

AREA 20 PRECINCT

PUBLIC DOMAIN AND LANDSCAPE STRATEGY

August 2011



Prepared by LFA (Pacific) Pty Ltd for:



**Planning &
Infrastructure**

Notes:
LFA (Pacific) Pty Ltd.
All rights reserved.
This work is covered
by copyright and
cannot be reproduced
or copied in any form
or by any means
without written
permission of LFA
(Pacific) Pty Ltd.



LFA (PACIFIC) PTY LIMITED

MASTERPLANNING
URBAN DESIGN
ARCHITECTURE
LANDSCAPE ARCHITECTURE
INTERIORS

SUITE 4, EDGECLIFF COURT, 2 NEW McLEAN ST, EDGECLIFF NSW 2027
M PO BOX 259, EDGECLIFF NSW 2027 T 02 9327 6822 F 02 9327 5554
E lfa@lfa.com.au W www.lfa.com.au ABN 92 830 134 905 QM ISO 9001 #100903

NOMINATED ARCHITECTS ALF LESTER NO.2128 STEPHEN ANDERS NO.5764

Project	Area 20 Precinct
Client	Dept. of Planning & Infrastructure
Project Status	-
Project Director	Steve Anders
Checked By	Rex Pepper / Joanne Mun
Date Issued	31 August 2011
Issue Type	Final

In Conjunction with -

Rev	Notes	Date
1	First Draft	20 June 2011
2	Second Draft	15 July 2011
3	Final Draft	25 August 2011
4	Final Draft	26 August 2011
5	Final	31 August 2011

Contents

1.0	Introduction	1
1.1	Purpose of the Report	1
1.2	Site Context	1
1.3	Scope	2
1.4	Public Domain Principles & Objectives	2
1.5	Relationship to Other Documents	3
1.6	Implementation	3
2.0	Definition of the Public Domain	4
2.1	Public Open Space Network	4
2.2	Semi-Public Domain	4
2.3	Rouse Hill House Estate	4
3.0	Existing Landscape	7
3.1	Visual & Landscape Qualities	7
3.2	View Corridors	10
3.3	Future Desired Character	13
4.0	Opportunities for Tree Retention & New Planting	14
4.1	Creek Corridor	14
4.2	Open Spaces	14
4.3	Key Road Corridors	14
4.4	Rouse Hill Estate – Conservation of Visual Setting	15
4.5	Within Lots	15
5.0	Public Domain Network	17
5.1	Streets & Linkages	17
5.2	Pathways & Trails	18
5.3	The Ponds & External Links	19
6.0	Cultural Heritage Interpretation	25
6.1	Walking Trails	27
6.2	Interpretive Signage	27
6.3	Place Naming	28
6.4	Public Art	28
6.5	Indigenous Heritage Values	29

7.0	Key Elements & Concept Plans	33
7.1	Rouse Road Entry	33
7.2	Knoll Park	35
7.3	Cudgegong Station Area	37
7.4	Windsor Road Setback	37
7.5	Cudgegong Reserve	38
7.6	Visual Mitigation of Adverse Impacts on Rouse Hill Regional Park	39
8.0	Landscape Guidelines	44
8.1	Streets & Park Planting	44
8.2	Character of Parks	44
8.3	Playground Location & Character	47
8.4	Street Furniture	49
8.5	Landscape Materials & Design	50
8.6	Tree Planting List and Location	51
9.0	Conclusion	55

Attachment 1

Cultural Heritage Interpretation Strategy

Tables

Table 1: Summary of Landscape Character	7
--	---

Figures

Figure 1: Public and Semi-Public Domain	6
Figure 2: Landscape Character Units	9
Figure 3: Views	12
Figure 4: Opportunities for Tree Retention and New Plantings	16
Figure 5: Pathways and Trails	20
Figure 6: Rouse Road Concept Plan and Section A	21
Figure 7: Cudgegong Reserve / Road Concept Plan and Section B	22
Figure 8: Creek Corridor Concept Plan and Section C	23
Figure 9: Typical Local Road Concept Plan and Section	24
Figure 10: Cultural Heritage Interpretation Strategy	26
Figure 11: Cultural Heritage Interpretation	30
Figure 12: Play Equipment Interpretive Initiative	31
Figure 13: Planting Program to Maintain Rural Character and Subdivision Pattern	32
Figure 14: Rouse Road Entry Concept Plan	34
Figure 15: Knoll Park Concept Plan	36
Figure 16: Section D - Windsor Road Corridor Section	37
Figure 17: Northern Ridgeline Indicative Subdivision Concept Plan	40
Figure 18: Rouse Road Pocket Park Concept Plan	41
Figure 19: East Side Landscape Concept Plan	43
Figure 20: Kid's Playground Indicative Location Plan	48

1.0 Introduction

The requirement for a Public Domain and Landscape Strategy is identified in the Schedule 4 of the Blacktown Growth Centre Precincts Development Control Plan (DCP) 2011 as a means of dealing with, and building upon the opportunities presented by, the significant historic and landscape context of Rouse Hill House Estate (RHHE). The emphasis of the Strategy was seen to focus on the open space and recreation strategy, the visual mitigation measures to be adopted, and the interpretation strategy work initiated by Godden Mackay Logan Pty. Ltd. (GML), refer to **Attachment 1**.

1.1 Purpose of the Report

The purpose of the Public Domain and Landscape Strategy is to outline public domain requirements to ensure the ongoing intent of the design philosophy and principles which guide the development of Area 20 Precinct.

The Strategy is intended to assist future developers and Blacktown City Council in planning and developing public and semi-public domains within the Precinct.

The Strategy applies to all development within the Area 20 Precinct, as defined in the DCP. A separate public domain strategy will need to be prepared for the Cudgegong Station Area.

The Strategy has been produced in conjunction with, and in support of, Schedule 4 of the DCP.

1.2 Site Context

The Area 20 Precinct is located to the east of the North West Growth Centre, situated at the intersection of Windsor and Schofields Roads. The Precinct has the potential to provide for a range of residential development and community services to support the new Rouse Hill Town Centre.

The vision for the Precinct is to create a series of new, walkable residential neighbourhoods supported by local retail, community, open space and recreational opportunities. The Precinct will provide for a range of densities, dwelling types and affordability options including larger lots and standard detached houses, with apartments in close proximity to Rouse Hill Town Centre.

The future extension of the North West Rail Link (NWRL) truncates the Precinct in the southern sector and a new station and stabling yards are proposed between Cudgegong and Tallawong Roads.

The Precinct is closely associated with the nationally significant Rouse Hill House Estate and the adjacent Rouse Hill Regional Park. New development will incorporate ecological sustainability principles as well as measures to ensure that important historic, environmental and visual sensitivities are recognised and protected for future generations.

Public domain opportunities will respect and interpret the cultural heritage of the Precinct and its relationship to the indigenous and rural past (especially Rouse Hill House Estate), as well as conserve significant stands of remnant vegetation and the Second Ponds Creek Corridor. This will preserve biodiversity and contribute to a strong woodland character.



Rouse Hill House Estate



Rouse Hill Regional Park

1.3 Scope

The general scope of the Strategy includes:

- definition of the Public Domain and visual and landscape qualities with character statements for sub-precincts
- identifying opportunities for tree retention and new planting in key locations, and aims to enhance the visual outlook from Rouse Hill House and to conserve landscape character
- identifying opportunities for planting within RHRP to conserve its visual setting and to further develop and detail the initial work related to Cultural Heritage Interpretation
- the design strategy which details the public domain network including street / linkages / pathways / trails along Second Ponds Creek to RHRP and The Ponds including plan sketches for key elements
- the provision of guidelines for planting in streets and parks, character of parks, location and character of playgrounds, street furniture, approach to materials, and augmentation of Council's tree planting list.

1.4 Public Domain Principles & Objectives

The planning principles which apply to the design of the public domain are:

- ensuring a public domain framework of streets and open space that creates a connected network linking places within the site and places adjoining the site, particularly to Second Ponds Creek, Rouse Hill Regional Park, the proposed rail station and associated centre, The Ponds development to the south, Rouse Hill Town Centre to the east, and Riverstone East Precinct to the west
- creating a strong neighbourhood structure focused on activity centres, particularly Rouse Hill Town Centre and the new station sub-precinct on Cudgegong Road. Each neighbourhood has a community based activity node within walking distance, and these neighbourhood nodes are linked by the open space and road networks
- local and neighbourhood parks to take advantage of and retain the key environmental features of the Precinct, including high points, the riparian corridor and existing vegetation
- the Second Ponds Creek corridor will be publicly owned and managed, and will be integrated with the drainage and open space network to create a spine of recreational open space
- areas of biodiversity value and high Aboriginal cultural heritage importance are protected by their location within the public open space and trunk drainage networks.

Public domain and landscape character objectives stated in the DCP for Area 20 Precinct are:

- to establish a public domain and urban character that respects and interprets the cultural heritage of the farmland and historic context and linkages of the Precinct and the nationally significant Rouse Hill Estate
- to minimise the visual impact of development on Rouse Hill House Estate and its landscape context through sympathetic architectural design and the retention of existing woodland canopy trees in prominent locations (e.g. the northern ridgeline) and additional native tree planting within subdivisions and along key road corridors
- to retain elements of the existing rural landscape character at the interface with Rouse Hill Regional Park and to establish a visually appealing approach to Rouse Hill House Estate as viewed from the historic Windsor Road travelling north-west
- to create a consistent and co-ordinated landscaped gateway at the Rouse Road entrance to the Precinct (at Windsor Road) and to retain elements of the rural landscape character along this section of Rouse Road
- to improve amenity for residential development adjacent Windsor Road through the provision of a landscape buffer and architectural facade treatments within dwellings.

1.5 Relationship to Other Documents

The Strategy contains objectives, principles and requirements for the design of public spaces including streets. The Strategy is consistent with the detailed development controls for Area 20 Precinct comprised in the Blacktown City Council Growth Centre Precincts Development Control Plan (DCP) 2011. This includes specific public domain and landscaping controls contained within Section 3.2.2 of Schedule 4 of the DCP.

The Strategy will need to be considered in light of other Council policies, such as:

- Crime Prevention Plan 2009-2013
- Playground Strategy (2007)
- The Section 94 Contributions Plan prepared for Area 20 Precinct
- Manual of Best Practice: Access for People and Mobility Disabilities

1.6 Implementation

The purpose of the Strategy is to establish an overall vision and guiding principles for the development of consistent public domain initiatives and landscaping treatments within the Area 20 Precinct in support of the detailed development provisions contained in Schedule 4 of the DCP in particular.

The strategy applies to both public and private lands, the latter being those areas visible from the public realm. Subsequently, the main stakeholder involved in its implementation will be Blacktown City Council, given its role in establishing the proposed open space, drainage and major road network, as well as through its function as the development consent authority. The other main stakeholder, in a general sense, will be the future developers of the Precinct. It is anticipated that the detailed design of individual elements will involve a wide range of technical experts, including landscape architects, heritage consultants, artists and industrial and graphic designers, as well as the various Government, community and Aboriginal stakeholders.

The Strategy should be utilised by developers of the Precinct as a guiding resource when planning subdivision and residential development and will be one of numerous considerations for Council when determining development applications.

The Strategy establishes concept-level landscape sketches for the main elements of the public domain, which should be seen as the first step in developing detailed master plans for parks, roads and pedestrian/cyclist links etc. The cost of implementation and maintenance should be a consideration in furthering urban design and landscape plans for the public domain. Council will utilise its considerable expertise and experience in designing and maintaining public assets to ensure that the initiatives proposed in the Strategy are suitable and meet the various standards and guidelines.

Other factors that will influence the implementation of public domain strategies include the topographical and environmental constraints of the site, the funding mechanisms and the availability and timing of revenue. An important consideration in this regard will be Government policy relating to the nature of local development contributions and whether other sources of revenue are available to fund the public domain initiatives outlined in this Strategy. For example, current policy limits the type of infrastructure and embellishments that may be levied via local development contributions and this may affect the delivery of the Strategy itself.

A coordinated Precinct-wide outcome is better than a piecemeal approach and the limitations and opportunities should be identified early in the planning process to determine which components of the public domain may be modified and/or prioritised over others. A coordinated and staged plan may then be implemented as the Precinct is developed.

It is envisioned that the future character of the Precinct will build upon its unique historical context to create an urban area that is sympathetic and interprets its cultural heritage and environmental aspects, with tangible benefits for both developers and the incoming community.

2.0 Definition of the Public Domain

The public domain is generally considered to be publicly owned spaces including streets, parks and squares i.e. the shared spaces between buildings.

The public domain is also considered to include publicly accessible privately owned spaces, such as arcades, building forecourts and other semi-public spaces. These spaces are frequently used by the public and thus also influence the public domain.

A high quality public domain contributes to the vitality, appearance, safety and feel of an area. Special consideration is given to matters affecting the Rouse Hill House Estate and Regional Park particularly visual impact from various high points within the Precinct, e.g. Quarry Hill / Knoll Park, Rouse Road pocket park, Windsor Road, large lots / northern ridgeline etc (refer to **Section 7.6**).

2.1 Public Open Space Network

The public domain comprises a framework of new high order streets, a significant regional open space and drainage corridor supporting pedestrian, cycle and recreational activities together with existing reserves, new public parks and playing fields.

