











Appendix A

Existing conditions analysis




Key Character Attributes

Urban character areas refer to areas within the Structure Plan Area that possess distinct physical, architectural, cultural and functional characteristics. These areas are typically defined by their physical and land use attributes, which may include natural and man-made features.



Legend

-  SRL station
-  Existing train station
-  Structure Plan Area
-  Heritage Overlay
- Land use**
-  Education
-  Employment
-  Mixed-use
-  Activity Centre

Landscape Features

-  Water
-  Public Open Space
-  Canopy - Significant

Movement

-  Highway
-  Arterial roads

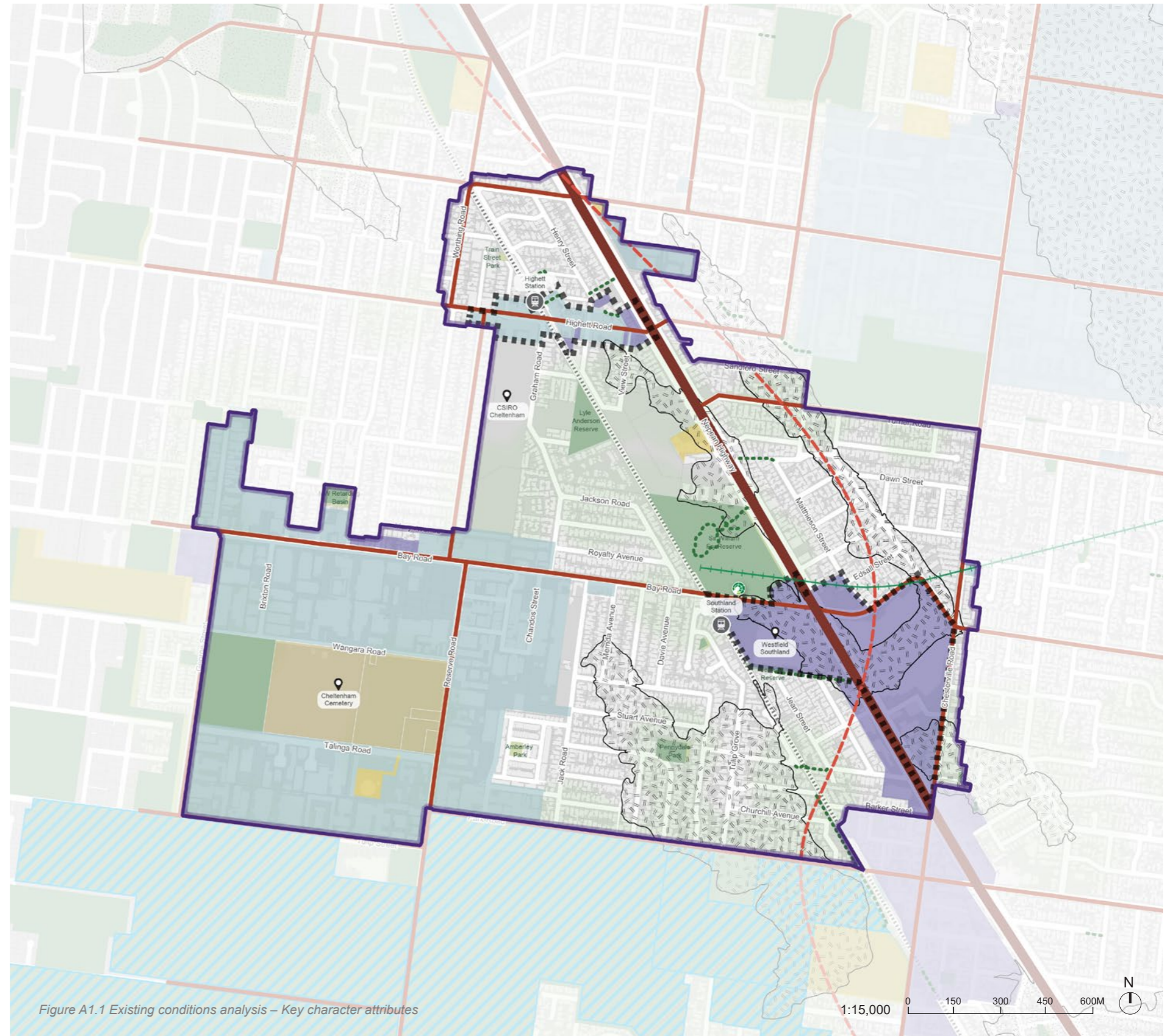


Figure A1.1 Existing conditions analysis – Key character attributes

Summary

Following a review of the background documents and local policy, desktop and site analysis was undertaken to understand the character elements and features within the Cheltenham Structure Plan Area.

A number of urban typologies and character areas have been defined. The following is a description of the key character drivers for the Cheltenham Structure Plan Area.

Land use and key destinations

The Structure Plan Area has a mainly low density suburban residential character with natural reserves, sports fields and multiple education facilities distributed throughout. Various regional landmarks, such as Southland Shopping Centre and Moorabbin Magistrates Court are also present.

Sir William Fry Reserve is situated at the centre of the Structure Plan Area, and plays a valuable role as one of few public open spaces. It offers opportunities for leisure, recreation, and hosts a monthly farmers' market.

The Highett Activity Centre comprises fine-grain neighbourhood, mixed retail and outdoor dining, with some emergent medium-density residential uses. Southland Shopping Centre is a major shopping destination, with an insular orientation and little relationship with its context. Nepean Highway and the Frankston rail line divide the Structure Plan Area into fragments that have little cohesive character and issues with pedestrian and vehicular accessibility.

Topography, natural features and landmarks

The Cheltenham Structure Plan Area has a largely flat topography. Open spaces in the form of recreation reserves, pocket parks and bowling greens contribute most prominently to the landscape character of the study area. There are tall eucalyptuses on the edge of most public facilities, and most streets feature grassed nature strips with native street trees in mixed sizes and species.

Planting and vegetation across the Structure Plan Area are characterised by a mix of native and exotic species. Most residential areas have landscaped lawns, garden beds and shrubs. Canopy cover varies throughout the study area. Recent residential development around the activity centres feature reduced setbacks and limited vegetation with wide front driveways and some low canopy trees. Residential areas around the golf-courses extend that vegetation character, with native vegetation protected through a Vegetation Protection Overlay.

Movement and access

The Frankston rail line and Nepean Highway are primary organising elements within the Cheltenham Structure Plan Area and act as significant barriers dividing the study area. There is a mix of linear arterial roads that cross the study area, with discontinuous linear and curvilinear street arrangements servicing that which lay between. This results in poor legibility, low connectivity and permeability in parts of the Structure Plan Area.

Built form

Detached 1 to 2-storey dwellings dominate the residential character of the Structure Plan Area. Residential subdivision and multi-unit mid-rise infill buildings are found, and increasing in prevalence throughout the study area. The Structure Plan Area has a legacy of architectural styles from the Post-War era, with many contemporary styles coming to replace this aging stock. Front and side setbacks are usually consistent, however, new developments are often more site intensive than older buildings, dominating the street with reduced setbacks and diminished landscape character from larger driveways, low canopy coverage and the absence of native vegetation.

Elements contributing to character

The analysis over the following pages highlights the main drivers of character within the Cheltenham Structure Plan Area. The analysis highlights the distinguishing features and main contributors to character across the Structure Plan Area.

The main character drivers identified are:

- Nepean Highway as a major barrier to movement throughout the Structure Plan Area
- Residential street network with low permeability
- The number of golf courses and their contribution to tree canopy and ecology
- Large residential lot size that permits central landscape planting or recent pattern of infill development subdivision
- Large industrial precincts that detract from the landscape character of the Structure Plan Area yet offer opportunities for future development
- Established residential areas with large, planted street setbacks contributing to garden suburban character.

Land use

The Structure Plan Area is predominately residential use, characterised by low density detached housing. Commercial activity is concentrated along Nepean Highway, and around each of the three existing train stations. There is also extensive commercial and employment activity within the two industrial areas to the edge of the Structure Plan Area.

- The Hightett Activity Centre consists of predominantly fine-grain strip shopping, a supermarket development, dining, offices, and the emergence of some medium density residential uses along Hightett Road
- Southland Shopping Centre sits along Nepean Highway, approximately half-way between Hightett and Cheltenham Activity Centres. It has an extensive footprint, and is of regional significance for its retail offerings. Commercial uses extend from Southland Shopping Centre, along Nepean Highway, down to the Cheltenham Activity Centre. These are predominantly large-format highway oriented retail
- The width of Nepean Highway significantly fragments the Structure Plan Area, creating discontinuities in movement between residential and activity areas.

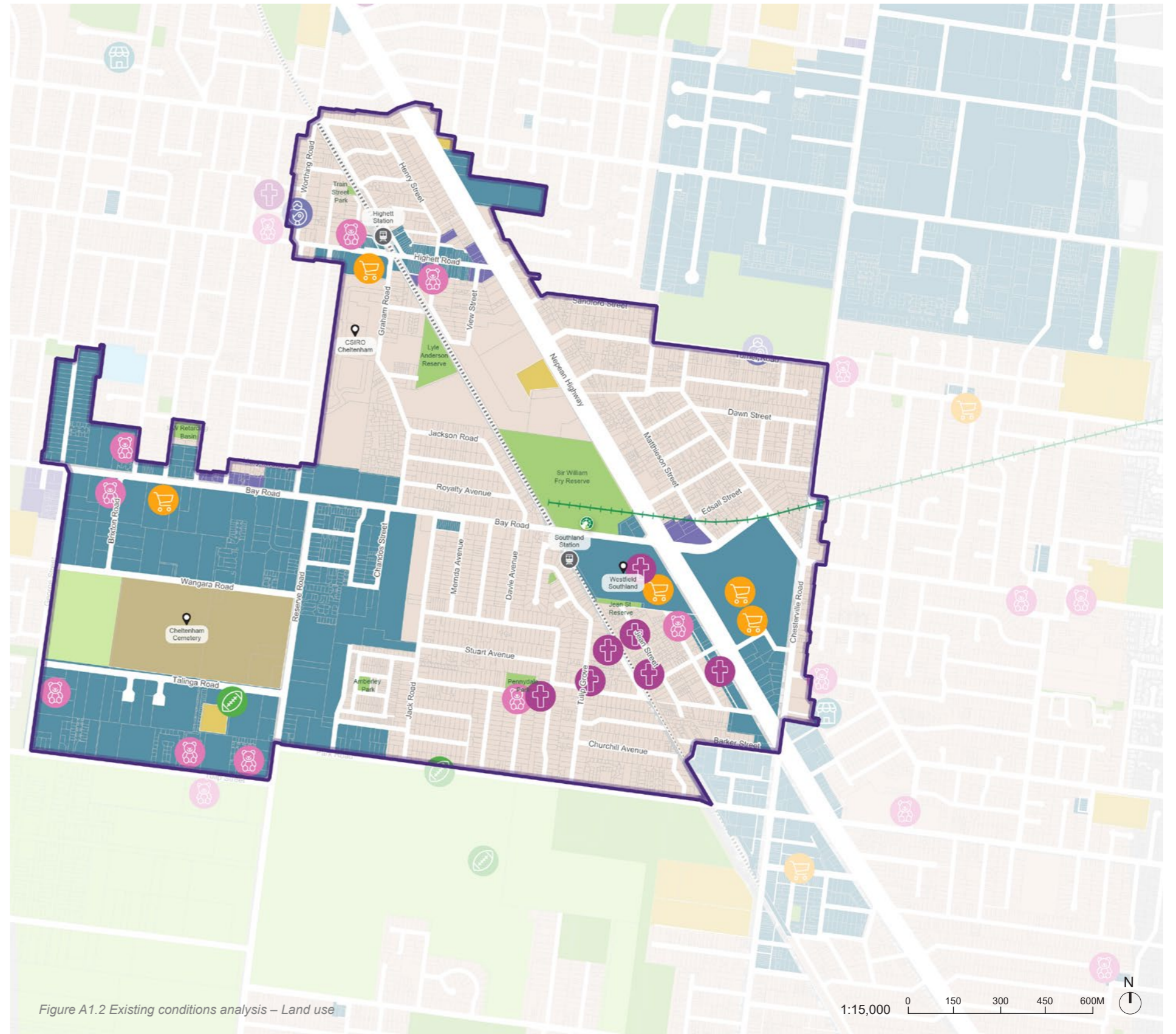


Figure A1.2 Existing conditions analysis – Land use

Legend

- SRL station
- Existing train station
- Structure Plan Area
- Community Facilities**
- Supermarket
- Maternal and Child Health
- Child Care
- Community Centre
- Place of Worship
- Sports and Recreation Facility

Existing Land use

- Residential
- Employment
- Educational
- Mixed Use
- Health / Medical
- Open Space
- Public Use

Community facilities

The Cheltenham Structure Plan Area is serviced by community facilities that include some childcare, local council, and sport and recreation facilities.

A range of open-space sports and recreation facilities are located throughout the Plan Area, this includes many private and public golf-courses, as well as Cheltenham Recreation Reserve, Turner Recreation Reserve and Highett Reserve, Sir William Fry Reserve. These spaces host a range of sports and activities, as well as providing open space to the larger community. Many open spaces have low pedestrian access from residential and employment land. Nepean Highway and existing rail corridor pose significant barriers to open space access.

Sir William Fry Reserve

Sir William Fry Reserve is an 8.7 hectare park located at the intersection of Nepean Highway and Bay Road. The site has restricted pedestrian access, with low amenity interfaces with the Frankston rail line to the west, Bay Road to the south, and Nepean Highway to the east. A new residential precinct to the north offers some integration and direct access to the park. Key characteristics of the reserve include large open lawn areas with informal planting and large native trees, a skate park, large pond and a children's playground with picnic facilities, public toilets and a car park.

Lyle Anderson Reserve

Lyle Anderson Reserve is a small triangular shaped park, approximately 1 hectare in size, located on the west side of the Frankston rail line. The park sits within an established residential area and offers a dog off leash area, playground and picnic area. At the northern end of the park there is a small community building.

The Highett Bowls Club is located immediately south of the park and the land to the west is being developed with a mix of double storey houses and townhouses.



Residential street in Cheltenham



Sir William Fry Reserve with Southland Shopping Centre beyond



Southland Shopping Centre entrance



Highett Activity Centre



Lyle Anderson Reserve





Movement and Access

The Cheltenham Structure Plan Area has movement networks for public transport, private transport and active travel, walking and cycling.






Key connectivity issues include:

- There are barriers to connectivity where highways, arterial roads and train corridors intersect with local streets and other transport routes
- The street network ranges from highest order (primary) streets (Nepean Highway), high order (secondary) streets (such as Bay Road and Centre Dandenong Road), to residential streets. Lower-order streets throughout the Structure Plan Area are predominantly present in a grid network type, however some curvilinear and cul-de sac arrangements are present. The ease of movement and legibility of the network thus varies throughout the Structure Plan Area
- While Nepean Highway provides efficient movement for a large volume of vehicles through the Structure Plan Area, the scale of the highway (three to four lanes in each direction) poses a significant barrier to movement in an east-west direction, particularly for pedestrians and cyclists. A distinct lack of street trees, combined with large block sizes further contribute to an unpleasant pedestrian environment
- Pedestrian crossings are present at several locations along the high-order corridors. Interval crossings are concentrated around commercial uses such as Southland Shopping Centre, while four-way crossings are present at major intersections with Nepean Highway. Overall, there is a lack of safe pedestrian crossings, limiting movement across the Structure Plan Area and making for a car-dominated urban environment
- Existing train stations within the Cheltenham Structure Plan Area sit roughly half-way along the Frankston rail line. This offers rail connectivity to both Frankston in one direction, and to Melbourne CBD in the other. However, the Frankston rail line poses a significant barrier to movement in an east-west direction within the Structure Plan Area, with the majority of opportunities for pedestrian crossing occurring at major roads.

Legend

-  SRL station
-  Existing train station
-  Structure Planning Area
-  Open Space

Street Types

-  Highway (primary)
-  Arterial (secondary)
-  Connector (secondary, lower)
-  Local (tertiary)
-  Barriers to crossing

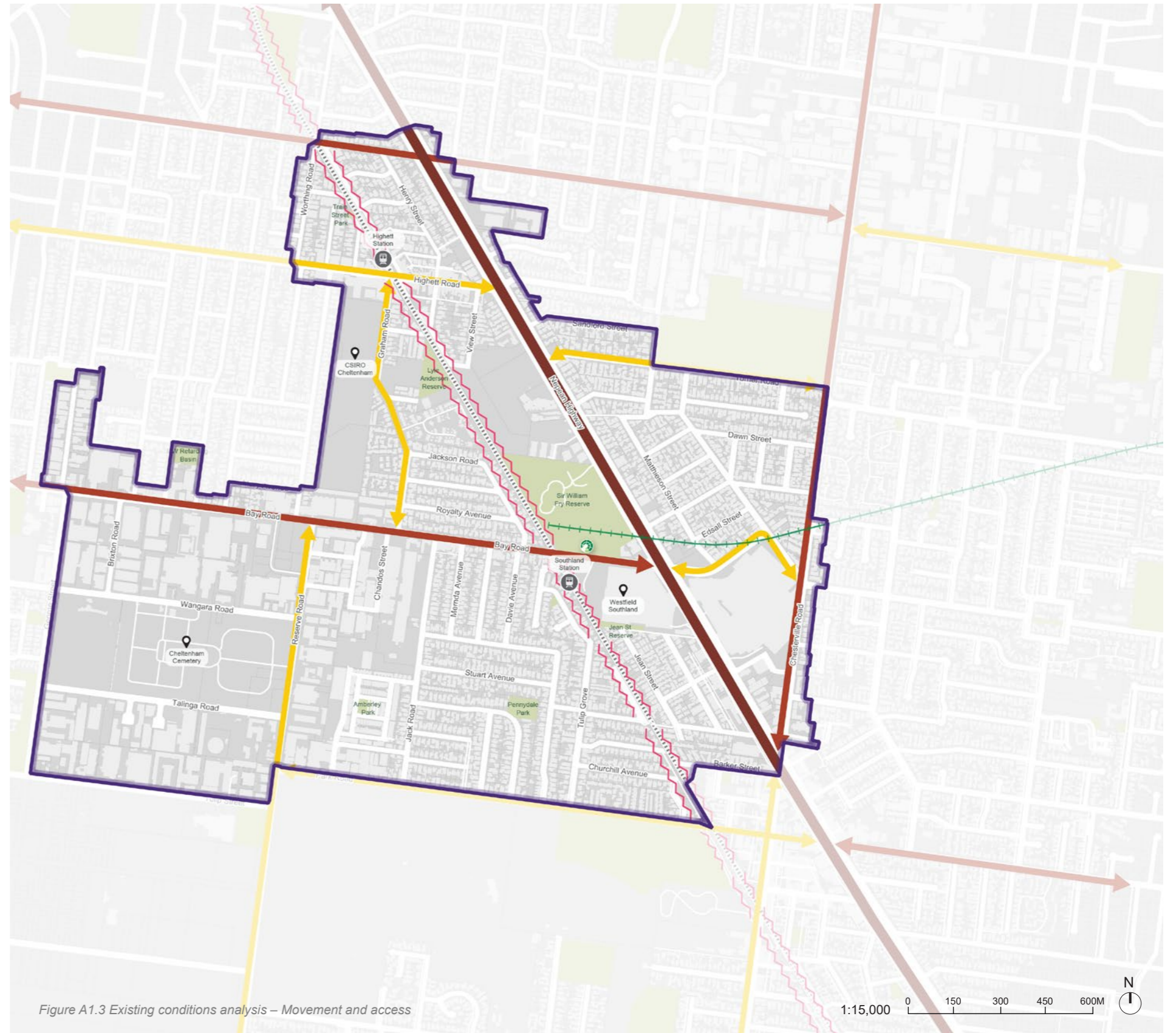


Figure A1.3 Existing conditions analysis – Movement and access

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- Bus connections are available at each of the stations within the Cheltenham Structure Plan Area. Southland Shopping Centre hosts a major bus interchange, giving access to 14 bus routes that connect to destinations such as Monash University, Chadstone Shopping Centre, Dandenong and St Kilda
- The Cheltenham and Highett Activity Centres offer relatively pedestrian friendly environments, featuring shorter blocks, wide footpaths, shop-front awnings, street trees, traffic calming measures and active frontages; These contribute to pedestrian safety and amenity
- The golf courses to the south-east of the Structure Plan Area act as significant landscape structure elements. The roads that bound the golf-courses, such as Reserve Road and Weatherall Road offer bicycle lanes that connect to the popular Beach Road cycling route. Little dedicated or bicycle-friendly infrastructure exists throughout the Structure Plan Area
- Arterial streets, with two lanes in each direction, include Wickham Road and Bay Road, and Park Road. This scale of street creates an obstacle to pedestrian and cyclist movement. A variety of crossing types are located at significant destinations.



Interval crossing at Southland Shopping Centre



Southland Shopping Centre bus interchange



Bay Road pedestrian / vehicle underpass



Southland Shopping Centre pedestrian experience at Nepean Highway



Level crossing at Highett Station




Street Width

The Cheltenham Structure Plan Area predominantly has east-west oriented streets, although discrepancies exist throughout the Structure Plan Area, particularly near Nepean Highway, where some streets follow the highway alignment. The local street network is not particularly permeable, with many cul-de-sacs and discontinuous roads found throughout the Structure Plan Area. Large landholdings to the north of the Structure Plan Area and large blocks of land set aside for golf courses and industrial areas furthermore limit movement throughout the Structure Plan Area.



The street network consists of arterial roads, main roads and local / connector roads. Peripheral residential areas are characterised by narrow streets and often include traffic calming features that develop a more local suburban residential character.

