

Bond Property Development Plan

Development Plan approved by the City of Whittlesea on
24 June, 2003, in accordance with Clause 43.04 Schedule 5
of the Whittlesea Planning Scheme

19/08/2003

AMENDED 25/10/05

.....
Signature for the Responsible Authority

**DEVELOPMENT PLAN FOR THE 'BOND PROPERTY'
995 YAN YEAN ROAD, DOREEN**



PREPARED ON BEHALF OF
INTRAPAC PROJECTS PTY LTD

BY

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AUGUST 2003

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1.0 INTRODUCTION

This Development Plan relates to the 'Bond Property', which is formally known as 995 Yan Yean Road, Doreen.

The location of the subject land is shown in Figures 1 and 2.

The 'Bond Property' (the subject land) has an area of 44.69 hectares and is located on the west side of Yan Yean Road, approximately 300 metres south of the developing Laurimar residential estate and approximately 750 metres north of Bridge Inn Road. It forms part of the Mernda/Doreen urban growth area within the City of Whittlesea and is zoned Residential 1.

Clause 43.04 (Development Plan Overlay) of the Whittlesea Planning Scheme specifies that a permit must not be granted to use or subdivide the subject land, or to construct a building or carry out works thereon, until a development plan has been prepared to the satisfaction of the responsible authority. Notwithstanding this requirement Schedule 5 to Clause 43.04 provides the City of Whittlesea, as the responsible authority, with the discretion to grant a permit for subdivision prior to the approval of a development plan. The Council, however, must be satisfied that the subdivision will not prejudice the future use or development of the land for the purpose of the Residential 1 Zone or any aspect of the City of Whittlesea's Municipal Strategic Statement.

A separate planning permit application for subdivision has recently been made in respect of the subject land.

This report and the attachments constitute the Development Plan for the subject land for the purposes of Clause 43.04 (Schedule 5).

The Development Plan provides for the residential subdivision of the subject land, with a strong emphasis on open and integrated landscape themes, retention of remnant native trees, interconnection with adjoining land and provision of a semi-rural interface to Yan Yean Road. It incorporates the following key components:

- the majority of lots range in size from 700m² to 1,000m².

- larger lots of 2,000m² + are located at the eastern end of the site adjacent to Yan Yean Road.
- smaller lots of 350m² to 600m² are located around the western knoll on the site and towards the rear of the site facing the linear reserve.
- public open space, which equates to approximately 4.7% of the site area, excluding the linear open space / drainage reserve at the rear of the subject land.

The report addresses the following:

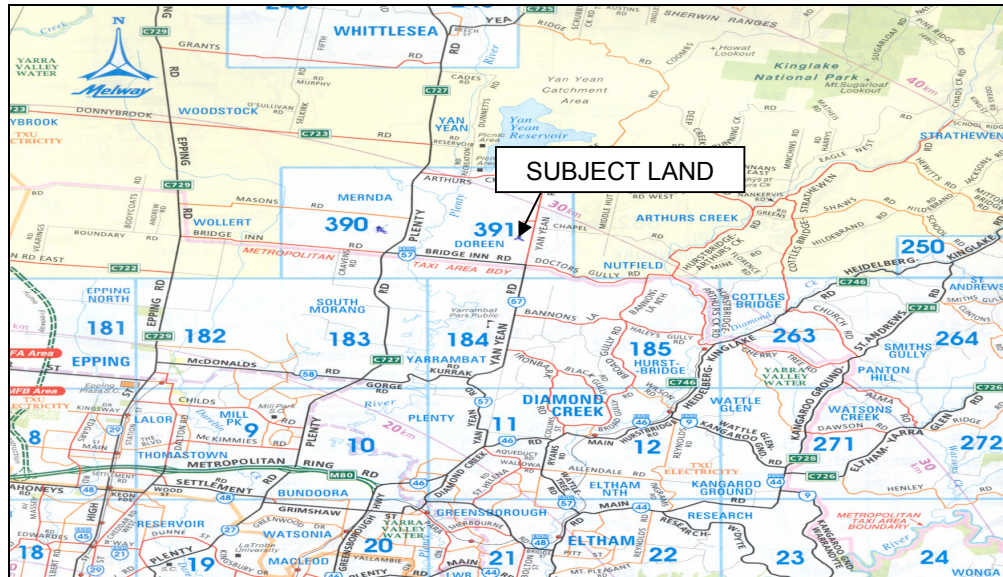
- The subject land's regional and local context.
- The subject land's particulars and characteristics.
- The relevant planning controls and policies that apply to the land.
- Details of the Development Plan with respect to:
 - design philosophy and vision
 - road layout and connectivity
 - lot size and dwelling types
 - public open space
 - pedestrian and bicycle access
 - landscape master plan
 - staging
- The town planning considerations associated with the Development Plan, including:
 - consistency with the design principles in the draft Mernda Strategy Plan
 - provision of a range of dwelling types
 - extent of public open space integration with adjoining land
 - connectivity with the local road network
 - provision of pedestrian and bicycle access
 - retention of existing vegetation and proposed additional landscaping
 - management of archaeological sites



- Service infrastructure considerations associated with the Development Plan including;
 - Drainage
 - Water supply
 - Sewerage reticulation
 - Electricity
 - Telecommunications
 - Gas supply
 - Services capacity

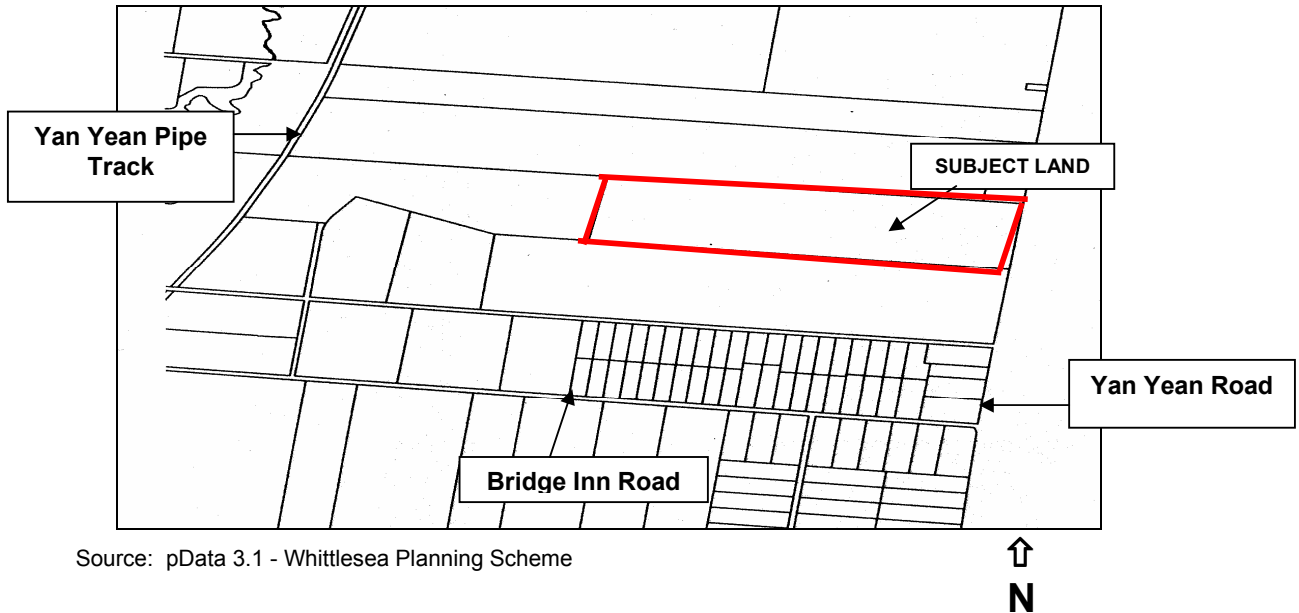


FIGURE 1. – LOCALITY PLAN



Source: Melway – Edition 29

FIGURE 2. – ZONING PLAN



Source: pData 3.1 - Whittlesea Planning Scheme



2.0 THE SITE CONTEXT

2.1 Regional Context

The Plenty Corridor has been identified as one of Melbourne's three priority metropolitan growth areas since the 1980s.

There are three main urban growth areas within the Plenty Corridor; namely South Morang and Mernda/Doreen, where most of the recent growth has been directed, and Whittlesea township, which is the focus of incremental growth.

The subject land is located within the Mernda/Doreen growth area approximately 28km from the Melbourne GPO and mid-way between the newly developing South Morang residential area to the south and Whittlesea township to the north.

Plenty Road provides the main north-south link through the Mernda/Doreen growth area, from the established metropolitan area and the Western Ring Road to the south and Whittlesea township to the north. Yan Yean Road provides the secondary north-south link.

Planning policy suggests that the Mernda/Doreen growth area is expected to accommodate some 40,000 people once fully developed.

2.2 Local Context

The Laurimar estate to the north of the subject land (beyond the adjoining property) is the first stage of development in Mernda/Doreen area and is now well advanced.

Until recently, urban development in the Mernda/Doreen area, including the subject land and adjoining land to the north, south and west, has not been possible due to servicing limitations. This circumstance changed in mid 2000 when Yarra Valley Water announced that the spare capacity in the Eltham Main sewer could be accessed to service the equivalent of 16,500 residential lots in the area.

Land on the east side of Yan Yean Road opposite the subject land is within the Shire of Nillumbik and is zoned for rural purposes.



3.0 EXISTING SITE CONDITIONS

3.1 Extent of the Site

The subject land has a frontage to Yan Yean Road of 342.99 metres, a depth of between 1,282.06 metres and 1,321.854 metres, and an area of 44.69 hectares.

A copy of the Certificate of Title is attached to this report as Appendix 1.

3.2 Existing Use and Improvements

The subject land is currently used for grazing.

The existing buildings include a dilapidated (dis-used) house, machinery/dairy shed and other outbuildings, all of which are located towards the south-east corner of the site towards Yan Yean Road.

There are also a number of existing dams that are dispersed throughout the subject land.

The site features, including buildings and dams, are shown on the Landscape Inventory/Site Analysis included as Appendix 2.

3.3 Topography

There are two ridges across the subject land and a number of valley formations, with the area near the western boundary being generally flat.

The ridges form two high spots which for ease of reference are described in this report as the eastern knoll and the western knoll.

Significant viewlines exist in all directions from different parts of the subject land, including to Mt. Disappointment and the Melbourne city skyline. (Refer also to the Landscape Inventory/Site Analysis included as Appendix 2)

3.4 Native Vegetation

Whilst the majority of the subject land has been cleared for grazing purposes, there are remnants of native vegetation, including

scattered individual trees and two key treed areas.

The key treed areas include a group of mature remnant River Red Gums in the valley across the middle of the site, towards the northern boundary, and a group of mostly mature Yellow Box and Long Leaf Box beyond the second ridge, towards the rear of the site on the southern side. (ie. Beyond the western knoll – Refer Appendix 4).

A detailed 'Tree Assessment' of the subject land has been undertaken by Ecology Australia Pty Ltd, Flora and Fauna Consultants, and is included with this report as Appendix 5.

These treed areas are also shown on the Landscape Inventory/Site Analysis included as Appendix 2.

3.5 Access and Connectivity

Access to the subject land is currently gained via a single driveway to Yan Yean Road towards the south-east corner of the site.

Yan Yean Road is identified as a secondary arterial road in the draft Mernda Strategy Plan and presently comprises one lane in each direction in the vicinity of the subject land.

Yan Yean Road provides a north-south link from Arthurs Creek to Plenty and otherwise connects with Plenty Road and the Western Ring Road via either Bridge Inn Road, Kurraak Road/Gorge Road, and Diamond Creek Road.



3.6 Archaeological Survey

An archaeological survey of the subject land was undertaken by Biosis Research in June 2002. The Biosis survey assessment, which has been provided to Council separately as part of the background material to the Development Plan for the subject land, notes that the subject land contains five previously identified archaeological sites, including:

- two Aboriginal isolated artefact sites:
 - AAV7922/0637 - a worked quartz flake previously recorded at the north-east corner of the land, but which was not relocated during the current survey despite the use of GPS to find its previously recorded co-ordinates.
 - AAV7922/0638 - a basalt hammer stone, re-located in the copse of young trees, 50 metres south of northern boundary, west section.
- three non-Aboriginal archaeological sites:
 - H7922-0237 - a well, re-located on the northern fenceline, past the copse of trees near the middle dam.
 - H7922-0238 - artefact scatter, re-located in the copse of trees, 50 metres south of northern boundary, west section.
 - H7922-0239 - brick paving, forming part of the access track into property, west of house and dairy shed.

The Biosis assessment notes that the scientific values of the two Aboriginal archaeological sites are 'low' using three main criteria – site contents (cultural material, organic remains and site structure), site condition (degree of disturbance of site) and representativeness (the regional distribution of a particular site type).

The Biosis assessment also notes that each of the non-Aboriginal historical sites has 'low' scientific significance using the same criteria noted above, and also has 'local' cultural heritage significance using Heritage Victoria criteria.

No new archaeological sites were recorded during the archaeological survey of the subject land by Biosis.

The findings of the archaeological survey are detailed in the accompanying report; '**An archaeological survey of the Bond land, 995 Yan Yean Road, Doreen, Victoria (June 2002)**', prepared by Biosis Research.

The subject land is not identified as having any heritage significance under the draft Mernda Strategy Plan.



4.0 APPLICABLE PLANNING CONTROLS AND POLICIES

4.1 Municipal Strategic Statement

The sections of the City of Whittlesea's Municipal Strategic Statement (MSS) that are relevant to the Development Plan for the subject land are provided at the following clauses of the Whittlesea Planning Scheme:

- Clause 21.02-5 (The City of Whittlesea - its Growth Prospects)
- Clause and 21.05 (Growth Areas Framework)
- Clause 21.06 (Objectives, Strategies and Actions)

Clause 21.02-5 states in part as follows:

"The City of Whittlesea is a designated growth area of metropolitan significance and is projected to reach a population of approximately 142,000 persons by the year 2011.

The City will continue to provide for significant greenfield residential development throughout the forecast period. This development will be concentrated primarily in the Plenty Valley in accordance with the growth opportunities nominated on the Plenty Valley Strategic Plan. To complement growth opportunities nominated within the Plenty Valley, the City will also support the establishment of an additional growth front in the Epping North area in accordance with the recommendations of the General Plan.

Growth within the Plenty Valley will be focussed in South Morang and Mernda where the City is forecast to produce around 900 – 1,000 new dwellings per year. While Mill Park, Lalor, Thomastown and Epping currently dominate Whittlesea in terms of population size, by the end of the forecast period South Morang is expected to grow to a similar population level. Growth within Epping North is

forecast to account for a small share of total population growth."

Clause 21.05 notes that Council has prepared detailed plans for the main growth areas within the Plenty valley, including the **Mernda Local Structure Plan, Part 1**. The draft Mernda Strategy Plan has recently been prepared for the balance of the Mernda/Doreen growth area (ie. apart from the area.

Clause 21.06 states the following with respect to the Mernda/Doreen Area (excluding Laurimar Park):

"Density and Style of Development

Range of development densities with a target density across the entire area of approximately 8 lots per hectare. Comprehensive, permeable lower density style of development which emphasises; subdivision design, interface with surrounding rural areas, retention of local features, provision of public transport and local services and access to interconnected open space.

Capacity and Development Life

Maximum capacity of approximately 30,000 persons (excluding Laurimar Park).

Development life subject to the preparation of an appropriate Local Structure Plan(s).

Intended Housing Market

Predominantly second and third home buyers however emphasis will be placed upon a range of allotment sizes and housing styles.

Status

Currently zoned for urban development.

Awaiting resolution of major servicing issues and preparation of an appropriate Local Structure Plan(s)."

The recently exhibited draft Mernda Strategy Plan is effectively the 'local structure plan' for the area.



4.2 Local Planning Policies

A number of local planning policies in the Whittlesea Planning Scheme are relevant to the preparation of a development plan for the subject land. These policies, of course, will need to be considered in more detail at the subsequent subdivision approval stage.

The requirements of these policies are summarised below.

- **Clause 22.01 (Open Space Policy)**

The objective of this policy is:

“To provide a framework to undertake planning, provision, development and maintenance of an integrated open space system which meets the wide ranging needs of the community.”

Amongst other things, the policy seeks to:

- protect and enhance natural and cultural features, including areas of flora and fauna significance;
- provide local and regional open space linkages;
- provide a balance between informal recreation and active sporting areas;
- encourage a diverse range of recreation opportunities for different age groups;
- provide accessible, attractive, secure and site responsive open space areas; and
- incorporate the conservation of historic places in areas of open space.

- **Clause 22.04 (Subdivision Design Policy)**

The objectives of this policy are:

“To achieve appropriate site responsive subdivision design for the creation of new undeveloped allotments for residential, rural residential, rural living, industrial and commercial development.

To define and evenly apply municipal planning objectives for subdivision design.

To create a sense of place and community focus through subdivision design.

To promote subdivision that ensures integration, lot size diversity, efficient open space provision, movement, and appropriate streetscape design.

To define the need for and requirements for sit analysis procedures.”

Amongst other things, the policy seeks:

- diversity in lot sizes and types;
- the incorporation of features of cultural, heritage and natural significance into subdivisions to create character, diversity and interest;
- integration with surrounding environment and land use;
- movement networks that provide for a high degree of accessibility and connectivity; and
- site responsive subdivision design.

- **Clause 22.10 (River Red Gum Protection Policy)**

The objective of this policy is:

“To ensure that the development of urban and rural areas takes into account the presence, retention, enhancement and long term viability of River Red Gums in urban areas.”

Amongst other things, the policy requires:

- the majority of River Red Gums proposed for retention to be generally sited in public open space reserves and/or road reserves; and
- if the tree is to be located on a lot, for the lot to be large enough to protect the tree and its root system.



