



# RHODES EAST PRIORITY PRECINCT INVESTIGATION AREA

---

URBAN DESIGN REPORT 2017

RobertsDay  
*planning. design. place*

 **NSW**  
GOVERNMENT | Planning &  
Environment

 **City of  
Canada Bay**





# Title

Rhodes East Priority Precinct Investigation Area Urban Design Report

# Prepared for:

DPE and Canada Bay Council

# Date:

May 2017

# Status:

DRAFT

# Prepared by:

Angela Koepp

# Approved by:

Martine White

RobertsDay  
planning. design. place

NSW  
GOVERNMENT  
Planning &  
Environment

City of  
Canada Bay

HillPDA  
CONSULTING

JACOBS

elton  
consulting

turf

City of  
Canada Bay

# CONTENTS

---

SETTING THE SCENE FOR URBAN RENEWAL	4
COMMUNITY CONSULTATION	8
OPPORTUNITIES AND CONSTRAINTS	10
RHODES EAST VISION	14
OBJECTIVES	15
DESIGN APPROACH	16
THE URBAN DESIGN PLAN	36
CREATING THE STRUCTURE PLAN	38
RHODES EAST CHARACTER AREAS	50
DESIGN STRATEGIES	68
DELIVERY STRATEGIES	94
DESIGN STRATEGIES	98
STAGING	106
DELIVERY	108


# SETTING THE SCENE FOR URBAN RENEWAL

---

## RHODES EAST

Rhodes East is part of the Rhodes Peninsula between Brays Bay and Homebush Bay on the southern bank of the Parramatta River, approximately 16km to the west of Sydney CBD. It has an area of 36ha, is located to the east of the Northern Rail line and is bounded by the Parramatta River to the north and Brays Bay to the east. The study area is currently predominantly residential with light industrial land uses located along the northern edge, adjacent to the Parramatta River and McIlwaine Park to the south.



An aerial photograph of Rhodes East, a waterfront development in Sydney. The image shows a mix of modern high-rise apartment buildings, older residential houses, and industrial-style buildings along the water's edge. A large body of water is on the left, filled with many sailboats. A multi-lane highway bridge runs along the bottom right. In the background, more city buildings and green spaces are visible.

**RHODES EAST WILL  
CELEBRATE THE UNIQUE  
CHARACTERISTICS OF THE  
PLACE WHILST CREATING  
A FRAMEWORK TO BECOME  
A 21ST CENTURY TRANSIT  
ORIENTED, HUMAN SCALED  
WATERFRONT COMMUNITY.**



# SETTING THE SCENE FOR URBAN RENEWAL

## A PLAN FOR GROWING SYDNEY

A Plan for Growing Sydney, released in December 2014, details the NSW Government's vision for Sydney's future, as a 'strong global city, a great place to live'. One of the biggest challenges is how best to provide the 726,000 new homes for the extra 2.7 million residents predicted by 2036, while also creating strong, healthy and connected communities.

A Plan for Growing Sydney identifies Rhodes as a Strategic Centre within the Global Economic Corridor. A priority for the Central Sub Region is to:

"Work with Councils to identify suitable locations for housing intensification and urban renewal... particularly around Priority Precincts, established and new centres and along key public transport corridors".

## PRIORITY PRECINCT

Rhodes East was nominated as a potential Priority Precinct by the City of Canada Bay Council in November 2014.

The Priority Precincts program aims to provide for new housing and jobs in centres with good existing or planned transport services and coordinates the delivery of infrastructure to ensure that the growth will be supported by improved public open space and community facilities to make these places attractive places to live and enhance people's lifestyles and living standards.

Further demographic and economic information is included in Appendix A.

CURRENT POPULATION

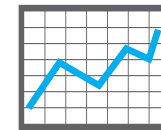
**733** 

AVERAGE HOUSEHOLD

**2.67**  PEOPLE

AVERAGE AGE

**42.5YRS** 



**\$10-13K/SQM\* AT**

MEADOWBANK, RHODES, WENTWORTH  
POINT, OLYMPIC PARK & BREAKFAST POINT

\*OF SALEABLE INTERNAL AREA

**LAND VALUE HAS  
INCREASED X2  
IN PAST 5 YEARS**

**DEVELOPERS PAY**

**\$200K/APT FOR LAND**



**LOW USE OF BUSES**

**24% TRAIN TO WORK**



**46% OWN MORE**



**THAN ONE CAR**





**FIGURE 1**  
**RHODES EAST PRIORITY PRECINCT**

CONCORD HOSPITAL  Investigation Area Boundary

# COMMUNITY CONSULTATION

A range of consultation with the local community, key stakeholders and relevant government agencies has been undertaken during the preparation of this proposal, including:

- Drop in Sessions
- On Line Survey
- Three Community Workshops
- DPE Website

The outcomes have been used to ensure that the community views are considered throughout the design process.

Some of the key views expressed included:

- Local character is important
- Housing choice and affordability is important
- Parramatta River foreshore access is desirable
- Road and rail networks are congested

- Building heights should be scaled to retain views, minimise overshadowing and create a human scale
- A preference for development controls to provide certainty
- Leeds Street foreshore to be used for recreation, community events and cafes and restaurants
- Greater density could be located closer to the Station

These community views have informed the design outcomes particularly in relation to housing density, building heights, land use and open space.

The key outcomes of these consultation activities have been documented and are included in Appendix B of this report.

**THE OUTCOMES FROM THE CONSULTATION PROCESS HAVE BEEN USED TO ENSURE THAT THE COMMUNITY VIEWS ARE CONSIDERED THROUGHOUT THE DESIGN PROCESS.**







# OPPORTUNITIES AND CONSTRAINTS

A critical component of a Place Led approach is to develop an understanding of its current identity by analysing its physical characteristics, key destinations, and the movement of people throughout the area. A comprehensive Place Audit led to the identification of the following Opportunities and Constraints.

## ACCESS & MOVEMENT

### OPPORTUNITIES

- Identify and work towards a model shift target
- Create a Transit Orientated Development
- Connect to the broader region
- Work with TfNSW to understand the ability to increase train frequency
- Increase and improve crossings across Concord Road
- Improve east/west connectivity
- Invest in the public domain to encourage active transport
- Explore innovative parking solutions
- Consider additional railway line crossing points
- Consider new ferry stop

### CONSTRAINTS

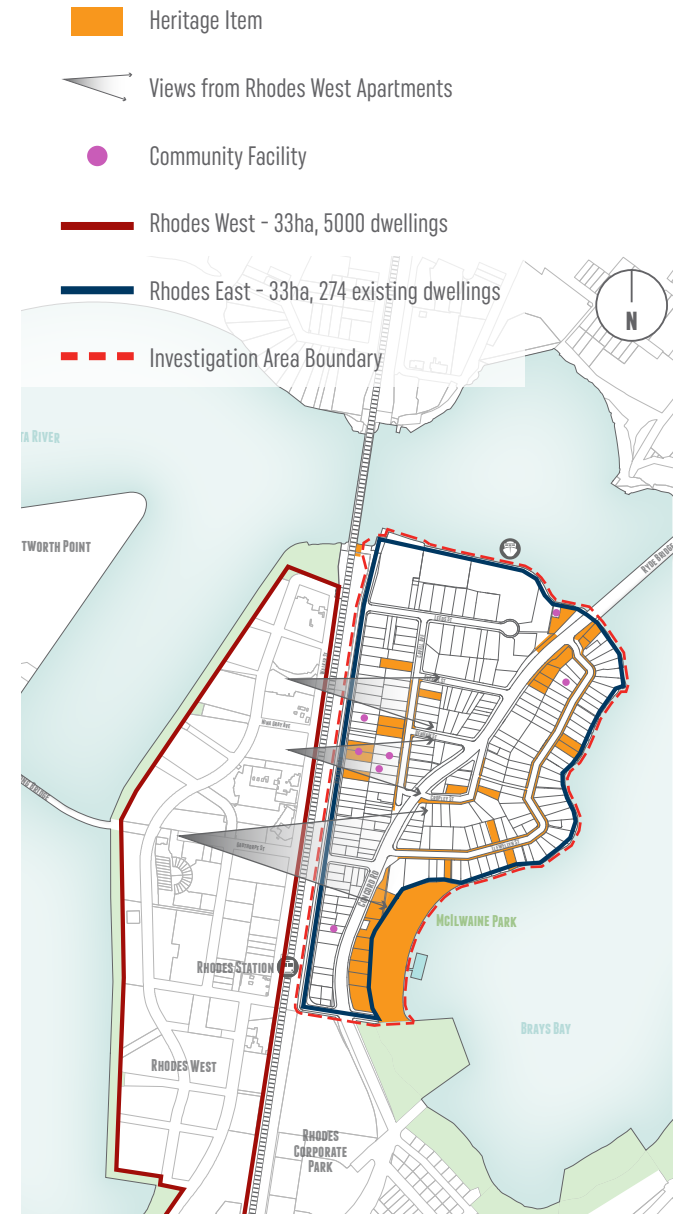
- A fine-grain approach to density is not facilitated by the current planning system, discouraging pedestrian movements
- The railway line is a barrier with few crossings
- Cost and overall impact of additional east-west connections on place and function should be considered
- Concord Road is a physical barrier that inhibits pedestrian movement across the Peninsula

