

4

This section of the report details the proposed rezoning of the Arncliffe and Banksia Precincts. It summarises the vision for the precincts, proposed access and transport measures, public spaces, built form, as well as the proposed planning controls.

4.1 Vision

The vision for the Arncliffe and Banksia Precincts is to create vibrant, attractive and connected communities, where people can live and work with good access to public transport, community facilities, open space, shops and cafes.

Key design principles for the precincts are:



Create a vibrant and connected centre

To encourage growth and revitalisation of the Arncliffe and Banksia centres, it is proposed to expand the centres to include areas either side of the railway line and to allow a mix of uses including suitable residential accommodation in the centres to bring vibrancy and life to these areas.

The proposal focuses the majority of the supply of new homes and retail activity closest to the railway stations so that more residents will benefit from the convenience of being so close to the railway stations as well as local shops, cafes and other services. Locating residential, retail and commercial activity around the railway stations aims to create focal points for the precincts.



Improve accessibility

The precincts are being planned so that getting around on foot, bike and public transport will be easier. The improved paths and connections will not just benefit those living closest to the stations, but also residents and workers elsewhere in the precincts.



Provide more homes and housing choice

A range of housing types are proposed in the precincts. This is to allow for increased housing choice and to allow for a transition of heights from the centres down to the detached, single and two storey housing beyond the precinct boundaries. It is estimated that the Arncliffe precinct could provide for 4,100 new dwellings and the Banksia Precinct could provide 1,000 over the next 20 years



Revitalise the Princes Highway Corridor

Revitalisation of the Princes Highway is proposed to change the streetscape into a tree lined road corridor with large setbacks and wide footpaths to enhance pedestrian safety and amenity. It is proposed to allow for residential development above a wider range of commercial uses within the Princes Highway Corridor in the Arncliffe Precinct.



Improve and provide new areas of open space

One of the key features of attractive, vibrant centres is high quality and well-located public spaces, and is an important component of the precinct proposal. Where possible, sites which could provide additional areas of open space, have been identified



Achieve Design Excellence

Redevelopment presents an opportunity to renew and revitalise this area. Development should positively contribute to the area. Development should be undertaken to achieve high architectural and design standards taking into consideration retention of local character and heritage.

FIGURE 16: ARTIST IMPRESSION OF THE REVITALISED PRINCES HIGHWAY CORRIDOR (AT THE INTERSECTION OF FOREST ROAD)



4.2 Land uses

The areas of the Arncliffe and Banksia Precincts proposed to change, illustrated in Figure 17 below, have been determined following a review of existing opportunities and constraints. The proposed land uses have been informed by specialist studies and consultation with the community and stakeholders.

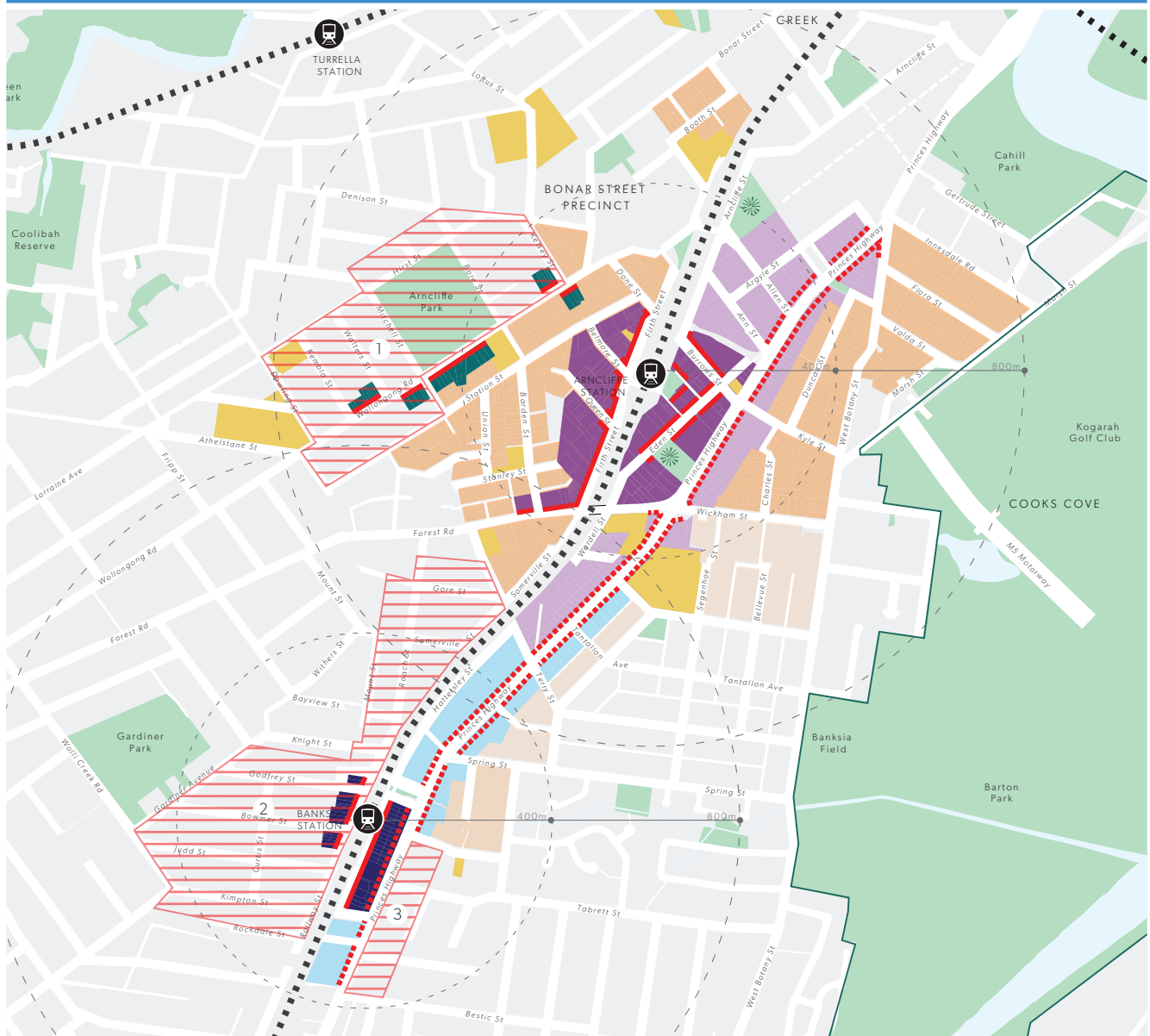
Arncliffe Mixed Use Centre

Currently, only a smaller area of mixed use is provided on the western side of the Arncliffe Railway Station and the majority of

the Princes Highway corridor is zoned B6 Enterprise Corridor. The B6 zone allows for a range of employment uses including offices, warehouses, showrooms, and light industries but does not allow for any form of residential development.

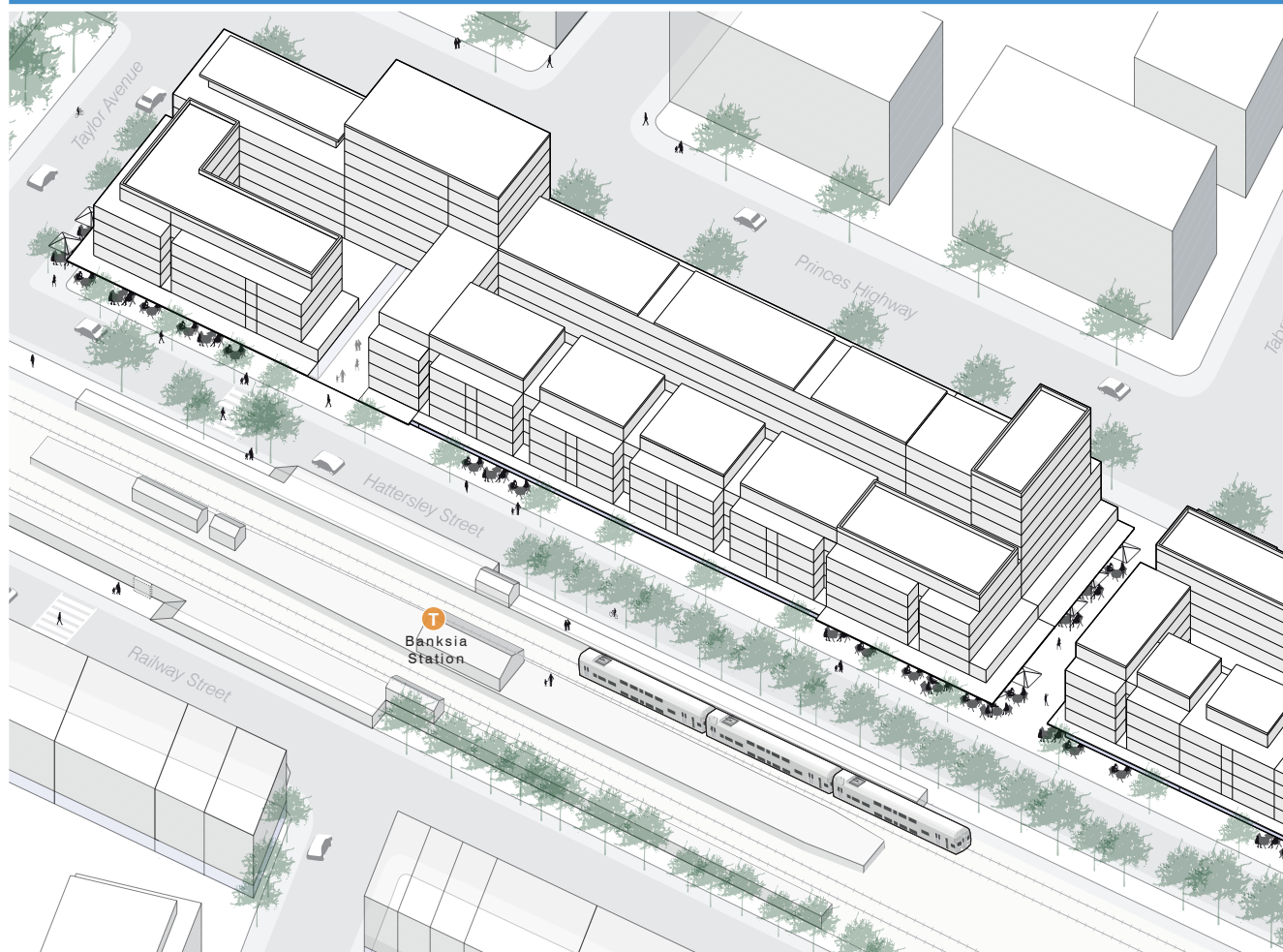
The lands surrounding Arncliffe Railway Station and along the Princes Highway are proposed to be zoned for mixed use (the B4 zone). This would allow a broad range of compatible businesses including retail, showrooms, cafes, accommodation

FIGURE 17: LAND USE PLAN



Use	Frontages	General
Arncliffe centre	Active frontage	Precinct boundary
Banksia Centre	Active frontage - showrooms	Mid-block footpaths
Woolongong Road centre	Future Opportunity Areas	Railway
Mixed use	1 Arncliffe park neighbourhood - future opportunities for medium to low rise residential development	Parks
Enterprise corridor	2 Gardiner park neighbourhood - future opportunities for medium to low rise residential development	Proposed new parks
Existing community uses	3 Princes Highway neighbourhood - future opportunities for mixed use development	Waterways
Residential high density	Cooks Cove Precinct - under investigation	
Residential medium density	Areas of no change	

FIGURE 18: ILLUSTRATIVE BUILT FORM – HATTERSLEY STREET, BANKSIA



and offices. It will also allow for residential development in the form of shop top housing as well as residential flat buildings where an active street frontage is not required.

