Darlington Terraces Mixed Use Development

Environmental Impact Statement (SSD 7539)

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Approved: L Bochner
Project No.: PR131245
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DOCUMENT STATUS

Version	Purpose of Document	Orig	Review	Review Date
1.0	Working draft to client	MF/ET	LB	12.10.2016
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3.0	Final for University	LB/ET	LB/PL	29.11.2016
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8.0	Final to client v 3	LB/ET	LB/JK	08.02.2018
9.0	Final to DPE (Test of Adequacy amendments)	Sydney University	Sydney University	29.03.2018

APPROVAL FOR ISSUE

Name	Signature	Date
Louise Bochner		08.02.2018

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Statement of Validity

Submission of Environmental Impact Statement	
Applicant & Land Details	
Applicant Name	University of Sydney
Applicant Address	Level 1, Services Building G12 22 Codrington Street Darlington NSW 2008
Land to be developed	85-87, 94-96, 98-119, 121-135 Darlington Road, Darlington Lane, 19-20 Codrington Street, Codrington Service Lane, Darlington NSW 2008
Lot No, DP/MPS, vol/fol etc.	Lot 1, DP 58304; Lots 1-4, DP 996663; Lot 1, DP 69635; Lot 96, DP 1073648; Lots 1-5,DP 996629; Lot 1, DP 996657; Lot 9, DP1118985; Lots 1-12, DP 33326; Lot 1, DP 185534; Lot A, DP 185532; Lot 1, DP 1067807; Lots A and B, DP 436059; Lots 30-35, Section 34, DP 111120; Lot 1, DP 832273; Lot 11 DP 1172041; Lot 1, DP 794841 and Lot 1, DP 1069922.
Proposed development	Alterations and additions to the Darlington Road Terraces and Darlington House to provide a mix of university related uses including student accommodation, study areas, meeting rooms, teaching facilities, E Learning, bicycle storage and maintenance storage. Public domain improvements to Darlington Lane and the Codrington Street pocket park aimed at providing significant public benefits to the local community.
Prepared By	
Name	L Bochner
Qualifications	Master of Urban and Regional Planning, University of Sydney
Address	RPS Level 13, 255 Pitt Street Sydney NSW 2000
In respect of	State Significant Development (SSD 7539) – Development Application for mixed use student accommodation and educational facility development.
Declaration	I certify that I have prepared the content of this EIS and to the best of my knowledge: ▪ It is in accordance with the Secretary's Environmental Assessment Requirements dated 21 March 2016, and SEAR amendments 29 September 2017; ▪ It is in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* and *Environmental Planning and Assessment Regulation 2000*; and ▪ The information contained in the statement is neither false nor misleading.
Signature	
Name	L Bochner
Date	08 February 2018
Note	The University of Sydney has prepared parts of this EIS report (version 9) in response to the Department of Planning & Environment's response to Test of Adequacy. A summary of the University's amendments to this EIS report are listed under Appendix II.

Executive Summary

The University of Sydney is proposing alterations and additions to the existing Darlington Road Terraces and H66 Darlington House, the campus domain upgrade of the Codrington Street pocket park and public domain improvements to Darlington Lane.

Pursuant to *State Environmental Planning Policy (State and Regional Development)* 2011 (SEPP SRD), the proposed development is considered to be State Significant Development (SSD) as an educational establishment with a capital investment value (CIV) of greater than $30 million. It has been registered as SSD 7539.

Secretary's Environmental Assessment Requirements (SEARs) for this project (SSD 7539) were issued on 21 March 2016, and revised on 29 September 2017, and outline a number of requirements that need to be addressed in this Environmental Impact Statement (EIS). These are provided at Appendix A.

Clause 226(1) of the Environmental Planning & Assessment Regulation 2000 (EP&A Regulation) provides that a development carried out by an Australian University (under the meaning of the *Higher Education Act 2001*) is a Crown development. The University is listed as an Australian University under Schedule 1 of the *Higher Education Act 2001*. Consequently, this SSD is a Crown development for the purposes of Part 4, Division 4 of the *Environmental Planning & Assessment Act 1979* (EP&A Act).

Proposal

The proposal includes alterations and additions to the Darlington Road Terraces and H66 Darlington House to provide a mix of University related uses including student accommodation, study areas, meeting rooms, teaching spaces and associated student support facilities. Public domain improvements to convert Darlington Lane into a Shared Road, and the upgrade of the University's Codrington Street pocket park are also proposed. The building works are designed to comply with the approved Campus Improvement Program (CIP) building envelope that applies to the site (SSD 13_6123).

Table 1 Key Features of Proposed Development

Feature	Proposed
Gross floor area	7,175m^2
Storeys	▪ Darlington Terraces – 2 storeys ▪ Building A – 3 storeys ▪ Building B – 3 storeys ▪ Building C – 2 storeys ▪ Building D – 3 storeys
No. of Students	337 total (the Terraces currently accommodate 151)
No. of Staff	6 (to be shared with the adjacent Regiment student accommodation facility which is currently under construction)
No. of Rooms	▪ 306 student rooms ▪ 9 bedrooms available for visiting academics in terraces 86-87 Darlington Road
Apartment mix	▪ 6 double rooms ▪ 62 twin rooms ▪ 207 single rooms (of which 17 are accessible bedrooms)
Education facilities	717.9m^2 across Buildings A, B, C and D

Feature	Proposed
Car parking	No car parking proposed
Bicycle storage	90 bicycle racks and maintenance space on ground floor of H66 Darlington House (132-135 Darlington Road).
Open space	▪ 1,436m^2 communal open space (including Codrington Street pocket park upgrade) ▪ 264m^2 private open space

Consultation

In accordance with the SEARs, an appropriate level of consultation is required to be undertaken with various public authorities, service providers, community groups and affected landowners.

Consultation has been undertaken with the City of Sydney Council, Heritage Council of NSW, Transport for NSW, Roads and Maritime Services, local residents and community groups.

Legislative Context

Section 5 of the EIS considers the relevant environmental planning instruments applicable to the proposed development. In particular, the proposal has been assessed against *State Environmental Planning Policy (State and Regional Development*) 2011 (SEPP SRD), *State Environmental Planning Policy (Infrastructure)* 2007 (ISEPP), *State Environmental Planning Policy (Educational Establishment and Child Care Facilities)* 2017, *State Environmental Planning Policy (Affordable Rental Housing)* 2009, *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33), *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55), *Sydney Local Environmental Plan 2012* (Sydney LEP 2012), and the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposal has been assessed against the Ministerial approved University of Sydney Campus Improvement Program (CIP) concept proposal (SSD 13_6123) in accordance with Section 4.24 of the EP&A Act. The proposal complies with all relevant planning controls and conditions of the Stage 1 CIP consent.

Ecologically Sustainable Development

The proposal meets the principles of ecologically sustainable development (ESD) as defined in Clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

The University has adopted a sustainability framework, which endeavors to ensure the University's built environment is resource efficient, operationally cost-effective and provides improved environmental health and wellbeing benefits to student, staff and visitors. The framework is a holistic assessment that draws on national (Green Star) and international (BREEAM and LEED) accredited building rating systems and best design practice. The proposal has been assessed against this framework as an equivalent rating scheme to demonstrate industry best practice for sustainable design.

The Darlington Terraces Mixed Use Development proposal is targeting a 'Silver' level, which equates to a score of at least 70%.

Design Excellence

In accordance with Clause 6.21 of Sydney LEP 2012, the proposed development does not trigger the requirement for a design competition process, as the building will not exceed 25 metres in height above natural ground level or have a CIV greater than $100 million.

Notwithstanding, the University of Sydney is committed to achieving design excellence and recognises the importance of design identity across its campus. As such, the University has conducted its own architectural selection process to adhere to and satisfy the requirements of both the University's and the Sydney LEP 2012 design excellence criteria.

The proposed development has been designed with a high standard of architectural design, materials and detailing to enhance the site's relationship with the character and context of surrounding development. A summary of the design excellence process undertaken for the Darlington Terraces Mixed Use Development is provided at Section 3.8.

Environmental Impacts and Mitigation

This EIS provides an assessment of the environmental impacts of the proposal in accordance with the SEARs and addresses how the University will manage and minimise potential impacts from the development.

Key issues addressed in the EIS include:

- Compliance with the approved concept CIP and associated building envelopes (SSD 13_6123).
- Height, density, bulk and scale of the proposal including built form and associated overshadowing impacts.
- Residential amenity for student accommodation including solar access and unit sizes.
- Residential amenity of adjoining privately owned dwellings.
- Drainage and stormwater management.
- Heritage impact of the proposal, including the alteration of the existing Terraces on Darlington Road.
- Landscape and public domain treatments to Darlington Lane.
- Landscape and campus domain upgrade of the Codrington Street pocket park.
- The implementation of ESD strategies.

Project Justification

There is sound justification as to why the site is an appropriate location for mixed use educational establishment facilities and affordable student accommodation development. This is summarised in Section 8 of this EIS.

Conclusion

The EIS satisfies the requirements sought by the SEARs. The proposal provides for highly demanded student accommodation in close proximity to the University and additional learning facilities to be utilised by staff and students. The potential impacts of the proposed development are minor and can be sufficiently managed. Given the planning merits and significant benefits proposed, it is requested that the application be recommended for approval by the Minister for Planning.

Terms and Abbreviations

Term	Definition
AACUHO	Australasian Association of College University Housing Officers
AEP	Annual Exceedance Probability
AHIA	Aboriginal Heritage Impact Assessment
ATO	Australian Taxation Office
BCA	Building Code of Australia
CBD	Central Business District
CC	Construction Certificate
CIP	Campus Improvement Program
CIV	Capital Investment Value
CMP	Conservation Management Plan
DA	Development Application
DCP	Development Control Plan
DP&E	Department of Planning and Environment
DtS	Deemed to Satisfy
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP&A Act	*Environmental Planning and Assessment Act* 1979
EP&A Regulation	*Environmental Planning and Assessment Regulation* 2000
ESD	Ecologically Sustainable Development
GFA	Gross Floor Area
HUDC	Healthy Urban Development Checklist
HVAC	Heating, Cooling and Ventilation
ISEPP	*State Environmental Planning Policy (Infrastructure)* 2007
LEP 2012	*Sydney Local Environmental Plan* 2012
LGA	Local Government Area
LTTMP	NSW Long Term Transport Master Plan 2012
MSDS	Material Safety Data Sheets
NSW OEH	NSW Office of Environment and Heritage
OSD	On-site Detention
PSD	Peak Site Discharge
RA	Residential Assistant
RAIDD	Residents Acting in Defence of Darlington
RAP	Remedial Action Plan
RMS	Roads and Maritime Services
RWA Contributions Plan	Redfern Waterloo Authority Contributions Plan
RWA AH Contributions Plan	Redfern Waterloo Authority Affordable Housing Contributions Plan

Term	Definition
SEARs	Secretary's Environmental Assessment Requirements
SEPP 33	*State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
SEPP 55	*State Environmental Planning Policy No. 55 – Remediation of Land*
SEPP SRD	*State Environmental Planning Policy (State and Regional Development)* 2011
Education SEPP	*State Environmental Planning Policy (Educational Establishments and Child Care Facilities)* 2017
SSD	State Significant Development
STAMP	Sustainable Transport & Mobility Plan
SWMS	Safe Work Method Statement
TPZ	Tree Protection Zone

1 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning and Environment (DP&E) in support of an application for State Significant Development (SSD). The proposed development comprises mixed use educational establishment facilities and student accommodation at the existing Darlington Road Terraces and H66 Darlington House. The conversion of Darlington Lane to a Shared Road and the landscape upgrade of the Codrington Street pocket park are also proposed.

The proposal is consistent with the University's Campus Improvement Program (CIP), approved in February 2015 under SSD 13_6123. The CIP provides a framework for the future development, infrastructure and funding priorities for the Camperdown and Darlington campus to 2020. The CIP recognises the redevelopment potential of the Darlington Terraces to accommodate new educational spaces and student accommodation and provides indicative building envelopes and design parameters for the area. The proposal is a sophisticated scheme which has been designed and developed within the parameters of the approved CIP.

State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) identifies development which is declared to be SSD. Pursuant to Clause 15 of Schedule 1 of SEPP SRD, development for the purpose of educational establishments that has a capital investment value (CIV) of more than $30 million is identified as SSD. As the proposed development of the Darlington Road Terraces and H66 Darlington House has an estimated CIV of $40,200,000 it has been declared SSD for the purposes of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This EIS considers the site, surrounding locality and proposed development and provides a comprehensive assessment in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued for the proposal (refer to Appendix A).

1.1 Background

1.1.1 Campus Improvement Program

The University has adopted the CIP as the Stage 1 implementation strategy of development and infrastructure to the Camperdown-Darlington Campus. The CIP is a concept State Significant Development (SSD) that was approved by the Minister for Planning (SSD 13_6123) on 16 February 2015. The CIP sets out the proposed development, infrastructure and funding priorities for the Camperdown-Darlington campus over the period 2014-2020 and includes the development of several student accommodation projects.

The CIP considers six campus precincts and provides indicative building envelopes, land uses, transport and access arrangements, landscaping, heritage and design principles. The CIP capital costs are estimated at $1.4 billion over a ten-year period.

The proposed development is located within the Merewether Precinct. A key driver of future development within the precinct is to accommodate mixed use development incorporating student accommodation, teaching and learning spaces and ancillary facilities. These are to be supported by additional facilities including retail, food and beverage outlets and meeting facilities within the overall Camperdown-Darlington campus.

1.2 Overview of Proposed Development

The proposed development comprises both new development and alterations to the existing Darlington Road Terraces and H66 Darlington House for educational facilities and student accommodation. The following works include:

- 717.9m^2 of educational establishment facilities including learning hubs, study / tutorial rooms, informal study and reading library.
- A total of 337 beds within 306 rooms (of which 17 are accessible rooms):
  - 6 double rooms
  - 62 twin rooms
  - 207 single rooms (of which 17 are accessible rooms)
- Residences for visiting academics and their families in Terraces 86 and 87 Darlington Road
- Communal self-catering kitchens, common areas, dining halls, laundries and storage for residents
- Total gross floor area (GFA) of 7,175m^2
- Ground level bicycle storage and maintenance space in H66 Darlington House
- Partial demolition of the rear skillion roofed additions to the Darlington Road Terraces providing an internal courtyard space connecting the terraces and new buildings
- Administration office in Terrace 103
- Modifications to the ground floor of four terraces into common spaces creating entry points into the development
- 1,436m^2 of open space, including the proposed upgrade to Codrington Street pocket park.

The proposed landscape upgrade of the Codrington Street pocket park is a University owned asset that will also continue to deliver access to, and benefit by, the local community.

The conversion of Darlington Lane into a shared road with associated public domain improvements to comply with Regulation requirements is also proposed. The approval for the Shared Road will be administered under the *Roads Act 1993* in addition to the overall SSD application for the proposed development.

The proposal will be supported by easy access to retail, food and beverage outlets on campus, as well as direct connections to teaching, learning, study and meeting facilities within the adjoining new Abercrombie Business School.

1.3 Proposal Objectives

The proposal seeks to provide a high quality, well managed and well designed mixed use development incorporating teaching and learning spaces, student accommodation and supporting facilities to service the University community.

The objectives of the proposed development have been developed to align with the University of Sydney 2016-2020 Strategic Plan's vision by providing distinctive learning experiences and environments. The aims and objectives of this proposal include:

1. Deliver a world class range of educational facilities and affordable student accommodation on or near the main campus which provides a vibrant, lively, safe and world class student living experience supported by easy access to campus living, educational, cultural, sporting and open space facilities.

2. Address the undersupply of University affordable housing within the precinct and provide a sustainable community and campus precinct.
3. Refurbishment and building alterations to the aged but heritage listed Darlington Road Terraces to create a distinct urban character and enable urban consolidation, precinct activation and adaptive reuse. The focus is to create a sense of community which supports residential life and sustainable student living.
4. Development of new building additions to the rear of the Darlington Road Terraces which provides a blended learning environment and accommodation to enhance student experience and learning opportunities. The development supports the University's strategic direction to provide an integrated mixed use solution which contributes to the holistic student campus living experience and environment whilst promoting greater use of existing and new University educational facilities.
5. Enhance the public realm through improved open space, landscape, public art and the upgrade of Darlington Lane to a Shared Road to provide sustainable and attractive external spaces for residents and the wider community. A key focus of this development is to ensure the provision of equitable, inclusive and diverse environments with the intent to foster a cohesive relationship with the city and neighbouring communities.
6. Ensure minimal environmental and amenity impact on surrounding areas and privately owned terraces.

1.4 Environmental Assessment & SEARs

In accordance with Section 4.39 of the EP&A Act, the nominee of the Secretary of the Department of Planning and Environment (DP&E) issued requirements for the preparation of the EIS on 21 March 2016. A copy of the SEARs is included at Appendix A.

A requirement of the SEARs states the EIS must include the documents listed in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) and must meet the requirements of Schedule 2 of the Regulation. In addition, the SEARs identified specific stakeholders with whom consultation must be undertaken with during the preparation of the EIS.

Table 1.1 provides a summary of the individual matters listed in the SEARs and identifies where each of these requirements have been addressed in this report and the accompanying technical studies.

Table 1.1 Secretary's Environmental Assessment Requirements (revised on 29 September 2017)

Secretary's Environmental Assessment Requirement		Location in Report
General Requirements		
	Environmental Risk Assessment	Section 1.4
	Quantity Surveyor Report	Appendix EE
Key Issues		
1	Statutory and Strategic Context	Sections 5 and 8.3
2	Policies	Section 5.1
3	Built Form and Urban Design	Sections 5.9, 6.1 and 7
4	Environmental Amenity	Sections 6.3 and 7
5	Transport and Accessibility (Construction and Operation)	Sections 6.4 and 7
6	Ecologically Sustainable Development	Sections 5.12, 6.11 and 7
7	Noise and Vibration	Sections 5.9, 6.7 and 7

Secretary's Environmental Assessment Requirement		Location in Report
8	Heritage	Sections 2.5, 3.4, 4.1, 5.9, 5.10, 6.5, 7, Appendix L and Appendix M
9	Aboriginal Heritage	Sections 5.9 and 6.6
10	Contamination	Section 5.8, 5.9, 6.8, 7 and Appendix Y
11	Utilities	Sections 3.6 and 5.9
12	Contributions	Section 5.2
13	Drainage	Sections 5.9, 6.9, 7,
14	Waste	Sections 5.9, 0, 7, Appendix U
Plans and Documents		
	Architectural Drawings (dimensioned and including RLs)	Appendix C
	A physical 3D Model and 3D CAD Model	Separate submission
	Site Survey Plan, showing existing levels, location and height of existing and adjacent structures/ buildings and boundaries	Appendix B
	Site Analysis Plan	Appendix C
	Stormwater Concept Plan	Appendix J
	Sediment and Erosion Control Plan	Appendix I
	Shadow Diagrams	Appendix C
	View Analysis / Photomontages	Appendix C and Appendix D
	Landscape Plan (identifying any trees to be removed and trees to be retained or transplanted)	Appendix F
	Draft Public Domain Plan	Appendix G
	Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan	Appendix DD and Appendix K
	Geotechnical and Structural Report	Appendix EE and Appendix GG
	Conservation Management Plans for each heritage listed building	Appendix M
	Accessibility Report	Appendix T
	Arborist Report	Appendix V
	Acid Sulphate Soils Management Plan (if required)	Remedial Action Plan provided at Appendix Z
	Schedule of Materials and Finishes	Appendix C and Appendix D

1.5 Project Team

The project team assembled for the project is detailed in Table 1.2.

Table 1.2 Project Team

Role	Organisation
Applicant	The University of Sydney
Architects	Allen Jack & Cottier
Landscaping	Oculus
Accessibility	iAccess Consultants (Seidman & Associates Pty Ltd)
BCA and PCA	Blackett Maguire + Goldsmith Pty Ltd
Fire Engineer	Blackett Maguire + Goldsmith Pty Ltd
Hazardous Materials	Coffey
Civil and Stormwater Engineering	Jacobs
Electrical/ ICT/ Security Engineering	Donnelley Simpson Cleary
Fire Protection Engineering	LHO Pty Ltd
Hydraulic Engineering	LHO Pty Ltd
Mechanical Engineering	Donnelley Simpson Cleary
Quantity Surveying	Wilde and Pollard Pacific Pty Ltd
Structural Engineering	TTW
Archaeologist	Casey & Lowe
Arborist	Arborsafe
Geotechnical Engineer	Coffey
Acoustic Engineer	Acoustic Logic
Traffic Engineer	SMEC Pty Ltd
Socio-economic Study	Cred Consulting
Waste Consultant	Waste Audit
ESD	Jacobs
Kitchen Consultant	Sangster Design Group Pty Ltd
Town Planner	RPS
Topographical Survey	Monteath & Powys Pty Ltd
Stakeholder Consultation	The University of Sydney
Wind	WINDTECH Consultants Pty Ltd

2 Site and Context

2.1 The Site

2.1.1 Site Location

The SSD sites are described as 85-87, 94-96, 98-119, 121-135 Darlington Road, 19-20 Codrington Street, and the Codrington Service Lane, Darlington and comprises land legally described in Table 2.1.

Table 2.1 Property Titles for Darlington Road Terraces

Address	Lot, Section, Deposited Plan
Darlington Terrace - 85 Darlington Road (Codrington Street pocket park)	Lot 1 DP 58304
Darlington Terrace - 86 Darlington Road	Lot 1 DP 996663
Darlington Terrace - 87 Darlington Road	Lots 2,3,4 DP 996663
Darlington Terrace - 94 Darlington Road	Lot 1 DP 69635
Darlington Terrace - 95 Darlington Road	Lot 96 DP 1073648
Darlington Terrace - 96 Darlington Road	Lot 9 DP 1118985
Darlington Terrace - 98 Darlington Road	Lot 5 DP 996629
Darlington Terrace - 99 Darlington Road	Lot 4 DP 996629
Darlington Terrace - 100 Darlington Road	Lot 1 DP 996657
Darlington Terrace - 101 Darlington Road	Lot 3 DP 996629
Darlington Terrace - 102 Darlington Road	Lot 2 DP 996629
Darlington Terrace - 103 Darlington Road	Lot 1 DP 996629
Darlington Terrace - 104 Darlington Road	Lot 12 DP 33326
Darlington Terrace - 105 Darlington Road	Lot 11 DP 33326
Darlington Terrace - 106 Darlington Road	Lot 10 DP 33326
Darlington Terrace - 107 Darlington Road	Lot 9 DP 33326
Darlington Terrace - 108 Darlington Road	Lot 8 DP 33326
Darlington Terrace - 109 Darlington Road	Lot 7 DP 33326
Darlington Terrace - 110 Darlington Road	Lot 6 DP 33326
Darlington Terrace - 111 Darlington Road	Lot 5 DP 33326
Darlington Terrace - 112 Darlington Road	Lot 4 DP 33326
Darlington Terrace - 113 Darlington Road	Lot 3 DP 33326
Darlington Terrace - 114 Darlington Road	Lot 2 DP 33326
Darlington Terrace - 115 Darlington Road	Lot 1 DP 33326
Darlington Terrace – 116-117 Darlington Road	Lot 1 DP 185534
Darlington Terrace - 119 Darlington Road	Lot A DP 185532
Darlington Terrace - 121 Darlington Road	Lot 1 DP 1067807
Darlington Terrace - 122 Darlington Road	Lot B DP 436059
Darlington Terrace - 123 Darlington Road	Lot A DP 436059
Darlington Terrace – 124 Darlington Road	Part Lot 30 Section 34 DP 111120
Darlington Terrace – 125 Darlington Road	Part Lots 30 and 31 Section 34 DP 111120

Address	Lot, Section, Deposited Plan
Darlington Terrace – 126 Darlington Road	Part Lots 31 and 32 Section 34 DP 111120
Darlington Terrace – 127 Darlington Road	Part Lot 32 Section 34 DP 111120
Darlington Terrace – 128 Darlington Road	Part Lot 33 Section 34 DP 111120
Darlington Terrace - 129 Darlington Road	Part Lots 33 and 34 Section 34 DP 111120
Darlington Terrace – 130 Darlington Road	Part Lots 34 and 35 Section 34 DP 111120
Darlington Terrace – 131 Darlington Road	Part Lot 35 Section 34 DP 111120
Darlington House - 132-135 Darlington Road	Lot 1 DP 832273
Darlington House - 134-135 Darlington Road	Lot 1 DP 832273
Codrington Service Lane	Lot 11 DP 1172041
19 Codrington Street	Lot 1 DP 794841
20 Codrington Street	Lot 1 DP 1069922

The development site is located on Darlington Road and Darlington Lane, Darlington within the University of Sydney's Darlington Campus. The site is bounded by Darlington Road to the north, Golden Grove Street to the west, Darlington Lane and the Abercrombie Business School to the south (the lane is also included in the project works) and Codrington Street to the east. Darlington Lane is owned by the City of Sydney Council.

The University's Camperdown-Darlington Campus is situated on the western edge of the Sydney central business district (CBD) and consists of two sub-campuses separated by City Road, the Camperdown and Darlington campuses (outlined in blue and red respectively in Figure 2.1). The Darlington Campus is bounded by City Road and Cleveland Street to the north, Shepherd Street to the east, Abercrombie Street to the south and Golden Grove Street to the west.

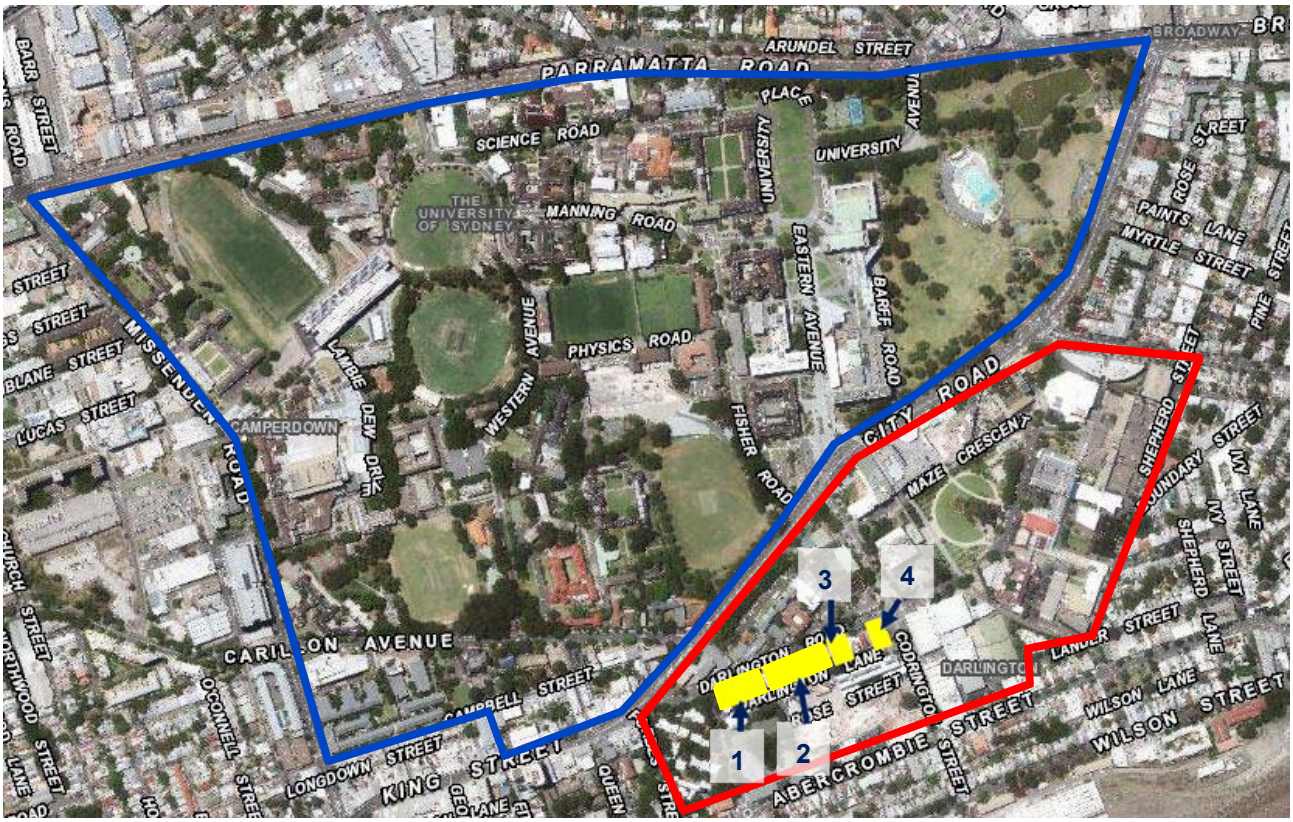

Figure 2.1 University of Sydney Camperdown-Darlington Campus, site denoted by yellow rectangles

2.1.2 Site Description

The site consists of four segments of properties incorporating 38 Late-Victorian lots along Darlington Road, and Darlington House on the western most side. The segments from west to east include:

- H66 Darlington House and 121-131 Darlington Road (Segment 1)
- 98-119 Darlington Road (Segment 2)
- 94-96 Darlington Road (Segment 3)
- 86-87 Darlington Road (Segment 4)

The segments are separated by seven privately owned terraces including 88-93, 97 and 120 Darlington Road (not highlighted in Figure 2.2). These terraces are not proposed for any development works as part of the SSD application. A site survey is provided at Appendix B.

Figure 2.2 Site location

The overall site area is approximately 5,765m^2. The land slopes from west to east and the terraces follow the fall of the land in a staggered form. The site is occupied by Terraces with small garden beds/ planting areas within the rear courtyards. A small pocket park is located on Codrington Street on the eastern edge of the development site.

A site analysis is provided in the Architectural Design Excellence Report in Appendix D.

The site is located outside flood hazard areas. However, Darlington Lane is subject to surface water rises from overland flow paths at certain locations (refer to Stormwater Management Report at Appendix I).

2.2 Existing Development

The Darlington Road Terraces are currently used as a combination of student accommodation as well as University faculty, teaching and office purposes. The rear yards of the Terraces back onto Darlington Lane and the University's new Abercrombie Business School is located opposite. The rear of the terraces consists of dilapidated backyards filled with concrete pathways, bitumen footpaths, grassed areas and battered fencing along the laneway and neighbouring properties. These rear yards are currently underutilised by students and staff.

At the northwest corner of the project site (intersection of Darlington Lane, Golden Grove Street and Darlington Road) is H66 Darlington House. This building is currently used as a University student accommodation residence, providing approximately 54 beds with an underutilised dedicated car parking facility.

The photos below illustrate the existing development on the site.

Figure 2.3 Darlington Road Terraces facing west from the corner of Darlington Road and Codrington Street

Figure 2.4 Darlington Road facing west

Figure 2.5 Darlington Road Terraces looking west

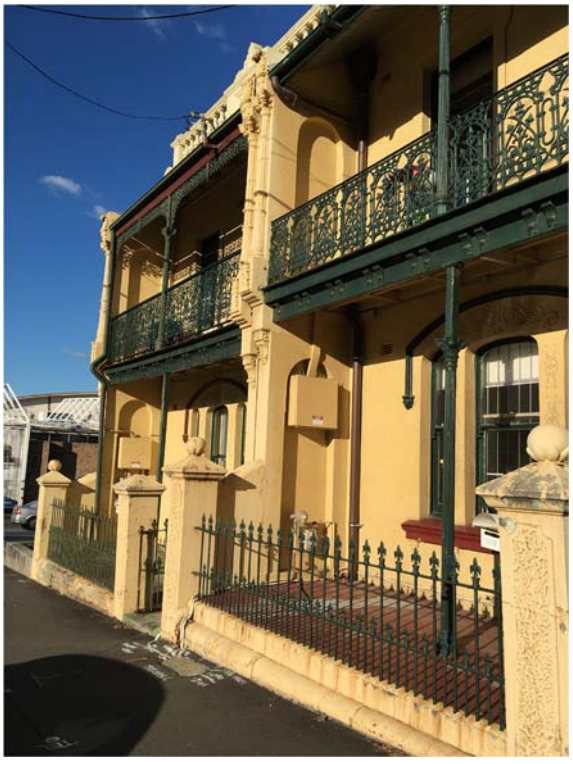

Figure 2.6 86 and 87 Darlington Road facing east

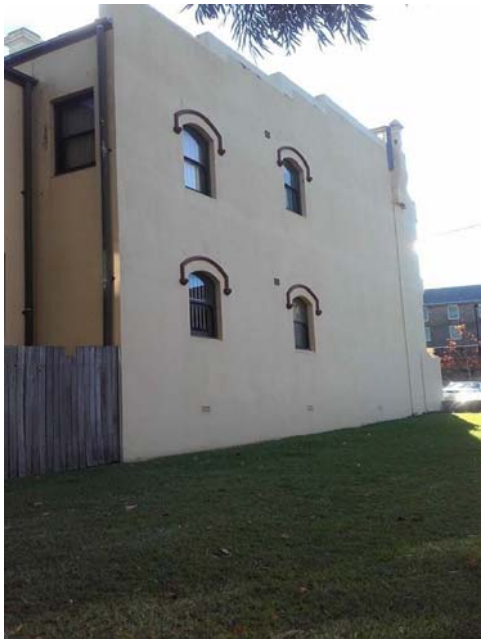

Figure 2.7 Eastern facade of 86 Darlington Road looking west from the corner of Darlington Road and Codrington Street

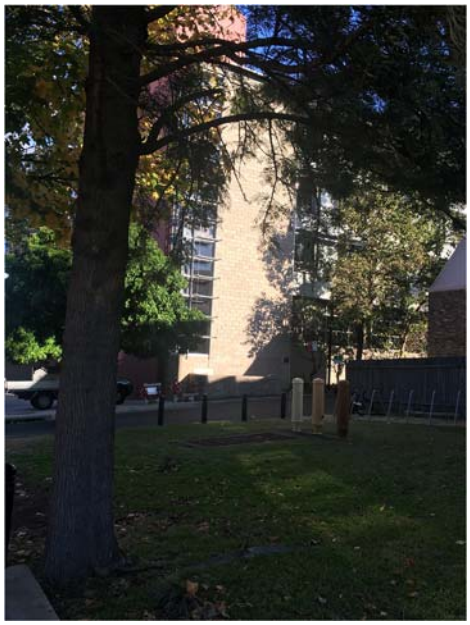

Figure 2.8 Grassed area (Pocket Park) and bicycle storage on 85 Darlington Road looking south towards Abercrombie Business School

Figure 2.9 Darlington House looking west towards Golden Grove Street

Figure 2.10 Darlington Lane facing east towards Codrington Street

Figure 2.11 Rear yards of Darlington Road Terraces from Darlington Lane facing north

Figure 2.12 Rear yards of Darlington Road Terraces from Darlington Lane facing north

Figure 2.13 Significant tree to be retained at 102 Darlington Road

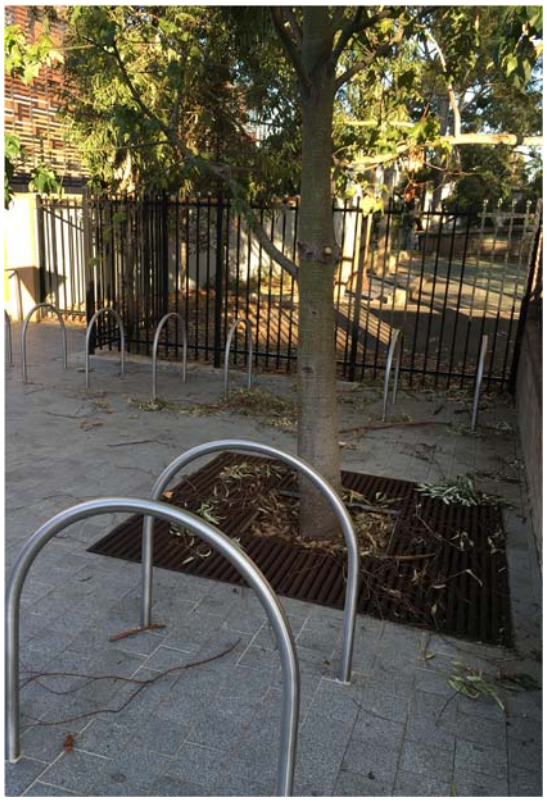

Figure 2.14 Bicycle racks on southern side of Darlington Lane

2.3 Surrounding Development

The University of Sydney's Camperdown-Darlington Campus encompasses an area of around 49 hectares with the Camperdown and Darlington campuses comprising 33 and 16 hectares respectively. The University site comprises more than 230 buildings including teaching and learning facilities for 11 faculties, residential colleges, museums, galleries, libraries, recreation facilities, food and beverage outlets and associated amenities. Buildings on the campus vary in architectural style and design from 19th century sandstone heritage listed items to more contemporary structures. Specifically, the development site is located within the Darlington Campus (Figure 2.15). University buildings located within the immediate vicinity are as follows:

- North of the site on Darlington Road and City Road:
  - Regiment Mixed Use Development (Currently under construction)
  - Darlington Centre – conference centre
  - Storie Dixson Wing – teaching facilities
  - Merewether Building – teaching facilities and student support services
  - Institute Building – teaching facilities and student support services
- South of the site on Abercrombie Street:
  - Abercrombie Business School - teaching facilities, eateries and student support services
  - IXL Garage – meeting rooms and offices
- East of the site on Codrington Street:
  - Noel Martin Sports and Aquatic Centre – recreation facility
  - G12 University Services Building.