FIGURE 2  
ACCESS & MOVEMENT





**FIGURE 3**  
**BUILT FORM**



## BUILT FORM

### OPPORTUNITIES

- Apply inclusionary zoning to capture a proportion of the value uplift
- Consider an 'affordable living' approach
- Consider changes to the ARHSEPP and/or SEPP 70 to deliver the best affordable housing outcomes
- Retain authenticity of heritage items
- Leverage off existing mature trees
- Consider heritage buildings for community/cultural uses
- Integrate heritage and art into the public domain

### CONSTRAINTS

- Deliver quality affordable housing in the most appropriate locations
- Work within the confines of the current legislation to deliver affordable housing
- Balance affordability with sustainability
- Balance redevelopment and respectful consideration of heritage
- Fourteen heritage listed lots are dispersed both east and west of Concord Road
- Heritage trees are located along Llewellyn Street, Cavell Avenue and Cropley Street
- Uhrs Reserve is under utilised but also heritage listed
- Water-based heritage includes boat sheds located off Llewellyn Street properties

# OPPORTUNITIES AND CONSTRAINTS

## LANDSCAPE AND NATURAL ENVIRONMENT

### OPPORTUNITIES

- Engage with the waterfront
- Co-locate habitat areas with community uses to encourage stewardship
- Utilise generous amounts of open space for shared purposes
- Identify opportunities for Rhodes East foreshore 'beacons' to be visible from the north shore
- Maintain existing views and visual connections, and create new ones
- Embed long term resilience in the Urban Design Plan
- Deliver innovative planning
- Explore opportunities for passive heating and cooling building systems
- Improve the water quality of Parramatta River
- Consider additional railway line crossing points
- Consider new ferry stop

### CONSTRAINTS

- Privatised eastern edge with fragmented ownership
- Established government policy of no new over-water structures
- Barrier of the railway line makes sharing of facilities between east and west difficult
- Managing the Rhodes West residents' investment expectations of views
- Variable heights are required to achieve a 'value in depth'
- Significant slope through the middle of the site
- Lack of data on flooding and sea level rise
- Site affected by acid sulphate soils and some areas require remediation
- Ability to deliver next-practice sustainability strategy within the project timeframes is yet to be determined
- Balancing bespoke, sustainable building solutions with the affordability mandate
- Habitable floor levels are to be located above RL 3m AHD and 100 year ARI plus 0.5m freeboard
- Access level to basement car parks to be located above the PMF

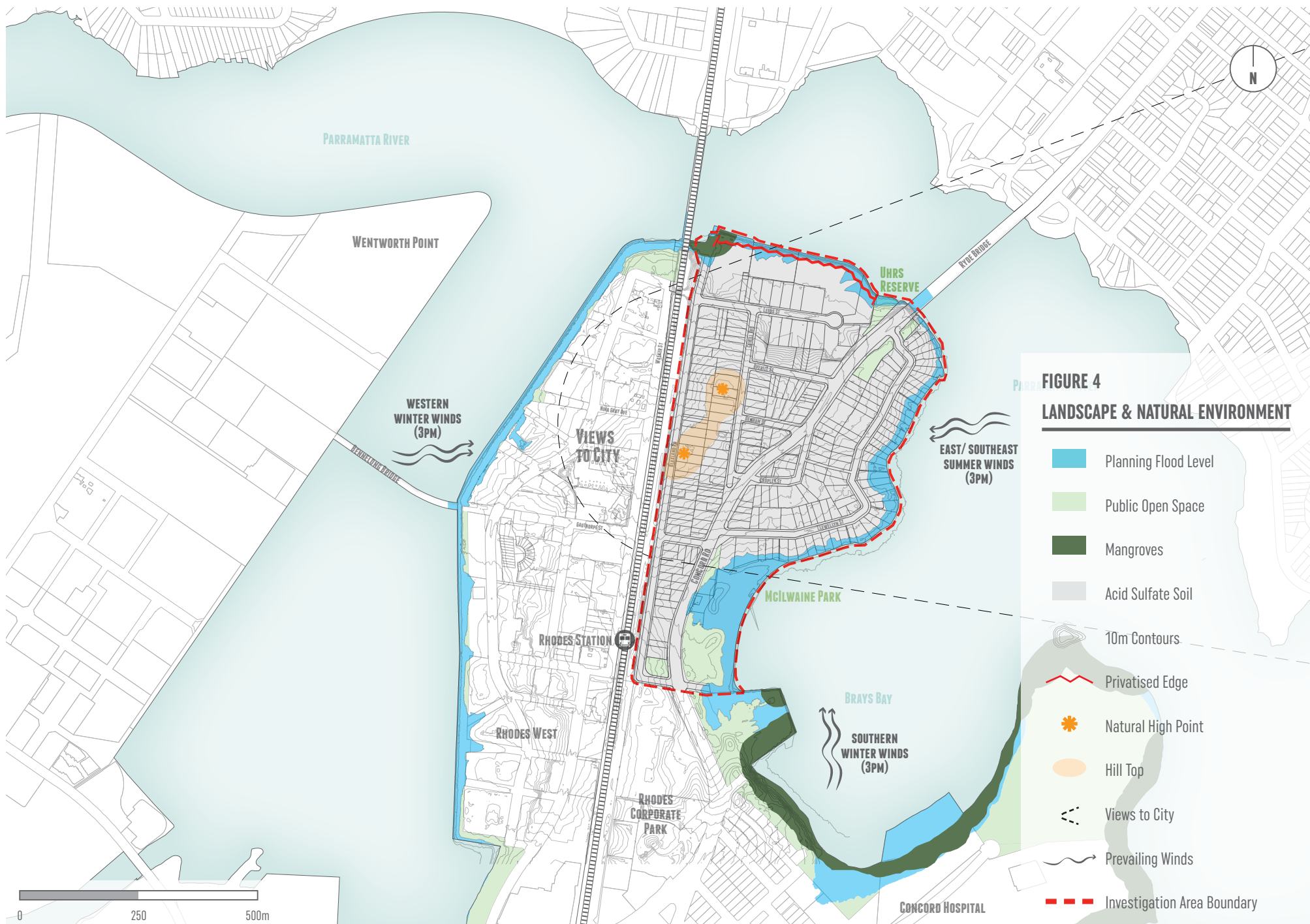


UHRS RESERVE INTERFACE WITH SEA SCOUTS HALL



RHODES WEST SHARED PATH







# RHODES EAST VISION

Rhodes East will be a model for sustainable, low-rise high density development, which builds upon the existing character and heritage of the area. It will provide more high quality housing choice, close to public transport and catering to a variety of household types. It will be supported by connections to the water, and local streets will be redesigned to support walking, cycling and use of public transport. Improved amenity will encourage residents and visitors to spend time and continue to take pride in the area.





# OBJECTIVES



## PLANNING

Ensure Rhodes East can meet the challenges of the future by building sustainability and longevity into planning, design and commercial capability from the start.



## ACTIVE TRANSPORT

Design integrated transport services and experiences that prioritise walking, cycling and the use of public transport.



## AFFORDABLE HOUSING

Provide affordable housing options for key workers in the area, for example, people working in occupations such as teaching, childcare, policing or nursing. Utilise walking, cycling and the use of public transport.



## DENSITY WITH A HUMAN SCALE

Deliver a range of built forms, from terraces to apartment buildings, that promote activity on lower levels of the buildings. The range of built forms will result in more open space, more sunlight into buildings, and a close connection to the ground.



## WATERFRONT ACCESS

Provide enhanced public access to the Parramatta River foreshore, including the provision of housing and public open space with views to the water.



## PUBLIC SPACES

Provide a range of high quality, pedestrian prioritised public spaces that are safe for gathering and socialising.

# DESIGN APPROACH

---

## INTEGRATING EXISTING CHARACTER AND ADOPTING A PLACE LED APPROACH

The redevelopment of Rhodes East has been framed around a place led approach that builds on the existing urban fabric and character to create a pedestrian friendly human scaled outcome.

Traditional city-building has created the worlds most loved and successful urban places which typically consist of a broad range of lots, blocks and buildings assembled to create livable, mixed use walkable communities

Development was incremental and delivered, not only a diversity of lot sizes and building types, ranging from the very small to the very large, but also a strong public realm. This approach is evident in Sydney's inner city neighbourhoods that are widely recognised for their walkability, sustainability and liveability.

However, in more recent times, this diversity has unfortunately been replaced with a more homogeneous approach that has resulted in places that are not human scaled and, as a consequence, are less walkable and with a lower quality public domain.

Throughout the consultation process, the local community has consistently affirmed a desire to celebrate the inherent character of Rhodes East. As a result, the existing urban structure has informed a fine grain human scale urban renewal that will provide a genuine

point of difference and create a unified community that is greater than the sum of its parts.

However, recent experience suggests that relying solely on a combination of architectural and DCP controls will not deliver the authentic fine grain, organic character the community is seeking.

