

C11 Camden Lakeside

C11.1 Introduction

The Camden Lakeside development provides for residential uses set amongst a golf course and clubhouse facilities and environmental assets including watercourses and water bodies, and scattered remnant Cumberland Plain Woodland vegetation.

Camden Lakeside forms part of the Central Hills lands which were identified in the Camden Structure Plan as an important scenic and rural buffer between the urban areas of Camden and Campbelltown LGAs. The essential character of the Central Hills is seen to be generally open landscape, so that any new urban form components must be subservient. The unique conservation and heritage qualities, (including cultural landscapes) as well as maintenance of biodiversity and vegetation corridors, are also regarded as integral elements of the Central Hills area.

The site contains some significant remnant Cumberland Plain Woodland vegetation, albeit in small quantities, including an area of threatened *Pimelea spicata* vegetation just north of the first golf tee. The more intact vegetation communities are located along the banks of Rileys Creek, the primary drainage line through the site, and in the northern and north-eastern parts of the site. Other scattered remnant and planted vegetation occurs throughout Camden Lakeside, further contributing to the natural landscape character prevalent through much of the site.

Gledswood Homestead is the most visually and culturally significant built form adjacent to the site. This is a state heritage listed homestead nestled within well-maintained gardens of mature tree plantings, hedges and period fencing. Parts of the central, western and southern areas of the golf course are clearly visible from Gledswood. Maintenance of these views, particularly the views to the north of Gledswood homestead, is desirable.

The Sydney Catchment Authority Upper Canal is also listed on the State Heritage Register and adjoins the south and eastern edge of the site.

Camden Lakeside Planning Principles

- Enhancement of the existing natural environment through the implementation of a water management system integrated with the golf course landscape.
- Retention and enhancement of existing significant Cumberland Plain Woodland where practical.
- Protection of important visual elements within the landscape including contained and long views, vegetation, waterbodies and cultural elements.
- Retention where possible of open space and golf play areas visible from Gledswood Homestead and gardens.
- Protection of the Sydney Catchment Authority Upper Canal.
- Establishment of streetscapes and other public spaces including parks and pedestrian paths which are visually and physically empathetic with the existing character of the site.
- Establishment of natural and built environments which reflect contemporary lifestyles.
- Creation of an urban structure which facilitates the implementation of ecologically responsible long term management procedures.
- Accommodation of relevant bushfire requirements, riparian setbacks and golf safety setbacks.
- Responsible physical integration of residential lots with the activity associated with the golf course and other land uses.
- Maintenance of a golf course, clubhouse and maintenance facility/depot.

Design Structure

An indicative master plan for Camden Lakeside is shown in Figure C60. The proposed entry point to the development is off Raby Road. The entry will provide direct access to the Camden Lakeside clubhouse, golf course and residential allotments. A north-south oriented connector road provides an important vehicular, pedestrian and bicycle link between the northern and southern parts of the development.

A road link and potential bus route will be provided into the adjoining Gledswood homestead from Precinct 4. A dual use cycle/pedestrian path is also proposed from the Raby Road entrance, through Precinct 3 and into the Gledswood site and beyond.

The golf course incorporates water bodies, watercourses and tree planting. The proposed development includes construction of a number of new holes and modification of existing holes to accommodate the residential development.

Recreation facilities must be located adjacent to the golf clubhouse. The facilities will provide a place for residents to meet, socialise and exercise. It is anticipated that the facilities will include a pool, tennis court, children's play area and a small shelter. The proposed development also contains a number of local parks for passive and active recreation uses. Pedestrian and bicycle routes provide convenient and safe access to the recreation facilities.

Proposed residential areas are located primarily to the south of the site and to the north around the clubhouse. The principal design objective is to maximise views to the golf course and Rileys Creek.

The capacity of the Camden Lakeside site is 380 dwellings.

Relationship to Other Plans

The Camden Lakeside section was developed following completion of the Camden Lakeside Local Environmental Study (APP, 2007) which summarised the wide range of specialist consultant reports including:

- Cardno Forbes Rigby (July 2007) Civil Infrastructure and Water Cycle Assessment.
- Elton Consulting et al (November 2006) Community Facilities & Open Space Assessment.
- Cumberland Ecology (November 2006) Ecological (and Bushfire) Assessment.
- Lucas, C. et al (November 2006) Landscape Conservation Management Plan for the Former Gledswood Estate.
- Australian Museum Business Services (December 2006) Aboriginal Heritage Assessment.
- LFA (Pacific) (November 2006) Landscape and Visual Assessment.
- Douglas Partners (November 2006) Land Capability and Contamination Assessment.
- Atkins Acoustics (November 2006) Acoustic Planning Report.
- Maunsell Australia (November 2006) Transport Management and Accessibility Plan.



Figure C60 Camden Lakeside Master Plan

Subdivision design

Objectives

1. Establish a framework for the provision of a diversity of dwelling types, including options for seniors living, multi dwelling housing and residential flat buildings in Precinct 1.
2. Maximise amenity of residential lots by providing maximum frontage and access to open space, including golf play areas, parks and creeks.
3. Facilitate streetscapes which maximise opportunities for pedestrian activity and visual surveillance of public spaces.
4. Establish an urban structure which will facilitate the protection and enhancement of the visual amenity of the landscape.
5. Maximise amenity of residential lots by ensuring suitable noise attenuation measures adjacent to Camden Valley Way and Raby Road subject to maintaining visual access to the Camden Lakeside area from Camden Valley Way.
6. Establish an urban structure which will allow for the protection and management of important vegetation.
7. Maximise the use of public transport, walking and cycling trips to, from and within the site.

Controls

1. The subdivision pattern for Camden Lakeside shall provide for a diversity of dwelling types (attached and detached) with lot sizes ranging from small lot residential (250m² to 450m²) to standard lot residential (450m² to 850m²) and large lot residential (850m²+).
2. Precinct 1 dwelling types may also include provision for seniors living, multi dwelling housing and residential flat buildings. The development of the latter will be on superlots which are not required to provide building envelopes as any future subdivision will be assessed to include the relevant design criteria. The permissible dwelling density is 1 dwelling per 200m² of site area with a maximum permissible site coverage of 50%.