• **Clause 22.11 (Development Contributions Policy)**

The objective of this policy is:

“To ensure the provision of basic infrastructure in a timely fashion to meet the needs generated by new development.”

4.3 Mernda Strategy Plan (Draft)

As noted, the subject land is included within the area affected by the draft Mernda Strategy Plan.

The draft Strategy Plan has been prepared by the City of Whittlesea to “... set a strategic direction, and provide broad level planning control, over the development of land in the Mernda/Doreen component of the Plenty Valley growth corridor.”

The draft Strategy Plan is intended to comprise the *Incorporated Plan* for the entire growth area (apart from the area that is the subject of the *Mernda Local Structure Plan (Part 1)*).

The draft Strategy Plan includes six residential ‘Precinct Plans’, which form the basis of neighbourhood planning units.

The subject land is included within Precinct 2A; and is located at the north-eastern corner of this precinct. The precinct covers an area of 274 hectares, and otherwise extends towards the Yan Yean pipe track to the west and Bridge Inn Road to the south.

The key land use and design concepts that are identified for Precinct 2A and are directly relevant to the subject land are as follows:

- Acknowledge the visually sensitive design areas around the two high points (ie. the eastern and western knolls) on the site.
- Continue the sub-arterial road and primary bus route through the middle portion of the site linking with adjoining land to the north and south.
- Continue the drainage reserve from the adjoining land to the north along the western portion of the subject land, and

have it form part of an active recreation link with land to the west and south.

- Incorporate the group of remnant Red Gums towards the western end of the subject land as part of public open space.
- Provide a “low density” residential interface (ie. lots greater than 700m²) along the Yan Yean Road frontage, with these lots to be accessed internally and with buffer planting to be provided along Yan Yean Road.
- Provide “medium density” housing lots (ie. 200m² to 450m²) adjacent to the drainage reserve/recreation link at the western end of the site.
- Otherwise provide “standard density” lots (ie. 450m² to 700m²) across the larger part of the subject land.

Other key land use and design concepts are identified for the wider precinct. In so far as they are relevant to the Development Plan for subject land, these include the following:

- Continue the north-south bicycle/pedestrian trail, and its western link, just beyond the western boundary of the subject land.
- Provide for a combined primary and secondary school site on adjoining land to the south-west, integrated with the active recreation area that forms part of the south-western portion of the subject land.
- Continue the drainage reserve along the western boundary of the subject land to form part of a key conservation/open space link, possibly to the Plenty Gorge parklands.
- Provide two local convenience centres (250m² each); one just to the south of the subject land within the adjoining property, and the other towards the south-western area of the precinct.

The draft Strategy Plan also contains an Infrastructure Charges Plan as a mechanism to equalise the uneven distribution of open space across individual land holdings and associated financial burdens within the Strategy Plan area.

Under this scheme, each land holding is required to contribute either land, cash, or a



combination of the two, that is equivalent to the adjusted percentage open space figure for the precinct in which the land is contained.

The draft Strategy Plan states:

“In cases where a land holding in a particular precinct contains a designated area of open space that exceeds the adjusted percentage open space figure for the precinct as a whole (refer Table 5.4), the land holding will be reimbursed to the extent that it has over-contributed. Conversely, land holdings that do not contain any open space, or if an area provides less than the adjusted open space percentage for the precinct in question, a pro-rata cash contribution will be made that is equivalent to the value of the adjusted percentage open space requirement. Under this scheme, each land holding will contribute either land, cash, or a combination of the two, that is equivalent to the adjusted percentage open space figure for the precinct in which the land is contained.”

The draft Strategy Plan nominates the adjusted open space as a percentage of gross developable area in precinct 2A as 11.08%.

4.4 Zoning

The subject land is zoned Residential 1.

The purpose of the Residential 1 Zone is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To provide for residential development at a range of densities with a variety of dwelling types to meet the housing needs of all households.*
- *In appropriate locations, to allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs.*

Pursuant to the table of uses at Clause 32.01-1, a permit is not required to use land for the purpose of a 'Dwelling' in the Residential 1 Zone.

Clause 32.01-2 requires a planning permit for subdivision.

Clause 32.01-3 requires a planning permit to construct or extend a dwelling on a lot of less than 300m² and the requirements of Clause 54 (One dwelling on a lot) must be satisfied.

Clause 32.01-4 requires a planning permit to construct or extend two or more dwellings on a lot and residential buildings and the requirements of Clause 55 (Two or more dwellings on a lot and residential buildings) must be satisfied.

4.5 Development Plan Overlay (Schedule 5)

The subject land is covered by a Development Plan Overlay (Schedule 5).

The purpose of the Development Plan Overlay is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To identify areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop land.*
- *To exempt an application from notice and review if it is generally in accordance with a development plan.*



Schedule 5 to the Development Plan Overlay specifies the following:

"MERNDA DEVELOPMENT PLAN

Requirement before a permit is granted

The Responsible Authority may grant a permit for subdivision, use or development prior to approval of a development plan provided that the Responsible Authority is satisfied that the subdivision, use or development will not prejudice the future use or development of the land for the purpose of the zone or any other aspect of the Municipal Strategic Statement.

Requirements for development plan

Development Plans must show:

- *Application of the principles of the relevant incorporated plan;*
- *Co-ordination of different land ownerships;*
- *Local road network;*
- *Subdivision design, including lot densities;*
- *A range of dwelling types including flats, units, terraced and semi-detached houses;*
- *Topographic details;*
- *Location of pedestrian and bicycle access through residential areas;*
- *Location and layout of non-residential uses, including activity centres;*
- *A conceptual level landscape plan including the location and retention of existing vegetation;*
- *Identification of significant environmental and cultural features and measures to preserve and enhance these features."*

4.6 Incorporated Plan Overlay (Schedule 1)

The subject land is also covered by an Incorporated Plan Overlay.

The purpose of the Incorporated Plan Overlay is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To identify areas which require:*
 - *The form and conditions of future use and development to be shown on an incorporated plan before a permit can be granted to use or develop the land.*
 - *A planning scheme amendment before the incorporated plan can be changed.*
- *To exempt an application from notice and review if it is generally in accordance with an incorporated plan.*

Schedule 1 to the Incorporated Plan Overlay specifies that:

"The Responsible Authority may grant a permit for subdivision, use or development prior to the approval of an incorporated plan provided that the Responsible Authority is satisfied that the subdivision, use or development will not prejudice the future use or development of the land for the purpose of the zone or any other aspect of the Municipal Strategic Statement."

Notwithstanding that a permit may be granted prior to approval of an Incorporated Plan, the Development Plan for the subject land has been prepared in recognition of the draft Mernda Strategy Plan. As noted earlier, the Strategy Plan is intended to comprise the *Incorporated Plan* for the Mernda/Doreen urban growth area (apart from the area that is the subject of the *Mernda Local Structure Plan (Part 1)*).



4.7 Vegetation Protection Overlay (Schedule 1)

The subject land is also covered by a Vegetation Protection Overlay (Schedule 1).

The purpose of the Vegetation Protection Overlay is:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To protect areas of significant vegetation.*
- *To ensure that development minimises loss of vegetation.*
- *To preserve existing trees and other vegetation.*
- *To recognise vegetation protection areas as locations of special significance, natural beauty, interest and importance.*
- *To maintain and enhance habitat and habitat corridors for indigenous fauna.*
- *To encourage the regeneration of native vegetation.*

Clause 42.02-2 states that:

"A permit is required to remove, destroy or lop any vegetation specified in a schedule to this overlay."

Schedule 1 to the Vegetation Protection Overlay states:

"No permit is required to remove, destroy or lop vegetation, which is not native vegetation."



5.0 THE DEVELOPMENT PLAN

5.1 Design Philosophy and Vision

The Development Plan provides for a residential estate with a strong emphasis on open and integrated landscape themes, retention of remnant native vegetation, interconnection with adjoining land and provision of a semi-rural interface to Yan Yean Road.

The Development Plan for the subject land is attached hereto as Appendix 3.

5.2 Road Layout and Connectivity

The Development Plan is based on a modified grid road network with a central access spine 'The Boulevard' commencing at the Yan Yean Road entrance. The Boulevard is intended to be a median-separated, tree-lined dual carriageway up to the first of two roundabouts, with a road reservation width of 30 metres. After the first roundabout and thereafter through the remainder of the subject land, The Boulevard is intended to have a road reservation width of 20 metres.

Two north-south collector roads extend through the subject land and connect with adjoining land.

The local roads that are otherwise shown on the Development Plan provide for through connectivity in all cases, either within the subject land or to adjoining land.

5.3 Lot Size and Dwelling Types

The Development Plan intends to provide for a range of lot sizes as follows:

- the majority of lots at a conventional size, ranging from 700m² to 1,000m², which would accommodate single, detached housing.
- larger rural residential lots of 2,000m² + located at the eastern end of the site fronting Yan Yean Road.
- smaller lots in the order of 350m² to 600m² to provide for terraced-type housing adjacent to key open space areas (ie.

overlooking the linear open space at the western end of the subject land and the treed reserve beyond the western knoll).

5.4 Public Open Space

The Development Plan shows approximately 4.7% of the subject land dedicated as open space. This excludes the linear open space drainage reserve along the rear of the site. It also excludes the tree reserve along the Yan Yean Road frontage of the site.

The three key areas of open space comprise:

- a large central local park (approximately 1.7ha in area), which is located along the northern boundary of the subject land adjacent to the open space on the adjoining land and also fronts The Boulevard. This park incorporates the major group of remnant Red Gums on this part of the subject land.
- a treed reserve (approximately 7,000m²) to the west of the second ridge, which incorporates the major group of Yellow Box gums in this location.
- a linear open space and drainage reserve (grassed channel) adjacent to the western boundary of the subject land.

In addition, the Development Plan also shows three small neighbourhood parks as follows:

- (1) towards the north-western corner of the site (approximately 800m²) which would also accommodate a large, healthy Red Gum in this location;
- (2) small park (approximately 725m²) on the east side of the main north-south collector road, which also accommodates and large healthy Red Gum;
- (3) small park (approximately 1,850m²) on the west side of the main north-south collector road, which also accommodates a large healthy Red Gum, and which together with (2) above forms a



feature element opposite the main park where The Boulevard

intersects with the main north-south collector road.

beyond the second ridge, (ie. the western knoll), towards the rear of the site on the southern side.

A small number of native trees are to be removed, mostly because of poor health or because they are located in the local road reserves. All of these nature trees that are to be removed form part of the treed area beyond the western knoll. Most of the Yellow Box and Long Leaf Box in this area will, however be retained. The location and condition of each tree is shown in Drawing No. SV2B that forms Appendix 2 to this report. The trees that are to be removed, as well as those that are to be retained, are shown in Drawing No. MP3B that forms part of Appendix 4.

5.5 Pedestrian and Bicycle Access

The Development Plan shows three key bicycle access routes through the site; namely:

- along The Boulevard, which is intended to have a road reservation width of 20 metres;
- along the central north-south collector road, which links with the adjoining properties and is intended to have a road reservation width of 24.5 metres; and
- along the linear open space adjacent to the western boundary of the subject land.

The Development Plan also provides for a high level of permeability for pedestrian access through the local road network and the key open space areas.

5.7 Staging

It is envisaged that the Development Plan will be implemented in stages, commencing with the main boulevard entry into the estate from Yan Yean Road with subsequent stages following in a progressive manner off the main boulevard and the central collector roads.

5.6 Landscape Master Plan

The Landscape Master Plan for the subject land is provided as Appendix 4.

The landscape masterplan includes the following drawings:

Landscape Inventory / Site Analysis	SV 1b
Tree Significance Assessment land	SV 2b
Landscape Masterplan	MP 1c
Landscape Masterplan	MP 2a
Tree Removal (Woodland area)	MP 3b
Street Tree Framework	TP01
Woodland Park	TP02
Redgum Woodland	TP03
Parkland Open Spaces	TP04
Landscape Masterplan	
Tree Removal Plan	TP05

The Development Plan provides for the retention of most healthy native trees on the site, including the two significant stands of remnant native trees; namely the group of remnant River Gums in the valley across the middle of the site, towards the northern boundary, and a group of mostly mature Yellow Box and Long Leaf Box



6.0 DEVELOPMENT PLAN CONSIDERATIONS

6.1 Consistency with the draft Mernda Strategy Plan Design Principles

As noted in Section 4.3 of this report, the draft Mernda Strategy Plan outlines a number of design principles that are to be considered in planning for residential development of the subject land.

The Development Plan responds to these design principles as follows:

- *Acknowledge the visually sensitive design areas around the two high points on the site.*

The Development Plan has proper regard to this design principle by providing for lots in the 700m² to 1,000m² range around the higher point located towards the eastern knoll on the subject land to enable the careful siting of detached housing and additional landscaping within individual sites.

The subdivision layout around the western knoll provides for terraced allotments in a configuration that avoids the siting of buildings on the higher land, whilst still allowing for long distant views or views over the adjacent treed reserve.

- *Continue the sub-arterial road and primary bus route through the middle portion of the site linking with adjoining land to the north and south.*

The Development Plan shows a connecting north-south collector road through the middle portion of the site, intersecting with The Boulevard and traversing the main local park, with a road reserve of 24.5 metres intended to provide for bus access.

- *Continue the drainage reserve from the adjoining land to the north along the western portion of the subject land, and have it form part of an active recreation link with land to the west and south.*

The Development Plan provides for a linear open space / drainage reserve (approximately 1.6ha in area) adjacent to the western boundary of the subject land to form part of the key conservation/open space link to towards the Plenty Gorge parklands. This land has not been included as part of the adjusted public open space budget identified under the draft Merinda Strategy Plan.

- *Incorporate the group of remnant Red Gums towards the western end of the subject land as part of public open space.*

The Development Plan shows this group of Red Gums located fully within the main open space reserve on the subject land. They will form an attractive landscape setting that is centrally located and open to key viewlines along The Boulevard and the main north-south collector road through the subject land.

- *Provide a "low density" residential interface (ie. lots greater than 700m²) on the subject land with rural land on the eastern side of Yan Yean Road, with these lots to be accessed internally and with buffer planting to be provided along Yan Yean Road.*

The Development Plan provides for low density residential lots of approximately 2,000m² + (2,000 m²+) along the eastern boundary of the subject land to maintain the semi-rural character of Yan Yean Road and to provide an appropriate interface to the rural land that is located opposite.

The low density lots would not be accessed off Yan Yean Road and would instead gain access from an internal local road connecting with The Boulevard and adjoining land to the south.

The Development Plan otherwise provides for a tree reserve along the subject land's Yan Yean Road frontage.

- *Provide "medium density" housing lots (ie. 200m² to 450m²) adjacent to the drainage reserve/recreation link at the western end of the site.*

The Development Plan provides for terrace lots (ie. in the range 350m² to 600m²) opposite the linear open space and drainage reserve at the



western end of the subject land, consistent with the draft Strategy Plan.

- *Otherwise, provide “standard density” lots (ie. 450m² to 700m²) across the larger part of the subject land.*

The Development Plan otherwise provides for conventional sized lots, ranging from 700m² to 1,000m². Whilst the size of these lots is generally larger than that envisaged in the draft Strategy Plan, the larger lots provide greater opportunities to preserve the environmental assets of the land, including the retention of native trees and to assist in achieving an open and integrated landscape theme consistent with the existing landscape character of the locality.

The draft Strategy Plan suggests that transitions between residential densities should occur mid-block, rather than mid-street, to ensure streetscape consistency. The Development Plan satisfies this design principle in all respects.

6.2 Provision of a Range of Dwelling Types

The Development Plan provides for approximately 360 lots, which for a site area of 44.69 hectares equates to a net residential density of 8 lots per hectare.

This level of development is consistent with the draft Mernda Strategy Plan, which states that:

“In accordance with Council’s Municipal Strategic Statement, an average net residential density of 8 lots per hectare has been assumed across the entire subject plan area. This relatively low residential density reflects the need to preserve environmental assets through generous open space allocations and the application of rural-style residential development in sensitive areas, or as buffers alongside rural land.” (page 50)

The provision of mostly conventional detached housing as an outcome of the Development Plan is also consistent with the draft Strategy Plan given that the subject land is not adjacent to any

of the planned activity centres, where higher density development is encouraged.

In this regard, the draft Strategy Plan states:

“Residential development will generally follow a density gradient that decreases with distance from activity centres.” (page 50)

6.3 Extent of Public Open Space

As noted, the public open space shown on the Development Plan, excluding the linear open space / drainage reserve at the rear of the land, equates to approximately 4.7% of the site area, which is less than the 11.08% adjusted open space budget specified for land in Precinct 2A under the Infrastructure Charges Plan in the draft Mernda Strategy Plan. This percentage may vary slightly depending on the final details of any subdivision approval, and for this reason, the land budget calculations required and any balance to be addressed by way of possible cash contribution are best addressed at the subdivision approval stage.

6.4 Integration with Adjoining Land

The Development Plan has proper regard to the future development of adjoining land.

The Development Plan provides open space that directly links or extends that which is planned in respect of the adjoining land to the north, and which is otherwise designated under the draft Strategy Plan in respect of adjoining land to the south and west.

The road layout also connects directly with that which is planned in respect of the adjoining land to the north, including the main north-south collector road that is envisaged in the draft Strategy Plan.

Notwithstanding that the road layout within the adjoining land to the south is yet to be fully planned, the Development Plan for the subject land provides for the continuation of the main north-south collector road into this property along the alignment designated in the draft Strategy Plan. This collector road also provides a direct link to the convenience centre site that is



designated within this adjoining property, just to the south of the subject land, under the draft Strategy Plan.

