

ATTACHMENT H(1)

Draft Kensington North HIA Urban Design Analysis Report



STRATEGIC PLANNING

Kensington North Housing Investigation Area Urban Design Report

Planning Proposal

May 2022

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1. Location

1.1. The HIA

- The Kensington North HIA is in the northwest corner of the Randwick LGA, defined by Alison Road, Anzac Parade, Carlton Street and Doncaster Avenue to the east, and by Kensington Road, Salisbury Road and Boronia Street to the west (shown outlined in white on Map 1).

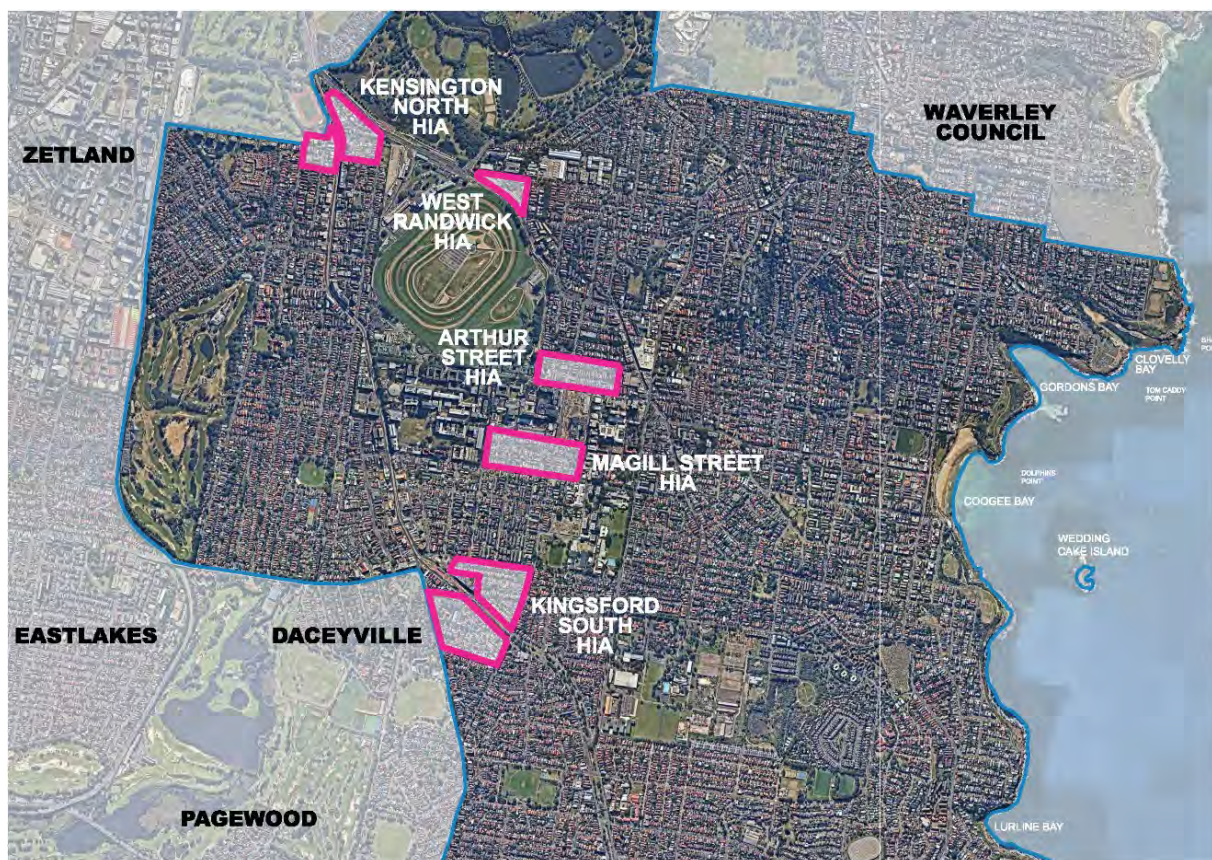


Map 1: Housing Investigation Area

1.2. Local context

- The Kensington North HIA adjoins two of Randwick City's busiest thoroughfares, Anzac Parade and Alison Road.
- The CBD to South East Light Rail routes L2 and L3 run along Alison Road and Anzac Parade respectively. The ES Marks L3 light rail stop is located at the corner of Anzac Parade and Carlton Street, connecting the HIA to UNSW and Kingsford to the south, and to Moore Park and the CBD to the north. The Royal Randwick light rail stop, located approximately 350m east of the centre of the HIA connects the site to Randwick Junction and the Randwick Health and Education precinct.
- The HIA adjoins Kensington Town Centre (to the south), which hosts a variety of local retail, residential and commercial uses.

- The HIA is surrounded by a variety of public open spaces including Centennial Park located to the north of the site, the ES Marks Athletics Field and Moore Park Golf course located to the northwest, and Kokoda Park located 150m to the south.
- The HIA is relatively homogeneous with the residential streets to the south. Anzac Parade and Doncaster Avenue tie the precinct together, and the building typology and urban form is consistent with surrounding streets.
- The Randwick Light Rail Depot and the Royal Randwick Racecourse are to the east of the HIA, as well as a student accommodation development on the corner of Doncaster and Alison Road which is currently under construction.
- A lower density neighbourhood, containing 3-4 storey walk-ups and 1-2 storey houses, is situated to the west of the HIA. The Raleigh Park Estate which overlooks Moore Park Golf Course is located further to the west.



Map 2: Local context – location of the five Housing Investigation Areas

2. Existing characteristics

2.1. Description of the investigation area

- The Kensington North HIA is a largely medium-high density residential neighbourhood straddling two of Randwick City's major transport thoroughfares. There are also several semi-detached and detached houses in the east of the HIA.
- There are few institutional or commercial land uses present in the HIA, with the exceptions being a motel on Alison Road and a motor repair business on Anzac Parade.
- The HIA has a network of laneways generally located at the rear of apartment buildings.
- The laneways and smaller residential streets of the HIA are generally well sheltered from the impacts from noise generated along Anzac Parade and Alison Road, providing quieter streets and private gardens.
- The HIA has a good tree canopy coverage, including street trees e.g., on the Abbotford Street median strip, as well as trees on private property (see Photo 3).



