

State Significant Precinct Study

Central State Significant Precinct



Acknowledgement of Country

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

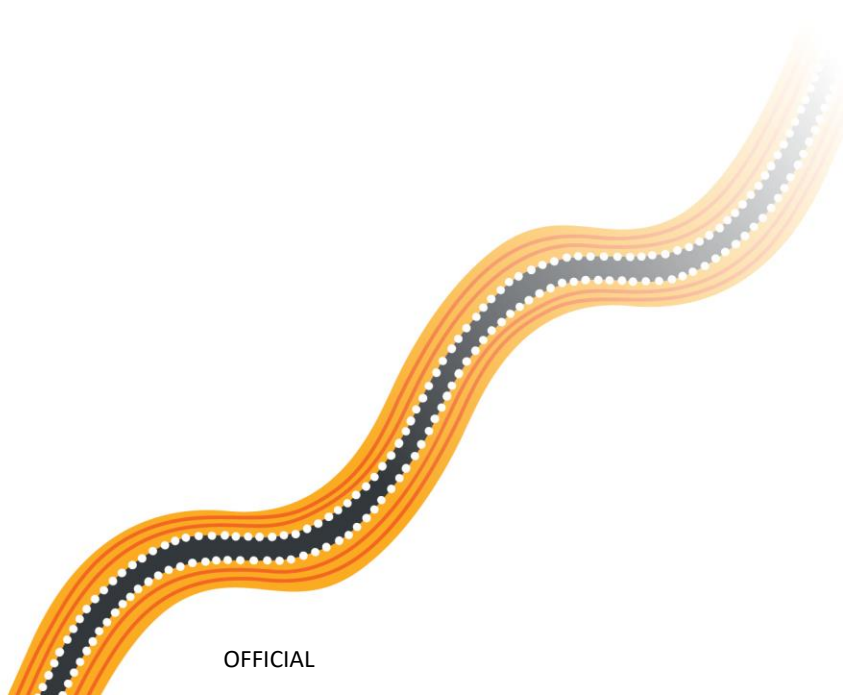


Table of Contents

Abbreviations	9
Definitions	10
1. Executive summary	14
2. Introduction	16
2.1 Purpose of this study	16
2.2 Structure of this study	16
2.3 How to read this study	16
2.4 Land to which this study applies	17
3. Background	18
3.1 Central Precinct as a State Significant Precinct	18
3.2 The Central Strategic Framework	18
3.3 The Western Gateway	19
3.4 Study requirements	19
4. The Precinct	20
4.1 Location	20
4.2 Description	20
5. The Precinct context	22
5.1 Adjoining and surrounding land	22
5.2 Wider setting	22
5.3 Strategic context	23
5.4 Historic context	25

6.	Planning context	27
6.1	Legislative context	27
6.2	Strategic planning context	27
6.3	Statutory planning context	29
6.4	Other planning documents	31
7.	Case for change	33
8.	The proposal	35
8.1	Vision	35
8.2	Directions	35
8.3	Structure plan	37
8.4	Key outcomes	39
8.5	Reference master plan	49
8.6	Planning framework	52
9.	Study requirements	67
9.1	Public domain, place and urban design	67
9.2	Planning	92
9.3	Amenity	102
9.4	Population and demographics	119
9.5	Heritage	122
9.6	Social sustainability and infrastructure	129
9.7	Transport	134
9.8	Environmental sustainability, climate change and waste management	142
9.9	Ecology, green infrastructure, urban forest and greening	145
9.10	Safety and security	148
9.11	Public art	149
9.12	Connecting with Country	152
9.13	Indicative staging strategy	153

9.14	Utilities servicing.....	155
9.15	Infrastructure.....	157
9.16	Economic productivity and job creation	164
9.17	Flooding, stormwater and water quality.....	167
9.18	Aeronautical.....	168
9.19	Consultation.....	169

Attachments

Attachment 1: Index of address of study requirements

Attachment 2: Place Strategy

Attachment 3: Urban Design Framework

Attachment 4: Public Domain Strategy

Attachment 5: Safety and Security Strategy

Attachment 6: Public Art Strategy

Attachment 7: Design Excellence Strategy

Attachment 8: Connecting with Country Framework

Attachment 9: Explanation of Intended Effect

Attachment 10: Assessment against the CSPS

Attachment 11: Design Guide

Attachment 12: Wind Study

Attachment 13: Noise and Vibration Study

Attachment 14: Pollution Study

Attachment 15: Visual Impact Study

Attachment 16: Population and Demographics Study

Attachment 17: Aboriginal Cultural Heritage Study

Attachment 18: Non-Aboriginal Heritage Study

Attachment 19: Archaeological Site Plan

Attachment 20: Conservation Management Plan

Attachment 21: Heritage Interpretation Strategy

Attachment 22: Social Infrastructure and Health Impact Assessment

Attachment 23: Transport Study

Attachment 24: Environmental Sustainability Study

Attachment 25: Green Infrastructure Study

Attachment 26: Utilities and Infrastructure Servicing Report

Attachment 27: Economic Productivity and Job Creation Study

Attachment 28: Water Quality, Flooding and Stormwater Report

Attachment 29: Aeronautical Study

Attachment 30: Consultation Strategy

Attachment 31: Aboriginal Engagement Strategy

Attachment 32: Consultation Outcomes Report

Document control

Authors	Ethos Urban
Approved by	Transport for NSW
Branch	IP Development
Division	Infrastructure and Place

Versions

Version	Amendment notes
0.1	Final for CPRP Public Exhibition 2022

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
GSC	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

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
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

Term	Definition
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
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

Term	Definition
	<ul style="list-style-type: none"> 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 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

Term	Definition
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
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

1. Executive summary

Central Precinct is one of Sydney's most important and iconic places. At the heart of Central Precinct is Central Station, Sydney's main train station, the main hub of NSW's rail network and Australia's largest and busiest railway station.

As Sydney has grown, a number of challenges have emerged for Central Station and Central Precinct. While exceptionally well connected to the rest of Sydney, integration with surrounding public spaces such as Railway Square, Belmore Park and Prince Alfred Park and the communities of Haymarket, Surry Hills, Redfern and Chippendale is generally poor. Large parts of the State heritage listed Sydney Terminal Building have not been publicly accessible for decades.

Over the next few years, Central Precinct will be subject to a number of city-shaping interventions. The opening of a new Sydney metro station in Central Precinct in 2024 will greatly improve the number and frequency of passenger trains serving Central Precinct. Development in the adjoining Western Gateway sub-precinct will also assist in further establishing the Tech Central innovation district as the heart of Sydney's innovation and technology economy.

At the same time, the City of Sydney's Central Sydney Planning Strategy aims to grow Central Sydney's role as the economic, social and cultural heart of the nation, enabling the delivery of an additional 2.9 million square metres of additional employment floor space. While over the short term much of this growth is expected to occur within Central Sydney's existing physical footprint, over the long term new areas need to be found to accommodate this growth. As Central Sydney is constrained on three sides by water and parkland, the natural direction for its future growth is south. Logically, the next step for such growth is Central Precinct.

Central Precinct also has a number of other, inherent, unique and highly valuable attributes that make it suitable to meaningfully deliver on the aims of the Central Sydney Planning Strategy. Unlike many other parts of Central Sydney, it is a large, contiguous area in State government ownership. Perhaps most importantly, it is the only location in Sydney to be located above and around the city's main public transport hub. Consistent with NSW planning policy that seeks land use, infrastructure and transport integration, this provides an unparalleled opportunity to support significant growth. In addition, State government ownership enables the strategic and co-ordinated planning and delivery of this growth incrementally over a long term horizon in a way that can embrace best practice in other areas such as sustainability and design excellence.

Taken together, Central Precinct presents a transformative, city shaping opportunity.

To realise this opportunity, this State Significant Precinct Study (the SSP Study) proposes an ambitious plan to renew Central Precinct. At the heart of this plan is a vision to reshape Central Precinct as:

'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.'
(Transport for NSW, 2021)

This vision for Central Precinct is supported by 31 directions and a structure plan. To give effect to this plan, the SSP Study is proposing to rezone Central Precinct, which involves changing planning controls covering matters such as land use zoning, building height and floor space ratio. Importantly, the existing State heritage listing for all of Central Precinct will be retained. A new design guide, providing detail on matters such as connecting with Country, sustainability and community facilities, is also proposed to help guide development. While more detailed development applications will be

made and assessed later on, this plan sets the foundations for high quality outcomes. These include:

- **Creating a new place:** creating a place that forms a new heart for southern Central Sydney
- **Connecting with Country:** recognising the significance of Central Station to Australia's first nations peoples
- **Transport:** ensuring the long term future for Central Station as Sydney's main train station and the heart of NSW's train network by integrating metro, rail, light rail, coach and bus facilities and re-aligning Intercity platforms and lines for more and faster services
- **Heritage:** securing the long term future for Sydney Terminal, the clock tower, Mortuary Station and other heritage assets, including through adaptive re-use
- **Sustainability:** creating a low carbon precinct consistent with NSW Government sustainability commitments
- **Jobs:** securing the long term future for Central Sydney as Australia's premier urban centre, including providing over 514,900 square metres of new floor space, 16,212 new additional jobs (a total of 28,791 new jobs including Western Gateway) as well as delivering on the Tech Central vision as strengthening Sydney as Australia's innovation and technology heart
- **Public spaces:** transforming land that was largely inaccessible to the public into a vibrant new place with a quality public domain at its heart, including over two (2) hectares of publicly accessible open space. New public domain will include a new Central Square as a key part of the City of Sydney's long term ambition for a Third Square, reconnection of George Street in the form of a vibrant linear park, a network of intimately scaled laneways lined with cafes, restaurants and shops and three new pedestrian and cycle bridges connecting the city, Surry Hills, Redfern and Chippendale.

Overall, the plan will enable development that will positively respond to the challenges that face Central Precinct and Sydney more broadly, and in doing so unlock opportunities in a manner consistent with State and local government planning policy and the Central Strategic Framework. It will position Sydney well for the emerging 21st century and retain and strengthen Central Station as one of Sydney's most important and iconic places.

2. Introduction

2.1 Purpose of this study

This State Significant Precinct Study (SSP Study) has been prepared for the Central State Significant Precinct (Central) by Transport for NSW (TfNSW) in accordance with the Environmental Planning and Assessment Act 1979 (EP&A Act), the State Significant Precincts Guideline 2016 and in fulfilment of the study requirements issued by the NSW Department of Planning and Environment (DPE).

Consistent with the study requirements and the State Significant Precincts Guideline 2016, the purpose of the SSP Study is to:

- determine an appropriate proposal, comprising a planning framework that includes land uses and development controls, for Central Precinct
- assess the State or regional planning significance of Central Precinct
- assess the suitability of Central Precinct for the proposal taking into consideration environmental, social and economic factors, and any State or regional planning strategy
- assess the implications of the proposal on local and regional land use, infrastructure, and service delivery.

The SSP Study supports a State-led rezoning (rezoning) proposal (the proposal) for Central Precinct. As a rezoning, the proposal seeks the Minister for Planning's (the Minister) approval to amend the existing planning framework that applies to Central Precinct, creating a new planning framework in the process. By doing this, development applications may be made to the consent authority in the future to help deliver intended outcomes. Rezonings translate strategic plans into statutory controls in a way that is responsive to place. They need to address strategic plans and show that the proposed new planning framework is capable of delivering high quality outcomes.

2.2 Structure of this study

The SSP Study comprises two main parts:

1. **Part A:** planning report
2. **Part B:** supporting information, including technical studies.

2.3 How to read this study

This study provides a high level summary of the proposal. In particular, it uses plain English to assist in understanding complex, technical topics. On this basis, it is to be read together with the supporting studies provided as attachments. Where there is a conflict between this planning report and a technical study, the planning report will prevail to the extent of the inconsistency.

2.4 Land to which this study applies

The land to which the SSP Study applies is shown in **Figure 1**.

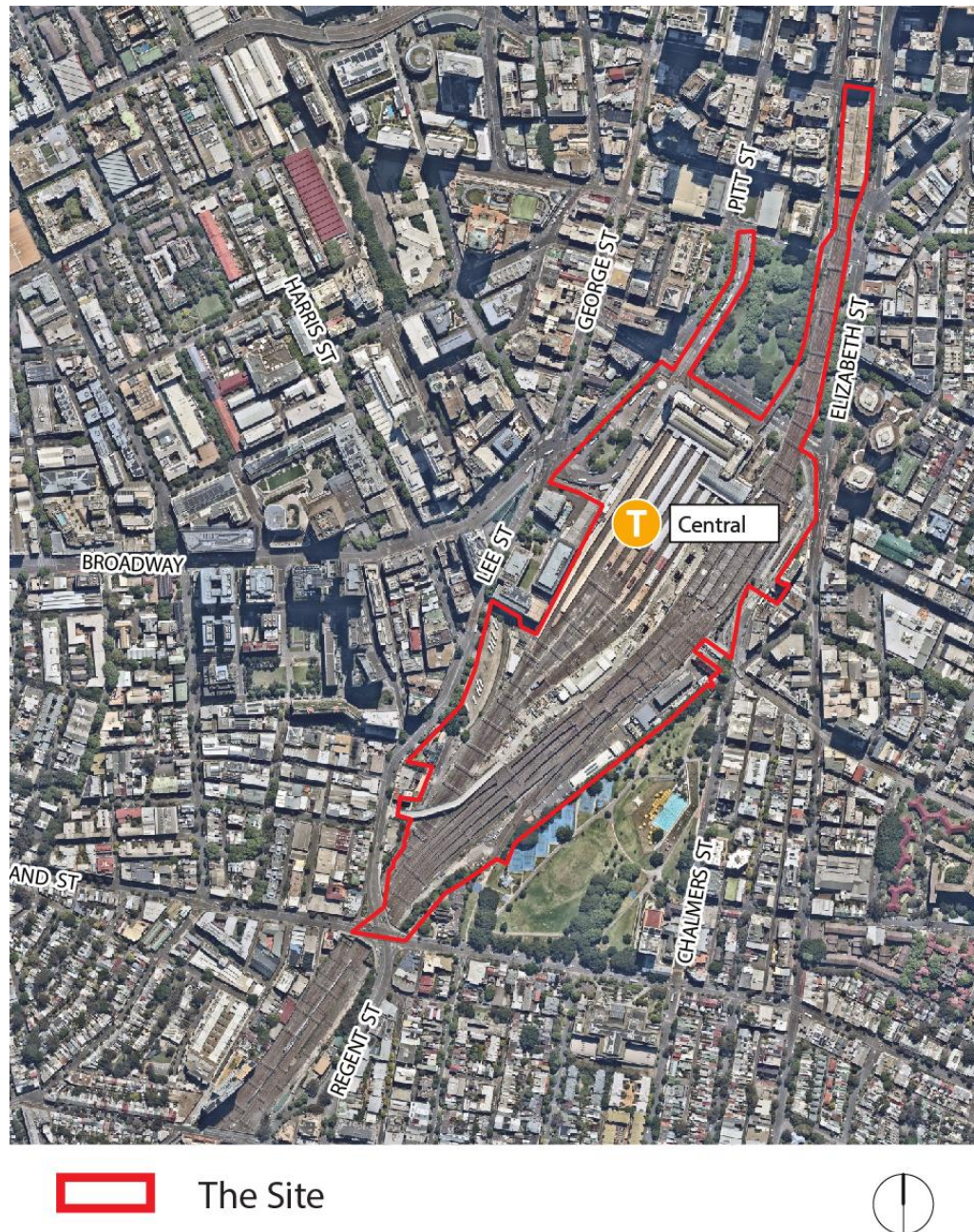


Figure 1: Central Precinct

Source: Ethos Urban (2022)

3. Background

3.1 Central Precinct as a State Significant Precinct

In accordance with the State Significant Precincts Guideline, in July 2018 TfNSW made a submission to the DPE to investigate declaration of Central Precinct as a SSP.

The main grounds for nomination included to:

- provide greater clarity on the vision, objectives and intent for the area
- create a single consolidated set of controls for the Precinct in one Environmental Planning Instrument
- support a transparent planning and development assessment process
- encourage community participation and stakeholder engagement
- enable a coordinated and integrated approach to the area's regeneration and renewal
- provide the relevant authorities with a comprehensive statutory framework against which to assess and determine future proposals
- support the achievement of design excellence.

In July 2019 the NSW Minister for Planning and Public Spaces declared Central Precinct a nominated SSP. This declaration acknowledges the importance of Central Precinct to Sydney and NSW, and enabled commencement of planning for its renewal through preparation of the SSP Study. As the landowner and proponent for the nominated State Significant Precinct, TfNSW was placed in charge of leading the preparation of the SSP Study.

The declaration enabled planning to be undertaken in two main stages:

- **Stage 1:** preparation of the Central Strategic Framework and investigation of the Western Gateway sub-precinct
- **Stage 2:** investigation of the broader Central Precinct.

3.2 The Central Strategic Framework

The Strategic Framework was endorsed by the State government in September 2021.

The Strategic Framework represented a statement of government strategic planning intent for Central Precinct. It endorsed the principle of renewal, and established a vision, planning priorities, design principles, a preferred renewal option and statements of desired future place and character for its component sub-precincts.

Importantly, it has helped establish early community expectations of the nature and scale of renewal being considered for Central Precinct.

The proposal within this SSP Study evolves and is consistent with the NSW Government endorsed statement of strategic planning intent set out within the Central Precinct Strategic Framework (the Strategic Framework).

3.3 The Western Gateway

The Western Gateway is located at the western edge of Central Precinct, bordering Railway Square and Lee Street. It comprises three separate but contiguous blocks:

- **Block A:** the YHA and former inward Parcel Shed
- **Block B:** Henry Deane Plaza and office buildings
- **Block C:** the Adina Hotel and former Parcel Post Office.

Following consideration of TfNSW's investigation, DPE amended the existing planning framework for Block A and Block B in August 2020, and for Block C in October 2021.

DPE granted development consent for the development of a 39-storey mixed use tower comprising tourist, visitor and office accommodation within Block A on 15 October 2021.

The proposal seeks to integrate with the Western Gateway, including through management of public domain and built form interfaces.

3.4 Study requirements

DPE in collaboration with the Greater Cities Commission (GCC), Government Architect NSW (GANSW), City of Sydney and other government agencies released Study Requirements in October 2020 to guide preparation of the SSP Study. These cover a range of topics, including public domain, transport and sustainability.

4. The Precinct

4.1 Location

Central Precinct is located at the south-eastern edge of Central Sydney, approximately 1 kilometre south of Town Hall in an area referred to as 'southern Central Sydney'.

While it comprises the locality of 'Central', the northern part of Central Precinct is located in the suburb of Haymarket and its southern part is located in the suburb of Chippendale. Part of its eastern edge is included in the suburb of Surry Hills.

Central Precinct is wholly located in the City of Sydney local government area (LGA).

4.2 Description

While comprising a number of properties, the primary address of Central Precinct is 1 Eddy Avenue, Haymarket. It is legally described as Lot 118, DP1078271, Lot 2, DP804113, Lot 30, DP 877478, Lot 13, DP 1062447, Lot 116, DP 1078271; Lot 117, DP 1078271; Lot 13, DP1062447; Lot 118, DP 1078271, Lot 12, DP 1062447, Lot 14, DP 1062447, Lot 15 / DP 1062447.

Boundaries

Central Precinct is generally bound by Eddy Avenue to the north, Chalmers Street and Prince Alfred Park to the east, the Cathedral of The Annunciation of Our Lady and Cleveland Street to the south and Regent Street, Lee Street and Pitt Street to the west.

Size, shape and dimensions

Central Precinct has an area of approximately 24 hectares. It is irregular in shape, having a length of approximately 800 metres and tapering from a width of approximately 300 metres at its widest point to approximately 200 metres at its northern boundary and 15 metres at its southern boundary.

Landform

Existing landform is generally level. However, Central Precinct is elevated above the level of adjoining part of the public domain to the north-west, including Eddy Avenue and Pitt Street.

Vegetation

Due to its prevailing use for railway purposes, most of Central Precinct does not include vegetation. The Western Forecourt and Eddy Avenue Plaza contain a small number of planted trees.

Land use

Most of Central Precinct is occupied by Central Station. As has been noted, Central Station is Sydney's main train station, the heart of NSW's train network and Australia's largest and busiest rail station. It currently has 22 platforms (12 terminating and 10 island platforms) in both above and below ground configurations providing for both suburban, inter-city and country services. Platforms 1-12 are above ground platforms terminating at the Sydney Terminal Building. Platforms 16-25 are island platforms, with platform 16 to 23 being above ground and platforms 24 to 25 located underground

In 2018, Central Station catered for 85.4 million customer movements, equivalent to 233,970 persons on average per day. It is also a key node in the broader public transport network, including

the Central Grand Concourse light rail stop servicing the L1 Dulwich Hill light rail line, being located adjacent to the Chalmers Street light rail stop servicing the L2 Randwick and L3 Kingsford light rail lines, having or being located adjacent to multiple bus stops (including at the Western Forest, Eddy Avenue and Elizabeth Street) and including 13 coach bays providing access to regional NSW and interstate.

Ownership

Central Precinct is owned by Transport Asset Holding Entity of NSW, which is a State Owned Corporation. Transport for NSW (TfNSW) is the Proponent.

5. The Precinct context

5.1 Adjoining and surrounding land

Together with Prince Alfred Park, Central Precinct occupies an island site surrounded by roads.

Eddy Avenue and Belmore Park are located to the north of Central Precinct. Eddy Avenue is a major road, carrying cars, buses and light rail. Belmore Park is one of Sydney's oldest parks, and provides for a dense canopy of well-established trees.

Elizabeth Street, Chalmers Street and Surry Hills are located to the east of Central Precinct. Elizabeth Street and Chalmers Street work together to form a key north-south transport corridor linking Central Sydney with suburbs to the south. Western Surry Hills is a vibrant community comprising a mix of older terrace houses, former commercial buildings and newer infill development. Of note, the multi-storey Sydney Dental Hospital occupies the prominent Elizabeth Street and Chalmers Street corner.

Prince Alfred Park is located to the south-east of Central Precinct. The park has an area of 7.5 ha and provides for a range of recreation uses, including a public pool and a number of sports courts along its western edge. As with the nearby Belmore Park, Prince Alfred Park is one of Sydney's oldest parks.

Regent Street and Cleveland Street intersection is located to the south of Central Precinct. The intersection forms an overpass of the main rail line.

Regent Street and Chippendale are located to the south-west of Central Precinct. Regent Street is a major road forming part of a connection between Sydney's northern and southern suburbs. While primarily a residential community with a predominance of older terrace houses, it also includes former commercial buildings and newer infill development.

Railway Square, Lee Street and Pitt Street are located to the west of Central Precinct. Railway Square is the historic southern entry to Central Sydney. Formerly known as Central Square, in the 19th century and early 20th century it was a key hub in the city's tramway network and was a centre for the city's retail activities. Lee Street extends south and Pitt Street extends north from Railway Square.

5.2 Wider setting

The wider setting includes Central Sydney to the north and west, including Haymarket and Chinatown, and the diverse, historic inner-city communities of Surry Hills to the east, Redfern to the south and Chippendale to the south-west.

Central Precinct is located at the northern end of the Central to Eveleigh Urban Transformation Corridor that extends south to near Macdonaldtown and Erskineville stations. Within this corridor is the Redfern North Eveleigh State Significant Precinct. TfNSW is currently investigating renewal of this precinct as part of Tech Central.

Further to the south, considerable development is occurring in a corridor stretching to Sydney (Kingsford Smith) Airport. This includes within the Waterloo Estate, Waterloo Metro Quarter, Botany Road, Green Square and Mascot.

Broadway is located to the west of Central Precinct, and forms the final part of the historic entrance to Sydney from the west via Parramatta Road and the south via the Princes Highway. Home to the University of Technology (UTS), the University of Notre Dame and TAFE NSW (Sydney Institute),

Broadway forms a major higher level education corridor. Further to the south-west, Broadway connects to the University of Sydney and Royal Prince Alfred Hospital.

George Street is located to the north-west of Central Precinct. Stretching to Millers Point and The Rocks, George Street is widely regarded as Central Sydney's main street. With the opening of the CBD and South East Light Rail in 2019, it has been transformed into a pedestrian focussed street.

The wider setting is experiencing considerable growth. This includes Central Park located approximately 200 metres to the west of Central Precinct and Darling Park approximately 400 metres to the north-west. Under the Central Sydney Planning Strategy, the City of Sydney has planned for significant future development in the southern tower cluster to the north-west of Central Precinct. Additional development is occurring in the form of the innovation and technology focussed Quantum Terminal, Tech Central Scaleup Hub and the National Space Industry Hub.

5.3 Strategic context

Strategically, Central Precinct is located in one of Sydney's most important economic areas. This is shaped by the interplay of Tech Central, The Harbour CBD and the Eastern Economic Corridor.

Tech Central

Tech Central consists of six neighbourhoods (Haymarket, Ultimo, Surry Hills, Camperdown, South Eveleigh and Darlington – North Eveleigh) that together comprise Australia's biggest innovation district. Containing Central Station and Redfern Station, it is highly accessible to Greater Sydney, NSW and international markets, and contains a rich heritage of cultural, activity, innovation and technology, education and health institution. In particular, Tech Central is currently home to a number of world-class universities (including the University of Sydney, University of Technology Sydney and University of Notre Dame), a world-leading research hospital (Royal Prince Alfred Hospital), startups, scaleups, 100 + research institutions and CSIRO's Data61.

The district is located on Gadigal land in the Eora Nation and brings the voices of First Nations Peoples of Australia front and centre on a global stage, recognising that they have been creating and innovating on this land for at least 65,000 years.

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.

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
- 200,000m² for technology companies
- 50,000m² of affordable space for start-ups and scaleups.

The Central Precinct is located within the Haymarket neighbourhood of Tech Central. Its planned urban renewal has been identified as a key project to achieving the vision for Tech Central as it represents the future main focal point for the area. Planned to become the CBD for Sydney's 21st

century, the Haymarket 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. Tech Central is shown in **Figure 2**.



Figure 2: The Innovation Corridor

Source: Tech Central

The Harbour CBD

The Harbour CBD includes Central Sydney, the North Sydney CBD and other key areas and precincts such as Pyrmont, Barangaroo and the Bays Precinct (refer **Figure 3**). The Harbour CBD has a strong concentration of businesses within the financial services sector, including the headquarters of the ASX and Australia’s monetary and finance institutions and regulators such as the Reserve Bank of Australia, Australian Securities and Investment Commission and the Australian Prudential Regulation Authority, 63 per cent of the ASX 100 financial services companies and the headquarters of 15 of the top 20 global investment banks.

Embedded within the Harbour CBD, Central Sydney is Sydney’s traditional and largest metropolitan centre and the largest by jobs and jobs floorspace in Australia.

An Innovation Corridor is emerging along the Harbour CBD’s western edge (refer **Figure 3**).

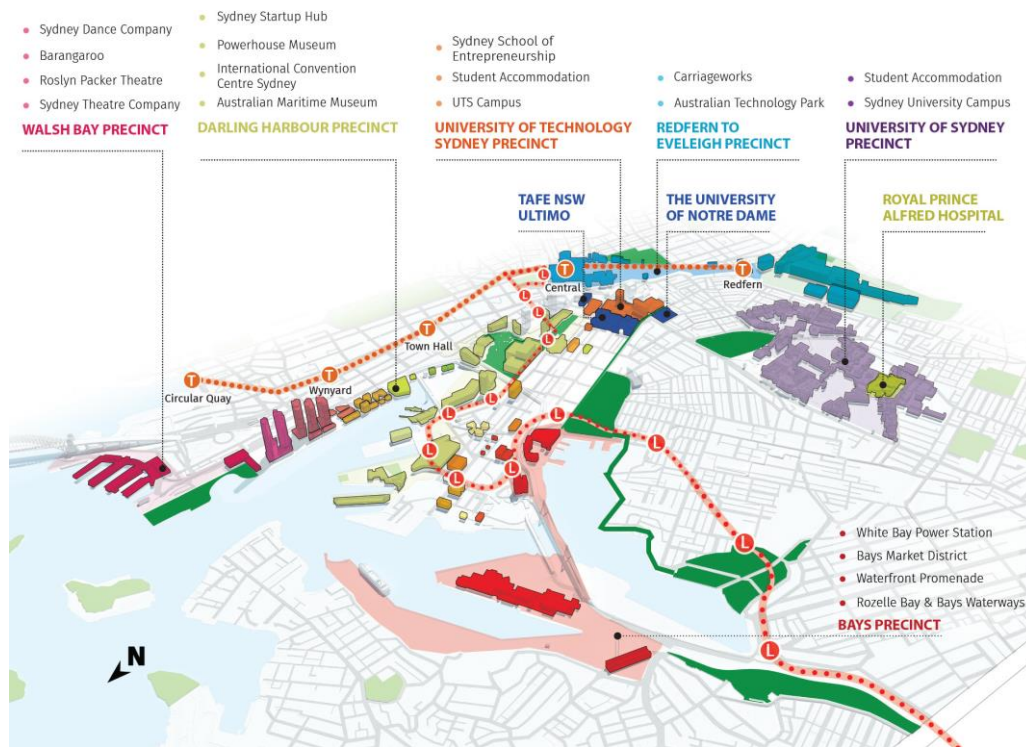


Figure 3: The Innovation Corridor
Source: Greater Sydney Commission (2018)

The Eastern Economic Corridor

The Eastern Economic Corridor stretches from Macquarie Park to Sydney Airport. It is Sydney’s most productive economic asset, and is of national significance. It includes four major university campuses, four principal referral hospitals, two thirds of Sydney’s office precincts and the Sydney Airport and Port Botany trade gateways.

5.4 Historic context

The Gadigal people

Central Precinct and its surrounds likely played a role in sustaining the Gadigal people, who were the Aboriginal custodians of the local area.

Arrival of Europeans

With the arrival of Europeans, Aboriginal people were displaced from their traditional hunting grounds around Sydney Harbour to places such as Central Precinct. As Central Precinct was considered to be on the periphery of early Sydney, a number of institutional uses were established in the area. This included the benevolent asylum and later the Devonshire Street cemetery.

Sydney’s Central Station

Sydney’s first train station, known as the first Sydney terminal, was established in Central Precinct in 1855. Due to considerable growth in the railways, the second station, known as the second Sydney Terminal, was established less than 20 years later in 1874. The current Central Station, or the third Sydney Terminal, opened in 1906. It was modelled after grand European train stations, and was intentionally placed to dominate its surrounds. However, it also resulted in the severance of the surrounding urban fabric, in particular Devonshire Street, and was also poorly integrated with its

immediate surrounds, notably Belmore Park. While almost immediately plans were developed to address some of these issues, none were acted upon. The clock tower was a later addition, being completed in 1921.

The Central Electric Station was added in the 1920s. Since this time several alterations and additions have occurred, including the introduction of the Eastern Suburbs rail line in the 1980s, re-instating of light rail and a number of refurbishments. The incremental nature of change in Central Station has led to an acknowledgement that it does not currently provide a high quality 21st century customer environment appropriate to its role as Sydney's main train station.

Identification for growth and change

Central Precinct and its surrounds have long been identified in strategic planning documents for growth and change. This includes the:

- 1909 Royal Commission which proposed to address challenges created by Central Station, in particular the poor relationship between Sydney Terminal Building and Belmore Park
- the 1988 Central Sydney Strategy (City of Sydney) that showed the area as being part of Central Sydney's southern extension for 'financial and commercial uses' and partly as a future growth opportunity
- 2008 Sustainable Sydney 2030 (City of Sydney) which identified the land between Central railway station and Cleveland Street as the natural southern extension of Central Sydney.

6. Planning context

6.1 Legislative context

Central Precinct is subject to a number of acts. Most importantly, planning for its future renewal is to be undertaken in accordance with the EP&A Act. For a State led rezoning, this in particular includes its objects. Consideration where relevant also needs to be given to other acts such as the Heritage Act 1977 and the Biodiversity Conservation Act 2016.

6.2 Strategic planning context

Central Precinct is subject to the following strategic plans:

- A Metropolis of Three Cities – The Greater Sydney Region Plan (the Region Plan) (GCC, 2018)
- Eastern City District Plan (the District Plan) (GCC, 2018) (refer **Figure 4**)
- City Plan 2036 (City Plan) (City of Sydney, 2020).

While not recognised as a strategic plan under the EP&A Act, the Central Sydney Planning Strategy (CSPS) (City of Sydney 2021) also applies.

These plans set a strategic intent to grow the Sydney economy. At the highest level, the Region Plan aims to grow Sydney’s economic activity to \$655 billion by 2036 and provide more than 817,000 new jobs.

This is to be achieved through sustainable development, where growth is encouraged in well located places serviced by infrastructure and public transport. This helps achieve a ‘30-minute city’, where people can access most of their needs within a 30 minute travel time from their home.

Consistent with its intent to grow Central Sydney as the economic, social and cultural heart of the nation, the CSPS enables delivery of an additional 2.9 million square meters of employment floor space. This is to be done in accordance with the City of Sydney’s vision for a green, global and connected city, which includes protecting valued assets such as heritage items and ensuring high quality public spaces such as parks and streets as well as new buildings.

The CSPS encourages the renewal of Central Precinct (refer **Figure 5**) noting that:

‘Catalytic projects by both the NSW Government and private sector on sites in and around Central Sydney will be instrumental to improving the amenity of Central Sydney, particularly the redevelopment of space above the train lines at Central Railway Station. This project provides a once-in-a-lifetime opportunity to function as the southern employment gateway to Central Sydney, served by a high-volume, mixed-mode transport interchange, a professional and creative highly skilled workforce, with access to a range of cultural and tourism destinations and the ability to integrate with and extend the existing fine grain street and open space network of surrounding Surry Hills, Chinatown, Ultimo and Chippendale. Delivered in the medium term, the successful development of Central to Eveleigh will deliver flow-on benefits for Central Sydney’s Midtown, from Park Street to Eddy Avenue.’

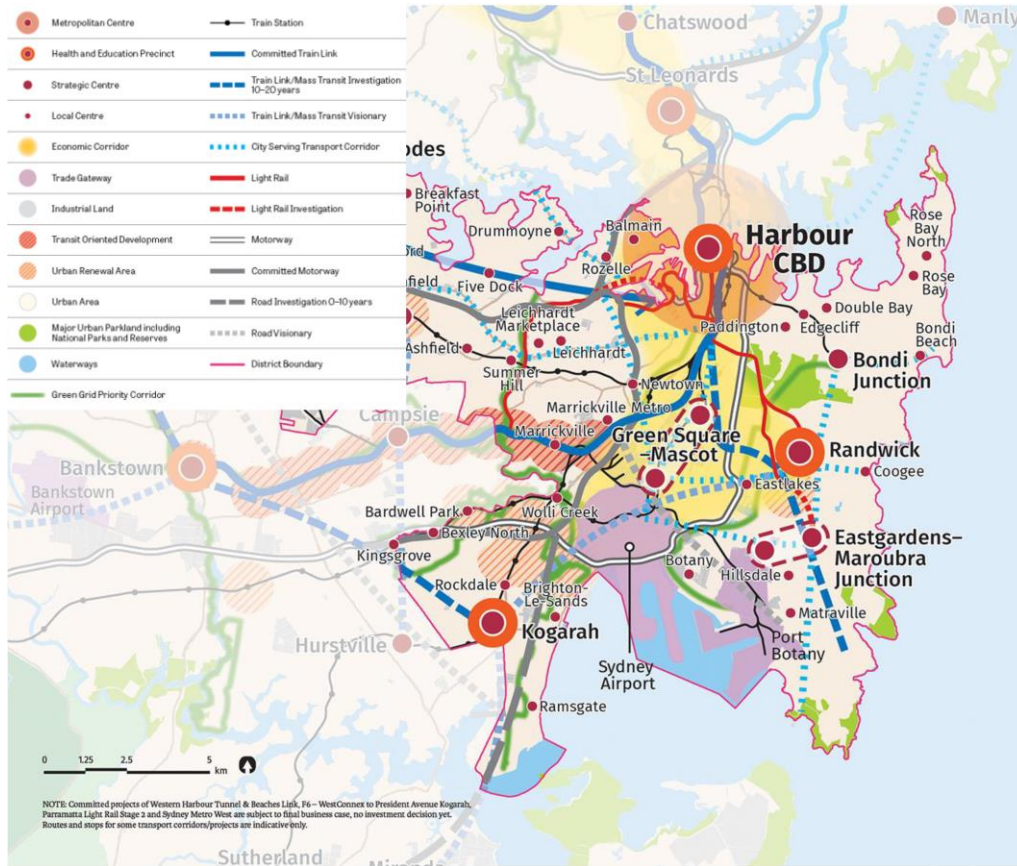


Figure 4: Eastern Harbour City Structure Plan

Source: Greater Sydney Commission (2018)



Figure 5: CSPS illustration of future development

Source: City of Sydney Council (2020)

6.3 Statutory planning context

State environmental planning policy

Central Precinct is subject to a large number of State environmental planning policies, including State Environmental Planning Policy (Transport and Infrastructure) 2021, State Environmental Planning Policy (State and Regional Development) 2011 and State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development.

Overall, these SEPPs implement a consistent planning framework for matters considered to be of State importance.

Of note:

- State Environmental Planning Policy (Planning Systems) 2021 enables a broad range of railway uses to be undertaken within Central Precinct under a more streamlined approval process
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development requires that higher density residential development meets a range of amenity considerations.

Sydney Local Environmental Plan 2012

The Sydney Local Environmental Plan 2012 (SLEP2012) is the principal local environmental plan (LEP) for the City of Sydney LGA.

It aims ‘to reinforce the role of the City of Sydney as the primary centre for Metropolitan Sydney’ and ‘to support the City of Sydney as an important location for business, educational and cultural activities and tourism’.

To achieve this aim, the SLEP2012 establishes a system to manage development. This includes through zoning land, limiting building height and protecting heritage.

Of note for Central Precinct, the SLEP2012:

- includes most land in the SP2 Infrastructure (Railways) zone (refer **Figure 6** excluding Western Gateway), which only allows for railway and supporting used
- limits height of development, including through ensuring no additional overshadowing to Prince Alfred Park (refer **Figure 7**)
- does not limit the amount of floor space (as measured by FSR)
- protects heritage (refer **Figure 8**)
- establishes provisions for design excellence, carparking, affordable housing and other matters.



Figure 6: Existing land zoning map
Source: SLEP2012 (2022)

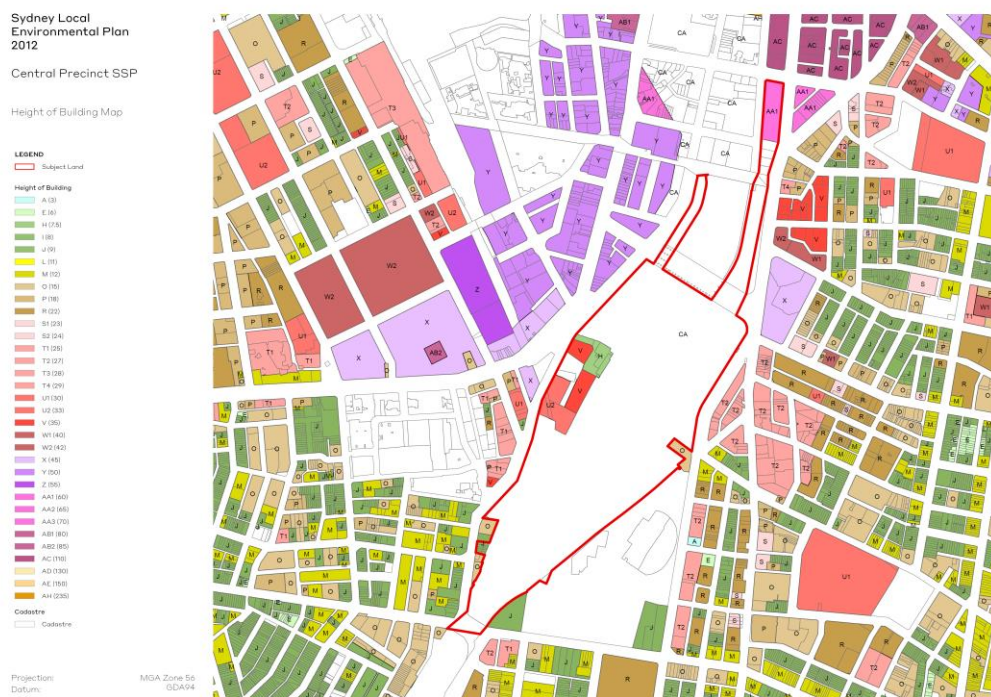


Figure 7: Existing height of buildings map
Source: SLEP2012 (2022)



Figure 8: Existing heritage map

Source: SLEP 2012 (2022)

Sydney Development Control Plan 2012

The Sydney Development Control Plan 2012 (the SDCP2012) supports implementation of the SLEP2012 by providing further, more detailed guidance for development. It addresses LGA wide matters such as ecologically sustainable development, heritage, transport and parking, Central Sydney specific matters such as street frontage heights, setbacks, wind safety and comfort, and matters specific to parts of Central Precinct.

Central Sydney Development Contributions Plan 2020

The Central Sydney Development Contributions Plan 2020 (the Contributions Plan) enables the City of Sydney to apply a levy upon development to help contribute to the delivery of public amenities and public services. This includes open space such as upgrades to Hyde Park and Belmore Park and roads, traffic and transport facilities such as cycleways, street upgrades and pedestrian crossings. Council may accept works-in-kind, land dedication and material public benefits instead of paying the levy. Planning agreements are typically used to secure these alternatives.

6.4 Other planning documents

Central Precinct is affected by a number of other planning documents. This includes:

- Sustainable Sydney 2030 (City of Sydney, 2017)
- Future Transport Strategy 2056 (TfNSW, 2018)
- NSW Infrastructure Strategy 2018-2038 (NSW Government, 2018)
- NSW Economic Blueprint (NSW Treasury, 2019)

- Better Placed (GANSW, 2017)
- Greener Places (GANSW, 2020).

While covering a broad range of matters, overall they support and encourage well designed, sustainable development in places such as Central Precinct that are well serviced by infrastructure and that strengthen the economy, bringing a greater amount and choice of jobs to Sydney and NSW.

7. Case for change

Central Precinct is an important and iconic place

Central Precinct is one of Sydney's most important and iconic places. At the heart of Central Precinct is Central Station, Sydney's main train station, the heart of NSW's rail network and Australia's largest and busiest railway station. Comprising land above and around Central Station, Central Precinct consists of 24 hectares of State government owned land within Central Sydney stretching between Goulburn Street to the north, Cleveland Street to the south, Elizabeth Street to the east and Regent Street to the west. This is a strategic location at the gateway to Central Sydney, and a pivot point between Central Sydney and suburbs to the south.

Ongoing challenges

As Sydney has grown, a number of challenges have emerged for Central Station and Central Precinct. While exceptionally well connected to the rest of Sydney, integration with surrounding public spaces such as Railway Square, Belmore Park and Prince Alfred Park and the communities of Haymarket, Surry Hills, Redfern and Chippendale is generally poor. Large parts of the State heritage listed Sydney Terminal Building have not been publicly accessible for decades. Much of the area is underutilised having regard to its strategic location. There is evidence to suggest that Central Station and its surrounds is perceived to be unsafe.

Sydney Metro and Tech Central

Over the next few years, Central Precinct will be subject to a number of city-shaping interventions.

The opening of a new Sydney metro station in Central Precinct in 2024 will greatly improve the number and frequency of passenger trains serving Central Precinct, providing even better connectivity to the rest of Sydney. As part of Australia's largest public transport project and the biggest investment in public transport in Sydney since the 1980s, it will also result in a forecast doubling of transport patronage over the next 30 years to reach 450,000 passengers each day.

