

02

Site & Context
Analysis

02 Site and Context Analysis

REDFERN IDENTITY

CULTURAL HERITAGE

Redfern is a significant place for First Nations peoples and tells a complex pre and post contact story in Australian history. The design proposal must respond to this complex story. Pre colonisation, the high sandstone country may have been a meeting point for Gadigal people as they moved through their country's songlines sharing goods, ideas, songs, ceremonies and news. Post contact, the rail network provided key employment opportunities with the railway evolving as a songline connecting city and remote communities (02). Important civil and union rights movements and services emerged, and Redfern became a place free from the oppression of the reserve system where creativity, diversity and activism grew (03).

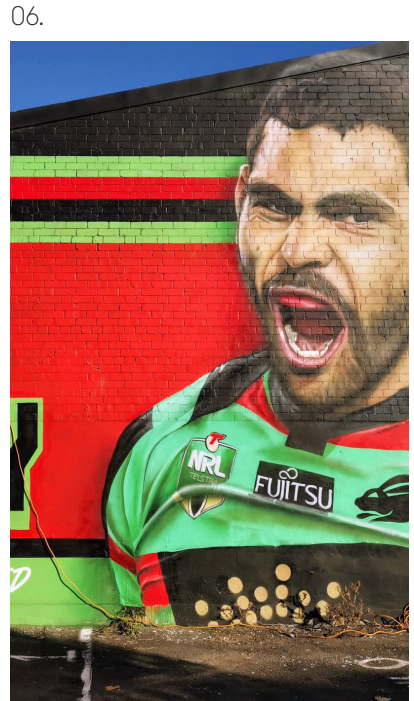
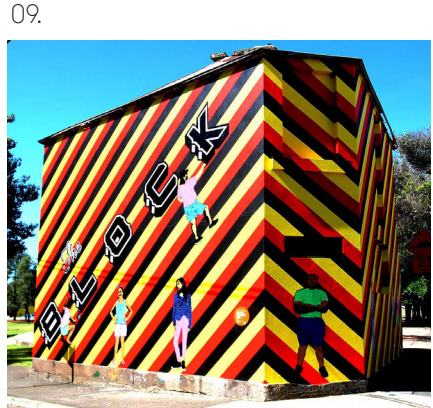
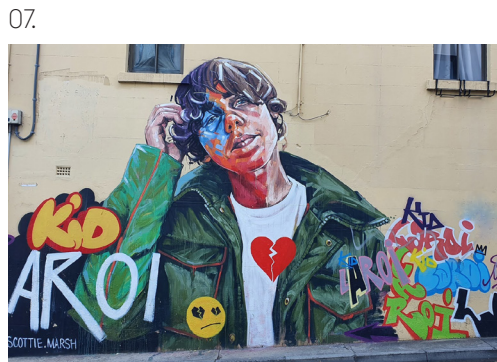
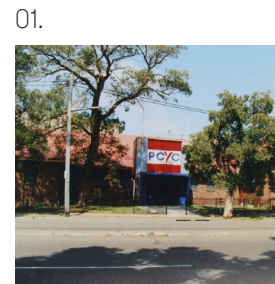
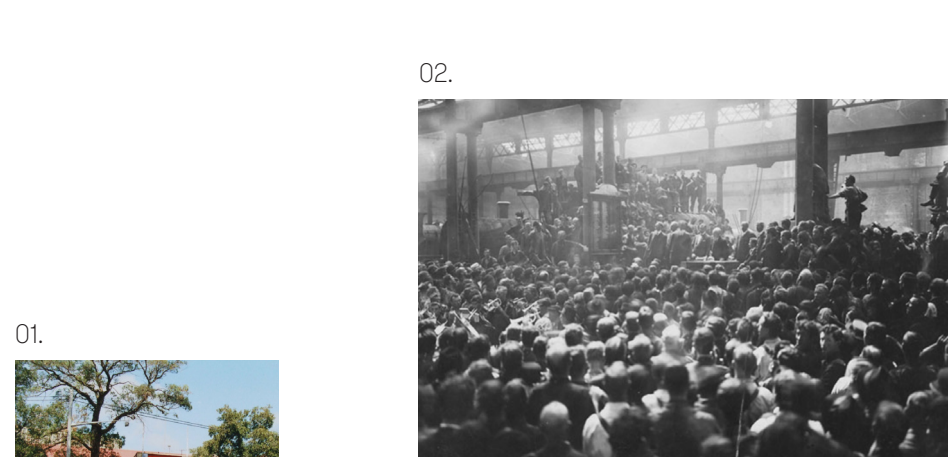
CONTEMPORARY REDFERN CULTURE

From this background of strength and resistance, Redfern continues to be the cultural, arts, and social hub for Aboriginal communities within inner Sydney. A high concentration of Indigenous businesses and services operate in the area and key historical and cultural locations are still present in the urban fabric today (04). Forged in partnership with the community in 1937, the existing PCYC on site is a vital community facility providing young people with a safe and positive setting.

The context of the site is diverse and energetic. To the east, the site is flanked by social housing, including William McKell Place, the identical Gillmore, Lawson and Kendall towers and the supporting facilities of Poet's Corner (05). The level of disadvantage experienced by the residents of these buildings should not be underestimated, but neither should be the fact that these are places of genuine community.

To the west of the site is the cherished Redfern Park, which has over time been the home and training ground of the Rabbitohs (06), where Greg Inglis and Latrell Mitchell have plied their trade and where the Redfern All-Blacks were founded. Accordingly, this is a place of aspiration; a place that draws and nurtures talent (07), opening pathways and possibilities. This is the place where Paul Keating gave his 1992 Redfern Address; a catalyst moment in Australian politics (08).

In this rich setting, physical, social and cultural, the Redfern Place project creates an opportunity for a transformative precinct; a place that can mediate between social housing and suburb in transition, forming a permeable backdrop to Redfern Park while holding an edge for the social housing community.



'Koori heartland within the urban fabric'



- 01. The existing PCYC is a beloved community facility.
- 02. Redfern railway has evolved as a songline over time.
- 03. Redfern emerged as a site for significant activism.
- 04. Existing First Nations facilities in redfern.
- 05. Mediate between social housing and the park.
- 06. Redfern Park is Rabbitohs hallowed ground.
- 07. Redfern is a cultural centre, nurturing young talent.
- 08. Paul Keating's 1992 Redfern address.
- 09. Welcome to Redfern, artist: Reko Rennie

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REDFERN IDENTITY - FIRST NATIONS SERVICES

EXISTING FIRST NATIONS SERVICES

Important Aboriginal and Torres Islander organisations, services, cultural bodies and businesses continue to be based in the Redfern area, including those that grew from the historic organisations formed there.

Many Aboriginal and Torres Strait people continue to travel to Redfern to access Aboriginal community-controlled organisations, attend events, connect with family and friends and to maintain and pass on connections with the history and significance of the area.

Forged in partnership with the community in 1937, the PCYC is one of these vital community facilities, providing young people with a safe and positive setting.

The significance and history of the area is actively and explicitly passed on by Aboriginal and Torres Strait Islander people through generations. Parents continue to bring their children to Aboriginal Redfern to educate them about the history and to foster strong connections with the area within communities for the future.

Reference:

'Brief Aboriginal History of the Botany Road Corridor and Surrounds', Prepared by Cox Inall Ridgeway for THE CITY OF SYDNEY.



MAP OF INDIGENOUS SERVICES AND SIGNIFICANT PLACES (NTS)

LEGEND

- 01. Aboriginal Medical Services
 - 02. National Centre of Indigenous Excellence and National Aboriginal Sporting Chance Academy
 - 03. Aboriginal Legal Service NSW/ACT
 - 04. South Sydney Aboriginal Corporation Resource Center
 - 05. Koori Collection, Waterloo Public Library
 - 06. Kinchela Boys Home Aboriginal Corporation
 - 07. Bibles and Bullets artwork by Fiona Foley
 - 08. Welcome to Redfern artwork by Reko Rennie and Redfern community
 - 09. The Block - the first urban based land that Aboriginal people owned in Sydney
 - 10. Koori Radio
 - 11. Aboriginal Dance Theatre Redfern
 - 12. Metro Aboriginal Land Council offices
- SIGNIFICANT SUBJECT SITE
 SIGNIFICANT INDIGENOUS FACILITY

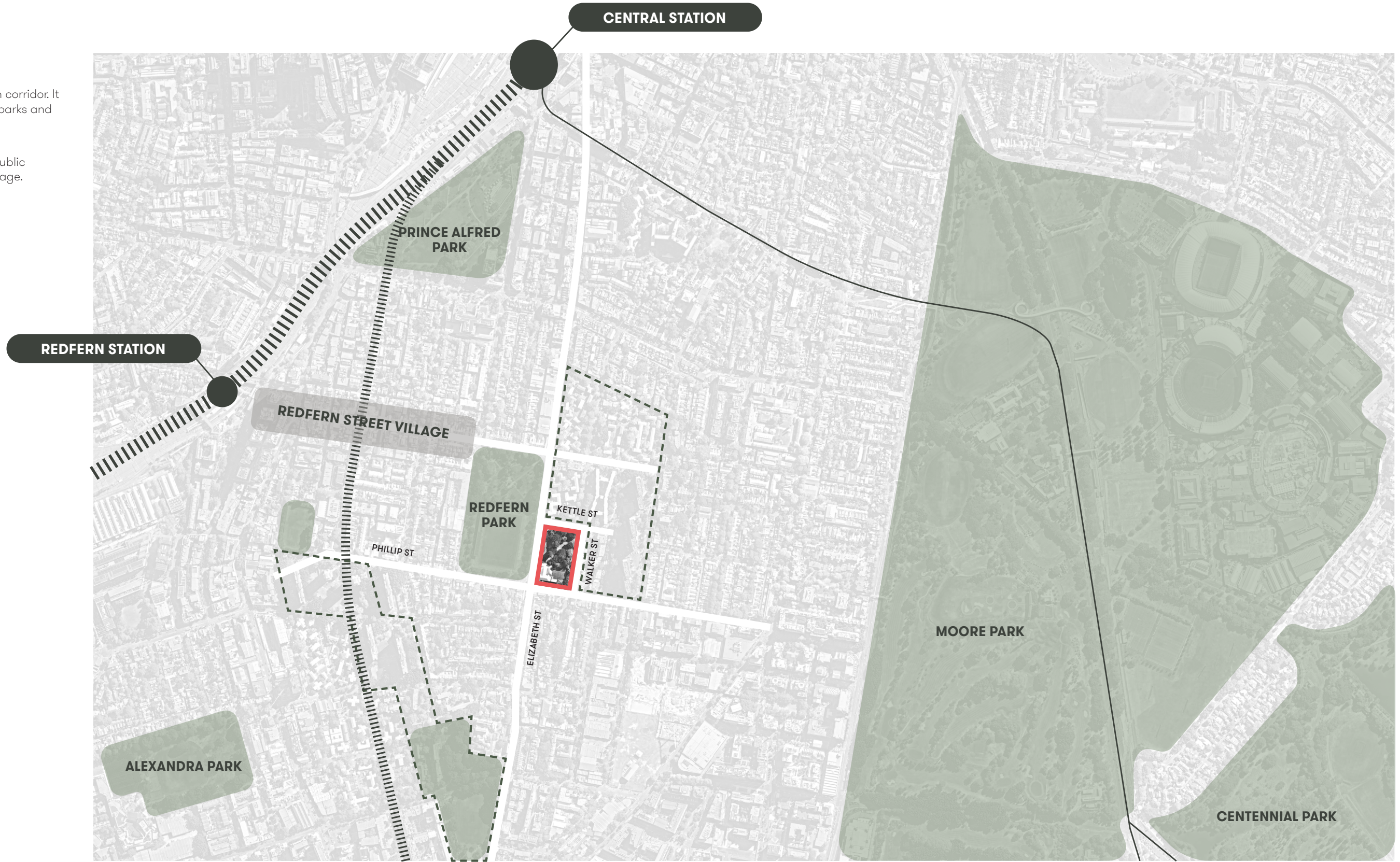
02 Site and Context Analysis

CONTEXT PLAN

THE SITE

The site is located within a green corridor. It has easy access to a variety of parks and green space.

The site is in close proximity to public transport and Redfern Street Village.



LEGEND

- Green Corridor
- Public Landscaped Area
- Train Line
- Light Rail
- Train Station
- Subject Site

02 Site and Context Analysis

SCALE AND GRAIN

STREET RHYTHM

THE STREETS FRONTING THE REDFERN PLACE DEVELOPMENT UNDERGO TRANSITION IN URBAN SCALE. KEY ASPECTS OF THE STREETS INCLUDE:

- Elizabeth St - Redfern Park and the Redfern Place site lies at the transition point on Elizabeth St from fine grain terrace housing to the south, to block scale former warehouse scale to the north.
- Phillip Street - Transitions from block scale uphill to the east, to finer grain terrace housing across from the Redfern Place site and further to the west.
- Walker St - Transitions from block scale uphill to the north, to mid block scale across from the site, to finer grain in the laneways to the west.