The purpose of this change is to encourage the development of Arncliffe as a vibrant and active centre with the focus of activity around key transport nodes. Residential development within close proximity to the railway station ensures people have easy access to public transport, reducing the reliance on private car ownership.

Banksia Neighbourhood Centre

The Banksia Neighbourhood centre will be expanded on the western side of the Banksia Railway Station to serve the growing community. To the west of the station, between Hattersley Street and the Princes Highway, a mixed use area is proposed. This area will continue to allow showrooms with a retail component but will provide for a broader range of businesses including retail, cafes, accommodation and offices. It will also allow residential development on this section of the Princes Highway Corridor in the form of shop top housing.

Princes Highway

The land uses either side of the Princes Highway, through Arncliffe, are proposed to be zoned for mixed use (B4). Land uses currently located along this section of the Princes Highway, including vehicle showrooms, will still be provided for under the mixed use zone. However, it will allow for a greater range of retail and commercial uses and housing provided by way of residential

flat buildings or shop top housing. Active frontage requirements within the LEP and DCP will ensure that employment generating land uses, which are compatible with residential uses, continue to be provided along this section of the Highway.

The majority of the Princess Highway corridor through Banksia will be retained as an enterprise corridor (B7). This will ensure that employment uses associated with the automotive industry continue to be provided for.

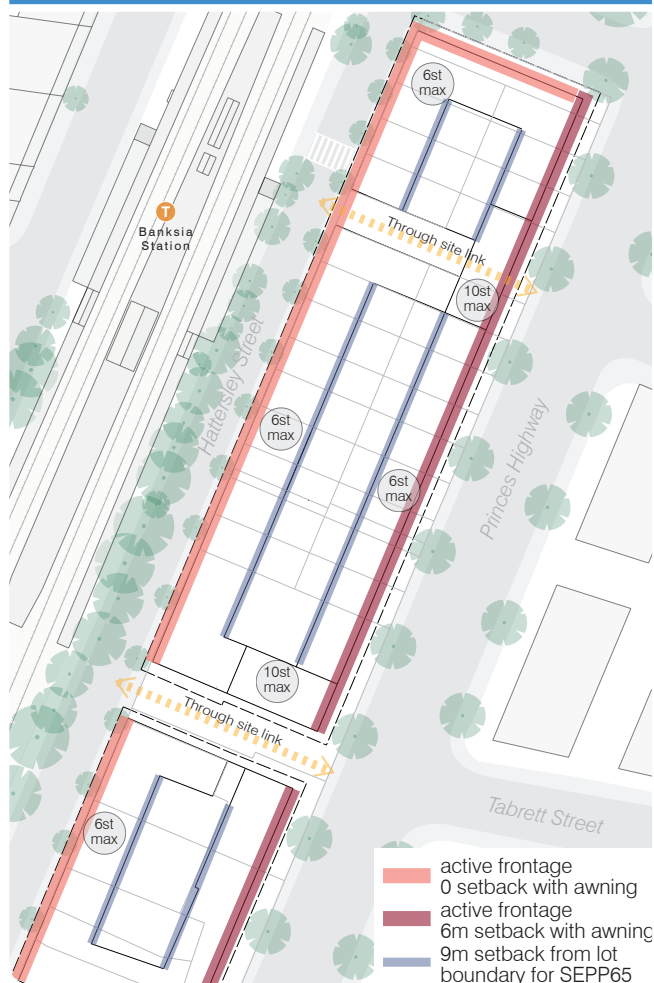
Wollongong Road Local Centre

An expansion of the local centre along the south eastern edge of Arncliffe Park is proposed. The purpose of this is to promote the park as a community focal point and provide for a range of small scale local retail and services close to where people live. It is recommended that amendments are made to the Rockdale DCP to require new development within this area to be built with an active frontage that positively addresses the park edge.

Residential neighbourhoods

The residential neighbourhoods of Arncliffe located east of the Princes Highway and south of Wollongong Road are proposed to be zoned for high density residential uses (R4). This proposed change will encourage higher residential densities within the precinct. The proposed built form controls will ensure appropriate transitions in height and density are provided to the surrounding areas. The greatest densities will be located around the railway station with building heights and FSRs reducing

FIGURE 19: BUILT FORM PRINCIPLES – HATTERSLEY STREET, BANKSIA



towards the precinct boundaries to ensure an appropriate transition in the built form.

Residential areas, generally south of Wickham Street will be zoned for medium density residential uses (R3). This proposed change will allow for medium, low rise development to provide a transition in height and density to surrounding low density areas.

Future Opportunity Areas

The Arncliffe Park neighbourhood and Gardiner Park neighbourhood are not proposed for rezoning under this proposal. These areas have been identified as areas that may be able to accommodate medium density, low rise development on the basis that they fall within the 800 metre walking catchment of the Arncliffe and Banksia railway stations and are located in proximity to community amenities. They are currently a low density residential areas.

Further assessment of these areas prior to rezoning will be undertaken and will include:

- Urban design to determine built form outcomes that are respectful of local character
- Consideration of impacts on local heritage items
- Consideration of how to enhance access to Arncliffe and Gardiner Parks and consider how the parks could be upgraded
- Ways to activate the park edges
- Address drainage issues, in consultation with Council.

4.3 Built Form

The built form strategy for the Arncliffe and Banksia precincts, as illustrated in Figure 22, has been developed to ensure the change to land use and increase in residential density will not adversely impact the amenity of the surrounding residential areas and character of Arncliffe and Banksia. Consideration has been given to providing a transition in height and bulk to adjoining neighbourhoods. It also provides for the navigational requirements of the airport and setbacks to appropriately buffer residential land use on busy roads.

Height

The tallest buildings are proposed within close proximity to the railway stations and along the Princes Highway. This is to encourage the highest densities in accessible locations and to strengthen the development of the Arncliffe and Banksia centres.

This includes allowing heights of potentially up to 22 storeys on some of the larger sites to the east of the Arncliffe railway station. These larger sites have the potential to also provide new areas of public open space as part of their redevelopment. In other areas close to the railway stations, including sites along Hattersley Street in Banksia and Eden and Burrows Streets in Arncliffe, buildings of up to 12 storeys are proposed.

The majority of the heights proposed are well below the Sydney Airport airspace requirements. However, in some locations around the railway station, the taller buildings may exceed the OLS (Obstacle Surface Limitation). Where this exceedance occurs, approval will be also required from Sydney Airport.

Heights will decrease towards the boundaries of the precincts in order to provide an appropriate transition to the built form of surrounding areas and also to ensure most of the precincts do not exceed the requirements of Sydney Airport. In particular, areas south of Wickham Street, maximum building heights will be limited to between 4 and 6 storeys to provide a transition towards to the surrounding low density residential areas.

Setbacks

Within the town centres along Eden Street, Firth Street and the north side of Burrows Road in Arncliffe and along Hattersley Street in Banksia, it is proposed that buildings are built to the street alignment. The purpose of this reduced setback is to encourage a level of street activation in the town centre.

Generous landscaped setbacks between 5 metres and 6 metres are proposed along the Princes Highway, Wickham Street and West Botany Street. The purpose of this is to improve amenity along these main roads and to provide an increased buffer for residential uses from traffic.

Active Frontages

A requirement for active frontages is proposed within some of the areas to be zoned mixed use B4 (refer to Figure 17). An active frontage requires a building to address the street with an open façade so that internal activities are visible and inviting to pedestrians and passing vehicles. The requirement of an active frontage is to ensure that within the town centres and in areas along the Princes Highway new developments will include commercial or retail premises on the ground floor. This

FIGURE 20: ILLUSTRATIVE BUILT FORM PLAN FOR WOLLONGONG ROAD



FIGURE 21: BUILT FORM PRINCIPLES, WOLLONGONG ROAD



is important to creating vibrant and active centres and to ensure that opportunities for new businesses and employment are retained within appropriate locations in Arncliffe and Banksia.

Two different types of active frontages are proposed. An active frontage is proposed with the town centres, close to the stations and along the Wollongong Road neighbourhood centre. The active frontages in these areas will be a requirement of the LEP to ensure retail activity is focused around the centres. A showroom active frontage and a ground floor 7m floor to ceiling height is proposed along the Princes Highway. It is recommended that this is included in the Development Control Plan to encourage larger retail businesses to locate in the corridor where feasible and to improve the streetscape.

Of note in the Arncliffe Precinct, the area along Firth Street adjoining the railway station includes buildings and shop frontages which are unique to the area. The existing Mixed Use (B4) zone in this area will not change under the proposal however building heights will increase from 16 metres to between 22-29 metres. To ensure the character of this area is retained, it is recommended that the existing shop fronts that contribute to the streetscape and character of Firth Street be retained and/or restored with any additional storeys setback behind. Other new buildings along Firth Street should also have a street wall that is consistent with the predominant two storey shopfronts, also with any upper storeys setback behind.

4.4 Public open space

A range of potential upgrades to existing open space and the provision of new public open spaces have been investigated to meet the needs of existing and new residents and provide an attractive and pleasant environment. Figure 23 illustrates the potential open space network.

