

### VEHICULAR ACCESS

Ivanhoe is bound by major arterial roads: Herring Road towards the west and Epping Road towards the south. These highly trafficked roads limit pedestrian and vehicular access into the site as well as generating noise pollution.

Currently the only vehicular access into the site is located on Herring Road via Ivanhoe Place.

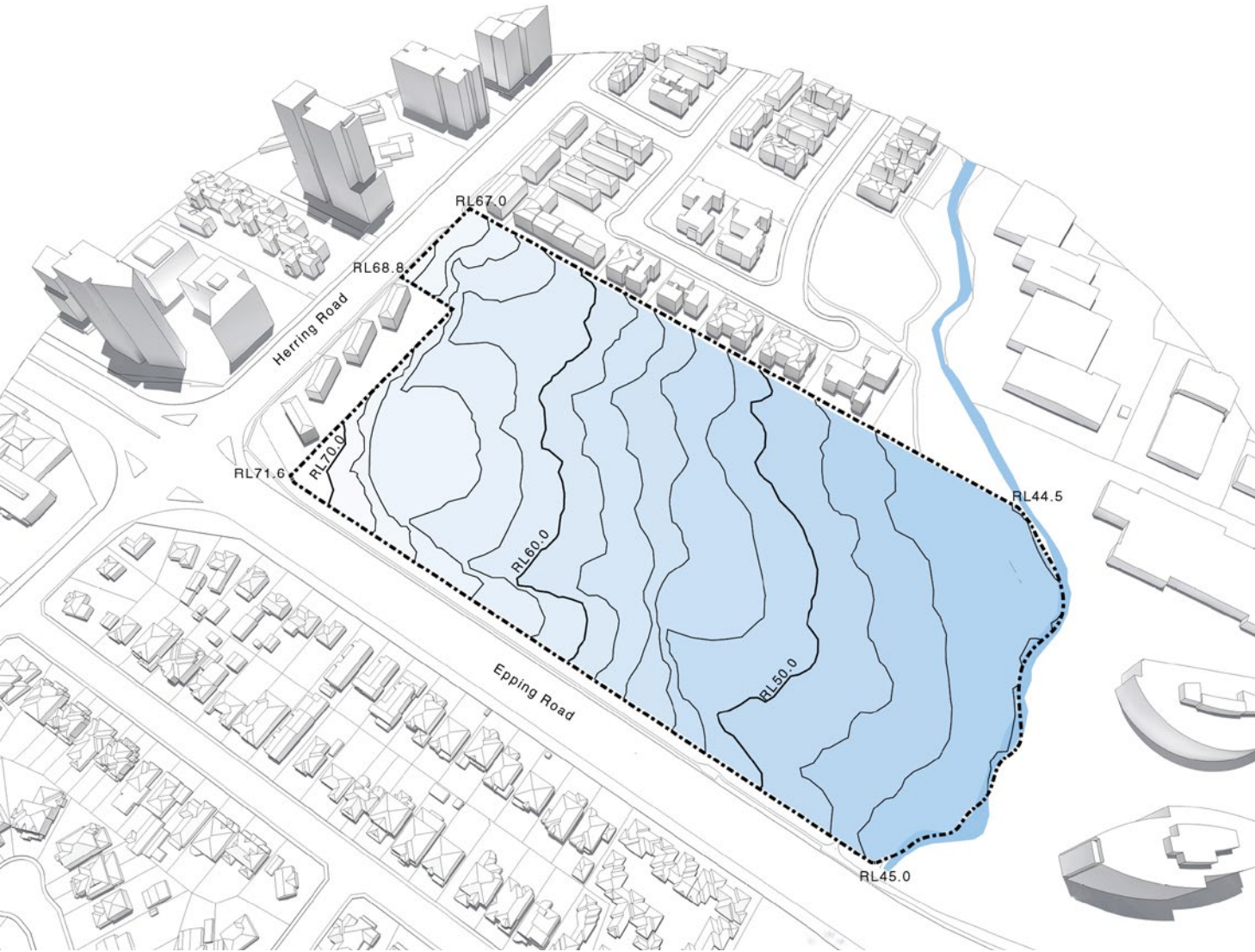


### PEDESTRIAN AND CYCLE ACCESS

In addition to the vehicle access from Ivanhoe Place, there is an alternative pedestrian access via the Shrimpton's Creek shared path on the eastern site boundary.

The shared path presents a great opportunity for cycle and pedestrian links through the corridor to Macquarie Shopping Centre to the north, and the Ryde Community Sports Centre in ELS Hall Park to the south.

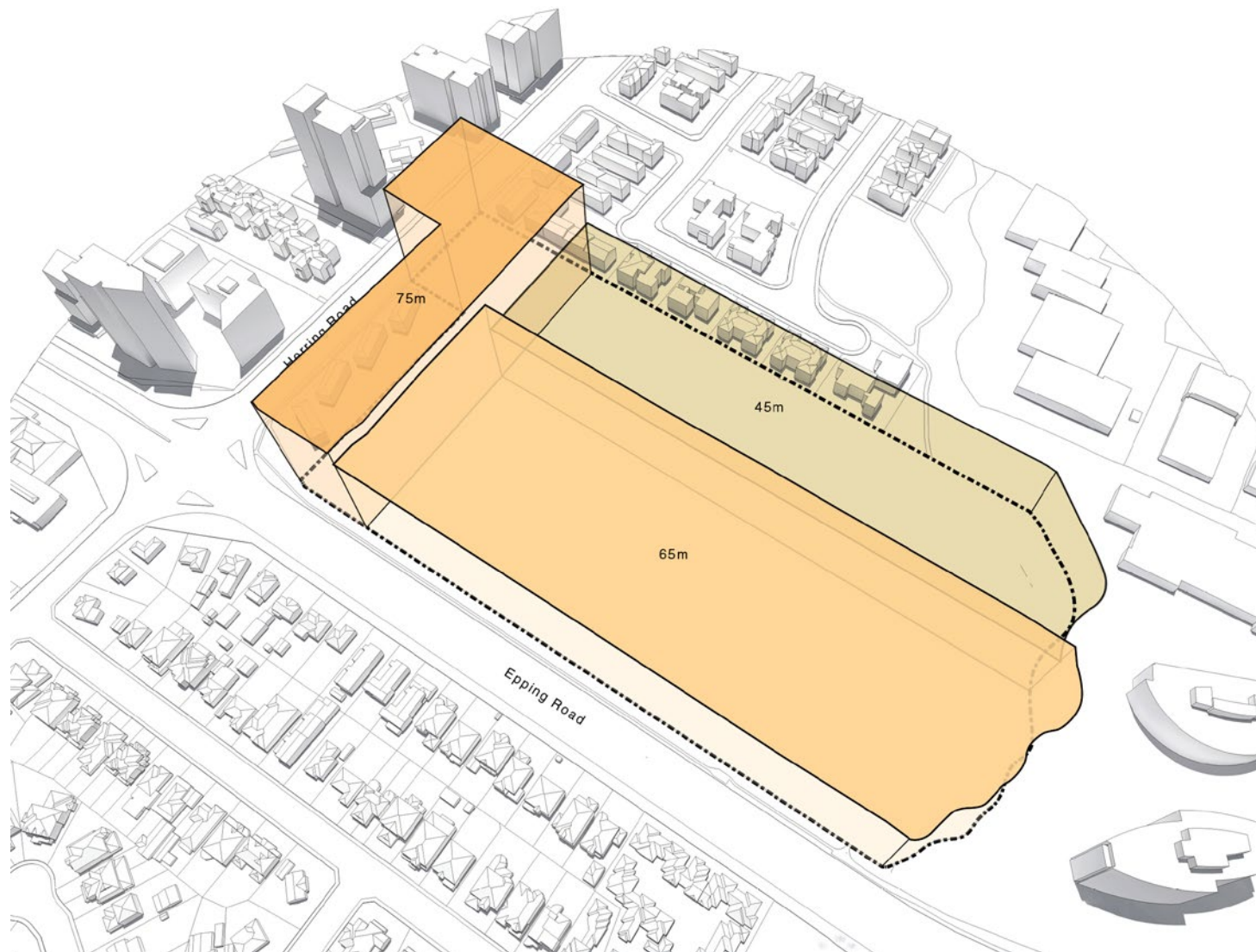




**LEVELS**  
The site falls nearly 30m from west to east, presenting a challenge for accessibility across the site.  
Due to the site's location adjacent to Shrimptons Creek, much of the low-lying land is prone to flooding which will affect ground floor levels and access points to the eastern buildings.



**SOLAR ACCESS**  
The site is roughly rectangular in shape, with the long sides oriented approximately northwest/southeast. Buildings aligned with this orientation will receive two hours winter sunlight to their northwest and northeast facing facades.



