

POTTS HILL RESERVOIR

Concept Plan: Design Principles

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Figure A1.1 - Existing Potts Hill site

Concept Plan - Design Principles for Potts Hill Reservoir accompanies the Environmental Assessment. It embodies the ideas and principles that underpin the Concept Plan.

The structure of this document is as follows:

- A1 Concept Plan summarises the key elements of the design. The Concept Plan will describe the boundaries of the development footprint and will provide an illustrative plan showing a possible design solution supporting the proposed zoning.
- A2 Design Principles describes the urban structure, land use, heritage, built form, access and movement, and visual impacts for the site.

Concept Plan - Design Guidelines for Potts Hill Reservoir provides urban design and development control information on the public domain and built form. It describes how to achieve the principles of Concept Plan - Design Principles.

A1.1 Development Footprint

Sydney Water Corporation's (SWC) land-holding at Potts Hill is approximately 116 hectares of which 75.6 hectares remains to play a key role in supplying water to metropolitan Sydney. The site contains; one operating reservoir (Reservoir 2), one decommissioned reservoir (Reservoir 1), major water supply infrastructure including pumps, pipework and associated works depots, administration buildings, technical services and storage and maintenance facilities.

40.4 hectares has been identified as being land surplus to SWC needs. The developable footprint is defined by the area coloured yellow on the plan opposite. It is a U-shaped parcel of land which surrounds the area still in operational use.

Surrounding land use is predominantly residential with industrial uses to the east of Rookwood Road.

The main developable land is bounded by:

- Graf Avenue and Rookwood Road to the east.
- Bruncker Road to the south.
- Cooper Road residences to the west and
- The railway line to the north.

A second triangular parcel of land is located at Bagdad Street north of the rail line and south of the pipe line.