The public domain framework of streets and open spaces creates a connected system for movement within the Precinct and adjoining areas including Riverstone East, The Ponds and Rouse Hill.

Conserving the Seconds Ponds Creek corridor vegetation and increasing the corridor width with stormwater drainage provision and linear parks is intended to strengthen the landscape linkages to Rouse Hill House Estate and Regional Park.

The proposed public open space network not including RHRP for the Precinct comprises of (as indicated in the ILP):

- 5 hectares of multi-use stormwater drainage land
- more than 17 hectares of environmental corridor suitable for passive activities including the riparian corridor associated with Second Ponds Creek
- 19 hectares of local parks, including the existing Cudgegong Reserve.

Secondary streets, although included in the public domain, are not listed specifically in this report.

Refer to **Figure 1**.

2.2 Semi-Public Domain

It is noted that many spaces included in this category can not at this stage be defined, being dependent on future site development, possible amalgamation of lots, developer preference etc.

Notwithstanding future development layout, the semi-public domain includes the local streetscape and front setbacks of future development, e.g. allotments adjoining Windsor Road, allotments fronting north-south local street on the east side of the Precinct and allotments fronting east-west collector road north of Knoll Park.

Other specific landscaping controls will apply to some of the sensitive areas of the Precinct, as identified in the DCP, e.g. large lots / northern ridgeline (north-west of the Precinct), medium to high density area (corner of Windsor and Schofields Roads) and north-east neighbourhood adjoining RHRP.

Refer to **Figure 1**.

2.3 Rouse Hill House Estate

The Rouse Hill House Estate (RHHE) is located in the north-west corner of the Precinct. It is one of the most significant estates of the early European era with continuous family occupancy of rural living. The buildings and grounds are listed on the State Heritage Register, Council's Local Environmental Plan 1988, Register of the National Estate and National Trust Register.

The Estate was acquired and managed by the Historic Houses Trust since 1986 and open to public since 1999 after progressive restoration works to the buildings and gardens.

RHHE site has retained a core curtilage of surrounding gardens and outbuildings in the immediate vicinity of the house and is located within the Rouse Hill Regional Park (RHRP) curtilage which maintained the landscape of historic pastureland and vegetation along the Second Ponds Creek. The curtilage will ensure that the integrity of the Estate is maintained.

RHHE is currently zoned Public Recreation – Regional under the Growth Centres SEPP and is afforded protection through a permanently conserved curtilage in the Rouse Hill Regional Park.

The 13 hectares Estate was established in 1813, resonates the historic estate of six generations of Rouse-Terry family. The first series of subdivision was undertaken in the 1950s under the County of Cumberland Planning Scheme which allowed for minimum 2.5 acres allotments for rural sites which remain relatively intact today.



Rouse Hill House



Summer House in Garden Setting



Outbuildings within the Estate



Public & Semi-Public Domain

Precinct Boundary

Cuddegon Station Area
- Subject to review

Creek Line

Second Ponds Creek Corridor

Public Domain Area

Semi-Public Domain Area

Key Roads
(described in this document)

PUBLIC DOMAIN

- ① Rouse Hill Regional Park
- ② Rouse Road Gateway
- ③ Rouse Road School Park
- ④ Second Ponds Creek Corridor
- ⑤ Rouse Road Pocket Park
- ⑥ Cuddegon Reserve
- ⑦ Sports Field and Drainage Reserve
- ⑧ Knoll Park

SEMI-PUBLIC DOMAIN

- ① Rouse Hill House & Estate
- ② Allotments adjoining Windsor Road
- ③ Allotments fronting east-west collector road
- ④ Allotments fronting north-south local road
- ⑤ Anglican School Oval

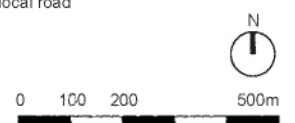


Figure 1: Public and Semi-Public Domain

3.0 Existing Landscape

To a significant degree, the future landscape character of the public domain is dependant on its existing condition and will emphasise and interpret these opportunities.

3.1 Visual & Landscape Qualities

The existing visual and landscape environment is predominately rural / rural residential and is a significant determinant of visual and landscape character. The topography and degree of vegetation cover also make important contributions to the character of the area, and the extent to which it relates to the surrounding landscape.

In broad terms, the landscape character provided by the existing vegetation is represented by:

- dense to medium tall forest which extends along the ridgeline of Second Ponds Creek
- side and foot slope vegetation between the higher ground and the creek corridor
- dense to medium / moderate height riparian forest associated with flood prone land along Second Ponds Creek.

In effect, the whole Precinct including Rouse Hill Estate has been subjected to disturbance from early colonial times. Unfortunately much of the Precinct's recent history as rural lifestyle acreage has resulted in deterioration of landscape qualities in each of the above categories.

3.1.1 Landscape Character Units

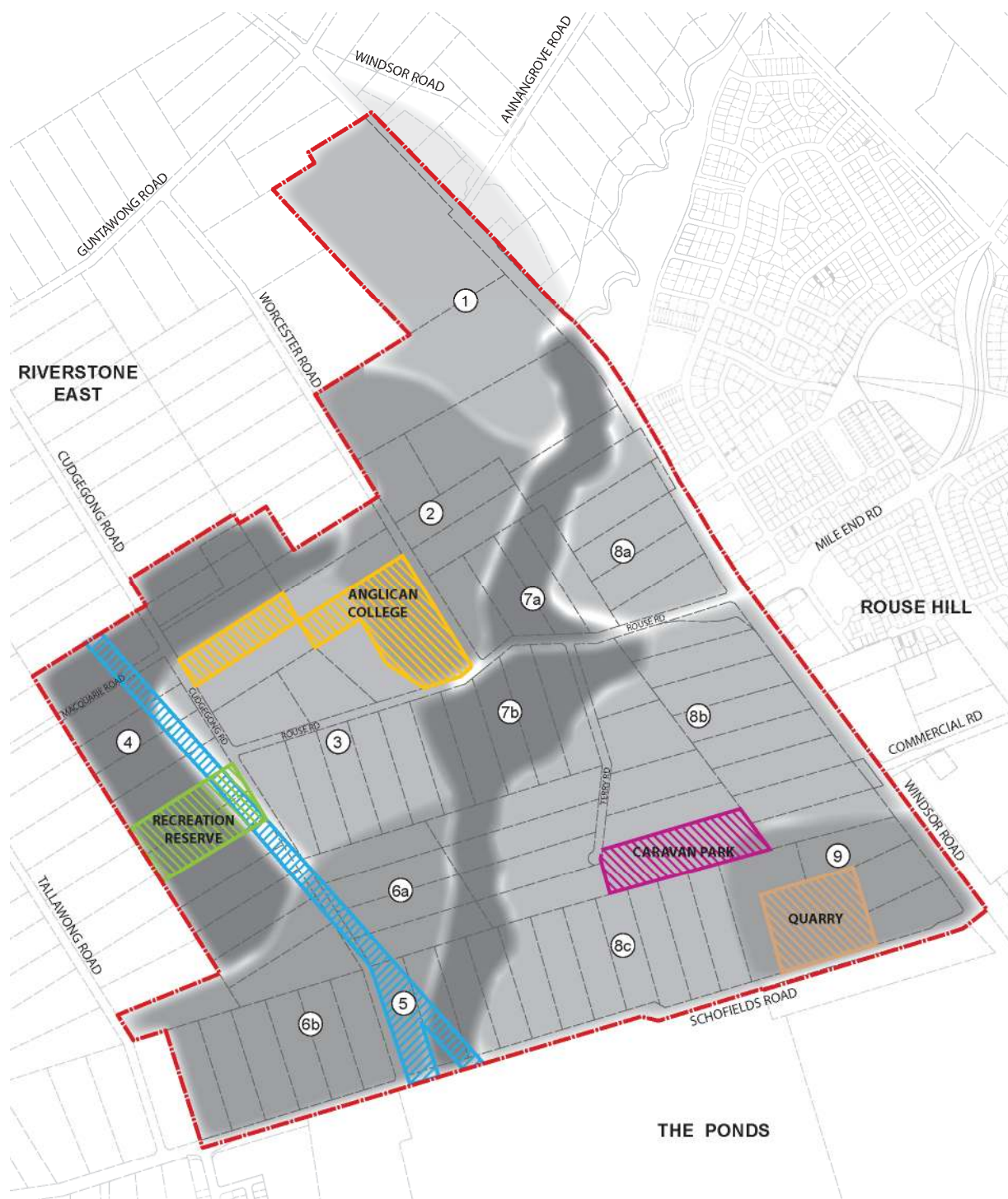
The Precinct is divided into nine landscape character units (LCU) based on the Indicative Layout Plan (ILP), Landscape and Visual Analysis Report and is summarised in the **Table 1** and **Figure 2**.

Landscape character units represented are assembled using a combination of topographical and vegetative divisions. Buildings do not generally form part of the character of each unit unless specifically mentioned.

Table 1: Summary of Landscape Character

Unit	Location	Character Statement
LCU 1	Rouse Hill	Land with direct visual association with Rouse Hill Estate is identified by distinctive heritage buildings, mature trees and a magnificent hill top setting. The landscape is characteristically pastoral with predominately open grassland and uninterrupted views to and from the homestead.
LCU 2	Worcester Road	This unit is 'contained' by the ridgeline together with its tall forest on the north-western side and dense riparian forest associated with the creek line in the south-east.
LCU 3	Rouse Road	This unit is delineated by the valley formation centred on the western half of Rouse Road. Together with scattered and open forest trees, it is tightly contained between the steeper ground and tall forest on the ridgeline and dense forest associated with the creek corridor.
LCU4	South-West Ridge	Although vegetation cover varies greatly within its length, this unit is defined by its positioning along the ridge which follows the western 2/3 of the site boundary. The most dense and least disturbed bushland occurs at a saddle on the ridge at Cudgong Reserve.
LCU 5	Electrical Easement & Switching Station	Characterised by electricity lines and cleared land and runs from Schofields Road across the entire site.

LCU 6	South-West Slopes	The majority of this unit is visible from Schofields and Cudgegong Roads. It is generally characterised as having gentle slopes and scattered vegetation of variable density, typical of rural residential usage.
LCU 7	Second Ponds Creek	Characterised by scrubby, medium height forest consisting of typical Cumberland plain species with occasional Casuarina or Melaleuca closer to the creek banks.
LCU 8	South-East Slopes	The unit is sufficiently uniform for inclusion as one single LCU, partly due to the land use (rural residential) and the scattered nature of remnant and exotic trees. The character of the unit comprises flat, undulating grassland with scattered, isolated stands of trees.
LCU 9	Quarry Hill	It is not the Quarry which characterises this unit but its hilltop setting similar in elevation to the Rouse Hill Estate. The hilltop occupies the south-west corner of the site and defines the eastern ridgeline / catchment.



Landscape Character Units

	Precinct Boundary		Electrical Easement / Substation
	1 Rouse Hill		6 South West Slopes
	2 Worcester Road		7 2nd Ponds Creek
	3 Rouse Road		8 South East Slopes
	4 South West Ridge		9 Quarry Hill

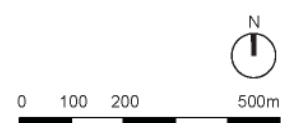


Figure 2: Landscape Character Units

3.2 View Corridors

Views have been considered under the following two sub-headings.

Internal views within the proposed development area

The majority of views are framed within a basin-like valley formation, flanked on the west by a heavily wooded ridgeline and on the east by a sparsely wooded ridge where views are limited essentially to the Quarry Hill by the shape of the site.

Both Windsor and Schofields Roads cross each of these ridgelines as well as the creek valleys between them. A basic appreciation of the landform and the pattern of views is completed by travelling Rouse Road which does the same thing (i.e. crosses the valley) but inside the central basin area.

Within the western half of the Precinct, views tend to be framed and / or channelled along existing road corridors because of the nature of the existing vegetation which on this side is taller and denser. There are pleasant views from higher ground towards the forested creek corridor. Views from east to west are limited by the relatively small extent of higher ground at Quarry Hill generally toward the western ridge. It is noted that from Quarry Hill, Rouse Hill Estate is visible approximately 2 kilometres away.

Views from Rouse Hill House Estate and potential impact of proposed development

From Rouse Hill Estate, views in all directions are obtainable owing to the hilltop location and surrounding cleared land. For example, the Blue Mountains are clearly visible as a backdrop to an iconic pastoral vista to the north-west.

To the south-east, views of suburban Rouse Hill some 700m in the distance are screened (until development climbs to the low ridgeline in the vicinity of the now obliterated Aberdoon Homestead) by vegetation on the creek line.

The combined screening effect of the same creek line vegetation and remnant planted trees (including NPWS work) have the effect of obscuring all ground except in the proximity of Quarry Hill. Roofs of commercial buildings in the Rouse Hill Town Centre are barely discernable. Beyond the south-eastern sector the horizon in the direction of Sydney City is visible.

To the south the horizon is also visible in a small 10 degree sector, up the creek corridor on either side of the western and eastern ridgelines.

Further south and south-west, taller and closer trees on the western ridgeline effectively obscure all the remaining developable portions of the Area 20 Precinct site. It should be noted however that Sydney Water has located one water reservoir (top of tank at RL 90m) with plans to locate additional pressure towers and water reservoirs on this ridgeline, are likely to impact severely on an otherwise treed skyline.