#### LEP HEIGHT PLANES

Ryde LEP 2014 sets out the maximum building heights applicable to the site. On the northwestern edge of the site closest to Herring Road, buildings heights of up to 75m (24 storeys) are permitted. Alongside Epping road, buildings heights of up to 65m (20 storeys) are permitted. Along the northeast boundary of the site, buildings of up to 45m (14 storeys) are permitted.





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# 3.0 MASTERPLAN FRAMEWORK

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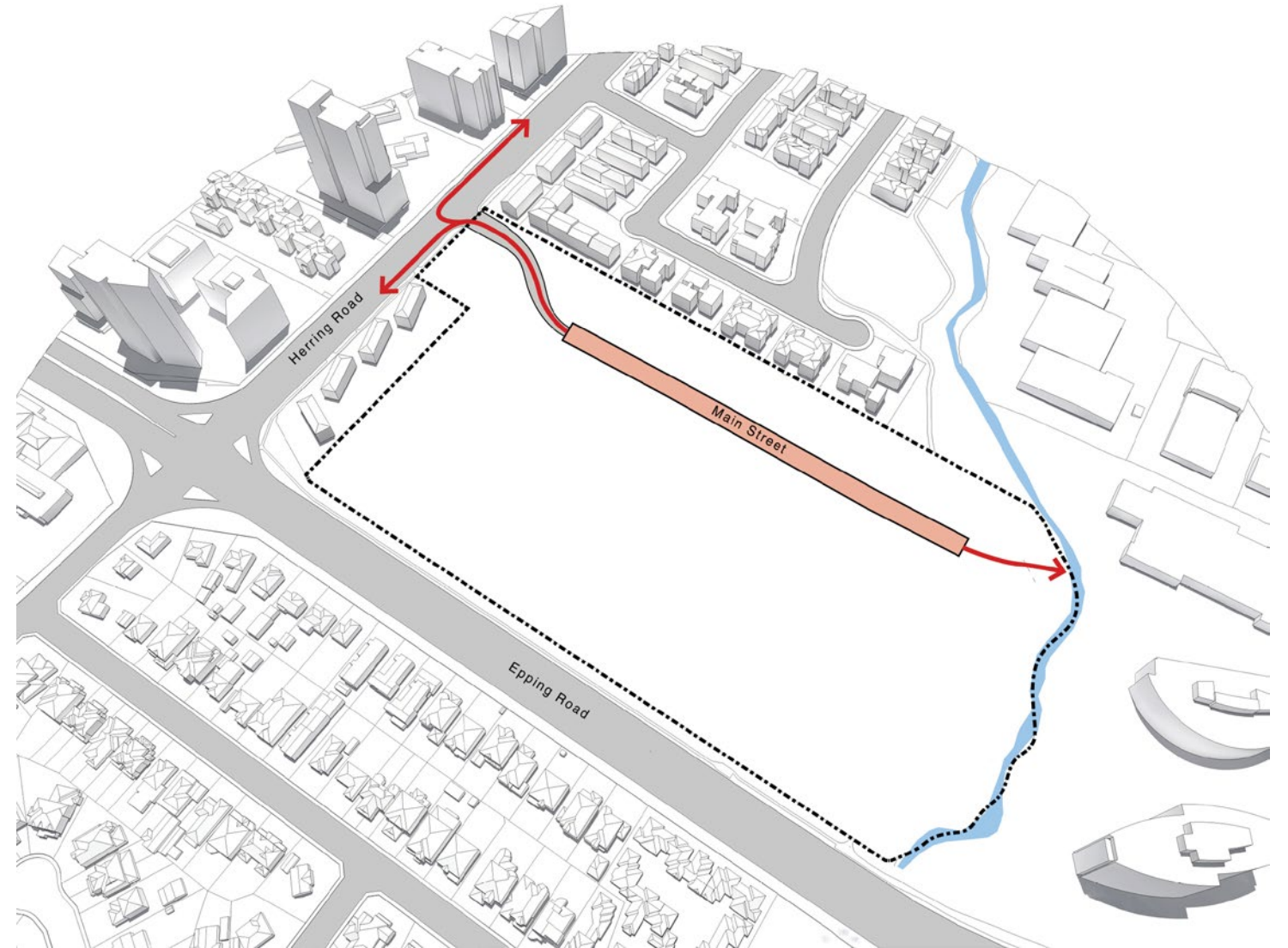
*Our vision is for a vibrant  
high-density mixed-use  
neighbourhood with buildings  
arranged to maximise residential  
amenity outcomes and a diverse open  
space network creating an inclusive  
community oriented public domain.*

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# 3.1 PUBLIC DOMAIN FRAMEWORK

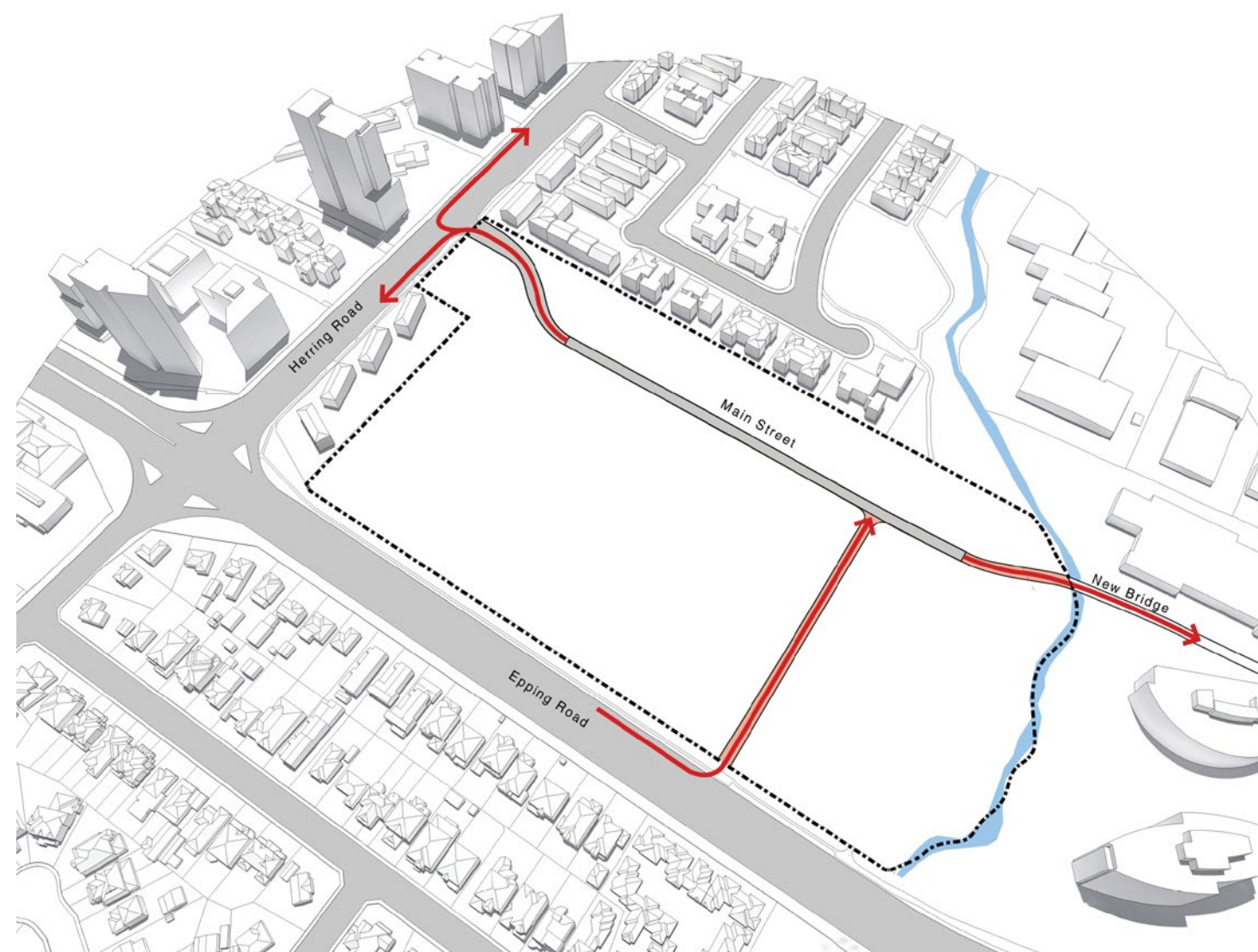
*We propose an urban design framework which enhances the existing character of the site, linking the established bushland corridor with a series of high quality public open spaces. A new main street is activated by community and retail uses, alongside a hard-landscaped town square and a soft-landscaped village green.*



## MAIN STREET

A new main street defines the primary circulation route from Herring Road to Shrimptons Creek.