In advance of this, Transport for NSW has invested in the creation of Central Walk. Central Walk will provide a new world class concourse for Central Station, and will connect the metro and suburban platforms. Critically, it will traverse the entire width of Central Precinct, joining Railway Square in the west with Chalmers Street in the east.

Partnering with the rezoned Western Gateway sub-precinct, Central Precinct is also planned as a key part of Tech Central. Tech Central is planned to become the heart of Sydney's innovation and technology economy, and will drive the continued growth and evolution of Sydney as Australia's global city.

State and local planning policy

At the same time, as has already been identified, State and local planning policy has identified a need to further grow Central Sydney as an engine room of the Australian economy. While over the shorter term much of this growth is expected to occur within Central Sydney's existing physical footprint, over the longer term new areas need to be found to accommodate this growth.

Unique and highly valuable attributes

As Central Sydney is constrained on three sides by water and parkland, the natural direction for its future growth is south. Logically, the next step for such growth is Central Precinct.

In addition, Central Precinct also has a number of other, inherent, unique and highly valuable attributes that make it suitable to meaningfully deliver on the aims of the Central Sydney Planning

Strategy. Unlike many other parts of Central Sydney, it is a large, contiguous area in State government ownership. Perhaps most importantly, it is the only location in Sydney to be located above and around the city's main public transport hub. Consistent with NSW planning policy that seeks land use, infrastructure and transport integration, this provides an unparalleled opportunity to support significant growth. State government ownership also enables strategic and co-ordinated planning and delivery of this growth incrementally over a long term horizon in a way that can embrace best practice in other areas such as sustainability and design excellence.

Support for change

While acknowledging diversity of opinion, overall engagement with stakeholders and the community undertaken to date has consistently shown broad support for renewal of Central Precinct. In particular, people are keen to see a Central Precinct that is easier, safer and more comfortable to use, whilst also retaining the Precinct's heritage.

Delivering on State and local government planning policy

Renewal has the capability of delivering on State and local government planning policy. Of note, renewal can:

- meaningfully deliver on the need to provide additional, high quality employment floor space in Central Sydney consistent with the Region Plan, District Plan and Central Sydney Planning Strategy
- provide for the highest levels of land use and public transport integration consistent with the Region Plan, Future Transport 2056 and the State Infrastructure Strategy
- deliver improved place outcomes consistent with Better Placed
- provide opportunities to embrace connecting with Country consistent with the Connecting with Country Draft Framework
- create a greener place consistent with the premier's priorities and Greener Places
- catalyse improved connectivity between Sydney and the regions consistent with A 20-Year Economic Vision for Regional NSW
- help tackle climate change consistent with the NSW Government's ambitions articulated in the NSW Climate Change Policy Framework.

A city shaping opportunity

Taken together, Central Precinct presents a transformative, city shaping opportunity that can not only deliver the much-needed revitalisation of Central Station but also help achieve a range of key State and local government planning policies that will secure the long term success of Central Sydney as the economic powerhouse of NSW, and enable a global benchmark of sustainable development.

8. The proposal

The proposal comprises:

- a **vision** that outlines the desired future for Central Precinct
- **directions** that support the vision, providing further detail on its key ideas
- a **structure plan** that translates the vision and directions into physical outcomes
- a **planning framework** that seeks to implement the vision, directions and structure plan in a manner consistent with NSW planning standards.

The proposal has a close relationship with the NSW Government endorsed Strategic Framework for Central Precinct. In particular, the vision and directions are largely consistent with the vision and planning priorities that were publicly exhibited, and reflect community and stakeholder feedback received as part of this process. Similarly, the structure plan further develops and refines the preferred precinct plan that was also exhibited as part of the Strategic Framework.

8.1 Vision

The vision for Central Precinct is:

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.



Figure 9: Indicative image of the future Central Green

Source: Tyrell Studio (2022)

8.2 Directions

The directions for Central Precinct are arranged around five themes, these being:

1. Place and destination
2. People and community
3. Mobility and access
4. Economy and innovation
5. Sustainability.

These directions, which were referred to as planning priorities under the previously exhibited Strategic Framework, are set out below.

Place and destination

- Uniting the city by reconnecting with the surrounding suburbs
- Shaping a great place that is vibrant, diverse, active, inclusive and has a high level of amenity
- Delivering a precinct which responds to its urban context and embeds design excellence
- Improving existing and providing additional connected public space in the precinct of high environmental amenity and comfort
- Protecting and celebrating the precinct's heritage values
- Creating a people focussed precinct through a focus on public transport, cycling and walkability
- Facilitating the precinct's focus on transport and economic diversity in tourism and across commercial sectors including office, business and retail

People and community

- Designing public spaces that promote health, equality and wellbeing
- Promoting social cohesion by providing spaces for gathering, connection, exchange, opportunity and cultural expression
- Honouring and celebrating the cultural heritage and identity of the precinct's past and present Aboriginal community
- Creating a safe and intuitive precinct that promotes social access and inclusion
- Supporting programs and initiatives that benefit communities and people
- Creating 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

- Providing a world class, integrated and seamless transport interchange
- Maintaining the precinct's role as NSW's main transport interchange
- Improving the transport customer experience, including wayfinding, pedestrian flows and interchange between different transport modes
- Facilitating and enhancing connections within and towards key locations in southern Central Sydney
- Delivering a people focussed precinct that is walkable, well connected, safe and puts people first
- Designing infrastructure that will adapt to future changes in transport and mobility

Economy and innovation

- Advancing Sydney's status as a global city
- Supporting 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
- Providing an active and diverse commercial hub with a rich network of complementary uses that nurture and support business
- Supporting both the day and night economies of the precinct through diverse and complementary uses, promoting liveability and productivity
- Fostering collaboration between major institutions in the precinct including transport, education, health and business
- Creating a smart precinct that incorporates digital infrastructure to support research and innovation

Sustainability

- Taking a whole-of-life approach to sustainability through planning, design, construction and ongoing precinct management
- Maximising resource efficiency to contribute to net zero emissions by 2050
- Strengthening the precinct's resilience to urban hazards such as wind, air quality and noise and potential shocks and stresses, including climate change
- Enabling positive social and community outcomes including through promotion of a healthy community, high levels of amenity and social workforce opportunities
- Enhancing biodiversity through the greening of public and private spaces and increasing tree canopy coverage
- Embedding sustainable procurement throughout the precinct's development, activities and uses

8.3 Structure plan

The structure plan (**Figure 10**) translates the vision, planning priorities and directions into a physical plan for the future of Central Precinct.

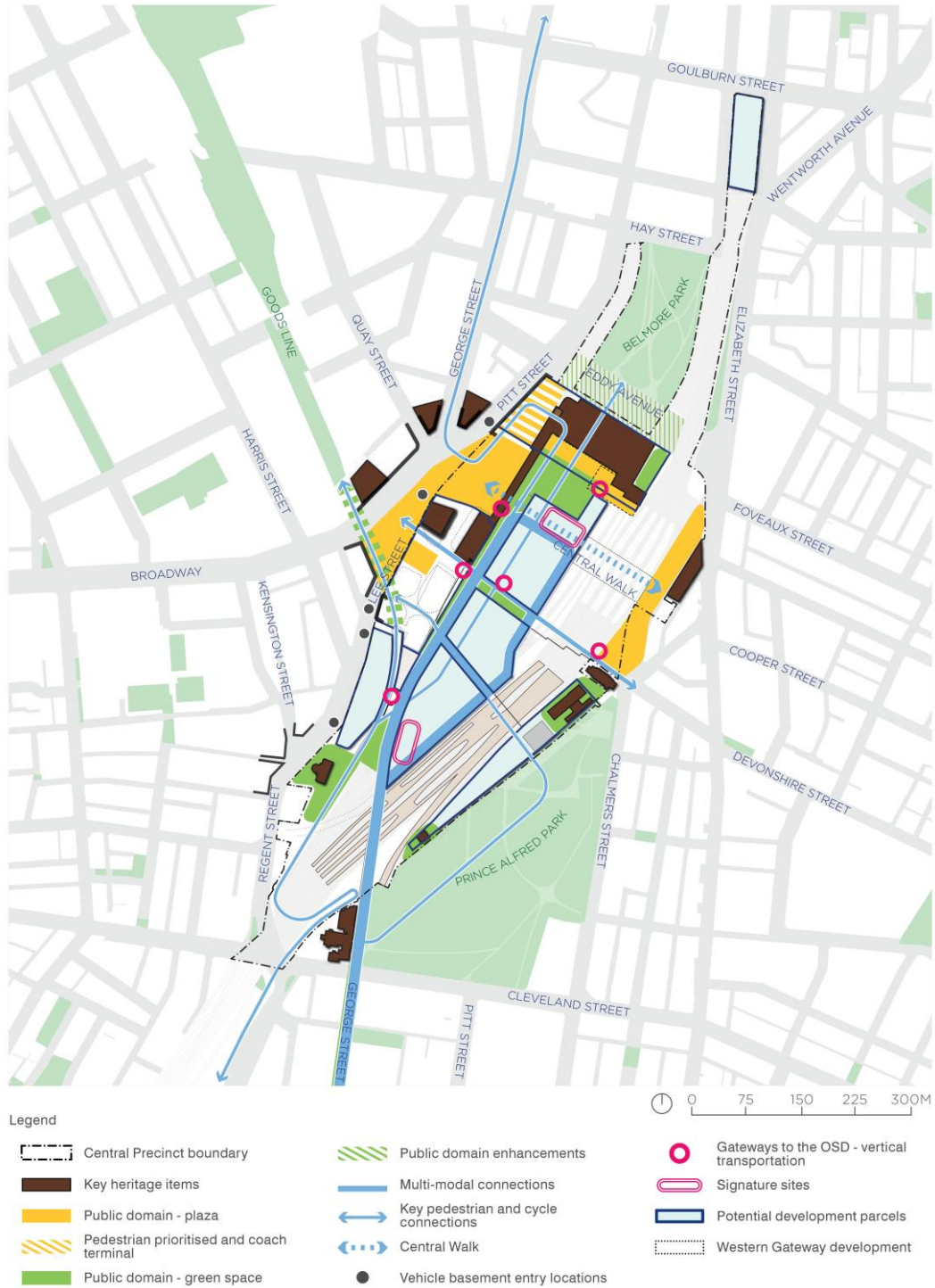


Figure 10: Structure plan
Source: Architectus (2022)

8.4 Key outcomes

The Structure Plan facilitates a number of key precinct and city shaping outcomes that are discussed below.

CBD south extension

The renewal of Central Precinct will support the function and growth of the CBD to the south with a variety of land uses as set out in Table 1.

Table 1 Breakdown of proposed land uses

Land use	Approximate GFA (m ²)
Commercial	269,500m ²
Retail	22,850m ²
Education/ Tech	47,250m ²
Community/ Cultural	14,300m ²
Residential	84,900m ²
Hotel	53,600m ²
Student Accommodation	22,500m ²
Total	514,900m²

It is also noted that the Western Gateway sub-precinct which was the subject of a separate rezoning includes a total GFA of 275,000 square metres. A breakdown of the GFA proposed within each development block is provided in **Figure 11** below.

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



Figure 11: Proposed GFA for each development block

Source: Architectus (2022)

An innovation and technology precinct

Consistent with the intent of Central Precinct to catalyse Tech Central the proposal has the capability of delivering approximately 269,500 square metres of new A-grade business floor space, with a particular focus on innovation and technology uses including collaboration and start-up space.

To create a complete innovation and technology ecosystem, the proposal also includes capacity for a range of complementary uses.

Recognising the synergies with education, importantly this includes around 47,250 square metres (approx.) of education / tech floor space to extend and strengthen the higher education focus of the Broadway corridor.

To ensure an active, vibrant, 24 hour precinct, the proposal has the capacity of delivering 22,850 square metres (approx.) of retail floor space, including shops, restaurants and cafes. While the intent is for these uses to be at the ground level of buildings adjoining publicly accessible open spaces, streets and lanes, the planning framework also enables these uses to be located in a range of possible locations, including basements and rooftops.

The proposal is also capable of delivering around 76,100 square metres (approx.) of hotel and student accommodation. Hotel floor space is much needed in Central Sydney, and will provide accommodation for people visiting innovation and technology businesses above one of the most connected locations in Sydney. The intent is for the majority of this hotel floorspace to be contained within the northern signature building, providing activation for this northern end, high levels of amenity for occupants and scope for an innovative, high quality architectural response. The student accommodation is planned to be located in the southern signature building, bookending the precinct with uses that are active after business hours.

A total of 84,900 square metres (approx.) of residential accommodation floor space is proposed in the Regent Street Sidings and Goulburn Street carpark sub-precincts. This will provide for around 850 dwellings, including the commitment to deliver 15% of any new residential floorspace as affordable housing. Following public exhibition of the SSP Study by DPE, TfNSW will look to target a further 15% of new residential floorspace to be delivered as diverse housing within the precinct, including Build to Rent (BTR), with this being subject to further economic modelling and governance considerations. This approach would align with both Redfern North Eveleigh and Central Precinct with the same requirements for affordable and diverse housing. This further contributes to the delivery of a greater housing choice and affordability in one of Australia's most challenging housing markets. Importantly, the location of housing responds to established adjoining residential areas in Chippendale and Surry Hills, and is not located on the over-station development (OSD) deck.

Jobs and the economy

Overall, the proposal has the capacity to deliver around over 510,000 square metres of GFA. It is forecast that this provides the capability of delivering an average of 672 construction jobs per year and 16,212 (including work for home scenarios) additional long term jobs once complete and operational. This will provide a significant boost to the Sydney and NSW economy, in particular as the economy recovers following the acute stages of the COVID pandemic over 2019-21, and will position it well to take advantage of new and emerging, high value industries.

Public domain

Supporting the creation of an innovation and technology precinct is a high quality, integrated network of public and publicly accessible spaces. More than just providing spaces for movement, the public domain is intended to be a destination in itself, with scope for public art, programming

with events and activation by adjoining uses. The Precinct will comprise two main types of public domain, these being:

- open space
- streets, laneways and through-block links.

Open space

The proposal will deliver over two (2) hectares of new and improved publicly accessible open spaces, including the major new space of Central Square and Central Green.

Adjoining Central Station to the west, Central Square will be the first of Jan Gehl's vision of three major civic squares for Sydney. The square will anchor the southern end of the newly revitalised George Street, will ultimately connect with Railway Square and will provide a much improved western entrance to Central Station (refer **Figure 12**).

At 7,000 square metres (approx.) in area, the square is intended to cater for a range of activities, including organised events.

Adjoining Central Square to the east is Central Green. Central Green (6,000 square metres approx.) will be the OSD's main publicly accessible space. Due to its orientation and layout, Central Green will receive extensive sunlight during most hours of the day. Taking advantage of this, the green is intended to primarily be a green space, with a large central area to be planted and used for informal recreation activities. The green is intended to be adjoined to the south and east by active uses such as cafes and restaurants, providing for activation day and night. The western end of the green will provide views across Central Square to Railway Square and Broadway. Critically, for the first time the green will open up views in the close range public domain to the southern elevation of the Sydney Terminal Building and its clock tower. The green will be connected to the adjoining Grand Concourse by the Grand Staircase, which will provide for an elegant, high capacity flow of people between Central Station and the OSD.

Mortuary Station Plaza (4,470 square metres) at the southern end of Central Precinct will surround and open up public access to Mortuary Station (refer **Figure 13**).

Other publicly accessible open spaces will include upgrades to Eddy Avenue Plaza as one of Central Station's main pedestrian entries from the north, and upgrades to the Ibero-American Plaza at Central Precinct's interface to Chalmers Street and Surry Hills, while protecting its cultural significance to the local community.



Figure 12: Indicative image of the future Central Square

Source: Tyrrell Studio (2022)



Figure 13: Indicative image of the future Mortuary Station Plaza

Source: Tyrrell Studio (2022)

Streets, laneways and other movement corridors

The proposal will deliver an integrated network of vibrant, high quality streets, laneways and other movement corridors.

As Central Precinct's new main street, Central Avenue will follow the former path of George Street, connecting Central Sydney to Redfern. At between 15 – 24 metres in width, the avenue will be able to accommodate both large flows of pedestrians, as well as space for gathering and interaction. It is intended that the eastern edge of the avenue will be lined with shops, cafes and restaurants (**Figure 14**). Central Avenue is intended to be designed with capacity to accommodate autonomous vehicles for managed universal access and other limited reasons.

Intersecting Central Avenue is the Devonshire Link (refer **Figure 15**). Similar to Central Avenue, Devonshire Link traces the former alignment of Devonshire Street, forming Central Precinct's main east-west street and providing improved pedestrian and cyclist connectivity between Central Sydney, Haymarket and Surry Hills. At a width of 15 metres, Devonshire Link also has capacity to accommodate large flows of pedestrians as well as active uses at its edges.

To the east of Central Avenue is the proposed north-south link. At 6 metres in width and open to the sky, this link is intended to be an intimately scaled, active laneway and has opportunity to become an 'eat street' similar to other revitalised laneways in Central Sydney such as Ash Street.

A supporting network of other open to the sky laneways generally running east-west through the Precinct will provide for more publicly accessible space and improve walkability. This is complemented by a number of through-block links similar in character to those at Barangaroo.

A colonnade having a generous, double storey height and connecting to and engaging with community facilities is planned along the eastern edge of the OSD (refer **Figure 16**).

Three new active transport over-rail bridges are proposed to provide better connectivity between Central Station, Central Sydney, Chippendale, Surry Hills and Redfern. An indicative image of the Central Avenue over-rail bridge is shown at **Figure 17**. The proposed revitalisation of The Goods Line will help better connect Mortuary Station Plaza to UTS, Darling Harbour and Ultimo.



Figure 14: Indicative image of the future Central Avenue

Source: Tyrrell Studio (2022)



Figure 15: Indicative image of the future Devonshire Link
Source: Tyrrell Studio (2022)

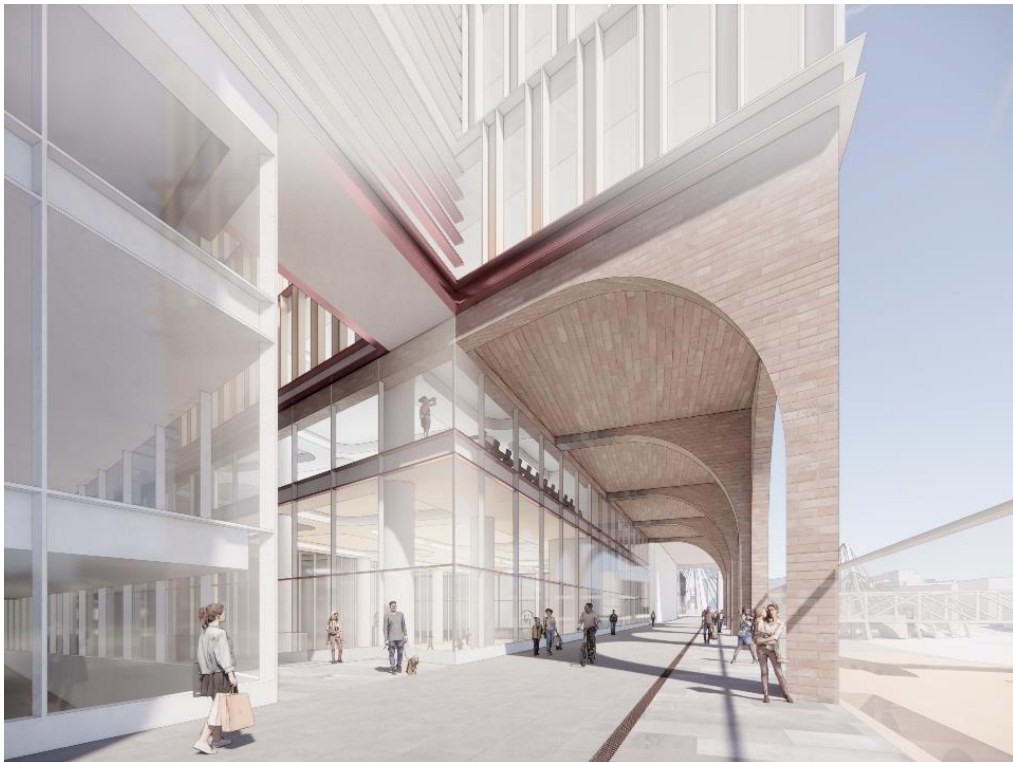


Figure 16: Indicative image of the Eastern Colonnade
Source: Tyrrell Studio (2022)



Figure 17: Indicative image of the future Central Avenue over-rail bridge

Source: Tyrrell Studio (2022)

Built form

The public domain carves out a number of development blocks that provide opportunities for new built form.

Reflecting the overall, prevailing height pattern of Central Sydney, built form generally steps up in height from east to west and from south to north. As a consequence, the tallest buildings are located in the Regent Street Sidings sub-precinct and in the Northern OSD sub-precinct next to the Western Gateway, while lower rise buildings will be located closer to Prince Alfred Park. While subject to further development as part of the subsequent development application process, the proposal provides scope for 12 new buildings ranging from RL55 metres (approximately 9 storeys) in height to RL204 metres (approximately 39 storeys) in height.

Consistent with much of Central Sydney, most built form is proposed to be in a podium and tower typology. This includes being built to the adjoining public domain, with setbacks at upper levels. A number of measures are being put in place to manage the actual and perceived bulk of this typology. This includes separation through streets and laneways, orienting buildings with their long faces perpendicular to Prince Alfred Park and maximum building dimensions. In addition, these provisions, together with finer grain detail such as the rounding of building corners, are intended to deliver amenity outcomes for the adjoining public domain in the form of sunlight, daylight and comfortable and safe wind conditions.

Varying the podium and tower typology are lower scale buildings located between Central Avenue and the north-south laneway, and in the Prince Alfred Sidings sub-precinct. The Central Avenue buildings have been deliberately designed as lower rise, podium typologies, providing for substantial separation between the Western Gateway and towers within the OSD blocks, allowing for greatly improved sunlight, daylight and wind outcomes compared to other alternative configurations.

Recognising the desire to achieve an active, vibrant public domain, the proposal also calls for a high level of integration between buildings and the adjoining public domain, including through minimising level changes, active ground level uses and openings to allow for more free flow between indoor and outdoor spaces. The proposal will also encourage innovative built form

approaches such as the ‘daylighting’ of innovation and technology uses, where passing pedestrians can observe such activities taking place.

As part of the DA process, buildings and their adjoining spaces will need to exhibit design excellence in architectural and landscape design. This is intended to be managed through a range of processes, including design excellence competitions for key sites. This ensures a high level of rigour in any future detailed design process and is considered fundamental to maximising design quality within the Precinct. The proposal has been designed to have sufficient room between the planning and building envelopes to facilitate genuine massing variation and appropriate façade articulation as part of the design excellence process.



Figure 18: Indicative image of the future OSD development

Source: Architectus (2022)



Figure 19: Indicative image of the future Prince Alfred Sidings sub-precinct

Source: Architectus (2022)

Heritage

The proposal embraces heritage as a key part of Central Precinct. While it is acknowledged that the proposal will develop over the intercity platforms, they will continue to be used for rail purposes as part of a revitalised Central Station, and any change will be guided by a comprehensive Conservation Management Plan (CMP).

In addition to protecting key heritage items such as Sydney Terminal Building and its clock tower, Mortuary Station, the Railway Institute Building and the Electric Sub-stations, the proposal also encourages their sensitive, adaptive re-use. This has the potential of opening up long hidden parts of the Sydney Terminal Building, opening of Mortuary Station (and surrounds) and the Goods Line for regular public access and using Electric Sub-stations for innovation and technology uses.

The landmark Broadway view corridor to the clock tower will be retained, with no new buildings breaking the silhouette of the clock tower when seen from Railway Square, the new Central Square and the Western Forecourt. In addition, the creation of Central Green and Central Avenue will open up new, expansive views from newly created public domain in the close range of the southern elevation of Sydney Terminal Building and its clock tower for the first time.

While a level of change to the context of Central Station is inevitable with a proposal of this ambition, new buildings of scale have been setback at least 60 metres from the southern elevation of the Sydney Terminal Building and over 100 metres from its clock tower.

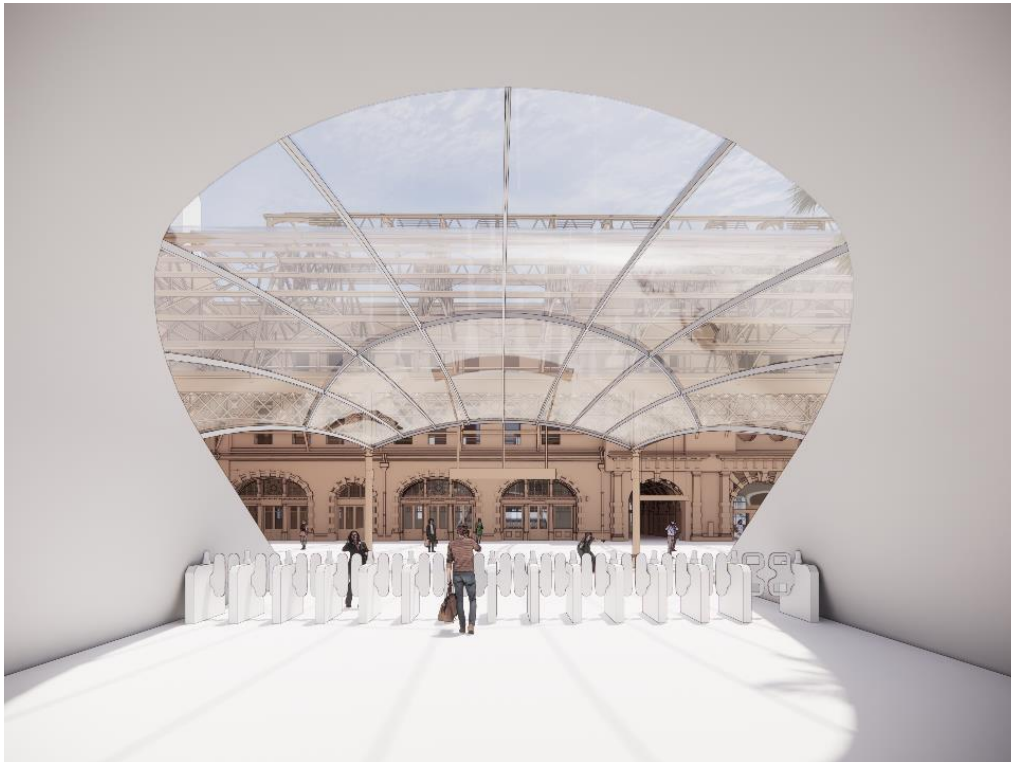


Figure 20: Indicative image of threshold from platforms to Grand Concourse

Source: Architectus (2022)

Transport

In addition to retaining Central Station as Sydney's main train station, the heart of NSW's train network and a key public transport interchange, the proposal will restore the station as a world class transport interchange and shape it as a destination in its own right.

The proposal also leverages the step change in accessibility arising from the opening of the new metro station in 2024 by better integrating Central Station into its surrounds and positioning it to catalyse further renewal in the broader southern Central Sydney area.

The proposal has also been designed to enable delivery of the NSW Government's plan to better connect Sydney and the regions, facilitating an increase in the capacity of intercity and regional trains by providing the impetus for new platforms and new track alignment.

Social and community facilities

To support the new innovation and technology ecosystem and help bring the precinct and surrounding local community together, the proposal includes around 14,300 square metres (approx.) of community / cultural space floor space. This will include a 4,000 square metres, flexible, multi-use facility, 400 square metres for a local community facility, 400 square metres for a social/health services hub and the potential for 60 childcare places. Importantly, recognising the historic and current importance of Central Station to our first nations peoples, TfNSW also intends for the Precinct to deliver 1,000 square metres for an Aboriginal community and cultural space.

Sustainability

In accordance with the NSW Government's aspirations and the directions, the proposal seeks to create a low carbon precinct that achieves net zero emissions by 2050.

While optimising land use above and around Sydney's main train station is an inherently sustainable form of development, the proposal implements a number of measures to help achieve this outcome. This includes having a compact, walkable layout, ensuring no carparking spaces for OSD uses, having capacity for an integrated, central utilities plant, encouraging buildings that breathe where natural ventilation is enabled for outer parts of buildings and requiring leading Green Star and NABERS ratings across the precinct and for individual buildings.

Climate change and the urban heat island effect is proposed to be addressed through the extensive public domain trees and vegetation planting, including a target of over 50% green cover for Central Green and almost 50% green cover for Mortuary Station Plaza, as well as other measures such as requiring 25% of building roof top space as being capable of supporting roof plantings.

Connecting with Country

The proposal has been informed by the advice and recommendations of leading Aboriginal design and strategy consultants, which has also included engagement with Aboriginal knowledge holders. Deriving from this, a number of Aboriginal narratives have helped shape the proposal. This includes the opportunity to re-connect with the natural aspects of Country by providing scope to reference the original dune landscape in Central Green, honouring the significance of Platform 1 to Aboriginal Australians through public art and providing for continued Aboriginal involvement as part of the future development application DA process.

Amenity

The proposal commits to achieving high levels of amenity for the public domain and occupants of buildings.

Critically, the proposal complies with the existing City of Sydney sun access planes for Prince Alfred Park and Belmore Park, ensuring sun access at key times of the day. Due to its location and orientation, Central Green will achieve high levels of sunlight. Other parts of the public domain will receive sunlight or daylight, with many areas comparing favourably to other parts of Central Sydney including newly completed spaces.

While acknowledging the more challenging wind conditions that effect Central Precinct due to its location at the edge of Central Sydney, with limited use of mitigating structures, wind conditions in the public domain meet City of Sydney standards for safety and comfort.

8.5 Reference master plan

A reference master plan was prepared to help shape the planning framework, test its capability to deliver on the vision in accordance with the planning principles and directions and illustrate one way in which Central Precinct may develop in the future.

The reference design confirmed that the outcomes identified in **Section 8.4** are possible.

Figure 21 to Figure 23 provide illustrations of how the built form massing within the Central Precinct may look in the future should development proceed in accordance with the reference master plan.

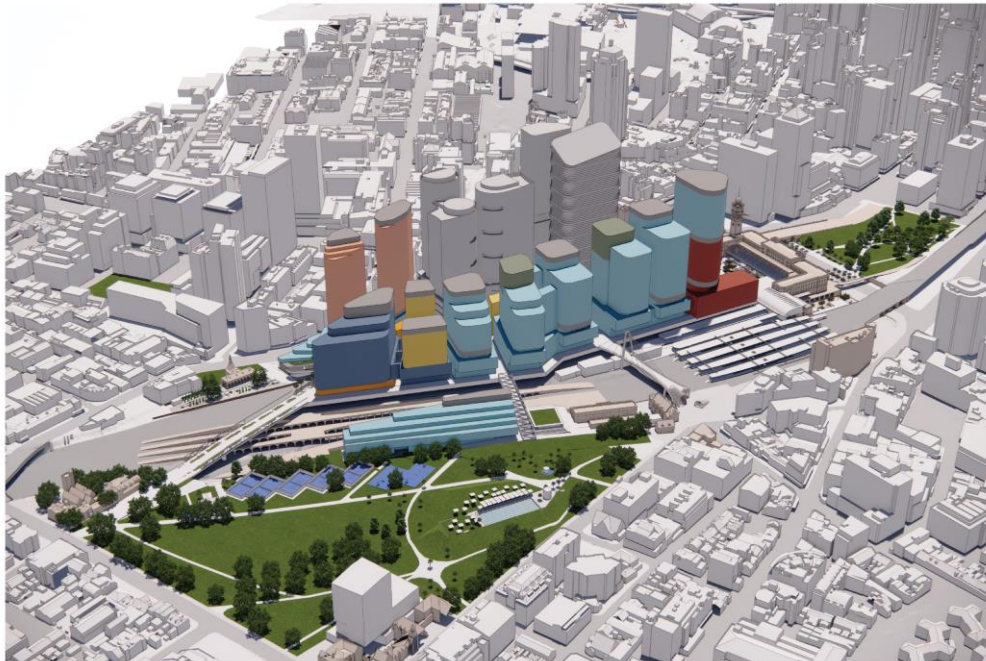


Legend

- | | |
|--|---|
|  Commercial |  Residential |
|  Education and technology |  Student housing |
|  Community and cultural |  Hotel |

Figure 21: Reference master plan

Source: Architectus (2022)



Legend







- | | |
|--|---|
|  Commercial |  Residential |
|  Education and technology |  Student housing |
|  Community and cultural |  Hotel |

Figure 22: Reference master plan seen from the south-east
Source: Architectus (2022)



Legend

- | | |
|--|---|
|  Commercial |  Residential |
|  Education and technology |  Student housing |
|  Community and cultural |  Hotel |

Figure 23: Reference master plan seen from the north-east
Source: Architectus (2022)

8.6 Planning framework

As the existing planning framework does not enable the vision to be achieved for Central Precinct, it needs to be amended. Amendments are proposed as follows:

- **Statutory plan:** change existing provisions, and include them in the Sydney Local Environmental Plan 2012 (SLEP 2012)
- **Design guide:** establish the Central Precinct Design Guide to support and provide more detailed guidance for the statutory plan
- **Other amendments:** changes to other environmental planning instruments considered appropriate to support the outcomes intended to be achieved for Central Precinct.

8.6.1 Statutory plan

The statutory plan covers a range of matters. Key matters include identifying the consent authority, limiting the height of buildings and requiring design excellence. A number of other matters are also addressed, including confirming the intent to retain existing streamlined provisions for decisions on certain types of infrastructure.

Land use zones and permissibility

The main intent for land use zones and permissibility is to continue to enable the existing broad range of railway and associated uses while facilitating a jobs focussed precinct supported by a range of complementary hotel, education, residential, recreation and community / cultural uses.

To achieve this, the following is proposed for the Land Zoning Map of the SLEP 2012 (as shown in **Figure 24**):

- maintaining existing Zone SP2 Infrastructure (Railways) for the suburban rail lines
- maintaining existing Zone SP2 Infrastructure (Railways) for the Sydney Terminal Building (including ancillary areas such as the Western Forecourt)
- maintaining existing Zone SP2 Infrastructure (Railways) for the Goods Line
- amending existing land use zoning to include areas in the public domain with a predominant recreation function in Zone RE1 Public Recreation (including Central Square, Central Green, Mortuary Station Park and Eddy Avenue Plaza)
- amending existing land use zoning to include the Regent Street Sidings sub-precinct in Zone B4 Mixed Use
- amending existing land use zoning to include the remainder of the Central Precinct in Zone B8 Metropolitan Centre
- including additional permitted use provisions to ensure continued use of the land for railway purposes.



Figure 24: Proposed land zoning map

Reason for proposed land use zoning

The existing land use zoning that applies to Central Precinct does not allow for the development envisaged by the Structure Plan to be delivered. Notably, the proposed changes to Central Precinct’s land use zoning will support the delivery of a broad mix of land uses and new publicly accessible open space proposed for Central Precinct.

The proposed B8 Metropolitan Centre zone currently permits a wide range of land uses, including commercial office, retail, hotel, student accommodation, residential and cultural and community facilities. The objectives of this zone also align with the desired future character of the Central Precinct as a tech and innovation destination within the broader Tech Central District.

The proposed B4 Mixed Use zoning will also support a mix compatible land uses at the Regent Street Sidings sub-precinct and the Eastern Gateway sub-precinct. These fringe sub-precincts will have more of a residential focus that will be compatible with the adjacent land uses to the west in Chippendale, and to the east in Surry Hills.

The RE1 Public Recreation zone has been proposed for areas intended to be for the purposes of publicly accessible open space. The allocation of this zone for these areas sets a clear commitment to the provision of new areas for publicly accessible open space that will support the recreational needs of workers, visitors and residents of Central Precinct.

The proposed SP2 Infrastructure zone has been retained for the Sydney Terminal building and western forecourt, and areas intended to remain as open air rail corridor. This will allow these areas to continue their function of supporting the Sydney's rail network.

Height of buildings

The main intent for height of buildings is to allow for the delivery of new jobs floorspace while protecting heritage and ensuring high quality amenity conditions in the public domain, in particular for Prince Alfred Park, Belmore Park, Central Green and Central Avenue.

To achieve this, the following is proposed for the Height of Buildings Map of the SLEP 2012:

- maintaining no maximum building height for suburban rail lines
- maintaining existing maximum building height for the Sydney Terminal Building (current building height)
- establishing a mapped maximum building height for all other areas on a block basis ranging from RL 55 metres (AHD) to RL 204 metres (AHD) (refer **Figure 25**)
- applying no height limit to Goulburn Street carpark sub-precinct, with the Belmore Park sun access plane setting the maximum allowable building height to this land (refer further below regarding sun access planes)
- applying a maximum building height of RL 35 metres (AHD) for the future finished ground level of the OSD for public domain, including Central Green and Central Avenue
- applying a maximum building height of RL 39 metres (AHD) for southern end of west wing building to allow for a future pavilion in this location.

For Regent Street Sidings sub-precinct, it is noted that the proposed maximum building height of RL 180 metres exceeds both the prescribed airspace of the Radar Terrain Clearance Charts (RTCC) and the Obstacle Limitation Surface (OLS) as they currently apply to this part of Central Precinct (surface height at RL 152.4 metres for the RTCC and RL 134.55 metres for the OLS). To ensure the operation of Sydney Airport is not compromised by any proposed development that penetrates the RTCC and OLS surface heights, Clause 7.16 of the SLEP 2012 and a proposed site-specific provision will require consultation and confirmation from the relevant airspace authority and Commonwealth body that there is no objection to exceeding the prescribed airspace of the RTCC and/or the OLS.

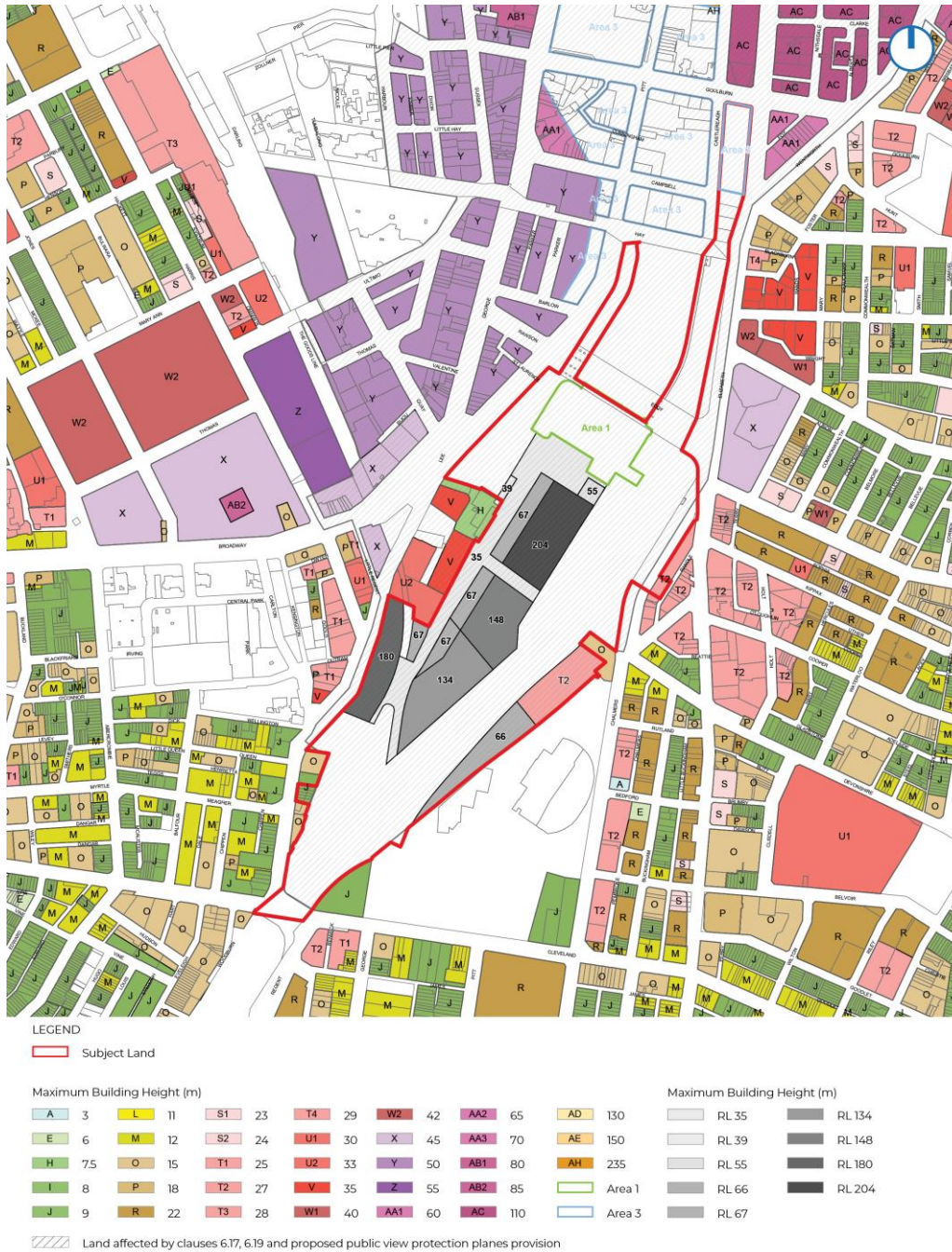


Figure 25: Proposed height of buildings map

Reason for proposed height of buildings

The proposed height of buildings aims to support the delivery of taller buildings within the Central Precinct as an extension of the southern CBD. Accordingly, a balance has been struck between the main considerations affecting the height of development in the precinct including solar access, appropriate sky view factor outcomes, comfortability of the public domain, limiting impacts on heritage elements, and safety of aeronautical operations.

To protect the delivery of publicly accessible spaces on the OSD level, a maximum building height of RL 35 metres (AHD) has been adopted which is aligned to the future finished floor level of the OSD deck. This will prevent buildings from being developed in these locations in order to protect other publicly accessible spaces of Central Precinct, such as Central Avenue and the Devonshire Link.

Sun access planes for Prince Alfred Park and Belmore Park

The existing sun access planes for Prince Alfred Park and Belmore Park under clause 6.17 of the SLEP 2012 will apply to future development at Central Precinct. Where a sun access plane intersects and is lower than the maximum building height shown on **Figure 25**, it will take precedence in setting the maximum height of buildings in the Central Precinct.

The coordinates provided for the sun access plane for Prince Alfred Park are equivalent to a 20m high frontage along the Central Precinct's boundary with Prince Alfred Park.

The coordinates for the sun access plane for Belmore Park are equivalent to:

- a 35m frontage height above the western side of Pitt Street from Barlow Street to Hay Street;
- approximately 25m frontage height above the northern side of Hay Street from Pitt Street to Castlereagh Street; and
- approximately 10m above the eastern side of Belmore Park.
- It is noted that variations under Clause 4.6 of the SLEP 2012 will not apply to development that contravene the sun access planes of SLEP 2012.

Through the application of these existing sun access planes on future buildings at Central Precinct, this will continue to protect sunlight access to Prince Alfred Park and Belmore Park.

Floor space ratio

As with height, the main intent for FSR is to support the future provision of new jobs floorspace while protecting heritage and ensuring high quality amenity conditions in the public domain. In addition, it is also intended to control the bulk and scale of new buildings.

