
1-5 CHESTER STREET, ANNANDALE ECONOMIC IMPACT ASSESSMENT

BRITELY PROPERTY
MARCH 2019 v2.1

aecgrouppltd.com

DOCUMENT CONTROL

Job ID: J497
Job Name: Economic Impact Assessment of 1-5 Chester Street, Annandale
Client: Corvas Pty Ltd
Client Contact: Alex Sicari
Project Manager: Esther Cheong
Email: esther.cheong@aecgrouppltd.com
Telephone: 02 9283 8400
Document Name: 1-5 Chester Street, Annandale EIA Amended final

Version	Date	Reviewed	Approved
Draft	29/03/2019	VT	EC
Final	23/04/2019	VT	EC
Final v2.1	23/04/2019	VT	EC

Disclaimer:

Whilst all care and diligence have been exercised in the preparation of this report, AEC Group Pty Ltd does not warrant the accuracy of the information contained within and accepts no liability for any loss or damage that may be suffered as a result of reliance on this information, whether or not there has been any error, omission or negligence on the part of AEC Group Pty Ltd or their employees. Any forecasts or projections used in the analysis can be affected by a number of unforeseen variables, and as such no warranty is given that a particular set of results will in fact be achieved.

EXECUTIVE SUMMARY

BACKGROUND

Britely Property are preparing a planning proposal to amend the planning controls pertaining to 1-5 Chester Street in Annandale ("the Site"). The planning proposal seeks to rezone the controls to make the following amendments to the Leichhardt Local Environmental Plan (2013).

- Establish a B7 Business Park Use, a maximum height of 17m, and site specific FSR control.
- Include a local provision which:
 - Allows boarding house for student accommodation as an additional permitted use.
 - Requires a minimum of 980sqm (FSR 0.75:1) to be delivered as non-residential uses.
 - Allows a maximum FSR of 1.25:1 for a boarding house to be used as student and/ or key worker housing.

The Proposal would enable a mix of land uses as follows:

- Employment for innovation / creative office (FSR 0.75:1), and
- Residential boarding house for Student Accommodation (FSR 1.25:1).

The Site is located approximately 300m north of Parramatta Road within the broader Camperdown Precinct of the Parramatta Road Corridor Urban Transformation Strategy (PRUTS). PRUTS envisages the Camperdown Precinct evolving into an attractive, highly urbanised neighbourhood marked by taller residential and business buildings. Both Parramatta Road and Pyrmont Bridge Road will contain retail and commercial activities while new residential development is designated in two locations, including along Johnston's Creek where the Site is situated.

The Parramatta Road Corridor Urban Transformation Strategy is recognised in the Greater Sydney Region Plan and Eastern City District Plan as a State-led initiative to provide "for a diversity of jobs and housing to meet the needs of a broad cross-section of the community.

The Site is located at the edge of the Camperdown-Ultimo Collaboration Area, in particular the 'Camperdown activity node' as depicted in the Camperdown-Ultimo Collaboration Area (GSC, 2019).

The Proposal responds to a State strategic plan that identifies the Site as falling within an area designated for medium density housing. As part of the suite of recommended changes to planning controls in the Camperdown Precinct, PRUTS envisages the rezoning of existing IN2 Light Industrial land to a mix of R3 Residential, B5 Business Development, B6 Enterprise Corridor. The proposed LLEP B7 Business Park use is consistent with these intended objectives.

AEC Group (AEC) is engaged by Britely Property to prepare an Economic Impact Assessment (EIA) to examine the economic impacts likely to result from the proposed planning control amendments and development of the Site.

STRATEGIC AND MARKET CONTEXT

Strategic Planning

Strategic planning (both at state and local level) recognise changes in the economy which require provision of floorspace to cater to a growing population and evolving and emerging industries. Specifically:

- The Camperdown Precinct is recognised at State level (Greater Sydney Region Plan, Eastern City District Plan and PRUTS) as an important health and education precinct, having the potential for increased housing, economic activity and social infrastructure.
- The District Plan recognises the importance of the Camperdown-Ultimo Collaboration Area to support world class research, educational and health uses. The importance of collaboration between key stakeholders and agencies was important for various reasons, including ensuring complementary and support uses (including a range of housing types and price points for key workers and students) were planned for and provided.

- The District Plan affirms PRUTS on the matter of supporting health and education uses. Central to the land uses envisioned under PRUTS is recognition of the importance of supporting education, research and supporting uses associated with the Royal Prince Alfred Hospital and University of Sydney
- The former Leichhardt Council (now Inner West Council) has generally adopted an approach to protect all industrial lands. Its most recent study recommends positioning Camperdown Precinct as a mixed business precinct with recommendations for B5 Business Development and IN2 Light Industrial zones.

There is recognition of the emergence of a new economy, a growing population and changing nature of industry and consequent importance for planning frameworks to respond accordingly.

Market Demand

Business and Enterprise Uses

The industrial lands in Camperdown are observed to be shifting to accommodate a broad range of service-based businesses. These include urban logistics and the broader services sector (including professional services, health care, IT media & telecommunications). They are desirable given proximity to key markets and centrality of location.

That said, location alone does not determine the viability of industrial precincts. A raft of other influences both property-specific (access, building design, traffic) and market-specific (rents, prices, nature of demand and supply) equally impact the success and sustainability of industrial lands.

Concurrent with higher prices, local agents have noted that many (but not all) traditional industrial uses are beginning to avoid the Precinct as access issues on local streets (street parking) is hindering the ability of trucks and large vehicles to access properties therein.

These observations indicate that the transition towards that of a broader employment area is a natural evolution of the Precinct. It is evident that the industrial lands in the Precinct call for a more intensive use. Buildings that allow greater densities of employment floorspace will respond to market demand which continues to evolve.

Camperdown Precinct's proximity to the Sydney CBD and Camperdown-Ultimo education and health facilities makes it an important location for significant population and employment growth, supported by appropriately scaled residential development. Pressure on transport infrastructure and traffic congestion are important productivity considerations for growing the housing options around transport corridors and employment centres that will provide workers with the ability to not only live close to where they work but also close to amenity and services. The Proposal assists with addressing these issues by assisting to meet demand for housing near employment centres.

PRUTS' proposed land uses and higher densities in the northern portion of the Precinct (in B5 Business Development zone) align with observed market demand and would allow for mixed business uses in the Precinct.

Higher Education Sector

The Australian government recognises the economic significance of Australia's largest service export sector to the national economy. Initiatives to increase the number of onshore university enrolments are ongoing. As such, Australian universities will need to plan their approach to the overseas markets through their course portfolio and availability of student accommodation, the latter which has been identified by as a key factor in maintaining sustainable growth in international student numbers in Australia (Productivity Commission, 2015).

Research conducted by University Colleges Australia (UCA) in 2014 indicated that greater metropolitan Sydney had the largest proportion of international students residing in off-campus dwellings (70%), followed by Melbourne (62%) and Brisbane (57%) (UCA, 2015). In 2014, Sydney and Melbourne were found to have the greatest number of student accommodation than other Australian capital cities combined.

In the vicinity of the Camperdown health and education precinct, the key institutions of higher education are University of Sydney, University Technology Sydney and Notre Dame University Sydney campus. Combined, these three institutions had 105,200 students (FTSL) enrolled in 2018. In 2018, at a national level, international students comprised 28% of total students. Assuming the national proportion of 28%, international students would be estimated to number around 29,500 FTSL enrolled at the three institutions. This excludes TAFE Ultimo and other institutions of higher learning in the Camperdown area.

A high-level review of purpose-built student accommodation (PBSA) indicates 10,500 beds in December 2018. There are approximately 1,500-2,000 beds at various stages of planning and delivery in the development pipeline.

Assuming all PBSA beds in the development pipeline are delivered, there would be approximately 12,000 beds in the Camperdown locality.

This does not cater for the estimated 29,500 international students, let alone interstate or inter-city students ('mobile' students) requiring accommodation on or around campus. This affirms the UCA 2014 Census which indicated that in Sydney alone, there was an undersupply of 74,763 PBSA beds.

Those students unable to secure PBSA are likely to look to neighbouring private rental markets.

ECONOMIC IMPACTS

PRUTS envisages the rezoning of existing IN2 Light Industrial land to a mix of B5 Business Development, B6 Enterprise Corridor, R3 Medium Density Residential and R4 High Density Residential. The change in zone from light industrial to a mix of business zones is accompanied by an increase to FSRs, which enables greater amounts of floorspace to accommodate a mix of business and enterprise uses. This will also permit uses that contribute to positive worker amenity such as child care centres, food and drink premises, restaurants, cafés, etc.

By virtue of its location and as part of the overall vision for the Camperdown Precinct, the Site is recommended for medium density residential uses (in an R3 Medium Density Residential zone). Development of the Site would assist to achieve the vision for the Camperdown Precinct.

The Site is currently occupied by Fitzhenry PJ Coach Painting which is a panel beater and car repair business specialising in luxury cars. The business is understood to employ two full time, and two part time workers converting to 3 FTE (full time equivalent).

The Proposal provides for B7 / office floorspace, expected to appeal to creative-type professionals seeking to locate close to transport, services and within the Camperdown education and health precinct. The Proposal additionally provides for residential opportunities (for local residents, students and/ or key workers).

For the purposes of modelling employment and economic impacts a Base Case (where the planning controls in Camperdown Precinct are retained) is considered against the Intervention Case (where PRUTS planning controls are implemented).

Base Case - No Change to Planning Controls

Research indicates employment in the Precinct grew at an average annual rate in the order of 1.7% over the 2006-2011 period. Notable growth occurred in services sector employment, particularly in professional services, health care & social assistance, information media & telecommunications, as well as local urban services providers. This was met with commensurate decline in the sectors of manufacturing and wholesale trade.

Market investigations affirm the change in employment observed, with many professional firms, design and media companies observed to be showing interest in the area. Owing to traffic congestion and parking difficulties as well as increasing rents and prices, interest from more traditional industrial-type occupiers is observed to be softening.

If the Precinct retained its current suite of planning controls, employment growth is expected to continue at a 'natural rate', not unlike that which occurred in the 2006-2011 period. This natural growth will occur subject to the Precinct's ability to accommodate businesses' floorspace needs.

Employment projections assuming a 'natural rate of growth' with existing planning controls remaining unchanged are as follows: 3,134 workers (2017), 3,324 workers (2023), 4,337 workers (2050).

Implementation Case Implementation of PRUTS Planning Controls

Implementation of PRUTS planning controls would result in land currently zoned IN2 replaced by a mix of business and residential zones. Furthermore, higher FSRs are envisaged in all employment/ business zones:

- B5 Business Development (FSR 2:1 to FSR 4:1).

- B6 Enterprise Corridor (FSR 2:1).
- B7 Business Park (FSR 2:1).
- B2 Local Centre (FSR 1.5:1) and B4 Mixed Use (FSR 1.5:1 to FSR 3:1).

By virtue of greater FSRs, employment floorspace potential in the Precinct is increased. This Study however only focuses on the floorspace capacity in the B5 and B6 zones (which replace the current IN2 zone) and B7 zone, as any increased floorspace capacity in the B2 and B4 zones is assumed will be purposed for residential uses, which are permitted within the respective zones.

Following implementation of PRUTS planning controls, the existing IN2 zoned lands capacity increases from circa 109,356sqm GFA to 157,181sqm GFA (comprised of lands in new B5 and B6 zones). The small component of existing B7 lands capacity doubles from 1,245sqm GFA to 2,615sqm GFA.

While the increase to employment floorspace capacity in the existing IN2 lands (by circa 50,000sqm GFA) is a key implication of implementation of PRUTS planning controls, the change in land use zone to B5 and B6 would additionally result in a change in zone objectives and permissible uses to land currently zoned IN2. The proposed business zones and increased floorspace capacities would certainly assist in accommodating the broad range of businesses already attracted to the Precinct.

Employment projections assuming PRUTS expectations following implementation are made for the statistical areas examined in this Study. They are as follows: 3,134 workers (2017), 3,324 workers (2023), 5,703 workers (2050).

Net Economic Activity

The economic impacts/contribution can be traced through the economic system via:

- **Direct impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Indirect Impacts (Flow-on impacts)**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales.

Table ES.5.1: Additional Economic Activity, Base Case v Implementation Case (2017-2050)

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTEs)
Base Case				
Direct	\$243.7	\$131.6	\$84.6	1,204
Type I Flow-On	\$113.9	\$54.4	\$32.9	401
Type II Flow-On	\$200.8	\$119.2	\$52.2	772
Total	\$558.4	\$305.3	\$169.8	2,376
Implementation Case				
Direct	\$555.6	\$310.0	\$194.5	2,569
Type I Flow-On	\$256.7	\$126.1	\$76.7	902
Type II Flow-On	\$463.2	\$275.0	\$120.5	1,780
Total	\$1,275.4	\$711.0	\$391.7	5,251
Increase in Economic Activity				
Direct	\$311.9	\$178.4	\$109.9	1,366
Type I Flow-On	\$142.8	\$71.6	\$43.8	501
Type II Flow-On	\$262.4	\$155.8	\$68.3	1,008
Total	\$717.0	\$405.8	\$221.9	2,875

Source: AEC

The Implementation Case is projected to result in an additional contribution to the Inner West LGA economy of \$51.4 million in GRP and 360 FTE jobs in 2023 compared to what is expected under the Base Case. This represents the *net increase* in economic activity projected by amending the planning controls for the precinct by 2023.

Projections to 2050 indicate amendment of the planning controls as per the Implementation Case could result in a net increase of \$405.8 million in GRP and 2,875 FTE jobs by 2050 compared to the Base Case.

The modelling conducted indicates implementation of PRUTS will result in a significant contribution through the ongoing activities of employment and businesses accommodated in the Camperdown Precinct.

POLICY CONSIDERATIONS

Net Economic Impact

The availability of housing options close to employment centres (not just Sydney CBD but also to employment centres of Camperdown, Surry Hills and Ultimo) has positive productivity benefits as it not only helps to reduce travel times but also alleviates pressure on infrastructure and transport networks.

Even though PRUTS envisages for the Site to be rezoned from IN2 Light Industrial to R3 Medium Density Residential, the Proposal envisages rezoning to B7 Business Park zone with a local provision to retain the quantum of non-residential floorspace.

Under PRUTS the repurposing of IN2 lands is accompanied by a repurpose to B5 and B6 zones, intended to:

- Meet market demand for a mix of business uses and provide more intensive employment opportunities.
- Increase the employment floorspace capacity of the Precinct to accommodate a greater number of workers.
- Provide synergistic support to the Camperdown Education and Health Precinct and Collaboration Area by providing for a range of services employment, including professional services, health care & social assistance.

The Proposal would increase the potential for workers to live locally and could increase job containment rates, reduce the negative time, cost and congestion externalities associated with commuting. It would also assist ensuring labour supply and population growth is not constrained by a lack of local housing.

There are an estimated 29,500 international students enrolled in higher education in the Camperdown health and education precinct. Existing PBSA (purpose-built student accommodation) beds is estimated at 10,500 with 1,500-2,000 beds proposed in the pipeline. Assuming all proposed beds eventuate into delivery, a total of 12,500 beds would be the result, less than 40% the estimated international students (not allowing for interstate or inter-city students). Students unable to secure PBSA will rely on the private rental market.

The Proposal itself will contribute to meeting market demand, with the non-residential floorspace likely to appeal to professional services and creative businesses seeking space in the Camperdown Precinct.

While some businesses will be displaced as sites in the Precinct are redeveloped, there will be a net increase in economic activity following full implementation of PRUTS (additional 1,366 direct jobs and \$178.4 million in GRP).

Redevelopment of the Precinct is expected to occur over a period of time. If a business were to move into a property in the Inner West Council area, there would effectively be a transfer (rather than a loss) of the employment and economic activity within the LGA.

On balance, this Study considers the economic impact of the Proposal to be net positive and thereby presenting a compelling case for consideration.

Greater Sydney Region Plan & Eastern City District Plan

The District Plan identifies the importance of the Camperdown-Ultimo Collaboration Area as part of the Innovation Corridor and its role as one of the largest and most comprehensive health and education precincts. Collaboration between key stakeholders and agencies is recognised as critical to create an area of international standing by:

- Planning for complementary uses that support the hospital and universities.
- Supporting a range of housing types and price points for key workers and students.

The District Plan assists councils to plan for and deliver growth and change, and align their local planning strategies to place-based outcomes, through a set of planning priorities and actions.

The importance of ensuring complementary and support uses is highlighted, including a range of housing types and price points for key workers and students.

The District Plan affirms PRUTS on the matter of supporting health and education uses. Central to the land uses envisioned under PRUTS is recognition of the importance of supporting education, research and ancillary uses associated with the Royal Prince Alfred Hospital and University of Sydney.

The Greater Sydney Region Plan exempts lands within PRUTS from the industrial land strategies and actions of the Region Plan. Instead, development of industrial lands within the Corridor is to be guided by the Implementation Tool Kit as PRUTS and the Implementation Tool Kit have been subject to an extensive planning process.

The Proposal itself (with the retention of employment uses and existing quantum of non-residential floorspace) will contribute to supporting professional services and creative-focused employment, particularly as market demand for these types of industries is growing.

Parramatta Road Corridor Urban Renewal

Implementation of PRUTS planning controls will enable the Precinct to transition into a more intensive employment precinct, in line with the change in employment profile that is already occurring. Implicit in PRUTS is the importance of enabling the transition of Camperdown Precinct to a mixed enterprise area that would have greater capacity accommodate land uses to support the education, research and associated uses of the hospital and universities.

The Site will contribute towards a mix of multi-dwelling housing locally in a location close to a transport corridor and to institutions of higher education. In a locality where the household sizes are small and decreasing relative to metropolitan Sydney, there will be commensurate demand for units and multi dwelling product types.

Economic modelling demonstrates that implementation of PRUTS planning controls is valuable, as it will facilitate the continued evolution of the local economy to one that is services-based and that supports creative industries and the health and education sectors.

While redevelopment elsewhere in the Camperdown Precinct will result in a greater intensity of employment and economic activity, delivery of medium density housing on the Site will concurrently enable the meeting of diverse housing need (including local workers and students). The Proposal aligns with the PRUTS vision by accommodating additional housing as well as providing opportunities for creative and other complementary jobs.

Conclusion

The Proposal demonstrates alignment with the objectives and aspirations of state planning policy and strategy:

- Greater Sydney Region Plan.
- Eastern City District Plan.
- Parramatta Road Corridor Urban Transformation Strategy (PRUTS).
- Camperdown-Ultimo Collaboration Area.

As cities grow there is commensurate pressure on scarce lands to be developed for a variety of uses. The benefits of enabling more intensive use of land which is a finite asset are therefore obvious.

In the case of the Site and the broader Camperdown Precinct, state government policy has focused equally on intensifying employment opportunities and facilitating opportunities for diverse housing close to transport networks and employment centres.

The importance of the Camperdown-Ultimo Collaboration Area has been recognised, with initiatives underway to ensure its potential as a renowned innovation district is met. Opportunities for innovative and creative industries as well as a range of housing types for key workers and students are among the priorities of the Camperdown-Ultimo Place Strategy.

The Proposal seeks to accommodate not only more intensive jobs but also provide housing options that support the Camperdown health and education precinct.

TABLE OF CONTENTS

DOCUMENT CONTROL.....	I
EXECUTIVE SUMMARY	II
TABLE OF CONTENTS	VIII
1. INTRODUCTION.....	1
1.1 BACKGROUND AND OVERVIEW	1
1.2 SCOPE AND PURPOSE	2
1.3 STRUCTURE OF THE STUDY	2
2. OVERVIEW OF THE SITE AND PROPOSAL	3
2.1 LOCATION	3
2.2 CAMPERDOWN PRECINCT	4
2.3 PLANNING POLICY AND CONTEXT	5
2.4 THE PROPOSAL	11
3. BASELINE RESEARCH.....	12
3.1 EMPLOYMENT PROFILE	12
3.2 LOCAL DEMOGRAPHIC AND ECONOMIC INFLUENCES	14
3.3 MARKET ACTIVITY	16
3.4 IMPLICATIONS FOR THE SITE AND PRECINCT	20
4. ECONOMIC IMPACT ASSESSMENT	21
4.1 INTRODUCTION AND APPROACH	21
4.2 DRIVERS OF ECONOMIC ACTIVITY.....	21
4.3 ECONOMIC ACTIVITY AND IMPACTS	28
5. POLICY ASSESSMENT	34
5.1 ECONOMIC BENEFITS AND COSTS	34
5.2 NET ECONOMIC IMPACTS	35
5.3 SECTION 9.1(2) DIRECTIONS	36
5.4 GREATER SYDNEY REGION PLAN	37
5.5 EASTERN CITY DISTRICT PLAN	37
5.6 PARRAMATTA ROAD CORRIDOR URBAN RENEWAL	37
5.7 SUMMARY	38
REFERENCES.....	39
APPENDIX A: INPUT-OUTPUT METHODOLOGY	40

1. INTRODUCTION

1.1 BACKGROUND AND OVERVIEW

Britely Property are preparing a planning proposal to amend the planning controls pertaining to 1-5 Chester Street in Annandale ("the Site"). The planning proposal seeks to rezone to B7 Business Park zone and make the following amendments to the Leichhardt Local Environmental Plan (2013).

- Establish a B7 use, a maximum height of 17m, and site specific FSR control.
- Include a local provision which:
 - Allows boarding house for student accommodation use as additional permitted uses.
 - Requires a minimum of 980sqm (FSR 0.75:1) to be delivered as non-residential uses.
 - Allows an additional FSR of 1.25:1 for a boarding house to be used as student and/ or key worker housing.

The Proposal would enable a mix of land uses as follows:

- Employment for innovation / creative office (FSR 0.75:1), and
- Residential boarding house for student accommodation (FSR 1.25:1).

The Site is located approximately 300m north of Parramatta Road within the broader Camperdown Precinct, as identified under the Parramatta Road Corridor Urban Transformation Strategy (UrbanGrowth, 2016a).

The Parramatta Road Corridor Urban Transformation Strategy is recognised in the Greater Sydney Region Plan and Eastern City District Plan as a State-led initiative to provide "for a diversity of jobs and housing to meet the needs of a broad cross-section of the community" (GSC, 2018a, 2018b).

The Parramatta Road Corridor encompasses eight precincts spanning for 20km from Camperdown in the east to Granville in the west. The Camperdown Precinct is acknowledged to be of particular importance due to its role supporting education, research and uses associated with Royal Prince Alfred Hospital and University of Sydney.

