

**INTRODUCTION**

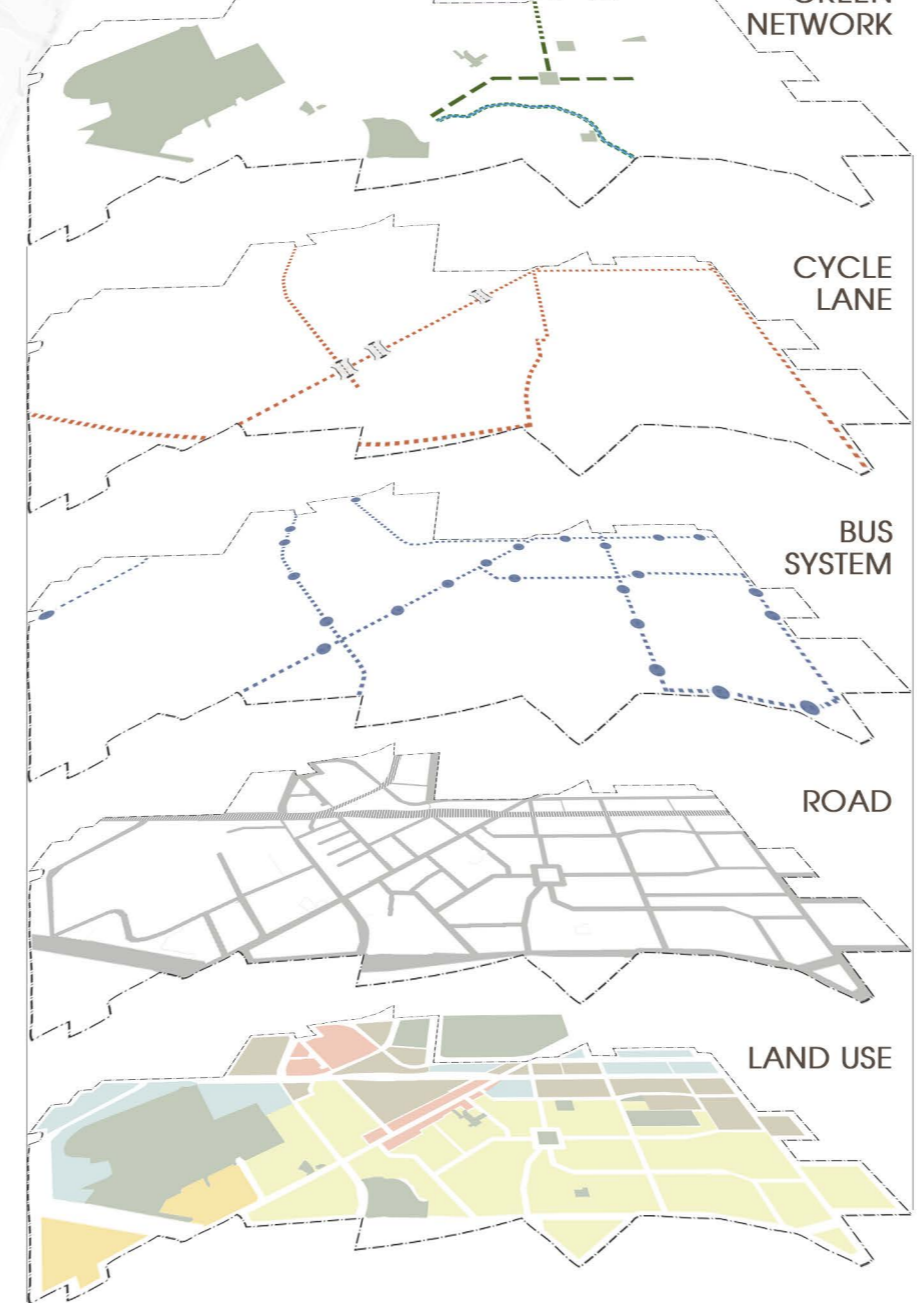
Addington is a major suburb of Christchurch. It is located about 2.5 km southwest of the city centre (Harrop, 2014; Wilson, 2008). As a gateway to the city, Addington is located at the junction of the north-south rail lines and close to important green spaces and traffic corridors (Brown, 2009).

Historically, Addington has been a prosperous industrial town focused on railway workshops and related industries (Brown, 2009; De Nys, 1995; Wilson, 2008). Although the economy began to decline after the workshop closed in 1980, it still retains a strong community identity (Harrop, 2014; Side, 1999; Wilson, 2008). In the 2011 Christchurch Earthquake many businesses and residents moved out of the heavily damaged city centre and moved into Addington (Flanagan, 2011). However, with the progressing of the central city regeneration project, large amount of businesses and residents are now moving back to the city centre, which has kept Addington in a precarious state.

More than 60% (3114) of people who live in Rolleston were working at Christchurch city centre (Census, 2013).



**EXISTING SITUATION**



**GOAL 1**

To provide Addington residents and the broader public with more alternative transport options.

**GOAL 2**

To improve Addington's public open spaces and create new high quality public open spaces.

**GOAL 3**

To create an experimental high density residential area in Addington, which could allow more public open space and can better support public transport.

**REFERENCES**

Brown, K. (2009). Addington railway workshops: Working with wood. Wellington New Zealand Railway & Locomotive Society, Christchurch City Council. (2018, Dec). Lincoln Road and Moorhouse Avenue bus priority improvements. Retrieved from https://cc.govt.nz/the-council/consultations-and-submissions/haveyoursay/show/184

De Nys, A. M. (1995). Development proposal. Addington Open Integrated Campus. Old Addington Railway Workshops site, Canterbury Saleyards site, Christchurch

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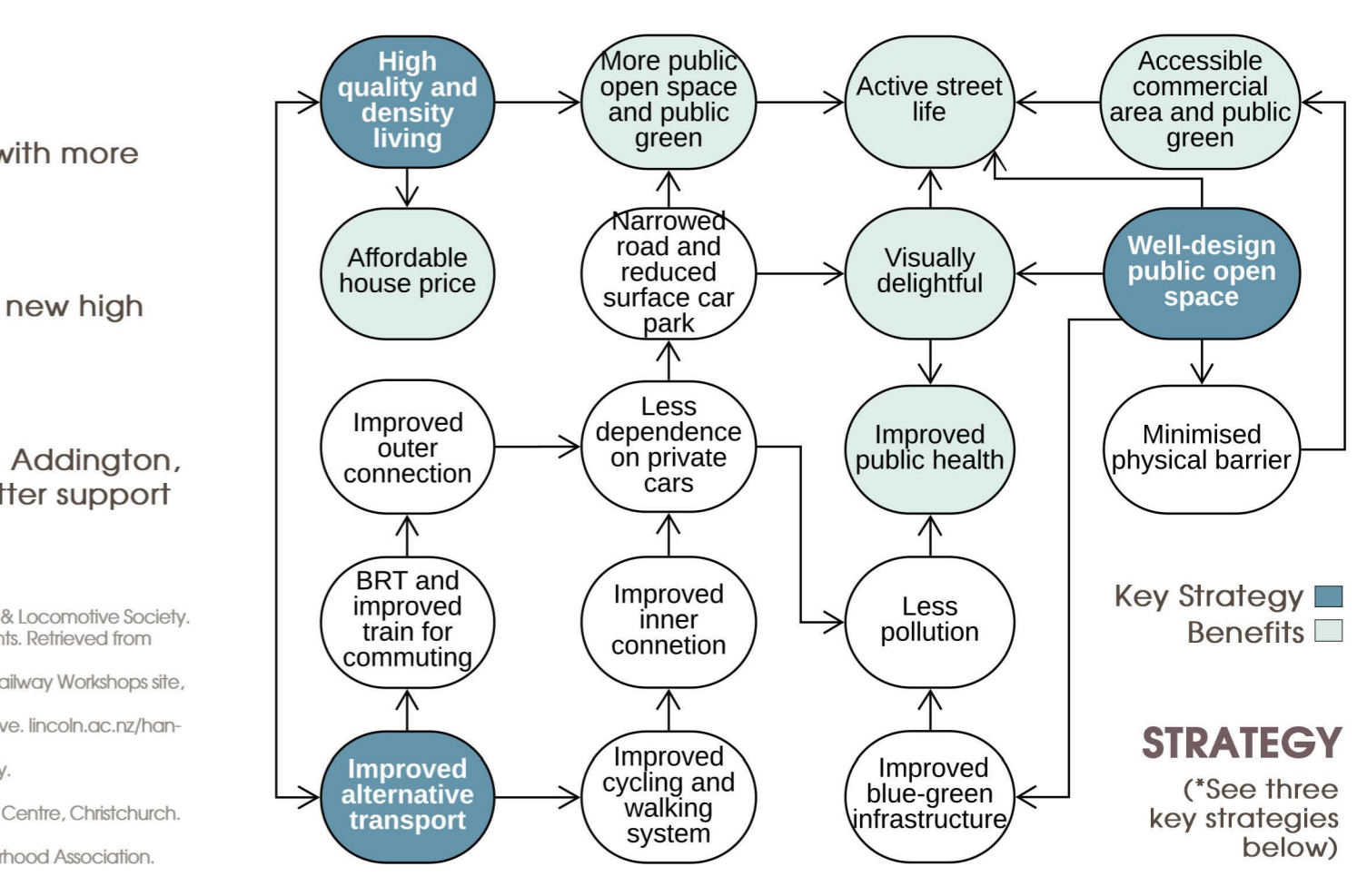
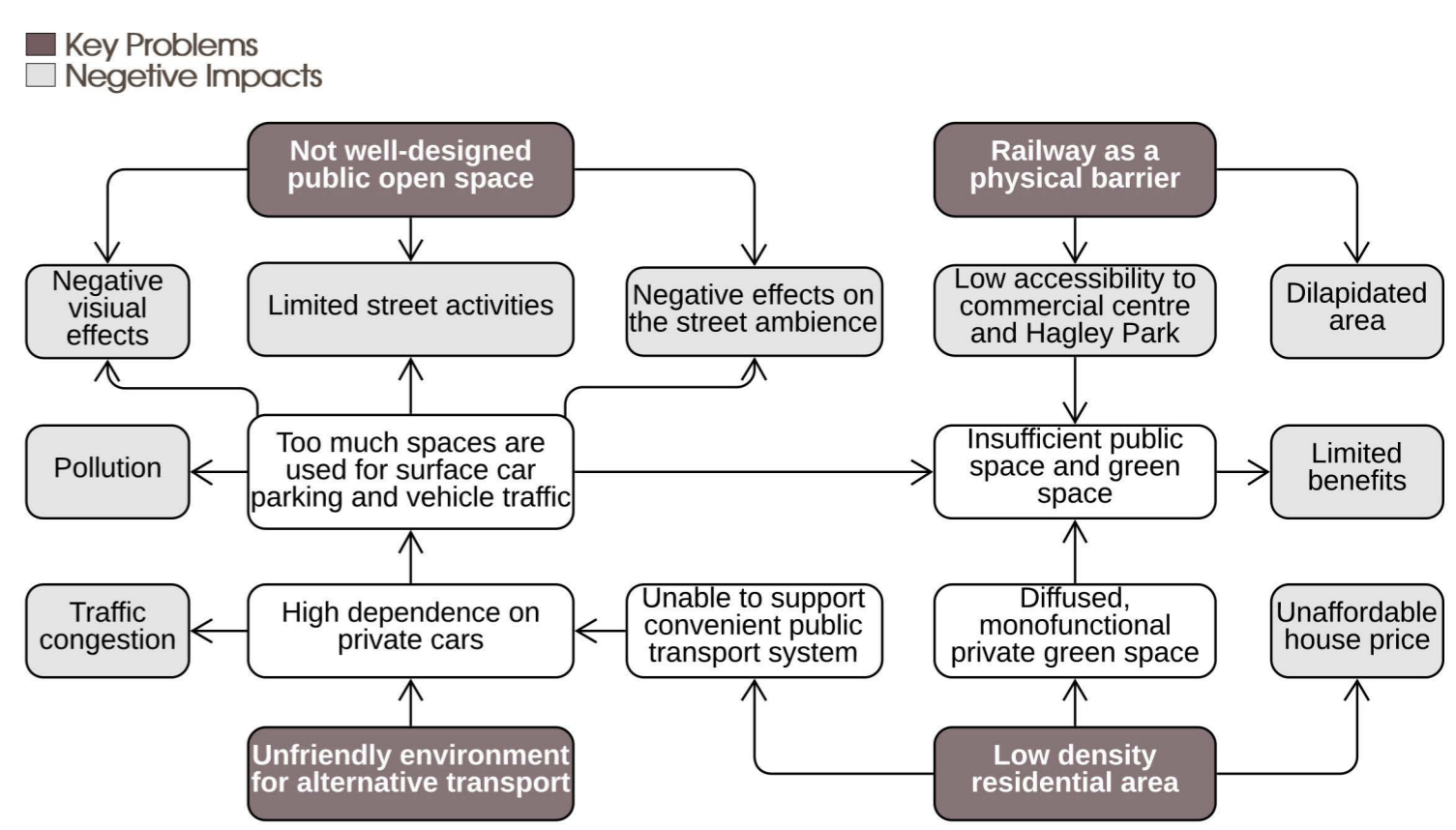
Harrop, D. S. (2014). Urban design interventions & urbanity: The case of Addington. In: Lincoln University, Hudson, M. (1982). Bicycle planning: Policy and practice. London: Architectural Press.

Side, C. (1999). SDC proceedings: The next step. Monday 5-Wednesday 7 July 1999, Addington Function Centre, Christchurch, Lincoln, N.Z. - South Island Dairy Event!

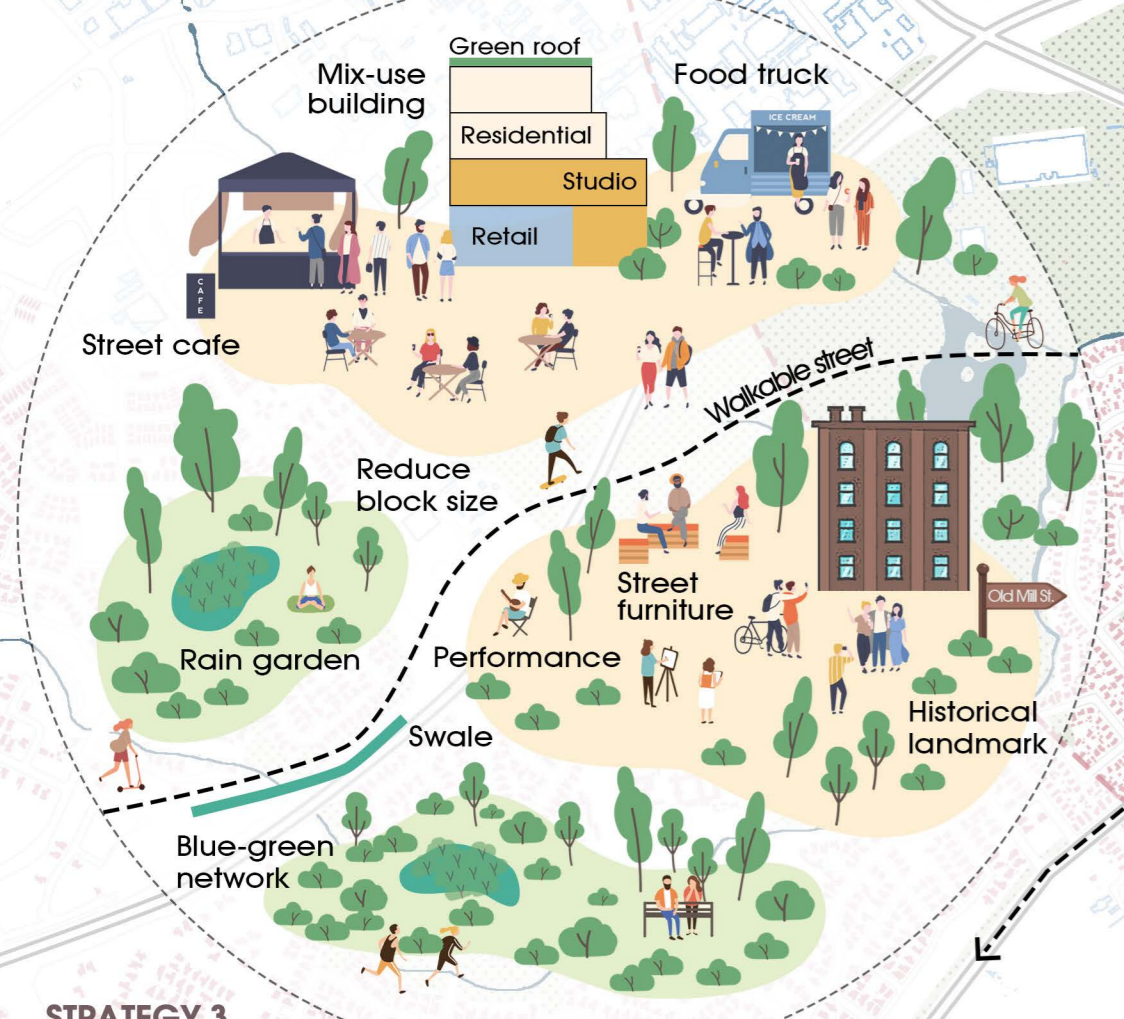
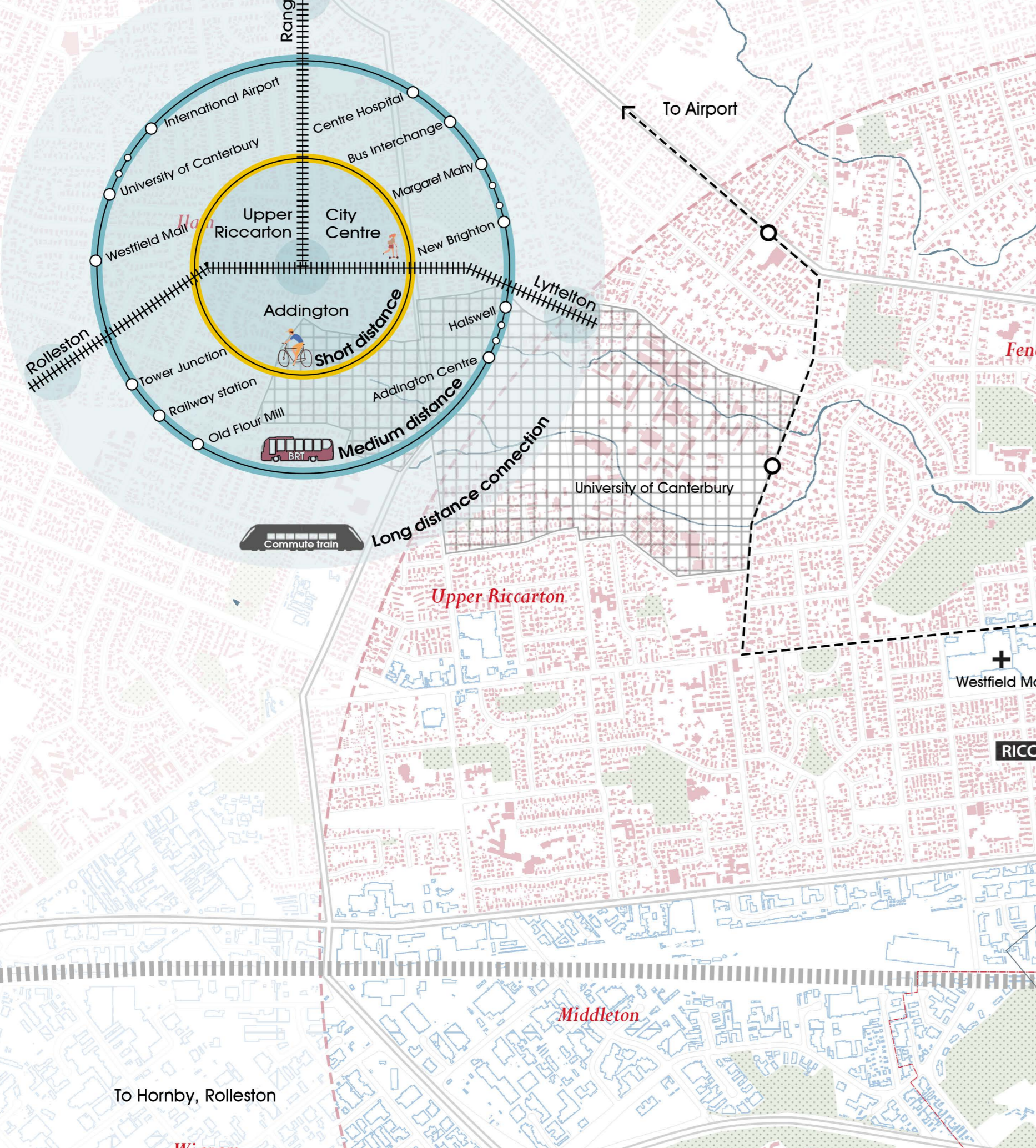
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**KEY PROBLEM**

