



# Focus Areas

The following sections provides design studies and details for three key focus areas of the masterplan:

- > **The Gateway (Kiln Street) - Stage 1**
- > **The Spur**
- > **Silverstream Forest Living**





# **Gateway (Kiln Street)**

## **Stage 1**

04



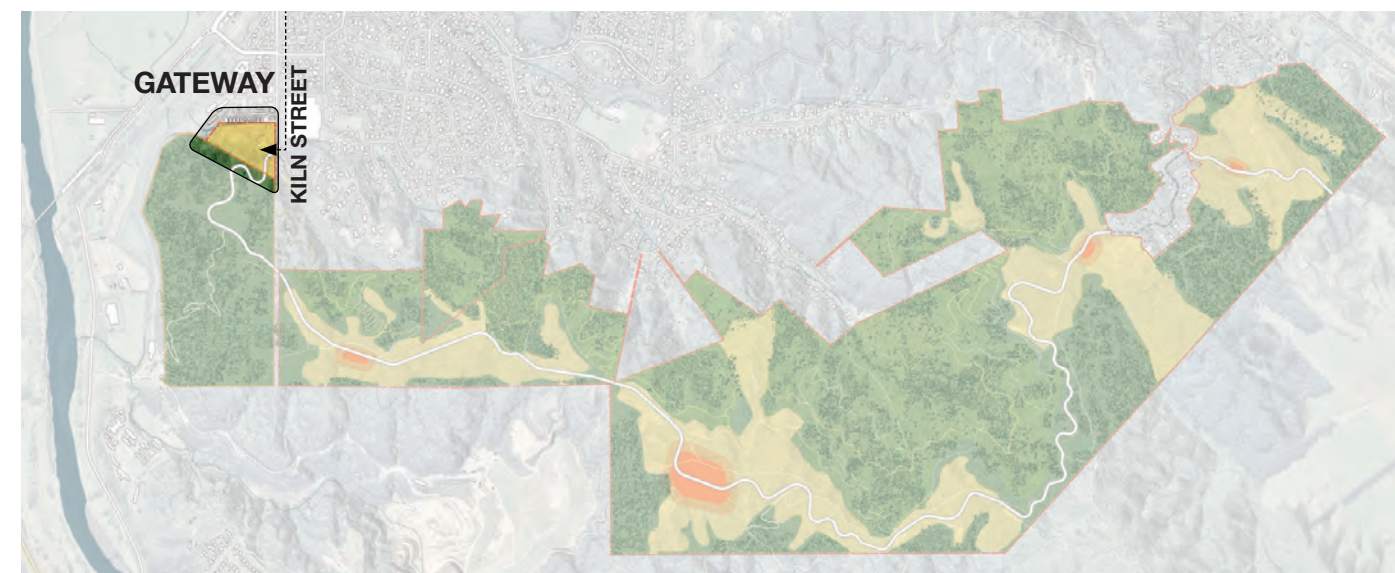
# The Gateway to Silverstream Forest

## The Gateway Vision

Our vision for 44 Kiln Street is to establish a Gateway to Silverstream Forest, featuring community facilities and distinctive residential development that brings people closer to nature. The development would be carefully situated at the base of the Spur, setting the tone for the character and values of the overall masterplan.

The Gateway at 44 Kiln Street is intended to be a community asset, offering amenities that encourage gathering and foster a sense of shared ownership. It will serve as the starting point for adventurers embarking on walking or mountain biking excursions, providing a place to meet, plan routes, and return to.

For new residents, we propose housing integrated into a flourishing ecosystem, encompassing revitalized forest areas, stream restoration, and wilderness right at their doorstep. This section provides an overview of the studies conducted thus far on how the site could be organized.



### Recreation

- Accessible Public Reserve.
- Walkways and Cycleways.

### Living With Nature

- Unique development that provides the convenience of urban living with, close access to nature.
- Grows and enforces the Silverstream community.

### Restoration and Conservation

- Native regeneration.
- Improved biodiversity, ecology and water management.

### Kiln Street Development:

- “Gateway” to Silverstream Forest
  - an exemplar of the values of the future development.
- Community Asset
  - encourage current community buy-in and provide amenity for future community.
- Housing Opportunity (UHCC aligned)
  - recently Plan enabled to 6 Storeys rezoned as Residential as part of UHCC Intensification Plan Change in response to the NPS-UD.





## 4.2 Gateway - 44 Kiln Street Site Introduction

The site is located at the western end of Kiln St at the base of the Silverstream Forest Spur within Silverstream Village.

The site is well located:

- 500m to the Silverstream Train Station.
- 600m to the local Silverstream Shops and Primary School.
- Close to local bowling club, park, and iconic Preservation Railway.
- Close to future recreational walking tracks on the Spur and recreation opportunities within the Silverstream Forest.