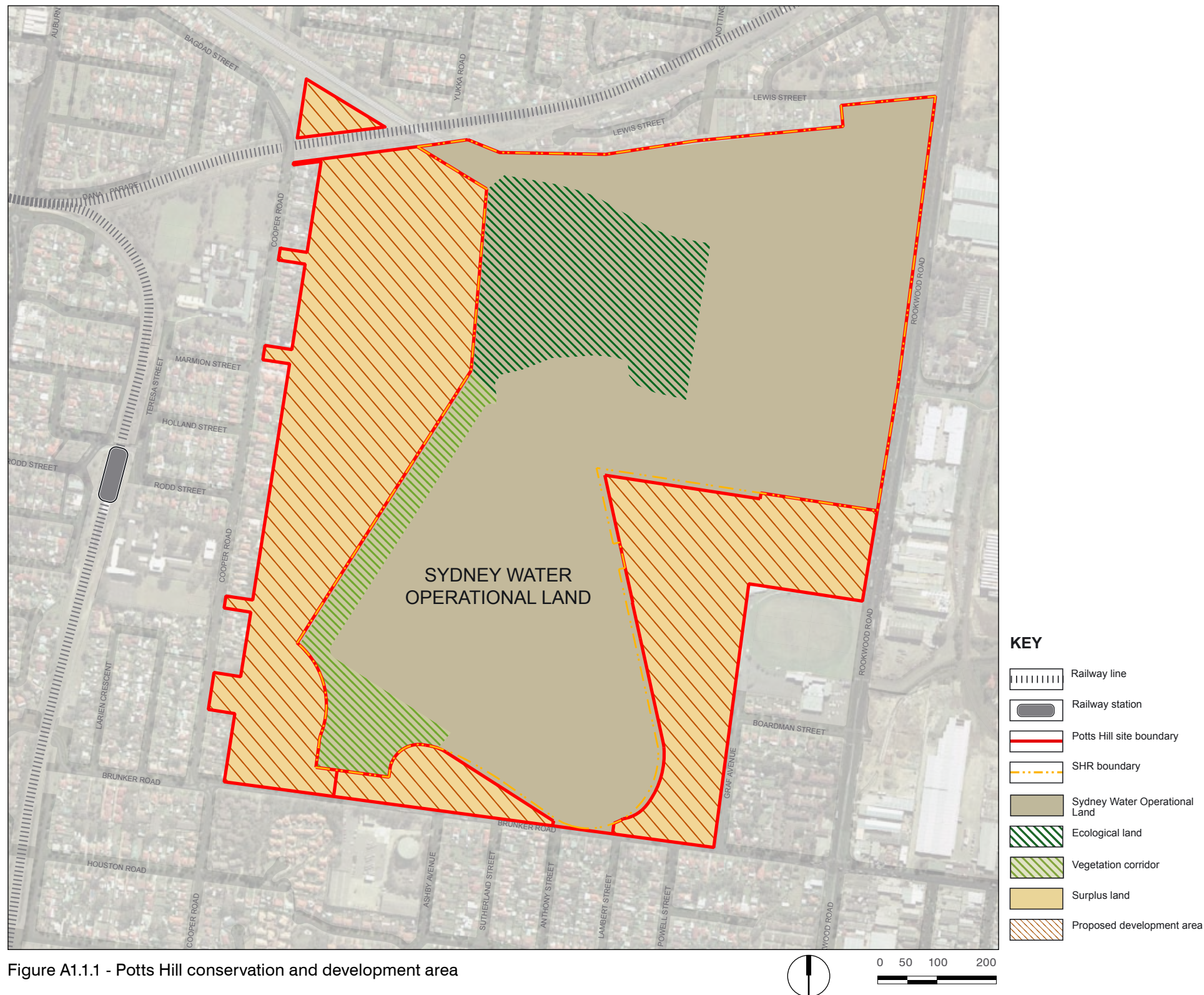


Figure A1.1.1 - Potts Hill conservation and development area

A1.2 Concept Plan



Figure A1.2.1 - Illustrative Concept Plan

The concept plan divides the development parcel into two proposed zones. The eastern precinct bounded by Graf Avenue, Rookwood Road and Brunker Road is to be zoned B7 – Business Park. The western precinct is proposed to have two residential zones, R2 – Low Density Residential and R3 - Medium Density Residential. The public open spaces within the residential precinct are to be zoned RE1 - Public Recreation, while the remaining SW operational land will retain its existing 5(a) Special uses zoning.

- Total developable area is approximately 40.4 hectares.
- Proposed Business Park zone is 15.7 hectares.
- Proposed Residential zone is 24.7 hectares.
- Business park zone to be subdivided into large lots.
- Residential zone to have a range of lot sizes and housing types
- Housing types to include detached, semi-detached, zero lot housing and attached. 3 storey apartment buildings in the north-east portion of the site and along Brunker Road.
- Provision of public parks for the amenity of the future residents and the local district, which include:
 - * 0.76 hectare ecological corridor (Railway Park) in the northern portion of the proposed residential area and south of the railway line,
 - * 0.46 hectare public park (Canal Park) in the north-east portion of the proposed residential area,
 - * 0.68 hectare park adjacent to the existing residential (Cooper Road Park), and
 - * 2.8 hectare public park (Brunker Road Park) in the southwest corner with direct access off Brunker Road and Cooper Road.
- Landscape plan to be integrated with the site layout and street/block layout.
- Landscaping of the public domain to be integral with the site's hydrology.

A2.1

Urban Structure

Key principles of the proposed urban structure are:

- Protect and ensure the safe, continued operation of the Sydney Water site.
- Conserve the existing ecological conservation area within the SW operational land.
- Enhance the existing open space to the northeast and southwest corner to create public parks within the residential area.
- Provide centrally located park for the amenity of future residents within the residential area.
- Provide pedestrian, cycle and vehicular connections to create a permeable site.
- Locate proposed residential zoning for the western part of the site where it is surrounded to the north, west and south by existing residential and within walking distance of Birrong Railway Station.
- Locate proposed Business Park zoning for the eastern part of the site which is adjacent to the existing industrial uses and has good access from Rookwood Road and Brunker Road connecting the site to the Hume Highway and South Western Highway (M5).

Residential zone

- Main entries off Brunker Road and Cooper Road with a connecting street through the residential area.
- Irregular streets to follow the topography to minimise cut & fill and maximise views.
- A simple street hierarchy of local streets based on a grid.
- Perimeter streets fronting the public open space and ecological corridors.
- Larger lots addressing the major entry streets and corner sites.
- Smaller lots located to maximise the number of lots with greatest amenity (ie views to the mountains and opposite parks and ecological corridors).
- Longer lots on steeper slopes
- Identity planting at street entries into residential precinct along Cooper Road and Brunker Road
- View corridors along streets and pedestrian connection from Cooper Road to public park and reserve areas
- Controlled vehicular and pedestrian access points to Sydney Water Corporation's operational land.

Business Park zone

- Entries off Brunker Road and Rookwood Road.
- Large lots.
- Maintain and enhance buffer along Brunker Road boundary, where possible.
- Controlled access points to Sydney Water Corporation's operational land.