THROUGH THIS ANALYSIS OPPORTUNITIES HAVE BEEN IDENTIFIED FOR:

- S1 and S4 to modulate the change in scale along Elizabeth St through facade modulation
- S2 and S3 to address multiple scales through breaking down proposed built forms with materiality and building alignment shifts.



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STREETScape AND INTERFACES

ELIZABETH STREET

- Pedestrian crossings limited to signalised crossing at north and south of site.
- Noise from vehicles
- Pleasant visual backdrop to park
- Public transport connection through the bus stop
- Opportunity to activate pedestrian experience at Kettle St pocket park
- Potential to create urban marker at Phillip St corner - gateway site into Redfern.

PHILLIP STREET

- Redfern Place site will have visual prominence when approached from west.
- Waterloo Heritage Conservation Area to south
- Public transport connection through the bus stop
- Pocket park at end of Walker St has poor light quality from dense trees and underutilised

WALKER STREET

- Quieter residential street
- Shade and tree canopy from established street trees
- Terrace typology to centre block, with small scale flat building on corners.
- 90deg resident parking

KETTLE STREET

- Prominent pedestrian street connecting Surry Hills to Redfern Park
- Pocket park underutilised except as access way



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SITE PHOTOGRAPHS



01. ELIZABETH AND KETTLE STREET INTERSECTION



02. ELIZABETH AND PHILLIP ST INTERSECTION



03. PCYC AND BUS STOP ON PHILLIP ST



04. WALKER AND PHILLIP POCKET PARK



05. WALKER STREET



06. INTERSECTION OF KETTLE AND WALKER STREET



07. VIEW OF SITE FROM REDFERN PARK - APPROXIMATE LOCATION OF FUTURE EAST-WEST LINK



08. VIEW FROM WALKER STREET - APPROXIMATE LOCATION OF FUTURE EAST-WEST LINK



09. VIEW FROM KETTLE STREET - APPROXIMATE LOCATION OF FUTURE NORTH-SOUTH LINK

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MOVEMENT AND LANDSCAPE



PEDESTRIAN AND VEHICLE MOVEMENT

Key pedestrian corridors

- Key pedestrian routes align with the signalised crossings
- East West on Kettle and Phillip
- North South on Elizabeth Street
- Connection across to Redfern Park
- No mid-block east-west links.

Access to public transport

- Multiple bus routes down Elizabeth St and Phillip St with 2 bus stops directly serving the proposed site.
- Clear pedestrian routes along streets and laneways to the east linking to Redfern Train Station and the proposed Waterloo Metro Station

- CoS City-wide Cycling Priority Street
- CoS Liveable Green Network Priority Network – Pedestrian & Cycle

- Bus Stop
- Signalled Pedestrian Crossing



LANDSCAPE

Key parks and green infrastructure surrounding the site include:

- Redfern Park and Sports Oval
- Walker St Pocket Park
- Kettle St Pocket Park
- Existing street trees

The development of Redfern place presents an opportunity to develop landscape links with between the existing pocket parks and Redfern park.

- Street trees in close proximity to the site
- Green space

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DEMOLITION AND FLOODING

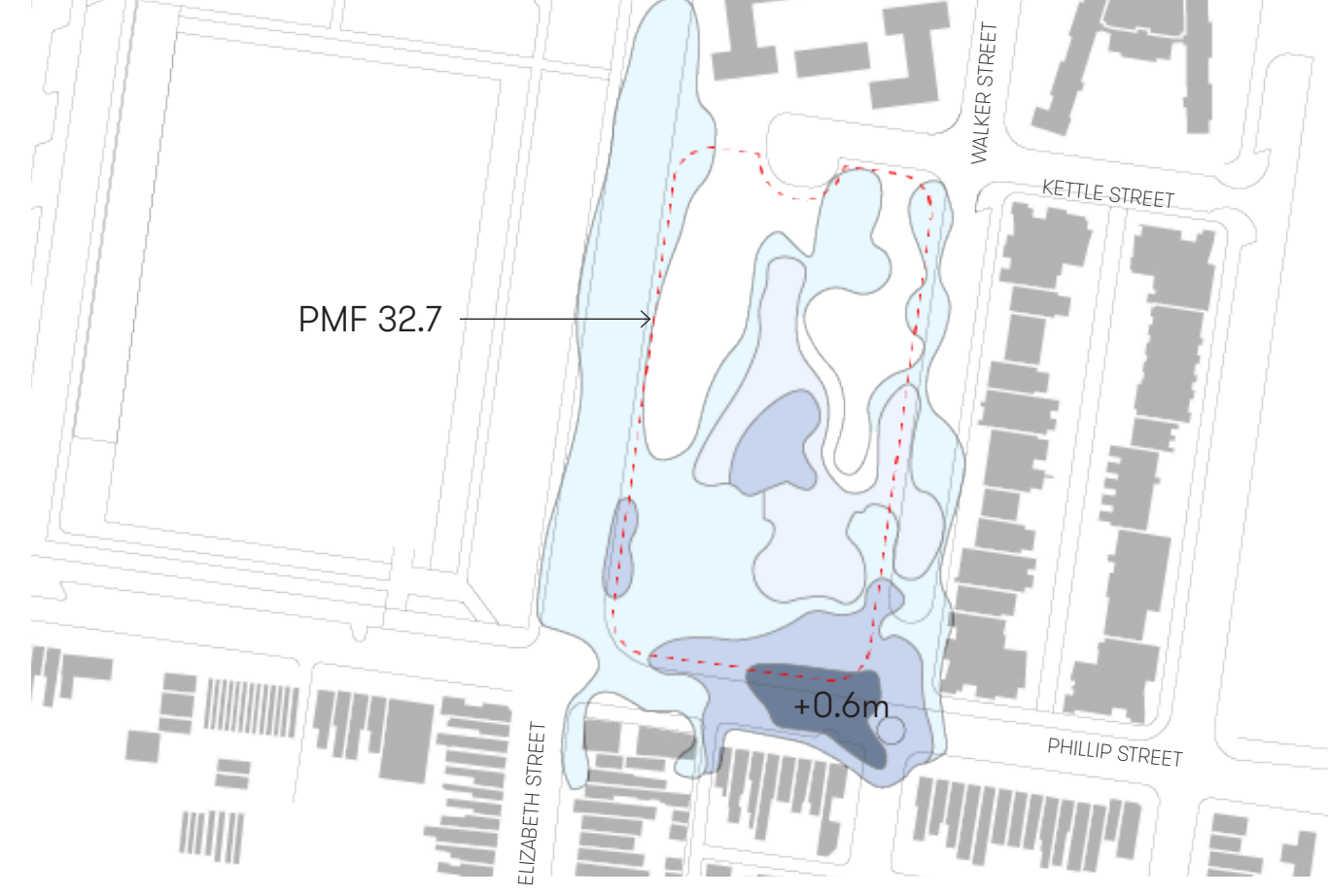


DEMOLITION

Demolition on the site includes:

- Existing PCYC building and sports court
- Existing North-South sewer mains and sewer vent pipe
- Existing site fencing and gates
- Tree's located within the site boundary.
- Streets trees with an unavoidable impact

- Removed Site Trees
- Removed Street Trees
- Existing sewer



FLOODING

The site is flood affected with the corner of Phillip and Walker Streets being a natural low point.

- 1% AEP level is between 30.57- 31.27. The height above natural grade is greatest near Phillip St (approx. 700mm), and least on Kettle St (approx. 250mm)
- PMF is 32.7. The height above natural grade is greatest near Phillip St (approx. 2760mm), and least on Kettle St (approx. 1800mm)
- The Flood Planning Levels (FPL) requires residential spaces, basement connections and some infrastructure to be located at the PMF, while commercial, community and ancillary spaces can be at the 1% AEP level.
- Off-set flood storage to be incorporated into the design as recommended by the flood engineer

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WIND AND ACOUSTIC



WIND

The proposed building frontages which are expected to be impacted by prevailing winds are:

- North East
- West
- South

Due to Redfern Park being located to the west, the site has an increased exposure to the winter westerly winds.



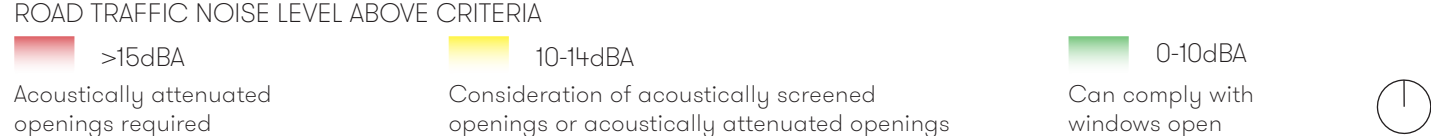
ACOUSTIC

The primary noise generators within proximity of the site are:

- Elizabeth Street due to truck and bus movements
- Phillip Street due to bus movements

A required noise reduction of >15dBa is expected along Elizabeth St and Phillip St meaning attenuation of openings of residential units will be required in some instances. Primary noise generators from the proposed Redfern Place development will be roof AC units and multi-sports court in the PCYC. The repeatable maximum LAeq (1 hour) must not exceed the following levels:

- For closed windows and doors 35dB for bedrooms (10pm-7am) and 45dB for main living areas (24 hours)
- For open windows and doors 45dB for bedrooms (10pm-7am) and 55 dB for main living areas (24 hours)
- Where natural ventilation of a room cannot be achieved, the repeatable maximum LAeq (1 hour) level in a dwelling when doors and windows are shut and air conditioning is operating must not exceed 38dB for bedrooms (10pm-7am) and 48dB for main living areas (24 hours)



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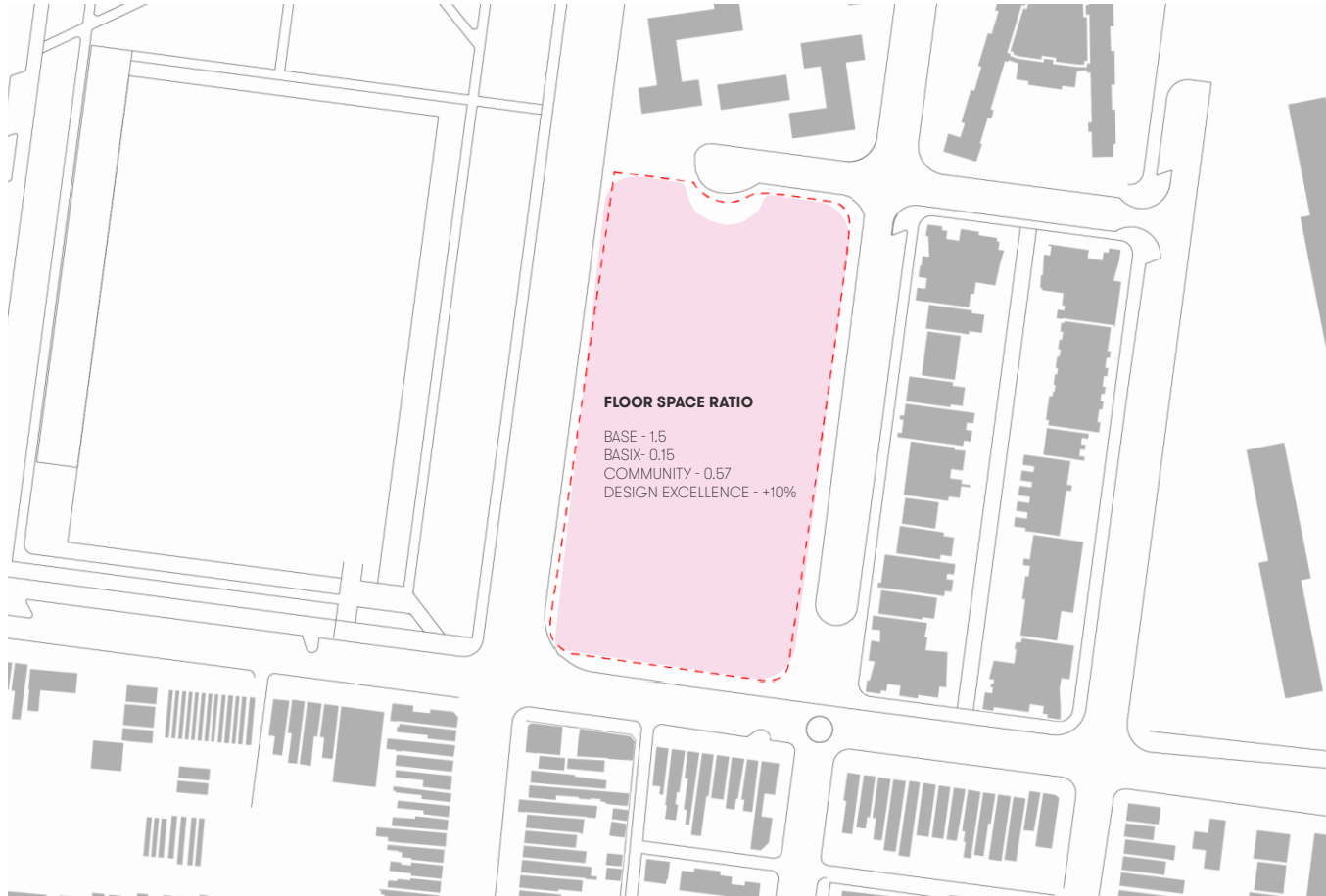
HEIGHT CONTROLS AND FLOOR SPACE RATIO



LEP HEIGHT CONTROLS

The LEP height map shows a stepping control:

- Tower in NE corner
- Stepping heights to south and west of tower
- Consistent height along Elizabeth St.
- Consistent height along Phillip St.