The Development Plan also provides for the continuation of the internal roads into the adjoining land to the south to access low-density lots along Yan Yean Road to the east and the linear open space and drainage reserve to the west.

6.5 Connectivity with the Local Road Network

The Development Plan provides only limited access to the existing local road network, in the form of a boulevard entry to Yan Yean Road at the north-eastern corner of the subject land. This represents a suitable outcome given the visibility constraints that exist towards the southern end of the subject land's frontage to Yan Yean Road. It is for this reason also that the Development Plan otherwise relies on connections to the local road network, including Yan Yean Road, via collector roads through adjoining land.

The detail of the proposed intersection treatments to Yan Yean Road has been prepared by Grogan Richards, Traffic Engineers, and is included as Appendix 6.

6.6 Provision of Pedestrian and Bicycle Access

The Development Plan provides for linear linkages through the subject land between Yan Yean Road to the east and the regional linear reserve trails to the west, as well as through adjacent land to the north and south.

These linear linkages are highlighted on the Landscape Master Plan. (Refer Appendix 4)

6.7 Retention of Existing Vegetation and Proposed Additional Landscaping

The Development Plan layout ensures that most of the remnant native trees on the site will be retained. Native tree removal is limited to some "Thinning" in the woodland area beyond the western knoll. The native reclamation will be complimented by new primary and secondary avenue planting, including within The Boulevard

entry from Yan Yean Road and within the tree reserve along Yan Yean Road, as detailed in the Landscape Master Plan; Drawing No's MP1B and MP2a. (Refer Appendix 4).

6.8 Management of Archaeological Sites

The Aboriginal isolated artefact site AAV 7922/0638 (a basalt hammer stone) and the historical artefact scatter, H7922-0238, are located in the large open reserve/park mid-way along the northern boundary and are not expected to be disturbed.

The necessary permit is to be obtained from the Minister for Aboriginal Affairs in consultation with relevant Aboriginal groups including the Kulin Nations Cultural Heritage Organisation and the Wurundjeri Tribe Land Comensation and Cultural Heritage Council Incorporated to disturb the second Aboriginal isolated artefact site AAV7922/0637 (a worked quartz flake).

A 'Consent to disturb' will also be sought from Heritage Victoria with respect to the two other non-Aboriginal archaeological sites (H7922-0237 and 0239).

Council's requirement for on-going monitoring of ridgelines for sites of archaeological significance is acknowledged.

The recommendations of the archaeological survey are otherwise detailed in the accompanying report; '*An archaeological survey of the Bond land, 995 Yan Yean Road, Doreen, Victoria (June 2002)*', prepared by Biosis Research.



7.0 SERVICES

7.1 Drainage

Main Drainage

Melbourne Water is responsible for the provision and management of their main drainage and floor protection strategy for the Upper Doreen Catchment.

The Authority prepared the Laurimar Drainage Scheme last year to cater for the present and future development of the area.

The drainage scheme identifies the drainage infrastructure required to service each land holding within the catchment, including major open channel works, pipelines, wetlands, retarding basins and other water quality facilities.

The drainage infrastructure is to be financed by the drainage scheme fund consisting of contributions made on an area basis to Melbourne Water as land is subdivided. The current drainage levy for residential development under the 'Laurimar Drainage Scheme' covering the subject land is \$31,122 per hectare. In addition the Authority's 'DADS' contributions for standard residential development in the sum of \$3,044 per hectare also applies.

Under the scheme the subject land has been allocated four points of drainage discharge, two that emit into proposed Melbourne Water pipelines to be constructed along valley lines within the Mitchell property and two connections directly into the proposed major grassed open channel that flanks the western boundary of the site.

The proposed major grassed channel follows the existing valley line in which Melbourne water recently carried out drainage improvement works to improve the outlet from the Laurimar Estate. The ultimate channel is to have a base width of 60 metres and sides grading at 1 in 8. It is proposed to limit the depth of flow in the channel to a maximum of 600mm.

The subject land is not directly liable to flooding from the estimated 100 year event from the nearby Plenty River although a band of land

along the western boundary, that includes a large dam, has little relief and is subject to localised inundation from uncontrolled runoff.

In the preparation of the Development Plan the above drainage issues have been investigated and considered in the planning of the layout of the roads and reserves. The staged construction of the main drain facilities, including the remodelling of the land near the western boundary into a reserve incorporating the Melbourne Water grassed channel works will provide for the full and proper drainage of the land.

The proposed subdivision development plan makes suitable provision for internal overland flow paths within the road and reserve network to cater for surcharge flows generated within and upstream of the property.

Treatment of Existing Dams

The existing dam in the south west corner of the land is located directly within the proposed alignment of the major grassed drainage channel and will be remodelled to suit the requirements of Melbourne Water's drainage strategy.

The dam is not required for any function relating to retardation or water quality in the ultimate drainage scheme, nor do any of the other four smaller dams situated over various parts of the site. All existing dams will be appropriately breached, cleared out and filled with compacted selected quality site material under the supervision of a geotechnical consultant, progressively with the subdivision development.

Water Quality and Water Sensitive Urban Design

Melbourne Water's drainage scheme provides an integrated stormwater catchment management and water quality plan for the Upper Doreen / Laurimar catchment.

A major element of the Laurimar Drainage Scheme is the proposed wetland that is to be built in the adjoining property, immediately west of the boundary of the subject land. The proposed wetland will serve as a major water quality treatment facility for stormwater generated from the subject land and other upstream developments.



The major grassed drainage channel to be constructed along the western boundary of the site as part of the drainage scheme works will also act as a sediment control and retardation facility.

Within the development opportunities for water quality initiatives included vegetated street sweal drains and filtration trenches will be considered as an integral part of the road and drainage design, however the steep site grades (generally >5%) and strong clayey soils will influence the appropriateness of these matters.

Other measures that will be considered in the detailed design will be the location of local gross pollutant and sediment control areas and the use of previous storage areas within reserves.

During the construction of the proposed development, strict environmental management practices will be specified including erosion control, silt / sedimentation and other gross pollution collection measures.

7.2 Water Supply

Yarra valley Water is responsible for the provisions of water supply to development in the Mernda - Doreen area.

The subject land is situated within the Yarrambat Reservoir Supply Zone.

The supply zone consists of a low level system serving land up to an elevation of RL 180m AHD and a high level (pumped) system for land above this elevation.

The current capacity in the Yarrambat reservoir supply zone is limited to approximately 1000 lots and ultimately Yarra Valley Water proposes to construct a staged overall 30 megabit reservoir facility on the east side of Yan Yean Road.

The proposed reservoir will assist in servicing land up to RL 190m AHD. The land above this elevation is proposed by the boosted supply from the high level system.

More than half of the subject land is situated above the RL 180m contour. The existing 450mm diameter water main in Yan Yean Road along with recently completed water supply

improvement works, will serve as the basis of the supply to the proposed development.

Yarra Valley Water has also advised that a pump station is to be built to serve the ultimate peak water demand from the high level system catchment based on the project demand over the next 15 years. In the interim it will allow a staged temporary pump system to be built to serve the subject land and other adjoining properties.

Works are to be financed by the developer in addition to payment of water supply contributions under the Plenty Growth contribution area, currently set at \$2,052 per standard residential lot.

7.3 Sewerage Reticulation

Yarra Valley Water is also responsible for the provision of sewerage to the proposed development.

In late 1999 Yarra Valley Water prepared a new sewerage servicing strategy for the Mernda - Doreen area.

One of the key parts of the strategy is the recently commissioned Laurimar pumping station, located near the southern boundary of the Laurimar Estate and the associated rising main pipeline that extends some 12 kilometres south along Yan Yean Road to the existing Eltham main Sewer in Diamond Creek,

The new system has a capacity to serve 3000 lots. Yarra Valley Water's ultimate sewerage strategy requires the construction of a duplicate rising main, several pumping stations and extensive branch and reticulation sewer infrastructure works to serve an estimate 16,000 potential lots in the Mernda - Doreen corridor.

After extensive consultation with the developer and other stakeholders in the area, Yarra Valley Water announced a proposal to fund the construction of the major sewerage capital works on the basis of increasing the previous Mernda Doreen area sewerage contribution rate of \$2,549 per standard lot to the current rate of \$3,855 per lot.

The proposed development is to be seweraged to the Laurimar pumping station by a combination of a local temporary pump station and gravity



outlet sewer/s through the Mitchell land to the north. All works are to be funded by the developer.

Yarra Valley Water has advised that it will facilitate easement rights through the adjoining property/s as part of any land development agreement with the adjoining landowner/s.

7.4 Electricity

TXU Networks is the electricity supply Company responsible for the provision of power facilities to the proposed development.

As a result of other developments in the immediate area, TXU has undertaken the first phase of electricity supply upgrade works along the Yan Yean Road, which pass directly across the frontage of the site and shortly it proposed further augmentation of its supply assets along Bridge inn Road.

This work will provide the basis for supply to the proposed overall development and others in the area. TXU will require a contribution from all benefiting developers toward the cost of the external substation and HV upgrade works over and above the normal internal supply reticulation costs and standard HV equalisation charges.

7.5 Telecommunications

Telstra has advised that its existing telephone and associated telecommunications plant in Yan Yean Road are available to the proposed development.

These assets will need to be extended and upgraded as development progresses.

Under current practice for the supply of telephone / communications services in residential subdivisions, the developer is liable for the cost of civil works (trenching, backfill and associated civil works) and Telstra will supply conduits, pits and associated hardware and labour to feed the necessary cables at no extra cost to the developer.

7.6 Gas supply

Origin Energy is responsible for the provision of reticulated gas facilities to the proposed development and surrounding Doreen area.

As past of the development of the Laurimar Estate, Origin Energy constructed a 150mm mild steel gas main along the east side of Yan Yean Road from its 'City Gate' major gas distribution pipeline from the north, to a point opposite Hazel Glen Drive, the main entry road into the Laurimar Estate.

The main is the basis for gas supply to the proposed development and others in the Yan Yean Road precinct. Upon application Origin Energy will extend this main to the subject land along with internal reticulation mains and services during the civil construction phase.

It is unlikely that the developer will bear any costs associated with the extension of the 150mm main to the property, however this will be subject to written confirmation.

7.7 Services Capacity

Yarra Valley water Ltd has analysed the capacity of its existing services and investigates the need for future services on the basis of projected development demand. It has provided written confirmation that both its current water supply and sewerage reticulation services are available for use by the subject land and other surrounding properties and established water supply improvement works required to serve land above the RL180m AHD elevation.

Melbourne Water has confirmed that the land is situated in a declared drainage scheme area and details of proposed main drainage works applicable to the site has been identified in their scheme plans. Melbourne Water has raised no objection to the staged construction of drainage facilities and use of temporary drainage works with the progressive development of the property provided there is no adverse affect on adjoining land holdings.

TXU Networks, origin Energy and Telstra have advised that their respective services can be extended and/or upgraded to adequately supply the proposed development.



8.0 CONCLUSION

The Development Plan for the subject land provides for a well-considered, high quality residential development. It has proper regard to the particular characteristics of the site and the site's relationship to adjoining land, and is consistent with the applicable planning controls and policies that apply to the site, including the applicable Development Plan overlay and the draft Mernda Strategy Plan.

Any proposed subdivision of the site still requires a planning permit under the provisions of the Residential 1 Zone. Details of the subdivision design, including the designation of individual lots, detailed road planning, servicing provision, and any contributions that might be sought towards open space and infrastructure provision are to be considered as part of the subdivision approval stage.



APPENDIX 1

CERTIFICATE OF TITLE

ORIGINAL

NOT TO BE TAKEN FROM THE OFFICE OF TITLES



REGISTER BOOK

VOL. 9307 FOL. 749

VICTORIA

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT" V9307 F749

KENNETH EDWARD BOND Farmer and GAIL BETTY BOND Married Woman both of 3 -
Charmain Close Ivanhoe are now joint proprietors of an estate in fee simple
subject to the encumbrances notified hereunder in ALL THAT piece of land --
delineated and coloured red on the map hereon being part of Crown Portion 2
Section 4 Parish of Yan Yean County of Evelyn - - - - -

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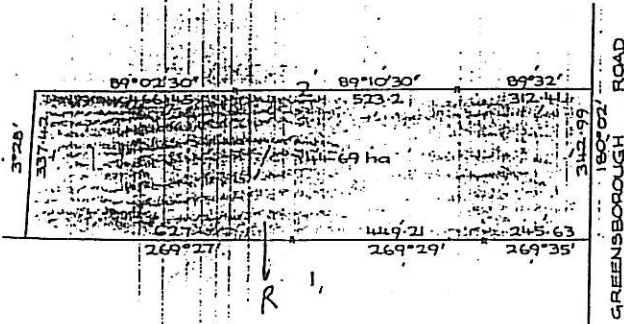
DATED the 17th day of October 1978

SEE ATT'D SHEET

R. J. J. J. J.
Assistant Registrar of Titles



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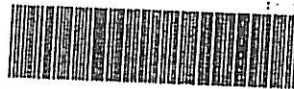
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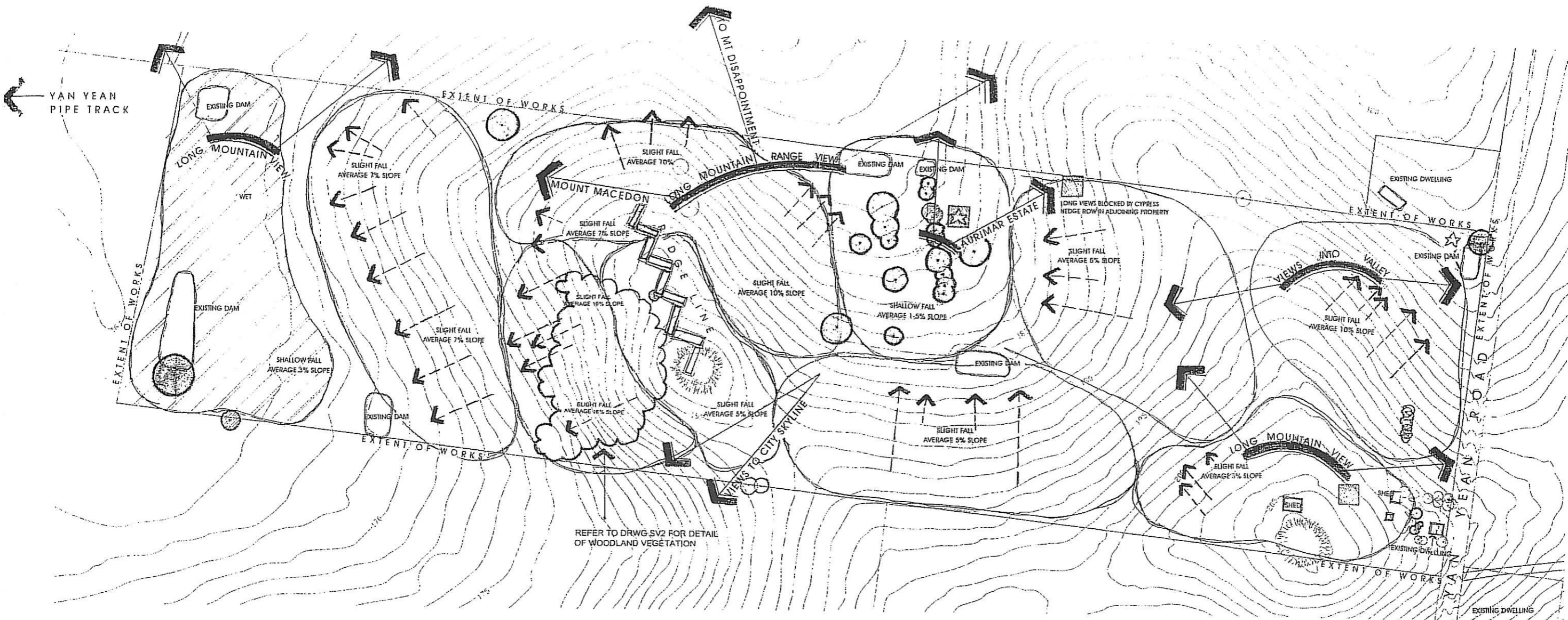
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APPENDIX 2

LANDSCAPE INVENTORY/SITE ANALYSIS



REFER TO DRWG SV2 FOR DETAIL OF WOODLAND VEGETATION

LEGEND

- EXISTING DAM
- FALL DIRECTION
- EXISTING CONTOUR LINES
- EXISTING WET AREA
- SIGNIFICANT VIEW LINES
- HIGH POINT

- ABORIGINAL ARCHAEOLOGICAL SITE
- HISTORIC SITE

EXISTING TREES

- 1. WELL FORMED & IN GOOD HEALTH
Requires little or no remedial pruning and care.
- 2. IN RELATIVELY GOOD HEALTH
Requires minor remedial pruning and care.
- 3. FAIR HEALTH
Considerable dieback present. Arboricultural work required to improve vigour and long term viability.
- 4. POOR HEALTH
Extensive dieback present. Dead or hanging limbs require removal. Extensive arboricultural work required for ongoing viability.
- 5. TREE IS DEAD

NO.	DESCRIPTION	DATE	BY
1	No. Client (PRELIMINARY)	9.05.01	...
1	No. Collins & Partners (PRELIMINARY)	9.05.01	...
1	No. Reeds Consulting (PRELIMINARY)	9.05.01	...
1	No. [unclear] (PRELIMINARY)	2.11.01	...
1	No. [unclear] (PRELIMINARY)	20.05.01	...
1	No. [unclear] (PRELIMINARY)	21.05.01	...
1	No. [unclear] (PRELIMINARY)	21.05.01	...