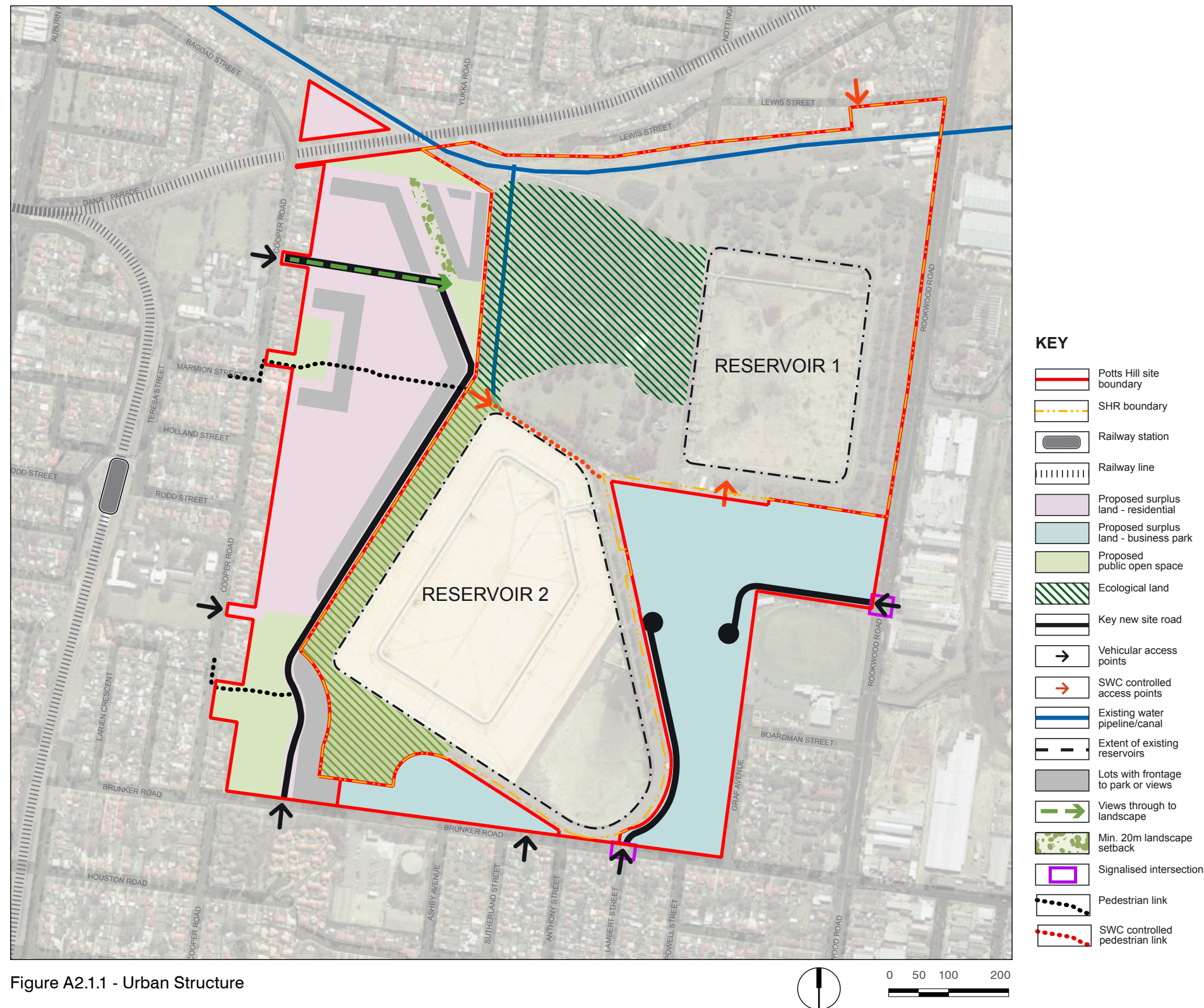


Figure A2.1.1 - Urban Structure

A2.2 Land Use

At present the site is zoned 5a-Special Uses. The surplus lands are to have three new zonings while the residual SWC land is to retain its current zoning. The new zonings are:

- Eastern portion: B7- Business Park.
- Western portion: R2 - Low Density Residential.
R3 - Medium Density Residential.
- Proposed public open space: RE1 - Public Recreation.
- Retained SWC land - 5(a) Special Uses.