It is recommended that existing areas of open space are expanded and upgraded. In particular, Wooroona Reserve has been identified as a park that could be improved. It is located close to the railway station and will be an important area of open space for the adjoining high density residential area. The existing park could be upgraded and expanded to incorporate upgraded play equipment and better-quality landscaping as well as providing an improved link to the railway station entrance.

In addition to upgrading existing parks, the redevelopment of the precincts provides an opportunity to open up additional areas of public open space. As large sites redevelop, portions of these sites could be provided as new open space to meet the needs of the new residents. A review of where this may be feasible has been undertaken and the following potential sites have been identified:

- Eden Street Park – a new park (up to 0.4ha) could be provided close to the Arncliffe town centre, to the east of the railway station, between Eden Street and the Princes Highway as part of any future redevelopment of the social housing estate. The park

FIGURE 22: BUILT FORM PLAN

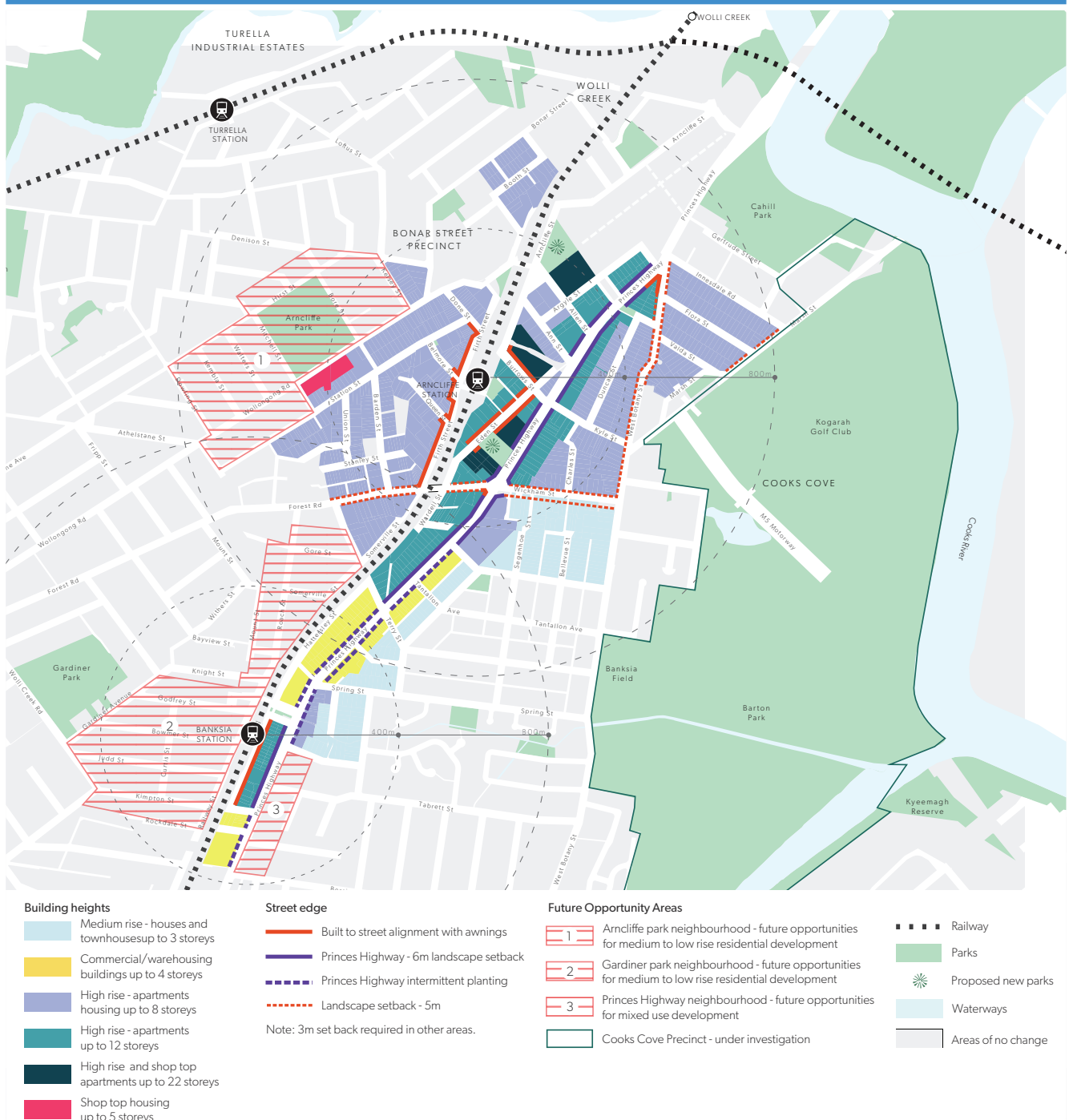
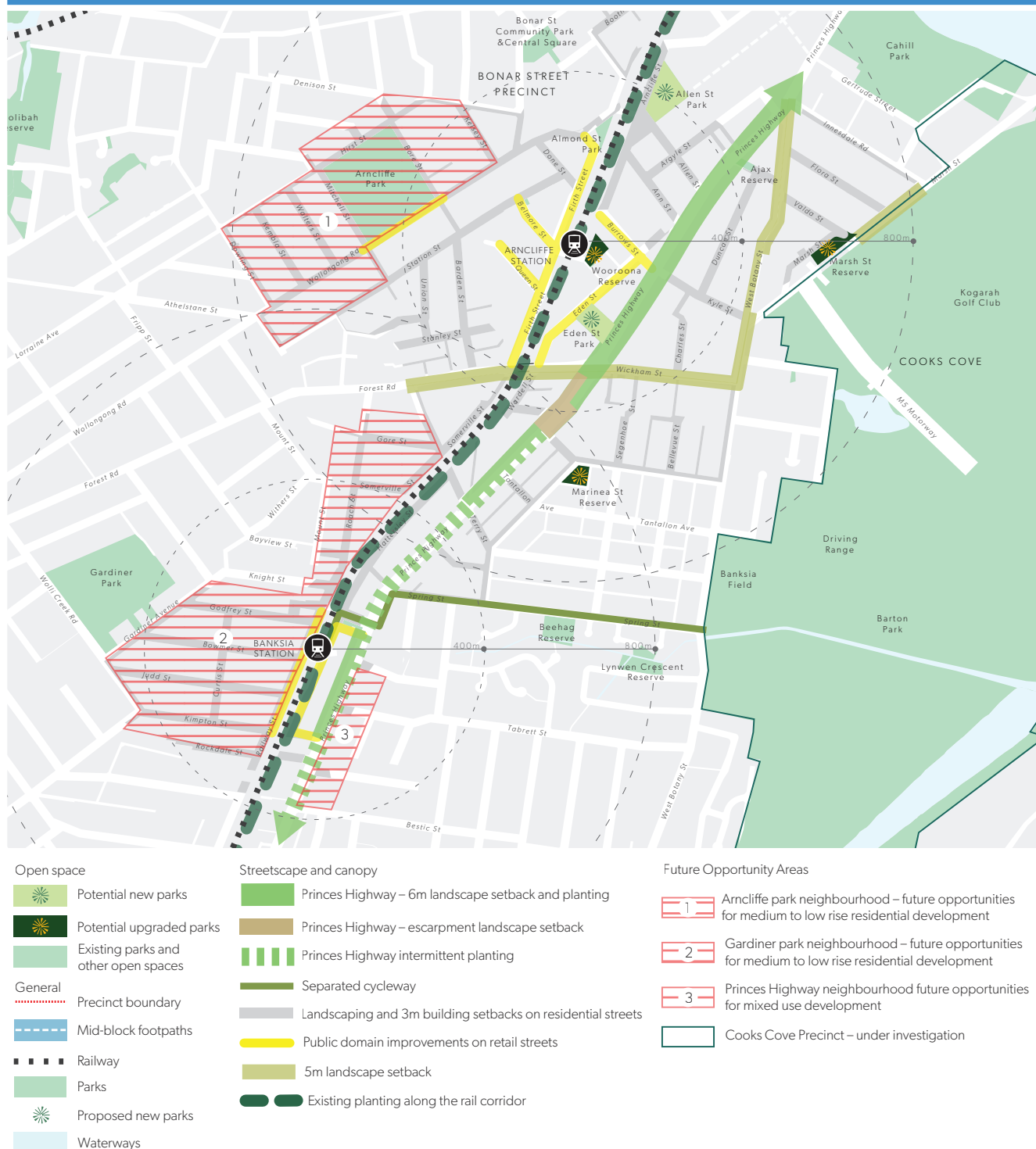


FIGURE 23: OPEN SPACE NETWORK



could provide passive recreation opportunities.

- Allen Street Park – a new park (up to 0.5ha) could be located adjoining the boundary with Wolli Creek incorporating the heritage listed SWSOOS as part of any future development of the Ford Service Centre. This park could provide playground facilities and passive recreation opportunities.

The proposed heights and FSR controls on these sites have been designed to allow for the provision of open space. These areas of new open space, or others identified, could potentially be funded through the Precinct Support Scheme (refer to

Section 5). Through the exhibition process, the Department is seeking community feedback on the types of projects the community would like to see funded through the Precinct Support Scheme.

4.5 Access and movement

The rezoning proposal includes a plan for improvements to pedestrian and cycling infrastructure to meet the needs of the existing and future residents and to also encourage active forms of transport. This includes improving access to open space and community infrastructure outside the precincts such as Barton Park. These improvements are consistent with those identified

SECTION 4: REZONING PROPOSAL

in the draft Land Use and Infrastructure Strategy for the Bayside West Precincts.

The Department will work with Bayside Council to update the Rockdale DCP and relevant Section 94 Development Contributions Plan to ensure the upgrades proposed for pedestrian and cycling infrastructure are considered and provided for as the area develops. In addition, some of these works could be identified for Precinct Support Scheme funding.