Nepean Highway is the main arterial road in the Structure Plan Area. It is generally 30 to 45 metres wide, although it widens around activity areas and significant intersections to accommodate turning lanes. This fragmentation of the road corridor makes pedestrian connections difficult, and only a few pedestrian crossings are provided along the stretch of the highway in the Structure Plan Area. Crossing signals operate with short time cycles and are often staggered, increasing the time required to cross the highway significantly. Multiple service roads are located along Nepean Highway, allowing access to highway oriented retail, civic institutions and residential buildings.

Legend

-  SRL station
-  Existing train station
-  Structure Plan Area

Road Width

-  Widest main road more than 30 metres
-  Wide main road 25 to 30 metres
-  Main road 20 to 25 metres
-  Local road 15 to 20 metres
-  Minor road <15 metres

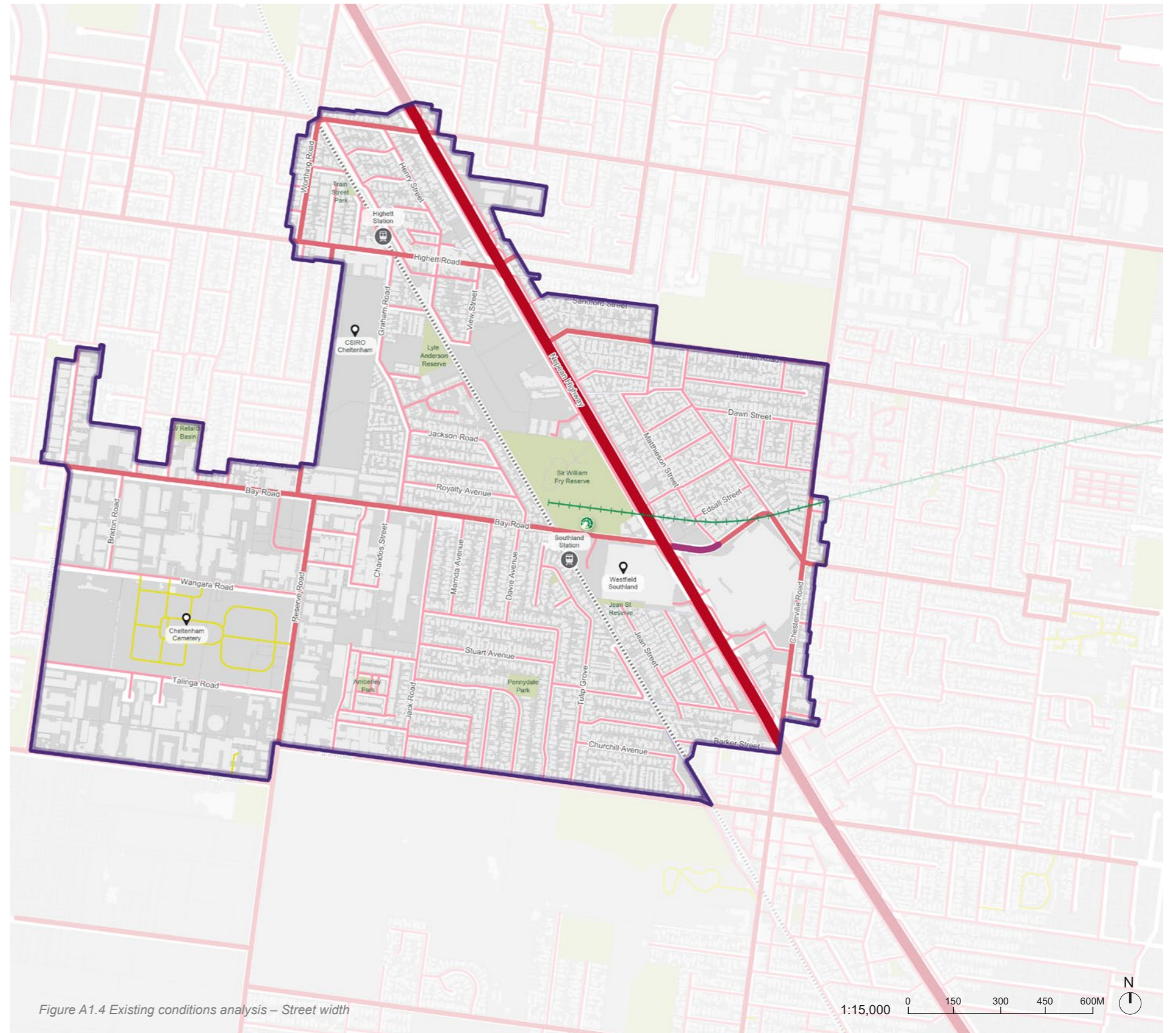


Figure A1.4 Existing conditions analysis – Street width



Widest main road - Nepean Highway



Local road width - Heather Grove



Main road width - Turner Road

Key streets






The Cheltenham Structure Plan Area includes multiple streets that contribute to character. These range from arterial roads such as the car-dominated Nepean Highway that offers poor pedestrian amenity, the low canopy streets of the industrial areas to tree-lined residential streets that offer a pleasant walking environment but offer poor permeability.

The key streets that influence the character of the Structure Plan Area are summarised below:






Nepean Highway is a 91km road that runs south from the centre of Melbourne to Portsea, along the eastern shore of Port Phillip. The highway is a 60 metres wide roadway which carries high traffic volumes. It generally comprises three traffic lanes in either direction with an additional service lane on each side. The roadway expands to four through-traffic lanes and three turning lanes in each direction at the Bay Street intersection. There are no street trees provided for 1.5km between Bay Street and Park Road intersections. Large format commercial buildings dominate the edge of the highway. These buildings are accessed via service roads and often feature at-grade parking at the rear of the site. North of Bay Road, land-use along the edge of the highway transitions to residential with some civic and commercial uses. Southland Shopping Centre bridges over Nepean Highway connecting the east and west wings of the shopping centre.

Bay Road/Karen Street/Tennyson Street - Bay Road extends 4.3 km from Sandringham Beach in the west to Nepean Highway in the east. The 20 metres wide road corridor provides 2 traffic lanes in each direction with nature strips and street trees to both sides of the road. Land uses vary along its length with established residential to the west and more Mixed-use to the east. The Frankston rail line underpass, Sir William Fry Reserve and Southland Shopping Centre are located on the eastern most end of Bay Road. Karen Street and Tennyson Street extend Bay Road further east around the northern edge of Southland Shopping Centre. They provide access to car parking and service areas associated with the shopping centre. Large inactive facades and car parking structures define the southern edge of the road. The northern edge of the street has a residential interface.






Legend

-  SRL station
-  Existing train station
-  Structure Plan Area
-  Property
-  Open Space





Land use

-  Residential
-  Commercial
-  Industrial
-  Mixed use
-  Civic facility

Key Corridors

-  Highway
-  Arterial
-  Connector
-  Local
-  Natural corridor

Specific Activity

-  Higher education facility
-  Health / Medical service
-  Parking
-  Public - inaccessible

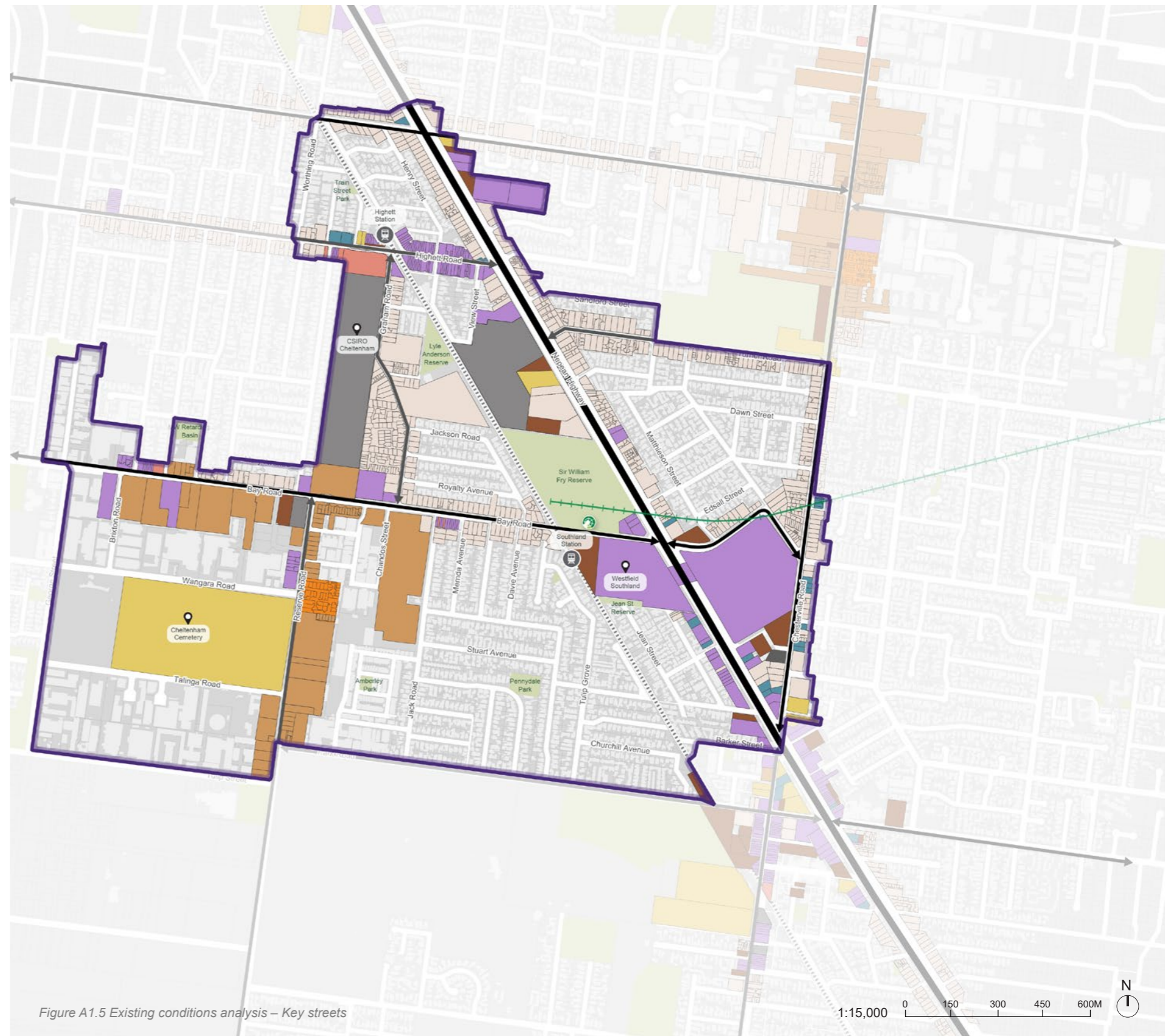


Figure A1.5 Existing conditions analysis – Key streets

- Reserve Road runs south from Bay Road through to the Beaumaris waterfront. The northern end of Reserve Road is characterised by manufacturing and industrial uses, the middle section is health and recreation-focused with several golf courses located in this area. The southern end has a more residential and community focus. Reserve Road plays an important function connecting these various precincts and land uses together. The road has a single traffic lane in each direction with on-street car parking/bicycle lanes and intermittent street trees
- Graham Road is a 15 metres wide local road that connects the industrial and manufacturing precinct on Bay Road to the existing Highett Station and shopping precinct to the north. Graham Road runs through an established residential area and alongside the 9 hectare Highett Village which has redevelopment approval as a residential precinct. Graham Road currently features a significant number of semi-detached developments and is transitioning to an even higher dwelling density. The road provides access to the Highett Bowls Club, and housing estates. The Hampton - Berwick bus route runs along Graham Road. Tree canopy is inconsistent, with some established street trees along the southern portion
- Turner Road is a 20 metres wide local road that intersects with Nepean Highway in the west and Chesterville Road in the east. It provides a valuable east-west connection in the Structure Plan Area. Topography slopes down toward the east. The road is characterised by single and double storey detached homes with increased residential subdivision (townhouses, units etc.). Two-way traffic with informal on street car parking and large nature strips with mature street trees line the street. An important function is played by Highett Reserve and the Waves Leisure Centre, which are located to the eastern end of Turner Road and provide local recreation opportunities including a swimming pool, sports ovals, a dog off-leash area, cricket nets, playground and picnic and BBQ facilities. Turner Road provides good access to the Moorabbin Industrial Precinct
- Highett Road runs connects Nepean Highway to Sandringham in the west. Beginning in the Highett Activity Centre, dominated by commercial and dining uses, with the emergence of mid-rise residential development. Larger format commercial uses are located at the western end of the activity centre, with sparse canopy coverage throughout. Moving west, Highett Road transitions into a predominantly residential character. Increased canopy cover is found outside of the activity centre, creating a positive pedestrian environment. Housing is predominantly established detached buildings with contemporary infill. Topography follows a gentle grade down towards the coast in the west
- The Chesterville Road corridor is 4.3km in length and connects Mentone Beach in the south to Monash Health - Moorabbin Hospital in the north. The road corridor is 20 metres wide with 2 vehicle lanes in each direction along Chesterville Road. Canopy cover varies significantly along the length of the corridor, with most vegetation found in residential areas
- Enright Street is a short 15 metres wide local road that plays a valuable role in connecting neighbourhoods north and north-east of Southland Shopping Centre to Nepean Highway. It has an emerging residential character, with contemporary townhouse subdivisions and low-rise apartment developments. There is reasonable canopy cover along the length of the road, making for a pedestrian friendly environment. Pedestrian movement is limited at its intersection with Nepean Highway.



Nepean Highway



Graham Road



Bay Road



Turner Road



Enright Street

Topography and natural features













Topography and natural features influence the character of the Cheltenham Structure Plan Area. With close proximity to Port Phillip Bay, the topography is generally flat, falling gently towards the south-east and north-west.

There are relative high-points in the southern and northern parts of the Structure Plan Area, around Cheltenham Park and Highett Reserve. Being a flatter region, the character of Cheltenham is largely established by the built form, vegetation and streetscape character. The topography sits lower along Nepean Highway, climbing slightly to Tennyson Street, and continuing to a higher level to beyond the Structure Plan Area to the north-east.













Topography influences the experience in some of the low and high-points of the Structure Plan Area. This includes:

- The topography rises along Park Road, starting at the intersection with Nepean Highway, moving towards Cheltenham Park. From this point, an easterly outlook offers distant views of the Dandenong Ranges
- Nepean Highway follows a relatively even topography through the centre of the Structure Plan Area, allowing efficient passage of high traffic volumes along the dual carriageway. Due to the consistently low topography along Melbourne's coastal regions, distant views of the Melbourne CBD can be seen from Nepean Highway
- Most of the residential areas are located where topography is generally flatter. This reduce the risk of any major site or structural intervention to deal with changes in topography. A lack of significant topography leads to the character within the Structure Plan Area being predominantly established by the built form, streetscape and vegetation.

Legend

-  SRL station
 -  Existing train station
 -  Structure Plan Area
 -  Trails
 -  Open Space
- Features**
-  Low Lying Area
 -  High Lying Area
 -  High point
 -  Key Dandenong Ranges views
 -  Views to CBD
 -  Views to Port Phillip Bay
 -  Ridgeline

Topography

-  35 - 40
-  45 - 50
-  55 - 60
-  65 - 70
-  75 - 80
-  85 - 90
-  95 - 100
-  105 - 110
-  115 - 120
-  125 - 130
-  135 - 140
-  145 - 150

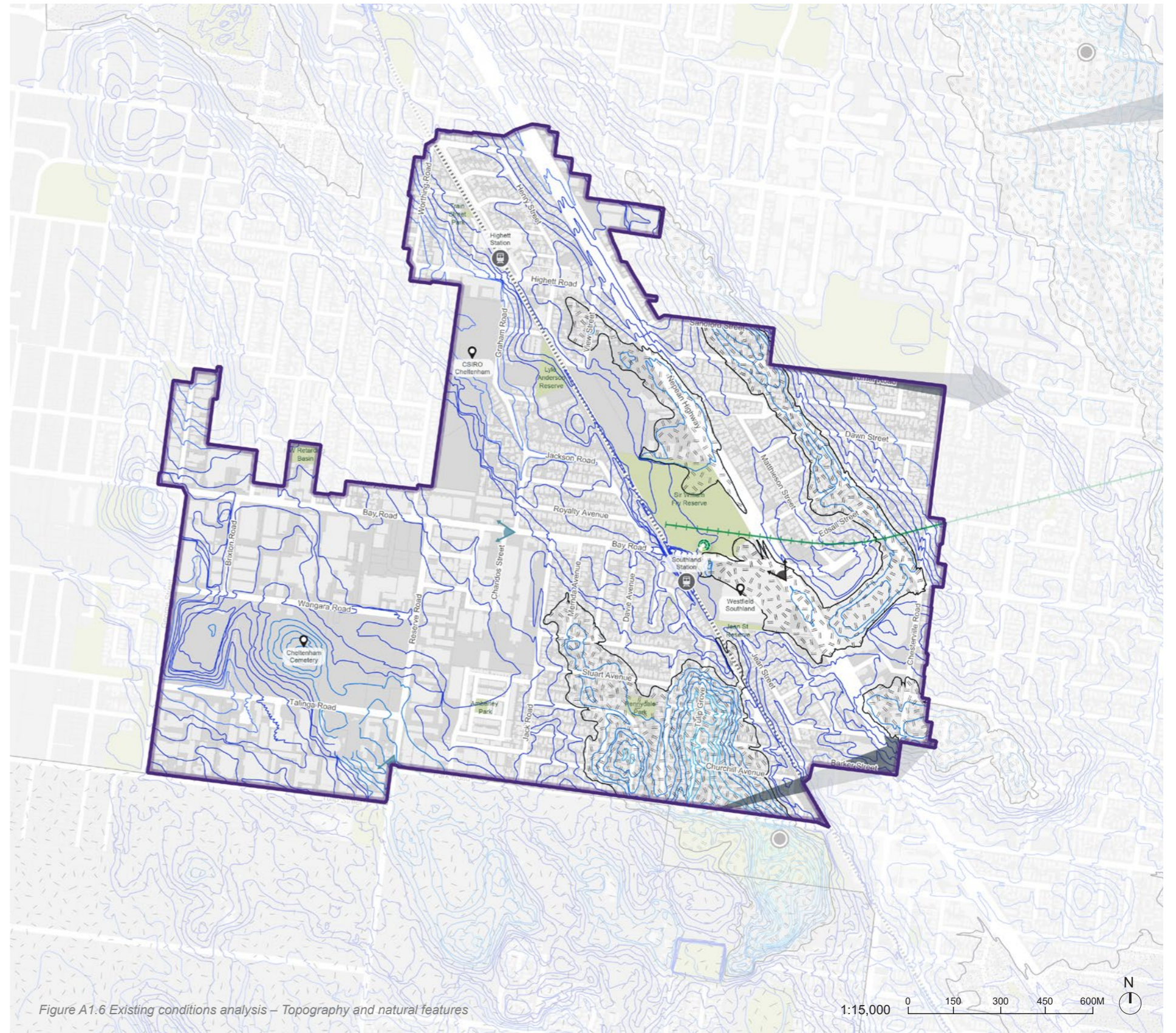


Figure A1.6 Existing conditions analysis – Topography and natural features



Topography along Nepean Highway looking north-east toward Melbourne CBD



Flat topography in residential areas



Topographical high lying area at Turner and Tennyson Street






Landscape character and tree canopy

Tree canopy cover and green public open space are linked to improved mental health and wellbeing, as well as mitigating the urban heat island effect, making urban environments more pleasant and reducing the need for active cooling in buildings.






Tree canopy cover across the Structure Plan Area is generally limited, with particularly large areas of low canopy cover around Southland Shopping Centre due to extensive at grade parking areas. Major roads such as Nepean Highway and Bay Road also feature very little vegetation. The established residential areas vary in the level of vegetation. A lack of distinctive tree canopy within the Cheltenham Structure Plan Area results in the built form and streetscape holding great influence over the area's character.

- Residential areas to the west of Southland Shopping Centre, such as the Pennydale residential neighbourhood, feature a relatively leafy garden suburban character, with a diversity of native and exotic trees of varied heights, as well as greening being provided by extensively planted front-yards, made possible by large building setbacks.
- Residential areas to the east of Nepean Highway feature low levels of canopy cover, with small to medium exotic tree species. Smaller building setbacks in these areas due to the emergence of higher-density town housing and multi-unit dwellings leave little opportunity for planting within lots. Reduced canopy cover can often be attributed to the presence of overhead power-lines, as well as concerns over maintenance and upkeep.
- Denser levels of tree canopy cover and remnant indigenous species are generally found along the edges of public open spaces (such as Sir William Fry Reserve, Lyle Anderson Reserve, Highett Reserve and Cheltenham Park) and within the range of public and private golf-courses beyond the Structure Plan Area. Large sites like the Former Highett Gasworks and the CSIRO also have some significant mature trees.