Rev	Date	Amendment
B	8-Oct-02	Updated Layout
A	4-Jul-02	Detailed Tree Assessment

For: INTRAPAC CONSOLIDATED PTY LTD
At: BOND PROPERTY, YAN YEAN RD DOREEN

Title: LANDSCAPE INVENTORY /SITE ANALYSIS

Contour Design Australia Pty Ltd
Landscape Architecture
Urban Design
283 Drummond Street
Carlton Victoria 3053
T 03 9349 5666
F 03 9349 5677

Project No: 2076
Date: 8-Oct-02
Drawn by: K Jordan

Scale: 1:2000 @ A1 size
0 10 20 50 100m

TREE SIGNIFICANCE RATINGS

- 1. WELL FORMED & IN GOOD HEALTH
Requires little or no remedial pruning and care.
- 2. IN RELATIVELY GOOD HEALTH
Requires minor remedial pruning and care.
- 3. FAIR HEALTH
Considerable dieback present. Arboricultural work required to improve vigour and long term viability.
- 4. POOR HEALTH
Extensive dieback present. Dead or hanging limbs require removal. Extensive arboricultural work required for ongoing viability.
- 5. TREE IS DEAD

NOTE:
ALL TREES EXHIBIT SIGNIFICANT
DAMAGE FROM CATTLE GRAZING

SPECIES MIX:
Eg *Eucalyptus gonibolus* Long Leaf Box
Em *Eucalyptus melliodora* Yellow Box



Rev	Date	Amendment
B	10-Dec-02	Revised subdivision layout (a)
A	8-Oct-02	Revised subdivision layout

For: INTRAPAC PTY LTD
At: BOND ESTATE
YAN YEAN RD, DOREEN

Title: TREE SIGNIFICANCE
ASSESSMENT PLAN
(Woodland Area)

Contour Design Australia Pty Ltd
Landscape Architecture
Urban Design
283 Drummond Street
Carlton Victoria 3053
T 03 93495866
F 03 93495877

Drawing No: SV2B

Project No: 2076
Date: 26-JUN-02
Drawn by: K.JORDAN

Scale: 1:1000 @A3SIZE
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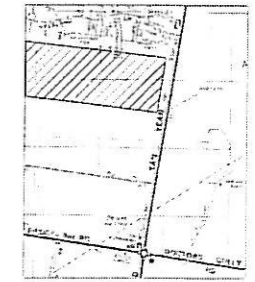
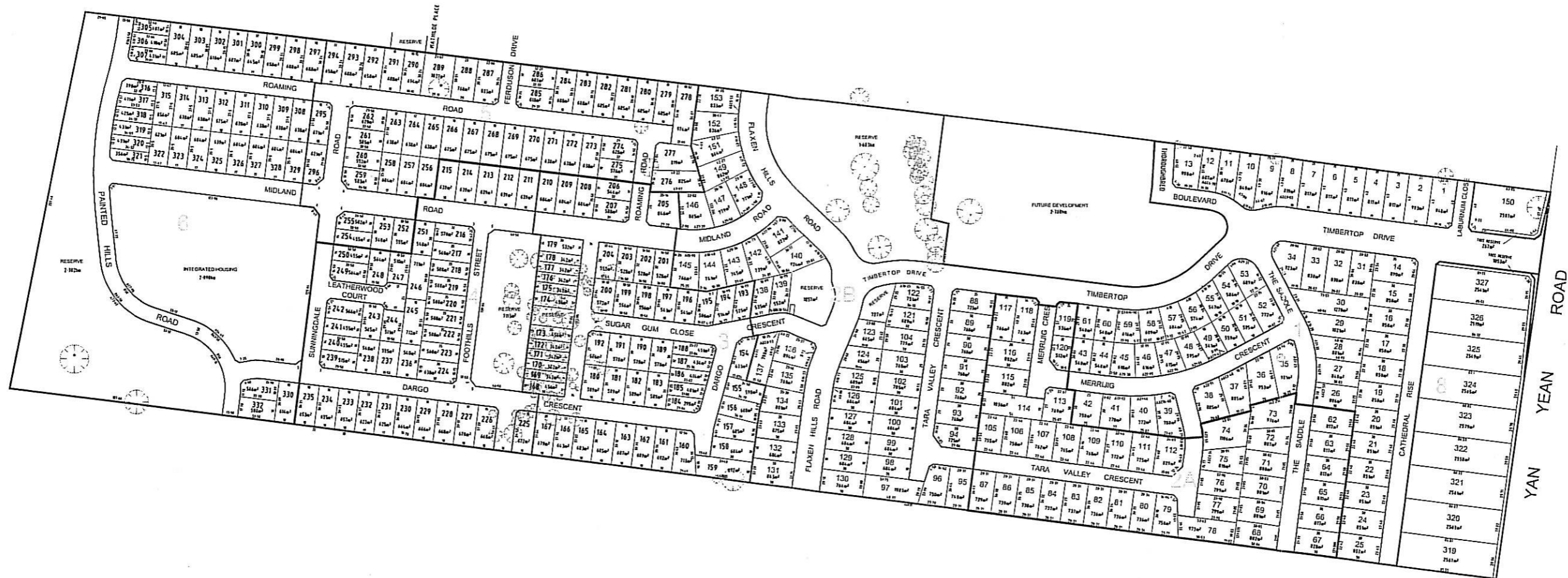
Print Issue:
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28-Jun-02 Planning Consultant x 1 (P)
28-Jun-02 Surveyor x 1 (P)
15-Jul-02 Planner x 1
15-Jul-02 Client x 1
08-Oct-02 CCA Planning x 1 (Rev A)
16-Dec-02 CCA Planning x 1 (Rev B)

APPENDIX 3

THE DEVELOPMENT PLAN

THE RIDGE ESTATE

NOTE: The general allotment and road network layout contained on this plan takes precedence over any other layouts depicted on any other plans contained within this Development Plan.



LOCALITY PLAN
MELWAY REF. 391 F8.9 - G8.9

LOT MIX TABLE

TOTAL NUMBER OF LOTS:	341	AVERAGE:	730m ²
LOTS 445m ² AND LESS:	21	AVERAGE:	384.1m ² 6.2%
LOTS 450m ² TO 599m ² :	75	AVERAGE:	540.3m ² 22%
LOTS 600m ² TO 749m ² :	127	AVERAGE:	662.1m ² 37.2%
LOTS 750m ² TO 899m ² :	91	AVERAGE:	812.2m ² 26.7%
LOTS 900m ² AND GREATER:	27	AVERAGE:	1568.6m ² 7.9%

INTEGRATED HOUSING SITE 2.09Bha

METRICON SITE 2.76Bha

OPEN SPACE 5.03Bha

Note: This Sales Plan is indicative only and subject to change. Details are not necessarily correct. Refer to Contracts of Sale for individual lot information.

The Ridge Estate

Client:	Bridgewater Developments	Sheet:	1 of 1
Reference No:	140760	Revision:	5
Drawing Status:	Discussion	Date:	4-10-2005
Map Reference:	Melway 391 F9	Drawn:	Brad McCurtayne
NORTH:	Co-ordinate Datum AMG55	Scale:	1:2000

File Name: 140760_05.dwg, Original Name: LOT MIX PLAN (3) 1
File Location: P:\140760\140760-05.dwg
Last Saved By: users
Last Save Time: 02 Oct 2005 10:23

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APPENDIX 4

LANDSCAPE MASTER PLAN

The landscape master plan for the Bond Property aims to provide a high quality outdoor living and natural environment utilising the existing attributes of the project site and surrounding rural landscape character. This is to be achieved through the following key objectives.

Key Objectives

- To provide an appropriate landscape framework for the ongoing residential development of the project site which is consistent with an extension of the Laurimar Local Structure Plan.
- To protect and build upon the existing site and broader landscape values through an integrated landscape planning approach recognising key potential open space connections, view corridors and habitat links.
- To maximise the retention of significant vegetation (River RED Gums) within a meaningful landscape and open space framework.
- To provide an appropriate landscape image for marketing and development purposes of the proposed residential estate.

Methodology

The methodology undertaken for the development of a landscape masterplan for the project site and subsequent development of a landscape masterplan followed the following procedure.

1. Detailed site investigation by project landscape architects to determine overall landscape character, opportunities and constraints.
2. Review and assessment of individual tree condition and retention values.
3. Preparation of a landscape inventory / site analysis plan.
4. Undertaking of a botanical survey by project ecologists.
5. Preparation of estate layout pattern / interaction with landscape values.
6. Preparation of a Landscape Masterplan for the overall proposed residential estate.
7. Preparation of tree significance assessment plan.
8. Preparation of tree removal (woodland area) plan.

The landscape masterplan includes the following drawings.

Landscape Inventory / Site Analysis	SV 1b
Tree Significance Assessment plan	SV 2b
Landscape Masterplan	MP 1c
Landscape Masterplan	MP 2a
Tree Removal (Woodland area)	MP 3b
Street Tree Framework	TP01
Woodland Park	TP02
Redgum Woodland	TP03
Parkland Open Spaces	TP04

Landscape Philosophy

The proposed landscape treatment will provide a range of landscape experiences throughout the estate, reflecting the landscape and environmental values of the area. Indigenous planting's will dominate the landscape setting with appropriate native and introduced species to assist in streetscape and project marketing requirements.

Streets will be planted out with a mix of evergreen native and indigenous trees as well as deciduous trees. The mix of street tree planting will provide variety, interest and identity to individual streets across the residential estate. Street trees will generally be planted as evergreen trees on a north – south axis, with deciduous trees (where utilised) on an east- west axis to maximise solar penetration and microclimate amelioration of streets and residential allotments. Further design investigation of landscape themes and open space reserves will be required as part of a total landscape package. It is anticipated that this work would be undertaken as part of a next stage of development following approval of a structure plan for the Bond Property.

Roundabout landscape treatments, and streetscape reserves will be developed utilising a mix of indigenous and vibrant, hardy species in order to achieve appropriate marketing presence and long term ease of streetscape management / maintenance.

The landscape masterplan is to be developed around the following key criteria.

Existing Significant Trees

Existing trees identified during detailed site investigation are to be retained and incorporated into appropriate landscape reserves and open spaces. Single tree specimens in individual residential allotments will be provided with adequate setback distances.

Primary Avenue Planting

Within an overall street tree planting hierarchy, primary avenue planting will provide the key landscape avenue treatment leading into the proposed estate. Yan Yean Road would also be planted as a primary avenue.

Secondary Avenue Planting

Supplementary avenue planting to provide spatial definition, identity and way finding. All further street planting / residential streets will be planted in accordance with the local neighbourhood character and street scale.

Open Space Reserves

Proposed open space reserves utilise identified landscape zones to maximise existing landscape values, tree retention opportunity, connectivity to external site areas and distribution of open space throughout the proposed residential estate. Located just beyond the entry boulevard, the primary open space area picks up on a key site drainage line with excellent opportunity to extend into a large open space area on the adjacent property to the immediate north. The second open space area greatly enhances the amenity for the residences. A third open space reserve connects the proposed linear reserve to be located between Laurimar and the Plenty River and forms an important element of local open space infrastructure. Connection to adjacent proposed residential estates is provided through linear connection of the open space network.

Bicycle / Pedestrian Connections

Linear linkages are proposed through the estate to provide access to adjacent residential estates, regional linear reserve trails and Yan Yean Road.

Estate Nodes

Landscape treatment and activity areas to assist with project marketing and to provide focal sites for future residents. These sites would be more intensively landscaped to achieve maximum impact. The nodal sites are the proposed roundabout intersection / primary reserve interface at the end of the entry boulevard.

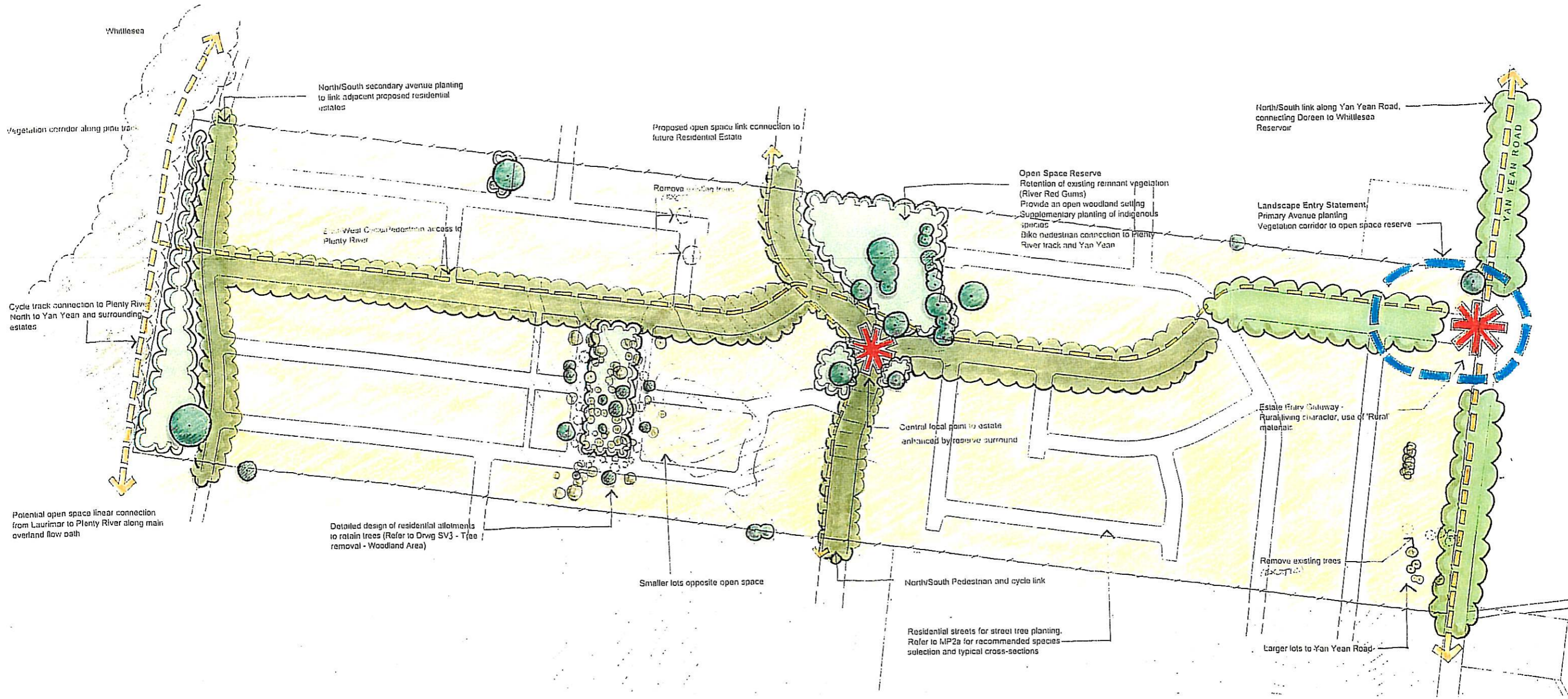
Future Reserves

Potential open space connections into future adjacent residential areas have been identified to maximise open space connectivity throughout the project area.

Landscape treatment of the proposed reserve, located on the western orientated slope, overlooking proposed housing and the proposed valley floor regional open space network will address the following key objectives.





Key Objectives

- To provide management of significant Eucalypt species within a safe and accessible open space context.
- To provide a more natural / less structured park setting utilising existing landscape elements.
- To provide opportunity for passive recreation activities (picnic, seating areas and casual walking).
- To utilise site elevation to provide longer distance views over the adjacent valley floor and proposed regional open Views to the Great Dividing Range (north of the subject site) can also be promoted.
- To provide opportunity for children's play in the form of a local playground setting.



Landscape Key

-  Existing significant trees
Refer to SV1 for tree assessment values.
-  Primary avenue planting
Entry to residential estate. Framework large scaled trees (Primary roads)
-  Secondary avenue planting
Supplementary avenue planting to provide spatial definition, identity and way finding. All remaining residential streets to be planted in accordance with local neighbourhood character and street scale.
-  Open space reserve
Built around existing significant trees and potential connections to adjacent local and regional open space networks.

-  Proposed Bicycle/Pedestrian connections
-  Existing contour lines
-  Estate nodes
Focal activity, gateway or estate statement areas
-  Future reserve
Opportunity to maximise open space linkages in adjacent local proposed residential estate areas.

