

Revised Visual Analysis

Life City Wollongong

Including Tertiary Teaching Referral Inpatient Hospital

Lot 4 DP 258635 Warwick Street; Lot 2 DP 534116 Nottingham Street

Lot 2 DP 249814 York Street; Lot 21 DP 1008877, Lot 2 DP 860917

Berkeley

Prepared for Delbest Pty Ltd

by TCG Planning

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1 Introduction

1.1 Background

This Revised Visual Analysis accompanies a Preferred Project Report prepared by TCG Planning for the Preferred Project Concept Plan for Life City Wollongong made under Part 3A of the Environmental Planning and Assessment Act 1979. The revised Preferred Project Report was prepared in response to a request from the Department of Planning and Infrastructure that the proposed development be reduced in scale. Hence, a further stage has been deleted from the project (the auditorium and conference facilities), with six (6) stages now proposed.

This revised Visual Analysis has therefore been prepared to demonstrate the visual impact of the revised Concept Plan.

1.2 Methodology

A visual analysis is a structured assessment of the existing landscape character and scenic quality of a study area against which the visual effects of a proposed development are assessed.

This analysis incorporates a desktop study and a visual inspection of the site, which included the taking of photographs were a number of inspections of the site and surrounding area, with a particular focus on view corridors from key vantage points and higher topographical points surrounding the site and also short distance views from adjacent positions in the public domain within the residential estate of Berkeley. Aerial photographs were utilised in the preparation of this visual analysis, combined with site and surrounding area photographs, to create a pictorial visual analysis on the effects of possible future development on the visual quality of the area. Photomontages from key vantage points, which were prepared by Boss Design, provide a representation of the potential visual impact of the building upon construction.

This report accompanies a Preferred Project Report prepared by TCG Planning for the proposed Life City development which is to be constructed on Lot 4 DP 258635 Warwick Street; Lot 2 DP 534116 Nottingham Street Lot 2 DP 249814 York Street; Lot 21 DP 1008877, Lot 2 DP 860917 Berkeley as shown in Figure 1.

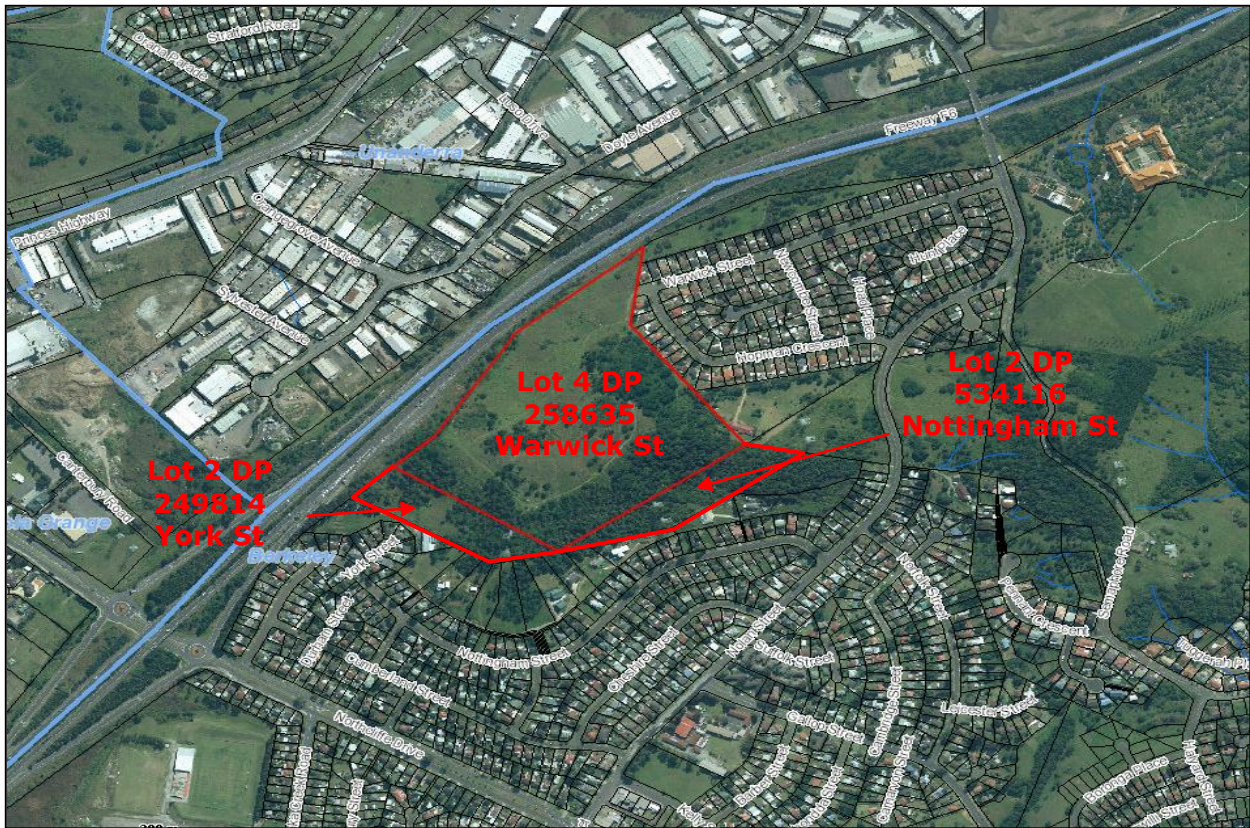


Figure 1: Aerial view of subject site

1.3 Subject Site

The proposed 'Life City Wollongong' development is to be located at Lot 4 DP 258635 Warwick Street, Lot 2 DP 534116 Nottingham Street and Lot 2 DP 249814 York Street, Berkeley. The land is irregular in shape and has a total area of 16.78 hectares. The site has a history of rural land use, prior to the construction of the adjacent M1 Princes Motorway, however has remained vacant since the purchase of the land by Delbest Pty Ltd from the (then) Roads and Traffic Authority approximately 22 years ago.

