

Visual Assessment Study for Oran Park

Prepared for APP/GDC
March 2007



I am at a loss to describe the face of the country other than as a beautiful park, totally divested of under wood, interspersed with plains, with rich, luxuriant grass.

Captain Henry Waterhouse, 1804

HASSELL Ltd 24 007 711 435
88 Cumberland Street Sydney NSW 2000 Australia
Telephone 61 2 9273 2300 Facsimile 61 2 9273 2345
Email sydney@hassell.com.au
Contact: Deborah Eastment
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ARCHITECTURE INTERIOR DESIGN LANDSCAPE ARCHITECTURE PLANNING URBAN DESIGN

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Executive Summary

HASSELL has prepared this visual assessment for the Green Developments Corporation. It determines the visual impact of the Indicative Layout Plan (ILP, March 2007) proposal for the Oran Park precinct.

The introduction provides background information about the project, a brief description of the Oran Park precinct study area and a description of the extent of the Indicative Layout Plan proposal.

The Visual Assessment Methodology used in this report is described in Section 2. It utilises a well-recognised approach to visual quality assessment that is systematic, consistent, and based on professional value judgement of commonly adopted and accepted criteria. The visual impact of the proposed development is determined by evaluating the visual effect of the development in the context of the visual sensitivity of the surrounding land use areas from which the proposed development may be visible. Visual effect is a measure of the change that will be perceived between the existing and proposed landscape characters, and visual sensitivity is a measure of the importance of the visual environment to different user groups based on frequency, duration, distance and repetition of views

An outline of the landscape and cultural features that contribute to the existing visual character of the Oran Park precinct landscape is provided in Section 3. Review of valuable cultural elements is informed by previous work (by others) identifying the most significant historic features and mapping an appropriate curtilage boundary to the significant Denbigh complex located in the west of the study area. This is followed by a detailed description of the ILP proposal including a description of typical development characteristics for each of the development types proposed in the ILP. These descriptions provide the basis for understanding the degree of change anticipated in the landscape.

Views and viewer locations are determined and mapped based on topographical analysis and a number of site inspections undertaken in January and February 2007. An assessment of visual impact is determined for each of these views and viewer locations and presented in tabular format at the end of Section 3. These are based on the potential effect that the proposed development will have on the visual environment *without any ameliorative landscape treatment*.

Visual impact is predominantly determined to be low in open space areas, around the Denbigh complex which is protected by its curtilage area, and from viewing locations to the east and the south of the site. Moderate visual impact of development is anticipated from Cobbitty Road (west) and around Oran Park House where low and medium density built form will impact some important view lines and view glimpses to cultural features (the Thomas Hassall driveway and Oran park House) and the existing rural character of Cobbitty Road. Areas of high visual impact is determined where foreground to middle distance view sheds are significantly altered from rolling pastoral lands to dense urban form. High visual impact is anticipated mostly along Cobbitty Road (east) and from the Northern Road to the east and to the west for motorists travelling in both directions.

The determination of visual impact is accompanied by a series of recommendations to mitigate the impact of development. These are presented in Section 4 as a series of strategies that can be applied in the development process to ensure that appropriate outcomes with respect to visual impact are achieved. They include recommendations for:

- built form height, bulk and scale controls to preserve view lines and view corridors,
- provision of landscape setbacks in private lots,
- preparation of built form guidelines to appropriately control materials selection, colour and quality in low and medium residential development areas,

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- preparation of landscape guidelines to ensure adequate landscape is provided in the private domain as well as the public domain,
- preparation of detail designs for open space and community lands including schools to ensure provision of adequate landscaping,
- provisions for the protection, augmentation and effective long term management of existing significant site vegetation.

The IPL proposal necessarily seeks to achieve residential development density targets set by the NSW Government for the southwest growth sector under the NSW Metropolitan Strategy. In this context, the most important objective of the development proposal is to manage visual impact to acknowledge the key natural and cultural landscapes of the Oran Park precinct. Whilst the government has determined that significant urban development is required to accommodate the growth of the city, it must occur in a way that does not encroach in Sydney's important rural homesteads, road corridors and landscape settings. Preliminary visual observations/topographic analysis has already informed the master planning of the subdivision. Further scrutiny of visual impact determines the areas of highest impact and provides mitigation recommendations that can maximise opportunity to achieve preservation of those key natural and cultural landscapes.

BACKGROUND

The Green Developments Corporation (GDC) proposes to create a new mixed use development comprising a town centre, employment lands and up to 8,500 new homes at the Oran Park precinct in accordance with the NSW Government's initiative to ensure there is an adequate and timely supply of land for housing in the Sydney Metropolitan Region.

The Oran Park precinct comprises a series of large rural property holdings straddling the Northern Road in south west Sydney. The land is positioned between Liverpool, Campbelltown and Camden and falls within the Municipality of Camden and the recently established South West Growth Sector. The Oran Park precinct is one of three precincts that have been identified for early release within the South West Growth Sector of the Metropolitan Strategy. The location of the Oran Park precinct in the South West Growth Sector is shown in Figure 1.

HASSELL has been engaged by Australian Pacific Projects (APP) to prepare this landscape and visual assessment as one of a number of baseline environmental studies supporting the Oran Park Precinct Plan on behalf of the GDC. It describes the visual, landscape and cultural qualities of the study area and the subject site, assesses the visual impacts of the proposed development, and makes recommendations for protecting those values and mitigating the changes in the current rural landscape likely to result from proposed mixed use development under the Oran Park Indicative Layout Plan (ILP).

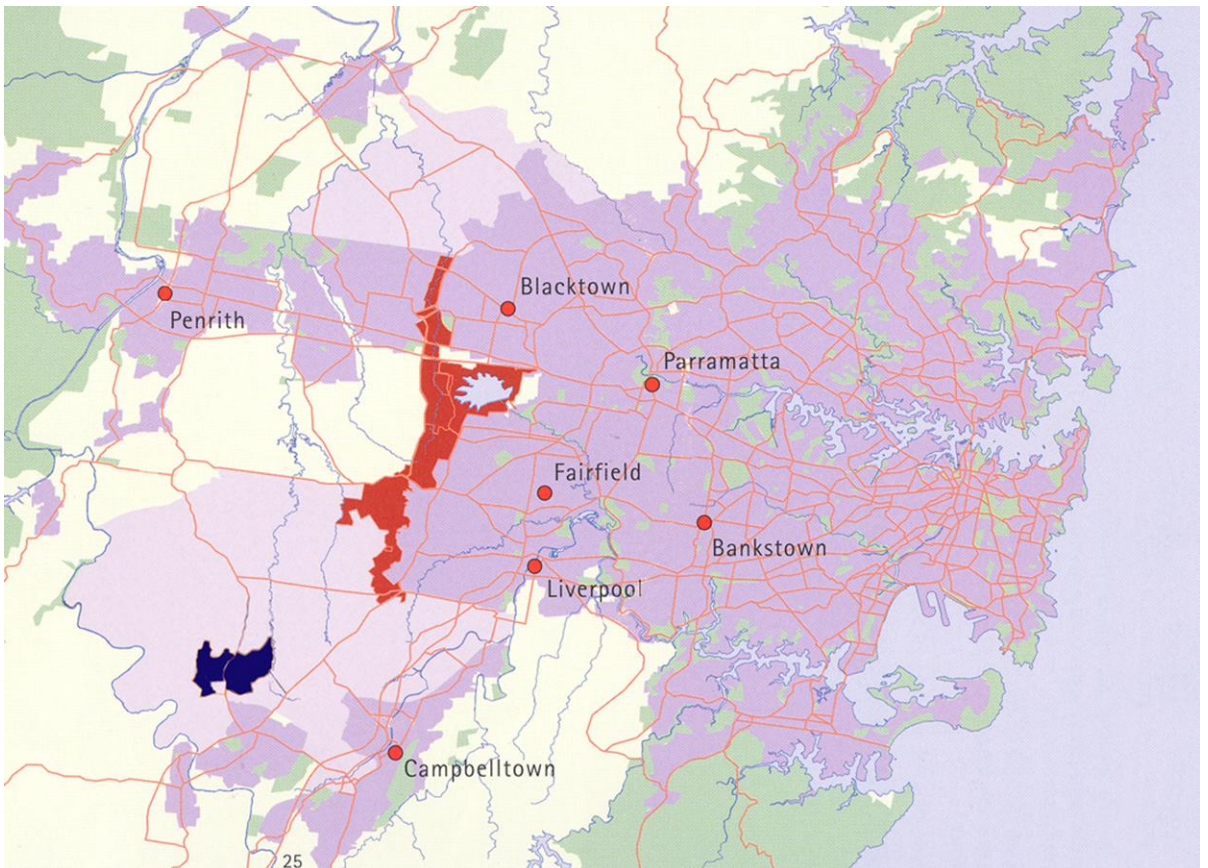


Figure 1: Location Plan

THE ORAN PARK PRECINCT AND STUDY AREA

The Oran Park precinct comprises the area of land bounded by South Creek and Camden Valley Way to the east, Cobbitty Road to the south and Cobbitty Creek to the west. Adjacent small rural landholdings are located to the north. The precinct is dissected north-south by the Northern Road. The western portion of the precinct contains the heritage listed Denbigh homestead and its curtilage boundary. An aerial photograph of the site and the Denbigh homestead curtilage is shown in Figure 2.

This visual assessment considers the area of the Oran Park precinct described above and the entire surrounding landscape which is considered to be its visual catchment. The visual catchment of the site is determined and described in *Section 2*.

