

**ATTACHMENT C**

**Urban Design Study - PMDL**



# Killara Golf Club Urban Design Study

14 SEPTEMBER 2017

**P M D L** 





**1899**

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## INTRODUCTION



### Background

Killara Golf Club, established in 1899, is home to one of Sydney's premier Championship golf courses, with plenty to offer the social golfer as well as the keen competitive amateur.

Located just 14km from the city, with tree lined undulating fairways, feature waterways, and picturesque views to the Blue Mountains, the course provides an enjoyable and challenging round of golf.

Killara Golf Club is keen to finalise the Council Zoning for the Deferred Area 15 of the site which is currently deferred in the LEP. The Club ambitions are to maximise opportunities for the future and the potential for residential development whilst maintaining the outdoor recreational activities.

PMDL Architecture & Design was engaged by the Club to develop a site planning study, in association with the other specialist consultants, to support the Rezoning Application to Ku-ring-gai Council being prepared by Ian Glendinning Planning.

### Consultant team

#### Planning

Ian Glendinning Planning

#### Architecture

PMDL Architecture + Design

#### Transport & Traffic

Varga Traffic Planning

#### Heritage

GBA Heritage

#### Biodiversity

Footprint Green Consultants

#### Arborist

Urban Forestry Australia

#### Survey

YSCO Geomatics

#### Contamination

SESL

This report provides a summary in response to the requirements from the Pre Planning Proposal Application Meeting Report 2015/224985 and recommendations on the resolutions of the Council Meeting dated 18th July 2017 that the Planning Proposal be amended:

### Urban design study

The study will identify the future dwelling capacity of the site under rezoning. It will also enable an understanding of the future context of the entire Golf Course site and how the specific development of the Planning Proposal site will fit into that plan. The study should include, but not be limited to the following information:

- An indicative masterplan of the entire site showing access points, existing trees and the Golf course's potential new clubhouse site and parking.
- General planning of the Planning Proposal site, including high yield analysis of the R2 and R4 development.
- Potential building massing of the future development on the site that demonstrates the relationship to the clubhouse and its curtilage and adjoining residential development. This should be informed by the Conservation Management Plan and the site specific development control plan.



## SITE



### A. Deferred Area 15

As part of the preparation of the KLEP 2015, the subject Deferred Area 15, was identified for further investigations. The Deferred Area 15 is situated on the northern end of the Killara Golf Club site and is the consideration of this study.

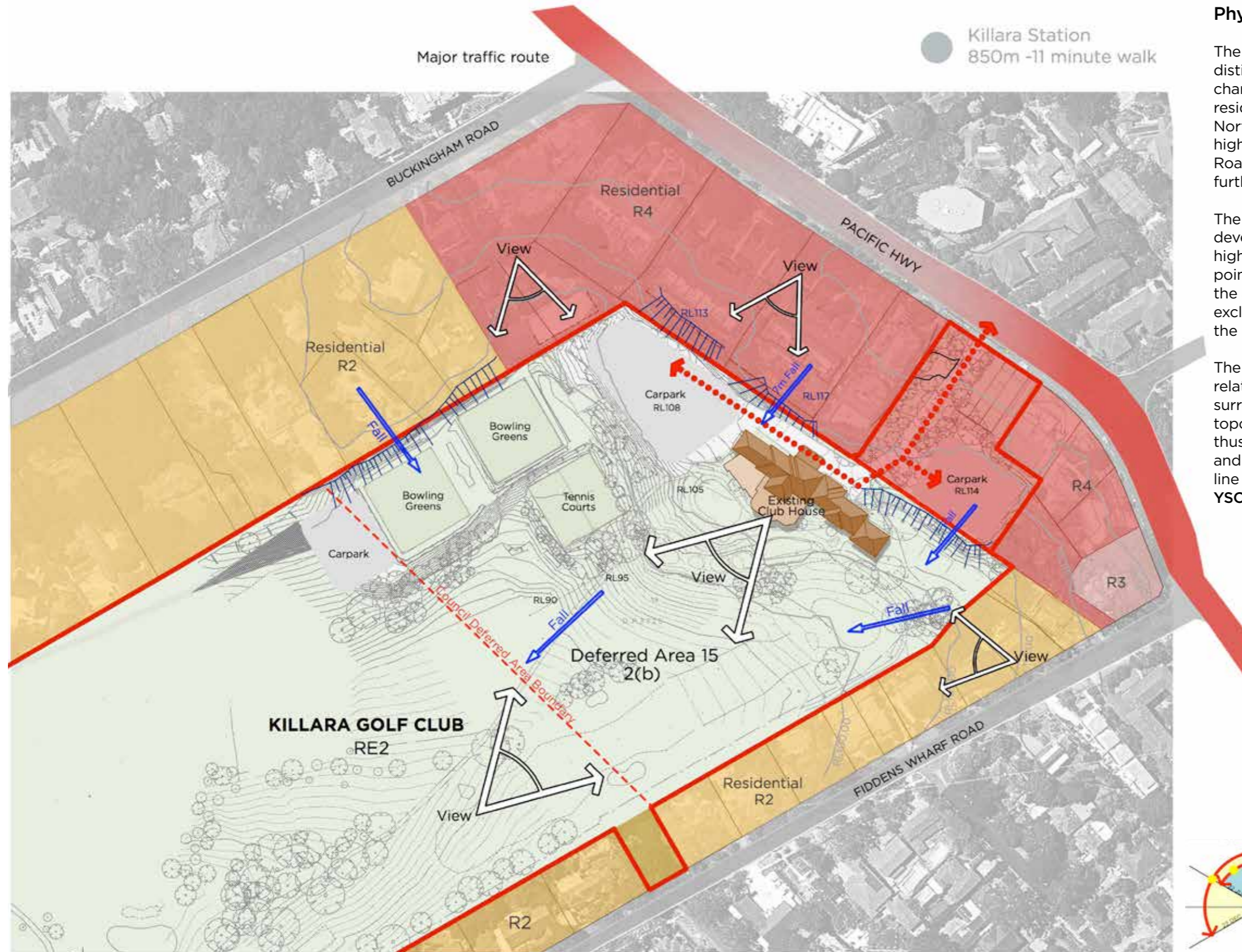
### B. Future Potential Clubhouse Location

If the Clubhouse activities is to be relocated in the future, the Club has identified this to be in the proximity of the current maintenance shed. Potential access would be from Fiddens Wharf Road and incorporate carparking already on site. The golf course would be reorganised to address a relocated clubhouse and members facilities. This area is subject to a further study.

The existing Golf Course will be maintained and improved and the member's facilities will be relocated, upgraded and designed to maintain relevance to members and the local community.



# ANALYSIS

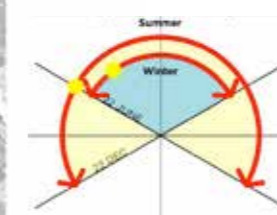


## Physical

The Killara Golf Club grounds consist of three distinct land parcels in a residential area characterised by wide streets and large private residential lots. The Deferred Area 15 is on the North East end of the land parcel bound by Pacific highway, Fiddens Wharf Road and Buckingham Road. The Council draft plan identified the area for further investigation.

The site is surrounded by private housing development and is very much isolated from the highway and adjacent roads. The main access point to the site is off Pacific Highway as shown in the analysis plan. The views to the site are almost exclusively to or from the private housing or within the Club grounds.

The historical Club House Building sits on a relatively flat plateau at a lower level than surrounding land to the east and north. The topography of the site steadily falls to the west, thus giving panoramic views from the Club house and private properties around it. The highest ridge line of the clubhouse is RL120.880 as identified by YSCO Geomatics.







### Existing Zoning

Almost all of the lots along Pacific Highway are zoned R4 - High Density Residential.

Lots towards the north consists of unit blocks of 4-5 stories. At the corner of Pacific Highway and Buckingham Road is a 5 storey residential development which was recently completed in 2016.

The remaining lots surrounding the site comprise of large lots of dwelling houses. These lots are zoned R2 - Low Density Residential.

The subject site is designated under the Ku-ring-gai LEP 2015 as Deferred Area 15.







### Biodiversity

The subject area has identified flora that impacts future development options. Indicative areas of high significance are identified as per the diagram.

Refer to report by **Footprint Green** for full details.

-  Endangered Blue Gum High Forest
-  Endangered Magenta Lilly Pilly





**Values**

**Area A**

Significant blue gum high forest is identified within this area which limits opportunities for development.

**Area B**

The existing Clubhouse is a listed heritage item under the LEP. The Clubhouse will be adaptable to suit the Golf Club's evolving needs, within the constraints associated with the proposed heritage listing. The current clubhouse activities will be relocated elsewhere. Further analysis is to be conducted in the future.

**Area C**

A heritage view corridor curtilage area has been identified.