3.2.1 Visual and Landscape Curtilage

Rouse Hill House Estate with its outbuildings, associated farm structures, garden and the Rouse Hill Primary School is one of the most significant heritage sites in Australia (GML, 2009). This significance is related to the cultural landscape setting and is therefore of high importance to the visual and landscape assessment of the Precinct. The majority of the Precinct lands were once within the boundaries of the land occupied by RHHE between 1801 and 1950.

Various studies have been undertaken to define the area of special protection associated with RHHE including Conybeare Morrison's 2001 *Rouse Hill House Estate Curtilage Study* in which an expanded Heritage Curtilage establishes a wider area to protect the landscape setting and maintain the heritage significance of RHHE.

Conybeare Morrison recommended that all development within the Expanded Heritage Curtilage be considered for potential impacts on the cultural landscape of RHHE and RHRP.

The visual effect of development is inevitably related to its proximity to RHHE. Developments in Area 20 Precinct and Box Hill are likely to have higher effect than those further away, although the scale of The Ponds development may also affect RHHE viewsheds, refer to **Figure 3**.

The existing Cumberland Plain Woodlands on ridgelines and in the Second Ponds Creek Corridor are important visual buffers to potential development and should be maintained. Development in areas which are visible from RHHE and RHRP should be carefully assessed and controlled to mitigate the effects of development on the Estate.



View from RHHE looking south



View from RHHE to south-east of the Precinct



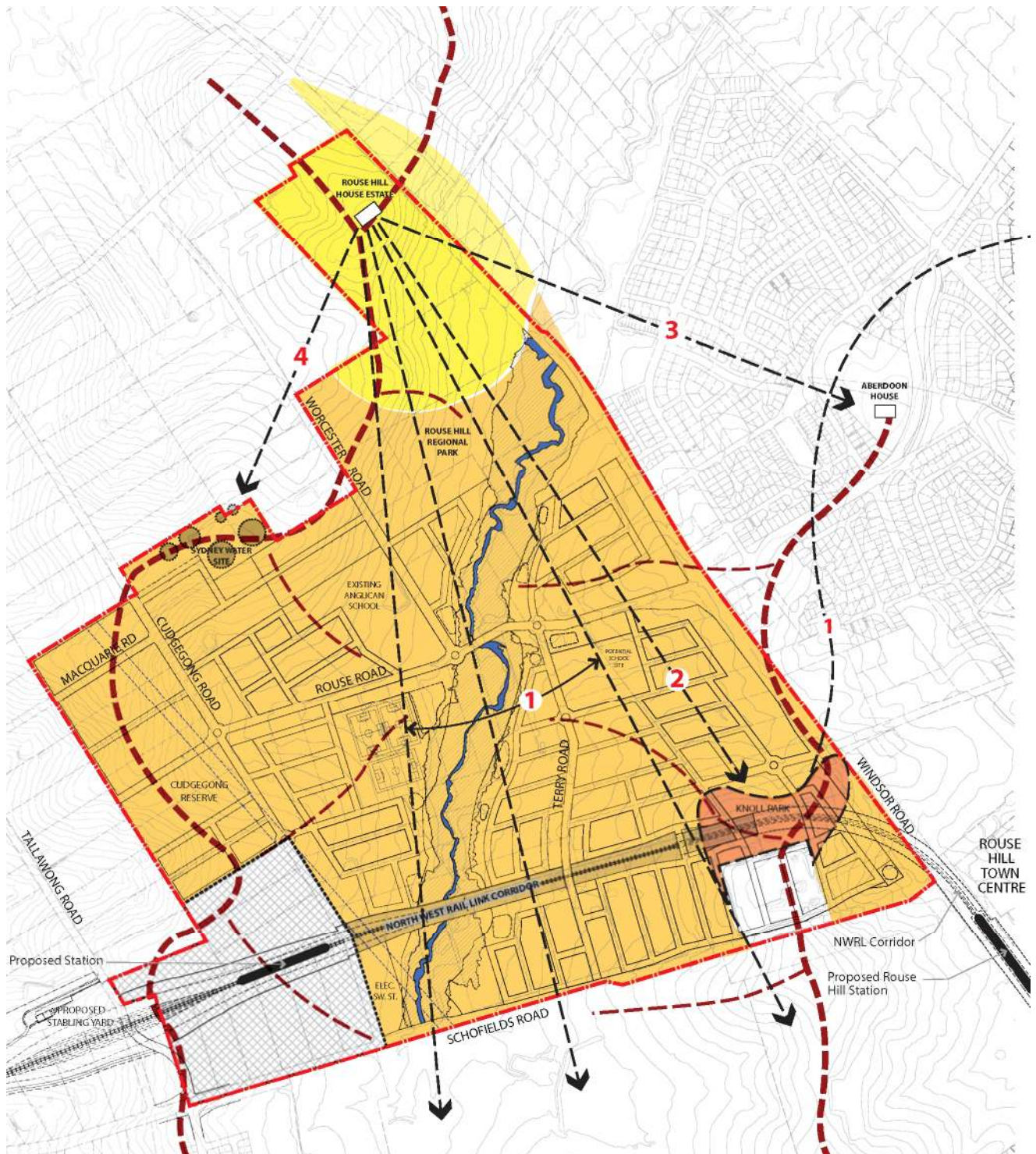
View from RHRP looking north



View through transmission line easement looking south



View from south-east corner to Windsor / Schofields Roads intersection, with Rouse Hill Town Centre at background