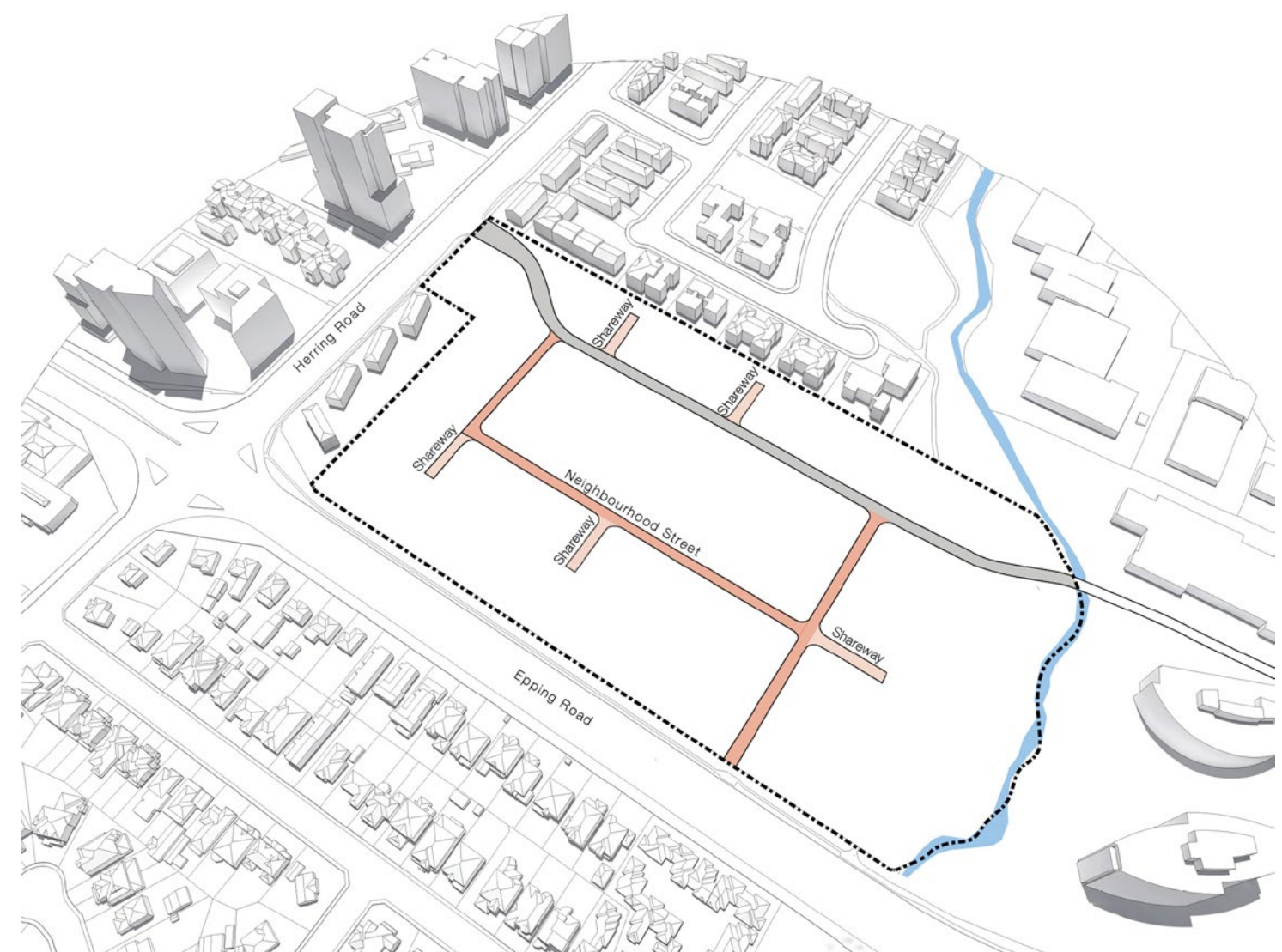




### EXTERNAL CONNECTIONS

A new bridge over Shrimptons Creek will provide vehicular and pedestrian connection to Lyonpark Road and the Employment Precinct to the east.

A new road connection to Epping Road further links Ivanhoe to the broader street network.



### NEIGHBOURHOOD STREETS

A regular grid of neighbourhood streets provides a clear network of circulation routes and access points.





**GREEN LINK**  
A diagonal link that connects the existing Turpentine Iron Bark forest to Shrimptons Creek connects the principle open spaces throughout the site, including the Village Green, Forest Play area, School Garden and Playgrounds.



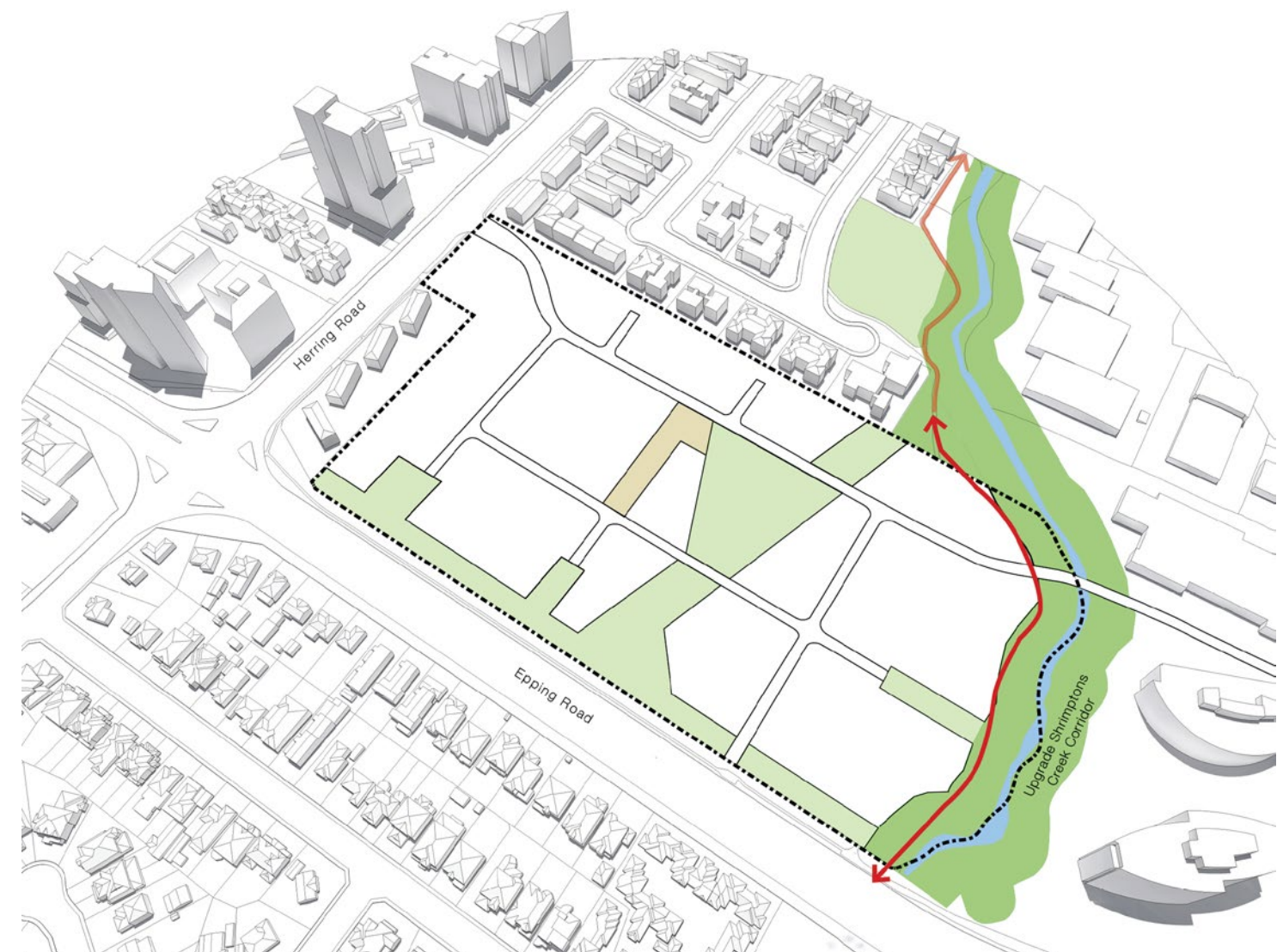
**URBAN HEART**  
Alongside the Village Green, the Town Square and main street act as the urban heart of the masterplan, combining a mix of uses with active programming and place making.





### FOREST THRESHOLDS

Where the shared local streets meet the perimeter bushland, forested urban gardens will formalise these transitions.



### RIPARIAN CORRIDOR

A riparian protection zone along Shrimptons Creek accommodates a shared path in a bushland setting. The masterplan proposes to regenerate the corridor and add passive recreational uses.