Photo 1: Corner of Alison Road and Doncaster Avenue, looking South West (Oct 2019)



Photo 2: Anzac Parade looking South East (Oct 2019)

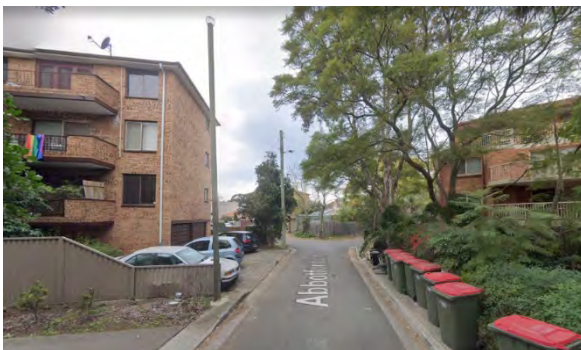


Photo 3: Abbotford Lane looking South East (Jul 2019)



Photo 4: Carlton Lane looking West (Jul 2019)



Photo 5: Corner of Doncaster Avenue and Carlton Street looking north (Jul 2019)



Photo 6: Carlton Street looking east (Jul 2019)



Photo 7: Abbotford Street looking southwest (Jul 2019)



Photo 8: Corner of Anzac Parade and Abbotford Street Looking Northeast (October 2019)

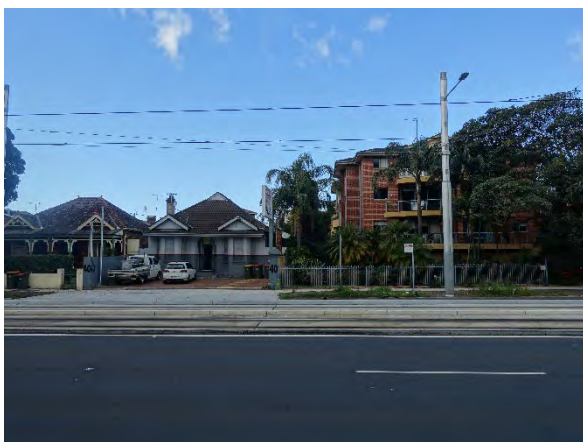


Photo 9: Anzac Parade looking east



Photo 10: Alison Road looking east



3D Image 1: Northwest view from the HIA towards the CBD and Moore Park.



3D Image 2: Southeast view of the HIA displaying views towards Randwick Racecourse and Coogee.



3D Image 3: View of the entire HIA from the east



3D Image 4: View from west displaying the HIA in relation to Anzac Parade

2.2. Topography

- The topographic features of the HIA are illustrated in Map 3.
- The western portion of the HIA is situated on a slope, rising 20m from Anzac Parade to Kensington Road, whilst the east is relatively flat.
- Buildings in the HIA respond to the sloped terrain, with the built form stepping and adjusting to the landform, for example many properties on the west side of Boronia Street appear as four stories from the street front however at the rear of the properties they appear as 2-3 stories in height.



Map 3: Topography



Map 4: Topography

2.3. View corridors

- The HIA has a number of view corridors, largely determined by the topography, that create vantage points, including:
 - The northeast view over Alison Road towards Centennial Park which provides a pleasant outlook to open green space.
 - The northwest view is towards the Sydney CBD skyline (refer to 3D Images 1 and 2).
 - The view to the east over Randwick Racecourse.

2.4. Building typology

- The HIA is mostly comprised of multi-storey apartments, with some 1-2 storey properties along Anzac Parade and Alison Road. To the west of the HIA, there are 1-3 storey flats with low rise detached dwellings and townhouses.
- There is a diversity of frontage types in the HIA:
 - Along Alison Road and Anzac Parade there are multi-story apartments with front gardens and timber or masonry front fences. Low rise dwellings on these frontages have private front gardens, some with high walls.
 - Frontages on Abbotford Street are a mix of front gardens, with and without high fences. The multi storey apartment building fronting Abbotford Street has a shared private yard with parking areas.
 - Backyards facing Carlton Lane are all at street level. Backyards facing other laneways in the north of the HIA have a mix of raised and ground level shared open space. Some

of these are used for shared car parking whilst others are only privately accessible to ground level flats.

- Frontages on Carlton Street follow a clear pattern of low, curb side fencing with varying building setbacks. All properties have some degree of front garden, some are used for parking.
- Other frontages include a common yard at the intersection of Anzac Parade and Boronia Street as well as private porch on Salisbury Road and standard private front gardens on Kensington Road.



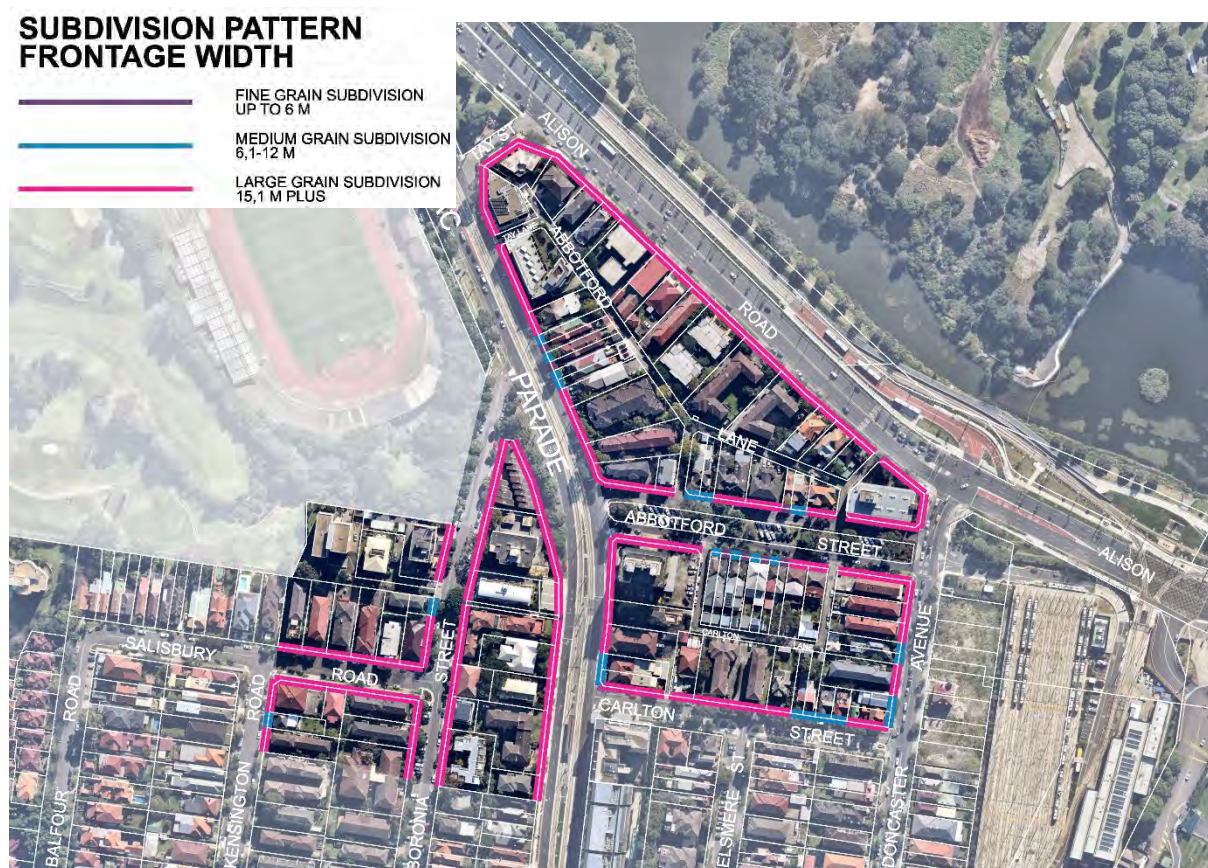
Map 5: Building typology (indicative only)

2.5. Subdivision pattern

- As displayed on Map 6, the majority of lots in the HIA are 600m² or larger. Notably, most of these lots contain four storey (or greater) apartments.
- A smaller number of lots are medium or fine grain subdivisions.
- Alison Road is the only section of the HIA with a clear trend in lot size, having mostly large lots.
- The frontage width of lots in the HIA varies. A large number of irregular corner lots, lots with large tower blocks and lots that interact with Anzac Parade mean there is no clear pattern in widths, however, generally lots are wide. The majority of lots have frontage widths of 15m or higher.