The subject site is partially cleared with pockets of vegetated areas. The vegetation communities occurring on the subject site predominantly constitute Mixed Regrowth Forest/Woodland, concentrated in the north-east of the site and continuing onto the adjoining property; Wattle Forest/Woodland, in scattered occurrences mainly to the south and east and continuing onto adjoining properties; and Kikuyu grassland, which covers the majority of the site, occurring on the cleared land and as an understorey to the Wattle Forest/Woodland.

The site features gentle sloping open cleared areas toward the northern portion of the site, leading to higher ridge lines along the south-east. This small area of relatively level land at the top of the hill is located at R.L 74, with this ridgeline wrapping around a central valley. The steeper sloping portions of the site are located over the side slopes of the ridge and valley in the central portion of the site (refer Figure 2). The land within approximately 100m of the slope of the ridge has slopes of between 10 and 20 degrees, whilst the lower slopes and floor of the valley have slopes of between 3 and 8 degrees. To the south-west, the site area slopes moderately towards the residences of York Street and Nottingham Street. To the north of the site, there is also a significant drop in elevation due to the presence of the cut from the M1 Princes Motorway, as shown in Figure 3.



Figure 2: View towards central area of site leading to the higher ridgeline in the south-east of the site

A 24m wide transmission line easement traverses both Lot 2 DP 249184 and Lot 2 DP 534116. These two smaller lots do not feature direct street frontage to the street and each contain two transmission towers for high voltage power lines (refer Figure 4).



Figure 3: View of the embankment on the boundary between the site and the M1 Princes Motorway (Source: Google Maps)



Figure 4: Transmission towers on site viewed from Nolan St

1.4 Surrounding Development

The subject site is located to the south of the existing residential area of Berkeley approximately 10km south of the Wollongong CBD. Specifically, Lot 4 DP 258635 is situated directly behind residential lots with immediate frontage to Warwick Street and Hopman Crescent. The smaller allotments, being Lot 2 DP 534116 and Lot 2 DP 249184, are located to the rear of battleaxe lots which do not have direct frontage to York Street, Nottingham Street or Nolan Street.

Residential development is situated to the north, east, and south with residential development in this location predominantly consisting of detached single storey brick and fibro dwellings. The M1 Princes Motorway, which is a four lane arterial road, lies immediately to the north of the site. There is no direct access to the M1 Princes Motorway, with the northern and southern entry and exit ramps to this road located to the south of the site leading from Northcliffe Drive via Nolan Street.

On the northern side of the M1 Princes Motorway lies the Unanderra industrial estate. The Nan Tien (Buddhist) Temple is situated further to the north-east, on the eastern side of the M1 Princes Motorway, beyond the existing residential development. Approximately 1km to the south-east lies the northern shores of Lake Illawarra and lake foreshore areas. To the south, beyond Northcliffe Drive numerous outdoor recreation areas are situated, including the Berkeley netball courts and Macedonia Park.

Approximately 300 metres to the south-east of the site, on the opposite side of the M1 Princes Motorway, is low-density residential development in the suburb of Berkeley. There is also low-density residential development approximately 600 metres to the east of the site.

2 Visual Character

2.1 Landscape Description

The landscape character of the site is dominated by the steep embankment between the site and the m1 Princes Motorway; the transmission line towers; the ridgeline wrapping around a central valley; and vegetated buffers on the south-western and south-western boundaries. A description of the landscape of the subject site and surrounds is contained in Table 1 below.

Table 1: Landscape Description of the Site and Surrounds

Landscape Feature	Description of Site
Landscape Description and Vegetation	<p>The subject site is partially cleared with pockets of vegetated areas. The vegetation communities occurring on the subject site predominantly constitute Mixed Regrowth Forest/Woodland, concentrated in the north-east of the site and continuing onto the adjoining property; Wattle Forest/Woodland, in scattered occurrences mainly to the south and east and continuing onto adjoining properties; and Kikuyu grassland, which covers the majority of the site, occurring on the cleared land and as an understorey to the Wattle Forest/Woodland.</p> <p>The southern and south-western boundaries of the site are characterised by a vegetative buffer providing an interface between residential development and the subject site. This area contains a 24m wide transmission line easement which also provides separation between the site and residential uses.</p>
Boundaries and Edges	The site is an isolated vacant parcel of land bounded to the north-east, east and south by detached housing within the residential estate of Berkeley. The M1 Princes Motorway to the west forms the boundary with the industrial estate to the west.
Landform	The site features gentle sloping open cleared areas toward the northern portion of the site, leading to higher ridge lines toward the south of the site. A small relatively level section of land is located at the top of the hill at R.L 74, with this ridgeline wrapping around a central valley. The steeper sloping portions of the site are located over the side slopes of the ridge and valley in the central portion of the site. To the south-west, the site area slopes moderately towards the residences of York Street and Nottingham Street. To the north of the site, there is also a significant drop in elevation due to the presence of the cut from the M1 Princes Motorway.
Drainage System	The site is divided into two major drainage catchments, northbound and southbound. The North bound catchment (which includes a 4.7ha area of residential zoned land) drains into the existing stormwater system provided for the Berkeley residential estate. The southbound catchment contains the land which is zoned E3 Environmental Management under WLEP 2009 and drains south towards existing residential properties.
Focal Attractions	The site features two telecommunication towers which are prominent features in the immediate surrounding area.
Existing Land Use & Built Environment	The land is vacant and appears to be used informally for trail bike uses. The land is vacant.

2.2 View Corridors from the Site

The presence of the ridgeline through the central portion of the site provides for views from either side of this ridge. The site features gentle sloping open cleared areas toward the northern portion of the site, leading to higher ridge lines along the south-east which experience extensive southerly and westerly views (refer Figure 8). Views from the site are also available over (but at a significantly higher level) than residential development to the south-east in Nottingham Street and the south-west in York Street and adjoining streets, however such views are filtered by the existence of vegetation on the subject site, at the rear of residential properties (refer Figures 6 and 7). Figure 5 demonstrates the existence and location of view corridors from the site.