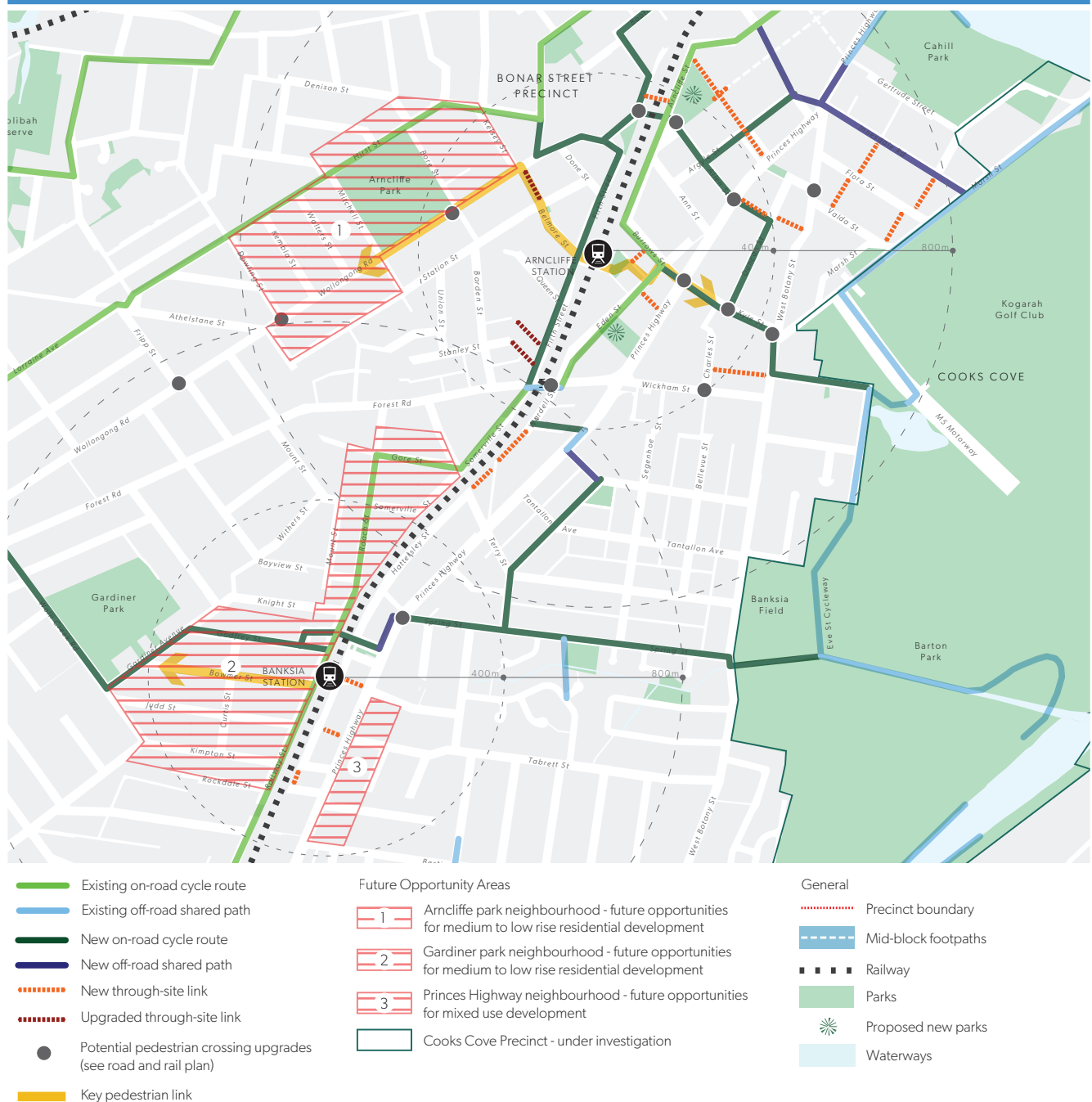
The proposed improvements are shown in Figure 24 and include upgrades to infrastructure including footpaths, shared paths and lighting. In addition, new connections are proposed

where possible. This will encourage more walking and cycling to and from the railway station for residents and workers.

The improvements shown in Figure 24 include:

- Improvements to footpath connections to the railway station so that they are safe, well-lit and have pedestrian crossings at key locations. In particular along key pedestrian routes including Belmore and Wollongong Streets.
- New mid-block footpaths to break up large blocks and create more direct pedestrian and cycle routes as sites develop. These links are indicative only and are subject to further investigation.

FIGURE 24: PROPOSED PEDESTRIAN AND CYCLE NETWORK



- A new pedestrian connection along the heritage listed Southern and Western Suburbs Ocean Outfall Sewer from the railway line to Marsh Street and Cooks Cove.
- New on-road cycleways on: Wardell Burrows and Kyle Streets, connecting the railway station to the Eve Street Cycleway; Duncan and Allen Streets to improve access across the Princes Highway; and Wollongong Road, Allen Street and Wolli Creek to form part of a new east-west cross regional route, ensuring space is provided to cyclists through the existing rail underpass.

zones, maximum building heights, FSR controls, active frontage and design excellence requirements.

Improvements to the existing north south on-street cycleway between Arncliffe and Banksia Railway Stations.

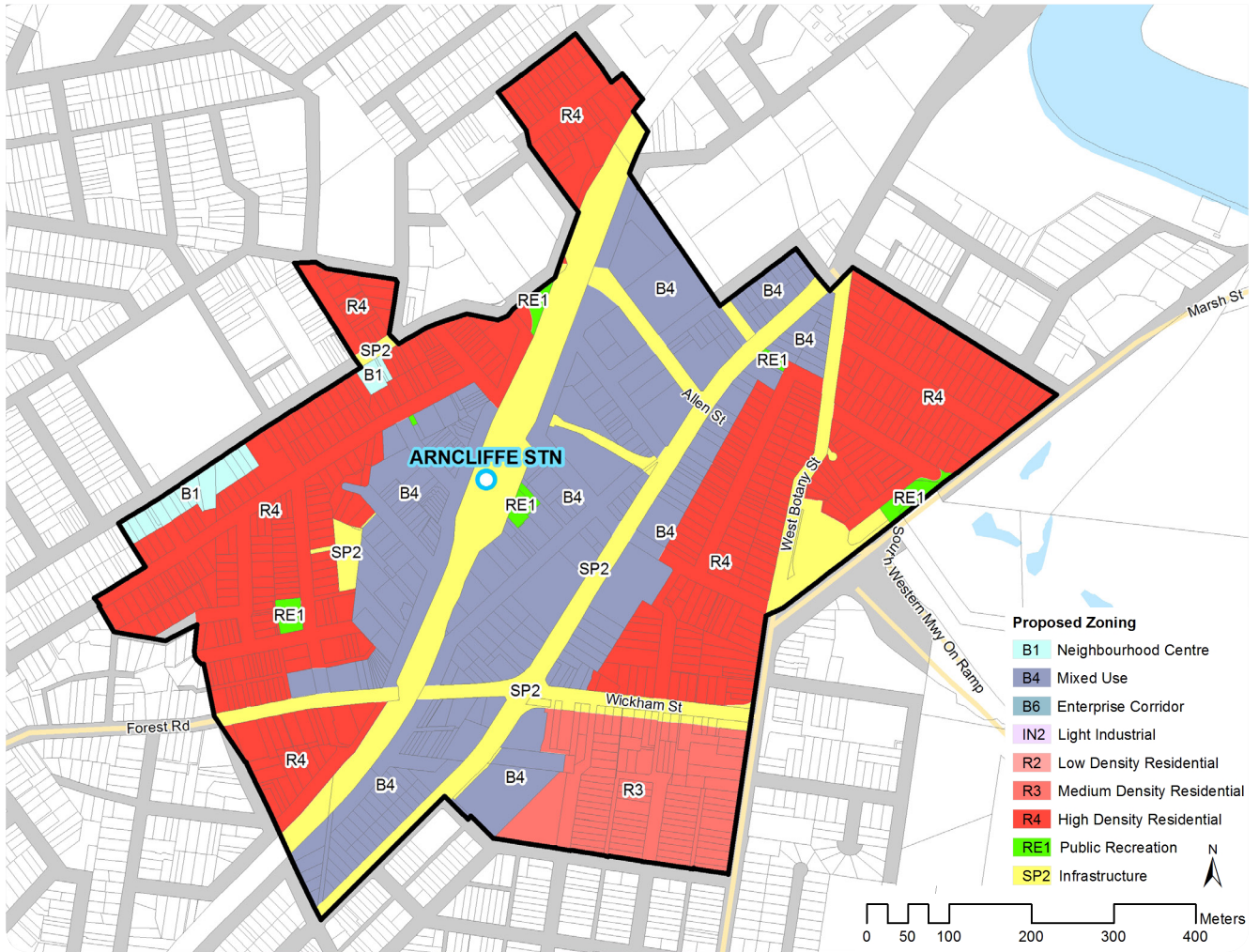
4.6 Proposed planning controls

The rezoning of the Arncliffe and Banksia precincts will occur through an amendment to the Rockdale LEP. The amendment will be facilitated through a State Environmental Planning Policy (SEPP) under section 37 of the Environmental Planning and Assessment Act 1979. The Explanation of Intended Effect, which provides a more detailed explanation of the proposed amendment to the Rockdale LEP is at Appendix A.