Map 6: Lot sizes

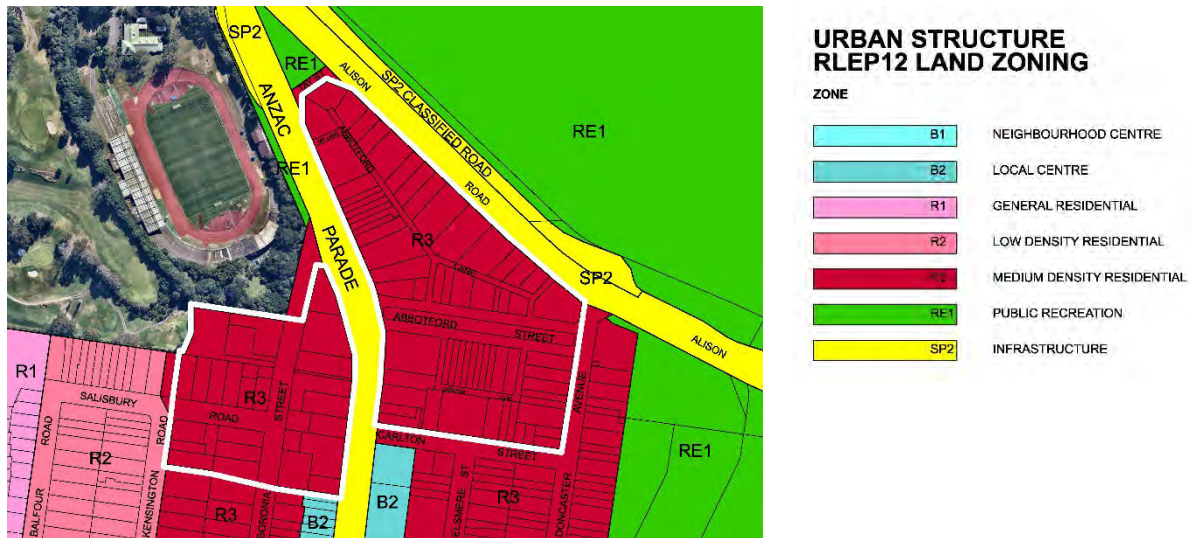


Map 7: Frontage width

3. Existing planning controls and considerations

3.1. Land use zoning

- All lots within the Kensington North HIA are zoned R3 Medium Density Residential under Randwick LEP 2012.



Map 8: Land use zoning under Randwick LEP 2012

Land use zoning key

3.2. Height of building

- All lots within the HIA have a current maximum permissible building height of 12m (Randwick LEP 2012).
- There are a small number of buildings in the HIA that currently exceed this height. Most significantly 62 Anzac Parade, a 12-storey residential apartment building, located on the south corner of Anzac Parade and Abbotford Street.



Map 9: Maximum height of buildings under Randwick LEP 2012

3.3. Floor space ratio

- All lots within the Kensington North HIA have an existing permissible maximum FSR of 0.9:1 (Randwick LEP 2012).



Map 10: Maximum floor space ratio under Randwick LEP 2012

3.4. Heritage

- As shown in Map 11, there are four lots within the HIA listed as heritage items in the Randwick LEP - 29 and 31 Alison Road and 5 and 5A Abbotford Street.
- There are several heritage items adjacent to the HIA including Tay Street Park, Centennial Park, 2-4 Elsmere Street, 10 and 12 Doncaster Avenue and the Randwick Racecourse HCA.



Map 11: Heritage items and conservation areas under Randwick LEP 2012

3.5. Flooding

- Council commissioned WMA Water to undertake a Flood Constraints Review of the five HIAs, which was completed in November 2021 (refer to Attachment K – Flood Constraints Review). The key conclusions of the report, regarding this HIA, are summarised below.
- The major streets of the Kensington North HIA; Anzac Parade, Alison Road and Doncaster Avenue, perform as major overland flow paths in a flood event, with significant flood affection, although inundation of the lots themselves is generally limited due to higher ground levels.
- The HIA lies just downstream of the confluence of two significant upstream catchment areas being:
 - The Queens Park/Centennial Park catchment area to the northeast. Run off and flooding from this catchment is detained within the series of ponds within Centennial Park. The mitigation was improved by the construction of the light rail corridor (and the associated raising of a landscaped levee) however in major flood events, water is likely to spill from the pond outlet structures flowing across Alison Road, Doncaster Avenue and Anzac Parade.
 - The Moore Park/Paddington Entertainment Precinct catchment area to the northwest, which in major storm events generates overland flow down Anzac Parade.
- The flow of flood water is from north to south, around and through the study area streets via Alison Road/Doncaster Avenue and Anzac Parade (refer to Map 12).
- In a 1% Annual Exceedance Probability (AEP) flood event, some inundation of the lots occurs, primarily at the front of the lots where flooding is deepest in the roadway (refer to Map 13). This occurs at the north of the study area where properties front onto Anzac Parade and Alison Road, and the properties along Doncaster Avenue.
- The Tay Street to Abbotford Street section of Anzac Parade is assessed, for a 1% AEP event, to have a flood depth of between 0.5m and 1m.
- In the 1% AEP design event, the hazard classification within the lots of the HIA is generally low (see Map 14) and does not present any significant constraint to redevelopment. It is likely however that there would be a higher degree of flood hazard alongside roads.
- The Hydraulic Hazard is significantly higher for the Possible Maximum Flood (PMF) event, particularly along sections of road including Anzac Parade, Tay Street and Abbotford Street (see Map 15).

Most developments in the HIA will require minimum floor level controls to prevent flooding above floor levels or into basements, with further technical analysis being required at the DA stage for individual developments including modelling of flood impacts.

- Flooding impacts will be subject to further detailed assessment at the Development Control Plan (DCP) stage with further specific controls and design requirements considering the impacts of flooding up to the PMF.