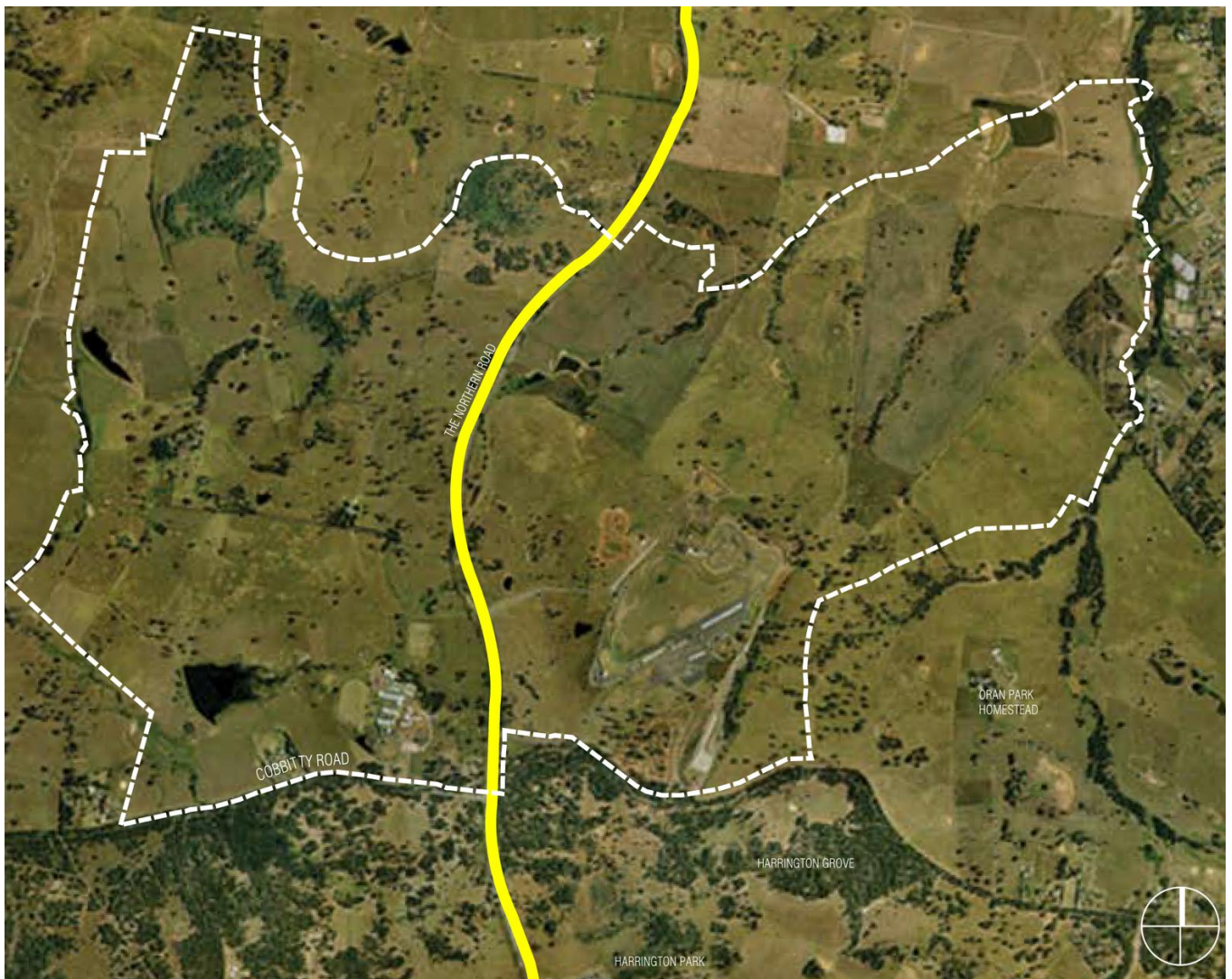


Figure 2: Aerial Photograph.

THE INDICATIVE LAYOUT PLAN

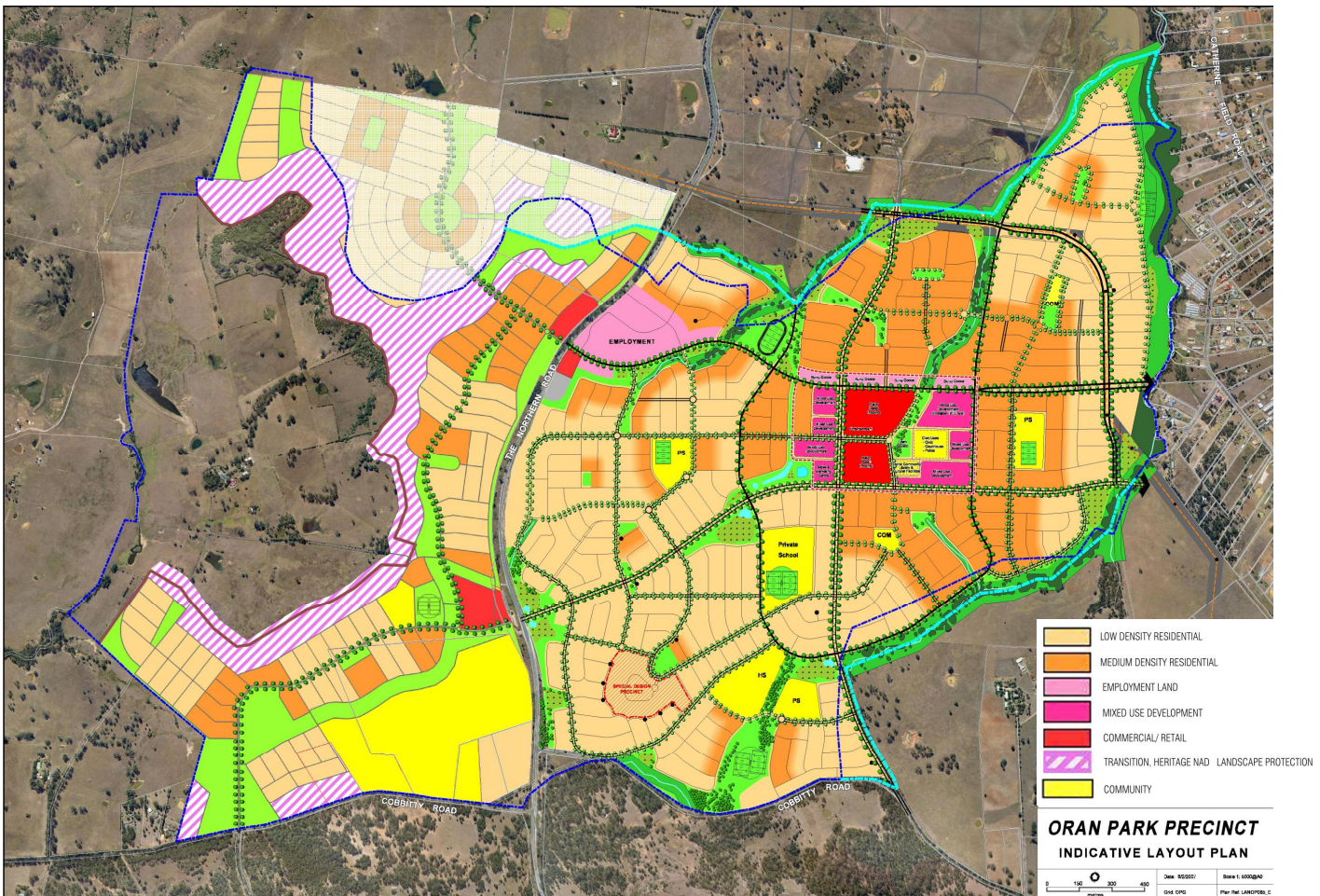
The Draft Indicative Layout Plan (IPL) February 2007 provides for the mixed use development of the Oran Park precinct to accommodate high, medium and low density residential uses, employment lands, retail and community uses, and recreation. The IPL describes proposed street connections and hierarchy, block layouts, town centres, ecological zones/riparian corridors, community facilities and open space provision.

The IPL proposal is shown in Figure 3 over page.

RESOURCE INFORMATION

Information for this study was collected by:

- Visiting the site and surrounding areas from nearby vantage points and identifying significant views within the site and surrounding area in January and February 2007;
- Reviewing topographical maps and aerial photographs (1:25,000);
- Reviewing the updated IPL plans for the proposed development prepared by Development Planning Services and Inspire Planning; and

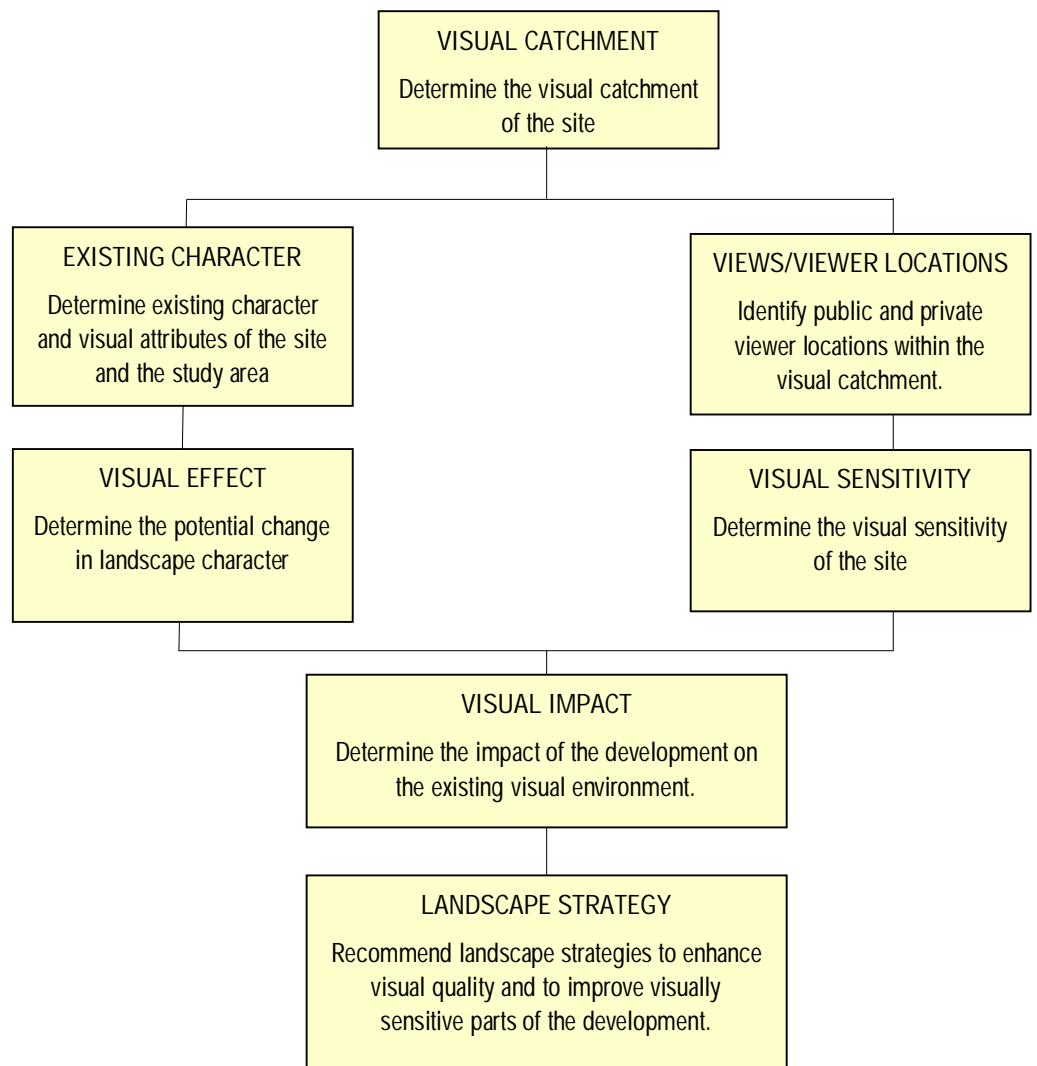


Description of Visual Assessment Methodology

The objective of visual and landscape assessment is to identify scenic resources that should be protected because of their value to the community.