FLOOR SPACE RATIO

The site FSR comprises of:

- Base FSR 1.5
- Basix Bonus 0.15
- Community Bonus 0.57
- Design Excellence Bonus 10%

Maximum FSR = 2.442 : 1

02 Site and Context Analysis

DESIGN GUIDE CONSISTENCY

THE FOLLOWING DIAGRAMS DEMONSTRATE SOME KEY ELEMENTS OF THE DESIGN GUIDE INCLUDING:

- Design guide massing
- Community facility predominant location and development sections
- Diverse non-residential ground floor uses
- Local infrastructure
- Landscape areas



DESIGN GUIDE MASSING

The Design Guide provides a preferred building arrangement with key features:

- North - South through site link
- East - West through site link
- Three central courtyards
- Stepped building forms to comply with the LEP height control.



COMMUNITY FACILITY PREDOMINANT LOCATION AND DEVELOPMENT SECTIONS

- A community facility is to be provided predominantly located within Development Section 1, as shown in blue in image above.
- The community facility is to have frontages to Elizabeth and Kettle Streets and make use of the pedestrian part of Kettle Street.
- Social and affordable rental housing is to be of an equal quality to any other housing provided as part of the overall development.
- Development applications are to address the mix of social and affordable rental housing to be provided.

Key:

- 1 - Community Facility
- 2 to 4 - Mixed Use
- A - Footpath widening dedication
- B - Publicly accessible Access Connections (through site links)



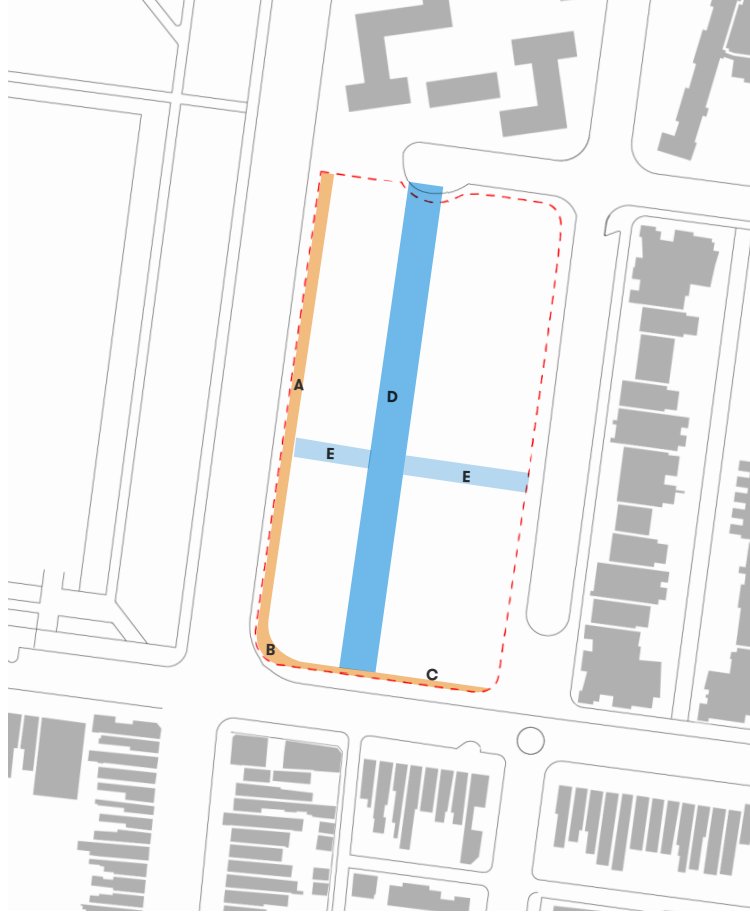
02 Site and Context Analysis

DESIGN GUIDE CONSISTENCY



DIVERSE NON-RESIDENTIAL GROUND FLOOR USES

- The ground floor of development fronting Elizabeth Street shown blue is to be a mix of community, communal, commercial and retail uses. It may also include small residential lobbies and a small concentrated amount of services.
- The ground level of development fronting Elizabeth Street shown blue is to have at least half of the ground floor at levels as close as practicable to the footpath level on Elizabeth Street.
- Community space may be constructed on Development Section 3 fronting Phillip Street shown in light blue to activate this frontage.



LOCAL INFRASTRUCTURE

- Dedicate land to the City of Sydney for:
 - A - 2m width on Elizabeth Street
 - B - land at the intersection of Elizabeth and Phillip Streets having a maximum internal radius of 12.5m with a minimum dimension at the corner of 4.3m
 - C - 1.2m on Phillip Street
- Dedicate easements for public access generally in the locations shown covering Access Connections with dimensions of:
 - D - 10-12m wide north-south Access Connection from Phillip Street to Kettle Street
 - E - minimum 6m wide east-west Access Connections from Elizabeth Street to Walker Street



LANDSCAPE AREAS

- Maximise tree canopy cover, deep soil provision, and retention of existing street trees.
- A minimum of 1650sqm of soil that has no structures above or below is to be provided on the parts of the site not occupied by the community facility.
- At least 15% of the total site area must be covered by tree canopy when trees reach maturity, demonstrated by a landscape plan prepared by a suitably qualified landscape architect.

Key:

- A - minimum 4.5m wide or where it can be demonstrated that development will not result in removal of major structural branches of street trees with trunks more than 1m from the boundary as demonstrated by a Lidar survey) - minimum 3m wide
- B - minimum 3m wide
- C - combined minimum of half the width of the north-south access connection, i.e. minimum 2.5m-3m on either side
- A, B, C and D - soil that has no structures above or below.



02 Site and Context Analysis

KEY SITE CONSTRAINTS

- Intermittent but high acoustic impacts from bus movements along Elizabeth and Phillip Street
- Some street trees along Elizabeth Street and Walker St will have high impact if design guide setback are used
- PMF at RL 32.7 is a requirement for all lifts and foyers, however some street accessed residential uses are acceptable at the FPL
- Prevailing winds from South, West and North East impact the site
- Conservation area urban interface to the south

- PMF** RL 32.7
- Perimeter Trees - Low - Medium Impact
- Perimeter Trees - High Impact
-))) Noise Pollution
- Residential Interface
- Conservation Area Interface
- Park Interface Opportunity
- Sub - Arterial Road
- Key Vehicular Streets
- Dominant Winds
- Heritage Conservation Area
- Sun Path

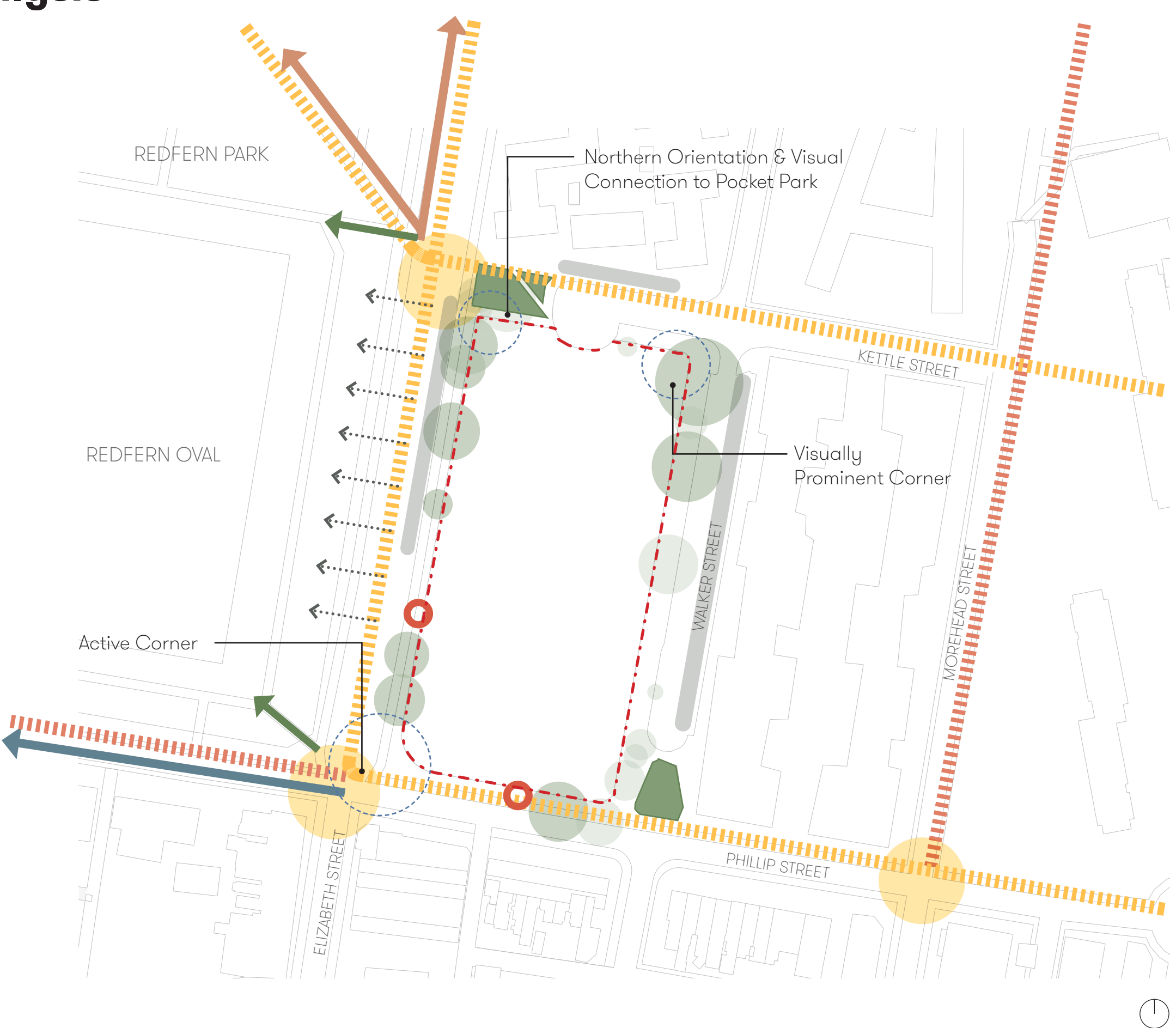


02 Site and Context Analysis

KEY SITE OPPORTUNITIES

- The residential tower (S2) on corner of Walker and Kettle will be prominent marker for local residents approaching Redfern Park from north and east.
- Bridge Building (S4) south east corner will become a highly visible marker at the entry point to Redfern
- An entry at the NE corner of PCYC (S1) to activate the Kettle St pocket park and activate these pedestrian routes on Kettle Street and Elizabeth Street.
- S1 and S4 frontage to respond to Elizabeth St urban grain and embrace views west to Redfern Park.
- The uses on the site are varied including community, commercial and residential and public through site access. Consideration of these interfaces and delineation of public, private and communal space will be required

- CoS Pedestrian & Cycle Network
- CoS Cycling Priority Street
- Pedestrian Route to Metro Station
- Route to Train Station
- Existing On-street Parking
- Redfern Park Entry
- Existing Bus Stop
- Perimeter Trees - Low - Medium Impact
- Perimeter Trees - High Impact
- Signalised Intersections
- Pocket Park - Road Closure
- Redfern Park Views

