Figure 4-14: Scalabrini Creek Corridor (North) concept design
Figure 4-15: Bonds Creek Corridor concept design
Figure 4-16: Byron Road Park concept design
Figure 4-17: Concept design for open space corridors incorporating Riparian Protection Areas
5 Building Controls

5.1 Building envelopes and setbacks

5.1.1 Building orientation

Objectives

a. To establish a positive interface between buildings, streets, parks, plazas and squares.

b. To provide passive surveillance and activity within the public domain.

c. To ensure that buildings are positioned and orientated to maximise energy efficiency, take advantage of sunlight and provide protection from inclement weather.

Controls

1. Buildings are to be orientated towards and provide active frontages at street level, to Rickard Road, the Main Streets and preferably to Town Centre Streets, as shown on Figure 5-15-1.

2. Active ground floor uses that include outdoor seating and/or openable shopfronts are best orientated towards the north or east, however these uses are encouraged facing Rickard Road, the Main Street and Town Centre Streets regardless of their orientation.

3. The main pedestrian entries to buildings, including ground floor retail and commercial premises that face the street, are to be from the streets listed in the controls above with active frontages.

4. Buildings are to be orientated towards major access roads in the Leppington Major Centre, including Eastwood Road, Dickson Road, Ingleburn Road, Bringelly Road, Byron Road, Edmondson Avenue, Camden Valley Way and Cowpasture Road. Blank walls are not to face these roads, and glazing is to occupy at least 50% of the building façade width facing these roads.

5. Service and utility bays, loading docks and car park entries are to be orientated towards Service lanes, or where this is not possible, to streets that are not specified as requiring at Active Frontage in Figure 5-15-1. Where vehicle entry is provided from a Town Centre Street, car parks, service bays and loading docks are to be screened from view from the street.

6. Large format retail such as supermarkets and parking areas are to be sleeved or hidden by retail and commercial uses, or designed with a high proportion of glazing where the building fronts directly onto the Main Street or Town Centre Streets.

7. Buildings are to be orientated to provide attractive, active building frontages and passive surveillance to public open space, land zoned for drainage purposes, plazas, squares and pedestrian through-site links.
Figure 5-1: Building orientation
5.1.2 Setbacks

Objectives

a. To establish consistent building lines fronting streets and other elements of the public domain.
b. To provide sufficient space between buildings and the street for landscaping where necessary.
c. To establish the desired vertical and horizontal spatial proportions of streets and other public places.
d. To provide a defined street edge within a town centre context.
e. To encourage passive surveillance of streets and other public spaces.

Controls

1. Building setbacks are to be in accordance with Figure 5-25-2.
2. Where Figure 5-25-2 identifies a zero setback, buildings are to be built to the property boundary (i.e. a zero setback), for at least the ground floor and first floor.
3. Projections beyond the zero setbacks lines may include awnings, verandas, balconies, roof overhangs and blade walls above street level.
4. On land where a front setback other than a zero setback applies, façade articulation elements may extend into the front setback to a maximum of 1.5 metres and for a maximum of 50% of the length of the building facade.
5. Setbacks for residential buildings (apart from residential buildings that contain retail or commercial uses at the ground floor), are to be in accordance with the residential setback controls in Part 4 of the main body of this DCP.
Figure 5-2: Building setbacks
5.1.3 Building height and envelope controls

Objectives

a. To control the height, bulk and scale of buildings to be consistent with the Leppington Major Centre Vision and Planning Principles.

b. To ensure appropriate sunlight penetration to streets and public spaces.

Controls

1. Maximum building heights are to be in accordance with Figure 5-35-3.

Note: The Growth Centres SEPP specifies maximum building heights. The controls in this DCP are intended to provide more detailed guidance on appropriate building heights to achieve urban design, amenity and environmental sustainability outcomes for the Leppington Major Centre.

2. The Rickard Road Transit Boulevard, Leppington Station, and prominent street corners should be reinforced in a visual context through concentrating building height and built form, as illustrated at Figure 5-35-3.

3. Taller buildings may also be concentrated along other major roads and adjacent to public open space, plazas and squares to emphasise and assist in way-finding to these public spaces, providing solar access requirements can still be achieved.

4. Above the first floor, building setbacks and separation distances are to be provided in accordance with the controls in Part 5 in the main body of this DCP.

Note: it may be necessary to vary building setbacks and separation distances on upper floors from the numeric controls in Part 5 of the DCP, to ensure that privacy, amenity and solar access are provided in accordance with the relevant DCP controls.

