1940s. Road south from Anderson Stuart Building is blocked

Landscape Development

Wallace Lecture Theatre hard and soft landscape

- C1940s Services Building

- @ c1943 Wesley College
- 1947-48 Moone College
- 1944 3 Paul's College DeckoonWing
- - 1949-53 St Andrews College
- 1940s Ross Street Building (Demolshed)
- B 1946 WcMaster Annexe
- 1946 McMaster Addition
- C1940s Vet Science Sheds
- C1940s RCMills Building diconomics
- C1940s Edward Ford Building (Tropical Diseases)
- B Pharmary Stair
- Bacham Bank & Pharmacy Building











