

PUBLIC DOMAIN & OPEN SPACE STRATEGY

Generally

JMD Design has been commissioned by Landcom to prepare a public domain and open space strategy for the Airds Bradbury renewal project.

This report describes the proposed principles and strategy for the Airds Bradbury Renewal projects which seeks to make a positive contribution to establishing the long term character of the new suburb through the embellishment of the public domain and open spaces including street tree planting, front allotment fencing and public open space embellishment.

The landscape character of the development is strongly influenced by the adjacent Georges River Bushland Reserve to the east and Smiths Creek Reserve to the north.

The existing character of Airds Bradbury is relatively dense clusters of residential development surrounded by extensive areas of cleared land and bushland.

The future Airds Bradbury suburb will comprise of residential development with an eastern edge of bushland, more legibly integrated into Bradbury proper through the provision of collector road connections and the rejuvenation of the services corridor.

The public domain and open space areas will provide both legibility and unity to the suburb. The functional and operational restrictions placed on the public domain leads to the adoption of a strategic approach in the identification of the areas which may deliver maximum impact in the elements of the public domain. The critical areas within the open space, the town centre and the streetscape have been highlighted to maximise the potential outcomes delivered by the public domain and open space strategy.

It should be noted that as part of the HNSW 'Green Street' Program substantial numbers of semi-mature street trees have been planted in the existing streets. Where possible these trees will be retained and supplemented.

A. STREETSCAPE

The landscape character of the street is created by well defined front gardens, street trees and the visibility of backyard trees beyond the house. The streetscape is a major contributor to the quality of the overall neighbourhood. (Built Form Guidelines for Landcom Projects May 2008)

Street hierarchy and streetscape strategy objectives:

- Establish a logical street hierarchical pattern.
- Facilitate easy accessibility within the site by building and augmenting where necessary, the existing street layout and hierarchy.
- Reinforce connections to existing road patterns adjoining the site.
- Provide strong repetitive elements of appropriate character and in scale with the residential development to create a unity for the suburb.
- Highlight gateways and nodes to provide legibility within the suburb
- Promote solar access through the use of deciduous trees

The landscape overlay is intended to reinforce the street hierarchy as part of the public domain streetscape strategy.

Gateways and nodes

Nodes are of major importance in creating unity and legibility for the suburb as well as the strengthening the recognition of suburb entry and collector roads.

Principles:

- Define and reinforce site entrances by introducing landmark planting
- Reinforce legibility of street hierarchy by defining node typology, facilitate orientation/navigation across the site by reinforcing nodes / intersections along Collector Roads (landmark planting)
- Preserve and enhance views, reinforce gateways to Airds

Street Tree Principles

Design principles

- Street trees shall be planted to both sides of all streets, where feasible.
- Use of predominantly indigenous species for street tree plantings in outer perimeter streets to enhance existing character and biodiversity of native vegetation
- Solar Access: to increase solar access and temperature control deciduous trees have been located on east west road axis and evergreen species on north south road axis. This ensures solar penetration into north facing lots during winter days.
- Use species for street tree plantings which will reach a mature size appropriate to the scale of the streets.
- Street tree planting shall be coordinated with subdivision layout, traffic plans and services layouts to ensure appropriate integration with vehicle crossovers, sight lines, lighting and other services
- Large scale tree planting: where space allows in the road verge such as at road intersections and corners larger scale evergreen trees are utilised to provide an emergent tree canopy over and above the general roofline of housing to give Airds a verdant appearance when viewed from a distance.
- Nodes & Gateways: Landmark planting can be used to signal a point of arrival, a nodal point and to break up the monotony of long stretches of roads. Landmark planting highlights the gateways and nodal points and provides legibility within the suburb. Landmark planting could consist of planting large feature trees with special interest and/or recognisable features. Landmark planting in blisters serve multiple purposes such as improving pedestrian connectivity, traffic calming and to achieve streetscape amenity benefits.