To achieve this, the following is proposed for the Floor Space Ratio Map of the SLEP 2012:

- maintaining no maximum FSR for the suburban rail corridor and the Sydney Terminal building
- maintaining no maximum FSR for all proposed open spaces such as Central Square and Central Green and all streets, being Central Avenue and the Devonshire Street link
- maintaining the existing maximum FSR of 1.25:1 and 1.5:1 for 56-64 Regent Street, Chippendale
- amending existing maximum FSR for all other areas on a block basis ranging from 2.11:1 to 12.3:1
- limiting the amount of GFA for residential accommodation (as discussed directly below).

In terms of location, residential uses (except for student housing, build to rent and other non-strata titled forms) are intended to be limited to the periphery of Central Precinct in the Regent Street Sidings sub-precinct and the Goulburn Street sub-precinct. To limit the quantum of residential uses, a residential cap is proposed which was derived from the assumption that residential uses should form no more than around a third of the total new floorspace proposed. As such, the residential cap stipulates that no more than 107,400 square metres of GFA can be developed in the precinct for residential uses. The residential cap will be enforced through a provision in the LEP that limits the cumulative amount of residential accommodation GFA, as outlined in the Explanation of Intended Effect at **Attachment 9**.

This applies to all forms of residential accommodation as defined in SEPPs and the Standard Instrument. For the purposes of clarity, we have amended the Design Guide to also explicitly refer to build to rent housing and student housing (defined as co-living housing under the Housing SEPP).

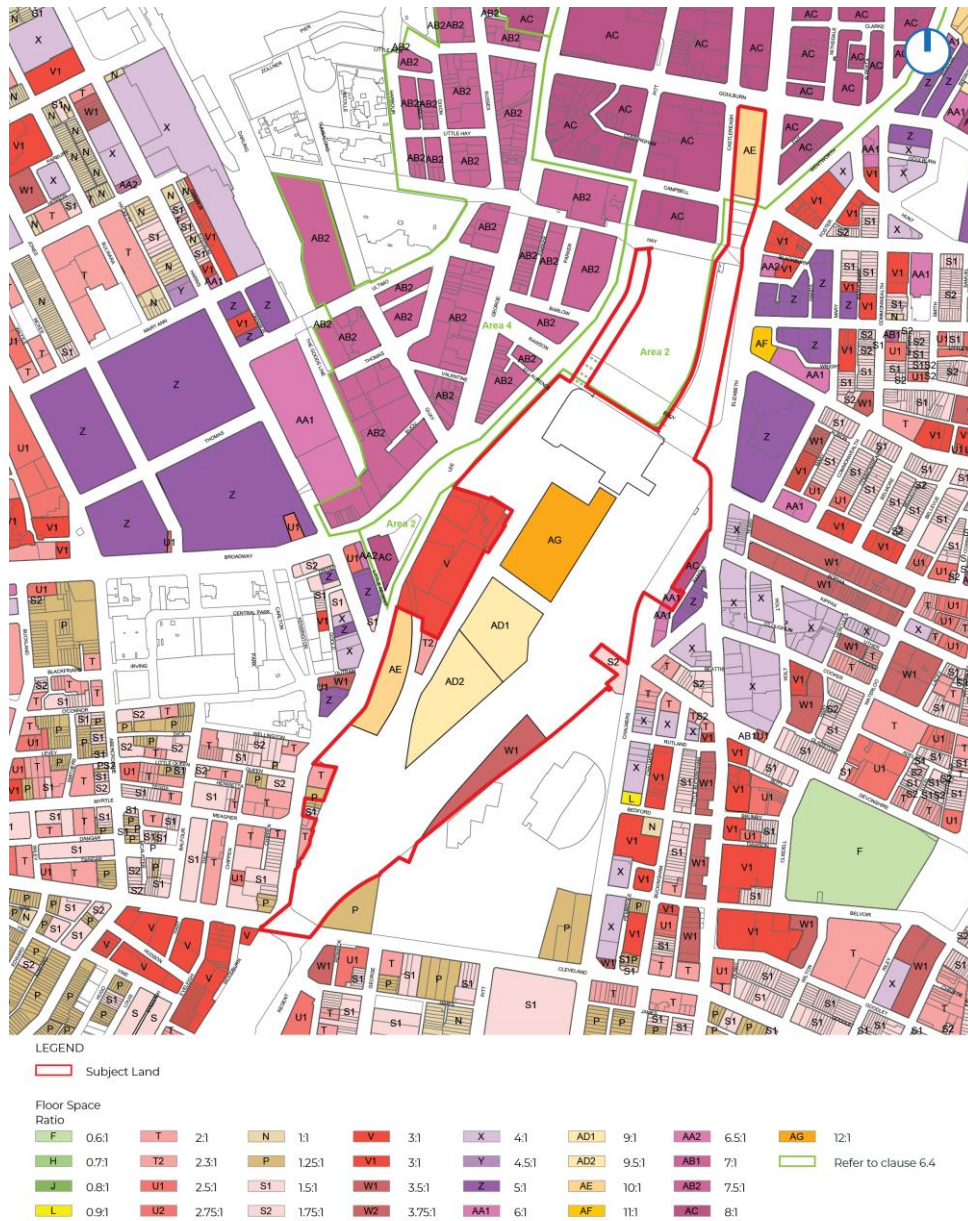


Figure 26: Proposed FSR map

Reason for proposed FSR

The proposed FSRs for Central Precinct will support the delivery of new floorspace to accommodate the envisioned land uses at Central Precinct, including a mix of employment, temporary accommodation, residential, community and cultural uses. The proposed limit on residential floorspace within Central Precinct will ensure employment floor space is prioritised while allowing the precinct remain vibrant and activated during day and night, in line with the intended outcomes for the broader Tech Central District.

Publicly accessible space

The main intent for publicly accessible space is to ensure the delivery of a high quality network of publicly accessible places within Central Precinct. To achieve this, the following is proposed as site-specific provision for Central Precinct under the SLEP 2012:

- include a publicly accessible space map (refer **Figure 27**) that defines the extent of primary publicly accessible spaces, including all open spaces such as Central Green and Mortuary Station Plaza, all streets (Central Avenue and Devonshire Street Link) and all laneways such as the north-south laneway
- include objectives for these spaces, in particular to facilitate walkability of the precinct, to have high levels of amenity considering wind safety and comfort, sunlight and daylight and to be vibrant and safe
- require the delivery of open spaces and streets in specific locations
- require the delivery of laneways in certain locations, but allow for reasonable flexibility in their ultimate alignment
- include controls to support the objectives, including requiring all primary publicly accessible spaces be open to the sky and establishing minimum widths.



Figure 27: Proposed publicly accessible space map

Reason for proposed publicly accessible space provisions

The proposed publicly accessible space mapping identifies the locations of the primary publicly accessible spaces including Central Green, Central Square, Central Avenue, Mortuary Station Plaza and Eddie Avenue Plaza. Accordingly, it provides certainty that these envisaged primary publicly accessible spaces will be delivered in accordance with the intentions of the SSP Study. Additionally, the proposed publicly accessible space mapping also earmarks the location of laneways, while allowing for flexibility to vary their ultimate alignment within the mapped location.

Heritage

The main intent for heritage is to conserve Central Precinct's heritage, including buildings such as Sydney Terminal Building, Mortuary Station and the Electric Sub Station, archaeological sites, and Aboriginal objects and Aboriginal places of heritage significance. For buildings, this includes allowing for their future, sensitively designed, adaptive re-use for uses such as offices.

To achieve this, it is proposed that the statutory plan maintain the existing provisions and the existing heritage listing of all of Central Precinct under the SLEP 2012 (refer **Figure 28**).

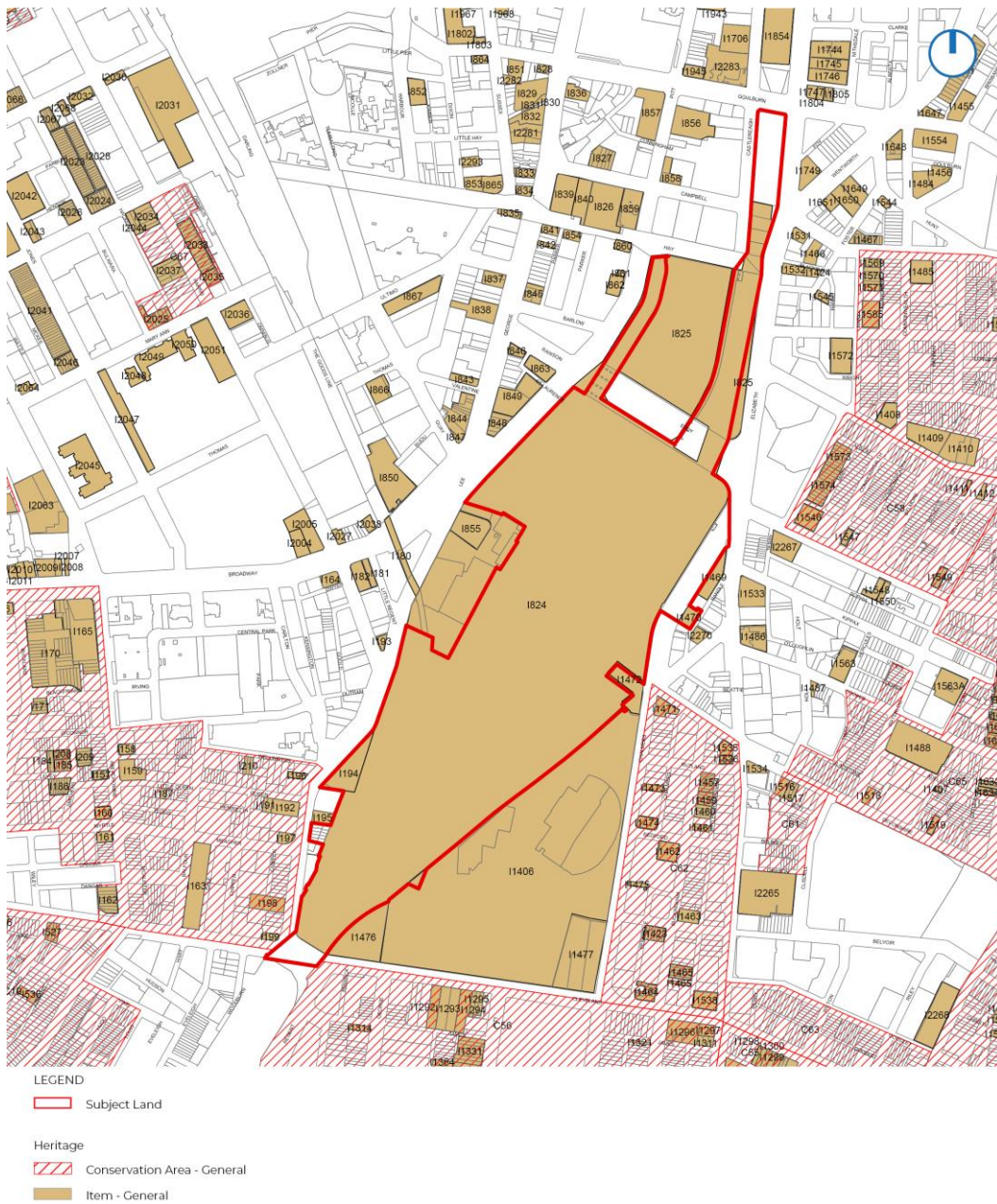


Figure 28: Existing heritage map

Carparking

The main intent for carparking is to reduce reliance on private vehicles as a mode of travel. To achieve this, the following is proposed:

- applying the most stringent maximum car parking rates in accordance with the SLEP 2012 (Division 1 ‘Car parking ancillary to other development’ as it applies to Public Transport ‘Category D’ and Land Use and Transport Integration ‘Category A’)
- adopting lower maximum car parking rates for certain non-residential uses, as identified in Table 2 below.

Table 2: Lower maximum car parking rates for certain non-residential uses

Land use	Rate
Student accommodation	0.1 spaces per room
Hotel	0.1 spaces per room
Commercial	1 space per 2000 m ² GFA
Retail	1 space per 2000 m ² GFA
Education	1 space per 2000 m ² GFA
Community	1 space per 2000 m ² GFA

Reason for proposed carparking

Being located above and around Central Station, the site is exceptionally well served by public transport. This includes rail, light rail and bus services. As such, minimal carparking rates are appropriate.

Design excellence

The main intent for design excellence is to ensure the highest standard of architectural, urban and landscape design within Central Precinct.

To achieve this, a site-specific provision is proposed that will require development including (but not limited to) buildings, parks and open space at the Central Precinct to demonstrate design excellence by undergoing a design excellence process in accordance with:

- a Design Excellence Strategy that has been agreed with the NSW Government Architect, or
- the City of Sydney Competitive Design Policy or the relevant NSW Government Architect competitive design policy at the time.

With the above site-specific provision proposed for the Central Precinct, Clause 6.21D 1-3 of the SLEP 2012 which outlines requirements for a competitive design process and additional floor space will not apply.

Reason for design excellence

The proposed site-specific provision for design excellence aims to give statutory weight to the Design Excellence Strategy prepared for Central Precinct (**Attachment 7**).

The Design Excellence Strategy prepared for Central Precinct (**Attachment 7**) has been informed by the GANSW and City of Sydney design excellence policies and builds upon these policies to create a bespoke design excellence framework that meets the needs of a precinct scale renewal project. The development of 24 hectares of rail infrastructure in an active and growing transport interchange requires a level of institutional knowledge, coordination, and compliance beyond what is typically required anywhere else in the City of Sydney.

The City of Sydney Competitive Design Policy (2020) is a key document that has informed this strategy, and it is recognised that the CoS competitive design excellence process has produced many high-quality buildings and places across the Sydney LGA. Whilst this is the case, the policy is focussed on the delivery of individual development sites and was not developed with the intention

of facilitating larger scale precincts. Central Precinct requires a more coordinated and considered approach that appropriately responds to the scale, diversity development complexity and governance that will be required to last for the duration of the precinct's renewal.

Accordingly, the design excellence strategy and the associated governance framework set out in the Design Excellence Strategy (refer **Attachment 7**) go beyond the scope and requirements of typical individual development sites within the City of Sydney. The proposed governance is aimed at ensuring the coordination, continuity, design diversity, independent design review and integration of design excellence across the entirety of Central Precinct.

Moreover, given the scale and complexity of Central Precinct, the Design Excellence Strategy includes three different types of design competitions, being:

1. Masterplan competitions
2. Key building design competitions
3. Key place design competitions

The combination of these competitions will appropriately ensure that all areas within Central Precinct will be the subject of at least one of the abovementioned design competition processes. Further detail on these design competition processes is provided in the Design Excellence Strategy (refer **Attachment 7**). The design excellence process follows the flowchart shown at **Figure 29**.

Importantly, the Design Guide sets out the objective for a bespoke design excellence approach to be established and includes a guidance for a Design Excellence Strategy to be prepared for Central Precinct. Accordingly, the preparation of the Design Excellence Strategy for Central Precinct fulfils this objective and guidance (refer **Attachment 7**).

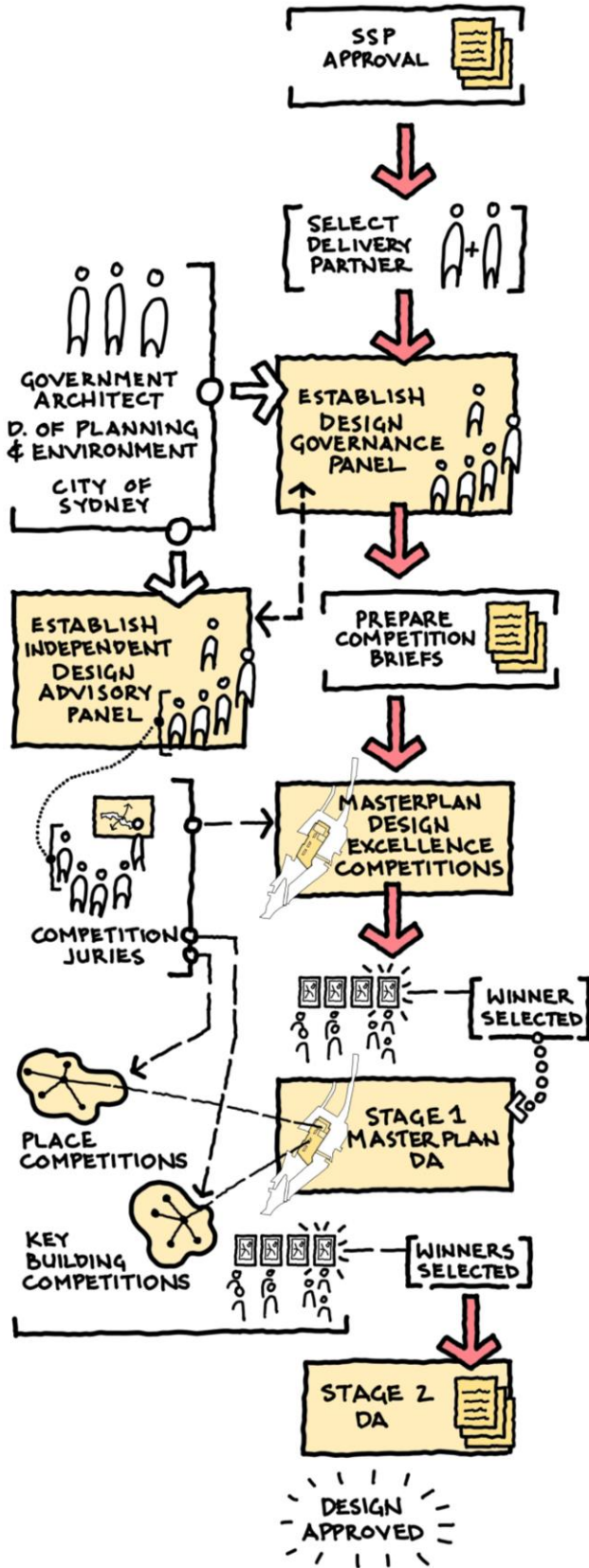


Figure 29: Design excellence process flowchart

Affordable housing

The main intent for affordable housing is to facilitate delivery of homes for people on lower incomes. To achieve this, the following is proposed as a site-specific provision:

- require a minimum 15% of new residential floor space be provided as affordable housing
- where this is not intended to be delivered, require payment of a monetary contribution equivalent to this amount for delivery of affordable housing in other parts of Sydney, in particular the Sydney LGA.

With the above provision proposed for the Central Precinct, Clause 7.13 of the SLEP 2012 which requires an affordable housing levy contribution levy for development in Central Sydney (3% of the total residential floor area and 1% of the total non-residential floor area) will not apply.

It is noted that following the public exhibition period, TfNSW will target for the Precinct, a further 15 percent of new residential floor space to be delivered as diverse housing (i.e. seniors housing, key worker housing, build to rent), subject to further economic modelling and governance considerations. Subject to confirmation, the requirement for a certain proportion of diverse housing will be adopted into a proposed site-specific provision in the SLEP 2012.

Transition to new employment zones

The Department is working to simplify the existing employment zones framework. Existing business and industrial zones will be removed on 1 December 2022. Equivalent employment zones under the new framework will apply to Central Precinct after 1 December 2022, should the rezoning be approved.

8.6.2 Design Guide

The main intent for the design guide is to ensure development achieves high quality outcomes for a range of more detailed matters, including for the public domain, built form, heritage, transport and sustainability.

To achieve this, it is proposed to include a provision in the statutory plan that requires consideration of the Central Precinct Design Guide.

Like the statutory plan, the design guide covers a range of matters. The role of the Design Guide will be to support implementation of the statutory controls by providing further detailed design guidance on the intended and required outcomes for the Precinct. Overall, it addresses:

- **vision and objectives:** the highest level outcomes that all development needs to achieve
- **structure plan:** the preferred layout of future development
- **sub-precincts:** provisions that are specific to particular smaller areas within Central Precinct to encourage detailed place outcomes
- **public domain:** provisions to achieve a high quality public domain, including the address of the Eastern Colonnade and through-block links
- **built form and design:** provisions to control the mass and shape of buildings, and how they interface with adjoining open space, streets and laneways
- **other matters:** covering important topics such as amenity, in particular seeking to ensure safe and comfortable wind outcomes in publicly accessible spaces, transport and sustainability.

8.6.3 Other changes

Changes to a small number of other State environmental planning policy is considered necessary to help facilitate the vision for Central Precinct.

Amendments are proposed to be made to:

- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (the Codes SEPP)
- State Environmental Planning Policy (Transport and Infrastructure) 2021.

State Environmental Planning Policy (Planning Systems) 2021

The State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP 2021) declares certain forms of development as State significant development (SSD). Under Schedule 1, section 19 of the Planning Systems SEPP, development within a rail corridor or associated with railway infrastructure that has a capital investment value (CIV) of more than \$30 million for any of the following purposes is declared to be SSD:

- commercial premises or residential accommodation
- container packing, storage or examination facilities
- public transport interchanges.

The above section of the Planning Systems SEPP 2021 will apply to much of the development envisaged by the proposed planning framework. However, not all the sub-precincts are located within or above the rail lines, and therefore would technically not be considered SSD in accordance with the above clause of the Planning Systems SEPP 2021. Notwithstanding this, the sub-precincts not located within or above the rail lines will still be physically connected and integral to the overall Precinct, for instance bridges connecting the OSD with the Prince Alfred Sidings, or the OSD connection directly with the Regent Street Sidings. It is therefore vital that all future development applications are assessed by the same planning authority and subject to the same planning requirements as this will help maintain consistency in governance, assessment, oversight and stewardship, which is critical to the Precinct's success given its complexity and long-term development horizon.

Moreover, the site is of State and regional planning significance, similar to other major long-term renewal precincts in the Sydney LGA (Bays Precinct Site, Darling Harbour Site, Broadway (CUB) Site and Redfern-Waterloo Sites) that are identified in Schedule 2 'State significant development – identified sites'. Therefore, future development in Central Precinct, should only be regarded as being of State significance under Schedule 2 of the Planning Systems SEPP for developments with a CIV of more than \$30 million, representing a similar approach to that taken for the Waterloo Metro Quarter.

As such, it is proposed to amend Schedule 2 of the Planning Systems SEPP 2021 to include Central Precinct as an identified site for State significant development.

The Codes SEPP

It is proposed to amend this SEPP to enable the holding of a range of temporary events such as a dining and drinking area in the public domain without the need to obtain development consent subject to compliance with development standards such as hours of operation. This would bring

Central Precinct into line with other important precincts in the Sydney LGA such as Circular Quay, The Rocks, Darling Harbour and Barangaroo.

The proposed amendments to the Codes SEPP aim to support the ongoing activation of Central Precinct through permitting a range of temporary events and activities through a complying development certificate (CDC). In turn, this will simplify and streamline the approval process for these activities to be undertaken and improve the ability to activate the precinct.

State Environmental Planning Policy (Transport and Infrastructure) 2021

It is proposed to amend this SEPP to enable public authorities to undertake certain works such as roads, cycleways, pedestrian bridges lighting and vegetation as exempt development without the need to obtain development consent.

This will allow TfNSW to continue its role in supporting the delivery of new transport infrastructure and amenities within Central Precinct. This will include the ongoing maintenance and operations of transport infrastructure.

9. Study requirements

This section addresses each of the study requirements set out for the SSP Study. A summary of where each of the study requirements is addressed is provided within the Index at **Attachment 1**.

9.1 Public domain, place and urban design

In accordance with the study requirements, Architectus and Tyrrell Studio prepared a suite of documents addressing public domain, place and urban design.

These are:

- **Place Strategy:** outlines how renewal of Central Precinct is responsive to the place character of Central Sydney, southern Central Sydney and adjoining communities such as Surry Hills, in particular through the sub-precinct planning and design approach
- **Urban Design Framework:** informed by place analysis and benchmarking, provides principles and a reference master plan for renewal of Central Precinct
- **Public Domain Strategy:** outlines how Central Precinct can achieve high quality public domain outcomes.

These documents have helped inform the proposal. Many of their key provisions, including urban structure, sub-precincts and the character of key publicly accessible open spaces, have been reflected in the planning framework.

Each of these documents are integrated, and as such share much of the same core components. Due to this, there is naturally a level of overlap. In particular, the components of the Place Strategy would typically be included in the Urban Design Framework. While acknowledging this additional layer may provide complexity, it is considered necessary to properly address the diverse challenges and opportunities presented by Central Precinct.

To demonstrate the thoroughness of the public domain, place and urban design work, this section provides a comprehensive overview of the key parts of each document. For a more concise understanding of how they have been translated into the proposal, refer to section 8 of this SSP Study. The appendices provide full copies of each document.

9.1.1 Place strategy

The Place Strategy is provided at **Attachment 2**.

It is noted that written advice received from DPE in December 2021 clarified that the Place Strategy will not have a role in guiding future planning and approval processes. Therefore, the main intent of the Place Strategy is to ensure the proposal establishes a clear, distinct place character for Central Precinct that is responsive to and integrates with its broader Central Sydney context.

Directions

Supporting the vision identified in **Section 8.1** of this Study and building on the Planning Priorities established by the Strategic Framework, the Place Strategy establishes five directions for the future of Central Precinct:

- **Direction 1 – Place and destination:** A new vibrant, activated destination at the heart of southern Central Sydney that is loved and treasured locally and globally

- **Direction 2 – People and community:** An inclusive and engaging place for all workers, residents, neighbours and visitors
- **Direction 3 – Mobility and access:** A high-capacity, world class multi-modal transport interchange that supports local and regional connections bringing people together
- **Direction 4 – Economy and innovation:** A well-connected, high amenity, character-rich precinct that will attract the jobs and industries of the future essential for delivery of Tech Central
- **Direction 5 – Sustainability:** A world-leading exemplar of an integrated sustainable and resilient precinct providing far-reaching economic and social benefits

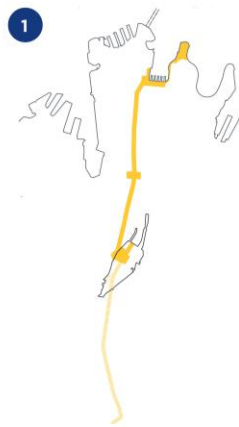
Big moves

The big moves translate the directions into physical outcomes to help fit Central Precinct into Central Sydney and beyond.

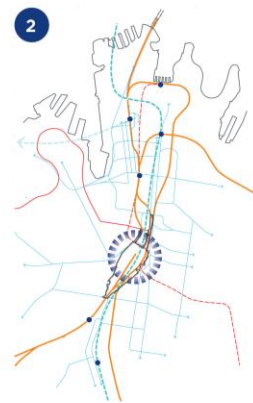
They are shown in **Figure 30** and are:

- **Big move 1:** Reconnect Redfern to the City and Harbour
- **Big move 2:** Create a civic destination and world class transport interchange that connects people locally, regionally and globally
- **Big move 3:** Re-knit and expand the City's green grid
- **Big move 4:** Reconnect east-west and stitch into the fabric of the city
- **Big move 5:** Unlock new space for the expansion of the CBD.

The Five Big Moves are key city-shaping spatial moves that will unlock the potential of Central Precinct and ensure that it responds and connects into the existing fabric of the city.



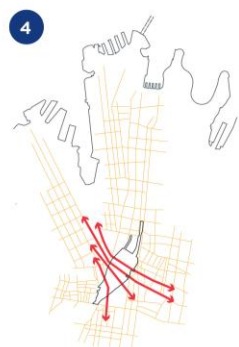
1
Reconnect Redfern to the City and Harbour



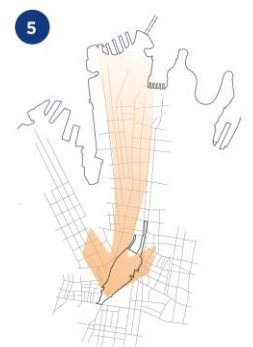
2
Create a civic destination and world class transport interchange that connects people locally, regionally and globally



3
Re-knit and expand the City's green grid



4
Reconnect east-west and stitch into the fabric of the city



5
Unlock new space for the expansion of the CBD

Figure 30: Big moves

Source: Architectus (2022)

Urban design principles

The urban design principles respond to, further develop and refine the big moves into key spatial directions for Central Precinct. These are:

- **Urban Design Principle 1:** Respond to context
- **Urban Design Principle 2:** Celebrate and reconnect with heritage and Country (refer **Figure 31**)
- **Urban Design Principle 3:** Create a north-south spine (refer **Figure 32**)
- **Urban Design Principle 4:** Link east-west
- **Urban Design Principle 5:** Establish movement and connectivity framework
- **Urban Design Principle 6:** Define a network of places and spaces
- **Urban Design Principle 7:** Establish city blocks
- **Urban Design Principle 8:** Define OSD gateway sites.



Figure 31: Celebrate and reconnection with heritage and Country diagram

Source: Architectus (2022)



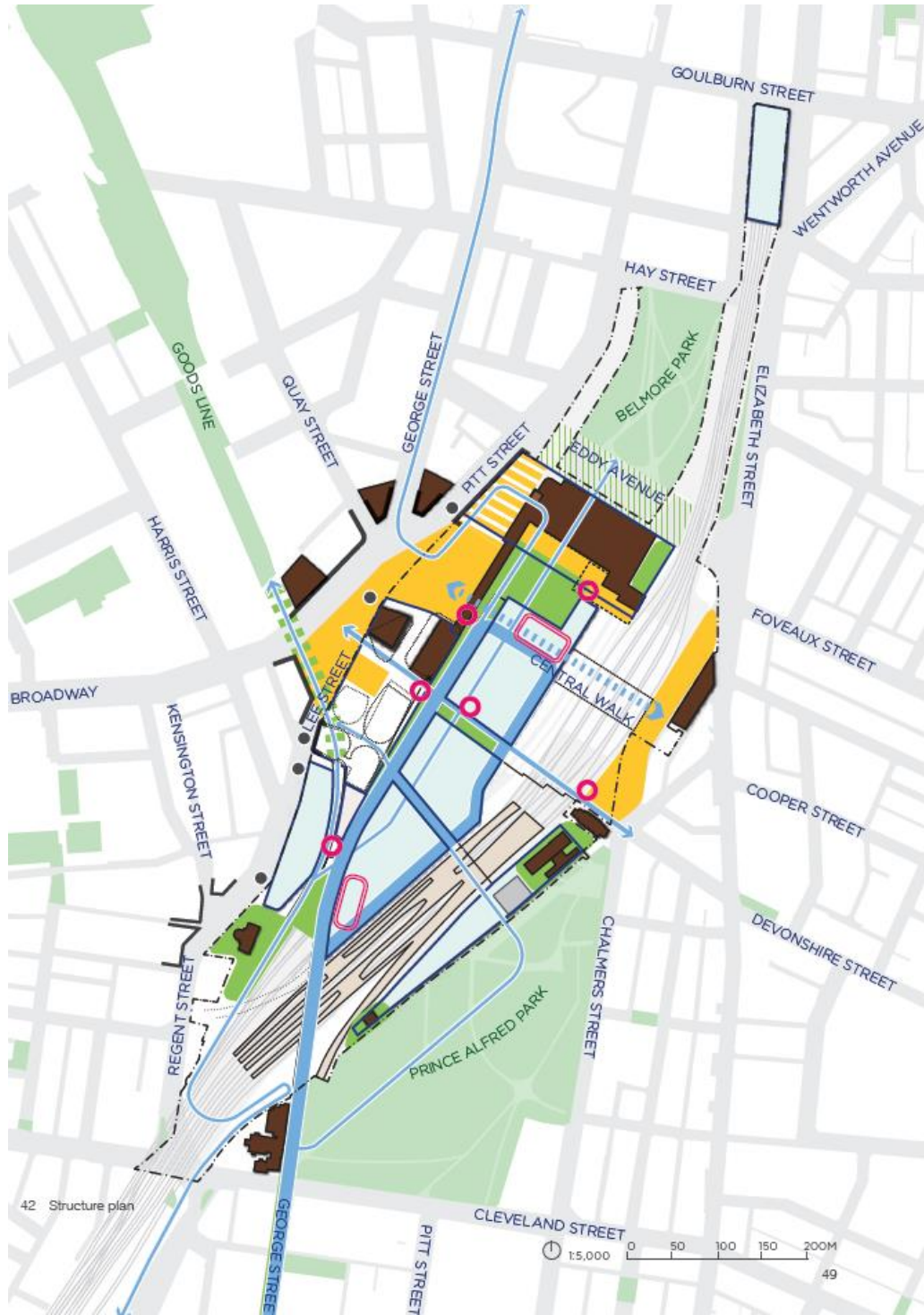
Figure 32: Create a north-south spine diagram

Source: Architectus (2022)

Structure plan

The structure plan applies the vision, directions, big moves and urban design principles into a set of physical outcomes for Central Precinct. The Structure Plan is shown in **Figure 33**.

Key elements of the Structure Plan include using heritage items such as Sydney Terminal Building and Mortuary Station as anchoring the precinct, an integrated network of public and publicly accessible spaces that define development blocks and initiatives to better integrate the precinct to surrounding communities such as the active transport over-rail bridges and between levels such as vertical circulation.














- 
Key heritage items
 Central Precinct's rich heritage will be revealed, adaptively reused and enhanced. Heritage will have an important role as marker buildings within the precinct, and integrate with the public domain to establish place identity and character.
- 
Public domain
 The public domain, consisting of a mix of urban plazas and green spaces, is a system of linked spaces and places for people to move through, dwell, and connect with each other, culture and history.
- 
Multi-modal connections
 A primary loop connection will provide pedestrian, bicycle and emergency vehicle access to the OSD.
- 
Key pedestrian/cycle connections
 A network of streets, lanes and bridges with varying character and function, will create a well-connected, permeable and attractive public domain experience for pedestrians and cyclists.
- 
Central Walk
 A new paid concourse between Central Square and Chalmers Street will provide legible and direct access to every platform in Central Station.
- 
Vehicle basement entry locations
 An integrated precinct servicing strategy will include a tunnel access corridor underneath the precinct with discreet entrances from Pitt and Regent Streets.
- 
Gateways to the OSD - vertical transportation (VT)
 Several access and VT routes provide a legible transition between the surrounding streets and the concourse and deck levels.
- 
Signature sites
 Signature sites are visually prominent and activate the Over Station Development (OSD) in the north and south.
- 
Potential development parcels
 Several development parcels are located on the over station deck. Precinct edges are activated using land available fronting Regent Street and Prince Alfred Park.
- 
Western Gateway development
 The Western Gateway developments located along Lee Street are currently undergoing the planning approval process and will catalyse the transformation of Central Precinct.
- 
Eddy Avenue
 Potential traffic calming of Eddy Avenue to be investigated to improve interface and address between the Sydney Terminal Building and Belmore Park.

Figure 33: Structure plan

Source: Architectus (2022)

Sub-precincts

While the Place Strategy sets a coherent vision, to respond to its large size, variety of attributes and diversity of surrounding communities, it also breaks Central Precinct down into eight sub-precincts (refer **Figure 34**).

These sub-precincts are:

1. **Central Station sub-precinct:** will draw upon its heritage landmark qualities, re-establish its civic role and provide a world-class public transport interchange.
2. **Western Gateway sub-precinct:** will be a gateway to the CBD, a visual marker for Central Precinct through city-scale buildings creating a focal point for the innovation and technology hub.
3. **Northern OSD sub-precinct:** will be a mixed-use highly urban precinct and commercial hub for jobs of the future and emerging industries above the rail yards forming part of the southern CBD, supported by open space and cross corridor links that reconnect into the surrounding street network.
4. **Southern OSD sub-precinct:** will be a mixed-use highly urban precinct with a commercial and education focus above the rail yards forming part of the southern CBD, supported by open spaces and cross corridor links that reconnect into the surrounding street network.

5. **Regent Street Sidings sub-precinct:** will be a mixed-use precinct anchored by Mortuary Station that interacts with and positively responds to the changing urban context of Chippendale.
6. **Prince Alfred Sidings sub-precinct:** will provide an attractive, lower scale western edge to Prince Alfred Park. The future character would; activate the park, ensure appropriate solar access, respond sensitively to heritage items and assist in linking Surry Hills and Prince Alfred Park to Chippendale and Ultimo across Sydney Yards.
7. **Eastern Gateway sub-precinct:** will be the eastern entry to Central Precinct that will respond to the unique urban character of Surry Hills. The future character will celebrate surrounding heritage buildings and provide opportunities for small-scale businesses and uses that serve the local community, future workers and visitors.
8. **Goulburn Street sub-precinct:** will be an urban block of city-scale development. The future character resolves existing site challenges, integrates and activates the adjoining public domain and provides a new high-quality edge to Elizabeth Street, Castlereagh Street and Goulburn Street.

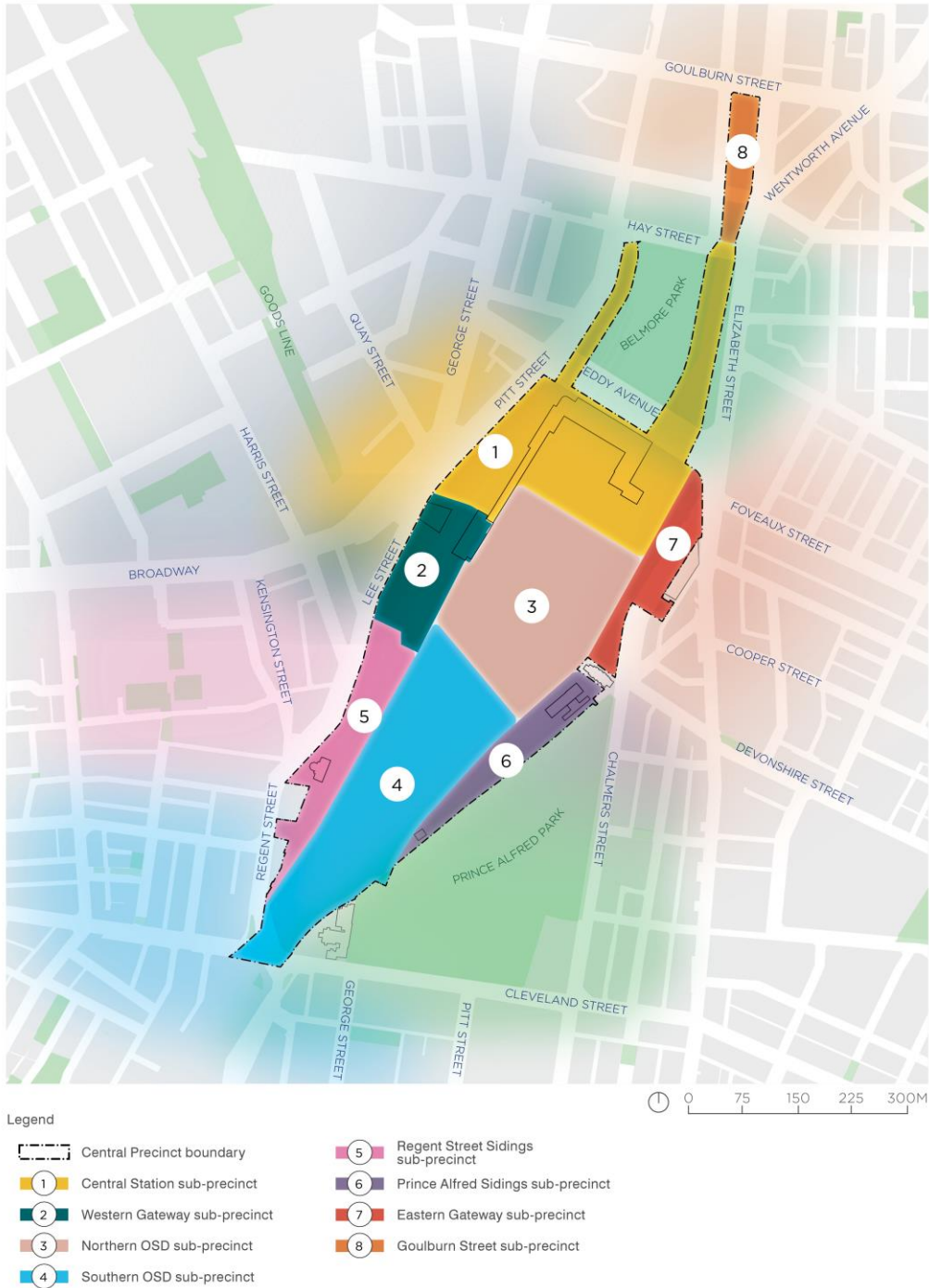


Figure 34: Sub-precincts
Source: Architectus (2022)

The Central Station sub-precinct includes a number of smaller areas. The Place Strategy also articulates their desired future character:

- **The Grand Concourse:** will be re-imagined as the civic heart of the precinct and provide vital connections to the future OSD while celebrating its heritage character
- **A central green:** will become the focal point for the community integrated with heritage, landscape and a vibrant mix of uses

- **The Western Forecourt:** will be a key public place, providing a new western front entrance to Central Station that connects people to the city and invites them to stay and linger.

In addition to defining its boundaries and providing a statement of desired future character, for each sub-precinct the Place Strategy also:

- identifies important features;
- highlights opportunities; and
- provides a selection of images that illustrate how the sub-precinct may look and feel in the future (refer **Figure 35**).



Figure 35: How the Northern OSD sub-precinct may look and feel in the future

Source: Architectus (2022)

9.1.2 Urban design framework

Site and context analysis

An Urban Design Framework has been prepared by Architectus and Tyrrell Studio (**Attachment 3**) which involves a comprehensive site and context analysis that considered a range of relevant matters including place, Aboriginal values, heritage, public domain, and built form.



Figure 36: Site and context analysis

Source: Architectus (2022)

This analysis informed identification of a number of challenges and opportunities for Central Precinct’s renewal as set out below.

Challenges

- **Repairing the void:** Central Station and the Sydney rail yards is currently a large void in the urban landscape and creates a physical barrier that severs connections east-west between Ultimo/Chippendale and Surry Hills, and north-south between the Sydney CBD and Redfern
- **Negotiating level changes:** The level changes across the precinct presents an enormous challenge towards the realisation of new cross connections
- **Legible station address and access:** Despite new infrastructure planned, the clarity, congestion, quality and activation issues of the Sydney Terminal will still need to be addressed
- **Sensitive response to the precinct's heritage significance:** The current presentation of heritage values across the precinct are fragmented and the story of the site is not easily discernible to the public
- **Maintaining amenity of surrounding open space:** is an important design principle towards achieving attractive, comfortable and biodiverse public spaces
- **Complexities of building over rail:** Building over rail requires many technical considerations including; structural requirements related to rail operations, the coordination of structural layouts with rail and platform locations, ensuring adequate ventilation and service access and appropriate customer experience.

Opportunities

For each challenge, Architectus identified corresponding opportunities. For example, in relation to ‘repairing the void’, the following opportunities were identified:

- East-west open to the sky connections across key links e.g. extending Devonshire Street and Regent Street
- Bridging the disconnection between George Street north (CBD) and George Street south (Redfern)
- Pedestrian linkages activated by retail, community and recreational opportunities
- Integration into the regional city cycle network
- Creation of a new part of the city that is an anchor for Sydney’s Technology and Innovation precinct.