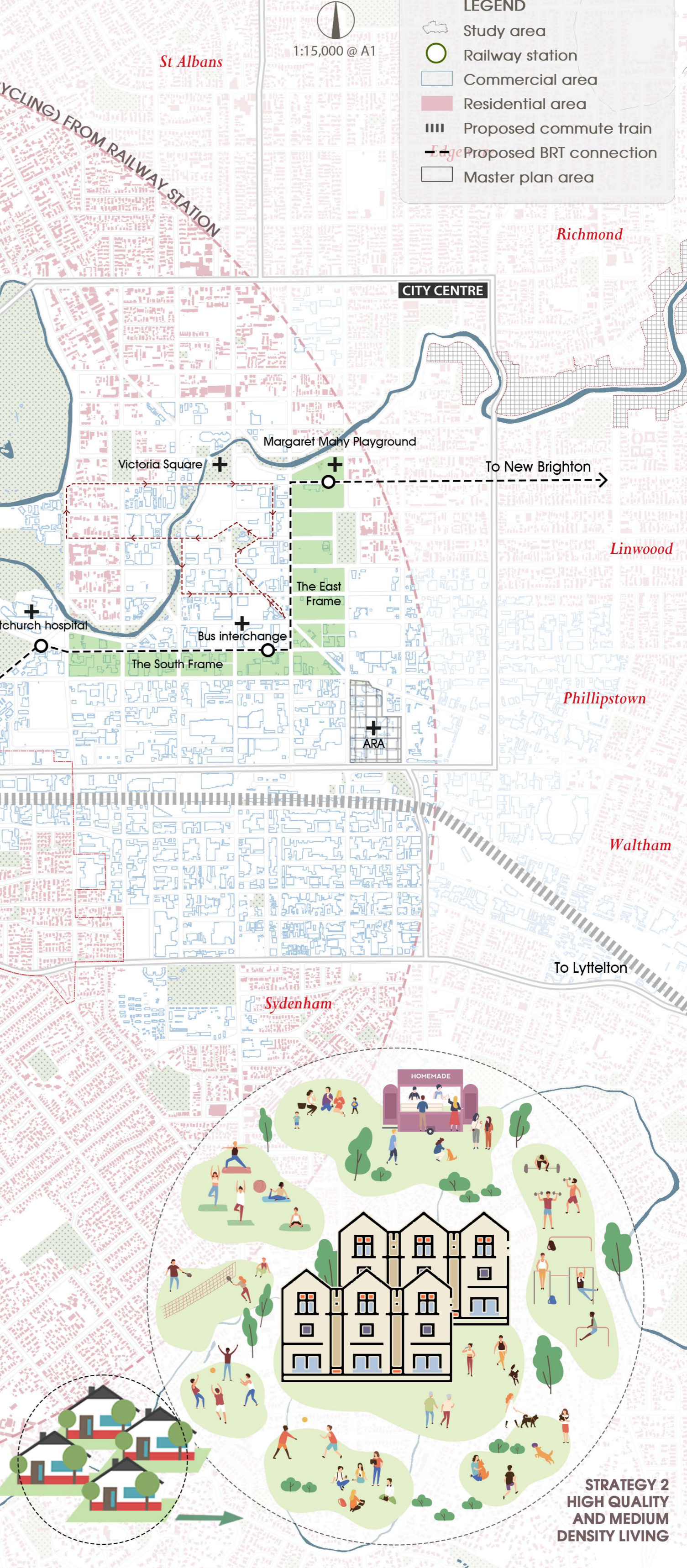
82% of people use private car as their main means of travel to work	89% of residential area in Addington are in low density
80% more times house price than housing affordability	37% of the space is occupied by roadways and parking spaces
56% of green space are monofunctional diffused private green	13% of the land and buildings are not effectively utilized or even vacant



**STRATEGY 1 IMPROVED ALTERNATIVE TRANSPORT**



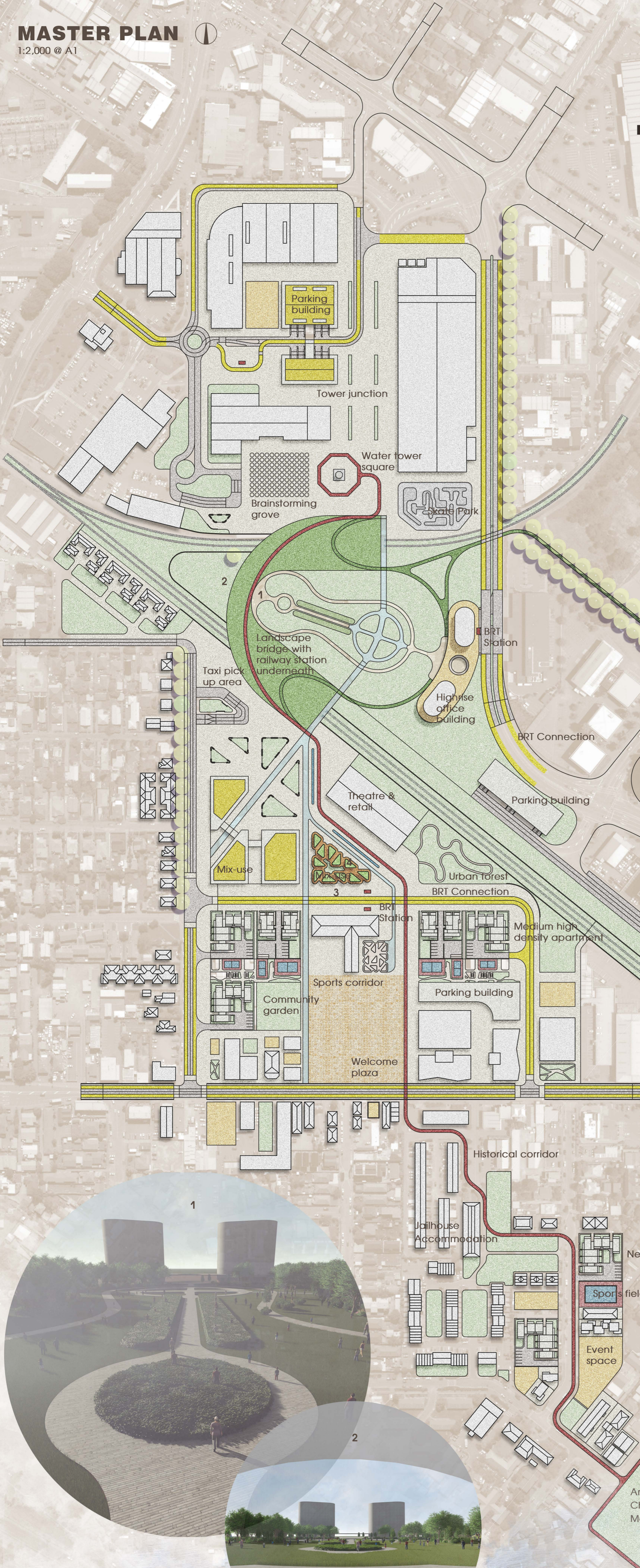
**STRATEGY 3 WELL-DESIGN PUBLIC OPEN SPACE**



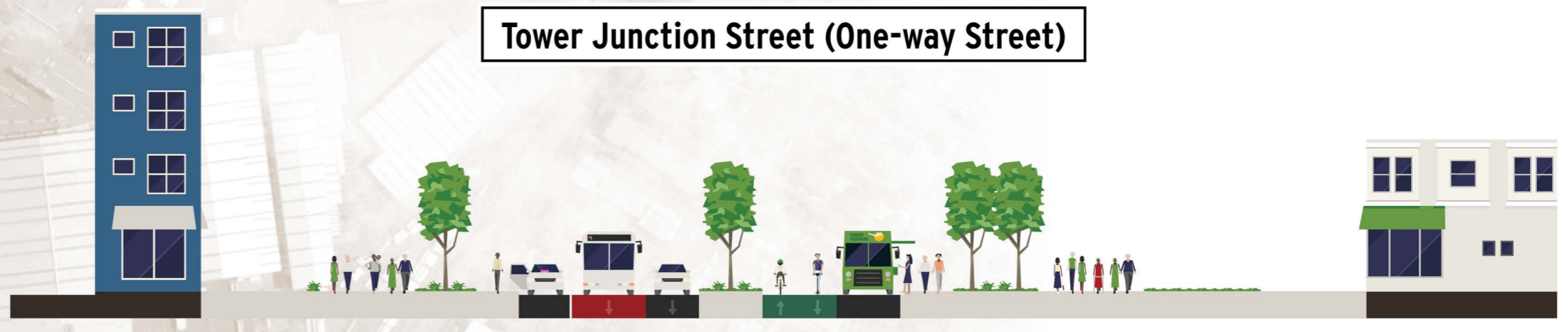
**STRATEGY 2 HIGH QUALITY AND MEDIUM DENSITY LIVING**

# MASTER PLAN

1:2,000 @ A1

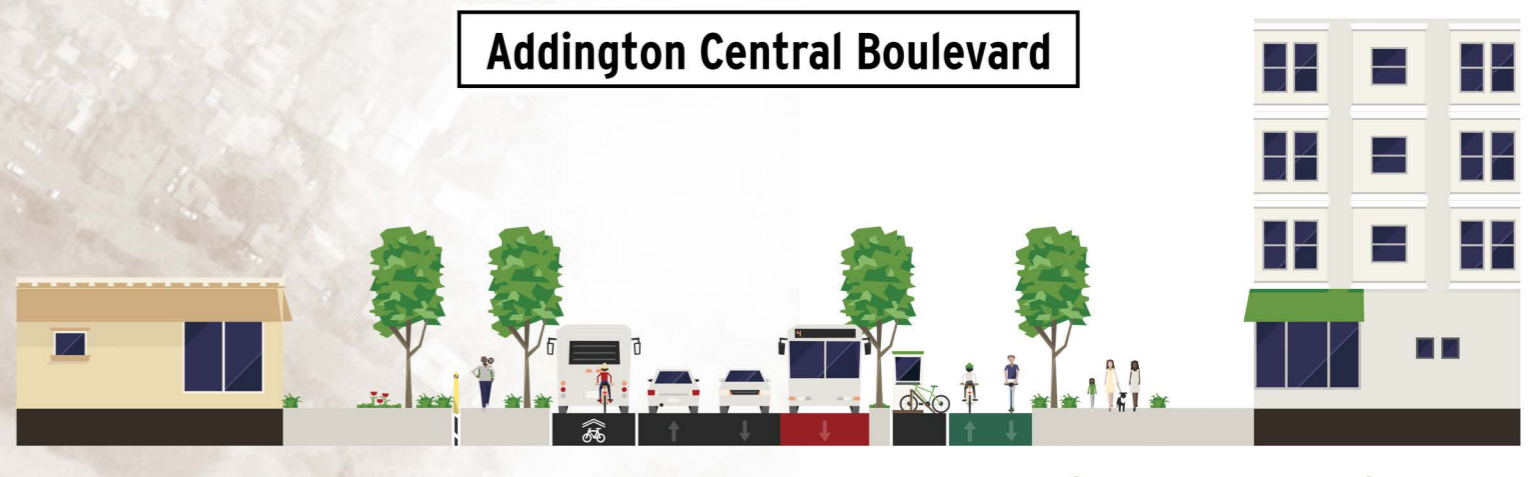


## Tower Junction Street (One-way Street)



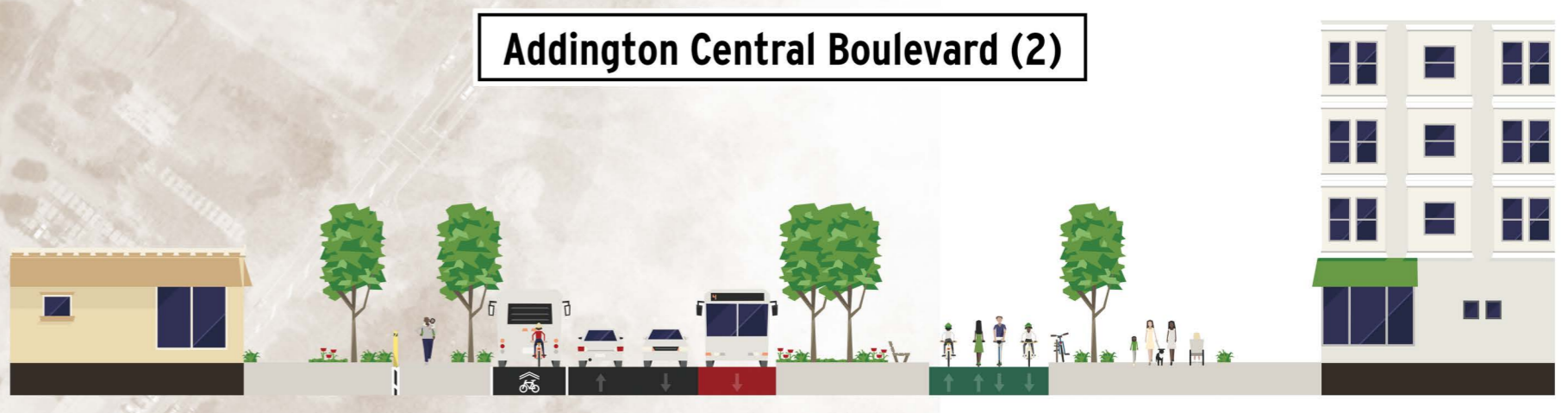
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## Addington Central Boulevard



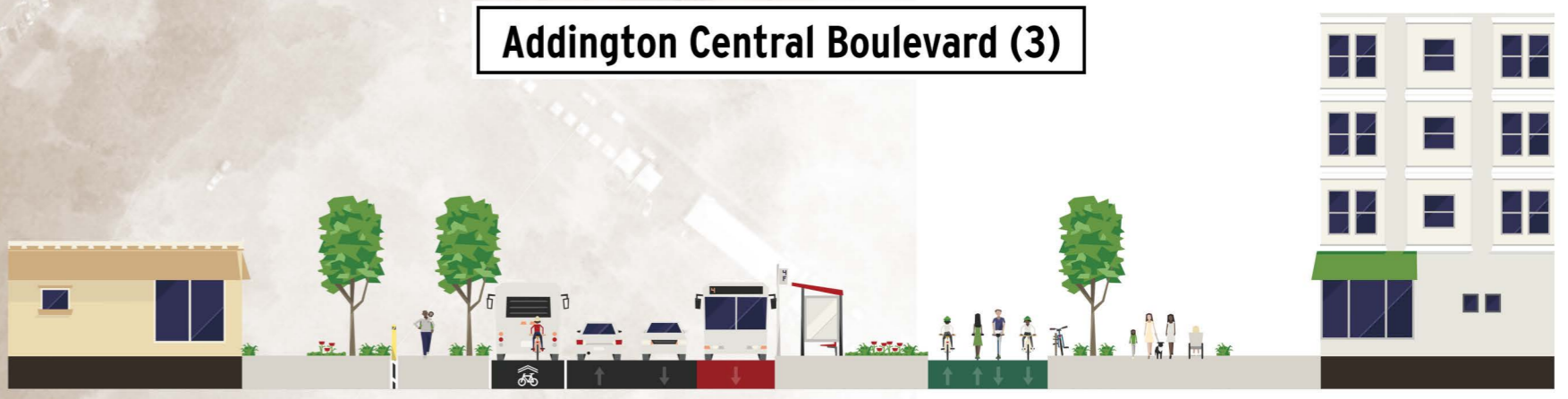
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## Addington Central Boulevard (2)



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## Addington Central Boulevard (3)



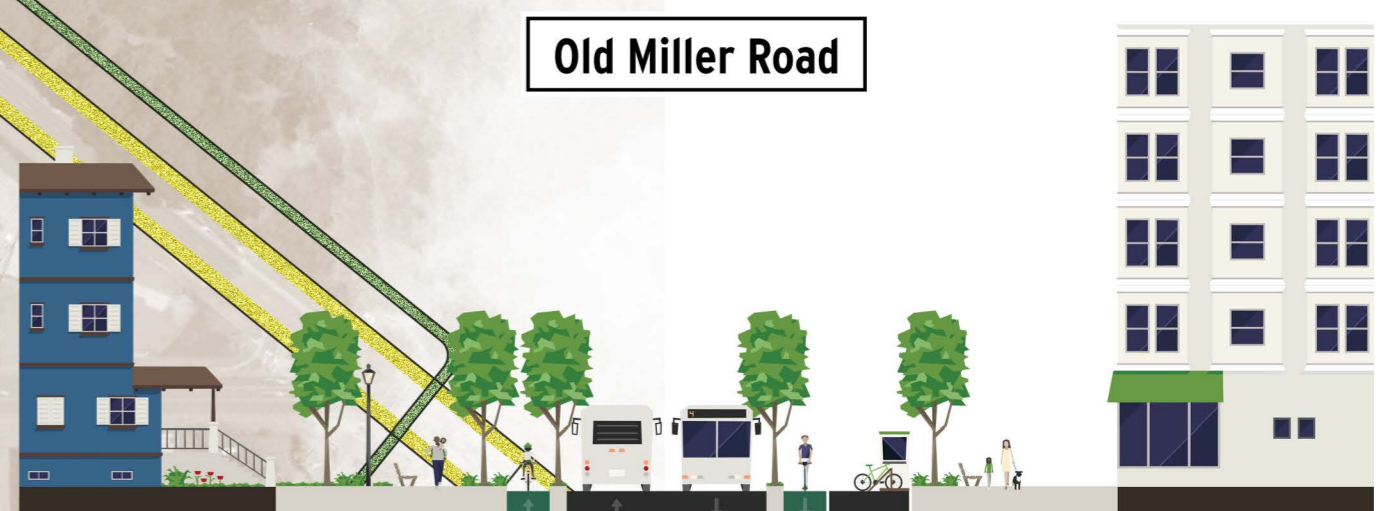
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## Old Miller Road (the Old Mill Theatre section)