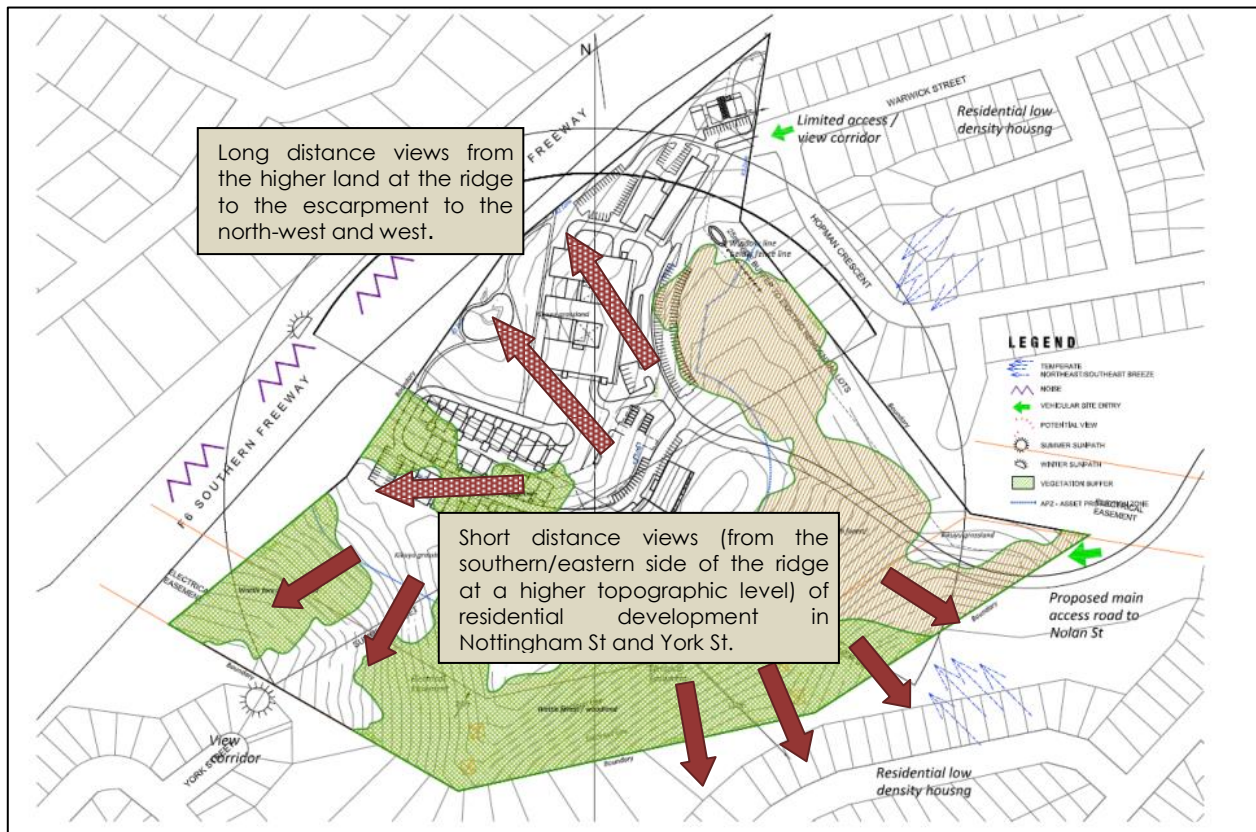
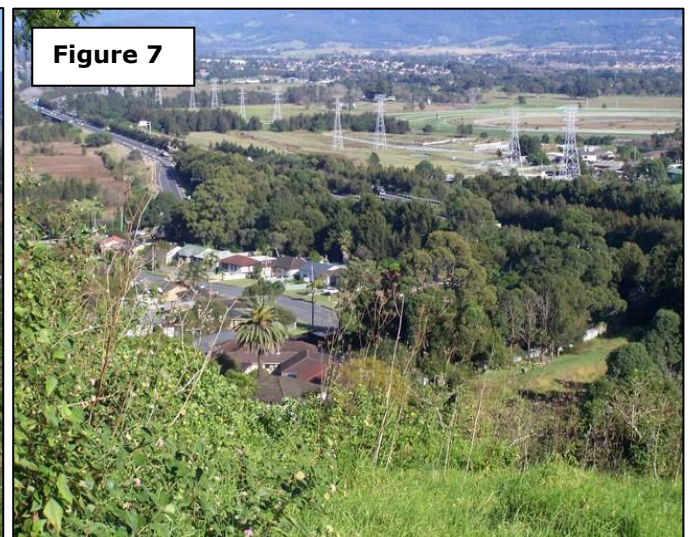
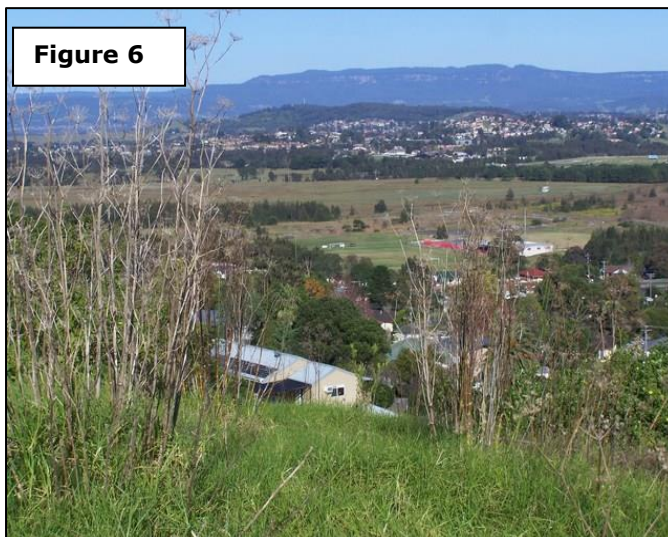