This report uses a well-recognised approach to visual quality assessment that is systematic, consistent and based on professional value judgement of commonly adopted and accepted criteria.

The visual impact of the proposed development is determined by evaluating the visual effect of the development in the context of the visual sensitivity of the surrounding land use areas from which the proposed development may be visible. The following chart describes the visual assessment methodology undertaken for this project, which is described in more detail in the following pages.



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Once environmental constraints including those imposed by visual and landscape significance have been assessed, more detailed strategies for the conservation and management of these valued landscape character and elements can be developed. These strategies can be incorporated into the Development Control Plan for the Oran Park Precinct Plan and may include:

- built form which enhances the local visual environment (including setbacks, form, height, scale, mass, street pattern, street frontage);
- maintenance of significant views, vistas, landmarks and other key features;
- open space;
- streetscape; and
- landscaping.

VISUAL CATCHMENT

The visual catchment of a site is the extent of the landscape that can be viewed from the site and likewise the extent of locations from which the site can be seen.

The landscape vegetation, land use and landform play key roles in determining the visual catchment. For example, where a development is surrounded by vegetation, the visual catchment is likely to be significantly restricted. Conversely, grazing land does not create the same impediment to views.

The visual catchment was initially approximated by topographic analysis.

Where possible, ground truthing was then undertaken to ascertain the influences of the surrounding vegetation and land use, and to adjust the catchment if necessary. Some private (rural) lands located within the nominated visual catchment area, but outside the Oran Park precinct, were not accessible and were not able to be accurately ground truthed.

The extent of the visual catchment area determined by this process is shown in *Section 3*.

LANDSCAPE CHARACTER

Landscape character is the recognisable pattern of elements that occurs in a particular landscape. Variations in geology and soils, landform, land use and vegetation, land use and settlement patterns and building styles, give rise to different landscapes each with its own distinctive character and unique sense of place. The landscape character of the Oran Park precinct was assessed in order to determine the degree of change to the landscape character that would occur as a result of the proposed development.

VISUAL EFFECT

The visual effect of the proposed development is the expression of the change in landscape character created by the interaction between the development, and the existing environment. It can also be expressed as a level of contrast between the development and the visual setting within which it is placed. Critical issues are:

- changes to landform;

02 Visual Assessment Methodology

- changes to vegetation patterns; and
- the nature, density and scale of existing and proposed development.

A high visual effect would result if the development is a major element and contrasts strongly with the existing landscape. In such a situation there is little or no natural screening or integration, such as could be provided by vegetation or topography. In situations where the existing environment is heavily modified by the proposed development, for example through the large-scale removal of vegetation, a high visual effect would also result.

A moderate visual effect occurs if the proposed development is, to a certain extent, integrated with the landscape. This would occur if the surrounding vegetation and/or topography provide some measure of screening, background or other form of visual integration of the development with its setting.

A low visual effect occurs where there is minimal contrast and a high level of integration of form, line, shape, pattern, colour or texture values between the development and the environment. This can occur through constructed integration of the development with the landscape or by substantial preservation of the existing visual setting.

VIEWER LOCATIONS

Viewer locations are public or private places where the proposed development site can be viewed.

Illegal or uncommon use of land which results in a view of the site has not been considered.

Viewer locations within the visual catchment area and representative views from a particular area were marked on a topographic plan as well as the extent of the view of the site (refer *Section 3*).

VISUAL SENSITIVITY

Visual sensitivity is a measure of the importance of the visual environment to different user groups and areas or locations. The function of each area affects the significance with which potential changes are viewed.

The visual sensitivity of the development depends on a range of user-group characteristics and the authors' knowledge and experience of public perception of the quality of particular land uses and landscapes.

The characteristics considered in this study are:

- the perceived cultural value of the visual environment and elements within it;
- user groups (residents, motorists, recreation users etc);
- frequency (refers to the number of viewers that will be affected by changes in their views. If more people will be affected, the visual impact is likely to be higher);
- duration of view (refers to how long the viewers spend viewing the proposed development); and
- the distance of the proposed development from viewers.

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Frequency

Frequency is the number of people who might view the proposed development and is measured as a density ie. number of dwellings/km².

Three categories were determined:

- <5 dwellings/km²
- 5-8 dwellings/km²
- >8 dwellings/km²

Duration

Different levels of view duration at various view locations were identified and qualitative descriptions were determined:

- *Short* - views from naturally vegetated (forested) areas or industrial areas that area partially obscured by topography, landscaping or structures.
- *Short to moderate* - views from local roads where the duration of the view is short to moderate, many of the viewers are frequent users of the road, and their visual sensitivity is constrained because the orientation of the viewer is focussed on the road for much of the time (a viewer travelling in a vehicle only has a 20° angle of visual either side of the centre view of the road at speeds of 100km/hr and a focusing distance of 600m, Road Traffic Authority, 1991).
- *Long* - Long duration views from residential and public recreational areas. Views include elements that dominate the landscape.

Long duration views from housing, or views form public places that have high visitation, would have highest visual impact. Short duration views, which are partially or largely obscured by existing topography, landscape or structures, would have the lowest visual impact.

Distance

Distance zones were determined around the proposed development site within the visual catchment area. The distance zones are as follows:

- *foreground zone* - areas within 0-300 metres of the viewer - (*within this range the observer experiences maximum discernment of landscape details* Great Lakes Council, 2002) eg. such as shape, colour and contrast.
- *middle ground zone* - areas between 300 metres and 1 kilometre - (*within this range, vegetation textures and land use patterns are visible to the observer* Great Lakes Council, 2002).
- *background zone* - areas greater than 1 kilometre from the proposed development - (*within the range, textures and patterns are indistinct to the observer* Great Lakes Council, 2002). The viewer is unaware of individual details and discerns broader landscape units as patterns of light and dark.

Viewer locations that fall within the foreground zone are considered to be in the zone of highest visual impact because the proposed development would be part of their ground views. Changes to views in the middle ground are considered to be important, but less important than in the foreground. This is because the subject site is further from the viewer and would therefore likely occupy a lower proportion of the total views from the viewer location. It is considered that visual impact or viewer locations within the background

one is of least significance, however, still worthy of consideration. In some cases, wholesale change of broad distant views in terms of colour, texture and pattern can still be significant.

2.6 VISUAL IMPACT

Visual impact is a measure of the potential effect that the proposed development (including both natural and built elements) will have on the visual environment without any ameliorative landscape treatment.

Visual impact depends upon the visual catchment area (extent of visibility), visual sensitivity (the number of views and viewers affected, duration of views, and distance) and visual change (the degree of visual intrusion or obstruction that will occur). These visual impacts can be positive or negative.

The table below illustrates the visual impact as a result of the relationship between visual effect and visual sensitivity.

		Visual Effect Levels		
		HIGH	MODERATE	LOW
Visual Sensitivity Levels	HIGH	High impact	High impact	Moderate impact
	MODERATE	High impact	Moderate impact	Low impact
	LOW	Moderate impact	Low impact	Low impact

Matrix for Determining the Visual Impact of Proposed Development

3.1 VISUAL CATCHMENT

The visual catchment of the Oran Park precinct is largely contained by the topography of the land and by existing vegetation. Riparian vegetation along South Creek screens the site from most eastern vantage points including Camden Valley Way and properties in Catherine Fields. A localised high point at Camden Golf Course affords a distant panoramic vista across the site. Even this view is largely obscured by existing topography and vegetation.

The extensive vegetated ecological zone to the south of the precinct provides significant screening to the development from Camden Valley Way and from Northern Road vantage points to the south of the site and from the adjacent development to the south at Harrington Grove. Roadside plantings on Cobbitty Road also provide substantial screening of the site along the southern boundary.

The visual catchment to the west is largely determined by a prominent ridgeline to the west of the Denbigh homestead. The ridgeline above the Denbigh homestead itself (east) also provides a natural barrier between the rural lands of the west and the proposed developed area to the east.

To the north the visual catchment is more expansive, taking in the undulating lands of the floodplain, particularly on the western side of the Northern Road. A finger of creek line vegetation provides the visual definition of the northern boundary of the eastern half of the precinct, and the prominent Denbigh ridgeline defines the northern edge of the western half. Note that this ridge line defines the visual catchment of the current proposal. Future development to the north would be visible from the floodplain area.

The visual catchment of the site is shown in Figure 4.

3.2 LANDSCAPE CHARACTER



Oran Park (west) - view from the site towards the western ridge across the Denbigh Curtilage area.

The Natural Landscape (*refer Figure 5*)

Key Features

Oran Park sits in an undulating rural landscape that falls gently west towards the Nepean River, before rising westwards to the Blue Mountains. The land is largely cleared agricultural land that has been farmed since the issue of the first land grants in the area in the early 1800's.

The western portion of the precinct contains the heritage listed Denbigh homestead and its curtilage boundary. The curtilage comprises a natural valley that shelters the Denbigh homestead from external views. The extent of curtilage to the Denbigh property was determined by previous cultural landscape and visual study (*refer Denbigh Curtilage Study, Design 5, July 2006*).



Oran Park Homestead.

The Oran Park homestead is located near the boundaries of the site, but not within it. The Oran Park homestead is a significant feature of the Oran Park precinct cultural and visual landscape. It is located on a hill top adjacent to the south eastern corner of the development.

Dam walls and levee banks within the precinct create strong, dominating sculptural forms in the pastoral landscape.

At the perimeter of the precinct, Cobbitty Road roadside planting containing tree and shrub vegetation creates a strong rural and landscape character.