C11.2 Street, Pedestrian and Cycle Network

Objectives

1. Establish a legible and well-connected street network that promotes safe pedestrian and bicycle movement as well as convenient vehicular access while recognising constraints to connectivity imposed by the water canal and the external arterial roads.
2. Provide a vehicular and pedestrian connection with the Gledswood homestead precinct.
3. Facilitate a future bus link with the adjacent Gledswood development site.
4. Create well-vegetated, attractive streetscapes which are not dominated by driveways and garages.
5. Ensure the parking arrangements contribute positively to the character of the streets.
6. Incorporate existing significant trees into street verges where feasible.
7. Establish verges which are sustainably landscaped with trees, shrubs and groundcovers that have low water and nutrient demands.
8. Provide a variety of street tree planting with formal and informal spacings that will help create a special character within the streets.
9. Utilise street verges for Water Sensitive Urban Design and stormwater treatment.
10. Promote plant species selection and design which will minimise ongoing water and maintenance requirements.
11. Plant species selection and layout will minimise ongoing water and maintenance requirements.
12. Where streets cannot be located immediately adjacent to open space, lots may back onto that open space providing they minimise potential personal and property security, vandalism and poor visual amenity.

Controls

1. The street, pedestrian and cycle and public transport networks are to be designed and constructed in accordance with Figures C61, C62 and C63 and C61.1 – C61.5 and landscaped accordingly.
2. Kerb returns of 8.5m radius are to be provided for intersections between streets..

Note: Refer to Council's Engineering Construction Standards for road construction.