## 3.2 BUILT FORM FRAMEWORK

*The residential buildings will create a benchmark for mixed-tenure development with high quality architecture to be delivered by award-winning architects. Apartment buildings propose built in features to support ageing in place and sustainability initiatives that focus on efficient use of energy and water to reduce ongoing costs. Tenures are evenly distributed within a simple staging framework ensuring a development which is truly tenure blind.*



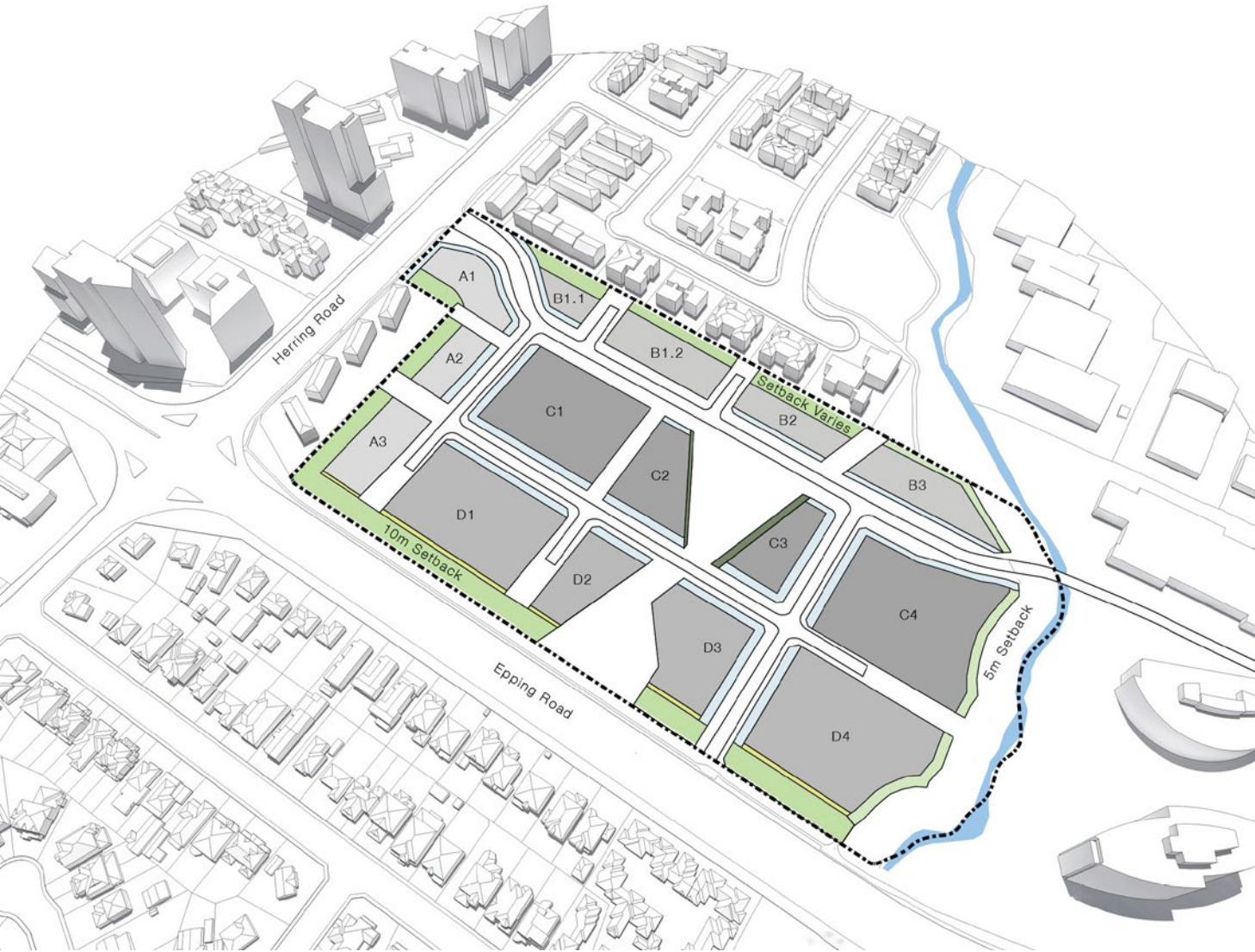
### DEFINED DEVELOPMENT LOTS

The public domain approach sets up a framework or development lots in four precincts. Precinct A accommodates three building lots on the northwest edge of the site. Precinct B accommodates four building lots along the northeast edge of the site. Precincts C and D accommodate four building lots each, with two 'superlots' within each group. Precinct C runs through the centre of the site, while precinct D fronts Epping Road.

### LEGEND

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<span style="display: inline-block; width: 15px; height: 15px; background-color: #e0e0e0; border: 1px solid #ccc;"></span>	Precinct B
<span style="display: inline-block; width: 15px; height: 15px; background-color: #d0d0d0; border: 1px solid #ccc;"></span>	Precinct C
<span style="display: inline-block; width: 15px; height: 15px; background-color: #c0c0c0; border: 1px solid #ccc;"></span>	Precinct D



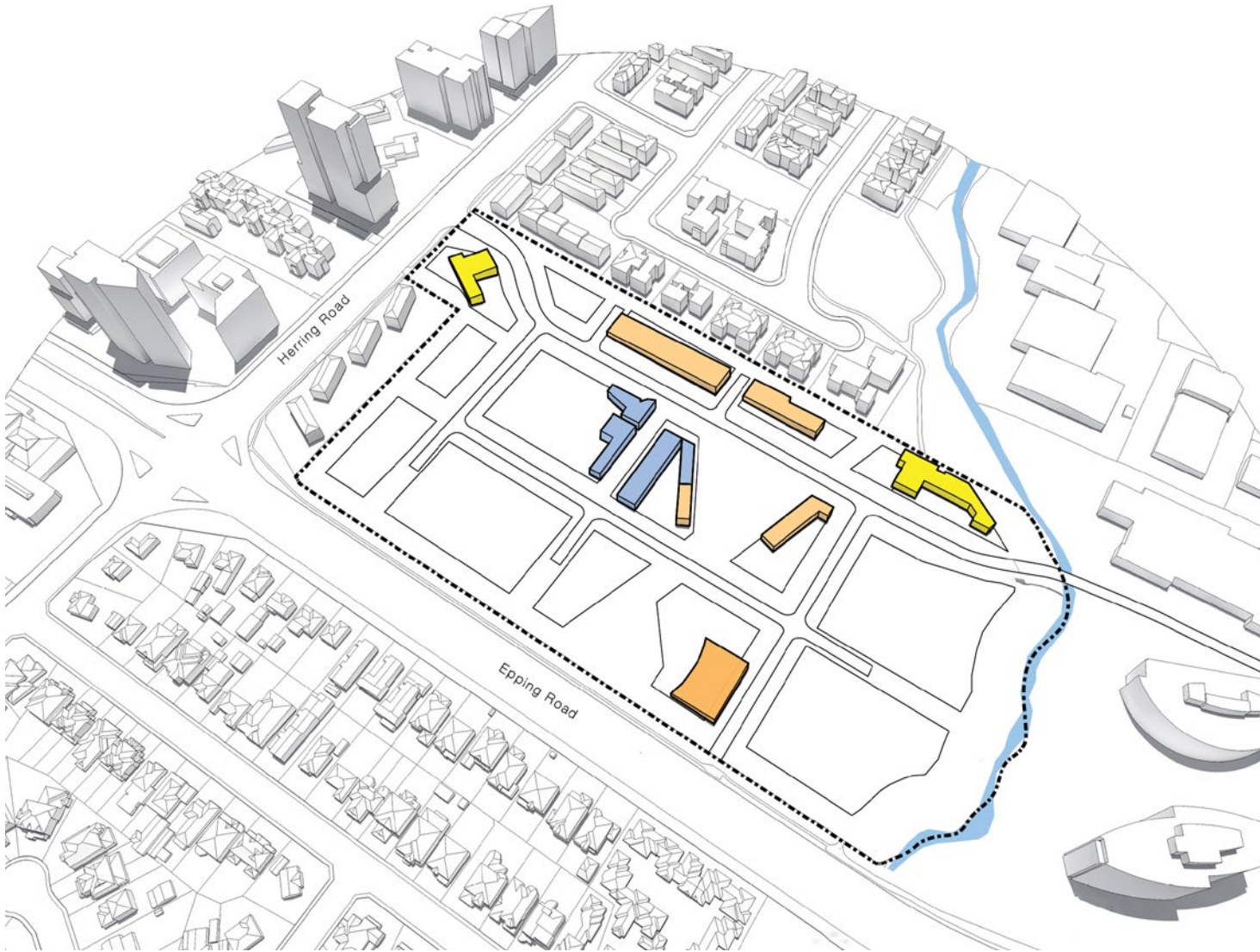


**PERIMETER SETBACKS**

Buildings are generally proposed to be a minimum of 10m from site boundaries in accordance with the DCP. In some cases, lower levels (up to four storeys) extend to 6m from the side boundary. Residential building also set back on upper levels to comply with ADG requirements.

Along Epping Road, buildings are set back 12m - an additional 2m on the minimum 10m in accordance with the DCP and Envelope Control Plan.