Figure 5: Location of Primary View Corridors from the Subject Site



Figures 6 and 7: Views looking over residential housing to the south and south-west of the site



Figure 8: Views from the subject site looking south-west (photos 1 & 2) to west (photos 3 & 4)

2.3 Preferred Project Concept Plan

The following section outlines the proposed amended concept plan. Figure 9 below demonstrates the deletion of the research, library, lecture theatre and auditorium complex and the combining of the Stage 4 Ancillary Accommodation and Stage 5 Serviced Apartments into one stage (Stage 2) to be known as the Medi Hostel and Medi Serviced Apartments. All buildings continue to be positioned on the northern side of the ridgeline (Figures Master Plan and Master Plan Sections MA-01 and MA-02 prepared by Boss Design). Table 2 outlines the proposed heights and changes in heights from the original Concept Plan (Nov 2012), the Preferred Project (May 2013) and the current Preferred project.:

Table 2: Comparative Building Heights

Description	Stage	Overall Elevation RL (m)			Overall Building Height		
		Nov 2012	May 2013	Oct 2013	Nov 2012	May 2013	Oct 2013
Medical Centre/Day Surgery / Respite Care Centre	1	70.50	70.50	58.00	12.59m	12.59m	11.0m
Child Care Centre		68.40	68.40	53.9	5.4m	5.4m	Max 5.4m
Medi Hostel & Medi Serviced Apartments	2	Apartments: Max 82.54 Hostel: 69.84	Apartments: 71.70 Hostel: 67.45	75.50	Apartments: 15.00m Hostel: 12.33m	Apartments 9.2m Hostel: 12.445m	Max 9.9m
Hi Tech Holistic Cancer & Medical Hospital	3	76.75	76.75	76.00	30.55	30.55m	29.8
Self Care Seniors Housing	4	Max 79.31	56.71 to 67.67	54.68 to 65.88	11.89m	9.675m	6.675 to 9.865m
Residential Care Facility & Hostel	75	83.00	62.90	73.4	21.00m	15.9m	3.4 - 13.4m

The Master plan Sections in Figure 10 below demonstrate the heights of the buildings in the context of the site contours, whilst Figure 11 shows the extent of vegetation to be retained on the site.