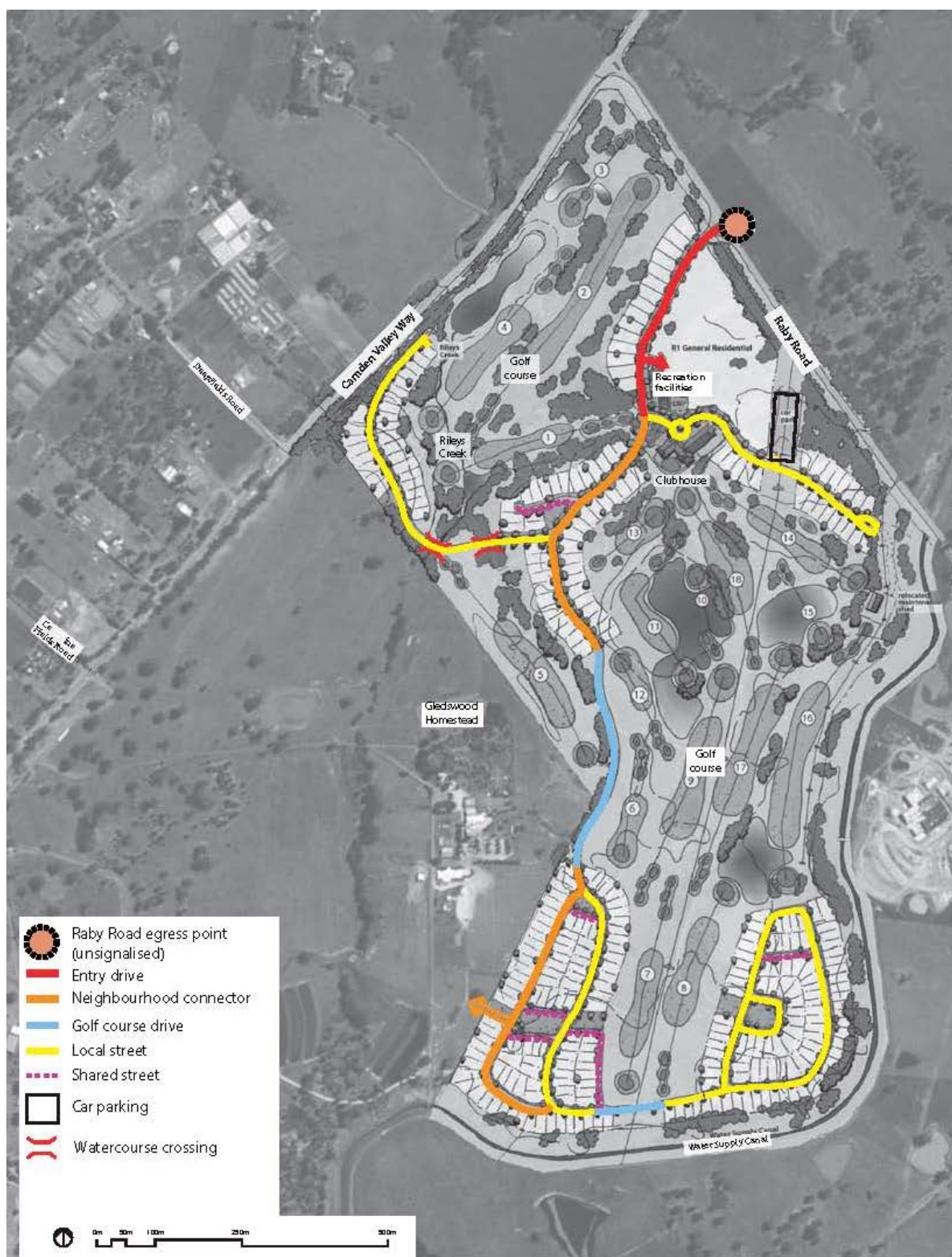


Figure C61 Camden Lakeside Indicative Road Structure

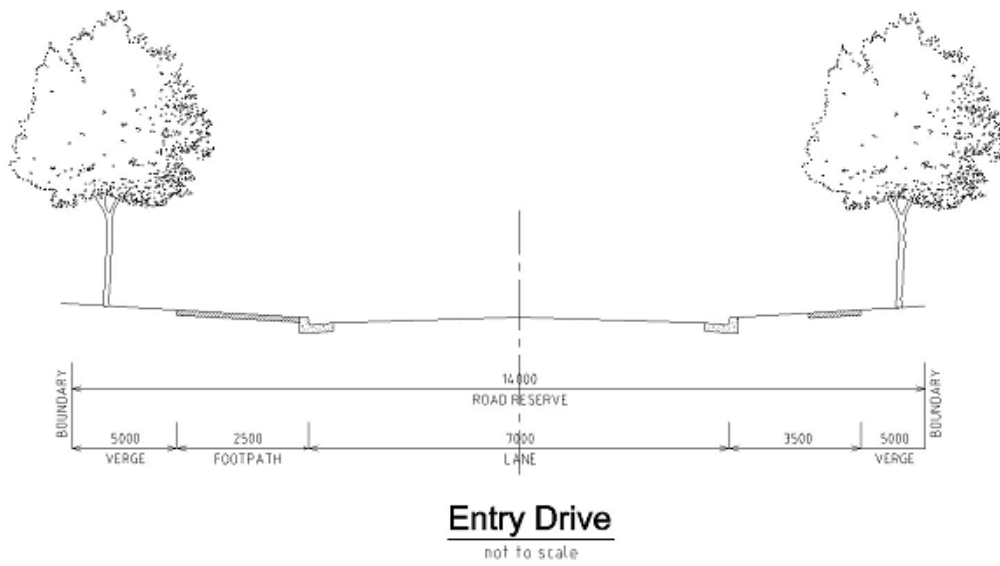


Figure C61.1 Camden Lakeside Entry Drive

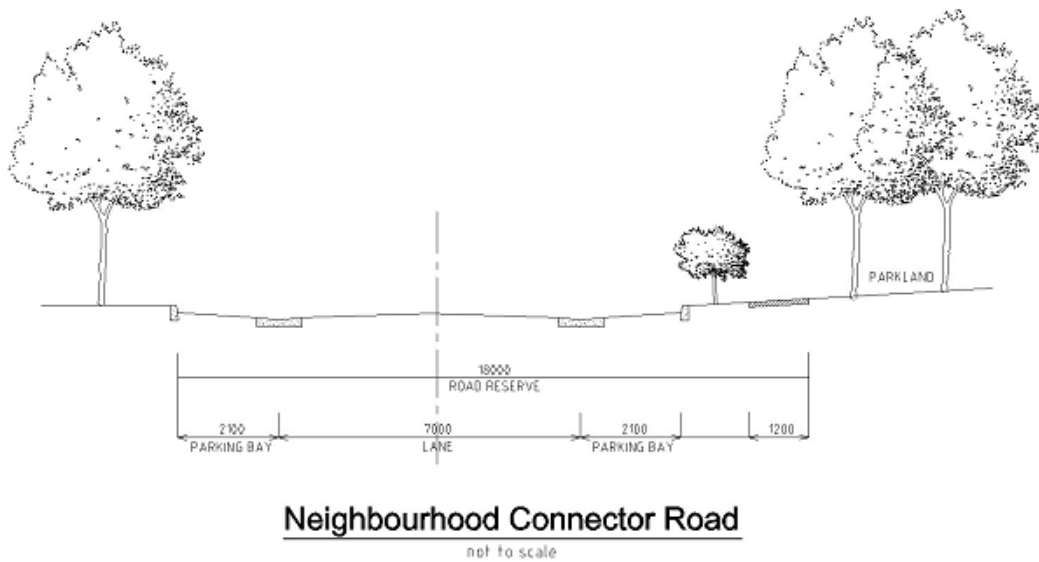


Figure C61.2 Camden Lakeside Neighbourhood Connector Road

Note: 2.5m dual use path in part as shown in figure C61.1

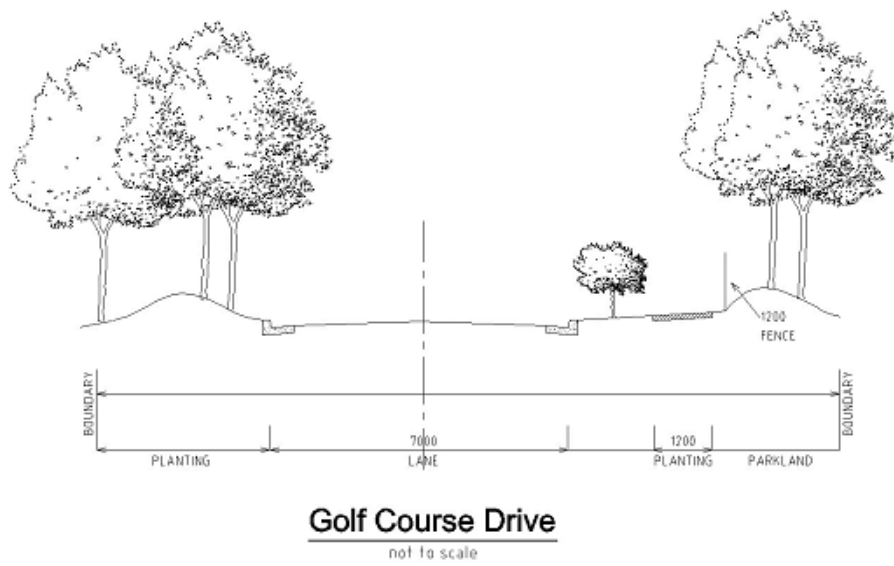


Figure C61.3 Camden Lakeside Golf Course Drive

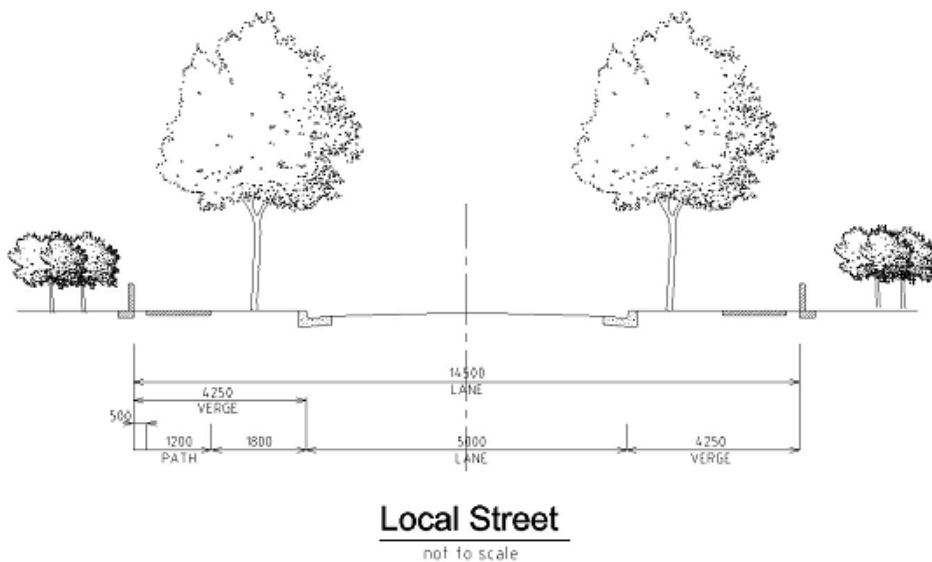