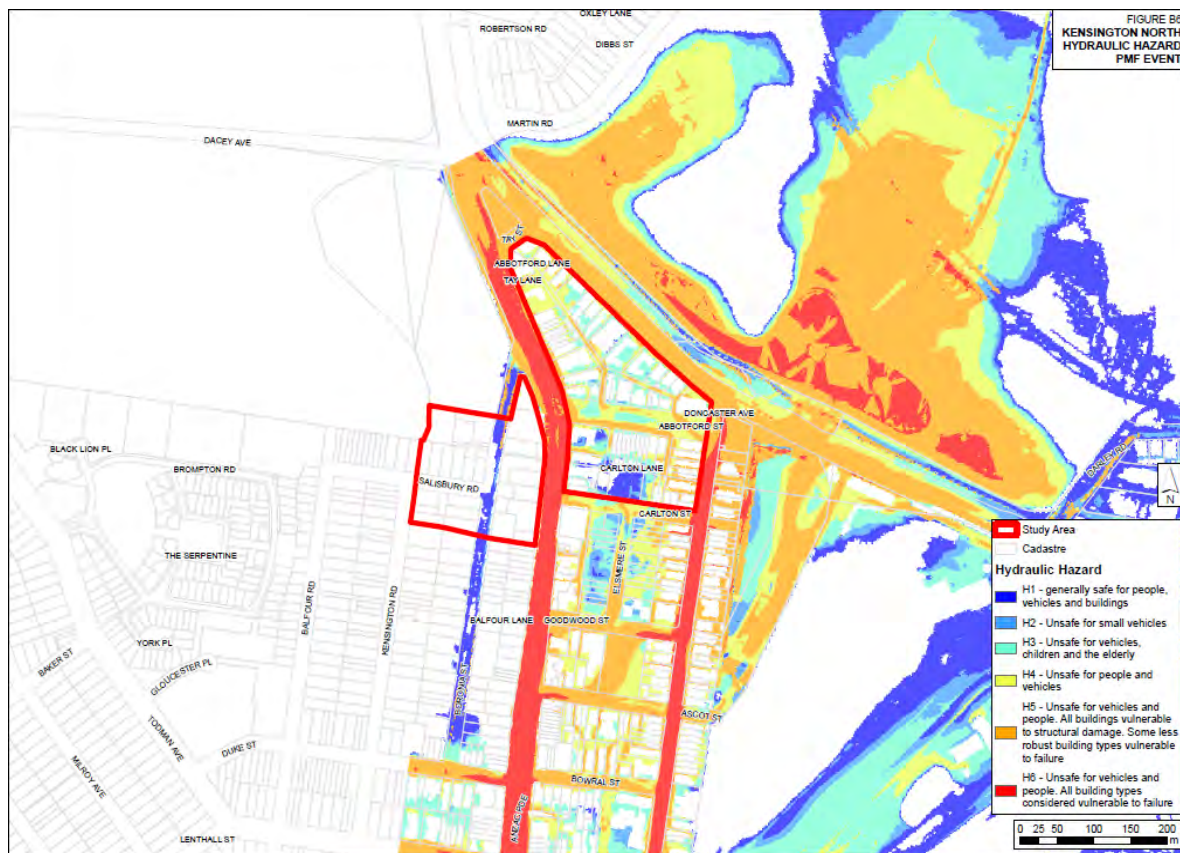
Map 12: 1% AEP overland flow directions



Map 13: Peak flood depths and levels 1% AEP event



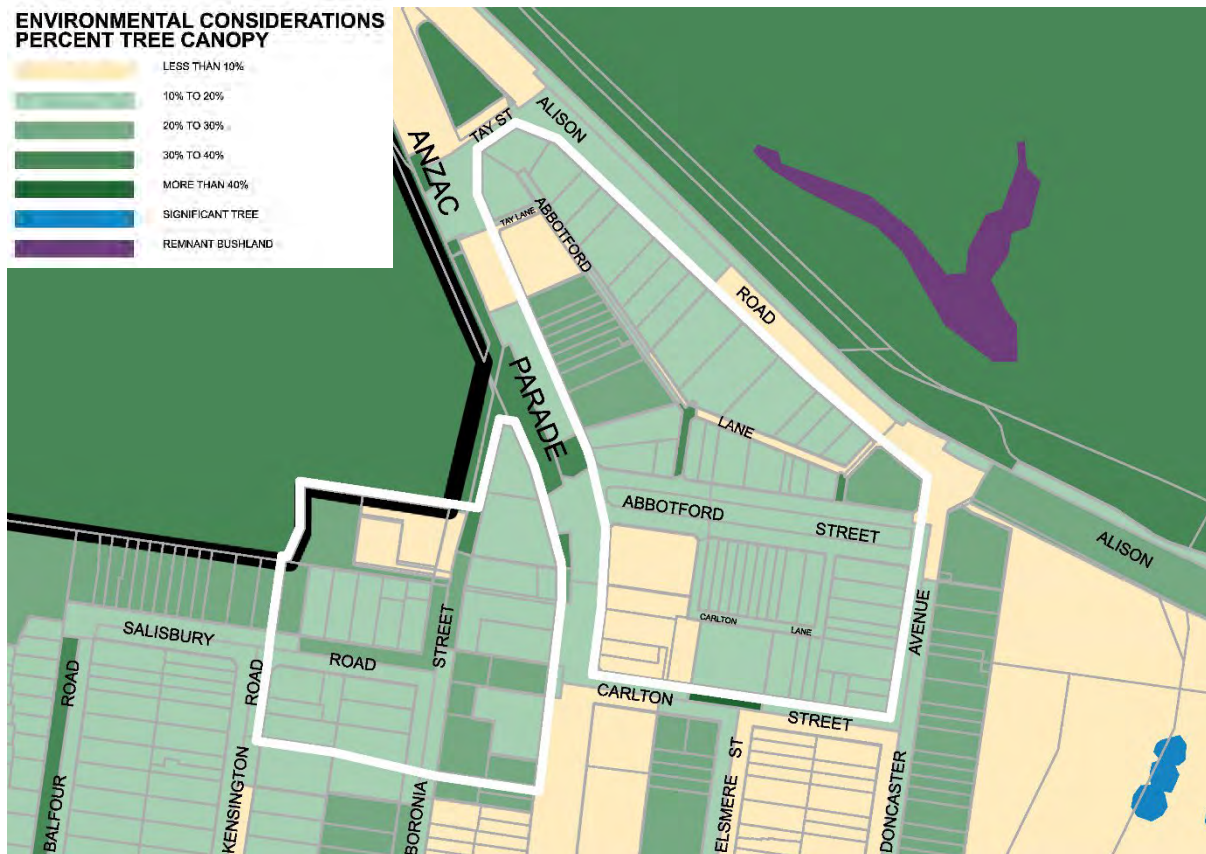
Map 14: Hydraulic hazard 1% AEP event



Map 15: Hydraulic hazard PMF event

3.6. Significant trees

- There are numerous mature trees in the streets and private gardens of the HIA. However, there are no trees within the HIA assessed as significant in the Randwick City Register of Significant Trees (under Randwick LEP).
- The majority of the HIA has 10-20% tree canopy cover, whilst the remaining portions have 20-30% tree canopy.