**Area D**

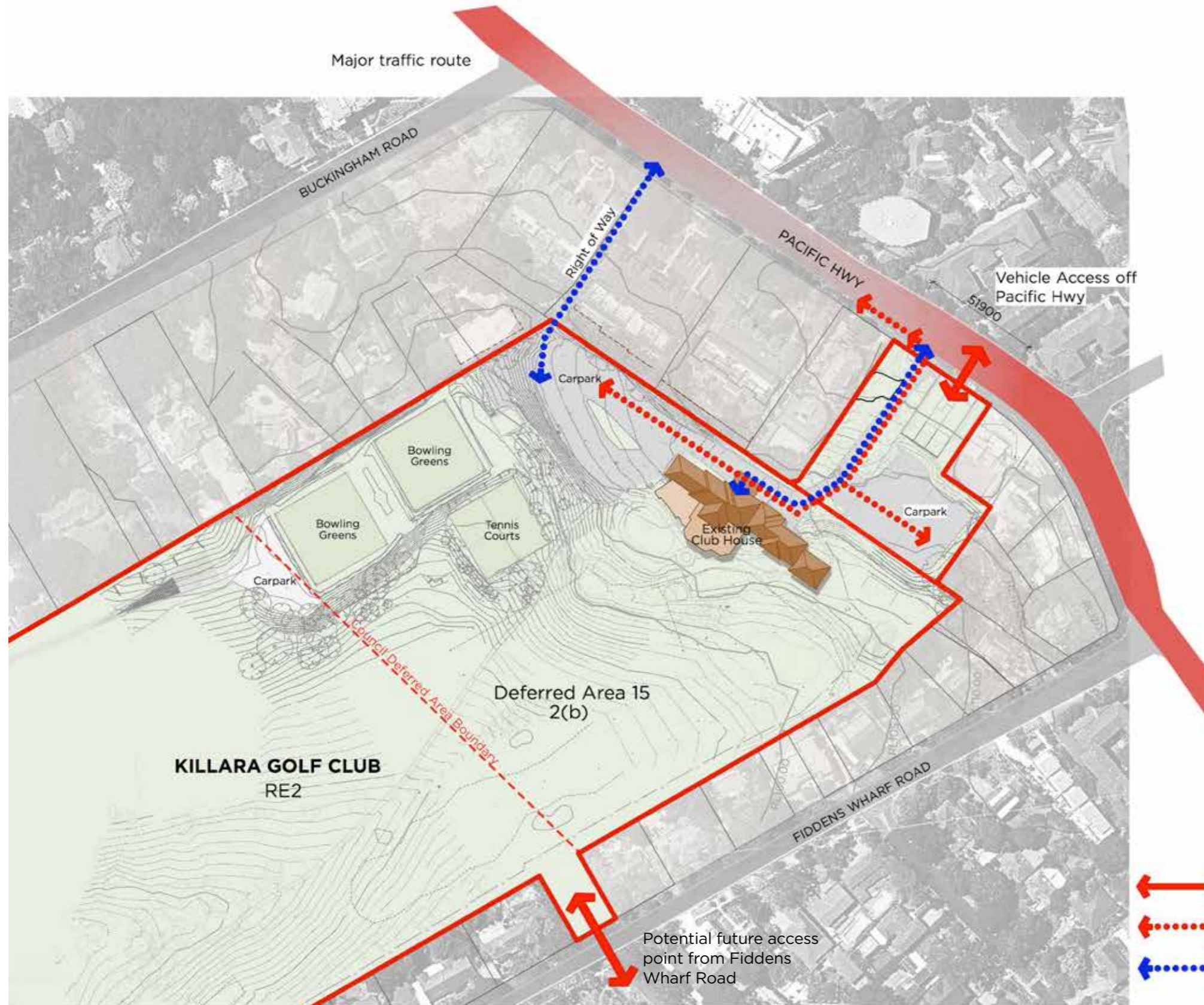
Remainder of the existing Council Deferred zone to be rezoned as R2 Low Density Residential. This is consistent with existing 2(b) zoning. The visual curtilage to the club house will be respected.

**Area E**

High value site for R2, R3 and/or R4 type residential development. Topologically the site slopes downward, with adjacent R2 properties sitting on higher ground. Outlook from the adjacent properties will be impacted. Considerations are explored in this report with further analysis to be conducted in future design development stage.







### Access

Current access to the site is via entrance on Pacific Highway, which is sufficient for the current usage of the site. A right of way under the Club's title is located next to 564 Pacific Highway as a secondary pedestrian path from Pacific Highway.

Refer to Traffic Report prepared by **Varga Traffic Planning** and Site survey prepared by **YSCO Geomatics** for more details.

-  Potential Future Vehicle Access
-  Vehicle Access
-  Pedestrian Access





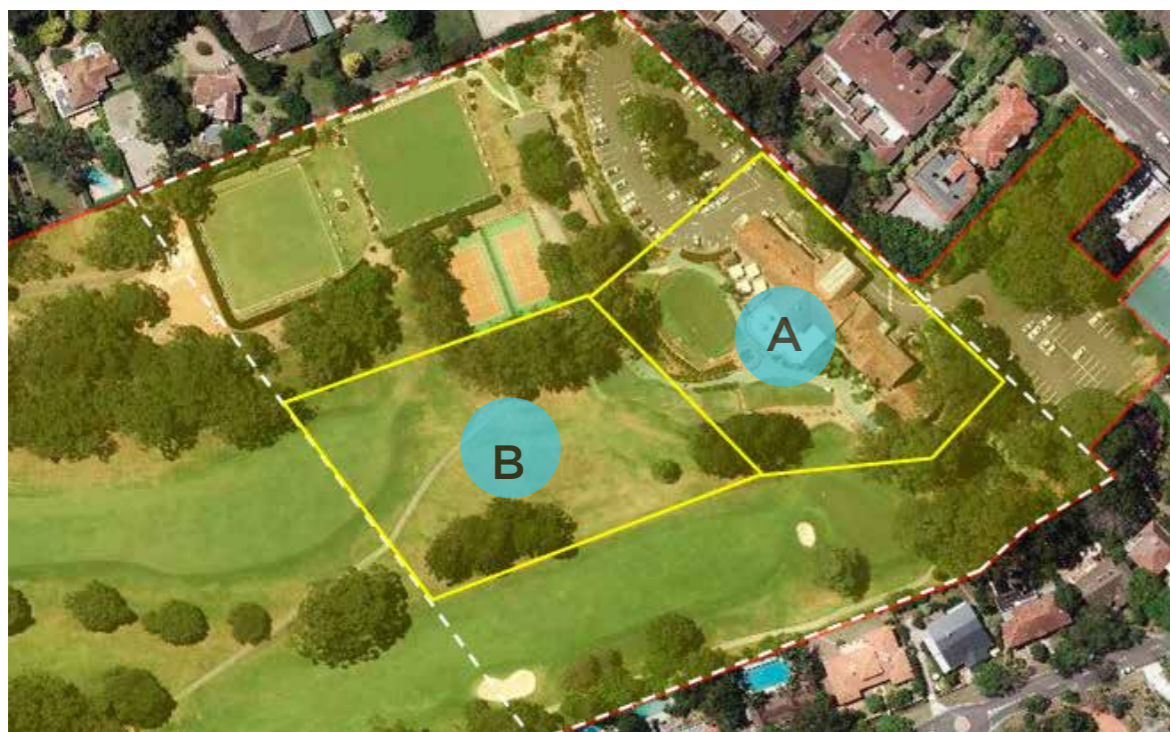
### Heritage Curtilage

The Conservation Management Plan prepared by GBA Heritage has proposed that the heritage curtilage for the 'Killara Golf Course Clubhouse including putting green and fairway' consist of two areas.

Area A is the proposed spatial curtilage to the built structure including putting green and fairway.

Area B is the view corridor curtilage.

Refer to CMP prepared by **GBA Heritage** for details.