Legend

-  SRL station
-  Existing train station
-  Structure Plan Area
-  Property
-  Employment Area

Tree Canopy

-  0 to 2 metres
-  2 to 4 metres
-  4 to 6 metres
-  6 to 8 metres
-  More than 8 metres

Landscape Character

-  Tree lined corridor (road, rail, pedestrian)
-  Indigenous landscape
-  Low canopy
-  Civic space edge eucalyptus
-  Urban contemporary
-  Garden suburban
-  Designed nature
-  Residential estate

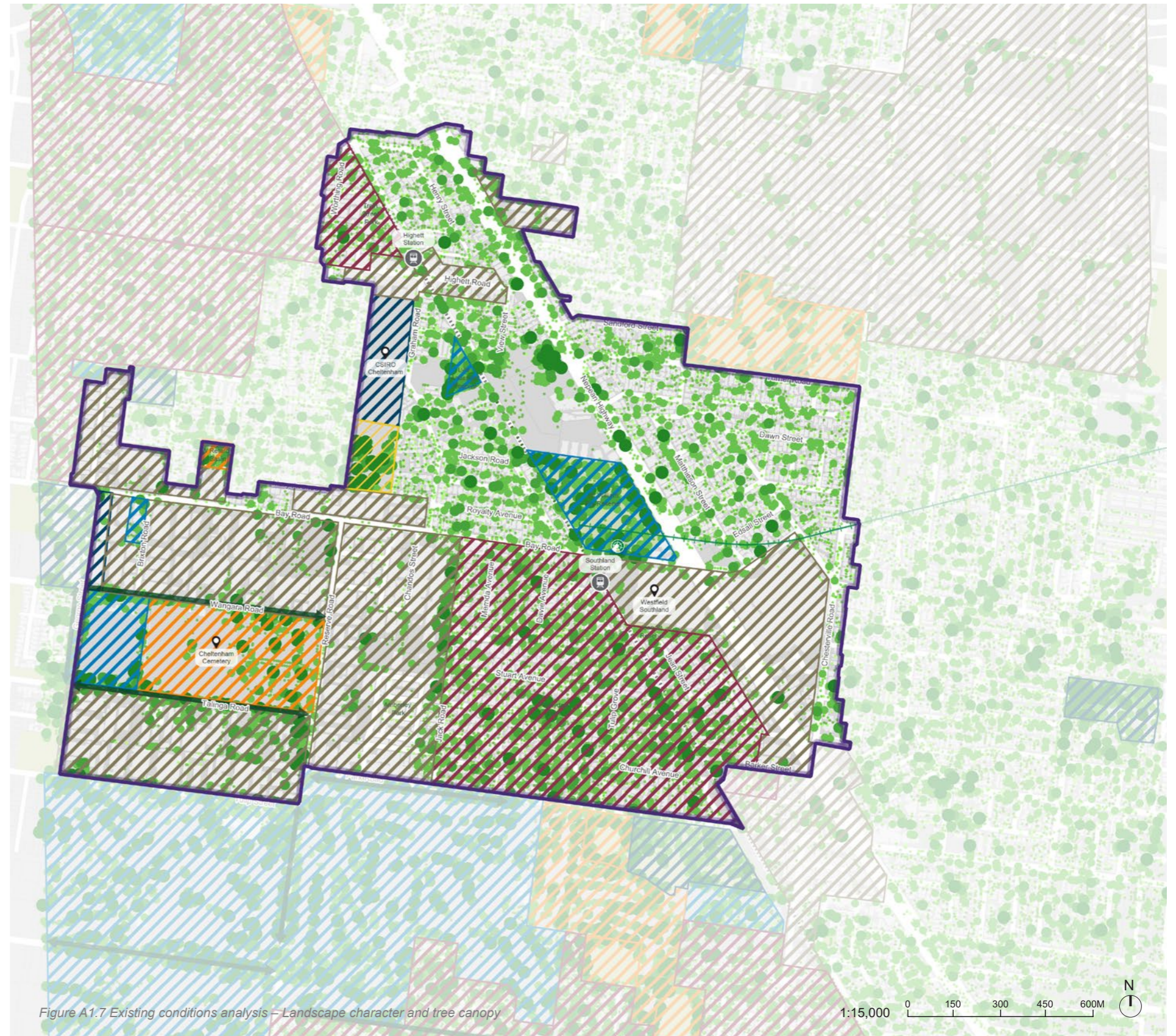


Figure A1.7 Existing conditions analysis – Landscape character and tree canopy

The landscape, vegetation and tree canopy influence the character of some streets, including the following:

- Nepean Highway divides the Cheltenham Structure Plan Area diagonally. The width of the road (three lanes in each direction, plus service roads), result in a large low canopy corridor and a significant physical barrier within the Structure Plan Area. A wide, grassed median strip divides the two directions of traffic, and supports a sparse array of trees and shrubs. Landscape amenity is improved where the highway interfaces with open space, such as Sir William Fry Reserve, although the width of the traffic corridor means that no cohesive landscape character is formed
- Park Road runs in an east-west direction, linking Nepean Highway with Reserve Road. Park Road begins in the retail centre with a notable lack of canopy, Passing over the rail reserve and into the residential zone, canopy cover increases, with medium height street trees planted on nature strips of the northern edge, and significant established trees and shrubs to the southern side along Cheltenham Park Reserve, which provides a bushy character to the street. Further west, at the golf course interface, high canopy coniferous trees line the southern edge of Park Road and continue all the way to the Reserve Road intersection
- Tulip Grove runs in a north-south direction through the Pennydale neighbourhood of Cheltenham. The street largely has a garden suburban character, with a variety of native and exotic species of varying heights lining the street edge. Predominantly detached dwellings with setbacks, established gardens and varying fence heights contribute to the landscape character of the residential street.

Parks and reserves have a distinctive landscape, canopy and vegetation type that relates to the character of the space and its surrounding areas. Such spaces include the following:

- Cheltenham Park is situated at the intersection of Park Road and the rail reserve. Within the bounds of the park, several distinct areas can be found, including two grassy recreation reserves, off-leash dog areas and a playground. Vegetation tends towards varied groupings of native canopy trees of considerable heights and varied patches of native scrub, giving the park a bushy character
- Sir William Fry Reserve, situated on the corner of Nepean Highway and Bay Road, is a landscaped reserve. Established native canopy trees line the perimeter. Within the boundary is a children's playground, skate park, wetland feature, large grassed areas and small to medium groupings of native trees. It is one of few open public spaces within the Structure Plan Area that does not have a sporting function, and is significant in size. The location of Sir William Fry Reserve, bounded by two major roads and a rail reserve, means it is difficult to access from surrounding residential areas, particularly for pedestrians.



Residential areas to the east of Nepean Highway typically exhibit lower canopy cover



Wetland feature at Sir William Reserve



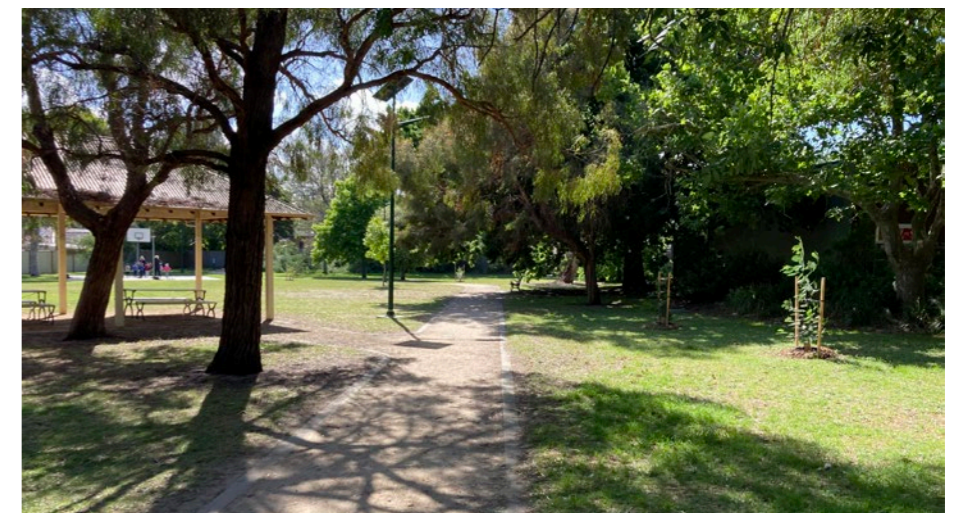
Cheltenham Park



Turner Road Reserve



Planting to edges of golf course and Cheltenham Park along Park Road.



Pennydale Park

Urban evolution and heritage

The Traditional Owners have lived sustainably in the region for thousands of years, moving within their lands while making use of seasonal plant and animal resources and sharing similarities in speech, burial practices, initiation, kinship marriage ties and religious beliefs.

As Melbourne started to develop through the late 1800s, the Cheltenham Structure Plan Area comprised of predominantly farmland. A township began to develop in the mid 1800s. This was spurred on by the construction of the existing Cheltenham Station in 1881. The pace of development increased after World War I. Cheltenham continued to grow after World War II, with multiple centres of activity including the regionally significant Southland Shopping Centre.



PRE-EUROPEAN SETTLEMENT

The Bunurong Land Council Aboriginal Corporation is the Registered Aboriginal Party for the Cheltenham Structure Plan Area (in accordance with the July 2021 determination of the Victorian Aboriginal Heritage Council).

The Traditional Owners continue to be custodians of the region today, maintaining their connection to their Country.

Research into the culture and heritage of the Traditional Owners in the Structure Plan Area is explored in the SRL East Structure Plan - Aboriginal Cultural Heritage Technical Report.

POST-EUROPEAN SETTLEMENT - 1920

Cheltenham initially covered 625 acres of land that was subsequently subdivided into 370 allotments of two acres each, giving the community its first name – Two Acre Village. By 1864, there was a variety of services to support the growing population, including two hotels, a post office, Mechanics Institute, two schools, a medical practitioner, and weekly livestock and produce markets. The existing Cheltenham Station opened in 1881, which spurred a period of growth in this decade. The Royal Melbourne Golf Club was established in 1891.

Key heritage sites include:

- Former Protestant Alliance Friendly Society and RSL Club Hall built in 1886 is of social, historical and architectural significance.

1920 to 1945

Initial development during this period occurred around the intersection of Nepean Highway and Park Road/Centre Dandenong Road (around the existing Cheltenham Station). By 1945 much of the surrounding area was still farmland, though development had started taking place further north, around the existing Highett Station.



1945 - 1951

Greater levels of residential development occurred as Cheltenham became a popular suburb following World War II. Most of the growth expanded upon previous development around the existing Highett Station and Cheltenham Station. Areas in the north-east of Cheltenham remained largely undeveloped during this time.



1951 to 1970

Growing population in the area led to the construction of Southland Shopping Centre which opened in 1968. Residential development around the site also began to expand and intensify, linking previous areas of development activity. Primary schools in the east and west of Cheltenham were opened in 1956 and 1957 respectively. During the 1950s and 60s, many of the market gardens were redeveloped into housing and manufacturing facilities. During this period, industrial activities in the north of Cheltenham also commenced. By the end of the 1960s, much of the area was developed with little evidence of the previous farming activity.



1970 - TODAY




In the 1970s, both residential and industrial expansion continued. Trends toward residential intensification were already becoming apparent as early as 1978, when the Cluster Title development, Pagewood Park, was opened. In 1981, the Melbourne and Metropolitan Board of Works designated Cheltenham a suburban activity centre. During the 1980s and 90s, Southland Shopping Centre went through a number of renovations and expansions.

Built form






The Cheltenham Structure Plan Area is characterised by a variety of building forms and architectural styles. Residential areas surrounding the Southland Shopping Centre, and Cheltenham and Highett Activity Centres, include both small, low-rise buildings, as well as low-rise to mid-rise residential intensification. Larger footprint retail, civic and industrial buildings are found within the Structure Plan Area. Original housing can be found in some streets. The following are the key built form characteristics identified across the Structure Plan Area.

- The extent of housing development in the 1800s was limited. Housing was inhabited by farmers and orchardists, was often crudely constructed and are not evident today
- The extent of 20th century housing development was limited pre-1945. The houses built were single-storey dwellings constructed of weatherboard in the Federation style, and brick houses built in the Inter-War style. Few examples of these types of housing remain
- In the post-war period, residential development in Cheltenham increased with economic prosperity. Houses were 2 and 3-bedroom detached structures of weatherboard and brick-veneer. Houses were often single-storey and double or triple-fronted
- From the late 1950s through to the 70s, Cheltenham experienced rapid suburbanisation and intensification. Much of the remaining farmland was subdivided for residential use. Housing largely remained in the Post-War style, with dwelling size growing in line with rising affluence. Examples of Modern style dwellings were also present.

Legend

-  SRL station
-  Existing train station
-  Structure Plan Area

Building Heights

-  0 to 5 metres
-  5 to 10 metres
-  10 to 20 metres
-  20 to 40 metres
-  More than 40 metres

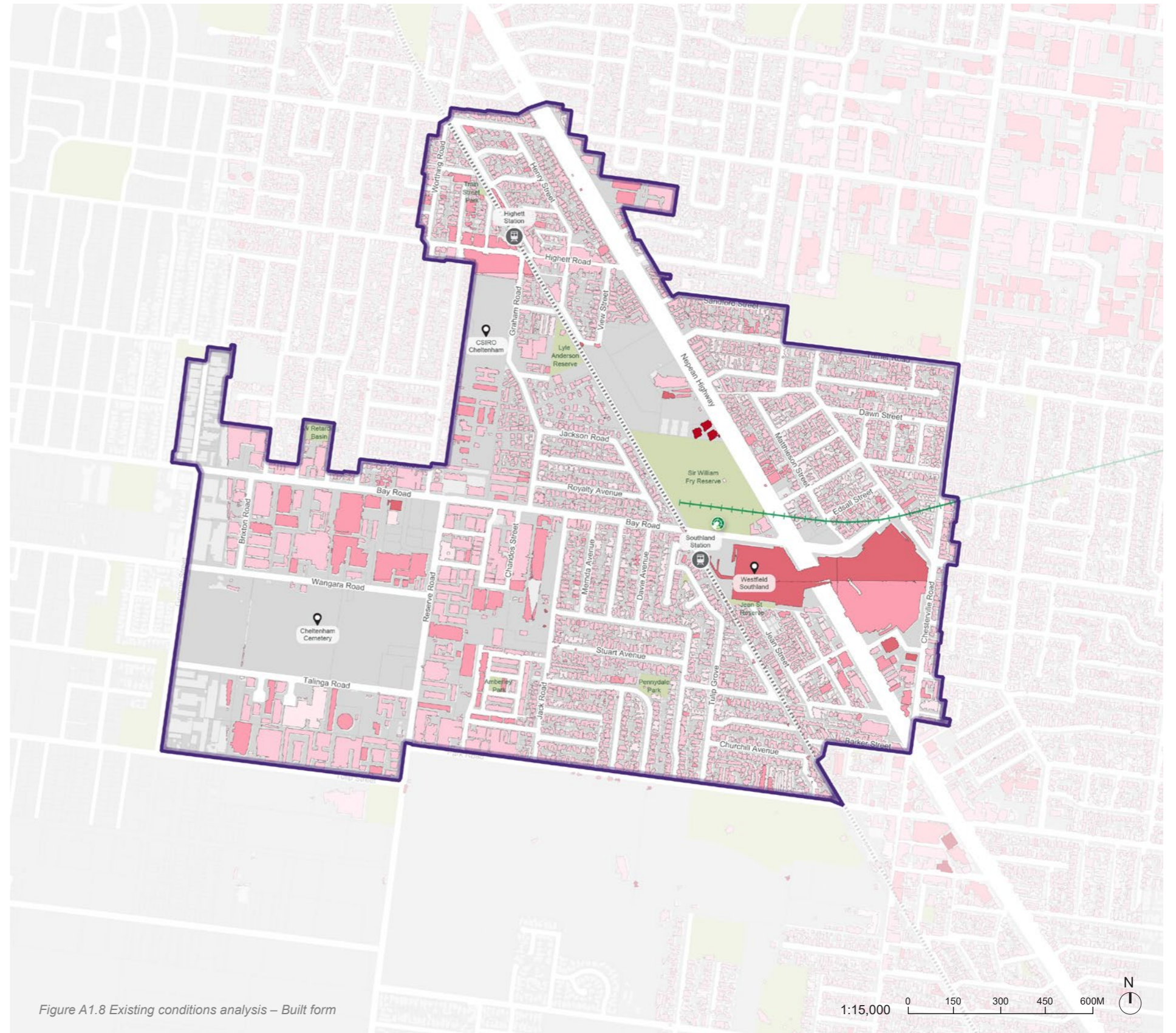


Figure A1.8 Existing conditions analysis – Built form

- During the 1960s and 70s, industrial activities (particularly in the northern part of Cheltenham) increased. The result was the construction of many large footprint industrial buildings. These areas are still evident today to the north-east and south-west
- As land has become increasingly scarce, there is a tendency towards master planned developments with smaller parcels, and subdivision of original sites into medium density townhouse developments – a trend that continues to the present day
- Large footprint retail and civic buildings are present within the activity centres, as well as along Nepean Highway. Built form in these areas is expressed horizontally, with buildings rarely exceeding 20 metres. Due to the proximity to Moorabbin Airport, the Civil Aviation Building Control Regulations limits building heights within much of the south and east of the Structure Plan Area to 45 metres.



Federation style housing in Cheltenham



Contemporary townhouse developments in Cheltenham



Post war villa housing in Cheltenham



Large footprint retail along Nepean Highway






Contemporary townhouse developments in Cheltenham, Source: Google Maps

Block structure







Analysis of the cadastre reveals that the Structure Plan Area has multiple block types. These are distributed across the Structure Plan Area, with some short and highly permeable blocks around the existing Cheltenham Station and Highett Station. Throughout the Structure Plan Area, blocks structure is generally inconsistent, with irregular grids, cul-de-sacs and curvilinear networks present. Block structure is generally more regular to the west of Nepean Highway

- The south-west and north-east of the Structure Plan Area are dominated by large blocks. To the west and north-east of the Structure Plan Area, the blocks are large and vary from large industrial sites and some fine-grain industrial sites with limited permeability. Golf courses cluster together towards the south of the Structure Plan Area. Large block sizes with large parcels present potential and opportunities for redevelopment and increased permeability (i.e. the introduction of new roads). This is evidenced by current and recent residential redevelopment of light industrial and commercial sites around the Bayside Industrial Precinct (such as Jack Road Mirvac Development, Former CSIRO Redevelopment)
- Nepean Highway marks a distinction in residential block character. To the west of the highway, residential blocks mix some cul-de-sacs with regular street blocks, although these are often long and lack permeability. On the eastern side of the highway and around the Southland Shopping Centre the block character is dominated by cul-de-sacs, large in size, and lacking permeability and through connections. The nature of these blocks, considering the high number of smaller residential parcels that they contain, means they present less potential and opportunity for future redevelopment and increased permeability
- Block sizes and structure are generally more permeable in the immediate vicinities of the Highett and Cheltenham Activity Centres, resulting in a higher degree of pedestrian amenity.

Legend

-  SRL station
-  Existing train station
-  Structure Plan Area

Block Structure

-  Category 1: Large blocks with limited through connections and interfaces
-  Category 2: Irregular blocks discontinuous connections
-  Category 3: Regular blocks discontinuous mid block connections
-  Category 4A: Regular street block - Length greater than 200 metres
-  Category 4B: Regular street block - Length between 1 and 200 metres
-  Category 4C: Regular street block - Length less than 1 (or length divided by laneways)

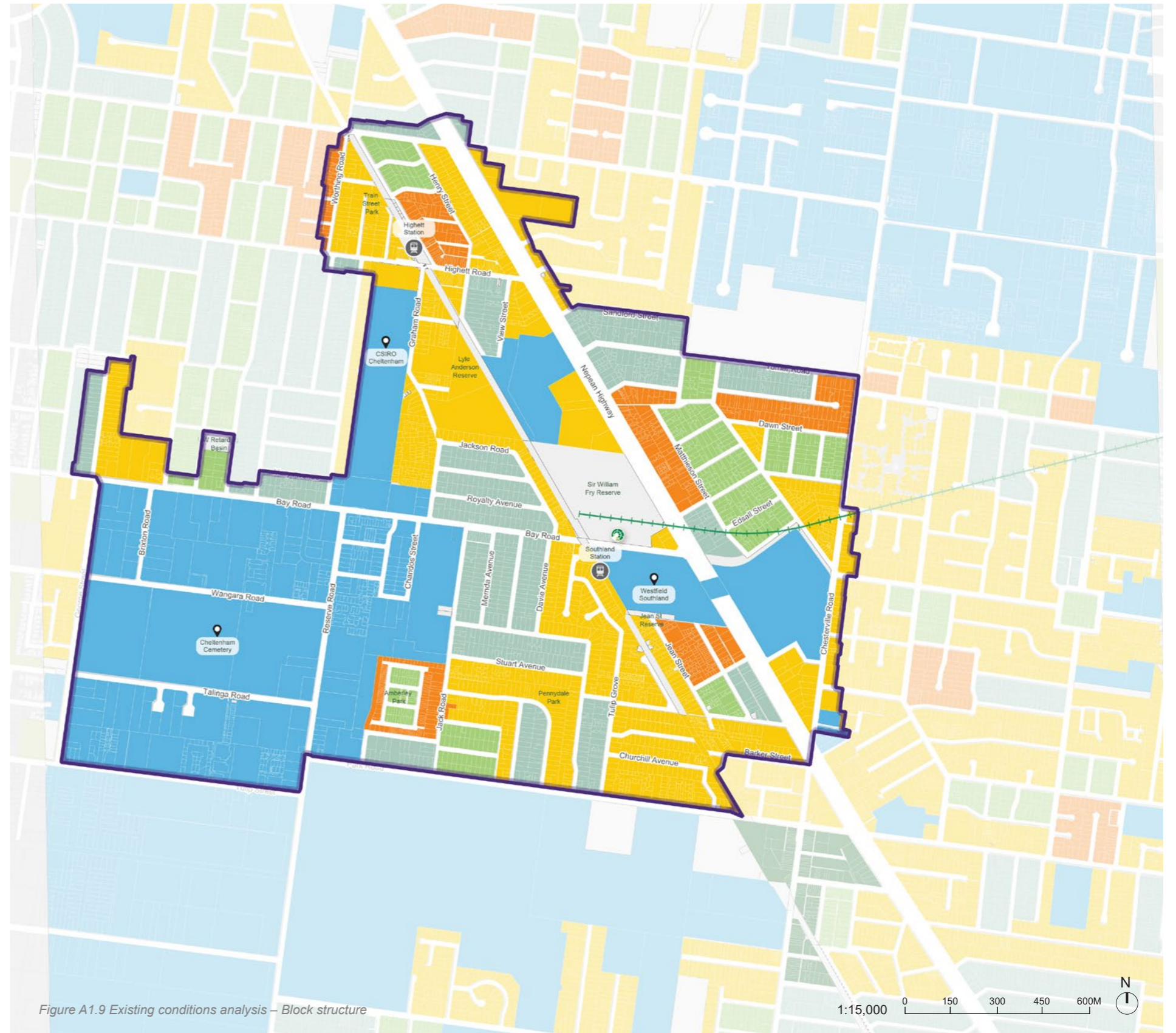


Figure A1.9 Existing conditions analysis – Block structure



Long regular block structure, Source: Nearmap



Cul-de-sac set in regular grid, Source: Nearmap













Cul-de-sac block structure, Source: Nearmap

Setbacks

The setback analysis shows most buildings within the Structure Plan Area are set back from the boundary, with clusters of buildings with no setbacks forming in commercial areas, industrial areas and public use zones. The analysis findings are summarised below.