5. Buildings are to be designed to ensure a human scale is maintained at street level.

6. Minimum floor to finished ceiling heights are as follows:
   - Ground floor of all buildings (regardless of use): 3.6m
   - First floor for retail and/or commercial use: 3.3m
   - All other retail and/or commercial floors: 3.3m
   - All other residential floors: 2.7m
Figure 5-3: Building heights
5.2 Façade design

Objectives

a. To ensure that the design of building facades contributes positively to an attractive streetscape.

b. To encourage materials and finishes that are attractive, compliment the public domain, and are durable and easy to maintain.

c. To maximise activity and surveillance at street level.

Controls

1. Articulation zones should be provided to compliment the building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.

2. External security shutters are not permitted.

3. On corner sites, shop fronts are to wrap around the corner.

4. Entries to residential or commercial lobbies, facing Rickard Road, Main Town Centre Streets or Internal Access Streets, are to be a maximum of 50% of the building frontage width or 10 metres, whichever is the lesser.

5. Architectural expression should be diverse across building groups/blocks and facades should be articulated to create visual interest.

6. There should be a contemporary architectural style based on simple primary building forms and a fine grained assemblage of elements (which may incorporate the diversity of character of streetscapes in historic towns such as Camden).

7. Façade design should create a series of vertical elements along a building length reflecting a traditional main street façade.

8. Building facades are to be designed to accentuate key architectural features and clearly delineate points of interest such as building entries, vertical and horizontal elements.

9. Building facades are to incorporate a variety of finishes and materials which provide visual relief to the built form and which complement the materials and colours adopted for the public domain (refer to Part 4 of this Schedule).

10. Sleeve buildings are to be used to minimise the visual impact of large boxes, service areas and to define streets.

11. Roof forms and structures such as clock towers/spires are encouraged for key sites and roofs should be designed to break up the overall mass of a roof on a large building.

12. Roof elements should be used to screen mechanical plant.
5.3 Landscaping

Objectives

a. To integrate landscaping within development sites with the design of buildings and with the landscape character of the public domain.

b. To ensure landscaping contributes to an attractive streetscape, a safe environment for people, and to minimising the impacts of development on the natural environment.

Controls

1. A landscape plan is to be submitted for all development within the Leppington Major Centre where landscaped areas are required or proposed at ground level.

2. Where buildings require a setback of more than zero from the street, the setback area is to be landscaped and is to consist of predominantly soft ground with deep soil (i.e., solid paving, concrete, or other impervious materials are to be minimised).

3. Landscaping within development sites is to complement the landscape character of adjoining streets and other public spaces (refer to the controls in Part 0 of this Schedule).

4. The proportion of the site that is unpaved is to be maximised to enable maximum water infiltration. Planting is to include deep-rooted tree species to assist in maintaining an appropriate water table.

5. Rainwater storage and re-use is required for all landscaping irrigation, with mains water only to be used as a backup. The capacity of on-site water storage is to consider the likely water consumption required to maintain landscaped areas within the site.

6. Landscaping of development sites adjacent to Scalabrini Creek and Bonds Creek is to integrate with the natural characteristics of the existing vegetation or vegetation to be re-established along these creek corridors. Native (locally indigenous) plant species are to be the dominant landscape species in these locations.

7. Landscape plans submitted for development on bushfire-prone land (refer to the Bushfire Risk and Asset Protection Zone Requirements figure in Schedule 1) must be prepared in accordance with the NSW Rural Fire Service Planning for Bushfire Protection Guidelines.

8. Landscaping design and tree species selection is to consider solar access (in winter) and the provision of shade (in summer) to buildings, the public domain and outdoor areas within the development (including private or communal open space areas).
5.4 Water Sensitive Urban Design

Objectives

a. To protect and enhance natural water systems which may be affected by urban development.

b. To reduce storm water run-off and peak flows effected by urban development.

c. To meet stormwater quality targets through treatment systems such as bio-retention, swales, wetlands and raingardens.

d. To integrate stormwater detention and treatment with the urban structure of the Leppington Major Centre.

Controls

1. The Water Sensitive Urban Design controls in Clause 6.5 of the main body of the DCP also apply to development in the Business zones (B3, B4, B5 and B7) in Leppington Major Centre.

2. A Leppington Major Centre Water Sensitive Urban Design Strategy (WSUD Strategy) has been prepared by the Department of Planning and Infrastructure and is available from Council. Development applications must demonstrate compliance with the WSUD Strategy and the controls in this DCP (which take precedence over the Strategy) to Council’s satisfaction.