**Due to the close proximity of the local shops, any commercial considered for the site will need to be a unique offering 'destination'. There is unlikely to be much demand for additional local shops.**












4.3  
UHCC Plan Change 50 - Intensification

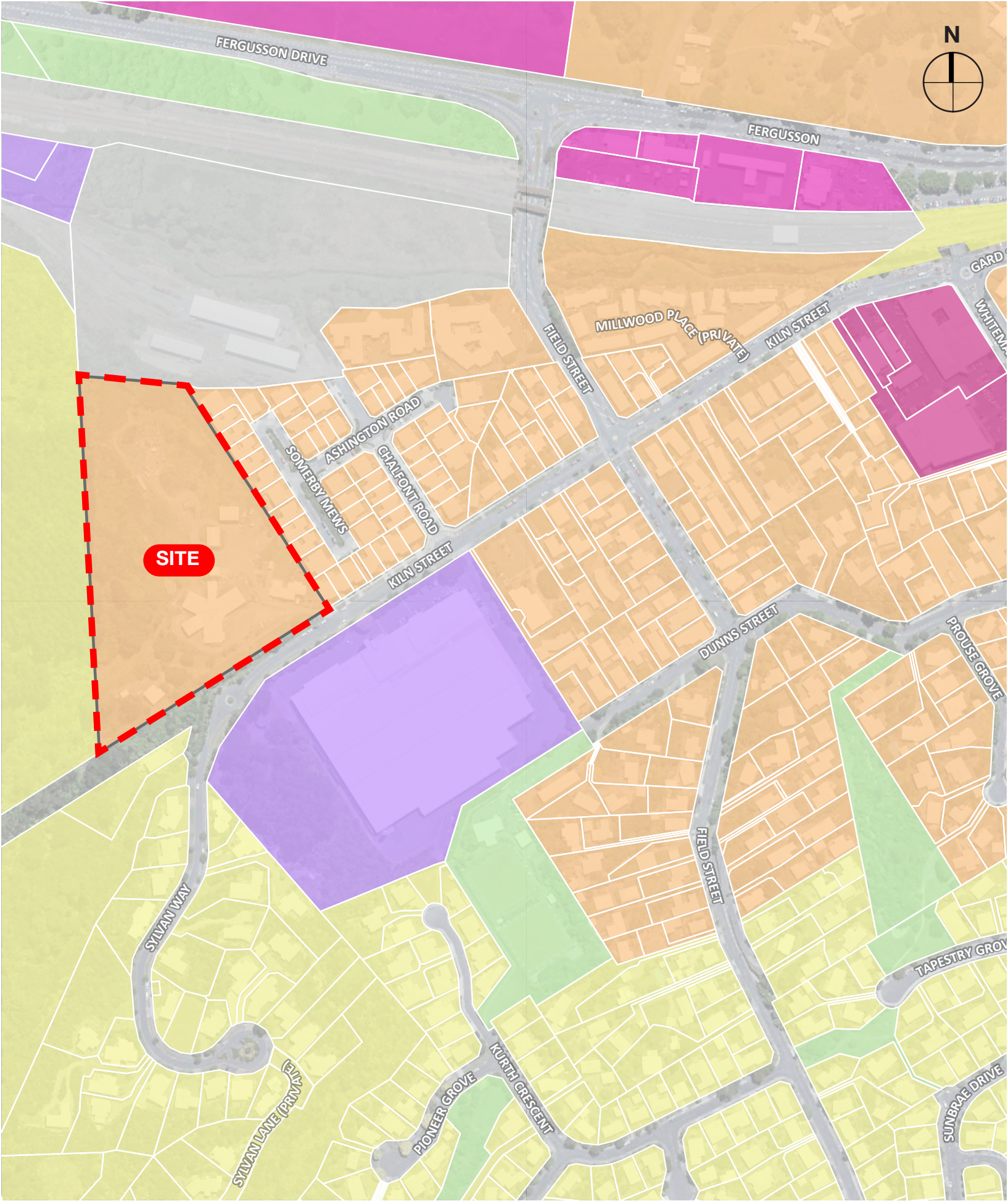
In December 2023 Upper Hutt City Council has rezoned the site from industrial to Residential as part of Government’s directive to Councils in the National Policy Statement on Urban Development (NPS-UD) which focusses on enabling greater housing to meet housing demand. Higher Density with development up to 9 storeys is now permitted on the site due to its easy access to the Railway Station.

The site is now zoned:

- High Density Residential Zone.
- Height Overlay B (Up to 9 Storeys)

LEGEND

-  GTC Ownership Boundary
-  General Residential
-  High Density Residential
-  Mixed Use
-  General Industrial
-  Open Space
-  Special Activity





## 4.4 Development Options Overview

### 4.4.1 Medium Density

#### 'Commercial Edge + Green Spine' Concept

##### + Opportunities:

- Potential for strong commercial edge with community park to northern side.
- Consolidated commercial/ community functions at front of site, "Gateway" function to help act as a buffer to existing industrial activities opposite the site on Kiln Street.
- North facing apartments.
- Legible residential community to northern half of site.
- Option for Adaptive re-use of existing building

##### - Constraints:

- Relatively long commercial edge - might be too much for the suburban area.



### 4.4.2 Medium-High Density

#### 'Car-less Community' Concept

##### + Opportunities:

- Reinforce sustainable focus by creating a positive, future thinking community.
- Less roads means more spaces for communal and private outdoor spaces and planting.
- More communal outdoor spaces fosters community.
- Safe playing for kids with no cars around.
- A unique development.
- As people have fewer private vehicles, initiatives such as car sharing/ shared electric charging would be easily retrofitted into existing infrastructure.

- Less concrete makes it easier to treat stormwater on site.
- Utilizes the sites close proximity to the train station - most people will be cycling or walking to catch the train for their commute.

##### - Constraints:

- Market interest - would require people to think differently.



### 4.4.3 High Density

#### 'Community Heart' Concept

##### + Opportunities:

- The community facilities are central to the site, embedded within the new community to bring people into the site.
- Higher buildings are in the lowest part of the site.
- Lower density along the east boundary is sensitive to existing neighbours.

##### - Constraints:

- Visibility of commercial/ community to Kiln St.
- Demand for apartment living - but opportunity for housing to be sustainable / timber and representative of wider Silverstream Spur development.