Views

- Precinct Boundary
- Cudgegong Station Area - Subject to review
- ~~~~~ Creek Line
- Second Ponds Creek Corridor
- Ridgelines (important in determining extent of views from Rouse Hill House Estate)

- Directly visible from Rouse Hill House Estate (ground level at homestead)
- Not directly visible from Rouse Hill House Estate (blocked by existing local tree canopy)
- Directly visible above tree canopy from Rouse Hill House Estate

- 1** Views to horizon from Rouse Hill House Estate
- 2** Views to Quarry Hill / Knoll Park from Rouse Hill House Estate
- 3** Views to Aberdoon House
- 4** Potential visual impact from Sydney Water Reservoir Site



Figure 3: Views

3.3 Future Desired Character

Strategies in the exhibited Precinct Planning Report and ILP for the open space network include:

- The Second Ponds Creek corridor is to be placed in public ownership (Sydney Water) and managed as a natural creek corridor. Further to this, there are identified Aboriginal archaeological sites and groupings which will be protected within the corridor.
- The dry stormwater bio-retention areas will be utilised for passive recreation and are contained within broader areas of open space land linked to one another by walking trails and linear open space.
- A publicly accessible riparian corridor will be established along Second Ponds Creek. Walking, cycling and other activities will be encouraged along the fringe of the riparian corridor and 1:100 year flood line. Access will be from adjacent residential streets.
- Playing fields are to be established lower in the catchment adjacent to flood prone land and co-located with drainage land and educational opportunities, and in highly visible areas along the Rouse Road corridor.
- A Quarry Hill Park (also known as Knoll Park) will be established to protect views from Rouse Hill House Estate to the south-west neighbourhood and will provide a significant area of open space for those residents within the higher density area.
- The east / west drainage and vegetation corridors will border streets and contribute to pedestrian and open space networks.
- Neighbourhood and local parks take advantage of local features – stands of remnant trees, views, environmentally significant land etc.
- The majority of residents are to have access to useable open space within a 400 metre walk of their home.
- Children's playgrounds will be located to that they are accessible to all residents, with a larger playground located in the Knoll Park in the south-east.
- Parks will include walking tracks, picnic areas, interpretive media and public art relating to the heritage and environmental values of the site.

4.0 Opportunities for Tree Retention & New Planting

4.1 Creek Corridor

Retention

The most significant areas of vegetation will be conserved within and at the fringes of the Riparian Protection Area (non-certified area), within Cudgegong Reserve and on private land on the larger lots in the north-west. The Area 20 Precinct Plan does not apply to Rouse Hill Regional Park, but significant stands of vegetation will continue to be managed and conserved within the parklands.

A native vegetation Protection map is proposed in the SEPP Amendment to ensure that Existing Native Vegetation is retained along the creek line and in parks.

New Planting

Within the creek corridor zone, opportunities to consolidate and augment planting exist between the Riparian Zone and the proposed adjacent roads and / or development boundaries.

Planting should consist of locally endemic species, preferably taller examples of typical Cumberland forest trees. Such plantings should extend into playing fields and drainage basin surrounds where the and in the case of parallel roads, should provide the basis for street tree planting proposals.

This will assist in maintaining a “rural” character and a more successful landscape gradation at urban edges.

Refer to **Figure 4** showing indicative additional creek corridor planting opportunities.

4.2 Open Spaces

The outline of the ILP superimposed on an aerial photograph of existing vegetation indicates the potential for retention of trees in open spaces, in particular:

- Cudgegong Reserve will continue to be managed by Council as a conservation reserve with the likely additional status of “environmental protection”. It is also likely due to intensified usage that management practices will need to be modified over time
- Rouse Road Pocket Park which includes a number of good quality trees in association with a minor drainage line. Opportunity exists to develop a (partly existing) water body along with new feature planting appropriate to passive use situations. Note that this south facing slope is naturally shady and should not be planted too densely
- Rouse Road School Park contains few useful existing trees and will likely be utilised for “spill-over” open space activity associated with the school, together with the adjacent detention basin. It is recommended that its perimeter form an extension of the creek corridor approach described in **Section 4.1** above.

4.3 Key Road Corridors

Rouse Road, Cudgegong Road, Worcester Road, Macquarie Road and Terry Road all occupy existing alignments and contain trees which vary both in terms of number and condition. Individual surveys would be required to determine the extent to which these might be retained. However, in view of the general nature of street planting and the desired character of Area 2 Precinct, it is recommended that on these roads existing trees should be retained where possible and used more or less as a catalyst for a “clumped” effect (as opposed to an avenue) in street planting design.

Such an approach benefits local continuity as well as the desired maintenance of a rural character. .

Practicality will be an issue with regard to installation of street services and the tree retentions may require use of single sided service easements to avoid root damage especially to desirable groups of trees.

Noted also that Rouse Road has a broad parallel drainage channel on the south side.

Opportunities for planting in this zone should be used to accentuate the “rural” character and at the same time visually connect to Second Ponds Creek as a riparian tributary.

Other streets, including secondary roads on new alignments (particularly those where retention of existing canopies for screening purposes is preferable, e.g. Commercial Road and its vicinity), will require detailed survey and a degree of flexibility in planning to achieve retention of existing trees which are presently concentrated on fence lines. These correspond with the current lot boundaries which in most cases govern new street centrelines. This is further discussed in **Sections 7.0** of this report.

New planting in this location should in any case reflect the indigenous mix of local remnants.

4.4 Rouse Hill Estate – Conservation of Visual Setting

Existing conditions for planting within the Rouse Hill House Estate lands are controlled by the Plan of Management, and with its pastoral heritage opportunities for additional plantings are unlikely to extend beyond replacement measures. Views outward are also important to the extent that urban encroachment increases their desirability.

The Rouse Hill Regional Park area on the other hand (although also subject to Plan of Management requirements) has been planted extensively, particularly in the southern portion towards Second Ponds Creek.

Further plantings with taller forest trees should be initiated to take advantage of the screening effect of the minor ridge (see **Figure 4**) especially in the direction of the Sydney Water Towers and the proposed Village Centre and associated high density development on the Cudgegong Road ridgeline.

4.5 Within Lots

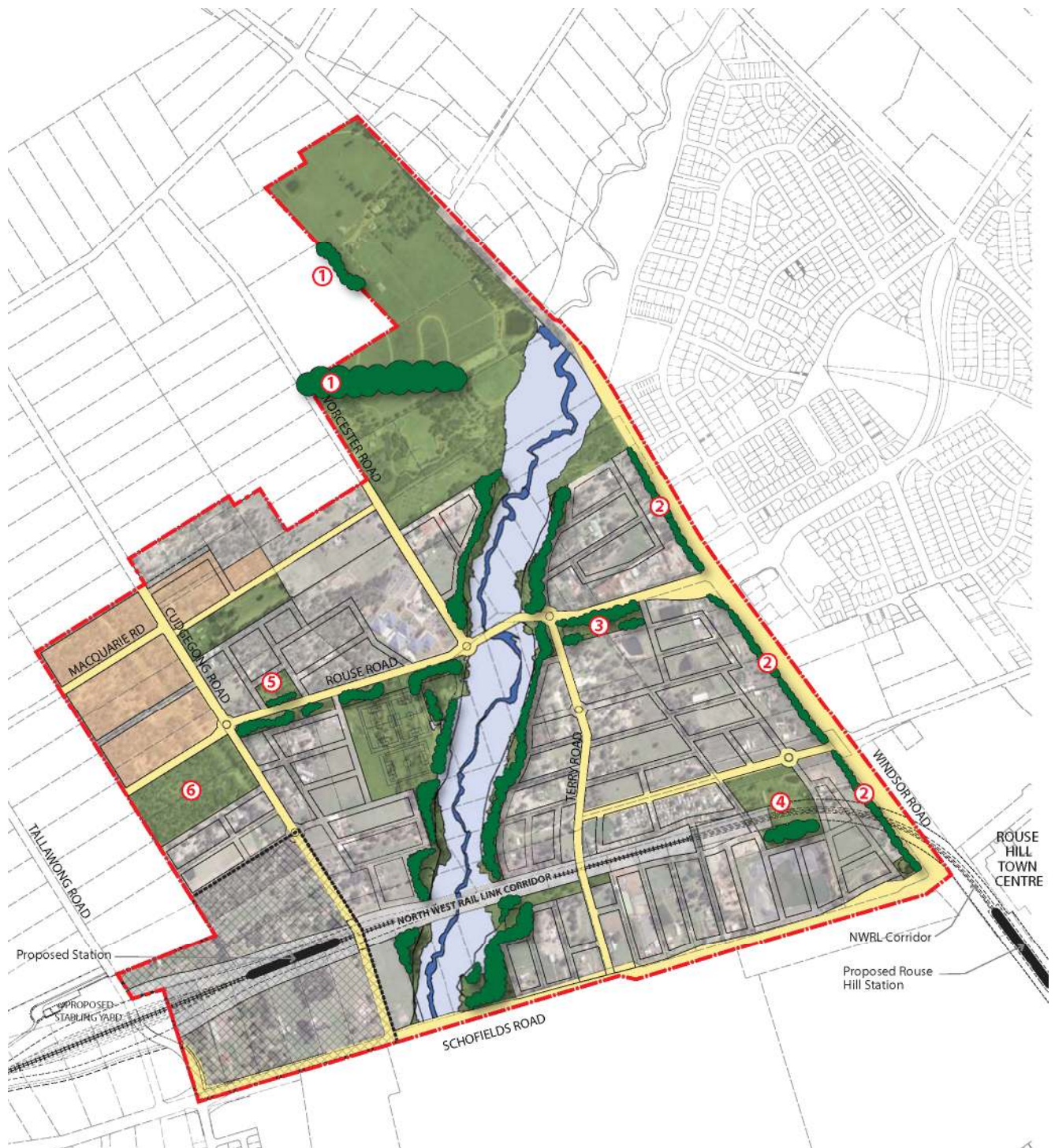
Due to limitation on the area of open space that can be justifiably acquired and maintained by Council, some areas of remnant native vegetation will be within developable parts of the Precinct. In areas where this vegetation makes an important visual or ecological contribution, site specific controls have been incorporated in the DCP to maximise the retention and long term management viability of the vegetation. Retention of as much vegetation as possible around the north-west ridgeline is desirable.

To this end, the north-west neighbourhood (north of Cudgegong Reserve) will contain lower density housing, including some larger lots around the ridgeline. These lots, with the maintenance of vegetation cover, will provide a different housing product to that available elsewhere in the Precinct (see **Section 7.0** of this report).

These and other areas may require Plans of Management to be prepared and implemented following rezoning to manage existing vegetation.

From an ecological point of view, connection to Cudgegong Reserve and other good quality vegetation outside the site in Riverstone East would provide for a better outcome.

Within lots generally and elsewhere, it is anticipated that Council's “tree preservation orders” will apply, together with recommended species lists (see **Section 8.0** of this report) for new planting in both public and private land.



Opportunities for Tree Retention & New Plantings

Precinct Boundary

Additional Plantings

Cudgegong Station Area
- Subject to review

Creek Line

Second Ponds Creek Corridor

Open Space

Key Roads

Large Lots

① Opportunity to screen Rouse Hill House views towards majority of Area 20 Precinct incl. Sydney Water reservoir site

② New plantings to screen residential area from Windsor Road

③ Rouse Road School Park

④ Knoll Park

⑤ Rouse Road Pocket Park

⑥ Cudgegong Reserve

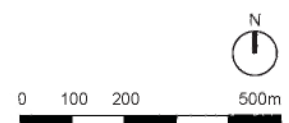


Figure 4: Opportunities for Tree Retention and New Plantings

5.0 Public Domain Network

This Section outlines the approach to the design of individual elements within the overall network against the background discussed in previous Sections and the framework established by the ILP.

5.1 Streets & Linkages

5.1.1 Key Streets / Roads

Initial determinants for the character of these roads are:

- relatively wide (rural) street reserves
- retained trees where possible or available leading to the following
- clumped (informal) approach to street tree planting.