The Parramatta Road Corridor Urban Transformation Strategy (PRUTS) envisages the Camperdown Precinct ("the Precinct") evolving into an attractive, highly urbanised neighbourhood marked by taller residential and business buildings. Both Parramatta Road and Pyrmont Bridge Road will contain retail and commercial activities while new residential development is designated in two locations, including along Johnston's Creek where the Site is situated.

The Greater Sydney Region Plan recognises the role of the Parramatta Road Corridor Implementation Tool Kit to guide the incremental transformation of the Corridor in line with delivery of necessary infrastructure, noting the extensive process that was undertaken which culminated in PRUTS and the Implementation Tool Kit. Development of industrial lands consistent with PRUTS and the Implementation Tool Kit are therefore not subject to the industrial land strategies and action requirements of the Greater Sydney Region Plan.

The Proposal responds to a State strategic plan that identifies the Site as falling within an area designated for medium density housing. As part of the suite of recommended changes to planning controls in the Camperdown Precinct, PRUTS envisages the rezoning of existing IN2 Light Industrial land to a mix of B5 Business Development, B6 Enterprise Corridor, R3 Medium Density Residential and R4 High Density Residential. Furthermore, PRUTS aspires to enable consolidated opportunities for residential uses to grow particularly in areas serviced by transport and community infrastructure and which are accessible to centres of employment.

The rezoning of light industrial lands to a mix of business zones is accompanied by an increase to FSRs, enabling greater amounts of floorspace to accommodate a mix of business and enterprise uses. The realisation of residential development potential on the Site is enabled by implementation of PRUTS in Camperdown Precinct.

Despite residential uses envisaged for the Site in PRUTS, the Proposal seeks to retain and enhance a greater employment use (in terms of jobs) and existing non-residential floorspace in a development of the Site.

1.2 SCOPE AND PURPOSE

AEC Group (AEC) has been engaged by Britely Property to prepare an Economic Impact Assessment (EIA) to examine the economic impacts likely to result from the proposed planning control amendments and subsequent redevelopment of the Site. Given that the Site itself has recognition in strategic plans, the EIA considers the economic impacts that could result from the implementation of the Parramatta Road Corridor Urban Transformation Strategy (PRUTS), specifically in Camperdown Precinct.

In order to assess the economic impact of implementing the recommended planning control amendments in the Camperdown Precinct, a Base Case and Proposal Case are developed.

- **Base Case:** The Camperdown Precinct under existing planning framework.
- **Proposal Case:** The Camperdown Precinct as envisaged by PRUTS.

The EIA examines the economic impacts if the Camperdown Precinct were redeveloped as recommended under PRUTS. Additionally, the economic impacts resulting from the extent to which the Proposal varies from PRUTS is also assessed.

1.3 STRUCTURE OF THE STUDY

The Report has been structured in the following manner:

- **Chapter 1: Introduction**
This Chapter provides an overview and background of the Study, the scope, purpose and overall structure of the report.
- **Chapter 2: The Site and Proposal**
This Chapter reviews the Site, its current context within the Parramatta Road Corridor and analyses key State and local government policies as are relevant.

The Chapter notes how the Proposal responds to strategic planning for the Precinct and that which is envisaged for future development of the Site.
- **Chapter 3: Baseline Research**
This Chapter examines the employment profile in the Camperdown Precinct, specifically noting its industry and occupation composition over the 2006-2011 period. Even though 2016 ABS data is released, they are not available at the small geography of analysis (travel zone).

The Chapter also examines the trends and influencing factors that affect employment composition in the Precinct, additionally gathering market intelligence to investigate how the Site responds to market need.
- **Chapter 4: Economic Impact Assessment**
This Chapter assesses the economic impacts of future development on the Site (following implementation of PRUTS in the Precinct) by investigating two scenarios:
 - Base Case: the economic impacts in the absence of PRUTS.
 - Proposal Case: the economic impacts following implementation of changes to planning controls as recommended by PRUTS.
- **Chapter 5: Policy Assessment**
This Chapter reviews and translates the key findings from Chapters 2 to 4 and applies them in the assessment of the Proposal against policy considerations.

2. OVERVIEW OF THE SITE AND PROPOSAL

2.1 LOCATION

The Site is situated at 1-5 Chester Street in Annandale within the local government area of Inner West. The Sydney CBD is located approximately 4km to the northeast of the Site, with Parramatta Road and City West Link running east-west to the south and north respectively. Measuring approximately 1,300sqm in site area, the Site is triangular in shape with frontage to Chester Street and bound by Johnston's Creek on its northwestern boundary. The Site is comprised a single allotment legally identified as Lot 11 in Deposited Plan 499846 with existing improvements occupying the majority of site area.

Situated approximately 300m north of Parramatta Road, the Site is located within 2km of Royal Prince Alfred Hospital and University of Sydney (Camperdown campus) and is on the northwestern fringe of the Camperdown-Ultimo Education and Health Precinct. The Site is located at the fringe of the Precinct adjacent the established suburb of Annandale with established dwellings immediately to the north, separated by Johnston's Creek. Figure 2.1 depicts the local context of the Site.

Figure 2.1: Site Context Map



Source: GSC (2016)

The Camperdown-Ultimo Collaboration Area is described as a mature health and education precinct that incorporates important institutions such as University of Technology Sydney, University of Sydney and Royal Prince Alfred Hospital. Various health and education institutes, research centres and student colleges are clustered in the precinct. The adjoining suburbs of Broadway, Newtown and Camperdown accommodate a vibrant mix of activities.

The Site falls within the “Camperdown Precinct”, which is one of the eight precincts identified in the Parramatta Road Corridor Urban Transformation Strategy (PRUTS).

2.2 CAMPERDOWN PRECINCT

The Camperdown Precinct is the easternmost precinct identified in the Parramatta Road Corridor. The precincts are categorised in two sections:

- Western Precincts: Granville and Auburn (City of Parramatta and Cumberland local government areas).
- Eastern Precincts: Homebush, Burwood-Concord, Kings Bay, Taverners Hill, Leichhardt and Camperdown (Strathfield, Burwood, Canada Bay, Inner West and City of Sydney local government areas).

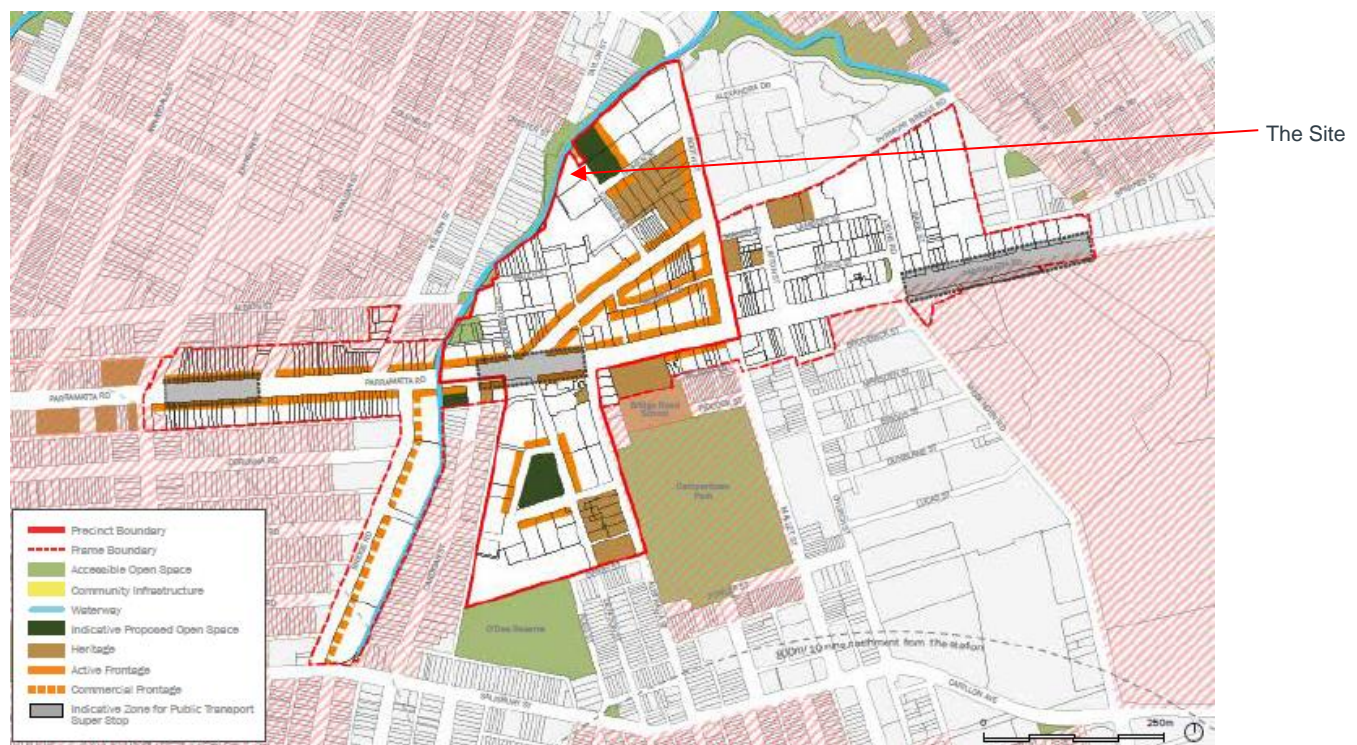
Each precinct is defined as a 'Precinct' and with a Frame Area which covers land that stretches between in each precinct and Parramatta Road. The Site is within the 'Precinct'.

The Camperdown Precinct is bounded by Johnson Creek and Cardigan Lane to the north and west, Booth Street and Australia Street to the east and Derby Street and O'Dea Reserve to the south.

PRUTS identifies the Camperdown Precinct to have the potential to transition into a higher density residential and employment precinct, expanding on existing areas of activity and making use of the network of local streets and lanes. The long-term expansion of education and health uses into the precinct through the co-location of support business and housing for key workers and students is strongly encouraged.

Figure 2.2 illustrates the Camperdown Precinct and the envisaged active zone requirements. The orange lines indicate where an active or commercial frontage should be provided.

Figure 2.2: Camperdown Precinct



Source: UrbanGrowth (2016a)

2.3 PLANNING POLICY AND CONTEXT

2.3.1 A Metropolis of Three Cities - Greater Sydney Region Plan

A Metropolis of Three Cities - Greater Sydney Region Plan (the Region Plan, GSC, 2018a) sets the strategic vision for Greater Sydney towards 2036. A framework for the liveability, productivity and sustainability of the metropolis of three cities is detailed.

10 Directions, each comprised of a series of objectives are articulated to deliver and monitor the Region Plan.

The objectives of direct relevance to the Proposal are:

- Liveability Direction
 - Objective 6 - Services and infrastructure meet communities' changing needs.
 - Objective 7 - Communities are healthy, resilient and socially connected.
 - Objective 10 - Greater housing supply.
- Productivity Direction
 - Objective 22 - Investment and business activity in centres.
 - Objective 23 - Industrial and urban services land is planned, retained and managed.

Each of these objectives are discussed in turn.

Objective 6

The objective emphasises the importance of ensuring services and infrastructure is tailored to meet the changing needs of population groups. Improved health, public transport and accessibility outcomes can be achieved through the provision of schools, recreation, transport, arts and cultural, community and health facilities in walkable, mixed-use places that are co-located with social infrastructure and local services. This is related to Objective 7.

Objective 7

The objective aims to deliver infrastructure and services to support socially connected communities that include:

- Playgrounds, libraries, education facilities and active street life.
- Farmers' markets, eat streets, street verges and community gardens.
- Creative arts centres, theatres, live music and co-working spaces.
- Bushcare groups, outdoor gyms, sportsgrounds, aquatic centres and community spaces.

The objective recognises the importance of having mixed-use neighbourhoods close to centres and public transport that will not only promote walking and cycling, but also generate social opportunities in walkable neighbourhoods.

Objective 10

A central tenet of the requirement to create more housing capacity is that new homes should be linked to local infrastructure, both to optimise existing infrastructure and to maximise investment in new infrastructure.

Opportunities for urban renewal are seen as valuable, however they need to be considered by location and by capacity of existing and proposed infrastructure. In established areas, urban renewal opportunities around regional transport and strategic centres where walking and cycling links are available contribute to liveability.

Development of housing targets help inform preparation of councils' housing strategies. The 0-5 year targets reflect the existing development pipeline and provide a focus for infrastructure delivery. Beyond that, councils are to identify areas suitable for housing supply and attributes of suitable areas for housing supply beyond 10 years.

The 0-5 year housing supply targets are a minimum and councils are required to find additional opportunities to exceed their target to address demand. Developers are recognised to play an important role in supporting housing outcomes and facilitate development capacity created by the planning system.

Objective 22

Centres are a key element of the urban structure of Greater Sydney and are important for access to jobs, goods and services. The Region Plan establishes a hierarchy of three levels - metropolitan, strategic and local centres.

The scale and role of centres are important for a variety of functions:

- Metropolitan centres are economically significant and will continue to be the focus of government investment.
- Strategic centres increase access to a wide range of jobs, goods and services and supports the vision for a 30-minute city.
- Local centres are important for providing access to day-to-day goods and services close to where people live. They are a collection of shops and health, civic or commercial services. Enhancing their accessibility, connectivity through walking and cycling paths is important.

The Leichhardt Marketplace is identified in the Eastern City District Plan (GSC, 2018b) as a local centre. This is further examined in section 2.3.2.

The Region Plan identifies the role of supermarket-based centres in providing opportunities for local employment. It further notes that increasing residential development within walking distance of a supermarket-based centre is a desirable liveability outcome.

Objective 23: Industrial and Urban Services Land

The Region Plan states that the retention, growth and enhancement of industrial and urban services land across Greater Sydney should be reflective of the differing needs of the three Cities. The approaches to managing industrial and urban services land are:

- Retain and manage, applicable to the Eastern City, North West Growth Area and established industrial areas in the Western City including the Western Sydney Employment Area.
- Review and manage, applicable to established areas of the Central City, Hornsby, Liverpool and Fairfield.
- Plan and manage, applicable to the South West and Western Sydney Airport growth areas.

Importantly, the Region Plan notes that the lands within PRUTS are not subject to the industrial land strategies and actions of the Region Plan. Instead, development of industrial lands within the Corridor is to be guided by the Parramatta Road Corridor Implementation Tool Kit as PRUTS and the Implementation Tool Kit have been subject to an extensive planning process.

Provisions for development in PRUTS and the Implementation Tool Kit were made under a s9.1 direction of the *Environmental Planning and Assessment Act 1979*.

2.3.2 Eastern City District Plan

The Eastern City District Plan (the District Plan) is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney.

The District Plan assists councils to plan for and deliver growth and change, and align their local planning strategies to place-based outcomes, through a set of planning priorities and actions.

The planning priorities and actions of direct relevance to the Proposal are:

- Liveability Direction
 - Planning Priority E3 - Providing services and social infrastructure to meet people's changing needs.
 - Planning Priority E4 - Fostering healthy, creative, culturally rich and socially connected communities.
 - Planning Priority E5 - Providing housing supply, choice and affordability with access to jobs, services and public transport.

- Productivity Direction

The Region Plan states the importance of growing investment and business activities in centres. Local centres are identified to be best planned for at the local level informed by a place-based strategic planning process.

As Objective 23 exempts land in PRCUTS from the industrial land strategies and actions of the Region Plan, the planning priority in the district plan that relates to this objective is not considered.

Each of the relevant planning priorities are discussed in turn.

Planning Priority E3

As the District's population grows, so too will increased demand on existing services and infrastructure including sports and recreation facilities. Consequently, integrated and targeted delivery of services and infrastructure is needed to support growth, taking into account existing levels of provision, use and changing requirement.

The co-location of social infrastructure facilities in neighbourhoods that are accessible improves health outcomes and enhances the overall liveability of a neighbourhood or centre.

Planning Priority E4

A multi-faceted approach and place-based approach is required to support healthy lifestyles and strong social connections. Delivery of fine grain urban form and local mixed-use places are identified as having a role to provide better access to local retailers of fresh food, together with opportunities for people to participate in arts, recreation and cultural activities.

Access to diverse open spaces and opportunities for recreational physical activity are important, as are lifelong learning facilities and libraries, which provide valuable opportunities to continue education and connect with others in the community.

Planning Priority E5

New housing must be in the right places to meet demand for different housing types, tenure, price points, preferred location and design. Housing supply must be coordinated with local infrastructure to create liveable, walkable, cycle-friendly neighbourhoods with shops, services and public transport.

The District Plan sets five-yearly housing targets for the Eastern City District, based on dwelling needs and existing opportunities to deliver supply. The housing target for Inner West LGA for the period 2016-2021 is 5,900 dwellings. The District Plan notes that the short term (2016-2021) targets are generally consistent with known housing approvals and construction activity. They are minimum targets and largely reflect the delivery potential under current planning controls.

Relevant actions required to implement this Priority include preparation of local housing strategies to:

- Deliver five-year housing supply targets for each local government area.
- Deliver 6–10 year (when agreed) housing supply targets for each local government area.
- Establish capacity to contribute to the longer term 20-year strategic housing target for the District.
- Housing strategy requirements outlined in Objective 10 of the Greater Sydney Region Plan.

Camperdown-Ultimo Collaboration Area

The District Plan identifies the importance of the Camperdown-Ultimo Collaboration Area as part of the Innovation Corridor and for its role as one of the largest and most comprehensive health and education precincts in Greater Sydney. Collaboration between key stakeholders and agencies is recognised as critical to create an area of international standing by, *inter alia*:

- Planning for complementary uses that support the hospital and universities.
- Supporting a range of housing types and price points for key workers and students.

To give effect to the importance of the Camperdown-Ultimo Collaboration Area identified in the District Plan, a place strategy has been prepared.

The Camperdown-Ultimo Place Strategy (GSC, 2019) identifies the objectives and vision for the area and outlines the challenges to the vision. The challenges identified include:

- Lack of cohesive identity, narrative or objectives.
- Unequally distributed public transport, pedestrian and cycling links within and beyond the area, particularly a mass transit system to connect Camperdown activity node.
- Poor pedestrian amenity on high-traffic volume roads.
- Heavily congested roads and limited transport modal options.
- The conversion of industrial and commercial building stocks to residential or mixed use development, limiting availability of employment land and affordable spaces for innovation, research, creative industries and artists and collaborative projects.
- Lack of affordable housing for the community, students, key and creative workers, and limited short-term accommodation for academic and health visitors.
- The need for investment in public and private infrastructure.
- The lack of and growing demand for local open space and community facilities and services and limited capacity to provide these services and facilities.

The place strategy proposes a series of actions to address the complex issues that challenge the vision and objectives of the collaboration area.

2.3.3 Parramatta Road Corridor Urban Transformation Strategy

The Parramatta Road Corridor Urban Transformation Strategy (PRUTS) sets the vision for improved transport choices, better amenity and balanced growth of housing and jobs. PRUTS has been adopted by NSW Government and is supported by a Section 9.1 Ministerial Direction which gives it statutory force.

PRUTS envisages the Camperdown Precinct evolving into an attractive, highly urbanised neighbourhood marked by taller residential and business buildings. Both Parramatta Road and Pyrmont Bridge Road will contain retail and commercial activities while new residential development is designated in two locations.

PRUTS recommends a series of land uses that acknowledge the importance of supporting the education, research and supporting uses associated with the Royal Prince Alfred Hospital and University of Sydney. The employment zones of B2 Local Centre, B4 Mixed Use, B5 Business Development and B6 Enterprise Corridor are proposed along Parramatta Road and for the majority of the Camperdown Precinct. Permitted uses in these employment zones are to align with the standard instrument template, subject to Inner West Council's requirements.

Medium density residential is recommended along the northern edge of the Precinct along Johnston's Creek while high density residential is suggested at the southern edge of the Precinct in the Hordern Place industrial estate. Development is to be appropriately scaled and complement the Precinct's industrial heritage character and the adjacent conservation area's lower density housing.

PRUTS projects long term employment potential (2050) of 2,285 jobs in 136,000sqm of employment floorspace (108,000sqm in the Precinct and 28,000sqm in the Frame Area).

The Site is located on the north-west fringe of the Camperdown Precinct. As the Site interfaces with an established residential suburb to the north, is envisaged to be zoned R3 Medium Density Residential and with an FSR of 1.5:1. Delivery of residential development is identified to be both a short term (2023) and longer-term proposition (2050).

The PRUTS Implementation Plan (2016-2023) guides land use planning and development decisions in the Corridor in the short term. It brings together the actions, timing, delivery responsibility and relevant funding arrangements required to support land use change between 2016 and 2023. Proposals that depart from the staging and sequencing in the Implementation Plan will need to be considered against the 'Out of Sequence Checklist'.

2.3.4 Local Planning Policy

Leichhardt Local Environmental Plan (2013)

The Site is currently zoned IN2 Light Industrial under the Leichhardt Local Environmental Plan (2013). The objectives of the zone are:

- To provide a wide range of light industrial, warehouse and related land uses.
- To encourage employment opportunities and to support the viability of centres.
- To minimise any adverse effect of industry on other land uses.
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.
- To support and protect industrial land for industrial uses.
- To retain existing employment uses and foster a range of new industrial uses to meet the needs of the community.
- To ensure the provision of appropriate infrastructure that supports Leichhardt's employment opportunities.
- To retain and encourage waterfront industrial and maritime activities.
- To provide for certain business and office premises and light industries in the arts, technology, production and design sectors.

The following uses are permitted with consent: agricultural produce industries, depots, educational establishments, garden centres, general industries, hardware and building supplies, industrial training facilities, light industries, neighbourhood shops, places of public worship, roads, storage premises, warehouse or distribution centres.

Leichhardt Industrial Precinct Planning Study (2014)

In 2014, Leichhardt Council commissioned the Leichhardt Industrial Precinct Planning Study (SGS, 2015) to help shape and influence the PRUTS which was being prepared at the time.

With regard the Camperdown Precinct, the IPP study recommended two strategies for consideration:

- Strategy 3a - To develop Camperdown as a distinct commercial precinct (through introduction of a B5 Business Development zone).
- Strategy 3b - To develop Camperdown as an industrial mixed-use precinct (through introduction of a B5 Business Development zone with residential accommodated inserted as a permitted use with consent).

The IPP study was of the view that while “more risky” from the perspective of residential encroachment, that without cross-subsidisation by residential uses, industrial and commercial development in the Camperdown Precinct was unlikely to be financially viable, underpinning the basis for developing Strategy 3b.