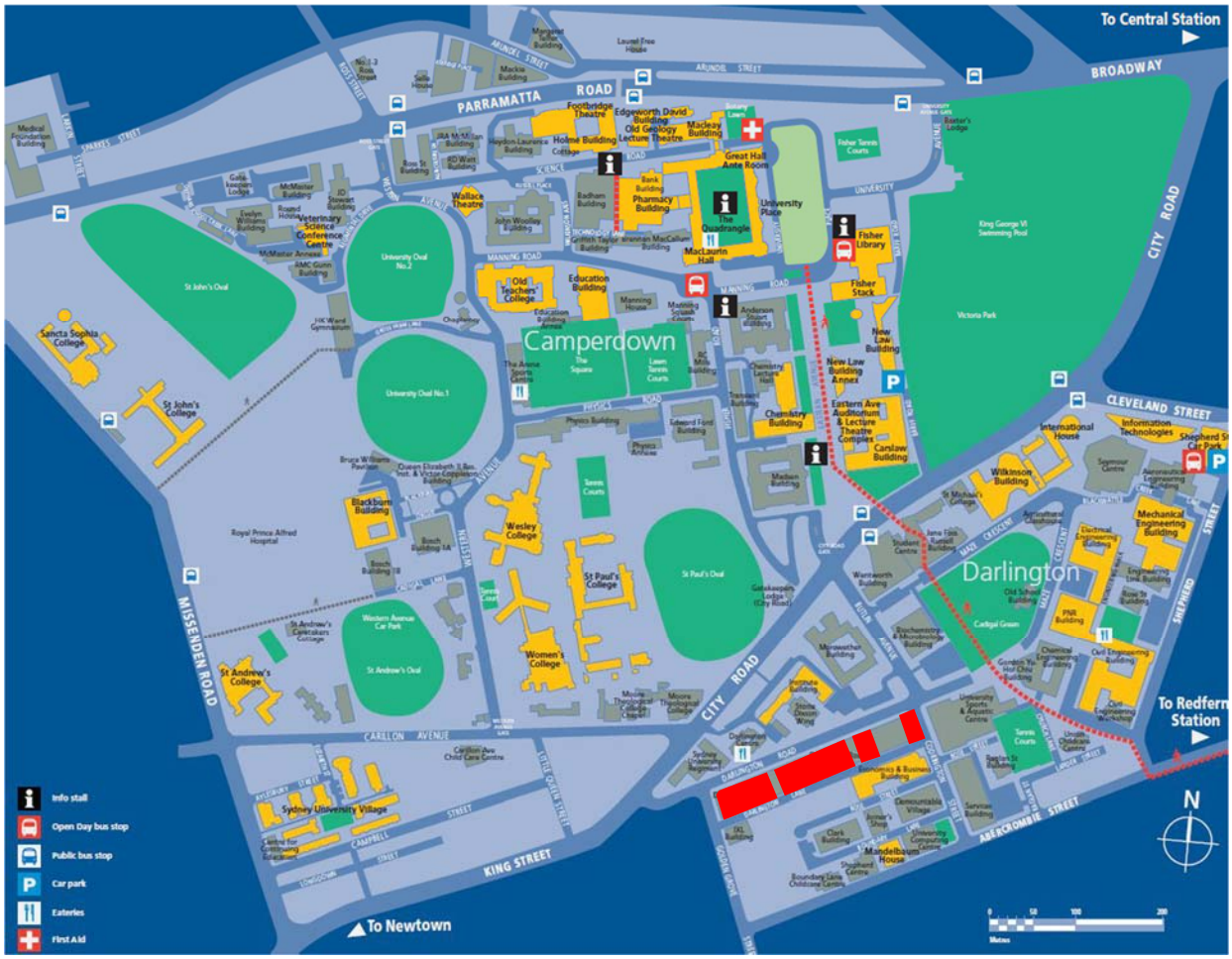

Figure 2.15 University of Sydney Camperdown-Darlington Campus Map, site denoted by red rectangles

There are seven privately owned terraces on Darlington Road between the building segments defined above. These terraces do not form part of the proposed development and are outlined as follows:

- Single terrace between Segments 1 and 2 (120 Darlington Road)
- Single terrace between Segments 2 and 3 (97 Darlington Road)
- Five terraces between Segments 3 and 4 (88-93 Darlington Road).

Development in the surrounding area ranges from two to four storeys accommodating predominately University-related uses with buildings varying in form, scale, style and age.

Existing developments surrounding the site are illustrated in the following photos.

Figure 2.16 Regiment Mixed Use Development facing west from Darlington Road

Figure 2.17 Institute and Merewether Buildings facing east on Darlington Road

Figure 2.18 Biochemistry and Microbiology Buildings facing northeast from the corner of Darlington Road and Codrington Street

Figure 2.19 Noel Martin Sports and Aquatic Centre facing south

Figure 2.20 Abercrombie Business School facing north-west from the corner of Darlington Road and Abercrombie Street

Figure 2.21 Cadigal Green facing east from Noel Martin Sports and Aquatic Centre

Figure 2.22 Darlington Lane facing east towards Codrington Street. IXL Garage located on the southern side of Darlington Lane

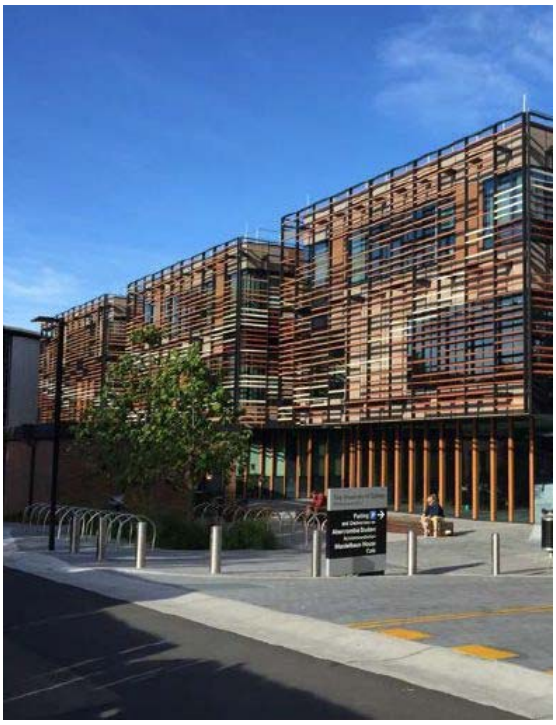

Figure 2.23 Abercrombie Business School ground floor learning area looking east from Darlington Lane

Figure 2.24 G12 University Services Building facing east on Codrington Street

Figure 2.25 Institute Building facing north-west on the corner of Darlington Road and Codrington Street

Figure 2.26 Abercrombie Business School and pocket park looking south-west from Codrington Street

Figure 2.27 Newtown Darlington Suites facing west from the corner of Darlington Lane and Golden Grove Street

2.4 Roads, Access and Transport

A Traffic Impact Assessment has been prepared by SMEC and is provided at Appendix K. The report considers the traffic and parking arrangements of the proposal and adequately addresses the SEARs, CIP Stage 1 - Concept Plan approval and the relevant planning controls.

The major vehicle access route to the site is City Road, leading to and from the Sydney CBD. The local road network surrounding the site is predominately owned by City of Sydney Council and provides access with streets typically characterised with speed limits of up to 50km/h and time-limited parking on either side. The University owns Butlin Avenue and Maze Crescent to the north east of the development site. The road network surrounding the development site is shown in Figure 2.28.

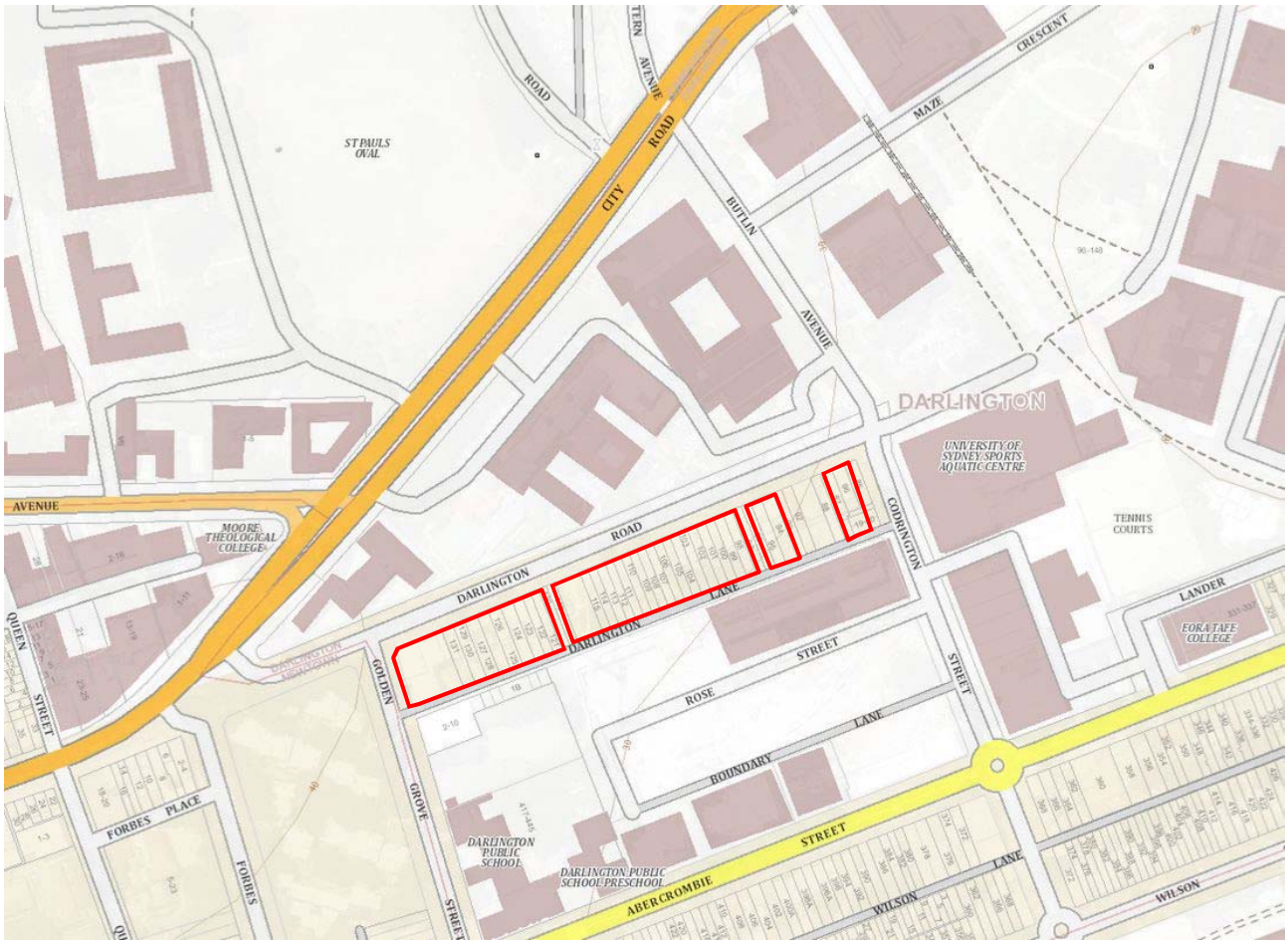

Figure 2.28 Road network surrounding proposal site *(Source: SIX Maps, 2016)*

The proposed development does not provide any car parking spaces as the site is in close proximity to public transport services. SMEC is of the opinion the proposal is not expected to generate additional traffic for the following reasons:

- The majority of students will not have their own vehicle.
- On-site parking will not be provided.
- The site is well located close to public transport and the University.

Accordingly, the report concludes that there will be negligible traffic impacts as a result of the proposal.

Darlington Lane is currently utilised as a service laneway for campus waste management and access driveway to the Abercrombie Business School. Waste collection will occur in the same manner as it presently does and the number of waste collection vehicles is not anticipated to increase as a result of this development. A separate application administered under the *Roads Act 1993* will be made to Roads and Maritime Services for the upgrade and conversion of Darlington Lane. This will be done by the City of Sydney Council on behalf of the University upon finalisation of a Traffic Management Plan. These public domain upgrades are aimed at providing significant public benefits to the local community.

The closest railway station to the site is Redfern, an approximate 700 m walk to/from the site. Redfern Railway Station provides interstate and regular suburban services on the Sydney Trains network, as well as a bus interchange on Gibbons Street. The site is also located one kilometre from MacDonald town Railway Station which is serviced by the T2 Inner West and South Line services.

The site is well serviced by regular bus services along City Road (less than 100m from the site) and Parramatta Road (800m north of the site). There are frequent services to inner west regions of Sydney including Leichhardt, Lilyfield, Tempe, Sydenham and Marrickville as well as services to Bondi Junction and Mosman. There are also frequent bus services to Central Station, facilitating access to the Greater Sydney train network, regional networks and interstate travel. The University of Sydney also provides a complementary shuttle service to students and staff, enabling transportation throughout the campus and to other Sydney University campuses and to Redfern Station.

The campus does not currently have formal bicycle routes. The Traffic Impact Assessment prepared for this SSD application concludes that the internal road network of the University is a slow speed environment, which is conducive to bicycle usage. There are numerous bicycle parking areas located throughout the campus including adjacent to the proposed development. It is also noted that walking (as opposed to cycling) will be the primary mode of access to the site. The University prefers a sharing of pedestrian and cycle routes. Notwithstanding this, the approved CIP Access Strategy prepared by Arup (2013) has identified campus routes that connect to the surrounding Council bicycle network. This is outlined in Figure 2.29 below.

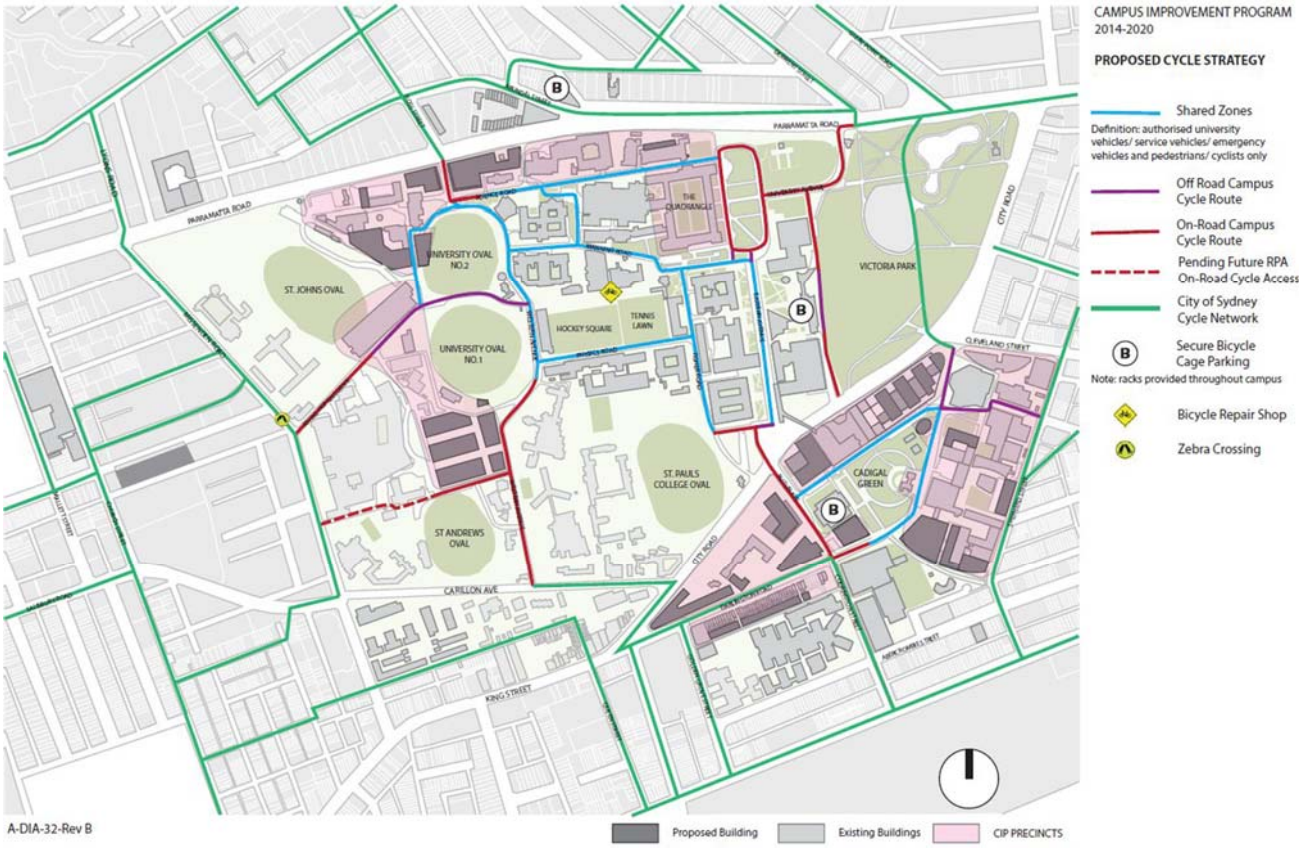

Figure 2.29 CIP Proposed Cycle Strategy *(Source: Arup, 2013)*

Footpaths are provided on all road frontages in the surrounding area with footpaths and ramps provided, with the exception of Darlington Lane. Darlington Lane is proposed to include a number of pedestrian access points to the new buildings. The proposal is to upgrade Darlington Lane to a Shared Road, providing public benefits to the local community through increased pedestrian accessibility and safety.

Existing access and parking conditions around the site are illustrated in the following photos.

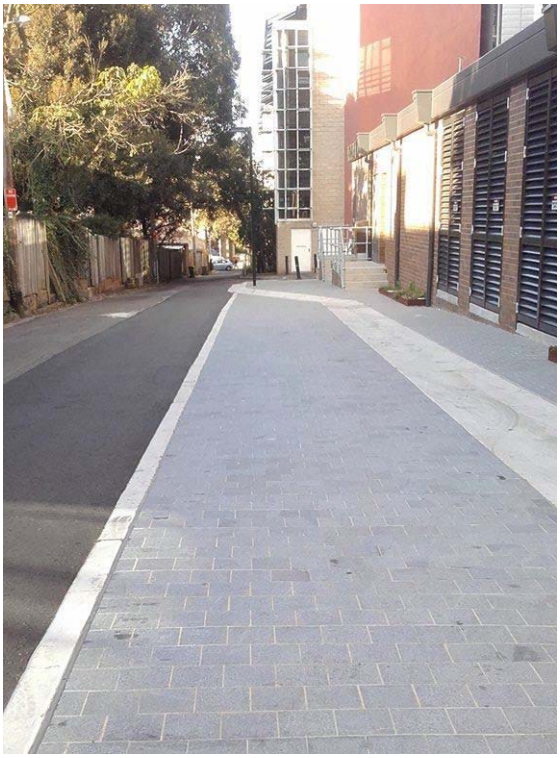

Figure 2.30 Darlington Lane facing east towards Codrington Street

Figure 2.31 No Stopping zone adjoining restricted parking area on Darlington Lane

Figure 2.32 Parking restrictions on Darlington Lane

Figure 2.33 Bicycle racks on Darlington Lane

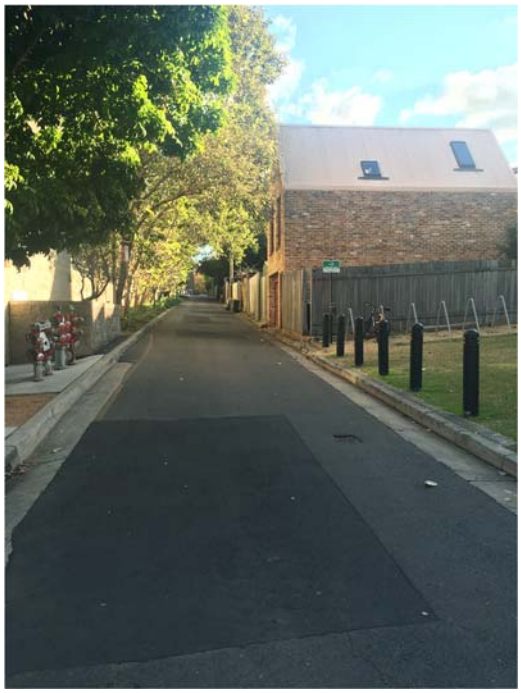

Figure 2.34 Darlington Lane facing west from Codrington Street. Bicycle racks provided in pocket park along boundary fence of 85 Darlington Road

Figure 2.35 Motorbike parking area along Codrington Street

2.5 Heritage

The University campus is well recognised as a place of heritage significance and has been the subject of a number of heritage and archaeological studies. Detailed heritage assessment of the site and the proposal in relation to its context is provided in the Heritage Impact Assessment prepared by heritage consultant Ian Kelly at Appendix L.

The proposal area comprises eight items of local heritage significance under Schedule 5 of Sydney LEP 2012, being items I1528 to I1535. Items I1529 (88 Darlington Road) and I1530 (90-93 Darlington Road) are not included in the scope of works for this SSD application. The whole row of Darlington Road Terraces is also listed on the National Trust (NSW) Register.

The Terraces are representative of late 19th century terrace style housing, demonstrating the subdivision pattern and typical streetscape of the Golden Grove Estate during the late 1800s. Figure 2.36 overleaf illustrates the character of some of the existing terraces.

Figure 2.36 Darlington Road Terraces (Source: Ian Kelly 2016)

The retention, adaptive reuse and conservation of the Terraces are considered to be of primary importance in this redevelopment and is supported by the University Grounds Conservation Management Plan provided at Appendix M. The Heritage Impact Assessment addresses the impact of the proposed development on significant heritage fabric and recommends measures to mitigate any loss of significance.

The University Grounds Conservation Management Plan and the Aboriginal Heritage Impact Assessment Report prepared for the Campus Improvement Program approval (SSD 13_6123) identifies a number of items of Aboriginal heritage significance across the Darlington and Camperdown campuses. However, the proposed development is unlikely to have any adverse impact on the heritage significance given the high disturbance of the existing soil profile and distance from sites that are more likely to be of higher risk of harm.

The Heritage Impact Assessment recommends the following mitigation measures to ensure the proposed development does not contribute to the loss of heritage values at the subject site:

- The preparation of an external and internal archival recording of the 38 Terraces, in accordance with the requirements of the NSW Heritage Division, is to be completed prior to the commencement of works;
- An archaeological watching brief is maintained for the duration of the development;
- Where feasible removed original heritage fabric should be reused in the restoration of corresponding elements in the matching Terraces.
- Final details of all works to the Terraces are to be approved by the Campus Infrastructure Services Heritage Architect prior to construction; and
- An interpretation strategy be prepared and implemented at the completion of the development.

The Heritage Impact Assessment references a number of reports dealing with Historical Archaeology, Aboriginal Archaeology and Aboriginal Cultural Values. The University Grounds Conservation Management Plan and the Aboriginal Heritage Due Diligence prepared by GML Heritage (October 2013) for the Campus Improvement Program approval (SSD 13_6123) and the subsequent Aboriginal Heritage Impact Assessment Report prepared by AHMS (February 2016) conclude that the potential of uncovering archaeological remnants of scientific interest is low and the areas on University land having Aboriginal cultural values are located on the Camperdown campus, well away from the Darlington development site.

3 Proposed Development

This section of the report provides a detailed description of the proposed development.

3.1 Description of Development

The proposed development includes refurbishment and rear building additions to the existing Darlington Road Terraces and H66 Darlington House for mixed uses (refer to Figure 3.1). The proposed works will provide educational establishment facilities for use by residents and the wider university community with up to three levels of integrated dormitory style student accommodation.

Figure 3.1 Proposed Development Site

The development will provide 306 fully furnished rooms accommodating up to 337 students (an increase of 186 from the existing 151 beds) within the refurbished terraces and proposed new buildings. The proposal is to partially demolish the rear skillion roofed additions of the Darlington Road Terraces to provide an internal courtyard space connecting the terraces and new buildings to facilitate development. The facades of the new buildings fronting Darlington Lane have been detailed so as to integrate with the appearance of the adjoining terraces.

The proposal comprises a series of building components built predominately to the street boundary of Darlington Lane. The development comprises four new buildings up to three storeys in height with a sub-basement running parallel to the existing Terraces.

A logical hierarchy of space has been established for this development, locating the most public and communal spaces and facilities on the ground floor to facilitate their ease of access across the site and encourage a more direct connection to external spaces. The provision of these spaces will serve not only the future residents of the development, but also the greater University community.

The Terraces will be adapted to create efficient dormitory living without compromising the heritage significance of the buildings. Internal alterations will link the Terraces together via a central connection spine, allowing residents of each consolidated block of terraces to share communal spaces.

The proposal will also be supported by University facilities such as new retail, food, beverage, sports, and professional services (doctors, optometrists etc.) on campus, as well as benefiting from direct access and connections to teaching, learning, and study and meeting facilities particularly from the adjoining new Abercrombie Business School.

The proposed works are illustrated and described in the attached drawings and architectural design statement prepared by Allen Jack & Cottier Architects (Appendix C). Table 3.1 below outlines the key features of the proposed development.

Table 3.1 Key features of overall proposed development

Feature	Proposed
Gross floor area	7,175m^2
Storeys	▪ Darlington Terraces – 2 storeys ▪ Building A – 3 storeys ▪ Building B – 3 storeys ▪ Building C – 2 storeys ▪ Building D – 3 storeys
No. of Students	337 total (151 already existing)
No. of Staff	6 (shared with the adjacent Regiment student accommodation facility)
No. of Rooms	▪ 306 student rooms ▪ 9 bedrooms available for visiting academics in terraces 86-87 Darlington Road
Apartment mix	▪ 6 double rooms ▪ 62 twin rooms ▪ 207 single rooms (of which 17 are accessible bedrooms)
Education facilities	▪ Maker space: 32m^2 ▪ Lecture theatre: 97.7m^2 ▪ Music room: 21.2m^2 ▪ Learning hub: 233.5m^2 ▪ Study/meeting room: 55.7m^2 ▪ Informal study area: 192.1m^2 ▪ Reading library lounge: 37m^2 ▪ Games room: 48.7m^2
Car parking	**N/A** – no car parking proposed.
Bicycle storage	90 bicycle racks and maintenance space on ground floor of H66 Darlington House
Ground floor	▪ Main entry to rear buildings via Darlington Lane ▪ Secondary entry to rear buildings via rear of Terraces 95-96, 110-111, 115 and 125 ▪ Administration and residential life offices in Terraces 102 and 103 ▪ Student dormitories ▪ Lecture theatre in Building C ▪ Plant room in Building D ▪ Music rooms and learning hub in Building A ▪ The majority of plant space requiring street access is located along the Darlington Lane frontage ▪ Bicycle storage in H66 Darlington House, located in the north west corner of the site ▪ Waste rooms in Buildings A, B and D

Feature	Proposed
Level 1	▪ Student dormitories ▪ Communal living areas including a movie room in Building C ▪ Communal kitchen areas
Level 2	▪ Student dormitories ▪ Communal lounge areas ▪ Informal meeting spaces
Level 3	▪ Roof terrace on Building A ▪ Student dormitories ▪ Communal living areas including games room in Building A
Materials, finishes and facades	▪ Retention of existing Darlington Terraces facades to retain heritage character. ▪ Brickwork infill panels on Darlington Lane elevation to differentiate existing terraces and new development. ▪ Off-form concrete on new buildings to provide a visual expression consistent with the terrace subdivision pattern.
Open space	▪ 1,436m^2 communal open space (including Codrington Street pocket park upgrade) ▪ 264m^2 private open space
Signage	The University will provide general wayfinding and regulatory signage associated with the Shared Road.

Table 3.2 below summarises the key features of each building component.

Table 3.2 Key features of proposed development by building component

Feature	Terraces	Building A	Building B	Building C	Building D	Total
Gross floor area	3,427m^2	1,364m^2	1,852m^2	234m^2	298m^2	7,175m^2
Storeys	2	4	4	2	3	-
No. of Students	192 total (151 existing)	52	79	0	14	337
No. of Rooms	161	52	79	0	14	307
Apartment mix	Double bed rooms, twin bed rooms and single bed rooms	Single bedrooms only	Single bedrooms only	**N/A** – no rooms proposed	Single bedrooms only	Double bedrooms, twin bedrooms and single bedrooms
Education facilities	24m^2	281.4m^2	262.3m^2	174.2m^2	-	741.9m^2
Car parking	-	-	-	-	-	**N/A** - no car parking proposed
Bicycle storage	-	-	-	-	-	90 cycle racks in H66 Darlington House

Feature	Terraces	Building A	Building B	Building C	Building D	Total
Ground floor	Student dormitories, living and kitchen areas, learning hubs	Student dormitories, living and kitchen areas, music rooms, learning hub, storage	Student dormitories, living and kitchen areas, games room, maker space, storage	Lecture theatre and public space	Plant room and dining/living area	Refer to Table 3.1.
Level 1	Student dormitories, living and kitchen areas	Student dormitories, living and kitchen areas	Student dormitories, living areas	Communal living area	Student dormitories	Refer to Table 3.1.
Level 2	-	Student dormitories, games lounge and roof	Student dormitories, living areas	-	Student dormitories	Refer to Table 3.1.

3.2 Open Space, Landscaping and Public Domain

The proposal includes significant communal open space and landscaping throughout the development as illustrated in the Landscape Plans at Appendix F. The proposal aims to create an attractive and high quality landscape for the amenity of residents, users of the adjacent street and adjoining neighbours.

The proposed landscape courtyard is a series of long narrow courtyards connecting the existing Terraces to the new buildings, providing break out space for students. A roof terrace provides a BBQ and outdoor study area for students as well as a green roof to a significant portion. The existing University pocket park on the corner of Darlington Road and Codrington Street will also be upgraded, contributing to a superior landscaping, open space and public domain outcome, which will constitute a significant public benefit to the local community. This will continue to be accessible by the general public.

The landscaping design focuses on Aboriginal and Torres Strait Islander culture as part of the University's commitment to the implementation of its Wingara Mura Strategy. The planting, trees, materials and overall concepts are reflective of these values, including the following items:

- Timber elements including decking, seats and desks.
- Native plants and trees reflective of the sites historic use as a Turpentine Iron Bark Forest.
- Hardscaping and soft landscaping elements.
- Colour to reference paths of tracks previously used in the area.
- Indigenous naming on places and spaces.

Lighting is proposed along paths within the development site and to signify building entrances. The location of lighting has been considered to ensure that there is limited light spill to neighbouring residents, properties and roads and will be designed in future stages to conform to Australian Standards including AS 4282:1997.

3.3 Access and Parking

Pedestrian access to the new buildings will predominately be from Darlington Road and Darlington Lane to enable activation from the ground floor plane from either side of the development. Building entrances will focus on the security on-site and separation from the public domain.

Accessible entrances to the new terraces will be provided via the terraces located at Nos 94, 102 and 125 Darlington Road. Pedestrian access from Darlington Lane to the refurbished terraces and common areas will be consolidated into four single access points within each of the new buildings.

Directional and wayfinding signage will be implemented to ensure access points are clear to people visiting the site. Further details of wayfinding measures relating to this proposal are within the Access Report provided at Appendix N.

The proposal does not seek to provide any car parking on-site to service the development. Servicing of the development, including waste collection will occur from Darlington Lane. Darlington Lane acts as an existing service lane, currently serving waste collection for the existing Terraces and Abercrombie Business School, as well as providing access to the Abercrombie Business School car park.

Bicycle storage and maintenance space is proposed in the basement of H66 Darlington House within an underutilised dedicated car parking area. A total of 90 bicycle racks are proposed within this area (1 space per 4 people). Cyclists are to access the site from this point.

3.3.1 Shared Road

The proposed upgrade and conversion of Darlington Lane to a Shared Road, to ensure a safe pedestrian prioritisation and activation of the lane, will directly serve and support new building entrances off Darlington Lane. As referred to in Section 5.2.3 below, these works are also offered as part of this SSD application to be the subject of a condition of consent in the Minister's determination or required to be undertaken pursuant to a voluntary planning agreement between the University and the Minister, should the consent authority impose Development Contributions under the RWA Contributions Plan (despite the University's request for an exemption as discussed in Section 5.2.3). The University has developed this proposal in consultation with the City of Sydney Council, including the development of a Traffic Management Plan.

The design will aim to achieve maximum safety and security to all users by reducing vehicle speeds to 10km/h through the introduction of traffic calming measures such as landscaped traffic islands along the north side of the lane and speed cushions. Landscaping around building entrances has been designed to ensure sightlines are left clear for people entering and leaving the premises.