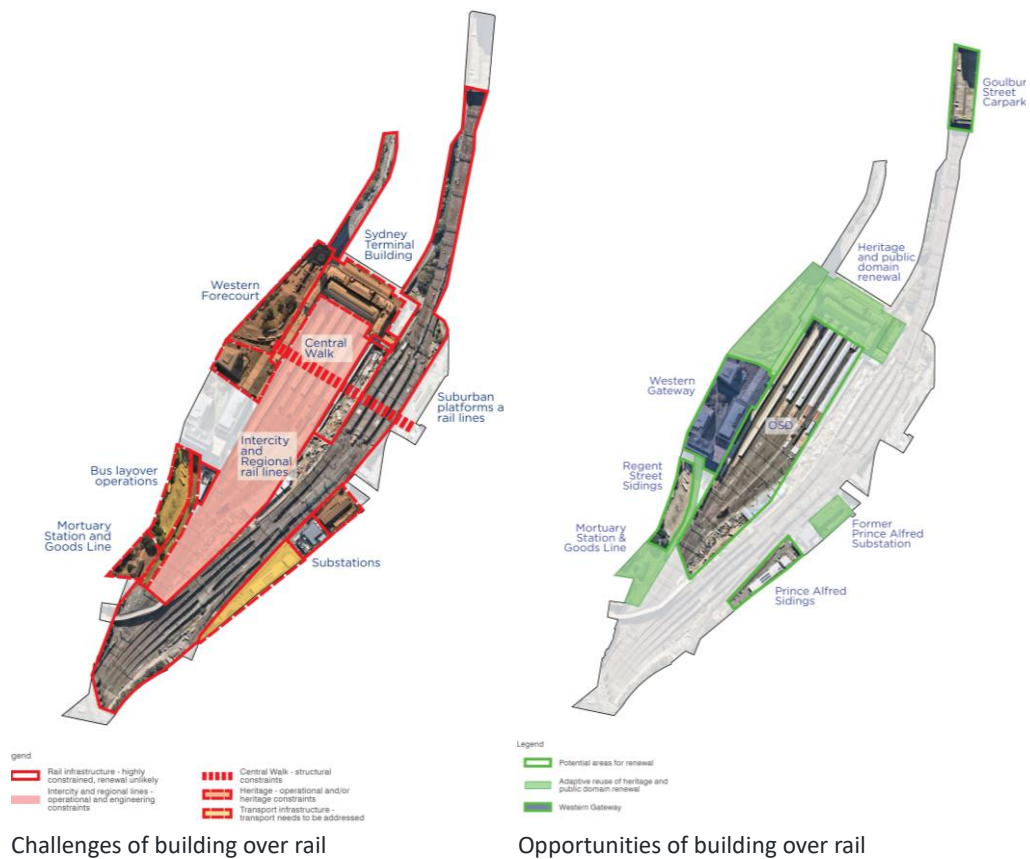


Figure 37: Challenges and opportunities
Source: Architectus (2022)

Benchmarking

To complement the site and context analysis in informing development of the proposal, Architectus and Tyrrell Studio undertook benchmarking of a number of relevant international, national and local developments.

This considered matters such as building over transport infrastructure, public space scale comparisons and linear urban public spaces and walkways, and ranged from projects as large as Hudson Yards in New York City and Las Defense in Paris to SEOULLO Skygarden in Seoul and Darling Square in Sydney.

In particular, for a number of projects, transferable principles were identified.

This benchmarking is contained in Part 1 – ‘Introduction’ of the Urban Design Framework and Part 4 – ‘Benchmarking’ of the Public Domain Strategy.

Of note is review of innovation and technology precincts. In this regard, consideration was given to the NSW Innovation and Productivity Council’s (2018) document ‘NSW Innovation Precincts - Lessons from International Experience’, supplemented by investigation of precincts such as the Brooklyn Tech Triangle in New York City and 22@Barcelona in Barcelona.

Key learnings included:

- **Co-location of creative hubs or clusters:** innovation is driven by collaboration, with the potential for agglomeration allowing for business to match skills, work together, share knowledge and resources
- **Infrastructure, amenity and place:** innovation and technology firms have increasingly moved to accessible, dense and amenity-rich urban environments that are anchored in unique place based characteristics
- **Market visibility and identity:** it is important to create a strong, distinct and attractive market proposition to attract talent and investment.

Refinements to the Strategic Framework

As part of the Strategic Framework, the option of ‘precinct renewal’ was selected as the preferred option to be carried forward for more detailed development and refinement as part of this SSP Study.

This process has resulted in refinements to public domain elements to create Central Avenue and Central Green as key features of the proposal.

Central Avenue

The Strategic Framework included a single public domain element running north-south through the centre of Central Precinct.

Following further study, this element was relocated to the western edge of the over-station deck and was widened substantially. This enables the following outcomes:

- creation of a distinct, main street in the form of Central Avenue that retains pedestrian priority but also has the capacity to cater for other movement such as emergency vehicle access
- provision of a complementary, finer grain north-south laneway paralleling Central Avenue
- achievement of greater separation between taller buildings in over-station deck sub-precincts and the Western Gateway, creating better amenity outcomes, including more suitable planting and growing conditions for urban canopy trees, and reducing the bulk of new built form seen behind Sydney Terminal Building when seen from Belmore Park
- provision of buildings that are oriented with their longer elevations facing north and south, reducing the appearance of building bulk when viewed from location to the east, in particular Prince Alfred Park.

Central Green

The Strategic Framework included three open spaces along the north-south public domain element.

The proposal includes a single, larger open space being Central Green at the northern end of the deck.

This change was made as:

- given Prince Alfred Park and Belmore Park, the main need for open space was not accessibility but size
- a single, larger open space in the form of Central Green could best meet this need, and in particular align with Central Square to create a single, large green open space focus at the busiest part of Central Precinct
- in this location, Central Green could also be designed as a primarily green open space as opposed to a plaza to take advantage of superior sun access, ability to achieve acceptable wind conditions and the opportunity to accommodate the Grand Staircase to better integrate the Grand Concourse and over-station development
- Central Green also creates a more sympathetic relationship between Sydney Terminal Building, its clock tower and new built form, including the provision of substantial setbacks.

Built form options

Due to its proximity to Sydney Terminal Building and its clock tower, the part of Central Precinct contained in the Railway Square / Central Station SCA was subject to extensive design consideration, review and refinement.

A number of built form typology options, including variations within some typologies, were proposed.

Following assessment of potential impact, a number of options were set aside due to:

- proximity of new buildings of scale to Sydney Terminal Building and its clock tower
- intrusion within the critical Broadway view corridor
- potential for overshadowing of Prince Alfred Park.

Options considered to have merit were:

- **Warehouse typology:** low built form north of Central Walk
- **Courtyard typology:** scale transition to Belmore Park
- **Single tower typology:** scale transition to Terminal.

As the Urban Design Framework outlines, the single tower typology was selected as the preferred option for further development and refinement.

A number of options were developed and considered for a range of matters, including the RL21 bridge over Central Square and the active transport over-rail bridges. These are detailed in the Urban Design Framework and the Public Domain Strategy.

Urban design framework

The urban design framework aligns with and further develops, refines and integrates these urban design strategies for Central Precinct. It is shown in **Figure 38**. For example, building on urban design strategy 1, the proposal establishes Central Green to frame the southern side of the Sydney Terminal Building, and aligns Central Avenue as the precinct's main street with the building to provide a sequence of views in the close range public domain to the clock tower.

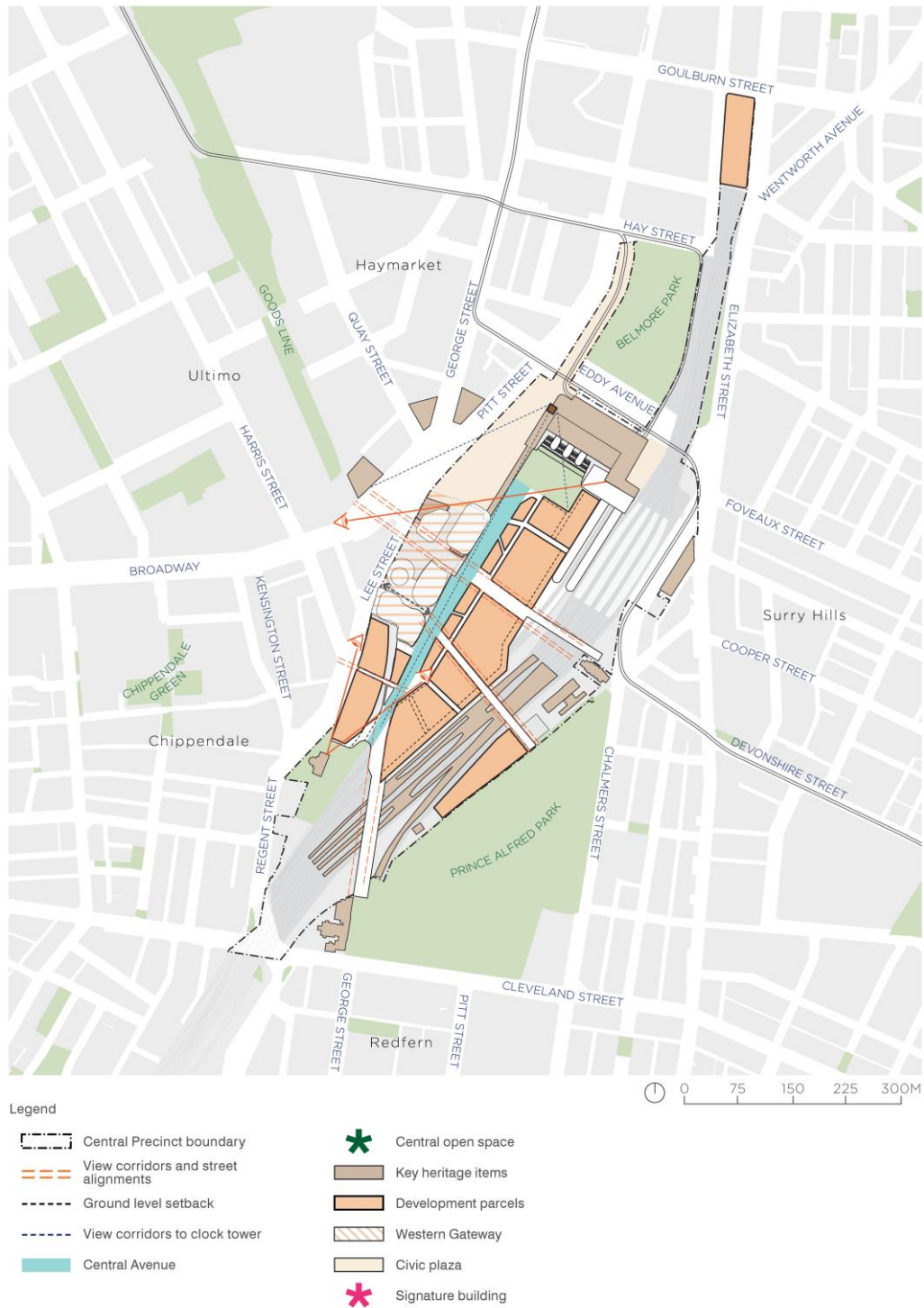


Figure 38: Urban design framework

Source: Architectus (2022)

The urban design framework contains a number of detailed strategies for themes such as transport and mobility and areas such as the Devonshire Link and Prince Alfred Sidings sub-precinct.

In response to the study requirements, it also includes a detailed reference master plan that integrates all other urban design related study requirements (refer **Section 8.5** of this SSP Study)

and demonstrates that the proposed GFA to be included in the planning framework can achieve high quality place outcomes (refer **Section 8.4** of this SSP Study).

9.1.3 Public domain strategy

A Public Domain Strategy for Central Precinct has been prepared by Tyrrell Studio (**Attachment 4**).

This has been informed by a detailed and comprehensive site and context analysis, supported by benchmarking.

A number of public domain principles were developed to support and translate the vision (refer **Section 8.1** of this SSP Study) into a clear direction for the public domain.

Key to this is designing with Country, respecting heritage, ensuring the continued and safe operation of Central Station, encouraging a sense of community and is responsive to the needs of an innovation and technology precinct.

The resulting public domain is shown in **Figure 39**, and is summarised by Tyrrell Studio as follows:

'The proposed public domain system provides a high quality network of new and revitalised public open space. Major new north-south and east-west connections will pull the city together around a remade Central Terminal. The Terminal Building will be set in an iconic public landscape consisting of major new CBD spaces including Central Square and Central Green'.



Legend

- | | | |
|-------------------------------|---|--------------------------------|
| Central Precinct boundary | Central Green | Laneways |
| Eddy Avenue | Central Avenue | Prince Alfred Park Bridge |
| Eddy Avenue Plaza (Upgrade) | Devonshire Street Bridge and Connection | Southern Plaza |
| The Grand Concourse (Upgrade) | Railway Square | The Goods Line |
| Regional Coach Terminal | Henry Deane Plaza (Upgrade) | George Street Bridge |
| Central Square | Eastern Walk | Mortuary Station and Garden |
| | | Ibero-American Plaza (Upgrade) |

Figure 39: Public domain plan
Source: Tyrrell Studio (2022)

Embedded in this plan is a number of key features. These are summarised in **Figure 40**, and include extending the Goods Line, creating laneways and through-block links and creating the Active Loop.

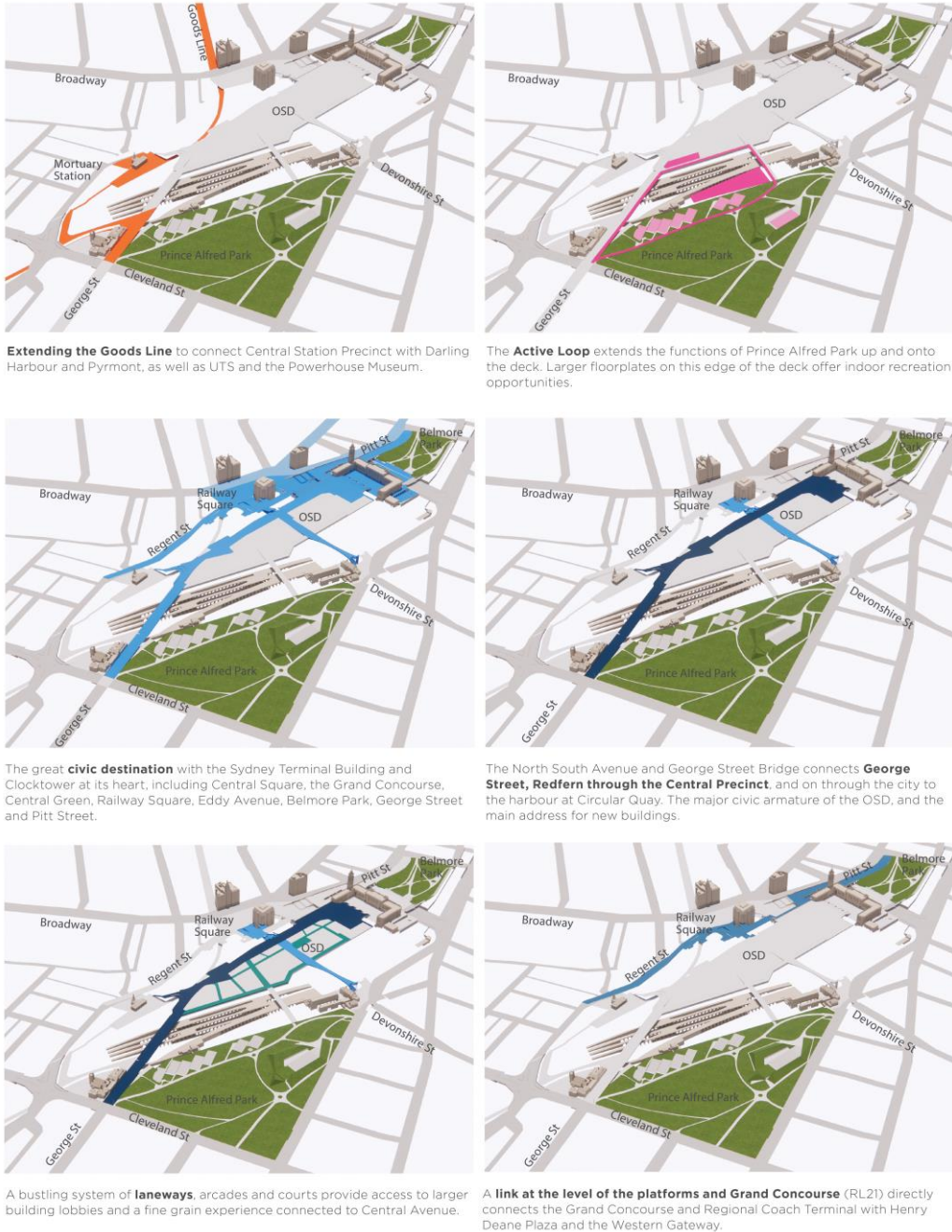


Figure 40: Key features of the public domain plan
Source: Tyrrell Studio (2022)

As shown in Table 3 and **Figure 41**, the public domain plan results in a considerable increase in useable public spaces and publicly accessible spaces within Central Precinct.

Table 3: Existing and proposed publicly accessible space

Item	Existing	Proposed
Publicly accessible spaces	31,450m ²	63,773m ²

Item	Existing	Proposed
Open spaces	4,410m ²	22,000m ²
Other spaces	27,040m ²	41,773m ²



Figure 41: Existing and proposed public domain and publicly accessible space
Source: Tyrrell Studio (2022)

The Public Domain Strategy establishes three distinctive character areas for public domain within the precinct (refer **Figure 42**):

- The north is Civic and Cultural
- The Centre is for Innovation and Work
- The south is for Life and Health.

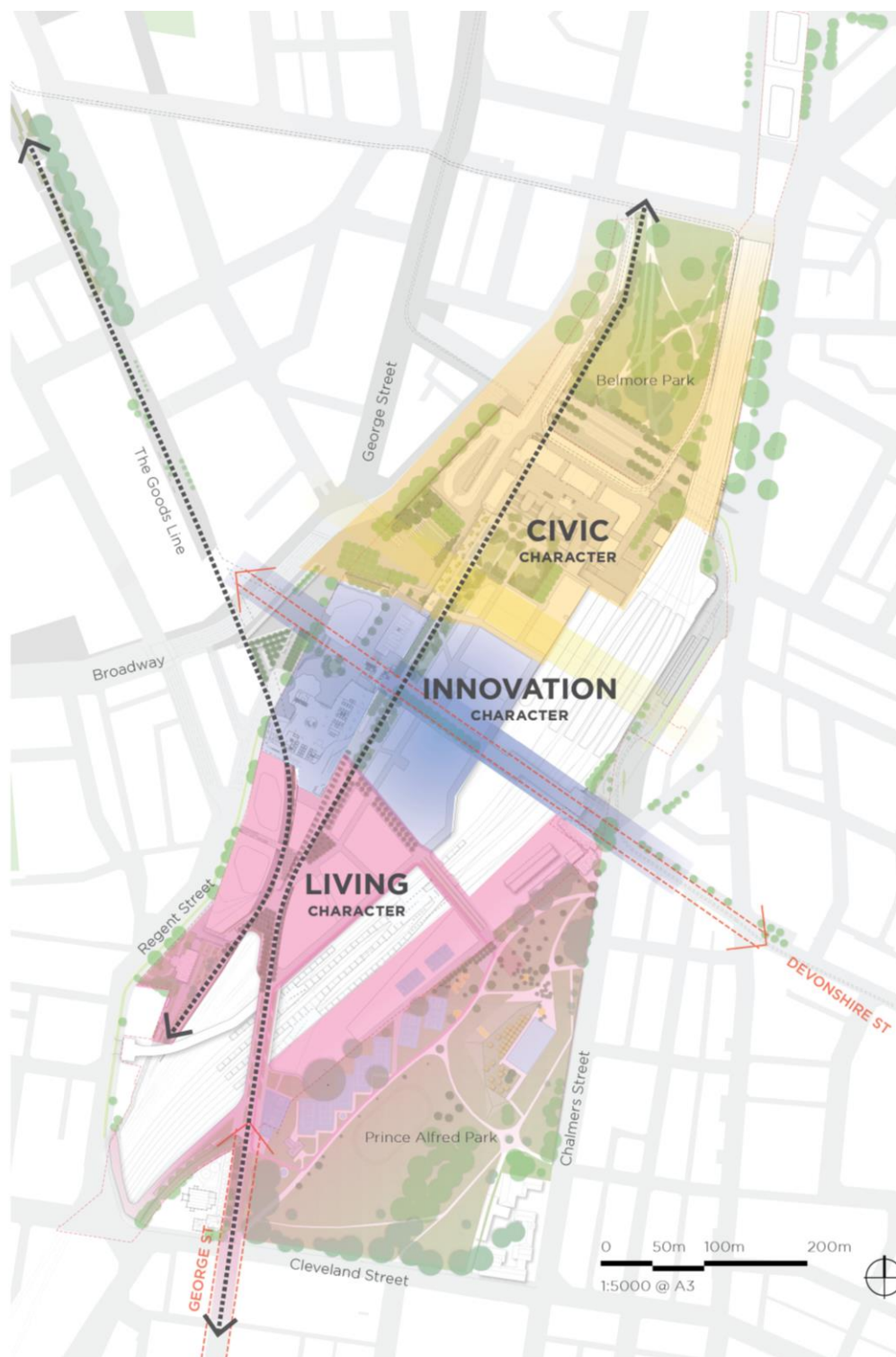


Figure 42: The three character areas shaping public domain

Source: Tyrrell Studio (2022)

Informed by each of these characters, the Public Domain Strategy outlines the intended type, role and function, character, amenity and other relevant matter for each major publicly accessible space.

Of particular note is the integration of public domain in the northern end of Central Precinct as shown in **Figure 43**. As can be seen, a series of distinct public spaces, including the Grand

Concourse, provide a variety of recreation opportunities. The spaces also connect with Railway Square and Belmore Park beyond the boundaries of the precinct. This pattern is repeated where Central Precinct adjoins Prince Alfred Park, where development seeks to integrate with and activate the north-west edge of the park.



Figure 43: Northern public domain

Source: Tyrrell Studio (2022)

The Public Domain Strategy also includes specific, more detailed strategies for other related matters such as transport and mobility and greening and urban forest and greening.

Mobility and access

The overall aim of the mobility and access strategy is to create a precinct that is people-focused, walkable, well-connected and safe and supports the increase in resident/worker population of the future OSD.

To address this, the strategy addresses each of the key part of mobility and access such as public transport and vehicle access.

Figure 44 shows how the strategy seeks to integrate public domain with public transport.

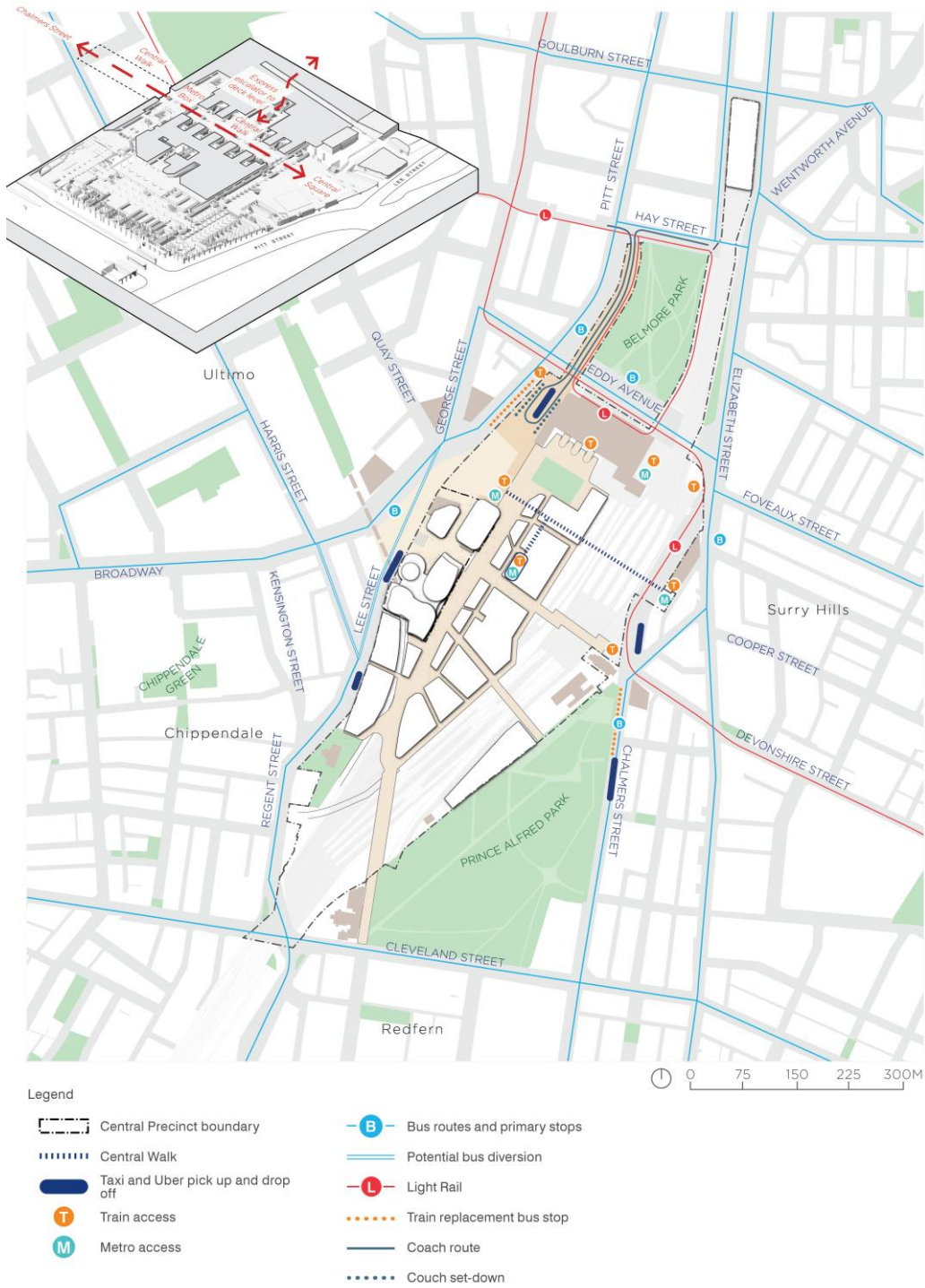


Figure 44: Public transport and the public domain
Source: Tyrrell Studio (2022)

Urban forest and greening

Another key part of the urban forest and green strategy.

The strategy has been guided by the following design principles:

- Improve and expand green open space with high environmental amenity and comfort
- Layer greening to create rich biodiversity and high quality habitat
- Design green landscape systems that strengthen resilience to climate change stresses
- Connect people and community through green open spaces that promote health, wellbeing and equality.

Supporting this, the strategy has also been guided by a number of performance measures for biodiversity, changing climate and people and community.

The location and amount of new greening has been informed by City of Sydney targets, as well as consideration of practical matters such as the capability of the OSD to accommodate deep soil, trees and other vegetation, and likely climatic conditions such as sunlight, daylight and wind.

The resulting planting strategy is shown in **Figure 45**.



Legend











- | | |
|--|---|
|  Central Precinct boundary |  South Avenue |
|  Dune planting with evapotranspiration groves |  Meadow |
|  Rainforest and Gully |  Civic trees (including deciduous) |
|  Sandstone slopes |  Mortuary Station Cultural Planting |
|  North Avenue |  Eddy Avenue and Railway Square planting |

Figure 45: Planting strategy
Source: Tyrrell Studio (2022)

The strategy is achieving considerable tree canopy and green cover outcomes compared to targets, when considering constraints. These outcomes are shown in **Table 4** and **Figure 46**.

Table 4: Green cover and tree canopy outcomes

Location	Green cover	Tree canopy cover
Central Square	34%	46%
Central Green	77%	51%
Central Avenue	55%	50%
Devonshire Link	50%	50%
Mortuary Station Park	48%	18%
Eddy Avenue Plaza	52%	52%
Southern Plaza	40%	40%
Development blocks	0%	20%

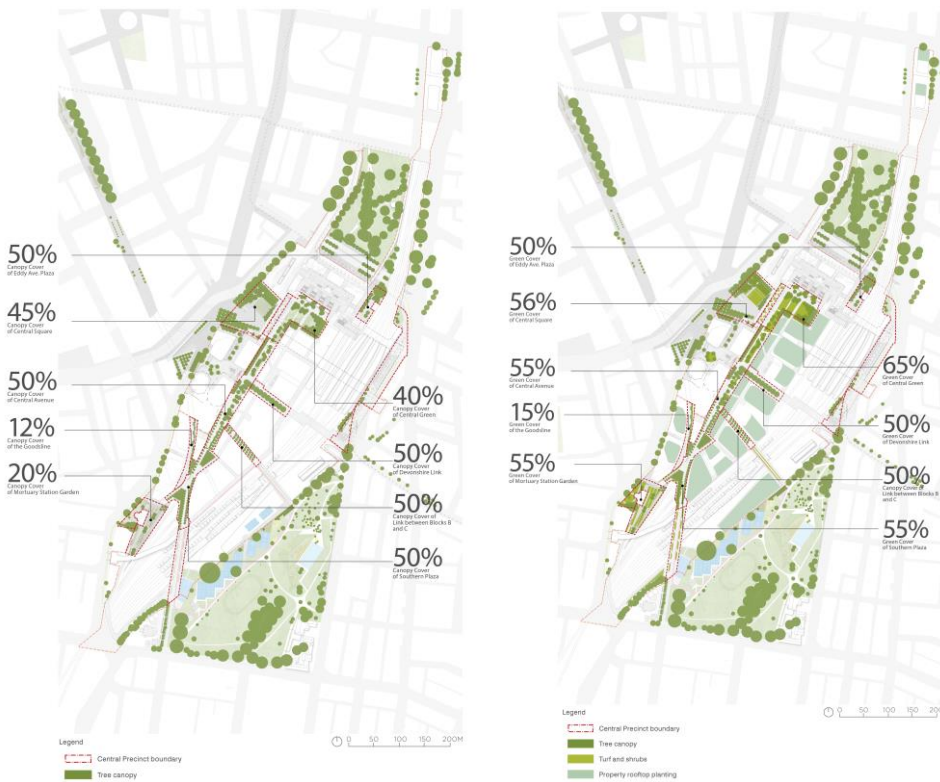


Figure 46: Green cover and tree canopy outcomes
Source: Tyrrell Studio (2022)

9.2 Planning

9.2.1 State or regional planning significance

Under State Significant Precincts State Significant Precincts Guideline (DPIE, 2016), 'State Significant Precincts are areas that the Minister for Planning considers to be matters of State or regional planning significance, because of their social, economic or environmental characteristics'.

Consideration of significance is made against the following criteria:

- be a large area of land within a single ownership or control, typically Government owned, and
- be of State or regional importance in achieving Government policy objectives, particularly those relating to increasing delivery of housing and jobs, and
- be of State or regional importance for environmental or natural resource conservation, and
- be of State or regional importance for heritage or historical significance.

The Minister for Planning declared the SSP a Nominated State Significant Precinct in July 2019.

Table 5 provides an outline of the SSP's consistency with these criteria.

Table 5: State and regional planning significance

Criteria	Response
Be a large area of land within a single ownership or control, typically Government owned	The SSP is a large (24 hectares approx.) of land in State government ownership.
Be of State or regional importance in achieving Government policy objectives, particularly those relating to increasing delivery of housing and jobs	Being Australia's largest and busiest railway interchange, Central Station and associated infrastructure is of critical importance to the effective functioning of Sydney and NSW more broadly. The proposal provides capacity for the improvement of this crucial station and precinct, including the delivery of up to 16,212 new jobs. Much of this capacity is suitable for innovation and technology uses, which are key target industry sector under a number of State plans such as the NSW 2040 Economic Blueprint and Global NSW Strategy.
Be of State or regional importance for environmental or natural resource conservation	As it is an urban area that has been near fully modified from its original, natural state since that arrival of Europeans in Australia, the SSP is not State or regional importance for environmental or natural resource conservation.
Be of State or regional importance for heritage or historical significance	The SSP contains the Central Railway Station and Sydney Terminal Group, which is an items of State heritage significance under the Heritage Act.

9.2.2 Approach to master planning and the planning framework

Master planning

The Urban Design Framework provided at **Attachment 3** justifies the approach adopted by the reference master plan.

While acknowledging that Central Precinct will become an inherent part of Central Sydney, with the exception of the Goulburn Street carpark sub-precinct, it is noted that it has distinct differences from the broader, established city. This includes the fact that:

- it is not being well integrated with surrounding land
- there is an absence of existing public domain such as open space, streets and lanes
- there is an absence of street block building height controls.

On this basis, master planning commenced from a largely first principles basis appropriate to a State led rezoning stage informed by place specific constraints, opportunities and key issues.

As part of this process, consideration has been given to the existing City of Sydney planning framework. This in particular includes the key desired outcomes of optimising for employment floor space, providing publicly accessible space and high levels of amenity.

It is noted that the existing planning framework provides a strong point of reference for more detailed design, with the intent of the Central Sydney Planning Strategy (CSPS), via schedule 12, allowing flexibility through alternative solutions informed by detailed design where it can be demonstrated that high quality amenity outcomes will be achieved.

The proposal represents the outcome of this detailed design process undertaken through the SSP study. As is shown in the design package, the proposal is capable of meeting the amenity objectives espoused in the CSPS. In addition, the design guide includes provisions requiring the address of amenity matters as part of subsequent, even more detailed consideration as part of future DA and design excellence processes.

Therefore, while the proposal for matters such as street wall heights and upper level setbacks do not always directly align with the controls contained in the SDCP 2012, they represent appropriate alternative solutions due to their achievement of acceptable amenity outcomes.

It is the intent of the planning framework to enable further, reasonable variation to built form as part of the more detailed DA and design excellence process where it can be demonstrated that relevant objectives, in particular for wind safety and comfort and solar and daylight access can be achieved.

It is further noted that unlike most other sites within Central Sydney, the NSW Government through TfNSW will retain ongoing management of the development process, including preparation of any development agreements, and will maintain ownership of the OSD. On this basis, there is an additional layer of governance applying to Central Precinct that would not otherwise apply. As has been seen with similar projects such as Barangaroo, leading practice outcomes consistent with government policy on matters such as sustainability have been enabled through this process.

In terms of the Goulburn Street carpark sub-precinct, while it is included within the proposed Central Precinct Design Guide, many of the provisions proposed for this area are directly consistent with those contained within the SDCP 2012. This has been done in recognition of the fact that this sub-precinct is separate from the main OSD precinct, is substantially smaller in size and has a much higher level of integration with the surrounding city. For these reasons it was considered appropriate that the built form controls that relate to this sub-precinct remain generally consistent

with what can be achieved on the site under the incumbent planning framework. Some additional controls will however apply to this area including increased sustainability requirements.

Planning framework

As has been outlined, renewal of Central Precinct is a complex proposition that will be undertaken over a long time horizon. Some of the key complexities include:

- creating a new ground plane above Sydney's most important operational railway land while maintaining the operational safety and efficiency of this land
- provision and integration of multiple levels, including metro, ESRL, main platforms, surrounding city public domain, new ground place and building levels.

On this basis, Central Precinct requires a planning framework that provides certainty for key outcomes, including important parts of the public domain such as open spaces, while providing for flexibility in the means of delivering these outcomes to enable the precinct to respond to changing circumstances throughout its long term implementation. This includes developments in technology and best practice environmental planning, and innovative solutions that represent design excellence.

For this reason, the proposed planning framework has adopted a principles-based approach. A principles-based planning framework establishes a system of outcomes that must be achieved and guidance on how these outcomes can be achieved. While outcomes must be achieved, the consent authority is to consider reasonable alternatives to guidance where it can be demonstrated on merit that the relevant outcomes will still be achieved.

The resulting planning framework comprises two main levels, these being:

1. **objectives:** that describe a desired end state in further detail
2. **controls:** that identify a measurable outcome, typically as a metric.

Having regard to the needs of Central Precinct, including its challenges and in particular its long time horizon, it is proposed to establish a planning framework comprising:

- **a statutory plan:** an amendment to the Sydney Local Environmental Plan 2012 that is consistent with NSW planning convention, addressing a number of critical matters that include land zoning, height, floor space ratio, heritage, public domain, carparking and design excellence
- **design guide:** addressing a large number of matters relevant to Central Precinct, including those related to the public domain, built form, public domain and built form interface, sustainability and other general matters, specific land uses and sub-precincts.

Development of this planning framework has been guided by a number of principles, including:

- a desire to maintain the integrity of the design aspiration
- a desire to provide innovation where possible and appropriate
- an aspiration to provide clarity in the DA process through providing clear line of sight between the three levels in the planning framework
- the need to be within the scope of the Environmental Planning and Assessment Act 1979 (the Act) and provide an outcome that furthers its objects, as well as being consistent with other parts of the NSW planning system such as planning circulars
- the need to be development focussed, with a particular emphasis on physical form

- the need to give effect to strategic plans
- the need to minimise duplication and/or conflict with matters that are addressed in other parts of the planning framework, in particular SEPPs, and does not cover matters best addressed in complementary legislation or material, eg the Building Act 1975, the Heritage Act 1977 or Australian Standards
- the need to be consistent with adopted definitions, in particular those contained in the Standard Instrument LEP or other relevant, widely used planning documents, or uses plain English in all other circumstances.

Land zoning

The proposed amendments to the land zoning map within the SLEP 2012 is considered appropriate as it:

- is consistent with the general pattern in Central Sydney
- is consistent with the planning intent for Central Precinct articulated by the Central Strategic Framework
- allows for a focus on employment uses, including innovation and technology uses
- allows for the continued operation of railway activities
- allows for community and cultural uses
- allows for new public open spaces in Central Precinct
- allows for more compatible uses where adjoining lower rise, mainly residential parts of Chippendale, and facilitate delivery of affordable housing in a single location
- is consistent with the land uses apparent within the rest of Central Sydney, namely with the inclusion of B8 Metropolitan Centre zoning throughout the site and the inclusion of B4 Mixed Use zones only where the adjoining areas are also zoned B4 Mixed Use, including in the Regent Street Sidings and Eastern Gateway sub-precincts
- retains the existing SP2 Railways zoning in the location of the railways to allow for the continued function of Central Station, given that the railway is the fundamental use.

Height of buildings

The proposed amendments to the height of buildings map within the SLEP 2012 for is considered appropriate as it:

- is consistent with the planning intent for Central Precinct articulated by the Central Strategic Framework
- maintains the design aspiration developed through comprehensive design development and testing
- maintains solar access to Prince Alfred Park, Belmore Park and Railway Square consistent with the SLEP2012
- maintains the view corridor between Broadway and the Sydney Terminal Building clock tower consistent with the SLEP2012
- provides appropriate curtilage for the heritage listed Sydney Terminal Building and its clock tower as well as Mortuary Station in accordance with the Heritage Interpretation Strategy prepared by Artefact Heritage (refer **Attachment 21**)

- has taken consideration of the aeronautical requirements related to the prescribed airspace of the Sydney (Kingsford Smith) Airport
- allows for the achievement of daylight levels that are consistent with the City of Sydney's desired sky view factor for all different types of places situated within Central Precinct.

The proposed Design Guide complements and supports the proposed amendments to the SLEP 2012 through providing more detailed guidance on street wall podium heights and establishing a variety of lower scale building heights along the eastern edge of Central Avenue.

Floor space ratio

The proposed amendments to the maximum FSR map within the SLEP 2012 is considered appropriate as it:

- is consistent with the planning intent for Central Precinct articulated by the Central Strategic Framework
- maintain the design aspiration developed through comprehensive design development and testing
- limits the amount of GFA for residential accommodation to ensure it remains complementary to the intended deliver of precinct for the purposes of technology, innovation and community uses.

The proposed Design Guide establishes minimum floor space requirements for community and cultural spaces to ensure social and community infrastructure is embedded within the precinct.

Heritage conservation

The proposed retention of the existing heritage conservation mapping within the SLEP 2012 is considered appropriate as it:

- seeks to protect relevant elements of heritage, including European built heritage, archaeological heritage and Aboriginal heritage
- incorporates an established, accepted understood set of provisions
- calls up the Central Precinct CMP, and requires its address through Heritage Impact Statements
- is supported by Transport for NSW's heritage advisors.

The proposed Design Guide establishes further precinct specific heritage provisions to ensure the heritage significance of Central precinct is appropriately respected and celebrated. This includes detailed heritage guidance for each sub-precinct.

Carparking

The proposed amendments to the SLEP 2012 for carparking is considered appropriate as it:

- seeks to minimise on-site carparking, consistent with Central Precinct's excellent level of public transport accessibility and consistent with the intent of State and local planning policy
- incorporates an established, accepted understood set of provisions
- is supported by Transport for NSW's transport advisors.

Design excellence

The proposed amendments to include precinct specific design excellence provisions within the SLEP 2012 is considered appropriate as it:

- ensures design excellence is a key consideration of the DA stage
- is consistent with well-established City of Sydney policy and considers emerging GANSW policy
- seeks to go above and beyond established policy by encouraging innovative measures that aim to benefit the architectural profession in Sydney and NSW as a whole
- creates a bespoke design excellence framework that meets the needs of a precinct scale renewal project
- involves a more considered approach that responds to the scale, diversity, development complexity and governance that will be required to last the duration of the precinct's renewal
- includes three different types of design competitions including masterplan competitions, key building design competitions and key place design competitions, which respond to the scale and complexity of Central Precinct and ensure that all areas within the precinct will be the subject of a minimum of one design competition process.
- is supported by Transport for NSW's urban design advisors.

The proposed Design Guide provides guidance to establish a co-ordinated process that ensures future development demonstrates design excellence in architectural, urban and landscape design and for a Design Excellence Strategy to be prepared for Central Precinct. A Design Excellence Strategy that fulfills this requirement has also been prepared for the Precinct (refer **Attachment 7**).

Publicly accessible space

The proposed inclusion of a new precinct specific publicly accessible space map within the SLEP 2012 is considered appropriate as it:

- provides certainty for the delivery of a key publicly accessible spaces, including laneways
- allows for a level of flexibility for the spatial location of laneways to enable appropriate alternative solutions, including the potential for a staggered layout for the north-south laneway featuring 'returns' providing intimately scaled, lively spaces throughout the laneway to cater for increased volumes associated with access points to taller buildings
- provides certainty for the achievement of key parameters such as width and being open to the sky.

The proposed Design Guide provides further detailed guidance regarding the purpose, function, design and amenity of public spaces within the Precinct. This includes requirements to ensure appropriate microclimate conditions (i.e wind, sunlight and daylight access) for their intended purpose.

Affordable housing

The proposed amendments to the SLEP 2012 include the creation of a precinct specific Affordable housing clause that:

- requires a minimum 15% of new residential floor space be provided as affordable housing

- requires payment of a monetary contribution where this is not intended to be delivered, equivalent to this amount for delivery of affordable housing in other parts of Sydney, in particular the Sydney LGA.

The proposed amendment is considered appropriate as it will ensure that future development within the Precinct adequately responds to affordable housing needs. With the above provision proposed for the Central Precinct, Clause 7.13 of the SLEP 2012 which requires an affordable housing levy contribution levy for development in Central Sydney (3% of the total residential floor area and 1% of the total non-residential floor area) will not apply.

It is noted that following the public exhibition period, TfNSW will target for the Precinct, a further 15 percent of new residential floor space to be delivered as diverse housing (i.e. seniors housing, key worker housing, build to rent), subject to further economic modelling and governance considerations. Subject to confirmation, the requirement for a certain proportion of diverse housing will be adopted into a proposed site-specific provision in the SLEP 2012.

The proposed Design Guide includes a set of objectives and principles to support the delivery of affordable housing to support low to middle income households in accordance with the Greater Sydney Region Plan – A Metropolis of Three Cities.

Design guide

The proposed amendments to the planning framework for the design guide is considered appropriate as it gives a statutory ‘head of power’ to the design guide itself, ensuring it carries weight in the assessment and determination of future development applications.

Sub-precinct planning

As has been noted already, place has been a key guiding consideration for this SSP Study.

It is the intent that while Central Precinct will be a cohesive place overall, the idea of ‘place’ will also be expressed on a more granular level.

The proposed way to achieve this is through sub-precincts. Central Precinct has been divided into a number of sub-precincts, with each sub-precinct being supported by statements of desired future character in the design guide. These statements are consistent with and build on the outcomes of the Strategic Framework.