- Areas with larger setbacks are generally recreation facilities or public open spaces, which accommodate for internal roads, parking spaces and open space. These areas lack a distinctive character and often appear generic
- Setback size in industrial areas is varied. Setbacks of around 7 to 9 metres are commonly employed for parking, although smaller setbacks down to 0 to 1 metre are also employed where those buildings serve a different function
- The small buildings featuring setbacks of less than 1 metre are commonly found in commercial areas such as Southland Shopping Centre, Hihett Activity Centre, or smaller commercial strips such as those on Chesterville and Bay Roads. The facilities are generally built to the boundary, creating consistent shop fronts, typical of suburban areas
- Those residential areas of the Structure Plan Area where significant intensification has taken place may also feature small setbacks of 0 to 3 metres. This is often the case with residential and strata subdivisions that feature townhouse or unit typologies. This contributes to a suburban contemporary character
- Residential areas typically feature larger setbacks of 4 to 12 metres. This is helpful in contributing to a garden suburban character and a feeling of spatial generosity by:
 - Allowing for considerable planting of mature trees and shrubbery
 - Eliminating the need for large fences as the landscaping acts as a buffer between the street and the houses. Many houses have low fences or no fence at all.

Legend

-  SRL station
 -  Existing train station
 -  Structure Plan Area
- Setback**
-  0 to 1 metres
 -  1 to 3 metres
 -  4 to 6 metres
 -  7 to 9 metres
 -  10 to 12 metres
 -  13 to 15 metres
 -  > 15 metres

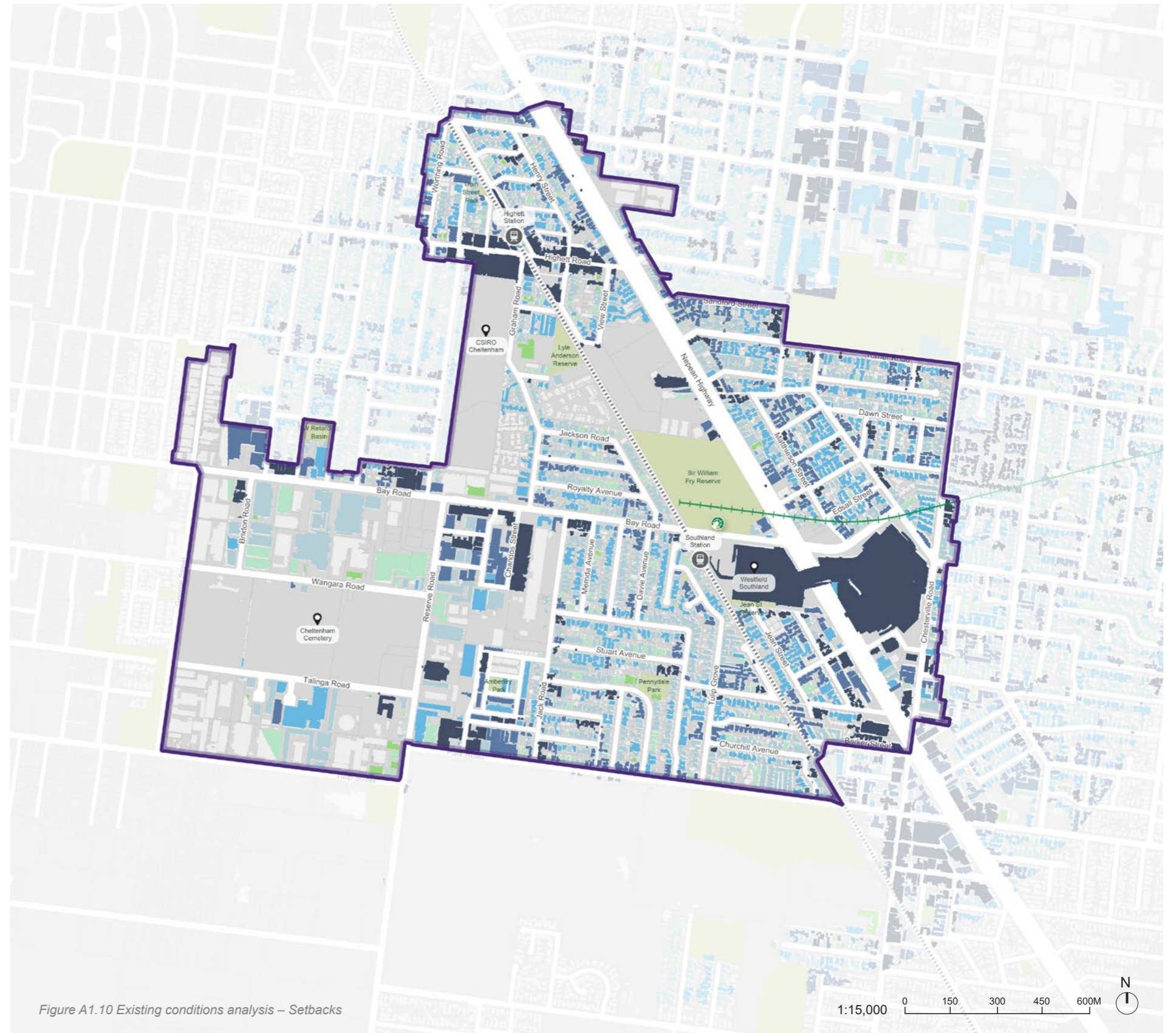


Figure A1.10 Existing conditions analysis – Setbacks



Small, fine-grain commercial buildings built to the boundary (0 to 1 metre setback) on Chesterville Road



Residential buildings typically have 4 to 12 metres setbacks, allowing for large gardens with mature trees











Large format commercial and industrial buildings with setbacks >15 metres located within Bayside Industrial Area

Lot size

The Cheltenham and Highett Activity Centres are comprised of a mix of small and medium land parcels, while Southland Shopping Centre is a significantly large parcel. Outside the activity centres, residential land parcels are fine-grain but large (typically 400 to 800 square metres). The large residential lot size has resulted in recent patterns of subdivision that are modifying the traditional character in some areas, especially in the residential areas close to activity centres. Within the industrial precincts, lot sizes are large, exceeding 1600 square metres.

- Across the Structure Plan Area, parcel size and development are characterised by finer-grain, low-rise residential areas. Strata-titled properties are dispersed through low-rise residential areas across the Structure Plan Area. These are especially prevalent in the area to the south of Southland Shopping Centre, and to the east of Nepean Highway
- Recent development around the existing Cheltenham Station and Highett Station reveal an emerging character of mid-rise apartment buildings with commercial uses at ground level. The activity areas of Cheltenham and Highett are comprised of a diverse mix of land-parcels. This reflects a diversity of commercial uses, from fine-grain local retail to larger format supermarket chains
- Parcel sizes along Nepean Highway are generally large, particularly in the stretch between the existing Cheltenham Station and Southland Station. Many of the parcels are thus occupied by space-intensive commercial uses, with some civic services also present
- Larger land parcels in the Structure Plan Area support various educational uses. These include a series of primary schools, as well as Cheltenham Secondary College.

Legend

-  SRL station
 -  Existing train station
 -  Structure Plan Area
- Lot Size**
-  0 to 400 square metres
 -  400 to 800 square metres
 -  800 to 1200 square metres
 -  1200 to 1600 square metres
 -  More than 1600 square metres

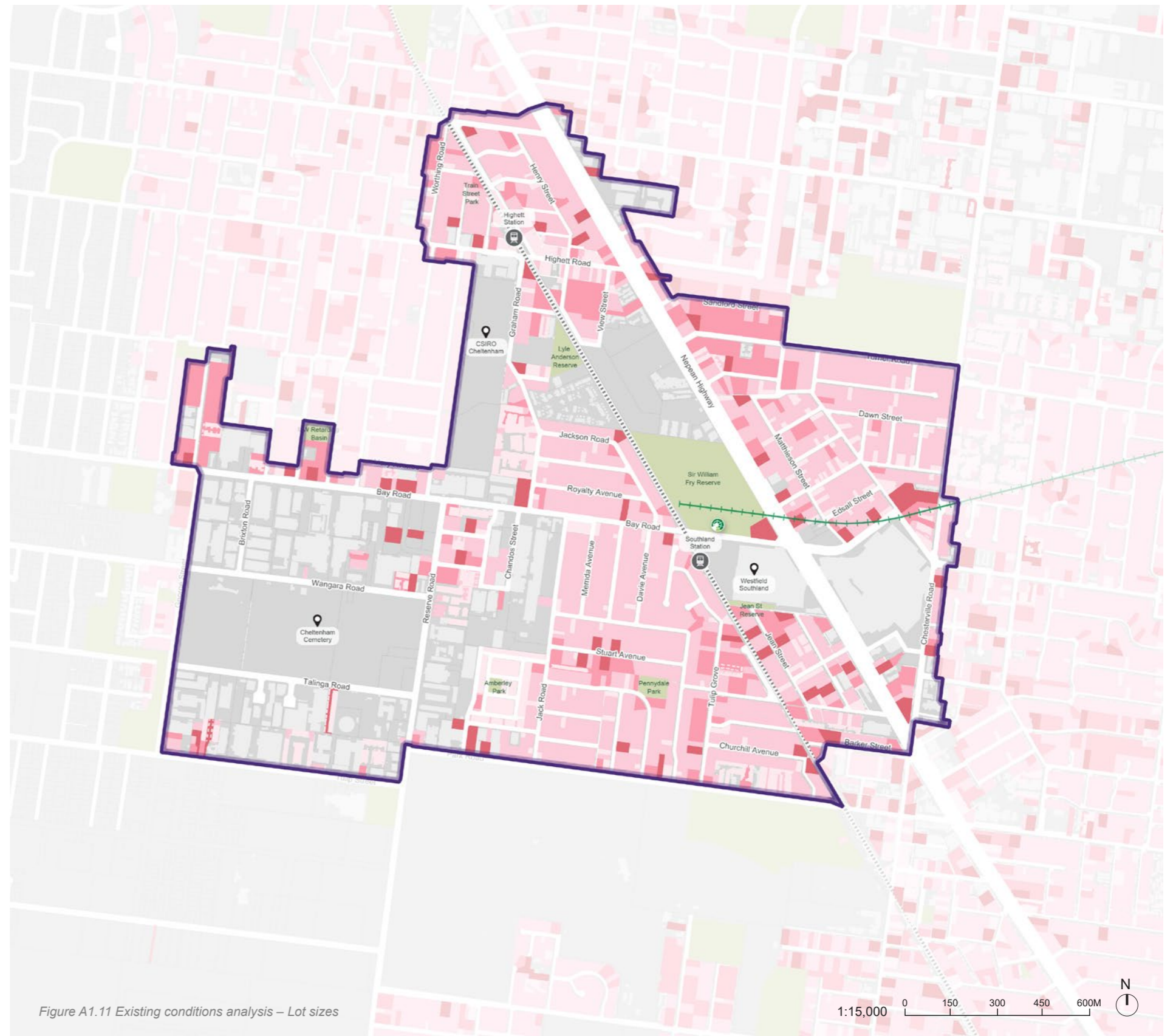


Figure A1.11 Existing conditions analysis – Lot sizes



Unit title dual occupancy dwellings



Strata title units



Cluster title development

Subdivision patterns

The Cheltenham and Highett Activity Centres generally comprise fine-grain parcels at the core, with medium and large-sized land parcels towards the periphery. Commercial land parcels along Nepean Highway, and within the Bayside Business District are medium to large, while Southland Shopping Centre occupies an exceptionally large site.

- The subdivision pattern within the activity centres currently support a diverse range of uses and development types, with retail, commercial and residential uses clustered around the existing Cheltenham Station and Highett Station. Future development and intensification of these areas for either commercial or residential use may require a consolidation of those finer-grain land parcels
- To the northern and eastern parts of the Cheltenham Activity Centre, business and civic uses are supported by medium and large sized land parcels closer to Nepean Highway
- The western part of the Highett Activity Centre beyond the Frankston rail line, supports Mixed-use developments of multiple storeys on larger lot-sizes
- Over recent years, several multi-unit residential developments have been completed in the Cheltenham and Highett Activity Centres, resulting in an increased number of apartments within these areas
- Outside of the activity centres, the remainder of the Structure Plan Area generally comprises finer-grain, low-rise residential areas. Several land parcels within these areas are strata-titled, with a higher proportion located north-east of Southland Shopping Centre
- There is evidence of recent large-scale subdivision of parcels within industrial/employment areas, resulting in medium-density townhouse and apartment developments (such as Sterling Bayside, Tibrockney Street, Highett; 252 Bay Road, Sandringham) and it is evident that this trend will continue, with the future development of the Former Highett Village underway
- There is evidence of recent consolidation of residential parcels to support medium density apartment developments (such as 21-19 Hall Street, Cheltenham)
- Open spaces of varying sizes are distributed across the Cheltenham Structure Plan Area. A significant proportion of open space is concentrated in the south-west of the Structure Plan Area, with multiple golf courses, cemeteries and a recreation reserve. Generally, public open space is more scarce to the east of Nepean Highway.

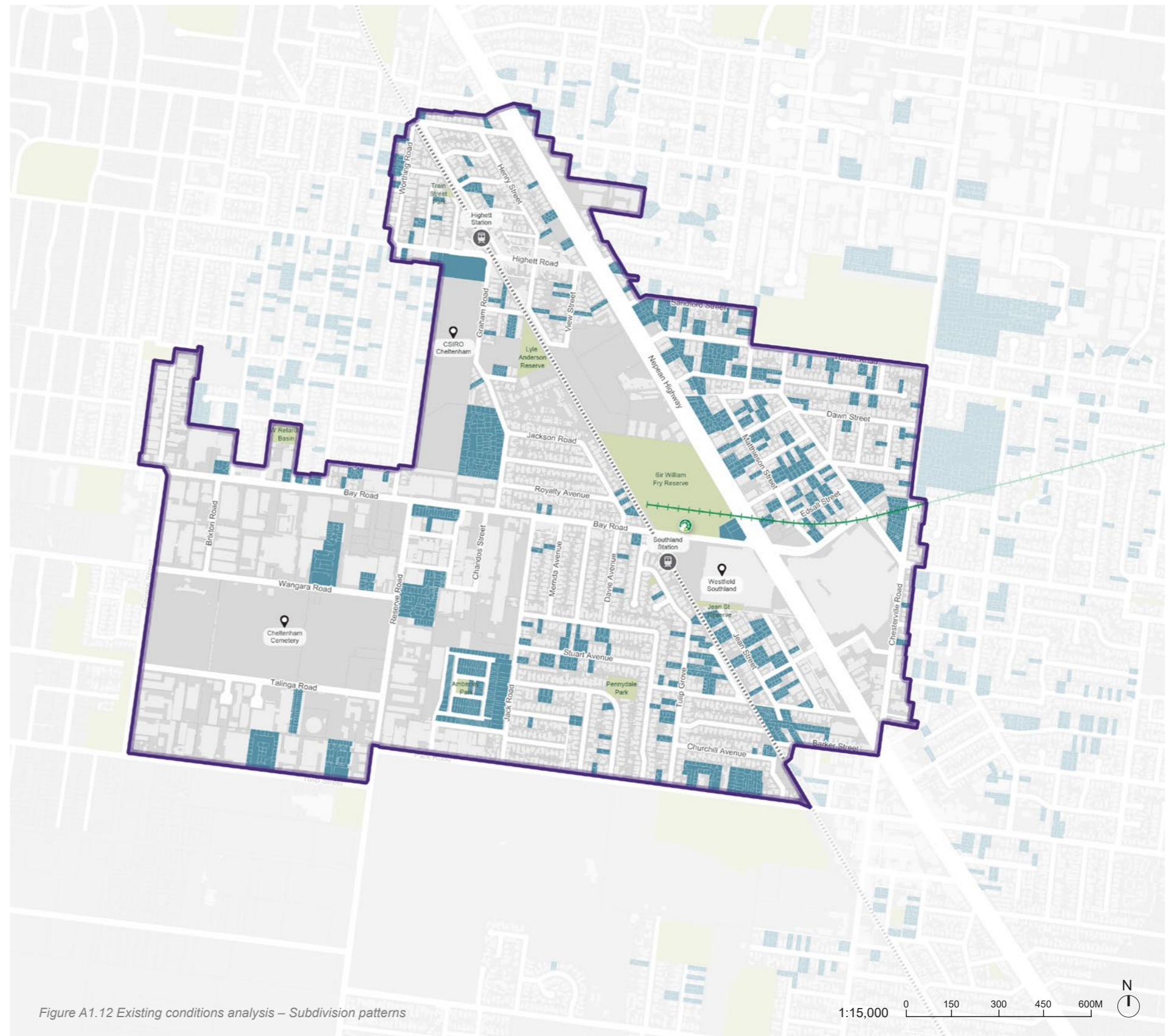


Figure A1.12 Existing conditions analysis – Subdivision patterns



Original house from the 1960s.



Strata-titled townhouses, with increased site coverage and reduced landscaping.













Strata-titled medium density apartments

Floor area ratio (FAR)

The majority of the Structure Plan Area is relatively low density with floor area ratio (FAR) of less than 0.5. The Higher-density built forms are concentrated in the core of the Highett and Southland Activity Centres. The sizeable vacant land holdings of the CSIRO site and the Gasworks site demonstrate a significant gap in the urban density within the Structure Plan Area.

The Bayside Business District and Nepean Highway interfaces include higher FARs, which is mainly due to higher site coverage than vertical intensification.

Legend

-  SRL station
-  Existing train station
-  Structure Plan Area
- FAR**
-  0 to 0.2
-  0.2 to 0.5
-  0.5 to 1
-  1 to 2
-  2 to 3
-  3 to 5
-  More than 5

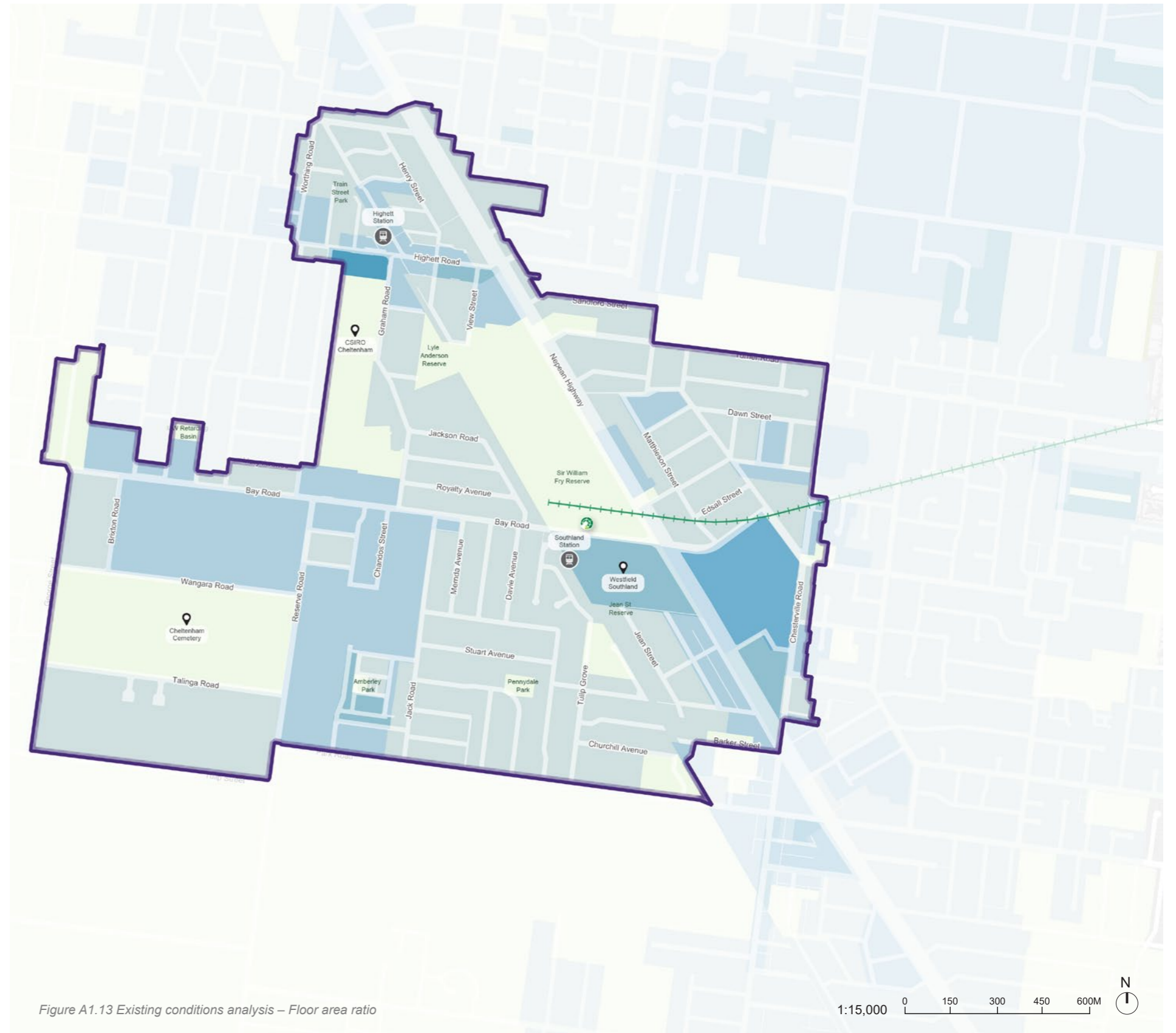


Figure A1.13 Existing conditions analysis – Floor area ratio

Existing character areas

The character assessment has identified a mix of subtle and distinct character features across the Cheltenham Structure Plan Area. The analysis has been synthesised to define distinct existing character areas. Each character study has been identified as having an identifiable sense of place. The character variation within the Structure Plan Area is experienced through landscape, tree canopy, built form and subdivision patterns, and to a lesser extent, topography. The main physical features that distinguish the character areas are:

- The boundary condition of Nepean Highway and Frankston rail line, both which limit permeability throughout the Structure Plan Area
- Landscape character and open space of golf courses
- Low canopy, hardscaped industrial areas
- Large format commercial buildings oriented along Nepean Highway
- Enduring large residential lot sizes, with an increased trend towards subdivision and densification
- The large residential lot size and their relation to traditional residential landscape and tree canopy character – Recent infill development and subdivisions divert from this character
- Relatively flat topography that does not define any particular area.