The entire lane will be treated with a new stencilled/painted surface appropriate for a shared zone. Continuous footpath treatment to Darlington Lane from Golden Grove and Codrington Streets (refer Figure 3.2 below) will emphasise the lane's use by one-way traffic and pedestrians. Existing vehicular access to the privately owned terraces will remain.

Figure 3.2 Proposed footpath treatment on Darlington Lane

Further detail of the proposal layout and the materials proposed is provided in the Public Domain Plan prepared by Oculus (Appendix G).

3.4 Heritage restoration

The proposal involves internal alterations and demolition of rear additions behind the Terraces along Darlington Road. The works inside the Terraces include the removal of some internal walls and staircases, as well as kitchens and bathrooms in order to provide modern student accommodation facilities while retaining most of the significant heritage fabric of the existing terraces. Generally, existing significant original details, fixtures and fittings including fireplaces, doors, timber moldings and plaster details will be retained throughout the 38 Terraces subject of this SSD application.

In order to improve the internal configuration, remove very small bedrooms and improve the sense of community within the student accommodation component of the development, the Terraces will be grouped. This will result in the loss of 17 staircases and the cutting of 17 doorways through the party walls of adjoining terraces to provide connections to the shared student facilities. The removed internal walls will be interpreted through the retention of nibs throughout the development. Overall, the removal of the original heritage fabric will be mitigated by its reuse elsewhere in the restoration of corresponding elements in the matching Terraces.

Overall, the impact of the mixed-use development on the heritage significance of the 38 Terraces in Darlington Road is considered acceptable.

3.5 Materials and Finishes

A Schedule of Materials and Finishes has been prepared by Allen Jack & Cottier and is included in the Architectural Drawings provided at Appendix C and detailed in the Architectural Design Excellence Report provided at Appendix D.

The CIP conditions of consent recommend that the interpretation of the original terrace subdivision pattern should be interpreted within the elevations and should not appear as a single large mass. The proposal seeks to achieve this through exposing structural columns and blade walls to establish a grid along the new facades, evoking the vertical party walls of the Terraces. The facades of the Darlington Road Terraces will retain their existing Victorian-era character. The proposed facade treatment of the new buildings addressing Darlington Lane aims to maintain the structural rhythm of the existing terraces, but will be interpreted using different materials to clearly identify them as new works. This will allow the project to celebrate the two different architectural styles that will be visually linked with the courtyard running between them.

Finishes for the new building additions will be complementary of their heritage context and will consist of the following materials:

- Face brickwork infill panels along the Darlington Lane elevation to establish a clear relationship to the existing terraces and the surrounding context.
- Off-form concrete for the facade construction to replicate the traditional terrace subdivision pattern within the new buildings.
- Frosted glass under the awning windows to rooms assist in further breaking down the facade plane.
- Aluminium framed windows in sympathetic proportion to those within the terraces and surrounding area but will also serve as a point of contrast to older buildings.
- Full height glazing to the common break-out spaces provides the opportunity to install large scale graphics etched onto the glass as part of the University of Sydney's Wingara Mura Strategy to recognise the local Indigenous community.
- Glazed zones on projected stairwells to act as visual connections through the buildings and assist in wayfinding.
- Glass and steel structure to Building C to signify a public building and a student accommodation community building relating to the courtyard and existing tree.

3.6 Services

An Infrastructure Management Report has been prepared by LHO Group and is provided at Appendix P. The report indicates that the site is already serviced with electrical, communications, water supply, sanitary and stormwater drainage and gas infrastructure. These will be upgraded as required to accommodate the proposed development and designed in accordance with relevant standards and authority requirements.

Due to the narrow width of Darlington Lane and privately owned Terraces severing the development site, the University is proposing to consolidate the development's fire booster assembly, pump room and control centre. This will be located at the eastern end of the site, which can be easily accessed by Fire and Rescue NSW from Codrington Street. The University has been in consultation with the City of Sydney Council throughout the design process to ensure the proposed works will meet all specifications and standards prescribed by Council. The University has also received confirmation of approval of the consolidated fire system from Fire and Rescue NSW.

The proposal also includes provision for energy saving measures and rainwater reuse to reduce water consumption. An Integrated Water Management Report has also been prepared by LHO Group and is provided at Appendix Q. The report identifies methods of rainwater collection from the terrace roofs facing Darlington Road, solar water heating and non-potable water reuse for toilet flushing.

3.7 Description of Operations

An Operational Plan of Management has been prepared by the University of Sydney and is provided at Appendix R. The Plan details facilities management procedures for the proposed development in accordance with compliance requirements.

Garbage and recycling facilities are to be provided in accordance with the requirements of the City of Sydney's Waste Management Policy and supporting fact sheets. There is also a University Waste Management Plan for student accommodation. On-site garbage and recycling storage areas within each building are detailed on the architectural plans at Appendix C, and are provided in accordance with the requirements for waste storage areas for Class 3 Boarding Houses.

The proposed staffing model consists of a Head of Hall and Deputy Head of Hall (both shared with the adjacent (under construction) Regiment student accommodation facility), Residential Coordinators, Residential Advisors, Night Managers, Facilities and Service Manager, Facilities Coordinator, Business and Finance Manager and Resident Services Officers. Refer to Figure 3.3 below.

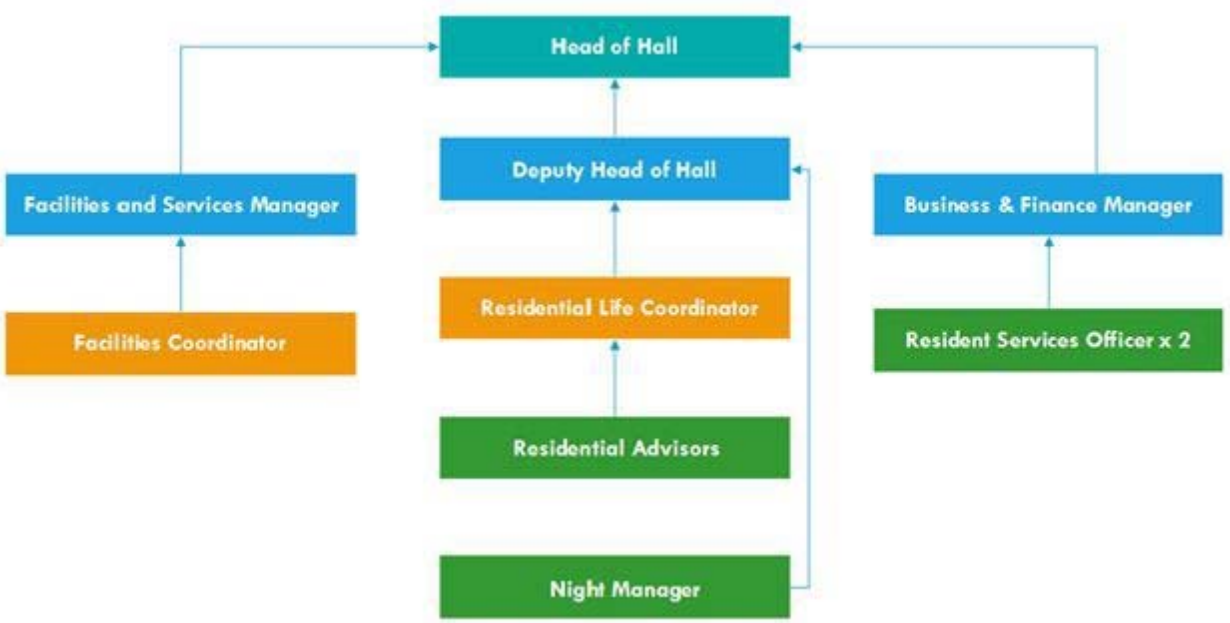

Figure 3.3 Staffing Model

The Plan states that management are onsite 24 hours a day, with additional security patrols at night by Main Campus security who are located less than 50 metres away. Safety features to ensure student safety and wellbeing include, but are not limited to, access cards, CCTV, security patrols and house rules and tenancy agreements.

3.7.1 Blended Learning

The proposal includes blended educational and learning environments, integrated within the student accommodation component of the proposed development and including communal facilities available to the wider University. The Darlington Terraces Mixed Use Development will provide the following facilities and learning spaces, which will be fully managed by the University:

- Lecture theatre
- Multiple audio-visual enabled teaching spaces
- Study areas available on all residential floors (not available to wider University or local residents)
- Breakout spaces and learning hubs for quiet study
- 3D printing fabrication labs and maker spaces
- Music practice rooms
- Technology labs.

These spaces are accessible and bookable by residents of the development and the wider University staff and student community. At times, these spaces will also be made available to residents of the local area.

There will be a 10pm nighttime curfew for the roof terrace area.

3.7.2 Student Accommodation

The University will own, operate and manage the student accommodation facility. At present, the University provides and manages six residences of affordable self-catered student accommodation around the main campus, including Abercrombie, Darlington House, Selle House, the Arundel Street Terraces, International House and the Queen Mary Building.

The residential component of the development will accommodate a total of 337 students and residential assistants (including 151 existing students already on-site), seven days a week.

Once completed, the University's Student Accommodation Services (SAS) department and staff will take responsibility for the residential management, customer service, night management and administration with financial, maintenance and servicing falling under the Campus Infrastructure Services (CIS) department. The University encourages its students to integrate within the local community, and facilitates a successful and harmonious living environment through the University's extensive residential life and pastoral care programs.

The student accommodation component will operate in accordance with the University Operational Plan of Management prepared by the University of Sydney provided at Appendix R. This plan sets out an on-site management structure for the operation, administration, maintenance and safety of the Darlington Terraces mixed use development to ensure it is operated in a manner that maintains a high level of amenity for residents, students and neighbouring properties. In accordance with the plan, students will be required to abide by the house rules which relate to health and safety standards, room maintenance, emergency procedures, student welfare and obligations, complaints, management and response (both internal and external) and guidelines on respecting the local community.

3.8 Design Excellence

The proposed development does not trigger the requirement for a Design Competition in accordance with Clause 6.21 of Sydney LEP 2012 as the building falls below a maximum height of 25m above natural ground level and has a CIV below $100 million.

Notwithstanding this, the University is committed to achieving design excellence and recognises the importance of enhancing precinct identity across the Camperdown-Darlington Campus. As such, an architectural design process was conducted by the University at the project's inception to adhere to the design excellence criteria within Sydney LEP 2012 and the University's Design Excellence Process. A summary of the competitive design and development process undertaken by the University for the Darlington Terraces Mixed Use Development is provided at Appendix E.

The University's Design Review Panel conducted independent scoring of all schemes provided by architectural firms listed on the University's pre-qualified architecture panel. The panel recommended the appointment of Allen Jack & Cottier Architects for the concept and detailed design of the Darlington Terraces Mixed Use Development.

An Architectural Design Excellence Report has been prepared for this proposal and is provided at Appendix D. The report outlines key design principles adopted in the development of the scheme and how the principles and objectives of existing government design policies and guidelines have been addressed. The report demonstrates how the Darlington Terraces Mixed Use Development will achieve design excellence and positively contribute to its wider context.

In addition to the relevant design policies and design excellence requirements of Clause 6.21 of Sydney LEP 2012, the Government Architect of NSW recently released a *Draft Better Placed Architecture Design Policy* (*Better Placed*), which sets out the framework for assessing and reviewing proposals. *Better Placed* identifies the importance of infill projects in providing new housing in urban settings, and recognises the contextual implications of such interventions. The proposal responds to the objectives of the draft policy by achieving a

design that responds to the character of its location and environment. The retention and adaptive reuse of the Terraces is a vital component of the design, creating a unique project outcome both visually and functionally.

The proposal demonstrates design excellence and has been designed with a high quality of architectural design, materials and detailing to provide an appropriate transition between the Darlington Road Terraces and the Abercrombie Business School. The new buildings have also adopted a built form that responds to the traditional subdivision pattern of Darlington Road through its retention and amelioration of the Terraces. The design response also considered the impact on neighbouring privately owned Terraces, by limiting any overshadowing and amenity impacts.

The incorporation of the mixed-use buildings into the precinct has been successfully achieved in a manner complementary to the existing Terraces through the creation of communal courtyards, which provide a buffer between the old and new buildings. The courtyards also provide:

- A central base for wayfinding and direction
- A direct link to Terrace entry points
- An active meeting place
- A visual link to internal communal areas.

Overall, the proposal demonstrates the University's commitment to design excellence and adequately addresses the requirements of relevant legislative provisions and design policies.

3.9 Justification and Assessment of Alternatives

Schedule 2, Clause 7 of the *Environmental Planning and Assessment Regulation 2000* requires an application to analyse any feasible alternatives to carrying out the development, including the consequences of not carrying out the development.

The vision for the building additions and alterations to the existing student accommodation and educational establishment at Darlington Terraces and Darlington House is to enrich the experience of University life for all students through the provision of upgraded and mixed-use buildings. This proposal will integrate educational establishments with new and affordable student accommodation and student support facilities. This SSD project seeks to provide approximately 7,175m^2 of new mixed-used development that will provide student bedrooms with other educational establishment uses including teaching, learning, meeting, study, and student support facilities.

3.9.1 Do Nothing Scenario

The option of not undertaking the development will result in the existing Darlington Terraces on site being retained in their current form. The Darlington Terraces are currently under-utilised due to limited capacity, inadequate spatial layout and facilities for student accommodation purposes, inadequate modern teaching/learning facilities and spatial provision, and the lack of flexibility of operation it can accommodate. Furthermore, the University's Strategic objectives include increasing the provision of affordable student accommodation and support facilities within the Camperdown-Darlington campus.

If the proposed development does not proceed on these University owned sites, the demand for affordable student beds within the University campus and within the City of Sydney jurisdiction will not be addressed. Consequently, the pressure on private rental accommodation will not be reduced. It will also adversely affect the ability for The University of Sydney to compete in the international market for students where peer universities can package courses and accommodation as an offer for new students.

This “do nothing” approach will not facilitate an improvement of the operating capacity of the University, will not facilitate other public domain improvements envisages as part of this development, and will also not help achieve the redevelopment of the Merewether Precinct as envisaged by the University’s approved Campus Improvement Program (CIP) SSD 13_6123. Accordingly, the ‘do nothing’ scenario for the site was not considered an appropriate course of action.

3.9.2 Alternative Design

As part of the University’s SSD approved (13_6123) Concept Campus Improvement Program for the Camperdown-Darlington campus, the University undertook a Concept Design Analysis by Cox Richardson, which resulted in a vigorous examination of building envelope options for the Darlington Terraces site, including the mitigation of adverse environmental impacts (e.g. shadow impact analysis) upon neighbouring building and heritage properties. For example, the analysis concluded in minor setbacks to the north-western corners of the buildings abutting the private terraces to ensure solar access to their private open space is not compromised. Similarly, the analysis concluded in a design envelope for the new building additions fronting Darlington Lane to be subservient to the ridgelines of the existing heritage-listed Terraces fronting Darlington Street. The result of this analysis resulted in the approved CIP envelopes for the Darlington Terraces (Merewether Precinct) through the Stage 1 SSDA 13_6123.

In 2014, the University of Sydney conducted an ‘invited’ architectural design competition to (5) architectural companies. The design schemes were reviewed by the University Design Review Panel and the Building and Estates Committee (BEC).

The University’s Design Review Panel conducted independent scoring of all schemes through the University’s eValua on-line tool (evaluated on non-Price and Price criteria). The design schemes were assessed on the following design criteria:

- Design board submissions to demonstrate:
  - Site analysis;
  - Benchmarking imagery and precedent studies;
  - Indicative layouts (not a complete design) in part plan and part section showing how the existing terraces may be integrated into the design;
  - Vignettes demonstrating mood, culture, possible look and feel; and
  - Indicative external materials.
- Demonstrated design capability, design approach and understanding of the significance of the adjoining terraces and integration in the design
- Demonstrate the integration of the building block successfully in a safe, efficient and appropriate manner.

The outcome against the design criteria and design options was that Allen Jack + Cottier Architects were nominated as the project architects.

Subsequent to the design competition, the University in collaboration with the successful Project Architect Allen Jack & Cottier (AJC) Pty Ltd, have developed the design schemes to achieve design excellence adopting both the University’s design excellence requirements and the *Sydney LEP 2012* design excellence criteria, as well as the Government Architect NSW *Draft Better Placed Architecture and Design Policy*.

The extensive design of development options undertaken represents an evolved and considered design response that complements the established urban form and massing, along with respecting the heritage elements on the site. In terms of scheme design the Architect’s Design Report (at Appendix D) identifies the various stages in the development of the proposal.

As such, several design options have been explored and the present design has been settled upon as most suitable approach to the redevelopment of the site from the University.

3.9.3 Proposed Design

The proposed new mixed-use building additions and alterations to the Darlington Terraces and Darlington House will facilitate a significant improvement in the aspect and local environment at the site. Extensive site planning and design review has been undertaken to ensure an appropriate urban form and design is achieved. This process has included a positive pre-DA review with the City of Sydney Council (planning, urban design, heritage and transport). The proposed development has balanced the preservation of heritage items, functionality and safety of Darlington Lane, functionality for future users, and has ensured suitable compatibility with the future urban context and form as reflected in the adopted CIP. An *Architectural Design Excellence Report* is included at **Appendix D**, and a *Design Excellence Process* included at **Appendix E**, of this EIS report.

The proposed development will strengthen the University's role in contributing to the growth of the Camperdown Education and Health Precinct within the Central Sydney Subregion, the University's Darlington campus and more broadly the NSW economy.

In light of the above options and competitive design process, the final design for this application is considered to be suitable for the site and its context. It is the most appropriate solution which offers the best outcome for students and the University.

4 Consultation

In accordance with the SEARs, an appropriate level of consultation must be undertaken with various public authorities, service providers, community groups and affected landowners as part of the proposed Darlington Terraces Mixed Use Development.

Consultation has been undertaken with the following agencies to discuss the proposed development of the site:

- City of Sydney Council
- Heritage Council of NSW
- Transport for NSW
- Roads and Maritime Services
- Local community groups and residents

A summary of the consultation undertaken is provided in this section and in a summary report prepared by the University at Appendix S.

4.1 Consultation with Authorities

4.1.1 City of Sydney Council

On 13 May 2016, representatives from the University attended a consultation meeting with representatives from the City of Sydney Council to discuss the proposed development. The following table summarises the items raised and discussed in the meeting and how the proposal responds. It is noted that this table was issued to City of Sydney Officers on 16 February 2017.

At the pre-DA meeting with Officers of the City of Sydney Council on 13 May 2016, Council also requested the University provide a response to proposed room sizes against the minimal spatial requirements of the Affordable Housing SEPP.

The University has since submitted its *Student Accommodation Bedroom Size* paper to Council, and subsequently invited Council officers to visit the University's Queen Mary Building and Abercrombie Student Accommodation buildings. The tour was intended to demonstrate the University's case and justification of the mixed use nature of student accommodation buildings, and justification for the 10m² bedroom sizes. Council's Area Planning Manager, Senior Planner and Heritage Manager visited these University buildings on 2 February 2017.

On 21 February 2017, Council's Senior Planner wrote to the University (via email) advising that both she and the Council's Area Planning Manager concluded the University's position for bedroom sizes to be acceptable in this case.

Table 4.1 Consultation Meeting with City of Sydney Council issues and responses

Issue	Council concerns raised and recommendations	Response
Property ownership and urban form	▪ Council supports the separation of terraces by forging a modulation and streetscape breakup rather than a relentless urban form.	This form has been retained.
Heritage significance, retention and interpretation	▪ Council would like the SSD application to define the degree of retention of original stairs, balustrades, fireplaces, chimneys and terrace entrances off Darlington Road.	This has been shown in the architectural plans provided at Appendix C.
	▪ Council recommends a Heritage Retention Plan to be included in the Heritage Impact Statement.	Heritage retention plans for the Darlington Road Terraces are provided in the Conservation Management Plan provided at Appendix M.
	▪ Council would like a clear diagram or schedule showing which stairs are to be removed, either at the DA or CC stage.	This has been shown in the architectural plans provided at Appendix C.
	▪ Council noted preference that heritage elements if retained are integrated and not covered.	This has been shown in the demolition part of the architectural plans provided at Appendix C.
	▪ Council noted preference for reuse of original building materials within the terraces to optimise conservation (i.e. four panel doors, balusters, etc.)	Heritage restoration is addressed at Section 3.4 of this EIS and in the Heritage Impact Statement provided at Appendix L.
	▪ Council request that the retention of the chimneys in the newly created open plan common space of each accommodation block is considered. If possible original wall layouts to be defined by nibs or reflected in changes.	Section 6 of the Heritage Impact Statement provided at Appendix L recommends where feasible, removed original heritage fabric should be used in the restoration of corresponding elements in the matching Terraces. In particular, the design has been amended to retain the fireplaces and chimneys in the common areas in the following Terraces: 94, 101,102,103,105,106,110,115, 116,122,124,128 and 129.
Bathrooms	▪ Opportunity for new bathroom layouts that reveal original fabric.	Where feasible, the internal layout of the terraces has been reconfigured to retain as much of the original fabric as possible.
Entrances	▪ Three (3) key entry points off Darlington Road have been retained.	Noted. This has been retained.
	▪ SSD application to address primary and secondary access/egress points, including Darlington Lane.	Both Darlington Lane and Darlington Road provide primary entrances to the development.

Issue	Council concerns raised and recommendations	Response
		The primary access/egress points for the Terraces are via Darlington Road. This will ensure the existing street address remains active. It will provide a point of difference by providing domestic-scale points of entry to the entire development through the communal outdoor areas into the new buildings. Access to the new buildings will be provided off Darlington Lane, which is proposed to become a Shared Road with pedestrian prioritisation measures implemented.
	▪ The University to ensure landscaping at the front of terraces is light and in keeping.	This has been achieved. Refer to Landscape Plan at Appendix F.
Balconies	▪ The University clarified that all existing dwellings with enclosed balconies are privately owned. ▪ SSD application to highlight BCA compliance of balconies and approach to retention / lifting of existing balustrades.	The University will ensure BCA compliance is appropriately addressed and achieved as part of the building alterations to the terraces. This detail has been addressed in the Heritage Impact Assessment provided at Appendix L and the BCA Report provided at Appendix T
Existing gates and entrances	▪ The University noted that the widening of one door into the newly formed paired common space terrace was required for DDA access (from Darlington Road) gate widening would be addressed in tandem.	Common Terraces have been consolidated to singles. An Access Report is provided at Appendix N.
	▪ All works to be sympathetic to surroundings.	Justification is provided in the Architectural Design Statement provided at Appendix D.
	▪ The University clarified that the 3 principal entrances produced the least intrusive invasion on heritage fabric.	Noted. These have been retained.
CIP building envelope	▪ Council noted two minor areas of building protrusion above CIP envelope. AJ+C confirmed intention to achieve 100% full CIP envelope compliance. However, the current scheme has minor protrusions of 60-100mm. Council noted that this is not a great concern as the majority of design is well below CIP height limit, overall subservience to the host terrace ridgelines is achieved, and the building additions will not be visible from Darlington Road. ▪ Council also noted that the main area of protrusion was adjacent the retained tree so that the exposure of the existing rear Terrace facades would be preserved when viewed from side Abercrombie Business forecourt.	The proposed SSD scheme has been amended (since pre-DA with the City of Sydney) to now fully comply with the CIP building envelope.
Elevation arrangements	▪ Council noted that the verticals on the southern façade, if positioned correctly, may be useful to shade the windows from low afternoon summer sun. They may also be useful	There is no need to provide shading on the southern facade facing Darlington Lane.

Issue	Council concerns raised and recommendations	Response
	to shade the windows on the northern façade in conjunction with sun hoods.	Shading devices over windows to the northern facades have been provided.
Shared Road to Darlington Lane	▪ RMS is the responsible authority. ▪ Council supports shared road from an urban design position. ▪ Proposal will need to be submitted to the Council Traffic Committee. ▪ Council recommend the University visit RMS with a Council representative. ▪ Council noted that if the road was raise the retention of the existing kerb line could be interpreted within the proposed raised lane threshold. ▪ Need to have an understanding of flooding resulting from the proposal (including lane).	Noted. A draft Traffic Management Plan is currently being prepared by the University in collaboration with the City of Sydney Council's traffic engineers. This will be finalised prior to submission of an application to Roads and Maritime Services under the *Roads Act 1993* to fulfil a condition of the Abercrombie Street Precinct Development Consent (MP07-0158). Further detail about this proposal is provided in the Traffic Impact Assessment at Appendix K.
Fire hydrant pump room	▪ From an Urban Design position, Council supports the provision of 1 consolidated Pump Room with Fire Hydrant line running along (underneath) the Lane.	The provision of fire service infrastructure will be located under Darlington Lane to support the development's Fire Fighting Strategy. This will be designed to ensure that Council's specifications and standards are met and that any private infrastructure and road assets are adequately protected. The University received a formal statement from Blackett Maguire & Goldsmith in support of a consolidated fire system received from Fire and Rescue NSW.
Proposed laneway Acquisition	▪ Council recommend the University discuss with Council's Property Division – Samantha Urqhardt. ▪ Council has expressed preference for the University to pursue the acquisition of Darlington Lane from them. Given the University owns the majority of the properties adjoining Darlington Lane, Council are of the opinion that it would be logical to amalgamate the precinct. ▪ The University to address proposal of burying services underneath raised laneway. ▪ City of Sydney Public Domain team reviewed the Shared Road proposal and ultimately did not support island planting beds, requesting a redesign.	The University remains interested in acquiring Darlington Lane but would request for timing reasons this is treated separately from this SSD application. Should the University be successful in acquiring Darlington Lane, it would not seek to prevent any access to the private Terrace owners or tenants to their rear yards or vehicular access. It is understood this can be achieved by providing an easement over Darlington Lane in favour of the private owners.

Issue	Council concerns raised and recommendations	Response
		All servicing works will be designed to meet City of Sydney Council's specifications and standards. Plans will be forwarded for approval prior to commencement of hydraulic services works in public roadways. The University has connected the planters back to the building façade for deeper planting. Drainage will be resolved in the detailed design phase.
Garbage rooms	▪ Council request SSD application to address number of proposed garbage rooms and adequacy of size, and frequency of garbage collection. ▪ SSD application to also address how existing and new terraces occupants will dispose of garbage, and whether the SSDA includes any bins to Darlington Road (in addition to Lane).	A Waste Management Plan has been prepared addressing these details (refer to Appendix U)
Bedroom sizes	▪ Council noted that a number of bedroom sizes were less than DCP control. ▪ Council recommend SSD application argument address upfront the arguments of reducing pressure on the private housing market, shared and generous communal spaces, open space, amenity and surrounding campus facilities. Position also supported by provision of affordable rental rates ▪ The University has recently delivered 800 10m^2 bedrooms in the converted Queen Mary Building. This building won the Australasian Association of College University Housing Officers (AACUHO) Student Housing Operations of the Year award and has had no negative feedback in relation to bedroom sizes. ▪ The Department of Planning and Environment has recently approved the University's Regiment mixed use development which includes over 600 beds of approximately 10m^2. (This project is currently under construction).	Adequate justification for the proposed bed sizes is provided in Appendix HH – University Affordable Student Accommodation Report.
Trees	▪ Council noted CIP requested retention of 2 trees, subject to submission of an Arborist Report. ▪ The University to address via Arborist Report. USYD noted enhanced landscaping / planting to existing park adjacent to Terrace No 86 Darlington Road as part of submission.	Justification for the removal of a significant tree on the site has been provided at Section 6.2.2. The Arborist Report (Appendix V) and the Landscape Plan (Appendix F) details the provision of replacement trees on the site, including the Codrington Street pocket park.
Wayfinding	▪ Council recommend wayfinding strategy to address, primary addresses of the existing and proposed terraces, navigation and identification of buildings and entrances.	A wayfinding strategy is to be adopted as detailed in the Access Report at Appendix N.

Issue	Council concerns raised and recommendations	Response
Building addition blades	▪ Council request more detail on the function of the proposed façade vertical blades	Details of the function of facade blades are provided in the Architectural Design Excellence Report at Appendix D. AJ+C confirm that the blades assist in the vertical modulation and breakdown of the building additions, and provide a reference to the vertical separation between the existing terrace row houses. The University notes that there is no consistent width of Terraces and as such the blades can similarly vary in width.
Air conditioning	▪ Council requests SSD application to address details on the appearance of the roofscape regarding physical plant. All plant should be screened from view. ▪ Council noted that plant is calculated within CIP building envelope height.	This has been addressed in the Architectural Design Excellence Report at Appendix D.
Rooftop planting	▪ The University to review the potential for rooftop planting (green roof) on concrete roof.	A green roof is proposed to Building A adjacent to the privately owned terrace at 120 Darlington Road. Refer to Landscape Plan at Appendix F.
Fire engineered solutions to remove accessible refuge in fire stairs	▪ Council noted they had previously accepted alternative fire engineered solutions.	Noted.

4.1.2 Heritage Council of NSW

The University attempted to contact the Heritage Council of NSW for comment. The Heritage Council of NSW indicated that it would not comment on the heritage significance of the Darlington Road Terraces given they are items of local heritage significance under Schedule 5 of Sydney LEP 2012.

The University has provided a detailed Heritage Impact Statement as part of this SSD application and will address any community concerns relating to heritage during the public exhibition of the EIS.

4.1.3 Transport for NSW

The University sent an email to representatives at Transport for NSW (TfNSW) in September 2016.TfNSW responded, requiring that the EIS address the following items:

1. Details of arrangement to use existing loading dock facilities on-site as no loading docks are proposed for the development
2. Details of taxi facilities on-site (taxi ranks) for the proposed development.

Schedule 7 of Sydney Development Control Plan 2012 does not provide a minimum service vehicle requirement specifically for the proposed land use. The existing loading zones on Darlington Lane which

currently service the existing Terraces and Abercrombie Business School are considered to be sufficient to cater for service vehicles which are anticipated to generate trips associated with maintenance or deliveries.

There are no proposed taxi ranks associated with the development.

4.1.4 Roads and Maritime Services

The University corresponded (via email) with Roads and Maritime Services (RMS), seeking a meeting to discuss the proposal. RMS responded, advising that all necessary information to assess the proposal was included in the SEARs issued by the Secretary of the DP&E on 21 March 2016. RMS indicated that it would provide comment on the Darlington Terraces Mixed Use Development project to the DP&E following submission of the SSD application.

The University also contacted RMS about the proposed upgrade and conversion of Darlington Lane to a Shared Road, administered under the *Roads Act 1993* in addition to the overall SSD application for this proposal. RMS acknowledged receipt of correspondence about this proposal and advised that the University should follow the application process through to the City of Sydney Council. The University has since been liaising with the City of Sydney Council and has prepared a Traffic Management Plan to support this application.

4.2 Community Consultation

A summary of the consultation undertaken with the local community is provided in this section and in the summary report prepared by the University (Appendix S).

The University has held two community consultation sessions on 5 May and 7 September 2016 respectively. Local community members were invited to attend an information session to enable discussion about the proposal. Invitations to attend the meeting were letterbox dropped to residences along Abercrombie Street and Darlington Road and were also emailed to the following community groups:

- Residents Acting in Defence of Darlington (RAIDD)
- REDWatch
- Darlington Public School
- Immediate neighbouring properties
- Surrounding local residents.

The outcomes of the community consultation sessions indicate that the majority of comments received provided general interest and overall support for the proposal. The key issues raised by attendees include:

- Overshadowing and privacy impacts
- Safety in Darlington Lane
- Implementation of ESD initiatives for the project
- Request for emergency contact details
- Noise and amenity impacts as a result of student accommodation
- Continued vehicle access and parking to rear yards under a Shared Road arrangement.

These concerns have subsequently been addressed in subsequent design amendments and the preparation of technical reports supporting this EIS.

A separate community consultation evening was recently held at the University's Queen Mary Building (QMB) student accommodation facility (which contains 800 student residents and opened in 2016) to gain local community feedback on a student accommodation development within the Camperdown residential precinct. Feedback from the local residents was positive. A recurring theme was the inability to easily contact either the QMB staff or campus security if there were any issues. The University has addressed this by distributing fridge magnets throughout the surrounding QMB community with contact details for casual enquires or emergencies. The University intends to do a similar fridge magnet drop to the Darlington Terraces surrounding community.

The University has continued to provide information to interested stakeholders outside the formal EIS consultation process by responding to email, telephone and written enquiries. Further consultation will be held during the public exhibition of the EIS and throughout the construction and delivery of the project.

4.2.1 Commercial acquisition of privately owned terraces

Since 1964, the University has progressively acquired 38 of the 45 late Victorian Terraces located on Darlington Road. There are six Terraces on Darlington Road that remain privately owned. While these are not proposed for any development works by this SSD application, the University has over a number of years attempted to acquire them.

Background

In early 2009, the University commenced discussions with the remaining private Terrace owners to understand if the Terraces could be acquired. The owners expressed little interest in selling their properties, whilst responding with well above market offers which at the time the University could not afford.

In July 2015, when the site was identified as part of the second phase of the University's student accommodation programme, the University commissioned an 'arm's length' independent agent to recommence negotiations to acquire the Terraces.

Strategy and approach

Table 4.2 below represents the chronology of recent communications carried out by the University and the independent agent.

Table 4.2 Commercial acquisition communications

Week Commencing	Approach	Outcome
22 July 2015	The independent agent hand-delivered a formal letter informing the owners of the private terraces of the University's intent to develop the University owned Terraces and associated rear yards in line with the approved Campus Improvement Plan and invited the respective property owners to discuss the possible purchase of their property or alternatively make an offer of an amount the owners would be willing to sell. The letter suggested seeking independent legal advice and included an offer by the University to pay: 1. Reasonable legal costs; 2. Valuation fees; 3. Stamp duty fees; And include and a project information sheet detailing the University's proposed development. This would allow owners to obtain professional advice as deemed necessary to make an informed decision.	No responses were received upon delivery of the letters.
23-29 July 2015	The independent agent conducted follow-up phone calls with the respective owners to understand if there was any interest in discussing the letter.	No offers were received from owners.
3 August 2015	The independent agent conducted face to face meetings with the private terrace owners to understand if the owners had given further consideration to the letters. At the discussion, the independent agent explained the development proposal and provided hard copies of the project information sheet, approved CIP drawings and proposed plans of the development, with the intent to demonstrate the potential impact the proposed development might have on the adjacent neighbours.	The owners generally expressed they were content with their current residence. Some owners were not interested in continuing further conversations with the University.
15 October 2015	The independent agent, held subsequent face to face meetings. At this point, owners were invited and offered the opportunity for a property swap with other larger terraces owned by the University.	Owners inspected the alternative terraces and showed little interest.
9 December 2015	The independent agent, attempted to conduct further contact with the owners via phone and subsequent meetings.	No responses from the owners were received.
Based on the above responses, the University at this point has ceased all communication with the other owners and continued development of the concept design without the inclusion of the private Terraces.		
4 August 2016	The University hand delivered a final letter which sought a First & Last Right of Refusal agreement in return for a non-refundable payment to ensure the University had rights to acquire the terraces if the owners decided to sell. The letter included a no obligation offer to re-landscape / fence the rear yards of the private terraces as a gesture of goodwill and in recognition of any disruption experienced during construction.	No written responses were received. One owner verbally stated they had little interest in selling their property and would not be responding.