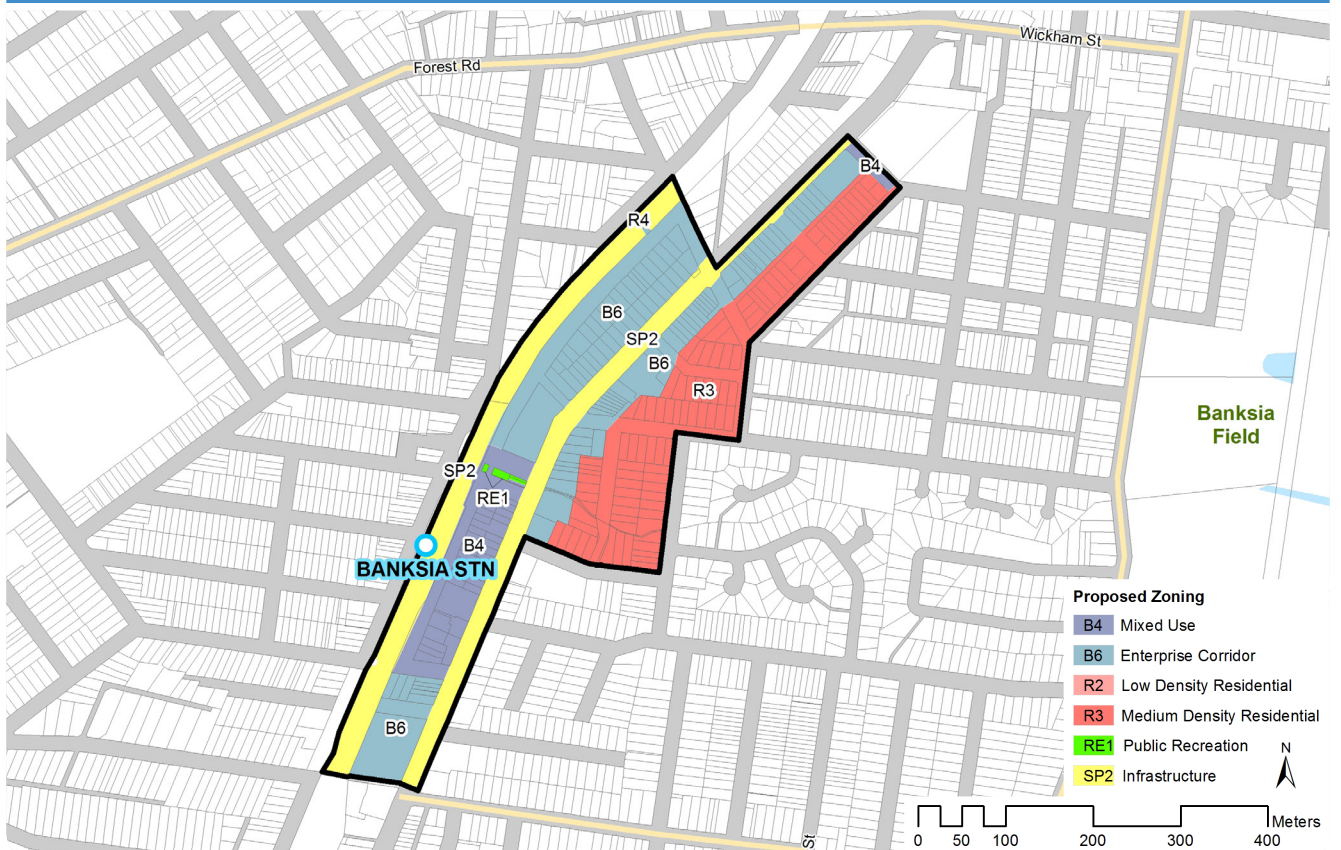
The proposed amendments to the Rockdale LEP cover land use

SECTION 4: REZONING PROPOSAL

FIGURE 25: PROPOSED LAND USE ZONE – ARNCLIFFE



PROPOSED LAND USE ZONE – BANKSIA



Proposed Zoning

The proposed zones reflect the proposed land uses discussed earlier in Section 4.2. The land will be rezoned a combination of B4 Mixed Use, B1 Neighbourhood Centre, R4 High Density Residential and R3 Medium Density Residential.

Areas either side of the rail corridor and Princes Highway through Arncliffe are proposed to be zoned B4 Mixed Use. This will allow a broader range of uses including residential and retail to locate in these accessible areas. The B6 Enterprise Corridor zone for the Banksia section of the Princes Highway corridor will be retained to encourage an employment focus in these areas. With the exception of the area bound by Hattersley Street which will be zoned B4 mixed use to provide for an expansion of the Banksia centre in this area.

The majority of the residential areas within the Arncliffe precinct will be zoned R4 High Density Residential to provide for more homes. South of Wickham Street the residential areas in Banksia will be zoned R3 to allow for medium density, low-rise residential development and to provide a transition to neighbouring low density areas.

The B1 Neighbourhood Centre zoning will be retained along Wollongong Road to expand the neighbourhood centre.

Proposed Height of Buildings

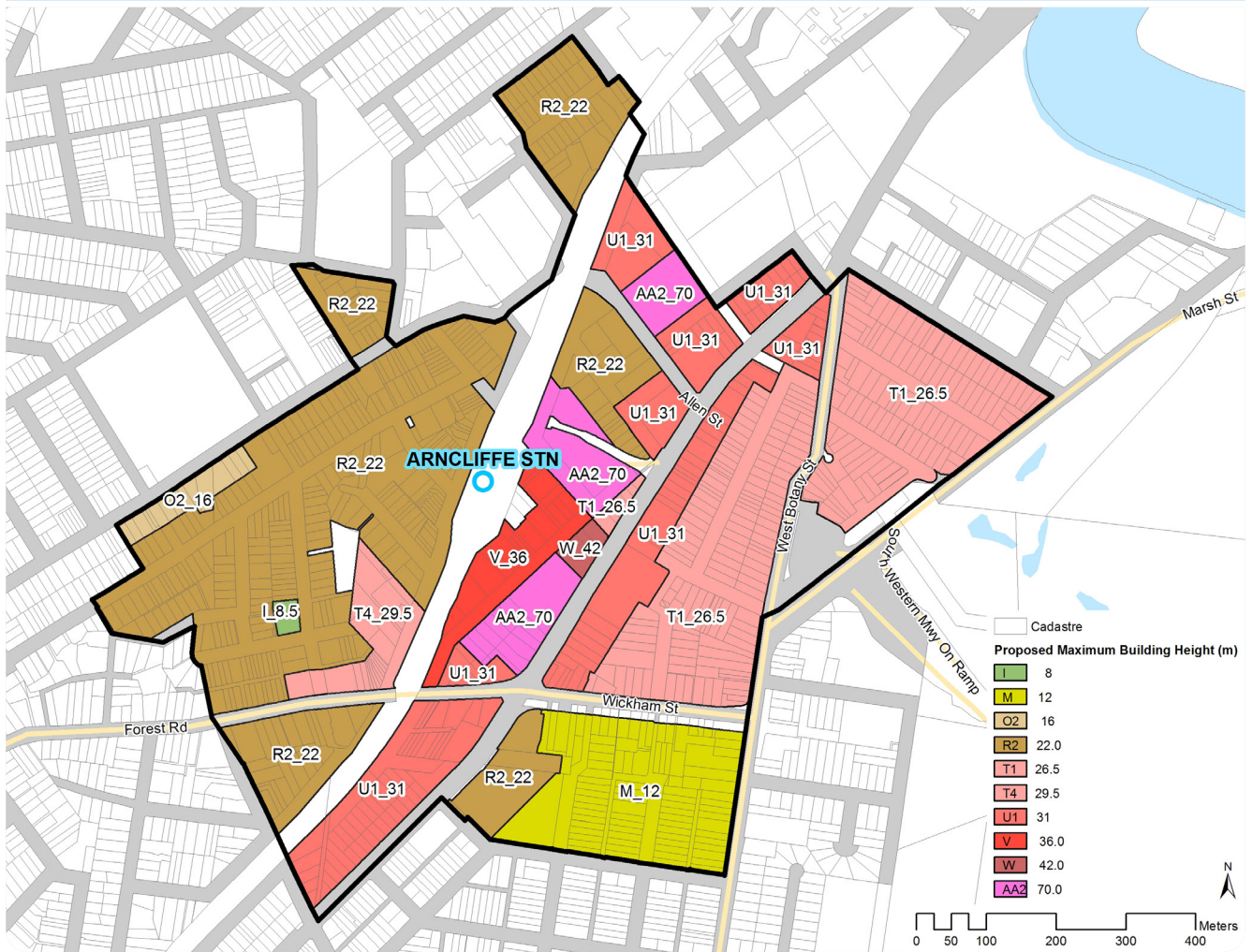
As discussed in Section 4.3, a range of building heights are proposed across the precinct, transitioning from the highest buildings around the railway station reducing towards the south east and north west of the precinct. The proposed amendment to the LEP Height of buildings map is shown in Figure 26.

The proposed height of buildings have been established on the following:

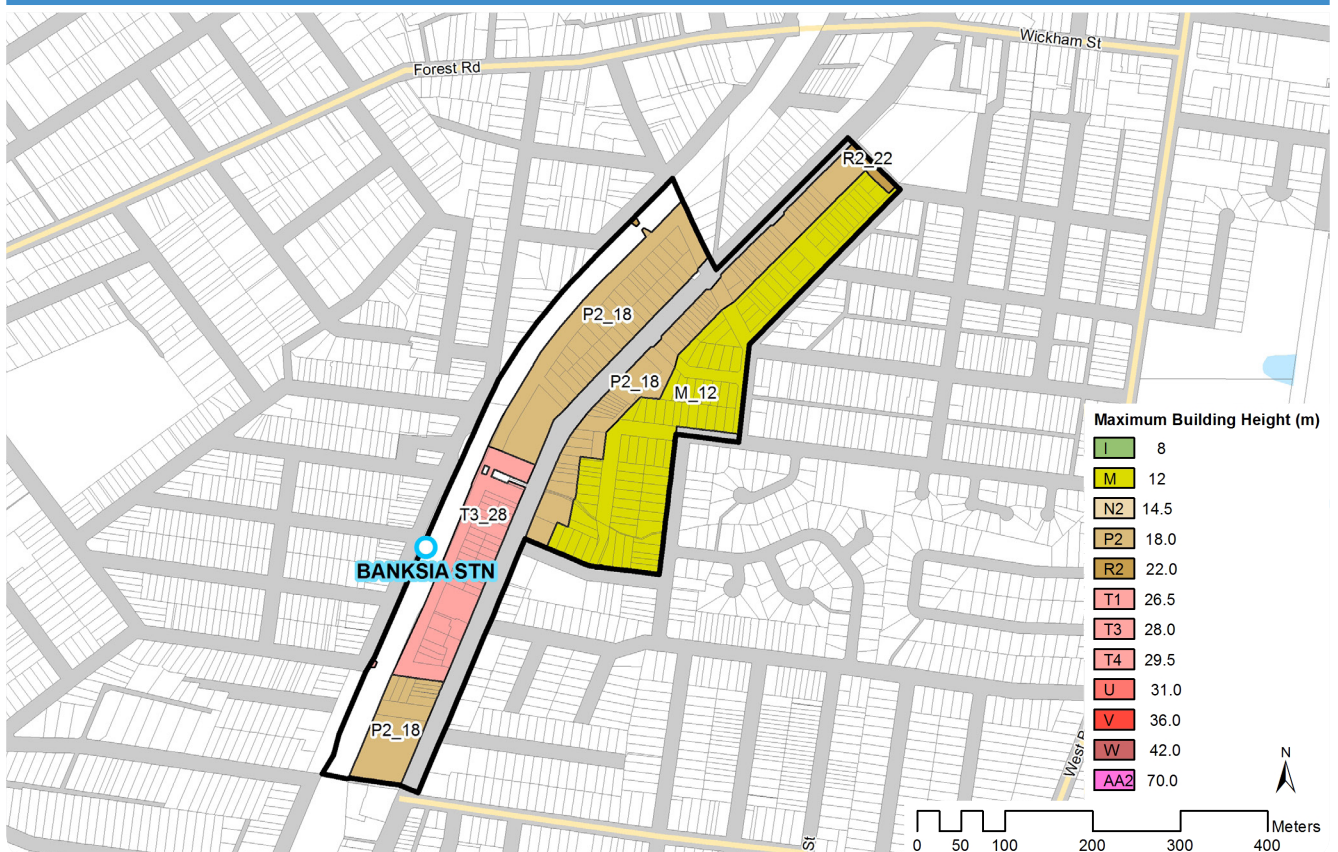
- The navigational requirements of Sydney Airport have been carefully considered to determine the maximum height of buildings. The majority of the heights proposed are well below the Sydney Airport airspace requirements. In some locations, around the Arncliffe railway station, the taller buildings may exceed the OLS (Obstacle Surface Limitation). Where this occurs, approval will be also required from Sydney Airport. The heights have been determined to ensure the PANS-OPS surface is not exceeded as approval cannot be obtained for this.
- A 70 metre height limit is proposed on larger sites which have the potential to provide new areas of public open space as part of their redevelopment. This includes privately owned commercial buildings and government owned