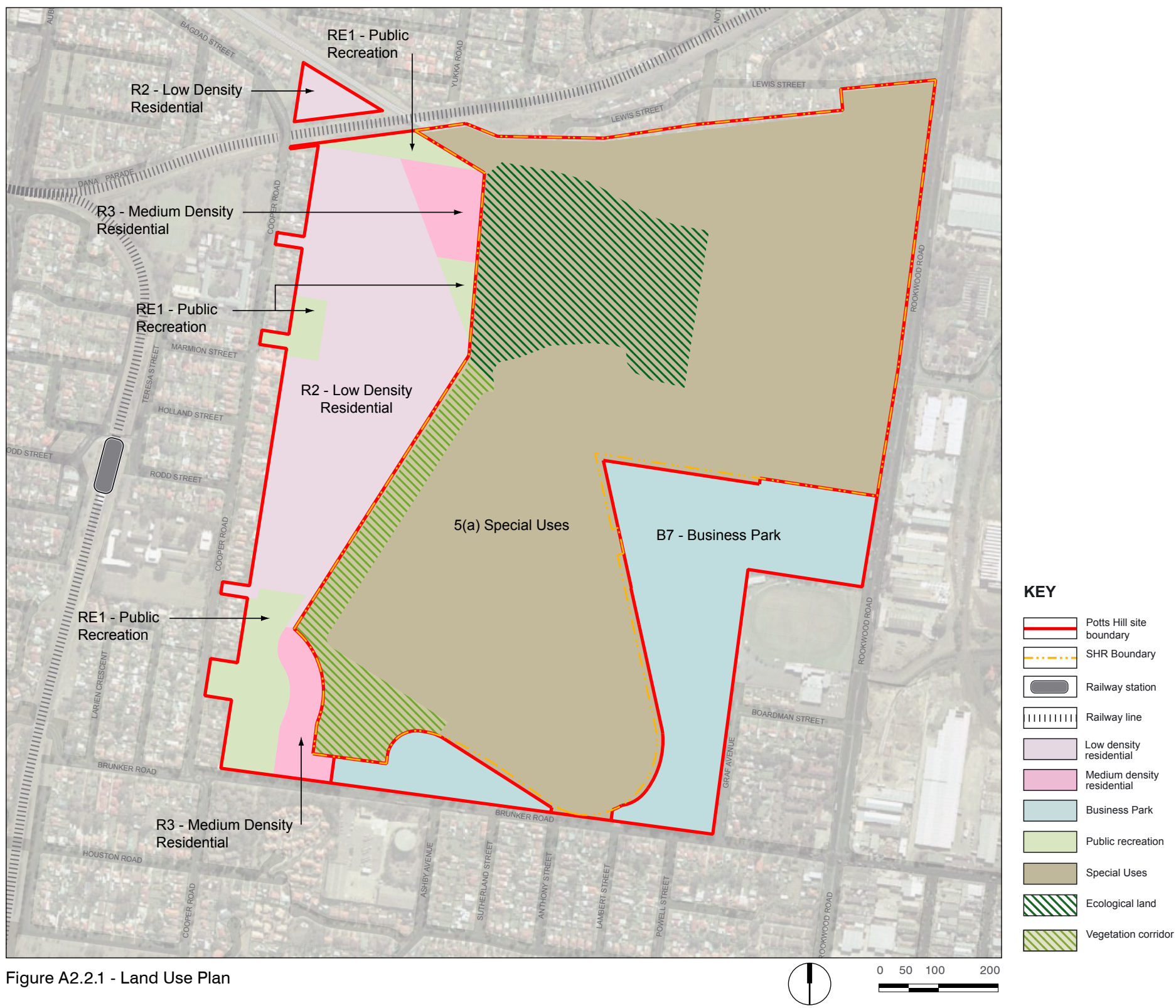


Figure A2.2.1 - Land Use Plan

A2.3 Heritage

Key principles for heritage conservation of the site are:

Residential zone

- Provide a SHR boundary minimum 50m from the western edge of Reservoir 2 and 30m from the western edge of the covered canal as indicated in Figure A2.3.1.
- Maintain the line of palms and second line of eucalypts along the western edge of Reservoir 2.
- Enhance third line of vegetation to the west of Reservoir 2 as wild life corridor linking southern and northern portions of the site.
- Locate security fence along the western boundary of Sydney Water's operational land.
- Retain four areas of public open space within the residential precinct as shown in Fig A2.3.1.
- Provide a min. 20m wide setback north of Reservoir 2 to conserve the existing vegetation and link the open space to the ecological corridor to the north of the site.
- Establish a 20m vegetative barrier to the southern side of Reservoir 2.

Business Park zone

- Provide a SHR boundary 20m from the eastern edge of Reservoir 2 as indicated in Figure A2.3.1.
- For all future development, maintain a 20m buffer from the eastern boundary of Sydney Water's operational land to the proposed SHR boundary.
- Maintain line of palms along eastern edge of Reservoir 2 and replace missing and dying palm trees.
- Where appropriate, re-establish line of palms along the south-eastern edge of Reservoir 2.
- Conserve Building 41 and 42 to the north of Business Park and north-east of Reservoir 2.
- Retain, remove or replace all other sheds as required, indicated in Figure A2.3.1.
- Where possible, maintain vegetative belt to the northern edge of Reservoir 1.
- Where possible, reinforce natural edge to the north-west portion of Business Park.
- Maintain buffer to the eastern boundary of Business Park where possible.
- Where possible, conserve, maintain existing trees along the southern boundary of Business Park.