Figure C61.4 Camden Lakeside Local Street

Note: 2.5m dual use path in part as shown in figure C61

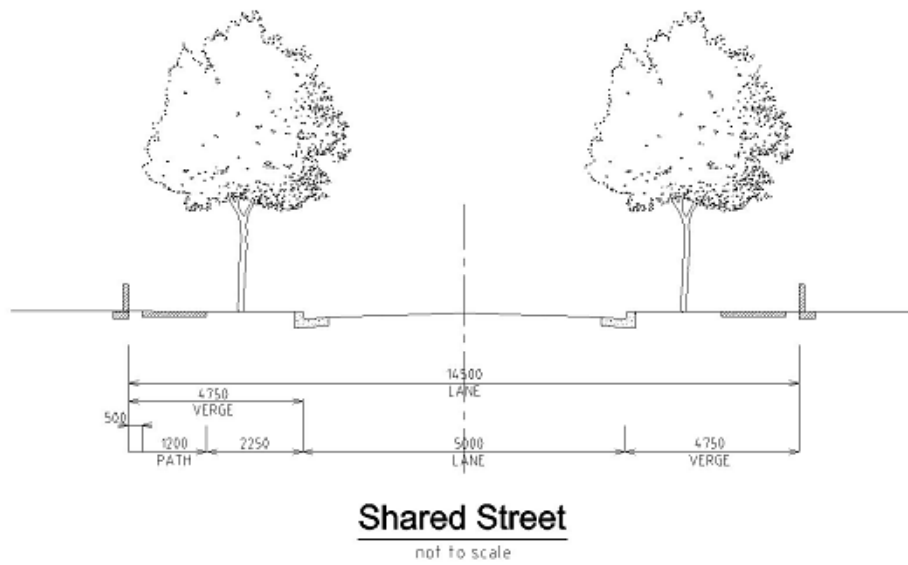


Figure C61.5 Camden Lakeside Shared Street

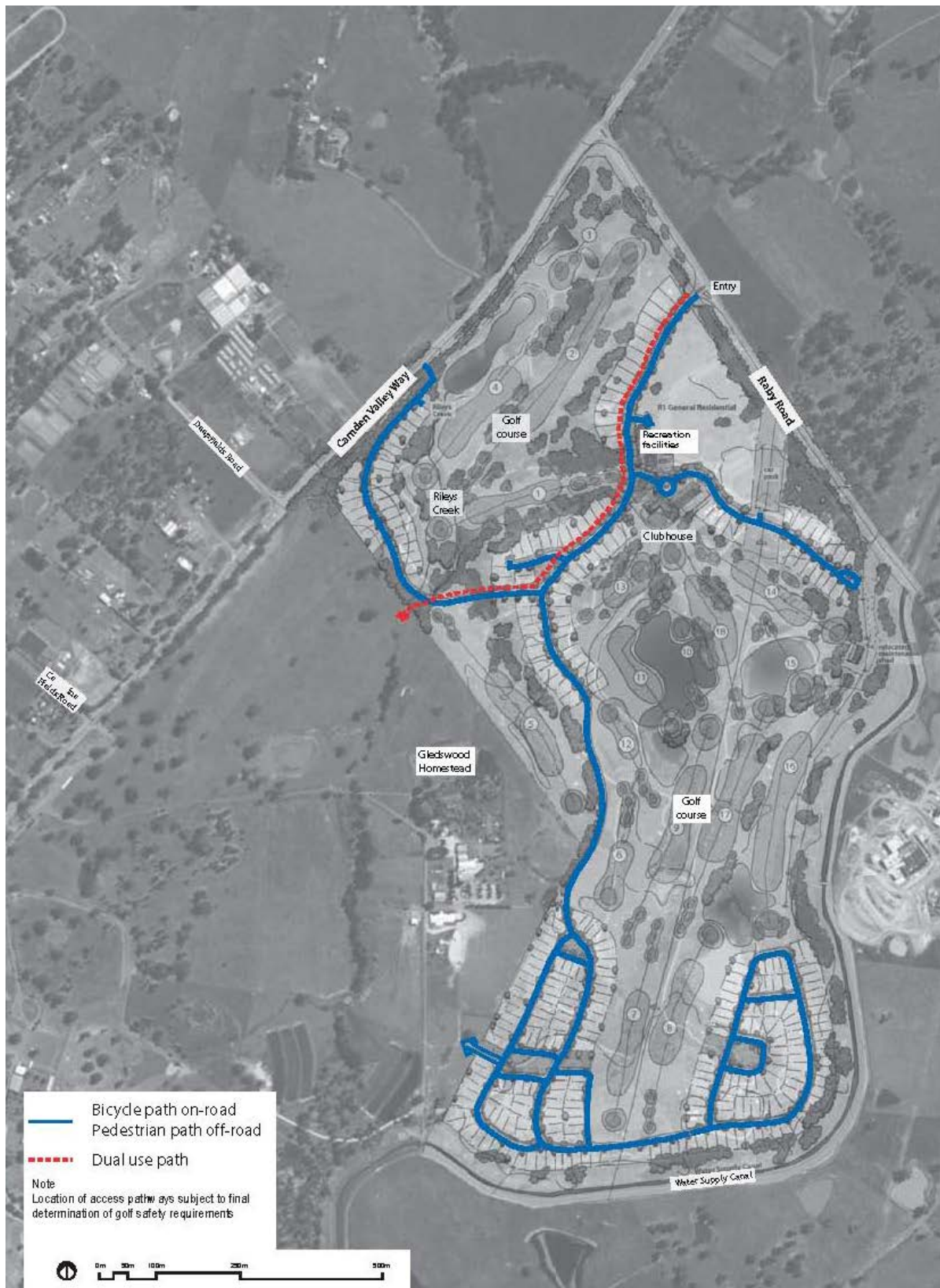


Figure C62 Camden Lakeside Pedestrian and Cycle Network

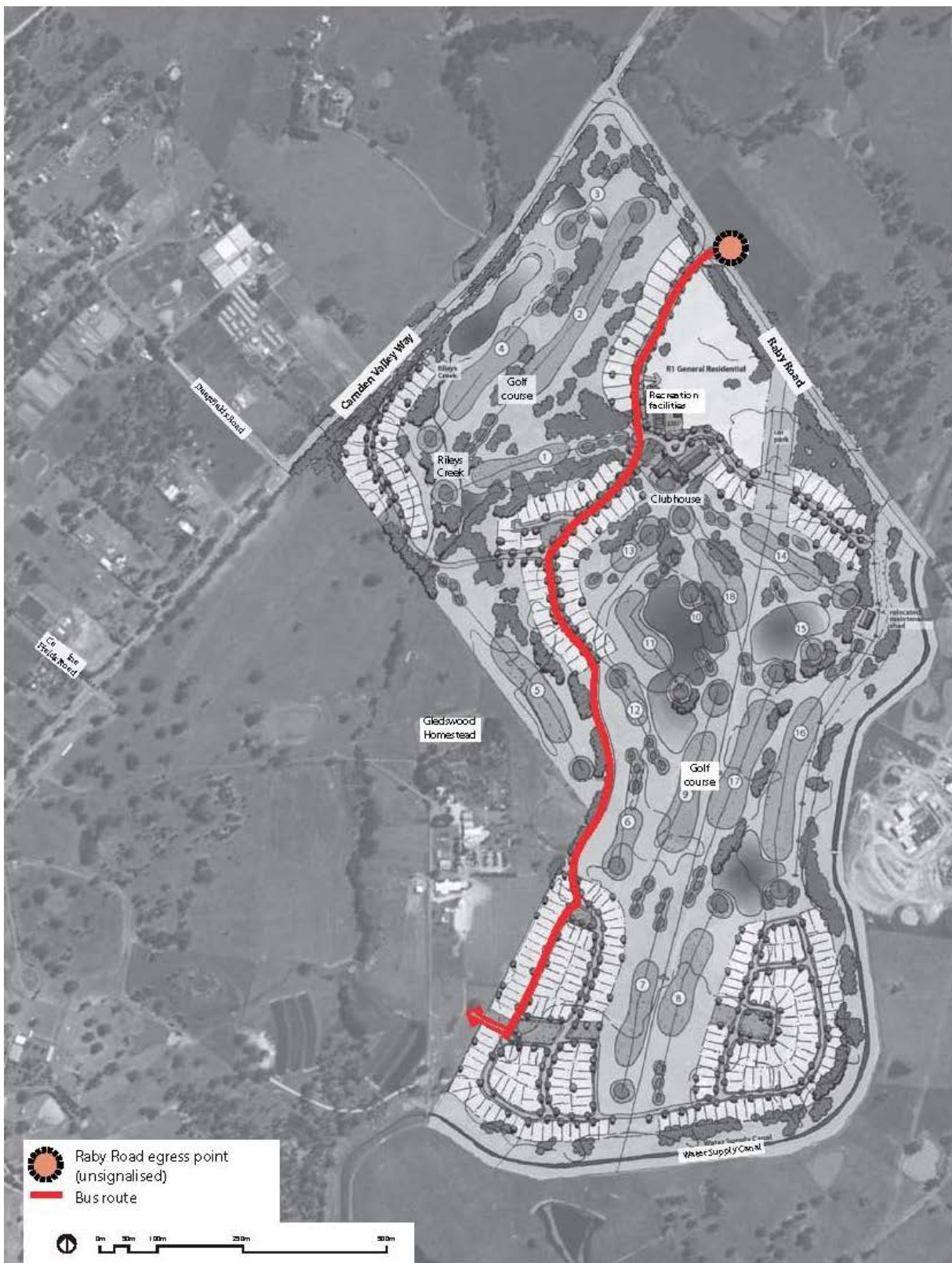


Figure C63 Camden Lakeside Indicative Bus Route

C11.3 Parks and Open Space

Objectives

1. Ensure that open space is of appropriate quality and quantity to meet the recreational and social needs of the community.
2. Provide the framework for the protection and enhancement of remnant vegetation and riparian corridors within the public realm.
3. Provide for the establishment of local parks and other open spaces which contribute to the sense of place.
4. Utilise open space for Water Sensitive Urban Design and stormwater management.
5. Promote plant species selection and design which will minimise ongoing water and maintenance requirements.