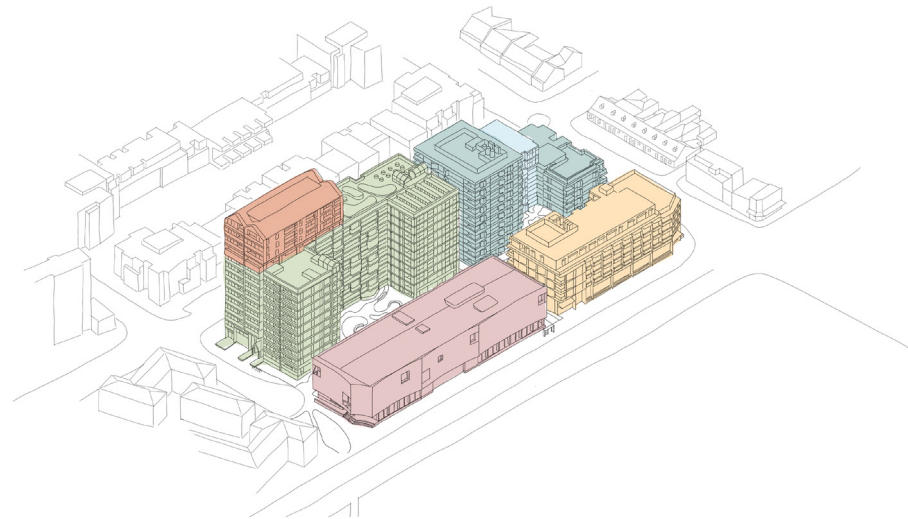
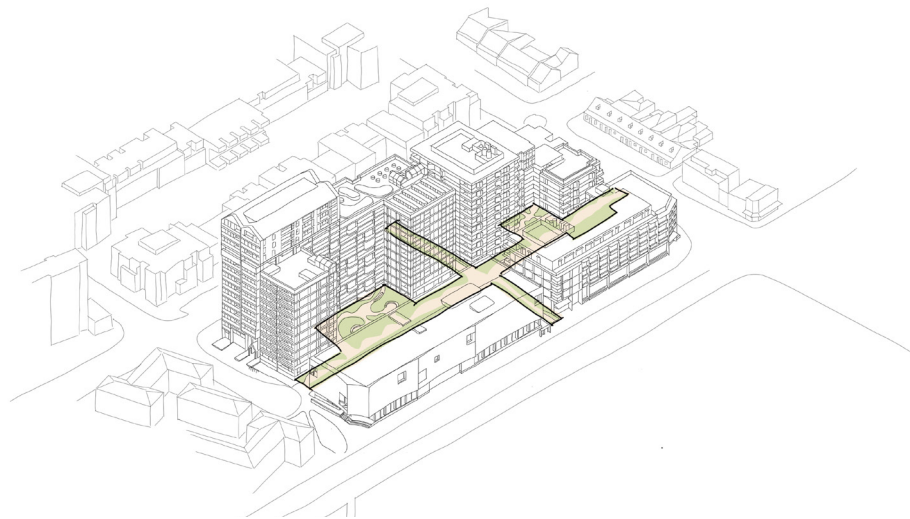
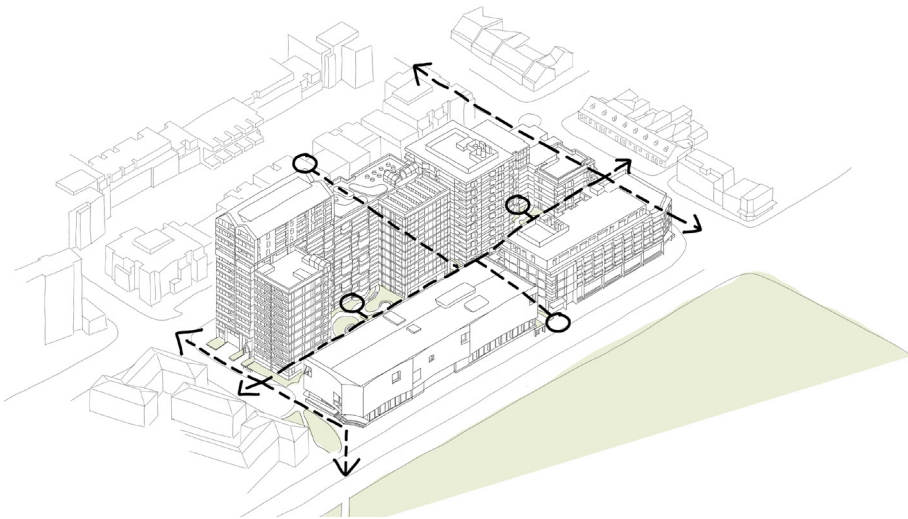
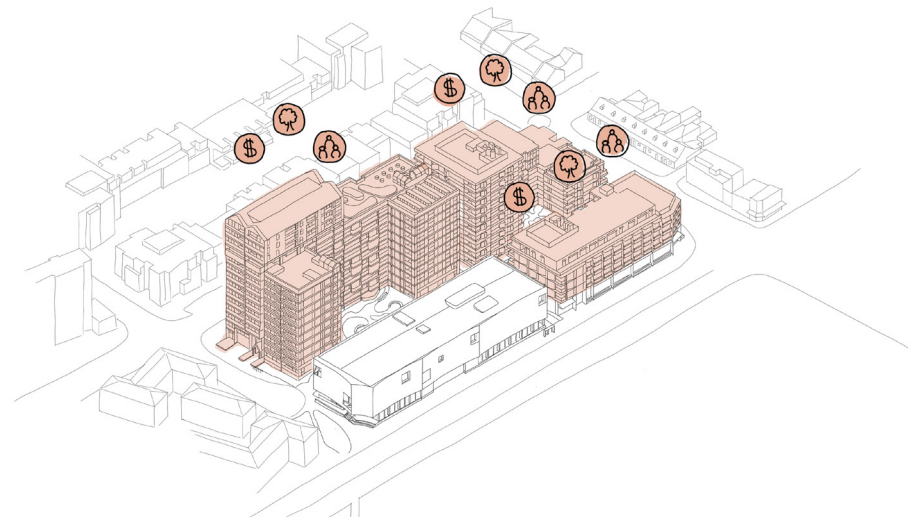
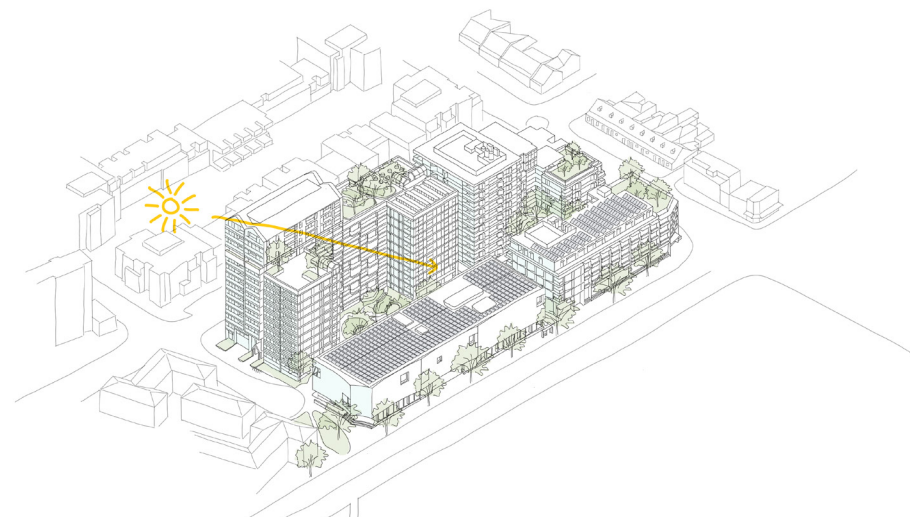
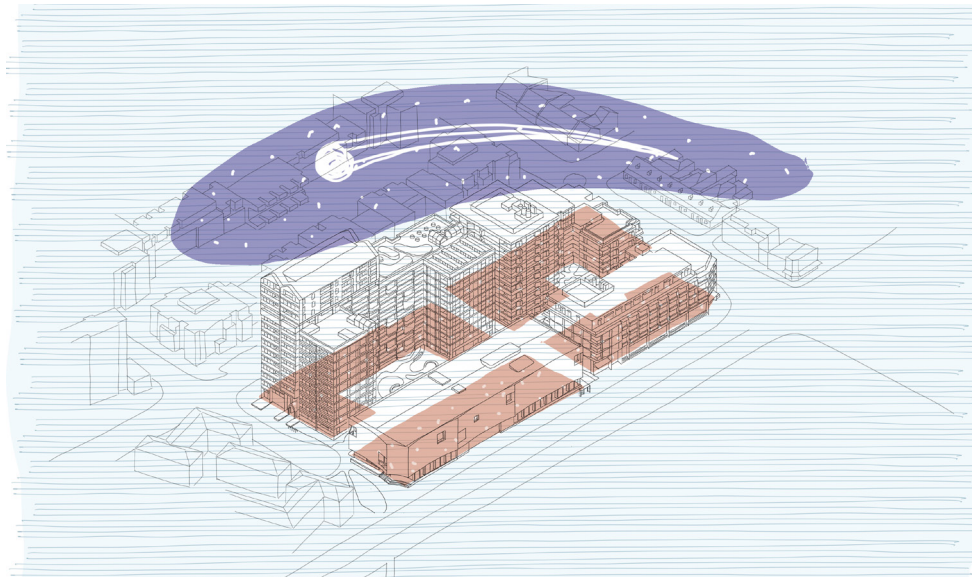


03

**Built Forms, Urban
Design & Sustainability**

03 Built Form, Urban Design & Sustainability

DESIGN PRINCIPLES



1. CONNECT TO COUNTRY

Respond to the values and insights of cultural knowledge holders and realise them in built form to create a place for community that becomes integral to Redfern.

2. AFFORDABLE AND SUSTAINABLE

Design that delivers an affordable construction, low maintenance and operational solution fit for the planet, occupants and users of the site.

3. TENURE BLIND

Create a tenure blind community of communities which achieves equity in placemaking, amenity, quality and social value and a community centre for wider neighbourhood.

4. CONNECTED AND FRIENDLY

Create opportunities for friendly / active edges within and around the precinct, allowing for moments to dwell and connect with neighbours and passers-by. Enhance safety and comfort through passive surveillance and enhance porosity, both visual and physical.

5. UNITING GROUND PLANE

A public realm that connects the precinct and extends to the ground level of each building to provide a connected, ground plane. Create visible spaces beneath a densely vegetated resident focused urban oasis, interconnecting with neighbouring landscapes. This subtly but clearly signifies the difference between communal spaces and publicly accessible links and parks.

6. DIVERSE AND COHESIVE VILLAGE

A variety of architectural expressions brings a richness to each building whilst common materials and alignments let them be read as a family.

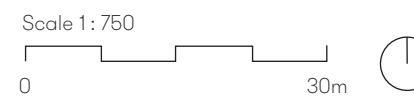
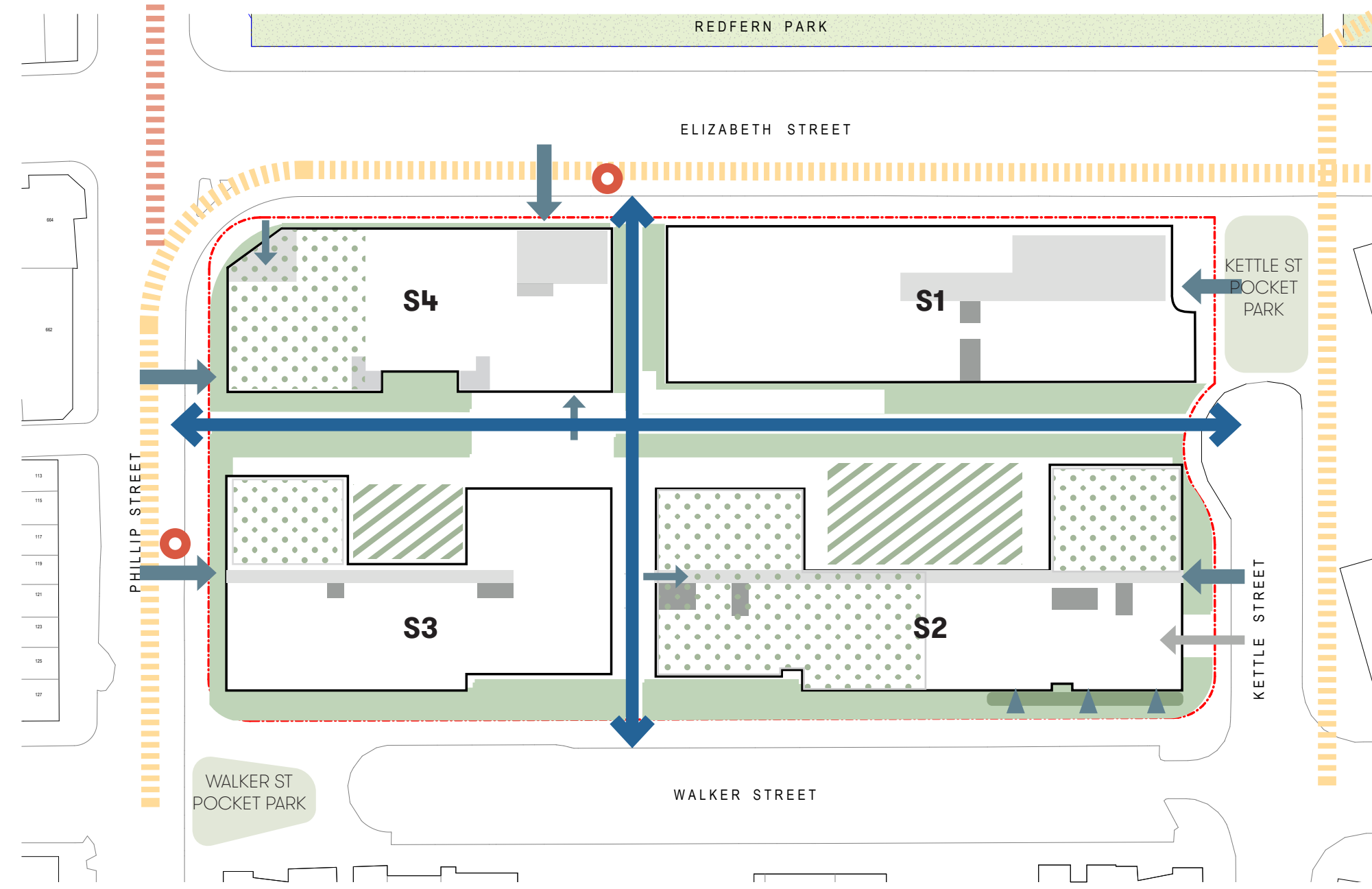
03 Built Form and Urban Design