SECTION 4: REZONING PROPOSAL

FIGURE 26: PROPOSED BUILDING HEIGHTS – ARNCLIFFE



PROPOSED BUILDING HEIGHTS – BANKSIA



land surrounding the M5 exit, the NSW Land and Housing Corporation site between Eden Street and the Princes Highway and land at Allen Street. The height and FSR controls have been calibrated together to ensure that the maximum height limit can only be achieved across part of the site with open space provided on the remainder of the site.

- In other areas adjoining the Arncliffe railway station to the east, including sites along Eden Street and Burrows Street, height limits between 31 metres and 42 metres are proposed. This is to encourage the greatest densities in accessible locations and to strengthen development of the Arncliffe town centre.
- The 31 metre building height limit continues for properties adjoining the Princes Highway through Arncliffe (with the exception of the sites along the Princes Highway with a frontage to Eden Street) to encourage development within this accessible area.
- An 18 metre building height limit is proposed for the B7 zone within the Princes Highway corridor through Banksia to allow for expanded commercial buildings in this area.
- Taller buildings are proposed in the north of the Arncliffe precinct to be consistent with the high density residential development allowed for in the adjoining Bonar Street Precinct and Wolli Creek development area.
- Lower height limits, between 12-22 metres are proposed in the residential neighbourhoods in the southeast to provide a transition down towards adjoining low density residential areas and to ensure development is in keeping with local character.

Proposed Floor Space Ratio

The proposed range of FSR controls illustrated in Figure 27 have been identified to encourage regeneration and investment in the precinct as well as allowing for the desired built form across the precincts. The proposed FSR controls have been determined to ensure a balance between a high quality built form, the capacity of infrastructure and financially viable development.

The FSR and height controls have been calibrated together to ensure that controls will achieve appropriate building envelopes. The highest FSRs are located to the east of Arncliffe Railway Station and along the Princes Highway to encourage the highest densities in accessible locations.

- On the larger sites, which have been identified as having potential to provide new areas of open space, the FSRs have

been determined to ensure that if maximum heights are achieved then a sufficient site area is left for the provision of open space. These sites include the privately owned industrial buildings at Allen Street and the NSW Land and Housing Corporation site between Eden Street and the Princes Highway.

- Lower FSR controls between 1.2:1 - 2:1 are proposed in the residential neighbourhoods south east of the precinct to provide a transition down towards adjoining low density residential areas and to ensure development is in keeping with local character.

Proposed Active Frontage Clause

As outlined in Section 4.3, a requirement for active frontages is recommended in some areas of the mixed use B4 Zone. The active frontage map included in the LEP will be amended to require active frontages be provided in the Arncliffe and Banksia centres and along the Wollongong Road neighbourhood centre. Active frontages along the Princes Highway will be included as a recommendation in the development control plan.

Proposed Design Excellence Clause

Design excellence is a key consideration for future development in the Arncliffe and Banksia precincts. A new clause is recommended for the LEP to require future development in the precincts exhibit design excellence and be designed and assessed against a set of criteria to ensure the highest standard of architectural, urban and landscape design is delivered. This clause is outlined in more detail in the Explanation of Intended Effect at Appendix A.

4.7 Development Control Plan

Bayside Council are in the process of preparing a development control plan (DCP) for the Arncliffe and Banksia precincts. The DCP will provide clear design guidelines for new developments within the precincts to be undertaken under the amended zones, heights and FSR controls in the LEP.

The Department has recommended urban design principals for inclusion in the DCP to achieve the vision for revitalisation of Arncliffe and Banksia outlined in this report. Recommended urban design principals controls are included in Appendix O and include principals for:

- Street network and design;
- Through site links;
- Active frontages;
- Building and landscape setbacks;
- Street wall heights; and
- The open space network, including new areas of open space.

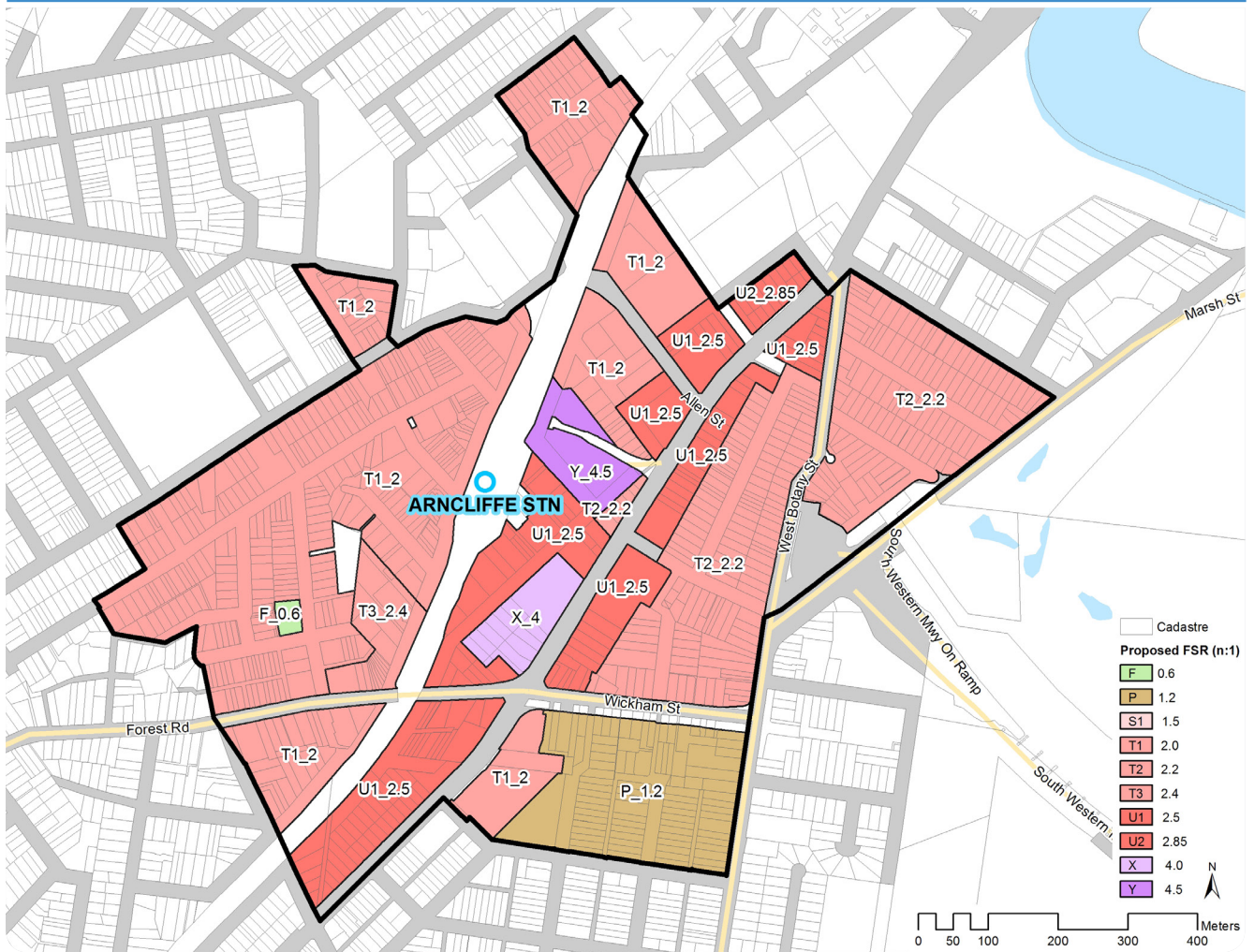
4.8 Development Applications and Consent Authority

Council will generally be the consent authority for the majority of development applications lodged for Arncliffe and Banksia.