9.2.3 Consistency with planning instruments

A Metropolis of Three Cities - Greater Sydney Region Plan

The proposal is consistent with the direction of the Region Plan to grow a stronger and more competitive Harbour CBD. More specifically, the proposal will establish and anchor the delivery of an innovation and technology precinct within the nominated innovation corridor. Through renewal, the proposal will further align with the directions of the Plan as it will support the creation of a ‘city of great places’ and ‘a well-connected city’. Importantly, the proposal aligns with the 10 overarching directions of the Metropolitan Policies, namely:

- A city supported by infrastructure: The proposal will better optimise the use of existing and future transport infrastructure
- A collaborative city: The proposal is the outcome of governments, community and businesses collaborating to deliver the growth benefit outcomes
- A city for people: The proposal is designed to revive the Western Gateway sub-precinct and its surrounds and create a new and exciting place for people

- A city of great places: The proposal seeks to enhance the quality and public experience at Central Precinct and its surrounds
- A well-connected city: The proposal aims to improve pedestrian connectivity at a site specific and city-wide scale through an improved public domain
- Jobs and skills for the city: The proposal will generate approximately 16,212 additional jobs
- An efficient city: The proposal adopts best practise substantiality targets and practices and aims to deliver a sustainable future Central Precinct.

Eastern City District Plan

The proposal will give effect to the intended outcomes of the District Plan, including reinforcing the Eastern City's role as the national economic powerhouse of Australia and supporting its continued growth as a Global International City. It will also help boost innovation, economic development, knowledge intensive jobs and facilitate the comprehensive renewal of Central Sydney delivering much needed improvements to the quality and accessibility of the CBD. Importantly, it will enable the realisation of the following planning priorities and actions:

- **Planning Priority E7:** The proposal will help grow a stronger and more competitive Harbour CBD by delivering a significant new office precinct that will strengthen the international competitiveness of the Harbour CBD. It will also the deliver valuable office space for innovation and technology that will support the emergence of an innovation and technology ecosystem and economy.
- **Planning Priority E8:** The proposal will help stimulate future growth and investment in health and education uses within Sydney's Innovation Corridor. It will provide a significant amount of new floorspace that will support new and emerging businesses, promote co-location and increased business-to-business interactions and provide a high quality public domain that supports a strong night-time economy
- **Planning Priority E10:** The proposal will support the delivery of integrated land uses and transport planning outcome that will contribute to the successful creation of a 30-minute city
- **Planning Priority E19:** It will help reduce carbon emissions and promote the effective, efficient and sustainable management of energy, water and waste within the sub-precinct.

Camperdown - Ultimo Collaboration Area and Place Strategy

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 Place Strategy recognises the planned urban renewal of Central Station, which will be a key project to revitalise local open space and community services and further boost the economic contribution of the Haymarket activity node.'

The proposal will form a northern innovation and technology anchor for the Camperdown - Ultimo Collaboration Area. The proposal is consistent with Strategy's directions, and will deliver a development outcome that positively contributes to realising the vision for the area as a globally recognised place that becomes known for its economic productivity, innovation, industry collaboration and high-quality architecture.

In keeping with the strategy's directions, the proposal will introduce new high growth sectors, jobs and investment in Central Sydney that will help drive social wellbeing and the NSW economy. The proposal directly aligns with the following key priorities and actions of the Strategy:

- **Priority 1:** It will integrate and connect the Collaboration Area, revitalising the southern edge of Central Sydney.
 - **Action 5:** It will redevelop Central Precinct with improved connectivity and accessibility within and surrounding the Collaboration Area.
- **Priority 3:** It will promote smart technology, drive innovation and connect locally and globally.
 - **Action 13:** It will provide opportunities for knowledge sharing across key institutions to foster high performance management networks.
- **Priority 5:** It will help foster healthy, creative, culturally rich, socially connected and welcoming communities.
 - **Action 16:** It will increase activation and improve accessibility for pedestrians and cyclists, providing seamless connectivity across the Collaboration area.
 - **Action 17:** it will foster vibrant places and a night-time economy.
- **Priority 7:** It will catalyse and cultivate an internationally competitive health, education, research and innovation area.
 - **Action 22:** it will attract new businesses and industries, including cultural and creative industries, start-ups, innovation clusters and investment to drive job growth.

Sustainable Sydney 2030

The strategic vision for Central Precinct closely aligns with the directions of the City of Sydney LGA's Sustainable Sydney 2030 strategy. The proposal will reinforce the strategic directions of the strategy by creating additional jobs in the Sydney CBD, facilitating sustainable urban renewal in close proximity to public transport, improving walkability and connectivity within the Precinct and its surrounds and promoting opportunities for innovation and collaboration by supporting a new innovation and technology precinct.

Of the ten (10) overarching directions of Sustainable Sydney 2030, the Central Precinct proposal aligns with the following overarching directions of the strategy:

- A globally competitive and innovative city
- A city for walking and cycling
- Integrated transport for a connected city
- Sustainable development, renewal and design
- A lively and engaging city centre.

City Plan 2036

The proposal closely aligns with the priorities identified for Central Sydney under City Plan 2036. It will deliver a specialised precinct and revive the southern city fringe edge of Central Sydney. It will enhance walkability and connectivity and aims to create a new and exciting place adjacent to Central Station. Importantly, the proposal will deliver additional jobs and over 250,000 square metres of commercial floorspace in Central Sydney in line with forecasted demand for workplaces by 2036, creating a stronger and more competitive Sydney. The proposal responds to the following planning priorities:

- Movement for walkable neighbourhoods and a connected city
- Align development and growth with supporting infrastructure
- Supporting community well-being with infrastructure
- A creative and socially connected city
- Creating great places
- Growing a stronger, more competitive Central Sydney
- Developing innovative and diverse business clusters in City Fringe
- Creating better buildings and places to reduce emissions and waste and use water efficiently.

Central Sydney Planning Strategy

The proposal is consistent with the vision and aims of the CSPS. In keeping with the underlying intent of the strategy, the proposal will introduce additional commercial floor space to meet the forecast demand for workspaces in Central Sydney, whilst also facilitating development uplift within one of the identified potential cluster zones within Central Sydney. The proposal will also facilitate the future creation of a vibrant employment led mixed use precinct that will positively contribute to the broader locality. Overall, the proposal aligns with the following key moves set out under the draft CSPS:

- Prioritise employment growth and increase capacity
- Provide for employment growth in new tower clusters
- Move towards a more sustainable city
- Protect, enhance and expand Central Sydney's heritage, public places and spaces
- Move people more easily
- Reaffirm commitment to design excellence
- Ensure strong community and service infrastructure accompanies growth.

A more detailed assessment against the CSPS is provided in **Attachment 10**.

Future Transport Strategy 2056

The proposal aligns with the vision of the strategy which calls for 'transport projects to be an enabler of economic and social activity that contributes to long term economic, social and environmental outcomes.' The proposal will facilitate renewal across Central Precinct that will capitalise on the delivery of large-scale infrastructure projects such as Sydney Metro, the Sydney CBD and South East Light Rail and Central Walk. In conjunction with these infrastructure projects, renewal of the precinct will catalyse and promote further investment and renewal, which will in turn transform and revitalise the southern edge of Central Sydney.

NSW State Infrastructure Strategy 2018 – 2038

The proposal responds to the strategic directions identified in the Strategy through:

- improving the integration of land use, transport and infrastructure
- optimising the management performance and use of the State's assets
- supporting the delivery of infrastructure which is resilient to natural hazards and human-related hazards
- supporting state-wide connectivity and creating opportunities to embrace the benefits of technology.

9.3 Amenity

9.3.1 Sunlight

Maintenance of sun access to existing key open spaces (Prince Alfred Park and Belmore Park) and ensuring high levels of sun access to proposed key open spaces (including Central Square and Central Green) was a key area of focus for the proposal. It has therefore heavily influenced the distribution of built form and the height of buildings and the location, alignment and shape of new open spaces.

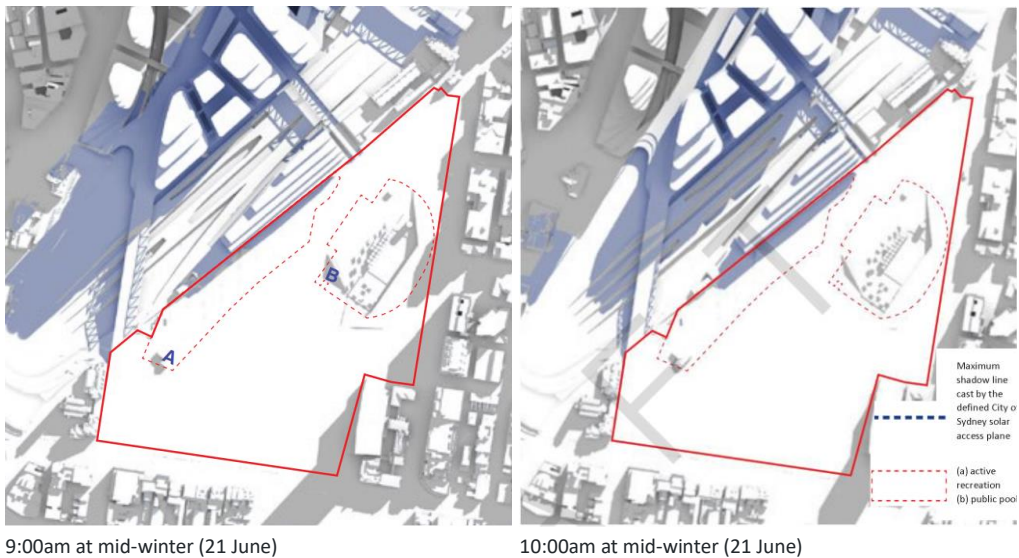
Architectus has investigated sunlight matters for all the different public open spaces within and adjacent to the precinct, including preparation of shadow diagrams (**Attachment 3**).

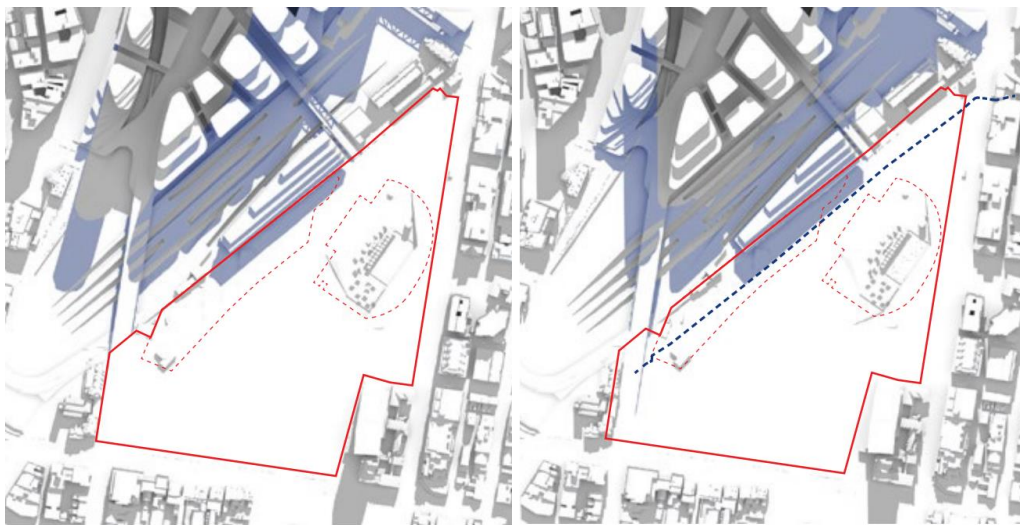
Existing open spaces

For Prince Alfred Park and Belmore Park, shadow diagrams show that the proposal complies with existing sun access planes contained in the SLEP 2012.

For Prince Alfred Park, this means that additional overshadowing between the control hours of 12pm – 2pm at mid-winter (21 June) is limited to the active recreation area in the north-west of the park (refer **Figure 47**). Importantly, additional overshadowing does not occur for the swimming pool or the large, grassed area to the south of the native meadow.

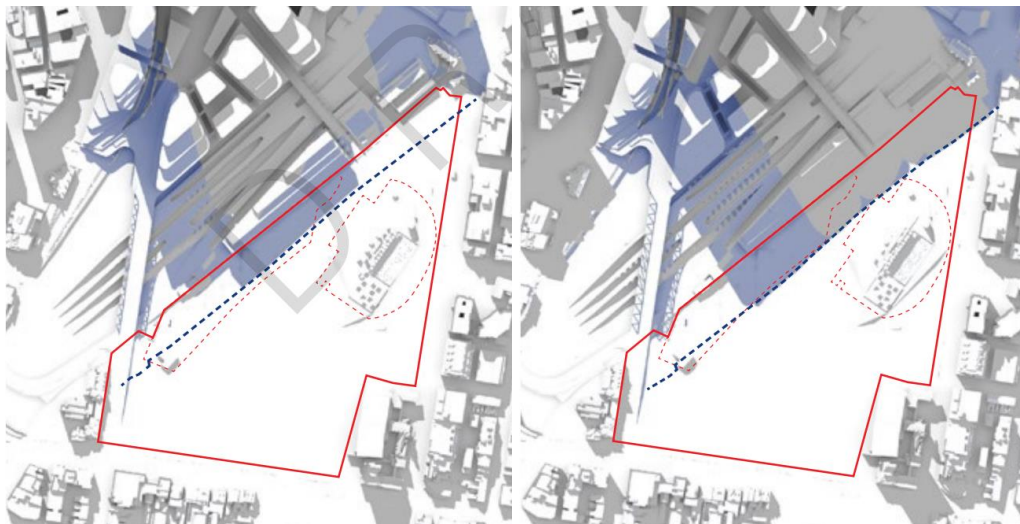
For Belmore Park, this means additional overshadowing between the control hours of 10am – 2pm at mid-winter (21 June) is limited to a small part of the north-east of the park. Importantly, additional overshadowing does not occur for the grassed area at the northern end of the park.





11:00am at mid-winter (21 June)

12:00pm at mid-winter (21 June)



1:00pm at mid-winter (21 June)

2:00pm at mid-winter (21 June)



3:00pm at mid-winter (21 June)

Figure 47: Proposed additional overshadowing to Prince Alfred Park

Note: additional overshadowing is shown in blue

New open spaces

Table 5 shows the level of sun access that will be achieved in key new open spaces.

As the main new dwell space for Central Precinct, the location, alignment and shape of Central Green has been deliberately planned to achieve high levels of sunlight access. While the final design of the green will be determined as part of the subsequent, separate development application stage, it is intended that it will incorporate a large, grassed area for passive recreation. Central Green extends into the northern portion of Central Avenue where there are opportunities for greening and canopy coverage in this high amenity area.

Being located to the immediate east of the heritage listed Mortuary Station and an existing mid-rise apartment building, achieving solar access to Mortuary Station Plaza is more challenging. The Mortuary Station Plaza are also constrained by limited sunlight access the area currently receives based on the existing and already approved built form, specifically at the Western Gateway sub-precinct. However, Mortuary Station Plaza is considered a plaza where there will be less turfed areas and therefore acceptable sun access for the intended function is considered to be achieved having regard to these challenges.

How has this been incorporated into the proposed planning framework?

Based on the technical analysis and testing under the Indicative Reference Masterplan, the Design Guide has been prepared to include the following minimum sun access requirements for key new open spaces (**Table 6**).

Table 6: Central Precinct sunlight access development standards

Public Space	Sunlight protection
Central Green	Direct sunlight to 50% of the area for a minimum of 4 hours from 9am to 3pm on 21 June.
Eddy Avenue Plaza	Direct sunlight to 50% of the area for a minimum of 2 hours from 9am to 3pm on 21 June.
Mortuary Station Plaza	Direct sunlight each hour between 11am and 1pm for at least 50% of the plaza on 21 June.
Central Square	As per the Central Square sun access planes identified in the SLEP 2012.
Belmore Park	As per the Belmore Park sun access planes identified in the SLEP 2012.
Prince Alfred Park	As per the Prince Alfred Park sun access planes identified in the SLEP 2012.

9.3.2 Daylight

Along with sunlight, daylight is an important factor to ensuring a high level of amenity in public places.

As part of preparing the CSPA, the City of Sydney undertook a study of daylight in Central Sydney streets and lanes using 'Sky View Factor' (SVF). SVF measures the proportion of sky visible from any point from the ground.

It found the following typical conditions:

- Streets and spaces with low SVF - less than 15%. Within Central Sydney this often applies to small streets or laneways
- Streets and spaces with a typical SVF - 15% to 25%. Within Central Sydney this often applies to long and straight streets
- Streets and spaces with a higher SVF - 25% to 35%. Within Central Sydney this often applies to short, wide streets or at an intersection or open space
- Streets and spaces with the highest SVF – more than 35%. Within Central Sydney this often applies to edges of the city or areas where development is not as dense or tall.

Architectus undertook a SVF analysis of the proposal in accordance with the methodology used for the CSPS (refer **Attachment 3** and **Figure 48**). It showed that:

- The majority of proposed open spaces, streets and laneways on the OSD achieve more than 25% SVF, being consistent with what is considered a high SVF in Central Sydney
- Key open spaces on the OSD achieve approximately 35% to 50% SVF, which is a high result within the context of Central Sydney
- Central Square achieves 49.8% SVF
- Mortuary Station Plaza achieve 63.3% SVF.

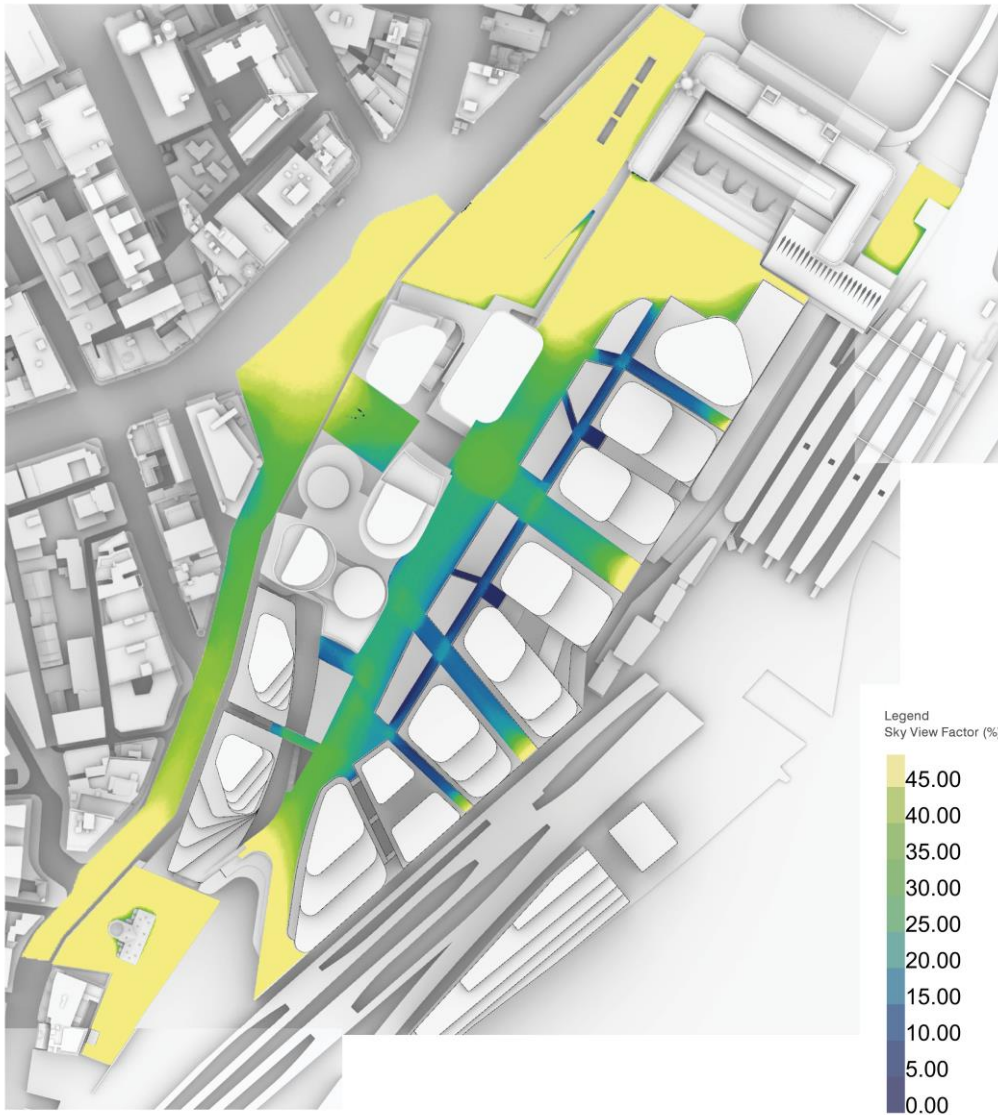


Figure 48: Proposed sky view factor levels

As shown in **Table 7**, Central Green compares well to other, nearby and comparable publicly accessible open spaces created recently through major urban renewal projects.

Similarly, at an average of 28.3% SVF, Central Avenue compares favourably with other main streets in Central Sydney, including George Street at 17.6% and Pitt Street at 14.8%.

Table 7: Proposed sky view factor to key new open spaces

Place	SVF achieved
Central Green	56.2% (average)
Central Park	42.7% (average)
Darling Square	31.3% (average)

How has this been incorporated into the proposed planning framework?

Based on the technical analysis and testing undertaken with regard to daylight and sky view for the precinct, a minimum and target cumulative average sky view factor percentages has been

established for the publicly accessible spaces, which are set out in the Design Guide (**Attachment 11**). These are summarised **Table 8** below.

Table 8: Proposed sky view factor to key new open spaces

Publicly accessible space	Minimum cumulative average sky view factor (SVF)	Target cumulative average sky view factor (SVF)
Central Avenue	25%	25%
Devonshire Link	15%	25%
Laneways (excluding Eastern Colonnade)	5%	7%

The nominated sky view factors for the precinct are considered more appropriate than the sky view factors in the Central Sydney DCP as they aim to protect a certain level of daylight accessed from the proposed streets and laneways within and surrounding Central precinct. Importantly, these minimums and targets align with the typical level of daylight access range experienced in Central Sydney.

9.3.3 Wind

A Wind Study has been prepared by MEL Consultants in collaboration with Laminar2 Turbulent (refer to **Attachment 12**).

The study considers the wind conditions in Central Precinct and adjacent areas, including Elizabeth Street, Prince Alfred Park, Railway Park, Belmore Park and Central Square, being the proposed future third square of Central Sydney. Wind impacts and performance of the proposed future renewal of Central Precinct have been investigated using two different, but symbiotic, fluid mechanics technologies, these being:

- i. Computational Wind Engineering (or CWE, an atmospheric-based subset of the broader field on Computational Fluid Dynamics, CFD) and,
- ii. physical modelling with a scaled representation of the site in a large boundary-layer wind tunnel. For assessing the environmental pedestrian-wind conditions the former is a new approach gaining confidence in the wind-engineering community and the latter is a well-established approach used with success since the 1970s.

MEL Consultants and Laminar2 Turbulent elected to use two different fluid mechanics technologies to analyse wind performance as it provides a number of benefits to the Precinct planning process, including:

- The CWE test presents wind information in a clearly discernible and easy to understand form, using colour coded maps to show wind performance across the precinct and its surroundings. It also effectively illustrates wind trajectories and highlights the reasons why certain wind conditions are occurring. This enabled MEL Consultants and Laminar2 Turbulent to quickly understand the cause and effect of wind conditions so they could advise the Central Precinct team in a timely manner to assist with the design evolution process.
- The CWE approach has enabled iterative regular testing of the wind performance of the Indicative Masterplan for the Central Precinct. The ability to quickly analyse and report wind performance has allowed for testing and retesting of different massing scenarios to understand the wind implications of changes in site layout and built form. In turn this has enabled the design team to make adjustments as needed to address wind challenges and optimise wind performance across the Precinct and its surrounds.

- Once the Indicative Masterplan was refined using the CWE approach, a physical model of the preferred Precinct design was prepared and placed in a wind tunnel to further test its wind performance. This step provided the Central Precinct team with more detailed wind data that enabled verification of the CWE wind performance results, and importantly also enabled the team to identify which areas within the Precinct still required further investigations and potentially the use of localised wind mitigation measures.
- The wind tunnel results have also allowed the Central Precinct team to obtain peak gust data which has enabled a more comprehensive understanding of likely future wind performance and conditions within the Precinct.

In undertaking this two-step process, MEL Consultants and Laminar2 Turbulent have been pleased to see a high level of general agreement between the CWE and wind tunnel modelling results, providing confidence in the accuracy of wind analysis.

Existing conditions

Central Sydney has long been known to have windy conditions in the public domain.

Compounding this, Central Precinct's location at the south-east edge of Central Sydney means that unlike many other areas it does not benefit from widespread shielding by other, existing buildings.

This creates an inherently more challenging wind environment compared to those that exist in many other parts of Central Sydney. This includes exposure to prevailing southerly and westerly winds in winter and north-easterly winds in summer.

These challenging wind conditions are further exacerbated by the elevated nature of the proposed OSD, the proximity to the approved Western Gateway and the desired configuration of the Precinct, and in particular the width and alignment of new streets for urban design reasons.

City of Sydney wind criteria

To manage the wind impact of new development, the City of Sydney has established wind safety and comfort criteria in the Sydney DCP 2012.

The wind safety standard included in the CSPS is defined as an hourly maximum peak 0.5 second gust wind speed measured between 6am and 10pm Eastern Standard Time of 24 metres per second.

The wind comfort standard contained in the CSPS is defined as an hourly mean wind speed for each wind direction, with probability of exceedance less than 5% per annum (averaged over all wind directions) measured between 6am and 10pm, of equal to or less than:

- 4 metres/second for sitting areas
- 6 metres/second for standing areas
- 8 metres/second for walking areas.

Shaping the proposal

As noted earlier, to help meet this criteria, MEL Consultants and Laminar2Turbulent undertook an iterative process of Computational Wind Engineering (CWE) and wind tunnel testing that has been instrumental in helping to inform, test and refine the proposal based on wind performance results.

CWE was particularly helpful in the initial stages of design as it enabled the ready visualisation of wind flows and strengths and identification of causes of wind performance.

Wind tunnel testing involves placement of a physical model in a simulated upstream boundary layer of the natural wind. This has included readings from approximately 130 test locations within Central Precinct and in surrounding areas as shown in **Figure 49**.

As part of this process, MEL Consultants recommended that the following City of Sydney comfort standards be applied to specific types of areas in and around the development:

- **Pedestrian transit areas:** walking comfort standard
- **Building entrances:** standing comfort standard
- **Outdoor seating areas:** sitting comfort standard
- **Terraces:** walking comfort standard.

Key design moves made in response to wind testing included:

- aligning the northern edge of tower development with the Western Gateway
- changing the shape of the northernmost tower in Block A to a more triangular form to provide for a more smooth flow of wind
- chamfering of other building corners to also allow for a more smooth flow of wind
- Achieving building separation distances that enable the Precinct to more effectively divert wind above and around the Precinct rather than through the Precinct, which has been key to optimising the pedestrian wind environment.

Proposed conditions

The results of the study are shown in **Figure 49**. General trends in the findings were that:

- wind conditions are better at the southern end of the OSD than at the northern end
- surrounding streets and OSD areas generally satisfy the walking comfort standard or better. Some exceptions to this occur in areas around the Western Gateway, these being the east side of Block A on Central Avenue, the west side of Lee Street adjacent to Block B site, and the north-west corner of the Block C site
- Two of the three over rail pedestrian bridges do not meet the walking criteria
- nearby parks and public spaces satisfy the walking comfort standard or better.

It is noted that wind tunnel testing has also been undertaken for the baseline scenario which demonstrated that the wind outcomes of the proposal are generally comparable with the baseline scenario, and in some cases slightly improved.

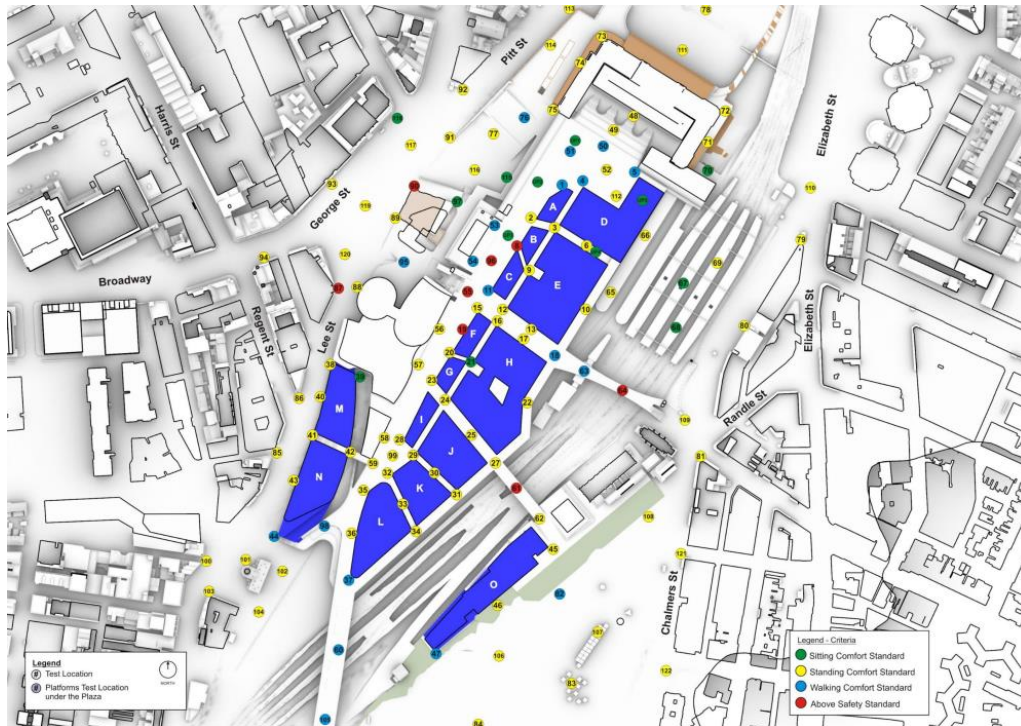


Figure 49: Results of wind tunnel testing

All the test locations pass the walking comfort standard. A small number of locations, in particular near the intersection of Central Avenue and Devonshire Link and the over-rail active transport bridges, do not meet the safety standard. This is shown by the red dots in **Figure 49**.

The main cause of this outcome at the intersection of Central Avenue and Devonshire Link is wind from the north-west striking the Western Gateway, being diverted down to ground level by the buildings within the Western Gateway and then being funnelled east through and along the Devonshire Link, and south along Central Avenue. This is further exacerbated by the upward slope of the Devonshire Link in this location where the stairs provide the transition between the ground level of Henry Deane Plaza and the OSD above.

It is worth noting that while the wind analysis shows that these areas currently exceed wind comfort and safety standards, the modelling is undertaken on a base case scenario that does not factor in building articulation or localised wind mitigation measures such as screens, awnings (see below **Figure 50**), balustrades etc. These types of measures are common practice within Central Sydney and proven to be highly effective at mitigating wind impacts to achieve appropriate environments for pedestrians. With that in mind, working with the design team, MEL Consultants have recommended some select localised wind mitigation measures to resolve the instances where the analysis has identified locations of wind exceedance, these being:

- installation of a porous screen/s within the Devonshire Link between Block A and Block B of the Western Gateway together with the use of small scale pavilion structures along the eastern side of Central Avenue in locations that are intended to provide a future seating environment
- For the over-rail active transport bridges, installation of standard porous (eg, 50 to 60% solid), safety balustrading. It is noted that in this location, similar fencing would be required irrespective of wind performance in order to ensure appropriate rail safety outcomes.

Subject to the inclusion of these localised mitigation measures, MEL Consultants conclude that wind safety criteria are capable of being satisfied by the proposal.



Figure 50: Example of localised wind mitigation measure (awning)

Source: Architectus

Central Green has also been an area of focus for the wind analysis as it is intended to be a highly utilised open space area, and it is therefore important for amenity to be maximised for future users. Central Green's location at the northern end of the Precinct ensures that it will receive high levels of sunlight, this combined with its outlook to the clocktower, Terminus Building and broader CBD means that it will be an attractive place to sit for extended periods. Wind analysis has shown that without localised mitigation measures, the sitting criteria for wind comfort is unable to be achieved. Whilst this is the case, testing has shown that trees planted in the locations proposed under the public domain plan had the effect of improving the ambient conditions in many locations consistent with the "walking" criterion and the "stationary criteria" (standing and sitting in various locales, depending on wind direction).

Achieving the sitting criterion within the Central Green is highly challenging as the area has several inherent challenges, namely its open character and its above ground elevation due to its positioning on the OSD, combined with its location at the northern end of the Precinct which expose it to prevailing winds. Taking this into account the iterative wind modelling process has enabled the project team to shape and design this space and the surrounding built form to optimise wind performance.

Recognising the importance of Central Green, continued analysis will be carried out to test additional localised mitigation measures to understand whether further improvements can be delivered to wind conditions in this area. Any additional mitigation measures will also need to be acceptable from a built form and heritage point of view. If such measures are identified, then Transport for NSW will work with DPE and other key stakeholders to explore the acceptability of these measures forming part of the future plans for the area.

Overall, the end result of the wind analysis is a proposal that has been informed and shaped by wind modelling from the very beginning. Extensive and iterative testing has enabled Transport for NSW to design a proposal that is capable of meeting wind safety criteria, while ensuring that wind

conditions locally around individual buildings can also be improved for specific purposes (e.g. standing conditions for waiting/entry areas or sitting conditions for cafes). Requirements for such measures will be built into the planning framework so they can be incorporated when individual building designs and development applications are being assessed in the future.

Taking all the above into account, MEL Consultants conclude that 'the consequence of this long iterative process is that the conditions at the base of these new tall buildings is much improved from the original conceptual design and is, in fact, better than the aerodynamically unplanned and unstudied CBDs that constitute most cities'.

How has this been incorporated into the proposed planning framework?

To ensure acceptable future wind conditions, the Design Guide (**Attachment 11**) includes an objective that requires that development does not result in unsafe or uncomfortable wind conditions within publicly accessible space within or surrounding Central Precinct relevant to the intended primary purpose of that space.

Supporting controls in the Design Guide require future development applications within Central Precinct to be accompanied by a Quantitative Wind Effects Report. The Design Guide also requires achievement of City of Sydney wind safety and comfort criteria relevant to the intended use of the space, as identified in **Figure 51** below, except in limited circumstances. These circumstances where the wind safety standard or wind comfort standard can be exceeded by development include where:

- it can be demonstrated that the existing wind speeds in affected locations exceed the standard(s)
- development does not result in an increase in existing wind speeds as measured by the relevant standards.

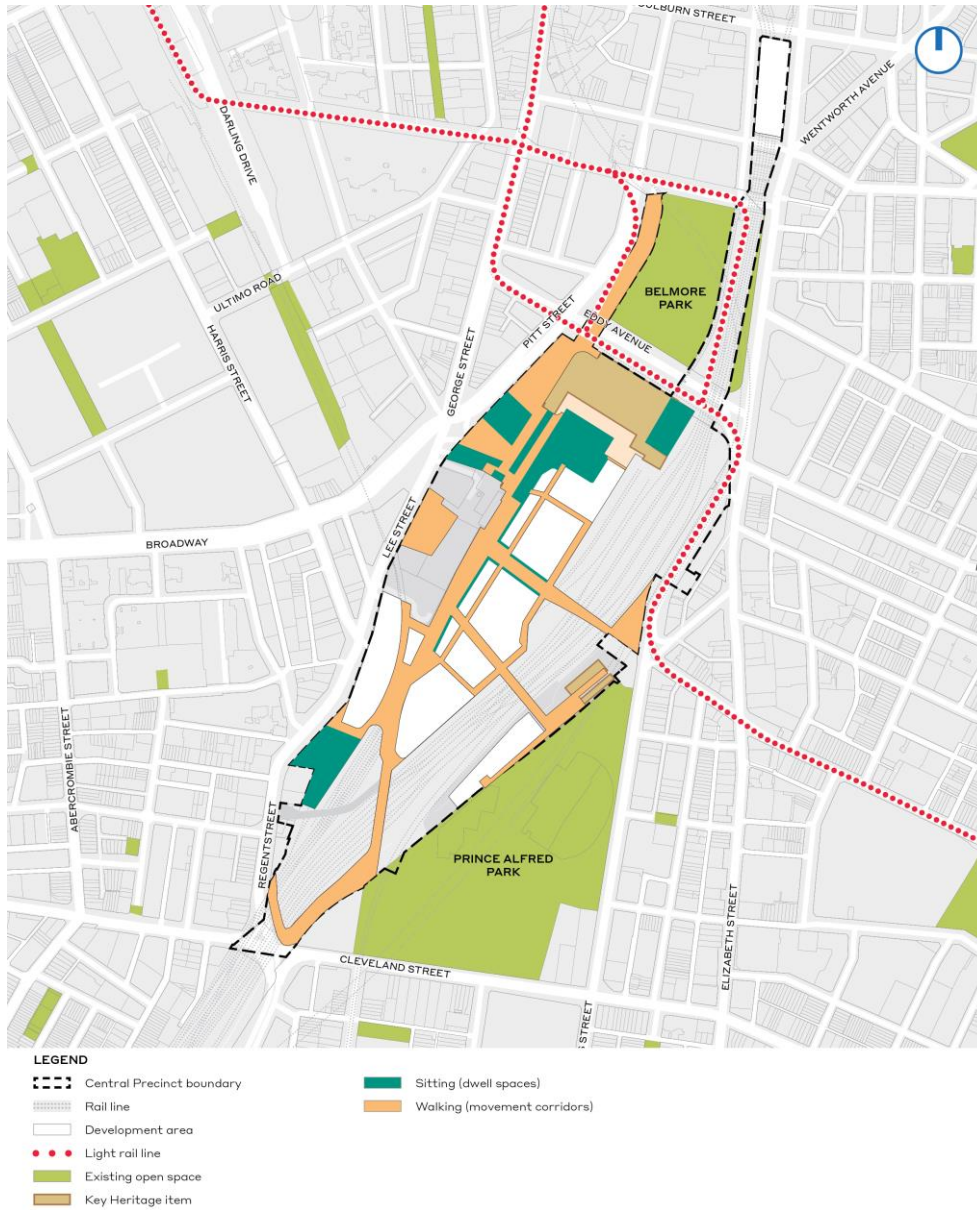


Figure 51: Proposed wind criteria to be achieved as per the Design Guide

Building on the localised wind mitigation measures recommended by MEL Consultants, the Design Guide (**Attachment 11**) requires that any proposed wind mitigation devices required to address wind safety or comfort criteria are localised and well-designed. It notes that such devices are likely to require detailed design review to ensure high quality outcomes are achieved.

Further, the Design Guide requires that any wind mitigation device required to address wind safety or comfort criteria in the Devonshire Link is:

- to allow the free and safe flow of pedestrians at ground or OSD level
- to consider impact on any sightlines to the Marcus Clarke Building
- to have a porous surface
- encouraged to have dual use as artwork.

9.3.4 Noise and vibration

A Noise and Vibration Study has been prepared by RWDI (**Attachment 13**) to assess the existing noise environment and the potential related impacts that may arise from the operational rail lines and relationship to the development within the renewal Precinct. It also outlines mitigation measures to manage these impacts, which have then informed the proposed planning framework for the Central Precinct.

The assessment identifies several key noise and vibration sources that have the potential to impact the Precinct in the future, which include:

- Road and traffic noise.
- Rail (including metro) and light rail noise.
- Industrial noise (mechanical services).
- Rail movement vibration.
- Construction related noise and vibration.

Figure 52 shows an image of the 3D noise model that was used as the basis for undertaking the noise impact assessment.

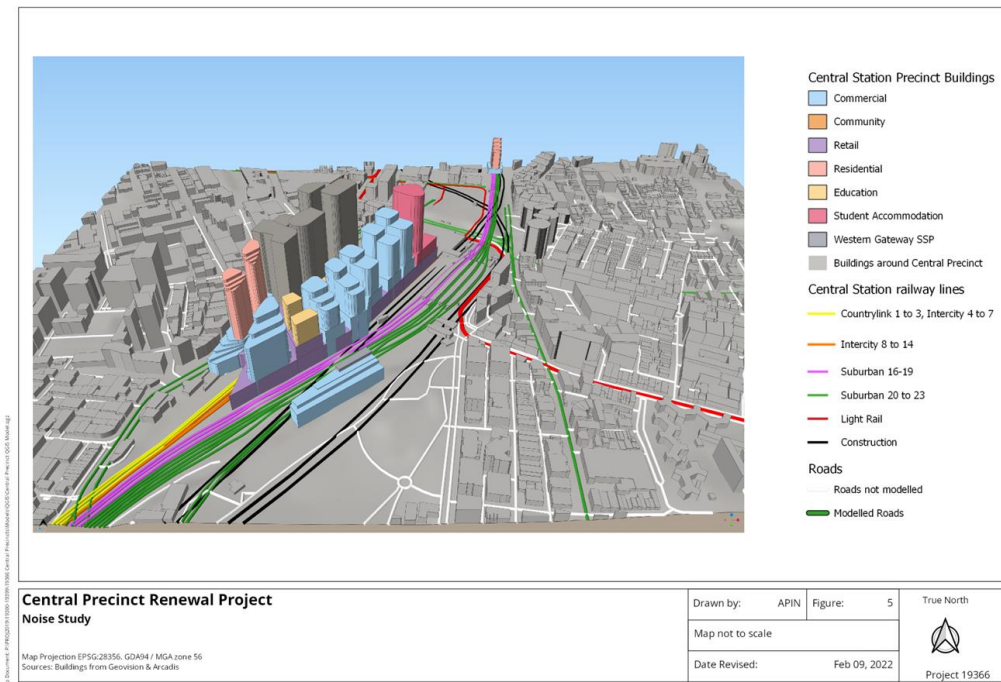


Figure 52: 3D view of the noise model

Road traffic noise

Noise from traffic movements in and around the Central Precinct, including truck and car movements, has been primarily assessed against the *Development near Rail Corridors and Busy Roads – Interim Guidelines* (DoPE, 2008). The nearest major roads with the potential to have a traffic noise impact on the Precinct include Cleveland Street, Chalmers Street, Elizabeth Street, Eddy Avenue, and Pitt Street. The assessment found that the required performance can be achieved using standard construction techniques and the relevant noise criteria will be achieved by development with the Precinct, despite existing and ongoing road traffic noise.

Rail noise

Noise from railway movements in and around the Central Precinct has been primarily assessed against the *Development near Rail Corridors and Busy Roads – Interim Guidelines* (DoPE, 2008). Several locations within and surrounding the Central Precinct are subject to significant railway noise emissions. Based on the air-borne and ground-borne noise levels presented in the Noise and Vibration Study (**Attachment 13**), it has been concluded that that internal noise levels criteria for commercial and residential premises can be achieved with appropriate façade treatment.

Industrial noise

Noise from future mechanical servicing of development within the Precinct was assessed against the *NSW Industrial Noise Policy* and Sydney Development Control Plan 2012 related noise provisions. It was also identified within the assessment as being the key source of noise emissions on sensitive receivers surrounding the Precinct. The assessment found that the most impacted receivers by these sources can comply with the relevant noise guidelines.

Vibration

Vibration from train movements, particularly intercity train movements, has been identified as a major source of vibration impacts on future development within the Precinct. The assessment found that the provision of a high-attenuation track form will likely ensure operational vibration levels will achieve the required vibration and structure borne noise criteria within areas in and immediately outside the Precinct.