SITE PLAN

THE DIAGRAM SHOWS THE PROPOSED MASTERPLAN AND THE HIERARCHY OF LANDSCAPE SPACES INCLUDING:

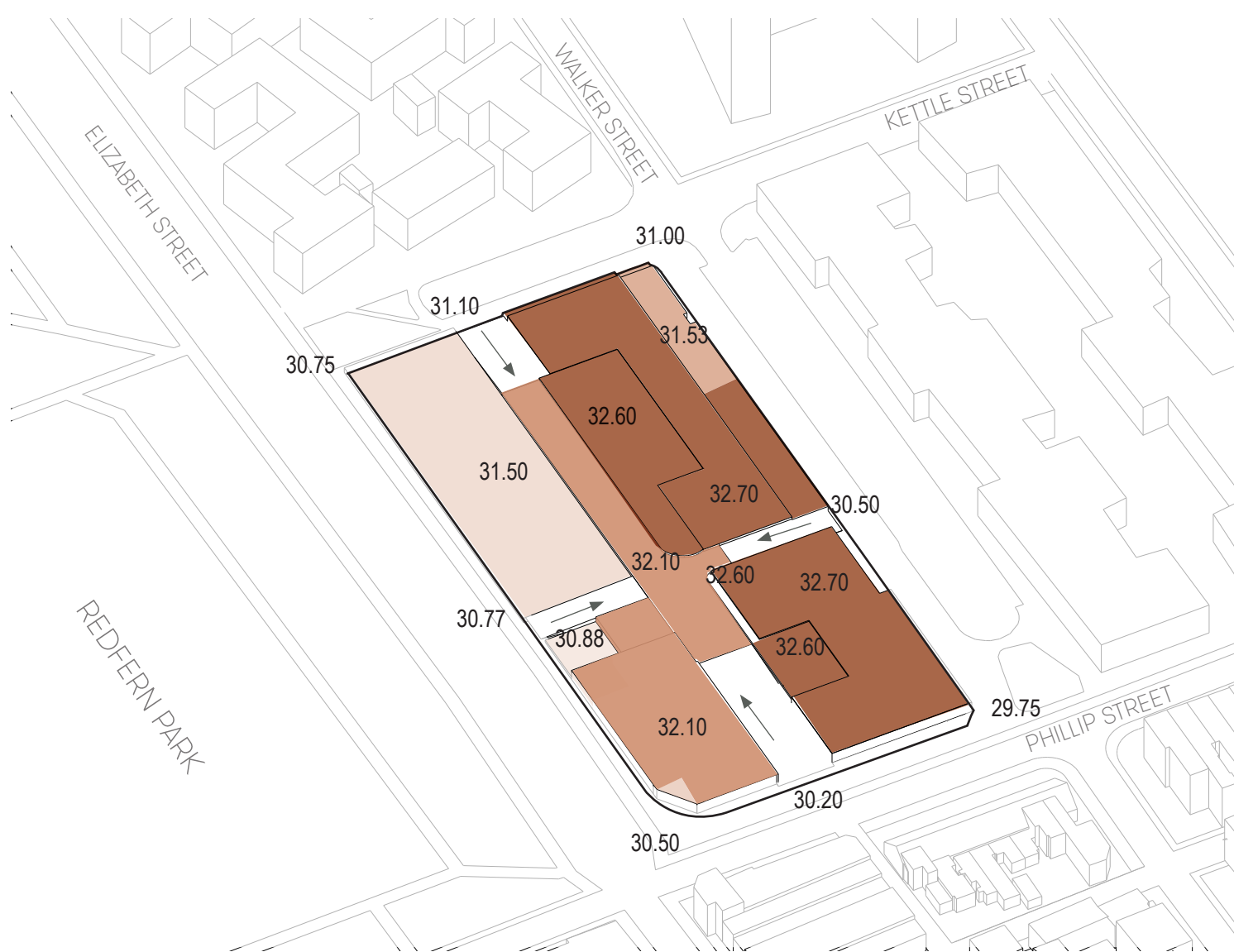
- Site layout which providing through-site links as recommended in the Design Guide to ensure visual permeability through the site.
- Multiple central courtyard space providing legible landscape spaces for public movement through the site and communal resident use.
- Street facing residential entries for S2, S3 and S4.
- At grade entries into PCYC, Commercial and Community spaces.
- Rooftop communal resident spaces on S2, S3 and S4
- Private terrace entries to S2 Walker St dwelling where required
- Vehicle Entry on Kettle St with basement carparking, waste collection and deliveries.

- ▬▬▬▬▬▬ CoS Cycling Priority Street
- ▬▬▬▬▬▬ CoS Pedestrian & Cycle Network
- ➡ Public Pedestrian Link
- ➡ Primary Entry
- ➡ Secondary Entry
- ➡ Private Entry
- ⊙ Bus Stop
- ➡ Vehicle Entry
- Building Core
- Building Circulation
- ▨ Communal Open Space
- Private Open Space
- Deep Soil
- Rooftop Garden



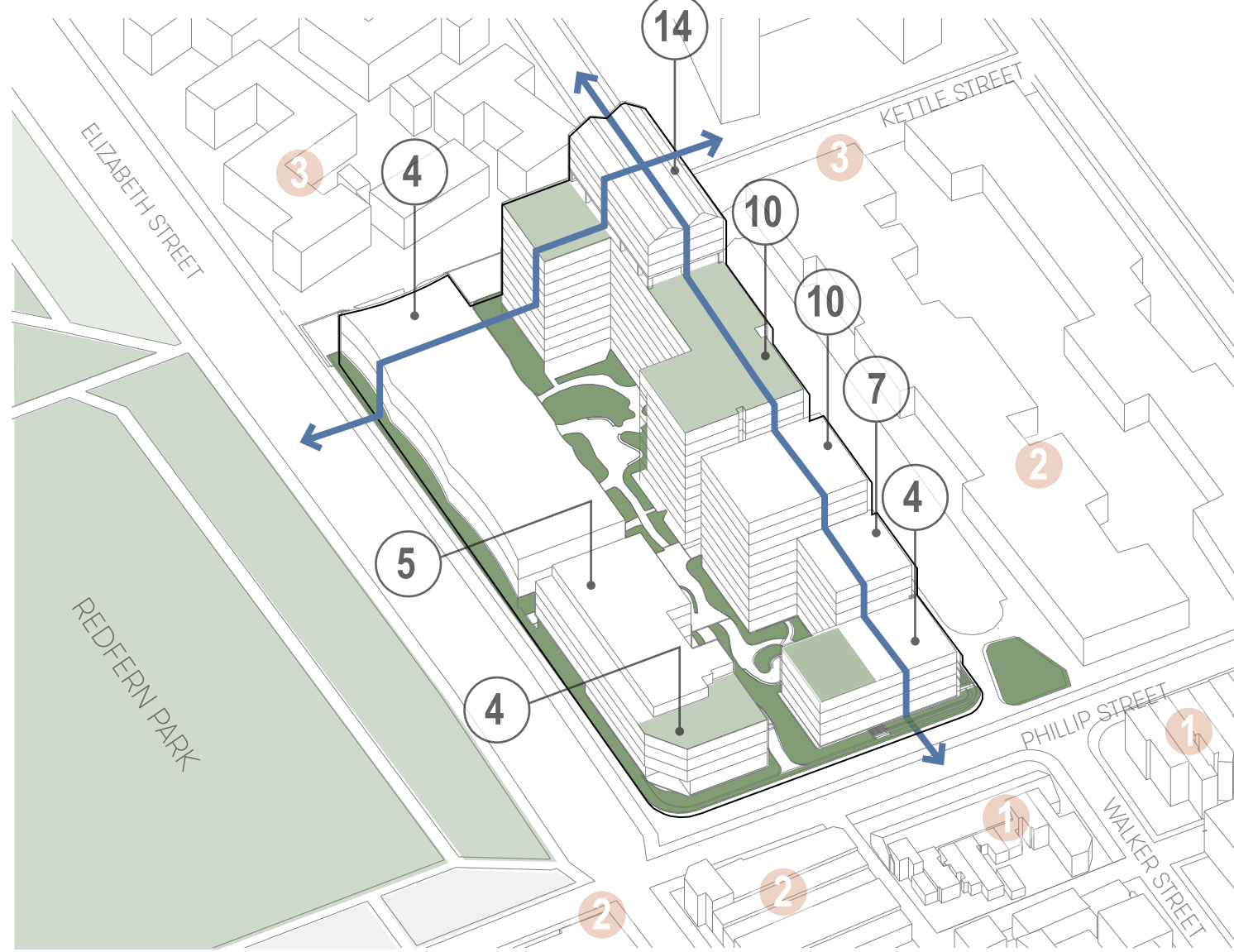
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LEVELS AND MASSING



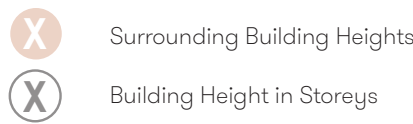
MOVEMENT LEVELS STUDY

- Ground floor residential areas and all connections to the basement set at the 32.70 PMF FPL.
- Commercial and community uses sit between the 1% AEP and PMF as advised by the flooding engineer.
- Central courtyard level set at 32.1 to allow for ease of movement between building levels and the street interfaces.



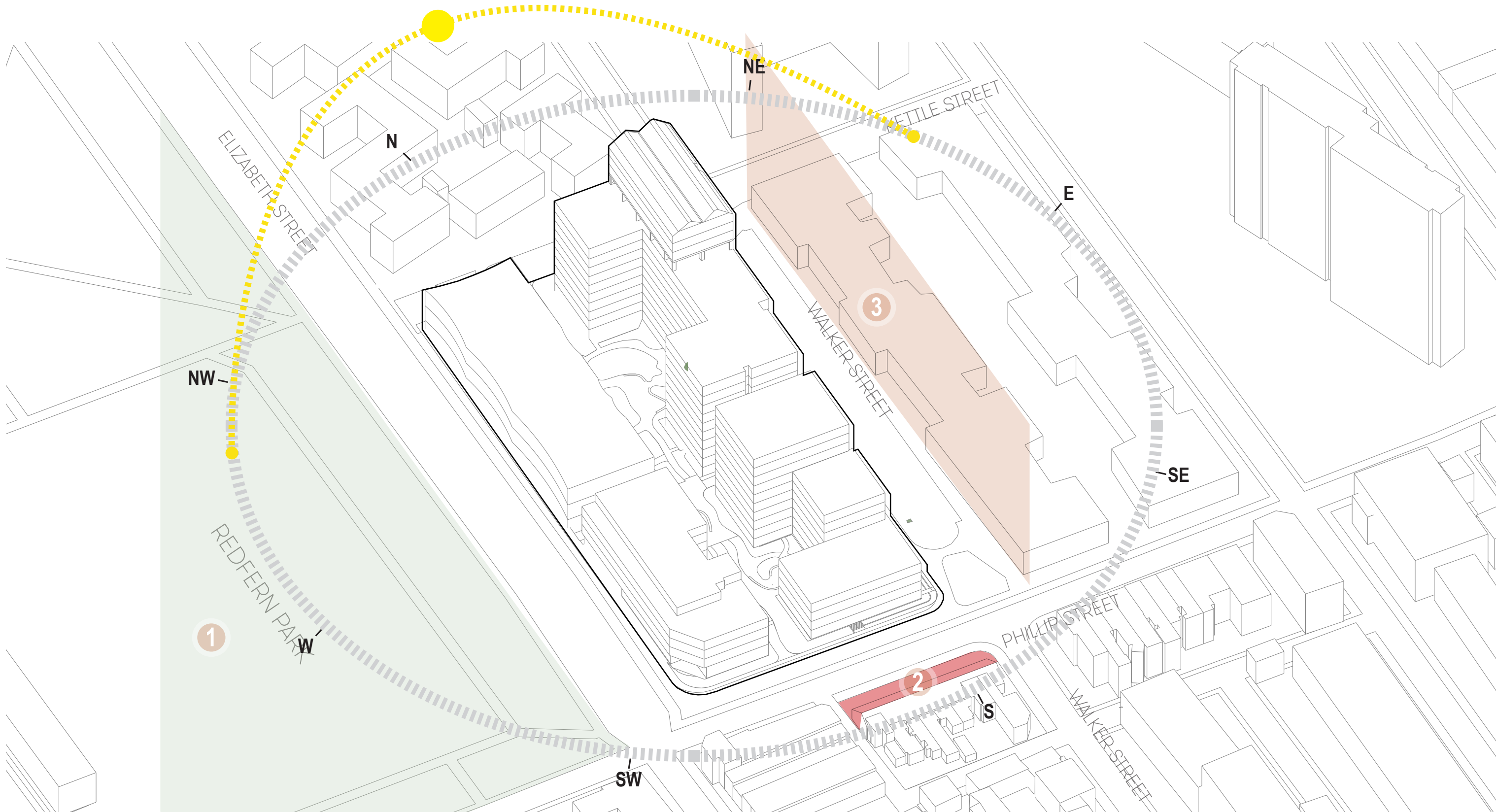
MASSING STUDY

- Overall form steps down from north to south towards the residential scale of Phillip Street
- Overall form steps down from east to west to ensure sun access to Redfern Park.
- Consistent height along Elizabeth and Phillip St responds to the adjacent urban context
- Central landscape between buildings provides public and resident space amenity, with additional communal amenity located on rooftops of S2, S3 and S4.