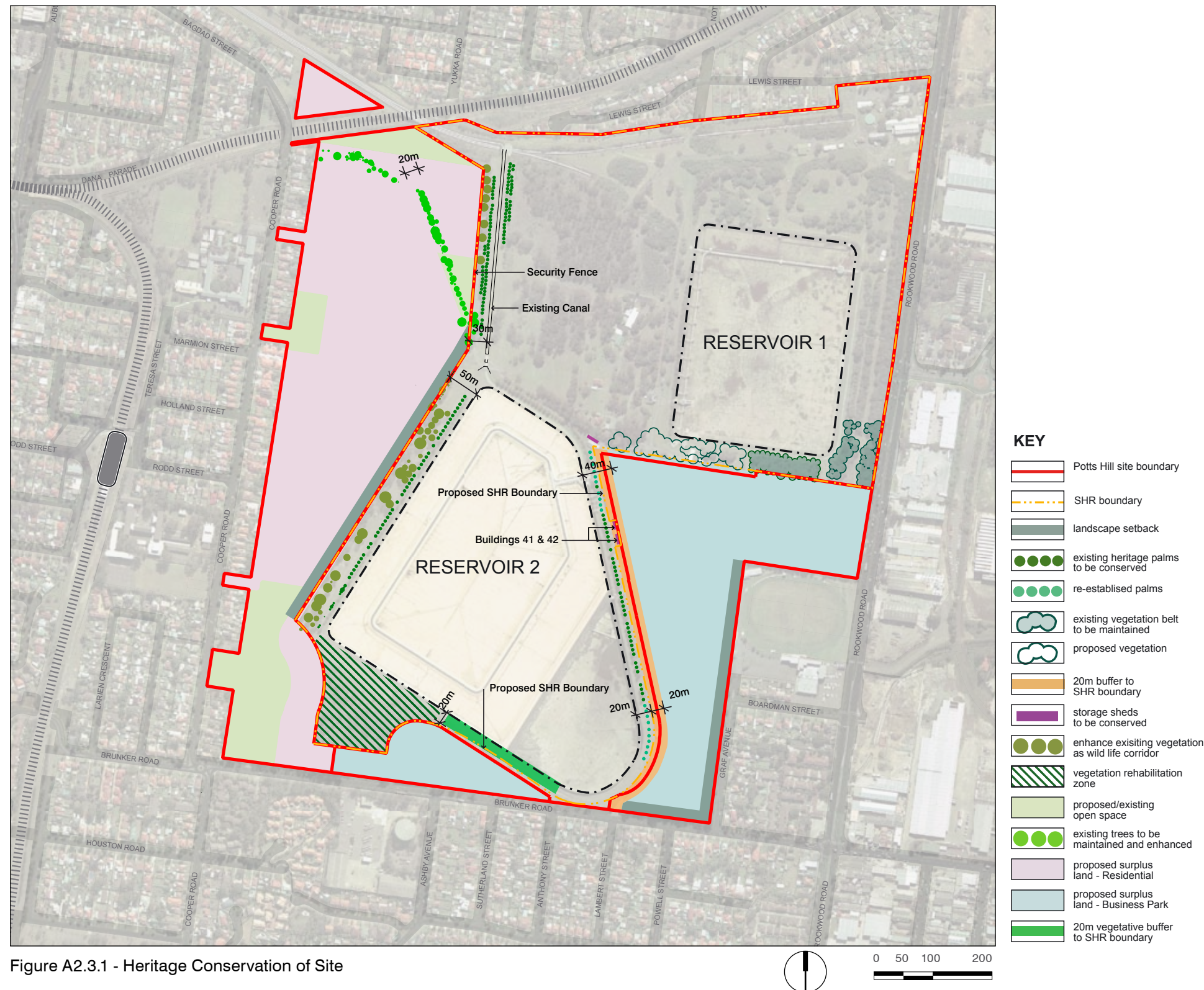


Figure A2.3.1 - Heritage Conservation of Site

A2.4 Built Form

The concept plan provides two distinct land uses, residential for the western portion of the site and Business Park uses in the east. The built form varies to suit the land use. Key principles of the built form are:

Residential

- Provide variety of housing types - attached, semi-detached, zero-lot, detached and apartment buildings.
- Maximum of 2 storeys for the majority of the site to minimise visual impact on adjacent areas and heritage setting of Reservoir 2.
- 3 storey apartment buildings located along Brunker Road (to minimise impact on existing development and take advantage of views).
- 3 storey apartment buildings to the north-east to maximise the number of dwellings with greatest amenity.
- Medium and large lots suitable for detached dwellings.
- Deeper lots on the embankment.
- Split-level dwellings on sloping sites, 2 storey maximum measured from natural ground level.
- Garages to be set behind the front building alignment or may be under the dwelling on steeply sloping sites.
- Small front setbacks allowing the private domain to contribute to the streetscape.

Business Park

- Office & warehouse buildings.
- Setbacks to allow for building separation and areas of extensive landscaping.
- Landscaped carparking areas to minimise visual impact, to allow for deep soil planting, provide shade and assist in stormwater run-off.
- Buildings sited to allow east-west views between buildings to minimise visual impact on the heritage setting and residential areas to the east.