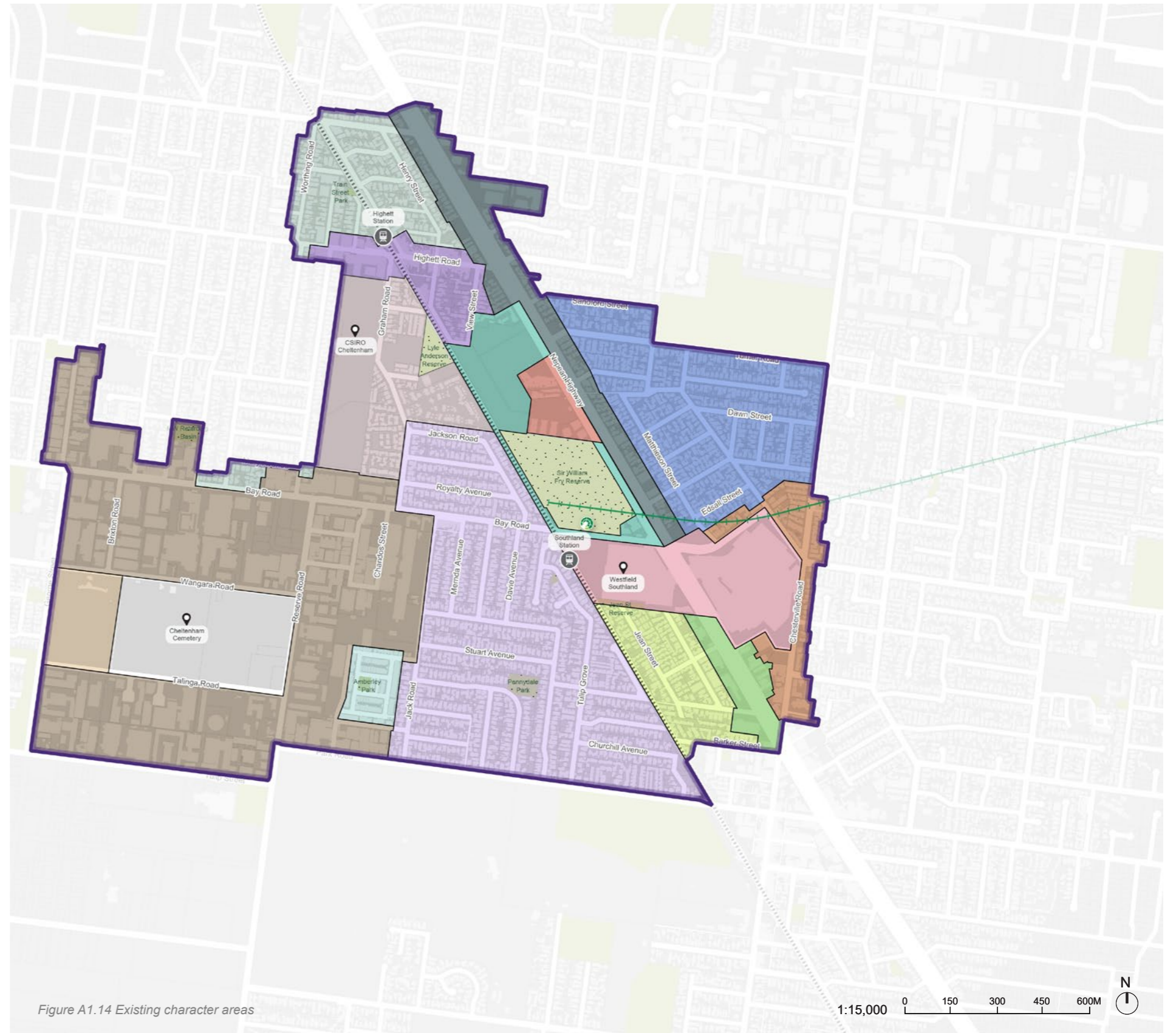





Figure A1.14 Existing character areas

Legend

-  SRL station
-  Existing train station
-  Structure Plan Area

Highett Gasworks

Highett Gasworks encompasses public open space and the former Highett Gasworks site.

Highett East

Predominantly residential area with a fragmented street network with a range of block sizes and orientations. The built form mainly comprises attached or semi-attached single and double storey units and townhouses with limited private open spaces and canopy tree coverage.

Pennydale

An established residential area with relatively leafy character. There is limited connectivity to the rest of Structure Plan Area. Existing character is experiencing development pressures to densify from areas in the east.

Graham Road

Previously a mix of housing estates and light-industrial that is rapidly transforming into an intensified residential area.

Highett Road

Highett Road is a mixed activity centre featuring fine-grain neighbourhood retail and recent mixed use developments west of the Frankston rail line and a mix of low density detached houses and emerging mid-rise residential developments to the south

Highett North

Highett North is a predominantly residential area, served by a number of schools, recreation facilities and open spaces. There is reasonable tree canopy throughout.

Southland

Southland is a large footprint regional shopping centre with extensive car parking and associated services. It is car dominated and has little relation to the surrounding urban fabric.

Nepean Highway South

Nepean Highway/Charman Road consists of highway-orientated retail and civic services with some emerging medium-density residential development.

Jean Street

Residential area confined by rail and road corridors and Southland Shopping Centre. Several lots are subdivided with strata titling and comprise medium density semi-detached and attached typologies, resulting in higher land coverage and reduced tree canopy cover.

Chesterville Road

Residential area interfacing with Southland Shopping Centre's multi deck car parking. Chesterville Road and Karen Street are key movement corridors with wide road reserves and limited tree canopy cover. The area comprises a range of medium density townhouses and high-density Mixed-use built form.

Nepean Highway North

Interfacing with Nepean Highway's road reserve, this area comprises medium grain lots with fewer development constraints and built form coverage. Accessed via a service road, separated from main arterial road with planted median strip.

Remington Drive

Remington Drive encompasses high-density residential and civic uses. The area is undergoing significant redevelopment.

Pallisades Boulevard

Recently developed residential area of attached townhouses and apartments interfacing with internal local streets and a central pocket open space. There is limited interaction with the surrounding urban fabric.

Bayside Business District

Bay Road is a mixed-grain industrial area tending toward large footprint built form. There is a mix of commercial and light industrial uses. Limited landscape character exists throughout.

Golf Driving Range

Privately-owned sport club

HIGHETT GASWORKS



This character area is bounded by Nepean Highway to the east, and the Frankston rail line to the west. It includes Sir William Fry Reserve, the Former Highett Gasworks site, Moorabbin Magistrates Court and a fuel service station. Pedestrian access to the surrounding urban fabric is hindered by major transport corridors.

Main drivers of character

The topography is largely level with a few changes in level between Sir William Fry Reserve and the Former Gasworks Site. There are significant established native canopy trees which are an asset contrasting to the absence of canopy on Nepean Highway

- Site coverage within this area is low, due to the extensive open space of Sir William Fry Reserve and the Former Highett Gasworks. However, the buildings that are present are large in footprint and present some of the tallest heights within the character area
- Sir William Fry Reserve is a valuable asset, providing central public open space within the Structure Plan Area. It supports a range of recreational activities through the skate park and playground. Native vegetation is found throughout the site.

Considerations for change

This is a valuable although disconnected open space in an area that lacks access to other sources of open space.

- The open space, canopy and location of the SRL station at Cheltenham could facilitate intensification on the large sites in this area.

HIGHETT EAST



This character area is primarily established low-density residential that extends from Southland Shopping Centre to Wickham Road in the north. This area features relatively short blocks and a continuous street network that is bounded by Chesterville Road, Nepean Highway and the Moorabbin Industrial Precinct. The north of the area includes Highett Reserve, and an aquatic leisure centre. Movement from the area is restricted by the Moorabbin Industrial Precinct to the north, and Nepean Highway to the west.

Main drivers of character

- Land parcels are generous, and there is a high prevalence of residential subdivision with unit development. Subdivision is present closest to Southland and Highett, and along Nepean Highway. A range of low-rise architectural styles are present from the post-war era to contemporary infill
- There are some remnants of typical large landscaped setbacks. This characteristic is being lost with redevelopment and subdivision that includes expansive driveways. Topography is generally stable, with some gentle slopes near Highett Reserve
- Some large format buildings can be found along Nepean Highway, closest to Highett. These support retail and dining uses. Some health clinics can be found along Nepean Highway closest to Southland.

Considerations for change

- There is a lack of street connections to Nepean Highway in the south of the character area. Accessibility may limit future change in this area.

PENNYDALE



This character area is predominately characterised by an established neighbourhood residential use with large landscaped setbacks. Residential dwellings are typically low-rise with a mix of traditional houses and occasional contemporary infill.

Main drivers of character

- The area has an inconsistent street network, featuring cul-de-sacs and curvilinear streets. Street width is generally narrow and amenable for pedestrian use
- Front setbacks are generally between 4 to 5 metres, featuring a landscape with predominantly exotic species that contribute to a leafy character for many of the streets
- Street planting is relatively consistent for the study area. Many established canopy trees can be observed
- Single-storey detached dwellings characterise most of the residential area with some double-storey infill dwellings mixed throughout. Subdivision featuring semi-detached dwellings can be observed at the southern edge of the area, along Park Road
- A small cluster of neighbourhood retail is present at the western boundary of this area. These buildings are fine-grain with a consistent street wall.

Considerations for change

- Few roads offer passage through the area in a north-south direction. Movement in an easterly direction is blocked by the Frankston rail line. Block structure tends to be large, limiting walkability
- Close proximity to the SRL station and Southland Activity Centre makes this a prime location for urban intensification.

GRAHAM ROAD



This character area lies between Highett Activity Centre and Bay Road. It is bounded by the Frankston rail line to the east and characterised by a network of cul-de-sacs and large blocks. With existing housing estates, further intensification of this area is underway.

Main drivers of character

- Two extensive housing estate developments are located in the southern portion of this area. Dwellings are arranged in clusters of detached and semi-detached structures. They are largely single-storey and built in a Post-War style. Front fences are low or non-existent. Semi-private street networks service the interior of these developments. There is a presence of established canopy trees throughout
- North of the housing estates residential intensification is underway, with former light-industrial parcels making way for townhouse redevelopment
- Lyle Anderson Reserve and Highett Bowls Club are located in this area, contributing open space and recreation services.

Considerations for change

- A network of discontinuous streets and large blocks create low pedestrian permeability through this area
- The western section of this character area is largely dominated by the former Highett Village, which is currently under redevelopment. The redevelopment of this site will remedy the lack of accessible public open space in this part of the Structure Plan Area.

HIGHETT ROAD



This character area is located along the eastern-most section of High Road and encompasses the Highett Activity Centre surrounding the existing Highett Station. This area is dominated by commercial use, with the emergence of mid-rise residential development.

Main drivers of character

- The section of Highett Road to the east of the Frankston rail line is defined by fine-grain retail and dining. These buildings are typically 1 to 2 storeys. Setbacks are negligible, and the street wall is consistent. Parking is predominantly kerb-side and dominates the street. Shop-top dwelling is present in some buildings
- Topography slopes down to the west of the Frankston rail line. Building footprints here are larger, and heights of up to 4 storeys can be observed.

Considerations for change

- To the west of the Frankston rail line, there is a strong emergence of mid-rise apartment buildings that feature a commercial ground floor
- Street planting throughout this area is limited, except for along the Frankston rail line. Paved ground surfaces are prevalent, and landscape features are negligible, creating an unpleasant pedestrian experience.

BAYSIDE BUSINESS DISTRICT



The Bayside Business District comprises a diverse array of light industrial warehouses, commercial showrooms and fitness spaces within large footprint built forms and Mixed-use developments emerging along Bay Road.

Main drivers of character

- Buildings throughout the area are typically simple tilt-up concrete or masonry structures of 1 to 2 storeys. Most buildings feature setbacks to accommodate at-grade car parking and some landscape features
- A small segment of this area between Tibrockney Street and Avoca Street is of a finer-grain with smaller lots and typologies, and has transition to include retail and dining uses.

Considerations for change

- Generally large lot sizes and proximity to the SRL station at Cheltenham result in a high potential for change and intensification. Redevelopment within this area will have minimal overshadowing impacts of low density residential areas
- Topography of this area is generally flat and some sites are subject to a Special Building Overlay which may affect the potential for redevelopment by requirements to incorporate barriers from flooding, including shear walls and elevated access to buildings.

HIGHETT NORTH



This character area sits to the west of Highett Central. It is predominantly residential, and is served by a number of schools, recreation facilities and open spaces.

Main drivers of character

- The street network follows a relatively permeable modified grid. However, the formation of blocks west of the railway corridor is impacted by the rail barrier reduces permeability
- Single-storey detached dwellings characterise most of the residential area, with a mix of 2 storey attached townhouses, semi-detached units and emerging 3 storey apartment built forms
- Front setbacks are generally between 4 to 5 metres. Many front yards feature extensive gardens and canopy trees, although this varies throughout the area
- Street trees are consistent throughout the character area, contributing canopy coverage to the streetscape and improving pedestrian amenity.

Considerations for change

- A Large part of this area is subject to a Design and Development Overlay (DDO) restricting change and preserving the low-rise built form in the area
- There is a lack of walkable access to open space. Introduction of through-block links within these areas could increase permeability and access to open space.

SOUTHLAND



The Southland character area encompasses the entirety of the shopping centre and its associated service areas, as well as Southland Station.

Main drivers of character

- Southland Shopping Centre is a large format, inwardly focused shopping centre. It has little relation to the streetscape, with many inactive interfaces. Ground level interfaces are often dominated by at-grade car parking. There are limited pedestrian access points, and pedestrian amenity is low given the large block size, car priority and lack of tree canopy
- The shopping centre steps down and/or back at the residential interfaces on Tennyson/Karen Street and Chesterville Road. Some vegetation is employed in areas to improve the outlook of neighbouring residential, although this is underdeveloped and has little impact
- Southland Station is located to the west of the character area. Entrance to the station is dominated by at-grade parking, with confusing and limited pedestrian or bicycle access. Garfield Lane offers pedestrian access to the south western portion of the shopping centre and the station. The path is narrow, unpaved in parts, and lacks passive surveillance.

Considerations for change

- The large areas dedicated to car parking represent a constraint in connection with the surrounding character areas but also a significant opportunity to develop a transition to the imposing large format of the shopping centre. This is particularly the case for the car parking around the existing Southland Station.

NEPEAN HIGHWAY SOUTH



This character area encompasses the highway oriented retail and civic buildings that run from the Cheltenham Activity Centre to Southland Shopping Centre.

Main drivers of character

- Highway retail and services, civic functions and some emerging mid-rise residential buildings dominate this area along Nepean Highway. Retail buildings are typically simple tilt-up concrete structures, and are built to the boundary. Civic buildings typically feature a larger setback that includes landscape features
- At-grade and kerb-side parking dominates much of the street interface
- Pedestrian amenity in this area is limited due to being a car-centric environment, a lack of street trees, and large block sizes.

Considerations for change

- Overshadowing and building mass impacts to neighbouring low-density residential areas will need to be managed if this area undergoes significant change
- Many large lots and a proximity to both Cheltenham AC and Southland Shopping Centre make this area well placed for urban intensification
- Vehicle and pedestrian access will need to be managed if intensification occurs here.

JEAN STREET



The Jean Street character area is segregated from the urban fabric from on the east and the west via rail and road barriers. This area is affected by strata titling and land subdivision with an emerging fine-grain low-medium density single and double-storey attached or semi detached townhouses.

Main drivers of character

- Mainly medium density housing including double storey units and townhouses
- The Frankston rail line to the west and Nepean Highway to the south are two key barriers toward connectivity between this character area and the surrounding neighbourhoods
- Poor permeability toward the Cheltenham Activity Centre to south and Southland Shopping Centre to the north impedes connectivity in this area despite being located near key public destinations.

Considerations for change

- Since most of the character area is covered by recent medium density townhouses, a substantial change of built form character is not viable in this area
- Confined by rail, road and Shopping Centre barriers and limited development opportunities.

CHESTERVILLE ROAD



Chesterville Road is a highly integrated road within the street network connecting to the Cheltenham Activity Centre to the south, Highett Reserve to the south and interfacing with Southland Shopping Centre. A range of low to high-density built forms accommodate residential, commercial and some allied health uses along this street.

Main drivers of character

- Part of the character area interfaces with Southland Shopping Centre to the east of Nepean Highway along Karen Street and Chesterville Road
- The character area typically comprises low-rise, medium-density post-war built form typology impacted by fragmented land ownership
- The character area includes some emerging high-density Mixed-use developments south of Southland Shopping Centre.

Considerations for change

- Parts of this character area is impacted by land subdivision and strata titling which reduces the development opportunities. Incentives for land amalgamation and higher-density Mixed-use developments could unlock the growth opportunities in this area
- There is opportunity to extend the thriving character of Charman Road to the north through Chesterville Road, considering the accessibility to different transport modes and land-use attractions
- The character area is affected by aviation height limits imposed by Moorabbin Airport airspace requirements, which limits the built form heights of future developments.

NEPEAN HIGHWAY NORTH



This character area comprises long urban blocks stretched along Nepean Highway with a mix of grain sizes, land uses and built form typologies. The built form heights are generally between 1 to 3 storeys, which fails to define a proportionate street wall for the 60 metres wide road reserve.

Main drivers of character

- Low-density residential built form interfacing with Nepean Highway to the northern side of Southland Shopping Centre
- More recent and emerging 2 to 3-storey residential developments
- Tree canopy cover is provided within some segments of Nepean Highway median strips, which contributes to better spatial definition and higher amenity of the wide road reserve.

Considerations for change

- The noise and amenity impact of the traffic corridor should be mitigated to cater for higher intensity residential developments
- Nepean Highway will be a gateway to the commercial/retail core with opportunity for a significant change offered by the wide road reserve and good access to amenities and land use attractions.

REMINGTON DRIVE



This character area features series of 6 storey apartment developments along Nepean Highway north of Sir William Fry Reserve with a contemporary architecture style. There is direct access from Nepean Highway and restricted pedestrian access to Sir William Fry Reserve. The area is fenced off and isolated from the surrounding urban fabric via the Former Gasworks site.

Main drivers of character

- This character area features high-density multi-residential developments up to 6 storeys high
- Buildings are large in footprint and present some of the tallest heights within the study area.

Considerations for change

- Confined by rail, road and shopping centre barriers and limited development opportunities
- The Former Gasworks development site could help integrate this isolated residential area to the Highett Activity Centre.

PALLISADES BOULEVARD



The new Pallisades Boulevard medium-density development to the west of the Structure Plan Area extends the residential areas to the west into the Bayside Business District with a distinctive and cohesive row-house built form typology oriented toward the streets and a sizable public open space and playground.

Main drivers of character

- Recent residential development interfacing with the Bayside Business District industrial land uses and a consistent row house built form character of 2 to 3 storey townhouses
- Poor permeability from the surrounding street network and contrasting built form typology segregates this character area from the Pennydale residential areas toward the east
- Relatively good amenity of the residential properties with street tree planting and an integrated public open space and playground with adequate passive surveillance and activation offered by the residential windows and balconies
- The townhouse typology in this area contributes to the housing diversity within the Structure Plan Area west of the rail corridor.

Considerations for change

- A change of character in this area is not expected in the foreseeable future, although there are opportunities for better integration with the Bayside Business District should a rezoning or change of character happen in the surrounding industrial lots.

GOLF DRIVING RANGE



The golf driving range is a privately-owned gated sport club with green interfaces to the surrounding streets within the Bayside Business District as well as Cheltenham Cemetery.