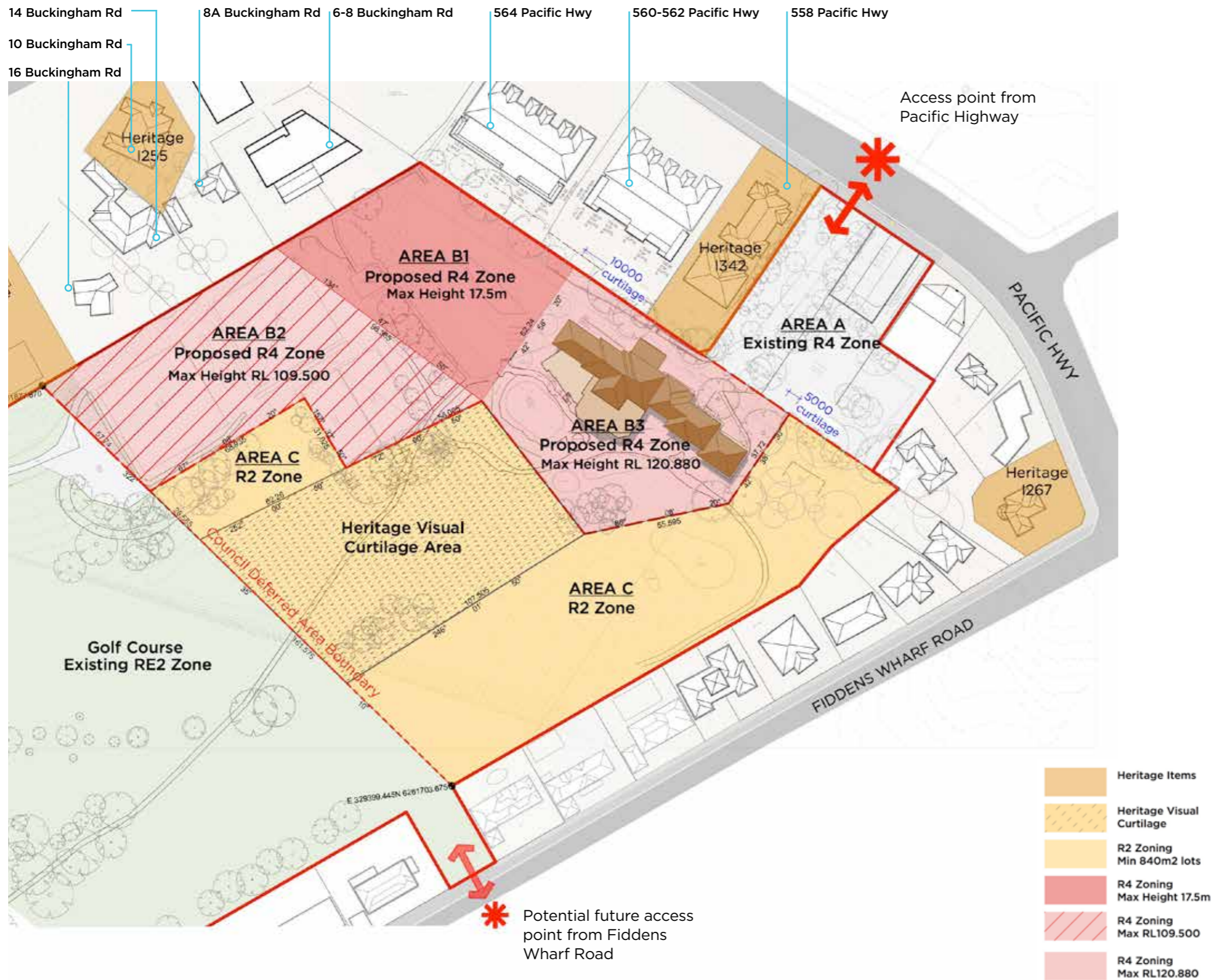








# PLANNING PROPOSAL

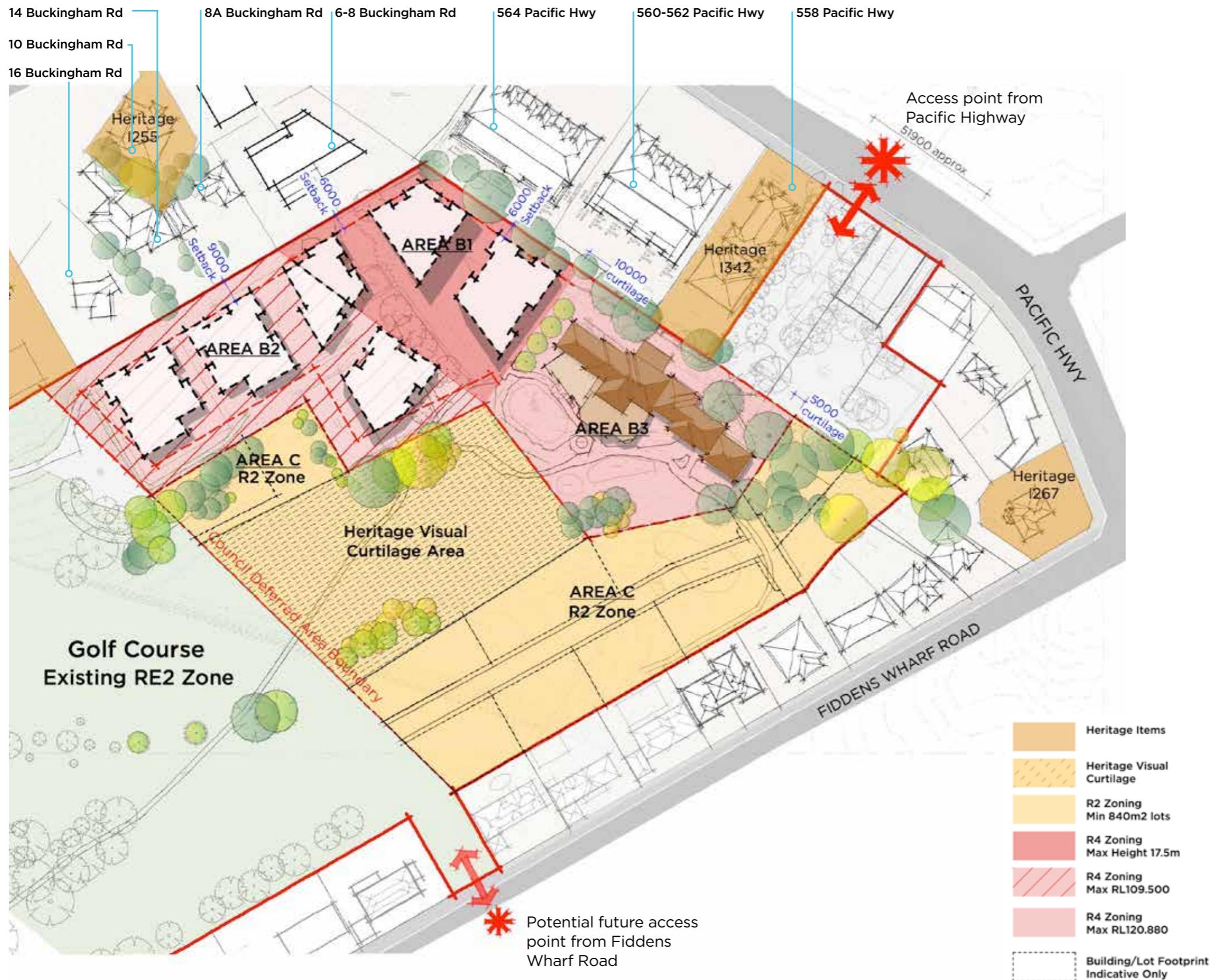


Should the current clubhouse activities relocate in the future, the adjacent Bowling greens and tennis courts will become problematic in their current location. The proposal reveals the opportunities when these areas are included as part of the masterplanning strategy.

- Area A is owned by the Club which is zoned R4. Vehicle access will occur in this area, however the development of Area A does not form part of the masterplan strategy.
- Area B will be developed as R4 - High Density Residential Buildings within the constraints associated with the proposed heritage listing. This will enable the site to be efficiently developed in the future.
- Taking into consideration the heritage items, conditions of the site and its context, Area B has been split into 3 areas with varied height limits. This will be discussed in detail in planning diagram.
- Vehicle access point will remain on Pacific Highway in its current location. Laybys and travel paths will need to be investigated in design development for appropriate traffic management. A potential secondary access point has been proposed on Fiddens Wharf Road to access Area C and Area B beyond.
- Heritage curtilage areas to the existing Killara 'Golf Course Clubhouse including putting green and fairway' is to be adhered to. Existing building can be adaptively reused for high end units within the constraints associated with the proposed heritage listing. Further analysis is to be conducted at design development stage.
- The remainder of the Council Deferred Zone to be rezoned as R2 - Low Density Residential Zoning. A Heritage Visual Curtilage area has been identified and will need to be adhered to.
- Impact of Biodiversity locations have been identified and will be largely retained and protected.
- Additional car parking could be incorporated in the development given the levels should this be desirable.



# PLANNING DIAGRAM



In addition to the recommended zoning proposal submitted to council, PMDL have further investigated, as requested, heights for Area B so that any future development is appropriate to adjacent properties, in particularly the immediate adjoining properties on Buckingham Road and Pacific Highway. As a result of the natural falling levels of the surrounding site, properties beyond the immediate context, such as that of 10 Buckingham Road, are not investigated as they sit well above the affected levels.

- AREA B2 - A height limit of RL 109.500 has been nominated on the area along the north west end of the site. This area is currently the bowling greens and sits adjacent to single dwelling lots. The RL is determined by view lines from the rear balconies of properties to Buckingham Road.
- AREA B3 - With respect to the existing 'Killara Golf Course Clubhouse including putting green and fairway', any development that may occur in this area are not to exceed the highest ridge level of the existing Clubhouse (RL120.880)
- AREA B1 - The remainder of area B will be as per Ku-Ring-Gai Council DCP and LEP. The adjacent properties consists of multi-dwelling housing and residential flat buildings at elevated heights. These areas feature heavy existing vegetation, limiting existing views across the golf course.

Sections and key views are presented to further explain the considerations.

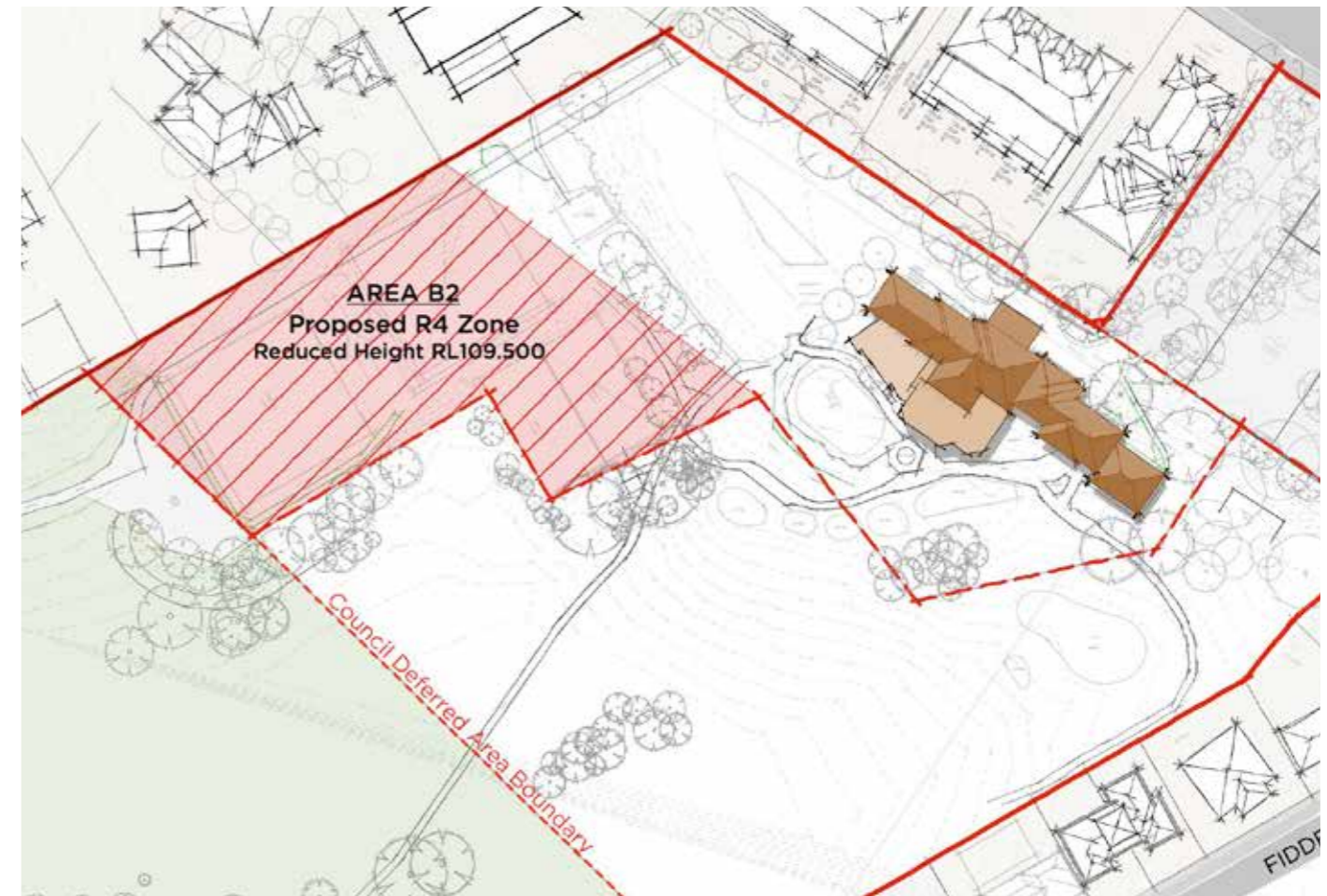
NOTE: All building and lot footprints are indicative only.