- Boundary Setback
- DCP Street Setback
- Park Setback
- 2m additional green setback

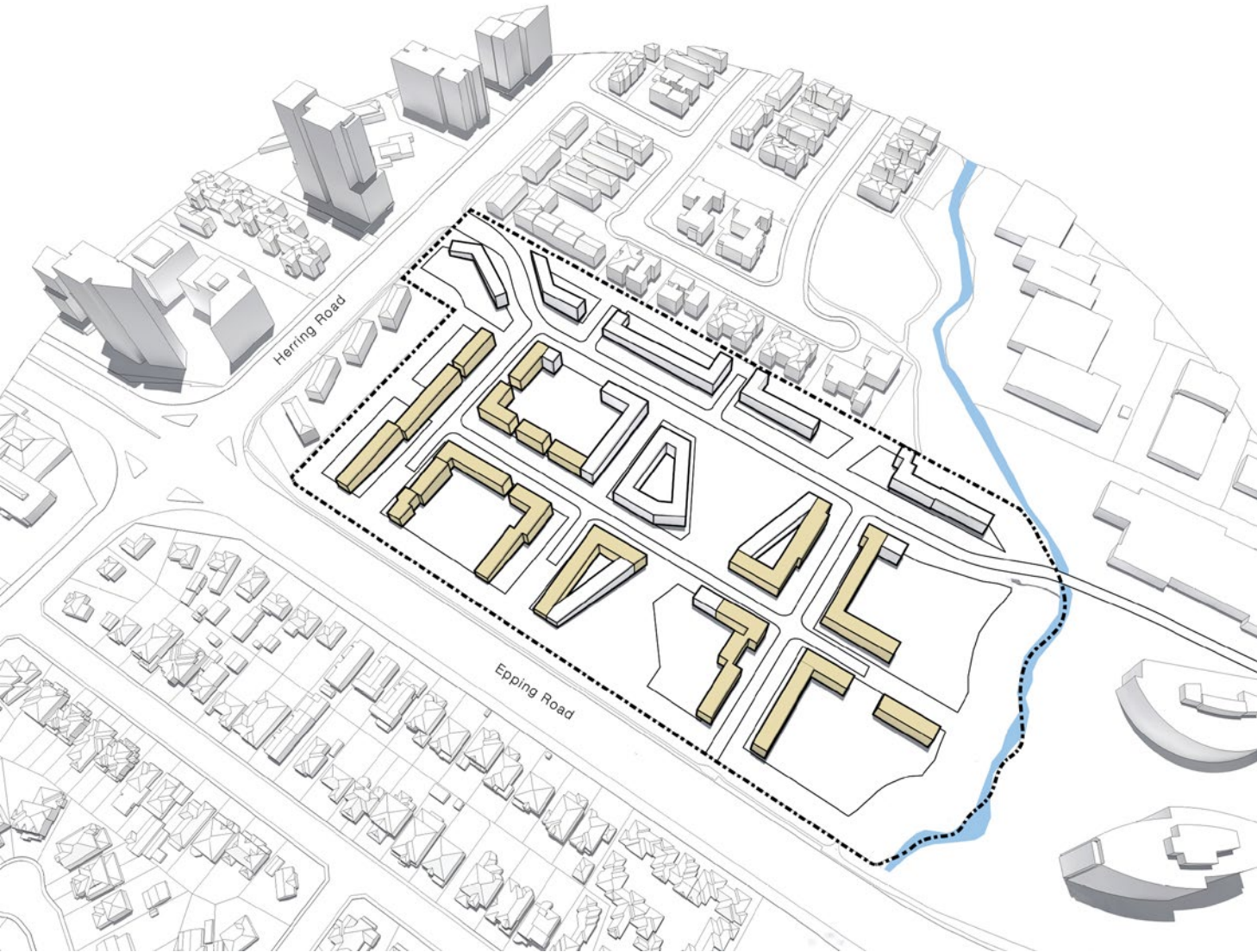


**PUBLIC AND COMMUNITY USES ALONG MAIN STREET**

Buildings along the central portion of Main Street propose a range of public uses including: retail, school, residential aged care facility, multi-purpose hall, swimming pool and childcare facilities.

- Childcare
- Community
- Mission Australia
- Retail





**HUMAN SCALE TO NEIGHBOURHOOD STREETS**

On residential streets, buildings propose a 2-3 storey scale using townhouse typologies to provide an active streetscape which responds to the scale of the pedestrian.



**ORIENT APARTMENT BUILDINGS FOR SOLAR ACCESS**

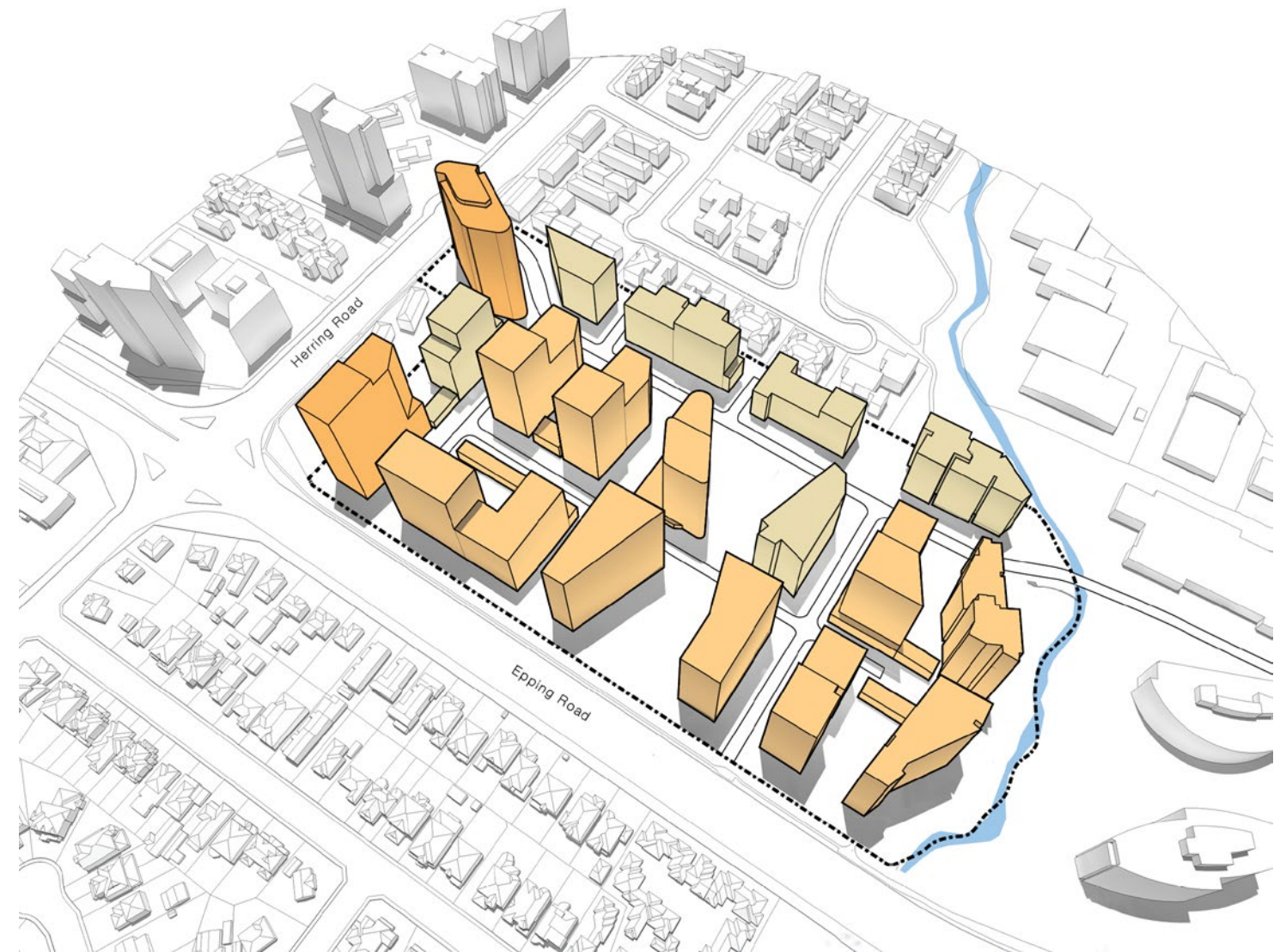
Above the ground plan, apartment buildings are oriented to maximise solar access to building facades and open space





#### FRAGMENT FORM ALONG SHRIMPTONS CREEK

Along the edge of Shrimptons Creek, building forms are broken down to provide a sense of smaller floorplates with a less formal arrangement than the urban grid, responding to the alignment of the riparian corridor.



#### BUILDING HEIGHTS CONSISTENT WITH HEIGHT PLANE

Building heights step in accordance with the LEP height plane, generally increasing in height towards the intersection of Epping and Herring Roads.