03 Built Form and Urban Design

SHADOW ANALYSIS



WINTER SOLSTICE - JUNE 21ST

03 Built Form and Urban Design

SHADOW ANALYSIS

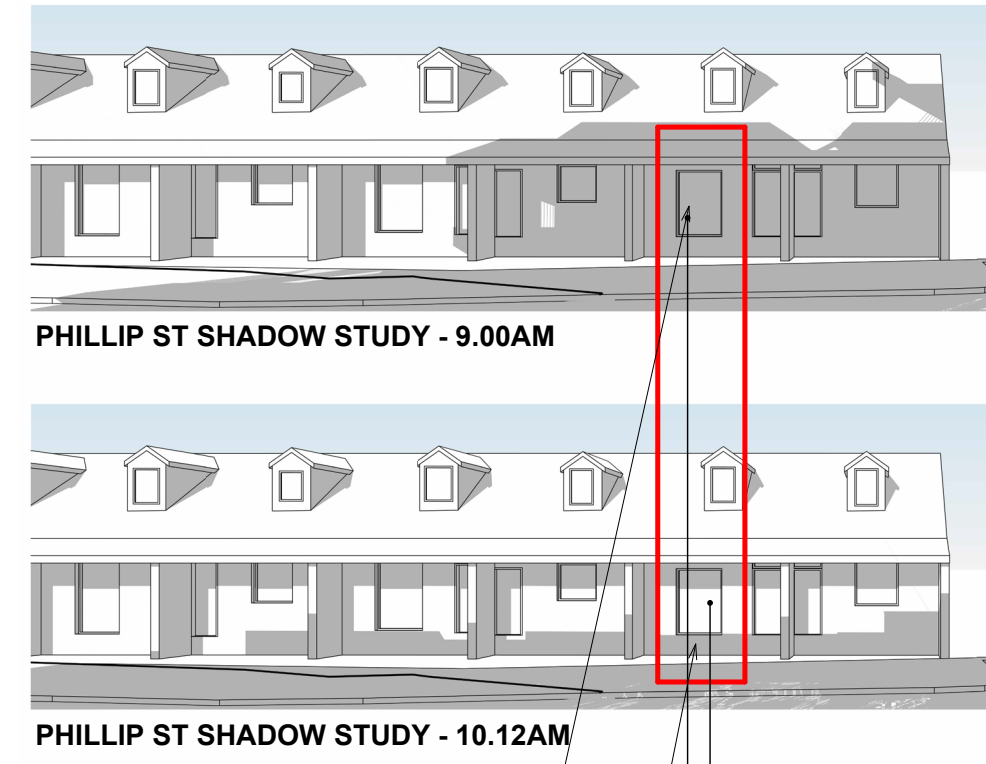


SUN STUDY - REDFERN PARK - 9AM WINTER SOLSTICE

1. REDFERN PARK

The site specific Design Guide outlines the following requirement:
Development to not over shadow Redfern Park between 9am to 3pm year round. The plan shows the development does not overshadow at 9am.

No additional overshadowing 9am to 3pm year round. Detailed surveys were undertaken on all frontages, particularly around the park and the adjoining windows to ensure compliance.



PHILLIP ST SHADOW STUDY - 9.00AM

PHILLIP ST SHADOW STUDY - 10.12AM

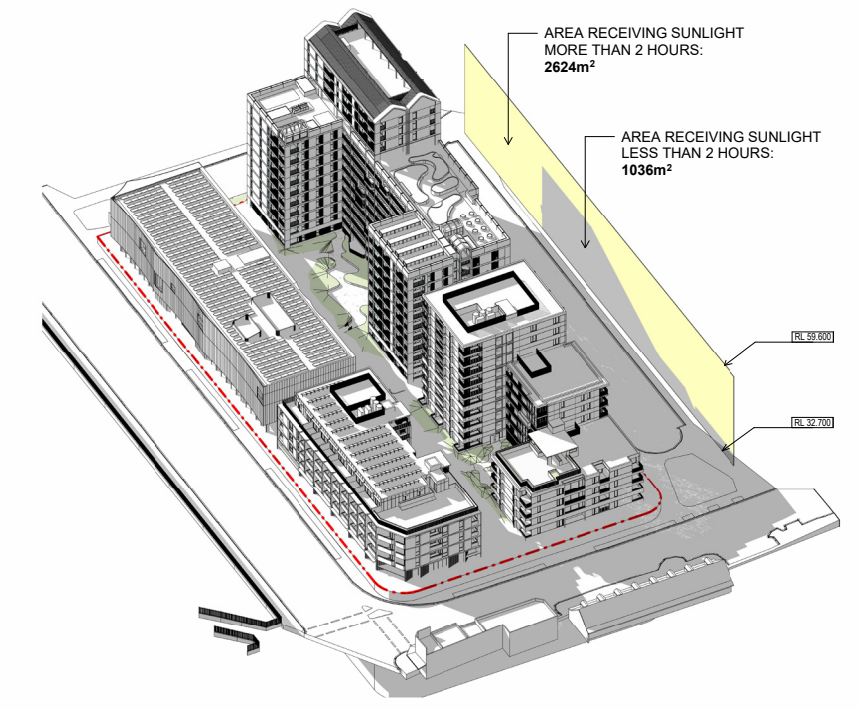
First minute of shadow occurring on affected glazed door

Shadow position 72 minutes later displaying no shadow on affected glazed door

2. PHILLIP STREET

The site specific Design Guide outlines the following requirement:
Sunlight received on 21 June between 9am and 3pm is not to be reduced by more than 20% of the time that the window receives at least 1sqm of sunlight for more than 15 minutes, for properties on the south side of Phillip Street, with windows to living spaces at the rear that face their principle private open space.

For windows/glazed doors on Phillip Street triggered by this control, sunlight is not reduced by more than 20%.



11:27 AM - 3:00 PM - REFERENCE PLANE RECEIVES SUN

LESS THAN 2 HOURS OF SUNLIGHT	1036m ²
MORE THAN 2 HOURS OF SUNLIGHT	2624m ²
PERCENTAGE WITH 2-HOUR SUNLIGHT	71.7%

3. WALKER STREET

The site specific Design Guide outlines the following requirement:
Overshadowing of the land on the eastern side of Walker Street must ensure that at least 70% of the western face of a plane formed on the alignment of the western boundary of 57 Walker Street Redfern (Lot 100 DP 1168202) for its entire length between RL 32.7 (Flood Plane Level) and RL 59.6 receives 2 hours of sunlight on 21 June between 9am and 3pm.

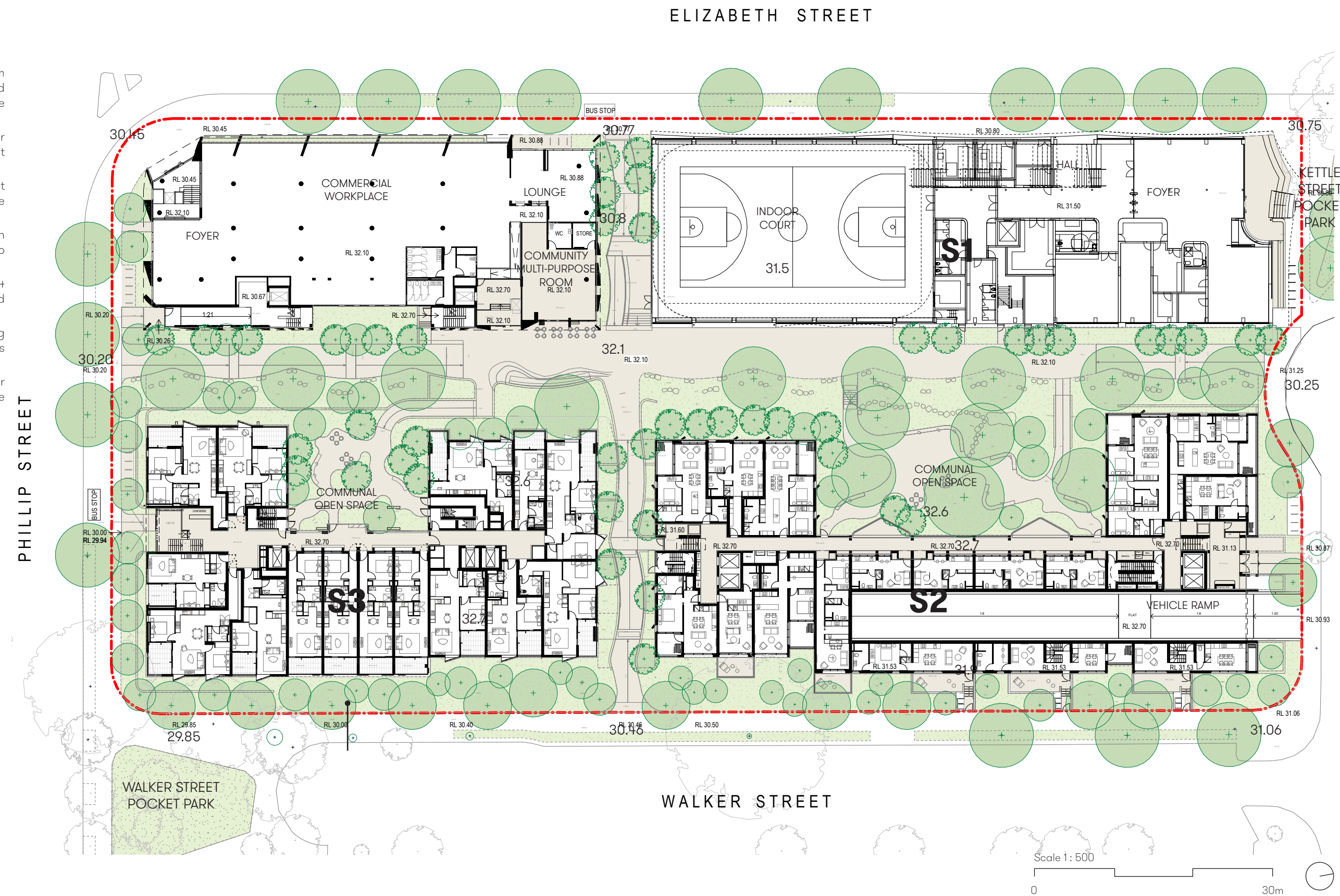
71.1% of the western facade receives 2 hours of solar access between 9am and 3pm on 21 June.

03 Built Form and Urban Design

GROUND PLAN

KEY ELEMENTS IN THE GROUND PLAN INCLUDE:

- Central landscape space sitting 1-1.6m above street level providing access and activation to the internal facades of the development.
- Ramped through site links provide clear and legible pedestrian movement through the site.
- Clear residential entries on Kettle St and Phillip St, and PCYC entry on Kettle St.
- PCYC Multi courts located at southern end of S1 with large areas of glazing to activate the central courtyard space.
- Activate entrances on all corners of S4 to activate the through site links and central courtyard space.
- Vehicle entry on Kettle St with a long ramp with peak at PMF to access basement.
- Refer to Aspect's design report for further detail on the landscape response.