Ongoing Consultation

In addition to the above approach, the University has continued to invite the remaining private terrace owners to all open community consultation sessions, and which have provide residents with the opportunity to convey any concerns. All feedback from the sessions has been considered as part of the proposal design development process, with responses documented within the attached Consultation Report (Appendix S).

Conclusion

The University seeks to continue lodgment of the SSD application and is committed in continuing further consultation and communication with the adjacent neighbours to ensure minimal impact on both surrounding amenity and environment. The University will continue to implement a pro-active communication strategy throughout the construction and operational phases of the development.

5 Planning Context

This section addresses the range of legislation applicable to the proposed development. Relevant environmental planning instruments, policies and guidelines are addressed in accordance with SEARs. Some additional matters considered to be of relevance are also addressed.

5.1 Policies

5.1.1 NSW State Priorities

In September 2015, NSW Premier Mike Baird announced *'NSW: Making It Happen'*, a plan replacing the 'NSW State Plan' which outlines 30 State priorities, including 12 Premier priorities, to grow the economy, deliver infrastructure, improve health, education and other services and create safer communities across the State.

One of the key State priorities is to increase housing supply across NSW. The proposal will increase the supply of housing that is affordable and available for students in close proximity to the University of Sydney Darlington Campus, thereby reducing competition for existing private rental stock in the area. The rents offered to the students living in the development will be priced at least 25% lower than rates currently charged by private sector student accommodation providers in the vicinity of the Camperdown-Darlington Campus. To calculate this, the University utilised a methodology that has been endorsed by the Australian Taxation Office (ATO) under a private binding ruling.

5.1.2 A Plan for Growing Sydney

Released in December 2014, *A Plan for Growing Sydney* sets the management framework for Sydney's growth over the next two decades. The Plan estimates that Sydney will need an additional 664,000 new homes over the next 20 years.

The site is located within the Central Subregion. One of the priorities for the Central Subregion is to accelerate housing supply, choice and affordability. Student accommodation is an intrinsic and instrumental component of the University campus and educational experience. The provision of student accommodation will support Sydney's role as a global city for education, and contribute to the provision of affordable and suitable housing options in an established area for students from regional NSW, interstate and overseas.

Direction 1.10 of the Plan is to plan for education and health services to meet Sydney's growing needs. The proposed teaching and learning spaces will promote greater use of existing and new University educational facilities. The buildings have been designed to incorporate mixed uses to support the growth of the University.

5.1.3 NSW Long Term Transport Master Plan 2012

The *NSW Long Term Transport Master Plan 2012* (LTTMP) is a 20 year plan for the delivery of an integrated, modern transport system for NSW that puts the customer first. LTTMP is underpinned by a range of short to long term actions to guide the transformation of the NSW transport system.

The proposed development will contribute towards the attainment of the objectives and actions outlined in LTTMP by increasing the supply of student accommodation on campus. These students will benefit from direct access and proximity to a broad range of campus living, educational, sporting and open space facilities. Given the proximity of the site to existing public transport services and that no car parking is proposed, the proposal will also encourage a modal shift away from private vehicle use.

The proposal also includes the provision of bicycle storage facilities to encourage active transport to and from the site, campus and surrounding environment, for students, staff and visitors alike. The conversion and upgrade of Darlington Lane will provide a safe and accessible linkage for pedestrians and vehicles alike.

5.1.4 Sustainable Sydney 2030

Sustainable Sydney 2030 is a strategy for the sustainable development of the city to 2030 and beyond as a green, global and connected city.

The existing Terraces will be reused and refurbished to reduce the project's demand for new materials, thereby reducing construction costs. In turn, this will maintain affordable rents for students and contribute to sustainable living.

The proposal has been assessed against the University's Sustainability Framework, which aspires to implement ESD initiatives to create a sustainable environment and reduce ongoing operational costs which are in hand passed onto students by reduced rents. The Darlington Terraces Mixed Use Development is aiming to achieve a 'silver' level rating, which is an overall sustainability level score of 70%.

The proposed development also supports the Strategy in being a 'connected city' by providing additional physical connections to and from the site through the public domain improvements to Darlington Lane and provision of bicycle storage facilities in H66 Darlington House.

Specifically, Target 4 of the Strategy aims for 7.5 per cent of all city housing to be affordable housing by 2030. The provision of affordable student accommodation will contribute to this target by offering rooms at least 25% below the private market rate while removing significant demand from the local private market.

5.1.5 Sydney's Cycling Future 2013

Sydney's Cycling Future 2013 is one of the modal strategies that were developed to support LTTMP 2012. The overarching goal of the Strategy is to make cycling a safe, convenient and enjoyable transport option for short trips, help reduce the burden of congestion on Sydney's roads and increase capacity on the transport system.

In 2014, the University's Campus Infrastructure and Services team commenced the development of a Sustainable Transport & Mobility Plan (STAMP) to increase the uptake of active and public transport by staff and students to the University's Camperdown and Darlington campuses. The STAMP aims to provide and promote a safe and healthy place to work and study. It sets out a range of strategies for consideration by the University to improve transport accessibility and connectivity, including the provision of more campus student accommodation, improvements to active transport facilities and the reduction of car parking demand. The proposal is consistent in encouraging active transport to and from the site in accordance with the STAMP. A copy of the STAMP is provided at Appendix W.

The proposal also supports the key actions of the Strategy by providing bicycle racks within the development to encourage cycling to and from the site. The CIP Access Strategy prepared by Arup (2013) also acknowledges and links University cycle paths to the existing City of Sydney bicycle network. Further detail is provided at Section 2.4.

5.1.6 Sydney's Walking Future 2013

Sydney's Walking Future 2013 is one of the modal strategies that were developed to support LTTMP 2012. The Strategy outlines how pedestrians' requirements will need to be considered in all major transport and development projects to connect people and places. The actions set out in the Strategy aim to make walking

the transport choice for journeys that are less than two kilometres and will assist people in accessing public transport.

The proposed development supports the Strategy by increasing the number of “walk only” trips in metropolitan Sydney, particularly for tertiary students given its proximity to the University’s Camperdown-Darlington Campus. Students living in the University’s student accommodation are consequently less reliant upon the use of motor vehicles, car parking, and transport, for daily travel to and from the campus, particularly during peak hour travel periods.

The public domain improvements of converting Darlington Lane to a Shared Road will also assist in improving pedestrian access and safety in the locality.

5.1.7 Health Urban Development Checklist (NSW Health)

The *Healthy Urban Development Checklist* (HUDC) was prepared by NSW Health to facilitate an understanding of health issues relative to urban development plans and proposals with the objective of promoting healthy communities in NSW. The document is primarily aimed at officers of NSW Health to provide an understanding of the planning system and the manner for assessing and providing input into development plans and proposals with consideration to numerous health related checklist items.

The proposed development will deliver a number of benefits both to the University and to the broader community by addressing numerous checklist items, specifically:

- The provision of new and affordable student accommodation designed with appropriate dwelling layouts and amenities that integrate with the existing development on the site and surrounding campus.
- Mixed use development that will increase the diversity of teaching and learning facilities to service the campus population.
- Improved permeability to and through the campus, including the conversion of Darlington Lane to a Shared Road.
- Increased retention of students on campus on a more permanent basis, which will increase overall safety and casual surveillance within the locality, as well as reduce travel volumes to and from the campus.
- Increased access to higher education facilities by increasing the student population living on campus.

5.1.8 Revised Draft Eastern City District Plan (Greater Sydney Commission)

The revised draft Eastern City District Plan provides a 20-year plan to manage growth and achieve the Greater Sydney’s 40-year vision for Sydney, while enhancing Greater Sydney’s liveability, productivity and sustainability into the future.

This will see the Eastern City District become more innovative and globally competitive, carving out a greater portion of knowledge-intensive jobs from the Asia Pacific Region with a key focus on supporting the regions Health and Education Precincts as drivers for smart job growth.

The Camperdown- Ultimo Health & Education Precinct within which the University and the Darlington Terraces are located is acknowledged as the most mature of Sydney’s health and education precincts and a priority objective of the Greater Sydney Commission to support its growth and transition to a world class innovation district.

The proposed development is aligned with the District Plan and directly supports a number of its objectives and planning priorities, specifically:

Planning Priority E4 – Fostering health, creative, culturally rich and socially connected communities.

Planning Priority E5 - Providing Housing choice and affordability access.

Planning Priority E6 – Creating and renewing great places and respecting the district's heritage.

Planning Priority E7 – Growing a stronger and more competitive harbour CBD

Planning Priority E8 – Growing and Investing in health and education precincts.

Planning Priority E10 - % of dwellings located within 30 minutes by public transport of a strategic centre.

Planning Priority E13 – supporting growth of targeted industry sectors (Education)

Planning Priority E17 – Increasing urban tree cover.

Planning Priority E18 – Delivering high quality open space.

Planning Priority E19 – Reducing carbon emissions and managing energy, water and waste efficiently.

5.2 Environmental Planning and Assessment Act and Regulation

The Section 1.3 'Objects' of the *Environmental Planning and Assessment Act 1979* (EP&A Act), Section 1.3 are:

(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

(c) to promote the orderly and economic use and development of land,

(d) to promote the delivery and maintenance of affordable housing,

(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

(g) to promote good design and amenity of the built environment,

(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

(j) to provide increased opportunity for community participation in environmental planning and assessment.

The proposal is consistent with the Section 1.3 Objects of the EP&A Act, including the promotion of orderly and economic use and development of land, and adopts principles of sustainability in design for the provision of affordable student housing.

Part 4, Division 4.1 of the EP&A Act provides that a State Environmental Planning Policy (SEPP) may declare any development, or any class or description of development, to be a State Significant Development (SSD). As outlined in Section 5.3 below, the proposed development is considered to be SSD in accordance with *State Environmental Planning Policy (State and Regional Development) 2011*.

Section 4.12 of the Act states that a development application for SSD is to be accompanied by an environmental impact statement (EIS) prepared in the form prescribed by the *Environmental Planning and Assessment Regulation 2000*. This report has been prepared in accordance with the provisions relating to EISs in Schedule 2 of the Regulation.

5.2.1 Section 4.15 – Matters for Consideration

Development which is considered to be SSD is assessed under Part 4 of the EP&A Act and therefore the provisions of Section 4.15 apply. Table 5.1 assesses the proposal against the relevant Section 4.15 matters for consideration.

Table 5.1 Section 4.15 of the EP&A Act

Provision to be considered	Proposal
(a) (i) any environmental planning instrument, and	The applicable environmental planning instruments are addressed in this Section.
(a) (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	There are no draft environmental planning instruments that are applicable to the site or proposal.
(a) (iii) any development control plan, and	Development control plans (DCPs) do not apply to SSD and therefore are not a relevant consideration for the proposed development. Notwithstanding, this EIS addresses relevant DCP provisions in Section 0.
(a) (iii) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and	There are no planning agreements that have been entered into or draft planning agreements that are relevant to the proposed development.
(a) (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and	The EIS has been prepared in accordance with the EP&A Regulation 2000.
(a) (v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),	There are no coastal management plans that apply to the site.
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	The possible environmental impacts of the proposed development have been explored in detail in Section 6 of this report. This section includes an assessment of the social and economic impacts associated with the proposal.
(c) the suitability of the site for the development,	Section 8 demonstrates the suitability of the site for the proposed development.
(d) any submissions made in accordance with this Act or the regulations,	No submissions are known at the time of preparing this EIS. Any reasonable submission will be considered and suitably addressed.
(e) the public interest.	The community and relevant government agencies have been consulted in accordance with the SEARs requirements as detailed in Section 4.1.4. The proposal seeks to address an identified need for additional affordable student housing and learning facilities at the University and will have positive benefits for the surrounding community. There have been no significant impacts identified within the EIS, with mitigation measures proposed to manage any potential impacts. The proposal is considered to be in the public interest.

5.2.2 Section 4.33 – Crown Development

Under clause 226(1) of the EP&A Regulation 2000, Australian universities (within the meaning of the *Higher Education Act 2001*) are prescribed to be the Crown for the purposes of Division 4 of Part 4 of the EP&A Act which relates to Crown developments. The University of Sydney is listed as an Australian university in Schedule 1 of the *Higher Education Act 2001*.

As such, this application is a 'Crown development application' pursuant to section 4.32 of the EP&A Act. Under section 4.33 of the EP&A Act, the consent authority must not refuse its consent to this application, except with the approval of the Minister, or impose any condition of consent without the approval of the University or the Minister.

Pursuant to section 6.28 of the EP&A Act, *"Crown building work cannot be commenced unless the Crown building work is certified by or on behalf of the Crown to comply with the technical provisions of the State's building laws"*, unless otherwise determined by the Minister. The University will ensure it complies with this certification requirement.

5.2.3 Development Contributions

The University of Sydney is seeking exemptions under clause 6 of the *Redfern Waterloo Authority Contributions Plan 2006* (RWA Contributions Plan) and clause 6 of the *Redfern-Waterloo Authority Affordable Housing Contributions Plan 2006* (RWA AH Contributions Plan). These exemptions are to the collection of Development Contributions by *UrbanGrowth NSW Development Corporation* (Urban Growth) in relation to the proposed development.

The University's position in relation to the payment of development contributions has been set out in past State Significant Development (SSD) Applications and submissions. The University considers that no development contributions should be paid, having regard to the nature and purpose of the proposed University development and the significant public benefits provided by the University.

Applicable Development Contributions Plans

(A) Redfern Waterloo Authority Affordable Housing Contributions Plan 2006

The RWA AH Contributions Plan applies a contribution rate of $84.60 per sq.m. of gross floor area of development (revised Urban Growth NSW rate effective 1 July 2017).

Clause 6 of the Plan specifies that development is exempt from the Plan for the following categories of development that are relevant to this SSD application:

- *development the subject of an application made, for or on behalf of the Crown for the sole purpose of a fire station, community health facility, public hospital, police station/police shop front, ambulance station, public school, or other public infrastructure as determined by the Minister;*
- *that part of a development of which the sole purpose is the provision of affordable housing, that is, dwellings for the purpose of affordable housing provided by or on the behalf of a community housing organisation registered with the Office of Community Housing or the Aboriginal Housing Office, or an organisation approved by the Minister;*
- *development for the sole purpose of minor alterations or additions to a single dwelling erected on a single allotment;*
- *development for the sole purpose of the provision of disabled access.*

The above criteria apply to this SSD application as the development is submitted by the University being a Crown development applicant (as discussed in section 5.2.2), is providing development for affordable student accommodation, is providing additions and alteration to existing terraces which

are each sited on a single lot, and is providing disabled access to those existing student accommodation Terraces.

Consequently, the RWA AH Contributions Plan should not apply to this development.

This is also supported by precedent by way of the letter issued by Urban Growth to the Department of Planning & Environment dated 22 August 2017 in response to the University's recent SSD application for the Regiment mixed-use student accommodation and educational establishment development, also located within the Darlington campus and adjoining the Darlington Terraces site. The Regiment development is very similar in use and contents to this SSD application for the Darlington Terraces. The Regiment SSD 15_7417 was approved by the Minister for Planning on 2 November 20117. Urban Growth concluded:

> *"The UGDC supports the request to provide exemption from the payment of affordable housing contributions. Justification is provided based on the legislation identifying that the applicant is a representative of the Crown and that it is not a private developer."*

(B) Redfern Waterloo Authority Contributions Plan 2006

The RWA Contributions Plan applies a contribution rate comprising 2% of the development Capital Investment Value (CIV) of new development.

Clause 6 of the Plan excludes certain development from application of the Plan including:

- *Development for the sole purpose of minor alterations or additions to a single dwelling erected on a single allotment;*

This SSD application highlights that the proposal includes the internal and external alterations to the existing student accommodation Terraces contained within the project site, each of which lies within its own separate allotment. The CIV for these alteration works should therefore be excluded from any calculation, and the calculation should only include the new building additions to the rear of the Terraces. Each of the existing Terraces are currently utilised for student accommodation.

The CIV for the total development to this SSD project is as follows:

- Alterations to existing Terraces $12,338,946
- New build: $21,816,627

It is considered that Development Contributions are not applicable to this development for the reasons set out below. However, should an exemption not be granted, the calculation of a development contribution under the RWA Contributions Plan must be applied in respect of the new building additions only, comprising a CIV of $21,816,627, resulting in a potential Development Contribution of **$436,332.54**.

The Case for Exemption from Development Contributions

The underlying purpose of Development Contributions is to meet the costs of local public infrastructure needed to support development. The University considers the levying of Development Contributions for University developments to be unreasonable, particularly given the past, current and planned future works and services the University contributes that have a public benefit, not only to the University's students and staff, but also to the wider community. It is considered that development the University undertakes should not be classified as private development because teaching and research facilities, libraries, laboratories, student accommodation, retail and professional services, recreational facilities, open space, and all other associated infrastructure, are integral to the University's broader educational and research functions, which are inherently public in nature.

Statutory Context: Under clause 226(1) of the EP&A Regulation, Australian universities (within the meaning of the *Higher Education Act 2001*) are prescribed to be the Crown for the purposes of Division 4 of Part 4 of the EP&A Act which relates to Crown developments. The University of Sydney is listed as an Australian university in Schedule 1 of the *Higher Education Act 2001*. Consequently, this SSD application is a "Crown development application" to which Division 4 of Part 4 of the EP&A Act applies. This affords the University with special provisions to ensure that developments are not unreasonably refused or conditionally approved. This extends to conditions levying Development Contributions which Urban Growth may not impose without the University's or the Minister's consent.

It is noted that both the RWA AH Contributions Plan and the RWA Contributions Plan allow for the exemption of certain development. Clause 6 of both plans includes the following:

> development of the following kinds if exempted by notice in writing given by the Minister (or delegate):
>
> - development the subject of an application made, for or on behalf of the Crown for the sole purpose of a fire station, community health facility, public hospital, police station/police shop front, ambulance station, public school, or other public infrastructure as determined by the Minister;
> - that part of the development for the sole purpose of the provision of affordable housing, that is, dwellings for the purpose of affordable housing provided by or on the behalf of a community housing organisation registered with the Office of Community Housing or the Aboriginal Housing Office, or an organisation approved by the Minister
> - development for the sole purpose of minor alterations or additions to a single dwelling erected on a single allotment;
> - development for the sole purpose of the erection of a new single dwelling on an existing single allotment; and
> - development for the sole purpose of the provision of disabled access.

In response to the above, the University is prescribed to be the Crown in respect of development applications and the proposal involves both public infrastructure and affordable housing. Consequently, this SSD application can (and should) be exempted by the Minister.

Exemption from contributions is also supported by *Planning Circular D6* relating to Crown development applications. The Circular is referenced in the Department of Planning and Environment's (DP&E) draft Development Contributions Guidelines as providing 'current limitations on the imposition of development contributions on public sector developments'. Circular D6 has also been adopted as a guiding document in relation to Crown applications and development contributions, stating:

> *"Crown activities providing a public service or facility lead to significant benefits for the public in terms of essential community services and employment opportunities. Therefore, it is important that these essential community services are not delayed by unnecessary disputes over conditions of consent. These activities are not likely to require the provision of public services and amenities in the same way as developments undertaken with a commercial objective."*

Precedent for exemption from Development Contributions:

To date, the community benefit offered by University of Sydney developments, including student accommodation projects, has been widely recognised with the granting of exemptions under the *City of Sydney Development Contributions Plan 2006*, as well as both the *RWA AH Contributions Plan* and the *RWA Contributions Plan* identified above.

In particular, the University notes the Abercrombie Precinct Redevelopment (MP 07-0158) located one block away from the Darlington Terraces, and within the Redfern Waterloo Authority (RWA) Operation Area, which did not attract the application of the RWA AH Contributions Plan. As part of the consideration of that particular matter, the Planning and Assessment Commission (PAC) stated the following within its determination report in respect to the student housing component of that project:

> *"The Commission has carefully considered the Department's arguments and its recommended conditions regarding developer contributions and affordable housing. In relation to affordable housing, the Commission accepts that the proposed student housing is not affordable housing as defined in the Redfern Waterloo Affordable Housing Contributions Plan 2006. Nonetheless, the Commission notes that the student housing will go some way to relieving pressure on the local demand for housing and accepts the Department's argument that student housing is a form of affordable housing. Consequently the Commission has determined that affordable housing contributions should not be levied in this instance."*

Further, in relation to the payment of contributions under the RWA Contributions Plan (i.e. dealing with public amenities and facilities), the PAC report stated:

> *The Sydney Metropolitan Development Authority has argued that the University should be levied the full contribution under the Redfern-Waterloo Authority Contributions Plan 2006. The University has argued that it should be exempt from contributions as it is a not for profit institution that provides direct and indirect benefits to the State and the community. The Department also considered that although the development is not a traditional form of public infrastructure, it will play an important role in providing tertiary education to members of the public. The Department has recommended levying a reduced contribution.*
>
> *The Commission has considered this issue and sought advice from the Department on how this issue has been dealt with on other university projects. The Department explained that each case is considered on its merits. Some applications have been granted full exemption from paying contributions, some have been levied a reduced contribution, while others have been required to pay the full contribution. The Commission also notes that some of the exemptions granted have been on account of the university providing associated infrastructure works, such as a pedestrian bridge or road works.*
>
> *In this regard the Commission notes that the project will generate additional pedestrian and cycling movements in areas that are already busy with University staff and students. When the Commission questioned the University about its long term pedestrian strategy, it became apparent that additional work in this area would be useful and could be prioritised.*
>
> *Consequently, rather than levying contributions through the Sydney Metropolitan Development Authority, the Commission has required a Pedestrian and Bicycle Access Strategy for the University's Darlington Precinct to be developed and implemented. Conditions also require the University to spend a minimum of $2 million on appropriate upgrades prior to the occupation of the Business School.*

The above clearly identifies the precedent set for:

1. a waiver of contributions relating to affordable housing in relation to University student housing; and
2. merit consideration being applied for the waiver or reduction of development contributions for other public amenities and facilities with a focus on the propensity of the project to generate additional population and the ability to meet those additional demands.

This SSD application for the Darlington Terraces proposal involves a significant proportion of student housing (and hence affordable housing in the context of the PAC's previous consideration of this matter), together with approximately 930m^2 of education space.

The following provides justification in line with the above, allowing a full waiver of contributions under both the RWA AH Contributions Plan and the RWA Contributions Plan.

5.2.4 Justification for University exemption from RWA Development Contributions:

In addition to the statutory reasoning and precedents provided above, there is considerable justification for the Minister for Planning to exempt the application of the RWA Contributions Plans for the proposed development. This is summarised below:

1. **The University's shared interest:** The University acknowledges that the State government authorities (including local councils and authorities such as NSW Urban Growth) need to meet the demand for local infrastructure and provide public amenities and public services within the local area and that, to enable it to do so, they make and apply Contributions Plans (whether under section 7.11 of the EP&A Act or other legislative instruments). The University has a shared interest with the State Government, local councils and other local authorities in the objectives to improve the amenities and provide adequate and appropriate infrastructure for use by the local community.

2. **The University campus:** In 2016, the University attracted over 51,000 enrolments, employed over 7,500 permanent staff, and generated over 5,000 jobs in the areas of construction, facilities maintenance and services. The University is a significant employment node and destination, as well as a future employment provider through its qualified students.

   The University's Main Campus covers a total of 49 hectares (comprised of the Camperdown Campus at 33 hectares and the Darlington Campus at 16 hectares) and wholly occupies the postcode of NSW 2006. The University has a shared interest with Urban Growth and the City of Sydney in its objectives to improve the amenities and provide adequate and appropriate infrastructure for use by the local community.

3. **University not-for-profit status:** The University is a not-for profit public charity independently regulated by the Australian Charities and Not-for-profits Commission, specialising in tertiary education and research pedagogy. Universities are listed by the Australian Tax Office (ATO) as registered charities and 'the advancement of education' is a recognised category of charitable purposes under common law. Universities also continually provide, and maintain/upgrade, a wide range of social, cultural, and recreational public benefits and contribute to both State and Local Government planning jurisdictions within which they sit, and which are available/ accessible, to the surrounding area's wider resident and worker populations.

4. **The University as a public authority:** The underlying purpose of Development Contributions is to meet the costs of local public infrastructure needed to support private development. The University argues that development it **undertakes** should not be classified as private development because teaching and research facilities, libraries, laboratories, student accommodation, retail and professional services, recreational facilities, open space, and all other associated infrastructure, are integral to the University's broader educational and research functions which are inherently public in nature. Indeed, the University is prescribed as a public authority for development that is permitted without consent under the *State Environmental Planning Policy (Infrastructure) 2007* and the *State Environmental Planning Policy (Educational Establishments & Child Care Facilities) 2017*.

5. **Crown applicant:** As mentioned above, the University is prescribed to be the Crown for making Crown development applications under Division 4 of Part 4 of the EP&A Act. This affords the University with special provisions to ensure that developments are not unreasonably refused or conditionally approved. This extends to conditions levying local infrastructure contributions which Urban Growth may not impose without the University's or the Minister's consent.

6. **Material public benefit:** A consent authority may accept "a *material public benefit (other than the dedication of land or the payment of* a *monetary contribution) in part or full satisfaction of* a *[development contributions condition]".* The DPE's *Development Contributions Practice Note 2005 (Practice Note)* sets guidelines to follow when establishing contributions plans in relation to both material public benefit and works in kind. The Practice Note explains a material public benefit as either being work undertaken that is specified in the schedule of a development contributions plan (i.e. works in kind) or the provision of public amenities and services that are not in any contributions plan.

7. **University provision of local infrastructure and community benefits as material public benefits:** The University provides a wide range of social and public benefits to the local community and broader region including significant areas of open space, sport and recreational facilities, libraries, child care centres and medical services, all of which are available for use by the general public. The University already maintains and upgrades the roads, pedestrian areas and stormwater drainage systems within and near its boundaries.

   Such planned works, services and provision of facilities may no longer be viable should the RWA Contributions Plans be fully applied. In effect, this would consequently redirect valuable funds of the University, which are often received by way of grants, donations, and external funding sources (including from both the State and Federal Governments) for educational and research purposes to local infrastructure, which has no nexus to the University's projects. The University considers this to be unreasonable, particularly given the past, current and planned future works and services the University contributes that have a material public benefit, not only to the University's students and staff, but also to the wider community.

8. **University financial commitments:** The University's commitment to the provision of local infrastructure is evident by the significant material public benefits provided by the University to Camperdown and Darlington. This includes almost $40 million capital investment since 2012 towards campus open space, stormwater infrastructure, traffic and pedestrian upgrades, and heritage/conservations works, in addition to the numerous other facilities and services offered by the University to the public. None of these facilities and services have been assisted or contributed to by Development Contributions monies provided by NSW Urban Growth or the City of Sydney Council.

   University committed and funded public infrastructure works: Some of the University's committed/funded infrastructure works and facilities include the following which benefit and/or are directly accessible to the local catchment (quite aside from the University) and hence are otherwise not required to be provided or funded by the State or Local Government:

   - Road works and upgrades and public domain works (approx. $4.5M), including work within the immediate area of Camperdown and Darlington.
   - Stormwater Infrastructure works (approx. $5.75M), including work within the immediate area of Camperdown and Darlington.
   - Publicly accessible sporting facilities (approx. $28M), including 10 outdoor venues, 5 indoor venues, the Darlington Sports and Aquatic Extension and the No.2 Grandstand and associated facilities.

   Furthermore, the University continues to provide public access to many facilities and events, including 3 x childcare centres, 9 x libraries, 3 x museums and a mix of retail and professional services outlets. A further $66M of capital investment is currently being developed for the new Chau Chak Wing Museum on the Camperdown Campus, again accessible to the broader community, and was recently approved by the Minister for

Planning (SSD 16_7894) in February 2018.

9. **Not a private developer:** The University maintains that development it undertakes should not be classified as private development because teaching and research facilities, libraries, laboratories, student accommodation, retail and professional services, recreational facilities, open space, and all other associated infrastructure, are integral to the University's broader educational and research functions which are inherently public in nature.

10. **The Darlington Terraces proposal:** The proposed Darlington Terraces development is located within the Darlington Campus, juxtaposed with the Camperdown Campus, and contains a vast range of community related facilities that the student residents and local community will use in lieu of Council and other local facilities.

    The proposed development is considered to have limited burden on roads because of its proximity to key public transport hubs, which provide for variety of destinations, ensuring reduced reliance on motor vehicle usage. Accordingly, no car parking spaces are specifically provided for students or staff as part of this development as the site is also near existing University parking facilities on campus.

    Sufficient bicycle storage is proposed within the basement to encourage the use of active transport. Students will also have access to the numerous existing surrounding bicycle parking facilities throughout the Darlington and Camperdown Campuses. In addition, there are showers and change-rooms proposed within the development.

    The proposal, inclusive of its education component, is directly accessible to broader support functions on the Darlington Campus.

    Importantly, there is no overall increase in the number of University students resulting from the proposed education facility components of this development, resulting in no net population increase to warrant the collection of Development Contributions to offset increased demand on local infrastructure and services in that regard.

11. **Student Accommodation Affordability:** The RWA AH Contributions Plan recognises affordable housing by a social housing provider. While the University is not a social housing provider by strict definition, it is committed to providing university students with an affordable housing option near public transport services, new and existing retail, food and beverage outlets on campus, as well as direct access and connections to teaching, learning, study and meeting facilities within the adjoining new Abercrombie Business School, and the broader Camperdown-Darlington Campus.

    The University's pricing for the provision of affordable student accommodation at this site is set at between $255 (twins) to $294 weekly (single dorm rooms), including all utilities and an extensive residential, pastoral care and education program. This rental is below what is considered "affordable" for low-income students (using the Community Housing Provider Model) where affordable accommodation is below $326.25 weekly.

    The provision of affordable housing to students will not only assist in relieving the pressure on the local residential housing market, but also address broader State Government priorities of increasing affordable housing supply in Sydney.

12. **The impact of Development Contributions upon universities:** The levying of Development Contributions on projects that are funded by external sources (including Commonwealth Government grants) simply diverts a portion of funds for educational purposes to local services, often doing so without a direct nexus to the development.

    It is therefore unreasonable to require the University to pay Development Contributions which will ultimately impact on the amount the University can spend on its core business of teaching and research, as well as public infrastructure and community facilities. Paying Development Contributions will also significantly reduce the affordability of the proposed student accommodation as part of this development.

    The imposition of any Development Contributions upon the proposed development will compromise the University's ability to proceed with its development because the University will effectively be priced out of the affordable housing market. It is in both the University's and the Government's interest that the proposed affordable beds be developed.

Precedent of recent major project determinations: In addition to the Abercrombie Precinct Redevelopment (MP 07-0158) discussed above, recent projects by the University for which Development Contributions were not sought by the Council or the Minister include:

a) Charles Perkins Centre (MP 09_0051): construction of a new 8 level Centre for Obesity, Diabetes and Cardiovascular Disease building (45,000m^2); and

b) Australian Institute of Nanoscience (SSD 5087_2011): construction of a new 4 level nanoscience building (10,540m^2).

Other projects by the University's affiliated residential colleges for which development contributions were not sought by the Council include:

c) St John's College (D/2010/1506): 5 storey building for student accommodation;

d) Sancta Sophia College (D/2011/445): 5 storey building for student accommodation;

e) Wesley College Alterations and Additions to E wing (D/2014/1632): 3 storey building for student accommodation; and

f) St Andrews College (D/2015/868): construction of new multipurpose sports courts.

These decisions were supported by the fact that new student populations place lesser demand on Council community facilities as the University provides its own facilities and infrastructure specifically for the University and visiting populations.

13. Urban Growth's Development Contribution Plans:

a) The RWA Contributions Plan acknowledges that development can be exempted, by notice in writing by the Minister, for development on behalf of the Crown for, inter alia, public infrastructure. The University is prescribed to be a Crown development applicant and should therefore be exempt.

b) The RWA Contributions Plan includes a Works Schedule at Schedule 1 which sets out the works to which development contributions will be directed. Schedule 1 indicates these works are to be completed within a 10-year period (being between 2006 and 2016). The University cannot find any documents providing evidence of the status of these, or any future, works post 2016 to which development contributions under the Contributions Plan will be expended.

c) None of the works listed in the Works Schedule were to be (or have been) carried out in the vicinity of the Darlington Terraces development site or Darlington Campus, as shown in the Works Map at Schedule 2 of the RWA Contributions Plan.

d) Despite clear evidence of the University's financial contribution to local infrastructure, the University has never been the recipient of any Development Contributions received by Urban Growth (or its predecessors) towards the provision of local infrastructure or material public benefits within or in the vicinity of the Darlington Campus.

5.2.5 Conclusion

For the reasons set out above, it is considered there are more than adequate grounds for the Minister for Planning (on recommendation by the DPE as the assessing authority) to fully exempt the proposed Darlington Terraces development from the application of both RWA Contributions Plans.

Alternatives to payment of Development Contributions – Carrying out public works comprising material public benefits

Clause 16 of the RWA Contributions Plan specifies alternatives to the payment of a monetary development contribution levy including:

> *"**Offer made to the Minister as part of an application for consent***
>
> *If an applicant does not wish to pay a development levy in connection with the carrying out of development, the applicant may include in the relevant application for consent an offer to carry out works or provide a material public benefit towards which the development levy is to be applied.*

The Minister will consider the offer as part of the Minister's assessment of the application for consent. If the Minister agrees to the arrangement and grants consent to the application, the Minister will substitute a condition of consent requiring the works to be carried out or the material public benefit to be provided for a condition requiring payment of a development levy under section 31(2) of the Redfern-Waterloo Authority Act 2004. If the Minister does not agree to the alternative arrangement, the Minister may grant consent subject to a condition authorised by this plan requiring payment of a development levy.

In assessing the applicant's offer, the Minister will have regard to any relevant requirements of the current Practice Note issued by the NSW Government in the Revised Development Contributions Manual (DIPNR 2005) and such other matters as the Minister considers relevant in the circumstances of the case."

*"**Offer to enter into a voluntary planning agreement***

As an alternative to payment of a development levy under the Plan, the applicant may offer to enter into a voluntary planning agreement with the Minister under section 93F (now Section 7.4 of the Act) *of the EP&A Act in connection with the making of an application for consent.*

Under the planning agreement, the applicant may offer to pay money, dedicate land, carry out works, or provide other material public benefits for public purposes. Those purposes need not relate to the impacts of the applicant's development nor to the items listed in the Works Schedule.

The applicant's provision under a planning agreement should substitute for the payment of a development levy in accordance with a condition of consent authorised by this Plan. It may propose contributions in excess of the levy which might otherwise have been required by condition imposed under this Plan. This will be a matter for negotiation with the Minister.

The offer to enter into the planning agreement together with a copy of the draft agreement should accompany the relevant application for consent.

The Minister will publicly notify the draft planning agreement and an explanatory note relating to the draft agreement along with the application for consent and will consider the agreement as part of its assessment of that application.