# 3.3 ILLUSTRATIVE MASTERPLAN

*The illustrative masterplan proposes a vibrant mixed-use neighbourhood featuring a diverse open space network, and an unprecedented range of places and programs, creating an inclusive, community oriented public domain. It enhances the existing character of the site, linking the established bushland corridor with a series of high quality public open spaces.*

**ANNOTATED PLAN**

- A. Main Street fronted by a mix of active retail and community uses, the Town Square, and the Village Green, with shared paths providing safe and equitable pedestrian and cycle access

B. Town Square - a programmable space including markets, outdoor dining and youth activities. Activated by a mix of fine-grain and larger tenancy retail and dining units.

C. New retail centre at ground level - plazas, supermarket, shops, cafes and community uses to ensure an active, safe and convenient Town Square

D. Village Green - a healthy, communal and playful neighbourhood environment that is the focus for casual gatherings with a large open lawn for informal sports, and fronted by active retail and community uses

E. The Green Link - an active pedestrian and cycle link connecting a mix of multi-functional public areas of open space, playgrounds and other recreational uses from Epping Road, through Village Green to Wilga Reserve

F. Potential pedestrian, cycle and vehicular connection to Peach Tree Road

G. Mix of residential tenure from market through to social and affordable

H. Vertical high school located at core of community uses opposite Village Green

I. Multi-use sport court including foursquare, half netball / basketball, cricket, badminton and small running track. Ideally positioned adjacent to the multi-purpose hall of the future vertical high school
- J. Regeneration and upgrade of the Shrimptons Creek Reserve into a place to get in-touch with nature, for passive recreation and quiet reflection. It runs along the existing riparian corridor and is connected to nearby sports ovals via a shared path.

K. Existing stand of Sydney Turpentine Ironbark Forest retained and celebrate where possible, with new species being complementary to the character of the place

L. New shared path connects to the planned City of Ryde shared path network

M. Community Housing Provider Office located close to key recreational and community amenities. The Community Hub will facilitate regular meetings of community and social groups, who may also utilise the playground to build connections and social inclusion.

N. Aged care facility located along Main Street in close proximity to (and along an accessible path of travel) the central community and retail services

O. New vehicular and pedestrian bridge linking to Lyonpark Road and neighbouring communities

P. Signalisation of the Herring Road and Ivanhoe Place intersection

Q. New vehicle and pedestrian connection to Epping Road (left-in only)

R. Permeable and porous ground surfaces with direct pedestrian connections to existing and potential future surroundings

S. Swimming Pool: location may change subject to design development









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# 4.0 PUBLIC DOMAIN

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*Our vision for Ivanhoe is to create a place of inclusion and opportunity. It will be open, integrated and diverse.*

*Ivanhoe will be a place to make friends, to live in close proximity to employment, to walk your kids to school, to connect with nature or to create a life-long connection with place.*

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# 4.1 DESIGN APPROACH

## 4.1.1 LANDSCAPE CONTEXT - HISTORICAL ACCOUNTS

*“The land is undulating, with rich and deep subsoil; and from all parts of the property the most magnificent views of diversified scenery are to be seen. Standing on a slight knoll and looking north, Red Hill comes into ken, with its sloping uplands laid out in fruit and crops. The sun, pouring his fervid rays with fleecy clouds of steel and gray, now and again casts into shadows and lights acres upon acres of cultivated and bush land, which forms a picture which may be equalled but not surpassed”*

**JULIE DAWSON  
1902, NORTH RYDE FARM  
THE NORTH RYDE RECORDER**



**SYDNEY TURPENTINE-IRONBARK FOREST**

The North Ryde region of Sydney pre 1788 was a forested environment with the vegetation thought to have been largely composed of the Sydney Turpentine–Ironbark Forest. This vegetation community was generally found in medium rainfall areas on Wianamatta Shale soils. Sydney Turpentine-Ironbark Forest was probably the most common native bushland type in Ryde before European settlement. The natural distribution of Sydney Turpentine–Ironbark Forest is limited to the Sydney Region, where it naturally occurred on undulating clay soils overlaying Hawkesbury Sandstone on the Hornsby Plateau and in Sydney’s inner-west where rainfall is between 900 and 1,000mm. This landscape type is classified as “Glenoirie soil landscape”.

It is a medium height open forest up to approximately 30 metres. The most common trees were Turpentine (*Syncarpia glomulifera*), White Stringybark (*Eucalyptus globoidea*), Red Mahogany (*Eucalyptus resinifera*) and Grey Ironbark (*Eucalyptus paniculata*). The understorey was quite dense except where burnt by the indigenous Australians, a land management and food production task performed on a regular basis. Understorey typically consisted of flowering shrubs and native grasses. Various Acacias, Dodoneas and a range of grasses and herbs are the common understorey species.

As these soils where the Sydney Turpentine–Ironbark Forest occurred were very fertile, the forests were cut down for their timber and to allow agricultural development. Very few remnants of Turpentine–Ironbark Forest remain in the Sydney region. The most substantial remnant in Ryde remains is in Wallumatta Reserve in East Ryde. It is owned and managed by the National Park and Wildlife Service. Smaller and unfortunately more degraded remnants can be found locally in Stewart Park, Macquarie University and Meadowbank Park. The only other significant remnant is the Newington Forest on the Olympic site in Homebush.



**SHALE/SANDSTONE TRANSITION FOREST**

Shale/Sandstone Transition Forest is a native plant community, which occurs in the narrow band where the gently undulating Cumberland Plain meets steep slopes of the Sandstone Country. It often occurs in a linear shape between Turpentine Ironbark Forest and Sandstone Gully Forest and can be found in stands as narrow as 20 meters in width.

This plant community has evolved in the specific conditions characteristic of the transitional areas between the clay soils derived from Wianamatta Shales and the sandy soils and cliffs of the Hawkesbury Sandstone. Its natural distribution is limited to the margins of the Cumberland Plain in the Sydney Region.

The coming together of two distinct landscape types means that the species associated with each of the adjacent ecosystems intermingle to form an individual distinct unit. Characteristics are high diversity and unusual species composition. The structure of the community is forest or woodland with an understorey of shrubs and native grasses and herbs. Typical trees are Grey Gum, White Stringybark, Red Mahogany, Grey Ironbark, Broad-leaved Ironbark, and Narrow-leaved Ironbark.

Small stands of this naturally rare community remain, of which a small number can be found in the northern area of the Ryde LGA along Epping Road and near Macquarie University.

Shale/Sandstone Transition Forest is listed as an endangered ecological community under the Threatened Species Conservation Act 1995. In view of the small size of existing remnants and the threat of further clearing and other threatening processes, the community is likely to become extinct unless threatening activities cease.



**AGRICULTURAL DEVELOPMENT**

Throughout the nineteenth century the area was farmed, largely by orchardists and poultry farmers until at least the 1940s when much of the Macquarie Park area was subdivided for suburban development in the period immediately after the Second World War. The Ivanhoe site on Epping and Herring Roads was used for market gardens and poultry farms before it was developed into a social housing estate by the Department of Housing in the 1960s - 80s.

Julie Dawson illustrates the agricultural landscape in ‘The North Ryde Recorder’ (1902), “behind the front vineyard are the loquats and patches of mandarins and oranges, the St Vincent predominating in the former and the St Michael in the latter. The Seville is fairly represented. So far as the Mandarins are concerned, the pride of place is given the Emperor.”

The development of farms and later housing, commercial and university land uses did not eradicate the native landscape altogether with remnant areas of vegetation surviving along creek lines and adjacent to the Lane Cove River.

Dawson captures the qualities of the forest landscape “...and the russet and purple hues of maturing crops, with white and pink blooms of budding and flowering trees...with the towering Ironbark, Spotted Gum, White Gum, Blackbutt and Woollybutt...and the dim outline of mountain ranges blue and hazy in the distance...”

**REFERENCES**  
1/ Sydney Turpentine Ironbark Forest  
2/ Shale/ Sandstone Transition Forest  
3/ Eastwood Orchards 1900-1927, State Library of NSW