Once established these character determinants have a flow on effect for other associated detailing:

- footpaths (preferably on both sides) allowed to “meander” to the advantage of existing and new informal plantings
- flexible driveway locations (for similar reasons) best served with use of lay-back kerb and gutter
- surface treatments in verges to be similarly informal e.g. use of native grasses, mulches and other low maintenance materials.

It should be noted that the character outlined above is best expressed in relation to key roads only, and that a blanket approach to all streets especially in tighter spatial conditions, is likely to lead to an untidy effect.

Purposeful design is necessary for the streets to acquire an intentional degree of informality.

Refer to **Figure 6** for Rouse Road and **Figure 7** for Cudgegong Road (note: Worchester Road should be similarly detailed).

5.1.2 Roads Parallel to Creek Corridor

Roads paralleling Seconds Ponds Creek have also been referred to in **Section 4.1** of this report.

Relevant objectives in this particular context are:

- to strengthen the screen effect provided by the existing creek corridor vegetation
- in this regard to use taller species to reinforce the often “scrubby” mix in the riparian zone
- to provide an appropriate gradation into adjacent suburban development.

Design response to these objectives at roadways should be:

- informal planting on the creek side including taller species closer to the road pavement. This may be associated with other “infill” planting in and around drainage basins or other public use areas
- standard kerb on the creek side to discourage indiscriminate vehicle usage (parking bays may be provided at appropriate locations)
- informal planting (i.e. not avenue) on the residential side of the street using the same taller species, located in bays
- linear footpath on the residential side only (trails will provide this function on the creek side). **Figure 5** shows the path and trail networks
- standard kerb and gutter parking bays

- standard surface treatment, possibly turf, to match the majority residential street condition on the one side and informal treatments (e.g. native grass) on the other. Refer to **Figure 8** for typical street cross section in Terry Road Precinct.

5.1.3 Minor & Secondary Streets

With the exception of some atypical streets which are generally illustrated in plan sketches along with key elements (e.g. Village Centre, Knoll Park) the majority of secondary streets should be standardised with respect to road details.

Note: Refer also to further discussion in special areas under **Section 7.0** of this report.

Subject to further detail on location of good quality existing vegetation in proposed road reserves, there are no compelling reasons for not using relatively standard road detailing as follows:

- 16m reserve (some may be narrower)
- 6m pavement with parking bays, possibly on one side only or alternating where opportunity exists for retention of valuable trees
- standard linear footpaths on both sides against parking bays or front boundaries
- standard upstand kerb and gutter.

Refer to **Figure 9** for 16m local road cross section which demonstrates typical sections applicable to most secondary streets.

5.2 Pathways & Trails

Refer attached plan **Figure 5**.

Pathways and trails includes pedestrian and cycle systems other than street footpaths unless footpaths are part of a dedicated or connecting route e.g. off-road bike path or shareway.

In priority order these routes are listed as follows:

- existing RTA shared pedestrian and bike way on Windsor Road. It is not intended that any changes will occur to this route except at new intersections (Commercial Road) and at reconstructed intersections (Schofields and Rouse Roads)
- recommendations for RHRP (see **Section 5.3** of this report) also include upgrading of the intersection underpass facilities at Second Ponds Creek and Windsor Road
- planned regional cycle routes by Blacktown City Council on Rouse, Cudgegong and Worcester Roads
- for Rouse Road the majority of this route is able to take advantage of increased width at adjacent drainage reserves and open space provisions, where previous descriptions for paths should be incorporated in the design. This would see the route meandering to avoid existing trees, offset to assist access to other features e.g. interpretation etc
- materials should compliment other “natural” elements in the landscape e.g. coloured bitumen or fine water washed concrete, to simulate gravels forming part of informal trail systems
- other regional cycle routes (Cudgegong and Worcester) where shared with pedestrians should (apart from increased width) follow detailing and material selections established for those roads (see **Section 5.1.1** of this report)
- other main shared pedestrian and cycle roadside routes, primarily in the eastern part of Schofields Road, the Commercial / Terry Roads connection to the Ponds and the northern part of Cudgegong Road (to Riverstone East), should follow detailing and material selections established for those roads (see **Section 5.1.1** of this report). Note that except for Cudgegong these would be linear, not curvilinear
- secondary shared routes would be standard linear off-road footpaths with increased width for shared functionality

- longitudinal open space links partially exist within the RHRP along the Seconds Ponds Creek Corridor, connecting through to Rouse Hill suburbs via an underpass at Windsor Road. Pathways are gravel in keeping with the bushland character favoured by National Parks and Wildlife Service and it is anticipated that this will continue in the extended links southwards towards The Ponds. Harder materials (though favoured for other reasons) are generally no less prone to costly maintenance when subjected to major flooding. However it is also anticipated that extensive sections of timber (or other equivalent) boardwalk will need to be constructed to negotiate boggy sections
- in addition, foot bridges will be required across the Creek in up to three separate locations (not including the Rouse Road Bridge which will incorporate pedestrian / bike requirements) in order to facilitate cross links. These should be boardwalk type bridges with handrails, lighting and balustrades and signposted to warn of danger in flood conditions. These will likely have collapsable rails for flood purposes
- these longitudinal links are primarily aimed at passive use and in this regard will incorporate breakout nodes for seating and interpretation facilities (see also **Section 6.0** and **9.0** of this report).

5.3 The Ponds & External Links

Subject to further design associated with the NWRL Corridor, a pedestrian underpass may be provided where Second Ponds Creek flows under the rail corridor. This would be similar to where the creek flows under Windsor Road, but with better attention to safety, i.e. better surveillance and lighting.

It is recommended that the present link under Windsor Road to Rouse Hill should be upgraded with the inclusion of handrails, better lighting (vandal proof) and a more legible system of ramps and intersection details where it crosses the RTA bike path.



Pedestrian and Cycleway under Windsor Road



Boardwalk at Nelsons Ridge

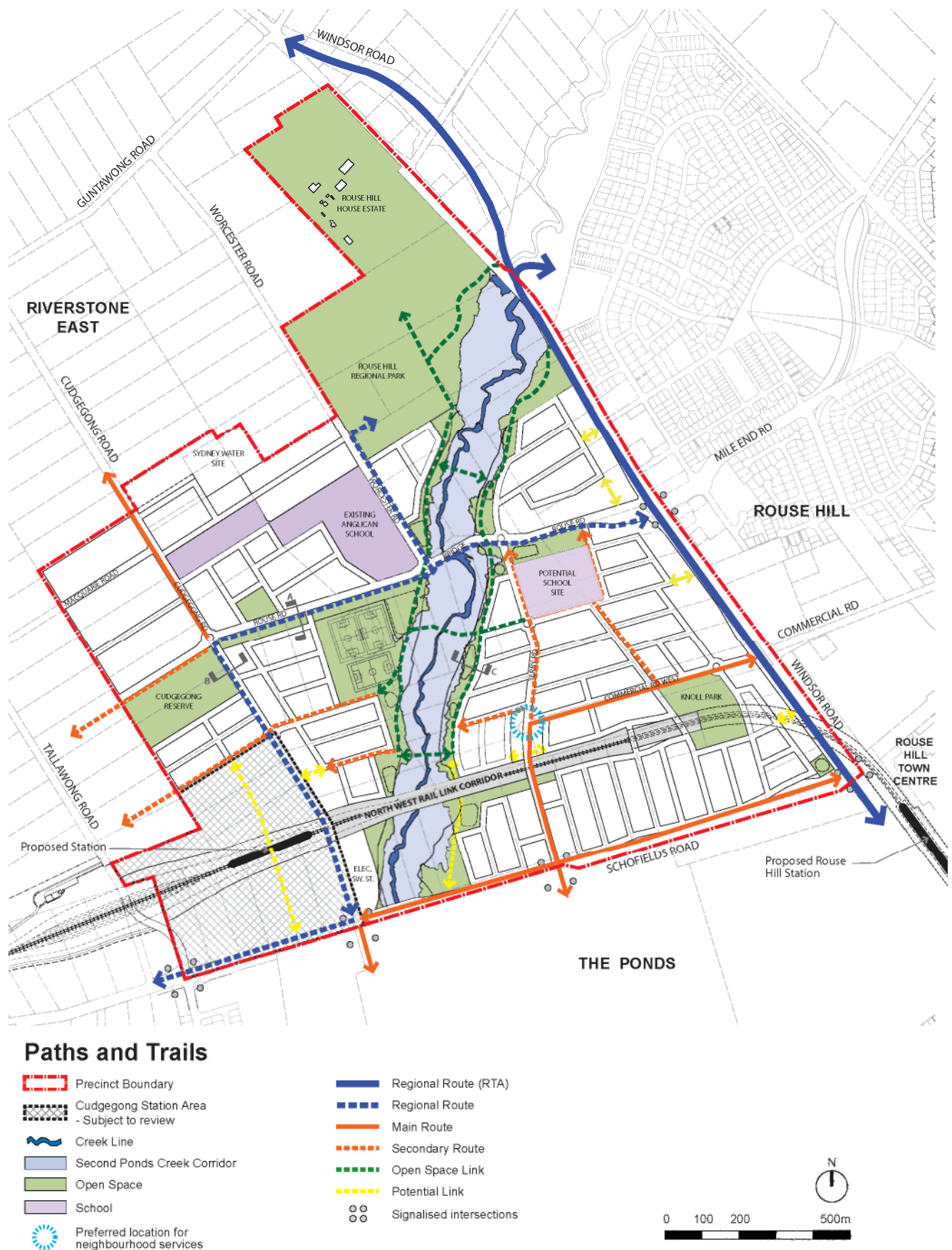


Figure 5: Pathways and Trails



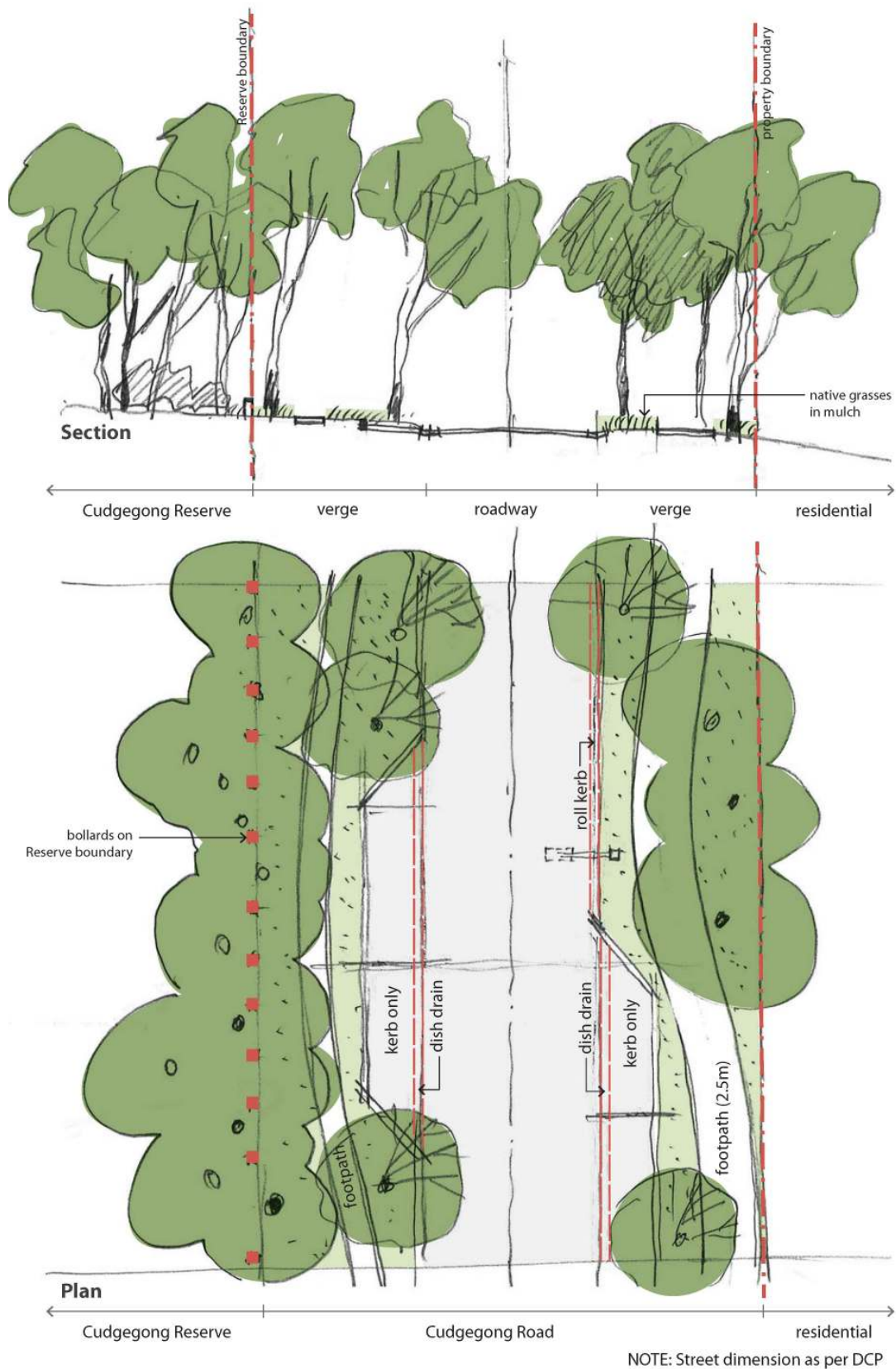


Figure 7: Cudgegong Reserve / Road Concept Plan and Section B



Figure 8: Creek Corridor Concept Plan and Section C

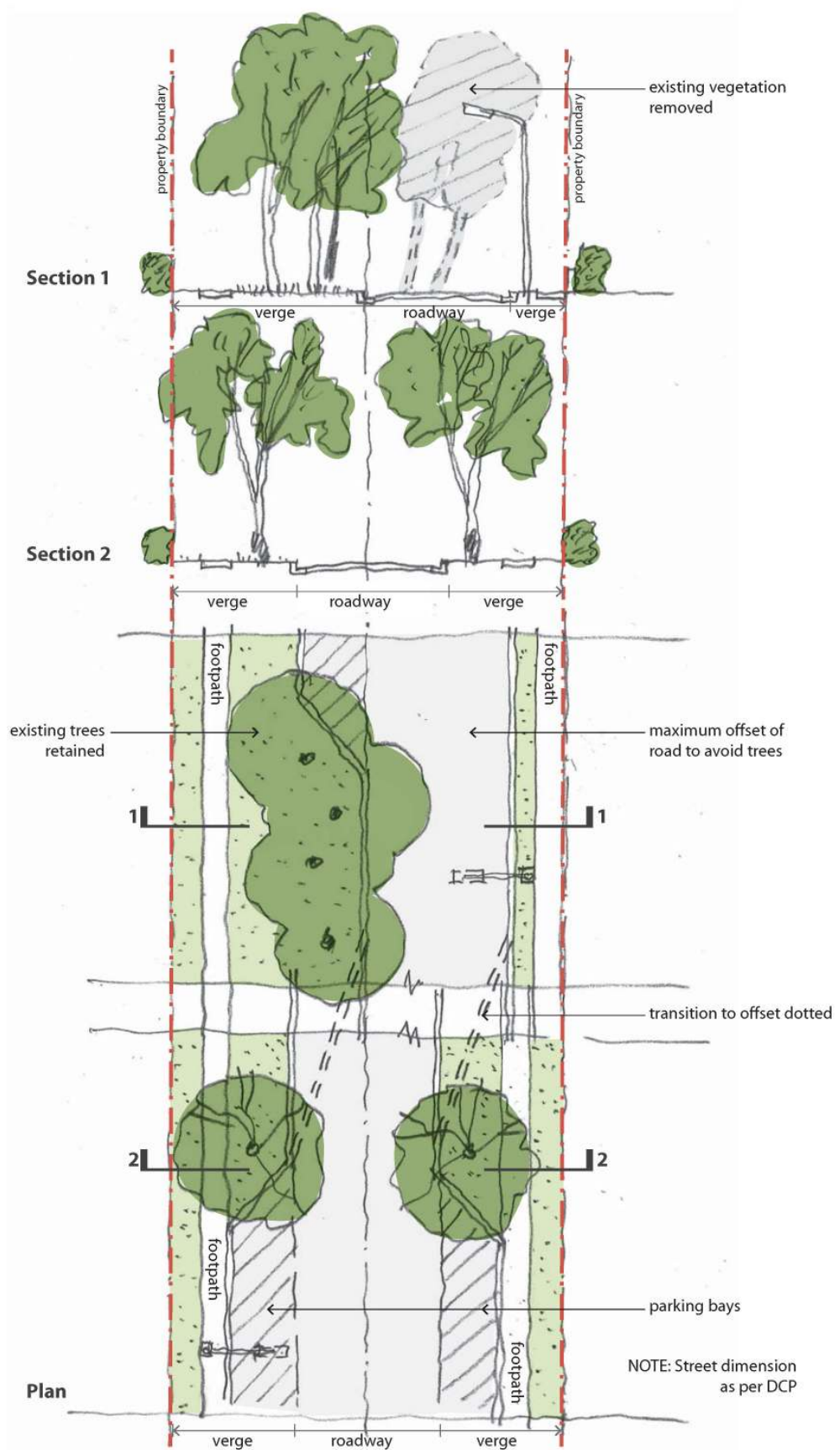


Figure 9: Typical Local Road Concept Plan and Section

6.0 Cultural Heritage Interpretation

The following is based on recommendations provided in studies undertaken by Godden Mackay Logan (GML) divided into locational opportunities under the following headings:

- Walking Trails
- Place Naming
- Public Art
- Indigenous Heritage Values

Interpretation is an essential part of the heritage conservation process. The active interpretation of heritage places supports the recognition and understanding of a site's values and significance by owners and the community.

Interpreting Area 20 Precinct will contribute an important aspect to the planning and development of the area. The Precinct's history includes stories that can provide a source of enjoyment to residents and visitors, while at the same time conserving heritage items and values. To allow for this, certain principles need to be applied to guide future interpretation.

The following is a list of recommendations for interpretation of the Area 20 Precinct based on the Cultural Heritage Interpretation Strategy (GML November 2010). Also refer **Figure 10**.

1. Acknowledgement of the local Aboriginal people's use of the site and its Aboriginal cultural values.
2. Integration of interpretive stories at key locations within Area 20 Precinct through walking trails and signage.
3. Use of natural and cultural landscape and important aspects of the site's history in design of play equipment and public facilities.
4. New built form should help interpret the rural history and heritage of the area through contemporary architecture that uses features such as verandahs, extended eaves etc. Colours should be drawn from the muted tones of the natural woodland so they are visually recessive.
5. Strengthen existing cultural plantings (Rouse Hill House) to convey former rural landscape qualities of Area 20 Precinct.
6. Use of aspects of the area's heritage significance in place naming.
7. Integrate high-quality public art that interprets the history and significance of the Precinct.
8. In conjunction with Historic Houses Trust and Office of Environment and Heritage, support public heritage programmes such as children's events, fairs, performances or re-enactments to emphasise local / regional heritage themes and stories.

Note: Item 5 replanting has been covered in other recommendations. Item 4 is also acknowledged in the DCP for Area 20 Precinct. Item 8 concerns matter included in the Plan of Management for the Rouse Hill House Estate.

6.1 Walking Trails