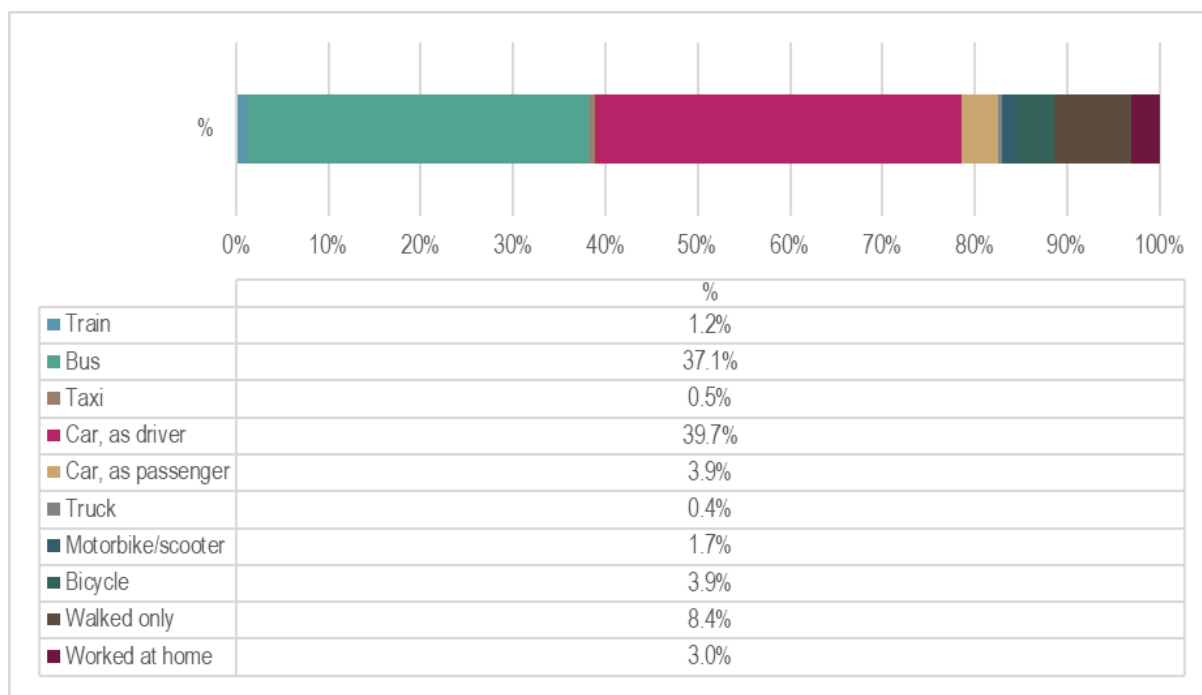


Map 16: Proportion of tree canopy cover

3.7. Transport

Existing travel patterns

- The table below shows the Method of Travel to Work mode share results for residents living in the Kensington North HIA in 2016. Compared to other HIAs, Kensington North has the second-highest public transport mode share (38.3%), but also the second-lowest active transport mode share (12.4%).
- Relative to other HIAs, Kensington North has the second-highest rate of single car ownership (53.8%) with 17.6% of households owning two cars and 25.2% having no motor vehicle.
- The 2017 modelling for the Kensington and Kingsford (K2K) Planning Strategy showed that the Anzac Parade/Boronia Street intersection is forecast to perform at Level of Service A following the developmental uplift proposed in the K2K Strategy.



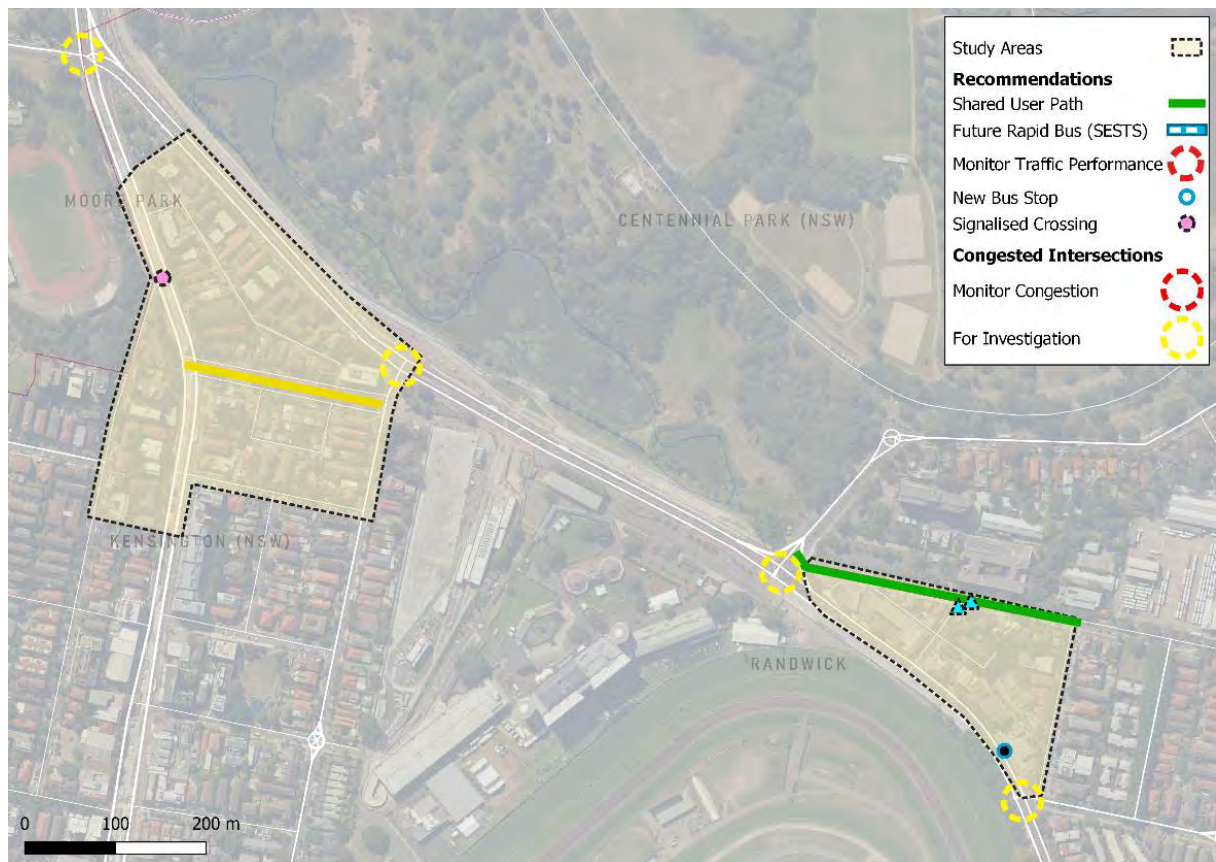
Kensington North – Method of Travel to Work – Local Transport Study (Stantec 2022)

- Regarding public transport connections, The Royal Randwick L2 stop is approximately 220m east of the HIA, while the ES Marks stop, on the L3 line, is in the southern section of the HIA. Proposed local bus routes take residents to the Sydney CBD, Maroubra Beach, Eastgardens, La Perouse and other local centres. A rapid bus route is planned from Rozelle to Coogee via Green Square, Kensington and Randwick, and is expected to interchange at the Kensington light rail stop to the south of the HIA.
- Regarding the pedestrian environment within the HIA, limited crossing facilities, such as the 380m gap between crossings on Anzac Parade and the 470m gap on Alison Road, create a poor level of pedestrian connectivity between local trip origins and destinations, ultimately discouraging walking as a mode for shorter trips.
- Doncaster Avenue is the key north-south cycling route through Kensington and a Principal Bicycle Network route, featuring a shared path near the intersection of Alison Road, and an on-road shoulder further south. The current infrastructure is not sufficiently safe to encourage cycling.