4.1.2 LANDSCAPE CONTEXT - CURRENT

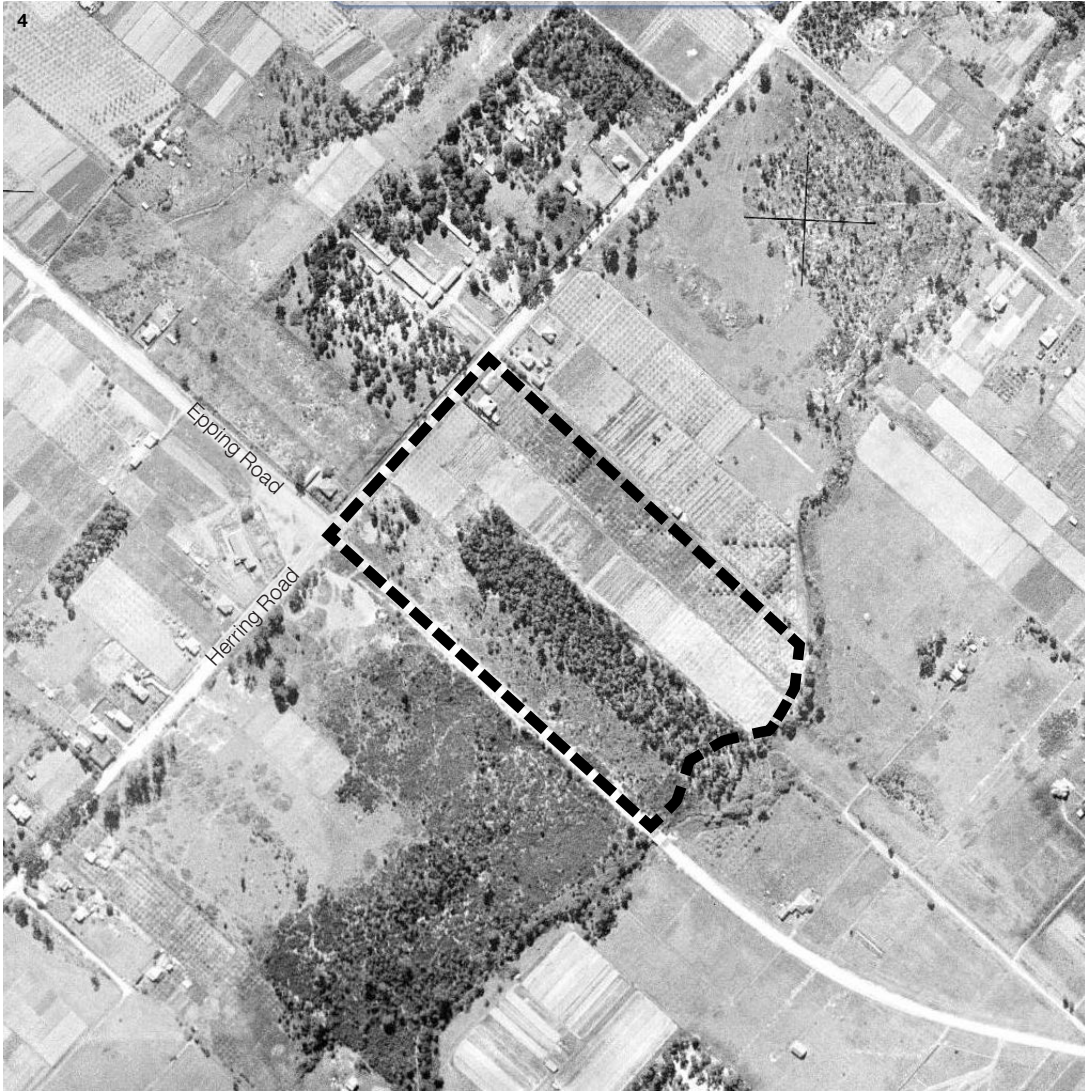
The landscape of the Herring Road precinct of Macquarie Park features generally undulating terrain with distinct ridges and valleys. The Ivanhoe Estate site runs from the Herring Road ridge line down bushland along the low lying Shrimptons Creek.

East of the creek lies the Macquarie Business Park which extends to Lane Cove Road. Generous building setbacks in the business park are also planted with large native trees. The heavily treed creek corridor provides a connection to Waterloo Road and the Macquarie Centre to the northeast and to the string of parks known collectively as Shrimptons Creek Parklands to the southwest. Much of the creek corridor in this direction has a forested character, with stands of Sydney Turpentine/Ironbark vegetation, some of which is extant remnant vegetation. In particular, large specimens of Sydney Blue Gum (*Eucalyptus saligna*) are distinctive features along the creek's shared path. The understorey of the corridor is, however, heavily weed infested.

Adjacent sites on the north side of Herring Road are currently being redeveloped as part of a new, high-density residential area. Low-rise residential areas such as the Ivanhoe Estate and the area immediately to its northeast are also slated for higher density development.

The arterial and main roads bordering the precinct are typically marked by large stands of native trees, generally Eucalypts. The existing estate has a comprehensive tree canopy, including a belt of protected vegetation that acts as a buffer along the Epping Road boundary. Surrounding streets typically feature a mixture of native evergreen and exotic deciduous street trees. There is no remnant vegetation from the period of market gardens within the study area.

The majority of the vegetation along Shrimptons Creek and the adjacent parks have been highly disturbed with weed species. The City of Ryde are undertaking extensive rehabilitation works to the riparian corridor of Shrimptons Creek, between Ivanhoe Estate and Waterloo Road. Master Plan improvement works to Wilga Reserve, Cottonwood Park and the creek shared path system, adjacent to Ivanhoe, are due to commence in 2018.



Source -  
1/ State Library of NSW  
2/ State Library of NSW  
3/ State Library of NSW  
4/ Six Maps



4.1.3 PUBLIC DOMAIN PRINCIPLES



1. THE HEART AND SOUL FOR THE SITE

- / Ensure that people are at the heart of the project and that the public domain will provide engaging public spaces that aid the development of a sense of community
- / Create opportunities for local business and social enterprise
- / Deliver places in which people will want to gather and where they will feel both safe and welcome



2. AN ACCESSIBLE AND ATTRACTIVE PRECINCT

- / Beautiful streets that provide comfortable and legible connections across the site
- / A focus on walkability and a convenient network of paths and trails both on-street and through public open space
- / Well defined, legible arrival and meeting points



3. GREAT COMMUNITY PLACES

- / Gathering spaces for social and recreational activities such as the Village Green which is planned as the primary community space
- / A variety of spaces, facilities and activities
- / Connections to the surrounding community and the Shrimpton's Creek corridor
- / A flexible public realm that allows for the evolution of uses and character over time
- / Creative Playspaces catering to the anticipated demographic character of the Ivanhoe community



4. HEALTHY ACTIVE COMMUNITIES

- / The Ivanhoe master plan will be integrated with the wider Macquarie Park open space and recreation network
- / Cycling and walking routes will provide recreational loops across the open spaces network of the master plan



5. A FOCUS ON DELIVERY

- / Design that exploits the unique qualities of the site
- / Public art as an integral element in the parks and public domain
- / Quality architecture and landscape design
- / Robust yet elegant finishes and materials that contribute to a sense of place
- / Considered arrangement of street furniture and amenities



# FOREST TO NEIGHBOURHOOD

## FOREST TO NEIGHBOURHOOD

### FOREST

The Ivanhoe site is bordered on two sides by stands of largely native bushland: a protected area of regrowth forest along the Epping Road edge and the vegetation of the riparian corridor of Shrimptons Creek.

### NEIGHBOURHOOD

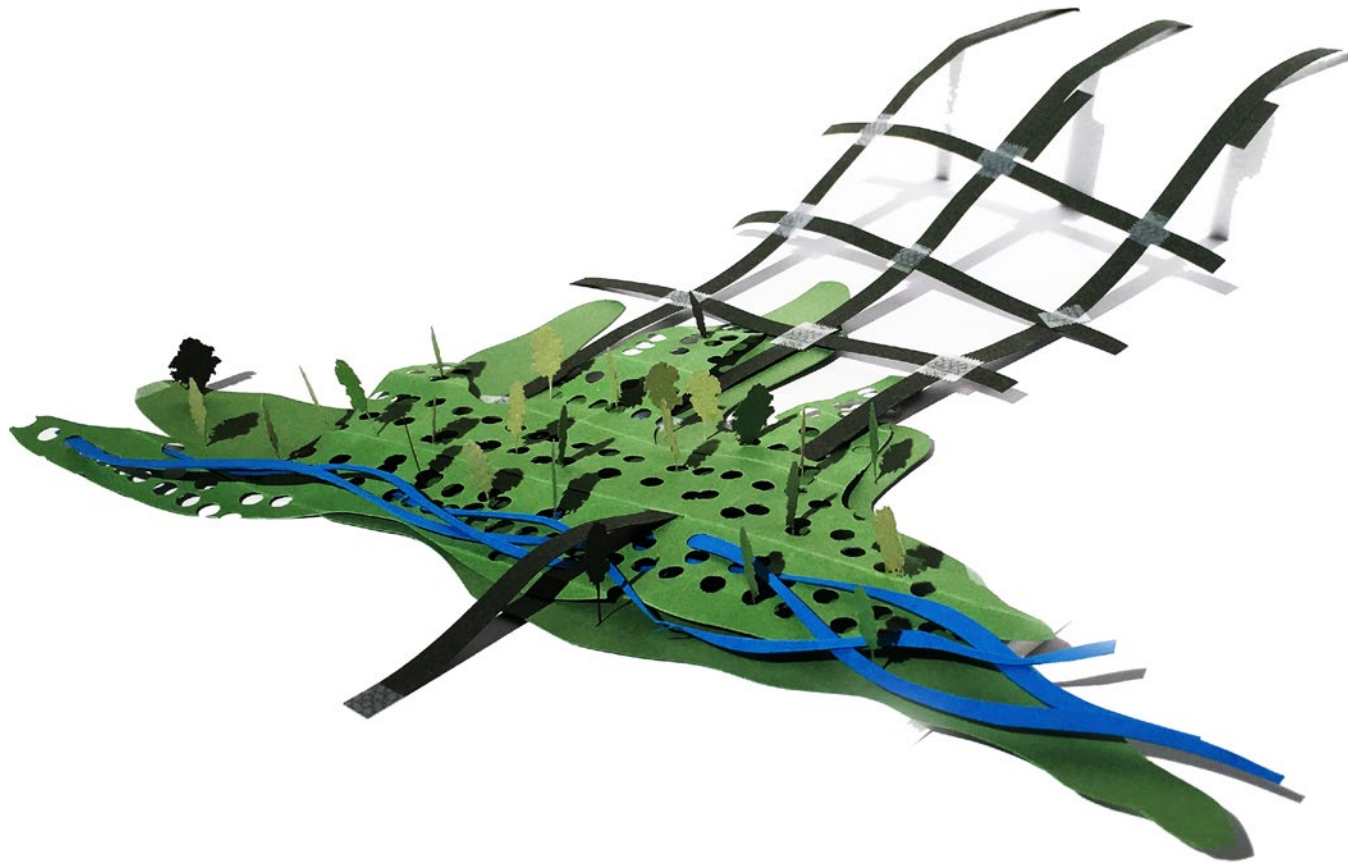
A new neighbourhood is being created at Ivanhoe, a neighbourhood of active and engaging streets and spaces.