# 4.5 ‘Commercial Edge’ Concept

The commercial offering is adjacent to Kiln St, with some residential over the commercial. A series of terrace houses / duplex houses are at the base of the hill. Terraces/duplex hug the east boundary adjacent to existing housing.



Approximate Yield:

Terraces: 51 Units (two storey)

Total: **51 Units**

## Green Spine elements:

- Through site pedestrian/ cycle connectivity.
- Green infrastructure/ stormwater treatment.
- Planted buffer zones.
- Integrated play spaces.
- Integrated community gardens.
- Integrated recreation areas e.g. outdoor. gyms, table tennis, basketball hoops.



Top: Zibi Condominium Development Green Infrastructure, Ottawa, Canada

Bottom: Linear Park adjacent to housing

## Medium density housing elements:

- Mix of unit sizes and types e.g. lifted apartments, walk-up apartments, terrace housing.
- Sustainability focused - e.g. timber construction, high quality insulation, solar panels, space for bike parking, EV charging, shared car.
- Some shared facilities such as consolidated parking, shared outdoor space, cycle and pedestrian paths.
- Each unit has private outdoor space e.g. patio, garden, balcony.



Top: St Georges Parkville Townhouses, Fieldwork Architects, Melbourne

Bottom: Alphington Townhouses, Green Sheep Collective, Melbourne



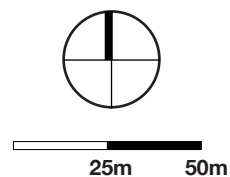
## 4.6 'Car-less Community' Concept

The commercial/ community offering is accessed directly off Kiln St. There is consolidated parking adjacent, and the northern 2/3 of the site is Car Free with organic clusters of housing in a green planted setting.



Approximate Yield:

Apartments: 24 Units (six storey)  
Walkups: 18 Units (three storey)  
Walkups: 6 Units (second storey of commercial)  
Terraces: 32 Units (two storey)  
Total: **80 Units**



### Car-less development elements:

- Sustainable focused community.
- Shared parking on periphery.
- Communal open space/ gathering spaces.
- Private outdoor space for each unit.
- Community gardens/ open space/ play areas.
- Sustainability at its core.

### Medium-high density housing elements:

- Mix of unit sizes and types e.g. lifted apartments, terraces.
- Variety through materiality/ form/ scale.
- Sustainability focused - e.g. timber construction, high quality insulation, solar panels, EV charging.
- Some shared facilities such as consolidated parking, shared outdoor space, cycle and pedestrian paths.
- Each unit has private outdoor space e.g. patio, or balcony.



Above: Bainbridge Island  
car free community -  
Seattle

Top: Vedado Multi-  
unit Residential, Solari  
Architects, Wellington

Bottom: Abode at Great  
Kneighton Housing,  
Proctor and Matthews  
Architects, UK



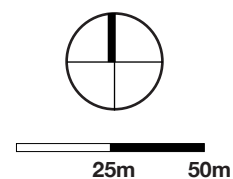
## 4.7 'Community Heart' Concept

The commercial/ community offering is central to the site. Higher density walk-ups and terraces are in the lowest northern part of the site. Lower density terraces are to the south, adjacent to existing houses.



Approximate Yield:  
Apartments: 84 Units (six storey)  
Walkups: 12 Units (three storey)  
Terraces: 18 Units (two storey)

Total: **114 Units**



### Community Hub elements:

- Sustainable focused community.
- Shared parking on periphery.
- Communal open space/ gather spaces.
- Private outdoor space for each unit.
- Community gardens/ open space/ play areas.
- Sustainability at its core.

### High density housing elements:

- Mix of unit sizes and types e.g. lifted apartments, terraces.
- Variety through materiality/ form/ scale.
- Sustainability focused - e.g. timber construction, high quality insulation, solar panels, EV charging.
- Some shared facilities such as consolidated parking, shared outdoor space, cycle and pedestrian paths.
- Each unit has private outdoor space e.g. patio, or balcony.