While Strategy 3b would in theory preserve a mix of business uses, the IPP study did not recommend the strategy in the absence of participation/ presence in the Precinct by an anchor (e.g. RPA or USYD). The fragility of the development of industrial and commercial floorspace was acknowledged in the IPP study in its interim findings. Notwithstanding, the IPP study recommended that IN2, B5 and B6 zoned sites should encourage 2 storey industrial buildings that “maximise building floorplates on the site and minimise surface car parking or provide basement parking only” (SGS, 2015).

Regardless of strategy (3a or 3b), Council proposed to rezone the periphery of the precinct to B5 Business Development while retaining the central portion (where 1-5 Chester Street is situated) as IN2 Light Industrial.

Figure 2.3 depicts the area recommended for rezoning to B5 Business Development and the area recommended for retention as IN2 Light Industrial.

Figure 2.3: Recommended Rezoning to B5 Business Development and Retention of IN2 Light Industrial

Source: SGS (2015)



2.3.5 Implications for the Site and Precinct

The Camperdown Precinct is recognised at State level (Greater Sydney Region Plan, Eastern City District Plan and PRUTS) as an important health and education precinct, having the potential for increased housing, economic activity and social infrastructure.

Greater Sydney Region Plan and Eastern City District Plan

The District Plan recognises the importance of the Camperdown-Ultimo Collaboration Area which is important to support world class research, educational and health uses. The importance of collaboration between key stakeholders and agencies was important for various reasons, including ensuring complementary and support uses (including a range of housing types and price points for key workers and students) are planned for and provided.

The District Plan affirms PRUTS on the matter of supporting health and education uses. Central to the land uses envisioned under PRUTS is recognition of the importance of supporting education, research and supporting uses associated with the Royal Prince Alfred Hospital and University of Sydney.

Both the Greater Sydney Region Plan and Eastern City District Plan highlight that implementation of PRUTS does not require industrial lands to be subject to the industrial land strategies and action requirements of the Region Plan and District Plan. The requirements of the supporting Implementation Tool Kit are applicable.

Parramatta Road Corridor Urban Transformation Strategy

PRUTS proposes B2 Local Centre, B4 Mixed Use, B5 Business Development and B6 Enterprise Corridor employment zones along Parramatta Road and for the majority of the Camperdown Precinct. Medium density residential is recommended along the northern edge of the Precinct along Johnston's Creek while high density residential is suggested at the southern edge of the Precinct. Both areas act as a transition from future employment to existing residential areas.

Industrial Precinct Planning Study

The IPP study recommends industrial uses be encouraged in 2 storey buildings. It is important to note that industrial uses do not generally respond to density in the same manner as residential or commercial uses do. Industrial buildings that are over 2 storeys or more typically accommodate business and office uses (for example in locations such as Surry Hills, Darlinghurst). Notably, these uses are not permitted under the Leichhardt LEP (2013) which only allows business and office premises in the IN2 zone if they are in the arts, technology, production and design sectors. Unless more commercial-type uses are permitted, 2 storey industrial buildings will not be viable.

Camperdown-Ultimo Collaboration Area

The Camperdown-Ultimo Place Strategy (Place Strategy) builds on the District Plan by identifying how the collaboration area can make better use of its urban structure to add value for students, researchers and practitioners, ultimately to meet its potential as a renowned innovation district. The Place Strategy acknowledges the work of PRUTS in parts of the collaboration area.

The Camperdown-Ultimo Place Strategy identifies a number of complex challenges to the vision, *inter alia*:

- The conversion of industrial and commercial building stocks to residential or mixed use development, limiting availability of employment land and affordable spaces for innovation, research, creative industries and artists and collaborative projects.
- Lack of affordable housing for the community, students, key and creative workers, and limited short-term accommodation for academic and health visitors.

The Proposal has the potential to assist with addressing the specific challenges identified above.

2.4 THE PROPOSAL

The Planning Proposal seeks the following amendments to the Leichhardt Local Environmental Plan (2013):

- Establish a B7 use, a maximum height of 17m, and a site specific FSR control.
- Include a local provision which:
 - Allows boarding house for student accommodation as additional permitted use.
 - Requires a minimum of 980sqm (FSR 0.75:1) to be delivered as non-residential uses.
 - Allows an additional FSR of 1.25:1 for a boarding house to be used as student and/ or key worker housing.

The Proposal would enable a mix of land uses as follows:

- Employment for innovation / creative office (FSR 0.75:1) to accommodate a range of occupiers that could operate in the education and health sectors, and
- Residential boarding house for student accommodation (FSR 1.25:1) accommodating around 50-60 beds to support the education/health and innovation sector.

The retention of the existing quantum of non-residential floorspace for employment use will assist to alleviate the “conversion of industrial and commercial building stocks” as identified in the Place Strategy.

Residential accommodation either in a boarding house would cater a range of residents seeking to live close to the Camperdown-Ultimo Collaboration Area.

3. BASELINE RESEARCH

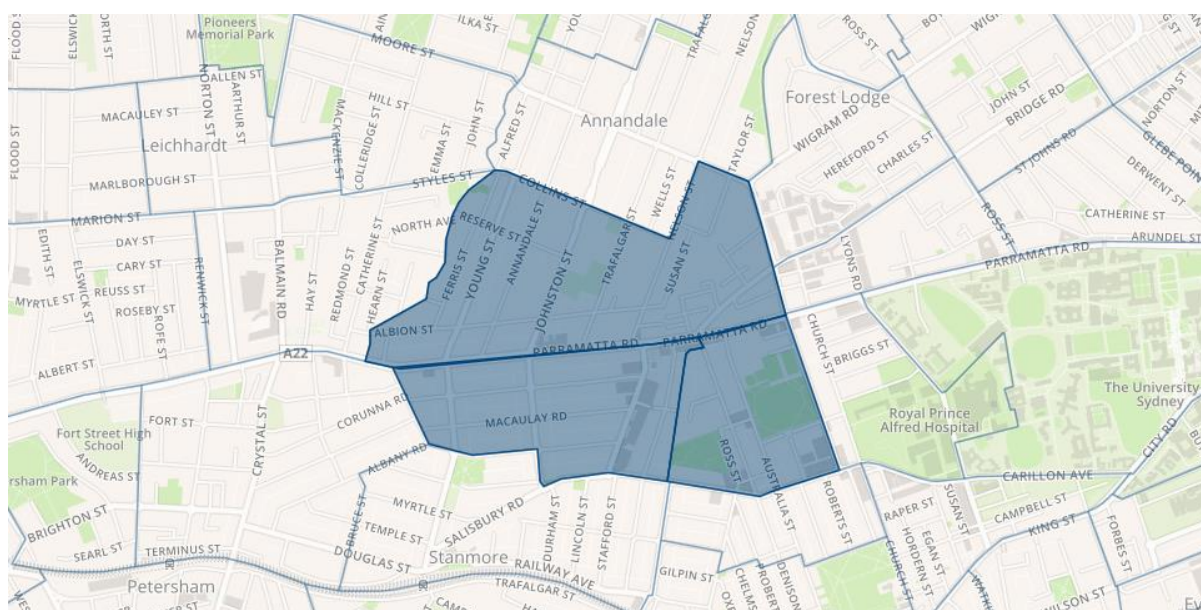
3.1 EMPLOYMENT PROFILE

In order to understand the employment and economic activity occurring in the Camperdown Precinct (where the Site is located), ABS Census data for 2006 and 2011 was analysed using Travel Zone (TZ) from BTS (2014).

Travel zone boundaries (TZ 820, 316 and 237) are the best approximation of the Camperdown Precinct which falls within the Inner West Council local government area. The employment profile provides a contextual indication of the employment structure of the Precinct. Figure 3.1 depicts the area analysed.

While 2016 census data for employment has been released, 2016 data at the TZ level is not yet available.

Figure 3.1: Precinct Statistical Area Analysis (Inner West LGA)



Source: BTS (2014)

Even though the travel zones do not exactly align to the Camperdown Precinct boundary (per PRUTS), they are a useful proxy for understanding employment activity (2011).

Employment Profile

Key employment data for the Precinct highlights:

- Estimated employment of approximately 2,829 people in 2011.
- Professional, scientific & technical services (14.3%), retail trade (13.4%) and construction (10.5%) are the largest employers.
- Key occupations include professionals (25.9%), followed by managers (15.4%) and clerical and administrative workers (13.7%), reflective of its industry profile.

Table 3.1: Employment Profile Overview, Camperdown Precinct

Indicator	
Total Employment	
2011	2,829
2006	2,598
Key Industries	
Professional, Scientific and Technical Services	14.3%

Indicator	
Retail Trade	13.4%
Construction	10.5%
Wholesale Trade	9.7%
Manufacturing	8.2%
Health Care and Social Assistance	8.1%

Source: BTS (2014)

The following sections investigate at a finer grain the composition of employment.

3.1.1 Employment by Industry

There were 2,829 workers employed in the Camperdown Precinct in 2011. There is a notable focus on professional, scientific & technical services (14.3%) and retail trade (13.4%). This highlights dominance in services sector employment.

Table 3.2 demonstrates that between 2006 and 2011 the number of jobs in the Precinct increased by 231 or 8.9%. The largest growth industries by number of jobs were:

- Health care and social assistance (+69 jobs).
- Retail trade (+50 jobs).
- Professional, scientific and technical services (+40 jobs).
- Arts and recreation services (+27 jobs).
- Construction (+49 jobs).
- Information media and telecommunications (+30 jobs).

The industries of manufacturing (-46 jobs), wholesale trade (-28 jobs) and financial & insurance services (-19 jobs) recorded job losses over the period.

Table 3.2: Employment by Industry, 2006-2011 (19 sector, 1-digit ANZSIC), Camperdown Precinct

Industry	2006		2011		Change 2006-2011	
	#	%	#	%	#	%
Agriculture, Forestry and Fishing	5	0.2%	12	0.4%	7	152%
Mining	0	0.0%	0	0.0%	0	0%
Manufacturing	279	10.7%	233	8.2%	-46	-17%
Electricity, Gas, Water and Waste Services	2	0.1%	2	0.1%	1	33%
Construction	249	9.6%	298	10.5%	49	20%
Wholesale Trade	303	11.7%	275	9.7%	-28	-9%
Retail Trade	329	12.7%	379	13.4%	50	15%
Accommodation and Food Services	170	6.5%	208	7.4%	39	23%
Transport, Postal and Warehousing	14	0.5%	16	0.6%	1	10%
Information Media and Telecommunications	104	4.0%	134	4.8%	30	29%
Financial and Insurance Services	42	1.6%	23	0.8%	-19	-46%
Rental, Hiring and Real Estate Services	95	3.7%	86	3.0%	-9	-10%
Professional, Scientific and Technical Services	365	14.1%	405	14.3%	40	11%
Administrative and Support Services	63	2.4%	72	2.5%	8	13%
Public Administration and Safety	87	3.4%	83	2.9%	-4	-5%
Education and Training	140	5.4%	157	5.5%	17	12%
Health Care and Social Assistance	159	6.1%	228	8.1%	69	43%
Arts and Recreation Services	63	2.4%	89	3.2%	27	43%
Other Services	129	5.0%	129	4.5%	-1	-1%
Total	2,598	100.0%	2,829	100.0%	231	8.9%

*totals may not add due to rounding

Source: BTS (2014)

The average annual growth in employment in the Precinct equates to 1.7% over the 2006-2011 period.

3.1.2 Employment by Occupation

The employment profile of the Camperdown Precinct primarily comprises professionals (25.6%), managers (15.4%) and clerical & administrative workers (13.7%).

Table 3.3: Employment by Occupation, 2006-2011 (1-digit ANZSIC), Camperdown Precinct

	No.	%
Managers	435	15.4%
Professionals	725	25.6%
Technicians and Trades Workers	404	14.3%
Community and Personal Service Workers	225	7.9%
Clerical and Administrative Workers	387	13.7%
Sales Workers	340	12.0%
Machinery Operators and Drivers	101	3.6%
Labourers	211	7.5%
Total	2,829	100.0%

*totals may not add due to rounding
Source: BTS (2014)

The Camperdown Precinct has a growing focus on a number of service sectors, including retail (+50 jobs), professional, scientific & technical services (+40 jobs), health care and social assistance (+69 jobs) and information media & telecommunications (+30 jobs). Manufacturing and wholesale trade experienced losses in employment (-46 jobs and -28 jobs respectively).

Furthermore, the high proportion of professionals is reflective of the changing industry profile. The changes in employment indicate a precinct in transition, moving from an industrial to a services base.

3.2 LOCAL DEMOGRAPHIC AND ECONOMIC INFLUENCES

Urban Logistics and Services

The major developing trend set to define the future of industrial uses in Western economies is a focus on urban logistics. The expansion of e-commerce means that successful retailers will be those that have a clear multi-channel strategy, allowing customers to trade across several platforms - online, in store and on mobile.

Many urban support services have time critical requirements for delivery to inner/middle ring locations. Owing to service delivery standards (particularly where there are cold storage requirements), this industry requires accommodation in easily accessible locations proximate to key markets.

There are several urban service businesses within the Precinct that service a local market. With strong population growth in the Inner West and City of Sydney LGAs forecasted to 2036, demand for such services will undoubtedly persist. However, the ability such business within the Precinct to remain viable is largely tied to both market influences and property-specific characteristics (access, building structure, clearance heights, car and truck parking, loading docks, roads, etc.).

The viability of any industrial precinct is a function of both location and property-specific factors. Market dynamics equally influence industrial land; rising land values and supply constraints in other sectors have resulted in industrial precincts recycled for higher or more intense land use.

Local Population Growth

Demand for urban services and logistics is directly linked to the size of the surrounding population, whose growth is largely being driven by the emergence of city living and re-urbanisation of formerly overlooked inner city areas. A larger urban population will require a network of employment lands to facilitate their lifestyle. Whether that be land for construction materials, to service ever-changing retail habits or deliver fast-food to their homes quickly, the need for proximate employment land will expand with population growth.

Changing Employment Character of the Precinct

The Camperdown Precinct is undergoing a notable transition from a historically industrial based area to that of a broader service-based employment area with a strong focus on creative and enterprise uses. The music, film and media industry have established a base within the Precinct whilst a number of creative uses are emerging south of Parramatta Road on Australia Street. Additionally, strong demand is observed from other creative users (production companies), gym and fitness operators whilst large format retailers are seeking space on Parramatta Road.

This transition to a broader population-serving employment area is being driven by a combination of factors. The Precinct's proximity to the University of Sydney and Royal Prince Alfred Hospital inherently provides strong access to a skilled and young workforce. As emerging businesses with a tech or creative focus have increasingly become found on non-traditional work environments in inner city areas, the Precinct lends itself to such users given the existence of many like-minded occupiers and strong amenity (micro-breweries, childcare centres, gyms, etc).

With an influx of demand from non-traditional industrial users, increases in values and rents is understood to have impacted the viability of the area for many traditional industrial uses (e.g. automotive repairers) who typically need to operate from lower cost base. Further to this, growing number of workers and visitors to the Precinct is understood to be a contribution to parking and congestion issues along much of the local road network. This poses challenges for existing occupiers whose operations are reliant on good and unimpeded access.

Higher Education

In 2017, international education was Australia's largest service export and the third largest export overall after iron ore and coal. In 2015, international education was the fourth largest export. This largest service export sector is valuable to Australia's economy and is projected to continue to rank highly in years to come (Deloitte, 2015).

Key institutions of higher learning in the Camperdown Precinct include (2018 total students in brackets):

- University of Sydney (59,400).
- University of Technology Sydney (40,100).
- University of Notre Dame Sydney campus (5,700).
- TAFE Ultimo (not available).

In 2018 there were approximately 105,200 higher education students (EFTSL¹) enrolled in the three institutions listed. This excludes TAFE Ultimo and other institutions of higher learning in the Camperdown area.

Table 3.4 summarises the growth of student enrolments in higher education institutions in Australia. Overall, international students have steadily been increasing in the last decade (except for a decline in 2012-2013).

Table 3.4: Domestic and International Students in Australia, 2019-2018

Students	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
EFTSL										
Domestic	728,171	770,781	796,431	831,391	876,637	905,307	929,211	946,472	957,641	958,502
International	249,891	267,164	270,556	263,281	259,404	271,494	284,192	303,072	334,799	374,320
Total	978,062	1,037,945	1,066,987	1,094,672	1,136,041	1,176,801	1,213,403	1,249,544	1,292,440	1,332,822
% EFTSL										
Domestic	74%	74%	75%	76%	77%	77%	77%	76%	74%	72%
International	26%	26%	25%	24%	23%	23%	23%	24%	26%	28%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Change										
Domestic		5.9%	3.3%	4.4%	5.4%	3.3%	2.6%	1.9%	1.2%	0.1%
International		6.9%	1.3%	-2.7%	-1.5%	4.7%	4.7%	6.6%	10.5%	11.8%
Total		6.1%	2.8%	2.6%	3.8%	3.6%	3.1%	3.0%	3.4%	3.1%

Source: DET

¹ Equivalent full-time student load

In 2018 there were more than 1.3 million students enrolled across Australia. At 105,200 students, University of Sydney, University of Technology Sydney and University of Notre Dame Sydney campus account for almost 8% of total students nationwide.

In 2018 international students comprised 28% of total students enrolled in institutions of higher education across Australia. If a similar proportion was assumed for the three universities above, international students would be estimated to number around 29,500 FTSL students. This excludes TAFE Ultimo and other institutions of higher learning in the Camperdown area.

3.3 MARKET ACTIVITY

This section analyses the nature of market activity observed in the Precinct. Demand, buyer and tenant profile, sale prices and rents and the current development pipeline provide insight into the performance of the Precinct from which a considered assessment is made on the likely impact of the Proposal on the surrounding Precinct.

3.3.1 Employment Land Uses

Market Demand and Occupier Profile

In line with much of the Inner West market, demand for employment land within the Precinct has been robust over the past 12-18 months. Anecdotal evidence from local sales and letting agents indicates the market is relatively tightly held; well-positioned and functional space is typically absorbed within 1-2 weeks from coming to market.

An uptick in activity across the Precinct is being driven by the growing popularity of the area amongst creative users and professional firms. The demand profile of tenants and occupiers within the Precinct has shifted significantly over the past 12-24 months.

Local agents note new interest is overwhelmingly driven by service-orientated businesses; gym and fitness studios, bulky goods retail, media and production firms, niche food and beverage manufacturing. As a result, local agents note many traditional industrial occupiers have found it difficult to compete in the current market given they typically require lower rental rates to be commercially viable compared to the abovementioned uses.

Agents note smaller suites (<300sqm) are currently most popular owing the strong interest from SME businesses with smaller footprint requirements.

The WestConnex project will require a number of industrial properties (67-99 Pyrmont Bridge Road; 160-196 Parramatta Road) as temporary construction sites during the construction phase. While these properties will be temporarily removed from the market, they are expected to be available post-construction and operation of WestConnex.

Sales Evidence

A limited number of sales within the Precinct has occurred over the past 24 months. Notwithstanding the popularity of the Precinct, the area is relatively tightly held among owner occupier businesses. Table 3.5 identifies the most recent sale transactions observed within the Precinct since late 2013.

Table 3.5: Sales Evidence 2013-2017

Address	Area* (sqm)	Sale Price (Sale Date)	Analysis (\$/sqm)	Commentary
North of Parramatta Road				
8/21-29 Chester St	202	\$940,000 (June 2017)	\$4,650	Industrial strata units within strata complex of nine (9). Relatively aged complex (circa 1980s) comprising high roller shutter doors, warehouse space and mezzanine office space. Located north of Parramatta Road at base of a cul-de-sac; road is heavily congested from kerbside parking.
9/21-29 Chester St	185	\$862,500 (May 2015)	\$4,660	
4/21-29 Chester St	314	\$700,000 (March 2015)	\$2,230	

Address	Area* (sqm)	Sale Price (Sale Date)	Analysis (\$/sqm)	Commentary
2/1 Gordon St	317	\$965,000 (Feb 2015)	\$3,050	Relatively modern industrial strata unit comprising high roller shutter doors, hardstand warehouse space and modern mezzanine office space with rear lane access. Purchased by mobile glass repairer.
63-65 Pyrmont Bridge Rd	1,120	\$5,200,000 (Nov 2013)	\$4,650	Large freestanding brick commercial building comprising showroom, warehouse and office space with two high roller shutter doors and on-site parking (25).
South of Parramatta Road				
4/1 Hordern Pl	531	\$1,000,000 (Feb 2017)	\$1,900	Industrial strata unit comprising high roller shutter doors, high internal clearance, hardstand warehouse space, mezzanine office space and carparking (2). Comprised within aged industrial complex (circa 1980s) of 20 units.
29 Australia St	551	\$2,835,000 (March 2016)	\$5,150	Former industrial warehouse converted into modern office space comprising high ceilings, polished concrete flooring, exposed steel trusses, open floor plan, 2.5 bathrooms, kitchen area and on-site parking (3). Recently leased in May 2017 for \$185,000 per annum (\$335/sqm floor area), resulting in a gross yield of 6.5%.
18/1 Hordern Pl	355	\$990,000 (March 2015)	\$2,800	Industrial strata unit comprising high roller shutter doors, high internal clearance, hardstand warehouse space, mezzanine office space and carparking (3). Comprised within aged industrial complex (circa 1980s) of 20 units.
32 Denison St	439	\$1,962,000 (March 2015)	\$4,470	Former industrial warehouse repurposed for office use comprising office space, workshop space and low clearance roller doors.
27 Australia St	443	\$2,385,000 (March 2015)	\$5,400	Former industrial warehouse converted into modern office space comprising high ceilings, polished concrete and timber flooring, exposed steel trusses, open floor plan, one bathrooms and on-site parking (3). Leased in May 2016 for \$180,000 per annum (\$406/sqm floor area), resulting in a gross yield of 7.5%.
5/1 Hordern Pl	557	\$900,000 (Jan 2015)	\$1,600	Industrial strata unit comprising high roller shutter doors, high internal clearance, hardstand warehouse space, mezzanine office space and carparking (2). Comprised within aged industrial complex (circa 1980s) of 20 units.

*Floor area

Source: CoreLogic RP Data/PriceFinder

Notwithstanding the dearth of sales transactions, demand for office space in the Precinct underpins strong sale results. The next section investigates current industrial leasing activity within the Precinct.

Leasing Evidence

Leasing activity within the Precinct has been more notable compared to sales activity as landlords seek to capitalise on strong market conditions and rising rents. Discussions with local letting agents indicates strong demand is witnessed from a range of businesses - gym and fitness uses, media, IT and production companies, child care centres, large format retailers and boutique food and beverage providers. Owing to strong market conditions, well-positioned space is typically leased within 2-4 weeks from coming to market.