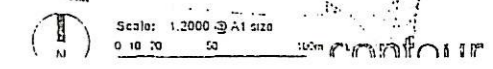
Rev	Date	Amendment
C	16-DEC-02	REVISED SUBDIVISION LAYOUT (AU)
B	11-SEP-02	REVISED SUBDIVISION LAYOUT (AU)
A	8-JUL-02	REVISED SUBDIVISION LAYOUT

For: INTRAPAC CONSOLIDATED PTY LTD
 At: BOND PROPERTY, YAN YEAN RD
 DOREEN

Title: LANDSCAPE MASTERPLAN

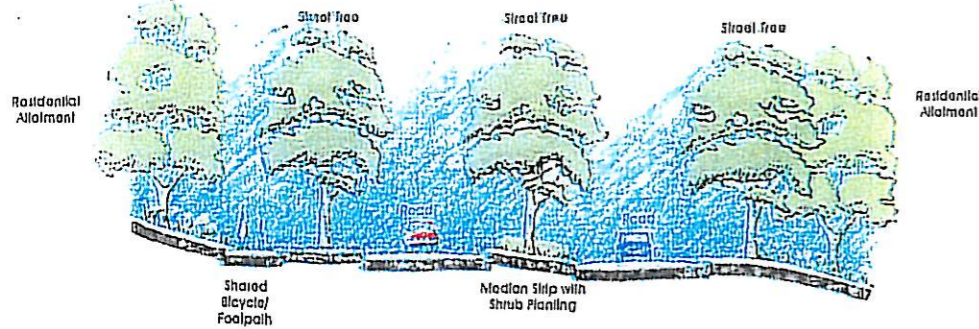
Contour Design Australia Pty Ltd
 Landscape Architecture
 Urban Design
 283 Drummond Street
 Carlton Victoria 3053
 T 03 9349 5600
 F 03 9349 5877

Project No: 2076
 Date: 8-Jul-02
 Drawn by: K.Jordan

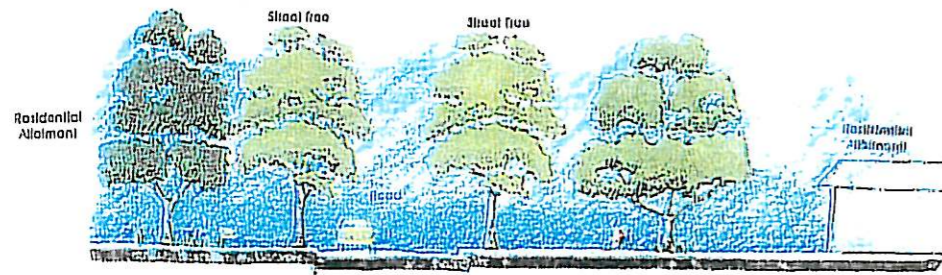


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 1 No. Client 23.11.01
 2 No. Planner (10.12.01)
 3 No. Client (10.12.01) REV A
 4 No. Planner (10.12.01) REV B
 5 No. Client (10.12.01) REV C
 6 No. Planner (10.12.01) REV D
 7 No. Client (10.12.01) REV E

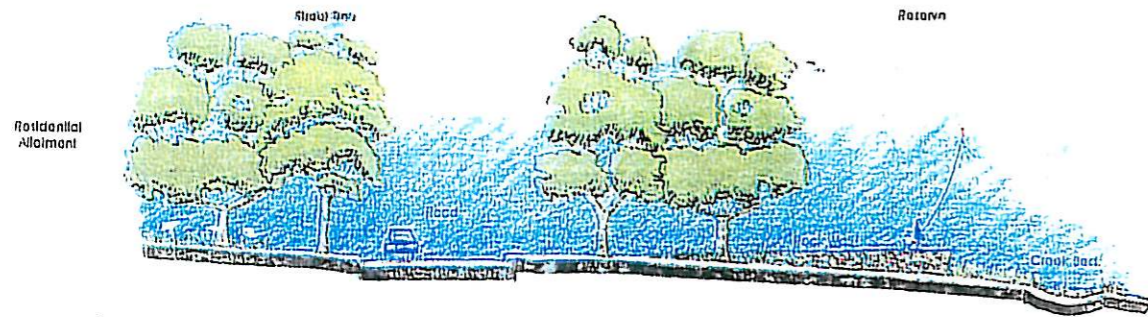
LANDSCAPE CHARACTER SECTIONS



SECTION A: BOULEVARD CROSS SECTION
SCALE 1:200



SECTION B: RESIDENTIAL CROSS SECTION
SCALE 1:200



SECTION C: OPEN SPACE RESERVE - RESIDENTIAL CROSS SECTION
SCALE 1:200

RECOMMENDED SPECIES LIST

Trees

Street Trees

- Acacia melanoxylon
- Allacuarina verticillata
- Brachychilon acerifolia
- Eucalyptus mannifera ssp. maculosa
- Eucalyptus melliodora
- Eucalyptus nicholii
- Eucalyptus scoparia
- Eucalyptus sideroxylon 'Roxa'
- Platanus orientalis
- Populus almonii 'Fastiglata'
- Pyrus callayana
- Quercus canariensis
- Quercus palustris

- Blackwood
- Drooping She-Oak
- Illawarra Flame Tree
- Red Spotted Gum
- Yellow Box
- Small-leaved Peppermint
- Wallangarra White Gum
- 'Roxa' Red Ironbark
- Oriental Plane tree
- Simon Poplar
- Callery Pear
- Algerian Oak
- Pin Oak

Open spaces, drainage reserves and habitat linkages

- Acacia melanoxylon
- Eucalyptus camaldulensis
- Eucalyptus gonilocalyx
- Eucalyptus melliodora
- Eucalyptus viminalis

- Blackwood
- River Red Gum
- Long-leaved Box
- Yellow Box
- Manna Gum

Shrubs & Groundcovers

Streetscape, open space and drainage reserve

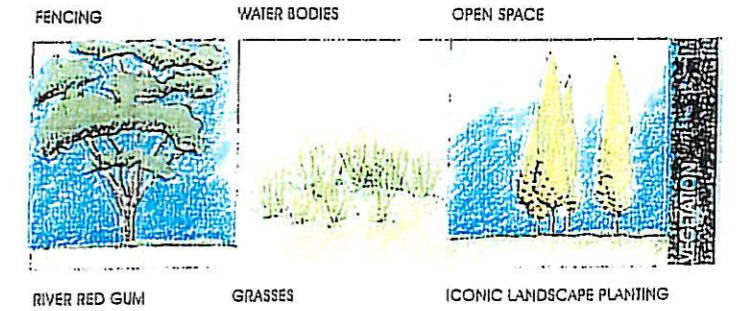
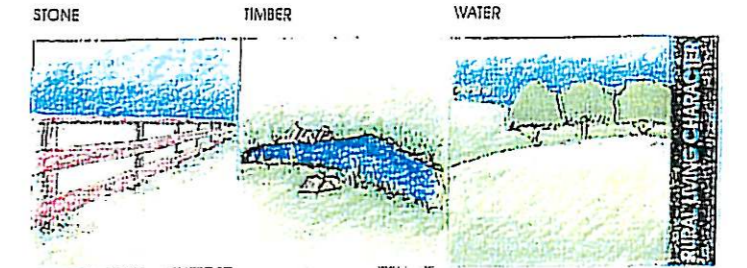
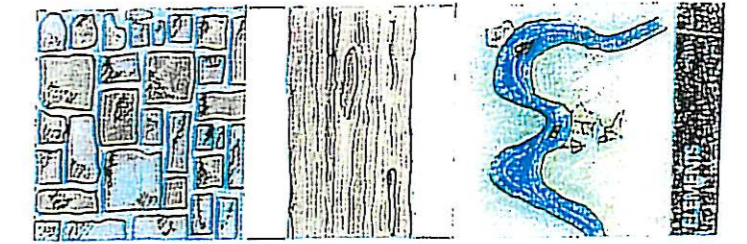
- Acacia paradoxa
- Anigozanthus 'Bush Gem Series'
- Callistemon ciliatus 'White Anzac'
- Carex appressa
- Carex testacea
- Clematis arifolia
- Correa alba
- Correa glabra
- Correa lawrenciana
- Correa reflexa
- Dianella langifolia
- Dianella revoluta
- Dodonaea viscosa var. 'purpurea'
- Echium fastuosum
- Epacris impressa
- Escallonia bilida
- Euphorbia characias
- Goodenia ovata
- Gravillea 'Bronze Rambler'
- Hardenbergia violacea
- Habe x franciscana 'Blue Gem'
- Habe odora
- Habe speciosa
- Indigafara australis
- Juncus amabilis
- Kanndia prostrata
- Lemonnia longifolia
- Mahonia aquifolium
- Olearia litoralis
- Pandoraea pandorana
- Ptilimela humilis
- Poa anisiformis
- Poa tabillardieri
- Poa maritima
- Poa slabatiana
- Rhaphirolepis indica
- Syzigium 'Lilliput'
- Taustium trulicans
- Themeda triandra
- Vitis vinifera

- Hedge Wattle
- Kangaroo Paw

- Tall Sedge
- Sedge
- Mountain Clematis
- White Correa
- Rock Correa
- Mountain Correa
- Common Correa
- Pale Flax-lily
- Black-anther Flax-lily
- Hopbush
- Pride of Madelia
- Common Heath
- White Escallonia
- Spurge
- Hop Goodenia

- Purple Coral-pea
- Varonlea
- Varonlea
- Showy Habe
- Austral Indigo
- Hollow Rush
- Running postman
- Splny Mal ruth
- Oregon grape
- Snow Daisy Bush
- Wonga Vine
- Common Rice-flower
- Sword tussock-grass
- Common tussock-grass
- Soft tussock-grass
- Gray tussock-grass
- India Hawthorn
- Dwarf Lilliput
- Bush Germander
- Kangaroo Grass
- Wine Grape

LANDSCAPE MATERIALS/FINISHES



SECTION D: ESTATE ENTRANCE CROSS SECTION.
SCALE 1:200

Rev	Date	Amendment
A	8-Oct-02	Updated layout

For: INTRAPAC CONSOLIDATED PTY LTD
At: BOND PROPERTY, YAN YEAN RD
DOREEN

Title: LANDSCAPE MASTERPLAN
- SECTIONS

Contour Design Australia Pty Ltd

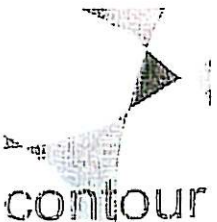
Landscape Architecture
Urban Design

283 Drummond Street
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Drawing No: MP2a

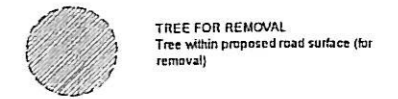
Project No: 2076
Date: 8-Oct-02
Drawn by: K. Jordan

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Print Issue
5-06-01 Planner (P) x 1No
2-07-01 Planner (P) x 1No
22-08-01 Planner (P) x 1No
31-08-01 Client (P) x 2No
3-09-01 Planner (-) x 6No
23-11-01 Client (-) x 1No
8-10-02 CCA Planning (Rev A) x 1No

LEGEND



Rev	Date	Amendment
B	16-Dec-02	Revised subdivision layout (a)
A	8-Oct-02	Revised subdivision layout

For: INTRAPAC PTY LTD
At: BOND ESTATE
YAN YEAN RD, DOREEN

Title: TREE REMOVAL
(WOODLAND VEGETATION AREA)

Contour Design Australia Pty Ltd
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Urban Design
283 Drummond Street
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Drawing No: MP3B

Project No: 2076
Date: 26-JUN-02
Drawn by: K. JORDAN



Scale: 1:1000 @A3SIZE
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Print Issue:
28-Jun-02 Client x 1
20-Jun-02 Planning Consultant x 1
28-Jun-02 Surveyor x 1
15-Jul-02 Planner x 1
15-Jul-02 Client x 1
15-Oct-02 CCA Planning x 1 (Rev A)
16-Dec-02 CCA Planning x 1 (Rev B)



LEGEND

- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO BE REMOVED
- PRIMARY AVENUE TREE**
Brachychiton acerifolia - Flame Tree
Eucalyptus melliodora - Yellow Box
- SECONDARY AVENUE TREES**
Eucalyptus manilfera ssp. *maculosa* - Brittle gum
Eucalyptus melliodora - Yellow Box
- LOCAL STREET DECIDUOUS TREE**
Acer rubrum 'October Glory' - Red maple
Callis australis - Nettle tree
Pyrus calleryana 'Bradford' - Callery pear
Tilia cordata 'Greenspire' - Small leaved linden
- LOCAL STREET EVERGREEN / NATIVE TREE**
Acacia melanoxylon - Blackwood
Allocasuarina verticillata - Drooping she-oak
Eucalyptus nicholii - Peppermint gum
Eucalyptus scoparia - Wallangarra white gum
Eucalyptus sideroxylon 'Rosea' - Red ironbark

- NATIVE REVEGETATION OPEN SPACE TREES
- HIGHLIGHT DECIDUOUS TREE
- OPEN SPACE / PARKLAND
(Refer to accompanying sheets TP02 - TP04)
- WALKING TRACK
- PROPOSED PEDESTRIAN / CYCLE TRAIL
- EXISTING CONTOURS

RECOMMENDED SPECIES LIST

- TREES**
- Street Trees**
Acacia melanoxylon
Allocasuarina verticillata
Brachychiton acerifolia
Eucalyptus manilfera ssp. *maculosa*
Eucalyptus melliodora
Eucalyptus nicholii
Eucalyptus scoparia
Eucalyptus sideroxylon 'Rosea'
Platanus orientalis
Populus simonii 'Fastigiata'
Pyrus calleryana
Quercus canariensis
Quercus polustris
- Open spaces, drainage reserves and habitat linkages**
Acacia melanoxylon
Eucalyptus camaldulensis
Eucalyptus gonilocalyx
Eucalyptus melliodora
Eucalyptus viminalis
- Shrubs & Groundcovers**
Streetscape, open space and drainage reserves
Acacia parolaxa
Anigozanthus 'Bush Gem Series'
Callistemon ciliatus 'White Anzac'
Carex appressa
Carex testacea
Clematis aristata
Correa alba
Correa glabra
Correa lawrenolana
Correa reflexa
- BLACKWOOD**
DROOPING SHE-OAK
ILLAWARRA FLAME TREE
RED SPOTTED GUM
YELLOW BOX
SMALL-LEAFED PEPPERMINT
WALLANGARA WHITE GUM
ROSEA RED IRONBARK
ORIENTAL PLANE TREE
SIMON POPLAR
CALLERY PEAR
ALGERIAN OAK
PIN OAK
- BLACKWOOD**
RIVER RED GUM
LONG-LEAVED BOX
YELLOW BOX
MANNA GUM
- Dianella longifolia*
Dianella revoluta
Dodonaea viscosa var. 'purpurea'
Echium fastuosum
Epacris impressa
Escallonia biffida
Eucalyptus cladocalyx 'Nana'
Euphorbia characias
Geranium solanderi
Goodenia ovata
Grevillea 'Bronze Rambler'
Hardenbergia violacea
Hebe odora
Hebe speciosa
Hebe x franciscana 'Blue Gem'
Hovea linearis
Indigofera australis
Juncus amabilis
Kennedia prostrata
Lomandra longifolia
Mahonia aquifolium
Olearia lirata
Pandorea pandorana
Pimelea humilis
Pimelea linifolia ssp. *linifolia*
Poa ensiformis
Poa labillardieri
Poa montii
Poa sieberiana
Rhaplolepis indica
Syzigium 'Lilliput'
Teucrium frutescens
Thymea trandara
Viola hederacea
Vitis vinifera

- PALE FLAX-LILY
BLACK-ANTHER FLAX-LILY
HOPBUSH
PRIDE OF MADEIRA
COMMON HEATH
WHITE ESCALLONIA
DWARF SUGAR GUM
SPURGE
AUSTRAL CRANESBILL
HOP GOODINIA
- PURPLE CORAL-PEA
VERONICA
SHOWY HEBE
VERONICA
COMMON HOVEA
AUSTRAL INDIGO
HOLLOW RUSH
RUNNING POSTMAN
SPINY MAT RUSH
OREGON GRAPE
SNOW DAISY BUSH
WONGA VINE
COMMON RICE-FLOWER
SLENDER RICE-FLOWER
SWORD TUSSOCK-GRASS
COMMON TUSSOCK-GRASS
SOFT TUSSOCK-GRASS
GREY TUSSOCK-GRASS
INDIA HAWTHORN
DWARF LILLIPUT
BUSH GERMANDER
KANGAROO GRASS
NATIVE VIOLET
WINE GRAPE

NOTE: ALL ROAD RESERVE LAYOUTS ARE INDICATIVE ONLY. FURTHER ENGINEERING DESIGN REQUIRED.