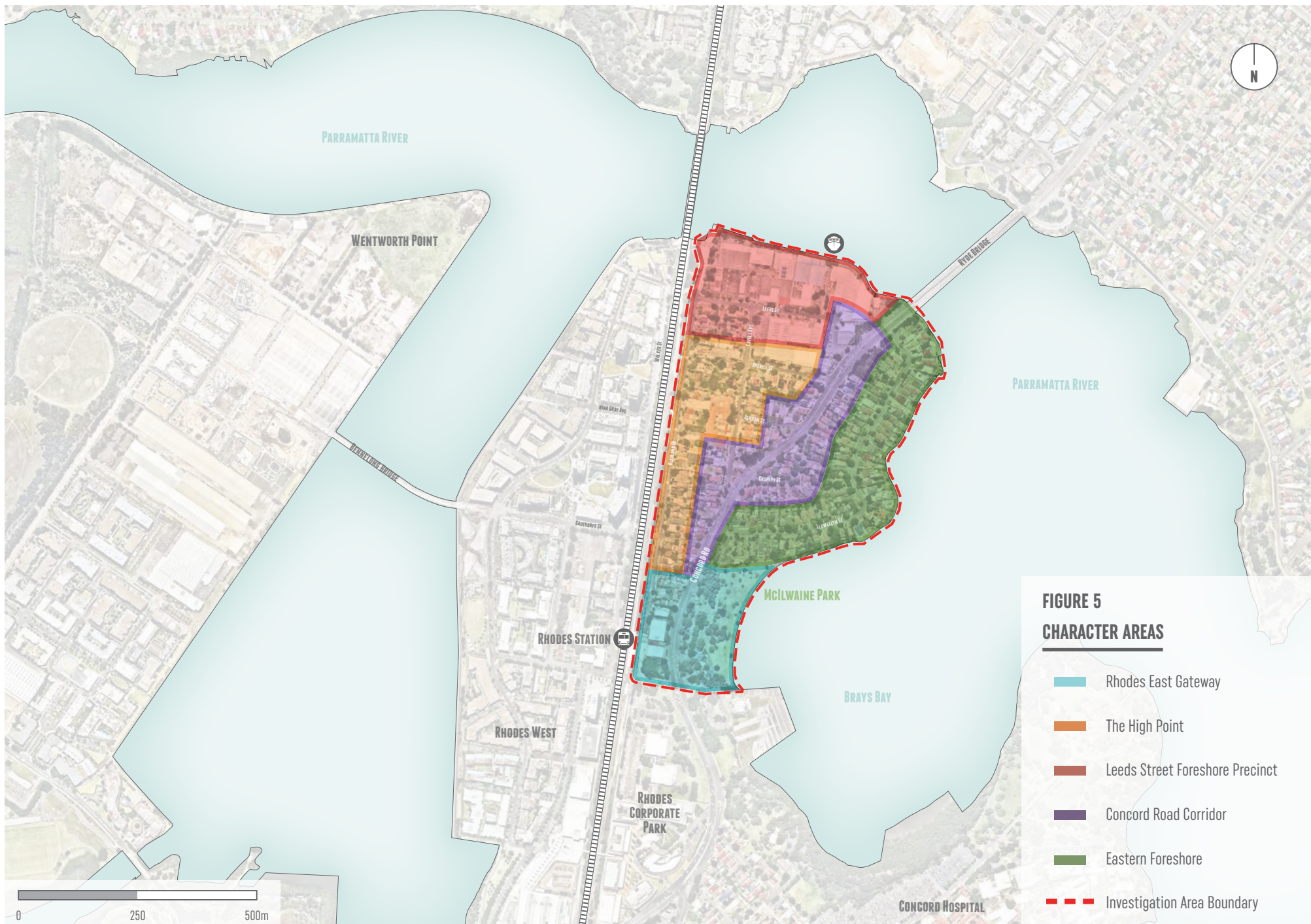
A more effective way is to focus on the creation of streetscapes with multiple developments of different scales achieved by introducing a range of lot sizes and frontages. Diversity in development and form will be the key driver in realising a point of difference at Rhodes East.

An analysis of the current urban fabric of Rhodes East on the basis of land use, street pattern, public domain and built form has identified five distinct Character Areas. The Character Area Analysis can be found in Appendix C.

The Character Areas will be used to build character and identity through specific built form controls, function and use, landscape treatment and street types creating a series of distinct places that celebrate and evolve their existing character.

The boundaries of the Character Areas typically include both sides of the streets to ensure a consistent character that contributes to an attractive and legible environment.





## EXISTING CHARACTER AREA ANALYSIS

### SUMMARY

#### RHODES EAST GATEWAY

A key transport hub with limited commercial uses located between Rhodes Station and Concord Road with a character influenced by adjoining built form and functions.

#### LEEDS STREET FORESHORE PRECINCT

A predominately light industrial area on the waterfront with large building structures and heavily transport dominated (vehicles, trains, river traffic).

#### THE HIGH POINT

Centrally located area on the Rhodes Peninsula with a mix of residential and community uses situated on the most elevated part of the Investigation Area.

#### CONCORD ROAD CORRIDOR

An area heavily dominated by the wide Concord Road corridor containing residential, community and light industrial uses.

#### EASTERN FORESHORE

A green, leafy area characterised by low scale residential development with connections to the waterfront.



RHODES EAST GATEWAY - BUILT FORM



RHODES EAST GATEWAY - LANDSCAPE





LEEDS STREET FORESHORE PRECINCT - DESTINATION



CONCORD ROAD CORRIDOR - DESTINATION



EASTERN FORESHORE- LANDSCAPE AND BUILT FORM



THE HIGH POINT - BUILT FORM



CONCORD ROAD CORRIDOR - BUILT FORM



EASTERN FORESHORE - LANDSCAPE AND BUILT FORM

# DESIGN APPROACH

---

## ESTABLISHING A PENINSULA OF CHOICE

Rhodes West was developed on remediated industrial land. High density development was facilitated through the creation of large blocks that provided new housing types with a range of social infrastructure and community facilities delivered through Voluntary Planning Agreements.

In contrast, Rhodes East is an established urban area with an existing community. It contains a number of different places, each with its own unique identity and character, contributing to the overall experience and attraction of the Peninsula. This provides a genuine point of difference and an opportunity to deliver an alternative urban experience than that found at Rhodes West.

The commitment to delivering 5% Affordable Housing across the whole development, combined with the definition of a housing mix within the DCP, will ensure that Rhodes East provides choice and variety to the Peninsula.







# DESIGN APPROACH

## BUILDING URBANITY THROUGH DENSITY

### INTERSECTION, FRONTAGE AND LOT DENSITY

One of the key challenges facing the redevelopment of Rhodes East is the capacity of the network movement to accommodate an increased population. As a result, a key focus has been to create an urban structure that maximises opportunities for walking, cycling and public transport patronage. Improving connectivity through additional street and pedestrian connections is critical to achieving the modal shift required to support the new Rhodes East community.

A crucial difference between pre and post-war development can be linked to the growing reliance on private vehicle movements. This change in personal mobility patterns fundamentally changed the urban structure and resulted in larger blocks, fewer intersections and less street frontage to activate the public realm. Whilst overall density was not impacted, the quality of the public realm deteriorated leading to reduced pedestrian activity and movement.

Successful urban renewal projects increase intersection density or the number of intersections in a given area. Intersection density corresponds closely to block size, so the greater the intersection density, the smaller the block. Small blocks make neighbourhoods more walkable and, in conjunction with smaller redevelopment sites, creates the pre-conditions to deliver authentic fine grain, human scale development in accordance with the Rhodes East Vision.

Research suggests that there is a direct correlation between intersection density, block size and walkability. There is further research that concludes that if intersection density is doubled walking will increase by 40 percent. (Travel and the Built Environment: A Meta-Analysis, 2010).

The diagrams opposite compare street layouts and the number of intersections per 10 ha in Potts Point, arguably one of the most walkable neighbourhoods in Australia, with Rhodes West and East.

Increasing intersection density inherently improves frontage density. Frontage density is the amount of ground floor building frontage engaging with the street providing a place-based framework for activities, experiences and uses to evolve over time. Increasing the extent of ground floor frontages promotes walkability and a more activated streetscape and public realm.

With lower intersection densities and larger blocks, 'lot density' is also reduced. An area developed pre-war consisting of typically 100 lots of varied sizes, would often now be reduced to about 4 super lots dimensioned to attract a single market segment developer. By reducing lot density fine-grain buildings have been replaced by fewer larger buildings with less relationship to the street and pedestrian environment. The large floor plates are often driven by basement car parking requirements reflecting parking rates that encourage private vehicle ownership and driving rather than walking, car share or public transit use.