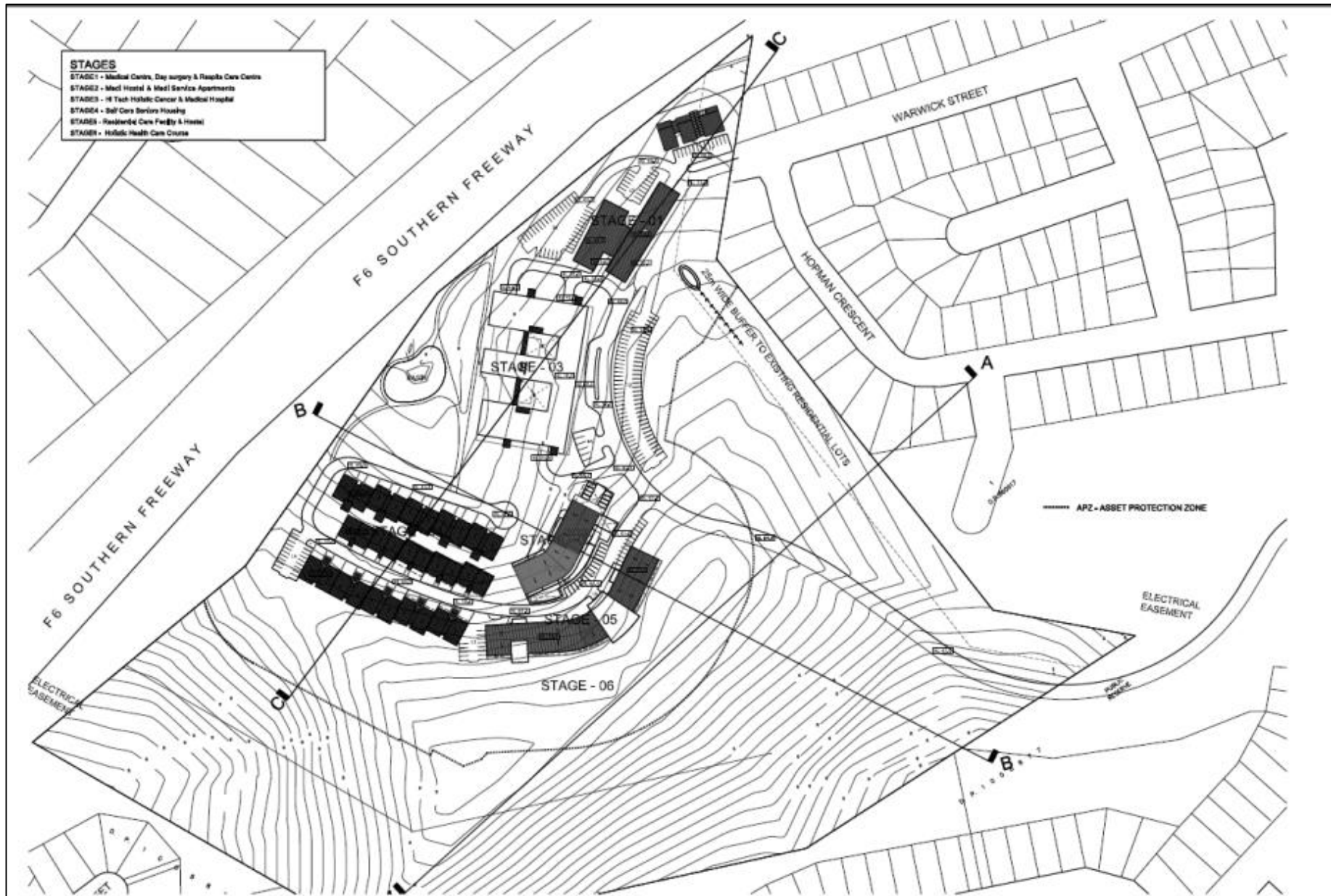


Figure 9: Master Plan MA-01

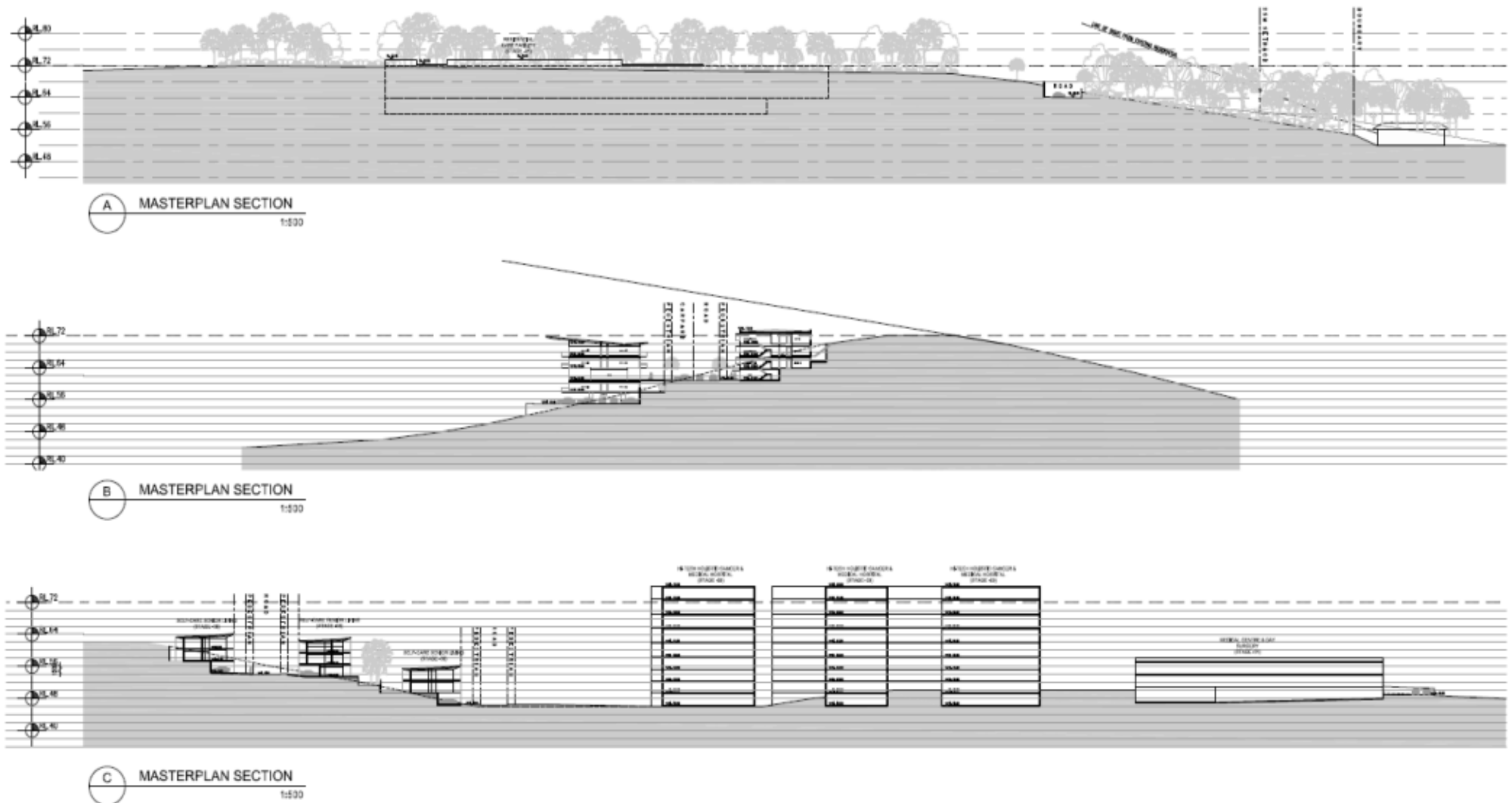


Figure 10: Master Plan Sections MA-02

3 Visual Analysis

3.1 Visibility

The visibility of the Life City site from immediately adjacent residential development and from long distance vantage points is impacted by local topography, distance, vegetation and the siting of the existing built form.

The following factors contribute to the visibility or the limited visibility of the subject site:

- Views from the M1 Princes Motorway immediately adjacent to the site are limited due to the siting of the embankment which creates a significant height difference between the road and the property.
- Views of the site and particularly the Stage 2 development (Hi Tech Holistic Hospital), will be available from medium and long distance vantage points when travelling in a northern direction on the M1 Princes Motorway.
- Views from dwellings immediately adjacent to the site in Hopman Crescent are limited as the habitable floor levels of such dwellings are generally sited at a lower level than the Life City property (Refer to Master Plan Section Plan MA-02 prepared by Boss Design). This section also demonstrates that the line of sight from such residences (which is obscured by the fence line) will extend above the medical centre to the rear.
- Immediate views of the site will be available from dwellings at the western end of Warwick Street, with medium distance views of the site also available from the road and residential properties in Warwick Street, when moving further from the immediate boundary of the site.
- A ridgeline and dense vegetation disrupt views from the lower residential areas in Nottingham Street, York Street and surrounding streets.
- Medium distance views from surrounding vantage points will typically be of individual buildings, with no one vantage point having a complete view of all stages of the development.
- Any future development on the site will be distantly evident from higher ridgelines to the west due to the sloping topography of the site.
- No visibility from the south due to location of all buildings within the northern catchment, on the northern side of the ridgeline.