Top: Adventure Park  
Cafe, Port Hills,  
Christchurch

Bottom: Burwood  
Brickworks, rooftop  
gardens and cafe



Top: St Georges Parkville  
Townhouses, Fieldwork  
Architects, Melbourne

Bottom: Scarwafa Co  
Housing, Amsterdam





# The Spur

05



5.1

# The Spur Introduction

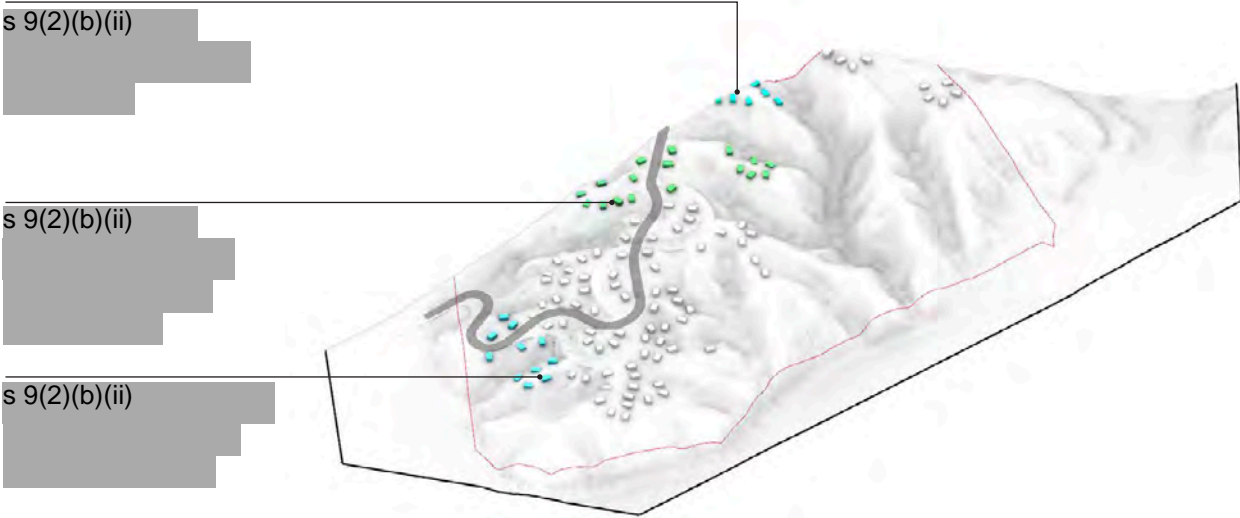
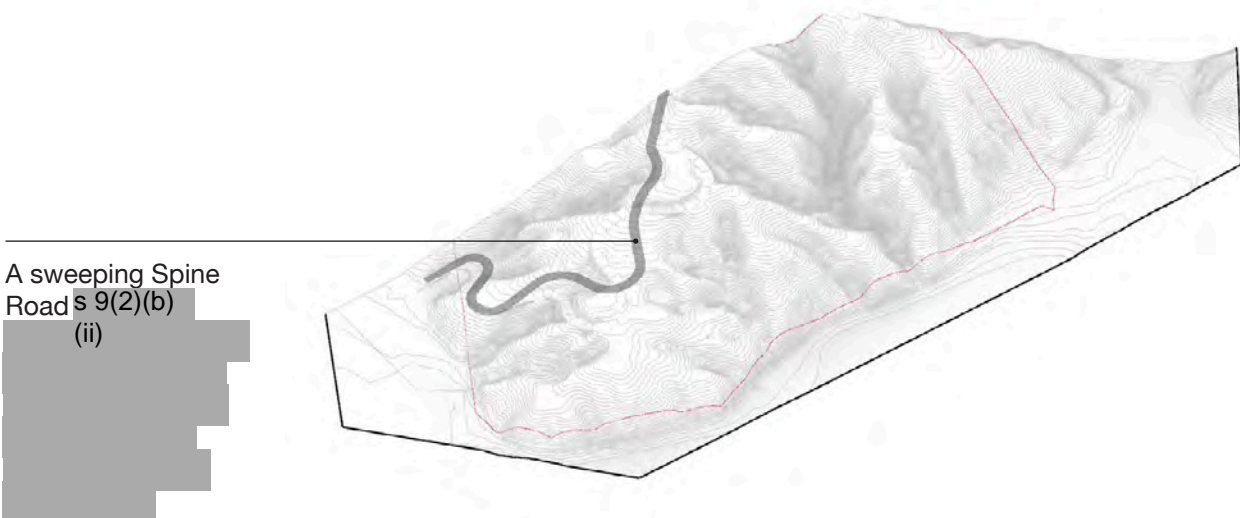
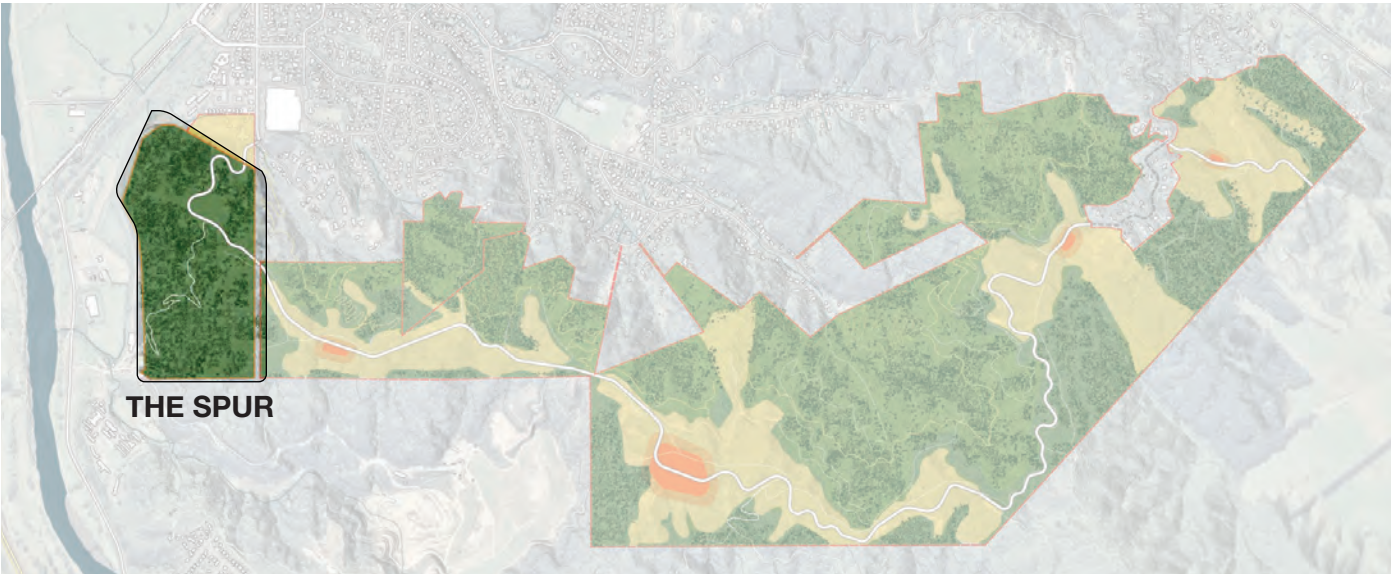
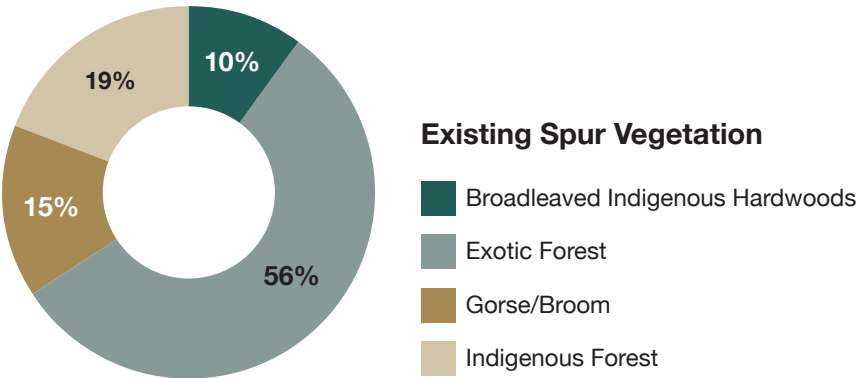
Currently exotic forest and broom/gorse covers 71% of the Spur. There is significant opportunity to add both ecological and amenity value to the Spur through sensitive development that respects the Spur’s contribution to the surrounding character of the Hutt Valley.