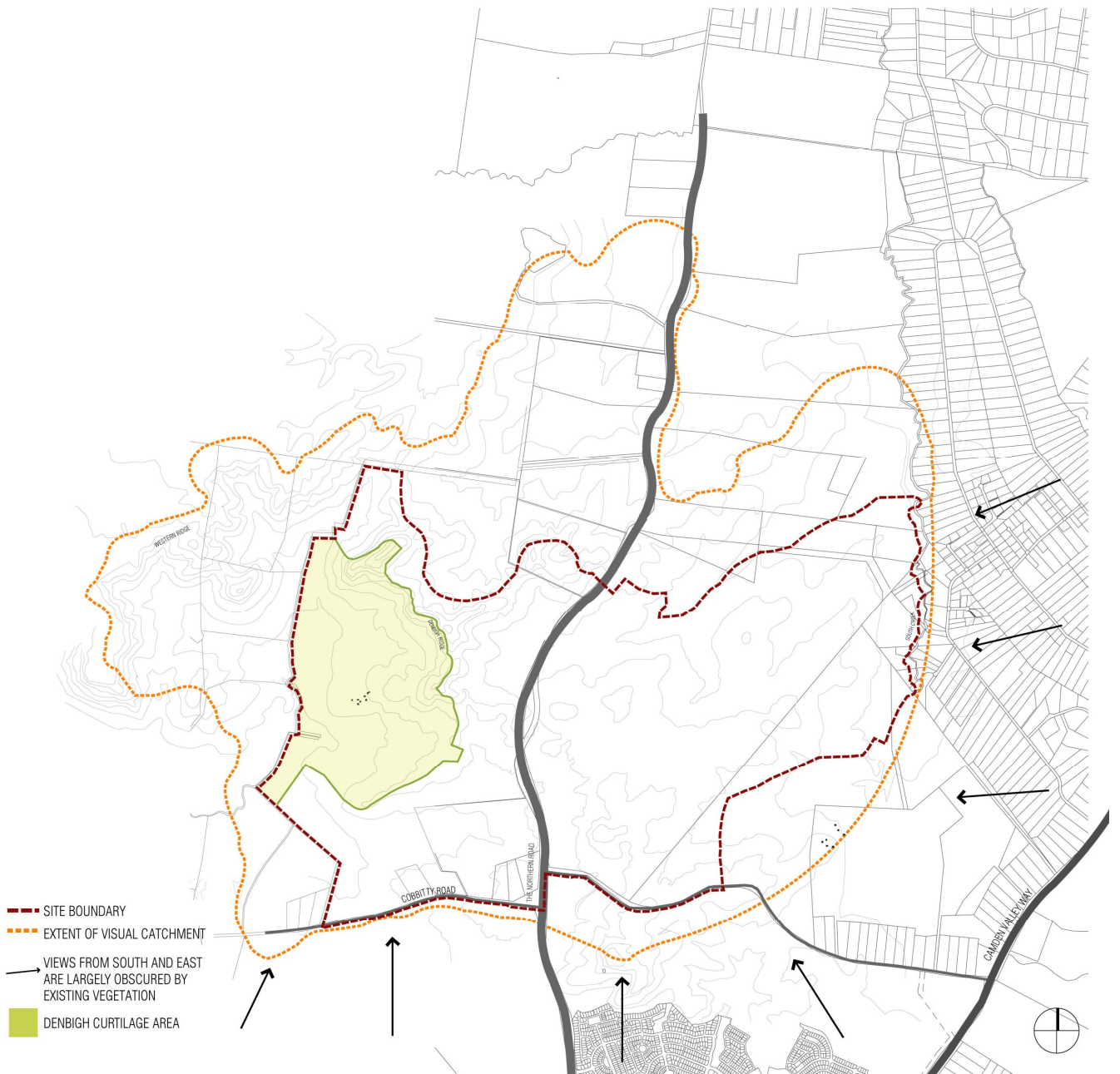


Figure 4: Visual Catchment

Landform

The site is naturally divided east and west by the Northern Road.

The eastern part of the site (Oran Park) contains undulating hills and valleys with a dominant ridgeline and a clearly defined, lower lying creek line. There is a primary ridge running from a high point in the south west (adjacent to Cobbitty Rd and Northern Rd intersection) at the Oran Park Raceway to low lying South Creek in the northeast of the site. From the lower sections of the ridge it is possible to see the Oran Park Homestead which is located adjacent to the study site. The Blue Mountains are visible from the higher points of the ridge in the southwest. These are dramatic and beautiful views which reinforce the rural and historic context of the site.

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Oran Park (west) landform contains valleys and hills of greater destination.

On the western side of the Northern Road (Denbigh) there is a ridge running from a high point in the north (Denbigh trig station) towards the south. The ridge forms the boundary to the site. To the east of this ridge the land falls in folds of valleys towards the Northern Rd. The northern section contains valleys and hills of greater topographic distinction and steeper gradients. This area also contains more significant stands of vegetation. There are views to the road and beyond from these slopes. External views from the ridge tops are spectacular.

Creek and Drainage Lines

The creeks on the site are ephemeral with the exception of South Creek. Most creeks and drainage lines run from the south west towards South Creek in the north east. There are numerous dams, some large ones constructed across the main water course. The largest dam lies north beyond the precinct boundary and has the potential to have significant impact on downstream flow. During a site visit in January 2007 most dams had very little water in them.

A small corner in the southwest of the site drains south to Cobbitty Creek and in turn to the Nepean River. There is a large dam constructed in this area. This is a significant water body viewed from a number of areas within the western half of the precinct and glimpse views from the Northern Road.



The small dam adjacent to entry road to Denbigh is one of numerous dams located at the Oran Park precinct.



The Oran Park precinct comprises significantly disturbed vegetation following years of agricultural activities. Native vegetation is generally confined to isolated canopy trees and few shrubs.

Natural Vegetation

The study site primarily comprises an area of significantly disturbed land following years of agricultural activities including clearing, grazing, and other farm related activities. Highly degraded remnants of native vegetation occur in narrow strips along some of the creek lines and drainage lines on the site, as scattered shade trees on some hillsides, and in several very small tight regrowth stands dotted over the site.

Native vegetation is generally limited to isolated stands of canopy trees and few shrubs. The largest cohesive stand of vegetation is located on the steeper slopes of the Denbigh site west of the Northern Road. Fingers of riverine vegetation along creek lines, and roadside vegetation located along Cobbitty Road, are also significant vegetation/landscape features of the site. In the south west, near the Oran Park homestead, there are stands of mature endemic trees in grassland that lend a pastoral, park-like quality to the area.

At the South Creek site boundary, a Casuarina forest forms a distinctive and cohesive edge condition to the site. The creek acts as an important linear ecological link. Relatively extensive tree cover in the adjacent Catherine Fields residential development in the east merges with distant vegetated ridgelines further emphasising the green edge of the South Creek boundary.

Pastures contain some native grasses and herbs, but are dominated by exotic grasses. Floristic diversity across the site is low, and the natural woodland structure of most areas of native vegetation has been substantially modified.

At least two native vegetation communities listed as endangered under the NSW Threatened Species Conservation Act 1995 (TSC Act) have been identified on the site to date:

- Cumberland Plain Woodland; and
- Sydney Coastal River-flat Forest.



Riparian vegetation along South Creek is discernible South Creek features in the rural landscape at the Oran Park precinct.

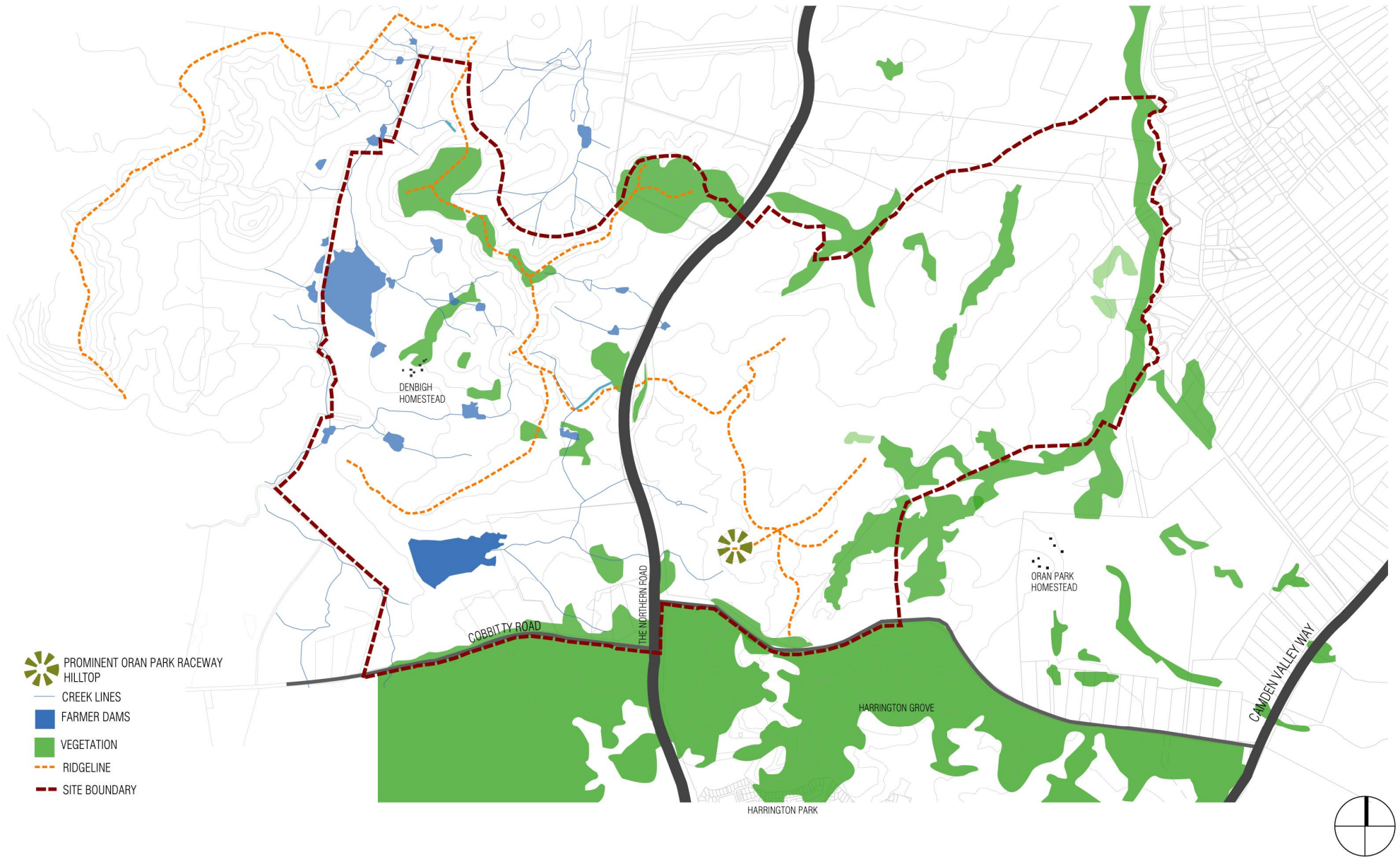


Figure 5: Key Landscape Features.