Construction noise and vibration

This SSP Study rezones the Central Precinct and does not seek approvals for any works. The Precinct's future development is a long term highly complex project and therefore analysing potential construction noise and vibration at this early stage without any detailed proposals would produce hypothetical outcomes that are not based on any specific construction proposal. Construction related noise and vibration impacts were therefore recommended to be addressed at future stages of development once further staging, structural specifications and buildability approaches were confirmed for specific development proposals. This is consistent with common practice for proposals within Central Sydney.

Notwithstanding, a high-level analysis of potential construction noise and vibration impacts, in addition to associated mitigation measures, have been explored, the results of which are contained at **Attachment 13**.

How has this been incorporated into the proposed planning framework?

In addition to existing policies that manage noise and vibration matters at the development application stage, the Design Guide (**Attachment 11**) has adopted a combination of the existing noise and vibration provisions of the Sydney Development Control Plan 2012 and *State Environmental Planning Policy (Transport and Infrastructure) 2021*. This will ensure noise and vibration matters are adequately considered during the development application stage and that an appropriate mitigation response is prepared and implemented for each development within the Precinct.

9.3.5 Pollution

A Pollution Study has been prepared by Arcadis in association with ARUP (**Attachment 14**), which provides a detailed analysis on water quality, air quality and light pollution associated with the Central Precinct and its renewal.

Water Quality

The findings of the assessment relating to water pollution show that the receiving waters impacted by the Precinct are the Darling Harbour catchment to the north and Blackwattle Bay catchment to the south, which both drain eventually into Sydney Harbour. Potential key contaminants leaving the Precinct and impacting these catchments likely include railway ballast within the railway corridor and diesel residue and brake dust associated with train movements. These catchments are impacted through existing drainage infrastructure that is located in and around the Precinct, in addition to run-off from existing buildings, structures and ground surfaces.

Significant opportunities exist to considerably improve the quality of water runoff from the Precinct. These opportunities relate to the provision of modern and sustainable drainage measures, in addition to landscaping design and provision within the public domain and on the future built-form.

Air Quality

An analysis of available pollutant data was undertaken to understand existing air quality levels impacting the Central Precinct. National Environment Protection (Ambient Air Quality) Measure (NEPM) were used under the analysis. The analysis concludes that any future development to occur under the proposed planning framework is not expected to result in the generation of significant levels of air pollution.

The main sources of air pollution impacting Central Precinct are vehicle emissions from the surrounding road traffic network and diesel locomotives. It is assumed these impacts will decline into the future due to the likely electrification of these vehicles. Construction activity within Central Precinct and in surrounding areas can also cause sporadic and localised air quality impacts. The regional airshed also influences air quality within the Central Precinct on occasion.

Light Pollution

An analysis of existing light spill conditions in and around the Central Precinct has been carried out. It also determines potential lighting design measures and strategies to mitigate impacts on future development, surrounding receivers and wildlife. The assessment refers to the *Australian Standard (AS)4282 Control of the obtrusive effects of outdoor lighting* and relevant provisions under the City of Sydney Development Control Plan 2012 and *City of Sydney Public Domain Design Codes – Sydney Lights*, as applicable to future development applications or public domain works within the Precinct.

How has this been incorporated into the proposed planning framework?

Aspirations relating to water quality have been set, which are aligned to the Environmental Sustainability ambitions provided under the Environmental Sustainability Study by Integral and Atelier Ten (**Attachment 24**). These aspirations seek to deliver a net improvement to water quality and a reduction in stormwater pollution into Sydney Harbour beyond best practice guidelines. To achieve these aims, pollutant reduction targets and Water Sensitive Urban Design (WSUD) measures have been adopted within the Design Guide.

A key objective relating to air quality is that renewal of Central Precinct does not contribute to localised impacts worsening. This objective relates to impacts within and immediately outside the Central Precinct. Achieving this objective is considered attainable, as diesel locomotives is the only major source of air pollution to remain with Central Precinct post its redevelopment. It was

suggested impacts associated with diesel locomotive use could be mitigated through the provision of a ventilation system (refer to **Figure 53**). This will be explored in further detail at the subsequent development application stage.

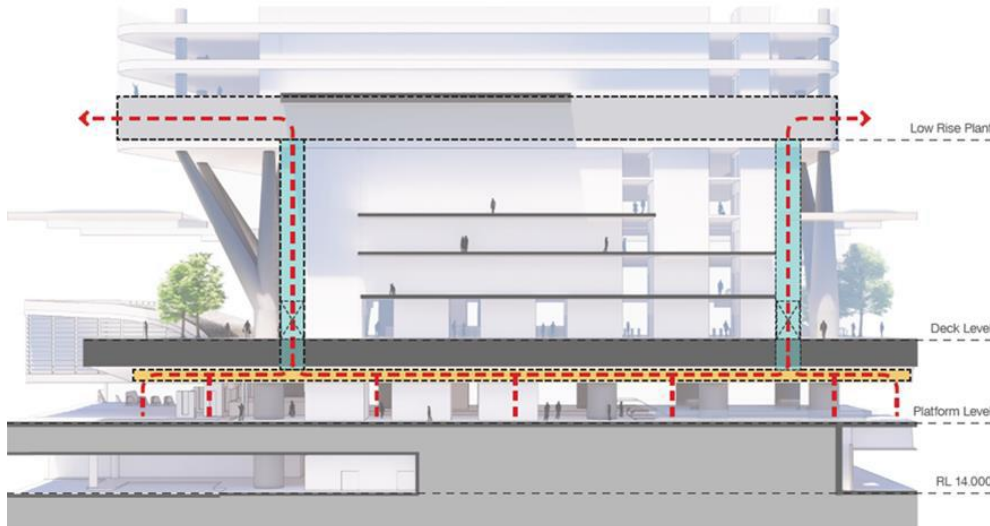


Figure 53: Indicative ventilation system

Source: Arcadis (2022)

All future development in the Precinct will be required to limit light spill in accordance with the technical parameters in the AS4282 and conform to lighting design and public street lighting limits within the standard as part of the detailed design phase. Where these design values are adopted, it is anticipated that light spill impacts can be maintained within acceptable limits. Based on the outcomes of this initial assessment, provisions have been included within the Design Guide (**Attachment 11**) to ensure that light pollution is appropriately considered and addressed as part of the future development application stage.

9.3.6 Views

Ethos Urban prepared a Visual Impact Assessment (VIA) (refer **Attachment 15**) for the proposal.

To ensure adequate representation of potential visual impact, 41 viewpoints in the public domain were selected for assessment.

This included views identified as being of importance by the City of Sydney, in particular the view from Broadway to the clock tower as well as views from open spaces such as Prince Alfred Park, Belmore Park and Railway Square.

In accordance with best practice, photomontages were prepared showing the existing and potential future visual conditions from each of these viewpoints.

Of the viewpoints selected, the findings were as follows:

- the proposal is likely to have a negligible significance of visual impact on 11 viewpoints (27% approx.)
- the proposal is likely to have a low significance of visual impact on 20 viewpoints (49% approx.)

- the proposal is likely to have a moderate significance of visual impact on 9 viewpoints (22% approx.)
- the proposal is likely to have a high significance of visual impact on 1 viewpoint (2% approx.)
- the proposal is not likely to have a major significance of visual impact on any viewpoint.

The new planning framework proposes to include a number of measures to mitigate visual impact. These include setting new development back from important heritage items such as the Sydney Terminal Building and clock tower and Mortuary Station, separating new towers from the rezoned Western Gateway sub-precinct and limiting the height of new buildings.

In addition, the VIA recommends that the new planning framework includes additional measures to address visual impact. This includes maintaining the existing clear sightline from significant views to the clock tower (refer **Figure 54**) and new development in important locations being required to demonstrate design excellence, including through design competitions.

Subject to the incorporation of the recommended mitigation measures, it is concluded that the proposal has an acceptable visual impact taking into consideration its location within an evolving Central Sydney location, in particular its proximity to the City's southern tower cluster, its consistency with the type of growth in this evolving Central Sydney location, the endorsed strategic planning intent for the precinct and the considerable change to existing visual character due to the approved Western Gateway rezoning. For a more detailed analysis of visual impacts refer to the VIA located at **Attachment 15**.



Broadway to clock tower



Wentworth Avenue to clock tower



Belmore Park to clock tower



Prince Alfred Park (native meadow)

Figure 54: Potential visual impact

Note: approved Western Gateway rezoning in dark grey



Figure 55: Significant views

9.4 Population and demographics

SGS Planning and Economics has prepared a Population and Demographics Study to outline the key population and employment drivers, trends and demographic profile of Central Precinct and the broader area (**Attachment 16**). This study should be read in conjunction with the Social Infrastructure and Health Impact Assessment prepared by Ethos Urban (**Attachment 22**).

Existing situation

It is estimated that around 112,070 people work within a 400 metres radius of Central Precinct. Compared to the City of Sydney LGA and Greater Sydney, a greater proportion of this workforce is in the information, media and telecommunications and the education and training sectors.

Around 45,600 people live within this same radius. This population is characterised by younger residents (student and young workforce age groups), lower incomes than the City of Sydney LGA average, higher levels of education and cultural and linguistic diversity. Households tend to be small (lone person or couple families with no children) or group households living in high-density apartments and are renting.

Reflecting Central Sydney’s role as Sydney’s premier employment location and Central Station’s role as its main rail hub, visitors are a key demographic in Central Precinct. This makes Central Precinct different to many other areas that are more dominated by residents and their interests. Importantly, these visitors comprise a diverse range of people. This includes many vulnerable groups – from children to elderly, people with poor or no English skills, people living with disabilities, people with mental health issues, overseas and regional visitors arriving at Sydney CBD the first time (likely experiencing culture shock), people experiencing homelessness.

A comparison between the demographic profile of Central Precinct and the study area has been compared. The key findings from this comparison include:

- **High growth rate** – Central Station precinct experienced an average annual population growth rate of 8% from 2011 – 2016, which is twice the overall rate of growth across the study area (4%).
- **A younger population** – The resident population in Central Precinct is much younger with 25% between 20-24 years, compared to the Study area (13%).
- **High multiculturalism** – Central Precinct has a high level of culturalism with the top three regions of ancestry for residents were Chinese (27%), Mainland South-East Asia (27%), Maritime South-East Asia (16%) and a small percentage identifying as Australian ancestry (10%). In comparison, majority of the study area identified as Australian ancestry (42%), followed by Chinese Asia (13%).
- **Highly educated** – A high proportion of residents in Central Precinct (51%) and the elected study (50%) have attained a Bachelor's Degree level.
- **A high proportion of apartments** – the predominant dwelling stock is made up of apartments (90%) in Central Precinct and 80% in the elected study area with an underrepresentation in detached dwellings in 2016.
- **Majority renters** – A high proportion of residents in Central Precinct rent (41%) with a low rate of ownership of dwellings (10%) when compared to the elected study area.
- **Non-family households** – Non-family households (households made up of non-family members) were the most dominant household type within Central Precinct (38%) and Study area (41%).
- **Lower household incomes** - in 2016, the predominant weekly household income in Central Precinct was recorded as nil income or income up to \$499 per week. This was lower than the elected study area reporting a weekly income bracket between \$2000-\$2,999. The high proportion of low-income households is likely reflective of the higher rates of students and smaller households in Central Precinct.
- **High proportion of employment in knowledge intensive/professional industries** – most residents in Central Precinct are employed within the Professional, Scientific and Technical Services (30.74%).
- **High public transport usage** – The majority (75%) of the employed residents in Central Precinct travel to work via public transport, compared to the elected study area (64%)

Key trends

As set out below, a number of key trends are forecast to impact on Central Precinct's future population and demographics.

Key employment drivers

- **Transition to a services economy:** shift from traditional manufacturing and agriculture towards knowledge intensive industries due to recent demand for professional, scientific and technical inputs at different stages of the supply chain.
- **Changing way of working:** The COVID-19 pandemic resulted in lockdowns that quickly displaced demand for retail and commercial offerings in Sydney CBD and people searching for local alternatives to their 'third spaces'. Commercial tenants are embracing flexible working models and are attracted to adaptable and reduced floorspace, introducing a new wave of innovation where entrepreneurs who were previously priced out of CBD locations seizing the opportunity to participate in the innovation ecosystem.

Key population trends

- **Net-overseas migration:** The disruptions of the COVID-19 pandemic resulted in a decline in net-overseas migration which make up a significant proportion of population growth in Greater Sydney. A return to positive net-overseas migration is not expected until the 2023 financial year (Centre for Population, 2021).
- **Changing age profile:** Although the previous average age in the inner city had been decreasing with students/young people, this trend appears to be reversing in 2020 and 2021 due to fluctuating migration conditions.
- **Migration patterns demand-side risk:** Many visa holders returned to their countries of citizenship due to ineligibility for government support and therefore may cause a demand-side risk for CBD and employment centre occupancy due to the uncertainty about their returning to Australia.
- **Residential demand for locations with high amenity:** Places with high amenity, activity with easy connections to key cultural and entertainment precincts including health services is likely to increase post-lockdown within Central Precinct and its surrounding area, particularly for old people.

Impacts – jobs

The renewal of Central Precinct will make a meaningful contribution to the Central Sydney economy. The proposed number of future jobs for Central Precinct is outlined in **Table 9** below.

Table 9: Number of new jobs

Central Precinct	Number of jobs
Upon completion of Central Precinct (excluding Western Gateway)	16,212
Western Gateway	12,579
Upon completion of Central Precinct (including Western Gateway)	28,791

In accordance with its innovation and technology focus, the largest number of these jobs is forecast to be in the professional, scientific and technical services sector (30.7%). **Table 10** below also shows that Central Precinct is further delivering on an ecosystem of jobs complementary to this focus, with a significant amount of new jobs forecast in sectors such as information media and telecommunications. It is also estimated that an average of 672 construction jobs per year will be generated by the proposal over the construction phase.

Table 10: Forecast new jobs

Note: % of jobs total is not intended to add to 100%

Industry	Number of jobs	% of jobs
Professional, scientific and technical services	9,315	30.74%
Financial and insurance services	3,242	10.70%
Information media and telecommunications	2,659	8.78%
Accommodation and food services	2,014	6.65%
Education and training	1,128	3.72%

Impacts – people and homes

The proposal has the capacity to provide homes for an additional 1,016 residents and 1,405 students by 2056.

How has this been incorporated into the proposed planning framework?

SGS make a number of recommendations for the proposal. These include considering the incorporation of:

- tech industry specialisation with a diversified local economy to benefit growth of existing business and to facilitate opportunities for collaboration
- build to rent and other models of housing development ownership to provide diverse housing options in Central Precinct
- affordable housing for lower-income renters.

The planning framework has been prepared to respond to these recommendations through the inclusion of measures to require and promote innovation and technology uses, a network of complementary uses such as a hotel and student accommodation and the inclusion of affordable housing in appropriate locations on the edge of the precinct.

9.5 Heritage

9.5.1 Non-Aboriginal heritage

A Non-Aboriginal Heritage Study has been prepared by Artefact Heritage (**Attachment 18**). The Study provides the current heritage context of Central Precinct with respect to historical background, existing conditions, key conservation areas within and around the site, current heritage legislative requirements and guidelines in NSW. It also provides recommendations for the management of the heritage values that are intended to inform the proposed planning framework for Central Precinct.

Built heritage

The study recognises Central Precinct as being of exceptional heritage significance to the State of NSW related to the key role it plays as the original Sydney railway in NSW and Central Station being the major hub of rail transportation in NSW since the mid nineteenth century. The proposal's retention of Central Station's role as Sydney's main rail station is considered to be critical to the acceptability of heritage impact.

The majority of Central Precinct is listed as having State heritage significance on the NSW State Heritage Register. Central Precinct contains three State heritage listed items:

- Central Terminal and Railway Station Group (which includes Central Station, the formers Parcels Post Office and Bradfield Flying Junctions)
- Mortuary Railway Station
- Railway Institute Building

Section 6 of the study has undertaken an assessment of the heritage significance of all existing buildings currently located within and surrounding Central Precinct. The study details the level significance overall of each individual item within each sub-precinct. This includes key heritage items located within the vicinity of Central Precinct.

Historical archaeological potential and significance

There is exceptional archaeological potential to high archaeological potential for Central Precinct to contain historical archaeological relics that are connected to the following phases:

- Phase 1: Early British Land Use (1788-1805)
- Phase 2: Macquarie’s Governorship and Early 19th Century (c 1819-1850)
- Phase 3: First and Second Railway Stations (1855-1900)
- Phase 4: Land Resumption and Constructing Central Station (1901-1932)
- Phase 5: Moderate (1930s – present).

Figure 56 to Figure 59 illustrate the various levels of archaeological potential for Central Precinct. The potential historical archaeological potential of Central Precinct is likely to have research potential to contribute to understanding the significance of Central Station at a state level.



Figure 56: Potential historical remains of exceptional archaeological potential



Figure 57: Potential historical remains of high archaeological potential



Figure 58: Potential historical remains of moderate archaeological potential

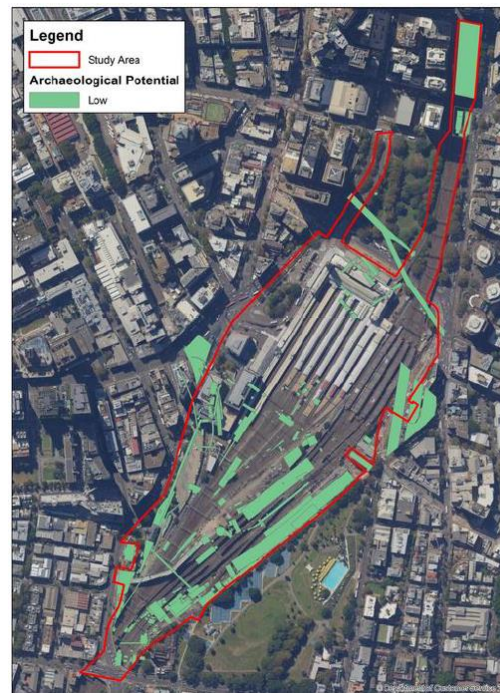


Figure 59: Potential historical remains of low archaeological potential

Assessment of impact on heritage

A Statement of Heritage Impact (SoHI) (Section 9 of the study) has assessed the direct and indirect impacts of the indicative urban design framework for Central Precinct. The SoHI related to the concept level features, elements and proposed scope of the masterplan for each sub-precinct only. It is noted that the detailed design of buildings and public spaces within Central Precinct will take place during a future stage of the planning and redevelopment process. This will require an accompanying additional heritage impact assessment (subsequent and additional to this SOHI), to specifically respond to and assess the impacts of the detailed design.

Heritage impact on heritage items

The SoHI highlights that the Urban Design Framework would result in heritage impacts (physically and visually) upon the significant state listed heritage items (Central Station, Mortuary Station and the Railway overbridge). A summary of the impact on these items is outlined in **Table 11**. It is noted that the proposed masterplan has undergone a comprehensive and iterative design process that has been informed through consultation with heritage architects, specialists and the GANSW to deliver a sympathetic design that achieves beneficial heritage outcomes and a viable development.

A detailed summary of the heritage impact upon state listed heritage items is provided in Section 9 of the Non-Aboriginal Heritage report.

Table 11: Summary of impacts on heritage items

State Heritage item	Heritage impact
<p>Central Station (State and Local, SHR (Item No. 01255), RailCorp S.170 (SHI No.</p>	<p>The proposed conservation and retention significant heritage items including the Main Terminus Building and associated station buildings are a positive outcome for the heritage of each individual buildings and overall heritage values for the Precinct. Retention of the</p>

State Heritage item	Heritage impact
4801296), SLEP 2012 (Item No. I824)	<p>significant buildings and spaces of Central Station will ensure the continued significance and understanding of the importance of Central Station.</p> <p>However, the study notes that the proposed masterplan development would have a cumulative major and detrimental impact to the significant cultural landscape of the Central Station Precinct. The proposed works would cause major physical impacts to significant fabric and spaces, major physical and visual impacts to the understanding of the station as a historically and continually operating open-air station (for over 150 years).</p>
Mortuary Station State and Local, SHR (Item No. 00157), RailCorp S.170 (SHI No. 4803219), SLEP 2012 (Item No. I194)	<p>The proposed landscape works, conservation and adaptive reuse of Mortuary Station would enhance the heritage significance of the item and ensure its continued conservation into the future. However, proposed development in the vicinity of Mortuary Station at the Regent Street Sidings sub-precinct and the north and south over station developments would have a cumulative major and detrimental impact on the significant cultural landscape, setting and views and vistas to Mortuary Station, disrupting the historic visual and physical connection of Mortuary Station with the rest of the Central Station Precinct.</p>
Railway Overbridge State and Local, SHR (Item No. 01232), RailCorp S.170 (SHI No. 4801079), SLEP 2012 (Item No. I180)	<p>The proposed masterplan includes the potential future redevelopment of the railway overbridge for a new use as part of the overall development for the Precinct. The proposed development at the Regent Street Sidings sub-precinct also have the potential to have a moderate to major direct impact on the significant fabric of the Darling Harbour Cut and Overbridge due to the nature of the heritage items and the proposed development massing and siting.</p>

9.5.2 Aboriginal heritage

An Aboriginal Cultural Heritage Study (ACHS) has been prepared by Artefact Heritage (**Attachment 17**) to inform and guide planning for the renewal of Central Precinct in harmony with Aboriginal cultural heritage values, community and Country. The ACHS has been shaped through an assessment of site context and archaeology, site history and social heritage, consultation with the Aboriginal community and stakeholders and an analysis of key cultural themes to provide a context within which Aboriginal cultural heritage can be interpreted.

Consultation activities undertaken to inform the ACHS included:

- Consultation with Registered Aboriginal Parties, Aboriginal community members, knowledge holders and stakeholders who have strong associations with the heritage and history of Central Precinct
- Consultation with the Aboriginal community undertaken by Balarinj for the Central Precinct Connecting with Country Framework (**Attachment 8**).

In addition, a number of previous Aboriginal stakeholder consultations have been undertaken for projects within the vicinity in the past several years and the reports were reviewed by Cox Inall

Ridgeway for Central Precinct. The key themes from previous engagement included the desire for First Nation communities' stories, voices and memories of Central to be recognised and celebrated.

Suggestions for interpretation of these stories into future development includes streetscape and wayfinding elements, cultural expression through art, digital platforms and the public domain.

Archaeological potential and significance

A desktop review of the Aboriginal Heritage Management System (AHIMS), a review of previous archaeological investigations and a site visit was completed to identify the presence of any potential Aboriginal archaeology within Central Precinct. Based on this review, the following key findings were made:

- Archaeological sensitivity of the search area and sub-precinct is low due to the extent and nature of historical construction activities including significant cutting and levelling of land for rail infrastructure.
- A single aboriginal site comprising Aboriginal artefacts found within the intact natural sand was identified within the precinct.
- Presence of preserved natural soils and redeposited natural soils, in particular Tuggerah soils is found on site.

One AHIMS site (AHIMS ID 45-6-3654) (CRS AS01) located adjacent to Devonshire Street Creek (**Figure 60**) was identified. CRS AS01 comprises aboriginal artefacts found within the intact natural sands. The proposed urban design framework does not propose to impact this location as it proposes for this area to be publicly accessible open space. Should any future development impact this location, an archaeological assessment and management plan would be required in accordance with the National Parks and Wildlife Act, or the Secretaries Environmental Assessment Requirements for State Significant Development as part of any future Development Application.

Overall, renewal will likely reduce potential archaeological resources in Central Precinct. However, overall, due to the disruption and fragmentation of soils as a result of ongoing development of Central Precinct since the 19th century, this is not considered to result in a significant adverse archaeological impact.



Figure 60: Potential historical remains of exceptional archaeological potential

Aboriginal cultural significance

An understanding of the relevance and importance of the Aboriginal cultural landscape and values will be key to ensuring the interrelationship between past and present is maintained through future redevelopment of Central Precinct. Central Precinct holds great cultural significance for Aboriginal people who have had a lived experience as well as those who hold historical or political significance to the area.

The future redevelopment of the precinct will be managed through key interpretive approaches identified in the Heritage Interpretation Strategy (**Attachment 21**). This will ensure a cohesive response to cultural heritage is applied to all future development proposals in Central Precinct.

Statement of heritage impact

The Central Precinct is a key area of significance for Aboriginal people with social and intangible values embedded within the fabric of the place. The proposed urban design framework and planning framework have been informed by the Connecting with Country Framework to support the celebration of Aboriginal cultural heritage. The renewal of the precinct will likely deliver a positive cumulative impact upon the social and intangible heritage values of the precinct.

9.5.3 Heritage interpretation

A Heritage Interpretation Strategy (the Interpretation Strategy) has been prepared by Artefact Heritage (**Attachment 21**). The Interpretation Strategy seeks to ensure best-practice interpretations for the Aboriginal and Non-Aboriginal (historical) values of the precinct. Historical and cultural themes relevant to Central Precinct have been identified and strategies for effective, meaningful heritage interpretation closely linked to place is provided.

The Interpretation Strategy establishes two key interpretive themes that apply to both Aboriginal and Non-Aboriginal values. These themes are:

- **Journeys:** the site as the beginning and ending point of journeys of all kinds; ancient journeys through the landscape; rail journeys forging connections between the country, suburbs, and city; delivering Australia soldiers to/from war and transporting Aboriginal children of the Stolen Generations; developmental journeys of railway engineering and industrial development; and journeys at the end of life.
- **Gatherings:** the site as a gathering place for people as they start, end, or pause on their journeys; gatherings in the resource-rich landscape; the growth of the city; gatherings for work/drawing people to the city; civic history gatherings; end of life gatherings.

Journeys and Gatherings as key themes set an anchor point for the selection of interpretive narratives and inform the development of interpretive approaches in the public domain and built form. These overarching interpretive themes have been further explored within each sub-precinct to deliver specific meaning and associations with the buildings and spaces within Central Precinct.

Renewal of Central Precinct will deliver a number of interpretive approaches to celebrate and recognise the significant aboriginal and Non-Aboriginal heritage importance. To guide the development of heritage interpretation identity at Central Precinct, a number of design principles have been prepared. These include:

- **First Nations first:** Celebrating and valuing Aboriginal heritage and connection to Country is a key responsibility of heritage interpretation and should be at the forefront of the planning process for any developments in Central SSP.
- **Integration:** Heritage interpretation should be fully integrated in the new development, with consideration of the design principles, stories and overarching themes contained within this HIS. Interpretation planning should take place during early design stage of new developments to ensure this integration.
- **Connectedness:** Heritage interpretation should support a connected public realm by providing experiences, both physical and in terms of cohesive messaging, which connect places within the precinct, and connect people with place.

The Interpretation Strategy identifies a number of potential opportunities for heritage interpretation for Aboriginal and non-Aboriginal heritage within Central Precinct. These include re-use of salvaged materials and moveable heritage, gathering spaces and digital engagement.

How has this been incorporated into the proposed planning framework?

To ensure appropriate heritage conservation of Central Precinct's rich heritage, the proposed statutory plan will adopt the existing provisions of Clause 5.10 and will maintain the existing heritage listing of all of Central Precinct in accordance with the SLEP2012.

The above heritage reports have also outlined recommendations to guide future development and planning within the study area. These recommendations seek to ensure Aboriginal cultural heritage, non-aboriginal heritage and archaeological sites contain significant elements of the past

are appropriately managed and respected by new development. These recommendations have been based on the following:

- Heritage conservation
- Heritage Interpretation
- Archaeology
- Landscaping and public domain
- Future detailed design.

These recommendations have informed the proposed provisions relating to heritage in the Design Guide (refer to **Attachment 11**) to ensure these matters are considered during the subsequent future development application process.

9.6 Social sustainability and infrastructure

A Social Infrastructure and Health Impact Assessment (**Attachment 22**) has been prepared by Ethos Urban. The study provides a social and health infrastructure needs analysis of the supply and demand for social and health infrastructure for the forecasted population growth, an affordable housing analysis and a preliminary-equity focused health impact assessment analysing the health equity impacts of the renewal of Central Precinct.

9.6.1 Social and health infrastructure needs analysis

The study assessed the current and forecast adequacy for social and health infrastructure through comparing the current and (known) planned supply of social infrastructure against demand generated by population growth (in this case by 2036), with reference to best practice provision benchmarks. Quantitative and qualitative data was utilised to determine likely demand and capacity issues within Central Precinct and surrounding neighbourhoods.

The study found that population growth associated with Central Precinct and surrounding localities is anticipated to drive significant demand for new social infrastructure provision by 2036, some of which would be expected to be accommodated within Central Precinct given its contribution to this population growth and being a suitable location for social infrastructure delivery through the renewal project, with particular regard to its locational and accessibility advantages.

Gaps in social infrastructure provision

The following social infrastructure gaps have been identified based on the current community infrastructure available and considering the projected population growth to 2036 across the 1,200 metre Social Infrastructure Study Area:

- **Traditional social infrastructure types** (to be provided on site and within the 1,200 metre catchment) including:
 - 4 x integrated multipurpose facilities of approximately 2,000-2,500 square metres (note that the overall recommended size of 7,500 square metres could be met across 1-2 facilities of a larger size)
 - 4 x libraries of at least 1,500 square metres
 - 3 x local community facility of at least 400 square metres to serve local resident needs
 - 100 + child care spaces (catering to approximately 20% of projected local demand by 2036)

- 17 x sports fields
- 9 x tennis courts
- 2 x indoor courts
- Open space – 15% of developable site area, with a single significant open space of more than 3,000 square metres, centrally located in the precinct.
- Contemporary and emerging infrastructure types, including:
 - Indigenous community and cultural spaces with a total minimum GFA of 1,000 square metres – recommended as part of the integrated multipurpose facility and potentially co-located with other cultural and creative spaces
 - Subsidised co-working/start-up spaces
 - Cultural and creative spaces – e.g. exhibition spaces
 - Quiet spaces – community lounge-type spaces of respite
 - Community tech lounges and other spaces enabling digital inclusion.
- Coordinated health and social services.

How has this been incorporated into the proposed planning framework?

The proposed planning framework has been designed to align with the recommendations and delivery priorities contained within the Social and Health Infrastructure Needs Analysis as outlined in **Table 12** below. The associated rationale and benefits of the below recommended social infrastructure is detailed in **Attachment 22**.

Table 12 Proposed planning controls for the delivery of an appropriate social sustainability outcome

Recommendation	Proposed planning control/guideline
New open spaces (of at least 3000m ²)	The minimum area of public open space is proposed to be included as an LEP provision. The location and area identified within the LEP and the Design Guide will be captured in the mapping of RE1 land and the publicly accessible spaces.
Protect/embellish existing open spaces	The protection of public open space from overshadowing during certain times is addressed through provisions in the Design Guide and the sun access plane provisions of SLEP2012. Embellishment could be delivered through an infrastructure contributions.
Ground floor retail/ other activated uses (eg, community facilities)	An active frontage control with a supporting map showing the indicative location of active frontages is included in the Design Guide.
Variety of retail spaces	The Design Guide encourages a mix of tenancy sizes on the ground floor frontages.
Pedestrian bridges across the rail infrastructure to provide east west connectivity	The streets, lanes and pedestrian network map included in the Design Guide shows the location of these bridges that provide east west connectivity through the precinct.

Recommendation	Proposed planning control/guideline
<p>Integrated multipurpose facility including creative space as anchor This facility should be visually prominent, central location, well-integrated with planned street connections, active transport links, green space to enable indoor/outdoor connections.</p>	<p>The minimum GFA for community facilities is set out in the Design Guide, including guidance for an integrated multipurpose facility.</p>
<p>Local community facility</p>	<p>The Design Guide includes a minimum GFA for community facilities, including guidance for a local community facility.</p>
<p>Community health and service hub</p>	<p>The Design Guide includes a minimum GFA for community facilities including guidance for a community health and service hub.</p>
<p>Creative spaces (both Council and non-Council) These could include makers spaces, performance spaces, exhibition spaces, office space for cultural organisations.</p>	<p>The Design Guide includes creative spaces as a consideration of spaces to be provided in the integrated multi-purpose community facility. The Design Guideline outlines guidance for creative uses – City of Sydney Council has a draft DCP for creative uses as part of a planning proposal.</p>
<p>Supermarket – including access to affordable fresh fruit & vegetables</p>	<p>This is to be included as a permissible use under the proposed zoning in the SLEP 2012.</p>
<p>Workspaces of a variety of sizes</p>	<p>The Design Guide will require each commercial building to allocate space for start-ups and early stage companies.</p>
<p>Childcare services (places)</p>	<p>Childcare services will be subject to the City of Sydney Council's childcare DCP controls</p>
<p>Affordable housing</p>	<p>A minimum of 15 percent of the residential accommodation GFA is to be for the purposes of affordable housing and this will be set out within the SLEP 2012. Reference should also be made to Section 9.6.2 for recommendations on other mechanisms for affordable housing delivery.</p>
<p>Diversity of housing forms - for different household types and tenure types</p>	<p>Section 4.2.3.12 Flexible housing and dwelling mix of Sydney DCP is to be applied. The proposed land use zoning in the SLEP 2012 is to permit student accommodation.</p>
<p>Low cost floor space for community service providers</p>	<p>The minimum GFA for a social/health services hub is included in the Design Guide. The Design Guide outlines guidance for low cost office space for community service providers.</p>
<p>Specialist private rooms for the community, e.g. quiet rooms, prayer and meditation rooms, community lounges, mother & baby rooms</p>	<p>The Design guide includes a requirement for specialist private rooms for community use as part of the design of certain development (i.e. multi-purpose community facility).</p>
<p>Universal design through precinct to enable accessibility for people of all ages and abilities</p>	<p>The Disability Discrimination Act 1992 requires this outcome.</p>

9.6.2 Affordable housing needs analysis

The Social Infrastructure and Health Impact Assessment (**Attachment 22**) provides an analysis of housing affordability which was conducted to understand the need for affordable rental housing

supply and opportunities for Central Precinct to contribute to meeting future demand taking into account GCC targets.

The delivery of affordable housing is required as the ongoing renewal of inner-city areas driving up land values have significantly increased the cost of buying or renting homes, taking them beyond the reach of very low to moderate income households of which include key workers who are essential to keeping the city functioning effectively.

Potential delivery mechanisms for affordable housing and recommendations

The study recommends the following as potential delivery mechanisms for consideration to help achieve the GCC's targets, as well as those set out by the City of Sydney. These potential delivery mechanisms are as follows:

- **Planning controls for the precinct (SEPP or LEP) to embed an affordable housing floorspace target** – this can include a clause requiring a minimum of 15% of any new residential floor space to be affordable housing.
- **State Environmental Planning Policy (Affordable Rental Housing) 2009** – provides incentives for development projects to include a 10-year term for affordable rental housing dwellings for very low to moderate-income households. Application of this policy has generally resulted in the delivery of student accommodation and new generation boarding houses.
- **Implement other incentives for affordable housing delivery in the precinct** – through planning controls, for example, floorspace bonuses for the delivery of floorspace or contributions for affordable housing that differ from those available through the Housing SEPP.
- **Dedicate land for the provision of affordable housing supply by the community housing sector** – noting that a key barrier to the sector delivering increased supply is access to land at a price that makes this possible. Land could be granted to the sector gratis or sold at a below-market price. The City has implemented this approach to stimulate supply, running an EOI for the sector to propose development solutions for sites.
- **Levy contributions for the provision of affordable housing by the community housing sector outside the precinct, but within the City of Sydney LGA** – Contributions can be levied to support the delivery of affordable housing by community housing providers on sites outside of the precinct but within the LGA. This would likely be executed through a planning agreement between the proponent and the City of Sydney.

As evidenced above, there are a number of delivery mechanisms potentially available for affordable rental housing. In addition to the above, the City of Sydney Affordable Housing Program is another potential delivery mechanism for affordable housing. This Affordable Housing Program supports existing affordable housing provisions in the SLEP 2012 to apply a contribution levy for new development in the LGA. The affordable housing levy contribution for development on land at Central Sydney is currently 3% of the total floor area of the development that is intended to be used for residential purposes and 1% of the total floor area of the development that is not intended to be used for residential purposes. The City of Sydney Affordable Housing Program also provides guidance on detailed matters such as management by community service providers.

TfNSW will work in consultation with the Department and City of Sydney following public exhibition to discuss and determine the most appropriate pathway for delivering affordable housing.

How has this been incorporated into the proposed planning framework?

In response to the abovementioned recommendations, the proposed planning framework incorporates a requirement for 15% of any new residential floor space to be provided as affordable rental housing for very low and low-income households. The proposed planning framework enables the provision of affordable housing to be delivered on-site and/or through monetary contributions.

9.6.3 Health impact assessment

A preliminary Health Impact Assessment was completed to identify likely health and health equity issues arising from the renewal project, and in this way ensure that the project will optimise social sustainability outcomes and deliver transformative placemaking that improves the health equity, social wellbeing and resilience of impacted communities for both current and future impacts. The Central Precinct's location, function as a cultural destination and role as a key public transport interchange combined with the overall transformational nature and scale of the project, will mean that its renewal will impact a large number of residents, workers and visitors. The magnitude of impacts is likely to be long term or permanent and result in substantial change.

The NSW Government's Healthy Built Environment Checklist (NSW Ministry of Health 2020) was utilised as the framework to guide the assessment. Each of the Healthy Built Environment Checklist themes were assessed against project themes that are likely to cause health impacts either directly or indirectly in terms of impacts on physical and mental health.

The assessment finds that the project is expected to have various impacts and benefits on the health and health equity of a wide range of populations who will live, work, visit and transit through the precinct, both during construction and post completion. The negative impacts generally relate to the construction phase, with the benefits relating to the operational phase.

The broad areas that the impacts relate to and some examples of the associated benefits and impacts are provided below:

- Physical activity
 - Reduced access/amenity (associated with dust and noise generated by construction activities) and accessibility of major open spaces in the area (i.e. Belmore Park and Prince Alfred Park)
 - Potential increased activation Access to open space due to pedestrian bridges
 - Access to private gyms in precinct.
- Healthy eating
 - Potential disruption to food services to vulnerable groups due to construction activities and reduced amenity in the area
 - People experiencing homelessness may lose access to food
 - Opportunity for increased provision of supermarkets in the precinct.
- Community safety and security
 - Potential impacts to pedestrian safety associated with increased traffic volumes due to construction activities and vehicles in the area
 - Potential to improve perceptions of safety of the area.
- Open space and natural features
 - Reduced perceived safety in the area due to establishment of hoardings that can discourage walking, riding and exercising in the area

- Encouraging physical activity – mental and physical health benefits
- Providing amenity and enjoyment.
- Social infrastructure
 - Health and wellbeing impacts associated with potentially changed or disrupted access to health facilities and social services in the area (e.g. Sydney Dental Hospital), due to construction activities and vehicle movements in this area
 - Improved access to social infrastructure due to delivery of new infrastructure as part of the Precinct
 - Night-time activation/ diversifying night time economy
 - Maximising benefit of investment in social infrastructure – due to accessibility of the site.
- Social cohesion and connectivity
 - Potential changes to social fabric of the area associated with changed access to community gathering places and social infrastructure in the area
 - Potential disruption to rough sleepers’ preferred locations for social gathering
 - Improved opportunities to meet and interact with diverse groups.
- Transport and connectivity
 - Disruption to active transport pathways in the area, that would discourage physical exercise
 - Improved permeability, convenience, amenity for users – reduced travel times.
- Housing and accommodation
 - Potential health impacts to neighbouring residents and visitor accommodation guests unable to enjoy their homes/ rooms for rest and relaxation in the immediate surroundings of the site due to construction activities generating noise, dust and vibration
 - Wellbeing impacts of housing insecurity (e.g. flow on effects to employment opportunities, socialising and mental health).
- Quality employment
 - Loss of existing employment opportunities due to redevelopment of the site – disproportionately affecting low paying service jobs (e.g. in shops within the Station)
 - Improved supply of knowledge sector jobs close to major public transport infrastructure.
- Culture, both Aboriginal and non-Aboriginal
 - Potential changes to connection to place for local residents, workers and visitors
 - Creativity and cultural expression.
- Environment and health, environmental sustainability, and climate change
 - Amenity impacts – quality of life affected by quality of air, water, noise and light
 - Related mental health impacts (positive or negative)
 - Potential to activate spaces based on environmental quality.

9.7 Transport

A Transport Strategy and Impact Assessment has been prepared by Arcadis (**Attachment 23**). It includes a review of transport policies and the impact of the proposal upon the surrounding movement and transport networks. It has assisted to shape design work focused on realising a convenient, comfortable and permeable network of streets, lanes and through site links within Central Precinct.

The Strategy also provides priority to more sustainable and efficient modes of transport, including walking, cycling and public transport, which is captured in its adopted modal hierarchy. This is consistent with the sustainability ambitions of Central Precinct and provides priority to walking as the primary transport mode, in addition limiting on-site car parking, which is supported by detailed modelling that demonstrates satisfactory transport outcomes will be achieved.

Mode share targets

To understand how future workers, residents and visitors will travel to and from the Central Precinct and to ensure the proposal aligns with the adopted modal hierarchy for Central Precinct, an analysis of key travel mode scenarios was undertaken. This culminated in the 'Car-Free Precinct' (CFP) scenario (refer **Figure 61**) being the adopted target mode share for Central Precinct.

The selection of CFP aligns with the sustainable ambitions of Central Precinct and seeks to redistribute private vehicle trips to alternative modes. It was found that underlying characteristics of Central Precinct, including, its significantly high concentration of multiple and frequent transport services, populations and jobs provide a strong base to support the CFP scenario. Further, it was noted that ongoing investment in transport infrastructure servicing Central Precinct, in addition to broader road capacity and spatial constraints, would support the adoption of CFP.

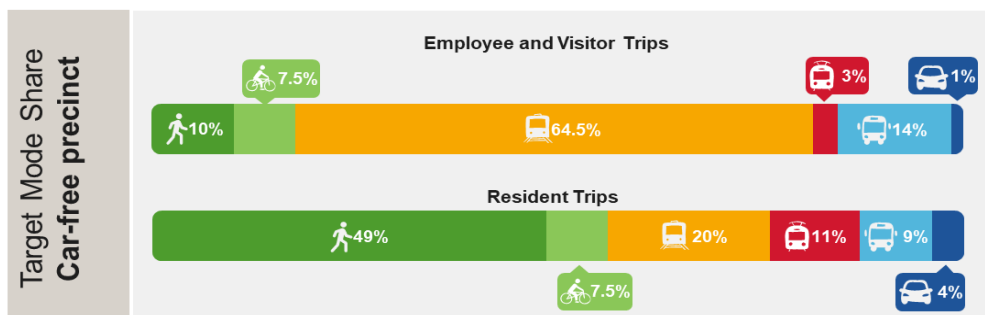


Figure 61: Central Precinct future mode share targets under CFP

Source: Arcadis (2022)

Demand and trip generation

Trip demand is important in understanding Central Precinct's relationship with and impact on the interplay between public transport, pedestrians, cyclists and private vehicles. Preparation of detailed trip matrices for 2019 in the AM and PM peak hour times were undertaken to understand the scale, relationship and direction of movement between the various travel modes.

In addition, matrices for 2036 were compiled, underpinned by the 2019 matrices, to appreciate the impacts of the proposal on demand and trip generation and the relationship between transport modes. This informed a demand and trip assessment, that found the proposal is expected to generate 10,532 trips in the AM peak hour and 8,549 trips in the PM peak hour. A breakdown of mode share (trips) and totals both in the AM and PM peak hours are detailed in **Table 13** and **Table 14** below.