Considerations for change

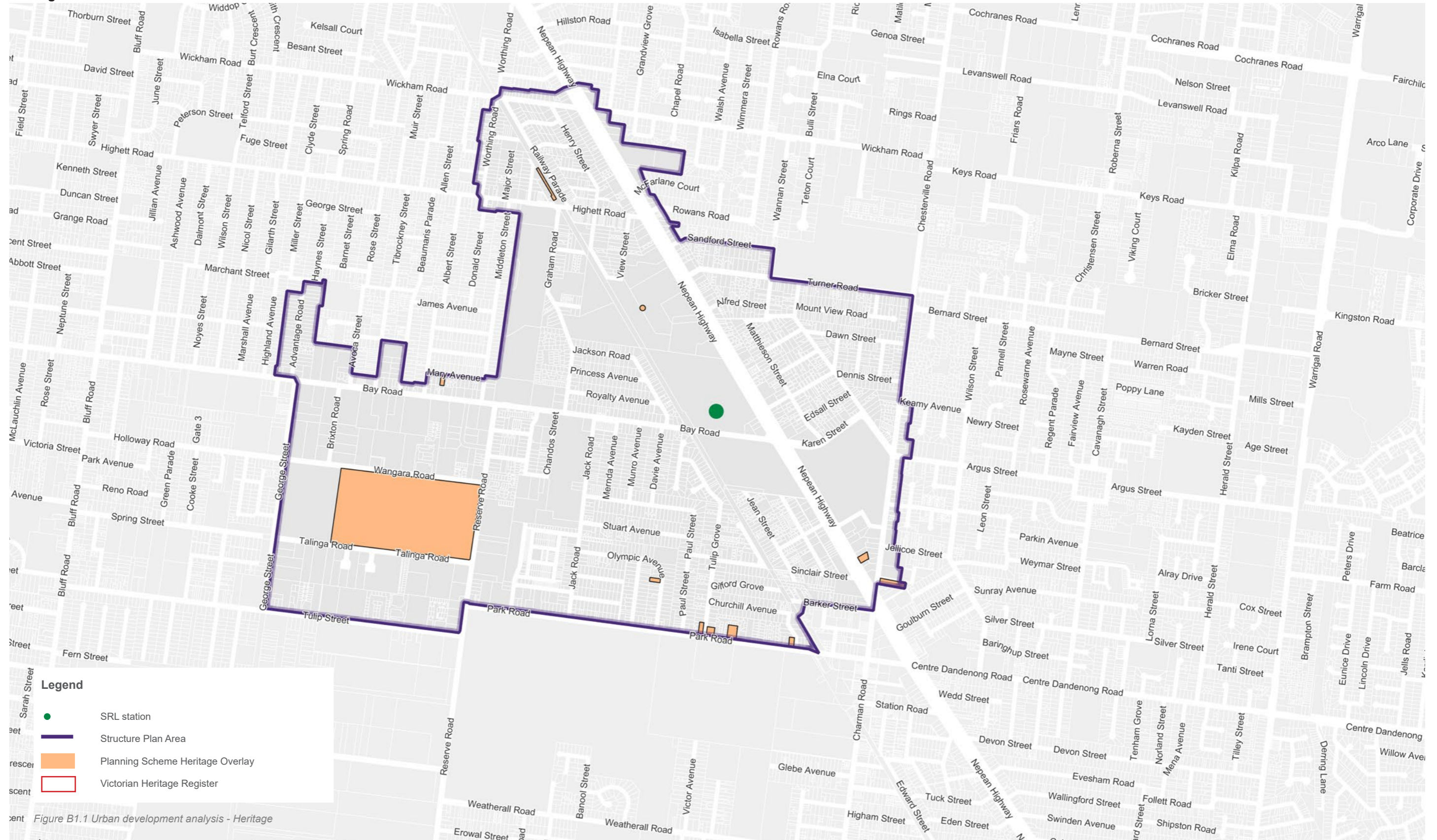
- Although not accessible to the public, the privately-owned open space provides tree canopy coverage that mitigate the relatively high urban heat vulnerability of the surrounding industrial sites. Any future change should maintain this urban cooling function and green interfaces.



Appendix B

Development conditions analysis

Heritage



Legend

- SRL station
- Structure Plan Area
- Planning Scheme Heritage Overlay
- Victorian Heritage Register












Figure B1.1 Urban development analysis - Heritage

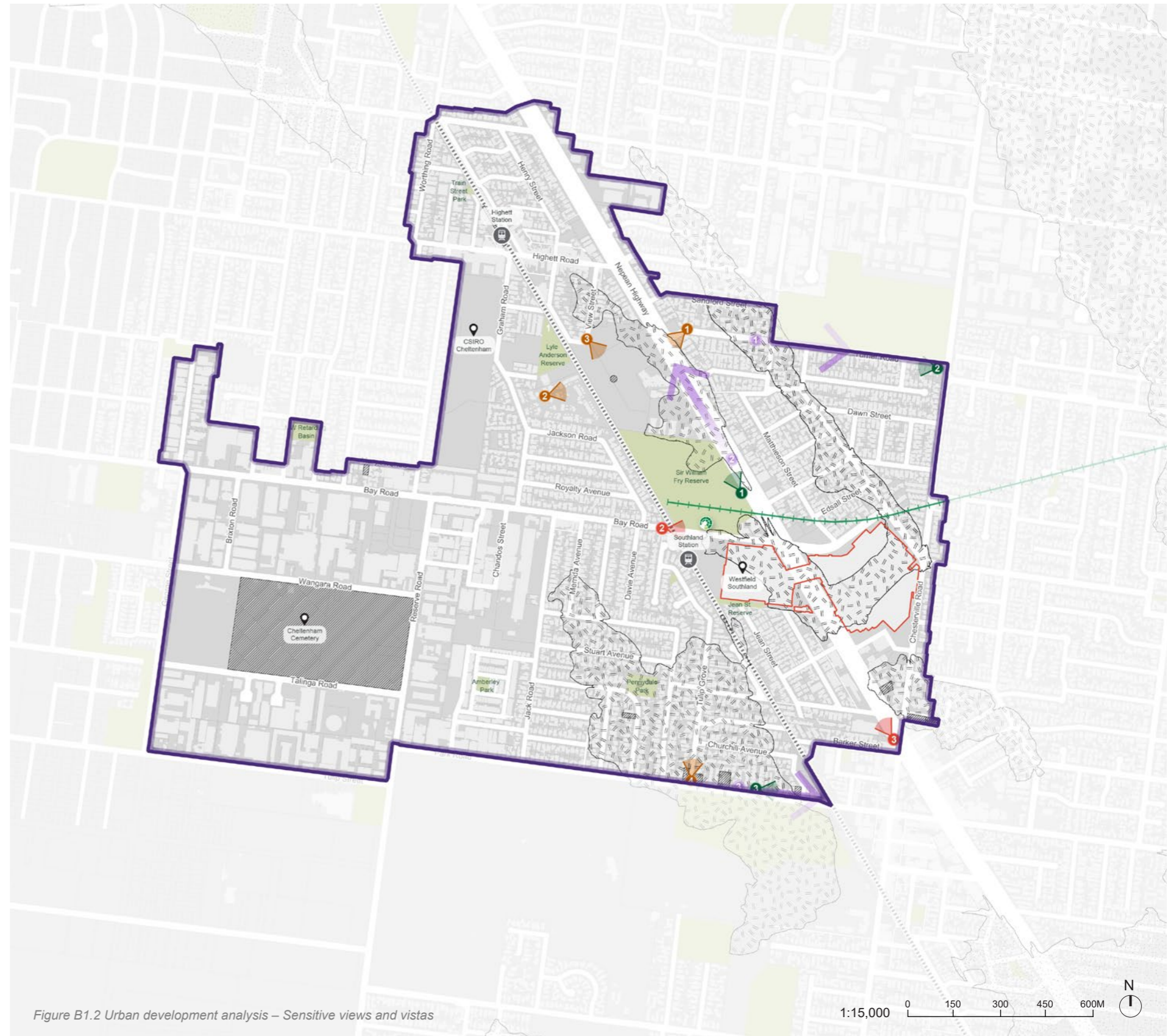
Significant views and vistas

Significant views and vistas have been recorded in order to assess any views which might constrain development.

- Long-distance views are generally created by high points within the topography of Cheltenham, particularly along Nepean Highway, Park Road and Tennyson Street. The wide views from topographic high points may be impacted by higher built forms
- View corridors to public open spaces are less vulnerable to new developments. However, high-density built forms may create a backdrop to public open spaces or increase the sense of enclosure within public open spaces
- Views to key landmarks are unlikely to be affected by new developments
- Views to heritage elements should be considered by new developments.

Legend

-  SRL station
-  Existing train station
-  Structure Plan Area
-  Heritage Overlay
-  Landmarks
-  Low Lying Area
-  High Lying Area
-  Long Range Views
-  Views to Key Open Spaces
-  View to Key Heritage Overlay items
-  Views to Key Landmarks



Long range views



Turner Road facing east



Nepean Highway facing direction of CBD



Park Road facing east toward Dandenong Ranges

Views to key open spaces



Nepean Highway adjacent to Sir William Fry reserve



Turner Road adjacent to Highett Reserve

Views to key heritage built form



Nepean Highway at Turner Road facing heritage item



Dunkley Ave facing heritage item (Gasworks Site Chimney)



View Street facing heritage item (Gasworks Site Chimney)



Park Road at entry to Cheltenham Park, facing heritage overlay sites

Views to key landmarks



Bay Road facing east toward Southland Shopping Centre

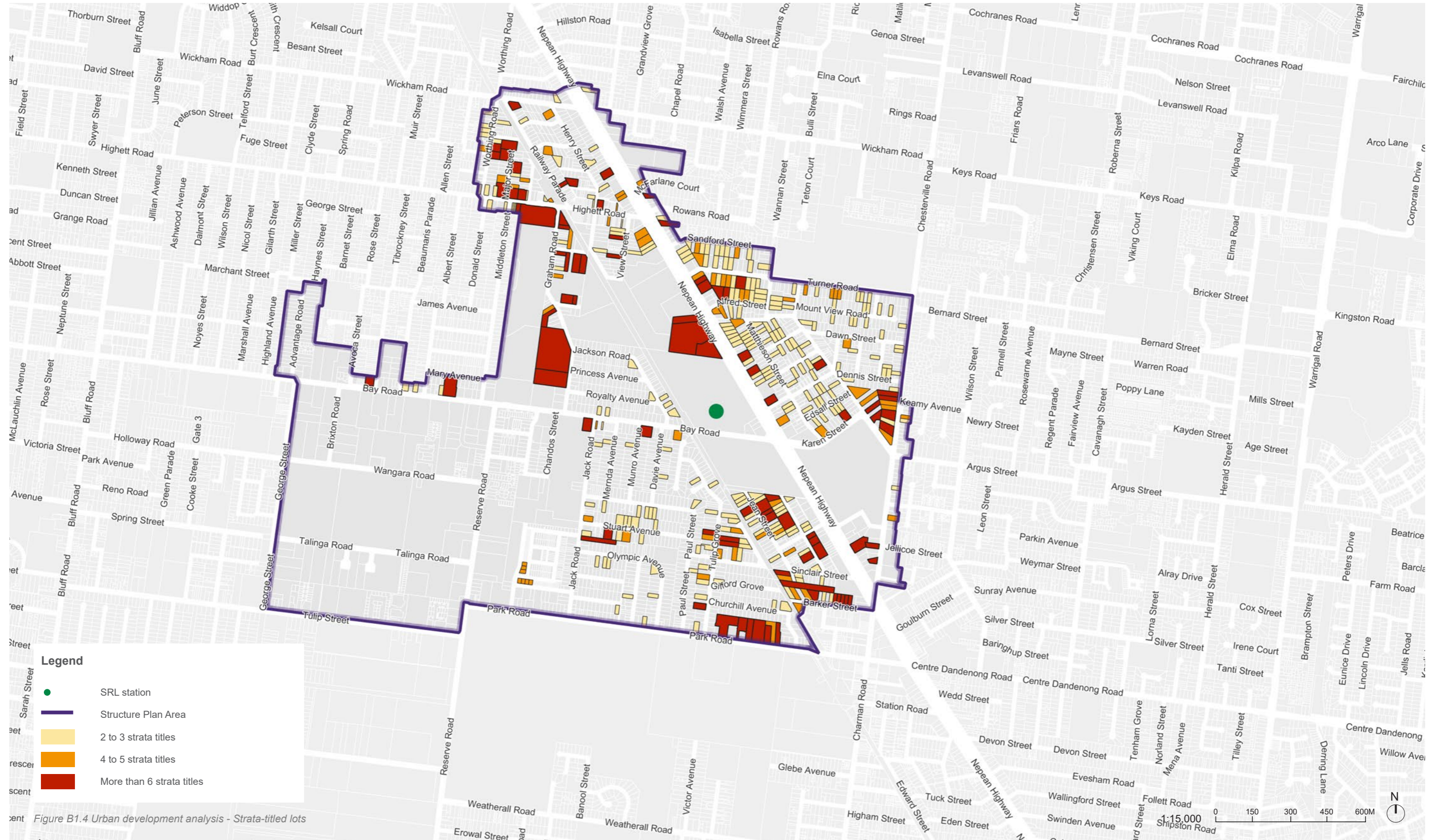


Intersection at Nepean Highway and Chesterville Road facing Southland Shopping Centre to north

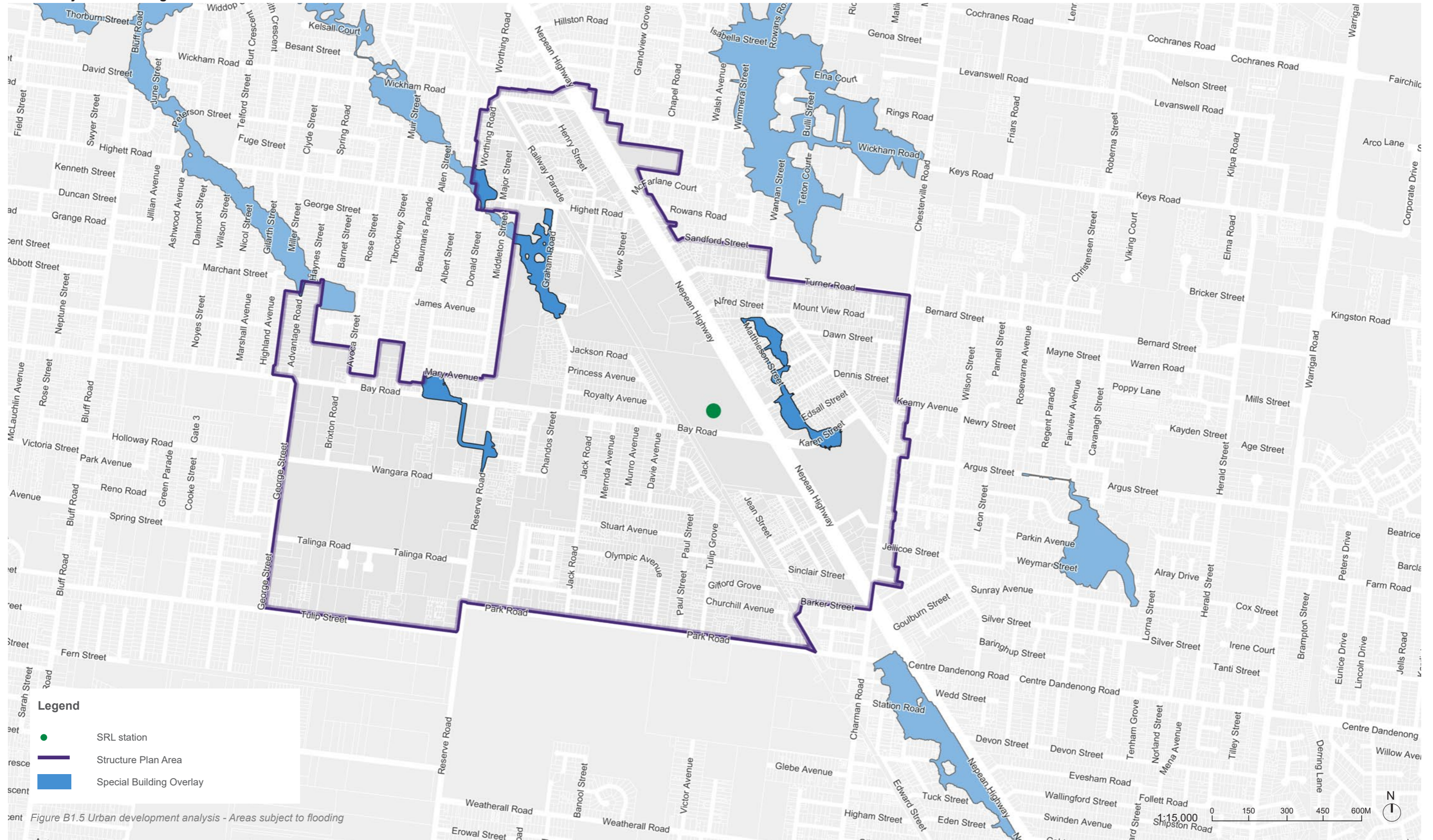
Small lots (excluding strata titled lots)



Strata-titled lots



Areas subject to flooding



Valued character (Neighbourhood character overlay)

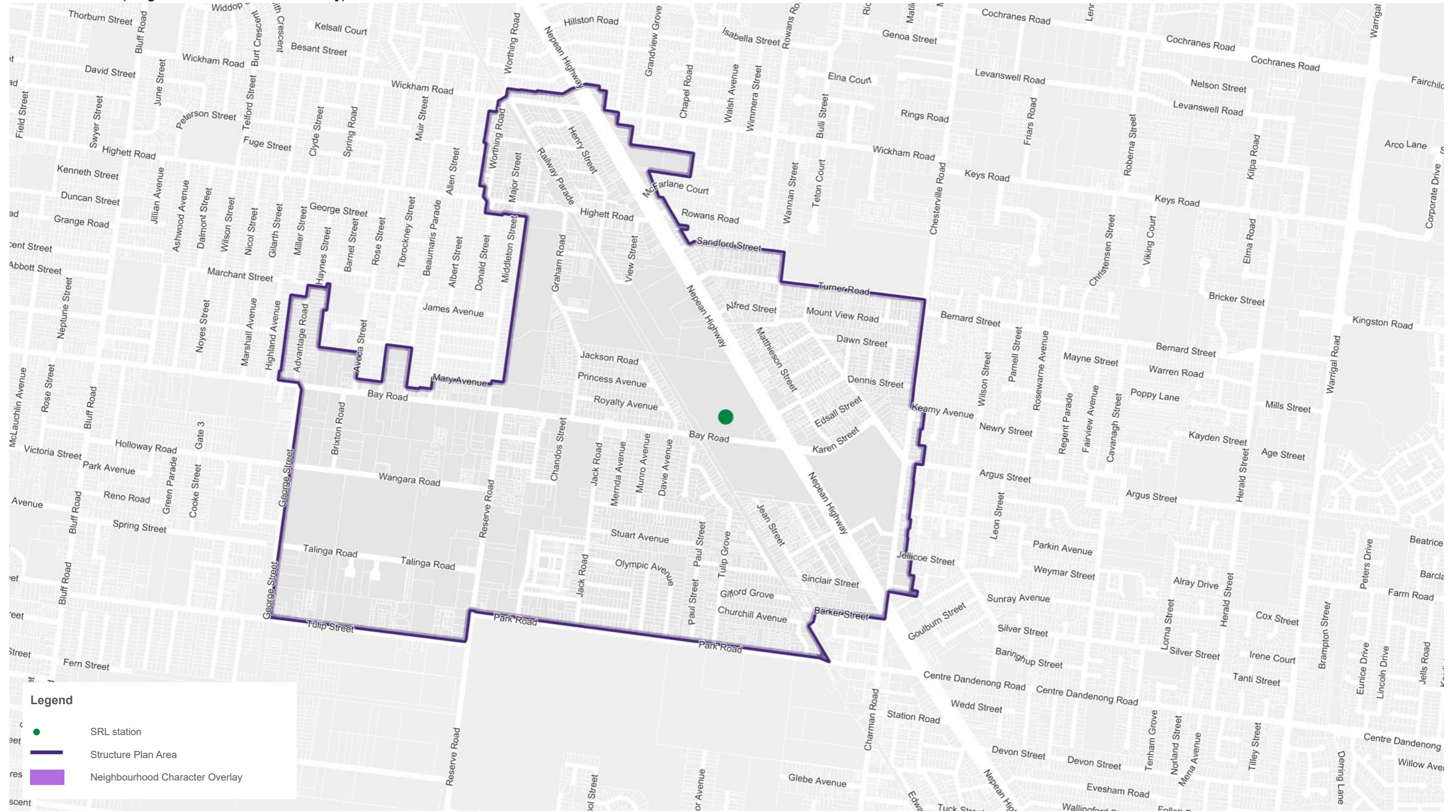


Figure B1.6 Urban development analysis - Valued character (neighbourhood character overlay)