Section 3.2 below demonstrates the topography of the locality to illustrate the location of ridgelines and surrounding the subject site. Section 3.3 also provides a pictorial visual analysis of the extent of visual impact from various points surrounding the site.

3.2 Topography and Visual Catchments on the Site

Figure 11A below demonstrates the location of ridgelines in the vicinity of the subject sites. A ridgeline traverses the site in a north-easterly to south-westerly direction, effectively creating a south/south-eastern and north-western visual catchment. All development will be confined to the northern catchment and therefore the ridgeline will prevent any visibility of buildings from the south. Visual catchments to the site will therefore be limited to the west, north-west, north and north-east. These ridgelines/higher vantage points surrounding the site which will have visibility to the site include Flagstaff Hill located to the east; the Berkeley Hills beyond; the ridgeline in Farmborough Heights to the west which generally extends along Farmborough Road; and a lower ridgeline also to the west adjacent to the Unanderra Industrial estate. The location of such ridgelines is shown in Figure 11A.

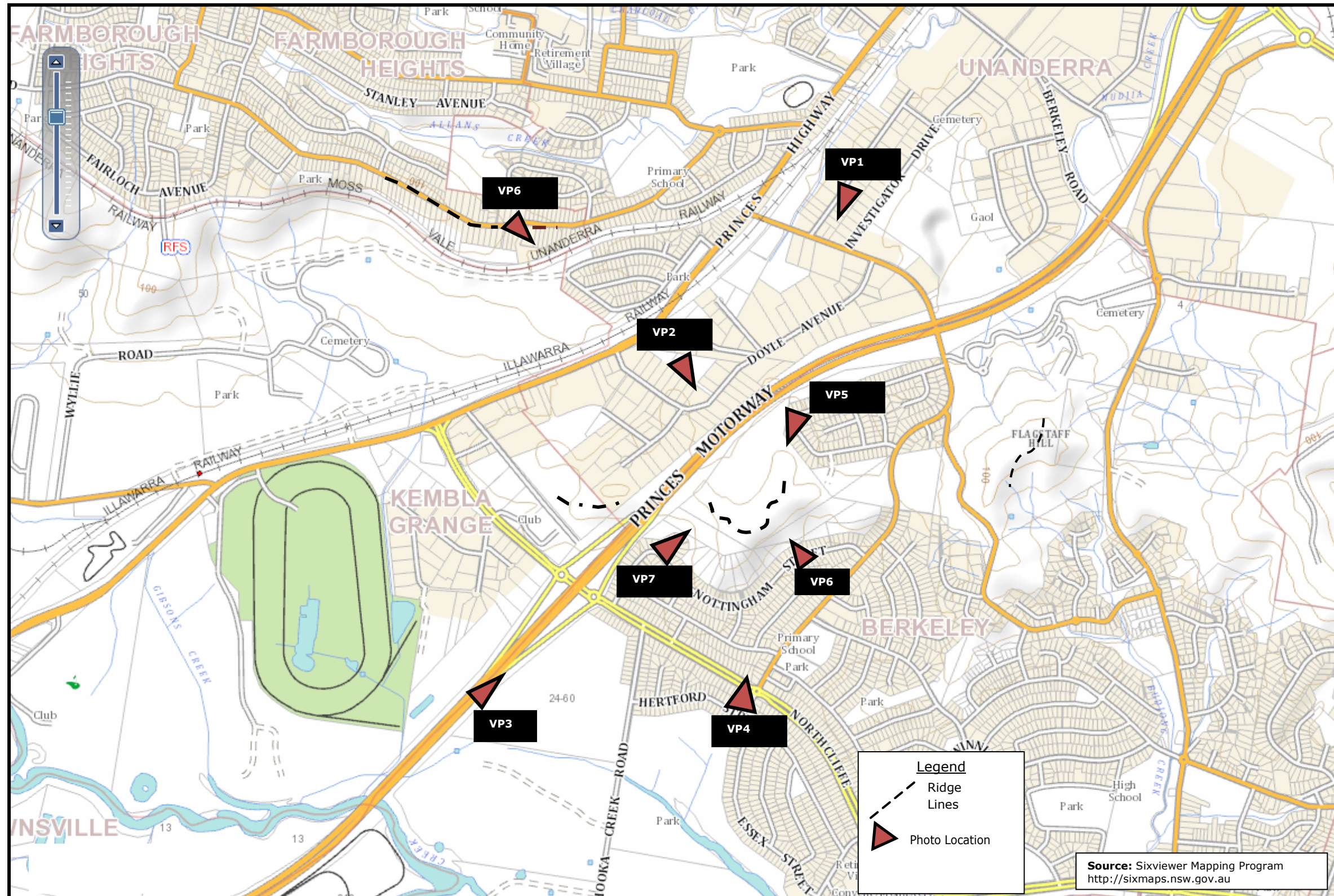


Figure 11A: Topography and Viewpoints Location Key Surrounding the Life City Site