If the Minister agrees to enter into the planning agreement, the Minister may impose a condition of consent requiring the agreement to be entered into and performed. If the Minister does not agree to enter into the planning agreement, the Minister may grant consent subject to a condition authorised by this Plan requiring the payment of a development levy."

Notwithstanding the University's objection to the application of any Development Contributions to this project for the reasons stated above, should the consent authority conclude that some development contribution is applicable, the University offers to carry out the following works as part of the proposed development that will provide a material public benefit to the local community:

- The upgrade of Darlington Lane (City of Sydney asset) to a Shared Road - $778,881 CIV
- The upgrade of Codrington Park (cnr Codrington Street & Darlington Lane, Darlington) - $50,000 CIV

The value of these works, with a combined CIV of **$828,881**, well exceeds the calculated potential Development Contribution of $436,332.54 under the RWA Contributions Plan. Both works will provide a significant material public benefit to the local Darlington community (in addition to the University's staff and students) in providing a safe pedestrianised thoroughfare along Darlington Lane in addition to a well-positioned and landscaped pocket park upgrade fronting Codrington Street. The proposed conversion of Darlington Lane to a Shared Road has been designed in consultation with the City of Sydney.

Should the Minister not grant the exemption from Development Contributions requested in this section, the University requests that a condition of consent requiring that these works be carried out be included in the SSD application determination. In the alternative, the University offers to enter into a voluntary planning agreement with the Minister under section 7.4 of the EP&A Act, the terms of which will oblige the University to carry out these public works.

5.3 State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) came into effect on 1 October 2011 and identifies development that is considered to be SSD.

Schedule 1, Clause 15 of the SEPP identifies development for the purpose of educational establishments (including associated research facilities) that has a capital investment value of more than $30 million. The proposal has a capital investment value in excess of $30 million and therefore qualifies as SSD.

Clause 11 of SEPP SRD states that DCPs do not apply to SSD.

5.4 State Environmental Planning Policy (Educational Establishments and Child Care Facilities) (Education SEPP) 2017

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 came into effect on 1 September 2017 and aims to ensure the effective delivery of educational establishments, early education and care facilities.

Clause 44 of the Education SEPP, states "*development for the purpose of a university does not include development for the purpose of residential accommodation for students that is associated with a university*". Clause 45 (7) states "*development for the purpose of residential accommodation for students that is associated with a university may be carried out by any person with development consent on land within the boundaries of an existing university*". Therefore, the proposed development for student accommodation is permitted with consent.

5.5 State Environmental Planning Policy (Infrastructure) 2007

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

It contains provisions relating to development with a frontage to a classified road. The proposal site does not have a frontage to a classified road.

In accordance with column 3 of the Table to Schedule 3 of SEPP (Infrastructure), education establishments of 50 or more students are considered traffic generating development. The student accommodation component is not classified as traffic generating development. Apartments or residential flat buildings are considered traffic generating development where they contain 300 or more dwellings. While the proposed student accommodation component of this proposal is comparable in form and function to a residential flat building, it will not generate significant traffic movements and does not provide any on-site parking for vehicles. Further detail is provided at Section 3.3.

5.6 State Environmental Planning Policy (Affordable Rental Housing) 2009

State Environmental Planning Policy (Affordable Rental Housing) 2009, or AHSEPP aims to encourage the development of new affordable rental housing and to assist the retention of existing affordable rental housing. Affordable housing is housing that is appropriate for the needs of a range of very low to moderate income households. Housing is usually considered affordable if it costs less than 30 per cent of gross household income.

5.7 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) aims to render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive if it is not a hazardous or offensive storage establishment as defined in the Policy.

Preliminary Hazard Analysis has been prepared to address the SEPP (refer Appendix X). It identifies the risks as being low to medium with all managed risks ranking low.

5.8 State Environmental Planning Policy No. 55 – Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

Under the provisions of Clause 7 of SEPP 55, a consent authority must not grant consent to a development application unless it has considered whether the land is contaminated. If the land is found to be contaminated, the consent authority must be satisfied that the land is suitable in its contaminated state or can be remediated to be made suitable for which the development is proposed to be carried out.

Contamination has been considered with the undertaking of a Stage I and Stage II Site Investigation as outlined in Section 6.8 and provided in the Contamination Report at Appendix Y. The results of the investigations indicated that concentrations of contaminants of potential concern were either below the laboratory's Limit of Reporting or below the nominated assessment criteria. Based on the findings of the Stage II investigations, the report concludes that the site can be made suitable for development with the implementation of a Remedial Action Plan (RAP).

A RAP has also been prepared to support the proposal and is provided at Appendix Z. The RAP details the nature and extent of identified groundwater contamination, the extent of remediation required, selected remediation strategies to address identified issues of concern, environmental management requirements and health and safety considerations. Further details of the Remedial Action Plan are provided at Section 6.9 of this report.

5.9 Campus Improvement Program (CIP)

The University has adopted the Campus Improvement Program (CIP) as the Stage 1 implementation strategy of development and infrastructure to the Camperdown-Darlington Campus. The CIP is a concept State Significant Development (SSD) as approved by the Minister for Planning on 16 February 2015 (SSD 13_6123).

5.9.1 CIP Approved Plans

The proposed Darlington Road Terraces mixed use redevelopment project is located between Darlington Road, Darlington Lane, Codrington Street and Golden Grove Street. The project site is located within the Merewether Precinct of the CIP Stage 1 SSD_6123 approval.

The approved plans relating to the site are provided in the figures below.

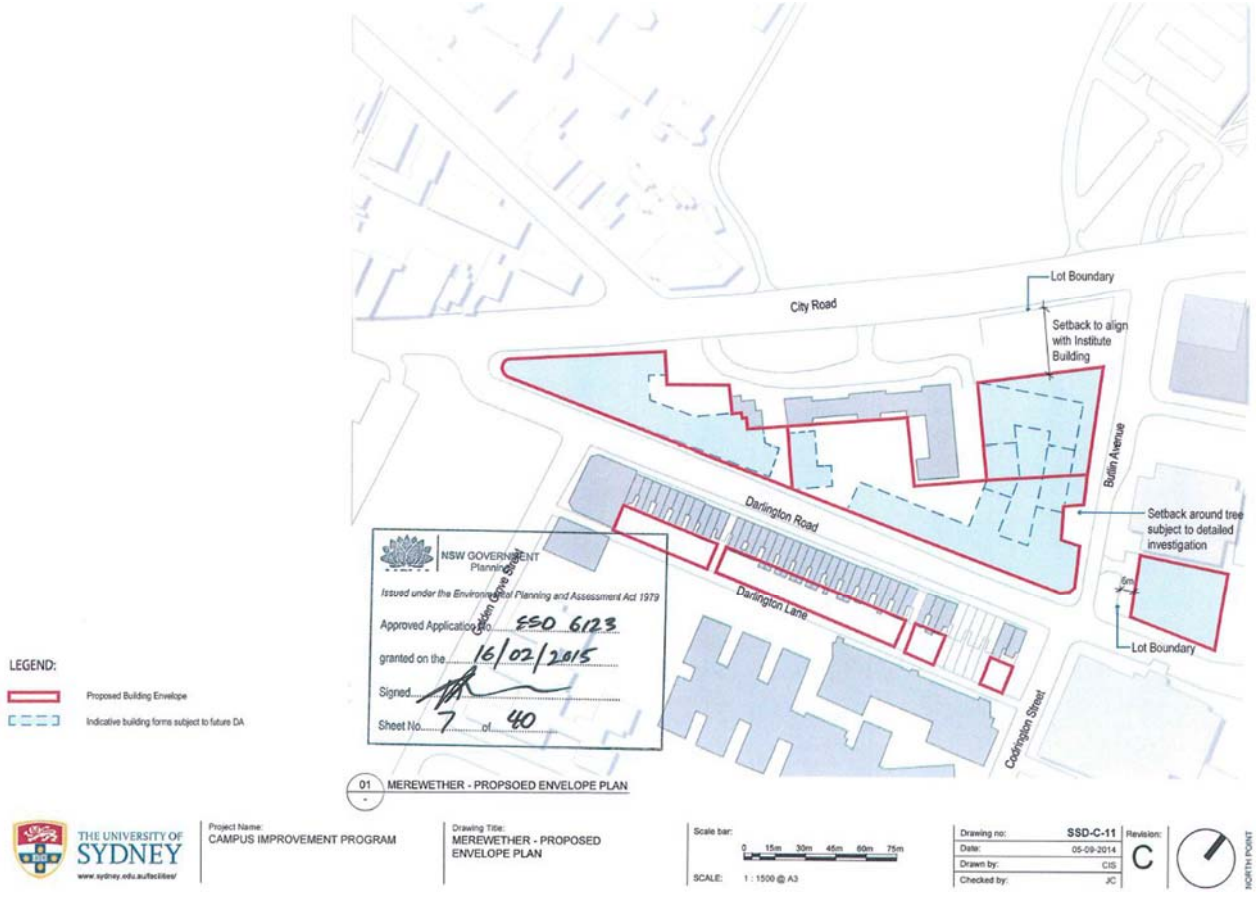

Figure 5.1 Merewether Precinct – Proposed Envelope Plan

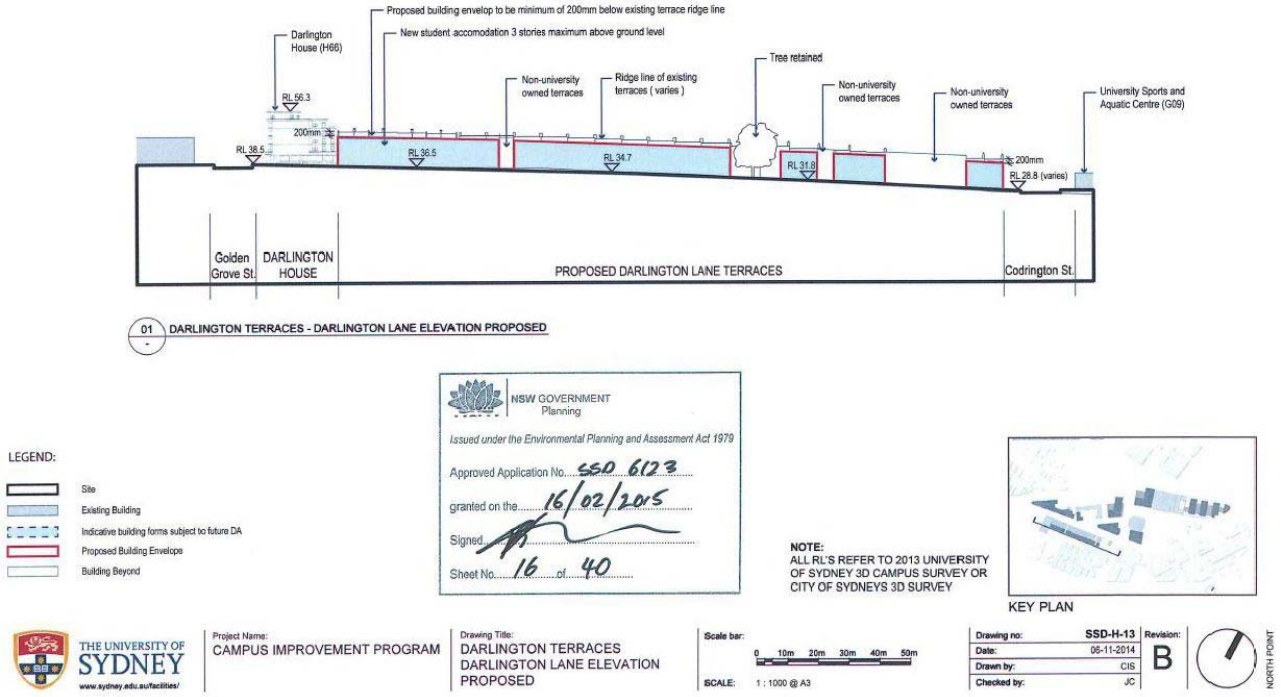

Figure 5.2 Proposed Darlington Lane Elevation

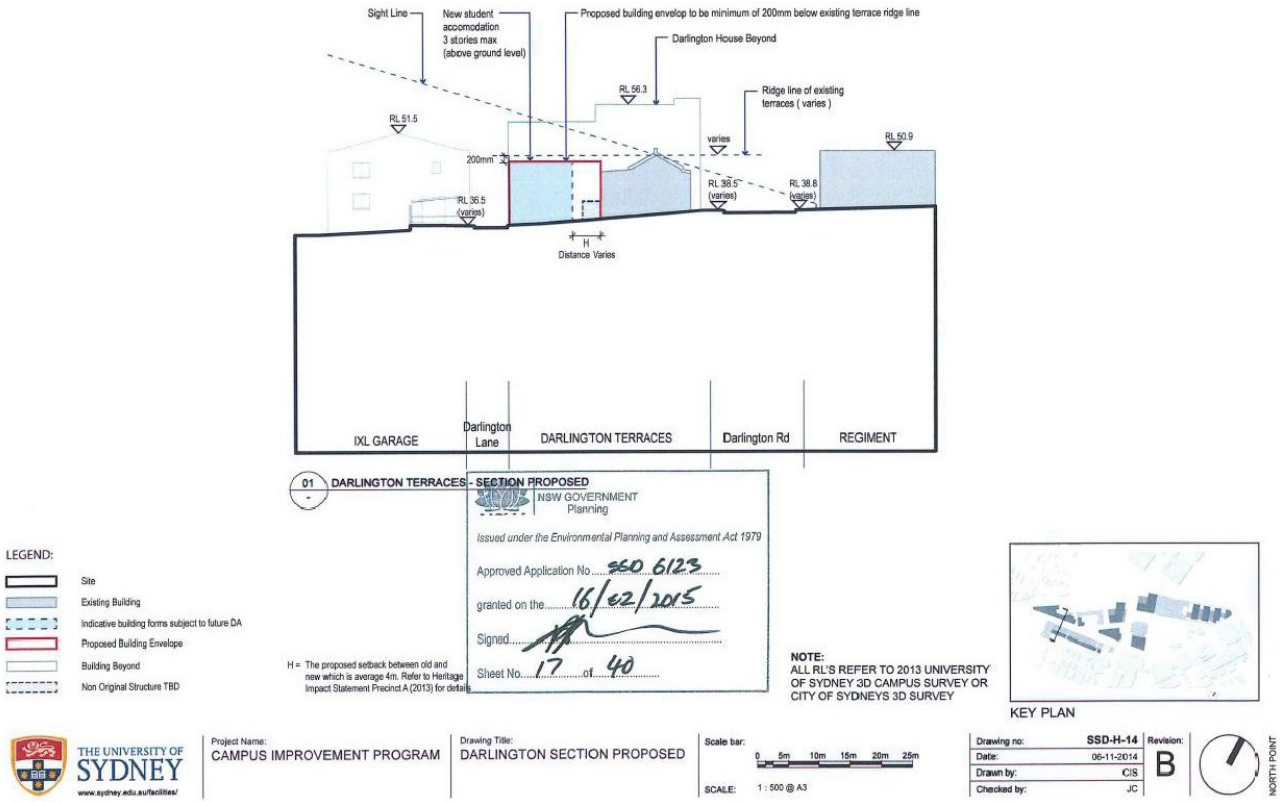

Figure 5.3 Proposed Darlington Section

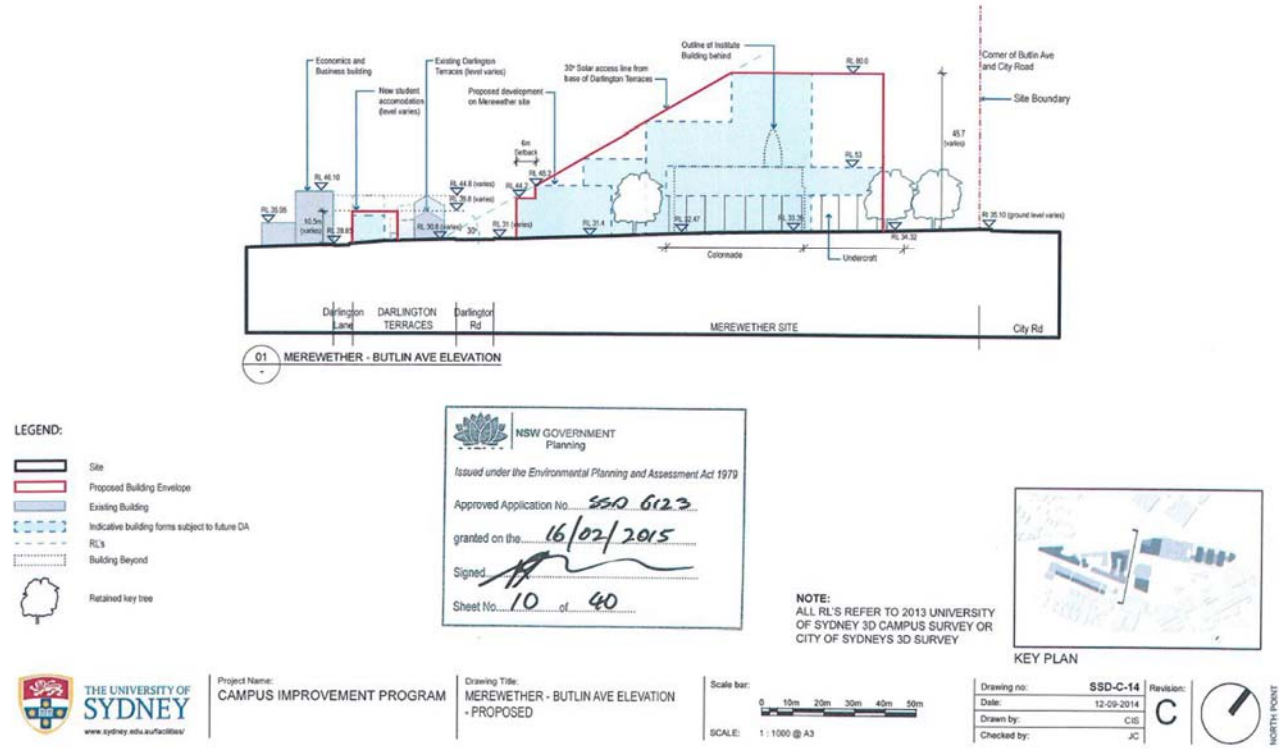

Figure 5.4 Merewether Precinct – Proposed Butlin Avenue Elevation

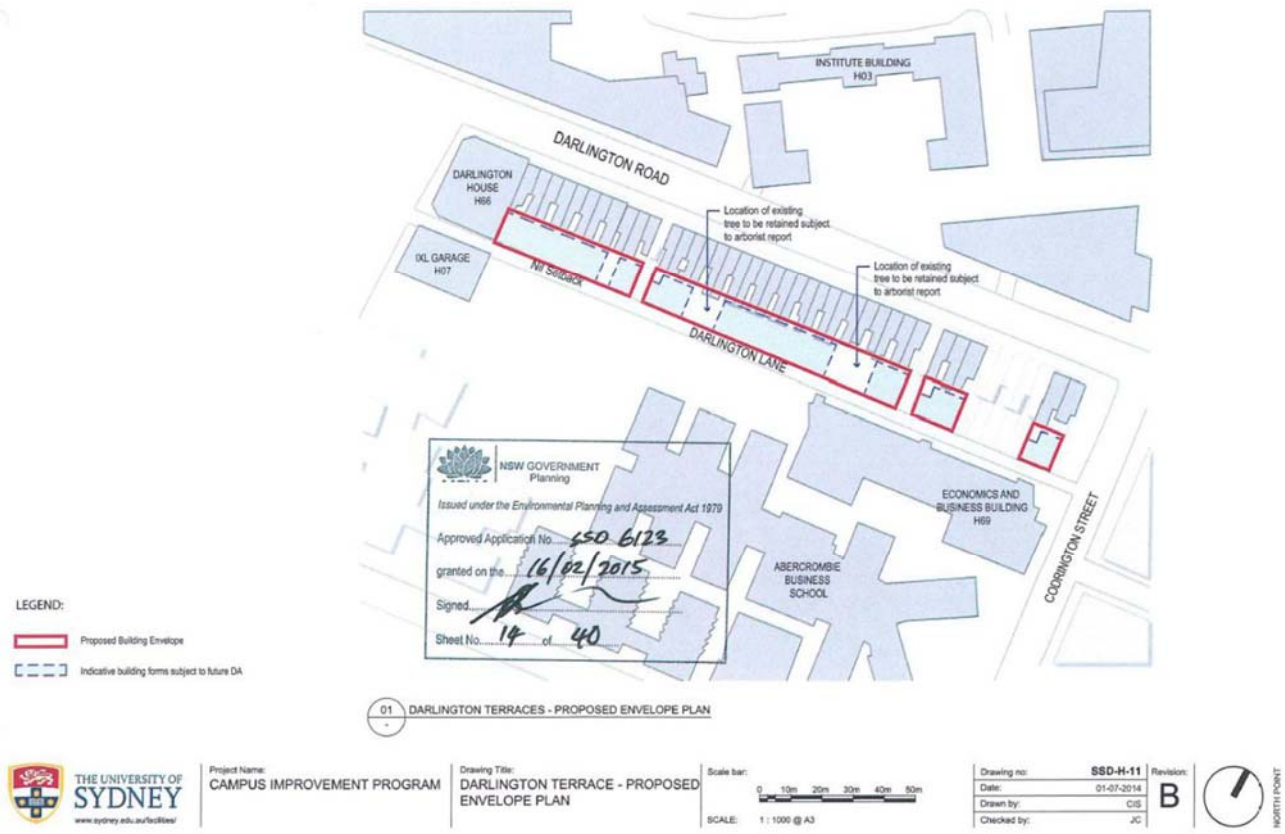

Figure 5.5 Darlington Terraces – Proposed Envelope Plan

5.9.2 Consistency with CIP

The CIP approval includes the following conditions relevant to the Darlington Road Terraces site (Merewether Precinct).

Requirement				Proposal
Development in Accordance with Plans and Documents A5. The applicant shall carry out the development generally in accordance with the: d) following drawings, except for: i) any modifications which are Exempt or Complying Development ii) as otherwise provided by the conditions of this consent.				The proposal is consistent with these drawings.
Merewether Precinct				
SSD-H-11	B	Darlington Terraces – Proposed Envelope Plan	01/07/2014	
SSD-H-12	A	Darlington Terraces – Elevation from Codrington Street – Proposed	06/11/2014	
SSD-H-13	B	Darlington Terraces – Darlington Lane Elevation – Proposed	06/11/2014	
SSD-H-14	B	Darlington Section Proposed	06/11/2014	

Requirement	Proposal
Gross Floor Area A6. Merewether Precinct: 63,400m^2 additional GFA	7,175m^2 GFA is proposed as part of this development. This will not exceed the 63,400m^2 additional GFA approved for this CIP precinct.
Car parking A9. Total on-campus (Camperdown and Darlington Campuses) car parking provisions shall not exceed 2,800 spaces at the completion of all future development approved under the Campus Improvement Program	The proposal does not include any additional car parking spaces.
Design Excellence B1. a) Consent must not be granted to a new building or to external alterations to an existing building unless the consent authority has considered whether the proposed development exhibits design excellence. b) In considering whether proposed development exhibits design excellence, the consent authority must have regard to the following matters: i) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved, ii) whether the form and external appearance of the building will improve the quality and amenity of the public domain, iii) whether the building meets sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency, iv) If a design competition is held in accordance with the requirements of clause 6.21 Design excellence of *Sydney Local Environmental Plan 2012*, the results of the competition.	Details of how the proposal demonstrates design excellence is provided as follows: ▪ Section 3.8 of the EIS ▪ Architectural Design Excellence Report provided at Appendix D ▪ Design Excellence Statement provided at Appendix E.
Built Form and Urban Design B2. d) Future built form within the Darlington Terrace building envelopes (No.3) shall ensure that the original terrace row subdivision pattern is satisfactorily interpreted within its Darlington Lane elevation and does not appear as a single large built form mass.	The proposed design of the new building incorporates visually segmented vertical design elements consistent with the terrace subdivision pattern behind. The design provides articulation reducing visual mass. Refer to the architectural drawings provided at Appendix C and the Architectural Design Excellence Report provided at Appendix D.
B3. Future building demolition, site layout and architectural design of future development shall be generally consistent and have regard to the following: a) Camperdown Darlington Campus Strategy Plans at Appendix C of the EIS (as amended by the RtS); b) Design Principles at Appendix F of the EIS; c) *Campus Improvement Program 2014-2020 State Significant Development Application (SSD 13_ 6123), Urban Design Justification*, prepared by Cox Richardson and The University of Sydney, dated June 2014	All criteria has been satisfied as follows: a) Section 5.9.3 b) Section 5.9.4 c) Section 5.9.5

Requirement	Proposal
B4. To ensure that the visual impact of rooftop plant and architectural roof features is minimised, the design of future built form shall be generally consistent with the following: a) Rooftop plant and equipment shall be setback a minimum three metres from the building parapet; b) b) Rooftop plant and equipment, including plant and lift overruns, communications devices, satellite dishes and the like are to be designed to minimise their visibility and size; and c) The design of architectural roof features are to integrate with the overall building design.	The proposal has been designed to be consistent with these requirements. Drawings are provided at Appendix C.
B5. Built form shall be sited to achieve a balance between cut and fill, minimise earthworks, provide adequate solar access and minimise impacts on privacy, amenity and overshadowing of land uses surrounding the site.	The development has been sited to ensure that earthworks are minimised, adequate solar access is provided and adverse amenity and privacy impacts are minimised.
B6. Future development applications for new built form shall include a *Crime Prevention Through Environmental Design* assessment, including mitigation measures, where necessary. B7. Development sited adjacent to the public domain shall be appropriately treated to maximise pedestrian and public safety through the implementation of the Crime Prevention through Environmental Design principles.	The design of the development includes crime prevention strategies as addressed in the Architectural Design Excellence Report (Appendix D). These include access control, surveillance, territorial reinforcement and space management.
Landscaping B8. All future development applications for new built form must include detailed landscape plans identifying the vegetation to be removed or relocated and the location of replacement and additional landscaping and must be generally in accordance with the approved landscape concept in Condition A4 of Part A of Schedule 2 and The University of Sydney Grounds Conservation Management Plan, dated July 2014. Detailed landscape plans should include relevant details of the species to be used in the various landscapes areas (preferably species indigenous to the area), including details of the informal native and cultural avenue plantings, and other soft and hard landscape treatments, including any pavement areas and modular and sculptural seating.	Detailed landscape plans have been prepared and are provided at Appendix F.
B9. All future development applications for new built form shall satisfactorily demonstrate that proposed built form does not encroach on significant trees and open spaces identified in Figure 4.3 entitled 'Grading of significance: character areas and landscapes' and graded as being exceptional and high in The University of Sydney Grounds Conservation Management Plan, dated July 2014.	One significant tree will be removed as part of this proposal, located in the rear yard of 116 Darlington Road. The tree removal is necessary to ensure the maximum number of bedrooms and associated facilities are developed. Replacement planting of mature trees is proposed in the University's pocket park on the corner of Codrington Street and Darlington Road to compensate for the loss of the significant tree. This park upgrade is designed as a significant public benefit, to be accessible and regularly used by local Darlington residents. Section 6.2.2 of this report and the Arborist Report provided at Appendix V provides further justification for the removal of the tree.

Requirement	Proposal
Heritage B.12 All future development applications shall be accompanied by a Heritage Impact Statement addressing their impacts and outlining how the recommendations of respective precinct based heritage impact statements and policies outlined within The University of Sydney Grounds Conservation Management Plan, dated July 2014 have been satisfactorily addressed.	A Heritage Impact Statement has been prepared and is provided at Appendix L, summarising the likely impacts of the proposal and outlining how recommendations within the University Grounds Conservation Management Plan have been addressed.
B.14 All future development applications for new built form that involve the demolition or alteration of existing items of heritage significance shall include a heritage interpretation plan in accordance with NSW Heritage Branch guidelines titled 'Interpreting Heritage Places and Items: guidelines' and policy titled 'Heritage Information Series: Heritage Interpretation Policy' for assessment and approval. The interpretation plan must: a) Detail how information on the history and significance of the building within The University of Sydney will be provided for the public and include pictures, texts, and detailed designs for its implementation. b) Include significance themes, including the building's contribution to the development of the University and residential colleges.	The Statement of Heritage Impact provided at Appendix L includes a historical summary of the site and identifies the strategies to incorporate original features into the design of the development. The Report also recommends that an external and internal archival recording of all the Terraces be prepared in accordance with the requirements of the NSW Heritage Division prior to the commencement of works. Also, an interpretation strategy be prepared and implemented at the completion of the development.
B.15 Future built form within the Merewether Precinct shall maintain and enhance the landscaped setting, curtilage and form of the Institute Building.	The development will not detract from the Institute Building and will improve the public domain.
Traffic, Access and Car Parking B16. All future development applications for new built form must include a detailed assessment of the traffic and transport impacts associated with the future development and shall address, but not limited to: a) details of the total daily and peak hour trips generated by the proposed development, including accurate details of the current and future daily vehicle movements and assess the impacts of the traffic generated on the local road network; b) detailed intersection analysis in consultation with Council and the Roads and Maritime Services, where University roads connect with local or State roads, including intersection capacity (including University vehicle access points) and requirements for future road and intersection upgrading works; c) the cumulative traffic and parking impacts; d) proposed mode share targets and appropriate measures to ensure they are satisfactorily achieved; and e) the status of the closure of existing at-grade car parking areas (where relevant).	A Traffic Impact Assessment is provided at Appendix K, detailing the cumulative traffic and parking impacts of the proposed development. It is considered that the proposal will result in a reduction in vehicular traffic, particularly during peak periods. It is anticipated that the proposed development will not have any adverse impacts on the surrounding road network in terms of traffic efficiency.
B17. To ensure that active transport modes are satisfactorily supported and promoted on campus, all future development applications for new built form shall satisfactorily detail that pedestrian and cyclist facilities have been incorporated into the respective proposed development and how integration into broader campus strategies will be made.	The Traffic Impact Assessment at Appendix K highlights that the advantages of the site's location in close walking distance of both Redfern and MacDonald town Railway Stations, and bus services along City Road. Although there are no formal bicycle routes, the internal campus road network is conducive to bicycle movements due to the slow speed environment. Furthermore, the CIP Access Strategy Plan maps its campus

Requirement	Proposal
	cycle routs and their direct connection to the City of Sydney Bicycle Network. As identified in 5.1.5, the University's STAMP sets out a range of strategies for consideration by the University to improve transport accessibility and connectivity, including the provision of more campus student accommodation, improvements to active transport facilities and the reduction of car parking demand. The proposal is consistent in encouraging active transport to and from the site in accordance with the STAMP (Appendix W). The proposal is consistent with the key objectives of the STAMP by providing learning facilities and student accommodation that are satisfactorily supported by active transport modes.
B18. All bicycle and motor cycling parking and associated end-of-trip facilities shall be provided in accordance with Council's relevant policies and controls.	Compliance with Council's bicycle parking provisions is demonstrated in Section 0 of the EIS. Students are also able to access the end-of-trip facilities, both within the student accommodation rooms, as well as Abercrombie Business School immediately south of the site.
B19. Future development applications for new built form shall include a sustainable travel plan, or where relevant, include a faculty/precinct based sustainable travel plan and accompany the first application within the respective CIP Precinct.	A Traffic Impact Assessment is provided at Appendix K. As mentioned above, the University has developed a STAMP to encourage active and public transport by staff and students to the University Main Campus. A copy of the STAMP is provided at Appendix W.
Noise and Vibration B.20 All future development applications for new built form shall be accompanied by a noise and vibration assessment that identifies and provides a quantitative assessment of the main noise generating sources and activities at all stages of construction, and any noise sources during operation. Details are to be provided outlining any mitigations measures to ensure the amenity of adjoining sensitive land uses is protected throughout the construction and operational periods.	Noise and vibration has been assessed in the Noise Impact Assessment provided at Appendix AA. The Report provides a number of noise control methods and acoustic recommendations.
B.21 All future development applications for new built form shall detail any noise mitigation measures associated with operational and mechanical plant noise impacts, and demonstrate that any noise generated plant will comply with the noise criteria detailed within noise and vibration assessments.	Section 16 of the Noise Impact Assessment (Appendix AA) details the operational and mechanical plant noise impacts of the proposed development.
B22. All future development applications for new built form shall consider potential noise impacts on adjoining residences, including noise generated from student and staff activities and broader associated ancillary community uses of buildings and other University facilities	The Noise Impact Assessment provided at Appendix AA concludes that the predicted noise levels from the development comply with the noise emission criteria.

Requirement	Proposal
Aboriginal Heritage B23. Where relevant, future development applications shall address Aboriginal Heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005 and Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.	Aboriginal heritage has been addressed within the Conservation Management Plan provided at Appendix M. Additionally the Statement of Heritage Impact provided at Appendix L also assessing the Aboriginal cultural values within the vicinity. No impacts on Aboriginal cultural values have been identified.
Contamination B25. Future development applications for new built form shall be accompanied by a detailed site investigation report, including an assessment of potential site contamination following the demolition of existing building and infrastructure, having regard to the recommendations provided within the Preliminary Site Investigation report, prepared by Douglas Partners, dated November 2013.	A Stage 2 Detailed Site Contamination Investigation Report is provided at Appendix Y and concludes that the site can be made suitable for the development subject to the implementation of the recommended works.
Ecology Sustainable Development B26. Future development applications for new built form shall demonstrate how the principles of ESD have been incorporated into the design, construction and on-going operation of future developments.	ESD principles have been incorporated into the design as summarised in Section 5.12 and detailed in the ESD report at Appendix BB.
Building Code of Australia B27. All future development applications shall demonstrate compliance with the Building Code of Australia, as relevant.	A BCA Assessment Report is provided at Appendix T and demonstrates the proposal's compliance with the relevant Deemed to Satisfy provisions.
Utilities B28. All future development applications for new built form shall address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure through the preparation of an Infrastructure Management Plan in consultation with relevant agencies and service providers.	The existing capacity of services on the site and required upgrades to accommodate the proposed development are addressed in the Infrastructure Management Plan at Appendix P and the Integrated Water Management Plan at Appendix Q.
Stormwater and Flooding B29. Future development applications for new built form shall be accompanied by a stormwater management plan detailing an assessment of any flood risk on site and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), stormwater and drainage infrastructure, and details demonstrating that water sensitive urban design measures have been incorporated into the development.	The Stormwater Management Report (Appendix I) and Stormwater Management Plan (Appendix J) include an assessment of the flood risk on the site. The overland flow path will generally align with the proposed courtyard.
Disability Access B30. Where relevant, future development applications shall include a Disability Access Review to demonstrate an appropriate degree of accessibility in accordance with the Disability (Access to Premises - buildings) Standards 2010 (the Premises Standards).	An Access Design Statement has been prepared for this proposal (Appendix O) and details how the proposed development has been designed in accordance with the recommendations of the Access Report (Appendix N).
Waste B31. Where relevant, future development applications shall include a Waste Management Plan to address storage, collection, and management of waste and recycling within the development.	A Waste Management Plan is provided at Appendix U.