RHODES WEST - 8 INTERSECTIONS/ 10HA



RHODES EAST EXISTING - 6 INTERSECTIONS/ 10HA



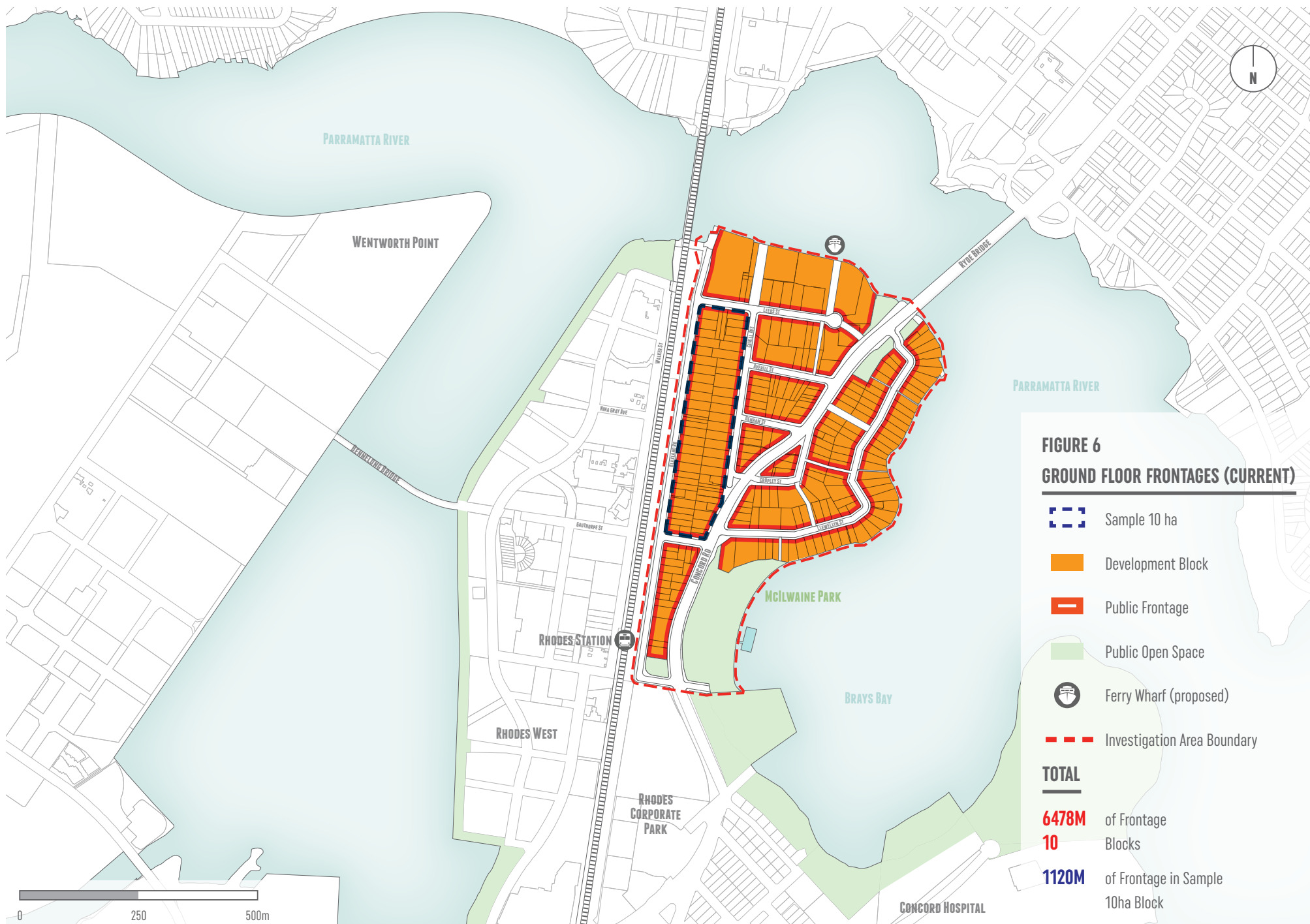
POTTS POINT - 23 INTERSECTIONS/ 10HA



1 HECTARE GRID 10 HECTARE SAMPLE AREA INTERSECTION

The above images illustrate a 1 hectare grid overlaid onto a 10 ha sample area to determine intersection density.





# DESIGN APPROACH

---

## BUILDING URBANITY THROUGH DENSITY

### ADAPTABLE GROUND FLOORS

Increased intersection, frontage and lot density all contribute to creating resilient urban places where non-residential uses at the street level of buildings can develop organically over time as a place and market demand matures. A portion of every development should be formally designated with adaptable ground floors that can be converted from residential or podium parking to retail or commercial uses, as redevelopment progressively occurs and market demands change providing flexibility and resilience.

### PROVIDING PUBLIC BENEFIT

A range of social and physical infrastructure is required to support healthy happy communities. At Rhodes East, this infrastructure is critical to facilitate density and population growth and encourage a modal shift. In particular, the new streets, are fundamental to the delivery of the intersection and frontage densities necessary to support the public life envisaged.

The planning process provides a range of mechanisms to deliver this infrastructure including:

- S94 Contributions
- SIC Contributions
- DA Consent/In kind Contributions
- Voluntary Planning Agreements
- Height and FSR Bonuses to incentivize developer funded infrastructure

Depending on the quantum of funding required, a combination of these processes maybe required. Incentivizing developers to fund infrastructure through bonuses is an effective and transparent model that reduces the reliance on public funds and can deliver infrastructure in shorter time frames. This approach provides an opportunity to deliver strategically located taller buildings, on designated sites, in return for the delivery of a nominated public benefit. In many instances, this will result in communities having access to the infrastructure more quickly than if it was funded through the contributions under the planning regime.

It is critical, however, to create a clear nexus between the public benefit and bonuses provided to the developer, to ensure that the community and all stakeholders have a clear understanding of the relationship between the delivery of the infrastructure and resultant built form.





# DESIGN APPROACH

## PROVIDING OPPORTUNITIES FOR A MODAL SHIFT

Achieving modal shift must be addressed from both a transport and an urban design / placemaking perspective. Simply providing density and a mix of uses within close proximity to one another is not enough to encourage people to choose walking, cycling or public transport over driving. Every trip begins with walking so the pedestrian experience must be the priority.

An integrated high quality urban design outcome, not just density, is required to engage and stimulate the pedestrian, particularly along key desire lines. Active transport infrastructure, and reduced or zero parking rates within close proximity to public transport, is part of an integrated urbanity model.

As the existing road network is constrained, in order to provide a high quality urban environment for existing and future residents, a significant modal shift will be required. The proposed design approach can inform an urban design outcome that actively encourages active transport options.

### CONNECTIVITY

Urban design can directly influence modal shift by creating the preconditions to support active transport including:

- Context Sensitive Streets
- A permeable urban structure that promotes walking, cycling, bus, train and ferry use
- Creating smaller, more compact blocks encouraging a diversity of small, medium and large developments that will enhance the pedestrian environment and encourage pedestrian interest and movement
- Increasing intersection densities that activate the public realm and encourage walkability
- Identifying Vibrant, Friendly and Mixed Facades for each block edge to encourage pedestrian movement

## PROVIDING OPPORTUNITIES FOR A MODAL SHIFT

### CONTEXT SENSITIVE STREET DESIGN

Context Sensitive Street design reflects, the principles contained with the TfNSW "Movement and Place Framework" (see Appendix D) and aims to balance the often competing objectives of traffic capacity with place amenity, or place-led character.

Context Sensitive Streets consider both character and capacity. The configuration of the streets and public domain do not adversely affect traffic functionality. However, instead of the changes to street configuration responding solely to traffic requirements and hierarchy, the streets change in response to the land use and/ or character area that they move through. This approach creates links between the user group and the environment. Streets that connect key destinations support and prioritize pedestrians and cyclist through cycleways, wider pedestrian paths and shade trees. While the safety and functionality of the private vehicle is not impacted, a modal shift is promoted by providing infrastructure and expenditure in the areas where it will be used.

Context Sensitive Streets are:

#### Place-led

Streets are the most important asset of a city. They are more than just transport corridors, they are used by everyone, everyday, and therefore should be designed for all users. They form the main



civic space of communities; significantly affect the retail, cultural and leisure experience, and can provide inspiration for spontaneous activity, public art, creative lighting and greenery. They are the backbone of a healthy, ecological and lovable city where a high quality public domain forms the setting for daily life.

### **Economic**

Context Sensitive Streets stimulate economic growth by creating attractive places with greater street activity, increasing the number of potential customers passing shop fronts and the length of time spent in a place. This typically leads to increased retail spending, enhanced desirability of business and residential addresses and ultimately increased property values.

### **Healthy**

In 1970, 80% of children walk or rode to school. Today only 20% do. (source: ABS via [www.bicyclenetwork.com.au](http://www.bicyclenetwork.com.au)). Context Sensitive Streets provide a safe space for walking and cycling and offer universal access, providing greater independence for children, as well as the elderly and disabled, encouraging more physically active lifestyles. The enhanced social activity and spontaneous encounters can also have positive impacts on mental health, whilst the increased number of street trees improve air quality and lower ambient temperatures. Overall, Context Sensitive Streets enhance the everyday quality of life for residents, workers and visitors by providing safe, comfortable spaces for public activities.

### **Walkable**

To remain competitive and attract people and businesses, a city must be walkable.

Context Sensitive Streets address the 10 elements of walkability as outlined in Jeff Speck's Walkable City (2012):

- Consider pedestrians first
- Mix land uses
- Get the parking right
- Let transit work
- Protect pedestrians
- Welcome bikes
- Shape public spaces
- Plant trees
- Create active frontages
- Prioritise investments wisely

## **PROVIDING OPPORTUNITIES FOR A MODAL SHIFT**

### **ZERO PARKING**

Rethinking conventional parking controls can be a very effective way to assist with housing affordability and encourage residents and visitors to reassess their mobility choices.

Best practice transit orientated development located within 400 metres of train station typically does not provide any on site parking to reinforce the desirability of public transit. Reduced parking standards are also desirable within 800 metres of a train station.

Rethinking parking standards should be accompanied by a parallel investment in active transit opportunities ensuring that personal mobility is not compromised.

The Context Sensitive Streets strategy prioritises pedestrians, cyclists public transport and then motorists to create an environment that is conducive to active transit.

# DESIGN APPROACH

## CREATING A FINE GRAIN PEDESTRIAN FRIENDLY ENVIRONMENT

### HUMAN SCALE PLACES

The world's most loved and successful urban places consist of a broad range of lots, blocks and buildings assembled to create liveable, mixed use walkable communities.