3.3 Comparative Visual Analysis – Preferred Project Concept Plan and Original Concept Plan



Figure 12: Viewpoint Preferred Project Amended Concept Plan



Figure 13: Viewpoint 1 Original Concept Plan



Figure 14: Viewpoint 2 Preferred Project Amended Concept Plan



Figure 15: Viewpoint 2 Original Concept Plan



Figure 16: Viewpoint 3 Preferred Project Amended Concept Plan

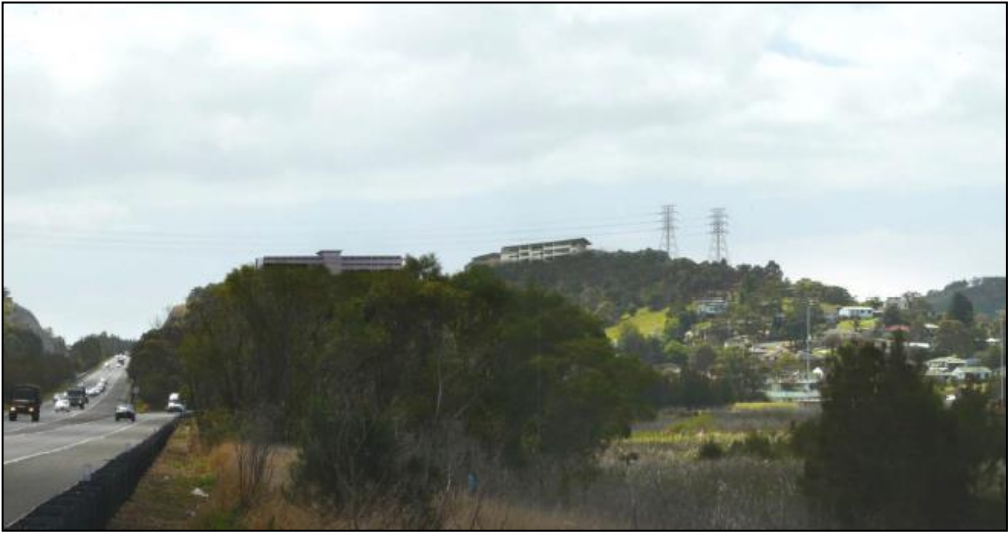


Figure 17: Viewpoint 3 Original Concept Plan



Figure 18: Viewpoint 4: Preferred Project Amended Concept Plan



Figure 19: Viewpoint 4: Original Concept Plan



Figure 20: Viewpoint 5 Preferred Project Amended Concept Plan



Figure 21: Viewpoint 5 Concept Plan



Figure 22: Viewpoint 5 Preferred Project Amended Concept Plan



Figure 23: Viewpoint 6 Original Concept Plan (originally view point 6)



Figure 24: Viewpoint 7 Preferred Project Amended Concept Plan



Figure 25: Viewpoint 7 Original Concept Plan (originally view point 9)

3.4 Pictorial Visual Analysis

The following pictorial 'Visual Analysis' of the subject site identifies the surroundings areas from which the site is visible. For the key vantage points which have been identified in this analysis photomontages have been prepared demonstrating the visual impact of the proposed development.

Long Distance Views

Viewpoint 1: Industrial Estate Waverley Drive, Unanderra



Figure 26: Viewpoint 1

Views of the site will be available from the industrial estate to the north of the site, however such views will be long distance views, which will not extend above higher topographic points in the landscape. Further, the impact of such views will be minimal given the scale and nature of industrial buildings in the foreground.

Viewpoint 2: Industrial Estate, Unanderra

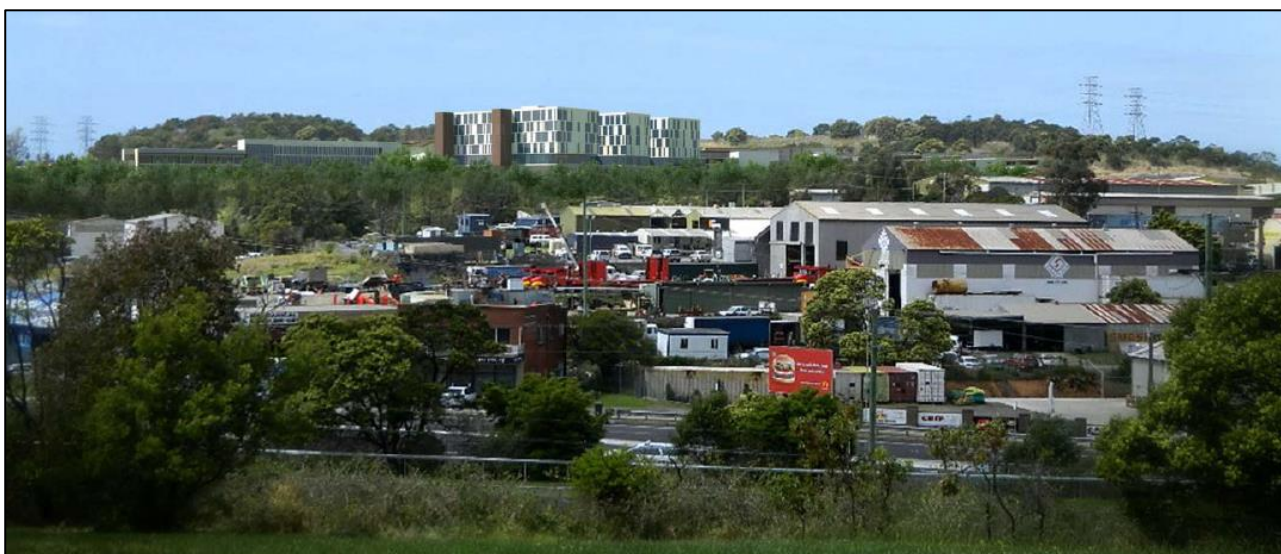


Figure 27: Viewpoint 2

From Viewpoint 2, at a closer position for the industrial estate to the west of the site (on the opposite side of the F6 freeway), the development and particularly the Stage 3 (Hi Tech Holistic Cancer and Medical Hospital) will have an increased level of visibility when compared to that evident from the industrial estate to the north-west. However, from this position the buildings will be a comparable height to the ridgeline behind and the form, height and industrial uses in the foreground will also assist in reducing the prominence of the structures on the Life City site. This photomontage has not visually demonstrated the proposed revegetation along the ridgeline and slopes, however, revegetation along the ridgeline and slopes on the right side of this photomontage will enhance the visual amenity. The remaining stages will sit below this vegetation and ridgeline when viewed from this western view point.