Technical Guidelines:

- All street tree plantings and will be under planted with a range of ground cover plantings within a timber edge for road verge planting or concrete edge for street tree pits
- Along Collector roads street tree pits will be protected by street tree guard posts.
- Spacing of trees is to depend on the scale of the species: small trees @ min. 8m centres, medium trees @ min. 10m centres, large trees @ min. 12m centres

- Ensure sufficient soil volume, soil depth, drainage and water for street trees – ensure absolute minimum of 25m² per tree by 1000mm depth;
- All street trees are to be planted at minimum 800mm of the face of kerb and minimum 800mm from pathway.
- Where existing significant trees are located within the verge areas consider detailed grading to maintain existing ground levels and allow retention of trees
- All street trees to have root control barrier to be installed at kerb side of planting hole for a distance of 4m centred on the tree.

Street tree Strategy

Strategy 1: Tree Species to reinforce road hierarchy and legibility

Single or two species are associated with a specific road type to create unity and facilitate navigation within the suburb.

Where there is a conflict between provision of street trees and the land uptake within the existing streets, alternatives are being considered to achieve the regular canopy of trees in these streets.

Alternatives to the traditional cross sectional allocation of street trees are:

- Street trees to be planted in parking lane in blisters at intersections only- continuous avenue not achieved.
- Street trees to be planted in parking lane in tree pits between parking bays one per 3 spaces for parallel parking and at intersections- continuous avenue may be achieved.
- Street trees to be planted in parking lane in blisters between parking bays one per 3 spaces for parallel parking and at intersections- continuous avenue may be achieved.
- Street trees to be planted in verge 800mm face back of kerb in tree pit with structural soil and porous paving in adjacent pathway (15m²)- continuous avenue may be achieved
- Street trees to be planted in front gardens of allotments at 1 per allotment- partial continuous avenue may be achieved

Applies to: Main Roads (Collector Road & Town Boulevard) and Secondary Roads

Strategy 2: Tree Species to promote sense of place (precinct species)

To provide a point of difference between the precincts each precinct shall be dominated by two to three deciduous and evergreen species. The mix of species shall vary depending on where the precinct is located in relation to Riverside Drive – Greengate Avenue.

Precincts outside Riverside Drive - Greengate Avenue shall be dominated by indigenous species creating a connection to the surrounding bushland or nature reserves.

Precincts located inside Riverside Drive – Greengate Avenue shall be dominated by exotic species to create a distinctive urban character.

Applies to: Residential Streets

Green Streets Program

Within the scope of the NSW Housing Green Streets program trees have been recently planted in the southern neighbourhoods of Greengate and Merino Park along Greengate Road, Merino Crescent and side roads and in the western neighbourhoods of Creigan, Croft and Summers along Craigan Road, Briar Road, St. Johns Road, Docharty Road. Where compatible with the proposed adjustment of existing road sections these trees are to be retained. Species from the Green Street Planting Schedule will be considered for the proposed Airds street tree planting species list.

B. PUBLIC OPEN SPACES

In January 2011 Urbis prepared an Open Space Review of the Concept Plan. This review set out a series of guidelines for design of the open space which had been developed in consultation with the residents of Airds, Campbelltown City Council, Landcom and other agencies.

In summary the stated objectives are:

- Design to consider context, history and future use.
- Open spaces to be contemporary in nature and innovative.
- Passive parks to cater for a broad range of users, mix of spaces and both structured and informal recreation activities
- Design to promote passive surveillance of open space
- Maximise co-location and sharing opportunities of active recreation facilities
- Park buildings to be functional and aesthetically pleasing in design and be located to integrate not dominate open space areas.
- Lighting restricted to key pedestrian thoroughfares only
- Minimise visual impact of carpark and other infrastructure in open space.
- To encourage planting and landscape treatment which build the environmental value of the site including biodiversity and native fauna habitat

Design Requirements:

1. Parks shall generally be located as illustrated on the Concept Plan
2. Include facilities within public open spaces generally in accordance with Concept landscape plans which have been developed with Council's input.
3. Where existing significant trees are located within the park areas consider detailed grading to maintain existing ground levels and allow retention of trees
4. Lighting shall conform with the current Australian Standards, including AS 1158 Lighting for Roads and public spaces AS 2560 –Sports field Lighting:
5. Landscaping and built structures shall not create obscured areas. Ensure tree species selected in public areas can be maintained with a clear trunk to a minimum of 2 metres.
6. Incorporate planting of indigenous species and vegetation communities to enhance native fauna habitats.
7. Reduce water usage by using indigenous and low water tolerant species and efficient irrigation systems.
8. Native planting should be considered as deep root planting to reduce salinity risk.
9. Circulation and connections: Generally Bicycle Paths in road verges shall comply with Austroad Guide to traffic Engineering Practice Pt 14- Bicycles and AS 1742.9 Manual of Uniform Traffic Control Devices Part 9 Bicycle Facilities.
Cycling and walking pathways in open space shall be 2.5m for shared cycleway/pedestrian pathways and 1.5m for other pathways". Reinforced and coloured concrete vehicular crossing points shall be included to allow maintenance vehicles.

DEANE PARK 11.86ha TOTAL

According to function and character Deane Park can be divided into three parts:

1. Deane Park Woodland - Bushland regeneration,
2. Deane Park North - Active recreation
3. Deane Park South - Passive recreation

Facilities/Council requirements**1. Playing Fields:**

- Sports fields: 2 x rugby league fields (70m x 100m) plus over runs 5 metres all sides with sub surface drainage and automatic irrigation system complete (incl. moisture sensor) with tank top up from potable main, slave unit to Council central Cloudmaster controller for lights and irrigation,
- Flood lights – min 25 metre steel poles, min 50 lux to whole field with electrical capacity and infrastructure to increase to 100 lux , control as above.
- Min 80 marked car parking spaces.
- Vandal resistant rubbish bins surrounds with appropriate bin inserts around amenities,
- 2 basketball courts - multi- purpose eg. netball, volleyball with markings, hoops etc, not fenced.
- Amenity building including home & away change facilities, referees room, public toilets, and canteen (200m2 building 90m2 overhang). Also accommodated in this building is Council's maintenance storage incl separate irrigation pump room.

2. Play areas

- 2 child play areas including shade structure, seating of robust anti graffiti and vandalism material
- Playground design to generally to comply to AS4685.1-4 Playground Equipment, AS 4486.1-1997 Playgrounds & Play Equipment Design & installation and AS 4422, 1196 Playground Surfaces. All surfacing used under all play equipment to be rubber softfall (ie no organic softfall).
- Play areas are to cater for a range of age and challenge level generally:
 - a) toddler to 5yr and
 - b) School age

3. Picnic / Informal gardens

- Public Domain Furniture is to be of simple and robust materials, vandal resistant and accessible to AS 1428 for relevant items relevant , rubbish bins with appropriate bin inserts for inclusion in pond /play area .
- 3 BBQ (electric) and 3 shade structures with small grassed play area within pond precinct
- Incidental walking circuit of pond area
- Ornamental planting will be provided around pond to provide passive recreation opportunities.

4. Community Building

- Building approximately 300m2 to be provided to detailed brief as agreed with Council.

URBIS Open Space Review of Concept Plan, Airds Bradbury recommends some items which through further consultation with Campbelltown City Council have been eliminated for the concepts

NOT CONSIDERED WITHIN CURRENT PROPOSALS

- Dog exercise /off leash area
- BMX track /Skate Park

Design Principles

- formal avenue planting along extended Campbellfield Avenue strong entry statement
- entry feature
- central spine linking Deane Park North & South

1. Deane Park North + Bushland Remnant

- Define core bushland remnant to be regenerate and managed as urban bushland, rationalise pathways, strengthen bushland planting in buffer with clean trunked local provenance species.
- Incorporation of Public Art along footpaths
- Full size rugby fields to be grade separated, Seating walls along eastern side to take up level change and provide seating for spectators
- informal play area (teenager)/fitness trail play in buffer to bushland under woodland canopy
- Low screen planting and copped tree planting to soften visual impact of car park.