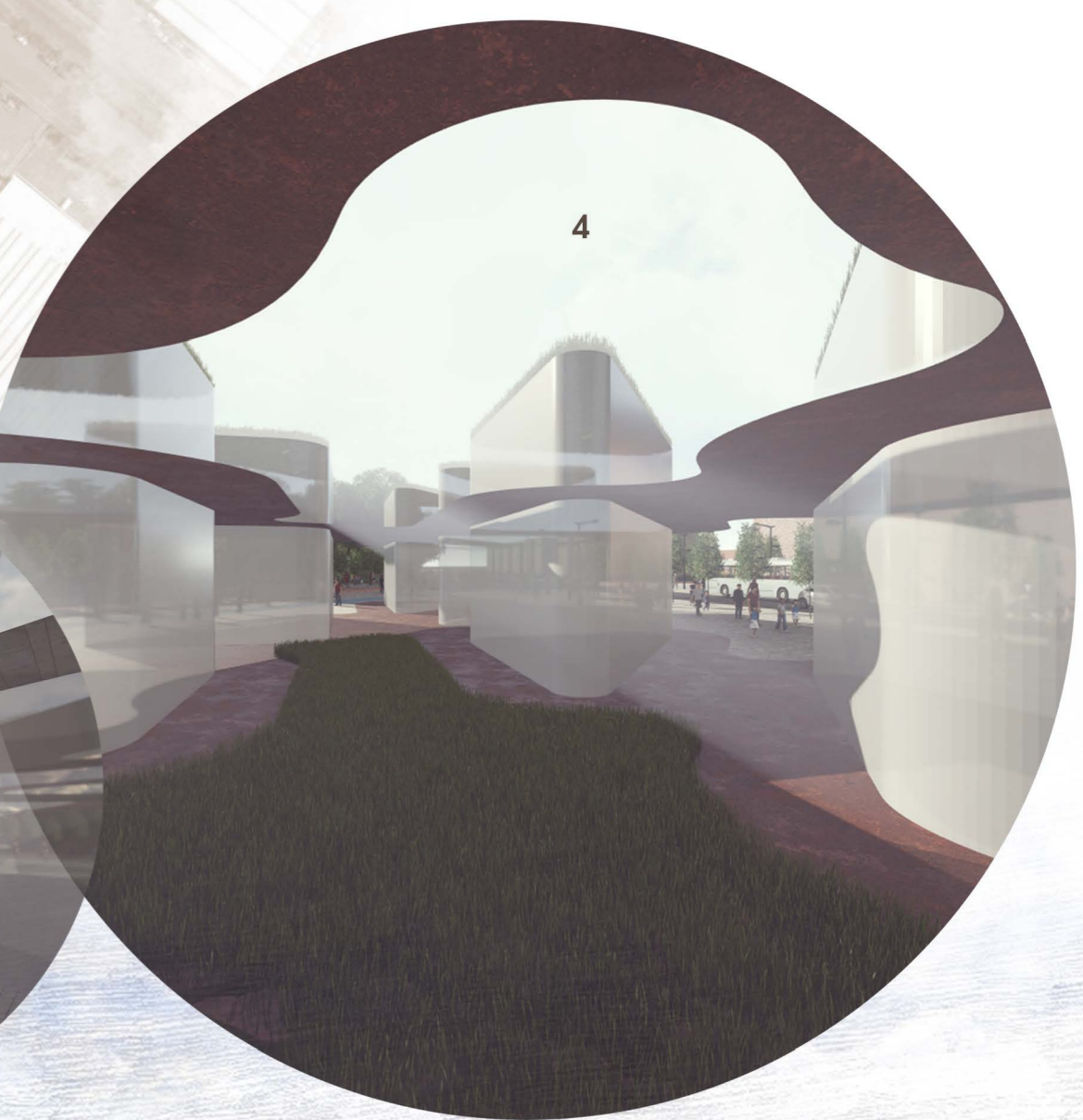
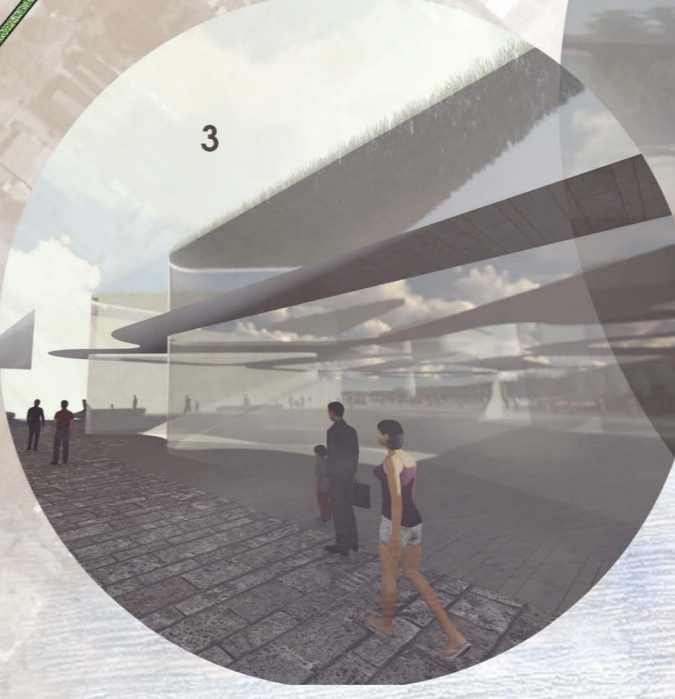


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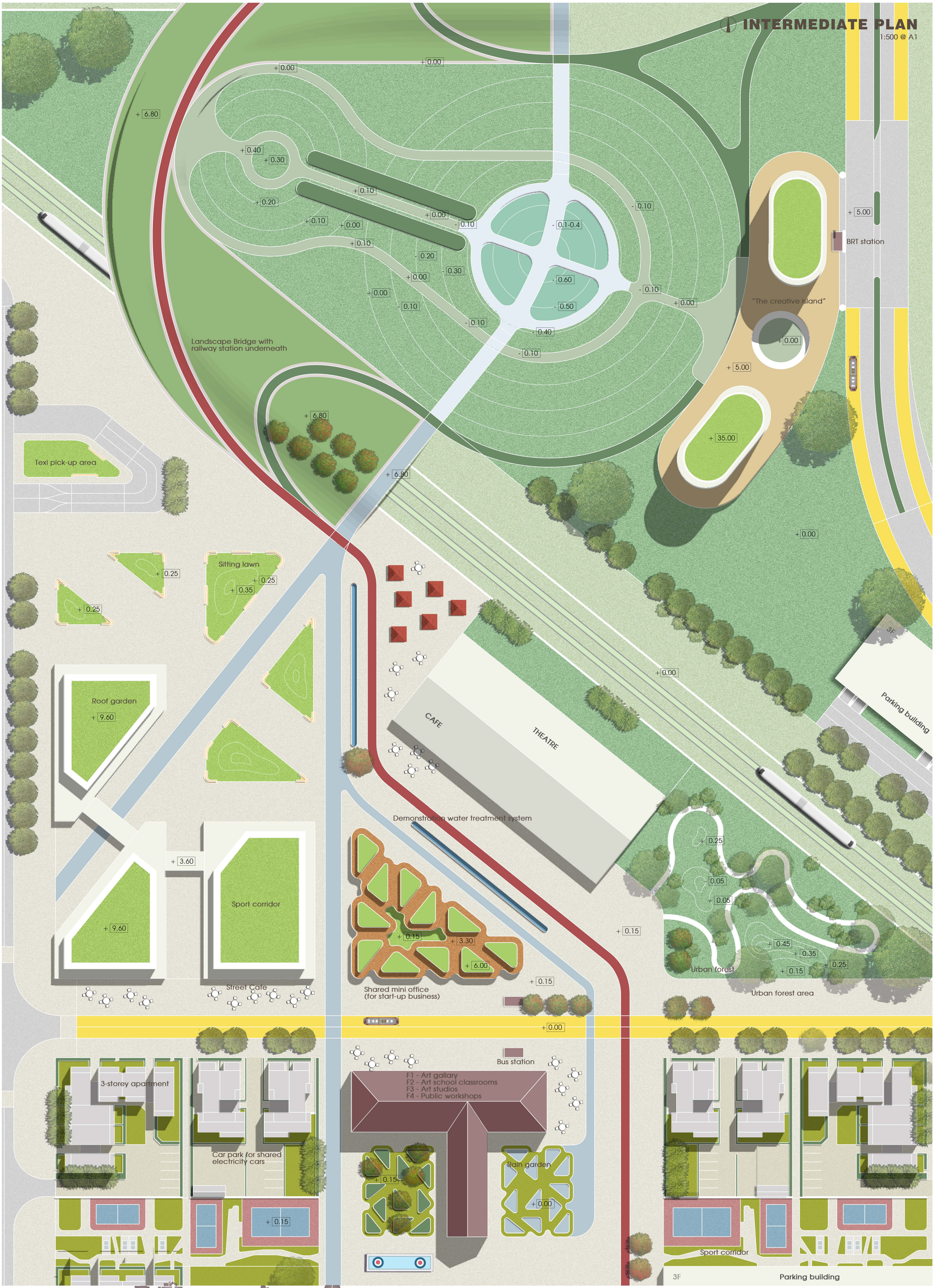
## Old Miller Road

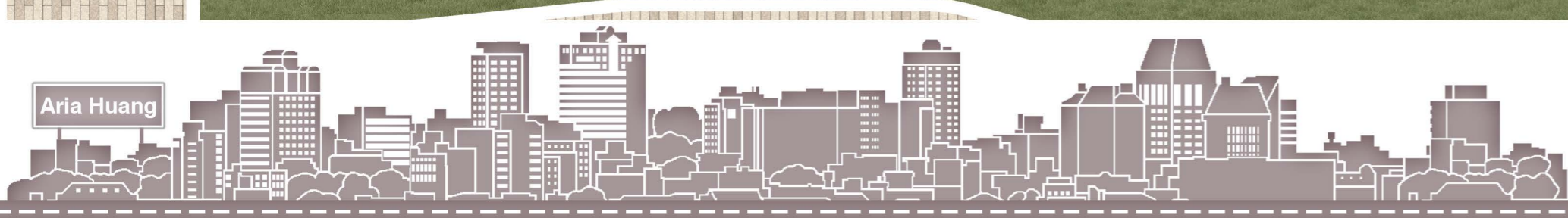
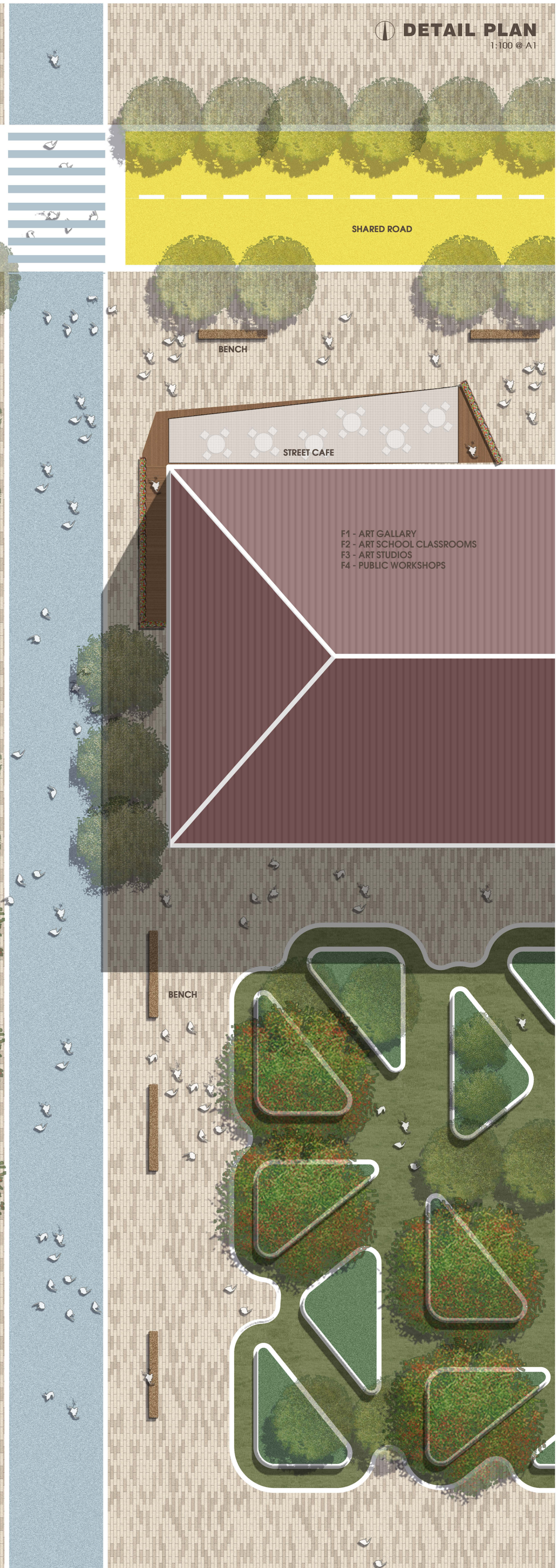
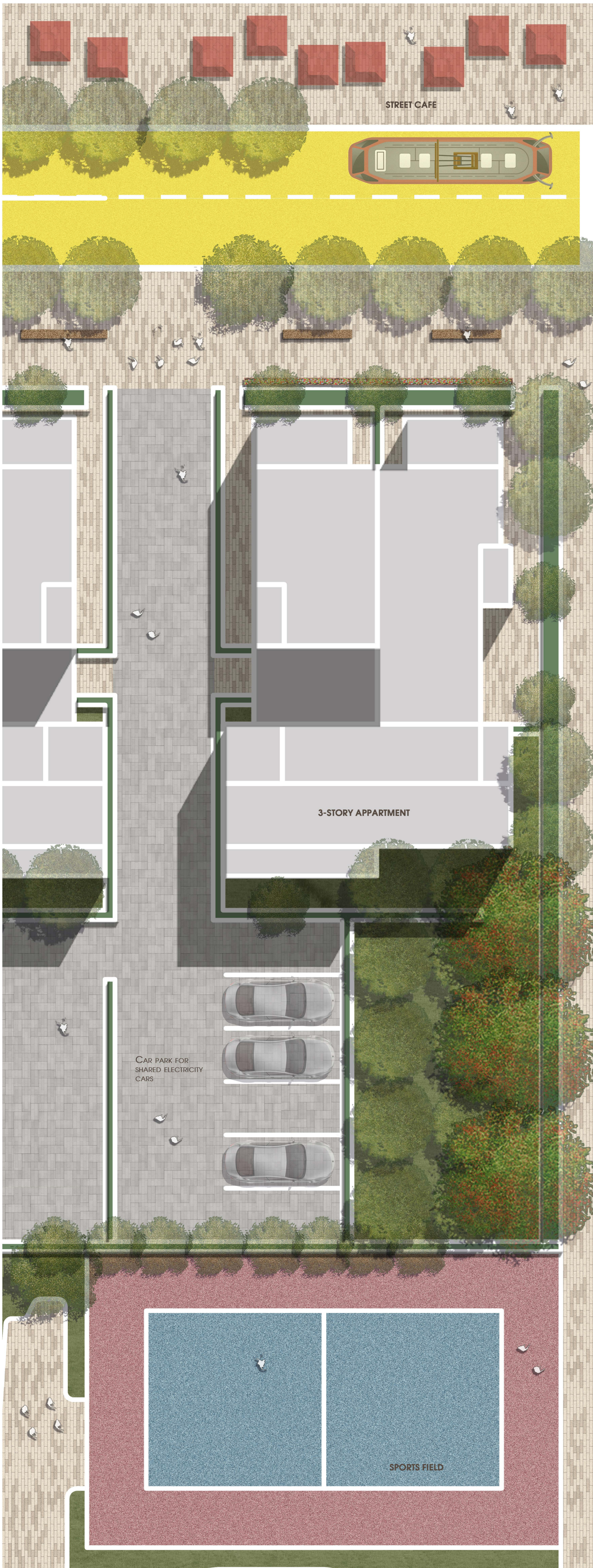


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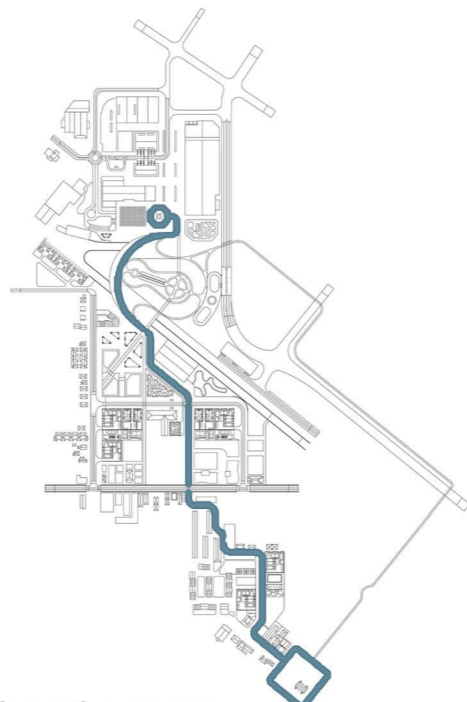
# FLOURISHING ON THE RUSTED TRIANGLE





## HISTORIC CORRIDOR




This corridor links several Addington's representative historic buildings and areas. The pavement of the walkway uses similar colours to bricks and steel plates, which are reminiscent of industrial. The planting strategy on both sides of this path wants to attract people's attention by using the combination of special coloured and strong formed plants and pavement, to highlight Addington's industrial history and further to show Addington's unique characteristics.

