

Transport
for NSW

Central Precinct Renewal Program

Economic productivity and job
creation

July 2022

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Acknowledgement of Country

We respectfully acknowledge the Traditional Custodians of the Central Precinct, the Gadigal and recognise the importance of the place to Aboriginal people and their continuing connection to Country and culture. We pay our respect to Elders past, present and emerging.

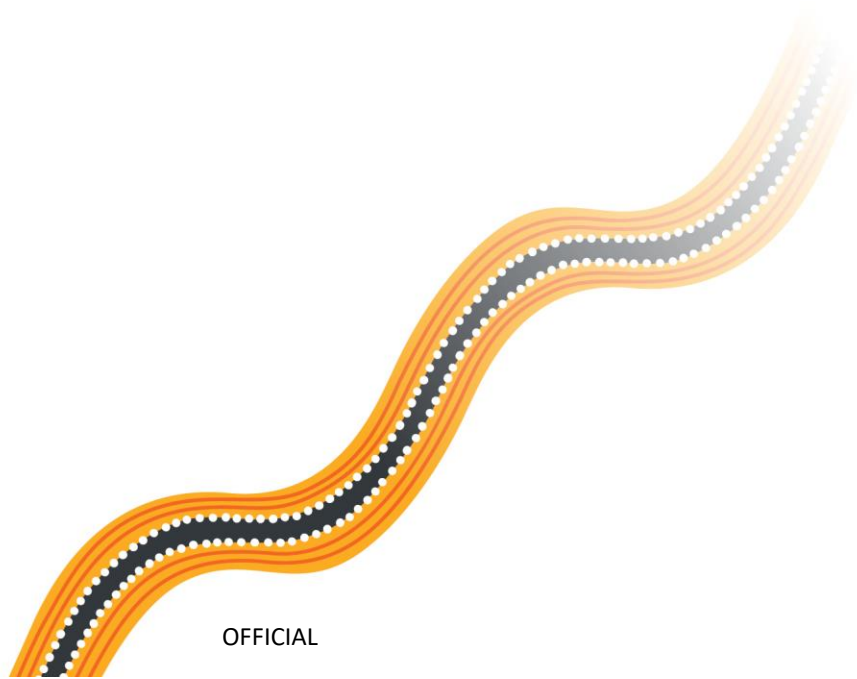


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1. Abbreviations

Abbreviation	Definition
ABS	Australian Bureau of Statistics
BAU	Business as usual
BCA	Building Code of Australia
CIV	Capital investment value
CoS	City of Sydney Council
CSPS	Central Sydney Planning Strategy
DA	Development application
DCP	Development control plan
DPE	NSW Department of Planning and Environment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPI	Environmental planning instrument
ESD	Ecologically sustainable development
FSR	Floor space ratio
GANSW	Government Architect NSW
GFA	Gross floor area
GCC	Greater Cities Commission
LEP	Local environmental plan
LGA	The City of Sydney local government area
LSPS	Local strategic planning statement
NABERS	National Australian Built Environment Rating System
PRP	Project Review Panel
SCA	Special character area
SDCP2012	Sydney Development Control Plan 2012
SDRP	State Design Review Panel
SEPP	State Environmental Planning Policy
SLEP2012	Sydney Local Environmental Plan 2012
SSDA	State significant development application
SSP	State Significant Precinct

2. Definitions

Term	Definition
Accessibility	The ability for everyone, regardless of age, disability or special needs or where they live, to use and benefit from the transport system
Active transport	Transport that is human powered, such as walking or cycling
Amenity	The extent to which a place, experience or service is pleasant, attractive or comfortable. Improved features, facilities or services may contribute to increase amenity.
Bradfield Flying Junctions	Series of flyover tracks between the Cleveland Street bridge at Redfern and Central Stations that allow trains to move from any one line to another without crossing a line in the opposing direction
Bus interchange	Where customers have access to a number of different bus routes at a central location
Bus stand	A place to board or alight from bus services
Camperdown-Ultimo Collaboration Area	The Health and Education Precinct which includes the Royal Prince Alfred Hospital, TAFE NSW, University of Notre Dame, University of Sydney and University of Technology Sydney, and medical and research institutions and other health services facilities and educational establishments
Catchment	Area from which a location or service attracts people
CBD and South East Light Rail	means to the light rail network extending from Randwick and Kingsford to Circular Quay
Central Precinct	Central Precinct State Significant Precinct
Central Sydney	Land identified as Central Sydney under the Sydney Local Environmental Plan 2012 and represents the Metropolitan Centre of Sydney. Central Sydney includes Sydney's Central Business District
Central Walk	The underground paid pedestrian connection, currently under construction, that is to be delivered by Sydney Metro City and South West. Once complete, it will be a link between the new station entrance on Chalmers Street, the Eastern Suburbs Railway concourse, suburban platforms 16-23 (via escalators and lifts) and the new Sydney Metro north-south concourse
Character	The combination of the attributes, characteristics and qualities of a place (GANSW, 2021, Draft Urban Design Guide)
City Plan 2036	City of Sydney local strategic planning statement
Community	Particular types of stakeholder and refers to groups of people in particular places who are both affected by our work and experience the outcomes and benefits of our activities

Term	Definition
Control	A numerical standard that is applied in a prescriptive manner
Corridor	A broad, linear geographical area between places
Council	The City of Sydney Council
Customer interface	The point at which transport services interact with their customer
Customers	Those who use transport networks and services. They include car drivers, heavy vehicle operators, public transport and point to point passengers, pedestrians, cyclists and freight and goods providers
Department	The Department of Planning and Environment
Determination	The approval made in accordance with the <i>Environmental Planning and Assessment (EP&A) Act 1979</i> . In relation to Central Precinct SSP, a determination will be made by the Minister for Planning and Public Spaces
Devonshire Street Tunnel	The official name of the pedestrian tunnel connecting Chalmers and Lee Streets
District Plan	means the Eastern City District Plan
Future Transport Strategy	Transport for NSW's approach to planning transport and engaging customers, to address future technological, economic and social changes. Future Transport Strategy comprises two focus areas – planning ('Future Transport Planning') and technology ('Future Transport Technology' and 'Technology Roadmap')
Gateway	Cities that provide state level services and facilities to support a broad population catchment while also having international connections through their cities airport and/or port.
Goods Line	The official name for the partly elevated walkway from Central Station to Darling Harbour following the route of a disused railway line
Grand Concourse	Part of Central Station
Greater Sydney's Green Grid	The link between parks, open spaces, bushland and walking and cycling paths
Interchange	A facility to transfer from one mode of transport or one transport service to another. For example, a station with an adjoining light rail stop
Local streets	Places that are part of the fabric of suburban neighbourhoods where we live our lives and facilitate local community access
Merit based assessment	An assessment of a matter that allows for reasonable flexibility to consider a range of possible solutions
Minister	The Minister for Planning
Mixed-use	A building or area containing more than one type of land use
Mobility	The ability to move or be moved easily and without constraints

Term	Definition
Mortuary Station	The building formerly used as a railway station on the Rookwood Cemetery railway line, now disused
NABERS	A national rating system that measures the environmental performance of Australian buildings and tenancies
Objective	A statement of a desired future outcome, generally expressed in a qualitative manner that enables merit based assessment
Over rail corridor development or Over Station Development	Development of air space over railway corridors
Place	An intersection of transport infrastructure with social infrastructure and commercial activity. These are the areas within and around transit stops where people live and commute. Places can be created as an outcome of Placemaking
Placemaking	Scoping and delivering places for the community, beyond the immediate transport infrastructure. Successful placemaking either preserves or enhances the character of our public spaces, making them more accessible, attractive, comfortable and safe
Planning instrument	Means any of the following: <ul style="list-style-type: none"> • strategic plan (comprising regional strategic plans and district strategic plans) and local strategic planning statements • environmental planning instrument (comprising State environmental planning policies and local environmental plans) • development control plan
Planning Secretary	The Secretary of the Department of Planning
Precinct	Geographical area with boundaries determined by land use and other unique characteristics. For example, an area where there is an agglomeration of warehouses may be termed a freight precinct
Principal development standards	Matters addressed in Part 4 of the Standard Instrument
Proponent	Transport for NSW
Proposal	Proposed amendments to the planning framework
Provisions	means a broad term covering objectives and controls
Public spaces	means areas that are publicly accessible where people can interact with each other and make social connections
Rail network	means the rail infrastructure in NSW
Railway corridor	The land within Central Precinct on which a railway is built; comprising all property between property fences, or if no fences, everywhere within 15m from the outermost rails. Under planning legislation rail corridor is defined as land: a) that is owned, leased, managed or controlled by a public authority for the purpose of a railway or rail infrastructure facilities: or b) that is zoned under an

Term	Definition
	environmental planning instrument predominately or solely for development of the purpose of a railway or rail infrastructure facilities
Railway Square	The area between Lee Street and Broadway, comprising a plaza, bus stands and underground access/uses
Reference Master Plan	A non-statutory document that shows one way in which the precinct may develop in the future in accordance with the proposed amendments to the planning framework Note: Refer to the GANSW Advisory Note v2, dated 12/09/2018 for further guidance
Region Plan	The Greater Sydney Region Plan - A Metropolis of Three Cities
Rezoning	Amendments to environmental planning instruments, in particular for land use zones and principal development standards such as height of buildings and floor space ratio
Shocks and stresses	The acute short term damaging events or long term trends causing inequity impacting a city's resilience
Siding	A short stretch of rail track used to store rolling stock or enable trains on the same line to pass
Social procurement	Purchasing decisions based on good social outcomes
Standard Instrument	The Standard Instrument—Principal Local Environmental Plan
State	The state of New South Wales
State-led rezonings	A focus on precincts where there is a strategic imperative for the Department of Planning to lead the process, including places that benefit from current or future city-shaping infrastructure or investment, and where we can create great public spaces in collaboration with councils and communities. These rezonings generally occur under a SEPP
State Significant Precinct	The areas with state or regional planning significance because of their social, economic or environmental characteristics
Strategic Framework	The document prepared by Transport for NSW for Central Precinct in 2021 that addresses key matters including vision, priorities, public space, strategic connections, design excellence, identify sub-precincts for future detailed planning and also outlines the next steps in the State Significant Precinct process for Central Precinct
Strategic plan	The regional strategic plan, district strategic plan or a local strategic planning statement
Sub-precinct	The definable areas within Central Precinct SSP due to its unique local character, opportunities and constraints, either current or future. The Western Gateway is a sub-precinct
Sydney Metro	A fully-automated, high frequency rail network connecting Sydney

Term	Definition
Tech Central	The State government initiative as set out in The Sydney Innovation and Technology Precinct Panel Report 2018. Previously known as the Sydney Innovation and Technology Precinct. Tech Central is located south of the Sydney central business district, surrounded by the suburbs of Redfern, Ultimo, Haymarket, Camperdown, Chippendale, Darlington, Surry Hills and Eveleigh
Transport for NSW	The statutory authority of the New South Wales Government responsible for managing transport services in New South Wales.
Transport interchange	A facility designed for transitioning between different modes, such as a major bus stop or train station
Transport modes	The five public transport modes are metro, trains, buses, ferries and light rail. The two active transport modes are walking and cycling
Urban renewal	A planned approach to the improvement and rehabilitation of city areas with new infrastructure, new commercial/mixed uses, improved services and renovation or reconstruction of housing and public works
Vibrant streets / places	Places that have a high demand for movement as well as place with a need to balance different demands within available road space

3. Executive summary

3.1 Background and purpose

This Economic Productivity and Job Creation report assesses the strategic economic and spatial context of the Central Precinct development to inform the Central Station masterplan. The Central Precinct Renewal Program (CPRP) is a large-scale urban renewal program to transform the Central State Significant Precinct (SSP) into a key part of the Tech Central technology and innovation district.

Through a series of analyses and stakeholder consultations, this report synthesises the strategic context, employment and floorspace profile, market characteristics, and estimated economic impacts of new jobs creation to develop economic and land use considerations relevant to the masterplan.

A review of these considerations, alongside the opportunities and constraints facing the Central Precinct, suggests that the Central Station masterplan has potential to deliver and/or facilitate the delivery of a range of economic, social and cultural benefits for the wider region.

3.2 Strategic and policy context

A review of the priorities and key moves that are likely to shape the Central Precinct development reveals a multi-layered policy context that shares several common goals. These include a strong and diverse economy, globally-competitive innovation with a technology specialisation, a sustainable built environment, a thriving creative and cultural sector and vibrant, well-connected people, places and cities.

At the macro-scale, portfolio policies such as the Global NSW Strategy, the NSW Economic Blueprint 2040, the Future Transport Strategy 2056 and the Greater Sydney Regional Plan and Eastern City District Plan set out long-term economic, social and environmental aspirations. At the local scale, place strategies and local strategic plans are helping to define specific roles and functions for various hubs of activity – as they relate to and complement each other in the broader economic landscape.

The policy context is informed by economic trends and local drivers observed in the Australian and local economy. These include the growing transition to a services economy, changing ways of working, the evolving role of universities in innovation, cybersecurity considerations and a desire for greater industry and institutional collaboration to leverage talent and support scaling start-ups.

3.3 Employment and floorspace profile

Employment across Sydney CBD is forecast to grow by around 206,700 or 56 per cent, from 371,900 to 578,600 in the forty years to 2056. Based on historical floorspace to jobs ratios, this study estimates demand for an additional 2,895,000 sqm of floorspace across Sydney CBD and Central from 2017 to 2041. Sensitivity testing to account for the potential impacts of pandemic related patterns of work suggests lower demand of approximately 2,695,000 sqm of floorspace under an increased working from home scenario.

This study also estimates employment floorspace demand for the Central Station development for three scenarios representing differing take-up of capacity within and outside of Central. These scenarios aim to illustrate different market conditions that could occur over the coming decades. The analysis estimates there is approximately 471,400 – 655,900 sqm of employment generating floorspace demand in Central under a standard scenario, or between 305,300 – 424,200 sqm with increased working from home.

A comparison of current and proposed capacity within the Sydney CBD shows that, under either the standard or increased working from home scenario, total floorspace capacity (comprising baseline sites, additional capacity from the Central Sydney Planning Framework as well as the development pipeline assessed by the City of Sydney) is sufficient to meet demand beyond 2041.

Although this analysis suggests that the Central Precinct development is likely to provide floorspace that exceeds market demand, it is noted that the city will continue to develop beyond the delivery period over the next 40 years. Moreover, planning with certainty beyond this timeframe is a significant challenge, such that 'surplus' capacity is not necessarily undesirable and may be reserved for non-commercial uses, or applied to adapt to changing market conditions.

3.4 Market intelligence

Market trends in Sydney CBD and the Sydney fringe office market suggest several considerations for the Tech Central development and its mix of businesses and services. For example, there is growing urgency amongst creative industries and tech companies to secure unique, quality space, due to limited supply within the cluster of city fringe suburbs. The enabling role of suitable and affordable space was also highlighted during several stakeholder engagement sessions.

While post-pandemic behavioural changes are still uncertain, there is likely to be an increased uptake of flexible working arrangements and greater demand for flexible office space. The modern office building may therefore mix work areas and meeting areas like airport lounges and associated work and entertainment areas.

The synergistic benefit of mixing uses (more residential, retail, and hotel uses with commercial uses) will improve the take-up of floorspace of the project life and increase sale values and returns to government. There is also evidence to suggest that the early delivery of these activities would enhance the sense of safety and security in and around Central Station, adding to the levels of activity and appeal.

3.5 Feasibility and market demand

HillPDA has conducted a high-level feasibility study of the Central State Significant Precinct (Central SSP). This Precinct includes the Grand Terminal Building, Over-Station Development (OSD) platform, Prince Alfred (PA) Sidings, and the Regent Street Sidings with bus layover.

The project has a 20-year timeframe with the delivery infrastructure program stretching ten years (2023 to 2033) and build-out, a further ten years to 2042. The Western Gateway development and the Atlassian Building are forecast to be completed before OSD is ready for

build-out and will act as a catalyst and anchor for the Precinct's further renewal. Combined with the Central Precinct's urban renewal program, these new developments will transform this Precinct from City Fringe CBD to Tech Central CBD.

HillPDA has analysed the proposed mix floor space, including retail, community services, hotel and serviced apartments, residential build to rent apartments, student accommodation, education and office spaces. Our research and analysis indicate that there will be adequate market demand in the future to absorb this floorspace by 2042.

A high-level development feasibility model prepared by HillPDA indicates that the proposed planning controls for Central SSP are feasible. This modelling assumes all the nominated Government works for urban renewal and transport upgrades are fully funded by the Government. The financial modelling suggests that the Government can recover a significant percentage of these costs through a staged sale of development sites from 2025 to 2040 and possibly through a joint venture (JV) arrangement with a master developer a share of JV profits.

Based on the outcome of our high-level development feasibility study we conclude that there will be sufficient market demand in the future to support the feasible renewal of the Central Precinct in accordance with the proposed planning controls set out in the Central SSP Study.

3.6 Economic impacts

CGE modelling shows that NSW will benefit from masterplan development, with real household consumption, investment, international imports and exports all higher compared to the baseline (no masterplan development) scenario. This analysis focused on the economic impacts flowing from jobs that are newly created by the masterplan provision of floorspace and is best used as a complement to cost benefit analysis.

3.7 Central Precinct opportunities and constraints

Primary opportunities for the Central Precinct include:

- A future identity as the 'key' commercial centre in Tech Central, resulting from its spatial relationship with the CBD, existing built form and transport accessibility,
- The provision of diverse floorspace types and price points to meet demand from tech businesses,
- Its 'connector' role as a transport interchange that links arrivals and departures to nearby precincts, such as Haymarket, Ultimo, Surry Hills and Chippendale,
- Its 'collector' role as a meeting place and/or locus of activity given the lack of a clear 'centre' in the broader Tech Central precinct,
- Its integration into the wider cluster of cultural and entertainment precincts and institutions,
- A rebalancing of the Sydney CBD's centre of gravity, which in recent decades has shifted north toward the current financial districts of North and mid-CBD.

Potential constraints include:

- Establishing an appropriate sequence of development so that supply is available when needed, but not delivered so far in advance to suppress rents,
- An over-emphasis on commercial floorspace alone, which could hinder future site transitions to alternative uses,
- An uncertain commercial future, due to the lingering impacts of the pandemic on traditional office requirements and working arrangements,
- The ease of remote working among the technology sector,
- Competition from other precincts for future floorspace, such that Central Precinct's commercial offer will need to compete for its share of future jobs,
- Disconnection from surrounding areas, due to the position of major transport infrastructure lines and other built environment features.

3.8 Masterplan benefits and considerations

Employment and floorspace demand analysis, coupled with known aspirations for other precincts across Sydney, indicates that the masterplan may provide floorspace exceeding estimated levels of market demand.

However, the Tech Central vision is predicated on a concentration of IT and other industries in the precinct as a way of driving change in the southern part of the CBD. This report outlines considerations relating to the precinct's development and delivery, land use and identity, and integration with broader region. Together, these considerations can inform approaches to mitigating certain constraints, while ensuring alignment with the overall Tech Central vision.

It is anticipated that the masterplan will generate strategic and land use benefits by:

- Creating long-term supply potential by unlocking significant development capacity that would otherwise not be realised,
- Maximising agglomeration benefits by supporting the concentration of future knowledge-intensive jobs,
- Extending Australia's largest and most productive CBD, whose southward expansion is the only avenue for significant and long-term capacity increases to benefit a range of future uses,
- Driving re-investment in the southern CBD through a rebalancing of the CBD's centre of gravity,
- Creating a point of integration to CBD fringe precincts and strengthening Tech Central's connections to other precincts,
- Celebrating the heritage value of Sydney's iconic Terminus Building,
- Providing opportunities to generate new open space in a dense urban core, thereby improving amenity and recreational benefits,
- Creating opportunities for increased active transport, removing east-west movement barriers and improving safety for a range of transport modalities,

- Establishing a creative and commercial precinct to grow and diversify visitation,
- Contributing the government revenue through sale proceeds from the Prince Alfred Sidings land.

4. Introduction

Located within the heart of Eastern Harbour City, Central Precinct is Australia's busiest transport interchange. The precinct currently holds latent potential with all its inherent advantages of location and transport connections to revitalise Central Sydney. Capitalising on Central Precinct's prime location within Tech Central, a NSW Government commitment to create the biggest technology hub of its kind in Australia, Central Precinct presents the ultimate transformative opportunity to deliver a connected destination for living, creativity and jobs. The renewal of Central Precinct will provide a world-class transport interchange experience, important space for jobs of the future, improved connections with surrounding areas, new and improved public spaces and social infrastructure to support the community.

In July 2019, Central Precinct was declared a nominated State Significant Precinct (SSP) in recognition of its potential to boost investment and deliver new jobs. The SSP planning process for Central Precinct will identify a new statutory planning framework for Central Precinct. This involves two key stages:

- **Stage 1:** Development of a draft Strategic Vision which has since evolved into the Central Precinct Strategic Framework
- **Stage 2:** Preparation of an SSP study with associated technical analysis and community and stakeholder consultation.

In March 2021, the [Central Precinct Strategic Framework](#) was adopted representing the completion of Stage 1 of the planning process to develop a new planning framework for Central Precinct. The Strategic Framework outlines the vision, planning priorities, design principles, and the proposed future character of sub-precincts within Central Precinct. This is intended to inform and guide further detailed planning and design investigations as part of this SSP Study (Stage 2 of the SSP planning process).

This SSP Study intends to amend the planning controls applicable to Central Precinct under the SSP SEPP 2005 to reflect the vision and planning priorities set for the Precinct under the Strategic Framework. Study Requirements were issued in December 2020 to guide the investigations and the proposed new planning controls.

4.1 Tech Central

4.1.1 Overview

The NSW Government is committed to working with the local community to develop the biggest innovation district of its kind in Australia. Bringing together six neighbourhoods near the Sydney CBD (Haymarket, Ultimo, Surry Hills, Camperdown, Darlington North Eveleigh and South Eveleigh), Tech Central is a thriving innovation ecosystem that includes world-class universities, a world-leading research hospital, 100+ research institutions, investors and a wide range of tech and innovation companies. The vision for Tech Central is for it to be a place where universities, startups, scaleups, high-tech giants and the community collaborate to solve problems, socialise and spark ideas that change our world. It is also for it to be place where

centring First Nations voices, low carbon living, green spaces, places for all people and easy transport and digital connections support resilience, amenity, inclusivity, vitality and growth.

Tech Central is an essential component of the Greater Sydney Region Plan's Eastern Harbour City Innovation Corridor. It aims to leverage the existing rich heritage, culture, activity, innovation and technology, education and health institutions within the precinct as well as the excellent transport links provided by the Central and Redfern Station transport interchanges.

The Central Precinct is located within the Haymarket neighbourhood of Tech Central. Planned to become the CBD for Sydney's 21st century, this neighbourhood is already home to The Quantum Terminal (affordable coworking space in the iconic Central Station Sydney Terminal Building) the Scaleup Hub (affordable and flexible workspace for high-growth technology scaleups) and is soon to be the home of Atlassian's headquarters. It is also in close proximity to a number of important education and research institutions.

The planned urban renewal of the Central Precinct has been identified as a key project to achieving the vision for Tech Central.

4.1.2 Background & Context

In August 2018, the NSW Government established the Sydney Innovation and Technology Precinct Panel (the Panel) comprising representatives from various industry, health, education, government agencies and key community members. In December 2018 'The Sydney Innovation and Technology Precinct Panel Report' was produced, setting out the Panel's recommendations for a pathway to delivering a successful innovation and technology district at Tech Central. In February 2019, the NSW Government adopted the Panel's report and committed to delivering the following:

- 25,000 additional innovation jobs
- 25,000 new STEM and life sciences students
- 200,000 m² for technology companies, and
- 50,000 m² of affordable space for startups and scaleups

In February 2019, the Greater Sydney Commission released a Place Strategy for the area that is now known as Tech Central (Camperdown-Ultimo Collaboration Area Place Strategy, GSC). The Place Strategy, developed collaboratively by a range of stakeholders involved in planning for Tech Central's future, was prepared to inform public and private policy and investment decisions by identifying and recognising the complex, place-specific issues inhibiting growth and change. The strategy identifies shared objectives for the place and sets out priorities and actions to realise the vision for the area under the key themes of Connectivity, Liveability, Productivity, Sustainability and Governance.

Both the Panel Report and Place Strategy recognise the importance of the Central Precinct to Tech Central's future.

TECH CORRAL

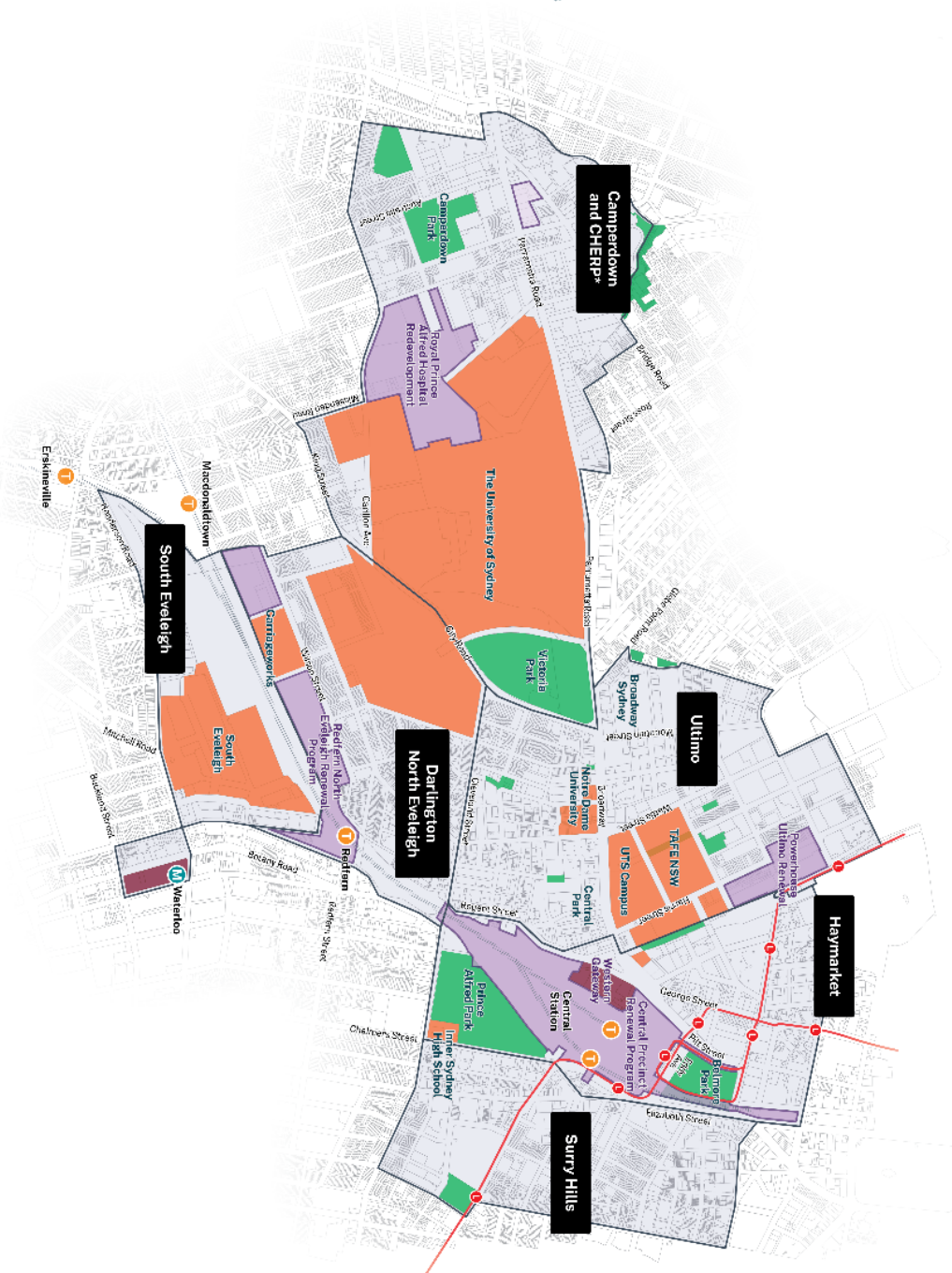
- Institutions and innovation anchors
- Major government projects
- Opportunity Site
- Immediate development pipeline
- Public Open Space
- Precinct boundary
- Light rail – existing
- Metro station
- Train station
- Light rail station

* OHERP, Campdowm Health Education and Research Precinct

0 100m 200m 300m



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4.2 Central Precinct vision

Central Precinct will be a vibrant and exciting place that unites a world-class transport interchange with innovative and diverse businesses and high-quality public spaces. It will embrace design, sustainability and connectivity, celebrate its unique built form and social and cultural heritage and become a centre for the jobs of the future and economic growth.

4.3 Case for change

Over the coming years, Central Station will come under increasing pressure as technological innovations progress, investment in transport infrastructure increases and daily passenger movements increase.

Sydney Metro, Australia's biggest public transport project, will result in the delivery of a new generation of world-class, fast, safe, and reliable trains enabling faster services across Sydney's rail network. In 2024, Sydney Metro's Central Station will open with daily passenger movements forecast to increase from 270,000 persons to 450,000 persons over the next 30 years.

In its current state, Central Station is underperforming as Australia's major transport interchange – it's currently a hole in the heart of Sydney's CBD, lacking connectivity, activation and quality public spaces.

The renewal of Central Precinct will expand and revitalise Central Station, and transform this underutilised part of Sydney from a place that people simply move through to one where they want to visit, work, relax, connect and socialise. Its renewal also presents the potential to deliver on the strategic intent and key policies of regional, district and local strategic plans, providing for a city-shaping opportunity that can deliver economic, social and environmental benefit. Specifically, it will:

- make a substantial direct and indirect contribution to achieving the Premier's Priorities by facilitating upgrades to Sydney's largest and most significant public transport interchange, improving the level of service for users and visitors, and supporting the creation of new jobs and housing
- implement the recommendations of the NSW State Infrastructure Strategy 2018-2038, in particular the upgrading of the major transport interchange at Central to meet future customer growth
- contribute to key 'Directions' of the Greater Sydney Region Plan, to deliver 'a city supported by infrastructure', help create 'a city of great places', support 'a well connected city', deliver new 'jobs and skills for the city' and create 'an efficient city'
- implement the outcomes envisaged within the Eastern City District Plan including reinforcing the Harbour CBD's role as the national economic powerhouse of Australia and supporting its continued growth as a Global International City
- deliver on the shared objectives and priorities for Tech Central, the future focal point of Sydney's innovation and technology community, which aims to boost innovation, economic development and knowledge intensive jobs while creating an environment that foster collaboration and the exchanging of ideas

- deliver an outcome that responds to the overarching vision and objectives of the Central Sydney Planning Strategy. In particular it will assist with implementing a number of 'key moves' outlined in the strategy, including to 'ensure development responds to its context', 'ensure infrastructure keeps pace with growth', 'move people more easily', 'protect, enhance and expand Central Sydney's heritage, public places and spaces', and to 'reaffirm commitment to design excellence.'

5. About this report

The purpose of this Economic Productivity and Job Creation report is to provide a detailed economic and productivity assessment of the proposed changes, and to consider any potential impacts that may result within and surrounding the Central Precinct. This report assesses the strategic economic and spatial context of the Central Precinct and provides guidance to inform the refinement of the masterplan. This report is one of two reports that provide analysis and insight to inform the masterplan, with the other report providing a summary of market conditions.

This report addresses study requirement 12. The relevant study requirements, considerations and consultation requirements, and location of where these have been responded to is outlined in **Table 1** below.

5.1 SSP Study requirements

Table 1 Study requirements, considerations, and consultation requirements

Requirement	Report reference
Prepare an economic assessment of the proposal that identifies the existing situation, including constraints, opportunities and key issues.	Chapter 7 outlines the current policy settings. Chapter 8 outlines current and project employment and floorspace profile. Chapter 11 outlines opportunities and constraints for masterplan consideration.
Outline the likely impacts of the proposal including economic benefits and job creation (particularly in relation to Tech Central).	Chapter 12 qualitatively outlines economic and non-economic benefits of the proposal. Chapter 13 quantitatively outlines economic impacts of the proposal.
Inform and support the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline provisions.	Guidance on planning controls and design guidelines has been provided throughout the project via conversations and inputs to the design team. The advice provided has been drawn from and is summarised in the following chapters of this report: <ul style="list-style-type: none"> • Chapter 8 – employment floorspace profile • Chapters 9 and 10 – market overview • Chapter 11 – masterplan considerations.
Prepare a high-level development feasibility study that outlines the market demand and demonstrates that the new planning controls will result in feasible development.	Chapter 9 outlines market intelligence.
Consult with: <ul style="list-style-type: none"> • DPE’s demographics team, the City of Sydney’s demographics and the Greater Cities Commission • Create NSW • Major public and private cultural infrastructure – Carriage works, Museum of Applied Arts and 	Chapter 7.5 summarises consultation.

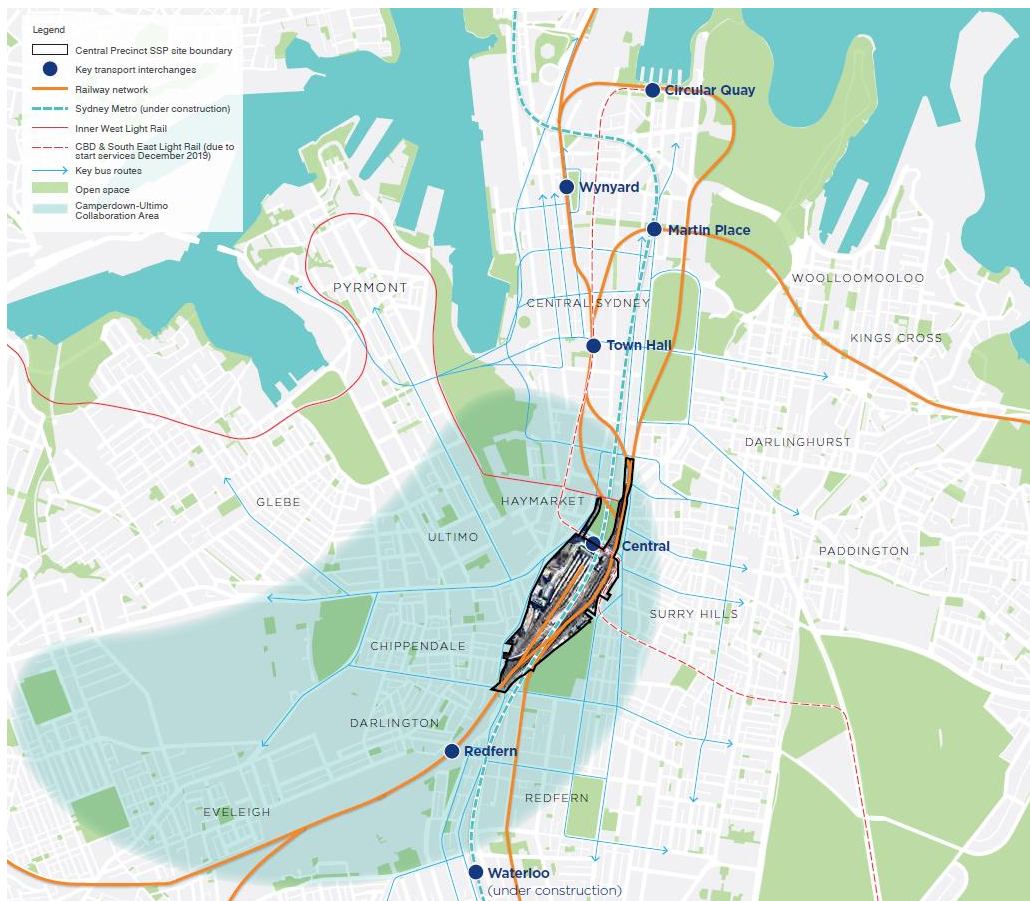
Requirement	Report reference
<p>Sciences, and small to medium arts sector, such as neighbourhood studios, galleries, production and presentation spaces</p> <ul style="list-style-type: none"> • Aboriginal and Torres Strait islander organisations and groups; and • Creative Arts, music and design schools of Universities and TAFE NSW. 	
<p>Demonstrate consideration of the likely wider economic benefits of the proposal in relation to employment, commercial, retail impacts.</p>	<p>Chapters 11 and 12 discuss masterplan opportunities and resulting benefits.</p>
<p>Demonstrate consideration of the job creating potential of the proposal and the role of the precinct in delivering the Tech Central; Tech Central’s vision and objectives.</p>	<p>Chapter 8.6 calculates the employment potential by ANZSIC industry of the masterplan GFA provision.</p>
<p>Demonstrate consideration of the role of the precinct in supporting the 24-hour economy, including through food, beverage, entertainment, retail activation of the precinct; appropriate public space, cultural infrastructure, cultural production and presentation spaces, entertainment, live music venues, creative services and diversity of cultural activation.</p>	<p>Chapter 7 discusses the role of the Central Precinct in supporting a vibrant 24-hour economy.</p>
<p>Demonstrate consideration of market feasibility and development feasibility of the proposal.</p>	<p>Chapter 10 provides a high-level feasibility and market demand analysis.</p>
<p>Demonstrate consideration of land uses that allow for appropriate space for business, including mixed use business models, visitor services and tourism.</p>	<p>Chapter 7 considers the diversity of businesses, floorplate types and price points that will render Central Precinct appealing to a variety of tenants and visitors.</p>
<p>Demonstrate consideration of active frontages at ground level and interchange levels where appropriate.</p>	<p>Chapter 12 describes the benefits of active frontages to the local economy and surrounding amenity.</p> <p>Chapter 7 consultation suggests that accessible and visible frontages draw people out of the station and contribute to a sense of safety.</p>
<p>Demonstrate consideration of measures to achieve a diverse, inclusive, creative, socially connected and sustainable precinct.</p>	<p>Chapter 7.3 considers the economic trends and local drivers that are shaping Central Precinct’s attributes of supporting sector diversity, the creative and cultural industries, social connection.</p> <p>Chapter 11.1 outlines opportunities and measures to achieve these outcomes.</p>
<p>Demonstrate consideration of demographics of existing and future populations.</p>	<p>Refer to the Central Station Population and Demographics Study.</p>

6. Study Area

Central Precinct is located at the south-east edge of Central Sydney (refer to Figure 1). Central Precinct is surrounded by a number of suburbs including, Haymarket to the north, Chippendale to the south and Surry Hills to the south-east. It is located within the City of Sydney local government area (LGA) with an approximate gross site area of 24 hectares of Government owned land. The precinct comprises land bounded by Pitt Street and Regent Street to the west, Cleveland Street to the south, Eddy Avenue, Hay Street and Goulburn Street to the north and Elizabeth Street and Chalmer Street to the east.

Central Precinct has been an important site for transport operations for over 150 years. Today, Central Station is Australia's busiest transport interchanges and is the anchor of New South Wales's (NSW) rail network. It provides 24 platforms for suburban and Intercity and Regional train connections as well as a direct link to Sydney Airport. The broader transport interchange also caters for light rail, bus, coach and point to point connections such as taxis. The transport interchange will also form part of the Sydney Metro network, with new underground platforms to be provided for Sydney Metro services under Platform 13, 15 and 16 at Central Station. Sydney Metro services will begin in 2024. The precinct also comprises several significant heritage items including the state-heritage listed Sydney Terminal Building and the Clock Tower.

Figure 1 Location plan of Central Precinct

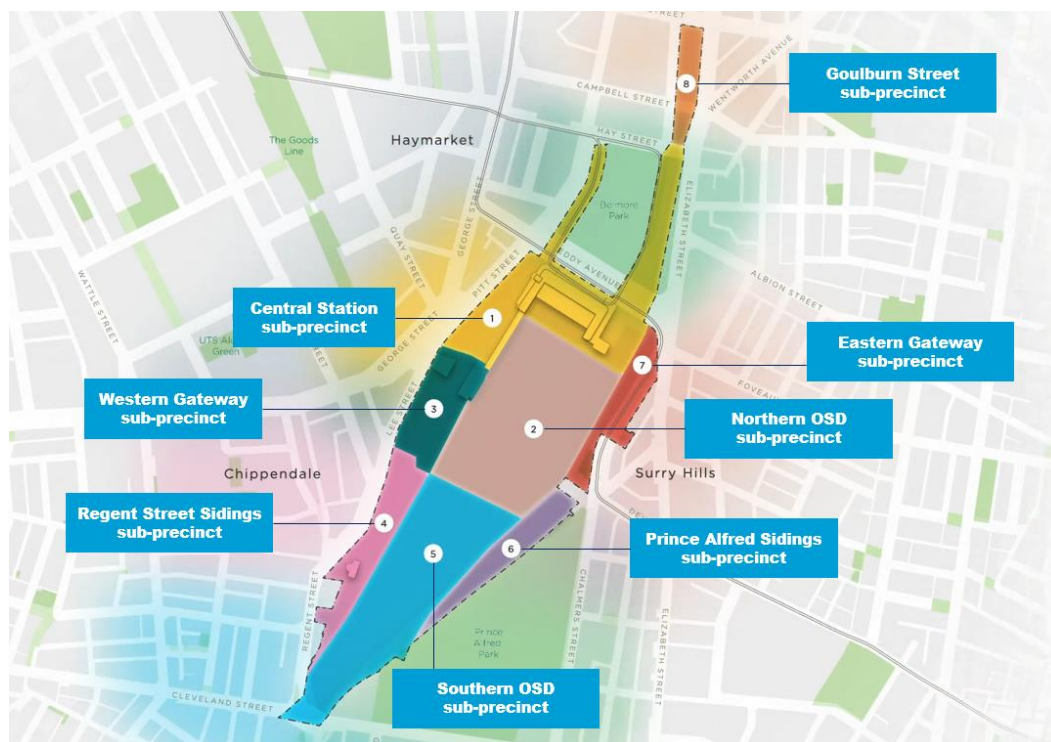


As part of the Strategic Framework, eight sub-precincts have been defined that reflect and positively respond to the varying character of the surrounding areas. These sub-precincts are:

- Central Station
- Northern Over Station Development
- Western Gateway
- Regent Street Sidings
- Southern Over Station Development
- Prince Alfred Sidings
- Eastern Gateway
- Goulburn Street.

The location of these sub-precincts and relevant boundaries is illustrated in **Figure 2**.

Figure 2 Central Precinct and sub-precincts



6.1 Planning priorities

To help realise the vision of Central Precinct and the desired local character of the sub-precincts, the following planning priorities have been developed and are grouped into five key themes as outlined in **Table 2** below.

Table 2 Central Precinct planning priorities

Theme	Planning priorities
Place and destination	<ul style="list-style-type: none"> • Unite the city by reconnecting with the surrounding suburbs • Shape a great place that is vibrant, diverse, active, inclusive and has a high level of amenity • Deliver a precinct which responds to its urban context and embeds design excellence Improve existing and providing additional connected public space in the precinct of high environmental amenity and comfort • Protect and celebrate the Precinct’s heritage values • Create a people focussed precinct through a focus on public transport, cycling and walkability • Facilitate the precinct’s focus on transport and economic diversity in tourism and across commercial sectors including office, business and retail.
People and community	<ul style="list-style-type: none"> • Design public spaces that promote health, equality and well-being • Promote social cohesion by providing spaces for gathering, connection, exchange, opportunity and cultural expression • Honour and celebrate the cultural heritage and identity of the Precinct’s past and present Aboriginal community • Create a safe and intuitive precinct that promotes social access and inclusion • Support programs and initiatives that benefit communities and people • Create a precinct that responds to the current and future needs of transport customers, workers, residents and visitors, including those of the broader local community.
Mobility and access	<ul style="list-style-type: none"> • Provide a world class, integrated and seamless transport interchange • Maintain the precinct’s role as NSW’s main transport interchange • Improve the transport customer experience, including wayfinding, pedestrian flows and interchange between different transport modes • Facilitate and enhancing connections within and towards key locations in southern Central Sydney • Deliver a people focussed precinct that is walkable, well connected, safe and puts people first • Design infrastructure that will adapt to future changes in transport and mobility.
Economy and innovation	<ul style="list-style-type: none"> • Advance Sydney’s status as a global city • Support the creation of jobs and economic growth including new and emerging industries such as innovation and technology and explore the provision of space for cultural and creative uses and start-ups • Provide an active and diverse commercial hub with a rich network of complementary uses that nurture and support business • Support both the day and night economies of the precinct through diverse complementary uses, promoting liveability and productivity • Foster collaboration between major institutions in the precinct including transport, education, health and business

Theme	Planning priorities
	<ul style="list-style-type: none"> • Create a smart precinct that incorporates digital infrastructure to support research and innovation.