Building height

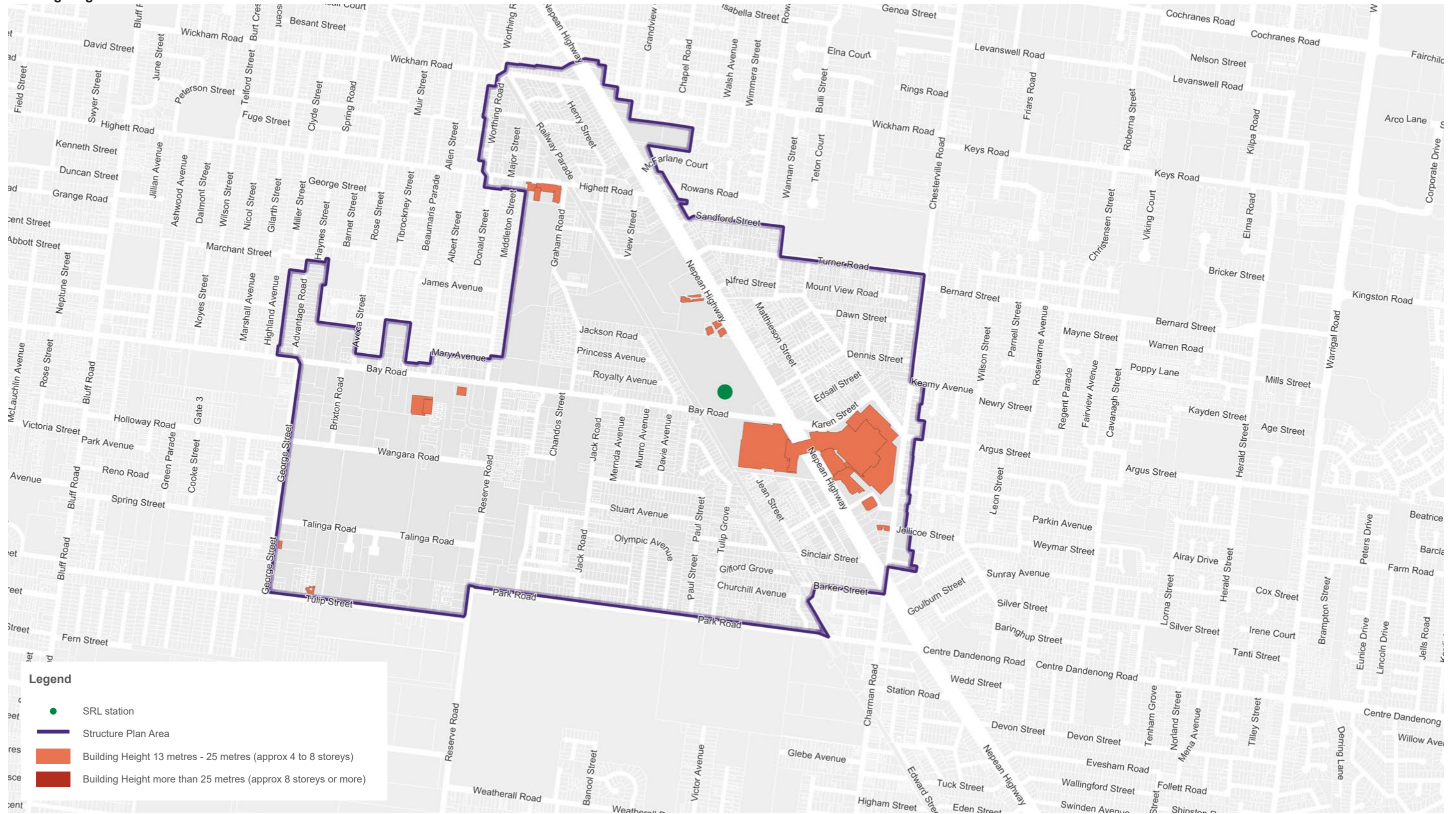
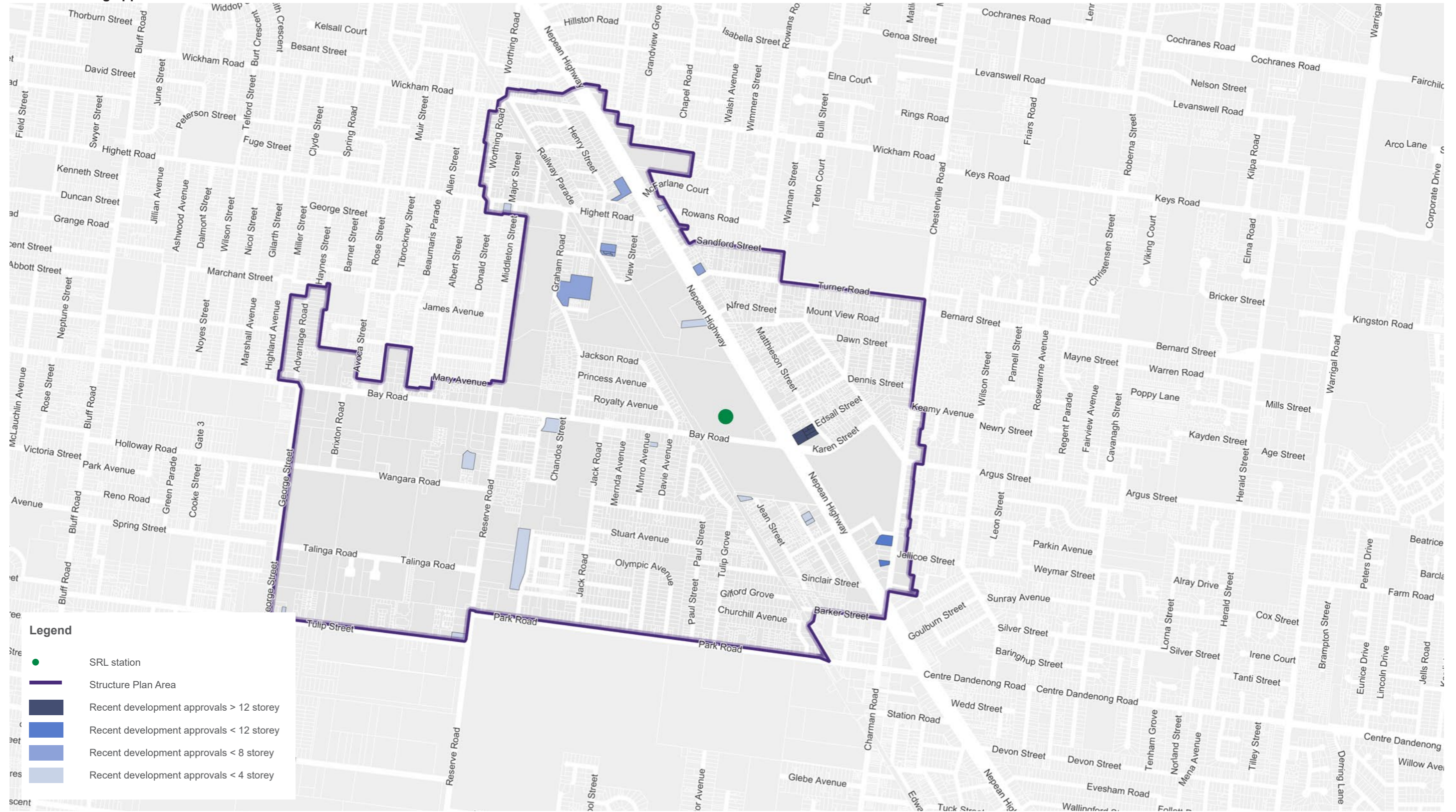


Figure B1.7 Urban development analysis - Building height

Recent building approvals



Legend

- SRL station
- Structure Plan Area
- Recent development approvals > 12 storey
- Recent development approvals < 12 storey
- Recent development approvals < 8 storey
- Recent development approvals < 4 storey

Figure B1.8 Urban development analysis - Recent building approvals

Slope

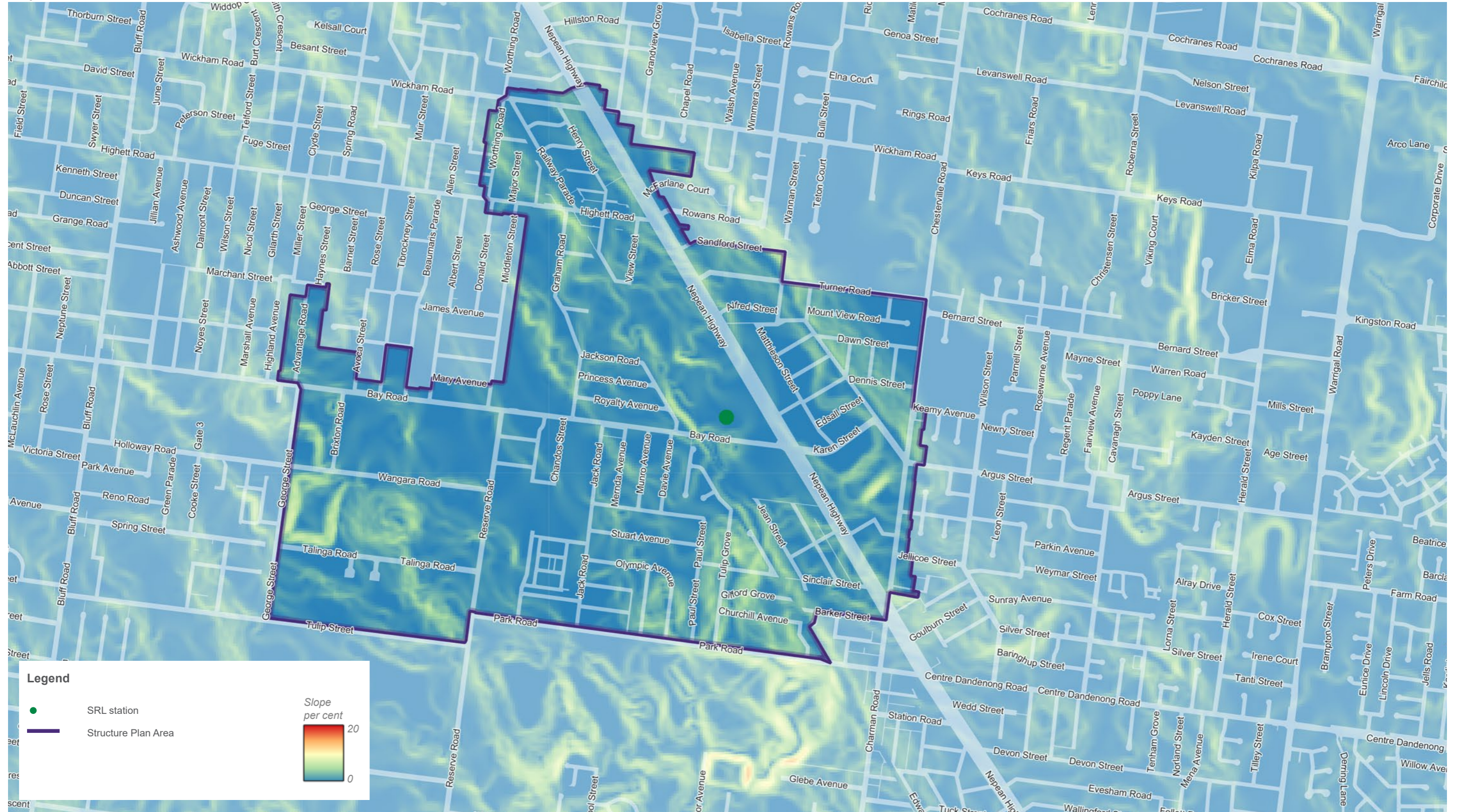



Figure B1.9 Urban development analysis - Slope



Appendix C

Street network and public realm quality analysis

Introduction

Street Network and Public Realm Quality Analysis to inform the Structure Planning Urban Design Report included:

- SRL Public Space and Public Life Study Report (Gehl, 2023) (see SRL East Structure Plan - Gehl Public Space and Life Study - Attachment B)
- Open Space Assessment (prepared by AJM Joint Venture for Suburban Rail Loop Authority 2024)
- Structure Planning Urban Design Report – street quality assessment.

These are discussed more below.

Alignment with the Gehl ‘Public Space and Public Life Study’

In 2023 Gehl, a globally recognised urban design and research consultancy, completed in-depth public space and public life analysis on selected streets and spaces in the SRL East Structure Plan Areas.

The Gehl study provided an understanding of the public space quality and people’s experience of selected key public spaces through data collection and analysis using a tool with a 12-quality criteria rating system.

The findings of this study are in the SRL East Structure Plan - Gehl Public Space and Life Study - Attachment B.

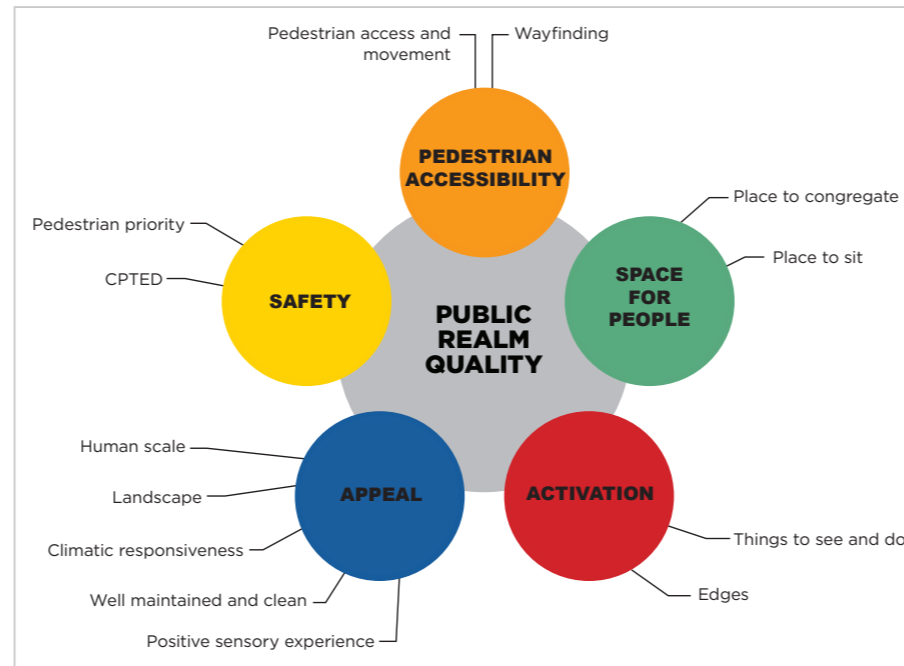
Open Space Assessment (prepared by AJM Joint Venture for Suburban Rail Loop Authority 2024)

The Open Space Assessment report was prepared to inform structure planning. This report included a quality assessment of existing open spaces within the 1600 metres radius of the SRL station which considered the Gehl study findings.

Structure Planning Urban Design Report – street network quality analysis

To inform the findings of this report, research was undertaken of various standards for permeability, along with analysis of the walkability, street block perimeters, and block lengths of the Structure Plan Area. Further quality site assessments were also conducted to rate every street within the Structure Plan Area. As this assessment used different criteria to the Gehl study, the results differ in nuance, but generally align with similar levels of quality.

The summary research and analysis is outlined in the sections following.



Streets and Public Realm Quality Assessment Research for this Report

Protection <i>Without this, most people will not come</i>	Comfort <i>Without this, most people will not stay</i>	Enjoyment <i>The difference between a good place and a great place</i>
<p>Protection against traffic and accidents - <i>feeling safe</i></p> <ul style="list-style-type: none"> • Protection for pedestrians • Eliminating fear of traffic. <p>Protection against crime and violence - <i>feeling secure</i></p> <ul style="list-style-type: none"> • Lively public realm • Eyes on the street • Overlapping functions day/night • Good lighting. <p>Protection against unpleasant sensory experiences</p> <ul style="list-style-type: none"> • Wind • Rain/snow • Cold/heat • Pollution • Dust, noise, glare. 	<p>Opportunities to walk</p> <ul style="list-style-type: none"> • Room for walking • Interesting facades • No obstacles • Good surfaces • Accessibility for everyone. <p>There are places to stand for a rest</p> <ul style="list-style-type: none"> • Edge effect / attractive zones for standing / staying • Supports standing / staying • Facades with good details that invite staying. <p>There are places to comfortably sit</p> <ul style="list-style-type: none"> • Zones for sitting • Utilising advantages: View, sun, people • Good places to sit • Benches for resting. 	<p>There are plenty of things to look at</p> <ul style="list-style-type: none"> • Reasonable viewing distances • Unhindered views • Interesting views • Lighting (when dark). <p>There are opportunities to play or exercise</p> <ul style="list-style-type: none"> • Physical activity, exercise • Play and street entertainment • By day and by night • In summer and winter. <p>I could easily have a conversation</p> <ul style="list-style-type: none"> • Low noise levels • Street furniture that provides ‘talkscapes’.
		<p>The space relates to my (human) scale</p> <ul style="list-style-type: none"> • Buildings and spaces designed to human scale. <p>The space allows me to enjoy the positive aspects of climate</p> <ul style="list-style-type: none"> • Sun/shade • Heat/coolness • Shelter from wind/breeze. <p>I like the aesthetic qualities and sensory experiences</p> <ul style="list-style-type: none"> • Good design and detailing • Good materials • Fine views • Trees, plants, water.

Gehl Public Space and Public Life Study (2023) Criteria

Permeability standards

The aspiration for walkability in SRL East station Precincts is to:

- Support and enhance convenient and desirable access to everyday services, facilities and key destinations within a 20-minute walking distance from home including reducing walking distances to and from the station and within core urban zones.

This can be delivered through the following:

- Offering a fine-grain urban structure to provide a network of pedestrian connections
- Improving the current pedestrian linkages, streets and spaces in the station Precincts and supplement these where required with high quality, activated and appealing linkages.

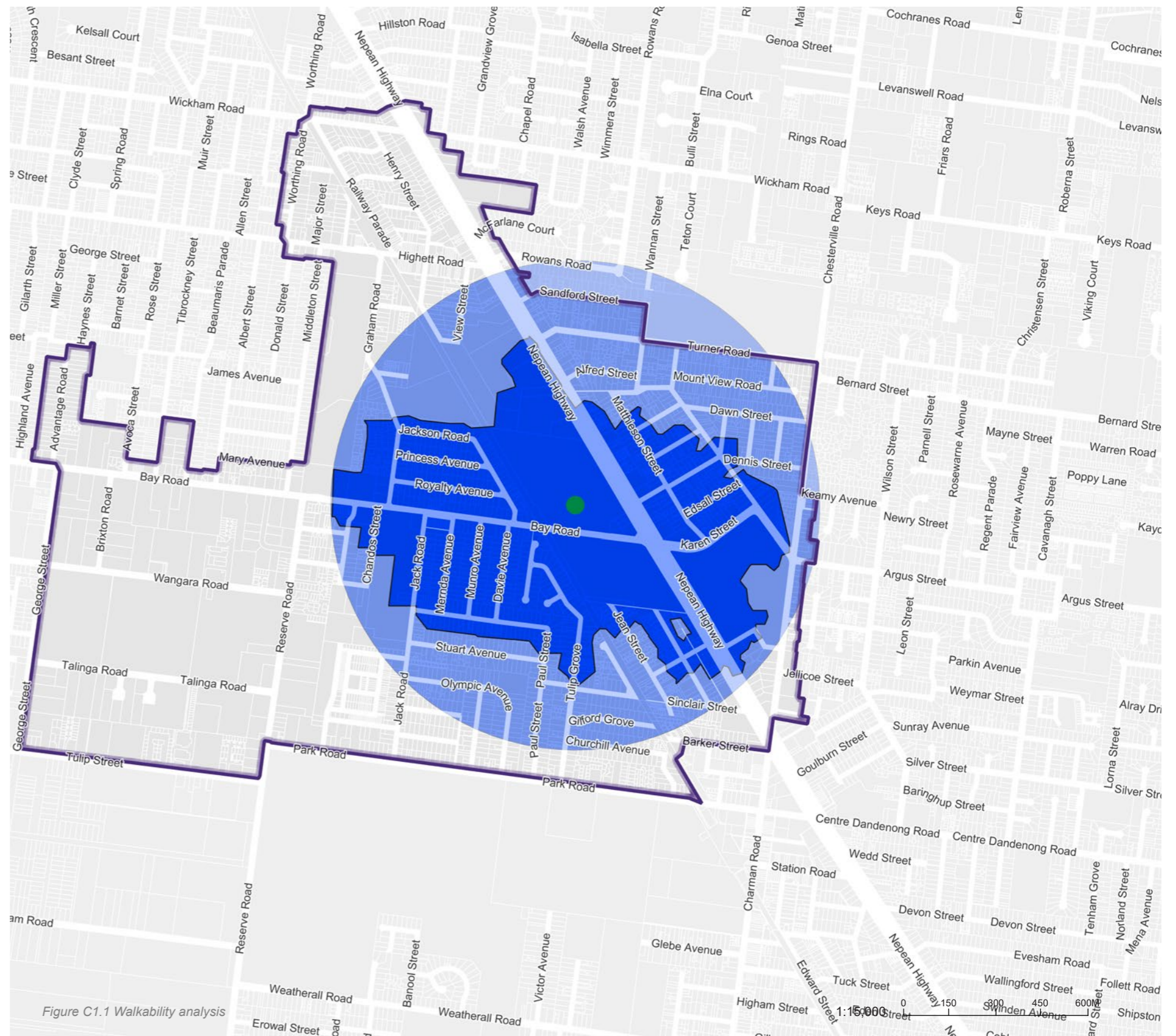
This will be achieved by identifying appropriate targets in terms of permeability and applying them with a practical lens by analysing current permeability within the Structure Plan Area.

Research has been undertaken into best practice permeability standards which is summarised in the table adjacent.