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The predominant land use surrounding the site is rural.

Land Use

The predominant land use within the study area is rural with a mix of large and small land holdings. Adjacent development to the north and east is generally small rural blocks of land supporting small businesses such as market gardening and hobby farms.

Beyond the western boundary are large lot farmlands with some tracts of bushland. Beyond Cobbitty Road to the south is the future residential community of Harrington Grove.

The Oran Park Raceway and associated buildings and facilities is a significant feature of the Oran Park east precinct. This land use will be removed under development proposals.



The Oran Park Raceway and associated buildings and facilities are a significant cultural feature.



Denbigh Farm Buildings (photo courtesy of NSW Heritage).

The Cultural Landscape (*refer Figure 6*)

Denbigh

The Denbigh homestead and site is a relatively intact example of a continuously functioning early farm complex (1817-1820's) on its original 1812 land grant (Godden Mackay Logan, GCC Precincts, Oran Park and Turner Road - Heritage Assessment - Draft Report, January 2007). A detailed curtilage study for the Denbigh complex was undertaken by Design 5 in July 2006 reference. This study identified exceptional views to and from the Denbigh building complex which is located in a natural valley between prominent ridges to the west, north and east. These views play an exceptional role to the setting of the complex and an appropriate curtilage area was determined to protect them. This ensures the retention of the significant landscape associated with the heritage complex. It contains development to land beyond the top of the Denbigh ridge to the north and east and away from the homestead.

To the south of the farm complex the curtilage boundary is located on a lower ridge line that provides less topographical protection from visual intrusion by proposed development.

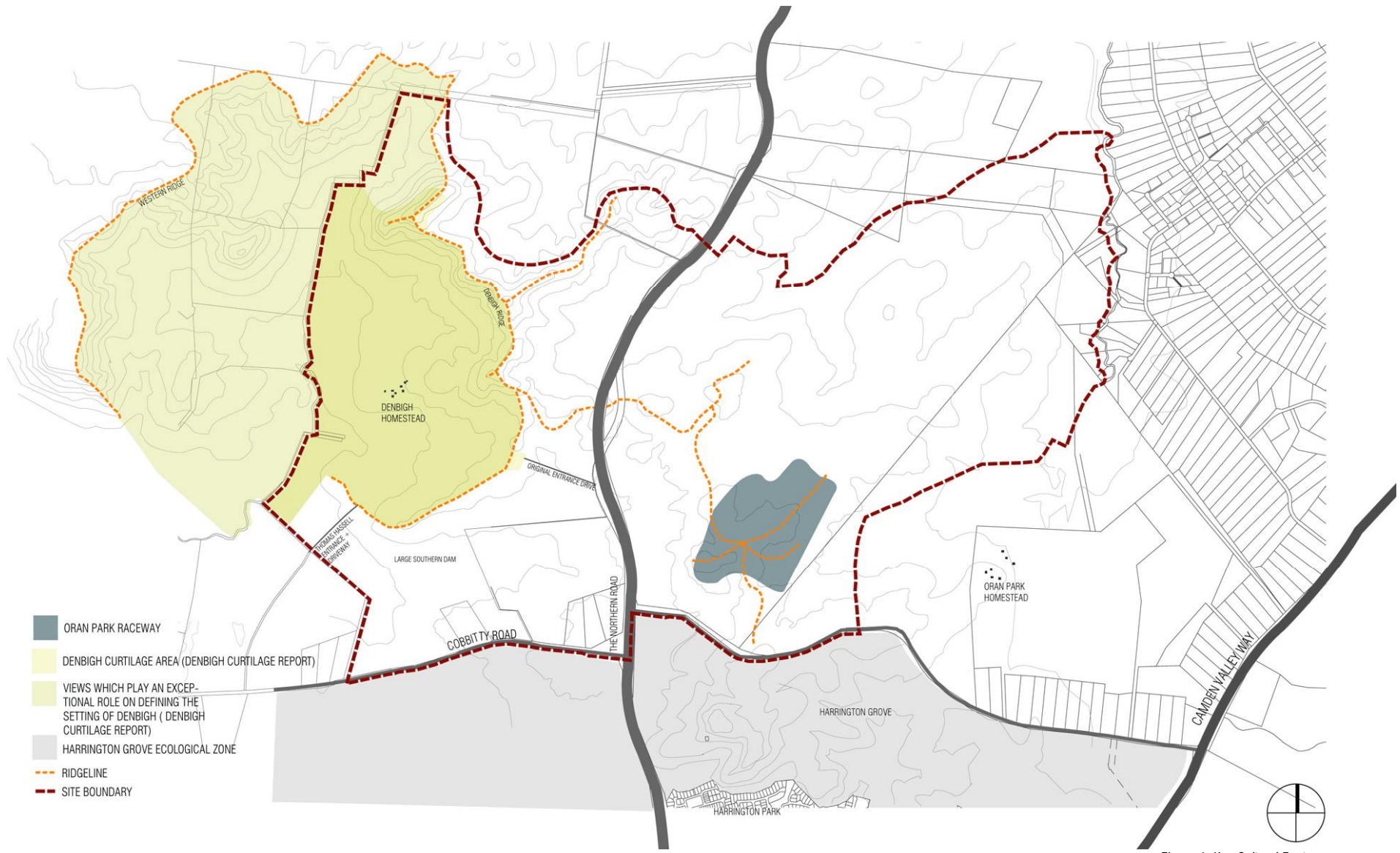


Figure 6: Key Cultural Features.

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The Design 5 report also identifies a number of other culturally significant elements and external views relating to the homestead. These include:

- the entrance and driveway to the homestead from the Northern Road,
- the historic Hassall entrance and driveway alignment from Cobbitty Road to the south, and
- glimpse views of the Denbigh complex from Cobbitty Road.

Oran Park House

Oran Park House is an intact cultural landscape of the Cumberland Plain dating from 1815. The traditional rural landscape character and setting is largely uncompromised. There are important historic views to and from the Cobbitty Road to the homestead group and its landscape setting on a knoll (Godden Mackay Logan, GCC Precincts, Oran Park and Turner Road - Heritage Assessment - Draft Report, January 2007).

Views of Oran Park House are largely concealed from the proposed development by an existing ridge line to the west and by riparian vegetation to the north.

An important view corridor to the Oran Park homestead has been identified from Cobbitty Road (*refer Oran Park and Turner Road Heritage Assessment Draft Report, Godden Mackay Logan, January 2007*). Careful planning is required in the south-easternmost corner of the development to ensure that this view line is not compromised.



View towards Denbigh along the entry driveway from the Northern Road.



The Northern Road is an historical access route which remains largely rural in character.

The Northern Road

The Northern Road is an historical access route, formerly the Cowpastures Road, which remains rural largely in character. The rural character of this road and the vistas through to historic properties and surrounding farmlands remains as a largely intact reminder of the colonial landscape character of the area (Godden Mackay Logan, GCC Precincts, Oran Park and Turner Road - Heritage Assessment - Draft Report, January 2007).



Roadside vegetation along the Cobbitty Road provides significant landscape character.

Cobbitty Road

Cobbitty Road defines the southern extent of the Oran park precinct both to the east and the west of the Northern Road. Cobbitty Road is characterised by significant roadside plantings comprising remnant native trees and native and exotic shrub understorey. While some of this vegetation is not significant from an ecological view point the landscape character created by existing vegetation along Cobbitty Road is considered to have landscape value.

3.3 THE ILP PROPOSAL

The Indicative Layout Plan

The Indicative Layout Plan (ILP) proposal for the Oran Park precinct is to create a new mixed use development comprising a town centre, employment lands and up to 8,500 new homes. A density of 15 dwellings per hectare is envisaged in line with NSW Government density targets for the South West Sector. The ILP describes proposed street connections and hierarchy, block layouts, town centres, ecological zones/riparian corridors, community facilities and open space provision.

The precinct area to the west of the Northern Road is to be developed by Mirvac in association with the landowner (the McIntosh family). A large proportion of development is likely to be built out. The precinct area to the east of the Northern Road is to be developed by Landcom in association with the Greenfields Development Corporation. The majority of this area is likely to be sub-divided as land packages.

The ILP has been developed following considerable review of landscape and cultural characteristics and features of the Oran Park precinct. The final precinct plan preserves the majority of significant riparian corridors as open space and provides for the augmentation of core riparian vegetation in accordance with DNR requirements. As a general theme, medium density development is confined to the lower lying lands and low density development to more undulating lands. Creation of low density development in these more visually dominant, hilly areas provides greater opportunity to retain existing scattered trees, and to recreate tree canopy vegetation to screen and buffer views of new housing. Preparation of landscape guidelines to ensure provision of adequate landscaping in private lots for low density development will assist in achieving this.

Large lot rural lots are proposed for the prominent ridge line to the east of the Denbigh complex. The ILP provides for the consolidation of existing vegetation along the ridge line and for the careful location of new housing below the ridge in accordance with the recommendations of the Denbigh Curtilage Study. This effectively preserves the areas of exceptional aesthetic value relating to the Denbigh complex and its setting in accordance with the recommendations of the Denbigh Curtilage Study.

Residential Development

The ILP provides for a mix of residential density development types from large rural lot development to medium density housing. Lot sizes are likely to be as follows.

— Rural residential lots	2,500sqm, 1-2 stories
— Low density residential	450-600sqm (lot sizes typically 15x30m, 18x30m, 20x30m and 18x35m), 1-2 stories
— Medium density (townhouses and attached dwellings)	250-350sqm (lot sizes typically 8x30m, and 12x30m) - 3-4 stories.