Anecdotal evidence from local agents suggests rents are circa \$150/sqm to \$350/sqm of floor area (gross).

- **106-112 Pyrmont Bridge Road, Annandale**

Large commercial building previously used as modern showroom space comprising 810sqm of ground floor space and 790sqm of upper floor space. Leased in September 2017 to Sydney Pole Dancing at \$450/sqm for the ground floor space and \$250/sqm for the upper floor space (\$562,000 per annum). The lease is subject to Development Application for use of property as dance studio.

- **Ground Floor, 212-220 Parramatta Road**

Large showroom space (958sqm) with frontage to Parramatta Road within aged, two storey commercial building previously occupied by an antiques retailer. Leased in August 2017 to a bulky goods retailer for \$333,384 per annum (\$350/sqm gross) under a five (5) year lease. Strong interest was received with the property leasing within 4 weeks coming to market.

- **6/21-29 Chester Street, Annandale**

Leased in March 2017 to a media company for \$60,000 (\$300/sqm gross) for a 3 year term. Was leased quickly following release to market (<4 months) with strong interest from a number of other users. Similar properties within this complex occupied by 'legacy' tenants are leased at much lower rates (circa \$100/sqm gross), indicative of the growth in industrial rents within the Precinct.

- **23 Nelson Street, Annandale**

Small two storey brick commercial building with ground and upper level office space in addition to workshop space leased to a production company in November 2016 for \$90,000 per annum (\$330/sqm gross) under a three year lease. Strong level of interest with the property leased within three weeks of coming to market.

The foregoing leasing evidence correlates with informal discussions held with local leasing agents, indicating strong rents circa \$300/sqm to \$350/sqm of floor area (gross). A number of industrial and showroom spaces are currently on the market (22 Water Street) with asking rents also within this range, circa \$350/sqm of floor area.

The next section investigates commercial and industrial development activity in the Precinct and surrounds.

Development Activity

A review of the development pipeline indicates a dearth of industrial and commercial development proposed in Annandale or Camperdown - adaptive reuse and refurbishments representing the only form development activity.

A DA was submitted to City of Sydney in 2017 to repurpose an aged industrial building (44-50 Australia Street) to office premises comprising a total of five (5) commercial tenancies totalling 1,240sqm of commercial GFA. No new industrial or commercial development is currently proposed within the Precinct north of Parramatta Road.

Additions to the Kennards Self Storage facility at 1-19 Booth Street is in early development. Construction works at 63-65 Pyrmont Bridge Road to convert a warehouse building to accommodate a fitness centre are understood to be in progress.

3.3.2 Residential Land Uses

Private/ Market Housing

The strength of metropolitan Sydney's residential property market has been widely commented upon. Despite much of the recent public commentary regarding a potential pullback in property prices in some residential markets, the long-term outlook for the Sydney residential market remains positive underpinned by strong fundamentals:

- Strong population growth.
- Low interest rates.
- Relatively low unemployment rates.
- Historic undersupply resulting in significant housing shortfall and pent up demand.

These core fundamentals ultimately form the primary drivers of demand for residential property and resulted in the sharp increases in property prices across Sydney over the 2013-16 period. Whilst tempering slightly over the course of 2017, capital growth has continued unabated in the Inner West LGA, particularly in the former Leichhardt LGA.

Table 3.6 outlines how median dwelling prices in the Inner West LGA have soared over the last five years. Price growth was particularly marked in the former Leichhardt LGA where price growth peaked in the 2014-15 period to exceed 20% per annum. Over the five year period of 2012-2017, average annual price growth has been 12.2%.

Rental growth has also been strong, albeit at lower average annual growth rates of 3%-6% in each of the former Inner West LGAs. In contrast, wage growth over the period has been more modest, circa 3%-4% average annual growth.

Table 3.6 Median Dwelling Prices and Rents, Inner West LGA (2012-17)*

Inner West LGA	2012-13	2013-14	2014-15	2015-16	2016-17	Average Annual Change (2012-17)
Median Dwelling Prices						
Ashfield	3.8%	25.6%	11.7%	-2.2%	3.4%	8.0%
Leichhardt	2.1%	16.9%	23.9%	6.4%	12.8%	12.2%
Marrickville	5.2%	6.7%	19.2%	8.6%	10.6%	10.0%
Median Dwelling Rents						
Ashfield	4.9%	2.3%	2.3%	6.7%	1.2%	4.0%
Leichhardt	3.3%	0.8%	4.0%	6.9%	0.7%	3.1%
Marrickville	7.0%	5.4%	2.1%	7.1%	6.6%	5.6%

Source: FACS (2017-2018)

*in the 12 months to September 2018, median dwelling prices in the Inner West LGA were recorded to have fallen 14.4% to \$1,100,000. Rents were recorded to have declined by a modest 1.8% over the 12 months to December 2018.

Despite recent falls in dwelling prices, housing affordability is an enduring issue with historic dwelling price levels far outstripping wage growth.

In tandem with shrinking family sizes and lifestyle changes, higher density product has grown in popularity across many regions of Sydney, particularly within the Inner West of Sydney. Buyers struggling to enter the housing market as well as older couples seeking to downsize from existing housing are collectively driving the demand for higher density living.

Enquires with selling and marketing agents operating within the Annandale area suggest demand is heavily geared to the owner occupier market. The investor market is overwhelmingly locally based - little to no interest from foreign investors has been observed in recent times.

Owner occupier purchasers within the local housing market are predominantly professional couples and families with few FHBs able to compete given the strong housing prices. Whilst many buyers are understood to be local Inner West residents, local agents note the area is continuing to attract a wider catchment of buyers seeking to relocate within the ever-growing popular areas of Annandale, Camperdown and surrounds.

Student Housing

The Australian government recognises the economic significance of Australia's largest service export sector to the national economy. Initiatives to increase the number of onshore university enrolments are ongoing. As such, Australian universities will need to plan their approach to the overseas markets through their course portfolio and availability of student accommodation, the latter which has been identified by as a key factor in maintaining sustainable growth in international student numbers in Australia (Productivity Commission, 2015).

Research conducted by University Colleges Australia (UCA) in 2014 indicated that greater metropolitan Sydney had the largest proportion of international students residing in off-campus dwellings (70%), followed by Melbourne (62%) and Brisbane (57%) (UCA, 2015). In 2014, Sydney and Melbourne were found to have the greatest number of student accommodation than other Australian capital cities combined.

In the vicinity of the Camperdown health and education precinct, the key institutions of higher education are University of Sydney, University Technology Sydney and Notre Dame University Sydney campus. Combined, these three institutions had 105,200 students (FTSL) enrolled in 2018. In 2018, at a national level, international students comprised 28% of total students. Assuming the national proportion of 28%, international students would be estimated to number around 29,500 FTSL enrolled at the three institutions. This excludes TAFE Ultimo and other institutions of higher learning in the Camperdown area.

A high-level review of purpose-built student accommodation (PBSA) indicates 10,500 beds in December 2018. There are approximately 1,500-2,000 beds at various stages of planning and delivery in the development pipeline.

Assuming all PBSA beds in the development pipeline are delivered, there would be approximately 12,000 beds in the Camperdown locality.

This does not cater for the estimated 29,500 international students, let alone interstate or inter-city students ('mobile' students) requiring accommodation on or around campus. This affirms the UCA 2014 Census which indicated that in Sydney alone, there was an undersupply of 74,763 PBSA beds.

Those students unable to secure PBSA are likely to look to neighbouring private rental markets.

3.4 IMPLICATIONS FOR THE SITE AND PRECINCT

Employment Land Uses

The role of industrial lands in Camperdown (north and south of Parramatta Road) is observed to be shifting to accommodate a broad range of service-based businesses concurrent with the decline of traditional manufacturing. These businesses include urban logistics occupiers and the broader services sector (which includes professional services, health care, IT media and telecommunications). The Precinct is desirable to these businesses given its proximity to key markets as well as to the Camperdown health and education precinct.

That said, location alone does not determine the viability of industrial precincts. A raft of other influences both property-specific (access, building design, traffic) and market-specific (rents, prices, nature of demand and supply) equally impact the success and sustainability of industrial lands.

It is evident that the nature of occupier demand within the Precinct has and is continuing to shift to accommodate services employment, which is broader than industrial uses. Such users have, in combination with the current industrial market cycle, contributed to higher prices and rents within the Precinct.

Higher prices have contributed to pricing out some 'traditional' industrial occupiers (automotive services, importers, building suppliers) who have subsequently relocated to more affordable areas, some along Parramatta Road. As 'legacy' tenancies expire, landlords will conceivably seek to secure market rents. Concurrent with higher prices, local agents have noted that many (but not all) traditional industrial uses are beginning to avoid the Precinct as access issues on local streets (street parking) is hindering access by trucks and large vehicles.

These observations indicate that the transition towards that of a broader employment area is a natural evolution of the Precinct. It is evident that the industrial lands in the Precinct call for a more intensive use. Buildings that allow greater densities of employment floorspace will respond to market demand which continues to evolve.

PRUTS' proposed land uses and higher densities in the northern portion of the Precinct (in B5 Business Development zone) align with observed market demand and would allow for more of these mixed business uses.

Residential Land Uses

The District Plan emphasises the need for complementary land uses to support health and education precincts including the Camperdown-Ultimo Collaboration Area. The capacity to provide housing close to transport and employment is a key tenet of PRUTS.

The Proposal will contribute to accommodating housing that is not only close to employment nodes and transport infrastructure but will also have the potential to address demand for student housing.

The next chapter investigates the economic impacts of a rezoning as part of the implementation of PRUTS.

4. ECONOMIC IMPACT ASSESSMENT

4.1 INTRODUCTION AND APPROACH

The following sections examine the estimated economic activity supported through the operational phases following implementation of PRUTS in the Camperdown Precinct. The economic impacts have been assessed at the Inner West Local Government Area (LGA) level.

An Input-Output model, including the development of a series of specific regional Input- Output transaction tables, was developed to reflect the economic structure of the Inner West LGA (refer to Appendix A). Input-Output modelling describes economic activity through the examination of four types of impacts which are defined and described in the table below.

Table 4.1: Economic Indicators

Indicator	Description
Output	Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.
Gross Product	Refers to the value of output after deducting the cost of goods and services inputs in the production process. Gross product (e.g., Gross Regional Product) defines a true net economic contribution and is subsequently the preferred measure for assessing economic impacts.
Income	Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the Project.
Employment	Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow on activity, and is expressed in terms of Full-Time Equivalent (FTE) positions. One FTE job is defined as one person working full time for a period of one year.

Source: AEC

Input-Output multipliers can be derived from open (Type I) Input-Output models or closed (Type II) models. Open models show the direct effects of spending in a particular industry as well as the indirect or flow on (industrial support) effects of additional activities undertaken by industries increasing their activity in response to the direct spending. Closed models re-circulate the labour income earned as a result of the initial spending through other industry and commodity groups to estimate consumption induced effects (or impacts from increased household consumption).

The following estimates consider both Type I and Type II flow on impacts though it should be noted that Type II impacts are commonly considered to overstate economic activity.

4.2 DRIVERS OF ECONOMIC ACTIVITY

The Site falls within the Parramatta Road Corridor, which is identified by NSW Government (Greater Sydney Region Plan, Eastern City District Plan and PRUTS) as having the potential to be a high quality multi-use corridor with improved transport choices, better amenity and balanced growth of housing and jobs.

The Site is currently occupied by Fitzhenry PJ Coach Painting which is a panel beater and car repair business specialising in luxury cars. The business is understood to employ two full time, and two part time workers converting to 3 FTE (full time equivalent).

PRUTS recommends land use change and incorporates a plan for staging and implementation, in the short term 2016-2023 and longer term to 2050. It is supported by a Section 9.1 Ministerial Direction which gives it statutory force. Amendments to land use zones, density and built form controls are proposed to local planning instruments.

Specific to Camperdown Precinct, PRUTS envisages the IN2 Light Industrial zone to no longer apply, replaced with a mix of B2 Local Centre, B4 Mixed Use, B5 Business Development and B6 Enterprise Corridor zones. Furthermore, the floorspace capacity of these lands is increased through application of higher FSRs, ranging from FSR 1.5:1 to FSR 4:1. Current FSRs in the IN2 zone do not exceed FSR 1:1.

By virtue of its location and as part of the overall vision for the Camperdown Precinct, the Site is recommended for medium density residential uses (in an R3 Medium Density Residential zone). As development of the Site assists to achieve the vision for the Camperdown Precinct, it is therefore necessary to examine the economic impacts resulting from implementation of PRUTS planning interventions in the broader Precinct.

In order to understand the economic impacts likely to result from implementation of planning controls (to achieve PRUTS vision), it is necessary to firstly understand the employment and economic activity that may result in a base case where there is no change to existing planning controls. This can then be compared to the employment and economic activity which may result following implementation of PRUTS recommended planning controls.

The assessment also examines the economic impacts of the proposed development, in particular the quantum and nature of workers accommodated, at present and in the proposed development.

4.2.1 Base Case - No Change to Planning Controls

The Camperdown Precinct is at present subject to a mix of employment zones: IN2 Light Industrial, B2 Local Centre, B4 Mixed Use and B7 Business Park. A small portion of the Precinct is zoned R1 General Residential.

The FSR controls are currently as follows:

- IN2 Light Industrial (FSR 1:1).
- B7 Business Park (FSR 1:1).
- B2 Local Centre (FSR 1:1 to FSR 2:1).
- B4 Mixed Use (FSR 1.5:1 to FSR 3:1).

Research in Chapter 3 indicates the Precinct grew at an average annual rate in the order of 1.7% over the 2006-2011 period. Notable growth occurred in services sector employment, particularly in professional services, health care & social assistance, information media & telecommunications. This was met with commensurate decline in the sectors of manufacturing and wholesale trade.

Market investigations affirm the change in employment observed, with many professional firms, design and media companies observed to be showing interest in the area. Owing to traffic congestion and parking difficulties as well as increasing rents and prices, interest from more traditional industrial-type occupiers is observed to be softening.

If the Precinct retained its current suite of planning controls, employment growth is expected to continue at a 'natural rate', not unlike that which occurred in the 2006-2011 period. Though, this natural growth is subject to the Precinct's ability to accommodate businesses' floorspace needs.

Highlighted in section 3.1, 2016 ABS census data has been released, however data at the TZ level is not available for 2016 yet. This section contains analysis carried out in 2017.

Developing a 2017 Starting Point

The employment by industry data for 2017 was estimated by taking the average annual rate of total employment between 2006 and 2011. This amounted to an average growth of 1.7% per annum and was extrapolated to provide the total employment estimate for 2017. The industry mix in 2017 was calculated by using the average contribution derived from historic contribution to change between 2006 and 2011, and the Bureau of Transport Statistics (BTS, 2014) projected contribution to change between 2011 and 2041 for the precinct. Some manual adjustments were made to this derived average where appropriate, and then applied to the estimated 2017 total employment.

A summary of 2006, 2011 and inferred 2017 employment by industry is presented in Table 4.2.

Table 4.2. Employment by Industry, Precinct, 2006, 2011 and 2017

Industry	2006	2011	2017
Agriculture, Forestry and Fishing	5	12	15
Mining	0	0	0
Manufacturing	279	233	224
Electricity, Gas, Water and Waste Services	2	2	3
Construction	249	298	317
Wholesale Trade	303	275	274
Retail Trade	329	379	441
Accommodation and Food Services	170	208	248
Transport, Postal and Warehousing	14	16	20
Information Media and Telecommunications	104	134	158
Financial and Insurance Services	42	23	37
Rental, Hiring and Real Estate Services	95	86	86
Professional, Scientific and Technical Services	365	405	432
Administrative and Support Services	63	72	83
Public Administration and Safety	87	83	85
Education and Training	140	157	179
Health Care and Social Assistance	159	228	284
Arts and Recreation Services	63	89	109
Other Services	129	129	137
Total	2,598	2,829	3,134

Source: ABS (2012), BTS (2014), AEC.

Base Case Employment Projections

The total employment for the Base Case, where there would be no change to planning controls, was estimated by taking the projected growth rate of total employment for the precinct according to Bureau of Transport Statistics projections (BTS, 2014) between 2011 and 2041, of 1.0% per annum on average. This growth rate was applied to 2017 total employment in the precinct to project future total employment for the precinct in 2023 and 2050.

The projected industry mix in the base case was estimated following the same process as described for 2017 above. Projections to 2023 and 2050 by industry are presented in the table below.

Table 4.3. Employment by Industry, Base Case, 2017, 2023 and 2050

Industry	2017	2023	2050
Agriculture, Forestry and Fishing	15	17	26
Mining	0	0	0
Manufacturing	224	219	190
Electricity, Gas, Water and Waste Services	3	3	6
Construction	317	328	389
Wholesale Trade	274	274	270
Retail Trade	441	480	686
Accommodation and Food Services	248	274	407
Transport, Postal and Warehousing	20	23	39
Information Media and Telecommunications	158	173	253
Financial and Insurance Services	37	45	92
Rental, Hiring and Real Estate Services	86	87	89
Professional, Scientific and Technical Services	432	449	537
Administrative and Support Services	83	90	127
Public Administration and Safety	85	86	93
Education and Training	179	194	269
Health Care and Social Assistance	284	320	507
Arts and Recreation Services	109	122	188
Other Services	137	142	170
Total	3,134	3,324	4,337

Source: ABS (2012), BTS (2014), AEC.

In undertaking the economic impacts of this scenario, employment by 1-digit ANZSIC industry in the table were allocated across their respective sub-industries in the Input-Output model based on the shares of sub-industries to their parent 1-digit ANZSIC industry in 2011. These employment estimates were then converted to industry output estimates using the multipliers between output and employment in the Input-Output model.

Only the change in employment/economic activity from 2017 was modelled.

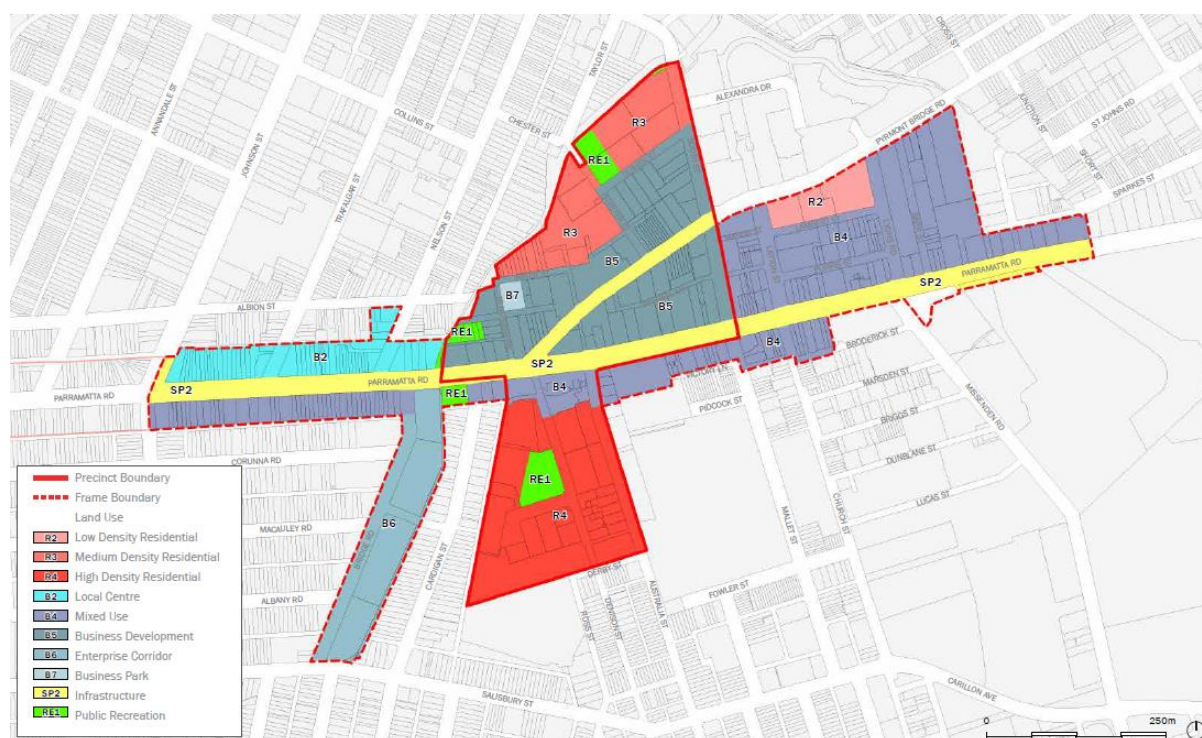
4.2.2 Implementation Case - Implementation of PRUTS Planning Controls

Implementation of PRUTS planning controls would result in land currently zoned IN2 replaced by a mix of business and residential zones, i.e. B5 Business Development, B6 Enterprise Corridor, R3 Medium Density Residential and R4 High Density Residential. Furthermore, higher FSRs are envisaged in all employment/ business zones:

- B5 Business Development (FSR 2:1 to FSR 4:1).
- B6 Enterprise Corridor (FSR 2:1).
- B7 Business Park (FSR 2:1).
- B2 Local Centre (FSR 1.5:1)
- B4 Mixed Use (FSR 1.5:1 to FSR 3:1).

By virtue of greater FSRs, the employment floorspace potential in the Precinct is increased. This Study however only focuses on the floorspace capacity in the B5 and B6 zones (which replace the current IN2 zone) and B7 zone, as any increased floorspace capacity in the B2 and B4 zones is assumed will be purposed for residential uses, which are permitted within the respective zones.

Figure 4.1 depicts the land use zones recommended in PRUTS.

Figure 4.1 Camperdown Precinct Recommended Land Use Zones

Source: UrbanGrowth (2016d)

Change in Employment Floorspace Capacity (Current IN2 Lands)

A high-level estimate of total maximum employment floorspace capacity in the existing IN2 and B7 lands is in the order of 110,000sqm GFA. Following the replacement of the IN2 zone with B5, B6, R3 and R4 zones together with designation of higher FSRs, maximum employment floorspace capacity is estimated at 160,000sqm GFA. This represents an increase in employment floorspace capacity of 50,000sqm GFA in spite of repurpose of some of the IN2 zoned land to residential uses (R3 and R4).

Table 4.4 contains the comparison of employment floorspace capacity. Note that increase in floorspace capacity in the B2 and B4 zones is *not considered* as the additional capacity is assumed to be purposed for residential uses.