s 9(2)(b)(ii)

UHCC has publicly notified PC49-variation 1 which re- zones the Spur as Natural Open Space and provides a Policy and Rule framework for roading and infrastructure to service future development, that Plan Change is currently at the hearing stage.

s 9(2)(b)(ii)

s 9(2)(b)(ii)











# Silverstream Forest Living Study

06



# 6.1 Silverstream Forest Living Introduction

The majority of proposed development and housing occurs in the ‘Forest Living’ Zones: Ridge, Central, and Upper Ridge. These zones are proposed to include high-quality housing that is appropriate for its context and provides choice.

Silverstream Forest is about housing that touches the ground lightly and responds to the site conditions. Looking beyond the standard development model of large-scale site clearance and landform modelling, the housing at Silverstream Forest will be a design response that is in keeping with the site and surrounding hills – dwellings that respond to the site’s potential of living within a forest and that also afford great aspect and views over the surrounding valleys. Lots are likely to have little or no lawn areas, amenity being gained from native planting and borrowed landscapes.

## 6.1.1 Design Guides

Design guides specific to the Silverstream Forest development need to be produced to ensure that the development fulfills Guildford Timber Company’s vision. These will include design principles and guidance around the design and placement of buildings on the site, including material selection and issues related with reverse sensitivities.

## 6.1.2 Sustainability Features

Sustainability features are also recommended to be addressed in the design guides. Things such as water retention and reuse, renewable energy features and maximum impermeable lot coverage, these could include:

- On-lot water retention and reuse - collection and storage of rainwater from roofs to be used in potable and non-potable reticulation. Grey water collection and on-lot filtering will service toilets and washing machine connections.
- Minimising impervious areas – cuts into the hillside are minimised; reducing impervious construction materials and methods such as concrete retaining walls and slab foundations; instead, utilising pole foundations to maximises open ground beneath new dwellings; ensuring a maximum amount of permeable land is maintained for water management and vegetation cover.
- Promotion of renewable energy features – photovoltaics to harness solar energy, solar water heating, low energy Passive House design (highly energy efficient homes).
- Other developer-led strategies – for example, electric bicycle provision with housing. Initiatives such as shared electric bicycle and electric car schemes can be accommodated in the development to support the desired modal shifts in a manner that is more low risk for residents with minimal individual capital input.

## 6.1.3 Three Waters Strategy – WSUD, Water Supply and Capture

A comprehensive three waters strategy needs to be developed for the site and water sensitive urban design (WSUD) is a key component of the development. The development will be designed to achieve hydraulic neutrality (during both 1 in 10-year and 1 in 100-year peak stormwater events). This will be achieved through on-lot and off-lot stormwater attenuation devices, and the approach will be further defined through the development of the masterplan.

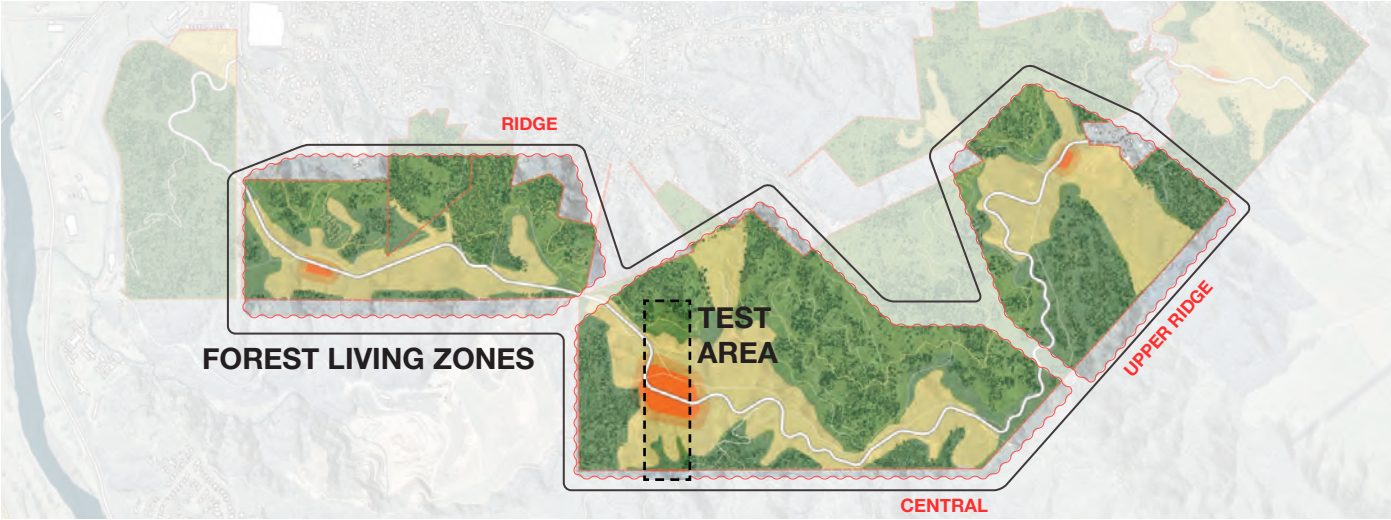
This will include full catchment hydrological and hydraulic analysis to inform the plan change using GWRC baseline information to demonstrate hydraulic neutrality for the 1 in 10-year and 1 in 100-year flood event (plus climate change) and will include:

- Existing pre-development situation calibrated to GWRC baseline information.
- Design of mitigation infrastructure.
- Future development scenario model with mitigation infrastructure to demonstrate hydraulic neutrality and results in no increase in downstream flood flows at any point in the catchment.

# 6.2 Silverstream Forest Living Test Area

This area has a wide array of landform characteristics such as slope and aspect that also occur in other parts of the site and influences the potential housing typologies, densities and land use types (retail/ community/parks etc.) Using this test area, we have explored here how properties are accessed, the relationship of houses to the street and to neighbours, lot division (vegetation buffers instead of fences; shared access) and how vegetation integrates into the site. Other elements we have considered include:

- Potential to create diverse communities (cost, size, ownership) and ways of living, for example, co-housing with shared facilities.
- Different housing/ living character typologies – reserve edge, spine road, central and neighbourhood centres,
- Street hierarchy – spine, access roads and non-vested lanes.
- Potential for parks and open space.
- Potential primary school – discussions with MoE to identify demand and potential location.

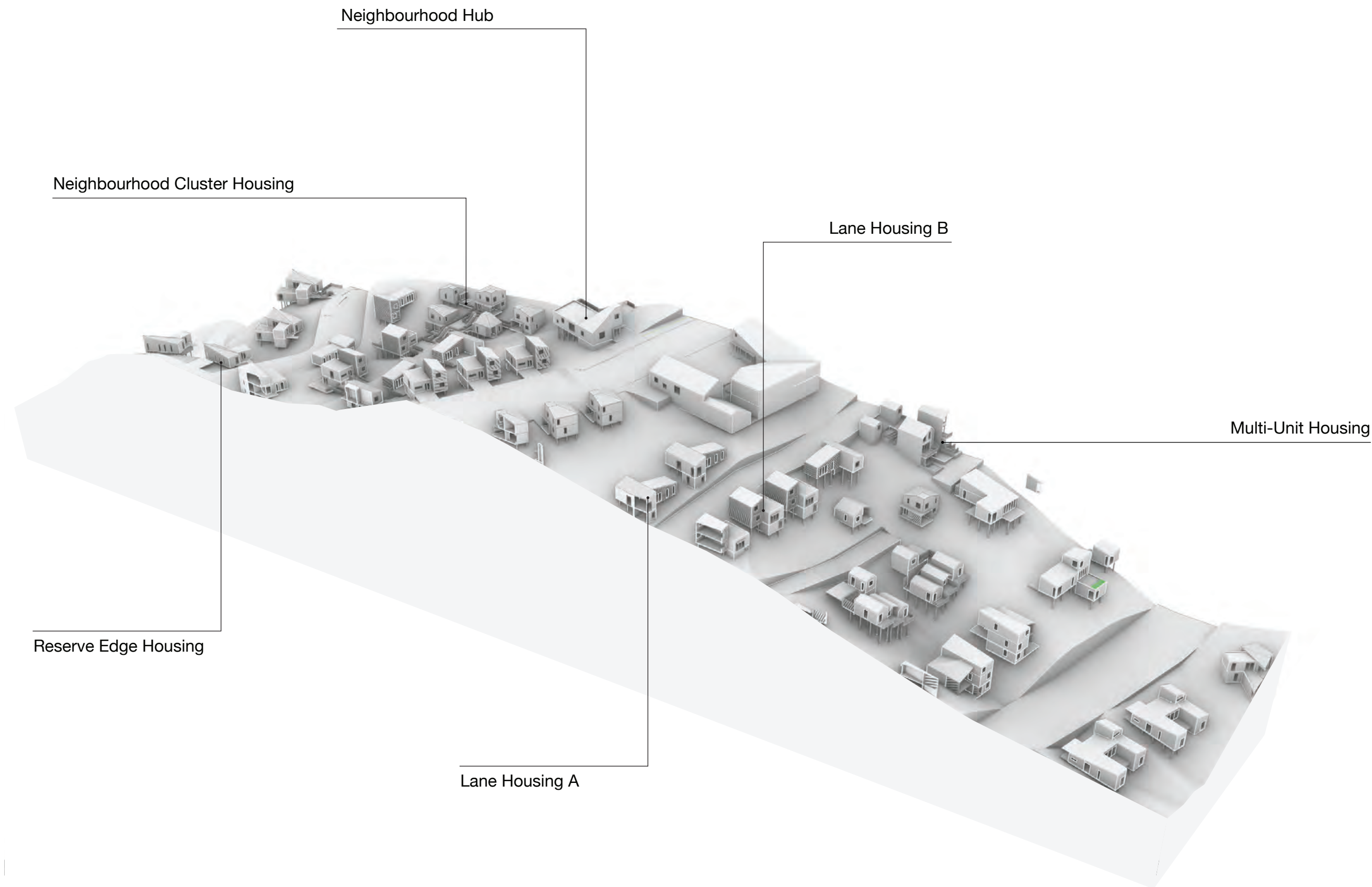








Silverstream Forest Living Test Area







RESERVE

HOUSING

NEIGHBOURHOOD HUB

RESERVE EDGE

SPINE EDGE





SECONDARY COLLECTOR STREET

ACCESS LANES

SECONDARY COLLECTOR STREET

HOUSING

REGENERATING NATIVE BUSH

CENTRAL ZONE



## 6.3 Silverstream Forest Living Hubs

Key Move 4 Vibrant Communities focuses on enabling attractive community hubs that provide opportunities for learning, sharing, and growing local economies. Being at the heart of the development, with a significant area of developable land, we see the hub in the central zone as being the main village centre.

Potential elements here include a flexible community hub space, café, mini-market or corner shop, live-work units, makers studios, potential businesses related to the reserve (e.g. cycle tours) an early learning centre, open spaces, vegetation, potential workspace and maybe a farmers market. Bus shelters here with a regular bus/shuttle service are needed to link residents to the train station, need for regular trips, getting to work and school etc. and avoid over-reliance on private vehicles.



Neighbourhood Hub



Flexible Community Hub Space could include play facility and breakout spaces for markets and community events.

Potential Cafe Spaces below, parking accessed from Lane behind, taking advantage of landform changes.

In lane bus or shuttle services along Spine Road.

Mini-market or corner shop opportunity with live and work units above

Potential makers studios or community spaces

Rear access through lots provide routes other than roads to move around Silverstream Forest



Neighbourhood Hub





Neighbourhood Hub





# Housing Typology Examples

07



7.1

# Housing Typologies Overview

The following housing typologies have been developed as a response to the different environmental characteristics (e.g. slope, aspect, proximity) that occur on the site. This is a conceptual suite of typologies that illustrate the potential ways of living and opportunities within Silverstream Forest.

**Reserve Edge**

The Reserve Edge typology is typically located on a steep site down-hill from the street or lane it addresses.

**Lane Housing A**

The Lane House A typology explores increased density on the site, while still adhering to the design principle of touching the ground lightly. Situated at the lane edge, at the bottom of a slope, there is drive on access to undercroft parking and a sheltered front entrance.

**Lane Housing B**

This Lane House B typology is intended to occupy the site at an increased density, like Lane House A, with closer visual relationships to adjacent neighbours. This typology is situated downhill of the lane with a car deck for parking and walk-on access via a boardwalk and stairs where necessary.