Table 13 Central Precinct development demand – AM peak hour sustainability themes, ambitions and outcomes

Use	Mode Share (trips) -AM					
	Walking	Cycling	Train/Metro	Light Rail	Buses	Car
Community	58	47	353	23	80	12
Education	35	28	222	12	50	6
Food and beverage	41	34	214	23	55	20
Hotel	18	15	106	8	24	4
Office	827	626	5,257	262	1,154	102
Residential	248	42	101	59	49	24
Retail	21	21	60	20	23	20
Student accommodation	58	11	25	15	12	7
Total	1,306	824	6,338	422	1,447	195

Source: Transport Strategy and Transport Impact Assessment, Arcadis

Table 14 Central Precinct development demand – PM peak hour

Use	Mode Share (trips) -PM					
	Walking	Cycling	Train/Metro	Light Rail	Buses	Car
Community	45	35	259	18	60	11
Education	41	32	252	14	56	6
Food and beverage	68	57	405	28	94	22
Hotel	20	16	122	8	28	4
Office	610	465	3,857	196	849	80
Residential	214	34	88	53	42	21
Retail	25	24	108	20	30	20
Student accommodation	51	10	21	13	11	6
Total	1,074	673	5,112	350	1,170	170

Source: Transport Strategy and Transport Impact Assessment, Arcadis

Pedestrian movement

A total of approximately 3,192 persons are forecasted to enter and exit the developments associated with the proposal in the AM peak hour (2036) by walking, which represents 4% of total pedestrian trips during this period.

Pedestrian demand in 2036 within the broader Precinct is predicted to rise by 105% on 2019 demand, which is attributed to the use of Central Station and its associated transport services, in addition to trips through it. To support the increase in demand, future potential pedestrian upgrades (**Figure 62**) in and around Central Precinct are to be considered to cater for this expected increase.

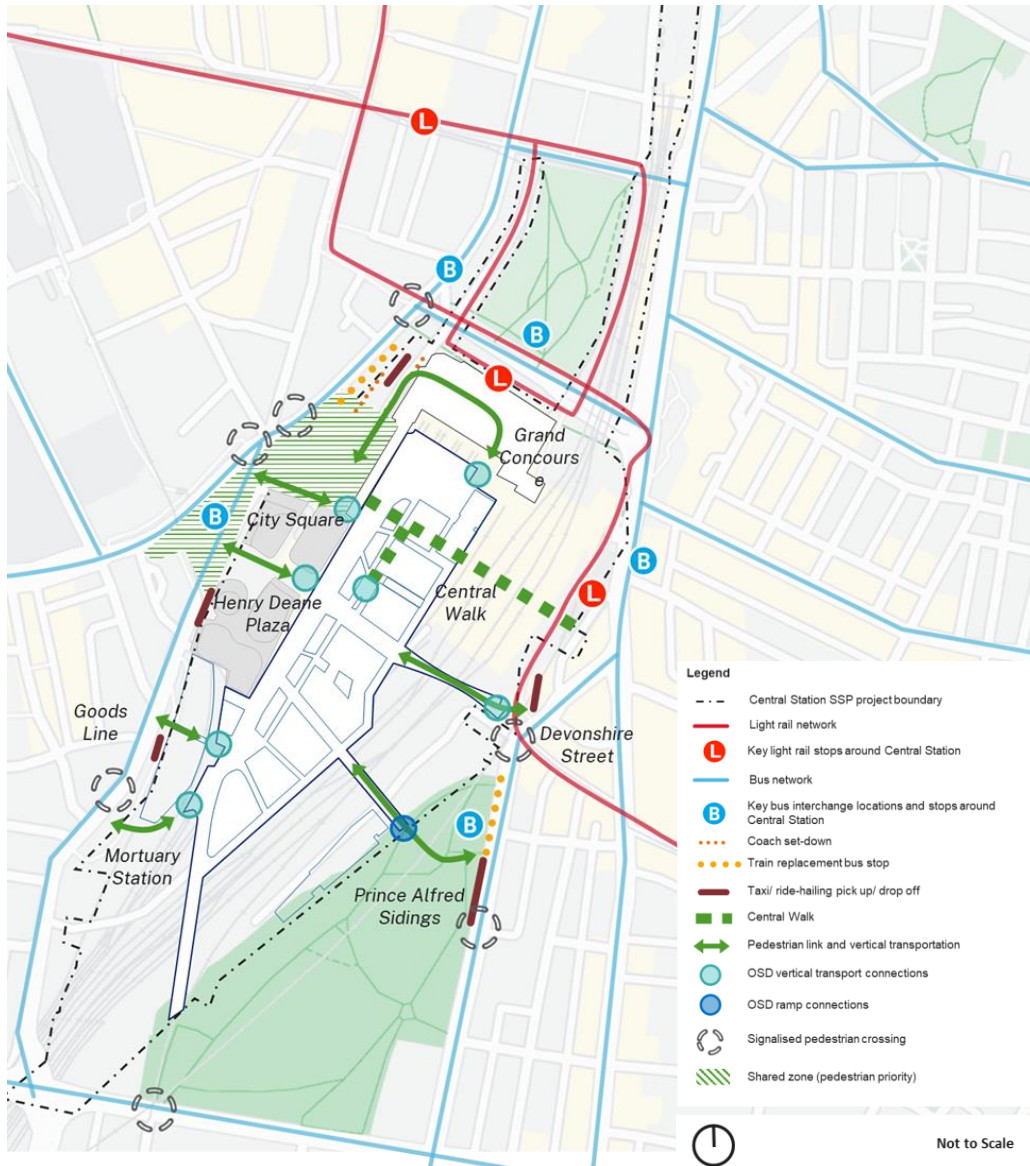


Figure 62: Future potential pedestrian upgrades around Central Precinct

Source: Arcadis (2022)

Cycling

A total of approximately 1,456 cyclists’ trips (1,212 trips to and 244 trips from) are expected to be generated in the AM peak hour (2036). Conversely, a total of approximately 1,305 cyclists’ trips (383 trips to and 922 trips from) are predicated to be generated in the PM peak hour (2036). The cyclist trip generation associated with developments that form part of the proposal are deemed minor juxtaposed against induced demand across the wider cycling network.

Cycling demand generated by the proposal, in addition to cycling trips to and from the broader Central Precinct, will be supported by upgrades and changes to cycling infrastructure in and around it (**Figure 63**). These upgrades are designed to improve the efficiency and safety of the network and will support the sustainable ambitions set for Central Precinct.



Figure 63: Central Precinct future cycling network

Source: Arcadis (2022)

Train and Metro

An additional 6,580 AM peak trips and 5,360 PM peak trips by train and metro are predicted to be generated by development associated with the proposal in 2036. This is predicted to make up 8% of all train and metro trips through Central Station in 2036. Train and metro passenger trips through Central Station are predicted to rise by 95% from 2019 demand, which is associated with the provision of a higher level of frequency and services for both networks and operation of the metro platforms at Central Station.

Modelling undertaken suggests a comfortable level of service through the concourse, including within the proposed Central Walk interchange link, will be achieved despite the increase in demand. Further, the additional train and metro demand generated by the proposal does not majorly impact the performance of platforms or concourses in a scenario whereby Central Walk West has been provided.

Light Rail

Approximately an additional 880 trips during the AM peak and additional 380 trips during the PM peak will be generated by the proposal's future development in 2036. It was found that there is suitable capacity within the light rail network to cater for the additional demand, and performance of light rail stops and connections to OSD will not be adversely impacted. Further, it was found that light rail passengers would benefit from provision of new pedestrian infrastructure associated with the proposal.

Bus

In 2036, an additional 1,030 bus trips in the AM peak and 1,160 bus trips in the PM peak is predicted to be generated by future development associated with the proposal. It was found that there is an appropriate level of capacity to accommodate this additional demand. However, future reviews of bus capacity will need to be undertaken to understand impacts to it by the expansion of the light rail and metro networks.

Preliminary modelling suggests increases in pedestrian congestion is likely at bus stands around Railway Square and Eddy Avenue. Further, pedestrian movement demands in the future are likely to impact on bus service frequency and reliability. Additional modelling is currently being carried out to better gauge the degree of impact.

Road network

It was found the road network in 2036 is to mimic similar traffic conditions in 2019, with the greatest level of movement within the AM and PM peaks. High levels of traffic movement through Central Precinct via Eddy Avenue is predicted in the AM peak, impacting turn movement capacity and efficiency of intersections. Whilst in the PM peak, high levels of congestion are likely at the intersections of Regent Street and Cleveland Street and Elizabeth and Eddy Avenue, which may result in queuing for their northern approaches.

In 2036 an additional 460 traffic movements in the AM peak hour and 420 movements in the PM peak hour would be generated by development, including point to point, deliveries and service vehicles and parked vehicles. These movements would be dispersed across Central Precinct, thereby reducing the potential for centralised impacts.

It was found that the additional traffic generation can be absorbed by future traffic patterns, although, traffic bottlenecks and issues will remain. Given this, the proposal has been designed to control access and desirability of vehicles travelling to Central Precinct, which is to be realised through:

- A target mode share that prioritises active and sustainable transport modes, with supporting measures to ensure the mode share is achieved.
- Reduced car parking requirements for new development within Central Precinct.
- Integrated loading facilities to consolidate deliveries and servicing demand, with arrival demand management to control when vehicles access the site.
- Increasing the number of designated point-to-point locations around Central Precinct to align with key movement corridors and providing an autonomous vehicle route on the deck to cater for last-mile drop-off and pick up activities.

Vehicular parking and access

Car parking demand for Central Precinct was determined by applying the City of Sydney maximum parking rates under their LEP and the preferred car mode share targets.

It was found by adopting the maximum rates under the LEP, 3,105 parking spaces could be provided, which would likely result in additional 3,000 vehicle trips to and from Central Precinct during peak periods. It was deemed that this approach was not suitable given the constraints of the road network and surrounding streets would not cope with this additional demand.

It was found that adopting lower maximum rates beyond the LEP provisions for non-OSD development (**Table 15**), together with requiring no car parking spaces to be provided for OSD development, would enable a reduction in private vehicular use, whilst being limited to vehicle users that have no alternative. Further, this approach would support the mode share targets and sustainable ambitions of Central Precinct by reducing the reliance of travel by future residents, employees and visitors by private vehicle and encourage walking, cycling and public transport use.

Table 15 Recommended parking rates

Land use		Maximum parking rates
Residential	1 bed dwelling	0.3 spaces / dwelling
	2 bed dwelling	0.7 spaces /dwelling
	3 bed dwelling	1 spaces / dwelling
Student accommodation		0.1 spaces per room
Hotel		0.1 spaces per room
Commercial		1 space per 2000sqm GFA
Retail		1 space per 2000sqm GFA
Education		1 space per 2000sqm GFA
Community		1 space per 2000sqm GFA

Source: Arcadis

Car share is proposed to be provided at 1 per 25 off-street car spaces, which is an improvement on the City of Sydney DCP rate of 1 per 50 off-street car spaces. It was found that the provision of car share spaces would support the broader transport aims for Central Precinct, which is to reduce reliance on private vehicles.

Motorcycle parking is proposed to be provided at the City of Sydney DCP rates, which requires 1 space per 12 car parking spaces resulting in the requirement of 34 spaces. It is considered this provision is suitable for the level of demand likely.

With respect to servicing, delivery and freight tasks, it is anticipated to require approximately 2,000 vehicles visits daily. The peak arrival period is predicted to be between 9AM and 10AM each day, with a maximum 126 service vehicles requiring access during this time.

An assessment revealed that a lower amount (106 spaces) of loading and servicing spaces than the City of Sydney DCP rate (120 spaces) and the Reference Master Plan rate (197) could be proposed to service the Central Precinct. Integrated loading and distribution facilities are proposed instead of traditional loading docks to host these spaces. These facilities would allow for deliveries, service vehicles and waste collection to be consolidated, discreet and centralised, as to not impact public spaces. Further, they would be supported by a dock and logistics management system, which would include an online booking system that provides drivers with timeslots for accessing the site and loading bays. Also, an internal logistics distribution system is proposed, which would enable delivered goods to be processed and distributed to individual tenants in an efficient manner.

With respect to point-to-point movement, based on a trip generation assessment, future development associated with the proposal would result in an additional 260 traffic movements in the AM peak and 220 movements in the PM peak in 2036. It proposed that these additional trips would be distributed via the envisioned point to point facilities. These facilities servicing Central Precinct (**Figure 64**) are deemed suitable to accommodate future demand and will support growth in drop and pick up activities in and around its boundaries.

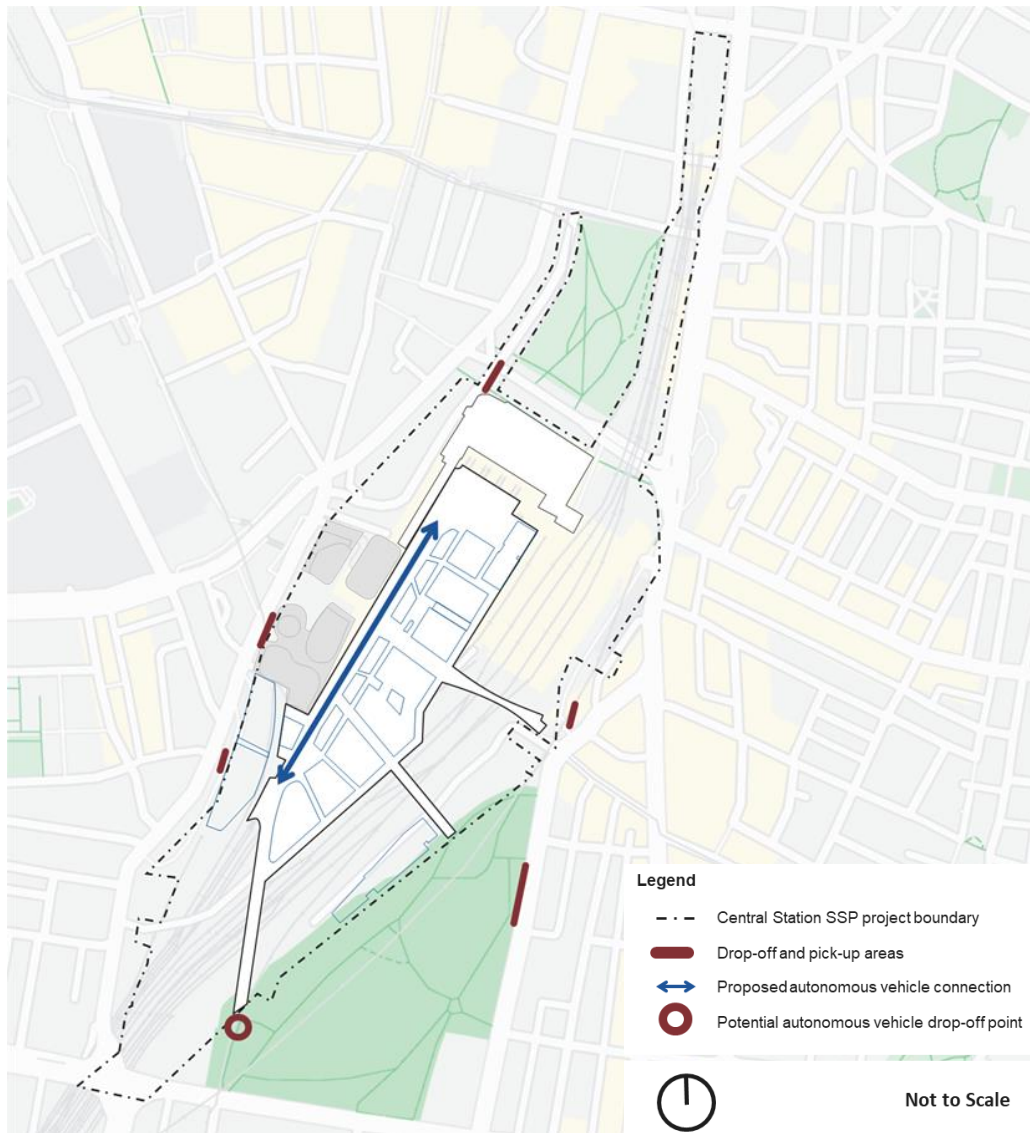


Figure 64: Central Precinct proposed point to point facilities

Source: Arcadis (2022)

In terms of vehicular site access (**Figure 65**), access where possible, has been sited away from key pedestrian movement corridors to reduce conflict and delays. In addition, they are sited at the boundaries to further disperse demand, with all access points typically proposed as a left in/left out arrangement to reduce impacts of the road network.

It was found that the proposed site access points are expected to have a negligible impact on transport operations, provided they are designed to accommodate appropriate sight lines and widths for all required vehicular types as per relevant guidelines, which would be confirmed at development application stage.

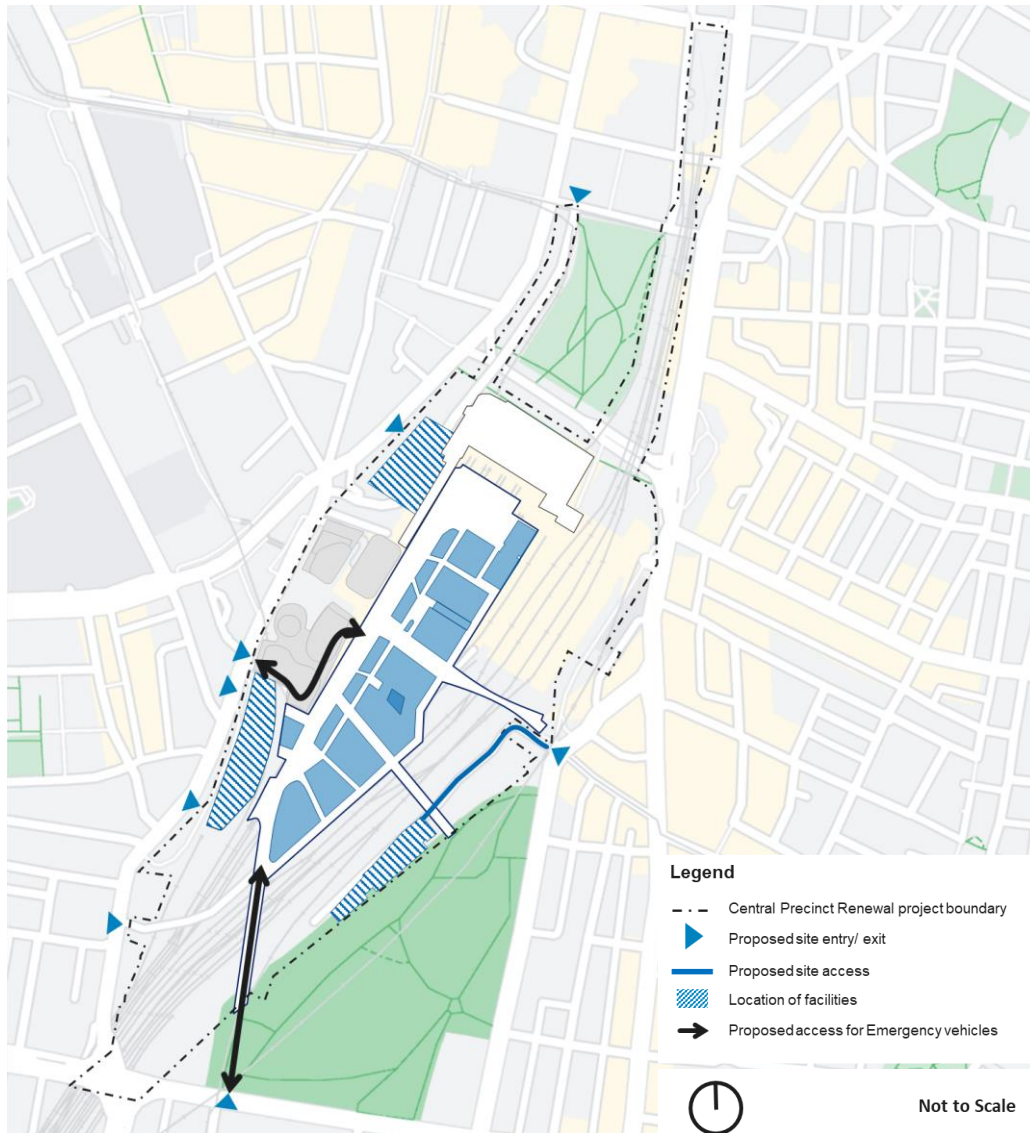


Figure 65: Central Precinct proposed site access point and location of facilities

Source: Arcadis (2022)

How has this been incorporated into the proposed planning framework?

To ensure the transport access and servicing needs of Central Precinct are appropriately catered for, the findings and recommendations of the Transport Strategy and Impact Assessment (**Attachment 23**) have been incorporated into the proposed amendments to the SLEP 2012 and Design Guide (**Attachment 11**), including recommended parking rates.

Further the Design Guide includes objectives and guidance with respect to the transport and sustainability aims for Central Precinct, including the prioritisation of pedestrians, cycling and public transport use over private vehicles.

9.8 Environmental sustainability, climate change and waste management

An Environmental Sustainability Study has been prepared by Integral Group and Atelier 10 for the Central Precinct (**Attachment 24**). The study describes the ambitions and objectives for the main

sustainability themes outlined in the SSP study requirements and has been assessed against relevant policies and guidelines, as well as the Precinct’s existing opportunities and constraints.

The Central Precinct’s sustainability ambitions have been developed in line with an overarching sustainability aspiration that strives to deliver a Precinct that goes above and beyond compliance and becomes a genuine leader in Precinct wide environmental and sustainability performance. Key sustainability ambitions and desired outcomes recommended by the study are summarised in **Table 16** below. A full list of the desired outcomes for the themes can be found in the Environmental Sustainability Study (**Attachment 24**).

Table 16 Environmental sustainability themes, ambitions and outcomes

Theme	Ambition	Desired Outcome
Energy and GHG Emissions	Achieve precinct-wide net zero emissions in construction and operation by 2030.	<ul style="list-style-type: none"> 100% renewable energy Electrification of normal operating systems Energy efficiency and demand control Use of low carbon materials and construction processes
Solid waste/circular economy	Achieve precinct-wide net zero emissions in construction and operation by 2030	<ul style="list-style-type: none"> Maximisation re-used material or material from renewable source in construction Diversion of majority of construction waste from landfill for beneficial re-use Elimination of single-use plastics from upstream supply chain by 2025 Diversion of operational waste from landfill Establishment of high levels of recyclability in upstream supply chain by 2025
Climate risk and resilience	Mitigate chronic stresses and insulate against acute shocks through design	<ul style="list-style-type: none"> Use of RCP 8.5 in 2050 climate scenario embedded in all design processes Implementation of mechanisms to manage extreme weather events including heat, bushfire (and smoke), flood and storm impacts Provision of community facilities to support resilience during major shock events Enable flexible, adaptive and regenerative systems that can be altered under future pressures
Biodiversity	Supporting biodiversity to have a net positive impact by 2030	<ul style="list-style-type: none"> Provision of initiatives to mitigate immediate impact of renewal Provision of new urban habitat Provision of habitat connectivity for mobile species between network of surrounding green spaces Establishment of biophilic environment Off-site land projects that generate biodiversity offset credits to achieve net-positive impact
Transport and mobility	Enable a more sustainable transport network in Greater Sydney	<ul style="list-style-type: none"> Reduction in private vehicle use through support of non-vehicular transport modes Enhance experiences to provide an exemplar of movement and place

Theme	Ambition	Desired Outcome
		<ul style="list-style-type: none"> Encouraging and enabling active mobility access to the Precinct (pedestrian and bicycle) Provision of 100% of parking spaces to have electric charging capability Providing exemplar of universal, equitable access Supporting future mobility transitions, including vehicle sharing, ride sharing and connected and autonomous vehicle interfaces
Water	Preserve non-renewable water and provide net improvement in water quality.	<ul style="list-style-type: none"> Reduce overall consumption of water resources through best proactive water conserving systems, equipment, fixtures and appliances Reduction of stormwater pollution flowing into Sydney Harbour beyond best practice guidelines Alignment of water quality, supply source and treatment needs to enable effective water harvesting and re-use Identify mechanisms for waste water treatment and re-use aligned with best practice utilities
Digital	A sustainable digital precinct that enhances social and environmental performance and disclosure through emerging digital technology and the internet of things	<ul style="list-style-type: none"> Identify mandatory disclosure of ongoing performance and assurance of key sustainability objectives with a public interest Identify key performance data for commercial benefit or operational improvement (not for public disclosure) Develop a single digital platform for data management, monitoring and disclosure of environmental performance Develop physical infrastructure (fibre, Wi-Fi and narrowband) and IoT sensor strategy for mandatory disclosure and for commercially beneficial data

Source: Environmental Sustainability Study, Integral Group and Atelier 10

The Environmental Sustainability Study has identified performance targets that are appropriate for the renewal of the Central Precinct. These have been drawn from the existing policy context and peer reviewed examples of global and local renewal precincts. These performance targets recommended for the Central Precinct are in line with current best practice industry standards and commit to certification under the following sustainability rating schemes and performance outcomes (refer **Table 17**).

Table 17 Performance targets for Central Precinct

Development type	Rating tool	Rating type	Target rating
Public domain	Green Star	Communities	6 Star
Commercial	NABERS	Energy	6 Star
		Water	5 Star

Development type	Rating tool	Rating type	Target rating
		Waste	5.5 Star
	Green Star	Buildings	6 Star
	WELL	Core and Shell	Silver
Hotel	NABERS	Energy	4.5 Star
		Water	4 Star
	Green Star	Buildings	6 Star
Residential	Green Star	Buildings	6 Star

Source: Environmental Sustainability Study, Integral Group and Atelier 10

How has this been incorporated into the proposed planning framework?

To ensure that both individual developments and the broader Central Precinct incorporate best practice sustainability and environmental performance measures (i.e. energy, waste, climate risk/resilience, biodiversity, transport and mobility, water and digital) the Design Guide (**Attachment 11**) has adopted the benchmarks, targets and sustainable design strategies identified in the Environmental Sustainability Study (**Attachment 24**).

Furthermore, the Design Guide requires all future development applications for new buildings in the Central Precinct to prepare an Environmental Sustainable Development Strategy that demonstrates compliance and consideration of the adopted benchmarks, targets and sustainable design strategies.

9.9 Ecology, green infrastructure, urban forest and greening

9.9.1 Green infrastructure, urban forest and greening

A Green Infrastructure Strategy has been prepared by Tyrell Studio (**Attachment 25**). The strategy analyses the integration of green infrastructure as part of the renewal of Central Precinct to achieve broader environmental, social and economic benefits. It assesses the existing situation, including constraints, opportunities and key issues, and sets out an overarching green infrastructure vision for Central Precinct, which is:

A system of high performing green infrastructure that is seamlessly integrated with the grey infrastructure of the development.

An over station development 'deck' structure that supports the performance and delivery of an integrated green infrastructure system.

Cohesive management and staged delivery of a successful green infrastructure system by TfNSW and a single development partner.

Existing situation

Central Precinct is currently a heavily urbanised environment that comprises primarily hard surfaces, buildings or railway lines, corridors and infrastructure. It provides for minimal vegetation and green space, which is mostly confined to its Western Forecourt which is characterised by a relatively small, grassed area and peripheral tree plantings.

The Central Precinct as it stands provides for a canopy coverage of between approximately 1-6% and is considered of low ecological value. It is located within a highly modified and urbanised area (bounded by Haymarket, Chippendale and Surry Hills) that also provide lower averages in terms of canopy compared to the wider Sydney LGA. This lack of tree coverage contributes to urban heat.

Haymarket is considered one of the hottest areas of the Sydney LGA, and Eddy Avenue and Railway Square are particularly exposed.

Future renewal of the Central Precinct provides an excellent opportunity to improve the quality and extent of green infrastructure within the Precinct, which will help address key environmental challenges, support human comfort and proliferate biodiversity. To enable this to occur an Urban Forest and Greening Strategy has been prepared to inform and support the SSP Study (**Attachment 25**).

Urban Forest and Greening Strategy

The Urban Forest and Greening Strategy includes several initiatives to increase canopy cover, mitigate urban heat affects, create a comfortable public domain and amenity, provide urban habitat and connectivity and improve the Precinct’s ability to adapt to climate change.

The strategy seeks to provide green infrastructure that allows for the various types of public domain within Central Precinct to be appear distinctive from each other, whilst working as a cohesive whole and remaining appropriate for their respective functions and conditions. It intends to ensure the provision of greening and canopy not only achieve the wider targets set for Central Precinct but address key environmental issues such as urban heat and biodiversity loss, in addition to providing comfortable environments for its users through microclimate design. Further, an approach to ensuring key views for wayfinding and heritage significance are maintained and freedom of pedestrian movement is supported.

The strategy has a preference for locally indigenous flora and fauna species, in particular those that would have previously existed within the precinct. Focus is also applied to ensuring suitable soil depths are provided to guarantee the longevity of green infrastructure and ensure that the Precinct maximises the potential use of recycled water supply for irrigation and adoption of WSUD principles.

How has this been incorporated into the proposed planning framework?

The green cover and canopy targets contained in **Table 18**, along with other key recommendations and components of the Urban Forest and Greening Strategy have been transferred over to the Design Guide (**Attachment 11**) and will ensure that future redevelopment achieves the overarching green infrastructure vision for Central Precinct.

Table 18 Green cover and canopy cover targets for key locations

Location	Green cover target	Tree canopy cover target
Central Square	55%	45%
Central Green	65%	40%
Western Edge of Central Green (above West Wing for Sydney Terminal Building)	10%	0%
Central Avenue	55%	50%
Eddy Avenue Plaza	50%	50%
Mortuary Station Garden	55%	20%
Southern Plaza	55%	50%
Ibero-American Plaza	16%	10%
Devonshire Link	50%	50%
Devonshire Bridge	0%	0%
Goods Line	15%	10%

Location	Green cover target	Tree canopy cover target
East-West Laneway (extending from Prince Alfred Park Bridge)	50%	50%
Prince Alfred Park Bridge	15%	0%
George Street Bridge	15%	0%
Development blocks	20%	0%

9.9.2 Ecology

An Ecological Study has been prepared by Ecological Australia (**Attachment 25**). The study provides an ecological assessment of the proposed renewal and potential impacts on biodiversity that may result within and surrounding the Central Precinct. This includes a desktop review and field investigation to determine the existing vegetation types, threatened species and wildlife present. Key findings of this assessment are as follows:

- **Vegetation communities and flora:** Most vegetation types currently within the Central Precinct are exotic, except for some planted, native eucalyptus trees, which do not correspond to a plant community type (PCT).
- **Plan Community Types (PCT):** Since the native vegetation identified on site cannot be assigned to a PCT, it was concluded that no PCTs will be affected, and the proposal will not result in any alteration to vegetation integrity.
- **Planted vegetation:** The proposed site has been comprehensively modified from its original state. All native and non-native mature trees were likely planted throughout the study area at various points in time. Most of which are considered mature and likely planted collectively (particularly native species present).
- **Critical Habitat:** No critical habitat listed under the BC Act, EPBC Act or FM Act was identified within the study area.
- **Fauna habitat:** The Central Precinct currently provides limited areas of habitat for native fauna species, other than mobile bird and bat species. Further, no important habitat features such as hollow bearing trees, subterranean termite mounds, rocky overhangs, rocky outcrops or water bodies have been identified within Central Precinct. Notwithstanding, disused/dilapidated buildings, tunnels and small crevices/holes in built structures as well as planted natives within Central Precinct may provide habitat for six threatened microbat species identified as having the potential to occur or being likely to occur.
- **Threatened Species:** Six threatened microbat species were identified as having the potential to occur or being likely to occur within Central Precinct, although none were recorded during the field investigation. Whilst this is the case, these species are highly mobile and may use portions of the study area on occasion for foraging. For these threatened fauna species, the habitat present and likely to be impacted is not considered to be important to them, particularly in relation to the amount of similar habitat remaining in the surrounding landscape. As such, a test of significance in reference to State or Commonwealth legislation may not be considered necessary.
- **Wildlife Connectivity Corridors:** There are no areas of significant vegetation presently forming connectivity from the study area to the wider landscape. Known microbat flightpaths through Hyde Park, the Domain and the Royal Botanic Gardens in the wider surrounds were identified. Opportunities exist to better connect Central Precinct to these flight paths.

How has this been incorporated into the proposed planning framework?

As there are no PCTs and loss of vegetation composition, structure or function recommendations to avoid and minimise impacts are limited and are related to increasing opportunities to provide additional habitat or connections for fauna. This includes for microbats, with measures recommended to reduce lighting impacts, proliferate canopy cover and increase foraging and roosting habitats through artificial and natural means such as boxes, hollows, crevices and cavities. In addition, recommendations to increase foraging and nesting habitats for birds is recommended in the form of hollows and platforms. Provision is also made to increase habitat for invertebrates, including native bees.

In response to the above findings the Design Guide (**Attachment 11**) includes guidance to ensure the recommendations under the Ecological Study are enacted. In this regard, it requires the submission of a 'Biodiversity Management Plan' as part of a DA that details measures to be implemented prior to, during and post construction. This includes establishment and maintenance of foraging, roosting and/or breeding habitat for highly mobile native species such as microbats, birds and insects, and for new buildings to provide appropriate habitat (including foraging and roosting spaces) for mobile species, such as microbats, birds and insects.

9.10 Safety and security

A Safety and Security Strategy has been prepared by Intelligent Risks (**Attachment 5**). The Strategy provides an assessment of existing and potential future crime and safety risks associated with Central Precinct and how they will be addressed.

The strategy includes an analysis of local and NSW crime statistics from the Bureau of Crime Statistics and incorporates data from the *Free to Be: Sydney Project*. This has assisted with the formulation of a full crime risk assessment of the Central Precinct.

Key findings of the crime risk assessment of the Central Precinct in its current form include:

- The Precinct is considered a 'high crime area', given the high number of workers and visitors that frequent it on a daily basis.
- Drug and theft related offences are the most prevalent category of crime recorded in the statistical area that includes the Precinct.
- Theft from person is the most common form of theft to occur within the Precinct's public domain.
- Assault is the most prevalent form of violent offence that is undertaken with the public domain of the Precinct. Of this, 60.5% of all assault-related incidents are 'non-domestic'.
- Although most categories of crime are trending downwards in suburbs that bound the Precinct, certain offences have been on the increase over the last 9 years. These include sexual offences, drug offences, incidents of intimidation, harassment and stalking.
- The qualitative data indicates that the Precinct is one of the most unsafe locations in Sydney for vulnerable people, particularly young women.

Vulnerable groups

The strategy includes the findings of extensive consultation undertaken with key stakeholder groups. This included consultation with vulnerable groups such as women and girls, disabled persons, the homeless and children.

Findings critical to the safety and security of key groups within the Central Precinct are follows:

- Environmental design strongly influences the perception of safety, in addition to social factors. Poor design outcomes reduce the safety and security of an area. It is considered that parts of the Precinct currently espouse poor design outcomes that negatively impact its safety and security.
- Harassment of vulnerable persons, particularly young women and girls is influenced by the presence of unpredictable persons, such as groups of men or drug or alcohol affected persons.
- The lack of people frequenting an area, particularly during the night, reduces perceptions of safety.
- The presence of security and police personnel, particularly within areas that provide public transport, improve safety and security outcomes.
- Changing of behaviour is common among certain vulnerable groups, particularly women and girls, if an area is perceived as or is unsafe. This includes a complete avoidance of a particular area by persons if it is deemed unsafe.

The consultation undertaken with key groups has informed the development of actions outlined within the Strategy. These are designed to assist in creating a safe and secure environment for the Central Precinct, particularly for its most vulnerable users. These specific design measures are based on Crime Prevention Through Environmental Design (CPTED) principles, operational plans relating to security management and targeted campaigns or social programmes to address specific crime related issues.

How has this been incorporated into the proposed planning framework?

The strategy has been compiled to enhance the safety and security of the Central Precinct during and post its renewal. It seeks to address its 'high-crime area' status and its perception of being unsafe, particularly by vulnerable users.

The Central Precinct's renewal provides an opportunity to improve actual and perceived safety and security risks through a mix of design measures and operational management and social initiatives. The recommended planning controls put forward to assist with these aims are based on the seven (7) principles of CPTED: natural surveillance, lighting and technical supervision, territorial reinforcement, environmental maintenance, activity and space management, access control and design, definition and designation of place. These planning controls have been interpreted and incorporated into the Design Guide (**Attachment 11**).

9.11 Public art

A Public Art Strategy has been prepared by Cultural Capital (**Attachment 6**) and establishes a curatorial approach to guide the integration of outstanding public art within Central Precinct.

Vision

The curatorial vision for Central Precinct is:

'Art at Central will respond to the opportunity, shaping the precinct's public realm as a global destination to experience our unique art and culture – a new creative capital for Australia.' (Cultural Capital, 2022).

Curatorial framework

The Public Art Strategy identifies five curatorial frameworks for Central Precinct to address site conditions, user experiences, site histories and future expectations as follows:

- **‘Tracks to Connection’:** Creating Sydney’s most extensive expression of public art; made up of many individual artworks connected within a unifying curatorial vision
- **Landmark works:** Signifying the precinct as Sydney’s new creative capital and denoting its key gateways and nodal points with major stand-alone artworks
- **Transformation:** Transforming the built environment with contemporary digital, lighting, projection and animation technologies
- **Active art:** Blended sensory experience with physical activity by integrating art with sporting and exercise infrastructure
- **Live works:** Activating the precinct with a seasonal cultural program commencing with pre-construction engagement.

Recommended Artwork Opportunities

The Strategy identifies and recommends locations within Central Precinct that should be considered key opportunities for existing and future artistic interpretation and cultural activation. The recommended sites for public art opportunities are shown in **Table 19** below.

Table 19 Site Recommendations for Public Art Opportunities

Theme	Site/location	Recommendations
Tracks of Connection	Any walking track throughout the precinct	Such works can evolve in multiple forms including growing along walls, surprising with discovery artworks, integrating urban furniture, encompassing the details of drainage grates and handrails, coming alive with concealing lighting.
Landmark works	<ul style="list-style-type: none"> • The Devonshire Street Bridge • The intersection of the north-south and east-west links • The Third Square • The Express Escalator Arrival • The Central Station Terminal Building 	<ul style="list-style-type: none"> • The bridge at the eastern end of the Devonshire Street can act as a magnet of attraction and a bridge-as-art will enhance and make memorable the journeys across it • The precinct’s major intersection of the north-south and east-west pathways has long lines of visibility from both axis. A significant artwork here will draw people into the centre of the site. A suspended work will draw attention through the space while leaving the ground plane clear for pedestrian thoroughfare. A programmable digital work will allow this work to be continually updated and responsive • A landmark work in the Third Square will address the city and denote this important western edge of the precinct. A work here is envisaged to both embrace the ground plane and reach up with a compelling vertical presence • An immersive artwork creating a sense of arrival and marking a transition into this space

Theme	Site/location	Recommendations
		<ul style="list-style-type: none"> The Central Station Terminal Building can employ digital technologies to transform it with changing imagery.
Transformation	<ul style="list-style-type: none"> Mortuary Station The existing Central buildings Third Square The Goods Line 	<p>These locations can integrate:</p> <ul style="list-style-type: none"> moving imagery, light and colour utilising the latest technologies to express cultural innovation Programmable wall, tunnel, undercroft, building facades ground plane projections, LED screens, lighting design animation, digital moving image artworks, augmented artwork.
Active art	<ul style="list-style-type: none"> western edge of Prince Alfred Park, where it can serve as an overlay to existing sporting infrastructure Bridge links. 	<ul style="list-style-type: none"> Art can be integrated into sporting and active leisure infrastructure as well as artist designed playscape artworks, water works and works that engage the senses
Live works	<ul style="list-style-type: none"> Creative production spaces can be facilitated within ground floor spaces of the new buildings at the south end of the deck within existing Central Terminal buildings outdoor performance spaces at the Third Square and the Grand Concourse for specified occasions. 	<p>Live Works can bring the precinct alive with:</p> <ul style="list-style-type: none"> Creative production — creative studios, maker spaces and residencies that showcase cultural innovation Cultural performance Temporary exhibitions Outreach programs through partnerships with Sydney’s cultural institutions and events including hosting segments of Sydney’s large format and scale events Pop ups Tours, talks, lectures, workshops.

Implementation

The strategy identifies an Implementation Delivery Model. Acknowledging that the proposal is a rezoning, this framework outlines the scope and deliverables associated with subsequent phases of public art planning and delivery in accordance with each curational theme.

Funding

The strategy includes recommendations for funding of public art. These comprise:

- Capital costs for permanent works:** a capital allocation of 1.5% of the CIV to be applied for permanent works.
- Annual Program funding:** an Activation Levy for all commercial and retail tenancies applied to leases across the Central development, with the rate of the levy being dependent on anticipated income from commercial leases and will form part of a Place Management Plan.

How has this been incorporated into the proposed planning framework?

To ensure public artwork within Central Precinct aligns with the curational framework, the Design Guide has included a requirement for development applications that involves the creation of a new publicly accessible space to be accompanied with a precinct-wide public art strategy. The Design Guide aims to:

- promote a sense of place and identity
- contribute to understanding and appreciation of cultural heritage, including connecting with Country
- foster social interaction and cohesion
- facilitate engagement of art and culture more broadly, including generating economic opportunities for local artists
- deliver public art that is responsive to culture and Country.

9.12 Connecting with Country

A Connecting with Country Framework has been prepared by Balarinji (**Attachment 8**). The Framework has been prepared to embed Country into the renewal of Central Precinct, specifically providing a recommended approach to ensure Country-centred design is integrated with mutual community and project benefits.

Tyrrell Studio have used this framework to prepare a Designing with Country Framework and Urban Design Framework (**Attachment 3**)

The Framework has been informed by an extensive engagement process with local Aboriginal communities including key Aboriginal Elders, knowledge holders and organisations between 2014-2016. In May 2021, Cox Inall Ridgeway (CIR) delivered an Aboriginal Engagement Strategy (**Attachment 31**) for the Central Precinct Renewal that has been utilised to guide how Connecting with Country principles and approaches are embedded through renewal of the Precinct, in conjunction with the Aboriginal stakeholder engagement undertaken by Balarinji.

Narratives

Central train station and the associated railways are very significant to Aboriginal communities. It symbolises the heart and critical rail arteries that connect to the rest of the city. The key narrative embedded within Central Precinct relates to the long history of Aboriginal mobs travelling by train from Western New South Wales, making central their 'landing' place. Central station represents a 'locator beacon' to many Aboriginal Communities. Further, the Sydney's railways have continuously been a significant employer of Aboriginal People where the Railway Yards were the first place in NSW that offered Aboriginal workers equal conditions and pay. This has maintained a long connection for Aboriginal People and the Railway Yards.

Themes

The framework identifies 13 key themes for Connecting with Country design integration for Central Precinct. These themes embrace the Aboriginal historical and contemporary identity, engage visitors to explore the story of the place and integrate Aboriginal culture and narrative to create well-connections and welcoming places within Central Precinct.

Key themes include:

- **Reconnection of Redfern and The Harbour:** Consider historical connections between Redfern and the Harbour; Acknowledge the movement of the Aboriginal community from the Harbour to Redfern
- **Replacing Landmarks of Country:** Consider how the traditional landmarks of Country have been obscured by the City, however Country and many of its landmarks are still under the concrete; Acknowledge and interpret the landmarks of Country, such as Sandhills, in the new masterplan
- **A Meeting Place:** Acknowledge Central as a traditional and contemporary meeting place; Recognise Central as a place where the Aboriginal community gather before travelling back out to Country by train.

How has this been incorporated into the proposed planning framework?

The Connecting with Country Framework themes has informed design approach for the renewal of Central Precinct. This has specifically been incorporated into the design of the masterplan through celebrating the existing landmark sand dunes through creating a rolling landform terrain within Central Green.