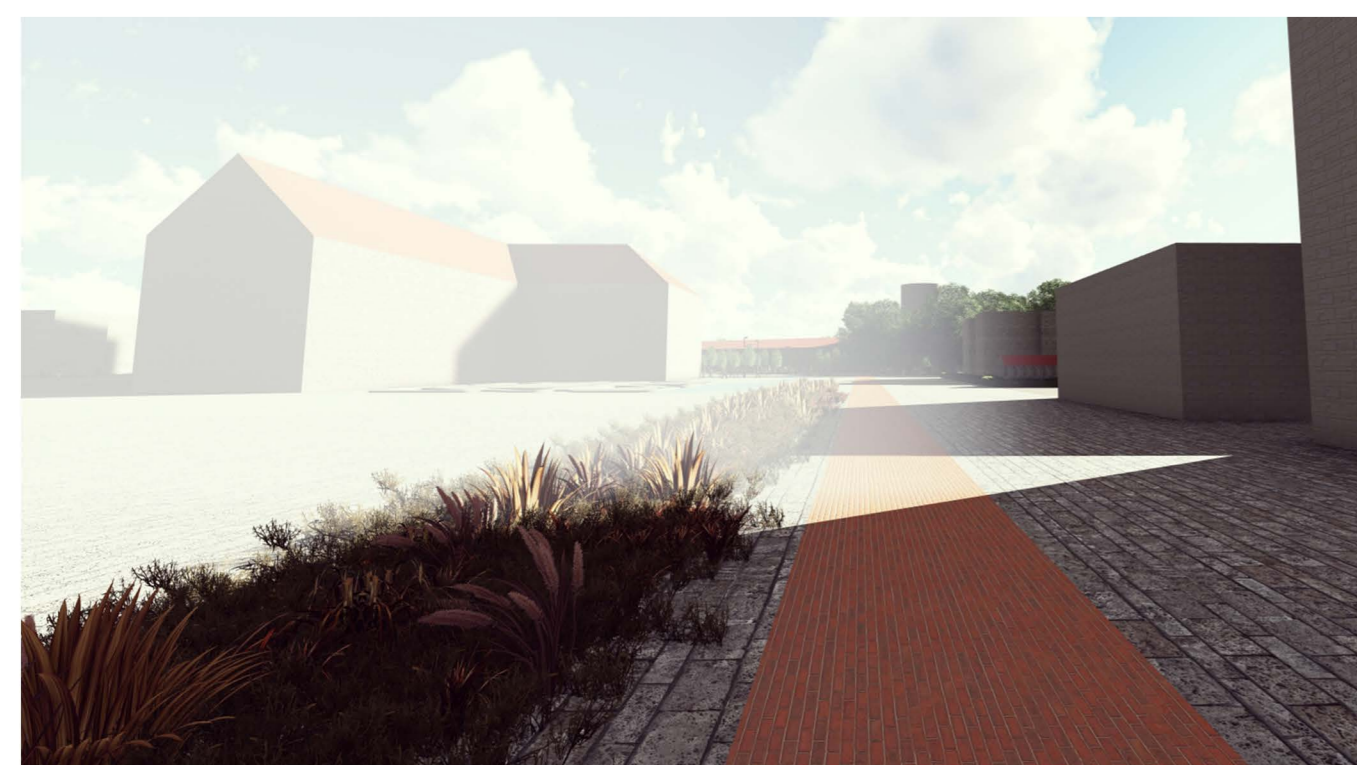


### PLANT SELECTION CRITERIA

1. Better to be native to New Zealand
2. Better to have red/brown/orange leaves or flowers
3. Have strong form
4. Different heights and widths to accommodate different spaces
5. Relatively higher ornamental value
6. Tolerant varies weather conditions

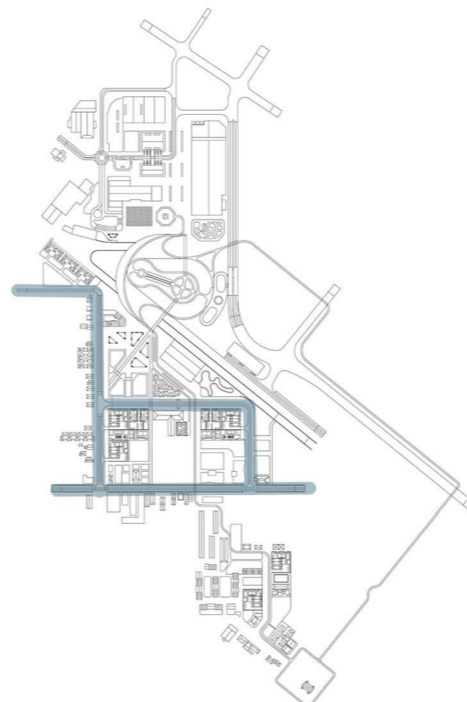
### SELECTED PLANT

 <b>Quercus palustris</b> Pin Oak - Yellow and red-bronze leaves in autumn - Very hardy - About 15-20m high	 <b>ULMUS glabra 'Horizontalis'</b> Horizontal Elm - Stunning shade tree - Deep butter yellow autumn foliage - Hardy
 <b>Cordyline Purple Tower</b> Cordyline 'Purple Tower' - Attractive purple leaves - Lush Tropical Look - Evergreen - About 5m high	 <b>Carpodetus serratus</b> NZ Marble Leaf - Evergreen native shrub - Attractive 'marbled' leaves - White flowers - Purple fruits
 <b>Phormium</b> Bronze Flax - Fat bronze leaves - Evergreen native grass - Attracts Birds/Bees - About 2m high	 <b>Sophora microphylla</b> South Island Kowhai - Native tall shelter - Attractive fern-like foliage - Attracts birds/bees - Hardy to cold and wind
 <b>Liberia ixiolides</b> NZ Iris - Yellow-green leaves - Attractive white flowers - Full sun to shade - Wide range conditions	 <b>Aristotelia serrata</b> Makomako (Wineberry) - Fast-growing native tree - Attractive rose-coloured flowers - Black berries attracts birds



## AVENUE TREES





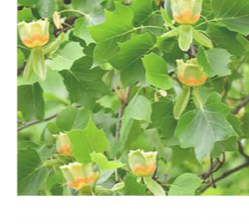



The plants in this group mainly focus on functionality. These plants need to meet the different needs of different streets while providing greening. For example, plants for roadways should with higher bifurcation points so as not to block the driver's view. Also, these plants need to be able to tolerate wide range of weather conditions and even air pollution. Most of the plants in this group come from the existing plants in Addington's streets to ensure the integrity and coordination of the whole community's street plants.



### PLANT SELECTION CRITERIA

1. Relatively fast growing
2. Tough, can tolerate various weather conditions
3. Tolerance of air pollution
4. Should not obscure the driver's view
5. The bifurcation point of trees beside the sidewalk should be more than 2m, which does not affect people's use of the sidewalk

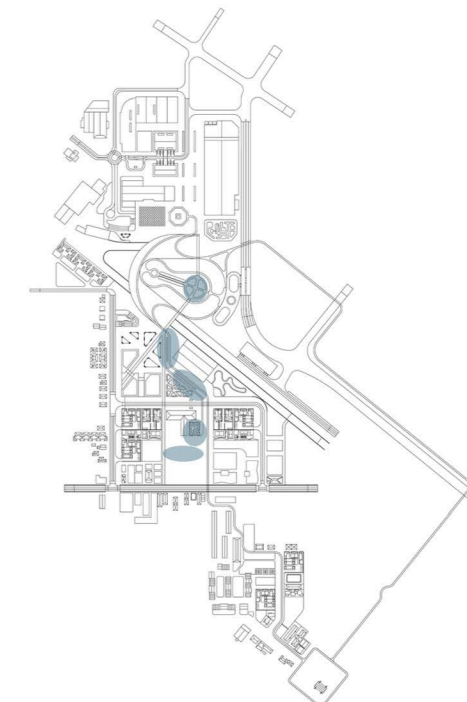
### SELECTED PLANT

 <b>Platanus acerifolia</b> London Plane Tree - Popular street trees - Tolerant air pollution - Large palmate leaves - Light brown mottled trunk	 <b>Tilia platyphyllos</b> Broad-Leaved Lime - Small, fragrant flowers - Medium to fast growing - About 15-20m high - Hardy
 <b>Quercus palustris</b> Pin Oak - About 15-20m high - Tolerant of air pollution - Very hardy - Yellow, red-bronze leaves	 <b>Quercus robur fastigiata</b> Upright English Oak - Columnar form - Can old its brown leaves over winter - Very hardy
 <b>Liriodendron tulipifera</b> Tulip Tree - Tolerates pollution, hardy - Pyramidal crown - Yellow leaves in autumn - About 25-30m high	 <b>Phormium tenax</b> New Zealand Flax - Excellent low shelter - Attractive to birds & bees - Wide range conditions - Very hardy
 <b>Liberia ixiolides</b> NZ Iris - Yellow-green leaves - Attractive white flowers - Full sun to shade - Wide range conditions	 <b>Pimelea prostrata</b> New Zealand Daphne - Fast-growing groundcover - Tiny starry white flowers - Small white berries - Evergreen & hardy



## RAIN GARDENS AND BIO-SWALES




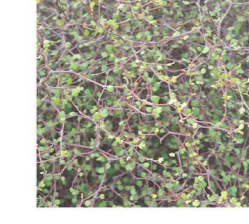




Rain gardens and bio-swales will function as important nodes and connections within the Addington Green-Blue networks. These planting areas play an important role in both quality and quantity management of the urban stormwater. They not only can reduce the amount of pollutants, but also can increase the percentage of permeable surfaces within urban areas (which could help to prevent or mitigate the negative effects caused by extreme weather events). Furthermore, they contribute to the improvement of urban ecological health and enhancement of street walkability as well.



### PLANT SELECTION CRITERIA

1. Tolerant both wet and dry condition
2. Great water treatment capacity
3. Resistant to weed invasion
4. Not pose weed risks to surrounding ecosystem
5. Tolerant to possible pollutants

### SELECTED PLANT

 <b>Pseudopanax crassifolius</b> Lancewood - Attractive foliage & bark - Straight, clean trunk - Attractive to birds & bees - Dry to moist condition	 <b>Austroderia toetoe</b> Toetoe - Best in wet soils - Suitable for screening - Attractive creamy flower - Hardy and evergreen
 <b>Carex secta</b> Makura Sedge - Attractive wetland plant - Can cope with different water levels - Evergreen native plant	 <b>Muehlenbeckia astonii</b> Shrubby Torararo - Divaricating shrub - Small heart-shaped leaves - Provide great contrast - Extremely hardy
 <b>Hebe 'Emerald Gem'</b> Hebe - Forms domes of green - Attractive foliage - Small white flowers - Hardy evergreen shrub	 <b>Cyperus ustulatus</b> Giant Umbrella Sedge - Native swamp grass - Tolerant of a wide range of conditions - Heavily keeled leaves
 <b>Bolboschoenus caldwellii</b> Purua Grass - Can provide seasonal diversity - Tiny starry white flowers - Small white berries - Fast growing - Yellow-brown flowers	 <b>Eleocharis sphacelata</b> Tall Spike Rush - Excellent wetland plant - Moderately quick to establish - Deepest growing species



## LIVING ROOFS

Living roofs are recommended for the most proposed new buildings on site. They will also function as an important component within the urban green networks. They provides multiple benefits (ecological services) not only for human but also for diverse types of animals, which include improved onsite stormwater management, improved human health, carbon sequestration, urban heat island mitigation, aesthetic improvements and even food production etc.

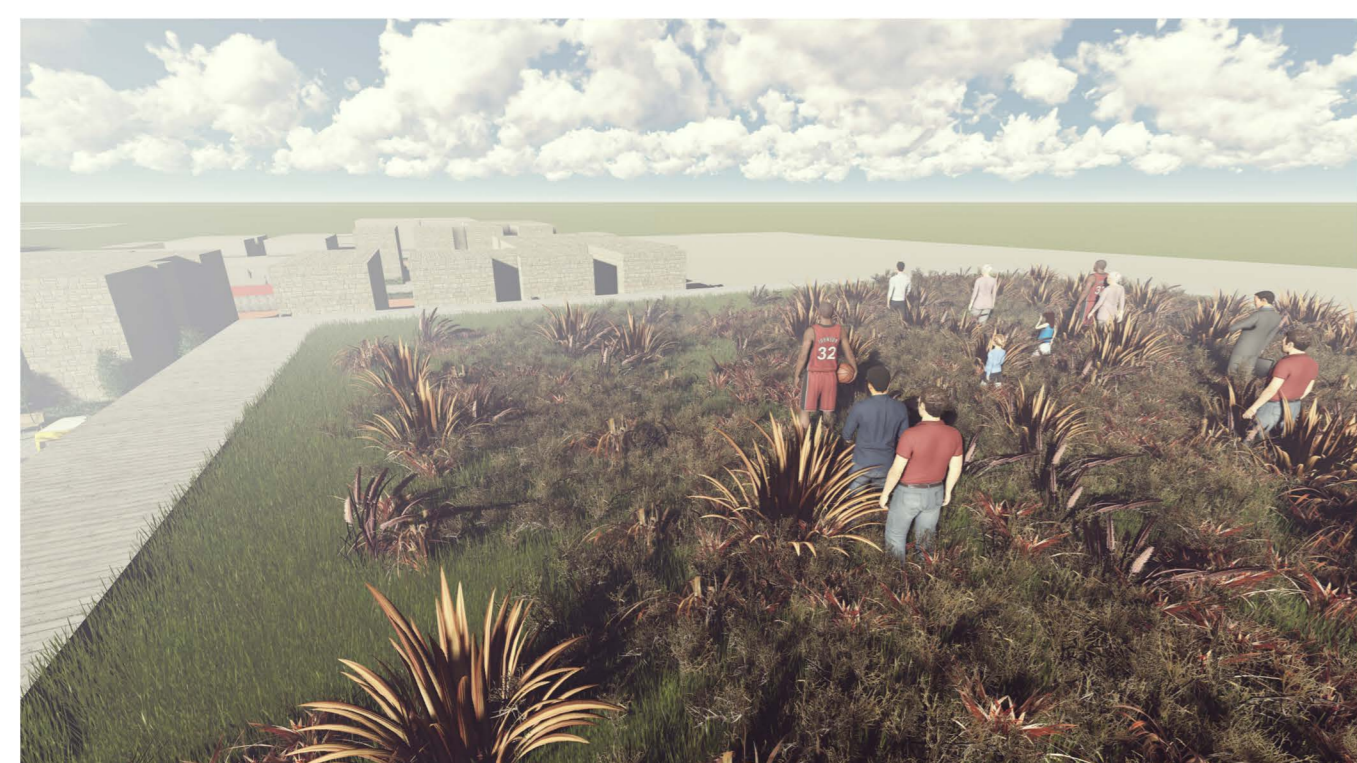


### PLANT SELECTION CRITERIA

1. Relatively shallow root system
2. A range of growth height for different buildings
3. Tolerant to hostile weather conditions (drought, wind and rain)
4. Tolerant to exposed condition
5. Low maintenance

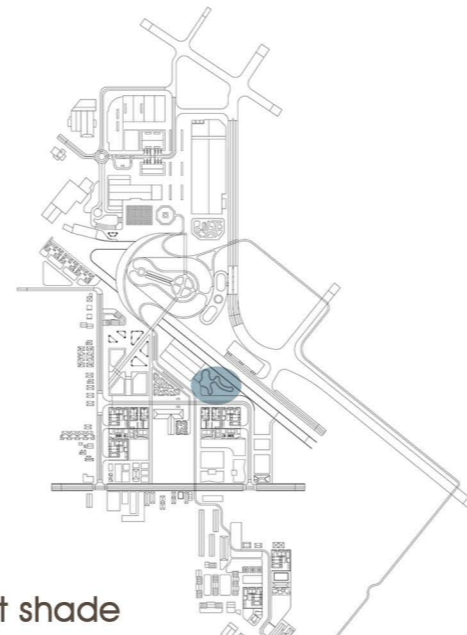
### SELECTED PLANT

 <b>Muehlenbeckia complexa</b> Pohuehue - Tiny creamy-green flowers - Round light-green leaf - Full sun to part shade - Evergreen & hardy	 <b>Apodasmia similis</b> Oioi - Attract grey-green leaves - Brownish bracts at the joints - Wide range conditions - Evergreen & hardy
 <b>Ariphodidium cirratum</b> Rengarenga - White star-shaped flowers - Attract birds & bees - Full sun to part shade - Hardy	 <b>Coprosmia acerosa</b> Sand Coprosma - Compact, spreading shrub - Orange/brown branches - Tolerates poor soils - Evergreen & hardy
 <b>Poa cita</b> Silver Tussock - Fast-growing native grass - Fine foliage - Great in mass plantings - Evergreen and hardy	 <b>Liberia ixiolides</b> NZ Iris - Yellow-green leaves - Attractive white flowers - Full sun to shade - Wide range conditions
 <b>Pimelea prostrata</b> New Zealand Daphne - Fast-growing groundcover - Tiny starry white flowers - Small white berries - Evergreen & hardy	 <b>Fuchsia procumbens</b> Creeping fuchsia - Fast growing groundcover - Red/yellow flowers - Full sun to full shade - Attracts birds & bees



## URBAN FOREST


It will provide a sense of enclosure and help people to retreat from the busy urban setting for a while to release stress. Also, it plays an important role in the urban ecological system, in which it contributes to the enhanced ecological connection and improved habitats for various animals.



### PLANT SELECTION CRITERIA

1. Relatively fast-growing
2. Dense foliage
3. Secondary and groundcover levels should tolerant shade
4. Wildlife attractive
5. Canopies above eye level
6. Upper level should be deciduous or without dense crown (providing better thermal comfort in winter)

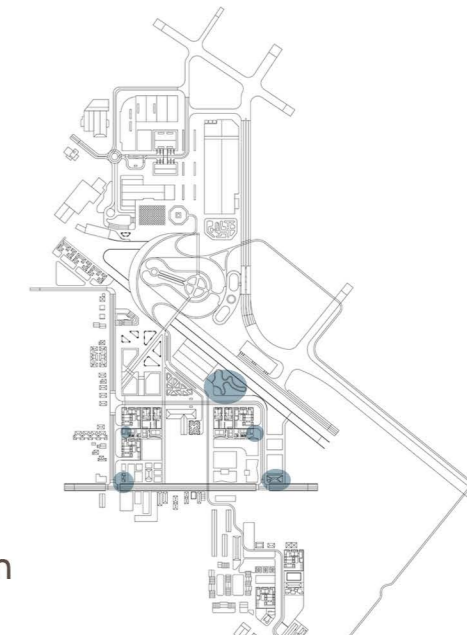
### SELECTED PLANT

 <b>Podocarpus totara</b> Totara - Attractive tall shelter - Can grow in a wide range of condition - Attractive foliage & bark	 <b>Leptospermum scoparium</b> Manuka - Fast growing tree - Tolerant of almost all growing conditions - Attract birds & bees
 <b>Cordylina australis</b> Cabbage Tree - Medium to rapid growing - Sweetly-scented flowers - Fruit attracts birds - About 10m high	 <b>Griselinia littoralis</b> Broadleaf - Popular hedging shrubs - Attracts birds & bees - About 4m high - Shade Tolerant
 <b>Liberia ixiolides</b> NZ Iris - Full sun to shade - Wide range conditions - Yellow-green leaves - Attractive white flowers	 <b>Pellaea rotundifolia</b> Button Fern - Part sun to shade - Very easy to grow - Ideal for use under trees - Moist but well-drained soil
 <b>Hypolepis ambigua</b> Rough Pig fern - Broad fronds - Part sun to shade - Prefer moist soil - About 1.2m high	 <b>Dichondra repens</b> Dichondra - Full sun to partial shade - Lush bright green ground cover - Wide range conditions



## STREET CORNER GARDENS




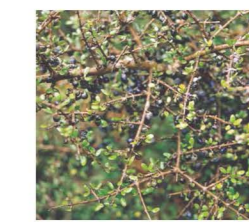



These street corner gardens will function as important patches or nodes within the constructed urban green networks, in which they provide birds and insects with habitats and form nice little public spaces, allowing diverse activities to happen, such as chatting, resting, gathering, temporary markets, community events or even street café.