6.2 Reference Master Plan

Architectus and Tyrrell Studio have prepared a Place Strategy, Urban Design Framework and a Public Domain Strategy which establishes the Reference Master Plan for Central Precinct. The Urban Design Framework and Public Domain Strategy provides a comprehensive urban design vision and strategy to guide future development of Central Precinct and has informed the proposed planning framework of the SSP Study.

The Reference Master Plan includes:

- Approximately 22,000 sqm of publicly accessible open space comprising:
 - Central Green – a 6,000 square metre publicly accessible park located in immediately south of the Sydney Terminal building
 - Central Square – 7,000 square metre publicly accessible square located at the George Street and Pitt Street junction
 - Mortuary Station Gardens – a 4,470 square metre publicly accessible park (excluding Mortuary Station building) located at Mortuary Station
 - Henry Deane Plaza – a publicly accessible plaza located in the Western Gateway sub-precinct
 - Eddy Avenue Plaza – a 1,680 square metre publicly accessible plaza located in the north-eastern portion of the Sydney Terminal building
 - Western Terminal Extension Building Rooftop - a 970 sqm publicly accessible space above the Western Terminal Extension Building Rooftop.
- Approximately 269,500 square metres of office gross floor area (GFA)
- Approximately 22,850 square metres of retail GFA
- Approximately 53,600 square metres of hotel GFA
- Approximately 84,900 square metres of residential accommodation GFA, providing for approximately 850 dwellings (assuming 1 dwelling per 100sqm GFA)
 - The Central Precinct SSP Study will include the commitment to deliver 15 per cent of any new residential floor space as affordable housing. Following the public exhibition period by DPE of the SSP Study, TfNSW will target for the Precinct, a further 15 percent of new residential floor space to be delivered as diverse housing, including Build to Rent (BTR), subject to further economic modelling and governance considerations. This approach would align both Redfern North Eveleigh and Central Precinct with the same requirements for affordable and diverse housing.
- Approximately 47,250 square metres of education/tech space GFA
- Approximately 22,500 square metres of student accommodation GFA

- Approximately 14,300 square metres of community/cultural space GFA.

The key features of the Indicative Reference Master Plan, include:

- A network of new and enhanced open spaces linked by green connections. This will include:
 - A Central Green (Dune Gardens) at the north of Central Precinct that will create a new civic public realm extension of the Sydney Terminal building and a new vantage point for Central Sydney
 - A new Central Square which will deliver on the vision for a new public square at Central Station, as one of three major public spaces within Central Sydney connected by a people-friendly spine along George Street
 - Mortuary Station Park at Mortuary Station that will be a key public domain interface between Chippendale and the over-station development. that will draw on the story of Rookwood Cemetery and the Victorian Garden context with the established rail heritage of the Goods Line and the rail lines
 - Henry Deane Plaza which will prioritise the pedestrian experience, improving connectivity and pedestrian legibility within the Western Gateway sub-precinct and provide clear direct links to and from the State heritage listed Central Station and its surrounds
 - Eddy Avenue Plaza – will transform into a high-amenity environment with significant greening and an enhanced interface with the Sydney Terminal building.
- A new network of circulation that will establish a clear layer of legibility and public use of the place. This will include:
 - A 15 - 24 metre wide Central Avenue that is laid out in the spirit of other street layouts within Central Sydney and which responds to the position of the Central clocktower, providing new key landmark views to the clocktower. Central Avenue will be a place for people to dwell and to move through quickly. It brings together the threads of character from the wider city and wraps them
 - Three over-rail connections to enhance access and circulation through Central Precinct, as well as provide pedestrian and bicycle cross connections through the precinct
 - The extension of public access along the Goods Line from Mortuary Station Gardens, offering a new connection to Darling Harbour
 - New vertical transportation locations throughout the precinct allowing for seamless vertical connections.
 - An active recreation system supports health and well-being through its running and cycling loops, fitness stations, distributed play elements, informal sports provision, and additional formal recreation courts.
 - a network of fine grain laneways that are open to the sky

The proposed land allocation for Central Precinct is described in **Table 3** below.

Table 3 Breakdown of allocation of land within Central Precinct (note: below figures, except for total Central SSP area, excludes WGP)

Land allocation	Proposed
Open-air rail corridor	sqm 101,755
Developable area	sqm 119,619
Public open space	19,185 sqm / 16% of Developable area
Other publicly accessible open space (Including movement zones, streets and links)	sqm 41,773 / 35% of Developable area
Building area	58,661 sqm / 49% of Developable area
Central SSP total area (incl. WGP)	23.8 ha

The Indicative Reference Master Plan for Central Precinct is illustrated in **Figure 3** below.

Figure 3 Built form illustrative GFA and land use mix

Sub-precinct	Total GFA per sub-precinct (sqm)*
③ Station (terminal building)	15,800
Ⓐ OSD Block A	165,400
A1	66,900
A2	48,900
A3	39,400
A4	4,100
A5	3,000
A6	3,100
Ⓑ OSD Block B	88,900
B1	42,700
B2	37,200
B3	4,000
B4	5,000
Ⓒ OSD Block C	109,700
C1	32,700
C2	28,500
C3	42,800
C4	3,400
C5	2,300
Ⓓ Regent Street Sidings Block D	65,000
D1	33,300
D2	31,700
Ⓔ Prince Alfred Sidings Block E	20,900
Ⓕ Goulburn St Car Park	49,200
Total GFA (excluding Western Gateway)	514,900
Ⓦ Western Gateway	275,000



176 Building numbers key plan



Source: Architectus and Tyrrell Studio

7. Policy context

This chapter situates the Central Precinct in the context of macro-trends and policy aspirations for the Sydney CBD and Eastern Harbour City economy, highlighting Tech Central's strategic assets as a lever for nurturing competitive advantage in technological innovation.

7.1 Tech Central Vision

7.1.1 Overview

The NSW Government has committed to working with the local community to develop the biggest innovation district of its kind in Australia. It envisions Tech Central as: "The world's most sustainable, inclusive, welcoming and creative innovation district for tech companies, talent and investors". It will be the world's most sustainable, inclusive, welcoming and creative innovation district for tech companies, talent and investors.

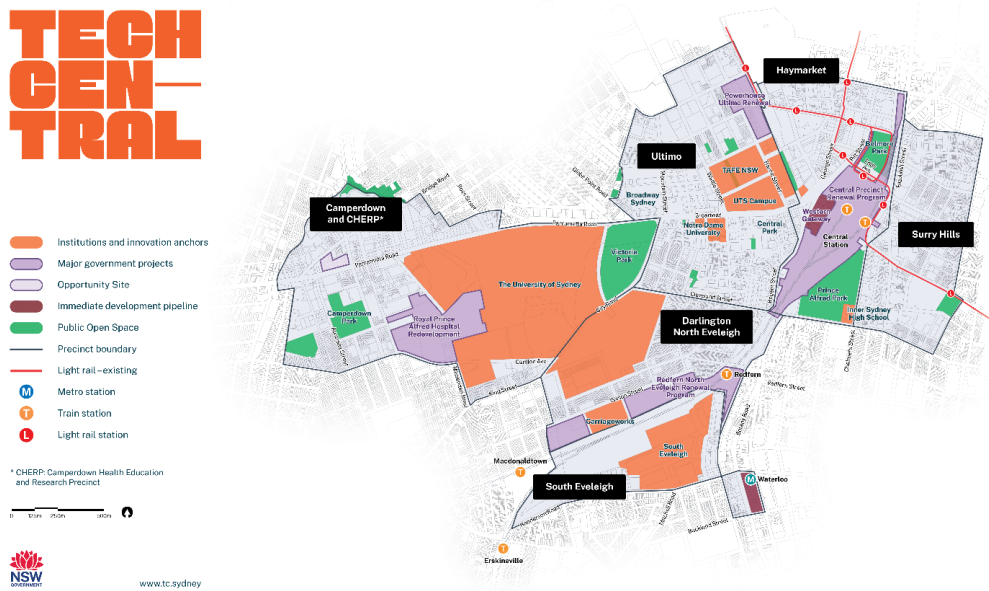
Bringing together six neighbourhoods near the Sydney CBD (Haymarket, Ultimo, Surry Hills, Camperdown, Darlington North Eveleigh and South Eveleigh), Tech Central is a thriving innovation ecosystem that includes three world-class universities, a world-leading research hospital, 100+ research institutions, investors and a wide range of tech and innovation companies. The vision for Tech Central is for it to be a place where universities, startups, scaleups, high-tech giants and the community collaborate to solve problems, socialise and spark ideas that change our world. It is also for it to be a place where centring First Nations voices, low carbon living, green spaces, places for all people and easy transport and digital connections support resilience, amenity, inclusivity, vitality and growth.

The planned urban renewal of the Central Precinct has been identified as key to achieving the vision for Tech Central.

SGS recently conducted economic analysis across the wider Tech Central Precinct to inform future visions and strategic planning. As part of that work, SGS examined Tech Central's current and potential role and function within the corridor connecting Sydney CBD and Botany-Mascot. This approach recognises Tech Central's connectivity to other concentrations of activity within the broader economic ecosystem, which includes the Eastern and Greater Sydney economy. These centres may be geographically dispersed, but are nonetheless connected in the ways they foster innovation and improve the ability of industry-led precincts (such as Tech Central) to gain exposure to new markets.

The Central Precinct considered in this study is located within the Haymarket neighbourhood of Tech Central, as illustrated in Figure 4.

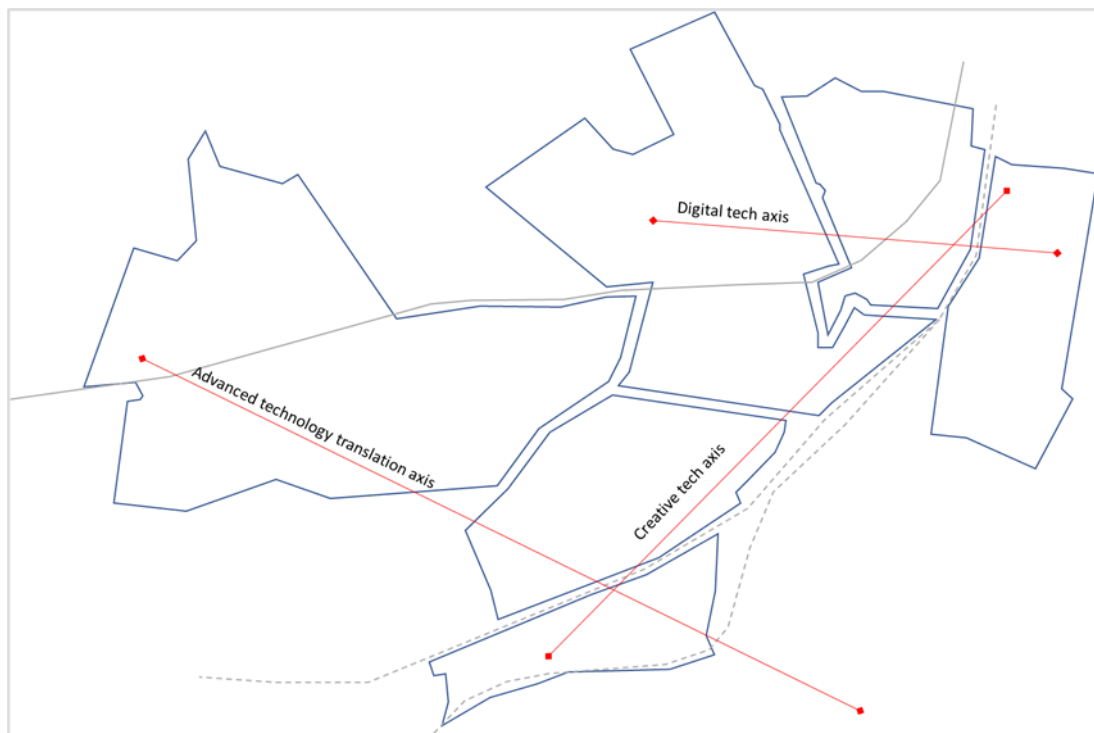
Figure 4 Tech Central sub-precincts



Source: TfNSW, 2022.

In its final report to NSW Treasury (2021), SGS conceptualised three axes of tech opportunity to illustrate how they could co-exist across Tech Central’s six sub-precincts (Figure 5). These axes were identified based on industry and floorspace profiling, opportunities identified in strategic planning documents, macro-economic trends and an understanding of the role and function of various anchor institutions and infrastructure that support the spatial vision.

Figure 5 Three tech axes of Tech Central



Source: SGS Economics and Planning, 2021.

The key features of each axis are summarised below:

- **Digital Tech Axis.** The Digital Tech Axis is defined by those industries most often associated with technology businesses in the Central Station Sub-Precinct, such as software startups and scaleups. The axis also reflects the educational continuum from UTS and Ultimo TAFE through to the future commercial district around Central Station, as well as the areas of Surry Hills and Chippendale that are already home to many digital technology companies. The sub-precinct will play a critical role in this technology axis, providing the floorspace for businesses to scale and establish. The mid-point along this axis is the Powerhouse Ultimo precinct fronting the Goods Line, which will grow as a centre for innovation in digital and other technologies. The axis also links Central Station to Chinatown, a place of high amenity and vibrancy that should be engaged with as part of the future Central Station and Powerhouse Ultimo developments.
- **Creative Tech Axis.** The Creative Tech Axis connects the diversity of creative industries in and outside of the Central Tech Precinct, bringing together current and potential future opportunities in film and television production, software and gaming and production. Across both the Ultimo and South Eveleigh sub-precincts, ABC, Network 10 and Channel 7, as well as the Powerhouse Ultimo all have an established presence that could be a useful lever for industry attraction and growth. Aspirations for the Powerhouse Ultimo to grow as a centre for creative and cultural activity across a range of sectors create a strong northern anchor centred on the Goods Line. This axis would intersect with the Digital Tech axis drawing in software businesses with a specific focus on post-production, e.g. Visual Special Effects, who might in turn be drawn to the Atlassian-anchored Central Precinct or the boutique design studio identity in Surry Hills and Chippendale.
- **Advanced Technology Translation Axis.** The Advanced Technologies Translation axis focuses on the opportunities within med-tech and bio-tech, advanced manufacturing and computational engineering. Anchored to the west by the proposed Camperdown Bio-tech Hub, the axis seeks to connect the bio-tech precinct with the Cicada incubator to create linkages between bio-tech R&D and the institutes focused on prototyping and scaling. This axis focuses on activities not necessarily aligned with commercial floorplates and districts – rather, those aligned with R&D precincts. While this does not preclude Central Station from playing a role (for instance, the Prince Alfred Sidings may support some of these uses) it is considered more likely that these uses will be drawn to existing concentrations of research activity, such as Camperdown, South Eveleigh and Randwick.

7.1.2 Economic connectivity

Over the last 30 years of thriving economic activity in NSW, the Eastern Harbour City has grown employment to over 500,000 jobs and is the largest office market in the region (GCC, 2018). Tech Central and Sydney CBD are well positioned to benefit from the agglomeration economies that arise when workers, firms and specialisations cluster spatially. Firms and workers are incentivised to co-locate or increase their proximity to activity centres to drive cost competitiveness by reducing the tangible and intangible costs of goods, labour and ideas exchange (Glaeser, 2010), therefore generating productivity benefits.

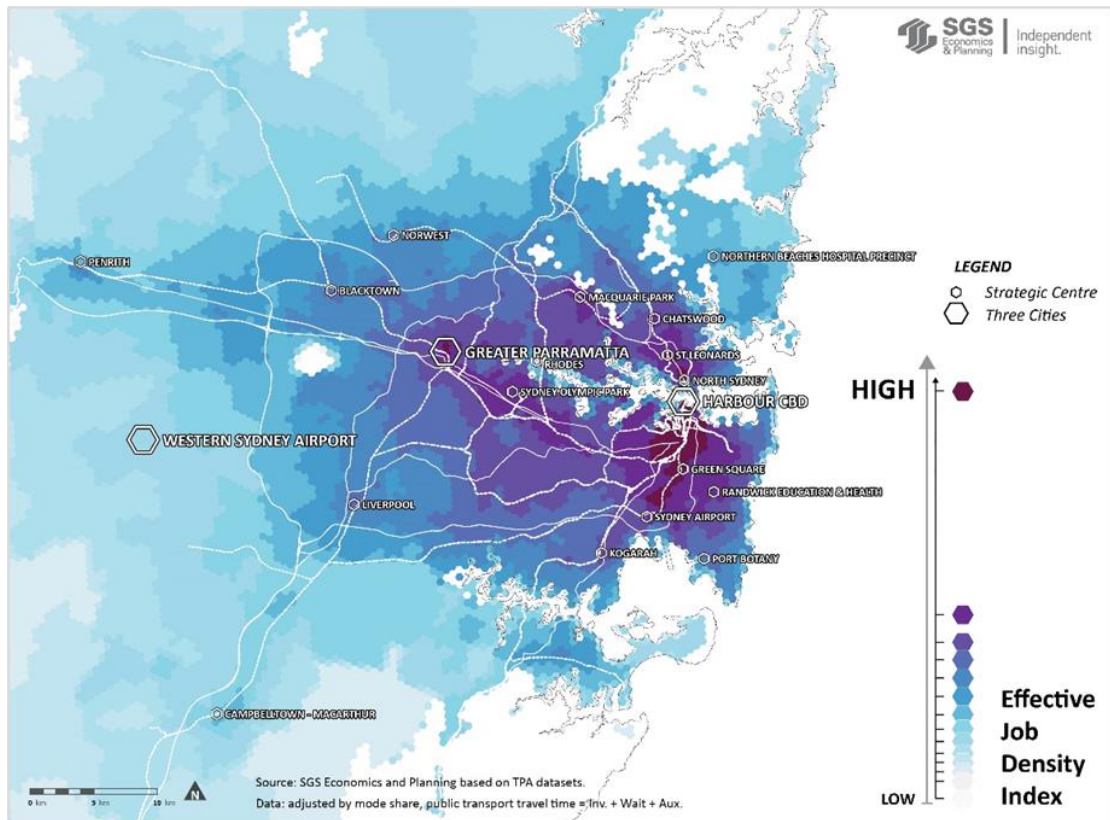
The benefits of agglomeration manifest via the three mechanisms of sharing, matching and learning (Bolter and Robey, 2020):

Table 4 Mechanisms of agglomeration benefits

Mechanism	Application to Tech Central
Sharing of infrastructure to promote utilisation and hence the self-sustaining nature of capital investments	In agglomeration economies, businesses benefit from a higher concentration of amenity at relatively lower costs. They also have easier access to their supply chains and customers if they are more accessible.
Matching labour pools to employment opportunity, although this is more pronounced in urban agglomerations than regions with unskilled labour and/or low density of human capital	Places which are centrally located on transport networks (for example, parts of Tech Central are next to Central Station) have excellent access to labour markets, allowing businesses to closely match the skills of their employees to business needs.
Learning and knowledge spillovers, which can lead to faster rates of innovation	Professional and knowledge-based businesses tend to cluster in central areas like CBDs, allowing people from different organisations to easily meet, learn from each other and conduct business. On a smaller scale, innovation precincts can facilitate knowledge spillovers, whereby casual and professional interactions can generate valuable transfers of skills and business relationships. This factor is particularly relevant for innovative and high-technology sectors, and many innovation and precinct strategies seek to exploit this factor.

Source: Bolter and Robey (2020).

Figure 6 Economic accessibility across Greater Sydney



Source: SGS Economics and Planning, 2021.

7.2 Strategic and policy context

7.2.1 10 Year Blueprint 'Connecting to the future'

The Transport for NSW blueprint sets out the desired outcomes, ambitions and strategic priorities for transport over the next ten years. Of the four primary outcomes described within the strategy, two are directly relevant to the renewal of the Central Precinct:

- **Successful places.** These are places where people come together to interact, transact and travel to other communities. Renewal of the Central Precinct will create a place that integrates a mix of infrastructure, services and experiences for communities, supporting them to achieve their desired social, cultural and economic outcomes.
- **Strong economy and quality of life.** The transport system powers and connects a globally competitive, inclusive and sustainable NSW. As a major node within Greater Sydney's transport network, Central Station plays a critical role in driving economic growth and improving the quality of life for the people of NSW.

These demonstrate the growing focus on place, communities and the economy and the role that transport plays in achieving these outcomes.

7.2.2 NSW Economic Blueprint 2040

The NSW Economic Blueprint sets out the aspirations for the State's economy beyond 2040. The aspirations include having the nation's first trillion-dollar economy; healthy, productive people; liveable and connected cities; productive, vibrant regions; innovative and world class business; a sustainable environment with reliable and affordable energy, and enhanced performance of government.

As part of the economic blueprint, NSW Treasury was also able to identify 'industries of the future'. They include: finance and fintech, mining, education, tourism and major events, arts, culture and creative services, digital and cyber security, MedTech, health and biomedical services, waste management and the circular economy, advanced manufacturing, AgTech and food production, and aerospace and defence.

7.2.3 Global NSW Strategy (2019)

Global NSW complements the NSW Economic Blueprint 2040 and is the NSW Government's approach to international trade, investment and economic development. It is a government-wide plan to competitively position NSW in international markets by capitalising on the global economic and political landscape.

Key levers in the plan include building an export culture amongst domestic businesses to support a global presence and establishing Lighthouse Precincts to attract international investment in priority sectors. The Sydney Innovation and Technology Precinct is one example of a Lighthouse Precinct, demonstrating the attributes of scale and ambition in multidisciplinary job creation, diversity of human capital, and innovation and knowledge exchange that is facilitated by universities and other educational institutions. In practice, the Global NSW approach will leverage a hub-and-spoke model to expand the international

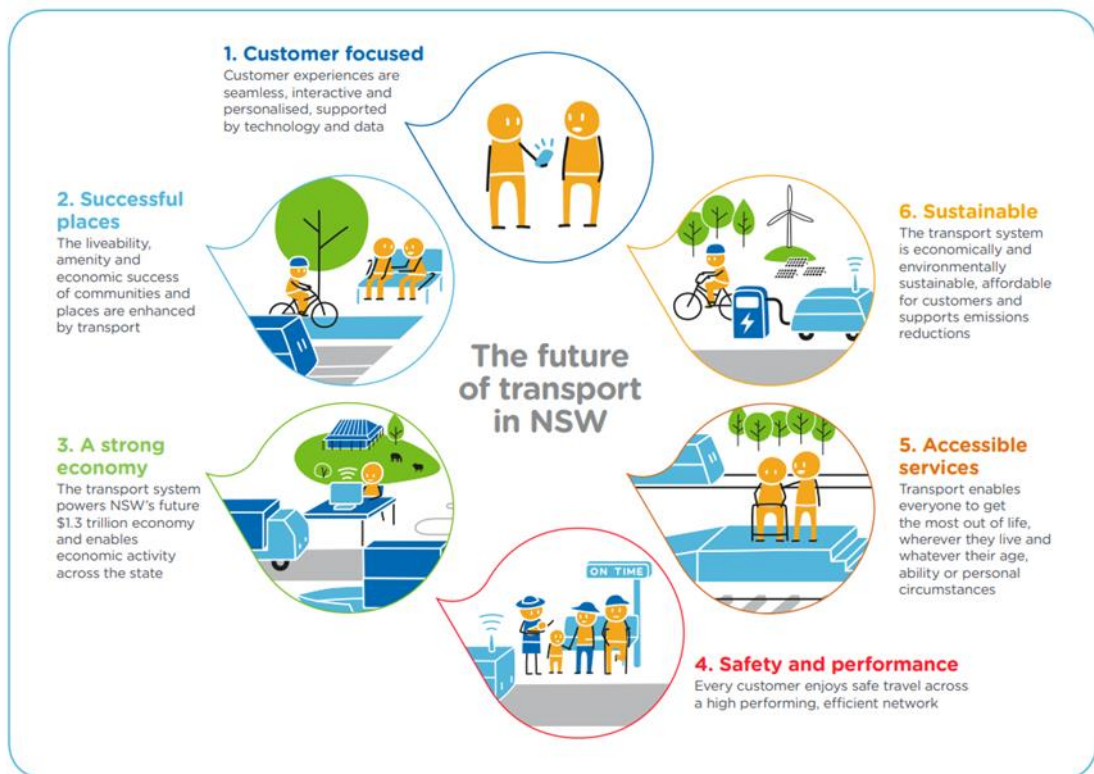
network, with Senior Commissioners to locate in key hub cities: New York, London, Mumbai, Singapore, Shanghai and Tokyo.

7.2.4 Future Transport Strategy 2056

Transport for NSW’s Future Transport Strategy is directly linked to the 10 Year Blueprint (discussed above). The aims of the strategy cut across a variety of themes, all of which are related to the Central Precinct. These include providing accessible services, a sustainable transport system, a safe and efficient network, a focus on customer experiences, successful places and a strong economy.

The strategy emphasises the role that the transport system plays in enabling economic activity by providing local and regional connections. It also identifies how transport can enhance the liveability and amenity of communities.

Figure 7 Future transport's six state-wide outcomes



Source: TfNSW, 2018

7.2.5 Greater Sydney Region Plan and Eastern City District Plan

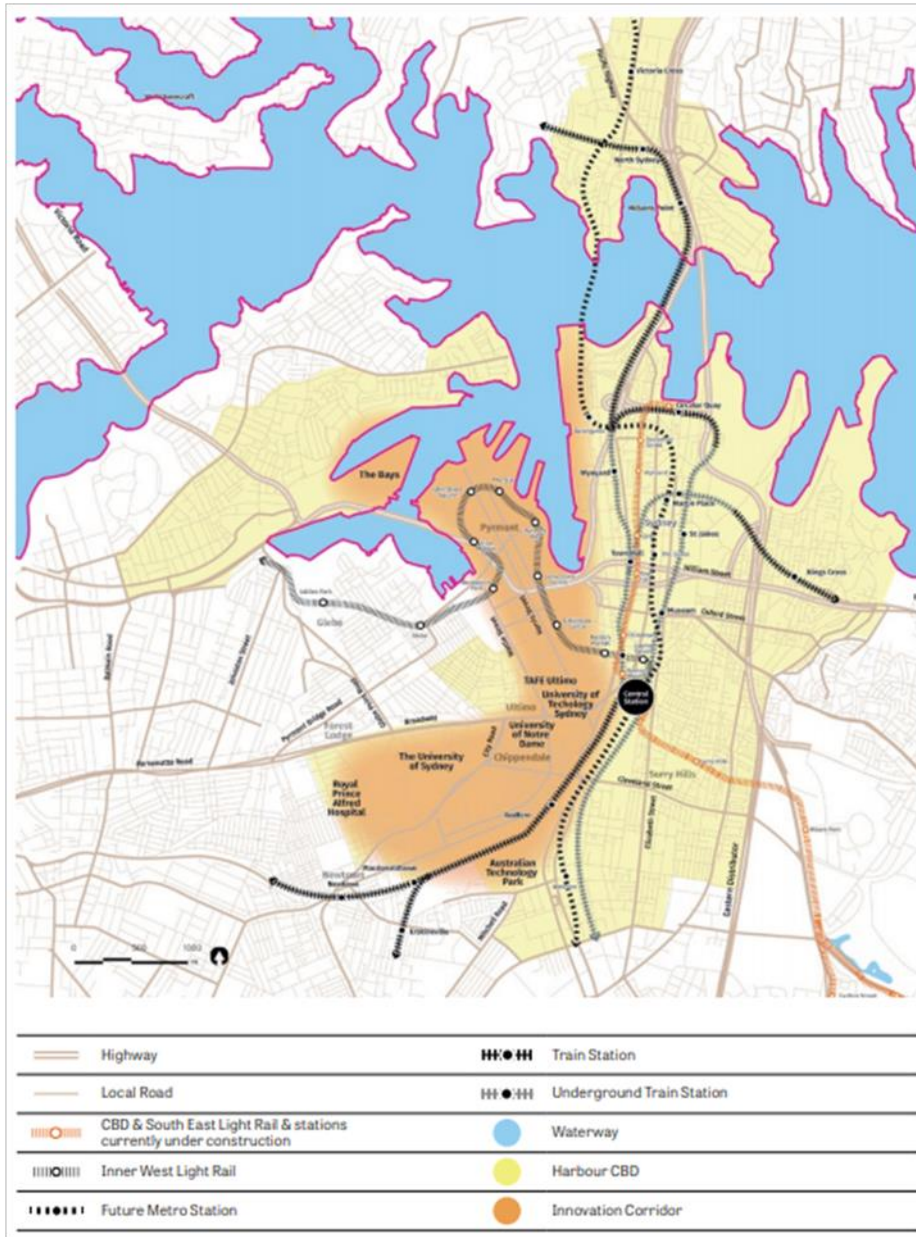
The Greater Sydney Region Plan: A Metropolis of Three Cities sets a 40-year vision for the development of greater Sydney. The Eastern City District Plan builds on this vision and provides detailed planning priorities for the eastern region of greater Sydney. Key aspirations of both plans are Sustainability, Liveability, Productivity, and Infrastructure and Collaboration, which are drivers of the Central Precinct development.

Specifically, the Eastern City District Plan outlines the following planning priorities that are relevant to the Central Precinct:

- Growing and investing in the health and education precinct and the Innovation Corridor
- Delivering integrated land use and transport planning and a 30-minute city
- Growing investment, business opportunities and jobs in strategic centres

The Central Precinct is a gateway to the Camperdown-Ultimo Collaboration Area (now referred to as Tech Central) which is a key part of the Innovation Corridor identified within both strategic plans (see Figure 8). Furthermore, the plan acknowledges that the success of an innovation precinct depends on high levels of amenity, walkability and good transport connections to spur rapid exchange of ideas and establishment of networks.

Figure 8 Eastern City district innovation corridor



Source: GCC, Eastern District Plan

7.2.6 Cultural Infrastructure Plan 2025+

The Cultural Infrastructure Plan 2025+ (CIP) guides the NSW Government’s planning and delivery of cultural infrastructure across the state. The plan recognises that cultural benefits extend beyond their intrinsic value of enriching citizens’ lives creatively and emotionally; culture is a cornerstone of community identities and helps to build social cohesion and wellbeing. The social and economic contributions of cultural infrastructure are wide ranging, including a \$16.3 billion contribution to Gross State Regional Product in 2016-17 and a social asset value of \$17.5 billion from visitation value and broader societal value (Create NSW, 2019).

There are opportunities for the Central Precinct development to support the CIP's strategic priorities. These include access to space for community participation in culture and creating impact through partnerships and capacity building. There is also alignment in the consultation themes emerging from the Central Precinct planning (see the First Nations and Cultural Capital consultation summaries at section 2.5 below) and the CIP, with an emphasis on Aboriginal empowerment and adequate and suitable space for cultural production.

7.2.7 Camperdown-Ultimo Collaboration Area Place Strategy

The GCC's Place Strategy for the Camperdown-Ultimo Collaboration Area (now referred to as Tech Central) sets out a vision, priorities and actions for the area to 2036. The intent of the strategy is to make the Collaboration Area the innovation and technology capital of Australia, fostering collaboration between a range of sectors and creating liveable places for people. The key strengths of the area are identified as health, education and research built around existing institutional clusters and nodes within the Collaboration Area. The strategy contains priorities and actions under the themes of Connectivity, Liveability, Productivity, Sustainability, and Governance.

The Place Strategy notes a number of complex issues, including an uneven distribution of public and active transport links, poor pedestrian amenity, a lack of community and other infrastructure to support population growth, and a lack of a cohesive overall identity or objectives for the future development of this part of the city. The Place Strategy identifies three activity nodes and three axes that connect these nodes (see Figure 9).

Identified strengths of the precinct include the extensive variety of health, education, research and other anchor institutions, the distinct character and economy of the area, major transport interchanges, the diverse communities and peoples, major retail outlets and major planned urban renewal and redevelopment.

Renewal of the Central Precinct is one of the identified top priorities for enabling the integration and connectivity of the Collaboration Area within and beyond its edges, and to local transport options and amenity within the Collaboration Area.

- The vision for the Collaboration Area is to be a place globally recognised for its:
- High growth sectors, new jobs and new investment
- Economic and social contribution to NSW
- Major contribution to research, discovery, and innovation
- Excellence in research and industry collaboration
- Excellent public transport, walking and cycling and great places
- Authenticity, character, outstanding architecture, engaging streetscapes and built environment
- Resilient local community and businesses
- Diverse local community

- Attractiveness, liveability, and reliance on sustainable shared resources

Figure 9 Place Strategy for Camperdown-Ultimo



Source: Camperdown-Ultimo Collaboration Area Place Strategy, 2018

7.2.8 Central to Eveleigh Urban Transformation Strategy (2016)

UrbanGrowth NSW's strategy for Central to Eveleigh provides '10 key moves' for the urban renewal of the precinct. The key moves relevant to the Central Precinct are as follows:

- Create centres of activity around stations
- Create a centre for Sydney's growing economies
- Strengthen arts, culture and heritage
- Integrate new high-density mixed-use buildings with existing neighbourhoods and places
- Connect the city with surrounding places
- Create walking and cycling connections across the railway corridor

The strategy also outlines a specific vision for the Central Precinct to become a world-class transport hub - an expansion of Sydney's CBD that transforms the station into a place where people meet and enjoy staying for a while.

7.2.9 Central Station Structure Plan and Urban Design Report

The Central Station structure plan and urban design report provides an in-depth framework for the renewal of the Central Precinct. The plan outlines both challenges and opportunities for the precinct, as well as identifying that the Central Precinct and surrounding areas have the foundations for a thriving innovation and technology precinct. Subsequently, the plan emphasises that renewal of the precinct will provide the opportunity to tap into the existing network of creative and innovative jobs within the area.

7.2.10 City Plan 2036: City of Sydney Local Strategic Planning Statement

The City of Sydney (CoS) Local Strategic Planning Statement (LSPS) is a 20 year land use vision that provides a link between the NSW Government's strategic plans and the City of Sydney's strategic plans and local planning controls (see Figure 10). The requirement for local governments to produce an LSPS was legislated under the Environmental Planning and Assessment Act 1979. The LSPS directly addresses the key strategic directions set by the Greater Cities Commission, namely infrastructure, liveability, productivity, and sustainability.

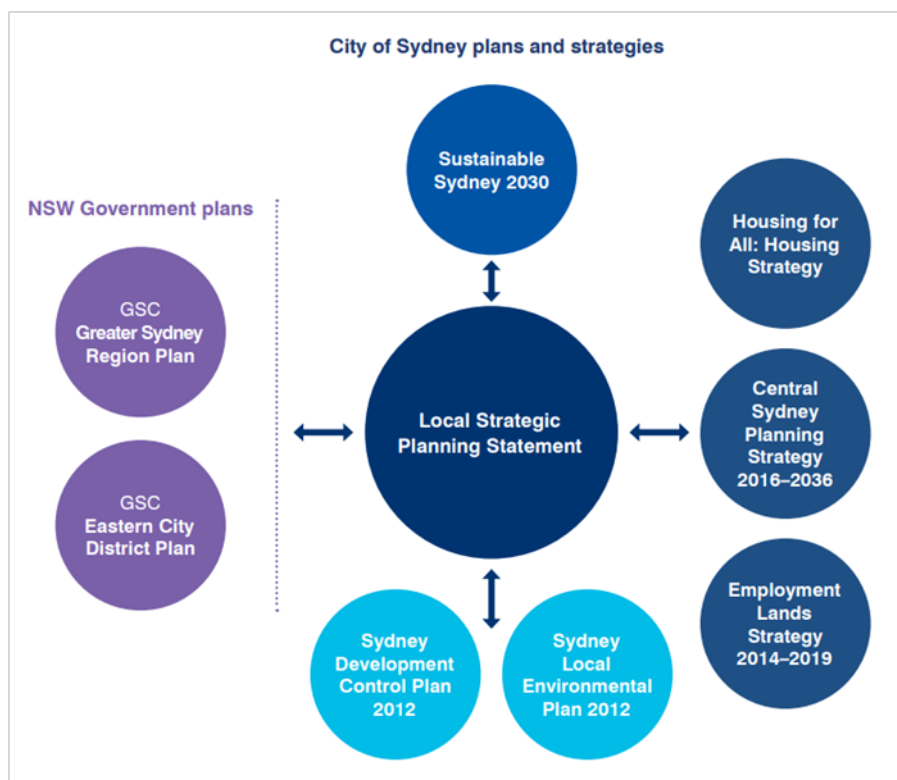
The LSPS has identified the local economy as moving further towards specialisation and clustering in knowledge-intensive services and industries. Despite the benefits of this growth, the LSPS also outlines that a long-term challenge for the CoS is ensuring a balance between accommodating the on-going demand for housing within the LGA, while also supporting the economic contribution of these industries to the region and nation. As such, ensuring a diverse offering of employment floor space, in the right locations and at a range of price points, is identified as a key priority for the CoS.

The Liveability chapter of the planning statement highlights three priorities and 25 actions to improve people's quality of life and wellbeing. Relevant considerations for Central Precinct planning include:

- The role of public squares to public life, noting that the 2007 report Public Space Public Life identified the need to develop a southern city square at Central Station and Railway Square,
- The need to conserve heritage areas for their significant contributions to the character and amenity that is sought by emerging innovation clusters,
- An action to work with Aboriginal and Torres Strait Islander Advisory Panel to identify strategies for recognition through land use planning, including designing with country,
- Ensuring the sustainable provision of housing supply to offer diversity of housing type, tenure options, size and price points.

An overview of how the Local Strategic Planning Statement interfaces with other strategies is shown below.

Figure 10 Strategic planning framework



Source: CoS, 2020

7.2.11 Central Sydney Planning Strategy (2016-2036)

The Central Sydney Planning Strategy (CSPS) proposes a suite of changes to the planning framework and processes to guide growth in Sydney over the twenty years to 2036. Key changes relate to density and land use provisions, with implications for development potential in Central Sydney:

- A 50 per cent cap on residential floorspace for developments exceeding a height of 55m to incentivise genuine mixed-use outcomes,
- Amendments to floorspace ratios (FSR) to permit taller buildings with higher FSRs for income-earning uses in the right locations, and
- The introduction of a new affordable housing contribution regime.

Since the release of the draft Strategy in 2016, fundamental changes to the strategic planning framework include the development of the Greater Sydney Region Plan and the Eastern City District Plan (2018). An Addendum to the CSPA was released in 2020 to communicate key changes, namely:

- Increasing building height and density in tower cluster areas to facilitate employment growth opportunities,
- Removing the residential and serviced apartment floorspace bonus to encourage more office, hotel and cultural space in the CBD, and
- Preparing a new development contributions plan to support funding for new public infrastructure.

7.2.12 City of Sydney Sustainable Sydney 2030

Sustainable Sydney 2030 is the City of Sydney's overarching community strategic plan that sets a vision for the LGA to become a green, global and connected city. It is the CoS's overarching strategic plan and is updated every four years. The strategic directions outlined by the plan are:

Green: with a modest environmental impact, green with trees, green by example and green by reputation.

- A city that is resilient in the face of climate change and environmental challenges.
- A city internationally recognised as a leader with outstanding environmental performance and new green industries driving economic growth.
- A city where new housing opportunities are integrated with vital transport, facilities, infrastructure and open space that supports high-density living.
- A city that fosters resilience in our communities, where there is access to well-designed, adaptable and sustainable housing, and where communal spaces are used for entertainment, play and relaxation in high-density environments.
- A thriving city that can be handed down to the next generation of Sydneysiders.

Global: in economic orientation and open-minded in outlook and attitude.

- A city with a resilient economy.
- A city where housing supply helps sustain Sydney as a global city – where businesses can attract and retain talent, and key workers, artists and creative workers can afford to live close to work.
- A city which remains one of the most liveable in the world.

- A city where housing supports the health, well-being, creativity and cultural differences of the community.
- A city where economic competitiveness is supported and where the need for space for productive uses is not ignored in the face of the high demand for housing.

Connected: physically by walking, cycling and high-quality public transport, connected communities through a sense of belonging and social well-being, and connected to each other with a shared interest in making the city a better place.

- A city with a resilient community.
- A city where housing is understood to be a basic human right.
- A city in which diverse housing types and tenures provide the foundation for an inclusive city.
- A city where people can live, work and play locally.
- A city where people with low incomes and people who are vulnerable have access to a secure, affordable and safe place to call home.
- A city where there is unprecedented collaboration between the public, private and non-profit sectors to test new ideas and deliver better housing outcomes.

The CoS is currently in the process of developing the Sustainable Sydney 2050 Community Strategic Plan.

7.2.13 Mapping Culture: Venues and Infrastructure in the City of Sydney (2016)

This project is part of an ongoing commitment to develop a cultural and creative city under Strategic Direction 7 of the City of Sydney's Sustainable Sydney 2030 strategic plan. The project developed a database of cultural venues and infrastructure to support better understanding of the relationships between arts, creative enterprise, community facilities and other sectors.

Drawing on its classification framework of culture, the report characterises the location and distribution of 3,106 cultural venues and 6,329 value chain roles played by the City of Sydney's cultural and creative spaces. Specific recommendations that may be relevant to the Central Precinct development include:

- Examine how creative hub models can be sustained, scaled and support creative participation,
- Explore local and global initiatives to co-design affordable housing and workspace for artists,
- Identify opportunities related to capacity building and centralising promotion of industry-specific training, mentorships, networks and infrastructure,
- Examine how technology software, infrastructure and hardware can be blended to support affordability, travel, information and analytics, and
- Explore the needs and interests of diverse and non-traditional audiences.

7.2.14 OPEN Sydney Strategy and Action Plan

The OPEN Strategy and Action Plan established a vision for the development of Sydney's night-time economy between 2013 and 2030 (introduced prior to the implementation of the lock out laws). The Strategy included five goals for the night-time economy, organised around the themes of: global, connected, diverse, inviting and safe, and responsive.

7.2.15 City of Sydney Cultural Policy and Action Plan

The City's 2014 Cultural Policy and Action plan set out foundational principles and a 10-year action plan to support artists and cultural/creative sector workers to live and work in the LGA. This aims to build the city's 'cultural capacity' and offerings.

The policy includes a strategic priority for precinct distinctiveness and creativity in the public domain, with the intention for initiatives of varying scales and timeframes to be used to activate the public domain in the City's Villages, and build on their existing identity and strengths. This priority included an action for a culture-led revitalisation of the Oxford Street precinct (endorsed in 2011) to include:

- Curated creative retailing
- Affordable creative spaces
- Cultural and community events
- Pop-up retail, public art
- Open studios
- Establishment of the Oxford Street Creative Precinct Network.

The policy also includes a strategic priority to around sector sustainability – surviving and thriving, with the aim of providing financial and non-financial support to artists and creative businesses, recognising affordability issues in securing housing and creative workspace.

7.2.16 An Open and Creative City: planning for culture and the night-time economy

The 2017 Open and Creative City strategy built on the documents above to provide a vision for the development of the night-time economy. Among the proposals and actions outlined, there is a general focus on reducing the legal and administrative barriers which small businesses and cultural initiatives face when operating later into the evening.

Several actions, such as Action 7: Planning controls for new venues and for new noise sensitive development and Action 8: New noise compliance guidelines to provide greater certainty and consistency, focus on delivering built outcomes which to limit the impact of noise in locations proximal to areas of night-time activity.

7.2.17 Making Space for Culture in Sydney – Cultural Infrastructure Study 2020

The City's Making Space for Culture study was prepared as a response to the challenge many cities around the world have faced in maintaining their distinctive cultures while managing

rapid urban change. This recognises that cultural spaces have often paid the price for the expansion of residential and other development, and that despite its importance, cultural infrastructure is often not perceived as essential in the same way as other forms of urban infrastructure are.

The study considers international efforts to make space for culture in cities, the situation within the City of Sydney and across Greater Sydney, and potential policy responses. The recommendations of the study included to:

- Refresh the Creative City Cultural Policy and Action Plan to emphasise facilitating active creative production and participation, focusing on inclusion and diversity, retaining the cultural workforce, and supporting the cultural rights of citizens.
- Pursue new avenues to integrate cultural policy and urban development, such as identifying specific cultural infrastructure needs, developing relationships between government and private partners to deliver and/or utilise suitable spaces and pilot projects, support protections to preserve existing cultural spaces and uses, and to leverage the use of City-owned properties to support cultural activities.
- Build knowledge and capacity of stakeholders to safeguard cultural spaces, including through connecting the cultural and property sectors to work towards the same goals and learning from cities elsewhere in establishing third-party organisations to be responsible for cultural infrastructure projects.
- Commit to researching and trialling Sydney-specific solutions, such as adapting innovative means to fund projects.