Future travel and transport study recommendations

- Considering the estimated net increase of 315 dwellings by 2036 (long term) as a result of changes proposed in the Planning Proposal, the 'Do Nothing' scenario in the Local Transport Study, estimates 76 private vehicle trips will be added in the peak hour journey to work traffic – a negligible increase on the existing and forecast traffic volume.
- Intersection performance modelling does not exist for the Anzac Parade/Dacey Street/Alison Road intersection, the Alison Road/Doncaster Avenue Road intersection and Anzac Parade/Todman Avenue intersection. As such, further analysis is necessary.
- The 'Do Nothing' scenario also estimates a public transport peak hour net trip increase of 63 people. Based on the existing public transport stop locations, everyone in the HIA is within a 400m walk of an existing bus or light rail stop. All bus/light rail stops provide adequate facilities such as signage, seat or shelter. Given the high capacity and high coverage of the existing network, it is able to support the proposed growth in residents.

- The continuation of Anzac Parade as a 'main street' (meaning a street with a strong sense of 'place', of Urban Design quality and that prioritises pedestrians), would more appropriately support the HIA's higher intensity of development.
- The study recommends a new signal crossing at the Boronia Street/Anzac Parade intersection, that would help decrease pedestrian travel times.
- There is the potential to reclassify Abbotford Street (25m wide) from a 'local street' to a 'civic space', reallocating the existing space used for car parking to more pedestrian-friendly and place-centred uses.
- The proposed upgrade to a separated cycleway, currently under construction on Doncaster Avenue, will encourage cycling and help to meet cyclist demand, following the population uplift in both the Kensington North HIA and Kensington Town Centre.

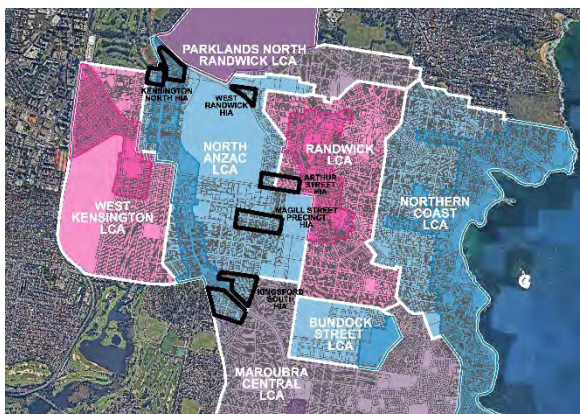


Map 17: West Randwick and Kensington North – Recommendations Map

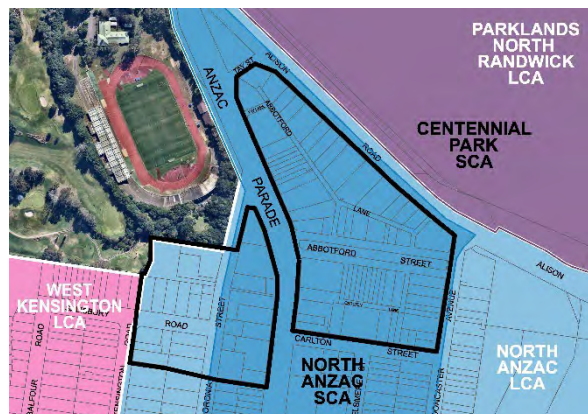
4. Draft local character area

4.1. Description of the investigation area

- The HIA is in the northeast section of the draft North Anzac Local Character Area (LCA).
- The LCA contains Randwick City's major health, education, transport and economic infrastructure, and the residential and commercial precincts adjacent to them. These include the Randwick Health and Education Precinct, Randwick Boys and Girls High Schools, Kensington and Kingsford Town Centres, Randwick Racecourse, TAFE Randwick and Sydney Buses Depot.
- These strong economic hubs and the institutional land uses within the LCA are poorly integrated with their surroundings. There is a sense of disconnection between the larger scale commercial/institutional, and the finer grain, small scale residential land uses.
- The medium density, predominantly residential character of the HIA is consistent with other residential areas of the Local Character Area.
- A character defining feature of the LCA, relevant to the HIA, is the L3 light rail route which runs along the established Kensington Town Centre commercial corridor along Anzac Parade.
- The draft North Anzac LCA character principles are:
 - Greater activation along Anzac Parade through new development.
 - Increased active transport connections and infrastructure for a growing population.
 - Reinstating Anzac Parade as a tree-lined boulevard and increasing the street tree canopy across the LCA.
 - Greater interaction between the community and the key institutions within the LCA.
 - Improvements to the public domain.
 - Increase in arts and cultural facilities to support the local population and visitors.
 - Improvements to the economic vibrancy of the Kingsford and Kensington Town Centres.



Map 18: Excerpt of draft local character areas (northern part of the LGA)