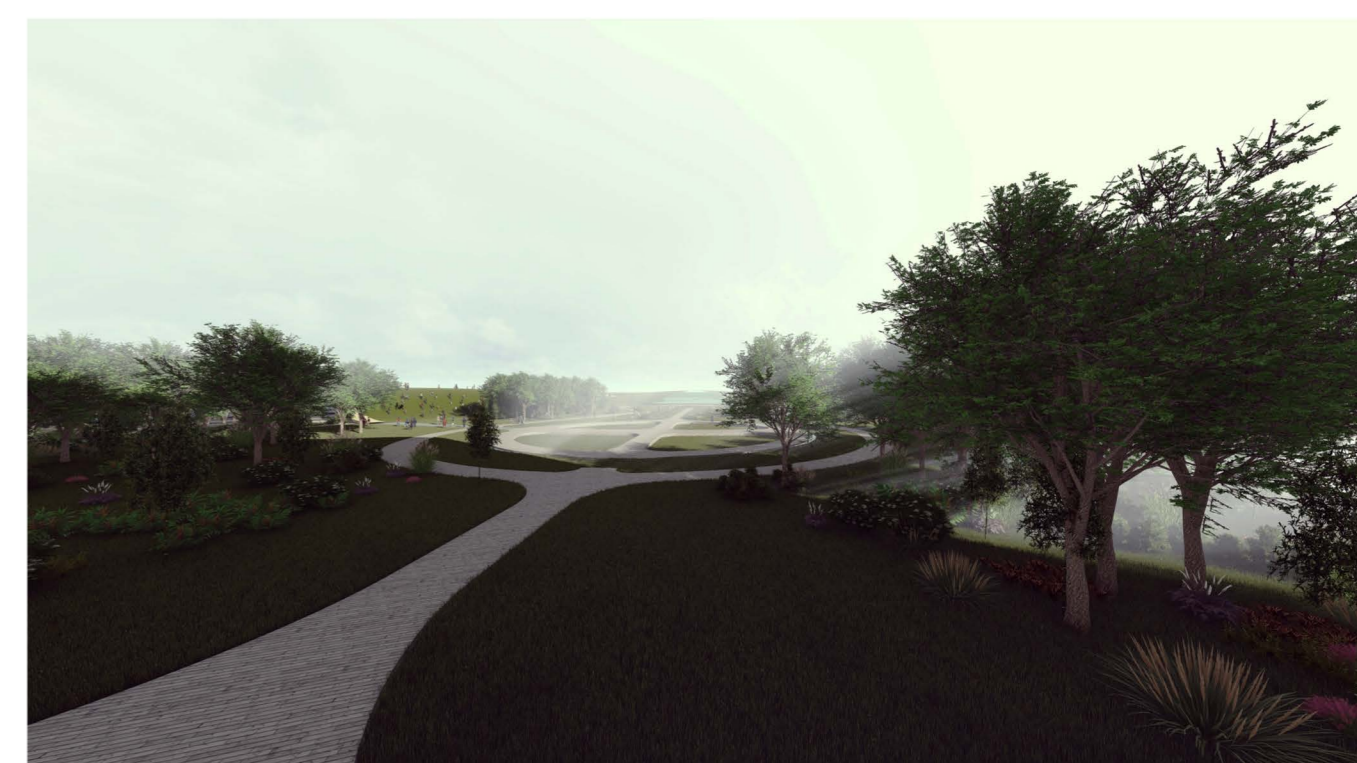


### PLANT SELECTION CRITERIA

1. Relatively higher ornamental value
2. Not pose weed risks to the surrounding ecosystem
3. Tolerant varies weather conditions
4. Tolerant street pollutions
5. Wildlife attractive
6. In high-head form or below waist level
7. Low maintenance

### SELECTED PLANT

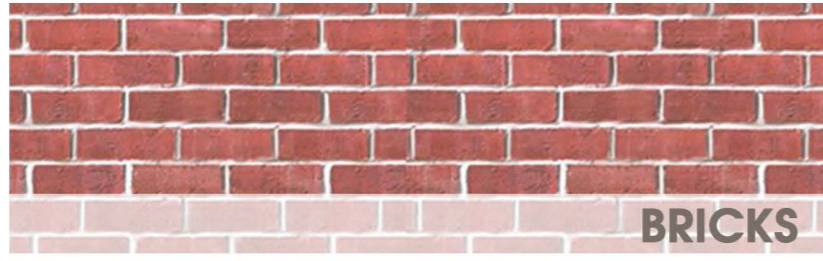
 <b>Quercus robur</b> English Oak - Red/brown leaves in autumn - Catkin flowers in spring - Hardy - About 25-30m high	 <b>Cordylina australis</b> Cabbage Tree - An iconic NZ tree - Multi-trunked with tufts of green foliage - Sweetly-scented flowers
 <b>Sophora microphylla</b> South Island Kowhai - Native tall shelter - Attractive fern-like foliage - Attracts birds/bees - Hardy to cold and wind	 <b>Coprosmia propinqua</b> Mingimingi - Large, tough shrub - Good low shelter - Attractive foliage - Food source for native birds
 <b>Pittosporum eugenioides</b> Lemonwood - Quick-growing shelter - Evergreen hedges - Attractive to bees - About 12m high	 <b>Hebe 'Emerald Gem'</b> Hebe - Forms domes of green - Attractive foliage - Small white flowers - Hardy evergreen shrub
 <b>Lavandula X intermedia</b> Hybrid Lavender - Scented foliage & flowers - Attracts birds & bees - Rapid growign & hardy - Evergreen shrubs	 <b>Poa cita</b> Silver Tussock - Fast-growing native grass - Fine foliage - Great in mass plantings - Evergreen and hardy



## PLANTING STRATEGY

# MATERIAL PALATTE

MATERIALS COMING FROM SITE



BRICKS

## KEY CHARACTERISTICS

- Common material used to make pavement, wall etc.
- Long-lasting and strong building materials
- Attractive redish colour
- Can make into thousands of different types depends on it use, size, forming method and so on

## USE AND DESCRIPTION

**Use:** Paving, garden edge  
The earthquake has damaged many buildings, many of which are brick structures. As some repair processes continue, broken bricks will be replaced. Although these bricks have been damaged, they still have a very conspicuous redish colour. So I crushed the bricks to get some red powder, which was then mixed with the concrete to create a special paving with a bright color and texture.



CORRUGATED IRON

- A widely used material composed of hot-dip galvanised mild steel
- The corrugations is for strengthening the sheet
- Lightweight and easily to transport
- Galvanising can protect this material from corrosion

**Use:** Street furniture, shelter  
At present, the railway track is surrounded by corrugated iron fences, which not only affects the aesthetics, but also completely separates the railway from the community. The railway has become a real obstacle. So I removed these corrugated iron fences to make some street furniture and shelters.



RAILWAY TRACK

- Made by very high-quality steel alloy
- Have very high stresses
- Heavy and strong
- Silver colour
- Showing reddish brown during rusting

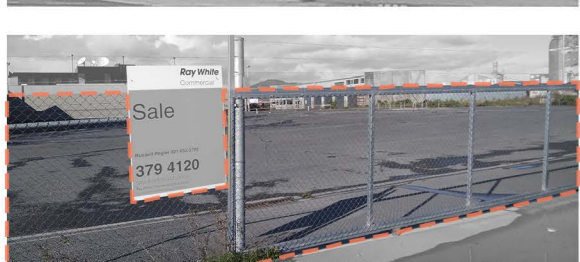
**Use:** Street furniture  
Some railway were abandoned and converted into simple roadways after being landfilled. But in fact these rails have very good quality, although they can no longer be used as the railway, they are still very good materials. So I reuse these rails as street furniture, which are not only enrich the street activities, but also allow people to reuse these historical materials.



CONTAINER

- Lightweight, easy to move anywhere
- High strength, can be used repeatedly for a long time
- Standardized specifications to facilitate unified management and transportation
- Can be stacked and placed easily

**Use:** Food truck, shelter, semi-private space, street furniture  
Since it used to be a busy railway station, many of the containers used to transport goods were left on the site, and these containers occupied a lot of space. This design therefore transforms these containers into a number of different functional spaces that allow people to freely use these recombined spaces.



CHAINLINK FENCING

- Made from galvanized steel wire
- High toughness, can transform into the desired state
- With silver colour
- Tough, anti-corrosion and anti-oxidation
- Easy to combine with other materials

**Use:** Plant climbing frame  
There were many vacant land in this site, most of which were surrounded by chainlink fencing. These fences not only affect the aesthetics, but also make it impossible for people to use these enclosed area. So in this design these fences were removed and their use was changed. For example, some fences have been shaped and placed next to the climbing plants, allowing plants to climb, eventually forming many area resembling vertical planting walls.

OTHER IMPORTANT MATERIALS



CORTEN STEEL

- Unique rough, bronzed and rusted surface
- Anti-corrosion features
- Cheaper than stainless steel
- Suitable for public art, outdoor sculpture, decoration
- Can be used as supporting structures

**Use:** Street furniture, sculpture, building decoration  
This material can make Addington's design a certain degree of integrity and consistency since Addington has some corten steel sculptures currently. Also, this material is easy to remind people of industrial elements, which can help highlight the characteristics of Addington's industrial history. Moreover, the reddish brown appearance is in good agreement with brick.



CONCRETE

- Rich in raw materials and low in price
- High compressive strength and durability
- Can be combined with a variety of materials
- There are many types of surface treatments
- One of the most important engineering materials

**Use:** Pedestrian walkway,  
Concrete as the main pavement of the walkway not only can effectively divide the area, the light gray colour of the concrete can also form a sharp contrast with the color of the plant. While giving a clean and simple feeling, it also combines natural elements well. In addition, concrete is used as a binder for other paving materials to help provide a wide variety of paving types.



PERMEABLE PAVERS

- Available in a variety of colours and specifications
- Widely used in outdoor spaces
- Can treat sewage if combined with other materials
- Can reduce urban drainage pressure and help cities improve the environment

**Use:** Rain garden edge, bio-swale edge, parking lot  
Permeable pavers is used in the area next to the rain garden/bio-swale, which allows the water on the road to pass through this pavers quickly into the water catchment area nearby. In addition, parking area are also using this paving material to help the the water on the hard surface to quickly infiltrate and run away.



RUBBER PLASTIC

- Good flatness and flexibility, high compressive strength
- Best outdoor playground paving
- Available in a variety of colours
- Anti-wear, explosion-proof, anti-aging, long life, easy to maintenance and low maintenance costs

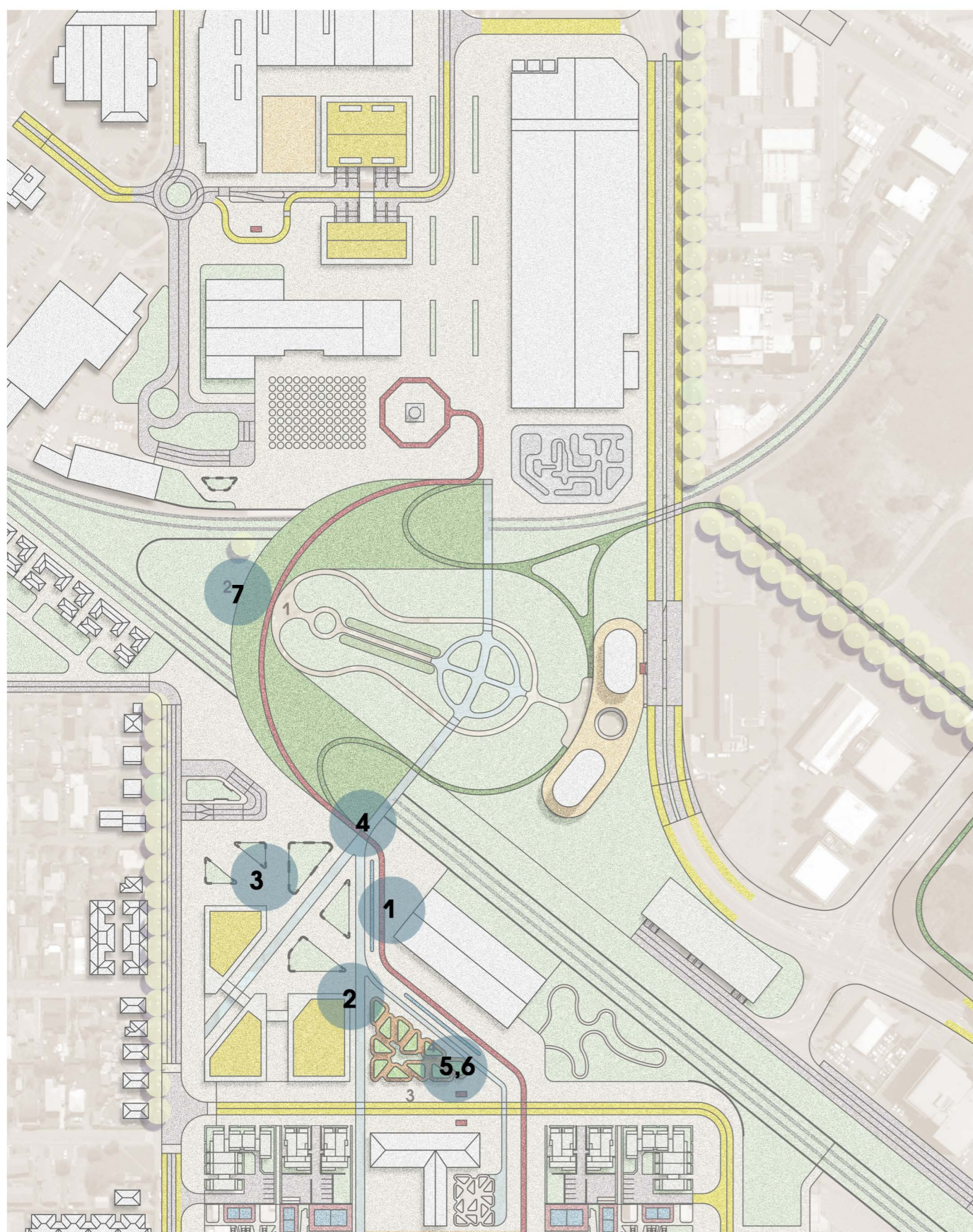
**Use:** Bicycle lane above the landscape bridge across the railway  
Bicycle lane above the landscape bridge across the railway are using this material and using the same colour as the other materials in the historical corridor to make this trail visually continuous and easy to identify. Secondly, this material can adapt to the undulating terrain of the landscape bridge, making the construction more convenient.



SOUNDPROOF GLASS

- Can play a certain role in shielding the sound
- Can withstand the impact of small explosions
- New environmentally friendly glass products
- Durable
- Strong light transmission

**Use:** Edge of Residential area (close to railway track), next to railway track  
As the venue is located next to the railway station, there may be noise as the train passes. Therefore, on the edge of some residential areas, some soundproof glass is set to block the noise. In addition, some public spaces beside the trains are also equipped with soundproof glass, which not only reduces noise but also acts as a fence to separate people from the railway.