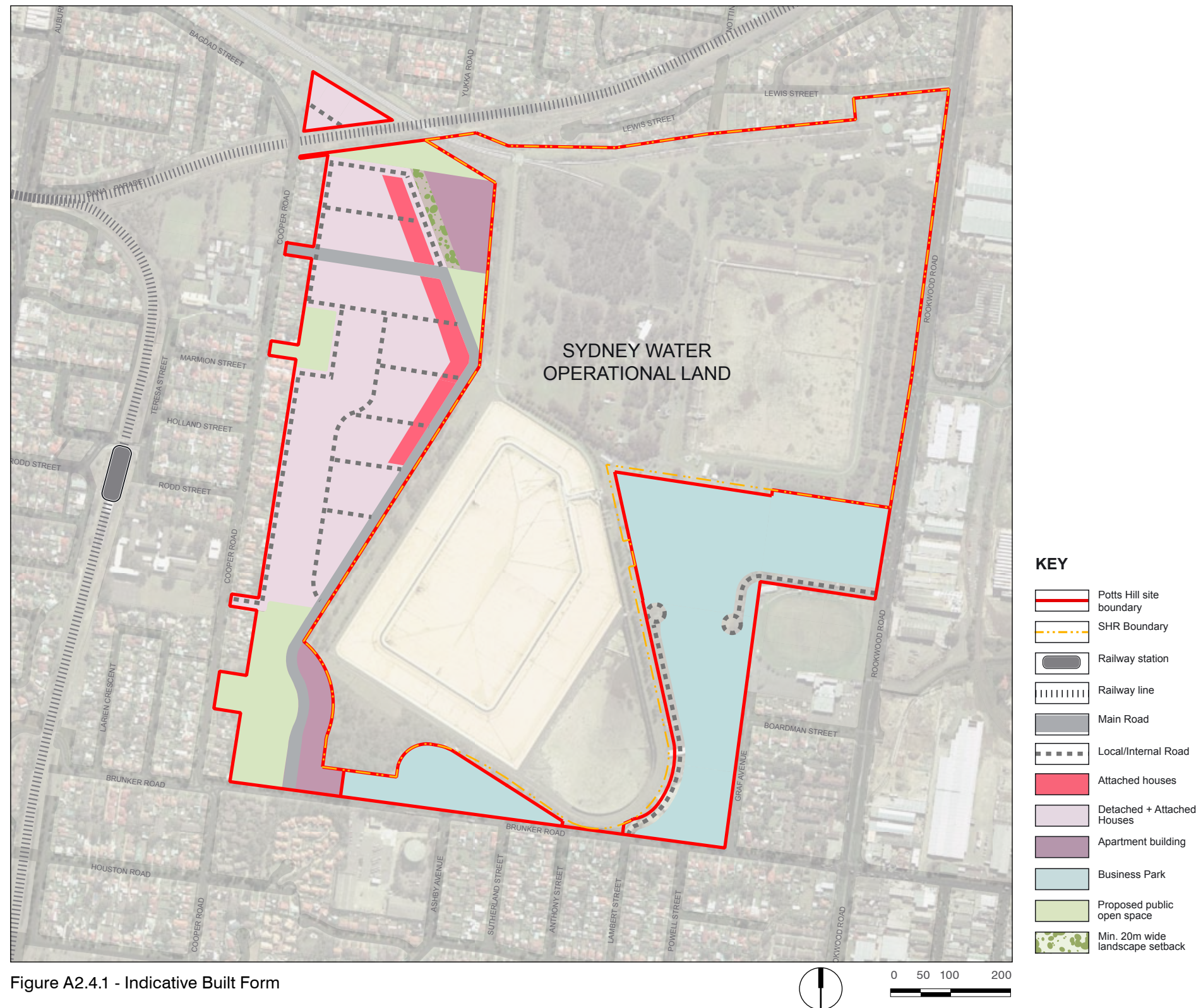


Figure A2.4.1 - Indicative Built Form

A2.5 Access & Movement

The street pattern is designed to provide legible, safe and permeable pedestrian, bicycle and vehicular movement around the site. The street pattern also reflects the topography of the site with the intent to minimise cut and fill and take advantage of views from the elevated position. The design of the streets express the hierarchy of the streets, increases the legibility of the site and signifies the site entries.

- Access to the Business Park from the east is from Rookwood Road and from the south via Brunker Road.
- Access to the residential area in the west is via Cooper Road and Brunker Road from the south.
- The major street through the residential area connects Cooper Road to Brunker Road passing along the park and ecological corridor.
- Secondary streets are mainly east-west in orientation providing views to green spaces.
- A north-south secondary street behind the existing Cooper Road residences provides access to the lower lots and the opportunity for existing Cooper Road residents to utilise the dual access to redevelop their lots in the future.
- Swales will occur along streets to redirect surface stormwater.
- Additional pedestrian entries along Cooper Road to increase the permeability of the site.
- Bicycle path along the northern side of Brunker Road to continue through the residential area to the proposed new park.