A walking trail communicates the history of the area to new residents and established locals alike. The landscape of the study area, with its remnant Cumberland Plain Woodland, picturesque Second Ponds Creek and connection with RHRP, provide excellent opportunities for walking and cycling trails.

Walking trails are incorporated in the ILP on both sides of Second Ponds Creek connecting RHRP to the Ponds along the edges of the riparian corridor. It is noted that an RTA shared cycle path is already incorporated in the Windsor Road Reserve

Interpretation text concerned with both indigenous and european heritage should be incorporated as an extension of similar existing text within the RHRP.

Texts, graphics and other signage should be developed whether within nodes, along with seating, trail sports equipment with and/or at event locations, for instance marked tree and historic road crossing.

The design of trails, bridges, signage, planting should be subject to a specific landscape brief to be commissioned for the Second Ponds Creek.

6.2 Interpretive Signage

Interpretive signage for the Precinct should be situated at key locations (walking trails and parks) to communicate historical information that reflects the layers and significance of the Precinct.

Directional signage will be provided for orientation and way-finding.

A clear hierarchy needs to be developed using a consistent palette of materials. The signage should be in keeping with the rural landscape character of the Precinct (rusticity should be avoided). The signs may be a combination of stone, concrete, recycled timber, galvanised rolled steel or etched glass and timber fence posts.

Careful siting and design is important and avoiding too much signage is absolutely essential.

The signs may include maps, text and quotations. Consider including historic photographs as digital prints on toughened glass as part of the signage design.

Ideally, signage could be incorporated into a council-wide way-finding interpretation system which is generated beyond Area 20 Precinct, particularly at key locations, e.g. at recreational areas, parks and open spaces. Combination with way-finding, e.g. at intersections may avoid signage “clutter” (refer to Sections 6.4 and 6.5)



Interpretative Signage at Cudgong Reserve



Interpretative Signage, Uluru-Kata Tjuta National Park

6.3 Place Naming

At all locations (in parks, walking trails, schools etc.) within Area 20 Precinct a simple method of interpretation involves naming places with words that have a historical or cultural connection with the place. Suitable names could include words from the local Indigenous language or names of prominent landholders in the area, historically important figures connected to the area or of the local native plant types. This type of interpretation allows straightforward connection between the new identity of the place and its distinctive history and culture, names of former owners and other owners of the site.



Rouse Hill Regional Park Signage



Entry Signage, Lizard Log

It is recommended that the practice of naming streets to reflect the history of Blacktown should be continued.

Named roads shown on the ILP with the exception of Commercial Road West, are on existing alignments and should be retained complete with names. Consider renaming Commercial Road West

6.4 Public Art

Public art for the Precinct should be recognised for its excellence and provide a source of inspiration and pride for the citizens of Blacktown.

Public artwork presents an opportunity to enliven and distinguish the identity of the future suburb within the study area. The historically rich cultural landscape can be expressed through sculpture, stencils, murals and other creative media. Public art can be integrated along trails, cycleway and walks and can form part of a signage strategy or can be used as landmarks or as interpretation in key public spaces.

Public art should communicate the historical identity, local character and distinctiveness of the Precinct and start conversations about the urban environment.



Public Art with Aboriginal Theme, Yarra River Vic



Old Machinery Art, Homebush

The concept should be inspired by the historic layering and evolution of the Precinct. The artwork should communicate with sophistication and complexity the evolution and transformation from traditional country of the Darug people to a rural agricultural landscape.

The materials, textures, details and scale of the past should inform the creative process.

The people and the activities associated with the Precinct should inform the artwork.

Appropriate media would be sculpture, soundscape, lighting, plantings, water, steel, stone, glass, etc.

Figure 11 indicates Rouse Road entry point, Cudgegong Reserve, Knoll Park and the proposed Village Centre as appropriate locations for major public artworks as well as within the RHRP.

6.5 Indigenous Heritage Values

The majority of archaeological material is within the Second Ponds Creek Corridor. Lower numbers of artefacts were also observed away from the drainage line, on raised areas above the creek and along the ridgeline near the western boundary of the study area including Cudgegong Reserve.

One area at the northern alignment of Second Ponds Creek within RHRP is of High Aboriginal Cultural Heritage Significance. The site will remain within the confines of RHRP and will not be impacted by Precinct development.

Because the majority of archaeological material is concentrated along the Second Ponds Creek corridor, including adjoining open space / drainage areas, retention and conservation of the riparian corridor and non-certified vegetation along the creek will retain the majority of sites.

Opportunities for interpretation of these sites should be investigated along with those outlined under **Section 6.2** above.

It should be noted that an area of Moderate Aboriginal Significance is situated where it will be impacted by the railway / Village Centre proposals. There are in this location however good opportunities for interpretation and public art initiatives, in particular in the Village Square and within the public accessway to the Station.

Further information from GML's report is attached providing information relevant to play equipment and rural character, particularly near the RHHE.

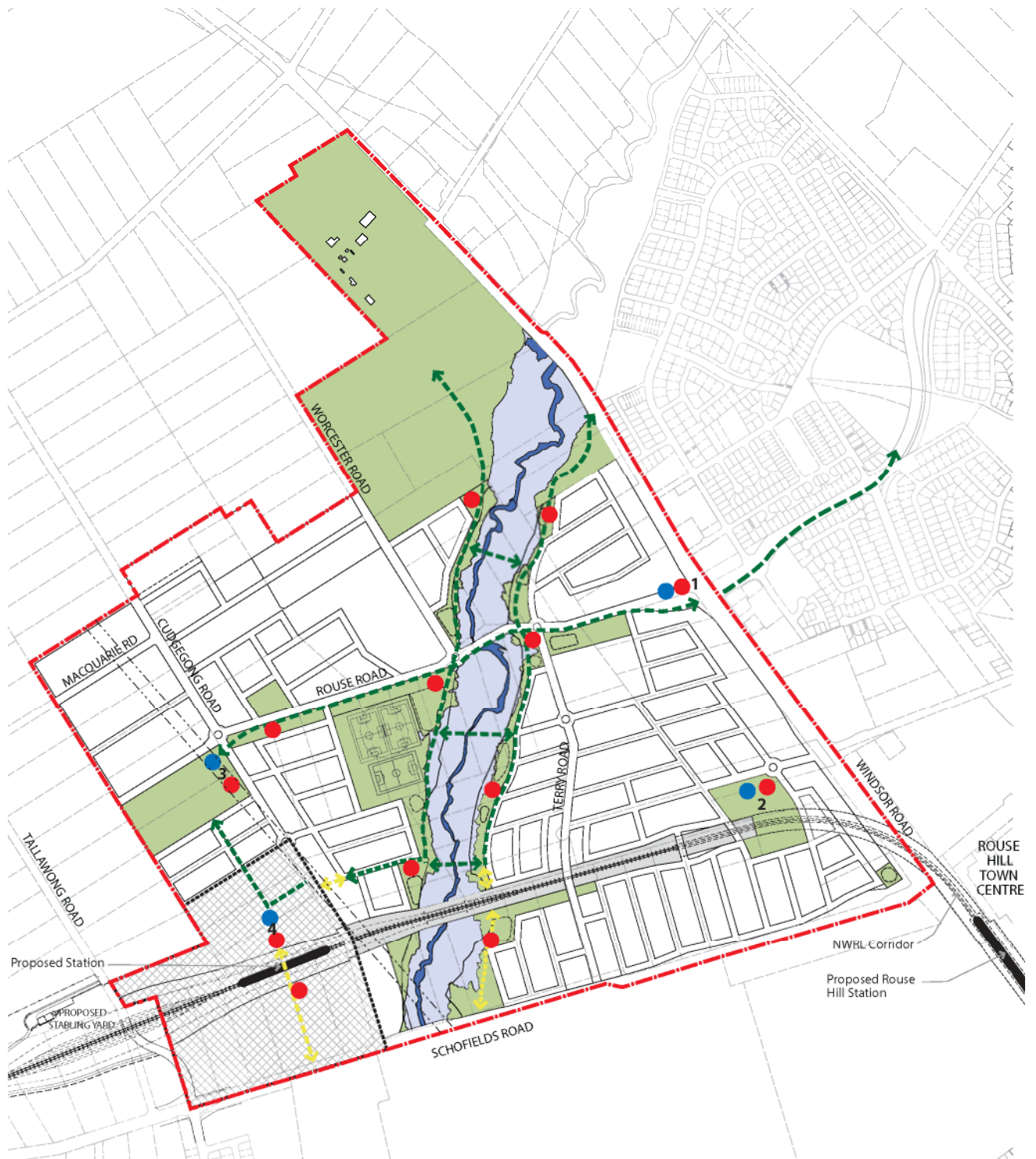
The general locations of the above interpretative initiatives are shown on the following **Figure 11**.



Retention of Second Ponds Creek, RHRP



Play equipment with rural character, RHRP



Cultural Heritage Interpretation

- | | | |
|--|--|---|
| Precinct Boundary | Open Space & Associated Link (Refer to Sec 6.1) | 1 Rouse Road Entry (Refer to Sec 7.1) |
| Cudgegong Station Area - Subject to review | Potential Link | 2 Knoll Park (Refer to Sec 7.2) |
| Creek Line | Suggested Interpretative Signage Location (Refer to Sec 6.2) | 3 Cudgegong Reserve (Refer to Sec 7.5) |
| Existing Transmission Easement | Suggested Major Public Art Location (Refer to Sec 6.4) | 4 Village Square (Refer to Sec 7.3) |
| Second Ponds Creek Corridor | | |
| Open Space | | |

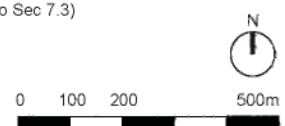







Figure 11: Cultural Heritage Interpretation

On-site Interpretive Initiatives

Interpretive Initiative	Media & Discussion	Location
<p>Play Equipment</p>  <p>Redfern Park, Redfern, Sydney.</p>  <p>Public art sculptures in a landscape setting interpreting pastoral history. <i>Sheep on the Road</i>, by Deborah Brown, Belfast, Ireland.</p>  <p>Children's play equipment at Redfern Park, Redfern, Sydney.</p>	<p>Use the natural and cultural landscape as inspiration in the design of play equipment within Area 20.</p> <p>Commission a public artist to work in conjunction with a playground design specialist to design play equipment for a broad range of ages and abilities that draws on the natural and cultural heritage of the site.</p> <p>Natural elements and farm animals from agricultural history may form the basis for design.</p> <p>Media: timber, steel, stone and water.</p>	<p>As appropriate, within select Area 20 parks.</p>

(extracted from GML's Cultural Heritage Interpretation Strategy November 2010)

Figure 12: Play Equipment Interpretive Initiative

Interpretive Initiative	Media & Discussion	Location
<p>Planting program to maintain rural character and subdivision pattern</p>  <p>Rouse Hill House and Farm fence line (Source, Alan Croker 2008)</p>  <p>Fencing treatments and area of domestic plantings to the rear of Experiment Farm Cottage, Harris Park.</p>	<p>Existing plantings in the area to be reinforced with complementary new plantings.</p> <p>Within Area 20 and other designated planting zones use plants identified in the DCP.</p> <p>Where possible, area to be defined by fencing reflective of domestic nineteenth-century timber fencing.</p> <p>Maintain the rural character of the setting of Rouse Hill House, with its gardens, outbuildings and flanking paddocks, as it is an important aspect of the heritage significance of Area 20.</p> <p>Respond to an identified planting palette for the study area, to strengthen and retain remnant Cumberland Plain vegetation, particularly along property boundaries and in roadside verges and to respect the exotic cultural plantings of the major estates.</p> <p>Interpret the current historic road and subdivision patterns of the Rouse Hill Estate through changes of density, landscape treatments and built form (height, colour etc).</p> <p>Where possible, augment historic boundary/ fence line planting.</p>	<p>Throughout Area 20 precinct, landscape but along Windsor Road, where rural historic character of Rouse Hill Estate and subdivision pattern may be interpreted.</p>

(extracted from GML's Cultural Heritage Interpretation Strategy November 2010)

Figure 13: Planting Program to Maintain Rural Character and Subdivision Pattern

7.0 Key Elements & Concept Plans

Concept plans for important locations within the public domain follow. Each is generated by known constraints and opportunities assembled during the ILP process and subsequent field checks.

The opportunities as noted below are developed and shown on the following concepts. Note that the residential components indicated on the drawings are hypothetical and included for context only.

7.1 Rouse Road Entry

Constraints:

- Windsor Road; major intersection with 6 traffic lanes and attendant traffic signage.