2. Deane Park South

- Embellished Pond to incorporate Bioretention system (to requirements provided by Water Quality Consultant)
- Loop walk with small seating viewing areas
- Provide individual equipped play areas for small and school age children, young children's play area close to shelter and seating, older children's playground to provide a range of activities and challenge levels in a setting to integrate with the park landscape. and disabilities
- Pockets of clear trunked tree planting along park edge will maintain open views out and framed views in to the park promoting passive surveillance.
- Passive recreation area, featuring grove of flowering deciduous trees with table settings underneath.
- Outdoor courtyards/seating/terrace associated with community leisure facilities
- Performance and gathering space.
- Interpretation and education.
- Incorporation of Public Art.

RILEY PARK 2.3 ha TOTAL**Facilities/Council requirements**

1. Playing Fields

- Maintain current 2x international size soccer fields with over runs 5 metres around.
- Synthetic cricket wicket between both fields with adult cricket field fitting within precinct.
- Sporting fields with sub surface drainage and automatic irrigation system complete (incl. moisture sensor) with tank top up from potable main, slave unit to Council central Cloudmaster controller for lights and irrigation,
- Flood lights – min 25 metre steel poles, min 50 lux to whole field with electrical capacity and infrastructure to increase to 100 lux , control as above.
- Min 80 car parking
- Provide fencing in areas required for ball control or security.
- Rebuild - New Amenity building - change facilities, referrers room, public toilets, canteen, (200m2 building 90m2 overhang). Also accommodated in this building is Council's maintenance storage incl separate irrigation pump room.

2. Play areas

- Younger children's play area located in close proximity of amenity building with shade structure nearby and/or covering part of play area. Shade structure of robust anti graffiti and vandal resistant material. Rubber softfall to be used under all play equipment-(no organic mulch). Play area to be fenced.

Design Principles

- Existing playing fields to be retained (size to suit site)
- Oval with batter to low side
- Consider provision of bench seating / viewing banks for spectators.
- Boundary and street tree planting spaced to create interest and difference along the length of the park.
- Tall clear trunked indigenous trees along park edge will maintain open views out and framed views in to the park promoting passive surveillance.
- Pedestrian path linking to school
- Playground utilise existing change in level to create undulating landscape, provide shade structure, canopy trees to provide shade and create 'forest' character
- Changing facilities rebuilt and relocated
- Car park (80 spaces) + cycle parking, provide buffer planting along riverside drive

MERINO PARK 1ha TOTAL**Design Principles**

- Street tree planting along northern and western edge
- Adequate parallel on street parking along edges
- Reinforce access points: doormat + feature entry planting
- Canopy trees to provide shade and create 'forest' character
- Low native planting along edges
- Run-around grass area, introduce shallow batter along main footpath to redirect straight desire line into slight curve
- Playground (informal play) utilise existing change in level to create undulating landscape, tree planting to provide shade
- seating and picnic tables associated with children's play area



KEY



PARKS

1. Deane Park, - North Precinct



2. Deane Park, - South Precinct



3. Merino Park



4. Riley Park



LANDSCAPE MASTERPLAN

AIRDS/BRADBURY



STREET TREES - STRATEGY 1
Reinforce legibility

Main Road

- Continuous tree planting on both sides of the road
- Continuous tree planting on one/both sides of the road
Note: extend subject to de-tailed design resolution

Secondary Road

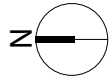
- Continuous tree planting on both sides of the road
- Continuous tree planting on one/both sides of the road
Note: extend subject to de-tailed design resolution

Landmark planting at nodes and gateways

Street tree planting to reinforce road hierarchy and legibility
Single or two species are associated with a specific road type to create unity and facilitate navigation within the suburb.

Solar Access

To increase solar access and temperature control use deciduous trees would be located on east west road axis and evergreen species on north south road axis.



STREET TREES - STRATEGY 2
Promote sense of place

Residential Roads



Precincts outside Riverside Drive - Greengate Avenue shall be dominated by indigenous species creating a connection to the surrounding bushland or nature reserves.



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Tree Species to promote sense of place
(precinct species)

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Solar Access

To increase solar access and temperature control use deciduous trees would be located on east west road axis and evergreen species on north south road axis.