**Multi-Unit Housing**

This typology explores how a more traditional townhouse could be integrated into this development.

**Neighbourhood Cluster Housing**

This typology is proposed as an option where the terrain is particularly steep, creating pockets of space which are unable to be serviced by traditional roads. Instead, these areas could be occupied with cluster housing - small footprint dwellings on pole foundations that are interconnected via raised boardwalks and platforms.

Forest Living Typical Birds-Eye View





A generous upper deck provides outdoor living spaces accessed from the interior living areas that explore living in the canopy of the surrounding forest.

Typical of this typology, parking is located on car decks at the road edge, uphill of the dwelling. In alternative areas, more significant walkdowns might be desired to get closer to the forest.

The lower deck replaces the traditional rear yard, providing ample area to run and play, a space for raised productive garden beds, storage of bikes, and a place to dry laundry.

Avoidance of lot separating fencing allows for privacy via distance from neighbours and dense vegetation



### 7.1.1 Reserve Edge

The form is generated from a series of rectangular volumes that are stacked in parallel, enabling it to cascade down the hill with topography that falls both along and across the site.

Timber could be prescribed as the primary material for both structure and cladding. It is flexible in its application across this steep terrain, is in keeping with the overarching principles of sustainability and guardianship and is an appropriate material for use in this immediate context where the intention is to foster a connection to the land and the existing forest-scape. Potentially timber harvested and milled on site could be used in the housing construction.

The vehicle access is via the street or lane above the house. In the same vein as the houses, which touch the ground lightly, open car decks on poles are shown. The pedestrian access from the street and parking is via a raised boardwalk and stairs which will be designed to suit the specifics of each instance.



Rear deck provides a private outdoor space nestled amongst the trees which extend up the hill beyond

Main living areas are elevated above the lane, maximising views out to forest beyond.

High sides of Lane edges have minimal setbacks to reduce the need for land manipulation.

'Tower' form connects at lane edge to provide access.

Shared lanes provide access to minimal dwellings (sub 20) enabling housing clusters and communities to form around these shared spaces.

Typically, undercroft parking provides drive-on access to this typology

Water storage tanks are accommodated under the building



### 7.1.2 Lane Housing A

In order to minimise earthworks, a small footprint 'tower' form connects with the ground at the lane edge providing access to the dwelling. Most of the footprint is elevated to maximise views out over the surrounding forest. There is a deck above the parking which helps to activate the lane edge, and additional outdoor living space is provided to the rear of the house. The latter is a private retreat amongst the trees which continue up the hill behind.

Although shown with under-croft parking, this typology could be adapted to sit below the road with an upper car deck and walk-down pedestrian access, by simply adjusting the front door position. Alternatively, it could be located further up-hill with separated parking and walk-up access from the street or lane.



Typical of housing in these areas to be rear loaded car decks above. Entry's on first floor with downstairs bedrooms. Water Storage intended for inclusion below decks

Typical of this typology to have stronger visual relationships between neighbouring properties.