- Very few useful existing landscape elements, e.g. trees combined with adjacent land uses and resulting disturbed landscape.



Windsor and Rouse Roads Intersection



Rouse Road Entry

Opportunities:

- As major entry, presents opportunities to develop gateway theme/ interpretation imagery/ public art etc
- Historic road alignment associated with Queens Arms Inn site and existing Christ Church opposite.
- Co-location of pocket park near entry on south side of Rouse Road.

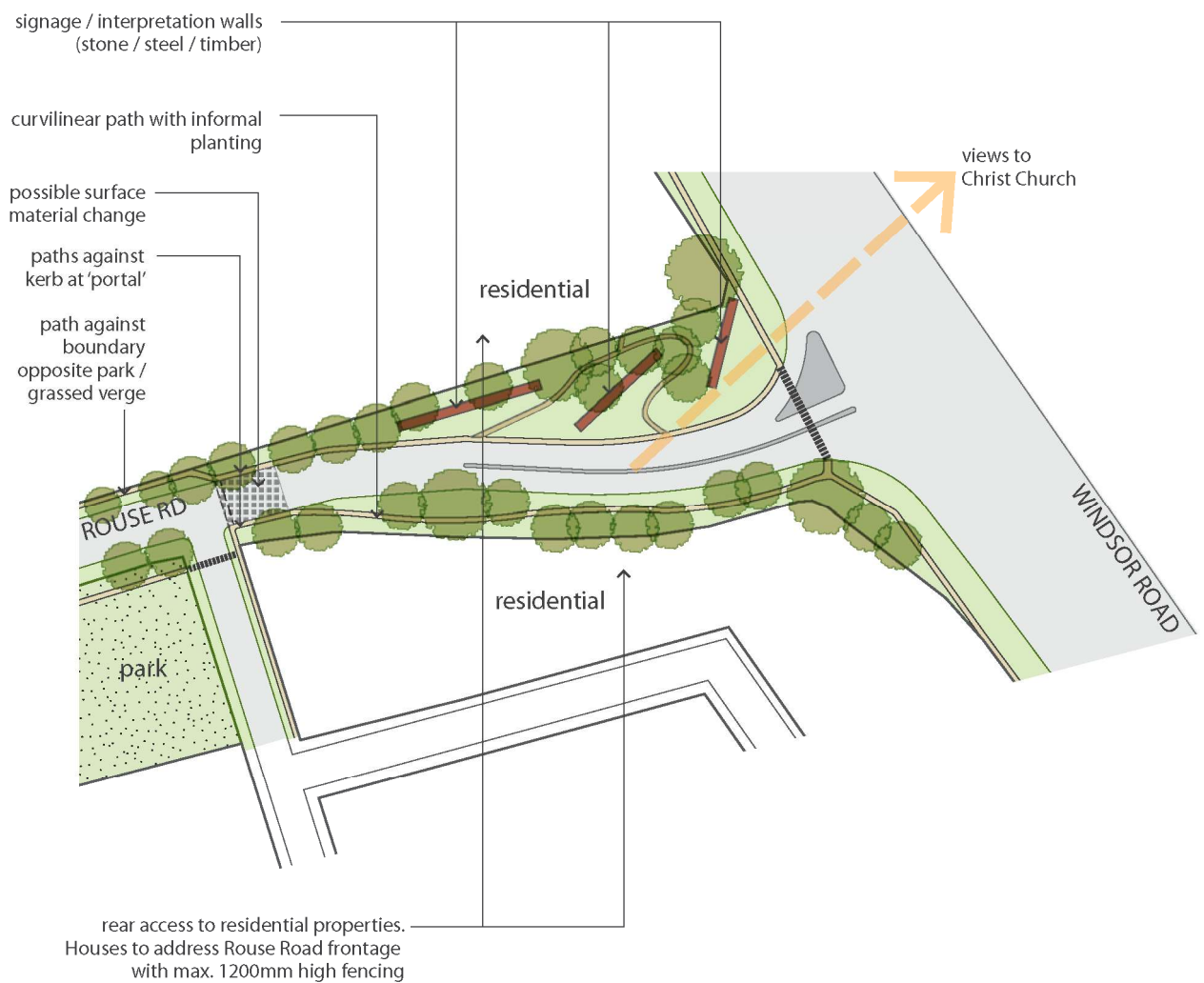


Figure 14: Rouse Road Entry Concept Plan

7.2 Knoll Park

Constraints:

- May be compromised by short and / or long term plans for underground rail easement which accounts for approximately 25% of park area.
- Short term; adjacent location of quarry.
- Lack of useful existing trees in area likely to remain undisturbed.



Quarry Site, Rouse Road

Opportunities:

- Occupation of the knoll has excellent potential to provide good views and interpretation opportunities vis-à-vis from Rouse Hill House Estate on opposite ridge and Aberdoon House in suburban Rouse Hill.
- Subject to opportunities from previous point being realised, provides scope for screening possible views of adjacent high density residential development from Rouse Hill House Estate.
- Possible association with historic Vinegar Hill 400m to the south on opposite side of Schofields Road (scope to include in interpretation package).
- Consider housing major interpretative facilities under cover or enclosed in special purpose “kiosk” or sculptural building element.



Figure 15: Knoll Park Concept Plan

7.3 Cudgegong Station Area

Constraints:

- Adjacent to deeply incised railway corridor.
- Location and width of TNSW owned site.
- Traffic movements associated with the same.
- Adjacent electrical easement.

Opportunities:

- Activity generated by proposed railway station.
- Possible partial incorporation of some good quality remnant forest to south side of railway corridor.
- Interpretation and public art site, especially regarding indigenous heritage, e.g. interrelationships with Cumberland Plain Woodland and ridgeline pathways.
- In same context, opportunity to develop good connections to Cudgegong Reserve.

7.4 Windsor Road Setback

Constraints:

- Setback included within lots for private sale.
- Management dependent on individual owners.

Opportunities:

- Incorporate / conserve existing vegetation wherever possible.
- Combine new vegetation with possible requirements for noise attenuation of open spaces.
- Deep lots provide opportunity to incorporate secondary built elements, e.g. garages in noise attenuation strategy.

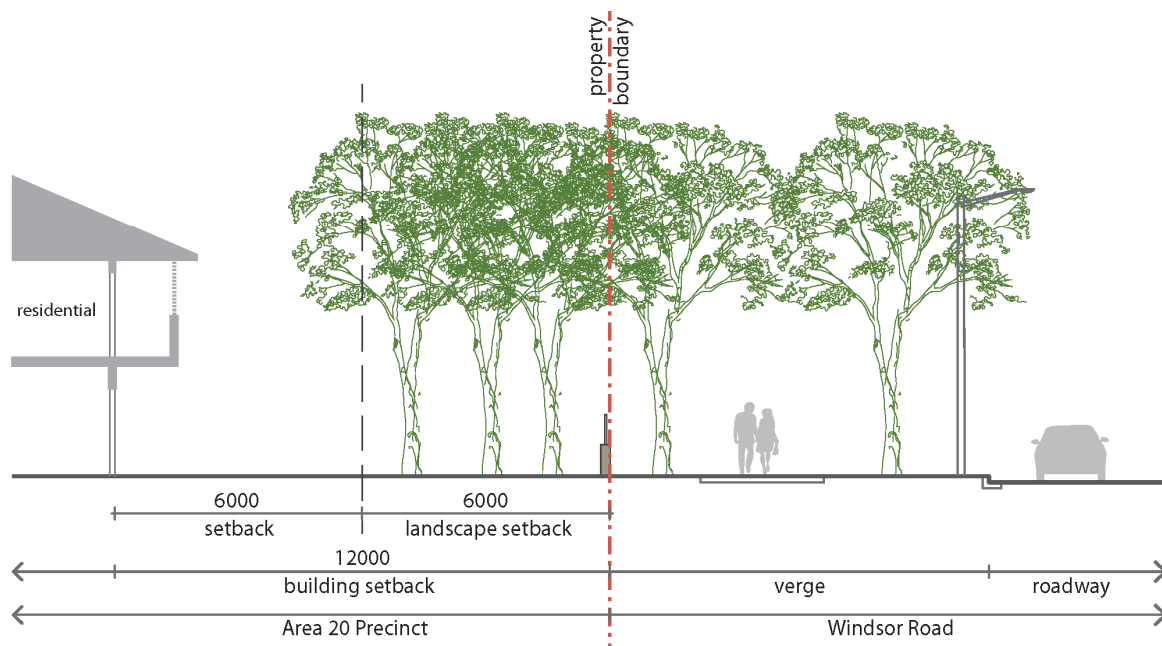


Figure 16: Section D - Windsor Road Corridor Section

7.5 Cudgegong Reserve

Constraints:

- Intersected by major electricity easement.
- Sub-storey vegetation layer not easily translated into public park situation.
- Likely protection upgrade to “Environmental Protection”.



Cudgegong Reserve

Opportunities:

- An existing reserve in Council ownership.
- Contains excellent representative sample of Shale Plains Woodlands.
- Associated with other quality existing vegetation on neighbouring sites, i.e. has wider ecological benefits.
- Relatively close to Village Centre.
- Interpretation and public art site associated with indigenous heritage and Woodland vegetation.

7.6 Visual Mitigation of Adverse Impacts on Rouse Hill Regional Park

The Precinct Planning for Area 20 Precinct was undertaken in consultation with the Historic Houses Trust and incorporated some of the key mitigation measures recommended by Conybeare Morrison's Landscape and Visual Analysis, 2010.

Some of the key measures to inform the development of the ILP include:

- enhancement of the Second Ponds Creek riparian corridor and associated vegetation
- retention of vegetation in visually sensitive situations
- strategically locating parks at high points in the landscape
- additional plantings in widened road reserves.

These measures where relevant have been incorporated in the strategies proposed in this report, and in concept drawings (see also **Figure 19**).

7.6.1 Conservation of Rural Landscape Character

The purchase by Government of RHRP and its proposed extension to the north, provides an important visual and strong rural / landscape context for RHHE.

In addition, the following has been incorporated in the SEPP Amendment and DCP related to the public domain and landscaping to conserve and enhance the rural landscape character of the Precinct:

- vegetation protection controls for Second Ponds Creek, Cudgegong Reserve and other parks
- design controls to encourage visually integrated and recessive housing
- controls for retention of existing significant trees and new landscape planting on public and semi-public spaces
- guidelines for a landscaped gateway to the Precinct at the Rouse Road entrance
- controls for retention of existing mature trees within larger individual lots located on the northern ridgeline, north-west of the Precinct to minimise visual impact on RHRP
- informal landscape setback zone (12 metres) to Windsor Road to enhance rural qualities on approach to Rouse Hill House Estate (see to **Section 7.4**)
- guidelines for informal landscape setback zone for allotments located along specified collector and local roads
- interpretation strategy.

It is also likely that new plantings will be required within Rouse Hill Regional Park to screen potential impactful views of the new water reservoir and urban development around the south-east knoll (see to **Section 4.4**).

7.6.2 Large lots in north-west neighbourhood

The ILP has identified the north-west neighbourhood for very low residential densities in the most sensitive wooded ridgeline to preserve tree canopy and landscape character.

Each of the large lots will be required to conserve mature trees and establish a development footprint. An indicative subdivision concept is illustrated in **Figure 17**.

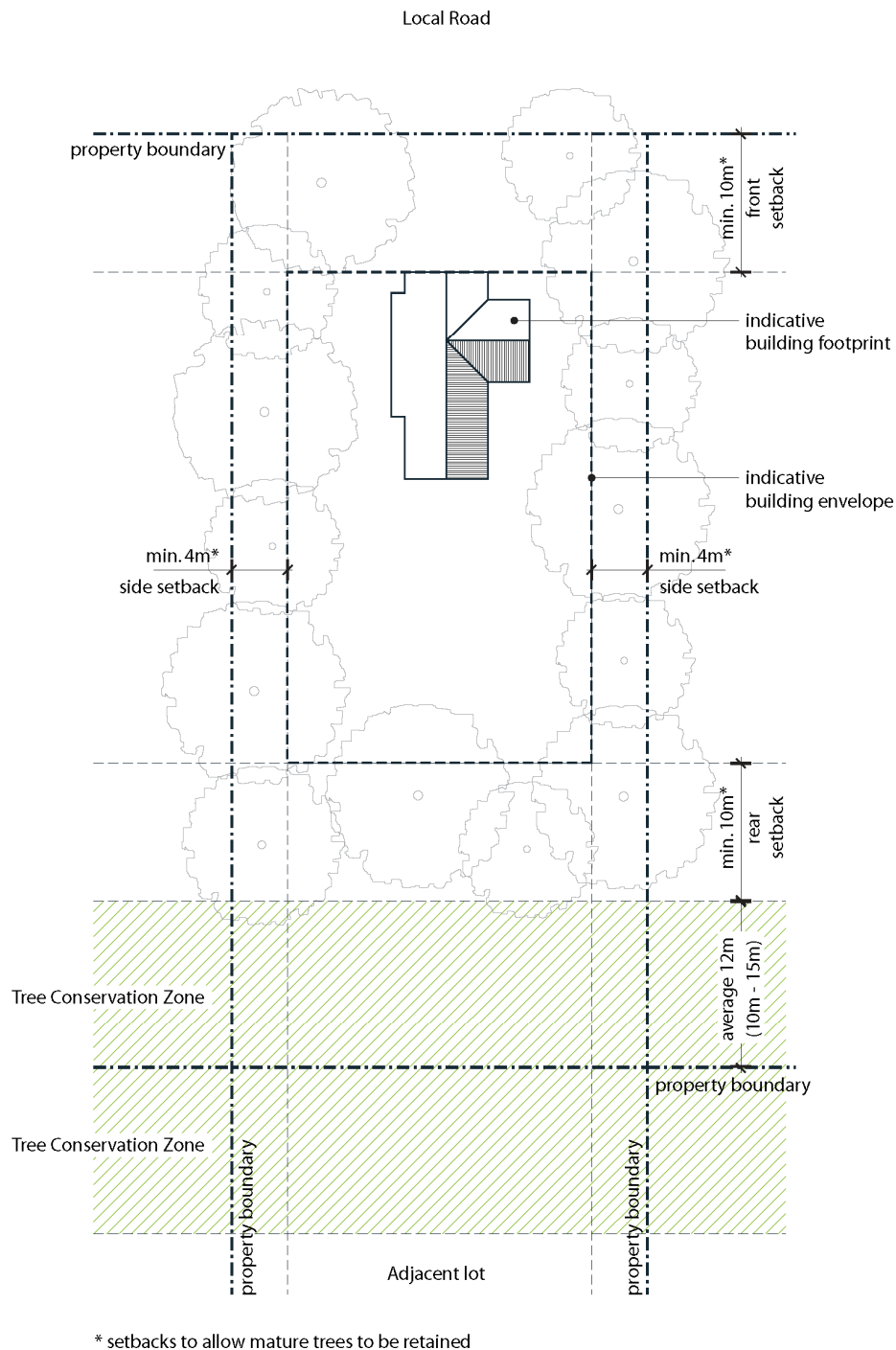


Figure 17: Northern Ridgeline Indicative Subdivision Concept Plan

7.6.3 Pocket Parks / Knoll Park

The ILP locates a major parkland on the knoll in the most visually exposed area (as seen from Rouse Hill House Estate) in the south, above the Quarry. The park will retain existing vegetation and be planted with endemic woodland species.

In addition, mature trees along the existing cadastre on the east / west ridgeline from Knoll Park to creek line (generally along collector road abutting north of Knoll Park) should be retained. Residential development along this road will incorporate a 5 metre front setback to retain existing vegetation and for new ridgeline planting to form a backdrop for new urban development. This applies to the second north / south local road to break up the visual impact of new urban development.

Two pocket parks are located off Rouse Road which will, together with specific landscape treatments, ensure a rural character is most evident where it will have the greatest impact. A concept example of the Rouse Road Pocket Park is illustrated in **Figure 18**. It presents an informal character as seen from Rouse Road.

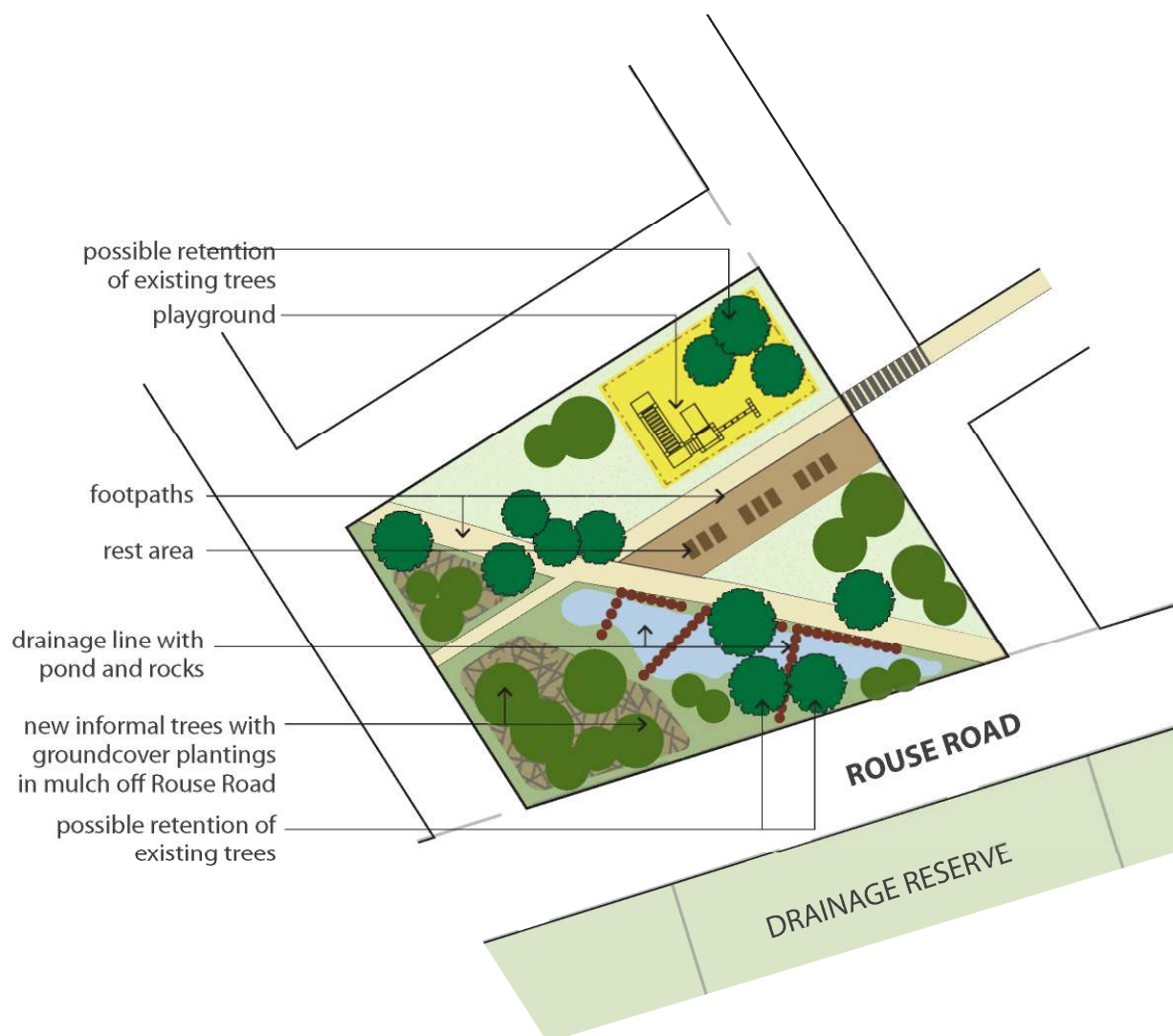


Figure 18: Rouse Road Pocket Park Concept Plan

7.6.4 Second Ponds Creek Corridor

The conservation of vegetation in the Second Ponds Creek floodplain will provide a strong vegetated corridor which will subdivide the site into precincts and provide immediate middle distance screening of development.



Second Ponds Creek Corridor



Figure 19: East Side Landscape Concept Plan

8.0 Landscape Guidelines

The following guidelines are aimed at consolidating what has been previously described as a woodland suburb with a contemporary rural character that respects and interprets the cultural heritage of the farmland, historic context and linkages and the nationally significant Rouse Hill House Estate.

Character objectives are summarised for the following locations.

8.1 Streets & Park Planting

- In general, existing indigenous trees are to be reinforced with complementary new plantings.
- In the key road corridors (Rouse, Worcester, Cudgegong, Macquarie, Terry and Commercial Roads) widened reserves are to accommodate existing trees where possible, together with new plantings in informal “clumped” groupings.
- New plant choice for the above streets should be restricted to a single species for each which respects its general location within the site e.g. Rouse Road east may well use Cabbage Gum (associated with creek line) and in the west Grey Box or Forest Red Gum (examples associated with ridge).
- Street planting elsewhere should be similarly selected, though likely used in more formalised arrangements (see also **Section 5.0** of this report).
- New plantings in Cudgegong Reserve should seek to maintain the present mix of tree species.
- Tree plantings in new parks, e.g. Knoll Park, should use locally endemic stock restricted to single or alternating species in formal arrangements. This would assist interpretation of existing tree group retention in situations where they can be readily distinguished.

8.2 Character of Parks

Cudgegong Reserve

As suggested by the name, Cudgegong Reserve is a reservation of native bushland, approximately 4 hectares in size. It is the intention that the Reserve will be maintained as a “natural park” by Council to conserve the remnant native vegetation, to provide a natural park amenity for future residents and to provide possible use that is consistent with its function.

Over time, it will be a challenge to minimise impacts of intensified usage from surrounding new development and thus mitigation measures are essential. Such measures would require scale-proof fencing, ideally of a recessive nature and set back from the boundary sufficiently to enable vegetative screening of the fence. Suitable materials would include black or dark green coated chain mesh or steel palisade although the latter may not sufficiently inhibit movement of cats and dogs and could be cost prohibitive if built to a standard that does.