Source	Standard	Applicability to SRL East Precincts
Urban Design Guidelines for Victoria	Create a permeable block layout with block dimensions ranging from 120 to 240 metres long and 60 to 1 wide.	Provides overarching parameters and maximum block length as a generic approach. Consideration of best practice targets for urban conditions below provide more applicable targets for SRL Precincts.
	A block perimeter of around 600 metres provides for good pedestrian and vehicular access and an efficient subdivision pattern of the block. Smaller blocks may be appropriate in more intense urban areas.	Perimeter of 600 metres is too large to ensure pedestrian permeability adjacent to new stations.
Melbourne Planning Scheme DD01	100 metres maximum block length Within 100 metres of rail station pedestrian connections less than 70 metres apart	Urban condition applicable to some areas within SRL East Precincts subject to ultimate land use and density outcomes. 100 metres maximum block length provides optimal outcome in areas surrounding rail station to maximise permeability.
City North Structure Plan and Melbourne DDO61	Pedestrian through block connections should be provided where the average length of a street block exceeds 100 meters. For street blocks exceeding 200 metres in length at least two connections should be provided	Urban condition applicable to some areas within SRL East Precincts subject to ultimate land use and density outcomes. 100 metres maximum block length provides optimal outcome in areas surrounding rail station to maximise permeability.
NSW Movement and Place – Network Planning in Precincts Guide	‘Create a permeable network with a grid-like structure, short block length and high intersection density’ Less than 250 metres block lengths with a recommended block length of 120 to 180 metres	A good benchmark for consideration within SLR East Precincts which provides a range in block length to respond to desired outcomes and conditions.
Westbrook PSP (completed May 2022)	Street block lengths should not exceed 240 metres	Urban condition not comparable to SRL East Precincts given provision of transit.
Case studies	Dimensions	Applicability to SRL East Precincts
Melbourne CBD	600 metres perimeter: 100 x 200 metres with minimum 1 pedestrian through connection.	Pedestrian through-connection increases permeability, but not consistently activated, resulting in some “back-of-house” pedestrian experiences and poor perceived pedestrian safety.
Fitzroy, VIC	Approximately 75 x 80 metres blocks	Fine-grain and highly walkable with a variety of land use and density outcomes.

Walkability analysis

The walkability analysis and measure has been derived from a comparison of the 800 metres walkable catchment vs an 800 metres radial catchment. For the purpose of this study the walkable catchment has been derived using GIS by measuring a 800 metres distance along walkable paths from station entrances. The 800 metres radius represents an 'as the crow flies' distance from the centre of the station. A comparison of these areas gives an indication of the level of permeability achieved within the station Precinct. It is noted that a 100 per cent outcome is not achievable in a logical urban block arrangement that is comprised of a gridded system.



Legend

- SRL station
- Structure Plan Area
- 400 metres radial catchment (from centre of station)
- 800 metres walkable catchment from station entries
- 800 metres radial catchment

Figure C1.1 Walkability analysis

Street block perimeter analysis

The following street block perimeter analysis shows the distance to walk around an urban block. This is an indicator of urban grain and demonstrates the areas that lack permeability.



Block length analysis

The following analysis highlights the existing urban block length within the Structure Plan Area. Areas with urban block length in excess of the agreed targets present barriers to walkability and create issues to be considered within the public realm strategy.

Note: privatised / internal pedestrian linkages (not open 24 hours) exist currently which are not represented for the purpose of this mapping

Legend

- SRL station
- Structure Plan Area
- 400 metres radial catchment
- Block length 0 to 100 metres
- Block length 100 to 200 metres
- Block length 200 to 300 metres
- Block length more than 300 metres

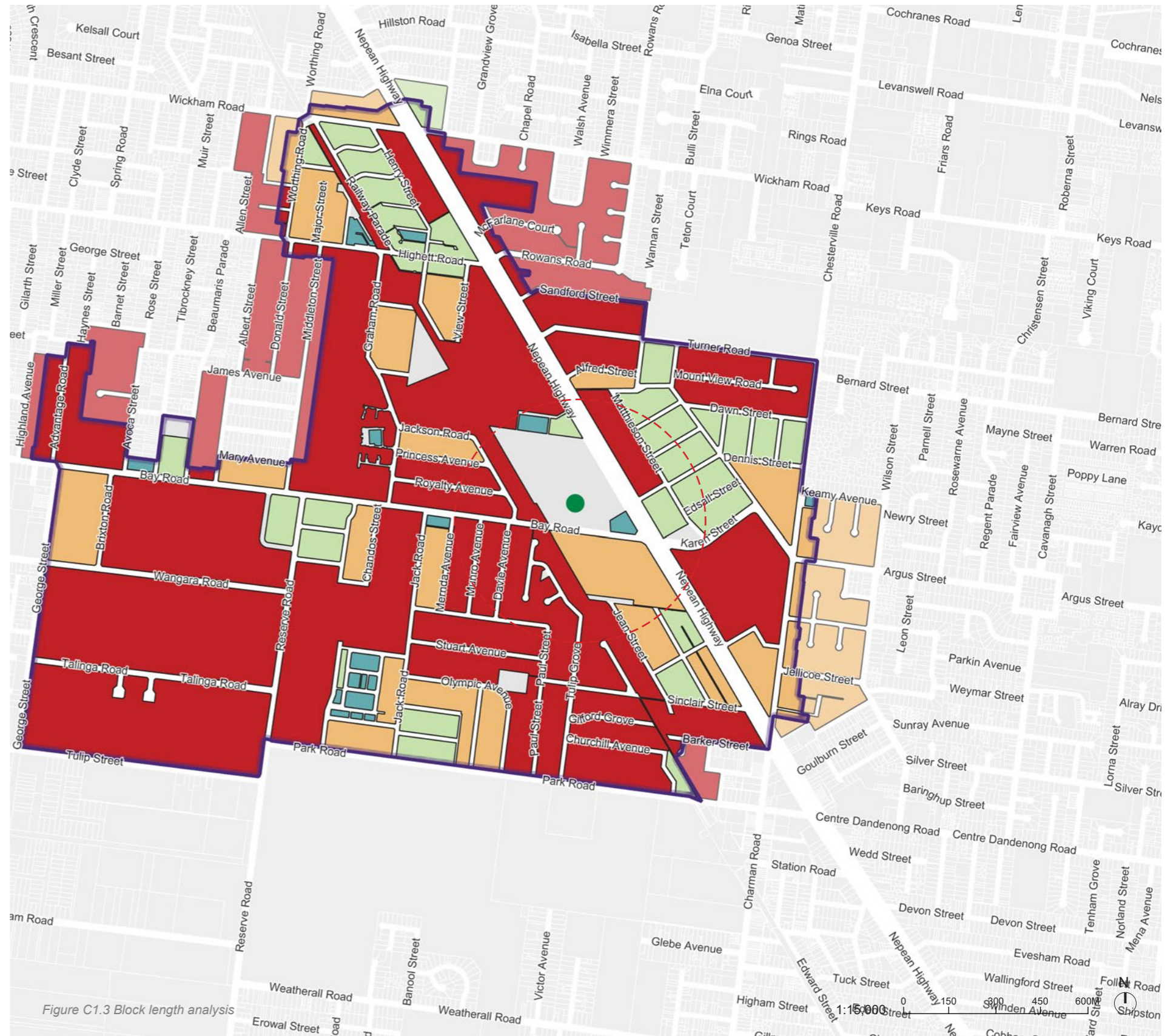


Figure C1.3 Block length analysis

Public realm quality standards

The following analysis focuses on assessing the quality of the public realm with a focus on the pedestrian experience. This assessment provides the following:

- A rating against 5 themes with reference to 12 criteria for all streets and spaces within the study area that records performance under the assessment values identified below
- An overview of the current performance of streets and spaces within the context of the current land use pattern. It does not assess against the future intended use
- Land use factored into the assessment through the score provided. Retail streets will score a higher degree of activation than residential streets. It does not offer separate rating scales for street typologies
- Spaces that do not have a pedestrian function or are privatised have been excluded from the assessment
- Functionality of open space does not form part of the assessment. Open space is assessed against the experience for a pedestrian, not performance against community needs.

Public realm quality criteria

A set of criteria have been developed to assess public realm quality focusing on the pedestrian experience. These have been derived with reference to established public realm quality criteria including:

- The Public Life Diversity Toolkit, Gehl Institute
- Public space site-specific assessment, UN Habitat
- Pedestrians first, Institute for Transportation and Development Policy.

The criteria offer themes and issues for consideration by the urban design team to assess the quality of the public realm within the Structure Plan Area. This will provide a baseline position to understand what areas require upgrades to optimise outcomes for the Structure Plan.

The following pages spatially map the findings of the public realm quality assessment across a range of themes.

Methodology

The assessment of the public realm was conducted through site visits to each Precinct. These visits aimed to evaluate the quality of streetscapes and public open areas based on the criteria established. During these Precinct site visits, an assessment was conducted for every street, road, activity centre, and public space encompassed within the Structure Plan Area.



Streets and public realm quality assessment research

Table 1-1 Streets and public realm quality assessment checklist

1. SAFETY	2. PEDESTRIAN ACCESSIBILITY	3. SPACE FOR PEOPLE	4. ACTIVATION	5. APPEAL
<p>Pedestrian priority</p> <ul style="list-style-type: none"> • Are pedestrians protected from traffic? • Are there safe opportunities for pedestrians to cross? <p>CPTED – perception of safety</p> <ul style="list-style-type: none"> • Is there adequate lighting? • Are there 'eyes on the street/space' (windows / balconies / ground level entries / passing traffic etc)? • Are there any entrapment points? 	<p>Pedestrian access and movement</p> <ul style="list-style-type: none"> • Is it easy to get around as a pedestrian? • Are pathways clear from obstruction? <p>Wayfinding</p> <ul style="list-style-type: none"> • Is legibility intuitive and can people find their way around easily? • Is their adequate provision of signage and wayfinding? 	<p>Variety of places</p> <ul style="list-style-type: none"> • Is there space to stand / linger / lean? • Where appropriate, are there places to sit or gather? • Are there opportunities for human interaction? • Does the public realm support a diverse range of community activities and needs? 	<p>Activities / things to engage with / look at</p> <ul style="list-style-type: none"> • Are there engaging things to look at / public art? • Where appropriate, are there things to do (i.e. play equipment in parks)? <p>Edges</p> <ul style="list-style-type: none"> • Are edges engaging (active frontage /lots of entries and elements / blank walls)? 	<p>Human scale</p> <ul style="list-style-type: none"> • Are there any overbearing structures? Appropriate street wall height? • Is it a highly-exposed / over-scaled space? <p>Landscape</p> <ul style="list-style-type: none"> • Are there street trees and planting? • Balance of hardscape and soft scape? <p>Climatic responsiveness</p> <ul style="list-style-type: none"> • Can you enjoy the positive aspects of climate? • Is there protection from sun in summer / wind and rain protection? <p>Well maintained / clean</p> <ul style="list-style-type: none"> • Are there public rubbish bins? Is there a lack of rubbish in the public realm? • Is the planting maintained / cared for (no weeds, lawn mowed)? • Are the footpaths and surfaces in good condition? <p>Positive setting / sensory</p> <ul style="list-style-type: none"> • Are there no unpleasant noises dust, pollution or smells?

Streets quality assessment - Safety

The safety of streets is assessed through the lens of the pedestrian experience and includes factors such as the protection from traffic and provision of safe crossing opportunities. Safety also includes CPTED factors such as the provision of adequate lighting and the degree of passive surveillance and lack of entrapment points.

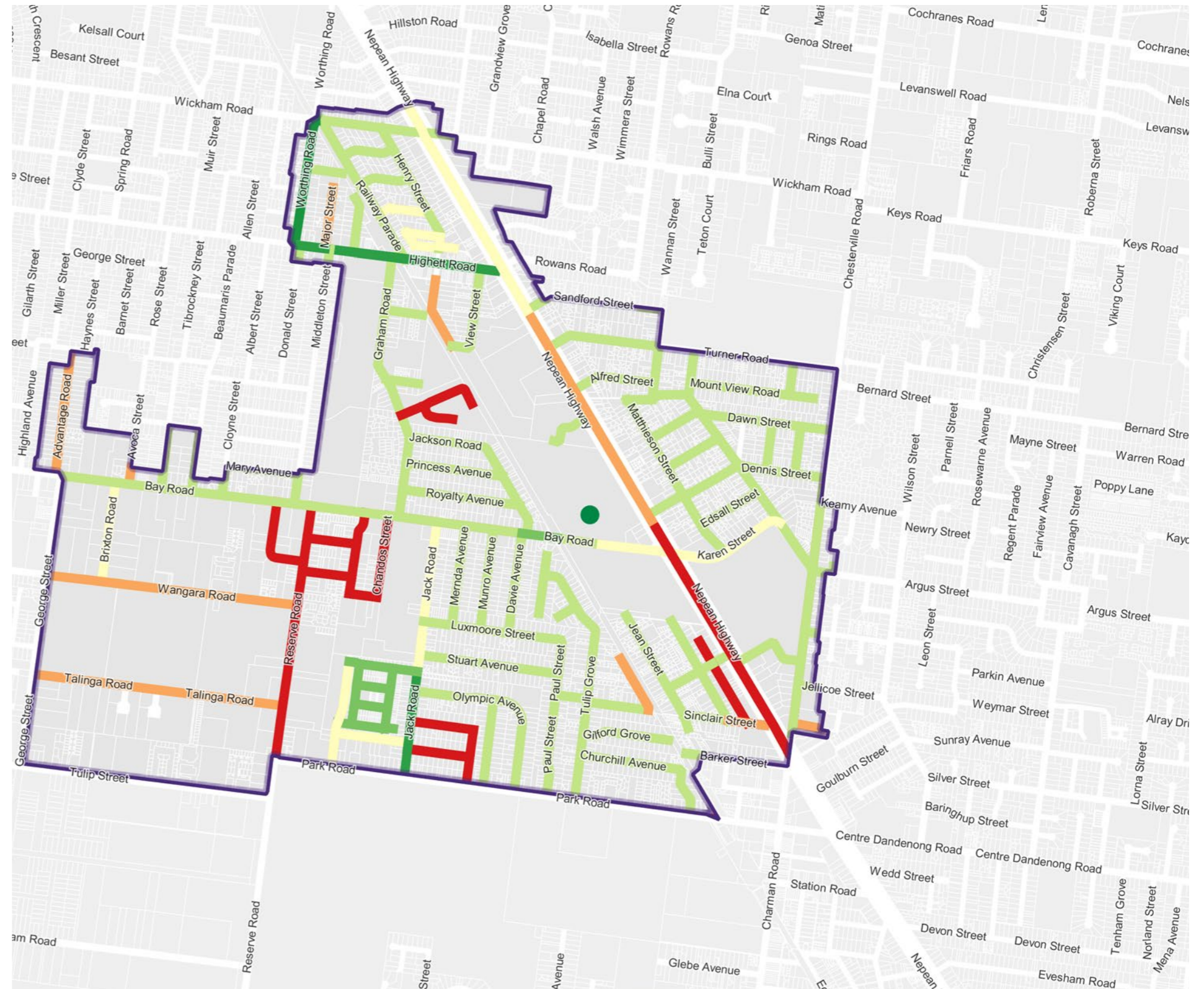
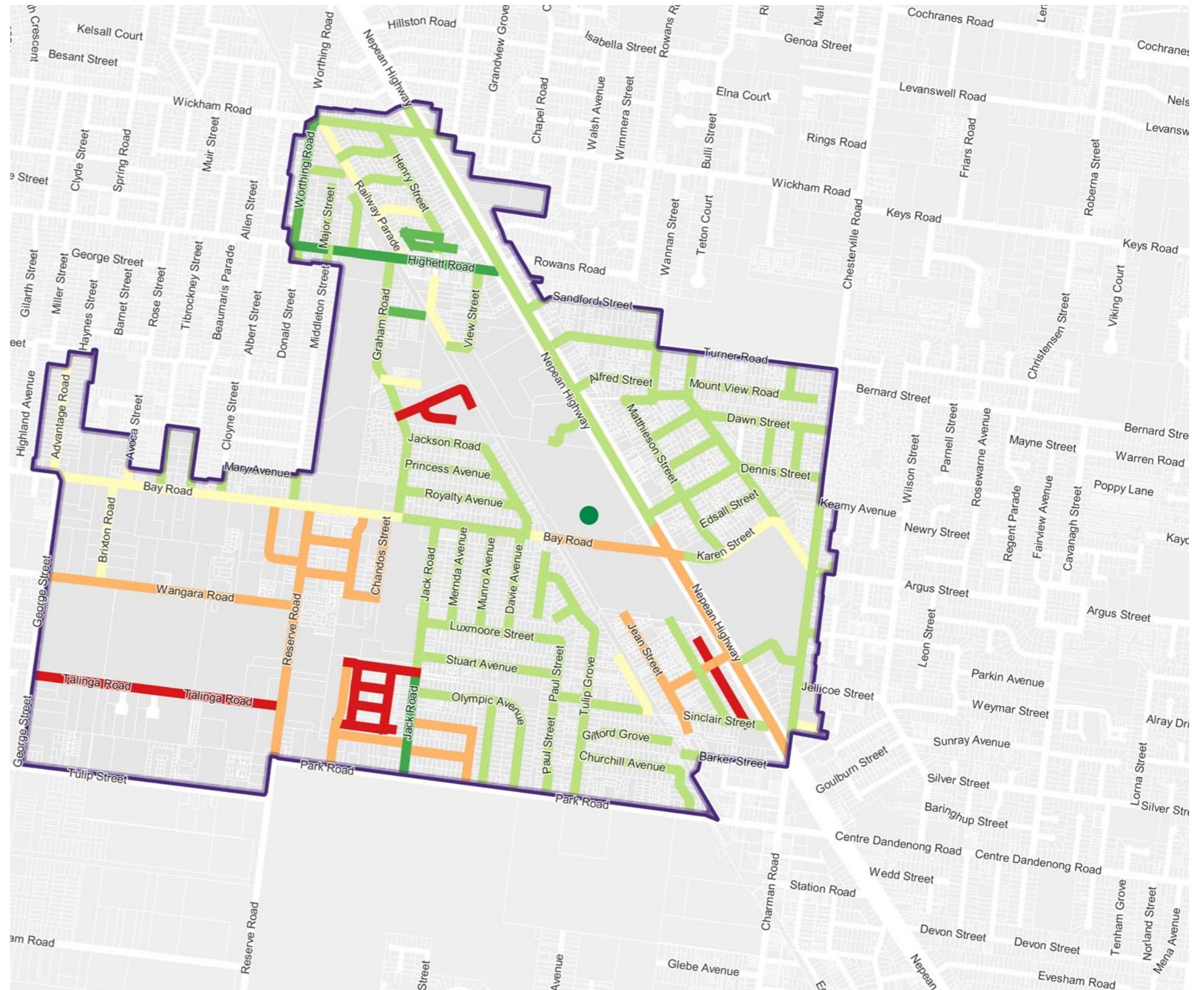


Figure C1.4 Streets quality assessment - Safety

1:15,000 0 150 300 450 600M

Streets quality assessment - Pedestrian accessibility

Pedestrian accessibility provides an assessment of the ease of pedestrian movement and the provision of adequate pedestrian paths and circulation. Pedestrian pathway widths are a factor as well as the inclusion of signage and intuitive wayfinding.



- Legend**
- SRL station
 - Structure Plan Area

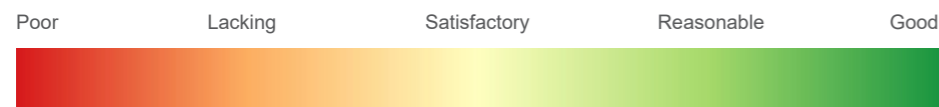
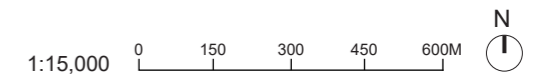


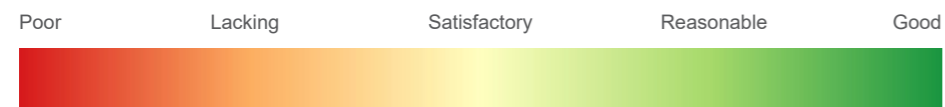
Figure C1.5 Streets quality assessment - Access



Streets quality assessment - Space for people

Space for people relates to the opportunity for people to sit, stand or gather, fostering human interaction and creating an environment for social engagement. This includes the provision of urban furniture items such as benches and chairs as well as providing areas where people can pause and interact without creating an obstruction in the street.

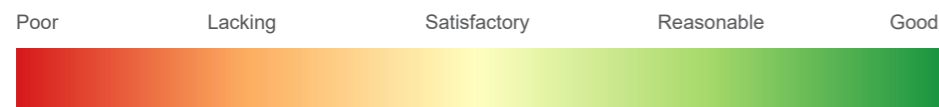
- Legend**
- SRL station
 - Structure Plan Area



Streets quality assessment - Activation

Activation relates to the presence of engaging things to look at, elements to interact with, and edges that help drive a sense of activity, such as retail frontages, building entrances and facades that have visual interest. Inactive edges and dead zones negatively affect activation.

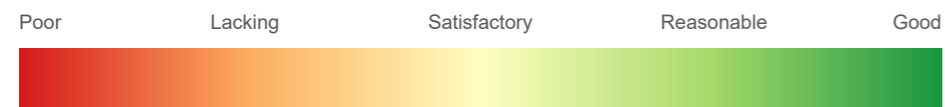
- Legend**
- SRL station
 - Structure Plan Area



Streets quality assessment - Appeal

Appeal relates to attractiveness of built form, the presence of vegetation and street trees, the use of high quality and well-designed materials, and the maintenance and upkeep of a space. Appeal relates to the senses with poor amenity relating to smell, sound or sight negatively affecting the rating. The degree of human scale or sense of exposure also relates to appeal, which concerns the presence of overbearing structures, spaces of refuge, as well as protection from climatic factors such as sun, wind and rain.

- Legend**
- SRL station
 - Structure Plan Area





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