## PLANNING CALCULATIONS



ITEM	AREA B1 - R4	
Site Area	5,140 sqm	
Building Height	17.5 m (As per Ku-ring-gai LEP)	5 Storey
Floor Space Ratio	1.3:1 (As per Ku-ring-gai LEP)	6,682 sqm
Lot Size	2,400 sqm (As per Ku-ring-gai LEP)	Max 2 lots
Unit yield	(As per Ku-ring-gai DCP)	46-75 dwelling

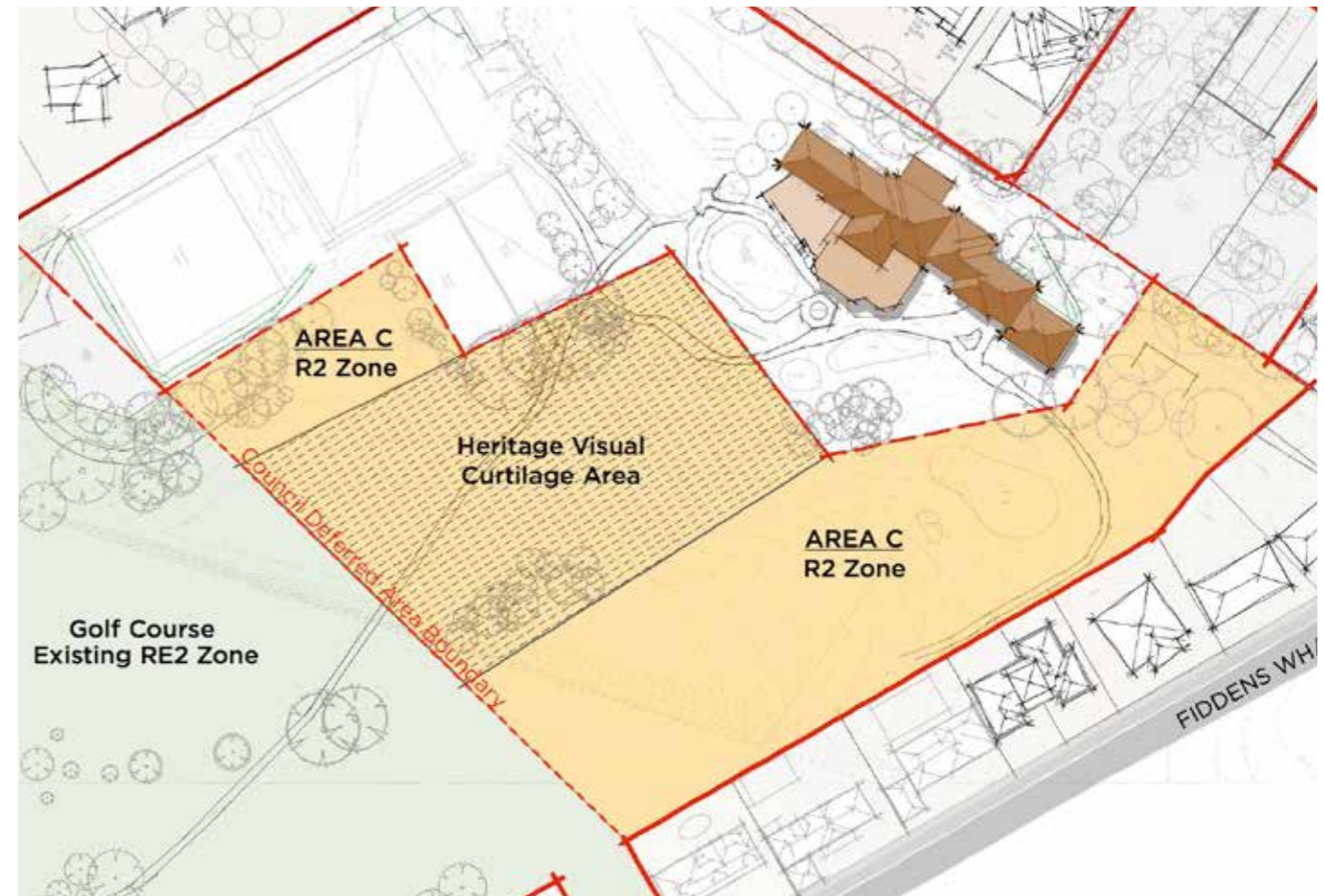


ITEM	AREA B2 - R4	
Site Area	7,640 sqm	
Building Height	Max RL 109.500	3-4 Storey (Dependent of existing ground level)
Floor Space Ratio	1.05:1 (Max FSR 1.3:1 per Ku-ring-gai LEP)	8,022 sqm (Base on 35% site coverage as per Ku-ring-gai DCP)
Lot Size	2,400 sqm (As per Ku-ring-gai LEP)	Max 3 lots
Unit yield	(As per Ku-ring-gai DCP)	55-90 dwelling

Note: Yield calculations based on maximisation of site as defined by Ku-ring-gai council DCP and LEP, and is reflected in the suggested building and lots footprint diagram.



## PLANNING CALCULATIONS

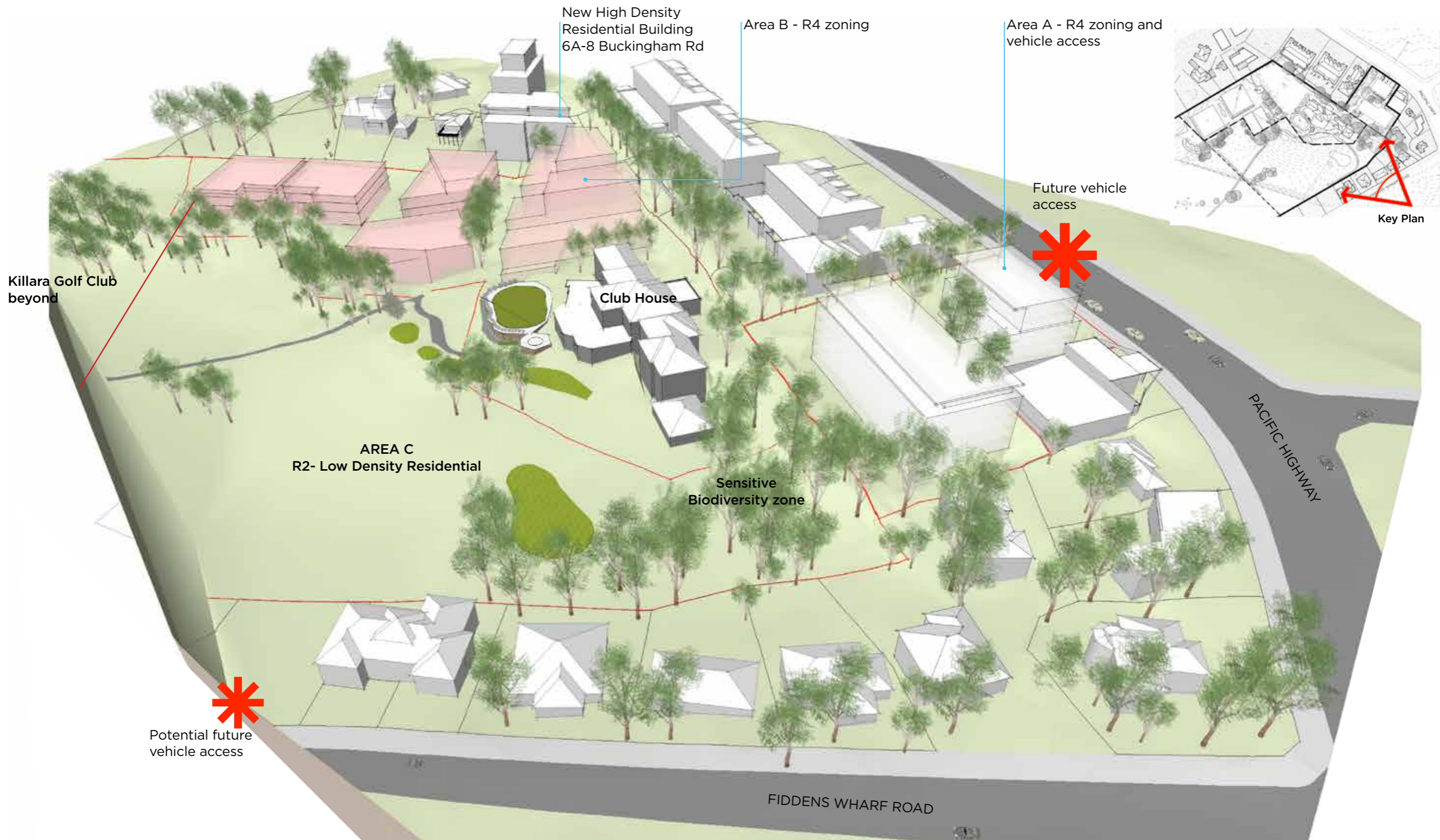


ITEM	AREA B3 - R4	
Site Area	6,946 sqm	
Building Height	Max height of existing ridge RL of existing Club House RL 120.880	
Floor Space Ratio	0.36:1 (Based on existing Clubhouse floor area)	2,502 sqm (Existing Clubhouse total floor area)
Lot Size	Not applicable due to heritage listing	
Unit Yield	Calculations is to be conducted at design development stage	