Rev	Date	Amendment

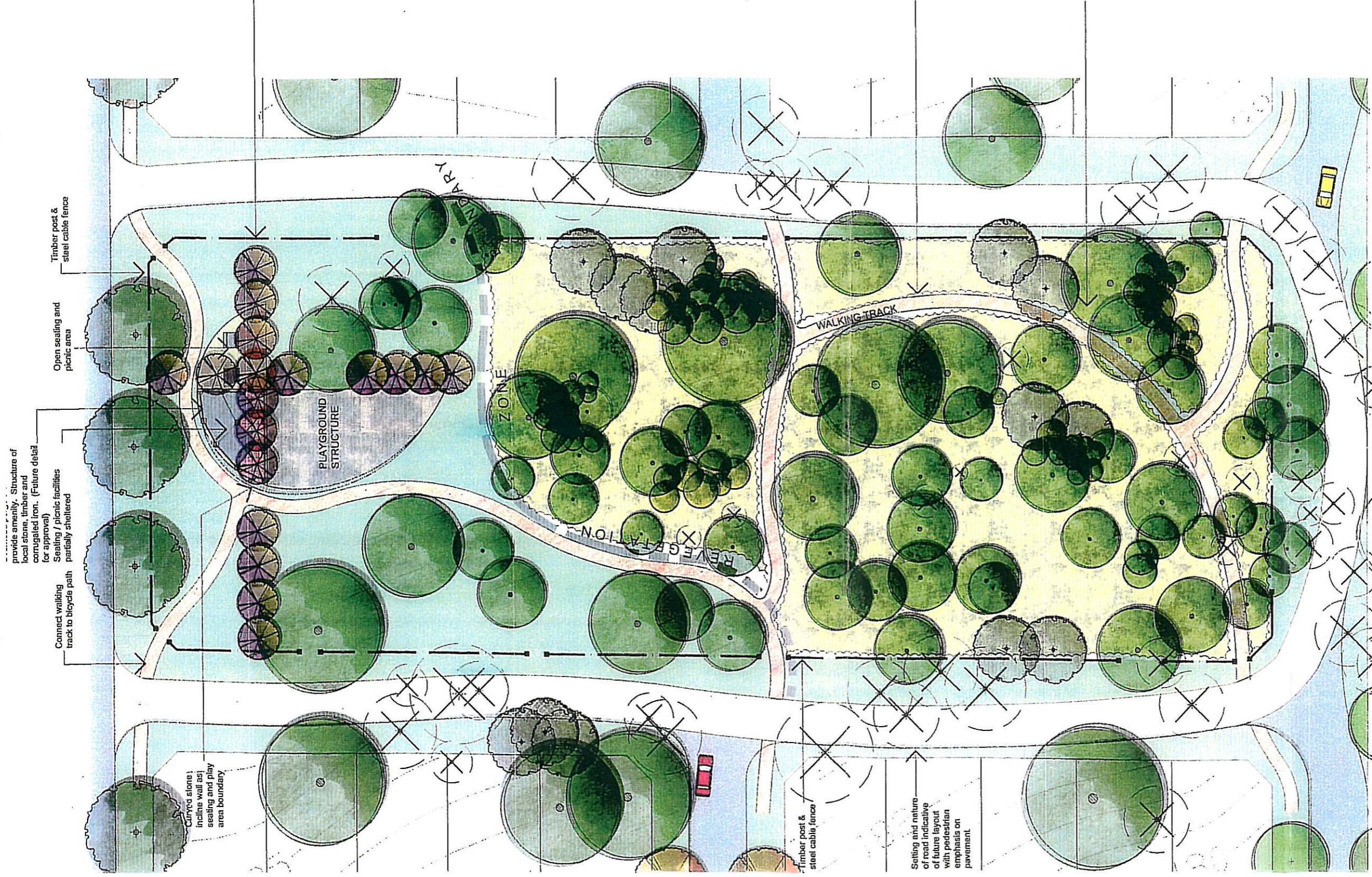
For: INTRAPAC PTY LTD
At: RIDGETON ESTATE
YAN YEAN ROAD, DOREEN
Title: LANDSCAPE MASTERPLAN
STREET TREE FRAMEWORK

Contour Design Australia Pty Ltd
Landscape Architecture
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Drawing No: TP01
Project No: 2078
Date: 19-MAY-03
Drawn by: S.EAKIN
Checked/Signed By:

Print Issue
13-05-03 Client: (Preliminary)
09-07-03 Client
14-07-23 Co. Ltd

Scale: 1:2000 @ A1
0 10 20 50 100m



provide amenity. Structure of local stone, timber and corrugated iron. (Future detail for approval)

Seating / picnic facilities partially sheltered

Connect walking track to bicycle path

Open seating and picnic area

Timber post & steel cable fence

Curved stone / incline wall as seating and play area boundary

PLAYGROUND STRUCTURE

REVEGETATION ZONE

Timber post & steel cable fence

Seating and nature of road indicative of future layout with pedestrian emphasis on pavement

Highlight *Prunus cerasifera 'Nigra'* or similar deciduous marker trees as contrast and juxtaposition to Grassy Dry Forest. The planting serves as a reminder for the urban impact requirements of modern residential living and the natural environment.

ECOLOGICAL VEGETATION CLASS - GRASSY DRY FOREST

HIGHLANDS - SOUTHERN FALL BIOREGION

The overstorey is dominated by a low to medium height forest of eucalypts to 20m tall, sometimes resembling an open woodland with a secondary, smaller tree layer including a number of *Acacia* species. The understorey predominantly consists of a sparse shrub layer of medium height. Grassy Dry Forest is characterised by a ground layer dominated by a high diversity of drought-tolerant grasses and herbs, often including a suite of fern species.

RECOMMENDED PLANT SCHEDULE

- | | | |
|--|---|------------------------|
| TREES | <i>Eucalyptus goniacalyx</i> | LONG-LEAVED BOX |
| | <i>Eucalyptus melliodora</i> | YELLOW BOX |
| LARGE SHRUBS | <i>Excocarpus cupressiformis</i> | CHERRY BALLART |
| | <i>Cassinia ocellata</i> | COMMON CASSINA |
| | <i>Acacia genivittata</i> | SPREADING WATTLE |
| | <i>Dawsonia leptophylla</i> | NARROW-LEAF BITTER-PEA |
| SMALL / MEDIUM SHRUBS | <i>Acrotiche senecioides</i> | HONEY-POIS |
| | <i>Asplenium humilimum</i> | CRANBERRY HEATH |
| | <i>Cornus reliqua</i> | COMMON CORRREA |
| | <i>Dalrymplea chrysocoma</i> | GREY PARROT-PEA |
| | <i>Hovea heterophylla</i> | COMMON HOVEA |
| | <i>Leucopogon virgatus</i> | COMMON BEARD-HEATH |
| | <i>Phacelia humilis</i> | COMMON RICE-FLOWER |
| GROUND COVERS / GRASSES / FERNS | <i>Atriplex canescens</i> | CHOCOLATE LILY |
| | <i>Dieris repens</i> | BLACK-ANTHER FLAX-LILY |
| | <i>Dichrochloa repens</i> | KIDNEY-WEED |
| | <i>Gonocarpus tetragynus</i> | COMMON BARSWORT |
| | <i>Hypochaeris glabra</i> | SMALL ST. JOHNS WORT |
| | <i>Lomandra filiformis</i> | WATTLE MATRUSH |
| | <i>Microseris stipoides</i> var. <i>stipoides</i> | WEeping GRASS |
| | <i>Poa alleboratoria</i> | GREY TUSsock GRASS |
| | <i>Vicia hederacea</i> | MY LEAF VIOLET |

Revegetation of grassy dry forest to be undertaken in conjunction with a detailed weed management program.

Prime and seal path with local sand / gravel. Edge detail to be site specific. Concrete edge in parkland areas; timber plinth edge in revegetation areas

Supplementary planting / revegetation of Grassy Dry Forest vegetation community. (Species to be drawn from the Grassy Dry Forest EVC benchmark.) Works to be undertaken along with woody debris retention and weed control. Access permitted on marked tracks only.

NOTE: ALL ROAD RESERVE LAYOUTS ARE INDICATIVE ONLY. FURTHER ENGINEERING DESIGN REQUIRED.

Rev	Date	Amendment

For: INTRAPAC PTY LTD
At: RIDGETON ESTATE
YAN YEAN ROAD, DOREEN

Title: LANDSCAPE MASTERPLAN WOODLAND PARK

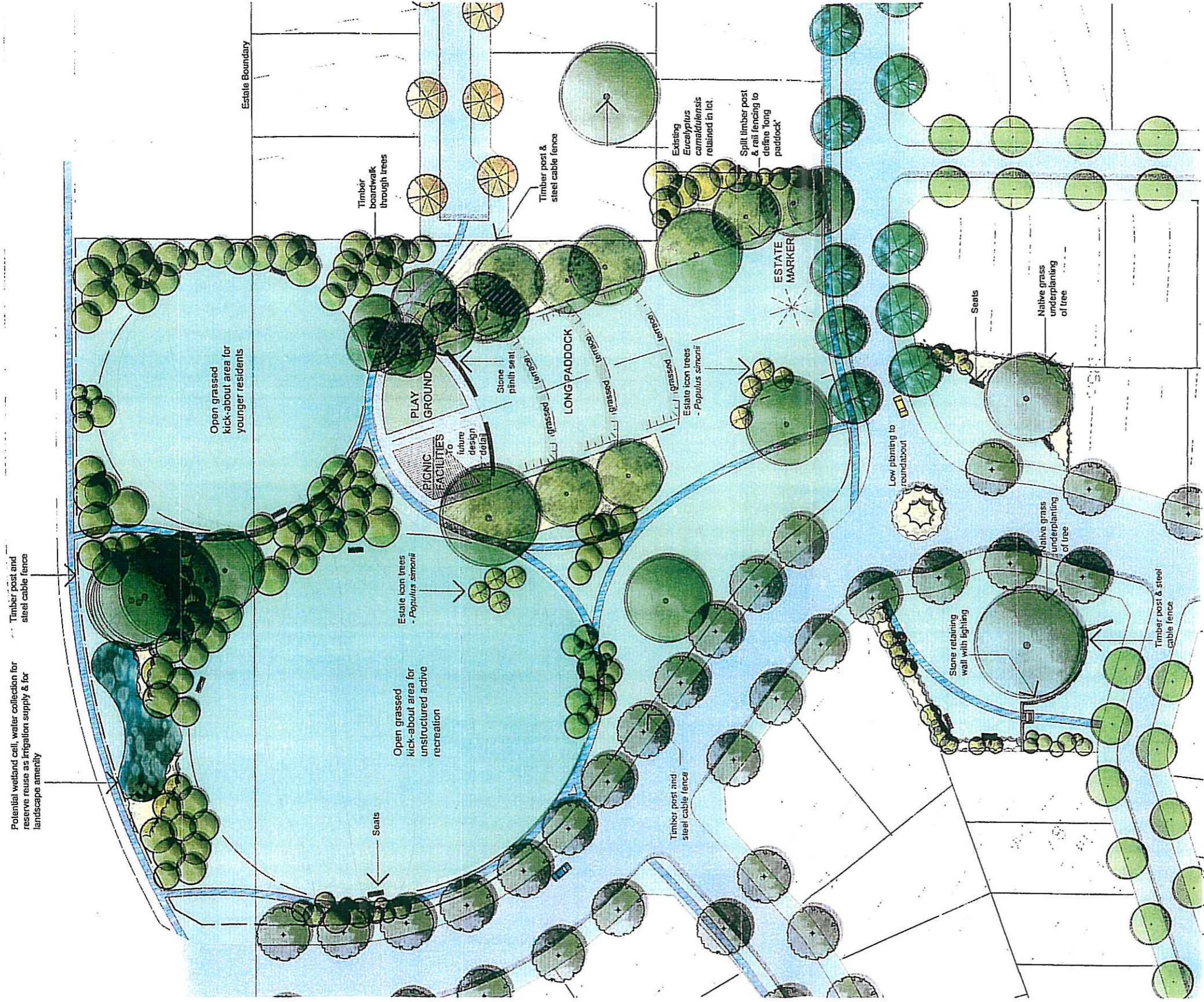
Contour Design Australia Pty Ltd
283 Drummond Street
Carlton Victoria 3053
T: 03 9349 5866
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Drawing No: TP02
Project No: 2076
Date: 19-MAY-03
Drawn By: S.EAON
Checked/signed By:



LEGEND

- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO BE REMOVED
- PRIMARY AVENUE TREE
Brachyctenon acuminata - Flame Tree
Eucalyptus melliodora - Yellow Box
- LOCAL STREET EVERGREEN / NATIVE TREE
Acacia melanoxylon - Blackwood
Allocasuarina verticillata - Drooping she-oak
Eucalyptus nicholii - Peppermint gum
Eucalyptus scoparia - Wallangarra white gum
Eucalyptus sideroxylon 'Rosae' - Red Ironbark
- NATIVE REVEGETATION TREE
- HIGHLIGHT DECIDUOUS TREE
Prunus cerasifera 'Nigra' or similar
- PLAYGROUND AREA
- REVEGETATION ZONE BOUNDARY
- REVEGETATION PLANTING AREA
(Refer Recommended Plant Schedule)
- WALKING TRACK
(Prime and seal surface)
- TIMBER POST & WIRE CABLE FENCE
- PROPOSED PEDESTRIAN / CYCLE TRAIL
- EXISTING CONTOURS



NOTE: ALL ROAD RESERVE LAYOUTS ARE INDICATIVE ONLY. FURTHER ENGINEERING DESIGN REQUIRED.

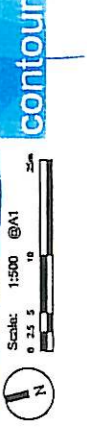
Rev	Date	Amendment

For: INTRAPAC PTY LTD
 At: RIDGETON ESTATE
 Title: LANDSCAPE MASTERPLAN
 REDGUM WOODLAND

Contour Design Australia Pty Ltd
 Landscape Architecture
 Urban Design
 283 Drummond Street
 Carlton Victoria 3053
 T: 03 9340 6865
 F: 03 9349 5877

Drawing No: TP03

Project No: 2076
 Date: 19-MAY-03
 Drawn by: S.EAVON
 Checked/signed By:



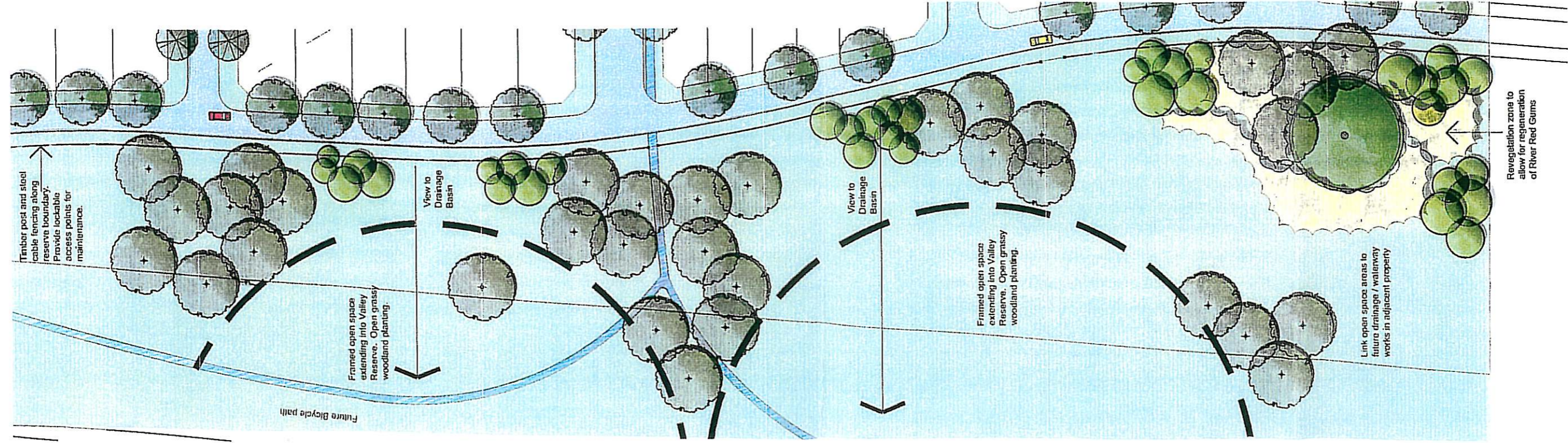
- OPEN SPACE / PARKLAND PLANTING
- SPLIT TIMBER POST & RAIL FENCE
- TIMBER POST & WIRE CABLE FENCE
- PICNIC AREA / PLAYGROUND
- ROUGH LAWN AREA
- PROPOSED PEDESTRIAN / CYCLE TRAIL
- EXISTING CONTOURS
- SEATING

- LOCAL STREET EVERGREEN / NATIVE TREE
Acacia melanoxylon - Blackwood
Allocasuarina verticillata - Drooping she-oak
Eucalyptus nicholii - Peppermint gum
Eucalyptus scoparia - Wallangarra white gum
Eucalyptus scleroxylon 'Rosea' - Red Ironbark
- NATIVE CANOPY PLANTING
- INDIGENOUS REVEGETATION OF GRASSY PLAINS WOODLAND

- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO BE REMOVED
- PRIMARY AVENUE TREE
Brachychiton acerifolia - Flame Tree
Eucalyptus melliodora - Yellow Box
- SECONDARY AVENUE TREES
Eucalyptus manilfera ssp. *maculosa* - Brilliie gum
Eucalyptus melliodora - Yellow Box
- LOCAL STREET DECIDUOUS TREE
Acer rubrum 'October Glory' - Red maple
Acer australis - Nellie tree
Pyrus calleryana 'Bradford' - Callery pear
Tilia cordata 'Greenspire' - Small leaved linden

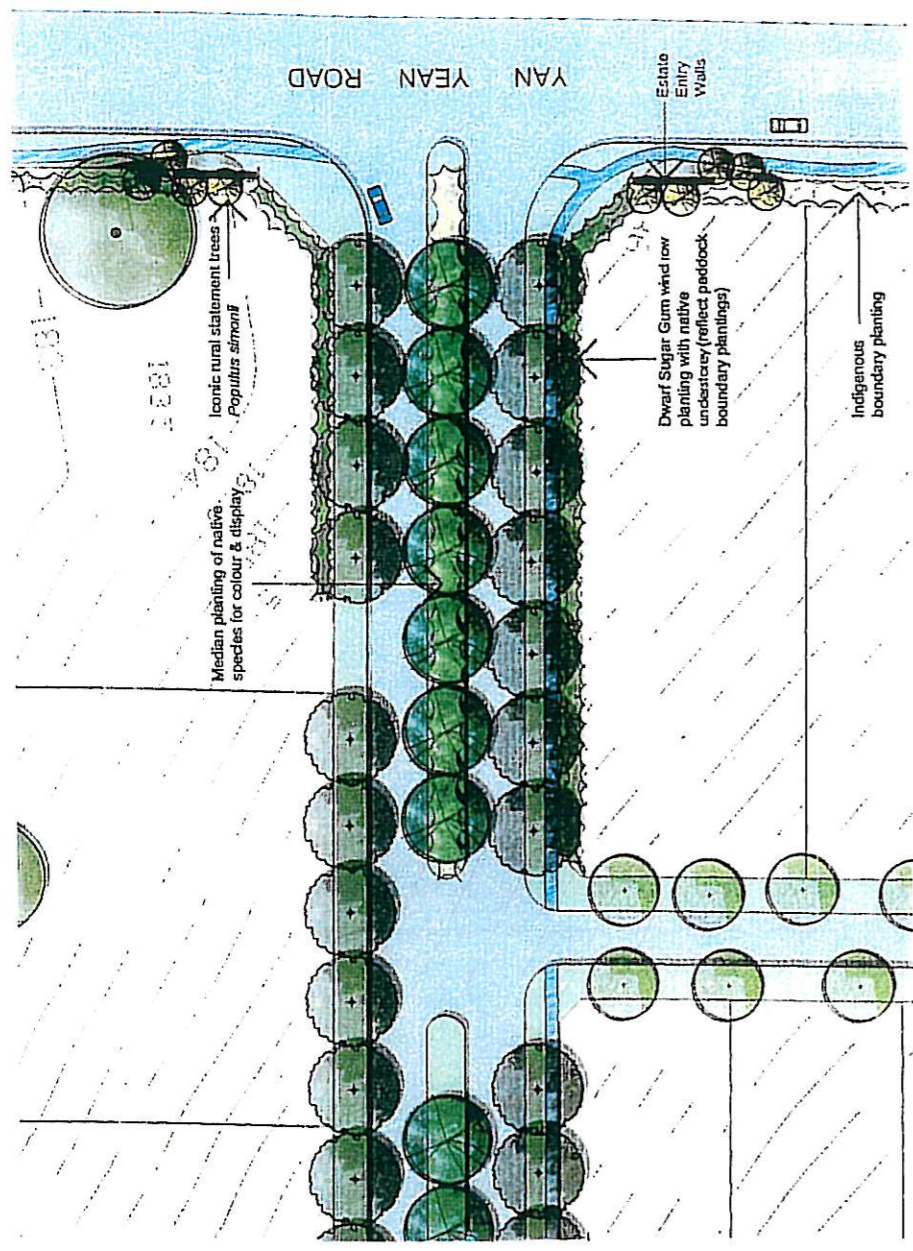
Recommended species list refer to TP01 & TP02