7.2.18 2015 Sydney Fringe Festival: Findings of the pop-up theatre pilot project

This summary report covers the processes and experiences involved in creating temporary theatres as part of the Sydney Fringe Festival, the largest independent arts festival in NSW. The pilot project arose from an identified need for suitable small to medium sized performance spaces for festival artists who present over 350 productions annually. In recent years, worsening affordability and supply issues have impacted the creative sector, which limits the potential for entrepreneurial and experimental activity.

Through a stocktake of existing theatre sites for hire and extensive interviews, the report adds to the well-documented cultural and economic benefits of applying empty retail and alternative spaces to pop-up and temporary activity. Many of the report's recommendations focus on barriers to sustainable participation within the regulatory environment:

- Expanding the regulatory pathway for 'temporary use', which must be sufficiently flexible to address sector and individual organisational needs,
- Improving the regulatory conditions for multi-purpose business models, and
- Streamlining the application process for temporary uses to maximise the ability of projects to submit and gain approval in time to meet project deadlines.

7.2.19 Sydney Development Control Plan 2012: section 3.15 Late Night Trading Management

This provision guides the management of late-night trading impacts in the City of Sydney and outlines the permissible hours of operation for different business categories based on their location and surrounding land use. Its intention is to encourage a mix of night-time uses with broad community appeal, recognising the valuable contributions of a vibrant night-time economy to the local commercial, cultural and social fabric, while minimising noise and other impacts to the amenity of residential or other sensitive land uses.

7.2.20 Camperdown Biotechnology Precinct

As part of the GCC-led Camperdown-Ultimo Area Place Strategy, a Biotechnology hub has been proposed and explored in the Camperdown industrial precinct along Parramatta Road. The Camperdown-Ultimo Area Place Strategy identifies a loose collection of specialisation clusters, with Innovation and Health, Education and Research interacting within this large precinct. The Place Strategy recognises this as a high value ecosystem, with different precincts focusing on different comparative strengths. These industry specialisations were examined in more detail in SGS's recent study for NSW Treasury and the GCC on the industry specialisation of the Tech Central Lighthouse Precinct. Some of this analysis and insight is provided in Chapter 3.

The proposed biotechnology precinct identified in the strategy was examined in more detail in 2019. Inner West Council, in partnership with the University of Sydney, city of Sydney and Sydney Local Health District undertook the development of a strategic directions study for this biotech precinct. This was undertaken by SGS in partnership with Hill PDA. This strategy recognised the unique built form typology and locational characteristics required of a biotech precinct and proposed its location on the current Westconnex Diver Site in the Camperdown Industrial Precinct on Parramatta Road. The intention was to embed it in the wider infrastructure and density of research activity undertaken in Camperdown, centred on RPA Hospital, the University of Sydney and the many medical research institutes (MRI) located in the precinct.

7.2.21 Sydney Innovation and Technology Precinct Panel Report (2018)

Following a 2018 commitment to create a globally competitive innovation and technology precinct, a panel of industry and government members was established to design the vision and pathway for the precinct. The report sets the following goals:

An initial commitment of 250,000 sqm of net lettable floorspace for technology companies, including 50,000 sqm available as affordable workspace for startups and early stage companies,

- Agreements signed with a minimum of five anchor tenants by 2020,
- 25,000 additional innovation jobs
- 25,000 new students, with a focus on STEM and life sciences,
- 100 new scaleup companies

- Development of a 15 year plan for the precinct, and
- A top five ranking for industry-university collaboration.

The report also considers how the Sydney Innovation and Technology Precinct can leverage existing capabilities to drive performance on known success factors for innovation precincts. These include: the precinct's strong market demand for goods and services, the presence of organisations seeking opportunities for cross-industry collaboration, a strong entrepreneurial culture, and an environment rich in amenity and physical, transport and digital infrastructure.

7.2.22 Planning Cultural Creation and Production in Sydney (2018)

The City of Sydney commissioned this report to better understand the role of workspaces used by cultural and creative producers within wider cultural value chains, as well as the social and economic environment that guides the settlement patterns of cultural and creative production. Based on a series of interviews, the report profiles 18 case studies of cultural venues currently used in the City of Sydney LGA. From this primary data, emerging trends and major issues relevant to current and future demand for creative spaces in Sydney were identified. The report concludes with some considerations for achieving a more balanced and sustainable approach to planning cultural infrastructure in the CoS (WSU, 2018):

- Promote better use and visibility of existing space in City of Sydney, as well as explore the potential of more expansive initiatives offering creative space across the Sydney metropolitan region,
- Increase supply of diverse creative space and advocate for alternative policies,
- Map and save remaining industrial buildings for cultural investment, as well as activate more general space suitable for creative enterprise and affordable housing,
- Support knowledge-sharing among creative clusters to generate collective resources, workspace and advocacy,
- Innovative planning, administrative and communicative procedures to overcome barriers,
- The need for all levels of government (national, state and local) to increase investment in the sector in order to obtain more suitable spaces, foster small-medium scale initiatives, as well as to embed creative brokers who are pivotal in enhancing ongoing collaboration, and
- Foster a metropolitan Sydney perspective and cultural planning approach.

There is potentially a role for the Central Precinct development to shape, whether directly or indirectly, practices and market drivers relating to cultural and creative floorspace use. The impacts of commercialisation, gentrification and privatisation on spaces for cultural and creative production are not unique to the sector. For example, a need for affordable and fit for purpose space and for tailored support mechanisms, particularly for smaller-scale operations and opportunities, are also evidenced by Tech Central Planning.

7.2.23 The Economics of Australia’s small-to-medium visual arts sector (2017)

The National Association for the Visual Arts (NAVA) commissioned this report to gather data on the small-to-medium (S2M) visual arts sector. Despite the significant contributions of the S2M sector to art production, exhibitions, events, workshops and an estimate 6.2 million visits in 2016, S2M sector funding represents less than a third of the \$368 million revenue of Australia’s major galleries.

The report’s primary focus is on the economics, workforce and funding profile of the S2M arts sector nationally. However, it includes a useful typology of the S2M ecosystem that may be useful for the Central Precinct’s connectivity with other creative and cultural landmarks in the region:

Table 5 Classifying the S2M arts ecosystem

	Primary input / funding	Role in the arts ecosystem
Artist run initiatives (ARIs)	Volunteers	Supporting creation of new artwork, experimentation and risk.
Contemporary arts organisations (CAOs)	State and Federal government	Exposing art to larger audiences, international connection, critical curatorial practise, advocacy and professional opportunities.
Craft and design centres (C&DCs)	Sales, State and Federal government	Craft skills development, exhibition and making spaces. Exposure and retail.
Metro galleries	State and local government	Exhibition spaces. Commercial enterprises, studio spaces.
Regional galleries	Local government	Bringing art to the regions and supporting regional artists. National Exhibitions Touring Support (NETS) touring.
Service organisations	State and Federal government	Advocacy, research, sector coordination, service provision and professional development.

Source: S2M: The economics of Australia’s small-to-medium visual arts sector, National Association for the Visual Arts (2017)

7.2.24 Smart City Strategic Framework

The City of Sydney's Smart City Strategic Framework harnesses the opportunities arising from digital disruption for better decision-making across a range of policy domains. The framework outlines five strategic outcomes and fifteen priorities, supported by smart infrastructure (e.g. sensors; data integration and analytics platforms) and an enabling environment developed through leadership, governance, ethical innovation and partnerships.

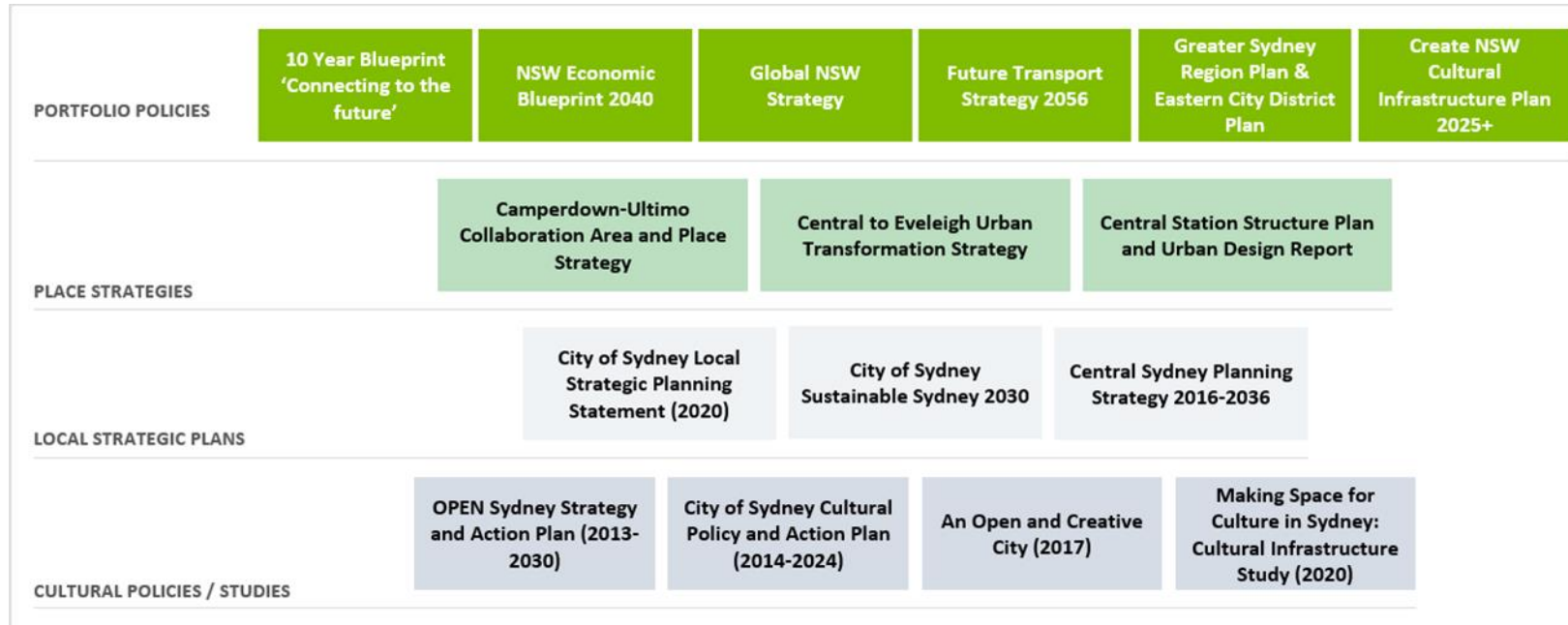
There is an opportunity for Central Precinct's employment profile and infrastructure to support the framework's priorities, which include:

- A thriving innovation ecosystem cultivating a culture of experimentation,
- A knowledge economy and workforce equipped with the skills and supporting structures to leverage new technologies, and
- A digital-ready community for a digitally-inclusive future.

7.2.25 Summary of policy context

A high-level taxonomy of strategic planning documents relevant to Central Precinct (Figure 11) and their high-level summary (Table 6) are provided below. This is followed by a more detailed description of the priorities and key moves that are likely to shape the Central Precinct development.

Figure 11 High level strategic and policy context of the Central Precinct



Source: SGS Economics and Planning, 2021.

Table 6: Detailed summary of strategic and policy context for the Central Precinct

	10 Year Blueprint 'Connecting to the future'	NSW Economic Blueprint 2040	Global NSW Strategy	Future Transport Strategy 2056	Greater Sydney Region Plan and Eastern City District Plan
	<i>TfNSW</i>	<i>NSW Treasury</i>	<i>Investment NSW</i>	<i>TfNSW</i>	<i>GCC</i>
Vision and aspirations	<ul style="list-style-type: none"> Connecting customers' whole lives Successful places Strong economy and quality of life Thriving people doing meaningful work 	<ul style="list-style-type: none"> The nation's first trillion-dollar economy Healthy, productive people Vibrant and well-connected major urban centres Productive, vibrant regions Government that encourages innovation 	<ul style="list-style-type: none"> Connect NSW to the world by growing world-leading industries and creating great places to live, work and study 	<ul style="list-style-type: none"> Seamless, interactive and personalised customer experiences Successful places A strong economy Safety and performance of the transit network Accessible services A focus on sustainability 	<ul style="list-style-type: none"> Key aspirations of Sustainability, Liveability, Productivity, and Infrastructure and Collaboration Growing and investing in the health and education precinct and the Innovation Corridor Delivering integrated land use and transport planning and a 30-minute city Growing investment, business opportunities and jobs in strategic centres
Strategic alignment means the Central Precinct renewal...	<ul style="list-style-type: none"> Offers communities places to interact, not just interchange 	<ul style="list-style-type: none"> Acknowledges future of work trends, where digital technology reduces travel times and the need for new infrastructure investments, as well as the physical space needed for such investment 	<ul style="list-style-type: none"> Nurtures innovation and start-up ecosystems Grows priority sectors, e.g. cyber-security 	<ul style="list-style-type: none"> Considers the <i>Movement and Place framework</i>, which may help to address the Central precinct challenge of transport arteries and their effect on discontinuity with surrounding sub-precincts 	<ul style="list-style-type: none"> Combines history and heritage with modern design achieves an urban environment that demonstrates shared values and contributes to a sense of place and identity

	Cultural Infrastructure Plan 2025+	Camperdown-Ultimo Collaboration Area Place Strategy	Central to Eveleigh Urban Transformation Strategy (2016)	Central Station Structure Plan and Urban Design Report	City Plan 2036: Local Strategic Planning Statement
	<i>Create NSW</i>	<i>GCC</i>	<i>UrbanGrowth NSW</i>	<i>DPE</i>	<i>CoS</i>
Vision and aspirations	<ul style="list-style-type: none"> Support strong communities and economies Access to space for community participation in culture A collaborative and thriving cultural sector Create impact through partnerships and capacity building Greater Sydney is recognised as a leading cultural destination of the Asia-Pacific Leverages the diversity and unique cultural identities across NSW 	<ul style="list-style-type: none"> In 2036, Camperdown-Ultimo Collaboration Area is Australia’s innovation and technology capital. Industry, business, health, education and skills institutions work together, and talent, creativity, research and partnerships thrive. Low carbon living, green spaces, places for people and easy connections support resilience, amenity, vitality and growth. 	<ul style="list-style-type: none"> A place that builds community by celebrating rich diversity and heritage A place with a broader supply and choice of homes and active, sage and attractive public places A place that response to economic, social and climatic changes A place that connects many types of businesses and offers the right balance and diversity of service, trade, digital, education, innovation and creative industries 	<ul style="list-style-type: none"> Tech Central will create a vibrant innovation and technology precinct with strong links to international markets, Greater Sydney and the rest of NSW Tech Central will diversify the NSW economy and position it as a leader in fintech, cyber, e-Health, deep technology and the creative industries. 	<ul style="list-style-type: none"> Green, with a low environmental impact, trees and open space Global in economic orientation and partnerships Connected physically by walking, cycling and high-quality public transport
Strategic alignment means the Central Station renewal...	<ul style="list-style-type: none"> Increases access to cultural infrastructure for Central Precinct residents and visitors Increases availability of affordable, fit-for-purpose and sustainable space to support 	<ul style="list-style-type: none"> Improves seamless digital connectivity, which could attract tech companies 	<ul style="list-style-type: none"> Offers places where people meet and enjoy staying for a while 	<ul style="list-style-type: none"> Accommodates up to 250,000 sqm of space for tech companies, including 50,000 sqm at affordable rates for startups and scaleups 	<ul style="list-style-type: none"> Celebrates the Gadigal culture and connection to the land Ensures a diverse offering of employment floor space, in the right locations and at a range of price points

	growth of the cultural sector and creative industries			<ul style="list-style-type: none"> Leverages Atlassian’s anchor tenancy and the influx of tech talent 	
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	Central Sydney Planning Strategy (2016-2036)	Sustainable Sydney 2030: Community Strategic Plan (2017-2021)	OPEN Sydney Strategy and Action Plan (2013-2030)	City of Sydney Cultural Policy and Action Plan 2014-2024	An Open and Creative City: Discussion Paper (2017)	Making Space for Culture in Sydney: Cultural Infrastructure Study 2020
	CoS	CoS	CoS	CoS	CoS	CoS
Vision and aspirations	<ul style="list-style-type: none"> Promotes sustainable buildings with great design and architecture Creates opportunities for beautiful parks and places Enables the protection and adaption of our heritage Ensures a resilient and diverse economy Promotes efficient and effective transportation Makes efficient use of land Delivers a city for people Ensures strong community and service infrastructure accompanies growth 	<ul style="list-style-type: none"> Similar to the LSPS, the aspiration is for Sydney to be Green, Global and Connected There are 10 targets for 2030 to make the city more sustainable, including a reduction in greenhouse gas emissions, greater renewables focus and housing diversity 	<ul style="list-style-type: none"> Making Sydney’s night-time economy better connected, more diverse, inviting and responsive to change 	<ul style="list-style-type: none"> Curated creative retailing Affordable creative spaces Cultural and community events Pop-up retail, public art Open studios Establishment of the Oxford Street Creative Precinct Network 	<ul style="list-style-type: none"> A diverse evening economy More small-scale cultural uses Fair management of entertainment noise 	<ul style="list-style-type: none"> Pursue new avenues for integrating cultural policy and urban development Mitigate the challenges of maintaining distinctive cultures while managing rapid urban change
Strategic alignment means the Central	<ul style="list-style-type: none"> Protects, enhances and expands Central Sydney’s heritage and public spaces, including the 	<ul style="list-style-type: none"> Identifies opportunities for partnerships, sponsorships and MoUs across community, 	<ul style="list-style-type: none"> Enhances transport connections and multimodality so that residents and visitors 	<ul style="list-style-type: none"> Includes a diversity of cultural infrastructure, such as places for active civic engagement and 	<ul style="list-style-type: none"> Aims to provide co-working spaces for startups and social enterprises, who are 	<ul style="list-style-type: none"> Considers the use of government-owned buildings to provide

Station renewal...	<p>significant public view corridors at Central Railway clock tower</p> <ul style="list-style-type: none"> Creates a pedestrianised village square at Central Station 	business, government and civil society	can access the night-time economy	spaces for temporary or special event cultural use	incubators for Sydney's creative life	space for cultural enterprise
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	Smart City Strategic Framework	Sydney Innovation and Technology Precinct Panel Report (2018)	Planning Cultural Creation and Production in Sydney (2018)	Mapping Culture: Venues and Infrastructure in the City of Sydney (2016)	Festival Findings of the Temporary Theatres Pilot Project Report (2015)
	<i>CoS</i>	<i>NSW Government</i>	<i>Western Sydney University</i>	<i>Western Sydney University</i>	<i>Sydney Fringe Festival</i>
Vision and aspirations	<p>The framework priorities are:</p> <ul style="list-style-type: none"> A thriving innovation ecosystem cultivating a culture of experimentation, A knowledge economy and workforce equipped with the skills and supporting structures to leverage new technologies, and A digital-ready community for a digitally-inclusive future. 	<p>The panel report outlines the following goals:</p> <ul style="list-style-type: none"> Initial commitment of 250,000 sqm net lettable floorspace for tech companies, including 50,000 sqm affordable workspace, Agreements signed with a minimum of five anchor tenants by 2020, 25,000 additional innovation jobs and 25,000 new students, with a focus on STEM and life sciences, 100 new scaleups Development of a 15 year plan for the precinct, and 	<ul style="list-style-type: none"> A more balanced and sustainable approach to planning cultural infrastructure in the CoS. 	<ul style="list-style-type: none"> This project is part of an ongoing commitment to develop a cultural and creative city under Strategic Direction 7 of the City of Sydney's Sustainable Sydney 2030 strategic plan. The report's aim is to develop a greater knowledge of cultural infrastructure that would assist with designing better policies to enhance the cultural and creative life of the City. 	<ul style="list-style-type: none"> Expanding the regulatory pathway for 'temporary use', which must be sufficiently flexible to address sector and individual organisational needs, Improving the regulatory conditions for multi-purpose business models, and Streamlining the application process for temporary uses to maximise the ability of projects to submit and gain approval in time to meet project deadlines.

		<ul style="list-style-type: none"> • A top five ranking for industry-university collaboration. 			
<p>Strategic alignment means the Central Station renewal...</p>	<ul style="list-style-type: none"> • Harnesses opportunities arising from digital disruption for better decision-making across a range of policy domains. • Drives and supports an enabling environment for digital disruption through leadership, governance, ethical innovation and partnerships. 	<ul style="list-style-type: none"> • Leverages the presence of organisations seeking opportunities for cross-industry collaboration, a strong entrepreneurial culture, and an environment rich in amenity and physical, transport, and digital infrastructure. 	<ul style="list-style-type: none"> • Considers the role of development in shaping, whether directly or indirectly, practices and market drivers relating to cultural and creative floorspace use. 	<ul style="list-style-type: none"> • Examines how creative hub models can be sustained, scaled and support creative participation, • Explores local and global initiatives to co-design affordable housing and workspace for artists, • Identifies opportunities for capacity building and centralising promotion of industry-specific training, mentorships, networks and infrastructure, • Examines how technology software, infrastructure and hardware can be blended to support affordability, travel, information and analytics, and • Explores the needs and interests of diverse and non-traditional audiences. 	<ul style="list-style-type: none"> • Addresses barriers to sustainable participation from the creative sector.

	Sydney DCP 2012 Section 3.15 Late Night Trading Management	The Economics of Australia's small-to-medium visual arts sector (2016)
	<i>CoS</i>	<i>National Association for the Visual Arts</i>
Vision and aspirations	<ul style="list-style-type: none"> To encourage a mix of night-time uses with broad community appeal, recognising the valuable contributions of a vibrant night-time economy to the local commercial, cultural and social fabric, while minimising noise and other impacts to the amenity of residential or other sensitive land uses. 	<ul style="list-style-type: none"> To enhance the capacity of the small to medium visual arts sector to play their vital role in shaping our culture, identity and preferences.
Strategic alignment means the Central Station renewal...	<ul style="list-style-type: none"> Provides a mix of land uses to meet both demand and the need to create a sense of place to attract and make people live, work, and play in a 24 hour vibrant economy. 	<ul style="list-style-type: none"> Provides suitable cultural space for small to medium arts organisations, Recognises the diverse needs and distinct focus of different parts of the visual arts ecosystem.

7.3 Economic trends and local drivers

7.3.1 Transition to a services economy

There is a well-documented shift in the Australian economy from traditional manufacturing and agricultural sectors towards knowledge-intensive industries. This shift is seen across Greater Sydney, and is particularly pronounced in CBD areas, where professional services, finance and related industries represent a significant proportion of jobs and economic output.

In 2015-16, service industries accounted for around 60 per cent of Australia's total Gross Domestic Product, with the Financial and Insurance Services sector the largest contributor in terms of monetary value. Professional, Scientific and Technical services also contribute significantly to GDP, accounting for a high level of productivity that is generally concentrated in CBDs. The growth of these sectors is partly attributable to the breadth of industry linkages, both upstream and downstream, that are shaping demand for professional, scientific and technical inputs at different stages of the supply chain.

Knowledge intensive businesses have traditionally valued central locations for their high levels of amenity. Further economic transition may continue to favour locating in high-amenity places, recognising the agglomeration benefits discussed in section 2.1. At the same time, the hybridisation of the post-pandemic workplace, discussed below, appears to have accelerated the diffusion of economic value creation, a phenomenon enabled by the digital era that engendered new spatial dynamics of the city (Castells, 2010).

7.3.2 Changing ways of working and the need for flexibility

The lockdowns of 2020 and 2021 illustrated that some industries were better equipped to pivot working from home arrangements. Almost overnight, workforce decentralisation in professional, scientific and technical services saw workers' homes become a primary site of economic productivity. As a consequence, this quickly displaced demand for many retail and commercial offerings in Sydney CBD, as people sought out local alternatives to their 'third spaces', i.e. cafes, parks, public libraries. Changing ways of working have also redistributed housing preferences between metropolitan and regional areas, at least in the short term, due to the strengthened appeal of outer suburban and regional living for their larger properties to accommodate home offices and leisure space.

Although CBDs' commercial, recreational and cultural spaces were disproportionately impacted by the lockdowns, there are opportunities to reinvent the role and function of CBD floorspaces. Commercial tenants who have embraced the flexible working model are adapting floorspaces to the types of activities that are more difficult to conduct from home and/or using virtual tools. Offices may become dedicated collaboration spaces that people travel to some of the time, rather than spaces that people travel to every day. Inner suburbs like Surry Hills and Chippendale with creative atmosphere are likely to be attractive under this hybrid place of work model. As a result of reduced office demand, there is likely to be a flight to quality in the office market. This was evidenced by office rents in central locations falling slightly in the short-medium term, but remaining relatively resilient due to their centrality and high levels of amenity.

With more people working from home part of the time, the balance of office utilisation will depend on factors such as the day of the week, organisational policy and the tailored configuration of office space. The rising popularity of sub-leasing arrangements as major tenants seek to reduce their office footprint is already in motion, setting the stage for a new wave of innovation where entrepreneurs who were previously priced out of CBD locations seize the opportunity to participate in the innovation ecosystem (PwC, 2021).

Despite vaccine optimism buoying confidence in a safe return to office, society anticipates social distancing protocols in the future. Public health messaging suggests that localised lockdowns may be a primary mechanism for responding to potential case surges or new variants, which can in turn shape workers' return to office behaviours. Some sectors may be more reluctant to rapidly return to dense offices may continue even after the pandemic's risks subside, and there is anecdotal evidence that organisational policy differs significantly on this issue. A need to be flexible with expectations on workers to return to offices is becoming apparent.

7.3.3 The evolving role of universities in innovation

Universities are increasingly being recognised for their role in facilitating research and development (R&D) activity and start-up ventures in major cities around the world. In 1964, the NSW state government rezoned 145 hectares of land adjacent to the proposed Macquarie University at North Ryde for advanced technology-based industrial development. Seeking to emulate high-tech development in Silicon Valley, it was envisaged that the University would provide an innovative technology base for new companies.

Tech Central benefits from proximity and accessibility to three major Australian universities, as well as a TAFE campus at Ultimo. The University of Technology (UTS) Sydney has a UTS Startups and Innovation Hub, while the University of Sydney's equivalent is its 'INCUBATE' hub. The precinct has the potential to foster more streamlined linkages between early technological development and innovation at universities and subsequent opportunities for employment and product development in the Central Precinct. The Camperdown Biotech precinct is an example of the continued focus on R&D and research translation that incorporates stakeholders across the life cycle of career development.

7.3.4 Cybersecurity risk

Cybersecurity threats are a growing risk for many businesses. As processes and machines becoming increasingly interwoven, there is a need for businesses need to strengthen their cybersecurity skills, capabilities and ability to deter and defend from increasingly sophisticated attacks in a rapidly evolving digital security environment. Given Tech Central's industry focus, there will be a skills development component of this to ensure that workers are appropriately versed in cybersecurity best practice, ranging from data and network management to regulatory compliance.

This raises opportunities for allied industries, such as cybersecurity consultancies, to co-locate in and around the Central Precinct. It also suggests opportunities for the role of universities and training providers to modernise course offerings and certification options to drive technical skill development for the local workforce.

7.3.5 Speed and flexibility to support scaling start-ups

As discussed above, the role of modern universities is evolving to diversify from a purely pedagogical function. The major universities located near the Central Precinct are increasingly oriented to a diversity of activities, leveraging a combination of industry partnerships, research grants and attracting research talent and scholarship from around the world to drive cross-sectoral innovation. This competitively positions universities as an ideal platform for start-ups and scaleups.

Start-ups are situated at the beginning of a company's life cycle and are generally more vulnerable to failure for various reasons: more inexperienced financial planning, the timing of expansion into new markets and variable capital raising success. A priority for start-ups is to refine a repeatable and scalable business model so they can scale and secure investment interest and establish growth potential. The literature on preconditions to start-up viability suggests that the business model and internal leadership are both important investment criteria (Slávik, 2019).

University incubators have therefore emerged as a launchpad to bridge the gap between ideas generation and access to business mentorship and leadership training. Central Precinct's proximity to major Sydney universities will expand local opportunities to grow from start-up phase, while also exposing students and entrepreneurs to the broader innovation ecosystem.

To do so will require floorspace in the Central Precinct that is not only suitable for technology-focussed enterprise, but equally businesses in other sectors that have identified co-location benefits. A recent case study in the Adelaide inner-urban context concluded that six precincts, each with an industry focus ranging from pure arts to manufacturing, interacted to generate additionality rather than aggregation, forming a mutually productive ecosystem for the creative and STEM industries (Cunningham and McCutcheon, 2020).

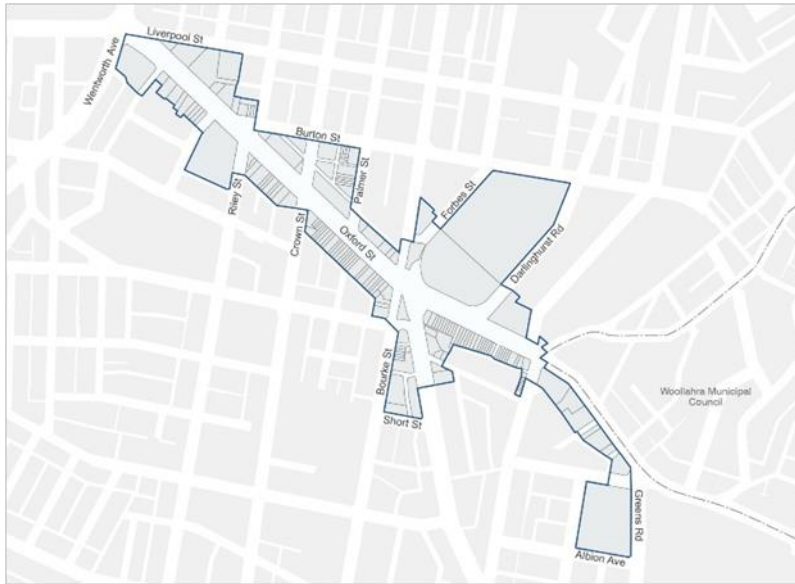
7.4 Other strategic metropolitan moves

Across greater Sydney, there are several precincts currently undergoing renewal, revitalisation or simply evolving their economic role. It is instructive to briefly reflect on these to understand what role and function other precincts are likely to play in the future, as they will directly or indirectly influence what happens in the Central Precinct and its adjacent precincts.

7.4.1 Oxford Street Cultural and Creative Precinct

The City of Sydney recently endorsed changes to planning and land use controls along the Oxford Street Corridor (Figure 12) to improve the precinct's creative and cultural offering.

Figure 12 Oxford Street cultural and creative precinct



Source: CoS, 2021

The changes aim to encourage more space for office and retail, entertainment, healthcare services, information and education facilities, hotel accommodation, community facilities and light industry along Oxford Street. The changes proposed would create capacity for 42,500 square metres of commercial floorspace and 11,000 square metres of creative and cultural floorspace, as well as incentivising uses that add to the street activity and diversity of land uses within the corridor. The intent is to reclaim this part of Oxford Street's strong creative and entertainment precinct.

7.4.2 North Alexandria to Rosebery Enterprise Corridor

SGS recently completed a study on the Enterprise Area in the City of Sydney, forming the basis for a review of the City's strategy for this area. This precinct is likely to be important for facilitating industrial and other diverse employment activities that are relevant to Tech Central, but which cannot be accommodated within Tech Central.

SGS's work found that the Enterprise Area provides for a diverse range of businesses and industries. The key functions of this collection of inter-connected sub-precincts include:

- Accommodating critical urban services that underpin broader productivity and liveability,
- Accommodating strategic industrial uses with a compelling economic argument for their location; for example, highly productive freight and logistics uses that require proximity Sydney Airport and Port Botany and that support a high-density residential catchment,
- Accommodating businesses that need diverse or semi-industrial floorspace but which also need to maintain supply chain or business to business links to the CBD and other nearby employment areas,

- Providing space for businesses that are too large for traditional office precincts – either through their price sensitivity or use profile (particularly creative businesses) – that make a significant economic contribution and benefit from agglomeration economies, excellent access to labour markets and the cultural milieu of the inner-city,
- Providing relatively affordable and diverse floorspace (compared to office districts) to accommodate smaller businesses as they evolve,
- Providing services to the local population in high density residential areas, although this use must be balanced against the need for other employment functions,
- Providing space for the commercialisation of innovation and for emerging high-value industries, such as boutique advanced manufacturing.

7.4.3 Redfern North Eveleigh Strategic Vision

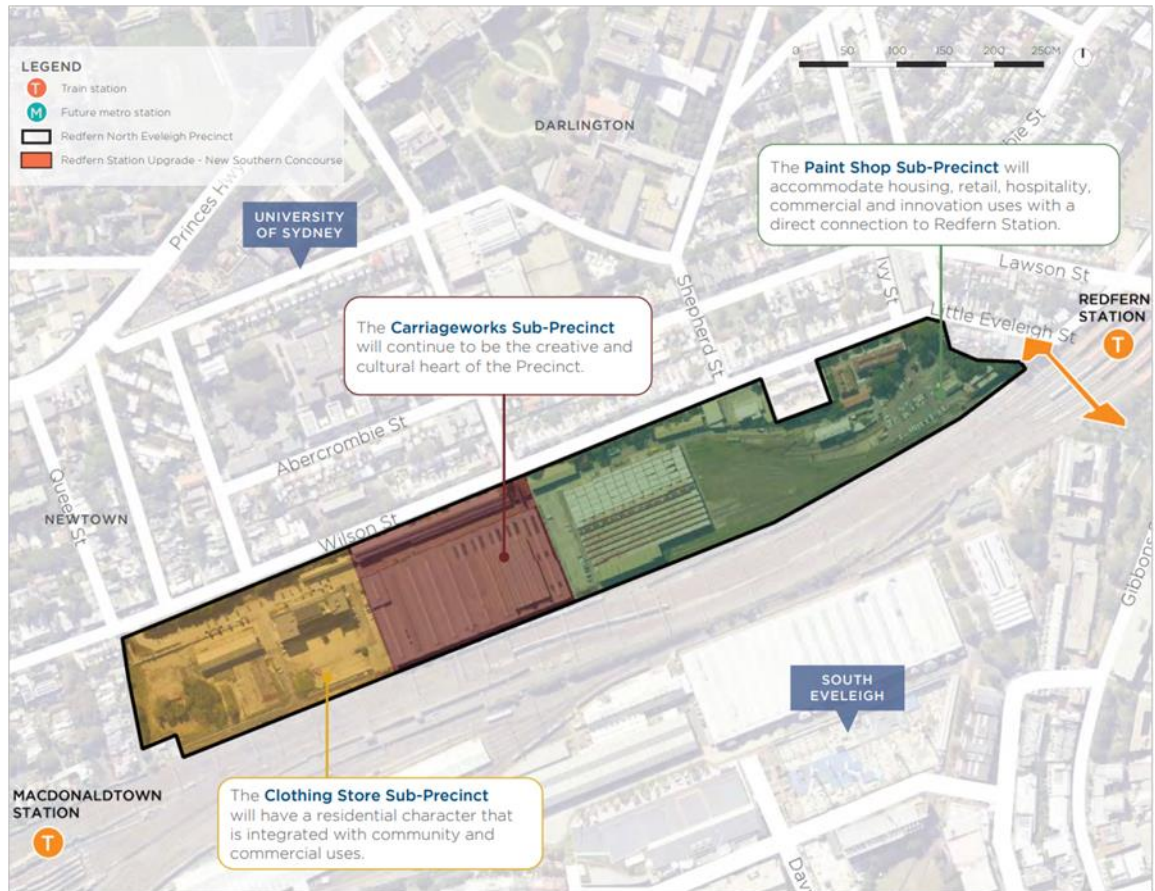
Transport for NSW is currently undertaking strategic planning processes for both the Central Precinct and the Redfern North Eveleigh Precincts. These propose a re-conceptualisation of the North Eveleigh Precinct, envisaging a mixed-use precinct that supports residential, commercial and creative uses and which forms part of the innovation and commercial spine connecting Redfern and Central. Together, the renewal projects will revitalise 34 hectares of the city (24 hectares at Central Precinct and 10 hectares at Redfern North Eveleigh). Tech Central will contribute to the delivery of 25,000 new jobs and 250,000 square metres of space.

The Redfern and North Eveleigh Precinct's Strategic Vision report states:

"The Redfern North Eveleigh Precinct will be a connected centre for living, creativity and employment opportunities that support the jobs of the future. An inclusive, active and sustainable place for everyone, where communities gather.

Next to one of the busiest train stations in NSW, the Precinct will comprise a dynamic mix of uses including housing, creative and office spaces, retail, local business, social enterprise and open space. Renewal will draw on the past, adaptively re-using heritage buildings in the Precinct and will acknowledge Redfern's existing character and particular significance to Aboriginal peoples, culture and communities across Australia. The Precinct will evolve as a local place contributing to a global context."

Figure 13 Redfern North Eveleigh sub-precincts



Source: TfNSW, 2021

7.4.4 Bays Precinct

NSW Government are preparing a dynamic, long-term planning document to guide the future growth and development of Blackwattle Bay. The plan aims to revitalise the land in and around the existing Sydney Fish Market to Bank Street, which will deliver a waterfront destination with new homes, jobs, services and green space within walking distance of the CBD. The final precinct plan will inform new planning controls for Blackwattle Bay.

The renewal will encourage healthy lifestyles and active living by creating 30,000 square metres of new green space. It was identified that Blackwattle Bay could accommodate up to approximately 250,000 square metres of Gross Floor Area (GFA), which is estimated to support between 1,000 to 1,700 homes and 4,000 to 7,000 jobs. Residential land use will have a total GFA of 236,750 square metres, comprising 58 per cent residential, 28 per cent commercial, 10 per cent retail and 4 per cent serviced apartments and hotels. Mixed land use will have a total GFA of 215,550 square metres, comprising 44 per cent residential, 39 per cent commercial, 13 per cent retail and 4 per cent serviced apartments and hotels. The majority of employment will be in the residential and commercial land uses, followed by retail, serviced apartments and hotels.

7.4.5 Pyrmont-Ultimo Place Strategy

This Place Strategy creates a 20-year vision and planning framework to support the NSW Government's vision to transform the Pyrmont Peninsula. The Place Strategy aims to guide the next wave of investment in Pyrmont, which will see increased business investment and innovation opportunities. The plan envisages the peninsula to be a place of renowned culture and entertainment, to be an employment hub of the future, green and connected, have diverse housing, accessible public transport and open spaces. A key economic function of the peninsula will be its creation of a vibrant 24-hour cultural and entertainment destination.

Pyrmont is predicted to host approximately 20,000 – 23,000 additional jobs to 2041. To support employment growth, demand for an additional 600,000 – 800,000 square metres of commercial floor space is expected across the Peninsula by 2041. Retail and residential development density is also expected to increase with the provision of a metro station.

Within the Peninsula, the seven sub precincts and their estimated additional employment capacity to 2041 are:

- Darling Island – 2,735 more jobs
- Tumbalong Park – 2,870 more jobs
- Ultimo – 8,700 more jobs
- Wentworth Park – 1,200 more jobs
- Blackwattle Bay – 5,770 more jobs
- Pirrama – 350 more jobs
- Pyrmont Village – 1,380 more jobs

7.5 Consultation

7.5.1 Department of Planning and Environment (DPE)

SGS met with DPE in September 2021 to discuss population, employment and floorspace assumptions, and forthcoming data releases. The discussion highlighted:

- Uncertainty around migration assumptions – While borders are now open, the ongoing impacts of the COVID-19 pandemic on travel behaviours and disruptions is still uncertain,
- A changing age profile in inner-city areas – While the average age in the inner city was decreasing prior to the COVID-19 pandemic, this trend appears to be reversing in 2020 and 2021 due to fluctuating migration conditions. Dwelling preferences may also have changed across age groups,
- Potential impacts to CBD floorspace utilisation – Relevant considerations include migration, flexible working arrangements, and social distancing policies that vary between organisations. For these reasons, floorspace utilisation for the employment analysis was estimated between 65-80 %.

7.5.2 City of Sydney (CoS)

SGS met with CoS in October 2021. The discussion highlighted that:

- The next Floorspace and Employment Survey (FES) would be undertaken in May 2022. Preliminary estimates place office capacity at around 70 per cent,
- In 2020, vacancy rates for commercial office space in Sydney CBD increased by 8 per cent (Statista, 2021),
- Within Sydney CBD, the office jobs to floorspace ratio is expected to increase from 20 to 30 sqm per job due to social distancing, but may trend back downwards in the long term,
- Outside of the CBD area, the commercial office ratio may change from 30 to 50 sqm. Retail ratios are expected to remain relatively stable.

7.5.3 Greater Cities Commission (GCC)

SGS met with GCC in December 2021. The discussion focused on the strategic nature of the wider Tech Central project and process, the role of business attraction in Tech Central, and the expectations around future business needs and views on certain assumptions made in the modelling for this project.

The key points raised were:

- The impact that COVID will have on work and business operation is still partly unknown. Nearly two years into the pandemic, we are only now beginning to see the emergence of structural change.
- Places that focus on tech and innovation require a diversity of places for meeting and collaboration. Venues for medium-sized events that support the businesses and industries locating in Tech Central should be considered to aid this.

- There is still a question as to what role Central Station plays in high-technology sectors compared to other parts of the city, such as the Aerotropolis and surrounding employment precincts in the Eastern City. It was noted that the GCC is undertaking further work concurrent with the Central Precinct masterplan to explore this further.
- Sydney is already seeing the emergence of ‘unicorn’ businesses (those with a market capitalisation value of over \$1b). Rokt and Safety Culture were both highlighted as strong, Sydney based tech businesses that are growing strongly.
- Canva was cited as a Sydney-born business that is now global. It currently has around 2,400 employees globally, of which around 50 per cent are Sydney-based. The style of Canva’s office premises was also mentioned; it has grown incrementally to accommodate various offices along Kippax Street, and reportedly values this more than having a self-contained office campus.
- Education should be integrated into planning for Tech Central so that there is a pipeline of local talent to service new tech jobs.

7.5.4 Museum of Arts and Applied Sciences (MAAS)

SGS met with MAAS to discuss the future development of the Powerhouse Ultimo, and how Central Station could function as part of a wider cultural precinct stretching from Ultimo through to Surry Hills and Eveleigh. Key points from the discussion were:

- There is a need to shift the public perception of Central from a place of transit to a destination. This in-turn would draw more people towards Ultimo and the Powerhouse.
- There are opportunities for MAAS to diversify its mode of delivery to leverage a general trend away from the 10am – 5pm museum. For instance, dedicated space for temporary exhibitions in and around the Central Precinct would expand the museum’s presence outward while activating space after hours.
- However, the focus should be on dedicated spaces with good access and visibility. These places can support exhibitions, day and night skills, training and facilities.
- Not-for-profit and/or subsidised premises for businesses that need the space should be provided. Creative spaces like Pine Street and Joynton Avenue creative arts centres could also help to develop a local creative culture.
- A museum annex in the Central Precinct area, shared by Sydney’s other museums, could help forge closer connections between cultural institutions.

7.5.5 First Nations consultation

Separate First Nations consultation was commissioned separately for the Central Station project. This was undertaken by Cox Inall Ridgeway (CIR) throughout 2021. SGS met with CIR staff in late 2021 to discuss the issues relevant to the employment study.

In relation to economic development, the discussions canvassed how Aboriginal employment and workplace participation could be promoted through the Central Precinct upgrade and renewal. CIR’s Aboriginal Community Engagement Report (2021) highlights the following:

- Building relationships with Indigenous stakeholders is important for identifying Indigenous economic development opportunities in the Central Precinct renewal. Specific recommendations included relationship-building with Supply Nation and the Metropolitan Local Aboriginal Land Council, and to engage an Indigenous economic development specialist.
- There is currently minimal recognition of First Nations historical events and stories within the current precinct design, despite the Central Precinct demonstrating a strong Aboriginal history. The representation of Aboriginal culture and heritage could be improved by engaging with local First Nations businesses and/or knowledge holders to create tourism opportunities.