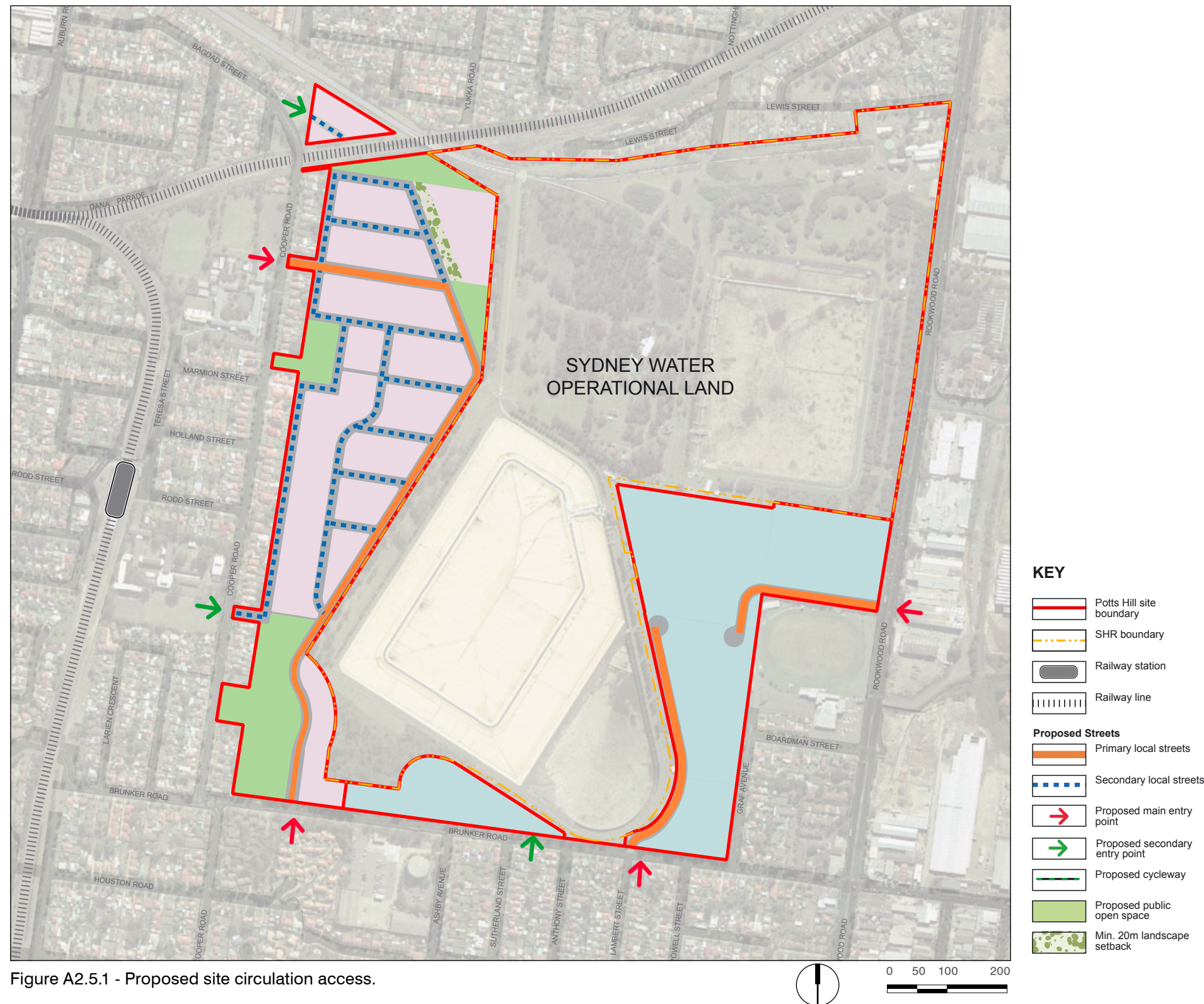


Figure A2.5.1 - Proposed site circulation access.

A2.6 Visual Impact



Figure A2.6.1 - Visual Impact

A2.6 Visual Impact

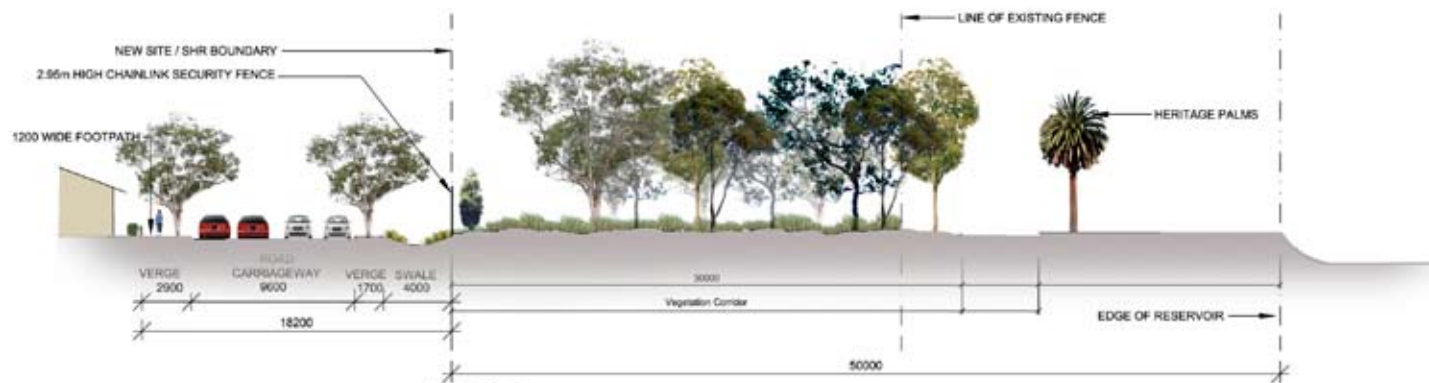


Figure A2.6.2 - Vegetation Corridor

- Maintain site lines from proposed residential areas to existing reservoirs, open space and cultural plantings.
- Enhance dramatic appearance of cultural plantings through the addition of complementary lower level landscaping.
- View lines into and out of the site to surrounding neighbourhood to be retained; site not to be isolated from its surrounds through planting placement.
- Entries highlighted through the use of large-scale distinctive tree plantings e.g. Kauri Pines in order to establish the site's distinctive character.
- Entry plantings combined with boulevards and street tree plantings to provide a visual 'invitation' into the site and encourage pedestrian and vehicular access.
- Retention and utilisation of existing land forms, such as embankments, in order to provide for diversity and interest in the landscape.