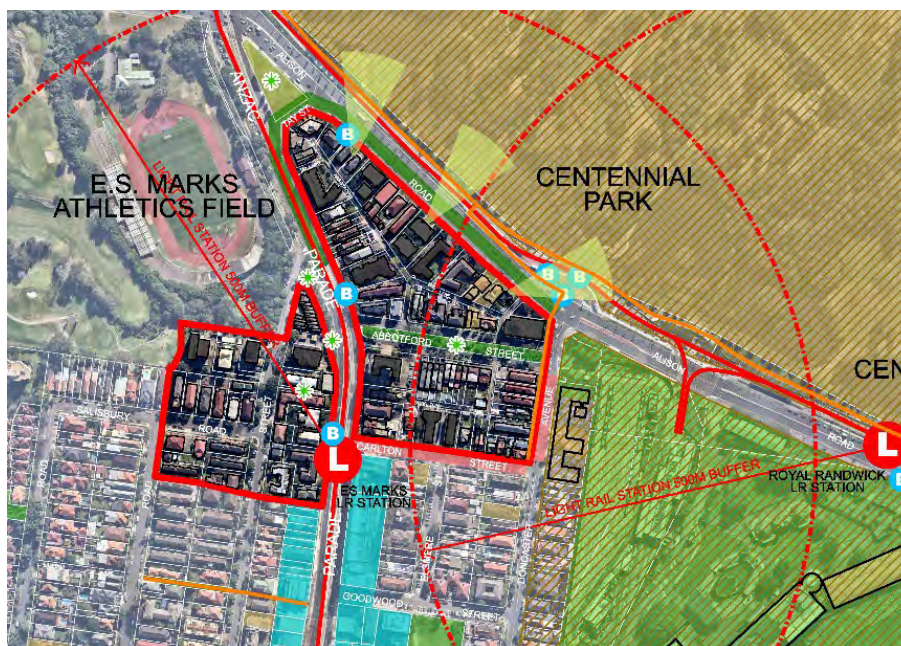


Location of Kensington North HIA within North Anzac LCA

5. Analysis

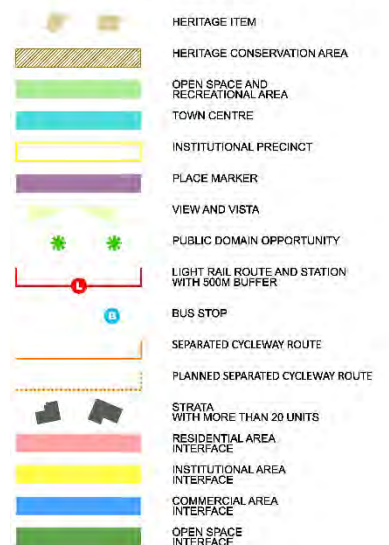
5.1. Opportunities and constraints

- The HIA is immediately north of the Kensington Town Centre and can provide a transition down from the maximum 9 storey height limit established as part of the K2K Planning Proposal. Particularly along Anzac Parade between the residential and commercial sections of the Anzac Parade urban 'spine'.
- The HIAs proximity to the ES Marks L3 Light rail station also presents an opportunity to accommodate additional height along Anzac Parade, transitioning down in heights to the residential streets to the east.
- New local planning controls should be responsive to the proximity to the Kensington Town Centre and light rail stop along Anzac Parade as well as the sloped terrain.
- Improving the pedestrian experience of streets that should be explored. Residential streets and particularly laneways would benefit from public domain upgrades.
- The Abbotford Street nature strip and landscaped median presents an opportunity to upgrade the public realm in this location.
- The heritage listed properties, as shown on Map 11 will limit the extent of increases in the height of adjoining buildings. The new built form of the HIA should respect the potential impact on the heritage aspects of these buildings.



Map 19: Opportunities and constraints

OPPORTUNITIES AND CONSTRAINTS



Opportunities and constraints key

6. Strategic justification

6.1. Overview

An increase in building height (HOB) and floor space ratio (FSR) can be provided for in this HIA as it would align with its strategic location - immediately north of Kensington Town Centre and at the juncture of Anzac Parade and Alison Road. The HIA is easily accessible and able to be serviced from the adjoining main roads. An urban block analysis established that the proposed heights and FSR would sit comfortably within the urban context and would provide a transition in height from the core Kensington Town Centre to the south (9 storeys), transitioning down to surrounding medium and low density residential neighbourhoods.



Map 20: Proposed built form and height diagram (heights shown in storeys)

LEGEND

	EXISTING HERITAGE ITEM WITH STOREY NUMBER
	EXISTING STRATA ITEM WITH STOREY NUMBER
	INDICATIVE BUILDING FOOTPRINT WITH STOREY NUMBER
	INDICATIVE BUILDING FOOTPRINT WITH STOREY NUMBER
	PUBLIC DOMAIN OPEN SPACE OPPORTUNITY
	PRIVATE GARDEN
	HOUSING INVESTIGATION AREA BOUNDARY

The Kensington North HIA provides medium density residential apartment development and associated facilities and services:

- Within easy walking distance of two light rail stations and public bus services.
- Adjoining several important employment hubs including Randwick Racecourse, TAFE-Randwick, Moore Park Golf Club and within a short walk of Kensington Town Centre.
- Near to four major LGA recreational open spaces and entertainment venues - Centennial Parkland, Randwick Racecourse, Moore Park Golf Club and ES Marks Athletics Field.
- Excellent access to major roads – Alison Road and Anzac Parade, facilitating vehicular and general access.
- The proposed uplift can be used to incentivise an improved urban built form outcome for the south approach to Kensington along Anzac Parade, particularly at key corner sites.
- Building height transition from the core of the Kensington Town Centre to the south of the HIA (at 9 storeys): transitioning down to the proposed 7 and 5 storeys in the HIA, to existing 3 and 4 storey walk-up apartments setback to either side of Anzac Parade, and to the lower scale 1 and 2 storey villas and semi-detached dwellings in the surrounding neighbourhoods.
- Two existing apartment tower buildings (of 9 and 12 storey height) that currently stand out, on either side of Anzac Parade, would be more integrated into the overall built form of the HIA.

7. Planning strategy

7.1. HIA areas of no change

The HIAs were identified under the Housing Strategy (February 2020) for detailed analysis. In undertaking the detailed analysis, it was found that some areas within the investigation boundaries had less potential for uplift than others and as such have been excluded from medium density development.

Through Council's urban design analysis, it is recommended that no change occurs for the properties west of Boronia Street. The properties in this area are generally four-storey 'walk-up' apartments or larger apartment buildings in strata ownership. The ownership pattern restricts the turnover and development of these properties.

It is also noted that there are also some constrained, strata titled properties in the east of the HIA (refer to the Opportunities and Constraints Map). The focus of this work is to propose changes to the RLEP to allow for moderate uplift in well-serviced areas contributing to Council's 6-10 year (2021-2026) housing target of 4,300 new dwellings. Strata titled properties comprised of 20 or more units have not been included in these calculations, as it is unlikely, they will redevelop within the next 6-10 years.

Residential blocks in the Kensington North HIA along the Anzac Parade 'spine' and in the east of the HIA, through to Alison Road and Doncaster Avenue, have been assessed to be appropriate for redevelopment.

7.2. Desired future built form character

The future desired character of the HIA is for new development to be consistent with the aims of the R3 Medium Density Residential zone, that provide for a variety of medium density housing types. The proposed mid-rise typology (generally 5 or 7 storey) can enhance the character of the neighbourhood by encouraging high quality design outcomes in an area of high amenity – close to public transport (light rail), large recreational parkland (Centennial Park), entertainment venues (Royal Randwick Racecourse) and to the services and shopping (the Anzac Parade retail/commercial 'spine' and Kensington Town Centre).

The proposed new built form would be at two height datums – generally at 7 storeys along Anzac Parade and through to Alison Road, providing a transition from Kensington Town Centre (9 storey maximum height) down to the large adjoining green spaces to the north, and at 5 storeys for the block between Abbotford Street and Carlton Street, to transition down in scale to Doncaster Avenue.

The proposed built form would define the main Anzac Parade 'spine', and the key HIA residential street frontages, and street corners. The mid-rise residential apartment buildings would generally be setback 6m from the primary street frontage to allow ground floor level apartments to have private front gardens. There will be a transition in the street front setback; from the zero setback of the B2 zone, to a 6m setback in the R3 zone. The block layout will support buildings with rear common gardens, with deep soil tree planting, in the mid-block.

Heritage properties and existing large strata apartment buildings would be integrated within the new residential precinct. The fine urban 'grain' of the city blocks would be preserved by retaining the series of smaller streets and laneways, and existing pedestrian through-block links.

The two existing landmark residential tower buildings of 9 and 12 storeys, at 3-7 Anzac Parade and 56-62 Anzac Parade respectively, will likely remain into the foreseeable future and have been integrated into the overall future planning for the HIA.