7.5.6 Universities and TAFE NSW

SGS provided a list of questions to TfNSW in November 2021 to test at the next appropriate Camperdown Alliance meeting. These questions were:

- What level of planning exists for a university presence in the Central Precinct and what would its role be? Is it something we should be continuing to focus on for Central Station? (lecture/student/teaching space, research/laboratories, incubator/accelerator, private sector partnerships etc) - this is important for us to understand future job/student numbers as well as to understand what it may mean for built form, activation etc.
- Do you have any examples that you can point to that reflect this idea?
- How do you see Central Station connecting with other precincts (Ultimo, Camperdown etc) from an activity or industry specialisation perspective?
- We have based our economic narrative on the notion that Camperdown will have a strong biotechnology focus, and that Central Station will be the home for most of the commercially associated activity that is generated as part of the wider Tech Central precinct.
- We have noted that the early attraction of an anchor education facility (University, TAFE, specialist VET facility) would help to establish a distinct identity for Central and attract a range of other uses. Is this something that aligns with the general expectation of how Central will develop from the Alliance's perspective?

7.5.7 Creative sector stakeholders

In December 2021, Cultural Capital and SGS met with various arts and cultural groups located in Inner Sydney, including MAAS, Carriageworks, the Museum of Contemporary Art (MCA), Art Galley of New South Wales (AGNSW), the Centre for Contemporary Asian Art, Pom Pom Chippendale, Destination NSW, Sydney Biennale, Sydney Living Museums, and the Sydney Festival.

There was general consensus that the Central Precinct development is an opportunity to strengthen the gateway that Central Station forms to the city, and to support nightlife and the late-night economy. Further opportunities arise from the existing landscape of theatres and creative spaces, and maintaining the long and vibrant history of the varied areas surrounding the Central Precinct.

Beyond the preconditions of affordable, flexible, and adaptable space, actions that would support the creative industries included:

- Creative applications of existing space, e.g. the use of residential alleys to play a role in the public realm.
- New and innovative operational models, e.g. reciprocity in contributions, where the creative organisation and the host space derive a mutual benefit.

7.5.8 Additional themes from prior consultation with the creative and cultural sectors

In 2020, SGS completed the City of Sydney Oxford Street Creative and Cultural Industries Study, which included an engagement component with arts, creative and cultural sector stakeholders. Stakeholders included various arts and cultural institutions, for example UNSW Arts and Design, Mardi Gras Australian Centre of Photography, National Art School, as well as a number of creative and cultural businesses.

While some of those insights were focused on Oxford Street, there were broader themes of relevance to Central Station:

- Creative education institutions play a key role in building human capital and create efficiencies if reciprocal activities are co-located. The National Arts School advocates for 'greater connectivity between the arts sector, business owners, the institutions and the City...[that goes] beyond just putting artwork into shopfronts, toward all the stakeholders of the precinct working together...[which] could involve grant programs to support local businesses to work with artist to design their shopfronts or their marketing material, or things like using bars in the precinct as venues for artists forums where students bring their art to be critiqued – ways of integrating creative practice into the everyday use of spaces in the area' (SGS, 2020 p 88 of CoS Study),
- Many creative uses cannot compete with other businesses for commercial rent, so the provision of affordable space is necessary to attract a variety creative uses in high-rent locations.
- There are some tensions between creative precincts and nearby residential uses, particularly where there are aims for a vibrant night-time economy.

7.6 Precinct challenges and constraints

The Central Precinct's strengths and opportunities are detailed in sections 6.1 and 6.2. A summary of precinct challenges and constraints highlighted during consultation is as follows:

- **Lacks a defined geographic and activation centre.** The nature of the land uses in the sub-precinct and the street network suggests there is no clear 'centre' to the precinct. Atlassian's presence will facilitate an industry 'centre', however its location, and the dominance of key roads through the precinct makes it challenging to identify a focal point of activity, which could otherwise be a useful lever for developing Tech Central's identity and spatial relation to other precincts.
- **Physical connections to adjacent precincts are broken by transport arteries.** Building on the point above, the Central Precinct is separated from adjacent precincts by major

road and rail corridors. While it is the 'central' sub-precinct geographically, the ability to knit the precinct into surrounding sub-precincts appears limited based on the current configuration of the road and public transport networks. This not only limits the integration of Central into the immediate surrounding areas of Surry Hills, Chippendale and Haymarket, but poses challenges to its integration with key surrounding precincts such as Ultimo (both UTS and the Powerhouse), Darling Harbour and North and South Eveleigh. The identification of the three Tech Axes (section 2.1) would require such barriers to be broken down and for the Central Precinct to stitch into these adjacent and potentially highly interconnected sub-precincts.

- **Lack of existing industry specialisation in ICT.** While there is rapid growth in the ICT sector, it is still a small sector and there is clear industry specialisation in the sub-precinct. As such, the 'Tech' focus would need to build from a lack of critical mass or specialisation, noting that Atlassian's presence would help to generate this momentum.
- **Separation from the CBD.** The historical patterns of development and land use in the southern CBD have led to the Central Precinct evolving separately from the CBD. This is, in part, due to the need for sufficient space around the curtilage of a station of this scale to ensure its efficient operations. It is also separated by Belmore Park to its north and the relative lack of activity in the Southern CBD between Goulburn and Hay Streets (at least during daytime hours). This separation could make it difficult for the precinct to integrate with the activity in the CBD – particularly as commuters and workers are able to access these more active parts of the CBD by rail.
- **There is little reason to dwell.** Central Station is like many major train stations around the world in that it is a place of transit and movement rather than a destination. It lacks distinct character, quality of place and diversity of activities to give people a reason to either dwell or visit. As a consequence, the station precinct can feel tired, busy or unsafe to some users. This has a negative impact on perceptions of the Central Precinct's quality of place, which in turn impacts on the type of use (retail, services etc) that choose to locate.

7.7 Summary and insights

Collectively, these strategies and policies define the aspirations for areas beyond the immediate surroundings of the Central Precinct. Some make specific reference to a define precinct whereas others set broader directions for the region, or identify a sectoral focus of relevance to Central Precinct. Some potential implications are synthesised below, and may assist to refine Central Precinct's economic role.

7.7.1 Support a vibrant 24-hour economy

Central Precinct will be a gateway for many people entering and leaving the city. It has the potential to encourage people to dwell, as well as to be a destination for people to visit in its own right. The role of restaurants and bars, theatres and other entertainment and social infrastructure will be important in establishing it as a hub for daytime, evening and weekend activities. Many of these uses will benefit from excellent interface with the public domain, both in terms of contributing to activation and place-making but also in benefiting from high levels of visual exposure to maximise their own activity.

It is important to recognise, however, that Central is not the only future destination for 24-hour activity. The revitalisation of Oxford Street will be driven by the re-attraction of similar activities to that corridor. The CBD, Barangaroo and Chinatown (as well as others further afield) are also places focusing on evening and weekend activation. Therefore, the Central Precinct should aim to focus on uses that are less suited to other locations, or that can leverage the precinct's character and existing assets.

Pending the amount of residential use ultimately considered in the masterplan, the Central Precinct would be well suited to supporting late night activities if there is a clear separation from existing or future residential uses.

7.7.2 Support creative and cultural industries

The City of Sydney is focused on ensuring that creative industries, in their broadest sense, continue to be supported in the CBD and surrounds. The Oxford Street proposal is specifically aimed at this and the wider cultural sectors. SGS' economic analysis of the wider Tech Central area also identifies a 'Creative Tech' axis that connects UTS through Central to Surry Hills. This reflects the emerging importance of digital creative technologies such as film post-production, special effects, game development and similar industries that align with the Tech Central focus on tech industries and innovation.

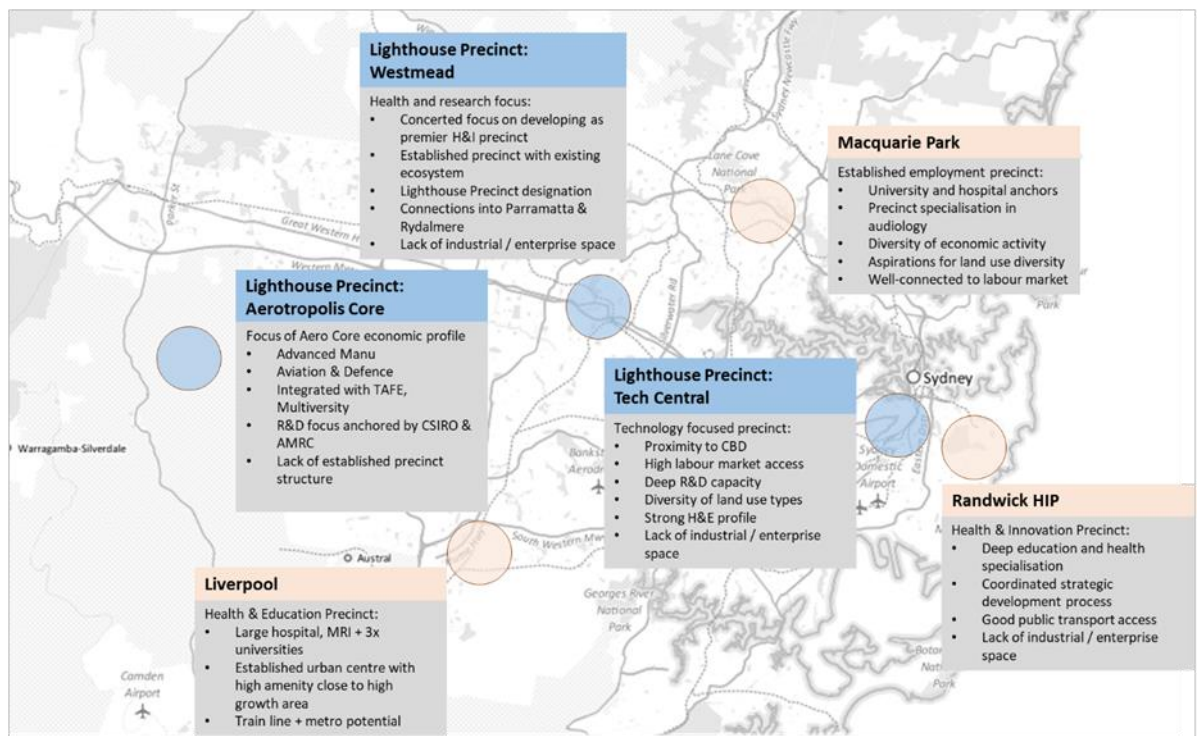
A creative and cultural focus in Central Precinct may take several forms:

- Supporting creative tech businesses through commercial floorspace at a range of price points, along with high-technology infrastructure throughout the precinct,
- Provide for a range of creative and cultural uses that add vibrancy to the precinct and support a range of jobs, through planning for and the inclusion of dedicated spaces. This could include cultural event spaces, productive spaces and subsidised floorspace or floorspace dedicated to agencies or governments such as the City of Sydney, Museum of Applied Arts and Sciences (MAAS), with potential connections with the Powerhouse Ultimo and Carriageworks.

7.7.3 Complement other precincts

Beyond ensuring that 24-hour economy activities do not directly compete with other late-night precincts, Central Precinct also needs to recognise the aspirations exist of nearby precincts. South Eveleigh, the Bays Precinct and the CBD all aspire to future commercial developments, at various scales. The CBD and its fringe also contain significant commercial floorspace, some of which remains vacant as a result of more flexible working practices in the post-COVID environment. Camperdown, Randwick and Westmead are focusing their efforts on R&D-related innovation attraction, while the Aerotropolis and even the Eastern Sydney enterprise corridor extending to Mascot demonstrate opportunities to support advanced manufacturing. The role of Central Precinct therefore needs to be cognisant of these other precincts' claims of future growth to ensure that it focuses efforts on what it can viably support that other precincts cannot.

Figure 14 Precinct strengths across Greater Sydney



Source: SGS Economics and Planning, 2021

7.7.4 Critical mass of commercial with a focus on tech and innovation

The Tech Central concept is predicated on the concentration of tech-focused businesses, anchored by the commitment by global tech firm Atlassian to base their global headquarters here. The strategic vision has been to leverage this investment and build a critical mass of allied businesses in a 21st century high-tech commercial district. In many respects, this reflects recent innovation precinct strategy, which focuses on high quality design and public domain, knowledge sharing and collaboration, support for start-ups and scale-ups and the leveraging of high capacity public transport assets. This approach is reflected globally in precincts such as

London's Silicon Roundabout, however, emerging future of work trends may inspire some changes to the traditional precinct approach.

Changes to how and where people work, combined with the ability for tech and innovation jobs to be more footloose than others, mean it is uncertain what this means for the sought-after concentration of tech and innovation activity. These issues are explored more in subsequent chapters and previously in section 2.3. It is also worth noting that notwithstanding its anchor tenancy in Tech Central, Atlassian has implemented a highly flexible hybrid working model, only requiring employees to attend the office several times a year.

7.7.5 Diversity of businesses, floorplate types and price points

Some of the hallmarks of successful business districts (with or without a specific industry focus) are the diversity of businesses that are attracted to them and the resultant diversity of floorspace types that are required to support them. For the Central Precinct to appeal to a wide a pool of future businesses aligned with its vision, a diversity of floorspace sizes and price points is needed to meet demand. Not all tech businesses require multiple floors within a large tower; some require smaller footprints or office buildings with shared facilities such as meeting rooms. As A-Grade commercial developments are anticipated for the Central Precinct, the availability of affordable floorspace will be a primary consideration, particularly to support start-ups and scale-ups.

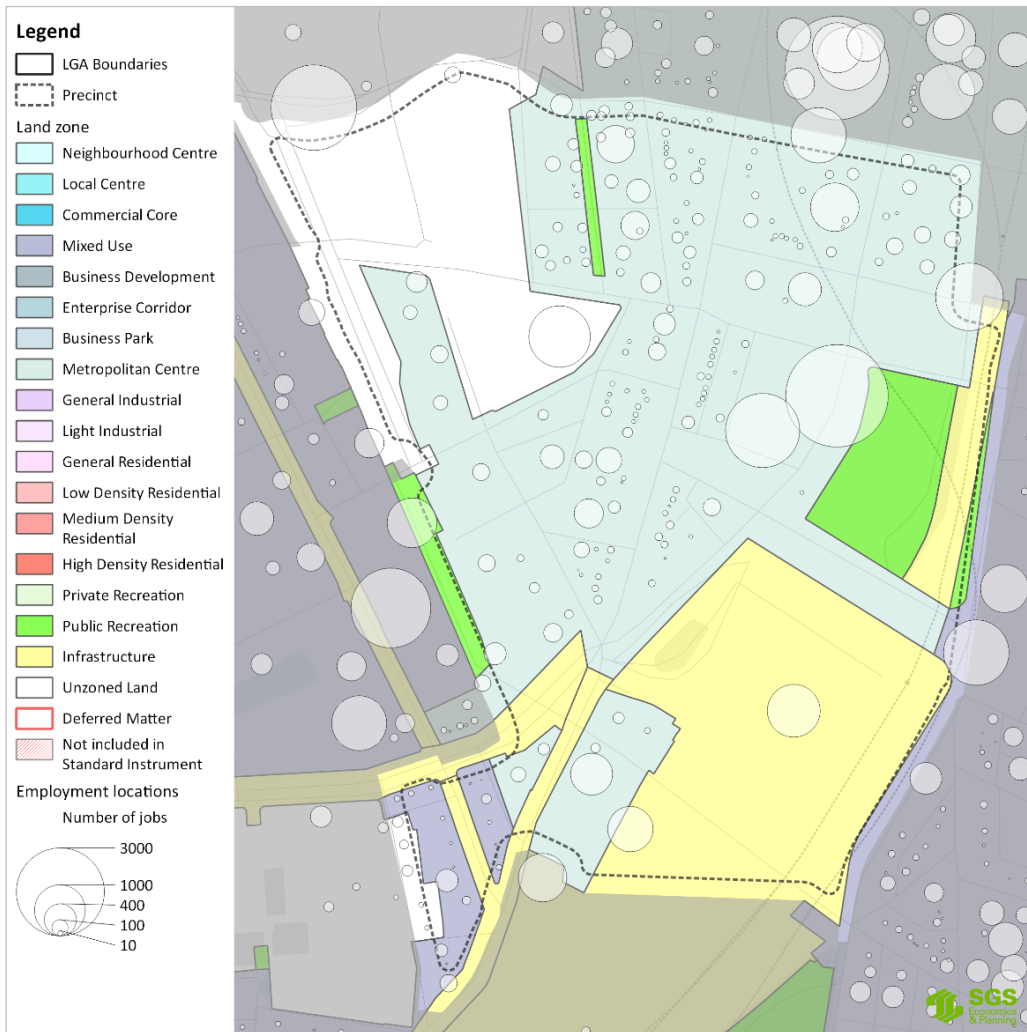
8. Employment and floorspace profile

This chapter provides an overview of the current and potential future employment and population profile and what this may mean for the provision of employment floorspace.

8.1 Profile of employment-generating floorspace

The City of Sydney’s 2017 Floorspace and Employment Survey (FES) data provides a detailed snapshot of the employment and industry composition of floorspace across the City of Sydney. Section 8.1 profiles an area the includes Central Station and the area of Haymarket and the Southern CBD, to understand what industries currently locate in and around Central Station. The area used for this preliminary analysis is shown in Figure 15. It excludes the lower part of the Central Precinct study area because there is no (or very little) employment-generating floorspace in that part of the area.

Figure 15 Distribution of job density in and around Central Station, 2017



Source: SGS 2021 using City of Sydney Floorspace and Employment Survey 2017

There were 28,257 jobs in the this area in 2017, spread across around 879,000 square metres of employment generating floorspace. Employment grew substantially between 2012-2017, despite minimal change in floorspace supply. Rather, employment change appears to have resulted from shifts in sectoral composition and potentially the redevelopment of some buildings for higher employment density uses.

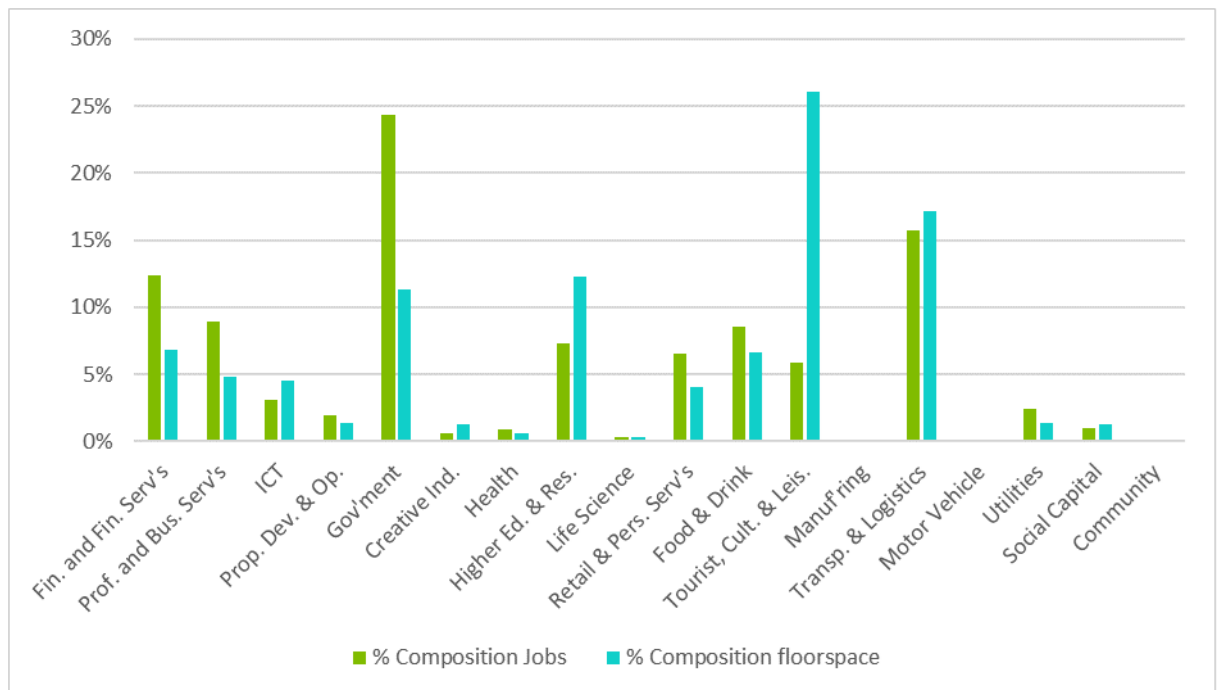
Table 7 Jobs and employment generating floorspace in Central Station Precinct, 2012-17

	2012	2017	Change 2012-17	% change
Jobs	21,970	28,257	6,287	29%
Floorspace (sqm)	865,469	879,174	13,705	2%
Floorspace / Job ratio	39	31	-8	-21%

Source: SGS 2021 using City of Sydney Floorspace and Employment Survey 2012, 2017

The sectoral composition of employment and floorspace of this area is shown in Figure 16. Note that the City of Sydney’s categories from their Floorspace and Employment Survey are used here instead of the Australian Bureau of Statistics’ ANZSIC categorisation.

Figure 16 Employment and floorspace composition of the Central Station Precinct

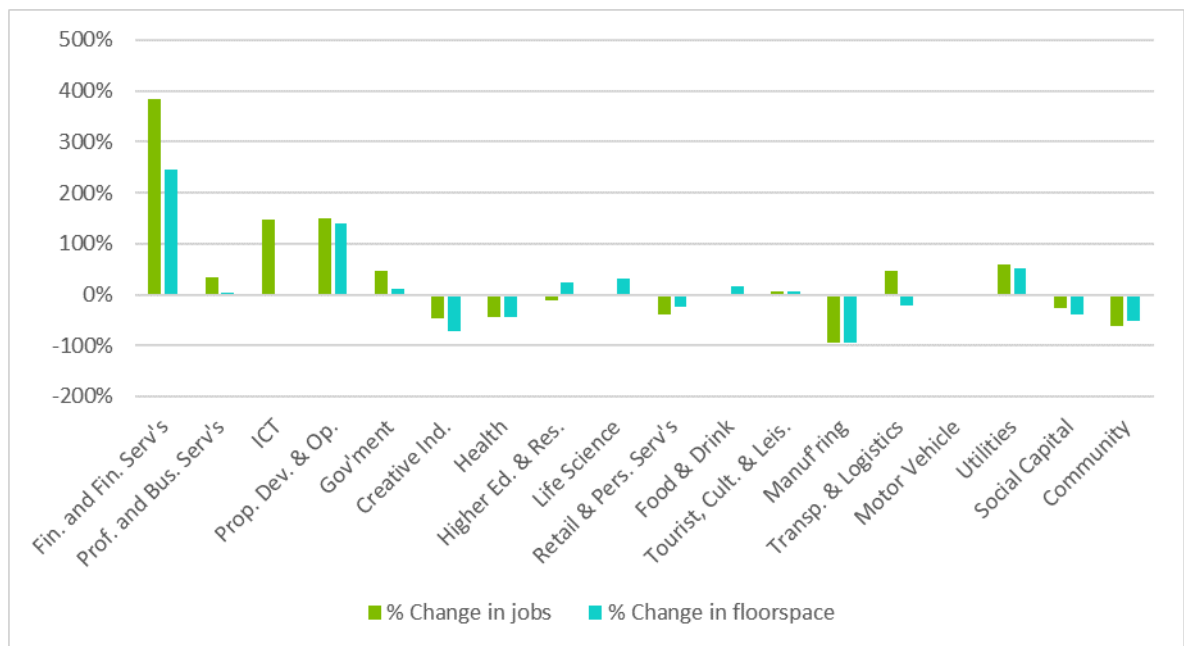


Source: SGS 2021 using City of Sydney Floorspace and Employment Survey 2012, 2017

Government is the largest employment industry, followed by transport and logistics (which appears to be primarily state government offices of Sydney Trains and Transport for NSW and Central Station). There are also a range of professional and service industries, including higher education and research in TAFE NSW. This area includes Chinatown, which contains many food and drink and retail premises.

The shift in employment between 2012-17 in Figure 17 reveals strong growth in Finance, ICT, property development and government employment, and moderate declines in creative industries, health and retail. On this basis, the employment profile appears to be shifting towards a similar composition to the CBD, notwithstanding the continuing strong government presence. This can also be seen in the large reduction in the floorspace/job ratio between 2012-17.

Figure 17 Sectoral change in employment and floorspace in Central Station Precinct 2012-17



Source: SGS 2021 using City of Sydney Floorspace and Employment Survey 2012, 2017

8.2 Central Station Precinct baseline employment projections

Employment projections for the wider Central Station Precinct (that includes the full development site) are shown in Table 8. Small area employment projections should be considered on a precinct level or sub-LGA basis, rather than for small, standalone areas like the Central Precinct development. This recognises that different parts of a precinct will operate within the same submarket, and that development in line with projections could be accommodated in different parts of the broader precinct.

These statistics are sourced from Transport for NSW's travel zone projections, which are used for transport planning and strategic planning purposes across NSW Government. In the absence of more up to date data, these projections are based upon the 2016 ABS Census.

Table 8 Baseline employment projections for the Central Station Precinct

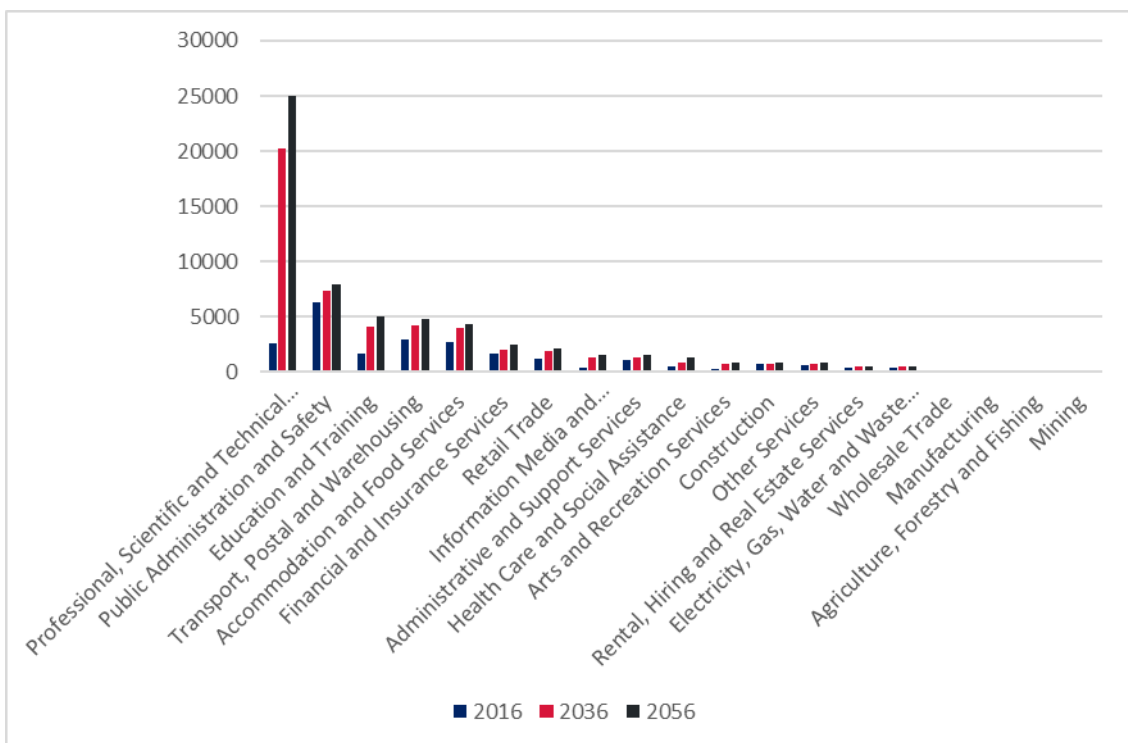
	2016	2026	2036	2046	2056	Average annual growth rate
Employment	23,336	36,547	50,582	55,509	59,822	2.38%
Change in employment from 2016		+13,211	+27,245	+32,172	+36,486	

Source: SGS 2021 using Transport for NSW TZP19 Projections

Employment is expected to grow by 36,486 between 2016-2056 at 2.38% per annum. The Central Precinct development is incorporated in these projections and is expected to drive most of the projected growth. Employment in Central Precinct will ultimately depend upon its scale and sequencing of development, which is yet to be specified in detail. As such, the projections in Table 8 are not conclusive as to employment demand. Rather, these projections should be considered as a baseline.

The sectoral breakdown of these projections is shown in Figure 18. By far, the most growth is expected in professional, scientific and technical services, followed by public administration and safety. Minimal to modest growth is expected in other industries.

Figure 18 Baseline sectoral employment projections for Central Station Precinct



Source: SGS 2021 using Transport for NSW TZP19 Projections

Table 9 Central Station Precinct baseline employment by industry

Industry	2016	2036	2056	Change 2016-56	Average annual growth rate
Knowledge intensive					
Administrative and Support Services	1,084	1,297	1,489	404	0.80%
Financial and Insurance Services	1,654	2,026	2,522	868	1.06%
Information Media and Telecommunications	363	1,279	1,599	1,236	3.77%
Professional, Scientific and Technical Services	2,541	20,270	24,972	22,431	5.88%
Public Administration and Safety	6,314	7,347	7,985	1,671	0.59%
Rental, Hiring and Real Estate Services	397	455	519	122	0.67%
Health and Education					
Education and Training	1,627	4,105	5,031	3,403	2.86%
Health Care and Social Assistance	510	892	1,255	745	2.28%
Population Serving					
Accommodation and Food Services	2,687	3,959	4,315	1,628	1.19%
Arts and Recreation Services	242	749	892	650	3.31%
Construction	696	762	804	108	0.36%
Other Services	562	714	794	232	0.87%
Retail Trade	1,170	1,932	2,173	1,003	1.56%
Industrial					
Agriculture, Forestry and Fishing	0	0	0	0	3.38%
Electricity, Gas, Water and Waste Services	436	466	476	40	0.22%
Manufacturing	76	78	88	12	0.37%
Mining	-	-	-	-	-
Transport, Postal and Warehousing	2,897	4,166	4,813	1,917	1.28%
Wholesale Trade	80	86	97	18	0.50%
Total	23,336	50,582	59,822	36,486	2.38%

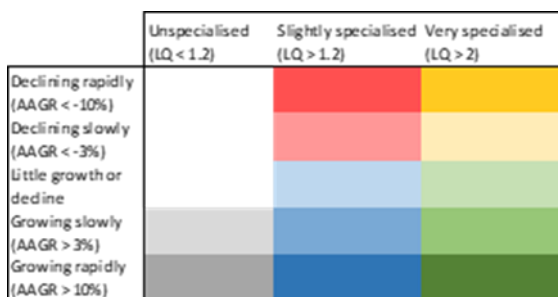
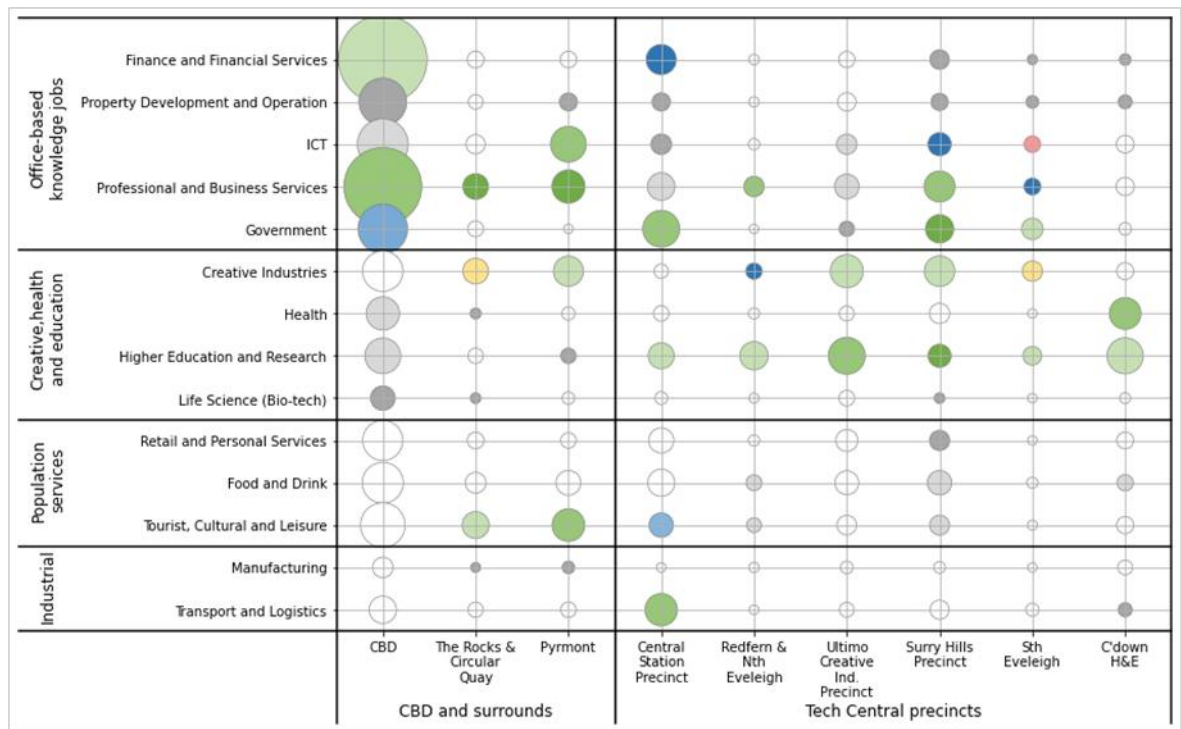
Source: SGS 2021 using Transport for NSW TZIP19 Projections

8.3 Precinct specialisation

Sub-precincts right across the CBD and CBD fringe have their own localised specialisations that are created through the concentration of certain industries. These have developed over time from historical patterns of industry settlement (such as textiles retail in Surry Hills), the influence of commercial market dynamics and the desirability of urban form and floorspace. For many years, the Central Station Precinct has also had a concentration of government-related operations in its vicinity. Figure 19 illustrates the industry specialisations of sub-precincts in Tech Central and the broader CBD, where a larger circle denotes a relative specialisation and the colour represents how specialised the precinct is.].

The dominance of the rail lines has also inevitably led to a specialisation in transport and logistics-related activity. More recently, higher education and finance are a growing industry specialisation, and while professional services are also growing, the deep pool of these businesses in the CBD means they are not considered ‘specialised’ in the Central Station Precinct.

Figure 19 Industry specialisations in Tech Central and the CBD



Source: SGS 2021 using City of Sydney Floorspace and Employment Survey 2012, 2017

8.4 CBD employment capacity-demand balance

8.4.1 Employment forecast

Employment forecasts to determine the required supply of employment generating floorspace is based on an area comprising the Central Precinct, the core CBD, CBD South, the Rocks and Circular Quay. This supports of a comparison of the Central Station Precinct's economic profile and function to that of the rest of Sydney CBD.

It also recognises that while the Central Precinct development is highly localised, it will ideally operate as part of the broader economic landscape of Sydney CBD. Development and business location decisions are often made at the sub-market level, rather than just within the confines of smaller areas like the Central Precinct. It is therefore important when trying to ascertain what future demand for floorspace may look like that the future employment projects for specific travel zones are not taken as a fait accompli, but rather a large future pool of demand is considered and that the precinct's ability to capture a proportion of this broader future demand is tested.

While Central and CBD North will have different competitive offers and appeal to different tenant profiles, the development of significant office space in Central Precinct is likely to lower demand in other parts of Sydney CBD. Similarly, lower development in Central Precinct will require a greater proportion of underlying demand to be met in other parts of the broader CBD. This logic positions the broader CBD as the logical sub-market within to consider the proposed development at Central.

Employment projections for the broader CBD are shown in Table 10. Employment across the broader CBD is forecast to grow by around 206,700 or 56 per cent, from 371,900 to 578,600 over the 40 years between 2016-2056. Traditionally, knowledge intensive sectors have the highest proportion of employment in the CBD (although many other sectors are also associated with office jobs in the CBD), and this employment is expected to grow by around 149,000 (56 per cent).

Table 10 Employment projections for the broader CBD, including CBD South and Central Station

Industry	2016	2036	2056	Change 2016-56	Average annual growth rate
Knowledge intensive					
Administrative and Support Services	19,703	25,497	29,104	9,401	1.0%
Financial and Insurance Services	103,517	124,853	155,390	51,874	1.0%
Information Media and Telecommunications	16,276	22,649	28,317	12,041	1.4%
Professional, Scientific and Technical Services	85,681	127,277	146,997	61,316	1.4%
Public Administration and Safety	28,702	34,355	36,854	8,152	0.6%
Rental, Hiring and Real Estate Services	11,738	16,033	18,289	6,551	1.1%
Health and Education					
Education and Training	9,881	13,620	16,674	6,793	1.3%
Health Care and Social Assistance	9,128	15,904	22,480	13,352	2.3%
Population Serving					
Accommodation and Food Services	25,562	32,793	33,992	8,430	0.7%
Arts and Recreation Services	5,680	9,591	10,841	5,160	1.6%
Construction	14,512	17,964	18,946	4,433	0.7%
Other Services	6,508	8,008	8,884	2,377	0.8%
Retail Trade	17,042	22,861	23,966	6,924	0.9%
Industrial					
Agriculture, Forestry and Fishing	271	521	1,026	755	3.4%
Electricity, Gas, Water and Waste Services	2,611	2,726	2,840	230	0.2%
Manufacturing	3,046	3,383	3,748	703	0.5%
Mining	1,029	2,533	6,074	5,046	4.5%
Transport, Postal and Warehousing	8,224	9,751	10,760	2,536	0.7%
Wholesale Trade	2,760	2,987	3,383	623	0.5%
Total	371,870	493,307	578,567	206,696	1.1%

Source: Transport for NSW TZIP 19 Projections

8.4.2 Floorspace forecast

Future floorspace demand in the Sydney CBD has been calculated using the following method:

1. Calculate the expected average annual employment growth rate for each industry in the Sydney CBD for each five year period between 2016-2041 using the TZIP19 projections created by TfNSW. The TZIP19 projections are used across the NSW Government and will promote comparability across outputs.
2. Apply these growth rates to gross floor area in the CBD, broken down by industry and sourced from the FES data, to calculate the required increase in floorspace.

This method assumes that the floorspace required per employee will remain constant in the future. While floorspace requirements per job in the City of Sydney has been decreasing

recently, particularly for office use, it is difficult to forecast if this decrease will continue, and how it may change in the future, due to the uncertain impacts of the COVID-19 pandemic on the future office layouts. For this reason, the City of Sydney assumes that the floorspace per worker will remain the same in the future as part of their planning. This is a conservative assumption, which may overestimate floorspace requirements, but does reduce the risk of planning for too little floorspace (this risk would be present if a declining ratio was assumed).

A further sensitivity test has been created to estimate how increased working from home following the COVID-19 pandemic may impact on overall floorspace requirements. The following process has been used to estimate the potential percentage reduction in floorspace demand for each industry:

1. Categorise each occupation (at the 3-digit ANZSCO association level) as likely to be able to work from home, 25% or 50% able to work from home, or not able to work from home.
2. Download a cross-tabulation of occupation by industry in the Sydney CBD, and use the categorisation from step 1 to calculate the proportion of workers in each industry able to work from home.
3. Assume that 50% of workers able to work from home will do so more often in the medium-long term, and that those who do work from home more often will do so 50% of the time.
4. Assume that 75% of businesses with workers working from home more often will reduce their floorspace size as a result.
5. Reduce current and future floorspace projections by a proportion for each industry reflecting steps 2-4.

The anticipated commercial profile of Central Station Precinct as a high-rise office district would position it as competing with, and operating within, the CBD submarket. The demand for additional floorspace in the Sydney CBD is shown in the table below.

Table 11 Sydney CBD and central floorspace demand (SQM additional from 2017)

Scenario	To 2021	To 2026	To 2031	To 2036	To 2041
Standard	784,330	1,479,732	1,977,651	2,464,280	2,894,666
Increased working from home	734,829	1,382,077	1,846,694	2,297,702	2,696,628

8.4.3 Floorspace capacity

One of the rationales for unlocking the development potential of the Central Precinct is to provide sufficient scope for the expansion of the Sydney CBD to accommodate long term economic growth and to maintain its role as the primary employment centre in Australia. This section considers the degree to which development at Central is needed to provide development capacity, building a picture of potential floorspace demand using employment forecasts.

The supply-demand balance provides a picture of the economic need for the development to accommodate Sydney’s growth over the longer term when compared against the property market considerations in the Market report.

Floorspace capacity across the Sydney LGA has been analysed by the City of Sydney based on the Floorspace and Employment Survey carried out in 2017. The results for Sydney CBD and for Pyrmont as reported by the City of Sydney are shown in Table 12.

2017 is the base year for these results. The development pipeline includes development completed since 2017, as well as developments under assessment, approved or under construction at the time of analysis in 2019. Capacity is split into baseline and state sites, and additional capacity which would be created under the Central Sydney Planning Framework, which includes proposed LEP and DCP changes which have not yet been made.

Table 12 Floorspace capacity in the Sydney CBD and Pyrmont

	CBD & Harbour	CBD South & Chinatown	<i>CBD Total</i>	Harris Street (Pyrmont)
Floorspace capacity – Baseline and state sites	348,344	716,180	1,064,524	279,137
Additional capacity – Central Sydney Planning Framework	653,073	439,800	1,092,873	521,576
Development pipeline	853,840	129,113	982,953	41,783
Total	1,855,257	1,285,093	3,140,350	842,496

Source: City of Sydney 2019, Development Capacity Study 2019

These capacity results illustrate that, particularly if the Central Sydney Planning Framework is implemented as proposed, significant additional floorspace could be accommodated within the Sydney CBD and Pyrmont. This does not include the potential capacity in places like the Bays Precinct, which are not yet fully planned.

8.4.4 Capacity-demand alignment

Comparing capacity within the Sydney CBD shows that:

- The development pipeline assessed by the City of Sydney is sufficient to meet demand until 2031 under an increased working from home scenario, or 2022 under standard assumptions.
- Floorspace capacity and pipeline without the central Sydney planning framework is sufficient to meet demand until 2032 under standard assumptions, or beyond 2041 under the increased working from home scenario.
- Total floorspace capacity is sufficient to meet demand beyond 2041 under either scenario.

Not all sites which are identified as available for development in a capacity assessment will be suitable for development, due to site specific reasons. For this reason, it is unlikely that the

total capacity can be fully developed. However, even allowing for a more conservative estimation of capacity requirements, there is sufficient capacity without development at Central to meet likely floorspace demand in the Sydney CBD into the longer term.

Considering specific industries which are likely to be targets for Tech Central, and noting that the commercial capacity expected in the most recent masterplan option would create around 569,000 square metres of commercial GFA, 39,760 square metres of retail, 46,960 square metres of education and 52,210 square metres of hotel, the commercial GFA would translate to around 58 years of supply of ICT floorspace for the entire Sydney LGA, 31 years' supply of creative industry floorspace or 18 years' supply of professional and business services floorspace, assuming no increase in working from home (or more if working from home increases). Some of this demand is likely to be taken up in the CBD and other major development precincts.

As such, the proposed development at Central would contain more floorspace than would realistically be demanded by predominately technical industries over the delivery period. A step-change in industry demand would be required to realise the proposed quantum of floorspace containing predominantly tech companies. This is not in and of itself an issue, as the demand analysis only extends to 2056 and the city will continue to develop long after this. These sorts of numbers are in line with the aspirations for Tech Central, but within the confines of a 30-40 year time horizon there is a commercial risk of insufficient market demand to fill proposed commercial space.

8.5 Estimated Central Station employment floorspace demand

8.5.1 CBD development scenarios

Considering Central Station Precinct as part of the broader CBD submarket means that it is likely to accommodate a proportion of the overall CBD floorspace demand discussed in the previous section. Considering what this proportion could reasonably be provides a guide to what a reasonable figure for employment generating floorspace at Central would be.

The following process was applied to produce this calculation:

1. Split the CBD into northern (CBD & Harbour) and southern (CBD South & Chinatown) halves using the City of Sydney's village boundaries, and calculate total floorspace demand projections between 2016-2056 for each.
2. Determine indicative values for what proportion of the floorspace capacity under current planning controls (as outlined in the previous section) may be taken up by 2056 in each part of the CBD.
3. Assume what proportion of the remaining demand (the different between the total floorspace demand between 2016-2056 and the taken up capacity) may be accommodated at Central, and calculate what this translates into in terms of future floorspace demand at Central.

To determine what share of the remaining floorspace Central would capture, Central should be considered as competing for businesses (and consequently jobs and floorspace) against other major sites and precincts which are not yet zoned for development and so which are not

included in the capacity statistics. For example, if 1,000,000 square metres of floorspace demand across the whole CBD and CBD fringe was remaining and so unaccounted for in terms of floorspace provision, this remaining 1,000,000 square metres would be spread between Central, the Bays Precinct and other development sites or precincts which may not yet be anticipated in places like Darling Harbour and major sites like the metro development at Martin Place. As such, Central may only need to accommodate a portion of this unallocated demand. In addition, if other locations like Green Square over-project office development and broader employment demand, they will also be able to capture some of the unaccounted-for demand.