It is anticipated that fenced enclosure as described above would also include controlled gate opening for managed public access. Non-controlled public access could still apply to areas beneath and east of the existing electricity easement which traverses the reserve adjacent to Cudgegong Road.

Opportunities for cultural heritage interpretation such as signage, public art, paths and trails for informal pedestrian movement within the Reserve, where possible (possibly within the transmission easement) and that will not hinder the conservation of the natural environment (see **Section 6.0**).

Seats and tables, bollards, lighting etc. should use natural materials (e.g. unpainted timber, corten steel) rather than stainless or painted steel, but should avoid an overly rustic appearance.

The Reserve will be protected under the Area 20 Precinct Plan and the existing Plan of Management for Cudgegong Reserve.

Knoll Park

Knoll Park is an entirely new park in the order of 2.5ha, and will accommodate all of the typical requirements of a major suburban park, e.g. casual recreation, local gatherings, relaxation, family and friends BBQ's etc.

It is also a major observation point with good views to the creek corridor and Rouse Hill House and the Blue Mountains beyond, and is therefore one of the best sites for an interpretation facility, which could either be in the open to take advantage of the park setting, or enclosed as a kiosk depending on the nature of the interpretation media.



Rest area with rural character, RHRP

The park will be a contemporary park and should be designed by a Landscape Architect with a well considered brief.

Materials selection should repeat the same general characteristics of the suburb (i.e. contemporary rural) but should leave room for imagination.

Ground surfaces should be conscious of Council's standards and maintenance requirements (simple turf, coloured concrete etc. would be suitable) and furniture should be contemporary sensible.

Trees should however reflect the locally endemic background species in the area (see also **Section 8.5** and **8.6** of this report).

Second Ponds Creek & Surrounding Linear Open Space

The best example of the character of the creek corridor is found in the RHRP which is managed and maintained by the National Parks and Wildlife Service.

The canopy and the under-storey are relatively dense, mostly weed free and contain a reasonably good representative example of the typical mix of species found in coastal alluvial woodland in the Sydney Basin (but paths tend to be muddy or flood eroded).

With some exceptions (mostly in the central portion of the site) the rest of the riparian corridor is not as good or extensive as that, however it is the intention that it will be managed as a more or less continuous "natural watercourse" by Sydney Water with riparian protection areas (edges) managed by Council. In order to achieve the desired character in the riparian corridor, the following may be required:

- removal of weeds / general rehabilitation
- replanting from local stock in areas requiring vegetation
- consider fencing the riparian corridor components
- locate pedestrian / bike paths within linear open space at the edge of the riparian corridor and within the corridor, where possible

- boardwalks at crossing points to bridges
- implement a Plan of Management for flood prone land and riparian corridor vegetation.



Second Ponds Creek & Surrounds

Riparian Protection Zones (up to the nearest road kerbs) and adjoining casual and formal recreational areas should seek to approximate the character of the riparian corridor by extending the canopy species outwards while modifying the ground plane (see also in **Sections 8.5** and **8.6** of this report).

Pocket Parks

Pocket Parks not associated with the creek corridor are proposed only off Rouse Road with a minimum half a hectare in size. As suggested earlier, the character of these parks should be linked to the character of Rouse Road (see **Section 5.1** of this report). The purpose is to broaden the spatial characteristics of the landscape which the street traverses wherever the opportunity arises.

Details of furniture, playgrounds, lighting etc. should follow the general pattern discussed above but should also seek to benefit from interpretive initiatives (see **Section 8.3** of this report) and existing natural features e.g. watercourse, rocks, trees etc which new features will also reflect.

8.3 Playground Location & Character

Playgrounds should be located generally in accordance with the Growth Centres Development Code requirements as follows:

- within a walking distance of 400m from residential properties
- as shown in **Figure 20**
- natural and cultural landscape may be used for inspiration in the design of play equipment
- in specific locations such as Knoll Park, consider commissioning a public artist to work in conjunction with a playground design specialist to design play equipment for a broad range of ages and abilities that draws on the natural and cultural heritage of the site. Natural elements and farm animals from agricultural history may form the basis for design (also refer to Section 6 of GML's *Cultural Interpretation Strategy*)
- media – timber, corten steel, stone and water may be used. Avoid rusticity.



Seating with Shelter, Lizard Log



Play equipment, Lizard Log



Playground with rural character, Murrays Beach



Figure 20: Kid's Playground Indicative Location Plan

8.4 Street Furniture

Street furniture will be purchased and maintained by Blacktown City Council and is therefore unlikely to include exotic examples that are difficult to replace or maintain. However, it is important that good quality, robust and maintenance effective furniture is installed at Area 20 Precinct which is in keeping with the thrust of streetscape design outlined elsewhere in this report.

It is especially important that street lights, signage, bollards etc do not attempt to emulate 18th century gas lamps or other interesting examples that may have some specific relevance to Rouse Hill House Estate.

Suitable examples include:

- simple galvanised light standards with similar finish, very low maintenance lamps (e.g. LED)
- street names should be on Council standard poles but with the addition of a special logo or coloured signage plate which is reflected in other more specific way-finding or interpretation signage (see also Section 7.6.3 of this report)
- bollards and other barriers may be simple galvanised or where associated with other specific design elements (e.g. parks or interpretation node) may include unpainted timber, corten steel, stone, etc
- fences where required as barriers or divisions in public areas should be simple “arris” post and rail park fencing unpainted or painted with recessive colours or other simple variants such as post with cable. Rustic examples such as split post with rail should be avoided.



Rural Style Fencing, Murrays Beach



Post and Cable Barrier, Lizard Log

8.5 Landscape Materials & Design

As outlined throughout this report, landscape materials and design should respond to an identified planting palette for the whole Precinct, to strengthen and retain remnant Cumberland Plain vegetation, particularly along property boundaries and in roadside verges, and to respect the exotic cultural plantings of the major estates. In the case of the latter, copying of the largely exotic plantings should be avoided within sightlines of the RHHE.

Where possible, historic boundary and fence line planting will be augmented with locally endemic material.

Implications for the Precinct generally (a tree planting list follows) are that tree and shrub / screen planting in the Precinct will depend primarily on species which fall into the 2 main vegetation communities found on the site being:

- Shale Plains Woodland
- Alluvial Plains Woodland



Shale Plains Woodland




Alluvial Plains Woodland



Since both the above communities occur more generally within Cumberland Plain Woodland, some flexibility may be tolerated and a wider range of species is desirable to suit particular circumstances, e.g. Village Centre, railway station etc where specific functional requirements such as clean trunk / wide shade canopy etc. may be necessary.

As a rule, street planting under the above category headings would be located as follows:





Zone A	Zone B
Shale Plains Woodland	Alluvial Plains Woodland
<ul style="list-style-type: none">▪ Rouse Road (west of playing fields)▪ Worcester Road▪ Cudgegong Road West▪ Macquarie Road▪ Commercial Road▪ Elsewhere generally	<ul style="list-style-type: none">▪ Rouse Road (east of playing fields)▪ Terry Road▪ Street adjacent to Riparian Protection Area (including playing fields)▪ Streets between Terry Road and the creek lines

8.6 Tree Planting List and Location

Zone A		
Grey Box	<i>Eucalyptus moluccana</i>	
Forest Red Gum	<i>Eucalyptus tereticornus</i>	
Narrow Leaved Ironbark	<i>Eucalyptus crebra</i>	

<p>Broad Leaved (or Red) Ironbark</p>	<p><i>Eucalyptus fibrosa</i></p>	
<p>Thin Leaved Stringy Bark</p>	<p><i>Eucalyptus eugenioides</i></p>	
<p>Grey Gum</p>	<p><i>Eucalyptus punctata</i> (various punctata)</p>	

Zone B

Cabbage Gum	<i>Eucalyptus amplifolia</i>	
Forest Red Gum	<i>Eucalyptus tereticornus</i>	
Rough Barked Apple	<i>Angophora floribunda</i>	
Swamp Oak	<i>Casuarina glauca</i>	

Other (supplementary species for specific use purposes)

Spotted Gum

Corymbia maculata



Pink Flowering Ironbark

Eucalyptus sideroxylon



Blackbutt

Eucalyptus pilularis



9.0 Conclusion

The Strategy together with the DCP provides public domain, open space and landscaping provisions for future development within the Precinct which will achieve the following outcomes:

- A well-connected open space network and movement system within the Precinct and adjoining areas including Riverstone East, The Ponds and Rouse Hill.
- A public domain and urban character that respects and interprets the cultural heritage of the farmland and historic context and linkages of the Precinct and the nationally significant Rouse Hill House Estate.
- Mitigation measures to minimise the visual impact of future development on Rouse Hill House Estate and its landscape context.
- Retention of elements of the existing rural landscape character.
- A consistent and co-ordinated approach to public domain and landscaping strategies.