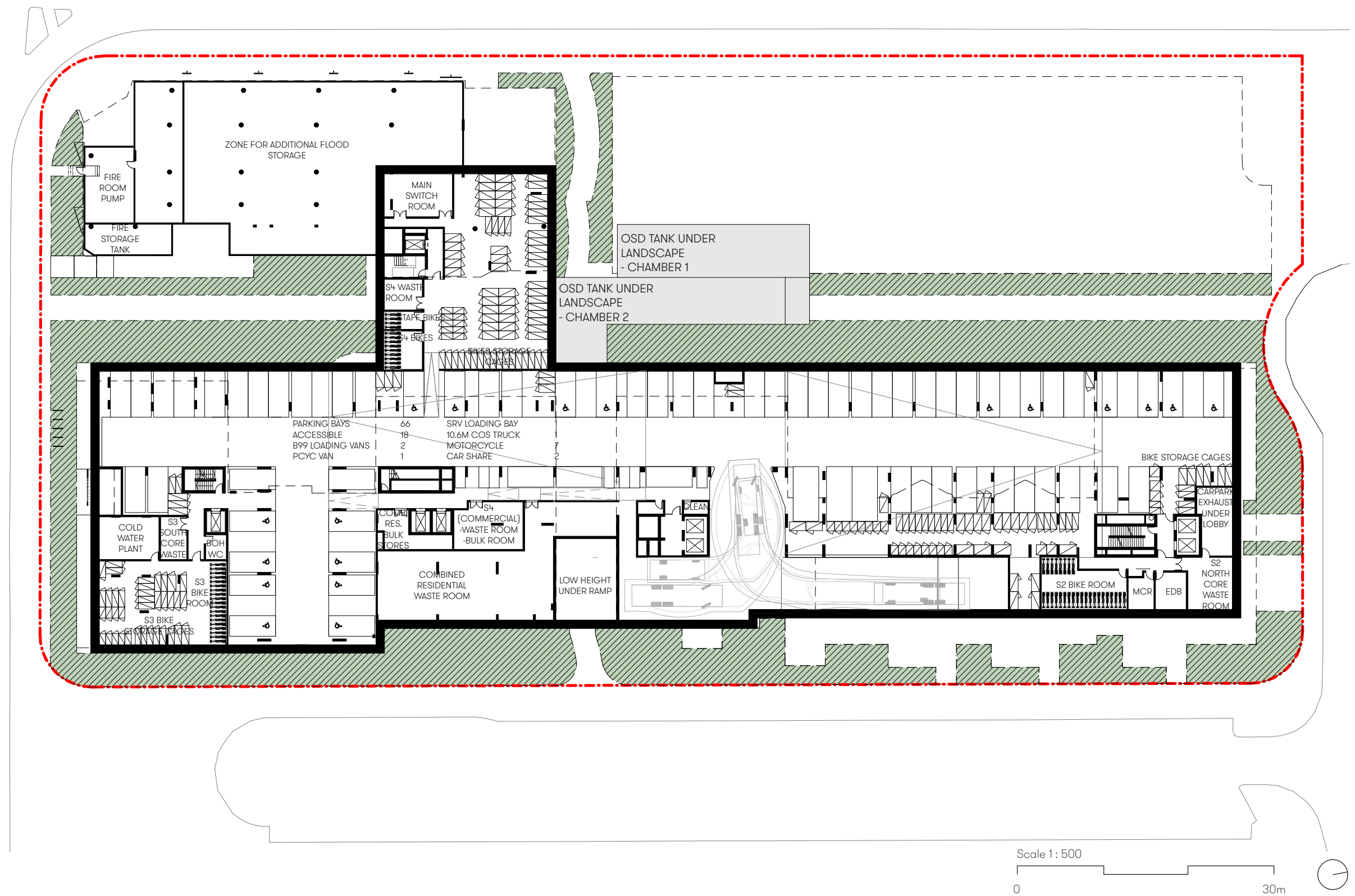


03 Built Form and Urban Design

BASEMENT PLAN

KEY ELEMENTS IN THE BASEMENT PLAN INCLUDE:

- 66 car parking spaces including 18 for adaptable apartments.
- Vehicle entry on Kettle St with a long ramp with peak at PMF to access basement.
- Loading for two trucks (10.6m CoS Waste and SRV) and 3 vans accommodated in basement.
- Waste collection in basement with waste rooms provide adjacent to loading area.
- Bicycle storage and/or storage cages provided for every unit, and S1/S4 staff.
- Services located in basement where possible to provide active ground frontages.
- Flood storage located under S4 to mitigate flood impacts of the development.
- OSD and Rainwater tanks located under central landscape zone.
- Deep soil target achieved, refer to Aspect report for calculation.



Deep soil

03 Built Form and Urban Design

3D OVERVIEW

The precinct forms a diverse and cohesive village. A variety of architectural expressions provides variety, whilst a considered material palette and a cohesive ground plane establishes commonality between buildings.

Design of all buildings is responsive to site context including the character, scale and grain of existing surrounding buildings.

Refer to sections 04, 05, 06 and 07 of the report for detailed descriptions each building.

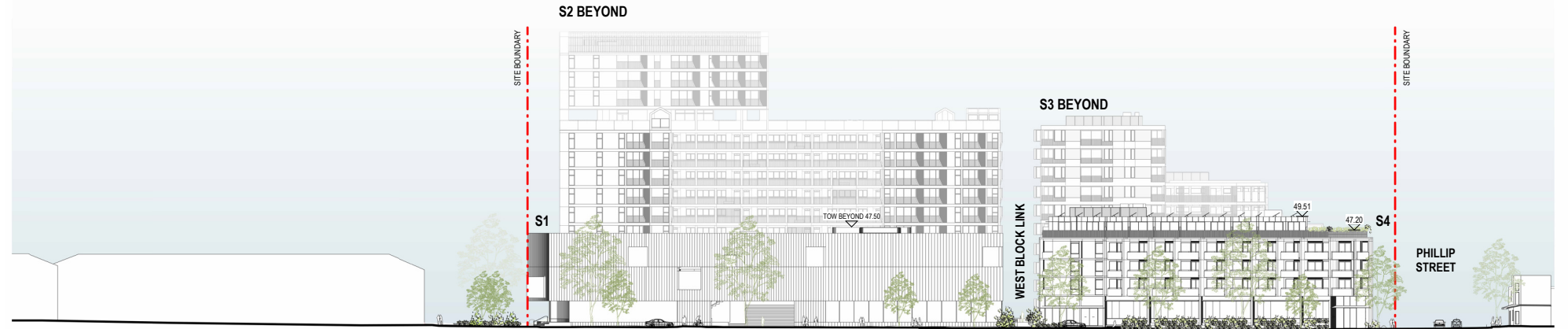


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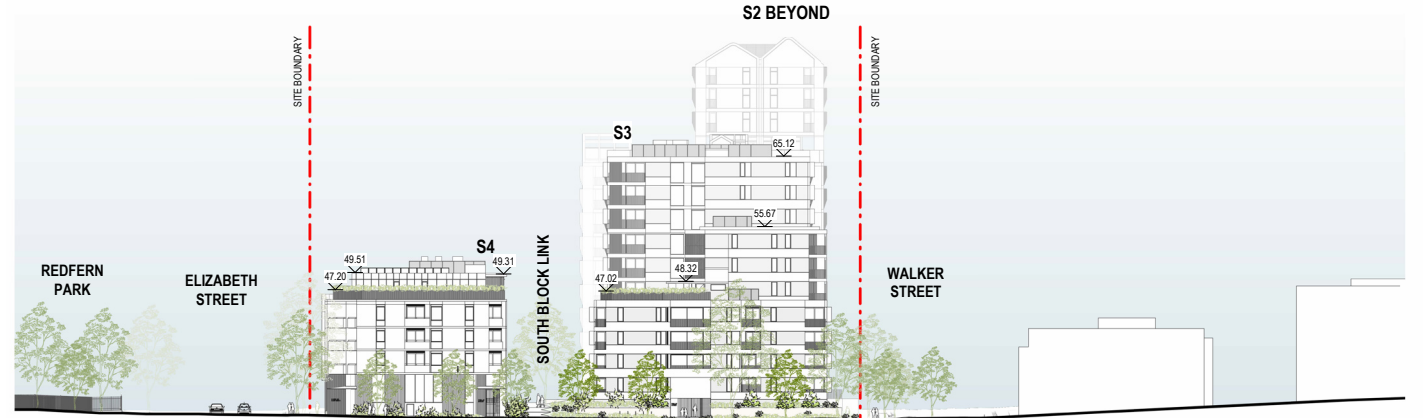
ELEVATIONS



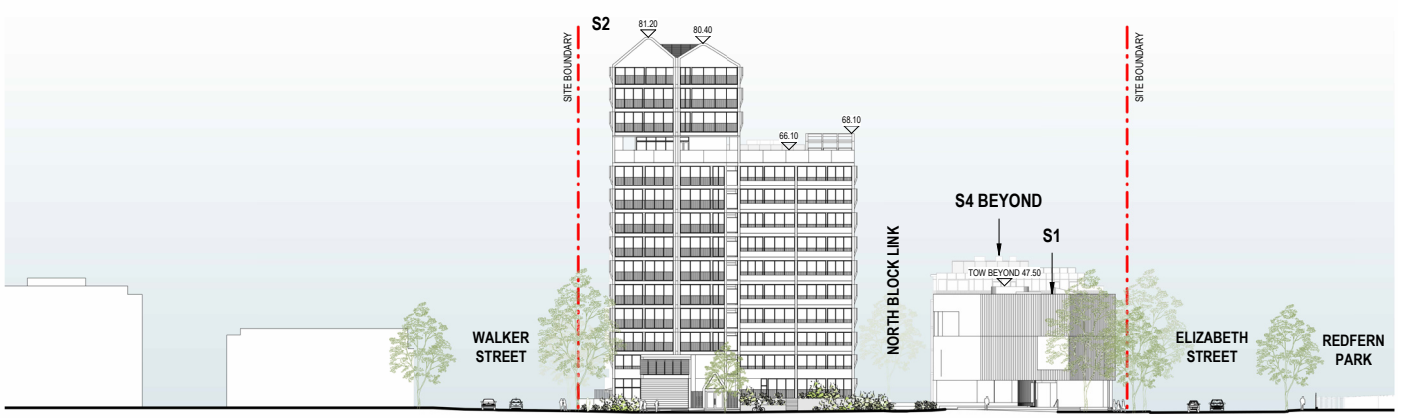
WALKER STREET ELEVATION



ELIZABETH STREET ELEVATION



PHILLIP STREET ELEVATION



KETTLE STREET ELEVATION

03 Built Form and Urban Design

GOOD DESIGN & BETTER PLACED

1. BETTER FIT

Contextual, local and of its place

Underpinned by Connecting to Country principles, Redfern Place has incorporated values and insights of cultural knowledge holders through the Design Jam process.

Informed by a context analysis, the design for Redfern Place responds to the built fabric surrounding the site including the streetscape scale and grain, interface qualities, movement patterns, landscape and architectural expression. Overall, the complex contributes to a connected and friendly neighbourhood through an active ground plane that connects with the public realm, contributing to the lively future of Redfern.

2. BETTER PERFORMANCE

Sustainable, adaptable, and durable

Redfern Place incorporates several environmental sustainability initiatives including passive design elements, high indoor air quality and thermal comfort, best practice waste management principles, water efficient fixtures and fittings, and rainwater collection. In line with the NSW Design Guide requirements, the project meets several targets including 5 Star Green Star Buildings Certification, NCC Section J Compliance, BASIX and NatHERS compliance. The sustainability initiatives at Redfern Place enrich the quality of life for residents and visitors.

3. BETTER FOR COMMUNITY

Inclusive, connected and diverse

Redfern Place includes a range of tenure models including social and affordable housing. Of 355 homes there is a mix of apartment types ranging from studio to three bedroom units. 15% of all social and affordable housing will be for Aboriginal households - over 50 households. A tenure blind approach has been applied to the whole complex, mitigating social disparity and inequality.

Communal open spaces, a breezeway typology and rooftop terraces are inclusive and welcoming of all residents, and contribute to the amenity of the whole complex.

Additionally, the PCYC community facility includes recreational and community spaces, and the Redfern Place Community Hub includes a community room, community lounge and respite space.

4. BETTER FOR PEOPLE

Safe, comfortable and livable

CPTED design principles have been taken into consideration to ensure passive surveillance across movement and gathering areas, clear sight lines, clear boundaries between public, communal, and private zones, regulated access through vegetated landscape, and thoughtful spatial programming to encourage activity in public spaces.

Comfort levels on the site are considered in many ways including mitigated urban heat island effects, gardens and pathways around residential buildings, and a range of seating.

5. BETTER WORKING

Functional, efficient, and fit for purpose

The precinct provides high amenity apartment planning and a high level of spaces for community, including a community centre that provides shelter in extreme weather events.

All buildings are designed for protection from floods.

Building materials are natural and low maintenance.

6. BETTER VALUE

Creating and adding value

The design of Redfern Place contributes to housing diversity in the neighbourhood. Homes for the residents provide stability, connections with community, and a sense of belonging. An environmentally sustainable approach with minimal ongoing maintenance requirements reduces the environmental impact of the complex and ongoing costs for residents.

A PCYC building provides a place for members of the community to come together, and Bridge Housing's onsite office provides access to services and support.

7. BETTER LOOK AND FEEL

Engaging, inviting, and attractive

The design has been developed through an extensive community engagement process that captured insights into the community's needs and aspirations. A range of public amenities and a considered blending of spaces encourage engagement and social interaction.

The landscape design and built form is welcoming and aesthetically pleasing in many ways including materiality, vegetation, and street interface design.



IMAGE BY DIM STUDIO

03 Built Form and Urban Design

ESD OVERVIEW

With around 240kW of on-site generation from solar power, Redfern Place will be the largest high density residential solar power producer in NSW. 100% of power generated will be for use on-site, benefiting 355 social and affordable households by significantly reducing power bills for those most in need

The Design Guide outlines site specific requirements and benchmarks that have been used for the project. The following initiatives help to achieve these benchmarks.

ESD OVERVIEW BY ATELIER 10

Sustainability initiatives at Redfern Place will enrich the quality of life of residents and visitors, enhance the wellbeing of the community, and work to protect broader environmental and climate health. A strong understanding of Country will produce an environment that has a distinct identity, shaping a unique sense of place that ensures longevity, social justice and inclusion.

The project has been designed and will be delivered in line with the NSW Design Guide requirements with key project targets including:

- 5 Star Green Star Buildings Certification for each building
- NCC Section J Compliance
- BASIX and NatHERS compliance
- Exceeding BASIX energy targets by 5 points
- NABERS Energy and Water certification for the commercial office space

The sustainability initiatives of the proposed development will be verified through Green Star Buildings formal certifications. Each building of the development is targeting a 5 Star rating, which is deemed to represent Australian Excellence by the green Building Council of Australia (GBCA).