Central would be expected to accommodate a greater proportion of floorspace demand from CBD South & Chinatown, and a smaller proportion from CBD & Harbour, by virtue of the difference in the CBD's existing sub-markets.

Three scenarios have been used to show a range of potential take-up proportions for existing capacity and development at Central, and what these would mean for the floorspace demand at Central Station:

- **High:** Moderate take-up of floorspace capacity outside of Central, with Central having high take-up of remaining capacity from CBD South & Chinatown at Central, and moderate take-up of remaining capacity in the CBD. The relatively high take-up rates for Central compared to other scenarios mean that Central would need a strong competitive position when compared to other precincts, and would generate the most floorspace demand at Central of any scenario.
- **Medium:** Low levels of capacity take-up outside of Central, with Central accommodating a moderate amount of the remaining demand for CBD South & Chinatown, and a low level for CBD & Harbour. Under this scenario, only moderate levels of development in the CBD occur, with Central taking up some of the remaining demand but other precincts also coming online and depressing development elsewhere in the CBD. This scenario generates less employment demand at Central than the High Scenario, but more than the Low Scenario.
- **Low:** Moderate levels of capacity take-up occur outside of Central, but Central takes up less of the remaining floorspace demand than under the High Scenario. This would occur if there was a relatively strong development market in the CBD and some other competing precincts lowering the level of take-up at Central. This scenario generates the least employment demand.

These scenarios are intended to illustrate different future market conditions that could occur over the coming decades. Different proportions have been used for the standard and increased working from home scenarios, reflecting the different market conditions likely to occur in each case. These proportions are shown in the following two tables.

Different proportions than those used in these tables would also be possible, which would give a different value for employment demand. These scenarios are intended to provide a reasonable range for employment demand, and an illustration of what market conditions would be needed to support a given employment generating floorspace amount.

Table 13 Development scenarios without changes to employment density for working from home

Scenario	CBD South & Chinatown		CBD & Harbour	
	% of capacity to be developed	% of <i>remaining</i> demand accommodated at Central	% of capacity to be developed	% of <i>remaining</i> demand accommodated at Central
High	50%	90%	50%	30%
Medium	20%	60%	40%	15%
Low	50%	75%	50%	20%

Table 14 Development scenarios with increased working from home

Scenario	CBD South & Chinatown		CBD & Harbour	
	% of capacity to be developed	% of <i>remaining</i> demand accommodated at Central	% of capacity to be developed	% of <i>remaining</i> demand accommodated at Central
High	40%	90%	50%	30%
Medium	15%	60%	25%	15%
Low	40%	75%	50%	20%

8.5.2 Central Station results

The floorspace demand results for Central are shown in the following tables. The overall floorspace demand is shown, as well as the remaining demand apart from what could be accommodated at the Western Gateway and Prince Alfred Sidings (based on draft designs).

Overall there is approximately 471,400 – 655,900 square metres of employment generating floorspace demand in Central, assuming there are no changes to employment density CBD, or between 183,400 – 367,900 square metres apart from the Western Gateway and Price Alfred Sidings.

Table 15 Floorspace demand at Central by 2056

Scenario		Floorspace demand (sqm)	Floorspace demand excluding Western Gateway or PA sidings
No changes to employment density	High	655,900	373,900
	Medium	585,200	303,200
	Low	471,400	189,400
Increased working from home	High	424,200	142,200
	Medium	386,600	104,600
	Low	305,300	23,300

Under the increased working from home scenario, there is reduced employment generating floorspace demand of between 305,300 – 424,200 square metres, or only 23,300 – 142,200 square metres in addition to the Western Gateway and Prince Alfred sidings. On this basis, there would be limited demand beyond the Western Gateway and Prince Alfred Sidings under the increased working from home scenario and a poor market for Central (the low scenario). Central would need to take a very high proportion of the overall floorspace demand in the CBD under the working from home scenario if 600,000 square metres or more of floorspace is to be delivered and filled within the 2056 timeframe.

8.5.3 Scope to accommodate target sectors

Another way to consider how much floorspace should be accommodated at Central is to analyse how much floorspace would be needed to allow Central to accommodate a significant workforce in target tech sectors that are expected to be the focus of Tech Central.

The table overleaf shows the floorspace that would be needed at Central to accommodate a high proportion of the LGA’s expected total employment growth (50% of ICT, 15% of creative industries and higher education and research and 10% of education). The no change in employment density and increased working from home scenarios are shown, as well as variations in these results in which Central also captures 20% of current ICT employment across the LGA and 5% of current education employment.

Overall, these results show that around 460,000 square metres of floorspace would be able to accommodate a significant share of the LGA’s growth in target sectors with no change in employment density, while around 330,000 square metres would be needed with increased working from home. Higher floorspace totals could accommodate a greater share for other sectors as well, or to capture some of the existing employment in target sectors and so consolidate Central’s position as a major hub for these industries.

The total floorspace figures in the table overleaf are mostly somewhat lower than floorspace amounts considered in draft designs for Central Station, showing that the draft designs can generously accommodate significant employment in these target sectors.

Table 16 Central Station floorspace needed to accommodate shares of LGA wide employment growth in targeted sectors

Scenario	Industry	Central % of LGA increased employment	Central % capture of existing (2017) LGA-wide employment	Employment generating floorspace (sqm) required
Current employment densities	ICT	50%		172,763
	Creative industries	15%		87,220
	Higher research & education	15%		107,522
	Professional & Business services	10%		95,035
	Total			462,541
Current employment densities, increased take-up at Central	ICT	50%	20%	333,896
	Creative industries	15%		87,220
	Higher research & education	15%		107,522
	Professional & Business services	10%	5%	181,588
	Total			710,227
Increased working from home	ICT	50%		125,978
	Creative industries	15%		62,569
	Higher research & education	15%		80,537
	Professional & Business services	10%		60,371
	Total			329,454
Increased working from home, increased take-up at Central	ICT	50%	20%	246,411
	Creative industries	15%		62,569
	Higher research & education	15%		80,537
	Professional & Business services	10%	5%	126,624
	Total			516,141

Source: SGS Economics and Planning 2021

8.6 Future employment profile of Masterplan

The likely employment profile at Central Precinct has been estimated based on the employment-generating floorspace (Commercial, Retail, Education, Hotel, and Community) provided to SGS on 4 May 2022, tabled below. It adopts a supply-driven approach to estimating the jobs potential of the GFAs tabled below and uses inputs from Landcom Workspace Ratios Common Planning Assumptions to estimate potential FTE job numbers directly enabled through the provision of employment floor space (sqm GFA).

It does not use inputs from other employment projections, such as TZP19, as the Population and Demographics study does.

The non-employment generating floorspace component includes 84,912 sqm of Residential and 22,482 sqm of Student Housing and is not used for the purposes of the jobs forecast.

Table 17 Masterplan Gross Floor Area Provision

Sub-Precinct	Commercial	Residential	Retail	Education	Student Housing	Hotel	Community	Total
Central Precinct (Incl. Goulburn Street Car Park)	269,552	84,912	22,448	47,238	22,482	50,902	17,344	514,878
Western Gateway	236,826	0	14,997	0	0	20,196	0	272,019
Total	506,378	84,912	37,445	47,238	22,482	71,098	17,344	786,897

Source: TfNSW 2022

The likely employment profiles have been estimated based on the percentage employment composition by floorspace type throughout the CBD.

These have been adjusted with location quotients for Central Precinct in selected sectors to reflect where Central is expected to be highly competitive or relatively uncompetitive compared to the rest of the CBD:

- ICT – 2.0 (this is among the highest location quotients of any block in the CBD).
- Professional and business services – 1.62 (this is relatively high, but there are many higher LQs in other blocks in the CBD).
- Finance and financial services – 0.4 reflecting that Central is likely to be less attractive to finances than northern CBD (this is a relatively low LQ compared to other blocks in the CBD).

Table 18 Expected employment profile at Central

ANZSIC category	Baseline (Western Gateway)		Masterplan	
	Jobs	%	Jobs	%
Accommodation and Food Services	638	5.07%	1,791	6.22%
Administrative and Support Services	1,061	8.43%	2,275	7.90%
Agriculture, Forestry and Fishing	17	0.14%	37	0.13%
Arts and Recreation Services	110	0.87%	249	0.87%
Construction	181	1.44%	387	1.35%
Education and Training	27	0.21%	1,002	3.48%
Electricity, Gas, Water and Waste Services	174	1.38%	371	1.29%
Financial and Insurance Services	1,645	13.08%	3,522	12.23%
Health Care and Social Assistance	203	1.61%	607	2.11%
Information Media and Telecommunications	1,349	10.73%	2,888	10.03%
Manufacturing	64	0.51%	137	0.47%
Mining	19	0.15%	41	0.14%
Other Services	282	2.24%	735	2.55%
Professional, Scientific and Technical Services	4,731	37.61%	10,126	35.17%
Public Administration and Safety	1,008	8.02%	2,243	7.79%
Rental, Hiring and Real Estate Services	460	3.66%	1,006	3.49%
Retail Trade	325	2.59%	763	2.65%
Transport, Postal and Warehousing	240	1.90%	513	1.78%
Wholesale Trade	45	0.36%	97	0.34%
Total	12,579	100%	28,791	100%

Source: SGS Economics and Planning 2022

While no definition exists for ‘Innovation jobs’, the classification of Knowledge Intensive industries, used by the Greater cities Commission and others, is a useful proxy. Under that classification (which includes Admin and Support services, Financial and Insurance, Info Media and Telco, Professional, Scientific and Technical Services, Public Admin and Safety and Rental, Hiring and Real Estate), Knowledge Intensive jobs account for 76% of expected jobs in the masterplan (22,000). As with any commercial centre, those jobs require the supporting services of a range of other industries in order to operate effectively and so it is not expected that all jobs would be Knowledge intensive (or innovation focused) in nature.

Based on this analysis of current proposed floorspace in the masterplan, the precinct may provide the capacity to accommodate approximately 28,791 jobs, based on this estimated industry composition. This estimate is not attributed to a calendar year, given that it is based on when masterplan floorspace provision has completed.

This analysis is distinct from that outlined in 8.5 in that it does not provide a view as to when this is likely to occur, but rather what the profile may look like if all that floorspace is occupied, based on these industry splits. This calculation shows that professional, scientific and technical services, financial and insurance services, and information media and telecommunications are

likely to be the largest industries in the precinct (in that order), followed by administrative support services and public administration and safety. Combined, these top five ANZSIC divisions by employment potential would make up 73.13 per cent of employment on the site.

These employment figures form the basis for assessing the broader economic impacts of the Masterplan development in Chapter 7.

Note regarding the use of forecasts and study areas for different studies

It is noted that precinct forecasts produced in the Demographics report have been applied across the Economics Study, and the Social Infrastructure and Health Impact Assessment Study.

Precinct forecasts have then been used for the study areas respectively applied to these studies, which are different, due to the different requirements of those studies.

The forecasts for the study areas in these reports differ, with respect to these different geographies. But these are based on consistent precinct numbers and consistent forecasting methodologies.

The Population and Demographic Study by SGS Economics and Planning has converted the masterplan floorspace and expected dwelling numbers provided by Architectus into an estimate of population, based on assumed household sizes. The Population and Demographic Study, as well as the Economics study by SGS, have also translated the masterplan's commercial floorspace into a total job number, using assumptions around industry mix and common planning assumptions relating to floorspace density per job. These figures are provided with and without the Western Gateway development.

The population and employment projections of both of these studies only look at the Central precinct masterplan site. These projections are inputs into the Social Infrastructure Study. No updates have been undertaken to the projections outside of the masterplan site, which for the purposes of comparison or analysis outside of the masterplan site are considered to be the TfNSW Travel Zone Projections 2019.

8.7 Summary and insights

Several insights emerge from the analysis in this chapter.

- **Planning with certainty beyond 30-40 years is a significant challenge.** It is extremely difficult to know with certainty what the commercial market will look like in 40 years. 20 years ago, suburban business parks such as Macquarie Park and Norwest were the focus for new commercial activity, yet just 40 years ago, most businesses did not operate with computers. The analysis in this chapter makes some observations and assumptions regarding changes resulting from the COVID-19 pandemic's potential impacts on the future of work and tests several 'what if' scenarios with respect to future floorspace distribution. These are intended to help shed light on what the Central Precinct may look like in the future, but are not certainties.
- **Even under optimistic scenarios, the quantum of commercial floorspace appears to exceed demand by 2056.** The nature of the commercial market, and the competition from other existing and future commercial sub-precincts will mean that future

demand for floorspace will be met across the CBD and CBD-fringe. The masterplan as it stands appears to provide more floorspace than is needed to meet projected demand to 2056, assuming it is all built out by then.

- **Excess capacity isn't a bad thing per se.** At this point in the development of the masterplan, planning for additional capacity is not a bad thing. It is very difficult to ascertain long term floorspace need at a precinct level, due to changing ways of business function, unknown future technological impact and the complexities of competing sub-markets. The development does not all need to occur at once, and in practice it is likely that development will be sequenced so that supply aligns with demand over time. 'Surplus' capacity can be 'reserved' for demand well beyond the 2056 timeframe, used for other non-commercial uses or never realised. In such cases, capacity may be converted to some other use (open space for instance) if market conditions change over the long term.
- **Capacity elsewhere in the CBD is not a reason to avoid progressing the masterplan.** The analysis in Section 3.3 highlights that there is other capacity across the CBD and in key CBD fringe precincts (Green Square, Bays, North Eveleigh for example) that could accommodate a significant share of future employment demand. Cheaper development sites, or other government-led projects with lower delivery costs are likely to capture some of this over the coming decades. This is not a reason to avoid progressing the long-term vision for Central however. The benefits of a concentration of 'new' land above a major station next to the CBD or the opportunities for the establishment of a new precinct in the southern end of the City provide long term growth potential for Australia's largest commercial centre. There are, without doubt, major feasibility challenges in delivering this, and how this is done needs to be addressed. But conceptually, this project provides the opportunity to shore up long term commercial (or even residential and cultural) floorspace capacity for the coming decades.
- **While Tech Central is predicated on being a major hub for tech businesses, these should not be the only market targeted.** The analysis in Section 3.6 illustrates that even if Central Station's total floorspace was fully occupied, and the precinct had a specialisation in IT three times that of the rest of the CBD, based on the projected increase in ICT jobs by 2056, it is likely they would only account for around 20 per cent of total jobs in the precinct. Additionally, the IT workforce is disproportionately more likely to be able to work remotely (as highlighted by Atlassian's recent comments about not needing their employees to come back into the office again). This means that while the precinct should try to encourage tech and innovation, it should also recognise that for the most part, a tech or innovation job needs very similar building types and facilities as any other office-based job, and that a reliance upon one sector alone may risk missing opportunities to become a more diverse commercial ecosystem of businesses and industries – in the way that the CBD is.

9. Market intelligence

This market analysis characterises existing and future residential, commercial, retail, student accommodation and hotel market conditions within the Central Station Precinct. It has been prepared by HillPDA consulting as part of the market research and feasibility report into the Central Station SSP Masterplan.

9.1 Commercial market overview

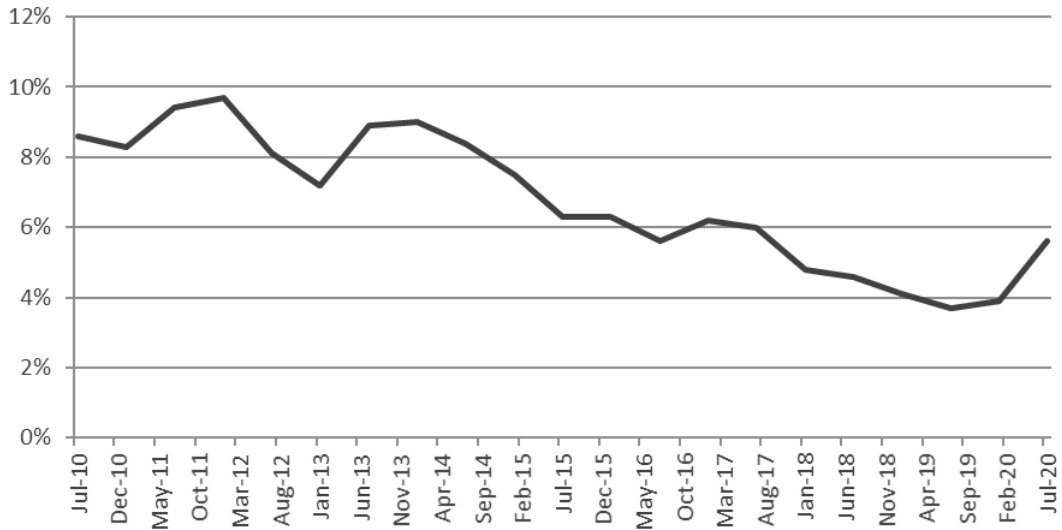
9.1.1 Sydney CBD office market

Between mid-2016 to mid-2018, the Sydney CBD has seen an extensive withdrawal of office space driven by the residential conversions and the Sydney Metro. The permanent withdrawal to allow construction for the Sydney Metro resulted in hundreds of B-grade tenants being displaced from their commercial space. This displacement, combined with a limited supply pipeline, placed pressure on office rents to increase circa 20 to 25 per cent, yields to compress to 4 to 5 per cent, and vacancies to decrease to 4.1 per cent.

While new supply has been limited over the past 18 months, several major projects are currently under construction and set to make their way into the market over the next two years. By January 2022, the CBD office total stock level is anticipated to increase by approximately 4.1 per cent, stemming from over 202,000 sqm of new developments and refurbished stock returning to the market. Before COVID-19, the market would have welcomed incoming new supply, but pressure on vacancy has caused owners to increase incentives to ensure deals are completed quickly.

The Sydney CBD vacancy rate increased from 3.9 per cent in June 2019 to 8.6 per cent over the 18 months to January 2021. The CBD received almost 110,00 sqm of new supply and negative net absorption of -54,671 sqm, bumping the vacancy rate up to its highest level in seven years. In conjunction with a rise in sub-lease options, the decline in leasing decision-making during the last few months is expected to drive a further increase in vacancy in the second half of 2021.

Figure 20 Sydney CBD office market vacancy rate, 2010-2020



Source: Property Council of Australia Office Market Report 2020

Average incentives have increased to 25 to 35 per cent, while face rents are holding, but with incentives up, gross effective rents have declined by 10 to 15 per cent in prime and 12.5 to 17.5 per cent in secondary in the six months to July 2020.

Private sector leasing demand has been subdued as tenants assess workplace utilisation rates. Government demand is helping to partially offset the decline in the private sector demand, accounting for 32 per cent of total leasing volumes in the year to August 2020.

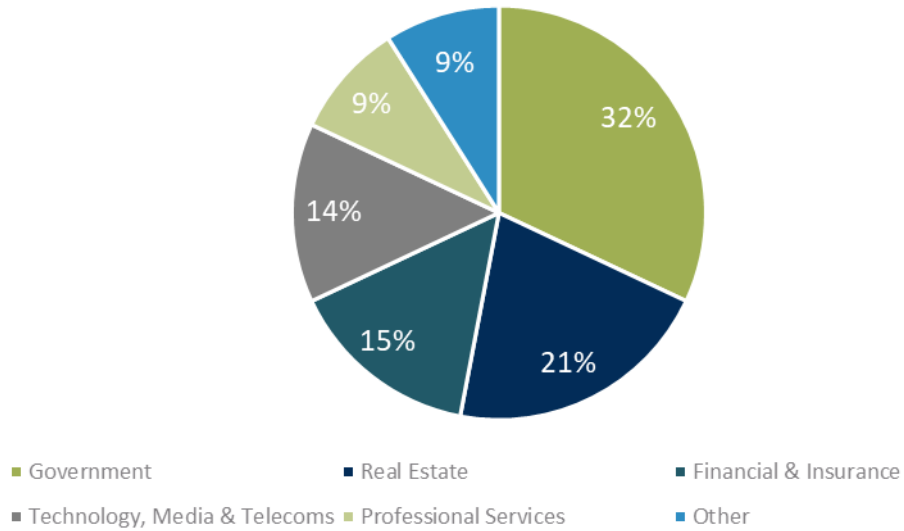
Table 19 Sydney CBD office market indicators July 2020

Grade	Total Stock	Vacancy Rate	Annual Net Absorption	Annual net Additions	Average Gross Face Rent	Average Incentive	Effective Rental Growth	Average Core Market Yield
Prime	3,036,801	4.3%	29,958	74,303	\$1,385	25-30%	-6.3%	4.25-4.75%
Secondary	1,941,137	7.6%	-128,248	-79,184	\$1,017	25-30%	-10.7%	4.75-5.25%
Total	4,977,938	5.6%	-98,290	-4,881				

Source: Knight Frank Sydney CBD Office Market Overview September 2020

Private sector leasing demand has been subdued as tenants assess workplace utilisation rates. Government demand is helping to partially offset the decline in the private sector demand, accounting for 32 per cent of total leasing volumes in the year to August 2020.

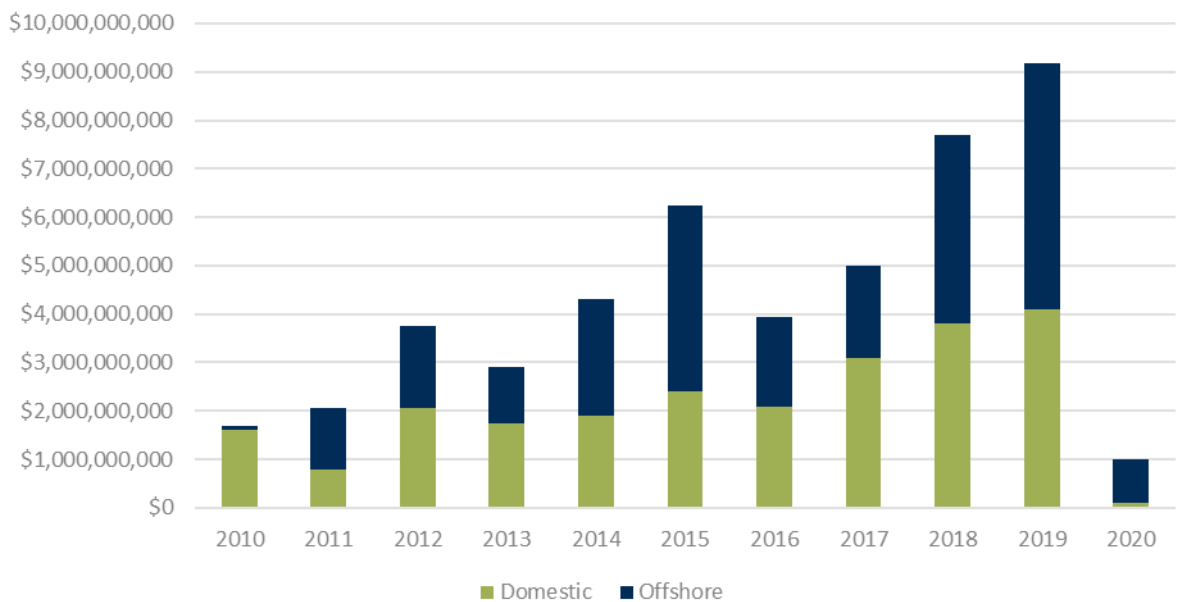
Figure 21 Sydney CBD lease deals by industry sector, January-August 2020



Source: Knight Frank Sydney CBD Office Market Overview September 2020

Investment volumes in H1 2020 reached \$991.6 million, which is significantly lower than the preceding years. It is expected a rebound is likely in the coming months, with several significant core CBD assets being offered for sale.

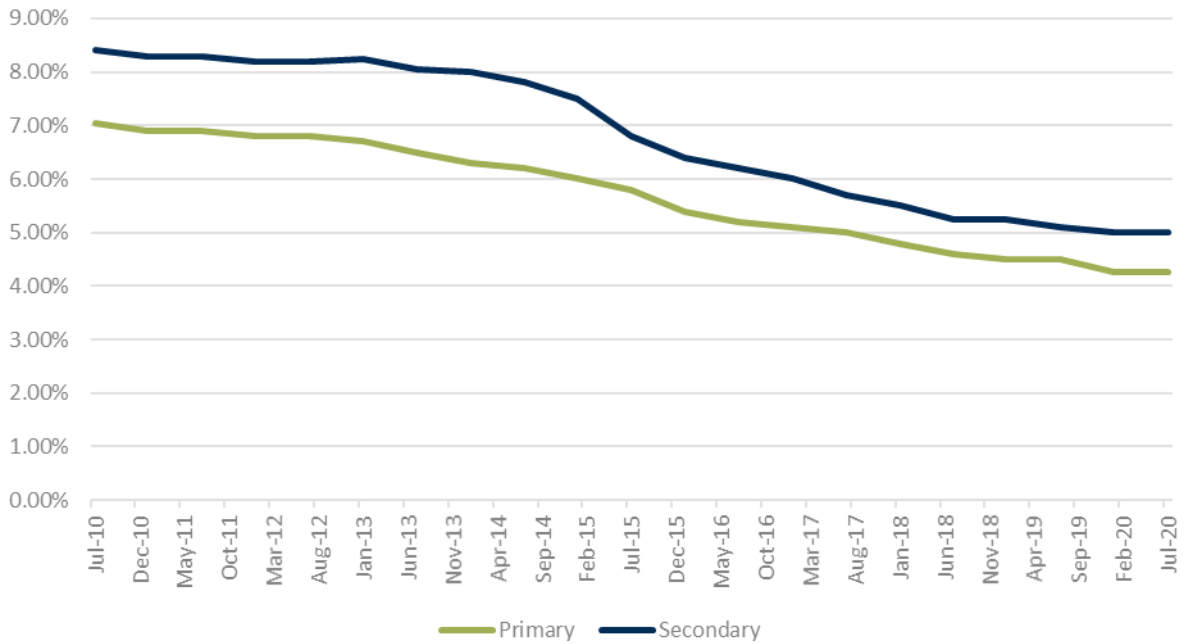
Figure 22 Sydney CBD office sales 10 million +, 2010-2020



Source: Knight Frank Sydney CBD Office Market Overview September 2020

Following significant compression during 2019, the core yield range for prime assets is holding between 4.25 per cent to 4.75 per cent, while second-grade assets sit at 4.75 per cent to 5.25 per cent.

Figure 23 Sydney CBD yield spread, 2010-2020



Source: Knight Frank Sydney CBD Office Market Overview September 2020

Before COVID-19, a comparison of the current vacancy rates within each submarket shows the strength of the CBD market, which added to the increasing pressure on Sydney fringe rents.

The Southern precinct recorded the most robust rental growth of 10.3 per cent YoY (Jan-19 to Jan-20) in the prime market to average \$927/sqm gross face. The Southern precinct has benefited from the light rail opening, improving its connectivity to the wider CBD. Additionally, with the Core and Midtown precinct so tightly held, tenants have had to look to the Southern CBD, offering up to a 30 per cent rental discount to the CBD average.

Figure 24 Sydney CBD vacancy rates by precinct, January 2020



Source: Knight Frank Sydney CBD Office Market Overview March 2020

9.1.2 Major commercial office supply

Over the last three years, the commercial office supply deficit has been ended as stock withdrawals begin to ease and develop both new and refurbished stock progress for completion over the next two years, leading to a potential influx of premium oversupply.

Across the Sydney CBD, over 198,000 sqm of stock is currently refurbished in 2020 or is currently undergoing refurbishment works, of which 40 per cent has been committed.

The pipeline of new development stock currently under construction totals approximately 202,000 sqm, with a pre-commitment rate nearing 70% across major new buildings (Brookfield Place, Quay Quarter Tower, and Circular Quay Tower). This pipeline will be delivered over the next two years but will not be impacted by limited demand being experienced in the market given the existing pre-commitments.

Pending pre-commitment, the potential exists for around 873,300 sqm of supply to enter the CBD market over the next five years. This equates to 176,000 sqm of supply per year which is well above the 10-year average of 130,000 sqm.

Upon completion of the new developments, the market will be dealing with substantial backfill space, which pre-COVID would have been more likely to absorb. Given the current state of the market, occupiers are downsizing their office space as they utilise technology and evolve remote working policies.

Table 20 Sydney CBD market office supply 2020-2026+

Year	Refurbishments	Under Construction	DA Approved	DA/Mooted	Total
2021		59,000sqm			59,000sqm
2022		143,274sqm			143,274sqm
2023					0sqm
2024	78,215sqm		154,120sqm		232,335sqm
2025			220,000sqm		220,000sqm
2026+			60,000sqm	158,350sqm	218,350sqm
Total	78,215sqm	202,274sqm	434,120sqm*	158,350sqm	872,959sqm

Source: Knight Frank Sydney CBD Office Market Overview September 2020 & Cordell Connect 2021

*Includes 220,000 sqm from Tech Central

- Insight – COVID-19 impacts on the commercial market are yet to ultimately materialise.
- Insight – Risk of commercial floorspace oversupply.

9.1.3 Development site sales

We have analysed vital site sales in the Sydney CBD and one transaction in North Sydney to define a range of rates from \$1,215 to \$8,115/sqm GFA (on completion) after deleting the result at 275 George Street due to the high retail component.

This wide range from \$1,215 to \$8,115/sqm is adjusted for the subject property by expectations over \$1,200/sqm GFA (about the sale at 1 Denison Street, North Sydney) and under \$3,600/sqm GFA (about the sale at 37-55 Pitt Street, Sydney) after adjusting for the subject property's location, title and tenure offset by an assumed DA consent and lease-back to UTS.

1 Denison Street, North Sydney



This site forms a retail/commercial project bounded by three streets. The land acquisition includes an office stratum at 77 Berry Street in an adjoining residential building (\$25.0million). Total price paid of \$80.0million.

This site is located beside the Victoria Cross railway station.

The planned project will provide 37 storeys with floor plates extending to 1,970sqm above parking for 225 cars.

The services design is claimed to achieve a 5 Star Green Star and 5 Star NABERS ratings.

Subsequently to the sale, it achieved a leasing pre-commitment from the Nine Network.

Sale Particulars

Sale Price	\$55,000,000*	Sale Date	June 2016
Land Area	3,750sqm	\$/sqm Land Area	\$14,667
Potential GFA	45,270sqm	\$/sqm GFA	\$1,215

180 George Street, Sydney (Circular Quay Tower)



Acquired by Ping An (50%) and Mitsubishi Electric (50%) from Lend Lease, off market.


Pre-approval Planning achieved that defines the building envelope (and GFA) achievable.


The GFA mix allows for 1,775sqm of retail (%) and 54,594sqm of office space in addition to 3,711sqm of tech incubator space to be dedicated to the City of Sydney Council in addition to 86 car bays in the basement.

Harbour views afforded from the upper levels given its location behind the Wanda residential and hotel project.

Sale Particulars

Sale Price	\$300,000,000	Sale Date	June 2017
Land Area	4,381 sqm	\$/sqm Land Area	\$68,478
Potential GFA	65,141 sqm	\$/sqm GFA	\$4,605

37-55 Pitt Street, Sydney			
	<p>Mirvac progressively acquired 37-57 Pitt Street, 6-8 Underwood Street, 6 Dally Street and 8-14 Dalley Street, Sydney.</p> <p>Mirvac Capital bought a 50% interest in November 2019 for \$80.5mil.</p> <p>The original proposal was for a 45,000sqm tower but this has been updated to include a 70,000 square metre commercial office tower up to 232 metres in height, with a 45m high podium. It will include creation of a through-site link widening and connecting Queens Court to Underwood Street and a retail activated pedestrian colonnade along Underwood Street to improve pedestrian connections.</p> <p>Harbour views afforded from the upper levels given its location behind the Wanda and Circular Quay Tower.</p>		
	Sale Particulars		
Sale Price	\$161,000,000	Sale Date	November 2019
Land Area	4,295 square metres	\$/sqm Land Area	\$37,485
Potential GFA	45,000 sqm	\$/sqm GFA	\$3,578
Potential GFA (under proposal)	70,000 sqm	\$/sqm GFA	\$2,300

210-220 George Street, Sydney			
	<p>Poly acquired 210 George Street for \$50.81mil and 220 George Street for \$109.19mil.</p> <p>The site will Construction of a 28 storey PCA A-grade commercial office tower with a total GFA of 19,717.5sqm comprising commercial office premises, a 12-storey podium, and ground and first floor retail.</p> <p>Consolidated access for pedestrians and vehicles from Underwood Street.</p> <p>Three basement levels including a total of 29 car parking spaces, three (3) service vehicle spaces, four (4) motorbike spaces, 200 bicycle parking spaces, as well as associated EOT facilities, loading, storage, plant, and services.</p>		
	Sale Particulars		
Sale Price	\$160,000,000	Sale Date	July 2016
Land Area	1,434 sqm	\$/sqm Land Area	\$111,576
Potential GFA	19,717 sqm	\$/sqm GFA	\$8,115

9.1.4 Investment sales

The below sales evidence represents a broad range of evidence which shows a sale value range of \$9,077 to \$26,825/sqm of NLA and a yield range of 4.30 to 5.30 per cent.

Table 21 Sydney CBD and surrounds recent sales activity

Property	Price	Core Yield	NLA	\$/sqm NLA	WALE	Purchaser	Vendor	Sale Date
45 Clarence Street, Sydney	\$530.0mil	4.97%	31,992sqm	\$16,567	2.7	Peakstone	Dexus	Jun-20
161 Castlereagh Street, Sydney (25%)	\$405.0mil	4.30%	60,213sqm	\$26,825	9.3	ISPT	Blackstone JV	Oct-19
19 Martin Place, Sydney (50%)	\$800.0mil	4.75%	66,900sqm	\$23,916	U/D	Dexus	GPT Group	Mar-19
201 Elizabeth Street, Sydney	\$630.0mil	5.00%	36,983sqm	\$16,000	U/D	Charter Hall/Abacus	Dexus/Perron	Aug-19
105 Phillip Street, Parramatta	\$220.0mil	5.30%	25,228sqm	\$9,077	12.0	Dexus	Charter Hall	May-17
116 Miller Street, North Sydney	\$134.0mil	5.20%	11,366sqm	\$11,779	3.4	PBA	Maville	July-17

Source: Knight Frank Sydney CBD Office Market Overview September 2020

9.1.5 Leasing deals

Recent rental transactions in Sydney CBD tabulated below show a net rental range of 1,055 to \$1,744/sqm net face per annum.

Table 22 Sydney CBD recent leasing transactions

Occupier	Property	Precinct	Size	Face Rent	Incentive	Term	Start Date
Metro Finance	35 Clarence Street	Western	702sqm	\$1,055	21%	4	Feb-20
Mason Stevens	420 George Street	Midtown	1,191sqm	\$1,378	18%	5	Jun-20
Adecco Australia	123 Pitt Street	Core	880sqm	\$1,127	-	8	Apr-20
NSW Treasury Dept	201 Kent Street	Western	1,325sqm	\$1,124	17%	10	Q4-19
Intuit	1 O'Connell Street	Core	2,400sqm	\$1,744	17%	5	Apr-20
BNY Mellon	1 Bligh Street	Core	1,607sqm	\$1,311	28%	5	Jun-20

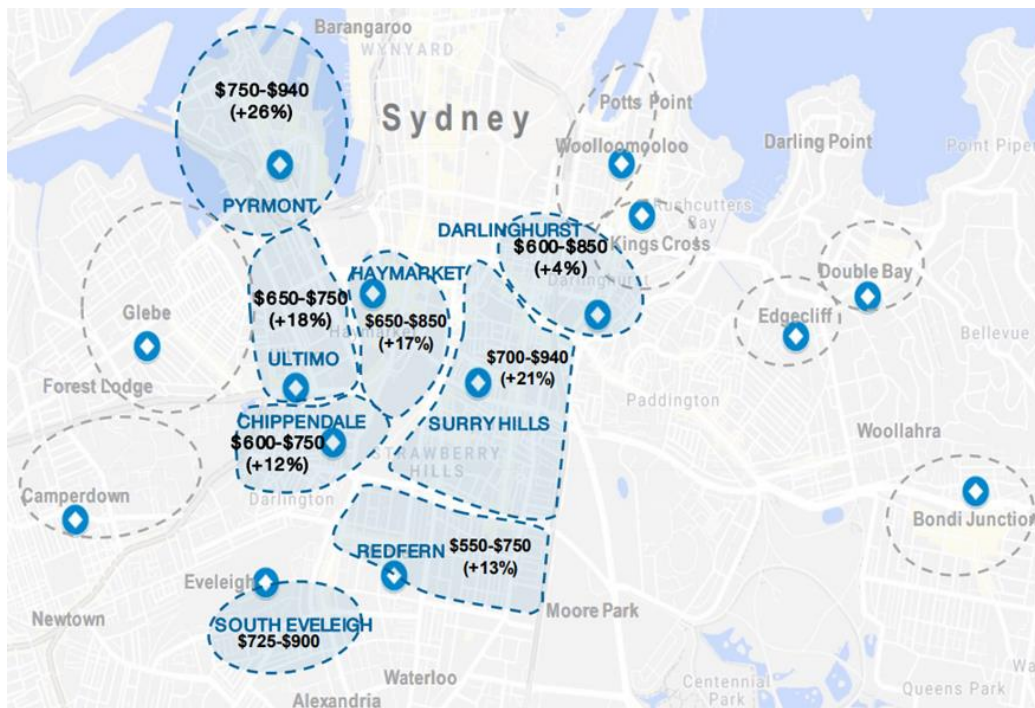
Source: Knight Frank Sydney CBD Office Market Overview September 2020

9.1.6 Sydney CBD fringe office market

Research shows that small to medium-sized enterprises, education and technology are common occupiers of the city fringe who tend to favour shorter lease terms and lower rent,

while remaining near the CBD. Knight Frank reported that fringe rent is approximately 30 per cent less than rent in the CBD, with A-grade net rent in Surry Hills is currently averaging at \$740 to \$940/sqm gross face while rent in Ultimo is currently averaging at \$650 to \$750/sqm gross face.

Figure 25 City fringe office market rental map (gross face)



Source: Knight Frank Sydney Fringe Office Market Overview June 2019

The small to medium enterprises that operate within these fringe markets require cheaper rents given the stage of the business cycle of their operations. These technology companies are within early development of their products/services and cannot afford to pay market rent required to be located within the Sydney CBD so elect to operate within the creative spaces within the fringe. These tenants are focused on thought leadership and creating the next innovative technologies but are being displaced given availability issues.

Given the lack of new office space development experienced within the fringe market over recent years, renewal of existing leases is when issues arise. Innovative companies who signed a three-to-five-year lease in 2014-2016 are now up for renewal. As rents have increased by 25 to 40 per cent since the time of signing these initial leases businesses that operated within these markets cannot remain given the market forces at hand. While the displaced tenants from the Sydney Metro, residential conversions and major redevelopment caused the CBD market squeeze as they had to find additional office space, redevelopment of additional space within the fringe markets could have reduced affordability issues. The construction of additional office space within the fringe market could have helped to reduce the pressure on increasing rents and support the smaller existing businesses.

9.1.7 Rise of technology firms in Sydney fringe office market

The Sydney fringe office market is experiencing strong tenant demand. Suburbs such as Pyrmont and Surry Hills are becoming increasingly popular with technology firms. Technology firms competing for talent have continued to prioritise fringe markets for their office requirements. Additionally, some expanding tech firms are exclusively considering Surry Hills, unwilling to forgo its cultural, food, and beverage offerings.

For tech tenants, retention of staff is a primary driver when choosing the location and character of the space. Recently the city fringe office market has been flooded with tech start-ups. The importance of location, amenity and type of space comes as the competition between tech companies grows.

There is growing urgency amongst creative industries and (increasingly) tech companies to secure unique, quality space, as limited supply within the cluster of city fringe suburbs continues. Tech companies are particularly focussed on the role their premises play in their rapid business and staff growth.

What appears to be a recurring theme among the top performing buildings for rental growth and tenant engagement is high quality food operators located prominently on the ground floor of the building. A balance of work and play, coupled with creating a destination and brand for the building, can contribute greatly to position office buildings into true 'place makers'.

Additionally, constrained supply has continued to drive rental growth in 2018/19, especially in the B-grade market, despite the lack of amenity relative to A-grade space. Large corporations such as Google, Woolworths and Sony Computer Entertainment Company paying rents circa \$900/sqm gross face that has continued to drive rental growth. This has continued to place pressure on new 'start-ups' within the market who are unable to enjoy the benefits of previous creative industries who were paying rents close to \$500/sqm gross face when they first entered the market. Constrained supply is a major component of this issue and needs to be solved if new innovative 'start-ups' are sought after within the innovation precinct.

Table 23 City fringe office market parameters Q1 2019

Market	Total Stock	Vacancy Rate	Average A-Grade Gross Face Rent	Average A-Grade Incentive	Average A-Grade Core Market Yield
Pyrmont	252,512	4.0%	750-940	15-20	5.00-6.00
Surry Hills	298,228	3.2%	700-940	10-15	4.25-5.50
Ultimo	147,402	2.6%	650-750	12.5-17.5	5.25-6.00
Darlinghurst	57,784	1.4%	600-850	12.5-17.5	4.50-5.75
Haymarket	62,226	0.0%	650-850	12.5-17.5	4.50-5.75
Chippendale	25,615	9.8%	600-750	10-15	4.50-5.75
Redfern/Eveleigh	51,801	0.0%	550-750	8-12	4.50-5.75
South Eveleigh	93,766	0.0%	725-900	15-20	4.50-5.75

Source: Knight Frank Sydney Fringe Office Market Overview June 2019

9.1.8 Investment sales

The below sales evidence represents a broad range of evidence which shows a sale value range of \$9,192 to \$14,154/sqm of NLA and a yield range of 5.05 per cent to 5.73 per cent.

Table 24 Sydney fringe recent sales activity

Property	Price	Core Yield	NLA	\$/sqm NLA	Purchaser	Vendor	Sale Date
38-42 Pirrama, Pyrmont	\$150.0mil	U/D	16,319sqm	\$9,192	Aqualand	Google	Jun-18
19 Harris Street, Pyrmont	\$143.0mil	U/D	12,568sqm	\$11,378	Kuehne Real Estate	AEW Capital	Sep-18
100 Broadway, Chippendale	\$77.1mil	5.05%	5,450sqm	\$14,154	Frasers	MTAA Super	Dec-18
19-37 Greek Street, Glebe	\$43.0mil	VP	3,500sqm	\$12,286	Private	Private	Feb-19
19 Foster Street, Surry Hills	\$39.5mil	5.73%	3,150sqm	\$12,524	Security Invst. Aust	Marks Henderson	Mar-19

Source: Knight Frank Sydney Fringe Office Market Overview June 2019

9.1.9 Leasing deals

Recent rental transactions in Sydney fringe tabulated below show a net rental range of \$675 to \$940/sqm per annum.

Table 25 Sydney fringe recent leasing transactions

Address	Suburb	Size	Rent	Term	Lease Type	Tenant	Start Date
21 Harris Street	Pyrmont	10,050sqm	\$700 net	10	Pre-comm	Publicis Group	Apr-20
60 Union Street	Pyrmont	1,140sqm	\$780 net	5	Direct	Parkview Construction	Feb-19
100 Broadway	Ultimo	5,447sqm	\$800 net	15	Direct	UTS	Jan-19
48 Pirrama Road	Pyrmont	9,850sqm	\$940 gross	2	Renewal	Google	Jan-19
63-73 Ann Street	Surry Hills	832sqm	\$675 net	1	Direct	Sony Entertainment	Sep-18
477 Pitt Street	Haymarket	2,594sqm	\$850 gross	4	Direct	Healthdirect	Nov-18

Source: Knight Frank Sydney Fringe Office Market Overview June 2019

9.1.10 Ultimo/Haymarket

Table 26 Ultimo and Haymarket office market summary

Market	Total Stock	Vacancy Rate	Average A-Grade Gross Face Rent	Average A-Grade Incentive	Average A-Grade Core Market Yield
Ultimo	147,402	2.6%	650-750	12.5-17.5	5.25-6.00
Haymarket	62,226	0.0%	650-850	12.5-17.5	4.50-5.75

The Ultimo/Haymarket office market is categorised by a mix of educational, design and government tenants who prioritise cheaper rents over a CBD location. The strong links to the CBD has buoyed its popularity and kept it tightly held over the last couple of years, with little turnover in occupiers recently.

Discussions with leasing agents and professionals who communicate with tenants within these markets state the low vacancy experienced within the Sydney CBD over the past two years has impacted upon the affordability of these fringe markets.