5.9.3 Campus Improvement Program Access Strategy

The approved CIP Access Strategy (prepared by ARUP, 2013) is a key driver for achieving sustainable transport outcomes throughout the University of Sydney. The Strategy seeks to implement a range of initiatives to enhance and encourage the use of public and active transport by improving connectivity to existing transport routes.

The Access Strategy comprises four Strategy Plans, as follows:

- Cycling
- Parking
- Pedestrian
- Servicing.

The Strategy Plans illustrate existing and indicative future travel paths throughout the Camperdown-Darlington Campus and surrounding street network, aligning with the CIP precincts.

The proposed development is consistent with the Camperdown-Darlington Campus Strategy Plans of the CIP Access Strategy and is addressed in Sections 2.4 and 3.3 of this EIS and the Traffic Impact Assessment provided at Appendix K.

5.9.4 Design Principles at Appendix F of the CIP EIS

The CIP establishes the following principles which that informed the layout and design of the precincts and the building design of the Darlington Terraces Mixed Use Development. The principles include the themes of:

- Connectivity, outdoor space and campus legibility
- Axes and vistas
- Precinct identity
- External micro climate
- Natural daylight
- Built form
- Social impact
- Deliverability

These principles are addressed in the Architectural Design Statement prepared by Allen Jack & Cottier (Appendix D). The proposed development is consistent with these design principles.

5.9.5 CIP Urban Design Justification, prepared by Cox Richardson and The University of Sydney

This document provides an overview assessment of the subject development. It recommends minor setbacks to the north-western corners of the buildings abutting the private terraces to ensure solar access to their private open space is not compromised (refer to Figure 5.6).

The proposed development complies with these building setbacks along the full extent of their western side, thereby optimising solar access to the neighbouring private terrace. Privacy screening in Building A, additional landscaping and screening from the internal courtyard to neighbouring boundaries and setting back windows from neighbouring boundaries, are also proposed. This will ensure that solar access to privately owned terraces is maintained.

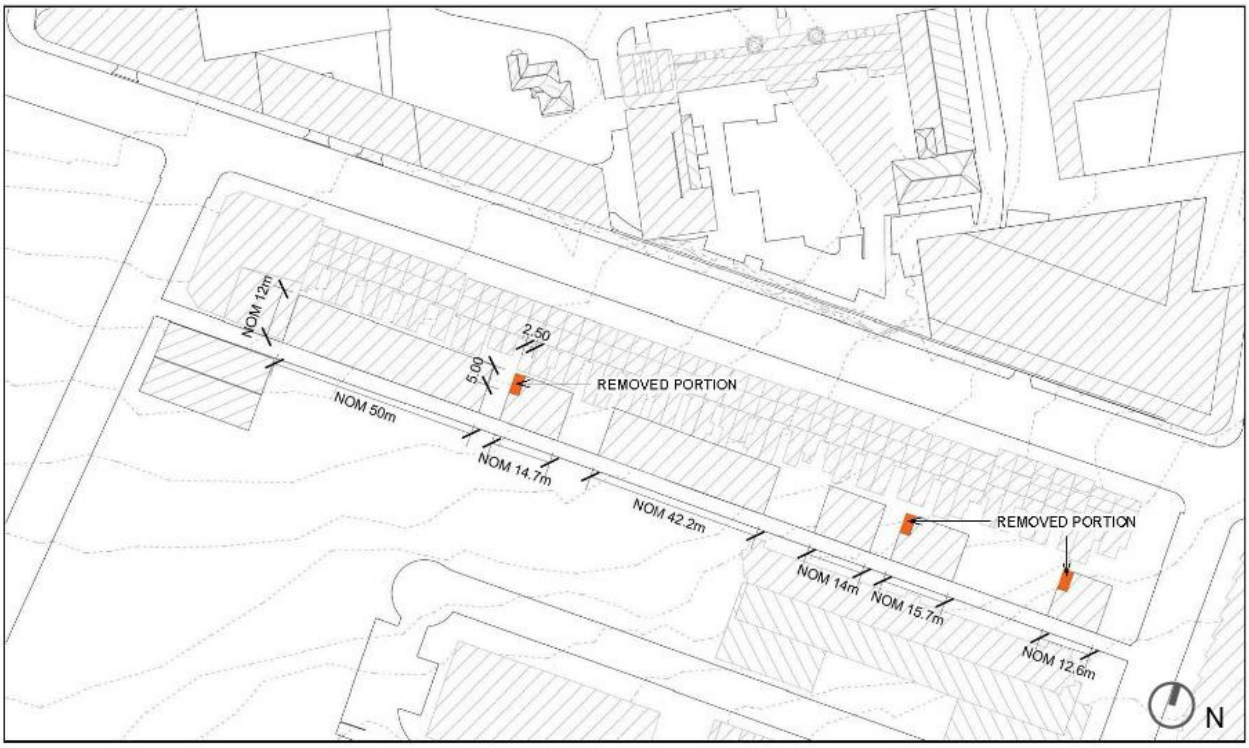

Figure 5.6 Suggested design to achieve Solar access to privately owned terraces under CIP Urban Design Justification

5.10 Sydney Local Environmental Plan 2012

Sydney Local Environmental Plan 2012 (LEP 2012) sets out the provisions for development that is located within the Sydney local government area (LGA). The LEP provides the statutory controls applicable to the site. Relevant clauses are discussed below.

Under the provisions of the LEP, the subject land is zoned SP2 Infrastructure (Educational Establishment) (Figure 5.7).

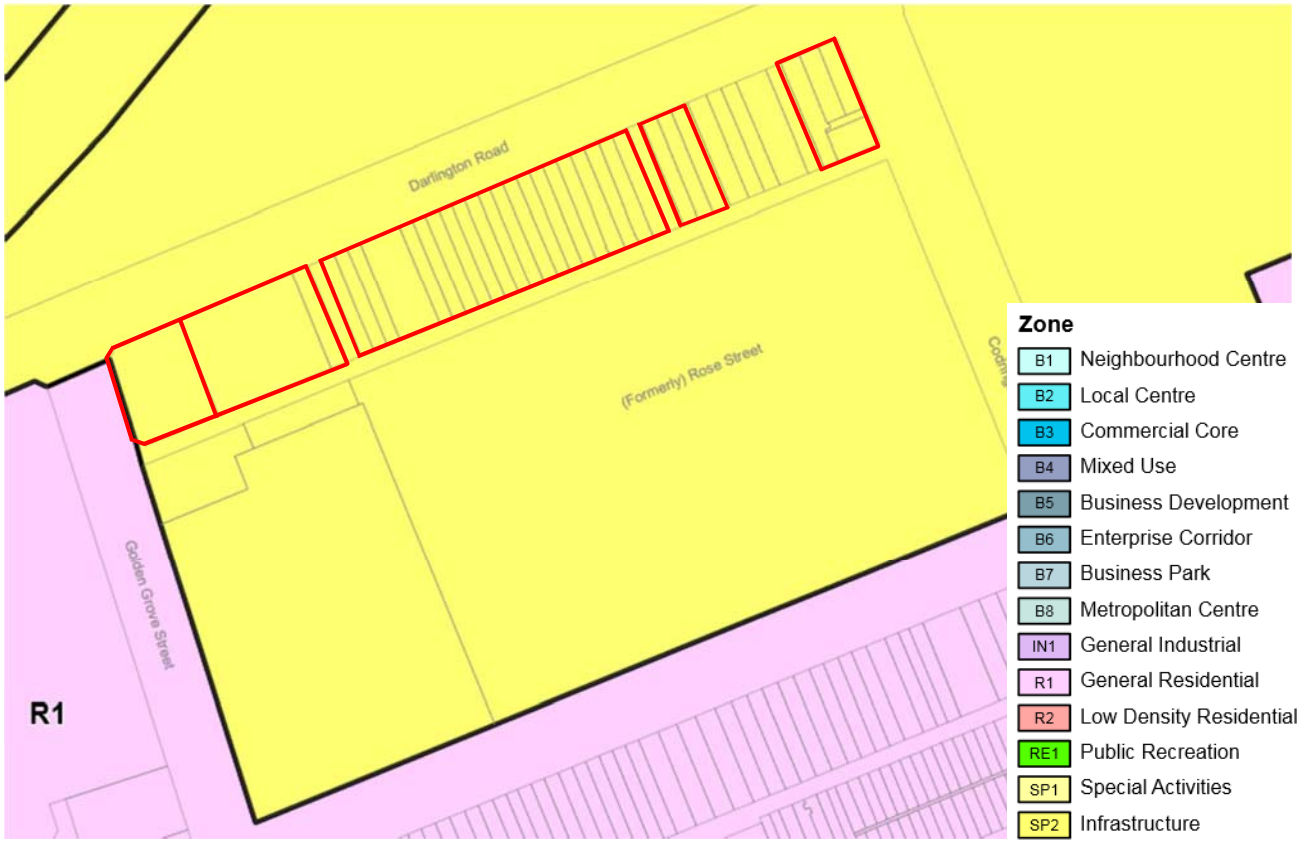

Figure 5.7 Land use zoning at the Darlington Terraces Mixed Use Development site

The site is zoned *SP2 Infrastructure* and is identified on the zoning maps as *"Educational Establishment"*. This report notes that ***"educational establishment** means a building or place used for education (including teaching), being:*

(a) a school, or
(b) a tertiary institution, including a university or a TAFE establishment, that provides formal education and is constituted by or under an Act".

Under the SLEP 2012, permitted uses within this zone include development that is ordinarily incidental or ancillary to development for that purpose. The proposed mixed-use development for affordable student accommodation and student educational facilities is consistent with the definition of "*educational establishment or development that is ordinarily incidental or ancillary*" in SLEP 2012 and is therefore permissible with development consent. The proposed development also satisfies the following SLEP land use zone objectives:

- Providing for infrastructure and related uses to the University's *educational establishment*; and
- Does not introduce any development or use that is not compatible with, or detracts from, the provision of educational establishment infrastructure.

The relevant LEP development controls for the subject site are detailed in Table 5.2 below.

Table 5.2 Sydney Local Environmental Plan 2012

Control	Comment	Complies?
Part 4 Principal development standards		
4.3 Height of buildings No maximum building height specified for the site.	No maximum height provisions are contained within the LEP for the site. Maximum building heights for the development are specified within the Concept Plan – CIP approval (SSD 13_6123) as detailed in Section 5.9 and the Architectural Plans at Appendix C. The proposal complies with these standards.	**N/A**
4.4 Floor space ratio No maximum FSR specified for the site.	No FSR provisions are outlined in the CIP approval. Notwithstanding this, the additional GFA generated by the development does not exceed the prescribed GFA for the Merewether Precinct.	**N/A**
Part 5 Miscellaneous provisions		
5.1 Relevant acquisition authority The objective of this clause is to identify, for the purposes of section 27 of the Act, the authority of the State that will be the relevant authority to acquire land reserved for certain public purposes if the land is required to be acquired under Division 3 of Part 2 of the *Land Acquisition (Just Terms Compensation) Act 1991*	The site is not reserved for acquisition.	**N/A**
5.2 Classification and reclassification of public land The objective of this clause is to enable the Council to classify or reclassify public land as "operational land" or "community land" in accordance with Part 2 of Chapter 6 of the *Local Government Act 1993*.	The site is not classified as operational land or community land.	**N/A**
5.3 Development near zone boundaries (1) The objective of this clause is to provide flexibility where the investigation of a site and its surroundings reveals that a use allowed on the other side of a zone boundary would enable a more logical and appropriate development of the site and be compatible with the planning objectives and land uses for the adjoining zone. (2) This clause applies to so much of any land that is within the relevant distance of a boundary between any 2 zones. The relevant distance is 6 metres from any land in Zone SP1 Special Activities or Zone SP2 Infrastructure.	The proposed development is permitted with consent in the SP2 zone; therefore this clause does not apply.	**N/A**
5.6 Architectural roof features Development that includes an architectural roof feature that exceeds, or causes a building to exceed, the height limits set by this Plan may be carried out, but only with development consent.	No maximum height provisions are contained within the LEP for the site; therefore this clause does not apply. The proposal does not exceed the CIP building heights established for the existing Terraces and the new rear building additions within the Merewether Precinct.	**N/A**

Control	Comment	Complies?
5.9 Preservation of trees or vegetation A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by: (a) development consent, or (b) a permit granted by the Council	An Arborist Report is provided at Appendix V. The proposal is consistent with the approved concept landscape plan. It shows trees along Darlington Road, which are proposed to be retained. A significant tree along Darlington Lane is also proposed to be removed.	✓
5.10 Heritage conservation Development consent is required for any of the following: (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance): (i) a heritage item, (ii) an Aboriginal object, (iii) a building, work, relic or tree within a heritage conservation area, (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item, (e) erecting a building on land: (i) on which a heritage item is located or that is within a heritage conservation area, or (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance, The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned.	The Terraces along Darlington Road and Darlington House are items of local heritage significance under Sydney LEP 2012. The proposed building alterations and additions have been designed to preserve the Terraces' heritage and residential visual presentation along Darlington Road. A Heritage Impact Statement supporting the proposed development is provided at Appendix L.	✓
Part 6 Local provisions – height and floor space		
Division 4 Design excellence		
6.21 Design excellence Development consent must not be granted to development to which this clause applies unless, in the opinion of the consent authority, the proposed development exhibits design excellence.	The Darlington Road Terraces mixed use redevelopment will target an above ground height **less than** 25 metres and the project **will not** exceed a construction value of $100 million. Accordingly, the need to undertake a design competition as defined by Clause 6.21 of Sydney LEP 2012 is waived in this instance. Notwithstanding, the University of Sydney has its own design excellence process which is summarised at Appendix E.	✓

Control	Comment	Complies?
	The proposal has been designed to a high standard of architectural design, materials and detailing to provide an appropriate transition between the Darlington Road Terraces and the Abercrombie Business School. The new buildings have adopted a built form that responds to the traditional subdivision pattern of the existing Terraces. Further evidence that the proposed development exhibits design excellence is provided at Section 3.8 of this report and the Architectural Design Statement at Appendix D.	
Part 7 Local provisions - general		
Division 1 Car parking ancillary to other development		
7.9 Other land uses The maximum number of car parking spaces for a building used for the purposes of information and education facilities is 1 space for every 200m^2 of the GFA of the building used for those purposes.	No parking is proposed as part of this development.	**N/A**
Division 4 Miscellaneous		
7.14 Acid Sulfate Soils The site contains Class 5 Acid Sulfate Soils. Development consent is required for works within 500m of adjacent Class 1, 2, 3 or 4 land that is below 5m AHD and by which the water table is likely to be lowered below 1m AHD on adjacent Class 1, 2, 3 or 4 land.	The site is more than 500m from adjacent Class 2 land (northeast) therefore, no further assessment is required.	**N/A**
7.15 Flood planning Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development: (a) is compatible with the flood hazard of the land, and (b) is not likely to significantly adversely affect flood behavior resulting in detrimental increases in the potential flood affectation of other development or properties, and (c) incorporates appropriate measures to manage risk to life from flood, and (d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and (e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.	Flooding has been addressed in the Stormwater Management Plan provided at Appendix I. The report contains a Flood Management Plan. The site is located outside of the flood hazard zone. A new public pit and pipe draining line along Darlington Lane is proposed to mitigate surface water rises from overland flow path at certain locations.	✓

Control	Comment	Complies?
7.19 Demolition must not result in long term adverse visual impact Development consent must not be granted to development involving the demolition of a building unless the consent authority is satisfied that: (a) any land affected by the demolition will be comprehensively redeveloped under the development consent (if granted) or under an existing development consent relating to the site, and (b) adequate measures will be taken to assist in mitigating any adverse visual impacts that may arise as a result of the demolition with regard to the streetscape and any special character area.	Limited demolition works are proposed as the terraces are to be retained with only minor demolition works predominantly internally and to structures at the rear of the lots along Darlington Lane. The demolition is not expected to have adverse visual impacts on the surrounding public domain and will not be highly visible from the primary road (Darlington Road). The proposed demolition works have been endorsed by the overall CIP approval.	✓

5.11 Sydney Development Control Plan 2012

The non-statutory controls that guide development within the Sydney LGA are contained in Sydney DCP 2012. Section 4.4.1 of the DCP contains specific controls relating to development for the purposes of boarding houses and student accommodation.

As noted in Section 5.3, DCPs do not apply to SSD and are not required to be considered. Notwithstanding this, relevant provisions relating to student accommodation have been addressed for best practice in Table 5.3 below.

5.11.1 DCP Provisions

Table 5.3 Sydney Development Control Plan 2012

Control	Comment	Complies?
Section 3 General Provisions		
3.11 Transport and Parking		
3.11.3 Bike parking and associated facilities		
Bike parking spaces for new developments are to be provided at the following rates: **Residents/ Employees** / **Customer/ Visitors** Tertiary educational institution: 1 space/10 staff and 1 space/10 students Residential accommodation: 1 space/ dwelling / 1 space/ 10 dwellings	The development provides 90 bike racks which is a ratio of 1:4 students, therefore exceeding this requirement.	✓
For non-residential uses, the following facilities are to be provided at the following rates: ▪ 1 personal locker for each bike parking space ▪ 2 shower and change cubicles for 11-20 or more bike parking spaces ▪ 2 additional showers and cubicles for each additional 20 bike parking spaces or part thereof.	End of trip facilities will be provided as part of the student accommodation facilities and shared bathrooms within the blended learning spaces. Students and staff will also be able to access the end of trip facilities within the Abercrombie Business School, located immediately south of the site.	✓
Section 4 Development Types		
4.4.1 Boarding houses and student accommodation		
4.4.1.1 Subdivision		
The strata subdivision or community title subdivision of boarding houses or student accommodation is not permitted.	Subdivision is not proposed as part of this SSD application.	**N/A**
4.4.1.2 Bedrooms		
Minimum gross floor area of a bedroom: ▪ 12m^2 (including 1.5m^2 wardrobe space), plus	There are non-compliances with this minimum guideline. A key objective of the smaller rooms is to achieve affordability.	**No, justified**

▪ 4m² when a second adult occupant is intended (which must be clearly shown on plans), plus ▪ 2.1m² for ensuite (comprising hand basin and toilet), plus ▪ 0.8m² for a shower in ensuite, plus ▪ 1.1m² for any laundry (comprising wash tub and washing machine), plus ▪ 2m² for any kitchenette (comprising small fridge, cupboards, shelves and microwave).	The proposed beds in the new Darlington Lane Buildings A to D range from 10.3m² to 12m². In the initial design phase, some rooms were as small as 6m² but have been deleted as part of the redesign. The proposed beds within the Terraces vary in size and predominately retain the existing internal walls, therefore remaining the same size as existing bedrooms occupied by students. Where possible, the proposed twin rooms achieve the 16m² minimum. Most are at least 15m². The single rooms are all in the range of 10.5m² to 12m². Despite these rooms being compact, smart design features have been incorporated to maximise the usable spaces and provide all the required furnishings for students. In balance, students will benefit from significant areas of communal open space and communal living areas as demonstrated below. The site also benefits from immediate access to facilities and services within the University's Main Campus. Further justification is provided in the Socio-economic Study prepared by Cred Consulting at Appendix FF.	
Each bedroom must have access to natural light, from a window or door with a minimum aggregate area of 10% of the floor area of the room. Skylights are not to be the sole source of light.	The new building adopts windows which exceed the 10% minimum area for all bedroom sizes.	✓
Ensure the ceiling height in any bedroom containing double bunks is 2.7m.Triple bunks are not permitted.	All proposed ceiling heights exceed the minimum height requirement for rooms containing double bunks. No triple bunks are proposed.	✓
In boarding houses classified as Class 3 by the BCA, each bedroom is to meet the fire safety standards of a sole occupancy unit for a Class 3 building in the BCA, whether it is provided as a sole occupancy or not.	The proposal will satisfy all applicable requirements of the BCA either by compliance with Deemed to Satisfy (DtS) provisions or through the development of suitable alternative solutions. A BCA Report is provided at Appendix T.	✓
4.4.1.3 Communal kitchen areas		
Minimum area of 6.5m² in total or 1.2m² for each resident occupying a bedroom without a kitchenette, whichever is greater.	A minimum 565.5m² communal kitchen area is suggested for 337 residents. The following communal kitchen areas are proposed and therefore meet the minimum requirement. **Building** — **Proposed Area (m²)** Building A — 113.3 Building B — 224.8 Building C — 7.7 Building D — 47.3 Terraces — 172.5 **TOTAL** — **565.6** The proposed kitchen areas are based on a study conducted by the University for kitchen design. The findings of this have already been applied to the	✓

	Queen Mary Building which has been successful and is fit for student purpose.	
The communal kitchen is to contain at least 1 sink and 1 stove cooker for every 6 people.	57 sinks and stove cookers are to be provided for the development. This will be provided.	✓
The communal kitchen is to contain, for each resident occupying a bedroom without a kitchenette: ▪ 0.13m^3 of refrigerator storage space; ▪ 0.05m^3 of freezer storage space; and ▪ 0.30m^3 of lockable drawer or cupboard storage space.	These facilities will be provided.	✓
4.4.1.4 Communal living areas and open space		
Indoor communal living areas are to have a minimum area of 12.5 m^2 or 1.25 m^2 per resident and a width of 3m.	A minimum 421.5m^2 of indoor communal living area is required for the development. 606.3m^2 is proposed, therefore exceeding this requirement.	✓
Indoor communal living areas are to be located: ▪ near commonly used spaces ▪ adjacent to the communal open space ▪ to receive a minimum 2 hours solar access to at least 50% of the windows during 9am and 3pm on 21 June ▪ on each level of a multi-storey boarding house, where appropriate ▪ where they will have minimal impact on bedrooms and adjoining properties.	The indoor communal living areas are located adjacent to the reception area and will be safe and well-utilised. Extensive glazed facades to the communal spaces of the mixed use buildings ensure maximum daylight penetration into the building. Setbacks and integrated shading structures have been designed to minimise direct sunlight into during the hotter months. Communal living areas are provided on each level of the development and are positioned to avoid impacts on bedrooms and adjoining privately owned Terraces.	✓
Communal open space is to be provided with a minimum area of 20 m^2 and a minimum dimension of 3m.	1,436m^2 is proposed, significantly in excess of the guideline.	✓
Communal outdoor open space is to located and designed to: ▪ generally be north-facing to receive a minimum 2 hours solar access to at least 50% of the area during 9am and 3pm on 21 June ▪ be provided at ground level in a courtyard or terrace area, where possible ▪ provide partial cover from weather; ▪ incorporate soft or porous surfaces for 50% of the area ▪ be connected to communal indoor spaces, such as kitchens or living areas ▪ contain communal facilities such as barbecues, seating and pergolas where appropriate ▪ be screened from adjoining properties and the public domain with plantings, such as a trellis with climbing vines.	The key outdoor open spaces will receive a minimum of two hours of solar access during the winter solstice.	✓

30% of all bedrooms are to have access to private open space with a minimum area of 4 m^2 in the form of a balcony or terrace area.	13% of the bedrooms have direct private balcony access. This is less than the suggested ratio. However, the offset is justified by the significant amount of communal open space proposed. Balconies have been minimised to the existing heritage terraces as they impose safety and security concerns for the University and can stimulate acoustic impacts.	**No, justified**
4.4.1.5 Bathroom, laundry and drying facilities		
Communal bathroom facilities accessible to all residents 24 hours per day are to be provided with at least: ▪ 1 wash basin and 1 toilet for every 10 residents that occupy a room that does not contain an ensuite ▪ 1 shower or bath for every 10 residents that occupy a room that does not contain a shower.	34 basins, toilets and showers/baths are to be provided for the development. The proposal provides 96 toilets and basins and 90 showers, therefore exceeding this requirement.	✓
Laundry facilities are to be provided and include at least: ▪ one 5kg capacity automatic washing machine and one domestic dryer for every 12 residents ▪ one large laundry tub.	29 washing machines, domestic dryers and laundry tubs are required to be provided. The proposal provides laundry facilities at a rate of 1:35 residents. The University has similar ratios at its other facilities and no issues are evident. These facilities are located within common areas and can be accessed regularly throughout the week. It is considered that the facilities provided are able to cater for the residents at various times of the day.	**No, justified**
Drying facilities, such as clotheslines located in a communal open space, are to be located to maximise solar access and ensure that the usability of the space is not comprised.	No drying facilities are proposed as there are dryers located within the laundry facilities.	**No, justified**
4.4.1.6 Amenity, safety and privacy		
Boarding houses are to maintain a high level of resident amenity, safety and privacy by ensuring: ▪ communal spaces are located in safe and accessible locations ▪ bedrooms are located so that they are separate from significant noise sources and incorporate adequate sound insulation ▪ structural fittings and fixtures for all internal rooms that enhance nonchemical pest management of the building, with all cracks and crevices sealed and insect screening to all openings ▪ all appliances achieve an energy star rating of 3.5 or higher, unless otherwise legislated.	The development will provide a high level of amenity for the residents as communal areas are generally located on the ground floor of each building and accessible from adjacent communal areas. In addition, they overlook the communal open space.	✓
Boarding houses are to be designed to minimise and mitigate any impacts on the visual and acoustic privacy of neighbouring buildings.	The visual impact will be minimal as the development is located to the rear of, and subservient to, the existing Darlington Terraces, as well being significantly subservient to the adjoining Darlington	✓

	House, IXL Garages and the Abercrombie Business School buildings. Building windows have also been positioned to minimise windows looking out to adjacent privately owned Terraces. In addition, the required setbacks from adjacent owners has been increased to improve visual & acoustic impacts. The Noise Impact Assessment (Appendix AA) contains a number of recommendations to minimise noise impacts on neighbouring residential developments. The Operational Plan of Management (Appendix R) also sets out noise minimisation measures for residents of the student accommodation component of the development.	
The consent authority may request an acoustic report if there is the potential for significant impacts from noise emissions.	An Noise Impact Assessment is provided at Appendix AA.	✓
Waste is to be collected by a private contractor from boarding houses classified as Class 3 by the BCA.	Waste will be collected by a private contractor engaged by the University. A Waste Management Plan is provided at Appendix U.	✓
An application for a boarding house incorporating 75 or more bedrooms is to be supported by a Traffic Report.	A Traffic Impact Assessment is provided at Appendix K.	✓
4.4.1.7 Plan of Management		
A Plan of Management is to be submitted detailing how operations of the student accommodation will be managed.	A Plan of Management is provided at Appendix R and provides details of how the facility will be managed and operated.	✓

5.11.2 Student Rooms and Amenities

The University recognises the strong demand for affordable student accommodation on or near the Camperdown-Darlington campus. This has mainly been driven by a shortage of supply and high demand for nearby rental accommodation. To work towards achieving the University's goal of delivering 4,000 affordable beds and achieve rents at least 25% below local market rates, an effective dormitory-style design approach has been adopted within the proposal. This approach has been successfully executed at the University's Queen Mary Student Accommodation building (Church Street, Camperdown), and involves the provision of smaller bedroom sizes with smart design features and large indoor/outdoor communal living areas.

As identified earlier in this Report, the proposed development incorporates a range of shared amenities throughout the building including:

- Communal kitchens and cooking facilities;
- Shared toilet and bathroom amenities;
- Communal flexi-spaces and tea making facilities;
- Communal lounges, games rooms, maker's rooms, music rooms and studies; and
- Shared communal laundry.

Offering this diversity of program dispersed throughout the development will cater for the different ways people live and ensure that spaces are well utilised. This will encourage a sense of ownership for these spaces.

Because of the provision of these shared facilities, there is no requirement to provide these facilities within each individual bedroom for the students. The design of the bedrooms within the building have reflected this arrangement, such that they simply include a bed, wardrobe/storage and a desk and chair. This means that the bedroom sizes can be reduced accordingly.

At the pre-DA meeting with officers of the City of Sydney Council on 13 May 2016, Council also requested the University provide a response to proposed room sizes against the minimal spatial requirements of the Affordable Housing SEPP.

The University has since submitted its Student Accommodation Bedroom Size paper to Council, and subsequently invited Council officers to visit the University's Queen Mary Building and Abercrombie Student Accommodation buildings. The tour was intended to demonstrate the University's case and justification of the mixed use nature of student accommodation buildings, and justification for the 10m² bedroom sizes. Council's Area Planning Manager, Senior Planner and Heritage Manager visited these University buildings on 2 February 2017.

On 21 February 2017, Council's Senior Planner wrote to the University (via email) advising that both she and the Area Planning Manager concluded the University's position for bedroom sizes to be acceptable in this case.

Senior Planning representatives from the Department of Planning and the Environment also visited the Queen Mary Building prior to their approval of the University's Regiment Mixed Use development which included 600+ small bedrooms of approximately 10m^2, and which was subsequently approved, is currently under construction.

5.9.2.1 Student Accommodation Policy

Student housing is recognised by the City of Sydney as a component of affordable housing that is key to reaching the Affordable Housing targets in the Sustainable Sydney 2030 Strategy. The City of Sydney's Affordable Rental Housing Strategy (2009) encourages a diverse range of housing in the local area.

The City recognises that student accommodation is an important component of diverse housing that meets the needs of a group of the community that are at risk of exploitation. The City of Sydney Development Guidelines for Boarding Houses, including Student Accommodation (2013), encourages the increased provision of student housing.

The City's relevant guidelines for student accommodation is within Section 4.4.1of the City of Sydney DCP 2012.

We note that the Affordable Housing SEPP (2009) (AHSEPP) include a minimum room size of 12sqm and was included in the SEARs. It is important to provide appropriate bedroom sizes within a development such as this to provide an adequate level of overall living amenity for students together with promoting affordability.

Whilst it is appropriate to consider the objectives and controls within both the AHSEPP and Council's DCP, the design should not arbitrarily be dictated by specific area guidelines within these documents where the merits and circumstances of the proposal identify that a reduced area is appropriate.

The room size issue has been raised by Council in pre-DA discussions, and a 10sqm room size is being progressed in order to provide a viable project, to achieve greater affordability for students, and also because such a model responds to the specific student's needs, including the consideration of conveniently located amenities within the development itself and the Campus Precinct.

This matter is explained in detail in a response by the University of Sydney in Appendix HH, together with a Social and Economic Impact Assessment of Student Accommodation (prepared by Cred Consulting) contained at Appendix FF.

5.9.2.2 Proposed Room Sizes

The University's student housing model proposes a typical room size of between 10 to 11sqm, meaning that the University is proposing smaller rooms than the numeric guideline of 12sqm for boarding houses included in the DCP. However, this reduction in room size is offset by the provision of extensive common, education, and study facilities that are not taken into consideration within the current planning guidelines. It also acknowledges the building's containment within the University campus including access to other University facilities and open space. A detailed explanation and discussion of this issue is contained within Appendix HH.

The design of this scheme incorporates a generous Gross Floor Area per resident of approximately 21.3sqm per resident due to the amount of common spaces being provided. Furthermore, when taken in a national context, the proposed bedrooms are larger than the minimum standards in other Australian capital cities as well as international examples, it being noted that both Melbourne and Brisbane have a minimum single room size of 7.5sqm.

A 10sqm well-designed room, focused on ergonomic quality design, delivering comfortable appropriate seating, a quality mattress and adequate storage supported by extensive common facilities is more appropriate than the blanket application of a 12sqm minimum room size. This small additional space will not generate any significant in-room benefit for the student other than a slightly larger circulation space, while forcing the development to raise rents and cut back on those amenities which are known to make a measurable difference to the experience of the student.

Precedence is established for a smaller room sizes within a number of student accommodation facilities at both The University of Sydney and its affiliated Colleges. The recent approval and subsequent success of the University's Queen Mary Building, with room sizes smaller than the current controls, highlights that smaller rooms combined with extensive amenity can deliver a quality product and at a price point substantially below the private market.

Despite the proposed rooms being smaller than the minimum numeric requirements identified in the DCP, smart design features have been adopted to maximise the spaces and provide all the furnishings required for students. Maximising amenity is also a focus such as exceeding the natural light and communal open space requirements of the DCP. The proposed room sizes continue to meet the objectives of these documents, notwithstanding their numeric size. It is also important to note the inherent differences between the proposed student accommodation and 'boarding houses' which are the subject of the Council's DCP- this is further explained within Appendix HH.

The location of student accommodation on campus also means that students not only have the supporting communal facilities within the development, but also benefit from the broader range of educational, recreational and communal areas locally available across the University's Darlington-Camperdown Campus.

Supporting the provision of smaller bedroom affordable student housing coupled with increased communal amenities and facilities will reduce competition for affordable rental housing in the private market, and create safer and higher quality living environments for students. This affordable student housing will also take pressure off services and facilities in the broader community.

During the preparation of this EIS, the University submitted its Regiment Mixed Use scheme which included 600 beds of equivalent size to those being proposed as part of this EIS. This scheme was subsequently approved with no change to the room sizes and is currently under construction.

5.9.2.3 The University's Commitment to Affordable Housing

ABS data from 2013 identifies that higher education students have a strong desire to live near educational facilities, often resulting in many students, particularly international students, living in overcrowded and sometimes unsafe conditions. This is attributed to a significant shortage of affordable housing options in and around the University's Camperdown-Darlington campus, which has been largely driven by high demand from both students and young professionals and a buoyant Sydney housing market that has outpaced the rest of Australia in terms of both rent and house price increases.

The University's 2016-2020 Strategic Plan also recognises housing affordability as a barrier to the recruitment of research leaders and pledges to address this barrier in future campus developments. By increasing the number of affordable beds near the University's Camperdown-Darlington campus, there will be a reduction in competition for the already significant undersupply of affordable rental housing in the locality through the provision of increased affordable, well-managed student accommodation on campus.

The proposal will reduce the risks associated with overcrowding in illegal and unsafe accommodation and improve student health and wellbeing. In doing so, the supply of private affordable rental housing stock for low-income households and key workers in the locality will increase.

5.12 Ecologically Sustainable Development

The proposed development meets the principles of ecologically sustainable development (ESD) as defined in Clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

The principles of ecologically sustainable development are addressed in the ESD Report prepared by Jacobs (Appendix BB) and are summarised as follows:

(a) the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and

(ii) an assessment of the risk-weighted consequences of various options

The development has embraced this principle with the aim of reducing environmental impacts through design, construction and operation. The development aims to reduce resource consumption associated with energy and water, waste disposal and materials usage and contribute to sustainable living on campus.

(b) inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

The proposed development is situated on an underdeveloped and unkempt site within the University's Camperdown-Darlington Campus. The development proposal and public domain improvements will contribute to the revitalisation and enhancement of the immediate precinct through the adaptive use of the existing Terraces. The provision of a new mixed use building addition will improve access to teaching and learning facilities as well as being in close proximity to University facilities and public transport.

The proposed building alterations and adaptive reuse will also improve the longevity and preservation of the local heritage listed Terraces and will benefit future generations. In particular, the open space, linear courtyards and the roof terrace will contribute to the diversity and productivity of the environment.

The health of the environment will be maintained by minimising the environmental impact of the development by providing adequate ventilation and daylight, using low toxicity materials and reducing energy and water consumption. Remediation works proposed as part of this development will also improve the longevity of the site and the quality of living within the built environment.