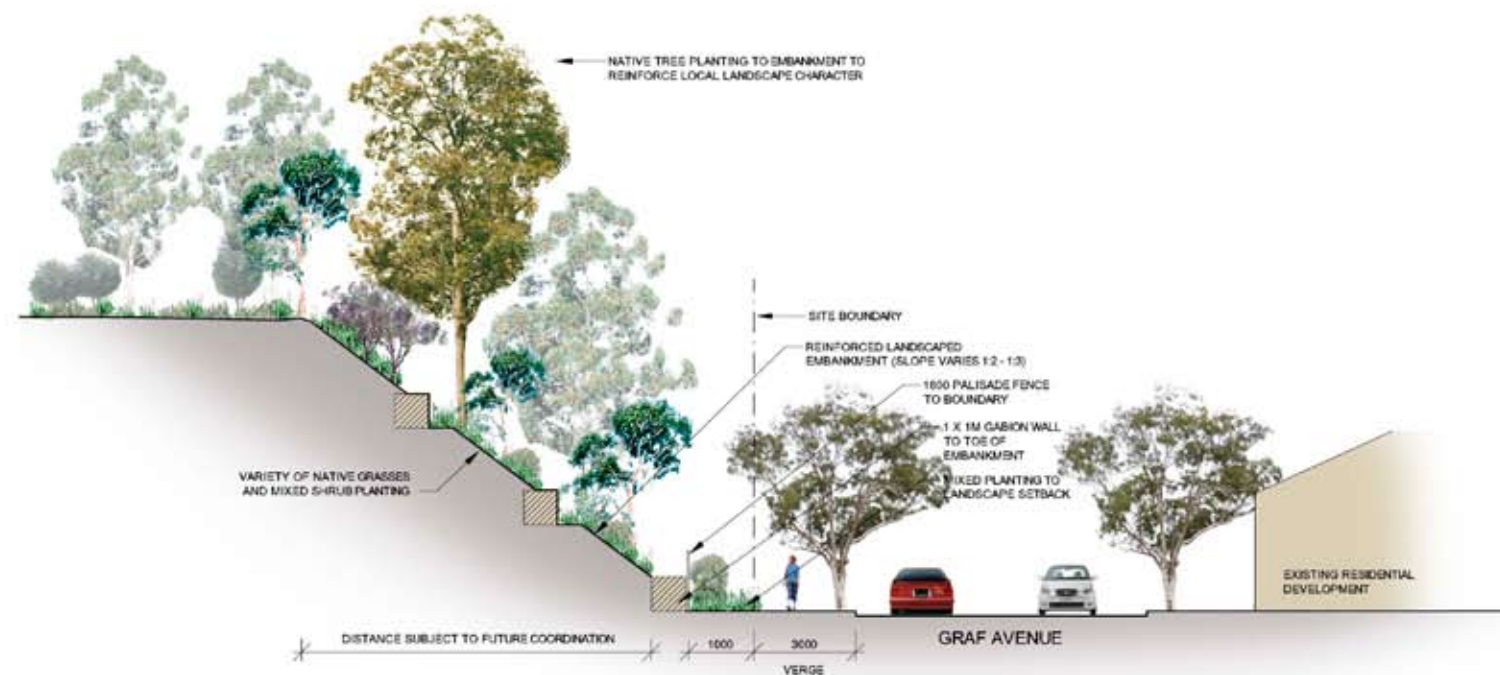


Figure A2.6.3 - Graf Avenue Edge

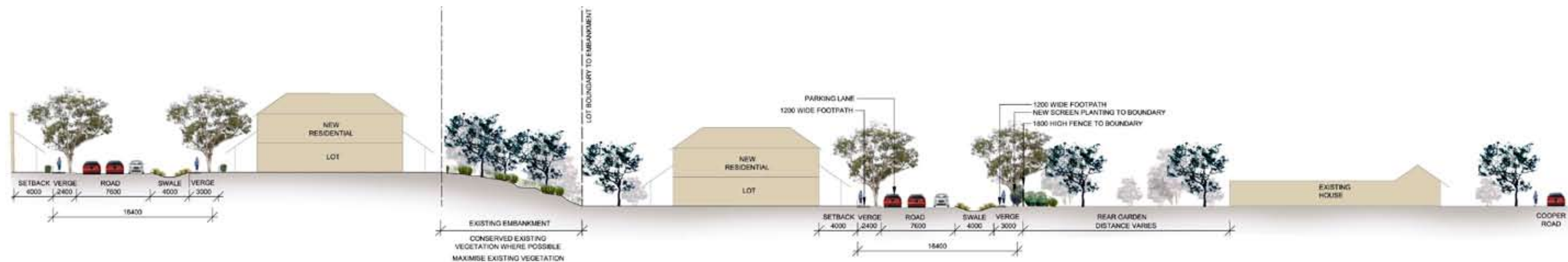


Figure A2.6.4 - Coopers Road Detail Section