Tenants who prioritise a ‘secondary market’ as a preference, who forgo location for cost, now must look past Ultimo/Haymarket given the tightening of vacancy and increasing rents experienced within these markets.

A current vacancy rate of less than 2 per cent and gross rents of circa \$750/sqm has caused smaller tenants to be priced out of the market. A recent deal completed by UTS for 9,850 sqm of office space within 100 Broadway in Chippendale (directly opposite UTS engineering building) was transacted at \$800/sqm net face (\$950/sqm gross face). Another example of the type of existing market rents being achieved is Healthdirect also signed a lease in 2018 for 2,594 sqm of office space within 477 Pitt Street, Haymarket at \$850/sqm gross face for four years.

9.1.11 Surry Hills

Table 27 Surry Hills office market summary

Market	Total Stock	Vacancy Rate	Average A-Grade Gross Face Rent	Average A-Grade Incentive	Average A-Grade Core Market Yield
Surry Hills	298,228	3.2%	700-940	10-15	4.25-5.50

The Surry Hills office market is categorised by A and B-grade larger style commercial stock along Elizabeth Street that quickly changes into lower three-to-four level creative spaces scattered throughout the suburb. The stock located along Elizabeth Street has larger style floorplates and is home to more professional and technological services.

JLL agents say Surry Hills is the creative and innovative hub of Sydney and the unique building offerings draw tenants attracted to the boutique nature of the space and the surrounding restaurant and bar strips.

Ongoing demand for creative and unique office space is driving rents upwards and incentives down. The Surry Hills market had its lowest vacancy rate ever recorded at just 1.3 per cent in 2018 but has recently increased to 3.2 per cent with additional stock coming to market.

Cushman & Wakefield reported that fringe rent is approximately 30 per cent less than rent in the CBD, with A-grade net rent in Surry Hills currently averaging at \$700/sqm. The proximity to transport and the availability of a mix of diverse retail offerings makes Surry Hills a highlight sought after location with these rents forecast to continue to push higher in the short-term.

9.1.12 Redfern/South Eveleigh

Table 28 Redfern and South Everleigh office market summary

Market	Total Stock	Vacancy Rate	Average A-Grade Gross Face Rent	Average A-Grade Incentive	Average A-Grade Core Market Yield
Redfern/Eveleigh	51,801	0.0%	550-750	8-12	4.50-5.75
South Eveleigh	93,766	0.0%	725-900	15-20	4.50-5.75

The Redfern/Eveleigh commercial office market is categorised by a mix of creative and design companies intertwined within rich cultural, food and beverage offerings. The commercial market is anchored by the office space at 219-241 Cleveland Street, Redfern that houses; Australia Post, TheFork AU and StarTrack.

While the market consists of various advertising, galleries, and boutique style office spaces the establishment of the Australian Technology Park (ATP) changed the make-up and interest of tenants.

Existing tenants within ATP who have helped transform the space into a digital and design focused activity node are 7 West (media), NEP Group (media) and AC3 (IT). Additional office/retail space will be available in the coming years with Mirvac transforming the locomotive workshops into habitable office space.

The Commonwealth Bank (CBA) complex at ATP provide 93,000sqm of office space and represents a significant development for the South Eveleigh node. Mirvac will produce three buildings for CBA. Buildings 1 and 2, which will be characterised by the large office floor plates ranging from 5,500 to 8,600sqm. Building 3 will become CBA's "pavilion building" hosting community and childcare spaces.

While the ATP will eventually cater to 16,000 to 18,000 additional workers. The price of the office space has been around \$850 to \$1,000/sqm gross face. As a result, it may be challenging for smaller research and design tenants to relocate within this area as CBA has set market rental rate precedents for the node.

The previous tenants of the locomotive workshop who have now been asked to vacate the premises given the demolition clauses were paying circa \$200/sqm gross on short-term leases. While this is not reflective of a market rent for space within this submarket any existing tenant operative within the locomotive workshops would have to look elsewhere when seeking commercial office space.

9.1.13 Covid-19 impacts on the Sydney CBD office market

The Covid-19 pandemic is likely to have a long-term impact to the Sydney CBD Office market due to its behavioural change to office place flexibility. Of relevance to the forecasting of commercial floorspace requirements within Central Sydney, has been increased working from home rates.

During the pandemic, across Australia, around 30 per cent of commercial office employees worked from home to slow the spread of the virus. In Sydney and Melbourne, this resulted in widespread office vacancies and greater internet/broadband network strain.

A survey undertaken for Infrastructure Australia into COVID-19 impacts found that:

- The proportion of respondents who wish to work from home once per week or more has grown from 27 per cent prior to COVID-19 to 42 per cent post-COVID-19.
- Around 15 per cent of employees surveyed would like to increase their level of working from home post-COVID-19 compared with pre-COVID-19 levels.

As the workplace becomes more flexible with more employees working remotely from home, office space requirements are likely to be reduced to reflect this new demand while any new space will need to offer increased amenity and services to incite employees back into the office.

Additional research undertaken by Investa has concluded that the impact of increased working from home rates would likely see a reduction in commercial office space within CBD locations of up to 15 per cent. This estimate is based on the prospect of staff working from home between two and two and half days a week, an increase of one to two days when compared to pre-COVID-19 levels of working from home.

The estimate also considers the offset to softer demand from the likely increase in workspace ratios – anywhere between 10-20 per cent – as greater amounts of space are earmarked for collaborative work and meetings.

These impacts we believe will need the masterplan to consider a shift of uses from a predominant office space take up to a more mixed uses approach including serviced apartments, hotels, residential built for rent, cultural and entertainment uses and more flexible style of office space to accommodate the behavioural change in the workplace flexibility.

9.2 Residential market overview

9.2.1 Market overview

Australian market

According to CoreLogic's national home value index, Australian housing values lifted by 1.8 per cent in April 2021, with the monthly pace of capital gains easing from a 32-year high in March 2021 (2.8 per cent). Although growth conditions have slowed, housing values are still rising rapidly, up 6.8 per cent over the past three months to be 10.2 per cent higher than the COVID low in September last year. This growth in capital value is the converse that was predicted for the COVID-19 impacts. NAB in March 2020 had forecast a potential fall in capital values of 30

per cent. For residential homes, the capital appreciated 20 per cent. The only clue for this reversal is recorded low-interest rates and market sentiment in the value of investing in brick and mortar. This capital growth rate is considered unsustainable.

CoreLogic’s research director, Tim Lawless, says the pace of capital gains could slow further over the coming months as inventory levels rise and affordability constraints dampen housing demand.

“The slowdown in housing value appreciation is unsurprising given the rapid rate of growth seen over the past six months, especially in the context of subdued wages growth. With housing prices rising faster than incomes, it’s likely price-sensitive sectors of the market, such as first home buyers and lower-income households, are finding it harder to save for a deposit and transactional costs.” There is already some evidence of fewer first-time buyers in the market. The Australian Bureau of Statistics reports a -4.0 per cent fall in the value of first home buyer home loans through February, the first drop since May 2020 last year.

Despite the slowdown, positive housing market conditions remain geographically broad-based. Every capital city and ‘rest-of-state’ region continue to record a lift in dwelling values over the month. Darwin (2.7%) and Sydney (2.4%) recorded the most considerable month-on-month rise in dwelling values, while Perth values recorded the lowest growth rate amongst the capital cities at 0.8 per cent.

The four smallest capital cities recorded double-digit annual growth (Adelaide 10.3 per cent, Hobart 13.8 per cent, Darwin 15.3 per cent, and Canberra 14.2 per cent), reflecting a smaller COVID-related disruption and an earlier start to the growth phase last year. Melbourne is recording the lowest level of annual growth (2.2 per cent) due to a larger downturn, attributable to the extended lockdown period last year.

The broad trend of detached houses outperforming the apartment (unit) sector continued through April as higher-density housing styles experienced less demand amidst elevated supply across some inner-city precincts. At the combined capital city level, house values (8.6 per cent) have risen at the double the pace of unit values (4.3 per cent) over the first four months of the year.

Table 29 Change in dwelling values April 2021

State	Month	Quarter	Annual	Total return	Median value
Sydney	2.4%	8.8%	7.5%	10.1%	\$950,457
Melbourne	1.3%	5.8%	2.2%	5.3%	\$744,679
Brisbane	1.7%	5.6%	8.3%	12.8%	\$558,295
Adelaide	2.0%	4.3%	10.3%	14.9%	\$492,285
Perth	0.8%	4.2%	6.7%	11.5%	\$513,598
Hobart	1.0%	7.0%	13.8%	19.2%	\$561,254
Darwin	2.7%	5.8%	15.3%	21.4%	\$465,976
Canberra	1.9%	6.7%	14.2%	18.7%	\$734,107
Combined capital	1.8%	6.8%	6.4%	9.8%	\$705,107
Combined regional	1.9%	6.6%	13.0%	18.2%	\$457,938
National	1.8%	6.8%	7.8%	11.4%	\$624,997

Source: CoreLogic, as of April 2021

The broad trend of houses outperforming the unit sector continued through April 2021 as higher density styles of housing experienced less demand amidst elevated supply across some inner-city precincts. At the combined capital city level house values (8.6 per cent) have risen at double the pace of unit values (4.3 per cent) over the first four months of the year.

“A preference shift away from higher-density housing during a global pandemic is understandable. However, a rise in flexible working arrangements also supports greater demand for houses around the outer fringes of capital cities. Relatively weak investor activity, compounded by a supply overhang in some high-rise precincts, is also dampening price growth in unit markets,” Mr Lawless said.

Sydney market

The Sydney residential market has been experiencing strong capital growth in the past decade. A recent downturn in 2018 to mid-2019 preceded a recovery in the second half of 2019. Historically low interest rates, reasonable employment conditions, and strong population growth have been key factors underpinning demand. Up to the impact of the COVID-19 pandemic, the market was poised for a strong 2020.

Recent price declines during 2018 and early 2019 were driven by changes to financial regulations and lending practices and reduced foreign investment. The market stabilised during the fourth quarter of 2019, with signs of price recovery emerging. The continued quantitative easing by the RBA and relaxation of lending regulations increased market confidence and prices across Sydney.

Fears of an oversupply in the Sydney apartment market were present from 2016-2019; however, a slowdown in construction over the past few years in the context of continuing population growth positioned the market for a price rebound during 2020.

The spread of COVID-19 across the world halted the positive context. While long-term ramifications of the COVID-19 pandemic are too early to predict, the magnitude of its impact on the property market was realised from March to October 2020. Data released by CoreLogic show sharp falls in auctions clearance rates, median sale prices, and purchaser sentiment.

Following five months of consistent declines in residential property values, CoreLogic’s national home value index moved back into positive month-on-month growth through October, posting a 0.4 per cent rise. The lift in home values was broad based, with every capital city apart from Melbourne (decreased by 0.2 per cent) posting a rise in values over the month.

Relaxation of lockdown laws within all states and additional monetary policy stimulus by the Reserve Bank of Australia since October 2021 has driven all values in each of the capital cities into positive territory.

Table 30 Change in house dwelling values April 2021

State	Month	Quarter	YTD	Annual	Total return	Median value
Sydney	2.8%	10.5%	11.2%	10.4%	12.9%	\$1,147,352
Regional NSW	2.3%	7.6%	9.3%	16.3%	21.1%	\$576,514
Melbourne	1.4%	6.5%	7.1%	2.2%	4.9%	\$869,676
Regional VIC	1.8%	7.1%	8.8%	11.0%	15.9%	\$481,633
Brisbane	1.8%	6.2%	7.2%	9.6%	14.2%	\$621,806

State	Month	Quarter	YTD	Annual	Total return	Median value
Regional QLD	1.9%	6.3%	8.1%	13.2%	19.0%	\$447,589
Adelaide	2.2%	4.7%	5.8%	11.1%	15.7%	\$526,155
Regional SA	1.3%	4.9%	7.5%	14.0%	20.2%	\$270,892
Perth	0.9%	4.3%	6.0%	6.9%	11.6%	\$537,020
Regional WA	0.5%	3.2%	5.0%	-0.7%	5.3%	\$373,432
Hobart	1.1%	6.7%	8.5%	14.3%	19.8%	\$600,774
Regional TAS	2.7%	7.9%	9.7%	17.8%	24.5%	\$395,198
Darwin	2.7%	6.0%	9.9%	18.2%	24.4%	\$534,332
Regional NT	2.0%	4.9%	4.6%	11.5%	19.3%	\$447,535
Canberra	2.1%	7.8%	9.1%	16.0%	20.3%	\$833,080
Combined capital	2.0%	7.7%	8.6%	8.0%	11.4%	\$761,051
Combined regional	2.0%	6.8%	8.6%	13.5%	18.5%	\$473,433
National	2.0%	7.5%	8.6%	9.3%	13.0%	\$655,557

Source: CoreLogic, as of April 2021

Table 31 Change in unit dwelling values April 2021

State	Month	Quarter	YTD	Annual	Total return	Median value
Sydney	1.3%	4.7%	4.6%	0.9%	4.4%	\$771,859
Regional NSW	1.8%	6.0%	7.0%	11.1%	16.0%	\$467,139
Melbourne	1.0%	4.0%	4.1%	1.9%	5.6%	\$599,234
Regional VIC	1.6%	7.5%	9.2%	13.6%	19.3%	\$337,745
Brisbane	1.0%	3.0%	3.4%	2.4%	7.6%	\$405,902
Regional QLD	1.7%	5.5%	6.6%	10.6%	16.9%	\$407,594
Adelaide	0.4%	1.4%	1.3%	4.8%	10.5%	\$352,239
Regional SA	-1.6%	1.3%	0.9%	-2.8%	0.6%	\$209,509
Perth	0.6%	3.6%	4.4%	4.8%	10.4%	\$387,658
Regional WA	-3.0%	-1.1%	5.7%	-0.2%	7.0%	\$238,529
Hobart	0.9%	8.2%	9.6%	11.6%	16.8%	\$449,442
Regional TAS	0.8%	5.4%	5.5%	6.8%	12.6%	\$296,302
Darwin	2.7%	5.5%	4.9%	9.5%	15.6%	\$309,181
Regional NT	N/A	N/A	N/A	N/A	N/A	N/A
Canberra	1.2%	2.6%	3.6%	7.6%	13.7%	\$492,968
Combined capital	1.2%	4.2%	4.3%	1.8%	5.7%	\$597,978
Combined regional	1.6%	5.7%	6.9%	10.6%	16.3%	\$397,335
National	1.2%	4.4%	4.7%	3.1%	7.1%	\$553,992

Source: CoreLogic, as of April 2021

9.2.2 Macroeconomic influences on housing demand

The pace of capital gains across Australian housing markets has been close to record breaking, with the national growth rate in March the fastest since 1988.

Historic conditions have been driven by a multitude of factor, including record low mortgage rates, a surge in consumer confidence as the economic recovery beats expectations, a range of additional stimulus measures which have incentivised home buying and building, and persistently low levels of stock on the market.

While there are some early signs the exuberance in the housing market may be peaking, capital values are not about to reverse but more likely move through a peak rate of growth with the pace of capital gains gradually tapering over the coming months.

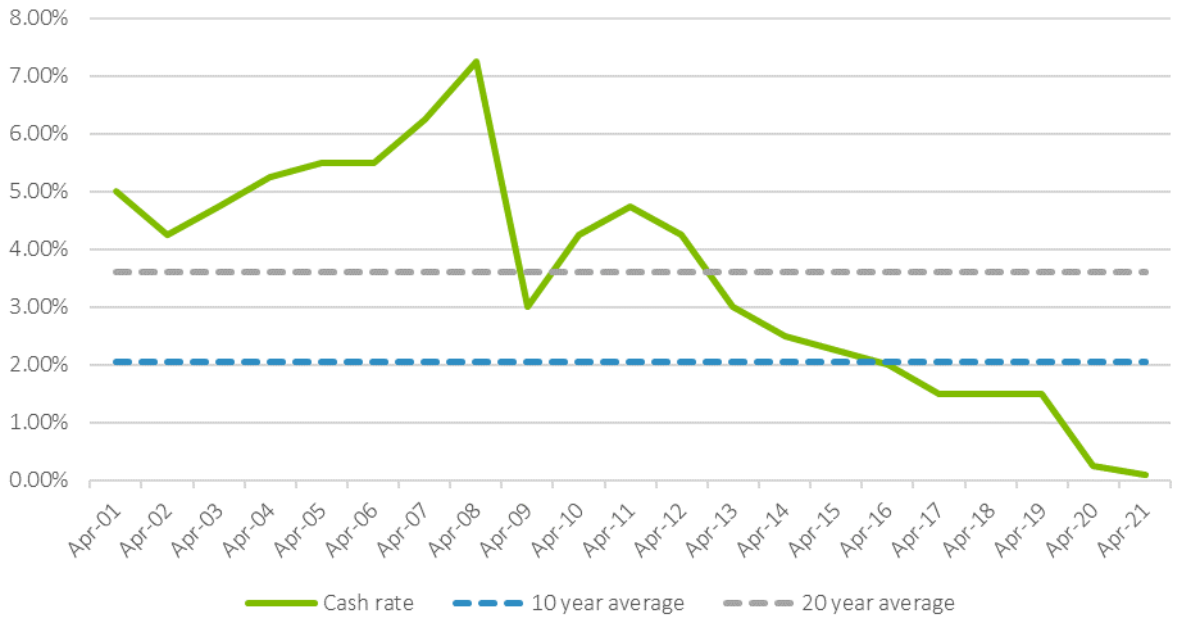
The following outline the main indicators and how these impact the property market.

RBA cash rate

While it seems the pace of growth in housing values has peaked, low interest rates are likely to keep upward pressure on housing values.

Governor Lowe reiterated the message of long-term low interest rates in their April meeting, stating that record low interest rates will be here for an extended period, and it is their view that the cash rate won't lift "until 2024 at the earliest".

Figure 26 RBA cash rate



Source: CoreLogic, RBA

Consumer sentiment

Additionally, the rapid economic recovery trend and low interest rates are likely to keep consumer spirits high for a prolonged period.

The correlation between sentiment and housing activity is high if consumers remain in a buoyant mindset, we should continue to see housing activity holding up.

Figure 27 Consumer sentiment v volume of dwelling sales



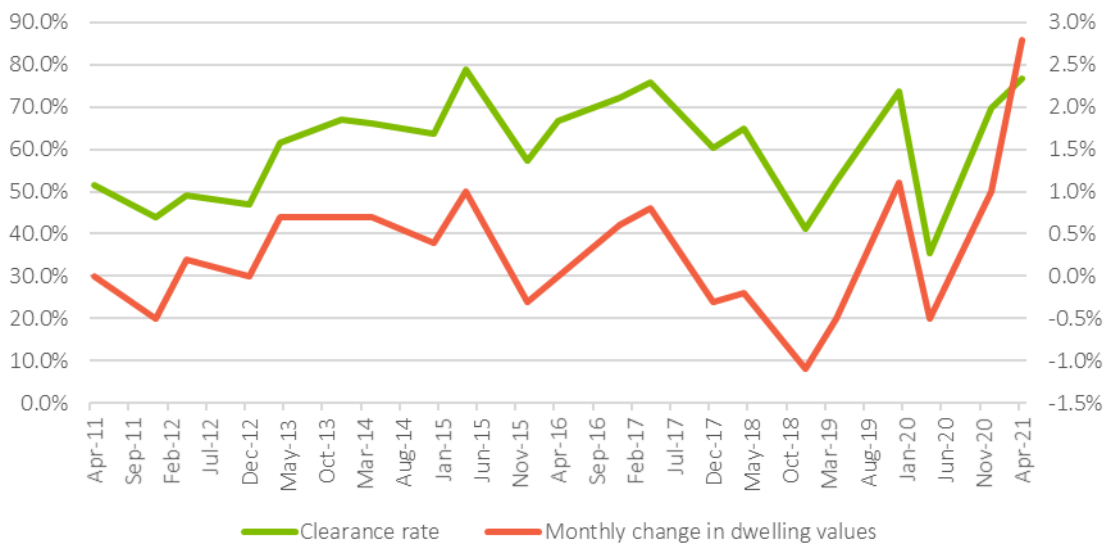
Source: CoreLogic, Westpac Melbourne Institute

Clearance rates

Clearance rates have edged to their highest levels in over ten years, increasing from 42.8 per cent in February 2019 to 79.3 per cent in February 2021.

Historically there has been a strong positive correlation between auction clearance rates and the pace of appreciation in housing values.

Figure 28 Final auction clearance rate v change in dwelling values, national



Source: CoreLogic, as of April 2021

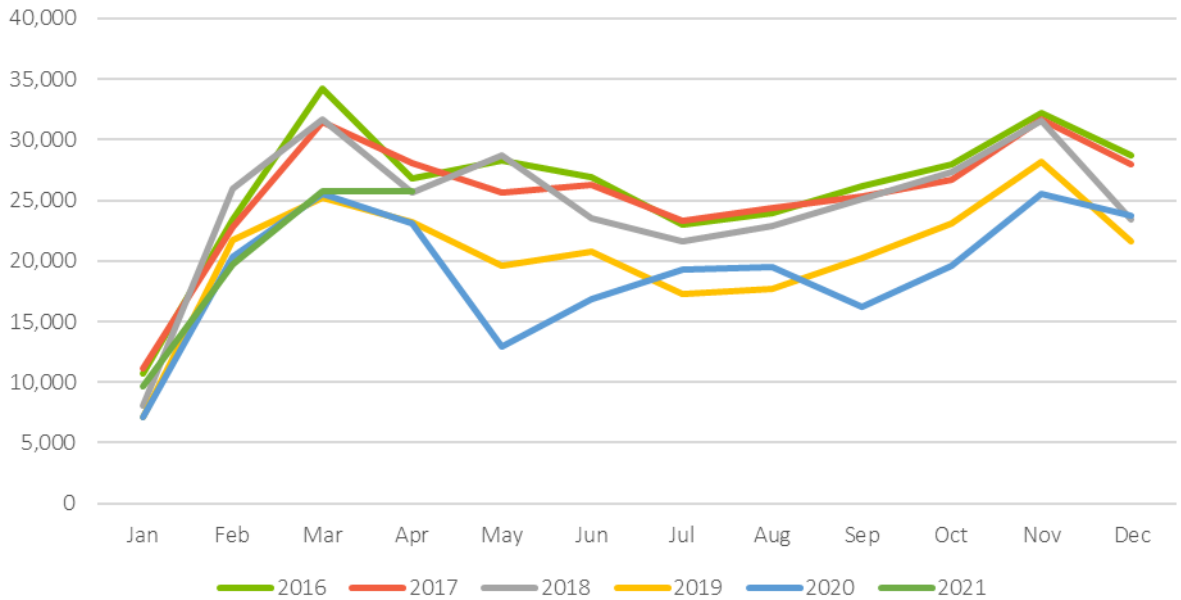
Vendor activity

For the first quarter of 2021, there has been an increase in new listings coming to the market relative to prior years as more vendors take advantage of the strong selling conditions. The four weeks ending April 18th saw 26,470 newly advertised capital city properties added to the market, which was the most significant number of new listings for this time of year since 2016 and 17 per cent above the five-year average.

While there has been a strong upswing in listing, the total advertised stock levels (i.e., new listings plus re-listings) remain low, tracking -17.5 per cent below the five-year average, which implies buyers are still likely to feel some urgency, but the lift in stock additional should gradually support a rebalancing between buyers and sellers. This will especially be the base if buyer activity slows as new supply levels lift.

Recent lockdowns (July – August 2021) in Great Sydney have reduced both listings and auction clearance rates.

Figure 29 Number of new listings, combined capitals



Source: CoreLogic, as of April 2021

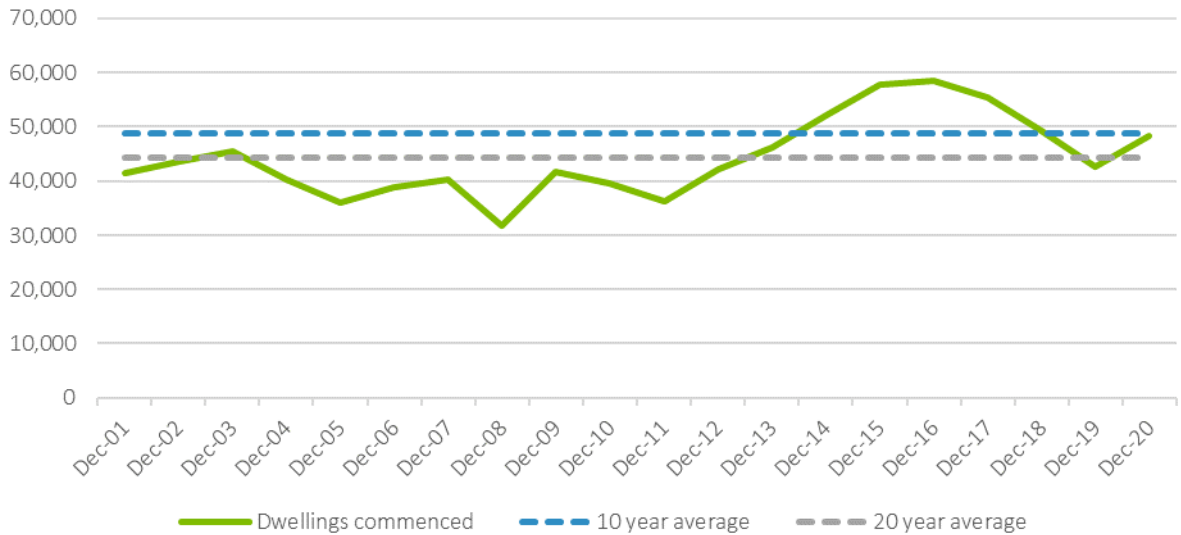
9.2.3 Housing supply

Approvals for new dwelling construction are at record highs, and dwelling commencements over the December quarter were almost 20 per cent higher than a year earlier and 5.5 per cent above the decade average.

The surge in new building activity is skewed towards houses rather than units. However, the larger cities are still showing a unit supply overhang, with 46,166 units under construction across NSW over the December quarter last year and 43,032 under construction in Victoria.

The unprecedented pipeline of new housing supply will take some time to work through to completion. However, it is occurring at a time when demand from population growth has recently turned negative, which could progressively create an imbalance between demand and supply.

Figure 30 Dwellings commenced, national



Source: CoreLogic, ABS

9.2.4 Population growth

While the increase in new home building will gradually add to the overall housing supply levels, it occurs when population growth, which is an important component of housing demand, has turned negative. Due to closed borders and stalled overseas migration, it is the first time since 1916 that population growth has been negative. It is uncertain whether increased housing demand via population growth will return once international travel and migration resume.

Stalled migration mainly from the lack of students has directly impacted rental markets since around 70 per cent of Australia’s overseas migrants arrive temporarily. The remaining 30 per cent who come to Australia with permanent intentions usually elect to rent before proceeding to buy; therefore, the impact on purchasing demand is more gradual.

9.2.5 Fewer incentives

Further to the demand side, Australia is moving into a new phase of the economic recovery where there is substantially less fiscal support, which could reduce housing market activity.

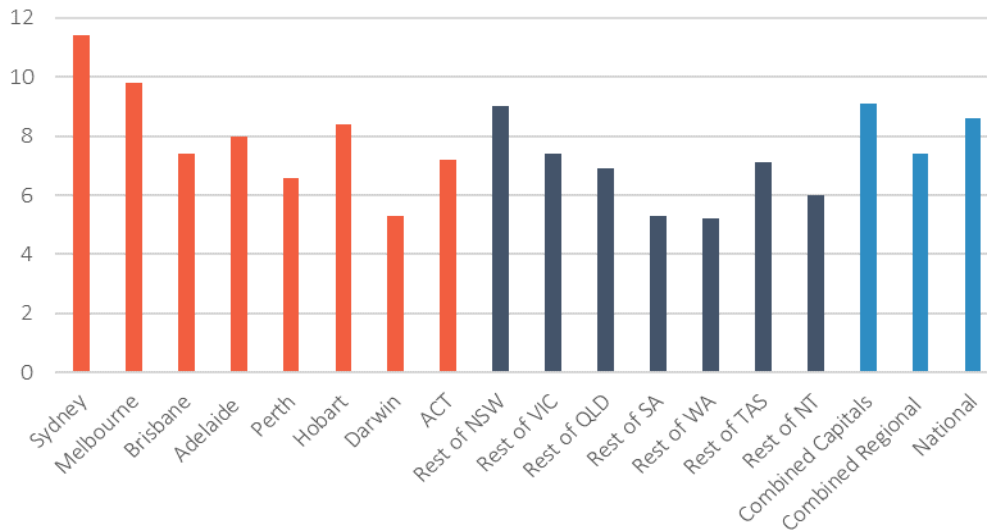
Arguably, housing demand has been brought forward by incentives such as the HomeBuilder grant and income support as well as state-based initiatives such as stamp duty concessions. As these stimulus measures expire, along with less migration and rising affordability constraints, it’s reasonable to expect housing demand could be negatively impacted.

9.2.6 Housing affordability

Acceleration in housing prices compared to wages growth has a substantial impact on housing affordability. Recent growth in housing values is substantially outpacing incomes, which means a growing deposit hurdle for first home buyers. Data from September 2020 (which has worsened considering the 8.2 per cent lift in national housing values since then) would take

the typical Australian household 8.6 years to save a 20% deposit (assumed 15 per cent of gross household income saved). Households in the most expensive capital, Sydney, and Melbourne, taking 11.4 and 9.8 years to save a deposit.

Figure 31 Years to save 20% deposit



Source: CoreLogic, ANU as of September 2020

9.2.7 Off the plan apartments

High-level market research was undertaken for new residential apartments around Camperdown. This market research will be used as inputs for the feasibility testing. Our research revealed there was no off-the-plan residential apartment sales occurring in Camperdown. Therefore, our research area was expanded to nearby suburbs.

The sold and asking prices of the three developments were considered in the preparation of the study.

- 1/3 Carlton Street, Chippendale
- 81/85 - O'Connor Street Chippendale
- 19 Church Street, Camperdown

'Sky' – 1/3 Carlton Street, Chippendale

The development was completed in 2013.

Table 32 1 Carlton Street, Chippendale

#	Type	Car	Sale Date	Sale Price	NSA (sqm)	Rate (\$/sqm NSA)
Unit 2905	3 BR	2	\$2,300,000	\$2,300,000	118	\$19,491.53
Unit 2908	3 BR	2	\$2,700,000	\$2,700,000	138	\$19,565.22
Unit 3001	2 BR	2	\$1,825,000	\$1,825,000	128	\$14,257.81
Unit 3107	3 BR	2	\$3,050,000	\$3,050,000	134	\$22,761.19

Source: RPData

Table 33 3 Carlton Street, Chippendale

#	Type	Sale Date	Sale Price	NSA (sqm)	Rate (\$/sqm NSA)
Unit 907	2 BR	27-Sep-18	\$1,096,740	53	\$20,693.21
Unit 1309	2 BR	05-Jul-18	\$1,480,000	99	\$15,010.14
Unit 1514	2 BR	12-Aug-20	\$900,000	67	\$13,432.84
Unit 1707	2 BR	25-Oct-18	\$1,150,000	64	\$17,968.75
Unit 2010	2 BR	14-Nov-19	\$1,300,000	94	\$13,829.79
Unit 2709	2 BR	03-Feb-20	\$1,490,000	83	\$17,951.81
Unit 412	1 BR	10-Jan-19	\$620,000	45	\$13,932.58
Unit 1004	1 BR	13-Oct-19	\$805,000	46	\$17,500.00
Unit 1410	1 BR	04-Mar-20	\$1,270,000	89	\$14,269.66
Unit 1610	1 BR	02-Apr-19	\$1,350,000	96	\$14,062.50
Unit 1804	1 BR	15-Apr-19	\$700,000	48	\$14,583.33
Unit 2003	1 BR	27-Apr-20	\$1,350,000	90	\$15,000.00
Unit 2611	1 BR	15-Jun-18	\$920,000	51	\$18,039.22

Source: RPData

'Wonderland' – 81/85 O'Connor Street, Chippendale

The development was completed in 2018. Sales data indicate that the recently completed apartments are selling for an average dollar per square metre rate of \$16,150.03/sqm.

Table 34 81 O'Connor Street, Chippendale

#	Type	Car	Sale Date	Sale Price	NSA (sqm)	Rate (\$/sqm NSA)
Unit 305	4 BR	2	26-Jul-19	\$3,450,000	200	\$17,250.00
Unit 102	3 BR	2	26-Jun-19	\$2,485,000	137	\$18,138.69
Unit 203	3 BR	2	05-Feb-19	\$2,235,000	123	\$18,170.73
Unit 303	3 BR	2	03-May-19	\$2,200,000	127	\$17,322.83
Unit 4	2 BR	1	04-Nov-19	\$1,800,000	106	\$16,981.13
Unit 106	2 BR	1	11-Nov-18	\$1,410,000	87	\$16,206.90
Unit 107	2 BR	1	19-Mar-19	\$1,325,000	79	\$16,772.15
Unit 207	2 BR	1	02-Apr-19	\$1,570,000	110	\$14,272.73
Unit 306	2 BR	1	25-Jun-19	\$1,580,000	110	\$14,363.64
Unit 706	2 BR	1	22-Aug-18	\$1,695,000	96	\$17,656.25
Unit 3	1 BR	1	15-Aug-18	\$1,700,000	110	\$15,454.55
Unit 5	1 BR	-	27-Mar-19	\$2,175,000	117	\$18,589.74
Unit 409	1 BR	-	24-Jul-18	\$700,000	54	\$12,962.96
Unit 508	1 BR	1	06-Dec-19	\$830,000	53	\$15,660.38

Source: RPData

Table 35 85 O'Connor Street, Chippendale

#	Type	Car	Sale Date	Sale Price	NSA (sqm)	Rate (\$/sqm NSA)
302	1 BR	-	15-Oct-18	\$700,000	48	\$14,583.33
402	1 BR	-	15-Apr-19	\$710,000	49	\$14,489.80
712	1 BR	-	02-Dec-18	\$820,000	51	\$16,078.43
905	1 BR	-	29-Jun-18	\$835,000	52	\$16,057.69
1001	1 BR	-	11-Jan-19	\$805,000	53	\$15,188.68
1208	1 BR	-	01-Jun-18	\$840,000	50	\$16,800.00

Source: RPData

19 Church Street, Camperdown

A recently completed six storey mixed use building comprising 13 residential units including a communal rooftop space, basement storage and bicycle parking. The development does not feature any underground parking. Sales data indicate that the recently completed apartments are selling for an average dollar per square metre rate of \$13,742.21/sqm.

Table 36 19 Church Street, Camperdown

#	Type	Car	Sale Date	Sale Price	NSA (sqm)	Rate (\$/sqm NSA)
101	1 BR	0	26-Jun-20	650,000.00	50	13,000.00
102	1 BR	0	31-Jan-20	690,000.00	51	13,529.41
202	1 BR	0	05-Feb-20	720,000.00	51	14,117.65
203	1 BR	0	31-Jan-20	750,000.00	50	15,000.00
301	1 BR	0	18-May-20	670,000.00	52	12,884.62
302	1 BR	0	11-Dec-19	710,000.00	51	13,921.57

Source: RPData *Note: This development features bicycle parking and storage, but no underground parking within the complex.

9.2.8 Future growth rates

CoreLogic outlines that although conditions remain strong, there are mounting signs the housing market has moved through a peak rate of growth. Growth conditions over the past six months have been unsustainable and are now succumbing to a gradual slowdown in demand due to worsening affordability constraints, a rise in fresh inventory, higher levels of new detached housing supply, and less government stimulus.

CoreLogic expects housing values will continue to rise throughout 2021 and into 2022, albeit at a gradually slower pace. Demand should be supported by an expectation that mortgage rates will remain at their record lows for an extended period, as well as ongoing high levels of consumer confidence as the economy expands at a faster than average pace.

The risks associated with the expiry of mortgage deferrals and less fiscal support have become far less significant. The proportion of home loans that remained on a deferral arrangement at the end of March was just 0.7 per cent, comprising only 0.07 per cent of bank mortgage books. Consequently, the expectation around any material lift in distressed listings is low. For borrowers that remain in a distressed situation, the charge in housing values has reduced the

risk of selling at a loss. In the most recent Financial Stability Review, the RBA estimates only 1.25 per cent of Australian properties are in a situation where the loan amount exceeds the home's value.

The trend in labour markets will provide a significant bearing for housing market outcomes. Labour markets have shown a 'V'-shaped recovery through the COVID period to date; although there may be some reversal in the trend due to the end of JobKeeper, this is likely to be temporary. Further tightening in labour markets post JobKeeper should help keep consumer sentiment high and provide a positive flow-on effect for housing demand.

The possibility of tighter credit policies remains a key risk to the housing market outlook. The RBA and APRA have reiterated they are watchful for any signs of slipping credit standards but have also noted there has been little evidence of a deterioration in lending standards to-date. A rise in the proportion of riskier types of lending or higher risk loans could be met with a new round of credit policies. We know from earlier periods of macroprudential intervention that this would likely dampen market activity and the pace of capital gains.

9.3 Student accommodation

In 2018, global investment in student accommodation was a record US\$16.3 billion. Cross-border capital accounted for 40 per cent of the overall investment into student accommodation. Compared to other real property classes, which only attracted 27 per cent of cross-border transactions. Most of the investment is from the United States, which accounted for about half of the full year's transactions. Of all investment transactions into student accommodation, 75 per cent is made up of institutional investors.

The Australian student accommodation market only accounted for 2 per cent of the global market. In terms of local GPD, in 2018, the local market delivered \$34bil, up 44 per cent from the \$19 billion recorded in 2014.

Target yields for investment into Sydney and Melbourne range between 5.75 to 6.5 per cent. In other capital cities and regional cities, target yields are much softer, ranging between 7.25 to 9 per cent. Agents are suggesting further yield compression in the following short to medium term.

Given the low-interest rates, agents are reporting that investment into PBSA will increase over the next five years as international capital teamed with local businesses such as Iglu, Scape, and Atria expand their portfolios. In December 2019, Scape acquired the Urbanest portfolio for \$2 billion, this was the single largest real estate transaction in Australia in 2019 reinforcing the attractiveness of PBSA market.

In Australia, the growth of university education is attributed to the Australian Government targeting 40 per cent of 25 to 34-year-old to hold a degree by 2025, up from 27 per cent. Overseas demand for universities is also up, with applications increasing by 110 per cent between 2010-2016 (Savills, 2019).

9.3.1 Comparison of student accommodation to market rent

The private rental market is an accessible alternative for a university student looking for accommodation. After one or two years staying on-campus, students sometimes rent a room in a share house or group together and rent a home in the surrounding suburbs. A high-level review of the currently available units/houses on the market shows a room rate of \$220/bed to \$485/bed, depending on the size of the accommodation. Table 36 shows the correlation between the size of the house and the cheaper rent paid per bed. It may not always be the case, but the most affordable option is to rent a three-bedroom or four-bedroom home, giving each resident split the expenses.

While these rents are relatively cheap, they do not include utilities, internet, and other cleaning costs associated with private rental accommodation.

Table 37 Residential market rents within Sydney and Inner West

		1 Bedroom	2 Bedrooms	3 Bedrooms	4+
Inner West	House	\$385	\$325	\$273	\$250
	Townhouse	\$400	\$310	\$267	\$275
	Flat / Unit	\$395	\$245	\$230	\$190
Sydney	House	\$470	\$335	\$291	\$275
	Townhouse	\$480	\$325	\$283	\$241
	Flat / Unit	\$485	\$325	\$283	\$220

To remain competitive, the University should continue to benchmark its costs for student accommodation against the private rental market. This will ensure the University's market proposition surrounding the student experience can thrive by remaining affordable and allowing the students to live on campus.

9.3.2 Student accommodation rental assessment

To understand the existing profile of the University's student accommodation portfolio, we have included 2021 asking rental figures.

Table 38 USYD student accommodation rental

	Term Per Week \$2021			Annualised \$2021		
	52 Weeks	48 Weeks	42 Weeks	52 Weeks	48 Weeks	42 Weeks
Abercrombie Studio	\$433	\$460		\$22,516	\$22,080	-
Queen Mary (single room)	\$338	\$358		\$17,576	\$17,184	-
Darlington House (Medium Room)			\$260	-	-	\$10,920
Darlington House (Large Room)			\$275	-	-	\$11,550
The Regiment	\$338	\$358		\$17,576	\$17,184	-
Terraces (Small)			\$225	-	-	\$9,450
Terraces (Medium)			\$245	-	-	\$10,290
Terraces (Large)			\$260	-	-	\$10,920

9.3.3 University student accommodation deals with external capital partners

The following discusses notable university PBSA transactions with capital partners in the last few years.

University of Melbourne, Carlton	December 2019	\$150mil or \$285k/bed.	42-year Concession
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In December 2019, AMP Capital Diversified Infrastructure Trust bought the student accommodation 42-year concession for Melbourne Connect. The collection of revenue is for a 527-bed postgraduate facility that will open in 2021. The deal is worth \$150mil or \$285k/bed. Urbanest held the concession.

University of Melbourne	November 2018	\$300mil or \$314k/bed.	40-year Concession
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In November 2018, AMP Capital Diversified Infrastructure Trust paid \$300mil or \$314k/bed for the 40-year concession of 954 beds across two facilities.

Under this deal, AMP became the preferred capital partner. The University retains ownership of the residence and has operational responsibility.

This deal is part of a larger \$500mil project with Lendlease and GIC, who will have a stake in the commercial space. The University intends to occupy 75% of the 62,000sqm of commercial space with 10,500sqm to be leased to the market. This development includes a mix of co-working space, retail, and childcare facility.

A second consortium called CCJ with Grocon, Charter Hall, John Holland, and Campus Living Villages were shortlisted in the original expression of interest.

University of Tasmania (UTAS)	December 2017	Undisclosed	30-year Concession
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In December 2017, UTAS granted a 30-year license to Spark Living Consortium, which is formed by Dutch Infrastructure Fund (DIF) and Tetris Capital. The transaction is for the collection of revenue and management of 14 student accommodation facilities, including 1,800 beds. The concession sum is undisclosed.

The transaction was led by Ashurst partner Harvey Weaver and lead Counsel Melinda Harris.

Australian National University (ANU)	April 2019	\$700mil or \$167k/bed	34-year Concession
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In April 2019, AMP Capital acquired 100% interest in the ANU Student Accommodation facilities.

The deal is estimated at \$700mil in exchange for a 34-year concession of over 4,184 beds across ten existing residences on Canberra's Australian National University (ANU) campus. The concession was initially established in 2016 and included existing long-term outsourced facilities management arrangements while ANU retains responsibility for operations.

University of Wollongong	February 2015	\$250mil or \$80k/bed	39-year Concession
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In February 2015, the University granted a 39-year long-term license of its entire student accommodation to the Living and Learning Partners consortium, which is formed by the Public Infrastructure Partners fund (PIP) and the UK-based Balfour Beatty.

Under the license, a total of 2,500 beds forms the portfolio. The University retains responsibility for the day-to-day operation of the student accommodation. This deal was estimated at \$250mil or \$80k/bed.

Ashurst lawyers led the transaction, and HRL Morrison & Co represented the consortium.

After completing the new student accommodation, the University took to market existing facilities 'Gundi'; 'The Manor' and 'Keiraview'. We understand 'Keiraview' is now operating as short-stay accommodation, Gundi, and the Manor.

Table 39 Existing student accommodation facilities included in the transaction

Student Accommodation	Sale Price	Sale Date	Beds/Units	\$ per Bed/Unit
'Gundi' 4 Marr Street, Wollongong	\$4.35mil	May 18	34 units	\$128k/unit
'The Manor' 22 Porter Street, North Wollongong	\$1.00mil	May 18	9 beds	\$111k/bed
'Keiraview' 75-79 Keira Street, Wollongong	\$4.73mil	Mar 18	83 beds	\$57k/bed

Source: HillPDA Research 2020

9.3.4 Student accommodation deals with external capital partners

The following discusses notable transactions with capital partners for private PBSA in the last few years.

It is important to note these transactions are for private PBSA with freehold land and not directly associated with or in partnership with a university.

Urbanest	December 2019	\$2bil or \$294k/bed	Freehold
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In December 2019, Scape Australia acquired 6,805 beds from the Urbanest portfolio for \$2bil or \$294,000/bed.

The portfolio was owned by M3 Capital Partners Evergreen Real Estate, backed by the Washington State Investment Board. The PBSA assets are in Sydney, Melbourne, Brisbane, and Adelaide

Scape is now Australia's largest PBSA provider, with 2,500 student rooms open and over 8,000 rooms in development.