In more recent times, this diversity has unfortunately been replaced with a more homogeneous approach that has resulted in places that are not human scaled and, as a consequence, are less walkable and have a lower quality public domain.

Whilst Rhodes West is acknowledged as a successful and high quality development, the Rhodes East consultation process has consistently affirmed a desire for the renewal of Rhodes East to differentiate itself through a fine grain, human scale high density approach to built form.

Recent experience suggests that relying on architectural and DCP controls does not deliver the authentic fine grain, organic character that will create a genuine point of difference with Rhodes West. The most effective way to achieve this outcome is to create streetscapes with multiple developments of different scales through introducing a range of frontages, styles and form. Diversity in development and form will be the key driver in realising a point of difference at Rhodes East.

By establishing a maximum lot frontage and lot size for each Character Area, a fine grain, activated and visually interesting built form and streetscape outcome can be delivered. Diversity in lot size will also attract a broader range of potential developers, some of whom could not afford the land costs associated with larger super lots.

Traditional city-building was incremental and delivered a diversity of lot sizes and building types, ranging from the very small to the very large, and also a strong public realm. This approach is evident in Sydney's inner city neighbourhoods that are widely recognised for their walkability, sustainability and liveability attributes.

However, more recently, as seen at Rhodes West, development has typically involved super lot developments that can deliver large floor plate buildings, accommodate modern parking requirements and maximise financial return.

At Rhodes East we have an opportunity to use a tailored planning system to deliver a broad range of lot sizes and building types that will lead to neighbourhoods that are walkable and liveable.



Maximum frontage length controls promote an authentic fine grain and architectural, experiential variety.



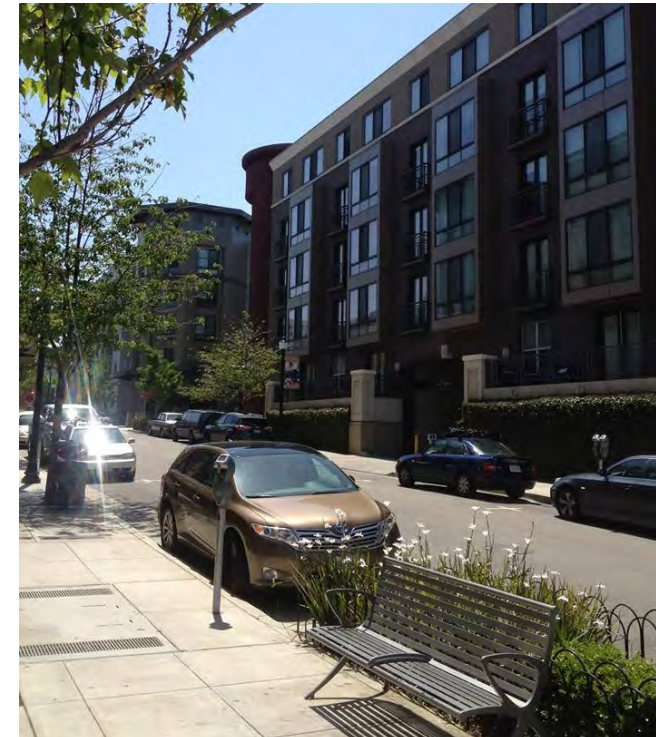
Ground floor residential should activate the street through mechanisms such as, buildings set close to the street, elevated ground floors balancing privacy and surveillance, street address and informal gathering opportunities such as front 'stoops.'



**TRADITIONAL CITY-BUILDING WAS  
INCREMENTAL AND DELIVERED  
A DIVERSITY OF LOT SIZES AND  
BUILDING TYPES, RANGING FROM THE  
VERY SMALL TO THE VERY LARGE.**



Residential streets can have active/ friendly façade through attention to address.



Connectivity and the streetscape experience will be critical within new development areas.



Corner activation along key desire lines.

# DESIGN APPROACH

## CREATING A FINE GRAIN PEDESTRIAN FRIENDLY ENVIRONMENT

### THE HIGH - LOW MODEL

Whilst the idea of increasing densities within neighbourhoods is not new, its success in terms of its ability to create quality urban environments has varied. The concept of a high-low density model seeks to achieve both a high quality public realm and efficient housing solutions that blends pre war and current development models.

Delivering quality density is primarily related to the ability of taller buildings to create an engaging and active pedestrian experience. This can be achieved through a high – low density model, where height is distributed in a manner that allows for good solar access, orientation and view corridors in addition to active facades and lively ground floor controls.

Under this model, desired densities can be achieved without overshadowing community open space, parks or other buildings by

strategically locating the tallest elements on the south west of blocks with the balance of development being low to mid rise.

Fine grain buildings and the high-low model can be achieved and controlled through two mechanisms:

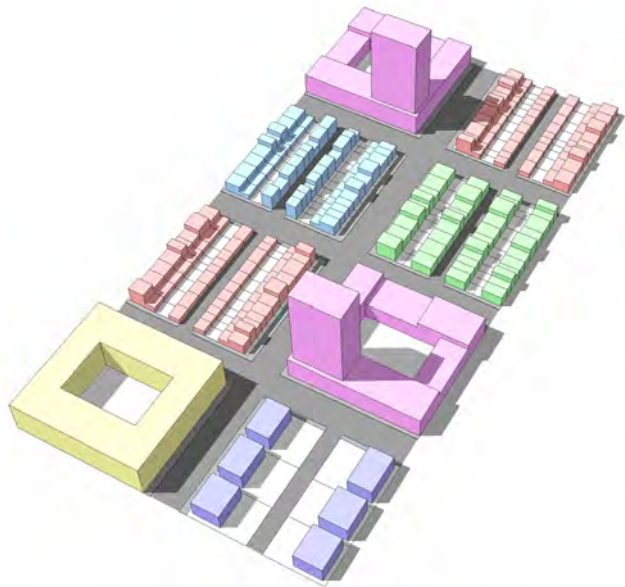
- Fine grain Heights Map within the LEP and/ or
- An intentional combination of FSR and Height controls within the LEP

Typically, FSR and height controls achieve a relatively consistent built form outcome when applied either independently or together. This leaves amenity to be controlled by the Apartment Design Guide and/or a DCP where applicable.

A high low outcome is achieved when the height limit can only be fully realised on part of the site in order to comply with the maximum FSR constraints.

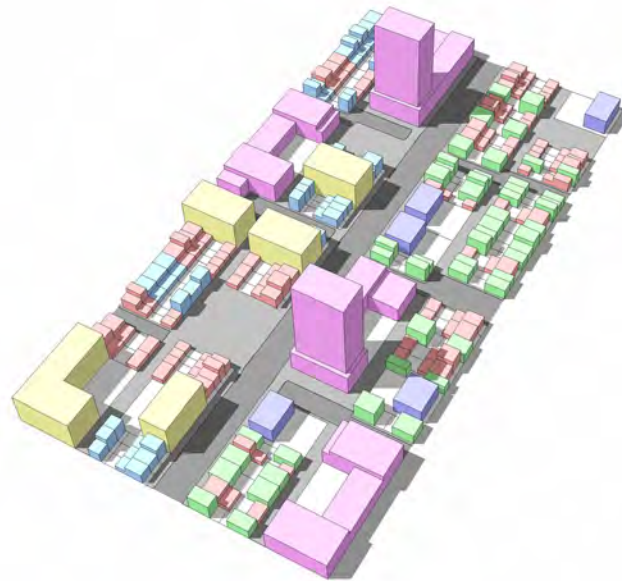
Whilst a developer could choose to maximise the FSR with none of the buildings reaching the maximum height, typically a developer will choose to construct a single taller element to optimise views and the high values associated with upper level apartments. The balance of the available floor space is sufficient to deliver low to mid rise development such as walk-up or terrace apartments as part of integrated development. The developer benefits from a height limit that allows a strategically located taller element, whilst the public domain is protected from the effects of a more consistent bulk and mass. Where these controls are further supplemented by frontage type controls an active and human scale streetscape and pedestrian experience is created.





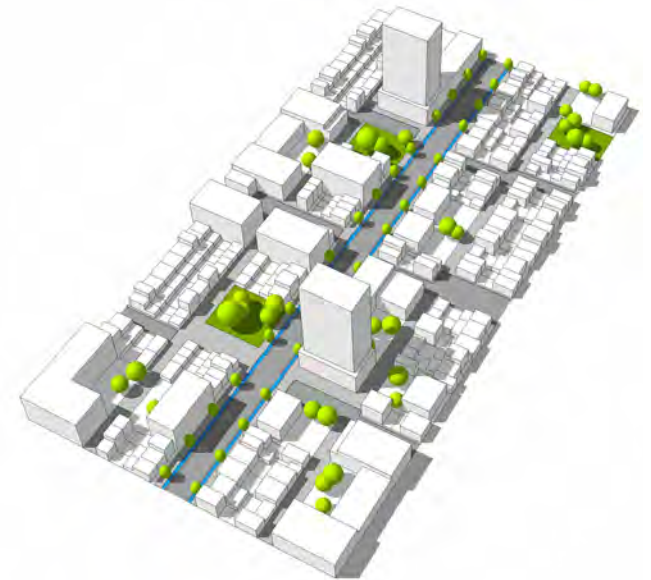
## CONVENTIONAL PLANNING

Conventional planning and developers typically maximise the density of different uses by building large, monotonous blocks.



## MIXTURE OF DWELLING TYPES

The above demonstrates that the same density can be achieved with a mixture of dwelling types and land uses within each block. This achieves greater diversity and vibrancy and human scale development in priority pedestrian areas.