Table 4.4: High-level Estimate of Employment Floorspace Capacity

Land Use Zone	Site Area (sqm)	FSR	Total GFA Potential (sqm)	
Existing Planning Controls				
IN2 Light Industrial	68,060	1:1	68,060	109,356
	41,296	1:1	41,296	
B7 Business Park	1,245	1:1	1,245	1,245
B2 Local Centre	16,730	1:1	16,730	32,297
	9,115	1.5:1 to 2:1	15,567	
B4 Mixed Use	47,330	2:1 to 3:1	117,838	150,659
	17,196	1.5:1 to 3:1	32,822	
Implementation of PRUTS Planning Controls				
B5 Business Development	43,025	1.5:1 to 4:1	122,833	122,833
B6 Enterprise Corridor	16,356	2:1	34,348	34,348
B7 Business Park	1,245	2:1	2,615	2,615
B2 Local Centre	16,730	1.5:1	25,095	25,095
B4 Mixed Use	47,330	2:1 to 3:1	117,838	168,801
	26,311	1.5:1 to 3:1	51,963	

*site areas scaled from aerial photography and include heritage items and strata titled blocks

Source: AEC

Following implementation of PRUTS planning controls, the existing IN2 zoned lands capacity increases from circa 109,356sqm GFA to 157,181sqm GFA (comprised of lands in new B5 and B6 zones). The small component of existing B7 lands capacity doubles from 1,245sqm GFA to 2,615sqm GFA.

While the floorspace capacity in the B2 and B4 zoned lands is also expected to increase with the implementation of PRUTS planning controls, this additional capacity is not considered in the modelling. This is in line with an assumption that the additional floorspace capacity will likely be purposed for residential uses.

Change to Zone Objectives and Permissible Uses

While the increase to employment floorspace capacity in the existing IN2 lands (by circa 50,000sqm GFA) is a key implication of implementation of PRUTS planning controls, the change in land use zone to B5 and B6 would additionally mean a change in zone objectives and permissible uses to land currently zoned IN2.

The Leichhardt LEP (2013) does not currently have a B5 or B6 zone whereas the Marrickville LEP (2011) does. PRUTS notes that permissible uses in the B5 and B6 zones will be subject to Inner West Council's requirements.

This Study is guided by the zone objectives and permissible uses contained in the Marrickville LEP. **Table 4.5** presents the zone objectives of the current IN2 Light Industrial zone (Leichhardt LEP) and notes potential objectives and permissible uses that could be applied to the B5 and B6 zones (by applying provisions in the Marrickville LEP).

Table 4.5: Zone Objectives and Permitted Uses

Zone Objectives	Permitted with Consent	Prohibited
B5 Business Development		
<ul style="list-style-type: none"> To enable a mix of business and warehouse uses, and bulky goods premises that require a large floor area, in locations that are close to, and that support the viability of, centres. To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house. To support urban renewal and a pattern of land use and density that reflects the existing and future capacity of the transport network. 	Bulky goods premises, centre-based child care facilities, dwelling houses, food and drink premises, garden centres, hardware and building supplies, hotel or motel accommodation, landscaping material supplies, light industries, markets, passenger transport facilities, respite day care centres, roads, serviced apartments, vehicle sales or hire premises, warehouse or distribution centres.	Various including <i>inter alia</i> : industries, residential accommodation, retail premises, transport depots, truck depots, vehicle body repair workshops, vehicle repair stations.
B6 Enterprise Corridor		
<ul style="list-style-type: none"> To promote businesses along main roads and to encourage a mix of compatible uses. To provide a range of employment uses (including business, office, retail and light industrial uses). To maintain the economic strength of centres by limiting retailing activity. To provide for residential uses, but only as part of a mixed development. To enable a purpose built dwelling house to be used in certain circumstances as a dwelling house. 	Business premises, community facilities, dwelling houses, food and drink premises, garden centres, hardware and building supplies, hotel or motel accommodation, landscaping material supplies, light industries, markets, neighbourhood shops, office premises, passenger transport facilities, plant nurseries, roads, self-storage units, serviced apartments, vehicle sales or hire premises, warehouse or distribution centres.	Various uses including <i>inter alia</i> : centre-based child care facilities, commercial premises, industries, residential accommodation, storage premises.
B7 Business Park		
<ul style="list-style-type: none"> To provide a wide range of office and light industrial uses. To encourage employment opportunities. To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. To provide for limited residential development in conjunction with permissible active ground floor uses. To provide for certain business and office premises and light industries in the arts, technology, production and design sectors. 	Centre-based child care facilities; Garden centres; Hardware and building supplies; Light industries; Neighbourhood shops; Office premises; Oyster aquaculture; Passenger transport facilities; Respite day care centres; Roads; Tank-based aquaculture; Warehouse or distribution centres; Any other development not specified.	Various uses including <i>inter alia</i> : centre-based child care facilities, heavy industries, health services facilities, pubs, restaurants or cafes, shops.

Zone Objectives	Permitted with Consent	Prohibited
<ul style="list-style-type: none"> To provide for certain business and office premises and light industries in the arts, technology, production and design sectors. 		

Source: Marrickville City Council (2011), Leichhardt Municipal Council (2013)

A change in land use zone from IN2 Light Industrial to B5 Business Development would effectively permit a range of mixed business uses (including those that are light industrial in nature), as well as uses that contribute to positive worker amenity such as child care centres, food and drink premises, restaurants, cafés, etc.

The floorspace requirements of services sector employment (particularly those associated with the Ultimo-Camperdown Collaboration Area) are generally those of commercial premises, be they business or office-type floorspace. The proposed business zones and increased floorspace capacities would certainly assist in accommodating the types of businesses attracted to the Precinct.

Implementation Case Projections

The total employment for the Implementation Case was estimated by taking the projected growth rate of total employment for the precinct according to the vision for jobs growth in PRUTS planning and design guidelines between 2023 and 2050, of 1.8% per annum on average. This growth rate was applied to 2017 total employment in the precinct to project future total employment for the precinct in 2023 and 2050.

The projected industry mix in the implementation case was estimated following the same process as described for estimating the 2017 employment starting point in section 4.2.1, though some minor differences in adjustment were made to reflect an anticipated higher prevalence of office-type activities in the Implementation Case. Projections to 2023 and 2050 by industry are presented in the table below.

Table 4.6. Employment by Industry, Implementation Case, 2017, 2023 and 2050

Industry	2017	2023	2050
Agriculture, Forestry and Fishing	15	18	35
Mining	0	0	0
Manufacturing	224	215	161
Electricity, Gas, Water and Waste Services	3	4	8
Construction	317	329	401
Wholesale Trade	274	271	254
Retail Trade	441	506	900
Accommodation and Food Services	248	290	546
Transport, Postal and Warehousing	20	25	56
Information Media and Telecommunications	158	183	335
Financial and Insurance Services	37	66	244
Rental, Hiring and Real Estate Services	86	88	98
Professional, Scientific and Technical Services	432	487	826
Administrative and Support Services	83	100	207
Public Administration and Safety	85	88	109
Education and Training	179	203	346
Health Care and Social Assistance	284	343	701
Arts and Recreation Services	109	130	257
Other Services	137	148	218
Total	3,134	3,324	5,703

Source: ABS (2012), UrbanGrowth (2016d), AEC.

In undertaking the economic impacts of this scenario, employment by 1-digit ANZSIC industry in the table were allocated across their respective sub-industries in the Input-Output model based on the shares of sub-industries to their parent 1-digit ANZSIC industry in 2011. These employment estimates were then converted to industry output estimates using the multipliers between output and employment in the Input-Output model.

Only the change in employment/ economic activity from 2017 was modelled.

Referring more specifically to the Site, the proposed non-residential floorspace (FSR 0.75:1) is expected to appeal to creative-type professionals seeking to locate close to transport, services and within the Camperdown education and health precinct.

4.3 ECONOMIC ACTIVITY AND IMPACTS

The economic impacts/contribution can be traced through the economic system via:

- **Direct impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Indirect Impacts (Flow-on impacts)**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales. Flow-on impacts can be disaggregated to:
 - **Indirect Impact (Type I)** represents the production induced support activity as a result of additional expenditure by the industry experiencing the stimulus on goods and services in the intermediate usage quadrant, and subsequent round effects of increased purchases by suppliers in response to increased sales.
 - **Indirect Impact (Type II)** represents the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the economic system.

The premise behind Type I and Type II indirect impacts applies across both the construction and operational phase, except the impacts on industry will be different. For example, Type I impacts during the construction phase may include professional services (e.g. architects, engineers), manufacturing (steel, construction materials) while examples of Type I impacts during the operational phase may include manufacturing (food and beverage, food related), administrative and support services (e.g. building cleaning, employment services, travel agencies, etc.).

4.3.1 Base Case - No Change to Planning Controls

2017 to 2023

The estimated additional direct and flow-on activity in 2023 (compared to 2017) associated with the Base Case scenario is estimated to be:

- \$88.5 million in output (including \$38.6 million in direct activity).
- \$48.4 million contribution to Gross Regional Product (GRP, including \$20.9 million in direct activity).
- \$26.9 million in incomes and salaries paid.
- 377 full-time equivalent (FTE) jobs (including 191 direct employees).

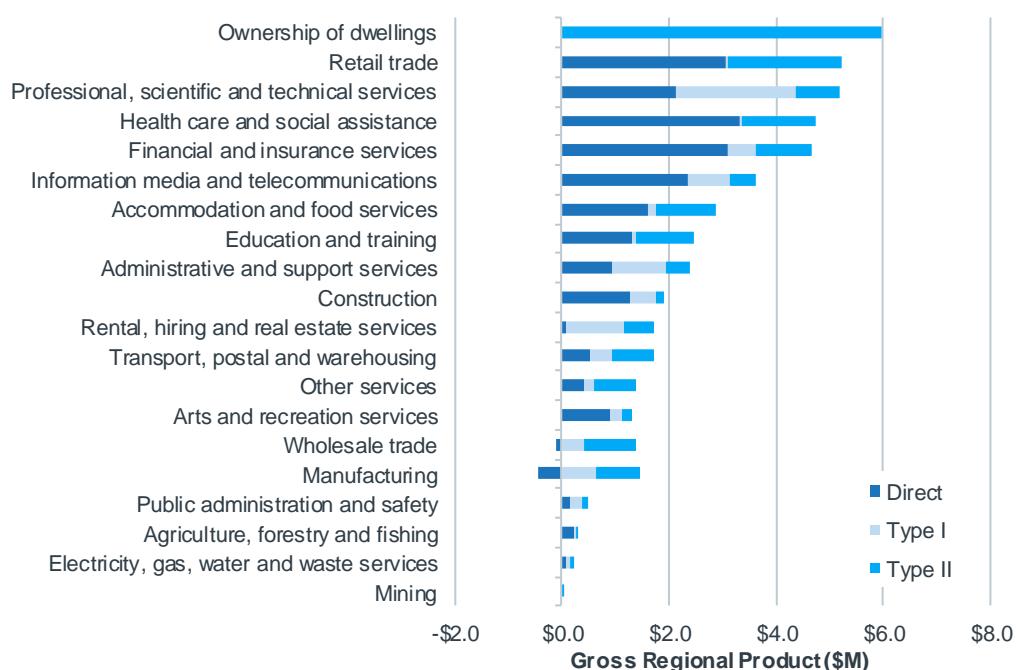
Table 4.7. Additional Operational Impacts, The Base Case (2017-2023)

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTEs)
Direct	\$38.6	\$20.9	\$13.4	191
Type I Flow-On	\$18.1	\$8.6	\$5.2	63
Type II Flow-On	\$31.8	\$18.9	\$8.3	122
Total	\$88.5	\$48.4	\$26.9	377

Source: AEC

Major industry beneficiaries of additional activity in the base case in 2023 include:

- Ownership of dwellings (GRP of \$6.0 million).
- Retail trade (GRP of \$5.1 million).
- Professional, scientific and technical services (GRP of \$5.1 million).

Figure 4.2. Additional Gross Regional Product (GRP) Impacts by Industry, The Base Case (2017-2023)

Source: AEC

2017 to 2050

The estimated additional direct and flow-on activity in 2050 (compared to 2017) associated with the Base Case scenario is estimated to be:

- \$588.4 million in output (including \$243.7 million in direct activity).
- \$305.3 million contribution to Gross Regional Product (GRP, including \$131.6 million in direct activity).
- \$169.8 million in incomes and salaries paid.
- 2,376 full-time equivalent (FTE) jobs (including 1,204 direct employees).

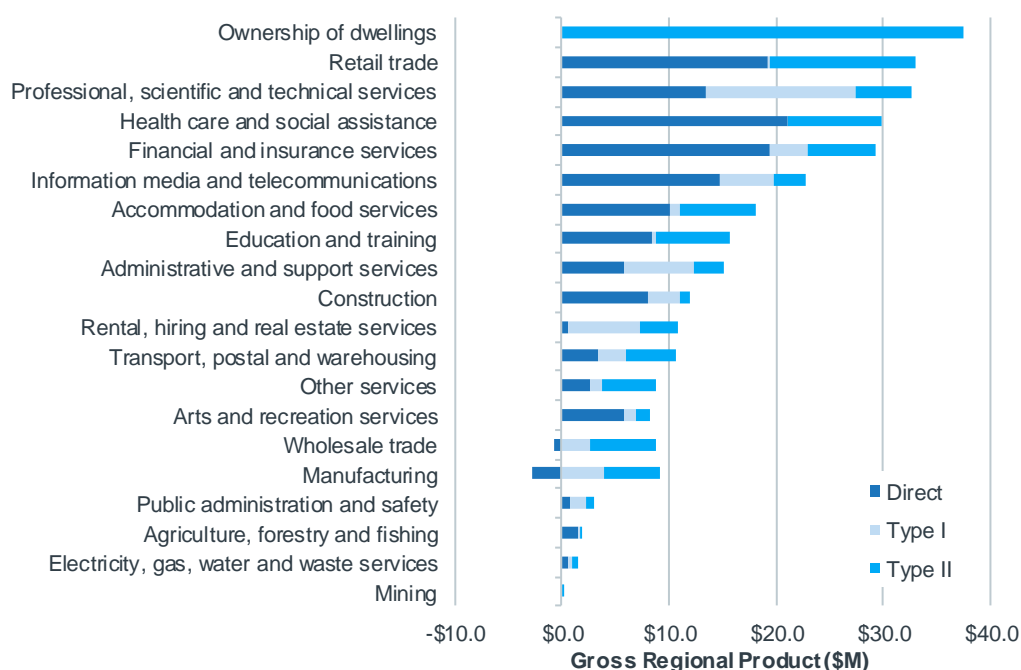
Table 4.8. Additional Operational Impacts, The Base Case (2017-2050)

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTEs)
Direct	\$243.7	\$131.6	\$84.6	1,204
Type I Flow-On	\$113.9	\$54.4	\$32.9	401
Type II Flow-On	\$200.8	\$119.2	\$52.2	772
Total	\$558.4	\$305.3	\$169.8	2,376

Source: AEC

Major industry beneficiaries of additional activity in the base case in 2050 include:

- Ownership of dwellings (GRP of \$37.6 million).
- Retail trade (GRP of \$33.0 million).
- Professional, scientific and technical services (GRP of \$32.7 million).

Figure 4.3. Additional Gross Regional Product (GRP) Impacts by Industry, The Base Case (2017-2050)

Source: AEC

4.3.2 Implementation Case - Implementation of PRUTS Planning Controls

2017 to 2023

The estimated additional direct and flow-on activity in 2023 (compared to 2017) associated with implementing the PRUTS planning controls is estimated to be:

- \$178.9 million in output (including \$77.9 million in direct activity).
- \$99.7 million contribution to Gross Regional Product (GRP, including \$43.5 million in direct activity).
- \$54.9 million in incomes and salaries paid.
- 737 full-time equivalent (FTE) jobs (including 360 direct employees).

Table 4.9. Additional Operational Impacts, Implementation Case (2017-2023)

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTEs)
Direct	\$77.9	\$43.5	\$27.3	360
Type I Flow-On	\$36.0	\$17.7	\$10.8	127
Type II Flow-On	\$65.0	\$38.6	\$16.9	250
Total	\$178.9	\$99.7	\$54.9	737

Source: AEC

Major industry beneficiaries of the implementation of PRUTS planning controls in 2023 include:

- Professional, scientific and technical services (GRP of \$14.0 million).
- Financial and insurance services (GRP of \$13.6 million).
- Ownership of dwellings (GRP of \$12.2 million).

Figure 4.4. Additional Gross Regional Product (GRP) Impacts by Industry, Implementation Case (2017-2023)



Source: AEC

2017 to 2050

The estimated additional direct and flow-on activity in 2050 (compared to 2017) associated with implementing the PRUTS planning controls is estimated to be:

- \$1,275.4 million in output (including \$555.6 million in direct activity).
- \$711.0 million contribution to Gross Regional Product (GRP, including \$310.0 million in direct activity).
- \$391.7 million in incomes and salaries paid.
- 5,251 full-time equivalent (FTE) jobs (including 2,569 direct employees).

Table 4.10. Additional Operational Impacts, Implementation Case (2017-2050)

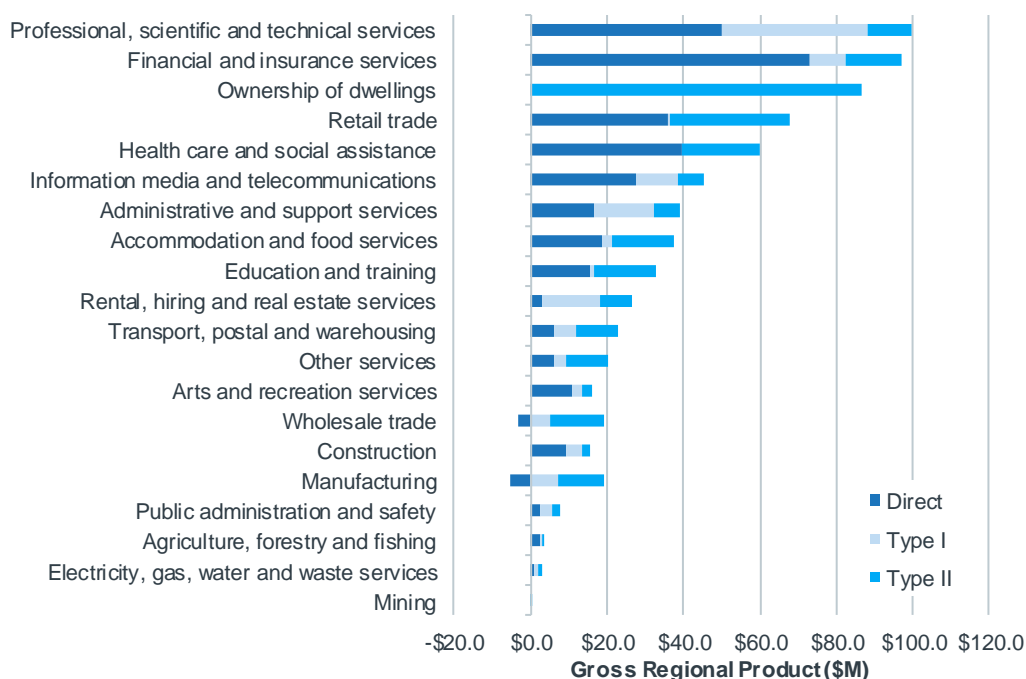
Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTEs)
Direct	\$555.6	\$310.0	\$194.5	2,569
Type I Flow-On	\$256.7	\$126.1	\$76.7	902
Type II Flow-On	\$463.2	\$275.0	\$120.5	1,780
Total	\$1,275.4	\$711.0	\$391.7	5,251

Source: AEC

Major industry beneficiaries of the implementation of PRUTS planning controls in 2050 include:

- Professional, scientific and technical services (GRP of \$99.9 million).
- Financial and insurance services (GRP of \$97.2 million).
- Ownership of dwellings (GRP of \$86.7 million).

Figure 4.5. Additional Gross Regional Product (GRP) Impacts by Industry, Implementation Case (2017-2050)



Source: AEC

4.3.3 Net Increase in Economic Activity

The Implementation Case is projected to result in an additional contribution to the Inner West LGA economy of \$51.4 million in GRP and 360 FTE jobs in 2023 compared to what would be expected under the Base Case. This represents the *net increase* in economic activity projected by amending the planning controls in the Precinct.

Projections to 2050 indicate amendment of the planning controls as per the Implementation Case could result in a net increase of \$405.8 million in GRP and 2,875 FTE jobs by 2050 compared to the Base Case.

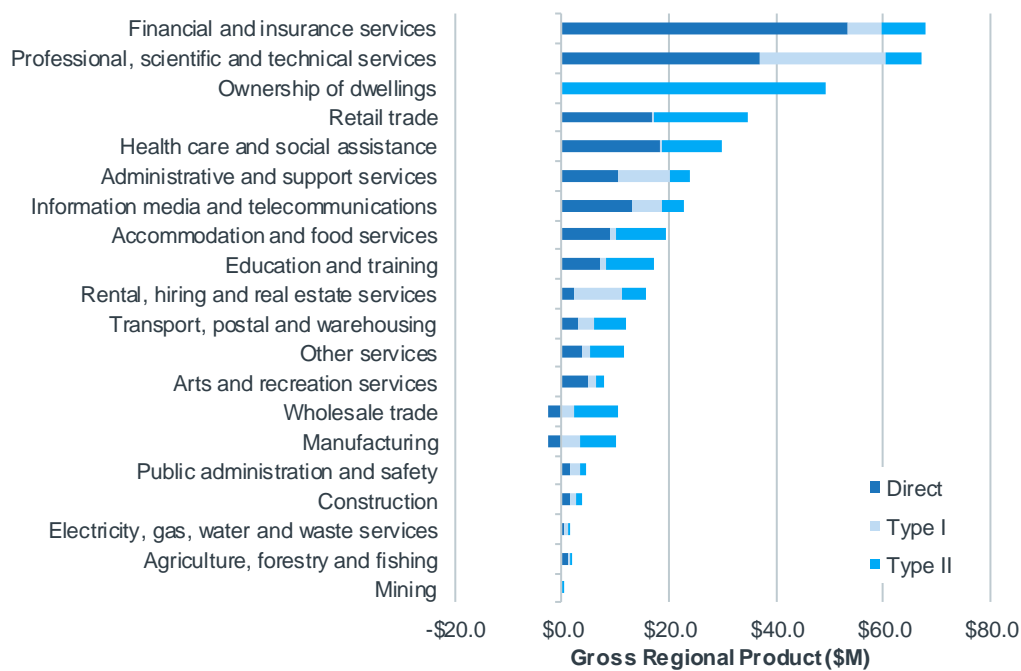
Table 4.11. Comparison of Additional Operational Impacts, Base Case v Implementation Case

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTEs)
2023				
Direct	\$39.3	\$22.6	\$13.9	170
Type I Flow-On	\$18.0	\$9.1	\$5.5	63
Type II Flow-On	\$33.1	\$19.7	\$8.6	127
Total	\$90.4	\$51.4	\$28.0	360
2050				
Direct	\$311.9	\$178.4	\$109.9	1,366
Type I Flow-On	\$142.8	\$71.6	\$43.8	501
Type II Flow-On	\$262.4	\$155.8	\$68.3	1,008
Total	\$717.0	\$405.8	\$221.9	2,875

Source: AEC

Significant industry beneficiaries of the revision to planning controls include:

- Financial and insurance services (net increase in GRP in 2050 of \$67.9 million)
- Professional, scientific and technical services (net increase in GRP in 2050 of \$67.2 million).