ITEM	AREA C - R2	
Site Area	20,185 sqm	12,275 sqm (excluding view curtilage area)
Maximum Height	9.5m (As per Ku-ring-gai LEP)	2 Storey
Max Floor Space Ratio	0.3:1 (As per Ku-ring-gai LEP)	Total 3,682 sqm
Min Lot Size	Min 840 sqm Lots (As per Ku-ring-gai LEP)	Max 14 lots

Note: Yield calculations based on maximisation of site as defined by Ku-ring-gai council DCP and LEP, and is reflected in the suggested building and lots footprint diagram.

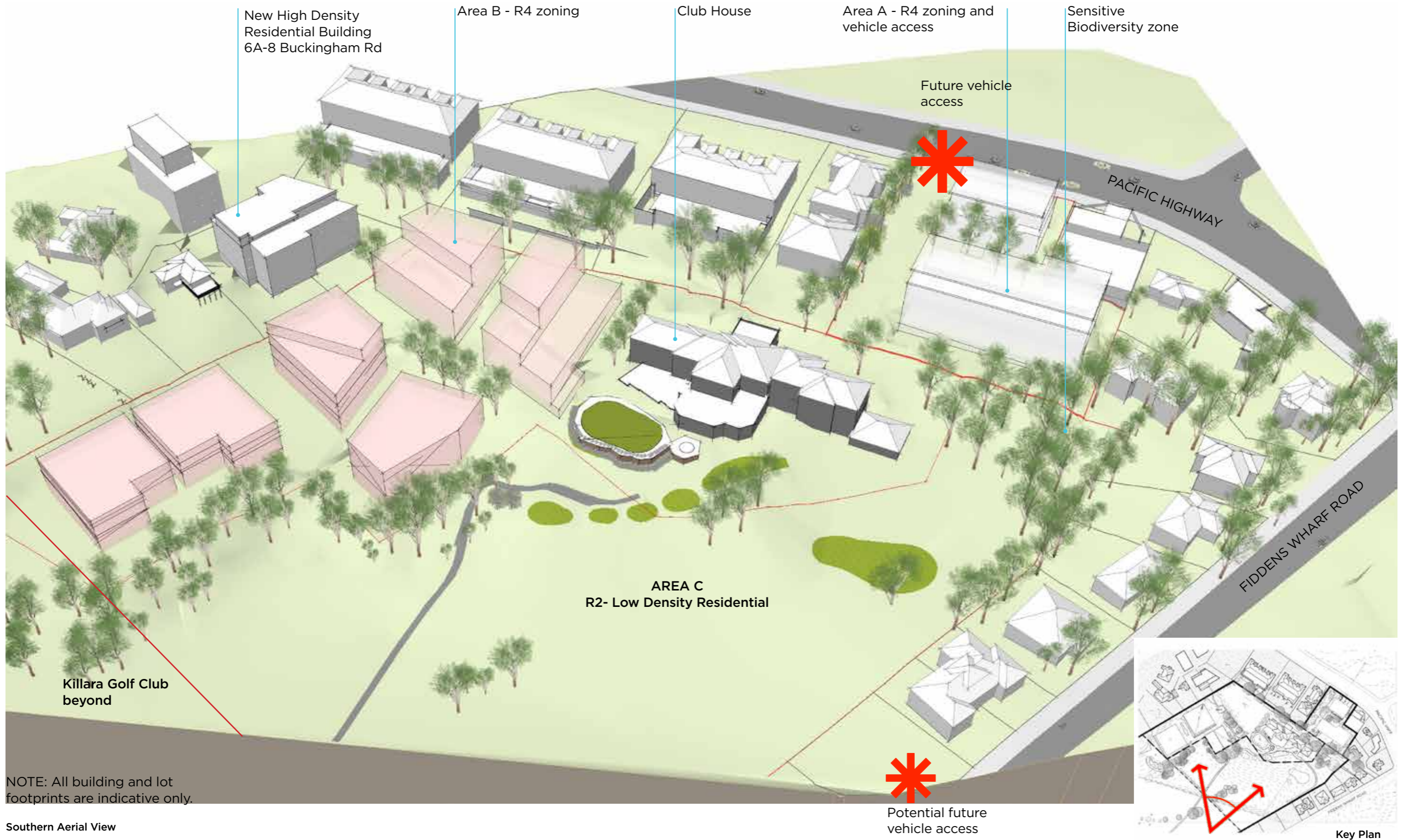




Western Aerial View

NOTE: All building and lot footprints are indicative only.





New High Density Residential Building  
6A-8 Buckingham Rd

Area B - R4 zoning

Club House

Area A - R4 zoning and vehicle access

Sensitive Biodiversity zone

Future vehicle access

PACIFIC HIGHWAY

FIDDENS WHARF ROAD

AREA C  
R2- Low Density Residential

Killara Golf Club beyond

NOTE: All building and lot footprints are indicative only.

Southern Aerial View

Potential future vehicle access



Key Plan





Southern View looking back at the Club House



Key Plan



Northern View looking at the site

NOTE: All building and lot footprints are indicative only.



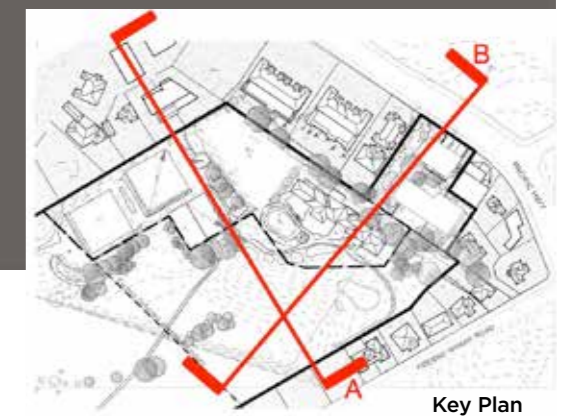


Section A



Section B

NOTE: All building and lot footprints are indicative only.