## MIXED USE STREETSCAPE

The fine grain, vibrant mixed use streetscape creates an active and attractive pedestrian environment that encourages walking and cycling.

# DESIGN APPROACH

## CREATING A FINE GRAIN PEDESTRIAN FRIENDLY ENVIRONMENT

### BASE BUILDING

At an average walking speed of 80 seconds per 100 metres, 15 - 20 stimulation points of interest are required to entertain a pedestrian and encourage them to walk further. The role of the base building is to create this stimulation in the built form/ public domain interface zone encouraging the desired pedestrian movements.

The base building is typically the first 3 storeys of a development which is generally the height perceived by the pedestrian. A taller form generally sits behind the base building and is set back. The base building provides an appropriate transition to existing lower scale development as higher density redevelopment incrementally occurs. Most importantly, the base building effectively frames the public realm and protects pedestrian amenity.

Facades controls such as 15 - 20 doors per 100 metres, independent at-grade access requirements, varied uses and visual richness in facades should be contained within the DCP.

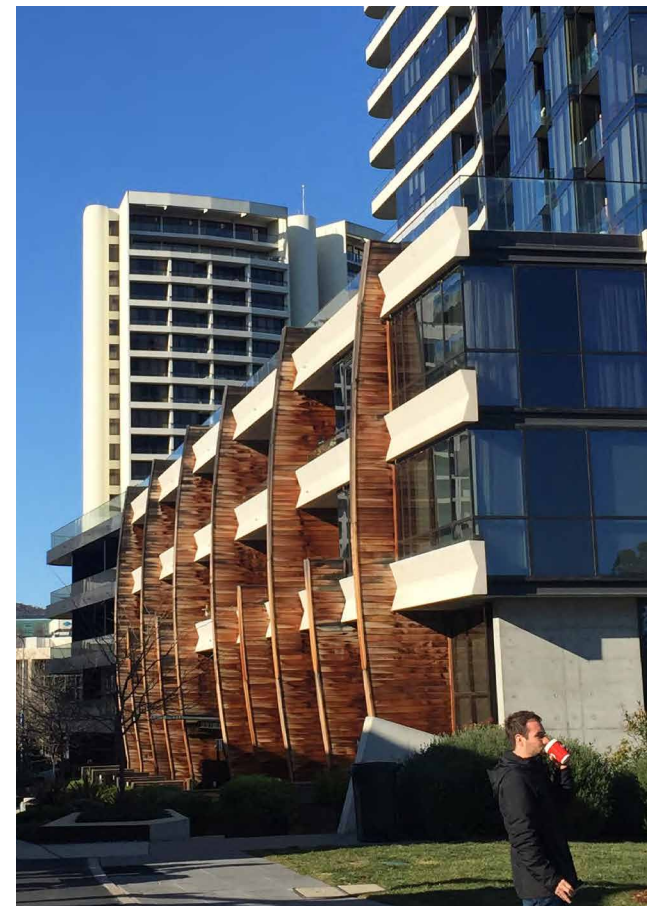
In the absence of further controls, a base building is typically realised as a 3 storey podium of an apartment tower. In order to provide a vibrant, authentic, fine grain base building streetscape façade and frontages controls are required.

### BUILDING TYPOLOGY FRONTAGE CONTROLS

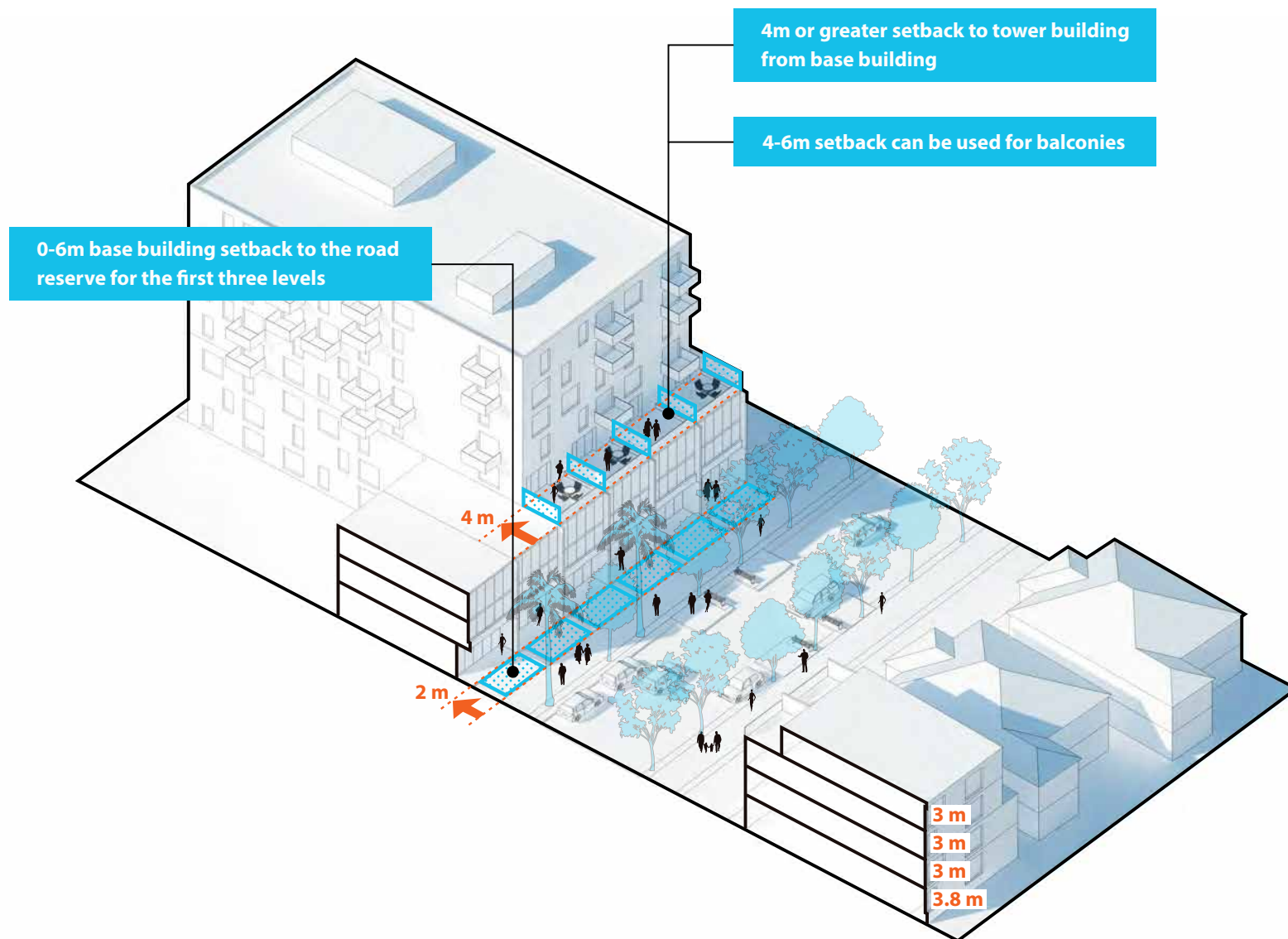
An LEP can control the percentage of a street frontage occupied by a certain building typology. By mandating a significant portion of a primary or priority street to be fronted by terraces and multi-unit terrace apartments a safe and animated streetscape environment will be achieved.

The percentage requirement for these typologies should be less on secondary streets to ensure the opportunity for vehicle access and servicing.

Strata titled terraces will contribute to the 'missing middle' as discussed within the draft Medium Density Guide.







# DESIGN APPROACH

---

## ENSURING A FEASIBLE AND SUSTAINABLE OUTCOME

Balancing an increased population with the constraints of the existing rail and road network has been a key consideration at Rhodes East. The focus has been to generate a human scaled sustainable development outcome, rather than maximising the potential development.

A liveable, walkable and sustainable environment will encourage active transit and reduce reliance on private vehicle trips. This not only reduces local traffic volumes and eases congestion, but provides healthier lifestyles and activates the public realm.