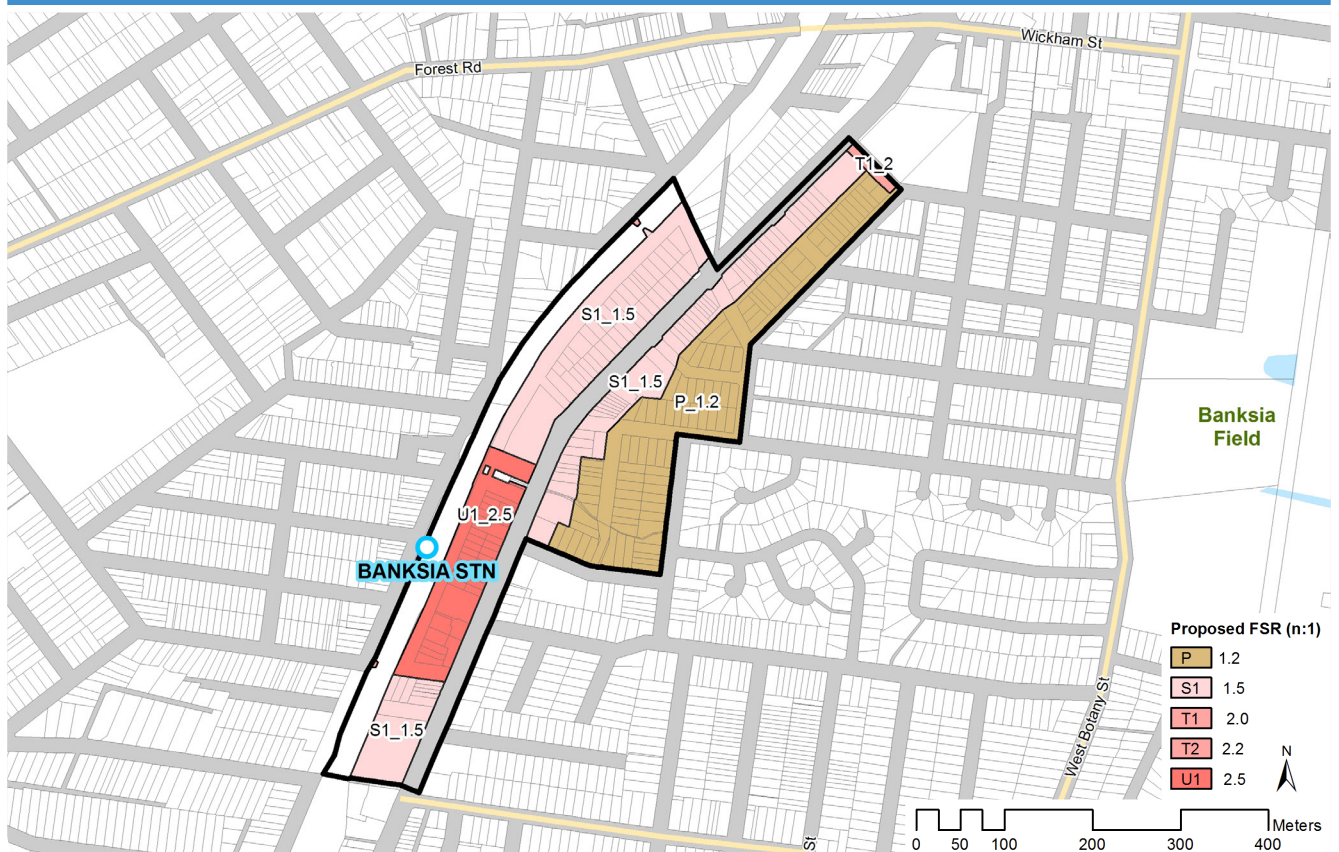
However it is proposed that development of the Land and Housing site in Arncliffe, which exceeds 20 million, will be deemed State Significant Development and the Minister for Planning will be the consent authority.

SECTION 4: REZONING PROPOSAL

FIGURE 27: PROPOSED FLOOR SPACE – ARNCLIFFE



PROPOSED FLOOR SPACE – BANKSIA



5

5 Infrastructure and Delivery

The infrastructure needs for the growth within Arncliffe and Banksia have been identified in the draft Land Use and Infrastructure Strategy for the Bayside West Precincts. The growth proposed by this rezoning proposal is consistent with that provided for by the Strategy and infrastructure needs identified.

The infrastructure needs are outlined in the table to the right.

5.1 Transport

As outlined earlier in Section 3.2, the current road and rail networks have limited capacity to accommodate significant growth. Major State infrastructure upgrades, including upgrades to the T4 Illawarra railway line and the proposed WestConnex South Link are required to accommodate growth in the West Botany Growth Area and other areas of the south Sydney District. Upgrades to the rail network and the WestConnex South Link are currently at early stages of investigation.

FIGURE 28: UPGRADES TO THE ROAD NETWORK



SECTION 5: INFRASTRUCTURE AND DELIVERY

In addition to these major State infrastructure upgrades, a number of upgrades to the road network within the precincts have been identified to accommodate growth in anticipated traffic numbers. These are identified in the infrastructure table and include upgrades to both the regional and local roads. The Department will work with Council and NSW Roads and Maritime Services to ensure these works are included in future work programs.

TABLE 1: CURRENT PROJECTS

Item	Delivery	Status
Upgrade rail infrastructure to increase capacity and services	TfNSW	Rail network planning to increase services to Southern Sydney is underway. Preferred option to be determined by end of 2017. Timing and delivery are subject to funding and business case.
Upgrade to Banksia and Arncliffe Stations	TfNSW	Arncliffe Station upgrade is underway and due for completion at the end of 2016. TfNSW to undertake scoping investigations for Banksia Station upgrade.
Improvements to bus services, including: <ul style="list-style-type: none"> • a new route between Bondi Junction and Miranda • Extending the Kogarah to Tempe service • Increase services running through the Growth area, in particular the Burwood to Bondi Junction route 	TfNSW	Need for improvements to be investigated by TfNSW as part of regular monitoring and planning program.
Construction of WestConnex South Link connecting the M5 to South Sydney	TfNSW	Detailed planning and feasibility assessment by TfNSW is underway. Preferred option to be determined by end of 2017. Timing and delivery are subject to funding and business case.

TABLE 2: REGIONAL INFRASTRUCTURE UPGRADES IDENTIFIED

Measure	Delivery	Timing and delivery	Assumptions
Public transport			
B1 New bus stops on Marsh Street	Cooks Cove developer & TfNSW/Council	Bus stops to be provided prior to construction certificate for first dwelling at Cooks Cove. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	New bus stops are required on Marsh Street to accommodate access from Cooks Cove to bus network (AECOM, 2016)

SECTION 5: INFRASTRUCTURE AND DELIVERY

Measure		Delivery	Timing and delivery	Assumptions
Regional/State road network				
R1	New major intersections on Marsh Street to provide access to Cooks Cove.	Cooks Cove developer & RMS/TfNSW	Intersections to be completed prior to construction certificate for first dwelling at Cooks Cove.	New intersections are required at two points along March St to provide access to the Cooks Cove Precinct (AECOM, 2016).
R2	Improvements to Marsh Street and Airport Drive. Including improved pedestrian connections to the Giovanni Bridge and upgraded pedestrian crossing of Marsh Street (potential pedestrian over pass).	RMS/TfNSW/ Cooks Cove developer	Upgrades to be completed prior to construction certificate for first dwelling at Cooks Cove. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Improvements to Marsh Street and Airport Drive will be required to support the growth in traffic volumes from Cooks Cove precinct (AECOM, 2016).
R3	Upgrades to the Kyle Street / West Botany Street intersection	RMS/TfNSW	Thresholds for infrastructure delivery and costings to be established prior to the rezoning of Arncliffe and Banksia Precincts. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Upgrades to the Kyle Street/West Botany Street intersection to allow left turn from Kyle Street onto West Botany is required (AECOM, 2015).
R4	Upgrade to the existing signalised intersection at Princes Highway / Burrows Street	RMS/TfNSW	Thresholds for infrastructure delivery and costings to be established prior to the rezoning of Arncliffe and Banksia Precincts. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Upgrades to the Princes Highway / Burrows Street intersection is required to permit movements from Kyle Street (AECOM, 2015).
R5	Review configuration of Duncan and West Botany Street intersections.	Council MS/ TfNSW	Thresholds for infrastructure delivery and costings to be established prior to the rezoning of Arncliffe and Banksia Precincts. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	The need for review of the configuration of Duncan and West Botany Street intersections to accommodate growth (AECOM, 2015).
R6	Upgrade the Allen Street / Princes Highway intersection.	Council MS/ TfNSW	Thresholds for infrastructure delivery and costings to be established prior to the rezoning of Arncliffe and Banksia Precincts. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Upgrades to the Princes Highway/ Allen Street intersection is required to accommodate growth (AECOM, 2015).
R7	Upgrades to the intersection of Forest Road at Firth and Eden Streets.	Council MS/ TfNSW	Thresholds for infrastructure delivery and costings to be established prior to the rezoning of Arncliffe and Banksia Precincts. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Review of the intersections of Forest Road with Firth and Eden Streets required with consideration of constraints posed by rail overpass bridge nearby required. (AECOM, 2015).
R8	Review intersection treatments on either side of the railway underpass between Allen Street and Wollongong Road.	Council/ RailCorp	Detailed planning and timing to be undertaken by Council in consultation with TfNSW and RailCorp. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Review intersection treatments on either side of the railway underpass between Allen Street and Wollongong Road.
R9	Upgrade to the Spring Street / Princes Highway intersection.	Council/ RailCorp	Detailed planning, timing and thresholds to be investigated by RMS and TfNSW as precincts develop. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	Upgrades to Spring Street / Princes Highway intersection is required to accommodate growth (AECOM, 2015).

SECTION 5: INFRASTRUCTURE AND DELIVERY

Measure	Delivery	Timing and delivery	Assumptions	
Improvements for Pedestrians and Cyclists				
P1	Investigate provision of a new walking and cycling bridge over the Cooks River to the Sydney Airport	Developer/ Council	Investigations into new crossing to be incorporated into any planning proposal for Cooks Cove.	Opportunities exist to provide new walking and cycling connections across the Cooks River, to enhance complementary land uses with Sydney Airport (AECOM 2016).
P2	A direct foreshore bicycle/pedestrian path along the Cooks River	Cooks Cove Developer/ Council	Construction of path to commence prior to construction certificate for first dwelling at Cooks Cove. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	A direct foreshore bicycle path along Cooks River with improved connectivity across Muddy Creek should be provided (AECOM 2016).
P3	New and improved cycle and pedestrian crossing of the Princes Highway from Cahill Park to Brodie Spark Drive. Consider pedestrian over pass.	Cooks Cove Developer RMS/TfNSW	Improved crossing to be completed prior to construction certificate for first dwelling at Cooks Cove. To be partly funded by Special Infrastructure Contribution or satisfactory arrangements.	An upgrade to the pedestrian crossing of Princes Highway from Cahill Park is required to provide a better connection from Wolli Creek Station to Cooks Cove (AECOM 2016)
Education				
E1	New school infrastructure	Department of Education	Provision for additional school infrastructure is to be allowed for, as agreed to by the Department of Education Contribution to land costs to be partly funded by Special Infrastructure Contribution or satisfactory arrangements	Opportunities exist within Cooks Cove for provision of new school infrastructure (AECOM, 2016). This is subject to detailed review and planning to be undertaken by the Department of Education.