Controls

1. Local open space will generally be located in accordance with Figure C64.

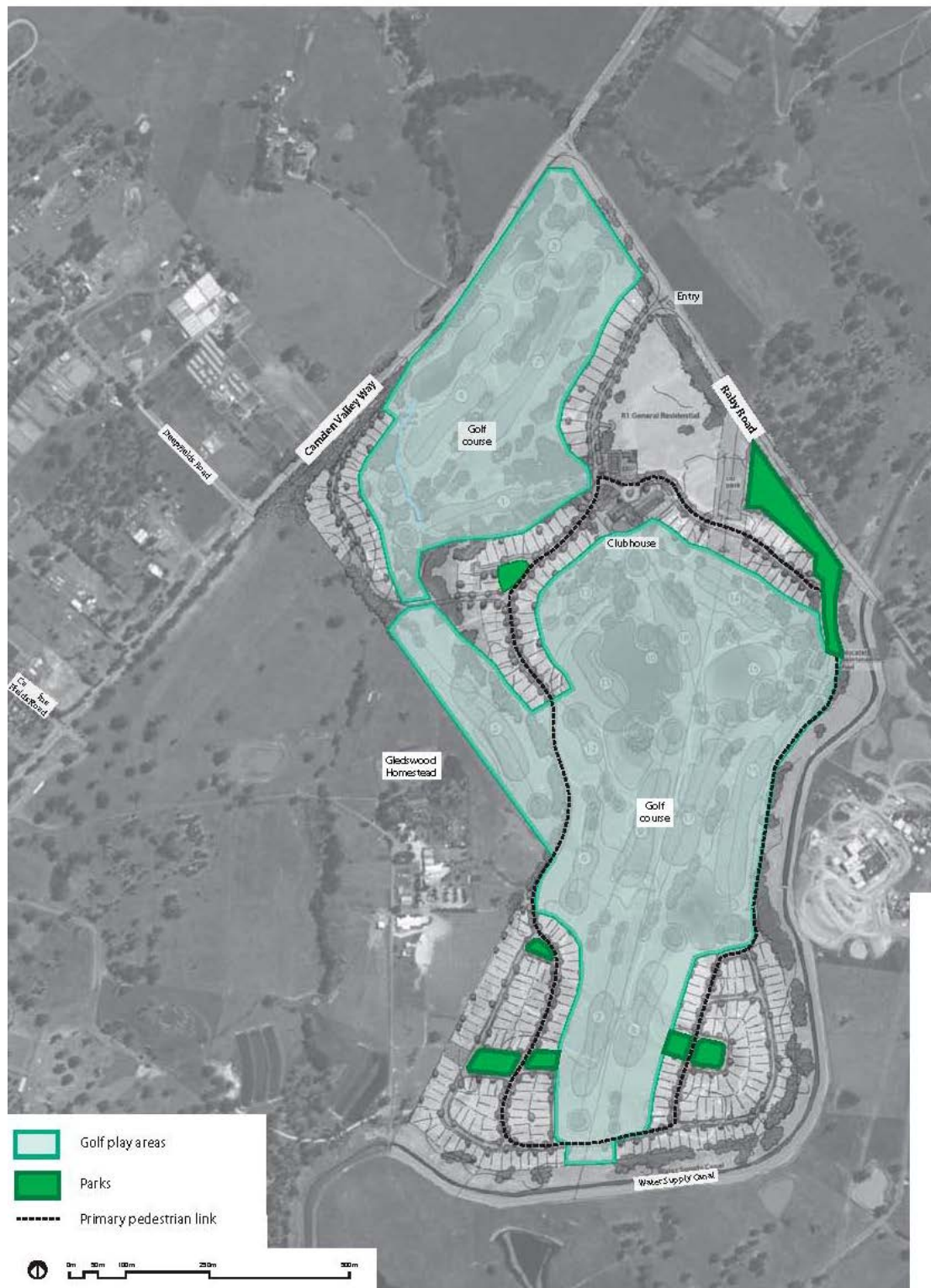


Figure C64

Camden Lakeside Indicative Open Space Network

C11.4 Vegetation Conservation

Objectives

1. Ensure the protection and enhancement of existing significant trees and significant remnant vegetation where practical.
2. Facilitate the implementation of the agreed conservation offset package for Camden Lakeside.
3. Prevent the spread of weeds during and after construction.

Controls

1. All 'Core Local Vegetation Protected' and 'Other Vegetation Protected' areas identified in Figure C65 are to be retained within open space and protected to ensure long term viability.
2. Land identified as 'Core Local Vegetation Rehabilitated' in Figure C65 is to be restored in accordance with a Conservation Management Plan (CMP). The CMP must be prepared in line with the recommendations of the Cumberland Ecology - Ecological Assessment (January 2007) and be endorsed by Camden Council.
3. All applicants for subdivision and bulk earthworks are required to consider the need to minimise weed dispersion. Refer within Chapter B1, section B1.3 Natural Environment Management for further information in relation to weed control

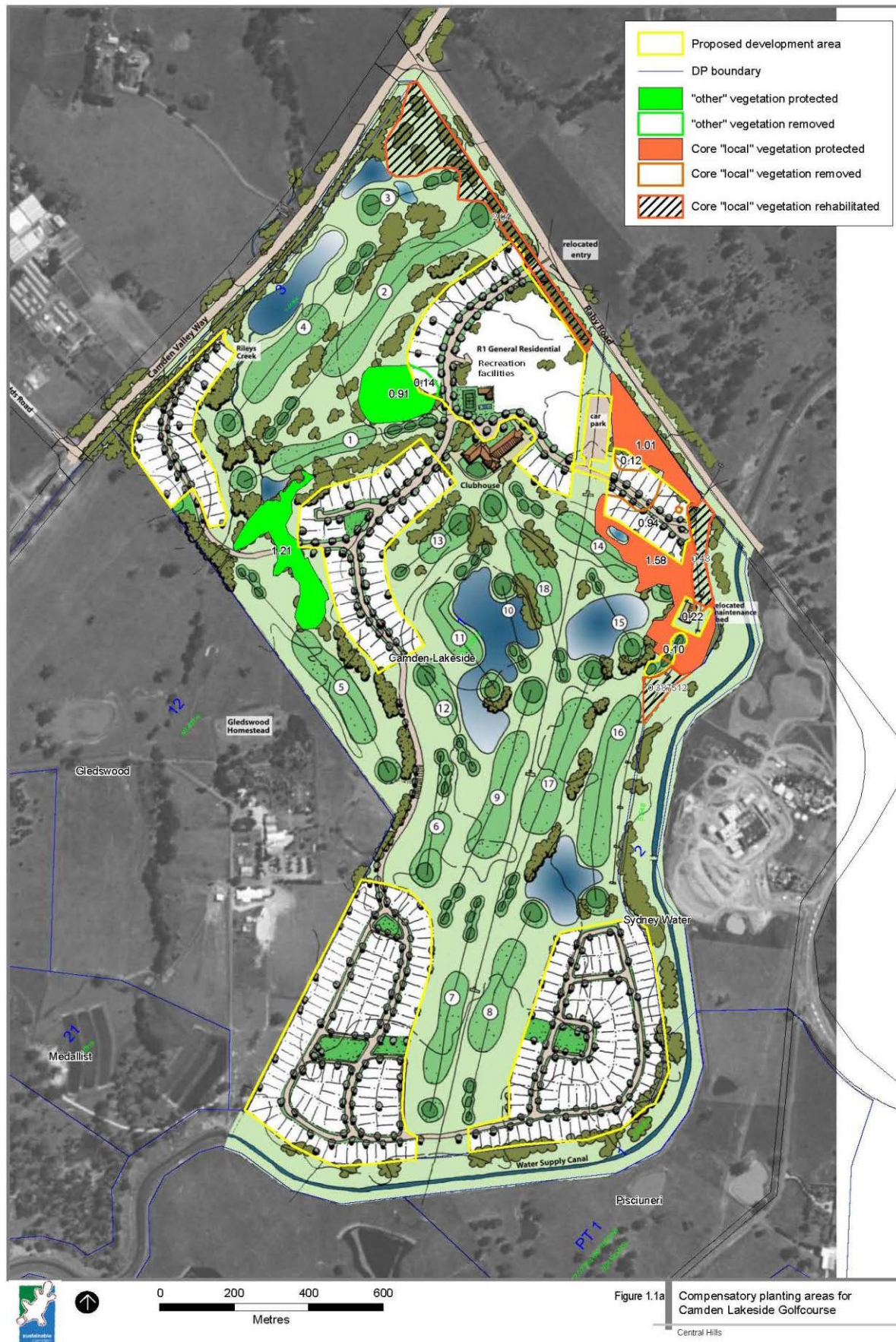


Figure C65 Camden Lakeside Compensatory Planting Areas

C11.5 Sydney Upper Canal

Objectives

1. Enhance and protect the heritage significance of the Upper Canal and respect its rural landscape setting.
2. Ensure that new development is set back and visually screened from the Upper Canal.
3. Provide public access along the Upper Canal perimeter for heritage interpretation purposes, while ensuring the security of the Upper Canal is maintained at all times.
4. Minimise risks to public safety.
5. Prevent stormwater, treated effluent or other pollutants from entering the Upper Canal system.