(c) conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,

The development adds to the University's existing network of green open spaces and contributes to the University's commitment to providing improved public realm, open spaces and street activation. This will significantly contribute to the creation of a lively and sustainable campus environment.

The landscape design of the site aims to create an attractive and high quality landscape for residents, users of the adjoining streets and neighbours. The development will enhance the biological diversity and ecological integrity of the site by retaining most of the significant trees and existing planting and by the inclusion of new planting in garden beds and on the roof terrace of Building A as well as proposed new planting in the Codrington Street pocket park.

(d) improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as:

(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,

(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

The proposal has considered a range of sustainability initiatives to be included in the design, construction and operation of the Darlington Terraces Mixed Use Development. The new building design has considered whole-of-life cycle costing when selecting heating, cooling and ventilation (HVAC), solar hot water panels, lighting and facade treatments which have been incorporated into the development. These options have been reviewed and considered against the financial, operational and environmental benefits of the initiatives.

ESD initiatives form part of the University's Sustainability Framework, which has been applied to the proposal. The framework defines relevant sustainability performance criteria to be achieved by buildings and considers a range of environmental aspects related to building design, procurement, construction and commissioning.

Monitoring of energy and water consumption will be undertaken during operation of the proposal to provide information regarding resource consumption. The monitoring will take place in real time and will be displayed in common areas to encourage building users to change behaviour, conserve resources and reduce operational costs.

6 Environmental Impacts

6.1 Built Form and Urban Design

The proposed building has been designed by architectural firm Allen Jack & Cottier Architects. A complete set of drawings including plans, elevations, sections and shadow diagrams is included in Appendix C. An Architectural Design Excellence Report with a detailed description of the proposal, site analysis and the design concept is provided at Appendix D.

The following assessment of the built form is based on the drawings and the Architectural Design Statement.

6.1.1 Massing and Building Envelope

The entire development lies within the approved CIP building envelopes set out for the Merewether Precinct in the CIP approval (SSD 13_6123). The approved CIP drawings for the Merewether Precinct (Section 5.9.1) provide an indicative built form which clearly suggests a separation between old and new buildings.

The new building works are consistent with these plans, and are accordingly well set back from their northern envelope limit. The new building heights stagger from west to east, following the ridge line measurements of the existing Terraces on Darlington Road. As such, these buildings are not visible from Darlington Road.

The existing Darlington Road Terraces are retained, thereby preserving the site and streetscape fine grain character and contribution to the Darlington precinct. The Terraces will be grouped to create an effective dormitory-style design. This will be achieved by creating improved internal spaces, consolidating new services to minimize the impact on heritage fabric, and maintaining the existing street frontage as much as possible.

The new mixed-use buildings to the rear of the terraces provide a transition between the finer scale of the Terraces and the larger bulk of the Abercrombie Business School. The new buildings are broken into four blocks. Breaks occur at the private terraces along Darlington Road, and the location of a significant tree. The curtilage around this significant tree widens the central courtyard space into a gathering area. The length of blocks A and B are further reduced by glazed breaks in the façade which are setback.

A linear courtyard zone, located between the existing heritage Terraces and the new building additions, will provide communal and secure outdoor space, as well as a necessary visual amenity, natural ventilation and privacy between the building forms. The landscaping of these spaces has been designed to incorporate seating areas, open courtyards spilling out from internal spaces, planting and a ramped spine providing continuous equitable access along its length where possible.

6.1.2 Public Domain

The most significant changes to the public domain are brought about by the development occurring on its southern boundary. The proposal to convert Darlington Lane to a one-way shared zone is proposed as a public benefit to encourage and increase the safety of the predominantly pedestrian traffic envisaged to use the area. This will be achieved by a submitting a separate application to Roads and Maritime Services.

6.1.3 Facade and Building Articulation

External work to the Terraces along Darlington Road will be minimal, maintaining the collective heritage significance of the streetscape. Minor works where necessary will be carried out to ensure equitable accessible access to the site gateways.

The language of the new buildings will draw on the scale and rhythm of the Terraces, interpreting them in a nature which is complementary, yet clearly identifiable as new. In this way, the relationship of new building to old is one of deference; a dialogue of contrast where the simplicity of new built form is respectful to the history and higher level of detail the Terraces possess. The facade treatment of the Terraces also addresses the CIP consent requirement to demonstrate the original subdivision row pattern.

On the ground floor, permeability and visual connections are maximised to activate the relationship between indoor and outdoor spaces, and to strengthen the connection between the building alignments. These more social spaces allow for activity to filter out into the streetscape.

The upper levels of the new build see a repetition of window apertures and infill panels to create a visual rhythm not dissimilar to the facades of the terracing houses. These more solid elements will be broken up by glazed curtain walls typically identifying zones for vertical circulation within the building program.

The roofscape of the new buildings, in contrast to the pitched roofs of the Terraces, will be primarily flat as a result of their parapet construction. As such, these new roof forms will not be visible from the street, and will provide a zone for concealed photovoltaic cells enabling solar power collection to supply the site.

6.1.4 Materiality

Finishes for the new building will be selected to maintain an aesthetic which is complementary of its context. The following is a description of materials used in the façade compositions:

- Brickwork infill panels will be the predominant façade material, most significant to the Darlington Lane elevation. The small unit composition of traditional brickwork has a direct and clear relationship to the existing terraces and the surrounding context.
- Off-form concrete will be used as an expressed framework for the façade construction, providing an articulation of depth and, in particular, a visual expression evoking the traditional terrace subdivision pattern within the new building.
- Back painted glass under the awning windows to rooms assist in further breaking down the façade plane.
- Aluminium framed windows will have a sympathetic proportion to those within the terraces and surrounding historical context, but will have a crisp contemporary aesthetic as a point of contrast from the older buildings.
- Full height glazing to the common break-out spaces provides the opportunity to install large scale graphics etched onto the glass. As part of the University of Sydney's Wingara Mura Strategy, these glass portions provide a canvas to illustrate and recognize the sites history and significance to the local Aboriginal community of the Eora nation.
- Stairwells are projected forward from the building line with full height glazing to the façade, providing relief to the rhythm of solid materials. These glazed zones act as visual connections through the building, as well as clearly identifying these circulation areas to facilitate navigation and wayfinding.

6.2 Landscaping

Landscaping has been addressed with respect to both on site landscaping and trees within the public domain and campus domain. Landscape design has been prepared by Oculus Landscape Architects and is included in Appendix F. An assessment of trees on the site and surrounding street trees is included in the Arborist Report prepared by Arborsafe and provided at Appendix V.

6.2.1 Site Landscaping

The landscaping scheme intends to:

- Interpret the landscapes of the past by creating a planting palette to reference native species.
- Utilise a range of materials to illustrate differences in ground plane levels.
- Create an attractive and high quality landscape for the amenity of residents, users of the adjacent street and adjoining neighbours.
- Accommodate a variety of social and passive recreation spaces which complement the proposed internal communal living areas.
- Adhere to principles of water sensitive urban design and ecologically sustainable development.

The landscaped components of the existing Terraces and new buildings include the following elements as part of the University's commitment to the implementation of its Wingara Mura Strategy, to recognise the Aboriginal heritage and ownership of the land:

- Timber elements including decking, seats and desks.
- Native plants and trees reflective of the sites historic use as a Turpentine Iron Bark Forest.
- Mix of hard and soft landscaping elements.
- Colour to reference paths of tracks previously used in the area.
- Indigenous naming on places and spaces.
- Outdoor activity areas integrated into the urban environment.

It will create a sense of place on the site by providing students with a secure outdoor space to relax, gather and study, supporting a broad range of social and community activity.

The proposed internal landscape courtyard connects the existing Terraces to the new buildings, provide break out spaces for the building occupants and also create visual interaction and enable passive surveillance of the site. A roof terrace provides a BBQ and outdoor study area for students as well as a green roof to a significant portion. The existing University pocket park on the corner of Darlington Road and Codrington Street will also be upgraded and will constitute a significant public benefit, contributing to a superior landscaping, open space and public domain outcome. This would promote general pedestrian use of the lane by the local community and broader public.

6.2.2 Campus Domain - Trees

There are a number of trees within the boundaries of the site. The impact of the proposal upon trees within the public domain has been assessed in the Arborist Report prepared by Arborsafe, provided at Appendix V. This EIS notes that none of the site trees form part of the City of Sydney Significant Tree Register. The existing street trees along Darlington Road (City of Sydney asset) will remain unaffected by this proposal.

The proposal requires the removal of 38 trees, including:

- One of high retention value (tree number 25).
- Two of moderate retention value (tree numbers 7 and 20).
- 33 of low retention value (tree numbers 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 171, 172, 173, 174, 176,177, 180, 181 and 182).
- Two of removal retention value (tree numbers 183 and 179).

The report concludes that these trees do not warrant retention due to the fact that they are within the building footprint and/or have an unacceptable encroachment into proposed Tree Protection Zones (TPZ). Most of these will no longer have adequate growing space if the proposal is to proceed or they are of removal retention value, and the impact of their removal is therefore negligible.

The *Poulus deltoides* trees located on the eastern side of Darlington Lane require removal due to the skewed nature of their canopies which would limit access for construction materials for the proposed development. Additionally, the lean of the trees due to shading limits their life expectancy.

A Draft Public Domain Plan has been prepared by Oculus and is provided at Appendix G. This plan demonstrates how the development integrates with Darlington Lane and the Codrington Street pocket park. It also outlines where existing trees are to be retained and areas on the site earmarked for additional planting.

The Arborist Report outlines the retention of 57 trees for the proposal, including:

- One high retention value tree (tree number 11).
- Nine moderate retention value trees (tree numbers 1, 2, 33, 35, 36, 47, 50, 55 & 57).
- Forty-six low retention value trees (tree numbers 3, 4, 880, 880a-880i, 879, 879a-h, 34, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 51, 52, 53, 54, 56, 58, 59, 60, 62, 63, 64 & 65).
- One removed retention value tree (tree number 61). However, this tree should be removed irrespective of the development.

Replacement trees for the eleven trees recommended for removal along the lane are recommended to be replaced with *Populus nigra Italica* (Lombardy Poplar), which is a tall narrow tree, in order to best fit the growing environment and continue the current character of the lane. The pocket park on the corner of Codrington Street and Darlington Road proposed the planting of three semi-mature trees to replace the removal of the significant tree 25)

The Landscape Design Report prepared by Oculus (Appendix F) shows 36 replacement trees of five different species. Four of the tree species are native to New South Wales. The trees mature growth heights will range from 7.0m to 30.0m. Planting in the proposal references the sites previous uses and the indigenous plants present in the area.

Removal of significant tree

The University has reviewed the development in its entirety and has considered the retention of both significant trees. Through careful consideration, Tree 25 located to the rear of 116 Darlington Road is proposed for removal based on the extensive restriction it places on the design and ultimately, the entire project's feasibility.

The full development site is severed into four segments by privately owned Terraces. This division has been challenging to overcome and has placed significant pressure on the project's feasibility. The two significant trees (Tree 11 and Tree 25) identified on the site are both located in the largest of the segments, where Buildings B and C are proposed (98-119 Darlington Road). This portion of the site offers the most opportunity for land optimisation. It should also be noted that Trees 11 and 25 are not noted as high retention value under the City of Sydney Council's Significant Tree Register.

As outlined above, Tree 11, identified as the tree with the highest retention value of the two 'high retention value' trees, has been retained and incorporated into the design and public domain. If retained, the location and volume of Tree 25 would further divide this sub-site and resulting in a design that is not cohesive/harmonious with the remaining development.

A high level evaluation of the concept design was undertaken and concluded there would be a loss of up to 15% of bed numbers and reduced GFA by 470 m^2 (approximately 13% loss), this dramatically impacts the project's economic viability. Given the location of the tree (centre of the new courtyard), retention would require extensive building and structural design to accommodate the tree and ensure minimal encroachment within the tree protection zone (TPZ) and structural root zone (SRZ) adding further economic pressure on the project.

The loss in bed numbers and developable GFA would subsequently impact the project's viability and the University's strategic objectives to provide high quality mixed use development with integrated educational facilities and affordable student accommodation.

Due to its size and the spatial constraints of the site, Tree 25 is unable to be transplanted. Notwithstanding, the University is committed to achieving a tree canopy cover target of 40% by 2040, outlined in the University's Tree Management Plan. This will be achieved by replacing Tree 25 with three mature trees to be located within Codrington Street pocket park. The pocket park provides an ideal location for tree planting with adequate space to maximise tree longevity. This is demonstrated with the Landscape Plan (Appendix F) and specified in the Arborist Report (Appendix V), the proposed trees are 400 litres in root ball size, which will enable immediate enhanced benefits to be obtained.

6.3 Amenity

6.3.1 Solar access

The CIP approved plans relating to the Merewether Precinct indicate setbacks required by new development to ensure adequate solar access provision to neighbouring private properties.

Shadow diagrams have been prepared by Architects Allen Jack & Cottier and are provided in Appendix C. They show shadows cast by the existing and proposed building across the day of the winter solstice, demonstrating the available solar access of the site.

The northerly aspect of the development, informed by the address of the existing terraces, provides a precedent to maximizing the advantages of good environmental design to the site. The new build offers a significant northern elevation, with its setback from the rear of the terraces encouraging solar access, natural light and natural airflow. The new public spaces of the development have been located towards this northern façade to connect to the north facing courtyard areas. Extensive glazed facades to the common spaces of the mixed use buildings ensure maximum natural daylight penetration deep into the building section. Setbacks and integrated shading structures have been designed to minimise direct sunlight into the buildings during the hotter months.

Section 4.4.1.4 of the City of Sydney DCP 2012 requests that student accommodation be provided solar access to indoor communal living area and open spaces and communal outdoor open spaces as follows:

4.4.1.4 Communal living areas and open space

(2) Indoor communal living areas are to be located:

(c) to receive a minimum 2 hours solar access to at least 50% of the windows during 9am and 3pm on 21 June;

(4) Communal outdoor open space is to located and designed to:

(a) generally be north-facing to receive a minimum 2 hours solar access to at least 50% of the area during 9am and 3pm on 21 June;

The proposed design of the new buildings provides a large number of communal living areas with north facing windows. This favourable orientation enables all communal living areas to receive a minimum of 2 hours solar access each day. The majority of the outdoor open space will be over shadowed by the terraces on 21 June, while some areas around the timber deck will receive the minimum 2 hours required.

The adaptive reuse of the existing terraces has meant that those communal living rooms with north facing windows to the street will have sufficient solar access. Although, it is acknowledged that a number of communal living areas are located in the centre of the buildings, with doors to the north and windows to the south facing light well. This is a continuation of the existing situation of those spaces and given the heritage status of the buildings, this is considered satisfactory.

6.3.2 Privacy

The proposed design provides a clear break between the old and new through the use of setbacks. The setbacks between the new building and the terraces vary. The average setback is 5 metres, with glazed areas setback further and screened. This continuous setback provides opportunities for a circulation zone across the site, as well as secure outdoor space. Landscaping is utilized to 'soften' this space, act as privacy screening to lower bedrooms and create separation from adjacent neighbours.

The existing Terraces, by their nature, do not provide any boundary setbacks from their neighbours. However, the new buildings on average provide a 1.5m landscaped setback from adjacent properties. To avoid overlooking to the non-University owned terraces, bounding walls are predominantly solid, or use obscure glass windows.

6.3.3 View Loss

The height of new buildings sits within the approved building envelope for the Merewether Precinct outlined in the CIP approval (SSD 13_6123). This ensures that the new buildings remain below the ridge line of adjacent existing Terraces and are thereby not visible from Darlington Road.

6.3.4 Wind

A Pedestrian Wind Environment Statement has been prepared by WINDTECH Consultants Pty Ltd and is provided in Appendix CC. The report addresses the likely wind conditions affecting the trafficable outdoor areas within the proposed development.

The proposed development is located at the rear of an existing developed site and has no direct frontage to Darlington Road. At three storeys, the proposed built form is consistent with the bulk and street wall height of many buildings along the length of Darlington Road. The new buildings in the rear yards of the existing Terraces are not of a scale or height that would influence negatively the direction and intensity of wind within the public domain. It is expected that Buildings A, B, C and D will benefit from effective shielding of prevailing winds provided by the local neighbouring buildings.

6.3.5 Safety and Security

The design and layout of the proposed development is considered to align with the principles of Crime Prevention Through Environmental Design, including:

- Access Control: The proposal creates a clear delineation between private and public space through provision of clearly defined entry points at the gateway terraces on Darlington Road or within the mixed use buildings. Providing a clear boundary with secure and regulated entry points to the site will dissuade potential trespassers accessing private areas of the development.
- Surveillance: The development will provide effective opportunities for both natural and technical surveillance. Public domain improvements to Darlington Lane will provide an opportunityfor streetscape activation including passive surveillance through street lighting and planting.

The linear courtyard between the existing Terraces and the new mixed use buildings will be a public, well-lit space that maintains clear sight lines of primary entry points to the development.

- Territorial reinforcement: The quality of spaces within the development will encourage use and a sense of community ownership, which will promote its maintenance. Internally, lounges, meeting rooms and break out spaces are evenly distributed throughout the refurbished Terraces and the mixed use buildings. These spaces will provide a high quality living environment and enable residents to adopt a sense of ownership for the development and positively contribute to its ongoing maintenance.
- Space Management: In addition to the linear courtyard, the proposal provides public open space to contribute to the surrounding context of the site. The Codrington Street pocket park adds to the public domain corridor and encourages people to gather to the University campus.

6.3.6 Access

Darlington Road remains the primary address for the entire development from the north. This will ensure the Darlington Road address remains vital and active. It will provide a point of difference by providing domestic-scale access points to the site for all students via the existing Terraces, and through to the communal outdoor areas and the new mixed use buildings.

A secondary access to each of the blocks of the new building will also be provided off Darlington Lane. To provide safer access to pedestrians the lane is proposed to be changed to a one way 10km/h Shared Road, which would provide a safer connection to the Business School and Abercrombie Street Student Housing.

Accessible access between buildings has been designed based on the recommendations of the Access Report (Appendix N). Accessible access to the upper floors of the existing Terraces is not proposed in order to increase the retention of heritage fabric. Notwithstanding this, accessible through-site links and common area facilities will be provided from Terraces 94, 102 and 125.

Buildings A and B have designed to provide accessible access to and within all areas of the buildings and also provide accessible student accommodation.

6.3.7 Overshadowing

The proposal has been designed to minimise overshadowing of neighbouring properties by locating buildings as far to the south of the site as possible. The majority of additional overshadowing falls over Darlington Lane to the rear, and the service frontage of the Abercrombie Business School, as illustrated in the shadow diagrams within the Architectural Drawings prepared by Allen Jack & Cottier (Appendix C).

The design of the new buildings has considered the recommendations for the Darlington Road terraces within the CIP Urban Design Justification prepared by Cox Richardson and the University. Further detail is provided at Section 5.9.5.

6.4 Transport and Accessibility

A Traffic Impact Assessment has been prepared by SMEC and is provided in Appendix K. The report addresses traffic and access issues for the proposed modification to access of Darlington Lane. A separate Traffic Management Plan for the proposed conversion of Darlington Lane to a Shared Road is currently being prepared in consultation with the City of Sydney Council.

The Construction Management Plan prepared by the University of Sydney (refer Appendix DD) addresses pedestrian and traffic management during construction.

6.4.1 Construction

During construction, there will be an increase in truck activity servicing the project. Demolition and excavation trucks will enter the site from a westerly direction along City Road, turning left into Butlin Avenue and right onto Darlington Road. Construction vehicles will exit the site by turning left onto Codrington Street and leaving the area via Butlin Avenue and City Road. Traffic control will need to be established along the lane during this period to ensure safe access and egress from the site. It is anticipated the loading of materials on the development site will be carried out from the loading zone on Darlington Road in front of the existing Terraces. The loading of demolition material will be undertaken within the rear yards of the existing Terraces in an easterly direction along Darlington Lane.

The site will only be accessible by transiting the local road network from the surrounding arterial road network that connects Abercrombie Street, Golden Grove Street, Butlin Avenue, Codrington Street, Darlington Road and Darlington Lane. A dilapidation report will be required to be completed prior to works commencing and any damage caused to the roads will need to be repaired to City of Sydney specifications and standards.

6.4.2 Operation

The Traffic Impact Assessment (refer Appendix K) outlines the existing road, parking, pedestrian, cycle and public transport facilities servicing the site. These have been described at Section 2.4 of this report.

Primary modes of transport

The proposed development takes a progressive approach to transport by not providing on-site parking. This will reduce traffic congestion and encourage healthy lifestyles by promoting public transport and active means of travel to and from the site.

The site is within walking distance to the University's Darlington and Camperdown campuses. Active transport will be further encouraged through the provision of 90 bicycle racks and maintenance space in the basement of H66 Darlington House.

The site is very well serviced by public transport with bus services along City Road and within walking distance of Redfern and MacDonald town stations. The Traffic Impact Assessment concludes that the proposal would have a negligible impact on the capacity of these public transport facilities.

Darlington Lane upgrade and conversion

The proposed conversion of Darlington Lane to a Shared Road will provide significant public benefits by ensuring a new and safe pedestrian prioritisation and activation of the lane. The design will aim to achieve maximum safety and security to all users by providing pedestrian priority including reducing vehicle speeds to 10km/h through use of traffic calming measures such as traffic islands and speed cushions. The University has developed this proposal in consultation with City of Sydney Council.

A separate application administered under the *Roads Act 1993* will be made to Roads and Maritime Services for the upgrade and conversion of Darlington Lane to a Shared Road, which was set out as a condition of consent for the Abercrombie Street Precinct Development (MP07-0158). The proposed Shared Road will be designed in accordance with the TfNSW Safer Speeds Policy and Guidelines (SS/12/01) and is anticipated to improve pedestrian safety. This will be done by the City of Sydney Council on behalf of the University upon finalisation of a Traffic Management Plan for Darlington Lane.

Impacts on local street network

Students currently living in the existing Terraces are not provided with on-site car parking. This proposal also does not propose to provide any car parking.

Given the site's close proximity to the University's Camperdown-Darlington Campus and easy access to campus facilities and surrounding retail services, it is envisaged that residents and staff will utilise public transport, walking, cycling, taxis or car share to travel to and from the development. The proposal will contribute to a reduction of students requiring vehicle and public transport access to and from the University, especially during peak travel periods. Consequently, the traffic generated by the site will be very minor.

It is expected that the traffic to and from the development will solely comprise service vehicle trips including waste collection and servicing via Darlington Lane, as it currently services the existing Terraces and the Abercrombie Business School. Additional trips may also be generated by friends and family members who choose to travel via private vehicle when visiting residents.

Loading and service vehicles

The proposal represents an improvement to the current waste collection procedure on the site. At present, there are 38 University-owned Terraces requiring separate collection. Arrangements have been consolidated through the provision of waste storage rooms in the new building additions and the reduction of collection points along Darlington Lane, as set out in the Waste Management Plan and shown on the Architectural Drawings at Appendix C and the Draft Public Domain Plan at Appendix G.

The Waste Management Plan (refer Appendix U) also includes specific traffic arrangements for waste collection to be undertaken by a private waste management contractor rather than Council's waste collection services.

6.5 Heritage

Heritage has been considered as a key element of the proposal in the Statement of Heritage Impact prepared by heritage consultant Ian Kelly (refer Appendix L). Section 2.5 of this report contains an outline of the heritage items and conservation areas applicable to the site and proposed development. The impacts of the development on these items and their significance are considered below.

The proposed design maximises the retention of heritage fabric where possible to minimise the impacts. It proposes to remove some building elements of low significance which were not part of the original buildings such as skillion roofed structures.

The proposed demolition and alterations in the Terraces involve the removal of some internal heritage fabric (internal walls and staircases).

The proposed design of the new build has been minimised in scale and visually segmented with a vertical rhythm which reflects the rhythm of the terrace buildings.

Due to their location at the rear of the Darlington Road Terraces, the four new buildings will be out of sight of from Darlington Road and the heritage listed Institute Building further north. The proposed development will have no physical or visual impacts on the heritage significance of the Institute Building.

6.6 Archaeological and Cultural Heritage Values

The CIP Aboriginal Heritage Due Diligence Report, prepared by Godden Mackay Logan (October 2013) concludes that the Merewether Precinct has been heavily disturbed and has low potential to preserve

subsurface Aboriginal archaeological deposits below the foundations of the Darlington Road Terraces and the Institute Building.

The subsequent Aboriginal Heritage Impact Assessment (AHIA) prepared by AHMS (February 2016), which covers Aboriginal cultural heritage values across the 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.)*

The places identified in the AHIA as retaining Aboriginal cultural values are located on the University's Camperdown campus, well outside the subject site.

6.7 Noise

A Noise Impact Assessment of the proposed development has been prepared by Acoustic Logic and is provided at Appendix AA. The report considers the potential impacts of the proposal as both a source and receiver of noise during construction and operational phases.

6.7.1 Construction

Potential noise impacts during construction arise from the internal demolition within the existing terraces, the excavation of sand and stone, the construction of the new building additions and the fit out of the existing terraces, as discussed in the Construction Management Plan provided at Appendix DD.

Adjoining properties to the proposed development include Darlington Public School, Housing NSW accommodation located west of the site on Golden Grove Street and privately owned Terraces severing the development site. The impacts on nearby development are dependent on the activity being undertaken, with excavation and piling typically being the loudest type of construction activity.

The Acoustic Assessment has considered the proposed activities with respect to the NSW Industrial Noise Policy (INP) and the Interim Construction Noise Guideline.

The INP is generally used to establish criteria for external plant noise emissions impacting neighbouring receivers. The City of Sydney has its own criteria for noise emissions from external mechanical plant which are more stringent than the INP. The City of Sydney's criteria have been assessed in the Noise Impact Assessment at Appendix AA.

The Interim Construction Noise Guideline sets criteria for the preparation of a Construction Noise and Vibration Management Plan which would be prepared if required prior to the issue of a Construction Certificate. The Construction Noise and Vibration Management Plan will be prepared in line with any requirements outlined in the conditions of consent and the Interim Construction Noise Guideline.

The hours of work for construction would be in accordance with the City of Sydney's usual requirements, anticipated to be: Monday to Friday 7.00am to 7.00pm, and Saturday 7.00am to 5.00pm with no work on Sundays and public holidays.

All construction staff and contractors will be appropriately inducted to ensure adherence to noise management methodology. If required, an acoustic consultant would be engaged on site to advise and recommend noise minimisation necessary.

Vibration

For the most part, construction vibration will be limited to the internal soft demolition works and the rear portions of the existing Terraces.

Demolition of the internal stairs, partitions and cabinetry will be unlikely to cause significant construction vibration to receivers within adjoining terraces. Detailed demolition of the rear external components of the existing Terraces may result in some vibration impact given the connection between joined terraces.

Overall, construction works are not expected to result in significant vibrations to nearby receivers given that no heavy hammering is proposed at this stage.

6.7.2 Operational

External noise generation

An assessment was undertaken to determine the prevailing environmental noise conditions at the site and determine impacts on the building's habitable spaces. External noise sources impacting the site were primarily in relation to traffic. Measurements of traffic noise were conducted at the front and rear of 110 Darlington Road during the night and day. Results are presented in Table 6.1.

Table 6.1 Measured traffic noise levels

Location	Time of day	dB(A) L_{eq}
Front of 110 Darlington Road	Day (7am to 6pm)	56
	Evening (6pm to 10pm)	54
	Night (10pm to 7am)	49
Rear of 110 Darlington Road	Day (7am to 6pm)	54
	Evening (6pm to 10pm)	52
	Night (10pm to 7am)	49

Based on these results, the predicted noise levels which would affect the proposal were determined. Given that the development is screened from City Road by the buildings between Darlington Road and City Road, traffic noise levels would not be sufficient to warrant additional acoustic treatment and as such do not need further assessment. The assessment provided the following:

- Internal noise levels will primarily be as a result of noise transfer through the windows and doors and roof, as these are relatively light building elements that offer less resistance to the transmission of sound.
- All external walls are proposed to be heavy masonry elements that will not require upgrading.
- The proposed concrete slab will achieve the necessary acoustic performance and is effective in mitigating noise. Masonry walls proposed and retained are acoustically acceptable and will not require additional ameliorative treatments.
- Internal noise levels for the remaining bedrooms and communal areas can be achieved with windows open.

The report recommends appropriate construction standards for glazing, external doors, external walls and roof/ceilings. The building is to be mechanically ventilated to provide comfortable conditions to all rooms within allowable noise levels.

Noise generated by development

An assessment of the noise emissions associated with the operation of the development was also undertaken to assess the potential impact upon nearby residents and other land uses. This included noise generated by mechanical plant as well as noise generated from outdoor terraces.

The nearest potentially affected residential receivers of the noise include the privately owned Terraces in between the new building additions, the Darlington Public School and the Housing NSW residents further west along Golden Grove Street.

The outdoor terraces may be used by the occupants for recreational uses during the day and evening period, with the noise emissions from the use being assessed during the evening period.

The Building A roof terrace has been assessed to the private residential dwelling located at 120 Darlington Road, which is not part of the proposal. Noise associated with the terrace has been assessed as per the following:

- Up to 50 students using the terrace;
- A sound power level if 72dB(A) Leq with 1 in 3 students talking at any one time;
- No music to be played on the external terrace; and
- The proposed 1800mm high glass screen around the top of the terraces has been incorporated. The screen is to be solid with no gaps at the base or between glazing panels.

The courtyard terrace between Buildings B and C has been assessed to the private residential dwelling located at 97 Darlington Road which is not included as part of the proposal. Noise associated with the terrace has been assessed as per the following:

- Up to 50 students using the terrace;
- A sound power level if 72dB(A) Leq with 1 in 3 students talking at any one time;
- No music to be played on the external terrace; and
- The terrace should not be utilised after 10pm.

The predicted noise levels from the operation of the terrace are listed below:

Table 6.2 Predicted Noise Levels from Terrace

Time of day	Receiver location	Predicted Noise Level, dB(A) Leq 15min	Noise emission Criteria, dB(A) Leq 15min	Complies
Evening	120 Darlington Road	41	45	Yes
	97 Darlington Road	41	45	Yes

There will be a 10pm curfew on the terrace to ensure noise impacts are minimal. Detailed acoustic design of mechanical plant cannot be undertaken at approval stage, as plant selections and locations are not finalised. However, an indicative assessment of primary plant items is present below.

Primary plant items may include:

- Large VRV condenser units to be located within the sub-level plant room of Building A
- Smaller condenser units at various locations around the development.

No large mechanical plant such as cooling towers, air handling units, chiller or carpark exhaust are proposed as part of this project.

- Large condenser units (plant room)
  - The plant room is to incorporate a discharge louvre in to the development courtyard. The discharge from the condensers are ducted which will be acoustically treated.
  - The intake from the plant room will face onto Darlington Lane. No additional acoustic treatment is expected; however acoustically lined duct work may be fitted to the back of the intake louvre to reduce noise into Darlington Lane.
  - Detailed acoustic review of all plant rooms to be undertaken following equipment selection, in particular if there are louvres facing north. Ideally, fans/air handling units will be ducted to the external louvre.
- Small condenser units
  - Smaller condenser units may be located around the site. Locations for these items of plant will be selected to ensure compliance at the residential terraces which break up the development.

Compliance with Industrial Noise Policy (INP) acoustic criteria will be achievable provided that detailed acoustic review of plant items is undertaken once plant is selected and acoustic treatments ate adopted.

Vibration

There are no significant sources of vibration associated with the development, and as such the development will be fully compliant with the criteria of the EPA for assessment vibration.

6.8 Contamination

A desktop study and site investigation has been undertaken across the site (Appendix Y).

Sampling from six test pits and four boreholes and sampling of shallow soils in nine hand augured boreholes were advanced across the site during the Stage II investigations. The increased sampling density aimed to provide better characterisation of shallow fill materials, particularly where weathered hazardous building materials and pesticide/herbicide residues may concentrate.

The results from these investigations indicated that concentrations of soil contaminants of potential concern were above the health assessment ecological investigation thresholds in some areas. Details include:

- The soil analytical results reported soil concentrations below the adopted health assessment thresholds, with the exception of lead and PAH compounds in samples of shallow soils collected from areas surrounding the building façade and rear gardens. The lead impacts are anticipated to derive from the weathering of lead-based paint. The PAH compounds were assessed to derive from ash for domestic fires. These soils have the potential to pose health risks to current and future site users via the dermal contact and inhalation/ingestion pathways, and hence require further consideration during site development.
- Analysis of samples of shallow soils collected from areas surrounding the building façade and rear gardens reported concentrations of copper, zinc, TRH C16-C34 above the ecological investigation levels and hence are considered to pose a potential risk to ecological receptors and hence require further consideration during site redevelopment.

Zinc was also found in the groundwater analysis, which was otherwise below the adopted health assessment thresholds. The source of zinc in groundwater was considered to be attributable to diffuse sources from the surrounding urban environment, rather than a specific source encountered within the site. As such, it is considered that the potential risks to groundwater quality and surface water bodies located off site from ground conditions on site are low.

The RAP prepared for this proposal (refer Appendix Z) identifies the primary courses of contamination as:

- Fill material that contains lead and PAH compounds at concentrations that exceed the health assessment criteria. The source of lead and PAH detected are assessed to derived from lead-based paint residues and ash, respectively. Laboratory data indicates the impact extends to a depth of 0.2mbgs, which is considered to be consistent with the likely source and associated mode of deposition, historically.
- Fill material that contains copper, lead, zinc, TRH C16-C34 and benzo(a)pyrene at concentrations which exceed the ecological assessment criteria. The depth of impact was typically 0.2mbgs, although benzo(a)pyrene was detected at concentrations exceeding the ecological assessment criteria at depths up to 0.5mbgs, locally.

The RAP also notes that there has been no previous investigation undertaken on the residential dwellings and adjoining area of public open space in Area 4 for potential sources of contamination. Given the residential dwellings within Area 4 are similar in age to those present within the remainder of the site, it is considered reasonable to conclude that the fill in Area 4 is of a similar quality to that encountered within the rest of the site.

Based on field observations and the results of soil sampling and analysis, three possible remediation options were identified in the RAP:

1. Do nothing approach, however is not acceptable given potentially unacceptable health and ecological risks have been identified.
2. Hazard and removal validation, involving the removal of impacted fill and disposal of these materials at a licensed landfill facility.
3. Isolation of impacted fill and on-site management, whereby the hazard is not removed and relies on a cover layer to separate users from asbestos impacted fill.

The RAP considers the preferred option to be hazard and removal validation which negates the need for on-going management of the land and future restrictions on land use. It is higher in cost and has some environmental impacts associated with waste transport and disposal and importation of appropriate materials to backfill voids created by the removal of contaminated fill.