TABLE 3: LOCAL INFRASTRUCTURE UPGRADES

Measure		Delivery	Timing	Assumptions
Roads				
L1	Charles St realignment	Council/ developer	Preliminary design and costings of upgrades to be undertaken by Council for inclusion in the Development Control Plan (Strategy Action 1) and review of the Section 94 Plan (Strategy Action 3).	Upgrades require to the local road network required to support anticipated growth (AECOM 2015).
L2	Gertrude St extension	Council/ developer		
L3	Intersection upgrades at: <ul style="list-style-type: none">● Wolli Creek Rd / Wollongong Rd● Fripp St / Wollongong Rd● Dowling St / Wollongong Rd● Wickham / Charles Street	Council/ developer		
L4	<ul style="list-style-type: none">● Upgrade to rail underpass at Railway Street and Subway Road	Council/ RailCorp	Detailed planning and timing to be undertaken by Council in consultation with TfNSW and RailCorp for inclusion in the review of the Section 94 Plan (Strategy Action 3).	Upgrades to the rail underpass at Railway Street and Subway Road are required to accommodate growth (AECOM, 2015).
Improvements for Pedestrians and Cyclists				
p4	New on-road cycle paths along: <ul style="list-style-type: none">● Wollongong Rd and Allen St● Wollongong Rd to Bonar St via Wardell St / Avenal St / Marinea St● Burrows St / Kyle St● Duncan Street to Allen St● Spring St (including improved crossing of West Botany St)	Council/ developers	Preliminary design and costings of upgrades to be undertaken by Council for inclusion in the Development Control Plan (Strategy Action 1) and review of the Section 94 Plan (Strategy Action 3).	Upgrades required to the local road network to support anticipated growth (AECOM 2015).
p5	Upgrades to the existing cycle network including: <ul style="list-style-type: none">● North-south route between Arncliffe Station and Banksia Station Arncliffe Street / Burrows St / Eden Street north	Council/ developers	Preliminary design and costings of upgrades to be undertaken by Council for inclusion in the Development Control Plan (Strategy Action 1) and review of the Section 94 Plan (Strategy Action 3).	Upgrades recommended to the local cycle network to support anticipated growth (AECOM 2015).
p6	Improvements to pedestrian crossings at: <ul style="list-style-type: none">● Forest Way at Eden Street / Wardell Street Arncliffe Street / Allen Street roundabout● Wollongong Road / Firth Street roundabout	Council/ developers	Preliminary design and costings of upgrades to be undertaken by Council with support from the Department (Strategy Action 1) and review of the Section 94 Plan (Strategy Action 3).	Upgrades recommended to pedestrian facilities on the local road network to support anticipated growth (AECOM 2015).
p7	Improved pedestrian facilities, on new and existing streets at key locations to accommodate increased pedestrian activity, including along: <ul style="list-style-type: none">● Wollongong Road close to Arncliffe Park Burrows Road, Godfrey Street and Gardiner Avenue● Spring Street	Council/ developers	Preliminary design and costings of upgrades to be undertaken by Council with support from the Department for inclusion in the Development Control Plan (Strategy Action 1) and review of the Section 94 Plan (Strategy Action 3).	

Measure		Delivery	Timing	Assumptions
Drainage and flooding				
D1	Upgrade trunk drainage across the catchment and upgrade existing drainage network, including: <ul style="list-style-type: none">● Drainage network along Wollongong Road from Dowling Street to Bonar Street, and under the railway line● Additional inlets and drainage works at Valda Avenue● Pipe upgrades at Eve Street Brick arch openings under sewer carrier● Modifications to Bonnie Doon Channel● Dedicated overland flow paths	Council/ developers	Preliminary design and costings of upgrades to be undertaken by Council with support from the Department for inclusion in the Development Control Plan (Strategy Action 1) and review of the Section 94 Plan (Strategy Action 3).	Arncliffe and Banksia subject to some areas of flooding following significant rainfall events and require upgrades to the existing drainage infrastructure (Mott MacDonald, 2015).
D2	New flood storage and detention basins to mitigate future flooding			
D3	New levee to provide additional drainage capacity and reduce inundation from the Cooks River			
Community infrastructure				
C1	A new district level branch library and community centre	Council or Developers	Preliminary design and costings of upgrades to be undertaken by Council for inclusion in review of the Section 94 Plan (Strategy Action 3).	New population anticipated requires a new district level branch library and community centre at Arncliffe (Eltons, 2015)
C3	Upgrade to existing parks at Wooroona Reserve, Marinea Reserve and Marsh Street Reserve		To be funded by Section 94 Contributions or priority precinct support scheme.	Arncliffe and Banksia have limited areas of local open space. Opportunities to upgrade existing and provide new areas of open space should be considered (Rockdale City Council, 2014)
C4	New lighting and safety upgrades at Gardiner Park and Arncliffe Park		To be funded by Section 94 Contributions or priority precinct support scheme.	
C6	Investigate new local parks as part of redevelopment of sites on Eden Street (Land and Housing Site) and 12 Allen Street		Investigations into new parks to be incorporated into any planning proposal or development application for these sites. To be partly funded by Section 94 Contributions or satisfactory arrangements.	
C7	Provision of new active recreation facilities at Cooks Cove		Construction of recreation areas to commence prior to construction certificate for first dwelling at Cooks Cove. To be partly funded by Section 94 Contributions or satisfactory arrangements.	

5.2 Recreation

The rezoning proposal seeks to improve access to open space and to improve connectivity for pedestrian and cyclists throughout the precincts.

Improvements to walking and cycling connections are outlined in Section 4.5 of this report and have been included in the Infrastructure Schedule. These include upgrading existing walking and cycling connections and providing new routes to key destinations, such as the railway stations and existing areas of open space. The proposal also identifies where new areas of open space could be provided (refer to Section 4.4).

5.3 Social Infrastructure

As outlined in Section 3.8 precincts currently have a good supply of social infrastructure. The area is well served by regional health, tertiary education, cultural and emergency services, at Kogarah and by district level services in Rockdale.

The draft Land Use and Infrastructure Strategy has identified the need for new school infrastructure to support development at Cooks Cove. This will provide additional spaces for new residents in Arncliffe and Banksia.

5.4 Affordable housing & housing affordability

The NSW Government is committed to delivering more opportunities for affordable housing across Sydney. Action 2.3.3 of *A Plan for Growing Sydney* outlines that the NSW Government will provide more affordable housing in Government-led urban renewal projects and on Government-owned sites to meet the shortfall in affordable housing. In response to this action, the Government is currently preparing a policy on affordable housing provision and once finalised will be applied to development within the precincts.

A target of up to 10% affordable housing will be required as part of new development within the precincts. The target is subject to further feasibility analysis undertaken as part of the establishment of the Special Infrastructure Contribution (refer to section 5.6).

The Land and Housing site located on Eden Street within the Arncliffe Precinct presents an opportunity to provide more affordable housing. This site is located within areas identified in the Strategy to be rezoned for an increase in residential densities allowing for potential redevelopment.

5.5 Utilities and Services

All utility services are available to the growth area. Augmentation (as required) will need to be undertaken as part of the next stage of the planning process.

A review of existing flood studies has been undertaken by Mott MacDonald, October 2015 (Appendix J and K). The review identifies a number of improvements are required to the current drainage infrastructure to support growth. The works generally include improvements to existing piped drainage systems, works to improve run off flows and modifications to the river bank levee to improve drainage capacity. These works are included in the infrastructure schedule.

Bayside Council is currently undertaking further investigations of stormwater infrastructure required to improve the current drainage network. This work will be used to refine the list of infrastructure requirements for Arncliffe and Banksia.

5.6 Funding

Special Infrastructure Contribution

Upgrades to regional infrastructure identified include upgrades to the regional road network, providing connections to regional open space and potentially increasing capacity of local schools. In light of the growth anticipated in the precincts and other priority growth areas, the State government is investigating the application of a Special Infrastructure Contribution (SIC) to assist in funding regional upgrades.

The SIC is a levy that developers will be required to pay to contribute to the cost of providing regional infrastructure upgrades. The infrastructure schedule included at Section 7 of this Strategy identifies items that could be funded by the SIC. This includes regional road upgrades and any land for the new school infrastructure.

The Department will work with infrastructure agencies and stakeholders to refine the key infrastructure items that could be partly funded by the SIC and the estimated cost and timing for delivery of this infrastructure. A SIC rate will be determined through an analysis of the precincts' growth patterns, infrastructure needs and costs, and development feasibility to ensure any change does not impact on the development feasibility. The infrastructure list and SIC rate will be publicly exhibited prior to being established. In the event that the SIC is not in place prior to development occurring, approval for development will require satisfactory arrangements to be in place for the provision of required regional infrastructure.

Local Infrastructure Upgrades

A number of upgrades to local infrastructure have also been identified. This includes local road upgrades, upgrades to the local drainage infrastructure and provision of additional social infrastructure, such as new open space. Bayside Council will undertake a review of relevant local infrastructure contribution plans developed under Section 94 of the Act to accommodate these required upgrades. It is likely that an increase to the current rates will be necessary.

Precinct Support Scheme

Through the Precinct Support Scheme, the NSW Government has allocated approximately \$10 million of additional funds for local infrastructure upgrades. The intention of the funding is to enable Council to provide local infrastructure that will directly benefit the community. The funding is additional to development contributions (that is Section 94 development contributions), and could be used by Council to develop a new local park, upgrade existing open space, improve the local streetscape or provide additional community facilities, amongst other things.

Precinct support scheme projects need to satisfy a number of criteria including the project:

- Can be delivered in a short timeframe;
- Will provide direct benefits to the community; and
- Has not already been funded by other means.

The precinct planning process, along with community consultation will identify a number of projects which could be funded through this scheme. Potential projects are identified in the Precinct Proposal attached to this document. Through the exhibition process, the Department is seeking Community feedback on the types of projects the community would like to see funded through the Precinct Support Scheme.

Following public exhibition, Bayside Council and the Department would work together to review the shortlisted projects and reach agreement on the recommended project(s) to receive Precinct Support Scheme funding for each precinct. The Department and council would then enter into a funding agreement to detail the works to be delivered, the projects costs, project completion milestones and payment arrangements.

5.7 Monitoring

To inform service and infrastructure delivery as the precincts redevelop over the next 20 years, the Department will monitor and report annually on the:

- Number of housing approvals, construction commencements and completions for all housing types within the precincts;
- Pipeline for additional housing throughout the South District;
- Performance of Bayside Councils development processing times; and.
- Population, household and dwelling projections for the Bayside LGA.