BRICK PAVING



RUBBER PLASTIC



TIMBER SEATING



TIMBER WALKWAY

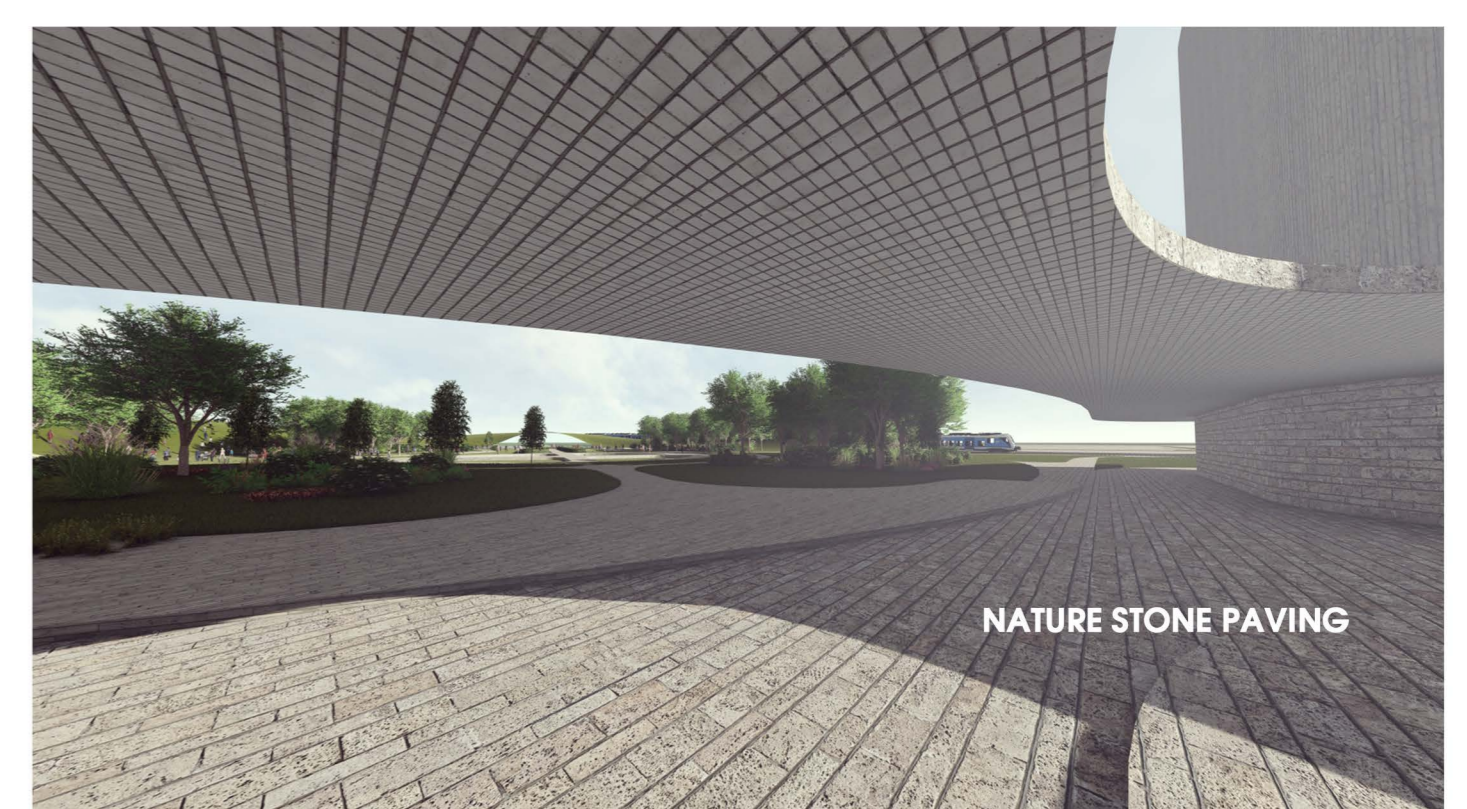


LIVING ROOF

CORTEN STEEL



CORTEN STEEL



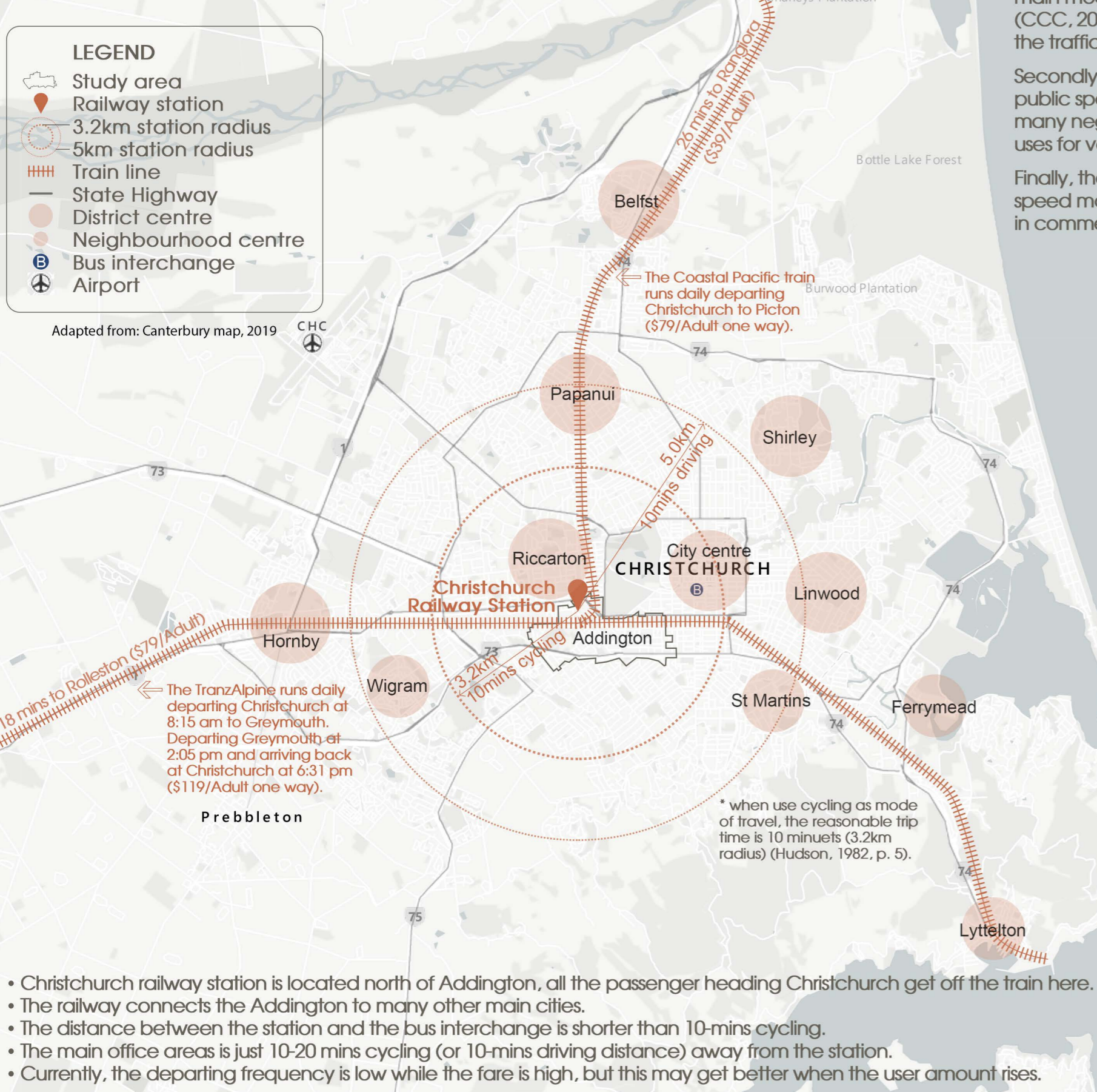
NATURE STONE PAVING

# URBAN LANDSCAPE REGENERATION IN ADDINGTON

1126645  
Aria Huang

## TRAIN AS A MAIN MODE OF TRANSPORTATION FOR COMMUTING

### Inventory and Analysis 1 (Regional Scale)



## BACKGROUND

Historically, Addington has been a prosperous industrial town focused on railway workshops and related industries (Brown, 2009; De Nys, 1995; Wilson, 2008). Although the economy began to decline after the workshop closed in 1980, it still retains a strong community identity (Harrop, 2014; Side, 1999; Wilson, 2008). In the 2011 Christchurch Earthquake, many of Addington's buildings were damaged, including its two iconic structures, Wood Brothers Mill and Brick Site (Wilson, 2018). However, the earthquake also brought many opportunities to it. Many businesses and residents moved out of the heavily damaged city centre and moved into Addington, giving it a new identity and mission (Flanagan, 2011).

Addington is a major suburb of Christchurch. It is located about 2.5 km southwest of the city centre (Harrop, 2014; Wilson, 2008). As a gateway to the city, Addington is located at the junction of the north-south rail lines and close to important green spaces and traffic corridors (Brown, 2009).

## DESIGN PROBLEM AND KEY FACTORS

Because of Addington's unique location, many people travel through Addington to work every day (Christchurch City Council, 2018). Most people use private vehicles as their main mode of transportation for commuting (2018). This brings a lot of traffic pressure to Addington (2018). Some roads have congestion problems at commuting peaks every day (CCC, 2017). Moreover, the population of southwestern Christchurch is still growing, and 35,000 people are expected to move to these areas in the next 30 years, which will make the traffic congestion on Addington further worsened (CCC, 2018).

Secondly, Addington's green infrastructure is not perfect (Flanagan, 2011). The green space is fragmented and lacks effective links (2011). These make it impossible for these public spaces to provide sufficient high-quality green spaces for residents (2011). In addition, there are many vacant lands and low-value land uses in Addington, which brings many negative effects to it (CCC, 2017). On the other hand, these vacant land provide Addington with opportunities to improve its green infrastructure. So how to find suitable uses for vacant spaces and use these spaces to enrich the community life of residents is also a key problem to be solved in this design.

Finally, the car-oriented road design makes the walkability of some street very poor (Flanagan, 2011). Taking Lincoln Road as an example, large traffic volume and high vehicle speed make pedestrians feeling unsafe to walk on this road (CCC, 2017). Also, this road splitting the commercial areas into both sides of it, which has contributed to the downturn in commercial in Addington centre and making the central area less vibrant (Flanagan, 2011).

## GOAL

To revive and redefine Addington as a vibrant commercial centre, transportation hub and high-quality residential area by creating or improving its transportation system, public open spaces and commercial facilities.

## REFERENCES

Brown, K. (2009). Addington railway workshops: Working with wood. Wellington New Zealand Railway & Locomotives Society. Christchurch City Council. (2018). Dec. Lincoln Road and Moorhouse Avenue bus priority improvements. Retrieved from <https://ccc.govt.nz/the-council/consultations-and-submissions/show/184>

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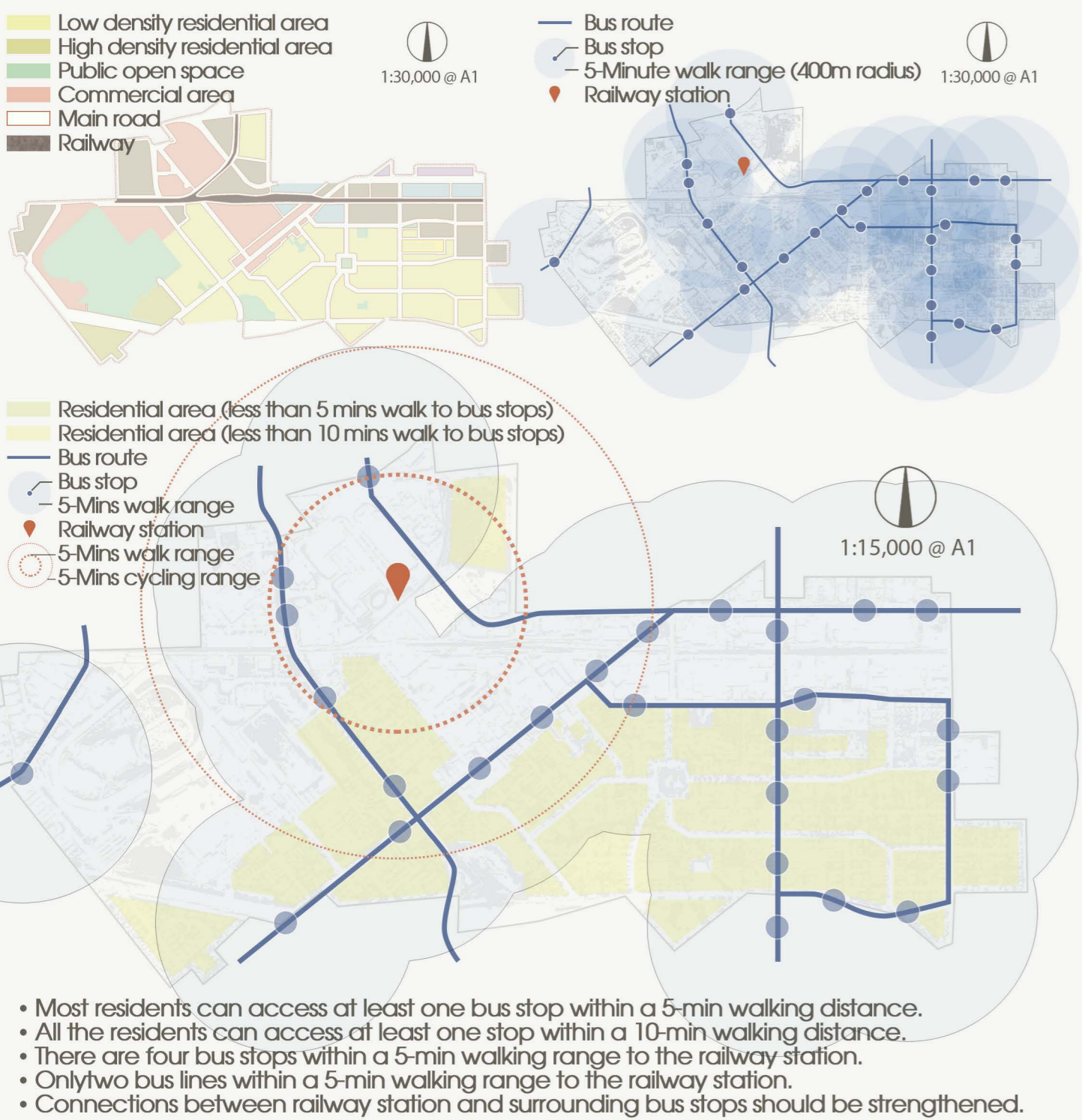
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Wilson, J. (2018). Local lives: A history of Addington: Christchurch, New Zealand: Addington Neighbourhood Association.

Sub-Goal	Objective	Inventory	Scale in MD	Scale in this paper	
To develop a public transit-focused alternative transportation system to reduce people's dependency on cars.	To use the train as a main mode of transportation for commuting.	Railway station and train line	1	Regional Scale	1:100,000@A1
		Radiation service areas of the railway station	1	Regional Scale	1:100,000@A1
		Key activity centres passed by trains	1	Regional Scale	1:100,000@A1
To provide the local residents with a convenient bus system.	To improve the quality and quantity of green hubs and to improve the green links between them.	Current departing frequency and price	1	Regional Scale	1:100,000@A1
		Current landuse	2	Master Plan Scale	1:15,000@A1
		Primary road network	2	Master Plan Scale	1:15,000@A1
To improve the quality and quantity of green hubs and to improve the green links between them.	To improve the cycling and walking connections between the residential areas and the public spaces.	Bus route and bus stops	2	Master Plan Scale	1:15,000@A1
		Radiation service areas of bus	2	Master Plan Scale	1:15,000@A1
		Connection with other modes of transport	2	Master Plan Scale	1:15,000@A1
To facilitate people's shopping, eating and social needs.	To create a vibrant centre for Addington and therefore, promote the commercial development on both sides of Lincoln Road.	Current green areas and green links	3	Master Plan Scale	1:15,000@A1
		Potential public spaces	3	Master Plan Scale	1:15,000@A1
		Main barriers between green spaces	3	Master Plan Scale	1:15,000@A1
To provide the central Addington area with a safe walking environment.	To enrich the street life in central Addington area.	Land use (residential areas and key public spaces)	4	Master Plan Scale	1:15,000@A1
		Main road	4	Master Plan Scale	1:15,000@A1
		Main barriers for walking and cycling	4	Master Plan Scale	1:15,000@A1
To provide the central Addington area with a safe walking environment.	To provide the central Addington area with a safe walking environment.	Existing cycling connections	4	Master Plan Scale	1:15,000@A1
		Existing walking connections	4	Master Plan Scale	1:15,000@A1
		Commercial services in Central Addington	5	Intermediate Plan	1:5,000@A1
To provide the central Addington area with a safe walking environment.	To provide the central Addington area with a safe walking environment.	Potential areas for commercial	5	Intermediate Plan	1:5,000@A1
		Existing areas for performance and art	6	Intermediate Plan	1:5,000@A1
		Spaces and facilities for public services (e.g. street furniture, street café, foodstand)	6	Intermediate Plan	1:5,000@A1
To provide the central Addington area with a safe walking environment.	To provide the central Addington area with a safe walking environment.	Quality of the spaces and facilities	6	Intermediate Plan	1:5,000@A1
		Existing walkways and their quality	7	Intermediate Plan	1:5,000@A1
		Pedestrian crossing	7	Intermediate Plan	1:5,000@A1
To provide the central Addington area with a safe walking environment.	To provide the central Addington area with a safe walking environment.	Vehicle speed limits	7	Intermediate Plan	1:5,000@A1
		Traffic volume	7	Intermediate Plan	1:5,000@A1