Figure 4.6. Net Additional Gross Regional Product (GRP), Implementation Case v Base Case (2050)

Source: AEC

Implementation of the PRUTS planning controls will assist to position the Precinct to meet market demand. Equally important will be the facilitation of greater floorspace capacity to accommodate more intensive employment and economic activity. By 2050 total additional jobs are estimated to be 2,875 with \$717 million in additional output and \$406 million in gross regional product (GRP).

Development on the Site itself will assist in meeting market demand for professional and creative-type workers, with the existing quantum of non-residential floorspace retained in a new development.

5. POLICY ASSESSMENT

The Proposal seeks to rezone to B7 Business Park zone of the Site to facilitate development of innovative/creative office floorspace and residential accommodation to be used as student and/ or key working housing.

Chapter 4 examined the economic and employment impacts of implementation of PRUTS planning controls which includes repurposing current IN2 zoned land into a mix of B5, B6, R3 and R4 zones. This chapter examines the net economic impacts that are expected to result from Proposal, which envisages fewer dwellings and retention of non-residential floorspace compared to PRUTS.

5.1 ECONOMIC BENEFITS AND COSTS

Economic Benefits

Implementation of PRUTS planning controls will enable the Precinct to transition into a more intensive employment precinct, in line with the change in employment profile that is already occurring. The designation of mixed business zones will allow light industrial activity to remain, as well as facilitate services sector employment such as professional services, IT media & telecommunications, health care & social assistance, arts & recreation, etc.

The proposed increase in dwellings will contribute towards creating more of a mix of multi-dwelling housing locally, particularly in a location close to a transport corridor. In a locality where the household sizes are small and decreasing relative to metropolitan Sydney, there will be commensurate demand for units and multi dwelling product types. Units are the most affordable dwelling types so an increase in units is beneficial for affordability.

The availability of housing options close to employment centres (not just Sydney CBD but also to employment centres of Camperdown, Surry Hills and Ultimo) has positive productivity benefits as it not only helps to reduce travel times but also alleviates pressure on infrastructure and transport networks.

The provision of new dwellings has the potential to generate adverse externalities on traffic, travel times, congestion, etc. in the vicinity. Whilst we note this potential, it is not the purpose of this Study to assess traffic impacts which will be considered by a specialist consultant. As such for the purposes of this Study it is assumed that adverse traffic and transport impacts would be mitigated by appropriate provisions in the Proposal.

The Proposal would increase the potential for workers to live locally and could increase job containment rates, reduce the negative time, cost and congestion externalities associated with commuting. It would also assist ensuring labour supply and population growth is not constrained by a lack of local housing.

There are an estimated 29,500 international students enrolled in major institutions of higher education in the Camperdown health and education precinct. Existing PBSA (purpose-built student accommodation) beds is estimated at 10,500 with approximately 1,500-2,000 beds proposed in the pipeline. Assuming all proposed beds eventuate into delivery, a total of 12,500 beds would be the result, less than 40% the estimated international students (not allowing for interstate or inter-city students). Students unable to secure PBSA will rely on the private rental market.

Economic Costs

Based on the analysis in this Study, the key economic cost of the Proposal is the repurposing of IN2 Light Industrial land for residential uses.

As the foregoing analysis shows, under PRUTS the repurposing of current IN2 lands to B7 Business Park is accompanied by a repurpose to B5 and B6 zones which are intended to:

- Meet market demand for a mix of business uses and provide more intensive employment opportunities.
- Increase the employment floorspace capacity of the Precinct to accommodate a greater number of workers.
- Provide synergistic support to the Camperdown Education and Health Precinct by accommodating a range of services sector employment uses, including professional services, health care & social assistance.

The Proposal itself will contribute to meeting market demand, with non-residential floorspace accommodating those professional service and creative jobs seeking space in the Precinct and residential floorspace for those seeking to be close to the Camperdown-Ultimo Collaboration Area.

While some businesses will be displaced as sites in the Precinct are redeveloped, there will be a net increase in economic activity following full implementation of PRUTS (additional 1,366 direct jobs and \$178.4 million in GRP). Notably, redevelopment of the Precinct is expected to occur over a period of time.

5.2 NET ECONOMIC IMPACTS

To compare the outcome of the Base Case versus the Implementation Case, each of the identified impacts compared to the Base Case are summarised and ranked based on the rating system outlined in **Table 5.1**.

Table 5.1: Economic Impact Rating Matrix

Severity of Impact	Score	Explanation
Strong Positive Impact	+3	The scenario would make a strong positive contribution towards this impact compared to the Base Case
Slight Positive Impact	+1	The scenario would make a slight positive contribution towards this impact compared to the Base Case
Neutral Impact	0	The scenario would make neither positive or a negative contribution towards this impact compared to the Base Case
Slight Negative Impact	-1	The scenario would make a slight negative contribution towards this impact compared to the Base Case
Strong Negative Impact	-3	The scenario would make a strong negative contribution towards this impact compared to the Base Case

Source: AEC

Table 5.2 identifies the economic impacts and derives a total score for Proposal using the Base Case as the starting point of '0'. The higher the positive score the greater the net positive economic impact from a community perspective, the lower the score the greater the adverse economic impact.

Table 5.2: Total Economic Impact of Base Case versus Implementation Case

Impact	Base Case	Rating	Implementation Case	Rating
Employment & Economic Impact				
Output (\$M)	\$558.4	+1	\$1,275.4	+3
GRP (\$M)	\$305.3	+1	\$711.0	+3
Income (\$M)	\$169.8	+1	\$391.7	+3
Employment (FTE)	2,376	+1	5,251	+3
Compatibility with Strategic Plans and Clusters				
Ultimo-Camperdown Collaboration Area	Accommodates some health care & service sector employment but overall limited to meet market demand	+1	Much greater floorspace capacity and zone objectives compatible with encouraging a broad range of business and enterprise uses	+3
Parramatta Road Corridor Urban Renewal	N/A	0	Contribute to achieving vision of PRUTS as acknowledged by State strategic plans	+3
Housing Impact				
Housing Supply	N/A	0	43	+3
Homes Close to Jobs	N/A	0	Yes	+3
Total		5		24

Source: AEC

The Implementation Case would deliver a clear, strong positive economic impact comparative to the Base Case. Delivery of the Proposal contributes to achievement of the PRUTS vision and will make a positive net contribution subject to the resolution of required infrastructure and services delivery.

5.3 SECTION 9.1(2) DIRECTIONS

The Section 9.1(2) direction (specifically 1.1 Business and Industrial Zones) as applicable to the EIA is considered.

The objectives of this direction are to:

- Encourage employment growth in suitable locations.
- Protect employment land in business and industrial zones.
- Support the viability of identified strategic centres.

The Proposal's consistency with the s9.1 Direction for Business and Industrial zones is outlined in Table 5.3.

Table 5.3: Consistency with Section 117 Direction - 1.1 Business and Industrial Zones

No.	Provision	Comment	Consistency
A Planning Proposal must:			
a	Give effect to the objectives of this direction	The Proposal seeks to achieve the objectives of the PRUTS Camperdown Precinct to: <ul style="list-style-type: none"> • Encourage employment growth within an existing employment precinct. • Transition existing industrial land to mixed business in response to an increase services sector employment and decline in traditional manufacturing employment. • Ensure viable and permissible uses that support the Ultimo-Camperdown Collaboration Area. 	Yes
b	Retain the areas and locations of existing business and industrial zones	The Camperdown Precinct will be rezoned from IN2 Light Industrial to a mix of business zones (B5 Business Development and B6 Enterprise Corridor). There would be no net loss of land available for employment uses.	Yes
c	Not reduce the total potential floorspace area for employment uses and related public services in business zones	PRUTS provides for a significant uplift in total potential employment floorspace.	Yes
d	Not reduce the total potential floorspace area for industrial uses in industrial zones	The Camperdown Precinct will be rezoned from IN2 Light Industrial to a mixed of business zones. Light industries would continue to be permissible within the new zones.	Yes
e	Ensure that proposed new employment areas are in accordance with a strategy that is approved by the D-G of the Department of Planning	The Proposal is in line with the objectives of PRUTS which is a strategy adopted by State Government and has statutory weight. PRUTS recognises the importance of land uses that will support education and health related activities of the Camperdown-Ultimo Collaboration Area, identified both in Greater Sydney Region Plan and Eastern City District Plan.	Yes

Source: AEC

A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are:

- justified by a strategy which:
 - gives consideration to the objective of this direction, and
 - identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and
 - is approved by the Director-General of the Department of Planning, or
- justified by a study (prepared in support of the planning proposal) which gives consideration to the objective of this direction, or
- in accordance with the relevant Regional Strategy, Regional Plan or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or
- of minor significance.

In addition to contributing to housing close to established employment centres, the Proposal itself is expected to contribute to providing opportunities for business within the non-residential floorspace proposed. Overall, the Proposal is progressed in accordance with PRUTS which is aimed at enhancing the provision of housing and jobs.

5.4 GREATER SYDNEY REGION PLAN

Objective 23 of the Region Plan states that the retention, growth and enhancement of industrial and urban services land across Greater Sydney should be reflective of the differing needs of the three Cities. The approaches to managing industrial and urban services land are:

- Retain and manage, applicable to the Eastern City, North West Growth Area and established industrial areas in the Western City including the Western Sydney Employment Area.
- Review and manage, applicable to established areas of the Central City, Hornsby, Liverpool and Fairfield.
- Plan and manage, applicable to the South West and Western Sydney Airport growth areas.

Importantly, the Region Plan notes that the lands within PRUTS are not subject to the industrial land strategies and actions of the Region Plan. Instead, development of industrial lands within the Corridor is to be guided by the Parramatta Road Corridor Implementation Tool Kit as PRUTS and the Implementation Tool Kit have been subject to an extensive planning process.

5.5 EASTERN CITY DISTRICT PLAN

The Implementation Case responds to the Eastern City District Plan in a number of key areas, specifically contributing to Productivity Priority 2 which seeks to support the growth of innovation and creative industries.

The Camperdown Precinct is distinctly demonstrating growth in services employment (e.g. professional services, health care & social assistance and information media & technologies). This is consistent with its location on the fringe of the Camperdown-Ultimo Collaboration Area, proximity to Sydney CBD and the high-knowledge resident base of the Inner West. The services sector jobs seeking to locate in Camperdown could conceivably incorporate elements of research, development and innovation (associated with health and education) are generally accommodated in commercial premises and less so in industrial-type premises.

The land use and density changes envisaged by PRUTS would enable the transition of Camperdown to a services sector employment precinct in line with the strategies of Productivity Priority 2 which:

- Provides flexibility in appropriate zones for the co-location of creative industries in desirable locations with access to transport and ancillary uses such as retail, cafés and restaurants.
- Incentivises opportunities for the provision of affordable space for creative and start-up businesses.
- Enhances synergies and connectivity between health and education facilities.
- Supports increased opportunities for a diversity of housing choices including price points close to work opportunities.

The Proposal itself (with provision of non-residential floorspace) will contribute to supporting professional services and creative-focused employment, particularly as market demand for these types of industries is growing.

5.6 PARRAMATTA ROAD CORRIDOR URBAN RENEWAL

The evolution of a traditional industrial area is not new. Until recently most of Southern Employment Lands (South Sydney) was zoned for industrial purposes (IN1 and IN2 zones). The emergence of new forms of business and enterprise in the area (e.g. high tech and creative industry, service retail and distribution activity) meant that a variety of floorspace was required close to customer bases, the airport and inner ring distribution networks.

The City of Sydney responded to the evolution of business activity and in 2015 rezoned large proportions of the Southern Employment Lands to B6 Enterprise Corridor and B7 Business Park to allow for a wider range of business activities and employment opportunities.

The permissibility of a wide range of business uses in Southern Employment Lands has enabled a diversification of the local economy and has contributed to the area's wide appeal as a business or employment precinct. The built form that subsists in the Southern Employment Lands does not resemble that of Macquarie Park (which is characterised by large campus-style buildings), rather there is a co-location of industrial and warehouse space with

retail, office and community facilities, many of which are in smaller format buildings. Tenant amenity is observed to be improving with the adaptive reuse of some warehouses to accommodate various retail uses including artisan food and drink providers.

The future role of the Camperdown Precinct is without question important. The importance of enabling the transition of Camperdown Precinct to a mixed enterprise area with greater capacity accommodate land uses to support the education, research and associated uses of the hospital and universities is central. This would ensure the ability of the Precinct to continue to meet the needs of business and industry.

A change of land use zones to mixed business and concurrent increase to FSR controls cumulatively enhance the competitive standing of the Precinct as an enterprise area. The area would continue to permit light industries and local urban services but also permit enhancement to worker amenity by allowing child care centres, restaurants and cafés and recreation uses.

Economic modelling demonstrates that implementation of PRUTS planning controls is valuable, as it will facilitate the continued evolution of the local economy to one that is services-based and that supports creative industries and the health and education sectors.

While redevelopment elsewhere in the Camperdown Precinct will facilitate a greater intensity of employment and economic activity, delivery of medium density housing on the Site will concurrently enable the meeting of diverse housing need. The Proposal aligns with the PRUTS vision by accommodating additional housing as well as providing opportunities for creative and other complementary jobs to locate therein.

5.7 SUMMARY

The Proposal demonstrates alignment with the objectives and aspirations of state planning policy and strategy:

- Greater Sydney Region Plan.
- Eastern City District Plan.
- Parramatta Road Corridor Urban Transformation Strategy (PRUTS).
- Camperdown-Ultimo Collaboration Area.

Land that is close to existing employment centres and public transport networks is scarce and valuable. As cities grow there is commensurate pressure on scarce lands to be developed for a variety of uses. The benefits of enabling more intensive use of land which is a finite asset are therefore obvious.

In the case of the Site and the broader Camperdown Precinct, state government policy has focused equally on intensifying employment opportunities and facilitating opportunities for diverse housing close to transport networks and employment centres.

The importance of the Camperdown-Ultimo Collaboration Area has been recognised, with initiatives underway to ensure its potential as a renowned innovation district is met. Opportunities for innovative and creative industries as well as a range of housing types for key workers and students are among the priorities of the Camperdown-Ultimo Place Strategy.

The Proposal seeks to meet these objectives by contributing to implementation of PRUTS as well as assist with addressing some of the complex challenges identified with achievement of the vision of the collaboration area.

Based on the foregoing analysis, this Study considers the economic impact of the Proposal to be net positive and thereby presenting a compelling case for consideration.

REFERENCES

- ABS (2016). *Labour Force, Australia Detailed: Table 4 Employed Persons by Industry*. Cat. No. 6291.0.55.003. Australian Bureau of Statistics, Canberra.
- ABS (2012). *Census of Population and Housing, 2011*. Cat. No. 2001.0. ABS, Canberra.
- BTS (2014). *Travel Zone Spatial Data*. Bureau of Transport Statistics. 2014. Available from: <https://data.nsw.gov.au/data/dataset/travel-zone-spatial-data>
- Deloitte (2015). *Growth and Opportunity in Australian International Education*. A report prepared for Austrade December 2015.
- DET (2018a). *First half year student summary tables*. Department of Education and Training. Available at: <https://docs.education.gov.au/node/51961>
- DET (2018b). *First half year student summary time series*. Department of Education and Training. Available at: <https://docs.education.gov.au/node/51956>
- Greater Sydney Commission (2019). *Camperdown-Ultimo Collaboration Area*. Greater Sydney Commission. Accessible from: <https://gsc-public-1.s3.amazonaws.com/s3fs-public/gsc-collaboration-area-ca2018-camperdown-ultimo-place-strategy-2802.pdf>
- Greater Sydney Commission (2018a). *Draft Greater Sydney Region Plan*. Greater Sydney Commission. Accessible from: <https://www.greater.sydney/metropolis-of-three-cities>.
- Greater Sydney Commission (2018b). *Eastern City District Plan*. Greater Sydney Commission. Accessible from: <https://www.greater.sydney/district-plans>.
- Hill PDA (2013). *Leichhardt Employment and Economic Development Plan*. Prepared for Leichhardt Council.
- Leichhardt Municipal Council (2013). *Leichhardt Local Environmental Plan*. 2013.
- Marrickville City Council (2011). *Marrickville Local Environmental Plan*. 2011.
- Productivity Commission (2015). *International Education Services*. Productivity Commission. Available at: <http://www.pc.gov.au/research/completed/international-education/international-education.pdf>
- SGS (2015). *Leichhardt Industrial Precinct Planning Study*. Prepared for Leichhardt Municipal Council.
- SGS (2011). *Leichhardt Industrial Lands Study*. Prepared for Leichhardt Municipal Council.
- UCA (2015). *National Census of University Student Accommodation Providers 2014*. University Colleges Australia. Available at: http://universitycollegesaustralia.edu.au/wp-content/uploads/2015/06/2015-05-27_uca_census_2014_report_final_lowres_sec.pdf
- UrbanGrowth NSW (2016a). *Parramatta Road Corridor Urban Transformation Strategy*. Available from: <http://www.urbangrowth.nsw.gov.au/assets/Projects/Parramatta-Road/Publications-161124/PROAD-0010-Parramatta-Road-Transformation-Strategy-Report.pdf>
- UrbanGrowth NSW (2016b). *Parramatta Road Corridor Section 117 Direction*. Available from: <http://www.urbangrowth.nsw.gov.au/assets/Projects/Parramatta-Road/Publications-161124/S117-Direction.pdf>
- UrbanGrowth NSW (2016c). *Parramatta Road Corridor Implementation Plan 2016-2023*. Available from: <http://www.urbangrowth.nsw.gov.au/assets/Projects/Parramatta-Road/Publications-161124/PROAD-0008-Implementation-Plan-2016-2023.pdf>
- UrbanGrowth NSW (2016d). *Parramatta Road Corridor Planning and Design Guidelines*. Available from: <http://www.urbangrowth.nsw.gov.au/assets/Publications/PROAD-0011-Land-Use-and-Design-Guidelines-Email.pdf>
- West, G. R. (1993). *User's Guide, Input-Output Analysis for Practitioners An Interactive Input-Output Software Package Version 7.1*. Department of Economics. University of Queensland, 1993.

APPENDIX A: INPUT-OUTPUT METHODOLOGY

Input-Output Model Overview

Input-Output analysis demonstrates inter-industry relationships in an economy, depicting how the output of one industry is purchased by other industries, households, the government and external parties (i.e. exports), as well as expenditure on other factors of production such as labour, capital and imports. Input-Output analysis shows the direct and indirect (flow-on) effects of one sector on other sectors and the general economy. As such, Input-Output modelling can be used to demonstrate the economic contribution of a sector on the overall economy and how much the economy relies on this sector or to examine a change in final demand of any one sector and the resultant change in activity of its supporting sectors.

The economic contribution can be traced through the economic system via:

- **Direct impacts**, which are the first round of effects from direct operational expenditure on goods and services.
- **Flow-on impacts**, which comprise the second and subsequent round effects of increased purchases by suppliers in response to increased sales. Flow-on impacts can be disaggregated to:
- **Industry Support Effects (Type I)**, which represent the production induced support activity as a result of additional expenditure by the industry experiencing the stimulus on goods and services in the intermediate usage quadrant, and subsequent round effects of increased purchases by suppliers in response to increased sales.
- **Household Consumption Effects (Type II)**, which represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the economic system.

These effects can be identified through the examination of four types of impacts:

- **Output:** Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.
- **Value added:** Refers to the value of output after deducting the cost of goods and services inputs in the production process. Value added defines the true net contribution and is subsequently the preferred measure for assessing economic impacts.
- **Income:** Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the project.
- **Employment:** Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow-on activity, and is expressed in terms of full-time equivalent (FTE) positions.

Input-Output multipliers can be derived from open (Type I) Input-Output models or closed (Type II) models. Open models show the direct effects of spending in a particular industry as well as the indirect or flow-on (industrial support) effects of additional activities undertaken by industries increasing their activity in response to the direct spending.

Closed models re-circulate the labour income earned as a result of the initial spending through other industry and commodity groups to estimate consumption induced effects (or impacts from increased household consumption).

Model Development

Multipliers used in this assessment are derived from sub-regional transaction tables developed specifically for this project. The process of developing a sub-regional transaction table involves developing regional estimates of gross production and purchasing patterns based on a parent table, in this case, the 2013-14 Australian transaction table (ABS, 2016b).

Estimates of gross production (by industry) in the study area were developed based on the percent contribution to employment (by place of work) of the study area to the Australian economy (ABS, 2012), and applied to Australian gross output identified in the 2013-14 Australian table.

Industry purchasing patterns within the study area were estimated using a process of cross-industry location quotients and demand-supply pool production functions as described in West (1993).

Where appropriate, values were rebased from 2013-14 (as used in the Australian national IO transaction tables) to current values using the Consumer Price Index (ABS, 2017).

Modelling Assumptions

The key assumptions and limitations of Input-Output analysis include:

- **Lack of supply-side constraints:** The most significant limitation of economic impact analysis using Input-Output multipliers is the implicit assumption that the economy has no supply-side constraints, so the supply of each good is perfectly elastic. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.
- **Fixed prices:** Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using Input-Output multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. The system is in equilibrium at given prices, and prices are assumed to be unaffected by policy and any crowding out effects are not captured. This is not the case in an economic system subject to external influences.
- **Fixed ratios for intermediate inputs and production (linear production function):** Economic impact analysis using Input-Output multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. That is, the input function is generally assumed linear and homogenous of degree one (which implies constant returns to scale and no substitution between inputs). As such, impact analysis using Input-Output multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount. Further, it is assumed each commodity (or group of commodities) is supplied by a single industry or sector of production. This implies there is only one method used to produce each commodity and that each sector has only one primary output.
- **No allowance for economies of scope:** The total effect of carrying on several types of production is the sum of the separate effects. This rules out external economies and diseconomies and is known simply as the “additivity assumption”. This generally does not reflect real world operations.
- **No allowance for purchasers’ marginal responses to change:** Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints:** Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

Despite these limitations, Input-Output techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term and provide useful insight into the quantum of final demand for goods and services, both directly and indirectly, likely to be generated by a project.