Controls

1. A safety fence shall be erected along the southern boundary of residential Precinct 4 and the southern and eastern boundaries of Precinct 5 that adjoin the golf course (including the area between Precincts 4 and 5 that adjoins the upper canal). The fence shall be designed to satisfy the security requirements of the Sydney Catchment Authority without being detrimental to the heritage significance of the Upper Canal. Consideration must be to soften the visual impact of the fence from the Upper Canal and from the development. The fence shall be installed by the developer as part of the subdivision works occurring adjacent to the Upper Canal.
2. The stormwater system along the boundaries of Precincts 1, 4 and 5 that adjoin the Upper Canal shall be designed to ensure that stormwater during a 1% AEP flood event will not enter the Upper Canal. Management measures shall accommodate and not impede flows from the trails, drains, banks/berms, pipes/flumes/culverts/siphons that convey stormwater across the Upper Canal.
3. The reuse of treated effluent in the vicinity of the Upper Canal is to incorporate an irrigation system that avoids the potential for airborne contaminants to adversely impact on water in the Upper Canal.
4. Any development adjacent to the Upper Canal and roads crossing the Upper Canal shall be designed and constructed to minimize damage to the Upper Canal from vibration and from cut and fill works. Construction techniques shall satisfy the requirements of the Sydney Catchment Authority.
5. Further reference shall be made to section B1.14 and Chapter B3 Environmental Heritage.

C11.6 Golf Course and Recreational Facilities Precinct

Objectives

1. Control the interface between the golf course and adjacent land uses.
2. Identify the materials, form and scale of boundary treatments at the interface between the golf course and adjacent land uses.
3. Where practical, provide for the retention of existing trees both on the golf course and within adjacent lots.
4. Establish an appropriate physical separation between golf play areas, roads, dwellings and other activities within adjacent land areas.
5. Define the extent of the landscape curtilage which surrounds the recreational/golf course facilities and which forms the Precinct area.
6. Facilitate the appropriate physical separation between the recreational facilities and surrounding activities.
7. Establish site circulation, visual amenity and environmental management principles which apply to the Golf Course Facilities Precinct.
8. Facilitate pedestrian and bicycle access to the Golf Course/Recreational Facilities Precinct.

Controls

Golf course design and safety setbacks

1. The requirements for safety setbacks are to be determined by a specialist golf designer or similarly qualified person.
2. Where an existing significant tree cannot to be retained, a replacement tree of the same species is to be planted within close proximity of the existing tree.
3. Where practical, new planting within the golf course is to be located to maximise existing views of the golf course from lots and Gledswood homestead and Upper Water Canal.
4. Provide appropriate safety setbacks from the centreline of the fairways to the boundary of adjacent lots, roads and other development.
5. New planting is to be established to soften the visual impact of built forms.
6. Recreational and clubhouse facilities and associated activities that have the potential to cause intrusive/offensive noise to residential premises are to be designed to comply with relevant noise criterion contained within the EPA Policy document 'Industrial Noise Policy (2000)'.
7. Car parking is to be provided in the vicinity of the Recreational and Golf Course facilities in accordance with relevant provisions of this DCP.
8. Vehicular access and egress to the facilities and associated car park will be provided with adequate separation from and appropriate integration with the pedestrian and bicycle movement system.
9. Provide bicycle parking facilities in the Golf Course/Recreational Facilities Precinct. Pedestrian access requirements to the recreational facilities and Golf Club are to comply with Australian Standards for mobility and access.
10. Future extensions and modifications to the existing clubhouse are to be in keeping with the existing scale, form and character of the clubhouse.

Recreational facilities

11. If recreational facilities are provided, they are to be in a location easily accessible from the clubhouse and roads.
12. Facilities may include a fenced full size tennis court and swimming pool.

C11.7 Camden Lakeside – Odour impacts

Objectives

1. Ensure appropriate levels of air quality for the health and amenity of future residents.

Controls

1. An odour impact assessment of the identified poultry operation (within the Benbow Environmental Level 3 Odour Impact Assessment for development of Camden Lakeside (November 2007)) is to be undertaken in accordance with the EPA draft policy Assessment and Management of Odour from Stationary sources in NSW and Technical Notes.
2. Any land identified by the odour study as being within a nominated separation distance (ie. inside the 2.0 OU / cubic metre - 99th percentile expressed as a nose response average 1 second value) shall not be developed until either:
 - (a) The poultry operation ceases to operate and the existing use rights have been extinguished and the poultry sheds and supporting infrastructure has been demolished, or
 - (b) It can be demonstrated to Council that the odour levels are within acceptable limits to permit development.

C11.8 Camden Lakeside – Acoustic Amenity

Objectives

1. Establish an urban structure which protects and enhances short and long views within the landscape, whilst allowing for the development of individual lots.
2. Mitigate noise effects from Camden Valley Way and Raby Road to ensure private open space areas are not adversely affected by noise.
3. Allow for the physical separation of incompatible activities to facilitate adequate privacy.
4. Achieve high quality living environments which maximise visual privacy of the occupants and neighbouring properties through siting, building planning, location of openings and building materials.

Controls

1. Lots contained within Precinct 2 immediately adjacent to Camden Valley Way are to have a continuous building facade (noise attenuation / barrier). This shall include where the facade faces toward the road, with a private open space area located on the eastern (protected) side of the facade and sleeping / quiet areas located within the part of the dwelling furthest away from the noise source. Figure C66 below shows indicative layout and noise attenuation measures which will help achieve the external noise criteria.
2. Residential premises immediately adjacent to Camden Valley Way and Raby Road are to be designed to comply with the EPA Policy document '*Environmental Criteria for Road Traffic Noise*' and be in accordance with the following principles:
 - (a) Appropriately designed acoustic mounds are to be provided along Camden Valley Way where required.
 - (b) Setbacks and service roads placed between Camden Valley Way and housing.
 - (c) Internal dwelling layouts that are designed to minimise noise in living and sleeping areas.
 - (d) Higher than standard fencing constructed with a suitably solid mass .
 - (e) Locating courtyards and private open space areas away from the noise source to achieve external noise criteria of less than 55db(a) LAeq (15 hr) day time, and less than 50 db(a) LAeq (9 hr) night time.
3. Where the relevant external noise criteria within the EPA Policy document '*Environmental Criteria for Road Traffic Noise*' cannot be met (using all feasible and reasonable measures), residential premises impacted by traffic noise from Camden Valley Way shall be designed to meet the following internal noise levels:
 - (a) In a naturally ventilated, windows open condition (i.e. windows open up to 5% of the floor area, or attenuated natural ventilation open to 5% of the floor area) or mechanically ventilated windows closed condition:

- (i) Sleeping areas
 - LAeq 15 hour, Day 40db
 - LAeq 9 hour, Night 35db
- (ii) Living areas
 - LAeq 15 hour, Day 45db
 - LAeq 9 hour, Night 40db

Where a naturally ventilated, windows open condition cannot be achieved, it is necessary to incorporate mechanical ventilation compliant with AS 1668 and the Building Code of Australia. The noise levels above shall be met with mechanical ventilation and air conditioning systems not operating.