The RAP details the following remedial works commencing following the demolition and removal of existing structures and landscaping as part of the redevelopment. Fill materials and existing landscaping present within the remediation area and outside of the proposed building footprints will be excavated to a minimum depth of 0.3mbgs. The remediation excavation will be limited by the depth of fill. Fill materials have been assessed to be unsuitable as a planting medium for landscaping introduced as part of the development. Where landscaping is proposed that will be planted direct into existing site soils (i.e. rather than planter box, or engineered tree pit), fill materials shall be completely removed, and replaced with imported soil. Excavated fill material will be stockpiled separately from the underlying soils.

6.9 Geotechnical

A Geotechnical Investigation has been prepared by Coffey and is provided at Appendix EE.

An investigation was undertaken to obtain geotechnical information on subsurface conditions at four borehole locations and six test pit locations.

The report identified the site as being generally suitable for the development with no major geotechnical issues having been identified. It contains recommendations throughout for the undertaking of construction as well as further geotechnical input.

6.10 Social and Economic Effects

A Socio-economic Study has been prepared by Cred Consulting and is provided at Appendix FF. The report provides an analysis of the social and economic benefits of the proposal which are summarised below.

6.10.1 Social

Social benefits associated with the proposed development include:

- Contributing to a socially cohesive community through ample provision of communal living areas throughout the refurbished Terraces and new buildings
- Providing a significant public benefit through public domain upgrades to the Codrington Street pocket park and the conversion of Darlington Lane to a shared road status with pedestrian prioritisation.
- Incorporating the site's historic character into the new buildings, fostering a sense of place and interest.
- Providing suitable accommodation as an alternative to overcrowded and unsafe living arrangements.
- The accommodation is located in an area with easy access to University retail, services and recreational facilities, thereby minimising undue pressure on existing local infrastructure used by the wider Darlington community.
- Improved health and wellbeing outcomes for through University-managed housing, pastoral care and communal facilities.
- Provision of increased learning spaces, responding to student preferences to study outside of their room and improve their learning experience through social interaction and discussion.
- Opportunities for students to work within the facility, increasing their leadership skills and direct involvement within the University community.
- The site benefits from an exceptional level of access to public transport and local facilities, negating the need for students to own or use private vehicles and as a consequence facilitates incidental exercise, making a positive contribution to the health and wellbeing of the students.
- Increased safety and security on the site as a result of increased activity on Darlington Lane, 24 hour staffing and enhanced passive surveillance.

6.10.2 Economic

Economic benefits associated with the proposed development include:

- The University's education and research sector provides a significant and growing contribution towards the NSW economy. The proposed development will support this sector by providing good quality facilities that meet the needs of students, particularly regional, interstate and international students, and ensure that Sydney remains competitive in the global tertiary education sector.
- The CIV of the project of $40,164,454 exc. GST would create additional economic benefits through the multiplier effect.
- The student accommodation component of the development will alleviate demand and affordability pressures on the local rental market for students of the University from regional NSW, inter-state and overseas.
- Public domain improvements to Darlington Lane will provide a superior urban design outcome. Increased street activation supports pedestrian activity, in turn supporting the local economy through increased potential for local expenditure.

- Future students of the new development will facilitate retail expenditure to support local retail and entertainment facilities.
- Creation of permanent jobs for new staff.
- Opportunities for students to work within the facility.

6.11 Sustainability

The proposed development meets the principles of ecologically sustainable development (ESD) as defined in Clause 7(4) of Schedule 2 of the EP&A Regulation 2000.

The proposed building alterations and adaptive reuse will also improve the longevity and preservation of the local heritage listed Terraces and will benefit future generations. In particular, the open space, linear courtyards and the roof terrace will contribute to the diversity and productivity of the environment.

ESD initiatives form part of the University's Sustainability Framework, which has been applied to the proposal. The framework defines relevant sustainability performance criteria to be achieved by buildings and considers a range of environmental aspects related to building design, procurement, construction and commissioning. Further assessment of the proposal's consistency with the principles of ESD is provided in Section 5.12 of this report.

6.12 Waste

6.12.1 Construction

To ensure that resources are conserved and waste is processed responsibly, the Construction Management Plan (refer Appendix DD) addresses appropriate waste handling procedures during construction.

The procedures are satisfactory in ensuring that there are no harmful impacts during construction and that all waste will be disposed of and/or recycled responsibly. The mitigation measures identified below are taken from the CMP.

6.12.2 Operational

A Waste Management Plan (refer Appendix U) has been prepared by Waste Audit. It identifies:

- Calculation of weekly waste and recyclable volumes.
- Procedures for storage and transportation of waste and recyclables within the development.
- Waste storage area requirements.
- Systems for waste and recycling management in the proposed new buildings.

The proposed development will generate waste in its construction and operation which will need to be managed. The Waste Management Plan includes a generated waste volume estimate for the site of 2,000 litres per week of garbage and 1,000 litres of comingled recycling per week.

6.13 Construction

The University of Sydney has prepared a Construction Management Plan which is provided at Appendix DD. There are a range of potential short term impacts resulting from construction relating to noise, vegetation, dust, traffic, storm and waste water, general waste, air quality, erosion and sediment control. These have been discussed above in Section 6.7.1 relating to noise impacts during construction and Section 6.4.1 relating to traffic impacts during the construction phase.

6.14 Stormwater Management

A Stormwater Management Report was prepared by Jacobs and can be found in Appendix I. The report includes the reviews of current flood studies and City of Sydney Interim Floodplain Management Policy. It also addresses concerns relating to the management of the storm water generated within the catchment area and that the site currently discharges to the kerbside along Darlington Road and Darlington Lane.

The existing site condition is predominantly impervious in nature. It consists of roadways, terrace roof rainwater down pipes and other paved areas. The Darlington Terraces Mixed Use Development only has kerbside drainage into Darlington Road and Darlington Lane. There is no Council pit and pipe drainage until the corner of Codrington Street and Darlington Lane. This has been confirmed by a utilities services survey carried out by the University.

6.14.1 Water Sensitive Urban Design

The stormwater quality assessment of Darlington Terraces Mixed Use Development has been designed by using MUSIC water quality model to achieve post-development pollutant load standards as prescribed in Section 3.7.3 of Sydney DCP 2012. The elements adopted to achieve the stormwater quality are rain water re-use tanks, onsite detention tanks to mitigate downstream flooding, landscape garden and catch pit insert that captures and retains litter, debris and other pollutants before entering the storm drain system.

6.14.2 On-Site Detention/Retention

The Stormwater Management Report (Appendix I) notes that reduced rates of peak flow generation are often encouraged by the City of Sydney Council in new developments. This usually results in the installation of on-site detention (OSD) structures with a prescribed peak site discharge (PSD).

Following initial discussion with Sydney Water, OSD tanks from Block D and 86-87 Darlington Road will be consolidated into Block A and Block B & C for the following reasons:

- Works in 86-87 Darlington Road is predominately refurbishment of the existing building plus a 40m^2 single storey shed for a fire services pump. This will result in a smaller OSD tank requirement.
- Constructability of a 9m^2 OSD tank on Block D is restricted by the shallow footing of the existing heritage building.

Table 6.3 below summarises the current OSD tanks arrangement for this proposal.

Table 6.3 Sydney Water OSD and PSD requirements

Lot	OSD Volume(m^3)	PSD (l/s)
Block A	33	56
Block B and C	58	112
Block D	NIL	33
86 and 87 Darlington Road	NIL	22

Sediment and Erosion Control Plan

Erosion and Sediment Control Plan has been provided in IA105800C10-C13. The plan is to adopt the elements recommended in the NSW Blue Book guideline. The elements used to control the area of disturbance will be sediment fence, stabilised site access, earth banks, geotextile inlet filter and mesh and gravel inlet filter.

7 Mitigation Measures

In order to address the potential environmental impacts identified in Section 6, a number of specific actions have been identified for consideration and implementation. Table 7.1 below outlines the recommended mitigation measures to address the potential impacts which may result from the proposal.

Table 7.1 Mitigation measures

Impact	Mitigation Measures	Responsibility	Timing
Built form and urban design	▪ The appropriateness of the proposed built form has been considered prior to the construction and operation phases in consultation with relevant stakeholders to ensure there are minimal residual impacts requiring mitigation. ▪ The proposal conforms to the specified building height limits prescribed in the CIP Stage 1 consent in order to maintain the visual curtilage to and character of the existing Terraces as viewed from Darlington Road. ▪ The proposed development has been designed to minimise overshadowing of neighbouring privately owned properties by locating new buildings as far to the south of the site as possible.	University of Sydney and project team	Design development
Landscaping	▪ Detailed tree management, site management and tree surgery procedures as detailed in the Arborist Report (Appendix V) to be implemented and followed pre, during and post construction. ▪ Tree protection and management to conform to AS 4870 – 2009: Protection of trees on development sites. ▪ Protection enclosures to be installed and Tree Protection Zones to be established prior to construction. ▪ Root pruning works to any trees must be completed prior to backfilling. ▪ Location of Tree Protection Zones and Tree Protection Fencing to be identified on all construction drawings. ▪ Landscaping elements are to be of high quality, durable, integrated with existing landscapes, cost effective to operate and maintain, and are derived from a limited palette of materials, finishes and colours currently found on campus. ▪ Details of proposed replacement planting within the Codrington Street pocket park to offset the removal of a significant tree are provided in Section 6.2.2 of this report.	Construction contractor	Pre-construction, construction and post-construction
Amenity	▪ The north facing windows in the new buildings are set back as far as possible from side boundaries with private residences to avoid any overlooking into private open space and habitable rooms. ▪ There is no east or west facing windows facing private residences, with the exception of proposed recessed corridor windows which will have an opaque/frosted treatment to reduce overlooking into private open space and habitable rooms. ▪ The proposed roof terrace on Building A is set back by 5.75 m from the side boundary of 120 Darlington Road. A rooftop planting area is included in the setback, thereby providing a privacy buffer to the adjoining privately owned terrace.	University of Sydney, project team and construction contractor	Design development, construction and operation

Impact	Mitigation Measures	Responsibility	Timing
	▪ Conversion of Darlington Lane from a two-way access to a one-way Shared Road with continuous footpath treatment from Codrington Street emphasises pedestrian-orientated access. ▪ Public domain improvements, including the upgrade of the Codrington Street pocket park will improve visual amenity and activate a previously neglected area of the precinct into a useable social space. ▪ Landscaping within the central courtyards is to be of an evergreen variety to ensure wind mitigation throughout the year. ▪ 1.8m perimeter privacy screen to be retained on the roof terrace on Building A to ensure comfortable wind conditions. ▪ Outdoor lighting will be located so that it does not cause light spill to neighbouring residents, properties and roads. ▪ Detailing of accessible entry points along Darlington Lane will to be revised to meet the requirements of AS 1428.1:2009 as part of the Construction Certificate phase. ▪ Accessible path of travel to Buildings A to D is located at the rear of the existing Terraces via the ramp network within the internal landscaped courtyards. ▪ All measures for amenity mitigation can be found within the Architectural Design Statement provided at Appendix D.		
Transport and accessibility	▪ Preparation of a dilapidation report is required prior to works commencing and any damage caused to roads will need to be repaired to City of Sydney Council specifications and standards. ▪ Traffic control measures will be established on Darlington Road during construction to ensure safe access and egress from the site. ▪ A draft Construction Traffic Management Plan is currently being prepared by the University in consultation with the City of Sydney Council for the proposed conversion of Darlington Lane to a Shared Road. ▪ Pedestrian access to the Abercrombie Business School to be maintained and improved in the Shared Road to Darlington Lane. ▪ Road safety audits are recommended to be carried out during the design and construction phases.	University of Sydney and construction contractor	Construction
Heritage	▪ Due to their location at the rear of the Darlington Road Terraces, the proposed new buildings will be out of sight from Darlington Road and the heritage listed Institute Building further north of the site. ▪ The proposed structural alterations of the Terraces and new building additions have been engineered to ensure the works to not adversely impact the structural integrity of existing heritage items. ▪ Preparation of an internal and external archival recording of the Darlington Road Terraces in accordance with the requirements of the NSW Heritage Division is to be completed prior to the commencement of works.	Project team, CIS Heritage Architect and construction contractor	Design development, pre-construction and construction

Impact	Mitigation Measures	Responsibility	Timing
	▪ Preparation of a dilapidation report is required prior to works commencing and any damage caused to Terraces will need to be repaired. ▪ An archaeological watching brief is to be prepared for the development and maintained during the construction period. ▪ Removed heritage fabric of the Terraces is to be reused, where feasible, in the restoration of corresponding elements of the refurbished Terraces. ▪ Final details of all works in the Terraces are to be approved by the CIS Heritage Architect prior to construction. ▪ A Heritage Interpretation Strategy is to be prepared and implemented at the completion of the development.		
Archaeological Heritage	▪ An archaeological watching brief is to be carried out during the construction period.	CIS Heritage Architect and construction contractor	Pre-construction and construction
Noise and vibration	▪ Use of augured rather than driven or vibratory piling will be considered if feasible. ▪ Locate the crane towards the centre of the site, around 110 Darlington Road to maximise proximity to the residential Terraces. ▪ Locate the concrete pump away from the Terraces if practical. If this is not possible, temporary screening of the pump should be considered. ▪ Concrete agitator trucks should not arrive outside of approved construction hours. ▪ For activities where acoustic controls and management techniques still cannot achieve the “Noise Management”/”Background+10dB (A)” noise levels, implement a notification process whereby nearby development is made aware of the time and duration of noise intensive construction processes. This may include days of heavy demolition and excavation works. ▪ A noise monitoring program will be implemented during construction to provide feedback back to the builder to ascertain whether construction noise goals are being exceeded and determine additional management strategies. This is to be done in accordance with the Construction Management Plan. ▪ Close consultation with neighbouring private terrace owners will be undertaken to ensure that noise associated with concrete pours and intense demolition works is managed accordingly. ▪ The privacy screen around the Building A rooftop terrace is to be 1.8m high and constructed from a solid imperforate material (i.e. glazing panels, fibre cement sheet) with no gaps at the bottom or between panels. ▪ Undertake a detailed acoustic review of all external plant items following equipment selection and duct layout design. This may require acoustic treatment for the Building A plant room and consideration for locations of smaller condenser units.	Construction contractor	Construction

Impact	Mitigation Measures	Responsibility	Timing
Noise	▪ The Operational Plan of Management prepared for the proposal (Appendix R) details the following noise minimisation measures for the student accommodation component of this proposal: ▪ The outdoor terraces are not to be utilised before 7am or after 10pm. ▪ No loud music is to be played within the outdoor terrace areas. ▪ Residents may hold social gatherings but must observe specific noise restrictions based on the day of the week. ▪ On-site resident advisors and building management staff are to ensure that loud or boisterous behaviour is not permitted on the outdoor terraces.	University of Sydney Student Accommodation Services	Operation
Contamination	▪ Implement the Remedial Action Plan provided at Appendix Z. ▪ Remove any impacted fill and disposal of these materials at a licensed landfill facility. ▪ Prepare an unexpected finds protocol prior to the commencement of remediation works on the site. ▪ Fill material excavated from the remediation area are not to be reused as fill elsewhere on the site. If excavated natural material is considered for reuse, these materials are to be assessed to demonstrate their suitability on the site. ▪ Preparation of an Environmental Management Plan (EMP) will be required to document the location of where impacted soils are retained and specify measures to maintain the cover layer over the longer term.	Construction contractor	Pre-construction and construction
Geotechnical	▪ The Geotechnical Report at Appendix EE makes several recommendations for construction methodology to ensure that the proposal is constructed appropriately for the extent of excavation proposed. ▪ Monitor the construction process, including footing excavation inspection, groundwater monitoring and assessment of ground conditions. ▪ Consideration should be given to reusing existing site materials for site preparation works and fill where appropriate. ▪ Topsoil and mulch around the garden beds and planter areas in the rear yards of existing terraces could potentially be reused for landscaping purposes, subject to the recommendations of the Contamination Report (Appendix Y). ▪ Excavation methods are to consider the magnitude of vibrations generated and their potential impacts on adjacent buildings. ▪ If excavation is required below the groundwater table, the control of groundwater during construction can be managed by either lowering the groundwater level through a pump system or constructing a cut-off wall to minimise water seepage into the excavation.	Construction contractor	Pre-construction and construction
Social and economic	▪ Preparation of a detailed dilapidation report of the surrounding area, specifically privately owned Terraces	University of Sydney	Pre-construction,

Impact	Mitigation Measures	Responsibility	Timing
	▪ Engagement of a community consultation expert to provide notice to neighbouring residents of scheduled activities that may impact their amenity ▪ Coordination of key local stakeholder consultation sessions throughout the duration of the construction period. ▪ Development and implementation of a Communication Plan during exhibition of the EIS, construction and operation, including but not limited to letter box notifications, pro-active and personal face-to-face communication, community consultation sessions, complaints handling, community site visits and online project updates.		construction and operation
Sustainability	▪ Passive design elements have been adapted to improve indoor environmental quality, thermal comfort and energy efficiency, and to minimise reliance on mechanical cooling and heating whilst preventing noise and pollution sources. ▪ Renewable energy is incorporated into the building design to reduce reliance on carbon intensive grid electricity and meet the University's target of improving building energy performance by 20%. ▪ Solar hot water panels, a preheat storage system and solar photovoltaic panels will be installed on the roofs of Buildings A and B. This will supply up to 50% of the hot water requirements for Buildings A and B and the existing Terraces, with the remaining contribution to be provided via an instantaneous gas hot water booster, resulting in an 84% efficiency. ▪ The University of Sydney will provide water efficient sanitary fixtures, tapware and associated equipment in accordance to the University Hydraulic Design Standard. ▪ All spaces will be designed to avoid over-lighting spaces by providing illuminance of no more than 25% above the minimum maintained illuminance levels in accordance to the Lighting Design Standard. ▪ Architectural design includes internal glare control blinds in the bedrooms, study and administration areas. External fixed shading devices are provided in the stairwells; internal lockout blinds in the lecture theatre; a combination of external fixed shading devices; internal glare control blinds and internal lockout blinds in common lounges , kitchen/ dining and breakout areas. ▪ Stairs within the development are in highly visible locations and have emergency and exit lighting installed. ▪ Natural shade to be provided by building elements and landscaping utilised for surface heat reduction. ▪ The existing Terraces will be reused and refurbished to provide quality student accommodation which respects the heritage value of existing fabric and avoids resource use that is typically associated with extraction, transport and processing of new materials. ▪ All bedrooms have a direct line of sight to the outdoors, including the internal courtyard, Darlington Road and Darlington Lane.	Project team, University of Sydney and construction contractor	Design development, construction and operation

Impact	Mitigation Measures	Responsibility	Timing
Waste	▪ A Construction Waste Management Plan will be established prior to construction commencing. A suitably qualified person will prepare the waste management plan in consultation with the City of Sydney Council and must be submitted to the principal certifying authority. ▪ General waste mitigation is addressed through the prediction of potential waste and provision of required bins and storage, implementation of recycling chutes, and provision of recycling and collection systems. ▪ All general waste and recycling will be collected directly from the respective storage rooms on Darlington Lane on designated collection days, which will be based around 7 days per week collection of general waste and 4 days per week for recyclables in accordance with the Waste Management Plan provided at Appendix U.	Construction contractor and University of Sydney	Construction and operation
Construction	▪ Construction management will be undertaken in accordance with the recommendations of the Draft Construction Management Plan prepared by the University of Sydney (Appendix DD). ▪ Demolition works are to be undertaken in accordance with the appropriate Code of Practices. The construction contractor is also required to complete a Safe Work Method Statement (SWMS) for the demolition activities. ▪ Traffic control measures will be established along Darlington Road and the road network surrounding the site in accordance with the proposed Construction Traffic Management Plan. ▪ 'A' class hoarding will be erected to the ear sections of the Terraces for each building with appropriate 'B' class hoarding to be established for public safety where necessary. ▪ TPZs will be established around all trees that are proposed to be maintained to protect the root system, trunk and branches during construction. ▪ Safe public access routes to the Abercrombie Business School and other University buildings in the vicinity of the site will be maintained for pedestrians. ▪ Noise management for construction activities will be undertaken to ensure the EPA Construction Noise Guidelines are met. ▪ Construction will be undertaken in accordance with an approved Construction Waste Management Plan, to be developed in consultation with the City of Sydney Council. The plan will address matters such as waste storage, recycling and processes to follow should hazardous materials be encountered during demolition. ▪ A dilapidation report is required to be prepared prior to works commencing. ▪ The University will undertake ongoing consultation and communication with community stakeholders to ensure minimal impact on both surrounding amenity and environment.	Construction contractor and University of Sydney	Construction
Stormwater management	▪ As part of a broader Precinct stormwater drainage strategy, the University of has provided on-site detention and water sensitive urban design measures for the campus area.	Project team, construction contractor	Design development, construction

Impact	Mitigation Measures	Responsibility	Timing

	▪ Habitable rooms will have a minimum flood planning level 300mm above the existing gutter invert level. Non-habitable rooms will have a minimum flood planning level for the 1% Annual Exceedance Probability (AEP) rainfall event.
	▪ Stormwater from the building rooftops will drain into on-site detention tanks. A Stormwater Management Report is provided at Appendix I along with plans included at Appendix J. The tanks will be required to maintain the following peak flow requirements:
	  ▪ Block A: 58l/s
	  ▪ Block B and C: 112l/s
	  ▪ Block D: 33l/s
	  ▪ 86-97 Darlington Road: 22l/s
	▪ The design proposal for Darlington Terraces Mixed Use Development is to capture the stormwater (78% of the development) with water re-use tanks and on-site detention tanks proposed across the development to mitigate the flooding effect downstream of the catchment and then connect to a new public pit and pipe drainage line along Darlington Lane. The tanks are also proposed to meet the project's target sustainability level.
	▪ A new public stormwater pipe is to be trenched along Darlington Lane to connect to an existing Council stormwater pit.
	▪ The proposed Erosion Sediment Control Plan will be developed in accordance with the recommendations of the NSW bluebook guidelines.
			and operation

8 Project Justification

There is sound justification for the proposed mixed use development. The proposed development is appropriate for the site and broader locality, as demonstrated below.

8.1 Location and Proposed Land Use

- New teaching facilities will be provided in close proximity to the Abercrombie Business School and other University campus facilities, which hosts more teaching and learning areas than the University's Camperdown campus. Students will benefit from a new lecture theatre, meeting and study areas centrally located within the broader context of the University.
- Inner city suburbs such as Darlington are experiencing very strong demand compounded by a city-wide shortage in rental accommodation, housing supply and affordability. Many students have difficulty in finding well maintained and safe accommodation within a reasonable distance to the University.
- The Darlington Terraces site is ideally suited to affordable student accommodation, integrating educational establishment facilities and affordable accommodation on The University of Sydney Camperdown-Darlington Campus.
- The site is in close proximity to public transport with both Redfern and MacDonald town railway stations within walking distance of the site. Bus routes servicing key areas of the CBD and surrounds are immediately available on City Road, just 80m north of the site. A complementary university shuttle service also enables transportation throughout the campus and to other University of Sydney campuses.
- As the land owner, The University of Sydney is able to provide and manage quality and affordable student housing in contrast to private providers who are reliant on high rents for feasible investment.
- Quality and affordable housing enriches the experience of the student with outcomes of greater health and wellbeing. There is evidence to suggest that students living in purpose-built facilities are more involved in University life and this can generally translate into higher grades and achievements in their study. Living on or near campus reduces commute time and transport costs. Students living on or near campus are more easily able to access on campus support services. The proposal is consistent with the approved building envelope and overall concept within the CIP and the university strategies.

8.2 Environment

- The site's physical characteristics are highly suitable for the proposed development having regard to its current use as student accommodation, its size, shape, proximity to services, transport and campus activities.
- The site orientation and features enable an appropriate scaled development that achieves good amenity for the students without significantly impacting the amenity of surrounding land uses. Providing student accommodation on or near the campus relieves pressure on those services in other suburbs of Sydney.
- Public domain conversion of Darlington Lane to a Shared Road status with pedestrian prioritisation which provides a significant public benefit.
- The proposed development is consistent with the principles of ecologically sustainable development as defined in the EP&A Regulation 2000.

- The proposal has considered a range of sustainability initiatives to be included in the design, construction and operations of the Darlington Terraces Mixed Use Development, including the adaptive reuse of heritage buildings and facades.

8.3 Strategic

- The University's strategic plan aims to deliver 4,000 local beds and significantly increase affordability, targeting to achieve rents of 25% below surrounding housing markets. The proposal assists in providing accommodation to meet this target.
- The education sector is an important direct contributor to the NSW economy both as an employer and a major export (second only to coal) and indirectly by ensuring a skilled workforce is available for industry, innovation and research is quickly diffused into the local economy and helping Sydney maintain its competitive position as a global city.
- The proposal is consistent with the objectives of *A Plan for Growing Sydney* in its endeavour to provide affordable accommodation in a mixed use setting.
- The proposal contributes to strategic transport goals of increasing active transport and public transport patronage.
- Demand for student accommodation within Sydney is likely to continue to grow. Both the NSW State Government and the City of Sydney support the growth of the education and research sector.
- Housing affordability is a key issue for Sydney and lack of attractive and affordable accommodation for students is likely to reduce the attractiveness of Sydney to international students.

8.4 Economic

The Socio-economic Study prepared for this proposal (Appendix FF) demonstrates that there will be a range of positive benefits resulting from the proposed development at a macro and micro economic level. It would support the local and State economy and is aligned with the future employment and economic growth forecasts. The economic and employment impacts of the proposed development include the following:

- The education and research sector provides a significant and growing contribution towards the economic base of NSW. The proposed development would support this sector by providing good quality facilities that meet the needs of students, particularly international students, and ensure that Sydney remains competitive in the global tertiary education sector.
- The CIV of the project of $40,164,454 exc. GST will create additional economic benefits through the multiplier effect.
- The construction and operation processes of the proposed development would support job generation.
- In 2007-08 the Australian Bureau of Statistics estimated that each international student spends approximately $29,000 on goods and services, contributing more than $250 million to the local economy, which would increase over time as a result of increases in retail expenditure
- The proposal will also be supported by additional facilities such as new retail, food and beverage outlets, as well as direct access and connections to teaching, learning, study and meeting facilities within the adjoining new Abercrombie Business School.
- Release of rental stock back to the market through use of the facility by students in preference to local residential properties.

- The development will support the State and local economy and is aligned with future employment and economic growth forecasts.

8.5 Social

- The location of student accommodation on campus means that students not only have the supporting communal facilities within the development, but also benefit from the broader range of quality recreation and communal areas locally available across the entire University, without placing undue pressure on the level of service provision for the existing community.
- Activating a sustainable campus with more permanent residents after hours by creating engaging living spaces in and around the University will improve safety, passive surveillance and utilisation of existing facilities.
- Students make a significant contribution to a socially and culturally cohesive community. The mix of cultures and nationalities helps make areas such as the City of Sydney an exciting, vibrant and diverse urban place.
- The proposal incorporates the site's historical past and character into the new buildings, fostering a sense of place and interest.
- The proposal will significantly enhance the aesthetic appearance of the area, renewing rundown terrace buildings, incorporating high quality new elements, without diminishing the level of amenity currently enjoyed by the existing community.
- The site benefits from an exceptional level of access to public transport and local facilities, negating the need for students to own or use private vehicles and as a consequence facilitates incidental exercise, making a positive contribution to the health and well-being of the students.
- More students living on or near campus decreases pressure on the local road and public transport system. Student accommodation traditionally has a much lower demand for car parking compared to normal residential accommodation, benefitting local residents by reducing traffic.
- The proposed upgrade of the Codrington pocket park, and the proposed conversion of Darlington Lane to a Shared Road status with pedestrian prioritization will provide a significant public benefit to the Darlington and broader community.

9 Conclusion

This EIS has been prepared in accordance with Part 4 of the EP&A Act and Schedule 2 of the EP&A Regulation to assess the potential impacts associated with the proposed Darlington Terraces Mixed Use Development. The proposal has been assessed against the requirements within the SEARs issued for the project on 21 March 2016 (provided at Appendix A).

The proposed development comprises existing building alterations and new building additions to the University's Darlington Terraces and H66 Darlington House for mixed uses involving educational establishment facilities and affordable student accommodation. The student accommodation component of this proposal comprises 306 fully furnished rooms accommodating up to 337 students (being 186 additional beds to the 151 beds contained within the existing Terraces). The student accommodation component of the development also includes residences for visiting academics, located at 86-87 Darlington Road.

The proposal follows and is consistent with the adoption of the University's CIP and aims to provide a wide range of mixed uses which incorporate new high quality educational spaces and affordable accommodation for students of the University. The Darlington Terraces Mixed Use Development will provide physically and socially integrated teaching, learning and student support facilities at the University's Camperdown-Darlington Campus.

There is an identified need for affordable student accommodation in Sydney and the site is ideally located for this type of development given its proximity to the University's Camperdown-Darlington Campus, is well serviced by public transport and offers good access to a broad range of University facilities. The proposed development seeks to provide a world class range of educational facilities and affordable student accommodation to enhance student experience and learning opportunities. The proposal has been designed to a high standard; providing modern, functional spaces and substantial open space areas to enhance the public realm and create a cohesive relationship with the wider University precinct and surrounding areas.

The proposal has been assessed against the relevant aspects of The University of Sydney Campus Improvement Program (CIP) concept proposal (SSD 13_6123) in accordance with Section 4.24 of the EP&A Act. The proposal is consistent with NSW government policies and complies with all relevant planning controls and conditions of the Stage 1 CIP consent.

The EIS and the supporting technical reports have considered a range of impacts regarded likely to be associated with the proposal during both construction and operational phases. Key impacts assessed include built form and public domain, amenity, noise, heritage, traffic and accessibility, contamination, socio-economic impact and the principles of ESD. The EIS concludes that the proposed development does not give rise to any significant adverse impacts that cannot be effectively managed through conditions of development consent and the implementation of mitigation measures identified in Section 7 of this report.

Given the planning merits described above and the significant public benefits proposed, it is requested that the application be recommended for approval to the Minister for Planning.

Appendix A

Secretary's Environmental Assessment Requirements

Department of Planning and Environment

Appendix B

Site Survey

Monteath & Powys Pty Ltd

Appendix C

Architectural Drawings

Allen Jack & Cottier

Appendix D

Architectural Design Excellence Report

Allen Jack & Cottier

Appendix E

Design Excellence Process

University of Sydney

Appendix F

Landscape Plans and Report

Oculus

Appendix G

Draft Public Domain Plan

Oculus

Appendix H

Quantity Surveyor Report

Wilde and Woollard

Appendix I

Stormwater Management Report

Jacobs

Appendix J

Stormwater Management Plan

Jacobs

Appendix K

Traffic Impact Assessment

SMEC Pty Ltd

Appendix L

Heritage Impact Assessment

University of Sydney

Appendix M

Conservation Management Plan

University of Sydney

Appendix N

Access Report

iAccess Consultants (Seidman & Associates Pty Ltd)

Appendix O

Access Design Statement

iAccess Consultants (Seidman & Associates Pty Ltd)

Appendix P

Infrastructure Management Report

LHO Group

Appendix Q

Integrated Water Management Plan

LHO Group

Appendix R

Operational Plan of Management

University of Sydney

Appendix S

Consultation Report

University of Sydney

Appendix T

BCA Report

Blackett Maguire + Goldsmith Pty Ltd

Appendix U

Waste Management Plan

Waste Audit

Appendix V

Arborist Report

ArborSafe

Appendix W

Sustainable Transport & Mobility Plan

University of Sydney

Appendix X

Preliminary Hazard Assessment

Coffey

Appendix Y

Stage 2 Contamination Investigation

Coffey

Appendix Z

Remedial Action Plan

Coffey

Appendix AA

Noise Impact Assessment

Acoustic Logic

Appendix BB

ESD Report

Jacobs

Appendix CC

Pedestrian Wind Environment Statement

WINDTECH Consultants Pty Ltd

Appendix DD

Construction Management Plan

University of Sydney

Appendix EE

Geotechnical Investigation

Coffey

Appendix FF

Socio-economic Study

Cred Consulting

Appendix GG

Structural Report

Taylor Thomson Whitting

Appendix HH

University Affordable Student Accommodation Report

Appendix II

EIS version 9 – amendments to EIS report by The University of Sydney

In response to the Department of Planning & Environment's (DPE) initial review (Test of Adequacy) of the SSD 7539 application and EIS document, the DPE has requested a number of changes to the EIS document (DPE emails dated 19/02/2018 and 28/02/2018). These requests, and other formatting changes, have been implemented via version 9 of the EIS (this report dated 29 March 2018) by The University of Sydney and constitute the following amendments:

DPE Request (Test of Adequacy)	EIS Amendment (version 9)
H66 Darlington Houser to be included in description of the proposal.	Amended EIS page 1 *Statement of Validity* and references on pages 2, 3, 7, & 29 - Figure 3.1.
Apply scale bars and north points on figures.	All drawings have been reviewed and updated by AJ+C and an updated drawings package is included. The diagrams in the EIS are not intended to be scaled, and our review has not revealed any drawings requiring navigational or scaling tools to be applied.
Provide details of the construction timeframe and construction worker parking.	All details on construction timeframe and construction worker parking are included at Appendix DD.
Outline how the project meets the objectives of the LEP zoning.	Amended on EIS page 79.
Reference and include (Appendix A) the most recent SEARs issued (29 September 2017).	Amended on EIS list of Appendices page 8, and EIS text pages 1, 2 & 9, and Appendix A.
Any mention of proponent is to be removed and replaced with Applicant.	Amended on EIS page 11.
The project should be referenced as SSD 7539 rather than 16_7539.	Amended on EIS cover page, pages 1 & 2, and report headers.
Include an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure.	New EIS report section introduced on page 38 - *3.9 Justification and Assessment of Alternatives*
If Darlington laneway forms part of this application, landowners consent from Council is required.	The City of Sydney *Senior Traffic Engineer* has advised the University that documentation of Land Owners Consent is not required for the proposed conversion of Darlington Lane to a one-way Shared Zone (provided on public land). However, the proposal will require the endorsement by the Local Pedestrian, Cycling and Traffic Calming Committee (LPCTCC) and approval of the TMP by Roads and Maritime Services. Council has advised that this proposal can be provided as a condition of consent for the Development Application independently of this process. The City of Sydney's *Senior Traffic Engineer* can be contacted on ECunningham@cityofsydney.nsw.gov.au or Telephone 92659076.

DPE Request (Test of Adequacy)	EIS Amendment (version 9)
The Department required in the CIP approval that "the design of the future built form at the Darlington lane frontage expresses the existing terrace pattern and not be developed as one large building mass that extends along the length of the lane" the EIS is to demonstrate compliance with this requirement.	Updated description provided in Appendix D Architectural Design Excellence Report
The Lot numbers for all properties being developed are to be included in the Statement of Validity.	Amended EIS page 1 *Statement of Validity* and pages 14-15 *Site Description*.
Formatting report version updated to March 2018	All EIS report headers and footnotes, various contents pages.
Amendment of EIS to include amended clause numbers to the EP&A Act 1979 (version 1 March 2018).	Pages iii, 3, 9, 54, 55, 56, 58, 60, 64, 120.