Block and lot layouts at this density will result in a major change to the existing rural landscape, effectively transforming the rolling green pastoral landscape to a typically urbanised environment with formalised street patterns accentuated by formal tree planting. An important criterion in minimising the impact of such a change will be in creating a new landscape setting that blends and softens new housing with a combination of new canopy tree planting and carefully selected built form materials. The creation of a significant tree canopy connection across the site is essential and will be most achievable in the areas of low density development where trees can be incorporated in private gardens as well as in the public domain.

A large area of medium density development located to the west of the Northern Road on the steeper slopes at the base of the Denbigh ridge line will need to be developed with special care to minimise the visual impact of built form. The relatively steep slopes in this location are least able to absorb this extent of development.

As mentioned previously, large rural lot development on the prominent Denbigh ridge line allows for the preservation of the exceptional visual catchment of the Denbigh complex and its landscape setting. Proposed large lot development along the Cobbitty Road also provides maximum opportunity for retention of significant road side vegetation along that corridor.

Employment Lands

An area of employment land is proposed on the east side of the Northern Road with frontage onto the Northern Road and a major east-west sub-arterial. The land is gently sloping south-east towards the riparian corridor. It is mostly visible from the south along the Northern Road and from within the development. Development is likely to be one to two storey large scale built form suitable for bulky goods retail and business/commercial uses. Establishment of tree canopy vegetation and careful selection of building materials will be required to minimise the impact of built form on the landscape.

Local Centres

A major town centre is proposed in the low lying land in the eastern portion of the precinct area. This location, away from the Northern Road and nestled in the valley below the ridges and hill tops of the site, is the most desirable location from a visual perspective.

Smaller local centres located directly on the Northern Road alignment will significantly change its existing open, pastoral character. The future design and character of the Northern Road will need to be developed to accommodate the need for these centres to address this and adjacent major arterial roads as well as respect the cultural significance of this historic route through the earliest rural land grants and significant pastoral lands of the Cumberland Plain.

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Open Space

The proposed development aims to retain remnant vegetation pockets wherever possible, particularly fingers of riverine vegetation along sensitive creek lines in new open space zones. A major strategy of the ILP also provides a continuous green connection to the significant stands of existing vegetation in the ecological zone in Harrington Grove to the south. Some small isolated pockets of vegetation will also be retained in parks or in new private land holdings. Most open space areas are located in the low lying lands of the site where they serve multiple drainage functions such as preservation of core riparian vegetation, provision of detention basins, and water quality control facilities.

Much of the precinct area adjacent to Cobbitty Road is also set aside as open space which allows the preservation of existing significant roadside tree vegetation along this corridor.

Denbigh

The curtilage area recommended in the report is preserved in the ILP design. Large lot rural lots are proposed for the prominent ridge line to the east of the Denbigh complex. The ILP provides for the consolidation of existing vegetation along the ridge line and for the careful location of new housing below the ridge in accordance with the recommendations of the Denbigh Curtilage Study. This effectively preserves the areas of exceptional aesthetic value relating to the Denbigh complex and its setting in accordance with the recommendations of that report.

The development of detail design guidelines is recommended to ensure the provisions of the ILP are realised with respect to vegetation augmentation and management of vegetation along the ridge. This is particularly relevant to the south of the curtilage area where the curtilage boundary is least defined by landform and where new development will intrude on the setting of the Denbigh complex. It is important to retain and augment the existing vegetated character of the ridge top for the full length of the ridgeline that defines the curtilage to provide maximum screening of the new developed area.

Other cultural elements identified in the Design 5 Curtilage Study are also acknowledged in the ILP. These include the two historic driveway connections to the homestead: the formed Hassall driveway from Cobbitty Road to the south; and the current entry driveway from there Northern Road. Both of these connections are recognised in the ILP by provision of a landscape corridor through the developed area along the relevant alignment. These allow interpretation of these significant cultural alignments in the landscape. The visual character of these alignments will necessarily change as the edges of the corridors will be lined with new built form. Visual connection to the Denbigh site and special landscape treatments sympathetic to the historic alignment of the entry drive from the Northern Road, can be achieved. The landscape corridor defining the original Hassall driveway to the south of Denbigh is not a continuous connection, being interrupted by proposed low density residential lots. Consideration should be given to continuing this link through the proposed urban area.

Oran Park House

Existing natural landscape features provide significant protection to the Oran Park homestead from proposed development in the Oran Park precinct. The ILP proposes protection of the riparian corridor vegetation located to the north of the homestead and provides for the substantial rehabilitation and ongoing management of this vegetation. This will effectively minimise any future negative visual impact to the homestead.

New low density development proposed on Cobbitty Road may have an impact on the view line to Oran Park homestead.

Future Context

Development of Oran Park must be considered in the context of its location in the future South West Growth Sector. Future development of Catherine Fields (east) and Marylands (north) will provide a new, more urban context for the Oran Park precinct landscape for which there would be negligible visual effect (or change) from the proposed development. Further development at Harrington Grove to the south is also in train, although the lower density proposed for this development, and its location in a generous ecological zone, will result in a very different vegetation cover and pattern of built form to the Oran Park precinct.

Large lot rural land holdings to the west will continue to be farmed and will retain their existing pastoral character. The Denbigh homestead and its curtilage will provide a transition between new suburban development at the Oran Park precinct and continuing rural land use to the west. The extent of urban development at the Oran Park precinct is largely screened from views from the west by the natural ridge and tree line above the Denbigh property.

3.4 VISUAL ASSESSMENT

Views and Viewer Locations

The ILP design necessarily seeks to achieve residential development density targets set by the NSW government for the SW Growth Sector under the NSW Metropolitan Strategy. In this context, the most important objective of development is to acknowledge the value and significance of the cultural heritage and visual landscapes of these rural lands. Whilst the NSW Government has determined that significant urban development is required to accommodate the growth of the city, it must occur in a way that does not encroach on Sydney's important rural homesteads, road corridors and landscape settings.

Preliminary visual observations and landscape/topographic analysis have already informed the master planning of the subdivision. The above sections provide an outline of landscape and cultural features that contribute to the existing visual character of the landscape and details of the current ILP proposal. This provides the background for the assessment of the visual impact of the proposed development on the existing landscape.

An analysis of significant views and viewer locations relating to the Oran Park precinct has been undertaken as a basis for assessing the impact the development will have on the significant landscape and cultural features identified in the precinct. These are a reflection of the importance of the visual and cultural landscape and of the opportunity and frequency with which the landscape or elements will be viewed. Identified views and viewing locations are shown in Figure 7. Each of these views and view locations is assessed using the methodology presented in Section 2 and presented in tabular format (refer Table 1). Visual impact is determined as a result of the relationship between visual effect and visual sensitivity in accordance with the table below.

		Visual Effect Levels		
		HIGH	MODERATE	LOW
Visual Sensitivity Levels	HIGH	High impact	High impact	Moderate impact
	MODERATE	High impact	Moderate impact	Low impact
	LOW	Moderate impact	Low impact	Low impact

Matrix for Determining the Visual Impact of Proposed Development

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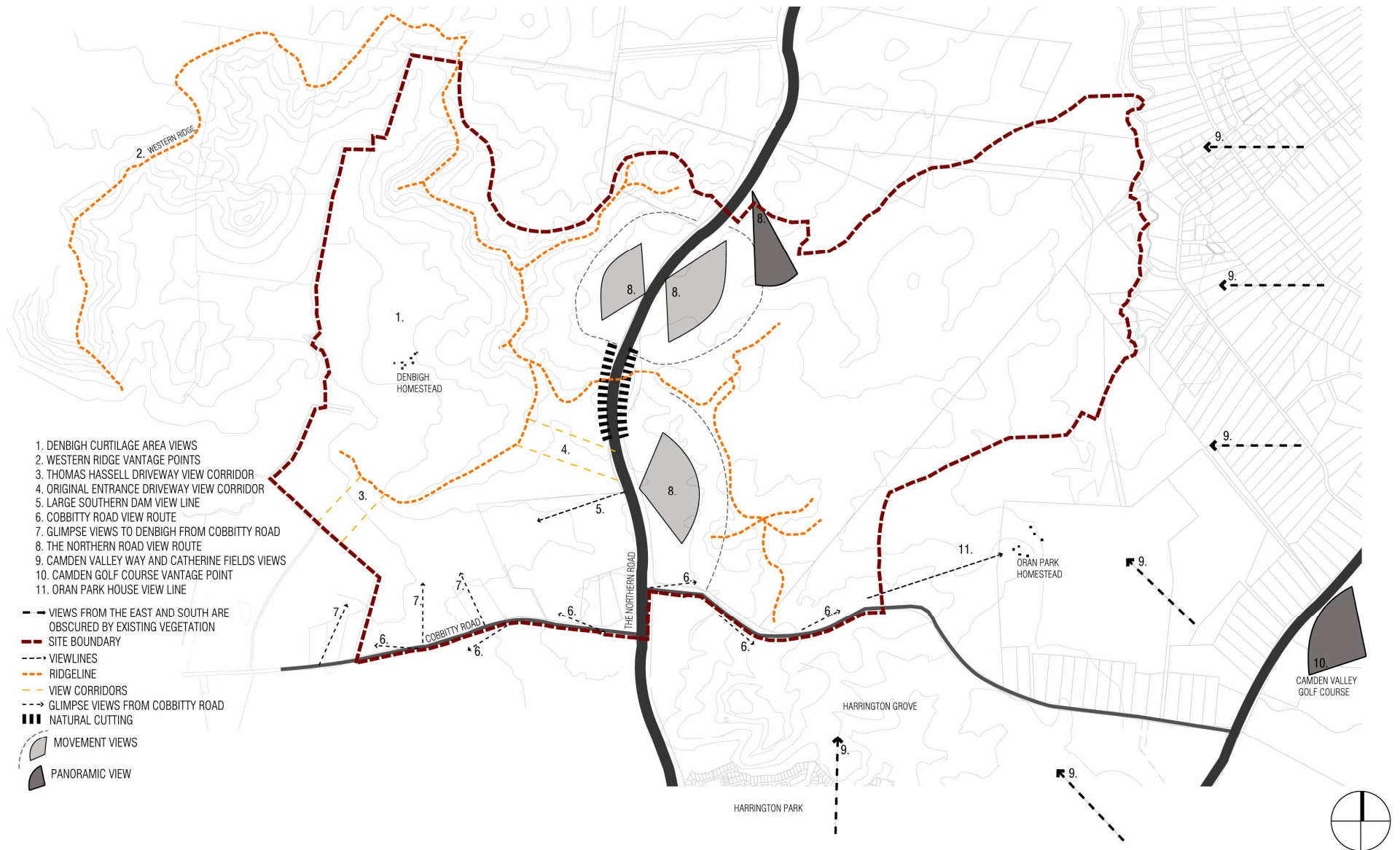


Figure 7: Views and Viewer Locations.