- (b) The following LAeq noise levels shall not be exceeded when doors and windows are shut and mechanical ventilation or air conditioning is operating:

- (i) Sleeping areas
 - LAeq 15 hour, Day 43db
 - LAeq 9 hour, Night 38db
- (ii) Living areas
 - LAeq 15 hour, Day 48db
 - LAeq 9 hour, Night 43db

<p>Note: These levels correspond to the combined measured level of external noise sources and the ventilation system operating normally.</p>

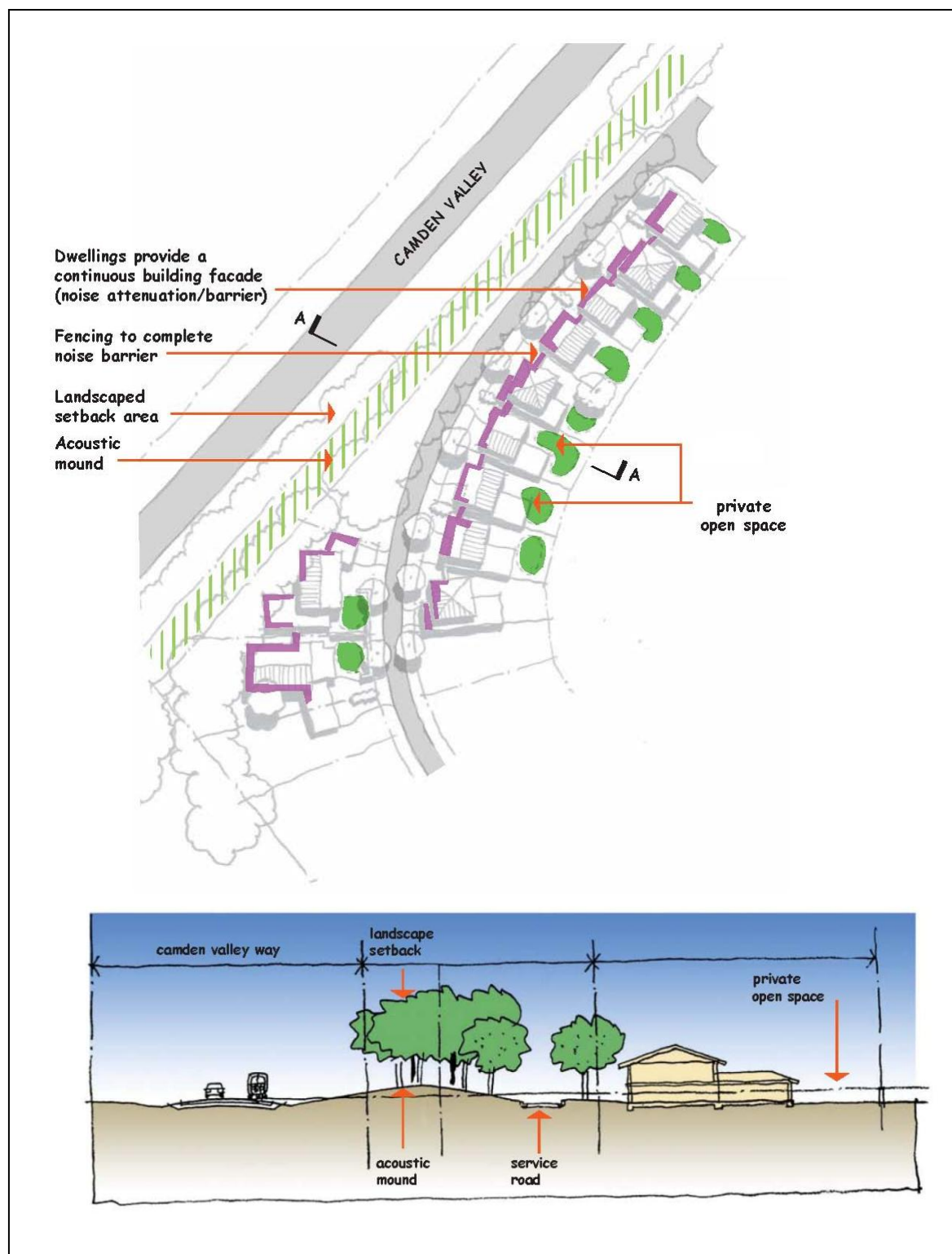


Figure C66 Camden Lakeside Indicative Layout and Noise Attenuation Measures

C11.9 Stormwater Management

Control

The design and performance of the stormwater management system infrastructure must have regard to the Water Sensitive Urban Design measures contained within the 'Camden Lakeside Rezoning: Water Cycle and Civil Infrastructure Assessment' prepared by Cardno Forbes Rigby and dated September 2007.

C11.10 Bushfire Risk Management

Controls

1. Subject to detailed design at development application stage, the indicative location and widths of Asset Protection Zones are to be provided in accordance with figure C67 and;
 - (a) are to be located wholly within the Precinct.
 - (b) may incorporate roads and flood prone land.
 - (c) are to be located wholly outside of a core riparian zone (CRZ) but may be located within the buffer areas of the CRZs.
 - (d) may be used for open space and recreation subject to appropriate fuel management.
 - (e) are to be maintained in accordance with the Planning for Bushfire Protection (NSW RFS).
 - (f) may incorporate private residential land, but only within the building setback (no dwellings are to be located within the APZ).
 - (g) are not to burden public land.
 - (h) are to be generally bounded by a perimeter fire trail/road that is linked to the public road system at regular intervals in accordance with Bushfire Protection.
2. Buildings adjacent to APZs are to be constructed in accordance with the requirements of Appendix 3 of Bushfire Protection and Australian Standard 3959 - Construction of Building in Bushfire-prone Areas.
3. Where an allotment fronts and partially incorporates an APZ it shall have an appropriate depth to accommodate a dwelling with private open space and the minimum required APZ. The APZ will be identified through a Section 88b instrument.
4. Temporary APZs, identified through a Section 88b instrument, will be required where development is proposed on allotments next to undeveloped land. Once the adjacent stage of development is undertaken, the temporary APZ will no longer be required and shall cease.