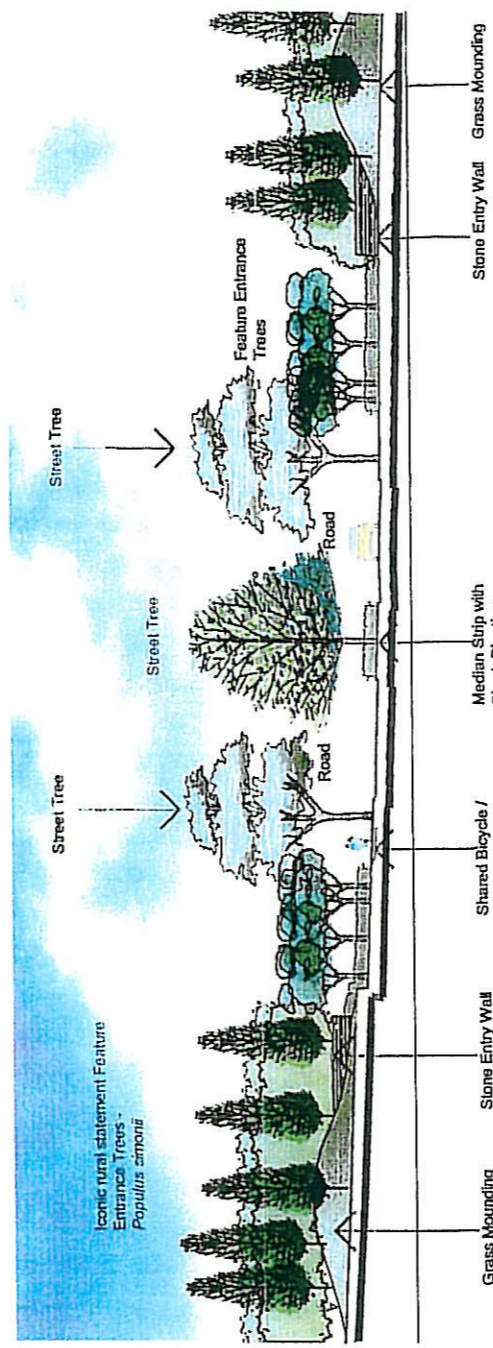


VALLEY RESERVE
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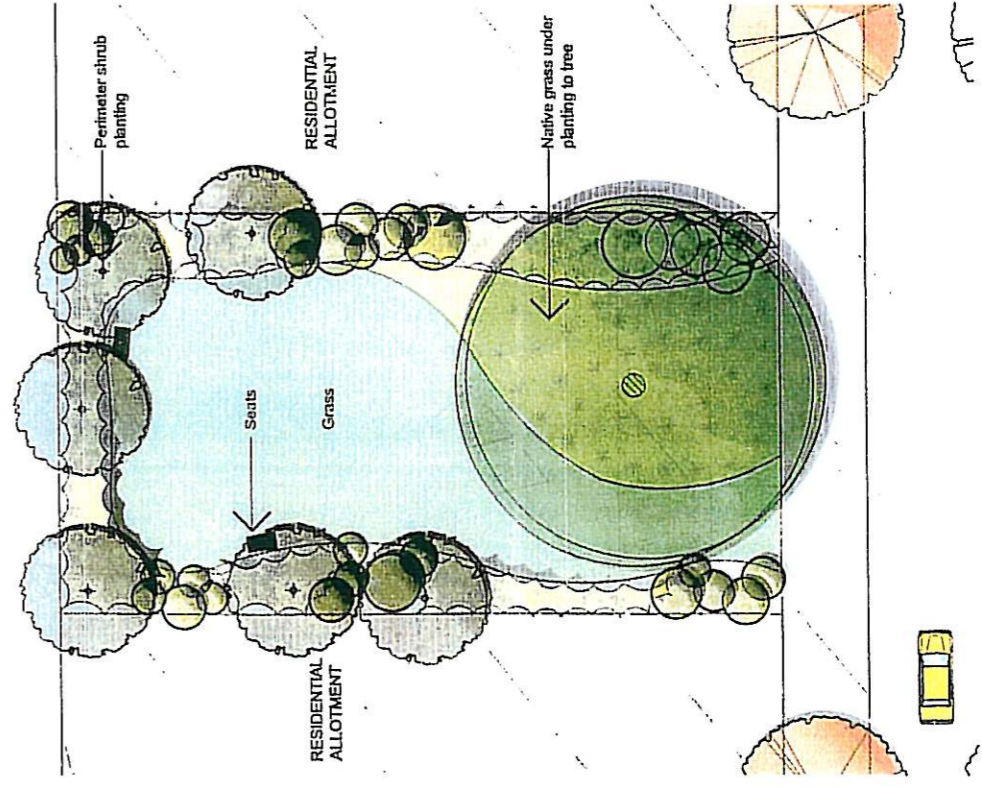
Print Issue Client (Preliminary)
 10-05-03 09-07-03
 14-01-03



ESTATE ENTRANCE
Scale 1:500



ESTATE ENTRANCE CROSS SECTION
Scale 1:250



REDGUM RETENTION AREA
Scale 1:200

NOTE: ALL ROAD RESERVE LAYOUTS ARE INDICATIVE ONLY. FURTHER ENGINEERING DESIGN REQUIRED.

Rev	Date	Amendment

For: INTRAPAC PTY LTD
 AL RIDGETON ESTATE
 YAN YEAN ROAD, DOREEN

Title: LANDSCAPE MASTERPLAN
PARKLAND OPEN SPACES

Contour Design Australia Pty Ltd
 Landscape Architecture
 Urban Design
 263 Drummond Street
 Carlton, Victoria 3063
 T: 03 9349 5665
 F: 03 9349 5677

Drawing No: TP04

Project No: 2076
 Date: 10-MAY-03
 Drawn By: S.E.MENON
 Checked/signed By:

Scale: AS SHOWN @ A1
 N



REMOVE EXISTING EXOTIC TREES

ROAD


REMOVE 6 No EXISTING EXOTIC TREES

REMOVE 5 No EXISTING EXOTIC TREES

WOODLAND RESERVE
(Refer TP02 for Tree Removal Plan)

YAN YEAN

LEGEND

-  EXISTING TREES TO BE RETAINED
-  EXISTING TREES TO BE REMOVED

NOTE: ALL ROAD RESERVE LAYOUTS ARE INDICATIVE ONLY. FURTHER ENGINEERING DESIGN REQUIRED.

Rev	Date	Amendment

For: INTRAPAC PTY LTD
At: RIDGETON ESTATE
YAN YEAN ROAD, DOREEN

Title: LANDSCAPE MASTERPLAN
TREE REMOVAL PLAN

Contour Design Australia Pty Ltd
Landscape Architecture
Urban Design
283 Drummond Street
Carlton Victoria 3053
T: 03 9349 6888
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Drawing No: TP05

Project No: 2078
Date: 31-JUL-03
Drawn by: S.EAKIN
Checked/Signed By:

APPENDIX 5

TREE ASSESSMENT BY ECOLOGY AUSTRALIA

BOND PROPERTY, DOREEN
TREE ASSESSMENT

REPORT PREPARED BY:

S. E. BEDGGOOD

JUNE 2001

Ecology Australia

The logo for Ecology Australia features a stylized, dark, curved shape that resembles a leaf or a swoosh, positioned behind the text 'Ecology Australia'.

ECOLOGY AUSTRALIA PTY LTD

Flora and Fauna Consultants

272-276 Heidelberg Rd, Fairfield 3078
Tel: (03) 9489 4191 Fax: (03) 9481 7679
Email: ecology@ozemail.com.au
A.C.N. 006 757 142

INTRODUCTION

Ecology Australia were commissioned to survey the vegetation of the 'Bond property', Yan Yean Road, Doreen. A brief survey was required to determine the tree species present, their condition (including age and health), habitat values and significance.

FINDINGS

The site was inspected on 6 June 2001 and all remnant trees surveyed. The site was dominated by improved pasture, comprised primarily of exotic grasses and dicot herbs.

The trees present were mostly mature remnant River Red-gums, Long-leaf Box and Yellow Box with scattered individuals of wattles and planted exotic species. A degraded drainage line at the western end of the property also supported several indigenous sedges and rushes. All indigenous species recorded were mapped (Figure 1) and are listed as follows:

Table 1. Species recorded at the 'Bond property', Doreen, June 2001.

SPECIES	COMMON NAME	CONDITION	HABITAT	SIG	MAP REF.
<i>Acacia implexa</i>	Lightwood	A / M	M	L	L
<i>Amyema ?pendulum</i>	Drooping Mistletoe	E / M	M	L	3
<i>Carex tereticaulis</i>	Rush Sedge	E / M	M	L	5
<i>Eleocharis acuta</i>	Common Spike-sedge	E / M	M	L	5
<i>Eucalyptus camaldulensis</i>	River Red-gum	E / O	H	R - S	RG, 3, 4 ^o
<i>Eucalyptus goniocalyx</i>	Long-leaf Box	A / M	M	L	2
<i>Eucalyptus melliodora</i>	Yellow Box	E / M	M	L	2, 4
		E / O	H	High L	2
<i>Juncus filicaulis</i>	Thread Rush	E / M	M	L	5
* <i>Pinus radiata</i>	Radiata Pine	P	M	-	P
Planted exotic trees		A	M	-	1

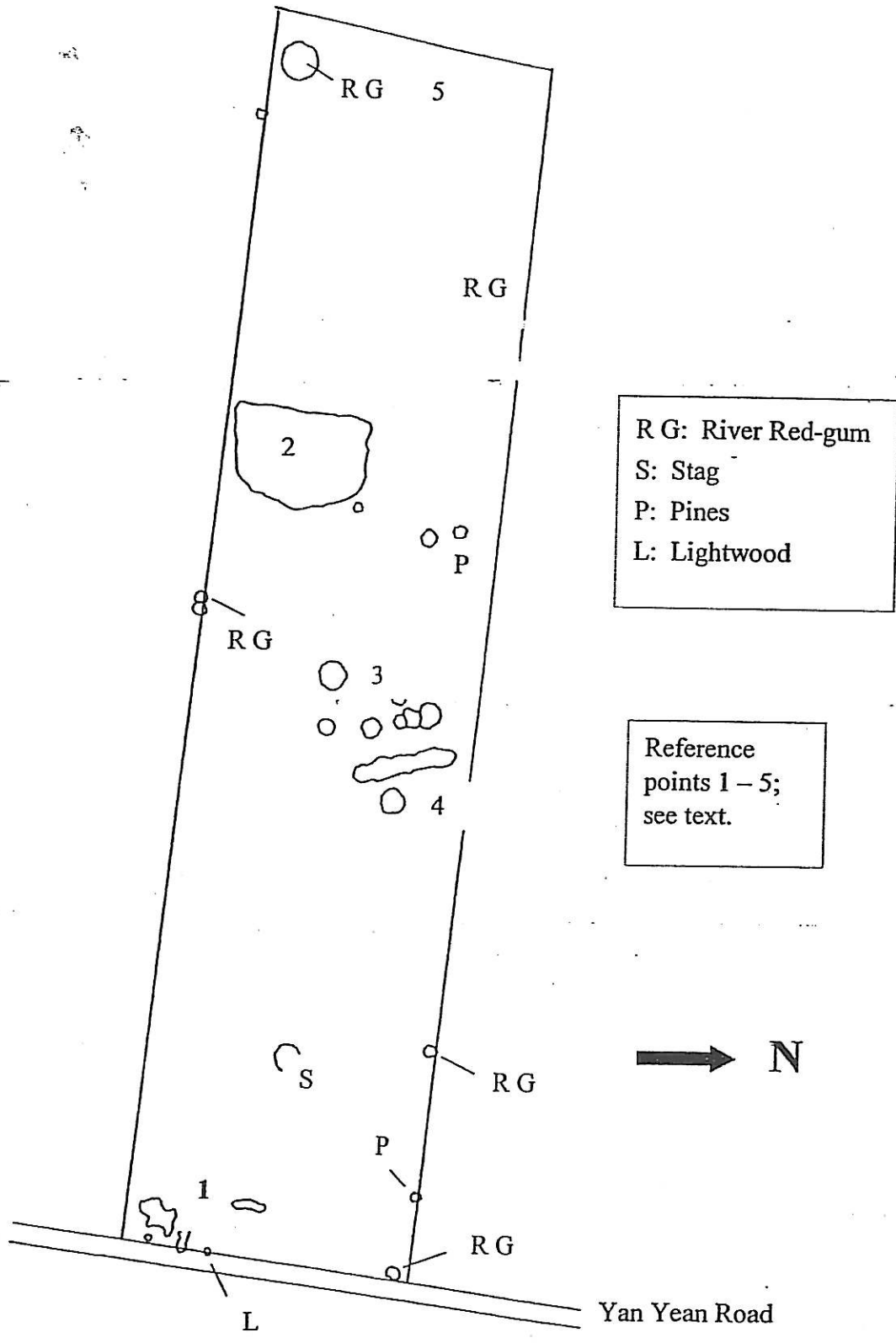
Condition: E excellent health
 A average health (eg. some signs of dieback)
 P poor health (eg. suffering dieback or senescent)
 O old growth
 M Mature
 J Juvenile
 ° Note that River Red-gums with a girth of >2m are considered to be of pre-European age and therefore of State significance

Habitat value M moderate H High

Significance: L locally significant (Doreen / Diamond Valley area)
 R regionally significant (Victorian Highlands – Southern Fall - Bioregion of DNRE)

* An asterisk denotes exotic (introduced) species

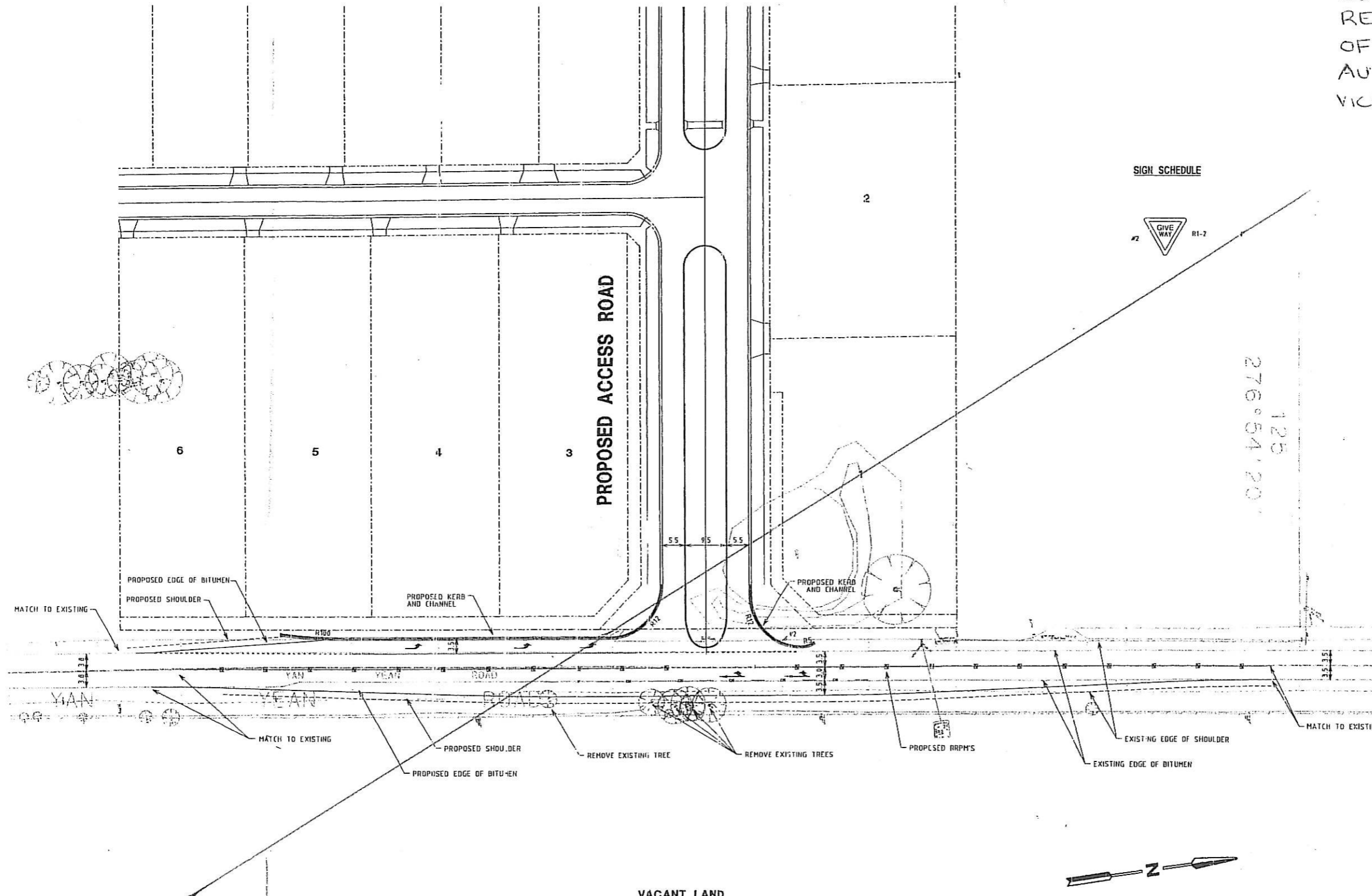
Figure 1. Doreen Tree Survey, June 2001.