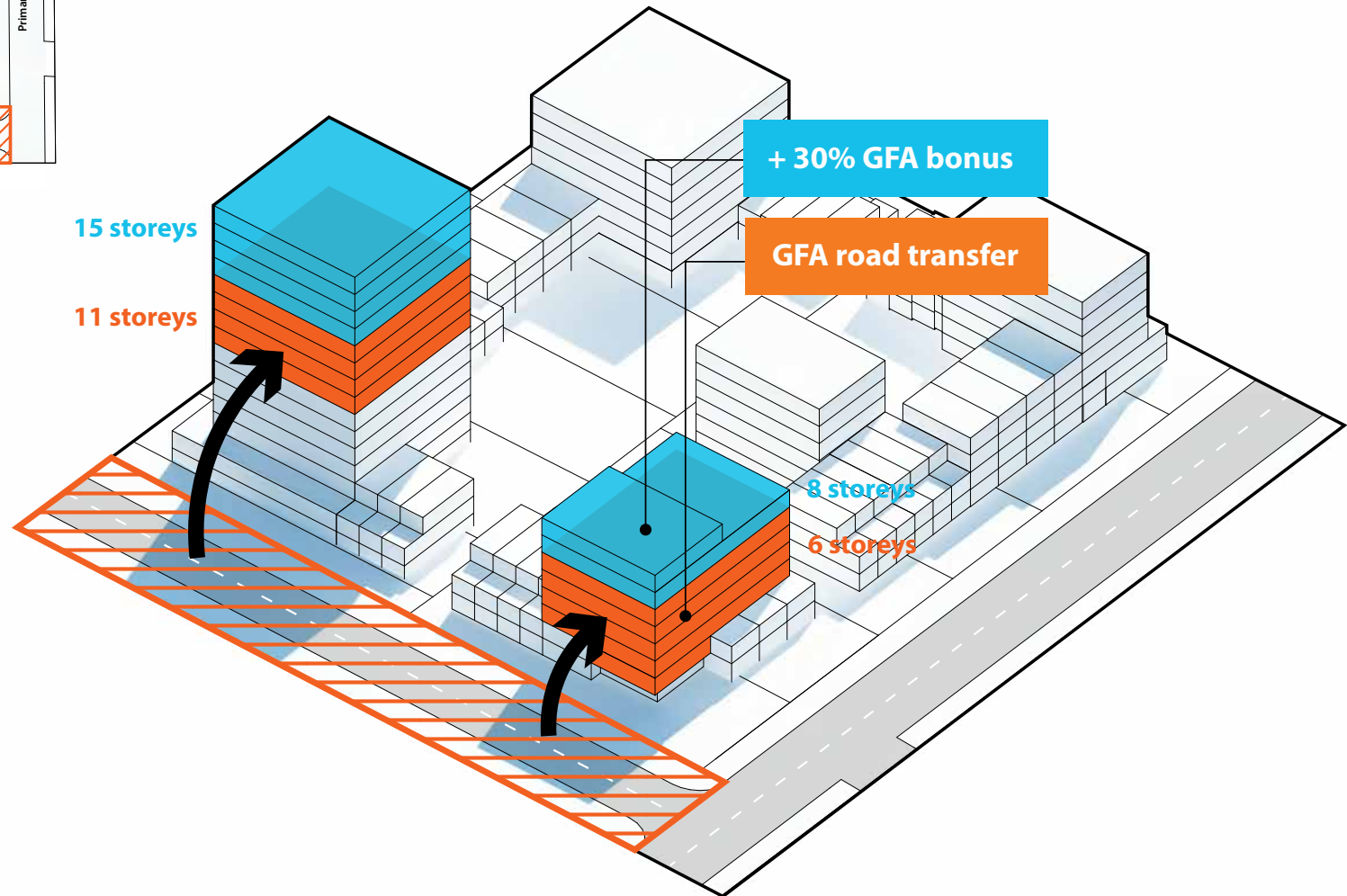
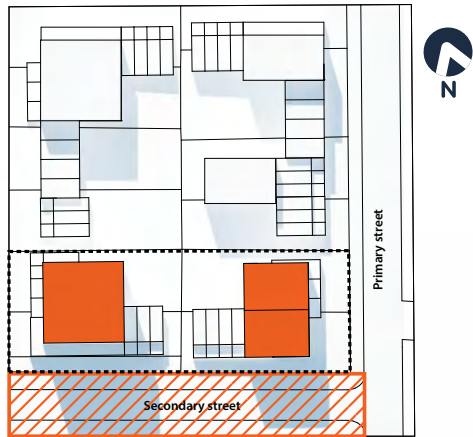
In addition, building typologies have been developed that represent the "base case" development outcome necessary to provide a commercially acceptable financial return whilst contributing to affordable housing and the agreed public benefits. These "base case" building typologies have been used to inform planning controls that will ensure a human scaled high density outcome.

Site specific FSR bonuses will be available to incentivise developers to deliver new infrastructure such as the new streets proposed within the Precinct. This approach lessens the cost to Government, increases the likelihood of infrastructure being delivered more quickly and ensures taller heights are strategically located to minimise the impact on adjoining development.

In addition, DCP controls will clearly demonstrate the link between the delivery of the new roads and FSR bonuses providing the community with certainty as to the potential development outcomes.

Increased BASIX and NABERS targets are proposed for both energy and water elements to ensure built form sustainability.





# THE URBAN DESIGN PLAN

---

The Rhodes East Urban Design Plan reflects and celebrates the unique characteristics of the place whilst creating a framework to evolve and to become a 21st century transit oriented, human scaled waterfront community.

A variety of experience- based destinations will attract residents and visitors whilst a series of more intimate spaces will create opportunities for smaller gatherings and facilitate the organic growth and maturation of Rhodes East over time.

These special places are connected by green streets and paths and supported by a vibrant, fine grain, activated, pedestrian- focused built form environment.

Delivering the Rhodes East Urban Design Plan will be incremental and long term. A focus on the first three storeys experienced by the pedestrian and a maximum lot size will ensure that the progressive redevelopment sensitively responds to the existing character and built form and maintains a village feel.

All of the design strategies incorporated into the Urban Design Plan reinforce Rhodes East as a 'walkable' community.

## FEATURES

- |   |  |    |                                    |
|---|--|----|------------------------------------|
| 1 | Proposed Ferry Wharf                                 | 7  | Community Spine                    |
| 2 | Leeds Street Foreshore Plaza and Promenade           | 8  | Foreshore Access                   |
| 3 | Shared Street Character                              | 9  | New Streets                        |
| 4 | Potential Concord Road Pedestrian Bridge             | 10 | New Pedestrian Links               |
| 5 | Station to McIlwaine Park Land Bridge/ Retail Arcade | 11 | Potential School Location          |
| 6 | River Pool   | 12 | Potential Railway Bridge Locations |





1

2

10

10

7

3

10

10

9

7

10

10

4

10

8

10

9

10

12

9

12

11

5

6



# CREATING THE STRUCTURE PLAN

---

## TRANSPORT CAPACITY MODELLING

During previous consultation sessions, the local community raised reservations with respect to the existing traffic and transport situation in the precinct. The community commented that the road and rail network was currently operating at, or close to, capacity. Subsequent detailed transport analysis confirmed the same.

Any additional vehicular or passenger movements from new development at Rhodes East would therefore need to be carefully modelled and appropriate mitigation measures put in place and improvements proposed to ensure that any additional population can be supported.

Accordingly, various development scenarios were modelled to assess the traffic impacts on the road network but to also provide an indication of potential rail demand. These scenarios ranged from land use options that proposed new development across the entirety of the investigation area, to more modest land use options which indicated development at limited locations within the precinct.

The results of the transport modelling are set out in detail within the Traffic and Transport Assessment and have been prepared in close collaboration with Transport for NSW (TfNSW) and the Roads and Maritime Services (RMS).

In summary:

- Concord Road, a congested arterial road, is a key bus and freight corridor;
- During peak hours, train loads approach capacity at Rhodes Station;
- The local road network is constrained and has a lack of bus priority opportunities;
- Major transport infrastructure act as barriers to east-west movements for walking and cycling;
- Mitigation measures will be required to key intersections on Concord Road to ensure travel times are not significantly altered;
- Additional southbound train services will be required during the morning peak; and
- A change in travel in behaviour is critical for the success of the draft Precinct Plan.

## DEVELOPMENT FEASIBILITY TESTING

Another key investigation involved testing the scale of development required to provide a commercially acceptable return whilst ensuring that agreed broader public benefits could be achieved.

Noting traffic and transport constraints, combined with community and Council's vision of medium rise high density development for Rhodes East, an assessment of the base feasibility i.e. the minimum commercially viable level of development, was undertaken.

This analysis identified a series of building typologies for each 'Character Area' within the precinct and took into consideration the following criteria:

- existing land values;
- units sales and size of comparable developments;
- construction costs;
- council fees and charges; and
- other miscellaneous costs.



## REZONING OF LAND

The results of the detailed transport analysis and feasibility testing have determined that it is not viable to redevelop the whole of the Investigation Area. In response to the results of technical studies and investigations undertaken, the draft Precinct Plan proposes to rezone land between the railway line and Concord Road only. However, it is to be noted that commitments to the delivery of infrastructure are essential to trigger rezoning within the precinct post-exhibition. If Government decides in the future to invest additional substantial transport infrastructure in close proximity to Rhodes, such as Sydney West metro, the Precinct Plan may be subject to re-evaluation for increased density.

Government may also choose to consider a phased approach to the rezoning based on infrastructure availability.



# CREATING THE STRUCTURE PLAN

---

## THE EXISTING URBAN STRUCTURE

Rhodes East comprises the area east of the rail line on the Rhodes Peninsula. It is predominantly a residential area with access to a range of supporting non residential uses located throughout the broader Peninsula. Key services currently not provided include a Primary School and destination and experienced based retail.

The area is serviced by a passenger rail service via Rhodes rail station with Concord Road providing the only road access to the wider area. Both the road and rail networks are congested. Most local trips are car dependent, reflecting the current spatial distribution of land uses, poor connectivity and limited infrastructure to support and encourage walking and cycling.

In addition, although Rhodes East has more than 1.5 kms of water frontage, there are few public connections to the foreshore, resulting in 70% of the foreshore being inaccessible to the public. If Mcllwaine Park is excluded from this calculation, then 90% of the foreshore is currently privatised.





---

## OPEN SPACE AND ECOLOGY

A key project objective is to ensure that:

'Connections to, and along, the waterfront will be reinforced by a well connected open space and linkages system.'

The open space and ecological components of Rhodes East were the key driver for the development of the Structure Plan. The plan opposite, and those over the following pages, are a build-up series demonstrating how the layers of the Urban Design Plan were logically developed as a series of interrelated systems beginning with nature.