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	VANTAGE POINT	VISUAL EFFECT	VISUAL SENSITIVITY	VISUAL IMPACT	RECOMMENDATIONS <i>(REFER FIGURE 8)</i>
1A	Denbigh curtilage area (north and east)	Visual effect will be low because the ridgeline to east provides a visual boundary between the Denbigh complex and the development (refer Denbigh Curtilage Study, Design 5, 2006). The ILP shows development contained to the east behind and below the top of the Denbigh ridgeline so it will be minimally, if at all, visible.	Visual sensitivity is high because of the 'exceptional' heritage value of the Denbigh complex (refer Denbigh Curtilage Study, Design 5, 2006).	LOW Visual impact is low because development will be contained outside the view catchment of the Denbigh homestead.	Detail design guidelines are recommended to control built form height, bulk and scale below the ridge line and to ensure that existing tree vegetation along the ridgeline is rehabilitated, protected and managed in the future.
1B	Denbigh Curtilage area (south)	To the south, where the ridgeline is lower, development will be visible from within the Denbigh curtilage. Visual effect is moderate. The ILP proposes mostly large lot and low density development in this area which will allow augmentation of endemic tree vegetation along the ridgeline to screen new built form from the homestead.	Visual sensitivity is high because of the 'exceptional' heritage value of the Denbigh complex (refer Denbigh Curtilage Study, Design 5, 2006).	HIGH Visual impact is high because new development will be visible from the Denbigh homestead.	Detail design guidelines are recommended to ensure existing tree vegetation along the low southern ridge is protected and augmented with additional planting to provide maximum screening of proposed built form beyond.
2	Western Ridge (prominent ridgeline to the west of the Denbigh property)	There is no visual effect (refer Denbigh Curtilage Study, Design 5, 2006). The ILP shows development contained to the east behind and below the top of the Denbigh ridgeline so it will be minimally, if at all, visible.	Visual sensitivity is high because of the 'exceptional' heritage value of the Denbigh complex (refer Denbigh Curtilage Study, Design 5, 2006). Visual sensitivity is high because of the 'exceptional' heritage value of the Denbigh complex (refer Denbigh Curtilage Study, Design 5, 2006).	LOW Visual impact is low because development will be contained outside the view catchment of the Denbigh homestead.	Detail design guidelines are recommended to control built form height, bulk and scale below the Denbigh ridge line and to ensure that existing tree vegetation along the ridgeline is rehabilitated, protected and managed in the future.
3	Thomas Hassall driveway view corridor (from the south of Denbigh to Cobbitty Road)	A portion of this corridor is preserved in an open space connection under the ILP. The open space connection is not continuous, however, being interrupted by proposed large lot and low density development. Visual effect is high.	Visual sensitivity is moderate because of the heritage value of the Denbigh homestead and its associated historic elements. The heritage value of this connection is lower than that of the entry connection from the Northern Road (refer Denbigh Curtilage Study, Design 5, 2006).	HIGH Visual impact is high because new development will preclude maintaining visual access along the heritage driveway alignment.	Detail design guidelines are recommended to minimise and control built form in the area of large lot and low density development along the Thomas Hassall alignment to maximise the opportunity to preserve views between the southern boundary and the Denbigh curtilage area.
4	Original entrance driveway view corridor	A landscape view corridor is preserved with open space provision under the ILP in accordance with recommendations from the Design 5 report. Visual effect is low because there will be no perceptible change to the existing visual setting along the landscape corridor.	Visual sensitivity is high because of the 'exceptional' heritage value of the entry driveway (refer Denbigh Curtilage Study, Design 5, 2006).	MODERATE Although the visual setting of the landscape corridor itself can remain unchanged new built form along both sides of the open space corridor will change the setting of the driveway.	Detail design of the open space corridor must respect the existing heritage elements in the landscape and acknowledge the original rural character of the driveway.

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	VANTAGE POINT	VISUAL EFFECT	VISUAL SENSITIVITY	VISUAL IMPACT	RECOMMENDATIONS <i>(REFER FIGURE 8)</i>
5	Large southern dam (Oran Park precinct west)	The ILP provides a view corridor and landscape connection from the Northern Road to the existing southern dam at Denbigh. Visual effect is low because there will be no perceptible change to the existing visual setting along the landscape corridor.	Visual sensitivity is moderate because views are middle distance and are predominantly viewed for a short to moderate duration by motorists travelling along Northern Road.	LOW The ILP provides for the preservation of this view corridor.	The ILP allows for the retention/reconstruction of the dam as a long term landscape feature. Detail open space designs should maximise views to the dam across the landscape from the Northern Road.
6A	Cobbitty Road (west)	Visual effect of the development is low. New development proposed along Cobbitty Road under the ILP includes open space and large lot development. This will allow retention and augmentation of the existing significant rural landscape character of Cobbitty Road. It is understood at this stage that road widening of Cobbitty Road is not envisaged.	Visual sensitivity is high. Views are in the foreground and available for a short to moderate duration by motorists travelling along Cobbitty Road. The landscape character of Cobbitty Road is considered to have high visual significance.	MODERATE New land uses proposed along Cobbitty Road under the ILP provide the maximum possible long term opportunity to retain and augment the significant rural character of Cobbitty Road.	Detail design guidelines are recommended to control built form setbacks and to prescribe landscape treatments along Cobbitty Road. Views of proposed development can be effectively screened from Cobbitty Road by vegetation.
6B	Cobbitty Road (east)	Visual effect of the development is high. New development proposed along Cobbitty Road under the ILP includes areas of low density development. This will cause a major change to the existing significant rural character of Cobbitty Road. The Oran Park Raceway hill is particularly visible from Cobbitty Road. The nature of proposed development on this landform has not been defined in the ILP. It is understood that development will incorporate a significant canopy landscape to soften development in this location. Some sections of Cobbitty Road can be retained where proposed adjacent development is open space. A key view from Cobbitty Road to the Oran Park homestead will be interrupted by low density development on Cobbitty Road at the south east corner of the development. It is understood at this stage that road widening of Cobbitty Road is not envisaged.	Visual sensitivity is high. Views are in the foreground and available for a short to moderate duration from vehicles travelling along Cobbitty Road. The landscape character of Cobbitty Road has high visual significance. The historic view from Cobbitty Road to Oran Park homestead also has high significance.	HIGH Sections of new low density development proposed along Cobbitty Road under the ILP is unlikely to allow for the retention of the existing landscape character of Cobbitty Road.	Detail design guidelines are recommended to control built form setbacks and landscape treatment along Cobbitty Road to maintain its existing landscape character. Detail designs for the open space areas adjacent to Cobbitty Road should provide effective vegetation screening to proposed low and medium, density development beyond. Detail design for the prominent Oran Park Raceway hilltop must include provision of significant tree canopy vegetation.

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	VANTAGE POINT	VISUAL EFFECT	VISUAL SENSITIVITY	VISUAL IMPACT	RECOMMENDATIONS <i>(REFER FIGURE 8)</i>
7	Views to Denbigh from Cobbitty Road (west)	<p>Visual effect will be high. Glimpse views of the Denbigh complex from Cobbitty Road will be obscured by proposed low and medium density development behind and adjacent to the Macarthur Anglican School.</p>	<p>Visual sensitivity is low. This area has moderate value with respect to the significance of the Denbigh setting (refer Denbigh Curtilage Study, Design 5, 2006). Views are background views and are predominantly viewed for short periods of time by travelling motorists.</p>	<p>MODERATE Glimpse views to the Denbigh property will be interrupted by proposed development.</p>	<p>Built form guidelines for residential development should focus on providing view corridors between buildings to ensure maintenance of view lines to the heritage setting of Denbigh.</p>
8A	The Northern Road (west)	<p>Visual effect along the Northern Road is high because new development will contrast strongly with the existing rural landscape.</p> <p>Neighbourhood centres and medium density development will present a new built form edge to sections of the Northern Road on this side.</p> <p>Low and medium density is proposed in the foothills of steep slopes (6%-10%) which will result in significant cut and fill, retaining wall construction, loss of vegetation and dominant built form over landscape.</p> <p>A strip of open space proposed along the Northern Road provides opportunity to screen some low density development from travelling motorists.</p>	<p>Visual sensitivity is high. Views are in the foreground and available for a short to moderate duration by travelling motorists. The view field will change in response to topography and in response to direction of travel. Landscape character will largely be determined by peripheral vision. Along the length of the proposed developed area along the Northern Road, images of the proposed development will be repetitive.</p> <p>The rural character and alignment of the Northern Road has cultural significance as an historical access route (refer Godden Mackey Logan Heritage Assessment, Draft Jan 2007).</p>	<p>HIGH The significant land use changes proposed along the Northern Road will have a high visual impact.</p>	<p>Prepare future detail designs that describe an integrated vision for the Northern Road.</p> <p>Acknowledge and respect the historic and future roles of the route and its role in the context of the SW sector area.</p> <p>Consider the provision of generous landscaped verges, creation of an open parkway character reminiscent of rural context, retention of existing trees, provision of new tree planting, mounding to mitigate noise, minimising future road widening requirements.</p> <p>Minimise the extent of medium density development proposed on steep slopes (steeper than 1:15)</p>
8B	The Northern Road (east)	<p>Visual effect along the Northern Road is high because new development will contrast strongly with the existing rural landscape.</p> <p>Employment lands and low density development will present a new built form edge to considerable sections of the Northern Road.</p> <p>Low density development is predominantly proposed in the visual catchment areas of the Northern Road. This may provide opportunity to retain some existing trees and to screen houses by creating a landscape setting that is dominant over built form.</p> <p>Open space along section of the Northern Road provides opportunity to screen some low density development from travelling motorists.</p>	<p>Visual sensitivity is high. Views are in the foreground and available for a short to moderate duration by travelling motorists. The view field will change in response to topography and in response to direction of travel. Landscape character will largely be determined by peripheral vision. Along the length of the proposed developed area along the Northern Road, images of the proposed development will be repetitive.</p> <p>The rural character and alignment of the Northern Road has cultural significance as an historical access route (refer Godden Mackey Logan Heritage Assessment, Draft Jan 2007).</p>	<p>HIGH The significant land use changes proposed along the Northern Road will have a high visual impact.</p>	<p>Prepare future detail designs that describe an integrated vision for the Northern Road.</p> <p>Acknowledge and respect the historic and future roles of this route and its role in the context of the SW sector area.</p> <p>Consider the provision of generous landscaped verges, creation of an open parkway character reminiscent of rural context, retention of existing trees, provision of new tree planting, mounding to mitigate noise, minimising future road widening requirements.</p> <p>Maximise the number of deep lots (32-35m) in areas of low density to maximise opportunity for canopy tree planting in private lots.</p>