Linkages

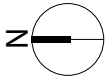
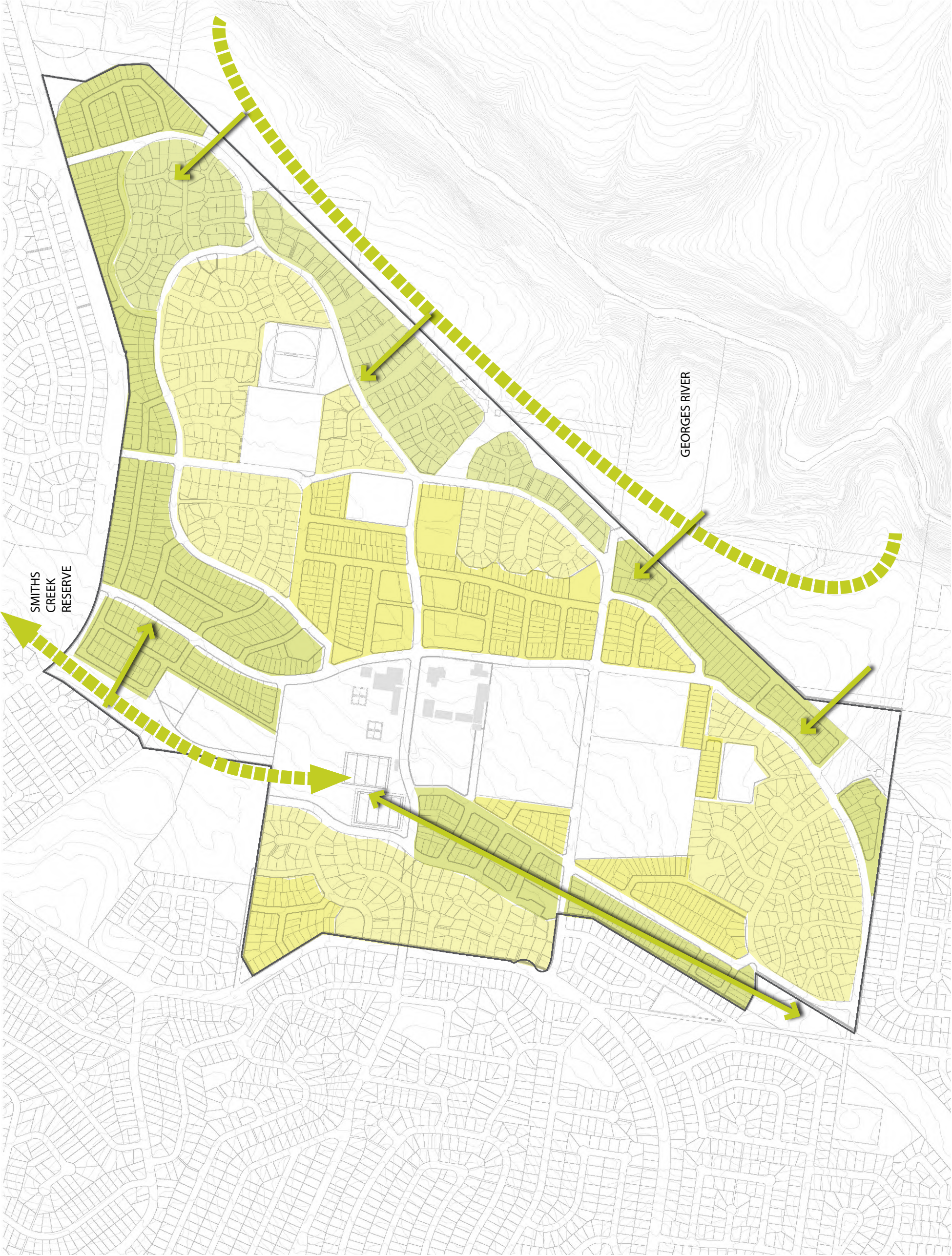
Street tree planting to promote biodiversity by increasing the percentage of canopy cover and creating fauna linkages.