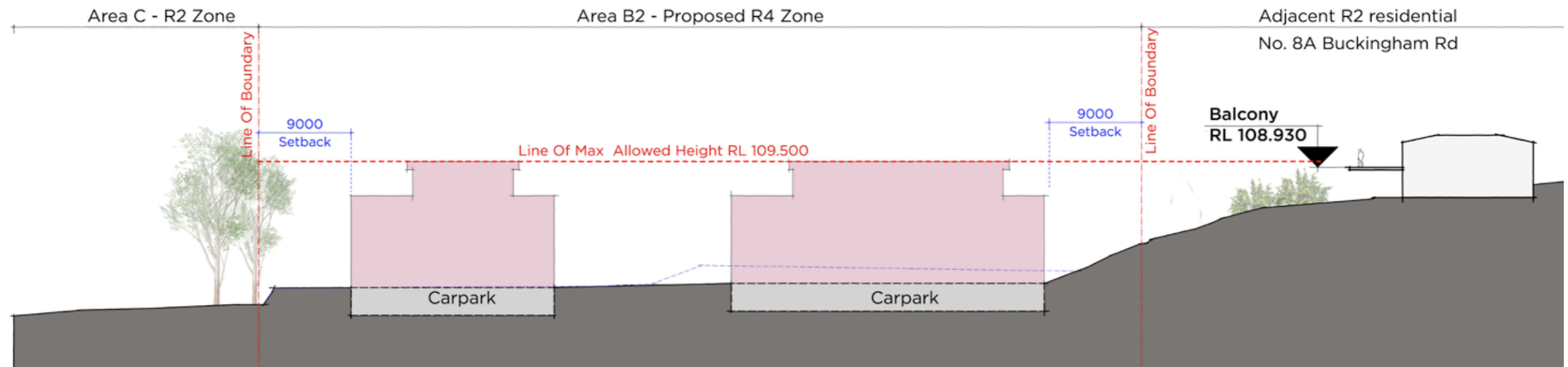
Key Plan



# PLANNING DIAGRAM - BUILDING HEIGHT SECTION THROUGH 8A BUCKINGHAM RD



Key Plan



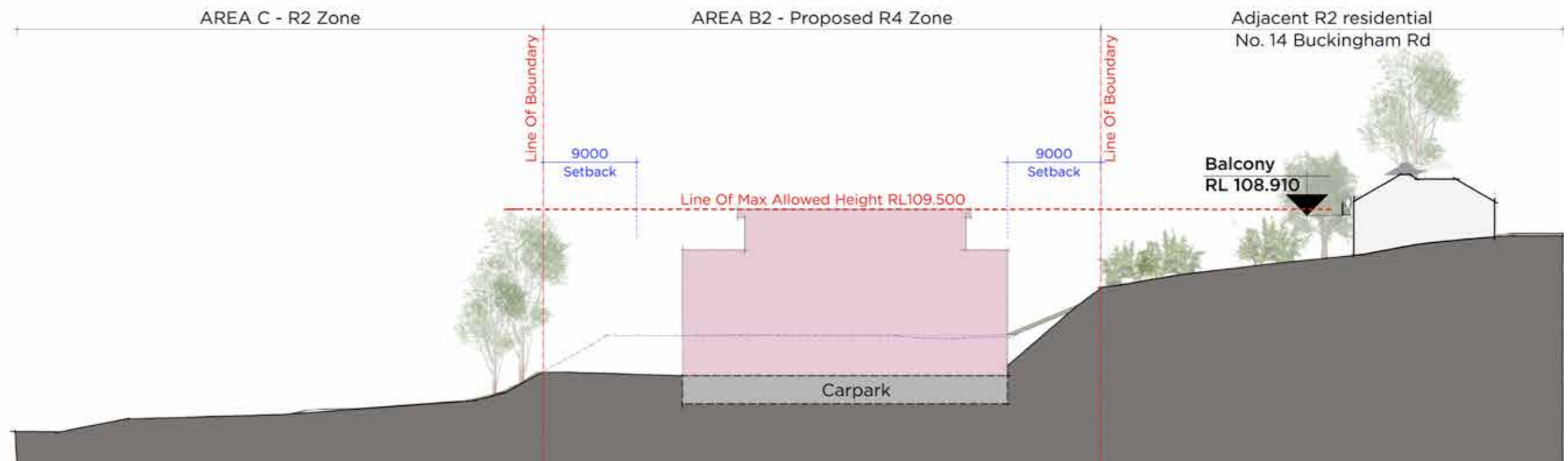
Building footprint indicative only. Section through Area B2 and No 14 Buckingham Rd. Cut perpendicular across Buckingham Road. Section shows the relationship between the reduced maximum height zone in Area B and adjacent property.



## PLANNING DIAGRAM - BUILDING HEIGHT SECTION THROUGH 14 BUCKINGHAM RD



Key Plan



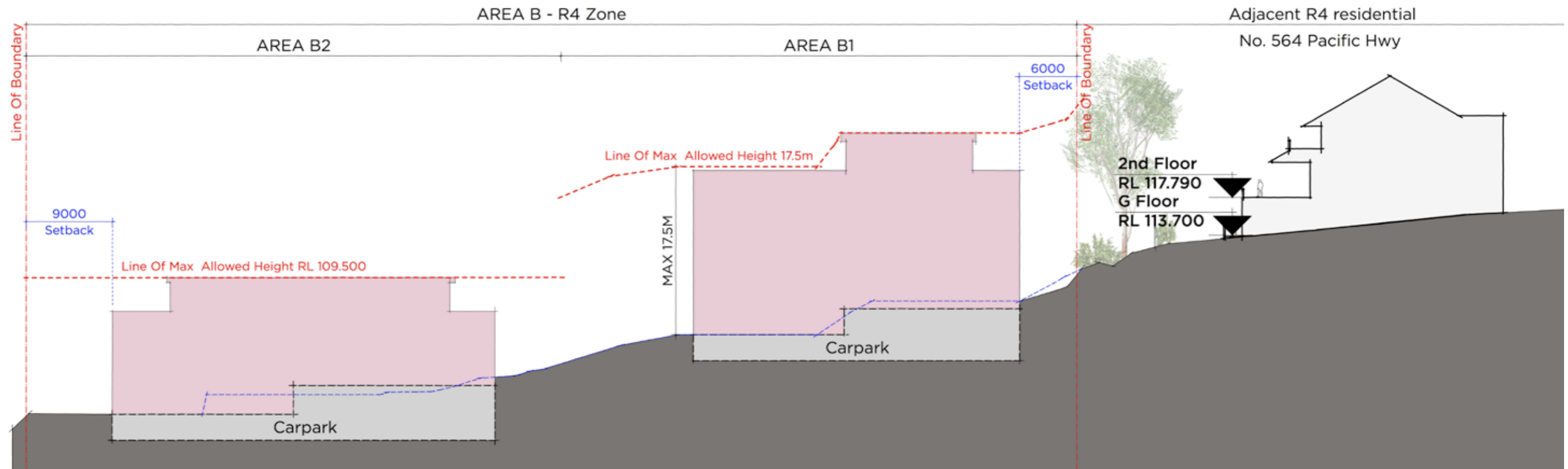
Building footprint indicative only. Section through Area B2 and No 14 Buckingham Rd. Cut perpendicular across Buckingham Road. Section shows the relationship between the reduced maximum height zone in Area B and adjacent property.



# PLANNING DIAGRAM - BUILDING HEIGHT SECTION THROUGH 564 PACIFIC HWY



Key Plan



Building footprint indicative only. Section through Area B1, B2 and No 564 Pacific Highway.



## KEY VIEWPOINT - 14 BUCKINGHAM RD REAR WESTERN BALCONY

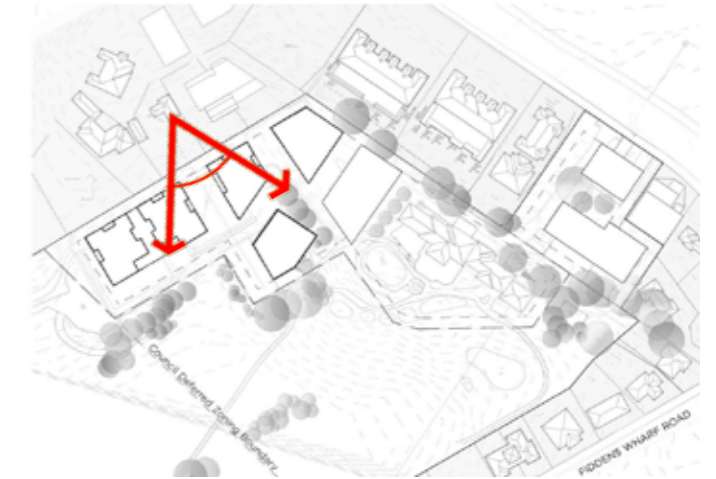


### KEY VIEW POINT 1 - Rear Western Balcony view from 14 Buckingham Rd - Eye Level RL110.510

- The property is adjacent to Killara Golf Club with a 4m high bank along the boundary. The house itself is further elevated due to the natural slope of the land. The existing western balcony level is RL108.910 and view level is set at RL110.510.
- The site is densely vegetated along each side of the boundary. The site narrows as it approaches the Golf grounds. Thus the existing view over the bowling greens is restricted.
- Beyond the bowling greens are rows of mature blue gum high forest. This restricts the existing views of the property to the bowling greens rather than across the golf club.
- Future developments should consider creating view corridors and varying roof lines that are considerate to the adjacent property.
- The proposed RL height of future potential development will be close to the level of existing view height. Therefore limiting any significant impact to the property.



## KEY VIEWPOINT - 8A BUCKINGHAM RD REAR BALCONY



### KEY VIEW POINT 2 - Balcony view from 8A Buckingham Rd - Eye Level RL110.530

- Similar to 14 Buckingham Rd, there is a 4m high bank along the adjoining boundary with the Golf Club. The house is further elevated due to the natural slope of the land. The existing rear balcony level is RL108.930 and its sight line is set at RL110.530.
- The property is vegetated along each side of the boundary.
- Beyond the bowling greens are rows of mature blue gum high forest. This restricts the existing views of the property to the bowling greens rather than across the golf club.
- Future developments should consider creating view corridors and varying roof lines that are considerate to the adjacent property.
- The proposed RL height of future potential development will be below the level of existing view height. Therefore limiting any significant impact to the property.



## KEY VIEWPOINT - 564 PACIFIC HWY 2ND FLOOR BALCONY



### KEY VIEW POINT 3 - 2nd floor unit balcony view from 564 Pacific Hwy - Eye Level RL119.390

- 564 Pacific Hwy is a 4 storey multi-residential building. It sits on elevated ground, with a 4m bank along the boundary line shared with the Killara Golf Club. The lower levels look over an unmaintained vegetation strip, and club parking. The views beyond are rows of mature blue gum high forest
- The 2nd floor balcony is at approximate RL117.790 and sight line is set at RL119.390.
- The building envelope suggested above, shows that at 17.5m the building is not significantly impacting on this property.
- Future developments should consider creating view corridors, setbacks and varying roof lines that are considerate to the adjacent properties.