The solid base masks the existing fabric to reinforce that the Urban Design Plan has been envisioned as an holistic redevelopment proposal to occur over the long term.

The existing parks, plazas and open space within the Peninsula will not only be retained but enhanced.



# CREATING THE STRUCTURE PLAN

## CONNECTIVITY

Improved connectivity builds on the importance of the open space, ecology and waterfront as a framework to support the future growth and redevelopment of Rhodes East.

A network of new pedestrian links, local streets, and pedestrian land bridges will:

- Optimise the use and public benefit of the open space system,
- Provide visual and physical connectivity to the water, and
- Maximises walking, cycling and public transport patronage critical to achieving the modal shift required to support the new Rhodes East community.

The additional connections increase the frontage and intersection density and create small blocks. Small blocks make a neighbourhood more walkable and, when combined with smaller redevelopment sites, provides the pre conditions to deliver authentic fine grain, human scale development in accordance with the Project Vision.





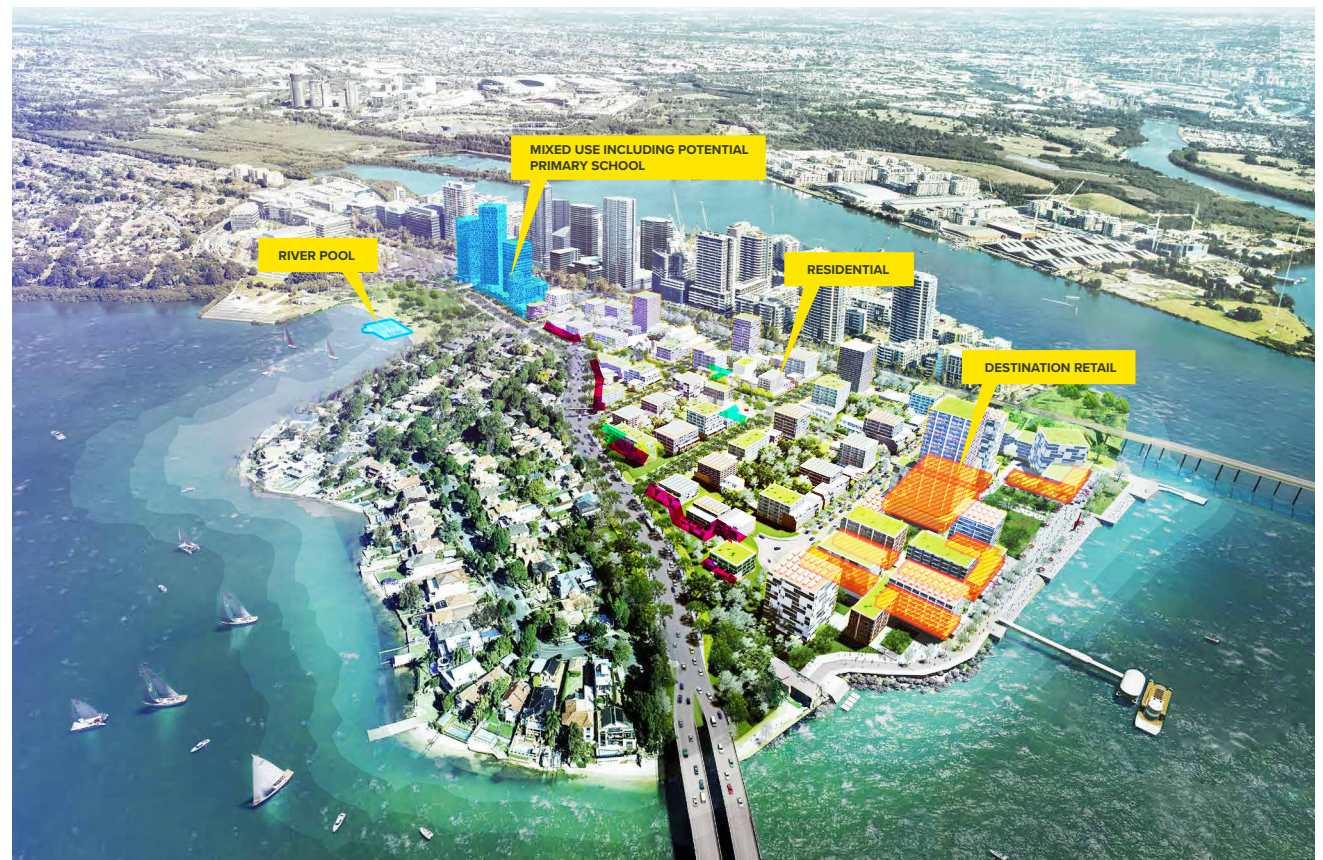
## LAND USE

The expanded residential community will be supported by a range of supporting uses, accessible by walking or cycling through a connected street and open space network.

Convenience retail and potentially a primary school site will be located near the Station. A proposed land bridge over Concord Road will provide safe active transit to these key destinations reducing reliance on private vehicle trips.

The following activation mechanisms will encourage walking, cycling and ferry use to relieve pressure from the road and rail networks, promoting healthy active lifestyles and provide the physical framework to enable Rhodes East to evolve and mature:

- Leeds Street Foreshore destination and experiential retail and associated leisure activities leveraging off the now publicly accessible foreshore
- Mixed use corners along key pedestrian desire lines, created through improved connections, promoting fine grain organic activation, and
- Adaptive ground floors along Concord Road ensure that employment opportunities are not limited in future redevelopment.





# CREATING THE STRUCTURE PLAN

## PUBLIC DOMAIN

The landscape of the existing open space system will be enhanced celebrating the site's natural ecology and proximity to the Parramatta River.

The streets will be transformed into linear parks through a series of landscape and public domain treatments creating a safe and attractive pedestrian environment encouraging people to choose to walk or cycle for recreation and daily needs.

The configuration and public domain treatment of each street reflects the street type and the Character Area through which it moves. Streets categorised as 'shared' balance an intended public domain character with the ability to accommodate traffic functions and volumes as required.





---

## HEIGHT RESPONSE

The maximum heights and densities at Rhodes East balance:

- the co-location of density with amenity, and
- view sharing particularly for pedestrians

Higher densities are located adjacent to the two key destinations, the Station and Leeds Street Foreshore Plaza.

Strategically located pedestrian paths and building envelopes will ensure breaks in the building mass safeguarding existing views and introducing additional views providing legibility and value in depth.

The balance of the development tiers down from the railway line towards the eastern waterfront maximising views across the broader area and ensuring new development does not compromise the amenity of existing lower density development. Further opportunities to provide views are created by the high-low approach to development controls that will ensure upper level views are achieved.





# CREATING THE STRUCTURE PLAN

## HERITAGE RESPONSE

The listed heritage items at Rhodes East are retained, respected and valued as an integrated component of the Master Plan.

In all cases, appropriate built form transitions between heritage items and new development have been considered.

Where possible and logical, pedestrian paths, parks and mixed use corners are collocated with heritage houses to promote adaptive reuse and activation along key desire lines.









# CREATING THE STRUCTURE PLAN

## LAND USE DEVELOPMENT SUMMARY

Land uses have been allocated across the Structure Plan to reflect technical advice provided by the Project Team and community views as documented in the Community Workshop Outcomes Report.

A key principle is to encourage multi-purpose trips through the location and combination of land uses.

The following land uses, yields and population reflect the ultimate development scenario subject to the realisation of transport improvements and interventions.

The staging for this project is discussed in the final section of this report and reflects the development capacity that can be achieved with specific local interventions.

	Approximate Area (SQM)
<b>GATEWAY/STATION - BASED CONVENIENCE RETAIL</b>	<b>TOTAL: 6,00- 6,500 SQM</b>
Potential uses may include: Supermarket Speciality Food Grocers/Liquor Restaurants and Fast Food Speciality and Personal Services Non-retail services	1,500 – 2,000m <sup>2</sup> 600m <sup>2</sup> 1,000 – 1,500m <sup>2</sup> 1,500m <sup>2</sup> 500 – 1,000m <sup>2</sup>
<b>LEEDS STREET FORESHORE DESTINATION RETAIL</b>	<b>7,000 SQM (TBC)</b>
Potential uses may include: Micro-Brewery Wine, cheese, olives Wine Bars, cafés Small gourmet supermarket such as a Thomas Dux	*See Note
<b>Vertical Urban Primary School</b> Potential for it to be delivered as part of a developer funded integrated mixed use development and collocated with multi-purpose community space. The building would need a 2,000 square metre floor plate and would have to have one floor internal play as well as roof top play. It would need to be 4 storeys in height to accommodate the free play and GFA required. The school would also need access to the existing public open space to meet the free play space metric.	School: 5,700 gross SQM/0.57ha/26 classrooms Integrated Community Space (part of the mixed use corner): 3 – 4,000 sqm
<b>Concord Road Ground Floor:</b> Mandatory Adaptive Ground Floor  Provision of small to medium office space of 50 – 250m <sup>2</sup> located along Concord Road adjoining the Station or the Leeds Street Precinct	380 lineal metres of Concord Road frontage Total: 2,900m <sup>2</sup>
<b>Mixed Use Corners x 3</b> These provide community, cultural and/ or retail spaces collocated with intimate open spaces.	Open Space: 100 sqm x 3= 300m <sup>2</sup> Mixed Use Floorspace: 25 sqm x 3= 75m <sup>2</sup>