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The site offers the opportunity to celebrate both of these characters, here is where Forest meets Neighbourhood. This will inform the character and materiality of each street and open space.

The site's informal forested edges and topography will infiltrate the urban grid, given particular expression at entry points to the site and across the proposed Green Link, the link that will connect the Epping Road protected vegetation to the creek corridor.

Beyond the Green Link, the streets will take on a neighbourhood character where a more orderly arrangement of street trees and furniture will provide a high level of urban amenity.



Neighbourhood streets flow down to meet the forest

Forest charcter permeates the streets and spaces

Shrimptons Creek



NEIGHBOURHOOD

- Neighbourhood Streets and Spaces -
- \_human scale
  - \_ordered planting
  - \_low canopy trees



FOREST

- Forest Streets and Spaces -
- \_an ordered chaos to placement of trees
  - \_mixed tree planting
  - \_extensive understorey planting



# FOREST TO NEIGHBOURHOOD

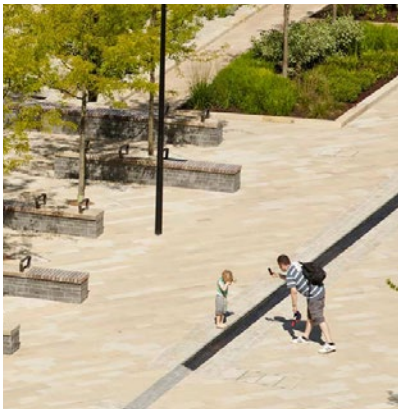


1/ Forested Entries and thresholds to the site speaking to the existing landscape character and creating a distinctive arrival experience with textured planting informally located.

2/ Clearings creating moments of celebratory sunlight. Located at moments of decision.

3/ Neighbourhood Gardens  
Special intimate gardens along the streets  
Lower tree canopy  
Seasonal qualities  
Finely detailed

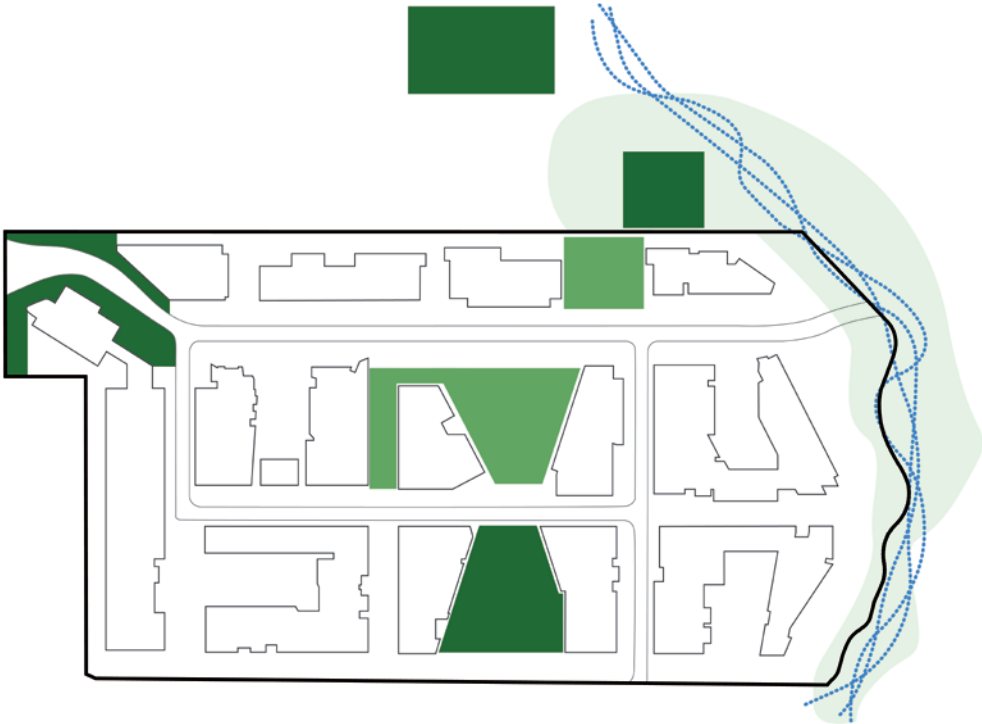
4/ Street Planting Structure  
A coherent urban framework  
Consistent and calm  
Human scale  
Regular grid  
Tall canopy





PRIMARY OPEN SPACES

The range of larger public spaces at Ivanhoe will have different functions and each a distinct landscape feeling reflecting its neighbourhood or forest character. The busy urban space of the retail town plaza leads to the terraced edge of the village green. The terraces overlook the community oval, a playspace and the green link. The tall trees lining the green link visually connect the forest playground at the southwestern end of the site back to the village green and to the multi-function play area adjacent to the school and then to Shrimptons Creek.



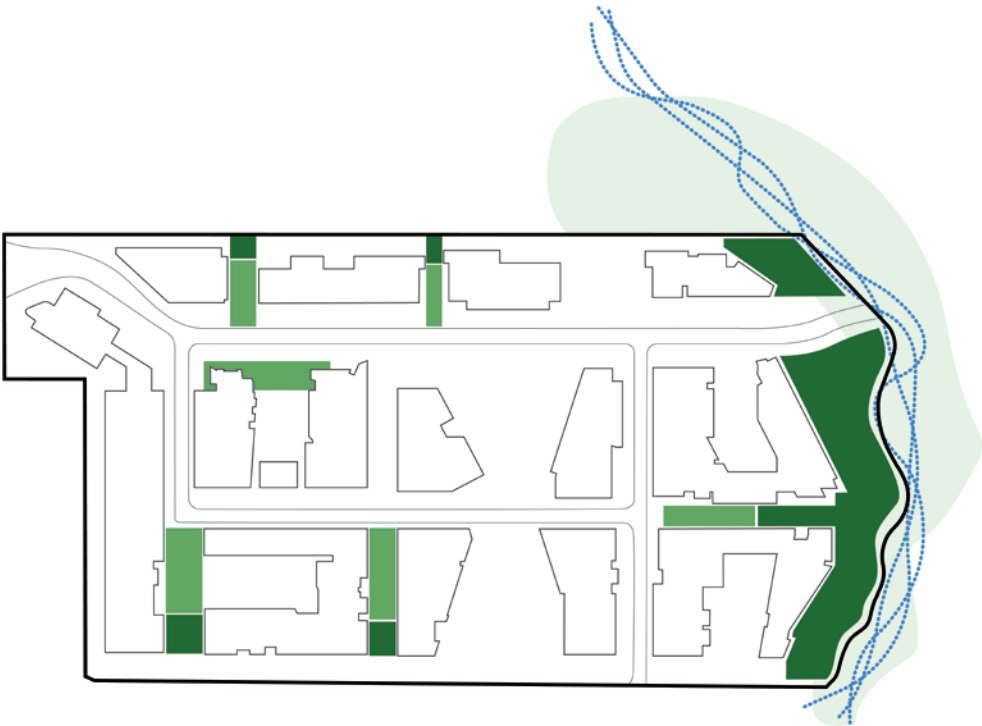
- LEGEND
- Neighbourhood spaces
  - Forest spaces





SECONDARY OPEN SPACES

A series of smaller public spaces in turn will also respond to the forest and neighbourhood landscape themes. On street neighbourhood gardens will create smaller, more detailed and richly planted areas - quieter urban settings. At the edges of the development where the shared local streets meet the perimeter bushland, forested urban gardens will formalise these transitions.



- LEGEND**
- Neighbourhood spaces
  - Forest spaces