## KEY VIEWPOINT - KILLARA GOLF CLUB HOUSE BALCONY

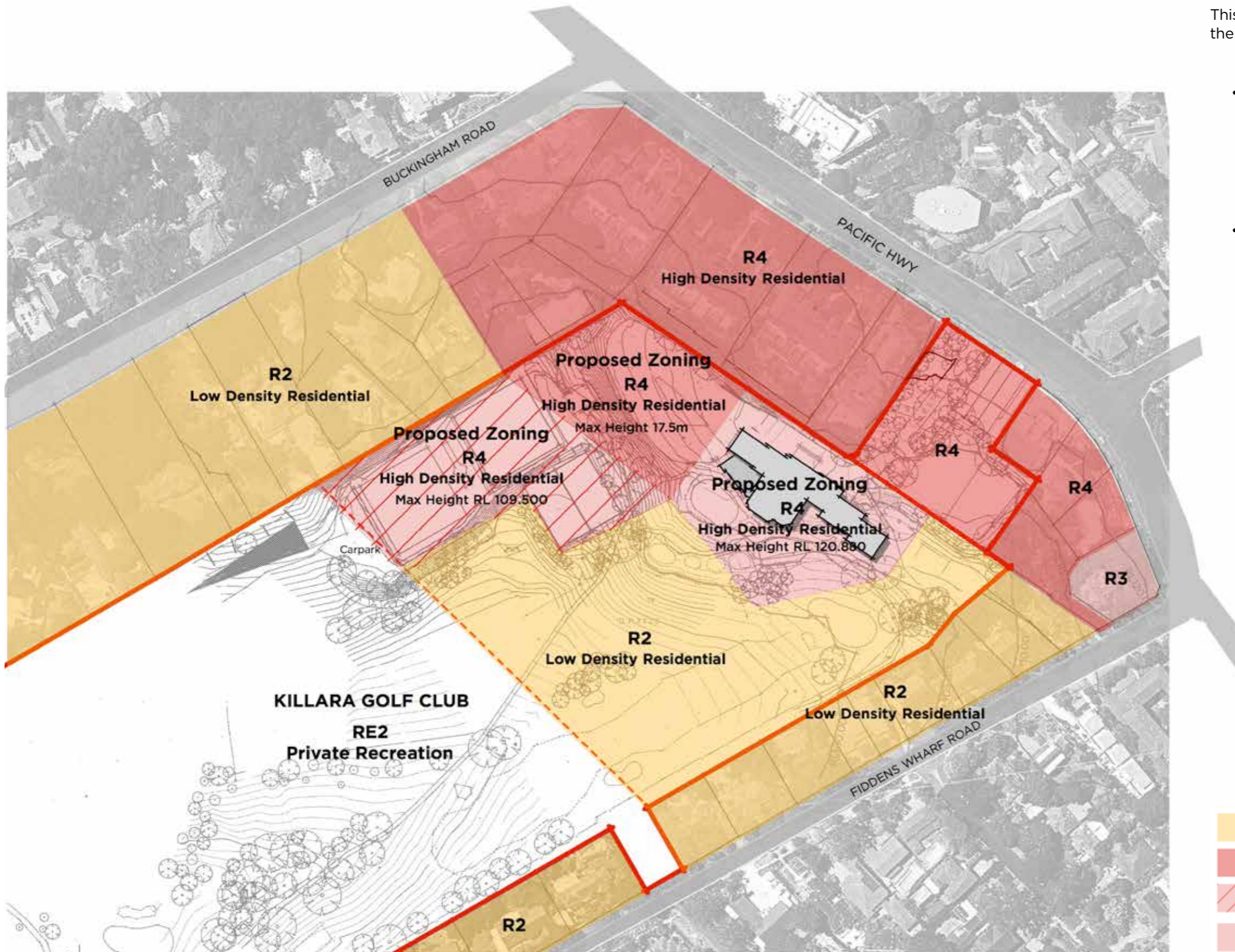


### KEY VIEW POINT 4 - Balcony view from Killara Golf Club House Balcony - Eye Level RL113.370

- The primary view curtilage from the Club House to the golf course is presented in the view above.
- Due to the natural fall of the site, the suggested building envelope at 17.5m high shown that it has minimal impact on the view curtilage.
- Future developments should consider stepped stories, complimentary facade design and landscaping treatment that minimises visual impact to the curtilage .



## PROPOSED ZONING

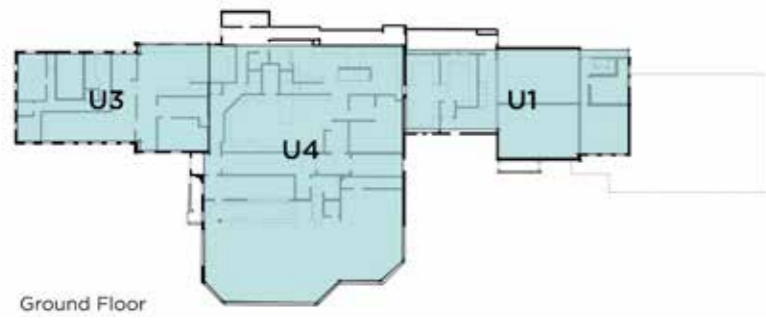
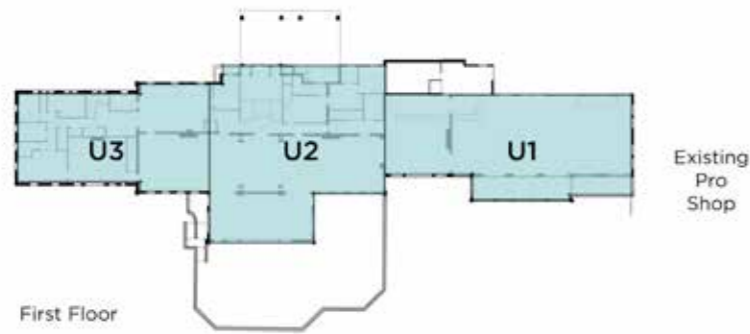


This report recommends the following zoning to the subject site Council Deferred Area 15.

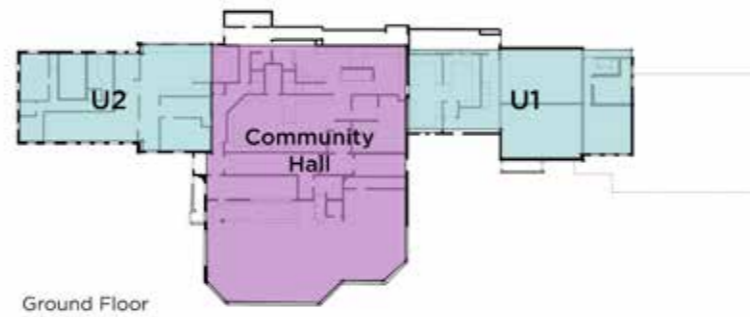
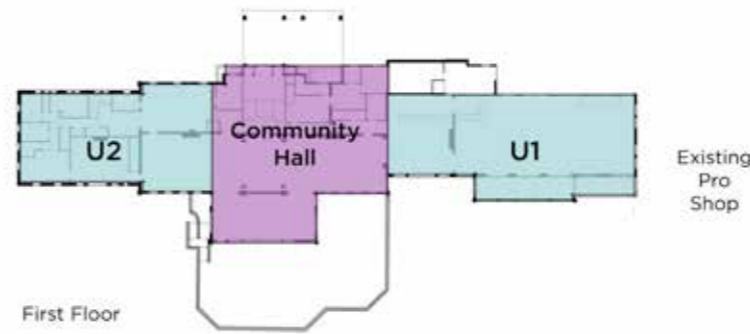
- The northern area of the current Deferred Area 15 is to be rezoned R4-High Density Residential with varied height limits as per the proposed zoning plan. This area will include the existing club house, carpark area to the west of the club house, existing bowling greens and tennis courts
- The remainder of the Deferred Area to remain as R2 - Low Density Residential.



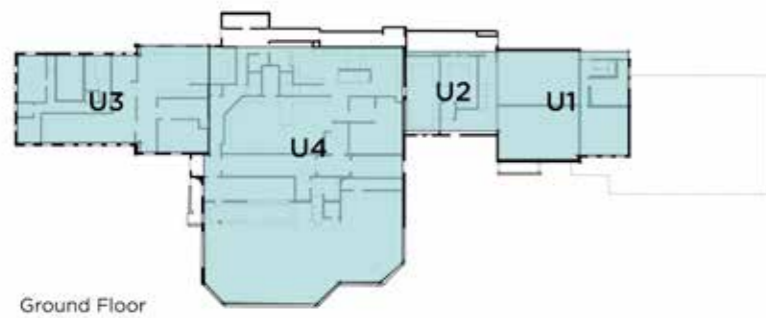
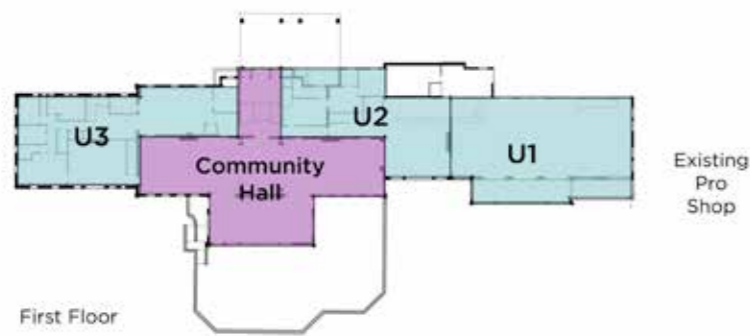
# HERITAGE - EXISTING CLUBHOUSE ADAPTIVE REUSE STUDY



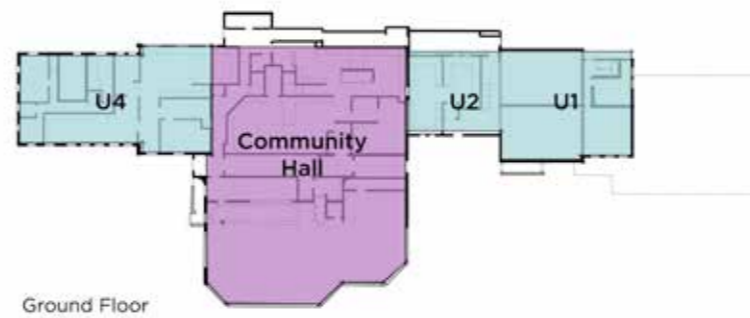
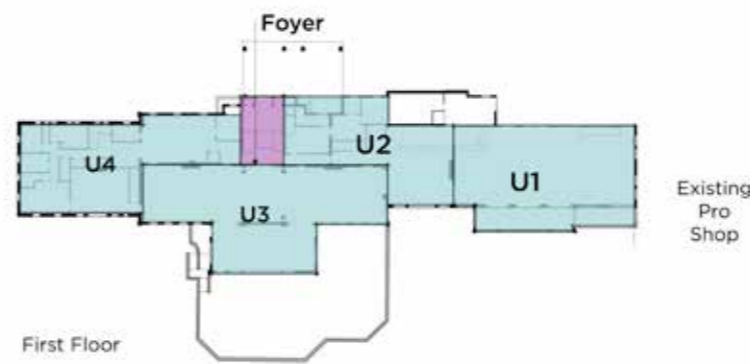
Study 1



Study 2



Study 3



Study 4

Diagrams shows various opportunities to re-purpose existing club house into a series of luxury units and community facilities. Further in-depth investigative works can be provided pending Club's decision.