3. Trunk stormwater detention basins and channels as shown on the Indicative Layout Plan have been designed to detain stormwater volume up to the 100 year ARI storm event from streets, residential zoned land and public spaces within the Leppington Town Centre. Detention of additional stormwater runoff as a result of other development is to be managed within the development site (on site detention) to ensure there is no increase in runoff in events up to the 100 year ARI event.

4. Where development adjoins or incorporates streets that follow drainage paths (low points), WSUD measures should be incorporated into the design of the street. Measures such as bioswales and tree pits are to be located in the road verge (as opposed to in a central median).

5. For individual Development Applications, a Water Cycle Management Strategy should be prepared by a suitably qualified consultant to demonstrate how the proposed development manages run off quantity and quality, reduces potable water use, minimises effluent production and integrates landscape irrigation with recycled water.

6. Measures to treat stormwater quality, to achieve the targets specified in clause 2.3.3 of the main body of this DCP, are to be incorporated into each development. The design and location of water quality treatment devices is to be consistent with the WSUD Strategy, and integrated with elements of the development such as car parks, landscaped areas, private open space, communal outdoor areas and setback zones.
Source: City of Ryde Public Domain Strategy

**Figure 5-4:** Design of tree pits
5.5 Parking, loading and access

Objectives

a. To ensure an appropriate number of parking spaces are provided within the Leppington Major Centre to service the needs of businesses, residents and visitors.

b. To encourage modes of travel other than private cars for travel within and to the Leppington Major Centre.

c. To ensure efficient and safe access for delivery and service vehicles to businesses within the Leppington Major Centre.

d. To provide integrated vehicle, bicycle and service access points without compromising streetscape character or pedestrian amenity.

Controls

1. On street parking to be provided throughout the centre in accordance with the cross sections in Part 4 of this Schedule to contribute to street life and surveillance.

2. Rates of provision for car parking are to be determined with reference to the car parking rates specified in Part 4 of this DCP for residential development, Part 5 for commercial and retail development and Part 6 for industrial development. Rates may be modified (subject to agreement by Council), or Council may restrict the provision of parking to a maximum number of spaces because:

   • Access to public transport means that dependence on private cars is reduced within the Leppington Major Centre, or

   • Traffic congestion is likely to occur because parking provision generates traffic volumes in excess of planned road capacity, or

   • The required rate of car parking would result in detrimental impacts on the character and amenity of the centre, or

   • On street parking is available in proximity to the proposed development, reducing demand for internal car parking, or

   • Provision is made for other modes of transport eg. Walking and cycling that would reduce the demand for car parking, or

   • Efficiencies in car parking use are achieved by locating the proposed development adjacent to another development or land use that has spare car parking capacity (in general or at certain times of the day) or where parking provision can be shared between the developments, or

   • Shared use of car parking by commuters and the development is proposed, or

   • A detailed assessment of required provision of car parking demonstrates that parking will be appropriately provided at a rate which differs from the standards.
3. Rooftop parking is discouraged to preserve the future amenity for residential flat buildings located in the centre.

4. Below ground car parking is encouraged for higher density residential and mixed-use development and for major retail and commercial development.

5. The majority of car parking is to be provided under or behind buildings, and on street to limit visual impact and maintain pedestrian amenity.

6. Where multi-level parking is proposed above ground, the car park is to be screened from view from Rickard Road, Main Town Centre Streets and Internal Access Streets by buildings that present an active façade to the street.

7. Parking, loading and service areas are to be accessed predominantly from Secondary Town Centre Streets.

8. At grade car parking is permitted where the main access is from a Secondary Town Centre Street and where site landscaping and buildings provide appropriate visual screening from public places.

9. Car parks are not to be visible from public parks, squares or plazas.

10. Where below ground parking is along a street edge and cross ventilation is desirable, any exposed section of car park wall is to be appropriately modelled and scaled.

11. Natural ventilation of basement and sub-basement parking areas is encouraged to be provided wherever possible.

12. Service vehicle access points should be consolidated where possible to limit the potential for conflict points.

13. Bicycle racks/storage areas are to be provided in all developments in accordance with the requirements of Part 5 of the main body of this DCP. Bicycle racks/storage areas should be provided for both residents/employees and site visitors.

14. Within the B5 Business Development zone, between Bringelly Road and Fifth Avenue, car parks are to be located internally (i.e. behind buildings that provide frontages to Bringelly Road, Fifth Avenue and Edmondson Avenue).

15. Within the B5 Business Development zone, where car parking, loading or service areas are located adjacent to land zoned for public recreation, landscaping is to be used to screen the car park from view from the public recreation land.