7.3. Site consolidation

A level of site consolidation would be necessary to achieve the desired optimum urban design and feasibility outcomes. Provisions addressing minimum frontage width and discouraging the isolation of sites (which may be difficult to develop on their own) are recommended to be included in the Randwick DCP to ensure that future redevelopment achieves the desired urban design and built form outcomes, ensure residents have good access to natural light and ventilation, and achieve reasonable efficiencies in building structure and parking configuration.

7.4. Transition to surrounding areas

Seven storey buildings are proposed along Anzac Parade, which will provide a consistent built form streetscape. There is a transition to the west, to the existing residential neighbourhood (west of Boronia Street) where no change is proposed due to the large concentration of four-storey walk up dwellings and larger residential blocks.

There is a block between Abbotford and Carlton Streets where lower densities (5 storeys) are proposed. This is in consideration of the existing built form in this area, which consists of a mix of dwelling types with some low-density dwellings on a finer subdivision pattern and some existing heritage items.

This block of 5 storey development provides a built form transition from the 9 storey building height, permitted along the Anzac Parade 'spine' of Kensington Town Centre in the west and the proposed 7 storey development in the HIA to the north, to the existing 3-4 storey neighbourhood to the south and east.

Transitions in height to the three existing heritage properties (5/5A Abbotford Street and 29 and 31 Alison Road) have been considered. Adjoining properties to the east have been limited to two storeys and proposed new building envelopes to the west have been set back (to allow a landscape buffer) or step down to two storeys at the boundary to provide a transition in building height.

7.5. Landscape character

Street tree planting is inconsistent along Anzac Parade, Alison Road and the main streets of the HIA. Street tree planting needs to be bold and large in scale to address the size of these urban thoroughfares. Interplanting new street trees, on a consolidated theme, and with an appropriate scale would enhance these streetscapes.

Unique features of the HIA include the Abbotford Street median island planting which provides an attractive and unique streetscape, the landscaping at the merging of Anzac Parade and Boronia Street, and the opportunity to link up the green space of Kokoda Park adjoining to the south with enhanced street tree planting along Goodwood Street and Elsmere Street. The landscaping of Tay Street could expand the influence of the plantings in the triangular park immediately north of the HIA. Protecting and encouraging mid-block private gardens, including mature tree planting would create a refuge from busy surrounding streets, such as Anzac Parade and Alison Road.

7.6. HIA Feasibility Assessment (review as per Arthur St changes)

Following Council's place-based analysis of the five HIAs and investigations into suitable planning controls to increase development capacity, economic planning consultants - Hill PDA, were engaged to assess the economic feasibility of new development and undertake a review of the officers' built form scenarios in terms of the resulting yield achieved in each HIA. The

assessment identified the likely ‘tipping point’ for redevelopment to occur considering the application of an affordable housing contributions scheme at a rate of 0%, 3% and 5%.

The assessment estimates the potential land value of several sites within each of the HIAs based on comparable land sale evidence. Through market research, the end sale values for new development in each of the HIAs has also been identified. It is important that any proposed controls ensure that the purchase of sites and future development is feasible, otherwise turnover of sites for development will not occur and Council may not be able to meet the community’s need for new housing in accessible areas.

The assessment sets a target project Internal Rate of Investment of 16% to 18% p.a. as the primary indicator for the modelling*. The results for Kensington North HIA are outlined below:

Zone	FSR required with a 3% affordable housing contribution	Proposed height (storeys) 3%	FSR required with a 5% affordable housing contribution	Proposed height (storeys) 5%
R3 Medium Density Residential	2:1	23m (7)	2:1	23m (7)
R3 Medium Density Residential	1.5:1	16.5m (5)	1.5:1	16.5m (5)

The assessment found that development of the proposed R3 Medium Density Residential land is viable at both 3% and 5% affordable housing contribution - an FSR of 2:1 for the proposed 7 storey and 1.5:1 for the 5 storey area of the HIA. Uniquely in this HIA, it is possible to achieve a 5% affordable housing contribution with the original building heights that were proposed.

*The Internal Rate of Investment is a developer’s actual return on investment on an annualised basis and expressed as a percentage. The approach considers the cost of time in its calculation and indicates the average return for a developer over a period of time.

8. Conclusion

8.1. 3D built form testing

The proposed built form scenario with a part seven storey and part five storey height datum is assessed to be financially viable with both a 3% and 5% Affordable Housing (AH) contribution. Computer 3D modelling was prepared to illustrate the maximum building envelopes, to assess their urban design merit.



Map 21: Plan View – Maximum 7 and 5 Storey Building Height

LEGEND

	EXISTING HERITAGE ITEM WITH STOREY NUMBER
	EXISTING STRATA ITEM WITH STOREY NUMBER
	R3
	B1
	INDICATIVE BUILDING FOOTPRINT WITH STOREY NUMBER
	PUBLIC DOMAIN OPEN SPACE OPPORTUNITY
	PRIVATE GARDEN
	HOUSING INVESTIGATION AREA BOUNDARY



Map 22: Kensington North HIA, 7 and 5 storey, View Southeast – 3D modelling of building envelope scenarios



Map 23: Kensington North HIA, 7 and 5 storey, View Northwest– 3D modelling of building envelope scenarios

8.2. Indicative Envelopes

The 3D aerial views of the HIA illustrate proposed indicative block ‘envelopes’ and address the Apartment Design Guide (ADG) requirements. The envelopes comply with ADG minimum building-to-building separation guidelines and take into consideration best practice maximum building width to ensure apartments have good access to sunlight and natural cross ventilation.

As recommended in the ADG, a 70% factor has been applied in converting the building ‘footprint’ (and envelopes) to Gross Floor Area (GFA) and Floor Space Ratio (FSR) to account for overall building articulation, unenclosed balconies, building structure, services and circulation (lifts, stairs, common corridors). Setbacks and height transitions to heritage properties and to sensitive adjoining low-density residential areas have been considered and addressed in the urban planning and yield calculations. Properties constrained by strata ownership (20 or more apartments), established church buildings and an electricity substation (if relevant) are likely to remain undeveloped in the medium term and have been removed from the calculation of dwelling yield.

In developing the building envelopes, the minimum heights recommended for residential and non-residential uses in the ADG has been applied, whereby extra floor-to-ceiling height is needed for the ground floor and a minimum height (3.1m floor-to-floor) is set for the residential upper levels of buildings. Some additional height is included (generally 1m) to allow for roof level articulation.

Reasonable assumptions have been made regarding the optimum amalgamation of sites for redevelopment that would realise good urban design outcomes. The planning of the HIAs incorporates building setbacks, building-to-building separation, new pedestrian through block links, plaza, and green spaces. The envelopes illustrate potential development scenarios for site amalgamation that avoids isolated sites and provides access to sunlight and natural ventilation, reasonable efficiencies in structure, vehicular access, and parking provision.

8.3. Recommendation

It is recommended that the optimum urban design outcome (building massing and height) for the Kensington North HIA, taking into consideration the existing and future surrounding built form context, is the proposed scenario with seven and five storey maximum height limits. Feasibility testing has demonstrated that this built form scenario is viable with a 5% Affordable Housing contribution.