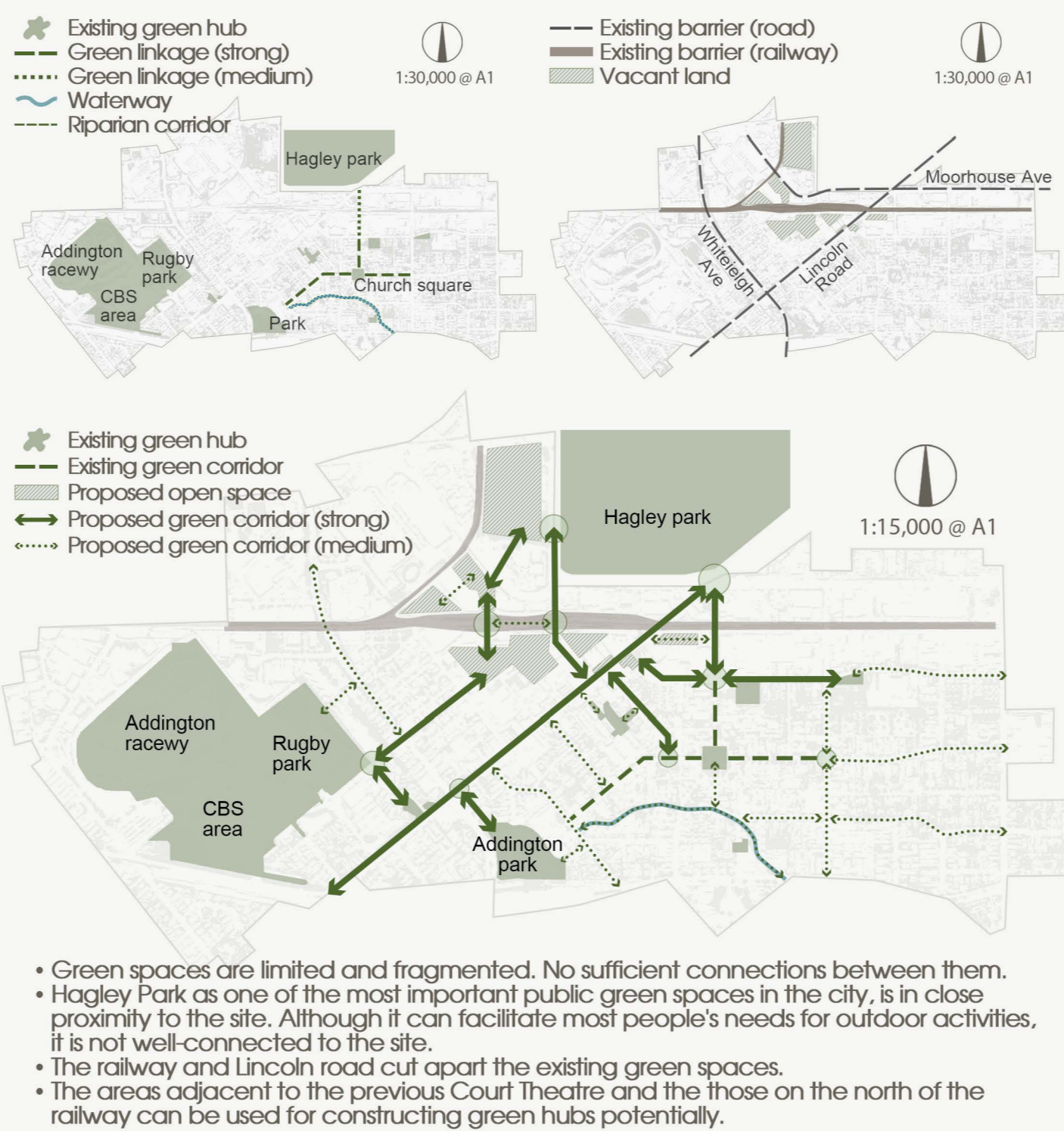
## CONVENIENT BUS SYSTEM

### Inventory and Analysis 2 (Master Plan Scale)



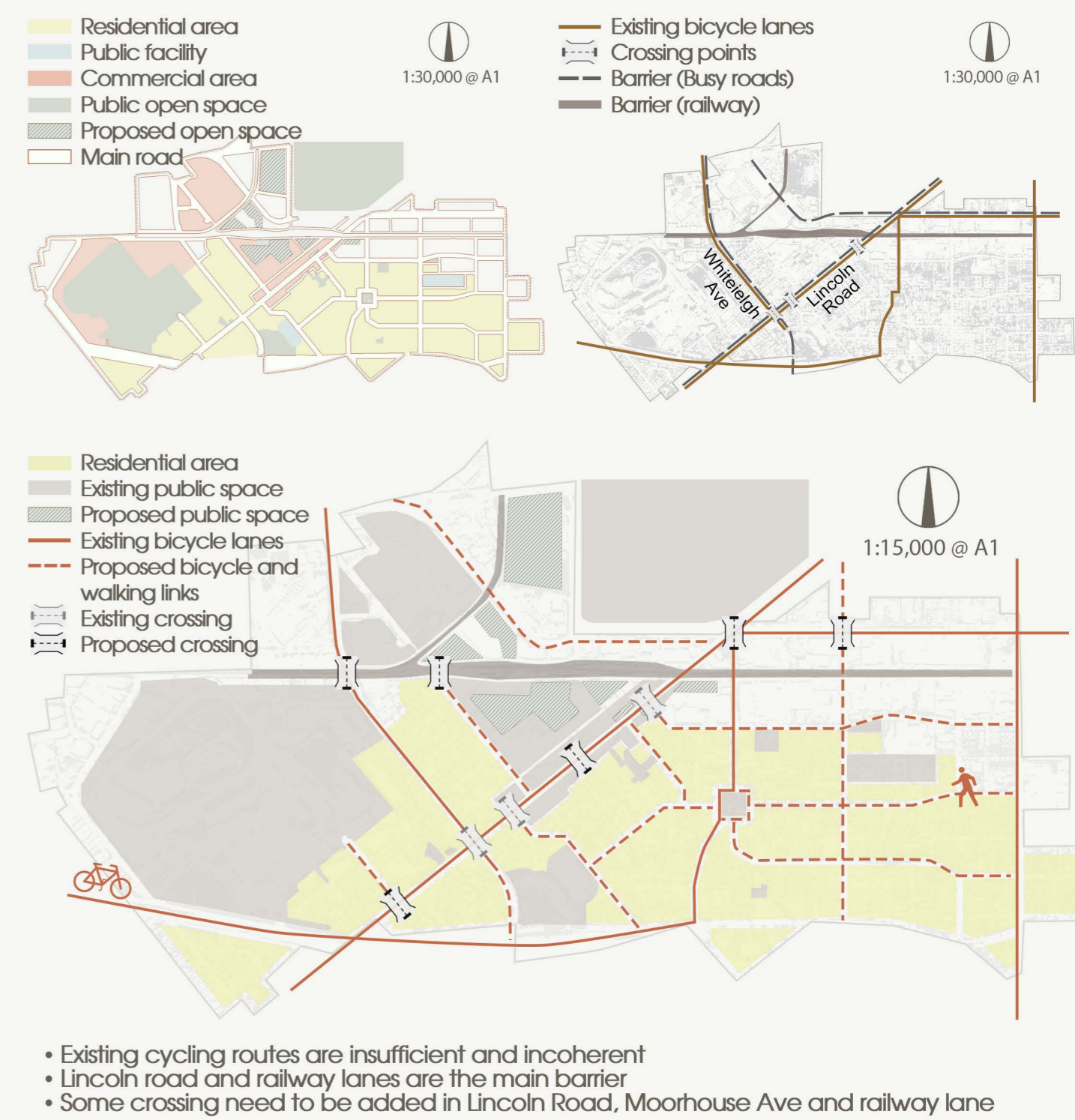
## GREEN NETWORK

### Inventory and Analysis 3 (Master Plan Scale)



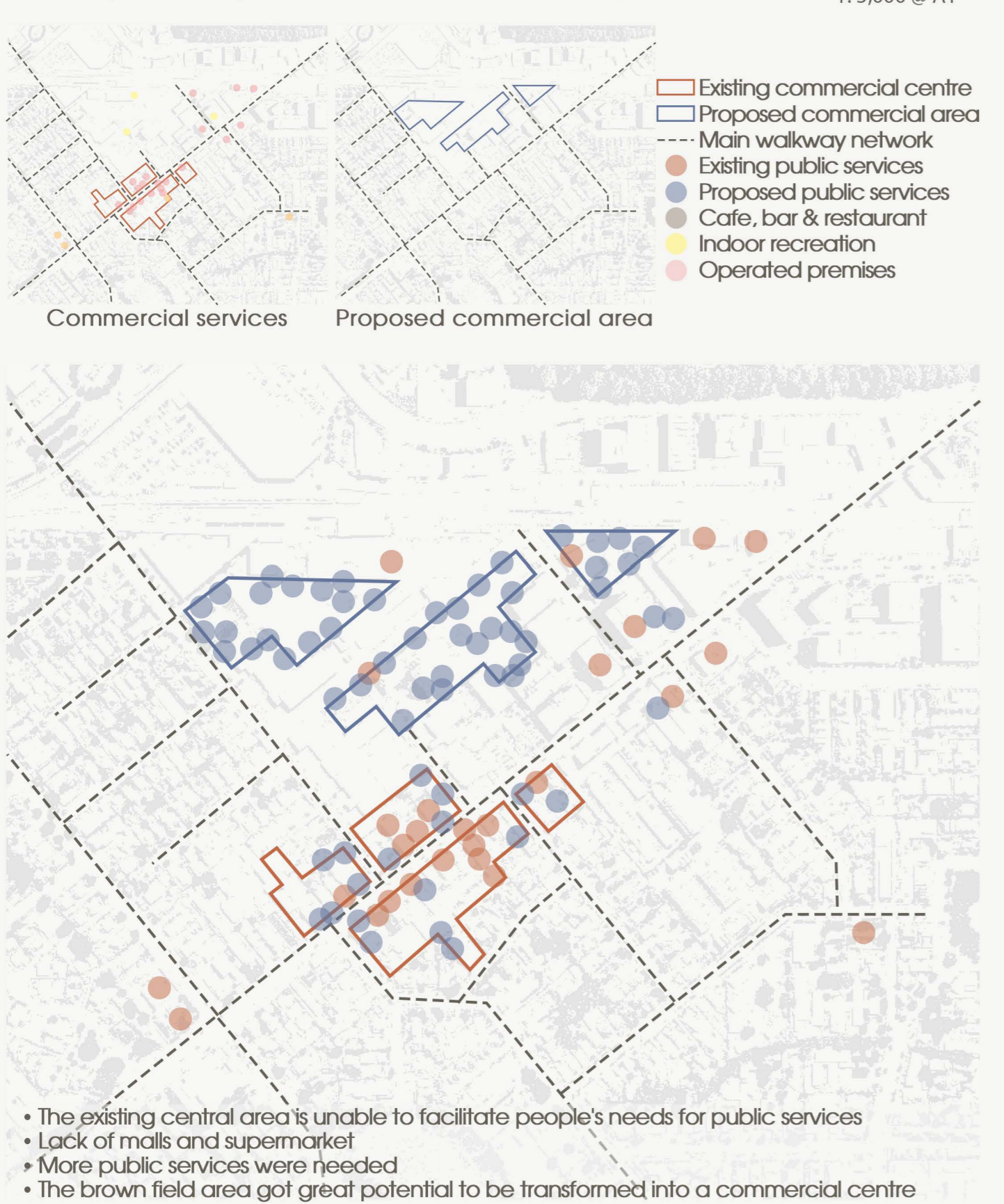
## CYCLING AND WALKING NETWORK

### Inventory and Analysis 4 (Master Plan Scale)



## FACILITATE PEOPLE'S NEEDS

### Inventory and Analysis 5 (Intermediate Plan Scale)



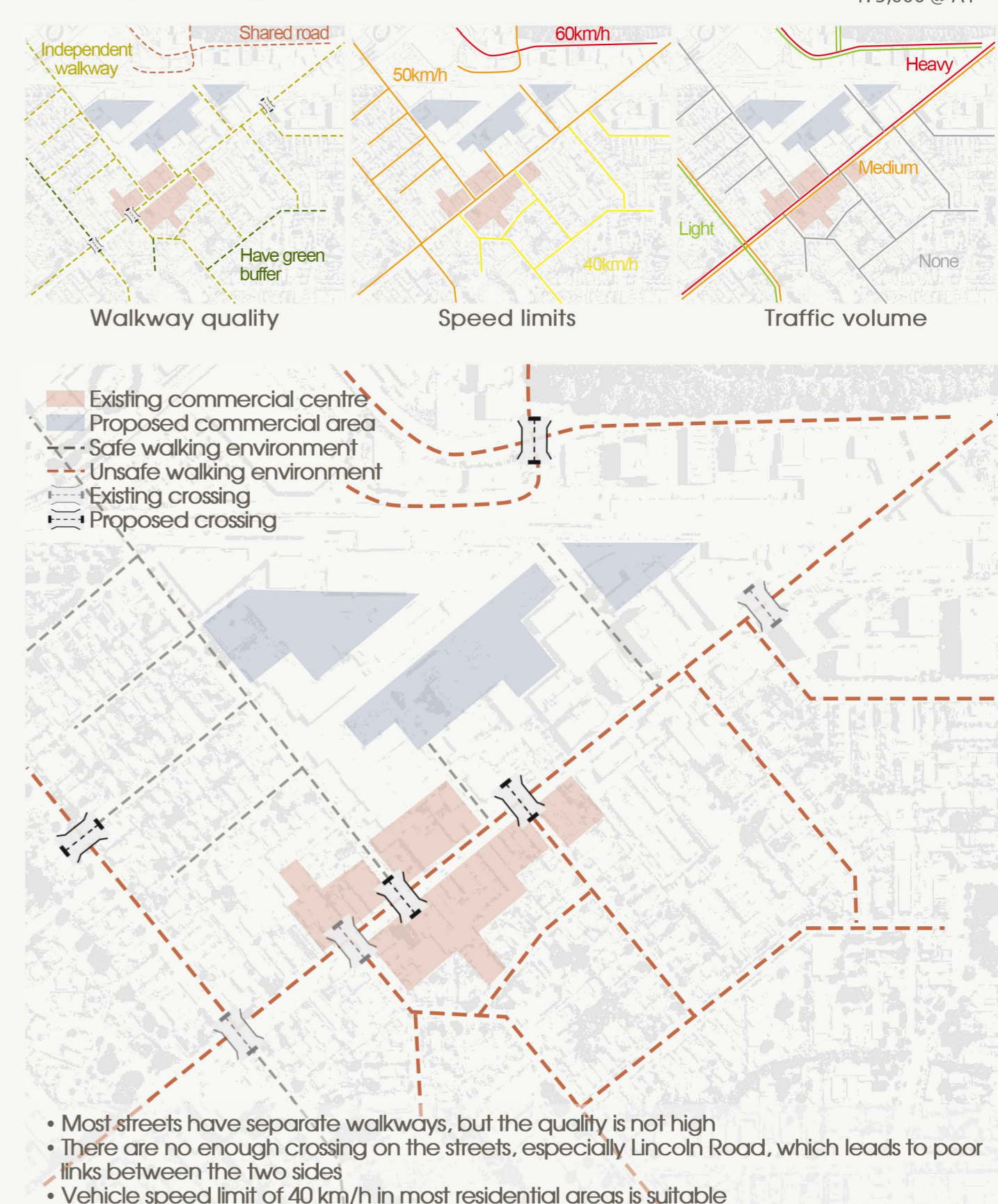
## ENRICH STREET LIFE

### Inventory and Analysis 6 (Intermediate Plan Scale)



## SAFETY WALKING ENVIRONMENT

### Inventory and Analysis 7 (Intermediate Plan Scale)



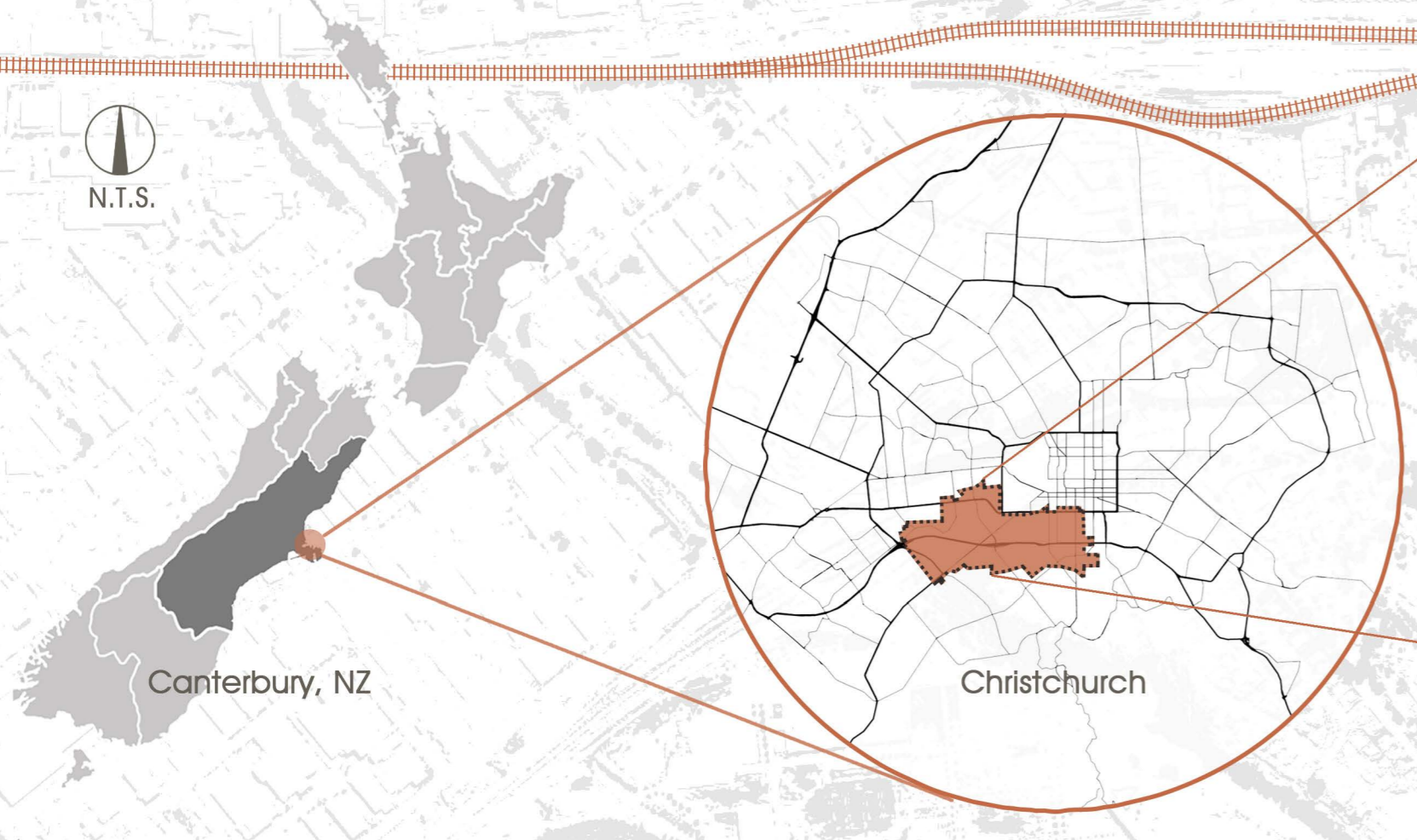
# 1 URBAN LANDSCAPE REGENERATION IN ADDINGTON

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## BACKGROUND

Addington is a major suburb of Christchurch (Harrop, 2014; Wilson, 2008). It is located about 2.5 km southwest to the city centre (as shown in location map below) (Brown, 2009; Wilson, 2008). As a gateway to the city, Addington is located at the intersection of the North-South railway line and close to the city's main green spaces, traffic corridors and important facilities (Flanagan, 2011). Historically, Addington has been a prosperous industrial town focused on railway workshops and related industries (Brown, 2009; De Nys, 1995; Wilson, 2008). Although the economy began to decline after the workshop closed in 1980, it still retains a strong community identity (Harrop, 2014; Side, 1999; Wilson, 2008). In the 2011 Christchurch Earthquake, many of Addington's buildings were damaged, including its two iconic structures, Wood Brothers Mill and Brick Silo (Wilson, 2018). However, the earthquake also brought many opportunities to it. Many businesses and residents moved out of the heavily damaged city centre and moved into Addington, giving it a new identity and mission (Flanagan, 2011).

However, the reconstruction of the city centre in recent years has attracted many companies and residents in Addington to move back to the city centre (Flanagan, 2011). The decline in population and the removal of businesses have directly or indirectly caused a series of impacts, including lack of vitality in the community, inadequate maintenance of urban public infrastructure, etc (Flanagan, 2011). These problems make Addington no longer as attractive as before, this, in turn leads to a further reduction in population and leads to a vicious circle (Flanagan, 2011).