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	VANTAGE POINT	VISUAL EFFECT	VISUAL SENSITIVITY	VISUAL IMPACT	RECOMMENDATIONS <i>(REFER FIGURE 8)</i>
9	Camden Valley Way and Catherine Fields	Visual effect of the development is low. Glimpse views towards the development from low lying lands to the south and east of the development are largely screened by existing vegetation along South Creek and in Harrington Grove. The ILP provides for the significant augmentation of existing vegetation along South Creek and the ecological zone of Harrington Grove preserves existing vegetation to the south of the development in perpetuity.	Visual sensitivity is low. View duration is short, being obscured by existing vegetation, and distance is predominantly middle to background views.	LOW Visual impact is low because existing natural landscape features obscure views of the proposed development.	Protect, augment and effectively manage existing riparian vegetation along South Creek to ensure the existing vegetated buffer to development of the low lying lands are screened to views from the east.
10	Camden Golf Course	Visual effect of the development is moderate. Views of the land use changes from high points such as Camden Golf Course will be discernible. New development will contrast strongly with the existing rural landscape but are mitigated by surrounding vegetation and topographic change in the overall landscape.	Visual sensitivity is low. Views of the site are in the distance and generally expected to be of short duration.	LOW The new development will have a low impact on panoramic views to the west from this vantage point. The ILP largely acknowledges high points within the site by proposing open space, large lot or low density development in these areas to give maximum opportunity to maintain landscape dominance.	Where low density development is proposed on hill tops or ridgelines provide deep lots (32-35m) to maximise opportunity for canopy tree planting in private lots to allow landscape setting to be dominant over built form.
11	Oran Park House	Visual effect of the development is low. Oran Park House is concealed in views from the precinct by a ridge to the west and riparian vegetation to the north (Godden Mackay Logan Heritage Assessment, Draft Jan 2007). The ILP provides for the significant augmentation of the riparian vegetation to the north to further conceal views between Oran Park House and the precinct. A key view from Cobbitty Road to Oran Park House will be impacted by low density development on Cobbitty Road at the south east corner of the development.	Visual sensitivity is high because of the high heritage value of the Oran Park House cultural landscape (Godden Mackay Logan Heritage Assessment, Draft Jan 2007).	MODERATE The setting of Oran Park House will be largely uncompromised by development except for the low density area to the south east of the precinct which requires careful planning to maintain the view line to the homestead from Cobbitty Road.	Detail design guidelines are recommended to control built form setbacks along Cobbitty Road and to the precinct area in the south east of the development.
12	Residential Areas Generally	Visual effect is high because new development will contrast strongly with the existing rural landscape.	Visual sensitivity is high. Residential areas are most frequently viewed from the Northern Road in the foreground, as well as other distant panoramic vantage points and internal site views. Views	HIGH The significant land use changes proposed along the Northern Road will have a high visual impact.	Maximise the number of deep lots (32-35m) in areas of low density to maximise opportunity for canopy tree planting in private lots. Provide significant evergreen tree

03 Visual Assessment

	VANTAGE POINT	VISUAL EFFECT	VISUAL SENSITIVITY	VISUAL IMPACT	RECOMMENDATIONS <i>(REFER FIGURE 8)</i>
			<p>from the Northern Road are available for a short to moderate duration by travelling motorists. The view field will change in response to topography and in response to direction of travel. Landscape character will largely be determined by peripheral vision. Along the length of the proposed developed area along the Northern Road, images of the proposed development will be repetitive.</p>		<p>planting in medium density areas and local /town centres.</p> <p>Provide landscape setbacks in private lots (low density areas) to allow canopy tree planting.</p> <p>Provide landscape guidelines prescribing canopy tree planting requirements.</p> <p>Carefully select built form materials and nominate recessive colours to minimise the intrusion of housing and development in the landscape.</p> <p>Prepare detail designs for landscaped areas for medium density development (private domain), schools and other community facilities to address the creation of canopy vegetation.</p>

04 Landscape Strategies

A number of landscape strategies are recommended to mitigate the visual impact of the proposed development. These have been developed as a response to the existing site and the potential impacts created by the development proposal. They are listed in the visual assessment table (refer Section 3) and summarised on the following plan (refer Figure 8).

Landscape strategies recommended for the Oran Park precinct development are as follows.

Denbigh Curtilage Area

Objective - protect the Denbigh homestead and its exceptional landscape setting in a natural valley surrounded by prominent ridges from intrusion by new development associated with the Oran Park precinct.

- Control built form height, bulk and scale below the Denbigh ridge line to the east.
- Prepare landscape guidelines to ensure that existing tree vegetation along the ridgeline is rehabilitated, protected and managed into the future.
- Provide new tree and shrub vegetation on the southern extension of the ridge line and curtilage area to screen proposed residential development to the south of the Denbigh complex.

Thomas Hassall Driveway (from Cobbitty Road)

Objective - to provide open space corridor along the alignment of the Thomas Hassall driveway to the south that respects the historic driveway alignment and provides a view connection between the southern boundary of the precinct and the Denbigh complex

- Control built form and setbacks in the area of large lot and low density development on the Thomas Hassall alignment to maximise the opportunity to preserve views between the southern boundary and the Denbigh curtilage area.

Original Entrance Driveway (from the Northern Road)

Objective - interpret the original driveway entry and maintain view connections from the Northern Road to the Denbigh curtilage area.

- Prepare detail designs for the open space corridor that respect the existing heritage elements in the landscape and acknowledge the original rural character of the driveway.

Large Southern Dam Viewline (Oran Park precinct west)

Objective - to retain a view from the Northern Road across the landscape to the large Southern Dam located in the west of the precinct.

- Prepare detailed open space designs that maximise views across the landscape to the large southern dam from the Northern Road.

04 Landscape Strategies



Figure 8: Recommended Landscape Strategies.

04 Landscape Strategies

Cobbitty Road

Objective - retain the existing rural character of Cobbitty Road

- Impose built form setbacks in the areas of low density development proposed along Cobbitty Road
- Augment existing roadside vegetation with new landscape treatments located within setbacks in large lot and residential lots along Cobbitty Road.
- Utilise landscape setbacks and vegetation treatments to effectively screen new residential development along Cobbitty Road.
- Prepare detail designs for the open space areas adjacent to Cobbitty Road that provide effective vegetation screening to proposed low and medium, density development beyond.

The Northern Road

Objective - acknowledge the historic and future roles of the Northern Road in considering an appropriate landscape solution for this important corridor.

- Prepare future detail designs that describe an integrated vision for the Northern Road.
- Acknowledge and respect the historic and future roles of the route and its role in the context of the SW sector area.
- Consider the provision of generous landscaped verges, creation of an open parkway character reminiscent of rural context, retention of existing trees, provision of new tree planting, mounding to mitigate noise, and minimising future road widening requirements.

Residential Development Areas

- Maximise the number of deep lots (32-35m) in areas of low density to maximise opportunity for canopy tree planting in private lots.
- Provide significant evergreen tree planting in medium density areas and local /town centres.
- Provide landscape setbacks in private lots (low density areas) to allow canopy tree planting.
- Provide landscape guidelines prescribing canopy tree planting requirements.
- Carefully select built form materials and nominate recessive colours to minimise the intrusion of housing and development in the landscape.
- Prepare detail designs for landscaped areas for medium density development (private domain), schools and other community facilities to address the creation of canopy vegetation.

Views from the East

Objective - maintain existing vegetation buffers along South Creek to minimise visual impact from locations to the east of the development.

- Protect, augment and effectively manage existing riparian vegetation along South Creek to ensure the existing vegetated buffer to development of the low lying lands are screened to views from the east.

04 Landscape Strategies

Distant Vantage Points (eg Camden Golf Course)

Objective - minimise the impact of development of the rural landscape of the Oran Park precinct by establishing a connected tree canopy across the site to screen new built form.

- Where low density development is proposed on hill tops, ridgelines and undulating land provide deep lots (32-35m) to maximise opportunity for canopy tree planting on private land to allow landscape setting to be dominant over built form.
- Provide a special design for the prominent Oran Park Raceway hilltop where the landscape is dominant over built form and provides a significant tree canopy.

Oran Park House

Objective - maintain the existing view line to Oran Park House from Cobbitty Road.

- Control built form setbacks in low density development in the south east corner of the precinct on Cobbitty Road.

Appendices

Appendix A

List of Documents Reviewed

Appendices

LIST OF DOCUMENTS REVIEWED

DISCIPLINE	ISSUED BY	TITLE	PREPARED DATE	ISSUE	DATE RECEIVED
McIntosh Bros Pty Ltd	Design 5 - Architects Pty Ltd	Denbigh Curtilage Study, Final Report	July 2006		
National Trust of Aust (NSW)	Colleen Morris and Geoffrey Britton	Colonial Landscape of Cumberland Plain and Camden, NSW	January 1999		
NSW Department of Planning	Cox Roberts Day	Denbigh Estate - The Northern Road, Cobbitty	October 2005		
Growth Centres Commission	Godden Mackay Logan	GCC Precincts, Oran park and Turner Road, Heritage Assessment Draft Report	January 2007		
Landcom/Greenfields Dev. Corp	DPS NSW	Oran Park (GDC) Concept Plan and Indicative Layout Plan - Preliminary Draft	November 2006		
	Mary Dallas Consulting - Archaeologists	Denbigh Curtilage Study Aboriginal Cultural Heritage	July 2003		
		Indicative Layout Plan			
		Oran Park Project Team and Organisational Chart	1 June 2006		
		Regional Open Space SW1			
		Riparian Stream Objectives - NWSW1			
		Scenic Qualities SW1			