Atira	September 2019	\$700mil or \$200k/bed	Freehold
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In September 2019, Scape Australia acquired 3,500 student accommodation beds from rival provider Atira (owned by Goldman Sachs and Blue Sky) for \$700mil or \$200,000/bed.

Frasers	December 2016	\$125mil or \$461k/bed	Freehold
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In December 2016, GIC Singaporean Sovereign Wealth Fund acquired a 271-bed student accommodation facility at 1 Regent Street, Chippendale, from Frasers for \$125mil or \$461k/bed.

The student accommodation was purchased 'on completion' and sold on an equivalent market yield of 5.23%.

The asset is now managed by Iglu, the operational platform acquired by GIC in 2012 in conjunction with Macquarie Capital.

Frasers	December 2016	\$300mil or \$390k/bed	Freehold
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In December 2016, GIC Singaporean Sovereign Wealth Fund acquired a 770-bed student accommodation facility at 6 Central Park Avenue, Chippendale, from Frasers for \$300mil or \$390k/bed.

The student accommodation was purchased 'on completion' and sold on an equivalent market yield of 5.21%.

The asset is now managed by Iglu, the operational platform which GIC acquired in 2012 in conjunction with Macquarie Capital.

9.3.5 Characteristics of the transactions and key drivers

A summary of the characteristics of PBSA transactions are as follows:

- Transactions usually involve an up-front payment from the project company (purchaser) to the university in return for the right to receive rental income paid by students and ancillary revenues derived from a defined set of residences over the life of the transaction.

- All external capital investment with universities is under a concessional license whereby the university retains ownership of the land by foregoes the PBSA income.
- Transactions are typically between 30 to 42 years. This length allows the PBSA revenue to pay to pack the upfront payment and the external capital partner to depreciation on a new asset.
- Facility management services are usually performed by the project company (hard facility management costs).
- Depending on the university's requirements, the university may contract out or retain student-facing type services such as pastoral care, applications for accommodation, and internal cleaning (soft facility management costs).
- The university usually manages the soft facility management costs as these ties in with the overall university experience, allocation of student place, and marketing of the university.
- There is a direct link between PBSA marketing, student experience, and the associated demand for student accommodation. This is a crucial focus for any transaction involving external capital as it seeks to minimise occupancy risk.
- Typical transactions between funds and universities are best described as a hybrid Public-Private Partnership (PPP) but are not transactions awarded by the State Government.
- Occupancy support (provided by the university) may potentially underpin a degree of revenue (and therefore give financiers comfort), but the project company still takes an element of demand risk.
- The structure of each deal is heavily dependent on the key drivers for each university.
- In all transactions, a key driver is to maximise the upfront payment's value to the university.
- In other cases, the principal driver may be the provision of new student accommodation, with an upfront payment being less of a factor.
- Depending on the size of the transaction, a lump sum up-front payment may not be realistic (i.e., if the number of existing residences provided within the deal is low and the external capital deal includes funding a new PBSA).
- Universities are selling off older style off-campus accommodation once new facilities were constructed, subject to demand. It implies universities are actively managing the supply of the PBSA in the locality to improve the financial bottom line and attractiveness to external capital.
- Investors are taking a stake in surplus space around the universities and opting for investment into co-working space, funded research partnerships, general commercial business tenants, retail, and childcare.

9.3.6 Long term COVID-19 Impacts

The Covid-19 pandemic has significantly impacted the student accommodation market, with UTS seeking to sell its student accommodation portfolio in 2021. The University of Sydney has

halted all uncommitted development projects and are looking at asset sales to rationalise its student demand.

The impact of the pandemic and overseas student impacts is likely to be extended in 2022 and 2023. The long-term impact is unclear, with an increased shift to online learning and reduced campus learning as a potential outcome. Flexible uses for student accommodation may be required. These uses might include serviced apartments for academic and research staff, short term accommodation for short courses and/or conventions.

9.4 Hotel market evidence

9.4.1 Market trends

Overall, NSW generally continues to experience high occupancy rates and stable demand growth. Domestically, 2006-2012 (-1.3 per cent) saw a somewhat muted domestic demand for personal and business travel post-GFC. From 2013 with increases due to the mining investment boom, demand increased across personal and business travel (4.5-12.1 per cent).

Table 40 Domestic visitor nights 5-year forecast, % growth by purpose of travel

Period	Holiday	Visiting Friends & Relatives	Business	Other*
2008/09 - 2013/14	-0.3%	3.0%	3.0%	11.2%
2013/14 - 2018/19	4.5%	5.7%	12.1%	3.6%
2018/19 - 2023/24	0.2%	1.3%	2.9%	1.4%
2023/24 - 2028/29	0.7%	1.1%	2.2%	0.7%

Source: Destination NSW State Forecasts (2019)

*Includes education

The domestic market is expected to be somewhat more subdued than the international market concerning personal travel. Across both domestic and international forecasts, analysts anticipate relatively steady growth of 3.2 per cent to 5.5 per cent on average per annum. This would particularly bode well for commercial office projections and the need for increased high-quality hotel options.

Table 41 International visitor nights 5-year forecast, % growth by purpose of travel

Period	Holiday	Visiting Friends & Relatives	Business	Education	Other
2008/09 - 2013/14	3.2%	9.6%	3.3%	1.0%	5.6%
2013/14 - 2018/19	5.0%	4.8%	2.1%	10.0%	0.2%
2018/19 - 2023/24	5.5%	6.3%	3.2%	5.5%	7.1%
2023/24 - 2028/29	4.9%	4.9%	4.9%	4.9%	4.9%

Source: Destination NSW State Forecasts (2019)

Sydney continues to represent a significant source of hotel supply, and average room rates and occupancy in Sydney were among the highest in the country. This is not surprising given its dual role as both a major tourist and business centre. Thus, while Sydney is a bellwether for NSW (and arguable the country), it is challenging to compare occupancy and supply statistics with Sydney CBD directly simply.

Table 42 Summary of tourism accommodation key figures 2019

	Establishments	Rooms	Avg Vacancy
Sydney Centre*	154	23,956	86.0%
Sydney Olympic Park	5	772	80.0%

Source: Destination NSW Tourist Accommodation Snapshot (Dec Qtr 2019) and SOPA (2020)

*Includes Sydney CBD, Barangaroo, The Rocks, Haymarket, Ultimo, Chippendale, Pyrmont, Surry Hills, Woolloomooloo, Potts Point and Waterloo

Within Sydney City, analyst forecasts suggest approximately 7,100 new rooms in the pipeline through to 2022 (with roughly 750 rooms proposed to be withdrawn from the market). This translates to an overall 30 per cent increase in supply.

Like the office analysis above, we would expect Sydney to be a leading indicator for the wider area more generally, and that forecast growth for Sydney would translate into similar demand in Sydney Olympic Park as well. Sydney Olympic Park's room stock is roughly 3 per cent the size of Sydney Central.

Much of Sydney Olympic Park's current hotel stock can be classified as 4 to 4.5 star rather than 5-star international standards. Ultimately, it is the perceptions by travellers that can dictate the desirability of an area and thus the tourism and business travel spend.

We analysed traveller rating and found that Sydney Olympic Park and Parramatta CBD lags Sydney on a weighted basis in terms of high-quality hotel stock. Thus, the positioning of Parramatta CBD as a second Sydney CBD and Sydney Olympic Park as a Strategic tourism and entertainment centre may require additional hotel and conference infrastructure to realise the long-term vision and leverage the full investment in the precincts.

Table 43 Summary CBD hotels by TripAdvisor rating

TripAdvisor Rating		5.0	4.5	4.0	3.5	3.0	Weighted Average	Totals
Sydney Olympic Park	Number Hotels	-	1	3	1	-	3.96	5
	% Hotels	0%	20%	60%	20%	0%		100%
Sydney Centre	Number Hotels	36	28	40	30	20	4.12	154
	% Hotels	23%	18%	26%	19%	13%		100%
Parramatta	Number Hotels	-	4	4	5	-	3.96	13
	% Hotels	0%	31%	31%	38%	0%		100%

Source: TripAdvisor (2020) and HillPDA (2020)

9.4.2 Impact of COVID-19 on hotel market trends

IBISWorld's analysts constantly monitor the industry impacts of current events in real-time. A summary from IBIS of the potential impact because of the global COVID-19 pandemic is below:

- Revenue in the Hotels and Resorts industry is forecast to decrease by 10.7 per cent in 2019-20.
- The industry's decline was adjusted further in March 2020 upon the implementation of interstate travel bans by several state governments and the Federal Government's request to forgo all non-essential travel.

- As of March 2020, industry revenue was projected to decline by 6.7 per cent in 2019-20. In a non-COVID-19 environment, the industry would have been projected to increase by 1.7 per cent.
- Demand from inbound tourists is set to decline sharply in the current year.
- The industry's average profit margin is likely to fall in 2019-20, as demand for hotel accommodation falls. After this report was published, IBISWorld has further decreased the industry average profit margin to 5.5 per cent.

The long-term future remains vital for hotels as tourism travels return by the mid-decade; however, there is a likely reduction in demand for City Hotels relying upon business travel. This drop can be attributed to increased online meetings and better use of technology. Hotel offers and facilities will likely shift to lifestyle choices and growth in convention and business campus-style function.

9.5 Retail market evidence

HillPDA has undertaken high-level market research of the existing retail market context within the study area. Given the significant landholdings of Sydney University and RPA, there have been limitations surrounding creating activity clusters and eat streets along with no real concentrated retail precinct. Coupled with the busy Great Western Highway dissecting the study area, most of the retail is situated within Newtown along King Street.

Retail properties along Missenden Road and the Great Western highway make up the only retail strips within the study area with ground-floor retail shops situated below varying heights and densities with commercial or residential located above. Given the tightly held market within the study area, cafes and restaurants along Missenden Road reportedly perform well given the important pedestrian thoroughfare. The mix of professionals, university students, and residents provides continued activity during the daytime and night-time.

While Missenden Road continues to perform well, the issues surrounding noise, vibration, and safety that pedestrians must endure while travelling northbound or southbound along the Great Western Highway have caused large-format retail/commercial to dominate the corridor. These premises include uses such as showrooms, supermarkets, and gyms, which are less susceptible to the hostile conditions of the Great Western Highway.

This has created a 'dead zone' for pedestrian activity between Barr Street and Ross Street, given how large-format retail is a one-stop shop used for one-off purchases rather than promoting continued daily activity. The Sydney School of Veterinary Science and Sydney University grounds provide no retail on the opposite side of the road.

Discussions with local leasing agents who specialise in the area have indicated that ground-floor retail rents range from \$700 to \$1,000/sqm of net leasable area (NLA) for standalone developments. For shopping centre retail such as food courts and high pedestrian traffic areas (rail station), the rental ranges from \$2,000 \$3,000/sqm for smaller tenancies and over \$800 - \$1,500/sqm for larger tenancies. Such centres need to be curated and actively managed.

Table 44 highlights the limited retail freehold sales data within Camperdown.

Table 44 Retail sales evidence

Address	Sale Date	Sale Price	Internal Area (sqm)	Site Area (sqm)	\$/sqm Internal Area \$/sqm Site Area
146 Parramatta Road	Jun-19	\$1,282,288	334	139	\$3,839 \$9,225
130 Parramatta Road	Sep-19	\$5,250,000	480	493	\$10,938 \$1,065
148 Parramatta Road	May-19	\$1,217,712	334	133	\$3,646 \$9,156
193 Parramatta Road	Jun-19	\$7,600,000	1,254	1,440	\$6,060 \$5,278
93-99 Parramatta Road	Oct-16	\$12,900,000	2,043	1,214	\$6,314 \$10,626

Source: RPData & HillPDA Research

9.6 Role of retail: Place-based activity and service

Demand for retail can be assessed both by its resident population capture potential and by the count of passing foot traffic from local workers and commuters. In addition to this quantitative floorspace demand, retail should also consider its role and function for place-based activity and entertainment. A visit to Barangaroo shows how vital the role of retail is. The retail mix serves the resident's/worker's needs and provides a place to meet, greet, and exchange ideas in a relaxed environment. Its activity can measure an area's vibrancy to draw and retain people during and after work. Current research on placemaking refers to this as "stickability". Research into innovation and collaboration shows the essential role retail and the night-time economy plays in fostering and attracting people to the place.

The former ATP, South Everleigh employment hub, is increasing its retail offer and is curating this with a mix of open space and focal meeting points. Mirvac, the developer/investor, has explained that the retail offer builds its sense of place and meets demand.

It is suggested that the Tech Central Masterplan considers an appropriate staging for the retail location and mix of services and amenities. This will ensure that the area's vibrancy attracts visitors and serves local and commuter needs, creating a 24-hour economy.

9.7 Summary of market intelligence

The market research demonstrates demand to provide a mix of land uses to meet both demand and the need to create a sense of place to attract and make people live, work, and play in a 24 hour vibrant economy.

Behavioural changes post the Covid-19 pandemic are likely to see an increase in the flexible workplace and work hours. This is likely to reduce the demand for office space over the long term and change the nature of office space to be more flexible and attractive. The modern office building may mix work areas and meeting areas like airport lounges and associated work and entertainment areas.

The synergistic benefit of mixing uses (more residential, retail, and hotel uses with commercial uses) will improve the take-up of floorspace of the project life and increase sale values and return to Government. Our research also identified that the early delivery of these activities would also help enhance the sense of safety and security within Central Station, which would add to the levels of activity and appeal.

Enhanced customer experience may be gained via the inclusion of international retailers and flagship stores that create a point of interest and entertainment. This may also include a 'train watchers' café and wine bar at Mortuary Station and a travel Superstore on the Grand Concourse.

The retail market is currently showing the greatest potential for immediate development in this location. Central is located at the confluence of two major retail drivers in the region. There is a strong Asian demographic to the north and west and a growing, exciting wealthy, diverse and innovative market to the east. Our research reveals that a robust rental return is possible from both drivers. This shows a demand for a higher-quality retail offering than is currently being supplied in this location. With proper design, a strong brand and sense of destination retail, entertainment, and cultural precinct appear possible.

The residential market remains strong in this area with evidence of increasing values. Growth is backed by the advent of a well-educated, wealthy and time-poor resident aged 24-35, single, and who does not drive. Any site suitable for residential will be able to be viable on the Central Station precinct.

Hotel accommodation in the area is in the early stages of a growth phase. For the first time in some time, the market (through growing tariffs and low supply) will be able to support the construction of new 4- and 5-star hotels. The dearth of quality retail and quality hotels (1x5 star and 5x4 star) in the region appear to provide the potential for both to be provided in unison.

The market research we have conducted in this location appears to allow, over time, for a higher quality mixed use multi-faceted offering which will allow the design team to plan with certainty a destination which can take advantage of the vibrant local community, the growing new community as well as for visitors through tourism and day visits. The vital component of being a transport hub and a centralised vehicular and pedestrian destination adds to the value of the offering.

10. High-level Feasibility and Market Demand

HillPDA has conducted a high-level feasibility study of the Central State Significant Precinct (Central SSP). This Precinct includes Grand Terminal Building, Over-Station Development (OSD) platform, Prince Alfred (PA) Sidings, and the Regent Street Sidings with bus layover. The Goulbourn Car Park Precinct is included in the Central SSP, but we have been instructed to exclude this Precinct for this feasibility study.

The specific numerical details of the feasibility study are considered **commercial in confidence** and have accordingly been excluded from this report. Details of all assumptions, conclusions and exclusions used and arising from this feasibility study have been comprehensively dealt with in the report.

A high-level feasibility study forms part of the Study requirements for the Central SSP. Specifically, to prepare a high-level development feasibility study that outlines the market demand and demonstrates that the new planning controls will be feasible.

HillPDA has been involved in the masterplan design development, providing a critical review of the earlier design options and its assumed economic and feasibility assumptions. HillPDA has provided advice as to an appropriate mix of uses, staging, and opportunities to ensure project viability and 24/7 vibrancy. HillPDA has also offered advice on the early upgrade of the Grand Terminal Building and its associated operating cash flow for the new retail and office areas in the urban renewal program. This feasibility study outcome has been an iterative process with TfNSW executives, the design team, and the cost planners optimising the potential of the urban renewal program and trying to minimise cost and risk to the Government.

This feasibility study has relied upon the following sources:

- KPMG Outturn Costs for the Central Station Urban Renewal -- Government Works (this report was commissioned and provided to Hill PDA by TfNSW).
- Architectus Development Building Areas by Precinct
- Architectus Site Plan Mark-Up (Building location earliest Build dates)
- CPRP OSD Delivery Program.

The building costs (OSD, Regent St & PA Precinct) have been based on a peer review of prior KPMG estimates and comparable industry building cost data.

Revenue from the sale of properties has been based on a peer review of earlier work by CBRE, research by HillPDA, and more recent leasing and sale information of comparable staged developments in the Ultimo precinct. For simplicity, it assumed that all the terminal sale values are net of allowances for leasing, letting up, and tenant incentives. All sales are six months post practical building completion to allow for fit-out.

Revenue for the Terminal Building includes earlier work by HillPDA for the retail and office areas plus an annual Access Fee provided by Transport Asset Holding Equity (TAHE). The future cash flow from 2027 to 2063 has been discounted at 6% to give a net present value (NPV) to reflect a transfer book-value sale on July 1 2027.

All costs and revenues are shown in 2022 dollars and are escalated to building completion/sale. These rates are detailed in the feasibility input area.

10.1.1 Development Structure

It is assumed that all the listed KMPG outturn costs, excluding the community building cost (\$137m), will be a Government expenditure upfront. Given the specialised nature of the works and their coordination with rail infrastructure and operations, the lead contractor is likely to be separate from the contractor(s)/joint venture responsible for the building and or sale of air rights in the over-station development (OSD) and related Prince Alfred and Regent Street precincts.

The completion of the above works provides a development platform for a consolidated staged development with a gross floor area (GFA) of approximately 470,000sqm. The delivery of this floor space was modelled on a staging plan between Quarter 1 2002 and Quarter 3 2035.

Given the lead construction time for Building A1 and A2, the entire OSD will be completed before the occupation of the first towers. Development delivery is, therefore, only restricted by market take up demand.

There are many ways the Government could seek reimbursement for its infrastructure investment. These divestment options might include:

1. Sale of building parcels individually. The Government might appoint a lead agency to coordinate potential tenancies and a sales program to developers/institutions.
2. Government enters into Project Delivery Agreement (PDA) with an appointed lead developer with an agreed staged land settlement plan; either fixed to dates or milestones).
3. Enter into a joint venture partnership (JVP) with a master developer. The JVP would coordinate the sale of the development parcels to institutions investors having secured substantial precommitments or sales off the plan. There could be fixed payments with an agreed profit share mechanism at the project end. The sale timing would need to be flexible to market demand.
4. Government may act as a project sponsor to secure tenancies and seek institutional investors to fund and take out the development at practical completion.
5. A combination of the above.

HillPDA has modelled two scenarios. The base case model assumes a staged land payment program commencing in 2025 to secure the Project Delivery Agreement (PDA). Land payments are progressively paid to match building construction staging to 2039.

The other scenario HillPDA modelled is a Joint Venture Partnership (JVP) with staged land payment plus a percentage split of completed development sales revenue. To be paid to the Government on the sale of these properties.

In all scenarios, we have also assumed the following:

- The developer builds all community buildings and dedicates them to the Government

- The Terminal Building Cost and associated works are Government costs with future cash flows Retained by Government

10.1.2 Land Use Breakdown & Market Demand

The breakdown of uses by Precinct is as follows:

Table 45 Land use total area per precinct

Precinct	Retail (sqm)	Commercial	Hotel	Education	Community	Residential	PBSA	Total
Terminal Building (sqm)	8,602	7,198	0	0	0	0	0	15,800
Prince Albert Precinct (sqm)	0	17,998	0	0	2,902	0	0	20,900
Regent Street (sqm)	0	14,209	0	0	0	50,791	0	65,000
OSD A (sqm)	4,420	109,104	45,161	0	7,115	0	0	165,800
OSD B (sqm)	5,170	74,986	3,782	0	0	0	4,962	88,900
OSD C (sqm)	4,250	33,400	0	47,512	7,318	0	17,520	110,000
Total (sqm)	22,442	256,895	48,943	47,512	17,335	50,791	22,482	466,400
% Of total Land use	4.8%	55.7%	10.4%	10.0%	3.7%	10.8%	4.8%	

The project has a 20-year timeframe with the delivery infrastructure program stretching 10 yrs. (2023 to 2033) and build-out, a further ten years. After OSD works are completed, the above take-up of floor space has ample time to be absorbed if correctly marketed. Market take-up from the Western Gateway development and the Atlassian Building will be completed before OSD is ready for build-out. These new developments, combined with the Central Precinct's urban renewal program, will transform this downtown area to its intended masterplan vision of Tech Central. As Lendlease created a market for the "New Economy" at Barangaroo and set new benchmarks for office take-up, the Central Precinct we anticipate will do the same.

Breaking demand down by use, we make the following observations

- The retail floor space of 22,442sqm is less than 5% of the total floor space. This floorspace is justified by the additional demand generated by the new development and assumed increased commuter footfall.
- The education space of 47,235sqm (10% of total floorspace) can meet the know demand for universities to locate in these transit-orientated city hubs. Discussions with various universities indicate interest in collocating with the tech industry.
- Two hotels with a combined floor space of 48,721sqm (10% of total floorspace) are significant as a standalone development. However, its location near Chinatown, local universities, and sweeping views from Sydney Airport to south, Sydney Harbour to East and Northeast, and the CBD to the North make it an ideal hotel place. The Precinct itself will generate demand for short-term accommodation with its significant

worker catchment. If demand proves not warranted for a 5-star hotel, then its use could be adapted to serviced apartments or office space.

- Residential floor space of 50,791sqm is easily satisfied by projected local demand.
- Student Accommodation (PBSA) floor space of 22,482sqm is easily satisfied by projected local demand with growth in education space and surrounding universities.
- Community floorspace of 17,356sqm is dedicated at no cost to Government. Uses can include theatres, incubator space for start-ups, social services, libraries, and other community services.
- The commercial office GFA is 261,401sqm (56% of total floorspace). Of this entire floor space, 7,893sqm is already committed in Terminal Building. PA siding delivered in 2028 is 18,000sqm. The balance is 235,000sqm of GFA (211,500sqm NLA). Assuming marketing for leasing is spread over 12 years (2030 to 2042), this is an annual take-up of 17,580sqm per annum.

We consider that the proposed floorspace has adequate market demand to be absorbed before 2042.

10.1.3 Financial Feasibility Results

The Central Precinct urban renewal program is straightforward from a developer's perspective. All sites will be development ready in a consolidated master plan, at a scale of development rarely seen in Australia's capital cities. Melbourne Docklands, Citywest, and Barangaroo are comparable projects, but each was isolated from key demand generators. The Central Precinct lies in an innovation corridor with direct access to universities, a transport hub, entertainment precincts, enabling the clustering of knowledge workers in this new hub.

The Government has de-risked the project by undertaking the upfront works to deliver an over-station deck ready for build-out. The Government can sell super-lots individually or collectively to a master developer.

For our feasibility modelling, we have assumed the following:

- Land payments are structured to allow time for building approvals and substantial tenancy commitments or sales off the plan
- Building commencement would be staged to satisfy the above terms
- Capital sale values are expressed at a dollar rate per sqm of NLA
- Commercial property capital values are net allowances for incentives (20 to 25%), leasing costs, and leasing letting up allowances. These have been based on HillPDA's industry knowledge based on analysis of comparable development in the Central Precinct
- Education capital values are discounted to commercial values to reflect longer lease terms
- Student accommodation capital values have been based on recent comparable sale analysis and supported by operational cash flow analysis

- Hotel rates have been discounted to known serviced apartment value in this location. Hotel feasibility is very specific to market conditions and operator strategy. Given the benefits of attracting signature hotels, this discount is considered justified. If future market conditions are not conducive to hotel feasibility, the permitted use may change to serviced apartments or commercial offices.
- Building costs and construction times have been based on comparable building estimates, including an increased builder's margin and preliminaries allowance of 30% to reflect difficulties with over rail development and masterplan constraints.
- Building costs also include higher allowances for design contingencies (12.5%), design/consultant fees at 12%, and development management fees at 3%.
- Authority fees have been allowed at 2% of construction cost, and the City of Sydney (CoS) Affordable Housing levy has been set at 2.75% of all building construction (commercial and residential).
- Landholding costs, including land tax, council rates, and water rates, are assumed nil until practical completion
- Escalation rates have accounted for an assumed higher inflation rate. Building rates have escalated at 3.2% pa, while other costs are 2.5%.
- Revenues have been escalated: residential 6%, commercial, education, retail, and student accommodation at 4%, and hotels at 3%.
- Sales Commission are 2% for residential and hotels, 1% for commercial, education, retail, and student accommodation.
- Marketing is set at 0.75% of all revenue and legal costs at 0.25% of all sales.
- Community buildings are dedicated to the Government at no cost
- All income from the terminal building goes to the Government
- Developer equity is 30% of total funding
- Construction funding is 70% of total funds required at a real interest rate of 6%p.a. capitalised

10.1.4 Summary and Conclusion

HillPDA has conducted a high-level feasibility study of the Central State Significant Precinct (Central SSP). This Precinct includes the Grand Terminal Building, Over-Station Development (OSD) platform, Prince Alfred (PA) Sidings, and the Regent Street Sidings with bus layover.

The project has a 20-year timeframe with the delivery infrastructure program stretching ten years (2023 to 2033) and build-out, a further ten years to 2042. The Western Gateway development and the Atlassian Building are forecast to be completed before OSD is ready for build-out and will act as a catalyst and anchor for the Precinct's further renewal. Combined with the Central Precinct's urban renewal program, these new developments will transform this Precinct from City Fringe CBD to Tech Central CBD.

HillPDA has analysed the proposed mix floor space, including retail, community services, hotel and serviced apartments, residential build to rent apartments, student accommodation,

education and office spaces. Our research and analysis indicate that there will be adequate market demand in the future to absorb this floorspace by 2042.

A high-level development feasibility model prepared by HillPDA indicates that the proposed planning controls for Central SSP are feasible. This modelling assumes all the nominated Government works for urban renewal and transport upgrades are fully funded by the Government. The financial modelling suggests that the Government can recover a significant percentage of these costs through a staged sale of development sites from 2025 to 2040 and possibly through a joint venture (JV) arrangement with a master developer a share of JV profits.

Based on the outcome of our high-level development feasibility study we conclude that there will be sufficient market demand in the future to support the feasible renewal of the Central Precinct in accordance with the proposed planning controls set out in the Central SSP Study.

11. Masterplan considerations

This chapter outlines a series of opportunities and challenges from an economic and land use perspective that the masterplan should take into consideration. It builds on the analysis and research done in the previous chapters.

11.1 Opportunities for Central Precinct

The Tech Central work, and analysis of other strategies and strategic moves, has identified several distinct roles that the Central Precinct (the masterplan site) will have in relation to the realisation of a wider Tech Central vision.

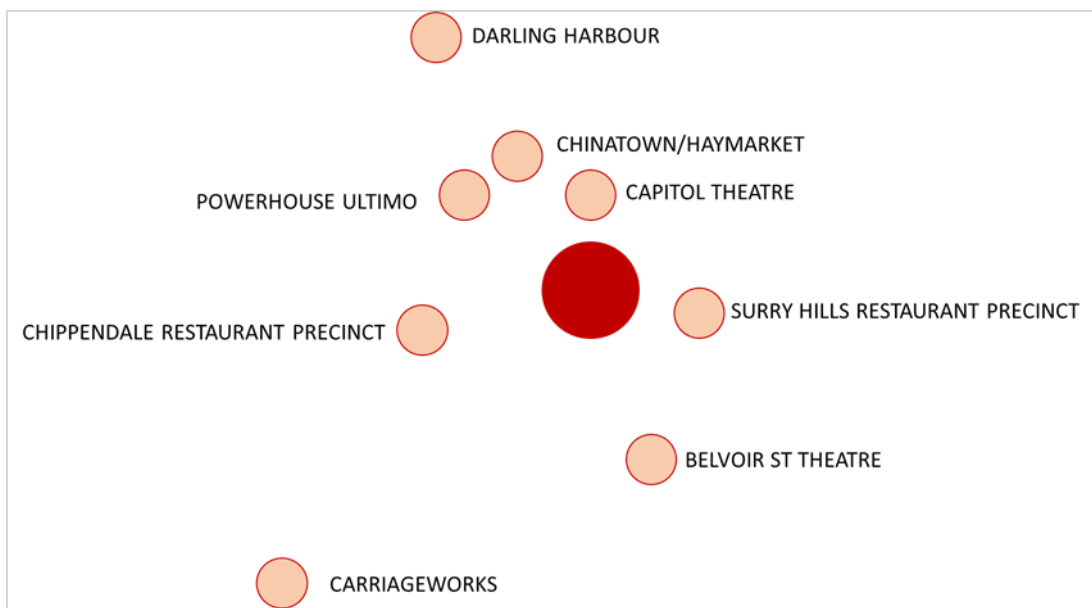
- **The ‘key’ commercial centre in Tech Central.** The precinct’s contiguous relationship with the CBD, its existing built form, access to public transport and current and potential floorplate sizes makes the Central Precinct the most logical place for taller commercial buildings across Tech Central. This aligns with the industry vision of ‘tech and innovation’ in terms of businesses potentially requiring large amounts of floorspace to support rapid scalability. The anchoring of the precinct by the Atlassian development sets the tone for this.
- **Diversity of floorspace types and price points.** While Atlassian is expected to be a significant tenant in terms of A-Grade floorspace take-up, the attraction of tech businesses will require a diversity of floorspace sizes and price points. The southern part of the CBD has a range of B-Grade office towers that may provide good entry-level floorspace to some tech firms who are not able to afford new A-Grade products on the market. This will be further enhanced by future decisions regarding localised commercial floorspace subsidies for scale-up tech businesses. These towers have long held government agencies (among other tenants), who are gradually moving out to other precincts such as Parramatta and Macquarie Park. As a result, there has been a recent increase in floorspace provision in this area that may suit those businesses requiring larger commercial floorplates close to Atlassian and the Northern Gateway. Of note however is several of these B-grade towers (for instance 323 Castlereagh Street) are already undergoing internal transformation to attract tech tenants seeking A-grade style commercial floorspace).

This diversity of floorspace type is likely to extend to co-working or shared facilities, including collaboration and meeting spaces, that would support those precinct tenants with smaller floorplates who could leverage the shared infrastructure in well-connected parts of the precinct. Given the scale of the Central Station precinct, these could be distributed, with some part of new or re-developed commercial towers, and others part of the revitalised Terminal Building.

- **Central as a connector.** The Central Station precinct can play two distinct but inter-related roles. The first is a connection facilitator, linking those arriving or departing via the interchange to other precincts such as Haymarket/Chinatown, Ultimo (via an extension to the Goods Line), East-West into Surry Hills and Chippendale (through improved above and below-ground connections) and south to Redfern (via active transport routes). This knits Central into the wider fabric of Tech Central and the wider CBD-Airport corridor.

- Central as a collector.** The second role it can play is as a collection point of activity. The wider Tech central precinct lacks a clear ‘centre’ that would play a critical role as a meeting or collection place. The masterplan seeks to better integrate with Belmore Park to the north, however this space is not centrally located given the activity anticipated to be generated over the long term. As a place where many journeys begin or end, and with the precinct being a major connector, there is an opportunity to better consider the role Central and its curtilage plays in create a strong sense of activity. To best ground Central into the wider tech Central precinct, consideration should be given to this being on the periphery, rather than in the centre of the precinct, to open up to other parts of the Tech Central Precinct, and particularly the East towards Ultimo. Such an approach would increase the ‘catchment’ of activity and bring together the precinct more effectively across George Street, rather than having that corridor as a major boundary. In that way, a square as part of the Northern Gateway redevelopment or a future rethink of Railway Square could begin to consider itself as a Trafalgar Square of Times Square style urban space that collects activity across the wider city.
- Plug Central into a wider cultural and civic precinct as a 24 hour precinct.** Central Precinct sits between key cultural precincts and institutions and lies at the heart of a cluster of cultural and entertainment precincts and institutions. Therefore, it should connect with these landmarks both physically and also in terms of the supporting uses it accommodates (restaurants, bars, theatres, hotels etc). The connections into Haymarket-Ultimo are particularly important to effectively connect the Powerhouse Precinct and Central Precinct, via the Goods Line but also via Chinatown. Such an approach could help nurture a 24-hour economic precinct anchored by major cultural uses and unconstrained by impacts to surrounding residential areas.

Figure 32 Central’s role in a larger Southern CBD cultural ecosystem

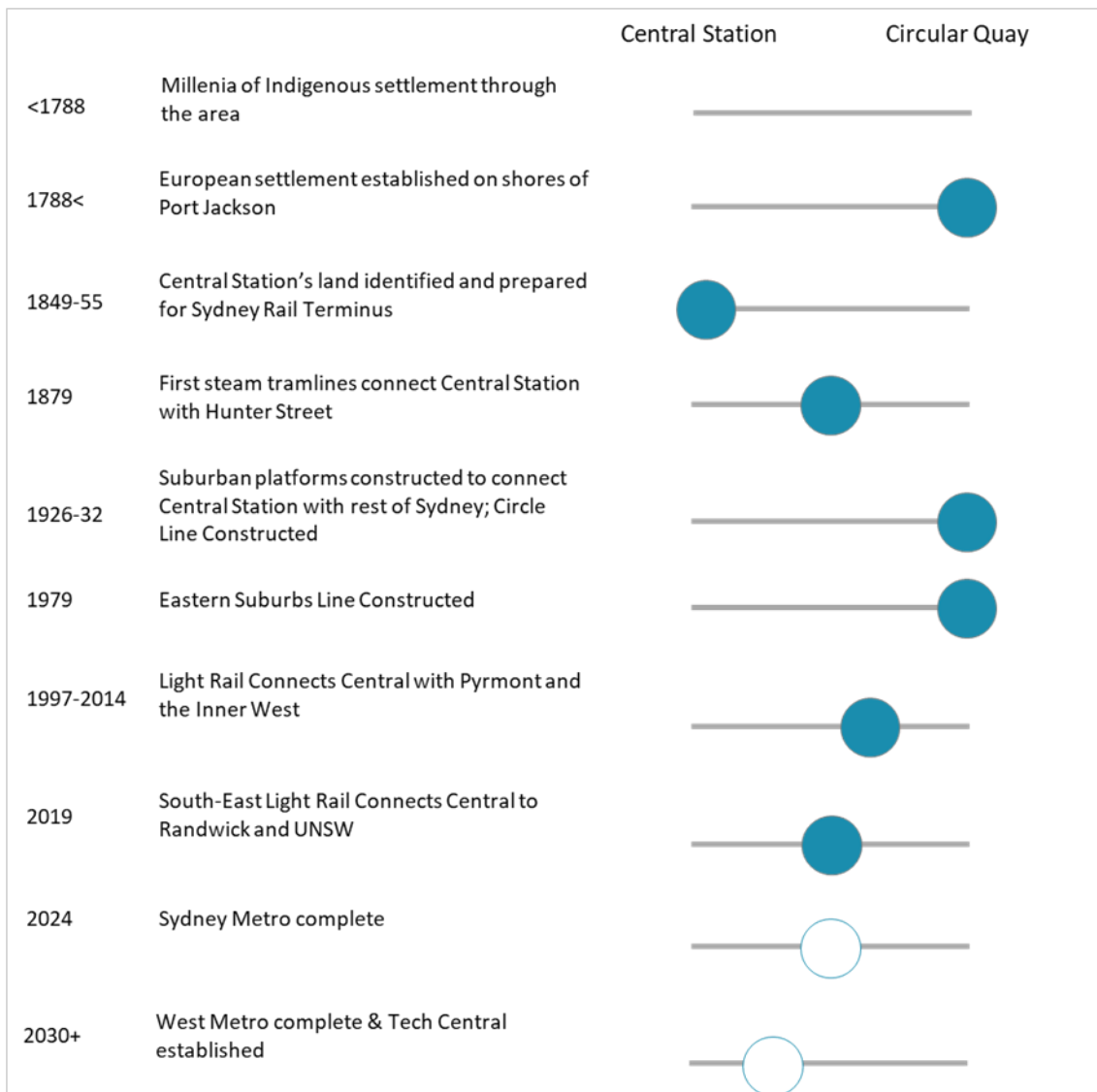


Source: SGS Economics and Planning, 2021

- Leverage Tech Central to rebalance the centre of gravity in the CBD.** In the last half century or so, Central Sydney’s centre of gravity has shifted north away from the South CBD area towards the financial district of the North and mid CBD. This has resulted in a clear demarcation of the Northern and Southern CBD (including Central

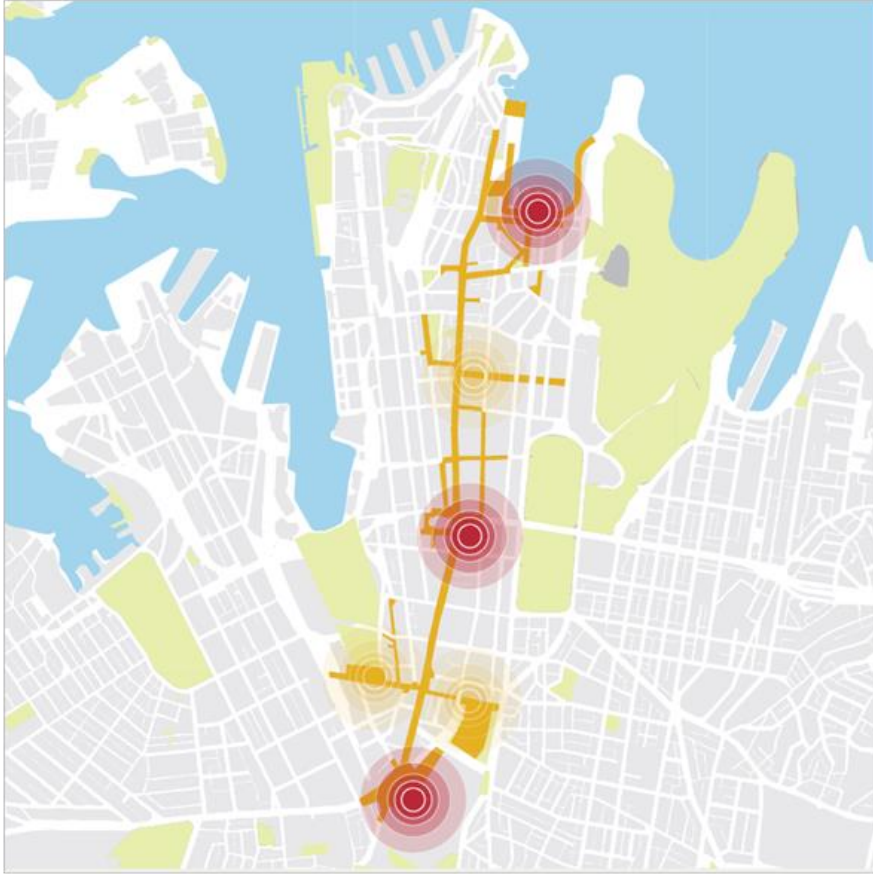
Precinct), both from an amenity and job density perspective. A focus on a critical mass of development, alongside complementary investment in transport infrastructure (Metro investment) and opportunities for a range of civic and cultural uses can re-balance the centre of gravity in the CBD and also help to realise some of the ambitions of the Sustainable Sydney 2030 vision.

Figure 33 Shifting centre of gravity in the Sydney CBD



Source: SGS Economics and Planning, 2021

Figure 34 The three major squares along the CBD's central spine – Sustainable Sydney 2030



Source: City of Sydney, 2009, Sustainable Sydney 2030

- **Extend education into the expanded CBD.** Both the University of Sydney and UTS have limited space on their campuses for longer term expansion. Central's high levels of accessibility, its opportunity for a diversity of different uses and the critical mass of student accommodation surround the precinct (and potentially within it also) provides an opportunity to explore embedding university and other tertiary education facilities within the precinct. The role of this would need to be carefully curated in partnership with the university/ies involved, and also recognise the strategic intent of health and education precincts located nearby in Camperdown and Randwick. The focus on technology as part of the broader Tech Central premise is an obvious focus, with the opportunity to perhaps explore novel integrated development with university and commercial co-locating in new developments.

A potential focus on the creative and cultural industries as a way of establishing a clear identity for the Central precinct beyond commercial may also present opportunities to attract similarly focused educational institutions or faculties to embed this creative identity. An example of this is the establishment of the Central Saint Martins Art college into the redeveloped Kings Cross Station precinct in London (Figure 35). Such an intervention would require deep engagement with existing Arts Schools in Sydney such as the National Arts School in Darlinghurst, but as an idea it represents a way of embedding a far deeper connection to a wider range of industries to give the precinct a clear identity and to also inject activation throughout the day and evening.

A focus on education should also consider how it can ensure the upskilling of vulnerable communities, such as the homeless or those in social and affordable housing. The precinct's accessibility by public transport makes it well placed to have a wide reach and it is also close to areas of traditionally high homelessness in the CBD as well as the social and affordable housing in surrounding suburbs of Redfern, Surry Hills and Waterloo. It is important that the precinct does not just cater to a wealthy and education subset of the community, but is accessible to all of Greater Sydney and its residents.

Figure 35 Central Saint Martins Art College, Kings Cross London



Source: <https://www.kingscross.co.uk/central-saint-martins>

- **Industry attraction.** The broader policy context highlights that Education, Med Tech, Technology, and Biomedical services are the sectors for which Tech Central has the strongest and most unique competitive advantage, due to multiple existing anchor institutions in Tech Central as well as existing strategies for growth in the biomedical sector around Camperdown. There are also multiple existing arts, cultural and creative institutions within Tech Central, and there may be the potential to facilitate growth in specific sub-sectors which are already concentrated in the sector and which have a connection with technology and innovation, for example video and film production technology.

Several of the sectors are associated with advanced manufacturing or other R&D and commercialisation activities. COVID-19 has shone a light on Australia's vulnerability along the supply chain due to off-shoring manufacturing activities, and the need to be more present and competitive in manufacturing's future growth sectors. There is an opportunity to leverage existing research strengths within the precinct along with proximity to diverse employment and industrial precincts and to the Sydney CBD to establish Tech Central as a location for R&D and commercialisation of technology, associated with nearby manufacturing potential.

11.2 Constraints facing Central Precinct

- **A focus on commercial floorspace alone.** As described above, the focus on commercial floorspace as the primary land use on the OSD creates challenges for development feasibility. The masterplan currently only considers residential floorspace in the Regent Street sidings sub-precinct, with 55,300 square metres of residential floorspace proposed. Re-considering the provision of residential as a driver of the OSD may aid its realisation, however it would also potentially preclude (or at least challenge) the site transitioning to non-residential in the future, depending on whether it is private strata, build-to-rent, student accommodation etc.
- **Uncertain commercial future.** The impact of COVID-19 has dramatically altered how many businesses in commercial centres can and do operate. The changes to working practices have resulted in fewer full time, in-office workers. This has impacts on how much floorspace businesses then need in order to effectively operate. How long this trend will last is unclear, however it is likely that with increases in technology, working remotely will continue in some form. This trend reduces the pressure on commercial floorspace in CBDs, which impacts on how much floorspace Central Station is likely to need to provide. Analysis in this report tested varying scenarios of floorspace demand. When work-from-home considerations are applied, the most optimistic projections reduce by to 137,000 square metres by 2056. The most conservative demand projections reduced to just 18,000 square metres, which would indicate that additional commercial floorspace beyond the Western gateway and Prince Alfred Sidings may not be needed over the next 30 years.
- **Tech and IT are industries very adept at remote working.** Building on this point above, the sectors that Central is seeking to attract – Tech and IT – are those often most adept at remote working. Many do not require particular floorspace or built form typologies to operate, which creates risk in terms of demonstrated need for floorspace. In recent years, a growing contingent of technology companies has adopted remote or hybrid working arrangements, with some operating a ‘remote-first’ workforce in place of an official headquarters or main campus (Palmer, 2022). Atlassian, the anchor tenant at Tech Central, has also introduced a ‘Team Anywhere’ policy, which has led to an estimated 25% of staff being based outside of Greater Sydney (AFR, 2022).
- **Competition from other precincts for future floorspace.** Central Station is not being developed in isolation. Over similar timeframes, adjacent or nearby precincts also plan to re-develop and provide varying degrees of commercial floorspace. In the Sydney CBD, an estimated 983,000 sqm of floorspace is projected in the development pipeline (Table 12). Other precincts such as North Eveleigh, the Bays Precinct and Pyrmont-Ultimo also have growth aspirations and are planning for intensification of commercial activity given identified development potential, e.g. large lots along the southern edge of Redfern and North Eveleigh.