16. Loading and service areas are not to be located adjacent to or across a road from land zoned for residential or public recreation purposes.
5.6 Development and use of flood prone land

Objectives

a. To enable development that is appropriate to the level of flood risk that applies to parts of Leppington Major Centre.

b. To maximise the development potential of land in Leppington Major Centre, and the productive use of land that is affected by flooding.

c. To ensure that development does not create an increased risk of flooding or changes to flooding conditions.

Controls

1. Development within the 100 year ARI flood extent, as shown on the Floodprone Land figure in Schedule 1, is only to occur where the controls relating to flood prone land in Part 2 of the main body of this DCP are met.

2. Use of flood prone land for activities that are ancillary to development on adjoining (non flood prone) land are encouraged, subject to compliance with Council’s Floodplain Risk Management Policy and the Precinct Water Cycle Management Strategy (available from Council), and may include:

- Communal areas or private open space associated with residential or mixed use development or development in the Business Park.
- Landscaping.

5.7 Heritage

Objectives

a. To conserve and enhance the heritage significance of heritage items.

b. To retain an appropriate landscape setting for the item and views associated with the place.

c. To encourage ongoing use of heritage items, including adaptive reuse where this will contribute to the conservation of the item.

Controls

1. Developments in the vicinity of Leppington School Heritage Item must be sympathetic to the scale, massing and character of the significant weatherboard buildings and their garden setting. Buildings shall not exceed two storeys in height within 10 metres of the curtilage of the Leppington School site. Developments shall incorporate landscape treatments to ensure an appropriate transition of building scale between the heritage item and adjacent development.

2. Developments that coincide with the former Eastwood Road historic road alignment shall conserve elements of the original road alignment within the landscape, either by means of a natural landscape corridor or other forms of interpretation such as explanatory signage.
5.8 Staging of development

Objectives

a. To recognise that development of the Leppington Major Centre will occur progressively over a number of years and that early stages of development have the potential to influence long term outcomes for the centre.

b. To ensure that development, at all stages of the development of the centre, is consistent with the Leppington Major Centre Vision and Planning Principles.

c. To maximise the efficient delivery of infrastructure necessary to enable development to occur in the centre.

Controls

1. Development in the early stages of growth in the centre should be designed, oriented and located to comply with the relevant controls in this schedule, or to not preclude future development from complying with the controls and Planning Principles.

2. To the extent that it is practical, early development in the centre is to consider the layout, orientation and scale of future stages of development that may occur and whether the proposed development will enable future stages of development to occur.

3. In support of Control 2, Council may require the applicant to submit concept plans showing how the proposed development would integrate with potential future stages of development on the land or on adjoining land, in a manner that is consistent with the controls in this Schedule.

4. Temporary access arrangements may be agreed to by Council in situations where the road network is not sufficiently developed to enable compliance with the parking, loading and access requirements of clause 5.4. Where temporary access arrangements are proposed, applicants are to demonstrate how the development will enable transition to permanent access arrangements that comply with clause 5.4 when the road network is sufficiently completed.

5. To enable the efficient development of land in the early stages of the centre, Council may consider amendments to the locations of roads as shown on the Indicative Layout Plan, where necessary to maximise the development potential of land or to ensure that appropriate access is provided.

6. Despite Control 5, the locations of the Main Street, Bus Interchange Street and Town Centre Streets are generally fixed and applicants will be required to construct these roads at, or as close as possible to, the locations shown on the Indicative Layout Plan.

7. Council will generally require the full width of roads to be constructed as part of any development proposal that requires the construction of a new road, except for the road verge and footpath on the side opposite the development, where applicants can demonstrate to Council that that verge and footpath is not required to service the proposed development. Where the new road straddles a property boundary, Council may accept amendment to the location of the road to ensure the full road
carriageway width (and full width of verges/footpaths where required) can be constructed within the development site.

8. Construction of half road widths will only be permitted where the applicant can demonstrate to Council that the half road will have sufficient capacity and be safe for the predicted traffic volumes. Half roads will not be permitted where they form the primary means of vehicular access to parking areas for retail premises or commercial premises.

9. **Figure 5-55-4** illustrates the potential staging of development in Leppington Major Centre, based on factors including likely water, sewer and electricity servicing, development of the road network and demand for different types of development in the town centre. The staging of development is not required to occur as shown on **Figure 5-55-4**, but is to consider the other requirements of this clause to contribute to the orderly and efficient development of the centre.
Figure 5-5: Indicative development stages in Leppington Major Centre

Schedule Two – Leppington Major Centre