Through early design input from sustainability professionals, key initiatives incorporated in the proposed development include:

- Passive design elements, such as high-performance façade, effective shading and natural ventilation to reduce the energy demand of the buildings and improve indoor environment quality for residents and visitors.
- Energy efficient building systems and on-site renewable energy to reduce greenhouse gas emissions.
- Preliminary consideration of the building design's resilience and adaptation to climate change impacts.
- High indoor air quality, acoustic design

principles, visual amenity and thermal comfort to support the site functions as training and teaching spaces and private staff areas.

- Best practice waste management principles in operation, and construction and demolition waste diversion from landfill.
- Water efficient fixtures and fittings (high WELS ratings), and rainwater collection from the roof and stored for use on-site (landscaping irrigation) to reduce potable water consumption.



Affordability Redfern Place is committed to providing affordable homes, that are energy and water efficient, lowering energy and water bills for occupants.



Healthy and Inclusive Redfern Place will improve public health outcomes through urban renewal and improve wellbeing for building residents, occupants and visitors.



Resilient and Adaptable The development thrives despite short term shocks from weather and acute events and can adapt to longer term stresses like climate change.



Caring for Country Redfern Place is a place that celebrates the enduring spirit of Country and the long-standing connections of Aboriginal peoples to this place, giving expression to their unique cultures.



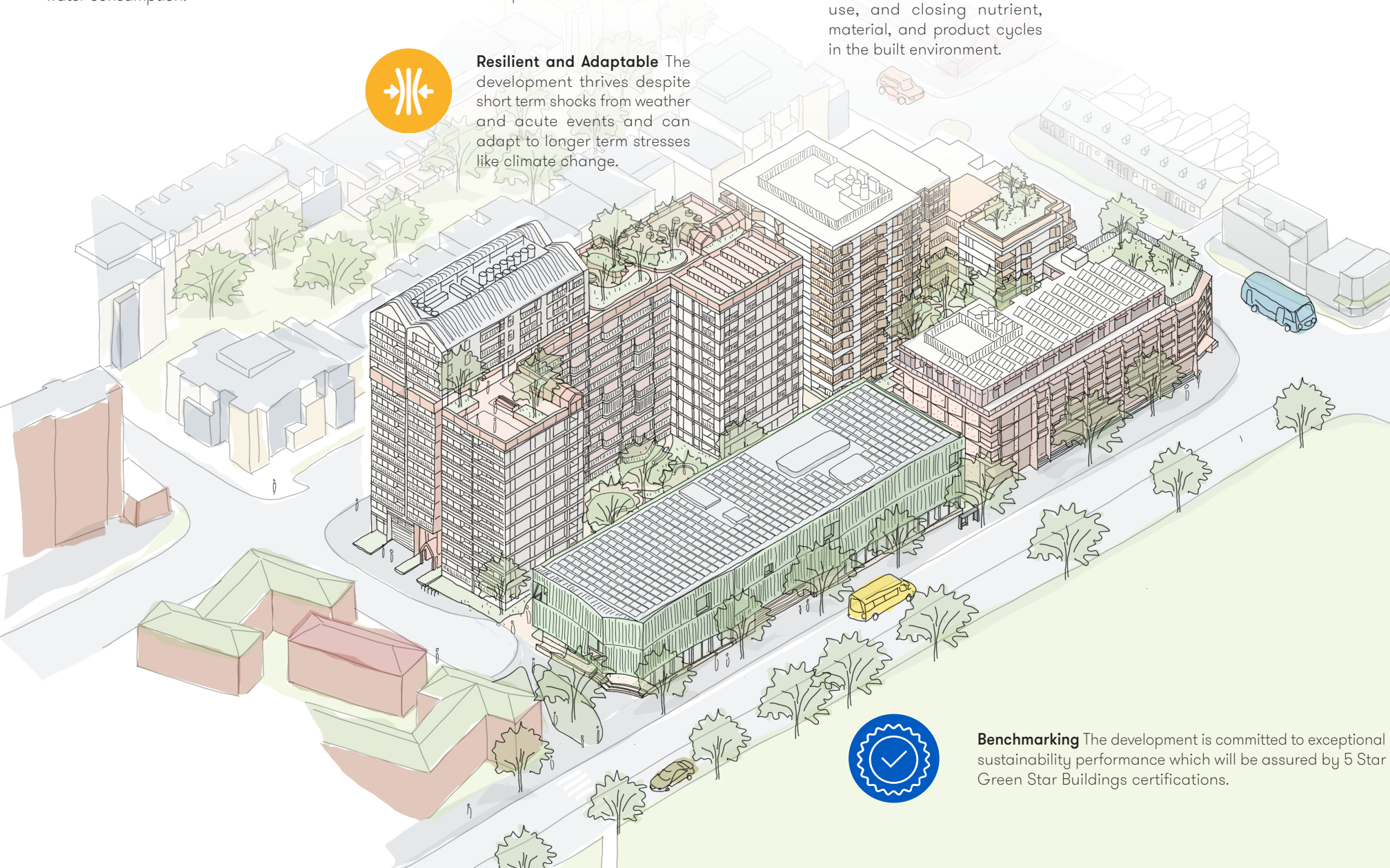
Circular Economy Restorative and regenerative by design: achieving sustainability through minimal waste strategies, renewable energy use, and closing nutrient, material, and product cycles in the built environment.



Urban Forest A place of vibrant ecologies, where landscapes replenish nutrients, nurture watersheds, provide habitat for indigenous flora and fauna, and extend the urban Green Grid.



Climate Positive The development is 100% fully electric (no provision for gas) and reduces carbon emission.



Benchmarking The development is committed to exceptional sustainability performance which will be assured by 5 Star Green Star Buildings certifications.

03 Built Form and Urban Design

DESIGN GUIDE CONSISTENCY

FUTURE CHARACTER STATEMENT

THE PROPOSED DEVELOPMENT HAS:

- A mix of uses; PCYC facility, community, commercial, affordable housing and social housing
- Environmental sustainable design features such as:
 - 5 Star Green Star Buildings Certification for each building
 - NCC Section J Compliance
 - BASIX and NatHERS compliance
 - Exceeding BASIX energy targets by 5 points
 - NABERS Energy and Water certification for the commercial office space
- Rich landscape setting with extensive tree canopy cover.
- Considerate landscape design to mitigate flooding issue along street interfaces through battered and tiered landscape.
- Appropriate building heights that maintain solar access to Redfern Park through the year
- Through block link walking connections through the site along with at grade servicing along Elizabeth, Phillip and Kettle Street.
- Commercial and community uses fronting Elizabeth Street at ground level
- Varied architectural approaches, diverse apartment types, building heights and form
- Transition of building height from 14 to 10, 7 to 4 storey towards Phillip Street.

SITE BOUNDARY

The Design Guide [section 3.2(3)] refers to the realignment of Kettle Street to be straight by mutual agreement between the landowner and the City of Sydney.

In early consultation sessions with the City of Sydney, the process for site realignment was discussed (including road reclassification) and it was determined by Bridge Housing that the site boundary realignment process would be unnecessary to achieve a positive urban development outcome for Redfern Place.

The current bowl shape cul-de-sac facilitates suitable traffic movement which would not be possible with the straightened site alignment (which would require a three-point-turn).

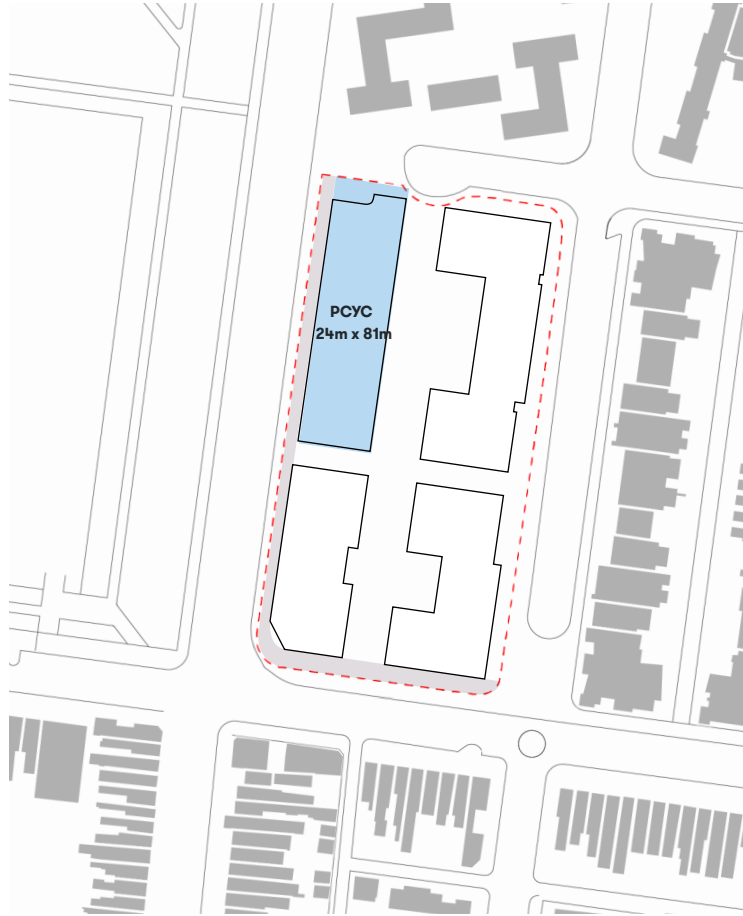
The existing bowl shape does not impact the development potential with the north-south publicly accessible through-site link commencing at the bowl, encouraging pedestrian movement through the site.



DESIGN GUIDE MASSING

The proposed form exceeds the design guide preferred building arrangement by one storey in small areas, however the development achieves all key objectives of:

- Minimising the impact of height on the surrounding areas by breaking down the building form through facade and materiality
- Minimising shadow impact to Elizabeth, Phillip & Walker St residential areas, as well as no overshadowing to Redfern Park
- Minimising building depth to achieve compliant solar and natural ventilated apartments
- Ensuring that all forms meet the Apartment Design Guide
- Ensuring all buildings have implemented solar shading strategies based on orientation and context



COMMUNITY FACILITY PREDOMINANT LOCATION AND DEVELOPMENT SECTIONS

- Community facilities and tenure-blind affordable and social housing are provided in development sections as per the Design Guide
- Development section 1 is designated for the PCYC community building, activating Elizabeth and Kettle Streets.
- Development section 2 is designated for affordable housing.
- Development section 3 & 4 are designated for social housing

03 Built Form and Urban Design

DESIGN GUIDE CONSISTENCY



DIVERSE NON-RESIDENTIAL GROUND FLOOR USES

- The ground floor of development fronting Elizabeth Street provides a mix of community, communal and commercial uses to activate the street frontage. Minimal services front Elizabeth Street.
- No residential apartments are provided on the ground level along Elizabeth Street. S4 residential entry is provided along Phillip Street.
- Ground floor uses along Elizabeth St are located as close as practicable to the footpath, achieving activation while minimise flood risk to the community and commercial space, which are located above the FPL at RL31.50 and RL32.10 respectively. The NW entry to the community lounge within S4 is located at RL30.88 (meeting the FPL) and the SE entry to the commercial office within S4 is located at grade at RL30.45 (below the FPL). Stairs and stair lifts are used within these entries to ensure equitable access to the commercial floor area above.
- Robust and flood resistant construction allow for these spaces to be located below the FPL to engage with the street.
- Tiered planters screen views from footpath to flood resistant walls of commercial spaces



LOCAL INFRASTRUCTURE

- The development provides:
- Footpath widening along Elizabeth Street, Phillip Street and their intersection.
 - At least 10m wide North South through site link
 - At least 6m wide East West through site link
 - The site links are uncovered by any structure, providing direct visual link from both ends and publicly accessible.
 - The North South through site link is designed to 1 in 20 gradients. The East West through site link is designed to 1 in 14 gradients between the buildings to create a consistent central plaza space where the two through site links meet and spill out from the S4 community room is provided. The 1 in 14 gradients links are provided with handrails and minimised as much as possible.
 - The North South through site link will be solely for active transport (walking and cycling) and therefore vehicle entry and exit controls will not be required.



LANDSCAPE AREAS

- The development provides:
- 1794m2 of soil with no structures above or below on site that are not occupied by the community facility is provided, well in excess of the minimum 1650m2
 - At least 18% of the total site area is covered by tree canopy when trees reach maturity exceeding the control of 15%.
 - Basement parking at RL28.07, which is at least 3m below the FPL. The Flood Planning Levels (FPL) requires residential spaces, basement connections and some infrastructure to be located at the PMF (32.7), while commercial, community and ancillary spaces can be at the 1% AEP level (between 30.57-31.27).
 - Vehicle entry and exit into the basement along Kettle Street. No vehicular access to Elizabeth or Phillip Street
 - To ensure an efficient and cost effective basement over only a single level, the basement extends under the eastern extent of East West through site link. In part the North South through site link is located above the basement and the OSD tank.
 - Bicycle parking is provided at all building entries, within proximity to the North South through site links.
 - Landscape areas as per areas A, B, C and D shown in Figure 5 of the Design Guide