In addition to the general limitations of Input-Output Analysis, there are two other factors that need to be considered when assessing the outputs of sub-regional transaction table developed using this approach, namely:

- It is assumed the sub-region has similar technology and demand/ consumption patterns as the parent (Australia) table (e.g. the ratio of employee compensation to employees for each industry is held constant).
- Intra-regional cross-industry purchasing patterns for a given sector vary from the national tables depending on the prominence of the sector in the regional economy compared to its input sectors. Typically, sectors that are more prominent in the region (compared to the national economy) will be assessed as purchasing a higher proportion of imports from input sectors than at the national level, and vice versa.

THIS PAGE INTENTIONALLY LEFT BLANK

BRISBANE

Level 5, 131 Leichhardt Street
Spring Hill QLD 4000
Australia
T: +61 (0)7 3831 0577

MELBOURNE

Level 13, 200 Queen Street
Melbourne VIC 3000
Australia
T: +61 (0)3 8648 6586

SYDNEY

Level 14, 25 Bligh Street,
Sydney NSW 2000
Australia
T: +61 (0) 2 9283 8400

BANGKOK

2024/129-130 Sukhumvit 50
Prakanong Klongtoey,
Bangkok, Thailand 10260
T: +66 2 107 0189

DARWIN

Level 1, 48-50 Smith Street
Darwin NT 0800
Australia
T: 1300 799 343

PERTH

Level 2, 580 Hay Street
Perth WA 6000
Australia
T: +61 (0) 8 6555 4940

TOWNSVILLE

233 Flinders Street East
Townsville QLD 4810
Australia
T: +61 (0)7 4771 5550

SHANGHAI

46F Hongkong New World Tower
300 Huahai Road Central
200021 China
T: +8621 6135 2310

aecgrouppltd.com

OUTCOME DRIVEN



Job Information	Detail
Date	16 September 2020
Job ID	J001916
Job Name	1-5 Chester Street, Annandale, Economic Impact Assessment – Addendum
Client Name	Britely Property

UPDATE TO ECONOMIC IMPACT ASSESSMENT OF 1-5 CHESTER STREET, ANNANDALE

In 2019, AEC Group (AEC) was engaged by Britely Property to prepare an Economic Impact Assessment (EIA) to examine the economic impacts likely to result from the proposed planning control amendments and development of the site at 1-5 Chester Street in Annandale (“the Site”).

The planning proposal seeks to rezone to B7 Business Park zone and make the following amendments to the Leichhardt Local Environmental Plan (2013).

- Establish a B7 use, a maximum height of 17m, and site specific FSR control.
- Include a local provision which:
 - Allows boarding house for student accommodation use as additional permitted uses.
 - Requires a minimum of 980sqm (FSR 0.75:1) to be delivered as non-residential uses.
 - Allows an additional FSR of 1.25:1 for a boarding house to be used as student and/ or key worker housing.

The Proposal would enable a mix of land uses as follows:

- Employment for innovation / creative office (FSR 0.75:1); and
- Residential boarding house for student accommodation (FSR 1.25:1).

The original EIA examined the economic impacts if the Camperdown Precinct were redeveloped as recommended under PRUTS. The economic impacts from the extent to which the Proposal varied from PRUTS was also assessed.

Britely Property have subsequently requested additional items to be addressed in the EIA arising from comments received from DPIE and Council. These include:

- 1 Economic modelling of the recommended planning control amendments for the B7 zone (the Site, rather than the entire Camperdown Precinct as previously modelled).
- 2 Comparison of the economic benefits including job creation between the different scenarios, being:
 - a **Base Case:** The Site under the existing planning framework (IN2 zoning and 1:1 FSR).
 - b **PRUTS Case:** The Site as envisaged by PRUTS (R3 Medium Density Residential and 1.5:1 FSR).
 - c **Planning Proposal Case:** The Site as proposed by the Planning Proposal (B7 Business Park and 1.25:1 FSR for Student Accommodation and 0.75:1 FSR for Employment Creative Office uses).

This document represents an addendum to the initial report *1-5 Chester Street, Annandale Economic Impact Assessment* (AEC, 2019) and should be read in conjunction with the initial report.

ECONOMIC IMPACT ASSESSMENT

In order to understand the economic impacts likely to result from the Proposal, it is necessary to distinguish economic impacts during the construction phase and those economic impacts that will be more permanent in nature following construction completion and operations commencement.

- **Construction Phase:** Construction activity will draw resources from and thereby generate economic activity in Inner West LGA as well as from outside the LGA. Assumptions are made on the proportion sourced from within and from outside the LGA. Construction activity generated by the different scenarios includes:
 - **Base Case:** No construction activity is anticipated in the base case.
 - **PRUTS Case:** Construction costs of \$9.18 million for a residential apartment building. The development will include 26 new apartments, housing approximately 73 additional residents across a floorspace of circa 1,950m².
 - **Planning Proposal Case:** Construction costs of \$12.30 million towards construction of a student accommodation building and a commercial creative office. The student accommodation site will accommodate 63 new students, whilst the commercial office is expected to employ 81 staff across a floorspace of 980m².
- **Operations Phase:** The ongoing economic/ operational activity generated by the different scenarios, being:
 - **Base Case:** Direct turnover generated by the operational activities of the built mechanics workshop.
 - **PRUTS Case:** The direct turnover generated by residents working from home, as well as the additional household expenditure circulated through the Inner West LGA.
 - **Planning Proposal Case:** Direct turnover generated by the student accommodation activities, the expenditure of students, and the operational activities of the creative office.

BASE CASE

Base Case Construction Phase

No construction activity is anticipated in the base case.

Base Case Operational Phase

Employment estimates for the base case were developed based on current planning controls enabled by the precinct. For modelling purposes, estimated operational employment levels for the base case were allocated to its respective Input-Output industry, being the Automotive Repair and Maintenance sector.

Employment by industry estimates were converted to an output value using a multiplier based on the national transaction table (ABS, 2019a). The resultant estimates of output were modelled as the direct activity associated with the base case.

Table 1. Base Case Operational Activity

Component	Input-Output Industry	Employment (FTE)	Output (\$M)
Mechanics Workshop	Automotive Repair and Maintenance	4.0	\$0.62

Source: ABS (2019a), Britely & AEC.

PRUTS CASE

PRUTS Case Construction Phase

For modelling purposes, construction costs for the PRUTS case were allocated to their respective Input-Output industries. This breakdown was developed based on assumptions by AEC regarding the most appropriate industries for each activity.

Table 2. PRUTS Case Construction Costs Allocation

Component	Input-Output Industry	Construction Costs (\$M)
Apartment Building	Residential Building Construction	\$7.35
	Construction Services	\$0.92
	Professional, Scientific and Technical Services	\$0.92
Total	-	\$9.18

Source: Britely & AEC.

Only the construction activity expected to be undertaken *within the Inner West LGA* has been included in the economic impact assessment. For the purposes of this assessment it was assumed:

- Approximately 50% of the direct expenditure on construction activity would be sourced from local businesses and labour (including construction and professional services activity).
- Approximately 25% of purchases on goods and services (supply chain related activity) made by construction-related businesses sourced from outside the Inner West LGA would be spent within the local economy (i.e., 25% of the Type I flow on activity associated with non-local construction companies is assumed to represent additional local activity in Inner West LGA).
- Approximately 5% of wages and salaries paid to construction-related workers sourced from outside the region would be spent on local goods and services, such as food and beverages (i.e., 5% of the Type II flow on activity associated with non-local workers is assumed to represent additional local activity in the LGA).

PRUTS Case Operational Phase

The PRUTS residential development with 26 apartments is expected to house approximately 73 new residents (using an average household size of 2.8 for the Greater Sydney region) once completed. Of these residents, it is anticipated that approximately 4.5% will be employed and choose to work from home, in line with averages for Greater Sydney in 2016 (ABS, 2017a), equating to approximately 3.3 full time equivalent (FTE) jobs. These FTEs were then allocated across industry based on the share of industries of people working from home in 2016 (ABS, 2017a).

Estimates of output were developed based on employment multipliers per million dollars of output for each industry using AEC's Input-Output model. This equates to \$1.05 million in output. A breakdown of economic activity delivered by new employees in the LGA is provided below.

Table 3. PRUTS Case Operational Activity (Output by Employees Working from Home)

Input-Output Industry	Employment (FTE)	Output (\$M)
Agriculture, Forestry and Fishing	0.07	\$0.02
Mining	0.01	\$0.01
Manufacturing	0.13	\$0.05
Electricity, Gas, Water and Waste Services	0.01	\$0.01
Construction	0.25	\$0.12
Wholesale Trade	0.12	\$0.05
Retail Trade	0.16	\$0.02
Accommodation and Food Services	0.06	\$0.01
Transport, Postal and Warehousing	0.08	\$0.03
Information Media and Telecommunications	0.14	\$0.07
Financial and Insurance Services	0.25	\$0.19
Rental, Hiring and Real Estate Services	0.11	\$0.05
Ownership of Dwellings	0.00	\$0.00
Professional, Scientific and Technical Services	0.92	\$0.24
Administrative and Support Services	0.18	\$0.06
Public Administration and Safety	0.05	\$0.01
Education and Training	0.19	\$0.03

Input-Output Industry	Employment (FTE)	Output (\$M)
Health Care and Social Assistance	0.29	\$0.04
Arts and Recreation Services	0.11	\$0.02
Other Services	0.15	\$0.02
Total	3.28	\$1.05

Source: ABS (2017a; 2019a), Britely & AEC.

In addition to the economic activity supported by people working from home, new residents to Inner West LGA attracted by development of new dwellings under the PRUTS case are expected to support economic activity in the region through household expenditure. With up to 26 new households in the region as a result of residential development, and an average weekly household income of \$2,430 per week in the Inner West LGA (ABS, 2017a), this equates to approximately \$3.3 million in annual incomes for households within the dwellings developed.

A portion of these incomes will be spent within the Inner West LGA. Estimates for household expenditure circulated by new residents in the region were developed based data from the Household Expenditure Survey (ABS, 2017b) regarding the proportion of household incomes that are then spent on goods and services, as well as assumptions regarding the proportion of this expenditure captured within the Inner West LGA based on demand and supply of goods and services by industry in the LGA as estimated in the Input-Output transaction table for the Inner West LGA (see Appendix A for details regarding the Input-Output transaction table used). Based on the above approach, the household expenditure captured within the Inner West LGA is estimated to be \$1.93 million annually for the dwellings developed.

Table 4. PRUTS Case Household Expenditure of New Residents

Input-Output Industry	Output (\$M)
Agriculture, Forestry and Fishing	\$0.00
Mining	\$0.00
Manufacturing	\$0.00
Electricity, Gas, Water and Waste Services	\$0.01
Construction	\$0.21
Wholesale Trade	\$0.00
Retail Trade	\$0.71
Accommodation and Food Services	\$0.15
Transport, Postal and Warehousing	\$0.03
Information Media and Telecommunications	\$0.06
Financial and Insurance Services	\$0.20
Rental, Hiring and Real Estate Services	\$0.03
Ownership of Dwellings	\$0.18
Professional, Scientific and Technical Services	\$0.01
Administrative and Support Services	\$0.01
Public Administration and Safety	\$0.07
Education and Training	\$0.08
Health Care and Social Assistance	\$0.08
Arts and Recreation Services	\$0.04
Other Services	\$0.06
Total	\$1.93

Source: ABS (2017a; 2017b), Britely & AEC.

PLANNING PROPOSAL CASE

Planning Proposal Case Construction Phase

For modelling purposes, construction costs for the planning proposal case were allocated to their respective Input-Output industries. This breakdown was developed based on assumptions by AEC regarding the most appropriate industries for each activity.

Table 5. Planning Proposal Case Construction Costs Allocation

Component	Input-Output Industry	Construction Costs (\$M)
Student Accommodation & Creative Office	Residential Building Construction	\$3.69
	Non-Residential Building Construction	\$6.15
	Construction Services	\$1.23
	Professional, Scientific and Technical Services	\$1.23
Planning Proposal Total	-	\$12.30

Source: Britely & AEC.

Only the construction activity expected to be undertaken *within the Inner West LGA* has been included in the economic impact assessment. For the purposes of this assessment it was assumed:

- Approximately 50% of the direct expenditure on construction activity would be sourced from local businesses and labour (including construction and professional services activity).
- Approximately 25% of purchases on goods and services (supply chain related activity) made by construction-related businesses sourced from outside the Inner West LGA would be spent within the local economy (i.e., 25% of the Type I flow on activity associated with non-local construction companies is assumed to represent additional local activity in Inner West LGA).
- Approximately 5% of wages and salaries paid to construction-related workers sourced from outside the region would be spent on local goods and services, such as food and beverages (i.e., 5% of the Type II flow on activity associated with non-local workers is assumed to represent additional local activity in the LGA).

Planning Proposal Case Operational Phase

Employment estimates for the Planning Proposal Case were provided by Britely Property, based on anticipated floorspace ratios and GFA per employee benchmarks. For the Student Accommodation site, a floorspace ratio of 1.25:1 was used, supporting approximately 2 full-time equivalent (FTE) jobs once operational. For the creative office space, a floorspace ratio of 0.75:1 is anticipated, supporting 81 FTE jobs. For modelling purposes, estimated operational employment levels for the Proposal were allocated to their respective Input-Output industry. This breakdown was developed based on assumptions on the most appropriate industries for each activity. Estimates of output were developed based on employment multipliers per million dollars of output for each industry using AEC's Input-Output model.

Table 6. Planning Proposal Case Operational Activity

Component	Input-Output Industry	Employment (FTE)	Output (\$M)
Student Accommodation	Accommodation	2	\$0.45
Creative Office	Professional, Scientific and Technical Services	41	\$9.92
	Computer Systems Design and Related Services	8	\$2.40
	Heritage, Creative and Performing Arts	4	\$0.61
	Publishing (except Internet and Music Publishing)	7	\$2.31
	Motion Picture and Sound Recording	7	\$2.41
	Broadcasting (except Internet)	7	\$3.35
	Internet Service Providers, Internet Publishing and Broadcasting, etc.	7	\$6.19
Total	-	83	\$27.63

Source: (ABS, 2019a), Britely & AEC.

International high-school and/ or tertiary education students are expected to reside in the Student Accommodation once developed, providing 63 beds for students in the Inner West LGA. As is the case with household expenditure under the PRUTS case, these students will support ancillary expenditure within the local economy. Overseas students have been estimated to spend approximately \$40,000 to \$50,000 per annum on average in Australia (Australian Government, 2013), inclusive of expenditure on tuition and accommodation.

A conservative estimate of student expenditure on goods and services excluding tuition and accommodation of approximately \$20,000 per annum has been used in this assessment, in consideration of a mix of school and tertiary education students and data from the ABS (2019b) indicating expenditure of international school students on tuition fees is approximately equivalent to their spend on goods and services. Expenditure on tuition is excluded as it has conservatively been assumed that provision of student accommodation will not result in an increase in overall student numbers at the nearby education institutions, while expenditure on accommodation is excluded as this is already captured in the activity of the Student Accommodation outlined in Table 6 and to include this spend would double count this impact.

With up to 63 students in the region as a result of student accommodation, and an average annual expenditure of \$20,000, this equates to approximately \$1.26 million in annual expenditure on goods and services by these students.

As with household expenditure, not all of this expenditure will be spent in the Inner West LGA. Estimates of expenditure across different goods and services were developed based data from the Household Expenditure Survey (ABS, 2017b), as well as assumptions regarding the proportion of this expenditure captured within the Inner West LGA based on demand and supply of goods and services by industry in the LGA as estimated in the Input-Output transaction table for the Inner West LGA (see Appendix A for details regarding the Input-Output transaction table used). This provides an estimate of student expenditure in the Inner West LGA of approximately \$1.15 million annually.

Table 7. Planning Proposal Case Student Expenditure

Input-Output Industry	Output (\$M)
Agriculture, Forestry and Fishing	\$0.00
Mining	\$0.00
Manufacturing	\$0.00
Electricity, Gas, Water and Waste Services	\$0.00
Construction	\$0.00
Wholesale Trade	\$0.00
Retail Trade	\$0.58
Accommodation and Food Services	\$0.12
Transport, Postal and Warehousing	\$0.02
Information Media and Telecommunications	\$0.05
Financial and Insurance Services	\$0.16
Rental, Hiring and Real Estate Services	\$0.02
Ownership of Dwellings	\$0.00
Professional, Scientific and Technical Services	\$0.01
Administrative and Support Services	\$0.01
Public Administration and Safety	\$0.06
Education and Training	\$0.00
Health Care and Social Assistance	\$0.04
Arts and Recreation Services	\$0.03
Other Services	\$0.05
Total	\$1.15

Source: ABS (2017a; 2017b; 2019b), Australian Government (2013), Britely & AEC.

ECONOMIC IMPACT ASSESSMENT

The economic activity supported can be traced through the economic system via:

- **Direct impacts**, which represent the economic activity of the industry or industries directly experiencing the stimulus.
- **Indirect Impacts (Flow-on impacts)**, which are disaggregated to:

- **Indirect Impact (Type I)**, which comprise the effects from:
 - Direct expenditure on goods and services by the industry experiencing the stimulus (direct suppliers to the industry), known as the first round or direct requirements effects.
 - The second and subsequent round effects of increased purchases by suppliers in response to increased sales, known as the industry support effects.
- **Indirect Impact (Type II)**, which represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the economic system.

The premise behind Type I and Type II indirect impacts applies across both the construction and operational phase, except the impacts on industry will be different. For example, Type I impacts during the construction phase may include professional services (e.g. architects, engineers), manufacturing (steel, construction materials) while examples of Type I impacts during the operational phase may include manufacturing (food and beverage, food related), administrative and support services (e.g. building cleaning, employment services, travel agencies, etc.).

The following sections outline the economic activity attributed to all future land uses on the Site, including accommodation.

BASE CASE

Base Case Construction Phase

No construction phase impacts in the base case.

Base Case Operational Phase

The existing mechanics workshop is estimated to support the following annual economic activity within the Inner West LGA through the direct and flow-on impacts associated (per annum):

- \$1.3 million in output (including \$0.6 million in direct activity).
- \$0.7 million contribution to GRP (including \$0.3 million in direct activity).
- \$0.4 million in incomes and salaries paid to households (including \$0.2 million in direct wages).
- 6 FTE jobs (including 4 FTE jobs from direct activity)

Table 8. Base Case Annual Activity Supported from Operations Phase

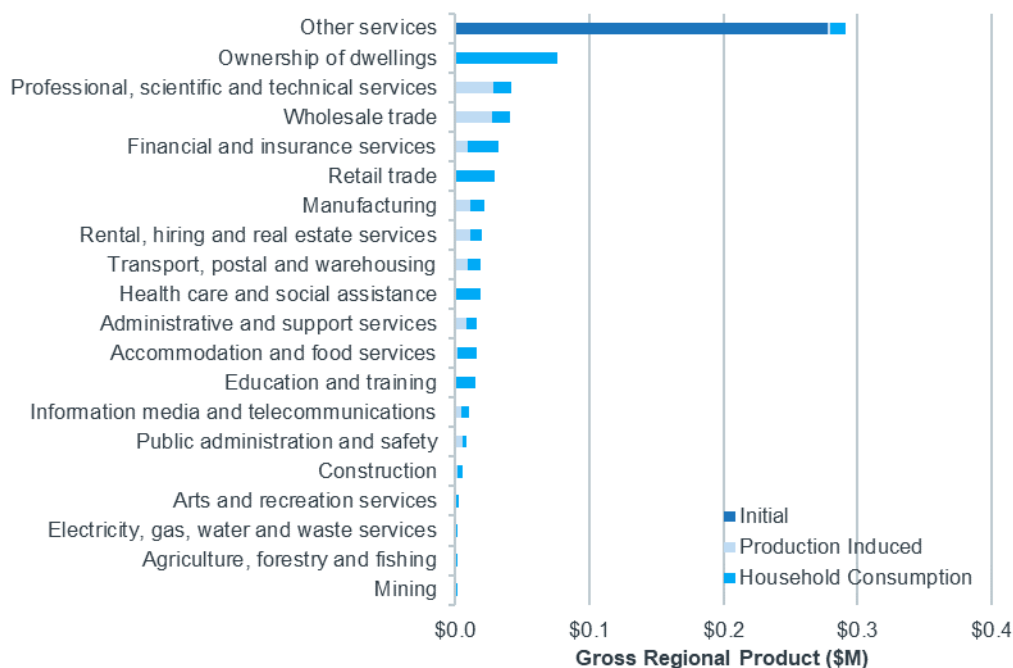
Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTE)
Direct	\$0.6	\$0.3	\$0.2	4
Type I Flow-On	\$0.2	\$0.1	\$0.1	1
Type II Flow-On	\$0.5	\$0.3	\$0.1	2
Total	\$1.3	\$0.7	\$0.4	6

Note: Totals may not sum due to rounding
Source: AEC

Major industry beneficiaries of the Base Case include:

- Other services (GRP \$0.29 million per annum).
- Ownership of dwellings (GRP \$0.08 million per annum).
- Professional, scientific and technical services (GRP \$0.04 million per annum).

Figure 1. Gross Regional Product (GRP) Impact by Industry, Base Case Operations (Annual)



Source: AEC

PRUTS CASE

PRUTS Case Construction Phase

The construction phase associated with the PRUTS Case is expected to support the following economic activity through direct and flow-on impacts (in aggregate over the course of the construction phase):

- \$10.2 million in output (including \$4.6 million in direct activity).
- \$4.4 million contribution to GRP (including \$1.5 million in direct activity).
- \$2.3 million in incomes and salaries paid to households (including \$0.8 million in direct wages).
- 32 FTE jobs (including 14 directly employed in the construction activity).