APPENDIX 6

PROPOSED INTERSECTION TREATMENT
TO YAN YEAN ROAD,
PREPARED BY GROGAN RICHARDS

CONCEPT ONLY
 DETAILED DESIGN
 SUBJECT TO
 REQUIREMENTS
 OF THE RESPONSIBLE
 AUTHORITY AND
 VICROADS



VACANT LAND



PRELIMINARY PLAN

FOR DISCUSSION PURPOSES ONLY
 SUBJECT TO CHANGE WITHOUT NOTIFICATION
 DATE OF ISSUE: 24/07/03

LEGEND		GENERAL NOTES	
○ EXISTING PEDESTAL	□ DETECTOR LOOP	→ ACTIVE VEHICLE GROUP	⊞ ELECTRICITY SUPPLY PIT
○ NEW PEDESTAL	□ EXISTING LOOP	→ PROHIBITED VEHICLE GROUP	⊞ TELSTRA PIT OR BOX
○ NEW JOINT USE POLE	⊞ TRAFFIC SIGNAL CONTROLLER	→ PERMITTED PEDESTRIAN MOVEMENT	○ T.P. TELSTRA PILLAR
○ P.T.C. POLE	⊞ NUMBER/DIA. DIAMETER	• RAISED PAVEMENT MARKER	⊞ UTILITY UNCLASSIFIED
○ S.E.C. POLE	⊞ 600mm DIA. JOINT JUNCTION PIT	○ RAISED REFLECTIVE PAVEMENT MARKER	⊞ EXISTING FEATURE
○ 3 ASPECT LANTERN (200mm)	⊞ 300mm DETECTOR PIT	□ SIDE ENTRY PIT	— S.E.C. OVERHEAD
○ MAST ARM (OUTRIGER AS INDICATED)	⊞ SIGN	⊞ GRATED PIT	— UNDERGROUND SEWER MAIN
○ PERS. PUSH BUTT. & LANTERN	⊞ D.S. DIRECTION SIGN	○ SEWERAGE PIT	— S.E.C. UNDERGROUND
○ INTERMALLY ILLUMINATED SIGN	⊞ N.S.A.T. NO STOPPING ANY TIME	• F.F. FIRE HYDRANT OR PLUG	— UNDERGROUND GAS
○ STREET LIGHTING LANTERN	⊞ N.S. NO STOPPING	• S.V. STOP VEHICLE	— UNDERGROUND WATER
○ EXISTING STREET LIGHT LANTERN	⊞ N.R.T. NO RIGHT TURN	• 2 GAS B.F. CORP. VALVE	— TELSTRA
	⊞ G.W.P. GIVE WAY TO PEDESTRIANS		

1. BASE INFORMATION OBTAINED FROM REEDS CONSULTING
 2. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS OTHERWISE SPECIFIED
 3. SECONDARY ROAD, YAN YEAN ROAD, SPEED ZONE - 80KM/H

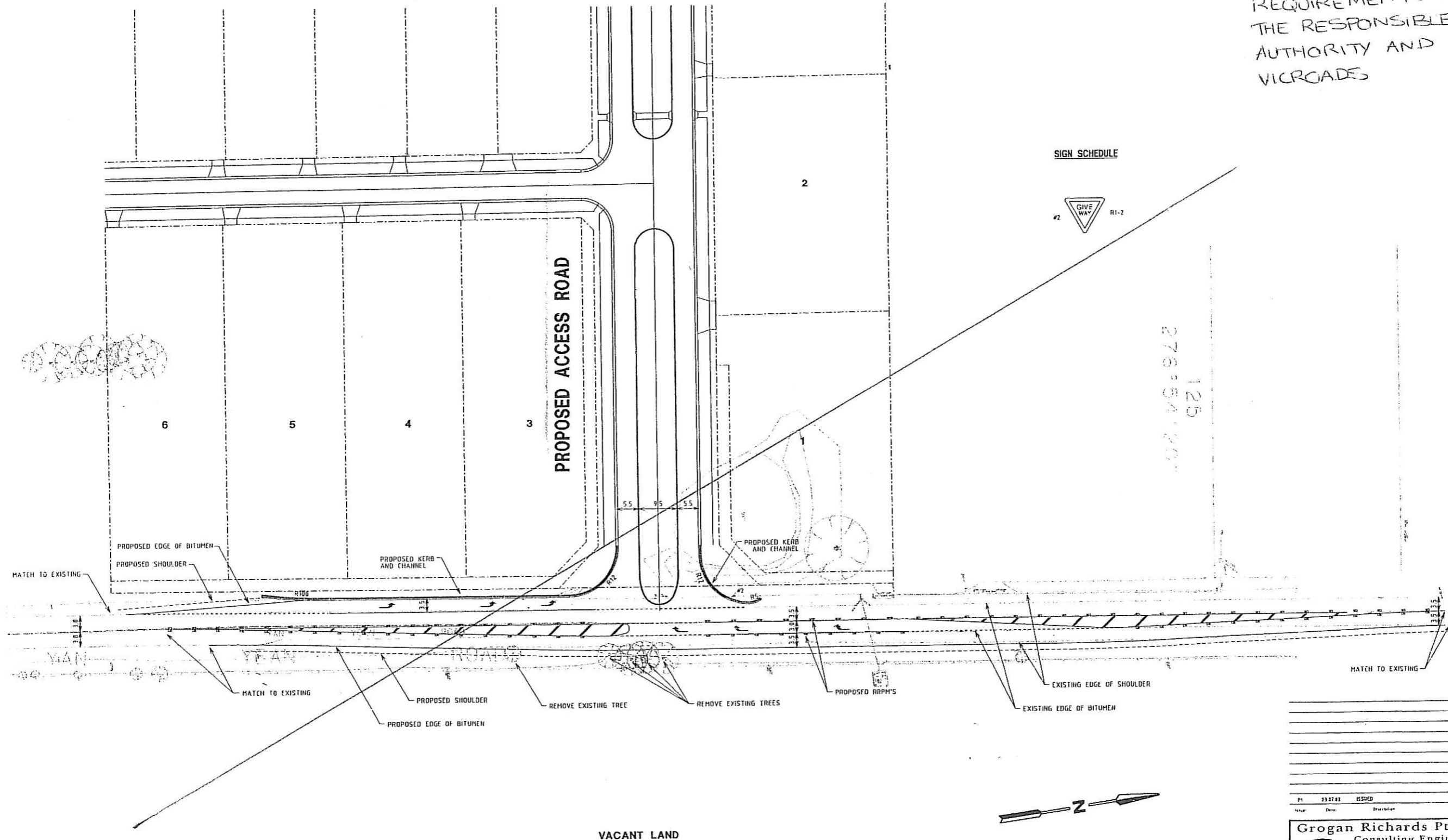
Rev	Date	Description	By	Approved
P1	23/07/03	ISSUED	PHG	SH

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 web: www.groganrich.com.au

Client: INTRAPAC PTY LTD	
Project Name: BOND'S LAND SUBDIVISION	City: MELB. 391
Location: YAN YEAN ROAD, DOREEN	
Title: ACCESS ROAD FUNCTIONAL LAYOUT	
Type: TYPE "B" LEFT TURN, TYPE "B" RIGHT TURN TREATMENT	
Drawn: PHG	Check: PHG
Date: 23/07/03	
Scale: 1:500	Drawing Number: 101520 / 7 / 01 P1

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CONCEPT ONLY
 DETAILED DESIGN
 SUBJECT TO
 REQUIREMENTS OF
 THE RESPONSIBLE
 AUTHORITY AND
 VICROADS



PRELIMINARY PLAN
 FOR DISCUSSION PURPOSES ONLY
 SUBJECT TO CHANGE WITHOUT NOTIFICATION
 DATE OF ISSUE: 24/07/03

LEGEND		GENERAL NOTES	
○	EXISTING PEDESTAL	→	ACTIVE VEHICLE GROUP
○	NEW PEDESTAL	→	PROHIBITED VEHICLE GROUP
○	NEW JOINT USE POLE	→	PERMITTED PEDESTRIAN MOVEMENT
○	P.T.C. POLE	■	RAISED PAVEMENT MARKER
○	S.E.C. POLE	■	RAISED REFLECTIVE PAVEMENT MARKER
○	3 ASPECT LANTERN (200mm)	□	SEC ENTRY PIT
○	MAST ARM (OUTREACH AS INDICATED)	□	GRATED PIT
○	PED PUSH BUTTON LANTERN	□	SEWERAGE PIT
○	INTERNALLY ILLUMINATED SIGN	○	F.H. FIRE HYDRANT OR PLUG
○	STREET LIGHTING LANTERN	○	S.V. STOP VALVE
○	EXISTING STREET LIGHT LANTERN	○	2 GAS & FUEL CORP. VALVE
□	DETECTOR LOOP	□	ELECTRICITY SUPPLY PIT
□	EXISTING LOOP	□	TELSTRA PIT OR BOX
□	TRAFFIC SIGNAL CONTROLLER	□	TELSTRA PILLAR
□	MANHOLE/DUCT DIAMETER	□	UTILITY UNCLASSIFIED
□	600mm DIA. CONDUIT JUNCTION PIT	□	EXISTING FEATURE
□	300mm DETECTOR P.T.	□	S.E.C. OVERHEAD
□	SIGN	□	UNDERGROUND SEWER MAIN
□	DIRECTION SIGN	□	S.E.C. UNDERGROUND
□	N.S.A.T. NO STANDING ANY TIME	□	UNDERGROUND GAS
□	N.S. NO STAKING	□	UNDERGROUND WATER
□	N.R.T. NO RIGHT TURN	□	TELSTRA
□	G.W.P. GIVE WAY TO PEDESTRIANS		

PI	23 07 03	ISSUED	PHG	SH
Author	Date	Description	By	Approved

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Client	INTRAPAC PTY LTD
Project Name	BOND'S LAND SUBDIVISION
Location	YAN YEAN ROAD, DOREEN
	CITY OF WHITTLESEA Loc. Ref: 391
Title	ACCESS ROAD FUNCTIONAL LAYOUT
	TYPE "B" LEFT TURN, TYPE "C" RIGHT TURN TREATMENT
Drawn by	PHG
Checked	PHG
Date	23 07 03
Scale	1:1500
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Sheet	P1

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INTERSECTIONS AT GRADE

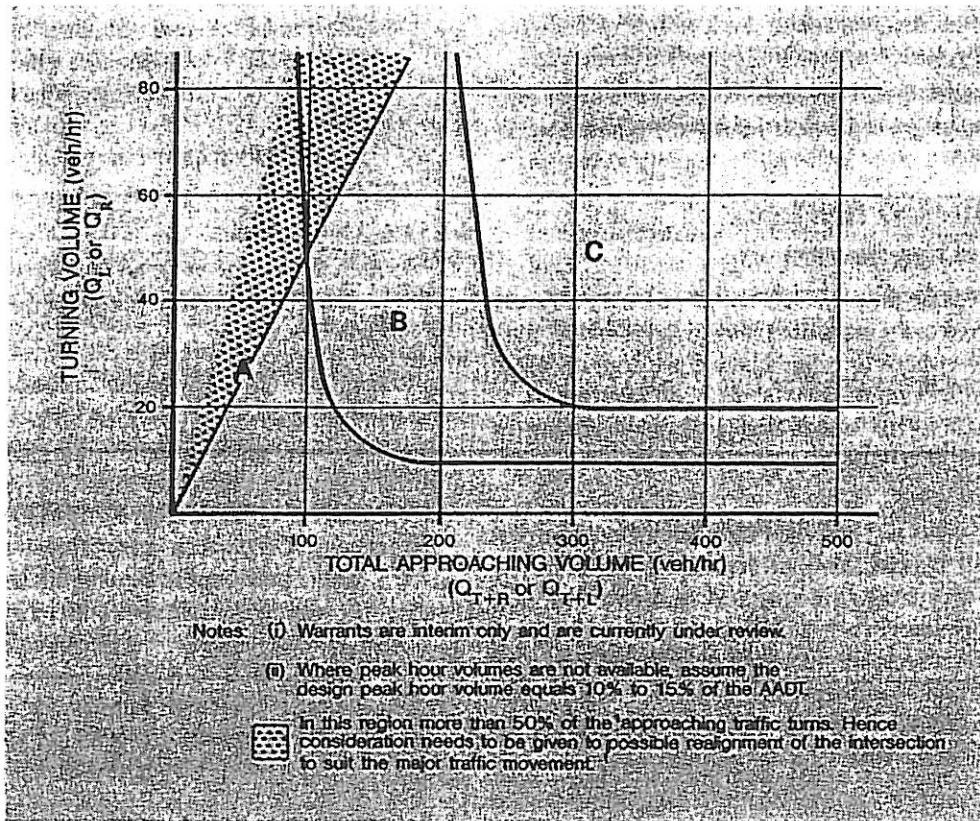


FIGURE 5.23a Warrants for Rural Turn Lanes

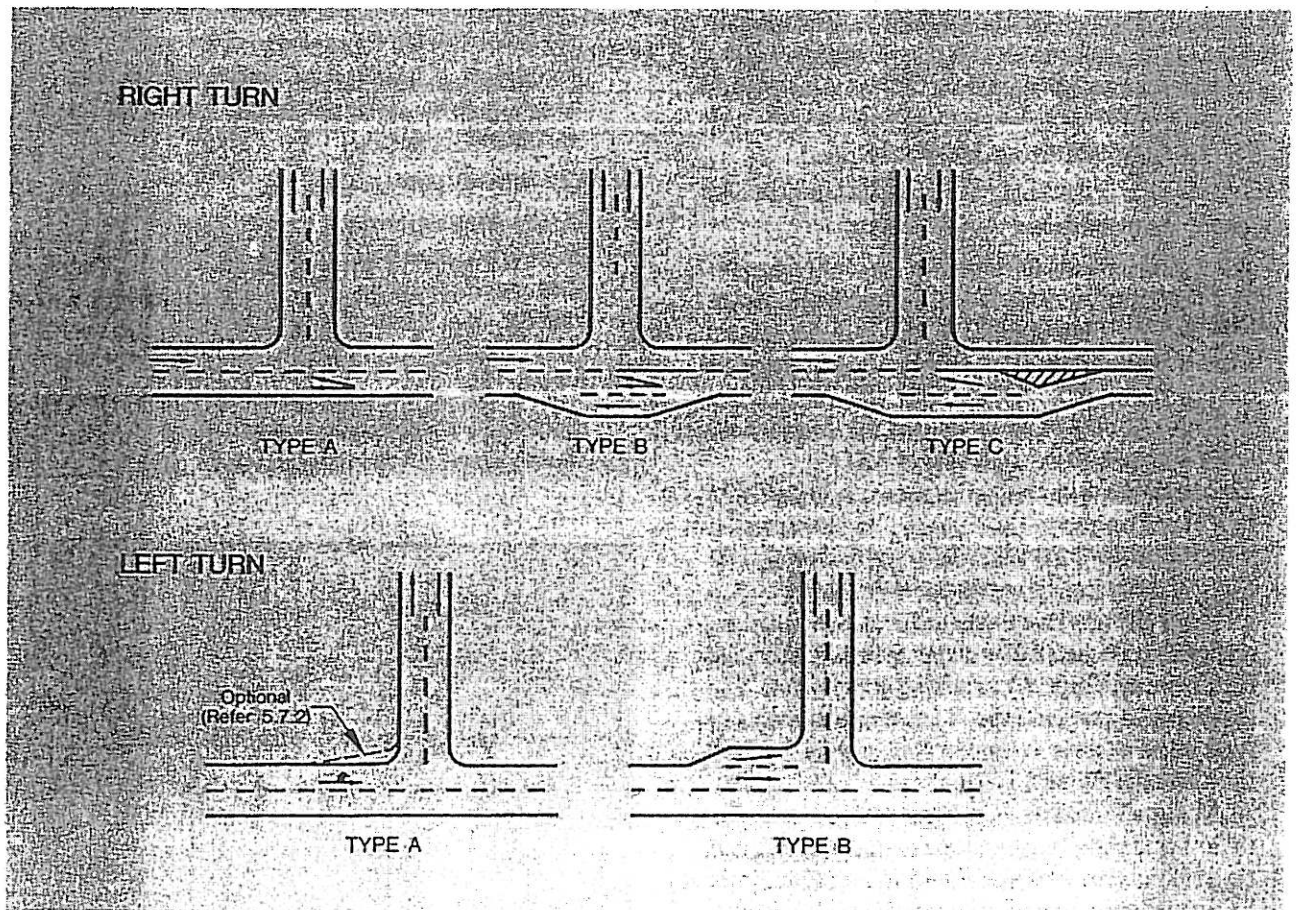


FIGURE 5.23b Treatments for Rural Turn Lanes