Existing Bushland / Riparian Corridor Link



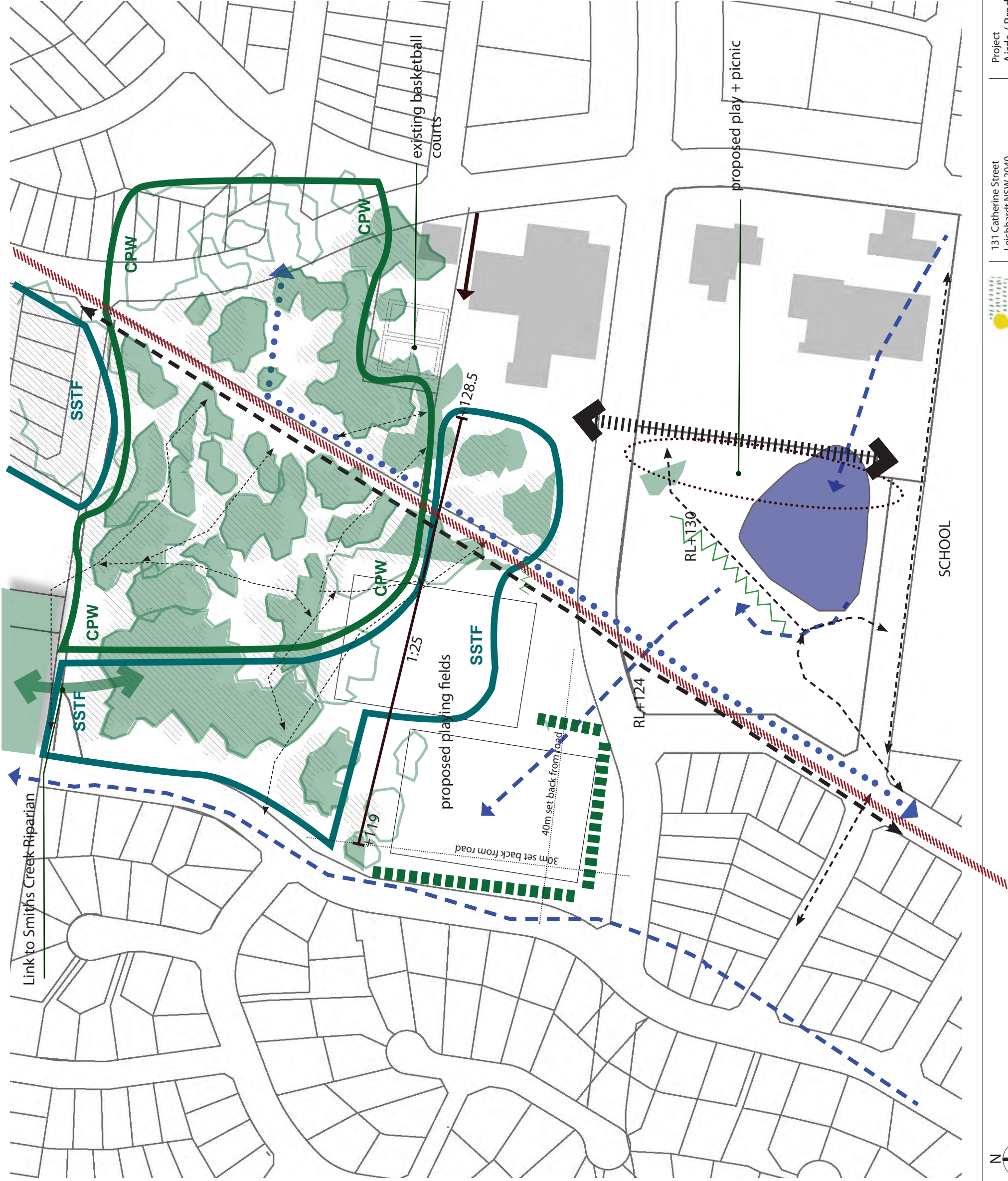
Proposed green link using street tree planting



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Project
Airds / Bradbury
Drawing Title
Street Tree - Strategy 2