Table 9. PRUTS Case Aggregate Construction Activity Supported

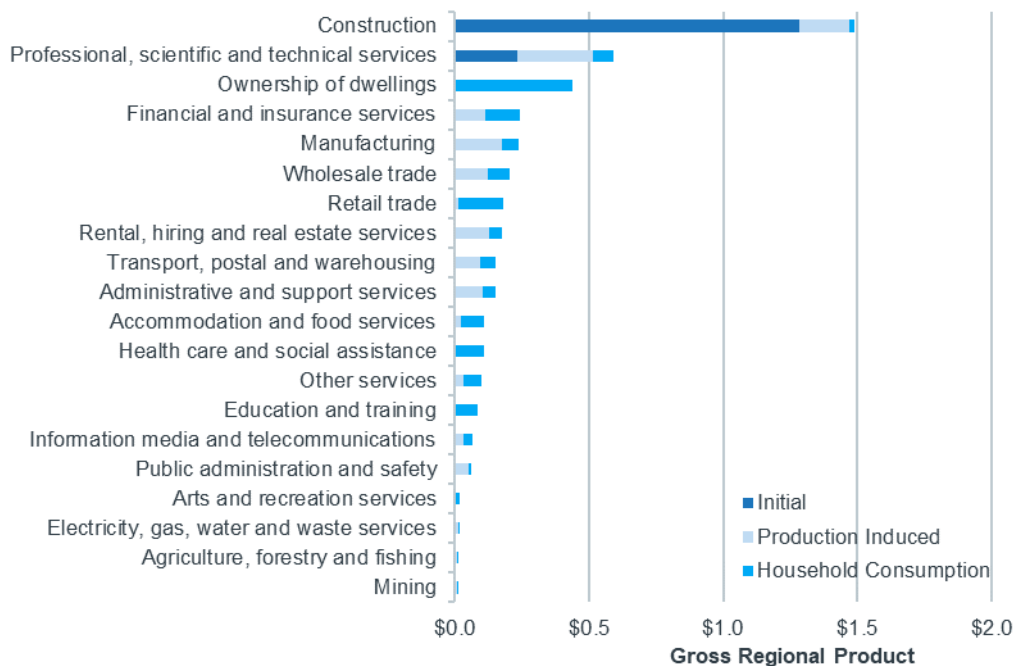
Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTE)
Direct	\$4.6	\$1.5	\$0.8	14
Type I Flow-On	\$3.0	\$1.4	\$0.8	10
Type II Flow-On	\$2.6	\$1.5	\$0.7	9
Total	\$10.2	\$4.4	\$2.3	32

Note: Totals may not sum due to rounding
Source: AEC

Major industry beneficiaries from construction phase activity in the PRUTS Case include:

- Construction (GRP \$1.5 million per annum).
- Professional, scientific, and technical services (GRP \$0.6 million per annum).
- Ownership of dwellings (GRP \$0.4 million per annum).

Figure 2. Gross Regional Product (GRP) Impact by Industry, PRUTS Case Construction (Aggregate)



Source: AEC

PRUTS Case Operational Phase

One fully developed and operational, the PRUTS Case is estimated to support the following annual economic activity within the Inner West LGA through the direct and flow-on impacts associated (per annum):

- \$7.0 million in output (including \$3.0 million in direct activity).
- \$3.8 million contribution to GRP (including \$1.6 million in direct activity).
- \$2.0 million in incomes and salaries paid to households (including \$0.9 million in direct wages).
- 26 FTE jobs (including 13 FTE jobs from direct activity)

Table 10. PRUTS Case Annual Activity Supported from Operations Phase

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTE)
Working from Home				
Direct	\$1.1	\$0.5	\$0.3	3
Type I Flow-On	\$0.6	\$0.3	\$0.2	2
Type II Flow-On	\$0.9	\$0.5	\$0.2	3
Total	\$2.5	\$1.3	\$0.7	8
Household Expenditure				
Direct	\$1.9	\$1.0	\$0.6	9
Type I Flow-On	\$1.0	\$0.5	\$0.3	3
Type II Flow-On	\$1.6	\$0.9	\$0.4	5
Total	\$4.5	\$2.5	\$1.3	18
PRUTS Case Total				
Direct	\$3.0	\$1.6	\$0.9	13
Type I Flow-On	\$1.6	\$0.8	\$0.5	5
Type II Flow-On	\$2.4	\$1.4	\$0.6	8
Total	\$7.0	\$3.8	\$2.0	26

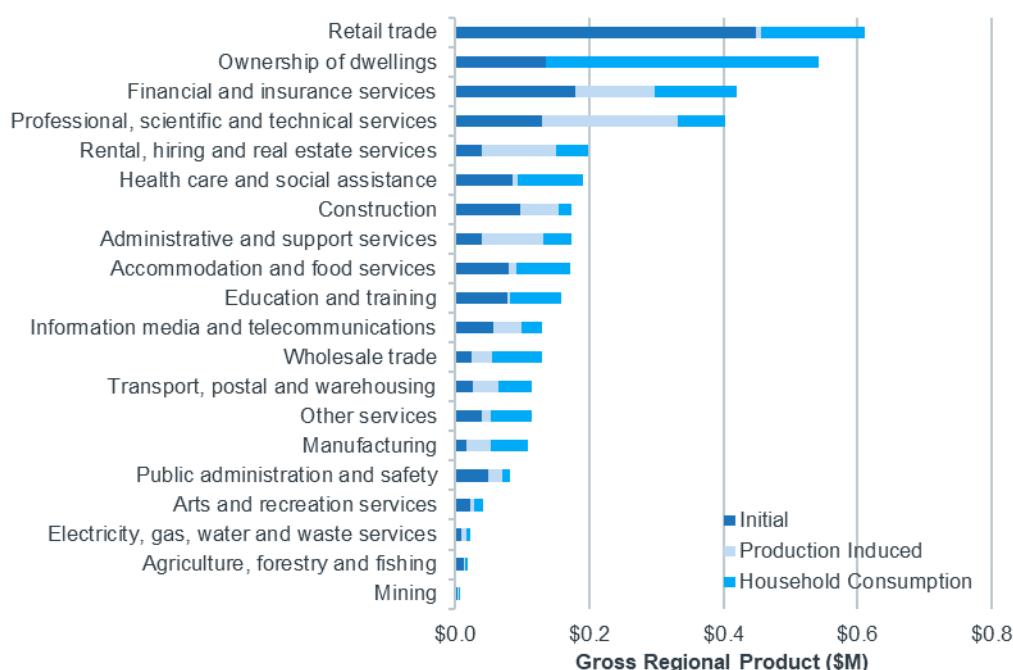
Note: Totals may not sum due to rounding

Source: AEC

Major industry beneficiaries of operations phase activity from the PRUTS Case include:

- Retail trade (GRP \$0.6 million per annum).
- Ownership of dwellings (GRP \$0.5 million per annum).
- Financial and insurance services (GRP \$0.4 million per annum).

Figure 3: Gross Regional Product (GRP) Impact by Industry, PRUTS Case Operations (Annual)



Source: AEC

PLANNING PROPOSAL CASE

Planning Proposal Case Construction Phase

The construction phase associated with the Planning Proposal Case is expected to support the following economic activity through direct and flow-on impacts (in aggregate over the course of the construction phase):

- \$14.2 million in output (including \$6.2 million in direct activity).
- \$6.4 million contribution to GRP (including \$2.2 million in direct activity).
- \$3.3 million in incomes and salaries paid to households (including \$1.2 million in direct wages).
- 44 FTE jobs (including 17 directly employed in the construction activity).

Table 11. Planning Proposal Case Aggregate Construction Activity Supported

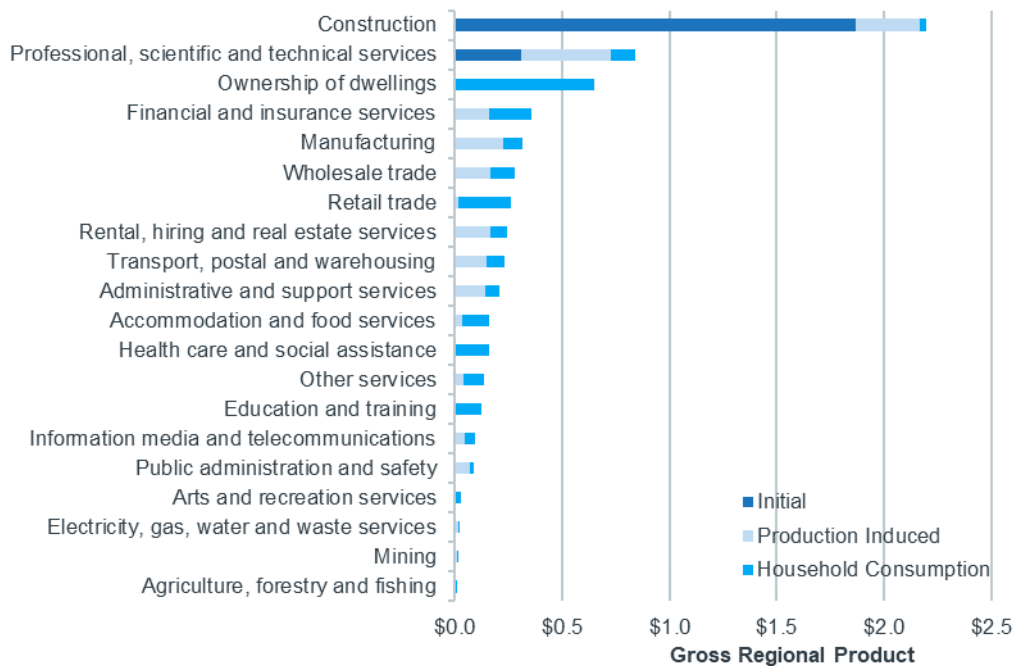
Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTE)
Direct	\$6.2	\$2.2	\$1.2	17
Type I Flow-On	\$4.2	\$2.0	\$1.2	14
Type II Flow-On	\$3.8	\$2.3	\$1.0	13
Total	\$14.2	\$6.4	\$3.3	44

Note: Totals may not sum due to rounding
Source: AEC

Major industry beneficiaries from construction phase activity in the Planning Proposal Case include:

- Construction (GRP \$2.2 million per annum).
- Professional, scientific, and technical services (GRP \$0.8 million per annum).
- Ownership of dwellings (GRP \$0.6 million per annum).

Figure 4. Gross Regional Product (GRP) Impact by Industry, Planning Proposal Case Construction (Aggregate)



Source: AEC

Planning Proposal Case Operational Phase

One fully developed and operational, the Planning Proposal Case is estimated to support the following annual economic activity within the Inner West LGA through the direct and flow-on impacts associated (per annum):

- \$68.5 million in output (including \$28.8 million in direct activity).
- \$36.1 million contribution to GRP (including \$14.2 million in direct activity).
- \$19.3 million in incomes and salaries paid to households (including \$8.3 million in direct wages).
- 224 FTE jobs (including 89 FTE jobs from direct activity).

Table 12. Planning Proposal Case Annual Activity Supported from Operations Phase

Impact	Output (\$M)	Gross Regional Product (\$M)	Incomes (\$M)	Employment (FTE)
Student Accommodation				
Direct	\$0.4	\$0.2	\$0.1	2
Type I Flow-On	\$0.3	\$0.1	\$0.1	1
Type II Flow-On	\$0.4	\$0.2	\$0.1	1
Total	\$1.1	\$0.6	\$0.3	4
Student Expenditure				
Direct	\$1.1	\$0.6	\$0.4	6
Type I Flow-On	\$0.6	\$0.3	\$0.2	2
Type II Flow-On	\$1.0	\$0.6	\$0.3	4
Total	\$2.8	\$1.5	\$0.8	12
Creative Office				
Direct	\$27.2	\$13.4	\$7.8	81
Type I Flow-On	\$15.1	\$7.4	\$4.6	50
Type II Flow-On	\$22.3	\$13.1	\$5.8	77
Total	\$64.7	\$34.0	\$18.2	208
Planning Proposal Case Total				
Direct	\$28.8	\$14.2	\$8.3	89
Type I Flow-On	\$16.1	\$7.9	\$4.9	53
Type II Flow-On	\$23.7	\$14.0	\$6.1	82
Total	\$68.5	\$36.1	\$19.3	224

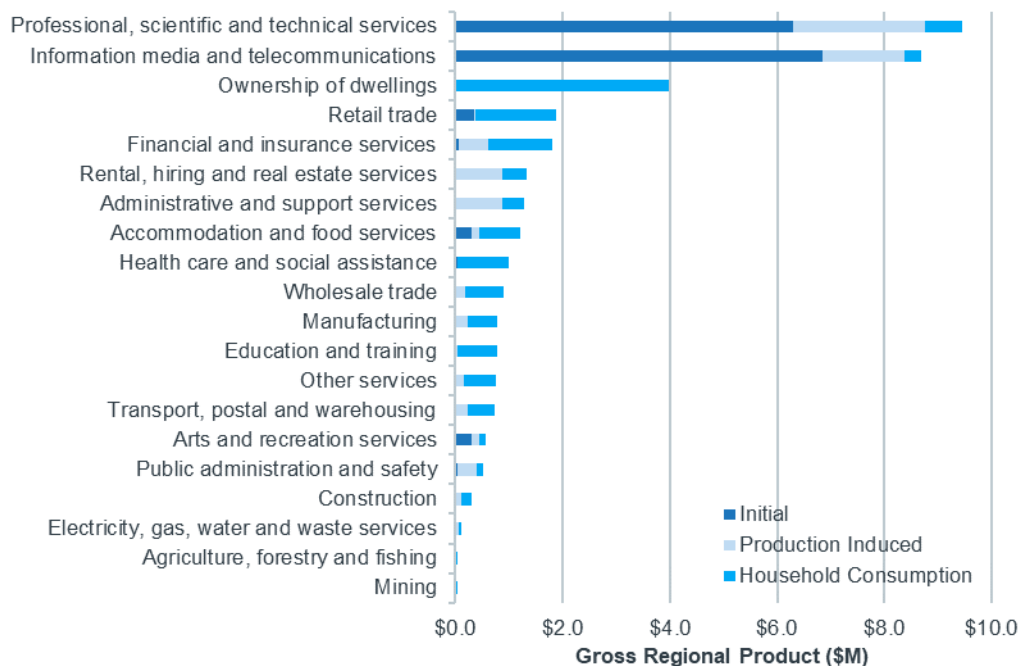
Note: Totals may not sum due to rounding

Source: AEC

Major industry beneficiaries operations phase activity from the Planning Proposal Case include:

- Professional, scientific, and technical services (GRP \$9.4 million per annum).
- Information media and telecommunications (GRP \$8.7 million per annum).
- Ownership of dwellings (GRP \$4.0 million per annum).

Figure 5: Gross Regional Product (GRP) Impact by Industry, Proposal Operations (Annual)



Source: AEC

SUMMARY OF ECONOMIC IMPACTS

During site development, the Planning Proposal Case would generate significant economic benefits to the Inner West LGA throughout the construction period.

- Economic activity generated by construction activities, which will occur entirely within the Inner West LGA, which is estimated to support 17 jobs on-site (direct jobs) and 27 indirect jobs elsewhere in the Inner West LGA.
- The economic activity generated by the development of the Planning Proposal Case is estimated to support over \$14.2 million in output, contribute approximately \$6.4 million in GRP and pay wages and salaries of \$3.3 million to households in the region.

Once fully developed and operational, The Planning Proposal Case would also provide economic benefits to the Inner West LGA each year.

- Economic activity from businesses locating to the site, as well as through induced student spend in the Inner West LGA economy, is estimated to support 89 jobs directly and 135 indirect jobs elsewhere in the Inner West LGA.
- The economic activity is estimated to support over \$68.5 million in output and more than \$36.1 million in contribution to GRP with circa \$19.3 million in incomes and salaries paid to local households annually.

The table below summarises the economic activity associated with the construction and operations phases for the Planning Proposal Case compared to the impacts delivered by the Base Case and the PRUTS Case, highlighting the activity supported by the Planning Proposal is considerably higher than the level of economic activity supported through the alternative options.

Table 13. Total Economic Impact of Scenarios

Impact	Base Case	PRUTS Case	Planning Proposal Case
Construction Impacts			
Output (\$M)	-	\$10.2 million	\$14.2 million
GRP (\$M)	-	\$4.4 million	\$6.1 million
Income (\$M)	-	\$2.3 million	\$3.3 million
Employment (FTE)	-	32 jobs	44 jobs
Ongoing Operational Impacts			
Output (\$M)	\$1.3 million	\$7.0 million	\$68.5 million
GRP (\$M)	\$0.7 million	\$3.8 million	\$36.1 million
Income (\$M)	\$0.4 million	\$2.0 million	\$19.3 million
Employment (FTE)	6 jobs	26 jobs	224 jobs

Note: Totals may not sum due to rounding
 Source: AEC

The Planning Proposal would deliver a clear, strong positive economic impact compared to the Base Case and PRUTS Case. Delivery of the Proposal contributes to supporting growth of both the Inner West local government area and the broader Metro Sydney Area and results in a strong net positive economic impact.

REFERENCES

- ABS (2017a). *Census of Population and Housing 2016*. Table Builder. Australian Bureau of Statistics, Canberra.
- ABS (2017b). *Household Expenditure Survey, 2015-16*. Cat. No. 6503.0, Australian Bureau of Statistics, Canberra.
- ABS (2019a). *Australian National Accounts: Input-Output Tables – Electronic Publication, 2016-17 tables*. Cat. No. 5209.0.55.001, Australian Bureau of Statistics, Canberra.
- ABS (2019b). *International Trade in Services by Country, by State and by Detailed Services Category, Calendar Year, 2018-19*. Cat. No. 5368.0.55.003, Australian Bureau of Statistics, Canberra.
- ABS (2019c). *Labour Force, Australia, Detailed, Quarterly*. Cat. No. 6291.0.55.003, Australian Bureau of Statistics, Canberra.
- ABS (2019d). *Consumer Price Index, Australia*. Cat. No. 6401.0, Australian Bureau of Statistics, Canberra.
- AEC (2019). *1 – 5 Chester Street, Annandale Economic Impact Assessment*. Prepared for Britely Property by AEC Group Pty Ltd, Brisbane.
- Australian Government (2013). *State of Australian Cities 2013*. Department of Infrastructure and Transport, Australian Government, Canberra.

APPENDIX A: INPUT-OUTPUT METHODOLOGY

INPUT-OUTPUT MODEL OVERVIEW

Input-Output analysis demonstrates inter-industry relationships in an economy, depicting how the output of one industry is purchased by other industries, households, the government and external parties (i.e. exports), as well as expenditure on other factors of production such as labour, capital and imports. Input-Output analysis shows the direct and indirect (flow-on) effects of one sector on other sectors and the general economy. As such, Input-Output modelling can be used to demonstrate the economic contribution of a sector on the overall economy and how much the economy relies on this sector or to examine a change in final demand of any one sector and the resultant change in activity of its supporting sectors.

The economic contribution can be traced through the economic system via:

- **Initial stimulus (direct) impacts**, which represent the economic activity of the industry directly experiencing the stimulus.
- **Flow-on impacts**, which are disaggregated to:
 - **Production induced effects (type I flow-on)**, which comprise the effects from:
 - Direct expenditure on goods and services by the industry experiencing the stimulus (direct suppliers to the industry), known as the first round or direct requirements effects.¹
 - The second and subsequent round effects of increased purchases by suppliers in response to increased sales, known as the industry support effects.
 - **Household consumption effects (type II flow-on)**, which represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the economic system.

These effects can be identified through the examination of four types of impacts:

- **Output:** Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.
- **Gross product:** Refers to the value of output after deducting the cost of goods and services inputs in the production process. Gross product (e.g., Gross Regional Product) defines a true net economic contribution and is subsequently the preferred measure for assessing economic impacts.
- **Income:** Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the project.
- **Employment:** Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow-on activity, and is expressed in terms of full time equivalent (FTE) positions.

Input-Output multipliers can be derived from open (Type I) Input-Output models or closed (Type II) models. Open models show the direct effects of spending in a particular industry as well as the indirect or flow-on (industrial support) effects of additional activities undertaken by industries increasing their activity in response to the direct spending.

¹ Modelling note: In assessing construction impacts, AEC's modelling approach treats subcontractors in the construction services sector engaged through first round effects as part of the initial stimulus impact rather than as part of the production induced impact.

Closed models re-circulate the labour income earned as a result of the initial spending through other industry and commodity groups to estimate consumption induced effects (or impacts from increased household consumption).

MODEL DEVELOPMENT

Multipliers used in this assessment are derived from sub-regional transaction tables developed specifically for this project. The process of developing a sub-regional transaction table involves developing regional estimates of gross production and purchasing patterns based on a parent table, in this case, the 2016-17 Australian transaction table (ABS, 2019a).

Estimates of gross production (by industry) in the study area were developed based on the percent contribution to employment (by place of work) of the study area to the Australian economy (ABS, 2012), and applied to Australian gross output identified in the 2016-17 Australian table.

Industry purchasing patterns within the study area were estimated using a process of cross-industry location quotients and demand-supply pool production functions as described in West (1993).

Where appropriate, values were rebased from 2016-17 (as used in the Australian national IO transaction tables) to current values using the Consumer Price Index (ABS, 2019d).

MODELLING ASSUMPTIONS

The key assumptions and limitations of Input-Output analysis include:

- **Lack of supply-side constraints:** The most significant limitation of economic impact analysis using Input-Output multipliers is the implicit assumption that the economy has no supply-side constraints, so the supply of each good is perfectly elastic. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.
- **Fixed prices:** Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using Input-Output multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. The system is in equilibrium at given prices, and prices are assumed to be unaffected by policy and any crowding out effects are not captured. This is not the case in an economic system subject to external influences.
- **Fixed ratios for intermediate inputs and production (linear production function):** Economic impact analysis using Input-Output multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. That is, the input function is generally assumed linear and homogenous of degree one (which implies constant returns to scale and no substitution between inputs). As such, impact analysis using Input-Output multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount. Further, it is assumed each commodity (or group of commodities) is supplied by a single industry or sector of production. This implies there is only one method used to produce each commodity and that each sector has only one primary output.
- **No allowance for economies of scope:** The total effect of carrying on several types of production is the sum of the separate effects. This rules out external economies and diseconomies and is known simply as the "additivity assumption". This generally does not reflect real world operations.
- **No allowance for purchasers' marginal responses to change:** Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints:** Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

Despite these limitations, Input-Output techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term and provide useful insight into the quantum of final demand for goods and services, both directly and indirectly, likely to be generated by a project.

In addition to the general limitations of Input-Output Analysis, there are two other factors that need to be considered when assessing the outputs of sub-regional transaction table developed using this approach, namely:

- It is assumed the sub-region has similar technology and demand/ consumption patterns as the parent (Australia) table (e.g. the ratio of employee compensation to employees for each industry is held constant).
- Intra-regional cross-industry purchasing patterns for a given sector vary from the national tables depending on the prominence of the sector in the regional economy compared to its input sectors. Typically, sectors that are more prominent in the region (compared to the national economy) will be assessed as purchasing a higher proportion of imports from input sectors than at the national level, and vice versa.