Refer to CMP prepared by **GBA Heritage** for more details.









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MELBOURNE

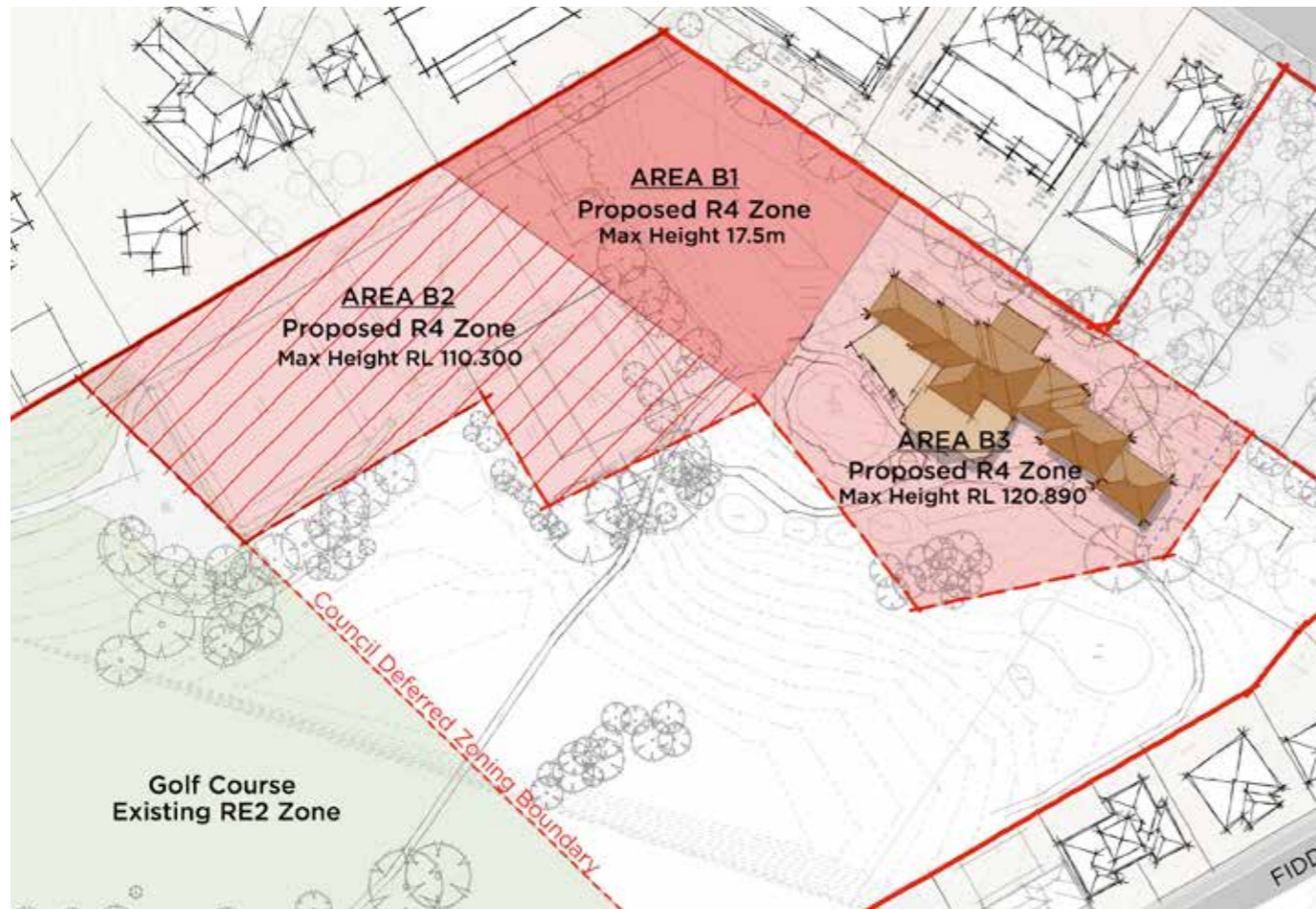
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HONG KONG

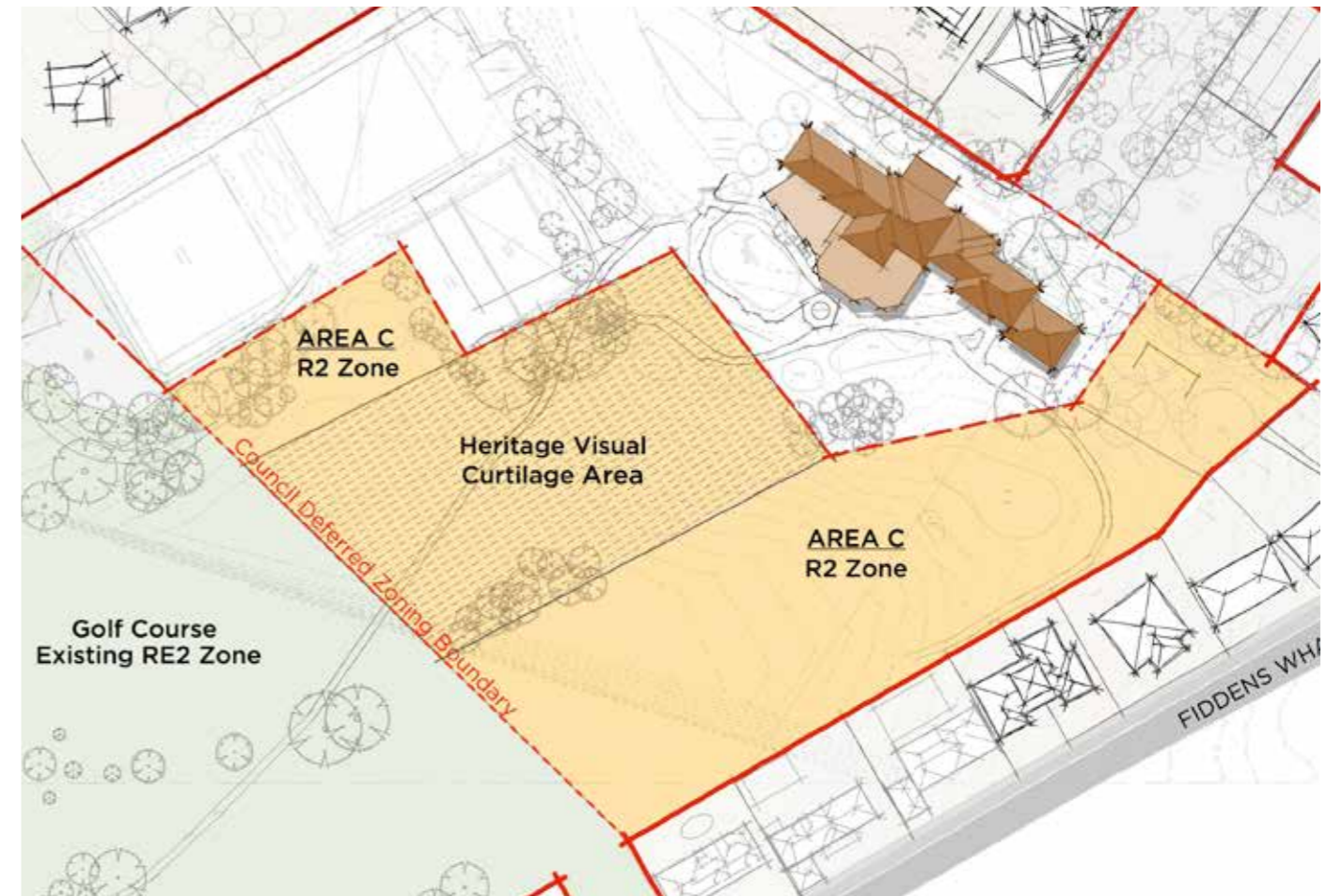
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## PLANNING CALCULATIONS



ITEM	AREA B - R4	
Total Site Area	19,732 sqm	
Maximum Height	Zone B1 : 17.5 m Zone B2 : Max RL 110.300 Zone B3 : Max height of existing ridge RL of existing Club House RL 120.880	
Max site coverage	35% (As per Ku-ring-gai LEP)	6,906 sqm
Min Communal space	10% (As per Ku-ring-gai DCP)	1,973 sqm
Min Deep Soil Planting	50% (As per Ku-ring-gai DCP)	9,866 sqm



ITEM	AREA C - R2	
Total Site Area	20,185 sqm	12,275 sqm (excluding view curtilage area)
Max site coverage	Refer to Ku-ring-gai Council Development Control Plan	
Min Communal space	Not applicable	
Min Deep Soil Planting	Refer to Ku-ring-gai Council Development Control Plan	

Note: Yield calculations based on maximisation of site as defined by Ku-ring-gai council DCP and LEP, not suggested building footprint diagram.