Open decks lookout through and above the reserve edge typologies downslope.

Avoidance of lot separating fencing allows for physical separation via vegetation.

Lawn gardens would be rare amongst this typology except in isolated situations where localised slope allows.

Access between lower decks and the lane



### 7.1.3 Lane Housing B

The form is generated by two volumes that are pulled apart vertically and off-set horizontally, only intersecting on one level but creating a three-level dwelling overall. This allows a typology to emerge that can accommodate slope change both along and across the lot with adjustments to the position of the car deck and pedestrian access as required.

Living spaces are housed on the common middle level with bedrooms on both the upper and lower levels. There is a generous deck opening out from the living space, looking out over the forest and neighbouring forest-edge typologies. The lower deck is accessible off the bedrooms and has a separate access point back up to the lane via a set of stairs. The sheltered area under the upper volume and upper deck provides a location for secure storage, water tanks and other utilities.

As with the previous typologies introduced, a pole foundation system is employed enabling minimal earthworks in the siting of this typology.



Shared parking at lane ends enable occupation of isolated steeper gullies unsuitable for car access.

Smaller dwellings typical of clustered housing enable light occupation of the otherwise steeper land forms

Regenerating native forest around the clustered housing

#### 7.1.4 Neighbourhood Cluster Housing

A shared parking court would be located at the end of the closest lane, with entry into the cluster co-located at this point. This would also provide a suitable location for secure bike and scooter parking, with charging points available for electric models.

A simple form is explored here – an extruded square footprint with a roof line that is interestingly pitched, mimicking the complex topography that slopes in multiple directions. Sheltered decks are carved out of the building mass, with screens providing a visual buffer to neighbours.

Each dwelling has a private deck directly accessed off the interior living areas, with considered orientation for maximum sunlight. Along the meandering boardwalk accessway, communal outdoor spaces can be accommodated – spaces that encourage neighbours to interact as they move through the cluster to their private homes. These could house a variety of additional amenity activities, such as raised vegetable gardens, shared play equipment, larger washing lines for big items such as sheets that may be too big for private lines, and a communal tool shed.





Typical of housing in these areas to be rear loaded with detached garages at street level behind. Large sun decks or courtyards generated via landform changes.

Consistent materials palettes and design guides governing design aspects such as materiality, roofing and fencing will ensure housing will be sensitive to the forested character and be visually recessive in the landscape.

Avoidance of lot separating fencing. This may come in the form of more subtle fencing that allows for plant migration such as post and wire. Inter planting is the best use of the intervening slopes between properties.

Secondary 'front entry' provides an opportunity for inter-generational living, work-from-home office, or a home and income combination.

Narrow shared JOALS provide access to adjoining housing clusters further down the slope.



### 7.1.5 Multi-Unit Housing

In this example, the lot straddles two access ways; a street to the rear of the lot and a narrow lane to the front (in the foreground of the adjacent render). A detached garage is accessed off the street at the top of the site, providing on lot parking. Off the lower lane, there is pedestrian access via stairs through a landscaped terrace, providing a second front door for this typology. This presents an opportunity to accommodate inter-generational living, a work-from-home office or a home and income combination.

A simple and repeating asymmetric gable form is employed to build a strong rhythm as the houses step up the lane. More traditional construction methodologies and systems are employed. The lower level is limited in floor plan depth but is benched and retained back into the site with masonry and concrete construction. The upper levels increase in depth and are supported by pole foundations as they extend beyond the footprint of the lower level.

Space between each dwelling allows the topography to be expressed, with vegetation extending from the upper street to the lower lane.





# Metrics

08



8.1

Yield Estimate

Yield Estimate by Stage

Stage	Description	Types of residential land use	Year (start)	Yield (high)	Major infrastructure	GDA (Ha)	Reserves proposed	Spur landswap land qualifications
1	The Gateway - 44 Kiln Street	Neighbourhood Centre, Residential Zone	2026	100		2.30	0.80	
s 9(2)(b)(ii)								
3	Ridge Village	Reserve Edge, Neighbourhood Centre and Residential Zone	2028	415	Water reservoir, road and bridge	26.57	28.32	
4a	Central Village Housing	Reserve Edge and Residential Zone	2032	860	Main road and local collector roads	53.74	140.58	
4b	Central Community Hub	Neighbourhood Centre	2037					
5a	Upper Ridge area	Reserve Edge	2041	410	Main Road, bridge and pump station	28.42	45.01	
5b	Upper Ridge area housing	Reserve Edge, Neighbourhood Centre and Residential Zone	2044					
6	Avro Road Precinct	Arvo Road, Neighbourhood Centre	2044	130	Road extension off Arvo Road	16.89	22.97	
Total				1,915		137	265	
s 9(2)(b)(ii)				s 9(2)(b)(ii)		s 9(2)(b)(ii)		

Typology Descriptions

Density Typology	Description Of Typologies	Yield Range
Reserve Edge	Steep sites with limited access being mainly non-vested roads, driveways and limited access lots. Housing typologies include stand alone, larger lots with native bush integrated into the lot design	9-15 dwellings per hectare
Arvo Road	Sites, some houses formed in hamlets, with regenerating native bush where appropriate. Stand alone houses with large lots provided.	9-15 dwellings per hectare
Neighbourhood Centre	Mixed use areas, servicing the local community	22-35 dwellings per hectare
Residential Zone	Potentially flatter areas with opportunity for secondary access roads. Providing for stand alone, duplex and walk ups or apartments	22-35 dwellings per hectare



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Forest**