Viewpoint 3: Southern Freeway to the south of the site



Figure 28: Viewpoint 3

The embankment extending from the eastern edge of the M1 Princes Motorway immediately adjacent to the site results in vehicles on this road being sited at a lower level than the Life City site and hence obscures views. The ridgeline which runs through the site also provides a screen to the proposed buildings as they will be contained to the north of the ridgeline and therefore will not be visible from the south.

This photomontage confirms that from this vantage point development on the site will not be evident.

Viewpoint 4: Corner Northcliffe Drive and Nolan Street, Berkeley



Figure 29: Viewpoint 4

The above photomontage has been prepared to demonstrate long distance views of the site from the corner of Northcliffe Drive and Nolan Street, which is sited within the Berkeley residential estate. From this position no buildings will be evident due to the buildings being contained within the northern side of the ridgeline.

Other long distance views:

- **End of Wiley Road, at Ian McLennan Park**



Figure 30: End of Wiley Road, at Ian McLennan Park

Views from the public domain and specifically Ian McLennan Park, which is located to the south east of the Life City site, will be available, as demonstrated in the Figure 30 photo. However, such views will be long distance views, which will also incorporate the industrial development in the foreground and the transmission towers as a backdrop to the buildings.

- **Farmborough Rd, Farmborough Heights (from rear of No. 135)**



Figure 31: No 135 Farmborough Road, Farmborough Heights

Views of the Life City site will be available from residential properties which extend along the ridgeline along Farmborough Road in Farmborough Heights. However, for the public domain (ie Farmborough Road) such views will be limited due to the siting of residences on either side of this road.

Short Distance Views

Short distance views of the Life City development have also been analysed, focusing on the impact of views from the surrounding residential estate in Warwick Street and Nottingham Street, at positions where it is anticipated that the development will have the highest level of visibility. An analysis of visibility from short distance views from the south is also provided, however, it is evident there will be no visibility from short distance southern vantage points.

Viewpoint 5 – Warwick Street/Hopman Cres, Berkeley adjacent to entrance to the subject site



Figure 31: Viewpoint 5

From the surrounding residential estate and road network the development will have the highest level of visibility from the western end of Warwick Street, immediately adjacent to the entrance to the site. The impact of the buildings is demonstrated in the photomontage taken from Viewpoint 7 above. The buildings will be setback 25m from the boundary to residential properties fronting Warwick Street and Hopman Crescent which will allow for vegetative screening to be included in this setback area, with only limited parking for the Stage 1 (Childcare Centre). Revegetation of this area will provide visual screening from residential properties along these streets. The Stage 1 Medical Centre and Day Surgery which will sit in the foreground of the higher Stage 3 Hospital building, and will provide a gradual step up in height of buildings when viewed from the east.

Viewpoint 6 – Nottingham Street Berkeley to the south of the subject site



Figure 33: Viewpoint 6

The photomontage from Viewpoint 6 demonstrates there will be no visual impact of the development from Nottingham Street to the south of the site.

Viewpoint 7 – End of York Street, Berkeley to the southwest of the subject site within the residential estate



Figure 34: Viewpoint 7

The photomontage from Viewpoint 7 demonstrates there will be no visual impact of the development from York Street to the south of the site. Existing vegetation and revegetation across the southern catchment and along the ridgeline will improve the visual amenity of the site from the south.

4 Conclusion and Recommendations

The previous pages of this report provide:

- A description of the factors contributing to visual catchments;
- A topographical map demonstrating surrounding ridgelines; and
- A pictorial 'Visual Analysis' (Section 3) of the subject site, showing the areas that the site is visible from;
- Visual identification of the visibility of the site from photomontages.
- Comparison of visual impact of Preferred Project concept plan and original concept plan.

An analysis of views, taking into consideration the site and surrounding topography, reveals that the main vantage points of the site are long distance views from the west, and north. The primary short distance views of the site will be from Warwick Street (of Stage 1 and 3). All development on the site will be contained within the northern catchment, on the northern side of the ridgeline and therefore will not be visible from the south from either short or long distance views. There will be no long distance views from the south for vehicles travelling along the Southern Freeway or persons viewing from recreational areas including Macedonia Park.

From such long distance vantage points, the site has some level of visibility. The highest components of Life City will be visible from these long distance views from the north-west, however from this position the impact will not be significant. From the west, the Hi Tech Holistic Hospital will be the most dominant visual form. The buildings have been designed to predominately sit below the height of the higher ridgelines to the north-east, thereby reducing their level of visibility.

Landscaping and revegetation across the southern, south eastern and south western extents of the site will aid in reducing the visual impact and improving the visual amenity of the site. Particularly from the south where only vegetation on the site will be visible. Additional vegetation will be introduced within a 25m setback area between residential properties to the east and the eastern buildings to provide screening and reduce visual and acoustic privacy impacts to existing residential dwellings. Vegetation within this area will provide a significant visual screen from short distance views from the east along Warwick Street and Hopman Crescent.

Short distance views of the site will also be available from the vantage points in the immediately surrounding residential estate, most notably Warwick Street, York Street and Nottingham Street which immediately adjoin the site. Views from Warwick Street will focus on the Stage 1 Medical Centre and Child Care Centre which is of a scale and landuse type which will integrate within the residential neighbourhood. Landscaping and revegetation across the southern, south eastern and south western extents of the site will aid in reducing the visual impact and improving the visual amenity of the site, particularly from the south where only vegetation on the site will be visible. Additional vegetation will be introduced within a 25m setback area between residential properties to the east and the eastern buildings to provide screening and reduce visual and acoustic privacy impacts to existing residential dwellings. Vegetation within this area will provide a significant visual screen from short distance views from the east along Warwick Street and Hopman Crescent

This Revised Visual Analysis therefore demonstrates, using revised photomontages, that the landscape backdrop of the site and surrounding development to the south and west is preserved and enhanced, where the aesthetic appearance of the proposal is compatible with the scale and landscape of the site context.