South Eveleigh is a precinct of high specialisation, with an established film and television presence and deep connection to technology and research. Its floorplate typology and the commercial nature of the precinct also lends itself to a range of commercial and institutional functions that could support general commercial operations (professional services, finance etc) as well as Creative Production (aligned with the Channel 7 / NCP operations) and scientific functions coming out of data61 and Cicada.

The northern part of the Ultimo sub-precinct will also focus on enabling the transition from education and R&D to commercialisation in the Central sub-precinct and is centred on the opportunities of the Goods Line and the Powerhouse Ultimo. The scale and form of the southern area will attract a diversity of small scale firms who align with the wider Tech precinct focus but who do not require large floorspaces yet desire high quality amenity and connectivity.

There is also significant capacity across the CBD for individual developments to provide more commercial floorspace in the future, both through redevelopment but also tenanted floorspace coming onto the market as several government tenants move to other centres such as Parramatta and Macquarie Park.

This means that Central's future commercial offer will need to compete with these other precincts for a share of future jobs, particularly as some of these precincts do not require the same degree of significant upfront investment. Bringing this back to feasibility, if those other precincts have lower development costs (due to the OSD costs), they may come to market sooner and further erode the share of floorspace anticipated for Central.

- **Competition from other precincts for amenities.** The Central precinct does and will continue to face competition to attract night-time and weekend activity from other parts of the CBD and surrounds. The precinct currently has little by way of activities, and while the masterplan is predicated on changing this, it will face competition for these activities from established precincts elsewhere. Barangaroo has developed a strong evening economy through its waterfront restaurant strip, which continues south into Darling Harbour. This has the benefit of waterfront amenity, as does Circular Quay. Surry Hills, Chippendale and Chinatown all have established dining and drinking identities with authentic and well-scaled urban forms. Oxford Street is also actively trying to resuscitate its vibrancy. As part of the Oxford Street precinct revitalisation, there is a focus on amenity of the public domain and pedestrian amenity through improved conditions for walking and cycling.

Furthermore, there is a growing policy focus on the 24 hour economy, with the OPEN Sydney strategy and action plan 2013-2030 setting out a vision for the long-term development of Sydney at night. The CBDs Revitalisation Program is also encouraging people back into CBDs across Greater Sydney.

This does not mean that Central Station should not provide such amenities, but rather it must be clear on what it can offer that other precincts cannot to ensure it develops its own destination identity. Sydney is different to other cities that have developed strong civic and cultural precincts around station renewal (Kings Cross St Pancras, Union Station Kansas City etc) insofar as Sydney has a harbour that draws a lot of activity and attention and is very close to Central Station.

- **International and domestic competition for industry attraction.** Commercialising an idea, innovation or great piece of research is a key driver of new sources of revenue, jobs and industries, and the lifeblood of increasingly knowledge-intensive economies. Australia is good at R&D and IP but not at commercialisation. There is evidence that Australian research breakthroughs and inventions are being taken overseas to be commercialised, particularly when it comes to medical technology.

Tech Central may therefore need to compete with other places, international and domestic, to attract sectors and/or businesses. To do this, Tech Central will need to

rely on its competitive advantage and industry partnerships to establish a unique offering for prospective businesses. Greater government support, funding and universities also have a role in providing incentives to increase commercialisation and stimulate jobs growth. Industry and research collaboration is also crucial across research contracts, consultancies and joint IP filings.

- **Central's ability to engage with its surroundings is constrained.** The Central Precinct is bound on its east and western edges by major transport infrastructure (rail lines to the east and George Street to the west). Belmore Park also separates it from the southern edge of the CBD. Because of this, the precinct does not have a strong relationship to its surrounding precincts. The Prince Alfred Sidings will address this in part to the east, as will the Western Gateway to the west. However, the precinct still fails to integrate well towards the Ultimo Creative precinct and Chinatown – both of which have significant value to add to Central's ecosystems through the provision of authentic and diverse urban cultural activities. This would also further enhance the knitting together of the UTS campus with Central Station.

11.3 Masterplan considerations

A range of analyses undertaken throughout this study reinforce the economic opportunities that Central Station can leverage, but also the constraints it faces in achieving this change. Employment and floorspace demand analysis, coupled with known aspirations for other precincts across Sydney, indicates that the masterplan in its full version may over-provide for floorspace for the next 30 years, or at least not have the critical mass to justify a full over-station development due to the challenges regarding development feasibility.

However, the Tech Central vision is predicated on a concentration of IT and other industries in the precinct as a way of driving change in the southern part of the CBD. The influence of this vision is already being seen in the refurbishment of existing buildings surrounding Belmore Park (for example 329 Castlereagh and 465 Pitt Streets).

This creates a complex situation, where a well-defined and logical final vision for the Central Precinct is constrained by development costs and market demand. However, building on these identified opportunities and constraints, a series of economic and financial considerations are identified that can help to inform the direction of the masterplan options in the face of these challenges. These are clustered under three broad consideration types: Development and delivery, Identity and land-use, and Precinct integration.

11.3.1 Development and delivery considerations

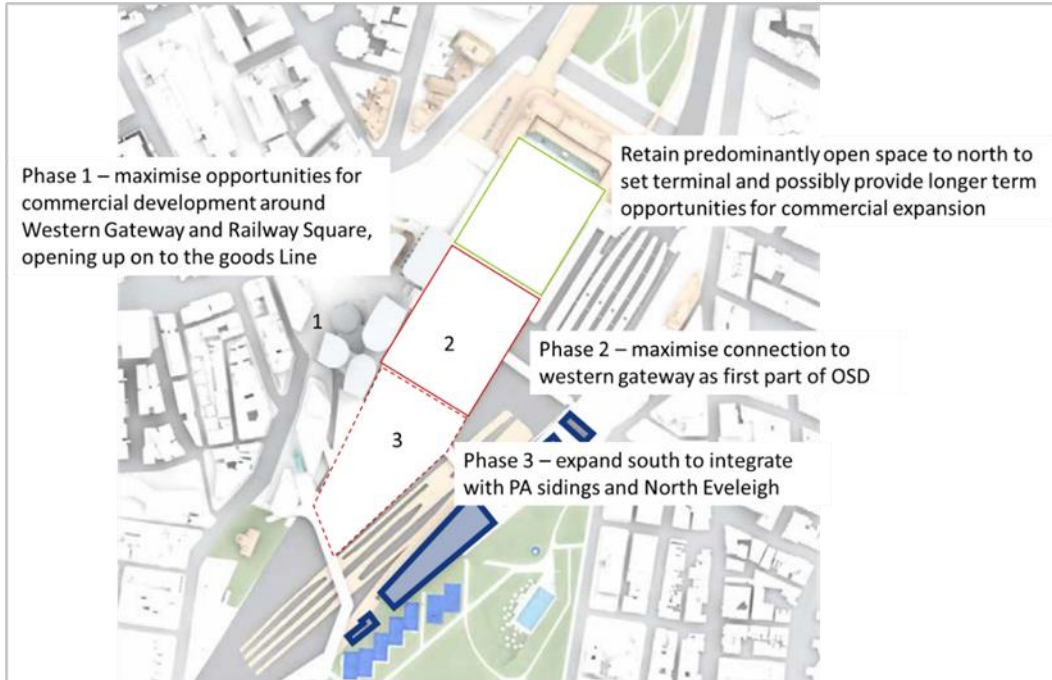
- Provide a diversity of land uses early on. The precinct needs to establish a clear identity that separates it from other competing CBD and CBD-fringe commercial districts (current or future). These would be the initial focus of development, and help to establish the identity, with Commercial also playing a (but not 'the') role. These uses could include:
 - Hotel (with real presence, proximity to existing amenity of Chinatown & Goods Line and views to harbour)
 - Gallery, museum, theatre or exhibition spaces (both permanent and temporary) – potentially a shared facility for Sydney's suite of existing museums

- Subsidised for NFPs or other uses that activate ground plane and provide opportunity to create identity
- Community infrastructure such as library and community education facilities
- Attraction of university or TAFE or specialised VET facility
- **Consider options with reduced commercial floorspace.** The demand analysis indicates that through to 2056, the most optimistic demand scenarios for commercial floorspace in Central Precinct are approximately 370,000 square metres, once Western Gateway and Prince Alfred Sidings are accounted for. If this is considered optimistic, then there is scope to consider a reduced amount of commercial floorspace provision in the masterplan, notwithstanding the feasibility challenges this would create if the whole OSD were to be delivered at once.

This could take the form of an overall reduction in floorspace across all towers, or a concentration of towers in one part of the precinct, with the remaining space given over to 'temporary' open space, when temporary in this instance may mean decades rather than years. This space would be later phase capacity that may or may not be developed for commercial use, depending on what occurs in the market over the long term.

- **Consider a staged approach to the delivery of the over-station development.** An alternative approach, should commercial floorspace continue to be the primary focus for the OSD, is to deliver the OSD in a staged way that phases supply in line with demand and potentially reduces the costs and improves development feasibility.
- **Consider no over-station development at all.** This alternative approach is premised on the notion that the Western Gateway, Prince Alfred Sidings and other precincts in and around the Central Precinct (North and South Eveleigh, South and Central CBD) are sufficient in the next thirty years to meet the future demands for commercial floorspace provision. Such a scenario would focus efforts solely on the curtilage of the station rather than seek a spanning of the platforms.
- **Limit state government action on other precincts.** This is a radical approach that is unlikely to be palatable, but is important to pose. If Tech Central – as one of Sydney's three Lighthouse Precincts – and specifically Central Station are considered pinnacle projects for the NSW Government, an intentional suppression of commercial floorspace supply in other state-led projects undergoing similar processes over similar timeframes would maximise the potential of attracting commercial investment to Central Station. This is an extreme proposition, and is only put forward as a way of reducing the lower cost commercial floorspace delivery elsewhere that will erode the critical mass required to make the OSD more feasible. It would also require intensive engagement with those other concurrent projects being led by Government to understand the implications of such an approach.
- **Consider sequencing of delivery.** Following maturation of the Central Precinct, there is a potential opportunity to expand precinct's south first, to connect into Prince Alfred sidings and future North Eveleigh precinct. The potential advantage of that over moving north is that the north will always have a disconnect between the precinct and the CBD by the nature of the topography and distance across Belmore Park.

Figure 36 Central Precinct development sequencing



Source: TfNSW, 2021

11.3.2 Identity and land use considerations

- **Attract activities early that leverage the existing architecture and set a clear identity.** As discussed in the constraints, one of the challenges Central Precinct will face is how to attract businesses and activities when there are other precincts close by also competing for a future share of this activity. Central's heritage building and accessibility has already been picked up in drivers of change in the masterplan. Restaurants, bars and even theatres in the heritage listed building and along the concourse will help set the tone for the precinct and leverage an asset that no other precinct has in or around the CBD. This may require limited development intervention in order to establish.

Figure 37 Shunt Club – London Bridge Station



For four years from 2004 until 2010, Shunt was a bar, club and event and gallery space in the arches of the London Bridge Station. The expansive space was continually re-defined, and formed an important place for artists and musicians in London. This form of semi-permanent use in the lower parts of Central Station could be a good way of setting up the precinct as an entertainment destination.

Source: <https://www.shunt.co.uk/the-shunt-lounge>

- **Consider alternative uses on the over-station development as priority early-phase land uses.** Building on the considerations discussed above, the masterplan could consider alternative or additional land uses beyond the heavy emphasis on commercial floorspace. The masterplan proposes some hotel use which should be considered as an early phase use in any OSD scenario. The introduction of residential in a range of forms could also be considered, in part to raise the feasibility potential through higher value land uses and also to increase the variety of land uses that can benefit from being located close to the station. To safeguard against the risk of strata locking out future redevelopment opportunities, this could be in the form of Build-to-rent, company title, student accommodation or social and affordable housing.
- **Considering open space over the station.** Discussed earlier was the potential to use open space as ‘temporary’ use until future demand required it for commercial over the longer term. A more radical idea could be to deliver the entirety of the OSD as dedicated open space which links Belmore Park and Prince Alfred Park and creates a significant open space asset for the commercial activities fringing the station precinct. Such a scenario would assume that the commercial needs for the Central Precinct can be met in the Western Gateway and Prince Alfred Sidings precincts and surrounding precincts such as the southern part of the CBD.
- **Foster flexibility at the ground level.** The role of the ground floor in the future commercial buildings of Central Station will vary over time as the precinct evolves and matures. Flexibility is therefore critical to enable the uses to transition over time.

Most modern commercial towers have a traditional lobby space, often with a café, that often are not focused on welcoming in those not working in the building. The ground floors of future commercial buildings in Central should support a range of different uses, rather than be a series of lobbies and passive collaboration spaces. This would require high ceilings, multiple access points, the ability to partition the spaces easily so that they have sufficient flexibility to support uses from entertainment and performance through to more traditional collaboration spaces and even opportunities for some future industrial uses that may be appropriate (such as a robotics or AI laboratory for instance). These buildings would look more like the ground floor of modern university buildings than commercial towers.

- **Democratic and flexible ground floor.** A guiding principle for the whole precinct should be the provision of ground floors of all buildings that have a civic, cultural or social focus – or at least the ability to support a diversity of uses. Ground floors should be flexible enough to be configured to suit a range of uses, including services and secure lock up opportunities for exhibitions etc. Some of these may be permanent (procured through standard leases, some with subsidised rental models), while others may be temporary. The scale and layout of these should be flexible enough to adapt. Internal spaces should be designed so they interface with the external public domain, permitting uses to spill out of the buildings and into the laneways (or vice versa).
- **Bringing education into the precinct.** The precinct's proximity to multiple universities makes potential future expansion opportunity for them either in satellite campus-style models such as that used by Western Sydney University) or potentially more novel approaches such as that being proposed in the Western Sydney Multiversity. Either approach would require engagement with these institutions to understand exactly what this may entail. As discussed in Section 6.1, expanding this educational offer to something aligned with broader precinct identities (such as Arts or Drama schools) may also help to establish and ground an identity beyond a focus on technology.
- **Diversity of floorplates.** The commercial offer needs to cater to a diverse range of businesses, not just scale-up tech. Larger towers focus on larger floorplate offers, with smaller towers supporting a diversity of smaller suite sizes (e.g. 50 – 400 square metres) to cater to range of SME boutique businesses (for example 50 Holt Street Surry Hills).

Figure 38 Holt and Hart, 50 Holt Street Surry Hills



Source: April Group, 2021

- Provision of affordable floorspace. Beyond supporting a range of creative and cultural uses that provide an authentic and diverse precinct, there will be a need to provide affordable floorspace to start-ups and scale-ups if the commitment to tech business is to be realised. This has already been acknowledged in the original masterplan brief (50,000 square metres of affordable floorspace) but is likely to take various forms:
 - Co-working or collaboration space – affordable floorspace can take the form of ‘plug and play’ or pay for service office spaces, similar to WeWork style facilities. These are often suited to individuals or small businesses with a handful of employees.
 - Dedicated incubators or accelerators – the model is currently in use in the York Street Sydney Startup Hub or Cicada in South Eveleigh, where businesses have leases of various terms for specific floorspace that are subsidised to varying degrees. These can take the form of ‘generic’ office space for businesses who can operate in a standard office (and who don’t require A-grade floorspace) as well as dedicated facilities with specific infrastructure and floorspace requirements (Cicada)
 - Subsidised commercial floorspace – some businesses require larger amounts of commercial floorspace in order to quickly scale operations if they receive financial backing or have a product that is taken and requires scaling (which requires increased staff). These businesses often require standard office floorspace and do not necessarily require A-grade floorspace. Subsidy comes in the form of support to take on larger leases while a business is still in R&D mode or early stages of growth, but where space is required in order to support the successful commercialisation.

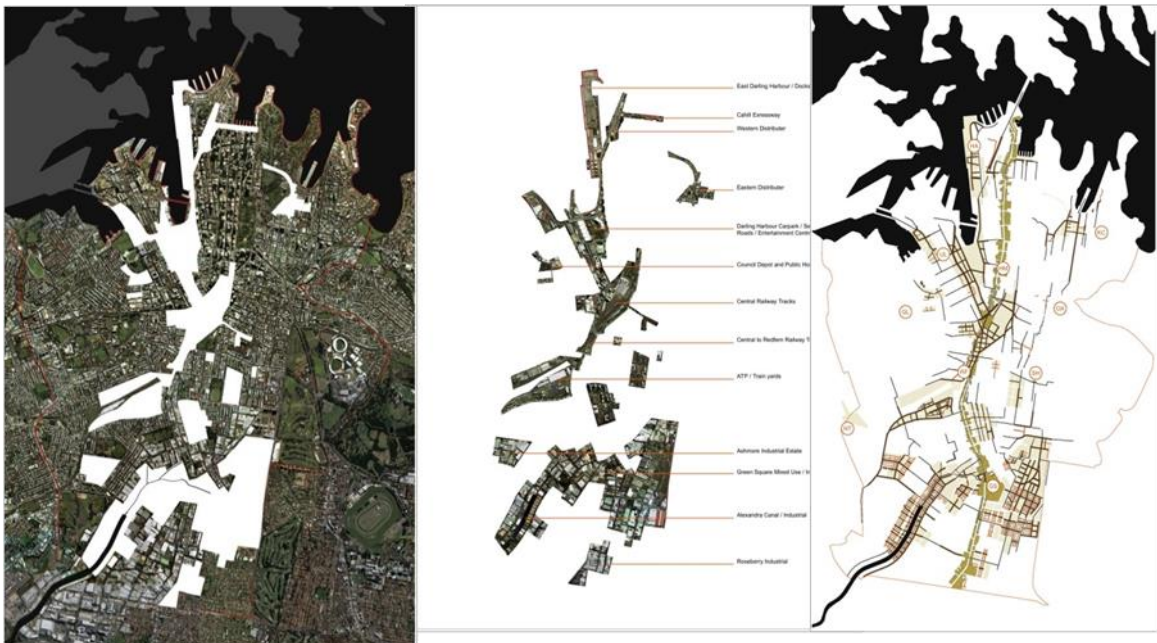
This diversity of affordable floorspace therefore has a diversity of solutions. The masterplan may require or benefit from the partnering and location of an organisation such as Cicada or Stone and Chalk, but also may require cheap floorspace for businesses

who just want to be in the precinct but do not need high spec office buildings. This can be provided in adjacent B-grade offices, in the Central Terminal building or as a subsidised product in new commercial towers.

11.3.3 Precinct integration considerations

- **Open the precinct up to the west.** The constraints review, and prior analysis for the Tech Central economic vision identified that the Central Precinct is relatively disconnected from the adjacent areas of Ultimo and Haymarket. The George Street corridor, coupled with the ‘wall’ of buildings on George Street’s western edge, exacerbates this lack of connectivity. The Goods Line expansion into Central will help to connect these adjacent precincts, however the masterplan should explore how it can better open up to the west, potentially at Railway Square through a Time Square-style urban space, and to the north west into Chinatown. This integration is important for the precinct to stitch into the surrounding area. This has the dual function of limiting the precinct developing as an island of activity, while also benefiting from the amenity and activity of the Haymarket Precinct. Further, such a connection will better integrate the future development of the Powerhouse Ultimo and provide opportunities for UTS’s Ultimo campus to integrate with the Central Precinct. This approach of reintegrating renewal precincts with their surrounds has been a focus of the Sydney 2030 Strategy in recent years.

Figure 39 Reintegration concept



As part of the Sustainable Sydney 2030 strategy, Simpson+Wilson developed an image that illustrated the scale of current and future urban renewal precincts. Their scale meant that as they were developed it was critical that they be stitched back into the surrounding urban fabric, otherwise they risked becoming islands. This concept applies today to Central Station.

Source: Simpson + Wilson Architects

- **Leverage existing assets in surrounding areas to create a coherent identity.** To aide in the integration process but also to help solidify a cultural and entertainment identity, Central should consider what surrounding assets, uses or activities can be supported

through targeted curation in the Central Precinct. Providing a new theatre and performance space with a hotel, for instance, will build on the presence of the Capitol Theatre in Haymarket, the Belvoir Street Theatre in Surry Hills and the many gallery and small performance spaces throughout Chippendale and Surry Hills.

The provision of a museum or gallery could align with and enhance the reconceptualisation of the Powerhouse Ultimo, creating a cultural cluster of activities with excellent public transport access all within proximity to one another. These moves in the early phases of the redevelopment process will help to set the precinct's identity and create that draw that will likely help the attraction of high end retail and commercial tenants.

- **Prioritise transport access and pedestrian movement.** The delivery of the OSD will likely be realised in the medium to long term, if it eventuates. It is therefore important to prioritise station access and connectivity through the precinct and into Surry Hills and Chippendale from the outset to maximise Tech Central's integration into the surrounding area.
- **Focus the early stage centre of gravity where the most activity is.** The Western Gateway will be delivered well in advance of the OSD and, with its provision of retail as well as its exit for a large number of patrons, it will be the early area of activity for the revitalised station. The first of the OSD phases should build on this, with activity concentrated in the mid-part of the OSD. Uses to the north of this (immediately south of the Terminal Building) should be distinctly civic (museum, gallery etc) or prioritise open space, so that the Terminal building takes on a grandiose identity grounded in its surrounding landscape.
- **Consider social as well as physical integration.** The precinct will be one of, if not the most accessible precinct in Australia from a public transport perspective. It is also embedded in a dense and diverse District. The concept of integration must extend into accessibility for all members of the community. While the focus on tech and other commercial and cultural uses is critical, the precinct's access to the more vulnerable members of the community must be considered in the design and range of uses. Education and training for those from more disadvantaged communities (including the surrounding social housing estates in Surry Hills, Waterloo and Redfern) as well as a range of social services that these communities may require access to must be part of the land use mix.

11.3.4 Competitive advantage and strategic considerations

- **Metropolitan strategic context.** Tech Central sits within the Eastern Economic Corridor which stretches through Macquarie Park, Chatswood, St Leonards, the Sydney CBD and out to Randwick and Sydney Airport. This corridor is highlighted as a prominent economic asset in the Greater Sydney Region Plan and Eastern City District Plan and has long been defined in strategic metropolitan planning visions. It is a nationally significant agglomeration of economic activity which includes the largest employment centres in Sydney, multiple health and education precincts and Sydney's trade gateways.
- **Economic connectivity.** Tech Central and the Sydney CBD are located in one of the most accessible parts of Sydney. This positions them to benefit from agglomeration economies, which reflect multiple advantages created by economic connectivity. For example, places which are centrally located on transport networks (for example parts

of Tech Central are next to Central Station) have excellent access to labour markets, allowing businesses to closely match the skills of their employees to business needs. Professional and knowledge-based businesses tend to cluster in central areas like CBDs, allowing people from different organisations to easily meet and conduct business. Businesses will also have easier access to supply chains and customers. On a smaller scale, innovation precincts can facilitate knowledge spillovers by which casual and professional contacts between people turn into valuable transfers of skills and business relationships. This factor is particularly relevant for innovative and high-technology sectors.

- **Strengthening competitive advantage.** Future transport infrastructure investment, including Sydney Metro City and South-West and Sydney Metro West, will increase the accessibility of Tech Central. This will in turn increase its agglomeration economies and competitive offer as a business location, particularly in parts of the precinct which are currently further from mass transit.

Alignment between the knowledge sector and other industries, such as advanced manufacturing, can also strengthen Sydney and NSW's competitive advantage to attract talent and investment. The proximity of Tech Central to Botany Bay, Sydney's flagship industrial precinct for the development of the advanced manufacturing sector, presents a unique opportunity for the 'frictionless' transfer of knowledge between services and production in the advanced manufacturing landscape in Sydney. Economies that have had the most success in advanced manufacturing are those that recognise it is not just about products- advanced manufacturing includes the full suite of activities from the concept, R&D, and design all the way through to post sales services.

12. Benefits of delivering the masterplan

This chapter outlines the strategic benefits that the realisation of the Central Precinct vision may achieve if it were to be delivered. It focused on strategic economic and land use benefits at a CBD and precinct level.

12.1 Overview

Previous chapters of this report have focused on the opportunities and considerations that the Central Station masterplan could address and capitalise on. The realisation of these opportunities and the consideration of the ideas put forward in Section 6.3 in the masterplan are likely to yield a range of strategic economic benefits.

It is critical to reinforce however, before these benefits are articulated, that as outlined in the Strategic Business Case, there is likely to be a significant cost impost on the NSW Government to deliver the over-station deck that is central to the masterplan. As outlined by in the Market report, the cost of the deck's construction and the long term nature of construction makes the delivery of the OSD via private sector development mechanisms extremely unlikely due to the risk profile and costs. It is therefore likely to fall on the NSW Government to deliver the deck via some alternative funding mechanism if commercial development is to be feasible.

The benefits outlined in this chapter are based on the assumption that the deck is delivered in such a way that it does not impact on the development feasibility of the buildings on the deck. How this is to be done is not the focus of this report.

12.2 Benefits of delivering the masterplan

It is anticipated that the realisation of the masterplan will create a number of strategic economic and land use benefits.

- **Creating long term supply potential.** Perhaps the biggest strategic benefit of the delivery of the masterplan is that, once the deck is built, it unlocks significant development capacity that otherwise could not be realised. In effect, the scheme is creating new land that, over the long term, can deliver future commercial floorspace, or a number of other land and floorspace uses that a highly urbanised precinct requires – open space, cultural facilities, residential and tourism uses etc. This also recognises that without significant government investment, this could not be delivered by individual developers, from a cost, engineering or risk perspective.
- **Maximise agglomeration benefits by supporting the concentration of future knowledge intensive jobs.** While the total number of jobs at precinct maturation is difficult to ascertain with certainty, analysis in this report indicates that the precinct under the current masterplan has the capacity to accommodate approximately 30,000 jobs. How much of these are 'new' to the NSW economy is difficult to estimate, however the benefits of development at this scale lie in the agglomeration benefits that are maximised through the concentration of significant numbers of knowledge intensive jobs that are also close to other concentrations of such jobs. In the context of Central, this is both through the adjacency of the CBD as well as the accessibility to

other major centres such as Parramatta and Macquarie Park and a wider labour market catchment of people within 30 minutes via mass transport infrastructure.

- **Extends Australia's largest and most productive CBD.** The Sydney CBD is constrained in its expansion on three of its four edges and Central provides the only avenue for significant capacity increases. Notwithstanding the poly-centric model shaping Greater Sydney's economic geography and the strategic emphasis on job redistribution to the Central and Western Cities, the reality is that the CBD will continue to attract businesses, institutions and cultural facilities by virtue of its scale and accessibility. The expansion of the CBD southward provides long term capacity for a diverse range of future uses that will benefit the locational and accessibility advantages Central has.
- **Drive re-investment in the Southern CBD and rebalance the CBD's centre of gravity.** The South CBD precinct (generally considered to be south of Market Street) has long been a lower-value commercial precinct than the Northern CBD and more recently, Barangaroo. This has been reflected in the quality of the public domain. The articulation of a vision for the Central Precinct, and the investment to realise it through commercial, cultural and other uses, has the potential for the Southern CBD to benefit from building renewal and public domain improvements and activation driven by the increased level and diversity of activities at Central. This is already started to occur with major re-fits of existing commercial buildings fringing Belmore Park. Such a change can act as a catalyst benefit and help to improve land values and rents in the precinct as well as attract a diversity of additional land uses.
- **Creates a point of integration to CBD fringe precincts to consolidate the Tech Central vision.** Surrounding the CBD are a number of important commercial sub-districts that support the role and function of the CBD and directly accommodate a number of high value jobs. The 'filling in' of the Central Precinct by spanning the rail lines has the potential to better connect Surry Hills, Chippendale, Ultimo and even the North Eveleigh-Redfern and South Eveleigh precincts to one another and to the wider CBD. This not only increases their connectivity, but reinforces the keystone role that Central plays in bringing to life the wider Tech Central Lighthouse precinct vision and the precinct's various technology axes.
- **Celebrates the heritage value of one of Sydney's iconic buildings and brings it back to life.** The Terminus building at Central Station is an iconic heritage building in Sydney, however as the CBD's centre of gravity has moved further north, it has lost some of its presence. This has been exacerbated by the incremental development around Central Station lacking regard to the presence of the building and its tower. The realisation of the masterplan will re-centre focus on the building in terms of the activity around the station and the deference that the design pays to the building. The recognition and improvement of the heritage elements has an economic value through 'willingness to pay' values that users place on the investment in such a building. Additionally, the increased operability of the building, through retail, restaurant and commercial uses (including affordable space) will also provide a home for new businesses and other economic activity.
- **Creates opportunities to explore, respect and celebrate Central Precinct's strong Aboriginal history and to define opportunity areas for Indigenous economic development.** First Nations research and engagement completed by Cox Inall

Ridgeway highlights wide support for the Central Precinct renewal, but emphasises a critical need for relationship building with peak Indigenous stakeholders to identify opportunities for Indigenous economic development. These include the NSW Indigenous Chamber of Commerce, Supply Nation, the Metropolitan Local Aboriginal Land Council and Stolen Generation Survivor Organisations.

- **Provides the opportunity to create new open space in a dense urban core and improve amenity and recreational benefits.** The masterplan will include a range of open space and civic spaces. These are important additions to a city where there is an overall deficiency in open space in highly urbanised areas. These also have amenity and recreational benefits for precinct users. A high quality precinct with open space and active frontage uses can increase expenditure in retail and restaurants as well as increase the value of floorspace (and the rents businesses are willing to pay) because of the perceived amenity benefits.
- **Creates opportunities for increased active transport and reduces east-west movement barriers, including improving road safety.** The masterplan overcomes some of the major active transport challenges that occur in this part of the CBD by virtue of the barrier the rail yards create. Improved active transport connections offer a greater diversity of travel options to commuters and can reduce travel times for those using the infrastructure. The removal of conflict points at road level can also have an improved safety aspect, resulting in fewer pedestrian and cycle accidents with cars and buses. The activation around Belmore Park can also help to improve safety, or perceptions of safety, which positively benefits surrounding land uses and the precinct's identity.
- **Establishes a creative and commercial precinct that attracts visitors.** If the masterplan moves beyond a singular focus on commercial and incorporates civic, cultural and other infrastructure and institutions (such as theatres and museums) discussed in this report, it is more likely to attract visitors. With its high public transport accessibility and proposal to include hotel/s in the precinct, Central has the potential to add to the cultural and tourism offering of the Sydney CBD and increase visitation and expenditure. If the precinct is integrated into the wider urban fabric of the southern CBD, it can integrate with other distinct cultural and visitor destinations such as Darling Harbour, the future Powerhouse Ultimo precinct and Chinatown.
- **Proceeds of the sale of the Prince Alfred Sidings land contributes to government revenue.** The sale of the Prince Alfred Sidings as part of the Ground scraper proposal will contribute to government revenue, which is also considered an economic benefit.

13. Economic impacts

This chapter reports the economic impact estimates of two investment scenarios as compared to a baseline scenario that does not see the realisation of the over-station development.

The Centre of Policy Studies at Victoria University prepared CGE modelling to simulate the economic impacts of the masterplan development on the broader NSW economy. CGE modelling is used to assess the impacts of an event - such as a change in policy, technology, or other external factor - on key economic indicators. It is best used as a complement to cost benefit analysis and differs from a business case because it considers the long-run benefits of investments and their interactions with the local and broader economy.

This analysis focuses on the economic impacts flowing from jobs that are newly created by the masterplan provision of floorspace. As input to the CGE model, SGS extended the analysis outlined in section 8.6 (which estimates a total of 28,791 jobs in the Central Precinct upon completion of the masterplan development) to estimate:

1. The **employment profile under the baseline scenario**, i.e. Western Gateway floorspace provision (Table 46),

Table 46 Masterplan – Summary of gross floor area provision

Floorspace use	Baseline (sqm)	Masterplan (sqm)
Office	236,826	506,378
Retail	14,997	37,445
Education	-	47,238
Hotel	20,196	71,098
Community	-	17,344
Residential	-	84,912
Student Housing	-	22,482
Total	272,019	786,897

Source: TfNSW 2022.

2. The **employment profile under a masterplan scenario** (i.e. Table 17), **but assuming increased working from home** as a result of the COVID-19 pandemic. The working from home sensitivity applied is based on the method outlined in 8.4, 'floorspace forecast', and

In the absence of available information from the Strategic Business Case for the project related to net new jobs into the NSW economy, for each scenario for the purposes of this analysis, SGS assumed that 25 per cent of jobs in each of the 'Information Media and Telecommunications' and 'Professional, Scientific and Technical Services' ANZSIC categories would be new to the NSW economy upon masterplan completion. These figures are highlighted in Table 46. This is based on an understanding of tech businesses that have recently established in the area and

have now grown to global reach. Specific estimates on their share of domestically-based jobs and global growth targets was gleaned from consultation and publicly available information, although it is noted this is a high level estimate given then lack of information from the business case upon which to build it.

If this was to be realised, an estimated 3,253 jobs will be new to the NSW economy under the masterplan scenario (11 per cent of total jobs in Central Precinct upon completion of the development), or 2,952 new jobs of 26,525 (11 per cent) under the masterplan scenario where increased working from home is assumed (Table 47).

Table 47 Employment forecast by industry and development scenario at Central

ANZSIC category	Baseline <i>Western Gateway</i>	Masterplan		Masterplan + increased work from home	
	Jobs	Jobs	Net new	Jobs	Net new
Accommodation and Food Services	638	1,791		1,762	
Administrative and Support Services	1,061	2,275		2,122	
Agriculture, Forestry and Fishing	17	37		34	
Arts and Recreation Services	110	249		233	
Construction	181	387		372	
Education and Training	27	1,002		932	
Electricity, Gas, Water and Waste Services	174	371		341	
Financial and Insurance Services	1,645	3,522		3,189	
Health Care and Social Assistance	203	607		577	
Information Media and Telecommunications	1,349	2,888	722	2,637	659
Manufacturing	64	137		128	
Mining	19	41		38	
Other Services	282	735		690	
Professional, Scientific and Technical Services	4,731	10,126	2,531	9,171	2,293
Public Administration and Safety	1,008	2,243		2,057	
Rental, Hiring and Real Estate Services	460	1,006		928	
Retail Trade	325	763		742	
Transport, Postal and Warehousing	240	513		482	
Wholesale Trade	45	97		90	
Total	12,579	28,791	3,253	26,525	2,952

Source: SGS 2022.

The modelling in sections 13.1 to 13.3 below was prepared in July 2022 by the Centre of Policy Studies (CoPS), Victoria University, using:

- SGS employment forecasts that were based on GFAs provided in May 2022, and
- a high-level cost plan to 2033-34, by which time it is assumed that masterplan development will complete, containing estimated cost components and timing.

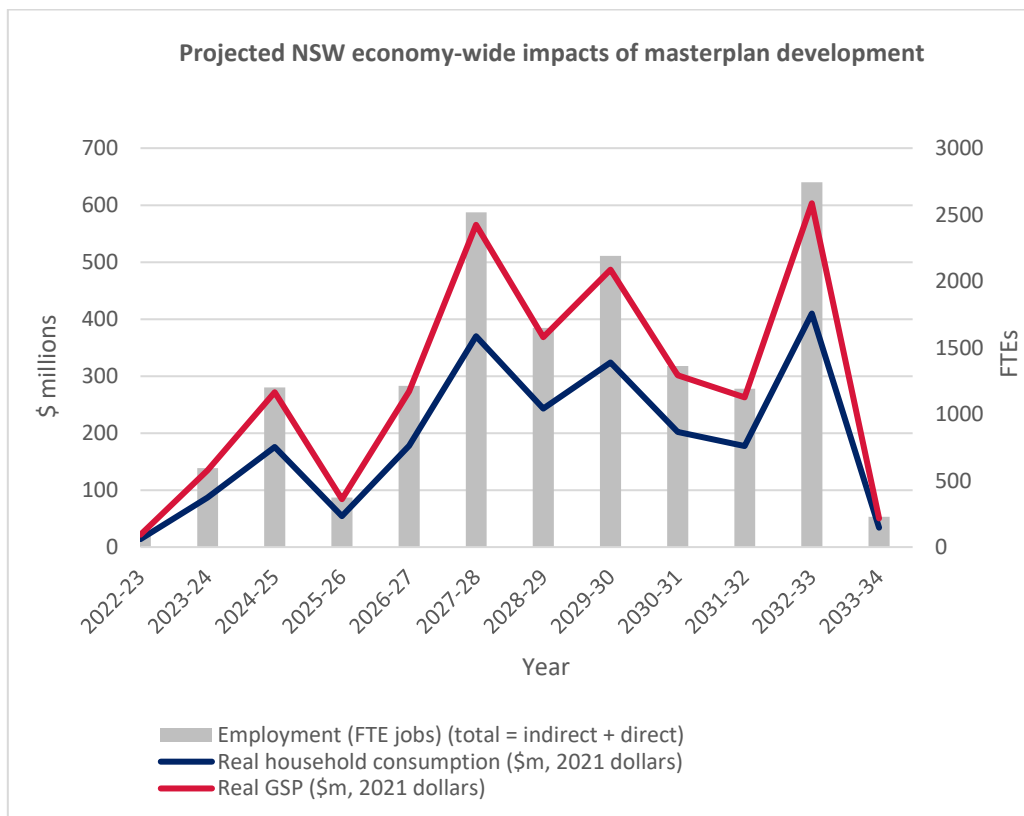
13.1 NSW macroeconomic impacts

Generally, the analysis shows that NSW will benefit from masterplan development, with real household consumption, investment, international imports and exports all higher compared to the baseline (no masterplan development) scenario.

Macroeconomic impacts have been modelled for both the construction phase (until 2033-34) and beyond (post-2034 estimated completion).

During construction phase, at the state level, real GSP in NSW is projected to peak at \$603 million higher in 2032-33 compared to the no development baseline scenario, while the NSW economy wide increase in employment will peak at 2,744 FTEs in the same year. Household consumption is also projected to peak at almost \$410 million above the baseline scenario in 2032-22.

Figure 40 Projected NSW economy wide impacts of during construction phase of masterplan development



Source: Victoria University, 2022.

Over the development period, Central Precinct industry specialisations, such as ICT and Tech are likely to be increasing their export-orientation, facilitated by the presence of global tech firms.

For a 'typical year' post construction, the total FTE employment in the NSW economy is also expected to be approximately 4,600-5,000 higher than under a no development scenario. This includes approximately 2,700-2,990 direct jobs and between 1,890-2,070 indirect jobs (Table 48 & 49).

The real Gross State Product (GSP), a measure of production, or productive capacity, generated by a state economy, is also higher (just over an additional \$1.3 billion in 2021 dollars) at around 2033-34, upon estimated completion of masterplan development. The projected GSP is slightly lower (just over an additional \$1.2 billion, 2021 dollars) under the masterplan scenario that sees increased uptake of working from home.

Table 48 Macroeconomic variables, absolute change (\$M) in NSW compared to no development scenario

Variable (\$m, 2021 dollars)	Masterplan (\$m, 2021 dollars)	Masterplan (increased work from home) (\$m, 2021 dollars)
Real household consumption	752.6	686.5
Real government consumption	0.0	0.0
Real investment	300.8	274.5
Real international imports	340.6	311.2
Real international exports	908.3	826.5
Real GSP	1,333.4	1,213.7

Source: Victoria University, 2022, using SGS future employment profile, 2022.

Table 49 Macroeconomic variables, absolute change (Direct and Indirect FTE jobs) in NSW compared to no development scenario

Variable (FTE)	Masterplan FTE jobs)	Masterplan (increased work from home) (FTE jobs)
Total employment (direct + indirect FTE)	5,064	4,605
Employment (direct FTE only)	2,993	2,716

Source: Victoria University, 2022, using SGS future employment profile, 2022.

13.2 NSW productivity impacts

An industry's Gross Value Added (GVA) is a measure of the industry's contribution to a State or Territory's Gross Product (ABS). The largest changes in GVA compared to the baseline scenario were in the industry specialisations of the Central Precinct development, i.e. Information, Media and Telecommunications (additional \$497.5 million in 2021 dollars) and Professional Services (additional \$456.2 million in 2021 dollars) (Table 50). The GVA was lower for industries that were not expected to benefit directly from masterplan development, e.g. Mining; Agriculture, Forestry and Fishing; Manufacturing.

This trend is also true of the second scenario, where masterplan development is fulfilled but there is increased working from home and therefore fewer FTEs based in the Central Precinct.

Table 50 ANZSIC industry, absolute change in NSW real GVA (\$M) compared to no development scenario

ANZSIC category	Masterplan (\$m, 2021 dollars)	Masterplan (increased work from home) (\$m, 2021 dollars)
Agriculture, Forestry and Fishing	-10.3	-9.3
Mining	-39.0	-35.6
Manufacturing	-52.8	-48.0
Electricity, Gas, Water and Waste Services	21.5	19.6
Construction	80.0	73.0
Wholesale Trade	34.9	31.9
Retail Trade	58.1	53.0
Accommodation and Food Services	18.9	17.3
Transport, Postal and Warehousing	5.7	5.3
Information, Media and Telecommunications	497.5	453.5
Financial and Insurance Services	57.3	52.3
Rental	9.4	8.6
Professional Services	456.2	413.7
Administrative Services	43.1	39.2
Public Administration and Safety	17.5	15.9
Education and Training	8.1	7.4
Health Care and Social Assistance	18.2	16.6
Arts and Recreation	6.8	6.2
Other Services	36.6	33.4
Ownership of Dwellings	65.6	59.7

Source: Victoria University, 2022.

Note that Ownership of Dwellings is an industry category whose output value is the value of services provided by dwellings. That is, actual rent on rental properties and imputed rent on non-rental properties (to align the treatment of services provided by dwellings to their owner-occupiers with the market services provided by rental dwellings to their tenants) (ABS, 2007).

13.3 NSW employment impacts

By 2033-34, NSW employment gains will see an additional 4,600 to 5,000 FTE jobs, largely driven by Professional Services as well as Information media and Telecommunications jobs. Growth in Retail industry employment will also contribute a significant number of jobs to the NSW economy, followed by Construction (Table 51).

Table 51 ANZSIC industry, absolute change in FTE compared to baseline scenario

ANZSIC category	Masterplan (FTE jobs)	Masterplan (increased work from home) (FTE jobs)
Agriculture, Forestry and Fishing	-78	-71
Mining	-108	-98
Manufacturing	-210	-191
Electricity, Gas, Water and Waste Services	33	30
Construction	320	292
Wholesale Trade	110	101
Retail Trade	627	572
Accommodation and Food Services	168	154
Transport, Postal and Warehousing	19	18
Information, Media and Telecommunications	722	659
Financial and Insurance Services	98	90
Rental	11	10
Professional Services	2,751	2,493
Administrative Services	130	118
Public Administration and Safety	77	70
Education and Training	59	54
Health Care and Social Assistance	130	118
Arts and Recreation	42	38
Other Services	163	148
Ownership of Dwellings	0	0
Total employment (direct + indirect FTE)	5,064	4,605

Source: Victoria University, 2022

The Central Station redevelopment process will take place over many years. As such, Construction jobs generated as a result of the development will also be realised over an estimated 12 year period.

The number of construction jobs occurring in any given year will not be uniform across the development phase and as such, construction jobs will fluctuate over this time. Owing to the fact that a job may be created and be operational for several years, it is not appropriate to add together the total number of jobs each year to estimate a total construction job number.

Construction jobs are estimated to peak at 1,320 new construction jobs in 2027-28, with an average year seeing 672 construction jobs created over the construction phase. Construction jobs contribute a large proportion of total direct jobs.

Table 52 ANZSIC industry, absolute change in FTE Construction jobs compared to baseline scenario over construction phase

ANZSIC category	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2022-23	2023-24	2024-25
Construction jobs	50	311	628	194	635	1,320	865	1,151	716	627	1,447	121	50	311	628

14. Appendices

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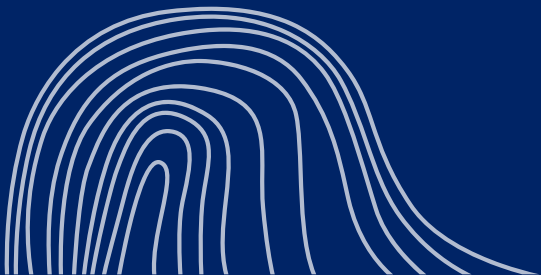
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