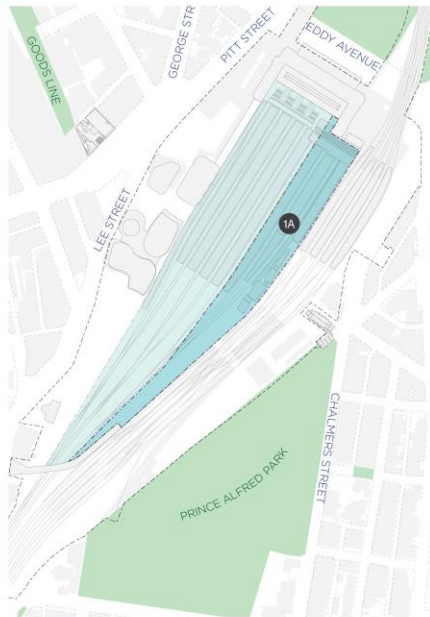
To shape how future design and planning processes can facilitate the integration of Country into the detail design of buildings and the public domain, provisions relating to Connecting with Country have been included into the Design Guide. This specifically aims to:

- ensure development acknowledges and embeds Country.
- ensure locally connected Aboriginal community voices are embedded into development of Central Precinct
- provide opportunities for collaboration and co-designing with Aboriginal and Torres Strait Islander peoples for development within Central Precinct.

In addition to the above, a Design Excellence strategy has been prepared for the Precinct in response to the Design Guide (refer to **Attachment 11**), and includes specific requirements to promote connection with Country through the design excellence process.

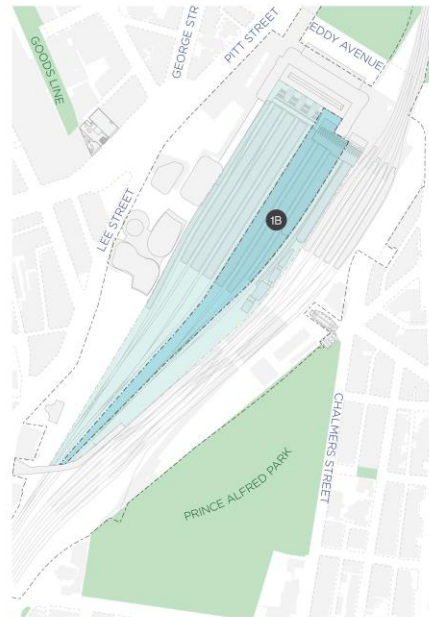
9.13 Indicative staging strategy

An Indicative Staging Strategy has been prepared and is included within the Urban Design Framework (**Attachment 3**) which comprehensively considers the staging of track alignment and construction staging for the OSD. **Figure 66** identifies the intended staging of the track alignment.



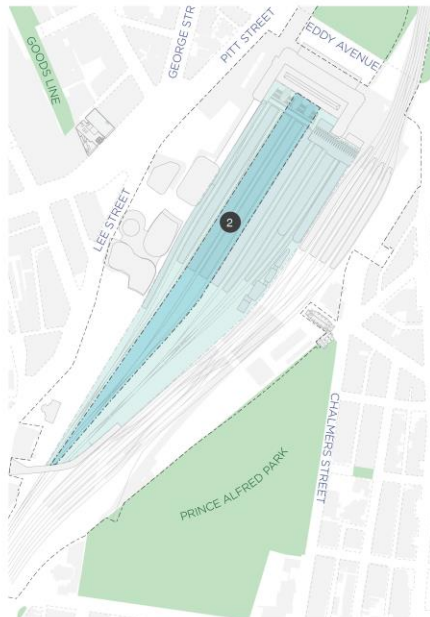
Stage 1A

- Take possession of platforms / tracks 10-14
- Introduce temporary platform 10
- Rebuild tracks 13-14
- Stage 1A complete with opening of Platforms 13-14
- Estimated duration: 1 - 1.25 years



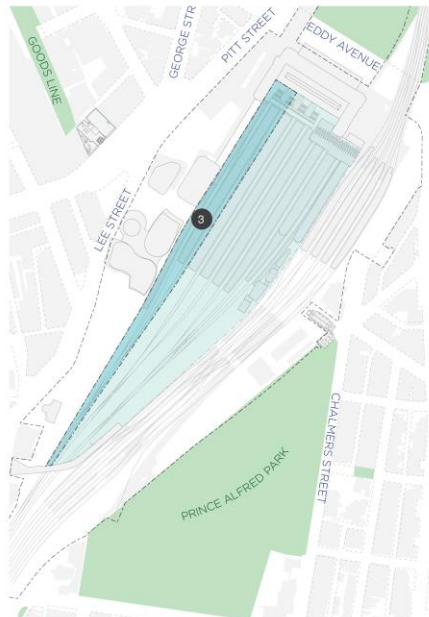
Stage 1B

- Close platforms / tracks 9-12
- Introduce temporary platform 8
- Build OSD deck above and reopen platforms 9-12
- Estimated duration: 2 - 2.5 years



Stage 2

- Close platforms / tracks 5-8
- Introduce temporary platform 4
- Build OSD deck above and reopen platforms 5-8
- (Prioritise construction deck over platform areas to allow for construction of OSD buildings)
- Estimated duration: 2.5-3 years
- Priority OSD: 1-1.5 years



Stage 3

- Close platforms / tracks 1-4
- Build OSD deck above and reopen platforms 1-4
- Estimated duration: 2 years

Legend

- [Dashed line] Central Precinct boundary
- [Blue square with 'x'] Stage
- [Light blue square] Track realignment zone

Figure 66: Rail track alignment staging

Source: Architectus and Tyrrell Studio (2022)

The staging approach shown in **Figure 66** has been adopted to allow for the required realignment of the intercity and regional tracks, in turn allowing the above decks to be constructed. The staging of the OSD components is also illustrated in the Urban Design Framework (**Attachment 3**), while the Place Strategy (**Attachment 2**) sets out staging strategies for the delivery of the public domain.

It is noted that the estimated timing for delivery of Building F1 is subject to confirmation and further discussions with all relevant stakeholders.

How has this been incorporated into the proposed planning framework?

The Design Guide includes provisions to ensure the staging occurs in a coordinated manner and allows for the ongoing efficiency and safety of rail operations at Central Station. Refer to the Design Guide for further detail (**Attachment 11**).

9.14 Utilities servicing

A Utilities and Infrastructure Servicing Report has been prepared by Arcadis (**Attachment 26**), which identifies the likely future demands on utilities infrastructure as a result of the proposal and undertakes a detailed assessment of the potential impacts that the proposal may have within and surrounding the Central Precinct. **Table 20** below provides a summary of the existing utilities servicing the area.

Table 20 Assessment of utilities servicing the Central Precinct

Utility	Assessment
Potable Water	Sydney Water supplies potable water to the Precinct. No potable water trunk mains transverse the Precinct. There are several trunk water mains and smaller reticulation mains within the immediate vicinity of the Precinct.
Recycled Water	At present there is currently no recycled water being supplied to the Precinct. A recycled water pipeline has been constructed as part of the recent Sydney Light Rail project and is located along Eddy Avenue and Chalmers Street bordering the north and east of the Precinct. This pipeline has not been commissioned. A stormwater harvesting tank is located beneath the Pitt Street loading dock. Roof runoff and stormwater runoff from Ambulance Avenue, and potentially a portion of the rail track drainage, discharge to this stormwater harvesting tank. The harvested water has been used to supply the Grand Concourse toilet facilities. However, poor water quality has prevented this reuse at times. Some additional rainwater tanks have also been evident in the Pitt St loading dock area.
Sewer	Sydney Water currently services Central Precinct with sewerage discharging to the Bondi Sewerage Treatment Plant. Of note, the heritage listed Bondi Ocean Outfall Sewer crosses the northwest of the site from Lee Street to Eddy Avenue.

Utility	Assessment
Electricity	<p>Ausgrid is the electricity supplier for the Precinct. There is a large number of high voltage 5-22kV mains surrounding the site with a high voltage cable crossing the Precinct along the Devonshire Tunnel.</p> <p>The Precinct is located within the CBD load area. Haymarket is on the boundary between the Sydney CBD triplex and urban 11kV networks. As such, although the closest supply is from Belmore Park 132/11kV Zone Substation or City South 132/11kV Zone Substation, the existing supply to the Precinct is from Campbell Street 132/11kV Zone Substation (ZN7900) and Surry Hills 33/11kV Zone Substation (TW7180).</p>
Gas	<p>Jemena owns and operates the gas network infrastructure in the vicinity of the Precinct. There are a number of secondary gas mains and smaller distribution mains within the vicinity.</p>
Data and telecommunications	<p>There is substantial data and communications infrastructure present throughout the Precinct. Data and communications infrastructure are generally present within roads adjacent to the site. Several communication providers have assets running adjacent to and intersecting Central Precinct, including Optus and NBN Co. There are existing Telstra tunnels in parts of the Precinct.</p>

Future demand and servicing

Preliminary calculation has determined a ‘baseline’ services demand and identifies any required augmentation to existing infrastructure. The calculations conducted estimate the following demands:

- **Potable water demand:** 3,294 kL MDD, 1,697 kL ADD
- **Sewer loading:** 28.28 L/s ADF, 136 L/s PDWF
- **Electrical demand:** 45,051 kVA (with gas), 56,295 kVA (full electrification)
- **Gas demand:** 63,186 MJ/hr.

The report outlines those local amplifications to potable water, recycled water, waste water, communications, electrical and gas delivery systems may be required to service increased demand from the renewal of the Central Precinct. Due to its location within Central Sydney, several utilities running through and around Central Precinct will require further co-ordination, protection and potential modification. This will be confirmed at future design development stages and in consultation with the relevant utility provider.

How has this been incorporated into the proposed planning framework?

While the preliminary demand assessment identifies future demand for each utility, the report outlines that the pursuit of Ecologically Sustainable Development (ESD) measures for the Central Precinct has the potential to reduce this demand. These are discussed in detail under the Environmental Sustainability Study (**Attachment 24**) and include the use of off-site or on-site renewable energy/battery storage, water recycling, rainwater harvesting, passive design and the use of efficient fixtures. These measures are captured under the proposed planning framework, including the Design Guide. Further, it is assumed that the use of gas will not be pursued by new development within the Central Precinct.

9.15 Infrastructure

Significant infrastructure investment is required to deliver the vision for the Central Precinct. This includes a mix of State and local infrastructure delivered and managed by a range of public authorities. This section outlines the potential State, regional and local infrastructure that could be delivered as part of the Central Renewal Project and considers the mechanisms for the funding and delivery of infrastructure on-site and the ongoing operations related to delivered infrastructure.

As part of this SSP Study, infrastructure to be delivered as part of the Central Precinct Renewal Project is described in the infrastructure schedules in **Table 21** and **Table 22** below. It is noted that the infrastructure schedules for local infrastructure and State and regional infrastructure are subject to change and will be further developed in consultation with the City of Sydney and DPE. Typically, local infrastructure is associated with public amenities and services that Council delivers and maintains. Given the unique nature of the proposal, potential local infrastructure items identified may have ownership maintained by the NSW Government, as they are located within the rail corridor/ OSD deck.

The timing for delivery of these listed infrastructure items will be based on the staging and sequencing of development within the Central Precinct. The first development stage of the Central Precinct Renewal Project is estimated to commence by early 2030.

Table 21: Potential local infrastructure for Central State Significant Precinct

Type	Sub-type	Provision (subject to further design and consultation)	Potential ownership/ management (subject to further consultation)	Estimated cost
Open space and recreational infrastructure	Open Space	Central Green – New publicly accessible open space of a minimum size of 5,800sqm.	TfNSW and development partner	\$316m
		Central Square – New publicly accessible open space of a minimum size of 5,900sqm.	TfNSW	
		Mortuary Station Plaza – New publicly accessible open space of a minimum size of 4,470sqm.	TfNSW	
	Open space embellishments	Embellishments to new publicly accessible open spaces, including: an accessible play space street furniture and amenities landscaping public art.	TfNSW and development partner	\$57m
		Eddy Avenue Plaza – improvements to the existing civic plaza, including new seating opportunities, landscaping and wayfinding.	TfNSW	
		Ibero-American Plaza – improvements to the existing civic plaza, including new seating opportunities, landscaping and wayfinding	TfNSW	
	Recreational infrastructure	Indoor or outdoor recreational facility comprising a minimum of two courts. Note: Some of this provision may be incorporated in the integrated multipurpose community facility.	Owned by TfNSW managed by a community-based organisation	\$25m
Community and cultural facilities	Community facilities	Integrated multipurpose community facility of a minimum 4,000sqm of GFA.	Owned by TfNSW and managed by a community-based organisation	\$71m

Type	Sub-type	Provision (subject to further design and consultation)	Potential ownership/ management (subject to further consultation)	Estimated cost	
		Secondary local community tech lounge of at least 400sqm of GFA	Owned by TfNSW and managed by a community-based organisation		
	Cultural spaces	Aboriginal community and cultural space of a minimum 1,000sqm of GFA	Owned by TfNSW and managed by a community-based organisation	\$16m	
Affordable housing	Affordable housing	15% of residential GFA	To be managed by Community Housing Provider	\$147.7m	
Health and education	Primary health care	Social / health services hub of a minimum 400sqm of GFA	Owned by TfNSW and managed by a community-based organisation	\$1m	
Private and public transport	Internal streets and lanes on the OSD	As per the Central Precinct Design Guideline	TfNSW	\$42m+	
	Access road from Cleveland Street to OSD deck	Provision of an access road	City of Sydney		
	Improvements to surrounding pedestrian network		Reprioritising road space on Lee Street to provide additional space for pedestrians		City of Sydney or TfNSW
			Improve pedestrian capacity: across the intersection of Pitt Street and Eddy Avenue along and across Eddy Avenue across the intersection of Elizabeth Street and Foveaux Street across the intersection of Broadway and Harris Street.		City of Sydney or TfNSW
			Widened footpaths along George Street, Eddy Avenue, Broadway, Pitt Street and Quay Streets through road space reallocation to support growing pedestrian movements.		City of Sydney or TfNSW
			Reallocation of road space to accommodate both waiting passengers and moving pedestrians on Eddy Avenue and at Railway Square.		City of Sydney or TfNSW
	Over-rail bridges	Three cross rail bridges from the OSD deck to: Northern over-rail bridge from OSD to Chalmers Street extended from Devonshire Street Central over-rail bridge from OSD to Prince Alfred Park Southern over-rail bridge from OSD to Prince Alfred Park	TfNSW		
	Vertical transportation for the OSD	Vertical transport points to provide connections between street, to concourse and OSD deck level – as required	TfNSW		
Active transport infrastructure	Pedestrian and cycle connections	New separated cycleway along Regent Street	City of Sydney	\$391m	
		Southern Gateway, Prince Alfred Park bridge loop	TfNSW		
		Goods Line southern extension to Mortuary Station Garden	TfNSW and City of Sydney		
	Bike hubs	Publicly accessible end of trip (EOT) facilities/ bike hubs and east-west links on OSD	TfNSW		
Estimated cost of local infrastructure				\$1.067bn	

Table 22: Potential State infrastructure items for Central State Significant Precinct

Type	Sub-type	Provision	Potential ownership /management	Estimated cost
Private and public transport	Upgrade of Eddy Avenue	Improvement works to pedestrianise Eddy Avenue	City of Sydney or TfNSW	\$6m
	Upgrade of Lee Street	The closure of Lee Street to private vehicles and improvements to pedestrianise the street between the Western Gateway Sub-precinct and Railway Square.	City of Sydney or TfNSW	\$11m
Estimated cost of State infrastructure				\$17m

9.15.1 Mechanisms for delivery

The proposed mechanisms for delivery are identified below.

State and regional infrastructure contributions

In December 2020, the Productivity Commissioner released its Review of infrastructure contributions in NSW, which made 29 recommendations for reforming the State and local infrastructure contributions system. The NSW Government accepted all the review's recommendations, including to introduce a Regional Infrastructure Contribution (RIC) that would apply a broad-based State contribution system to 4 regions within NSW. Following this, the NSW Department of Planning and Environment (DPE) has developed a State Contributions Framework to replace the Special Infrastructure Contributions system, with the aim of creating a simpler, more strategic and consistent approach to funding State and regional infrastructure.

Regional infrastructure items may be funded through various mechanisms, including through the State Contributions Framework and may involve works-in-kind or planning agreements to deliver infrastructure within the precinct in response to any finalised infrastructure framework. The final arrangement for delivery of State and regional infrastructure will however be subject to negotiations with relevant authorities.

Local infrastructure contributions

The Central Sydney Contributions Plan 2020 (CSCP 2020) currently applies to land at Central Precinct. The CSCP 2020 enables the City of Sydney Council (CoS) to levy a contribution on new development to generate approximately \$647,419,159 in contributions for local infrastructure works and upgrades in Central Sydney. These contributions are intended to support the delivery of infrastructure to support growth between 2020-2025 in Central Sydney, which is forecast to grow by:

- almost 5,550 dwellings
- over 11,800 residents
- almost 29,000 workers.

This forecast growth does not anticipate the nature and scale of development envisaged for the Central SSP and as such the proposed works schedule of the CSCP 2020 does not reflect the proposed infrastructure intended to be delivered through the Central Precinct Renewal Project. Any local infrastructure items listed in the local infrastructure schedule for the Central Precinct may be integrated into the schedule of works of an updated Central Sydney Contributions Plan (post 2025).

Under the current-CSCP 2020, the following levy rates are currently applied for new development within Central Sydney:

- Up to and including \$250,000 – NIL
- More than \$250,000, up to and including \$500,000 – 1% of total development cost
- More than \$500,000 up to and including \$1,000,000 – 2% of total development cost
- More than \$1,000,000 – 3% of total development cost.

The CSCP 2020 allows for alternatives to monetary contributions via dedication of land, provide works in kind or another material public benefit, should the City of Sydney agree to an offer. Any offer to provide Works-In-Kind, dedication of land or a material public benefit would need to be formalised through a planning agreement prepared in accordance with the EP&A Act and in consultation with Council.

Transport for NSW's preferred approach

Transport for NSW's preferred approach to funding and delivering the infrastructure is to enter into a planning agreement with the consent authority as an alternative contribution mechanism to the CSCP 2020, with items identified within the local infrastructure schedule representing works in kind in-lieu of any monetary contributions. This is considered to be an appropriate approach to infrastructure contributions for Central Precinct as:

- it ensures the equitable and coordinated delivery of this infrastructure,
- the local infrastructure items proposed will benefit the Central Precinct and the broader community within Central Sydney
- the responsibility for the long-term management and maintenance of this infrastructure will largely reside with Transport for NSW (as identified in **Table 21**)
- the current CSCP 2020 does not take into account the proposed growth and local infrastructure proposed by the Central Precinct Renewal Project
- the value of contributions delivered by the Precinct is over and above the local contributions that would be relevant to Central Precinct under the CSCP 2020.

As part of any alternative contribution mechanism to the CSCP 2020 it is expected that certain project-dependant infrastructure will be excluded. These exclusions include:

- the improvements to Eddy Avenue Plaza
- vertical transport points to provide connections between the street, to the concourse and the OSD deck level
- public utilities, the OSD deck infrastructure and basements
- the Station Systems Upgrade
- the relocation of the bus layover.

It is noted that Planning agreements are just one mechanism to deliver local infrastructure, and will likely work in conjunction with a Precinct specific Infrastructure schedule and the Central Sydney Development Contributions Plan 2020, which may be updated to reflect the outcomes of the SSP Study. It is noted that no agreement has been reached with DPE or the City of Sydney Council with regard to the infrastructure items that are considered necessary and appropriate for the Central Precinct. Accordingly, further consultation between Transport for NSW, the DPE and the City of Sydney is required to agree and confirm the appropriate nature and extent of regional and local infrastructure, and the future delivery mechanism(s) for this infrastructure.

9.15.2 Affordable housing

Under section 7.13 ‘Contribution for purpose of affordable housing’ of the Sydney Local Environmental Plan 2012, ‘the consent authority may, when granting development consent to development to which this clause applies, impose a condition requiring a contribution equivalent to the applicable affordable housing levy contribution’. The affordable housing levy contribution for development on land at Central Sydney is currently 3% of the total floor area of the development that is intended to be used for residential purposes and 1% of the total floor area of the development that is not intended to be used for residential purposes.

As part of the Central Precinct Renewal Project, a minimum of 15% of the residential floor space at Central Precinct (or equivalent) is committed to being delivered as affordable housing. It is noted that following the public exhibition period, TfNSW will target for the Precinct, a further 15 percent of new residential floor space to be delivered as diverse housing (i.e. seniors housing, key worker housing, build to rent), subject to further economic modelling and governance considerations. Subject to confirmation, the requirement for a certain proportion of diverse housing will be adopted into a proposed site-specific provision in the SLEP 2012.

Transport for NSW is currently assessing the delivery mechanisms that are available for the provision of 15% of the residential floor space for affordable housing, as identified by the Social Infrastructure and Health Impact Assessment (refer to **Attachment 22**), including:

- the delivery of 15% of new residential floorspace as affordable housing within the Central Precinct
- dedication of land (equivalent to the value of 15% of residential floor space) for the provision of affordable housing supply by the community housing sector
- levying contributions (equivalent to the value of 15% of residential floor space) for the provision of affordable housing by the community housing sector outside the precinct, but within the City of Sydney LGA.

Based on the City of Sydney’s policy of 1% of floorspace for non-residential uses and 3% of floorspace for residential uses within Central Sydney, the Affordable Housing contribution would be an estimated \$84.4m (refer **Table 23** below).

Table 23: Local infrastructure schedule of Central State Significant Precinct

Land use	Gross Floor Area (GFA)	CoS Percentage	CoS Rate	Estimated Value
Affordable housing contributions based on City of Sydney Affordable Housing Program				
Non-residential uses	407,498 sqm	1%	\$11,599.74	\$47m
Residential uses	107,380 sqm	3%	\$11,599.74	\$37.4m
Total contributions for affordable housing				\$84.4m
Affordable housing contributions based on proposed 10% of residential floor space (excl. student accommodation)				
Residential uses (excl. student accommodation)	84,900 sqm	15% (12,735 sqm)	\$11,599.74	\$147.72m
Total contributions for affordable housing				\$147.7m
Total difference				+\$63.3m

As noted, Transport for NSW will be providing 15% of the of affordable housing units as part of the 84,900 square metres of residential floor space. Based on the same City of Sydney rate of affordable housing floorspace at \$11,599.74 per square metre of affordable housing floorspace, the provision of 15% of residential uses as affordable housing would equate to approximately \$147.7m, which is \$63.3m more than what would be levied under the City of Sydney’s Affordable Housing Program (refer to **Table 23** above).

The proposed delivery mechanism for the delivery of affordable housing is still being evaluated by Transport for NSW and will be confirmed as part of ongoing consultation with DPE.

9.15.3 Post development maintenance

Local infrastructure located outside of the Central Precinct SSP boundaries will remain owned and operated by CoS, namely public open spaces, local road reserves and stormwater assets, and would be the responsibility of the City of Sydney to maintain in accordance with existing policy.

Notwithstanding this, ownership of other infrastructure will be confirmed via the detail design process, with potential ownership including Transport for NSW, relevant utility companies and local body corporates. It is anticipated that the following infrastructure categories would remain in State ownership:

- rail infrastructure and related facilities
- State-owned buildings
- publicly accessible open space and streets on the OSD deck
- cross-rail bridges to the OSD deck.

The NSW Government is currently evaluating the most appropriate ownership and management structure for the government-owned lands at Central Precinct. Ownership would be finalised through the development application process.

9.15.4 Comparison with the City of Sydney’s local contribution levies

The approximate development cost of commercial development within Central Precinct is \$4.5bn. This includes the Commercial Development and Commercial Infrastructure Development Works and does not include the public infrastructure contribution. When the 3% CoS contribution rate is applied to the estimated development cost of \$4.5bn for Central Precinct, this equates to approximately \$136m of contributions to be levied for local infrastructure. Additionally, the City of Sydney affordable housing levy of 1% of the non-residential uses and 3% of the residential uses GFA results in \$84.4m. In total, the City of Sydney’s local contributions would levy approximately \$220m for local infrastructure and affordable housing (refer **Table 24** below).

Notably, the proposed local infrastructure works and affordable housing proposed by the Central Precinct Renewal Project is estimated to be \$1.067bn (refer to **Table 24** below). This is a significant difference of approximately \$847m of additional local infrastructure and affordable housing.

Table 24: City of Sydney Local Infrastructure contributions requirements vs Estimated TfNSW Contributions

Estimated value	
City of Sydney contributions requirements	
Development works and infrastructure development works (assumed 3% development cost of approx. \$4.52bn - commercial development only)	\$135.6m

Estimated value	
Required affordable housing contribution as per the value of the commercial development (1% of non-residential and 3% of residential floorspace)	\$84.4m
Total required CoS contributions for local infrastructure and affordable housing	\$220m
Estimated value of potential local infrastructure and affordable housing from the Central Precinct Renewal Project	
Estimated TfNSW potential local infrastructure	\$918.9m
Value of affordable housing units	\$147.7m
Total estimated value of potential infrastructure and affordable housing from Central Precinct	\$1.067bn
Total difference	+\$847m

9.15.5 Next steps

The Central Precinct Renewal Project has the opportunity to deliver significant public benefit in the form of local infrastructure, State and regional infrastructure and affordable housing, and goes beyond what would typically be delivered under current contribution schemes. This will include:

- an estimated value of \$17m for potential State and regional infrastructure
- an estimated value of \$918.9m for potential local infrastructure
- an estimated value of \$147.7m for affordable housing.

Overall, this would see approximately 1.084bn in infrastructure being delivered as part of this project.

It is noted that the local infrastructure schedule (identified in **Table 20**) is preliminary at this stage for community information purposes and still subject to change. It is intended that the Infrastructure Schedule will be further developed in consultation with the City of Sydney and DPE. An updated local infrastructure schedule will be provided as part of the Response to Submissions Report, reflecting the outcomes of the consultation with the City of Sydney and DPE, and responding to feedback from submissions received during the public exhibition process. The final infrastructure schedule will include a comprehensive list of all local and regional infrastructure that will be delivered as part of the Precinct's future redevelopment. Transport for NSW will also work closely with City of Sydney and DPE to identify infrastructure outside the Precinct boundary that will need to be delivered and/or upgraded in response to additional demand generated by the future worker, resident and visitor population of Central Precinct. This will be incorporated into the final infrastructure schedule.

As noted previously, Transport for NSW's preferred infrastructure delivery approach for Central Precinct is to negotiate a planning agreement with City of Sydney and DPE for the delivery of local and State and regional infrastructure. While being TfNSW's preferred approach, it is highlighted that that no agreement has been reached with the City of Sydney on the most appropriate delivery mechanism for local infrastructure. Planning agreements are just one mechanism to deliver local infrastructure, and will likely work in conjunction with a Precinct specific Infrastructure schedule and the Central Sydney Development Contributions Plan 2020, which may be updated to reflect the outcomes of the SSP Study. Further consultation between Transport for NSW, the DPE and the City of Sydney will be ongoing to confirm the appropriate delivery mechanism(s) for local infrastructure as part of the SSP Study process.

9.16 Economic productivity and job creation

SGS Economics and Planning (SGS) and Hill PDA have prepared an Economic Productivity and Job Creation Study for the proposal (refer **Attachment 27**). The report provides an economic productivity and job creation assessment of the proposed renewal and potential impacts that may result within and surrounding Central Precinct. This includes an assessment of the existing economic trends, the likely technology and innovation industry needs, forecasts of the demand for commercial floorspace and the potential economic benefits of the renewal of Central Precinct and broader Tech Central.

Existing situation

Although it is located in Central Sydney, Central Precinct contains a relatively small number of jobs. However, employment trends suggest that there is changing. Between 2012 and 2017, the number of jobs in the area surrounding Central Precinct increased by 29% (ABS and SGS, 2021). A decrease in the floor space to job ratio over this time also suggests that the area is shifting towards a jobs composition similar to the rest of Central Sydney (SGS, 2021).

Southern Central Sydney is home to a large diverse workforce. In addition, it includes a number of education, health, cultural and entertainment precincts and institutions. Areas of particular note include the Broadway cluster of tertiary education facilities dominated by UTS, the Capital Theatre and Chinatown. Further afield, southern Central Sydney is accessible to places such as the Powerhouse Precinct.

Central Precinct is positioned within the northern end of the NSW Government’s Tech Central and the western edge of the Greater Sydney Commission’s Camperdown-Ultimo Collaboration Area. These initiatives promote the creation of job opportunities, particularly jobs of the future in innovation and technology.

Economic benefits

SGS has identified the overall strategic, economic and land use benefits of the proposal (refer **Table 25**).

Table 25: Overall strategic, economic and land use benefits

Benefits	Outcome
Creating long term supply potential	The development of the OSD will unlock significant development capacity that can deliver long term commercial space and accommodate a number of other floorspace uses that the highly urbanised area needs
Maximising agglomeration benefits by supporting the concentration of future knowledge intensive jobs	The renewal of Central Precinct will maximise agglomeration benefits through the concentration of a significant number of knowledge intensive jobs that are in close proximity to other concentrations of such jobs in Central Sydney as well as other major centres including Parramatta and Macquarie Park and the wider labour market catchment of people within 30 minutes via mass transport infrastructure

Benefits	Outcome
<p>Extends Australia's largest and most productive CBD</p>	<p>The renewal of Central Precinct provides the only avenue for significant capacity to increase within Central Sydney. The proposal will contribute to the long-term capacity to support a range of diverse future uses that will benefit the locational and accessibility advantages of the site</p>
<p>Drive re-investment in the Southern CBD and rebalance the CBD's centre of gravity</p>	<p>The investment of renewal including public domain improvements and new buildings for Central precinct will realise commercial, cultural and other uses within southern Central Sydney. The proposal will catalyse benefits and help to improve land values and rent in the precinct as well as attract a diversity of additional land uses</p>
<p>Creates a point of integration to CBD fringe precincts to consolidate the Tech Central vision</p>	<p>Surrounding Central Sydney 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 renewal of Central Precinct has the potential to better connect Surry Hills, Chippendale, Ultimo, including North Eveleigh-Redfern and South Eveleigh precincts to one another and to wider Central Sydney. This will increase connectivity and 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</p>
<p>Celebrates the heritage value of Sydney's iconic buildings and brings it back to life</p>	<p>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</p>
<p>Provides the opportunity to create new open spaces in a dense urban core and improve amenity and recreational benefits</p>	<p>The proposed new open spaces and civic spaces will provide important additions to the city where there is an overall deficiency in open space in highly urbanised areas. The new open space and active frontage uses will increase expenditure in retail and restaurants as well as increase the value of floorspace</p>

Benefits	Outcome
Creates opportunities or increased active transport and reduces east-west movement barriers, including improving road safety	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
Establishes a creative and commercial precinct that attracts visitors	The masterplan incorporates civic, cultural and other infrastructure and institutions that will likely 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
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.

Wider economic benefits

The renewal of Central Precinct will have flow on benefits at a macroscale. The Economic Productivity and Job Creation report prepared by SGS and Hill PDA identify that NSW will benefit from masterplan development, with real household consumption, investment, international imports and exports. 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.

Economic impact

The proposed masterplan for Central Precinct will include a total of 269,500 square metres GFA for innovation and commercial floorspace, approximately 47,250 square metres of GFA for educational uses, approximately 14,300 square metres of GFA for community uses and approximately 22,850 square metres of GFA for retail space. The Economic and Job Productivity report has undertaken an analysis of the economic contribution of Central Precinct, which outlines the following employment opportunities and income once the development is complete. Key findings are summarised below:

- The commercial floorspace will accommodate the strong and growing demand for high quality office space and contribute towards achieving the Tech Central vision
- Based on the proposed masterplan floorspace all occupied, Central Precinct will deliver approximately 16,212 new jobs contributing to a total of 28,791 jobs in total (including the Western Gateway)
- The construction jobs generated from the project 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
- Upon completion the project is expected to support approximately 10,126 professional, scientific and service jobs, 3,522 finance and insurance services jobs, 763 retail trade jobs and 1,002 educational and training jobs

- The forecast gross value added (GVA) of \$497.5 million (measured in 2021 dollars) from information, media and telecommunications and \$456.2 million (measured in 2021) dollars from Professional services is expected for Central Precinct.

The renewal of Central Precinct will deliver new and tailored floorspace for the tech and innovation sector and has the potential to support over 16,212 new jobs that will contribute to Tech Central District meeting its target of at least 25,000 more innovation jobs.

9.17 Flooding, stormwater and water quality

A Water Quality, Flooding and Stormwater Report has been prepared by Arcadis (**Attachment 28**). A summary of the key assessment matters considered in relation to flooding, stormwater drainage and quality is described below.

9.17.1 Flooding impact assessment

Arcadis has undertaken a significant flood modelling exercise for the Central Precinct (**Attachment 28**). Flood mapping from the model has been assessed for the 10% AEP (10 year ARI), 1% AEP (100 year ARI) and Probable Maximum Flood (PMF) design rainfall events and show the extent and depth of flooding within and surrounding the Central Precinct. The flood modelling indicates potential flooding related impacts at the following locations within the Central Precinct and nearby areas, including:

- Chalmers Street/Devonshire Street intersection.
- Broadway, George Street and Pitt Street.
- Regent Street north of Mortuary Station.
- Prince Alfred Park boundary.

The modelling indicates widespread flood level impacts across the Central Precinct are not apparent and are generally isolated at the above-mentioned locations. Further, it suggests Central Precinct flood impacts will be amplified with the magnitude of the impact on peak flood levels generally being less than 0.1 metres in the 1% AEP and less than 0.5 metres in the Probable Maximum Flood (PMF) at most locations. Flood hazard mapping has also been undertaken for the 10% AEP, 1% AEP and PMF design rainfall events based on the Australian Institute of Disaster Resilience vulnerability curves. These maps show the Central Precinct not containing any significant impact on the flood hazard within or surrounding it.

9.17.2 Stormwater Management

The Water Quality, Flooding and Stormwater Report (**Attachment 28**) seeks to align with the aspirations of the Environmental Sustainability Study (**Attachment 24**) by adopting a sustainable approach to the management of stormwater. This includes the adoption of an Integrated Water Cycle Management approach that incorporates best practice Water Sensitive Urban Design (WSUD) measures at the heart of a precinct wide stormwater management plan (SMP). It seeks to lessen flood risk, maximise water quality treatment and reuse, and support green infrastructure. The SMP is grounded in guiding principles, which seek to:

- Maintain existing sub catchment areas
- Preserve existing and create adequate overland flow paths to the downstream
- Maintaining flood storage

- Maximising pervious areas
- Provision for stormwater detention
- Provision for stormwater quality treatment measures
- Identification and reduction of flood risk through design
- Consideration of a changing climate and extreme events.

Measures relating to general stormwater management for the Central Precinct include:

- **Sub-precincts:** Tailored development controls created for each sub-precinct to factor in specific characteristics, constraints and opportunities, while contributing to achieve precinct wide targets.
- **Over-station development (OSD):** Efficient conveyance of stormwater at deck level is a key approach, followed by passive irrigation of landscaped areas, detention (as required) and recycling water (if feasible).
- **Preservation of catchment areas:** Protection of catchments to existing stormwater and sewer drainage lines is to be maintained.
- **Protection of overland flow paths and flood storage:** To avoid impacts on nearby areas, existing overland flows paths through the Central Precinct are to be maintained.
- **Provision of on-site detention:** On-site detention to be installed as required to mitigate impacts of connecting to existing underground drainage network and above ground flooding.
- **Climate change and extreme events:** Flood planning controls and the design of stormwater drainage infrastructure factor in future climate change scenarios, and green infrastructure provided at grade will allow for passive irrigation and mitigate the urban heat island effect.
- **Stormwater quality improvement:** WSUD measures are to be incorporated into Central Precinct to improve quality of stormwater discharge and reduce potable water demand. WSUD features to be incorporated into buildings, OSD surface, deck structure and public domain. Vegetated systems to be a key pillar of WSUD measures. Multi-functional infrastructure will be preferred such as integrated green roofs which collect, store and reuse rainfall in addition to providing green space. Water quality treatment targets to vary across sub-precinct depending on constraints and opportunities.

How has this been incorporated into the proposed planning framework?

The above principles and measures are adopted by the Design Guide (**Attachment 11**), which requires all new development at DA stage to provide an Integrated Water Management Strategy, which is to be supported by a Local Drainage Management Plan, that address all relevant flood impact/hazard and stormwater management/quality provisions.

9.18 Aeronautical

Strategic Airspace has prepared an Aeronautical Study to address aeronautical matters. It is provided at **Attachment 29**.

Central Precinct is located within the prescribed airspace of Sydney (Kingsford Smith) Airport. Being within prescribed airspace, a number of measures work together to limit the height of buildings for airport safety and operational reasons. These are as follows:

- **Obstacle Limitation Surface (OLS):** ranging from RL 127.1 metres AHD at the southern end of the Prince Alfred Park Sidings sub-precinct to RL 156 metres AHD north of Eddy Avenue
- **Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS):** ranging from RL 259.1 metres AHD at the southern end of the Prince Alfred Park Sidings sub-precinct to RL 292.1 metres AHD at the northern end of the Goulburn Street carpark sub-precinct
- **Radar Terrain Clearance Chart (RTCC):** RL 152.4 metres AHD south of around the proposed Devonshire Link and RL 243.8 metres AHD north of the link.

Due to intrusion within the OLS, the taller of the proposed tower buildings and any cranes required during construction will require approval under Commonwealth legislation (Airports (Protection of Airspace) Regulations 1996). Strategic Airspace have advised that this intrusion is not considered a barrier to approval of an application under the APAR. This approval is also required by Clause 7.16 of the SLEP 2012.

Concerning the RTCC Surfaces, the Aeronautical Study identifies that all buildings in the reference masterplan are below the relevant RTCC surface height (RL 152.4 metres AHD). Notwithstanding this, the proposed maximum building heights for the precinct are greater than the reference scheme building heights. In particular, the maximum building height limit proposed for the Regent Street Sidings sub-precinct will exceed the RTCC surface height, with a maximum building height of RL 180 metres AHD. This height limit is based on the tallest point of the Prince Alfred Park sun access plane where it intersects this part of the precinct. Despite the maximum building height limit exceeding the relevant RTCC surface height, a site-specific provision under the SLEP 2012 is proposed to require consultation and confirmation from the relevant airspace authority and Commonwealth body that there is no objection to exceeding the prescribed airspace of the RTCC. This provision is further described in the Explanation of Intended Effect (**Attachment 9**).

Setting the maximum building height limit above the RTCC surface height would allow for different heights at the Regent Street Sidings sub-precinct to be explored at the detailed design stage which may deliver an improved design outcome. For instance, should development be able to reach heights of RL 180 metres, this could allow for a taller building on the northern portion of the sub-precinct with lowered building heights to the south that can provide a scaled transition in tower heights toward Mortuary Station Building and may improve sunlight access to Mortuary Station Plaza. The ability to explore this opportunity as part of the detailed design phase at the DA stage is sought by setting the height limit at RL 180 metres.

The necessary airspace authority approval will be required at the DA stage for any proposed development that exceeds the RTCC and may also require an amendment to the prescribed airspace for the RTCC as it relates to the Regent Street Sidings sub-precinct. A similar amendment process to amend the RTCC surface height is currently being undertaken for the proposed development at 14-30 Lee Street, Haymarket NSW (adjacent site north). Should the relevant airspace authority and Commonwealth body object to amending the RTCC surface height for the Regent Street Sidings sub-precinct, the height of future buildings will need to be below the current RTCC surface height (RL 152.4 metres AHD), as illustrated by the reference masterplan. Where cranes intrude within the RTCC surfaces they would be subject to limitation durations and operational conditions.

There are no other prescribed airspace surfaces or other operational factors that would be adversely affected by the proposal.

9.19 Consultation

Community and stakeholder engagement has been an important part of helping shape the proposal. To ensure an appropriate and justified level of engagement, Elton Consulting were engaged by Transport for NSW to prepare a Consultation Strategy (**Attachment 30**) and an

associated Consultation Outcomes Report (**Attachment 32**). In conjunction with Elton’s Engagement, an Aboriginal Engagement Strategy was also undertaken by Cox Inall Ridgeway (**Attachment 31**).

Building on previous engagement outcomes

Considerable community engagement was undertaken between 2016 – 2019 on planning for renewal of Central Precinct. **Table 26** highlights the key findings of this engagement.

Table 26: Key findings of earlier community engagement activities

Theme	Key finding
Place and destination	<ul style="list-style-type: none"> • People want a vibrant city hub with easy access to transport services that is a destination in itself, not just a transport interchange • There is support for new public spaces, entertainment, dining, commercial, retail and night-time activation, including food, shops, cafes and bars • The highlight of Central Precinct was its heritage and the architecture of Central Station, and there was a desire to preserve and enhance heritage aspects of the station and surrounding area and that renewal responds to the local character • There was a desire for more high quality civic and public open spaces • There should be cultural and leisure opportunities as well as open space
People and community	<ul style="list-style-type: none"> • The existing user experience was poor in terms of wayfinding, facilities, the public realm and diversity of local services. Central Station was sometimes a disappointing experience and that it needed to be easier to navigate, cleaner, have better lighting and security • Renewal needs to address social and community issues
Mobility and access	<ul style="list-style-type: none"> • There is strong support for improving movement and connections in and around the Precinct and linking surrounding neighbourhoods
Economy and innovation	<ul style="list-style-type: none"> • There is support for the creation of job opportunities, particularly jobs of the future in innovation and technology
Sustainability	<ul style="list-style-type: none"> • Central Precinct should have a strong commitment to sustainability and net zero emissions

Shaping the proposal

During preparation of the SSP Study between 2020 and 2022 extensive engagement was undertaken by Transport for NSW with stakeholders and community representatives. This included:

- **Project Review Panel (PRP):** comprised of representatives from DPIE, GCC, GANSW, the City of Sydney and Transport for NSW, the role of the PRP was to provide advice on the project overall, and in particular the planning framework and technical studies
- **State Design Review Panel (SDRP):** convened by the GANSW and comprised of experts in urban design, architecture, heritage, sustainability and landscape, the role of the SDRP was to provide advice on design aspects of the proposal, and in particular development and refinement of spatial outcomes such as the structure plan and reference master plan

- **Project Working Group (PWG):** comprised of representatives from DPIE, GCC, GANSW, the City of Sydney and Transport for NSW, the role of the PWG was to provide officer level advice on all technical aspects of the proposal, including comprehensive and detailed review of drafts of the planning framework
- **Stakeholder and community representative forums:** were arranged to share and obtain feedback on the emerging proposal
- **City of Sydney meetings:** regular meetings on alignment with City of Sydney policy and priorities, in particular Central Square
- **Focus meetings:** to discuss focus issues, in particular related to the heritage values and significance of Central Precinct.

In addition, Transport for NSW's technical experts undertook other specialist meetings in accordance with the Study Requirements (refer relevant studies in the Appendices). This included with the Aboriginal community, the NSW Environment Protection Authority (EPA) in relation to pollution and the NSW Department of Education in relation to schools.

Upcoming engagement

Broader community engagement will be undertaken as part of the public exhibition of the SSP Study. This will provide the community with the opportunity to consider and provide feedback on the proposal.

All feedback provided in the form of a written submission will be considered in detail by Transport for NSW. As part of this consideration process, Transport for NSW, with guidance from DPE, will decide whether amendments to the proposal are required to be made in response to feedback received. Transport for NSW's consideration of this feedback will also be reviewed by DPE when making a decision on the final proposal.



© Transport for New South Wales

Users are welcome to copy, reproduce and distribute the information contained in this report for non-commercial purposes only, provided acknowledgement is given to Transport for NSW as the source.