Date
24.03.11
Scale
1:12500



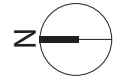
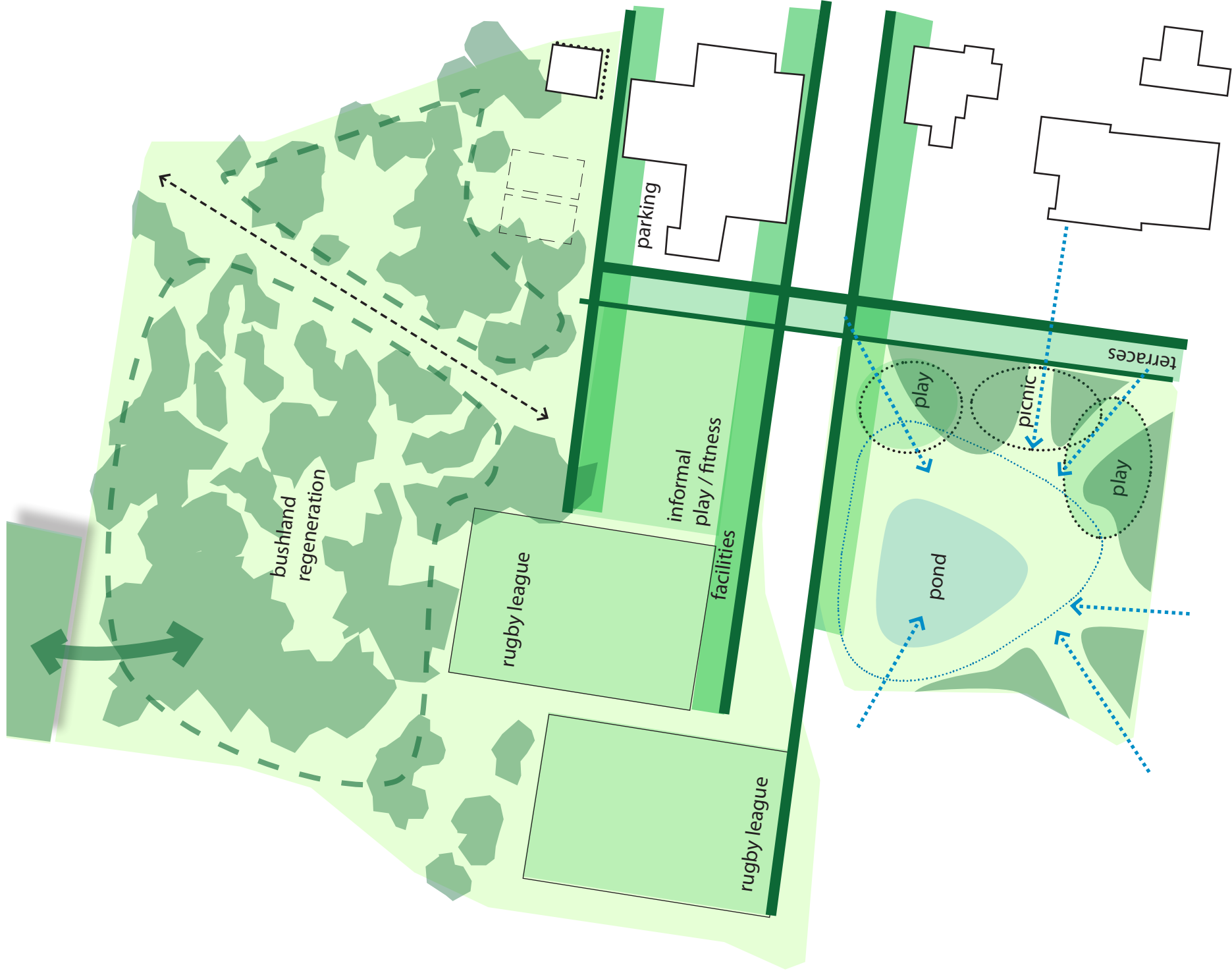
LEGEND



primary constraint -
Cumberland Plain Woodland

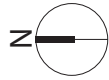
secondary constraint
Shale Sandstone Transition Forest





LEGEND

- existing woodland canopy
- bushland regeneration core area
- potential for bushland regeneration
- green link
- street trees
- canopy planting
- pond
- BBQ & Shelter
- playground
- hard landscaping
- off road cycle path
- footpath 2.5m
- footpath 1.5m
- seating wall
- picnic area
- views



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Project
Airds / Bradbury
Drawing Title
Deane Park - Sketch Proposals

Date
26.05.11
Scale
1:2000