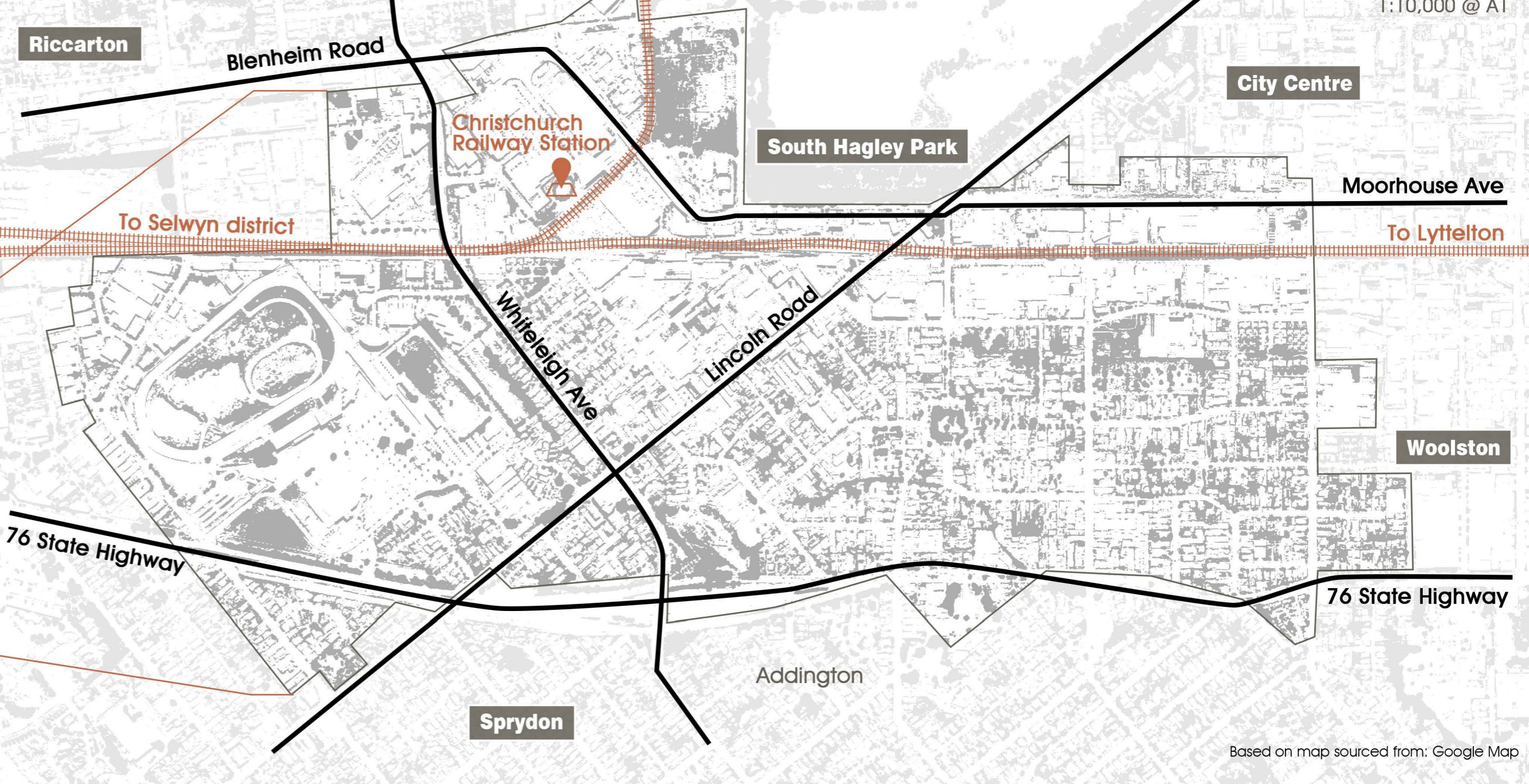
## HISTORY TIMELINE



- 1858** Addington cemetery was established by the Presbyterian Church, it was the Christchurch's first public cemetery.
- 1880** Christchurch's railway workshops moved from Carlyle street, Waltham to Addington.
- 1883** The iconic water tower was constructed, it can provide a high-pressure water system for the workshops and was still standing today.
- 1887** Addington had become an important suburb in the industrial and social life of Christchurch.
- 1980** The New Zealand Railways Department's Addington Workshops were closed.
- 2011** Many iconic buildings (include Wood Brothers Mill and Brick Silo) were destroyed in the 2011 earthquake.
- 2012-2019** Along with the conducting of the central city regeneration project, large amount of businesses moved back to the city centre one after another.

Content information sourced from: Local Lives: A history of Addington (Wilson, 2018).  
Image sourced from Pinterest.

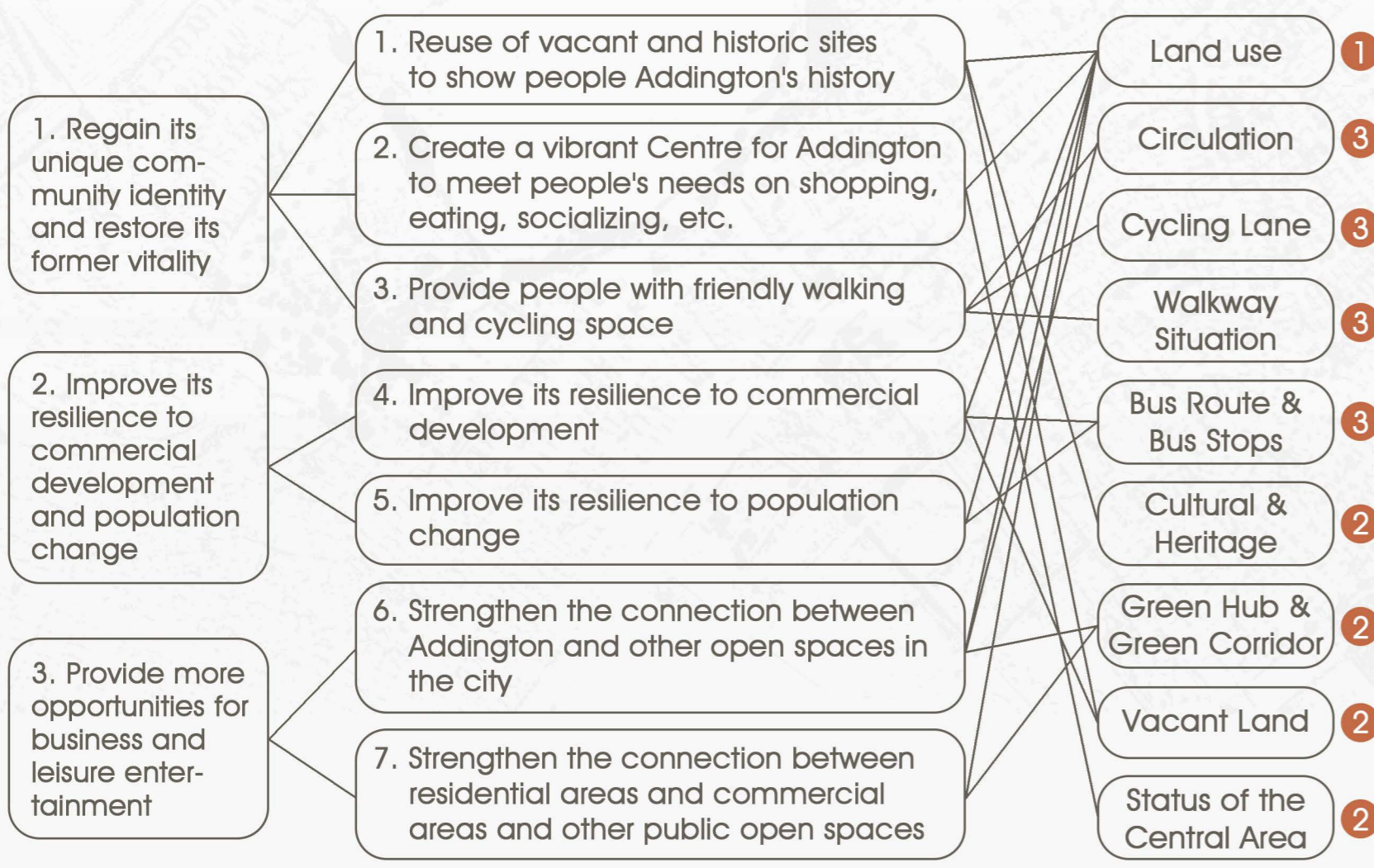
## REGIONAL CONTEXT



## GOAL

To help Addington regain its unique community identity and restore its former vitality, create a sustainable urban environment to improve its resilience to commercial development and population change, at the same time, as a major inner city suburb near the city centre, to provide more opportunities for business and leisure entertainment and further to become an attractive community again.

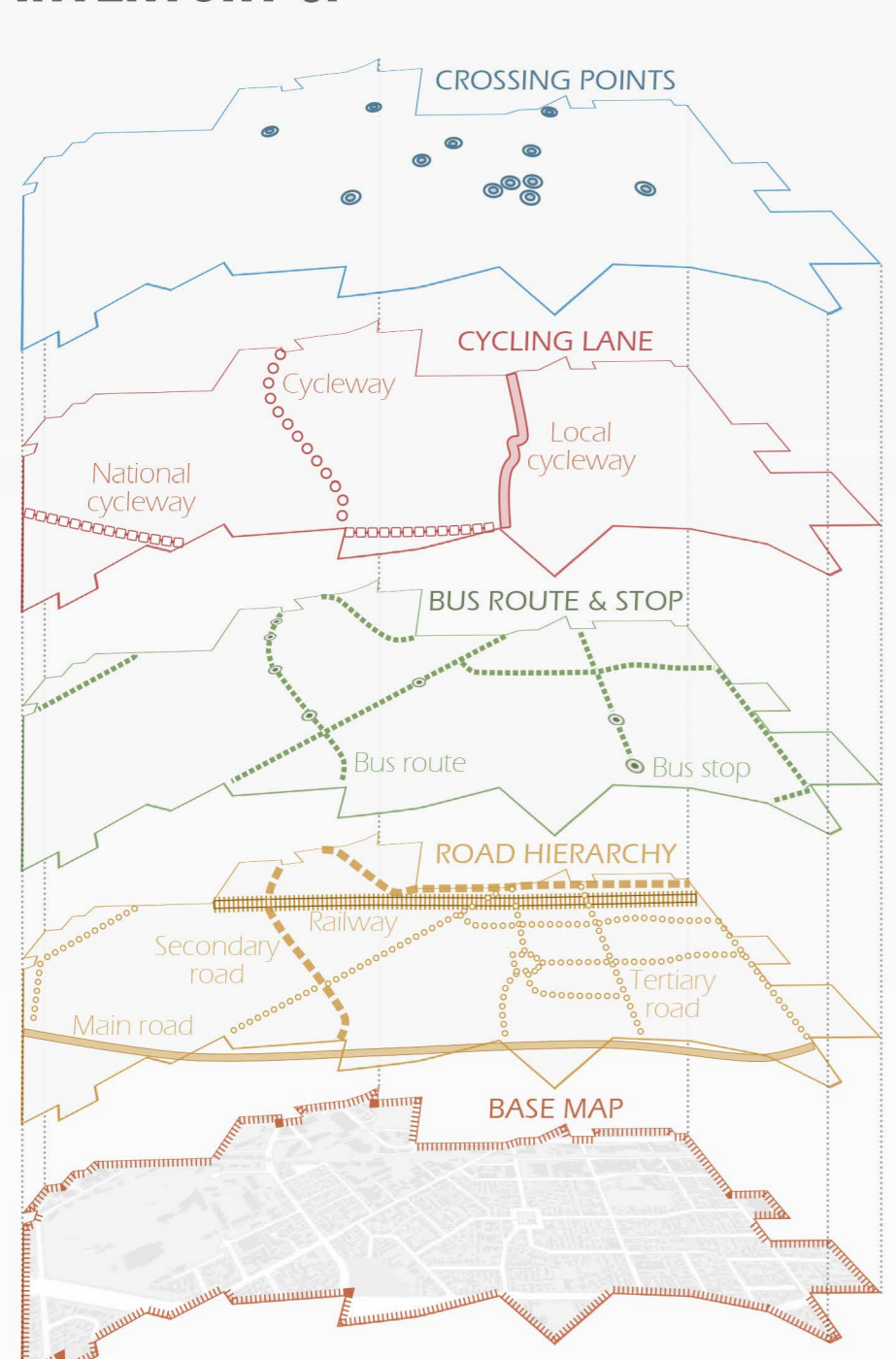
## SUB-GOAL



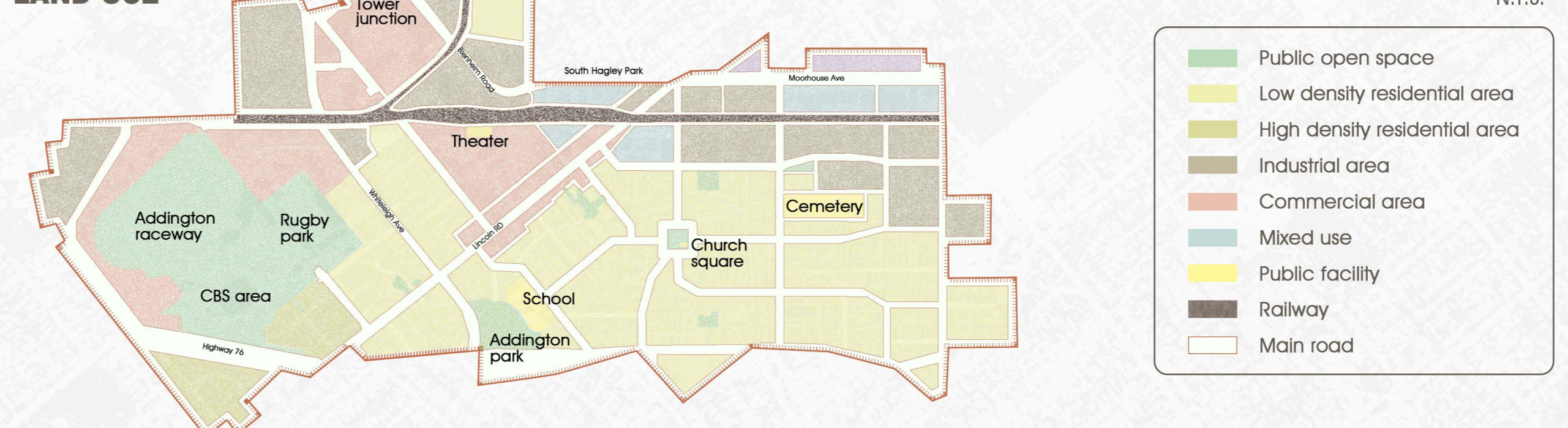
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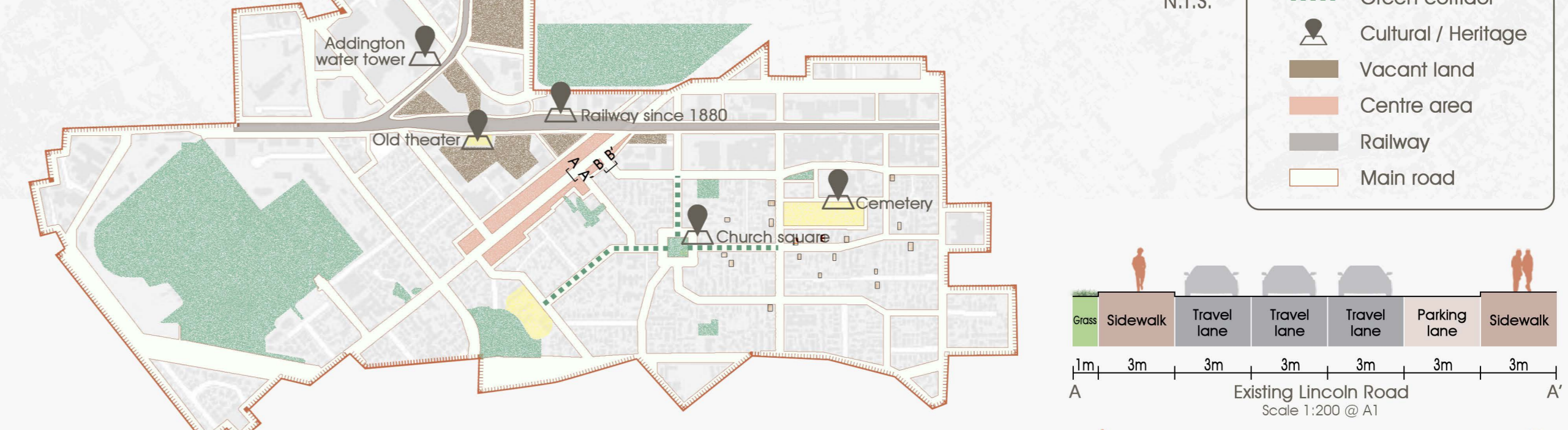
## INVENTORY 3:



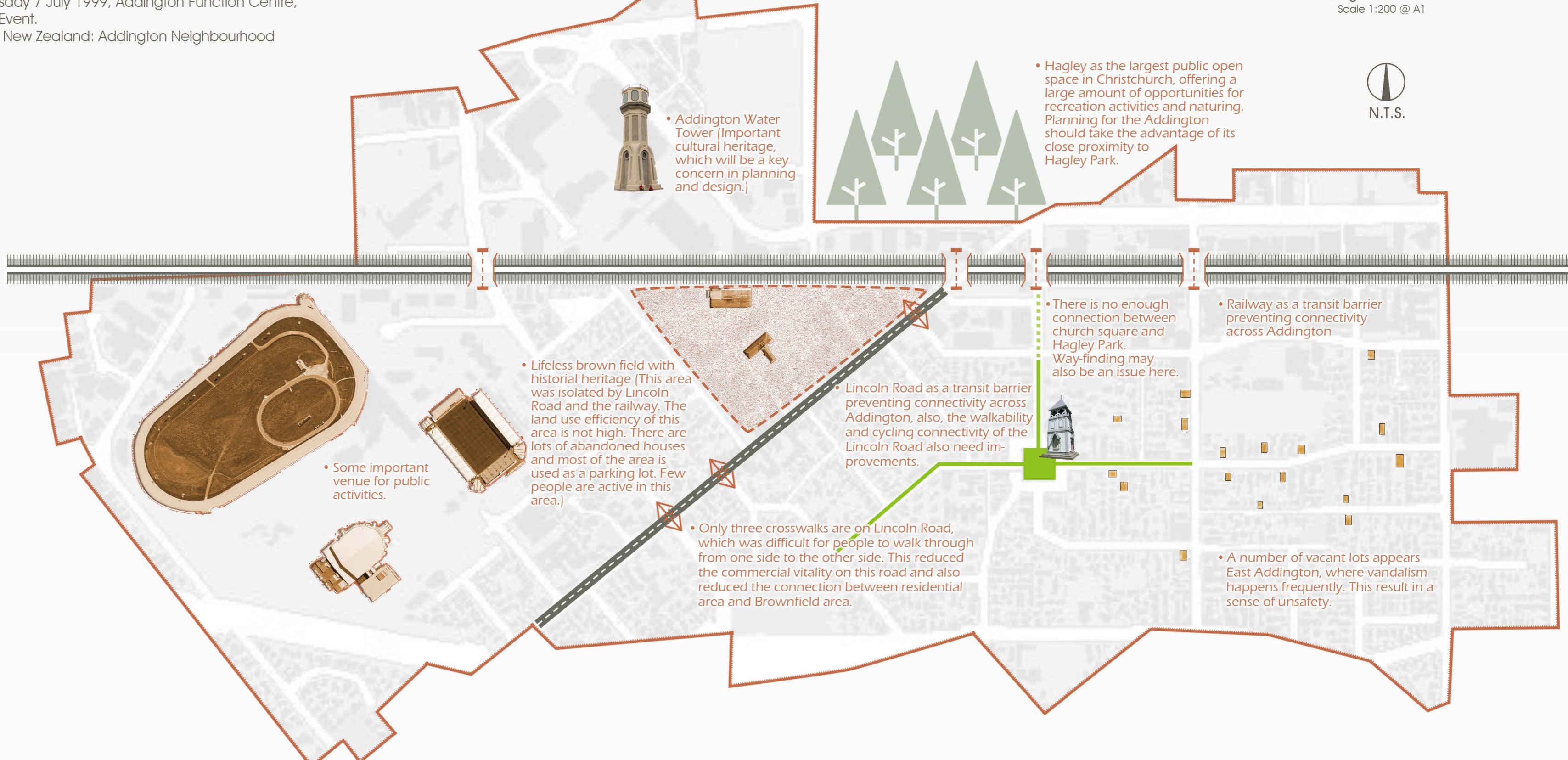
## INVENTORY 1: LAND USE



## INVENTORY 2:



## ANALYSIS



## Reference

- Brown, K. (2009). Addington railway workshops: Working with wood. Wellington New Zealand Railway & Locomotive Society.
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## Plant

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[https://en.wikipedia.org/wiki/Cordyline\\_australis](https://en.wikipedia.org/wiki/Cordyline_australis)  
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